hAng ON!

The Monthly Newsletter of the Houston Area NeXT Users Group

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NeXT SPAWNS NEW CLARIS

Developers upset at Jobs' Sweetheart deals

By Steve Sarich & Steve Nasypany

From "Selling The Dream" by Guy Kawasaki, former director of software product management for Apple Computer.

*When we first evangelized Macintosh to software developers, we thought that the key companies were Microsoft, Lotus Development Corporation, Ashton-Tate, and Software Publishing Corporation. All were big names. All were destined for success in the Macintosh market (we thought). All had lots of resources, marketing clout, and widespread distribution. We were wrong - only Microsoft succeeded.**

By contrast, the most successful Macintosh software developers were start-ups or marginally successful, existing companies. Macintosh leveled the software playing field, and every company--new, old, successful, or marginal--had to compete on product quality. Prior success in the MS-DOS or Apple II markets was irrelevant.

The start-ups and marginally successful companies were the right ones to evangelize. They had everything to gain if Macintosh succeeded, and everything to lose if it failed. They had to make Macintosh successful because they tied their survival to it. MS-DOS market leaders couldn't have cared less whether Macintosh failed or succeeded; they were already fat and happy.

**Microsoft and only Microsoft succeeded because of one person: Bill Gates, the founder of the company. Had it not been for Gates, our record would be a perfect 0 percent.*

"I wish we had the benefit of this book when we started Apple and NeXT. Guy clearly expresses what it took us years of mistakes to learn." -Steve Jobs, president, NeXT Computer, Inc.

The NeXT Developer, Little Guys and Favorite Guys

The average NeXT developer started out as a NeXT user like most of us. Usually they're a one to three person shop with two or three engineers sharing a single machine. They work nights and weekends. They don't have venture capital and they don't draw any salaries. Many are in school and have other jobs to support their development efforts. They have only one thing in common: they've tied their future to Steve Jobs' dream and many of them now see those futures in danger.

A pattern of sweetheart deals has been emerging between NeXT and a few select developers. Of particular interest this month is the relationship between NeXT and Appsoft. NeXT employees have admitted that Steve assisted in Appsofts' acquisition of venture capital, and we were also told that NeXT "has assisted with venture capital acquisition for certain other developers" as well. (Hearing this we felt a little left out and we asked if they could fix us up with some cash too... no luck, we were told that this was only done in "special situations")

Appsoft, headed by Randy Adams, having never written a single application for the NeXT, was given both WriteNow and Pixelist (Icon reborn with image editing abilities) two months ago. NeXT tells developers questioning this arrangement that "we couldn't find anyone who'd take WriteNow, even for free" and "they (Appsoft) wouldn't take WriteNow if they didn't get a free exclusive on Pixelist" to sweeten the deal. When Chris McAskill, head of the developer advocate program at NeXT, was asked why we couldn't find anyone who was contacted about the NeXT software give-away program, we were told "we have 1600 developers and we couldn't possibly contact everybody." (and we have some swampland...)

When asked about the Appsoft deal, several NeXT employees were very quick to say "that it was Steve's deal" and that they didn't have anything to do with it. Not a single NeXT employee, to date, has attempted to defend the special treatment given to Appsoft.

NeXTs' Developer Advocate Program

For those of you who aren't familiar with the developer advocate program, we'll give you a brief explanation of how it works. Many developers are assigned an "advocate," a NeXT employee, whose job it is to assist developers with all phases of their product development and marketing. Each of these advocates has a special area of expertise and developers are assigned to the appropriate advocate. Essentially, an advocate is your counselor. You might typically discuss:

1. Features of your in-development products.
2. How those features will be implemented.
3. Legal issues.
4. Your marketing strategies.
5. Your financial situation.

