

Written by Terry Adams Copyright ©1998by TerryWare.

Please read the <u>License Agreement</u> before you use this program!, and <u>IDEA</u> Information if you like this program...

For a list of other TerryWare Programs. click here

Quick Notes:

• This Program is designed to run on Windows 95, Windows 98 and Windows NT.

• In Check v1.03 In Check is the results of my job (Information Services) duties increasing from a Meditech install at our facility, my network devices went from 80+ to 460+, and network speeds went to 100mbs, In Check is a great way to monitor a network for down Servers, Routers, Hubs, Termservers etc. Anything with an IP address and in the unlikely event that a device does! It will write a log with Address, Time, Date and type of error, if you setup the pager option it will call your pager and send the IP address, this option can be set per device so you can set just the devices you want to call you!

I also added some utilities that I use a lot, Telnet, FTP, Ping and a Port Scanner.

• Telnet is a down and dirty quick way to log into a device on the network to make changes in configuration, or to reset if possible.

• FTP I still don't understand why we are still using this means of moving files from one server to another?.Oh Well! It works for me

• Ping lets you setup 6 preset devices that you may check often or manually input.

• Port Scanner can search a device for used ports and tell you if there is an FTP, POP, TELNET etc. Running on what port.

PLEASE REPORT ANY PROBLEMS TO:.

E-Mail: **Detector@hotmail.com** FAX: **316-225-8403** Phone/Voice: **316-225-6548**

Before reporting any problems, please look at the known problem list.

You can download the latest version from http://pta6000.pld.com/treasure/incheck.htm

For more help press the Right Mouse Button on the item which you want to get info. To see the about dialog press the Right Mouse Button on the In Check Window Title Bar.

Domain Setup

To setup your Domain click on the Domain Button and edit the Names to what you want, I have included the TnT's Network Domain as the default domain to help understand the layout of In Check, you may edit any of this information, Default settings should work fine.

Notes:

• Version 1.03 when registered will have the option to add multiDomains, for now you can just edit the name used.

In Check Viewer

You need to load your devices before you can view them, this is to make it possible to have multiNetworks on one domain, do this by going to File then load, it will list the device type listing, these are types that you can edit using the Editor, if you change the device types, DO NOT change the ID number, this is an autonumber field and will assign one by on it's own. Any of the Device Types that have the + box means it has devices under it, you can dblClick on the Device Type and it will expand to show the devices,

Device Setup

Each device that you setup needs a ID number, In Check will and needs to supply this number, when you click on the Type Help button above the Device Type field it brings up the Device Editor Menu, you can edit the device types but NOT the number, you can add a new device type by going to the last field that is empty and type in a new device type, then whenever you Add/Change a device you can use the number to indicate the type.

Notes:

• Version 1.03 registered will have the option to add multiDomains, for now you can just edit the name used.

In Check Viewer

You need to load your devices before you can view them, this is to make it possible to have multiNetworks on one domain, do this by going to File then load, it will list the device type listing, these are types that you can edit using the Editor, if you change the device types, DO NOT change the ID number, this is an autonumber field and will assign one by on it's own. Any of the Device Types that have the + box means it has devices under it, you can dblClick on the Device Type and it will expand to show the devices.

In Check Monitor

To monitor your network you need to have your devices setup right, when you run it the menu gives you a chance to make changes to the way monitor runs like the time between each test, call your pager option, Number to call and set if you want it tested, there is a hide button that will put the monitor in your tray, then you can right click on the lcon to open the other menus, or dblClick the lcon to bring the monitor back, when you are ready just click the start button, monitor will hide to your tray and begin it's testing, you can bring it up and click the Show Messages button to watch the testing.

Suggested settings: Cycle time = 300 Time Out = 2

In Check Editor

You need to run this and edit to you liking

Use this to Add, Delete, Edit and maintain your Domain.

Note: It is advised that after you edit changes it is a good idea to close your viewer if open then reopen it to see an refreshed view with your changes, also if you make changes in the way the monitor tests devices, you need to close down the monitor and restart.

Port Scanner

Port Scanner (this time) is very basic just type in the IP address or device name and hit start, it will list all the ports that have something attached to it, FTP, TELNET, POP (mail) etc.

Telnet Setup

Quick and easy Telnet, just type in name or IP hit connect.

FTP Setup

If you use FTP on any of your servers or in my case WAN servers, this is a quick and easy setup, just click on the setup button and type in the Name/IP and hit connect, if you need type in your logon ID and password.

