

A Brief

INTRODUCTION

Welcome to our second issue!

It's been a while in the making, but has undoubtedly been worth it. It is of great import to note that, had not so much positive (and critical) response been pumped in by our readers, this issue could never have been assembled.

Many of you contributed your time and data to this issue; some agreed to join our staff. In particular, a very hearty thanks to Midnight, whose tremendous contributions make Wetwares and IC worth reading, and to Infinity for this issue's insightful essay!

Any and all submissions are welcome; if you've already made them and they didn't appear, E-Mail me about them (our BBS lost most of it's data during a rather nasty crash; many E-Mail addresses and submissions were lost). If you have yet to contribute, give it a shot! Opinions to data releases, essays to columns, send it in and you'll know it's been read (you'll know because one of our staffers will write you back).

As you already know, Cyberlink is pretty much a technology journal for Mac users. It assumes a basic understanding of your computer and a modern OS (7.0.1• or above). An active interest in computers helps.

We're willing to publish just about anything of concern to the digital generation we strive to serve, which brings us to this intro's last point: Cyberlink can't very well exist without reader response, so put your thoughts to the keyboard, and keep 'em coming!

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A Letter from

THE EDITOR

Hype. Everywhere you look, someone is trying to win over your allegiance as a customer. The mass-media furnace that burns your senses every waking hour, impinging its shimmering-neon message upon your personal space seems inescapable. As I say, everywhere you look: billboards, commercials, radio spots, advertisements, promotions, INFOMERCIALS. Hype.

The curse of a world where almost everything is available on a global scale is the dispersal of advertising to every corner of human existence. It's "a superficial, valueless veneer, with corruption and moral

sclerosis at its heart" (So sayeth Sabaac). But is it really? We've all heard the tirades against mass-media, but what is the alternative?

Well, we live in a digital world. For the first time in human history, there exists a global community. It is linked not by geography or government (and certainly not by the ineffectual U.N. peacekeepers), but by information. CNN is everywhere, broadcasting live from Somalia, Moscow, Baghdad, and anywhere else they feel like, fusing their footage into bite-sized data packets for anyone who cares to hear. CNN is a global network... they address hundreds of millions of people every day. Information is what has brought our world together: a document can be faxed from New York to Moscow in about 45 seconds, as opposed to a three month voyage by land and sea (circa 1740 A.D.). The pettiest warlord can get his fifteen minutes in the spotlight, and every single newsworthy event is broadcast somewhere (unless someone with enough power needs to cover it up... a story for a different journal). When L.A. police descended on one Rodney King, the video footage was broadcast globally of an assault that would otherwise be privy to the dozen or so men who experienced it. When the latest coup d'etat attempt was launched in Moscow, live footage proudly displayed the shelling of the Russian parliament building, and the ensuing flames. When Patriots shot down S.C.U.D.s and "smart" bombs rang doorbells before ravaging their targets, we were all, vicariously, there.

Is it, then, so surprising that the degree of desensitization is immense enough that we find ourselves immune to all but the most eye-catching advertisements? After witnessing, essentially first-hand, the bloodshed and misery of war in distant corners of our world, how can we possibly be offended by the smiling, swimsuit-clad meat that assails us in every other ad, urging us, the masses, to buy, buy, BUY? Ours is a less naive world than it once was, a realm where innocence is so rare that it is often mislabeled "ignorance". Human evolution offers us increasingly greater degrees of pro and con... the mass-media information age can in theory destroy the soul (no doubt in practice as well), but it also offers us the most real chance for peace and cooperation. In a world graced by enough thermonuclear weapons to reduce itself to a handball-sized rock, it is essential to also have the power of instant communication, the power to avert misunderstanding before it germinates into something more. Our eyes would all rest easier without the regular assault of neon lights, but without a "red phone" in every chief executive's office, we'd all be cosmic charcoal by now.

Happy Hallowe'en.

Sincerely Yours,

Shadowrun

Infinity Offers
AN ESSAY

These days, hackers seem to be all over the news, but most of us find it difficult to actually define the term "hacker". I will try my best to answer that question in this essay. So, you want to know what the word means? Let's hit the dictionary:

Webster's Third New International Dictionary:

hacker \ˈhaker\ n -s [hack + er (n. suffix)] 1 : one that hacks: as a : a hand implement or hooked fork for grubbing out roots b : one that handles green brick in ceramics manufacturing c : chipper 2 : one who is inexperienced or unskilled in a sport

Webster's Third New International Dictionary, Addenda:

hacker \ˈhaker\ n [hack skillful repair of a computer program + -er]: an expert at programming and solving problems with a computer : computer whiz; also : one who illegally gains access to and sometimes tampers with information in a computer system esp. using a home computer

So what exactly is a hacker? Before we can get into the subject of hacking, we have to know what we mean by a "hacker." Well, I have my little definition of it (solely my own opinion), but first I'd like to categorize all the different types of computer users. A dichotomy follows:

Computer Illiterate: Well, that just about says it all. Don't know how to use a computer? You're illiterate.