In many professions this might be considered to be a fiduciary relationship and advocates are quick to point out that they cannot, for obvious reasons, tell you what anyone else is working on. This would be a violation of the trust placed in them by the developers. Since your advocate is a NeXT employee you probably wouldn't consider having him sign a non-disclosure or non-competition agreement, as you

would with anyone you were releasing this confidential information to. If you did request this kind of protection, you can bet that they won't agree to it. In short, you're stuck. If you want their help you'll just have to trust them. But you're sure that NeXT appreciates this confidential relationship, so you give them all the information on your swell new graphics product... and then comes... the "mother of all nightmares!" Your developer advocate, who you've trusted with all your most confidential information, has left NeXT and gone to work for your competition.

Sound scary? It's happened!

The NeXT Advantage

NeXT developer advocate for graphics, Peter Karnig, quietly left, with NeXTs' approval, to go to Appsoft. We say quietly because there were none of the normal press annoucements that NeXT and Appsoft are famous for. In fact, there was no official NeXT announcement, even to the developers for whom Mr. Karnig was the advocate. Chris McAskill told us that he trusted that Mr. Karnig would inform his developer "clients" that he was leaving NeXT. That wasn't always the case, however. According to Andrew Stone, president of Stone Design, Peter Karnig agreed to be their advocate for their Create application one week before Karnig departed from NeXT. Two days before he left, Karnig accepted a pre-release copy of Create and its documentation, which described applications' features, without informing Stone that he was leaving. The application and was not returned. Last week Appsoft announced that they would be releasing TopDraw 2.0, a product in direct competition with Stone's product, Create.

NeXT sending Peter Karnig to Appsoft gives them another advantage that the rest of the developers don't have either. NeXT jealously guards its mailing list of customers, dealers, VARS, field representatives, educational channels and developers. A NeXT developer does not have access to these lists and is at the mercy of NeXT to distribute sales literature through these channels. Only NeXT employees have access to this valuable information... and of course, ex-NeXT employees.

Not only is this information invaluable from a marketing standpoint, but if you were looking to "borrow" a few engineers from your competition, this list sure beats letting your fingers do the walking. Word from developers is that Karnig, and Appsoft, are grabbing up every engineer that they can get their hands on, and are making offers to purchase software from nearly every developer we spoke with. One developer told us he was offered a whopping 15% return on each copy that Appsoft marketed for them... such a deal! The developer politely declined the offer.

As for other developers, we've been in contact with many of the software houses represented on your dock, and their reactions range from confusion to outright fury. Many didn't wanted to be quoted for fear of retribution from NeXT. We understand that all to well. We were told by a developer advocate, referring to this article, that "Steve will go after you for that" and "it'll make it very difficult for us to give you developer support." (This sounded a little like a threat to us.)

Not a single developer that we spoke to felt the Appsoft deal was fair to the rest of the developer community. In fact, the scariest comment coming from many of these developers was their sudden, and uniform, interest in porting to Sun and Silicon Graphics platforms.

The New Claris

Appsofts' President Randy Adams told NeXTWORLD EXTRA that he had not heard any complaints about unfair competition from other NeXT developers. He went on to say: "We are hitching our wagons to NeXT. We can do more for the platform than major publishers like Lotus and WordPerfect..." Of course he can do more; his financing is arranged by NeXT, his software is written by NeXT, and then NeXT throws in some employees to sweeten the pot. The real question may be who is hitching their wagons to whom, and just what does NeXT hope to accomplish by creating this sweetheart relationship.

The secret has been out for a while that Steve Jobs intends to sell his operating system and interface to other platforms in 1992. It's logical to assume, though Jobs hasn't made any comment on it, that he'll need a separate software company to handle software sales. Jobs has commented numerous times on his belief that the future of computing is in application and operating system software, rather than hardware.

We doubt that anyone would be very surprised if, in 1992, Jobs were to suddenly announce the acquisition of Appsoft, renamed NeXTsoft. We encourage Mr. Jobs in his efforts to market NeXTstep to other platforms. What we don't want to see is Mr. Jobs getting into the application software business in direct competition with his developers. Current NeXT developers have taken a huge gamble on a small platform. They've put off short term gains with the hope of long term returns on their efforts. They've kept Steve Jobs in business with little or no financial reward to date. It would hardly seem fair for Jobs to reward their efforts by going into competition with them now that his platform has been successfully launched. No doubt NeXT will want to respond to this and we'd all love to hear Mr. Jobs tell us that he has no intention of creating another Claris, either with or without Appsoft. (Well, Steve, here's your chance to put this one to rest!)