Ping Setup

You can edit the 6 preset buttons by clicking on the edit button, type in Name and IP, then you can just click the button to ping your favorite devices, or type in an IP and click the Ping Host button.

Meditech Launch

Known Problems

The Multimedia Extensions in Processor are designed to accelerate media and communication applications. Specialized applications that use Music Synthesis, Speech Synthesis, Speech Recognition, audio and video compression and decompression, full motion video, 2D and 3D graphics, and video conferencing, can take advantage of CPU Multimedia Extensions.

Processor supports the CMOV cc instruction and, if a FPU is present, supports the FCMOV cc and FCOMI instructions.

Processor supports the Floating Point FCMOVcc/F(U)COMI(P) Instructions

Processor supports the MCG_CAP (machine check global capability) MSR. The MCG_CAP register indicates how many banks of error reporting MSRs the processor supports.

Processor supports machine-specific memory-type range registers (MTRRs). The MTRRs contains bit fields that indicate the processor's MTRR capabilities, including which memory types the processor supports, the number of variable MTRRs the processor supports, and whether the processor supports fixed MTRRs.

Processor supports the CR4.PGE flag enabling the global bit in both PTDEs and PTEs. These bits are used to indicate translation lookaside buffer (TLB) entries that are common to different tasks and need not be flushed when control register CR3 is written. This feature is usually available only on AMD Processors, instead of APIC feature.

Processor supports physical addresses greater than 32 bits, the extended page-table-entry format, an extra level in the page translation tables, and 2-MByte pages. The number of address bits is implementation specific. The Pentium Pro processor supports 36 bits of addressing when the PAE bit is set.

Processor Supports SYSCALL & SYSRET Extensions, this feature is usually available only on AMD Processors.

Processor contains an on-chip Advanced Programmable Interrupt Controller (APIC), AMD uses PGE feature instead of APIC feature.

Processor Supports the CMPXCHG8B (compare and exchange 8 bytes) Instruction.

Processor supports the CR4.MCE bit, enabling machine check exceptions. However, this feature does not define the model-specific implementations of machine-check error logging, reporting, or processor shutdowns. Machine-check exception handlers might have to check the processor version to do model-specific processing of the exception or check for the presence of the standard machine-check feature.

Processor Supports the RDMSR (read model-specific register) and WRMSR (write model-specific register) Instructions.

Processor supports 4-Mbyte pages, including the CR4.PSE bit for enabling page size extensions, the modified bit in page directory entries (PDEs), page directory entries, and page table entries (PTEs).

Processor supports I/O breakpoints, including the CR4.DE bit for enabling debug extensions and optional trapping of access to the DR4 and DR5 registers.

Processor supports the RDTSC (Read Time Stamp Counter) instruction, including the CR4.TSD bit that, along with the CPL, controls whether the time stamp counter can be read.

Processor supports the following virtual 8086 mode enhancements: • Virtual 8086 mode extensions.

- Protected-mode virtual interrupts.
 Expansion of the TSS with the software indirection bitmap.
 Virtual interrupt flag.
 Virtual interrupt pending flag.

Processor Contains an FPU and Executes the Intel387 Instruction set.

CPU Manufacturer Name.

The Approximative Speed of your Computer in MHz.

CPU Family (80486, 80586, 80686, etc.)

Stepping ID is a unique identifier for each CPU Revision Level.

This Indicates the Number of Processors installed in this Computer.

This Indicates How Many Processors are Active.

This Information is a More Detailed Info About CPU Model.

Some Revision Notes / Comments about this Proccessor.
CPU Model Information, if Model Information is not available for your CPU, then it will display the CPU Model Number in Hexadecimal.

This Displays the Processor Level 1 Integrated Cache Memory Size. The 80486 CPU have the Code & Data Cache Memory in a single layer, the Pentium processors have the Code & Data cache memory separated, In Check can detect only the Data Cache Size on Pentium Processors and Code & Data on a 80486 CPU.

GLOSSARY

B

<u>BBS</u> Benchmark BIOS Bus

С

<u>CMOS</u> <u>CD-ROM</u> <u>CPU</u>

D

Device Driver

F

FPU / Math Coprocessor

G

<u>GDI</u>

Η

<u>Harddisk</u>

<u>Interrupt</u> IRQ

Μ

MCI Memory MIDI Motherboard

Ν

<u>Network</u>

Ρ

<u>Port</u>

R

<u>RAM</u> <u>Registry</u> <u>RS232</u>

S Swap File

U <u>UART</u>

W Waveform

CPU (central processing unit)

The portion of a computer that performs computations, executes instructions and transfers information between all parts of the computer. Microcomputers contain single-chip central processing units, or microprocessors.

