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1) 30-Nov "Adam C. Engst" TidBITS#204/29-Nov-93

Project

Xanadu

Message 1 -- \*\*\*\*\*

Received: from prism.uchicago.edu by midway.uchicago.edu for enfl Tue, 30 Nov 93 11:29:17 CST

Received: by prism.uchicago.edu for ogil@midway.uchicago.edu

AA22747; Tue, 30 Nov 93 11:28:15 CST

Received: from VMA.CC.ND.EDU by prism.uchicago.edu for b-ogilvie

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Received: from VMA.CC.ND.EDU by VMA.CC.ND.EDU (IBM VM SMTP V2R2)

with BSMTMP id 7001; Tue, 30 Nov 93 12:27:38 EST

Received: from VMA.CC.ND.EDU (NJE origin LISTSERV@IRISHVMA) by VMA.CC.ND.EDU (LMail V1.1d/1.7f) with BSMTMP id 6686; Tue, 30 Nov 1993 12:27:35 -0500

Date: Mon, 29 Nov 1993 22:11:53 PDT

Reply-To: "Adam C. Engst" <ace@tidbits.com>

Sender: TidBITS - a newsletter for Mac users <TIDBITS%RICEVM1.BITNET@vma.cc.nd.edu>

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From: "Adam C. Engst" <ace@tidbits.com>

Organization: TidBITS

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Comments: To: TIDBITS@RICEVM1.RICE.EDU

To: Multiple recipients of list TIDBITS <TIDBITS%RICEVM1.BITNET@vma.cc.nd.edu>

TidBITS#204/29-Nov-93

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This week we explain Ted Nelson's new plans for Xanadu Light based on his talk at Hypertext '93. We also clarify the details on the Quadra 610, DOS Compatible that Apple announced recently. Charles Wheeler passes on a true Mac story that might prevent DOSsification, Apple asks for constructive interface suggestions for MacTCP, a free PDA newsletter appears, and Mark Anbinder notes that not all microphones are created equal.

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Topics:

MailBITS/29-Nov-93

SuperDrive Activism

MacTCP Call to Arms

DOS Compatible Details

True Mac Stories!

Xanadu Light

[Archived as /info-mac/per/tb/tidbits-204.etx; 30K]

MailBITS/29-Nov-93

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With the approach of the holiday season, we're all looking for Macintosh gifts, ranging from games to books to accessories. I'm probably going to regret this offer, but if you send me a description of the top three items that you plan to give to a friend or relative as a present, I'll compile the best of the submissions and publish it in one of the issues in December. Please limit yourself to a paragraph about each item and avoid anything that can't be easily purchased via mail order, that being

the least-common denominator. To avoid hammering my personal email account, please send suggestions to <gifts@tidbits.com>.

**\*\*PDA News, a free monthly newsletter\*\*** covering the world of Personal Digital Assistants (including the Newton and the Tandy Zoomer), is offering free subscriptions to all comers. To subscribe, send them email at <73252.2301@compuserve.com> and put "Free Subscription" in the Subject line. Needless to say, include your name, company, address, phone, fax, email address, and if you own a PDA in the body of the message.

**\*\*Tom Phoenix\*\*** <rootbeer@aol.com> passed on a photocopy of the rebate form you can get from Apple if you purchased At Ease 1.0 (or a system bundled with it) between 02-Aug-93 and 01-Apr-94. You can get between \$25 and \$100 back depending on your situation, if you return this form. The only slight problem is that Apple forgot to include a blank for your street address. Oops. Call 800/892-4648 if you are interested in getting a form for the rebate, but make sure to add your street address manually if you send it in.