In Conclusion...

Can you imagine a world where the only software we had to choose from came from a Claris, Microsoft or NeXTsoft? It's for just this reason that we have to protect these garage entrepreneurs from sweetheart deals between NeXT and a few favored developers. We're not advocating special favors for these small developers (though if favors are to be given out, the little guy would get our vote). What we are advocating is what Steve Jobs promised us all; "A level playing field." Unfortunately, the playing field is anything but level at NeXT. We think that a dedicated entrepreneur can compete with the big guys, and enjoy doing it. That's capitalism. As developers and users, we feel that a special relationship between what is supposedly a separate software company and NeXT is unfair and harmful to the NeXT community. Most developers realize that not everyone is going to make it to the big time, but at least they deserve a fighting chance. NeXT users will be the winners with fair competition in the NeXT marketplace.

The opinions expressed here are our own and do not necessarily reflect the views of h.A.n.g. members in general. We welcome comments from NeXT and all of our readers.

If you would like to let Steve Jobs know how you feel you can e-mail him at Steve_Jobs@next.com

The Great Work

For the January, 1992 Electronic Frontier column in Communications of the ACM

By John Perry Barlow

Earlier in this century, the French philosopher and anthropologist Teilhard de Chardin wrote that evolution was an ascent toward what he called "The Omega Point," when all consciousness would converge into unity, creating the collective organism of Mind. When I first encountered the Net, I had forgotten my college dash through Teilhard's Phenomenon of Man. It took me a while to remember where I'd first encountered the idea of this immense and gathering organism.

Whether or not it represents Teilhard's vision, it seems clear we are about some Great Work here...the physical wiring of collective human consciousness. The idea of connecting every mind to every other mind in full-duplex broadband is one which, for a hippie mystic like me, has clear theological implications, despite the ironic fact that most of the builders are bit wranglers and protocol priests, a proudly prosaic lot. What Thoughts will all this assembled neurology, silicon, and optical fiber Think?

Teilhard was a Roman Catholic priest who never tried to forge a SLIP connection, so his answers to that question were more conventionally Christian than mine, but it doesn't really matter. We'll build it and then we'll find out.

And however obscure our reasons, we do seem determined to build it. Since 1970, when the Arpanet was established, it has become, as Internet, one of the largest and fastest growing creations in history of human endeavor. Internet is now expanding as much as 25% a month, a curve which plotted on a linear trajectory would put every single human being on-line in a few decades.

Or, more likely, not. Indeed, what we seem to be making at the moment is something which will unite only the corporate, military, and academic worlds, excluding the ghettos, hick towns, and suburbs where most human minds do their thinking. We are rushing toward a world in which there will be Knows, constituting the Wired Mind, and the Know Nots, who will count for little but the labor and consumption necessary to support it.

If that happens, the Great Work will have failed, since, theological issues aside, its most profound consequence should be the global liberation of everyone's speech. A truly open and accessible Net will become an environment of expression which no single government could stifle.

When Mitch Kapor and I first founded the Electronic Frontier Foundation, we were eager to assure that the rights established by the First Amendment would be guaranteed in Cyberspace. But it wasn't long before we realized that in such borderless terrain, the First Amendment is a local ordinance.

While we haven't abandoned a constitutional strategy in assuring free digital commerce, we have also come to recognize that, as Mitch put it, "Architecture is politics." In other words, if the Net is ubiquitous, affordable, easy to access, tunnelled with encrypted passageways, and based on multiple competitive channels, no local tyranny will be very effective against it.

A clear demonstration of this principle was visible during the recent coup in the Soviet Union. Because of the decentralized and redundant nature of digital media, it was impossible for the geriatric plotters in the Kremlin to suppress the delivery of truth. Faxes and e-mail messages kept the opposition more current with developments than the KGB, with its hierarchical information systems, could possibly be. Whatever legal restraints the aspiring dictators might have imposed were impotent against the natural anarchy of the Net.