Math Coprocessor / FPU (Floating Point Unit)

A processor distinct from the main CPU that performs mathmatical calculations using floating-point numbers. For personal computer systems using CPUs prior to Intel's i486DX or Motorola's 68040, adding a math coprocessor can dramatically increase the speeds of math and graphics functions. The i486DX, 68040, and subsequent CPU models incorporate the math coprocessor functions in the main CPU.

Motherboard

The main circuit board in a computer containing the primary system components. Expansion cards may be added to the motherboard by plugging them in to the bus via a bus connector.

BIOS (Basic Input/Output System)

Predefined procedures that support the transfer of information between the computer's hardware, such as memory, hard disks and the monitor. On personal computers the BIOS ("ROM BIOS") is built into the machine's read-only memory.

Memory

Computer hardware that stores data and provides for the retrieval of that stored data. Generally, the term memory refers to random access memory (RAM), which is used to run applications and temporarily store data during program execution.

RAM (Random Access Memory)

Memory that can be read from and written to by the microprocessor and other hardware devices. Unlike data stored on magnetic media (like hard disks) or PROMs, data in RAM memory is "volatile," meaning that the data stored in RAM is lost when the computer's power is turned off. RAM comprises the computer's working memory and determines the size and number of programs that can be run at the same time, as well as the amount of data than can be processed instantly.

Device Driver

A program that allows a computer to communicate with a device, such as a printer or modem. There are three types of device drivers that can be used while in Windows. The first are MS-DOS device drivers loaded from CONFIG.SYS and AUTOEXEC.BAT. The second are virtual device drivers (VxD)'s loaded and managed by Windows (but only available in enhanced mode). The last are installable drivers which are DLLs that are used as device drivers.

Swap File

A hidden file on your hard disk used by Windows to hold information from RAM temporarily in order to free the RAM for use by other applications. The Windows 95 swap file is named WIN386.SWP.

<u>Waveform</u>

Refers to the way in which a wave's amplitude changes over time.

MIDI (Musical Instrument Digital Interface)

Pronounced "middy." A software and hardware standard that allows computers, music synthesizers, and musical instruments to exchange information.

MCI (Media Control Interface)

A high-level interface enabling Windows applications to control multimedia devices, including playback and recording of audio and video.

Registry

A Windows 95 database that contains startup and configuration information. Under Windows 3.1, most of this information was kept in the WIN.INI and SYSTEM.INI files.

Benchmark

A test used to measure software or hardware performance.

TnT's BBS (Bulletin Board System)

You can down load In Check at TnT's BBS at 316-225-5410.

16550 UART (Universal Asynchronous Receiver Transmitter)

A chip in PC computers that is used for serial communications. It replaces the older 8250A and 16450 UART chips found on many PCs.

The 16550 UART overcomes limitations of the older chips. It can buffer up to 16 characters before generating an interrupt (the older chips generate interrupts after every character). It also recovers more quickly from interrupts in order to continue processing.

This chip is a must addition for computers using external communications devices (usually a modem) that transmit data in excess of 9600 bits-per-second (bps) within Windows.

<u>Bus</u>

The set of hardware lines that connects different parts of the computer (such as the microprocessor, input/output ports, and memory) and over which data is transferred.

CMOS (Complimentary Metal Oxide Semiconductor)

A battery-powered chip in 80286 (and more advanced) computers that preserves basic data about the system's hardware. Information such as the number and types of disks, amount of RAM, and keyboard type is stored in a CMOS chip. This information appears on your computer's "setup screen" which can be displayed during startup.

GDI (Graphics Device Interface)

Interface that supports Windows' graphical capabilities, including fonts, drawing primitives, and color management. Windows includes three main subsystems: the kernel, graphics device interface, and User resources.

Hard Disk

One of several types of magnetic media used for storing data. Unlike floppy disks, hard disks are non-flexible and non-removable. They hold much more data than floppy disks, and are the principle long-term data storage for most personal computers.

Port

The portion of a computer or a hardware device through which data passes to get in to or out of the computer or device. Computers connect to devices such as printers, monitors, and modems through ports.

RS-232-C

An industry standard for serial communication connections. Specific lines (wires of the connection) and signal characteristics are used to control the serial transmission of data between devices.