Computer Literate: This term covers all those who know the basics of their operating system, and a couple of applications, usually not much else. In most cases, mere computer literates don't own a computer.

Regular User: This would include those who are proficient with most of the functions of their operating system and applications, and use their computer every day. Most own their own computer, or can readily access one (i.e., an office computer). Regular users view computers as productivity or entertainment tools. They treat them like super typewriters or ultra video game systems. In short, regular users use their computers merely to accomplish tasks or entertain themselves.

Power User: As mentioned in Cyberlink 1.0, this refers to those who are always lusting after powerful pieces of equipment, and spend as much as they can just to get some outrageously expensive pile of silicon they have no use for. Don't get me wrong — power users do have common sense; they won't merrily skip their mortgage payments just to pick up a Quadra (at least I hope not...).

Hackers: Hackers use the limited resources at their disposal. Face it, not everyone can afford a Cray. They get whatever they can and then use knowledge to spruce it up. Hackers customize with every extension they can afford (and have RAM for), and in general, hack their computers until it's the way they want it. What would you rather have: a small house furnished the way you want, filled with stuff you like, or a bare, empty mansion? Hackers enjoy dissecting their software with any diddling utilities they may have.

That's pretty much the ladder of computer competence. In short, hacking is about information. Throughout history, we have periods like the Stone Age or the Iron Age, and so on. What would the late 1900's be called a thousand years from now? A couple good ones would be the Plastic Age, the Silicon Age, or the

Pollution Age. But the most likely name would be the Information Age:

- A computer is used to exchange information (by modem or the printed page).
- A computer is used to store and retrieve information.
- A computer is used to process information.

Early civilization was based on the ability to exchange information. Communications remained more or less the same. Telecommunications, however, changed everything. And in the midst of it all are computers. Communication has changed forever. It's not merely the substance of what is being communicated; the means of its communication is what has affected us so deeply. What does instant access and total information do to a culture?

In the midst of it all, you'll find people hacking at the answer to that question.

Shadowrun's Guide to MAXXING OUT YOUR MAC

This issue I've got a special treat for you Ilsi owners: the following instructions will allow you to increase your motherboard's operating speed from 20Mhz to 25Mhz. This procedure is a hell of a lot safer and more reliable than most hardware mods, so make sure that human error doesn't rear its ugly head and you'll be running 25% faster for around 20 bucks.

• BEFORE YOU BEGIN

You'll need a 50Mhz Oscillator package and a 4-Pin socket (14 Pin size, with only 4 pins - one in each corner). These should be available at pretty much any fixer's den (DO NOT rely on Radio Shack; splurge on a real electronics shop). The cost varies, but \$20 is the price for the highest grade Japanese parts. As usual, make sure that what you buy is what you need (a 28-pin socket is NOT okay). These are the only parts you'll be buying, so buy the best you can. If you don't know any local fixers, you might try Fry's electronics (Palo Alto). For the record, their number is 4154966000, but if you can't find a local joint you probably shouldn't be doing this in the first place.

Additionally, you'll need a soldering iron and a prying tool (I personally recommend the Curtis chipjack, included in all Curtis computer toolkits - never leave home without it). A small blade or scissors edge should suffice in a pinch, but make certain that whatever you use is non-magnetized (scissors have this nasty tendency in my house...). A grounding strap may be a wise countermeasure as well.

When you've gotten all your gear together, lay out a white sheet on a large table. Place your unplugged CPU case on the sheet, prepare your tools, take a deep breath, and get to work.

• SOME DISASSEMBLY REQUIRED

1. Open the Ilsi case (it lifts from the back).
2. Remove the floppy drive (unplug the SCSI cable and lift it out of the case while pressing the two small latches INWARD).
3. Remove the hard drive (unplug the SCSI and power cables and lift it out while pressing the two small latches OUTWARD).
4. Remove the fan (lift it out while pressing the plastic sides INWARD).
5. Remove the power supply (lift it out while pressing the latches INWARD).
6. Remove the SIMMs (press the small metal latches OUTWARD and lift the SIMMs clear of their sockets).
7. Remove the motherboard (pull it towards the front of the case while pressing the two tabs OUTWARD).