Well, I could have myself a swell time here soliloquizing about such notions as the Great Work or the assurance of better living through electronics, but all great journeys proceed by tedious increments. Though the undertaking is grand, it is the nuts and bolts...the regulatory and commercial politics, the setting of standards, the technical acceleration of bits...that matter. They are so complex and boring as to erode the most resolute enthusiasm, but if they don't get done, It doesn't.

So we need to be thinking about what small steps must be undertaken today. Even while thinking globally, we must begin, as the bumper sticker fatuously reminds us, by acting locally. Which is why I will focus the remainder of this column on near-term conditions, opportunities, and preferred courses of action within the boundaries of the United States.

To a large extent, America is the Old Country of Cyberspace. The first large interconnected networks were developed here as was much of the supporting technology. Leaving aside the estimable French Minitel system, Cyberspace is, in is present condition, highly American in culture and language. Though fortunately this is increasingly less the case, much of the infrastructure of the Net still sits on American soil. For this reason, the United States remains the best place to enact the policies upon which the global electronic future will be founded.

In the opinion of the Electronic Frontier Foundation, the first order of business is the creation of what we call the National Public Network...named with the hope that the word "National" should become obsolete as soon as possible. By this, we mean a ubiquitous digital web, accessible to every American in practical, economic, and functional terms. This network would convey, in addition to traditional telephone service, e-mail, software, faxes, such multimedia forms of communication as "video postcards," and, in time, High Definition Television as well as other media as yet barely imagined.

Its services should be extended by a broad variety of providers, including the existing telephone, cable, publishing, broadcast, and digital network companies. Furthermore, if its architecture is appropriately open to free enterprise, we can expect the emergence of both new companies and new kinds of companies. Properly designed, the National Public Network will constitute a market for goods and services which will make the $100 billion a year personal computer business look like a precursor to the Real Thing.

As a first step, we are proposing that Congress and state agencies establish regulatory mechanisms and incentives that will:

Establish an open platform for information services by speedy nation-wide deployment of "Personal ISDN".

Ensure competition in local exchange services in order to provide equitable access to communications media.

Promote free expression by reaffirming principles of common carriage.

Foster innovations that make networks and information services easier to use.

Protect personal privacy.

That's a tall bill, most of which I will have to take up in subsequent columns. I will focus now on the first two.

Personal ISDN

For the last two years, the Internet community has generally regarded Senator Albert Gore's proposed National Research and Education Network as the next major component of the Great Work. This has been regrettable. NREN, as presently envisioned, would do little to enable the settlement of ordinary folks in Cyberspace. Rather it would make plusher accommodations for the "mountain men" already there.

Actually, NREN has been and may continue to be useful as a "policy testbed." By giving Congress a reason to study such legal connundra as unregulated common carriage and the intermingling of public and private networks, NREN may not be a waste of time and focus. But, as of this writing, it has become a political football. If the House version (H656) of the High Performance Computing Act passes with Dick Gephart's "Buy American" provisions in it, the Administration will surely veto it, and we'll be back to Square One.

Meanwhile, ISDN, a technology available today, has languished. ISDN or Integrated Services Digital Network is a software-based system which makes it possible for an ordinary digitally switched copper phone line to provide an analog voice channel and a full-duplex 64 kbs digital channel. (Actually, the digital portion consists of two 64 kbs data channels, one each direction.) It isn't new technology, and, unlike fiber and wireless systems, it requires little additional infrastructure beyond the digital switches, which most telcos, under an FCC mandate, have installed anyway or will install soon. Even at the currently languid development rate, the telcos estimate that 60% of the nation's phones could be ISND ready in two years.

While those who live their lives at the end of a T1 connection may consider 64 kbs to be a glacial transfer rate, the vast majority of digital communications ooze along at a pace twenty-seven times pace, or 2400 baud. We believe that the ordinary modem is both too slow and too user-hostile to create "critical mass" in the on-line market.