**\*\*Autodesk\*\*** has announced an upgrade program for users of ClarisCAD, which has slipped ever further from Claris's attention. From 01-Nov-93 to 15-Jan-94, users of ClarisCAD can upgrade to AutoCAD Release 12 for the Macintosh for \$995 (normally \$2,500). To qualify for the upgrade, current ClarisCAD users must contact a local Autodesk Authorized Reseller (call the number below for a reference) and provide a proof of purchase or a serialized disk for each copy of ClarisCAD to be traded in and a signed Upgrade Pledge, which reads as follows (and I quote): "I would like to purchase an upgrade to AutoCAD Release 12 for the Macintosh as a replacement for my existing ClarisCAD. I pledge to discontinue use of ClarisCAD and within 90 days to destroy all copies of that computer-aided-design software." I recommend repeating the pledge in the presence of your Autodesk Authorized Reseller while standing on one foot with your head held high and your right hand on your heart. The signature? For \$995, my bet is on blood. Autodesk -- 800/964-6432

**\*\*Pete Chane\*\*** <pchaneuw@mac.wisc.edu> writes: "It seems that if Centris 660AV users download and install System Enabler 088 v. 1.1, it will change their computer from a Centris to a Quadra in About This Macintosh. Programs that report system info like Now Profile and TattleTale will also use the new Quadra name." [The enabler is available on <ftp.apple.com> in:

/dts/mac/sys.soft/7.1.system.enablers/

Apple says only that version 1.1 adds support for the Quadra 660AV and doesn't provide any other details, although Ric Ford reported in MacWEEK that it included "other, undocumented fixes as well."  
-Adam]

**\*\*Borrowing Microphones\*\*** -- Mark Anbinder <mha@baka.ithaca.ny.us> writes: Purchasers of Apple's new low-end Macintosh systems will be surprised if they try to use a borrowed Apple microphone in the computers' microphone jacks. The Performa 475 and 476, LC 475, and Quadra 605 computers require the new PlainTalk microphone in order to record sounds using the microphone port, but don't include it. Microphones bundled with previous Macintosh models

won't work, because the PlainTalk microphone has a longer plug (.75" rather than .5") and the old plug doesn't properly seat inside the new jack. The PlainTalk microphone is available as a separate item, in addition to being bundled with several of Apple's newer high-end Macs. The item number is M9060Z/A, and the microphone should be available from any Apple reseller.

#### SuperDrive Activism

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Jamie McCarthy <k044477@hobbes.kzoo.edu> passed on a quote from the Dec-93 AppleDirections newsletter that might gratify those on the nets who complained vociferously about proposed plans to eliminate the auto-eject mechanism on the SuperDrive.

Just to be crystal clear about this, the new SuperDrive disk drives require no change in the way you deliver your software. Despite earlier reports, Apple will not be making the transition to manual-eject drives that read only MFM-format disks, largely because of feedback from customers and developers. The new Apple SuperDrive will read disks formatted using either GCR or MFM (that is, the format used by DOS/Windows systems) standards and will continue to feature automatic ejection of floppy disks.

I'm not fond of the manual inject mechanism used in the new SuperDrives, but the dust cover is good, and less expensive Macs and replacement parts are useful as well. It's nice to see Apple listening to feedback.

#### MacTCP Call to Arms

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Apple has done a tremendous job in producing the updater for MacTCP 2.0.4 (it works on virgin copies of MacTCP 2.0.2, which is the version included with the Internet Starter Kit for Macintosh), and although no one denies that accomplishment, there has been much griping on the nets about MacTCP's interface.

Garry Hornbuckle, Apple's MacTCP product manager, met the griping with a concrete challenge posted on comp.sys.mac.comm - if you don't like how MacTCP is configured, Apple wants to hear your specific suggestions. General complaints aren't useful, but if you can point out a specific problem that you've faced and offer specific ways of dealing with that problem, Apple seems to be willing to listen. We at TidBITS applaud such a move since it indicates a willingness to open a direct dialogue with interested Mac users. Other groups at Apple would do well to emulate this policy; after all, we're the people that must use Apple's products. We don't wish to imply that Apple doesn't have a lot of great ideas, just that, as Garry said in his posting, Apple doesn't have a monopoly on all the good ideas. As a matter of fact, if there are other such public suggestion email addresses at Apple or other companies, and if the maintainers of those addresses wish, we'll be happy to publicize them to increase the net community participation.