• MICROTRONICS SURGERY 101

1. Locate the small metal box marked "40.000 Mhz". It should be the one nearest the SIMMs sockets (to their right).
2. Using the soldering iron, heat the pins (work on two at a time). When one pin is hot enough to melt the solder, pry at it GENTLY, slowly working it out of the socket while heating the other pin. Alternate between the two pins until you have pryed them free of the motherboard.
3. Repeat procedure for the other side of the chip (the other two pins).
4. Store the 40Mhz Oscillator.
5. Insert the 4-Pin socket into the position just vacated. Repeat the same procedure in reverse, heating the remaining solder and pushing each pin GENTLY into place. Go all the way around the socket several times, sinking it one pin at a time, one millimeter at a time, until the socket is firmly moored as deeply as it will go.
6. Place the 50Mhz crystal (the 50Mhz Oscillator) into the socket; the chip has three rounded and one square corner - the square corner should be pointed in the same direction as the other chips (ie, towards the bottom right of the case).
7. Exhale.

• AFTERMATH

1. Reverse the steps of disassembling your Mac (go from the bottom to the top of the first checklist).
2. Plug her in and fire that puppy up!
3. If you are greeted by a smiling Mac and "Welcome to Macintosh", your house should be resounding with maniacal laughter right about now. Try out some quicktime movies, issue some commands in MS Excel, play a Virtus Voyager film; any way ya look at it, you WIN, compadre!

WETWARES

• Corpwares

You knew it was coming... Now, it's here. System 7 Pro is more an integration than an innovation; it combines three technologies (PowerTalk, AppleScript, and Quicktime) in an operating system package consisting of a marginally improved MacOS 7.1. It's a nice system upgrade, but at the current list price of \$150, I won't be rushing out to acquire it anytime soon. On the bright side, those sweet folks at Apple are offering a \$50 upgrade to those of you who purchased System 7.1 between August and now... That's right, obsolescence protection from Apple Computer. I know that it's another piece of Apple's new public relations theory ("the customer might actually matter..."), I understand that it's a low-cost ploy and will help

precious few buyers, but I am nonetheless impressed that Spindler has actually affected real changes.

- Firmwares

The Newton has been spared an early death, saved by the myriad applications being churned out for the MessagePad by developers all over the world. These apps come on flashcards (those credit-card sized chips) and just plug in. Very neatly engineered, they promise to provide Newton with a purpose other than novelty. Some of the programs, particularly some of the business ones, are downright innovative. Combined with the upcoming Telecom capability, this could become the corporate desk toy of the '90s. Bated breath, chummers...

IC

- PowerPC

I was dumbfounded. For the first time since the Mac IIx, Apple's hype department had a basis for their superb advertising... The PowerPC technology is not only real and functional, but is in the middle stages of innovative implementation! The PowerPC engine will run existing Mac software a bit faster than the 68040, but will run programs designed to take advantage of the RISC architecture at truly stellar speeds. It will be available in new computers (built around the AV Mac integration principle) and will also be shipped on NuBus boards to supercharge the existing Macs. Once more, it is important to note that, like the DSP chip, the only appreciable acceleration will be seen with programs written specifically to access the RISC processes, but PowerPC will still be able to run all your old 'wares at speeds of around 150% that of the Quadra 800. Hold onto your cash, kids, this project could really fly.

- CIL

Component Integration Laboratories is Apple, IBM, Novell, Oracle, Taligent, WordPerfect, and Xerox banded together to "establish, promote, and certify specifications and reference implementations of key technologies that integrate information and media from many applications in an integrated environment". The CIL corp they've formed may or may not achieve this goal, but greater uniformity among platform protocols is a dream we can all entertain. Stay tuned...

- Newton

The fate of the ill-conceived MessagePad is looking up: MobileComm will be serving wireless communications in the continental U.S. (accessed by a Telecom card you stick into the Newton's dataport). Though limited to E-Mail messages for now, this a very impressive start. Apple has made a strong showing by firmly supporting the Newton project; even if it ultimately fails (this possibility cannot be discounted), their efforts have raised the morale of Mac users everywhere. Mr. Spindler, consider this a first, strong step to putting the IIx debacle behind you.

- Blackbird

Unconfirmed reports have reached our ears that Apple plans to update the Powerbooks with a new line of sleek, lean and highly advanced notebook computers, starting with the "Blackbird" project. This

newcomer is said to have a larger screen, a touch-pad instead of a trackball, integrated audiovisual features ala the AV models, and is allegedly slated for release in March of '94. We'll keep you posted...