We also believe that ISDN, whatever its limitations, is rapid enough to jump start the greatest free market the world has ever known. Widespread deployment of ISDN, combined with recent developments in compression technology, could break us out of what Adobe's John Warnock calls the "ascii jail", delivering to the home graphically rich documents, commercial software objects, and real-time multimedia. Much of the information which is now inappropriately wedged into physical objects...whether books, shrink-wrapped software, videos, or CD's...would enter the virtual world, its natural home. Bringing consumers to Cyberspace would have the same invigorating effect on on-line technology which the advent of the PC had on computing.

We admit that over the long term only fiber has sufficient bandwidth for the future we imagine. But denying "civilian" access to Cyberspace until the realization of a megabillion buck end-to-end fiber network leaves us like the mainframe users in the 60's waiting for the supercomputer. The real juice came not from the Big Iron but from user adaptable consumer "toys" like the Apple II and the original PC.

Just as consumers were oblivious to the advantages of FAX technology until affordable equipment arrived, we believe there is a great sleeping demand for both ISDN and the tools which will exploit it. And then there's the matter of affording the full fiber national network. Until the use of digital services has become as common as, say, the use of VCR's, Joe Sixpack's willingness to help pay fiber's magnificent cost of a will the understandably restrained.

Given that most personal modem users are unaware that ISDN even exists while the old elite of Internet grossly underestimates its potential benefits, it's not surprising that the telcos have been able to claim lack of consumer demand in their reluctance to make it available. A cynic might also point to its convenience as a hostage in their struggles with Judge Green and the newspaper publishers. They wanted into the information business and something like "Allow us to be information providers or we starve this technology," has been one of their longest levers.

This issue should now be moot. Judge Greene ruled in July that the telcos could start selling information. They got what they wanted. Now we must make them honor their side of the bargain.

Unfortunately it still seems they will only let us use their playing field if they can be guaranteed to win the game. To this end, they have managed to convince several state Public Utility Commissions that they should be allowed to charge tariffs for ISDN delivery which are grotesquely disproportionate to its actual costs. In Illinois, for example, customers are paying 10 to 12 cents a minute for an ISDN connection. This, despite evidence that the actual telco cost of a digitally switched phone connection, whether voice or data, runs at about a penny a minute. Even in the computer business, 1200% is not an ethical gross margin. And yet the telcos claim that more appropriate pricing would require pensioners to pay for the plaything of a few computer geeks.

Unfortunately, the computer industry has been either oblivious to the opportunities which ISDN presents or reluctant to enter the regulatory fray before Congress, the FCC, and the PUC's. The latter is understandable. National telecommunications policy has long been an in-house project of AT&T. It is brain-glazingly prolix by design and is generally regarded as a game you can't win unless you're on the home team. The AT&T breakup changed all that, but the industry has been slow to catch on.

Assurance of Local Competition

In the wake of Ma Bell's dismemberment, the world is a richer and vastly more complex place. Who provides what services to whom, and under what conditions, is an open question in most local venues. Even with a scorecard you can't tell the players since many of them don't exist yet.

Legislation is presently before the Edward Markey's (D-MA) Subcommittee on Telecommunications and Finance (a subset of the House Energy and Commerce Committee) which would regulate the entry of the Regional Bells into the information business. The committee is correctly concerned that the RBOC's will use their infrastructure advantage to freeze out information providers. In other words, rather as Microsoft uses DOS and Windows.

Somewhat hysterical over this prospect, the Newspaper Publishers Association and

the cable television companies have seen to the introduction of a House Bill 3515 by Rep. Jim Cooper (D-TN) which would essentially cripple telco delivery of information services for the next decade. The bill would bar existing telephone service providers from information provision until 50% of subscribers in a given area had access to alternative infrastructures.

Of course neither approach would serve the public interest. The telcos have had so little experience with competition that we can't expect them to welcome it. And while eventually there will be local phone connection competition through wireless technologies, but it's silly to wait until that distant day.