So, if you can meet Garry's challenge and offer specific constructive suggestions for the next version of MacTCP, send them to:

tcpideas@seeding.apple.com

There are some ground rules that you should also know.

- \* By submitting the suggestion, you are granting Apple the right to incorporate the suggestion into its products in the future.
- \* You are granting your permission to Apple for the good of Macintosh-kind, for the good of MacTCP, for forever, and for free.

However, Garry did say that he might be able to swing some cool t-shirts for the best suggestions. He promised to read each and every suggestion, and to respond to the best ones. Let's not pass up this chance to provide early feedback for a product that is fast becoming an essential part of the Macintosh experience for many people.

Oh, you can get the MacTCP 2.0.4 updater at <ftp.tidbits.com> in:

```
/pub/tidbits/tisk/mactcp/
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#### DOS Compatible Details

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We've been combing the woods for details about the Quadra 610, DOS Compatible Mac that we wrote about in TidBITS #202\_, which should ship in early 1994. One of the most useful sources of information has been the MacWEEK forum on ZiffNet/Mac (GO ZMC:MACWEEK), and especially postings from Henry Norr of MacWEEK. When combined with information from Pythaeus, the following has become clear.

The DOS card allows some sharing of information between the Mac and DOS environments, much as do SoftPC and Orange Micro's PC card. However, the DOS Compatible card cannot display the DOS session in a Macintosh window, which would make copying text and graphics between the two environments clumsy on a single monitor system.

Switching between monitors is not instantaneous; there is a unexplained but perceptible several second delay between the two environments. Unfortunately, if you have two monitors, you cannot use the PC monitor in the Mac environment at all, which is a shame, considering the incredible utility of multiple monitor desktops.

The Quadra 610, DOS Compatible will come with 8 MB of RAM standard, and you can set the allocation between the Mac and the PC although it comes preset at 4 MB of RAM for each environment. If you install more RAM on the Mac motherboard, either environment can use that memory, but if you install RAM directly on the DOS card, then the PC environment must use that RAM and cannot share the main Mac RAM. I'd be surprised if you can reset the allocation without rebooting, although that might be a task for OptiMem from the Jump Development Group (a utility that reduces the amount of memory applications require - I'm investigating it for a review so stay tuned).

Although the card can use the Mac's CD-ROM drive via Microsoft's CD-ROM drivers for DOS, there's currently no software support (and it may not even be possible in hardware) to use Ethernet via DOS, which limits the utility of the card in the big business environments that require DOS compatibility for new machines. The card, because it fits in a Quadra 610 (and presumably in the 660AV), is only 7" long; thus it may not work as easily in the longer NuBus slots in other Macs. Apple isn't marketing to those other machines, and there's no telling if the card requires a

68040 in the Mac or not.

Communications and printing operate as you might expect. You map the PC COM 1 and COM 2 ports (probably only one at a time) to the Mac's modem port, so that you can use a modem from within DOS. Print jobs go to whatever printer you select in the Chooser, and if it's a PostScript printer, you must configure your PC programs with PostScript drivers as well. If you use a QuickDraw printer, the DOS programs will print to it as if it were an Epson, the least-common denominator on the PC side of things. In either case, the DOS environment assumes it's using a non-existent parallel port.

Like the default setup in SoftPC, the PC hard disk is a single file in the Macintosh environment. However, unlike SoftPC (at least the older version I last used) it seems that Apple has in some way implemented it as an external file system (a neat trick that makes it a window in the Finder so you can treat DOS files like Mac files). Opening the hard disk file doesn't immediately open a window, but instead creates a new disk icon with the same name. Double-clicking on that icon opens a Finder window displaying the DOS files and subdirectories. I presume that it in some way supports the internal floppy drive, although it's possible that Macintosh PC Exchange is involved in some way. I don't know if you can define a Mac folder as another drive within DOS, as you can in SoftPC, but with the external file system that's not quite as much of a problem as it would otherwise be.