IRQ (Interrupt Request Line)

Hardware line over which devices such as input/output ports, the keyboard, and disk drives send requests for service (interrupts) to the CPU.

Interrupt

A signal sent by a hardware device or by software that causes the CPU to stop what it is doing and execute special instructions determined by the signal.

Network

A group of computers and associated hardware (printers, and so forth) that are connected together by communication lines or other means for the purpose of sharing information and hardware between users.

CD-ROM

Compact Disc - Read Only Memory.

This item shows the Number of adjacent color bits for each pixel from the Current Video Mode.

Number of entries in the device's color table (the total number of colors that can be displayed in this video mode).

Width and Height of the display (in pixels).

The Device Driver Version.

The Total Video Memory installed on the Video Card.\$
The Video Card Bus Type (ISA, VESA or PCI).

Video Card Chip Type / Model, this information cannot be detected on any Video Card.

Video Card RAMDAC Type / Model, this information cannot be detected on any Video Card.

Video Card's Chip Revision number.

This item displays the DirectDraw (DDRAW.DLL) version.

DirectDraw is a part of Microsoft's DirectX(tm) API, used in Games and many multimedia applications.

This Item Shows to Which Port or Network the Printer is Connected.

The print processor is a Windows **DLL** that reads and converts journal records into **DDI** calls. The device driver, in turn, processes these calls and converts them into **RAW** device commands that the device can process. Once a device driver has converted an entire journal file into **RAW** device commands, the file of converted commands is passed back to the **spooler**. The **spooler** sends these **Low-Level** commands to a **monitor**. A **monitor** is a Windows **DLL** that passes the **RAW** Device commands over the Network, through a Parallel Port, or through a Serial Port to the Device.

This item shows if the current printer is the default printer, or not.

Total Physical Memory available on this Computer.

Free Physical Memory, available for applications. Note that the Windows allocates more memory than it needs!, it allocates memory for disk cache and for the foreground applications, and it frees memory when it's needed, by swapping the allocated memory to disk.

This Item Shows CD-ROM Manufacturer Name.

CD-ROM Product Id / Model.

CD-ROM Revision Level / Version.

CD-ROM Bus Type (IDE, EIDE, SCSI, etc.).

CD-ROM Speed Technology (DoubleSpeed, TripleSpeed, Quad Speed, etc.).

CD-ROM Transfer Speed in KBytes per Second.

Copyright / License & Warranty

License Agreement

In Check v.09 is FREE, you can use it as you see fit, on as many computers as you want all I ask is that all problems be reported to me as soon as possible so that I can make the needed updates and that you do not decompile or edit it without my consent.

1. Evaluation and Registration:

Feel free to use In Check v.09 as long as you wish, if you have any ideas that would make it work better for you please contact me and let me know.

2. Distribution

You may give In Check v.09 to as many people as you like as long as you E-Mail me the number of people so that I can keep track.

3. Registered Version

In Check v1.0 will be a registered version but will not be released until I have made the final changes, so let me know what you want! I am working on some new ideas like In Check not only finding a bad device, but fixing the problem where possible.

4. Disclaimer of Warranty

THIS SOFTWARE AND THE ACCOMPANYING FILES ARE "AS IS" AND WITHOUT WARRANTIES AS TO PERFORMANCE OF MERCHANTABILITY OR ANY OTHER WARRANTIES WHETHER EXPRESSED OR IMPLIED. Because of the various hardware and software environments into which In Check may be put, NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS OFFERED.

Good data processing procedure dictates that any program be thoroughly tested with non-critical data before relying on it. The user must assume the entire risk of using the program.

IDEA Form

Ideas: Please submit any ideas by filling out this form and sending to one of the following address.



Terry Adams 702 4th ST Dodge City, KS 67801

detector@hotmail.com Terry.Adams@ks.columbia.net

NOTE: I can be reached at 316-225-6548

(Recived by E-Mail) In Check	Updates
(Downloaded of the Internet) In Check	Updates
Name:	Date:
Company:	
Address:	
City, State, Zip:	
Country:	
Day Phone:Evening:	
E-Mail address:	
How did you heard about In Check?	
Comments:	

To print this order form, click on **Print Topic** in the **File** pull-down menu.

NOTE: I can be reached at 316-225-6548.

Virtual Network RadFind XTrack Maximum Number of Sockets per application supported by WSOCK32.DLL

The size in bytes of the largest User Datagram Protocol (UDP) datagram that can be sent or received by a Windows Sockets application.

Your computer's current assigned IP Address.

IP Address Subnet Mask.