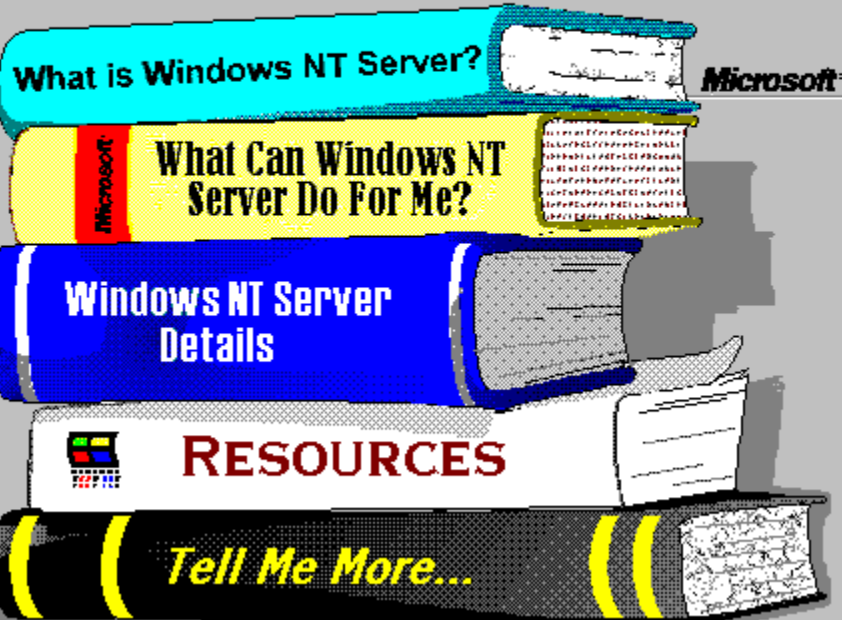


WINDOWS NT SERVER EVALUATION GUIDE



Windows NT Server Overview

Maintaining a competitive advantage in today's business world requires that you make fast, informed decisions and provide superior service to your customers. Microsoft Windows NT Server is the network foundation for a new generation of business applications that gives you easier access to the information you need, so you can make fast, effective business decisions while giving your customers the highest quality service possible.

Windows NT Server provides the conductivity, the base services, and the administrative tools to deliver business services across a distributed network of computers. It scales from the small network to the enterprise, providing basic file and print services and supporting application services such as database, messaging, communication, and systems management.

- Windows NT Server supports a wide range of business-critical applications and a rich set of development tools, so you can buy or build the right solution for you.
- Windows NT Server is the easiest network for everyday users to manage and use.
- Windows NT Server is a foundation that works with the hardware and software you have now and that you'll have in the future.

Related Topics:

[Ready-to-Run Applications Plus Powerful Development Tools](#)

[Easy to Install, Manage, and Use](#)

[The Foundation for Today and Tomorrow](#)

[Versions for Server and Workstation](#)

[New Features in Windows NT Server Version 3.5](#)

[Designing an Operating System for the Future](#)

What Can Windows NT Server Do for Me?

Windows NT Server will help you meet your most pressing business needs, as it did for the organizations described in these case studies.

- I Need to Respond Faster to Business Needs
 - [An Post: The Irish National Postal Company](#)
 - [Baxter Healthcare Corporation](#)
- I Need to Manage Distributed Systems
 - [Foster Ousley Conley](#)
 - [Harris Methodist Health System](#)
- I Need to Get More Benefit for My Computer Dollar
 - [Chevron Canada](#)
 - [Sea-Land](#)
- I Need to Integrate Systems and Data Across the Enterprise
 - [Freightliner Corporation](#)
- I Need a Foundation for Today That Will Still Work for Me Tomorrow
 - [Century 21](#)
 - [CompuServe](#)

Windows NT Server Product Details

Administration and Management

Applications

Application Development Tools

Client support

Fault-Tolerant Design Keeps Your System Running

Flexible Architecture Handles Future Changes

Installation: Everything You Need is In the Box

Integration with Existing Networks

Security

Protocols

Remote Access Service for Windows NT Server

Scalable, Portable Windows NT Server Delivers Cost-Effective Performance

Windows NT Resources

[32-bit Applications Catalog](#)

[Hardware Compatibility List](#)

[The Microsoft Solution Provider Program](#)

[Microsoft Certified Professional Program](#)

[Microsoft Technical Education and Training](#)

[Microsoft Sales/Contact Information](#)

[Windows NT Books](#)

Ready-to-Run Applications Plus Powerful Development Tools

Windows NT Server makes it easy to buy or build the solution that's right for you. It supports hundreds of business-critical applications—everything from general accounting and manufacturing management to customer tracking and inventory control systems. There are also hundreds of specialized solutions such as patient tracking, retail point-of-sale, banking, and financial trading. And scores of solution providers are ready to customize or develop applications to meet your special needs.

If you need a custom solution, there are hundreds of powerful, easy-to-use tools that will help you develop exactly what you need. You can choose Microsoft tools such as Microsoft SQL Server and Microsoft Office, or third-party tools such as Oracle 7 Server, PowerBuilder, or any of the many Windows application development tools available.

Related Topics:

[Ready-to-Run Applications](#)

[Microsoft Solution Provider Program](#)

[Application Development Tools](#)

Easy to Install, Manage, and Use

Windows NT Server is easy to install, manage, and use. It includes features such as Express Setup and automatic hardware detection, making installation of new servers quick and simple. A complete set of built-in administration tools makes your network easy to manage—even remotely—from any personal computer running any member of the Windows family of operating systems. And features such as single network logon and the ability to connect from computers running virtually any popular desktop operating system. All of this adds up to lower cost of ownership.

The Foundation for Today and Tomorrow

Windows NT Server is designed to be used with what you have today. It can be easily integrated into a variety of existing networks, including Novell NetWare, TCP/IP, Microsoft LAN Manager, Digital PATHWORKS, IBM SNA, and Apple Macintosh.

You can integrate with present operating systems, network software, and applications at your own pace, in your own way, so you needn't disrupt your operation to move up to Windows NT Server. With its modular microkernel architecture, Windows NT Server will be ready for future hardware and software advances, so you'll be able to take advantage of powerful new technology without re-engineering your information systems. And because Windows NT Server is scalable, you can add more processing power to meet your expanding business needs.

Versions for Server and Workstation

With this release of Windows NT, Microsoft has placed significant emphasis on optimizing the product for its typical usage scenarios—as a workstation and as a server. Therefore, with this new release of Windows NT, we will be shipping two distinct products—"Windows NT Workstation" and "Windows NT Server."

Windows NT Workstation has been optimized to provide the highest level of interactive application responsiveness. Specific workstation optimizations include overall reduction of memory usage, higher system priorities for foreground (that is, interactive) applications, and improved efficiency of both 16-bit and 32-bit desktop application operation. For more information about Windows NT Workstation, refer to the Windows NT Workstation Evaluation Guide (part no. 098-56855).

Windows NT Server has been optimized to provide the highest level of network responsiveness. Specific areas where these optimizations have taken place on the server include: better memory usage to cache large amounts of data; higher priority for spooler threads; higher priority for remote users; no preloading of the Win16 system; and improved efficiency in running 32-bit server applications.

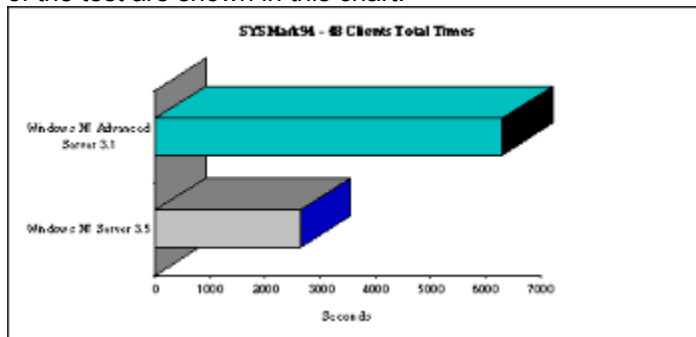
As stated, these new products correspond to their most common usage by customers, press, and industry analysts. The expression "Windows NT" will continue to refer to the overall system architecture and, occasionally, will be used as a generic term when discussing features common to both products.

New Features in Windows NT Server Version 3.5

There are many improvements in Windows NT Server that benefit these users, but three areas stand out:

Size and performance improvements: Version 3.5 is approximately 4 to 6 megabytes smaller than version 3.1. It is also significantly faster. Our goal has been to be comparable to NetWare 3.12 and 4.01 for file/print services and to retain or improve our edge over those two NOSs in our application server performance. We believe that we have reached that goal in this release.

An independent organization compared Windows NT Advanced Server with Windows NT Server Version 3.5 using a test that simulated application execution request patterns on corporate networks. The results of the test are shown in this chart:



Improved connectivity: We've made a number of changes to improve connectivity:

- completely rewrote the TCP/IP transport from the ground up
- added two new features—a TCP/IP addressing service called Dynamic Host Configuration Protocol (DHCP) and a TCP/IP name resolution service called Windows Internet Naming Service. These services make TCP/IP much easier to administer and more practical for dynamic, decentralized organizations
- completely rewrote the IPX/SPX stack for greater performance
- shipped a client for Windows NT that provides access to NetWare servers to make interoperability easier for organizations that want Windows NT Server to co-exist with Novell NetWare
- made many improvements to our Remote Access Service (RAS) to provide a comprehensive remote computing solution. Among other improvements, we increased the number of users to 256 from 64

Availability of applications: The availability of applications isn't a product feature, but it is an important prerequisite to customer adoption of any operating system. Microsoft has shipped its own server applications—Microsoft SQL Server for Windows NT and Microsoft SNA Server for Windows NT—and will ship others within the next few months. Many other server vendors, including Oracle, Informix, Ingres, SAP, PeopleSoft, and Platinum Accounting, have shipped versions of their products for Windows NT. Others will ship in the next few months: Lotus Notes®, IBM®'s CICS and DB/2, and Computer Associates UniCenter.

Related Topics:

[What's New in Windows NT Server](#)

What's New in Windows NT Server

New features at a glance:

Feature	Description
Improved performance	This version uses 4-6 megabytes less memory. File server performance is up to 200% faster.
New IPX stack	In addition to offering improved performance, it includes multiple network support and SPX II support.
Gateway Service for NetWare	Allows users to access NetWare servers without running dual stacks at the client.
Migration Tool for NetWare	Migration Tool for NetWare aids network administrators by copying user accounts and files from NetWare servers to a Windows NT Server while maintaining security.
New TCP/IP transport stack	Rewritten from the ground up, this stack is faster and smaller than our previous stack.
DHCP (Dynamic Host Configuration Program)	DHCP assigns IP addresses dynamically from a centrally managed pool of addresses. It relieves administrators of the burden of assigning IP addresses to individual workstations and maintaining those addresses.
WINS (Windows Internet Name Service)	Maps computer names to IP addresses, allowing a user to refer to a machine by a user-friendly name (mymachine, for example), rather than by its address (123.45.67.890, for example).
Increased capacity for dial-in support	Increase in supported sessions from 64 to 256. Also new is the ability to use the dial-in server as a gateway to NetWare and UNIX® servers.
PPP and SLIP support in Remote Access Server (RAS)	Point-to-Point Protocol (PPP) and Serial Line Internet Protocol (SLIP) are two protocols that enable TCP/IP over asynchronous lines (modems). RAS also supports IPX over PPP for NetWare installations.
Account lockout	Allows an administrator to set a maximum number of incorrect password attempts; after that number is exceeded, the account is blocked and cannot be used to logon.
Windows NT Server administration tools for 16-bit Windows	Provides the administrative facilities for administering any server on the network from a client running Windows 3.x or Windows for Workgroups.
Non-Domain Server	This is a server dedicated to a particular function (usually an application like SQL Server) that does not participate in domain security. This is very useful in NetWare or UNIX environments.
Dump facility with automatic restart	If a server suffers a fatal error, it will write

	the contents of memory to disk. The system can be set to restart automatically.
Remoteboot (RPL)	Necessary for diskless workstations, this allows Windows 3.x and MS-DOS® clients to be booted from a server.
Long filenames under the File Allocation Table (FAT) file system.	File and directory names on the FAT file system are no longer restricted to the 8.3 naming convention. Instead, file and directory naming rules are similar to those of NTFS: Names can be up to 255 characters and case is preserved.
New plotter driver	A plotter driver for many HP plotters.
TCP/IP printing	Allows computers on a Windows-based network to access printers connected to UNIX computers or TCP/IP printers connected directly to the network.
Network Client Administrator	This tool assists an administrator in installing MS-DOS, Windows for Workgroups, OS/2, and RAS clients.

Designing an Operating System for the Future

As hardware technology advances, new computers with faster processors, more memory, and multiple processors are being introduced in rapid succession, prompting operating system developers to extend their systems to take advantage of new hardware features. Innovative processor technology has rapidly emerged in both the CISC and RISC arenas.

In 1988, Microsoft recognized that it needed to produce an operating system that would exploit the ongoing advances of hardware technology. It needed to produce an operating system for the future—one that could be moved easily between hardware platforms.

Microsoft's prior effort with IBM had been to create the OS/2 operating system in the 1980s. Microsoft understood that OS/2 had many shortcomings. For example, OS/2 is not portable. It was written in assembly language to run on single-processor Intel 80286 computers, and would be extremely difficult to adapt to work on the next generation of CPUs. Instead of overhauling the OS/2 system software, Microsoft decided to build a new, portable operating system from the ground up.

Microsoft directed its energy toward a single, coherent operating system strategy. This strategy was to produce a family of Windows-based operating systems that supported computers from the smallest notebooks to the largest multiprocessor workstations. Windows NT took its place at the high end of the Windows family with both desktop and server versions that were designed to offer very high levels of performance, reliability, and security. Windows NT was Microsoft's first Windows-based operating system to supply the Win32 API, a 32-bit programming interface for the development of new applications. The Win32 API makes advanced operating system capabilities available to applications through features such as multithreading, synchronization, security, I/O, and object management.

Related Topics:

[Operating System Market Requirements](#)

[Design Goals](#)

Operating System Market Requirements

In the fall of 1988, Microsoft hired David Cutler to lead a new software development effort to create Microsoft's operating system for the future. Cutler, a well-known architect of several minicomputer operating systems such as VMS for Digital Equipment Corporation's VAX products, assembled a team of engineers to design Microsoft's new operating system. Early in 1989, Bill Gates and key Microsoft strategists met to review the operating system specifications that Cutler's group had defined. Their plans identified several primary market requirements that the new operating system had to meet to be successful:

Portability. Windows NT can be moved freely from one processor architecture to another to take advantage of the rapid changes in CPU technology. This portability ensures that investments in implementing Windows NT will be protected even if the computer hardware changes.

Multiprocessing and Scalability. The Windows NT operating system offers a scalable multiprocessing design that makes it possible for a user to run the same application on single-processor and multiprocessor computers. On high-end desktop systems that support multiple CPUs, such as those that are now available from Intergraph and NEC, the user can run several applications simultaneously at full speed, and compute-intensive applications can deliver improved performance by dividing their work among several processors.

Distributed Computing. The increasing availability of personal computers has irrevocably altered the nature of computing. Where once a single, large mainframe computer served an entire company, smaller and cheaper personal computers (microcomputers) have proliferated. Those personal computers need to communicate with one another share hardware resources such as disk space or processing power (in the form of file servers, print servers, or compute servers). To accommodate this need, developers of the Windows NT operating system built networking capabilities directly into the operating system. These capabilities provide the means for applications to distribute their work across multiple computers.

POSIX Compliance. POSIX, an acronym rather loosely defined as "a portable operating system interface based on UNIX," refers to a collection of international standards for UNIX-style operating system interfaces adopted by the U.S. government. The POSIX standard (IEEE Standard 1003.1-1988) encourages vendors implementing UNIX-style interfaces to make them compatible, so that programmers can move their applications easily from one system to another. To meet the government's POSIX procurement requirements, Windows NT provides an optional POSIX application execution environment.

Security. The U.S. government specifies computer security guidelines for government applications. The required capabilities include protecting one user's resources from another's and establishing resource quotas to prevent one user from garnering all system resources, such as memory. Many of these capabilities are advantageous features for any multi-user system where protection of applications and data from user error and from malicious tampering is important. Government security levels extend from level D (least stringent) to level A (most stringent), with levels B and C each containing several sublevels. The initial target for Windows NT security is compliance with the Class C2 level, defined by the U.S. Department of Defense as providing "discretionary (need-to-know) protection and, through the inclusion of audit capabilities, for accountability of subjects and the actions they initiate." This means that the owner of a system resource has the right to decide who can access it, and that the operating system can detect when data is accessed, and by whom.

Design Goals

The following are the Windows NT design goals:

- **Extensibility.** The code must be written to comfortably grow and change as market requirements change.
- **Portability.** As dictated by market goals, the code must move easily from one processor to another.
- **Reliability and robustness.** The system should protect itself from both internal malfunction and external tampering. It should behave predictably at all times, And applications should not be able to harm the operating system or its functioning.
- **Compatibility.** Although Windows NT Server should extend existing technology, its user interface and APIs should be compatible with existing Microsoft systems.
- **Performance.** Within the constraints of the other design goals, the system should be as fast and responsive as possible on each hardware platform.

An Post: The Irish National Postal Company

"CounterAction has only been achievable because we have created the ideal environment with Microsoft Windows for Workgroups peer-to-peer network architecture at the retail counter and Windows NT Server at our headquarters. For An Post, this represents a mission-critical application. The chosen systems architecture fully supports advanced transaction performance and communications at the counter, as well as between each post office and our central data center. The Microsoft architecture permits speedy development of quality software products at the counter and this has obvious benefits for An Post."

Joe Cosgrave
Head of Development, Financial Services
An Post

"In examining the range of both existing and scheduled products and services for An Post's retail network, it was clear that we needed a solution that was flexible, futureproof and standards-driven. Microsoft Windows for Workgroups fulfilled these criteria while at the same time allowing us the freedom to customize the software. In its role as the client-server, Microsoft Windows NT Server meets the demands of an enterprise-wide database platform upon which the CounterAction model is hinged. We were seeking a technology-based solution which will grow with the development of the Counters Business. Therefore we required a dynamic systems architecture which would protect An Post's investment and expand with our many new, as yet, undefined commercial products."

Mike Murphy
General Manager
Escher Group

The automation of post office counter positions forms an essential part of the long term business strategy of An Post, the Irish national postal company. Its newly developed counter automation program known as CounterAction is the most advanced front office computerization project undertaken in Ireland. After in-depth evaluation of the major operating systems, An Post chose a personal computer-based solution built around Microsoft's Windows NT Server and Windows for Workgroups 3.11. An Post selected its top 600 post offices, accounting for over 80% of all counter transactions, for a phased implementation of the automation program. Each will support the provision of an extensive range of across-the-counter consumer retail and financial products and services.

Of the variety of services An Post offers, the most important are the management of the national postal service for letters, parcels, courier services, and the operation of the National Lottery. Each week an estimated 1.26 million adults, or 50% of the Irish population, use a variety of across-the-counter post office services. As An Post's second largest revenue earner, the Counters Business includes payment of social welfare allowances, and national savings and bank operations. Over 60% of post office activities involve third-party services such as handling bill payments.

Recognizing The Need For Change

Terry Reynolds, General Manager, An Post Banking, Agency and Retail Services, explains the strategic importance of the Counters Business, "Having recognized the full potential of An Post's unrivaled retail network, we are looking to develop its retail sales ability and advance its customer service standards. First, we had to overcome the problems which have historically created bottlenecks in the processing of information throughout the post office network."

An Post saw that outmoded methods of transaction handling, rising costs and increased competition were

eroding its counter business. Research indicated that without efficiency improvements annual counter hours transaction activity would decline significantly. The company decided to create a technology-based business platform to enhance existing counter services and develop new products.

Overcoming The Bottlenecks

The solution was designed to overcome the bottlenecks, eliminate the traditional complexity of computing applications by ensuring the system is easy to use, and provide sufficient processing power at both the counter and the back end. An Post hired Escher Group, a Microsoft Solution Provider, to help evaluate the options. They determined that Microsoft's graphical networking environment would give An Post the necessary stable, flexible systems platform needed and facilitate future expansion in the functionality of the front office retail applications. Microsoft Windows for Workgroups 3.11 was selected as the client architecture for the counter positions. The Microsoft Windows NT Server operating system was chosen to provide the server backbone to the central processing of all data collected and transmitted throughout the national network.

Windows for Workgroups acts as the basic building block of the CounterAction front office system. Above it sits the modular product application subsystems which can be added or changed over time. It supports full 32-bit file access to information and 32-bit networking. Every post office counter position has a networked 486-based personal computer. Touchscreen monitors provide immediate user access to CounterAction while Optical Character Recognition (OCR) wands are used in each position to read customer data into the Windows-based applications.

One personal computer in each post office acts as a communications workstation, sending and receiving data directly via X.25-based star topology leased circuits, feeding into regional nodes linked to An Post's headquarters. At the central processing site, An Post manages a series of highly configured server-based personal computers running Microsoft Windows NT Server. Called Correspondence Servers, these personal computers act as the gateways to the CounterAction system and provide synchronization between each post office LAN (Local Area Network) and the center, utilizing sophisticated 'middleware' software, the Journal Server, developed by Escher Group. The configuration supports even the highest volumes of activity found at An Post's main post office in central Dublin where it allows just two counter positions to handle up to 25,000 transactions a day.

Microsoft's Windows Dynamic Data Exchange (DDE) technology supports much of the functionality of the Journal Server which updates each workstation. As each CounterAction application subsystem performs a transaction it informs the Journal Server via Windows DDE. In turn, this transaction journal message is forwarded to the other counter positions on the network via Net DDE where it is stored, facilitating the retrieval of any journal message from any counter position on the network. Benefits of using Microsoft's DDE include protection against fraud by duplication of transactions between different positions as well as data security during LAN downtime.

CounterAction in Action

In less than 18 months, CounterAction, developed with the Microsoft Visual C++™ development system and the Visual Basic® programming system, has already seen 200 post offices brought on line. The CounterAction system includes a variety of applications. With PostDraft, the first application, individual files detailing payment data for each post office are distributed each day to every client personal computer enabling welfare benefits to be paid from any counter position. Benefit recipients use card swipe technology at the counter for identification and to call up payment details; all relayed at pre-determined intervals via the communications server to headquarters for transfer back to the responsible Government department. Other An Post products, such as the Transcash and Personalized Payable Orders, use OCR

to capture information at the counter. The teller processes the payment or deposit, storing details such as transaction type, account number and amount in the counter position's journal.

Joe Cosgrave, Head of Development, Financial Services, concludes, "CounterAction has utilized Microsoft Windows NT and Windows for Workgroups successfully to protect An Post's investment and create the most advanced retail technology platform available. An expanded range of agency customer and An Post products can also be added without any major re-engineering. This permits greater synergy between our future plans for across-the-counter products and the Counters Business. An Post's Counters Business fulfills a key strategic role nationally. CounterAction is the vehicle by which we can improve the way we provide these services to our customers and improve the level of job satisfaction internally."

With Microsoft tools and applications, An Post is breaking new ground in post office automation. As Terry Reynolds adds, "We have received tremendous interest from post offices around the world, as far afield as Canada and Singapore. The whole postal industry recognizes the opportunities that the CounterAction project is offering to An Post."

Baxter Healthcare Corporation

Intending to provide the best distribution in the business, Baxter Healthcare Corporation teamed up with a Microsoft Solution Provider to develop an innovative Warehouse Management System built around the Microsoft® Windows NT™ operating system. The system is expected to help Baxter respond better to its customers' changing needs, which should improve the company's competitiveness.

Baxter Healthcare Corporation provides hospitals with 120,000 different products—from sheets to heart valves. The company estimates that it supplies 70 percent of what a typical U.S. hospital buys.

As part of Baxter International, the world's largest health care supplier, Baxter's strategy is to provide the "undisputed best service" to hospitals by satisfying their needs better than anyone else. One critical need all hospitals share is cost control, especially in light of the national move for health care reform. Don Schoen, Baxter's manager of Distribution Operating Systems, says improved distribution is one way Baxter can help its customers control costs. "By making our distribution more efficient, we can keep costs low," he says.

As part of a bold move to enhance its distribution processes, Baxter developed a plan to improve its warehouse facilities, operating concepts, and system tools. Next, the company looked for the computing solution that would make the system it envisioned a reality.

Business Objectives Dictate High-Performance Solution

Baxter had several goals for the new generation of system tools that would support its 60 non-automated distribution centers across the country. These goals included improving the centers' abilities to respond flexibly to customer requirements for enhanced distribution services; managing and controlling inventory; effectively utilizing space; improving material handling efficiency; and facilitating the monitoring and management of quality throughout the distribution process. Excellent goals—but how could Baxter achieve them without sacrificing its existing investment in its growing enterprise-wide LAN-based computing system?

Microsoft Solution Provider Contributes Specialized Skills

That's the question Schoen brought to MIDAK International, a Microsoft Solution Provider. The Tucson, Arizona-based systems developer specializes in Windows-based client-server computing. MIDAK's vice president of Development, Armand Sperduti, says his company had been doing its own strategic evaluations. "Our goal as developers is to do everything under a common architecture," says Sperduti. "We need the integrity of a server-based operating system we can work with into the future. After much testing and research, we decided Windows NT is that operating system." MIDAK had been using OS/2®.

Baxter was also pursuing the Windows NT operating system, so the two companies enjoyed an immediate rapport. Baxter and MIDAK agreed the Windows NT architecture offered them a number of appealing features, including remote supportability of the servers; integration between SQL Server for Windows NT, Windows NT Server, and Windows NT Remote Access Service (RAS) support; multiple domain administration; and compatibility with Baxter's existing LANs.

"If the system went down for a day, we'd be out of business. Obviously, we're placing a lot of trust in the stability of Windows NT."

"Being the best in distribution commits you to effective integration with the rest of your business. This system gives us this kind of integration."

Don Schoen

Manager of Distribution Operating Systems
Baxter Healthcare Corporation

A Multifaceted System

MIDAK and Baxter split the project into two phases. The first phase was an inbound system that would track products as they arrive at each regional warehouse and are moved into storage locations. The second phase involved streamlining the process of shipping products to customers.

In the first phase, product information from Baxter's IBM® 3090 mainframe is downloaded to the warehouse's LAN running Microsoft LAN Manager, Windows NT, and SQL Server for Windows NT. MIDAK is providing a radio-frequency terminal interface to the database, so Baxter warehouse personnel can receive and enter information from anywhere in the warehouse—a wireless computer network.

Each time a remote radio-frequency terminal is turned on inside the warehouse, MIDAK's RF multiplexer software receives a code and becomes that client's server—in effect, all remote units each have their own "server," thanks to the multithreading and multitasking capabilities of the Windows NT operating system. Warehouse workers use these remote units to scan product bar codes and send the information to the SQL Server for Windows NT database.

Confidence in Windows NT

Since Baxter was making a substantial investment—the distribution system would ultimately be installed in 60 warehouses nationwide—the company wanted to be certain of a good return on that investment. MIDAK's confidence in Windows NT helped convince Schoen's group at Baxter that the operating system would offer years of pay-back, and would provide a long-term strategic platform. The company has been extremely satisfied with the performance and stability of Windows NT during the initial stages of the project.

Benefits Expected to Exceed Objectives

Baxter is confident that its distribution system will meet its objectives—and then some. "We believe the system will allow us to provide improved service, reduced turnaround times, and lower costs," says Schoen.

Beyond these core benefits, Baxter expects the system to allow the company to improve its response to special requests while fulfilling a number of warehouse administrative functions.

Developing a Company's Future Around Windows NT

With the first phase of the distribution system set to go into a pilot location, Baxter has started work on the second phase. It will focus on optimizing product storage and shipping.

And Schoen says the company is already planning to apply Windows NT and SQL Server for Windows NT technology in other areas.

Schoen says Baxter is committed to leading the health care industry in its distribution capabilities. "It's clear to me that our Windows NT-based Warehouse Management System is a key element in accomplishing what we've set out to do—provide the best distribution services in the business," says Schoen.

Foster Ousley Conley

Foster Ousley Conley is the largest provider of mortgage quality-management services in the United States with 400 employees and eleven regional offices. Its clients include a wide range of national mortgage lenders, including some of the country's largest financial institutions, who rely on these products and services to reduce the risk of funding mortgage loans. The LoanWatch Service compares client lending activity to a cooperative database containing several hundred thousand loans from all participating clients to detect risk factors such as fraud, credit and flood potential. Reports are sent back to clients within 24 hours.

Loan Watch was running on a Microsoft SQL Server for OS/2 database at headquarters and was nearing capacity as clients increased and network traffic grew. Access time was slowing, and Foster was concerned about keeping the 24-hour turnaround time to clients. A system was needed that allowed on-line transaction processing to take place concurrently with extensive reporting to customers and branches.

Solution Description

LoanWatch resides at headquarters on a dedicated DELL 486-50 server running Microsoft Windows NT Advanced Server and Microsoft SQL Server for Windows NT. A separate server is used for backup and reporting. Microsoft C was used to develop data handling routines and do library calls to the SQL Server. Loan production information from participating lenders is sent via modem to regional branches where the information is automatically loaded into the server at headquarters using AT Scheduler, an auto-scheduling application built in to Microsoft Windows NT Advanced Server. Regional offices are connected to headquarters via dedicated digital lines. Data from the "live" server is routed automatically to the backup/reporting server each hour. At headquarters, files are compared against the LoanWatch database and automatically copied to a variety of third-party quality control services for analysis. Loan reports are compiled using DataEase SQL front-end. They are sent back to customers through a fax gateway within 24 hours.

Microsoft Windows for Workgroups and Microsoft Office runs on all 350 employee workstations. Each Foster regional office has its own Windows NT Advanced Server to provide the local area network and access to applications.

Advantages and Benefits

Upgrading from OS/2 SQL to SQL Server for Windows NT was quick and easy, and required no change in database structure. Thirty servers were converted in 60 days, and the entire LoanWatch system is administered by two employees. Reporting time has improved dramatically, with a typical loan quality statement being generated is approximately five seconds, down from 30 seconds, and file retrieval time has dropped from 20 minutes to three minutes. This has allowed Foster to increase its LoanWatch client base and still provide the quick turnaround time required by the industry. New applications are quick to develop. Increased capacity of Windows NT has allowed Foster Ousley Conley to expand its loan quality services to help clients maintain compliance with regulatory agencies and investors. This has developed into a multi-million dollar business, with more than 100 lenders signing up in the first two months of service.

Harris Methodist Health System

Harris Methodist, a \$750 million company based in Fort Worth, Texas, needed a better way to track patient data throughout their system. Harris believed that better patient tracking will decrease managed care costs and allow the HMO portion of their healthcare business to focus greater attention on patient care, rather than on administrative work. Harris is creating a mission-critical Managed Care System, in which they have invested \$8M to date. Their Managed Care System provides the basis for actuarial and rating processes, rules-based claims, profiling tracking, demographics, automatic billing, provider compensation calculation and performance reporting, external reporting, margin analysis, and other key management areas.

In its overall computer environment, Harris Methodist Health Systems has more than 4,000 Windows-based client machines connected to approximately 45 servers. Specifically, the Harris92 mission-critical Managed Care System component involves approximately 400 Windows 3.1 clients with an interface written internally in C++ object modules over a Windows NT Advanced Server network. As of now, the entire Managed Care System is running on 2 Windows NT Advanced Server servers on Compaq Proliant machines. Harris is in the process of converting all 45 company-wide servers to Windows NT Advanced Server for file and print servers, and Microsoft SQL Server for Windows NT for database servers. According to Harris92 internal tests, the Compaq box has 30 percent faster throughput, one quarter the response time, and used about half the CPU space of its previous system. Harris concluded that one \$50,000 Proliant can match the work of two \$100,000 IBM 295s. That, combined with what they saw as superior support from Compaq/Microsoft, convinced Harris to change their computing strategy. Harris Methodist plans to switch all 45+ of its current personal computer servers to Windows NT Advanced Server on Compaqs.

The Harris Methodist Health Services network expects its Managed Care System will provide substantial reductions in administrative overhead cost and effort. Harris expects to be able to promote its significant market advantage, being able to respond quickly and flexibly to support the kind of opportunistic business behavior needed to gain and defend market position. In addition, Harris92 Managed Care system will provide better customer service to its subscribers. Harris92 Managed Care System also allows information-sharing across all applications in the enterprise, saving time and increasing patient serving efficiency.

The Harris Methodist Health System, consists of approximately forty legal entities including ten licensed hospitals and a health maintenance organization with approximately 160,000 members. The HMO component of the Harris Methodist Health System alone represents one of the fastest growing HMOs in the nation.

Chevron Canada

Chevron Canada designed a streamlined client-server-based pricing system to keep the company competitive in the oil industry. Today, a pricing process that used to take days to complete can be wrapped up in less than an hour. And the improvement in communication between departments and sites was another key benefit.

Since the 1960s, Chevron Canada had relied on their parent company's mainframe in San Francisco to help determine prices for the Canadian market. The British Columbia-based oil refining and marketing company calculated pricing for each transaction manually, factoring in customer history, the competitive situation, and the crude oil rate established by the Canadian government. After a profit analysis was completed on paper, order-entry people wrote the suggested number on an unpriced invoice. Then it was keyed in by the Finance Department and batched to San Francisco that night for processing. Though the process was slow and the resulting prices inconsistent, in a regulated marketplace there was little incentive to change.

Deregulation came in 1985. Suddenly, Chevron Canada faced a new set of competitive pressures. Under the regulated system, rates had been both artificially low and comfortably stable, changing only once every quarter. Now, as prices shot up six dollars a barrel or more, conservation efforts intensified; Chevron and its competitors had to scramble for a share of the smaller pie. What's more, their customers rapidly became more sophisticated as world pricing took effect. Chevron was fighting for its place in a global market.

It was this intense competition that caused Chevron to streamline its pricing system to be more cost-effective. Because it lacked flexibility, the remote mainframe could not handle the overheated information climate of the post-1985 oil business: prices that changed by the hour; a diverse customer base that included farming, forestry, mining, trucking, airlines, and marine industries, each with a unique set of needs; and a service area that stretched from Alberta to the Yukon, requiring flexible, localized decision making.

Chevron Canada developed a two-tiered response to the crisis. The short-term fix was to hire more clerks to handle pricing exceptions and retroactive price adjustments. Then, in early 1989 the company launched a long-term program that they hoped would dramatically reduce the need for exceptions and adjustments: they formed a task force to select and implement a new computer system designed to take Chevron Canada into the '90s and beyond.

A Client-Server System That Rethinks Conventional Ways of Working

The task force knew that finding ways to streamline the existing pricing process was critical to the success of any new information system. There was a benefit in starting with such an outdated system: since the company hadn't invested in the existing system in 20 years, the task force now had the luxury of starting virtually from scratch and building the ideal solution.

As the task force began its research, a distinct personality trait began to emerge: the group was not afraid to challenge conventional wisdom. They began to look for a system that would not only solve their immediate needs, but would also give them a competitive advantage in the future.

The task force itself consisted of end users, such as marketing and finance representatives, who would actually be using the new system, as well as technical staff who would be supporting it. Therefore, the task force focused on issues like usability, interface intuitiveness, reporting simplicity, and decision-support capabilities, while still considering critical issues like raw power, reliability, and compatibility.

The solution they chose is a client-server system running three Microsoft® SQL Servers on a Microsoft network. An IBM® 295 "super server" handles all transaction processing, including the pricing module. A second super server is dedicated to decision support, covering the reporting and query side of the sales system. It maintains a database that acts as a snapshot of all historical transactions that took place up to the previous day. The design of this overall solution makes up-to-the-minute information from either super server easily accessible by all 200 users – regardless of their department or location – from any Windows™ client desktop.

When the system first went live in 1992, it ran OS/2® on both clients and servers, with the plan to evolve toward Microsoft's future system strategy. As the technology community began to focus more on the Microsoft Windows operating system, it was easy for Chevron Canada to migrate to Windows, with no interruption in service. Today, the system configuration shows OS/2 and SQL Server running on the database servers, Microsoft LAN Manager on multiple departmental file servers, and Microsoft Windows on most of the clients. To implement the next step in its planned migration, Chevron will move to the Windows NT operating system platform on the server side this year.

When the project first started, Chevron received advice from consultants that it would take at least 50 person years to complete the work. But from the time they started writing code, it took a ten-person development team two years (approximately 20 person years) to put the pricing and order-entry components of the system into place, along with the Customer Master, the kernel of the system that contains all account information. Chevron's internal IS people worked with two Calgary, Alberta, consulting firms to develop the system. The primary development tools were Sybase® APT and the Microsoft Visual Basic™ programming system. Development costs were \$2 million Canadian (\$1.55 million U.S.) of which the pricing component required approximately \$600,000 Canadian (\$465,000 U.S.).

Faster Pricing, Greater Accuracy

"Marketing can look at the current status of a customer's pricing online, so they are more aware and accountable for an account's profit history. They are empowered with the information they need to make decisions."

Bill Soper
Manager of Information Services

"Designing this new system was critical for us to remain the market leader in our industry," says Bill Soper, Chevron Canada's manager of Information Services.

Today, pricing for 300 products at 70 supply points is all handled online by seven people in the marketing department at Chevron's Vancouver-area headquarters. The profitability analysis that used to be done on paper and batched to the mainframe is now done on-site.

There, the marketing group can access a customer's pricing status instantly, online. This crucial information could only be found in paper reports under the old system. Prices can now be changed globally or selectively, by supply point. And because new prices are now input by the people responsible for the account, there are fewer delays and fewer errors in transposition. What's more, the shift in responsibility from finance to marketing puts information and accountability in the hands of people who affect the company's profitability most directly.

The numbers showed that the new system gave Chevron a competitive advantage. Moving to a client-server system resulted in an estimated 65 percent overall reduction in paper handling for Chevron Canada.

Shortening the billing cycle puts money in the bank for any company. Chevron Canada's billing cycle used

to be 14 days long. The task force forecasts that they will reduce it to 12 days by the end of summer '93. Their goal is to tighten it even more, estimating that a one-third reduction would save \$170,000 per month in carrying charges.

The numbers in the pricing area are equally impressive. When the system depended on handwritten information, a global price change on some products took 10 days to complete. Today, under the client-server system, those same changes take just 55 minutes.

Similarly, tax changes that took 15 days under the old system are now done in just two days.

Fewer transposition errors and faster pricing updates mean fewer retroactive price adjustments. While customer demand will always require some adjustments, they are handled with maximum efficiency today: where it once took half an hour apiece to do 90 price adjustments, the staff now completes 90 in half an hour.

The Future Looks Like Windows NT™

To ensure that Chevron's information system would keep working for them well into the future, the task force had to build in flexibility. They designed a system that could take advantage of technological advances as they happen, including a planned migration to Windows NT.

As a beta test site for Windows NT, Chevron Canada experienced many of the advances Windows NT offers. For instance, creating a database took 25 minutes under Windows NT, versus 45 minutes in OS/2—a productivity increase of 180 percent. A 250-MB sales database took one hour to load in OS/2, but only 13 minutes with Windows NT—a 462 percent productivity gain.

Another demonstrated advantage of the Windows NT platform is its ability to double the number of users served (compared to OS/2's capacity) with no deterioration in performance. Moreover, the multitasking capability built into Windows NT speeds up information processing and enhances efficiency. For example, Windows NT allows an end user to run more than one productivity application at the same time—in this case Microsoft Word for Windows and Microsoft Excel. That user can achieve better application integration performance particularly cutting and pasting and "hot linking" information between the applications—than when running the same two programs under OS/2.

For the database administrator, SQL Server for Windows NT brings a new level of manageability to Chevron's servers. For example, Chevron uses the built-in administration tools in Windows NT to monitor SQL Server connections and to centrally manage security for all servers.

Chevron Canada's migration from OS/2 to Microsoft Windows on the client side has already demonstrated the system's ability to adapt to changing technology. The move to Windows NT is the next logical step in a planned evolution, as business needs are redefined and the industry continues to offer new options. Chevron will be implementing scaled-down versions of its head-office LAN at other sites in the future. Some sites will have single Windows NT machines that will run SQL Server and business applications simultaneously. Other sites will have a combination of Windows NT and servers based on the Windows NT platform that will communicate with the central enterprise servers and keep all databases in sync.

In 1989, Chevron Canada had the vision to redesign their pricing system to remain at the forefront of their industry. Today, because of the task force's hard work and the open-minded response of their peers, the company is a leader in the shift to a technology that helps people work together more intelligently. What's more, it remains the leading retailer of gasoline in British Columbia.

Sea-Land

As Sea-Land evolved from a freight carrier to a terminal operator, the company saw a need to streamline its terminal operations to maintain its leadership position and enhance customer service. The solution: an innovative terminal automation system based on the Microsoft® Windows NT™ operating system and a suite of other advanced Microsoft products that is boosting efficiency and slashing costs.

The shipping business was changing in the early '90s, and Sea-Land Service, Inc. wanted to lead that change. As the company's business shifted from being strictly a freight carrier to a worldwide operator of large, complex shipping terminals, senior management looked into the future and saw a need to change the very way Sea-Land operated to maintain its leadership position. At the same time, this fundamental reengineering was an opportunity to enhance communications with its customers about their shipments, thereby improving overall customer service.

With annual revenues in excess of \$3.5 billion, New Jersey-based Sea-Land, a subsidiary of Fortune 200 CSX Corporation, is the largest U.S. flag carrier and one of the top three shipping companies in the world. The company has more than 5,000 employees, 88 container ships, and more than 150,000 containers operating through 130 ports in 80 countries—containers that are used to ship everything from food to machinery.

Port operations are as complex as they are expensive. The speed and efficiency with which the company moves containers on and off ships and through the terminal has a profound effect on operating costs and profits—not just for the terminal operator, but also for its customers. Even small improvements in efficiency—such as increasing the number of crane lifts—can provide significant savings for port operators.

Sea-Land relied heavily on computers to run its terminals. The company's worldwide operations are handled by two IBM® 3090 mainframes, 3270 terminals, and a sophisticated network utilizing satellite links, leased lines, and routers. Information is stored in ADABASE and DB2® databases. The relatively few personal computers in Sea-Land terminals were used primarily for mainframe access, using DCA's IRMA™ Workstation for Windows emulation software.

While the legacy systems have performed well, Sea-Land's business has changed dramatically. These changes require greater flexibility and the need for increased information to better serve Sea-Land's customers. Working with a management mandate to increase productivity and improve competitiveness, Ed Tuosto, director of information technology, teamed up with Rick Cerwonka, director of terminal operation services, to find a solution. Their goal was to streamline and reengineer work processes and integrate new technologies to form the basis for a new suite of terminal operation systems.

Reengineering the Company's Processes

The company had already started to develop terminal management systems to automate operations in its Hong Kong and Rotterdam ports. But it soon became apparent that those systems were too closely linked to the unique operating conditions at these two locations to be suitable for use at other ports. "That's when we decided we needed a 'generic' terminal system that could work, with minor modifications, in any of our ports," says Cerwonka.

"We determined it would be shortsighted simply to automate existing processes. To increase port productivity substantially and for the long term, we needed to change many of the processes themselves."

Rick Cerwonka

Director of Terminal Operation Services
Sea-Land Service, Inc.

While Tuosto's and Cerwonka's original job was to improve Sea-Land's port operation processes, the pair soon realized that was only the beginning. "We determined it would be shortsighted simply to automate existing processes," explains Cerwonka. "To increase port productivity substantially and for the long term, we needed to change many of the processes themselves."

Applying Technology to Processes

This approach led to an exploration of available technologies. "We could see that real gains in efficiency would require a flexible information management system tightly integrated with local operating processes," says Tuosto. This meant a move away from reliance on the company's mainframe systems to an emphasis on local systems in each port.

Cerwonka illustrates the benefits that can result from a highly focused local system. "We have 6,000 container parking places in our Elizabeth, New Jersey facility," he says. "Our legacy system could tell us a container is in row 300—but row 300 has at least 100 parking places spread out over an eighth of a mile. A well-designed local system, on the other hand, could tell us the container is in row 300, slot 12." This kind of accuracy enables truck drivers to go to the right slot, pick up a container, and leave, shortening the process dramatically. The same benefit applies when Sea-Land needs to locate containers when loading a ship.

Software Drives System

Realizing that software would drive the design of the ultimate system, Tuosto began an exhaustive evaluation process. In addition to selecting specific software, he had another important consideration in mind. "We wanted to get all of the software from one vendor to reduce the potential for integration problems," says Tuosto. "We saw that Microsoft had the software tools for every part of the system we envisioned—a network operating system, database engine, communications manager, development tools, all with Windows as the underlying platform." In addition, the company already had experience with the Microsoft Visual Basic programming system, the Microsoft Windows operating system, and Microsoft LAN Manager.

Tuosto and Cerwonka began working to create a system to automate its terminals—a system Sea-Land hoped would boost productivity, lower costs, and enhance customer service.

Developing a Terminal Automation System

As the team approached the design of the terminal system, it became a process of continual refinement. "We created prototype designs, took them to end users, listened to their suggestions, and went back and worked the suggestions in," Tuosto says. Cerwonka asked the company's Operations Planning group to perform time and motion studies of existing processes. The group used computer modeling to analyze and verify alternative processes.

"We saw that Microsoft had the software tools for every part of the system we envisioned—a network operating system, database engine, communications manager, development tools, all with Windows as the underlying platform."

"TAS definitely fits the description of a mission-critical application. From an information technology perspective, we've come a long way. And we're very confident in what it's going to do for us in the future."

Ed Tuosto
Director of Information Technology

Sea-Land Service, Inc.

Throughout this phase, the Sea-Land team focused on some critical design objectives. "We wanted to be able to drop the system into any of 17 terminals around the world," says Tuosto. "We wanted to keep it generic, but also flexible enough to allow for local differences in language, physical plant, labor, even available radio frequencies." Yet the core functionality of the system had to be the same around the world—tracking containers and knowing the location of customers' cargo at all times.

Microsoft Solution Providers Team Up to Develop System

Tuosto and Cerwonka worked with a number of outside consultants to help design the system, including August Design, Microsoft Solution Providers, Nettech Systems, Communications Technology for Business, and AT&T-Global Information Solutions (GIS). Tuosto explains the reasons behind the selections. "Nettech had helped us in the past with gateways for e-mail," he says. "And we knew communications would be an essential part of the system." Nettech also worked to develop and integrate the radio modem aspects of the system. "We chose Communications Technology for Business to help develop the system architecture and create the database," Tuosto adds. August Design's role was designing an expert system.

Hardware was critical, and Tuosto is very comfortable with the choice of AT&T-GIS to provide 486- and Pentium™-based servers and 486-based clients. "Our criteria for a hardware vendor included not just performance, but also support," he says. "We chose AT&T-GIS as much on the bench-marking of their products as on their technical support and support of Microsoft software." Hand-held computers by Fujitsu are also used in the system.

A Complete Terminal Automation System

The final system, known as TAS (Terminal Automation System), has five components. Gate improves the way containers are moved in and out of the terminal. Yard assists with the inventory and placement of containers in the storage yard. Marine helps automate the loading and unloading of vessels. Maintenance Repair and Control System (MRCS) provides real-time identification of damages, estimates repair costs, and prepares repair schedules. And Workstation Stowage provides an easy-to-use graphical representation of the cargo stowed on a vessel with complete trim and stability features, ensuring maximum utilization of these assets. Because the efficiency of a terminal is largely based on the efficiency of its gate, Sea-Land decided to phase in this module first.

At the heart of TAS is a local client-server system running Microsoft Windows NT and Windows NT Advanced Server, and centered around a Microsoft SQL Server for Windows NT database. A typical terminal has eight to ten servers and 50 to 75 client workstations. The system is tightly integrated with gate functions through pen-based hand-held computers with integral radio modems; these computers provide online access to the client-server system from points throughout the terminal. The hand-held computers run Microsoft Windows for Pen Computing to simplify data input.

Automating Container Inspections

One important use of the hand-held computers at the gate is inspecting inbound and outbound containers. Sea-Land is required to inspect every container that passes through its terminals. "We need to make sure the containers are structurally sound enough to protect our customers' cargo," Cerwonka explains. "A damaged container can ruin cargo—and customer relationships."

Since Windows for Pen Computing is a graphical operating system, the hand-held units display not only text information about containers, but also graphics that can show the exact location and nature of any damage. "The inspector uses the hand-held computer to note any damage on the spot," says Tuosto.

"Then he can transmit the information, along with the container's serial number and the required repair action, to the SQL Server database through the [radio frequency] system."

Information is passed between the local TAS and the legacy IBM 3090s using DCA™ and MDI gateway technology. This link can speed repairs when a container is damaged—the mainframe can determine the location and availability of repair parts, schedule the repair, and download a repair estimate to be included in the inspection report and printed for the driver before he departs the yard. The entire process takes less than ten minutes.

TAS also includes a custom rules-based expert system used to determine the optimum storage location for a container, based on its contents and destination.

Additional servers on the Windows NT Advanced Server-based network are used for backup, radio modem communications, printing, and the expert system. Microsoft Consulting Services also contributed to the solution by helping Sea-Land reengineer its Information Support Services group.

Initial Phase Called an Immediate Success

Sea-Land reports that the first phase of its TAS rollout has provided immediate benefits by enhancing the efficiency of the company's terminal operations. Improvements include a significant reduction in trucker turntimes, elimination of inspection forms and filing, and faster data input.

The company is also saving time and steps by replacing its paper forms with electronic ones. "We were using a five-part carbon form for inspections that was awkward and time-consuming to complete and file," says Tuosto. "Now we generate the same form electronically—it's even signed by the truck drivers right on the hand-held computer."

Cerwonka adds that the company's benchmarking makes Sea-Land confident that, when fully implemented, TAS will significantly improve operating efficiency by increasing the average number of crane lifts per hour. "That alone can directly improve the company's bottom line," he notes. According to Cerwonka, this efficiency will be achieved in part because TAS will reduce the time required for a truck driver to enter the facility, go through inspection, drop the container in a pre-determined location, and depart—with or without another container.

Tuosto says the pinpoint, up-to-the-minute accuracy provided by TAS will also eliminate non-productive operations. "It should be the end of such things as placing containers on the opposite side of the yard from their destination ship or placing a container that's first out on the bottom of a stack of containers," he says.

In the larger sense, by improving the interaction of all data throughout the terminal, TAS will allow Sea-Land to better serve its customers. "If we can do our job better by taking out unnecessary steps and improving our accuracy, the end result is better service for our customers," says Cerwonka.

Taking TAS Around the World

The next step in the companywide transition to TAS is to complete and test the Yard and Marine modules in Sea-Land's Charleston, South Carolina, port. Then the system will be implemented in the company's largest terminal facility in Elizabeth, New Jersey. Finally, TAS will be taken to 15 other Sea-Land terminals around the world over a three-year period.

"TAS definitely fits the description of a mission-critical application," notes Tuosto. "From an information technology perspective, we've come a long way. We're very confident in what it's going to do for us in the long run."

Both Tuosto and Cerwonka were quick to note that the success of the project to date is due to teamwork

and a common goal. "The team included senior management, IT developers, LAN and systems support people, database people, corporate business sponsors, and the people using the system on a daily basis. This team has supported and guided us through this effort," says Tuosto. "The development and implementation teams share a common goal of delivering what we believe is the best solution to a very complex set of operating requirements." The team made a special mention of the system's users at the company's Charleston facility. "Without their dedication, courage, and stamina," says Cerwonka, "we would never have accomplished this effort."

Freightliner Corporation

Freightliner's Microsoft® Windows NT™-based information system, ServicePro, integrates several independent systems and applications to help the company maintain a leadership position in an increasingly competitive industry. ServicePro helps technicians repair trucks faster and more efficiently, while reducing customer downtime and repair costs.

Freightliner Corporation, a wholly owned subsidiary of Daimler-Benz, is North America's leading manufacturer of heavy-duty trucks, and is determined to stay ahead of the pack. With more than 23 percent of the market in 1992, the company ranked first in retail sales. But to gain equal footing in the critical aftermarket service business, Freightliner needed to give its dealers a better way to manage the enormous quantities of information they use every day.

To run their businesses, the 250 Freightliner dealers throughout North America previously contended with an assortment of disparate computer systems. For accounting, invoicing, tracking inventory, and recording repair orders, they used several kinds of stand-alone minicomputers from a variety of service bureaus running systems based on RISC, AS/400®, and UNIX®. For specifying and ordering truck parts, they used a Windows™- and LAN-based electronic parts catalog called PartsPro. And to obtain truck warranty information, they accessed the Freightliner mainframe using 3270 terminals or personal computers.

This conglomeration of systems, not to mention the shelves of manuals and microfiche in every dealership, "was a Tower of Babel," according to Freightliner's Director of Technical Service Systems, Doug Vakoc. "Every kind of information was on a different system, each with its own format, interface, sign-on procedure, and so on. This made it very difficult for people to find information and to stay up-to-date. Ultimately, the confusion cost us money—in lost service opportunities and the erosion of customer confidence when there were delays or mistakes."

Poor Information Access Hampers Service Efforts

Because the computer systems were based on various platforms, and because some of Freightliner's business areas were not automated, dealers and fleet technicians faced the following issues—all of which are common in the trucking industry:

- **Training.** With so many different systems in use, training the technicians and dealer personnel on warranty, parts, and diagnostic services was costly and potentially confusing to employees.
- **Information access.** Service information, stored on paper or microfiche, often had to be located before repairs could be done. Finding the right information was time-consuming, and the information itself was sometimes out-of-date.
- **Diagnostics.** Technicians found the information available to properly diagnose and repair problems limited, and sometimes too simplistic for some service procedures.
- **Maintenance.** Without an easy way to access service updates, recall campaigns, and maintenance schedules for each truck, dealers missed opportunities to "piggyback" this work with repair service.
- **Warranties.** Unlike automobiles, truck service warranties can be custom-configured for each vehicle from a wide variety of options. Dealers had difficulty figuring out whether specific repairs were covered by warranty.

These problems were compounded by the increasing sophistication of today's trucks which, designed to

meet environmental regulations and competitive pressures, have grown more complex to diagnose and repair. Moreover, today's truck fleet operators have very little tolerance for downtime. In an industry that has seen more than 60 percent of truck carriers go out of business since it was deregulated in 1980, lowering the cost of fleet operation is a competitive necessity.

Integrated System Brings Information to Users

"Our customers expect a reliable place to have truck repair and maintenance done, with consistent, high-quality service. We built ServicePro to raise the overall performance of our dealers."

Doug Vakoc
Director of Technical Service Systems
Freightliner Corporation

With a corporate goal to be the industry's leading provider of support services as well as premium vehicles, Freightliner set about addressing these challenges. The company's sophisticated solution, called ServicePro, is an integrated information system that will be installed on servers running the Microsoft Windows NT operating system at all Freightliner dealerships. Designed and developed with the assistance of Microsoft Consulting Services (MCS), ServicePro incorporates state-of-the-art technology with point-and-click simplicity. It allows dealer service writers to perform their daily work—diagnosing truck problems, looking up warranty and service information, generating repair orders, and selling parts and service—at the push of a button.

ServicePro achieves this simplicity through a client-server architecture that allows client applications running with Microsoft Windows™ for Workgroups or Windows 3.1 to access any information—whether it is located on the server based on the Windows NT platform, the Freightliner mainframe, or the dealer's minicomputer-based business system.

ServicePro's graphical front end, prototyped with the Microsoft Visual Basic™ programming system and developed with the Microsoft Visual C++™ development system, provides menu access to Windows 3.1-based client applications developed by third parties. These applications supply parts information, service literature, and diagnostic assistance. Because they are based on the Windows operating system, the applications—several of which were purchased specifically for integration into the ServicePro system—were able to be used without modification both on the Windows-based personal computer clients and on the server based on the Windows NT platform.

The centerpiece of the ServicePro system is each dealer's server, which provides communication, data management, and file server capabilities. Through SNA Server, the server communicates with Freightliner's Amdahl mainframe, where information on warranty coverage, components, and service campaigns is stored. In addition, a custom-designed application on the server communicates directly with the business applications running on dealers' minicomputers, giving users access to customer information each dealer stores there. In ServicePro's distributed database architecture, each dealer's server runs Microsoft SQL Server for Windows NT. The SQL Server database stores all information necessary to create a repair order. This information can be customized to reflect the dealer's individual shop repair procedures.

Freightliner's decision to implement ServicePro on the Windows NT operating system was based on several key technical features of the operating system. These include its scalability and portability; high performance for disk caching; support for symmetric multiprocessing machines; support for applications that require more than 16 MB of memory; support for hard-disk striping, database management services, and connectivity services; and the ability to run existing 16-bit applications for Windows seamlessly on the server's 32-bit operating system.

Consultants Share Knowledge in Partnership

For several reasons, Freightliner management decided early that ServicePro would be a Windows-based system. One of the key applications in the ServicePro system ran under Windows. Moreover, other Windows-based applications were available from specialized software vendors—there was no reason to coauthor or cofund the development of new applications. "We chose the Windows operating system because we knew the software we needed was available," says Vakoc.

Freightliner also knew from the outset that it would need outside resources to help develop ServicePro. Not having in-house expertise to write Windows-based applications to integrate the new system, Freightliner evaluated several consulting firms. Microsoft Consulting Services was selected on the basis of the following criteria:

- **Knowledge of programming for Windows.** "Since we had already decided that ServicePro would be Windows-based, our consultants' familiarity with programming and applications for Windows was a must," says Vakoc. "We also wanted a strong, real, client-server environment. We thought Microsoft was in the best position to get us up to speed on Windows NT early."
- **Skills transfer.** Freightliner chose MCS for its ability to convey knowledge about Windows NT and client-server technology, putting Freightliner in a stronger position to manage ServicePro on its own and, down the road, to design other client-server systems and applications for Windows NT. "We also wanted a partner who generates ideas," explains Vakoc. "In our experience, we've worked with other consultants who were mostly executing our ideas, but MCS shared the creative work with us. This was a very sophisticated project—especially in the communications area—and we knew that, with complex projects, there are always setbacks. It's easy to get discouraged. Because we clicked with the MCS people, it kept our motivation high."
- **Partnership.** "Our priority was to choose who we viewed to be the best long-term partner," says Vakoc, "who can help us develop our ideas into long-range strategies and implement them most quickly."

ServicePro Increases Efficiency and Profitability

ServicePro makes daily operations dramatically easier and more efficient for Freightliner dealers. For example, instead of wading through piles of microfiche or service binders, dealers can call up service bulletins and work instructions, including illustrations, to view on-screen or to print.

CasePoint, the Windows-based artificial intelligence application integrated into ServicePro, guides service writers through diagnostic questions that help isolate the cause of a problem before the technician begins work. The service writer can then instantly determine if the needed part is in stock and whether the repair is covered by warranty. At the same time, the system alerts the user to other work that may be performed along with the repair—whether it be routine maintenance or an outstanding service campaign.

ServicePro will help dealers work more cost-effectively by reducing faulty repairs, and it will help them receive faster reimbursement for warranty work through better record-keeping. Moreover, ServicePro's guided procedures will make it easier for dealers to train technicians and advisers; eventually, ServicePro will include special training modules, as well. As ServicePro improves the overall quality of customer service, Freightliner expects to see higher customer loyalty after warranties expire. In turn, this will create more parts and service business for the dealer network.

"Through ServicePro, we can help our customers use their trucks more profitably, while helping our dealers achieve higher profitability too," says Vakoc. "We estimate that ServicePro will help our dealers substantially increase their non-warranty service business."

For customers, ServicePro will contribute to faster, more accurate truck repairs, less downtime, and lower repair costs. Scheduled maintenance and service campaigns also will be done in a more efficient way, saving time and money.

Companywide, ServicePro will reduce warranty costs by helping dealers avoid unnecessary repairs. In addition, ServicePro will capture reliable repair histories that enhance the value of vehicles for future owners.

Doing It Right, Today and Tomorrow

In future versions of ServicePro, Freightliner sees an important role for pen-based tablets and wireless LANs that will allow technicians to take diagnostic programs right to the truck. The company hopes to introduce a pen-based ServicePro system in 1994.

For now, as it introduces ServicePro at dealerships across the country, Freightliner expects to see tangible benefits right away. By providing instant access to information, ServicePro helps dealers and fleet technicians do repairs more efficiently. Says Vakoc: "It's mind-boggling what benefits ServicePro can deliver to our dealers and customers."

Century 21

Century 21 International is an international real estate company focused primarily in the residential and relocation business. They have approximately 5,000 broker offices that are direct franchises. In addition, they train and authorize sales associates. There are currently approximately 65,000 sales associates. The company owns 7 divisional offices with approximately 4-5 regional offices per division. In addition, there are 8 divisional offices that are not company owned franchises, but follow the corporate standard. Century 21 operates in the U.S., Canada, Mexico, the U.K., New Zealand, Hong Kong, Japan, France, New Guinea, Belgium, Guam, Saipan, Puerto Rico, and Australia

Computing Environment Prior to Final Implemented Solution

Century 21 had a proprietary Pick operating system, running on McDonnell Douglas minicomputer hardware. The Pick system was installed over 12 years ago and was used for accounting, invoicing, career tracking, and the management and reporting of Century 21 real estate transactions. The system was expensive to maintain and it was also increasingly difficult to find system engineers to maintain the system. They were also using dBase on OS/2 for customer service and marketing databases.

Business Needs and Identified Problem

The Pick system had limited functionality. Data was centralized in accounting, and not used for other management functions. Century 21 wanted the data to be usable, rather than unmanageable character-based printed reports. Additionally, Century 21 wanted to expand quality services programs and manage data more effectively.

Implications of Problem

Aside from the inefficient distribution of information, the system was aging and it was increasingly difficult to find qualified system engineers to maintain the Pick system. Century 21 was faced with adopting an entirely new system that would maintain their current data and also grow with the company.

Century 21 chose a Microsoft solution because of the broad line of products available and Microsoft reputation for quality and technical leadership. They hired MCS based on their experience in downsizing projects. Visual Basic was selected because of the extensibility.

Technical Solution Description

The Century 21 development team developed and continues to develop a number of applications for customer quality services, marketing and sales lead generation. Client/Server technology is being used to deliver this information on SQL for Windows NT with Access being used as the front-end report tool and Visual Basic for Applications for application programming.

Advantages and Benefits of the Solution

Immense productivity and quality improvements have been achieved. For example, Century 21's referral service now handles approximately 1,000 referrals a month, as opposed to 300 a month before. Data integrity is improved and customer mailings have been automated. Training costs are lowered and Century 21 now provides increased quality services to their franchises.

Cost/Benefit Analysis

Although still implementing the system, Century 21 is now realizing first edge of the financial benefits of their system with regard to their referral system. For each referral, Century 21 International receives a referral fee and referral volume has increased over 300%. Previously, their dBase system couldn't handle

these volumes. The referral system is almost completely automated, saving approximately 20 man-hours a day.

Company's Growth Plans

Century 21 HQ will move from SQL for OS/2 to SQL for NT in Q1, 1994 and throughout all US offices in Q2, 1994. They plan to expand customer service programs and expand their program throughout their international office in 1995.

CompuServe Chooses Microsoft Windows NT Server to Support Next-Generation Interactive Services

Cites Power, Reliability, Openness of "Industrial-strength" Software; Will Deploy Windows NT Advanced Server on More Than 100 Servers This Year

(Press Release)

REDMOND, Wash. – March 22, 1994 – CompuServe Incorporated, one of the nation's leading interactive information-services companies, today announced it is acquiring the Microsoft® Windows NT™ Advanced Server operating system for more than 100 server systems for its next-generation services, scheduled for implementation later this year. The major license will make Windows NT Advanced Server one of the primary operating systems for CompuServe's New Information Services Architecture (NISA), which will be serving the company's 1.8 million users worldwide.

CompuServe attributed its selection of Windows NT Advanced Server to the operating system's features for power, reliability and openness. "It's also one of the few industrial-strength operating systems that run on multiple hardware platforms," said Bruce MacNaughton, director of infrastructure and principal software architect at CompuServe.

"As CompuServe expands to support many millions of active members worldwide, Windows NT Advanced Server will provide an efficient server operating system for the interactive applications and high transaction rates anticipated in our new NISA environment," said Alexander Trevor, chief technical officer at CompuServe. "Windows NT Advanced Server is the backbone solution that ties together our other operating system and networking products. It's particularly suited for NISA because Microsoft's design philosophy makes it a compelling choice for today's large systems and tomorrow's 64-bit hardware."

"With this installation, Windows NT Advanced Server will support the real-time communications and multitasking needs of millions of users throughout the world – a prime example of what it was designed to do," said Paul Maritz, senior vice president at Microsoft. "With NISA and Windows NT Advanced Server, two next-generation systems are teaming up to bring users an entirely new level of power, reliability, flexibility and ease of use."

CompuServe's NISA is a heterogeneous client-server computing environment, supported by Windows NT Advanced Server and UNIX® platforms. The multithreading capability of Windows NT Advanced Server will allow NISA to handle multiple applications simultaneously for millions of users. CompuServe's MacNaughton and Trevor also cited the operating system's unprecedented portability to operate with a range of CISC, RISC and multiprocessor systems, its scalability to support increasingly powerful architectures, its interoperability with UNIX, and its standards-based, hardware-independent architecture to support commodity-priced systems.

Founded in 1975, Microsoft (NASDAQ "MSFT") is the worldwide leader in software for personal computers. The company offers a wide range of products and services for business and personal use, each designed with the mission of making it easier and more enjoyable for people to take advantage of the full power of personal computing every day.

#####

Administration and Management

Because administration is critical to the deployment of any system solution, one of the primary design goals for the Microsoft® Windows NT Server™ operating system was to ensure that it was extensively yet easily managed in an enterprise environment. As a result, Windows NT Server provides one of the most comprehensive set of management facilities ever offered in an operating system. Graphical tools help administrators centrally configure both systems and users quickly and easily. Every management tool provided with Windows NT Server is fully remoteable, optimizing the effectiveness of administrators and help desk personnel, and making their talents available across the enterprise.

In addition, this new release of Windows NT Server provides the administration tools necessary to manage your network from any Windows, Windows for Workgroups, Windows NT Workstation, or Windows NT Server machine. You can manage your network from wherever it's most convenient.

Related Topics:

[The Graphical, Remote Administration Tools](#)

[Single Network Logon](#)

[Improved Management for TCP/IP](#)

[Account Management and Domains](#)

[Auditing](#)

[Microsoft Systems Management Server for Controlling Computers and Costs](#)

The Graphical, Remote Administration Tools

Windows NT Server provides a wide variety of services which can be accessed using any of a number of intuitive graphical tools. Every management tool—from the Registry Editor to the Performance Monitor—can be accessed directly by applications and all are fully remoteable across the enterprise.

- [User Manager](#)
- [User Profile Editor](#)
- [Performance Monitor](#)
- [Event Viewer](#)
- [Control Panel](#)
- [Server Manager and Services](#)
- [The Registry Editor](#)
- [Windows NT Server File Manager](#)
- [Windows NT Server Print Manager](#)

User Manager

To access a Windows NT Server machine, you must log onto that machine with a valid user account. All user and group accounts are managed by a tool called User Manager, which can be used to add or delete user and group account information, set user account security policy (account and user rights), and modify user account properties.

Configuring Users

There are two ways to add new accounts to the user account database: create one from scratch; or copy (clone) an existing account. When you create a new account through User Manager, you can set the user account properties, including group membership, user profile, logon hours, account expiration date, and valid logon workstations. After setting the properties, you can set the security policy for the account (maximum/minimum password age, minimum password length, and password uniqueness). For example, you might want to specify that users must change their passwords after one month, and set password uniqueness to 4.

Configuring User Rights

A system administrator can use the User Manager to grant users' rights or privileges. User rights are granted for operations for which normal discretionary access control does not provide a mechanism—for example, setting the system time. It is undesirable to let anybody or everybody change the system time, so Windows NT Server requires that the user be granted the privilege to perform that action. Other rights include the ability to remotely shut down a Windows NT workstation or server, and the ability to log on locally to a machine.

Auditing User Actions

If you want to audit user actions, you would do so from this interface. Auditing can be enabled for such things as successful or failed logon/logoff, file and object access, and use of user rights. Note: for very secure environments, you can halt the system when the event log is full, which is exactly what you want to do when you can't expand the event log any further. When using the User Manager for domains, you can establish trust relationships with other domains. Trust relationships are links between domains that allow one to set up pass-through authentication, in which a user has one account for the entire enterprise. This is possible in part because, like other administration tools for Windows NT Server, the User Manager is fully remoteable and configurable for any Windows NT workstation or server.

User Profile Editor

The User Profile Editor is a tool that allows you to set up and maintain environment profiles for users on a per-user basis. Environment profiles include personal groups and the program items in those groups: screen colors, window size, and more. A user profile can be assigned to one user or a group of users. When a user logs on, the user profile is loaded and the Windows NT Server environment specified in that profile is loaded. There are two types of profiles, mandatory and personal. Mandatory profiles allow users to change their environments for the current session, but it does not save the changes when the user logs off. Personal profiles allow users to make changes and have their changes saved for their next logon session. The User Profile Editor can be used to create default user profiles for new user accounts and to change the default profile of the system.

Creating and Maintaining User Configurations

The User Profile Editor allows the system administrator to centrally manage user accounts. The desktop's profile and access to application and network resources can be stored and carried with users as they move throughout the enterprise. For instance, it could be useful to establish standard desktops by department, with access to specific applications and files. Using the Profile Editor, the administrator can establish pools of standard desktops and assign them to users. In turn, these profiles can be configured to keep the user from making any changes to the desktop. This prevents unnecessary configuration maintenance and significantly reduces help desk calls.

The User Manager is also an excellent tool for maintaining account information for users who move from one machine to another. These users can access Windows NT Server in a uniform manner with the same desktop and access to resources.

Finally, the User Manager is an excellent way to manage a scarce number of workstations. In environments with several shifts of users, more than one user can share a single personal computer. The User Manager gives an administrator the ability to establish multiple desktops on the same personal computer—this means that user A and user B can use the same machine at different times, with desktop and security tailored to their specific needs. When user A logs off and user B logs on, the security and access to resources can be completely different.

Performance Monitor

The Performance Monitor application is a graphical tool for measuring the performance of your own computer or other computers on a network. It allows you to examine over 200 per-process and system-wide counters on your local system as well as remote systems.

On each computer, you can view the behavior of operating system objects such as processors, memory, cache, threads, and processes. Each of these objects has an associated set of counters that provide information on such things as device usage, queue lengths, and delays, as well as information used for throughput and internal congestion measurements.

Performance Monitor provides charting, alerting, and reporting capabilities that reflect current activity along with ongoing logging. You can also open log files at a later time for browsing and charting as if they were reflecting current activity.

The following list provides an overview of what you can do with this graphical tool to view the performance of objects:

- View data from any number of computers simultaneously and update charts reflecting current activity and showing counter values.
- Export data from charts, logs, alert logs, and reports to spreadsheet or database programs for further manipulation and printing.
- Add system alerts that list an event in the Alert Log and, optionally, notify you by reverting to the Alert view, logging the event in Event Viewer's Application log, or issuing a network alert. If a counter value exceeds a user-defined limit, then a predefined program can be run.
- Create log files containing data about various objects from different computers, and append selected sections of other existing log files to form a long-term archive.

As with many of the administrative tools, the Performance Monitor is fully remoteable and can be used to view events on remote Windows NT machines and down-level servers.

Event Viewer

The Event Viewer is used to record and view Windows NT Server events. An event is any significant occurrence, in the system or in an application, that warrants notification of the user. For critical events, Windows NT Server can notify users with an alert on the screen. For those events that do not require immediate attention, Windows NT Server can add information to an event log file. Event logs can be viewed in real-time, or can be saved for later analysis. The Event Viewer is the single facility for logging events by system and Windows-based applications.

The Event Viewer has three defined logs: System, Security, and Application. The System Log records all events relating to the base operating system, device drivers, and services. For example, if a driver or system component fails to load on booting, this generates an event in the log. The Security Log records events relating to system security, such as failed logons. The Application Log records events generated by applications, such as "log file too large."

The Event Viewer has five defined event types: Error, Warning, Information, Success Audit, and Fail Audit (the last two are used for the security log). The Event Viewer supports various combinations of log "retention wrapping." You set the log size and choose what you want it to do when the log is full. You can tell it to overwrite as needed, overwrite events older than a specified number of days, or not to overwrite events at all, so you can clear the log manually.

The Event Viewer supports comprehensive filtering. You can filter by event types, date and time of events, source, category, user, computer, or event ID. Event logs can be saved in archive log format to be later reopened in the Event Viewer, or saved as text format or comma-delimited text for later analysis (on a spreadsheet, for example). As with many of the administrative tools, the Event Viewer is fully remoteable and can be used to view events on remote Windows NT Server machines and down-level servers.

Control Panel

The Control Panel contains many useful tools for controlling different components of Windows NT Server. Server Manager is for monitoring who is connected to your machine and seeing which shared resources are in use. This tool is also used for setup, directory replication, and administrative alerts. Services controls Windows NT Networking services individually. Services can be started, stopped, paused, and continued. For example, you can stop the messenger service if you don't want to receive messages from other users. With Devices, you can stop, start, and set the startup value for system drivers.

The Windows NT Boot Loader feature allows you to have more than one operating system installed on your computer. With System, you can tell Boot Loader which operating system to use as the default. That is, if you have multiple operating systems on your computer and you reboot, Boot Loader will automatically boot the default if you don't intervene. Boot Loader has a delay timer that counts down before it boots the default operating system—you set this timer with System. System is also the place where you set user environment variables, which are added to the system environment variables. Environment variables are available in each command shell. Windows NT Server supports multiple paging files, and you can gain a substantial improvement in performance by using this capability. You set the size and location of your paging file(s) from System.

The networking architecture within Windows NT Server lets you support multiple simultaneous network cards and multiple simultaneous protocols in a single machine. You can have one card and multiple protocol stacks, or one protocol stack and multiple cards. Network is the tool you use to install and configure your network cards, and to install and configure network protocol stacks. This is also the tool you would use to join a work group or a domain. The process of associating a protocol stack with a network card is called "binding." To support multiple network cards and protocol stacks, Network supports the configuration of multiple bindings.

Windows NT Server Setup

Windows NT Server system maintenance is handled through Windows NT Server Setup. System maintenance is a privileged operation, and requires high-level access rights for uninhibited access to the system. The Windows NT Server setup program is similar to the Windows 3.x setup program, with some additional options. You can still change your display, mouse, and keyboard settings, and add or delete components such as readme files and games groups. The new options allow you to add new SCSI disk and tape devices, add drivers to the system, and delete user profiles.

Server Manager and Services

All Windows NT Server machines can act as servers or workstations. On a Windows NT workstation, the server component is controlled with Server Manager, Services, and File Manager. Server Manager makes it possible for you to monitor who is connected to your machine, check who is using its shared resources, and set directory replication and administrative alerts. Through Server Manager, you have complete control over the users who are connected to your machine and over the resources they are using. If there are several users connected to a particular resource, you can either disconnect each user individually, or simply close the resource. A Windows NT Server can use Server Manager to remotely control another Windows NT Server, or a down-level LAN Manager server. Windows NT Server networking is built from discrete components known as services. These services are the components that bind together to provide the full-featured networking environment. Services have certain properties—they can be started, stopped, paused, and made to continue. You can also set up a service to replicate a set of files and directories from one machine to multiple machines on the network. For the benefit of the administrator, these services can be controlled individually, using the Services tool.

The Registry Editor

The Registry Editor is a tool for viewing and manipulating the configuration registry. The registry is a database that contains secure configuration information. It is structured as a disjointed set of multi-way trees. Each node in the tree is named, and each tree is rooted at a pre-defined, known node called a pre-defined key handle. The registry works very much like a hierarchical file system where each node is called a "key." Each key can contain zero or more data items, called "value entries", that are associated with the key. Keys are analogous to directories, and the value entries are analogous to files. The registry looks very much like the File Manager, and as with File Manager, security can be applied to registry keys to prevent users from modifying registry entries. The registry is used mainly for troubleshooting and problem resolution. Sections of the registry can be saved to disk and transported to another computer for analysis, and configuration information can be viewed remotely.

Windows NT Server File Manager

The Windows NT Server File Manager has more features than the Windows 3.1 File Manager, and is similar to the one contained in Windows for Workgroups. As with Windows 3.1, the Windows NT Server File Manager can be used for file copying, moving, renaming, and deleting. In addition, it allows users to browse, connect, and disconnect from different types of networks. That is, you can browse Microsoft NT Server, LAN Manager and Novell® networks simultaneously with a single tool.

The Windows NT Server File Manager shows the name of the file system (FAT, HPFS, CDFS, NTFS) for the current working directory. On NTFS (NT File System) partitions, you can view the long filename and the MS-DOS filename at the same time. File Manager can be used to share part or all of your disk with other users on the network. A share is created by selecting the directory to share and giving it a "share name." Shares can be protected from unauthorized access by setting permissions on the share name. You can share information on FAT (File Allocation Table), HPFS (High-Performance File System), or NTFS partitions, but note that permissions on FAT and HPFS apply only to the share name for remote network access—if a user is sitting at the source, he or she has unrestricted access to all files on FAT and HPFS partitions.

Windows NT Server Print Manager

As with Windows 3.1, Print Manager is used to install printers and modify print properties on a Windows NT Server network. In addition, Print Manager allows you to browse all of the printers that are physically connected to your network and, even more conveniently, browse them from the Print Setup dialog box of Windows-based applications. Apart from the new user interface, the biggest change is in the way printing is handled in an all-Windows NT Server environment (that is, an environment with a Windows NT Server print server and a Windows NT Server client). In this situation, the client is not required to install a printer driver for the printer device to which the client is printing—the device needs only to be installed on the print server. For example, you can print to a PostScript® printer connected to a print server, without having a PostScript driver installed on your machine.

Print Manager Remote Functions

Print Manager is fully remoteable and can be used to remotely administer print servers, printers, and print jobs on other network workstations or servers. Any Windows NT Server machine can be a print server. Traditionally, many LAN (Local Area Network) operating systems have used the term "queue" to represent the logical device that you print to. Windows NT Server uses the term "logical printer" for the logical printing device. Logical printers and physical printers can be arranged in a number of flexible combinations: one-one—one logical printer for every physical printer, one-many—one logical printer for many physical printers, and many-one—many logical printers to one physical printer. You can also define times when the printer is available. For example, a certain printer can be configured to be available only between the hours of 9:00 pm and 12:00 pm. The print spooler will accept jobs at all times, but will only print between 9:00 pm to 12:00 pm. Logical printers can have different priority levels. For example, you can set up a situation in which the print jobs of one group of users takes precedence over those of everyone else.

Windows NT Server supports printing from parallel, serial, or network-attached printers.

Single Network Logon

With Windows NT Server, users only need to log on to the network once to access all servers. This also allows the network administrator to manage each user account centrally. Access to network servers, printers, applications and other services are defined for each user by the administrator from this single control point. Once logged on, users have seamless access to all the network resources that have been assigned to them. This single logon process makes it faster and easier for users to get the information they need when they need it.

Improved Management for TCP/IP

TCP/IP is quickly becoming the most popular protocol in use today - particularly in large enterprises. It provides routable networking throughout the wide-area, network technology independence, a scaleable architecture, reliable delivery, universal interconnectivity, and it is proven technology. It also has broad-based support by both end-users and networking vendors. However, it can be somewhat cumbersome to manage because it requires each network node to have a unique, manually assigned IP address.

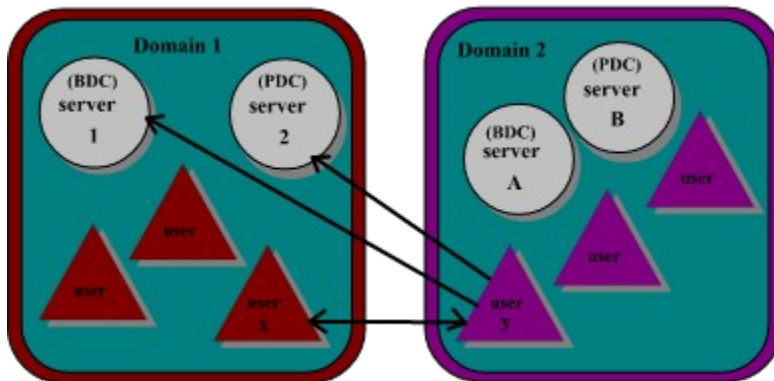
With this release of Windows NT Server, Microsoft has removed the overhead associated with TCP/IP administration. Windows NT Server can automatically supply unique TCP/IP addresses to each node on the network. Now, when a machine is moved or added to the network, TCP/IP address information is automatically updated by a Windows NT Server, eliminating the need for manual addressing and configuration. In addition, the new address is automatically mapped to the computer's "friendly" name and stored in a database on the server. With these two Windows NT Server services, users can now access TCP/IP networks as easily as they access traditional LANs.

Account Management and Domains

Windows NT Server servers support managing accounts by domains, a set of servers together in a logical group. Within each domain, one server is the Primary Domain Controller (PDC), which holds the master user account database. All other servers within the domain are Backup Domain Controllers (BDCs) and maintain a copy of the PDC user account database. All servers within the domain function as logon servers; but new user accounts for the domain must be added to the PDC. The domain model is effective because an enterprise can include hundreds of servers and thousands of users, and yet require only a single account in the entire domain. This is achieved by creating trust relationships between domains. Suppose an organization has two domains that trust each other, so that domain 1 trusts domain 2, and domain 2 trusts domain 1. Users in either domain could have access to resources in the other domain. However, trust relationships do not have to be bi-directional—domain 2 might trust domain 1 but conversely, domain 1 might not trust domain 2. It is left to the administrator to set up these trust relationships.

Once the trust relationship is established, you can, for example, take the domain2\userY account and give it permissions to use objects within domain 1. This is exactly how the accounts are represented within the permissions editor, meaning that if an account belongs in another domain, you see the account name preceded by the domain name to which the account belongs.

Unidirectional Trusted Domain Relationship



Auditing

The Windows NT Server auditing system provides useful system, network, and user information, which administrators can use to make intelligent decisions concerning the enterprise computing environment. Audit entries can be written to the security event log whenever certain actions are performed or files are accessed. The audit entry displays the action performed, the user who performed it, and the date and time of the action. Both successful and failed attempts at actions can be audited, so the audit trail shows both those users who actually performed the actions on the network and those who tried to perform actions unsuccessfully.

This table lists the categories of events you can audit and the events covered by each category. For each of the categories listed, you can choose whether to audit only successful actions in that category, failed attempts to perform actions, both, or neither.

Category	Event
Logon and Logoff	Logon/Logoff attempts, and the creating and breaking of network connections to servers
File and Object Access	Accesses of a file or directory set for auditing
Use of User Rights	Successful use of user rights, and failed attempts to use rights not assigned to user
Security Policy Changes	Granting or revoking of user rights to users and groups and the establishing and breaking of trust relationships with other domains
Restart, Shutdown and System	Shutdowns and restarts of the computer. The filling up of the audit log and the discarding of audit entries.
Process Tracking	Starts and stops of processes on the computer
User and Group Management	Creation, deletion and modification of user and group accounts

Microsoft Systems Management Server for Controlling Computers and Costs

Whether you manage an entire enterprise-wide system or a 20-node network, Microsoft Systems Management Server will help you manage your system and control administrative costs.

- Hardware and software inventory automatically collects detailed configuration information about all personal computers on the network. Determine how many copies of a software package are installed in your organization, what personal computers need hardware upgrades, or which personal computer has a specific network address.
- Software distribution and installation capabilities make it easy to install applications, patches, or virus-checking software once on a personal computer, then automatically distribute to other personal computers on the local network and at remote sites.
- Managing applications that run from servers gives users a standard set of applications from any personal computer anywhere on the network. Systems Management Server makes it easier to

use application metering packages and match the number of an application's users to the number of software licenses you have.

- Remote control and troubleshooting allows a central help desk to take control of a personal computer running MS-DOS or Windows from over a local or wide area network. It can even give you a real-time memory map of the remote personal computer.
- Network protocol analysis allows you to look at the details of network packets, perform remote captures on a packet anywhere on the network, and gather network statistics about a group of personal computers.
- Integration with Windows NT tools gives you access to User Manager, Server Manager, Performance Monitor, event logs, and more—all from a single, consistent management environment.

Related Topics:

[Reduce Administrative Costs](#)

[Extend Your Management Reach](#)

Reduce Administrative Costs

- Cut down start-up time and costs. Systems Management Server virtually installs itself, propagating all necessary desktop management components across the network servers and workstations you specify.
- Reduce help desk calls with complete, consistent software installations—including .INI files—of the correct software versions on all appropriate personal computers.
- Increase system security easily. Build on the security and auditing of Windows NT Server by adding automatic notification of hardware or software failure anywhere in the network. (Systems Management Server even manages its own processes and restarts itself if necessary.)

Extend Your Management Reach

- Choose from among the leading network operating systems such as Microsoft LAN Manager and Novell® NetWare®. They're all supported, along with popular desktop operating systems such as MSDOS, Microsoft Windows, Microsoft Windows® for Workgroups, Windows NT Server, OS/2®, and Apple® Macintosh®.
- Take advantage of the many products from third parties that build on and extend Systems Management Server's strong solution, such as DEC® extensions that support VAX® and OSF/1, Arcadia Systems enterprise storage management system, or Tally Systems advanced software recognition capabilities. And with Systems Management Server's open environment, you can design a management system that's specific to your needs.
- Integrate Systems Management Server with traditional network management tools such as IBM® NetView®/6000 and Digital PolyCenter Manager on NetView to design a complete management solution.
- Because Systems Management Server is standards-based and open, you can take advantage of the Desktop Management Interface. This emerging standard from the Desktop Management Task Force makes it easier to manage software and hardware components in personal computers and office devices such as fax machines.
- Systems Management Server can integrate with existing management tools with Simple Network Management Protocol (SNMP) support (built into Windows NT) and NetView support (supplied with SNA Server), which enables Systems Management Server to report configuration and performance information to SNMP-based consoles (such as DEC PolyCenter and IBM NetView/6000), and to send alerts to and respond to directives from IBM mainframe consoles.

Applications

Today, there are hundreds of powerful applications available for Windows NT Server. These applications combine multi-user power with the easy-to-use Windows interface so you can access and analyze information more quickly and effectively than ever before. The full range of Windows NT Server applications includes general-purpose solutions such as general accounting, manufacturing management, process control, customer tracking, order entry, and inventory management. Specialized solutions are also available to meet the unique needs of different businesses such as healthcare, banking, retail, and financial trading.

In addition, Microsoft's Solution Provider Program equips independent professionals to customize existing applications or develop new ones to meet your special needs.

Related Topics:

[Ready-to-Run Applications](#)

[Microsoft Solution Provider Program](#)

Ready-to-Run Applications

The following is a representative list of a few of the specialized solutions available for Windows NT Server. For a more complete list, please refer to the [Win32 Applications Catalog](#).

Retail/Wholesale

- An Post (distributed branch office)
- Automation Sciences, Inc. (complete in-store solution)
- Lifesoft WinPoint Marketing (point-of-sale systems)
- Midak International (inventory management, distribution)
- MTX International (complete in-store solution)
- Unlimited Solutions (complete in-store solution)

Manufacturing/Engineering

- Intellution FIX DMACS Pro (manufacturing control & design)
- Square D Square D Graphical Interface (manufacturing control & design)
- Wonderware In Touch (manufacturing control & design)

Accounting

- Great Plains Dynamics
- Macola EnVision
- Platinum SeQueL to Platinum
- US LAN Systems USL Financials

Financial

- Cybertek Cogensys (expert system to underwrite and approve loans)
- EDS/Ampersand SellStation (branch automation)
- Market Vision (real time data integration)
- Microbuilt (branch automation)
- PC Quote (real time data, news, etc.)
- Quay Financial (real time data analysis)
- Systems Imagineering (historical analysis of derivatives trading activity)
- Unisys SBA Navigator (branch automation)

Healthcare/Pharmaceutical

- Advanced Medical Info Tech (bedside charting)
- Cambridge Scientific Computing (drug discovery - drawing/analysis of chemical compounds)
- Cybermedix Cliniplex (emergency room patient tracking)
- Enterprise Systems (scheduling - personnel, patients, resources/equipment)
- Healthcare Network Services (results and admitting communication)

- Pen-Based Medical Network (medical practice management system)
- Sequoia Imaging (medical records & imaging)
- Unibased Systems Architecture (order management, ADT/registration, patient care, pharmacy management)
- Visual Numerics (drug development - statistical data analysis)
- Wismer*Martin (medical practice management system)

Microsoft Solution Provider Program

Microsoft Solution Providers are independent organizations that provide consulting, integration, development, training, technical support, or other services with Microsoft products. They implement business solutions for companies of all sizes and industries by using microcomputer technology for graphical and client-server applications. Microsoft equips Solution Providers with information, business development assistance, and tools that help create additional value for Microsoft-based software technology.

Microsoft Solution Providers offer the kind of expertise, support, and training not always available or affordable within an organization. Solution Providers provide:

- **Understanding of Your Business.** The Solution Provider has the background, skills, and expertise to fit microcomputing technology to the exact needs of your organization.
- **Responsive, Wide-Ranging Service.** Solution Providers offer a broad range of services, from design consulting to turnkey solutions to installation to highly specialized custom development. Often they can tailor these services to a customer's specific needs, such as on-site training and support. Solution Providers can provide extensive training on Microsoft products and on software from other vendors. Solution Providers can also offer timely assistance, including product and systems support and troubleshooting, for both existing and new computing environments. Training services include on-site classes, evening and weekend programs, even courses via satellite. They provide application training for end users, technical training for systems engineers and developers, and specialty training on industry-specific applications.
- **Worldwide Diversity.** The Microsoft Solution Provider Program teams Microsoft with thousands of Solution Providers and hundreds of thousands of technical experts throughout the world. Solution Providers often have specific expertise in products, technologies, industries, or markets to serve your exact competitive needs.
- **Multivendor Support.** Your Microsoft Solution Provider is an independent third party who can evaluate your needs and develop the solution. Many Solution Providers can integrate and develop solutions using different vendors' products, tools, and technologies, which means they can help you maximize your use of existing hardware and software wherever feasible and cost-effective.
- **Proven Access.** Many Microsoft Solution Providers have Microsoft Certified Professionals on staff, who have met Microsoft's high standards of technical proficiency.

To locate a Microsoft Solution Provider in your area, or for more information on the Microsoft Solution Provider Program, in the U.S. call Microsoft at **(800) SOL-PROV.**

In Canada, call **(800) 563-9048.** Outside North America, contact your local Microsoft subsidiary.

Application Development Tools

[Microsoft SQL Server 4.21 for Windows NT Server](#)

[Microsoft Mail for PC Networks](#)

[Microsoft Visual C++](#)

[WOSA: Delivering Enterprise Services to the Windows-Based Desktop](#)

[Third-Party Tools for Developing Server Components](#)

[Microsoft Has Powerful Tools for Developing Client Components](#)

Microsoft SQL Server 4.21 for Windows NT Server

Microsoft SQL Server combines the proven productivity of the Windows NT Server operating system with the power of an advanced relational database management server. Because SQL Server meets the demands of networked client-server applications and brings desktop users easy access to enterprise information, it is an ideal solution for managing large databases for mission-critical applications. SQL Server is designed to facilitate the needs of organizations that are rightsizing line-of-business information systems to take advantage of new access and uses of information. Additionally, through cooperative development relationships with third parties, Microsoft provides connectivity to enterprise computing platforms such as DB2®, SQL/DS™, AS/400®, and Oracle® through a selection of gateways. Microsoft SQL Server enjoys broad industry support, with hundreds of supporting third-party tools and applications available.

Related Topics:

[Integration with Windows NT](#)

[Scalability: Increase RDBMS Performance with Multiprocessing](#)

[Multithreaded Design: Get the Most from Your RDBMS](#)

[SQL Server Integrates Easily into Your Enterprise](#)

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Integration with Windows NT

SQL Server for Windows NT is a full 32-bit implementation using the Microsoft Win32® APIs and runs completely within the highly protected Win32 subsystem. SQL Server itself comes with an integrated set of management tools that make extensive use of the Microsoft Windows™ user interface to improve ease of use. SQL Server also integrates directly with Windows NT management facilities such as the Performance Monitor, allowing remote monitoring and troubleshooting of system performance.

Scalability: Increase RDBMS Performance with Multiprocessing

Perhaps the most exclusive feature within SQL Server for Windows NT is scalability. With single-processor systems like SQL Server for OS/2®, performance is limited to the fastest single-processor hardware system you can find. SQL Server for Windows NT uses the latest hardware technology, including powerful multiprocessing systems such as COMPAQ® SystemPro XL, AST® Manhattan, and NCR® 3450.

As your demand for transaction processing increases, single-processor systems like SQL Server under OS/2 become CPU-bound. Without symmetric multiprocessing, you have little alternative but to attack the problem using several single-processor servers—which is difficult unless your data is easy to partition. Using SQL Server for Windows NT with multiprocessing hardware raises the ceiling on your system's performance.

Multithreaded Design: Get the Most from Your RDBMS

SQL Server for Windows NT is designed to fully utilize the underlying hardware. As demands on your relational database management system grow, SQL Server scales with additional processing power to help you preserve your investment in software and your administrative costs, while getting the most from your hardware investment. The technology that underlies this flexibility is based on single-process architecture and native thread-level multiprocessing.

SQL Server for Windows NT maintains a single-process, multithreaded architecture that reduces system overhead and memory usage. One of the key design goals was to use native Windows NT facilities wherever possible. Instead of using multiple processes, SQL Server uses a single process with multiple operating system threads. Because all threads belong to the same process, a single address space is present, eliminating the need to coordinate processes through shared memory.

SQL Server for Windows NT allows preemptive operation and dynamic load-balancing across multiple CPUs by supporting multiprocessing at the thread level rather than the process level. On a non-threaded operating system, such as UNIX®, a typical SMP database server has multiple RDBMS processes, each bound to a specific CPU. The processes communicate with each other using shared memory, which maintains the cache, locks, task queues, and user context information. The RDBMS must include complex logic that takes on the role of operating system: scheduling user tasks, simulating threads, and coordinating multiple processes. When each process is tied to a specific CPU, dynamic load balancing is more difficult.

Benefits of Native Multithreading

- **Reduced system complexity:** SQL Server need not duplicate operating system functionalities, such as scheduling, memory-allocation, and queuing.
- **Smoother, preemptive operation:** Both SQL Server and Windows NT schedule user tasks preemptively, providing for smoother operation and improved resource utilization.
- **Dynamic load balancing:** SQL Server's workload is dynamically and automatically balanced across multiple CPUs. For example, a thread that begins executing on CPU 1 may be switched to CPU 2 by the Windows NT operating system to achieve better system load balancing.
- **Greater robustness and reliability:** User tasks executing on separate threads are protected from one another and can be terminated gracefully by SQL Server in case of error. For example, it is possible to terminate a sleeping process and to isolate protection violations to a single thread rather than affecting the whole server.

SQL Server Integrates Easily into Your Enterprise

One of the most compelling benefits of SQL Server is its ability to integrate into virtually any enterprise environment. All major networking protocols are supported so administrators can concentrate on delivering complete RDBMS solutions.

Because SQL Server is completely accessible through a variety of toolkits, custom application development is enhanced and delivery time for solutions is significantly reduced.

Finally, through built-in connectivity solutions such as SQL Bridge, users receive transparent access to UNIX RDBMS systems such as Sybase® and RDB.

Easy Installation and Migration

SQL Server for Windows NT includes a graphical Setup program that simplifies installation and allows the setting of system configuration options in a more intuitive and dynamic manner.

The administrator can run Setup locally or over the network to install SQL Server on remote computers. The Setup program also functions as an automated migration tool for existing installations of SQL Server for OS/2, either version 1.1 or version 4.2. No structural changes are made to the database, so it is possible to alternate between Windows NT and OS/2 for a trial period, by simply rebooting the computer.

Open Interoperability and Compatibility

Microsoft SQL Server is an open platform, designed to integrate well with all major computing environments.

Platform Support

SQL Server is available for a broad base of hardware platforms. The Intel-based product is binary compatible with 80386, 80486, and Pentium-based computers, both single and multiprocessor. Versions of SQL Server that support the MIPS R4xxx and DEC Alpha AXP RISC microprocessors are also available. As Windows NT Server moves to other popular hardware platforms you should expect SQL Server also to move.

SQL Server runs with equal levels of performance on either Windows NT or Windows NT Server. Windows NT Server provides additional fault tolerance, multiserver security features, and support for greater-than-two processor hardware systems. Remote Access Service, built into Windows NT Server, allows dial-in capability to SQL Server over standard phone lines.

Support for Open, Industry-Standard APIs

SQL Server supports industry-standard APIs at both the client and server to ensure an open, extensible database platform. SQL Server includes drivers to support ODBC (Open Database Connectivity) applications, extending access to a wide variety of client software. In addition, hundreds of commercial tools and applications support SQL Server's native DB-Library interface, ensuring broad choice for customers. SQL Server also supports applications developed with the SYBASE Open Client interface.

Microsoft Open Data Services

Microsoft SQL Server is one of the few RDBMS platforms to offer an open API for developing serverbased gateway and connectivity applications that work in conjunction with SQL Server. Microsoft Open Data Services is an event-driven API that provides a programmable gateway platform for server applications that can access any data source. It uses the same multithreaded architecture as SQL Server. Customers and systems integrators can use Open Data Services to develop custom database gateways, data-driven event alerters, external program triggers, request auditing, and more.

Open Data Services-based applications can function as standalone gateways or data-access servers supporting connections from the same client platforms as SQL Server. They can also integrate with SQL Server directly through remote stored procedure calls. For the Windows NT Server platform, customers can also use Open Data Services for developing extended stored procedure DLLs.

Enterprise Gateway Support

Microsoft licenses Open Data Services to many third parties who provide SQL Server-compatible gateways to popular host computing platforms. Microsoft maintains cooperative development and support relationships with these vendors to ensure broad compatibility and tight integration with the SQL Server platform.

Gateways based on Microsoft Open Data Services are available for a wide variety of host platforms including IBM® DB2, IBM SQL/DS™, CICS™, Pick, IBM AS/400®, DEC Rdb, and Teradata®.

Microsoft SQL Bridge

Microsoft SQL Bridge provides transparent routing of SQL Server requests across different networks, transports, and operating-system platforms. SQL Bridge can function as a gateway to SYBASE platforms when the customer prefers not to install host-based network protocols on each client. For example, SQL Bridge allows a client application on a NetWare LAN to access a SYBASE server on UNIX over standard IPX/SPX protocols—SQL Bridge automatically routes the request over TCP/IP. SQL Server for Windows NT Server also supports native TCP/IP sockets connections at the server, further increasing interoperability with SYBASE environments.

Simple Migration for OS/2 Users

Microsoft SQL Server for Windows NT Server is completely compatible and interoperable with Microsoft SQL Server for OS/2. Migrating from OS/2 is easy because the format and structure of the database files is unchanged. The Setup program handles the upgrade automatically and it is possible to go back and forth with SQL Server version 4.2 for OS/2 during an evaluation period without recreating or reloading databases.

Existing client applications for MSDOS, Windows, and OS/2 work unmodified with SQL Server. Not even a recompile or a relink is required. Windows NT Server-based client applications can also work with Microsoft OS/2-based servers or with SYBASE SQL Server for UNIX and VMS platforms.

Open Network Integration

Microsoft SQL Server operates in all major network environments over native protocols. SQL Server integrates directly with Novell NetWare, Microsoft LAN Manager, Banyan VINES, IBM LAN Server, and Microsoft Windows NT Server-based networks. It can also interoperate with SYBASE SQL Server clients and servers over TCP/IP-based networks. SQL Server supports native protocols such as IPX/SPX and VINES/IP without requiring special network software to be installed on each client.

SQL Server Toolkits

SQL Server supports direct call-level and embedded SQL application development in popular programming languages, including C, C++, the Microsoft Visual Basic programming system, and COBOL. The Microsoft SQL Server Programmer's Toolkit contains development libraries and tools for writing client applications using the native DB-Library interface, and for writing server applications and extended stored procedures using the Open Data Services interface. Client applications can be written in C and C++ for MSDOS, Microsoft Windows, Windows NT Server, and OS/2 with popular compilers from Microsoft and Borland®. Applications can be developed with Visual Basic for both MSDOS and Windows. The Programmer's Toolkit also includes Microsoft Open Data Services development libraries for Windows NT Server. The Microsoft SQL Server Programmer's Toolkit provides client software support for Intel, MIPS R4xxx, and DEC Alpha AXP microprocessors. Precompiler support and development libraries for writing traditional SQL applications in C using an embedded SQL approach is expected in 1994. Please consult your Microsoft reseller for additional information.

Integrated Security

SQL Server provides a single logon to both the network and database server for named pipes users.

With integrated security, access to SQL Server is controlled through privileges established for users and groups of Windows NT Server. The administrator does not have to maintain a separate set of logon accounts and passwords in SQL Server.

Integrated security in SQL Server provides administrators with:

- A single unified logon model for both network and database.
- Centralized control of access to multiple SQL Servers in a Windows NT Server domain.
- Centralized password management with password encryption, aging and minimum length restrictions.
- Auditing of database access attempts.
- Tools for managing multi-level security access privileges to SQL Server for network users and groups.

Reliability and Availability

SQL Server for Windows NT Server has been enhanced in a number of ways to improve reliability and availability, issues particularly important for production database platforms. SQL Server supports dynamic backup of databases and transaction logs while users are updating the database, providing the highest level of system availability. A new capability with SQL Server is the backup of multiple databases and logs to the same tape. Combined with scheduled backup, it is now possible to perform fully unattended backups without operator intervention. SQL Server provides a tool for scanning tape headers if the RDBMS is offline in a disaster recovery situation.

Microsoft Mail for PC Networks

Now it's easy to get your message across effectively - to anyone, anywhere. Microsoft Mail for PC Networks is at the heart of a complete electronic messaging solution with everything you need for reliable communication, today and tomorrow.

Microsoft Mail for PC Networks combines a reliable messaging infrastructure with advanced features for electronic mail users and administrators. For users, Microsoft Mail makes it easy to create better messages, share important information, and manage messages your way. Administrators will appreciate the powerful administration tools in Microsoft Mail. One administration program can manage your entire system. And Microsoft Mail automatically synchronized directories and creates a global address list, saving hours of valuable time.

Microsoft Mail supports users on Windows, MS-DOS, Macintosh, and OS/2, as well as remote users. And you can reach many other users by adding Microsoft's high-quality gateways. Each gateway is tightly integrated with Microsoft Mail, requiring minimal effort from administrators and providing transparent communication for e-mail users.

Enhanced Connectivity through X.25 Wide Area Networking and AT&T Gateway

- Less expensive, more secure, better data integrity
- Take advantage of an existing connectivity infrastructure
- More connectivity options

Improved scalability

- Move User utility makes it easy to move users from one Microsoft Mail Post Office to another. As organizations grow, it will be easier, with v3.2, to administer the growing email needs.

Better integration with existing customer environment

- Batch User Create utility means no more manual key in of Microsoft Mail accounts. Customers will be able to automatically create Microsoft Mail accounts from Novell Binder, LAN Manager Directory or text file.
- Utilize an existing X.25 corporate backbone.

Microsoft Visual C++

The Microsoft family of Visual C++ development systems offers fast, powerful programming across a variety of popular development target platforms. With each, you get a reusable, high-level class library with source code, a visual environment, integrated debugging tools, "wizards" to assist you with fundamental tasks, and more—all working in unison to shorten your development process.

Related Topics:

[Visual C++ Overview](#)

[Visual C++ - Highlights](#)

[Build on the Most Solid Foundation for C++ Programming in Windows](#)

Visual C++ Overview

The number of choices and trade-offs for developers today has reached an all-time high. Multiple target platforms, multiple development host opportunities, and the choice of 16-bit versus 32-bit APIs all play important roles in application development. So how do you make the process easier?

One sure way is to standardize on a single set of development tools that supports all these choices. such as the Microsoft family of Visual C++ development systems.

A tightly integrated development system, Microsoft Visual C++ runs within the Windows operating system for maximum flexibility and ease of use. It includes Visual Workbench, App Studio, wizards, and the Microsoft Foundation Class Library—a carefully organized source of reusable code.

the visual environment makes it easy to move through development cycles, get applications up and running, and apply the optimizations that best meet your unique needs. Wizards assist you with repetitive programming tasks, dramatically improving development speed. And Microsoft Foundation class Library version 2.0 includes, among other additions, classes to create familiar interface items such as views and toolbars.

Whether you need an effective entry into object-oriented design or full-fledged 32-bit programming for the Windows NT operating system, Microsoft Visual C++ is the solution for you.

Visual C++ - Highlights

The three editions of the Microsoft Visual C++ development system address a variety of needs. Yet each edition achieves the same high level of integration—tools that work together as a system rather than being a mere collection of tools. This can reduce your programming time at many stages of the development cycle. And, should your needs change over time, the common environment makes upgrading your development system and your applications easy.

Get Productive Immediately

Seamlessly integrated development tools in the Windows operating system, complete with context-sensitive, online Help, give you better control over the development process and improve your everyday productivity.

- The editor automatically color-codes the syntax in your files for readability and easy code maintenance.
- The integrated debugger offers fast, flexible access to breakpoints - including hardware breakpoints - from within your development environment.
- Source Code Browser help you navigate through your C++ classes and C code to identify and track relationships among member functions, structures, variables, types, and macros.
- App Studio provides fast editing of bitmaps, cursors, dialog boxes, icons, menus, and strings, with precise control over properties.
- Wizards increase your productivity by letting you concentrate on the details of what your application will do, rather than the mechanics of programming for Windows.
- Recompiled headers make you more productive by decreasing compiler time.

Get Essential Tools for Testing and Debugging

Both the Professional Edition and the 32-Bit Edition include tools and information for testing and debugging Windows-based applications. Visual C++, Professional Edition, includes tools and documentation from the Windows Software Development Kit (SDK) version 3.1, while the 32-Bit Edition includes materials specific to the Win32 SDK.

While neither system allows you to develop both 32-bit and 16-bit applications, the tools compatibility eases your development cycle if you support both platforms.

Tools for 32-Bit Programming:

- Spy++: View decoded parameters and return values of messages with precise control over information displayed.
- Books Online: Access the complete content of the printed documentation - more than 8000 pages of text and graphic material - in a cross-referenced, easily browsed format with powerful search capabilities.

Tools for 16-Bit or 32-Bit Programming:

- Source Profiler: Identify which areas of your application offer the best opportunities for optimization. (Integrated into development environment in Visual C++, 32-Bit Edition.)
- DDESpy: Simplify testing and adding dynamic data exchange (DDE) capabilities to Windows-

based applications.

Tools for 16-Bit Programming:

- Stress App: Simulate low-resource situations so you can test your application's performance.
- CodeView: Debug remotely, edit data in memory, and more. (The 32-bit Edition partially supports this debugger through CVW32s, for applications written to Win32s).
- HeapWalker: Analyze the effects your application has on local and global memory when redrawing screen graphics and using dynamic-link libraries (DLLs).

In addition, the Foundation Class Library currently supports .VBX controls in dialogs and forms for 16-bit applications.

Build on the Most Solid Foundation for C++ Programming in Windows

Microsoft Foundation Class Library version 2.0, included in all three editions of this development system, is a major strength of Visual C++. This single class library frees you from the differences in the various APIs and target platforms. Yet you can always go directly to the C APIs if you need to—an especially useful benefit if you're gradually moving existing applications to C++.

Other elements of the architecture also save you time. Classes that manage documents, views, and command processing reduce the time you spend making low-level decisions of the mechanics of programming for Windows. The architecture even offers logical places to put application specific code—which wizards then point you to—reducing both the complexity of your application and the time required to maintain it.

Work Faster with Power Tools

Running on Windows NT, the Microsoft Visual C++ development system, 32-Bit Edition, offers a variety of productivity advantages as you create 32-bit applications. The ability to isolate hardware or software, log events, and have several threads of processes working for you simultaneously makes this an ideal development platform that puts you in complete control.

- Write 32-bit applications for either the Windows 3.1 or Windows NT operating system with a single development system, using complete tools for the Win32 and Win32s APIs.
- Move line-of-business applications easily from Windows 3.1 to Windows NT for subsystem isolation, preemptive multitasking, and gigabytes of virtual memory.
- Take advantage of optimization options for the Intel 80486 and Pentium processors, making it easy to deliver high performance applications on the most powerful processors available.
- Perform true background compilation.

Reuse Code Easily and Often with the Microsoft Foundation Class Library

This complete framework of ready-to-use, compiler-independent application components greatly simplifies access to the Windows APIs, whether you're developing for Windows 3.1 or Windows NT.

Complete high-level abstractions of the Windows APIs include command routing; dialogs with dialog data exchange and dialog data validation; document/view architecture; OLE client and server support; print preview; printing; reusable views for scrolling, splitting, editing, and forms; and toolbars and status bars.

- More than 100 C++ classes.
- More the 60,000 lines of framework source code.
- Support for small .EXE files. (Framework overhead is less than 32K.)
- Support for fast .EXE files. (The framework imposes no performance penalty and in critical-message dispatch is faster than traditional C code.)

WOSA: Delivering Enterprise Services to the Windows-Based Desktop

Windows™ Open Services Architecture (WOSA) is a single, open-ended interface for enterprise computing environments that can provide your users and applications developers with seamless access to information, without them having to know anything about the underlying network or back-end services. In addition, business applications built using WOSA will continue to work, despite changing computing environments and information resources, protecting your corporation's technology investments.

Related Topics:

[The WOSA Architecture](#)

[Open Database Connectivity](#)

[Messaging Application Program Interface \(MAPI\)](#)

[Windows Telephony](#)

[License Service Application Program Interface](#)

[Windows SNA API](#)

[Windows Sockets](#)

[Vertical Market Services](#)

The WOSA Architecture

WOSA uses Windows dynamic link libraries (DLLs) to link software components at run time. Using DLLs, applications connect to services dynamically, using the definition of the interface.

On the application side, the interfaces to services such as ODBC are an extension to the Windows programming interface. Commercial or corporate developers can extend an application by using these functions as they would file and print services.

On the service-provider side, drivers can be distributed that link Windows desktops in the same way most printers are supported today. The benefit to the developer and the user is that applications are unaffected by changes to back-end services.

Open Architecture: Increased Choices, Reduced Risk

WOSA can give your users and IS department a wider choice of vendors, applications, operating environments, and hardware platforms. Thousands of applications are available on the Windows platform and WOSA provides interoperability with the rest. With WOSA, your IS managers can tailor solutions to effectively meet the needs of individual users.

WOSA can help your company use its existing information resources to build useful and productive business applications, as it moves to client-server computing on the personal computer platform. As your data resource needs grow, WOSA can re-implement services on more powerful platforms, without requiring changes to business applications. Your company can also transparently substitute different implementations of an existing service if it needs to. WOSA can help reduce the costs of solution development in a changing computing environment. Through standardized interfaces, WOSA can help you to:

- **Protect Your Software Investment**—Existing WOSA-based applications can access, without modification, new service implementations on a variety of platforms, such as SQL Server for Windows NT Server, DB2 on MVS, or Oracle on VMS. Users can work with new information resources without learning how to use new applications.
- **Implement More Cost-Effective Software Solutions**—WOSA-based off-the-shelf applications are available today. IS managers can use these products to create integrated software solutions that are as powerful as the more expensive, custom alternatives. WOSA's modular approach makes it easy to tailor software solutions to specific business needs. With WOSA, IS managers can focus on making the enterprise more effective without getting sidetracked by frustrating compatibility issues.
- **Integrate Multi-Vendor Components Flexibly**—The flexible, open architecture of WOSA supports multi-vendor environments and multiple implementations of a single type of service in any environment. WOSA facilitates the switch from one implementation to another. This is important if your long-range plans require changing to new products, and it is critical if you are unsure of your long-term requirements. Because its DLL-based implementation links at run time, WOSA makes it easy to add support for new service-providers without having to make changes to the Windows-based applications.
- **Shorten Development Cycles for Solutions**—WOSA relieves corporate developers from the burden of managing access to various back-end services, by providing this access in the system software. This feature eliminates the need for application developers to reinvent solutions for each new service implementation, allowing them to provide access to new implementations by

"plugging" existing components together without any additional programming.

- **Ensure Extensibility to Include Future Services**—WOSA is designed to be extensible. New types of services can be added to the architecture without disrupting existing ones. Applications can be extended, without modification, to take advantage of entirely new services.

Open Database Connectivity

ODBC alleviates the need for developers to learn multiple programming interfaces by providing a universal data access interface. It allows an organization to develop applications that integrate legacy data, providing a smooth upgrade path as system throughput, database size, or number of users increases. Additionally, ODBC can support disparate databases across the company with a single programming interface.

ODBC enjoys extensive industry acceptance from database vendors, application vendors, and corporate developers. The list of products using ODBC is continually growing: ODBC drivers have been completed for over 20 different database server products. ODBC connectivity is already available in many popular front-end applications and development tools such as Microsoft® VisualBasic™, Powersoft™ PowerBuilder™, and KnowledgeWare® ObjectView. ODBC is a good demonstration of the way WOSA is making access to critical enterprise resources easier to implement and use.

Messaging Application Program Interface (MAPI)

Electronic-mail has become an important part of the communication infrastructure within many corporations. However, companies have found that the introduction of electronic mail alone has not solved their communication and productivity problems. This is due largely to the complexity of most electronic mail applications and their inability to truly integrate information for enterprise-wide workgroup applications. Ideally, a corporate computer network should serve as a highly efficient communication backbone.

MAPI is flexible and open. MAPI-based applications are not tied to a specific vendor's electronic mail system, and MAPI supports existing standards such as the X.400 API Association Common Messaging Calls (CMC). Using MAPI, Windows-based applications can provide users with straightforward access to workgroup and enterprise-wide communications.

How MAPI Works

MAPI acts as a layer between applications and the underlying messaging systems. This allows both components to be developed independently, which makes it easier to write powerful messaging-enabled applications that will work across multiple systems. If you are working on a Windows-based desktop, you can select drivers from the control panel as if you were installing different printers.

MAPI frees you to choose messaging systems and applications according to your needs—not their compatibility. As drivers become available, a single application can work with multiple messaging systems such as Microsoft® MAIL, Novell® MHS, and IBM® PROFS®. Once a driver is installed, you need not be concerned with the underlying messaging system.

By using a single client application to handle all of these systems, you reduce the costs of development, application purchases, user training, and system administration. Migrating to a new messaging subsystem is simple, because all front-end applications written to the MAPI interface will work transparently with any system with a MAPI service-provider interface.

Windows Telephony

Nearly every business desktop has a phone sitting next to a personal computer, and no communication between them. While modems are widely used for data transport, they do not provide control of the phone network beyond simple connections on an analog network. Furthermore, the personal computer is not a full participant in the global telephone network. Windows Telephony gives basic phone function to your personal computer. For example, with Windows Telephony, you can establish, answer, hold, transfer, conference, or park a call. Windows Telephony also supports a broad range of telephone network types, including analog, key system, PBX, ISDN, and cellular. Because it operates independently from the underlying telephone network and equipment, Windows Telephony isolates applications from the complexity of individual networks, greatly simplifying development. The API provides maximum flexibility for transparently connecting personal computers to all types of telephone systems.

With broad support from both the personal computer industry and all major telephone system manufacturers, Windows Telephony presents exciting opportunities for the development of new products integrating the telephone and computer. More options will emerge as products are developed on the Windows Telephony API specification.

New Applications with Windows Telephony

- Through the visual interface of computer software applications, users will be able to access even the most sophisticated telephone features without having to remember complex codes and instructions.
- Computer will be able to control personal communication management, automatically handling incoming telephone calls.
- Windows Telephony can be used to automate tasks requiring telephone access. For example, a personal information manager can be used to look up telephone numbers and place calls.
- Instead of checking separate sources for fax, voice, and electronic mail, computer users will be able to review and manage all of these messages from one integrated location.
- Computer users in geographically separate locations will be able to combine the functions of their computers and their telephones to share visual as well as audio information.

License Service Application Program Interface

In a concerted effort to help standardize software licensing and reduce the burden of implementing custom licensing systems, an association of software vendors has developed the License Service Application Program Interface. With the License Service API, an application does not need to know anything about the type of network in use, the types of computers in the enterprise, or the types of license policies available, to enjoy seamless access to a licensing mechanism. As a result, desktop applications do not need to be rewritten when the network, computers, or license policies change. In other words, the License Service API enables applications to connect to the licensing services they need across multiple computing environments in a platform-independent manner.

The License Service API effort was founded by Brightwork Development, Digital Equipment Corporation, Gradient Technologies, Microsoft Corporation, and Novell. Many other vendors have subsequently become involved in the effort.

Windows SNA API

Although SNA connectivity has always been available, each vendor has implemented this connectivity in slightly different ways, which has resulted in frustrating compatibility issues between products. To work around compatibility problems, many corporations have chosen a single vendor to provide their SNA connectivity software.

The Windows SNA API is a standard interface between Windows-based applications and SNA networks, developed jointly by over twenty different vendors. This single interface specification gives any Windows-based application seamless access to SNA networks, no matter which connectivity software is used. The specification includes full support for the SNA services including HLLAPI, APPC, CPI-C, CSV and LU0. The implementation is fully compatible with IBM® OS/2® Extended Services, and has wide industry support.

Windows Sockets

The Windows Sockets specification defines a network programming interface for Microsoft® Windows™ which is based on the Berkeley Sockets programming model—the standard for TCP/IP networking. Windows Sockets extends the Berkeley Sockets model to more efficiently handle programming issues, such as blocking calls, in a non-preemptive Windows 3.x environment. Because Windows-based applications connect seamlessly with services in any TCP/IP network regardless of specific implementation, compatibility concerns are eliminated.

The Windows Sockets interface also extends beyond traditional UNIX sockets programming, by allowing transparent connection to network services across other transport protocols, such as IPX/SPX, AppleTalk®, DECnet™ and XNS™. Windows Sockets was designed to remove any TCP/IP-specific conventions, eliminating the need to develop multiple versions of applications to access byte-stream-oriented data transmissions on different transport protocols.

Remote Procedure Call (RPC)

Microsoft RPC is compatible with the Open Software Foundation Distributed Computing Environment (DCE) RPC. Applications written to the Microsoft RPC specification also interoperate seamlessly with other DCE-based applications. This allows distributed client-server applications to be developed across multiple computing environments. Using Microsoft RPC, Windows NT Server™ based machines can act as RPC clients and servers in distributed environments that use DCE-compatible RPC. In addition, Windows 3.x and MS-DOS machines can connect as clients within such environments, opening up a powerful realm of distributed services for Windows-based applications. The DCE is one of the many service-providers compatible with WOSA. Microsoft RPC will soon offer features such as encrypted sessions, authentication services, and the ability to obtain naming services from both Windows NT Server and DCE servers. Microsoft is aware of an ongoing need for numerous, distributed systems that can coexist, and its goal for WOSA is to transparently integrate these systems.

Vertical Market Services

Extensibility is a key WOSA design feature. As the Windows operating system becomes an enterprise standard for building mission-critical applications, WOSA is being extended to define standard interfaces to the specialized computing services found in various vertical markets.

- WOSA Extensions for Financial Services provide Windows-based applications with a standard interface to services common in the banking industry.
- WOSA Extensions for Real-Time Market Data allow Windows-based applications to receive live market data from many different sources.

Third-Party Tools for Developing Server Components

You can use a myriad of application development tools to create the server and client components of your Windows NT Server solutions. Chances are, you can continue to use the development tools you're already using. Windows NT Server supports many of today's most popular solution development products from companies such as:

- ASK
- Borland
- Easel
- Gupta
- Information Builders
- Informix
- Oracle
- Powersoft
- SAP
- Sybase

For additional information and a complete list of server applications that run on Windows NT Server, please refer to the [Win32 Applications Catalog](#).

Microsoft Has Powerful Tools for Developing Client Components

Microsoft offers a full array of powerful, intuitive tools for developing Windows client components. Chances are, you've used some or all of these tools to develop applications already. When you move to Windows NT Server, you can continue to use the same tools.

- [Microsoft Office](#)
- [Visual Basic](#)
- [Visual C++](#)
- [FoxPro](#)
- [Access](#)

Develop Applications with Microsoft Office

The Microsoft Office family is a powerful development platform for creating custom solutions.

- Develop custom solutions faster, more flexibly, and at lower cost with Visual Basic for Applications. This powerful programming environment integrates industry-leading Visual Basic programming system tools with programs in the Microsoft Office family.
- Tie into a variety of mail systems through built-in support for messaging standards such as MAPI and VIM.
- Work with all popular databases—Microsoft Access, the Microsoft FoxPro® database, ORACLE®, dBASE®, Paradox®, and more. Programs in the Microsoft Office family support access to structured databases through the Open Database Connectivity (ODBC) standard.
- Work with unstructured databases such as Lotus Notes® through OLE, special file filters, and the Lotus Notes API.

Benefits of a Family of Applications

The Microsoft Office family is a collection of full-featured products that work alike and work together as if they were a single program. They take you well beyond the usual approach to ease of use, integration, and custom solutions.