ResHACKS

If ye're on System 7.0.1 or higher, and want to improve system functions significantly, get yerself a copy of ResEdit and get crackin' on the these codes! The third one's a bonus...

Finder Speed: Changing the size of the Finder's RAM allocation can dramatically improve copy time and various other functions. To pull it off, open a COPY of your Finder:

1. Open the "SIZE" Resource.
2. Scroll to the bottom of the window, where you'll see two numbers (representing the RAM allocation in Bytes).
3. Increase BOTH numbers by 1024 for every Kilobyte you want to raise the RAM allocation by (for optimal improvement, double both of the preset values).
4. Close the Finder, replace your old one with the new one, and restart.

Zoom Rectangles: If you want to kill time-wasting zoomrects at the source instead of using the SpeedyFinder extension, open a COPY of your Finder:

1. Open the "CODE" Resource.
2. Open ID 4 (Yes, you'll have to OK decompression).
3. Go to Offset 0078 (a line reading 48E7 1F38 594F 2F0F).
4. Replace "48E7 1F38" with "6000 00E6".
5. Close the Finder, replace your old one with the new one, and restart.

Sounds: To procure your favorite sounds from just about any program, open your System file and a copy of the aforementioned program:

1. Open the "SND" Resource of both files.
2. Select the sound you want to copy to the system from the program's SND Resource and Copy it.
3. Click in the "SND" window of your System file and Paste.
4. Close both files and restart.

ARCOLOGY

In this issue we review the three top services for Mac users - AOL, CIS, and Delphi. These are the largest public-access arcologies in America, and offer more than can be described in a column. Of course, my job is to die trying...

- Compuserve

The single largest private bulletin-board-and-beyond service in the world, Compuserve Information Service is the top ranked choice for users looking for sheer resources... the diversity to be found here is beyond every user's wildest dreams. There is no real censorship, so everything from literature to programs, games to graphics can be found here. The range is PG well through X - beware what you mark for d-loading! They support modem speeds from 300bps through 14,400bps, all protocols, and offer a nice file-transfer status report (time elapsed, remaining, etc.).

The only real problem with CIS is it's user-belligerence; this was originally an IBM-compatible network, and it shows. The Compuserve Information Manager for Macs tries and fails to set up an intuitive front-end. The system is cumbersome to navigate, and often TOO diverse to easily figure out ("WHICH graphics library? In WHAT forum?").

Tough to get around but incredibly resource-rich, Compuserve is the most far-reaching of the three.

- America Online

This is the most Mac-oriented of the three... Cyberlink set up house at AOL, and for good reason; it is the most seamlessly integrated service, providing a natural extension of the Mac environment.. This is a PG network, with no profanity or lewdness permitted (big loss there). It supports 300, 1200, and 2400bps protocols, and has an effective download manager.

AOL has two flaws, one-and-a-half, really. The "half" is the limits: this is a family net, and some individuals may chafe at their artistic freedoms being limited (the Terms of Service, or TOS agreement, forbid profanity and explicit sexual conduct). I have yet to find this an obstacle. The other flaw is a disturbing one: of late, the AOL mainframe has been rather temperamental, going down for repairs about every two weeks (I've been refused access four times due to host/connect failure this MONTH). As AOL served me flawlessly for the past year and a half, though, it's safe to say that this is a genuinely temporary goof... AOL is the most recommended service for cost-effectiveness and user-friendliness; their download libraries are unified under a highly intelligent "File Search" command, making life much

easier when looking up materials and programs. AOL also happens to be the easiest to learn and navigate of the three.

- Delphi

Delphi is an alien system that often yields true gems. It is a line-command system, rather miserable to deal with, and is utterly unimaginative. It does, however, allow DIRECT INTERNET ACCESS. That means that you can pull things in off the net directly, if you can find them. If you've got the patience for it, searching through Delphi can be very rewarding.

Delphi is a great "net of last resort" for file-finding, but only in a supplemental capacity to one of the "home" nets above. Though the full Internet access privilege is a great asset, it is Delphi's only asset. It's only worth the fees if you're a dedicated nethead.

LAST BITS

Letters to the Editor: Speak your mind! Take a stand! Tell the world! WRITE US MAIL!

Ex Miscellanea: You want to see something else in these pages? Submit an article or new column? Try your hand at writing for us regularly? Go for it! Cyberlink encourages reader participation in all ways. Keep 'em coming!

Submit to:

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