One thing to keep in mind if you're considering purchasing this system is that SoftWindows for the PowerPC should ship at the same time or shortly after the release of the PowerPC in early March of 1994. Insignia showed SoftWindows at Comdex and reports from several people indicate that it felt as fast as a 486. Insignia itself is currently talking about 33 MHz 486 speeds, and that's on the 66 MHz PowerPC 601 chip. With the 80 MHz (or 95 MHz chip that IBM was showing) the speed of SoftWindows can only improve, unlike the speed of the DOS card. Paul Kerr of Insignia, the SoftPC and SoftWindows product manager, said that benchmarking an emulated PC against a real one is a tricky process, and some functions end up faster while others end up slower. However, it's likely that SoftWindows will support networking and run in a Macintosh window, thus making it a cleaner fit with the Macintosh operating system. The current versions of SoftPC Professional and SoftPC With Windows suffer in comparison with the DOS card in terms of performance (Insignia claims 386 speeds), but include a pre-configured copy of Windows and are more flexible and cheaper. And of course, you can upgrade to SoftWindows for PowerPC when it ships this spring.

Information from:

Henry Norr -- 76117.1770@compuserve.com

Paul Kerr -- 70274.3044@compuserve.com

Pythaeus

True Mac Stories!

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by Charles Wheeler, World Associates -- Charles\_Wheeler@debug.org

Although it could have been written by Apple's ad agency, the following is a true story. Only the names have been changed to protect the innocent, although the conversation has been shortened for the sake of brevity. The main points are all completely factual.



I received a phone call from a DOS-based consultant who was evaluating a FileMaker Pro installation at the offices of one of my clients. The database system consists of 13 Mac II's and one Quadra 700. Other branches of this business use various different DOS systems, few, if any, of which work consistently. Hence the call from the DOS-based consultant; the parent company had hired her to implement a system that worked, ignoring the Macintosh and FileMaker Pro system that has worked perfectly for several years now.

DOS-based consultant: "I noticed those computers have a graphical user interface. Is that Windows for the Mac?"

Me (after long incredulous pause): "No, that's the Mac OS. It's built in."

There followed a long explanation of how Apple bundles the Macintosh operating system and graphical interface with every Macintosh they sell, a concept that flabbergasted my caller. It was a state she would get used to.

DOS: "What kind of network boards do those machines have plugged into them?"

Me: "No boards. The network hardware is built into every Macintosh."

This one really threw her. The concept of plug and play is so foreign to the PC world that Microsoft is just now (after 13 years or so) in the process of designing a Plug and Play specification for hardware and software vendors that will enable systems to automatically configure themselves when boards and peripherals are plugged in. [I believe the Plug and Play spec will be equally as successful as the idea of PC compatibility and the Sony Beta VCR format. In other words, not at all. -Adam]

DOS: "What network software are you using?"

Me (sigh): "Built in. We could use System 7, but in this particular case, we're using the networking capabilities of FileMaker."

Major mind-slam here - the idea of mentioning network services without invoking the hallowed name of Novell - or at least mentioning Microsoft or Banyan or IBM - just didn't click. AppleTalk may not be the end-all of network software, but it's pretty easy, it's relatively transparent, it works, and you don't need a fifteen-foot shelf of manuals to work with it. AppleTalk is also the second-most common network protocol in the world, I hear, based on number of end nodes.

DOS: "Who's the network administrator?"

Me: "Well, we don't really have one. We plugged the machines in a couple of years ago and they just worked. We upgrade software and make additions and modifications to the database, but the network pretty much takes care of itself."

More explanation followed, since AppleTalk networks, especially simple LocalTalk networks like this one, seldom need full-network administrators. This particular network doesn't even use System 7 File Sharing (also built in) so there's essentially nothing for a network administrator to worry about other than the occasional



kicked-out cable.

I pass this true story on not to bash DOS, or this particular person's lack of Mac knowledge, but as a reminder to myself and other Mac diehards that, no matter how often we curse the fizzy bomb and the occasionally clumsy or inconsistent interface, there's still a lot of nonsense we never see in our Macintosh lives. I hope we can continue to enjoy this level of internal support for basic operations on the Macintosh, and perhaps conversations and stories like this might help others in danger of DOSsification.