Microsoft Office Standard contains Microsoft Excel, Microsoft Word, Microsoft PowerPoint, and a workstation license for Microsoft Mail. In addition, Office Professional includes Microsoft Access, the most popular database for Windows

Get important features you can't find anywhere else:

- **OfficeLinks** makes moving, sharing, and editing data between programs a snap. Your programs work together as a single, intelligent, easy-to-use environment.
- **IntelliSense** technology works with you throughout the entire Microsoft Office, recognizing what you want to accomplish, adapting to the personal way you work, and delivering intelligent results. With IntelliSense technology, repetitive jobs are automatic, complex jobs are easier, and your computer is working much smarter.
- **AutoTools** built with IntelliSense technology work for you:
 - AutoCorrect instantly fixes typos as fast as you make them. So that's one less thing to think about.
 - AutoFormat analyzes your document, instantly picks a format (or lets you customize one), and makes your work look great.
 - AutoFilter lets you quickly see a subset of your spreadsheet data—just point and click.
 - Drag-and-Plot updates a chart in one step. Just drag new numbers from your spreadsheet and drop them on the graph—the numbers are plotted automatically.
- **Wizards**, also powered by IntelliSense technology, make complex tasks simple. You'll find them throughout programs in the Microsoft Office family.
 - Wizards simplify everything from entering data in the Microsoft Access® database management system to building a newsletter in Word. With the Newsletter Wizard, for instance, you just answer a few simple questions about what your newsletter should look like.

Make your choices and the Wizard instantly builds it for you.

Office Developer's Kit

The Office Developer's Kit will be included on CD-ROM at no additional charge with Visual Basic, Professional Edition. It contains more than 8,500 pages of documentation for Microsoft Office applications, including the following:

- Microsoft Excel Developer's Kit
- Microsoft Word Developer's Kit
- Microsoft Workgroup Templates
- Microsoft Access Advanced Topics
- Application Integration Design and Programming Guide
- OLE Object Reference Guide

It also includes more than 25MB of new software files:

- Object Browser
- Electronic Forms Designer (a \$395 value)
- Ten sample applications that illustrate integrated solution
- Programming techniques

The Electronic Forms Designer, Microsoft Workgroup Templates and the Office Developer's Kit can help developers use the Visual Basic programming system to create applications ranging from workgroup solutions to custom applications fully integrated with Microsoft Mail and other Microsoft Office applications. The new Object Browser allows the developer to examine OLE objects, including those in Microsoft Office applications. The Object Browser permits the developer to scan the properties and methods of the objects and to copy and paste sample code with appropriate syntax.

Use Visual Basic for Fast Development

Nothing helps you solve development problems faster than the Microsoft Visual Basic programming system. Whether your challenges involve client-server development, extending applications, workgroup data flow, or executive information systems, you'll find the versatile language, access to data, and advanced component reuse you need to build custom solutions quickly.

Overview

Since its introduction, the award-winning Microsoft Visual Basic has consistently set new levels of productivity and ease-of-use for developers. It introduced a visual way to create a user interface by assembling prebuilt components—then backed it with a flexible programming language, a syntax-checking editor, and debugging tools to help you deliver applications in record time.

Today, Visual Basic version 3.0 offers greater speed and capacity, sophisticated debugging, and comprehensive data access. It also pioneers the ability to pull functionality from commercial world-class applications to use as components in your own applications. Available in both Standard and Professional Editions, Visual Basic supports many popular data formats through a built-in database engine. Use visual controls for no-code data access—or, in the Professional Edition, use a programmatic layer for complete control over data access.

You can build your own applications from reusable components in Microsoft Excel and Word, for instance, by using OLE Automation, a powerful extension of object linking and embedding (OLE) version 2.0. You even get the entire Microsoft Office Developer's Kit to make the process easier. Together, these enhancements extend Visual Basic to more data sources and more components, integrating your organization's resources like never before.

Get All the Tools a Professional Developer Needs in the Professional Edition

Microsoft Visual Basic, Professional Edition, is for corporate-level development. It includes more than 40 controls, a variety of toolkits, programmatic access to data, a report writer, and more. It is the ultimate Visual Basic programming system.

- Program in a highly productive environment with color-coding editor, toolbar, form editor, Help compiler, online API reference, and incremental compiler, which compiles as you type.
- Write applications that use huge arrays and unlimited string space.
- Perform debugging tasks quickly from a toolbar: run, break, or end execution; Instant Watch; a calls history; single stepping; and procedure stepping.
- Share code and forms as ASCII files and manage work across development teams for rapid development of large-scale applications.
- Create powerful, flexible e-forms, such as routing slips and telephone notes, with Microsoft Electronic Forms Designer, included in the Office Developer's Kit.

Microsoft Visual Basic, Standard Edition, shares the design and debugging environment with the Professional Edition, but has a selective subset of the controls, data-access tools, and options.

Solve a Variety of Programming Challenges with One Development System

Visual Basic is a flexible development system with a powerful language, complete debugging tools, and a wealth of third-party add-on products, making it easy to create a range of custom solutions:

- Client-server applications
- Application automation and integration
- Workgroup software
- Office productivity utilities
- Host connectivity
- Network utilities
- Executive information systems
- Number and data crunchers and more

You can also extend Visual Basic with hundreds of third-party add-on tools to outperform products designed for niche markets, yet retain all the power and versatility of a general-purpose development system.

Reuse Components the Practical Way

Choose from the more than 40 custom controls included in the Professional Edition. Or seamlessly integrate third-party custom controls into the Toolbox for additional functionality such as version control, 3270 host connectivity, network interfaces, spreadsheets, animation, user-interface components, messaging, instrument panel input, CAD tools, scientific tool interfaces, design-time utilities, and more. With OLE Automation support, you can use applications such as Microsoft Excel, Word, and Microsoft Project as components in your applications, because you now have programmatic control over the OLE 2.0 objects they or any other applications expose.

Use sample code and the complete reference guide for Microsoft objects in the Microsoft Office Developer's Kit to create custom applications that integrate Microsoft Excel, Word, Mail, Microsoft Project, and the Microsoft Access® database. Choose from more than 200 prebuilt components.

Add dynamic-link libraries (DLLs) as components to take advantage of low-level functionality, such as calculation modules or graphics engines, and to access the Windows API.

Access Virtually Any Data Format

Visual Basic includes the database engine from Microsoft Access (Jet), which provides simultaneous data access with Microsoft Access, Microsoft FoxPro® 2.0 or 2.5, dBASE®, Paradox® 3.0 or 3.5, Oracle®, Microsoft SQL Server, SYBASE® SQL Server, and Btrieve®, and other formats via the vendor-neutral Open Database Connectivity (ODBC) programming interface.

Data-aware controls such as text box, picture box, and check box help you access data without writing code. Or, for total control over database operations, use the programmatic layer in the Professional Edition.

The Microsoft Jet database engine lets you use the same code even if you change data formats later—ideal for adapting applications for client-server computing.

Visual Basic is the ideal complement to Microsoft Access. You can standardize on one language and one database engine, and still pick the right tool for the job. Use Microsoft Access for flexible, interactive querying, reporting, and creating database-centric applications. Use Visual Basic for programming solutions that go beyond traditional database solutions.

Print Reports from Within Your Applications

Crystal Reports 2.0 for Visual Basic makes it easy to design complex reports with two-pass calculations, custom formulas, graphics, and more. Use the Crystal Report control to easily embed the high-quality reports you design into your applications.

FoxPro is the Fast, Smart Upgrade from dBase RDBMS

Microsoft FoxPro version 2.6 provides easy access to relational features for users and raw power for developers. It's simply the fastest relational database management system (RDBMS) for the Windows operating system. And the smartest upgrade for dBASE® users.

Patent-pending Rushmore™ query technology, which drives powerful search tools such as Relational Query By Example (RQBE), has helped FoxPro win performance awards from independent testing services such as the National Software Testing Laboratory. FoxPro can zip through hundreds of thousands of records in seconds, so you can work with even the largest data files, which means faster data querying, reporting, and editing, even when multiple users access the same data.

In fact, tests show dBASE applications actually run faster under FoxPro. Faster performance is just one reason why FoxPro is the smartest upgrade for dBASE users. AutoMigrate technology makes moving most dBASE applications to FoxPro as easy as a few mouse clicks. And the Catalog Manager gives dBASE users a familiar way of managing tables, screens, reports, labels, queries, and programs in one central place, making FoxPro the ultimate upgrade for dBASE users.

For the most complete set of development tools, check out the FoxPro Professional Edition. You can develop client-server applications using Open Database Connectivity (ODBC), distribute your applications royalty-free, build routines in C and link them into FoxPro, or integrate FoxPro with Microsoft Mail or Microsoft Schedule+.

Flexible, Interactive Tools Offer Easy Access to Relational Database Power

- Take advantage of Screen Wizards, Report Wizards, and Application Wizards—built-in experts that quickly walk you through the steps necessary to complete common database tasks.
- Send data to your word processor easily using the Mail Merge Wizard.
- Use the Table Wizard to make table definition much easier.
- Simplify database queries using the Query Wizard.
- Build screens easily using the Screen Wizard.
- Create reports automatically with the Report Wizard.
- Choose from more than 85 label formats and quickly create labels using the Label Wizard.

Develop Client-Server Applications with the FoxPro Connectivity Kit

- Access enterprise data from a host of servers including Microsoft SQL Server, SYBASE® SQL Server, ORACLE®, and others, when running Windows, through data-source connectivity support of the ODBC standard. *
- Query ODBC data quickly and easily using the Client-Server Wizard.
- Choose from more than 30 ODBC data sources under Windows, including AS/400®, DB2®, RdB, and most other popular servers. *
- Pay no royalties. Distribute applications containing Microsoft SQL Server libraries royalty-free.
- Give users the ability to query, update, insert, and delete data stored on remote data sources.
- Take advantage of the advanced security, data integrity, and transaction processing inherent in the SQL Server architecture.

*ORACLE connectivity requires SQL*NET for Windows, available separately from Oracle Corporation. Contact your server vendor for ODBC driver availability and compliance, or contact Microsoft for more information. Additional ODBC driver licensing policies determined by ODBC driver vendor.

Compile and Distribute Your Applications Royalty-Free with the FoxPro Distribution Kit

- Develop sophisticated database applications or executable files for Windows.
- Pay no royalties to distribute as many applications, programs, and executables as you like.
- Distribute only your finished applications, programs, and executables; individual users do not need to run FoxPro.
- Encrypt your source code to increase security.
- Create setup disks for distribution quickly and easily using the exclusive Setup Wizard.

Tap the Extensibility of FoxPro with the FoxPro Library Construction Kit

- Offload your most computing-intensive functions to C or C++, and call them from FoxPro.
- Create external libraries in C code from Microsoft C/C++ 7.0, Watcom™ C 8.5, and the Microsoft Visual C++™ development system.
- Call the complete set of Windows dynamic-link library (DLL) functions.
- Integrate external libraries into the applications you create with FoxPro.
- Seamlessly integrate your own hardware—including facsimile, telephone, or other devices with their own APIs—into applications you build with FoxPro.

Connect FoxPro to Microsoft Mail and Microsoft Schedule+ with Workgroup Extensions

- Create applications that automatically send data, or that process messages.

Microsoft Access--the Easiest-to-Use Relational Database

What distinguishes the Microsoft Access relational database management system from typical databases is a simple design philosophy. A full-featured database should be easy to use—no matter who's using it. That's why, whether you're a beginner, an old hand, or a developer, you'll find that Microsoft Access makes it easy to get the results you want.

As a member of the Microsoft Office family of programs, Microsoft Access features IntelliSense™ technology—built-in intelligence that senses what you want to do and produces the desired result. That makes routine tasks automatic and complex jobs easier. For example, dozens of clever assistants called wizards help automate everything from creating forms to creating code.

And IntelliSense is just the start. Getting at your data is intuitive with graphical query by example (GQBE). Sharing your data is simple with OfficeLinks technology—it connects all members of the Microsoft Office family, so you can send your reports to Microsoft Excel, for example, by just clicking a button. And because all programs in the Microsoft Office family work together like one, it's simple to do even more with all your information.

What's more, queries go faster with Microsoft Access—up to 100 times faster than before, thanks to patent-pending Rushmore™ technology. And finally, Microsoft Access is an easy-to-use, full-featured development environment, so developers can take complete control and get impressive results fast.

All of which means that end users, veterans, and developers can all choose databases that make their jobs easy. And they can all choose the same one.

No Other Database is Easier to Use

- **More than 30 wizards** simplify complex tasks and make routine tasks automatic.
- **Table Wizard** designs your tables for you, so that new users can get working fast and developers can get on with other jobs.
- **Command Button Wizard** creates command buttons for you—instead of writing code, you just answer a few questions, and the wizard does the rest.
- **Cue Cards** provides step-by-step instruction right alongside the task you're working on—it's like having your own tutor.
- **Graphical Relationships Tool** helps you design relationships between tables and lets you see your database design at a glance.
- **Database Container** lets you connect to your files in other formats in a few clicks.

You Can Manage Your Data Quickly and Easily

- **Rushmore technology** makes query performance up to 100 times faster than with Microsoft Access version 1.0, so you can get answers more quickly.
- **AutoForm and AutoReport** let you create professional-looking data entry forms and high-quality reports with a single click of the mouse.
- **Form Wizards and Report Wizards** make it easy to create even more sophisticated forms and reports—just answer some simple questions, and wizards create the form or report for you.
- **Quick Sort** speeds and simplifies data sorting—just click the buttons on the toolbar.

- **Top Value** queries let you zero in on your most important data—top ten customers, top 15% of sales, and so forth—with a few clicks of the mouse.
- **Award-winning graphical query by example** takes the complexity out of even complex queries—use simple drag-and-drop editing to join the tables you want to query.
- **Database Documenter** quickly shows you indexes, relationships, security, and properties of every table in your database.
- **Two-pass Report Writer** makes great-looking printed documents easy. You can group, subtotal, add "percent of total" calculations, and add logos and graphics.

Sharing Information is Easy

- **OfficeLinks** with object linking and embedding (OLE) let you add spreadsheets from Microsoft Excel and documents from Word to your database—and edit them from within Microsoft Access.
- **Analyze It** and **Publish It** buttons let you click once to send data to Microsoft Excel or Word automatically for analysis, inclusion on a report, or mail merging.
- **Mail Merge Wizard** automatically works with Microsoft Word to take the aggravation out of mail merges. Select the data you want to merge, the document you want to mail, and Microsoft Access sets up everything for you.
- **Work transparently with popular file formats**—Microsoft Access helps you make the most of your past investments with direct support for Microsoft FoxPro®, Microsoft SQL Server, dBASE®, Paradox®, and other popular file formats.
- **Mail It** button makes it easy to share your data with others in your workgroup—just click it to send your information via Microsoft Mail or other mail programs on your existing mail server.

Powerful Tools for Custom Solutions

- **Full-featured development environment**, including an integrated debugger and the event-driven Access Basic programming language.
- **Precise control** over events and properties helps you build first-class, bulletproof applications.
- **Referential integrity** with cascading updates and deletes helps you manage the integrity of your data—for in-stance, if you update a customer ID number, it will be automatically updated wherever it appears in all related tables.
- **Engine-level validation** helps guarantee the integrity of your application's data. When you create a rule on your data, users won't be able to override it.
- **Menu Builder** gives you graphical tools that help you build menus without writing code.
- **Expression Builder** simplifies creating expressions and calculations—instead of typing, just build them graphically.

Microsoft Access Developer's Toolkit

It gives professional developers what they need to extend the functionality of Microsoft Access and distribute applications.

- **In-depth technical information** on Data Access Objects (DAO), including sample code and application.
- **OLE Custom Controls** and documentation.
- **Run-time version of Microsoft Access** plus Help Compiler and Setup Wizard for building disks.
- **Commented Wizard code** for creating custom Wizards.
- **Advanced Topics manual** for maximizing performance, creating client-server applications, and more.
- **Microsoft Access Language Reference manual** for complete help with Access Basic.

Third-Party Tools for Developing Client Components

You can use a myriad of Windows application development tools to create the client components of your Windows NT Server-based client-server solutions. Development tools for Windows are available from:

- Borland
- Easel
- Gupta
- Information Builders
- Powersoft

See your dealer for additional information on these and other Windows application development tools.

Client support

No matter what desktop operating system a user has, it's easy to connect to Windows NT Server. You can keep using what you're using now, so there's no need for your users to learn new procedures for using their computers. Windows NT Server supports these popular clients:

- Windows
- Windows NT Workstation
- Windows for Workgroups
- MS-DOS
- Macintosh
- OS/2
- UNIX

Fault-Tolerant Design Keeps Your System Running

The Windows NT Server microkernel architecture provides a high degree of system fault tolerance: Applications run in protected subsystems, and all communication with hardware devices must go through the Windows NT Server Executive. In this mode, each application is protected from failure if another fails.

Even as users start taking advantage of the powerful performance of 32-bit applications, there are still many 16-bit applications they need to use on a regular basis to get their work done. In many cases, these 16-bit applications have run in shared memory. One infrequent but painful result of using shared memory is that occasionally an application would fail and cause other applications to stop working.

Windows NT Server now runs 16-bit applications in separate memory space, where each uses a separate virtual DOS machine (VDM). This mode provides complete crash protection between Windows 16-bit applications, as well as increased application responsiveness, because each VDM is preemptively scheduled.

Separate VDMs have one additional benefit. Since each VDM now occupies its own address space, 16-bit applications are now preemptively multitasked by the operating system, which often results in improved performance.

Two key features of the fault-tolerant design are the way Windows NT Server reacts to power failure and its facilities for backing up data.

Related Topics:

[Storage and Backup Schemes Protect Data](#)

[Intelligent Shutdown, UPS Support Protect Your Information from Power Failures](#)

Storage and Backup Schemes Protect Data

Windows NT Server uses disk mirroring (RAID level 1) and disk striping with parity (RAID level 5). With disk mirroring, data written to the server's hard disk is actually written to two disks, which maintain identical sets of data. If one disk crashes, the server automatically switches to the other.

Disk striping with parity is a more advanced and efficient fault-tolerance technique in which each logical volume of data is spread across several disks. If one disk crashes, the information on it can be recreated using the data and parity information on the other disks.

Windows NT Server also provides a full-function tape backup system based on the Maynard tape system. In addition to backing up and restoring normal files, the tape backup utility can be used to back up and restore the local Registry. The Registry is the warehouse of all of the configuration, security, and system operations information, and can be backed up using the Backup Local Registry check box. A registry stored on tape may also be restored using the "Restore" option. The files backed up are System, Software, Default, Security, SAM, as well as the UserDef file and individual user information files.

Intelligent Shutdown, UPS Support Protect Your Information from Power Failures

The Windows NT Kernel has an intelligent shutdown routine that is executed in the event of a power failure. Should the Windows NT machine not have an attached UPS system, there are recovery procedures that protect data even if it is unsaved. When the Windows NT Executive senses a loss of power, it begins the shutdown process. Should the power level drop below a certain threshold, Windows NT immediately notifies system objects of the failure. I/O devices automatically send notifications objects to the kernel which points to recovery and shutdown routines. The Kernel also monitors device drivers. Should the system be in the process of writing data to a disk, the kernel can inhibit the write thus protecting any loss of disk.

Windows NT Server includes a utility that works with an uninterruptible power supply (UPS) to provide two levels of information protection:

1. It keeps the machine active during temporary power outages, allowing the machine to continue processing data without loss of time.
2. It allows an orderly shutdown before the machine's battery power is fully depleted.

The main advantage of the both of these is that a file system can flush its internal cache buffers to the disk before the power to the machine is lost. The Windows NT Server UPS service is sensitive to signals from the UPS unit and performs orderly shutdowns of applications, services, and file systems if the UPS power is depleted. The UPS service is built into the base operating system itself, facilitating access to file systems in the event of a power problem.

Flexible Architecture Handles Future Changes

Windows NT Server is designed to be used with what you have today and to keep working for you when your needs change. With its microkernel architecture, Windows NT Server will be ready for the hardware and software advances in years to come, so you're protected from obsolescence. And because Windows NT Server is scalable, you can build on it as your needs dictate.

The Microsoft Windows NT operating system uses sophisticated techniques, such as a microkernel architecture, structured exception handling, an internationalization model, and memory-mapped files.

Point to an area in the diagram you're interested in; when the mouse pointer changes from an arrow to a pointing hand, click for more information.



From a user's point of view, Windows NT looks like the Windows operating system and runs Windows-based programs. Underneath its user interface, however, it is radically different.

Related Topics:

[Introduction to Windows NT Concepts](#)

[Client-Server Operating System](#)

[Windows NT Approach](#)

[Object Model](#)

[Symmetric Multiprocessing](#)

[Comparison of Symmetric and Asymmetric Multiprocessing](#)

[Protected Subsystems](#)

[Logon Session](#)

[Structured Exception Handling](#)

Introduction to Windows NT Concepts

An operating system model is a broad framework that unifies the many features and services the system provides, and the tasks it performs. Windows NT uses a client-server model to provide multiple operating system environments (initially, Windows, MS-DOS, OS/2, and POSIX), and it uses an object model to uniformly manage operating system resources and dispense them to users. A third model, symmetric multiprocessing (SMP), allows Windows NT to achieve maximum performance from multiprocessor computers.

Related Topics:

Logon Session

Client-Server Operating System

A client-server operating system is made up of several processes, each of which implements a single set of services. Each process can supply or demand services from other processes by making requests through the Executive.

Related Topics:

[The Client-Server Architectural Model](#)

[Monolithic Operating System](#)

[Layered Operating System](#)

The Client-Server Architectural Model

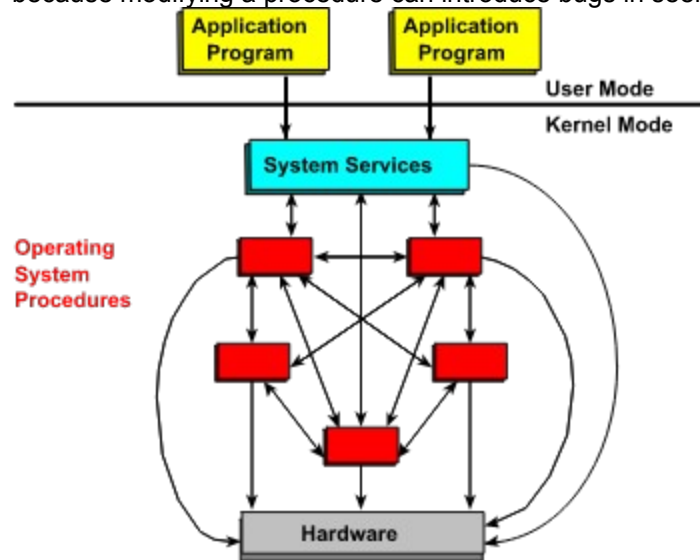
Each server runs in user mode, executing a loop that checks whether a client has requested one of its services. The client, which can be either another operating system component or an application program, requests a service by sending a message to the server. An operating system kernel (or microkernel) running in kernel mode delivers the message to the server; the server performs the operation; and the kernel returns the results to the client in another message.

The client-server approach results in an operating system whose components are small and self-contained. Because each server runs in a separate user mode process, a single server can fail (and perhaps be restarted) without crashing or corrupting the rest of the operating system. Furthermore, different servers can run on different processors in a multiprocessor computer or even on different computers, making the operating system suitable for distributed computing environments.

This theoretical model is an idealized depiction of a client-server system in which the kernel acts as a message-passing facility. In reality, client-server systems fall within a spectrum, some doing very little work in kernel mode and others doing more.

Monolithic Operating System

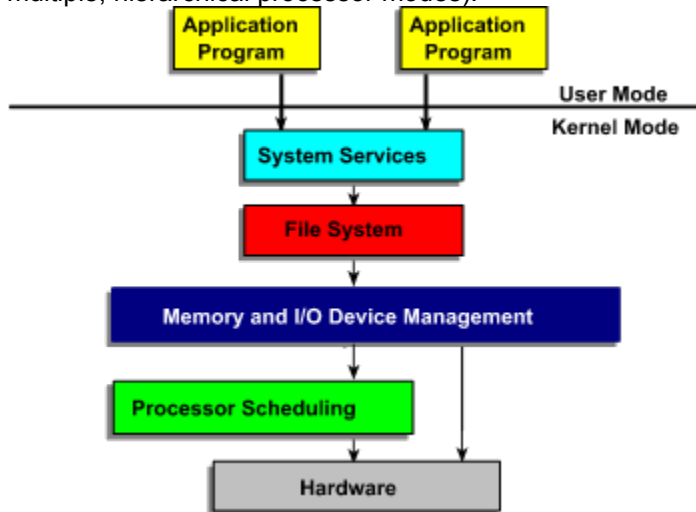
One structure, particularly common in smaller operating systems such as MS-DOS, organizes the operating system as a set of procedures and allows any procedure to call any other. This monolithic structure does not enforce data hiding in the operating system, and it embeds assumptions about how the system fits together throughout the operating system code. Extending such a system can be difficult, because modifying a procedure can introduce bugs in seemingly unrelated parts of the system.



In all but the simplest monolithic operating systems, applications are separated from the operating system itself. That is, the operating system code runs in a privileged processor mode (referred to here as kernel mode), with access to system data and to the hardware; applications run in a non-privileged processor mode (called user mode), with a limited set of interfaces available and with limited access to system data. When a user-mode program calls a system service, the processor traps the call and then switches the calling thread to kernel mode. When the system service completes, the operating system switches the thread back to user mode and allows the caller to continue.

Layered Operating System

A layered operating system is divided into modules that are layered on top of each other. Each module provides a set of functions that other modules can call. Code in any particular layer calls code only in lower layers. On some systems, such as VAX or VMS, hardware even enforces the layering (using multiple, hierarchical processor modes).

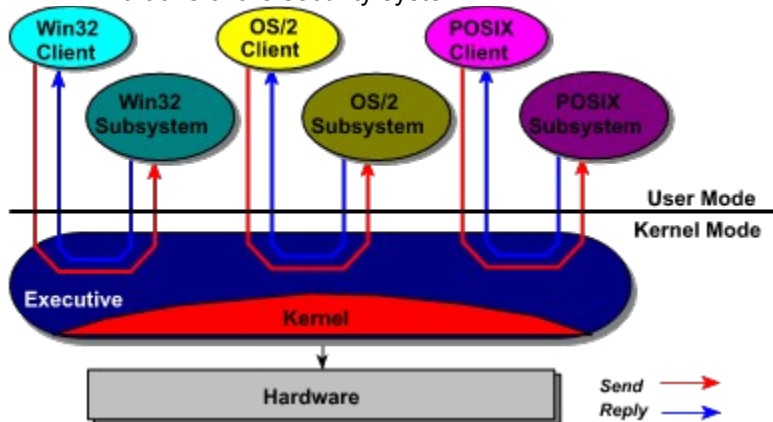


One advantage of a layered operating system structure is that each layer of code is only given access to the lower level interfaces (and data structures) that it requires, thus reducing the amount of code that has unlimited power. Layering makes it easier to enhance the operating system; one entire layer can be replaced without affecting other parts of the system.

Windows NT Approach

Windows NT uses concepts from both the layered model and the client-server model. The kernel-mode part of Windows NT is called the Windows NT Executive, which is a series of components that implements all of these functions:

- Virtual memory management
- Object (resource) management
- I/O and file systems (including network drivers)
- Interprocess communication
- Portions of the security system



Generally, these components interact with one another in a modular, rather than a layered, fashion. Each component calls the others through a set of carefully specified internal routines.

The layered operating system model is used in the Windows NT Executive I/O system and in the lowest parts of the Windows NT Executive: the kernel and the hardware abstraction layer (HAL). All other parts of the Windows NT Executive are layered on these two components. The Windows NT kernel performs low-level operating system functions such as:

- Thread scheduling
- Interrupt and exception dispatching
- Multiprocessor synchronization

It also provides a set of routines and basic objects that the rest of the executive uses to implement higher-level constructs. The HAL manipulates hardware directly.

Windows NT uses the client-server model primarily to provide APIs and the facilities associated with an operating system environment. Although the Win32 protected subsystem (server) provides the user interface and is fundamental to the system's operation, the other servers "plug into" the executive and can be loaded at will, with several in operation at a time. The servers communicate with application processes through a message-passing facility provided in the Windows NT Executive.

Object Model

It is difficult to identify a single "main program" that drives an operating system. Therefore, instead of attempting to design from the top down, object-oriented methods focus initially on the data that the software must manipulate to do its job. For an operating system, this means system resources like files, processes and blocks of memory.

Although not strictly an object-oriented system, Windows NT uses objects to represent system resources. Any system resource that can be shared by more than one process, including files, shared memory, and physical devices, is implemented as an object and manipulated by using object services. This lessens the impact of potential changes in the system over time.

Example: If a hardware change forces a change in the operating system, the only elements that must change are the object that represents the hardware resource, and the services that operate on the object; code that merely uses the object remains the same. Likewise, when the system needs to support new resources, a new object is created and added to the system without disturbing the existing code.

In addition to limiting the effects of change, building an operating system based on objects has some distinct advantages:

- When the operating system accesses and manipulates its resources uniformly, it creates, deletes, and refers to an event object in the same way it does a process object: by using object handles. Additionally, because each resource is an object, the system tracks resource usage by monitoring the creation and use of objects.
- Security is simplified because all objects are protected in the same way. When someone tries to access an object, the security system intervenes and validates the operation, regardless of whether the object is a process, a section of shared memory, or a communication port.
- Objects provide a convenient and uniform paradigm for sharing resources between two or more processes.
- Object handles are used to manipulate all types of objects.
- Two processes share an object when they each open a handle to it.
- The operating system can track how many handles are open to an object to determine whether the object is still in use.
- The operating system can then delete the object when it is no longer in use.

Symmetric Multiprocessing

Multitasking is a way of running multiple tasks on a single processor. However, when a computer has more than one processor, the multitasking model must be upgraded to a multiprocessing model. A computer that has two processors can execute two threads simultaneously. In theory, the threads would finish executing twice as quickly as on a single processor.

There are two types of multiprocessing systems:

1. Asymmetric Multiprocessing (ASMP). ASMP operating systems typically select the same processor to execute operating system code while other processors run only user jobs. Because operating system code runs on a single processor, ASMP operating systems are relatively easy to create by extending existing single-processor operating systems. ASMP operating systems are especially well suited to running on asymmetric hardware, such as a processor with an attached coprocessor or two processors that don't share all available memory. However, it is difficult to make ASMP operating systems portable. Hardware from different vendors (and even different versions of hardware from the same vendor) tends to vary in its type and degree of asymmetry. Either the hardware vendors must target their hardware for specific operating systems or the operating system must be substantially rewritten for each hardware platform.
2. Symmetric Multiprocessing (SMP). SMP systems, including Windows NT, allow the operating system to run on any free processor or on all processors simultaneously, sharing memory among them. This approach better exploits the power of multiple processors, because the operating system itself can use a significant percentage of a computer's processing time, depending on the applications it is running. Executing the operating system on only one processor can tax that processor, leave others idle, and decrease the system's throughput. As the number of processors on the system increases, operating system activities are more likely to become a bottleneck. In addition to balancing the system load, SMP systems reduce downtime because operating system code can execute on other processors if one processor fails. Finally, because symmetric hardware is implemented similarly from vendor to vendor, it is possible to create a portable SMP operating system.

Unlike ASMP systems, SMP systems are usually designed and written from the ground up because they must adhere to strict coding guidelines to ensure correct operation. Resource contention and other performance issues are more complicated in multiprocessing systems than in ordinary operating systems and must be accounted for in the system's design.

Related Topics:

[Preemptive Multitasking](#)

[Multithreading](#)

[Interprocess Communication](#)

[Asymmetric Multiprocessing \(ASMP\)](#)

Preemptive Multitasking

Preemptive multitasking is a feature of advanced operating systems that ensures that the operating system has the ability to preempt any process or thread to switch to another task. Preemptive multitasking means that the operating system never gives up control. Some operating systems are non-preemptive and are at the mercy of applications to cede control of the processor. With the exception of the Windows NT kernel component, which handles thread scheduling and interrupts, all operating system code can be preempted (forced to give up a processor) when a higher-priority thread needs attention.

Multithreading

Using multiple threads of execution within a single process (or application) is called multithreading. Threads allow one process to execute different parts of its program on different processors simultaneously. Server processes can use multiple threads to process requests from more than one client simultaneously. Multiple threads allow the operating system to be more efficient when running high-performance applications.

Windows NT Workstation supports multithreading and multitasking. This means that you can design an application, a spreadsheet for instance, to simultaneously recalculate a large volume of cells, print a large report, and rearrange cells. Windows NT Workstation can distribute each thread context of each process over multiple processors, allowing applications to scale over multiple processors for efficient capacity planning.

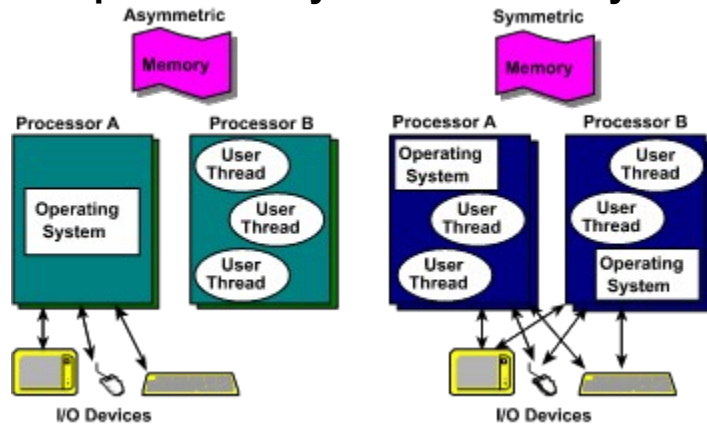
Interprocess Communication

Convenient mechanisms for sharing objects between processes and flexible interprocess communication capabilities, including shared memory and an optimized message-passing facility

Asymmetric Multiprocessing (ASMP)

ASMP operating systems typically select the same processor to execute operating system code while other processors run only user jobs. Because operating system code runs on a single processor, ASMP operating systems are relatively easy to create by extending existing single-processor operating systems. ASMP operating systems are especially well suited to running on asymmetric hardware, such as a processor with an attached coprocessor or two processors that don't share all available memory. However, it is difficult to make ASMP operating systems portable. Hardware from different vendors (and even different versions of hardware from the same vendor) tends to vary in its type and degree of asymmetry. Either the hardware vendors must target their hardware for specific operating systems or the operating system must be substantially rewritten for each hardware platform.

Comparison of Symmetric and Asymmetric Multiprocessing



SMP systems, including Windows NT, allow the operating system to run on any free processor or on all processors simultaneously, sharing memory among them. This approach better exploits the power of multiple processors, because the operating system itself can use a significant percentage of a computer's processing time, depending on the applications it is running. Executing the operating system on only one processor can tax that processor, leave others idle, and decrease the system's throughput. As the number of processors on the system increases, operating system activities are more likely to become a bottleneck. In addition to balancing the system load, SMP systems reduce downtime because operating system code can execute on other processors if one processor fails. Finally, because symmetric hardware is implemented similarly from vendor to vendor, it is possible to create a portable SMP operating system.

Unlike ASMP systems, SMP systems are usually designed and written from the ground up because they must adhere to strict coding guidelines to ensure correct operation. Resource contention and other performance issues are more complicated in multiprocessing systems than in ordinary operating systems and must be accounted for in the system's design.

Windows NT incorporates several features that are crucial to its success as a multiprocessing operating system.

Protected Subsystems

Windows NT Servers are called protected subsystems because each one is a separate process whose memory is protected from other processes by the Windows NT Executive. Because the subsystems do not share memory, they communicate by passing messages.

As the term "server" implies, each protected subsystem provides an API that programs can call. When an application (or another server) calls an API routine, a message is sent to the server that implements the API routine via the Windows NT Executive local procedure call (LPC) facility, a locally optimized message-passing mechanism. The server replies by sending a message back to the caller.

Windows NT has two types of protected subsystems: Environment Subsystems and Integral Subsystems.

Related Topics:

[Environment Subsystems](#)

[Integral Subsystems](#)

Environment Subsystems

An environment subsystem is a user-mode server that provides an API, which is specific to an operating system. When an application calls an API routine, the call is delivered through the local procedure call (LPC) facility to the environment subsystem, which executes the API routine and returns the result to the application process by sending another LPC.

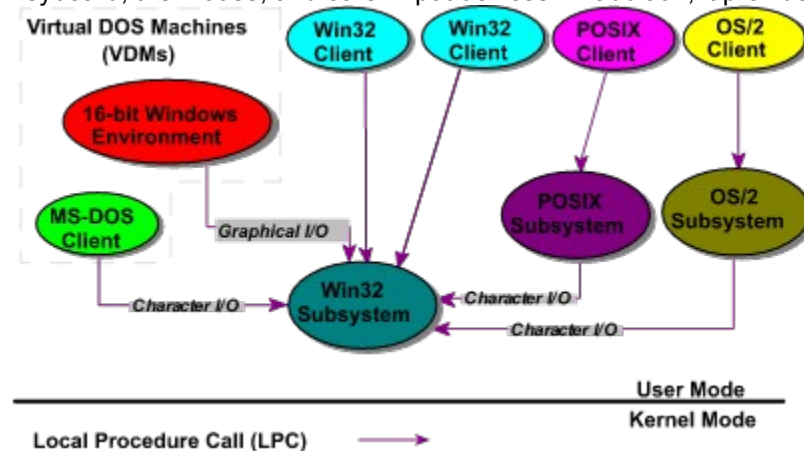
Win32 Subsystem

The most important environment subsystem is the Win32 subsystem, which makes the Microsoft 32-bit Windows API available to application programs. The Win32 environment subsystem also provides the Windows NT graphical user interface and controls all user input and application output. Windows NT also supplies:

- A POSIX environment subsystem
- An OS/2 environment subsystem
- A 16-bit Windows subsystem
- An MS-DOS subsystem

These subsystems provide APIs but use the Win32 subsystem to receive user input and display output.

The environment subsystem provides the Windows NT user interface. It controls the video display, the keyboard, the mouse, and other input devices. In addition, it provides the Win32 API.



The Win32 subsystem does not control the execution of non-Win32 applications. When the user runs an application that the Win32 subsystem does not recognize, the subsystem determines what type of application it is and then either calls another subsystem to run the application, or calls code to initialize an MS-DOS environment in which to run the application.

Example: The Win32 subsystem supplies 32-bit Windows API routines, and the OS/2 subsystem supplies OS/2 API routines. Applications cannot mix API routines from different subsystems because each environment subsystem operates differently. A file handle created by the Win32 subsystem does not translate to the POSIX subsystem, for example. Furthermore, such hybrid applications would not run on MS-DOS, Windows, POSIX, or OS/2 operating systems.

Environment Subsystems and Client Applications

MS-DOS and 16-bit Windows run inside an environment subsystem called a Virtual DOS Machine (VDM). VDMs are unlike other environment subsystems in that many of them can be running at one time.

Because the Win32 subsystem handles all video output, the other environment subsystems must direct the output of their applications to the Win32 subsystem for display. The VDM running 16-bit applications for Windows translates the applications' output calls into Win32 calls and sends them in a message to the Win32 subsystem for display. The OS/2 and POSIX subsystems, as well as any VDMs running MS-DOS-based applications, direct their applications' character-mode output to the Win32 subsystem, which displays the output in character-mode windows, called consoles.

An environment subsystem can support many client applications. Each subsystem keeps track of its clients and maintains any global information that all the client applications share. Although several subsystems and VDMs might be running, Win32 is the only environment subsystem that makes itself visible. To the user, it appears that Windows NT runs all the applications.

Native Services

Environment subsystems implement their API routines by calling Windows NT native services (the system services provided by individual components of the Windows NT Executive). The virtual memory (VM) manager supplies memory allocation and deallocation services, for example, while the Process Manager provides services to create and terminate processes and threads. When a subsystem calls a Windows NT native service, hardware detects the call and transfers control to the Windows NT Executive. The service then runs in kernel mode.

Because the native services are used by different environment subsystems, they must be: general, flexible and without side effects that might conflict with the environment subsystems. One way in which the native services are flexible is in their ability to act on any process the caller specifies. The caller supplies a handle to a process, and the service operates on that process.

Example: The subsystem can call a native service to create a thread or allocate memory for one of its client processes, because most normal processes cannot perform such operations on other processes. Environment subsystems have powerful access tokens that grant them control over their clients.

Protected subsystems, DLLs, and components of the Windows NT Executive are the primary users of Windows NT native services.

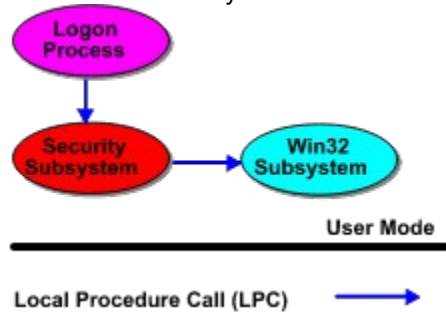
Integral Subsystems

Integral subsystems are servers that perform important operating system functions. An example of an integral subsystem is the security subsystem.

Several components of the Windows NT networking software are also implemented as integral subsystems. Two such components are the workstation service and the server service. Both of these services are user-mode processes that implement an API to access and manage the LAN Manager network redirector and server, respectively. The server sits on the remote machine and receives remote requests from the redirector. Both the LAN Manager redirector and the LAN Manager server are implemented as file system drivers.

Logon Session

Windows NT is a secure operating system that requires each user to establish an account and to log onto that account before they can use the system. Each user account has a security profile, which is a collection of security-related information stored in a system database. The security subsystem uses this information to verify that users are who they claim to be.



A security system process, called a logon process, waits for user input. Several logon processes can be active, each one monitoring a separate class of logon devices like a keyboard/mouse combination or a network connection. A thread in the process detects when a user attempts to access the system and prompts the user for an account name and a password.

The logon process then passes the user's information to the security subsystem, which checks the information against a security database. If the logon is authentic, the subsystem creates an object that uniquely identifies this user in all subsequent transactions. The object, called an access token, is the key to security in Windows NT: It determines which system resources the user's threads can access.

After the user's identity is established, the security subsystem creates a process, attaches the user's access token to it, and then passes the process to the Win32 subsystem, which runs the Win32 Program Manager in the process's address space. With that, the user has established a logon session.

Windows NT supports both local and remote logons, and a server machine running Windows NT is likely to have numerous logon sessions active at the same time.

As soon as an interactive user successfully logs onto Windows NT, the Win32 subsystem takes control of the screen. Windows NT looks like, and is compatible with, Windows 3.1. With Windows NT, users can transparently run Win32-based programs and 16-bit Windows-based programs, as well as programs for MS-DOS, OS/2, and POSIX.

Structured Exception Handling

The second special architecture supported and used by Windows NT is called structured exception handling. Exceptions are synchronous errors or atypical events that cause the execution of code outside the normal flow of control. Unlike interrupts, which are generated from an external source, exceptions occur when a program executes a particular code sequence. Exceptions can also be reproduced.

Exception handlers and termination handlers can be used separately or in combination to achieve robust behavior in any application. Windows NT uses both to ensure robust behavior at all levels of the system.

Related Topics:

[Exception Handler](#)

[Termination Handler](#)

Exception Handler

Structured exception handling is the way Windows NT processes hardware and software exceptions. With this technique, any block of code can determine which exceptions to guard against and register a special code sequence (the exception handler) to be executed if the exceptions occur.

Each block of code can have a separate exception handler, and exception handlers can even be nested within one another. When an exception occurs, the exception filter can test the type of exception and conditionally tell the operating system to execute the exception handler, continue the program, terminate the program, or look for an exception handler in an enclosing block of code.

Operating system exceptions aren't the only exceptions to which applications might want to respond. Applications can generate an exception using the Win32 API routine `RaiseException()`, causing control to transfer to a registered exception handler. The operating system supports this operation by registering exception handlers and searching for them in the proper order when exceptions are raised. If no exception handler takes care of the problem, the operating system terminates the program that caused the error. The Windows NT exception-handling facility is not language specific; a single mechanism is used across all languages, each language defining how the underlying exception-handling mechanism is exposed.

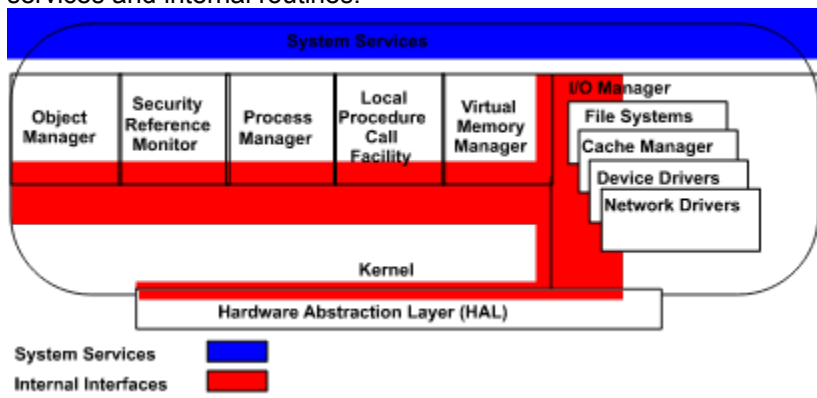
Termination Handler

A termination handler ensures that a particular block of code always executes, even if a guarded block of code terminates in an unexpected way. Termination handlers often contain code that frees allocated resources so that if a procedure terminates unexpectedly, the resources it allocated are released back to the system.

Example: A thread gains access to the critical section, allocates a buffer, and then modifies the buffer. If something goes wrong (an unhandled exception, perhaps) and causes the routine to terminate while the thread is in the critical section, any other thread waiting for the resource will be perpetually blocked. Furthermore, the buffer that the thread allocated will be lost, with the operating system unable to recover it. These errors are sometimes called memory leaks because if too many occur, available memory gradually "drains away." The termination handler ensures that the thread releases the critical section object and frees the buffer.

Windows NT Executive

The Windows NT Executive is the kernel mode part of Windows NT and is a complete operating system without a user interface. The executive is a series of components, each performing two functions: system services and internal routines.



Although the executive provides API-like system services, it is fundamentally different from the environment subsystems. It does not run continually in a process of its own, but instead runs in the context of an existing process by taking over an executing thread when important system events occur.

Example: When a thread calls a system service and is trapped by the processor or when an external device interrupts the processor, the Windows NT kernel gains control of the thread that was running. The kernel calls the appropriate system code to handle the event, executes it, and then returns control to the code that was executing before the interruption.

Executive components maintain independence from one another, each creating and manipulating the system data structures it requires. Because the interfaces between components are carefully controlled, it is possible to completely remove a component from the operating system and replace it. As long as the new version implements all the system services and internal interfaces correctly, the operating system runs as before. Maintaining the operating system is also an easier task because the executive components interact in predictable ways.

The executive manages the following components:

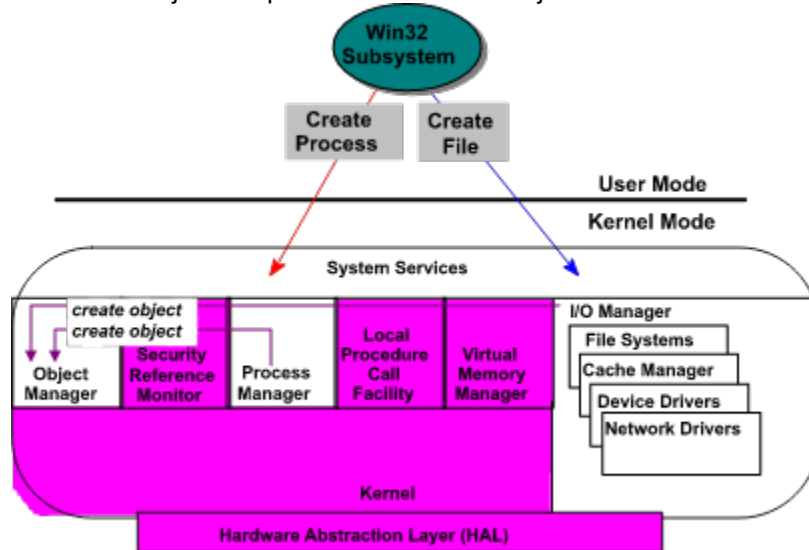
- Kernel
- Security Reference Monitor
- Process Manager
- Local Procedure Call (LPC) facility
- Virtual Memory (VM) Manager
- Object Manager
- I/O System
- Hardware Abstraction Layer (HAL)

Object Manager

The object manager creates, manages, and deletes Windows NT Executive objects. Many Windows NT native services are object services, meaning that they perform some action on an object in the Windows NT Executive. A thread opens a handle to an object and then uses that handle when calling services to operate on the object.

Shareable resources, including processes, threads, files, and shared memory, are implemented as objects in the Windows NT Executive. This allows the operating system to take advantage of the similarities among resources and to use common code wherever possible to manage them. The Windows NT object system is a focal point for several resource management tasks, such as resource naming, placing limits (called quotas) on the amount of resources each process can use, sharing resources between two processes, and securing resources against unauthorized access.

Environment subsystems frequently call object services to create, open a handle to, manipulate, or delete objects. Example Much of the Windows NT resource management takes place when some process creates an object or opens a handle to an object.



Objects are allocated from operating system memory. To keep any one process from using too much system memory, processes are given quotas that limit how much memory they can use.

As well as managing and sharing resources, the Windows NT object system is a focal point for resource security. When a process opens a handle to a Windows NT object, the Windows NT security subsystem is activated. Each object has attached to it a small database, called an access control list (ACL), containing information regarding which processes can access the object and what they can do to it. When a process opens a handle to an object, it specifies the operations it wants to perform.

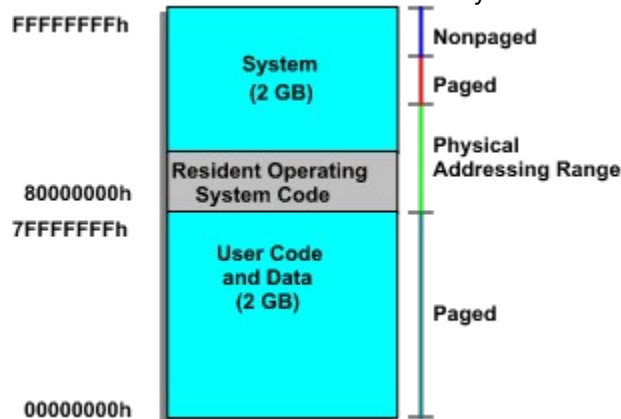
Example: A process opens a file for read access. The security system checks whether the process is allowed read access to the file object, and if so, the object manager returns an object handle containing read access. The caller can then use the handle to read from that particular file.

Because a process must open a handle to an object before it can do anything to it and because opening a handle invokes the security system, no process can bypass Windows NT security.

If the user starts a Win32-based application, the Win32 subsystem calls the Windows NT Process Manager to create a process and open a handle to it. The process manager, in turn, calls the object manager to create a process object and a thread object. Similarly, if the user saves data from the application, the Win32 subsystem calls the Windows NT I/O manager to create a file object that represents the file in which the spreadsheet is stored and to open a handle to the object. The I/O manager calls the object manager to do the job.

Virtual Memory (VM) Manager

Windows NT implements virtual memory (VM), a memory management scheme that provides a large, private address space for each process and protects it from other processes. When more memory is needed than there is available RAM, the Virtual Memory manager transfers selected RAM contents to disk and reloads the contents when they are used again. This is called paging.



In Windows NT, application programs run in an operating system environment that behaves like Windows, MS-DOS, POSIX, or OS/2. The challenge is to allow all the different types of applications to run without being rewritten and without bumping into each other in memory.

Each of the Windows NT environment subsystems provides a view of memory that corresponds to what its applications expect. Underneath the environment subsystems, the Windows NT Executive has its own memory structure, which the environment subsystems access by calling Windows NT native services.

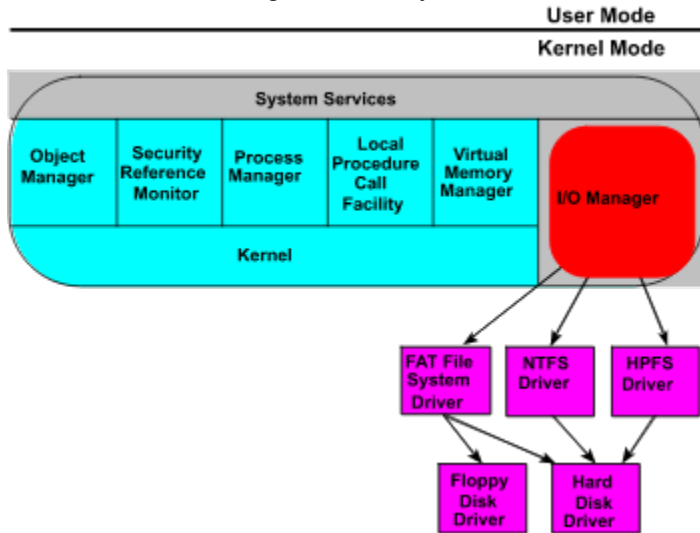
The Windows NT memory architecture is a virtual memory system based on 32-bit addresses in a flat (linear) address space. A process's virtual address space is the set of addresses available for the process's threads to use. At runtime, the Virtual Memory manager, with assistance from hardware, translates, or maps, the virtual addresses into physical addresses, where the data is actually stored. By controlling the mapping, the operating system can ensure that individual processes don't bump into one another or overwrite the operating system.

The Windows NT operating system resides in high virtual memory and the user's code and data reside in low virtual memory. A user-mode thread cannot read or write to system memory directly.

A portion of the system memory, called nonpaged pool, is never paged to disk and is used to store some Windows NT objects and other important data structures. Another portion of system memory, called paged pool, is paged to disk. All of user memory can be paged.

I/O System and I/O Manager

A group of components that process input and output between a variety of devices. The I/O system includes the I/O manager and file systems.



As with memory, environment subsystems provide whatever I/O facilities their applications expect. They implement those individual facilities by calling native Windows NT I/O services.

The native I/O system uses an asynchronous I/O model, but it provides system services that allow environment subsystems to use either synchronous or asynchronous I/O.

Windows NT supports multiple file systems, including the file allocation table (FAT), the high performance file system (HPFS), and a new file system called the Windows NT file system (NTFS). NTFS extends the capabilities present in both the FAT file system and the HPFS to add:

- **File system recovery**, that allows for quick restoration of disk-based data after a system failure.
- **The ability to handle large storage media**: approximately 17 billion gigabytes in size.
- **Security features**, including execute-only files.
- **Unicode filenames**, which allow documents to be transferred from one computer to another internationally, without disrupting filenames and pathnames.
- **Support for the POSIX operating system environment**, including hard links, case-sensitive names, and information about when a file was last opened.
- **Features for future extensibility**, such as transaction-based operations to support fault tolerant applications, user-controlled version numbers for files, multiple data streams per file, flexible options for file naming and file attributes, and support for popular file servers.
- **Network redirector and network server** are file system drivers that send and receive remote I/O requests to a machine on the network.
- **Executive device drivers** are low-level drivers that directly manipulate hardware to write output to or retrieve input from a physical device or network.
- **Cache manager** improves the performance of file-based I/O by storing the most recently read disk

information in system memory. The cache manager uses the VM manager's paging facility to automatically write modifications to the disk in the background.

Hardware Abstraction Layer (HAL)

The HAL isolates the Windows NT Executive from the hardware platform on which Windows NT is running.

Rather than access hardware directly, Windows NT Executive components maintain maximum portability by calling the HAL routines when they need platform-dependent information.

Platform-dependent code (code that relies on a particular manufacturer's hardware implementation) is located in the HAL and is provided by individual computer manufacturers. Device drivers avoid processor-dependent and platform-dependent code by calling kernel routines and HAL routines.

Installation: Everything You Need is In the Box

Windows NT Server includes the utilities, protocols, and services you need, so there's nothing extra to buy or find.

- Client software
- Management tools
- Remote Program Load for clients
- Open network protocols including TCP/IP, IPX/SPX, NetBEUI, AFP, and DLC.
- Remote Access Service for mobile and remote users
- Services for Macintosh (allows Macintosh users to connect to Windows NT Server)
- The most popular device drivers

Related Topics:

[Windows NT Server is Easy to Install, So You Can Be Up and Running Quickly](#)

[Windows NT Server is Engineered to be Maintenance-Free](#)

Windows NT Server is Easy to Install, So You Can Be Up and Running Quickly

Windows NT Server provides a number of features that make installation quick and easy:

- Hardware autodetect eliminates the need to create configurations by hand.
- Windows-style consistency makes it easy to get your network up and running.
- CD-ROM-based installation with ExpressSetup reduces installation time.
- Nearly every new personal computer ships with Windows for Workgroups, so most personal computers are ready to use with Windows NT Server the moment they come out of the box.
- Client software configuration utilities make it easier than ever to get new clients up and running quickly.
- Upgrade utilities make it easy to migrate servers from NetWare, LAN Manager, and other networks.

Windows NT Server is Engineered to be Maintenance-Free

Good design and thorough testing mean reduced maintenance:

- Auto-tuning eliminates the need to study and adjust complex parameters.
- Tested for thousands of ours in real-life, high-volume networks on a variety of hardware platforms.
- Remoteboot Service allows Windows 3.x and MS-DOS clients to boot their computers using software on the server's hard disk instead of the client's local hard disk.

Integration with Existing Networks

[Microsoft SNA Server for Windows NT Server](#)

[Integrating Windows NT and Novell NetWare](#)

[Integrating Windows NT and UNIX](#)

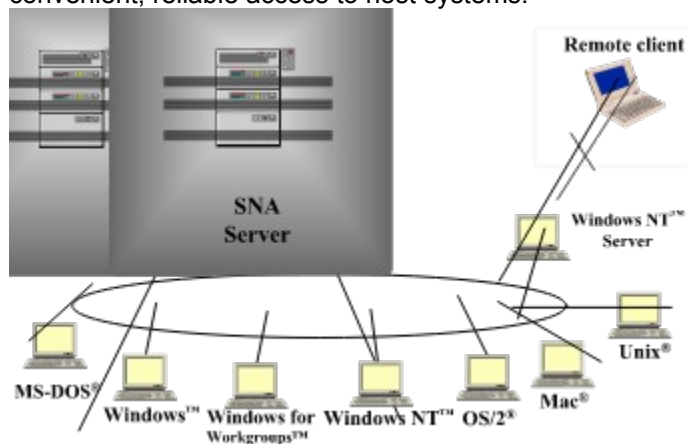
[PATHWORKS for Windows NT Server](#)

[Windows NT Server and Microsoft LAN Manager](#)

[Windows NT Services for Macintosh](#)

Microsoft SNA Server for Windows NT Server

Microsoft SNA Server makes it easy to connect personal computers to IBM® mainframe and AS/400 applications. Graphical administration tools help you configure and manage that connectivity, giving users convenient, reliable access to host systems.



SNA Server can support multiple concurrent host connections (802.2, SDLC, X.25/QLLC, DFT, Twinax and Channel), and multiple concurrent LAN protocols (Named pipes, TCP/IP, IPX/SPX, Banyan Vines, AppleTalk, and RAS) in the same Windows NT Server Domain. UNIX systems are supported via the TN3270 server provided by Open Connect Systems.

Related Topics:

[Overview](#)

[The Easy, Efficient Way to Bring SNA Connectivity to Your Enterprise](#)

[Flexible Multivendor Client and Host Connectivity](#)

Overview

Microsoft SNA Server makes enterprise-wide connectivity easy and economical. SNA Server combines the familiar user interface of desktop personal computers with the flexibility of modern LAN systems to offer personal computer users reliable and secure access to IBM® host computing.

To maximize the power of your host computers and desktop personal computers, SNA Server uses advanced client-server architecture to distribute the communications processing. Each personal computer uses standard LAN protocols, such as IPX/SPX or TCP/IP, to connect to one or more SNA Servers. The SNA communications workload is carried by the servers, using the SNA protocols to provide shared links to host computers. This reduces the storage and processing requirements on desktop personal computers, and allows the use of only one protocol on each personal computer. SNA Server also offers advanced tools for easy system setup and centralized graphical administration while supporting every important personal computer operating system, LAN operating system, SNA host connection, and host type. You can manage SNA Servers across LAN and WAN bridges, routers, and even over dial-up lines, using the Microsoft Windows NT Remote Access Service (RAS).

This flexibility, combined with the industry-standard SNA APIs for development of integrated SNA applications across personal computers and hosts, makes Microsoft SNA Server the best platform for integrating these two diverse environments. You can take advantage of new client-server applications that move your organization forward without abandoning your line-of-business applications and data on the hosts.

Flexible Connectivity

Microsoft SNA Server places virtually no restrictions on how you can mix LAN and SNA protocols, how many connections you allow, or how those connections are made. This makes SNA Server an excellent choice in a multivendor, multiprotocol environment, ensuring the gateway you standardize on is capable of handling your changing business needs.

Easy Configuration and Management

The context-sensitive on-line help walks you through configuration, complete with suggestions in many instances.

Once SNA Server is configured, you can monitor performance graphically with the Windows NT performance monitor, review a comprehensive event and audit log, and perform tracing without disrupting existing users or host connections. Management from NetView is equally efficient: receive any Windows NT events as alerts in NetView and issue any Windows NT command from the NetView console.

More Powerful and Scalable

SNA Server uses system resources efficiently, reducing the cost of expanding your system over time. Available memory shifts automatically to the active connections: if there is not enough memory for peak loads, the system benefits from Windows NT's virtual memory so that no sessions are lost. Asynchronous I/O, multithreaded design, SMP and RISC platform support makes it possible to gradually scale to larger systems as your needs grow. A single SNA Server can support 2,000 users and 10,000 LU sessions. You can easily run other server applications on the same system.

Secure and Reliable Throughput

Fault tolerance, load balancing, and tight security make SNA Server an excellent platform for reliable access to corporate data. Clients automatically connect to the least-loaded server that provides the requested connection to the host. In case of connection failure, the client is automatically routed to a backup connection, either on the same or a backup server. This ensures consistent high availability of host-based data. SNA Server is integrated with the security in Microsoft Windows NT Server, extending the C2-level security to SNA data, even in a NetWare or a TCP/IP environment.

The Easy, Efficient Way to Bring SNA Connectivity to Your Enterprise

Microsoft SNA Server simplifies the process of delivering SNA connectivity across Named Pipes, TCP/IP, IPX/SPX, Banyan Vines, AppleTalk and RAS. Usability-tested, intuitive graphical administration tools make it easy to install, configure, manage, troubleshoot, and use SNA Server in both centralized and branch configurations.

Optimize for Reliability and Security

When servers are placed together in a centralized configuration, Microsoft SNA Server can best offer the benefits of automatic load balancing and hot backup. A single routable protocol, such as TCP/IP can be used throughout the network, and all administration can be performed by SNA-trained MIS personnel. Compatibility with NetView makes SNA Server easy to monitor and manage in mainframe environments.

Optimize for Efficiency and Ease-of-Use

When servers are dispersed to local sites in a branch configuration, Microsoft SNA Server can be used highly efficiently on a multi-function departmental server that also runs a database, mail, or other local services. This reduces traffic on the WAN and increases responsiveness to user needs through local management of connections, LUs, and security. Graphical tools and remote administration capabilities over RAS reduce the level of SNA familiarity required for administration.

Flexible Multivendor Client and Host Connectivity

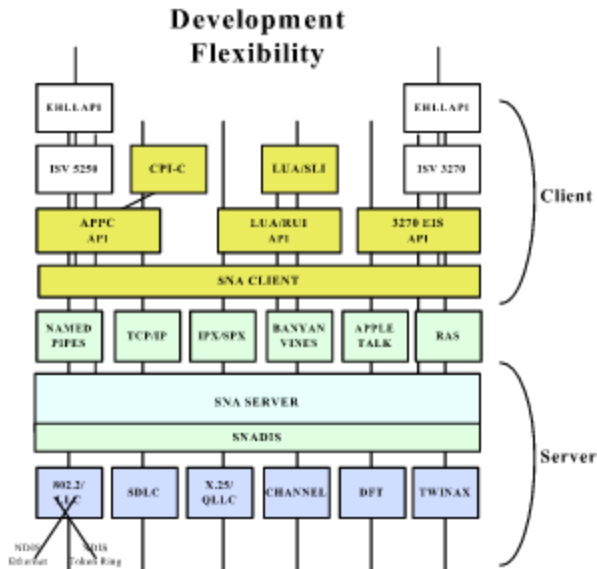
Microsoft SNA Server includes extensive support for industry-standard client and server protocols and APIs, making it an ideal tool for integrating diverse systems within your enterprise.

Open APIs

Development is equally flexible. The Microsoft SNA Server APIs, specified by 20 leading SNA vendors, have gained broad industry support from established emulator, adapter, and gateway vendors. These companies are realizing the benefits of full SDK support and dynamic tracing tools as well as bundled emulator applets (3270 and 5250), which are useful for testing and troubleshooting their SNA applications.

Applications can take advantage of EHLLAPI through third-party 3270 or 5250 emulators. Advanced LU 6.2 applications can use either CPI-C or APPC APIs. The ISV 5250 emulators are written to the APPC interface.

The ISV 3270 emulators are supported via the open 3270 EIS API. LUA applications can use either LUA/RUI or LUA/SLI APIs to gain access to the LU 0, LU 1, LU 2, and LU 3 data streams.



SNA Server can use any LAN transport on any of the platforms supported by Windows NT

The open SNA adapter support is provided through the SNADIS interface.

Full WOSA Compliance

All SNA Server APIs (APPC, CPI-C, LUA, and CSV) are fully compatible with the WOSA SNA API standard, endorsed by the leading SNA vendors: Andrew Corporation, Attachmate, Data Connection Ltd., DCA, Easel, Eicon Technology, FutureSoft, IBM, ICOT, ICL, Microsoft, MultiSoft, NCR, Novell, NetSoft, Olivetti, Siemens-Nixdorf, Systems Strategies, and Wall Data.

Integrating Windows NT and Novell NetWare

Windows NT Server is designed to integrate seamlessly into Novell NetWare networks. Windows NT Server will add substantial value to an existing NetWare network as a mission-critical application server, a remote access gateway for mobile and remote users, and as an easy-to-use server for Macintosh users that need access to Windows NT Server or NetWare resources.

Related Topics:

[Why Use Windows NT Server as an Application Server](#)

[The Advanced Features of Windows NT Server](#)

[NWLink: The IPX/SPX Compatible Transport for Windows NT](#)

[Gateway Services for NetWare](#)

[Migration Tool for NetWare](#)

Why Use Windows NT Server as an Application Server

Windows NT Server offers the advanced features that MIS managers, software developers, and systems integrators have come to expect on platforms designed for business solutions. Windows NT Server is a comprehensive server operating system that provides the excellent performance, connectivity, and manageability of traditional network operating systems. However, it also offers the security, fault-tolerance, process protection, and solutions found on business-critical application servers like UNIX or VMS®. And, Windows NT Server is consistent across a variety of hardware platforms such as Intel, MIPS, Digital's Alpha and, soon, the PowerPC. So you can choose the hardware that best meets your needs while maintaining application compatibility across platforms.

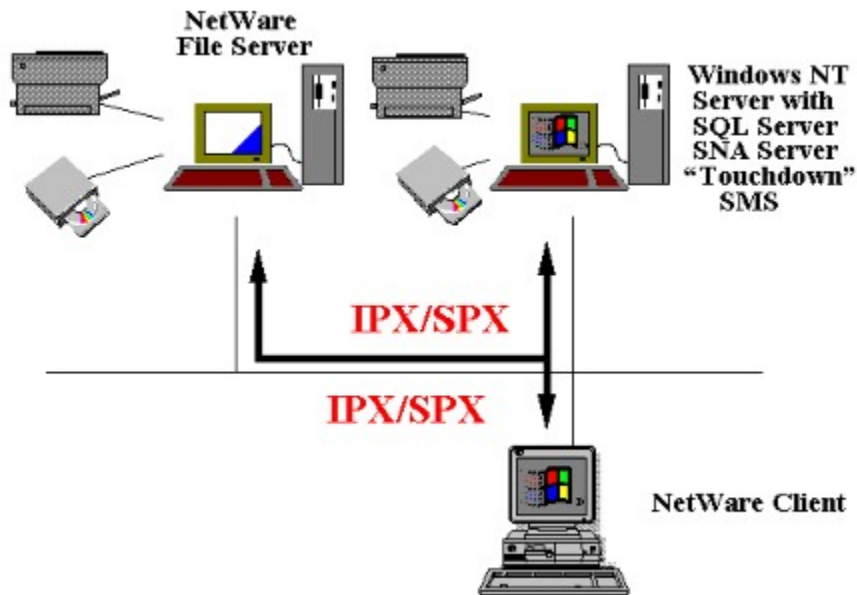
The Advanced Features of Windows NT Server

Windows NT Server offers these advanced features:

- Preemptive multitasking to provide the responsiveness required to support multiple applications and multiple users on a single server
- Multithreading to facilitate the design and development of complex applications
- **Symmetric multiprocessing** to build solutions that benefit from scalable power effectively without limits
- **Portability to RISC-based systems**, which give you a choice of hardware architectures
- **Advanced fault tolerance** to provide the data integrity required for important business information
- **Virtual memory with protection** so that multiple applications can run on a server without corrupting each other or the system
- **Distributed inter-process communications mechanisms**, which enable client-server applications to be written easily and independently of the underlying network
- **Security model**, which provides full discretionary access so that business data can be accessed by the right people in the right way
- **Support for multiple network interface cards** on one segment, so that extra network bandwidth can be added to support additional users

NWLink: The IPX/SPX Compatible Transport for Windows NT

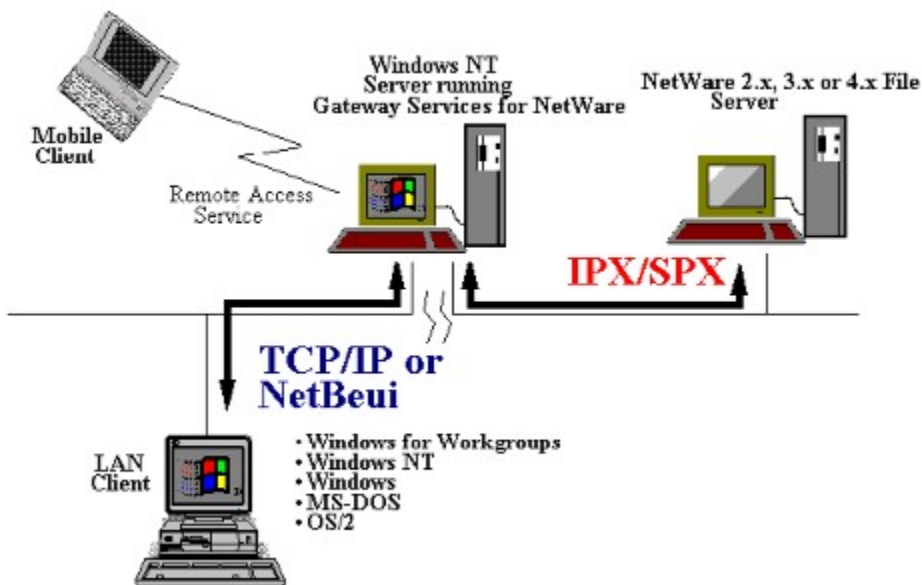
Today, customers can take advantage of the new generation of server applications for Windows NT Server without changing their existing network. To facilitate the integration of Windows NT Server with existing NetWare clients, Microsoft has included its own transport fully compatible with the IPX/SPX transport called NWLink. With NWLink, NetWare clients can access server applications such as Microsoft SQL Server™, SNA Server and others running on Windows NT Server without changing their client software.



Gateway Services for NetWare

The Gateway Service for NetWare provides NetWare server access to local, remote, and Macintosh users who are connected to a Windows NT Server. It is an ideal integration tool for companies that have both NetWare and Windows NT Servers because it requires only one set of client software to access both types of servers. The network administrator controls who and how many people have access to the gateway so only those with permission can use file and print resources on designated NetWare servers. Customers use the Gateway Service for NetWare to isolate IPX/SPX traffic and ease the transition to TCP/IP. In addition, their Microsoft Remote Access Service and Macintosh users can also connect to NetWare resources via the gateway.

The Gateway Service for NetWare is installed as a service on the Windows NT Server. It is available to authorized users as long as the system is running and requires no special intervention once it is configured.



Migration Tool for NetWare

The Migration Tool for NetWare in Windows NT Server aids network administrators by copying user accounts and files from NetWare 2.x and 3.x servers to a Windows NT Server-based computer while maintaining security. It has the capabilities of both an integration and migration tool.

In a migration environment, the Migration Tool for NetWare allows the administrator great flexibility in transferring user accounts and data to the Windows NT platform. Users can migrate a single NetWare server to a single Windows NT Server, multiple NetWare servers to a single Windows NT Server, or many other configurations allowing for the redistribution of information across the servers in your network. Since there are some security differences between NetWare and Windows NT Server, the Migration Tool includes a trial migration process that generates detailed log files. These files eliminate the guess work and assist the administrator in keeping track of any changes that may occur during the migration process.

When integrating new servers into a network, administrators are always looking for ways to avoid having to duplicate user accounts across a variety of servers. The Migration Tool for NetWare simply copies the users, groups, files, and directories to the Windows NT Server without affecting the NetWare server. Server applications such as SQL Server, SNA Server and Exchange Server share the same user account database as Windows NT Server. Therefore, you can use the migration tool to automatically copy user accounts from the NetWare server and mirror those NetWare accounts on the Windows NT Server, saving the administrator valuable time with the initial server setup. Services for NetWare in Windows NT is based on broad customer feedback and has helped many customers smoothly integrate solutions on Windows NT and Windows NT Server into their NetWare environments. You can now give your users a new generation of business applications built on the Windows NT with seamless integration with your NetWare network.

Integrating Windows NT and UNIX

Many Ways to Interoperate

Common, Standard Networking Protocols

Standards-based Distributed Processing Support

Standards-based File Systems and Data Sharing

Easy Application Portability

Windows NT Server Delivers Open Systems Benefits

Many Ways to Interoperate

Support for widely available, industry standard communications capabilities is critical to providing interoperability in an operating system. Many important, standards-based interoperability capabilities, such as support for TCP/IP, are built into Windows NT Server. Independent software vendors (ISVs) are also providing a rich selection of third-party interoperability tools.

Windows NT Server fits well into environments that contain UNIX-based systems, through:

- Common, standard networking protocols (including TCP/IP)
- Character and graphical terminal support
- Standards-based distributed processing support
- Standards-based file systems and data sharing
- Easy application portability.

Means of Integration

Portable applications

Share files and information

Access UNIX applications

Networking and distributed processing

Standards Supported

Native ports (extensive standard c libs)

POSIX (IEEE 1003.1-1990)

Windows Libraries for UNIX

LAN Manager for UNIX

SMB -- an X/Open standard

NFS from third parties (such as SunSelect)

Telnet

X Server from third parties (such as DEC, NCD)

TCP/IP protocols and utilities

SNMP (standard MIBs, extension agents)

Windows Sockets

DCE-compatible RPC

Common, Standard Networking Protocols

At the most basic level, Windows NT Server includes communications protocol support, network utilities, and APIs that allow Windows NT Server to communicate with most UNIX variants:

- **TCP/IP** - Windows NT Server has TCP/IP support built in, so Windows NT Server can communicate "right out of the box" with most UNIX variants.
- **TCP/IP Utilities** - More than a dozen basic network utilities are included with Windows NT Server, including utilities that provide terminal access to or file transfer capabilities to and from most UNIX-based systems.
- **SNMP Support** - Windows NT Server provides several facilities for integrating Windows NT Server-based systems into networks that employ Simple Network Management Protocol (SNMP), a common TCP/IP-based network management facility.

Standards-based Distributed Processing Support

Windows NT Server includes powerful application programming interfaces (APIs) to flexibly support computing in a distributed environment.

- **DCE Compatible RPC** - Remote procedure calls (RPCs) are a critical component needed to build distributed applications. The RPC built into Windows NT Server is compatible with the Open Software Foundation's Distributed Computing Environment (DCE) RPC. Using this RPC, customers can build distributed applications that include not just other Windows NT Server systems, but *any* system that supports DCE compatible RPCs—including systems from DEC, HP and other vendors.
- **Windows Sockets** - Windows Sockets is an API compatible with Berkeley-style sockets, a popular distributed computing mechanism among UNIX variants. Windows Sockets enables customers to build applications that interoperate with any other system that supports this industry-standard API.
- **Windows Open Services Architecture (WOSA)** - Microsoft is leading the industry in the development of the Windows Open Services Architecture (WOSA), a set of open APIs for integrating Windows platforms with a broad range of back-end services from multiple vendors and running on multiple back-end systems.

Standards-based File Systems and Data Sharing

- **LAN Manager for UNIX (LMU)** - LMU is an implementation of Microsoft Windows-based networking for servers that run UNIX variants. LMU allows Microsoft network clients to access data stored on UNIX hosts (including data on remotely mountable UNIX file systems, such as NFS, RFS, and AFS). LMU is based on SMBs, a set of protocols developed by Microsoft that are now an X/Open standard.
- **NFS** - Sun's Network File System (NFS) is a popular tool for sharing files among different UNIX operating systems, and will be available for Windows NT Server from several third parties (including SunSelect and Intergraph).
- **FTP** - Microsoft has also developed client and server versions of File Transfer Protocol (FTP) for Windows NT Server. FTP is a popular TCP/IP-based utility that allows users to copy files among diverse systems (including UNIX and non-UNIX systems).

Easy Application Portability

- **Native Application Ports** - Thousands of 32-bit Windows-based applications are being developed for Windows NT Server, including large numbers of applications first developed for UNIX variants, VMS, or MVS (approximately 25% of the applications being developed for Windows NT Server are ports from these other platforms). Many UNIX ISVs are porting their high-end technical and business applications to Windows NT Server.
- **POSIX** - The IEEE 1003.1-1990 standard (usually referred to as POSIX.1) specifies a set of APIs that describe an interface between applications and an operating system. Windows NT Server includes a protected subsystem that provides full support for POSIX.1.
- **Windows Libraries for UNIX** - Microsoft recently announced the licensing of Windows source code, test suites, trademark, and logo to select third-parties (initially Insignia Solutions). These third-parties will develop products that will bring genuine Windows support to a variety of UNIX platforms.

Windows NT Server Delivers Open Systems Benefits

UNIX market fragmentation and vendor differences have prevented UNIX customers from realizing the full promise of open systems. Microsoft Windows NT Server—and the entire family of Windows operating systems—deliver open systems benefits *today*.

Vendor	Microsoft	OEMs (DEC, Sequent, Compaq, etc.)		
Operating system	Windows NT			
Hardware platform	Intel	MIPS	Alpha	Other RISC & SMP
Graphics	Win32			
User interface	Windows			
Style guide	Microsoft			

Windows NT Server provides full source *portability* across Intel- and RISC-based systems (Digital Alpha AXP, MIPS R4X00, etc.). It provides *scalability* through symmetric multiprocessor (SMP) support, choice of CPU technologies (Intel or RISC), and the availability of a whole scalable family of Windows operating systems. It provides *interoperability* based on industry standards (e.g. TCP/IP, DCE compatible RPC, Windows Sockets).

But most importantly, Windows NT Server delivers *freedom of choice*, the most important benefit that open systems customers seek—the freedom to build business solutions flexibly and cost-effectively.

Windows NT Server provides:

- Choice of a large library of easy-to-use applications at reasonable prices
- Access to a rich set of widely published programming APIs (including standard distributed processing APIs) and a rich set of powerful development tools to leverage them
- The ability to choose freely from multiple standard network protocols
- The independence to choose from a variety of scalable Intel and RISC systems depending on their application requirements
- The freedom to select systems vendors based on price/performance, service/support, or other appropriate criteria without being locked into any one vendors' hardware and operating system
- Access to a large and dynamic group of systems integrators, VARs and consultants who can help them build and support their mission-critical, client-server applications.

No other operating system (including the many UNIX variants) provides the freedom of choice, flexibility and value of Windows NT Server.

PATHWORKS for Windows NT Server

PATHWORKS for Windows NT, as a member of the PATHWORKS family of personal computer networking and integration software, expands the interoperability potential of Windows NT based systems with other leading network operating systems, desktop and departmental systems, and enterprise-wide data and applications.

Windows NT provides out-of-the-box networking based on LAN Manager compatible file and print services and the NetBEUI and TCP/IP transports. As an add-on product, customers may purchase the Windows NT Server. This Microsoft product enables a Windows NT based system to be configured as a server providing dial-up services (Remote Access Service), Macintosh connectivity, and system management (based on SNMP and Domain administration services).

PATHWORKS for Windows NT provides and uses the DECnet transport and is designed to use any combination of DECnet and the other transports provided with Windows NT.

If you only want file and print access to PATHWORKS servers throughout the network, you must purchase a PATHWORKS Version 5 FPA license. If you want to use the DECnet transport, you must purchase a PATHWORKS for Windows NT Version 4.1 CNS license. If you want to do both of the above, you can purchase the PATHWORKS for Windows NT Version 4.1 CCS license at a significant cost saving over the combined cost of the FPA and CNS licenses described above.

PATHWORKS for Windows NT is a layered application designed for Alpha AXP, Intel, and MIPS R4000 systems that have been properly configured to run the Windows NT operating system.

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Related Topics:

[Integrating Diverse Systems and Networks](#)

[Programming to Industry Standard APIs](#)

Integrating Diverse Systems and Networks

PATHWORKS for Windows NT enhances your Windows NT interoperability with other networks and systems you may already have in place. PATHWORKS for Windows NT provides:

- Full support for Windows NT file and print services, connectivity and management features
- Integration of emerging technology with existing systems: PATHWORKS for OpenVMS, ULTRIX, OSF/1, SCO UNIX, OS/2, and DOS/Windows.
- DECnet transport including source routing over Token Ring in addition to TCP/IP and NetBEUI
- Support for FDDI (via Digital's FDDI EISA card) and asynchronous connection in addition to Ethernet and Token Ring.
- Remote and local print server support
- Replacement for OS/2 servers - Digital Alpha AXP or Intel systems with PATHWORKS for Windows NT provide a high-performance upgrade or replacement for OS/2 servers.

PATHWORKS for Windows NT expands your network management capabilities through:

- Seamless integration of DECnet network management support with Windows NT management: DECnet events appear in the NT Event Viewer and Performance Monitor
- Remote management of Windows NT systems

Programming to Industry Standard APIs

PATHWORKS for Windows NT with DECnet support for Winsock, NetBIOS, LAN manager, and DCE Remote Procedure Call APIs together with the tools for developers (in the separate developers kit) to write and port custom applications—the PATHWORKS Socket API, DNETLIB, and XTI—provides a rich set of industry standard APIs to the network developer.

The OpenVMS, ULTRIX, Windows and MS-DOS-based applications and tools available for Windows NT, such as the PATHWORKS Socket API Library, enable you to port DOS, Windows, and ULTRIX PATHWORKS-based 16-bit applications to the 32-bit Windows NT environment. This allows you to avoid compatibility mode and its disadvantages and helps you to transition smoothly to the new Windows NT operating system.

In the interim you also have MS-DOS binary compatibility mode for PATHWORKS-specific APIs allowing existing MS-DOS and MS-Windows applications to run without change (this applies only to Alpha AXP and Intel systems).

The DECnet support for Winsock and DCE Remote Procedure Call APIs ensures future compatibility with the leading industry environments.

Windows NT Server and Microsoft LAN Manager

If you currently have a Microsoft® LAN Manager™ network, integrating with the Microsoft Windows NT Server operating system and upgrading to Windows NT Server are both reasonably simple, with worthwhile benefits. Windows NT Server integrates seamlessly with LAN Manager, letting you move at your own pace; Windows NT Server reduces network administration and increases the capacity and fault tolerance capabilities of your Domain Controller.

Related Topics:

[Integrating Windows NT Server with MS LAN Manager](#)

[How to Upgrade from LAN Manager to Windows NT Server](#)

[Windows NT Server Upgrade Utilities](#)

Integrating Windows NT Server with MS LAN Manager

Depending on your requirements, there are several ways to incorporate a Windows NT client or server into a LAN Manager network domain. No additional software or licensing is required.

Add a Windows NT Workstation

To make a Windows NT workstation a member of the LAN Manager domain, you can add it to the LAN Manager user account, as you would another LAN Manager user. You can then set up permission on the Windows NT workstation to help other clients within the LAN Manager domain share resources, such as printers, CD ROMs, and folders. This permission exists independently of domain administration rules.

Add a Windows NT Server

You can access the new Windows NT Server in the same straightforward that way you access your LAN Manager servers, so you can test the power of Windows NT without making changes to your existing infrastructure and set benchmarks against other server operating systems. A Windows for Workgroups client, for instance, can access other types of servers such as NetWare, LAN Server, LAN Manager, or Windows NT Server.

The power and portability of Windows NT Server, combined with its intuitive administration model, make it an excellent application server. Demonstrate this by adding it to a small department server in which Windows NT Server is the primary domain controller, with knowledge of all user accounts. You will quickly experience the advantage of using its built-in monitoring and administrative functions to centrally manage both clients and servers.

How to Upgrade from LAN Manager to Windows NT Server

Windows NT Server and LAN Manager servers can coexist and share resources in the same domain or network, allowing you to upgrade your network as your schedule permits.

There are two methods of upgrading to Windows NT Server: a clone upgrade and an in-place upgrade.

For a clone upgrade, install Windows NT Server on a separate computer and transfer (clone) the LAN Manager server data and services from an existing server to the new Windows NT Server. This method is recommended for your evaluation, because:

- It is useful for upgrades to Windows NT-compatible x86, Pentium™, R4000® and R4400, DEC Alpha AXP™ systems, and multiprocessor machines.
- It preserves your source server in its original state. If you encounter problems with the upgrade, you can reinstate the source server on the network.
- Using a second computer is less disruptive to network operations. The source server can remain on-line during the upgrade process, and two separate networks can be maintained during your evaluation.

If space permits, an in-place upgrade can be used to upgrade an existing LAN Manager server in place, on the same machine. This method preserves a dual-boot and dual-partition configuration with OS/2 while providing full access to Windows NT Server. If your source server does not have sufficient space, back up your files to a network server or tape, from which you can restore or archive at any time. Install Windows NT Server and restore the LAN Manager environment using the upgrade utilities.

Windows NT Server Upgrade Utilities

The Windows NT Server Upgrade provides a complete set of automated, robust utilities, available for use from the command line, to intuitively walk you through the process and keep you informed. In addition, you can create batch files for customized work.

The Windows NT Server Upgrade preserves:

- user accounts
- file and group permissions
- logon scripts
- shared directories
- connections to shared resources
- protocol settings that are applied globally
- country codes
- scheduled commands
- time source server designation

In addition, the upgrade records settings for workstation, server, messenger, alerter, netlogon, replicator, Uninterruptible Power Supply, Remote Access Services, and Simple Network Management Protocol.

The Windows NT Server Upgrade utilities include:

- Backup Environment (Backenv) saves server configurations by scanning server configuration files and detecting hardware configurations.
- Back AT (Backat) reads scheduled commands stored in the SCHED.LOG file and writes them to a batch file as a series of commands.
- Hcopy copies files on the LAN Manager server to another server on the network.
- Backacc backs up user accounts database including file permissions (includes Remote Access accounts).
- ACL List (Acllist) records file permissions and other characteristics in a text file, which is checked by Aclcomp for discrepancies.
- Backup backs up data to a network share or tape using Sytos Plus.
- Convert converts FAT, HPFS, HPFS 386 to NTFS without losing data.
- PortUAS restores LAN Manager user account database and merges/converts it to the Windows NT Server security account database.
- User Convert (Userconv) merges multiple domain user accounts and maps file security along with user account changes to achieve single network logon.
- ACL Convert (Acconv) restores file security and permissions.
- Restore Environment (Restenv) restores server configurations, network services, and provides intelligent feedback.
- ACL Compare (Aclcomp) compares file security and permissions of server before and after conversion and flags any changes.

- Macintosh Conversion (Sfmconv) restores Macintosh file volumes.

Windows NT Services for Macintosh

An integral part of the Microsoft® Windows NT™ Server, the Windows NT™ Services for Macintosh® offer you excellent connectivity and integration between your Macintosh desktops and the Windows NT operating system. Not only do they preserve the unique and important elements of each environment, they also incorporate important new components, such as manageability and security.

Related Topics:

[What are Windows NT Services for Macintosh?](#)

[Windows NT Services for Macintosh File Server](#)

[File Services Security](#)

[How Windows NT Permissions are Granted to Macintosh Users](#)

[Windows NT Services for Macintosh Print Server](#)

[Administration](#)

What are Windows NT Services for Macintosh?

Windows NT Services for Macintosh is a set of integrated tools facilitating better productivity and integration with Macintosh users. These include the AFP-compatible file server, which allows Macintosh users to connect to a Windows NT Server the same way they would connect to an AppleShare® server; a print server; and print monitor, which allows Macintosh users on the network to spool their print jobs to a Windows NT Server. Finally, the services include a complete AppleTalk® Stack, providing seamless connectivity between Macintosh clients and Windows NT Servers. As with other system components, the Windows NT Services for Macintosh are designed for:

- Performance
- Capacity
- Ease of configuration
- Ease of use
- Security

The AppleTalk stack is the underlying mechanism that permits these Windows NT services to talk to the Macintosh network and vice-versa. In addition, developers can use protocol independent APIs to the AppleTalk stack (for example, Windows Sockets) within cross-platform applications.

Windows NT Services for Macintosh File Server

This service allows you to share an NTFS directory tree as a volume on the Macintosh network. The Windows NT Services for Macintosh File Server is Apple File Protocol- (AFP) 2.1 compliant, and compatible with AFP 2.0-and-above clients running System 6.0.7 or higher. Because of its implementation, administrators gain access to File Services Security.

The file server uses NTFS STREAMS to store the resource fork and the Finder information for each Macintosh file, so that the Windows NT Administrator sees each Macintosh file as a single Windows NT file that can be used by personal computers and Macintoshes. Another convenience is that each server maintains a user-configurable database that maps MS-DOS 8.3 file name extensions to Macintosh creator/type pairs. This database enables the Finder to display the files residing in the Windows NT resident folders with the correct Macintosh icons. Also, since the correct creator/type information is associated with the files, the Finder can launch the correct application for a given document.

NTFS supports long names, which means that the file server can preserve a 31-character Macintosh name. Windows NT Services for Macintosh has a conversion tool that converts 2- or 3-part LAN Manager Services for Macintosh Mac files into single (but multiple stream) Windows NT Services for Macintosh files. This helps preserve security information and volume parameters, which become part of the Access Control Entry.

File Services Security

Windows NT Services for Macintosh fully support and comply with Windows NT security. The Services will present the AFP (Apple File Protocol) security model to your Macintosh users and allow them to access files on volumes that reside on CD-ROM or other read-only media. Because of the secure file system of NTFS, file-sharing folder privileges are stored as Windows NT permissions, so that only one set of permissions on a folder or file is required. This function is enforced for users of both Windows NT and Macintosh desktops. No users will be able to access files if they do not have the required permissions.

Added Security with the UAM

A new component of Windows NT Services for Macintosh is the client-side Microsoft User Authentication Module (UAM). This AppleShare extension permits a more secure login session with a Windows NT Server, while sending an encrypted, rather than clear text, password over the network. The UAM also allows a user to specify a domain or change the user password at login time. This permits the Macintosh user to participate in the enterprise-wide login, which can be supported by the Windows NT Server features as domains and trusted domains.

How Windows NT Permissions are Granted to Macintosh Users

The same user account database authenticates Macintosh users and Windows NT users alike, and both types of users respect the same permissions on files and directories. Windows NT file and directory permissions are automatically translated into corresponding Macintosh permissions. When a user is created, the administrator may specify a Macintosh Primary Group for the user.

From the Windows NT File Manager, you can create Macintosh-accessible volumes and manage user/group accounts. An additional menu, labeled the AFP Server, appears in the File Manager, and from this menu, you can create and delete shared volumes, change volume parameters, edit the Type-Extension database, and set folder privileges. The Windows NT Services for Macintosh automatically creates a "Public Files" volume at installation time on an NTFS or CDFS (CD-ROM file system) partition.

Windows NT Services for Macintosh Print Server

The Windows NT Services for Macintosh has a PostScript®-compatible engine that allows Macintosh desktop machines to print to any printer connected to Windows NT-based systems, as if they were printing to a LaserWriter®. The Windows NT Printer Services support the standard Apple LaserWriter driver; special client software is not required.

Tightly integrated with the Windows NT Print Manager, the Windows NT Services for Macintosh Print Server advertises all printers connected to Windows NT-based systems that are connected directly to the server on the AppleTalk network. It then spools all incoming jobs from the Macintoshes to the queues of those printers. AppleTalk despooling errors are corrected by the Windows NT print subsystem.

Selecting Printers

Printers connected to Windows NT-based systems will appear in the zone that you specify in the configuration dialog for the AppleTalk stack. You can configure the AppleTalk stack using the graphical user interface within Windows NT, which allows Macintosh users to select printers connected to Windows NT-based systems through the Chooser.

All setup and administration of printers is done using the Windows NT Print Manager. This interface allows you to browse for AppleTalk printers and view all print queues, including print jobs sent to the AppleTalk printers.

If the printer connected to Windows NT-based systems is not a Postscript printer, the Print Manager will mark the incoming Postscript file so that it will be processed by the Services for Macintosh Postscript Print Processor before it goes to the printer. This Print Processor rasterizes the Postscript file and sends the resulting high-resolution image to the specific printer to which the user is attached.

Administration

Setup and administration of the Windows NT Services for Macintosh is fully integrated with Windows NT Server through a graphical interface that is integrated with existing Windows NT administration tools. Remote administration of the Windows NT Services for Macintosh is also supported from Windows NT workstations, and Windows NT Services for Macintosh can be started transparently if the administrator configures the server to use this facility.

Server Administration

The Server Manager, which is part of the Windows NT Server, allows administration of local and remote servers, and is installed into the Administrative Tools group in the Program Manager. This additional tool gives the administrator access to the volume list, the server parameters, and information about the current state of the server. Using this same interface, administrators can send messages to users, disconnect users, and close files.

The Control Panel

The Windows NT Services for Macintosh can be administered from the Control Panel within Windows NT. The Network application allows the user to install, remove, update, and configure Windows NT Services for Macintosh. The File Server parameters set within this application are the server name that the Macintosh network will see and the default creation of the User Authentication Module volume. The desired zone and routing parameters of the AppleTalk stack can also be configured.

The Services application within the Windows NT Control Panel permits the user to set the startup mode for all services. For the Services for Macintosh, the file and print servers can be set to either Automatic or Manual startup mode. This application also provides the ability to specify what user account you want the Print Server to run under. All print jobs from Macintosh users will be listed in the Print Manager as belonging to this account.

Security

Operating system security is built into every part of the Windows NT Server system; it cannot be bypassed. The system is designed so that it can be extended and integrated into existing security environments, providing secure sharing of desktop resources. Windows NT Server has extensive built-in auditing capabilities for centralized management and security setting.

The security system has been designed to be streamlined by, for example, changing the logon sequence or adjusting how much information it collects in an audit log. The Windows NT Server security system is designed to comply with the U.S. government's class C2 security level.

Windows NT Server meets stringent security requirements with the following features:

A Secure Logon Facility that requires users to enter a unique logon identifier and a password before allowing them to access the system.

Account Management to give administrators the ability to control system access by users or groups of users.

Discretionary Access Control to give the owner of a resource the ability to determine who can access the resource and what they can do with it.

Security Auditing to detect and record important security-related events or any attempt to create, access, or delete system resources.

Memory Protection to prevent anyone from reading information written by someone else after a data structure has been released back to the operating system.

Related Topics:

[Complete Crash Protection](#)

[Access Control and User Authentication](#)

[Windows NT Server Accounts](#)

[Security Auditing](#)

Complete Crash Protection

Windows NT is designed so that 32-bit applications each run in their own separate address space. In this mode, each application is protected from failure if another fails.

Even as users start taking advantage of the powerful performance of 32-bit applications, there are still many 16-bit applications they need to use on a regular basis to get their work done. In many cases, these 16-bit applications have run in shared memory. One infrequent but painful result of using shared memory is that occasionally an application would fail and cause other applications to stop working.

Windows NT Server now runs 16-bit applications in separate memory space, where each uses a separate virtual DOS machine (VDM). This mode provides complete crash protection between Windows 16-bit applications, as well as increased application responsiveness, because each VDM is preemptively scheduled.

Separate VDMs have one additional benefit. Since each VDM now occupies its own address space, 16-bit applications are now preemptively multitasked by the operating system, which often results in improved performance.

Access Control and User Authentication

Discretionary Access Control

The most valuable part of your computer is the data it stores. With discretionary access control you can protect your computer's files and directories by controlling who has access to them and how they can be used.

Access Control List (ACL). When you create a file or directory, the file system maintains a list of permissions associated with the file or directory granted to individual users and group members. This list specifies whether a user is allowed certain actions, such as viewing or changing the contents of a file or listing a directory.

Setting Permissions. Most often, the permissions that protect files are applied by setting the default file permissions for the directory in which they reside. You will rarely need to change these default permissions. Directory permissions also determine whether a user can list the contents of a directory or add files to the directory.

Ownership. To maintain maximum security, the ability to set permissions for a file or directory is restricted to a single user, the "owner." The owner of a file or directory is usually the user who creates it. Only a user logged on as a member of the Administrators group can take ownership of a file or directory without permission of the owner. The owner can place maximum protection on a file or directory by using "No Access" permission to block access by any user or group.

User Identification and Authentication

Before a user is allowed to do anything on a Windows NT system, the user must first log onto the system and be authenticated by entering a user name and password.

After successful authentication, the Windows NT security system tags the user's shell process with a **security access token**. From this point forward, whenever the user attempts to access a protected object, the security reference monitor runs an access validation routine against the user's security access token. It tags any other process that the user creates with the user's access token. The system can thus track any security-related events that the user initiates, another of the requirements for a Class C2 security rating.

The Difference Between Rights and Permissions

Permissions protect specific objects—usually a directory, file, or printer. A permission is a rule associated with an object that regulates the users who can access the object and the manner in which they can access it.

Rights protect the system as a whole. Rights can give a user the ability to bypass specific security controls associated with an object, and can authorize a user to perform certain actions on the system. For example, an administrator has the right to back up the system. System backup requires the right to take precedence over all file and directory permissions. Rights can also be used to prevent certain users from performing actions on the system. For example, by default everyone who logs onto the computer can shut down the system. It might be a good idea to prevent users on the Guest account from doing so.

User Profiles

One way that Windows NT Server helps to provide additional security is by requiring that every user be configured into the operating system before they can use the system. This configuration is done with the User Manager. It is possible for several users to be defined to a single workstation where usage

requirements dictate that a single system needs to be shared.

To help manage this type of environment more effectively, Windows NT Server provides a user profile capability. User Profiles allow administrators to govern which Program Manager groups, local files and directories, and even menu commands are available to various users or groups of users. Every time a user is configured for a workstation, there is an opportunity to define a unique user profile.

Since multiple profiles can be defined for a single system, this provide systems administrators with a high level of control over system access and settings.

Windows NT Server Accounts

Windows NT Server provides for two types of accounts: user accounts and group accounts. Groups accounts can be local or global.

Users log on with a particular account to gain access to the privileges and permissions associated with that account. User accounts contain the username, password, group memberships, **security identifier(SID)**, and any other information necessary for a user to establish a security profile.

Windows NT Server provides two basic **built-in user accounts** that are necessary to use the computer.

Groups make it possible to control the access of several users who perform similar tasks on the computer. A group account contains a list of members, a SID for the group, and sometimes the names of other groups. Windows NT Server contains a number of **built-in groups** with predefined security policies to simplify the task of protecting system resources.

Windows NT Server Built-in User Accounts

The **Administrator account** is the account used to manage the system's overall setup. The user of this account has complete control of the system.

The **Guest account** is an account with no password, belonging to the least-privileged group. The user of this account has limited access to the computer's resources.

Windows NT Server Built-in Groups

Some built-in groups provide control on the basis of the user's role, as administrators, power users, users, guests, or backup operators. Other built-in groups are based on how the computer is being used--by interactive users, by network users, by everyone, or by the creator/owner.

How Local and Global Groups Work

A **global group** is not limited to protecting a single computer's resources. It can contain a number of user accounts from only one domain, but can also protect resources on any computer that belongs to that domain or any other trusted domain. A domain's global groups are valid anywhere that the domain's user accounts are accepted.

A **local group** can be used to protect only the files and printers on the computer where the local group is defined, but can contain user accounts and global groups from any domain having a trusted domain relationship with the domain to which the computer belongs. A significant limitation of local groups is that they are effective only on the computer containing the resource to be protected; a user cannot use the same group to protect files on different computers.

By adding global groups to local groups on a Windows NT Server-based computer, you can assign special administrative privileges to, and control access to, files and printers by a particular class of users in a domain.

Imagine that you want to give access to files on your computer to personnel managers from two separate domains. One domain contains a global group consisting of user accounts created for personnel managers in the Finance division, and the other contains user accounts for personnel managers in the Manufacturing division. You can give permission for access to personnel managers from both divisions by creating a local group on your computer, adding the two global groups to your local group, and then giving the appropriate file permissions to the local group.

Security Auditing

You can set up security to record where, when, and how security-significant events (such as file access) take place in the enterprise. Monitoring this type of information lets you create a security infrastructure that meets the best needs of your organization. The security record is an "audit trail" that you can examine to determine how effectively your security setup is protecting your computer.

Security auditing is completely configurable--you decide what types of events you want to keep track of, how often, and who receives notification. There are three basic steps to setting up an auditing system:

Deciding which events to audit. Security auditing is a special-purpose application of the event logging service that records system events affecting the computer's security. You can examine the resulting event log to ascertain whether a user is violating security policy. Windows NT Server can record a range of event types, from system-wide events to an attempt by a particular user to read a specific file. Because the security log is of limited size, it is important to choose the events you want to audit carefully.

Configuring the security system. The event logging service acts on behalf of the operating system and applications to record information about particular events. The operating system uses this service to record security-related events in a special location on the disk called the security log.

Monitoring the security log. Security auditing is useless unless the security log is examined at regular intervals by someone who knows how to interpret it and who is familiar with the requirements of computer security. The frequency with which you check the security log depends on:

- How important security is to you. If security is a high priority for you, you should treat the security log with the same concern that you show for your financial records. For maximum security, the security records of your computer should be examined by an independent auditor or designated administrator who can detect security violations.
- How often the computer is used and by how many people. The more users who regularly use your computer, the more difficult it is to monitor their actions directly, and the more likely it is that one of them will be inclined to attempt a security breach.
- Is the computer set up for external connections. Your computer faces greater security exposure if it is accessible via modem, by a large network of users, or if it is physically set up for access by the general public or other unknown individuals. Watch carefully for failed attempts to gain access to files, and frequently check the computer to be sure that no one is attempting to log onto it with an account that has special rights.

In any case, you should ensure that the security log is checked often enough so that no event records go unexamined because they have been overwritten by newer entries, and so that the event log does not become full.

Memory Protection

When your applications run, they use memory to store the information you are working on. When you close an application, you store this information in a file or directory subject to access controls you can define. However, the memory that the application used while running, which includes information from your file, has to be returned to the operating system so that it can be allocated to new applications. Windows NT Server protects the security of your files by automatically reinitializing this memory when it is returned, so that neither the system nor other applications can attain unauthorized access to your work.

Protocols

Windows NT Server includes the most common communication protocols:

- TCP/IP - Microsoft has rewritten this popular wide-area-network protocol to be more compact so it consumes fewer resources. Plus, we've included more than a dozen basic network utilities that make TCP/IP easier to manage. The basic TCP/IP connectivity applications include, finger, ftp, rcp, rexec, rsh, telnet, and tftp, while the diagnostic utilities provided include arp, hostname, ipconfig, nbstat, netstat, ping, and route. The core TCP/IP protocols provided include the user datagram protocol (UDP), address resolution protocol (ARP), and Internet control message protocol (ICMP). These improvements allow an organization to use TCP/IP exclusively without the usual management headaches, so they don't have to manage multiple protocols.
- IPX/SPX - This is Microsoft's IPX/SPX-compatible protocol, which we call NWLink. Small and fast, it's fully interoperable and provides integration with NetWare clients and servers.
- NetBEUI - Microsoft's local-area protocol is used primarily in LAN Manager sites. We supply this for compatibility with existing NetBEUI environments.
- The Data Link Control (DLC) protocol is used primarily to support connection to IBM mainframes using 3270 emulators, and secondarily to provide connectivity to local-area printers that are connected directly to the network.
- AFP - Apple File Protocol is provided to support Macintosh connectivity to Windows NT Server.

Remote Access Service for Windows NT Server

Remote Access Service (RAS) for the Microsoft® Windows NT Server™ operating system enables users to participate fully as a network client from remote locations. With RAS, several functions can be performed transparently on remote workstations, including:

- File and Print Sharing
- Electronic Mail
- Scheduling
- SQL Database Access
- Emulation

In addition, if the remote workstation has peer-to-peer file or printer sharing capabilities, LAN workstations can access files and printers on the remote workstation. Network administrative tasks, such as monitoring server performance, managing user accounts, starting and stopping of the Windows NT Server operating system, software inventory, and distribution services, can also be performed from remote workstations.

Requirements: Remote Access Service for Windows NT Server enables remote users to dial into network resources. RAS can be set up on any Windows NT Server-based machine; you do not need to install Windows NT Server, and it does not require a dedicated Windows NT Server-based machine.

Related Topics:

[Benefits](#)

[Advanced Security](#)

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[User Interfaces](#)

Benefits

Remote Access Service for Windows NT Server provides several benefits:

- A Scalable Platform
- Advanced Modem Support
- Extensive WAN (Wide Area Network) Support
- Protocol Independence
- Improved Performance
- Advanced Security

A Scalable Platform

RAS for Windows NT Server has a scalable design that allows the product to scale from a single remote connection to multiple simultaneous remote connections.

RAS is available on Intel®- and MIPS®-based computers simultaneously, and takes full advantage of the symmetric multiprocessing capabilities within Windows NT Server.

Advanced Modem Support

RAS for Windows NT Server provides support for advanced features in modems such as MNP/5 and V.42bis compression and error control. In addition, RTS/CTS and XON/XOFF flow control is also supported. The command file can easily be modified to set up your appropriate modem. RAS will support up to 64 simultaneous modem connections on a Windows NT Server-based machine.

Extensive WAN (Wide Area Network) Support

Microsoft Windows NT Remote Access Service supports X.25 networks, ISDN (Integrated Services Digital Networks), and PSTN (Public Switched Telephone Networks) for high-bandwidth communications. The ISDN adapter or the X.25 card is treated as an Ethernet card, and thus provides remote computers with a direct data feed across the Wide Area Network to the LAN. All remote workstations will be able to use the X.25 network by dialing in X.25 PADs (Packet Assemblers/Disassemblers). Remote Access Service will have direct X.25 access via X.25 adapters, and Windows NT Server-based workstations will have direct X.25 connectivity in addition to asynchronous access to X.25 PADs.

Protocol Independence

The Remote Access server works on diverse LAN topologies, such as Ethernet, Token-Ring, Arcnet, and FDDI.

Remote Access Service for Windows NT Server is protocol independent, using NetBIOS protocols such as NetBEUI, TCP/IP, XNS™, and NBP.

Advanced Security

Remote Access Service for Windows NT Server is fully integrated with the domain structure within Windows NT Server. Remote Access Service uses the same user account database on the local server running Windows NT or Windows NT Server. In addition, network administrative tasks such as monitoring server performance, managing user accounts, and starting and stopping services of the Windows NT Server operating system, can be performed from a remote workstation.

RAS uses the DES (Data Encryption Standard) encryption scheme to prevent password discovery by wire tapping. There are two levels of callback security supported:

- A predetermined number is assigned for each user
- Mobile users are allowed to tell the server where they wish to be called back. This type of callback allows the company to cover the cost of telecommuting for employees who are not always calling from the same location. A central administration tool enables system administrators to identify connected remote users, regardless of which Remote Access servers those users are connected through. Extensive audit records in the Windows NT Server event log enable system administrators to identify illegal attempts to access the network. For additional dial-in security needs, Windows NT Remote Access Service also provides support for third-party, user-authentication hardware devices.

Improved Performance

Windows NT RAS takes advantage of the Windows NT Server platform to provide increased performance, using data compression to double the transmission throughput. The average compression ratio is 2:1. Bitmaps and files that can be easily compressed may achieve greater compression ratios.

User Interfaces

Remote Access Service for Windows NT Server has a character-based phone book for MS-DOS® and a graphical phone book for the Windows™ operating system. The phone book will accept parameters to initiate or terminate connections, and users will be able to run batch mode processes to connect to remote networks. Remote Access Service is also integrated with the graphical tools included with Windows NT Server. These tools can be used to administer the service and monitor performance on RAS 1.0 servers or Remote Access Service for Windows NT Server-based servers. The user account information is merged with the Windows NT Server User Manager. MS-DOS has a character setup; Windows 3.x, Windows™ for Workgroups, and Windows NT Server have a graphical setup. In addition, RAS for Windows NT Server includes a small graphical desktop configuration program for the Windows phone book.

Scalable, Portable Windows NT Server Delivers Cost-Effective Performance

Windows NT Server runs on hardware ranging from a single Intel 486 50MHz chip, to a 100MHz Digital Alpha chip, to a 16-processor Sequent or NCR server. This flexibility helps you adapt to changing business conditions. Whether you are considering a workgroup project or a large-scale application with millions of records, Windows NT Server can handle your data. Using the 64-bit Windows NT File System (NTFS), your organization can access up to 16 TB of disk space and 4 GB of memory.

Also, because it is compatible with symmetric multiprocessing (SMP) machines, Windows NT Server delivers maximum power at significantly lower costs than other operating systems. The idea behind SMP is that two or more equivalent processors on one machine will deliver better price/performance than a single processor machine with twice the rated processing power.

Because Windows NT Server is able to schedule system and application threads over multiple processors, applications such as RDBMS run very well with it. With an SMP system, you can significantly increase the performance of your servers for much less than the cost of adding machines. An SMP system reduces administration, because there are fewer servers to manage. With Windows NT Server, you can purchase as much processing power as you need now, while ensuring a smooth migration path for the future. Companies such as Chevron Canada, Nordstrom, 3M, and NASA are already developing solutions using this strategy.

Related Topics:

[SMP is Easier to Use with Windows NT Server](#)

[Windows NT Server is the Most Cost-Effective Client-Server Platform](#)

[Windows NT Server is Portable](#)

SMP is Easier to Use with Windows NT Server

Symmetric multiprocessing (SMP) support is not unique to Windows NT Server. In fact, several versions of UNIX currently support SMP. The difference is that UNIX applications need to be modified to take advantage of multiprocessors. With Windows NT Server, any multithreaded application can be distributed over multiple processors. Applications written for Solaris 2 or HP UX, however, must be written specifically for those systems, and are not portable across UNIX versions. Additionally, the threading itself is less reliable and robust under Solaris than Windows NT Server. UNIX graphic systems, such as X Windows and Motif, do not support multiple threads, nor are they thread-safe.

Another limitation with UNIX in terms of SMP is cost. In most cases, there are no hardware substitutes for machines that run systems such as Solaris 2 or HP UX, which means that you must accept the market limitations of having only a single hardware provider. Windows NT Server, however, supports hardware from many competitors. Similarly, because Windows NT Server supports a broad range of multithreaded applications and can run on a wider array of hardware, software vendors are more likely to apply resources to Windows NT Server because their potential market is much larger.

Windows NT Server is the Most Cost-Effective Client-Server Platform

Windows NT Server has both the speed and the power you need at competitive prices. It delivers the power of mini and mainframe systems, on hardware that is significantly less expensive, and easier to manage. This was the conclusion of the National League for Health Care and Chevron Canada, both of whom evaluated a number of platforms including UNIX, OS/2 and Windows NT.

In audited benchmark testing, we compared Windows NT to similar platforms, running Sun Microsystem Solaris with the Sybase RDBMS, as well as Oracle running on IBM AIX. From the beginning, the significant cost advantage of Windows NT Server and SQL Server was clear.

Windows NT Server is Portable

Because of its portable design, Windows NT Server is able to run not only on Intel processor machines, but also on those supporting RISC, such as the MIPS R4000 and R4400, the Intergraph Clipper, and the new Digital Alpha chip. Whether your choice is Intel, Alpha, MIPS, or another chip architecture, Windows NT Server will provide consistent functionality and access to applications. Unlike UNIX and OS/2, hardware decisions with Windows NT Server do not limit access to applications, leaving you free to choose the best hardware and software for your organization.

32-bit Applications Catalog

Microsoft firmly believes that the success of an operating system depends in large part on the variety and quality of the products and services available for it. To this end, we have made working with independent software and hardware vendors a priority in order to provide superior third-party support for Windows NT.

Windows NT is a completely 32-bit, preemptively multitasking protected environment. This makes it the ideal operating system for mission-critical client-server business applications on both the workstation and the server as well as for integrating personal productivity and business applications with powerful technical applications.

From an API perspective, Windows NT fully supports the Win32 API, which is a natural extension of the 16-bit Windows API. The Win32s API is a subset of the full Win32 API that allows software vendors to create a single 32-bit executable that will run as a native application on both Windows, Windows for Workgroups and Windows NT. Many of the software vendors in this catalog are creating Win32s versions of their applications.

To date, over 70,000 developers have acquired the Microsoft Win32 Software Development Kit (SDK), making it clear that leading industry and corporate application developers are creating 32-bit applications. There are over 630 products listed in this catalog identified by their respective vendors as shipping by September, 1994.

We invite you to look through the catalog and examine the wide assortment of products that are available now for Windows NT!

Doug Henrich
Director, Developer Relations Group
Microsoft

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Systems Marketing, Building 6/2
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This catalog is updated regularly and is available on both CompuServe® (forum WINNT) and on the Internet via anonymous ftp ([ftp.microsoft.com](ftp://ftp.microsoft.com)).

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LanAdmin

Dramatically simplifies network administration, distributes applications and gives central control over the Windows Desktops

LanAdmin simplifies and speeds up many of the routine functions of the network administrator such as setting up new users and printers. The administrator is also able to control the content of each users Windows desktop. Mobile desktops are incorporated so that users desktops will follow them round the LAN to any workstation. Applications are automatically installed by the administrator from any workstation.

Retail Price: Call

Contact: Donna McDonald

Phone: 508-463-8602

RISC Versions: Call for availability

International Sales:

ABC Systems Ltd., Computer House, Mill Street, ABERYSTWYTH, Dyfed, Wales, UK,SY23IJB,

Tel: 44-0-970-625-515; FAX: 44-0-970-611-542

LanLicenser

Lan Licenser is a highly secure product which monitors and controls the number of concurrent application licenses in use at any one time

Lan Licenser monitors and controls the number of concurrent users of each licensed application on a network. Users can remain legally compliant without purchasing unnecessary copies of software. An encrypted audit trail is produced showing every use of each application by whom and at what time enabling a wide range of reports to be produced.

Retail Price: Call

Contact: Donna McDonald

Phone: 508-463-8602

RISC Versions: Call for availability

International Sales:

ABC Systems & Development Ltd., Computer House, Mill Street, ABERYST WYTH, Dyfed, Wales, UK

Tel: 44-0-970-625-515; Fax: 44-0-970-611-542

Abraxas Software, Inc.

5530 SW Kelly Avenue
Portland, OR 97201
USA

Related Topics:

[CodeCheck for Windows NT](#)

[PCYACC for Windows NT](#)

CodeCheck for Windows NT

Source Code Manager

CodeCheck Version 4.0 is a programmable tool for managing all C and C++ source code on a file or project basis. CodeCheck is input compatible with all variants of K&R, ANSI C and C++. CodeCheck is designed to solve all of your Portability, Maintainability, Complexity, Reusability, Quality Assurance, Style Analysis, Library/Class Management, Code Review, Software Metric, Standards Adherence, and Corporate Compliance Problems.

Retail Price: \$995.00

Contact: Patrick Conley

Phone: 503-244-5253

Fax: 503-244-8375

RISC Versions: Yes

PCYACC for Windows NT

Language Development Toolkit

PCYACC Version 4.0 is a complete language development environment that generates ANSI C source code from input Language Description Grammars for building Assemblers, Compilers, Interpreters, Browsers, Page Description Languages, Language Translators, Syntax Directed Editors, Language Validators, Natural Language Processors, Expert System Shells, and Query Languages.

Retail Price: \$995.00

Contact: Patrick Conley

Phone: 503-244-5253

Fax: 503-244-8375

RISC Versions: Yes

Absoft Corp.

2781 Bond Street
Rochester Hills, MI 48309
USA

Absoft FORTRAN 77 for Windows NT

32-bit globally optimizing VAX/VMS compatible FORTRAN 77 compiler for Windows NT development

Absoft FORTRAN 77 for Windows NT is a full 32 bit ANSI X3.9-1978, MIL-STD 1753, SAA CPI FORTRAN compliant compiler. Compatibility options facilitate porting to Windows NT from mainframes, RISC workstations, and Microsoft FORTRAN or developing native Windows NT applications. Most VAX/VMS extensions are supported including STRUCTURE and RECORD, all VAX intrinsic functions, plus Cray/Sun-style POINTER. Either Intel or Weitek FPU hardware is required. The compiler is compatible with the Microsoft Windows NT SDK tools, link compatible with Microsoft C/C++ for Windows NT, and includes a Windows interface. Source compatible with other Absoft FORTRAN 77 PC and workstation compilers. MIPS version also available.

Retail Price: \$695.00-\$995.00

Contact: Wood Lotz

Phone: 313-853-0050

Fax: 313-853-0108

RISC Versions: Yes

AccessWare

2190 North Loop West
Suite 301
Houston, TX 77018
USA

Related Topics:

[Access Point](#)

[InfoPath](#)

[ViewMaster](#)

Access Point

Industrial supervisory and SCADA software package

Monitor and control with real-time database and super graphics MMI from local or remote PLC, RTV, DCS process controls - plus historian for archive and trend plots.

Retail Price: \$4,995.00-\$21,000.00

Contact: Ralph Waite

Phone: 713-682-8649

Fax: 713-682-8066

RISC Versions: Call for availability

InfoPath

Automatically exports relational database records from AccessPoint

InfoPath builds an interface between Informix or other popular relational database applications and AccessPoint runtime databases, from programmable logic controllers PLC or I/O devices.

Retail Price: \$3,445.00 - \$7,400.00

Contact: Ralph Waite

Phone: 713-682-8649

Fax: 713-682-8066

RISC Versions: Call for availability

ViewMaster

Allows system integrators to develop advanced AccessPoint controls

ViewMaster advanced developers toolkits allow standalone application configuration, development and testing. Advanced toolkits for programming interfaces are easily developed to AccessPoint. ViewMaster configured AccessPoint runtime with programmable logic controllers PLC or I/O devices allows automatic control.

Retail Price: \$1,895.00 - \$5,400.00

Contact: Ralph Waite

Phone: 713-682-8649

Fax: 713-682-8066

RISC Versions: Call for availability

Accusoft Corp.

112 Turnpike Road
Westboro, MA 01581
USA

AccuSoft Image Format Library for Windows NT

Reads all raster images in existence, guaranteed

AccuSoft offers a full line of Image Format Libraries that support TIFF (including Group 3 and 4), JPEG, GIF, BMP, GIF, PCX, Targa and many other formats. These libraries span multiple platforms including DOS, Windows, OS/2, Windows NT, Extended DOS, Windows 32, Visual Basic 16/32, Macintosh, and integration into any application can be accomplished in a matter of minutes.

Provided imaging capabilities include compression, decompression, display, format conversion, scanning, printing, zooming, panning, image manipulation and much, much more. A special Pro Gold version of these libraries provides additional high performance features targeted towards document imaging. AccuSoft guarantees that its libraries will read all legitimate raster images of the format it supports.

Retail Price: Call

Contact: Simon Wieczner, Sales

Phone: 800-525-3577

Fax: 508-898-9662

RISC Versions: Yes

International Sales:

Contact AccuSoft at the US headquarters for latest International dealer and distributor information.

Acucobol, Inc.

7950 Silverton Avenue
Suite 201
San Diego, CA 92126
USA

Related Topics:

[ACUCOBOL-85](#)

[ACUCOBOL-85 for Windows NT](#)

ACUCOBOL-85

The most portable compiler for microcomputers, minicomputers, and mainframes available today

ACUCOBOL®-85 produces remarkable compact, yet highly optimized, machine-independent object code. With ACUCOBOL-85, users can develop sophisticated COBOL applications and execute them, without recompiling, on AIX, MS-DOS, NetBIOS, OS/2, Ultrix, UNIX,, XENIX,, AOS, and VMS systems. Users of ACUCOBOL-85 can also take advantage of the over 3,000 powerful business applications already existing.

ACUCOBOL-85 is certifiable error-free for both the HIGH 1974 and HIGH Intermediate 1985 ANSI COBOL standards. ACUCOBOL-85 is source code compatible with RM/COBOL and VAX COBOL for efficient migration to the latest hardware platform. Currently, ACUCOBOL-85 runs on over 650 hardware platforms.