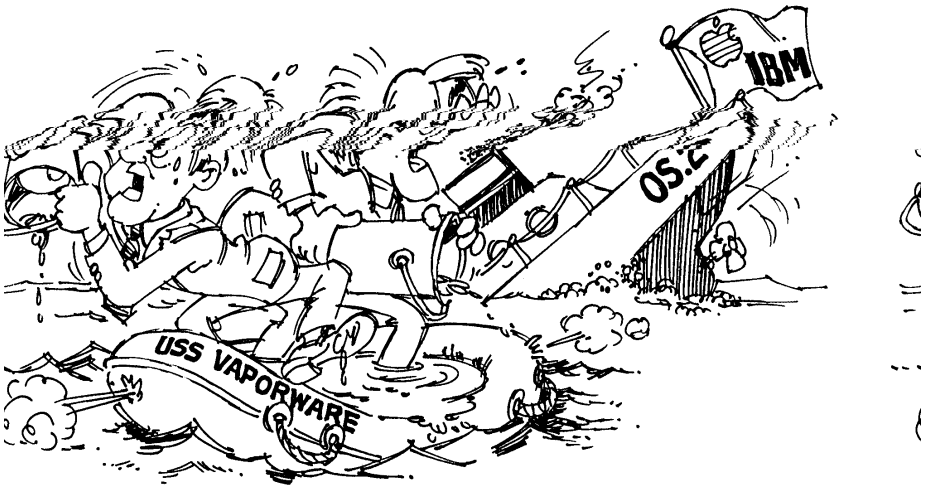
We need a bill which would require the telcos to make ISDN open and affordable to all information providers, conditioning their entry into the information business to the willing delivery of such service.

The computer industry has an opportunity to break the gridlock between the telcos and the publishers. By representing consumer interests, which are, in this case, equivalent to our own, we can shape legislation which would be to everyone's benefit. What's been missing in the debate has been technical expertise which serves neither of the existing contenders.

Finally, the Public Utilities Commissions seem unaware of the hidden potential demand for digital services to the home. What on earth would a housewife want with a 64 kbs data line? This is another area in which both consumers and computer companies need to be heard from.

What You Can Do

Obviously, the first task upon entering a major public campaign is informing oneself and others. In this, many Communications readers have a great advantage. Most of us have access to such on-line fora as RISKS digest, Telecom Digest, and the EFFectors regularly published in the EFF's newsgroup comp.org.eff.news. I strongly recommend that those interested in assisting this effort begin monitoring those newsgroups. I'm tempted to tell you to join the EFF and support our Washington lobbying efforts, but I probably abuse this podium with our message too much as it is.



Once you're up to speed on these admittedly labyrinthine issues, there are three levers you can start leaning against.

First, Congress will be actively studying these matters for the remainder of the year and is eagerly soliciting viewpoints other than those self-servingly extended by the telcos and the publishers. Rep. Markey said recently in a letter to the EFF,

"Please let me and my staff know what policies you and others in the computer industry believe would best serve the public interest in creating a reasonably priced, widely available network, in which competition is open and innovation is rewarded. I also want to learn what lessons from the computer industry over the past 10 to 15 years should apply to the current debate on structuring the information and communication networks of the future."

Second, it is likely that the Public Utility Commission in your state will be taking up the question of ISDN service and rates sometime in the next year. They will likely be grateful for your input.

Finally, you can endeavor to make your own company aware of the opportunities which ISDN deployment will provide it as well as the political obstacles to its provision. No matter what region of the computer business employs your toils, ISDN will eventually provide a new market for its products.

Though these matters are still on the back pages of public awareness, we are at the threshold of one of the great passages in the history of both computing and telecommunications. This is the eve of the electronic frontier's first land rush, a critical moment for The Great Work.

Pink Watch!

By Steve Nasypany

Truly exciting things must be happening at Apple's and IBM's Taligent, but we got busy and forgot to ask them about their progress towards making an

operating system "for the rest of us." We were thrilled however, to see the musings of the third apple, Jean-Louis Gassee, in the Nov. 19 issue of MacWEEK.

Jean-Louis is worried about "ballooning application sizes" and how it

makes sense to "break programs into smaller software components that users can mix and match." Whoa, what a great idear. Jean-Louis is further concerned as to why this type of technology is not yet available, and just who will make this revolutionary concept possible. Finally, he ponders as to whether application level OOPS could be "... a good goal for the Pink project taken over by Taligent?"