#### Xanadu Light

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The high point of Hypertext '93 was of course the talk given by Ted Nelson after the reception in his honor. Nelson is a thoroughly engaging speaker, and he devoted much of the first half of his talk to providing the audience an overview of the 32-year history of Xanadu, Nelson's electronic publishing world view. I won't attempt to summarize that history since a bit of it exists in TidBITS #30\_ and Nelson's books, including Computer Lib/Dream Machines (one book) and Literary Machines, are required reading for anyone in the field.

What interested me was the reaction Nelson received in the crowd. I don't mean the public questions and comments, but the asides and looks various members of the audience traded during the talk. Members of the hypertext community seem to view Nelson with a complicated mix of awe and devotion (after all, he is the father of hypertext) combined with an almost cruel pity and ridicule. I suspect this mockery, which was seldom voiced loudly, but was evidenced in eye-rolling and smirks, stems from the fact that despite his long involvement with hypertext, Nelson has never shipped a product. Xanadu has been vaporware longer than many of us have been alive. The reaction concerned me, because even though Xanadu has yet to appear, that fact is independent of Nelson's ideas, just as much theoretical physics is more or less independent of practical application at the moment. It may mean that he's a theoretical hypertext scientist, but there's no shame in that. I sensed a vague paranoia in Nelson, but one that is probably justifiable if his ideas have received similar reactions (and most likely, even worse ones) in the past. It's a shame, and let me attempt to convey his concepts in relation to the new Xanadu, now called Xanadu Light. Much of this information comes from the handouts Nelson provided with his talk.

To bring you up to date quickly, it seemed as though the hope for Xanadu lay with Autodesk, the CAD giant that purchased it back in 1988. Unfortunately, after investing five years and five million dollars, Autodesk dropped the project in 1993. Nelson didn't say specifically, but I have the impression that all that development effort remained at Autodesk; all he managed to get back was the trademarked name. In large part because of that, I suspect, Xanadu Light is now based on garden-variety database programs and using the Internet for worldwide access. Nelson mentioned something about searching for stuff via Gopher and then telnetting in or using a dialup BBS to actually retrieve the information - I'm sure a custom front end would appear quickly.

Within Xanadu, people can have three roles - readers, publishers, and suppliers. As a reader, you connect to the entire Xanadu universe by connecting to one Xanadu supplier. You can browse hypertext links indefinitely from document to document. No records

are kept of your hypertext trail or of the items you send for, and you can keep what you receive (a receipt token helps you file it for future reference).

As a publisher, you may link to, comment on, or append information to any published document. Quoting documents by what Nelson calls a "transclusion pointer" automatically links your document to the original and pays the original publisher for the data, and although you have no control over who links to your documents, the documents themselves are kept inviolate. Everything is handled by links. You may publish anything within the law (which Nelson notes is going to be a big issue in the future), and you take responsibility for the contents of anything you publish, just as in traditional paper publishing.

As a supplier, you can locate your business anywhere and allow your customers to connect to you in any way. You can charge what you like for storage of published documents and for connection time, and you have complete control over credits and payments. In an attempt to avoid the mega-companies that currently dominate publishing (apparently there are about 40 "important" publishing companies out of a set of some 70,000), Nelson specifically designed Xanadu on a franchise system. Anyone can set up as a supplier with some hardware and a connection, and anyone can set up as a publisher

In brief then:

- \* The publisher pays for storage, the reader pays for delivery, along with a small per-byte royalty. Nelson recommends rates in the range of 1/10,000 of a cent per byte for text, perhaps one cent per minute of video.
- \* The reader may send for any portion of any document and pays for just that portion, not the entire document. However, since the rates are so low, there's no concept of browsing and then choosing what you want to buy. You pay for everything you see.
- \* Anyone may quote anything in the Xanadu network by transclusion (virtual inclusion - it's a hard concept to convey without an illustration, perhaps think of it as a publish & subscribe type link) from another publisher's document. Royalties continue to flow automatically to the original publisher of information.