Retail Price: Call

Contact: Contact Vendor

Phone: 1-800-COBOL-85

Fax: 619-689-7251

RISC Versions: Call for availability

ACUCOBOL-85 for Windows NT

A comprehensive COBOL compiler designed to allow application development in diverse hardware environments

ACUCOBOL®-85 for Microsoft Windows is a specialized version of the ACUCOBOL-85 runtime system that runs as a native Windows program. This allows you to run any program written in ACUCOBOL-85 as a Windows program, without recompiling it.

To run your application under Windows, execute your ACUCOBOL-85 code with the Windows version of Acucobol's runtime system. With ACUCOBOL-85 runtime for Windows, you can:

- Run your application in a window in either the standard mode or the 386-enhanced mode of Microsoft Windows.
- Run applications larger than 640K. You are limited only by the amount of memory available under Windows.

An application executing under the new runtime performs screen operations significantly faster than the same application running in an MS-DOS windows.

Retail Price: Call

Contact: Contact Vendor

Phone: 1-800-COBOL-85

Fax: 619-689-7251

RISC Versions: Yes

Adra Systems, Inc.

59 Technology Drive
Lowell, MA 01851
USA

Related Topics:

[CADRA-III for Windows NT](#)

[CADRA-Solids](#)

[Matrix](#)

CADRA-III for Windows NT

A design drafting system optimized for the production of complex, multi-view drawings

CADRA-III is a 2-1/2D - 3D design drafting system optimized for the production of complex, multi-view drawings. Up to 64 independently scaleable views per drawing may be created, each with a local origin. View geometry may be scaled independently of text and dimensions to preserve clarity. CADRA-III features a highly intuitive on-screen user interface, one that is learned quickly enabling users to be far more productive than with other CAD systems. FlexDesign™, CADRA-III's parametric component, enables users to apply dimension-driven and variational constraint techniques to CADRA geometry, or geometry imported from other CAD systems. Geometric constraints (such as tangencies), dimensional constraints, and equations may be defined and used in the creation of families of parts, or in the testing of new design ideas. Translators, both direct and indirect, are fully supported by CADRA-III. ADT, our bi-directional translator for CADAM™ databases is widely recognized as the most complete and accurate, allowing users to migrate successfully from resource-hungry mainframe environments. On personal computers, ADT runs seamlessly - fully within CADRA and without requiring terminal-mode operations. Adra also offers CDT, a bi-directional translator for Computervision CADDs databases; a direct CATIA™ translator for those mainframe and workstation databases, and DXF and IGES translators.

Retail Price: \$3,995.00 - \$5,995.00

Contact: Mike Robinson

Phone: 508-937-3700

Fax: 508-453-2462

RISC Versions: Yes

CADRA-Solids

Precise boundary representation solid modeler optimized for use in the design documentation phase of the product development cycle

CADRA-Solids is a fresh approach to solid modeling. Provides a production-oriented 3D solution that complements CADRA-III, the world's most productive design/drafting environment. CADRA-Solids model geometry can be created in several ways:

- from a set of included geometric primitives which can be added, subtracted, intersected, and sectioned
- from the built-in sketch mode which created 2D geometry that can be projected, extruded, revolved, or swept into a solid model
- from existing CADRA geometry
- from geometry imported via IGES, DXF, or Adra's direct database translators

Whatever the source of the geometry, Local Editing features, unique to CADRA-Solids, provide a more natural approach to designing in 3D...an approach which lends itself well to the casual user. Using Local Editing, the user lifts, moves or deletes vertices, faces and edges of the model to stretch and re-size it. Combined with unsurpassed capabilities in multiple-surface blending, complex filleting of constant or variable radius, and mass properties and interference checking tools, CADRA-Solids is a full featured design tool. CADRA-Solids maintains a graphical history of the model's creation, allowing the user to step back to any point for reference or to make changes. CADRA-Solids provides the capability to automatically drop off correctly oriented 2D views of the model, with hidden lines removed, for subsequent annotation using CADRA-III's powerful drafting features. Changes in the model may be reflected in the drawing with a single menu pick. Users are discovering CADRA-Solids to be a powerful, easy-to-use modeler which allows them to break the barriers typical of other modelers, and integrate solid modeling throughout their organization's design documentation process.

Retail Price: \$7,995.00

Contact: Mike Robinson

Phone: 508-937-3700

Fax: 508-453-2462

RISC Versions: Call for availability

Matrix

Adra's new product information manager is built upon a distributed, object-oriented database and features a graphical user interface

Matrix is designed to handle the business needs of manufacturing organizations having sophisticated requirements for creating and managing the flow of information throughout the corporate product development cycle. Matrix is an independent application that works cooperatively with all kinds of computer-generated files, including CAD files, word processing documents, and graphics files. Matrix is presented in a modern, windowed environment using icons and pull down menus; and employs standard conventions for mouse operations. Matrix is designed to be the primary interface for users to their organization's information, and is intended to be the first application they start at the beginning of the day. In Matrix, a user will find new assignments, comments from reviewers, and approvals and disapprovals. Using the graphical browsers to navigate the database, users make queries to find the information they need. The system can launch applications and open files, execute print, fax and translation programs, and provide electronic approval and routing. Matrix sites employ the Business Administrator module to define business objects and the policies (rules) that govern the objects' behavior within the organization. For example, design concepts, drawings, process plans and other objects can be tracked through customer-defined life cycles such as release schema. Related objects can be linked to assure that critical dependencies are maintained. Matrix can handle very large numbers of objects and complex relationships, yet provide outstanding response and performance. With Matrix, an organization can be more productive, individuals more creative, and teams more tightly integrated and communicative. Matrix goes far beyond today's traditional product information managers in the function, performance, and competitive advantage it gives to the customer.

Retail Price: Call

Contact: Mike Robinson

Phone: 508-937-3700

Fax: 508-453-2462

RISC Versions: Call for availability

Advanced Micro Technology Corp.

183 Guggins Street
Boxboro, MA 01719
USA

Related Topics:

[CBIquick](#)

[DEMOquick](#)

CBIquick

Create interactive training for Windows applications...FAST!

CBIquick is a powerful Authoring System which creates realistic stand-alone interactive tutorials to teach Windows applications. Lessons prepared with CBIquick guide the user step-by-step through a realistic interactive simulation of the application, with messages and voice to describe each operation. At each step, the user is asked to perform operations previously demonstrated. If the user input is correct, the simulation responds just like the real application. If the user has trouble, help is automatically provided by pop-up help messages (or voice messages). At any point, the user may select from a list of topics and go directly to any part of the lesson for review. The finished lessons also have built-in scoring and reporting, as well as the ability to call and be called from other applications. This allows your tutorials to be linked with your applications. Lesson development is as simple as running the real application once. CBIquick captures each keyboard and mouse interaction, along with all screen activity. The developer then plays the simulation back, adding pop-up information windows, graphics, and interaction at appropriate points. The finished lessons are easily distributed on floppy disk and do not require the real application. Various run-time program distribution license options are available.

Retail Price: \$2,995.00

Contact: Richard McMahon

Phone: 508-263-3030

Fax: 508-263-2265

RISC Versions: Call for availability

DEMOquick

Create realistic demos of Windows applications...FAST!

DEMOquick is a powerful Authoring System which creates an exact stand-alone simulation of a Windows application. The developer then adds pop-up information windows, custom graphics, and interaction along with optional voice segments. Demos prepared with DEMOquick guide the user step-by-step through a realistic simulation of the application with messages and voice to describe each operation. At any point, the user may select from a list of topics and go directly to the demonstration of the chosen feature. Demo development is as simple as running the real application once. DEMOquick captures each keyboard and mouse interaction, along with all screen activity. The developer then plays the demo simulation back, adding pop-up information windows, graphics, and interaction at appropriate points. The finished demos are easily distributed on floppy disk and do not require the real application. There are no run-time fees for distribution of the finished demos. The completed demos may also be converted to full interactive training tutorials using the CBIquick system, also available from AMT.

Retail Price: \$495.00

Contact: Richard McMahon

Phone: 508-263-3030

Fax: 508-263-2265

RISC Versions: Call for availability

Advanced Systems Technology Corp. (ASTEC)

2200 Defense Hwy., Suite 203

Crofton, MD 21114-2404

USA

CaMERA*

A Culture-adaptive Mechanism for Expression, Reflection, and Analysis

CaMERA is a semantic database tool that can serve as a repository and an integrating CASE tool. It enables you to gather information about your system in a language that you choose. CaMERA can be used across the development life cycle; as your view of the system changes in subsequent phases, your language can be extended. CaMERA permits expression of your problem and provides a means to reflect your information for examination, and to analyze your information against selected criteria. Information from CaMERA's database can be incorporated into documentation that conforms to a variety of standards. It has been used as a repository in CASE tools, as a translator between various tools to integrate diverse systems, as a modeling tool for schema harmonization, and as a rapid prototyper. CaMERA is a trademark of ASTEC.

Retail Price: \$6,000.00 for single PC (DOS) machine (includes one seat in a course)

Contact: Dr.H.H. Sayani

Phone: 410-721-4433

Fax: 410-721-1167

RISC Versions: Call for availability

Advanced Technology Services

6135 Barfield Road, suite 120

Atlanta, GA 30328

USA

OptiDoc Document Imaging

High performance network SQL-based multimedia document imaging

OptiDoc is a network-based imaging system for client-server environments performing archival and transactional imaging. A very open systems approach allows most SQL databases to be utilized, including Microsoft SQL Server, Gupta, Oracle, Informix, DB2, etc. Client workstations can address a variety of networks and use resources on disparate systems simultaneously, and a wide variety of scanning and storage devices are supported, including optical drives and jukeboxes. Optional modules provide OCR, Barcode, COLD (Computer Output to Laser Disk) Full Text Indexing, Workflow and an Integration Kit.

Retail Price: Call

Contact: Fred Amtower, Sales

Phone: 404-843-3921

Fax: 404-843-1839

RISC Versions: Call for availability

AGE Logic, Inc.

9985 Pacific Heights Blvd.
San Diego, CA 92121
USA

Related Topics:

[XoftHost for Windows NT](#)

[XoftWare/32 for Windows NT](#)

XoftHost for Windows NT

Development environment for Windows NT

XoftHost™ for Windows NT is an OSF/Motif and X Window System standard development environment for Windows NT. Included are a set of libraries which simplify the porting and development of X/Motif applications on Intel-based PCs running Windows NT. Full API support for X11R5 and OSF/Motif Release 1.2.3 is provided with XoftHost for Windows NT.

Retail Price: Call for pricing

Contact: Inside Sales

Phone: 619-455-8600

Fax: 619-597-6030

RISC Versions: Call for availability

XoftWare/32 for Windows NT

PC X Server Software for Windows NT

XoftWare™/32 for Windows NT is AGE's full 32-bit PC X server solution for Windows NT. Available for both Intel and MIPS platforms, XoftWare/32 for Windows NT enables Windows NT users to concurrently access and display Microsoft Windows, Windows NT and network-based UNIX applications on the same PC. In addition to providing 32-bit performance, XoftWare/32 for Windows NT is fully X11R5 compliant and includes many features that make X easier to use. A sophisticated network file manager utility provides a convenient Windows-based method of copying, deleting and printing both local and UNIX window managers, automatic host login, concurrent application start-up, support for true color and a UNIX Print Re-route Utility. Trace, AGE's new X protocol monitoring system, is also included as well as support for Windows NT's native TCP/IP networking service.

Retail Price: \$495.00

Contact: Inside Sales

Phone: 619-455-8600

Fax: 619-597-6030

RISC Versions: Yes

AIP, Inc.

312 Cupsaw Drive
Ringwood, NJ 07456
USA

SNAPPI (Structured Network APPLication Interface)

The most flexible and advanced messaging/middleware product in the Industry today, providing seamless connectivity across heterogeneous environments thereby enabling the interplay between applications on all processing nodes in the network

SNAPPI (Structured Network APPLication Interface™) is not dependent on specific hardware, database, operating system or communications protocol. The current installed base includes Amdahl, DEC, IBM, Olivetti, Stratus, Tandem, and Wang mainframe/mid-range processors, and a variety of DOS, OS/2, UNIX, Windows NT and Windows 3.x platforms. Key local area network operating characteristics include APPC, named-pipes and TCP/IP over Token Ring and Ethernet frames using IBM, Microsoft and Novell network operating systems.

SNAPPI encapsulates the core services required for cross-platform messaging including session management and data and protocol translations. Synchronous, asynchronous, broadcast, and store-and-forward messaging is provided. True peer-to-peer and true multi-threaded architectures are among the current installed base.

Retail Price: Call

Contact: Rosemary Verrecchio

Phone: 201-962-7677

Fax: 516-765-0037

RISC Versions: Yes

Alcatel

7011 Koll Center Parkway
Pleasanton, CA 94566
USA

Related Topics:

[Com Fig X.25 for Windows NT](#)

[GOSIPWARE OSI for Windows NT](#)

Com Fig X.25 for Windows NT

Comprehensive X.25 connectivity at a reasonable price

ComFig™ X.25 is a menu-driven GUI based software product for X.25 wide area communications. It is compliant with CCITT 1988 X.212 and ISO 7776 Link Layer specifications, and AT&T's DLPI. ComFig X.25 is backward compatible with CCITT 1984 and 1980 recommendations, and can switch between them at the click of a mouse. It provides easy set up and configuration of the X.25 protocol stacks, as well as point and click display of line management statistics and packet traces. This allows for instantaneous changes related to various stack profile possibilities without any command line entries. ComFig X.25 requires use of the Alcatel TITN PC-Com card. Frame relay support will follow in late '94.

Retail Price: Call

Contact: Peter Cohen

Phone: 510-484-5674

Fax: 510-484-4078

RISC Versions: Call for availability

GOSIPWARE OSI for Windows NT

The first useable and efficient GOSIP V2 product line for Windows NT

GOSIPWARE for Windows NT includes FTAM, VTP, ACSE, ROSE, Presentation, Session, TP4, CLNP, ES-IS, and LLC1 protocols to provide a complete LAN GOSIP V.2 product.

GOSIPWARE FTAM is a file transfer product for use in Windows NT 32 bit or responder/server. File transfer can be performed synchronously or asynchronously. Support is provided for RFC 1006.

GOSIPWARE VTP provides virtual terminal capability, as well as some rlogin type capabilities missing from Windows NT's TCP/IP. GOSIPWARE TP4 provides OSI Transport Layer Class 4 functionality, and conforms to ISO standards 7498, 7498 annex 3, 8072 and 8073.

GOSIPWARE CLNP/ES-IS is a full featured implementation for Connectionless Network Layer Protocol based on ISO 8473 and End System to Intermediate System based on ISO 9542.

Retail Price: Call

Contact: Peter Cohen

Phone: 510-484-5674

Fax: 510-484-4078

RISC Versions: Yes

Alcom Corp.

1616 North Shoreline Blvd.
Mountain View, CA 94043-1316
USA

LanFax Redirector

Fax Server Software

LanFax Redirector is LAN-based fax server software for corporate use. The LFR architecture is based on the client-server model and takes full advantage of 32-bit processing provided via Windows NT. LFR architecture overcomes many of the problems inherent in conventional 'store and forward' fax servers that bog down the file server and overload the network. LFR optimizes packet size and bypasses the file server via peer-to-peer connectivity, thereby reducing network traffic.

End User Benefits:

- real time status and control of fax
- shared corporate SQL-style phone book that resides on the fax server
- DID, DTMF, departmental, and MAPI inbound routing
- WYSYWIF and WYPIWYF
- create customer fax solutions using LanFax DDE LAN

Administrator Benefits:

- remote, real-time access to the fax server status without having to walk to the fax server
- ability to remotely reconfigure the fax server on-the-fly
- minimal network traffic
- centralized audit trail

Retail Price:

Contact: Steve McBride

Phone: 415-694-7000

Fax: 415-694-7070

RISC Versions: Call for availability

Altair Engineering, Inc.

1757 Maple Lawn Drive
Troy, MI 48084
USA

SuspensionGen

Suspension kinematic analysis tool

SuspensionGen is a parametric suspension kinematics analysis tool with a built in solver. It is designed for fast, effective suspension analysis. Suspensions include:

Mono Beam Front Suspension with Haldenberger linkage

- Trailing Arm Front Suspension
- MacPherson - front and rear
- Short Long Arm - front and rear
- Five Link - front and rear
- Twin I-beam - front
- Quadra Link - rear
- Hotchkiss - rear
- Solid axle with four links - rear

Steering linkages: rack and pinion, parallelogram, Haltenberger.

Features: Instant calculation of static design parameters; Interactive 3D graphics for viewing and animating the model; Interactive plotting of analysis results; Automatic calculation of over 30 kinematic design parameters; Toe alignment utility; Metric to English conversion; and writes IGES format files. Also available on UNIX workstations with X. Free evaluation period.

Retail Price: Call

Contact: Deepak Vinchhi

Phone: 810-614-2400

Fax: 810-614-2411

RISC Versions: Yes

Altamira Software Corp.

150 Shoreline Highway
Suite B27
Mill Valley, CA 94941
USA

Composer v.2.0

Object oriented image composition & manipulation

Altamira Composer is the revolutionary new image composition and manipulation application that brings the flexibility of object-based drawing to image editing. Unlike other imaging applications, with Altamira Composer, images are never "pasted down." You have total freedom to change, move, or edit the images in your composition at any time. Altamira Composer turns an image into an image object. Instead of time-consuming selecting and masking, image objects are automatically created when you bring elements into your composition. These objects "float" transparently in a dynamic alpha stack. They can be painted, trimmed, scaled, rotated, given transparency, moved up or down in the stack or otherwise manipulated without any image degradation. Altamira Composer also includes hundreds of innovative new anti-aliased tools and effects.

Retail Price: \$795.00

Contact: Customer Service

Phone: 415-332-5801

Fax: 415-332-5804

RISC Versions: Yes

Altia Inc.

5030 Corporate Plaza DR
Suite 200
Colorado Springs, CO 80919
USA

Altia Design

A powerful, affordable software package for designing, prototyping, and testing your product's human interface

If you can drive an interactive graphics editor, you can draw and animate your own custom, dynamic interface. By supporting what is called "Animation by Example", Altia Design takes the place of graphics programming - no more graphics toolkits, no more graphics code. And it can be learned quickly and used by anyone - from software and hardware engineers to industrial engineers and project managers.

Whether your final product is an oscilloscope, critical care monitor, airplane cockpit, VCR, or a manufacturing system, Altia Design can help you quickly develop the appearance and behavior of its interface. Even when your product's requirements change, you easily adapt and refine the interface to reflect those changes.

Retail Price: \$4,900.00

Contact: Dennis Ruffing

Phone: 719-598-4299

Fax: 719-598-4392

RISC Versions: Call for availability

Altsys Corp.

269 W. Renner Road
Richardson, TX 75080
USA

Altsys Virtuoso

The complete design and production program for Windows NT

Virtuoso™ is the complete PostScript® language design and production program for Windows NT. As you would expect from Altsys Corporation, creators of Aldus FreeHand® and Fontographer®, Virtuoso provides the tools today's artists need to create professional illustrations quickly and easily. Virtuoso also has text-handling capabilities unrivaled by other drawing programs enabling designers to create single page layouts in one easy-to-master program. In addition, Virtuoso provides powerful built-in production tools so creative professionals can output their designs in a variety of ways: from black and white comps on laser printers to full color separations on image setters.

Retail Price: \$695.00

Contact: Tom Milkes

Phone: 800-477-2131 or 214-680-2060

Fax: 214-680-0537

RISC Versions: Yes

Amalgamated Software of North America, Inc. (ASNA)

611 Spruce Road
PO Box 1668
Big Bear Lake, CA 92315
USA

Related Topics:

[ACCELER8 \(AS/400 compatible database\)](#)

[DataGate](#)

ACCELER8 (AS/400 compatible database)

Fastest ISAM for Windows NT

ASNA's patented and field proven index data management system is the fastest ISAM available today. Comparison tests have shown ACCELER8 to perform more than twice as fast as C-ISAM and 10 times faster when building indexes. ACCELER8 supports C-ISAM standard interface. ACCELER8 is the engine underlying ASNA's DataGate for Windows NT.

Retail Price: TBA

Contact: Tim Janssen, Sales

Phone: 800-321-2762

Fax: 909-866-9009

RISC Versions: Yes

DataGate

ASNA's Data Processing Environment for Windows NT

DataGate is the integrated data processing definition and execution environment for Windows NT. It provides cafeteria style data management choices to developers without the complexity and overhead of a relational data base. System software developers exploit DataGate's repository for such products as query systems, report writers, file editors, and CASE tools. Application software developers utilize DataGate's robust development environment featuring easy object management, data dictionary, externally described files, logical files, distributed data access, and much more.

Retail Price: DataGate Stand-alone, \$100.00; DataGate Client/Server, \$175.00

Contact: Tim Janssen, Sales

Phone: 800-321-2762

Fax: 909-866-9009

RISC Versions: Call for availability

International Sales:

Contact Derek Cooper, ASNA UK, Ph: 0483-570666; Fax: 0483-578191

Ampersand Corp.

327 West Arden Street
Suite 205
Glendale, CA 91203
USA

MaTriX for Windows NT

Mainframe Transaction Processing on Windows NT

MaTriX is a full-scale execution and development OLTP environment for IBM CICS applications on Windows NT. It provides the most cost-effective solution for people looking to develop, execute, maintain and upgrade COBOL applications for the IBM mainframe. With MaTriX, you can move applications between the mainframe and Windows NT with absolutely no changes - MaTriX provides total source code compatibility for CICS COBOL applications. MaTriX gives the enterprise the ability to leverage current investments in legacy mainframe applications on Windows NT. An additional advantage is that MaTriX provides an intuitive, menu-driven interface that makes mainframe programmers productive on Windows NT from the start. MaTriX come with great development tools that increase programmer productivity.

Retail Price: Svr:\$5,000.00 - \$8,000.00 Client: \$700.00 - \$1,200.00

Contact: Surekha Shetty

Phone: 818-548-9100

Fax: 818-548-7915

RISC Versions: Yes

Andrew Corp.

19021 120th Avenue NE
Bothell, WA 98011
USA

Related Topics:

[5250 Elite for SNA Server](#)

[TranScend 400 for SNA Server](#)

5250 Elite for SNA Server

Advanced AS/400 Terminal Emulation

5250 Elite supports a complete emulation environment to enhance user productivity through macros, DDE for database and spreadsheet linking and an easy-to-use interface, common to all Andrew Windows emulation products. These productivity tools allow users to get more out of emulation while supporting their need to get up and running immediately after installation.

Retail Price: \$245.00 per user

Contact: Jeanne Hansen, Sales

Phone: 206-487-1065

Fax: 800-328-2696

RISC Versions: Call for availability

International Sales:

Asia/Pacific, 512-314-3000

UK, 44-734-894-689,

TranScend 400 for SNA Server

The simplest and most advanced system for AS/400 Windows NT file transfer

TranScend 400 provides a standard Windows File Manager interface, simplifying setup and initiation of file transfer. An attached AS/400 looks and works like a PC drive under Windows File Manager an AS/400 library and file "trees" have the appearance of PC directory "trees". Drag and drop mouse maneuvers initiate file transfer while copy, delete and rename of AS/400 files are supported with an easy pull-down interface. TranScend runs over twinpax, token ring, Ethernet and SDLC connections.

Retail Price: \$199.00 per user

Contact: Jeanne Hansen, Sales

Phone: 206-487-1065

Fax: 800-328-2696

RISC Versions: Call for availability

International Sales:

Asia/Pacific, 512-314-3000

UK, 44-734-894-689

Ansoft Corp.

Four Station Square
Suite 660
Pittsburgh, PA 15219
USA

Maxwell Field Simulators

Field Simulation for Electromagnetics

Engineers involved in the design and manufacturing of electrical and electronic devices use the Maxwell EM Field Simulator products to analyze and visualize the effects of electric and magnetic fields within and around a device. Maxwell quickly solves for quantities such as force, torque, impedance, field distribution and flux density. Electromagnetic behavior simulated during the design process saves a tremendous amount of time and money by avoiding failed prototypes. The Maxwell EM 2D Field Simulator and the Maxwell EM 3D Field Simulator include graphical pre and post processing for easy entry of models and visualization of data.

Retail Price: \$2,900 - \$14,900

Contact: Mark Ravenstahl

Phone: 412-261-3200

Fax: 412-471-9427

RISC Versions: Call for availability

Anthes, Mario

Heinrich-Engel-Str. 22
64572 Klein-Grau,
Germany

File Eater for Windows NT

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\fileeat.zip

Works hand-in-hand with the Windows NT File Manager to delete files, directories and whole directory trees.

Retail Price: Shareware

Contact: Mario Anthes

RISC Versions: Inquire about availability

APEX Voice Communications, Inc.

15250 Ventura Blvd.
3rd Floor
Sherman Oaks, CA 91403

OmniVox NT

A general purpose Interactive Voice Processing Applications Generator with Voice Mail and Fax Processing capabilities

The OmniVox® NT Kit (software and board) is a complete set of software for creating and scripting voice processing applications such as Voice Mail, Interactive Voice Response, Fax Processing, and Audio-text. The OmniVox NT environment includes system management utilities, call counts reporting, on-line status display, and Hook commands for accessing user-developed "C" function. The open architecture of OmniVox NT facilitates access to databases supported through Windows NT. An optional Fax Processing module is available for Interactive Fax Response, Fax Mail and Fax Server. OmniVox NT utilizes Dialogic telephony boards and standard PC components.

Retail Price: Call

Contact: Elhum Vahdat

Phone: 818-379-8400

Fax: 818-379-8410

RISC Versions: Call for availability

International Sales:

For International Contacts: 1-800-727-3970

APIS Software

herCules

The portable database system

herCules is available for most operating systems. It includes libraries and shrouded source code. Documented sources can be purchased separately. herCules is available for network standalone or client/server architecture whereas the most common protocols are supported on various platforms. Secure through cipherring and for client-server a password mechanism will meet high requirement. herCules has fast data access, and developed applications are small. herCules supports visual programming and offers a sophisticated C++ interface, available for most C++ compilers. The report generator of herCules is simple and fast; for client-server mode, reports may be executed on server remotely.

Retail Price: \$335.00 and up

Contact: Wilma Stordiau

Phone: 49-0-69-30-3906

Fax: 49-0-69-34-75-34

RISC Versions: Call for availability

Arbor Software Corp.

1325 Chesapeake Terrace
Sunnyvale, CA 94089
USA

Essbase

Workgroup software system optimized for business reporting and analysis

Essbase enables workgroups to consolidate large volumes of business data and dynamically analyze it from any perspective and at any level of detail directly from a spreadsheet.

Essbase provides:

- simultaneous reads/writes to a single, shared data source
- high-speed consolidation of large volumes of business data
- "language-free" data queries directly from a spreadsheet (Excel or Lotus 1-2-3)
- multidimensional analysis and reporting
- an API for development of custom front -ends using Visual Basic or C

Financial, marketing and sales professionals use Essbase to consolidate and analyze large volumes of business data. The spreadsheet interface (Excel or Lotus 1-2-3) means there is no new interface or query language to learn in order to access corporate data. Data can be viewed instantly at any level of detail and from any perspective with a simple click of the mouse. Shared data access from the Windows NT server ensures that workgroup productivity and data integrity are maximized.

Retail Price: Call

Contact: Customer Service

Phone: 800-858-1666 or 408-727-5800

Fax: 408-727-7140

RISC Versions: Call for availability

Arcada Software Inc

37 Skyline Drive
Lake Mary, FL 32746
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Related Topics:

[Backup Exec for Windows NT](#)

[Storage Exec](#)

Backup Exec for Windows NT

Comprehensive 32-bit data storage and management solution

Backup Exec for Windows NT offers advanced features such as automatic backup, disk grooming, e-mail notification, remote registry support, and concurrent backup to multiple tape drives. Backup Exec provides a wide range of data protection services for Windows NT servers and workstations.

Retail Price: \$295.00

Contact: Mary Fenton Lee

Phone: 407-262-8000

Fax: 407-262-8116

RISC Versions: Call for availability

Storage Exec

The first enterprise backup solution for Windows NT Advanced Server networks

Provides powerful data management tools to configure, schedule, monitor, and control local and remote data storage from a central location. Scalable to accommodate small, medium, or large networks. Storage Exec optimizes hardware investment, reduces network traffic, and ensures consistent execution of data storage activities.

Retail Price: \$2,385.00 (Incl. 3-device license; addl. available)

Contact: Mary Fenton Lee

Phone: 407-262-8000

Fax: 407-262-8116

RISC Versions: Yes

Argent

49 Main Street
Torrington, CT 06790
USA

Argent Queue Manager

Complete batch queue management and job scheduling for Windows NT

Argent Queue Manager is a complete batch queue and job scheduling system for Windows NT. Argent Queue Manager (AQM) runs as a service. That is, you do not have to be logged in to run your batch processes. You can use AQM to submit a job with one simple command and have it run behind the scenes. AQM maintains a central log file so that you can check on the status of jobs, as they start, execute, finish, etc. AQM also provides for workload scheduling, allowing you to set up jobs in queues to run at night so that CPU response time for the user base will not be affected. AQM is a necessity for any site looking to build mission-critical applications on Windows NT.

Retail Price: Call

Contact: Scott B. McCausland

Phone: 203-489-5553

Fax: 203-489-4113

RISC Versions: Yes

International Sales:

Worldwide: 203-489-5553

Argos Systems, Inc.

Argos Building Design System

Integrated Building Design and Engineering Data Management system

Argos Building Design System provides the most complete and seamlessly integrated design and engineering data management solution for the building industry. It includes architectural design, automatic generation of 3D models, elevations, visualization, automated framing and panel design, cut lists, estimating and bills for materials. Automatic Options system provides unique management of optional designs. Supports different building technologies including wood and steel construction. Combined with the Argos Sales Office Module it is the most effective tool for building companies to improve quality, productivity and sales.

Retail Price: \$8000 to \$18.000

Contact: Perrti Vulli

Phone: 617-271-9393

Fax: 617-271-9394

RISC Versions: Call for availability

International Sales:

Europe, 358-31-182500

Arity Corp.

Damonmill Square
Concord, MA 01742
USA

Arity/Prolog32

Sophisticated 32-bit Prolog development system for Windows NT

Arity/Prolog32 is a complete, powerful, and flexible development system for building sophisticated applications running under Windows NT. This Prolog has been highly extended including a KGB virtual database with sequential, hashed, and B-tree indexing. An embedded 'C' compiler is provided, enabling direct interface between Prolog and C or C++. Arity/Prolog32 code can be interpreted, or compiled into an object form to be linked into an EXE or DLL. Applications built using Arity/Prolog32 can be deployed without an additional runtime charge.

Retail Price: \$2,450.00

Contact: Meredith Bartlett

Phone: 508-371-1243

Fax: 508-371-1487

RISC Versions: Call for availability

ASPEN Technologies, Inc.

P0 Box 5727
Parsippany, NJ 07054
USA

AWKtoC

Translates AWK command scripts to C language programs. These compiled scripts provide significant speed and security

AWKtoC comes to the aid of programmers who use the AWK command language. While AWK allows rapid solutions to many data handling brings along some problems. Translating AWK scripts into C overcomes these difficulties. Compiled AWK scripts run such faster then normal Since they are executables, the script is secure and safe from tampering. AWKtoC supports Microsoft Windows NT C, in addition to MS-DOS and UNIX systems.

Retail Price: \$185.00

Contact: Inside Sales

Phone: 201-316-0866

Fax: 201-334-7896

RISC Versions: Call for availability

Ataman Software, L.C.

1338 Foothill Drive, #303
Salt Lake City, UT 84108
USA

Related Topics:

[Ataman Rlogind Service](#)

[Ataman Telnetd Service](#)

Ataman Rlogind Service

A full-featured rlogind service for Windows NT

File location:

ftp.cica.indiana.edu:/pub/pc/win3/nt/iarlgd10.zip (Intel binaries)

ftp.cica.indiana.edu:/pub/pc/win3/nt/aarlgd10.zip (Alpha AXP binaries)

Technical support:

70363.1373@compuserve.com

The Ataman Rlogind Service (ARS) provides a Windows NT implementation of the TCP/IP based remote login protocol as defined in the Internet document: RFC 1282. This service allows users to remotely logon to a Windows NT machine and run character mode programs on the remote system. It uses the standard Windows NT user authentication mechanisms so that a separate password database is not needed. Remote users are provided with separate security contexts. No user needs to be logged on to the console for the rlogind service to function. The ARS provides support for full-screen character-mode applications that will work with any rlogin client that supports ANSI terminal escape sequences (such as VT100 terminal emulators).

Retail Price: Shareware; Single copy pricing starts at \$40

Contact: Brian Sturgill, ProdM

RISC Versions: Yes

Ataman Telnetd Service

A full-featured telnetd service for Microsoft Windows NT

File location:

ftp.cica.indiana.edu:/pub/pc/win3/nt/iatlnd11.zip (Intel binaries)

ftp.cica.indiana.edu:/pub/pc/win3/nt/aatlnd11.zip (Alpha AXP binaries)

Technical support:

70363.1373@compuserve.com

The Ataman telnetd Service (ATS) provides a Windows NT implementation of the TCP/IP based telnet protocol as specified in the Internet document: RFC 854. This service allows users to remotely log on to a Windows NT machine and run character mode programs on the remote system. It uses the standard Windows NT user authentication mechanisms so that a separate password database is not needed. Remote users are provided with separate security contexts. No user needs to be logged on to the console for the telnetd service to function. The ATS provides support for full-screen character-mode applications that will work with any telnet client that supports ANSI terminal escape sequences (such as VT100 terminal emulators.)

Retail Price: Single copy pricing starts at \$40

Contact: Brian Sturgill, ProdM

RISC Versions: Yes

Atria Software, Inc.

24 Prime Park Way
Natic, MA 01760
USA

rlogin for Windows NT

ftp.cica.indiana.edu:ftp/pub/pc/win3/nt

This directory contains implementations of a client and server for the TCP/IP "rlogin" facility (called "rlogin" and "rlogind") for Windows NT. Both source and executables (the latter for the x86 platform only) are provided.

Retail Price: Shareware

Contact: Nathaniel Mishkin

Phone: 508-650-1193

RISC Versions: Call for availability

Attachmate Corp.

3738 N. Fraser Way

Unit 101

Burnaby, British Columbia V5J 5G1

Canada

Related Topics:

[KEA 340 for Windows NT](#)

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KEA 340 for Windows NT

Aa fast and highly accurate VT simulator

KEA! 340 for Windows NT is a fast and highly accurate VT simulator which includes all the features of KEA! 420 for Windows NT, plus ReGIS, sixel and Tektronix graphics support, Automation tools - custom menus, dialog boxes, and on-screen mouse buttons and macro language - increased user productivity. KEA! 340 for Windows NT is shipped ready for all three Windows NT platforms (Intel, DEC Alpha and MIPS).

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Contact: KEA Sales

Phone: 604-431-0727

Fax: 604-431-0818

RISC Versions: Yes

KEA 420 for Windows NT

A fast and highly accurate VT emulator

Automation tools - custom menus, dialog boxes and on-screen mouse buttons, and macro language - increased user productivity. With KEA! 420 for Windows NT custom keyboard remapping is is easy with the graphical VT keyboard mapping utility. KEA! 420 for Windows NT provides accurate VT420 emulation and network compatibility including LAT and Windows sockets, and TCP/IP API support. KEA!420 for Windows NT is shipped ready for all Windows NT platforms (Intel, DEC Alpha, and MIPS).

Retail Price: Call

Contact: KEA Sales

Phone: 604-431-0727

Fax: 604-431-0818

RISC Versions: Yes

International Sales:

Australia, 61-3-694-6711

Belgium, 32-2-537-1080

France, 33-1-46-04-10-10

Germany, 49-89-99-39-19-0

Italy, 39-2-4870-8077

Mexico, 52-5-535-9386

Netherlands, 31-20-696-6031

Singapore, 65-223-0233

Spain, 34-1-388-56-32

Sweden,

Autodesk, Inc.

2320 Marinship Way
Sausalito, CA 94965
USA

AutoCAD Strategic Developer Release (SDR) for Windows NT

A general purpose design, drafting, and modeling software program that runs on a wide selection of desktop computers and workstations

AutoCAD's open architecture, embedded high-level programming language, and C programming interface contribute to its unique versatility as a CAD standard for many disciplines, as does its provisions for writing customized drivers for peripheral devices. AutoCAD's flexible user interface includes such features as easy-to-use pull down menus, dialogue boxes, and icon menus that help customers take advantage of a host of dynamic features, including 2D and 3D modeling capabilities and integrated color rendering.

Retail Price: Call

Contact: Inside Sales

Phone: 800-964-6432

Fax: 415-331-8093

RISC Versions: Call for availability

Autologic, Inc.

1050 Rancho Conejo Blvd
Thousand Oaks, CA 91320-1794
USA

Related Topics:

[APS-FAX](#)

[APS-SoftPIP for Windows NT](#)

APS-FAX

An advanced remote high-resolution imaging system running under Windows NT

APS-FAX is a high-resolution facsimile system which provides for the remote imaging of high-quality line art, text and halftone graphics. Full size newspaper sheets are transmitted from a single sending site over high-speed phone lines such as T1 or ISDN to one or more remote sites for imaging. An APS-FAX configuration consists of one APS-FAX Sending Site unit and one or more APS-FAX Imaging Site units. A maximum of 31 Imaging Sites can be supported from a single Sending Site.

Retail Price: \$65,000.00 per site

Contact: Al Brunner

Phone: 805-498-9611

Fax: 805-498-1167

RISC Versions: Yes

APS-SoftPIP for Windows NT

High Performance, Low Cost PostScript Page Production System

Operation of the APS-SoftPIP is performed on a dedicated EISA CPU, and can run unattended for maximum efficiency. PostScript files are sent from the PC; the job is interpreted and rasterized. At customer option, rasterized pages can be output directly to the imager or queued to memory or disk using throughput accelerator. The rasterized data can be output to any Autologic laser printer or imager on film, paper or plate material. Imager selection is easy to configure from the application program via 'page set-up' and 'chooser'. Throughput acceleration which allows simultaneous input, RIPing and imaging of files boosts page production. Features include Adobe compatible PostScript Level 2 and support of color laser imagers with resolutions up to 4000 x 4000 dpi. Screening options include various dot shapes plus Harlequin Precision Screens (HPS). Support of popular network protocols include etherTalk II and TCP/IP/FTP for input. Thirty-five LaserWriter fonts are provided. Other fonts and font libraries are available.

Retail Price: \$14,000.00

Contact: Al Brunner

Phone: 805-498-9611

Fax: 805-498-1167

RISC Versions: Yes

Avalan Technology

P.O. Box 6888
Holliston, MA 01746
USA

Remotely Possible/LAN with TCP/IP support

The only Windows network remote control software that supports Microsoft's TCP/IP Windows Sockets version

Remotely Possible provides fast and reliable remote control, file transfer and chat sessions between Windows PC's. It allows you to run DOS applications full screen. Supports all accelerator cards, all video types, all colors, and all network topologies. In combination with Remotely Possible/Dial, it provides dial-in, dial-out and across the network connectivity as well as SLIP connectivity over the internet. Unprecedented speed is achieved due to Avalan's unique " Windows Command Transfer " technology.

Retail Price: \$999.00 per network

Contact: Duncan Temple

Phone: 508-429-6482

Fax: 508-429-3179

RISC Versions: Call for availability

Avalon Software

3716 East Columbia

Tucson, AZ 85714

USA

Avalon CIIM

A full-function, client/server solution

Avalon CIIM is the only advanced manufacturing solution to support multiple SQL-based RDBMS, a true client/server architecture, CASE technology and a wide variety of hardware and operating platforms. Avalon provides manufacturing, financials, and distribution applications.

Avalon CIIM is a comprehensive solution designed to support a variety of manufacturing environments. It is built on an open systems architecture to provide flexibility, portability and ease-of-use.

Retail Price: Call

Contact: Dean Burrell

Phone: 602-790-4214

Fax: 602-750-0822

RISC Versions: Call for availability

International Sales:

Contact Chris Roon at 602-790-4214, x767

AxxiS Corp.

1255 Belle Ave.
#101
Winter Springs, FL 32708
USA

AxxiS

The Fastest, Easiest Information Retrieval System Ever Developed

Axxis is a secure Turn-Key Electronic Imaging System that incorporates the fastest scanning, indexing and retrieval speeds in the industry. Using current and innovative technology that incorporates Optical Character Recognition (OCR), the system AUTOMATICALLY indexes and links a page to its document and file name Without User Intervention. Documents can be retrieved instantaneously by their file name or by any word or number on any page.

Retail Price: Call

Contact: Steven Schwartz

Phone: 407-696-4200

Fax: 407-696-4201

RISC Versions: Call for availability

Babarsoft

USA

Related Topics:

[M-Edit: Text Editor for Windows NT](#)

[Melt Screen Saver Module For Windows NT](#)

[Spin Control for Windows NT](#)

M-Edit: Text Editor for Windows NT

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\medit1.zip

M-Edit is a text editor featuring a multiple window interface, selectable fonts and colors, retention of the last files edited, access to language help systems and the ability to start compilers and build projects.

Retail Price: Shareware

Contact: Mark Gambler

RISC Versions: Inquire about availability

Melt Screen Saver Module For Windows NT

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\melt.zip

Melt moves random pixels down the screen, making the screen into an unreadable mess in short order. Any movement of the mouse or keyboard will reset the screen to it's original appearance.

Retail Price: Shareware

Contact: Mark Gambler

RISC Versions: Inquire about availability

Spin Control for Windows NT

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\ntspin.zip

Spin is a control used to manipulate numeric data entry or a list of items where a listbox would be cumbersome. You may attach an edit control to Spin, allowing Spin to increment and decrement the number in the edit control automatically without any extra coding. In addition, you may select upper and lower limits and "wrap around" when a limit is reached. These require some extra code as they are not available while designing the dialog box.

Retail Price: Shareware

Contact: Mark Gambler

RISC Versions: Inquire about availability

Bachman - Cooperative Solutions, Inc.

2125 Hamilton Ave.
Suite 100
San Jose, CA 95125
USA

Ellipse System

Generate mission critical Client/server applications

Ellipse is an integrated development, production application control, and Life Cycle management environment. Robust applications are generated for mission critical client/server tasks. Ellipse Development Environment (DE) allows programmers, with no previous experience in GUI or client/server programming to become proficient, in less than 4 days of training. Applications utilize services provided by the Ellipse Production System (PS). Ellipse PS takes responsibility for application partitioning, inter-process messaging, application recovery, retry, transparent portability and enhanced, role-based security. All development and maintenance of all re-usable objects are under control of the repository-based Life Cycle management system. Multi-level version control, configuration management and automated installation are unique Ellipse capabilities.

Retail Price: \$7,500.00

Contact: Jim Gast

Phone: 408-377-0300

Fax: 408-377-7504

RISC Versions: Call for availability

Bantam Computer Books

666 Fifth Ave.
24th Floor
New York, NY 10103
USA

Related Topics:

[GUI Power Tools: Featuring XPLib](#)

[Windows NT Power Tools](#)

GUI Power Tools: Featuring XPLib

Cross-Platform Development for Windows NT, Windows, and the Macintosh

As one of the titles in its best-selling Power Tools series, GUI Power Tools combines a textual discussion of issues in cross-platform development with a high-quality library for cross-platform development. In the text, author Steven J. Petrucci examines the most common approaches to cross-platform development, and examines major issues in cross-platform development that result from differences between platforms. The goal is to allow the developer to make intelligent choices that will reduce the effort of cross-platform development. This is also the goal of XPLib, the software component of the book/disk. XPLib is a cross-platform development library for Windows 3.1, Windows NT, and the Macintosh. With its extensive support for virtually all areas of cross-platform development -- like memory management, file management, event handling, graphics, printing, mouse handling, printing, windowing, and menuing-- it provides a common library for the three platforms that can save the developer countless hours of coding.

Retail Price: \$54.95

Contact: Mark Dazzo

Phone: 212-354-6500

Fax: 212-492-8941

RISC Versions: Call for availability

Windows NT Power Tools

Featuring Oriel for Windows NT, the Graphics-Based Batch Language

Windows NT Power Tools is a book/disk product targeted at the experienced Windows NT user who is interested in customizing and fine-tuning the operation of Windows NT. Written by The LeBlond Group, the text provides tips and techniques for enhancing Windows NT power in such areas as networking, file management, memory management, data sharing, and printing. The software component of the book/disk is Oriel for Windows NT, an enhanced version of the graphics-based batch language originally developed by The LeBlond Group and Charles Timmerman for Windows. Oriel for Windows NT is a batch language that supports over 80 commands and functions. It allows direct access to the Windows NT Graphics Device Interface, and can be used effectively for such purposes as front-end shells, customized menuing systems, overall control of the Windows NT desktop, and prototypes of applications in development.

Retail Price: \$49.95

Contact: Mark Dazzo

Phone: 212-354-6500

Fax: 212-492-8941

RISC Versions: Call for availability

Baron Software Services, Inc.

329 Pittsburgh Ave
Massapequa Park, NY 11762
USA

STUDENT ADVISEMENT/GRADUATION AUDIT

Provides the advisor and student a report allowing each to view the student academic life. A graduation audit can also be requested to fulfill the student's requirements to obtain a diploma.

Retail Price: \$495.00 per node

Contact: Pauline Cortese

Phone: 516-797-4366

Fax: 516-797-4366

RISC Versions: Call for availability

Base Technology

1320 Pearl Street
Suite 110-B
Boulder, CO 80302
USA

Liana Professional Developer

Liana gives you Object-Oriented Programming without the hassle

Liana is a new, C-like, interpretive object-oriented programming language and class library designed specifically for Microsoft Windows. Syntax is very similar to C and C++, but simplified and extended to be more flexible and as friendly as BASIC. A very high-level class library has over 150 classes for data management and Windows objects with easy-to-use support for DDE, DLLs, and MDI. Supports user-defined classes with inheritance. Manual has tutorial with over 70 sample programs. Great for prototyping and casual programming. Can be used as a standalone tool or as a companion tool for C and C++ programmers.

Retail Price: \$695.00

Contact: Jack Krupansky

Phone: 303-440-4558

Fax: 303-444-4186

RISC Versions: Yes

Baseband Technologies

5 Harrison Ave
Suite A
North Grafton, MA 01536
USA

Related Topics:

[Baseband Test/Statistics Utilities](#)

[NDIS Device Driver Development](#)

[NetWeasel](#)

Baseband Test/Statistics Utilities

The Baseband Test/Statistics Utilities are a set of products for developers and maintainers of communications networks and network products. These utilities can be used individually or as a library of functions, enhancing the standard software and driver development kits. These Utilities contain: A Network Tool, which provides a low-cost substitute for hardware LAN monitors, displays captured data in a variety of formats with a loadable display template defined by the user. A Network Loopback Tool tests and exercises the protocol stack without requiring a network card. The isolation of hardware from software greatly facilitates debugging and shortens the development cycle. This tool provides a test platform for developers of protocol stacks, and also functions as a demonstration aid for vendors. A Network Exercise Tool which stresses the network system and gathers statistics for later analysis. A single control system directs the operation of the attached units, driven by a user-created script.

Retail Price: Call

Contact: Jeff Hendrickx

Phone: 508-839-9744

Fax: 508-839-9744

RISC Versions: Call for availability

NDIS Device Driver Development

Baseband Technologies engineers are expert in NDIS device driver development, and have written drivers for companies nationwide. They have over 60 years combined experience in PC-based software programming, and are deeply committed to high performance, robust drivers for their clients. Baseband Technologies recognizes the need for an experienced, dedicated team of engineers to provide the highest quality drivers and continued support to adapter developers. Baseband Technologies uses its own Baseband Test/Statistics Utilities to supplement the standard software and driver development kits in their development cycle. These tool kits can be provided to the adapter manufacturer as further enhancement to their marketing efforts. Baseband has already been developing NDIS 3.0 drivers, and is at the forefront of the new NDIS technology.

Retail Price: Call

Contact: Jeff Hendrickx

Phone: 508-839-9744

Fax: 508-839-9744

RISC Versions: Call for availability

NetWeasel

LAN Monitoring Tool

Retail Price: \$200.00

Contact: Jeff Hendrickx

Phone: 508-839-9744

Fax: 508-839-9744

RISC Versions: Call for availability

Beame & Whiteside Software, Ltd.

706 Hillsborough Street
Raleigh, NC 27603-1655
USA

Related Topics:

[BW-Connect NFS for Windows NT, Version 1.0](#)

[BW-MultiConnect for Windows NT/NTAS Version 1.1](#)

BW-Connect NFS for Windows NT, Version 1.0

High performance multi-threaded kernel implementation of NFS for Windows NT

BW-Connect™ NFS for Windows NT/NTAS provides three functions: Network File System (NFS) Client software; Server TCP/IP application; and Client TCP/IP applications. The BW-NFS Client provides Windows NT users on a local area network the ability to transparently access, manipulate and print files from other network NFS servers (UNIX and others). The BW-NFS Client is a native 32-bit, multi-threaded, installed file system. It is a kernel implementation, not a user space program. Server TCP/IP graphical applications are provided via a UNIX like INET daemon (INETD) for Windows NT. Server processes include: FTPD; TALKD; nTALKD; TELNETD; TNAMED; COOKIED; LPD; and FINGERD. They allow other machines running TCP/IP to perform the respective client functions. Client TCP/IP graphical applications include: terminal emulation; (TELNET); drag and drop FTP; FINGER; PING; Talk; NewTalk; and a mail reader. Provides a Windows NT command line TELNETD (server) function to other machines with the appropriate security checking in Windows NT.

Retail Price: \$449.00

Contact: Inside Sales

Phone: 919-831-8989

Fax: 919-831-8990

RISC Versions: Yes

BW-MultiConnect for Windows NT/NTAS Version 1.1

Makes Windows NT look like a native NetWare file server!

BW-MultiConnect™ is a Novell NetWare 3.x file server emulator for Windows NT that makes a Windows NT machine look like a NetWare file server to Novell client workstations. It provides existing NetWare users with seamless access to Windows NT files and printers. BW-MultiConnect is comprised of a high performance IPX device driver stack and a loadable network driver which provides file server functions. The network system administrator specifies which file and print resources on the Windows NT machine are to be exported to NetWare clients. All software resides on the Windows NT machine, no additional client workstation software is necessary. Support Ethernet or token-ring hardware, all standard frame types, bi-directional printing, and symmetric multiprocessors. A Programmers API library is provided.

Retail Price: Call

Contact: Inside Sales

Phone: 919-831-8989

Fax: 919-831-8990

RISC Versions: Yes

BGW Computers

5238 Holiday Rd
Minnetonka, MN 55345
USA

UUtil

Gives you powerful UNIX-like commands in Windows NT

The UUtil package includes the most common UNIX shell commands and programming utilities in Windows NT Single Command Shell executable form. Also included are a set of batch commands that mimic the UNIX commands using Windows NT Single Command Shell commands, giving you UNIX functionality with small disk space requirements. The second release of UUtil will add a Windows interface to the commands, in addition to the command line versions.

Retail Price: \$49.95

Contact: Ben Witso

Phone: 612-934-3986

Fax: 612-934-3685

RISC Versions: Call for availability

Black Forest Software

3555 Conecrest Lane
Colorado Springs, CO 80908
USA

SimPlexus

A simple, easy-to-use simulation and modeling tool

This is a discrete event simulation and modeling tool for estimating the performance and capacity of computer systems. It is useful for rapid prototyping of system and component design elements, and for conducting experiments which vary the load and configuration of the system under study. Little or no previous knowledge of simulation or simulation languages is required, since the interface is designed to be entirely graphical. Building blocks include workstation nodes, host nodes, traffic generators (source nodes), executable images (processes, tasks, virtual machines), real time graphical outputs in the form of plots, and many more. It is not designed to be a replacement for a simulation language, but is flexible in that it is hierarchical and can model a system-of-systems. Load can be modeled using one of several stochastic processes, or from scripted scenarios. Resources include LANs, printers, CPUs, disks, and memory. Results can be displayed in real time windowed text or can be printed from text file output.

Retail Price: Introductory price \$50

Contact: Ron Van Huss

Phone: 719-488-0650

RISC Versions: Yes

Blackwell Software

BSP Ltd
Osney Mead
Oxford, OX2 OEL
UK

Idealist for Windows NT

The information manager Idealist is the only FULL-TEXT database manager for Windows, Windows NT, MS-DOS and the Macintosh

A full-text database differs in three key ways from the flat-file/relational type: fields are variable in length (not preset); records may vary in type (multiple record types per file); every term in the database is indexed (every item is an instantaneous search term). In an Idealist database you have the flexibility to store ALL the information, not just the parts that fit. An Idealist database can find you any record by anything it contains - in milliseconds. Idealist is the database for making information accessible. In the USA and Canada Idealist is available from:

EUROP2000, Inc.
1272 Coolidge Avenue
San Jose, CA 95125

Contact: Bernard F King
Tel/fax: (408) 295-6821
Toll free: (800) 634-5155
CompuServe: 70272,766

Retail Price: \$395.00 single

Contact: Peter Kibby

Phone: 440-865791738

Fax: 440-865791738

RISC Versions: Yes

Blossom Software Corp.

One Kendall Square
Building 600, Suite 185
Cambridge, MA 02139
USA

lbrow

A lightning-fast Windows-based programmer's editor. Available in source

lbrow incorporates advanced features like single-click access to online help, function definitions, and header files, built-in multi-directory grep, multiple concurrent search/replace dialogs, mega undo/redo, integrated program launching, single-button cut and paste, per-window fonts and tabs, file and directory history, and fast editing of large files.

lbrow is available in binary and source. It is written in C using message crackers and a hierarchy of window classes. The code compiles under Win 16 and Win32. The binary is very trim -- less than 125kb under Windows NT. Source code includes the monograph Programming Windows with Class.

Retail Price: \$49.95 (binary) \$179.95 (source)

Contact: Inside Sales

Phone: 617-738-1516

Fax: 617-566-4936

RISC Versions: Call for availability

Blue Ridge Software Inc.

Box 406
112 W. Washington
Monticello,, IL 61856-0406
USA

Trusted Network Technology (TNT)

A trusted TCP/IP network system providing encryption, key management, configurable network security policy (e/g/ mandatory and discretionary access control, firewall, gateway) and an audit collection center

The TNT system provides security features and assurances which allow a network tested computing base to be constructed designed to meet or exceed the TCSEC B1 Criteria. The Session Management Module provides information to both sides of a network liaison upon session creation about the user, type of service, and other related session parameters. Data Encryption is an internal feature of the TNT system. All user data passed across the trusted network is encrypted with one of 4 encryption modes based on the Data Encryption Standard (DES) The TNT system collects all audit records at one central site for processing by a Network Security officer. This centralized procession helps an administrator in diagnosing and resolving any potential network security violations.

Retail Price: \$495.00 (Quantity discounts and enterprise licenses available)

Contact: Scott Wiegel

Phone: 217-762-2375

Fax: 217-762-8360

RISC Versions: Call for availability

International Sales:

Call Blue Ridge Software headquarters.

Blue Sky Software Corp.

7486 La Jolla Blvd., Suite 3
La Jolla, CA 92037
USA

Related Topics:

[Magic Fields for Windows NT](#)

[RoboHELP 2.6](#)

[Visual SQL](#)

[WindowsMAKER Professional 5.5 for Windows NT](#)

Magic Fields for Windows NT

Data Validation Controls for Windows NT

Instead of writing code to do your input checking, point and click to add pre-defined or custom defined data entry fields to your Windows NT application. You can also visually specify typefaces, fonts, borders and colors and add a 3-D NeXT look to the fields. The grayed 3-D effect can also be applied to any dialog box and to any other elements inside it. Magic Fields consists of a large collection of objects that perform data field validation. The collection includes: numeric, text, alphanumeric, data, \$, international currency, phone number, zip code, social security number, password and other templates, pictures, and objects. In addition, custom objects can be defined. Magic Fields also offers full support for international date/currency formats. Magic Fields may be used with any standard Windows dialog editor, such as Microsoft or Borland dialog editors or WindowsMAKER Professional.

Retail Price: \$495.00 (no royalties or runtime fees)

Contact: Inside Sales

Phone: 800-677-4WIN

Fax: 619-459-6366

RISC Versions: Yes

RoboHELP 2.6

The Best-Selling Help Authoring Tool for Windows and Windows NT

RoboHELP allows you to design, test and generate comprehensive, context sensitive, hypertext help systems for Windows NT. RoboHELP also offers full automatic document to help system conversion - if you have an existing document, you can turn it into a help system with a few clicks of your mouse. You can also turn your help system into printable documentation. RoboHELP reduces the time it takes to create a help system by up to 95%. RoboHELP guides you through the necessary steps - you just fill in the actual help text. You can spend your time concentrating on the contents of your help system, not the peculiarities of the source code format for the Windows Help Compiler. RoboHELP takes care of the complexities of setting context strings, keywords, browse sequences, and hypertext links as well as cross references, topics, bitmap hot links, graphics, and more. A fully integrated tool, RoboHELP generates all the source files required by the compiler (H, HPJ, and RTF files), takes care of running the help compiler, and will even test run your help system. Supports all the powerful features of the Windows Help Engine, such as macros, secondary windows, and multiple hotspot graphics. Allows you to update and maintain existing help systems by importing existing help source files (even projects not originally created with RoboHELP), utilizing all pre-existing links and keywords. RoboHELP is the first help authoring tool to support both Word 6.0 and Word 2.0.

Retail Price: \$499.00 (no royalties)

Contact: Inside Sales

Phone: 800-677-4WIN

Fax: 619-459-6366

RISC Versions: Yes

Visual SQL

FastWindows Client/Server Application Development

Visual SQL allows you to create native Windows client/server applications that connect to SQL databases and any database supporting ODBC. Unlike competing products that use proprietary languages, Visual SQL generates ANSI C source code that makes direct calls to the Windows API and the database API, and works with all the industry standard C or C++ compilers. Applications created with Visual SQL run far quicker than traditional interpretive or script based Windows client/server applications. With Visual SQL there is no need for in-depth knowledge about the database API and the Windows API. Visually design your application and can build database access right into your screens. Visual SQL offers a powerful Preview Mode to test run your application without having to compile and link first. Also includes a powerful query prototyper to visually create SQL queries. Supports SQL Server, ORACLE, SYBASE and WATCOM SQL, and all databases supporting ODBC.

Retail Price: \$4,900.00

Contact: Inside Sales

Phone: 800-677-4WIN

Fax: 619-459-6366

RISC Versions: Yes

WindowsMAKER Professional 5.5 for Windows NT

Award-Winning Visual Prototyper and C/C++ Code Generator for Windows NT

WindowsMAKER Professional is an award winning Prototyper and C/C++ code generator that allows you to visually design, test and generate Windows and Windows NT applications the fast way. This is the professional development tool for Windows NT. From the tool palette, select, place & add functionality to menus, toolbars, icons, bitmaps, dialog boxes, and other graphical objects that comprise a Windows application. Visual prototyper and an embedded dialog editor give you fast prototyping and the ability to preview your application and make changes before you compile. Switch-It Code Generation Modules for ANSI C, MFC C++ and OWL C++ allow for cross platform development. Generates portable code (shared source code for 16 and 32 bit apps). TrueCode Technology ensures that your user code is preserved 100% during code regeneration. Generates expert level, fully commented source code and production files. No royalties or runtime fees.

Retail Price: \$995.00 (no royalties or runtime fees)

Contact: Inside Sales

Phone: 800-677-4WIN

Fax: 619-459-6366

RISC Versions: Yes

Blue Water Systems

144 Railroad Ave., Suite 207
Box 766
Edmonds, WA 98020
USA

WinRT

Real time programmer's toolkit

The WinRT toolkit allows programmers to control Port I/O, Memory I/O and Interrupts from Win32 apps WITHOUT the DDK. Interrupt rates in excess of 2,000 per second are possible. Spend your time writing your App, not wading through the Device Driver Kit (DDK) documentation. Typical applications include data acquisition and process control interface cards as well as custom interfaces not supported under Windows NT. Binary compatible version for Chicago available when Chicago ships.

Retail Price: \$595.00 (royalty free runtime)

Contact: Sales

Phone: 206-771-3610

Fax: 206-771-7758

RISC Versions: Call for availability

Borland International

1600 Green Hills Rd.
Scotts Valley, CA 95067
USA

Borland C++

The World's Best Compiler and Tools for C and C++

Borland C++ for Win32 is the next generation of Borland's best compiler and tools for quick creation of powerful C and C++ Win32 applications for Windows NT and Win32s. Borland C++ simplifies complex tasks by giving you a complete set of tools and libraries, such as enhanced ObjectWindows that supports 16 to 32-bit source code portability. Use Borland's C++ Integrated Development Environment (IDE) to give you easy access to everything you need to build robust applications. Includes Resource Workshop, Turbo Debugger, Turbo Assembler, and the ObjectBrowser to show object relationships graphically. Borland C++ includes full support for today's language standards to take you into the future.

Retail Price: \$299.00

Contact: Inside Sales

Phone: 800-331-0877

Fax: 408-439-9343

RISC Versions: Call for availability

Bristol Technology Inc.

241 Ethan Allen Highway
Ridgefield, CT 06877
USA

Wind/U 2.0

The Microsoft Windows API on UNIX/Motif

Wind/U, by Bristol Technology, is the Microsoft Windows API on UNIX/Motif. Wind/U enables Microsoft Windows applications to run as native UNIX/Motif applications. The existing Windows applications is recompiled in the UNIX environment and linked to the Wind/U Library, allowing the Windows application to execute in the native UNIX environment. Microsoft Windows applications ported to UNIX with the Wind/U toolkit maintain identical features such as on-line help, printing support, combo boxes, MDI, DLLs, DDE and Visual C++ MFC support.

Retail Price: \$9,950.00

Contact: Chane Cullens

Phone: 203-438-6969

Fax: 203-438-5013

RISC Versions: Call for availability

International Sales:

UK: Tim Joyce, Protek, tjoyce@proteck.co.uk; 44-628-75959

Brown University

USA

Animated Cursors for Windows NT

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\anicurs1.zip...or anicurs2.zip

Big collection of .ANI and .CUR animated and normal cursors for Windows NT. Assembled by Dan Goldwater using Animated Cursor Creator from Windows NT Resource Kit. Includes cursors created by myself, Microsoft and others.

Retail Price: Shareware

Contact: Dan Goldwater

RISC Versions: Inquire about availability

Buckmore Enterprises

18 Tannery Road
Westfield, MA 01085-4822
USA

BALLISTIC SPECTROANALYZER

Ballistic Spectroanalytic System, V. 1.11

Product Description: Basically, this software package, the first of its kind in the entire industry, represents an attempt to fulfill a market need to allow members of the military, police and recreational shooting communities to comprehensively examine the entire range of the performance characteristics of a gun-system and its ammunition. Starting off in Interior Ballistics, it will calculate the best rate of twist, the best muzzle velocity, the best bullet length, gun report loudness, gun report frequency, bullet yield pressure and best bullet lead-alloy. In Exterior Ballistics, it will calculate and graphically display the bullet's trajectory and the height of the bullet above or below the baseline; the Maximum Range of Lethality; the Maximum Effective Range; the Maximum Effective Distance; and all drag characteristics. For Terminal Ballistics, however, once the bullet will have reached the Initial Terminal Velocity -- the velocity of the bullet at the precise moment it strikes the target -- the program's subroutines will calculate the bullet's depth of penetration and graphically display its penetration cavity, temperature and remaining velocity at each increment until it either stops entirely in the target or completely penetrates it. If there is full penetration, then other subroutines will calculate the remaining lethality and the range of lethality beyond full target penetration.

Retail Price: \$200.00 - \$300.00

Contact: Alvah Buckmore, Jr.

Phone: 800-659-6355

Fax: 413-568-4978

RISC Versions: Call for availability

CAD-Migos

1975 Fernside Street
Redwood City, CA 94061
USA

Related Topics:

[Spice-Client for Windows NT v1.0](#)

[Spice-It! for Windows NT, v.1.0](#)

[THE WHOLE ENCHILADA for Windows NT v1.0](#)

Spice-Client for Windows NT v1.0

Companion product to the standard Spice-It for Windows NT schematic capture and simulation tool

This tool delivers identical functionality for symbol and schematic editing, library management, system utilities, simulation management, and graphical post-processing features. The internal simulation engine that performs the computationally intensive simulations has been removed in favor of utilizing the remote simulation processing capabilities of Spice-It! for Windows NT in a client-server relationship. A workgroup of engineers can utilize this configuration to increase the cost effectiveness of their tools and networks beyond the already highly productive user of CAD-Migos Software Tools products.

Spice-Client™ for Windows allows the design engineer flexibility beyond simple multi-tasking on his workstation. The simulation algorithms are delegated to the Spice-It! for Windows NT server. This allows more efficient use of the engineer's client system for schematic capture, post-simulation processing, and other activities. The use of standard Remote Procedure Call (RPC) protocols allows the interaction of client and server programs to occur naturally over supported networks.

Retail Price: \$850.00

Contact: PamelaJ. Schneider

Phone: 415-369-5853

Fax: 415-369-5853

RISC Versions: Call for availability

International Sales:

Call Pamela Schneider

Spice-It! for Windows NT, v.1.0

Powerful, integrated, electronic circuit design and simulation system including full-featured design entry tools, interactive circuit debugging, extensive device model libraries, and enhanced plotting features

Spice-It!™ for Windows NT brings the power and efficiency of client-server computing to the world of schematic capture & simulation tools. The computationally intensive tasks associated with mixed mode simulations are services provided by this server product to offload individual workstations on the workgroup network. The "local client" provides advanced functionality for symbol and schematic editing, library management, system utilities, simulation management, and graphical post-processing features. The simulation server provides native mode mixed mode simulation capabilities with expandability templates allowing the engineer to define new data types modelled and simulated in the same process using this simulation server. Event-driven models are submitted using Spice syntax extensions. The Windows NT version of Spice-It! provides the capability to launch simulations locally via a Win32 "local client" or remotely using the Spice-Client companion product. The use of standard Remote Procedure Call (RPC) protocols allows the interaction of client and server programs to occur naturally over supported networks.

Spice-It! for Windows NT is a powerful, integrated engineering design and analysis client system for engineers and scientists. It has been carefully developed to aid those professionals in the successful specification, simulation control, and ongoing implementation of electronic, electrical algorithmic, and even mechanical systems. Containing a full-featured set of graphical design entry and schematic editor tools, the system supports remote simulation tasks with graphical display features. Used in conjunction with the companion product, Spice-Client for Windows, this server product provides a seamless platform for design success. May be utilized as an entry tool for CAD-Migos PCB design and automation tool. The Whole Enchilada.

Retail Price: \$2,095.00

Contact: Pamela J. Schneider

Phone: 415-369-5853

Fax: 415-369-5853

RISC Versions: Yes

International Sales:

Contact Pamela J. Schneider

THE WHOLE ENCHILADA for Windows NT v1.0

Enhance your engineering CAD/CAE tool library with a powerful electronic PCB design and layout tool set developed with the latest in CAE technology for engineers, designers, and scientists

The Whole Enchilada for Windows presents the most powerful, cost-effective electronics design and engineering system available on the market under the Windows operating system environment. The system provides advanced functionality for full design process control from schematic entry to fully simulated circuit board layout.

The engineer/designer utilizes the symbol and schematic editors to prepare the connectivity netlists and graphical designs to begin the process. Both tools are Windows compatible with clipboard and multi-document support as well as context-sensitive help capabilities. Utilizing the VHDL Behavioral Editor yields a simulation subcircuit netlist for those porting of the design to be integrated into a Xilinx FPGA. This may also be used to simulate digital components that do not have defined Spice-It! models (microprocessors, etc.) The integrated mixed-mode simulation tool, Spice-It! for Windows verifies the expected circuit system performance utilizing advanced cursor-based graphical probe controls. The designer created the PCB layout using the interactive AutoPlacement, Auto Routing and Post Processing tools. The simulation tool may also be utilized to reevaluate the completed PCB design for signal integrity using transmission line models for the routed traces.

Retail Price: \$3,995.00

Contact: PamelaJ. Schneider

Phone: 415-369-5853

Fax: 415-369-5853

RISC Versions: Call for availability

International Sales:

Contact Pamela Schneider

Cadkey, Inc.

4 Griffin Rd., N
Windsor, CT 06095-1511
USA

CadKey Object Developer (CODe)

Object-oriented CAD/database toolkit for 32-bit Windows and Windows NT application development

The CADKEY OBJECT Developer (CODe) is an object-oriented development toolkit for 32-bit applications running under Windows and Windows NT. It allows you to easily build products that require high-end graphics, modeling, and object-oriented database functionality. A collection of C++ objects and modules, an Application Framework (AFX), and libraries for ObjectStore, a leading client/server database developed by Object Design, Inc. make it the ultimate toolkit. It plugs directly into the Microsoft Foundation Class (MFC) and OLE/2 architecture giving you a tightly integrated solution that makes development of Windows applications fast and simple.

Retail Price: \$495 (USD)

Contact: Annie Staniunas

Phone: 203-298-8888

Fax: 203-298-6401

RISC Versions: Yes

International Sales:

Asia Pacific, 011-65-256-2202 Fax: 011-65-256-2138

Europe, (Switz) 011-41-61-901-1555, Fax: 011-41-61-901-2066

Cadre Technologies Inc.

222 Richmond Street
Providence, RI 02903
USA

ObjectTeam for Rumbaugh

The most complete automation of the Rumbaugh et al. Object Modeling Technique (OMT)

An advanced tool for object-oriented software development, Cadre's ObjectTeam for Rumbaugh completely automates the popular Rumbaugh et al. Object Modeling Technique. Supplying an integrated set of development tools for object-oriented analysis and design, ObjectTeam for Rumbaugh also supports code generation for C++, Ada, SQL, and OODBMS, and promotes reuse by allowing for reverse engineering of existing C and C++ code. The product offers many different tools to capture, view, edit and navigate. Its modern, flexible graphical user interface supports Microsoft Windows and UNIX motif. Its open architecture provides for easy integration.

Retail Price: Pricing begins at \$3,995.00

Contact: Teleprofessional Services

Phone: 401-351-5950

Fax: 401455-6800

RISC Versions: Call for availability

International Sales:

International Operations, Cadre Technologies SA, Rue Juste-Olivier 22, CH-1260 Nyon. Switzerland, 41-22-362-2251

Fax: 41-22-361-0785

Latin American Operations, Cadre Technologies, 5605 N MacArthur Blvd, Irving, TX, 75038, 214-751-

Calera Recognition Systems, Inc.

475 Potrero Avenue
Sunnyvale, CA 94086
USA

Calera OCR SDK for Win32/32s

The Windows 32-bit OCR development kit

The Calera OCR SDK for Win32/32s enables developers to create scaleable Windows applications that can convert document images into editable text. Calera's industry leading OCR technology provides the most accurate OCR solution for processing a wide range of documents, from draft-quality dot-matrix, laser printed or typewritten documents to faxed documents and multi-generational photocopies.

Retail Price: Call

Contact: Alan Williams

Phone: 408-720-8300

Fax: 408-720-1330

RISC Versions: Call for availability

Carecom

CARECOM, ver 1.5

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\ccd150.zip

CARECOM® ccd is a shareware utility that enables you to change directories quickly without completely specifying path names.

Retail Price: Shareware

RISC Versions: Inquire about availability

Carmel Software Engineering

20 Hahistadrut Ave
POB 25055
Haifa, ISRAEL 31250
Israel

Carmel Anti-Virus for Windows NT

A Client/Server Anti-Virus product-line for complete protection of corporate environments and individual workstations. Detects and cleans over 2500 viruses, Scans compressed files, special administration tools, centralized installation, configuration and reporting.

Retail Price: \$129.00

Contact: Yuval Sherman

Phone: 972-441-6976

Fax: 972-441-6979

RISC Versions: Call for availability

CaseWare, Inc.

108 Pacifica
2nd Floor
Irvine, CA 92718-3332
USA

Related Topics:

[CASE: VIP for Windows](#)

[CaseWare/CM](#)

CASE: VIP for Windows

A Strategic GUI and Client/Server Code Generation Tool for Building Mission Critical Applications for Windows NT

CASE:W VIP is a design and code generation tool for developing GUI-based client/server mission critical applications in standard languages such as C and C++. CASE:W VIP contains modular interface designers to define the appearance and behavior of various components of a client/server application. These include designers for the basic graphical interface elements, as well as designers for advanced functionality such as multimedia, OLE and DDE. In addition, CASE:W VIP includes designers to integrate the graphical interface with SQL data. CASE:W supports Microsoft SQL Server, ODBC and other SQL database engines. Once the interface components are complete, CASE:W VIP generates the C or C++ source code required for the interface and data integration. The source code generated by CASE:W VIP is expert level, and fully documented. Applications built with CASE:W VIP are free of runtimes. CASE:W VIP is based on CASEWORKS patented and extensible KASE code generation technology. With CASEWORKS Open Architecture License, developers may modify the tool to control the code generation process, and create additional designers to prototype tool extensions proprietary to their organization. CASE:W VIP's modular architecture makes it ideal for development teams. Individual developers may work on aspects of the interface, and then integrate these components together into a final application. The modular architecture also promotes reuse of components at the design level.

Retail Price: \$1,995.00

Contact: Alex Lobba

Phone: 714-453-2200

Fax: 714-453-2276

RISC Versions: Call for availability

CaseWare/CM

Provides Software Configuration Management to control your distributed, heterogeneous development and maintenance process on Windows NT and UNIX platforms

CaseWare/CM is the most flexible, full-featured Software Configuration Management (SCM) system available. It's open client/server architecture is ideal for today's Windows NT and UNIX-based development organizations. The product fully supports: heterogeneous computing environments; parallel and distributed builds; cross-target and remote builds; and tool integration. The CaseWare/CM design architecture reflects the philosophy that process control and automation are the foundation for software quality. It provides true object-oriented facilities for management of: all project components; versions and configurations; releases and variants; component life cycles; and system builds. Standard process life cycle models, provided for immediate utilization, are completely customizable to implement customer-specified processes.

Retail Price: TBA

Contact: Alex Lobba

Phone: 714-453-2200

Fax: 714-453-2276

RISC Versions: Call for availability

Cedola, Kent

USA

Flagger

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\flag2.zip

Flagger is a very simple program that will read in a source file, search for porting problems and generate an output with new comments added.

Retail Price: Shareware

Contact: Kent Cedola

RISC Versions: Inquire about availability

Center for Software Development

111 West Saint John
Suite 200
San Jose, CA 95113
USA

Resource Center

The Center's mission is to enable companies to produce higher-quality, better-supported software products and bring them to market more rapidly. It comprises an Independent Multivendor lab and a Software Industry Resource Center which are open to all but especially useful for developers within driving distance of San Jose, CA. The Lab gives software developers access to configurations they choose not to keep in their own labs. For example, a developer can test a product based on Windows NT for connectivity with many Novell and UNIX servers without incurring the year-round cost of acquiring, maintaining and upgrading each environment. The Center stocks equipment from palm-tops to super-servers, video adapters and printers to CD-ROM mastering equipment; and software from compilers to automated testing packages, class libraries to applications for compatibility testing. The Software Industry Resource Center provides companies with resources to help them grow their businesses. These resources include a library of technical and non-technical information, high-tech meeting space and information-rich seminars. The library and seminars include topics such as 'determining prices for technology licenses,' 'taking your company public,' 'writing a business plan' and 'conducting EFFECTIVE market research. ' The Center is a not-for-profit organization formed by the Software Entrepreneurs Forum and the City of San Jose, with strong support from Novell, Inc. It supports and is supported by many companies in the computer industry such as Microsoft.

Retail Price: Call

Contact: Skip D. Addison

Phone: 408-283-3545

Fax: 408-283-3548

RISC Versions: Call for availability

Centre-File

75 Lehman Street
London, E1, 8EX,
UK

Related Topics:

[CampaignWork](#)

[WinWork](#)

CampaignWork

An advanced telephone campaign scripting tool to optimize responsiveness at the point of customer contact and through-out the business

CampaignWork is a versatile customer contact management system which improves the quality, efficiency and responsiveness of telephone conversations and enable the resulting information to be analysed, processed and acted on immediately and with minimum manual intervention. It is simple to learn and very natural and supportive to use, making it possible for even novice operators to manage quality transactions with customers.

Retail Price: Call

Contact: Rob Comber, Sales

Phone: 011-071-410-3844

Fax: 011-071-410-3663

RISC Versions: Call for availability

International Sales:

Rob Comber, 071-410-3844, Fax: 071-410-3663,

75 Lehman Street, London, UK, E1 8EX

WinWork

A unique flexible software toolkit which manages all the functional activities that make up a workflow

WinWork enables complex workflow patterns to be redesigned quickly and easily and then takes over the active management of those workflows. It also provides facilities to cater for the typical needs of a workflow installation, such as integration with legacy systems, image processing and inbound and outbound telephone call handling. WinWork powers the flow of work through various functions and the people that make up a business process. At the same time it pro-actively manages the schedule of events ensuring that all tasks are complete within the right timescales and the appropriate people are given access to the relevant information as they need it.

Retail Price: Call

Contact: Rob Comber, Sales

Phone: 011-071-410-3844

Fax: 011-071-410-3663

RISC Versions: Call for availability

International Sales:

Rob Comber, 75 Lehman Street, London, E1 8EX, United Kingdom

CGI Systems, Inc. (subsidiary of CGI-Informatique)

One Blue Hill Plaza
Pearl River, NY 10965
USA

PACBASE for Windows NT

Integrated CASE tool dedicated to the production of graphical, cooperative business applications

PACBASE for Windows provides an industrial-strength CASE environment to support the analysis, design, implementation and maintenance of complete systems applications. The product manages all application components, from models, windows layouts to data elements, programs and documentation through its unique specifications repository. It generates for client-server business applications in heterogeneous environments, including Windows 3.1 and Windows NT. The product itself also runs in the same environments.

Retail Price: \$20,000.00 - \$200,000.00

Contact: P.O. Jaques

Phone: 800-722-1866

Fax: 914-735-2231

RISC Versions: Call for availability

Cincom Systems, Inc.

2300 Montana Ave.
Cincinnati, OH 45211-3899
USA

Supra Server for Windows NT

Supra Server is a high-performance SQL database, featuring Updateable Join Views, a distributed catalog, and Transaction Partners recovery. Supra, demonstrated on Windows NT at the Fall '92 COMDEX, also supports UNIX, OS/2, MVS, VSE, VM, and VMS platforms, in a variety of network configurations.

Retail Price: Call

Contact: Inside Sales

Phone: 513-662-2300

Fax: 513-481-8332

RISC Versions: Yes

Clarkson University

SOSS (Son of Stan's Server)

ftp.cica.indiana.edu:ftp/pub/pc/win3/nt/sossntr3.zip

SOSS is a file server conforming to SUN Microsystems' NFS protocol version 2. It will run on IBM-PC compatibles under Microsoft MS-DOS, using any Ethernet interface supported by Clarkson University's packet drivers. Performance and reliability have been significantly enhanced over the original SOSS released in 1989.

Retail Price: Call

RISC Versions: Inquire about availability

Clay Babcock

USA

Postscript TEXT Viewer

ftp.cica.indiana.edu:\ftp\pub\pclwin3\nt\psview.zip

This program allows viewing of the text contained in PostScript files. It makes no attempt at formatting or EPS, but allows you to read the Windows NT July BETA docs that shipped in PS format to the CD. If the file is not ADSC, the program will warn you, but will allow you to attempt viewing. If Viewer cannot find any text in the file, it will warn you of that, too.

Retail Price: Shareware

Contact: Clay Babcock

RISC Versions: Inquire about availability

clySmic Software

PO Box 2421
Empire State Plaza
Albany, NY 12220
USA

Drag 'n' Drop Utilities

The clySmic Drag n Drop Utilities for Windows NT provide utilities for your 32-bit desktop, including:

- Paper Drop - drag .BMP files and drop to change the wallpaper
- Recycler - deletes unwanted files
- EXE Type - drag 'n' drop an EXE file to find out whether its a Windows NT, OS/2, Win16 or MS-DOS executable
- SIN - System Information
- General Drop - turn any command-line program into a drag 'n' drop program
- Exit Windows NT - quick system exit or shutdown

two kinds of clocks; and a File Manager extension complete with toolbar buttons.

Retail Price: \$24.95

Contact: Ralph Smith

Phone: 518-438-5548

Fax: 518-458-7476

RISC Versions: Call for availability

CMA, Inc.

1341 Ocean Ave.
Suite 531
Santa Monica, CA 90401
USA

Claim Analyzer I

For Analysis of Claims & Assets from on-line information

A complete analysis tool for parsing information from on-line sources into database structures and providing analysis of all relevant interrelationships. Provides tools for working with and interrelating all types of on-line source information (asset locators, corporate records, real property records, UCC and litigation records). A tool to produce complete reports of claims and assets research by incorporating the analytical skills of one the top asset research firms in the country into the software to parse and organize all researched data, either from in-house or on-line sources.

Retail Price: Call

Contact: Robert Porter

Phone: 310-393-2727

Fax: 310-393-8980

RISC Versions: Call for availability

CNIDR

Box 12889
3021 Cornwallis Road
Research Triangle Park, NC 27709-2889
USA

WAIS Manager 3.1

ftp.cnidr.org: \pub\NIDR.tools\wais\pc\windows\waisman3.zip

Users on different platforms can access personal, company, and published information from one interface. WAIS constitutes a general-purpose WAIS client. The client allows users to save previously successful queries for quick access to items of interest.

Retail Price: Shareware

Contact: Kevin Gamiel

Phone: 919-248-1499

RISC Versions: Call for availability

Cognitronix

12322 Poway Road
Suite 12
Poway, CA 92064
USA

Code Manager v2.1 for Windows NT

Manages files by any attribute, even in ZIP, (including v2.0) compressed files, across multiple disks. Specify text with regular expressions, exact or fuzzy matches. Boolean equations, proximity searching, touch and global replace

Code Manager for Windows NT manages files and finds text in ways the File Manager cannot. It finds and manages files and text, even in ZIP (incl. v2.0) compressed files, across multiple disks and directories based on multiple specifications for: file name and directory (incl. true wildcards), text contents, or DOS attributes. Once found, files can be dragged and dropped, ZIPed, unZIPed, copied, moved, deleted, backed up, launched, or viewed with the included multi-windowing, large file, Code Editor, or any Windows hosted editor.

Text can be found with regular expressions, exact or fuzzy matches, Boolean equations and/or four kinds of proximity searching. Touch sets files' data and time to any value. It can replace search text across all selected files. Additionally, the program can be automatically configured with the function keys, for different tasks, including quick backups to floppy disk.

Retail Price: \$99.00 (Also, site licensing)

Contact: Direct Sales

Phone: 800-217-0932

RISC Versions: Yes

International Sales:

Germany, Quid Novi?, KIRCHSTRASSE 4 D-82293 MITTELSTETTEN, Phone: 08202-1512

ColorAge, Inc.

900 Technology Park Drive
Billerica, MA 01821
USA

ColorQ 2000

PostScript language interpreter

Includes 35 outline fonts and support more than 60 different non-PostScript devices including 24-bit color printers and film recorders. Includes anti-aliasing and supports ATM and hinted Type 1 fonts. Converts PostScript files to raster, TIFF or TARGA formats. Supplemental drivers available for high-end color devices and Scitex formats.

Retail Price: Call for pricing

Contact: Inside Sales

Phone: 800-437-3336 or 508-667-8585

Fax: 508-667-8821

RISC Versions: Call for availability

Combs International, Inc.

886 Belmont Avenue, Suite 3
North Haldeon, NJ 07508-2564
USA

Related Topics:

[MAXS+](#)

[Wfrm](#)

MAXS+

Data Acquisition & Process Control System

MAXS+ is a data acquisition and control software package that provides all of the features of a large-scale control system. It provides users with friendly screens, menus, and on-line help to aid the user in reviewing current or past data. Unlike other control systems which impose a cumbersome block system structure, MAXS+ thinks in variables. Variables can be added, modified, or deleted while the process is running, without stopping, slowing, or otherwise affecting other variables being scanned. All variable values are expressed in engineering units. A variety of devices are supported, including various PLCs. MAXS+ is a complete package which requires absolutely no programming to configure or startup. Configuration data may be entered while the system is running.

Features:

- memory resident tables, backed up on demand & timed basis
- on-line add/change/delete of all variables: Input, Output, Math, PID, SupervisoryPID, Constant, TimeClock, LadderLogic, Counter, Execute, and Receive (remote system support via LAN)
- Continuous, DDC, supervisory, cascade, and adaptive control
- Historical data compression; trending via several methods
- Event and alarm logging and reporting
- Animated real-time custom graphic data displays

Retail Price: N/A

Contact: Bob Combs

Phone: 201-427-9292

Fax: 201-427-3428

RISC Versions: Call for availability

Wfrm

Screen form window utility

Wfrm (pronounced: W form) is an easy to use screen utility that creates custom Microsoft Windows data entry forms from simple edit files. Programmers can create window data entry applications in hours instead of days. Wfrm routines execute all the Window subroutines so that the programmer doesn't need to know how to program in Windows to be able to create appealing screens. The Wfrm library supports Microsoft C/C++ and other high level programming languages. The screen is defined by a simple text file created by an editor. The file defines the screen in a WYSIWYG layout, with field attributes and name labels in additional sections. The screen attributes control colors, selections lists, button actions, etc. to make screens more meaningful. The Wfrm subroutine library consists of simple screen management routines to display the form, read or write fields, await user action, display messages, and alter certain field attributes. The routines perform all the Microsoft Windows actions (hidden from the Wfrm programmer) making windows programming direct, simple, and much faster.

Retail Price: \$395.00

Contact: Bob Combs

Phone: 201-427-9292

Fax: 201-427-3428

RISC Versions: Call for availability

Compass Point Software, Inc.

332A Hungerford Dr.
Rockville, MD 20850
USA

application::ctor

A C++ rapid application development tool

Application::ctor is a visual programming tool that simplifies and accelerates the development of applications. The product consists of three parts: an application editor that allows you to visually design and edit the components of your application's user-interface, such as windows, menus, and dialog boxes; a powerful C++ source code browser (with pre-compile browsing); and a class library consisting of more than 100 classes that simplify and extend the functionality found in the SDK. The application editor provides a direct connection to the source code browser, allowing you to connect user-interface messages and events to member functions in your code or to built-in prototype functionality. Rather than generating pages of C++ code, application::ctor generates resource data to store information about the user-interface. This data is read at run-time by the class library to manage your user-interface for you. The only code you manage is the code you write. The product incorporates many features that allow it to be used by teams of developers. By splitting the user-interface into several smaller sub-projects, several developers can design and develop user-interface components simultaneously. Because the product generates far less source code than competing products, the application source code will integrate better with version control systems. Other features include custom control support, forms layout technology (gravity and attachment), and full MDI support.

Retail Price: \$395.00

Contact: Jason Flatt

Phone: 800-359-2867 or 301-738-9109

Fax: 301-738-9134

RISC Versions: Yes

Compumation, Inc.

100 North Patterson Street
State College, PA 16801
USA

Color Central for Windows NT

The world's leading OPI image and print server

Color Central for Windows NT™ is a product for the high-end color prepares market. Low-resolution Sample images are generated from high-resolution originals. These low-resolution Samples are used in page layout programs instead of the much larger originals. When the pages are printed through the Color Central server's print queues the high-resolution images replace the low-resolution Samples and then sent to the imagesetter. Printing pages containing images which represent 100MB of high-resolution files will clear the printing computer in less than 10 seconds!

Retail Price: Call

Contact: Inside Sales

Phone: 814-238-2120

Fax: 814-238-2246

RISC Versions: Call for availability

Computer Associates (ASK/Ingres)

INGRES Intelligent Database 6.4

Ingres brings the industry leading relational database technology to Microsoft Windows NT for powerful, client-server computing systems on the desktop. The INGRES Intelligent Database allows businesses to model their operations in the database by managing business policies and procedures. The INGRES Intelligent database includes powerful features to increase programmer productivity and improve overall performance including INGRES' intelligent query optimizer, rule system, resource controls, and database event alerters. INGRES supports on-line transaction processing applications, decision support systems, distributed processing and internationalized applications.

Retail Price: Call for quote

Contact: Nancy Cibatotti

Phone: 510-748-2642

Fax: 510-748-2770

RISC Versions: Yes

Computer Associates International, Inc.

Two Executive Drive
Fort Lee, NJ 07024
USA

CA-Realizer

Powerful 32-bit BASIC application development system with high-level tools combines with Windows NT to deliver unprecedented programming power

Described as the fastest way to develop applications for all versions of Windows, CA-Realizer saves weeks of effort by including mini-applications such as charts, spreadsheets, text editors, serial communications, animation, scheduling, and more. The powerful, easy-to-learn structured superset of BASIC facilitates the porting of QUICKBASIC applications to Windows and Windows NT quickly and easily. CA-Realizer includes an integrated debugger, visual application and form designer, support for DDE and DDLs, direct importing and exporting of Lotus 1-2-3, Microsoft Excel and Xbase files, and an unlimited royalty-free runtime.

Retail Price: Call

Contact: Bob Ahlers

Phone: 201-592-0009

Fax: 201-592-8954

RISC Versions: Call for availability

Comshare, Inc.

3001 S. State St.
Ann Arbor, MI 48108
USA

Related Topics:

[Commander ADL](#)

[Commander EIS](#)

[IFPS](#)

Commander ADL

Powerful engine for building dynamic, data-driven data warehouses, regardless of source location

Wherever they are, whatever different sources need to be integrated, ADL creates output to be stored in relational repositories, multidimensional data structures, or standard reporting formats. It provides data acquisition, data cleansing, integration, summarization, consolidation, and manipulation of data from diverse sources. Its specifically geared to creating information that is usable for analytical needs.

Comshare is a full-service, international software company that develops, markets, and supports business intelligence applications, such as financial reporting, line-of-business profit reporting, enterprise budgeting and management reporting, as well as EIS.

Retail Price: Call

Contact: Chris Kelly

Phone: 1800-922-7979

Fax: 313-769-6943

RISC Versions: Yes

International Sales:

International, 44-0-71-351-4399

Commander EIS

Powerful new multidimensional data analysis server with an enhanced Windows user interface

Commander 4.0 combines a powerful new multidimensional data analysis server with enhanced Windows user interface multimedia capabilities, electronic mail integration, and expanded platform support to include OS/2 and Windows NT servers. Commander 4.0 establishes a new performance and capacity standard for enterprise-wide client/server applications.

Comshare is a full-service, International software company that develops, markets and supports business intelligence applications, such as financial reporting, line-of-business profit reporting, enterprise budgeting and management reporting, as well as EIS.

Retail Price: Call

Contact: Chris Kelly

Phone: 1800-922-7979

Fax: 313-769-6943

RISC Versions: Yes

International Sales:

International, 44-0-71-351-4399

IFPS

Business modeling and application development language

IFPS is a business modeling and application development language with a relational database and interfaces to others. IFPS is client/server on Windows NT with a Windows 3.1 client interface. Its used for budgeting, forecasting, consolidation, business planning, project evaluation, variance reporting, and business analysis. It supports What-If, Goal-Seeking, Monte Carlo, Sensitivity, Trend, Optimization (linear and nonlinear, and A.I. analysis.

Retail Price: Call

Contact: Chris Kelly

Phone: 1800-922-7979

Fax: 313-769-6943

RISC Versions: Call for availability

International Sales:

International, 44-071-351-4399

Congruent Corp.

110 Greene Street
New York, NY 10012
USA

Related Topics:

[NtNiX](#)

[Tool Buster \(GNU Tools for Windows NT\)](#)

NtNiX

X Window Client Support for Windows NT

NtNix enables X client applications to be hosted on Windows NT platforms. It includes: complete X11R5 development libraries(Xlib, Xt, Xaw) and OSF Motif (Xm, mwm, Mrm and UIL). Also provided is the complete "standard" X client application set including: xterm; the font server; and xdm. TCP/IP applications such as tftpd, bootp, telnetd, rsh, and rexec are included for the special support needs of X terminals.

Retail Price: \$395.00

Contact: Arthur Kreitman

Phone: 212-431-5100

Fax: 212-219-1532

RISC Versions: Yes

Tool Buster (GNU Tools for Windows NT)

ToolBuster makes the full GNU UNIX toolkit available to Windows NT developers

It includes all the tools needed for program development including: the emacs editor; version control (rcs and cvs); the gcc c/c++ compiler; backup utilities (tar and cpio); and almost 100 other utilities. ToolBuster includes complete source code for all utilities and includes executables for the Intel, DEC Alpha AXP and MIPS R4X00 versions of Windows NT. As with all GNU software, you are free to make unlimited copies of all programs.

Retail Price: \$199.00

Contact: Arthur Kreitman

Phone: 212-431-5100

Fax: 212-219-1532

RISC Versions: Yes

Conner Storage Systems

36 Skyline Drive
Lake Mary, FL 32746
USA

Related Topics:

[Conner Backup Exec for Windows](#)

[Conner Backup Exec for Windows NT](#)

Conner Backup Exec for Windows

Full-featured 32 bit application for Windows

Conner Backup Exec for Windows brings a graphical and intuitive tape backup feature to a broad range of users from the corporate PC LAN administrator to the home PC user. Conner Backup Exec for Windows is a comprehensive solution for backing up and restoring data for the Windows environment. Conner Backup Exec Windows software is for stand-alone and comprehensive PC LAN environments and is designed for use with the popular SCSI controllers and tape drives.

Retail Price: \$149.00

Contact: Conner Express

Phone: 800-4NTBKUP

Fax: 407-263-3665

RISC Versions: Call for availability

Conner Backup Exec for Windows NT

Full-featured 32-bit application for Windows NT

Conner Backup Exec for Windows NT, developed by the same company that provided the backup utility included with Microsoft Windows NT, is the first full-featured Win32 backup product for Microsoft Windows NT offering users and network administrators an easy-to-use, comprehensive solution for backing up and restoring data on Windows NT workstations and servers. Backup Exec for Windows NT provides complete support for backing up and restoring all Windows NT supported file systems and security, including FAT, HPFS and NTFS volumes. Backup Exec supports all the popular SCSI controllers and tape drives.

Retail Price: \$295.00

Contact: Conner Express

Phone: 800-4NTBKUP

Fax: 407-263-3665

RISC Versions: Yes

ConNexSys, Inc.

3803 Palmer Park Blvd
Suite B
Colorado Springs, CO 80909
USA

CDDT

Begins where CDT left off

ConNexSys Display Driver Tester (CDDT): This tool was developed by Video Device Driver developers to automate and facilitate Video Device Driver development, optimizing, debugging, testing, and regression testing. CDDT tests and benchmarks BitBlit, StretchBlit, lines, and text functions in Video Device Drivers. Tests above functions under all conditions of complex clipping. Provides Auto-Testing mode to test all major paths and end conditions in Video Device Drivers.

Retail Price: \$489.00

Contact: Mickey Bannister

Phone: 719-591-5531

Fax: 719-591-5532

RISC Versions: Call for availability

Consensys

35 Riviera Dr., Unit 9
Markham, ON L3R 8N4
Canada

Portage

Real UNIX SVR4 running under Windows NT

Portage is a full port of the actual UNIX SVR4 source code (Licensed from Novell/USG) for the Win32 environment. It was developed by first implementing over 450 of the basic UNIX system calls as Win32 DLLS and libraries. The original source code for the UNIX shells, utilities, and software development tools was then compiled with the Microsoft C compiler and linked with our UNIX system call layer to produce the product. A Win32 GUI interface for using and building UNIX commands was implemented to make UNIX more accessible and the UNIX man pages were converted to Windows hypertext Help. Portage distinguishes itself from all other products attempting to offer UNIX capabilities for Win32, because it is based on real UNIX, has a more complete implementation of the UNIX APIs, and the APIs themselves have been thoroughly tested by forming the basis of the product itself. The Portage SDK has been used to port over 100 megabytes of the original UNIX source code with virtually no changes to that code. Portage shells, commands and utilities don't just work 'like' UNIX; they are UNIX.

Currently, Portage is sold in two parts; a base module which includes the C shell, Korn shell and the roughly 130 SVR4 commands and utilities and commands; and a SDK which produces the linkable UNIX API library and the major software development tools such as lex, yacc, make, sccs, etc. UNIX code, when compiled with our libraries becomes native Win32 code. The base retails for \$395, the SDK is \$495, and cost \$695 if purchased together. Versions for MIPS and Alpha cost \$100 extra. Available shortly: An implementation of X11R5 (client and server) with Motif, a complete NFS networking package, and an 8, 24, and 32 port intelligent serial cards complete with a UNIX tty software interface for running traditional UNIX terminal based multi-user applications.

Retail Price: \$695.00

Contact: Bob Ripley

Phone: 905-940-2900

Fax: 905-940-2903

RISC Versions: Yes

International Sales:

Europe, Ph: 44-734-833-241, Fax: 44-734-835-391

International (General): Ph: 905-940-2900, Fax: 905-940-2903

Coromandel Industries, Inc.

70-15 Austin Street
Third Floor
Forest Hills, NY 11375
USA

Related Topics:

[Integra SQL](#)

[Integra Visual Database Builder](#)

[ObjecTrieve for Windows NT](#)

[QBEVision for Windows NT](#)

Integra SQL

SQL Database Manager based on the ANSI SQL 92 standard

Integra SQL is a relational database management system based on the ANSI SQL 92 standard. It supports ODBC as the native call interface. Integra is a fast, compact database management system that is available on Windows, Windows NT and various UNIX environments. It supports referential integrity and the ANSI SQL syntax based on the SQL 1992 standard. Integra SQL can be used for building industrial strength database applications and supports transaction logging, recovery and multiple isolation levels. The queries can be both synchronous and asynchronous and multiple query streams can be executed concurrently. Integra supports several visual development tools and comes optionally bundled with an end user querying and reporting tool.

Retail Price: Call for pricing

Contact: Customer Service

Phone: 800-535-3267

Fax: 718-793-9710

RISC Versions: Call for availability

Integra Visual Database Builder

Build multi-user ODBC-enabled applications using Visual C++ with virtually nocode

Integra Visual Database Builder (VDB) consists of a set of visual database objects, a query builder, a data manager and a high level call interface to enable Visual C++ developers build ODBC-enabled applications. Integra VDB applications are designed to work with any database that supports ODBC. In addition, Integra SQL, an ODBC compliant engine based on ANSI SQL 92 standards is included with Integra VDB.

Retail Price: Call

Contact: Customer Service

Phone: 800-535-3267

Fax: 718-793-9710

RISC Versions: Call for availability

ObjecTrieve for Windows NT

Transaction based ISAM data manager for Windows NT with support for BLOBs

ObjecTrieve for Windows NT is an ISAM data manager based on the X/OPEN standard. It is also available under DOS, UNIX and SUN OS. ObjecTrieve for Windows NT supports multiple variable length fields, user defined keys, multi-part indexes, automatic index updates and nested transactions. In addition, it can store and retrieve Binary Large Objects, popularly known as BLOBs. This allows you to build applications that manipulate large binary data such as documents, bit-maps, sound and video. ObjecTrieve can be used to build industrial strength transaction based database applications for both conventional data handling and multi-media.

Retail Price: \$699.00

Contact: Customer Service

Phone: 800-535-3267

Fax: 718-793-9710

RISC Versions: Call for availability

QBEVision for Windows NT

Query, Reporting and Application Building Tool for SQL databases

QBEVision for Windows NT is a tool for performing ad-hoc queries, generating reports and building windows applications for SQL databases. It supports Microsoft SQL Server, Oracle and Integra.

QBEVision contains an easy to use QBE facility for queries, a Visual Report Generator a Forms Editor and a scripting language. Using this combination you can build powerful client-server applications.

QBEVision can act as an OLE client and communicate with other windows applications such as Word, EXCEL and AmiPro using DDE. QBEVision contains powerful database administration capabilities and ability to import and export data in various formats.

Retail Price: \$699.00

Contact: Customer Service

Phone: 800-535-3267

Fax: 718-793-9710

RISC Versions: Call for availability

Crystal Software, Inc.

329 Fire Lake Road
Crystal Falls, MI 49920
USA

CrystalCOMM for Windows NT

A comprehensive set of 32 bit DLLs that provide communications and protocol capabilities for the Windows NT environment

CrystalCOMM for Windows NT is a 32-bit PC modern communication library designed for the Windows NT Environment. The Communication Library provides the XMODEM, XMODEM CRC, XMODEM-1K, True YMODEM, YMODEM/Batch, ZMODEM, Streaming KERMIT, Compuserve B+, and ASCII communication protocols and control functions for the standard PC modem interface. The library allows you to easily move characters, strings, and blocks through a COM interface, to develop scripts to communicate between client and host, or to take advantage of the built-in protocols within the library to communicate through a modem. CrystalCOMM allows you to control up to 100 COM ports concurrently each up to a speed of 128K baud. CrystalCOMM is compatible with the DigiBoard.

Retail Price: \$200.00 for the object version; \$400.00 for the source version

Contact: Robert Hansen

Phone: 906-822-7994

Fax: 906-822-7994x11

RISC Versions: Call for availability

Cyberscience Corp.

10065 E. Harvard Ave.
Suite 800
Denver, CO 80231
USA

CQCS

Fourth Generation Language

CQCS is a database and environment independent full featured Fourth Generation Language and Report Writer. Supporting DEC and Data General mini computers, and all popular micro computers running UNIX and DOS. CQCS supports over 25 databases, including Oracle, Informix, C-ISAM, COBOL, BASIC, RMS, Rdb, dBase, etc.

Retail Price: Call

Contact: Joel Brown

Phone: 303-745-3900

Fax: 303-745-3938

RISC Versions: Call for availability

Daniel W. Phifer Computer Systems Consulting

2318 NE 136th Terrace
North Miami beach, FL 33181
USA

NetPhone

Networkable Windows Phone Book

NetPhone is a multi-user networkable Windows phone book designed to run on a Novell or compatible network. NetPhone allows multiple users access to a common, or separate, phone book(s) using a single database. Version 3.50 will contain OLE 2.0 features.

Retail Price: Free

Contact: Daniel Phifer

Phone: (305) 945-5903

Fax: (305) 945-9908

RISC Versions: Call for availability

Data Translation, Inc.

100 Locke Drive
Marlboro, MA 01752
USA

DT Open Layers for Windows NT

DT Open Layers for Windows NT is a complete package for performing Data Acquisition and Analysis on (E)ISA bus systems running Windows NT. The product provides support for OLE, DDE and RPCs. A wide variety of commercially available data acquisition cards are supported.

Retail Price: \$195.00

Contact: John Hogan

Phone: 508-481-3700

Fax: 508-481-8620

RISC Versions: Call for availability

DataFocus Inc.

12450 Fair Lakes Circle
Suite 400
Fairfax, VA 22033
USA

Related Topics:

[NuTCRACKER](#)

[NuTCRACKER X/OE](#)

[NuTCRACKER SDK](#)

[NuTCRACKER X/SDK](#)

NuTCRACKER

The UNIX standard on Windows NT

NuTCRACKER is a porting tool developed by DataFocus which allows for the rapid and inexpensive migration of UNIX applications to the Win32 subsystem of Microsoft Windows NT. NuTCRACKER, which is the tool of choice for companies who want to leverage their UNIX software development investment while quickly entering the exploding Windows NT market, features a UNIX fork, shared memory and semaphores, security, networking support, a fully case-sensitive file system on NTFS, and message queues.

Retail Price: Call

Contact: George Nicolas

Phone: 703-631-6770

Fax: 703-818-1532

RISC Versions: Yes

NuTCRACKER X/OE

Opens Windows to UNIX software

The NuTCRACKER X/OE contains a 32-bit X Server based on X11R5 and the NuTCRACKER dynamically linked libraries (DLLs). It is designed to be an operating environment which turns your PC into an X Window System graphics terminal running under Windows NT. This serves as the runtime for applications ported using the NuTCRACKER X/SDK.

Retail Price: Intro: \$295 (Reg. list \$495)

Contact: NuTCRACKER Sales

Phone: 1-800-637-8034

Fax: 703-818-1532

RISC Versions: Call for availability

International Sales:

Ask for Mark Funt at DataFocus, 908-583-7766

NuTCRACKER SDK

Opens Windows™ to UNIX® software

NuTCRACKER™ SDK is a porting tool designed for UNIX® developers who wish to take advantage of an enormous new market by porting their software to Windows NT. Using NuTCRACKER, vendors planning to migrate from UNIX to Windows NT can expect to reduce porting time and costs by more than 60%. The primary benefit of the NuTCRACKER SDK, which supports character-based applications, is to preserve an organization's UNIX investment in hardware, software, and developers as it moves to Windows NT. And, after an application has been ported using NuTCRACKER, developers can add to its value by incorporating the advanced features of Win32.

Retail Price: Intro. \$995; (Reg. list: \$1,995) Runtimes FREE within your organization. Call for other.

Contact: NuTCRACKER Sales

Phone: 1-800-637-8034

Fax: 703-818-1532

RISC Versions: Yes

International Sales: Please contact Mark Funt at 908-583-7766

NuTCRACKER X/SDK

Opens Windows™) to UNIX® Software

NuTCRACKER's X/SDK is a porting tool designed for UNIX® developers who wish to take advantage of an enormous new market by porting their software to Windows NT. Using NuTCRACKER™, vendors planning to migrate from UNIX to Windows NT can expect to reduce porting time and costs by more than 60%. The primary benefit of the NuTCRACKER SDK, which supports X/Motif and character-based applications, is to preserve an organization's UNIX investment in hardware, software, and developers as it moves to Windows NT. And, after an application had been ported using NuTCRACKER, developers can add to its value by incorporating the advanced features of Win32.

Retail Price: Intro: \$1,195 (Reg. list: \$3,995) Runtimes free within organization. Call for other.

Contact: NuTCRACKER Sales

Phone: 1-800-637-8034

Fax: 703-818-1532

RISC Versions: Call for availability

International Sales:

Call Mark Funt at 908-583-7766

Datapen Systems Ltd.

PDTpal Communications Software

Communications host for automated send/receive

PDTpal Communication Software offers automated host communications control for Windows NT, MS-DOS, IBM OS/2 2.x and Unix/Xenix platforms. Support for Symbol Technologies Inc. PDT terminal series, and PC to PC file transfer. Dial up or direct connect on up to 16 lines per machine.

Retail Price: Call for pricing and bulk discount schemes

Contact: Communications Software Sales

Phone: 44-0-344-872142

Fax: 44-0-344-872932

RISC Versions: Call for availability

DCA (Digital Communications Associates, Inc.)

1000 Alderman Drive
Alpharetta, GA 30202-4199
USA

IRMA Workstation for Windows NT

Premier IBM 3270 Host access for the Windows NT Operating System

IRMA WorkStation for Windows NT is communications software that supports a multitude of connections to SNA hosts and peer computers. Developed as a true 32-bit application for Windows NT, IRMA WorkStation for Windows NT takes advantage of NT design features such as multithreading support, which makes the emulation software more responsive than ever at the desktop. It also takes advantage of Windows NT protected mode, memory management, object-oriented Program Manager, graphical user interface, TrueType fonts and has an MDI Interface to help you manage your 3270 sessions.

IRMA WorkStation for Windows NT provides a variety of connections to your SNA host. Traditional direct connections - DFT, SDLC, X.25 or 802.2 - as well as client connectivity to a Microsoft SNA Server are all supported. And in addition, peer connections through APPC are available.

IRMA WorkStation for Windows NT provides file transfer support for the IBM file transfer program IND\$FILE. You can transfer multiple files at the same time with multiple host sessions or queue transfers for single host session -- all while working in other applications.

Retail Price: \$495.00

Contact: DCA Sales Operations

Phone: 800-348-3221

RISC Versions: Call for availability

International Sales:

Contact DCA for International Sales Offices/Information

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DeScribe Word Processor for Windows NT

The first 32-bit, multithreaded word processor available for Microsoft Windows NT!

DeScribe, the company that brought you the first 32-bit word processor for OS/2 2.0, is again setting the pace with DeScribe 4.0 for Microsoft Windows NT, a native 32-bit application. With the ability to multitask and multithread, DeScribe can perform several different tasks simultaneously, and allows you to continue working in an application while another operation is underway. The extensive custom toolbox and document-processing features combine with DeScribe's powerful text and graphics capabilities to make DeScribe 4.0 the product of choice. DeScribe has shipping versions for Windows 3.1, Windows for Workgroups, Windows NT and OS/2.

Retail Price: \$349.00 (introductory pricing)

Contact: Monica Tugaeff

Phone: 800-448-1586 or 916-646-1111

Fax: 916-923-3447

RISC Versions: Yes

Digital Equipment Corp.

14475 NE 24th Street
Bellevue, WA 98007
USA

DEC C++ for Windows NT

DEC C++ for Windows NT is a port of DEC C++ for DEC OSF/1, OpenVMS, and ULTRIX Version 1.2. It includes native, optimizing C++ and ANSI-compliant C compilers, C++ and C source-level debugger, class libraries, MFC, windows-based user interface, the SDK, and other assorted tools. The Alpha AXP and Intel Windows NT platforms are both supported.

Retail Price: Call

Contact: Maren Boensky

Phone: 206-865-8736

RISC Versions: Yes

Digital Equipment Corp.

2 Results Way
Marlborough, MA 01752
USA

Related Topics:

[Digital Network Printing Software for Windows NT Systems, Version 5.0](#)

[PATHWORKS for Windows NT](#)

[PrintServer Supporting Host for Windows NT](#)

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The most powerful Network Printing solution. Period!

Imagine being able to print from your Windows NT systems to the most powerful feature-rich network printers that exist. Digital Network Printing Software for Windows NT™ allows Windows NT systems to share Digital's PrintServer, DEClaser 5100 and DECcolorwriter printers, with HP-UX systems, SunOS systems, Sun Solaris systems, SCO Unix Systems, Novell NetWare systems, IBM AIX systems, Pyramid systems, Unisys systems, Silicon Graphics Systems, Sequent systems, VMS systems, Ultrix systems, and OSF/1 systems. There are no distance limitations; the printer can be down the hall or on another continent entirely! Digital's printers, from the desktop to the departmental, are affordable, powerful tools. This software enables DIRECT printing; there is no intermediate spooling system. ALL users regardless of platform print DIRECTLY to the printer. This "one on one" relationship provides:

- Access to industrial-strength printing. Duty-cycles up to 150,000 pages per month per printer!
- Real-time notification of ALL printer events when they happen, on your Windows NT system's event viewer.
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- Job banner pages that allow for quick job identification, even colored banner page selection. The banner page also has job statistics that you cannot get in ANY OTHER WAY!
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Best of all, since this software product was designed for YOUR Windows NT printing needs, ALL of your Windows NT applications will be able to print with NO modifications!

Retail Price: \$98.00 site license

Contact: Abe Litman

Phone: 508-497-7817

Fax: 508-635-8724

RISC Versions: Yes

PATHWORKS for Windows NT

Integrate Windows NT with corporate information environments!

PATHWORKS for Windows NT software, available on Alpha AXP, Intel and MIPS platforms, enables Windows NT Desktop users to share information and network resources, in local and wide area networks, with other PATHWORKS clients (Microsoft Windows, DOS, OS/2 and Macintosh users) and to access other PATHWORKS servers (PATHWORKS for OpenVMS, ULTRIX, SCO UNIX and OS/2 servers). Additionally, any PATHWORKS client based on LAN Manager can utilize a Windows NT Advanced Server system as a PATHWORKS network server.

Retail Price: Call

Contact: Abe Litman

Phone: 508-497-7817

Fax: 508-635-8724

RISC Versions: Yes

PrintServer Supporting Host for Windows NT

PrintServer Supporting Host for Windows NT

The PrintServer Supporting Host includes all necessary software and tools to boot and manage any number of PrintServer Printers. This includes: fully functional BOOTP software, access control, accounting, event logging, POWERFUL REMOTE PRINTSERVER MANAGEMENT software.

Retail Price: Call

Contact: Abe Litman

Phone: 508-497-7817

Fax: 508-635-8724

RISC Versions: Yes

Digital Equipment Corp.

30 Porter Road
LJ02/C10
Littleton, MA 1460
USA

Related Topics:

[eXcursion for Windows NT](#)

[PATHWORKS for Windows NT Programmer's Kit](#)

eXcursion for Windows NT

Heightens productivity by merging Windows NT and X applications - on a single desktop!

eXcursion is a PC-based software application that allows simultaneous access to both host-based X applications (on DEC, Sun, HP, IBM, etc.) and local Windows NT applications - simplifying the migration to Windows NT on the desktop! The X Window application is displayed alongside your native Windows applications, responding to the same Windows "point-and-click" input conversions.

Retail Price: Call

Contact: Diane Loomis

Phone: 506-486-2703

Fax: 506-486-2311

RISC Versions: Yes

PATHWORKS for Windows NT Programmer's Kit

Incorporate DECnet support into Windows NT applications

PATHWORKS for Windows NT software, available on Alpha AXP, Intel and MIPS platforms, enables Windows NT Desktop users to share information and network resources, in local and wide area networks utilizing DECnet. The data link protocols supported in this environment are Ethernet, Token Ring, FDDI, and DDCMP. The PATHWORKS for Windows NT programmer's kit provides tools for developers to write and port custom applications. It enables porting of DOS/Windows based 16-bit applications and ULTRIX based applications to 32-bit native Windows NT applications. Libraries include PATHWORKS Socket library and the DECnet utility library as dynamic link libraries (DLLs). A helper DLL for Windows Sockets DECnet support is provided, as well as a static library which supports the X/Open Transport Interface (XTI). In addition, DECnet support is provided for Windows Sockets, NetBIOS, LAN Manager, and DCE Remote Procedure Call APIs so that applications that use Windows NT APIs can work in DECnet networks. The Windows NT Software Developer Kit is a prerequisite.

Retail Price: Call

Contact: Doug MacKenzie

Phone: 508-486-2503

Fax: 508-486-2311

RISC Versions: Yes

Digital Information Systems Corp (DISC)

11070 White Rock road,
Rancho Cordova, CA 95670
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Synergy Application Development Environment

Everything you need to build tomorrow's applications today: professional tools for professional developers!

A complete application development environment for building Windows/NT business applications! Synergy Application Development Environment consists of a high-level business programming language & 4GL tools: compiler, debugger, Developer's Toolkit w/ user interface mangement system, on-the-fly windows designer, developer's utilites, License, Manager. Data Dictionary, Report Writer. Client/server ready. Use to create portable event-driven applications. DEC's choice to replace DIBOL. ANSI compliant. Code written with Synergy products is portable across 75+ operating systems and 500+ hardware platforms. There are more than 100.000 Synergy installations in the USA and 77 nations worldwide.

Retail Price: Call

Contact: William Mooney

Phone: 916-635-7300

Fax: 916-635-6549

RISC Versions: Call for availability

International Sales:

Inge King, 916-635-7300, Fax: 916-635-6549

Digital Matrix Services, Inc.

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InFoCAD! Comfortable GIS power on Windows NT

InFoCAD is a complete Geographic Information System, distinguished by its intuitive user interface and its application development tools. InFoCAD integrates the worlds of graphics, databases, images and analysis within a vector environment whose data architecture is founded on Coordinate Geometry (COGO).

Retail Price: \$495-\$5500

Contact: Juan DeAngelo

Phone: 305-445-6100

Fax: 305-442-1823

RISC Versions: Yes

International Sales:

Call Luis Morin @ 305-445-6100

DIGITALK, Inc.

5 Hutton Center Drive
11th floor
Santa Ana, CA 92707
USA

Related Topics:

[PARTS Workbench for Win32](#)

[Team/V for Win32](#)

PARTS Workbench for Win32

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PARTS Workbench is a complete application development environment which enables point and click, graphical assembly and interconnection of components so you can create applications faster and easier. PARTS Workbench comes with over 60 ready-to-use visual and non-visual application components. PARTS Workbench for Win32 is a 32-bit application that runs on Windows 3.1 and Windows NT. Distribute the resulting applications royalty-free.

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Contact: Customer Service

Phone: 800-922-8255 or 310-645-1082

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Team/V for Win32

Team development for Win32

Digitalk's Team/V™ for Win32 organizes the work for a team of Smalltalk/V developers by providing a programming environment through which large teams can structure and coordinate their work. Team/V is a natural extension of the Smalltalk/V environment giving the structure needed by professional programming teams while continuing Smalltalk/Vs tradition of providing a highly productive, non-intrusive environment.

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Phone: 800-922-8255 or 310-645-1082

Fax: 310-645-1306

RISC Versions: Call for availability

Dippel, Oliver

USA

CONCOL

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\concol.txt

A simple utility for Windows NT, CONCOL sets the text attributes of the current console.

Retail Price: Shareware

Contact: Oliver Dippel

RISC Versions: Call for availability

DMC Publishing Inc

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Contact: Shawn Wheatcroft

Phone: 905-479-1880

Fax: 905-479-1882

RISC Versions: Yes

DoubleWord

12976 Madrona Leaf Ct.
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A Win32s application

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Phone: 916-274-7218

RISC Versions: Call for availability

DOWNTUG

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DOWNTUG

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\downtug.zip

We are NT users who use the Windows NT forum on DELPHI Custom Forum 102 to exchange information and provide assistance with NT and related products.

Retail Price: Shareware

Contact: Ken Schrock

Phone: 216-478-1851

RISC Versions: Call for availability

dSOFT Development Inc.

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dbfLIB

The best dBASE file access library for C/C++

dbfLIB is a C/C++ programmer's API library for accessing dBASE data files and indexes. Includes libraries for DOS, Windows, OS/2 and Windows NT. Included are royalty-free DLLs for Windows OS/2 1.3 Os/2 2.0 and Windows NT.

Retail Price: \$159

Contact: Mike Duke

Phone: 713-537-0318

Fax: 713-537-0318

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International Sales:

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DST Systems Inc.

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Automated Work Distributor

The most advanced intelligent work management and customer service support system available to help you rapidly and effectively meet the needs of your customers

Automated Work Distributor™ is a graphical-based image-enabled intelligent work management application that electronically routes work associated with documents, phone calls, faxes, and other sources through an organization. AWD automatically prioritizes work based upon rules designated by you. The electronic distribution of incoming correspondence occurs in seconds instead of hours, significantly reducing the amount of time you spend manually processing work. On the average, AWD reduces the amount of steps in a normal processing environment by as much as 60%. AWD was engineered by DST to enhance control of workflow, particularly in complex clerical operations, and to integrate with any existing line-of-business (LOB) applications. By achieving these objectives, AWD eliminates the paper and the time required to route, log, and retrieve files and empowers management with tools and the information needed to complete each job systematically.

Retail Price: Call

Contact: Marketing Manager

Phone: 816-435-8600

RISC Versions: Yes

International Sales:

London, England: Dan Reed/ Tel: 011-44-81-390-5000

Call Kansas City Sales Office: 816-435-4645

Dyad Software Co.

515 116th Avenue NE
Suite 120
Bellevue, WA 98004
USA

Related Topics:

[M++](#)

[M++ FEM](#)

[M++ LSM](#)

[M++ ODE](#)

[M++ OPTIM](#)

[M++ QUAD](#)

[M++ SUM](#)

[M++ TEST](#)

[M++ VIS](#)

M++

The Complete Math Library for C++

M++ is a complete math library and array language which allows the user to dramatically reduce program development time and program maintenance costs. M++ includes complete LINPACK linear system classes, complete EISPACK eigenvector/eigenvalue classes, and a full set of multidimensional signal processing methods (FFTs, convolutions, correlations, coherence, power, and FIR and IIR filters). M++ allows operations on a full set of data types ranging from Bit to both complex double and complex float. Math functions provided include real and complex trigonometric and hyperbolic functions, real and complex Bessel functions, Legendre polynomials, Householder rotations, etc. M++ provides a full array language with complete outer operations, array manipulations, etc., enabling the solution of the most difficult advanced scientific problems. Both persistent and virtual arrays are allowed. Advanced mathematical modules for Optimization, finite Element Modeling, etc., are available.

Retail Price: \$595.00; \$990.00 with source code

Contact: Customer Support

Phone: 800-366-1573 or 206-637-9426

Fax: 206-637-9428

RISC Versions: Yes

M++ FEM

M++ Finite Element Module (FEM)

FEM (Finite Element Model) provides the user the necessary tools for piece wise approximation solutions of boundary problems and can be used equally well for static problems or dynamic problems. FEM provides member functions for defining the body and structural characteristics, a frontal solver with automatic front width minimization routines, and eigenvalue extraction functions for the dynamic data analysis. FEM requires M++.

Retail Price: \$245.00; \$490.00 with source code

Contact: Customer Support

Phone: 800-366-1573 or 206-637-9426

Fax: 206-637-9428

RISC Versions: Yes

M++ LSM

M++ Least Squares Module (LSM)

M++ LSM computes linear and non-linear least squares estimates and associated statistics. Generalized least squares models with vector and matrix weights and multiple dependent variables can be fit. Residuals, covariance matrices, R-squared statistics and goodness of fit statistics can be computed. Most standard nonlinear fitting algorithms are provided in this easy to use class library. LSM requires M++.