Jeez, it worries us at Hang ON! that we all might be in a lot of trouble. Heavybrainers like this one will only help Taligent become the NeXT killer of 1993 or 1994. Perhaps we should all stop for a moment and ponder this horrible threat... NAAAAAAAAHHHHHHHH!

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The All Seeing The All Knowing The Amazing Schlepkin!

The Schlep is on vacation this month in overcast Redwood City, California trying to find out the latest from inside of NeXT. Stay tuned for NeXT months awe-inspiring column!

Can NeXT Survive The Coming Onslought?

By Dan Kegel

NeXT currently offers user interface software which leads the market in ease of application development. Within a few years, Sun, IBM, Apple, and others will be able to offer the same convenience that NeXT's software currently does. When that happens, NeXT will have to compete in other areas as well, especially price, performance, and risk. This article examines how well NeXT currently competes in these areas.

I work at the Jet Propulsion Laboratory in Pasadena. Until about two years ago, most computers around here were VAXes, IBM PCs, or Macintoshes. Over the last year, as the price/performance ratio of Unix systems made VAXes look obsolete, many people have begun to purchase Unix systems, mostly Sun workstations. There are also a few NeXT cubes, but I've never seen one.

We all know that NeXT makes a great computer with great software. So why doesn't Joe Engineer or Joe Researcher at JPL buy NeXT? First, NeXT applications use NextStep, which runs only on the NeXT. Originally NeXT had an agreement with IBM to run NextStep on IBM computers, but IBM soured on the concept when NeXT modified NextStep to require features not yet offered by IBM's operating system. (NeXT really shot itself in the foot here.) This means that anyone worried about buying workstations from a shaky company stays away from NeXT like the plague; if NeXT goes under, there will be nowhere to buy compatible computers from.

Second, organizations with many computers are starting to buy X Terminals rather than workstations for many users, at a savings of $4000 or so per seat over an entry level Sun or NeXT. And- you guessed it- you can't run Next applications on an X Terminal. This means that anyone wanting to equip lots of workers with graphical terminals for the lowest cost stays away from NeXT.

Third, many people here simply need more horsepower than NeXT offers. Although the 68040 is a powerful machine, newer microprocessors offer a factor of two or three higher performance.What can NeXT do about these problems? First, it

What can NeXT do about these problems? First, it should work to get NextStep running on other computers to give workstation buyers a second source. Second, it should join with an X Terminal manufacturer to offer a NextStep terminal to offer a really low cost option for sites with many users. (Both of these steps might be facilitated by splitting NeXT into a hardware company and a software company, as Sun recently did.) Finally, it should introduce a more powerful workstation.

Unless it attacks all of these problems, NeXT may have real problems selling workstations in the commodity marketplace of the future.

News flash: as this article was being written, NeXT announced that it will port NextStep to computers based on Intel microprocessors. No details are yet available to this writer. As the new port of NextStep becomes available, application developers will be more likely to choose NeXT and NextStep-- good news for NeXT users.

Dan is a Unix System Administrator and digital hardware engineer at JPL.

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NeXT Month's Issue...

Pen Based Computing, will NeXT be LaST?

NeXTs' Response to this Issue (Well, Hopefully)

NeXT Developers to Organize!

Help Wanted

(hAng ON! Needs You!)

We'd like to have all of you involved in hAng ON! We don't care if you're in Houston or out in B.F.E. It may be (too) obvious to you that we need some good humor. We could also use some people with other talents too, namely:

1) Cartoonists (please submit in EPS format)

2) Writers with experience in various fields

3) A multi-media reporter

4) A reporter to cover the medical field

5) Experienced beta testers

6) Experienced NeXT users/developers looking for work!

7) Businesses looking for experienced "NeXTies".

8) Third party developers who would like to give us inside "stoosh", just get the word out on what they're working on, or would just like to keep in contact with other developers.

9) Experienced volunteers to answer technical questions that are WAY too difficult for our editor.•

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