- \* Anyone may publish links to anything in the Xanadu network (but remember, original documents remain inviolate, so you don't have to worry about your data being corrupted by virtual graffiti).
- \* Every document has an owner, the publisher, and that person pays for its storage on a Xanadu host machine.
- \* Every link is also owned as a part of some document.
- \* Connecting to one Xanadu node connects you to all nodes, and thus all documents and data objects. This inherently implies some sort of global name space for objects, I would assume.
- \* All data structures are welcome and connectable; there are no closed objects. This will prevent what Nelson calls the "Balkanization" of electronic media, where the data objects are inherently proprietary and isolated.

Copyright always comes up in these sort of discussions about Xanadu, but the system handles copyright and royalties

automatically and unobtrusively. Since every document has a known owner, and since there's no reason why you wouldn't quote something as opposed to retyping it (it's thinkable, but I imagine it would become culturally taboo to do so), any owned data will always remain owned. Royalties (set by the publisher) flow automatically from the reader to the publisher on a per-byte basis, and give the reader the right to backup and one printout as well, although there's no reason alternative arrangements couldn't be made.

Xanadu Light, then, is essentially four public database tables, plus content bytes stored in standard and nonstandard files. Each document lists its contents in a public table, and users may query the database using standard queries or SQL queries for more complex searches. As I understand it, some sort of client software would be responsible for presenting this information and allowing you to browse and search among it.

From Nelson's handouts, then, here are the four database tables.

#### Grand directory of all documents (public table)

Author	Title	Document type	Date of publication	Owner	Size (may be misleading in hypermedia)
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#### Sequential pieces of a document (royalty bytes)

Note that a document may include part of any other document, simply by including that part in this table. Permission to do so is assured by our publishing contract.

Type of piece	Owner	Author	Publisher	Where stored	Size	Royalty per byte
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#### Document's outbound links

A document may contain any number of links of any number of types. Each link connects to particular sets of bytes in this or other documents. Note that link contained in one document may connect material between two others.

Type of link	left endset (bytes, node, document)	right endset (bytes, node, document)
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#### Document's inbound connections (harpoons)

This table records all the links and transclusions citing this document from elsewhere. Since these connections are made by the choice of others, the others pay for their presence in this table.

Type of connection (transclusion, or link of whatever type)	left endset (bytes, node, document)	right endset (bytes, node, document)
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I realize that's not a totally satisfactory explanation of it all,

and Nelson didn't intend it to be. However, I would like to say that this article is a perfect example of what Xanadu would be good for. Rather than try to recreate ASCII tables, I could merely have quoted them so that you all saw the originals, and so that the royalties could go directly to Ted Nelson. As it stands, I'm going to have to hope that this article stirs enough interest among folks who are in a position to help out with Xanadu. For more information and contracts, send a self-addressed, stamped, envelope to:

Xanadu On-Line Publishing  
3020 Bridgeway #295  
Sausalito, CA 94965 USA

Nelson said he had to give up on email when he found himself with over a thousand unanswered email messages in his mailbox, although I wonder how answering snail mail is any easier - I'd drown if I got 50 pieces of personal snail mail every day.

Among other various comments, two stood out. When asked what he thought of the World-Wide Web, which was developed at CERN in Switzerland and which provides hypertext browsing of documents spread over the entire Internet, Nelson said that he thought it was an excellent step forward, and suffered from only two major problems. First, the Web is not fine-grained enough, and second, you can't follow its links in both directions, which Nelson claims is a necessity. I'm not quite sure how to explain the criticism of the Web not being fine-grained enough; he didn't explicate further. The second comment was classic Nelson. When someone brought up CD-ROM publication, he responded, "CD-ROM is pre-Columbian. When you get to the edge you fall off."

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