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RISC Versions: Yes

M++ ODE

M++ Ordinary Differential Equations Module (ODE)

M++ ODE provides a set of classes and methods for computing numerical solutions to Ordinary Differential Equations with initial value constraints for both stiff and non-stiff problems. ODE provides the user a wide selection of both fixed step methods and adaptive step methods based on local error estimates. ODE requires M++.

Retail Price: \$245.00 with source code

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Phone: 800-366-1573 or 206-637-9426

Fax: 206-637-9428

RISC Versions: Yes

M++ OPTIM

M++ Optimization Module (OPTIM)

M++ OPTIM provides for the general unconstrained optimization of arbitrary functions. The user has control over the descent algorithms with the ability to switch descent algorithms at appropriate points. Descent algorithms include steepest descent, Broyer-Fletcher-Goldfarb-Shanno's, Davidon-Fletcher-Powell's, and others. Step length methods include Brent, golden, and cubic. OPTIM requires M++.

Retail Price: \$245.00 with source code

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Phone: 800-366-1573 or 206-637-9426

Fax: 206-637-9428

RISC Versions: Yes

M++ QUAD

M++ Numerical Integration Module (QUAD)

M++ QUAD provides an easy to use object oriented interface to one and two dimensional numerical integration problems. Based upon the well known QUADPACK package, QUAD allows for functional limits in two-dimensional integrals, giving complete control of the 15 adaptive and non-adaptive quadrature rules available. The class design makes it easy to solve most quadrature problems quickly and easily. QUAD requires M++.

Retail Price: \$245.00 with source code

Contact: Customer Support

Phone: 800-366-1573 or 206-637-9426

Fax: 206-637-9428

RISC Versions: Yes

M++ SUM

M++ Statistical Utility Module (SUM)

M++ SUM contains a basic set of scalar and array functions. It includes functions for univariate and bivariate normal (Gaussian) cdfs, the chi-squared cdf, Student's cdf, and the Snedcor's F cdf as well as the incomplete beta integrals. Also included are functions for computing a covariance matrix from data. These functions can operate on real and complex arrays. SUM requires M++.

Retail Price: \$245.00 with source code

Contact: Customer Support

Phone: 800-366-1573 or 206-637-9426

Fax: 206-637-9428

RISC Versions: Yes

M++ TEST

M++ Test Module (TEST)

M++ TEST contains methods for testing numeric software using M++ arrays and includes a complete set of test programs for M++. Test programs distributed with other M++ modules also require the TEST module. These test programs are used to check for proper operation of M++ under different compiler options. Test types included are checksum tests, equality tests, and assertion tests. TEST requires M++.

Retail Price: \$245.00 with source code

Contact: Customer Support

Phone: 800-366-1573 or 206-637-9426

Fax: 206-637-9428

RISC Versions: Yes

M++ VIS

M++ Visualization Module (VIS)

VIS provides a complete plotting package with capability for both program controlled and interactive plotting. This module works for a wide variety of terminals for MS-DOS, Windows, UNIX and Windows NT. The module provides a complete set of member functions to allow the user to specify plot format (lines, steps, points, etc.), plot type (2D, 3D, contours, polar etc.), and plot parameters (color, titles, line labels, axis labels, axis tics, etc.). VIS requires M++.

Retail Price: \$245.00 with source code

Contact: Customer Support

Phone: 800-366-1573 or 206-637-9426

Fax: 206-637-9428

RISC Versions: Yes

Egalesoft Corp.

810 Third Avenue
Suite 208
Seattle, WA 98104
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Related Topics:

[EagleEye](#)

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EagleEye

Complete Warehouse Location Management with Bar Codes and RF

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Retail Price: Call

Contact: Doug Ray

Phone: 206-682-4830

Fax: 206-682-4789

RISC Versions: Call for availability

POURS

Comprehensive RDI-based Quick Response Support and Control

POURS is designed specifically to support the collection and tracking of demand and supply transactions between two or more companies acting as customers and suppliers. It is especially well suited for trading partners who wish to cooperatively implement Quick Response order and supply concepts. The specific sequential steps in the POURS business process are defined as follows:

1. Collect demand at point of sale.
2. Organized demand transactions in a database.
3. Communicate orders from customers to suppliers.
4. Confirm supplier receipt and acceptance of orders.
5. Expedite product delivery from supplier to customer.
6. Automate customer receiving.

Retail Price: Call

Contact: Doug Ray

Phone: 206-682-4830

Fax: 206-682-4789

RISC Versions: Call for availability

Eastern Systems, Inc.

Box 1087

Westboro, MA 01581-6087

USA

Evaluator FT Automated Software Testing Tool

Non-intrusive operating system independent, automated software testing tool

The Evaluator is a PC-based, non-intrusive operating system independent regression testing tool. With The Evaluator, no memory is used on the "system under test" which provides you with a "true" testing environment. The Evaluator is the total solution for the testing of any application that runs on a PC (MS Windows NT, MS Windows, OS/2, UNIX, DOS or any proprietary operating system). In addition, the Evaluator has a powerful API that allows you to create C or C++ based test scripts. This feature makes the Evaluator the only "open" testing solution on the market. For more information about the Evaluator, please call Eastern Systems.

Retail Price: Call

Contact: Jay Labadini

Phone: 508-366-3223

Fax: 508-366-1520

RISC Versions: Call for availability

Edinburgh Petroleum Services, Ltd

Research Park

Riccarton

Edinburgh, Scotland EH14 4AP

Scotland

Related Topics:

[FloSystem](#)

[PanSystem](#)

FloSystem

FloSystem - Oil and gas production optimization

FloSystem consists of two programs designed to optimize production from hydrocarbon resources. WellFlo models individual well performance including electric submersible pumps, gas lift systems, reservoir inflow and choke performance. This allows identification of the key operating parameters of the well and predicts expected performance improvements on adjustment of these parameters. FieldFlo allows the linking of wells together and the modeling of complete field performance. This allows the existing production configuration to be modeled and then the system to be optimized to maximize oil production or revenue generated.

Retail Price: Call

Contact: Ken Nicolson

Phone: UK-0314494536

Fax: UK-0314495123

RISC Versions: Call for availability

PanSystem

PanSystem - Well test Analysis

PanSystem is the most successful well test analysis software package in the world. Used by thousands of engineers over the last eight years, the program has been redesigned and implemented as a Windows 3.X and Windows NT products. The system allows the user to quickly and effectively read in data from multiple pressure gauges, edit and prepare the data and then perform the complete range of traditional analysis techniques as well as state of the art simulation. In fact the program is a multi-well multi-layer analytical simulator as well as an easy to use analysis tool for well test evaluation.

Retail Price: Call

Contact: Ken Nicolson

Phone: UK-0314494536

Fax: UK-0314495123

RISC Versions: Call for availability

Edinburgh University Computing Service

University Library Building
George Square
Edinburgh,
USA

Related Topics:

[Gopher Server for Windows NT](#)

[HTTP Server for Windows NT](#)

[WAIS Server for Windows NT](#)

Gopher Server for Windows NT

A server for the popular Gopher distributed information system

This software allows a Windows NT machine to serve information using the Gopher document delivery system. It is a "Classic Gopher" protocol server which runs as a Windows NT "Service". Features include:

- Very fast - uses memory-mapped file I/O for improved performance.
- "Classic Gopher" protocol server.
- Runs as a Windows NT "Service" so that it keeps going even when there's no one logged in to the machine.
- Handles multiple simultaneous connections using multiple threads.
- WAIS database searching capability. You need the WAISTOOL toolkit for Windows NT (also available from EMWAC) for this.
- File extension - > Gopher type mapping is configurable.
- Caching implemented.
- "UNIX compatibility mode" for those familiar with UNIX Gopher servers.
- Gopher transaction log written to text file.
- Logs errors using the Windows NT Event Logger.
- Configuration through the Control Panel, with configuration information stored in the Registry.

This server has been developed as part of the EMWAC project. The European Microsoft Windows NT Academic Centre (EMWAC) has been set up to support and act as a focus for Windows NT within academia. It is sponsored by Datalink Computers, Digital, Microsoft, Research Machines, Sequent and the University of Edinburgh.

Contact: May be obtained by anonymous FTP over the

RISC Versions: Yes

HTTP Server for Windows NT

May be obtained by anonymous FTP over the Internet from emwac.ed.ac.uk in the pub\https directory

A World-Wide Web server for the Internet's most popular distributed information service. This software allows a Windows NT machine to serve information using the World-Wide Web distributed hypermedia system. It is a Hypertext Transfer Protocol (HTTP) server which runs as a Windows NT "Service".

Features include:

- Very fast server.
- Understands HEAD, GET and POST methods.
- Supports CGI scripts and HTML forms. Example script in C included.
- Runs as a Windows NT "Service", so that it keeps going even when there's no one logged into the machine's console.
- Supports directory browsing.
- Handles multiple simultaneous connections using multiple threads.
- Can search locally-held WAIS databases (requires WAISTOOLS for Windows NT, also available from EMWAC).
- HTTP transaction log written to text file.
- Logs errors using the Windows NT Event Logger.
- Configuration through the Control Panel, with configuration information stored in the Registry.

This server has been developed as part of the EMWAC (European Microsoft Windows NT Academic Centre). Supports and acts as a focus for Windows NT within academia. It is sponsored by Datalink Computers, Digital, Microsoft, Research Machines, Sequent and the University of Edinburgh.

Retail Price: Shareware

Contact: Chris Adie

RISC Versions: Yes

WAIS Server for Windows NT

A Wide Area Information Server (WAIS) for making information available over the Internet

This WAIS is server based on the freeWAIS 0.202 UNIX implementation.

This server has been developed as part of the EMWAC project. The European Microsoft Windows AT Academic Centre (EMWAC) has been set up to support and act as a focus for Windows NT within academia. It is sponsored by Datalink Computers, Digital, Microsoft, Research Machines, Sequent and the University of Edinburgh.

Retail Price: Shareware

Contact: May be obtained by anonymous FTP over the

RISC Versions: Yes

EditPro Corp.

9974 Scripps Ranch Blvd
San Diego, CA 92131
USA

Related Topics:

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[EditPro Extender for Visual C++](#)

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EditPro 4.0

Programmer's editor for both Windows NT and Windows DOS

Featuring Syntax Color Coding for C/C++, Pascal, Ada, FORTRAN, xBase, COBOL, Basic, Assembler, RTF, SGML, Windows .INI, MS-DOS Batch, Windows API/Messages/Types, and also color codes your Project Functions/Variables/Types/Enums/etc. The editor supports editing binary data in Hex mode with search/replace and insert/overstrike/delete modes allowing you to enlarge or shrink your data file. Project Management capabilities with complete Build and Error tracking and Graphical Tags Browsing. Handles unlimited size files. The Windows DOS version supports graphics files in over ten popular file formats (.BMP, .TIF, .JPEG, etc.) Requires Windows 3.1 DOS or Windows NT (DEC Alpha and Intel). Comes with three diskettes for Windows NT, DEC Alpha AXP, and Windows 3.1 platforms.

Retail Price: \$99.00 (includes all three platforms)

Contact: Dean Weber

Phone: 619-549-8081

Fax: 619-546-8765

RISC Versions: Yes

EditPro Extender for Visual C++

Powerful add-on for Microsoft Visual C++

This tool works transparently with the VC++ IDE to add Customizable Key Binding/Menus/Tool Bars with BRIEF support, define your own Macros, Template Expansion, Version Control Support, Multiple File Open, and File Grep. Requires Windows NT, Windows 3.1 and Microsoft Visual C++.

Retail Price: \$89.00 (includes both platforms)

Contact: Dean Weber

Phone: 619-549-8081

Fax: 619-546-8765

RISC Versions: Call for availability

EditPro for Windows NT

EditPro Professional Programmer's Editor

Powerful full featured editor supports all major compilers, allows for fast error tracking and background compiles. Supports unlimited file sizes, unlimited undo, C macro language for easy extensions to the editor. Customize the menus, tool bars, and keyboard mappings. Fast color coding support of keywords, strings, and comments for C/C++ and Pascal languages. Spell checker with 100K word dictionary and user dictionary. Powerful Regular Expression search, replace, and file grep. Other features include word wrap, insert/overstrike modes, column/line/snake blocking modes, auto-save and auto-backup, BRIEF/WordStar/CUA emulation, CTags, and SDK support.

Retail Price: \$269.00

Contact: Dean Weber

Phone: 619-549-8081

Fax: 619-546-8765

RISC Versions: Call for availability

Eicon Technology Corp.

2196 - 32nd Avenue (Lachine)
Montreal, Quebec H8T 3H7
Canada

Related Topics:

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[IP Router for Windows NT](#)

[SNA Function Mgmt Developer's Toolkit Windows NT](#)

[WAN Services for Windows NT](#)

[X.25 Network-Level Developer's Toolkit for Windows NT](#)

Access for Windows NT 3270

Robust 32 bit application which provides 3270 terminal and printer emulation under Windows NT

Eicon Technology's Access for Windows NT 3270 is a full-featured IBM 3270 display and printer emulator for Windows NT. With Access for Windows NT 3270, users can take advantage of their favorite Graphical User Interface to reach IBM mainframe applications. Access for Windows NT 3270 has many features that make it unique in the market-place. Multiple display and printer sessions can be used simultaneously. The sessions can be cascaded or tiled, or individually sized, maximized, or even minimized to icons on the Access for Windows NT desktop. Easy to use programmable softkeys can be assigned to commands, keystrokes, and macros, and run with a click of the mouse. Our graphical keyboard re-map feature paints a picture of your keyboard on the screen, and allows you to fully customize your layout. Access for Windows NT 3270 features a font selection capability for a better looking display and printer output, print preview which allows full-page analysis prior to printing, light pen emulation with the mouse, and hot spots for direct activation of PF keys using the mouse. Access for Windows 3270 supports a variety of connectivity methods. For direct attachments, Access for Windows NT supports IBM DFT Coax, SDLC, X.25, and 802.2 LLC (Token-Ring and Ethernet) connections. In addition, any data links fully compliant with SNADIS specification are supported. For example, Eicon Technology's WAN Services for Windows NT provides X.25/QLLC connections. LAN client options include connectivity through Microsoft SNA Server for Windows NT and DCA/Microsoft Select Communications Server, as well as 802.2 DSPU connections to Resource Managers such as IBM PC/3270 Emulation Program Gateway.

Retail Price: Call

Contact: DinaA. Gibbons

Phone: 514-631-2592

Fax: 514-631-3092

RISC Versions: Call for availability

APPC Developer's Toolkit for Windows NT

This toolkit features a full implementation of the LU 6.2 protocol as defined by IBM. It will communicate with any system, present or future, that supports the APPC standard

The EiconAPPC Developer's Toolkit for Windows NT facilitates the development of communications applications based on the IBM LU 6.2 protocol. It allows IBM PC and IBM PS/2 developers to design programs that interact on a peer-to-peer basis with other applications, local or remote, on an SNA network. This includes programs running on other IBM PC and PS/2 computers, as well as any minicomputers or mainframes supporting APPC. It features a rich set of verbs for constructing distributed processing programs, including basic and mapped conversation verbs, control operator functions and security functions. The EiconAPPC Developer's Toolkit for Windows NT links to remote systems over either SDLC or X.25 lines at speeds of up to 38.4 kbps, or at LAN speeds to local or remote devices with a direct Token-Ring 802.2 LLC host connection. This toolkit supports multiple sessions between multiple SNA LU 6.2 nodes and the common PU feature which permits the same PU to be configured for LU 0, LU 1, LU 2, LU 3 and LU 6.2. Therefore, one PU can simultaneously support 3270 sessions and LU 6.2 sessions. This virtually eliminates performance degradation caused by polling.

Retail Price: Call

Contact: DinaA. Gibbons

Phone: 514-631-2592

Fax: 514-631-3092

RISC Versions: Call for availability

IP Router for Windows NT

Provides remotely managed office-to-office connectivity in a Windows NT environment

IP Router for Windows NT allows for the transparent sharing of remote data and resources among all workstation users. Interoperability with routers from Cisco, Wellfleet and other vendors, allows IP Router for Windows NT to integrate seamlessly into an existing backbone network. It is the first solution to provide office-to-office connectivity via Windows NT TCP/IP LANs over X.25, Frame Relay and across a leased or dial-up line using Point-to-Point Protocol (PPP). IP Router for Windows NT can use an ISDN network as the physical medium while using X.25, Frame Relay and PPP as the network-level protocol. Context-sensitive help facilitates the process of referencing commands.

Retail Price: \$995.00

Contact: DinaA. Gibbons

Phone: 514-631-2592

Fax: 514-631-3092

RISC Versions: Call for availability

SNA Function Mgmt Developer's Toolkit Windows NT

This toolkit creates a working environment that provides the ultimate in flexibility for applications needing to access information from a single SNA host to multiple SNA hosts concurrently

The SNA Function Management Developer's Toolkit for Windows NT provides a high-level interface for the SNA protocol stack using a library of C function calls. Through an Eicon Technology SNA Gateway, the developer can create applications to implement one or more LU- LU sessions between standalone or LAN workstations and SNA hosts, such as IBM 370, SYS/3X and AS/400s. It features full support for IBM SNA Logical Unit Types LU 0, LU 1, LU 2, LU 3, LU 4 and LU 7. This toolkit offers an entry point into the SNA stack within Eicon Technology's EiconCard. Programmers can set up and cancel a session, activate or de-activate the Logical Unit, send and receive data, inquire about LU connection status, and inquire about adapter status. The toolkit handles all Data Link Control, Path Control, Transmission Control, and Data Flow Control Services. This toolkit allows users to connect up to 254 Logical Units simultaneously. These LUs can be channeled through one PU or shared between a maximum of 32 active PUs.

Retail Price: \$1,000.00

Contact: DinaA. Gibbons

Phone: 514-631-2592

Fax: 514-631-3092

RISC Versions: Call for availability

WAN Services for Windows NT

WAN Services for Windows NT is specifically tailored to provide wide area networking services to the Windows NT environment and is designed to complement products offered by Microsoft

WAN Services for Windows NT integrates seamlessly with the host communications environment, augmenting it with WAN communications services complementary to the Microsoft product line. The wide area services provided include full-featured, robust and high capacity implementations of X. PAD, SNADIS and X.25 support. These communications facilities are all optimized for the EiconCard family of high speed intelligent communications adapters. The product provides wide area support for all of Microsoft's communications programs in a single integrated package. Whether users are looking to add WAN support to the Microsoft Remote Access Server (RAS), Microsoft e-mail applications or SNA Server or Enterprise Messaging System (EMS) the solution is Eicon Technology's WAN Services for Windows NT.

Retail Price: \$595.00

Contact: DinaA. Gibbons

Phone: 514-631-2592

Fax: 514-631-3092

RISC Versions: Call for availability

X.25 Network-Level Developer's Toolkit for Windows NT

The X.25 Network-Level Developer's Toolkit for Windows NT is a powerful set of communications programming tools designed to help developers build custom applications that can take advantage of EiconCard communication adapters in a Windows NT environment

Eicon Technology's X.25 Network-Level Developer's Toolkit for Windows NT is composed of a library of C functions that provide a high-level interface to the X.25 data stream. Function calls let programmers set up and cancel X.25 calls, select network parameters, send and receive data, inquire about connection status and perform a wide range of other X.25 related processing. With the X.25 Network-Level Developer's Toolkit for Windows NT, developer's avoid the time consuming task of low-level coding, yet retain full control of all X.25 parameters. The toolkit allows applications to establish and manage up to 254 concurrent virtual circuits. It completely insulates the application from all protocol processing. Full access to X.25 Facilities allows different facilities to be set for each individual virtual circuit. User-defined windows and packet sizes mean communication processing can be tailored for optimum performance.

Retail Price: \$1,000.00

Contact: DinaA. Gibbons

Phone: 514-631-2592

Fax: 514-631-3092

RISC Versions: Call for availability

Elan Computer Group, Inc.

888 Villa Street
3rd Floor
Mountain View, CA 94041
USA

Elan License Manager

Software License Manager for Windows & Windows NT

Elan License Manager is a software toolkit that controls multi-user access to software applications in a network or multi-user environment. It's principal functions are: To allow only the number of licensed users access to an application concurrently. To incorporate a flexible expiration date into software for creating evaluation copies. To implement a form of copy protection, such that the controlled application will only operate on a licensed network or licensed CPU. To provide the ability to individually license components of an application. Elan License Manager is an all-software solution to software licensing and is ideal for virtually any software application.

Retail Price: Call for pricing

Contact: Bob Taylor

Phone: 800-536-3526 or 415-964-2200

Fax: 415-964-8588

RISC Versions: Call for availability

Elite Technology

12348 Rose Street
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Jupiter

32-bit object-oriented desktop publishing application

Jupiter version 1.5 integrates the power of graphics and word processing to achieve the ultimate desktop publishing tasks. Jupiter provides full-featured graphics to create, re-size, rotate, skew, and reshape both graphics and text objects. Jupiter supports powerful word processing capabilities such as arbitrary change of typeface and formatting. Jupiter offers versatile text layout with maximum flexibility. Jupiter handles multiple text flows for the application of mass media publications. Jupiter implements both horizontal and vertical writings to support Far East languages.

Retail Price: \$595.00

Contact: George Hwang

Phone: 310-924-0028

RISC Versions: Call for availability

Evergreen CASE Tools, Inc.

8522 154th Avenue NE
Redmond, WA 98052
USA

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EasyCASE Developer's Edition

Powerful CASE tool for process, data and information modelling. The Developer's Edition automates database design by coupling the robust features of EasyCASE Professional with schema generation

The EasyCASE Developer's Edition includes the powerful chart editing, data dictionary, and analysis features of EasyCASE Professional. It also includes field type and length validation, the creation of entity views, and reverse engineering for xBASE databases. The Developer's Edition supports generation of database table headers for xBASE, and SQL DDL scripts for a wide variety of SQL dialects, including SQL Server, Sybase, Ingres, Informix, ORACLE, FoxPro, DB2, RdB, SQLBase, R:BASE, dBASE IV, Progress, and Netware SQL.

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Retail Price: \$795.00 - \$1,295.00

Contact: Sue Hutchinson

Phone: 206-881-5149

Fax: 206-883-7676

RISC Versions: Call for availability

Ex Machina, Inc.

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Suite 39-A
New York, NY 10128-1232
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Notify! Network

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RISC Versions: Call for availability

Executive Software, Inc.

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Retail Price: \$99.00

Contact: Tony Rockcliff

Phone: 818-547-2050

Fax: 818-545-9241

RISC Versions: Yes

Expert Systems

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IconBar for Windows NT

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\iconbar.zip

IconBar is a desktop program launcher for Windows NT. It gives you easy access to your applications without going to Program Manager. Create a button style icon to easily launch any app. Unlike other icon programs, IconBar's buttons can be placed anywhere on the desktop. Just drag the icon anywhere you want it. Create as many icons as will fit on the desktop.

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Faircom Inc.

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Felsina Software

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A-Talk for Windows

A comprehensive telecommunications package for the Windows NT, Windows 3.1 and Windows for Workgroups operating systems. A-Talk supports Microsoft Mail, cc:Mail, Network DDE, Drag and Drop, DEC VT-220 and Tecktronix 4014 emulation and speech

A-Talk® is designed not only for the beginner but also for the power user who wants to set up Network DDE hot links to access and share information such as stock quotes. A-Talk is the only telecommunications product for Windows NT that provides seamless access through the E-Mail Connection™ to the advanced messaging features of Microsoft Mail, cc:Mail and Lotus Notes. A-Talk provides a powerful script language with auto-script mode, an interactive script editor, and superior terminal emulations that include DEC VT200, VT102 and Tektronix 4010/4014. A-Talk supports nine protocols, the clipboard, the DDE Management Library, TrueType fonts, Common Dialogs, Drag and Drop, a history buffer, split windows, and an unlimited phone directory with queue dialing and journal functions. A-Talk provides full support of many modem types with auto-dial, auto-redial, auto-answer and hang up. A-Talk includes a feature which allows you to customize the program for any modem. With Drag and Drop support, you can send text and binary files, set communications parameters and execute scripts by dragging files from the File Manager and dropping them into A-Talk. Operating System Requirements: Windows NT 3.1, Windows 3.1, Windows for Workgroups

Retail Price: \$99.95

Contact: Marco Papa

Phone: 213-669-1497

Fax: 213-669-1893

RISC Versions: Yes

Finally Incorporated

4701 Kelly Cove
Glen Allen, VA 23060
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CaseWarder

A computer system designed to assist people who provide case management services; composed of various modules designed for legal case management. Includes other modules such as IntelliPlans and IntelliDocs. IntelliPlans is a computer system designed to monitor critical events and to initiate automated plans of response and personnel notification. IntelliDocs is a computer system designed to monitor critical events and to initiate automated generation of correspondence and documentation.

Retail Price: Call

Contact: Ellen Orber

Phone: (804) 222-6623

Fax: (804) 747-9661

RISC Versions: Call for availability

Fischer International Systems Corp.

3506 B Merchantile AVE.

Naples, 33942

USA

WATCHDOG ARMOR for Windows NT

Insures the integrity of the Windows NT operating system

Features included are protected security firmware, Boot control, and a secure clock.

Retail Price: NA

Contact: Gene Wagner

Phone: 813-643-4803

Fax: 813-643-6357

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Beverly, MA 01915
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XChrom

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Designed for both networks and windows environments, XChrom is a full function chromatography data management system which offers graphical data handling, icons, tool bars, file services and context sensitive help. providing the user with a complete solution to every chromatography data processing need, Additionally, XChrom offers control of operating conditions for many popular chromatography instruments.

Windows NT allows the PC user access to operating system capabilities usually associated with large multi-user systems. As Windows NT has been designed as a networked operating system, critical elements such as security and multiple processing capabilities have built in. These two factors on their own offer significant benefits to the chromatographer.

XChrom has been designed to be portable as the source code is the same for all the supported platforms. This in turn provides a more robust system as XChrom has to be able to run on all such supported platforms before it can be released.

Retail Price: Call

Contact: Benjamin Yellin

Phone: 800-999-5011

Fax: 508-524-1104

RISC Versions: Call for availability

Flexus International Corp.

P.O. Box 640
Bangor, 18013-0640
USA

COBOL spII

Develop Windows GUI screens for COBOL

COBOL spII is an User Interface Development System designed to allow the COBOL programmer to quickly design interactive screens for a COBOL application. Menu bar, pull downs, dialog boxes and help windows may be easily "painted" with the screen painting tool. Screens may incorporate advanced Windows controls such as push buttons, radio buttons, check boxes, scroll bars and icons. Screens may be painted for a text based application or a graphical user interface application. Once the screens are painted, the programmer may link them together in a sophisticated prototype of the final application. The working prototype developed looks and behaves exactly like the application being developed. Once the prototype has been reviewed and approved by the end-users or customers, the programmer may convert the prototype to a COBOL program which incorporates the same advanced user interface features that were painted and prototyped. COBOL spII supports MS-DOS, Microsoft Windows 3.x, and Microsoft Windows NT. COBOL spII also supports all major COBOL compilers.

Retail Price: \$995.00

Contact: Bob Wolf

Phone: 215-588-9400

Fax: 215-588-9475

RISC Versions: Call for availability

Flintstone Technology Corp.

45171 NW Hartwick Road
Banks, 97106
USA

TRIAD ISA-100

The TRIAD model ISA-100 is a sophisticated, multi-channel, data acquisition system suitable for digitizing high-speed and non-repetitive analog signals. The ISA-100 is an AT form factor I/O card that fits easily into any ISA bus equipped, 386 or 486-based computer system. The ISA-100 supports simultaneous acquisition and digitizing of three independent signals at a rate of up to 100 million samples per second. Digitized signal resolution for each channel is 8-bit. On-board memory holds up to 4 million data samples for each channel, allowing capture of long sequences and non-repetitive signal. Most of the operating parameters of the ISA-100 are fully programmable and software support is provided in the form of both a Microsoft Windows data acquisition control program and a Windows-compliant device driver.

Retail Price: \$1,499.00

Contact: Ron Tsur

Phone: 503-324-8960

Fax: 503-324-4432

RISC Versions: Call for availability

FORTH, Inc.

Box 51
Golden, CO 80402
USA

Jax4th for Windows NT

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\jx4nt107.zip

A fun freeware Forth for Windows NT which is as complete, useful and easy to use as is practical in the limited amount of time the author has to develop and maintain it.

Retail Price: Shareware

Contact: Jack J. Woehr

RISC Versions: Call for availability

Fourth Wave Software, Inc.

560 Kirts Blvd.
Suite 105
Troy, MI 48084
USA

Related Topics:

[WinBEEP](#)

[WinBEEP SDK](#)

[WinBEEP Server](#)

WinBEEP

A Complete Wireless Messaging System for Windows NT

WinBEEP is a Windows NT based application that lets users send wireless messages (sentences and paragraphs of important information) to pocket-sized full-text pagers. WinBEEP offers immediate, unobtrusive, effective delivery of detailed text messages to people who are regularly on the move. It also enables organizations to improve business operations by having instant access communication links with outside entities important to their success. Messages reach mobile workers instantly regardless of their location, with minimal chance of error, and without interrupting important meetings and tasks in progress. Pagers and paging devices hold as much as 6K (four pages) of data and up to 40 messages. Many departments, including sales, purchasing, and customer support require quick access to customers, vendors, service providers and other outside entities. By installing WinBEEP and providing these key contacts with pagers, organizations will have 24-hour global communication systems that increase and operating efficiency of everyone involved. WinBEEP gives users a bridge to future wireless communication solutions. Other features include the ability to create a central activities log, send individual or group messages, attach sender ID information, create pre-defined messages and attach other software files to pager messages. WinBEEP is built on Fourth Wave Software, Inc. 's WinBEEP SDK and WAPI (Wireless Application Programming Interface).

Retail Price: Call

Contact: Customer Service

Phone: 313-362-2288

Fax: 313-262-2295

RISC Versions: Yes

WinBEEP SDK

A Complete Wireless Messaging Development Kit for Windows NT.

The WinBEEP SDK allows developers to 'PAGE-ENABLE' their application using the WinBEEP paging transport engine and WAPI (Wireless Application Programming Interface). This development kit will allow applications to communicate directly out the communications port to the paging service or to the WinBEEP Server. The system supports VIM and MAPI messages. The system comes with utilities and simple calls with embedded dialog boxes for administration of paging services and paging addresses as well as Microsoft Visual Basic and 'C' examples for using the SDK. The SDK supports paging distribution lists, priorities and logging of pages. It also supports the NASI and shared modem communication standards. The WinBEEP Server is a wireless paging server for networks. This server is an active message store for outbound alphanumeric paging that can be used by multiple clients in a IPX, NetBIOS, TCP/IP or Windows For Workgroup environment Future wireless transports to be added include Two Way Wireless and inbound paging. Clients for the WinBEEP Server include WinBEEP Standalone or any applications written with WinBEEP SDK or any applications that communicates via DDE to WinBEEP or Network DDE to the server.

Retail Price: Call

Contact: Customer Service

Phone: 313-362-2288

Fax: 313-262-2295

RISC Versions: Yes

WinBEEP Server

A Complete Wireless Messaging System for Windows NT Networks or LANS

The WinBEEP Server is a wireless paging server for networks. This server is an active message store for outbound alphanumeric paging that can be used by multiple clients in a IPX, NetBIOS, TCP/IP or Windows For Workgroup environment. Future wireless transports to be added include Two Way Wireless and inbound paging. Clients for the WinBEEP Server include WinBEEP Standalone or any applications written with WinBEEP SDK or any applications that communicates via DDE to WinBEEP or Network DDE to the server.

Retail Price: Call

Contact: Customer Service

Phone: 313-362-2288

Fax: 313-262-2295

RISC Versions: Yes

Franz, Inc.

1995 University Avenue
Berkeley, CA 94704
USA

Allegro CL\PC

Advanced Object Oriented Lisp Development System

Allegro CL\PC is a native 32-bit Common Lisp compiler and integrated programming environment. Based on the Common Lisp Object System (CLOS), Allegro CL\PC offers capability previously available only on UNIX workstations. Programming is more productive with Allegro CL\PC because you work in an interactive environment with incremental compilation, automatic memory management, and powerful debugging tools. The integrated development environment also features built-in editors, profiler, CLOS browser, and other tools. DLL and DDE support provides integration with other languages and programs. The interface builder allows you to interactively construct GUI applications, using a high-level, object-oriented layer on top of the Windows API. A runtime generator permits distribution of stand-alone applications with royalty-free delivery. Common Lisp with CLOS is the first ANSI standardized object-oriented programming language. CLOS features multiple inheritance, multiple argument discrimination, dynamic redefinition, and a meta-object protocol.

Retail Price: Call

Contact: Nuket Veral

Phone: 510-548-3600

Fax: 510-548-8253

RISC Versions: Call for availability

Free Software Foundation, Inc.

675 Mass Avenue
Cambridge, MA 02139
USA

GNU Emacs 19.17

The most extensive editor available

File Location:

june.cs.washington.edu/pub/ntemacs

Usenet Newsgroups:

comp.os.ms-windows.announce

comp.os.ms-windows.nt.misc

gnu.emacs.announce

GNU Emacs is the GNU incarnation of the advanced, self-documenting, customizable, extensible editor Emacs. Emacs is advanced because it provides facilities that go beyond simple insertion and deletion: filing of text; automatic indentation of programs; viewing two or more files at once; and dealing in terms of characters, words, lines, sentences, paragraphs, and pages, as well as expressions and comments in several different programming languages. It is much easier to type one command meaning "go to the end of the paragraph" than to find that spot with simple cursor keys.

Retail Price: Shareware

Contact: Geoff Voelker

RISC Versions: Inquire about availability

Frontier Technologies Corp.

10201 North Port Washington Road
Mequon, WI 53092
USA

Super-TCP for Windows NT 3.0

Comprehensive Suite of TCP/IP & NFS Networking Applications

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Retail Price: \$495.00

Contact: Kevin McManus

Phone: 414-241-4555 ext-217

Fax: 414-241-7084

RISC Versions: Call for availability

Funk Software, Inc.

222 Third Street
Cambridge, MA 02142
USA

Related Topics:

[AppMeter version 2](#)

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AppMeter version 2

Software Usage Metering for Networks

AppMeter provides the network administrator with a powerful tool for metering and reporting on use of DOS and Windows applications on a network. AppMeter takes the guesswork out of complying with software licenses. With AppMeter, you'll be able to stay faithful to license agreements while you avoid buying more licenses than you really need. AppMeter's flexibility allows the implementation of any software usage policy. The network administrator can strictly limit the number of concurrent users of an application to a specified maximum, or can generate exception reports when that maximum is exceeded without denying access. Rights to applications can be limited to particular users or groups. AppMeter logs all application usage and provides current and historical information to the administrator in the form of reports and graphs. Intelligent software purchasing decisions can be based on the reports AppMeter generates. AppMeter version 2 will fully support the License Service API, making it compatible with future software releases from major publishers that will be LSAPI-aware. Version 2 server and client components will support DOS, Windows, Windows NT, Netware, and other operating environments.

Retail Price: TBA

Contact: Joseph Ryan

Phone: 617-497-6339

Fax: 617-547-1031

RISC Versions: Call for availability

Proxy

Network Remote Control From Windows

Proxy is a network-based remote control program that lets you take over any PC on your network right from a Windows session. You can control multiple PCs simultaneously; the controlled PCs can be running DOS or Windows. Proxy's blazing speed, ease of connection, and immediate availability under Windows make it ideal for applications such as: network-based technical support and help desk; remote software installation, update, and system configuration; software training; monitoring of unattended PCs such as job servers; exploiting the additional processing power of spare or idle PCs. Proxy includes a master and a host component. Features of the Proxy master include the ability to connect to hosts both locally and across routers, to reboot the host remoted (with automatic reconnect), customize text mode display with a selection of fonts, and more. Host security features include tones on connect/disconnect, password access, time-of-day access, and the ability to abort a session in progress.

Retail Price: TBA

Contact: Joseph Ryan

Phone: 617-497-6339

Fax: 617-547-1031

RISC Versions: Call for availability

FutureSoft Engineering, Inc.

12012 Wickchester Lane
Suite 600
Houston, TX 77079
USA

Related Topics:

[Dynacomm Asynchronous](#)

[DynaComm/Elite For Windows NT](#)

Dynacomm Asynchronous

A powerful yet easy to use communications software for Windows and Windows NT

DynaComm is a power yet easy to use communications software for Windows and Windows NT. DynaComm offers superior connectivity (LAN support) and emulation types not available in any other communications software. DynaComm blends power with the graphical user interface, multitasking, and ease of use for which Windows is known.

Retail Price: TBD

Contact: Customer Service

Phone: 800-989-8908

Fax: 713-496-1090

RISC Versions: Call for availability

DynaComm/Elite For Windows NT

A full featured emulator for Windows and Windows NT

DynaComm/Elite for Windows NT provides comprehensive terminal emulation capabilities for Windows and Windows NT is an IBM SNA environment with a wide range of connectivity options including DFT/Coax, SDLC, 802.2 LLC, AdaptSNA LAN, Eicon and Novell Gateways and DGA/Microsoft CommServer.

Retail Price: Call

Contact: Customer Service

Phone: 800-989-8908

Fax: 713-496-1090

RISC Versions: Yes

International Sales:

Contact Eric Grayson; Europe: 31-70-390-7727, Fax: 31-70-390-7005

Gamma Productions, Inc.

12625 Highbluff Drive, #218
SanDiego, CA 92130
USA

Gamma Unitype

Utility for adding foreign language support to Windows NT applications

Gamma Unitype for Windows is an aftermarket localization kit to add support for most of the world's language into off the shelf native Windows applications. Features in-line spell checking, hyphenation, and bi-lingual translating thesaurus. Support for over 175 languages. Excellent bi-directional language support. Call or write for complete product description. OEM and volume pricing available.

Retail Price: Call

Contact: Gary Rosen

Phone: 310-478-6774

Fax: 310-478-7765

RISC Versions: Call for availability

International Sales:

US: 800-97-GAMMkA

Germany: 0782-924-222

France: 01-42-33-77-10

Geist, Mark

AT&T Information Systems, Dept 469
1200 W. 120th Avenue
Westminster, CO 80234-2795
USA

grep32.exe

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\grep32.zip

grep32.exe is based on a version of grep which was originally ported to the pdp 11 (DECUS C). I cleaned up the code and ported it to MSC 5.1. I added a couple of more modifications and have produced the 32 bit version for the Windows NT command line.

Retail Price: Shareware

Contact: Mark Geist

Phone: 303-358-2653

RISC Versions: Call for availability

Graphic Enterprises of Ohio, Inc.

439 Market Avenue North

Canton, OH 44702

USA

G.U.S.S. (Graphic Universal SubSystem)

The world's most intelligent and flexible pre-press output management system

G. U. S. S. is an output management system that utilizes the friendly Windows NT graphical user interface to control the flow of pre-press printing data between workstations, raster image processors and output devices. G. U. S. S. serves as a print spooler, OPI Server, intelligent router and a multi-plexor. Its strengths lie in its flexibility and intelligent decision making. Since G. U. S. S. was developed for Windows NT, it will run on many platforms with a wide range of hardware salability. It's multithreaded design allows it to take full advantage of multi-processor platforms as well.

Retail Price: Call

Contact: Brian Bailey

Phone: 800-321-8974

Fax: 216-456-9946

RISC Versions: Yes

GrayTech Software, Inc.

2172 Menomini
Wheaton, IL 60187
USA

Related Topics:

[CAD X11](#)

[CAD X11/Lite](#)

CAD X11

3-D modeling, design, and drafting system for Windows NT and UNIX

CAD X11 is a workstation independent, true 32-bit Mechanical CAD system ideally suited for design and manufacturing applications. A built-in floating network license allows users to choose from PCs and workstations running Windows NT, DOS 5.0/Windows 3.1, and UNIX operating systems. Standard features of CAD X11 include 3-D wireframe and surface modeling, rendering (hidden line removal, Gouraud shading, and more), dynamic rotations, multiple views, data verification, and geometric analysis. Also standard are the custom IGES interface, macros, 2-D and 3-D drafting with ANSI, ISO, BSI, DIN, and JIS dimensioning, geometric tolerancing, bill of materials, crosshatching, layering, macros, undo/redo, dragging, rubberbanding, user-definable 'hot' buttons, Gerber and CGM interfaces, and on-line help. Output methods include pen and electrostatic plotters, PostScript printers, HP LaserJet printers, and Encapsulated PostScript. Options are available for User Programming in C or FORTRAN, and custom interfaces to Framemaker, Interleaf, Patran, and other software packages. Introductory pricing begins at \$1995 for CAD X11, offering the most powerful, feature-rich MCAD solution for today's economically minded engineers and drafters working on the forefront of technology. GrayTech's products are backed by an established reputation for easy to learn and use software and exceptional customer support.

Retail Price: Introductory pricing starts at \$1,995.00

Contact: Inside Sales

Phone: 708-682-4030

Fax: 708-682-0047

RISC Versions: Yes

CAD X11/Lite

2-D and 3-D design and drafting system for Windows NT/3.1 and UNIX

CAD X11/Lite is a workstation independent, true 32-bit Mechanical CAD system ideally suited for design and manufacturing applications. A built-in floating network license allows users to choose from PCs and workstations running Windows NT, Windows 3.1, and UNIX operating systems. Standard features of CAD X11/Lite include simple and complex geometry creation, 3-D wireframe modeling, multiple views, dynamic rotations, 2-D and 3-D drafting with ANSI, ISO, and JIS dimensioning, ordinate dimensions, geometric tolerancing, TrueType Font support, ANSI/ISO crosshatching, macros, undo/redo, dragging, rubberbanding, data verification, geometric analysis, layering, custom IGES and DXF interfaces, user-definable 'hot' buttons, and on-line help. Output methods include pen and electrostatic plotters, PostScript printers, HP LaserJet printers, and Encapsulated PostScript. Pricing is \$995.00 for this powerful lite version of GrayTech's CAD X11 software, offering the most feature-rich MCAD solution for today's economically minded engineers and drafters working on the forefront of technology. First in its field, CAD X11. /Lite includes excellent drafting functions, mature built-in IGES and DXF interfaces, and the same built-in floating network license available with the full CAD X11 product. All of GrayTech's products are backed by an established reputation for easy to learn and use software and exceptional customer support.

Retail Price: \$995.00

Contact: Michael Keppel

Phone: 708-682-4030

Fax: 708-682-0047

RISC Versions: Yes

Great Plains Software

1701 Southwest 38th St.

Fargo, ND 58103

USA

Great Plains Dynamics

A network-ready, graphical accounting and business management system

Great Plains Dynamics is network-ready, graphical accounting and business management software for Windows NT/Win32 and Win32s. Dynamics is organized in module series that reflect business tasks: Foundation, Financials, Sales, Inventory, Payroll, Purchasing, Project Accounting, and Tools Series. The software incorporates a WYSIWYG Report Writer; user definable account numbers; on-line documentation; modifiable reports and screens; statistical or unit account capabilities; cross-platform data access; and a full range of accounting functionality. Dynamics' underlying foundation, Dexterity, is a graphical, cross-platform development system optimized for developing large transaction-oriented applications using object-oriented programming techniques.

Retail Price: \$2,000.00 - \$50,000.00

Contact: Steve Sydness

Phone: 701-281-9941

Fax: 701-282-9243

RISC Versions: Call for availability

Greenleaf Software, Inc.

16479 Dallas Parkway
Suite 570
Dallas, TX 75248
USA

Greenleaf Database Library

The most flexible C, C++ database library available

This C library had over 240 functions to provide fast access to xBASE files. Library features include: standalone, multi-user and network access, automatic record and file locking, built-in disc caching, index expression evaluation, a find using full or optional keys. Routines are supplied to access the following file types: fixed length records (DBF), variable length records (DBT and FBT), and indices (CDX, IDX, MDX, NDX, and NTX). Now includes high level functions which allow you greater flexibility, i.e. when you open a database file, it also opens index and memo files and relational capabilities are built-in. New version also includes a Windows Help file, new Windows demos and a complete Windows based tutorial in the documentation. Include complete fully commented ANSI C compliant source code and a Microsoft Windows DLL.

Retail Price: \$249

Contact: Geoff Clark

Phone: 800-523-9830

Fax: 214-248-7830

RISC Versions: Call for availability

GUILD Products, Inc.

1710 South Amphlett
2nd Floor, Suite 203
San Mateo, CA 94402
USA

GUILD Development System for Windows NT

Cross Platform GUI Tool

GUILD uses a visual programming approach, enabling developers to create most of their GUI using point-and-click. The product also includes a high level, fully-portable API and provides access to C and C++ for extended GUI and application features. Because GUILD keeps the application code separate from the user interface, you can easily construct GUI front-ends for existing C applications and even modify the GUI after it is compiled. User interfaces developed by GUILD are easily portable between Windows NT, Windows 3.1, OS/2 and Macintosh. The Windows NT version of GUILD includes support for Microsoft Foundation Classes (MFC), 90 days free technical support and more. Support for modeling, plotting and popular PC databases is also available.

Retail Price: 895.00

Contact: Toby Mosby

Phone: 800-995-5452

Fax: 415-349-4908

RISC Versions: Yes

Gupta Corp.

1060 Marsh Road
Menlo Park, CA 94025
USA

Related Topics:

[SQLBase 5.2 Server](#)

[SQLWindows Application Development System](#)

[SQLWindows Application Development System](#)

SQLBase 5.2 Server

A high-performance database server desgined for graphical applications on networked PCs

SQLBase is a full-function database server optimized for graphical applications with such crucial server features as scrollable cursors and additional concurrency levels. Yet it's compatible with minicomputer and mainframe databases such as Oracle and DB2, making it useful at every level of the enterprise. SQLBase is also a PC-centric database server that is simple to install and administer. Unlike database servers that originated in the mini-computer world, SQLBase was designed from the ground up to meet the needs of PC users in client-server cooperative-processing environments. It's an excellent data-staging server for enterprise-wide applications that need connectivity to minicomputer and mainframe databases. And it's perfect for any kind of graphical application that makes heavy use of browsing and scrolling.

SQLBase features include:

- Scrollable cursors
- Advanced isolation levels
- Declarative referential integrity
- ANSI SQL and DB2 compatibility
- National language support
- Update notification and protection
- Cursor context preservation
- Long data type
- Multi-row access
- Write-ahead recovery logging
- Cost-based and statistics-based query optimizer
- Stored commands

Retail Price: \$595.00 - \$9,995.00

Contact: Telesales Dept.

Phone: 800-876-3267

Fax: 415-617-4787

RISC Versions: Yes

SQLWindows Application Development System

SQLWindows lets teams of programmers collaborate to develop applications for all SQL databases

SQLWindows is an award-winning graphical 4GL that allows teams of programmers to collaborate in developing object-oriented client-server database applications that access a variety of back-end database servers including Gupta SQLBase Server, Microsoft SQL Server, Informix, DB2 and DB2/2, Oracle, AS/400, HP ALLBASE/SQL, NetWare SQL, and Ingres. SQLWindows also includes its own single-user SQL database to enable you to develop and test your applications on a stand-alone workstation, laptop, or pentop. With its unique TeamWindows collaborative-programming environment and application repository, SQLWindows programmers can share and reuse code, specialize in programming tasks, and collaborate to complete applications more quickly and reliably than possible before. And project managers can coordinate work, monitor progress, and spot trouble before it happens. What's more, SQLWindows supports full object orientation, comprehensive report writing, and complete Windows NT citizenship. SQLWindows consists of a set of integrated, object-oriented tools and services for developing, debugging, and deploying client-server applications

The tools and services include:

- Application Designer Visual Programming Environment
- Application Outliner
- SQLWindows Application Language
- Class Libraries
- ReportWindows Industrial-Strength Report Writer
- Debugger and Compiler
- TeamWindows Collaborative Programming Tools
- TeamWindows Repository
- Operating System and Network Services Library
- Single-User, Multi-Tasking Full-Function SQL Database Engine

Retail Price: \$1,995.00 - \$3,495.00

Contact: Telesales Dept.

Phone: 800-876-3267

Fax: 415-617-4787

RISC Versions: Call for availability

SQLWindows Application Development System

SQLWindows lets teams of programmers collaborate to develop applications for all SQL databases

SQLWindows is an award-winning graphical 4GL that allows teams of programmers to collaborate in developing object-oriented client-server database applications that access a variety of back-end database servers including Gupta SQLBase Server, Microsoft SQL Server, Informix, DB2 and DB2/2, Oracle, AS/400, HP ALLBASE/SQL, NetWare SQL, and Ingres. SQLWindows also includes its own single-user SQL database to enable you to develop and test your applications on a stand-alone workstation, laptop, or pentop. With its unique TeamWindows collaborative-programming environment and application repository, SQLWindows programmers can share and reuse code, specialize in programming tasks, and collaborate to complete applications more quickly and reliably than possible before. And project managers can coordinate work, monitor progress, and spot trouble before it happens. What's more, SQLWindows supports full object orientation, comprehensive report writing, and complete Windows NT citizenship. SQLWindows consists of a set of integrated, object-oriented tools and services for developing, debugging, and deploying client-server applications.

The tools and services include:

- Application Designer Visual Programming Environment
- Application Outliner
- SQLWindows Application Language
- Class Libraries
- ReportWindows Industrial-Strength Report Writer
- Debugger and Compiler
- TeamWindows Collaborative Programming Tools
- TeamWindows Repository
- Operating System and Network Services Library
- Single-User, Multi-Tasking Full-Function SQL Database Engine

Retail Price: \$1,995.00 - \$3,495.00

Contact: Telesales Dept.

Phone: 800-876-3267

Fax: 415-617-4787

RISC Versions: Yes

Gustavo A. Becerra, CE

PO Box 432552
San Ysidro, CA 92143
USA

NUCLEI from IMPULSE THEORY

Compute fast and accurate numerical nuclear properties with developed formulae from the analysis of the fundamental forces of nature that take action over the atomic nucleus, in Windows NT. IMPULSE is the author's physical theory for the analysis of effects over matter produced by the forces of nature. The Strong Force is an External Superposition (ES) of homogeneous and constant actions that impulse, press, strain and energize the atomic nucleus. The penetration depth of the ES define the nuclear Cortex an nuclear Core. Dependent on deformations, algebraic formulae were developed. NUCLEI is a 32 bit application that allows us to compute nuclear physical magnitudes: sizes, densities, elasticities, stresses, strains, masses, energies and asymmetries of both the nuclear Cortex and Core, before and after deformations.

Retail Price: \$200.00

Contact: Kathya Orozco

Phone: 619-562-8259

Fax: 011-52-66-81-41-62

RISC Versions: Call for availability

Hamilton Laboratories

13 Old Farm Road
Wayland, MA 01778-3117
USA

Hamilton C shell

World's most powerful tools for Windows NT!

Hamilton C shell recreates the original UNIX C shell and utilities, adding numerous enhancements. Over 130 commands, utilities and built-in functions including alias, cat, chmod, cls, cp, cron, cut, diff, dirs, dskread, dskwrite, du, eval, fgrep, grep, hashstat, head, history, kill, markexe, more, mv, popd, printf, ps, pushd, rm, sed, sleep, split, strings, tabs, tail, tar, tee, time, touch, tr, uniq, vol, wc, whereis and xd. Designed from scratch. Carefully follows all Windows NT conventions. Fanatical quality. Hamilton C shell comes with a 260 page manual split evenly between tutorial and reference material. Features include: history, full-screen command line editing, filename and command completion, user-defined and built-in procedures, aliases, expressions, local variables, command substitution, wildcarding with indefinite directories. Outstanding scripting capabilities. Unlimited command line size. Extensively multi-threaded. Users familiar with UNIX become instantly productive on Windows NT. Runs existing UNIX command scripts with little or no porting effort. Even users with no UNIX background find the powerful tools in this product allow complex operations to be performed or automated with ease. Users typically report savings of an hour/day.

Retail Price: \$350.00 (\$395.00 International)

Contact: Doug Hamilton

Phone: 508-358-5715

Fax: 508-358-1113

RISC Versions: Yes

Harlequin, Ltd.

Barrington Hall
Barrington, Cambridge CB25RG
United Kingdom

ScriptWorks

ScriptWorks is Harlequin's PostScript language compatible interpreter. It is fully compatible with the standard and is faster and more robust than other PostScript interpreters. ScriptWorks includes extensive colour capability and includes a powerful control environment. ScriptWorks is sold only through OEM partners. Harlequin views its OEMs as its strategic partners. With a view to this ScriptWorks has been developed in a modular way, allowing OEM partners to add value and create completely new products. A large number of companies now license ScriptWorks and have developed products based on this technology. Many of these continue to set the standards for the industry. Harlequin was the first company to deliver a PostScript Level 2 language compatible interpreter which supports output at both high end and low end resolution. ScriptWorks has proven itself to be fast and reliable, it can behave as a colour printer and features Harlequin Precision Screening (HPS). ScriptWorks is written entirely in 'C' and as a result is very easily ported to new platforms. ScriptWorks is available now on Apple Macintosh, PC and UNIX platforms.

Retail Price: Call

Contact: Faruk Kara

Phone: 44-223-872522

Fax: 011-44-223-872519

RISC Versions: Yes

HEDEMANN

GERMANY

LDU LAN Diagnostic Utility for Windows NT

The LAN Diagnostic Utility makes LAN management easy. It is a powerful tool for LAN administrators.

Main Features:

- Graphical view of the LAN topologies with SITEVIEW
- Object Editor with import of DXF files
- Graphical administration of all SNMP based network components
- Alarm, Event visualization and logging into a database
- SNMP logging into a database
- RMON client for performance and trace with filter analysis
- Interpreter for TCP/IP, AppleTalk etc. protocol families
- SQL database engine with reporting
- SNMP MIB compiler
- Telnet & FTP Sessions

Hardware Requirements: AT '386 25 MHz, 4 MB ram, 40 Mb Hard disk, SVGA 800x600 16 colors.

Retail Price: \$5,100.00

Contact: Hr. Hedemann

Phone: 49404808698

Fax: 49404604981

RISC Versions: Call for availability

Hippo Software, Inc.

448 E. 400 Street
Suite 303
Salt lake City, UT 84111
USA

HIPPIX

Development tools that bridge the gap between Windows NT

HIPPIX provides a library that supports over 95% of the functions of the POSIX 1003.1 API. Unlike the POSIX implementation that comes with Windows NT, the HIPPIX library functions can be used with calls to the Win32 subsystem. Also available is a suite of over 100 UNIX utilities, including sh, vi, awk, grep, man, make, lex, yacc, and the RCS revision control system. The HIPPIX utilities simplify the software development process, while the HIPPIX library allows software developers to write applications that are source code compatible with POSIX compliant UNIX systems.

Retail Price: \$109.00

Contact: P.K. Stoll

Phone: 801-644-4776

Fax: 801-531-1302

RISC Versions: Call for availability

Horizons Technology, Inc.

3990 Ruffin Road
San Diego, CA 92123
USA

Fuzzy Search Engine Developer's Kit

Ideal fuzzy search tool

The Fuzzy Search Engine® Developer's Kit contains C programmer's libraries and DLLs to include powerful fuzzy search functionality in your Windows NT, Windows DOS and DOS applications. The Fuzzy Search Engine helps you search and find text despite missing, extra, or out of position characters in any ASCII or EBCDIC text document. The Engine is an ideal complement to any application that creates, manipulates, or otherwise uses unstructured text.

Retail Price: \$3,995.00

Contact: Charles McGrath

Phone: 619-292-7152

Fax: 619-292-7321

RISC Versions: Call for availability

Hummingbird Communications, Ltd.

2900 John Street
Markham, Ontario L3R 5G3
Canada

eXceed for Windows NT

An X server for PCs running Microsoft Windows NT

This high performance 32-bit PC X server has been developed to run on PC's using the Microsoft Windows NT operating system. It provides a high degree of integration between Windows NT and UNIX offering end-users concurrent access to X Window clients and applications for Windows NT. eXceed is X11 release 5 fully compliant and includes all the common X features found in the Hummingbird family of PC X server products.

Retail Price: \$545.00 (single user); \$2,315.00 (5 users)

Contact: Customer Service

Phone: 905-470-1203

Fax: 905-470-1207

RISC Versions: Call for availability

Hyperception, Inc.

9550 Skillman
LB 125
Dallas, TX 75243
USA

Hypersignal RT3 for Windows NT

This software package allows engineers and scientists to acquire, create, and analyze signals using a variety of Mathematical and Digital Signal Processing tools. Included in this package are graphical analysis for studying the time and frequency domain representations of waveforms, a filter design package for designing digital filters, code generators for generating filter code for a variety of digital signal processors, real-time spectrum analyzer, real-time digital oscilloscopes, and real-time data acquisition digital recorder. In addition, the package also includes Hypersignal for Windows NT Block Diagram for higher-level simulation of algorithms and system modeling.

Retail Price: \$2,995.00

Contact: Inside Sales

Phone: 214-343-8525

Fax: 214-343-2457

RISC Versions: Call for availability

I/O Software, Inc.

10970 Arrow Route
Suite 202
Cucamonga, CA 91730
USA

Related Topics:

[PharmStar](#)

[Stereolusion](#)

[VitaD](#)

PharmStar

A Complete stability testing database, management and analysis softwarepackage

The first program of its kind, PharmStar is written with an easy to learn and use Microsoft Windows user interface. A complete solution, PharmStar features: - Protocol initiation - Test scheduling - Data search, retrieval, verification/validation - Statistical and graphical data analysis - Flexible report generation - Network support - Security - Auditing. PharmStar organizes your stability testing program like never before, reducing data entry and analysis time drastically. PharmStar manages your stability information and generates reports for reference and submission. A solution to all your stability problems, PharmStar is developed and tested by a team of pharmaceutical scientists and computer system professionals according to information released by the Computer System Validation Committee (CSVC) of the Pharmaceutical Manufacturers Association.

Retail Price: Call

Contact: William Saito

Phone: 800-800-7970 or 909-483-5707

Fax: 909-483-5710

RISC Versions: Yes

Stereolusion

A 3-D hidden image rendering software

Stereolusion is a Windows and Windows NT-based program which creates both Single Image or Random Dot Stereograms (SIRDS) and Single Image Stereograms (SIS) from images imported as BMP, WMF, or from the clipboard. Output images appear as random dots or patterns, but when viewed with eyes slightly crossed, a 3-D image becomes visible. Stereograms are a highly popular form of art and entertainment which can be found in posters, calendars, books and advertisements. The images produced by Stereolusions are similar to "Hollusions" and "Magic Eye" images available only on paper. With Stereolusions, you can create your own images of any pattern and 3D shape.

Retail Price: \$49.00

Contact: Tas Dienes

Phone: 800-800-7970 or 909-483-5700

Fax: 909-483-5710

RISC Versions: Yes

VitaD

A computer database program for cataloging Vitamin D analogs

VitaD is a sophisticated database program for biochemists in the field of Vitamin D research. This database can store an unlimited amount of analog records. All records can be searched on the basis of chemical structure, catalog number, pharmaceutical code, chemical name, descriptions, etc. Data entry of chemical structures and substituents are accomplished through a menu of commonly used functional groups. VitaD can also display/print three dimensional perspectives of the different vitamin D analog structures. VitaD takes full advantage of the Windows NT graphical user interface to make using the program very easy. Developed in cooperation with the University of California.

Retail Price: Call

Contact: William Saito

Phone: 800-800-7970 or 909-483-5707

Fax: 909-483-5710

RISC Versions: Call for availability

ICOM, Inc.

WINTelligent LINX NT

ICOM's Windows-based common communications package

WINTelligent LINX NT™ is a line of Microsoft Windows-based communication application products for use with Allen-Bradley programmable logic controllers. LINX supports all popular Windows NT configurations that include multiple processor chip installations and communication devices.

Each WINTelligent LINX NT product is a driver/DDE server used to provide a common communications interface for ICOM's WINTelligent Series products. Through DDE, LINX allows you to create reports and analyze data in your preferred Windows applications such as Microsoft Excel, Microsoft Visual Basic or Lotus 1-2-3.

WINTelligent LINX NT is one of eight packages in ICOM's WINTelligent Series, the only industrial software suite in Windows.

Retail Price: Call

Contact: Mike Pridavka

Phone: 414-321-8000

Fax: 414-321-2211

RISC Versions: Call for availability

International Sales:

Terry Dunst, 414-321-8000

Image North Technologies, Inc.

180 King Street S., Suite 360
Waterloo, Ontario N2J 1P8
Canada

ImageQ

The No Excuses MultiMedia Authoring Tool for Windows

ImageQ is the no excuses multimedia authoring tool for Windows. In minutes you can create a dynamic interactive multimedia application which can be run on the creation system, mastered to CD or multiple floppies or saved as a multi-media screen saver (no royalties for any application.)

Using a drag-and-drop slide table, a tool bar and more than 250 editable pre-scripted multimedia objects, it's simple to arrange and synchronize all your application's components. ImageQ offers 24-bit color support; complete multimedia integration - animation, sound, digital video, video overlay, MPEG movies - anything; and interactivity - user input can control the flow and content of a presentation with windows buttons, custom buttons, "hot" regions in an image, keyboard mouse or touch screen input, user inputting through dialog boxes, and read/write DOS files. For more demanding users, ImageQ's underlying object-oriented control script programming language provides even greater control and flexibility.

Retail Price: \$749 (U.S.)

Contact: Sales

Phone: 800-363-3400

Fax: 519-570-9140

RISC Versions: Yes

International Sales:

US and Canada, 800-363-3400

All other International: 519-570-9111

Image-In, Inc.

406 East 79th Street
Minneapolis, MN 55420
USA

IMAGE-IN Power Pack

24-bit Photo Image Retouching

Now your color photographs and art images can be scanned, retouched, manipulated and separated right on the desktop with IMAGE-IN Power Pack. This powerful pre-press software for Windows NT is the most advanced true-color 24-Bit image processing system available for the Windows NT platform.

Retail Price: \$795.00

Contact: Customer Service

Phone: 800-345-3540 or 612-888-3633

Fax: 415-961-6456

RISC Versions: Call for availability

Impact Software

12140 Central Ave
Suite 133
Chino, CA 91710
USA

Related Topics:

[Almanac for Windows NT](#)

[Icon Manager for Windows NT](#)

Almanac for Windows NT

Almanac is a powerful calendar/scheduler for Windows NT. A straight-forward user interface based on a traditional calendar provides easy access to a wide array of holidays and recurring events. Separate windows for the daily schedule, notes, and to-do list can be positioned and sized to your preference. Many extras include digital watch, sunrise/set times, moon phases, Jewish calendar mode, an iconic clock, and full print support (including color).

Retail Price: \$79.95

Contact: Len Gray

Phone: 909-590-8522

Fax: 909-590-2202

RISC Versions: Call for availability

Icon Manager for Windows NT

Icon Manager provides a comprehensive feature set of icon management functions. Use it to extract icons out of any data or program Requires Windows NT, sound card optional.

Retail Price: \$24.95

Contact: Leonard Grey

Phone: 909-590-8522

Fax: 909-590-2202

RISC Versions: Call for availability

IMRS, Inc.

777 Long Ridge Road
Stamford, CT 06902
USA

Hyperion

Hyperion offers comprehensive corporate-wide business reporting capabilities within a graphical environment. It combines sophisticated functionality with the convenience, architectural advantages, and productivity benefits of Microsoft Windows and Microsoft Windows NT. PC-network based, Hyperion collects, consolidates, and reports business information at both the corporate and department levels.

Retail Price: \$125,000.00

Contact: Helen Cho

Phone: 203-321-3600

Fax: 203-322-2779

RISC Versions: Yes

Inclination Software, Inc.

P.O. Box 8668

Incline Village, NV 89452-8668

USA

SpeedEdit for Windows NT

Professional Text Editor

SpeedEdit is a powerful text editor for Windows, Windows NT, UNIX and X-Windows and runs on PCs, IBM-RS/6000s, SUN, HP and Sequent systems. This family of products provides common editing on all platforms, powerful keyboard macros, macro language. Over 200 built-in functions, selectable MDI or multiple top level windows, up to 64 open windows, a re-configurable tool bar, complete keyboard re-mapping, user configurable menus, and powerful use of color to tag reserved words, comments, modified lines and more. Supports all languages, C, FORTRAN, COBOL, Assembler, Pascal...and compilers from just about any manufacturer. Free demo available.

Retail Price: \$295.00

Contact: Sandra Bradford

Phone: 702-831-5595

Fax: 702-831-4979

RISC Versions: Call for availability

Industrial Systems, Inc.

19204 North Creek Parkway
Suite 104
Bothell, WA 98011
USA

CIM/21

Open Access to Process Information

CIM/21 is an integrated software package capable of both supervisory control and process information management and is based on many years of practical experience, the latest industry standard technology and a clear mission to increase productivity and quality in process operations. The supervisory control components of CIM/21 directly improve process operations by allowing advanced control strategies to be implemented across unit, cell and plant levels. CIM/21 provides the real-time link between high level production management systems and process control. Recipe management, Statistical Process Control (SPC) and real-time process modeling are all features of CIM/21. Implementing CIM/21 can directly increase your profitability by providing every department open access. Connectivity to the desktop is a fundamental feature of CIM/21. Currently CIM/21 supports OLE, NetDDE, and ODBC connections to UNIX based process data servers. Future releases (1994) will support additional core functionality on NT platforms. This high degree of connectivity is possible because CIM/21 employs a true client-server architecture based on industry standards for operating system, communications, databases and display (UNIX, TCP/IP, SQL and X). CIM/21 is not constrained by proprietary hardware or software. The CIM/21 client-server architecture is optimized to take full advantage of the new generation of high-performance, low-cost RISC processors. There are no artificial boundaries between information so you have a complete picture of your operations for maximum benefit. With complete support and development facilities in the US and Europe, CIM/21 is the choice of both domestic and international process manufacturers. CIM/21 is the right architecture, the right technology and the right solution for the 90's and into the 21st century.

Retail Price: Call

Contact: Louise Walker

Phone: 206-481-6325

Fax: 206-481-0506

RISC Versions: Call for availability

Inference Corp.

550 N. Continental Blvd
El Segundo, CA 90245-5052
USA

Related Topics:

[ART*Enterprise for Windows NT](#)

[CBR Express for Windows NT](#)

ART*Enterprise for Windows NT

The Integrated Development Tool for Corporate Computing™

ART*Enterprise is a software application development tool that provides all of the features necessary to prototype, develop and deploy graphical, object-oriented applications in the client/server environment. Offering the greatest flexibility, ART*Enterprise allows developers to build enterprise-wide applications from any of three starting points: the object model; data base; or graphical user interface (GUI). Once the first component is complete, the other two are created automatically by ART*Enterprise's built-in application generators. This approach offers a point-and-click means to building applications that are fully object-oriented and leverage the productivity gains permitted by multiple inheritance, object-oriented data modeling and software reuse. ART*Enterprise features an event-driven, open architecture, allowing creation of applications that link multiple heterogeneous data bases, integrate with other tools and languages, and are fully portable across Windows, Windows NT, Macintosh, OS/2, UNIX and MVS. ART*Enterprise also provides a built-in class library of reusable GUI and multimedia objects, as well as rules and case based retrieval of unstructured information, permitting development of strategic applications. Its high productivity development environment features incremental compilation, debugging and the ART*Enterprise Repository Manager™ which facilitates storage of work-in-progress and multi-developer use.

Retail Price: Call company

Contact: John Knightly

Phone: 310-322-0200

Fax: 310-322-3242

RISC Versions: Call for availability

CBR Express for Windows NT

Application Development Shell for: Help Desk Automation, Knowledge Publishing, and Information Access

Inference's CBR Express for Windows NT is an exciting tool recognized as the latest in knowledge-based systems technology. Case Based Reasoning is a powerful method for providing users access to consistent answers from unstructured information based on an organization's "cases" or learned experience. CBR Express uses natural language input to create, store, and retrieve cases that represent an organization's knowledge assets such as corporate policies or rules, case histories, problem resolutions, or any other type of discrete objects that need to be stored and retrieved quickly. CBR Express benefits users by allowing even new hires to become more productive sooner with easy access to on-line answers to questions. Inference also markets a high-speed, read-only runtime product, CasePoint, which delivers an organization's information to its end-users or customers.

Retail Price: \$595.00 - \$9,995.00

Contact: Customer Service

Phone: 800-322-9923 or 310-322-0200

Fax: 310-322-3242

RISC Versions: Call for availability

Information Builders, Inc.

1250 Broadway
New York, NY 10001
USA

FOCUS for Windows NT

Helps you develop the simplest to the most complex applications for Windows NT, Windows, PM, DOS

FOCUS for Windows NT provides the most powerful object-oriented applications development and decision support environment available for personal computers. You can use FOCUS to develop the simplest to the most complex applications, with graphic user interfaces employing radio buttons, list boxes, check boxes, buttons, graphical objects, special fonts, and more. Application building is enhanced with a complete set of graphical development tools that are fully integrated with FOCUS, the world's #1 4GL. FOCUS for Windows NT includes its own database engine. Its optional interfaces allow users to create GUI applications for most popular SQL databases. FOCUS for Windows NT follows IBM's Common User Access guidelines for graphical applications. To provide access to data in any format throughout the enterprise, FOCUS is also fully compatible with Information Builders' Enterprise Data Access/SQL client/server technology.

Retail Price: Call

Contact: Paul Clenahan

Phone: 212-736-4433

Fax: 212-695-3247

RISC Versions: Yes

Informix Software, Inc.

4100 Bohannon Drive
Menlo Park, CA 94025
USA

Related Topics:

[Informix ESQL/C](#)

[Informix-SE](#)

[Informix/NET](#)

Informix ESQL/C

Embed SQL statement into existing programs

INFORMIX ESQL (embedded SQL) /C allows developers to use third generation languages and take advantage of ANSI-standard SQL at the same time. With INFORMIX-ESQL/C, users can embed SQL statements into existing C programs to create a bridge from third generation applications into Informix data base management systems. INFORMIX-ESQL/C products give users the ability to create and alter databases and tables, retrieve and modify data, and add indexes, all with a few short SQL statements.

Retail Price: Call

Contact: Customer Service

Phone: 800-331-1763 or 415-926-6300

Fax: 415-926-6593

RISC Versions: Yes

Informix-SE

Relational Database Server

INFORMIX-SE is a high-powered, fully relational database management system based on the ANSI-SQL access language standard. SE provides robust facilities for storage and retrieval of business-critical data, and is the no-worry choice for mid-range installations. Not requiring a database administrator, INFORMIX-SE is well suited for environments where cost is a critical success factor. Standard SQL statements can be used to SELECT, INSERT, UPDATE, and DELETE information in the database through companion language compiler tools such as INFORMIX-4GL, INFORMIX-ESQL/C, INFORMIX-HyperScript Tools, end-user tools such as INFORMIX- ViewPoint, plus a wide selection of popular third-party client tools. INFORMIX-SE is also available on a wide range of systems platforms to provide ultimate portability and connectivity across a wide range of environments.

Retail Price: Call

Contact: Customer Service

Phone: 800-331-1763 or 415-926-6300

Fax: 415-926-6593

RISC Versions: Yes

Informix/NET

Connectivity tool allows communication between Informix server and third party applications

INFORMIX-NET connectivity tool allows communication between Informix database sever software and Informix or popular third party application development tools on a client PC. INFORMIX-NET PC provides this capability over different network protocols and between heterogeneous operating systems and hardware platforms.

Retail Price: Call

Contact: Customer Service

Phone: 800-331-1763 or 415-926-6300

Fax: 415-926-6593

RISC Versions: Yes

Infospan

5700 Smetana Drive
Suite 400
Minnetonka, MN 55343-9686
USA

Related Topics:

[InfoSpan CASE Integrator](#)

[Infospan Open Repository](#)

InfoSpan CASE Integrator

InfoSpan CASE Integrator of NT, Version 3.0

The CASE Integrator is an open solution that extracts design objects from a variety of tools and manages them inside the repository. The CASE Integrator addresses the following challenges:- design version and release management- resolution of inconsistent designs- transformation and exchange of design objects from one tool's vocabulary to another- re-use of design objects. The CASE Integrator works with the InfoSpan OPEN Repository to store the design objects in a graphical information model in a repository. The OPEN Repository allows you to view, analyze, query and standardize names as well as integrate and exchange the design information across tools, users and projects. The CASE Integrator provides organizations the ability to combine the existing tools to create integrated applications. Additionally, the solution increases productivity by organizing information as well as providing accessibility of data and eliminating data redundancy. With the CASE Integrator, an organization can take advantages of new hardware and software technologies and comply with computer industry standards today and in the future.

Retail Price: Call

Contact: Pam Cabalka

Phone: 612-939-0088

Fax: 612-939-0380

RISC Versions: Call for availability

InfoSpan Open Repository

InfoSpan OPEN Repository for NT, Version 2.5.3

InfoSpan Open Repository is a client/server and standard based solution with an open architecture that allows you to build, use and manage a repository. A comprehensive set of graphical tools allows you to:- build an information model- prototype a repository- browse and view data- generate reports and analyze data; load and manage data; standardize names. The Open Repository can integrate information about data from databases, data dictionaries and catalogs as well as reverse engineering data descriptions. The data is stored in the repository where it can be standardized, accessed, managed and browsed. Additionally, relationships of data to business entities, applications and operating environments can be created and managed. With the Open Repository, an organization can identify rightsizing opportunities, insure information consistency, and re-use information which all results in better productivity throughout the business enterprise. Additionally, organizations can effectively use and align their information assets with their goals and strategies.

Retail Price: Call

Contact: Pam Cabalka

Phone: 612-939-0088

Fax: 612-939-0380

RISC Versions: Call for availability

Inmark Development Corp.

2065 Landings Drive
Mountain View, CA 94043
USA

zApp for Windows NT

Industry leading portable C++ application framework

zApp is a C++ portable Application Framework which provides programmers over 200 classes that perform tasks like Windowing, Dialogs, Controls, Menus, Fonts, Bitmaps, Forms, MDI, Printing, Window Positioning, Memory Management, Advanced Graphics, etc. By using zApp classes, you are able to cut development time considerably, write up to 90% less code, offer more advanced functionality, and support many platforms with one set of source. zApp provides you with portability between Windows, Win32, DOS Text, DOS Graphics, OS/2 and X/Motif. Source code included.

Retail Price: \$495.00

Contact: Inside Sales

Phone: 800-3-INMARK

Fax: 415-691-9099

RISC Versions: Yes

International Sales:

UK, call SystemStar, 0707-268300

Germany, call ESM Software, 07022-9256-0

Italy, call Sartocomputer at 049-654-221

Australia, call Micro Way at 03-580-1333

Inner Media, Inc.

60 Plain Road
Hollis, NH 03049
USA

DynaZIP - Data Compression Toolkit for Windows NT

DynaZip is a toolkit for Windows NT developers who want to incorporate into their C or C++ applications the ability to read, test, create, modify and write industry standard ZIP files, without having to shell to a DOS session. Includes royalty-free DLLs, sample Windows ZIP shell program, two diagnostic test tools, a self-extracting ZIP file maker and great documentation.

Retail Price: \$249.00

Contact: Nancy Rosenberg

Phone: 603-465-3216

Fax: 603-465-7195

RISC Versions: Call for availability

International Sales:

Outside of the United States: 603-465-3216

Innovative Data Concepts (formerly Blaise)

819 Bancroft Way
Berkeley, CA 94710
USA

Related Topics:

[Control Palette for Windows NT](#)

[Control Palette/NC for Windows NT](#)

Control Palette for Windows NT

Exciting 3-dimensional custom controls for the Windows NT environment, including extensions to the Microsoft Foundation Classes

Control Palette for Windows NT is a collection of custom controls and a custom dialog box class that allows programmers to build sophisticated and attractive interfaces in C and C++. The controls are packaged as a DLL and include bitmapped and 'glyph' push buttons, radio buttons, check boxes, 'canvases', static text, toolbars and status lines. Superclassed versions of list boxes and edit controls are included which provide complete control over their visual appearance. Use the MFC extensions to effortlessly incorporate these controls into your own object-oriented application. Comes complete with source code.

Retail Price: \$169.00

Contact: Kathleen Caldenwood

Phone: 510-540-5441

Fax: 510-540-1938

RISC Versions: Call for availability

Control Palette/NC for Windows NT

Harness the power and sophistication of nonclient painting in the Windows NT environment

Control Palette/NC for Windows NT is the perfect companion to the Control Palette custom controls. Easily construct your own non-client look (that area surrounding the client window). Define the system menu, caption bar and text, minimize and maximize buttons and borders or select from the many pre-defined styles. Stunning 3-dimensional effects including picture frames, justified caption text and system 'icon' menus give your Windows NT application limitless visual capabilities. Use the extensions to the Microsoft Foundation Classes to effortlessly provide a sophisticated non-client look. Comes complete with source code.

Retail Price: \$169.00

Contact: Kathleen Caldenwood

Phone: 510-540-5441

Fax: 510-540-1938

RISC Versions: Call for availability

IntelliSoft, Inc.

2114 West Mayfield Road
Arlington, TX 76015
USA

Related Topics:

[Inventory Mangement - Accounting Vision / 32](#)

[Payroll - Accounting Vision / 32](#)

Inventory Mangement - Accounting Vision / 32

Highend Accounting Software, PC Magazines Editors' Choice 1993

IM can manage the inventories of up to 50 warehouse locations per company, maintaining detailed information on all inventory items throughout any period, including serial numbers and bin tracking. The system provides complete bills of material with up to 80 items per manufacture or kit, and support for non-asset item sales for service-only type transaction. Each master record has 15 user-definable fields for tracking special information, and photographic images of inventory items can be stored with each record for easy identification. The number of inventory items which can be maintained is unlimited. Stock information for each inventory item can be maintained, with substitute item information for out-of-stock materials. Standard, Average, LIFO, FIFO and Last Cost methods. The system allows an unlimited number of price tables.

Retail Price: \$995 to \$7,995 per module

Contact: Richard Page

Phone: 817-467-7243

Fax: 817-467-7133

RISC Versions: Call for availability

International Sales:

Intl Prefix: 1-817-467-7243

Fax: Intl Prefix: 1-817-467-7133

Payroll - Accounting Vision / 32

Highend Accounting Software, PC Magazines Editors' Choice 1993

Payroll by exception, supports both regular and contract/tax exempt employees, and generates W-2 and 1099 forms on demand. Up to ten special employee payment or deduction amounts. Time accruals for sick pay, vacation and other employee allowances are easily defined and maintained, and can be based on flat amounts, percentages of wages, amount times, hours, amounts to a maximum, specific numbers of pay periods and specific beginning and ending dates. Piecework, tips and other user-definable pay types and deductions are also supported. An unlimited number of user-defined pay scales can be created, with calculations made globally or defined for each employee, department, location, etc. Checks can be re-printed with full audit trail control, and operators can completely reverse original distribution for voided checks, including restoring the employee file.

Retail Price: \$995 to \$7,995 per module

Contact: Robert Johnson

Phone: 800-933-4889

Fax: 817-467-7133

RISC Versions: Call for availability

International Sales:

Intl Prefix + 1-817-467-7243

Fax: Intl Prefix + 1-817-467-7133

Intellution, Inc.

One Edgewater Drive
Norwood, MA 02062
USA

FIX MMI/FIX DMACS

Manufacturing process control software that provides simplicity and flexibility

To meet the demands for lower costs, increased quality and improved flexibility in manufacturing operations, you need automation software that is easy-to-use and flexible to meet your unique needs. Intellution offers packaged application software from a simple MMI operator interface, to distributed SCADA and up to integrated batch operations.

Satisfied installed base of over 24,000 systems. Used by nearly all the Fortune 500 companies that do manufacturing.

Packaged application (more than just an enabler) including:

- Data acquisition and control
- Alarming and Alarm Management
- Historical Trending
- Continuous Control
- Real Time SQL & ODBC
- Graphic Display with Draw & View
- Report Generator * Security
- SPC
- Application Integration
- Batch Control
- 300+ I/O drivers
- DDE Server
- Recipe Builder

Ease of use - All applications are point and click with fill in the blanks or selection form dialog box.

Open... Add custom application using "Easy Database Access" API. * Transfer data in real time using SQL/ODBC.

Data Integrity... Robust I/O drivers for accurate and reliable data acquisition. * The data that appears on the screen is current and real.

Many platforms support... Included are - Windows on Intel * Windows NT on Intel and Alpha AXP

Distributed Client/Server Architecture... Data is passed between Client and Server application running on separate node. Utilizes capability of local processors and makes efficient use of the network bandwidth * A client application obtains data directly from the source. No need to replicate data from another node.

Fix DMACS for Windows NT increases productivity, delivers better performance and provides all the tools you need to run your business more efficiently and profitably.

Retail Price: \$700.00 to !7,500.00 depending on options

Contact: Ralph Rio

Phone: 617-769-8878

Fax: 617-769-1990

RISC Versions: Yes

International Sales:

France, 3 Avenue de Quebec, Batiment Ontario,91951 Les Ulis Cedex B, FRance, TEI: 011-331-6982-9796, Fax: 011-331-6928-9776

Germany, Alsfelder Strasse 7, Darmstadt, Bermany, 64289, Tel 011-49-6151-730545, TEI: 011-49-6151=730573, F

Intergraph Corporation

1 Madison Industrial Park
Huntsville, AL 35984-0001
USA

Related Topics:

[ACEPlus Design Entry](#)

[ACEPlus Designer](#)

[Actel FPGA VeriBest Design Kit](#)

[CogoWorks](#)

[DesignWorks](#)

[DiskShare - NFS Server for Windows NT](#)

[DraftWorks](#)

[Eagle Scanner Interface](#)

[EDIF 2 0 0 Netlist Out](#)

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[Electronics Desktop Manager](#)

[FieldWorks](#)

[Finsim Verilog Simulator](#)

[FrameWorks](#)

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[Graphics 3270 for Windows NT](#)

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[MGE Basic Nucleus \(MGENUC\)](#)

[MGE Map Finisher \(MGFN\)](#)

[MGE Modeler \(MGM\)](#)

[MGE Projection Manager \(MSPM\)](#)

[MGE Tiger Translator \(MTIGER\)](#)

[MGMAP](#)

[MicroDraftsman](#)

[MicroStation \(MD/Draft Extensions to\)](#)

MicroStation for Windows NT

Modular GIS Environment (MGE)

PC-NFS Client for Windows NT

Process & Instrumentation Diagrams

Project Architect

Project Engineer Electrical

Project Engineer HVAC

Project Layout

Relational Interface System Development Plan

SiteWorks

TRAC Merchbase Server

TRAC Workflow Manager Server

TRAC Workflow Manager and Merchbase Server

VeriBest Designer

VeriBest Simulator

Xilinx FPGA VeriBest Design Kit

ACEPlus Design Entry

Award Winning Schematic Capture System

The ACEPlus Design Entry System is Intergraph's award-winning schematic capture system. This system offers several versions that produce binary compatible files for Windows, Windows NT, and UNIX systems which allows user to build up a configuration that suites their needs. The product can serve as either a tightly integrated part of Intergraph's electronics suite of tools or as a stand alone product that can drive a wide variety of third party applications.

Retail Price: \$3,500.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

U.S. 800-345-4856

Asia-Pacific 852-8661966

Canada 403-250-6100

Europe 31-2503-66333

Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

ACEPlus Designer

Improved Productivity Through Automatic Generation of HDL Code

ACEPlus Designer offers users the ability to combine Intergraph's award-winning schematic capture system with a powerful and user-friendly state diagram editor. With this product, engineers gain huge productivity improvements through the automatic generation of VHDL, Verilog, and ABEL.

Retail Price: \$3,500.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

Actel FPGA VeriBest Design Kit

The Actel FPGA VeriBest Design Kit offers everything that the VeriBest Designer customer would need to design an Actel FPGA. The kit consists of ACEPlus symbols, Verilog models, and all of the utilities required to verify the functionality of the device.

Retail Price: \$2,500.00

Contact: Intergraph Electronics Sales

Phone: 1-800-VERIBEST

Fax: 303-581-9973

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

U.S. 800-345-4856

Asia-Pacific 852-8661966

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

CogoWorks

A comprehensive COGO and alignment design

CogoWorks enables engineers to accomplish any size project using superior COGO and alignment capabilities with unlimited data storage. You can view alternative geometric designs in temporary graphics for acceptance or revision. The selected design components are joined in a figure for reporting purposes. In addition, you can incorporate office drawing standards and control the location and style of annotation using a "what you see is what you get" display. With CogoWorks, you generate reports including coordinate lists, areas, radii stakeout, alignments, construction surveys, station and offset, and clearance reports for export to business software and MicroStation files.

Retail Price: \$2,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

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Asia-Pacific 852-8661966

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

DesignWorks

An architectural design and drawing production application

The advantage of DesignWorks is its power and flexibility for 3D modeling, combined with the speed and ease-of-use of a 2D architectural drafting system. Integration allows architects to share data across the project using powerful reference file features, improving integration among disciplines, reducing redundant data input, and increasing productivity. Incorporate office drawing standards and control the location and style of drawing symbology using a "what you see is what you get" display. You can generate detailed 3D models automatically from your working design plans. The models can be used for photo-realistic renderings and client presentations.

Retail Price: \$2,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

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Asia-Pacific 852-8661966

Canada 403-250-6100

Europe 31-2503-66333

Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

DiskShare - NFS Server for Windows NT

A 32-bit, multithreaded, Network File System Server for Windows NT systems

Intergraph's DiskShare software is a robust network file system (NFS) server product that enables UNIX users to share file systems with systems based on Microsoft's Windows NT and Windows NT Advanced Server (NTAS) operating systems. Continuing its leadership role in Windows NT product development, Intergraph is the first vendor in the market to supply a kernel implementation of an NFS server that allows UNIX systems to access Windows NT and NTAS systems as they would a UNIX-based NFS server.

DiskShare supports the following Windows NT file systems:

- File Allocation Table (FAT)
- High Performance File System (HPFS)
- New Technology File System (NTFS)
- Compact Disk File System (CDFS)

Retail Price: Call

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

U.S. 800-345-4856

Asia-Pacific 852-8661966

Canada 403-250-6100

Europe 31-2503-66333

Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

DraftWorks

Provides generic AEC drawing products capabilities based on MicroStation

Drawing composition, annotation and labeling capabilities augment and complement MicroStation while meeting the unique requirements of AEC customers. DraftWorks simplifies the workflow of drawing production, presentation of drawing details and integrates quantity takeoff. DraftWorks is included with many AEC products and can also be purchased separately.

Retail Price: \$150.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

U.S. 800-345-4856

Asia-Pacific 852-8661966

Canada 403-250-6100

Europe 31-2503-66333

Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

Eagle Scanner Interface

An affordable large-format, single-pass, 34-bit color scanner

The Eagle3640C can concurrently scan, reclassify, compress and save to disk an E/AO size color document at 200 dots per inch (dpi) in less than two minutes. The new scanner uses tri-color CCDs and a color collation process that enables scanning color documents in a single pass. The scanner, engineered and manufactured by Intergraph's ANA Tech division, offers true 400-dpi resolution at a price that is significantly less than the cost of any other large format color scanner on the market.

Retail Price: Call

Contact: Brimmer Sherman

Phone: 205-730-2252

Fax: 205-730-2320

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

U.S. 800-345-4856

Asia-Pacific 852-8661966

Canada 403-250-6100

Europe 31-2503-66333

Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

EDIF 2 0 0 Netlist Out

Industry Standard Netlist Program

The EDIF 2 0 0 Netlist Out program is part of Intergraph's commitment to delivering standard interfaces for the Electronics industry. Through the use of EDIF 2 0 0 netlists, users can interface our ACEPlus schematic capture package with dozens of third party electronics tools.

Retail Price: Call

Contact: Intergraph Electronics Sales

Phone: 1-800-VERIBEST

Fax: 303-581-9973

RISC Versions: Call for availability

EDIF 2 0 0 Schematic Interchange

Industry Standard Schematic Interchange Package

The EDIF 2 0 0 Schematic Interchange program is part of Intergraph's commitment to delivering standard interfaces for the Electronics industry. Through the use of the EDIF 2 0 0 schematic interchange program, users can transfer schematics to and from our ACEPlus schematic capture system to a variety of third party schematic capture programs.

Retail Price: Call

Contact: Intergraph Electronics Sales

Phone: 1-800-VERIBEST

Fax: 303-581-9973

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

U.S. 800-345-4856

Asia-Pacific 852-8661966

Canada 403-250-6100

Europe 31-2503-66333

Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

Electronics Desktop Manager

Desktop and Workflow Management Tools

The Electronics Desktop Manager offers consistent integration across data and applications as well as easy access to all network peripherals and processes. An integral part of the of EDM is the graphical tool encapsulator that allows users to all tools easily to EDM. EDM also includes the Design Methodology Manager which is used to define, manage, and monitor the steps of the design process.

Retail Price: \$1,500.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

U.S. 800-345-4856

Asia-Pacific 852-8661966

Canada 403-250-6100

Europe 31-2503-66333

Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

FieldWorks

Integrates electronic field books (EFBs) into a CAD environment

Fieldbook enables engineers to download data from third-party EFBs to increase survey productivity. Dialog boxes are provided for interactive input. Engineers use feature tables to transform, reduce, and store data in the project database. All project features can be used downstream with other civil products or exported to Intergraph's Modular GIS Environment (MGE) products. As tabular data is edited, survey modifications are reflected immediately in associated graphics. With FieldWorks, you use compass rule, least squares, and level methods for error adjustments. Least squares adjustments include graphical display of results. Data compatibility with CogoWorks, SiteWorks, and InXpress electronically connects construction surveys in your project workflow.

Retail Price: \$1,500.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

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Other areas 1-205-730-2700

Or contact an Intergraph representative

Finsim Verilog Simulator

Verilog Clone Simulation Engine

Intergraph offers the Finsim Verilog Simulator for users that are seeking a stand-alone Verilog-XL compatible simulation engine. The simulator has proven its cloneliness by producing exact matches with results from Verilog-XL on library elements from over 50 ASIC and FPGA vendor libraries and offers better performance than Verilog-XL on most Verilog circuits.

Retail Price: \$15,000.00

Contact: Intergraph Electronics Sales

Phone: 1-800-VERIBEST

Fax: 303-581-9973

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

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Other areas 1-205-730-2700

Or contact an Intergraph representative

FrameWorks

Structural engineering application for commercial, industrial, and process and power projects

FrameWorks is a structural engineering application that provides simplified modeling and drawing production capabilities; integrated 2D drawing layout with an intelligent 3D model; detailed plan, elevation, and 3D drawing views; two-way interfaces to STAAD-III, GTSTRUDL, AutoSTEEL, and MicasPlus; and comprehensive material report and drawing composition capabilities.

Retail Price: \$3,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

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Or contact an Intergraph representative

FRAMME

The worldwide, #1 rated Automated Mapping / Facilities Management (AM/FM) suite of software products in use by telephone, electric, gas and water utilities. Multiple clients, multiple multiple nodes, multiple LANs

FRAMME (Facilities Rulebased Application Model Management Environment) is Intergraph's suite of software products for AM/FM/GIS (Automated Mapping / Facilities Management / Geographic Information Systems) for telephone, electric, gas, water and waste water utility companies. FRAMME offers a rules-based, seamless mapping system with an industry standard relational database (Oracle, Sybase, Informix, Ingres, RDB or DB2) running in a client/server mode to model utility facilities for network design, analysis, inventory, operations and etc. It provides for multi-user access to data, along with a segmented and distributed environment allowing multiple nodes, multiple servers and multiple clients running across multiple LAN's and WAN's.

Retail Price: Call

Contact: Brimmer Sherman

Phone: 205-730-2252

Fax: 205-730-2320

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

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Or contact an Intergraph representative

Graphics 3270 for Windows NT

Provides full 3270 terminal emulation for Windows NT users

Your organization's success depends on open communication with industry standards. Because IBM is an acknowledged leader in the computer industry, compatibility with IBM is a must. And since many users have adopted the powerful Microsoft Windows NT operating system, Windows NT users must have an avenue of communication with IBM systems. Intergraph's solution is Graphics 3270 software, which extends IBM terminal emulation to Windows NT systems. Graphics 3270 enables Windows NT users to connect to an IBM host system directly using telnet and TCP/IP or through an Intergraph CLIX-based Systems Network Architecture (SNA) gateway. This versatility allows users who have invested in Intergraph's SNA gateway to use existing gateway software, hardware, and phone lines.

Retail Price: \$500.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

I/RAS B

Manipulate digital images easily and quickly

I/RAS provides raster data manipulation tools for greyscale and color data. MicroStation 32 complements these functions with traditional CAD vector graphics capabilities within the same graphics environment for an integrated raster/vector graphics database.

Retail Price: Call

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

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Other areas 1-205-730-2700

Or contact an Intergraph representative

I/RAS Engineer

Manipulate igital raster images quickly and easily

I/RAS provides raster data manipulation tools for greyscale and color data. MicroStation 32 complements these functions with traditional CAD vector graphics capabilities within the same graphics environment for an integrated raster/vector graphics database.

Retail Price: Call

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

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Other areas 1-205-730-2700

Or contact an Intergraph representative

I/RASC

Manipulate digital raster images quickly and easily

I/RASC provides raster data manipulation tools for greyscale and color data. MicroStation 32 complements these functions with traditional CAD vector graphics capabilities within the same graphics environment for an integrated raster/vector graphics database.

Retail Price: \$2,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

InRail

Application for design and management of rail track

InRail is Intergraph's interactive graphics solution for design of rail track. Integrated with Intergraph's full suite of engineering applications, InRail also provides a comprehensive solution for data collection, planning, design, construction, and maintenance management. InRail allows engineers to develop 3D digital terrain models and efficiently generate several alternative alignments for evaluation. An alignment can also be designed to fit existing data using regression analysis techniques. InRail also provides trackwork elements, such as turnouts and crossovers, to speed the design process.

Retail Price: \$15,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

InRoads

Comprehensive transportation engineering application

InRoads is a comprehensive civil and transportation engineering application for data collection, preliminary and final design, contract drawing production, and construction. Superior 3D DTM capabilities are blended with comprehensive alignment design and a design criteria library for fast, automated design and earthworks. InRoads can be used to design highways, interchanges, railways, airports, waterways, and a wide variety of land and site developments.

Retail Price: \$10,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

InXpress

Provides comprehensive, interactive roadway design capabilities

The InXpress advantage is to solve your roadway design problems on any size project using superior interactive alignment and COGO capabilities with unlimited data storage. InXpress gives you a better digital terrain model (DTM) by combining random, breakline, and boundary points with unlimited surfaces. InXpress employs a double-precision version of the topological triangulated network (.TTN) that significantly outperforms traditional DTMs. InXpress automates design by allowing you to input criteria through dialog boxes, and the software selects preferred design slopes for finished and subgrade surfaces. InXpress is 100-percent compatible with InRoads.

Retail Price: \$5,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

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Other areas 1-205-730-2700

Or contact an Intergraph representative

MGE Analyst (MGA)

Brings the true power of a GIS to the user

MGE Analyst (MGA) provides capabilities for the creation, query, analysis, and display of topologically structured geographic data. MGA's strength is its ability to automatically build topology from map features and their attributes, then perform sophisticated queries on the results. MGA generates spatial queries, creates buffer zones around features, removes common boundaries between area features, and creates thematic displays of the results of many queries on multiple topological files.

Retail Price: \$5,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

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Other areas 1-205-730-2700

Or contact an Intergraph representative

MGE Base Mapper (MGMAP)

Data Capture Simplicity

MGE Base Mapper (MGMAP) provides tools for capturing and managing GIS project data in an MGE environment. MGMAP includes both interactive and batch tools for data entry, cleaning, and manipulation.

Retail Price: \$3,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

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Other areas 1-205-730-2700

Or contact an Intergraph representative

MGE Basic Administrator (MGAD)

Sophisticated Database Setup with Easy-To-Use Interfaces

MGE Basic Administrator (MGAD) provides system and database management tools for MGE applications that use a relational database. MGAD provides project definition and preparation tools for defining database schema, map categories, features, and attribute tables.

Retail Price: \$4,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

MGE Basic Nucleus (MGNUC)

GIS Data Viewing -- Ready to Go and Show

MGE Basic Nucleus (MGNUC) is the foundation for Intergraph's Modular GIS Environment (MGE) family of mapping and GIS software products. MGNUC provides a single, consistent entry point for accessing MGE project data, various GIS software routines, and other application products. MGNUC offers project management, coordinate system operations, data query and access, and multiple configuration options in one efficient, affordable GIS baseline product.. Operating standalone or in a networked configuration, MGNUC ensures MGE integration for GIS applications and provides common tools valuable to other MGE modules.

Retail Price: \$2,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

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Other areas 1-205-730-2700

Or contact an Intergraph representative

MGE Map Finisher (MGFN)

Create production quality maps with high quality and clarity

MGE Map Finisher MGE Map Finisher (MGFN) provides feature-based map composition and symbolization for screen displays and color plots for MGE, IGDS, and MicroStation. A map can be created by selecting the desired region and then choosing features and vectors from a list derived from the associated MGE master database. MGFN can also operate without a database by manipulating any graphic characteristic (color, line, style, etc.). The plot area is extracted, clipped, and merged into an output file. Grids, graticule, ticks, labels, and map legends can be generated and placed using tools provided by MGFN.

Retail Price: \$6,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

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Other areas 1-205-730-2700

Or contact an Intergraph representative

MGE Modeler (MGM)

Model terrain realities as never before

MGE Modeler (MGM) provides basic digital terrain modeling (DTM) functionality for mapping workflows. MGM offers a complete range of tools for the creation, editing, and display of both triangulated irregular network (TIN) and gridded data models. MGM can represent 3D terrain information in a large number of projection and coordinate systems.

Retail Price: \$3,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

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Other areas 1-205-730-2700

Or contact an Intergraph representative

MGE Projection Manager (MSPM)

Offering dozens of projections to record the true realities of our world

MGE Projection Manager (MSPM) provides complete coordinate system conversion and transformation capabilities needed to integrate digital graphics data from different sources into a single, common coordinate system. MSPM easily and accurately incorporates data from a wide range of projections and coordinate systems. It can also be used to integrate graphics data from unknown coordinate systems or from source materials where the coordinate system has been deformed.

Retail Price: \$5,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

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Other areas 1-205-730-2700

Or contact an Intergraph representative

MGE Tiger Translator (MTIGER)

Translating in U.S. Census Bureau, TIGER data can be simpler with MTIGER

The MGE TIGER Translators (MTIGER) translates industry-standard TIGER/Line data into MGEdfghd. Translated data can be directly incorporated into an existing or new MGE project. The translators provide a medium for interchange between digital vector/database data, TIGER/Line census data, and the MGE database. Graphic elements can be automatically tagged as MGE features, and attribute information can be optionally loaded into an associated relational database.

Retail Price: \$1000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

For more information or a demonstration, call:

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Other areas 1-205-730-2700

Or contact an Intergraph representative

MGMAP

Data Capture Simplicity

MGE Base Mapper (MGMAP) provides tools for capturing and managing GIS project data in an MGE environment. MGMAP include both interactive and batch tools for data entry, cleaning and manipulation.

Retail Price: \$3,000.00

Contact: Brimmer Sherman

Phone: 205-730-2252

Fax: 205-730-2320

RISC Versions: Call for availability

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Other areas 1-205-730-2700

Or contact an Intergraph representative

MicroDraftsman

"Does your checker make you ANSI?"

Microstation and microdraftsman provide mechanical engineers and drafting personnel an intelligent 2d mechanical drafting package that conforms to the ansi standards (American National Standards Institute). Microdraftsman offers mouse placement of industry-standard ANSI symbols for drafting (ANSI y14.5m - 1982/y14.36 -1978), welding (ANSI/aww a2.4 -1986), and geometric dimensioning and tolerancing (ansi y14.5m -1982). Pull-down menus and a rule-based placement system guide users toward standard symbol placement, helping mechanical engineers and drafting/detailing personnel quickly and easily produce drawings that meet ansi standards. Microdraftsman cuts drafting and detailing time, reduces costly drafting errors, simplifies geometric dimensioning and tolerancing symbol placement, and creates symbols quickly. Microdraftsman's symbol libraries contain standard fasteners (ANSI b18 series), including a wide selection of english and metric 2d nuts bolts and washers. For quick and easy placement, users choose the fastener, its size, style, and view. users can also access standard steel tables or parametrically define their own section data with microdraftsman's section library. A comprehensive drafting toolkit includes several commonly used drafting symbols such as leaderless and leaded bubbles, leaded notes, titles, section lines, and callouts. time spent on repetitive drawing functions is dramatically reduced.

Retail Price: \$500.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

International Sales:

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Other areas 1-205-730-2700

Or contact an Intergraph representative

MicroStation (MD/Draft Extensions to)

The Drafting and Detailing Extension to MicroStation

MD/Draft Extension to MicroStation is an integrated drafting package for existing MicroStation users involved in mechanical drafting/detailing. Using MicroStation's advanced programming language (MDL), MD/Draft

Extension add geometry creation commands, detailed dimensioning capabilities, standard parts, special symbols, and bill of material creation. Specific features include copy/rotate, move/rotate, copy and move horizontal/vertical commands; placement of centerlines; mechanical symbols like welding symbols drawn to ISO, DIN, and NEN standards; hole placement; standard fastener libraries; and level manipulation tools. This product is designed for the European Mechanical market.

Retail Price: \$625.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

MicroStation for Windows NT

Fast, powerful CAD software for the generation, manipulation, display, and output of graphics data

MicroStation is general-purpose CAD software addressing a broad range of 2D and 3D CAD requirements. In one product, the software includes features like associative dimensioning, multi-lines, associative hatching and patterning, surface modeling, photorealistic rendering and animation, attribute/tag data, relational database support, networking and reference files for workgroup design, and more. All this power is accessed via a fully tailorable graphical user interface. Workspaces addressing a variety of disciplines and user expertise, and the MicroStation Development

Language (C programming environment) are included. MicroStation leads other CAD software in its breadth of functionality and usability.

Retail Price: \$3,790.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

Modular GIS Environment (MGE)

Provides complete GIS and mapping capabilities

The Modular GIS Environment (MGE) is a modular solution for capturing, analyzing, and presenting geographic information in applications such as infrastructure and land management, environmental site remediation, transportation modeling, petroleum exploration, and many more. The MGE family consists of a variety of sophisticated, easy-to-use tools that address all of the Geo-Sciences. The system allows specialized modules to be configured with the nucleus product capabilities to create a customized, truly flexible geographic information system. Intergraph Corporation products include a broad range of complementary workstations and network servers, as well as complete application-specific systems for computer-aided engineering, design, manufacturing, and publishing, plus numerous earth science applications. A member of the Fortune 500, Intergraph is the world's largest producer of interactive computer graphics systems.

Retail Price: Call

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

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Other areas 1-205-730-2700

Or contact an Intergraph representative

PC-NFS Client for Windows NT

32-bit Network File System client for Windows NT

PC-NFS for Microsoft Windows NT is the standard for connecting Windows NT systems to Network File System (NFS) servers on a network. Based on the TCP/IP and Open Network Computing/Network File System (ONC/NFS) standards, PC-NFS for Windows NT provides a single solution to integrate Windows NT client systems into Multi-vendor client/server networks. This means that Windows NT users can share files and network resources, such as printers and plotters, with multi-vendor networks including UNIX systems, mainframe hosts, and other systems. And TCP/IP networking standards give PC-NFS the power to provide a fully scalable networking platform, giving both local and wide area connectivity to countless PCs.

Retail Price: \$400.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

Process & Instrumentation Diagrams

The most productive P&ID package on the market

By simplifying production of piping and instrumentation schematics and reports, Intergraph's Piping and Instrumentation Diagram (P&ID) application dramatically improves plant design productivity. The P&ID can be used in a "graphics only" mode to produce drawings quickly and easily or it can be combined with a number of commercially available relational databases to produce intelligent drawings, allowing the generation of various reports. P&ID also has the capability to check correctness and consistency on and across drawings. The engineering reference data delivered with the package contains over 2000 symbols and descriptions of typical P&ID components.

Retail Price: Call

Contact: Roger Rittenhouse

Phone: 205-730-2839

Fax: 205-730-2320

RISC Versions: Call for availability

International Sales:

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

Project Architect

Application for architectural design and drawing production

Project Architect is a full-function software package that supports and automates the entire architectural workflow from schematic design to construction documentation. Built on Intergraph's MicroStation, Project Architect helps architects complete projects more quickly, accurately and consistently. Project Architect also generates full 3D models for use with MicroStation and ModelView to create high-quality images and animations for presentations.

Retail Price: \$3,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

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Or contact an Intergraph representative

Project Engineer Electrical

Application for design and analysis of electrical systems

PE Electrical automates layout and analysis of electrical systems. Information from Project Architect and Intergraph's other building services applications can be accessed by PE Electrical for coordinating projects from beginning to end. Architectural floor plans, reflected ceiling plans and equipment layouts can be used as reference files.

Retail Price: \$3,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

Project Engineer HVAC

Application for designing air distribution systems

PE HVAC provides extensive capabilities for the design of air distribution systems. The application assists engineers in laying out and designing duct systems in 3D, accurately sums air flows and performs duct-sizing and pressure-drop calculations. PE HVAC's integration with Intergraph's building services applications allows creation of a complete environmental control systems for commercial, industrial and institutional buildings. HVAC engineers can work interactively with architectural drawings to accurately place ducts and equipment for heating, refrigeration and air distribution.

Retail Price: \$3,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

Project Layout

Application for facilities layout and management

Project Layout helps designers lay out and track space, occupants and furniture, fixtures, and equipment (FF&E) in virtually any type of facility. The application helps designers work more efficiently by automating the entire workflow from interior layout planning to facilities management. Area space definitions from related applications such as Project Architect can be referenced by Project Layout, providing improved access to information about a facility.

Retail Price: \$3,000.00

Contact: Customer Service

Phone: 800-345-4856 or 205-730-2000

Fax: 205-730-2108

RISC Versions: Call for availability

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Middle East 971-4-367555

Other areas 1-205-730-2700

Or contact an Intergraph representative

Relational Interface System Development Plan

Database Independent Development Tool - Develop application once, access multiple relational database management systems

The Relational Interface System (RIS) Development Platform is a database independent development tool that allows applications to access multiple relational database management systems (RDBMSs) such as Microsoft SQL Server, Sybase, Oracle, Informix, Ingres, Rdb, DB2/400, and DB2 on a variety of hardware platforms. Building an application with the RIS Development Platform requires minimal development effort and provides flexible RDBMS access.

Based on the ANSI standard for embedded SQL, the RIS Development Platform makes it easy to port existing RDBMS vendor-specific applications to RIS. It also simplifies porting the RDBMS interface section of an application from one system to another. Custom applications built using the RIS Development Platform can be used throughout the network, independent of the RDBMS. This portability increases the value of all development efforts.

Retail Price: \$400 per copy

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TRAC Merchbase Server

Server for information management in the retail/catalog production environment

TRAC Workflow Manager and Merchbase Server, a module of the Technology for Retailer Advertisers and Catalogers (TRAC) product suite, provides the server component for both information and workflow management. As a server for the Merchbase Client, the product retrieves text, images, notes, and blocks of information. This TRAC server product contains the necessary routines for communication to networks, object management structures, database engines, and the Microsoft NT AS operating system.

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Intersolv, Inc.

3200 Tower Oaks Blvd.
Rockville, MD 20852
USA

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Phone: 800)-547-PVCS or 301-230-3200

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PVCS Configuration Builder

Software Configuration Management for Heterogeneous LAN-Based Development

Functional Description: PVCS Configuration Builder automates the task of constructing a software system. PVCS Configuration Builder shares information with PVCS Version Manager, including all the files, modules, and libraries that comprise a system, which compiler to use for each module, and how to set switches. Footprinting lets users maintain a detailed history of their code by recording information with each compile. This allows conditional processing based on footprinting information and assists with problem tracking.

Unique Characteristics:

- NMAKE and UNIX MAKE compatible.
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- Operates on Windows NT, Windows, DOS, OS/2 and UNIX.

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PVCS Developers Toolkit

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The new PVCS Developer's Toolkit is an application program interface (API) for the software configuration management services of INTERSOLV's PVCS Series. Using the toolkit API, you can integrate the revision control, version control, and build control services of PVCS Version Manager and PVCS Configuration Builder directly into your own software applications. Developer's Toolkit is designed to help you start fast and stay productive: * Sample programs provide a quick start. Dynamic link libraries (DLLs), linkable libraries, and C header files offer easy access to PVCS services. Over 30 functions can be called from DLLs or linked routines; each function returns expressive error and result values to your applications. Functions include file locking, file promotion, merging, and archiving. Adapts to your environment for immediate productivity; developers can connect full PVCS functionality to any programming interface you use.

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Retail Price: \$499.00

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pcExpress for Windows NT

Advanced distributed client/server technology for analyzing complex databases

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- assisting with career path planning
- recommending training plan to develop skills to meet requirement for employee career path
- matching people to jobs
- supporting scheduling or training
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Brings the highest quality photorealistic rendering to HOOPS applications

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HOOPS Graphics Development System

HOOPS simplifies the creation of interactive and portable 2D and 3D graphics applications

HOOPS Graphics Development System is a high-level graphics API used by many of the world's largest software developers, including Autodesk and Computervision. HOOPS' declarative interface reduces development time by five to ten times compared to conventional graphics systems. HOOPS provides a single interface to all major platforms, window managers and graphics devices that lets programmers develop high-performance applications and port them across PCs and workstations without modification. HOOPS includes a hierarchical database, intelligent rendering engine, and an integrated input event manager. HOOPS is optimized for Windows NT and Win32 application development and will support Win32s. Also available in Kanji.

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HOOPS I.M.

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WVASE

Software for the analysis of optical data

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ICE.TCP

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ICE.TCP allows DOS and Windows PCs to access UNIX hosts over a network (ethernet, arcnet, token ring). It includes terminal emulation, bi-directional printing and file transfer. Emulation includes Wyse 60, Wyse 160, SCO ANSI, AT386 ANSI, IBM 3151. Bi-directional printing allows printing DOS or Windows files to UNIX printers and UNIX files to DOS printers. Concurrent access to Novell, Lan Manager servers via packet driver, ODI or NDIS. File transfer utilities include tftp, ftp, FTCOPY (an easy-to-use front end for tftp) and FTPWIN (a Windows point and click version of ftp). Run TSR with multiple UNIX sessions, Autologin/first command, and more.

Retail Price: 10 PCs, \$695; 25 PCs, \$1295; 50 PCs, \$1995; 100 PCs, \$2795; 250 PCs, \$4995

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Phone: 612-339-2521

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JetForm Corp.

800 South Street, suite 305

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JetForm Server for Windows NT, Version 3.1

Forms enable any desktop application

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Retail Price: \$1,695.00 for 20 users; \$3,495.00 for unlimited users

Contact: JetForm Sales

Phone: 800-536-3676

Fax: 617-647-4121

RISC Versions: Call for availability

Johnson Properties

PO Box 404
230 S. Webster
Omro, WI 54963
USA

JPSMath

A 32-bit Math/Science package

JPS Math is an exciting new Math/Science package from Johnson Properties. It features a calculator simulator based on a popular programmable, hand-held graphics calculator.

Retail Price: \$99.00

Contact: Matthew Johnson

Phone: 414-685-5523

Fax: 414-685-5523

RISC Versions: Call for availability

JP Software, Inc.

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4DOS for Windows NT

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Retail Price: \$79.00

Contact: Customer Service

Phone: 800-368-8777

Fax: 617-646-0904

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Netherlands, The Owl's Nest, 02-155-28631, Fax: 0

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EIFFELCASE for Windows NT

Analysis and design workbench for ISE EIFFEL 3 for Windows NT

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- EIFFEL VISION - a Graphics library for windowing
- EIFFEL STORE - a class library for interfaces with OODBMS and RDBMS
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Julie Melbin

USA

notGNU Emacs Windows/NT Text Editor

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Send e-mail to notgnu-request@netcom.com with SEND INFO as message body for ftp info and to have uuencoded binaries sent to you. Version 1.6 is current released version; a 1.7 beta is also available

NotGNU - This is not the GNU Emacs Editor. A text editor similar to GNU Emacs but much smaller and lighter, which is available as native Windows and Windows NT applications. Mouse support, cut/copy/paste text to/from the Windows clipboard and edit files via drag & drop support from File Manager. Compare a (quick) economy car to a mobile home and that's NotGNU vs. GNU Emacs. They'll both get you where you want to be, with more or less gadgets along the way.

Retail Price: Shareware

Contact: Julie Melbin

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KBS Systems

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KBS: People Management System version 2.0

PMS is a people database package that allows you keep track of people that interact with your organizations. Keep track of several organizations, the people that interact with each of the organizations and time stamped events recording those interactions. Features include:

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- User Defined Selection Criteria
- Standard Reports
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- Multiple Addresses
- Date Range Selection
- AutoDial
- AutoDial and Record Event
- Selections Chosen via Checkboxes
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- Import/Export
- Includes Quick Start Tutorial

Retail Price: \$129.00

Contact: Kathleen Tuttle

Phone: 813-394-9359

Fax: 813-394-5965

RISC Versions: Call for availability

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Acumate ES

Turns corporate data into information

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Retail Price: Call

Contact: Joseph Frio

Phone: 800-775-3626 or 617-225-2200

Fax: 617-225-2220

RISC Versions: Yes

International Sales:

S/B 35/38 Portman Square, 6th Floor, London, UK, WIH 9FM, Tel: 071-224-1840/ FAX: 071-224-1841

Knight, Howard

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FM Applic

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FM Applic is a File Manager extension that provides you with an applications menu. More than just an application launcher, its a powerful utility that integrates with File Manager.

Retail Price: Shareware

Contact: Howard Knight

Phone: 619-276-9572

RISC Versions: Call for availability

Knowledge Garden, Inc.

Stony Brook Technology Center
12-8 Technology Drive
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USA

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High-level OOP development with Expert Systems

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Retail Price: \$795.00

Contact: Brian Pioreck

Phone: 516-246-5400

Fax: 516-246-5452

RISC Versions: Yes

International Sales:

Europe, Knowledge Garden Ltd., Mountbatten House, Fairacres Business Park, Dedworth Road, Windsor, Berks

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KnowledgePro SQLKIT for Windows NT

SQL Access for high-level developers

KPWin SQLKIT is an add-in toolkit which provides KPWin and KPWin++ developers with easy access to many important database formats using SQL statements. Formats supported include ASCII, Btrieve, dBASE, Excel, IBM DB 2, IBM OS/2 EEDM, INGRES, Novell Netware SQL, Oracle, Paradox, SQLBase, Sybase, Microsoft SQL Server and XDB. SQLKIT is fast and powerful. All the possible SQL function calls have been converted into simple KPWin commands. For example, the following code will extract data for customers in the Northeast: `SQLstmt = ('SELECT LASTNAME, FIRSTNAME, PHONE FROM USERS.DBF WHERE REGION = NORTHEAST')`. `hstmt = qeExecSQL (?hdbc, ?SQLstmt)`. Sample database and query tools are included, together with the KPWin source code. A comprehensive hypertext help system, also written in KPWin, gives you instant access to reference and command syntax. This product requires KPWin or KPWin++. See separate listings.

Retail Price: \$699.00

Contact: John Slade

Phone: 516-246-5400

Fax: 516-246-5452

RISC Versions: Call for availability

KnowledgePro++ for Windows NT

C++ code generation for complete applications

KPWin++ is a superset of the award winning KnowledgePro (KPWin) development environment for Windows. (See separate listing). This is NOT just another screen painter. It lets developers write entire applications in a high-level, easy-to-learn language, and then generate native C++ code as the final step before distribution. The finished application is a fast, industry standard .EXE file with all the performance advantages, but without the steep learning curve of developing in C. Developers can create classes and sub-classes using multiple inheritance, polymorphism and encapsulation, use powerful list commands (a-la-LISP) and add expert systems rules to advise on the next appropriate action. KPWin++ supports hypertext and multimedia development.

Retail Price: \$1,295.00

Contact: John Slade

Phone: 516-246-5400

Fax: 516-246-5452

RISC Versions: Call for availability

KnowledgeWare, Inc.

3340 Peachtree Rd., NE
Suite 1100
Atlanta, GA 30326-9826
USA

AccessWare

AccessPoint process control software provides function with flexible capacity

AccessPoint is a supervisory process and manufacturing runtime monitor and control software. Easy to configure with graphical real-time displays and historical database and alarm records from programmable logic controllers and other I/O devices. DDE-Path and control actions enables advanced automation.

Retail Price: \$2,195.00 - \$4,995.00

Contact: Customer Service

Phone: 800-444-8575 or 404-231-8575

Fax: 404-364-0883

RISC Versions: Call for availability

Kofax Image Products, Inc.

3 Jenner Street
Irvine, CA 92718
USA

Kofax Image Processing Platform (KIPP) for Windows NT

The Kofax Image Processing Platform (KIPP) is a comprehensive set of hardware and software that serves as a platform for the development of PC-based document imaging systems. KIPP consists of software development tools and hardware image processing engines for image capture, retrieval, manipulation and printing as well as peripheral control.

Retail Price: \$1,495.00

Contact: Brian Finnegan

Phone: 714-727-1733

Fax: 714-727-3144

RISC Versions: Call for availability

Kurzweil Applied Intelligence, Inc.

411 Waverly Oaks Road
Waltham, MA 2154
USA

Kurzweil Voice for Windows NT

Speaker-independent voice-activated personal computing system forrunning Windows applications

Kurzweil Voice™ is a voice-activated personal computing system that gives you the ability to run popular Windows applications software by voice as well as by keyboard and mouse. The system is easy to use, even for those with no PC experience. It is speaker-independent, requiring no training of the user's voice; speech patterns and accents are automatically recognized by the system. In addition, Kurzweil Voice adapts to the user's speech and language patterns over time and retains the knowledge as it is used. Kurzweil Voice comes with a built-in vocabulary of 40,000 pre-defined words, and can be expanded to 50,000 words to incorporate work-specific language. Users can also access a 200,000 word on-line dictionary. The system supports voice input for: 1) command and control, which drives the user interface and software applications; and 2) dictation, which allows for general text input within the applications.

Retail Price: \$8,000.00

Contact: Aaron Kleiner

Phone: 617-893-5151

Fax: 617-893-6525

RISC Versions: Call for availability

LBMS, Inc.

1800 West Loop South, 6th floor
Houston, TX 77027
USA

Process Engineer

Process Management solutions for Windows NT

Process Engineer provides methodology automation, project planning and estimating using an SEI-based architecture. Process Engineer is targeted at organizations implementing methodology and TQM with automated delivery. The Process Manager's component creates and maintains processes in the LAN-based multi-user library. Project managers use the Project Manager's component to retrieve processes and build project plans. These plans can be estimated, and exported to scheduling tools like Microsoft Project for Windows NT.

Retail Price: Call

Contact: Peter Combe

Phone: 713-623-0414

Fax: 713-623-4955

RISC Versions: Yes

LCS/Telegraphics

150 Rogers St.
Cambridge, MA 2142
USA

Wintab

Wintab Compatible Pointing Device Drivers

Wintab is an open, industry standard API for advanced pointing devices such as digitizers and 3D and 6DF pointers, Wintab allows applications developers to support specialized pointing devices without writing device specific drivers. Wintab provides support for both absolute and relative mode devices, as well as multiple devices. Wintab will enable the rapid development of CAD, GIS, and 3D graphics applications which use digitizers or 3D input devices under Windows NT. LCS/Telegraphics supplies Wintab compatible drivers to manufacturers of digitizers and other advanced pointing devices on an OEM basis. Copies of the Wintab specification are available to applications developers from LCS/Telegraphics.

Retail Price: Licensed to OEMs

Contact: Robert Dezmelyk

Phone: 617-2257970

Fax: 617-2257969

RISC Versions: Call for availability

LEAD Technologies

8701 Mallard Creek Road
Charlotte, NC 28262
USA

Related Topics:

[LEADTOOLS NT](#)

[LEADTOOLS NT Express](#)

LEADTOOLS NT

Premier developer toolkit for integration of images and image compression including loss-less compression

The complete imaging library. Read, write, display, print and manipulate TGA, DIB, TIF, BMP, GIF, PCX files and more -- all pixel depths and variations. Fastest JPEG, CCIITT KG3 & G4, LEAD CMP for extended compression or loss-less compression exceeding any other technique on the market. High-level routines/easy integration. Additional low-level routines give ultimate control for advanced programming. Pixel by Pixel manipulation, full control while processing complete paint control and redirect I/O. Virtual memory controls support any size image file. Two example applications provided with source. No royalties. LEAD's other products include versions for DOS, Windows, 32-bit DOS and VB as well as FoxPro and Clipper add ons.

Retail Price: \$995.00

Contact: Wendy DeSotell, Sales

Phone: 800-639-4699

Fax: 704-548-8161

RISC Versions: Call for availability

International Sales:

Call 704-549-5532, Fax: 704-548-7161

LEADTOOLS NT Express

Premiere developer toolkit for integration of images and image compression including loss-less compression

Designed to obsolete hardware compression accelerator cards. All of LEADTOOLS NT features and four times faster! Optimized for 32-bit environment. Decompresses and displays 1MB 24 bit TGA image in one second on a 486SX/25 MHz PC -- much faster to display than the uncompressed image! Includes free technical support, as do all LEAD products. Flexible royalty plans.

Retail Price: \$995.00

Contact: Wendy DeSotell, Sales

Phone: 800-639-4699

Fax: 704-548-8161

RISC Versions: Call for availability

International Sales:

Call 704-549-5532

LeBlond Software, Inc.

10921 Reed Hartman Highway
Suite 314
Cincinnati, OH 45242
USA

Oriel Plus for Windows NT, Version 3.0

An enhanced version of the acclaimed graphics-based batch language for Windows 3.1, Oriel Plus for Windows NT supports over 100 commands for directly accessing the color and drawing capabilities of the Graphics Device Interface (GDI), allowing you to create custom windows that contain graphics shapes, bitmaps, message boxes, list boxes, and 3-D buttons. Also includes a powerful SendKeys capability for controlling the Windows NT desktop. Example applications include customized menu systems, powerful file-handling utilities, installation programs, demos, and prototypes. Oriel Plus for Windows NT can be purchased directly from the LeBlond Software, Inc. or as part of 'Windows NT Power Tools', a combination book/disk package from Bantam Electronic Publishing found in better bookstores everywhere.

Retail Price: \$49.95

Contact: Geoff LeBlond

Phone: 513-745-9990

Fax: 513-745-9666

RISC Versions: Call for availability

Legent Corp.

114 Turnpike Road
Suite 301
Westborough, MA 01581-2800
USA

ENDEVOR Workstation

Automates and manages the software development process and guarantees the integrity of your software assets

Today's software development process is becoming more complex, and ENDEVOR Workstation provides you with the tools and facilities to cope. ENDEVOR lets you define your software development life cycle according to your needs, even if it spans multiple LANs or WANs. ENDEVOR speeds the development process through automation of manual tasks, parallel development management and release automation. ENDEVOR lets you group and store your application components logically rather than physically and keeps track of all changes to those components. ENDEVOR guarantees the integrity of your software by providing security, standards enforcement, comprehensive reporting, and audit trails for all changes. ENDEVOR Workstation improves the development process and provides the control you need without constraint.

Retail Price: \$500.00 - \$1,000.00

Contact: Laurie Torchia

Phone: 508-836-5839

Fax: 508-836-5992

RISC Versions: Call for availability

Lexitech Inc.

Kiosk Info Software (KISS)

Multimedia Kiosk Software for Product Selection, Conference Guide, Wayfinder

Lexitech's KISS software delivers multimedia public access information, messaging and advertising in kiosk or tabletop configurations. Typical sites include trade shows, hotels, convention centers and large events. KISS can be installed as a turnkey service by Lexitech or customized by developers who add text, graphics and video. Features include touch screen operation, digital video, high resolution graphics, text and coupon display and printing, electronic messaging, city and exhibitor guides and network and remote data updates. KISS provides a last turnkey application development environment by automatically providing processing for attract loops, graphics and video displays, menus, external file access, typical control button and an ASCII configuration file.

Retail Price: Call

Contact: Jay McGuire

Phone: 203-483-2888

Fax: 203-483-2893

RISC Versions: Call for availability

International Sales:

Alex Richardson, 203-483-2888.

Logic Works, Inc.

214 Carnegie Center
Suite 112
Princeton, NJ 174817482
USA

ERwin/ERX 1.4 for Windows NT

Client/Server database design tool moves to Windows NT

ERwin/ERX 1.4 is an Entity-Relationship (ER) database design and reverse-engineering tool that helps you quickly design your database using an intuitive, graphical approach. ERwin/ERX generates complete SQL CREATE TABLE and CREATE INDEX code for SQL Server, SYBASE, Oracle, Ingres, Informix, DB2, Rdb, SQL Base, Teradata, Adabas, and NetWare SQL. ERwin/ERX combines quality graphics and a powerful ER design method in the Windows NT environment. ERwin understands entities, relationships, primary and foreign key, triggers, domains, and defaults. The result: a database design free of the errors that can result from using less sophisticated tools. ERwin/ERX can reverse-engineer your existing SQL DDL scripts, helping you perform such tasks as maintaining and enhancing your existing databases or migrating your applications from one DBMS to another. Using our open, comma-delimited ASCII file format, you can exchange data between ERwin/ERX and other tools, and generate customized reports using DDE reporting. ERwin/ERX for Windows NT is affordable and easy to learn and use.

Retail Price: \$2,495.00

Contact: Barbara Bogart

Phone: 609-243-0088

Fax: 609-243-9192

RISC Versions: Call for availability

Logicon

2100 Washington Blvd
Arlington, VA 22204-5703
USA

Logicon Message Dissemination System (LMDS)

The right information to the right people right now

LMDS is a robust software product that scans incoming text in real time and determines the recipients of each document in a fraction of a second, based on user interest profiles. LMDS profiles may contain as many as 1,000 terms, targeted as desired to defined document zones. Profiles may be added, modified, or deleted on-line. Multiple document formats may be handled concurrently.

LMDS is ideally suited to the filtering of newswire information, cable traffic, or e-mail. Designed for flexibility, it supports on-line data services as well as a variety of work group applications. It accommodates virtually any communications interface and means of delivery. APIs make it easy to integrate with virtually any system for document storage and retrospective searching.

Retail Price: \$24,990

Contact: Stanley B. Rosen

Phone: 703-486-3500

Fax: 703-920-7086

RISC Versions: Call for availability

International Sales:

Stan Rosen, 703-486-3500, ext 2349

Logis Technology

Landmark Center
951 Old County Road Suite 165
Belmont, CA 94002
USA

Related Topics:

[Cause & Effect for Windows NT](#)

[Quality Analyzer for Windows NT](#)

Cause & Effect for Windows NT

Cause & Effect for Windows NT creates presentation quality Cause-and-Effect diagrams of production processes. Create Dispersion Analysis, Production Process Classification, and Cause Enumeration type CE diagrams. Indicates possible causes of problems in your manufacturing process. Use OLE and Drag and Drop to exchange and integrate your analysis and diagrams into other Windows software.

Retail Price: Call

Contact: Brian Wong

Phone: 415-591-7684

Fax: 415-591-7685

RISC Versions: Call for availability

Quality Analyzer for Windows NT

A powerful statistical quality control system for your company QC program

Quality Analyzer for Windows NT is a complete and fully integrated statistical quality control software package for SQC analysis and graphing. Perform routine chart updates with Quality Analyzer's fast and efficient data management system. Create both variables and attributes charts and perform statistical analysis on their data. Apply calculated or user defined control limits and specification limits. Alerts the user when control limits are violated. Set customized control limit criteria and automatic control chart interpretation. Use OLE and Drag and Drop to exchange data and integrate analyzed data and graphs into your favorite word processor or spreadsheet.

Retail Price: Call

Contact: Brian Wong

Phone: 415-591-7684

Fax: 415-591-7685

RISC Versions: Call for availability

LTC

328 Fitch Street
Syracuse, NY 13204
USA

Telcom FAX for Windows NT

The first name in Windows NT Fax software

In January 1994, LTC released Telcom FAX Personal 1.0, the first FAX messaging software for Windows NT. LTC was also proud to announce the first network FAX solution for Windows NT, Telcom FAX Server. Telcom FAX Server enables an entire network of computers, including Windows for Workgroups and Windows NT clients, to FAX right from their applications, using advanced network FAX server technology. Users can send and receive FAX messages via Mail. Also, programmers can send FAX messages under program control using simple MAPI. Demonstration versions of Telcom FAX are available for downloading from various places, including Compuserve, Internet and LTC.

Retail Price: \$99.00-\$1495.00

Contact: Steven Diederich, Sales

Phone: 315-455-1003

Fax: 315-455-5838

RISC Versions: Call for availability

International Sales:

Outside of the U.S.: 315-455-9853

Lucas Management Systems

12701 Fair Lakes Circle
Suite 350
Fairfax, VA 22033
USA

Artemis Prestige

Enterprisewide Project Management for Windows Clients and Windows NT

Artemis Prestige is a powerful multi-user multi-project application that utilizes the world's most successful graphical user interface and a highly efficient client/server architecture. Prestige for windows supports industry standard databases such as Oracle, SQL Base, so you can easily integrate your existing business applications with your project management systems. CPU intensive processes such as time and resource scheduling can take place on the job server, which can either be LAN or mini computer based, while data entry, browsing, reporting and graphic output is done at the PC client. This highly efficient architecture provides enhanced performance and cost effective use of hardware.

Retail Price: Call

Contact: Crystal Finch, Sales

Phone: 800-477-6648

Fax: 703-333-8203

RISC Versions: Call for availability

International Sales:

UK, 44-753-606000

France, 331-450-72040

Italy, 39-2-76009240

Netherlands, 31-3473-75078

Wanchai, Hong Kong, 852-8363218

Tokyo, 8133-262-8161

Australia, 61-2-956-8222

Germany, 49-2131-1280

Belgium 322-6739935

Denmark, 4539-66

Lucy, James

USA

Anagram Finder

ftp.cica.indiana.edu: \ftp\pub\pc\win3\ntlanagnt.zip

Anagram Finder is a program for exploring anagrams. Given any reasonably varied set of letters, it is often possible to create an alternative phrase which contains all the letters of the source, and itself forms an amusing or pertinent phrase, for instance, Lewis Carroll memorably turned the name William Ewart Gladstone into the phrase: "Wild agitator! Means well"

Retail Price: Shareware

Contact: James Lucy

RISC Versions: Inquire about availability

Mach 2 Systems, Inc.

5125 North 16th Street
Suite C138
Phoenix, AZ 85016
USA

Error and Message Logging Facility

Log application information to disk and display a user friendly message on screen

ELF is a Dynamic Link Library that enables Windows NT applications to log application information to disk and display a user friendly message on the screen. Using a single function call ELF logs or displays errors, warnings, statistics, debug information and other important data. The message formats are user configurable. ELF allows the user to control the amount of messages to be logged to either screen or disk. The product is shipped with a report generator to extract specific records from the log file. These records may be stored in a separate file using a different message format. ELF runs under Visual Basic, Visual C++, Microsoft Access and PowerBuilder and other development tools.

Retail Price: \$395.00

Contact: Josette van Stiphout

Phone: 602-266-7656

Fax: 602-266-5808

RISC Versions: Call for availability

Management Analytics

Box 1480
Hudson, OH 44236
USA

Payback

The best automated bill collection system for small business

PayBack is a PC based bill collection program that picks up where accounts receivable packages leave off. PayBack automatically figures out what to do and when to do it, and then gets it done! Payback:

- sets realistic deadlines and enforces them
- pursues relentlessly without getting emotionally involved
- handles each case individually based on debtor behavior
- even helps negotiate higher payments

PayBack saves money because it completely automates functions other software barely provides.

- It automatically sets and meets deadlines.
- It automatically creates and prints letters.
- It automatically scripts phone calls.
- Even a clerk can perform near-expert collections.

Legal because it was designed to follow the Fair Debt Collection Practices Act and the subsequent court ruling that impact bill collections. Includes libraries for:

- Business to Business
- Business to Consumer
- Collection Agencies
- Club Membership Dues
- Charitable Donations

Retail Price: \$250.00

Contact: Fred Cohen

Phone: 216-655-9770

Fax: 216-655-9776

RISC Versions: Call for availability

Mansfield Software Group, Inc.

PO Box 532
Storrs, CT 06268
USA

KEDIT 5.0 for Windows NT

A Windows NT text mode version of Mansfield Software's XEDIT-compatible text editor

KEDIT 5.0 for Windows NT features full compatibility with the existing DOS and OS/2 versions of KEDIT, compatibility with many of the commands and features of IBM's XEDIT editor, a built-in subset of the REXX language, mouse support, undo/redo, selective line editing, and dozens of powerful commands and configuration options. The program uses the WIN32 Console API and runs as a text mode application. The package includes both Windows NT and DOS versions of the KEDIT 5.0 module.

Retail Price: \$210.00

Contact: Pam Grapes

Phone: 203-429-8402

Fax: 203-487-1185

RISC Versions: Call for availability

Manufacturing & Consulting Services, Inc.

7560 E Redfield Road

Address

Scottsdale, AZ 85260

USA

ANVIL 5000

Integrated Mechanical CAD/CAM/CAE software

ANVIL 5000® is a computer-independent, multi-national, modular, 3D CADD/CAM/CAE software system for mechanical design and engineering. Relational modeling; solid, surface and wireframe modeling; drafting; geometric analysis; pre- and postprocessing for finite-element analysis; and numerical control (2.5 axis, 3 axis, 4 axis, and 5 axis) are completely integrated into a single database.

Retail Price: Call

Contact: Mitchell Clousner

Phone: 602-991-8700

Fax: 602-991-8794

RISC Versions: Call for availability

International Sales:

United Kingdom, MCS Ltd., 264-350022

Germany, MCS GMBH 610.-74858

Mark V Systems, Ltd.

16400 Ventura Blvd
Suite 303
Encino, CA 91436-2123
USA

Related Topics:

[MethodMaker](#)

[ObjectMaker](#)

[ProcessMaker](#)

MethodMaker

An advanced meta tool for creating CASEtool support for new methods

MethodMaker® is a rule-driven repository-based meta tool for graphically creating and maintaining CASEtool support for software engineering and process modeling methods and notations.

Retail Price: \$10,000.00

Contact: Mo Bjornestad

Phone: 818-995-7671

Fax: 818-995-4267

RISC Versions: Call for availability

ObjectMaker

Integrated object-oriented CASE

ObjectMaker is a new generation Meta CASE tool which offers developers broad, off-the-shelf support for more than 25 Object-Oriented and Traditional methods, multi-language Code Generation, Reverse Engineering, and the ability to use the Tool Development Kit to construct a user specific Custom tool. Methods supported as published include ADARTS, BAILIN, BERARD, BOOCH, BUHR, CHEN, COAD-YOURDON, COLBERT, CONSTANTINE, DEMARCO, FIRESMITH, GANE-SARSON, HAREL, HATLEY-PIRBHAI, PAGE-JONES, RUMBAUGH, SHLAER-MELLOR, etc.

Retail Price: \$3,000.00 - \$5,000.00

Contact: Mo Bjornestad

Phone: 818-995-7671

Fax: 818-995-4267

RISC Versions: Yes

ProcessMaker

Supports more than 15 notations for enterprise, workflow, decision support, and process modeling

ProcessMaker® supports decision and process modeling for enterprise, workflow and software engineering. Additional notations, extended concepts, templates, semantics and relationships can be implemented using MethodMaker®.

Retail Price: \$3,000-5,000

Contact: Mo Bjornestad

Phone: 818-995-7671

Fax: 818-995-4267

RISC Versions: Yes

Marketing Resources Plus

555 Twin Dolphin Drive
Suite 350
Redwood City, CA 94065
USA

SNAP for Windows NT

Syndicated Network Audience Processor

SNAP is a high-performance analysis tool designed for television ratings data research. Originally marketed primarily to allow program syndicators to quickly track the multi-market performance of their shows, SNAP has since grown to become the industry standard system for researching programming, station, and market performance. SNAP can present virtually any desired view of current ratings data, or it can show historical trends by comparing current performance to historical ratings data going back as far as 1985. While SNAP has always been recognized for its unmatched processing speed, SNAP for Windows NT provides even greater performance by allowing multiple GUI-based clients to access a single 32-bit Windows NT-based server fully optimized for speed by using the multi-threading and file-mapping capabilities of Win32.

Retail Price: Call for pricing

Contact: Brenda McMahon

Phone: 212-661-4252

Fax: 212-661-0073

RISC Versions: Call for availability

Massteck, Ltd.

95 Russell St.
P. O. Box 1130
Littleton, MA 01460
USA

MaxEDS

PCB Engineering Design System

MaxEDS is a Printed Circuit Board Engineering Design System running in 32 bit mode under Windows NT. This software is a sophisticated package of auto-placement, auto-routing, and on-line design rule checking that enables a PCB design engineer to accomplish the front-to-back design of a Printed Circuit board in the minimum amount of time possible, using today's dense SMT design technologies, and with today's engineering needs. MaxEDS schematics automatically check for many common design rule errors such as unused inputs and outputs, and allows the creation of hierarchical schematics with simulation hooks to many of the most sophisticated simulation packages in the market. MaxEDS auto-placement uses a unique feature called 'cluster placement', which automatically organizes components BEFORE placement so that the placement will be optimized. MaxEDS auto-routing uses Massteck's unique interactive 'shove' routing capabilities to allow the designer complete freedom to interact with the router, using all of the power of the autorouter, yet 'steering' the router as it works. MaxEDS also includes: WYSIWYG post processing, back annotation to schematics, full on-line design rule checking at all times, easy to learn user interface, lots of 'Query' features to look at the database while working, and multiple windows for more than one 'view' of the design.

Retail Price: \$7,495.00

Contact: Charles Grant

Phone: 508-486-0197

Fax: 508-486-1084

RISC Versions: Yes

MathSoft, Inc.

101 Main Street
Cambridge, MA 02142
USA

Mathcad 5.0 for Windows

The world's best selling technical calculation software

The new easy-to-use Mathcad - its the simplest, most intuitive way for professionals, educators and students to perform and document technical calculations. It has more power than spreadsheets or calculators but none of the hassles of programming. You solve mathematical calculations the same way you learned to do them - on a scratchpad - but this one is electronic, live and interactive. Convey your ideas without rewriting because Mathcad lets you incorporate text and graphics with your calculation work. Mathcad now gives you automatic assignment of units, animated on-line tutorial help, a technical spell checker, expanded graphics capability, trace and zoom, our Electronic Book Sampler and much more.

Retail Price: \$99.95

Contact: Customer Service

Phone: 800-628-4223 or 617-577-1017

Fax: 617-577-8829

RISC Versions: Yes

mbp Software and Systems Technology, Inc.

1141 Harbor Bay Parkway
Suite 161
Alameda, CA 94502
USA

Visual COBOL 3.3 for Windows NT

Includes, a powerful GUI screen design system, direct interface to Windows printer routines and fonts, and multi-user support, in order to develop powerful, native code, Windows NT applications

Visual COBOL 3.3 for Windows NT is an optimized high level ANSI-85 native code COBOL compiler and is fully compliant with the X/Open portability guide and IBM SAA. Many language extensions are included to enhance application program development, including a high level of compatibility with IBM VS COBOL II. It is a fully featured production environment that includes an integrated set of programming tools to develop, compile, debug, and test COBOL applications for use in PC, Open Systems, Client/Server, Cross Development, or Downsizing situations.

Retail Price: \$2,495.00

Contact: Michael Hicks

Phone: 800-231-6342

Fax: 510-769-5735

RISC Versions: Yes

McAfee (formerly Brightwork Development, Inc.)

766 Shrewsbury Ave.
Jerral Center West
Tinton Falls, NJ 07724
USA

Related Topics:

[Brightwork Utilities for NetWare](#)

[LAN Automatic Inventory](#)

[LAN Server Watch](#)

[NETremote](#)

[PS-Print](#)

[SiteMeter](#)

Brightwork Utilities for NetWare

Complete Network Management for NetWare LANs

Everything you need to manage your 5 - 50 node NetWare LAN. Includes, central user support, asset management, performance monitoring, print enhancement and software metering.

Retail Price: \$695.00 per fileserver

Contact: Inside Sales

Phone: 800-552-9876 or 908-530-0440

Fax: 908-530-0622

RISC Versions: Call for availability

LAN Automatic Inventory

LAN Asset Management System for NetWare

Automatically collect information on all the hardware and software on your LAN. Automatic alerting of changes and ad hoc report capability.

Retail Price: \$695.00 per fileserver

Contact: Inside Sales

Phone: 800-552-9876 or 908-530-0440

Fax: 908-530-0622

RISC Versions: Call for availability

LAN Server Watch

Performance Monitoring for NetWare LANs

Monitor fileserver performance and alert on critical events including low disk space, hardware failures and consumed resources.

Retail Price: \$495.00 per fileserver

Contact: Inside Sales

Phone: 800-552-9876 or 908-530-0440

Fax: 908-530-0622

RISC Versions: Call for availability

NETremote

Centralized User Support for NetWare LANs

Allows on PC to gain full access to another PC's screen and keyboard across a LAN or WAN.

Retail Price: \$495.00 per fileserver

Contact: Inside Sales

Phone: 800-552-9876 or 908-530-0440

Fax: 908-530-0622

RISC Versions: Call for availability

PS-Print

Simplified NetWare Printing

Simplifies NetWare printing and improves printing speed.

Retail Price: \$395.00 per fileserver

Contact: Inside Sales

Phone: 800-552-9876 or 908-530-0440

Fax: 908-530-0622

RISC Versions: Call for availability

SiteMeter

Software Metering for NetWare LANs

Fully enforce software license agreements on your LAN and track software usage.

Retail Price: \$495.00 per fileserver

Contact: Inside Sales

Phone: 800-552-9876 or 908-530-0440

Fax: 908-530-0622

RISC Versions: Call for availability

McGill University Systems, Inc.

550 Sherbrooke Street West
West Tower, Suite 1650
Montreal, Quebec H3A1B9
Canada

TCP 3270 for Windows NT

A high-performance 3270 emulator for Windows NT

TCP3270 for Windows NT is a full-featured 3270 emulator for Windows NT. TCP3270 uses the NT's built-in Windows sockets support for advanced TCP/IP network connectivity. The workstation program offers a number of unique features including multiple sessions, extended data stream support, Entry Assist, IND\$FILE file transfer, drag-and-drop text editing, definable hotspots, definable tool bars, definable button bars, support for ALA for use with NOTIS, EHLLAPI, DDE, and a Visual Basic Toolkit. KTCP3270 uses True Type font technology to support any screen size of your choice including screens containing ALA characters and diacritics. Documentation is shipped on-line and on printer ready format. TCP3270 supports all languages by allowing you to modify the EBCDIC/ASCII translate tables.

Retail Price: \$500.00 educational \$900.00 corporate site license

Contact: Pierre Goyette

Phone: 514-398-3270

Fax: 514-398-6876

RISC Versions: Yes

MCSNet

4039 Lilac Drive
Las Cruces, NM 88005
USA

Related Topics:

[MCGen for Windows NT](#)

[MCHost for Windows NT](#)

MCGen for Windows NT

Part of a complete hardware / software instrumentation solution for offshore oil and gas exploration as well as many other seismic and geophysical applications

MCGen and its utilities provide a complete Windows based user interface to MC3 line of MC500 GPS synchronized sequence controllers. This system is intended for advanced control of air cannon and related data acquisition systems. The Windows NT based front end allows all network users security controlled access to the event sequencer itself as well as the data produced by the event recorder. The system is capable of generating analog and digital output sequences as well as recording analog and digital events with an accuracy of 1 microsecond to Universal Coordinated Time. MCGen provides operations personnel with a modern, intuitive stimulus and acquisition system with capabilities that greatly exceed the previous state of the art.

Retail Price: \$29,995 hardware and software

Contact: Inside Sales

Phone: 505-527-0842

Fax: 505-527-0605

RISC Versions: Call for availability

MCHost for Windows NT

Part of a complete hardware / software fault instrumentation solution for electric power generation and distribution

MCHost provides a complete Windows front end for MC3 MC400 line of integrated Digital Fault Recorders, Transient Recorders and Sequence of Event Recorders. The Windows NT version of MCHost can control any number of local MC400 through IEEE-488 ports as well as remote units connected via modem. MCHost allows any network user security controlled access to power system fault data with an emphasis on advanced analysis and location. The software time correlates fault recordings from multiple sites with GPS time and position data. MCHost provides the level of sophistication and ease of use necessary to allow the modern utility to dramatically increase productivity and performance in the fault isolation and location process.

Retail Price: \$29,995 hardware and software

Contact: Inside Sales

Phone: 505-527-0842

Fax: 505-527-0605

RISC Versions: Call for availability

Media Vision Technology Inc.

3185 Laurelview Ct.

Fremont, CA 94538

USA

Media Vision OpenGL SDK for Win32

3D application development under Win32

Originally developed by Silicon Graphics, OpenGL is the industry's leading 3D graphics API. Designed for real-time 3D rendering and object manipulation, OpenGL has been adopted by numerous other vendors including Microsoft, IBM, Intel, DEC, and Intergraph. With its eventual integration into Windows NT by Microsoft, OpenGL will enable high performance, hardware-accelerated 3D graphics under the world's most advanced desktop operating system. Completely compatible with Microsoft's implementation of OpenGL, the Media Vision OpenGL SDK for Win32 allows 3D applications to be developed and deployed under ALL Win32 environments, including Windows NT, Windows 3.1 and Windows "Chicago".

SDK Contents:

- OpenGL DLL and header files for all Win32 processor architectures
- Demonstrations and sample program source
- Addison-Wesley OpenGL Reference Manual
- Addison-Wesley OpenGL Programming Guide
- OpenGL for Win32 Programming Guide
- On-line API Reference

Retail Price: \$995.00

Contact: Paul Nahi

Phone: 510-252-4728

Fax: 510-438-0516

RISC Versions: Yes

Mercury Interactive Corp.

3333 Octavius Drive, Suite 104

Santa Clara, CA 95054

USA

WinRunner for Windows NT

An advanced Automated Software Quality (ASQ) tool designed to help automate the process of testing and ensure software quality in Windows NT-based applications

Mercury Interactive's WinRunner for Windows NT accelerates the software testing process, improving software quality without sacrificing time-to-market. WinRunner for Windows NT creates portable and maintainable tests for Windows NT-based GUI software, allowing software quality assurance (QA) personnel to achieve more thorough automated testing without having to re-create tests every time a GUI element changed location or look. Using Win Runner's object-oriented technology, it is possible to record test results directly from one version of an application and re-use them on future releases and ports. Additionally, tests created on one platform can be ported to a variety of other platforms (i. e. Windows or UNIX).

Retail Price: Call

Contact: Inbar Lasser-Raab

Phone: 408-982-4239

Fax: 408-982-0149

RISC Versions: Call for availability

Mergent International, Inc.

70 Inwood Road
Rocky Hill, CT 6067
USA

DACS for Windows NT

A full suite of infosecurity solutions

MERGENT International offers a full suite of infosecurity solutions to protect the workstation and manage on-going security administration. PC/DACS provides transparent workstation infosecurity that includes identification and authentication, discretionary access control, audit trails, boot protection, encryption, session time-out, virus prevention and more. To further streamline PC use in a distributed computing environment, MERGENT offers SSO/DACS, providing a single sign-on solution to the problem of multiple passwords in a multi-platform environment. MERGENT also provides complete security implementation and management solutions. Site/DACS security implementation tools allow administrators the ability to lock in security standards and Domain/DACS provides centralized security administration to easily manage and monitor networked PCs from one central location.

Retail Price: Call for pricing

Contact: Robert Buchanan

Phone: 203-257-4223

Fax: 203-257-4245

RISC Versions: Call for availability

Meridian S/W

2800 San Tomas Expressway
Santa Clara, CA 95051
USA

Digital Network Printing Software for Windows NT

The most powerful Network Printing solution! Period!

Imagine being able to print from your Windows NT system to the most powerful, feature-rich network printers that exist. Printing Software for Windows NT allows Windows NT systems to share Digital's PrintServer, DEClaser 5100, and DECcolorwriter printers, with HP-UX Systems, SunOs Systems, Sun Solaris systems, SCO UNIX Systems, Novell Netware Systems, IBM AIX Systems, Pyramid systems, Unisys Systems, Silicon Graphics Systems, Sequent Systems, VMS Systems, Ultrix and OSF/1 Systems. There are no distance limitations; the printer can be down the hall, or on another continent entirely! PrintServer Printers are affordable, powerful tools. The software enables DIRECT printing; there is no intermediate spooling system. ALL users regardless of platform print DIRECTLY to the printer. This "one on one" relationship provides:

- Access to industrial-strength printing. Duty cycles of up to 150,000 pages per month per printer!
- Real-time notification of ALL printer events, WHEN they happen, on your Windows NT system's Event Viewer.
- EVERY Windows NT System on your network can print DIRECTLY to a shared printer, reducing the load on your servers!
- REAL tray selection that works! Input and Output, including Digital's 20 bin output "mailbox", with optional locks!
- Job banner pages that allow for quick job identification, even colored banner page selection. The banner page also has job statistics that you cannot get in any other way.
- Seamless compatibility with ALL Print Manager features.

Best of all, since this software product was designed for YOUR Windows NT Printing needs, ALL of your Windows NT compatible applications will be able to print with NO modifications!

Retail Price: \$98.00 site license

Contact: Inside Sales

Phone: 714-727-0700

Fax: 714-727-3583

RISC Versions: Yes

Meridian Technology Corporation

11McBride Corporate Center Drive
Suite 250
Chesterfield, MO 63005
USA

SuperLAT for Windows NT

Integrates your Windows NT system into the DEC Environment

SuperLAT for Windows NT is a software product that allows Windows NT systems to communicate with DEC systems using Digital's protocol over Ethernet. With SuperLAT for Windows NT, users can access DEC applications and share peripheral devices, including modems and printers that are attached to hosts, terminal servers, and PCs. SuperLAT for Windows NT allows users to connect to DEC systems using the terminal emulator included with Windows NT or any other Windows NT terminal emulator. Another powerful benefit of SuperLAT NT is that Windows NT users will be able to print to DEC printers and DEC users will be able to print to Windows NT printers.

Retail Price: \$225 for 8 sessions

Contact: John Schoemehl, Mktg

Phone: 314-532-7708

Fax: 314-532-3242

RISC Versions: Yes

International Sales:

John Schmoehl

MetaWare, Inc.

2161 Delaware Avenue
Santa Cruz, CA 95060-5706
USA

High C/C++

Advanced compiler technology delivers the fastest and smallest Windows NT executables

The High C/C++ compiler offers many advanced features not found in any other C++ compiler. The "Incremental Strengths" feature lets the developer specify the level of C++ compilation, allowing migration from C to C++ one C++ block at a time. C++ templates have been fully implemented in this globally-optimized compiler. MetaWare has the only 32-bit C/C++ compiler with floating-point support for a full range of numeric co-processors, including the Weitek ABACUS 1167, 3167, and 4167, as well as the Intel 80387 and 387 compatibles. Includes the High C/C++ compiler, 32-bit source-level debugger, and pieces of the Microsoft Windows NT SDK, including Win32s and the Microsoft Foundation Classes.

Retail Price: \$795

Contact: Kevin Grimes

Phone: 408-429-6382

RISC Versions: Call for availability

Metro Link, Inc.

2213 W. McNab Road
Pompano Beach, FL 33069
USA

Metro-X/NT Development

X11.5 Window System for Windows NT

Metro-X/NT is a complete, highly optimized implementation of Version 11 Release 5 of the X Window System from M. I. T. The Metro-X Development System includes OSF/Motif 1.2, as well as all the standard MIT toolkits and libraries. When it comes to reliability, Metro-X is time tested and proven in the most demanding of environments such as process control, factory automation, medical imaging, battlefield command and control, aviation cabin management systems, nuclear fail safe systems and scientific modeling environments. Metro-X is current to the latest patches supplied by the X Consortium, and updates will be made available whenever new patches are released. Combined with it's increased speed and it's extensive array of graphics card support, the Metro-X server environment provides users with the latest is X Window functionality. Metro-X is also available for ISC, AT&T, SCO, ODT, all SVR4's, UnixWare, Venix, LynxOS, QNX, SunOS, Solaris 2.x and CTRX (Harris).

Retail Price: \$299.00

Contact: Garry Paxinos

Phone: 305-970-7353 ext-402

Fax: 305-970-7351

RISC Versions: Call for availability

Microcom, Inc.

1 Executive Blvd.
Suite 4
Yonkers, NY 10701
USA

LANlord for Windows NT

Desktop Management, from the Workgroup to the Enterprise

LANlord is an integrated desktop management software system that enables network managers to centrally monitor, control and configure remote PC hardware and software, including Microsoft Windows and Windows NT, in real-time. It combines the multiple applications required to manage networked DOS and Windows PCs, and provide user support, into a single package whose features can be accessed through a common Windows-based graphical user interface. LANlord includes the following applications: Automatic Inventory: Provides network managers with centralized control of network PC assets. Remote PC hardware & software is automatically discovered. Remote Control: Allows companies to reduce on-site personnel requirements and provide cost effective user support Network & PC Monitoring: Allows companies to manage PCs pro-actively by identifying potential problems before they occur. Software Metering: Assists in researching and reporting on MS-DOS and Windows-based application usage and ensure compliance with software licensing agreements and improve software purchasing decisions. Virus Detection & Repair: Provides centralized detection and treatment of more than 1300 PC viruses. Reporting & Data Export: Provides network managers with expanded flexibility in developing reports and presentations, through support for standard export formats and pre-formatted reporting options.

Retail Price: \$2,499.00 per 50 users

Contact: Muki Murthy

Phone: 914-377-2704

Fax: 914-968-7100

RISC Versions: Call for availability

Microcomputer Systems, Inc.

2300 Valley View Lane, Suite 800
Irving, TX 75062

Related Topics:

[MCS XNS System for 3Com](#)

[MCS XNS System for UB](#)

MCS XNS System for 3Com

Provides 3Com 3+ Share Compatible XNS and NetBIOS Protocols for Windows NT

The MCS XNS System for 3Com provides compatibility with XNS standard by implementing both the Datagram and Virtual Circuit protocols. Application programs access these protocols through standard Windows NT interfaces. Using this MCS product the resources of the Windows NT computer (including the Lan Manager Server) can be accessed by 3Com NetBIOS client computers. Additionally, the Windows NT computer can act as a client to the 3Com server.

Using this MCS software product, network application programs can be developed which allow distributed processing between Windows NT, UNIX, DOS and any other system running 3Com XNS protocols. With this product, Windows NT computers can be incorporated into XNS networks without changing the existing systems.

Retail Price: \$495.00 Windows NT Advanced Server Version; \$95.00 Windows NT Workstation Version

Contact: Sales

Phone: 214-659-1514

Fax: 214-659-16624

RISC Versions: Call for availability

International Sales:

Call US code plus 214-659-1514

MCS XNS System for UB

Provides Ungermann-Bass Compatible XNS and NetBIOS Protocols for Windows NT

The MCS XNS System for UB provides compatibility with XNS standard by implementing both the Datagram and Virtual Circuit protocols. Application programs access these protocols through standard Windows NT interfaces. Using this MCS product the resources of the Windows NT computer (including the Lan Manager Server) can be accessed by Ungermann-Bass client computers. Additionally, the Windows NT computer can act as a client to the Ungermann-Bass server.

Using this MCS software product, network application programs can be developed which allow distributed processing between Windows NT, UNIX, DOS and any other system running UB XNS protocols. With this product, Windows NT computers can be incorporated into XNS networks without changing the existing systems.

Retail Price: \$495 Windows NT Advanced Server version; \$95 Windows NT Workstation version

Contact: Sales

Phone: 214-659-1514

Fax: 214-659-16624

RISC Versions: Call for availability

International Sales:

Call U.S. code plus 214-659-1514

MicroDesign

2000 West Ameritech Center Drive
2F33C
Hoffman Estates, IL 60196-1025
USA

Retreeve Express for Windows

View, annotate, print, plot and markup complex CAD and raster images in their native formats

Features include: Windows Image and document viewing. AutoCAD, HPGL, Intergraph, CAD file formats, CCITT group 3 & 4 raster with TIFF, CALS and CIT, G4, CG4, GTX, CAL and GP4. Redlining with multiple annotations. Image tracking of redline files. Multi-window document display. Unique Display Technology eliminating need for time consuming redraws when overlapping windows are moved or resized. Displays CAD files as they were originally saved. Scroll, pan and zoom. User control of master and reference file levels. Command line arguments for redlining, editing and view control. Fast display and print of files. Display multiple views for comparison. Native CAD software not required. Additional software or hardware not needed to view, print, plot and redline drawings.

Retail Price: \$495.00

Contact: Sales

Phone: 407-677-8333

Fax: 407-678-0449

RISC Versions: Call for availability

International Sales:

Ph: 407-677-8333, ext. 7138

MicroEdge, Inc.

P.O. Box 18038
Raleigh, NC 27619-8038
USA

Visual Slick Edit

A feature-rich easy-to-use programmer's editor that includes a powerful macro language and a programmable file manager

Features include mouse support, hypertext help (entire manual on-line), undo/redo to 32,000 steps, incredible procedure tagging, compiler error message processing, syntax expansion and indenting, CUA marking, multiple windows, multiple clipboards, Microsoft C 6 & 7 browse support, and more.

Simultaneously edits Macintosh, UNIX, and DOS ASCII format files. SlickEdit is completely configurable and has comprehensive Brief 3.1 and Emacs emulation (not just key reassignments). Also available for DOS, OS/2 and many UNIX platforms.

Retail Price: Call

Contact: Inside Sales

Phone: 800-934-EDIT or 919-790-1691

Fax: 919-831-5586

RISC Versions: Yes

Micrografx, Inc.

1303 Arapaho Road
Richardson, TX 75081
USA

Windows Draw for Windows NT

Windows Draw for Windows NT is Fun, Fast & Friendly

Windows Draw for Windows NT Preview version provides most of the functionality that entry-level Windows graphics users need. The product is so easy to use and understand that even first timers should learn how to use it in about an hour. The Draw for Windows NT Preview includes most of the features found in our award winning Windows Draw product including: Bezier-curve editing, outline fonts and special effects such as text on a curve, and blending features usually found only in more expensive drawing programs. The product's drawing tools, including freehand, line, rectangle, ellipse, pie, polyline, arc, and curve are easily selected from the top of the drawing area. The Draw for Windows NT ClipArt Manager, which organizes Micrografx ClipArt™ into subjects that can be searched by symbol name or filename, gives users access to more than 2,600 clip art images. This feature is compatible with more than 15,000 additional Micrografx ClipArt images that are available.

Retail Price: \$149.00

Contact: Peter McLaughlin

Phone: 214-994-6192

Fax: 214-994-6475

RISC Versions: Call for availability

MicroProcessor Engineering Ltd

133 Hill Lane
Shirley
Southampton, SO1 5AF
UK

ProForth for Windows NT

MPE PowerForth for Windows NT and 3.1

ProForth for Windows NT is a 32-bit Forth development environment which enables you to test and produce Windows NT and Win32s applications easily and interactively. All standard Windows functions such as Windows, dialog boxes, menus, graphics, etc. are supported, with the benefit of interactive debugging and rapid development. Included with ProForth for Windows is the GUIDE design tool, which allows the user to draw Windows, menus, dialog, and controls on the screen, size and position them, and then to generate the required code, data and winprocs. ProForth for Windows provides a full development system, and does not require tools other than Windows or Windows NT itself.

Retail Price: Call

Contact: Steven Pelc

Phone: 011-44-703-631-441

Fax: 011-44-703-339-691

RISC Versions: Call for availability

MicroQuill, Inc.

4900 25th AVE. NE #206
Seattle, WA 98105
USA

Related Topics:

[CereBase](#)

[Performance Tracer](#)

[SegMentor](#)

[SmartHeap](#)

CereBase

A fast, extensible, object-relational database engine

Extensible object-relational DB. Supports variable-length, multi-valued, and structure-valued data within a column. Includes Visual Basic-like method language for creating new data types, validation, or for extending system methods like store, insert, delete, index behavior. Very fast on complex queries. Sparse storage model eliminates data reorgs. Familiar API with calls like open database, open table. open query, get row, next row, previous row, etc.

Retail Price: \$795.00

Contact: Inside Sales

Phone: 206-525-8218

Fax: 206-525-8309

RISC Versions: Call for availability

Performance Tracer

Application wide call-tree profiler. Picks up absolutely every call in a single pass. Reports include call-tree history, function times and frequencies and more. Great for coverage analysis

Performance Tracer traces C/C++ EXEs, DLLs, and multi-threaded programs. It is the only profiler available that traces an entire application at once, regardless of size, and captures every call including those through pointers and call-backs. Reports include: A complete call tree history showing every function, including those called through messages, pointers, or call-backs. Every function called by, or calling, a given function. The execution time of every instance of each function, including minimum, maximum, total, and average times. Frequencies for each function. All functions not exercised. All function calls that could have occurred but did not. Data also available in ASCII format for custom analysis.

Retail Price: \$495.00

Contact: Inside Sales

Phone: 206-525-8218

Fax: 206-525-8309

RISC Versions: Call for availability

SegMentor

Optimizes the allocation of functions to code pages so that disk swapping is minimized. Increases performance 2-10x in tight memory conditions

SegMentor traces the function calling activity of the application to build a database of every function call and how frequently it occurs. This database is then run through simulated annealing algorithms to compute an optimal solution that groups those functions calling each other most often into the same page. Finally, SegMentor automatically integrates the final optimized map back into the executable, without changing the source. The application winds up with dramatically fewer cross-page function calls. SegMentor can accommodate very large (5MB+ exe) and multi-threaded C and C++ applications. Works with most vendor's C/C++ compilers. Many commercial software vendors are users of this product.

Retail Price: \$2,795.00

Contact: Inside Sales

Phone: 206-525-8218

Fax: 206-525-8309

RISC Versions: Call for availability

SmartHeap

Fast, optimum memory management library with comprehensive error detection and debugging

SmartHeap™ V. 2.0 is a malloc (and operator new) which is faster in physical memory, and scales well to very large heap sizes, even when allocations exceed currently free physical memory. Benchmarks show SmartHeap is 3-100X faster. Plus, SmartHeap does not sacrifice space or incur unnecessary fragmentation in exchange for speed. In addition to malloc, SmartHeap has numerous fixed-size and handle-based allocators, supports multiple pools to improve locality and further eliminate fragmentation, and includes a debugging mode with exhaustive heap error detection. SmartHeap links into your app in minutes, and includes a 300+ page manual. Used by a "who's who" of commercial software vendors. Guaranteed faster, more reliable, and to have more exhaustive heap error detection than ANY memory manager you are using -- or your money back. No royalties. Source Available.

Retail Price: \$695.00

Contact: Inside Sales

Phone: 206-525-8218

Fax: 206-525-8309

RISC Versions: Call for availability

Microsoft Corp.

One Microsoft Way
Redmond, WA 98052-6399
USA

Related Topics:

[Inside OLE 2.0 by Kraig Brockschmidt](#)

[Microsoft Open Database Connectivity \(ODBC\)](#)

[Microsoft Open Database Connectivity \(ODBC\) SDK 2.0](#)

[Microsoft SNA Server](#)

[Microsoft SQL Server for Windows NT](#)

Inside OLE 2.0 by Kraig Brockschmidt

If you're interested in fully exploring, understanding, and implementing OLE 2.0 and Windows Objects into your applications, there's no better source than Inside OLE 2.0 by Kraig Brockschmidt

This book shows you, by example, how to build OLE 2.0 applications from scratch as well as how to convert existing applications. The author, a leading OLE expert, tells you how to take advantage of OLE 2.0 to develop next-generation applications that will take Windows to a new level! The book provides both a clear tutorial and a strong set of example programs on disk that you can incorporate into your own programs. ISBN# 1-55615-618-9

Retail Price: Call for pricing

Contact: MicrosoftPress Sales

Phone: 1-800-MSPRESS

RISC Versions: Call for availability

Microsoft Open Database Connectivity (ODBC)

ODBC delivers the data

Open Database Connectivity (ODBC) is a 'C' interface for data access. It enables an application developer to access both SQL and non-SQL databases through a single interface. Support for each different database is made possible by database "drivers" which run on the client workstation. ODBC drivers are available for virtually every database available on the market ranging from SQL Server and Oracle to dBASE to IMS.

Retail Price: Call

Contact: Inside Sales

Phone: 800-426-9400

RISC Versions: Call for availability

Microsoft Open Database Connectivity (ODBC) SDK 2.0

A Better Developer's Development Kit

The ODBC SDK is for both application and driver developers. Developers took the plunge into Open Database Connectivity with the version 1.0 SDK. ODBC 2.0 improves the tools available to ODBC developers dramatically over version 1.0. More sample code and sample applications, testing tools, the addition of a set of ODBC drivers, and greatly improved clarity of the specification makes ODBC 2.0 a better developer's developer kit. ODBC 2.0 now supports Windows NT and Win32s for Windows 3.1.

Retail Price: Call

Contact: Inside Sales

Phone: 800-426-9400

RISC Versions: Call for availability

Microsoft SNA Server

Connectivity for IBM Enterprise networks

Of all the available SNA gateway products, Microsoft SNA Server lets customers access IBM mainframes and AS/400s through the widest variety of desktops over the widest variety of networks. Microsoft SNA Server is fully compatible with Novell Netware, Banyan VINES, TCP/IP and Microsoft networking products. You can connect to Microsoft SNA Server from desktops running Windows, Windows for Workgroups, Windows NT, MS-DOS, Macintosh, UNIX and OS/2 operating systems over IPX, TCP/IP, NetBEUI, VINES IP and 802.2 protocols as well as through the Windows NT Remote Access Service (via X.25, ISDN and asynchronous phone lines). You can then connect Microsoft SNA Server to the host using SDLC, 802.2 (via Token Ring and Ethernet), X.25/QLLC, Channel, Twinax and DFT protocols.

Retail Price: Call

Contact: Inside Sales

Phone: 800-426-9400

RISC Versions: Yes

Microsoft SQL Server for Windows NT

Client-Server Database Management System for Windows NT

Take advantage of distributed client-server technology with Microsoft SQL Server for Windows NT. It's the high-end database platform that delivers line-of-business solutions on today's corporate networks -- all within a powerful, reliable and open client-server architecture that builds on your computing investment. High performance design: Access up to 2 gigabytes of memory and multiple terabytes of disk storage through a powerful 32-bit architecture. Scaleable Symmetric Server Architecture: Assure a high degree of scalability across single-processor or multiprocessor hardware by balancing user tasks dynamically across processors. System management: Install, configure, and administer SQL Server for Windows NT with minimal effort, locally or remotely, using the graphical tools.

Retail Price: Starts at \$995.00

Contact: Inside Sales

Phone: 800-426-9400

RISC Versions: Yes

MJ Micro Systems

RServer

Contact through CompuServe at 76170,2475, or through LANMAN-L listservice

Allows a DOS PC to execute Windows NT commands remotely over named pipes. Features include multi-user capacity, Automatic startup as a service, security, protocol independent (uses named pipes), is routable if underlying protocol is TCP/IP. This is shareware which means I only want a measly \$9.95 for each Windows NT Server you use it on or \$49.95 for your entire network. The DOS client is free. Please make check payable to above address. Other Windows NT utilities are coming and people who register will receive notificaitons and updates automatically.

Retail Price: Shareware

RISC Versions: Inquire about availability

MKS, Inc.

521 Plymouth Road, Suite 113
Plymouth Meeting, PA 19462
USA

MIDAS

Minimize data entry and offer fast and efficient customer service

MIDAS is a full-featured, completely integrated inventory distribution and accounting system. Advanced software techniques have been used to implement an ultra-reliable package easily adaptable to most business requirements, allowing hundreds of users to share numerous files under a heavy workload.

The focus of MIDAS is on five major transaction types: new order, stock levels, order status, delivery and payment. These key areas are critical to every distribution process. But, the formats and procedures vary from business to business. MIDAS was designed to allow modifications to best-fit varying business practices.

Retail Price: Call

Contact: James Smith

Phone: 610-941-6970

Fax: 610-941-9263

RISC Versions: Yes

MKS, Inc.

35 King Street N
Waterloo, ON N2J 2W9
Canada

Related Topics:

[MKS RCS](#)

[MKS Toolkit](#)

MKS RCS

Complete configuration management system with integrated project management facilities

MKS allows the end user to create and manage projects using MKS RCS functionality either on individual files within the project or on the entire project at once. MKS RCS project management also tracks dependencies between files and automatically converts these dependencies to a "make" file.

Production Control - Production control is the process of permitting a project (or source file) from one level of the software development life cycle to another.

Special Network Functionality - MKS RCS has a NetWare Loadable Module (NLM) that provides enforced security access to archive files. Files are created as read only, and a call to the NLM is required to check for access rights, to modify access rights, or to provide access for creating, renaming or deleting archives.

Visual Basic Hooks - MKS RCS hooks seamlessly into Visual Basic as a simple menu option.

Other Features:

- Reverse delta storage method
- Includes MKS Make automatic configuration builder
- SCCS and PVCS conversion utilities
- Visual differencing of text files
- An intuitive menu interface
- Support for both binary and text files
- Seamless interoperability across DOS/Windows, OS/2, AIX, SUNOS, Solaris, 386 UNIX.

Retail Price: \$389.00

Contact: Chuck Lownie

Phone: 519-884-2251

Fax: 519-884-8861

RISC Versions: Call for availability

MKS Toolkit

Essential development tool for programmers

MKS Toolkit is a complete set of the most powerful UNIX utilities available for Windows NT. MKS Software construction tools include: Make, awk, an awk compiler, and new Windows icons for Toolkit commands such as SH, V1, AWK, FIND, GREP, and MAN. The MKS Kornshell provides many time-saving features such as command aliasing, command recall and control structures. MKS Vi is a complete implementation of the popular and powerful Vi full-screen editor.

MKS Toolkit also offers a raw device support for data interchange with any diskette written on a DOS system or 386 UNIX system, variable install for loading all or only part of MKS Toolkit, and complete on-line reference documentation.

Retail Price: \$299.00

Contact: Chuck Lownie

Phone: 519-884-2251

Fax: 519-884-8861

RISC Versions: Call for availability

Momentum Software Corp.

401 South Van Brunt Street
Englewood, N.J., NJ 07631
USA

XIPC

High performance, portable IPC services for developing process to process client/server applications

XIPC, a system-level "meta-operating system" platform that delivers network transparent Inter-Process Communications (IPC) services, including message queues, shared memory and semaphores, across 20+ operating systems in a uniform manner. Using this sophisticated high-performance API tool set, a developer can produce highly interoperable process-to-process client/server applications that:

- are immediately portable all supported operating systems
- can operate transparently over a range of network protocol stacks with no application changes
- exhibit ultra-high-performance characteristics, allowing for real-time control and mainframe-like throughput on downsized systems
- require 25-50% less time to debug due to its very-popular and industry unique network transparent debugger/monitor

Retail Price: Call

Contact: Pete Borkovitz

Phone: 201-871-0077

Fax: 201-871-0807

RISC Versions: Call for availability

International Sales:

Call 201-871-0077

Mortice Kern Systems, Inc.

35 King St. North
Waterloo, ON N2J 2W9
Canada

Related Topics:

[MKS RCS](#)

[MKS Toolkit](#)

MKS RCS

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Allows the end user to create and manage projects using MKS RCS functionality either on individual files within the project or on the entire project at once. MKS RCS project management also tracks dependencies between files and automatically converts these dependencies to a "make" file. Production Control - Production control is the process of promoting a project (or source file) from one level of the software development life cycle to another. Special NetWare Functionality - MKS RCS has a NetWare Loadable Module (NLM) that provides enforced security access to archive files. Files are created as read only, and a call to the NLM is required to check for access rights, to modify access rights, or to provide access for creating, renaming, or deleting files. Visual Basic Hooks - MKS RCS hooks seamlessly into Visual Basic as simple menu option.

Other Features:

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- SCCS and PVCS conversion utilities
- Visual differencing of text files
- An intuitive menu interface
- Support for both binary and text files
- Seamless interoperability across DOS/Windows, OS/2, AIX,. SunOS, Solaris, 386 UNIX

Retail Price: \$389.00

Contact: Inside Sales

Phone: 800-265-2797 or 519-884-2251

Fax: 519-884-8861

RISC Versions: Call for availability

MKS Toolkit

Essential development tools for programmers

MKS Toolkit is a complete set of the most powerful UNIX utilities available for Windows NT. MKS Software construction tools include: Make, awk, an awk compiler, and new Windows icons for Toolkit commands such as SH, VI, AWK, FIND, GREP and MAN. The MKS Korn shell provides many time saving features such as command aliasing, command recall and control structures. MKS Vi is a complete implementation of the popular and powerful Vi full-screen editor. MKS Toolkit also offers raw device support for data interchange with any diskette written on a DOS system or 386 UNIX system, variable install for loading all or only part of MKS Toolkit, and complete on-line reference documentation.

Retail Price: \$299.00

Contact: Inside Sales

Phone: 800-265-2797 or 519-884-2251

Fax: 519-884-8861

RISC Versions: Call for availability

Motorola, Inc.

6501 William Cannon Dr. West

Austin, TX 78735-8598

USA

PowerPC HAL Kit for Windows NT

Design PowerPC systems for Windows NT

Motorola's PowerPC HAL Kit for Windows NT consists of functions that abstract the dependencies between Windows NT and the underlying hardware platform, enabling a single shrink-wrapped version of the Windows NT kernel to run on all PowerPC platforms.

The HAL Kit also provides the HAL specification for the Power PC architecture and a HAL porting guide to assist system developers in building uni-processor and, in the future symmetric multi-processor (SMP), PowerPC platforms.

The HAL Test Suite duplicates the entire function sequence for the kernel initialization phase, including multiprocessor support function. The test suite then probes the returned status and data structures for errors. Testing option may be specified by the user through the Windows NT BootLoader Firmware environment variable sets.

Retail Price: \$495 (Basic); \$995 (Plus - includes HAL Test Suite, PowerPC SDK for Windows NT & HAL porting guide.)

Contact: Direct Sales

Phone: 512-345-9509

Fax: 512-345-1145

RISC Versions: Yes

Mozart Systems Corp.

1350 Bayshore Highway
Suite 630
Burlingame, CA 94010
USA

MOZART

A set of advanced Progressive Application Renovation™ development tools that facilitate the transition from host-based applications to client/server

Mozart Systems' Progressive Application Renovation™ is designed to enable companies to modernize host applications with a powerful graphical interface. With Progressive Application Renovation and its primary tool, Mozart™, companies can achieve many of the key advantages of client/server computing immediately -- with their existing platform technology. Moreover, the Progressive Application Renovation approach leaves open all major options for future platforms and architectures. Also, it significantly reduces ongoing maintenance costs. Using MOZART's advanced functionality, developers have modified applications in a fraction of the time required in different environments. MOZART is a true multi-platform: all applications developed with MOZART run transparently without modification under Windows, DOS, OS/2 and Windows NT. The systems also includes SQL support for major relational database management systems, including ORACLE, Microsoft SQL Server and OS/2 DB Manager.

Retail Price: \$6,000.00

Contact: Andrew Lev

Phone: 415-340-1588 ext-222

Fax: 415-340-1648

RISC Versions: Call for availability

MUST Software International

101 Merritt 7
Norwalk, CT 06856
USA

NOMAD

4GL for Client/Server Application Development

NOMAD for the Windows operating system is a powerful 4GL for the development of sophisticated client/server applications. The Workbench environment, consisting of a set of integrated, graphical tools, provides a consistent object-oriented approach to the task of application development. Through the use of the Database Painter, View Painter, Form Painter, Report Painter, and Application Manager, a complete application can be quickly built and managed without writing any code. The QuikView facility provides a powerful, graphical tree structural view of the components of the application. This allows the user to quickly move between this graphical view of the database and its table and items, to the appropriate painter for the creation of views, reports, and forms. Support for popular database servers, including the Microsoft and Sybase SQL Server, Gupta's SQLBase, Oracle Server, Rdb and RMS under VAX/VMS, is provided across a variety of platforms and protocols. Client/server access is also available to IBM's DB2 through MUST's gateway, ODB/Server supporting LU6.2/APPC.

Retail Price: \$995.00

Contact: Roger Cox

Phone: 203-845-5000

Fax: 203-845-5252

RISC Versions: Call for availability

Mystic River Software, Inc.

125 CambridgePark Drive
Cambridge, MA 02140
USA

Related Topics:

[Softbridge BASIC Language](#)

[Softbridge BASIC Language \(SBL\)](#)

Softbridge BASIC Language

Industry leader in embeddable scripting language technology.

Softbridge Basic Language (SBL) is an embeddable version of Basic that is licensed to software developers for inclusion in Windows, Windows NT, and OS/2 applications. SBL leads the industry in BBA compatibility, ease of integration, and power, and fully supports OLE 2.0 automation. Standard components include an Editor/Debugger, a Dialog Box Editor, a Browser, a Recorder, and a Menu Editor. SBL is easily integrated via its complete tool set, which contains Basic on-line documentation; an editor/debugger developed in Visual C++ and support for MDI, SDI, and pop-up sites. Full support for OLE 2.0 enables inter-application automation. SBL uses the callback function provided by applications to control all aspects of its execution, exception-handling, and I/O in a manner consistent with the application. Developers who have licensed SBL include Novell, Report Smith/Borland, Attachmate, Solomon Software, Wall Data, and Walker, Richer & Quinn.

Retail Price: Royalty and unlimited license agreements available

Contact: Jerry Bedrick

Phone: 617-576-2257

Fax: 617-864-7747

RISC Versions: Call for availability

International Sales:

Call 617-497-1585

Softbridge BASIC Language (SBL)

SBL is a completely embeddable BASIC scripting engine licensed to software developers for integration into their applications.

The Softbridge BASIC Language (SBL) is an embeddable version of BASIC designed for integration into Windows NT, Windows, and OS/2 applications. Implemented as a DLL, SBL's API lets it become a seamless extension of an application. Language features include: Visual BASIC compatibility; external DLL support; the ability to construct dialog boxes using Microsoft Word BASIC syntax; BASIC language access to application menus, dialog boxes, abstract data objects; and direct mapping of BASIC records and fixed length arrays to C structures and pointers. By licensing SBL, ISV's are able to provide their end-users with the benefits of an industry-standard scripting language, without having to devote considerable resources to its development.

Retail Price: Call

Contact: Jerry Bedrick

Phone: 617-576-2257

Fax: 617-864-7747

RISC Versions: Call for availability

National Instruments Corporation

6504 Bridge Point Parkway
Austin, TX 78730-5039
USA

Related Topics:

[LabVIEW for Windows NT](#)

[NI-488.2M for Windows NT](#)

LabVIEW for Windows NT

General-purpose graphical programming tool for instrumentation

With LabVIEW® for Windows NT, engineers and scientists build software modules called virtual instruments (VIs) instead of writing cryptic text-based programs. LabVIEW for Windows NT now takes advantage of the extended capabilities of Windows NT such as NTFS, built in TCP/IP, and CIN capability for the Microsoft C 32-bit Compiler. LabVIEW features a library of ready-to-use controls, graphs, and strip charts for quickly and easily building custom user interfaces and control panels. With LabVIEW, users build block diagrams as the executable programs in applications such as process monitoring and control, laboratory automation, and automated testing. The LabVIEW Data Acquisition VI Library controls the company's PC plug-in data acquisition, DSP, and signal conditioning hardware. LabVIEW also has libraries for controlling over 300 RS-232, GPIB, and VXI instruments.

Retail Price: \$1,995.00

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Phone: 512-794-0100

Fax: 512-794-5357

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NI-488.2M for Windows NT

High-performance IEEE 488.2 driver software

NI-488.2M™ for Windows NT includes the industry-standard set of NI-488 functions and a set of routines that duplicate the IEEE 488.2-specified sequences and protocols. New driver features include 'Smart I/O', that automatically selects the most efficient data transfer method (either DMA or Programmed I/O) depending on the transfer size. NI-488.2M for Windows NT includes a language interface library for the Windows NT version of the Microsoft C compiler. For other languages, a dynamic-link library (DLL) provides a set of direct entry points that you can access through any application that can access 32-bit DLLs. The NI-488.2M software package includes configuration and debugging utilities, as well as a completely new documentation set.

Retail Price: Call

Contact: Inside Sales

Phone: 512-794-0100

Fax: 512-794-5357

RISC Versions: Call for availability

Nemetschek

Reichenburger Str. 2, D-91677
Munich,
Germany

Related Topics:

ALLING

ALLPLAN

ALLING

#1 AEC system in Germany for civil engineering

ALLING is the high-performance CAD system developed by Nemetschek for structural engineers. It includes a comprehensive range of functions and it is easy to use and learn. It comes with an interactive tutorial program. The planning process is carried out in both 2D and 3D. ALLING supports all the engineering planning stages from key plans, formwork drawings, reinforcement drawings and location plans through to timber and steel construction drawings. Modules for round bar and wire mesh reinforcement together with related steel lists are used to create reinforcement drawings. The reinforcing process is executed in 2D and 3D. The exchange of data with programs for structural analysis enables fully-automatic reinforcement drawings to be generated for special cases such as continuous beams, columns and foundations. The integration of ALLING and ALLFEM ensures that plates and disks are processed from the drafting and design stage through to analysis and reinforcement. Features windowing, layer technology, symbol and macro technology, parametric design macros, standardized reinforcement.

Retail Price: \$2,250

Contact: Mr. Woerndle

Phone: 011-89-92793-0

Fax: 089-927-93-308

RISC Versions: Call for availability

ALLPLAN

#1 AEC system in Europe for building, engineering and construction

ALLPLAN is easy to use and learn. The handling of the program is designed so that standard architecture procedures are followed. Features architecture-oriented 3D modeling, symbols and digitizing technology, parametric design macros, 2D and 3D macros, bills of materials, stair design, roof modeling.

ALLPLAN includes superb presentation capabilities from color drawings of the digital building model with auto-shadowing, integration of real photographs with the computer model through to computer-animated sequences in the form of slide shows and video films.

Retail Price: \$2,250

Contact: Mr. Thamer, Sales

Phone: 089-927-93-0

Fax: 089-927-93-308

RISC Versions: Call for availability

NetManage, Inc.

10725 North De Anza Blvd.
Cupertino, CA 95014
USA

Chameleon32/NFS

TCP/IP Applications for Windows NT

Chameleon32 and Chameleon32NFS provide a complete set of TCP/IP applications for Windows NT. Applications include Telnet, FTP (client and server), TN3270, Ping, Finger, TFTP, DNS server a news reader and more. Chameleon32NFS also includes the industry's first NFS client and Server for Windows NT. NetManage's NFS client is fully integrated into the Windows NT file manager. The NFS server supports NTFS and long file names.

All applications provide a windows GUI interface and run on Windows NT's native TCP/IP stack.

Retail Price: Call

Contact: CustomerService

Phone: 408-973-7171

Fax: 408-257-6405

RISC Versions: Yes

International Sales:

Call 408-973-7171

NeTpower, Inc.

545 Oakmead Parkway
Sunnyvale, CA 94086
USA

Related Topics:

[NeTcompile](#)

[NeTexecute](#)

NeTcompile

A Distributed Build Environment

NeTcompile is a distributed make tool that allows easy distribution of software development and other tasks that involve dependency analysis, such as nightly batch runs. It is the first software package to take advantage of the new NeTexecute service from NeTpower. Using NeTcompile, you can rebuild large applications in a fraction of time that it would take on a single machine.

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Phone: 800-801-0900

Fax: 408-522-2666

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An Integrated Windows NT Service for Remote Execution

NeTexecute is a network service for Windows NT that allows you to execute commands from any seat using any resource on the network. Any character-based application that you can run locally can now be run remotely over both a local area network and across phone lines using Remote Access Service. NeTexecute can be used from the command line or from batch scripts.

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Fax: 408-522-2666

RISC Versions: Yes

Netsoft

39 Argonaut
Laguna Hills, CA 92656
USA

NS3270 for Windows NT

3270 emulator. Includes HLLAPI support, file transfer and NetWare for SAA connectivity.

Retail Price: \$95.00

Contact: Kimber Glennan

Phone: 714-768-4013

Fax: 714-768-5049

RISC Versions: Call for availability

Network Designers

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Kingston Bagpuiza, Oxfordshire OX 13 5AP
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T.C.T. Host File Router for Windows NT

The easiest, smartest way to bring ICL host data to the heart of the Workgroup

T.C.T. Host File Router sends files to and from ICL host systems using ICL's File Transfer Facility (FTF) paradigm. The Host File Router responds to remote transfer requests and initiates transfer requests from users in the Workgroup using the FTF Client element of the T.C.T. Workstation products. Transfers can be made in text and binary format in either direction (Outbound or Inbound) to or from any Client in the Workgroup, or to central store on the Windows NT Server.

Retail Price: Call

Contact: Sales

Phone: 44-0865-821177

Fax: 44-0-865-821480

RISC Versions: Call for availability

International Sales:

Tel: 44-0-865-821177, Fax: 44-0-865-821480

Network Managers Ltd.

Stirling House, Stirling Rd.
The Surrey Research Park
Guilford, Surrey GU2 5RF

NMC 4000 Network Manager

The leading network management platform for Windows NT

NMC 4000, a member of Network Managers' NMC Vision network management platform range, provides full configuration, fault and performance management for SNMP and other management protocols. Its highly modular, object oriented design allows additional management protocols device specific management modules and other management applications to be added as required. A growing range of optional NMC Vision Product Specific Modules already provide interactive support for approximately 100 different network devices. Fully integrated Microsoft SMS (Hermes) support will be available during 1994.

Retail Price: Call

Contact: Doug Alexander

Phone: 508-251-4111

Fax: 508-251-8562

RISC Versions: Yes

International Sales:

International, Call Zoe Flitness @ 44-483-303-3223, Fax: 44-483-303-997

Neuron Data, Inc.

156 University Avenue
Palo Alto, CA 94301
USA

Related Topics:

[C/S Elements](#)

[NEXPERT OBJECT](#)

[OPEN INTERFACE ELEMENTS](#)

[SMART ELEMENTS](#)

C/S Elements

Adds Data Access technology to Neuron Data's OPEN INTERFACE ELEMENTS product

C/S ELEMENTS provides transparent access to any flat-file or relational database system, enabling developers to mix and match data from Oracle, Sybase and Microsoft ODBC-compatible databases. Developers can build that capability seamlessly and easily by pointing and clicking on the database they choose.

Retail Price: Call

Contact: Customer Service

Phone: 800-876-4900 or 415-321-4488

Fax: 415-321-9648

RISC Versions: Yes

NEXPERT OBJECT

The leading rule and object-based development tool

NEXPERT OBJECT is a rule-and-object-based development tool written in C that runs on over 40 platforms including Motif, OpenLook, Microsoft Windows and Windows NT, Macintosh, OS/2, VAX/Alpha, IBM mainframes, and VT100 and DOS character terminals. Derived from cognitive and computer science, its features include integrated forward and backward chaining, automatic goal generation, pattern-matching, dynamic creation of objects, classes, properties, multiple and user-defined inheritance, and non-monotonic reasoning. NEXPERT's open, event-driven architecture permits integration within existing systems and direct access to standard spreadsheets, relational databases, and other conventional software.

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Fax: 415-321-9648

RISC Versions: Call for availability

OPEN INTERFACE ELEMENTS

Portable Graphic User Interface Development Tool

OPEN INTERFACE ELEMENTS is an object-oriented software development tool for building graphical user interfaces (GUIs) which are portable across the industry standard windowing environments, including: Microsoft Windows and Windows NT, Motif, Open Look, Presentation Manager and the Macintosh. OPEN INTERFACE ELEMENTS improves the economics of software development with the most portable and extensible development environment available. The architecture features a superset of widgets or controls (such as tables, text edit, menus, browser and buttons) contained in the native toolkits. Developers combine these pre-built widgets through the Open Editor. Open Editor is a WYSIWYG interface builder that allows a developer to build a GUI front end that is easily portable across all standard platforms without rewriting code. OPEN INTERFACE ELEMENTS also allows advanced developers to design custom widgets that are portable to all windowing environments. OPEN INTERFACE ELEMENTS provides developers with more flexibility, power, and extensibility, powerful widgets, a script language, and C++ support. It allows development time reduction of as much as 50%.

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Contact: Customer Service

Phone: 800-876-4900 or 415-321-4488

Fax: 415-321-9648

RISC Versions: Call for availability

SMART ELEMENTS

Provides a development environment unmatched in portability, ease of use, scalability and extensibility

SMART ELEMENTS is a client/server cross-platform development tool integrating three extensible, powerful elements: - The object- and rule-oriented element is based on NEXPERT OBJECT: a high level language graphical knowledge-base development tool capable of capturing and efficiently representing complex application logic and business rules. - The easy-to-use GUI design element is based on OPEN INTERFACE ELEMENTS: a point-and-click tool for code-less GUI design. - The dynamically compiled Script language element provides communication links between the GUI objects and the underlying application objects for event-driven architectures. All elements can easily be tied into existing data and applications. Applications are portable across over 40 platforms without recompilation. SMART ELEMENTS provides a development environment unmatched in portability, ease of use, scalability and extensibility.

Retail Price: Call

Contact: Customer Service

Phone: 800-876-4900 or 415-321-4488

Fax: 415-321-9648

RISC Versions: Yes

Nevis Technologies, Inc.

6245 Bristol Pkwy.
Ste. 239
Culver City, CA 90230
USA

Nevisys

Nevisys NT - Enterprise Development Environment

Nevisys for Windows NT is a suite of horizontal development tools for the creation of Win32 applications across and enterprise-wide network. These tools assume that the application layer may be requesting information from a SQL databases, host applications or another Windows application. Editors included with Nevisys for Windows NT are:

- FormSetter - A Windows screen painter for building forms
- RequestSetter - A utility for selecting or creating requests
- Host Scriptsetter - A scripting utility for SNA LU2 or LU0 sessions
- ReportSetter - A graphical report formatter
- LogicSetter - Assigns services, data connections and flow

In addition, Nevisys provides:

- Logging Editor - For creating logs across the enterprise
- Help Editor - For creating context-sensitive help screens
- Internationalization Editor - For localizing applications in other languages
- SQL Object Editor - For managing database schema
- Directory Editor - Utility for setup of X.500 compliant director services.

Around all of this capability, Nevisys provides a secure runtime for the authoring environment as well as the generated applications.

Retail Price: \$9,500.00

Contact: Richard Ghastin

Phone: 310-338-0257

Fax: 310-338-8563

RISC Versions: Call for availability

NUKO Information Systems

1609A S. Main St.
Milpitas, CA 95035
USA

Message Port/NT 1.0

Multiport fax and modem pooling server software based on Windows NT

Message Port/NT lets Windows and DOS users access any modem attached to the message port Windows NT server as if the modems were directly connected to the local serial ports. Any user can send fax messages directly from either Windows or DOS applications and receive fax messages directly to their computer. Incoming fax messages can be routed immediately using any email such as Microsoft Mail, cc:Mail or MHS Mail. User may view the incoming fax message directly on the computer.

Retail Price: \$699 for 10 users, \$999 for 20 users

Contact: Bob Schiender

Phone: 800-995-2166 or 408-262-2225

Fax: 408-262-2261

RISC Versions: Call for availability

NUS (a Halliburton Co.)

2650 McCormick Drive
Suite 300, Two Prestige Place
Clearwater, FL 34619
USA

PRONET for Windows NT

Document Management System

PRONET is the software solution designed to provide document management and control on a local area network (LAN). This means that all the information necessary to write or revise a document, including a complete history of previously approved document revisions, is controlled by PRONET and is accessible to all users. Document references to regulations, specifications, related documents, drawings and forms are easily reviewed. And, most importantly, all system users share document standards and use the same formats and document configurations. PRONET's document control system offers: Increased productivity by reducing time required to find and/or create files. Increased information sharing and communication within your organization On-line controlled access to the latest document revision. PRONET integrates with Word for Windows, WordPerfect for Windows and most other Windows- and Windows NT-based packages.

Retail Price: Call

Contact: Dan Wisniewski

Phone: 800-522-2121 or 813-797-7841

Fax: 813-797-8341

RISC Versions: Call for availability

NYCOMBeeldtechnieken

PO Box 117
Heteren, Netherlands 6666 ZJ
The Netherlands

Montage

Montage is a Windows 3.1 (386 mode only) and Windows NT program for making compositions from one or more full color bitmaps. Features include: -Up to 64 active objects-Direct cut and paste between 2 or more open project windows-Uncluttered workspace through drop on demand tools. Requirements: graphics card capable of 32k or 16M colors with appropriate drivers. Although Montage will work with lower color depth graphics cards, no effort has been made to realistically approximate the colors on 256 or even less color capable cards. Montage internally always works with 24-bit color. Output is also only possible in 24-bit color. Montage was developed for (landscape-) architecture photo montage. It is relatively easy for us to add additional functionality to make it (more) useful for other disciplines.

Retail Price: Call

Contact: Victor Roos

Phone: 031-8889-1463

Fax: 031-8889-1284

RISC Versions: Call for availability

Object Design, Inc

1010 El Camino Real
Suite 300
Menlo Park, CA 94025

ObjectStore 3.0 for Windows NT

The leading high-performance object database for storing complex data structures and non-record-oriented information in heterogeneous client/server environments

ObjectStore, Object Design's market leading object database management system, offers a significant advance in data management technology. It provides unmatched performance, ease-of-use, migration and data modeling capabilities for large-scale, distributed business and engineering applications. Object Store runs in a local area network of workstations and servers using the Microsoft Windows, Windows NT, OS/2 and UNIX operating systems.

Its unique Virtual Memory Mapping Architecture makes it the only database that can manage transactions that span a range of performance requirements from interactive transactions (at the speed of a mouse movement) to collaborative transactions that may span several hours (in workgroups). The database also offers a high-productivity development environment for implementing distributed applications using project-oriented languages such as C++ and Smalltalk. Object Store supports Visual C++ and MFC 2.0.

Retail Price: Call

Contact: Inside Sales

Phone: 415-327-5191

Fax: 415-325-7757

RISC Versions: Yes

International Sales:

U.S. and Canada, 1-800-962-9620

UK, 011-44-793-486-111

France, 011-33-1-4699-1300

Germany, 011-49-611-97719-0

Japan, 011-81-3-3263-9870

Australia, 011-61-2-2122766

Object Development Group

31205 Floralview Dr. N.
Suite 204
Farmington Hills, MI 48331
USA

Object Modeler

A CASE tool that supports object-oriented analysis and design

Object Modeler uses an object oriented approach where analysis and design are coupled tighter than in traditional CASE tools. Object Modeler employs an object model to graphically display real world objects. This allows analysis and design to be modified as future real world objects change. Object Modeler uses the same notation for both analysis and design allowing for a smooth transition from analysis into design. Object Modeler supports the graphical representation found in the book Object-Oriented Modeling and Design by Rumbaugh et al.

Retail Price: \$1,289.00

Contact: Bailey Bilt-Kravitz

Phone: 313-788-2344

RISC Versions: Call for availability

Objectivity, Inc.

301B E Evelyn Ave
Mt View, CA 94041-1530
USA

Objectivity/DB for Windows

The leading provider of distributed client/server object database management solutions

Objectivity is the leading provider of distributed client/server object database management system (ODBMS) solutions for corporations building object-oriented applications. Objectivity/DB, its flagship product, provides complex applications with information storage and retrieval, transaction integrity and multi-user concurrency control, all cooperating within your corporate computing environment. Objectivity is the only truly distributed client/server object database, allowing it to scale to meet the rigorous demands of object applications. Objectivity/DB supports applications development in the C++ and Smalltalk languages, and is the first object database to provide a complete ANSI-standard SQL and ODBC interface. Objectivity/DB is completely interoperable across major processors and operating environments including Windows, Windows NT, UNIX and VMS.

Retail Price: Call

Contact: Inside Sales

Phone: 415-254-7100

Fax: 415-254-7171

RISC Versions: Call for availability

OHB Software Inc.

5005 Newport Drive

#505

Rolling Meadows, IL 60008

USA

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[BarMaster Retailer](#)

[BarMaster Windows](#)

[GraphixMaster](#)

[Scene-Nik America](#)

BarMaster Retailer

Shipping Container Bar Code system

BarMaster Retailer allows vendors who sell to all major US retailers to create Bar Code shipping labels with ease. All label formats are encoded right into the program. No design, or conformance worries, we have done it all for you. Just install it, and go. The product even includes a database of all shipping points for each retailer. Add, Change, or Delete shipping points at will. Just select a retailer, label format, destination, and PO information, and the software does the rest. The package works with any postscript or postscript compatible printer.

Retail Price: \$799.00

Contact: S.D. Bailey

Phone: 708-590-1095

Fax: 708-590-1097

RISC Versions: Call for availability

BarMaster Windows

Bar Codes on Windows and Windows NT

BarMaster Windows allows any user to print any of 16 bar code symbologies effortlessly. BarMaster Windows support PostNet, Code 39, 128, UPC, EAN, 2 of 5, and many more commonly used bar codes. Print bar codes from any program, any time, anywhere in a document, with no hassle. Requires Windows 3.1, Windows for Workgroups, or Windows NT, and any Laser, Dot Matrix, or Postscript Printer.

Retail Price: \$499.95

Contact: S.D. Bailey

Phone: 708-590-1095

Fax: 708-590-1097

RISC Versions: Yes

GraphixMaster

Converts DOS graphics to Windows, and Windows NT

GCS allows a programmer to write graphic software once to run under DOS, Windows, Windows NT, and OS/2. Using the GCS toolkit a programmer only needs to recompile, and link for the target platform. The package includes DOS libraries, Windows, Windows NT, and OS/2 DLL's.

Retail Price: \$499.95

Contact: S.D. Bailey

Phone: 708-590-1095

Fax: 708-590-1097

RISC Versions: Yes

Scene-Nik America

Entertaining and educational bitmaps for Windows & Windows NT

Scene-Nik America is a collection of high quality photographs taken from across the USA of unusual interest. A screen saver is included that displays historic information about each photo. Currently there are Historic Places, Parks, Cars, Trains, Covered Bridges, Farm Implements, and many other subjects available. Each image is supplied in 24 color for Windows and Windows NT.

Retail Price: \$49.95 per module

Contact: S.D. Bailey

Phone: 708-590-1095

Fax: 708-590-1097

RISC Versions: Yes

One Tree Software

PO Box 11639
Raleigh, NC 27604
USA

SourceSafe

Coordinates multiple developers on a network--and tracks the histories of code files and entire projects--under Windows NT, Windows 3.1, and DOS

SourceSafe, the project-oriented version control system, offers five principal benefits to your development process.

1. **Developer Coordination.** SourceSafe prevents several developers, working together on a project, from accidentally overwriting each other's changes.
2. **History Tracking.** SourceSafe records each change you make to every file. So if you change a file ten times, SourceSafe stores all ten versions--in less disk space than two would normally take.
3. **Hierarchical Projects.** To the normal functions of version control, SourceSafe adds a developer-specific project management layer; tracking modular code (one file used in multiple projects), and maintaining full project histories as well as file histories.
4. **Ease of Use.** SourceSafe's interface, modeled on the Windows file manager, offers one-point system control with a fast learning curve under Windows, DOS, and Windows NT.
5. **Ease of Maintenance.** SourceSafe installs in under ten minutes, and requires almost no administration or maintenance.

And best of all, SourceSafe is the **ONLY** version control system with complete systems for Windows NT, Windows 3.1, and MS-DOS environments!

Retail Price: \$395.00 one user; \$1,595.00 two users; \$2,745.00 ten users; \$4,745.00 twenty users

Contact: Ken Felder

Phone: 919-821-2300

Fax: 919-821-5222

RISC Versions: Yes

Oracle Corp.

500 Oracle Parkway
Redwood Shores, CA 94065
USA

Related Topics:

[Oracle 7.015 Server for Windows NT](#)

[Oracle Workgroup Server for Windows NT](#)

Oracle 7.015 Server for Windows NT

ORACLE 7 Server for Windows NT uses the latest version of the ORACLE RDBMS, which provides state-of-the-art technology and unmatched performance for client-server operations. Among the advanced features that ORACLE 7 Server for Windows NT introduces are a multithreaded server and shared SQL. Combined, these features reduce resource usage and enhance ORACLE's ability to support more users with fewer resources. ORACLE 7 Server for Windows NT also provides advanced distributed database capabilities that make access to remote databases transparent to the user. Thus, ORACLE 7 Server for Windows NT eliminates the need for the costly custom-programming formerly needed to execute transaction updates among distributed databases. In addition, ORACLE 7 Server for Windows NT supports transparent asynchronous table replication (snapshots). It can also function as a two-phase commit coordinator for non-ORACLE database systems and as a participant in two-phase commits coordinated by external services. ORACLE 7 Server for Windows NT also provides extensive and robust new functionality in the areas of server enforced integrity, query optimization, and security management.

Retail Price: Call

Contact: Customer Service

Phone: 800-ORACLE-1 or 415-506-7000

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RISC Versions: Call for availability

Oracle Workgroup Server for Windows NT

A new server product designed to address the workgroup computing market

The Oracle Workgroup Server (OWS) is a new server product designed to address the workgroup computing market. It incorporates the Oracle 7 database engine, enabling 100% compatibility with Oracle 7 on any platform. It incorporates all SQL Net network driver support needed to connect the server to Windows clients. It incorporates new Windows-based database administration tools that significantly facilitate the database management function, enabling OWS to be administered without a trained DBA. It incorporates new installations technology to vastly reduce the complexity of the software installation. It incorporates Oracle Glue and our new Oracle7-compatible DBC driver to facilitate the development of windows applications built upon OWS. It incorporates on-line documentation in the Microsoft Help format that is familiar, fast and compact. The OWS contains the following components: Oracle 7 Server, SQL*Net client and server, OWS database tools, Oracle, Glue, Oracle7 ODBC driver and Microsoft Help based documentation. OWS delivers a "plug and play" Oracle7 database. Because it is pre-tuned and pre-configured, OWS runs right out of the box. The OWS product will be available in deployment mode on Windows NT in the September 1994 time frame. Meanwhile, OWS will be sold as a software developer's kit (SDK) and licensed just for development.

Retail Price: Call

Contact: Customer Service

Phone: 800-ORACLE-1 or 415-506-7000

Fax: 415-506-7200

RISC Versions: Call for availability

P & J's Software

14150 NE 20th
Box 277
Bellevue, WA 98007
USA

Background Noise

Central application to play WAV, MIDI files and CD audio

Background Noise is a Win32 application that lets you play WAV, MIDI files and CD audio. Play the files yourself, or create a list of sound files for Background Noise to play while you work in other applications. Play the list sequentially, or create a programmable order or play them in random order (much like CD player). Background Noise is shareware, so you can try it before you buy it.

Retail Price: \$9.95

Contact: Paul McLaughlin

Phone: 206-881-8251

Fax: 206-869-0252

RISC Versions: Call for availability

P&W Technologies, Inc.

8 Meadowbrook Lane
Suite 8
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Octopus

The first real-time data fault-tolerance solution for Windows NT and NTAS servers

Octopus™ for Windows NT provides data fault tolerance and real-time data protection for networks. Updates to primary files are mirrored to disks across LANs and WANs at user-selected destination. An updated copy of protected files is available on the network in the event of data loss or hardware failure at the primary site. Unlike tape back-up systems, Octopus provides quick, complete availability of up-to-the-minute data. There can be multiple back-up sites anywhere in the world for maximum protection of business data.

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Contact: Wayne Flurri

Phone: 215-822-8075

Fax: 215-822-5965

RISC Versions: Yes

International Sales:

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Pacific CommWare

180 Beacon Hill Lane
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TurboCom for Windows NT

High Speed Async Serial Communications

TurboCom high speed serial port drivers for Windows NT and Async serial port board with support for speeds up to 460.8 Kbaud. RS-232, RS-422, and RS-485 Protocols.

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Fax: 503-482-2627

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Paragon Consulting Group

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USA

PTERM Paragon Terminal Application

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\pt04bp15.zip

Fully threaded native Win32 application. Auto Zmodem download/upload with crash recovery and auto-renaming of incoming files which already exist. Fast ANSI terminal emulation. Simple sound support in the form of being able to specify a separate wav file to play for both a completed download as well as a completed download. Console based. TELNET support.

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Contact: Ron Cox

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The only mechanical design automation tool that integrates the entire design-through-manufacturing process

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Phone: 617-894-7111

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Passport Communications

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EMBH: Embedded windows for Windows Help Projects

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\embh_n.zip

EMBH is a library of animated windows that may be embedded anywhere in a Windows help file at any time.

Retail Price: Shareware

Contact: Mark Gamber

RISC Versions: Inquire about availability

PDS Engineering

401 W. Main
Suite 303
Norman, OK 73070
USA

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SCSI users! Interrogate, display, and modify SCSI device configuration

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Retail Price: \$125.00

Contact: Roger Ryan

Phone: 405-329-2223

Fax: 405-329-7373

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PEACOCK SYSTEMS, INC.

2922 Pennsylvania Ave SE
Washington DC, 20020
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Contact: Inside Sales

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Fax: 202-575-8186

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Retail Price: Call for pricing

Contact: Inside Sales

Phone: 402-477-7501

Fax: 402-477-8214

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Persistent Data Systems

75 W. Chapel Ridge Rd.
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USA

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Phone: 412-963-1843

Fax: 412-963-1846

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Contact: Inside Sales

Phone: 412-963-1843

Fax: 412-963-1846

RISC Versions: Call for availability

Personal MicroCosms

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Greenwood Village, CO 80112
USA

Astronomy Lab for Windows NT

Astronomy graphing, prediction and simulation program

Astronomy Lab is an astronomy program for Microsoft Windows NT. Astronomy Lab produces 7 movies that simulate a host of astronomical phenomena, 15 graphs that illustrate many fundamental concepts of astronomy, and 14 printed reports that contain predictions of the most important astronomical events. All movies, graphs, and reports are customized for the user's time zone and location.

Retail Price: \$17.50

Contact: Eric Bergman-Terrell

Phone: 303-753-3268

RISC Versions: Yes

Phar Lap Software

60 Aberdeen Ave.
Cambridge, MA 02138
USA

Related Topics:

[QuickStart for Windows NT](#)

[TNT/DOS Extender](#)

QuickStart for Windows NT

QuickStart for Windows NT

QuickStart enables developers to build 32-bit Win32s and Windows NT applications under DOS or Windows 3.1. QuickStart runs Microsoft's Windows NT tools under DOS or the Windows 3.1 DOS box, so developers can create and run Win32s applications under Windows, rather than repeatedly rebooting between Windows NT for developing and Windows for testing. Because QuickStart runs in the familiar DOS environment, programmers can run Windows NT tools in conjunction with their favorite DOS editors, utilities, source control systems and network software. QuickStart is available from Phar Lap and is free for a limited time.

Retail Price: Call

Contact: Maria Vetrano

Phone: 617-661-1510

Fax: 617-876-2972

RISC Versions: Call for availability

TNT/DOS Extender

TNT/DOS-Extender enables developers to write console-based Windows NT applications that will run under MS-DOS and Windows 3.1

With Phar Lap's new TNT/DOS Extender, developers can use Microsoft's 32-bit C/C++ compiler to write character based Windows NT applications that will run under MS-DOS and Windows 3.1. This next-generation DOS-Extender allows developers to build applications for the MS-DOS market today that will be ready to run as native Windows NT applications tomorrow. TNT/DOS-Extender also supports dynamic link libraries (DLLs) and threads, and allows multiple Extended-MS-DOS applications to share a single copy of the MS-DOS-Extender in memory.

Retail Price: Call

Contact: Maria Vetrano

Phone: 617-661-1510

Fax: 617-876-2972

RISC Versions: Call for availability

Philosoft Software

PO Box 2152
Cupertino, CA 95014
USA

Tesexe

A revolutionary component for highly-automated, low-level dynamical testing of Windows NT client programs and libraries

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Retail Price: \$799.00

Contact: Christopher Miller

Phone: 408-481-0563

Fax: 408-481-0563

RISC Versions: Call for availability

PLEXUS Software

1310 Chesapeake Terrace
Sunnyvale, CA 94089
USA

PLEXUS XDP Application Designer

PLEXUS Application Designer (AD) is a high level software development platform for high performance compound data and workflow applications incorporating document images and other unstructured data. AD is a professional development environment consisting of a set of graphical user interface builder and 4GL tools for Microsoft Windows that provides high level support for complex data, user interface management, and libraries of functions supporting SQL database access, image handling, fax, OCR, and mainframe communications. AD allows VARs, OEMs, and sophisticated end-users to develop customized client/server RDBMS applications that allow the capture, manipulation, storage, and retrieval of image information as an adjunct to existing business information systems. Application Designer is available in both Development and Runtime versions.

Retail Price: \$2,500.00

Contact: A.J. Wand

Phone: 408-743-4300

Fax: 408-747-1245

RISC Versions: Call for availability

Pocket-Sized Software

[BOG for Windows NT](#)

[FracView NT](#)

[Hangman for Windows NT](#)

[MIDI JukeboxNT](#)

[PUZZLE 8 for Windows NT](#)

[RCALC for Windows NT](#)

[SETSBVOL](#)

BOG for Windows NT

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\bog_nt.zip

Bog NT is a word-finding game similar to the game of Boggle. The game board is a 4 by 4 grid of letter cubes. The player finds as many words as possible in the grid. Words must be formed from adjacent cubes and no cube can be used more than once.

Retail Price: Shareware

RISC Versions: Inquire about availability

FracView NT

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\frac_nt.zip

FracView NT displays the Mandelbrot set and allows the user to zoom in on a region of interest.

Retail Price: Shareware

RISC Versions: Inquire about availability

Hangman for Windows NT

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\hang_nt.zip

Hangman NT is a computerized version of the well-known game of hangman.

Retail Price: Shareware

RISC Versions: Inquire about availability

MIDI JukeboxNT

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\mjb_nt.zip

Allows you to select and play multiple MIDI and .WAV files. Files can be selected with the Open command, by using the File Manager's drag-and-drop feature, or by associating files with MIDI JukeBox NT. Files can be played once or in a continuous loop.

Retail Price: Shareware

RISC Versions: Inquire about availability

PUZZLE 8 for Windows NT

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\pz18_nt.zip

A computerized version of the well-known 8 tile puzzle.

Retail Price: Shareware

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RCALC for Windows NT

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\rcalc_nt.zip

RCALC NT is a Reverse Polish Notation (RPN) calculator. If sound is enabled on a computer with a Windows NT compatible sound board, all keystrokes will be "spoken" as they are entered. RPN calculators require numbers to be entered before the operation is performed. Operations have no priority - they are performed in the order entered. Consequently RPN calculators do not need parentheses.

Retail Price: Shareware

RISC Versions: Inquire about availability

SETSBVOL

Volume Control for Windows NT Soundboard

Retail Price: Shareware

RISC Versions: Inquire about availability

Poet Software

4633 Old Ironside Drive, Suite 100
Santa Clara, CA 95054
USA

Related Topics:

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[POET for Windows NT](#)

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Phone: 408-970-4640

Fax: 408-970-4630

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International Sales:

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Phone: 617-661-1444

Fax: 617-661-1642

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PROMULA Development Corp.

3620 North High Street, Suite 301
Columbus, OH 43214
USA

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PROMULA is an integrated application development tool that encompasses a fourth generation language and a unique array database management system. It supports data management, data analysis, modeling, report generation, graphics, menu management, and window management. PROMULA is compatible with the PROMULA FORTRAN Compiler and the FORTRAN to C Translator products and offers a way for upgrading the user interfaces of FORTRAN applications.

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Fax: 614-263-5573

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It supports the FORTRAN 66 and FORTRAN 77 standards as well as all major extended dialects and it includes most of the Fortran 90 features. It achieves 100% conversion rates to C++, and its comprehensive FORTRAN run-time library may be linked with application objects to produce executables that yield reproducible and verifiable results on multiple target platforms.

Retail Price: Call

Contact: George E. Jurse

Phone: 614-253-5454

Fax: 614-263-5573

RISC Versions: Call for availability

International Sales:

614-263-5454

PROMULA FORTRAN to FORTRAN Translator

A must for long-term maintenance of FORTRAN applications

This tool transforms unstructured "spaghetti" FORTRAN code into well-structured FORTRAN code that satisfies rigorous programming and documentation criteria for readability, portability, and efficiency.

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ProtoView Development Corp.

353 Georges Road
Dayton, OH 08810
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Retail Price: \$395.00

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SQLView

Client Server Development/Database Access

SQLView is a rapid application development language for client server systems. With SQLView, production quality systems can be built under Windows/Win32 with database access, transaction processing and data security. Using OOP techniques and visual editors, developers build robust, maintainable, client/server applications with advanced GUI components, access to multiple database platforms, transaction security and project life-cycle management. SQLView offers a practical, effective, production environment for accomplishing down-sizing and right-sizing of corporate systems.

Retail Price: \$395.00

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Fax: 908-329-8624

RISC Versions: Call for availability

PWatch

1806 Milmont Drive, #185
Milipitas, CA 95035
USA

PWATCH

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\pwatch.zip

PWatch is a utility program which reports the usage of NT system resources, both overall and on a per-process basis. With PWatch, you can observe what resource amounts are being used by which processes, either at a particular moment in time (real time display) or averaged over longer periods.

Retail Price: Shareware

Contact: Michael Cornelison

Fax: 408-942-9180

RISC Versions: Call for availability

Q.E.D. Software, Inc

275 Saratoga Ave.
Suite 160
Santa Clara, CA 95050
USA

Eagle Integrated Development Environment

A Windows-hosted Integrated Development Environment for C, C++ and FORTRAN

Eagle is a multi-language Integrated Development Environment featuring a powerful programmer's editor, language parsers, cross referencing and graphical browsers for functions and data. and interfaces to popular compilers, source code control systems and metrics packages. The editor supports syntax coloring, filtering on strings or variables, and navigation to and from the graphical browsers. The cross reference and browsing systems support multiple languages simultaneously. Users can extend the system with new functionality or for new languages by writing call-compatible DLLs. A complete data interface library is available for producing custom code documentation or for reverse engineering applications. Eagle currently supports C and FORTRAN with C++ availability July 1993. Eagle is available for both Windows 3.1 and Windows NT.

Retail Price: \$389.00 - Introduction \$249.00

Contact: Bob Evans

Phone: 408-995-0270

Fax: 408-261-9632

RISC Versions: Call for availability

QPC Software

WinQVT/Net

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\qvtnt397.zip

A suite of TCP/IP client and server applications for Windows NT. WinQVT/Net will support up to 15 simultaneous virtual terminal (telnet or rlogin) sessions. Each session resides in its own window, which can be moved, sized, and iconified according to standard Windows procedures. If you have a color display, you can use color (both foreground and background) to help differentiate visually between sessions; fonts can also be used to distinguish sessions.

Retail Price: Shareware

RISC Versions: Inquire about availability

QStar Technologies, Inc.

Jefferson Plaza
600 East Jefferson St.
Rockville, MD 20852
USA

Related Topics:

[ES/Backup](#)

[MastarMind](#)

ES/Backup

The only backup and restore product that meets the challenges of complex networks

Product Description QStar's ES/Backup gives you flexible, easy to use and automatic backup capabilities for every user on your network. ES/Backup uses the client/server model for backups. It has network extensions for server AND client workstations. ES/Backup is scaleable and extensible. You can install ES/Backup on a single workstation and expand it over time to include other network nodes. You can also add new backup media or devices without changing your system. Most important, you can backup all the computers on your network to different storage devices through a single control point! By starting multiple, concurrent tasks you can backup large networks in less time, with less trouble. ES/Backup's nine incremental levels reduce backup time (and media) by copying only the files your users changed since the last backup. ES/Backup's compress option conserves media space. Files span multiple volumes. It gives you complete control over your backups! ES/Backup means all your decisions about backup are easy. Your users specify backup classes to exclude or include files, directories, disk partitions, or all the files on a network node. Scheduling is easier, too. You schedule backups immediately, daily, weekly, on specific dates, or, all the above. And, you do it all with point and click simplicity - thanks to ES/Backup's simple, and elegant, graphical user interface. QStar is the leading developer of software required to make optical storage useful on computer networks. QStar is also a leading value-added reseller of optical storage devices. QStar's subsystems range in size from 650 megabyte stand-alone units to 503 gigabyte jukeboxes. The devices can include Write-Once/Read-Many (WORM), rewritable and multi-function optical drives.

Retail Price: Starts at \$99.00

Contact: Carol Dennis

Phone: 301-762-9800

Fax: 301-762-9829

RISC Versions: Call for availability

MastarMind

Storage management solutions: incorporating optical, magnetic and offline storage

Product Description MastarMind from QStar incorporates a revolutionary software framework that enables you to maximize network storage performance while significantly lowering your costs of managing it. MastarMind consolidates multiple storage technologies into a single, integrated environment. It exploits the best features of your client and server magnetic disks as well as on-line and off-line optical jukeboxes. MastarMind delivers an environment where your users can take full advantage of an abundant supply of low cost on-line storage without sacrificing access time which is critical to productivity and user satisfaction. All existing applications are completely compatible and can be network mounted just like a normal magnetic disk.

MastarMind features are:

- Automatic Data Migration - User's most frequently-used data is automatically promoted from the slowest to the fastest available media. Least frequently-used data is automatically demoted to the most abundant, and least expensive media.
- Unlimited Storage Capacity - The capacity of an Integral Volume automatically and transparently increases as required, providing users virtually unlimited capacity for on-line data storage.
- Continuous File Versioning - All files in an Integral Volume are continuously and incrementally backed up as they are modified. On-line recovery tools allow users to extract required versions and restore corrupted files.
- Volume Management - On-line and nearline optical media are internally and externally labeled, automatically documented, and managed.
- On Disk Format - All optical media is self-contained with file directory information, data and indexes on the same optical platter.
- Disaster Prevention and Recovery - MastarMind gracefully recovers, from hardware failures.

MastarMind modules are:

- Migration Manager - Manages the movement of data between different on-line storage media.
- Optical File Manager - Controls the placement, layout and format of data on the physical optical media.
- Removable Volume Librarian - Tracks and manages on-line and nearline removable optical media as well as allocates and manages optical storage device as system resources.
- Continuous File Versioning Manager - Continuously backs up user data and provides on-line recovery tools for version extraction and file restoration.

QStar is the leading developer of software required to make optical storage useful on computer networks. QStar is also a leading value-added reseller of optical storage devices. QStar's subsystems range in size from 650 megabyte stand-alone units to 503 gigabyte jukeboxes. The devices can include Write-Once/Read-Many (WORM), rewritable and multi-function optical drives. QStar's flagship software product, MastarMind, integrates magnetic and optical storage into a single, hierarchically managed, mass storage resource of infinite capacity.

Retail Price: Starts at \$4,995.00

Contact: Carol Dennis

Phone: 301-762-9800

Fax: 301-762-9829

RISC Versions: Call for availability

Quay Financial Software

Ferry House
4853 Lower Mount Street
Dublin 2, Ireland
Ireland

InVision, InVision+

InVision delivers real-time dealing information rapidly, accurately and reliably in the way that is most useful to you while InVision+ provides integrated decision support to give you the edge

Quay Financial Software is a specialist developer of digital information delivery and added-value software applications for the international dealing room market. Our products are InVision and InVision+. InVision is a digital information delivery and presentation system. It enables users to access financial information from services such as Reuters and Telerate using standard PCs and networks. InVision+ is a suite of decision support software with money markets, capital markets and risk management applications. Just as InVision presents the data on a PC screen, InVision+ allows the dealer to analyze that information further.

Retail Price: Call

Contact: Bryan Maybury, Mktg

Phone: 353-1-6612377

Fax: 353-1-6607592

RISC Versions: Yes

International Sales:

Bryan Maybury, Marketing Manager, Quay, Phone: 353-1-661-2377; Fax: 353-1-6607592

Queen's University

Queen's University
Computing Services
Kingston, Ontario
Canada

Windows Sockets 3270 Telnet Application

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\QWS3270a.zip

Includes readme.txt, information about the application, installation instructions, known restrictions, information about known bugs and a change history for the application, executable and base parameter file.

Retail Price: Shareware

Contact: Jim Rymerson

RISC Versions: Inquire about availability

Quercus Systems

PO Box 2157
Saratoga, CA 95070-0157
USA

Personal REXX for Windows NT

A general purpose command and embeddable macro language for Windows

Personal REXX for Windows provides the industry standard REXX language to Windows desktops and to desktops and servers running Windows NT. The product includes a REXX language processor, an IDE for writing, testing and executing REXX programs and various language extensions. You can use REXX for general purpose/utility programming and also as your application's macro language. The REXX language processor is fully contained in a Windows DLL and has a comprehensive API that allows REXX to be fully embedded in your application.

REXX itself is an industry standard command language widely implemented in many IBM and other environments. REXX is especially powerful at handling and parsing strings of text. The REXX language is designed to be extended with functions specific to your application's needs. Personal REXX for Windows comes with Windows specific extensions, e.g. message and prompt dialog boxes, access to INI files, access to the Windows clipboard, etc.

Retail Price: \$175.00

Contact: Inside Sales

Phone: 408-867-REXX

Fax: 408-867-7489

RISC Versions: Call for availability

International Sales:

Call Quercus for International Sales Information.

Raima Corp.

1605 NW Sammamish Road
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Issaquah, WA 98027
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Velocis

The leading Embedded Database Company for application software

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Retail Price: Call

Contact: Angela Schulz

Phone: 800-327-2462

Fax: 206-557-5200

RISC Versions: Yes

International Sales:

Asia: Pronet Computer Systems, 886-2-503-3006

Europe, RAima UK Ltd, 44-293-571-539

Raindrop Software Corporation

833 E. Arapaho Road
Suite 104
Richardson, TX 75081
USA

Software Engineer

Lisp Programming Language

Software Engineer is a complete LISP/CLOS development environment for Windows NT. Included is a small and efficient LISP kernel, a text editor, a dialog box editor, an icon editor and an executable binder. Software Engineer produces stand alone executable files (no royalties or run time libraries required). Full support for Dynamic Data Exchange (client and server) and client support for Object Linking and Embedding. Standard interface to the Windows API allows you to create robust Windows programs. There is no need to purchase the Microsoft SDK. Software Engineer includes comprehensive documentation, sample programs and on-line help. Contact Raindrop Software for upgrade, site license and academic pricing information. Software Engineer is available on Microsoft Windows NT for Intel, MIPS and DEC Alpha processors.

Retail Price: \$349.95

Contact: Inside Sales

Phone: 214-234-2611

Fax: 214-234-2674

RISC Versions: Call for availability

Rasna

2590 N. First St.
Suite 200
San Jose, CA 95131
USA

MECHANICA for Windows NT

The standard for mechanical design optimization on Windows NT

MECHANICA is Rasna Corporation's family of software tools for mechanical design synthesis. The product line is based on an innovative technology that optimizes the shape of product designs based on combining engineering requirements, geometric parameters, performance goals and CAD modeling. This technology is used with existing CAD systems -- such as those developed by IBM, Parametric Technology Corporation, Autodesk, Inc., Intergraph, Computervision, Hewlett-Packard and Unigraphics-- to help mechanical engineers and designers remove cost from their products by removing weight, increasing performance, and improving quality during the mechanical engineering and design portion of product development.

MECHANICA includes applications for structural, thermal, vibration, and mechanism design optimization and is installed broadly in the aerospace, automotive, consumer electronics, industrial, medical and consumer products industries.

Retail Price: Call

Contact: John Wagner, Sales

Phone: 1-800-937-4432

Fax: 1-408-922-7256

RISC Versions: Call for availability

International Sales:

Europe: Helmut Muhl-Kuhner, Phone: 011-49-6196-503800

Asia/Pacific & Other Areas: J.B. Kuppe, 1-408-922-6833

Realtime Performance, Inc.

349 Cobalt Way
Sunnyvale, CA 94086
USA

Related Topics:

[RPCluster for Windows NT](#)

[RPCore for Windows NT](#)

RPCluster for Windows NT

A complete distributed manufacturing control system

RPCluster™ is a complete family of software products for controlling all types of clustered/distributed systems utilized in automated manufacturing. RPKluster is based on RPKore and consists of a Cluster Tool Controller (RPCTC), a Transport and Cassette Module Controller (RPTMC) and a Process Module Controller (RPPMC). Each can operate as a stand-alone product or as part of a complete cluster tool system. Each product includes a complete set of MES/C communications services for semiconductor manufacturing equipment plus a functional application upon which to base the specific implementation. RPKluster is compliant with current semiconductor industry standards such as SECS-I/II, GEM and MES/C. It can also be used for generic, non-MES/C distributed control applications outside the semiconductor industry.

Retail Price: Call

Contact: Werner Lang

Phone: 408-245-6537

Fax: 408-245-6547

RISC Versions: Yes

RPCore for Windows NT

Equipment Control Software for OEM's

RPCore for Windows NT is a core suite of facilities for the development of equipment control applications. It supports supervisory, embedded and process controls, data I/O, data logging, and basic control mechanisms such as Finite State Machines and Petri Nets. RPCore managers provide the fundamental control facilities for alarms, recipes, I/O, communications, access control, datalogging, scheduling and lot control. RPCore is the foundation for real-time human interface and equipment control applications. It is written in C++ as a true Windows NT 32 bit application. RPCore modules run as separate processes, making them ideally suited for demanding equipment control environments where real-time, reliability, power, flexibility, cost, and time of software development and maintenance are of prime importance. RPCore and the fully distributed architecture provided by Windows NT allow an optimal configuration for any performance requirement. RPCore provides a seamless integration with the communication facilities of Windows NT, making it an excellent basis for distributed control applications. Various interprocess communications are provided which are consistent with the Windows NT environment, such as RPC's and DDE. This provides the flexibility to use other Windows NT-compatible products and tools along with RPCore.

Retail Price: Call

Contact: Werner Lang

Phone: 408-245-6537

Fax: 408-245-6547

RISC Versions: Yes

Rennie, John

18 Shaftesbury Avenue
Vicars Cross
Chester, CH3 5L!
UK

Related Topics:

[DeZkTop 1.6c](#)

[NoteZ](#)

DeZkTop 1.6c

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\dk16c.zip

DeZkTop is a program launcher, an application which starts other applications.

Retail Price: Shareware

Contact: John Rennie

RISC Versions: Inquire about availability

NoteZ

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\notez3.zip

Uses the 3M Post-It Note concept...you can create notes, type some text into them and then leave them lying around on your Windows desktop just as though they were Post-Its. Unlike Post-Its, NoteZ notes can have alarms, so of the note is for an appointment you can have your favourite .wav file sound when the appointment is due. Each note can store up to 32k of text, so you can use them for substantial documents. Also can be used as a simple database system.

Retail Price: Shareware

Contact: John Rennie

RISC Versions: Inquire about availability

Resource Concepts Incorporated

111 West First Street
Suite 748
Dayton, OH 45402-1106
USA

Related Topics:

[CDdeManager](#)

[Q-Net](#)

CDdeManager

The CDdeManager and CDdeltem classes combine both OLE IDataObject and DDE functions for MFC/Visual C++ developers

The CDdeManager and CDdeltem Classes combine both OLE 2.01 Uniform Data Transfer and DDE functionality within a single data type, simplifying development of new OLE 2.01 applications which require DDE compatibility. Available for applications developed with MFC/Visual C++, the CDdeManager/CDdeltem Classes come complete with source code, comprehensive documentation, and numerous examples.

Retail Price: \$99 (USD)

Contact: Paul Scholz

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RISC Versions: Call for availability

Q-Net

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Phone: (415) 461-4606

RISC Versions: Call for availability

Response Logic

One Kendall Square
S2200
Cambridge, MA 02139
USA

HYPERkit

Powerful tools and components for building specialized application servers for Windows NT

HYPERkit™ provides the tools and components for developing application servers for Windows NT that incorporates voice processing, advanced telephony, facsimile, and other enhanced media. HYPERkit servers are especially suited for production environments where applications must support workgroup and enterprise-level usage and are often geographically dispersed. The central component of HYPERkit is the Response Logic Engine, a general purpose programmable software state machine that is used to configure end-user interfaces created with Microsoft Access, as well as production databases built with Microsoft SQL Server. HYPERkit supports most popular voice, telephony and fax boards, including those from Dialogic Corporation and Brooktrout Technology. Typical application range from electronic advertising and information services to fax-on-demand and integrated messaging.

Retail Price: Call

Contact: Mark Magliocco

Phone: 215-558-2523

Fax: 215-558-0744

RISC Versions: Yes

International Sales:

Call for information

Rhode Island Soft Systems, Inc.

P.O. Box 748

Woonsocket, RI 02895-0784

USA

WinPak Screen Saver Collections

Each WinPak Collection consists of six high-quality, entertaining screen saver modules designed to be installed on a system running Windows NT. Also included in each WinPak are four unique, custom TrueType fonts, and two collections of 100 icons each. Our screen saver modules are added to the list of screen savers that are recognized by Windows NT. Each package contains the screen saver modules, fonts, and icons in addition to a convenient and easy to use installation utility, and complete documentation to get you going. Special discounts are provided to customers who wish to purchase several or all of the WinPak Volumes. Volume discounts, Site Licenses and Corporate Licenses are available as well. Experience our animation!

Retail Price: \$19.95 for quantity

Contact: Eric Robichaud

Phone: 401-767-3106

Fax: 401-767-3108

RISC Versions: Call for availability

RIPspace

28 Parkland
Pointe Claire, Quebec H9R 2E8
Canada

Related Topics:

[RIPbar](#)

[RIPspace](#)

RIPbar

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\ripbnt60.zip

Utility designed to provide several features in one easy-to-use application that takes up as little screen "real estate" as possible. Provides services like application launching, drag and drop launching, memory and resource tracking, task switching, date/time display, Post-It style notes, HotKey access and more -- rolled into one, unobtrusive package. Even if you have something like Norton Desktop, you'll still appreciate the fact that RIPbar is always within easy reach on the screen and that vital statistics like time-date memory stats and the like are only a glance away.

Retail Price: Shareware

Contact: Jonathon Carroll

RISC Versions: Inquire about availability

RIPspace

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\rips32.zip

This is the latest release of a utility that will analyze disk space useage - conveniently providing you with an overview of the space various directories are consuming. In addition to being able to customize these reports by specifying font, file types to track, and sort order, you may print or save the report when it's complete.

Retail Price: Shareware

Contact: Jonathon Carroll

RISC Versions: Inquire about availability

RIX Softworks, Inc

18023 Sky Park Circle
Suite J
Irvine, CA 92714
USA

Related Topics:

[Present for Windows](#)

[WinRIX](#)

Present for Windows

A Windows-based authoring package made for:

- Trade show Demos
- Corporate Videos on Disk
- User Training - Video Titling
- Device Testing
- etc.

Allows any image to be displayed on any video card setup at any resolution. 16 color, 256 color, Hicolor or TrueColor. Runs Full-Screen, or in a window. Script language gives developer full control for animation, branching, user input, control boxes, dissolves, text etc.

Retail Price: Call

Contact: Inside Sales

Phone: 714-476-8266

Fax: 714-476-8486

RISC Versions: Call for availability

WinRIX

WinRIX Image Editor for Multimedia

WinRIX is the premier choice of image editing products for Multimedia for Windows NT. RIX is well known as the most innovative image editing package under DOS. WinRIX can:

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- Load WMF vector drawings and rasterize them with smoothed edges

WinRIX is the best all-around image editor for multimedia presentations.

Retail Price: \$395.00

Contact: Inside Sales

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Fax: 714-476-8486

RISC Versions: Call for availability

Roberts Consulting

433 Redwood venue
Corte Madera, CA 94925
USA

Icon++

The Text Processing Development Environment

Icon++™ is an Object Oriented extension of the Icon text processing language developed at the University of Arizona. It is a true Windows- and Windows NT-based text processing development environment. Programs developed in Icon++™ can be used stand-alone, or can be server programs to clients written in any other language or environment.

Retail Price: \$1,995.00

Contact: Pete Roberts

Phone: 415-924-7212

Fax: 415-924-7338

RISC Versions: Call for availability

Rosetta Technologies

1225 N.W. Murray Road
Portland, OR 97229
USA

PreVIEW for Windows

Powerful software application for accessing, visualizing and interpreting CAD models and scanned images

PreVIEW® for Windows is a software application that provides a single point of access to product design data. PreVIEW can import designs from CAD systems preserving the intelligence of the data as well as 3D model information. This enables users to project desired views of 3D surfaced models, discriminate the display by entity type and accurately measure linear, angular and radial dimensions. PreVIEW also displays 2 dimensional large format drawings in either vector or raster format. PreVIEW's support of MDI enables viewing of multiple related drawings simultaneously and allows the creation of assemblies for viewing mating components. A powerful comparison capability enables users to graphically see the differences between design revisions. PreVIEW also offers a complete annotation capability for adding textural and graphics notes to a drawing. PreVIEW can perform as a stand alone product or can be integrated with data management applications to provide enterprise wide solutions.

Retail Price: \$995.00

Contact: Marilyn Loy

Phone: 503-626-2288

Fax: 503-643-6760

RISC Versions: Call for availability

Ross Systems, Inc.

555 Twin Dolphin Drive
Suite 600
Redwood City, CA 94065
USA

Renaissance CS Financial Series

A tightly integrated set of financial accounting products for the open systems environment and designed for client/server processing. Designed to be used in a worldwide environment, the products have multi-currency facilities, are ready for multi-language implementations, and have the functions that multi-national companies need such as alternative forms of payment and local tax handling. The Renaissance CS Financial Series is built with GEMBASE, Ross Systems' open fourth generation language (4GL). GEMBASE closely follows open systems standards to give customers a wide variety of platform and database choices. The client component of the Renaissance CS Financial Series is delivered in the native look and feel of Windows 3.x, Macintosh, and Motif desktop environments. The graphical user interface contains buttons, scroll bars, multi-window capabilities, pull-down menus, tool bars, and mouse control. Key components of the Renaissance CS Financial Series include: General Ledger, Accounts Payable, Accounts Receivable, Purchase Order, Fixed Assets, Currency Management, Cost Allocations, Project Accounting, and Encumbrance.

Retail Price: Call

Contact: Customer Service

Phone: 404-851-1872 ext-2400

Fax: 415-592-9364

RISC Versions: Call for availability

RSA Data Security, Inc.

100 Marine Parkway
Suite 500
Redwood City, CA 94065
USA

Related Topics:

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[TIPEM](#)

BSAFE

The world's most popular cryptography developer's toolkits for fast, easy integration of the today's most advanced crypto technology

BSAFE, the encryption "engine" used by the developers of products like Lotus Notes, Novell NetWare 4.0 and Word Perfect InForms, is a portable C toolkit that allows developers to integrate privacy and authentication features into virtually any application. BSAFE 2.0 modules can be used to construct anything from RSA Digital Signatures to complex key exchange, encryption, or key negotiation schemes. BSAFE 2.0 provide the programmer with a complete palette or crypto algorithms, including RSA, DES, the exportable RC2 and RC4 cipers, Diffie-Hellman and many more.

Retail Price: \$290 for single toolkit

Contact: Sales

Phone: 415-595-8782

Fax: 415-595-1873

RISC Versions: Call for availability

TIPEM

The world's most popular cryptography developer's toolkits for fast, easy integration of today's most advanced crypto technology

TIPEM 1.1, the toolkit for Interoperable Privacy-Enhanced Messaging Developers at Apple, IBM, Novell, and Microsoft have turned to RSA when they needed to add security to their applications - now you can too, with TIPEM. RSA's Toolkit for Interoperable Privacy-Enhanced Messaging allows programmers to develop secure interoperable messaging, mail, workflow, and forms applications using today's best encryption and digital signature technology. TIPEM gives the developer access to many crypto algorithms and constructs. such as RSA Digital Envelopes, Digital Signatures, and DES or RC2 encryption. TIPEM compiles with all of today's important cryptography standards, including Internet, PEM, PKCS, and the '88 X.400 security recommendations.

Retail Price: \$290 per toolkit

Contact: Linda De Los Reyes, ProdM

Phone: 415-595-8782

Fax: 415-595-1873

RISC Versions: Call for availability

S-Cubed, Inc.

1010 Washington Blvd
7th Floor
Stamford, CT 6901
USA

The Developer's Assistant (DAISys)

A fully integrated application development environment which helps developers build complex distributed systems for multiple target environments quickly with minimal developer retraining

DAISys represents a new generation of tools for information system development which combine the technical and procedural strengths of CASE with the end-product and end-user focus of today's leading client/server application development tools. DAISys assists developers during the full development cycle: including, for the first time, the gathering of business requirements, through design and modeling and finally code generation. This fully integrated product delivers application code to the exact specifications of the users and on a wide variety of client/server hardware and software environments, including mainframe, mid-range, and UNIX-based systems employing SQL-based RDBMS'. DAISys delivers client/server applications by utilizing an expert system and object-oriented design methods to automatically split the application into server and client code. System requirements are defined in ordinary business terms and automatically transformed into working code. DAISys is particularly advanced in its ability to insure the integrity of data and enforcement of critical business policies and procedures while at the same time providing PC users with the ability to customize their client workstations to suit their preferences. A developer can generate either a mainframe-based system or a client/server application from the same business requirements.

Retail Price: \$6,000.00 - \$12,000.00

Contact: John Rade

Phone: 203-323-0760

Fax: 203-323-2007

RISC Versions: Call for availability

Saber Software Corporation

5944 Luther Lane
Suite 1007
Dallas, TX 75225
USA

Saber LAN Workstation for Windows

Saber LAN Workstation from Saber Software Corporation is the industry's one and only integrated network solution that lets you focus on the why of networking instead of the how. It includes Saber's award-winning DOS and Windows menu technology that makes DOS and Windows true networking environments. It also contains time-saving tools such as a centralized Windows-based Console from which to view integrated information on essential network jobs--like application metering, disk monitoring, file auditing, network job scheduling, hardware and software inventorying and much more. You'll even find file management and printer control, all in one box.

Retail Price: Call for pricing

Contact: Laura Langendorf

Phone: 214-361-8086

Fax: 214-361-1882

RISC Versions: Call for availability

Sapiens USA, Inc. (subsidiary of Sapiens International Corp.)

4001 Weston Pkwy.

PO Box 4349

Cary, NC 27513

USA

Related Topics:

[SAPIENS Ideo](#)

[SAPIENS Workstation \(SWS\)](#)

SAPIENS Ideo

A Rapid Application Development tool for cross platform and heterogeneous DBMS's Client/Server applications

There are distinct client and server functions in SAPIENS Ideo. The client contains an object engine, window object definitions, and Ideo ANSI SQL. Window definitions include graphics, methods (many methods are Ideo ANSI SQL statements) and logic. The Developer works with a WYSIWYG editor utilizing the powerful Ideo SQL based object oriented 4GL.

The server contains the logical database (LDB), an SQL Optimizer, and the Data Base Management Systems or connections to them should they reside on another server in the network. The LDB maps the Ideo ANSI SQL statements against physical DBMSs and when necessary creating a JOIN across multiple heterogeneous Data Base Management Systems (DBMSs). The DBMS may be changed, split, distributed, etc. by a simple mapping change. This enables development and testing in a simple environment, perhaps using flat files, with subsequent implementation with a DBMS. It would also permit a change in DBMS should that become desirable.

Retail Price: Call

Contact: SAPIENS SALES OFFICE

Phone: 800-392-7028

Fax: 919-477-8537

RISC Versions: Yes

International Sales:

Argentina, 54-1-331-8462

Australia, 61-3-820-4465,

Belgium, 32-2-521-0577,

Brazil, 55-11-210-8365

Canada, 905-316-3774,

Columbia, 57-1-218-7346

France, 33-1-48-94-02-84

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Hong Kong, 852-813-9878

Isra

SAPIENS Workstation (SWS)

Automatically transforms your mainframe into a powerful enterprise server for Rapid Application Development and execution

SWS automatically upgrades your SAPIENS applications for operation on client PCs and PS/2s, with a graphical user interface (GUI) and all the other benefits of the Windows and PM environments. At the same time, you retain all the power, capacity, and security features of your mainframes. SWS lets you move toward a client/server environment, while fully utilizing your existing IS investment. In fact, by downloading application presentation and static data to the PC, SWS lets you use your mainframe more efficiently, and minimizes processing time and cost.

SAPIENS is a rule-based, object-oriented, Rapid Application Development (RAD) system for IBM mainframes. It also utilizes expert systems technology to guide the application developer and to infer exceptional logic conditions.

Retail Price: Call

Contact: SAPIENS SALES OFFICE

Phone: 800-392-7028

Fax: 919-477-8537

RISC Versions: Call for availability

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Columbia, 57-1-218-7346

France, 33-1-48-94-02-84

Germany, 49-89-89-6-04-60

Hong Kong, 852-813-9878

Isra

SAS Institute, Inc.

100 SAS Campus Dr.
Cary, NC 27512-8000
USA

The SAS System for Windows NT

An enterprise-wide information delivery system

The SAS System provides an integrated, single solution for a wide range of applications for your desktop environment, as well as distributed environments throughout the organization. The SAS System is designed around four key areas of application generation and development: universal data access, a data management, data analysis, and presentation data. Some of the applications addressable by the SAS System include EIS, report writing, project management, forecasting, quality improvement, and simple or advanced data analysis. This functionality is accessible through a wide range of highly interactive, pre-existing front-ends, and through object-oriented applications development tools for creating customized applications. Applications developed with the SAS System can provide connectivity to platforms throughout the enterprise for client/server computing, and are completely compatible across a wide range of hardware environments while at the same time taking full advantage of the user interface and unique features provided by the supporting platform.

Retail Price: Call

Contact: SoftwareSales Department

Phone: 919-677-8000x7000

Fax: 919-677-8123

RISC Versions: Call for availability

SCADA Works

PO Box 9891
Casper, WY 82609
USA

Related Topics:

[Blox](#)

[Intelligent Communication Processor](#)

[Remote Telemetry Unit](#)

Blox

A Windows NT hosted Supervisory Control and Data Acquisition (SCADA) package

The Blox package allows you to dynamically represent your process control tasks on graphical screens, allowing you to create systems that are easily understood and controlled by your operators. Blox uses OLE technology to tie our graphical interface and communications technology to your current Windows based tools, such as spreadsheet programs, like Microsoft Excel, and database managers, like Microsoft Access. While specifically designed to use the SCADA Works Intelligent Communications Processor, the communications module can be configured to talk to almost any remote telemetry package. Currently both Modbus binary and the SCADA Works proprietary protocols are supported, other protocols are available on a custom basis. Because of the Windows NT platform, network access is quite simple. The security features inherent in Windows NT allow you to protect your sensitive data and restrict access based on user logins. Remote logins are supported based on the availability of serial ports and a modem.

Retail Price: TBA

Contact: Terry Armstrong

Phone: 307-472-5335

Fax: 307-472-5335

RISC Versions: Call for availability

Intelligent Communication Processor

An intelligent communication processor for Supervisory Control and DataAcquisition Systems

The SCADA Works Intelligent Communication Processor is designed to handle all of the difficulties involved in radio and wireline telemetry without affecting, or being affected by, the current load on the SCADA system's host processor. Configurable, either on a downloadable or on the fly basis, it will quietly handle radio telemetry delays and timing parameters. The Intelligent Communication Processor, while designed to work with the SCADA Works Windows NT based Blox SCADA package, can be configured to work with any software package that allows configurable protocols. Requiring one system serial port and AC power, the unit is designed to be an inexpensive and reliable solution to your telemetry communications problems.

Retail Price: TBA

Contact: Terry Armstrong

Phone: 307-472-5335

Fax: 307-472-5335

RISC Versions: Call for availability

Remote Telemetry Unit

Remote Telemetry Unit designed for use with the SCADA Works Windows NT based Blox SCADA package

The SCADA Works Intelligent Remote Telemetry Unit is designed to integrate directly with the SCADA Works, Windows NT based, Blox SCADA package. This intelligent unit is very compact and its power consumption is low enough to allow for its operation from a solar panel. While optimized to work with the rest of the SCADA Works product line, it is configurable and can be made to fit your system requirements. The standard configuration allows for eight optically isolated digital inputs, four relay outputs and four analog to digital inputs. Both Modbus binary and the SCADA Works proprietary protocols are supported with custom protocols available. All in a package that will fit in the average lunch box. Complete specifications are available upon request.

Retail Price: TBA

Contact: Terry Armstrong

Phone: 307-472-5335

Fax: 307-472-5335

RISC Versions: Call for availability

Scientific Endeavors Corp.

508 North Kentucky Street
Kingston, TN 37763
USA

GraphiC for Windows NT

Publication quality scientific graphics for Windows NT

GraphiC is a library of C routines that allow the scientist to display information with the maximum impact. High resolution output may be converted to CGM, PIC, GEM, HPGL, TIFF, WMF and BMP formats for importing into desktop publishing packages. The Windows NT version like the Windows version requires no Windows programming since the software creates and manages its own window and resources. All the source code needed to customize the GraphiC window and resources is provided. GraphiC for Windows makes full use of the clipboard to import data or to export bitmaps or Windows metafiles. Licensed for personal use only. Sells for \$495.

Retail Price: \$495.00

Contact: Customer Service

Phone: 800-998-1571

Fax: 615-376-1571

RISC Versions: Yes

Scopus Technology, Inc.

1900 Powell Street, suite 900
Emeryville, CA 94608
USA

ProTEAM for Windows NT

Suite of Customer Information Management Tools

Scopus' ProTEAM is a comprehensive set of information tracking and management systems specifically designed to help automate a business' operations. ProTEAM is the culmination of working with leading-edge companies who needed a breakthrough system for improving product quality and customer satisfaction. The result is a tightly integrated groupware system that allows an organization to integrate information from Engineering, Quality Assurance, Customer Support, Order Entry, Sales and Marketing. ProTEAM is easily configured to meet unique business requirements. Each application can be tailored to capture the information flow and business rules that work best for the organization.

Retail Price: Call

Contact: Aaron Omid

Phone: 510-428-0500

Fax: 510-428-1027

RISC Versions: Call for availability

Sector 7 USA, Inc.

2802 West 50th St.

Austin, TX 78731

USA

Related Topics:

[VX/BASIC for Windows NT](#)

[VX/DCL for Windows NT](#)

[VX/FMS for Windows NT](#)

[VX/RMS for Windows NT](#)

[VX/RT](#)

[VX/SMG](#)

VX/BASIC for Windows NT

VX/BASIC is a VAX BASIC transpiler for Windows NT. VX/BASIC allows VAX BASIC source code to be ported to non VMS environments and executed without change. VX/BASIC converts the VAX BASIC into C, and uses the native C compiler to produce the linkable object. All VAX BASIC features are fully supported except VAX graphics.

Retail Price:

Contact: Jon Power

Phone: 512-451-3961

Fax: 512-451-8643

RISC Versions: Yes

VX/DCL for Windows NT

VX/DCL supplies VAX DCL functionality and command structure for Windows NT. User logicals and symbols are supported. VX/DCL uses a CLD structure for internal command decoding and user command implementation. Over 30 lexical functions are implemented. VX/DCL supports internal access to VX/RMS (RMS for Windows NT) and VX/JSP and implementation of the VAX Print and Batch queue manager.

Retail Price: Call

Contact: Jon Power

Phone: 512-451-3961

Fax: 512-451-8643

RISC Versions: Yes

VX/FMS for Windows NT

VX/FMS is a full implementation of DEC's FMS product. All FDV\$ calls are fully supported. VX/FMS supports UAR's and a forms compiler is included.

Retail Price: Call

Contact: Jon Power

Phone: 512-451-3961

Fax: 512-451-8643

RISC Versions: Yes

VX/RMS for Windows NT

An implementation of the VAX RMS for Windows NT. VX/RMS supports Keyed, Relative, Sequential files with fixed and variable record lengths. VX/RMS is based upon a C-ISAM file structure with enhancements for RMS functionality (RFA uniqueness etc.).

Retail Price: Call

Contact: Jon Power

Phone: 512-451-3961

Fax: 512-451-8643

RISC Versions: Yes

VX/RT

VMS system services for Windows NT

VX/RT is a library of VMS system service routines for Windows NT. VX/RT includes over 300 service calls including SYS\$, LIB\$, LBR\$, CLI\$, SOR\$, MTH\$, FDL\$, CONV\$,

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Contact: Jon Power

Phone: 512-451-3961

Fax: 512-451-8643

RISC Versions: Call for availability

VX/SMG

VAX SMG for Windows NT

VX/SMG is a comprehensive implementation of DEC's SMG library set. Most SMG\$ calls are fully supported under Windows NT. SMG Paste Boards, Virtual Displays and View Ports are fully supported.

Retail Price: Call

Contact: Jon Power

Phone: 512-451-3961

Fax: 512-451-8643

RISC Versions: Yes

Seismic Microtech, Inc.

9525 Katy Freeway
Suite 306
Houston, TX 77024
USA

3D Pak Software Package

Interpret your 3D survey on a PC using 3D Pak

Interpret 3D surveys with inline, crossline and arbitrary lines, times slices, time and amplitude horizon maps. Some of the features include automatic picking, editing, flattening, zooming, trace attributes, isochrons and iso paches and fault management systems. Reads standard 3D SEG-Y. Stores ASCII pick files.

Retail Price: Call

Contact: Thomas A. Smith

Phone: 713-464-6188

Fax: 713-464-6440

RISC Versions: Yes

International Sales:

Canada 403-262-7695

Europe, 44-0-932-246826

South America, 0541-743-5418

Sequent

15450 SW Koll Parkway
Beaverton, OR 97006-6063
USA

Related Topics:

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[WinCentral](#)

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Customer Education

Windows NT Education and Training Programs

Sequent offers a broad range of high-quality, Microsoft-developed Windows training programs to develop the skills of your staff and users across the enterprise. Our Microsoft-certified education staff offers standard courseware and customized training worldwide in Sequent training centers or at your on-site facility.

Retail Price: Call

Contact: Colin Bailey

Phone: 503-578-4505

Fax: 503-578-3731

RISC Versions: Call for availability

Professional Services

Windows NT Professional Services

Experienced consultants work with your IS staff to plan, design, and implement the best Windows NT strategy to meet your organization's unique needs for enterprise computing. Our expertise covers a wide range of technical and strategic skills, including system architecture, design, project management, network integration, application development, and client-server migration support.

Retail Price: Call

Contact: Colin Bailey

Phone: 503-578-4505

Fax: 503-578-3731

RISC Versions: Call for availability

WinCentral

Offering a direct path to system consulting and ordering custom-configured Windows-based products

The industry's best values in integrated, customized client-server software and SMP server hardware products are now available through the convenience of buying direct. Sequent's WinCentral is staffed with highly-trained Windows NT-certified engineers with many years experience in developing and deploying sophisticated client-server technologies. WinCentral engineers work directly with customers over the phone to recommend and build powerful Windows NT SMP database and application servers with the OS, communications, and database integrated and configured for each customer environment. The result is customized ready-to-work servers which can be easily and immediately put into action right out of the box. Available software includes the family of Windows NT server products such as Windows NT Advanced Server, SQL Server, and SNA Server. Windows client software is also available pre-loaded onto the server, ready to be deployed onto the clients.

Retail Price: Call

Contact: Colin Bailey

Phone: 503-578-4505

Fax: 503-578-3731

RISC Versions: Call for availability

WinServer 5000

The Windows NT Application and Database Megaserver

The WinServer 5000 is Sequent's high-end member of the WinServer family and is the most powerful server available for Microsoft's Windows NT Advanced Server, initially supporting up to 16 i486-50MHz CPU. The WinServer 5000 is Pentium-ready and capable of supporting 30 CPU. Compatibility is assured with the support of SCSI, Intel, VME, and Windows NT, providing high-performance and access to the rich suite of Windows NT applications. The WinServer 5000 has a powerful, fully symmetric multiprocessing system architecture that provides outstanding transaction processing power and unparalleled disk I/O performance and scalability. It comes with a CD-ROM drive and a robust VGA monitor. Choose two to 16 i486-66MHz CPU to match your compute requirements, and either Ethernet or Token Ring network interface. Add up to 1.5 GB of highly reliable main memory and up to 192 SCSI disk drives to ensure network performance and capacity. WinServers are designed to provide the highest levels of reliability, data integrity, and recoverability with features such as parity checking, disk mirroring, and UPS support. Sequent also provides software integration and custom configuration with the WinServer family which supports SQL Server, SNA Server, and many other Windows products.

Retail Price: Call

Contact: Colin Bailey

Phone: 503-578-4505

Fax: 503-578-3731

RISC Versions: Call for availability

Sharp Electronics Corporation

Sharp Plaza
Mail Stop C
Mahwah, NJ 7430
USA

Sharp JX Scanner Application for Windows NT

Sharp is the manufacturer of high performance full color scanners. Like the JX-320 Desktop Scanner and the JX-610 Commerical Scanner. The Sharp JX Scanner Application is a full application that will allow the end-user to take advantage of Windows NT multi-tasking ability. One example of this would be background scanning.

1. Basic image operations like open, save and convert to and from popular file formats like TIFF, Targa, BMP and PCX.
2. Adjustment of the whole image by flipping or rotation at any angle.
3. Image processing operation like brightness and contrast.
4. Image Processing filters like sharpness, posterize, and blur are included in the JX Scanner Application.

Retail Price: \$500.00

Contact: Kathy Dowell

Phone: 201-529-9521

Fax: 201-529-9117

RISC Versions: Call for availability

Showcase Corporation

4904 Highway 52 North
Rochester, MN 55901
USA

Showcase Database Gateway for Windows NT

Facilitates a transparent, distributed database warehousing environment between the AS/400 and Microsoft or Sybase SQL Servers in many popular LAN environments

ShowCase Database Gateway for Windows NT brings the AS/400 into the enterprise system by providing LAN PCs a single point of access to the AS/400 database in addition to transferring and distributing AS/400 data to another SQL Server on your LAN. By using Microsoft's Open Data Services (ODS), ShowCase Database Gateway for Windows NT provides AS/400 enterprise data to Windows NT-based PCs utilizing a variety of client applications.

Retail Price: Call

Contact: Sales

Phone: 507-288-5922

Fax: 507-287-2803

RISC Versions: Call for availability

International Sales:

Showcase Europe Inc., 45-98-79-1515

Showcase Software, Inc.

4909 Hwy. 52, N
Rochester, MN 55901
USA

AS/400 DB Gateway for Windows NT

Facilitates a transparent, distributed database warehousing environment between the AS/400 and Microsoft or Sybase SQL Servers in many popular LAN environments

ShowCase Database Gateway for Windows NT brings the AS/400 into the enterprise system by providing LAN PCs a single point of access to the AS/400 database in addition to transferring and distributing AS/400 data to another SQL Server on your LAN. By using Microsoft's Open Data Services (ODS) ShowCase Database Gateway for Windows NT provides AS/400 enterprise data to Windows NT-based PCs utilizing a variety of client applications.

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SIGNUM SYSTEMS CORP.

171 E. Thousand Oaks Blvd.

#202

Thousand Oaks, CA 91360

USP-51/96/186/Z8/HPC/10/16

USP Universal In-Circuit Emulators

Signum Systems line of emulators covers the following processors: - Intel 8051 family - Intel 8096/196 family - Intel 80186 family - Zilog Z8 family (including the latest Z8+DSP dual CPU) - National Semiconductor HPC/HPC+ family - Texas Instruments 320C1x DSP family Call for a free no-risk evaluation - it may change the way you looked at emulators!

Retail Price: From \$3,995.00

Contact: Jerry Lewandowski

Phone: 805-371-4608

Fax: 805-371-4610

RISC Versions: Call for availability

Silicon Valley Software

PO Box 2279
Orinda, CA 94563
USA

Related Topics:

[SVS x86/FORTRAN-77 for Windows NT](#)

[SVS x86/Pascal for Windows NT](#)

SVS x86/FORTRAN-77 for Windows NT

Exceptional 32-bit FORTRAN development system combines with Win32, Win32s and Windows NT delivering unprecedented programming power for the creation and execution of native 32-bit FORTRAN-77 Windows NT applications

SVS X86/FORTRAN-77 for Windows NT version 2.8.2 implements the entire "full" language, as per the 1978 ANSI specification, with numerous extensions. SVS X86/FORTRAN complies with ANSI X3.91 - 1978 and Mil-STD-1753. The system includes a complete source level symbolic debugger capable of debugging combined language executables. SVS X86/FORTRAN-77 for Windows NT is commonly used as an effective porting tool, featuring extensions such as Double Precision Complex data types, value parameter passing, improved bit field operations and ENCODE/DECODE. SVS X86 FORTRAN-77 for Windows NT is specifically tailored and optimized for Microsoft Windows NT systems and Win32/Win32s applications development. System includes SVS FORWIN GUI library for effective Win32 interfaces and compatibility from SVS FORTRAN without code changes.

Retail Price: \$660.00

Contact: Tony Parkhill

Phone: 510-283-9540

Fax: 510-283-9270

RISC Versions: Call for availability

SVS x86/Pascal for Windows NT

Exceptional 32-bit Pascal development system combines with Win32, Win3s and Windows NT delivering unprecedented programming power for the creation and execution of native 32-bit Pascal applications for Windows NT

SVS X86/Pascal for Windows NT is a certified, full implementation of the ANSI/IEEE 70 X3.97-1983 standard and is ISO compliant. The system includes a complete source level symbolic debugger capable of debugging combined language executables. SVS X86/Pascal contains a robust set of extensions which include features for interfacing to subroutines written in C and FORTRAN-77 languages. SVS X86/Pascal is one of the best respected and most widely distributed compilers in the industry today. SVS X86/Pascal for Windows NT is a true native code compiler and specifically tailored and optimized to the Microsoft Windows NT operating system and Win32/Win32s applications development.

Retail Price: \$660.00

Contact: Tony Parkhill

Phone: 510-283-9540

Fax: 510-283-9270

RISC Versions: Call for availability

SimuCAD

32970 Alvarado-Niles Rd.
Suite 744
Union City, CA 94587
USA

SILOS III

An advanced Verilog HDL-based, integrated logic and fault simulator

SILOS® III is the next generation of Simucad's popular SILOS® simulator which was first introduced in 1983. It is an integrated logic and fault simulation environment that has evolved to meet the demanding needs of today's technologies. SILOS® III uses the Verilog Hardware Description Language to support top-down design methodology. Its highly efficient simulation algorithms accommodate large hierarchical designs while utilizing a limited amount of system memory. The SILOS® Data Analyzer merges the waveform generator with the exclusive Graphical Trace Mode debugging tools to improve designer productivity by an order of magnitude. SILOS® III is the most reliable, capable and affordable high performance simulation environment available today.

Retail Price: \$3600.00

Contact: Richard O. Jones

Phone: 510-487-9700

Fax: 510-487-9721

RISC Versions: Yes

International Sales:

United States and Canada: 510-487-9700

Japan: 81-3-3566-6361 or 81-3-3418-5611

Europe: 49-89-260-6166

Siren Software Corp.

505 Hamilton Ave
Suite 100
MenloPark, CA 94301
USA

Siren Fax Windows NT

Siren Fax is a comprehensive solution for sending, receiving, viewing, and managing facsimiles. Siren Fax lets you share modem lines on a centralized NT server that can support the fax needs of everyone in your workgroup, department, or organization. With Siren Fax you can send and receive faxes right at your desk. You specify exact delivery instructions for your outgoing faxes using a simple Windows or DOS command line interface. You can select coversheets and include your letterhead and signature on the document. You can print to fax from any Windows print enabled application, or you can send PostScript, TIF, PCX, or text files directly. Specify a collection of documents and a delivery time. Pick a distribution list from your Siren Fax phone book. Using Siren Fax is like having high quality laser printers all over the world. Wherever there's a fax machine, Siren Fax lets you print documents with laser-like quality. You can also use Siren Fax to view incoming faxes on your networked Windows PC. You can rotate documents, scan through pages, zoom in and out, forward or copy them to your co-workers on the network, and print them on your laser printer (plain paper fax). Connections are provided to your e-mail system, to Windows applications, and to TCP/IP, Novell and LAN Manager clients. Dozens of EIA Class 2 fax modems can be supported on a 486 class server. No other fax gateway offers the proven high volume technology and secure, multi-user capabilities of Siren Fax. The Networked Fax Server saves the cost of purchasing expensive fax machines or installing costly phone lines and fax boards for all your desktop computers.

Retail Price: \$1,995.00

Contact: Jeff Morrison

Phone: 415-322-0600

Fax: 415-322-9999

RISC Versions: Call for availability

Sirlin Corporation

25 Orchard View Drive, Suite 14
Londonderry, NH 03053
USA

Related Topics:

[CAD++ Engine](#)

[SirlinVIEW Markup](#)

[SirlinView Query](#)

CAD++ Engine

Development toolkit for access, manipulation, and display of AutoCAD format .DWG and DXF files

Treats drawings like an object database. Lets you search, modify, and write. Fast, accurate viewing support. This engine forms the cover of the SirlinVIEW products. Supplied as DLL's. C/C++ interfaces; also support Visual Basic. Runtime royalties may be required.

Retail Price: Call

Contact: Jonathon S. Linowes, Pres.

Phone: 603-437-0727

Fax: 603-437-0737

RISC Versions: Call for availability

International Sales:

Contact Jonathon S. Linowes

SirlinVIEW Markup

Images without an expensive CAD workstation

support AutoCAD DWG and DXF files, and over 20 other vector and raster file formats. Markup (redline) with graphics, stored in a separate file. Attached Posted Note cards. Define HyperLink regions to jump from one image to another by clicking on the hot spot region. Supports DDE and OLE. Many other features.

Retail Price: \$295.00

Contact: Jonathon S. Linowes, Pres.

Phone: 603-437-0727

Fax: 603-437-0737

RISC Versions: Call for availability

International Sales:

Contact Jonathon S. Linowes

SirlinView Query

Perform SHOW ME queries on CAD and raster files tied to external databases

Query databases to highlight objects in the drawing; pick an object to pop up the corresponding database record. Also includes all the features of SirlinVIEW Markup. including redlining, Posted Notes, and HyperLinks. Supports DDE and OLE. AutoCAD compatible. Does not require AutoCAD.

Retail Price: \$495.00

Contact: Jonathon S. Linowes, Pres.

Phone: 603-437-0727

Fax: 603-437-0737

RISC Versions: Call for availability

International Sales:

Contact Jonathon S. Linowes

SL Corporation

240 Tamal Vista Blvd.
Suite 110
Corte Madera, CA 94925
USA

SL-GMS - SHIPPED

Dynamic graphics tool for complex control systems

SL-GMS is a toolkit for developing dynamic graphics screens for real-time or highly interactive applications. Non-programmers can design application screens in a standard drawing-tool mode, connect them to real-time data sources and animate screen objects to visualize changing data values. SL-GMS allows the design of custom 'GISMOs' to input values or control the application, and supports MOTIF and other X toolkit widgets.

Retail Price: \$8,750.00 for first copy

Contact: Inside Sales

Phone: 415-927-1724

Fax: 415-927-0878

RISC Versions: Call for availability

SnapShot/32

3793-B Logans Ferry Road
Pittsburgh, PA 15239
USA

SnapShot/32

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\scrcapa.zip

Capture any part of Windows NT desktop and whatever is displayed on it. The picture can be saved as a bitmap file for printing or further processing. To install this program, just copy it to any directory on your hard disk and add an icon for it in Windows NT program manager. SnapShot/32 also works under Windows 3.1 (non-NT) with Win32s installed.

Retail Price: Shareware

Contact: Greg Kochaniak

RISC Versions: Inquire about availability

Softbridge, Inc.

125 CambridgePark Drive
Cambridge, MA 02140
USA

Related Topics:

[ATF NetWorked](#)

[Automated Test Facility](#)

ATF NetWorked

Provides unattended testing for GUI, networked apps

The Automated Test Facility NetWorked (ATF NetWorked) is a software system for unattended testing of Windows, Windows NT, and OS/2 applications. ATF NetWorked was designed specifically for GUI applications and a networked environment. ATF provides testers the ability to use capture/playback or fully programmatic approaches to testing. From one central point of control, ATF can test software on up to 50 test workstations. Designed for regression testing, ATF is used for performance, stress, integration, and configuration testing as well. Testing with ATF produces higher quality software, at lower development time and costs.

Retail Price: TBA

Contact: Maureen Rogers

Phone: 617-576-2257

Fax: 617-864-7747

RISC Versions: Call for availability

Automated Test Facility

The only testing product desinged for client/server

The Automated Test Facility (ATF) tests client/server Windows, Windows NT, and OS/2 applications. From one central point, ATF runs simultaneous, unattended tests on up to 50 machines. ATF handles all aspects of client/server testing: GUIs, distributed applications, legacy systems. Users automate test plans through ATF's capture/playback and/or its full programming language. ATF features include mullti-user simulation for testing client /server applications, which can run the gamut from scenarios as straightforward as testing DBMSs for lockout and concurrent request handling, to complex situtations that model realistic work-flows of inter-dependent and inter-related applications and users.

Retail Price: Call

Contact: Maureen Rogers

Phone: 617-576-2257

Fax: 617-864-7747

RISC Versions: Call for availability

Softool Corporation

340 S. Kellogg Ave.

Goleta, CA 93117

USA

CCC/Manager

Corporate-strength Software Change and Configuration Management

CCC/Manager is the corporate solution for software change and configuration management (CM). As a native windows application it is easy to implement and adapts readily to the user's business environment offering flexible life cycle modeling, version control, application and release management, change packaging, and sophisticated dependency and build features. CCC/Manager supports concurrent and parallel development, interactive merging, approvals and notification, emergency maintenance and integrated problem tracing.

The CCC/Manager product line supports more platforms than any other CM vendor making Softool the obvious choice for an enterprise-wide solution to software configuration management.

Retail Price: Call

Contact: Laurie Mix

Phone: 800-723-0696

Fax: 805-683-4104

RISC Versions: Call for availability

Software AG

11190 Sunrise Valley Dr.

Reston, VA 22091

USA

NATURAL

Accelerating rapid application development for distributed client/server enterprises

NATURAL is the world's leading 4th generation environment for users and developers. NATURAL's full function interactive capabilities for designing, developing, testing, managing, deploying and maintaining applications. Applications are performance-optimized for multi-vendor distributed computing environments.

NATURAL's users benefit from easy-to-use graphical user interfaces, comprehensive HELP system, interactive development and testing, transparent user access to LAN, mid-range and mainframe resources and portability of applications, data and communications within diverse distributed environments.

NATURAL programs are source-code compatible across Windows, OS/2, Windows NT, Unix, Open VMS, IBM Host operating environments.

Retail Price: \$1,250 development; \$195 runtime

Contact: SAG Direct

Phone: 800-423-2227

Fax: 703-391-8200

RISC Versions: Call for availability

Software Excellence By Design Inc.

14801 N 12th Street
Phoenix, AZ 85022
USA

Related Topics:

[GrabIt Pro 4.1 for Windows NT](#)

[Zip Manager for Windows NT](#)

GrabIt Pro 4.1 for Windows NT

Capture Windows, Client Areas, Menus, the entire Desktop & selected areas of any window!

With GrabIt Pro version 4.1 you can also capture directly to the printer, finally, print screen for Windows! Other features include an inverse option for Console Screen Captures, Right Mouse Button Menus, Drag & Drop Support, and Image Sizing and Scaling. Also available for the MIPS and DEC Alpha AXP processors.

Retail Price: \$39.95

Contact: Customer Service

Phone: 602-375-9928

Fax: 602-375-9928

RISC Versions: Yes

Zip Manager for Windows NT

32-bit data compression for Windows NT

ZIP Manager is a complete 32-bit archive file management program that creates ZIP-compatible files. Zip Manager supports long file and directory names and is 100% compatible with DOS PKZIP and FAT file systems. No other archive program is capable of this. Includes familiar file manager functionality: fully email enabled; Drag and Drop server and client; works with up to 32 archive files at the same time; Express Mode allows the user to create and manage archives with just two dialog boxes; print the contents of any archive file; Create self-extracting archives. Many more unique features!

Retail Price: \$49.95

Contact: Eric Anderson

Phone: 602-375-9928

Fax: 805-683-4105

RISC Versions: Yes

Software Innovations Inc.

FTPD Service for Windows NT

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\mftpd.exe

FTP service for Windows NT. Includes multi-threaded operation. Full integration with NT facilities. Log events in the Event Logger. Configuration stored in the registry - no external config files. Connection limits. Support for a welcome message and message files. ACL control fo FTP connections.

Retail Price: Shareware

RISC Versions: Inquire about availability

Software Maintenance and Development Systems, Inc.

200 Baker Avenue
Suite 300
Concord, MA 01742
USA

Related Topics:

[Aide-De-Camp](#)

[LAKOTA application management language](#)

Aide-De-Camp

Provides lifecycle management for strategic software products

Aide-De-Camp provides project level change control and information management. ADC manages a secure database containing design model, source code, binaries, documentation and more. Changes are treated as logical objects including changes to any number of files or structural information, and which can be included in or deleted from subsequent releases. Object oriented technology permits easy maintenance of parallel versions and migration of changes. Powerful list, attribute, and macro facilities automate local procedures. ADC improves productivity, controls modifications, and documents the entire life cycle of a project.

Retail Price: Call

Contact: Kent McLean

Phone: 508-369-7398

Fax: 508-369-8272

RISC Versions: Call for availability

LAKOTA application management language

Provides modern, network oriented scripting capabilities

The LAKOTA language makes scripting easy and portable across UNIX and other operating systems. LAKOTA gives you access to functional equivalents of UNIX tools (like sed and awk) in one consistent context and is extensible. The LAKOTA shell can implement complete applications or tie existing applications together. LAKOTA enables developers to:

- create new applications
- reconfigure legacy components
- encapsulate existing resources
- integrate application components

LAKOTA supports modern programming concepts such as named procedures, scoped data, inheritance, and block structured code. Object oriented characteristics include data hiding and a pre-defined hierarchy of programming structures.

Retail Price: Call

Contact: Kent McLean

Phone: 508-369-7398

Fax: 508-369-8272

RISC Versions: Call for availability

Software PM

2514 South 102nd Street, Suite 200
Milwaukee, WI 53227
USA

Transfer 2VB

A re-engineering software productivity tool that converts RPG language to Visual Basic

Transfer 2VB converts IBM AS/400 DDS/RPG applications on the AS/400 computer IBM System/36 applications also) to Visual Basic for Native use under Microsoft Windows NT operating systems. Such use can be realized in total application transfer, or in Split Application Technology, giving users the choice of processing select modules or applications on either AS/400 or PC platforms. Or, use Transfer 2VB to create GUI screens for RPG-AS/400 application software that remains resident on the AS/400. Designed by developers with recognized expertise in both AS/400 and PC-based technologies, Transfer 2VB delivers exponential programmer productivity in the upcoming challenging and lucrative market niche ro transferring RPG-based application software products of the 90s PC technolgies.

Retail Price: Call

Contact: Marianne G. Klinzing

Phone: 414-545-1414

Fax: 414-545-7374

RISC Versions: Yes

SolarTime

weberstr.39
D53113
Bonn,
Germany

Solartime

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\ntslrtme.zip

Displays a worldmap showing the terminator. Includes setting of timezone and location. Calculation of sunrise and setting times for your location. A simulation to show the variation of the terminator during the year. Dragging without caption. Tiny/big size of time overlay. Online help to all features and terms.

Retail Price: Shareware

Contact: Martin Moenighoff

RISC Versions: Inquire about availability

Sony Corp.

2 Van Riper Road
Montvale, NJ 7645
USA

MPC

High-end Multimedia PC running only Windows NT.

Retail Price: \$10,000.00

Contact: Michael Whers

Phone: 201-476-8121

Fax: 201-476-8072

RISC Versions: Call for availability

SOTA Electronics, Inc.

5126 Clareton Rd.
Suite 120
Agoura Hills, CA 91301
USA

SOTA Secure

Surveillance System

The SOTA Secure system is a state of the art surveillance system using The SOTA Audio/Video Switch and surveillance management software. The management software allows the user to quickly and easily select any NTSC/PAL compatible video camera attached to the SOTA A/V Switch and display it's image on any A/V device (monitor, VCR, etc.) There can be multiple stations running the management software, each in complete control of their security zones. The system is completely programmable supporting the creation of 'play lists' to automate camera display. The system can detect motion from any camera that is attached to the SOTA A/V Switch.

Retail Price: Call

Contact: Bob Fossler

Phone: 818-707-1092

Fax: 818-707-3624

RISC Versions: Call for availability

South Bay Co.

5405 Alton Pkwy
Suite 5-A 637
Irvine, CA 92714
USA

Lingo

An easy-to-learn language with arbitrary-precision and complex math, ISAM database handling, and user interface handling. Portable to MS-DOS, Macintosh, and UNIX

Lingo™ is a portable, high-level language for the '90s. Like C++, it's object-oriented and sports dynamic memory allocation, pointers, and compound data structures. Like COBOL, it sports ISAM file handling. Like Clipper, it has replaceable database drivers and built-in support for dBASE, FoxPro, and Paradox files. Like FORTRAN, Lingo offers arbitrary-precision arithmetic, complex numbers, and matrix operations. Best of all, it's easier to use than BASIC and there are no runtime royalties!

Retail Price: \$295.00

Contact: Tom Campbell

Phone: 714-786-9357

Fax: 714-559-5487

RISC Versions: Call for availability

Soza & Company, Ltd.

2735 Hartland Road
Suite 300
Falls Church, VA 22043
USA

Related Topics:

[Automated Data Center Security](#)

[Enterprise & Network Management](#)

[Instructional Systems Design](#)

[Instructional Systems Group](#)

Automated Data Center Security

Soza & Company, Ltd. (SOZA), a high-tech company, provides productivity improvement services and products in the government and private sectors. Established in 1969, we increase productivity while reducing operating costs through the creative application, design, development, and implementation of management information and instructional technology. Our Security Consulting Services include: Planning, Implementation, Administration, Enhancements, Conversion and Evaluation. Our Extended Security Support Services include physical, computer, communications, operations and administrative security. We hold advanced DoD, DoE and other government security clearances, offering an extensive range of training programs to assess client needs and respond to client staff development requirements.

SOZA also offers a number of software packages, including:

- Network Security Interface (E-NSI)™ Multi-System User Authentication and Password Synchronization
- Test Facility for ACF2 (ETF/A)™ ACF2 Management and Control
- Test Facility for RACF (ETF/R)™ RACF Management and Control
- PC/Assure and Net/Assure™ PC and LAN Security Subsystems.

SOZA also offers the services of our computer security engineering staff, who were instrumental in the development of ACF2. These specialists provide on-site consulting and assistance to clients requiring help with or modifications to ACF2-controlled systems...including conversions of User IDs from one format to another.

Retail Price: Call

Contact: Dwayne Conyers

Phone: 703-560-9477

Fax: 703-573-9026

RISC Versions: Call for availability

Enterprise & Network Management

Soza & Company, Ltd. (SOZA), a high-tech company, provides productivity improvement services and products in the government and private sectors. Established in 1969, we increase productivity while reducing operating costs through the creative application, design, development, and implementation of management information and instructional technology. Working with Peregrine Systems, whose products are used by half of the Fortune Global 50 and many Fortune 500 companies, our products specialize in adding value to IBM and UNIX networking software. Our products include: Peregrine Network Management System; NAPA Interface; IR Expert; Text Search Expert System; Session View; SNA Network Diagnostic Tool; NV/Monitor; NetView Performance Monitor; OpenSNA; SNA Network Manager; Hiperstation; Automated System & Network Testing; PathView; Network Monitoring & Capacity Planning. Consolidated Workstation (PWCS) Custom applications may also be developed or modified, based upon customer requirements. Please call/write for additional information.

Retail Price: Call

Contact: Dwayne Conyers

Phone: 703-560-9477

Fax: 703-573-9026

RISC Versions: Call for availability

Instructional Systems Design

Soza approaches your organization's individual training and performance needs by using the Instructional Systems Design (ISD) process. This structured approach allows us to provide you with the most innovative and effective training and performance interventions. We analyze your organization to determine your specific needs. Soza is experienced in conducting:

- Training Needs Assessment
- Behavioral Job/Task Analyses
- Cognitive Task Analyses

After producing a needs analysis report, we design the appropriate intervention to meet your identified needs. The Soza Team creates a cost-effective design strategy containing detailed recommendations and justifications for each training approach and instructional strategy. We also recommend media based on instructional requirements, characteristics of the target audience, and organizational preferences and constraints. Our instructional products include Computer Based Training (CBT), Interactive Courseware (ICW), Classroom Instruction, Electronic Performance Support Tools, Alternative Instructional Methods and Print-based materials.

Retail Price: Call

Contact: Dwayne Conyers

Phone: 703-560-9477

Fax: 703-573-9026

RISC Versions: Call for availability

Instructional Systems Group

Instructional Systems Design

Soza approaches your organization's individual training and performance needs by using the Instructional Systems Design (ISD) process. This structured approach allows us to provide you with the most innovative and effective training and performance interventions. We analyze your organization to determine your specific needs. Soza is experienced in conducting:

- Training Needs Assessment
- Behavioral Job/Task Analyses
- Cognitive Task Analyses.

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Retail Price: Call

Contact: Dwayne Conyers

Phone: 703-560-9477

Fax: 703-573-9026

RISC Versions: Call for availability

Spatial Technology

2425 55th Street
Bldg A
Boulder, CO 80301
USA

ACIS 3D Toolkit

Rapid prototyping and development of 3D modeling applications for Windows NT and UNIX

By taking advantage of the significant market presence, open architecture and advanced object-oriented modeling technology of the underlying ACIS Geometric Modeler, ACIS 3D Toolkit will greatly reduce development costs and time to market for 3D modeling applications. Easy to learn and use through an interpretive scheme-based scripting language. Flexible and powerful, in addition to the 3D language interface (Scheme) ACIS 3D Toolkit provides procedural, object-oriented access to ACIS 3D modeling functions. Compatible with popular GUI development tools like Visual Basic for Microsoft Windows development and X-windows GUI toolkits like UIM/X and XvT. Extremely effective in areas such as CAD/CAM/CAE, multi-media, animation, architectural engineering (AEC), molecular modeling, virtual reality, GIS, education, entertainment and industrial design. Supported on Sun (Sun OS and Solaris) HP 9000/7xx (HPUX), Silicon Graphics (IRIX) and Windows NT platforms. Applications created with 3D Toolkits are completely compatible with the de-facto industry standard ACIS Geometric Modeling Kernel allowing transparent model interchange between ACIS-based applications.

Retail Price: Call

Contact: David Prawel

Phone: 800-767-5710 or 303-449-0649

Fax: 303-449-0883

RISC Versions: Yes

Spyglass, Inc.

1800 Woodfield Dr.
Savoy, IL 61874
USA

Related Topics:

[Spyglass Plot for Windows NT](#)

[Spyglass Slicer for Windows NT](#)

[Spyglass Transform for Windows NT](#)

Spyglass Plot for Windows NT

The quickest tool for analyzing column data

Spyglass Plot reads a variety of data formats directly and creates scientific plots quickly and easily. An intuitive interface makes generating line plots, color scatter plots, parametric plots, and double-Y plots a matter of selecting from a plot gallery and choosing the columns to plot.

Retail Price: Call

Contact: Sales

Phone: 217-355-6000

Fax: 217-355-8925

RISC Versions: Call for availability

Spyglass Slicer for Windows NT

A volumetric visual data analysis package that allows users to create 3D color images in seconds

Dicer can display isosurfaces, cut through data with oblique slices, and scale, annotate, and label the display of data.

Retail Price: \$695.00

Contact: Sales

Phone: 217-355-6000

Fax: 217-355-8925

RISC Versions: Call for availability

Spyglass Transform for Windows NT

The leading visual data analysis package that allows scientists and engineers to quickly and affordably analyze 2D data and images

Transform can read in most 2D data formats and can, with a single click, create raster images; line graphs; contour, surface, or vector plots; and overlays.

Retail Price: \$595.00

Contact: Sales

Phone: 217-355-6000

Fax: 217-355-8925

RISC Versions: Call for availability

SQL Business Systems Inc.

17171 Park Row
Suite 350
Houston, TX 77084
USA

Related Topics:

[SQL Server Integration](#)

[SQLStor](#)

SQL Server Integration

Integration services and products for SQL Server for Windows NT

SQL Business Systems Inc. (SBSI) focus is client-server computing. SBSI specializes in integrating SQL Server systems into multi-vendor enterprise wide networks. SBSI is a Microsoft Solutions Channel Partner and a Microsoft Certified Network Specialist. SBSI is also certified to sell NCR and WYSE symmetric multiprocessor systems. SBSI is the developer of SQLStor, an automated tape management and backup system for SQL Server for Windows NT. SBSI's president has been designing and developing SQL Server applications since 1989 and is nationally recognized for his SQL relational database expertise. In addition, SBSI's staff of professional consultants and technicians have proven SQL Server credentials and are dedicated to customer satisfaction. SBSI offers a wide range of client-server services that include: Requirements Analysis, Migration Strategies, Platform Rightsizing, Database Design, Installation and Application Programming. SBSI continues to invest in and upgrade its technology lab. The lab contains high-performance SMP systems, network and database servers running SQL Server on OS/2 and Windows NT, and is equipped to test the latest client-server products in a production setting. Call SBSI for competitive pricing on Microsoft SQL Server and related integration services. Call SBSI for aggressive price quotes on NCR and WYSE SMP systems. Call SBSI for information on SQLStor, an automated tape backup system for SQL Server that works...Anytime...All the time...Every time!

Retail Price: Call

Contact: Customer Service

Phone: 713-578-7410

Fax: 713-578-7413

RISC Versions: Call for availability

SQLStor

Automated backup for SQL Server

SQLStor provides the "Enterprise Strength" solution for mission critical database backups. It is a fully automated (no manual intervention required), database specific backup management software package built for Microsoft SQL Server. Artificial intelligence, robotics and autochanger technologies offer:

- Guaranteed retention cycles
- Online, active catalogs
- Easy recovery from client connection
- No manual loading, labeling or cataloging tapes
- Enhanced security
- Manage multiple servers from one remote location

Retail Price: \$3,500.00-\$7,500.00

Contact: Customer Service

Phone: 713-578-7410

Fax: 713-578-7413

RISC Versions: Yes

International Sales:

Call 800-778-7411

Square D Company

PowerLogic
200 B Weakley Road
Smyrna, TN 37167
USA

Streamline Software

Setting a new standard for ease of use in industrial process control

Streamline™ software provides real-time supervisory control and data acquisition using true client server architecture. While supplying a window on the process, the man-machine interface provides complete data collection, monitoring, trending, graphics building and operator interaction to I/O points. 100% object oriented analysis, design and programming reduces errors and lowers the cost of training and ownership while providing robust features and a new ease of use. Preconfigured screens, graphics manager, and DDE server are included. A pre-linked object oriented graphics library offers true time savings and cost reduction. Streamline software helps eliminate waste, improve quality, increase throughput and reduce costs.

Retail Price: \$4,100 Development; \$2,500 View/Runtime

Contact: Robert Goelz, Sales

Phone: 614-764-4200

Fax: 614-764-4279

RISC Versions: Call for availability

International Sales:

Larry Powell, International Sales Manager, 614-764-4213

Step Technology

11130 SW Barbur Blvd
Suite 200
Portland, OR 97219
USA

SPC FastMap

A cat scan-like image of process measurements for high speed monitoring and analysis of your manufacturing process

SPC FastMap simplifies the presentation of process data from manufacturing equipment, such as paper and textile machines or continuous extrusion and casting equipment. SPC FastMap allows plant operators and process engineers to quickly visualize their manufacturing process. This is done by displaying two dimensional color graphic maps of process data such as thickness, moisture, temperature, density or a variety of other measurements. Process capability and stability analysis features are included. SPC FastMap is a multi-user, networked-based Microsoft Windows and Windows NT application designed for demanding environments. SPC FastMap can display both real time and historical process data from multiple on-line and database sources.

Retail Price: Call

Contact: Barb Kaplon

Phone: 503-244-1239

Fax: 503-244-1758

RISC Versions: Yes

Sterling Software, Inc.

5900 Canoga Ave
PO Box 4237
Woodland Hills, CA 91367-4237
USA

Sterling Developer

A data and business modelling tool

Sterling Developer is a data and business modeling tool compatible with Microsoft's Windows and Windows NT environments and IBM OS/2 Presentation Manager. Completely customizable, Sterling Developer can be deployed to meet a variety of organizational needs such as:- Business Engineering- Software Engineering- Repository Management- Structured System Testing. Supporting all development methodologies and techniques and incorporating a client/server architecture, Sterling Developer is the most flexible modeling and design tool available today.

Retail Price: \$2,995.00

Contact: Steve Herriman

Phone: 818-716-1616

Fax: 818-716-5998

RISC Versions: Call for availability

Stirling Technologies, Inc.

1100 Woodfield Road
Schaumburg, IL 60173
USA

InstallSHIELD

InstallShield is a full-featured installation program builder for Windows, Windows NT and OS/2. Allows you to quickly and easily build GUI installations. A built-in simple install language allows you to create complete installers without any C programming. Percent complete & other feedback controls built-in. High-performance data compression. Help and Instruction windows. Automatically builds program groups, items and icons. Access to DLL functions for special needs. Installation logic based on hardware. Allows intelligent editing of INI and system files.

Retail Price: \$595.00

Contact: Customer Service

Phone: 800-3-SHIELD or 708-307-9197

Fax: 708-307-9340

RISC Versions: Call for availability

Stratford Healthcare Systems, Inc.

840 Mitten Road
Burlingame, CA
USA

Stratford Healthcare Management

Complete Medical/Dental Accounts Receivable Management Software Including Electronic Claims

Includes electronic claims Medicare/Private in all states. Low cost conversion from Medisoft/DOMS/Lytec, etc. Stratford has been in business since 1976. Stratford is a Microsoft Developer. We are the largest electronic claim submitter to Medicare in Northern California. Runs with all Microsoft operating systems DOS through Windows NT Advanced Server.

Retail Price: \$895.00

Contact: Ken McGinnis

Phone: 415-692-7970

Fax: 415-692-1073

RISC Versions: Call for availability

Sybase

6475 Christie Avenue
Suite 432
Emeryville, CA 94608
USA

Related Topics:

[GainMomentum for 3.0 for Windows NT](#)

[Open Client](#)

[Open Server](#)

[Replication Server](#)

[SQL Monitor](#)

[Sybase SQL Server 10 for Windows NT](#)

GainMomentum for 3.0 for Windows NT

The Solution for Multimedia Development

Gain Momentum is a cross-platform object-oriented development environment for interactive multimedia delivery. By building applications in Gain Momentum, organizations can realize significant decreases in the time-to delivery and maintenance of new applications, reduce the cost of training and improve access and usability of information systems. Developers can share and reuse video data across multiple users and applications and deliver highly effective interactive business applications. Gain Momentum applications look like your business and are easier for users to operate.

Retail Price: Call

Contact: Sybase Sales

Phone: 800-879-2273

Fax: 510-658-9441

RISC Versions: Call for availability

International Sales:

For Asia/Pacific Inquiries: 85-2506-6000, Fax: 85-2506-6050

For Europe, 31-3465-82999, Fax: 31-3465-52884

For Latin America, contact: 305-267-9344, Fax: 305-267-9973

Open Client

The Interface Solution

Open Client is a programmable interface used by developers of client applications to request data or services over a network. It manages all communications between the client and application or tool and the SQL Server, Open Server, or OmniSQL Gateway application. The Open Client interface shields programmers from knowledge of the underlying data source.

Retail Price: Call

Contact: Sybase Sales

Phone: 800-879-2273

Fax: 510-658-9441

RISC Versions: Call for availability

International Sales:

Asia-Pacific, 85-2506-6000, Fax: 85-2506-6050

Europe, 31-3465-82999, Fax: 31-3465-52884

Latin America, 305-267-9344, Fax: 305-267-9973

Open Server

The Integration Solution

Open Server is a toolkit that assists developers in enabling any data source or service to become a multi-threaded server in a client/server framework. To an Open Client application, an Open Server application looks identical to a SQL Server.

Open Server integrates any source of information or computer service into the on-line enterprise, such as flat files, real-time data, non-SYBASE database and applications, and additional system services such as robotics and control systems.

Retail Price: Call

Contact: Sybase Sales

Phone: 800-879-2273

Fax: 510-658-9441

RISC Versions: Call for availability

International Sales:

Asia Pacific, 85-2506-6000, Fax: 85-2506-6050

Europe: 31-3465-82999, Fax: 31-3465-52884

Latin America, 305-267-9344, Fax: 305-267-9973

Replication Server

The Solution for Geographically Distributed Organizations

Replication Server is the first practical architecture for building reliable, cost-effective, high-performance distributed systems. It provides a flexible architecture for building distributed applications that meet real0 business requirements and maintains database integrity, while synchronizing replicate copies of data throughout a client/server environment.

Retail Price: Call

Contact: Sybase Sales

Phone: 800-879-2273

Fax: 510-658-9441

RISC Versions: Call for availability

International Sales:

Asia Pacific, 85-2506-6000; Fax: 85-2506-6050

Europe: 31-3465-82999, Fax: 31-3465-52884

Latin America, 305-267-9344, Fax: 305-267-9973

SQL Monitor

The solution for Optimizing SQL Server Performance

SQL Monitor is a client/server tool designed to help database administrators optimize performance and troubleshoot problems. Its a comprehensive graphical tool that helps isolate problems with any local or remote SQL Server, and aids in fine tuning them for optimal performance.

SQL Monitor can identify capacity constraints and bottlenecks before they reach a critical phase. SQL Monitor is the only performance monitoring product currently available for the RDBMS market.

Retail Price: Call

Contact: Sybase Sales

Phone: 800-879-2273

Fax: 510-658-9441

RISC Versions: Call for availability

International Sales:

Asia-Pacific, 85-2506-6000, Fax: 85-2506-6050

Europe, 31-3465-82999, Fax: 31-3465-52884

Latin America. 305-267-9344, Fax: 305-267-9973

Sybase SQL Server 10 for Windows NT

The Solution for High Performance and Reliability

SYBASE SQL SERVER, Sybase's flagship product, is the preferred RDBMS for companies serious about realizing the benefits of enterprise client/server computing. SQL Server has a reputation for high performance and reliability, making it the choice for organizations that must satisfy the stringent requirements of mission-critical on-line transaction processing applications. SQL Server 10 technology is proven in a wide variety of customer sites and operating system environments and is now available for Windows NT.

Reliability has been further enhanced with the release of Backup Server, the high performance backup system that helps companies manage the backup and restore of databases and logs for the SQL Server 10.

Retail Price: Call

Contact: Sybase Sales

Phone: 800-879-2273

Fax: 510-658-9441

RISC Versions: Call for availability

International Sales:

Asia/Pacific Inquiries: Sybase Inc., 85-2506-6000; Fax: 85-2506-6050

Europe Inquiries: Sybase Europe B.V., 31-3465-82999, Fax 31-3465-52884

Latin American Inquiries: Sybase Inc. 305-267-9344;

Symantec Corp.

10201 Torre Ave.
Cupertino, CA 95014-2132
USA

Symantec C++ Professional

Superior 32-bit C and C++ compilers for Windows NT development

Under the Symantec Windows NT Developer's Program, you get a head start learning and programming in the Windows NT environment. With this program, you receive a preliminary version of the Zortech C++ compiler for Windows NT that supports the Preliminary Win32 SDK, full documentation, free updates as the product is refined, and finished product to support the final release of the Win32 SDK. Zortech C++ for Windows NT offers ANSI C and AT&T C++ 3.0 support, pre-compiled headers, templates, multithreading, and advanced numerics, including NCEG and IEEE support. Zortech's mature global optimizer ensures tight, high-quality 32-bit code generation. Zortech C++ is also offered for 16- and 32-bit DOS, Windows 3.x, OS/2 2.0, SCO UNIX and Macintosh.

Retail Price: \$499.00 SRP, \$249.00 for Zortech customers

Contact: Inside Sales

Phone: 800-441-7234 or 408-253-9600

Fax: 408-252-4696

RISC Versions: Call for availability

System Software Associates

500 W. Madison
Suite 3200
Chicago, IL 60661
USA

Related Topics:

[Formulation Assistant](#)

[Planners Assistant](#)

Formulation Assistant

Keeps product process formulaton data on-line for use by all production, planning, control and costing function

It features a graphical comprehensive and multi-level view of formula details and production processes, with full-multi-plant and alternative production methods support as well as revision level control and variable batch sizing,. Formulation Assistant supports co- and by-product production, recycled material and batch-balancing formulation. Cost and process-time comparisons are available for "what-of" simulations.

Retail Price: \$7,500.00 list

Contact: Sally Green

Phone: 312-258-6000

Fax: 312-474-7500

RISC Versions: Call for availability

International Sales:

Asia Pacific, suite 1511, Pacific Place, Hong Kong, Tel: 852-526-0128, Fax: 852-877-1430

Europe, Frimley Business Park, Frimley, Camberly, Surrey FU 165SG, U.K> Tel: 44-276-692-111, Fax: 44-276-692-135

Japan, 7F Nichirei-Higashing

Planners Assistant

A workstation tool designed to improve the planner's productivity when acting upon MPS and MRP exception conditions

It supports priority planning with drill-down to the root causes of exception condition. These can be rapidly resolved through multi-level pegged supply and demand views, auto-planning logic within use-defined tolerances and easy processing with a mouse.

Retail Price: \$7,500 list

Contact: Sally Green

Phone: 312-258-6000

Fax: 312-474-7500

RISC Versions: Call for availability

International Sales:

Asia Pacific, suite 1511, Pacific Place, Hong Kong, Tel: 852-526-0128, Fax: 852-877-1430

Europe, Frimley Business Park, Frimley, Camberly, Surrey FU 165SG, U.K> Tel: 44-276-692-111, Fax: 44-276-692-135

Japan, 7F Nichirei-Higashing

Tactics Intl.

16 Haverhill Street
Andover, MA 01810
USA

Tactician

Mapping software and data for sales, marketing and business planning

The Tactician® line of products features geographically-based sales and marketing functions including brand, store and territory optimization models for retail and sales applications, along with a wide range of pre-packaged cartographic and attribute data. The Tactician in-memory database has SQL connectivity to local, mid-range and mainframe corporate databases. The Tactician dictionary system provides enterprise-wide, networked, portability across multiple platforms including Macintosh, Windows, Windows NT for Intel and AXP, and PowerPC.

Retail Price: Call

Contact: Paul Sedor, Sales

Phone: 508-475-4475

Fax: 508-475-2136

RISC Versions: Yes

International Sales:

Australia, Phone: 61-0-2-922-2088

Canada, Phone: 416-348-9180

France, Phone: 33-1-47-61-00-11

Netherlands, Phone: 31-20-675-7705

Japan, Phone: 81-052-972-6544

UK, Phone: 44-423-560-064

TechSys Computing

6821 Woodale
Fort Worth, TX 76148
USA

NTRemote Sevice

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\ntremote.zip

An installable service that provides the remote start function, the ability to issue a command line on one machine and have the application start on a second machine.

Retail Price: Shareware

Contact: Techsys Computing

RISC Versions: Inquire about availability

Ten X Technology Inc.

13091 Pond Springs Road
Suite 200
Austin, TX 78729
USA

Related Topics:

[Net-JBI \(Network Jukebox Interface\)](#)

[Opti-Win 1400](#)

[Optixchange 1300](#)

[OptiXchange 1500](#)

Net-JBI (Network Jukebox Interface)

Easily adds up to a terabyte of data storage to heterogenous network environments!

The Net-JBI makes it easy to provide today's distributed network environments with up to a terabyte of data storage. The Net-JBI connects 5.25" and 12" rewritable, multifunction and WORM jukeboxes under a number of popular network protocols and operating systems, including TCP/IP, NFS, NetWAre and Ethershare environments. Multi-platter jukeboxes may be viewed as one large volume, with a single mount point, or as a number of volumes, depending upon data requirements. Platters may even be removed from the jukebox and remain part of a logical volume group. A user-configurable hard disk cache optimizes read and write performance.

Retail Price: \$7,500

Contact: Elizabeth Davis, Sales

Phone: 512-918-9182

Fax: 512-918-9495

RISC Versions: Call for availability

International Sales:

Taiwan, Mr. Watson Wang, 88-62-514-7150

Japan, Mr. Toshiharu Nakanishi, 47-350-6105

Singapore, Mr. Lawrence Wong, 65-285-7588

England, Mr. Peter Wood, 44-256-24100

France, Mr. Gerard Gendet, 33-1-410-84747

Germany, Mr. G. Milli

Opti-Win 1400

Software free, transparent access to gigabytes of permanent data storage!

The Opti-Win 1400 is a 1.4GB, WORM optical disk storage solution. The subsystem is available in a single or dual drive configuration. Transparent connectivity to the Silicon Graphics operating system is achieved without the use of software drivers. The optical disk "looks and acts" just like a standard hard disk. Normal operating system commands are all that are required to access the optical media. A non-volatile data cache can reduce access times to less than one millisecond. Lossless data compression, with typical compression ratios of 2:1 to 5:1, increases the amount of data stored, decreasing the cost per megabyte.

Retail Price: \$4995 single drive; \$8495 dual drive

Contact: Elizabeth Davis, Sales

Phone: 512-918-9182

Fax: 512-918-9495

RISC Versions: Call for availability

International Sales:

Taiwan, Mr. Watson Wang, 88-62-514-7150

Japan, Mr. Toshiharu Nakanishi, 47-350-6105

Singapore, Mr. Lawrence Wong, 65-285-7588

England, Mr. Peter Wood, 44-256-24100

France, Mr. Gerard Gendet, 33-1-410-84747

Germany, Mr. G. Milli

Optixchange 1300

Software free, transparent access to gigabytes of data storage!

The OptiXchange 1300 is a 1.3 GB, multifunction, optical disk storage solution. Transparent connectivity to the Silicon Graphics operating system is achieved without the use of software drivers. The optical disk "looks and acts" just like a standard hard disk. Normal operating system commands are all that are required to access the optical media. A non-volatile data cache can reduce access times to less than one millisecond. Lossless data compression, with typical compression ratios of 2:1 to 5:1, increases the amount of data stored, decreasing the cost per megabyte.

Retail Price: \$4,995

Contact: Elizabeth Davis, Sales

Phone: 512-918-9182

Fax: 512-918-9495

RISC Versions: Call for availability

International Sales:

Taiwan, Mr. Watson Wang, 88-62-514-7150

Japan, Mr. Toshiharu Nakanishi, 47-350-6105

Singapore, Mr. Lawrence Wong, 65-285-7588

England, Mr. Peter Wood, 44-256-24100

France, Mr. Gerard Gendet, 33-1-410-84747

Germany, Mr. G. Milli

OptiXchange 1500

Software free, transparent access to gigabytes of data storage!

The Optixchange 1500 is a 1.5 GB, multifunction. optical disk storage solution. The subsystem is available in a single or dual drive configuration. Transparent connectivity to the Silicon Graphics operating system is achieved without the use of software drivers. The optical disk "looks and acts" just like a standard hard disk. Normal operating system commands are all that are required to access the optical media. A non-volatile data cache can reduce access items to less than one millisecond. Lossless data compression, with typical compression ratios of 2:1 to 5:1, increases the amount of data stored, decreasing the cost per megabyte.

Retail Price: \$5945 single drive; \$8995 dual drive

Contact: Elizabeth Davis, Sales

Phone: 512-918-9182

Fax: 512-918-9495

RISC Versions: Call for availability

International Sales:

Taiwan, Mr. Watson Wang, 88-62-514-7150

Japan, Mr. Toshiharu Nakanishi, 47-350-6105

Singapore, Mr. Lawrence Wong, 65-285-7588

England, Mr. Peter Wood, 44-256-24100

France, Mr. Gerard Gendet, 33-1-410-84747

Germany, Mr. G. Milli

Terrace Mountain Systems

707 Terrace Mountain Drive

Austin, TX 78746

USA

Windows NT device driver consulting/development

Terrace Mountain Systems supplies Windows NT software expertise to complement your hardware product offering

A software house offering the full range of device driver and application development expertise, Terrace Mountain Systems starts with your hardware specifications and creates a Windows NT device driver for your product. Driver specification, design documentation, user's manual and completed software are delivered to your for inclusion in your product offering.

Retail Price: Call

Contact: Rebecca Taylor

Phone: 512-327-9863

Fax: 512-327-5010

RISC Versions: Call for availability

Tessera

PO Box 11631
Eugene, OR 97440
USA

Pictograph

Pictograph Graphical Compiler

Pictograph is a graphical programming environment for procedural programs. Programs are represented by diagrams in which function blocks are linked together to form a directed graph. The resulting programs are highly flexible, self-documenting, and easily understood by non-programmers. Pictograph interfaces to Excel, SQL databases, data acquisition systems, and supports distributed processing through the RPC mechanism. Pictograph includes a diagram editor/debugger, compile.

Retail Price: \$3,850.00

Contact: Dan White

Phone: 503-484-6602

Fax: 503-687-1173

RISC Versions: Call for availability

The MathWizards

6246 Ohm Court
Suite 200
San Diego, CA 92122
USA

MathViews

MATLAB compatible Interpreter with DDE support

MathViews is a comprehensive, easy-to-use, fully interactive scientific and engineering environment for: Matrix and Array Algebra, Digital Signal Processing (DSP), Time Series Analysis, and Data Visualization. MathViews provides a comprehensive set of operators and functions for performing real and complex vector and matrix operations, one- and two-dimensional FFTs, convolutions, correlations, and data manipulation. MathViews is compatible with the MATLAB syntax and will allow you to execute MATLAB M-files. MathViews offers a powerful programming environment for tackling demanding data analysis and mathematical problems. Program control flow (IF, ELSE, FOR, WHILE), mathematical and logical array manipulation operators, complex and real variables, interactive 2D and 3D graphics (X-Y linear, semilog, loglog, contour, and hidden lines). MathViews lets you even define your own functions. MathViews can be extended using Dynamic Link Libraries. MathViews provide a complete implementation of DDE both as a client and as a server. This allows you to exchange data with other Windows programs. MathViews has a full screen debugger to step-over or trace-into your script and function files.

Retail Price: \$995.00

Contact: Shalom Halevy

Phone: 619-457-2971

Fax: 619-458-5849

RISC Versions: Call for availability

The National Center for Supercomputing Applications

605 E. Springfield Avenue
Champaign, IL 61820
USA

NCSA Mosaic

Network navigational tool that allows user access to networked information with the click of a button

With more and more people using the Internet, the amount of information available is literally exploding. NCSA Mosaic was designed to provide the user transparent and seamless access to nearly all of these information sources and services. NCSA Mosaic gives the user a mechanism that will retrieve and display a wide variety of data types. These data types typically include text, image, movie and audio files. There are now two flavors of Mosaic. One for IBM compatible PCs running Windows 3.1, Windows for Workgroups or Windows NT and now for the DEC PC running Windows NT. The current version for the IBM compatible PCs is wmos20a4.zip and for the DECpc it is decmosa3.zip. Call or mail for required system specifications.

Retail Price: No charge

Contact: <ftp.ncsa.uiuc.edu/PC/Mosaic>

RISC Versions: Yes

Tippecanoe Systems Inc.

5674 Stoneridge Drive
Suite 119
Pleasanton, CA 94588
USA

Document Manager

Document Management for Windows NT

Tippecanoe System's Document Manager provides a unique document indexing, storage, and retrieval technology that allows the user to store paper documents, electronically, as easy as making a copy. Document Manager is based upon the concept of hands-off, unassisted indexing of documents, using expert systems, and fuzzy logic technology. Documents are indexed automatically, without the user having to manually enter index information into the computer. Document Manager automatically provides index information based on an analysis of each page, each document, the entire library, and the users needs. Document Manager also handles original electronic documents, such as those created with Word, Excel, etc. Document Manager does what the Windows File manager doesn't do -- handle the complex world of electronic and paper documents. Document Manager is easy to use. Anyone who has ever used the Windows File manager will already know how to use Document Manager. Document Manager is available in Windows NT and Windows for Workgroups versions.

Retail Price: TBD

Contact: David Reineking

Phone: 510-416-8512

Fax: 510-416-8510

RISC Versions: Yes

Tivoli Systems, Inc.

9442 Capitol of Texas Highway North
Arboretum Place North
Austin, TX 78759
USA

Tivoli/ADE

Tivoli Systems - Distributed Systems Management

Tivoli's Advanced Development Environment (Tivoli/ADE) toolkit gives developers access to an industry standard system management framework. By providing open access to both the Application Programming Interface and the tools and concepts of the Tivoli Management Environment (TME), Tivoli/ADE offers a sophisticated environment to develop platform-independent system management applications. Tivoli/ADE gives you several advantages for developing system management applications over traditional approaches:

- a distributed, object-oriented environment that eliminates the need to develop mechanisms for security, location, naming, and heterogeneity
- all applications share a common Management User Interface paradigm, giving applications a common look and feel, thereby reducing learning curves for users
- an object-oriented approach that makes developing interoperable applications easy and straightforward
- as a key component of emerging industry standards, the Tivoli Management Framework assures developers a stable, widespread platform for future applications

Retail Price: Call

Contact: Peter Norwood

Phone: 512-794-9070

Fax: 512-794-0623

RISC Versions: Yes

Tower Technology Corporation

3300 Bee Caves Rd.
Suite 650
Austin, TX 78746
USA

Related Topics:

[TowerEiffel for Windows NT](#)

[TowerEiffel Toolset](#)

TowerEiffel for Windows NT

The team-oriented solution for object-oriented programming

TowerEiffel is the most efficient Eiffel compiler ever created. It yields the tremendous advantages of the highly acclaimed Eiffel language in a professional quality package that includes:

- automatic dependency analysis plus override tools
- the standard Eiffel kernel libraries
- tested compatibility with other standard Eiffel libraries
- compatibility with the latest Eiffel 3 language definition
- a suite of documentation extraction and browsing tools
- a mechanism for distributing libraries without source code

TowerEiffel is the first Eiffel implementation that makes this language a practical choice for professional software development and the best choice for achieving the promised reusability and productivity of OOT.

Retail Price: \$3,000.00 (4 seat license)

Contact: Robert Howard

Phone: 512-328-6406

Fax: 512-328-0466

RISC Versions: Call for availability

TowerEiffel Toolset

A suite of development tools for TowerEiffel

TowerEiffel is the most efficient Eiffel compiler ever created. The Tower Eiffel Toolset includes the advanced tools for squeezing the best performance and quality from your development team. Tools include:

- source level debugger
- performance profiler
- memory usage profiler
- coverage analysis tool
- garbage monitor
- and more

The TowerEiffel Toolset combines with TowerEiffel to create the first professional quality Eiffel software development system.

Retail Price: \$1,500.00 (4 seat license)

Contact: Robert Howard

Phone: 512-328-6406

Fax: 512-328-0466

RISC Versions: Call for availability

Trillennium Corporation

3843 94th Avenue NE
Bellevue, WA 98004
USA

XPLib v2.0

Cross-Platform Libraries for simultaneous application development for the Macintosh, Windows 3.1, and Windows NT platforms

XPLib version 2.0 is a set of three compile-time libraries that provide the necessary services to develop an application for Windows NT, Windows 3.1, and the Macintosh platforms using the same source code. C source code and distribution licenses are available. Support for other platforms are currently under development. XPLib provides support for memory, file, event, string, menu, window, control, graphics, text, bitmap, print, clipboard, dialog, and multiple document management.

Retail Price: \$495.00

Contact: Syril Hastings

Phone: 206-453-2949

RISC Versions: Call for availability

Trimco

15950 Bay Vista Drive
Suite 140
Clearwater, FL 34620
USA

Related Topics:

[WIN-Track Imaging System](#)

[KBMS](#)

WIN-Track Imaging System

A Leader in Technical Document Management Moves to Windows NT

Trimco, a leading supplier of imaging systems and software for Windows 3.1 has announced Windows NT versions of its complete range. The products provide complete document management, from the initial scans through quality control, viewing, editing, hyper-linking, revising, routing, printing, and finally archiving. The company specializes in handling large documents used in engineering and other technical fields. These demand significant expertise in mass storage, network traffic optimization, and large scanner interfaces. Existing customers include Wisconsin Electric, Spar Aerospace, British Petroleum, Eurotunnel, and Air Products Corporation. The Trimco Image Editor is used to view, annotate, and edit scanned images. Like the editor, word processor, spreadsheet, CAD and other applications can be connected to the WIN-Track database at the center of the system. This permits scanned images to be used in parallel with other document types, all organized and access-controlled by a single database. The scalability, ability to handle large images, and security of Windows NT make it and Trimco's system a natural fit.

Retail Price: Call - Starts at \$450.00

Contact: Mike Boses

Phone: 813-530-3600

Fax: 813-531-6293

RISC Versions: Yes

Trinzic

101 University

Palo Alto, CA 94301

USA

KBMS

Making it possible to overcome the productivity barriers

KBMS is an object-oriented, graphical, client/server application development tool that makes it fast and easy to build and deliver complex, decision-making applications that support PCs running Windows, graphical workstations and terminals, access multiple DBMS's, offer English language data access, and are portable across multiple platforms and operating systems. Designed specifically for application developers who prefer the speed and ease of a high-level language, KBMS offers all of the enabling technologies required to achieve BPA:

- Object -Oriented and Rule based programming
- Graphical User Interfaces for Developers and End-users
- Automatic database interfaces
- Natural language
- Client/server CASE integration

Retail Price: \$8,500.00

Contact: Michael Torto

Phone: 617-891-6500

Fax: 617-893-8919

RISC Versions: Call for availability

International Sales:

England, Trinzic Intl., Royalty House, 10 King Street, Watford, Herfordshire, WD1 8BP, 44-923-202050/
Fax: 44-923-210204

Sydney AUS, Trinzic Australasia, Level 20, 99 Walker Street, North Sydney, NSW 2060, 612-931-6814/
Fax: 612-931

TRW

T.Jaeger

ATD

Redondo Beach, CA 90278

USA

Ground Support/Ground Station Equipment and Software

Window-Based GSE and Ground Station Software

Manufacturer and builder of custom electrical ground support equipment for test and operations. Low cost implementations and support for development, test, and mission operations using PC and Windows architectures. Specialists in GPIB, Mil-Std-1553, and Mil-Std-1773 hardware and software.

Retail Price: Call

Contact: Talbot Jaeger

Phone: 310-813-3098

Fax: 310-813-3350

RISC Versions: Call for availability

U.S. Design Corp.

9075 Guilford Road
Columbia, MD 21046
USA

Optical SuperSTOR for Windows NT

Transparent Optical Jukebox Software

Optical SuperSTOR/Jukebox Manager is a Windows utility designed to manage optical platters in a jukebox environment using an approach similar to Windows File Manager. Optical platter surfaces are represented by an icon and description in a scrollable box. To move a platter into an optical drive, you click on the platter's list box entry with the mouse and drag it to the desired drive. All the necessary robotic movements to make this occur inside the jukebox are done transparently. Optical drives within the jukebox are represented with standard drive letters and are supported just like any removeable media drive. Also for Windows NT networks, these optical drives can be shared as network drives. Jukebox Manager provides integrated optical library management capabilities to help you keep track of optical platters whether they are online in the jukebox or offline in storage. Bringing a platter online involves clicking on the Offline platter Library Entry with the mouse and dragging it onto the Online Platter Library list box. A popup window will then prompt you to retrieve the platter from its specified location and place it into the jukebox mailslot.

Retail Price: Call

Contact: Hary Garonzik, Sales

Phone: 410-381-3000

Fax: 410-381-3235

RISC Versions: Call for availability

International Sales:

800-622-USDC

Uniface Corp.

1320 Harbor Bay Parkway
Suite 100
Alameda, CA 94501-6556
USA

Uniface Six

Model Driven Enterprise Client/Server Application Development

UNIFACE Six combines a model-driven approach with visual development and an optimized application deployment facility to help organizations build and deploy their next generation enterprise client/server systems with the highest productivity.

UNIFACE Six's application model-driven development approach provides the foundation for the rapid development and efficient maintenance of standards-based, complex. client/server applications that are portable, scalable and technology.

UNIFACE Six supports a variety of operating environments, including Windows NT, Windows, Macintosh, Unix, OS/2, VMS and HP MPE. UNIFACE applications transparently access ORACLE, SQL Server, SYBASE, INFORMIX, INGRES and other RDBMSs. The Uniface Universal Presentation Interface (UPI) enables one version of an application to be deployed using any of several GUIs or character mode interfaces, without changing any code.

Retail Price: Call

Contact: Sales

Phone: 1-800-365-3608

Fax: 510-748-6150

RISC Versions: Yes

International Sales:

Australia, 61-2-959-2331

Austria, 43-732-669087 or 43-1-603-8900

Belgium, 32-16-40-14-00

France, 33-1-47-09-80-80

Germany, 49-6103-83-00-53

Italy, 39-2-3809-3351

Netherlands, 31-20-3116-111

Sweden, 46-8-703-5350

Switzerland,

University of California, Berkeley

USA

Related Topics:

[MPEG Video Software Decoder](#)

[MPEGPLAY](#)

MPEG Video Software Decoder

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\mpegnt.zip

This directory contains a public domain MPEG video software decoder. The decoder is implemented as a library that will take video stream and display it in an X window on a 32 bit display.

Retail Price: Shareware

Contact: Lawrence A. Rowe

RISC Versions: Inquire about availability

MPEGPLAY

ftp.cica.indiana.edu:\ftp\pub\pc\win3\nt\mpegw32e.zip

Program that enables you to play back MPEG encoded Digital Video Files. With pushbutton VCR-like controls, a seperate video window, automatically displays the first frame of the MPEG, redraws the current frame when needed, displays MPEG file name, image dimensions, and file size in video captions, saves all player window positons correctly when exiting.

Retail Price: Shareware

Contact: Lawrence A. Rowe

RISC Versions: Inquire about availability

US Computer Works/Cool Technologies

PO Box 158
Cool, CA 95614
USA

Related Topics:

[CT - 2050](#)

[CT Consulting](#)

[CT WayBack 1.0](#)

[InterTape for Windows NT](#)

CT - 2050

Yes! You can run your existing 9-Track tape drives using the power of Microsoft's Windows NT

CT-2050 is a SCSI-to-Pertec connection allowing SCSI access to tape drives having the industry standard Pertec interface. Platform independent: it connects to any SCSI port supported by Windows NT. Driven by CT WayBack tape utilities software, CT-2050 can connect to multiple Pertec tape drives from a single SCSI port.

Retail Price: \$1,295.00

Contact: Jesse Eldridge

Phone: 916-889-1160

Fax: 916-889-9409

RISC Versions: Call for availability

CT Consulting

Consulting for the Microsoft Windows and Windows NT operating systems

Consulting services focusing on drivers and system-level applications for Microsoft's Windows NT operating system.

Retail Price: Call

Contact: Jesse Eldridge

Phone: 916-889-1160

Fax: 916-889-9409

RISC Versions: Call for availability

CT WayBack 1.0

A new level of 9-Track/3480 tape services using the power of Microsofts Windows NT operating system

CT WayBack 1.0 has standard interchange capabilities as well as the latest data exchange techniques, while providing a new level of utility. A rich feature set includes: Tape-to-disk and disk-to-tape operations with blocking, translation, and positioning options (labeled and unlabeled tapes); Backup and restore w/wo compression; Screen image-display and data-modify; On-screen label editing; OO/Client-Server design.

Retail Price: \$399.00

Contact: Jesse Eldridge

Phone: 916-889-1160

Fax: 916-889-9409

RISC Versions: Call for availability

InterTape for Windows NT

A new level of utility for tape interchange/exchange

A utility for tape data interchange/exchange. Read or write Nine-Track '3480/90, 4mm and 8mm tapes. Enables moving data from Mainframes and Minis/Servers as well as PC to PC. Provides support for autoloaders. Features a standard Windows GUI with Icon button bar and on-line context sensitive help that users are already familiar with. Supports IBM, ANSI labeled and unlabeled tapes and fixed or variable-length blocks. Translates tape data between ASCII/EBCDIC or user translate tables. Supports leading TAR files. Supports long-block for seismic data tapes. Wide range of tape drives supported.

Retail Price: Call

Contact: Jesse Eldridge

Phone: 916-889-1160

Fax: 916-889-9409

RISC Versions: Yes

International Sales:

Call in US, 916-889-1160

US DATA

2435 North Central Expressway
Richardson, TX 75080-2722
USA

FactoryLink IV Software

Application Software For Real-Time Industrial Automation

FactoryLink is a family of application enabler and technology enabler software products for configuring supervisory-level applications that communicate with and collect data from all types of automation equipment, such as programmable controllers. providing interactive animated graphical operator interfaces, monitoring, data logging, trending, alarming, computational analysis, reporting, control and other functions.

FactoryLink IV is a flexible system of programs, tools, and services, based on USDATA's open system architecture, that allows users to build operating system independent, scalable applications, supporting real-time control, monitoring and information management solutions. FactoryLink IV Software is available for the following operating systems: IBMOS/2. Microsoft Windows, SCO Open Desktop, AIX/RS6000, Hewlett-Packard HP/UX, DEC VMS for VAX,, DEC OSF/1 for AXP. and Microsoft Windows NT.

Retail Price: Call for price

Contact: Tim Nicolaou

Phone: 214-680-9700

Fax: 214-669-8318

RISC Versions: Call for availability

International Sales:

USDATA Europe S.A.

102, Bd. E. Machtens, bt18

B-1080 Brussels, Belgium

Phone: 32-2-411-0113

FAX: 32-2-411-0060

V.I. Software

47 Pleasant Street
Northampton, MA 01060
USA

Data Views

The industry leading tool for programmers building high-end, animated graphics to monitor and control real-time processes

Create high-end, animated graphics to monitor and control real-time processes. Data Views lets you build operator interfaces, soft instruments, and market specific editors to enhance your applications. Whether you're building a transportation monitoring program, a plant automation application, or any other system that requires visual verification of critical events, Data Views provides you powerful graphics within an Open Systems framework. Data Views gives you a maintained, off-the-shelf graphics development tool which eliminates the cost and risk of developing and maintaining internal proprietary graphics libraries. It includes a point and click, object-based drawing editor and a collection of high-level graphics routines for manipulating objects.

Retail Price: Call

Contact: Sales

Phone: 800-732-3300

Fax: 413-586-3805

RISC Versions: Call for availability

International Sales:

Canada, 800-732-3300

Europe, 44-734-892-111

Scandinavia, (Denmark, Norway, Sweden, Finland, Iceland) 46-31-839-125

Asia/Pacific, Australia, South America, 413-586-4144

Versant

1380 Willow Rd
Menlo Park, CA 94025
USA

VERSANT Object Database Management System (ODBMS)

Retail Price: Call for pricing

Contact: Anthony Bettencourt III

Phone: 415-329-7500

Fax: 415-325-2380

RISC Versions: Call for availability

Viewstar Corporation

1101 Marina Village Parkway
Alameda, CA 94501
USA

Viewstar Business Process Automation System

The leading client/server application software platform for business process automation

ViewStar provides distributed client/server application software for business process automation. Encompassing tools for workflow automation, document management and imaging, ViewStar addresses document-intensive, line-of-business applications on a departmental, business unit or enterprise scale. ViewStar is based upon an advanced, object-oriented product architecture, with high-level object modelers used for rapid definition and delivery of integrated business solutions. The system includes tools for visual modeling and configuration of workflow processes, document repositories and end-user applications. ViewStar also supports a fully distributed client/server computing platform based upon standard PC LANs and using SQL Server for Windows NT as a Business Process Automation Server for document management and workflow.

Retail Price: Call

Contact: Inside Sales

Phone: 510-337-2000

Fax: 510-337-2222

RISC Versions: Call for availability

International Sales:

International Sales Office, 011-44-256-862-900

Benelux, WM Data Software AB, 011-46-8-670-2000

United Kingdom, EDS SCion, 011-44-908-585858

Germany, deis Systemhaus, DCS, 0-11-49-241-9379-295

Australia, Tandem Computers Pty Ltd.

Vinzant, Inc.

600 E. Third Street
Hobart, IN 46342
USA

Event Control Server

Professional Batch Scheduling Facility for Distributed Environments

The Event Control Server (ECS) is a platform-independent batch scheduling facility. ECS supports DOS, Windows 3.1, OS/2 and Windows NT environments. ECS for Windows NT is a native 32-bit NT application which will control the execution of Windows NT programs, Windows 3.1 programs and DOS programs. The scheduling capabilities of ECS allow users to create complex job streams, in the tradition of mainframe scheduling packages. Features include predecessor scheduling, execution on file presence/absence and prioritization. ECS keeps a complete log of activities and condition codes. Central administration allows for the remote dispatch of tasks.

Retail Price: \$1,495.00 per job server

Contact: Carol Opfel

Phone: 1-800-355-3443

Fax: 219-942-1480

RISC Versions: Call for availability

International Sales:

Call 219-942-9544

Visigenic Software, Inc.

5550 Skylane Blvd, Suite N
Santa Rosa, CA 95403
USA

Visigenic Signature Graphics Class Library

C++ Class Library for Raster and Vector Graphics

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Retail Price: \$2,900.00

Contact: Sales

Phone: 707-576-7722

Fax: 704-576-7731

RISC Versions: Call for availability

VisionWare®

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XVision 5, ver. 5.1

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Phone: 800-949-8474

Fax: 415-325-8710

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International Sales:

International Headquarters: Tel: 44-0-532-788-858, Fax: 44--0-532-304676; email:
Sales@visionware.co.uk

VisiSoft

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Retail Price: \$9,600.00 for C version; \$12,100.00 for C++ version; no runtime fees

Contact: Sheri Winter

Phone: 8000832-8668 or 703-758-8230

Fax: 703-758-0233

RISC Versions: Yes

Visual Numerics, Inc.

9990 Richmond Ave.
Suite 400
Houston, TX 77042-4548
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PV-WAVE Advantage

Visual Data Analysis Application Development Environment

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Contact: Inside Sales

Phone: 303-530-9000

Fax: 303-530-9329

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Contact: Carrie Lemieux

Phone: 508-392-0100

Fax: 508-392-3102

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Contact: Daniel Syrstad

Phone: 708-852-7553

Fax: 708-852-7951

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Contact: Rohit Mehotra

Phone: 214-491-6907

Fax: 214-491-6909

RISC Versions: Yes

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Phone: 508-879-3311

Fax: 508-879-3332

RISC Versions: Yes

International Sales:

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Asia/Pacific, Trevor Gray, 61-2-900-5600

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Contact: Joshua Lateiner

Phone: 617-937-8330

Fax: 617-937-8331

RISC Versions: Call for availability

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175 South Main Street
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Contact: Jim Wendler

Phone: 801-595-1352

Fax: 801-328-4404

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Phone: 1-800-48-Rumba

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RISC Versions: Yes **International Sales:**

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Retail Price: \$1,295.00

Contact: Don Low

Phone: 206-392-7571

Fax: 206-392-7571

RISC Versions: Call for availability

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RISC Versions: Yes

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Phone: 303-327-4898

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Wilson WindowWare Inc.

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Contact: Margaret Premel

Phone: 800-762-8383 or 206-938-1740

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Retail Price: \$69.95 - subject to change

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Phone: 800-762-8383 or 206-938-1740

Fax: 206-935-7129

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Contact: Margaret Premel

Phone: 800-762-8383 or 206-938-1740

Fax: 206-935-7129

RISC Versions: Yes

WinClient Technologies, Inc.

411 University Street
Suite 1200
Seattle, WA 98101
USA

WinClient Framework v2.0

Windows Client Application Development Tool

WinClient is a C++ object library specially designed for serious RDBMS front end application development for Windows NT. It provides tightly integrated RDBMS access and graphical user interface (GUI) features. ODBC is the primary database interface supported. Window programming is simplified with the help of powerful objects such as field, field group and tabular. The WinClient application framework is tailored for incorporating large applications. WinClient also provides a screen painter for laying out various objects interactively. The screen painter will generate the necessary headers, declarations and initialization procedures for the WinClient Object library. The WinClient Library can be easily extended to suit your requirements.

Retail Price: \$238.00 (basic) \$498.00 (prof.)

Contact: Glenn Elliott

Phone: 800-949-3512

Fax: 206-623-0243

RISC Versions: Call for availability

WinImage

WinImage 2.0

Downloadable in WINSHARE CompuServe forum: Intel version = WINIMA20.ZIP, Dec Alpha version = WIMAXP20.ZIP, Mips R4000 version = WIMAMP20.ZIP, Windows 3.1 16 bit and deutch version exists also

WinImage is a disk imager: this is a floppy copy tools, which manage Disk Image.

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Retail Price: Shareware

RISC Versions: Yes

WinSoft

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Contact: Phillip Jain

Phone: 415-324-9552

Fax: 415-324-9580

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Retail Price: \$495.00

Contact: Phillip Jain

Phone: 415-324-9552

Fax: 415-324-9580

RISC Versions: Call for availability

Wolfgang Strobl

Argelanderstr. 92
53115 Bonn,
Germany

KLOTZ

ftp.cica.indiana.edu: \ftp\pub\pc\win3\nt\klotz4nt.zip

KLOTZ is a game of falling pieces similar to TETRIS for use under Microsoft Windows.

Retail Price: Shareware

Contact: Wolfgang Strobl

RISC Versions: Inquire about availability

Wonderware Software Development Corp.

100 Technology Drive

Irvine, CA 92718

USA

InTouch Professional Developers Kit/NT

Bundles Standard InTouch 5.0 and InTouch Lite with the full 32-bit InTouch for Windows NT product

(Includes all enhancement modules (SPC, Recipe Manager, SQL Access), all Wonderware DDE (I/O) servers, NetDDE, and all documentation in a complete package for developers of industrial automation supervisory control and data acquisition systems.)

Wonderware's InTouch industrial automation software has been redesigned for the Version 5.0 release and optimized for both the standard Windows and Windows NT environments. It provides all of the same features for both operating systems, in 16 and 32 bit versions, but most important to users is that they can develop their operator interface, supervisory control and data acquisition application with the Professional Developers Kit/NT and run them in either environment. A host of new features is included in the InTouch 5.0 release, including an intelligent "Wizards" capability for simplifying application development, SQL enhancements that incorporate ODBC standards, new historical trending features and new scripting and script editing functions.

Retail Price: \$9,500.00

Contact: Gary Wilson

Phone: 714-727-3200

Fax: 714-727-3270

RISC Versions: Yes

International Sales:

Mr. Sam Revah, Director of European Sales

Wonderware Europe, Inc.

Amsteldijk 166, Room 301B

1079 LH Amsterdam

The Netherlands

Ph: 31-20-642-0514

Fax: 31-20-644-7179

Wordstar

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Retail Price: \$119.00

Contact: David Manning

Phone: 404-514-6387

Fax: 404-428-0008

RISC Versions: Call for availability

Workstation Solutions, Inc.

One Overlook Drive
Amherst, NH 3031
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Quick Restore

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Retail Price: NA

Contact: Stephen McCalmont

Phone: 603-880-0080

Fax: 603-880-0696

RISC Versions: Call for availability

XDB Systems

14700 Sweitzer Lane
Laurel, MD 20707-2921
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XDB-Server for Windows NT

Combines 32 Bit Power with 100% DB2 Compatibility

The XDB-Server for Windows NT is a high performance, multi-user database server that brings the power and integrity of mainframe database systems to LANS. The XDB-Server for Windows NT is based on client-server technology and provides 100% DB2 compatibility, including transaction processing, referential integrity, record-level locking, rollback and recovery, distributed database access, and other DB2 features. With the XDB-Server for Windows NT you can downsize your DB2 mainframe applications without a major rewrite. The XDB-Server has been engineered to take full advantage of the advanced capabilities of Microsoft's 32 Bit Windows operating system to achieve the highest possible performance. The multi-threaded system delivers fast response times and high user capacity. XDB-Server's 32-bit implementation gives you improved memory management facilities. Any of XDB's development, 4GL or query tools can act as clients to the XDB-Server for Windows NT. In addition, XDB's open architecture allows many independent software vendors to interface their products to XDB-Server for Windows NT using any of XDB's SAA standard SQL pre-compilers, or Microsoft's ODBC.

Retail Price: Call for pricing

Contact: Kathy Magenheim

Phone: 301-317-6800

Fax: 301-317-7701

RISC Versions: Yes

XVT Software, Inc.

4900 Pearl East Circle
Suite 107
Boulder, CO 80308-9917
USA

Related Topics:

[XVT Portability Toolkit](#)

[XVT-Design 2.0](#)

XVT Portability Toolkit

Portable GUI Development Solution

The XVT Portability Toolkit is a powerful development environment that allows you to build and maintain a single C or C++ application that is portable to seven different popular GUI (Graphical User Interface) environments and more than twenty-six different systems. The result: Your application is available to the widest market without the time and expense of developing for each GUI separately. Available for Microsoft Windows, Windows NT, Macintosh, OS/2 Presentation Manager, OPEN LOOK, OSF/Motif, and character systems for DOS, UNIX, and VMS.

Retail Price: \$1,750.00 if purchased separately

Contact: Customer Service

Phone: 800-678-7988 or 303-443-4223

Fax: 303-443-0969

RISC Versions: Call for availability

XVT-Design 2.0

Portable GUI Development Solution

XVT-Design 2.0 is an interactive design solution that generates portable GUI code and resources for the XVT Portability Toolkit. XVT-Design 2.0 allows programmers to interactively design a portable interface using a broad selection of sophisticated elements. The interface can be designed, coded, and tested without leaving XVT-Design. Developers can immediately view and test the interactions between elements and completely specify how elements of the interface interact with the non-interface portion of the application. XVT-Design 2.0 not only manages the elements of the design, but also manages all of the program code associated with GUI itself and the code that links the GUI to the rest of the application.

Retail Price: \$1,750.00 if purchased separately

Contact: Customer Service

Phone: 800-678-7988 or 303-443-4223

Fax: 303-443-0969

RISC Versions: Call for availability

Young Endeavors Software

240 W. Nevada St.
Ashland, OR 97520
USA

32Link

A Windows Communications Program

32Link is an easy to use and powerful communications package that takes advantage of Windows NT.
Features: Command Scripting Supports all major protocols, XMODEM, YMODEM, ZMODEM, KERMIT, CompuServe B, ASCII Automatic ZMODEM and CompuServe B file download detection Logging
Capabilities- Time on accounting Terminal Emulations: VT52, VT100, Color ANSI User selectable terminal fonts Unlimited dial directory Terminal scroll back buffer Multi-file uploads with supported protocols
Toolbar for quick function access Host mode operation.

Retail Price: \$50.00

Contact: Jim Young

Phone: 503-488-4842

Fax: 503-488-4842

RISC Versions: Call for availability

Hardware Compatibility List

[Introduction to Hardware Compatibility](#)

[x86 Architecture Uniprocessor Computers](#)

[x86 Architecture Multiprocessor Computers](#)

[MIPS® RISC Architecture Computers](#)

[Digital Alpha AXPTM RISC Architecture Computers](#)

[SCSI® Host Adapters](#)

[SCSI CD-ROM Drives](#)

[Other CD-ROM Drives](#)

[SCSI Tape Drives](#)

[Other Tape Drives](#)

[SCSI Removable Media](#)

[SCSI Scanners](#)

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[StorageWorks Desktop Expansion UnitVideo Display Support](#)

[Network Adapters](#)

[Multimedia Audio Adapters](#)

[Modems](#)

[Hardware Security Hosts](#)

[ISDN Adapters](#)

[Multi-port Serial Adapters](#)

[Uninterruptible Power Supplies](#)

[Keyboards](#)

[Pointing Devices](#)

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[Windows NT 3.1 x86 Architecture Uniprocessor Computers](#)

[Technical Notes](#)

[How To Find New Drivers in the Windows NT Driver Library \(WNTDL\)](#)

Introduction to Hardware Compatibility

The following computers and peripherals have been tested and have passed compatibility testing with Windows NT 3.5 Beta. Some computers may be sold with peripherals that are not yet supported by Windows NT, or that require a device driver supplied by the manufacturer. We have not tested every computer and/or device in all possible configurations. Please refer to the SETUP.TXT file on the install media for additional compatibility information when installing Windows NT.

Hardware listed in this document is recognized as compatible with both the Windows NT 3.5 Workstation and Windows NT 3.5 Server products.

Attached as an addendum, is the May 1994 update of the Windows NT 3.1 x86 Architecture Uniprocessor Computers Hardware Compatibility List. All computer systems listed on the addendum are expected to run with the Windows NT 3.5 Beta 2. If you encounter problems while running the Windows NT 3.5 Beta 2, please file a bug report by using the 'WINBUG' utility located on the Windows NT 3.5 Beta 2 CD-ROM or by filling out 'PROBREP.TXT' located on the CD-ROM or the Setup Boot Disk of the Windows NT 3.5 Beta 2 installation disks.

Items listed with footnote number 1 require one of the device drivers available in the \DRVLIB directory on the Windows NT 3.5 Beta 2 CD-ROM.

Updates to this list will appear in Library 1 of the BETAWINNT (GO BETAWINNT) forum or Library 1 of the DAYTONADEV forum (GO DAYTONADEV) on CompuServe® Information Services.

x86 Architecture Uniprocessor Computers

The following systems have been tested.

Absolute Computer 486/66 EISA CD SERVER

ACER 17000 SMP AA17853N

ACER AcerAltos 7000 Model 7853N

ACER AcerAltos 7000 Model 7959BN

ACER AcerAltos 7000 Model AA7653N

ACER AcerAltos 800 Model AA868C

ACER AcerFrame 1000 (Model 1750)

ACER AcerPower 486/33

ACER AcerPower 9000 Series Model 9813N

Actech ACTion 486-33 PCI

Actech ACTion 486DX-33 GREEN VLB

Actech ACTion 486DX-50 GREEN VLB

Actech ACTion 486DX-50 PCI

Actech ACTion 486DX/2-66 GREEN VLB

Actech ACTion 486DX/2-66 PCI

Actech ACTion 486DX/4-100 GREEN VLB

Actech ACTion EISA 486DX-50

Actech ACTion EISA 486DX2-66

Actech ACTion P60 Pentium™ PCI

ADS INTEGRATION SERIES 486 VESA®

ADS PRO 586 EV PENTIUM

ADS PRO 586 PENTIUM

ADS PRO SERIES 486 VESA

ALR® BusinessVEISA 4/33D

ALR Evolution V STP/60

ALR Evolution V/60

ALR Flyer SD32 4/66d

ALR POWERPRO SMP 4/33

ALR POWERPRO/MC SMP 4/50D

Ambra 486DX/50

Ambra DP60/PCI

American Multisystems InfoGOLD P60NT

AMI® Enterprise III

AMI Enterprise IV

AMI Excalibur PCI

AMI Excalibur VLB

AMI Super Voyager PCI

AMI Super Voyager VLB II

AMI Super Voyager VLB III

AOX mcmaster 486250

Apricot® FT//ex P24C

Apricot FT//ex P54C

Apricot FTe 486DX2/66

Ares 486-33 VLB
Ariel 486DX2-66EVS
Aspect SMART WEAPONS 486 DX2-66 VL
Aspect SMART WEAPONS 486DX2 PCI 66
Aspect SMART WEAPONS 486DX2 PCI/EISA 66
Aspect SMART WEAPONS 486SX VL 33
Aspect SMART WEAPONS PENTIUM PCI 66
Aspect SMART WEAPONS PENTIUM PCI/VL90
AST® Premium II 386/33 Model 213V
AST Premium II 486/33
AST Premium SE 4/33 Model 333
AST Premmia 4/66d
Austin 486/50 EISA Tower PATRIOT

BB Data AB Grizzly 266 Alfredo
BB Data AB Grizzly P66 Batman
BB Data AB Grizzly S33 Alfredo

Caliber SMART WEAPONS 486 DX2-66 VL
Caliber SMART WEAPONS 486DX2 PCI 66
Caliber SMART WEAPONS 486SX VL 33
Caliber SMART WEAPONS PENTIUM PCI 66
Caliber SMART WEAPONS PENTIUM PCI/EISA 66
Caliber SMART WEAPONS PENTIUM PCI/VL90
Cascade VLB-66
CELEM 486DX/33 VL (VESA)
CELEM 486DX/33 C (ISA)
CELEM 486DX2/66 DC (EISA+VESA)
CELEM 586/60 (PCI+ISA)
CELEM 586/66 (PCI+EISA)
CELEM DX4/100 (VL+ISA)
Centis PowerTech model P60-G3
Centis Profilite 466-G3
Cinet ET-100
Cinet FSE-100
Cinet HI-100
Cinet LS-100
Cinet MP-100
Cinet PPI-100
Cinet VL-100
COMPAQ Deskpro 386®/25e
COMPAQ Deskpro 386/33®
COMPAQ® Deskpro 386™/33L
COMPAQ Deskpro® 4/66i
COMPAQ Deskpro 486/33i
COMPAQ Deskpro 486/33L
COMPAQ Deskpro 486/33M
COMPAQ Deskpro 66M

COMPAQ Deskpro XL 566
COMPAQ LTE® Lite 4/25C
COMPAQ MT 486SX2 66MHz
COMPAQ Presario CDS 633
COMPAQ ProLiant 1000 Model 5/60
COMPAQ ProLiant 2000 Model 486/50
COMPAQ ProLinea 3/25s
COMPAQ ProLinea 4/50
COMPAQ Prolinea 4/66
COMPAQ ProSignia 486DX/33
COMPAQ ProSignia VS 486DX/33
COMPAQ ProSignia VS 486DX2/66
COMPAQ ProSignia VS 486SX/33
COMPAQ Systempro®/LT 486SX/25
CompuAdd® 466/DX2
CompuAdd 466E DX2
CompuAdd 486-33DLC
COMPUCON 486DX2/66 EISA/VL
COMPUCON 486DX2/66 GX4
COMPUCON 486DX2/66VG
COMPUCON 486DX4/100VG
COMPUCON DX266P
COMPUCON DX266VB
COMPUCON DX33G
COMPUCON PCI/IP-60
Computer Resources PRECISION PENTIUM
Computer Resources PRECISION 486/40 VL
Computer Systems Resources 486DX-50 16M WS
Computer Systems Resources 486DX2-66 16M WS
Computrade ExpressSM 486-50/VLB
Computrend PREMIO 486DX2-66
Computrend PREMIO Pentium
Comtrade EISA GigaByte Ultima 486DX2-66
CTM Fontek 486DX2-50 VL
CTM Fontek 486DX2-66 VL
CTM Fontek 486DX33 VL
CTM Polaris 486DX-33 VESA
CTM Polaris 486DX2-50 VESA
CTM Polaris 486DX2-66 VESA
CTM Pronic 486DX-33 VESA
CTM Pronic 486DX2-50 VESA
CTM Pronic 486DX2-66 VESA
Cube 466 ATX Local Bus

Daewoo VESA PENTIUM(60)
Daewoo Winpro™ 486DLC-40
Daewoo Winpro 486DX250 Green Desktop

Daewoo Winpro 486DX250 Vesa
Danjen 486-50VL(Inc. Lunch Box, Mini, Mid,and Full Tower)
Data Stor 486-66DX2E Desktop/Tower
DELL® 325 NC Notebook
DELL 433/DE
DELL 433/M
DELL 450/M
DELL 450/ME
DELL 4560/XE
DELL 466/ME
DELL 466/T
DELL 466DE
DELL Dimension 433SV
DELL Dimension XPS P60
DELL OmniPlex 466
DELL OmniPlex 560
DELL OmniPlex 566
DELL PowerLine System 433E
DELL PowerLine System 433SE
DELL PowerLine System 450DE/2 DGX
DELL PowerLine System 450SE
DELL PowerLine System 486D/50
Delphi Comet 466NT model 400
DFI CCV 486DX2-66
DFI D486ICP-66
DFI D486ICP-66 (with AMD486DX2/66)
DFI D486P-PRO-x50-AMD
DFI D486V-PRO
DFI DP5-Pro-66
DFI P486-PRO 486DX-33
Diamond DT 486DX Versa (AMD DX/40)
Diamond DT 486DX Versa (DX2/66)
Digital Equipment Corp. DECpc 433T
Digital Equipment Corp. DECpc 466d2 DT
Digital Equipment Corp. DECpc MTE 4100
Digital Equipment Corp. DECpc XL 4100
Digital Equipment Corp. DECpc XL 466d2
Digital Equipment Corp. DECpc XL 560
Digital Equipment Corp. DECpc XL 590
Digital Equipment Corp. DECpc XL Server 560
Digital Equipment Corp. DECstation® 425c
Duracom 486/66DX2-CCV
Duracom DESKSAVER DX2/66
Dynamic Decisions EXECUTIVE 486-33 ISA/PCI
Dynamic Decisions EXECUTIVE 486-33 VL/EISA
Dynamic Decisions EXECUTIVE 486-33 VL/ISA
Dynamic Decisions EXECUTIVE 486-66 DX2 PCI

Dynamic Decisions EXECUTIVE 486-66 VL/EISA
Dynamic Decisions EXECUTIVE ISA-486-33 SX GREEN VL
Dynamic Decisions EXECUTIVE ISA-486-50 SV2
Dynamic Decisions EXECUTIVE ISA-486-50 VL
Dynamic Decisions EXECUTIVE ISA-486-66D2 SV2
Dynamic Decisions EXECUTIVE ISA486-66 DX2 GREEN VL
Dynamic Decisions ISA-486-33 PCI GREEN
Dynamic Decisions PROFESSIONAL 486-33 GREEN VL ISA
Dynamic Decisions PROFESSIONAL 486-33DX VL/EISA E3
Dynamic Decisions PROFESSIONAL 486-50DX VL/EISA E4
Dynamic Decisions PROFESSIONAL 486-66 VL/ISA
ECE DATA i486™/VLB-GREEN

Eltech Model 4660VB
Eltech P54C-90P
Epson® Endeavor WG 4DX2/50
Epson Equity 4DX/33
Epson Equity 4SX/25
Epson Progression 4DX2/50
Ergo PowerBrick 33
ERIDAN Onyx DE433
ERIDAN Onyx DE466
Everex™ Step 486/33 ISA
Everex Tempo 486/33
Everex Tempo 486/33E
EXPO-TECH 486DX-33 Mini
EXPO-TECH 486DX-33 Tower
EXPO-TECH 486DX2-50 Mini
EXPO-TECH 486DX2-66 Mini
EXPO-TECH 486SX-33 Mini
EXPO-TECH 486SX-33 Tower
EXPO-TECH Pentium 566M

Fast 486DY66S520
First 486-GIO-VP
First FIC PM-900
First LEO 486-GIO-VT2
First LEO 486-GVT2
First LEO 486-VIP
Free F38X486VESA
Fujitsu® S-500
Fujitsu S-5000MP
Fujitsu Teamserver E180i
Fujitsu Teamserver E380i
FutureTech 486DX2-66 VLB

Gateway 2000 486/33C
Gateway 2000 486DX2/50E
Gateway 2000 486DX2/50V

Gateway 2000 486DX2/66V Desktop
Gateway 2000 486DX2/66V Tower
Gateway 2000 4DX-33V
Gateway 2000 4DX/33
Gateway 2000 4DX2-66P
Gateway 2000 4DX2/66E
Gateway 2000 4SX/25
Gateway 2000 P5-60
Gateway 2000 P5-66
GCH AEGIS 466
GCH AEGIS 466D2V
GCH EasyData GD600
GCH EasyDate 466HI VL
GCH EiSYS Ei600 Series
GMX EISAMB 486DX2/66
GRiD® 486ei-33

H.D.Microsystèmes AX7 486 DX-33
H.D.Microsystèmes AX7 486 DX-50
H.D.Microsystèmes AX7 486 DX2-50
H.D.Microsystèmes AX7 486 DX2-66
H.D.Microsystèmes AX7 Pentium 60 PCI
Hancke & Peter 486 DX4-100 VL/ISA Professional
Hancke & Peter 486-66 EISA/VL Professional
Hancke & Peter 486-66 PCI Professional
Hancke & Peter 486-66 VLG Professional
Hancke & Peter Pentium/66 EISA/PCI Professional
Harris 486DX2/66 VESA
Harris Pentium/66 PCI
Hewlett-Packard® NetServer 4d/66 LE
Hewlett-Packard NetServer 4d/66 LM
Hewlett-Packard Vectra® 486/33N
Hewlett-Packard Vectra 486/33T
Hewlett-Packard Vectra 486/50U
Hewlett-Packard Vectra 486/66ST
Hewlett-Packard Vectra 486/66U
Hewlett-Packard Vectra 486S/20
High Tech USA 486DX266 VLB SYSTEM
High Tech USA 486DX33 VLB SYSTEM
High Tech USA PENTIUM P5 -66 /256KVLB
HM Systems Minstrel XPentium P90
HM Systems Minstrel XPentium Server P90
Hyundai 425s
Hyundai 466d2

IBM® PC Server 486DX2/66 8640-0N*
IBM PC Server Pentium/60 8640-0P*
IBM PS/1 2155-xxx 486DX/33

IBM PS/1 2155-xxx 486DX2/50
IBM PS/1 2168-xxx 486DX/33
IBM PS/1 2168-xxx 486DX2/50
IBM PS/2® Model 50/50Z System Board Upgrade 486SLC2/50
IBM PS/2 Model 53 9553-xxx 486SLC2/50 2
IBM PS/2 Model 56 9556-xxx 486SLC2/50
IBM PS/2 Model 57 9557-xxx 486SLC2/50
IBM PS/2 Model 70 8570-xxx 386DX/25
IBM PS/2 Model 70 8570-xxx 486DX/25
IBM PS/2 Model 76 9576-xxx 486DX2/66
IBM PS/2 Model 76 9576-xxx 486SX/33
IBM PS/2 Model 76i 9576-xxx 486DX2/50 2
IBM PS/2 Model 76i 9576-xxx 486DX2/66 2
IBM PS/2 Model 76s 9576-xxx 486DX2/50 2
IBM PS/2 Model 76s 9576-xxx 486DX2/66 2
IBM PS/2 Model 77 9577-xxx 486DX2/66
IBM PS/2 Model 77 9577-xxx 486SX/33
IBM PS/2 Model 77i 9577-xxx 486DX2/50 2
IBM PS/2 Model 77i 9577-xxx 486DX2/66 2
IBM PS/2 Model 77s 9577-xxx 486DX2/50 2
IBM PS/2 Model 77s 9577-xxx 486DX2/66 2
IBM PS/2 Model 80 8580-xxx 386DX/25
IBM PS/2 Model 90 XP 486 8590-0J* 486DX/25
IBM PS/2 Model 95 XP 486 8595-0J* 486DX/25
IBM PS/2 Model 95 XP 486 8595-0M* 486DX/50
IBM PS/2 Model 95 XP 486 8595-xxx with 486DX2/66 processor upgrade
IBM PS/2 Model 95 XP 486 8595-xxx with Enhanced 486DX/50 processor upgrade
IBM PS/2 Model 95 XP 486 8595-xxx with Enhanced 486DX2/66 processor upgrade
IBM PS/2 Model 95 XP 486 8595-xxx with processor upgrade with Pentium Technology
IBM PS/2 Model 95 XP 486 9595-0M* 486DX/50
IBM PS/2 Model 95 XP 486 9595-xxx with 486DX2/66 processor upgrade
IBM PS/2 Model 95 XP 486 9595-xxx with Enhanced 486DX/50 processor upgrade
IBM PS/2 Model 95 XP 486 9595-xxx with Enhanced 486DX2/66 processor upgrade
IBM PS/2 Model 95 XP 486 9595-xxx with processor upgrade with Pentium Technology
IBM PS/2 Model P75 8573-xxx 486DX/33
IBM PS/2 Server 85 433 9585-0K*
IBM PS/2 Server 85 466 9585-0N*
IBM PS/2 Server 85 9585-0X* with 486DX2/66 processor upgrade
IBM PS/2 Server 95 466 9595-1N*
IBM PS/2 Server 95 566 9595-0QT
IBM PS/2 Server 95 Array 466 9595-3N 3
IBM PS/2 Server 95 Array 560 9595-3P 3
IBM PS/2 Server 95 Array 566 9595-3Q 3
IBM PS/2 Ultimedia™ DV M57 9557-xxx 486SLC2/50
IBM PS/2 Ultimedia M57 9557-xxx 486SLC2/50
IBM PS/2 Ultimedia M77 9577-xxx 486DX2/66
IBM PS/2 Ultimedia M77 9577-xxx 486SX/33

IBM PS/ValuePoint 433DX/S 6472-XXX
IBM PS/ValuePoint 433SX/D 6384-Kxx
IBM PS/ValuePoint 433SX/S 6382-Kxx
IBM PS/ValuePoint 466DX2/D 6384-Wxx
IBM PS/ValuePoint 466DX2/T 6387-Wxx
IBM ThinkPad® 360CS 4
IBM ThinkPad 750 4
IBM ThinkPad 750c 4
IBM ThinkPad 755 4
ICL ErgoPro D4/66d P
ICL ErgoPro D4/66 XGi
ICL System Platform FX486/33
ICL Teamserver E180i
ICL Teamserver E380i
Image® 486DX/50 EISA
Intel® Classic® / PCI LP
Intel Classic-R
Intel Classic-R Plus
Intel Classic/PCI Expandable Desktop
Intel L486 Series Professional Workstation
Intel L486-Series/Professional GX
Intel MX Pentium 90
Intel Premiere 66 /PCI Baby-AT
Intel Premiere/PCI 66 LPX
Intel Premiere/PCI Baby AT®
Intel Premiere/PCI II LX Low Profile™ Desktop
Intel Premiere/PCI LPX
Intel X486/50E
Intel Xpress 486
Intel Xpress 486/50
Intel Xpress 486DX2/66
Intel Xpress Deskside
Intel Xpress LXS
Intel Xpress/MX 66Mhz Pentium
INTERCOMP Digit 486DX2/66
INTERCOMP Entry DX-33
INTERCOMP Entry SX-25
INTERCOMP IDAS8000
INTERCOMP IDAS8000/H
INTERCOMP IDAS8000/P 60
INTERCOMP Master EISA DX/33
INTERCOMP Master EISA DX2/66
INTERCOMP Master PENTIUM/66
INTERCOMP Target EN 486DX/33
INTERCOMP Target EN DX2/66
Interface Electronic System X EISA
Intergraph® PC 433

Intergraph PC 466
Intergraph Technical Desktop 1
Intergraph Technical Desktop 2
Intergraph Technical Desktop 3
Intergraph Technical Desktop 4
International Instrumentation BLUE MAX 486 DX66 PCI
International Instrumentation BLUE MAX P-60 PCI
Investronica INVES BS-486 VL
Investronica INVES BS-486 VS
Investronica INVES BS-486VT+
Investronica INVES IFS-1000
Investronica INVES IFS-900
Investronica INVES MP-900 XM UniProcessor
Investronica INVES WS-900 EVL
IPC DYNASTY SE P5-60C
IPC DYNASTY SEL P5-60C
IPC DYNASTY SEL P5-66C
IPC SE 486DX2-66C PCI
ITG NT 486DX-50
ITG NT Pentium/60

LASER 486DX-33 Mini
LASER 486DX-33 Tower
LASER 486DX2-50 Mini
LASER 486DX2-66 Mini
LASER 486SX-33 Mini
LASER 486SX-33 Tower
LASER Pentium 566M
Leading Edge® DT4000 DX-33
Leading Edge DT4000 DX2-66
Leading Edge DT4000 DX2/50
Leading Edge DT4000 SX-33
Leading Edge DT4000 SX-33
Leading Edge MT4000 Cyrix DX2-50
Leading Edge MT4000 DX-33
Leading Edge MT4000 DX2-66
Leading Edge SL4000 DX-33
Leading Edge SL4000 DX/2-50
Leading Edge SL4000 DX2/66
Leading Edge SL4000 SX-33
Leading Edge WinPro 486e/DX-33
Leading Edge WinPro 486e/DX2-50
Leading Edge WinPro 486e/DX2-66
Leading Edge WinPro 486e/SX-25
Leading Edge WinPro D DLC/40
Leading Edge WinTower 486 DX-33
Leading Edge WinTower 486 DX2-50

Leading Edge WinTower 486 DX2-66
Leading Edge WinTower 486 SX-25
Leading Edge WinTower Cyrix DX2/50

Maximus 486-50MHz Maxi-CAD
Mega Computer ECO Series 486 DX2/66 VLB
Micro Express ME 486DX2/66
Micron 4100 Magnum
Micron 486PCI WINSTATION CD
Micron P5PCI Platinum® CD
Micron P5PCI PowerStation™ CD
Micron P66PCI PowerServer™
Microniche MIS Computer Systems M466EV
Microniche MIS Computer Systems M466VL
Microniche MIS Computer Systems M560P
Microniche MIS Computer Systems M560PE
Micronics Mpro 486DX/50
Midwest Micro 486DX2/50 Vesa/ISA
MIKROLOG OY MT4D-66E
MIKROLOG OY MT5D-66P
MIND 486DX/33 EISA
MIND 486DX/33 VLB
MIND 486DX/40 EISA
MIND 486DX/40 VLB
MIND 486DX2/50 VLB
MIND 486DX2/66 EISA
MIND 486DX2/66 VLB
MIND 486DX2/66 VLB ALI
MIND 486DX4/100
MIND Pentium 60 PCI/EISA
MIND Pentium 66 PCI/EISA
MIND Pentium/60 VLB
MiTAC 4021GC/T
MiTAC 4022GC
MiTAC 5080i
MiTAC DM4077C
MiTAC DV4077C
MiTAC DV4077D
Monydata Modula 300 / 90
Monydata Station 486 / 90
Mustek BROTHER® BCM3486DX2-VL
Mustek BROTHER BCM4486DX-VL
Mustek MECER3486-VL
Mustek MECER7486-VIP
Mustek MECER7486-VL

National Microcomputers Power System DX2-66
NCR® StarStation

NCR System 3000 Model 3314
NCR System 3000 Model 3335
NCR System 3000 Model 3350
NCR System 3000 Model 3355
NCR System 3000 Model 3445
NEC® Express 4100ST
NEC Express/II 466 ST
NEC Express/II P601 LT
NEC Express/II P60ST
NEC Image 4100es
NEC Image 466
NEC Image P60
NEC PowerMate 466D
NEC PowerMate 466es
NEC PowerMate 486/33e
NEC Ready 466D
NEC Ready 466es
NEC Versa E
NETiS 486 DX2/50
NETiS 486DX/33 VL
NETiS 486DX/50 VL
NETiS 486DX2/50 PCI
NETiS 486DX2/66 PCI
NETiS 486DX2/66 VL
NETiS 486DX33 PCI
NETiS AMD 486 DX 40 VL
NETiS AMD 486 DX2/50
NETiS AMD 486DX2/50 PCI
NETiS Pentium 66 PCI
NETiS Pentium 90
Network Connection Triumph® M2
Network Connection Triumph M2V
Network Connection Triumph T3000
Network Connection Triumph T4000
Network Connection Triumph TNX
Northgate® Elegance 333
Northgate Elegance 433i
Northgate Elegance SP 433

OKI if 486VX550D
OKI if Server 466/SL
OKI if Server 566/SL
OKI if Station 425/DL
OKI if Station 433/DE
OKI if Station 466/DE
OKI if Station 560/DE
Olivetti® LSX5010

Olivetti LSX5015
Olivetti LSX5025
Olivetti LSX5025 E
Olivetti M6-460
Olivetti SNX 140 Systema
Olympia Olystar 400D-66 EISA
Optima Xpress/ MX DUAL PENTIUM 66 EISA
Optima Xpress/ MX PENTIUM 60 EISA
Optima OCT 486DX/266 PCI Local Bus
Optima OCT 486DX/4 100 PCI Local Bus
Optima OCT 486DX/4 100 Vesa Local Bus
Optima OCT 486DX266 VL
Optima OCT 486SX33 VL
Optima OCT PENTIUM 60 PCI/ISA
Optima OCT PENTIUM 66 PCI/ISA
Optima SPRINTER 486 SX33 Vesa Local Bus
Optima SPRINTER 486DX266 VL
Optima SPRINTER P560 PCI
Optima SPRINTER P566 PCI ISA
Optima Xpress/ MX PENTIUM 66 EISA

Packard Bell Force 386
PC Expanders VANGUARD 486DX ISA/VESA 33Mhz
PC Expanders VANGUARD PENTIUM VESA/PCI 90Mhz
Poly 486-50E
Poly 486SX-25Y
Precision 486/66 VL-Bus
Precision Pentium Eisa-Vesa
Professional Concepts Beeker 4-33/VL2
Professional Concepts Beeker 4-66/VL2
Professional Concepts Beeker 6900
Professional Concepts Quinn 4-33/VLE
Professional Concepts Quinn 4-66/VLE
Professional Concepts Saavij 4-33/VL3
Professional Concepts Saavij 4-50/VL3
Professional Concepts Saavij 4-66/VL3
Protech 486-66Mhz ISA/VL
Protech Pentium PCI/ISA

QTech 486 DX2/66
Quattro® Prompt486/66 VL
Quattro Prompt586

Radisys EPC-7
Radisys EPC-8
Reason Technology 4 LX Plus 486DX2/66
Reason Technology Square 4LX/AIO
Reason Technology Square 5VL
Repco Data Pentium/I®

Repco Data R50VLB486
Repco Data R66VLB486
Reply PS/2 Model 50/50Z System Board Upgrade 486SLC2/50
Reply PS/2 Model 60/80 System Board Upgrade 486DX2
Reply PS/2 Model 70 Power Board Upgrade 486DX4/100
Reply PS/2 Model 70 System Board Upgrade 486DX2/66
Research Machines RM D Series PC-466
Rolta STATION 486/66 ENGG.

Seanix ASI 9000 EFAR 486DX2-66
Seanix ASI 9000 PREMIERE PENTIUM PCI-60
Seanix ASI 9000 YUKON 486DX2-66
Seanix ASI 9000 YUKON 486DX4-100
Serius Systems Technology 486/66 EISA
Shuttle HOT-407 EISA/VESA/DX2-66
Shuttle HOT-409 VLB/DX2-66
Shuttle HOT-419 DX4-100
Shuttle HOT-419 VLB/DX2-66
Shuttle HOT-503 PENTIUM/60
Shuttle HOT-503 PENTIUM/66
Shuttle HOT-528 EISA/PCI PENTIUM/60
Siemens-Nixdorf PCD-4T/33
SRC Systems 486 VL
SRC Systems 486 VL Plus
SRC Systems Pentium PCI
Supra 486DX-33 VESA/ISA
Supra 486DX2-66 VESA/ISA
Supra 486DX4-100 VESA/ISA
Supra 486SX-33 VESA/ISA
Supra PENTIUM 60 PCI/ISA
Svensk LAPLINE 3600
Swan 486DX2/66 EISA-DB
Syncomp Microstar 486DX2 /VLB
Syncomp Microstar 486SX /VLB PC
Syncomp Mini 486 DX2 /VLB
Syncomp Mini 486DX2 /EISA PC
Syncomp Mini 486DX2 /PCI PC
Syncomp Mini 486SX /EISA PC
Syncomp Mini 486SX /PCI PC
Syncomp Mini 486SX /VLB PC
Syncomp Mini PENTIUM /PCI PC
T-DATA LIN 486-50 DX2
T-DATA LIN Pentium
Tandy® 4100 MT
Tandy MMPC
Techway Endeavour E62VL
Techway Endeavour E62VL-GX4

Techway Endeavour E77VL
Techway Endeavour E77VL-GX4
Techway Endeavour E84VL
Techway Endeavour E84VL-GX4
Techway Endeavour E84VL100-GX4
TELEMECANIQUE FTX507-8C
Texas Instruments® TravelMate™ 4000 WinDX2 6
Texas Instruments TravelMate 4000E in TravelMate DeskTop
Toshiba® T1910CS/200
Toshiba T1950CT/320
Toshiba T4400SXC
Toshiba T4700CT/320
Toshiba T4800CT/500
TriGem 486G/T55(incl. 486G+ T55 model)
TriGem 486/66VC
TriGem 486G/T10(incl. 486H+ T10G model)
TriGem 486G/T15(incl. 486G+ T15 model)
TriGem 486G/T20
TriGem 486G/T25(incl. 486G+ T25 model)
TriGem 486G/T40(incl. 486H+ T40G,T43G models)
TriGem 486G/T50
TriGem 486GP T15
TriGem 486GP T25
TriGem 486GP T45
TriGem 486GP T55
TriGem P5/PT
TriGem P5/T
Tulip® Vision Line DT/DE 4/50S
Tulip Vision Line WS/DT 4/33S

U.S. Micro Jet 386DX-33
U.S. Micro Jet 386DX-40
U.S. Micro Jet 486DLC-33
U.S. Micro Jet 486DX-33
U.S. Micro Jet 486DX-40
U.S. Micro Jet 486DX-50
U.S. Micro Jet 486DX2-50
U.S. Micro Jet 486DX2-66
U.S. Micro Jet 486SX-25
U.S. Micro Jet P5-60 PCI/EISA
U.S. Micro Jet P5-60 PCI/ISA
U.S. Micro Jet PCI 486DX-33
U.S. Micro Jet PCI 486DX2-50
U.S. Micro Jet PCI 486DX2-66
U.S. Micro Jet PCI 486SX-25
U.S. Micro Jet VL 486BL-75
U.S. Micro Jet VL 486DX-33

U.S. Micro Jet VL 486DX-40
U.S. Micro Jet VL 486DX-50
U.S. Micro Jet VL 486DX2-50
U.S. Micro Jet VL 486DX2-66
U.S. Micro Jet VL 486SLC2-50
U.S. Micro Jet VL 486SLC2-66
U.S. Micro Jet VL 486SX-25
U.S. Micro Jet VL/EISA 486DX-33
U.S. Micro Jet VL/EISA 486DX-40
U.S. Micro Jet VL/EISA 486DX-50
U.S. Micro Jet VL/EISA 486DX2-50
U.S. Micro Jet VL/EISA 486DX2-66
U.S. Micro Jet VL/EISA 486SX-25
Unisys® Pathway Series PS243-331
Unisys Pathway Series PS246-331
Unisys Pathway Series PS246-661
Unisys Pathway Series PSA445-661
Unisys PW2 Advantage 3256
Unisys PW2 Advantage 3336
Unisys PW2 Advantage Plus 4668
UNITEK Power Vesa 486DX2

Vtech 486DX-33
Vtech 486DX-33 Tower
Vtech 486DX2-50 Mini
Vtech 486DX2-66 Mini
Vtech 486SX-33 Mini
Vtech 486SX-33 Tower
Vtech Pentium 566M
Vtech Platinum SMP

Wang® Microsystems PC 350/40C
Western 486V-100 DX4 EISA
Western 486V-100 DX4 VESA
Western 486V-33 DX EISA
Western 486V-33 DX VESA
Western 486V-33 SX VESA
Western 486V-50 DX EISA
Western 486V-50 DX VESA
Western 486V-66 DX2 EISA
Western 486V-66 DX2 VESA
Western 586G 60 EISA/PCI
Western 586G 66 EISA/PCI
WIPRO Fusion 510
WIPRO LANDMARK E SQUARE - MODEL 200
Wyse® Decision 486se-66DX2
Wyse Decision 486si-66DX2
Wyse Forte` GSV

Wyse Series 6000i, Model 665

Zenith® Data Systems Z-386/33E

Zenith Data Systems Z-486/33E

Zenith Data Systems Z-486/33ET

Zenith Data Systems Z-486SX/25E

Zenith Data Systems Z-SERVER LT 466XE Model 500 (incl. Model 1000)

Zenon Z-OPTIMUS PCI,SCSI-II, Pentium/60

ZEOS® 486DX/33ISA

ZEOS 486DX/50

- 1 This device requires a driver from the \DRVLIB directory on the Windows NT CD-ROM, or the Windows NT Driver Library.
- 2 Must copy ABIOS.SYS and *.BIO from reference diskette to root directory of boot drive to install Windows NT on this system.
- 3 Requires IBM RAID Controller diskette v2.0
- 4 This system only supports 640x480x16 video resolution.

x86 Architecture Multiprocessor Computers

The following x86 architecture multiprocessor systems have been tested.

ACER AcerAltos 17000 / 3255 (2p)
ACER AcerAltos 7000/F560TU
ACER AcerFrame 3000MP 50 (Model 3257) ⁵
Ambra TP66E2/VL
AST Manhattan SMP 486/50 (4p) ⁷
COMPAQ ProLiant 2000 Model 486/50
COMPAQ ProLiant 2000 Model 5/66
COMPAQ ProLiant 4000 Model 486/50
COMPAQ ProLiant 4000 Model 5/66
COMPAQ Systempro® Dual 486/33 ⁸
COMPAQ Systempro Dual 486/50 XL ⁸
COMPAQ Systempro Dual 486DX2/66 ⁸
Corollary Extended C-bus 486DX2/66
NCR System 3000 Model 3360 Panther
NCR System 3000 Model 3430
NCR System 3000 Model 3450 ⁹
NCR System 3000 Model 3555 ^{9,10}
Olivetti LSX5030
Olivetti LSX5040
Sequent® WinServer 3000 ¹⁰
Wyse Series 7000i Model 740MP/33
Wyse Series 7000i model 740MP/66

⁷ Tested with the DPT2012B SCSI Host Adapter.

⁸ Refer to the Installation section of the Release Notes before installing Windows NT 3.5 on this system.

⁹ Only the NCR 53c710 SCSI Host Adapter is supported in this machine.

¹⁰ Contact the manufacturer for information on running Windows NT on this machine.

MIPS® RISC Architecture Computers

The following MIPS RISC architecture systems have been tested.

ACER ARC1

AcerFormula

Carerra R4000™

DESKStation Technology Evolution E4000 RISC PC

DESKStation Technology Evolution E4400 RISC PC

DESKStation Technology Tyne v4633x RISC PC

MIPS ArcSystem Magnum PC-50

MIPS Millenium PC-50

NEC Image RISCStation

NeTpower NeTserver 1000

NeTpower NeTstation 100

NeTpower NeTstation 200

NeTpower NeTstation 300

Olivetti PWS4000

Progen R4400-50/100

UniMicro RISCStation 4400NT

Digital Alpha AXP™ RISC Architecture Computers

The Following Digital Alpha AXP RISC systems have been tested.

Actech ACTion Alpha AXP 150

Digital Equipment Corp. DECpc 2000-300 AXP Server

Digital Equipment Corp. DECpc 2000-500 AXP Server

Digital Equipment Corp. DECpc AXP 150

Digital Equipment Corp. DECpc AXP 150 Universal Platform

SCSI® Host Adapters

The following SCSI adapters have been tested on the indicated platforms with the following scanner, CD-ROM, tape, fixed and removable drives (except as noted):

- ArchiveST 4000 DAT
- CD-Technologies CD Porta-Drive™ T-3401
- Hewlett-Packard ScanJet® IIc NEC Intersect CDR-74
- Micropolis 1924
- Peripheral Land Infinity 88
- Procom Technology MCD-DS
- Syquest® 5110
- Toshiba TXM-3401E
- WangTek 5150es.

x86	MIPS	ALPHA	SCSI Host Adapter
X		X	Adaptec™ AHA-1510 ¹¹
X		X	Adaptec AHA-1520 ¹¹
X		X	Adaptec AHA-1522 ¹¹
X			Adaptec AHA-1542A ¹²
X	X	X	Adaptec AHA-1540B ¹³
X	X	X	Adaptec AHA-1542B ¹³
X	X	X	Adaptec AHA-1540C ¹⁴
X	X	X	Adaptec AHA-1542C ¹⁴
X	X	X	Adaptec AHA-1542CF ¹⁵
X			Adaptec AHA-1640
X	X	X	Adaptec AHA-1740 ¹⁶
X	X	X	Adaptec AHA-1742 ¹⁶
X	X	X	Adaptec AHA-1740A ¹⁷
X	X	X	Adaptec AHA-1742A ¹⁷
X	X	X	Adaptec AHA-2740
X	X	X	Adaptec AHA-2742
X		X	Adaptec AHA-2740A
X		X	Adaptec AHA-2742A
X			Adaptec AHA-2840
X			Adaptec AHA-2940
X ¹⁸			Adaptec AIC-6260
X ²⁰			Adaptec AIC-7770 ¹⁹
X			Always IN-2000
X			AMIscsi Series 441 ²¹
X			BusLogic BT-445S
X	X	X	BusLogic BT-542B
X	X	X	BusLogic BT-545S
X			BusLogic BT-640A
X			BusLogic BT-646S ²²

X	X	X	BusLogic BT-742A
X	X	X	BusLogic BT-747S
X			COMPAQ Fast SCSI-2 Controller
X		X	COMPAQ 6260 SCSI-2 Controller
X	X	X	DPT PM2011b
X		X	DPT PM2011b (with cache) ²¹
X		X	DPT PM2012b
X		X	DPT PM2012b (with cache) ²¹
X		X	Data Technology Corp. 3290
X			Future Domain [®] MCS-600
X			Future Domain MCS-700
X	X	X	Future Domain TMC-845 ^{23,24}
X	X	X	Future Domain TMC-850 ^{23,24}
X	X	X	Future Domain TMC-850M(ER) ²⁴
X	X	X	Future Domain TMC-860 ^{23,24}
X	X	X	Future Domain TMC-860M ²⁴
X	X	X	Future Domain TMC-885 ^{23,24}
X	X	X	Future Domain TMC-885M ²⁴
X	X	X	Future Domain TMC-1610
X	X	X	Future Domain TMC-1610mex
X	X	X	Future Domain TMC-1610mer
X	X	X	Future Domain TMC-1650
X	X	X	Future Domain TMC-1660
X	X	X	Future Domain TMC-1670
X	X	X	Future Domain TMC-1680
X			Future Domain TMC-3260
X		X	Future Domain TMC-7000EX
X ²⁵			IBM PS/2 Microchannel SCSI Host Adapter
X ²⁵			IBM PS/2 Microchannel SCSI Host Adapter (with cache)
X			Maynard 16-bit SCSI Adapter ^{22,26}
X			MediaVision Pro Audio Spectrum-16
X			NCR 53C700 SCSI Adapter
X			NCR 53C710 SCSI Adapter
X ²⁸			NCR 53C90 SCSI Controller
X ²⁹	X		NCR 53C94 SCSI Controller
X			Olivetti ESC-1
X			Olivetti ESC-2
X			Trantor T-128 ^{23,30}
X			Trantor T-130B ^{23,30}
X			Trantor T-348 MiniSCSI Plus ¹
X	X	X	UltraStor 14f ³¹
X		X	UltraStor 24f ³²
X		X	UltraStor 24fa
X			UltraStor 34f

¹ This device requires a driver from the \DRVLIB directory on the Windows NT CD-ROM, or the

Windows NT Driver Library.

- 11 For best performance, this adapter should be configured to IRQ-11.
- 12 Tape drives are not supported with this adapter.
- 13 Tested with firmware revisions 3.10 and 3.20.
- 14 This adapter requires an active terminator for proper performance.
- 15 The floppy controller on this adapter is not supported.
- 16 This adapter must be configured for 5 MB/second asynchronous I/O to work with listed CD-ROM drives from NEC.
- 17 This adapter must be configured for 5 MB/second asynchronous I/O to work with listed CD-ROM drives from Chinon, Hitachi, and NEC.
- 18 Tested with the Unisys PW2 Advantage 3256 (Flemington).
- 19 AIC-7770c and AIC-7770e are supported.
- 20 Tested with the Unisys PW2 Advantage Plus MPE 4668.
- 21 Removable media drives are not supported with cache module installed.
- 22 Scanners are not supported with this adapter.
- 23 To use this adapter, at least one device on the bus must provide termination power.
- 24 Refer to SETUP.TXT for information on configuring this adapter.
- 25 SCSI BIOS dated before 1991 requires PS/2 Reference Diskette version 1.12 or later.
- 26 This adapter cannot be used for CD Setup. To install Windows NT with this adapter, use the WINNT.EXE Setup method.
- 27 Tested with Dell Omniplex 560.
- 28 Tested with COMPAQ Portable 486c.
- 29 Tested with NCR System 3000 Model 3360.
- 30 This adapter is only supported on IRQ-5.

SCSI CD-ROM Drives

The following SCSI CD-ROM drives have been tested with the following adapters:

- Adaptec AHA-1510, AHA-1542C, AHA-1640 and AHA-1742A
- Future Domain TMC-1670 and MCS-600
- IBM PS/2 Microchannel SCSI Host Adapter (with cache)
- Ultrastor 24fa.

Drives have been tested for data access as well as for the audio capabilities indicated.

Standard (CD) Audio	MultiMedia Audio	SCSI CD-ROM Drives
X	X	CD-Technology CD Porta-Drive T-3301
X	X	CD-Technology CD Porta-Drive T-3401
X		Chinon® CDS-435
X		Chinon CDX-435
X	X	Chinon CDS-535
X	X	Chinon CDX-535
X	X	COMPAQ DualSpeed CD-ROM Drive
X	X	DEC® RRD42
X	X	DEC RRD43
X	X	DEC RRD44
X		Hitachi® CDR-1750S
X	X	Hitachi CDR-3750S
X	X	IBM Enhanced Internal CDROM II Drive 32G2958
X	X	IBM Enhanced External CDROM II Drive 3510005
X	X	IBM PS/2 CDROM II Drive
X		Laser Magnetic Storage CM-215 ³³
X	X	NEC Intersect CDR-73M ³⁴
X	X	NEC Intersect CDR-83M ³⁴
X	X	NEC Intersect CDR-74
X	X	NEC Intersect CDR-84
X	X	NEC Intersect CDR-74-1
X	X	NEC Intersect CDR-84-1
		Panasonic® CR-501
X	X	Panasonic CR-503
X	X	Pioneer® DRM-600 ^{35,36}
X	X	Procom Technology MCD-DS
X	X	Sony® CDU-541
X	X	Sony CDU-561
X	X	Sony CDU-6211
X	X	Sony CDU-7211
X	X	Sony CDU-7811
		Texel DM-5021
X	X	Texel DM-5024 ³⁷
X	X	Texel DM-5028

		Toshiba TXM-3201
X	X	Toshiba TXM-3301E
X	X	Toshiba XM-3301B
X	X	Toshiba TXM-3401E
X	X	Toshiba XM-3401B

33 This drive is not supported for use with the Future Domain TMC-850M and TMC-1670 adapters.

34 This drive requires double-termination when used with the Adaptec AHA-1742A.

35 The Ultrastor 24f supports only a single disk when used with this drive.*

36 Only supported with access to 1 CD at a time.

37 Requires firmware revision 1.10C to function properly with Windows NT.

Other CD-ROM Drives

The following CD-ROM drives with proprietary interfaces have been tested. All drives listed support Standard (CD) Audio and MultiMedia Audio

x86	MIPS	ALPHA	CD-ROM Drive
X			Creative Labs Sound Blaster Pro™ CDROM ^{38,39,40}
X			Panasonic CR-521 ^{39,40}
X			Panasonic CR-523 ^{39,40}
X			Panasonic CR-562 ^{39,40}
X			Panasonic CR-563 ^{39,40}
X			Sony CDU 31a
X			Sony CDU 33a

- ³⁸ Supported with CD-ROM drives based on Panasonic CR-52x and CR-56x models only.
- ³⁹ The driver for this CDROM drive must be selected manually during Setup.
- ⁴⁰ This driver can take a considerable length of time to initialize at boot time (up to 10 minutes).

SCSI Tape Drives

The following SCSI tape drives have been tested with the following adapters using the Windows NT Backup program:

- Adaptec AHA-1510, AHA-1542C, AHA-1640 and AHA-1742A
- Future Domain TMC-1670 and MCS-600
- IBM PS/2 Microchannel SCSI Host Adapter (with cache)
- Ultrastor 24fa.

Drives are listed under their appropriate Tape entry in SETUP.

4 Millimeter DAT

Archive® 4326NP
Archive 4326RP
Archive 4356XP
ArchiveST 2000DAT (4520NT)
ArchiveST 2000DAT (EAX4350) ⁴¹
ArchiveST 4000DAT (4324NP)
ArchiveST 4000DAT (4352XP)
Compaq 4/16 Gigabyte TurboDAT
Conner 4326NP
Conner 4326RP
Conner 4356XP
DEC TLZ06 ⁴²
Exabyte 4200
Exabyte 4200c ⁴³
Hewlett-Packard JetStore 2000
Hewlett-Packard JetStore 2000e
Hewlett-Packard JetStore 2000i
Hewlett-Packard JetStore 5000
Hewlett-Packard JetStore 5000e
Hewlett-Packard JetStore 5000i
Hewlett-Packard 35470a
Hewlett-Packard 35480a
Hewlett-Packard C1503a
Hewlett-Packard C1504a
Hewlett-Packard C1533a
Hewlett-Packard C2224c
Hewlett-Packard C2225b
IBM 2.0Gb 4mm Tape Drive Option (part number 55F9428)
IBM 2.0Gb 4mm DAT 3440 001
IBM 4/10GB 4mm DAT Drive ⁴⁴
Maynard Maynstream 1300DAT ⁴¹
Maynard 2000 DAT ⁴¹
Tecmar® DATaVault 2000
Tecmar DATaVault 4000

WangDAT Model 1300XL
WangDAT Model 3100
WangDAT Model 3200
WangDAT Model 3400DX

4 Millimeter Sony

Sony SDT 2000 ^{45,46,47}
Sony SDT 4000 ^{45,46,47}
Sony SDT 5000 ^{45,46,47}
Sony SDT 5200 ^{45,46,47}

Archive 2150S, 2525S, 2750

Archive 2150/2250 ⁴⁸
Archive 2525
Archive 2750
Archive 2800
Maynard 525Q
Maynard 1350Q

Digital TZ86 and DLT2000

DEC DLT2000 ⁴⁹
DEC TZ86 ⁵⁰
DEC TZ87 ⁵¹

Exabyte 2501 miniqic drive

Exabyte 2501

Exabyte 8200 Series (SCSI-1)

Exabyte EXB-8200
Exabyte EXB-8200ST
Exabyte EXB-8205 ⁴⁵
Exabyte EXB-8205ST ⁴⁵
IBM 3532-023 8mm Tape Drive

Exabyte 8500 Series (SCSI-2)

Exabyte EXB-8500
Exabyte EXB-8500ST
Exabyte EXB-8500c
Exabyte EXB-8500cST
Exabyte EXB-8505
Exabyte EXB-8505ST
IBM 5.0Gb 8mm Tape Drive Option
IBM 3445 Model 001 5.0Gb 8mm Tape Drive

Tandberg 3660, 3820, 4120, 4220

DEC TZK10
DEC TZK11
DEC TZK12
IBM 3450 1.2Gb Tape Drive Model 001
Tandberg 3660
Tandberg 3820

Tandberg 4120
Tandberg 4220
Tecmar QICVault 4000ex

Wangtek 525, 250

Tecmar QICVault 720ex
Tecmar QICVault 2400ex
Tecmar QT-525ES
Wangtek 5150ES
Wangtek 5525ES
Wangtek 51000ES

- 41 This drive is not supported with the Adaptec AHA-1640 adapter.
- 42 Requires firmware version 484 or later for proper operation.
- 43 This drive is not supported with the Future Domain TMC-850M(ER).
- 44 Tested with firmware rev. ARCHIVE IBM4326NP/RP !D04AP.
- 45 This drive is not supported with the IBM PS/2 Microchannel SCSI Host Adapter (with cache).
- 46 This drive is not supported with the Adaptec AHA-1510 adapter.
- 47 The Future Domain TMC-1670 with bios version 3.0 requires that the bios be disabled when used with this drive.
- 48 This drive is not supported with the UltraStor 24fa adapter.
- 49 Tested with firmware rev. DEC DLT2000 (c) DEC930A.
- 50 Tested with firmware rev. DEC TZ86 (c) DEC4318.
- 51 Tested with firmware rev. DEC TZ87 (c) DEC930A.

Other Tape Drives

The following tape drives have been tested using the Windows NT Backup program.

QIC-40/QIC-80 Floppy Tape Drive ⁵²

Archive 51250Q (SuperHornet)

Archive 5540

Archive 5580

WangTek 3040

WangTek 3080

- ⁵² For use with floppy controllers. Separate interface controllers for these types of drives are not supported.

SCSI Removable Media

The following SCSI removable media (cartridge) drives have been tested with the following adapters:

- Adaptec AHA-1510, AHA-1542C, AHA-1640 and AHA-1742A
- Future Domain TMC-1670 and MCS-600
- IBM PS/2 Microchannel SCSI Host Adapter (with cache)
- Ultrastor 24fa.

Hewlett-Packard Series 6300 650/C

IBM 0632 Model C2*

IBM 3 1/2-Inch 127mb Rewritable Optical Disk Drive MTA-3127

Insite 21mb Floptical

lomega® 21mb Floptical

lomega Bernoulli Transportable 90 Pro

lomega Bernoulli Transportable 150

Peripheral Land Infinity 40 Turbo

Peripheral Land Infinity 88

Quantum Passport XL 85

Quantum Passport XL 127

Sony SMO-S511A-11

Sony RMO-S350

Syquest 555 44mb cartridge

Syquest 5110 88mb cartridge

SCSI Scanners

The following SCSI scanners have been tested with the following adapters:

- Adaptec AHA-1510, AHA-1542c, AHA-1640 and AHA-1742A
- Future Domain TMC-1670 and MCS-600
- IBM PS/2 Microchannel SCSI Host Adapter (with cache)
- Ultrastor 24fa

Scanners are supported on the x86 platform only.

HP® ScanJet IIc

HP ScanJet IIp

Disk Controllers

The following disk controllers have been tested.

COMPAQ Intelligent Drive Array Controller ⁵

COMPAQ Intelligent Drive Array Controller-2 ⁵

COMPAQ SMART Array Controller ⁵

DELL Drive Array Controller ⁵

DELL SCSI Array Controller ^{54,5}

Olivetti EFP-2 ⁵⁵

UltraStor 124f EISA Disk Array Controller

Western Digital™ 1003 (ESDI, IDE)

- ⁵ Refer to the Release Notes for information on configuring this machine/device before installation.
- ⁵⁴ The Adaptec emulation mode on the Dell Drive Array(DDA) must be disabled for compatibility with the hardware's Windows NT Driver.
- ⁵⁵ This adapter is currently supported in its ESC-1/ESC-2 compatibility mode only.

Storage Cabinets

The following peripheral storage cabinets have been tested.

Hewlett-Packard Storage System with HP EISA HBA

Hewlett-Packard Storage System with HP MCA HBA

IBM 3510 SCSI Storage Enclosure

Professional Concepts SCSI Storage Cabinet+

StorageWorks Deskside Expansion Unit

StorageWorks Desktop Expansion Unit Video Display Support

The following display adapters have been tested. Most common scan frequencies are supported. Your video monitor should support the same resolutions and scan frequencies as your display adapter. Please refer to README.WRI for more information on display support.

Display Adapter	DRIVER	640x480	800x600	1024x768	OTHER
ACTIX GRAPHICS ENGINE	S3	256	256	256	
ACTIX GRAPHICS ENGINE 32 PLUS	S3	256, 65k	256, 65k	256	
ACTIX PROSTAR VLB	CIRRUS	16, 256, 65k	16, 256	16, 256	1280x1024x16
ATI 8514 ULTRA	8514A	256	256	256	
ATI GRAPHICS ULTRA	ATI	256	256	256	
ATI GRAPHICS ULTRA PLUS	ATI	256, 65k, 16.7m	256, 65k, 16.7m	256, 65k	1280x1024x256
ATI GRAPHICS ULTRA PRO	ATI	256, 65k, 16.7m	256, 65k, 16.7m	256, 65k	1280x1024x256
ATI GRAPHICS ULTRA PRO EISA	ATI	256, 65k, 16.7m	256, 65k, 16.7m	256, 65k	1280x1024x256
ATI GRAPHICS ULTRA PRO PCI	ATI	256, 65k, 16.7m	256, 65k, 16.7m	256, 65k	1280x1024x256
ATI GRAPHICS ULTRA PRO VLB	ATI	256, 65k, 16.7m	256, 65k, 16.7m	256, 65k	1280x1024x256
ATI GRAPHICS VANTAGE	ATI	256	256	256	
ATI GRAPHICS WONDER ISA	ATI	256, 65k, 16.7m	256	256	
ATI GRAPHICS WONDER VLB	ATI	256, 65k, 16.7m	256, 65k	256	
ATI GRAPHICS PRO TURBO PCI	ATI	256, 65k, 16.7m, TRUE	256, 65k, 16.7m, TRUE	256, 65k, 16.7m, TRUE	1280x1024x256, 65k, 16.7m
ATI GRAPHICS PRO TURBO VLB	ATI	256, 65k, 16.7m, TRUE	256, 65k, 16.7m, TRUE	256, 65k, 16.7m, TRUE	1280x1024x256, 65k, 16.7m
CARDEX VLB	CIRRUS	16, 256, 65k	16, 256	16, 256	1280x1024x16
COMPAQ AVGA	AVGA ₁	16, 256	16		
COMPAQ QVISION 1024/I	QV	16, 256	256	256	
COMPAQ QVISION 1024/E ⁵⁶	QV	16, 256	256	256	
COMPAQ QVISION 1024/I (ENHANCED)	QV	16, 256	256	256	
COMPAQ QVISION 1024/E (ENHANCED)	QV	16, 256	256	256	
COMPAQ QVISION 1280/I	QV	16, 256	256	256	1280x1024x256
COMPAQ QVISION 1280/E	QV	16, 256	256	256	1280x1024x256
DIAMOND SPEEDSTAR	ET4000	16, 256, 65k	16, 256	16, 256	
DIAMOND SPEEDSTAR 24X	WD	16, 256	16, 256	16, 256	
DIAMOND SPEEDSTAR PRO	CIRRUS	16, 256, 65k	16, 256	16, 256	1280x1024x16
DIAMOND SPEEDSTAR PRO VLB	CIRRUS	16, 256, 65k	16, 256	16, 256	1280x1024x16
DIAMOND STEALTH 24	S3	256, 65k	256, 65k	256	
DIAMOND STEALTH 24 VLB	S3	256, 65k	256, 65k	256	
DIAMOND STEALTH PRO	S3	256, 65k	256, 65k	256, 65k	1280x1024x256
DIAMOND STEALTH PRO VLB	S3	256, 65k	256, 65k	256, 65k	1280x1024x256
DIAMOND STEALTH VRAM	S3	256	256	256	
DIAMOND VIPER PCI ⁵⁷		256, 65k, TRUE	256, 65k, TRUE	256, 65k	1280x1024x256
	WEITEKP 9				1600x1200x256
DIAMOND VIPER VLB ⁵⁸		256, 65k, TRUE	256, 65k, TRUE	256, 65k	1280x1024x256
	WEITEKP				

	9				1600x1200x256
ELSA WINNER 1000	S3	256, 65k	256, 65k	256	
IBM XGA	XGA®	256		256	
IBM XGA-2	XGA	256	256	256	640x400x256 1040x768x256 1104x828x256
MEDIAVISION THUNDER & LIGHTNING	CIRRUS	16, 256, 65k	16, 256	16, 256	
METHEUS PREMIER 928	S3	256, 65k, TRUE	256, 65k	256	1280x1024x256
MICRONICS VL-BUS	S3	256, 65k	256, 65k	256	
MIRO CRYSTAL 32s VLB	S3	256, 65k, TRUE	256, 65k, TRUE	256, 65k, TRUE	1280x1024x256, 65k
NCR 77C22	NCR77C2 2	16, 256	16, 256	16	
NCR 77C22E	NCR77C2 2	16, 256	16, 256	16, 256	
NUMBER 9 GXE LEVEL 12 ^{56,59}	S3	256, 65k, TRUE	256, 65k	256, 65k	1280x1024x256
ORCHID FAHRENHEIT 1280	S3	256	256	256	
ORCHID FAHRENHEIT 1280 PLUS ISA	S3	256, 65k	256, 65k	256	
ORCHID FAHRENHEIT 1280 PLUS VLB	S3	256, 65k	256, 65k	256, 65k	1280x1024x256
ORCHID FAHRENHEIT VA	S3	256, 65k	256, 65k	256	
ORCHID FAHRENHEIT VA/VLB	S3	256, 65k	256, 65k	256, 65k	1280x1024x256
ORCHID PRODESIGNER 2	ET4000	16, 256	16, 256	16, 256	
ORCHID PRODESIGNER IIS	ET4000	16, 256, 65k	16, 256	16, 256	
PARADISE WINDOWS GRAPHICS ACCELERATOR	WD	16, 256	16, 256	16, 256	
TRIDENT 8900C	TRIDENT	16, 256	16, 256	16, 256	
TRIDENT 9000	TRIDENT	16, 256	16	16	
VIDEO SEVEN™ VRAM	VIDEO7	16, 256	16	16	
VIDEO SEVEN VRAM II	VIDEO7	16, 256	16, 256	16, 256	

Display adapters not listed above are expected to work if they use the following supported chip sets. Install first as Standard VGA, then select the corresponding driver from the Setup application in Program Manager.

⁵⁶ Also supported on Alpha platforms.

⁵⁷ Tested with BIOS version 3.10.

⁵⁸ Tested with BIOS version 3.09.

⁵⁹ Tested with firmware version 1.15.15s.

Manufacturer	Chip Set	Driver	Color Depths	Max Res.
IBM	8514/a	8514A	256	1024x768
	XGA	XGA	256	1104x828
ATI	8514 Ultra	8514A	256	1024x768
	MACH 8	ATI	256	1024x768
	MACH 32	ATI	256, 65K, 16.7M	1280x1024
	MACH 64	ATI	256, 65K, 16.7M, TRUE	1280x1024

Compaq	AVGA	AVGA	16, 256	800x600
	QVision 1024	QV	16, 256	1024x768
	QVision 1280	QV	16, 256	1280x1024
Cirrus Logic	5422, 5424,	CIRRUS	16, 256, 65k	1280x1024
	5426, 5428	CIRRUS	16, 256, 65k	1280x1024
Tseng Labs	ET4000	ET4000	16, 256, 65k	1024x768
	ET4000-W32	ET4000	16, 256, 65k	1024x768
NCR	NCR77C22	NCR77C22	16, 256	1024x768
	NCR77C22E	NCR77C22	16, 256	1024x768
S3	911, 911a, 924	S3	256	1024x768
	801, 805 ⁶⁰	S3	256, 32k, 65k	1280x1024
	928 ^{60,61}	S3	256, 32k, 65k, TRUE	1280x1024
Trident	9000	TRIDENT	16, 256	1024x768
	8900c	TRIDENT	16, 256	1024x768
Headlands	Video 7	V7VRAM	16, 256	1024x768
Western Digital	WD90C30	WDVGA	16, 256	1024x768
	WD90C31	WDVGA	16, 256	1024x768
	WD90C33	WDVGA	16, 256	1024x768
Weitek	P9000	WEITEKP9	256, 65K, TRUE	1600x1200

⁶⁰ 65k colors are supported with a 565 DAC, 32k colors with a 555 DAC.

⁶¹ Some older 928 chips do not support 800x600xTRUE with 2Mb of RAM.

The following table shows the maximum display and color resolutions available with each video driver using different amounts of video RAM. Most display adapters can use the standard VGA driver for 16-color modes.

Drivers	Video RAM	Colors				
		16	256	32k/65k	16m	True Color
8514/a	1MB		1024x768			
ATI ⁶²	512Kb		640x480			
	1Mb		1024x768	800x600	640x480	
	2Mb		1280x1024	1024x768	800x600	800x600
	4Mb		1280x1024	1280x1024	1280x1024	800x600
					4	
AVGA	512Kb	800x600	640x480			
Cirrus	512Kb	1024x768	640x480			
	1Mb	1024x768	1024x768	640x480		
DGX	2Mb		1280x1024	1152x900		
ET4000	512Kb	1024x768	640x480			
	1Mb	1024x768	1024x768	640x480		
NCR 77C22	1Mb	1024x768	1024x768			
QV	512Kb	640x480				
	1Mb	640x480	1024x768			
	2Mb	640x480	1280x1024			
S3	512		800x600			
	1Mb		1024x768	800x600		
	2Mb		1280x1024	1024x768		800x600

	4MB		1280x1024	1280x1024	1024x768
Trident	512Kb	1024x768	640x480		
	1Mb	1024x768	1024x768		
Video7	512Kb	1024x768	640x480		
	1Mb	1024x768	1024x768		
VGA	256Kb	640x480			
	512Kb	800x600			
WD	512Kb	1024x768	640x480		
	1Mb	1024x768	1024x768		
WEITEKP9	2Mb		1600x1280	1024x768	800x600
XGA	1Mb		1104x828		

Network Adapters

The following network adapters have been tested on the indicated platforms.

x86	MIPS	ALPHA	Network Adapter
X	X	X	3Com® 3C503 EtherLink II® (Coax & TP)
X	X	X	3Com 3C503/16 EtherLink® II/16 (Coax & TP)
X	X		3Com 3C507 EtherLink 16 (Coax & TP)
X	X	X	3Com 3C509 EtherLink III Parallel Tasking Adapter - ISA (Coax, TP and Combo)
X			3Com 3C523 EtherLink/MC (Coax & TP)
X			3Com 3C529 EtherLink III Parallel Tasking Adapter - MCA (Coax & TP)
X	X	X	3Com 3C579 EtherLink III Parallel Tasking Adapter - EISA (Coax & TP)
X			3Com 3C770 FDDILink-F for Optical, UTP & STP ^{1,63}
X			Advanced Micro Devices Am1500T Ethernet Adapter
X			Advanced Micro Devices Am2100 Ethernet Adapter
X			Advanced Micro Devices PCnet®
X			Advanced Micro Devices PCnet-ISA Single Chip Ethernet Controller
X			Cabletron E20XX Ethernet DNI ¹
X			Cabletron E21XX Ethernet DNI ¹
X			Cabletron T20XX16/4 Token Ring DNI ¹
X			Cabletron T30XX 16/4 Token Ring DNI ¹
X			Cisco C321T-PC EISA FDDI ADAPTER/PC ^{1,63}
X	X	X	COMPAQ 32-Bit Dualspeed Token Ring Controller
X		X	COMPAQ 32-Bit Netflex Controller
X		X	COMPAQ 32-Bit Netflex Controller with Token Ring Module
X			COMPAQ Ethernet 16TP Controller
X			COMPAQ NetFlex-2 ENET-TR Controller ¹
X			COMPAQ NetFlex-2 TR Controller ¹
X			COMPAQ NetFlex-2 DualPort TR Controller ¹
X			COMPAQ NetFlex-2 DualPort ENET Controller ¹
X			COPS LTI ISA
X			Crescendo C321M-PC EISA FDDI ADAPTER/PC ^{1,63}
X			DayStar Digital LocalTalk® Adapter
X	X	X	DEC DE100 EtherWORKS LC
X	X	X	DEC DE101 EtherWORKS LC/TP

X	X	X	DEC DE200 EtherWORKS Turbo
X	X	X	DEC DE201 EtherWORKS Turbo/TP
X	X	X	DEC DE202 EtherWORKS Turbo TP/BNC
X	X	X	DEC DE422 EtherWORKS EISA TP/BNC
X	X	X	IBM Token Ring Adapter 16/4
X			IBM Token Ring Adapter 16/4 /A
X			IBM 16/4 Token Ring ISA-16 Adapter 1
X			IBM 16/4 Token Ring II Adapter
X			IBM 16/4 Token Ring II EISA Adapter
X			Intel 82595 Ethernet Adapter 1
X	X	X	Intel EtherExpress™ 16 PCLA8110
X	X	X	Intel EtherExpress 16C PCLA8100
X	X	X	Intel EtherExpress 16TP PCLA8120
X			Intel EtherExpress Flash 32 Ethernet Adapter 1
X	X	X	Intel EtherExpress FlashC PCLA8105
X			Intel TokenExpress™ ISA/16S 1
X			Intel TokenExpress MCA 16/4 1
X			Intel TokenExpress EISA 16/4 1
X			Intel TokenExpress EISA/32 1
X			Madge Smart 16/4 AT Ringnode 1
X			Madge Smart 16/4 EISA Ringnode 1
X			Madge Smart 16/4 MC Ringnode 1
X			Madge Smart 16/4 MC32 Ringnode 1
	X		National Semiconductor DP83932 (SONIC) Motherboard Ethernet Controller on MIPS ARC/R4000 systems
X			NCR WaveLAN/AT 1
X			NCR WaveLAN/MC 1
X	X	X	Network Peripherals NP-EISA/S FDDI
X			Network Peripherals NP-MCA/S FDDI
X			Novell®/Eagle Technology NE1000
X	X	X	Novell/Eagle Technology NE2000
X	X	X	Novell/Eagle Technology NE3200
X	X	X	Proteon ProNET-4/16 p1390 ISA Adapter
X	X	X	Proteon ProNET-4/16 p1990 EISA Adapter
X			Olicom Token-Ring,PowerMAC MCA WS,OC-3129 1
X			Olicom Token-Ring,PowerMAC EISA WS,OC-3133 1
X			Olicom Token-Ring,PowerMAC ISA WS,OC-3117 1
X			Olicom Token-Ring,PowerMAC EISA SRV,OC-3135 1
X	X	X	Standard Microsystems 8003EP EtherCard™ PLUS
X	X	X	Standard Microsystems 8013EBT EtherCard PLUS16
X	X	X	Standard Microsystems 8013EP EtherCard PLUS Elite16
X			Standard Microsystems 8013EP/A EtherCard PLUS Elite/A
X	X	X	Standard Microsystems 8013EPC EtherCard PLUS Elite16
X	X	X	Standard Microsystems 8013EW EtherCard PLUS EliteCombo
X	X	X	Standard Microsystems 8013EWC EtherCard PLUS EliteCombo
X	X	X	Standard Microsystems 8013W EtherCard PLUS Elite16T
X	X	X	Standard Microsystems 8013WB EtherCard PLUS

X	X	X	Standard Microsystems 8013WC EtherCard PLUS Elite16T
X			Standard Microsystems 8013WP/A EtherCard PLUS Elite10T/A
X			Standard Microsystems 8216C EtherCard Elite Ultra ¹
X			Standard Microsystems 82M32 EtherCard Elite 32 Ultra ¹
X			Ungermann-Bass® NIUpc
X	X		Ungermann-Bass NIUpc/EOTP
X			Ungermann-Bass NIUps/EOTP
X			Xircom Pocket Ethernet II Adapter ^{1,64}
X			Xircom Pocket Ethernet III Adapter ^{1,64}

¹ This device requires a driver from the \DRVLIB directory on the Windows NT CD-ROM, or the Windows NT Driver Library.

⁶³ FDDI tested only.

⁶⁴ Not compatible with IBM Thinkpad 700.

Multimedia Audio Adapters

The following multimedia audio adapters have been tested.

x86	MIPS	ALPHA	Multimedia Audio Adapter
X			COMPAQ Business Audio
X	X	X	Creative Labs Sound Blaster™ 1.x
X	X	X	Creative Labs Sound Blaster Pro ⁶⁵
X	X	X	Media Vision™ Pro AudioSpectrum-16 ⁶⁶
X	X	X	Media Vision Pro AudioStudio ⁶⁶
X	X	X	Media Vision Thunder Board ⁶⁵
X	X	X	Microsoft Windows Sound System
	X		Built-in audio adapter on MIPS ARC/R4000 systems

⁶⁵ Supported in Sound Blaster 1.x compatibility mode.

⁶⁶ Not supported in Sound Blaster 1.x compatibility mode.

Modems

The following modems are supported for use with Remote Access Service.

Angia DataStart for CompaqLTE

ATI 2400 etc/e

ATI 9600 etc/e

AT&T® 2224 CEO

AT&T Comsphere 3810

AT&T Comsphere 3811

AT&T Comsphere 3820

AT&T Comsphere 3830

AT&T Dataport

AT&T 4024

Bocamodem M1440 Alt

Cardinal 2400e

Cardinal 9600

Cardinal 14400

Cardinal 14400 Internal

Codex 2264

Codex 3220

Codex 3260

Codex 3261

Codex 3262

Codex 3263

Codex 3265

Codex 3260 Fast

Codex 3261 Fast

Codex 3262 Fast

Codex 3263 Fast

Codex 3265 Fast

Codex 3220 Plus

Compaq SpeedPAQ 144

CXR Telcom 1445

DataRace RediModem V.32bis ⁶⁷

Datatrek 2424AMH

Datatrek Elite 624D ⁶⁸

Datatrek V.32 ⁶⁹

Digicom Scout

Digicom Scout Plus

DSI 9624LE Plus

DSI 9624E

ETech UFOMATE P1496MX

Evercom 24

Evercom 24E

Evercom 24E+

Gateway 2000 Internal Alt

Gateway 2000 Internal
Gateway 2000 Nomad 14400
GVC SM2400
GVC SM96
GVC FM14400
Hayes® Compatible 1200
Hayes Compatible 2400
Hayes Compatible 9600
Hayes Pocket Modem® 2400
Hayes Smartmodem™ 2400
Hayes Smartmodem 9600
Hayes Optima 9600
Hayes Optima 14400
Hayes Ultra 9600
Hayes Ultra 14400
Hayes V Series Smartmodem 9600
Intel SatisFaction® 100
Intel SatisFaction 400e
Intel 9600EX
Intel 14400EX
Macronix Maxlite Fax 9696
Macronix VOMAX 2000
Megahertz P2144 Pkt Faxmodem
Megahertz T3144 for Toshiba
Megahertz Z3144 for Zenith
Megahertz C5144 for Compaq LTE
MicroCom® QX 4232bis ⁶⁸
MicroComQX 4232HS
MicroGate MG96 ⁶⁷
MicroGate MG144 ⁶⁷
MicroPorte 1042
MultiTech MultiModem 224 ⁷⁰
MultiTech MultiModem MT932
NEC 9635E Plus
Octocom 8324 ⁶⁷
Octocom 8396
PDI-1000 ⁶⁹
Practical Peripherals2400 Pocket
Practical Peripherals 2400SA ⁶⁹
Practical Peripherals 2400MNP ⁶⁸
Practical Peripherals 9600SA
Practical Peripherals 14400SA
Practical Peripherals 14400FX
Racal RMD 2412
Racal RMD 2422
Racal RMD 2412/2 ⁷¹
Racal RMD 3221

Racal RMD 3222
Racal RMD 3226
Racal ALM 3226
Racal RMD 3223
Racal RMD 9632PA
Racal RMD 9642PA
SupraModem 2400
Supra Fax Modem 9624 Internal
Supra Fax Modem V32
Supra Fax Modem V32bis
Supra Fax Modem Plus
Telebit® QBlazer
Telebit T1000
Telebit T1500 ⁶⁹
Telebit T1600 ⁶⁸
Telebit T2000
Telebit T2500
Telebit T3000
Telebit TrailBlazer® Plus
Telebit WorldBlazer
Telebit WorldBlazer-Rackmount
UDS Motorola® V.3225 ⁶⁸
UDS Motorola V.3227 ⁷²
UDS Motorola V.3229
UDS Motorola FasTalk V.32/42b ⁷²
US Robotics Courier Dual
US Robotics Courier HST
US Robotics Courier V.32bis
US Robotics Sportster 2400
US Robotics Sportster 9600
US Robotics Sportster 14400
Ven-Tel 9600 Plus II ⁷³
Ven-Tel Pocket 24 V.42bis FAX
Ven-Tel 14400 Fax
Ven-Tel 14400 Fax Internal
Western Datacom Worldcom V32bis ⁶⁹
Zoom AFX
Zoom FX™ 9624V
Zoom VFX V.32bis
ZyXel U-1496
ZyXel U-1496E

⁶⁷ Error control and flow control forced on.

⁶⁸ Advanced features disabled.

⁶⁹ Supported as a client modem only.

⁷⁰ Flow control forced on.

71 Maximum DTE speed set to 2400.

72 Maximum DTE speed set to 9600.

73 Modem compression forced on.

Hardware Security Hosts

The following hardware security hosts have been tested for use with Remote Access Service.

Digital Pathways Defender 1000D

Racal Gaurdata GSM

Security Dynamics ACM400

ISDN Adapters

The following ISDN adapters have been tested for use with Remote Access Service.

DigiBoard PCIMAC ISA Adapter

DigiBoard PCIMAC/4 Adapter

Multi-port Serial Adapters

The following multi-port serial adapters have been tested for use with Remote Access Service.

Control Hostess 550 ⁷⁴

DigiBoard 2Port

DigiBoard 4Port

DigiBoard 8Port

DigiBoard CX Adapter

DigiBoard DigiCHANNEL PC/X Host Adapter for ISA bus ⁷⁴

DigiBoard PC/4e Adapter

DigiBoard PC/8e Adapter

DigiBoard PC/8i Adapter

DigiBoard PC/Xem Adapter

Stargate Technologies Plus 8 ⁷⁴

⁷⁴ Tested as standard serial ports only.

Uninterruptible Power Supplies

The following uninterruptible power supplies have been tested.

American Power Conversion Back-UPS

American Power Conversion Smart-UPS

Best Power Technology FERRUPS

Best Power Technology Fortress

Keyboards

Any keyboard 100% compatible with those listed below.

101/102-key

IBM AT (84-key)

Pointing Devices

The following pointing devices have been tested. The Alpha platform supports mouseport-based pointing devices. The MIPS platform supports mouseport and serial pointing devices.

Acer M-SG14

AT&T 320 Mouse CA-93-6MD

CompuAdd Serial Mouse

Digital Equipment PCXAS-AA

Hewlett-Packard C1413A

Honeywell 2HW53-3E

IBM 33G3835

IBM 33G5430

IBM 6450350

IBM 96F9275

ICL M-SF14-6MD

Logitech Mouseman, Bus

Logitech Mouseman, Cordless

Logitech Series 9 mice

Logitech Series M mice

Logitech Trackman Portable Mouse

Logitech Trackman Stationary Mouse

Microsoft Bus Mouse (Original - Green Buttons)

Microsoft Mouse, BallPoint

Microsoft Mouse, Inport

Microsoft Mouse, PS/2 Compatible

Microsoft Mouse, Serial

Microsoft Mouse, Serial / PS/2

Microsoft Mouse 2.0, BallPoint®

Microsoft Mouse 2.0, Bus

Microsoft Mouse 2.0, MousePort

Microsoft Mouse 2.0, Serial

Microsoft Mouse 2.0, Serial-MousePort

MotorMouse

Olivetti M-SE9-6MD

Printers

Drivers are included for the following printers.

Agfa Compugraphic 400PS
Agfa Compugraphic Genics
Agfa Matrix® ChromaScript v51.8
Agfa TabScript C500 PostScript® Printer v50.3
Agfa-Compugraphic 9400P v49.3
Apple® LaserWriter® II NT v47.0
Apple LaserWriter II NTX v47.0
Apple LaserWriter II NTX v51.8
Apple LaserWriter II NTX-J v50.5
Apple LaserWriter IIf v2010.113
Apple LaserWriter IIg v2010.113
Apple LaserWriter Plus v38.0
Apple LaserWriter Plus v42.2
Apple LaserWriter Pro 600
Apple LaserWriter Pro 630
Apple LaserWriter Pro 810
Apple LaserWriter v23.0
Apple Personal LaserWriter NTR v2010.129
Apricot Laser
APS-PS PIP with APS-6-108 v49.3 or 52.2
APS-PS PIP with APS-6-80 v49.3 or 52.2
APS-PS PIP with LZR 1200 v49.3 or 52.2
APS-PS PIP with LZR 2600 v49.3 or 52.2
AST TurboLaser-PS v47.0
AT&T 470/475
AT&T 473/478

Brother HJ-100
Brother HJ-100i
Brother HJ-770
Brother HL-10DV
Brother HL-10h
Brother HL-10V
Brother HL-4
Brother HL-4V
Brother HL-4Ve
Brother HL-6V
Brother HL-8
Brother HL-8D
Brother HL-8e
Brother HL-8V
Brother M-1309
Brother M-1324

Brother M-1809
Brother M-1818
Brother M-1824L
Brother M-1909
Brother M-1918
Brother M-1924L
Bull Compuprint PageMaster 1025
Bull Compuprint PageMaster 413
Bull Compuprint PageMaster 815
Bull Compuprint PageMaster 825
Bull Compuprint PM 201
C-Itoh 8510
Canon® Bubble-Jet BJ-10e
Canon Bubble-Jet BJ-10ex
Canon Bubble-Jet BJ-10sx
Canon Bubble-Jet BJ-130
Canon Bubble-Jet BJ-130e
Canon Bubble-Jet BJ-20
Canon Bubble-Jet BJ-200
Canon Bubble-Jet BJ-200e
Canon Bubble-Jet BJ-230
Canon Bubble-Jet BJ-300
Canon Bubble-Jet BJ-330
Canon Bubble-Jet BJC-600
Canon Bubble-Jet BJC-800
Canon LBP-4 Lite
Canon LBP-4 Plus
Canon LBP-4 PS-2 v51.4
Canon LBP-4
Canon LBP-430
Canon LBP-4i
Canon LBP-4sx
Canon LBP-4U
Canon LBP-8 II
Canon LBP-8 III Plus
Canon LBP-8 III
Canon LBP-8 IIIR
Canon LBP-8 IIIT
Canon LBP-8 IIR
Canon LBP-8 IIT
Canon LBP-8 IV
Canon LBP-860
Canon LBP-8III PS-1 v51.4
Canon LBP-8IIIR PS-1 v51.4
Canon LBP-8IIIT PS-1 v51.4
Canon LBP-8sx

Canon PS-IPU Color Laser Copier v52.3
Canon PS-IPU Kanji Color Laser Copier v52.3
Citizen 120D
Citizen 120D+
Citizen 124D
Citizen 180D
Citizen 200GX
Citizen 200GX/15
Citizen 224
Citizen ABC ESC/P 2
Citizen GSX 240 Scalable Font
Citizen GSX-130
Citizen GSX-140
Citizen GSX-140+
Citizen GSX-145
Citizen GSX-220 ESC/P 2
Citizen GSX-230
Citizen GSX-240 ESC/P 2
Citizen HSP-500
Citizen HSP-550
Citizen PN48
Citizen Prodot 24
Citizen Prodot 9
Citizen Prodot 9x
Citizen PROJET
Citizen PROLaser 6000
Citizen Swift 200
Citizen Swift 24
Citizen Swift 240 ESC/P 2
Citizen Swift 240 Scalable Font
Citizen Swift 24e
Citizen Swift 24x
Citizen Swift 9
Citizen Swift 9x
Colormate PS v51.9
COMPAQ Pagemark 15 v2012.015
COMPAQ Pagemark 15
COMPAQ Pagemark 20 v2012.015
COMPAQ Pagemark 20
Dataproducts LZR 1260 v47.0
Dataproducts LZR 1560 v2010.127
Dataproducts LZR 960 v2010.106
Dataproducts LZR-2665 v46.2
Diconix 150 Plus
Digital Colormate PS v51.9
Digital DEClaser 1100 (LJ)

Digital DEClaser 1100
Digital DEClaser 1150 v51.4
Digital DEClaser 1152 17 fonts
Digital DEClaser 1152 43 fonts
Digital DEClaser 2100
Digital DEClaser 2100plus (LJ)
Digital DEClaser 2150 plus v51.4
Digital DEClaser 2150 v51.4
Digital DEClaser 2200
Digital DEClaser 2200plus (LJ)
Digital DEClaser 2250 plus v51.4
Digital DEClaser 2250 v51.4
Digital DEClaser 3200 (LJ)
Digital DEClaser 3200
Digital DEClaser 3250 v47
Digital DECmultiJET 1000
Digital DECmultiJET 2000
Digital DECwriter 95
Digital LA310
Digital LA324
Digital LA424
Digital LA70
Digital LA75 Plus
Digital LA75
Digital LN03R ScriptPrinter
Digital PrintServer 17 v48.3
Digital PrintServer 20 v48.3
Digital PrintServer 32 Kanji v48.3
Digital PrintServer 32 v48.3
Digital PrintServer 40 Plus Kanji v48.3
Digital PrintServer 40 Plus v48.3
Digital turbo PrintServer 20 Kanji v48.3
Digital turbo PrintServer 20

Epson ActionLaser 1500
Epson ActionLaser 1600
Epson ActionLaser II
Epson AP-3250 ESC/P 2
Epson AP-3250 Scalable Font
Epson AP-3260 ESC/P 2
Epson AP-5000 ESC/P 2
Epson AP-5000 Scalable Font
Epson AP-5000+ ESC/P 2
Epson AP-5500 ESC/P 2
Epson AP-5500 Scalable Font
Epson AP-5500+ ESC/P 2
Epson Compatible 24 Pin

Epson Compatible 9 Pin
Epson DFX-5000
Epson DLQ-2000
Epson EPL-4000
Epson EPL-4200
Epson EPL-4300
Epson EPL-5200
Epson EPL-5600
Epson EPL-6000
Epson EPL-7000
Epson EPL-7500 v52.3
Epson EPL-8000
Epson EPL-8100
Epson EX-1000
Epson EX-800
Epson FX-100
Epson FX-100+
Epson FX-1000
Epson FX-105
Epson FX-1050
Epson FX-185
Epson FX-286
Epson FX-286e
Epson FX-80
Epson FX-80+
Epson FX-800
Epson FX-85
Epson FX-850
Epson FX-86e
Epson GQ-3500
Epson JX-80
Epson L-1000
Epson L-750
Epson LP-3000PS F2 v52.3
Epson LP-3000PS F5 v52.3
Epson LQ-100 ESC/P 2
Epson LQ-100 Scalable Font
Epson LQ-1000
Epson LQ-1010
Epson LQ-1050
Epson LQ-1060
Epson LQ-1070 ESC/P 2
Epson LQ-1070 Scalable Font
Epson LQ-1070+ ESC/P 2
Epson LQ-1170 ESC/P 2
Epson LQ-1170 Scalable Font
Epson LQ-150 ESC/P 2

Epson LQ-1500
Epson LQ-200
Epson LQ-2500
Epson LQ-2550
Epson LQ-400
Epson LQ-450
Epson LQ-500
Epson LQ-510
Epson LQ-550
Epson LQ-570 ESC/P 2
Epson LQ-570 Scalable Font
Epson LQ-570+ ESC/P 2
Epson LQ-800
Epson LQ-850
Epson LQ-850+
Epson LQ-860
Epson LQ-870 ESC/P 2
Epson LQ-870 Scalable Font
Epson LQ-950
Epson LX-1050
Epson LX-400
Epson LX-80
Epson LX-800
Epson LX-810
Epson LX-850
Epson LX-850+
Epson LX-86
Epson MX-100
Epson MX-80 F/T
Epson MX-80
Epson PostScript CARD v52.5
Epson RX-100
Epson RX-100+
Epson RX-80 F/T
Epson RX-80 F/T+
Epson RX-80
Epson SQ-1170 ESC/P 2
Epson SQ-1170 Scalable Font
Epson SQ-2000
Epson SQ-2500
Epson SQ-2550
Epson SQ-850
Epson SQ-870 ESC/P 2
Epson SQ-870 Scalable Font
Epson Stylus 1000 ESC/P 2
Epson Stylus 300 ESC/P 2
Epson Stylus 800 ESC/P 2

Epson T-1000

Epson T-750

Fujitsu Breeze 100

Fujitsu Breeze 200

Fujitsu DL 1100 Colour

Fujitsu DL 1100

Fujitsu DL 1150

Fujitsu DL 1200

Fujitsu DL 1250

Fujitsu DL 2400

Fujitsu DL 2600

Fujitsu DL 3300

Fujitsu DL 3350

Fujitsu DL 3400

Fujitsu DL 3450

Fujitsu DL 3600

Fujitsu DL 4400

Fujitsu DL 4600

Fujitsu DL 5600

Fujitsu DL 900

Fujitsu DX 2100

Fujitsu DX 2200

Fujitsu DX 2300

Fujitsu DX 2400

Fujitsu RX7100PS v50.3

GCC BLP Elite v52.3

GCC BLP II v52.3

GCC BLP IIS v52.3

GCC Business LaserPrinter v49.2

GCC Business LaserPrinter v51.4

Generic IBM Graphics 9pin wide

Generic IBM Graphics 9pin

Gestetner GLP800-Scout v52.3

Hermes H 606 PS (13 Fonts)

Hermes H 606 PS (35 fonts)

Hermes H 606

Hewlett-Packard HP-GL₂/2 Plotter

HP 7550 Plus

HP DesignJet (C3180A)

HP DesignJet 200 (C3181A)

HP DesignJet 200 (C31A80A)

HP DesignJet 600 (C2847A)

HP DesignJet 600 (C2848A)

HP DesignJet 650C (2858B)

HP DesignJet 650C (C2858A)

HP DeskJet® 1200C

HP DeskJet 1200C/PS
HP DeskJet 310 (Color)
HP DeskJet 310 (Monochrome)
HP DeskJet 500
HP DeskJet 500C (Color)
HP DeskJet 500C (Monochrome)
HP DeskJet 510
HP DeskJet 550C
HP DeskJet Plus
HP DeskJet Portable
HP DeskJet
HP DraftPro® Plus (C3170A)
HP DraftMaster RX/MX
HP DraftMaster SX
HP DraftPro Plus (C3171A)
HP LaserJet 2000
HP LaserJet 4
HP LaserJet 4/4M PS 300 dpi
HP LaserJet 4/4M PS 600 dpi
HP LaserJet 4L
HP LaserJet 4L/4ML PostScript
HP LaserJet 4ML
HP LaserJet 4MP
HP LaserJet 4P
HP LaserJet 4P/4MP PS 300 dpi
HP LaserJet 4P/4MP PS 600 dpi
HP LaserJet 4Si
HP LaserJet 4Si/4SiMX PS 300dpi
HP LaserJet 4Si/4SiMX PS 600dpi
HP LaserJet 500+
HP LaserJet IID PostScript Cartridge v52.2
HP LaserJet IID
HP LaserJet III PostScript Cartridge v52.2
HP LaserJet III PostScript Plus v2010.118
HP LaserJet III
HP LaserJet IIID PostScript Cartridge v52.2
HP LaserJet IIID PostScript Plus v2010.118
HP LaserJet IIID
HP LaserJet IIIP PostScript Cartridge v52.2
HP LaserJet IIIP PostScript Plus v2010.118
HP LaserJet IIIP
HP LaserJet IIISi PostScript v52.3
HP LaserJet IIISi
HP LaserJet IIP Plus
HP LaserJet IIP PostScript Cartridge v52.2
HP LaserJet IIP
HP LaserJet Plus

HP LaserJet Series II
HP LaserJet
HP PaintJet® XL 300
HP PaintJet XL
HP PaintJet XL300 v2011.112
HP PaintJet
HP QuietJet® Plus
HP QuietJet
HP ThinkJet® (2225 C-D)

IBM 4019 LaserPrinter PS17
IBM 4019 LaserPrinter PS39
IBM 4019 LaserPrinter
IBM 4029 LaserPrinter PS17
IBM 4029 LaserPrinter PS39
IBM 4029 LaserPrinter
IBM 4037 5E
IBM 4039 LaserPrinter PS
IBM 4070 IJ
IBM 4079 Color Jetprinter PS
IBM 4216-020 v47.0
IBM 4216-030 v50.5
IBM ExecJet® 4072
IBM ExecJet 4076 II
IBM Graphics
IBM LaserPrinter 4039
IBM Personal Page Printer II-31
IBM Personal Printer II 2380
IBM Personal Printer II 2381
IBM Personal Printer II 2390
IBM Personal Printer II 2391
IBM Portable 5183
IBM Proprinter® II
IBM Proprinter III
IBM Proprinter X24
IBM Proprinter X24e
IBM Proprinter XL II
IBM Proprinter XL III
IBM Proprinter XL
IBM Proprinter XL24
IBM Proprinter XL24e
IBM Proprinter
IBM PS/1 2205
IBM QuickWriter® 5204
IBM QuietWriter® III
Kodak® ColorEase PS Printer
Kodak EktaPlus 7016

Kyocera® F-1000
Kyocera F-1000A
Kyocera F-1010
Kyocera F-1200S
Kyocera F-1800
Kyocera F-1800A
Kyocera F-2000A
Kyocera F-2010
Kyocera F-2200
Kyocera F-2200S
Kyocera F-3000
Kyocera F-3000A
Kyocera F-3010
Kyocera F-3300
Kyocera F-5000
Kyocera F-800
Kyocera F-800A
Kyocera F-820
Kyocera FS-1500 / FS-1500A
Kyocera FS-3500 / FS-3500A
Kyocera FS-5500 / FS-5500A
Kyocera FS-850 / FS-850A

LaserWriter Personal NT v51.8
Linotronic™ 100 v42.5
Linotronic 200 v47.1
Linotronic 200 v49.3
Linotronic 200/230
Linotronic 300 v47.1
Linotronic 300 v49.3
Linotronic 330 v52.3
Linotronic 330-RIP 30 v52.3
Linotronic 500 v49.3
Linotronic 530 v52.3
Linotronic 530-RIP 30 v52.3
Linotronic 630 v52.3

Mannesmann Tally® MT 130/24
Mannesmann Tally MT 131/24
Mannesmann Tally MT 150/24
Mannesmann Tally MT 151/24
Mannesmann Tally MT 230/24
Mannesmann Tally MT 330
Mannesmann Tally MT 350
Mannesmann Tally MT 360
Mannesmann Tally MT 730/735
Mannesmann Tally MT 82
Mannesmann Tally MT 90

Mannesmann Tally MT 904 Plus
Mannesmann Tally MT 908
Mannesmann Tally MT 91
Mannesmann Tally MT 92
Mannesmann Tally MT 92C
Mannesmann Tally MT 93
Mannesmann Tally MT 94
Mannesmann Tally MT 98/99
Mannesmann Tally T9017
Microtek TrueLaser
Minolta SP 3000
Minolta SP 3500
Monotype® ImageMaster 1200 v52.3
Monotype Imagesetter v52.2
NEC Colormate PS/40 v51.9
NEC Colormate PS/80 v51.9
NEC Jetmate 400
NEC Jetmate 800
NEC Pinwriter CP6
NEC Pinwriter CP7
NEC Pinwriter P20
NEC Pinwriter P2200
NEC Pinwriter P2plus
NEC Pinwriter P30
NEC Pinwriter P3200
NEC Pinwriter P3300
NEC Pinwriter P5200
NEC Pinwriter P5300
NEC Pinwriter P5XL
NEC Pinwriter P6
NEC Pinwriter P60
NEC Pinwriter P6200
NEC Pinwriter P6300
NEC Pinwriter P6plus
NEC Pinwriter P7
NEC Pinwriter P70
NEC Pinwriter P7plus
NEC Pinwriter P90
NEC Pinwriter P9300
NEC Pinwriter P9XL
NEC SilentWriter® 95 v2010.119
NEC Silentwriter 95 v2011.111
NEC Silentwriter 97 v2011.111
NEC Silentwriter LC 860 Plus
NEC Silentwriter LC 860
NEC Silentwriter LC890 v47.0

NEC Silentwriter LC890XL v50.5
NEC Silentwriter S102
NEC Silentwriter2 290 v52.0
NEC Silentwriter2 90 v52.2
NEC Silentwriter2 990 v52.3

OceColor G5241 PS
OceColor G5242 PostScript Printer v50.3
Oki MICROLINE 801PS+F v52.3
Oki ML 182 Elite (IBM)
Oki ML 192 Elite (IBM)
Oki ML 193 Elite (IBM)
Oki ML 280 Elite (IBM)
Oki ML 320 Elite (IBM)
Oki ML 321 Elite (IBM)
Oki ML 3410 Elite (IBM)
Oki ML 380 Elite
Oki ML 390 Elite
Oki ML 391 Elite
Oki ML 393 Elite
Oki ML 393C Elite
Oki ML 590
Oki ML 591
OKI OL-400
Oki OL-410
OKI OL-800/840
Oki OL-810
Oki OL-870
Oki OL830-PS v52.5
Oki OL840-PS v51.8
Oki OL850-PS v52.5
Oki OL870-PS v2013.108
Okidata® LaserLine 6
Okidata ML 192 Plus
Okidata ML 192
Okidata ML 192-IBM
Okidata ML 193 Plus
Okidata ML 193
Okidata ML 193-IBM
Okidata ML 292-IBM
Okidata ML 293-IBM
Okidata ML 320
Okidata ML 320-IBM
Okidata ML 321
Okidata ML 321-IBM
Okidata ML 380
Okidata ML 390 Plus

Okidata ML 390
Okidata ML 391 Plus
Okidata ML 391
Okidata ML 393 Plus
Okidata ML 393
Okidata ML 393C Plus
Okidata ML 393C
Okidata ML 92-IBM
Okidata ML 93-IBM
Okidata OL-400
Okidata OL-410
Okidata OL-800
Okidata OL-810
Olivetti DM 109
Olivetti DM 124 C
Olivetti DM 124 L
Olivetti DM 124
Olivetti DM 309 L
Olivetti DM 309 S
Olivetti DM 309 SL
Olivetti DM 309
Olivetti DM 324 L
Olivetti DM 324 S
Olivetti DM 324 SL
Olivetti DM 324
Olivetti DM 600 S
Olivetti DM 600
Olivetti DM 624
Olivetti ETV 5000
Olivetti JP 150
Olivetti JP 350
Olivetti JP 350S
Olivetti PG 108
Olivetti PG 208 M2
Olivetti PG 306 PS (13 Fonts)
Olivetti PG 306 PS (35 Fonts)
Olivetti PG 306
Olivetti PG 308 HS PostScript
Olivetti PG 308 HS
Olivetti PG 308
Olivetti PG 404
Olivetti PG 408

Panasonic KX-P1081
Panasonic KX-P1123
Panasonic KX-P1124
Panasonic KX-P1124i

Panasonic KX-P1180
Panasonic KX-P1624
Panasonic KX-P1695
Panasonic KX-P2123
Panasonic KX-P2124
Panasonic KX-P2180
Panasonic KX-P2624
Panasonic KX-P3134
Panasonic KX-P3634
Panasonic KX-P4410
Panasonic KX-P4420
Panasonic KX-P4430
Panasonic KX-P4440
Panasonic KX-P4450
Panasonic KX-P4450i
Panasonic KX-P4451
Panasonic KX-P4455 v51.4
Panasonic KX-P5400 v2013.112
Panasonic KX-P5410 v2013.110

QMS® 1725 Print System
QMS 2025 Print System
QMS 3225 Print System
QMS 420 Print System v2011.22 r15
QMS 4525 Level 2
QMS 4525 Print System
QMS 860 Print System v2011.22 r15
QMS 860+ Level 2
QMS ColorScript 100 Mod 30si
QMS ColorScript 100 Model 10 v50.3
QMS ColorScript 100 Model 20 v50.3
QMS ColorScript 100 Model 30 v50.3
QMS ColorScript 100 v49.4
QMS ColorScript 1000 Level 1
QMS ColorScript 1000 Level 2
QMS ColorScript 210 v2011.22
QMS ColorScript 230 v2011.22
QMS PS Jet Plus v46.1
QMS PS Jet v46.1
QMS-PS® 1700 v52.4
QMS-PS 2000 v52.4
QMS-PS 2200 v51.0 or 52.3
QMS-PS 2210 v51.0 or 52.3
QMS-PS 2220 v51.0 or 52.3
QMS-PS 410 v52.4
QMS-PS 800 Plus v46.1
QMS-PS 800 v46.1

QMS-PS 810 Turbo v. 51.7
QMS-PS 810 v47.0
QMS-PS 815 MR v52.4
QMS-PS 815 v52.4
QMS-PS 820 Turbo v51.7
QMS-PS 820 v51.7
QMS-PS 825 MR v52.4
QMS-PS 825 v52.4
QuadLaser I
Qume ScriptEN v47.0
Ricoh LP-1200

Ricoh PC Laser 6000-PS v50.5
Royal CJP 450

Scantext 2030-51 v49.3 or 52.2
Schlumberger 5232 Color PostScript Printer v50.3
Seiko ColorPoint PS Model 04
Seiko ColorPoint PS Model 14
Seiko Professional ColorPoint 8BPP
Seikosha LT-20
Seikosha SL-80 IP
Seikosha SL-92 Plus
Seikosha SL-92
Seikosha SP-1900
Seikosha SP-1900+
Seikosha SP-2000
Seikosha SP-2400
Seikosha SP-2415
Sharp JX-9300
Sharp JX-9460
Sharp JX-9500
Sharp JX-9500E
Sharp JX-9500H
Sharp JX-9600
Sharp JX-9660
Sharp JX-9700
Sharp JX-9700E
Shinko Color CHC-746PSJ PostScript Printer v52.2
Star FR-10
Star FR-15
Star LaserPrinter 4 III
Star LaserPrinter 4
Star LaserPrinter 5 EX
Star LaserPrinter 5
Star LaserPrinter 8 DB
Star LaserPrinter 8 DX
Star LaserPrinter 8 II

Star LaserPrinter 8 III
Star LaserPrinter 8
Star LC-10 Colour
Star LC-10
Star LC-100 Colour
Star LC-15
Star LC-20
Star LC-200
Star LC24-10
Star LC24-100
Star LC24-15
Star LC24-20
Star LC24-200 Colour
Star LC24-200
Star NB24-10
Star NB24-15
Star NL-10
Star NX-1000 Rainbow
Star NX-1000
Star NX-1001
Star NX-1020 Rainbow
Star NX-1500
Star NX-2400
Star NX-2410
Star NX-2415
Star NX-2420 Rainbow
Star NX-2420
Star NX-2430
Star SJ-48
Star XB-2410
Star XB-2415
Star XB-2420
Star XB-2425
Star XB24-10
Star XB24-15
Star XB24-200
Star XB24-250
Star XR-1000
Star XR-1020
Star XR-1500
Star XR-1520
Star ZA-200
Star ZA-250

Tandy LP-1000

Tegra Genesis

Tektronix® Phaser™ 200e with 17 fonts v2011.108(3)

Tektronix Phaser 200e with 39 fonts v2011.108(3)
Tektronix Phaser 200i v2011.108(3)
Tektronix Phaser II PX
Tektronix Phaser II PXe v2010.128 with 17 fonts
Tektronix Phaser II PXe v2010.128 with 39 fonts
Tektronix Phaser II PXi v2010.116
Tektronix Phaser II PXi v2011.108
Tektronix Phaser II PXiJ v2011.108
Tektronix Phaser III PXi v2010.116
Tektronix Phaser III PXi v2011.108
Tektronix Phaser III PXiJ v2011.108
Tektronix Phaser IISD v2011.108
Tektronix Phaser PX
TI® 2115 13 fonts v47.0
TI 2115 35 fonts v47.0
TI 850/855
TI microLaser 600
TI microLaser PS17 v.52.1
TI microLaser PS35 v.52.1
TI microLaser XL PS17 v.52.1
TI microLaser XL PS35 v.52.1
TI microLaser16 Turbo v2010.119
TI microLaser6 Turbo v2010.119
TI microLaser9 Turbo v2010.119
TI OmniLaser™ 2108 v45.0
TI Omnilaser 2115 v47.0
Toshiba GX-400
Toshiba PageLaser12
Triumph Adler SDR 7706 PS13
Triumph Adler SDR 7706 PS35
Triumph Adler SDR 7706
Unisys AP9210 17 Fonts v52.1
Unisys AP9210 39 Fonts v52.1
Unisys AP9210
Unisys AP9415 v47.0
Varityper 4000-L300 v52.3
Varityper 4000-L330 v52.3
Varityper 4000-L500 v52.3
Varityper 4000-L530 v52.3
Varityper 4200B-P v49.3 or 52.2
Varityper 4300P v49.3 or 52.2
Varityper Series 4000-5300 v49.3 or 52.2
Varityper Series 4000-5330 v49.3 or 52.2
Varityper Series 4000-5500 v52.2
Varityper VT-600P v48.0
Varityper VT-600P

Varietyper VT-600W v48.0

Varietyper VT4_510A v52.3

Varietyper VT4990 v52.3

VT4_530A v52.3

VT4_530B v52.3

VT4_530C v52.3

VT4_533B v52.3

VT4_533C v52.3

VT4_53EA v52.3

VT4_53EB v52.3

VT4_550A v52.3

VT4_550B v52.3

VT4_550C v52.3

VT4_551A v52.3

VT4_563A v52.3

VT4_563B v52.3

Wang LCS15 FontPlus

Wang LCS15

Wang LDP8

Xerox® DocuTech 135 v2010.130

Xerox DocuTech 85 v2010.130

Xerox DocuTech 90 v2010.130

Windows NT 3.1 x86 Architecture Uniprocessor Computers

The following systems have been tested as of May 1994 with Windows NT 3.1. They are considered compatible with the Windows NT 3.5 product.

Absolute Computer 486/66 VL/EISA
ACD OPTIMA 486 DX 33 VL
ACD OPTIMA 486 DX 50 VL
ACD OPTIMA 486 DX2 66 VL
ACER 17000 SMP AA17853N
ACER AcerAcros 486DX2/66 (Model PT66DB)
ACER AcerAltos 700 Model AA768C
ACER AcerAltos 7000 Model 7959BN
ACER AcerAltos 7000 Model AA7653N
ACER AcerAltos 7000/F433TU
ACER AcerAltos 7000/FT66TU
ACER AcerAltos 800 Model AA868C
ACER AcerFrame 1000 (Model 1733)
ACER AcerFrame 1000 (Model 1766)
ACER AcerFrame 300 (Model F433T)
ACER AcerFrame 500 (Model F433TE)
ACER AcerFrame 500 (Model FT50TE)
ACER AcerFrame 500 (Model FT66TE)
ACER AcerFrame 700
ACER AcerMate 466d (Model MT66D3)
ACER AcerPower 425s
ACER AcerPower 433
ACER AcerPower 433e/P433E
ACER AcerPower 433s
ACER AcerPower 433v
ACER AcerPower 450d
ACER AcerPower 450de/PT50E
ACER AcerPower 466d
ACER AcerPower 466de/PT66E
ACER AcerPower 466dv
ACER AcerPower 486/33
ACER AcerPower 560e/P560E
ACER AcerPower 566e
ACER AcerPower 9000 Series Model 9813N
ACMA 486/33 TI-VLB
ACMA 486/50 TS-E
ACMA 486/50-2 TI-VLB
ACMA 486/66-2 TI-VLB
ACMA 486/66-2 TS-E
ACMA 486/66-2 TS-VLB
ACS Meritel 486-50SF
ACS Meritel 486-66SF

Actech ACTion EISA 486DX-50
Actech ACTion EISA 486DX/2-66
Actech ACTion ISA 486DX-33
Actech ACTion ISA 486DX-50
Actech ACTion ISA 486DX/2-50
Actech ACTion ISA 486DX/2-66
Actech ACTion ISA 486SX-25
Actech ACTion VLB 486DX-33
Actech ACTion VLB 486DX-50
Actech ACTion VLB 486DX/2-50
Actech ACTion VLB 486DX/2-66
Actech ACTion VLB 486SX-25
Adaptive Data System Pro 3/486-40
Adaptive Data System Pro 486/33 VESA
Adaptive Data System Pro 486/33DX
Adaptive Data System Pro Series 486/50
Adaptive Data System TAI 386DX/40CF System
Adaptive Data System TAI 486DX/50CS System
ADD-X 486 All In One 33 MHz
ADD-X Systemes 486/33Mhz ISA bus
ADPS 486 Power Notebook 486DX2-50Mhz
ADPS 486 Power Notebook Color 486-33Mhz
ADPS Ambassador
ADPS Bat Computer-33MHz
ADPS Bat Computer-50MHz
ADPS Local Bus 33
ADPS Medallion
ADPS Multimedia Power House
ADPS Power Notebook 486-33Mhz
ADPS System 3000
ADPS System 4000
ADPS System 5000
ADPS System 6000 EISA
ADPS System 6000 Plus
ADPS System 6000 Plus EISA
ADS 486 EISA+VESA UPGRADEABLE
ADS 486VL UPGRADEABLE
ADS ADA 466 EV
ADS ADA 466 ISA/VESA
ADS ADA 466E
ADS ADA-560-P
ADS LDI-466 ISA/VESA
ADS UPGRADEABLE 3/486
Advance Interface EISA VESA 486DX-50
Advance Interface EISA VESA 486DX2-66
Advance Interface VL-BUS 486DX-50
Advance Interface VL-BUS 486DX2-66

Advanced Computer SPIRAL 386DX/40
Advanced Computer SPIRAL 486/33
Advanced Computer SPIRAL 486DX2/50
AIC STM 386DX-33Mhz
AIC STM 486DX-33Mhz
AIC STM 486DX2-66Mhz
AIC STM 486DX2-66Mhz Local Bus
Alcotini AmiTech 386DX-40 STD
Alcotini AmiTech 486DX-33 STD
Alcotini AmiTech 486DX2-50 STD
Alcotini AmiTech 486DX2-66 STD
Alcotini AmiTech 486SX-25 STD
Alcotini Weston 486DX-66 TFT
Alfa DELTACOM 486-33
Alfa DELTACOM 486-50
Alfa DELTACOM 486SX-25
Alfa DELTACOM EISA 486-50
Alfa DELTACOM VESA 486DX2-66
AllWare 466-EV
ALR BusinessVEISA 3/33
ALR BusinessVEISA 4/33D
ALR BusinessVEISA 4/66D
ALR Evolution IV 4/25s
ALR Evolution IV 4/33
ALR Evolution IV 4/33s
ALR Evolution IV 4/66d
ALR Evolution IV 4E/25s
ALR Evolution IV 4E/33
ALR Evolution IV 4E/33s
ALR Evolution IV 4E/66d
ALR Evolution V STP/60
ALR Evolution V-Q/60
ALR Evolution V-Q/66
ALR Evolution V/60
ALR Evolution V/66
ALR Flyer 32LCT 4/50D
ALR Flyer 32LCT 4/66D
ALR Flyer 32LCT 4DX/33
ALR Flyer SD32 4/33
ALR Flyer SD32 4/66d
ALR Flyer VL 4/33d
ALR Flyer VL 4/66d
ALR Modular Processor System 486DX2/66
ALR PowerCache 4 33e
ALR POWERPRO/MC SMP 4/50D
ALR PROVEISA V/66
ALR RANGER M4/25

ALR RANGER MC4/25S
ALR RANGER MC4DX/25
ALR RANGER MCT4/25
AMAX 486/2-50 VESAmx Power Station
AMAX 486/33 VESAmx Power Station
AMAX 486/50 EISAmx Power Station
AMAX 486/66 EISAmx Power Station
AMAX 486/66 VESAmx Power Station
Ambra 486DX/50
Ambra D4100BL
Ambra D466E/VL
Ambra DP60/PCI
Ambra DP66E/VL
Ambra T4100BL
Ambra T466E/VL
American Multisystems InfoGOLD EISA VLB Line (DX2/66)
American Multisystems InfoGOLD P60NT
AMI Enterprise III
AMI Enterprise IV
AMI Excalibur PCI
AMI Excalibur VLB
AMI Omni Business Partner
AMI Super Voyager LC
AMI Super Voyager PCI
AMI Super Voyager VLB
AMI Super Voyager VLB II
AmPAQ Ultimate 466 VLB/S2
AMS TravelPro 5300
AMSYS UPG VLbus DX2-50 DT
Annabelle Bits ASI 486/33 Vesa Local Bus
AOX PS/2 80-081 w/Aox McMASTER48633
Applied Computer ACT 486/33 DX
Applied Computer ACT PENTIUM TOWER
Apricot FTe 486DX2/66
Apricot FTs 486DX2/66
Apricot XEN-LS II
Aquiline NT 466c System
Ares 486-33 VLB
Ariel 486DX2-66EVS
Ariel 486DX2-66VLS2
Asem DP 486/66 II
Asem DS 486/33 II
Asem ECO-PC 4/33
Asem ECO-PC 4/66
Asem MID-SERVER 4/33
Asem PROSERVER 5/60
ASL 433

Aspect 3/486 386DX-40 ISA
Aspect 3/486DX-33 ISA
Aspect 3/486DX-50 ISA
Aspect 3/486DX2-66 ISA
Aspect 486DX2-66 PCI
Aspect EISA 486DX-33
Aspect EISA 486DX-50
Aspect EISA 486DX2-66
Aspect ISA 486DX-33
Aspect ISA 486DX-50
Aspect ISA 486DX2-66
Aspect ISA 486SX-33
Aspect Pentium PCI 60
Aspect VESA 486DX-33
Aspect VESA 486DX-33F
Aspect VESA 486DX-50
Aspect VESA 486DX-50F
Aspect VESA 486DX2-66
Aspect VESA 486DX2-66F
Aspect VESA 486SX-33
Aspect VESA 486SX-33F
AST Advantage 486sx/33
AST Advantage!™ Plus 486DX/33
AST Advantage! Pro 486SX/25 Model 173
AST Bravo 3/25s Model 3V
AST Bravo LC 4/25s
AST Bravo LC 4/33
AST Bravo LC 4/33s
AST Bravo LC 4/50d
AST Bravo LC 4/66 SL
AST Bravo LC 4/66d
AST Bravo LP 4/25s
AST Bravo LP 4/33
AST Bravo LP 4/66d
AST Bravo MT 4/33
AST Bravo MT 4/66d
AST Manhattan SMP P60 (1p)
AST Power Premium 4/33 EISA
AST Power Premium 4/50d
AST PowerExec 4/25SL
AST Premiere MTE P/60
AST Premium 386/33T
AST Premium II 386/33 Model 213V
AST Premium II 486/33
AST Premium SE 4/33 Model 333
AST Premium SE 4/50
AST Premium SE 4/50d

AST Premium SE 4/66d
AST Premium SE 486/33
AST Premium SE P/60
AST Premmia 4/33
AST Premmia 4/33SX
AST Premmia 4/66d
AST Premmia MTE 4/66d
AST Premmia SE 4/33
AST Premmia SE 4/66d
AST Premmia SE P60
AT&T 3406
AT&T 3416
Athena ALM 486 DX 33
Athena ALM 486 DX 50
Athena ALM 486 DX 66
Athena HQ / ISA 486DLC 40
Athena HQ / ISA 486DX 33
Athena HQ / ISA 486DX 50
Athena HQ / ISA 486DX2 66
Athena HQ / VESA 486DX 33
Athena HQ / VESA 486DX2 50
Athena HQ / VESA 486DX2 66
Austin 486/50 EISA Tower PATRIOT
Austin 486/50 VESA-LB PATRIOT
Austin 486/50 VESA-LB PATRIOT PLUS
Austin 486DLC
Austin 486DX/33 EISA Tower PATRIOT
Austin 486DX/33 VESA-LB PATRIOT
Austin 486DX/33 VESA-LB PATRIOT PLUS
Austin 486DX2/50 EISA Tower PATRIOT
Austin 486DX2/66 EISA Tower PATRIOT
Austin 486DX2/66 VESA-LB PATRIOT PLUS
Austin Winstation 486DX2/66
Axik Ace Cache 486DX-33V
Axik Ace Cache 486DX-33VG
Axik Ace Cache 486DX2-50VG
Axik Ace Cache 486DX2-66V
Axik Ace Cache 486DX2-66VG
Axik Ace Cache 486SX-33VG
Aztech TRACER SERIES 386DX/40
Aztech TRACER SERIES 486DX/33
Aztech TRACER SERIES 486DX2/66

Bear 486/50 Desktop
Brett ExecEISA
Brett Executive
Brett Executive PCI Pentium

Brett Pro PCI
Brett Pro VLB
Brett Station NTe EISA
C&S Computer E III 486/VLB
C. THIM 486DX33
CAF CT-02 L737/486DX-33
Caliber 3/486 386DX-40 ISA
Caliber 3/486DX-33 ISA
Caliber 3/486DX-50 ISA
Caliber 3/486DX2-66 ISA
Caliber 486DX2-66 PCI
Caliber EISA 486DX-33
Caliber EISA 486DX-50
Caliber EISA 486DX2-66
Caliber ISA 486DX-33
Caliber ISA 486DX-50
Caliber ISA 486DX2-66
Caliber ISA 486SX-33
Caliber Pentium 60 PCI
Caliber VESA 486DX-33
Caliber VESA 486DX-33F
Caliber VESA 486DX-50
Caliber VESA 486DX-50F
Caliber VESA 486DX2-66
Caliber VESA 486DX2-66F
Caliber VESA 486SX-33
Caliber VESA 486SX-33F
CELEM 486DX/33 VL (VESA)
CELEM 486DX/33 C (ISA)
CELEM 486DX/50 VL (VESA)
CELEM 486DX/50 MC (EISA)
CELEM 486DX2/66 DC (EISA+VESA)
CELEM 586/60 PCI (PCI+ISA)
CENSUS 4D266S DT (incl. MT, IT, FT Models)
CENSUS 4D33S DT (incl. MT, IT, FT Models)
CENSUS 4D40S DT (incl. MT, IT, FT Models)
CENSUS 4D50S DT (incl. MT, IT, FT Models)
CENSUS 4S25S DT (incl. MT, IT, FT Models)
CENSUS 4S33S DT (incl. MT, IT, FT Models)
Centis Profi 433-1G
Centis Profi Lite 433-G25
Chaplet HALIKAN NBD-486T/25M
Chicony Electronics 486 33P
Chicony Electronics Subnote 486SX/25
Cinet ET-100
Cinet EVL Series 486DX2/66

Cinet FSE-100
Cinet HI Series 486DX2/66
Cinet HI-100
Cinet LS-100
Cinet MP-100
Cinet PPI-100
Cinet VL Series 486DX2/66
Cinet VL-100
Cinet VLG-100
Clone 9433
Colfax P1-486 EISA/VLB
Comark CAT486-33/VL
Comark CAT486-66/VL
Comark flex 486
Comark Pentium-60/VL
Comark Pentium-VL-60 Rackmount
Commodore® 486DX-33C
Commodore 486SLC-25
Commodore 486SX-25
Commodore DT 486SX-20
Commodore LB 486DX-33C
Commodore LB 486DX2-66C
Commodore LB 486SX-33C
Commodore LB T486DX2-66C
Commodore T486DX-50C
COMPAQ Concerto 4/25
COMPAQ Contura 4/25C
COMPAQ Deskpro 386/25®
COMPAQ Deskpro 386/25e
COMPAQ Deskpro 386/33
COMPAQ Deskpro 386/33L
COMPAQ Deskpro 4/66i
COMPAQ Deskpro 486/25
COMPAQ Deskpro 486/25i
COMPAQ Deskpro 486/33i
COMPAQ Deskpro 486/33L
COMPAQ Deskpro 486/33M
COMPAQ Deskpro 486/50L
COMPAQ Deskpro 486/50M
COMPAQ Deskpro 5/60M
COMPAQ Deskpro 5/66M
COMPAQ Deskpro 66M
COMPAQ Deskpro XE 4/50
COMPAQ Deskpro XE 4/66
COMPAQ Deskpro XE 4100
COMPAQ Deskpro XE 433s
COMPAQ Deskpro XE 560

COMPAQ LTE Lite 4/25
COMPAQ LTE Lite 4/25C
COMPAQ LTE Lite 4/33C
COMPAQ Portable 486c
COMPAQ Portable 486C/66
COMPAQ Presario 425
COMPAQ Presario CDS 633
COMPAQ ProLiant 1000 486DX2/66
COMPAQ ProLiant 1000 Model 5/60
COMPAQ ProLiant 2000 Model 486/50
COMPAQ ProLinea 3/25s
COMPAQ ProLinea 4/50
COMPAQ Prolinea 4/66
COMPAQ Prolinea CDS 200
COMPAQ Prolinea MT 4/33sx
COMPAQ ProSignia 486DX/33
COMPAQ ProSignia 486DX2/66
COMPAQ ProSignia 5/60
COMPAQ ProSignia VS 486DX/33
COMPAQ ProSignia VS 486DX2/66
COMPAQ ProSignia VS 486SX/33
COMPAQ Systempro/LT™ 386/25
COMPAQ Systempro/LT 486/33
COMPAQ Systempro/LT 486DX2/50
COMPAQ Systempro/LT 486DX2/66
COMPAQ Systempro/LT 486SX/25
Comper DC486-662V
CompuAdd 420s
CompuAdd 433
CompuAdd 433 ELB
CompuAdd 433 LB
CompuAdd 433 LP
CompuAdd 433DLC LP
CompuAdd 433E
CompuAdd 450
CompuAdd 450DX2 LP
CompuAdd 466/DX2
CompuAdd 466DX2 LB
CompuAdd 466DX2E LB
CompuAdd 486-33DLC
COMPUCON 386DX/40
COMPUCON 486DX/33
COMPUCON 486DX/33 ISA/VL
COMPUCON 486DX/50
COMPUCON 486DX/50 EISA/VL
COMPUCON 486DX/50 VL
COMPUCON 486DX2-66

COMPUCON 486DX2/66 EISA/VL
COMPUCON PCI/I486SP3
COMPUCON PCI/IP-60
Compudyne 4DX2/50 EISA16340 DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne 4DX2/50 VLB16340 DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne 4DX2/66 EISA16245 DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne 4DX2/66 Slimnote
Compudyne 4DX2/66 VLB16245 DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne 4DX33 EISA16245 DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne 4DX33 VLB16245 DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne 4DX50 EISA16340 DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne 4DX50 VLB16340 DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne UM486V AIO DX2/50 2VLB DIP DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne UM486V AIO DX2/50 2VLB SMT DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne UM486V AIO DX2/66 2VLB DIP DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne UM486V AIO DX2/66 2VLB SMT DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne UM486V AIO DX33 2VLB DIP DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne UM486V AIO DX33 2VLB SMT DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne UM486V AIO DX50 2VLB DIP DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne UM486V AIO DX50 2VLB SMT DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne UM486V AIO SX25 2VLB DIP DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne UM486V AIO SX25 2VLB SMT DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne UM486V AIO SX33 2VLB DIP DESKTOP (incl. MINITOWER and SERVERTOWER)
Compudyne UM486V AIO SX33 2VLB SMT DESKTOP (incl. MINITOWER and SERVERTOWER)
CompuPartner 4D250
CompuPartner 4D33
CompuPartner 4DV266
Computer Extension CESI 486 66
Computer Resources 486DX266 ISA
Computer Resources 486DX33 FULL TOWER
Computer Resources 486DX33 LOCAL BUS
Computer Resources 486DX50 EISA
Computer Sales Prof. 486DX/33 VL
Computer Sales Prof. 486DX2/50 VL
Computer Sales Prof. 486DX2/66 EISA/VL
Computer Sales Prof. 486DX2/66 VL
Computer Sales Prof. 486SX/25 VL
Computer Sonics CSI EISA/VL 486
Computer Sonics CSI ISA 486/33
Computer Sonics CSI VL/ISA 486
Computer Systems Resources P5/60MHZ PCI
Computrend PREMIO 486DX-33
Computrend PREMIO 486DX-50
Computrend PREMIO 486DX2-66
Comtrade EISA GigaByte Ultima 486DX2-66
Cornell Computer Systems HOME OFFICE PAK 486/33 VLB
Cornell Computer Systems Opti 486/66 VLB

Cornell Computer Systems Tyan 486/33 EISA-VLB
Cornell Computer Systems Tyan 66/EISA
Cornell Computer Systems VALUE PAK 486/33 VLB
Cornell Computer Systems VALUE PAK 486/66 VLB
Cornell Computer Systems Vega™ 33/VLB
Cornell Computer Systems Win NT Pak
CPU Sir Henry NT
Crescent 486-33VL
Crescent 486-66VL
CSS Labs MaxSys 433MTA
CSS Labs MaxSys 433MTMGE
CSS Labs MaxSys 433TA
CSS Labs MaxSys 433TMGE
CSS Labs MaxSys 450MTMGE
CSS Labs MaxSys 450TMGE
CSS Labs MaxSys 452MTMGE
CSS Labs MaxSys 452TMGE
CSS Labs MaxSys 462MTA
CSS Labs MaxSys 462MTE
CSS Labs MaxSys 462MTMGE
CSS Labs MaxSys 462TA
CSS Labs MaxSys 462TE
CSS Labs MaxSys 462TMGE
CSS Labs Preferred 433GA
CSS Labs Preferred 433GE
CSS Labs Preferred 433MGE
CSS Labs Preferred 450MGE
CSS Labs Preferred 452MGE
CSS Labs Preferred 462GA
CSS Labs Preferred 462GE
CSS Labs Preferred 462MGE
CTM Fontek 486DX2-50 VL
CTM Fontek 486DX2-66 VL
CTM Fontek 486DX33 VL
Cube 340 ATX
Cube 433 ATX
Cube 450 ATX
Cube 466 ATX
Cube 466 ATX Local Bus
Cube 486/40
CyberStar Alliance DX2/50
CyberStar FilePro 1000
CyberStar FilePro 2000
CyberStar FilePro 2000 5/60
Daewoo 486 PCI SYSTEM (DX2-66)
Daewoo 486 VESA GREEN SYSTEM (DX2-50)

Daewoo 486 VESA GREEN SYSTEM (SX-25)
Daewoo 486 VESA GREEN SYSTEM (SX-33)
Daewoo 486 VESA System/2700(33)
Daewoo 486 VESA System/2900(33)
Daewoo Modular Desktop/2300
Daewoo Modular Mini Tower/2400
Daewoo VESA PENTIUM(60)
DAN for Windows 25
DAN for Windows 33
DAN for Windows 50
DAN for Windows 66
DAN Vantage/25
DAN Vantage/33
DAN Vantage/50
DAN Vantage/66
Danjen 486DLC 33 MHz
Danjen 486DX 33 MHz Local Bus
Danjen 486DX 50 MHz EISA
Danjen 486DX 50 MHz ISA
Dassault AT CUSTOMER ACTIVATED TERMINAL D633
Data Stor 386-33DX Desktop/Tower
Data Stor 386-33SX Desktop/Tower
Data Stor 486-25SX Desktop/Tower ⁷⁵
Data Stor 486-33 PCI
Data Stor 486-33DX Desktop/Tower ⁷⁵
Data Stor 486-33SX Desktop/Tower ⁷⁵
Data Stor 486-50DX Desktop/Tower ⁷⁵
Data Stor 486-66DX2 Desktop/Tower ⁷⁵
Data Stor 486-66DX2E Desktop/Tower
Data Stor Pentium VL-60
Data Stor Pentium-60 PCI
DataExpert Model 486DX/2i-PCI
DataExpert Model 486DX/2i-VL
DataExpert Model 486DXe-VL66
DataExpert Model 486DXi-VL33
DATAFILEN PROFF 386DX-40
DATAFILEN PROFF 486DX-33 VL
DATAFILEN PROFF 486DX2-66 VL
Datavarehuset BRICK 486DX-33 EISA
Datavarehuset BRICK 486DX2-50 Local Bus
Datavarehuset BRICK 486DX2-66 Local Bus
Datavarehuset BRICK 9003 486DX-33
Datavarehuset BRICK 9003 486DX2-50
Datavarehuset BRICK 9003 4DXV
DDK Soft DDK-4066/2LV
Debis DCS Minitower 486 EISA
Debis DCS Tower 486 MC

Debis DCS Tower 486 MP EISA
Deico 486DLC
Deico Predator III
DELL 325 N Notebook
DELL 325 NC Notebook
DELL 4033/XE
DELL 4050/XE
DELL 4066/XE
DELL 425s/L
DELL 433/L
DELL 433/M
DELL 433/ME
DELL 433/T
DELL 450/M
DELL 450s/L
DELL 4560/XE
DELL 466/M
DELL 466/ME
DELL Dimension 466/T
DELL Dimension 486DX/33
DELL Dimension 486DX/50
DELL Dimension 486DX2/50s
DELL Dimension 486SX/25
DELL Dimension XPS P60
DELL OmniPlex 560
DELL OmniPlex 566
DELL OptiPlex 425s/MXV
DELL OptiPlex 433/MXV
DELL OptiPlex 433s/MXV
DELL OptiPlex 450/MXV
DELL OptiPlex 466/MXV
DELL PowerLine 466DE
DELL PowerLine 466SE
DELL PowerLine System 325
DELL PowerLine System 433DE
DELL PowerLine System 433E
DELL PowerLine System 433SE
DELL PowerLine System 450/T
DELL PowerLine System 450DE
DELL PowerLine System 450DE/2 DGX
DELL PowerLine System 450SE
DELL PowerLine System 486D/33
DELL PowerLine System 486D/50
DELL PowerLine System 486P/25
DELL PowerLine System 486P/33
Delphi Olympus
Delta Micro Systems Gold Line 4D33V

Delta Micro Systems Gold Line 4D50C
Destiny Blitz 486SLC 33
DFI CCV 486DX-33
DFI CCV 486DX2-50
DFI CCV 486DX2-66
DFI CCV 486SX-25
DFI D486P-PRO
DFI TN 486DX-33
DFI TN 486DX2-50
DFI TN 486DX2-66
DFI TN 486SX-25
DFI UCE 486DX-33
DFI UCE 486DX-50
DFI UCE 486DX2-50
DFI UCE 486DX2-66
DFI UCE 486SX-25
DFI UCF 486DX-33
DFI UCF 486DX-50
DFI UCF 486DX2-50
DFI UCF 486DX2-66
DFI UCF 486SX-25
Diamond DT 486DX Versa (AMD DX/40)
Diamond DT 486DX Versa (DX2/66)
Digital Equipment Corp. application DEC 400xP
Digital Equipment Corp. DECpc 333
Digital Equipment Corp. DECpc 425
Digital Equipment Corp. DECpc 425 SE Notebook
Digital Equipment Corp. DECpc 425 ST
Digital Equipment Corp. DECpc 425i
Digital Equipment Corp. DECpc 425i DX2
Digital Equipment Corp. DECpc 433
Digital Equipment Corp. DECpc 433 SE
Digital Equipment Corp. DECpc 433 ST
Digital Equipment Corp. DECpc 433 Workstation
Digital Equipment Corp. DECpc 433dx DT
Digital Equipment Corp. DECpc 433dx LP
Digital Equipment Corp. DECpc 433dx MT
Digital Equipment Corp. DECpc 433dx MTE
Digital Equipment Corp. DECpc 433sx DT
Digital Equipment Corp. DECpc 433T
Digital Equipment Corp. DECpc 450 ST
Digital Equipment Corp. DECpc 450d2 LP
Digital Equipment Corp. DECpc 450d2 MT
Digital Equipment Corp. DECpc 452 ST
Digital Equipment Corp. DECpc 466 ST
Digital Equipment Corp. DECpc 466d2 DT
Digital Equipment Corp. DECpc 466d2 LP

Digital Equipment Corp. DECpc 466d2 LPx
Digital Equipment Corp. DECpc 466d2 MT
Digital Equipment Corp. DECpc 466d2 MTE
Digital Equipment Corp. DECpc 560 ST
Digital Equipment Corp. DECpc LPv 425sx
Digital Equipment Corp. DECpc LPv 433dx
Digital Equipment Corp. DECpc LPv 433sx
Digital Equipment Corp. DECpc LPv 450d2
Digital Equipment Corp. DECpc LPv 466d2
Digital Equipment Corp. DECpc LPv+ 4100
Digital Equipment Corp. DECpc LPv+ 433dx
Digital Equipment Corp. DECpc LPv+ 433sx
Digital Equipment Corp. DECpc LPv+ 450d2
Digital Equipment Corp. DECpc LPv+ 450s2
Digital Equipment Corp. DECpc LPv+ 466d2
Digital Equipment Corp. DECpc LPx 433dx
Digital Equipment Corp. DECpc LPx 433sx
Digital Equipment Corp. DECpc LPx 450d2
Digital Equipment Corp. DECpc LPx 560
Digital Equipment Corp. DECpc LPx 566
Digital Equipment Corp. DECpc LPx+ 433sx
Digital Equipment Corp. DECpc LPx+ 433dx
Digital Equipment Corp. DECpc LPx+ 450d2
Digital Equipment Corp. DECpc LPx+ 466d2
Digital Equipment Corp. DECpc MTE 4100
Digital Equipment Corp. DECpc XL 4100
Digital Equipment Corp. DECpc XL 433
Digital Equipment Corp. DECpc XL 466d2
Digital Equipment Corp. DECpc XL 560
Digital Equipment Corp. DECpc XL 566
Digital Equipment Corp. DECpc XL 590
Digital Equipment Corp. DECpc XL Server 466d2
Digital Equipment Corp. DECpc XL Server 560
Digital Equipment Corp. DECpc XL Server 566
Digital Equipment Corp. DECstation 425c
Dolch C.P.A.C. 486-33C
Dolch C.P.A.C. 486-33E
Dolch C.P.A.C. 486-50 EISA
Dolch C.P.A.C. 486-66C
Dolch C.P.A.C. 486-66E
Dolch M.A.C.H. 486-33
Dolch M.A.C.H. 486-66
Dolch V.P.A.C. 486-33C
Dolch V.P.A.C. 486-33E
Dolch V.P.A.C. 486-66C
Dolch V.P.A.C. 486-66E
DTK 486VL

DTK FEAT03-D33
DTK FEAT03-D40
DTK FEAT03-D50
DTK FEAT03-T66
DTK FEAT04-D33
DTK FEAT33-D33
DTK FEAT33-D40
DTK FEAT33-D50
DTK FEAT33-T66
DTK FEAT34-D33
DTK FEAT34-D40
DTK FEAT34-D50
DTK FEAT34-T66
DTK FEAT35-D33
DTK FEAT36-D33
DTK FEAT5030-D33
DTK FEAT5030-D50
DTK FEAT5030-T66
DTK FEAT5031-D33
DTK FEAT5031-D50
DTK FEAT5031-T66
DTK FEAT62-D33
DTK FEAT62-T66
DTK Grafika 4A
DTK Grafika 4C
DTK Grafika 4D
DTK Grafika 4E
DTK Grafika 4F
DTK Grafika 4G
DTK Grafika 4I
DTK Grafika 4J
DTK Grafika 4V2D-D3
DTK Grafika 4V2D-T6
DTK Grafika 4V2T-D3
DTK Grafika 4V2T-T6
DTK Grafika 5V1T-60
DTK Grafika 5VID-60
DTK PENT-01 (incl. -31, -32 Models)
DTK SPAN0030
DTK SPAN01-D33
DTK SPAN01-D50
DTK SPAN01-T66
DTK SPAN3330
DTK SPAN5030
Duracom 486/25SX-CCV
Duracom 486/25SX-TN
Duracom 486/25SX-UCF

Duracom 486/33-CCV
Duracom 486/33-TN
Duracom 486/33-UCF
Duracom 486/50DX-UCF
Duracom 486/50DX2-CCV
Duracom 486/50DX2-TN
Duracom 486/50DX2-UCF
Duracom 486/66DX2-CCV
Duracom 486/66DX2-TN
Duracom 486/66DX2-UCF
Dyna Micro ASUS 486DX/33 PCI/ISA
Dynamic Decisions DYNEX EXEC-50 EISA
Dynamic Decisions DYNEX EXECUTIVE ISA-486-33 SV2G
Dynamic Decisions EXECUTIVE 486-33 ISA
Dynamic Decisions EXECUTIVE 486-33 ISA/PCI
Dynamic Decisions EXECUTIVE 486-33 VL/EISA
Dynamic Decisions EXECUTIVE 486-33 VL/ISA
Dynamic Decisions EXECUTIVE 486-33SX
Dynamic Decisions EXECUTIVE 486-50 VL/EISA
Dynamic Decisions EXECUTIVE 486-66 DX2 VL/ISA
Dynamic Decisions EXECUTIVE 486-66 VL/EISA
Dynamic Decisions EXECUTIVE ISA-486-33 SV2
Dynamic Decisions EXECUTIVE ISA-486-50 SV2
Dynamic Decisions EXECUTIVE ISA-486-66D2 SV2
Dynamic Decisions PROFESSIONAL 486-33 VL/ISA
Dynamic Decisions PROFESSIONAL 486-33DX VL/EISA E3
Dynamic Decisions PROFESSIONAL 486-33DX VL/EISA E4
Dynamic Decisions PROFESSIONAL 486-50DX VL/EISA E4
Dynamic Decisions PROFESSIONAL 486DX66 EISA VLB E

ECE DATA i486/VLB
ECG Unitron 340
ECG Unitron 425
ECG Unitron 433
ECG Unitron 450
ECG Unitron 450 DX/2
ECG Unitron 466 DX/2
ECG Unitron 466 DX/2 EISA
Elite Industries MB-1433AEA-V 486/33
Elite Industries MB-1433AEA-V 486/50
Elite Industries MB-1433AEA-V 486DX2/66
Elitegroup UC4917-G
Elitegroup UM4910
Elitegroup VL486
Elonex PC-400 Series Computer
Eltech Model 4660VB
Epson Action PC 1500

Epson ActionDesk 2000
Epson ActionDesk 4000 (4DX2/66-LB)
Epson ActionDesk 4000+
Epson ActionServer 5500
Epson EL 486UC+
Epson EL 4S/33+
Epson Endeavor 486L
Epson Endeavor P60
Epson Endeavor VL66
Epson Endeavor WG 4DX2/50
Epson Endeavor WG 4DX2/66
Epson Endeavor WG 4SX33
Epson Equity 4DX/33
Epson Equity 4DX2/50
Epson Equity 4SX/25
Epson PowerSpan 486DX2/66
Epson Progression 486DX/33
Epson Progression 486DX2/66
Epson Progression 486SX/25
Epson Progression 4DX2/50
Epson Progression 4SX/33
Ergo Ultra Moby Brick 486/66
ERIDAN Onyx DE433
Erre 486DX2-66 VLB
EverCom ISA 486SR/33
EverCom VL 486SV2/66
Everex Cube DX/33
Everex Step 486/33 ISA
Everex Step DP
Everex Step Plus DX 33
Everex Step Plus DX/2 50
Everex Step Plus DX/2 66
Everex Step UP-60
Everex Step VL EISA 486DX2/50
Everex Step VL EISA 486DX2/66
Everex Step VL ISA 486DX2/50
Everex Step VL ISA 486DX2/66
Everex Tempo 486/33
Everex Tempo 486/33E
Everex Tempo 486DX2/50
Everex Tempo 486SX/25
Everex Tempo VL EISA DX/2 50
Everex Tempo VL EISA DX/2 66
Everex Tempo VL EISA DX/33
Everex Tempo VL ISA DX/2 50
Everex Tempo VL ISA DX/2 66
Everex Tempo VL ISA DX/33

Evergreen Systems CAPcard 425e
Evesham Micros VALE™ PREMIER + 486DX2-66
Evesham Micros VALE PREMIER 486DX2-66
Evesham Micros VALE PRESTIGE® 486DX2-66
Expo-Tech 386 Ultra Slim
Expo-Tech 486DX/3 Desktop
Expo-Tech 486DX/3 Desktop (w/LBVGA)
Expo-Tech 486DX/3 Desktop (w/VLBUS)
Expo-Tech 486DX/3 Mini (w/VLBUS)
Expo-Tech 486DX/3 Tower
Expo-Tech 486DX/3 Tower (w/VLBUS)
Expo-Tech 486DX2/4 Desktop
Expo-Tech 486DX2/4 Desktop (w/LBVGA)
Expo-Tech 486DX2/4 Desktop (w/VLBUS)
Expo-Tech 486DX2/4 Tower
Expo-Tech 486DX2/4 Tower (w/VLBUS)
Expo-Tech 486DX2/6 Desktop
Expo-Tech 486DX2/6 Desktop (w/LBVGA)
Expo-Tech 486DX2/6 Desktop (w/VLBUS)
Expo-Tech 486DX2/6 Mini (w/VLBUS)
Expo-Tech 486DX2/6 Tower
Expo-Tech 486DX2/6 Tower (w/VLBUS)
Expo-Tech 486SX/3 Desktop
Expo-Tech 486SX/3 Desktop (w/LBVGA)
Expo-Tech 486SX/3 Tower
Expo-Tech 486SX/3 Ultra Slim
Expo-Tech 486SX/3 Ultra Slim (w/LBVGA)
Expo-Tech 486SX/4 Desktop
Expo-Tech 486SX/4 Desktop (w/LBVGA)
Expo-Tech 486SX/4 Desktop (w/VLBUS)
Expo-Tech 486SX/4 Mini (w/VLBUS)
Expo-Tech 486SX/4 Tower
Expo-Tech 486SX/4 Ultra Slim
Expo-Tech 486SX/4 Ultra Slim (w/LBVGA)
Expo-Tech LT322 Notebook
Expo-Tech LT421 Notebook
Express Micro EISA VESA 486DX-50
Express Micro EISA VESA 486DX2-66
Express Micro VL-BUS 486DX-50
Express Micro VL-BUS 486DX2-66
Fast 486DY66S520
Federal Technologies GuardianSM WinMaster 486/33SX
First Jupiter 486DX66 All In One ISA Bus
First Krypton 486DX50 VL-Bus
First LEO 4386VCV DX33
First LEO 486DX66-VL

First LEO 486VC DX/50
First LEO 486VC DX2/66
First LEO DESKTOP 486/33
First LEO DESKTOP 486/50
First LEO DESKTOP 486/66
First LEO MINITOWER 486/33
First LEO MINITOWER 486/50
First LEO MINITOWER 486/66
First President Pak 486DX2/66 VLB
First Venus 486DX2/66 EISA and VL-Bus
First Venus 486DX2/66 VL-Bus
Fountain Technology 486DX/33 VL
Fountain Technology 486DX2/50 VL
Fountain Technology 486DX2/66 EISA/VL
Fountain Technology 486DX2/66 VL
Fountain Technology 486SX/25 VL
Free 586F34X-PCI
Free VESA23X50
Fujitech 486DX/50 E
Fujitech 486DX2/50-VL
Fujitsu S-400
Fujitsu S-466
Fujitsu S-500
Fujitsu S-5000MP
FUTURE COMPUTERS 486 Eisa/Vesa NTPC
FutureTech 486DX2-66 VLB

Gain TITON WORKSTATION
Gateway 2000 386/33
Gateway 2000 486/33C
Gateway 2000 486/33E
Gateway 2000 486DX2/50
Gateway 2000 486DX2/50E
Gateway 2000 486DX2/50V
Gateway 2000 486DX2/66V Desktop
Gateway 2000 4DX/33
Gateway 2000 4DX2-66P
Gateway 2000 4DX2/66E
Gateway 2000 4SX/25
Gateway 2000 4SX/33V
Gateway 2000 Color Book
Gateway 2000 Nomad 425DXL 5
Gateway 2000 Nomad 450DXL 5
Gateway 2000 P5-60
GCH AEGIS 433
GCH AEGIS 466
GCH EasyData 433HI

GCH EasyData 466HI
GCH EasyDate 466HI VL
GCH EiSYS Ei433DX
GCH EiSYS Ei466DX
Genitech Capricorn JF/33
Genitech Capricorn JF2/66
Genitech Capricorn KF33 PCI
GES DATAMINI MF 486DX-33
GES DATAMINI MF 486DX2-66
GES DATAMINI MF 486SX-25
Getek 486 DX 50 LOCAL BUS
GMX EISAMB 486DX2/66
GoldStar 425SXE
GoldStar GS425SX
GoldStar GS466DX
GoldStar GS466DXE
GRiD 486ei-25 SVR
GRiD 486ei-33
GRiD APT/425se
GRiD APT/450e
GRiD MFP 425s+
GRiD MFP 433+
GRiD MFP 433s+
GRiD MFP 450+
GRiD MFP 466+
GRiD MFP/420s
GRiD MFP/425s
GRiD MFP/450
GRiD MFP/540
GVH 486DX2 66 Vesa Bus

H.D.Microsystèmes AX7 486 DX-33
H.D.Microsystèmes AX7 486 DX-50
H.D.Microsystèmes AX7 486 DX2-50
H.D.Microsystèmes AX7 486 DX2-66
H.D.Microsystèmes AX7 Pentium PCI
Hancke & Peter 386w Professional
Hancke & Peter 486/33w Professional
Hancke & Peter 486/50w Professional
Hancke & Peter 486/66w Professional
Hancke & Peter 486w EISA Professional
Harris Epoch 486/33 VESA
Harris Epoch 486/50 EISA
Harris Epoch 486/50 ISA
Hauppauge 4860 EISA DX2-66
Hauppauge 486M Local Bus DX2-66
Hertz 486/D50e

Hertz 486/D50Ee
Hertz 486/D66X2e
Hertz 486/D66X2Ee
Hewitt Rand HR486DX-33Ce VESA
Hewlett-Packard NetServer 4/100 LF
Hewlett-Packard NetServer 4/33 LE
Hewlett-Packard NetServer 4/33 LM
Hewlett-Packard NetServer 4/66 LC
Hewlett-Packard NetServer 4/66 LF
Hewlett-Packard NetServer 4/100 LC
Hewlett-Packard NetServer 4d/66 LE
Hewlett-Packard NetServer 4d/66 LM
Hewlett-Packard NetServer 4s/33 LE
Hewlett-Packard NetServer 5/60 LM
Hewlett-Packard NetServer 5/66 LC
Hewlett-Packard NetServer 5/66 LF
Hewlett-Packard NetServer 5/66 LM
Hewlett-Packard NetServer 5/90 LM
Hewlett-Packard Vectra 386/25
Hewlett-Packard Vectra 386/33N
Hewlett-Packard Vectra 386/33NI
Hewlett-Packard Vectra 486/25M
Hewlett-Packard Vectra 486/25N
Hewlett-Packard Vectra 486/25NI
Hewlett-Packard Vectra 486/25T
Hewlett-Packard Vectra 486/25U
Hewlett-Packard Vectra 486/33M
Hewlett-Packard Vectra 486/33N
Hewlett-Packard Vectra 486/33NI
Hewlett-Packard Vectra 486/33ST
Hewlett-Packard Vectra 486/33T
Hewlett-Packard Vectra 486/33U
Hewlett-Packard Vectra 486/33XM
Hewlett-Packard Vectra 486/50U
Hewlett-Packard Vectra 486/50XM
Hewlett-Packard Vectra 486/66 XM
Hewlett-Packard Vectra 486/66N
Hewlett-Packard Vectra 486/66ST
Hewlett-Packard Vectra 486/66U
Hewlett-Packard Vectra 486s/20
Hewlett-Packard Vectra 486s/25 MI
Hewlett-Packard Vectra 486s/33M
Hewlett-Packard Vectra 486s/33N
Hewlett-Packard Vectra 486s/33NI
Hewlett-Packard Vectra 486s/33XM
Hewlett-Packard Vectra RS/25C
Hewlett-Packard Vectra XP/60 PC

High Tech USA 486DX266 VLB SYSTEM
High Tech USA 486DX33 VLB SYSTEM
HM Systems Minstrel XPentium
HM Systems Minstrel XPentium Server
HM Systems Minstrel Xpresso 486
HM Systems Minstrel Xpresso XL
Hyundai 425s
Hyundai 433DDV
Hyundai 466d2
Hyundai Prestige 433d

IBM Eduquest™ Model 50 486DX/33 (9605-040)
IBM PC Server 486DX2/66 8640-0N*
IBM PC Server Pentium/60 8640-0P*
IBM PS/1 2133-XXX 486SX2/33MHz
IBM PS/1 2133-xxx 486SX/25
IBM PS/1 2133-xxx 486SX/33
IBM PS/1 2133A-xxx 486DX/33 ⁷⁷
IBM PS/1 2133A-xxx 486DX2/66 ⁷⁷
IBM PS/1 2133A-xxx 486SX/25 ⁷⁷
IBM PS/1 2133A-xxx 486SX/33 ⁷⁷
IBM PS/1 2155-87C (SL-B)
IBM PS/1 2155-xxx 486DX/33
IBM PS/1 2155-xxx 486DX2/50
IBM PS/1 2155-xxx 486DX2/66
IBM PS/1 2155-xxx 486SX/25
IBM PS/1 2155-xxx 486SX/33
IBM PS/1 2155A-xxx 486DX2/66 ⁷⁷
IBM PS/1 2155A-xxx 486SX/25 ⁷⁷
IBM PS/1 2155A-xxx 486SX/33 ⁷⁷
IBM PS/1 2155C-XX
IBM PS/1 2168-xxx 486DX/33
IBM PS/1 2168-xxx 486DX2/50
IBM PS/1 2168-xxx 486DX2/66
IBM PS/1 2168-XXX 486DX2/66MHz
IBM PS/1 2168-xxx 486SX/25
IBM PS/1 2168-xxx 486SX/33
IBM PS/1 2168A-xxx 486DX2/66 ⁷⁷
IBM PS/1 2168A-xxx 486SX/25 ⁷⁷
IBM PS/1 2168A-xxx 486SX/33 ⁷⁷
IBM PS/1 486DX33 - 2133-XX
IBM PS/1 Consultant 486SX/25 2133B-xxx
IBM PS/1 Consultant 486SX/33 2133B-xxx
IBM PS/1 Consultant 486SX/33 2155B-xxx
IBM PS/2 56 486SLC3-xxx
IBM PS/2 56LS 486SLC3-xxx
IBM PS/2 57 486SLC3-xxx

IBM PS/2 M57 486SLC3-xxx
IBM PS/2 Model 50/50Z System Board Upgrade 486SLC2/50 78
IBM PS/2 Model 53 9553-xxx 486SLC2/50
IBM PS/2 Model 55/55SX System Board Upgrade 486SX/25 78
IBM PS/2 Model 56 8556-xxx 486SLC/20
IBM PS/2 Model 56 9556-xxx 486SLC2/50
IBM PS/2 Model 57 8557-xxx 486SLC/20
IBM PS/2 Model 57 9557-xxx 486SLC2/50
IBM PS/2 Model 60/80 System Board Upgrade 486DX/33 78
IBM PS/2 Model 70 8570-xxx 386DX/25
IBM PS/2 Model 70 8570-xxx 486DX/25
IBM PS/2 Model 70 System Board Upgrade 486DX/33 78
IBM PS/2 Model 76 9576-xxx 486DX2/66
IBM PS/2 Model 76 9576-xxx 486SX/33
IBM PS/2 Model 76i 9576-xxx 486DX2/50
IBM PS/2 Model 76i 9576-xxx 486DX2/66
IBM PS/2 Model 76s 9576-xxx 486DX2/50
IBM PS/2 Model 76s 9576-xxx 486DX2/66
IBM PS/2 Model 77 9577-xxx 486DX2/66
IBM PS/2 Model 77 9577-xxx 486SX/33
IBM PS/2 Model 77i 9577-xxx 486DX2/50
IBM PS/2 Model 77i 9577-xxx 486DX2/66
IBM PS/2 Model 77s 9577-xxx 486DX2/50
IBM PS/2 Model 77s 9577-xxx 486DX2/66
IBM PS/2 Model 80 8580-xxx 386DX/25
IBM PS/2 Model 90 XP 486 8590-0H* 486SX/25
IBM PS/2 Model 90 XP 486 8590-0J* 486DX/25
IBM PS/2 Model 90 XP 486 8590-0K* 486DX/33
IBM PS/2 Model 90 XP 486 8590-0L* 486DX2/50
IBM PS/2 Model 90 XP 486 8590-xxx with 486DX2/66 processor upgrade
IBM PS/2 Model 90 XP 486 8590-xxx with Enhanced 486DX/50 processor upgrade
IBM PS/2 Model 90 XP 486 8590-xxx with Enhanced 486DX2/66 processor upgrade
IBM PS/2 Model 90 XP 486 8590-xxx with processor upgrade with Pentium Technology
IBM PS/2 Model 90 XP 486 9590-0L* 486DX2/50
IBM PS/2 Model 90 XP 486 9590-xxx with 486DX2/66 processor upgrade
IBM PS/2 Model 90 XP 486 9590-xxx with Enhanced 486DX/50 processor upgrade
IBM PS/2 Model 90 XP 486 9590-xxx with Enhanced 486DX2/66 processor upgrade
IBM PS/2 Model 90 XP 486 9590-xxx with processor upgrade with Pentium Technology
IBM PS/2 Model 95 XP 486 8595-0H* 486SX/25
IBM PS/2 Model 95 XP 486 8595-0J* 486DX/25
IBM PS/2 Model 95 XP 486 8595-0K* 486DX/33
IBM PS/2 Model 95 XP 486 8595-0L* 486DX2/50
IBM PS/2 Model 95 XP 486 8595-0M* 486DX/50
IBM PS/2 Model 95 XP 486 8595-xxx with 486DX2/66 processor upgrade
IBM PS/2 Model 95 XP 486 8595-xxx with Enhanced 486DX/50 processor upgrade
IBM PS/2 Model 95 XP 486 8595-xxx with Enhanced 486DX2/66 processor upgrade
IBM PS/2 Model 95 XP 486 8595-xxx with processor upgrade with Pentium Technology

IBM PS/2 Model 95 XP 486 9595-0L* 486DX2/50
IBM PS/2 Model 95 XP 486 9595-0M* 486DX/50
IBM PS/2 Model 95 XP 486 9595-xxx with 486DX2/66 processor upgrade
IBM PS/2 Model 95 XP 486 9595-xxx with Enhanced 486DX/50 processor upgrade
IBM PS/2 Model 95 XP 486 9595-xxx with Enhanced 486DX2/66 processor upgrade
IBM PS/2 Model 95 XP 486 9595-xxx with processor upgrade with Pentium Technology
IBM PS/2 Model P75 8573-xxx 486DX/33
IBM PS/2 Server 85 433 9585-0K*
IBM PS/2 Server 85 466 9585-0N*
IBM PS/2 Server 85 9585-0X* 486SX/33
IBM PS/2 Server 85 9585-0X* with 486DX2/66 processor upgrade
IBM PS/2 Server 95 466 9595-1N*
IBM PS/2 Server 95 560 9595-0PT
IBM PS/2 Server 95 566 9595-0QT
IBM PS/2 Server 95 Array 466 9595-3N*
IBM PS/2 Server 95 Array 560 9595-3P*
IBM PS/2 Server 95 Array 566 9595-3Q*
IBM PS/2 Ultimedia DV M57 9557-xxx 486SLC2/50
IBM PS/2 Ultimedia M57 8557-xxx 486SLC/20
IBM PS/2 Ultimedia M57 9557-xxx 486SLC2/50
IBM PS/2 Ultimedia M77 9577-xxx 486DX2/66
IBM PS/2 Ultimedia M77 9577-xxx 486SX/33
IBM PS/ValuePoint 425SX/D 6384-Fxx
IBM PS/ValuePoint 425SX/S 6382-Fxx
IBM PS/ValuePoint 433DX/D 6384-Mxx
IBM PS/ValuePoint 433DX/S 6382-Mxx
IBM PS/ValuePoint 433DX/T 6387-Mxx
IBM PS/ValuePoint 433SX/D 6384-Kxx
IBM PS/ValuePoint 433SX/S 6382-Kxx
IBM PS/ValuePoint 466DX2/D 6384-Wxx
IBM PS/ValuePoint 466DX2/T 6387-Wxx
IBM ThinkPad 300 ⁴
IBM Thinkpad 360 ⁴
IBM ThinkPad 700C ^{5,4}
IBM ThinkPad 720C ^{5,4}
IBM ThinkPad 750 ⁴
IBM ThinkPad 750c ⁴
IBM Thinkpad 755 ⁴
ICL ErgoPRO C4/33
ICL ErgoPRO D4/25
ICL ErgoPRO D4/33d
ICL ErgoPRO D4/66d XG
ICL ErgoPRO D5/60
ICL ErgoPRO E4/66d
ICL System Platform CXe486/66
ICL System Platform CXe486i
ICL System Platform CXe486s

ICL System Platform FX486/33
ICL System Platform FX486/50
ICL System Platform FX486/66
ICL ValuePlus MD™/33
ICL ValuePlus MD/50
ICL ValuePlus MD/66
Image 486DX/50 EISA
Image 486DX2/66 VESA
Index INDEXPOR 486 OVD 66 LOCAL BUS CACHE
Index INDEXPOR 486/33
Index INDEXPOR 486/33 VL VESA CACHE
Index INDEXPOR 486/50 I CACHE
Index INDEXPOR 486/50 VL VESA CACHE
Inelco INTEL XPRESS 50MHZ
Innovax Aurora 486DX/33
Insight 66 MHz EISA/VESA 486DX2
Insight 66 MHz ISA/VESA 486DX2
Intel Classic R-Series
Intel Classic/PCI Expandable Desktop
Intel Entrada OEM Platform
Intel L486 Series Professional Workstation
Intel L486-Series/Professional GX
Intel Ninja DX2-66 OEM Platform
Intel Premiere/PCI Baby AT
Intel Premiere/PCI LPX
Intel X486/50E
Intel Xpress 486
Intel Xpress/MX 66Mhz Pentium
Intelicom 486DX/33 EISA
Intelicom 486DX/33 ISA
Intelicom 486DX/33 VESA EISA
Intelicom 486DX/33 VLB
Intelicom 486DX/50 EISA
Intelicom 486DX/50 ISA
Intelicom 486DX/50 VESA EISA
Intelicom 486DX/50 VLB
Intelicom 486DX2/50 EISA
Intelicom 486DX2/50 ISA
Intelicom 486DX2/50 VESA EISA
Intelicom 486DX2/50 VLB
Intelicom 486DX2/66 EISA
Intelicom 486DX2/66 ISA
Intelicom 486DX2/66 VESA EISA
Intelicom 486DX2/66 VLB
Intelicom 486SX/25 ISA
Intelicom 486SX/25 VLB
Intelicom 486SX/33 ISA

INTERCOMP Digit 486SLC/25
INTERCOMP Entry 486/33
INTERCOMP Master 486DX/50
INTERCOMP Planet 486/50 EISA
INTERCOMP Planet 486DX2/66 EISA
INTERCOMP Planet LC 486/33 EISA
INTERCOMP Target 486/33
INTERCOMP Target 486/50 VLB
INTERCOMP Target 486DX/50
Interface Electronic 486DX2/66
Intergraph PC 433
Intergraph PC 466
Intergraph Technical Desktop 1220
Intergraph Technical Desktop 2
International Data DGI 486DX-66
International Data DGI ISA O/D 20
International Instrumentation BLUE MAX PENTIUM P5-60
International Instrumentation BLUE MAX PENTIUM P-60 PCI
International Instrumentation BLUE MAX 486 DX2 66
International Instrumentation BLUE MAX 486 DX33
International Instrumentation BLUE MAX 486 DX66 PCI
Investronica INVES BS-486
Investronica INVES BS-486 VL
Investronica INVES IFS-486
Investronica INVES IFS-900
Investronica INVES MP-900 XM UniProcessor
Investronica INVES WS-900 EVL
Investronica INVES WS-900 VL
IPC DYNASTY G-PC 486DX-33CV
IPC DYNASTY G-PC 486DX2-50CV
IPC DYNASTY G-PC 486DX2-66CV
IPC DYNASTY G-PC 486SX-25CV
IPC DYNASTY HE (GREEN) 486DX-33
IPC DYNASTY HE (GREEN) 486DX2-50
IPC DYNASTY HE (GREEN) 486DX2-66
IPC DYNASTY HE (GREEN) 486SX-25
IPC DYNASTY HE (GREEN) 486SX-33
IPC DYNASTY HE 486DX-33
IPC DYNASTY HE 486DX-33C
IPC DYNASTY HE 486DX2-50
IPC DYNASTY HE 486DX2-50C
IPC DYNASTY HE 486DX2-66
IPC DYNASTY HE 486DX2-66C
IPC DYNASTY HE 486SX-25
IPC DYNASTY HE 486SX-25C
IPC DYNASTY HE 486SX-33
IPC DYNASTY LE 486DX-33 (incl. 33C)

IPC DYNASTY LE 486DX2-50 (incl. 50C)
IPC DYNASTY LE 486DX2-66 (incl. 66C)
IPC DYNASTY LE 486SX-25 (incl. 25C)
IPC DYNASTY S-PC 586DX-60CV
IPC DYNASTY SE 486DX-33C
IPC DYNASTY SE 486DX2-50C
IPC DYNASTY SE 486DX2-66C
IPC DYNASTY SE 486SX-25C
IPC DYNASTY SE PENTIUM-60
IPC DYNASTY SEL PENTIUM-60
IPC VALUEMAGIC 486DX-33
IPC VALUEMAGIC 486DX2-50
IPC VALUEMAGIC 486DX2-66
IPC VALUEMAGIC 486SX-25
IPC VALUEMAGIC 486SX-33
Ipex 486DX2-66 Centra 1000
Ipex 486DX2-66 Centra 1000 EISA
Ipex 486DX2-66 Centra 1000 EISA (Entry Level)
Ipex 486DX2-66 Centra 1000 EISA/VL-BUS
Ipex 486DX2-66 Centra 1000 ISA/VESA
Ipex 486DX2-66 Centra 1000 VESA
Ipex 486DX2-66 Centra 2000
Ipex 486DX2-66 Centra 2000 EISA
Ipex 486DX2-66 Centra 2000 EISA (Entry Level)
Ipex 486DX2-66 Centra 2000 EISA/VL-BUS
Ipex 486DX2-66 Centra 2000 ISA/VESA
Ipex 486DX2-66 Centra 2000 VESA
Ipex 486DX2-66 Centra 5000 ISA/VESA
Ipex 486DX2-66 Desktop
Ipex 486DX2-66 Desktop (EISA)
Ipex 486DX2-66 Desktop EISA (Entry Level)
Ipex 486DX2-66 Desktop EISA/VL-BUS
Ipex 486DX2-66 Desktop VESA
Ipex 486DX2-66 Green Mini Tower ISA/VESA
Ipex 486DX2-66 Green Ulti-mate ISA/VESA
Ipex 486DX2-66 Mini Tower
Ipex 486DX2-66 Mini Tower EISA
Ipex 486DX2-66 Mini Tower EISA (Entry Level)
Ipex 486DX2-66 Mini Tower EISA/VL-BUS
Ipex 486DX2-66 Mini Tower VESA
Ipex 486DX2-66 Slimline
Ipex 486DX2-66 Slimline (WD Form Factor)
Ipex 486DX2-66 Slimline ISA/VESA
Ipex 486DX2/66 Green Desk Top ISA/VESA
Ipex 486DX33 Centra 1000
Ipex 486DX33 Centra 1000 EISA
Ipex 486DX33 Centra 1000 EISA (Entry Level)

Ipex 486DX33 Centra 1000 EISA/VL-BUS
Ipex 486DX33 Centra 1000 VESA
Ipex 486DX33 Centra 2000
Ipex 486DX33 Centra 2000 EISA
Ipex 486DX33 Centra 2000 EISA (Entry Level)
Ipex 486DX33 Centra 2000 EISA/VL-BUS
Ipex 486DX33 Centra 2000 VESA
Ipex 486DX33 Desktop
Ipex 486DX33 Desktop EISA
Ipex 486DX33 Desktop EISA (Entry Level)
Ipex 486DX33 Desktop EISA/VL-BUS
Ipex 486DX33 Desktop VESA
Ipex 486DX33 Green Centra 1000 ISA/VESA
Ipex 486DX33 Green Centra 2000 ISA/VESA
Ipex 486DX33 Green Centra 5000 ISA/VESA
Ipex 486DX33 Green Desk Top ISA/VESA
Ipex 486DX33 Green Mini Tower ISA/VESA
Ipex 486DX33 Green Slimline ISA/VESA
Ipex 486DX33 Green Ulti-mate ISA/VESA
Ipex 486DX33 Mini Tower
Ipex 486DX33 Mini Tower EISA
Ipex 486DX33 Mini Tower EISA (Entry Level)
Ipex 486DX33 Mini Tower EISA/VL-BUS
Ipex 486DX33 Mini Tower VESA
Ipex 486DX33 Slimline
Ipex 486DX33 Slimline (WD Form Factor)
Ipex 486DX50 Centra 1000
Ipex 486DX50 Centra 1000 EISA
Ipex 486DX50 Centra 1000 EISA (Entry Level)
Ipex 486DX50 Centra 1000 EISA/VL-BUS
Ipex 486DX50 Centra 1000 VESA
Ipex 486DX50 Centra 2000
Ipex 486DX50 Centra 2000 EISA
Ipex 486DX50 Centra 2000 EISA (Entry Level)
Ipex 486DX50 Centra 2000 EISA/VL-BUS
Ipex 486DX50 Centra 2000 VESA
Ipex 486DX50 Desktop
Ipex 486DX50 Desktop EISA
Ipex 486DX50 Desktop EISA (Entry Level)
Ipex 486DX50 Desktop EISA/VL-BUS
Ipex 486DX50 Desktop VESA
Ipex 486DX50 Mini Tower
Ipex 486DX50 Mini Tower EISA
Ipex 486DX50 Mini Tower EISA (Entry Level)
Ipex 486DX50 Mini Tower EISA/VL-BUS
Ipex 486DX50 Mini Tower VESA
Ipex 486DX50 Slimline

Ipex 486DX50 Slimline (WD Form Factor)
Ipex 486SX25 Centra 1000
Ipex 486SX25 Centra 1000 EISA
Ipex 486SX25 Centra 1000 EISA (Entry Level)
Ipex 486SX25 Centra 1000 EISA/VL-BUS
Ipex 486SX25 Centra 1000 VESA
Ipex 486SX25 Centra 2000
Ipex 486SX25 Centra 2000 EISA
Ipex 486SX25 Centra 2000 EISA (Entry Level)
Ipex 486SX25 Centra 2000 EISA/VL-BUS
Ipex 486SX25 Centra 2000 VESA
Ipex 486SX25 Desktop
Ipex 486SX25 Desktop EISA
Ipex 486SX25 Desktop EISA (Entry Level)
Ipex 486SX25 Desktop EISA/VL-BUS
Ipex 486SX25 Desktop VESA
Ipex 486SX25 Mini Tower
Ipex 486SX25 Mini Tower (EISA)
Ipex 486SX25 Mini Tower EISA (Entry Level)
Ipex 486SX25 Mini Tower EISA/VL-BUS
Ipex 486SX25 Mini Tower VESA
Ipex 486SX25 Slimline
Ipex 486SX25 Slimline (WD Form Factor)
Ipex 486SX33 Centra 1000 EISA
Ipex 486SX33 Centra 1000 EISA (Entry Level)
Ipex 486SX33 Centra 1000 EISA/VL-BUS
Ipex 486SX33 Centra 1000 ISA
Ipex 486SX33 Centra 1000 VESA
Ipex 486SX33 Centra 2000 EISA
Ipex 486SX33 Centra 2000 EISA (Entry Level)
Ipex 486SX33 Centra 2000 EISA/VL-BUS
Ipex 486SX33 Centra 2000 ISA
Ipex 486SX33 Centra 2000 VESA
Ipex 486SX33 Desktop
Ipex 486SX33 Desktop EISA
Ipex 486SX33 Desktop EISA (Entry Level)
Ipex 486SX33 Desktop EISA/VL-BUS
Ipex 486SX33 Desktop VESA
Ipex 486SX33 Mini Tower EISA
Ipex 486SX33 Mini Tower EISA (Entry Level)
Ipex 486SX33 Mini Tower EISA/VL-BUS
Ipex 486SX33 Mini Tower ISA
Ipex 486SX33 Mini Tower VESA
Ipex 486SX33 Slimline
Ipex 486SX33 Slimline (WD Form Factor)
Ipex Pentium/60 Centra 1000 EISA/PCI
Ipex Pentium/60 Centra 1000 ISA/PCI

Ipex Pentium/60 Centra 1000 ISA/VESA
Ipex Pentium/60 Centra 2000 EISA/PCI
Ipex Pentium/60 Centra 2000 ISA/PCI
Ipex Pentium/60 Centra 2000 ISA/VESA
Ipex Pentium/60 Centra 5000 EISA/PCI
Ipex Pentium/60 Centra 5000 ISA/PCI
Ipex Pentium/60 Centra 5000 ISA/VESA
Ipex Pentium/60 Desk Top EISA/PCI
Ipex Pentium/60 Desk Top ISA/PCI
Ipex Pentium/60 Desk Top ISA/VESA
Ipex Pentium/60 Mini Tower EISA/PCI
Ipex Pentium/60 Mini Tower ISA/PCI
Ipex Pentium/60 Mini Tower ISA/VESA
Ipex Pentium/60 Slimline 1000 EISA/PCI
Ipex Pentium/60 Slimline ISA/PCI
Ipex Pentium/60 Slimline ISA/VESA
Ipex Pentium/60 Ulti-mate EISA/PCI
Ipex Pentium/60 Ulti-mate ISA/PCI
Ipex Pentium/60 Ulti-mate ISA/VESA
Ipex Pentium/66 Centra 1000 EISA/PCI
Ipex Pentium/66 Centra 1000 ISA/PCI
Ipex Pentium/66 Centra 1000 ISA/VESA
Ipex Pentium/66 Centra 2000 EISA/PCI
Ipex Pentium/66 Centra 2000 ISA/PCI
Ipex Pentium/66 Centra 2000 ISA/VESA
Ipex Pentium/66 Centra 5000 EISA/PCI
Ipex Pentium/66 Centra 5000 ISA/PCI
Ipex Pentium/66 Centra 5000 ISA/VESA
Ipex Pentium/66 Desk Top EISA/PCI
Ipex Pentium/66 Desk Top ISA/PCI
Ipex Pentium/66 Desk Top ISA/VESA
Ipex Pentium/66 Mini Tower EISA/PCI
Ipex Pentium/66 Mini Tower ISA/PCI
Ipex Pentium/66 Mini Tower ISA/VESA
Ipex Pentium/66 Slimline EISA/PCI
Ipex Pentium/66 Slimline ISA/PCI
Ipex Pentium/66 Slimline ISA/VESA
Ipex Pentium/66 Ulti-mate EISA/PCI
Ipex Pentium/66 Ulti-mate ISA/PCI
Ipex Pentium/66 Ulti-mate ISA/VESA
ITG NT 486DX-50 ISA
ITOS KT 486/33
ITOS MT 386DX/40
JAI PC 845-66-32VL
JDR C486-50
JDR V486-33

JDR V486-66

JDR V486SX-33

KT Technology KT386DX-33

KT Technology KT386DX-40

KT Technology KT486DX-33

KT Technology KT486DX-50

KT Technology KT486DX2-50 VESA

KT Technology KT486DX2-66 VESA LB

L.E.M. Technologies Sys38640/M

LABTAM 486/66-2 VLB

LANIX BRAIN 486DX2-66

LANIX LIM 486SLC2-66

LANIX MART 486DLC-40

LANIX MART 486DX-33

LANIX MART 486DX2-66

LASER 386 Ultra Slim

LASER 486DX/3 Desktop

LASER 486DX/3 Desktop (w/LBVGA)

LASER 486DX/3 Desktop (w/VLBUS)

LASER 486DX/3 Mini (w/VLBUS)

LASER 486DX/3 Tower

LASER 486DX/3 Tower (w/VLBUS)

LASER 486DX2/4 Desktop

LASER 486DX2/4 Desktop (w/LBVGA)

LASER 486DX2/4 Desktop (w/VLBUS)

LASER 486DX2/4 Tower

LASER 486DX2/4 Tower (w/VLBUS)

LASER 486DX2/6 Desktop

LASER 486DX2/6 Desktop (w/LBVGA)

LASER 486DX2/6 Desktop (w/VLBUS)

LASER 486DX2/6 Mini (w/VLBUS)

LASER 486DX2/6 Tower

LASER 486DX2/6 Tower (w/VLBUS)

LASER 486SX/3 Desktop

LASER 486SX/3 Desktop

LASER 486SX/3 Desktop w/VLBUS

LASER 486SX/3 Tower

LASER 486SX/3 Ultra Slim

LASER 486SX/3 Ultra Slim (w/LBVGA)

LASER 486SX/4 Desktop

LASER 486SX/4 Desktop (w/LBVGA)

LASER 486SX/4 Desktop (w/VLBUS)

LASER 486SX/4 Mini (w/VLBUS)

LASER 486SX/4 Tower

LASER 486SX/4 Ultra Slim

LASER 486SX/4 Ultra Slim (w/LBVGA)

LASER LT322 Notebook
LASER LT421 Notebook
LASER LT432 Notebook
LASER LT433
LASER LT433C Color Notebook
LASER Platinum 466M
LASER Platinum 560M Pentium
LASER Platinum SMP
Leading Edge® D4/DX-33 Plus DeskTop
Leading Edge D4/DX-50 Plus DeskTop
Leading Edge D4/DX2-50 Plus DeskTop
Leading Edge D4/MTDX-33 MiniTower
Leading Edge D4/MTDX-50 MiniTower
Leading Edge D4/MTDX2-50 MiniTower
Leading Edge D4/MTDX2-66 MiniTower
Leading Edge D4/MTSX-25 MiniTower
Leading Edge D4/MTSX-33 MiniTower
Leading Edge D4/SX-25 Plus DeskTop
Leading Edge D4/SX-33 Plus DeskTop
Leading Edge WinPro™ 486/SLC33
Leading Edge WinPro 486/SX-25
Leading Edge WinPro 486e/DX-33
Leading Edge WinPro 486e/DX-33(VL)
Leading Edge WinPro 486e/DX-50
Leading Edge WinPro 486e/DX2-50
Leading Edge WinPro 486e/DX2-50(VL)
Leading Edge WinPro 486e/DX2-66
Leading Edge WinPro 486e/DX2-66(VL)
Leading Edge WinPro 486e/SX-25
Leading Edge WinPro 486e/SX-25(VL)
Leading Edge WinPro 486e/SX-33
Leading Edge WinPro 486e/SX-33(VL)
Leading Edge WinTower 486 DX-33
Leading Edge WinTower 486 DX2-50
Leading Edge WinTower 486 DX2-66
Leading Edge WinTower 486 SX-25
Leading Edge WinTower SX-33
Legacy 486DLC-33 SYSTEM
Legacy VLB 486DX-33
Lightning Power EISA
Lightning VLB Pak
Lucky Star System w/ Cyrix 486S-33
Lundin 400 Series 486 EISA w/ 486DX/50
Lundin 400 Series 486 ISA w/ 486DX/33
Lundin 400 Series 486 VESA w/ 486DX/33
Magitronic G-MD433L-170-4M

Magitronic G-MD440G-130-4M
Magitronic G-MD466L-210-4M
Magitronic G-MS466L-10-16M
Master Cascade 386-40 Small Desktop
Master Cascade 486-33 Mini-Tower
Maximus 486-50MHz Maxi-CAD
Maximus Cyrix 486/40 VESA Local Bus
MetaTech 486DX/33 ISA
MetaTech 486DX/33 VESA
MetaTech 486DX/50 EISA
Metro Computers 486Dx - 33
Micro Arts EISA Pro
Micro Arts Power Pro Stealth
Micro Arts Power Pro Vesa
Micro Assistance Group MAG NT 4000
Micro Express ME 486DX2/66
Microbyte Lyrebird Model 451
Microbyte Lyrebird Model 455
Microbyte Lyrebird Model 457
Micron 4100 Magnum
Micron 486PCI WINSTATION CD
Micron 486VL Magnum 433 DX
Micron 486VL Magnum 433 SX
Micron 486VL Magnum 450 DX2
Micron 486VL Magnum 466 DX2
Micron 486VL MagServer 433 DX
Micron 486VL MagServer 450 DX2
Micron 486VL MagServer 466 DX2
Micron 486VL PowerStation 433 DX
Micron 486VL PowerStation 433 SX
Micron 486VL PowerStation 450 DX2
Micron 486VL PowerStation 466 DX2
Micron 486VL ValueLine 466 DX2
Micron 486VL WinServer 433 DX
Micron 486VL WinServer 450 DX2
Micron 486VL WinServer 466 DX2
Micron 486VL WinStation 433 DX
Micron 486VL WinStation 433 SX
Micron 486VL WinStation 450 DX2
Micron 486VL WinStation 466 DX2
Micron P5PCI Platinum CD
Micron P5PCI PowerStation CD
Microniche MIS Computer Systems M466EV
Microniche MIS Computer Systems M466VL
Microtec MF486 EISA/66MHz
Microtech MTECH GX4-D250
Microtech MTECH GX4-D266

Microtech MTECH GX4-D33
Microtech MTECH GX4-S33
Microtech MTECH VI7-P560
Midgards Micro ISA 486DX-33
Midgards Micro VESA 486DX-33
Midwest Micro 486DX2/50 Vesa/ISA
MIKROLOG OY Osborne 4280G-66
MIKROLOG OY Osborne IX5-60E
MIKROLOG OY Osborne LP4D-33
MIKROLOG OY Osborne LP4D-33CLB
MIKROLOG OY Osborne LP4D-33N
MIKROLOG OY Osborne LP4D-50
MIKROLOG OY Osborne LP4D-50C
MIKROLOG OY Osborne LP4D-50CLB
MIKROLOG OY Osborne LP4D-50N
MIKROLOG OY Osborne LP4D-66
MIKROLOG OY Osborne LP4D-66CLB
MIKROLOG OY Osborne LP4D-66N
MIKROLOG OY Osborne LP4S-25
MIKROLOG OY Osborne LP4S-25N
MIKROLOG OY Osborne LP4S-33CLB
MIKROLOG OY Osborne LP4S-33N
MIKROLOG OY Osborne MT4D-33CLB
MIKROLOG OY Osborne MT4D-33N
MIKROLOG OY Osborne MT4D-50CLB
MIKROLOG OY Osborne MT4D-50N
MIKROLOG OY Osborne MT4D-66CLB
MIKROLOG OY Osborne MT4D-66N
MIKROLOG OY Osborne MT4S-25N
MIKROLOG OY Osborne MT4S-33CLB
MIKROLOG OY Osborne MT4S-33N
MIND 386DX/33 ISA
MIND 486DX/33 EISA
MIND 486DX/33 ISA
MIND 486DX/33 VLB
MIND 486DX/50 EISA
MIND 486DX/50 ISA
MIND 486DX2/50 EISA
MIND 486DX2/50 ISA
MIND 486DX2/50 VLB
MIND 486DX2/66 EISA
MIND 486DX2/66 ISA
MIND 486DX2/66 VLB
MIND 486SX/25 EISA
MIND 486SX/25 ISA
MIND 486SX/33 EISA
MIND 486SX/33 ISA

MIND 486SX/33 VLB
MIND Pentium/60 VLB
Minitronics MINTEC 486DX-33
MiTAC DM4066
Modular MST/200
Monydata Entry 486 / 33
Monydata Modula 200 / 80
Monydata Station 486 / 80
Multitech ProSpec 486DX-50 PS450DE-ST
Mustek BROTHER BCM3486DX2-VL
Mustek BROTHER BCM4486DX-VL
Mustek MECER3486-VL
Mustek MECER7486-VL
MYNIX MYCOMP 486/66VLG

National Instruments™ VXIpc-486 Model 200
National Instruments VXIpc-486 Model 500
National Microcomputers Power System DX2-66
NCR StarStation
NCR System 3000 Model 3230
NCR System 3000 Model 3314
NCR System 3000 Model 3330
NCR System 3000 Model 3333
NCR System 3000 Model 3335
NCR System 3000 Model 3345
NCR System 3000 Model 3350
NCR System 3000 Model 3355
NCR System 3000 Model 3410
NCR System 3000 Model 3445
NCR System 3000 Model 3447
NEC Express II
NEC Express/II 433 ST
NEC Express/II 466 ST
NEC Express/II P601 LT
NEC Image 425
NEC Image 433
NEC Image 433ES
NEC Image 466
NEC Image 466es
NEC Image P60
NEC PowerMate 386/25S
NEC PowerMate 425
NEC PowerMate 425es
NEC PowerMate 433
NEC PowerMate 433es
NEC PowerMate 466
NEC PowerMate 466es

NEC PowerMate 486/33e
NEC PowerMate 486/33i
NEC PowerMate 486/50e
NEC PowerMate 486/50i
NEC PowerMate 486sx/25e
NEC PowerMate DX2/66e
NEC UltraLite™ Versa
NETiS 386DX/40 ISA
NETiS 486DX/33 ISA
NETiS 486DX/33 VL
NETiS 486DX/33 VL EISA
NETiS 486DX/50 VL
NETiS 486DX/50 VL EISA
NETiS 486DX2/50 VL EISA
NETiS 486DX2/66 ISA
NETiS 486DX2/66 VL
NETiS 486DX2/66 VL EISA
NETiS 486SX/33 VL
NETiS Ultra 486DX/33 ISA
NETiS Ultra 486DX/50 ISA
NETiS Ultra 486DX2/66 ISA
NETiS Ultra 486DX2/66 VL
NETiS Ultra 486SX/25 ISA
NETiS Ultra N433VL
NETiS Ultra N450VL
Network Connection M2
Network Connection T-3000
Network Connection T-4000
Network Connection TNX
Network Connection Triumph T.R.A.C.
Network Connection Triumph T.S.C.V
Nimrod 486 DESKTOP VESA
Nimrod 486 LC-DESKTOP VESA
Nimrod 486 MINI-TOWER VESA
Nimrod 486 TOWER VESA
Nimrod DESKTOP 486DX/33 VESA VL
Nimrod DESKTOP 486DX2/66 ISA
Nimrod LC-DESKTOP 486DX/33 VESA VL
Nimrod LC-DESKTOP 486DX2/66 ISA
Nimrod MINI-TOWER 486DX/33 VESA VL
Nimrod MINI-TOWER 486DX2/66 ISA
Nimrod TOWER 486DX/33 VESA VL
Nimrod TOWER 486DX2/66 ISA
NIX PCs 486DX2/66 Vesa
NORTH-EAST NE Micro 433LV
NORTH-EAST NE Micro 450LV
NORTH-EAST NE Micro 466LV

Northern Micro NM486/66VL
Northgate 486/33
Northgate 486/33 Slimline ZXP
Northgate 486/33 VESA ISA
Northgate 486/33e Baby AT
Northgate Elegance 333
Northgate Elegance 425i
Northgate Elegance 433e
Northgate Elegance 433i
Northgate Elegance SP 386/33
Northgate Elegance SP 433
Northgate Elegance ZXP
Northwest Micro Signature I 4/33
Northwest Micro Signature II 4/33 VLB

OKI if 486VX550D
OKI if Server 466/SL
OKI if Station 425/DL
OKI if Station 433/DE

Olidata P/60
Olivetti LSX5010
Olivetti LSX5015
Olivetti LSX5020
Olivetti LSX5025
Olivetti LSX5025 E
Olivetti M300-28
Olivetti M300-30
Olivetti M300-30P
Olivetti M380-40
Olivetti M4-40
Olivetti M4-46
Olivetti M4-60
Olivetti M4-62
Olivetti M4-64
Olivetti M4-65
Olivetti M4-66
Olivetti M4-82
Olivetti M400-10
Olivetti M400-40
Olivetti M400-60
Olivetti M480-10
Olivetti M480-20
Olivetti M480-40
Olivetti M6-400
Olivetti M6-420
Olivetti M6-440
Olivetti M6-450

Olivetti M6-460
Olivetti M6-520
Olivetti M6-540
Olivetti M6-560
Olivetti M6-620
Olivetti M6-850
Olivetti M6-860
Olivetti M6-880
Olivetti SNX 140 Systema
Olympia Olystar 300D-33
Olympia Olystar 400D-33
Olympia Olystar 400D-33 EISA
Olympia Olystar 400D-50
Olympia Olystar 400D-66
Olympia Olystar 400D-66 EISA
Olympia Olystar 400S-25
Olympia Olystar 400S-33SL
Omni Tech 8600 486DX2-66
Omni Tech 9600 486DX2-66
Optima OCT 486DX250 EISA
Optima OCT 486DX266 EISA
Optima OCT 486DX266 VL
Optima OCT 486DX33 EISA
Optima OCT 486DX33 VL
Optima OCT 486DX50 EISA
Optima OCT 486DX50 VL
Optima OCT 486SX25 EISA
Optima OCT 486SX25 VL
Optima OCT DX2-50 VL
Optima SPRINTER 486DX250 EISA
Optima SPRINTER 486SX25 EISA
Optimus 486DX/50 EISA
Optimus 486DX/50 LocalBus
Optimus 486DX2-50 VLB
Optimus 486DX2-66 EISA
Optimus 486DX2-66 VLB
Optimus 486DX2/66
Optimus 486SX/25 VL
Optimus Lan Server LX
OPUS Pentium/60Mhz
OPUS Premier 4D-50
Osborne EISA 486DX50 Fileserver
Osborne Mpower 486DX2-66
Osborne Mpower3 486DX33
Osborne Mpower3 486SX33
Osborne Mpower4 486DX33
Osborne Mpower4 486SX33

Osborne Pentium

Osborne VESA 486DX2-66

Osicom 4133L 486/DX266 VESA LB

Osicom 4133L 486/DX33 VESA LB

Packard Bell 1110

Packard Bell 1120

Packard Bell 1150

Packard Bell 2050

Packard Bell 400T

Packard Bell 470

Packard Bell 485

Packard Bell 486CDM

Packard Bell 486DX/33

Packard Bell 486SX/25

Packard Bell 495

Packard Bell 515E

Packard Bell 525E

Packard Bell 545E

Packard Bell 550

Packard Bell 560

Packard Bell 565E

Packard Bell AXCEL 1033

Packard Bell AXCEL 105

Packard Bell AXCEL 1066

Packard Bell AXCEL 130

Packard Bell AXCEL 2005

Packard Bell AXCEL 2015

Packard Bell AXCEL 2033

Packard Bell AXCEL 205

Packard Bell AXCEL 2066 MINITOWER

Packard Bell AXCEL 230

Packard Bell AXCEL 405 (incl. H model)

Packard Bell AXCEL 410

Packard Bell AXCEL 410E (incl. H, F and W G models)

Packard Bell AXCEL 420

Packard Bell AXCEL 450G (incl. H, J and TJ models)

Packard Bell AXCEL 460

Packard Bell AXCEL 460H (incl. TJ model)

Packard Bell AXCEL 486/33

Packard Bell AXCEL 486A66

Packard Bell AXCEL 486SX

Packard Bell AXCEL 530

Packard Bell AXCEL 533H (incl. J and TJ models)

Packard Bell AXCEL 533STJ

Packard Bell AXCEL 550

Packard Bell AXCEL 550MT/J

Packard Bell AXCEL 570
Packard Bell AXCEL 630 MINITOWER
Packard Bell AXCEL 666J (incl. TJ and TL models)
Packard Bell AXCEL 850
Packard Bell EXECUTIVE 486/33 (incl. ELITE model)
Packard Bell EXECUTIVE 486/33 G (incl. J model)
Packard Bell EXECUTIVE 486DX2/JW (incl. TY model)
Packard Bell EXECUTIVE 486SX (incl. -2F and -G models)
Packard Bell EXECUTIVE 486SX ELITE (incl. SERIES SI model)
Packard Bell EXECUTIVE 486SX-EC
Packard Bell EXECUTIVE 486SX/FW (incl. /HW model)
Packard Bell EXECUTIVE 486SX250
Packard Bell EXECUTIVE 486XE (incl. C and S models)
Packard Bell EXECUTIVE Elite Series 486SXCC
Packard Bell FORCE 1066
Packard Bell FORCE 107
Packard Bell FORCE 110
Packard Bell FORCE 1135
Packard Bell FORCE 1137
Packard Bell FORCE 117
Packard Bell FORCE 200
Packard Bell FORCE 2010
Packard Bell FORCE 2020
Packard Bell FORCE 2040 MINITOWER
Packard Bell FORCE 2233 MINITOWER
Packard Bell FORCE 2376 (incl. F model)
Packard Bell FORCE 2386 MINITOWER
Packard Bell FORCE 250
Packard Bell FORCE 405
Packard Bell FORCE 425
Packard Bell FORCE 486 SX (incl. E, -M1, and -M130 models)
Packard Bell FORCE 486/25
Packard Bell FORCE 486/33 (incl. +, E, -M1, and -M210 models)
Packard Bell FORCE 486/33G (incl. J, JW, and PLUS models)
Packard Bell FORCE 48625 (incl. EX model)
Packard Bell FORCE 486CDM-1/TV
Packard Bell FORCE 486DX/DJ-W (incl. G-W, H, H2, J and JT-W models)
Packard Bell FORCE 486DX2 -WG
Packard Bell FORCE 486DX2/EJT (incl. W model)
Packard Bell FORCE 486DX2/F JT (incl. JT-W, J-W and LT-W models)
Packard Bell FORCE 486DX2/G-W
Packard Bell FORCE 486MT50J
Packard Bell FORCE 486SX (incl. /20, /20G, E, M1, and M130 models)
Packard Bell FORCE 486SX-WG
Packard Bell FORCE 486SX/25 (incl. G and W models)
Packard Bell FORCE 486SX/BE (incl. FW, FW-2, M, MM and H2 models)
Packard Bell FORCE 486SX/OH-W

Packard Bell FORCE 515
Packard Bell FORCE 515S (incl. PLUS model)
Packard Bell FORCE 525 (incl. B and S models)
Packard Bell FORCE 545 (incl. B and S models)
Packard Bell FORCE 565 (incl. S model)
Packard Bell FORCE 600 (incl. B and S models)
Packard Bell FORCE 715 MINITOWER
Packard Bell FORCE T66
Packard Bell LEGEND 102H (incl. ELITE model)
Packard Bell LEGEND 1066 WG ELITE
Packard Bell LEGEND 1133
Packard Bell LEGEND 1134 ELITE
Packard Bell LEGEND 1135
Packard Bell LEGEND 1136
Packard Bell LEGEND 115
Packard Bell LEGEND 1166
Packard Bell LEGEND 1176
Packard Bell LEGEND 120
Packard Bell LEGEND 125
Packard Bell LEGEND 126 ELITE
Packard Bell LEGEND 127
Packard Bell LEGEND 128
Packard Bell LEGEND 135 (incl. H model)
Packard Bell LEGEND 140
Packard Bell LEGEND 1900
Packard Bell LEGEND 1910
Packard Bell LEGEND 2000
Packard Bell LEGEND 2001
Packard Bell LEGEND 2002 ELITE
Packard Bell LEGEND 2011 SUPREME
Packard Bell LEGEND 2025
Packard Bell LEGEND 207
Packard Bell LEGEND 2133 MINITOWER
Packard Bell LEGEND 2135 MINITOWER
Packard Bell LEGEND 2176 ELITE MT
Packard Bell LEGEND 2266 MINITOWER
Packard Bell LEGEND 2270 MINITOWER
Packard Bell LEGEND 2276 MINITOWER
Packard Bell LEGEND 2300 MINITOWER
Packard Bell LEGEND 233
Packard Bell LEGEND 234 ELITE
Packard Bell LEGEND 245
Packard Bell LEGEND 33T SUPREME
Packard Bell LEGEND 33T SUPREME MINITOWER
Packard Bell LEGEND 430 G (incl. WG and F models)
Packard Bell LEGEND 430 WG ELITE
Packard Bell LEGEND 430E (incl. E2 and EL models)

Packard Bell LEGEND 435E ELITE (incl. 2 ELITE model)
Packard Bell LEGEND 440G
Packard Bell LEGEND 445 G ELITE (incl. G 2 ELITE model)
Packard Bell LEGEND 486CDM-1/TV
Packard Bell LEGEND 486T/50
Packard Bell LEGEND 510H
Packard Bell LEGEND 605H ELITE
Packard Bell LEGEND 625
Packard Bell LEGEND 635J
Packard Bell LEGEND 635TJ ELITE
Packard Bell LEGEND 660 (incl. H and ELITE models)
Packard Bell LEGEND 660H
Packard Bell LEGEND 660TJ (incl. H model)
Packard Bell LEGEND 66D SUPREME
Packard Bell LEGEND 66T SUPREME
Packard Bell LEGEND 670
Packard Bell LEGEND 695 SUPREME
Packard Bell LEGEND 700 (incl. ELITE model)
Packard Bell LEGEND 740
Packard Bell LEGEND 747 MINITOWER
Packard Bell LEGEND 750 SUPREME
Packard Bell LEGEND 760 SUPREME
Packard Bell LEGEND 770 (incl. ELITE model)
Packard Bell LEGEND 780
Packard Bell LEGEND 780 SUPREME
Packard Bell LEGEND 790
Packard Bell LEGEND 800 SUPREME (incl. 800+)
Packard Bell LEGEND 800 SUPREME/50
Packard Bell LEGEND 840 MINITOWER
Packard Bell LEGEND 845 MINITOWER
Packard Bell LEGEND 848 MINITOWER
Packard Bell LEGEND 900 F (incl. F-ELITE, and G models)
Packard Bell LEGEND 920SX SUPREME
Packard Bell LEGEND 925 G (incl. G ELITE and J model)
Packard Bell LEGEND 933 G (incl. G ELITE, J, J ELITE and J+)
Packard Bell LEGEND 950 ELITE (incl. J and J ELITE models)
Packard Bell LEGEND 960TJ
Packard Bell LEGEND 966J (incl. ELITE model)
Packard Bell LEGEND 966TJ (incl. TJ ELITE, TJ2 ELITE, TJ-W ELITE, WG and TZ models)
Packard Bell LEGEND M950
Packard Bell LEGEND MT950 (incl. J model)
Packard Bell LEGEND T66
Packard Bell PACKMATE 486/33G (incl. J model)
Packard Bell PACKMATE 486/E
Packard Bell PACKMATE 48625
Packard Bell PACKMATE 486DX/33 Y (incl. Y-W and X models)
Packard Bell PACKMATE 486DX2/50TY (incl. TY-W model)

Packard Bell PACKMATE 486DX2/T Z -W (incl. Y model)
Packard Bell PACKMATE 486DX33/T Y (incl. /TY-W model)
Packard Bell PACKMATE 486SX
Packard Bell PACKMATE 486SX/20 E (incl. F, and G models)
Packard Bell PACKMATE 486SX/25G
Packard Bell PACKMATE 486SX/25W (incl. TG model)
Packard Bell PACKMATE 486SX/33X (incl. X2 and TM models)
Packard Bell PACKMATE 486SX25U(incl. U2 and X models)
Packard Bell PACKMATE 733 C MT
Packard Bell PACKMATE X225
Packard Bell PACKMATE X230
Packard Bell PACKMATE X233
Packard Bell PACKMATE X240
Packard Bell PACKMATE X250 (incl. Y model)
Packard Bell PACKMATE XT266
Packard Bell PB430_5428
Packard Bell PB430SX25
Packard Bell PB530_5428
Patch Computers 486DX-33 VESA/ISA
Patch Computers 486SX-33 VESA/ISA
PC Direct 486ep
PC Expanders VANGUARD PENTIUM 60MHZ VLB
PC House Micro Q 486dx2-66
PC Tech Zeos Upgradable
PC-Brand Leader 486dx/33 Cache
PC-Brand Leader 486dx2/66 Cache
PC-Brand NB 486slc
Peacock 486DX 50
Pionex 486DX/33 VL
Pionex 486DX2/50 VL
Pionex 486DX2/66 EISA/VL
Pionex 486DX2/66 VL
Pionex 486SX/25 VL
Poly 486-33VZ
Poly 486-50E
Poly 486-66E
Poly 486-66EV
Poly 486-66VI
Poly 486-66VL
Poly 486-66VR3
Poly 486SX-25Y
Poly 486SX-33VL
Poly 586-60VLB
Positive by Tandon 486dx/33
Positive by Tandon 486dx2/66
Precision 486/50 EISA
Precision 486/50F

Precision 486/66 EISA VL-Bus
Precision 486/66 VL-Bus
Precision 486/66E
Primax 425SVI
Primax 433VI
Primax 450VE
Primax 450VI
Primax 466VI
Primax 486/33E
Primax 486/66E
Procomp TW 9300
Professional Concepts Beeker 4-33/VL2
Professional Concepts Beeker 4-50/VL2
Professional Concepts Beeker 4-66/VL2
Professional Concepts Beeker 6900
Professional Concepts Quinn 4-33/VLE
Professional Concepts Quinn 4-50/VLE
Professional Concepts Quinn 4-66/VLE
Professional Concepts Saavij 4-33/VL3
Professional Concepts Saavij 4-50/VL3
Professional Concepts Saavij 4-66/VL3
Progen 466
Protech 486-66Mhz EISA
Protech 486-66Mhz EISA/VL
Protech 486-66Mhz ISA
Protech 486-66Mhz ISA/VL

QNIX OMNI486DX2/66
Quadrant 486DX/33 VESA LOCAL BUS
Quadrant 486DX/50 VESA LOCAL BUS
Quadrant 486DX2/66 VESA LOCAL BUS
Quadrant 486SX/25 VESA LOCAL BUS
Quadrant 486SX/33 VESA LOCAL BUS
Quantex 486DX/33 VL
Quantex 486DX2/50 VL
Quantex 486DX2/66 EISA/VL
Quantex 486DX2/66 VL
Quantex 486SX/25 VL
Quattro Prompt4

Radisys EPC-23
Radisys EPC-4
Radisys EPC-5
Radisys EPC-7
Rask REC 486-50F
RDIpc i486DX2/66c Eisa
RDIpc i486DX2/66c Isa
RDIpc i486DX2/66c VL Bus

Reason Technology Square 4LX-C 486DX/2-66
Reason Technology Square 4LX/DX2-66
Repco Data R33B486
Repco Data Turbo APM-420 DX
Repco Data Turbo APM-425 DX
Repco Data Turbo APM-433
Reply Model 32
Reply PS/2 Model 50/50Z System Board Upgrade 486SLC2/50 ⁷⁸
Reply PS/2 Model 55/55SX System Board Upgrade 486/25 ⁷⁸
Reply PS/2 Model 60/80 System Board Upgrade 486/33 ⁷⁸
Reply PS/2 Model 70 System Board Upgrade 486/33 ⁷⁸
Research Machines RM E Series QE-486/33
Research Machines RM S Series PC-486/25SX
Research Machines RM SystemBase 486/33
Research Machines RM V Series V466
Rolta ROLTASTATION 433E
Rose Computer Cidex 386DX-40 ISA(AMD)
Rose Computer Cidex 486DX-40 ISA

Samsung DeskMaster 486/33P
Samsung DeskMaster 486D2/66E
Samsung DeskMaster 486S/25N
Sanyo MBC-19te
SCA Professional 3486DX2/66 VLB
SCA Professional 486DX 50 VLB
SCA Professional 486DX2/66 VLB
SCHADT SCT Proline 486DX2-66 VLB
Seanix ASI 9000 EFAR 486DX2-66
Seanix ASI 9000 PREMIERE PENTIUM PCI-60
Seanix ASI 948633VM
Seanix ASI 948650VM
Seanix ASI 9DX266VM
Sequent WinServer 1000up ¹⁰
Sequent WinServer 1500up ¹⁰
Sequent WinServer 3000up ¹⁰
Sequent WinServer 500
Shuttle 486VL 50
Shuttle HOT-407 EISA/VESA/DX-33
Shuttle HOT-407 EISA/VESA/DX-40
Shuttle HOT-407 EISA/VESA/DX-50
Shuttle HOT-407 EISA/VESA/DX2-50
Shuttle HOT-407 EISA/VESA/DX2-66
Shuttle HOT-409 VLB/DX-33
Shuttle HOT-409 VLB/DX-40
Shuttle HOT-409 VLB/DX-50
Shuttle HOT-409 VLB/DX2-50
Shuttle HOT-409 VLB/DX2-66

Shuttle HOT-413 VLB/DX-33
Shuttle HOT-413 VLB/DX-40
Shuttle HOT-413 VLB/DX-50
Shuttle HOT-413 VLB/DX2-66
Shuttle HOT-426 PCI/DX-33
Shuttle HOT-503 PENTIUM/60
Shuttle HOT-503 PENTIUM/66
Sidus Formula 486/33i
Sidus Formula 486/50e
Siemens-Nixdorf PCD-3M/25
Siemens-Nixdorf PCD-3T/33
Siemens-Nixdorf PCD-4G/33
Siemens-Nixdorf PCD-4G/66
Siemens-Nixdorf PCD-4GSX/25
Siemens-Nixdorf PCD-4H/66
Siemens-Nixdorf PCD-4H/66 VL
Siemens-Nixdorf PCD-4HSX
Siemens-Nixdorf PCD-4LSL
Siemens-Nixdorf PCD-4LSX
Siemens-Nixdorf PCD-4T/33
Siemens-Nixdorf PCD-4T/66
Siemens-Nixdorf PCD-5H
Siemens-Nixdorf PCD-5T / PCI 60E
Siemens-Nixdorf PCE-4C/66-1
Siemens-Nixdorf PCE-4C/DX2-66
Siemens-Nixdorf PCE-4C/SX25
Siemens-Nixdorf PCE-4R/33
Siemens-Nixdorf PCE-4RSX/25
Siemens-Nixdorf PCE-4T/66
Siemens-Nixdorf PCE-5S/60
Siemens-Nixdorf PCE-5S/66
Silicon Star AV4 486DX2/66
Silicon Star AV4 486DX33
Silicon Star AV4 50MHz
Sirex Eaton 486DX-33 EISA/LocalBus
Sirex PowerMaster 486DX-33 EISA/VLB
Sirex PowerMaster 486DX2-50 EISA/VLB
Sirex PowerMaster 486DX2-66 EISA/VLB
Sirex SpeedMaster 486DX-33 ISA
Sirex SpeedMaster 486DX-33 LocalBus
Sirex SpeedMaster 486DX-50 ISA
Sirex SpeedMaster 486DX2-50 ISA
Sirex SpeedMaster 486DX2-50 LocalBus
Sirex SpeedMaster 486DX2-66 ISA
Sirex SpeedMaster 486DX2-66 LocalBus
Sirex SpeedMaster 486SX-33 LocalBus
SKAI 486DX/50VL

SKAI 486DX2/66EVL
Softlet Standard 486DX-40
Softlet Standard 486DX-50
Softlet Standard 486DX2-50 VL
Softlet Standard 486DX2-66
Softworks Citus MDC 386-33
Softworks Citus MDC 486DX-33
Softworks Citus MDC 486DX-50
Softworks Citus MDC 486DX2-50
Softworks Citus MDC 486DX2-66
Softworks Citus MDC X 486 50
SRC Systems 486DX2/66 VESA LOCAL BUS
SRC Systems GRAPHICSTATION
SRC Systems High Performance SCSI 66MHz
SRC Systems Pentium/PCI
Standard Computronics HIPPO-VL 486DX2-66 VESA LOCAL BUS
Standard Computronics HIPPO-VL+ 486DX2-66 DCA® SYSTEM
STD 4D250
STD 4D33
STD 4DV266
STD 4DX250B
STD 4DX266B
STD 4DX33B
SuperCom Touch TI433
SuperCom Touch TI450
SuperCom Touch TI466
Svensk LAPLINE DeskTop 462 (incl. MiniTower Model)
Swan 486/33DB
Swan 486/33V
Swan 486/50ES
Swan 486/66ES
Swan 486DX/33 EISA-DB
Swan 486DX2/50DB
Swan 486DX2/66 EISA-DB
Swan 486DX2/66DB
Swan 486SX/25DB
Swan 486SX/25V
Syncomp Mega+386i 40 PC
Syncomp Mega+486DX2/50e PC
Syncomp Mega+486DX2/50i PC
Syncomp Mega+486DX2/66e PC
Syncomp Mega+486DX2/66i PC
Syncomp Mega+486e-33 PC
Syncomp Mega+486e-50 PC
Syncomp Mega+486i-33 PC
Syncomp Mega+486i-50 PC
Syncomp Mega+486SXe-25 PC

Syncomp Mega+486SXi 33 PC
Syncomp Mega+486SXi-25 PC
Syncomp Micro 386i 40 PC
Syncomp Micro 486DX2/50i PC
Syncomp Micro 486i-33 PC
Syncomp Micro 486i-50 PC
Syncomp Micro 486SXi-25 PC
Syncomp Mini 386i-40PC
Syncomp Mini 486-50i PC
Syncomp Mini 486DX2/50e PC
Syncomp Mini 486DX2/50i PC
Syncomp Mini 486DX2/66e PC
Syncomp Mini 486DX2/66i PC
Syncomp Mini 486e-33 PC
Syncomp Mini 486e-50 PC
Syncomp Mini 486i-33 PC
Syncomp Mini 486SXi-25 PC
Syncomp Mini 486SXi-25 PC
Syncomp Mini 486SXi-33 PC
Syncomp Mini+386i 40 PC
Syncomp Mini+486DX2/50e PC
Syncomp Mini+486DX2/50i PC
Syncomp Mini+486DX2/66e PC
Syncomp Mini+486DX2/66i PC
Syncomp Mini+486e-33 PC
Syncomp Mini+486e-50 PC
Syncomp Mini+486i-33 PC
Syncomp Mini+486i-50 PC
Syncomp Mini+486SXi-25 PC
Syncomp Mini+486SXi-25 PC
Syncomp Mini+486SXi-33 PC
Sys Technology ST486DX-33VM
T-DATA LIN 486-33 DX
T-DATA LIN 486-50 DX
Tagram Computers 486DX-33
Tandon 486dx/33
Tandon 486dx2/66
Tandon MCSII 486dx/33
Tandon MCSII 486dx/33c
Tandon MCSII 486dx2/66c
Tandon NII 486dx/33
Tandon PACII plus 486dx2/66
Tandon PCAII 486dx2/66
Tandon PCAII 486sx/25
Tandon Profile 486dx/33
Tandon TargetII 486dx2/66

Tandon TargetII 486sx/25
Tandon Tower 486dx2/66e
Tandon TowerII 486dx2/66
Tandy 3100
Tandy 425 SX
Tandy 433 DX
Tandy 433 SX
Tandy 450 DX2
Tandy 466 DX2
Tandy 4825 SX
Tandy 4833 LX/T
Tandy 4850 EP
Tandy 4866 LX/T
Tandy Omni Profile II 425 SX
Tandy Omni Profile II 433 DX
Tandy Omni Profile II 433 SX
Tandy Omni Profile II 450 DX2
Tandy Omni Profile II 466 DX2
Tandy Onmi II MT 425 SX
Tandy Onmi II MT 433 DX
Tandy Onmi II MT 433 SX
Tandy Onmi II MT 450 DX2
Tandy Onmi II MT 466 DX2
Tangent 486DX/33 EISA
Tangent 486DX/33 ISA
Tatung TCS-8460S 386SX/25
Tatung TCS-9300T 486DX2/66
Tatung TCS-9360T 486DX/33
Tatung TCS-9370T 486DX2/66
Tatung TCS-9510 486DX/33
Tatung TCS-9540 486DX/33
Tatung TCS-9620E 486DX2/66
Tatung TCS-9650E 486DX2/66
Tatung TCS-9700 486DLC/40
Tatung TCS-9910S 486SLC/33
Techway Endeavour E62
Techway Endeavour E62VL
Techway Endeavour E77
Techway Endeavour E77VL
Techway Endeavour E84
Techway Endeavour E84VL
TELEMECANIQUE FTX507-6B
TELEMECANIQUE FTX507-8C
Texas Instruments TravelMate 4000 Color Series 5
Texas Instruments TravelMate 4000 Series 5
Texas Instruments TravelMate 4000 WinDX2 5
Texas Instruments TravelMate 4000E in TravelMate DeskTop

TFE Atlantic 486 DX 50Mhz
Tiki-Data PC UNIVERSAL
Toshiba Satellite T1900C
Toshiba T1910CS/200
Toshiba T1950CT/320
Toshiba T4400SXC
Toshiba T4500
Toshiba T4600C
Toshiba T4600C/320
Toshiba T4700CS/200
Toshiba T4700CT/320
Toshiba T4800CT/500
Toshiba T6400SX
Toshiba T6600C Multimedia Computer 80
Tri-Star Tri-Win Station
Tri-Star TriCAD 486/66
TriGem 486/33MM (incl. 486 /P (Type 30) model)
TriGem 486/50F
TriGem 486/66F
TriGem 486/66VC
TriGem 486DX2/50MM (incl. 486 /P (Type 40) model)
TriGem 486DX2/66MM (incl. 486 /P (Type 50) model)
TriGem 486G/T20
TriGem 486G/T40
TriGem 486H/T12G
TriGem 486P/T15V
TriGem 486P/T25V
TriGem 486P/T35V
TriGem 486P/T45V
TriGem 486P/T55V
TriGem 486VC
TriGem 4DX/33ME
TriGem 4DX/33ML
TriGem 4DX2/50
TriGem 4DX2/50ME
TriGem 4DX2/66 ML
TriGem 4DX2/66ME
TriGem 4SX/25ME
TriGem 4SX/25ML
TriGem 4SX/33ME
TriGem 4SX/33ML
TriGem 586T
TriGem SX486/25C
TriGem SX486/25MM (incl. 486 /P (Type 10 and 12) models)
TriGem SX486/33MM (incl. 486 /P (Type 20) model)
Trinity Technology Genesis Viper
Tulip Vision Line DS 486 dx/50i

Tulip Vision Line DS 486 SX/33i
Tulip Vision Line DS 586 DX/60
Tulip Vision Line DS/DE 486 dx/33i
Tulip Vision Line DT/DC 486 DX/33i
Tulip Vision Line DT/DC 486 DX/50i
Tulip Vision Line DT/DC 486 DX/66i
Tulip Vision Line series 486DX-33i
Tulip Vision Line series 486DX-50i
Tulip Vision Line series 486DX-66e
Tulip Vision Line Series 486DX-66i
Tulip Vision Line TR 586 DX/60
TWINHEAD Superset 700

U.S. Micro Jet 386DX-33
U.S. Micro Jet 386DX-40
U.S. Micro Jet 486DLC-33
U.S. Micro Jet 486DX-33
U.S. Micro Jet 486DX-50
U.S. Micro Jet 486DX2-50
U.S. Micro Jet 486DX2-66
U.S. Micro Jet 486SX-25
U.S. Micro Jet EISA 486-33
U.S. Micro Jet EISA 486-50
U.S. Micro Jet EISA 486DX2-50
U.S. Micro Jet EISA 486DX2-66
U.S. Micro Jet EISA 486SX-25
U.S. Micro Jet VL 486-50
U.S. Micro Jet VL 486DX-33
U.S. Micro Jet VL 486DX2-50
U.S. Micro Jet VL 486DX2-66
U.S. Micro Jet VL 486SX-25
Ultra Technologies UL P5 60
Ultra Technologies UL486DX 33
Ultra Technologies UL486DX 50
Ultra Technologies UL486DX/2 66
Ultra-Comp 486DX-33
Ultra-Comp 486DX-33 EISA VLB
Ultra-Comp 486DX-33 VLB
Ultra-Comp 486DX-50
Ultra-Comp 486DX-50 EISA VLB
Ultra-Comp 486DX-50 VLB
Ultra-Comp 486DX2-66
Ultra-Comp 486DX2-66 EISA VLB
Ultra-Comp 486DX2-66 VLB
Unidata 486 66 Mhz ISA
Unique Computers, Ltd. UNIQUE 486DX50-VL
Unisys Pathway Series PSA456-601

Unisys Pathway Series PS243-331
Unisys Pathway Series PS243-661
Unisys Pathway Series PS246-331
Unisys Pathway Series PS246-661
Unisys Pathway Series PS255-661
Unisys Pathway Series PS458-601
Unisys PW2 3336
Unisys PW2 Advantage 3256
Unisys PW2 Advantage 3336
Unisys PW2 Advantage 4163
Unisys PW2 Advantage 4253
Unisys PW2 Advantage 4256
Unisys PW2 Advantage 4336
Unisys PW2 Advantage 4506
Unisys PW2 Advantage 46662
Unisys PW2 Advantage Plus 4668
Unisys PW2 Advantage Plus 5606
Unisys PW2 Advantage Plus 5608
US Logic Falcon II Single Board Computer

Vektron VL 486DX/33
Vektron VL 486DX2/50 Business Multimedia
Vektron VL 486DX2/66 Professional Multimedia
Victor 400 DX/50
Victor 400 SX/25
Victor 486 DX/33
Victor 486 DX/66
Victor DX/50
Victor V486DSX/25
Viglen Contender 4DX33
Viglen EX-Series 4DX50
Viglen Genie™ 4DX66
Vobis 4386 VIO SX25
Vobis 486 VC-HD 33
Vobis 486 VC-HD 50
Vobis 486 VIO 66
Vtech LASER 386 Ultra Slim
Vtech LASER 486DX/3 Desktop
Vtech LASER 486DX/3 Desktop (w/LBVGA)
Vtech LASER 486DX/3 Desktop (w/VLBUS)
Vtech LASER 486DX/3 Mini (w/VLBUS)
Vtech LASER 486DX/3 Tower
Vtech LASER 486DX/3 Tower (w/VLBUS)
Vtech LASER 486DX2/4 Desktop
Vtech LASER 486DX2/4 Desktop (w/LBVGA)
Vtech LASER 486DX2/4 Desktop (w/VLBUS)
Vtech LASER 486DX2/4 Tower

Vtech LASER 486DX2/4 Tower (w/VLBUS)
Vtech LASER 486DX2/6 Desktop
Vtech LASER 486DX2/6 Desktop (w/LBVGA)
Vtech LASER 486DX2/6 Desktop (w/VLBUS)
Vtech LASER 486DX2/6 Mini (w/VLBUS)
Vtech LASER 486DX2/6 Tower
Vtech LASER 486DX2/6 Tower (w/VLBUS)
Vtech LASER 486SX/3 Desktop
Vtech LASER 486SX/3 Desktop (w/LBVGA)
Vtech LASER 486SX/3 Desktop w/VLBUS
Vtech LASER 486SX/3 Tower
Vtech LASER 486SX/3 Ultra Slim
Vtech LASER 486SX/3 Ultra Slim (w/LBVGA)
Vtech LASER 486SX/4 Desktop
Vtech LASER 486SX/4 Desktop (w/LBVGA)
Vtech LASER 486SX/4 Desktop (w/VLBUS)
Vtech LASER 486SX/4 Mini (w/VLBUS)
Vtech LASER 486SX/4 Tower
Vtech LASER 486SX/4 Ultra Slim
Vtech LASER 486SX/4 Ultra Slim (w/LBVGA)
Vtech LASER LT322 Notebook
Vtech LASER LT421 Notebook
Vtech LT432 Notebook
Vtech LT433
Vtech LT433C Color Notebook
Vtech Platinum 466M
Vtech Platinum 560M Pentium
Vtech Platinum SMP

Wang Microsystems ASI-CPU-E266
Wang Microsystems DTE-33
Wang Microsystems PC 350/40C
Western 486V25 SX VESA LOCAL BUS
Western 486V33 DX EISA
Western 486V33 DX ISA
Western 486V50 DX EISA
Western 486V50 DX ISA
Western 486V50 DX2 ISA
Western 486V66 DX2 EISA
Western 486V66 DX2 ISA
WIPRO Fusion 510
WIPRO LANDMARK E
WIPRO LANDMARK E SQUARE MODEL - 560
WIPRO Super Genius 386DX
WIPRO Super Genius 386SX
WIPRO Super Genius 486DX
WIPRO Super Genius 486SX

Wyle Laboratories Intel Xpress Deskside w/486DX-50MHz
Wyle Laboratories Intel Xpress DeskTop w/486DX2-66MHz
Wyle Laboratories Intel Xpress DeskTop w/486DX-50MHz
Wyse Decision 386/25
Wyse Decision 386/40
Wyse Decision 386SX/25C
Wyse Decision 486/25
Wyse Decision 486/33
Wyse Decision 486/33E
Wyse Decision 486/33T
Wyse Decision 486DX2/50
Wyse Decision 486GSI
Wyse Decision 486se-25SX
Wyse Decision 486se-33DX
Wyse Decision 486se-33SX
Wyse Decision 486se-50DX2
Wyse Decision 486se-66DX2
Wyse Decision 486si-25SX
Wyse Decision 486si-33DX
Wyse Decision 486si-33SX
Wyse Decision 486si-50DX2
Wyse Decision 486si-66DX2
Wyse Forte` GSV
Wyse Series 6000i Model 640
Wyse Series 6000i Model 645
Wyse Series 7000i Model 740
Xycom XVME-674
Zenith Data Systems Z-386/33E
Zenith Data Systems Z-425/SX
Zenith Data Systems Z-425S+
Zenith Data Systems Z-433/DX
Zenith Data Systems Z-450X+
Zenith Data Systems Z-486/33ET
Zenith Data Systems Z-486SX/20
Zenith Data Systems Z-486SX/25E
Zenith Data Systems Z-Note 425Ln
Zenith Data Systems Z-SELECT 100 DX2/50
Zenith Data Systems Z-SELECT 100 DX2/66
Zenith Data Systems Z-SELECT 100 DX33
Zenith Data Systems Z-SELECT 100 SX25
Zenith Data Systems Z-SELECT 100 SX33
Zenith Data Systems Z-SERVER 425SE
Zenith Data Systems Z-SERVER 433DE
Zenith Data Systems Z-SERVER 450DE
Zenith Data Systems Z-SERVER EX 433DE Model 1000A (incl. Model 2000A)
Zenith Data Systems Z-SERVER EX 433DE Model 500 (incl. Model 1000)

Zenith Data Systems Z-SERVER EX 450DE Model 1000A (incl. Model 2000A)
Zenith Data Systems Z-SERVER EX 450DE Model 500 (incl. Model 1000)
Zenith Data Systems Z-SERVER EX P60E Model 1000A (incl. Model 2000A)
Zenith Data Systems Z-SERVER EX P60E Model 500 (incl. Model 1000)
Zenith Data Systems Z-SERVER LT 433DE Model 245 (incl. Model 1000)
Zenith Data Systems Z-SERVER LT 466XE Model 500 (incl. Model 1000)
Zenith Data Systems Z-SERVER LT P60E Model 1000A (incl. Model 2000A)
Zenith Data Systems Z-SERVER LT P60E Model 500 (incl. Model 1000)
Zenith Data Systems Z-Station 420SEh
Zenith Data Systems Z-Station 420SEn
Zenith Data Systems Z-Station 420Sh
Zenith Data Systems Z-Station 420Sn
Zenith Data Systems Z-Station 425Sh
Zenith Data Systems Z-Station 425Sn
Zenith Data Systems Z-Station 433DEh
Zenith Data Systems Z-Station 433DEn
Zenith Data Systems Z-Station 433Dh
Zenith Data Systems Z-Station 433SEh
Zenith Data Systems Z-Station 450XEh
Zenith Data Systems Z-Station 450Xh
Zenith Data Systems Z-Station 450Xn
Zenith Data Systems Z-STATION 500 Model 433
Zenith Data Systems Z-STATION 500 Model 466X
Zenith/INTEQ TEMPEST 486 WORKSTATION / SERVER
Zenon Z-Dream IIII EISA/VESA 486DX/66
Zenon Z-OPTIMUS PCI,SCSI-II, Pentium/60
ZEOS 486DX/33CDT
ZEOS 486DX/33EISA
ZEOS 486DX/33ISA
ZEOS 486DX/50
ZEOS 486SX/20DT
ZEOS Freestyle™ 386SL 25
ZEOS Pantera 60
ZEOS Upgradable 486 DX/33 Cache
ZEOS Upgradable 486 DX2/66 Cache
ZEOS Upgradable 486 SX/33 Cache
ZEOS Upgradable Local Bus DX2/66

- 4 This system only supports 640x480x16 video resolution.
- 5 Refer to the Release Notes for information on configuring this machine/device before installation.
- 75 If this model was purchased prior to March 1993, contact Data Storage Marketing for compatibility verification.
- 76 To install Windows NT on this system, TMV1.sys on the Windows NT Setup disk 1 must be renamed or removed.
- 77 Windows NT does not currently support Advanced Power Management (APM).
- 78 This system requires an ABIOS.SYS driver dated after 11/1/93 to support IDE drives. Call

Microsoft Product Support Services to obtain this update.

- 79 Patch required for the IBM Thinkpad 750 series. Available on CompuServe in the WINNT forum in library 2 and also in the same locations as the Windows NT Driver Library.
- 80 IDE drives greater than 500MB are only supported with BIOS Version 1.23 or later, with BIOS setting for IDE in standard mode.

Technical Notes

The Windows NT Driver Library is provided on the Windows NT CD-ROM in the \DRVLIB directory, as well as several locations for electronic transmission. Please see the section at the end of this document for instructions on downloading and accessing Windows NT Driver Library drivers.

- 1 This device requires a driver from the \DRVLIB directory on the Windows NT CD-ROM, or the Windows NT Driver Library.
- 2 Must copy ABIOS.SYS and *.BIO from reference diskette to root directory of boot drive to install Windows NT on this system.
- 3 Requires IBM RAID Controller diskette v2.0.
- 4 This system only supports 640x480x16 video resolution.
- 5 Refer to the Release Notes for information on configuring this machine/device before installation.
- 6 To Install Windows NT 3.5 on this system SCSI detection must be skipped during setup.
- 7 Tested with the DPT2012B SCSI Host Adapter.
- 8 Refer to the Installation section of the Release Notes before installing Windows NT 3.5 on this system.
- 9 Only the NCR 53c710 SCSI Host Adapter is supported in this machine.
- 10 Contact the manufacturer for information on running Windows NT on this machine.
- 11 For best performance, this adapter should be configured to IRQ-11.
- 12 Tape drives are not supported with this adapter.
- 13 Tested with firmware revisions 3.10 and 3.20.
- 14 This adapter requires an active terminator for proper performance.
- 15 The floppy controller on this adapter is not supported.
- 16 This adapter must be configured for 5 MB/second asynchronous I/O to work with listed CD-ROM drives from NEC.
- 17 This adapter must be configured for 5 MB/second asynchronous I/O to work with listed CD-ROM drives from Chinon, Hitachi, and NEC.
- 18 Tested with the Unisys PW2 Advantage 3256 (Flemington).
- 19 AIC-7770c and AIC-7770e are supported.
- 20 Tested with the Unisys PW2 Advantage Plus MPE 4668.
- 21 Removable media drives are not supported with cache module installed.
- 22 Scanners are not supported with this adapter.
- 23 To use this adapter, at least one device on the bus must provide termination power.
- 24 Refer to SETUP.TXT for information on configuring this adapter.
- 25 SCSI BIOS dated before 1991 requires PS/2 Reference Diskette version 1.12 or later.
- 26 This adapter cannot be used for CD Setup. To install Windows NT with this adapter, use the WINNT.EXE Setup method.

27 Tested with Dell Omniplex 560.

28 Tested with COMPAQ Portable 486c.

29 Tested with NCR System 3000 Model 3360.

30 This adapter is only supported on IRQ-5.

31 Tested with firmware revision 005.

32 Tested with firmware revision 008.

33 This drive is not supported for use with the Future Domain TMC-850M and TMC-1670 adapters.

34 This drive requires double-termination when used with the Adaptec AHA-1742A.

35 The Ultrastor 24f supports only a single disk when used with this drive.

36 Only supported with access to 1 CD at a time.

37 Requires firmware revision 1.10C to function properly with Windows NT.

38 Supported with CD-ROM drives based on Panasonic CR-52x and CR-56x models only.

39 The driver for this CDROM drive must be selected manually during Setup.

40 This driver can take a considerable length of time to initialize at boot time (up to 10 minutes).

41 This drive is not supported with the Adaptec AHA-1640 adapter.

42 Requires firmware version 484 or later for proper operation.

43 This drive is not supported with the Future Domain TMC-850M(ER).

44 Tested with firmware rev. ARCHIVE IBM4326NP/RP !D04AP.

45 This drive is not supported with the IBM PS/2 Microchannel SCSI Host Adapter (with cache).

46 This drive is not supported with the Adaptec AHA-1510 adapter.

47 The Future Domain TMC-1670 with bios version 3.0 requires that the bios be disabled when used with this drive.

48 This drive is not supported with the UltraStor 24fa adapter.

49 Tested with firmware rev. DEC DLT2000 (c) DEC930A.

50 Tested with firmware rev. DEC TZ86 (c) DEC4318.

51 Tested with firmware rev. DEC TZ87 (c) DEC930A.

52 For use with floppy controllers. Separate interface controllers for these types of drives are not supported.

53 Requires that 512-byte sector-sized media be mounted during installation.

54 The Adaptec emulation mode on the Dell Drive Array(DDA) must be disabled for compatibility with the hardware's Windows NT Driver.

55 This adapter is currently supported in its ESC-1/ESC-2 compatibility mode only.

56 Also supported on Alpha platforms.

57 Tested with BIOS version 3.10.

58 Tested with BIOS version 3.09.

59 Tested with firmware version 1.15.15s.

- 60 65k colors are supported with a 565 DAC, 32k colors with a 555 DAC.
- 61 Some older 928 chips do not support 800x600xTRUE with 2Mb of RAM.
- 62 ATI Mach 32 based boards with rev. 003 of the Mach 32 chip will not support 800x600 with only 1Mb of RAM.
- 63 FDDI tested only.
- 64 Not compatible with IBM Thinkpad 700.
- 65 Supported in Sound Blaster 1.x compatibility mode.
- 66 Not supported in Sound Blaster 1.x compatibility mode.
- 67 Error control and flow control forced on.
- 68 Advanced features disabled.
- 69 Supported as a client modem only.
- 70 Flow control forced on.
- 71 Maximum DTE speed set to 2400.
- 72 Maximum DTE speed set to 9600.
- 73 Modem compression forced on.
- 74 Tested as standard serial ports only.
- 75 If this model was purchased prior to March 1993, contact Data Storage Marketing for compatibility verification.
- 76 To install Windows NT on this system, TMV1.sys on the Windows NT Setup disk 1 must be renamed or removed.
- 77 Windows NT does not currently support Advanced Power Management (APM).
- 78 This system requires an ABIO.SYS driver dated after 11/1/93 to support IDE drives. Call Microsoft Product Support Services to obtain this update.
- 79 Patch required for the IBM Thinkpad 750 series. Available on CompuServe in the WINNT forum in library 2 and also in the same locations as the Windows NT Driver Library.
- 80 IDE drives greater than 500MB are only supported with BIOS Version 1.23 or later, with BIOS setting for IDE in standard mode.

How To Find New Drivers in the Windows NT Driver Library (WNTDL)

COMPUSERVE

- A. If you are using WinCIM_{SM}:
 1. From the Services menu, select GO.
 2. Type MSL in the GO dialog box.
 3. Select 2 to scan.
 4. Search for WNTDL to view the whole WNTDL list or another key word to view specific files.
- B. If you are not using WinCIM, log onto CompuServe, type GO MSL, then follow instructions 3 and 4 above.

ONLINE

- A. Log onto OnLine.
 1. From the Database menu, select the option to Select DB.
 2. Choose the Software Library option.
 3. From the Software Library option, select the option Host Items.
 4. In the Query box, type WNTDL to review the whole WNTDL list or another key word to view a specific file.
- B. To get more information on a specific file, highlight the file with the cursor and press <Enter>. This brings up more details about the file.

GENIE™

Log onto Genie.

1. From the main menu, select option 5 - Computing Services.
2. From the Computing Services menu, select option 6 - IBM PC/TANDY Roundtables.
3. From the IBM PC/TANDY Roundtables menu, select option 3 - Software Libraries.
4. From the Software Libraries menu, select option 3 - Search File Directory.
5. Type WNTDL as the search string to view the WNTDL list or any other key word to view a specific file.

MICROSOFT DOWN LOAD SERVICES

Log onto MSDL by calling (206) 936-6735.

1. Enter name and location.
2. From the main menu, press F for File index.
3. Select L to list the whole WNTDL list or E to examine a specific file.

IF YOU DO NOT HAVE A MODEM

You can obtain an individual driver from the WNTDL on a disk by calling Microsoft Product Support Services at (206) 637-7098.

The Microsoft Solution Provider Program

Microsoft Solution Providers are independent organizations that provide consulting, integration, development, training, technical support, or other services with Microsoft products. They implement business solutions for companies of all sizes and industries by using microcomputer technology for graphical and client-server applications. Microsoft equips Solution Providers with information, business development assistance, and tools that help create additional value for Microsoft-based software technology.

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- **Understanding of Your Business.** The Solution Provider has the background, skills, and expertise to fit microcomputing technology to the exact needs of your organization.
- **Responsive, Wide-Ranging Service.** Solution Providers offer a broad range of services, from design consulting to turnkey solutions to installation to highly specialized custom development. Often they can tailor these services to a customer's specific needs, such as on-site training and support. Solution Providers can provide extensive training on Microsoft products and on software from other vendors. Solution Providers can also offer timely assistance, including product and systems support and troubleshooting, for both existing and new computing environments. Training services include on-site classes, evening and weekend programs, even courses via satellite. They provide application training for users, technical training for systems engineers and developers, and specialty training on industry-specific applications.
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To locate a Microsoft Solution Provider in your area, or for more information on the Microsoft Solution Provider Program, in the U.S. call Microsoft at (800) SOL-PROV.

In Canada, call (800) 563-9048. Outside North America, contact your local Microsoft subsidiary.

Microsoft Certified Professional Program

The Microsoft Certified Professional Program qualifies technical professionals who are skilled in implementing and supporting solutions with Microsoft products, as demonstrated by their performance on Microsoft certification exams. The program helps individuals assess and promote their skills, and provides a benchmark for organizations to use when hiring technical staff, determining training needs, or outsourcing technical services. Anyone who must prove their technical expertise with Microsoft products should consider the program.

The Microsoft Certified Professional Program offers four types of certification:

- Microsoft Certified Product Specialists are qualified to install, customize, and support Microsoft Desktop products. Microsoft Certified Product Specialists are required to pass one operating system exam.
- Microsoft Certified Systems Engineers are qualified to effectively implement, maintain, and support information systems with Microsoft Windows NT and other Microsoft advanced systems and workgroup products.
- Microsoft Certified Trainers are uniquely qualified to deliver courses at Microsoft Solution Provider Authorized Technical Education Centers, having demonstrated their expertise by passing Microsoft Certified Professional exams.
- Microsoft Certified Developers. We've received many requests to expand our Microsoft Certified Professional Program to include a certification for developers. As a result, we will formally announce our certification for developers in the third quarter of 1994.

To become a Microsoft Certified Professional, you must pass rigorous exams that validate technical proficiency with Microsoft products. Certification exams are available for a wide range of products, including:

- Microsoft Windows
- Microsoft Windows NT Workstation
- Microsoft Windows NT Server
- Microsoft Windows for Workgroups
- Microsoft SQL Server
- Microsoft Mail
- Microsoft Word
- Microsoft Excel
- Microsoft Project
- Microsoft Visual Basic
- Microsoft Access

We recommend Microsoft certification for all technical professionals who plan, implement, support, or maintain solutions with Microsoft products. As a Microsoft Certified Professional, you'll be recognized as an expert on Microsoft products, have access to ongoing technical information from Microsoft, and receive special invitations to Microsoft conferences and events.

You can obtain information on the Microsoft Certified Professional Program from CompuServe (GO MSED CERT), or by calling (800) 636-7544. In Canada, call the Microsoft Canada Customer Support Centre at (800) 563-9048. Outside North America, contact your local Microsoft subsidiary. To locate the

nearest Microsoft subsidiary, call (206) 936-8661.

Microsoft Technical Education and Training

Technical education and training courses on Microsoft products are available through Microsoft Solution Provider Authorized Technical Education Centers, and from Microsoft subsidiaries worldwide.

Microsoft technical education materials provide computer professionals with the knowledge required to expertly install and support Microsoft solutions. Courses are developed straight from the source--by the Microsoft product and technical support groups. They include accurate in-depth information and hands-on labs based on real-world experience. Microsoft courses are designed to effectively help you prepare for Microsoft Certified Professional exams.

Microsoft curriculum is developed in two forms:

1. Instructor-led classes are delivered by Microsoft Certified Trainers at Microsoft Authorized Technical Education Centers. As members of the Solution Provider program, the Authorized Technical Education Centers are independent businesses that have been evaluated as qualified to deliver Microsoft official curriculum.
2. Microsoft also develops self-paced curriculum materials, including hands-on lab exercises, that let you learn at your own pace.

Courses for the Microsoft Windows NT product line include:

- Supporting Microsoft Windows NT Workstation 3.5
- Administering and Supporting Microsoft Windows NT Server 3.5
- Inter-Networking with Microsoft TCP/IP

For full course descriptions and referrals to a Microsoft Authorized Technical Education Center, call (800) SOL-PROV in the U.S. and Canada. Outside North America, contact your local Microsoft subsidiary office. Ask for the Microsoft Education and Certification Roadmap, an online guide to Microsoft Education and Certification. or see E&CMAP.ZIP from Library 5 of the Solution Provider forum on CompuServe (GO MSED CERT).

Microsoft Sales/Contact Information

For more information, call the Microsoft Sales Information Center at (800) 426-9400. In Canada, call the Microsoft Canada Customer Support Centre at (800) 563-9048.

Customers who are deaf or hard of hearing can call Microsoft text telephone (TT/TDD) services at (800) 892-5234 in the U.S., or at (800) 568-9641 in Canada. Outside North America, contact your local subsidiary.

Windows NT Books

TITLE: Microsoft ODBC 2.0 Programmer's Reference & SDK Guide: For Microsoft Windows & Windows NT

AUTHOR: Microsoft Corporation Staff

PUBLISHER: Microsoft

PUBLICATION DATE: 05/1994 (940501)

ISBN: 1-55615-658-8

TITLE: Inside the Windows NT File System

AUTHOR: Custer, Helen

PUBLISHER: Microsoft

PUBLICATION DATE: 06/1994 (940601)

ISBN: 1-55615-660-X

TITLE: Networking with Windows NT

AUTHOR: Columbus, Louis

SERIES: Advanced Ser.

PUBLISHER: Wordware Pub

PUBLICATION DATE: 04/1994 (940401)

EDITION: Orig. Ed.

NO. OF PAGES: 280p.

BINDING: pap. - \$24.95

ISBN: 1-55622-421-4

TITLE: Show-Stopper: The Breakneck Race to Create Windows NT & the Next Generation at Microsoft

AUTHOR: Zachary, G. Pascal

PUBLISHER: Free Pr

PUBLICATION DATE: 06/1994 (940601)

BINDING: Text ed. - \$22.95

ISBN: 0-02-935671-7

TITLE: Windows NT Network Programming: How to Survive in a Thirty-Two Bit Networking World

AUTHOR: Davis, Ralph

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 06/1994 (940601)

BINDING: pap. - \$39.95 incl. disk

ISBN: 0-201-62278-5

TITLE: Networking NT: Using Windows NT in the Corporate LAN Environment

AUTHOR: Monro, Christopher

PUBLISHER: Van Nos Reinhold

PUBLICATION DATE: 03/1994 (940301)

BINDING: pap. - \$29.95

ISBN: 0-442-01829-0

TITLE: Windows NT: A Practical Guide

AUTHOR: Tennick, Arthur

PUBLISHER: Buttrwrth-Heinemann

PUBLICATION DATE: 01/1994 (940101)

NO. OF PAGES: 350p.

BINDING: pap. - \$24.95

ISBN: 0-7506-0852-8

TITLE: Win32 System Services: The Heart of Windows NT

AUTHOR: Brain, Marshall

PUBLISHER: P-H

PUBLICATION DATE: 04/1994 (940401)

BINDING: pap. - \$50.00

ISBN: 0-13-097825-6

TITLE: Network Remote Procedure Calls: Windows NT, Windows, DOS

AUTHOR: Eddon, Guy

PUBLISHER: P-H

PUBLICATION DATE: 11/1993 (931101)

BINDING: pap. text ed. - \$30.00

ISBN: 0-13-100223-6

TITLE: Windows NT Administration: Single Systems to Heterogeneous Networks

AUTHOR: Brain, Marshall

PUBLISHER: P-H

PUBLICATION DATE: 10/1993 (931001)

BINDING: pap. - \$40.00

ISBN: 0-13-176694-5

TITLE: Peter Norton's Window NT: Tips & Tricks

AUTHOR: Norton, Peter; Kent, Peter

PUBLISHER: Random

PUBLICATION DATE: 1993

NO. OF PAGES: 414p.

BINDING: Trade - \$27.00

ISBN: 0-679-79200-7

TITLE: Windows NT Advanced Server: Lan Manager for NT

AUTHOR: Spencer, Kenneth

PUBLISHER: P-H

PUBLICATION DATE: 06/1994 (940601)

EDITION: 1st ed.

BINDING: pap. text ed. - \$30.00

ISBN: 0-13-107046-0

TITLE: Mastering Windows NT

AUTHOR: Simpson, Alan

PUBLISHER: Sybex

PUBLICATION DATE: 05/1993 (930501)

BINDING: pap. - \$29.99

ISBN: 0-7821-1352-4

TITLE: Networking Windows NT

AUTHOR: Ruley, John D.

PUBLISHER: Wiley
PUBLICATION DATE: 11/1993 (931101)
BINDING: pap. text ed. - \$27.95
ISBN: 0-471-31072-7

TITLE: Borland C Plus Plus X.0 Programming for Windows & Windows NT
AUTHOR: Yao, Paul
SERIES: Borland Press Ser.
PUBLISHER: Random
PUBLICATION DATE: 01/1994 (940101)
BINDING: pap. - \$34.00
ISBN: 0-679-75146-7

TITLE: Cross-Platform Power Tools: Application Development for the Macintosh, Windows, & Windows NT
AUTHOR: Petrucci, Steven J.
PUBLISHER: Random
PUBLICATION DATE: 12/1993 (931201)
BINDING: pap. - \$45.00
ISBN: 0-679-79147-7

TITLE: OS - 2 2.X vs. Windows NT
AUTHOR: Computer Technology Research Corp. Staff
PUBLISHER: Computer Tech Res
PUBLICATION DATE: 1994 (940101)
EDITION: Orig. Ed
NO. OF PAGES: 140p.
BINDING: pap. - \$180.00 technical report
ISBN: 1-56607-021-X

TITLE: Microsoft Windows NT Step by Step
AUTHOR: Catapult Inc. Staff
PUBLISHER: Microsoft
PUBLICATION DATE: 10/1993 (931001)
BINDING: pap. - \$29.95
ISBN: 1-55615-573-5

TITLE: Optimizing Windows NT
AUTHOR: Blake, Russ
PUBLISHER: Microsoft
PUBLICATION DATE: 10/1993 (931001)
BINDING: pap. - \$34.95
ISBN: 1-55615-619-7

TITLE: Programming Windows NT with C & C
AUTHOR: Andrews, Mark
PUBLISHER: MIS Press
PUBLICATION DATE: 11/1993 (931101)
BINDING: pap. - \$29.95
ISBN: 1-55828-300-5

TITLE: Windows NT Power Tools
AUTHOR: Leblond Group Staff
PUBLISHER: Random
PUBLICATION DATE: 07/1993 (930701)
BINDING: pap. - \$50.00 incl. disk
ISBN: 0-679-79142-6

TITLE: Windows NT:
AUTHOR: Goodman, Kevin
PUBLISHER: M&T Bks
PUBLICATION DATE: 09/1993 (930901)
BINDING: pap. - \$39.95 incl. disk
ISBN: 1-55851-306-X

TITLE: Migrating to Windows NT:
AUTHOR: Kennedy, Randall C.
PUBLISHER: Brady Compu Bks
PUBLICATION DATE: 09/1993 (930901)
BINDING: pap. - \$26.95
ISBN: 1-56686-103-9

TITLE: Practical Guide to Windows NT
AUTHOR: Spencer, Kenneth L.; Schoeniger, Eric-Editor
PUBLISHER: CBM Bks
PUBLICATION DATE: 1994 (940101)
EDITION: Orig. Ed.
NO. OF PAGES: 224p.
BINDING: pap. text ed. - \$25.00
ISBN: 1-878956-39-6

TITLE: Help Windows NT 3.1
AUTHOR: Ezzell, Ben
PUBLISHER: Ziff-Davis
PUBLICATION DATE: 10/1993 (931001)
BINDING: pap. - \$29.95
ISBN: 1-56276-151-X

TITLE: Mastering Windows NT Programming
AUTHOR: Myers, Brian; Hamer, E.
PUBLISHER: Sybex
PUBLICATION DATE: 08/1993 (930801)
NO. OF PAGES: 1236p.
BINDING: pap. - \$44.99 incl. disk
ISBN: 0-7821-1264-1

TITLE: Distributing Applications across DCE & Windows NT
AUTHOR: DCE Staff; Rosenberry, Ward; Teague, Jim
PUBLISHER: OReilly & Assocs
PUBLICATION DATE: 09/1993 (930901)
NO. OF PAGES: 300p.
BINDING: pap. - \$25.00

ISBN: 1-56592-047-3

TITLE: Windows NT Programming: An Introduction Using C Plus Plus

AUTHOR: Brain, Marshall; Campbell, Kelly

PUBLISHER: P-H

PUBLICATION DATE: 01/1994 (940101)

BINDING: Trade - write for info.

ISBN: 0-13-097833-7

TITLE: Using Windows NT: The Essentials for Professionals

AUTHOR: Brain, Marshall; Campbell, Kelly

PUBLISHER: P-H

PUBLICATION DATE: 01/1994 (940101)

BINDING: Trade - write for info.

ISBN: 0-13-091977-2

TITLE: Windows NT

AUTHOR: Schwartz, Karl

PUBLISHER: DDC Pub

PUBLICATION DATE: 06/1993 (930601)

BINDING: pap. - \$8.95

ISBN: 1-56243-114-5

TITLE: Advanced Windows NT

AUTHOR: Richter, Jeffrey

PUBLISHER: Microsoft

PUBLICATION DATE: 10/1993 (931001)

BINDING: pap. - \$39.95

ISBN: 1-55615-567-0

TITLE: Running Windows NT

AUTHOR: Stinson, Craig

PUBLISHER: Microsoft

PUBLICATION DATE: 08/1993 (930801)

BINDING: pap. - \$27.95

ISBN: 1-55615-572-7

TITLE: Microsoft Windows NT Resource Guide

PUBLISHER: Microsoft

PUBLICATION DATE: 08/1993 (930801)

BINDING: pap. - \$49.95 incl. disks

ISBN: 1-55615-598-0

TITLE: Microsoft Windows NT Messages Reference

PUBLISHER: Microsoft

PUBLICATION DATE: 09/1993 (930901)

BINDING: pap. - \$39.95 incl. disks

ISBN: 1-55615-600-6

TITLE: Microsoft Windows NT TCP-IP Guide

PUBLISHER: Microsoft

PUBLICATION DATE: 07/1993 (930701)

BINDING: pap. - \$19.95

ISBN: 1-55615-601-4

TITLE: Microsoft Windows NT Resource Kit

VOLUME: 4 vols.

PUBLISHER: Microsoft

PUBLICATION DATE: 09/1993 (930901)

BINDING: pap. - \$99.99 incl. 6 disks & CD-ROM

ISBN: 1-55615-602-2

TITLE: Windows NT Client-Server Developer's Guide

AUTHOR: Clark, Jeffrey D.

PUBLISHER: Sams

PUBLICATION DATE: 1994 (940101)

NO. OF PAGES: 800p.

BINDING: Trade - \$39.95

ISBN: 0-672-30302-7

TITLE: Multitask Windows NT

AUTHOR: Powell, Joel

PUBLISHER: Waite Group Pr

PUBLICATION DATE: 10/1993 (931001)

EDITION: Orig. Ed.

NO. OF PAGES: 550p.

BINDING: pap. - \$34.95 incl. disk

ISBN: 1-878739-57-3

TITLE: Windows NT Unleashed

AUTHOR: Cowart, Mark

PUBLISHER: Sams

PUBLICATION DATE: 1994 (940101)

NO. OF PAGES: 1100p.

BINDING: Trade - \$39.95 incl. CD ROM

ISBN: 0-672-30380-9

TITLE: Voodoo Windows NT: Tips & Tricks with an Attitude

AUTHOR: Feldman, Len

PUBLISHER: Ventana Pr

PUBLICATION DATE: 04/1994 (940401)

NO. OF PAGES: 385p.

BINDING: pap. - \$24.95

ISBN: 1-56604-069-8

TITLE: Windows NT in a Day

AUTHOR: Knox, Weber

PUBLISHER: Weber Systems

PUBLICATION DATE: 01/1994 (940101)

BINDING: pap. - \$27.95

ISBN: 0-929704-25-8

TITLE: Customizing & Optimizing Windows NT

AUTHOR: Pappas, Chris H.; Murray, William H.
PUBLISHER: Addison-Wesley
PUBLICATION DATE: 01/1993 (930101)
BINDING: pap. - \$26.95
ISBN: 0-201-62624-1

TITLE: Learn Windows NT In a Day
AUTHOR: Columbus, Louis
SERIES: Popular Application Ser.
PUBLISHER: Wordware Pub
PUBLICATION DATE: 06/1993 (930601)
EDITION: Orig. Ed
NO. OF PAGES: 128p.
BINDING: pap. - \$14.95
ISBN: 1-55622-365-X

TITLE: NT: A Strategic Review
AUTHOR: Leach, Cliff
PUBLISHER: P-H
PUBLICATION DATE: 09/1993 (930901)
NO. OF PAGES: 400p.
BINDING: pap. - \$40.00
ISBN: 0-13-045261-0

TITLE: Van Wolverton's Guide to Windows NT: Easy Directions for Immediate Results
AUTHOR: Van Wolverton
PUBLISHER: Random
PUBLICATION DATE: 09/1993 (930901)
BINDING: pap. - \$16.00
ISBN: 0-685-66618-2

TITLE: Seven Keys to Learning Windows NT
AUTHOR: Houlette, Forrest
PUBLISHER: New Riders Pub
PUBLICATION DATE: 06/1993 (930601)
BINDING: pap. - \$12.95
ISBN: 1-56205-156-3

TITLE: Windows NT Instant Reference
AUTHOR: Powell, James E.
PUBLISHER: Sybex
PUBLICATION DATE: 09/1993 (930901)
NO. OF PAGES: 377p.
BINDING: pap. - \$12.95
ISBN: 0-7821-1219-6

TITLE: Windows NT Answer Book
AUTHOR: Groves, James A.
PUBLISHER: Microsoft
PUBLICATION DATE: 04/1993 (930401)
BINDING: Trade - write for info.

ISBN: 1-55615-562-X

TITLE: Windows NT SECRETS

AUTHOR: Livingston, Brian

PUBLISHER: IDG Bks

PUBLICATION DATE: Date not set Postponed

BINDING: pap. - \$39.95

ISBN: 1-878058-71-1

TITLE: Windows NT Developers Treasure Chest

AUTHOR: McCord, James

PUBLISHER: Sams

PUBLICATION DATE: 03/1993 (930301)

BINDING: pap. - \$49.95 incl. disk

ISBN: 0-672-30294-2

TITLE: Moving into Windows NT Programming

AUTHOR: Leavens, Alex

PUBLISHER: Sams

PUBLICATION DATE: 05/1993 (930501)

BINDING: pap. - \$39.95 incl. disk

ISBN: 0-672-30295-0

TITLE: Windows NT:

AUTHOR: Feldman, Leonard

PUBLISHER: Sams

PUBLICATION DATE: 03/1993 (930301)

BINDING: pap. - \$22.95

ISBN: 0-672-30298-5

TITLE: Windows NT Companion

AUTHOR: Borland, Russell

PUBLISHER: Microsoft

PUBLICATION DATE: 06/1993 (930601)

BINDING: pap. - \$27.95

ISBN: 1-55615-554-9

TITLE: Windows NT 3.1 Programming

AUTHOR: Ezzell, Ben

PUBLISHER: Ziff-Davis

PUBLICATION DATE: 06/1993 (930601)

BINDING: pap. - \$34.95 incl. disk

ISBN: 1-56276-112-9

TITLE: Windows NT 3.1 Graphics Programming

AUTHOR: Ezell, Ben

PUBLISHER: Ziff-Davis

PUBLICATION DATE: 07/1993 (930701)

BINDING: pap. - \$34.95 incl. disk

ISBN: 1-56276-113-7

TITLE: Teach Yourself. Windows NT

AUTHOR: Rao, Hy
PUBLISHER: MIS Press
PUBLICATION DATE: 07/1993 (930701)
BINDING: pap. - \$21.95
ISBN: 1-55828-269-6

TITLE: Windows NT: Microsoft's New Operating System Strategy
AUTHOR: Varhol, Peter D.
PUBLISHER: Computer Tech Res
PUBLICATION DATE: 02/1993 (930201)
EDITION: Orig. Ed.
NO. OF PAGES: 150p.
BINDING: Trade - \$190.00
ISBN: 1-56607-007-4

TITLE: PC Magazine Windows NT Networking
AUTHOR: Derfler, Frank
PUBLISHER: Ziff-Davis
PUBLICATION DATE: 02/1993 (930201)
BINDING: pap. - \$29.95
ISBN: 1-56276-114-5

TITLE: Using Windows NT:
AUTHOR: Que Development Group Staff; Columbus; Eidoson; Woeher; Person, James E., Jr.
PUBLISHER: Que
PUBLICATION DATE: 05/1993 (930501)
NO. OF PAGES: 1000p.
BINDING: pap. - \$29.95
ISBN: 1-56529-101-8

TITLE: Ultimate Windows NT
AUTHOR: New Riders Development Staff
PUBLISHER: New Riders Pub
PUBLICATION DATE: 01/1993 (930101)
BINDING: pap. - \$39.95 incl. disk
ISBN: 1-56205-135-0

TITLE: Inside Windows NT
AUTHOR: Stoddard Staff
PUBLISHER: New Riders Pub
PUBLICATION DATE: 08/1993 (930801)
BINDING: pap. - \$34.95
ISBN: 1-56205-124-5

TITLE: MicroSoft LAN Manager for Windows NT
AUTHOR: MicroSoft Staff
PUBLISHER: Microsoft
PUBLICATION DATE: 02/1993 (930201)
BINDING: pap. - \$39.95
ISBN: 1-55615-543-3

TITLE: Application Programming for Windows NT
AUTHOR: Murray, William H.,III
PUBLISHER: Osborne-McGraw
PUBLICATION DATE: 05/1993 (930501)
BINDING: Text ed. - \$39.95
ISBN: 0-07-881933-4

TITLE: Windows NT: Programming Handbook
AUTHOR: Schildt, Herbert
PUBLISHER: Osborne-McGraw
PUBLICATION DATE: 04/1993 (930401)
BINDING: pap. text ed. - \$29.95
ISBN: 0-07-881873-7

TITLE: Windows NT: The Complete Reference
AUTHOR: Wyatt, Allen L.,Sr.
PUBLISHER: Osborne-McGraw
PUBLICATION DATE: 06/1993 (930601)
BINDING: pap. text ed. - \$29.95
ISBN: 0-07-881832-X

TITLE: Windows NT Inside & Out
AUTHOR: Sheldon, Thomas
PUBLISHER: Osborne-McGraw
PUBLICATION DATE: 07/1993 (930701)
BINDING: pap. text ed. - \$27.95
ISBN: 0-07-881826-5

TITLE: Microsoft Foundation Class Primer: Programming Windows & Windows NT with MFC
AUTHOR: Conger, Jim
PUBLISHER: Waite Group Pr
PUBLICATION DATE: 03/1993 (930301)
EDITION: Orig. Ed.
NO. OF PAGES: 760p.
BINDING: pap. - \$29.95
ISBN: 1-878739-31-X

TITLE: Windows NT: Making the Move
AUTHOR: Forney, Jim
PUBLISHER: TAB Bks
PUBLICATION DATE: 02/1993 (930201)
NO. OF PAGES: 464p.
BINDING: pap. - \$24.95
ISBN: 0-8306-4391-5

Glossary

access control entry (ACE)

access control list (ACL)

APPC

application programming interface (API)

arp

ASMP

asymmetric multiprocessing (ASMP)

asynchronous I/O

auditing

authentication

cache manager

callback

CDFS

CISC

client-server model

configuration registry

CPI-C

critical section

DHCP

discretionary access control

disk striping

disk striping with parity

DLLs

domain

domain controller

Dynamic Data Exchange

Dynamic-link Libraries (DLLs)

environment subsystem

exception handler

executive object

fault tolerance

file handle

file object

file systems

hardware abstraction layer (HAL)

high performance file system (HPFS)

hostname
HPFS
integral subsystem
invalid page
I/O Manager
IPX/SPX
kernel mode
layered operating system
local procedure call facility
logon process
LPC
messenger service
microkernel architecture
multithreading
named pipes
native services
nbtstat
netstat
network domain
network redirector
network server
nonpaged pool
NT file system (NTFS)
object handle
object manager
object model
object services
ODBC
page fault
page table
paged pool
paging
paging file
peer
ping
POSIX
preemptive multitasking

primary domain
process manager
protected subsystem
protocol stack
provider interface
RAID
RISC
robustness
route
RPC
scalability
section object
security reference monitor
security subsystem
server service
SMP
SNMP
STREAMS
structured exception handling
symmetric multiprocessing (SMP)
synchronization
synchronous I/O
TCP/IP transport
termination handler
thread
thread context
thread object
thread scheduling
trap
trap handler
trust relationship
Unicode
uninterruptible power supply (UPS)
UPS
user mode
VDM
virtual address space

virtual DOS machine (VDM)

virtual memory (VM)

virtual memory management

virtual memory (VM) manager

Win32 API

WINS

workstation service

access control entry (ACE)

An entry in an access control list. It contains a security ID (SID) and a set of access rights. A process with a matching SID is either allowed the listed access rights, denied them, or allowed them with auditing.

access control list (ACL)

The part of a security descriptor that enumerates the protections applied to an object. The owner of an object has discretionary access control of the object and can change the object's ACL to allow or disallow others access to the object. Access control lists are made up of access control entries (ACEs).

APPC

Advanced Program to Program Communications. A set of protocols designed by IBM that enable application programs to interact directly with each other on a peer-to-peer basis, not necessarily required to go through a host even when programs are on separate and/or remote processors.

application programming interface (API)

A set of routines that an application program uses to request and carry out lower-level services performed by an operating system.

arp

Allows a user to view and modify the ARP (address resolution protocol) table entries on the local system.

ASMP

Asymmetric Multiprocessing. A multiprocessing operating system that always selects the same processor to execute operating system code while other processors run only user jobs. See also symmetric multiprocessing (SMP).

asymmetric multiprocessing (ASMP)

A multiprocessing operating system that always selects the same processor to execute operating system code while other processors run only user jobs. See also [symmetric multiprocessing \(SMP\)](#).

asynchronous I/O

A model for I/O in which an application issues an I/O request and then continues executing while the device transfers the data. The application synchronizes with the completion of the data transfer by waiting on a file handle or an event handle. Compare synchronous I/O.

auditing

The ability to detect and record important security-related events, particularly any attempt to create, access, or delete objects. The Windows NT security system uses security IDs (SIDs) to record which process performed the action.

authentication

Validation of a user's logon information. Performed by an authentication package in conjunction with the Windows NT security subsystem.

cache manager

A component in the I/O system that provides file-caching services to file systems and the Windows NT redirector. It uses the paging mechanisms of the virtual memory (VM) manager to bring pages into memory from disk and to write cached pages back to disk.

callback

A request message that a server sends to a client to get more information about a client request.

CDFS

CD-ROM File System.

CISC

The Intel 80386, 80486, and Pentium chips, along with many other popular processors, are known as Complex Instruction Set Computer (CISC) chips. Their chief characteristic is a large number of machine instructions, each of which is elaborate and powerful. Each instruction completely specifies a task. In the last few years, Intel has made major advances in the speed and power of its processors, and other manufacturers have developed multiprocessor machines based on the Intel CISC technology. Compare RISC.

client-server model

A model for structuring applications or operating systems. The system is divided into processes (servers), each of which provides a set of specialized services to other processes (clients). Client processes request service by sending messages to server processes, and servers return the results through another message. Systems built on a strict client-server model are appropriate for distributed computing environments in which servers can run on different computers.

configuration registry

A database of information about a computer's configuration; for example, the computer hardware, the software installed on the system, and environment settings and other information entered by the person or persons using the system.

CPI-C

Common Programming Interface for Communications. A peer-to-peer protocol for communications in a Systems Application Architecture (SAA) environment. See also [APPC](#).

critical section

A block of code that accesses a nonshareable resource. To ensure correct code, only one thread can execute in a critical section at a time.

DHCP

The Dynamic Host Configuration Protocol (DHCP) makes it easier for users to get started on a TCP/IP network. DHCP provides safe, reliable, and simple TCP/IP network configuration, ensures that address conflicts do not occur, and helps conserve the use of IP addresses through centralized management of address allocation. DHCP offers dynamic configuration of IP addresses for computers, and other features. DHCP is based on an Internet Engineering Task Force (IETF) standard. The IETF designed the DHCP protocol to alleviate configuration issues when deploying TCP/IP in internetworks. A mechanism, such as WINS, must be available on a TCP/IP network to resolve names to IP addresses.

discretionary access control

The protection the owner of an object applies to the object by assigning various access rights to various users or groups of users. Discretionary protections can be limited by mandatory access controls applied to the object.

disk striping

The procedure of combining a set of same-size disk partitions that reside on separate disks into a single volume, forming a virtual "stripe" across the disks. This technique enables multiple I/O operations in the same volume to proceed concurrently. See also [disk striping with parity](#).

disk striping with parity

The procedure of maintaining parity information across a disk stripe so that if one disk partition fails, the data on that disk can be recreated by performing an exclusive-OR operation across the remaining partitions in the disk stripe. See also [disk striping](#) and [fault tolerance](#).

DLLs

An application programming interface (API) routine that user-mode applications access through ordinary procedure calls. The code for the API routine is not included in the user's executable image. Instead, the operating system automatically modifies the executable image to point to DLL procedures at runtime.

domain

A group of servers that share a common database of users and group accounts and security policy guidelines. You need to type in account information for a user only once for all the servers in the domain to recognize the account and allow access to it.

domain controller

A server in a network domain that accepts user logons and initiates their authentication. See also [authentication](#).

Dynamic Data Exchange

The ability to form a permanent link between the source and destination of data. For example, if you write a report that contains data from a sales spreadsheet, you can create a link so that the report is automatically updated whenever the spreadsheet changes.

Dynamic-link Libraries (DLLs)

An application programming interface (API) routine that user-mode applications access through ordinary procedure calls. The code for the API routine is not included in the user's executable image. Instead, the operating system automatically modifies the executable image to point to DLL procedures at runtime.

environment subsystem

A protected subsystem (server) that provides an application programming interface (API) and environment--such as Win32, MS-DOS, POSIX, or OS/2--on Windows NT. The subsystem captures API calls and implements them by calling native Windows NT services. See also [integral subsystem](#) and [protected subsystem](#).

exception handler

Code that responds to exceptions. The two types are frame-based exception handlers (including termination handlers) and system default exception handlers. See also [structured exception handling](#), and [termination handler](#).

executive object

A Windows NT object made visible to user mode by a component of the Windows NT executive. The executive exports object services, which are used to manipulate executive objects.

fault tolerance

A computer and operating system's ability to respond gracefully to catastrophic events such as power outage or hardware failure. Fault tolerance usually implies the ability either to continue the system's operation without loss of data or to shut the system down and restart it, recovering all processing that was in progress when the fault occurred.

file handle

A handle to a file object.

file object

An executive object that represents an open file, a directory, a volume, or a device.

file systems

Windows NT drivers that accept file-oriented I/O requests and translate them into I/O requests bound for a particular device.

hardware abstraction layer (HAL)

A layer of code that protects the kernel and the rest of the Windows NT executive from platform-specific hardware differences

high performance file system (HPFS)

A file system designed for OS/2, version 1.2, which was created to address the limitations of the file allocation table (FAT) file system used by MS-DOS. It added features such as longer filenames, the ability to associate attributes with a file, and faster searching for files.

hostname

Returns the local workstation's hostname, which is used for authentication by the rcp, rexec, and rsh TCP/IP utilities. This value defaults to the workstation's computername, but can be changed using the Networks applet in the Control Panel.

HPFS

High Performance File System

integral subsystem

A protected subsystem (server) that performs an essential operating system task. This group includes network servers and the security subsystem. See also [environment subsystem](#) and [protected subsystem](#).

invalid page

A virtual page that causes a page fault if an address from it is referenced. The page is either loaded from disk and made valid, or recovered from the standby or modified page list and made valid; otherwise, the reference was an access violation.

I/O Manager

The Windows NT executive component that unifies the various pieces of the I/O system. It defines an orderly framework within which I/O requests are accepted and delivered to file systems and device drivers. It also provides code that is common to more than one driver.

IPX/SPX

Internet Package Exchange/Sequenced Packet Exchange. IPX/SPX is a set of transport protocols used by Novell Corporation's NetWare software.

kernel mode

The privileged processor mode in which Windows NT system code runs. A thread running in kernel mode has access to system memory and to hardware. Compare user mode.

layered operating system

A structuring approach that divides the operating system into modules and layers them one on top of the other. Each module provides a set of functions that other modules can call. Code in any particular layer calls code only in lower layers. On some systems, such as VAX/VMS or the old Multics operating system, hardware even enforces the layering (using multiple, hierarchical processor modes).

local procedure call facility

Passes messages between a client process and a server process on the same computer. LPC is a flexible, optimized version of remote procedure call (RPC), an industry-standard communication facility for client and server processes across a network.

logon process

A Windows NT process whose threads detect a user's attempt to log onto the operating system. It verifies the user's logon information with the security system before granting the user system access.

LPC

Local Procedure Call.

messenger service

A network service that receives messages from other systems and displays them.

microkernel architecture

The operating system is reduced to a small set of basic abstractions with as few functions as possible included in the kernel. From these basic abstractions, all other operating system functionality must be derivable. With such a microkernel, as little as possible is placed in the kernel; extensions are added to the operating system as user-level services.

multithreading

The capability of an application to execute in two or more locations using multiple threads. The term is sometimes used interchangeably with multitasking in reference to an operating system that supports threads.

named pipes

An interprocess communication mechanism that allows one process to send data to another local or remote process.

native services

System services that the Windows NT executive makes available to user mode for use by environment subsystems, dynamic-link libraries (DLLs), and other system applications.

nbtstat

Provides network statistics for NetBIOS over TCP/IP active and pending connections.

netstat

Provides network statistics for all TCP/IP active and pending connections.

network domain

A set of workstations and servers that share a security accounts manager (SAM) database and can be administered as a group. Users with an account in a particular network domain can log onto and access their accounts from any system in the domain.

network redirector

Networking software that accepts I/O requests for remote files, named pipes, or mailslots, and sends ("redirects") them to a network server on another machine. Redirectors are implemented as file system drivers in Windows NT.

network server

Network software that responds to I/O or compute requests from a client machine. Windows NT network servers can be implemented either as server processes or as drivers. See also [protected subsystem](#).

nonpaged pool

The portion of system memory that cannot be paged to disk. Compare paged pool.

NT file system (NTFS)

An advanced file system designed for use specifically with the Windows NT operating system. It supports file system recovery, extremely large storage media, and various features for the POSIX subsystem. It also supports object-oriented applications by treating all files as objects with user-defined and system-defined attributes.

object handle

An index into a process-specific object table. It is used to refer to an opened object, and incorporates a set of access rights granted to the process that owns the handle. It also contains an inheritance designation that determines whether the handle is inherited by child processes. Programs use handles to refer to objects when calling object services.

object manager

The component of the Windows NT executive that creates, deletes, and names operating system resources, which are stored as objects.

object model

A model for structuring programs around the data they manipulate. The format of data structures is hidden inside objects, and programs must use specially defined services to manipulate object data. The primary goal of the object model is to maximize code reusability.

object services

A user-mode-visible system service for manipulating an object. In Windows NT, an object service generally reads or changes an object's attributes, and is used primarily by protected subsystems.

ODBC

Open Database Connectivity

page fault

A processor trap that occurs when an executing thread refers to a virtual address that resides on an invalid page. See also paging.

page table

A process-specific table that the virtual memory (VM) manager uses to map virtual addresses to physical memory addresses or to disk locations. A page table is made up of page table entries (PTEs). See also [paging](#).

paged pool

The portion of system memory that can be paged to disk. Compare nonpaged pool.

paging

A virtual memory (VM) operation in which memory management software transfers pages from memory to disk when physical memory becomes full. When a thread accesses a page that is not in memory, a page fault occurs and the memory manager uses page tables to locate the required page on disk and load it into memory. See also [invalid page](#), [page fault](#), and [page table](#).

paging file

A system file containing the contents of virtual pages that have been paged out of memory.

peer

Any of the devices on a layered communications network that operate on the same protocol level.

ping

Provides a simple mechanism to determine whether a remote TCP/IP system is reachable. ping is generally used to determine whether a particular system is functioning properly in the TCP/IP network; for example, to determine whether it can see systems located on remote subnets.

POSIX

Loosely defined as "a portable operating system interface based on UNIX," POSIX refers to a collection of international standards for UNIX-style operating system interfaces. The POSIX standard (IEEE Standard 1003.1-1988) encourages vendors implementing UNIX-style interfaces to make them compatible so that programmers can move their applications easily from one system to another.

preemptive multitasking

A form of multitasking in which the operating system periodically interrupts the execution of a thread and executes other waiting threads. Preemption prevents a thread from monopolizing the processor, and allows another thread to run.

primary domain

The network domain with which a particular user account is associated. See also [network domain](#).

process manager

Creates and terminates processes and threads. It also suspends and resumes the execution of threads, and stores and retrieves information about Windows NT processes and threads.

protected subsystem

A server process that performs operating system functions. Each Windows NT protected subsystem operates in user mode with a private address space. See also environment subsystem and integral subsystem.

protocol stack

The collection and sequence of network protocols used to transmit a network request from one machine to another.

provider interface

A programming interface that allows network vendors to make their remote file systems available for browsing by applications using the Windows WNet application programming interface (API).

RAID

Redundant Array of Inexpensive Disks. A number of different partitions on different disks are combined to make one large logical drive. The partitions are arranged to allow multiple single points of failure in the array. This is known as "disk striping with parity," and is supported by Windows NT Server.

RISC

In the mid-1980s, the hardware industry created another type of processor architecture called Reduced Instruction Set Computer (RISC) chips. RISC chips differ from CISC chips primarily in the small number of simple machine instructions they provide. Major tasks that might be handled in one instruction on a CISC machine are separated into several smaller instructions on RISC machines. However, RISC processors run at greatly increased clock speeds because of the simplicity of their instruction sets, and achieve very fast execution times. Compare CISC.

robustness

The ability of a program to function well, or to continue functioning well in unexpected situations.

route

Manipulates network routing tables.

RPC

Remote Procedure Call. A message-passing facility that allows a distributed application to call services available on various machines in a network without regard to their locations. Remote network operations are handled automatically. RPC provides a procedural view, rather than a transport-centered view, of networked operations.

scalability

The ability to adjust an operating system to a broad range of hardware platforms.

section object

An object that represents memory potentially shared by two or more processes. A process can also create an unnamed section object that represents private memory.

security reference monitor

A component of the Windows NT executive that compares the access token of a process to the access control list (ACL) of an object to determine whether the process' threads should be allowed to open a handle to the object.

security subsystem

An integral subsystem that records the security policies in effect for the local computer, and participates in logging on users.

server service

A network service that supplies a user-mode application programming interface (API) to manage the Windows NT network server.

SMP

Symmetric MultiProcessing. A multiprocessing operating system that allows operating system code to run on any free processor in a multiprocessor computer. Symmetric multiprocessing systems generally provide better throughput and greater availability than do asymmetric multiprocessing (ASMP) systems.

SNMP

Simple Network Management Protocol

STREAMS

A protocol interface and environment, originally developed for UNIX systems, that standardizes communication with adjacent software layers. By implementing STREAMS within Windows NT, transports can be easily ported from UNIX systems

structured exception handling

A method for capturing unexpected conditions and responding to them consistently throughout the operating system. The operating system (or hardware) issues an exception when an abnormal system event occurs, and the kernel automatically transfers control to an exception handler.

symmetric multiprocessing (SMP)

A multiprocessing operating system that allows operating system code to run on any free processor in a multiprocessor computer. Symmetric multiprocessing systems generally provide better throughput and greater availability than do asymmetric multiprocessing (ASMP) systems.

synchronization

The ability of one thread to pause during execution and wait until another thread performs an operation. In Windows NT, a thread waits for another thread to set a synchronization object to the signaled state.

synchronous I/O

A model for I/O in which an application issues an I/O request, and the I/O system does not return control to the application until the I/O request completes. Compare asynchronous I/O.

TCP/IP transport

Transport Control Protocol/Internet Protocol. Windows NT's primary wide area network transport protocol. It allows Windows NT to communicate with systems on TCP/IP networks and to participate in popular UNIX-based bulletin board, news, and electronic mail services.

termination handler

An exception handler that lets an application ensure that a particular block of code always executes, even if the code terminates in an unexpected way. Termination handlers often contain code that frees allocated resources so that if a procedure terminates unexpectedly, the resources are released back to the system.

thread

An executable entity that belongs to one (and only one) process. It comprises a program counter, a user-mode stack, a kernel-mode stack, and a set of register values. All threads in a process have equal access to the process' address space, object handles, and other resources. Threads are implemented as objects.

thread context

The volatile data associated with the execution of a thread. It includes the contents of system registers and the virtual address space belonging to the thread's process.

thread object

The implementation of a thread in Windows NT.

thread scheduling

The process of examining the queue of threads that are ready to execute, and selecting one to run next. This task is performed by the Windows NT kernel's dispatcher module.

trap

A processor's mechanism for capturing an executing thread when an unusual event (such as an exception or interrupt) occurs, transferring control to a fixed location in memory. See also [trap handler](#).

trap handler

A body of code that hardware invokes when an interrupt or exception occurs. It determines the type of condition that occurred and transfers control to a handling routine. See also [trap](#).

trust relationship

A security term meaning that one workstation or network server trusts a domain controller to authenticate a user logon on its behalf. One domain controller can also trust a domain controller in another domain to authenticate a logon.

Unicode

A fixed-width, 16-bit character encoding standard capable of representing all the world's scripts.

uninterruptible power supply (UPS)

A backup battery module attached to a computer that allows memory contents to remain intact long enough for the operating system to perform an orderly system shutdown if a power outage occurs.

UPS

Uninterruptible Power Supply. A backup battery module attached to a computer that allows memory contents to remain intact long enough for the operating system to perform an orderly system shutdown if a power outage occurs.

user mode

The nonprivileged processor mode in which application code runs. A thread running in user mode can gain access to the system only by calling system services. Compare kernel mode.

VDM

Virtual DOS Machine. A protected subsystem that supplies a complete MS-DOS environment and a console in which to run an MS-DOS- or 16-bit Windows-based application. Any number of VDMs can run simultaneously.

virtual address space

The set of addresses available for a process' threads to use. In Windows NT, every process has a unique virtual address space of 2³² bytes (4 GB). See also [virtual memory \(VM\)](#).

virtual DOS machine (VDM)

Virtual DOS Machine. A protected subsystem that supplies a complete MS-DOS environment and a console in which to run an MS-DOS- or 16-bit Windows-based application. Any number of VDMs can run simultaneously.

virtual memory (VM)

A logical view of memory that does not necessarily correspond to memory's physical structure. See also [virtual memory management](#).

virtual memory management

A memory management system that provides a large address space to each process by mapping the process' virtual addresses onto physical addresses as the process' threads use them. When physical memory becomes full, it swaps selected memory contents to disk, reloading them from disk on demand. Virtual memory management allows programmers to create and run programs that use more memory than is physically present on their computers. Because the placement of data in memory is controlled by the virtual memory (VM) system, each process' address space can be separated and protected from the others. See also [paging](#).

virtual memory (VM) manager

The Windows NT executive component that implements virtual memory (VM).

Win32 API

A 32-bit application programming interface for both MS-DOS/ Windows and Windows NT. It updates earlier versions of the Windows application programming interface (API) with sophisticated operating system capabilities, security, and API routines for displaying text-based applications in a window.

WINS

WINS (Windows Internet Name Service) provides a distributed database for registering and querying dynamic computer name-to-IP address mappings in a routed network environment. It is the best first choice for name resolution because it reduces local broadcasts for name resolution and it is dynamically updated. When dynamic addressing through DHCP results in a new IP address for a particular computer, the changes are automatically updated to WINS. Neither the user nor the administrator needs to manually update the database.

workstation service

A network service that supplies user-mode application programming interface (API) routines to manage the Windows NT redirector.

In the mid-1980s, the hardware industry created a type of processor architecture called Reduced Instruction Set Computer (RISC) chips. RISC chips differ from CISC—Complex Instruction Set Computer—chips primarily in the small number of simple machine instructions they provide. Major tasks that might be handled in one instruction on a CISC machine are separated into several smaller instructions on RISC machines. However, RISC processors run at greatly increased clock speeds because of the simplicity of their instruction sets, and achieve very fast execution times. Compare CISC.

An asynchronous notification that one thread sends to another. The alert interrupts the recipient thread at well-defined points in its execution and causes it to execute an asynchronous procedure call (APC).

A permission granted to a process to manipulate a particular object in a particular way (for example, by calling a service). Different object types support different access rights, which are stored in an object's access control list (ACL).

Security Accounts Manager. A Windows NT protected subsystem that maintains the SAM database and provides an application programming interface (API) for accessing the database.

A model for structuring applications or operating systems. The system is divided into processes (servers), each of which provides a set of specialized services to other processes (clients). Client processes request service by sending messages to server processes, and servers return the results through another message. Systems built on a strict client-server model are appropriate for distributed computing environments in which servers can run on different computers.

A client-server operating system is made up of several processes, each of which implements a single set of services. Each process can supply or demand services from other processes by making requests through the Executive.

A process whose threads call services provided by either a local or a remote server process. In Windows NT, communication between a client and a server occurs through the local procedure call (LPC) or remote procedure call (RPC) facilities. See also [client-server model](#).

A server process that performs a specific system function, often used to provide an application programming interface (API) for other processes to call. Windows NT services are RPC-enabled, meaning that their API routines can be called from remote machines.

A structuring approach that divides the operating system into modules and layers them one on top of the other. Each module provides a set of functions that other modules can call. Code in any particular layer calls code only in lower layers. On some systems, such as VAX/VMS or the old Multics operating system, hardware even enforces the layering (using multiple, hierarchical processor modes).

An asynchronous operating system condition that disrupts normal execution and transfers control to an interrupt handler. Interrupts are usually initiated by I/O devices requiring service from the processor.

Hardware Abstraction Layer. A layer of code that protects the kernel and the rest of the Windows NT Workstation executive from platform-specific hardware differences.

A communication channel through which a client process communicates with a protected subsystem. Ports are implemented as Windows NT objects. See also [local procedure call facility](#).

To interrupt the execution of a thread when a higher-priority thread becomes ready to execute, and to context-switch to the higher-priority thread. See preemptive multitasking.

A handle to a file object.

A Windows NT process whose threads detect a user's attempt to log onto the operating system. It verifies the user's logon information with the security system before granting the user system access.

An object that uniquely identifies a user who has logged on. An access token is attached to all the user's processes and contains the user's security ID (SID), the names of any groups to which the user belongs, any privileges the user owns, the default owner of any objects the user's processes create, and the default access control list (ACL) to be applied to any objects the user's processes create.

See also [exception handler](#), [structured exception handling](#) and [trap handler](#).

An exception handler that lets an application ensure that a particular block of code always executes, even if the code terminates in an unexpected way. Termination handlers often contain code that frees allocated resources so that if a procedure terminates unexpectedly, the resources are released back to the system.

A synchronous error condition or atypical event that causes the execution of code outside the normal flow of control. Exceptions can be either hardware-detected errors, such as division by zero, or software-detected errors, such as a guard page violation. Unlike interrupts, which are generated from an external source, exceptions occur when a program executes a particular code sequence. Exceptions can also be reproduced. See also exception handler, structured exception handling and trap handler.

A Windows NT object made visible to user mode by a component of the Windows NT executive. The executive exports object services, which are used to manipulate executive objects.

An executive object that represents an open file, a directory, a volume, or a device

A virtual memory (VM) operation in which memory management software transfers pages from memory to disk when physical memory becomes full. When a thread accesses a page that is not in memory, a page fault occurs and the memory manager uses page tables to locate the required page on disk and load it into memory.

System services that the Windows NT executive makes available to user mode for use by environment subsystems, dynamic-link libraries (DLLs), and other system applications.

A virtual memory (VM) operation in which memory management software transfers pages from memory to disk when physical memory becomes full. When a thread accesses a page that is not in memory, a page fault occurs and the memory manager uses page tables to locate the required page on disk and load it into memory.

Access Control List. The part of a security descriptor that enumerates the protections applied to an object. The owner of an object has discretionary access control of the object and can change the object's ACL to allow or disallow others access to the object. Access control lists are made up of access control entries (ACEs).

An application that can execute in two or more locations. In Windows NT, a concurrent application is one that has created more than one thread of execution, either within a single process or in separate processes.

A communication channel through which a client process communicates with a protected subsystem. Ports are implemented as Windows NT objects. See also [local procedure call facility](#).

A model for structuring programs around the data they manipulate. The format of data structures is hidden inside objects, and programs must use specially defined services to manipulate object data. The primary goal of the object model is to maximize code reusability.

This feature enables the creation of command sets that operate across applications, as well as within them. For example, you could invoke a command from a word processing program that sorts a range of cells in a spreadsheet.

Independent Software Vendors

A model for structuring programs around the data they manipulate. The format of data structures is hidden inside objects, and programs must use specially defined services to manipulate object data. The primary goal of the object model is to maximize code reusability.

Object-Oriented Programming

This feature enables the creation of command sets that operate across applications, as well as within them. For example, you could invoke a command from a word processing program that sorts a range of cells in a spreadsheet.

The Windows NT Evaluation Guide

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