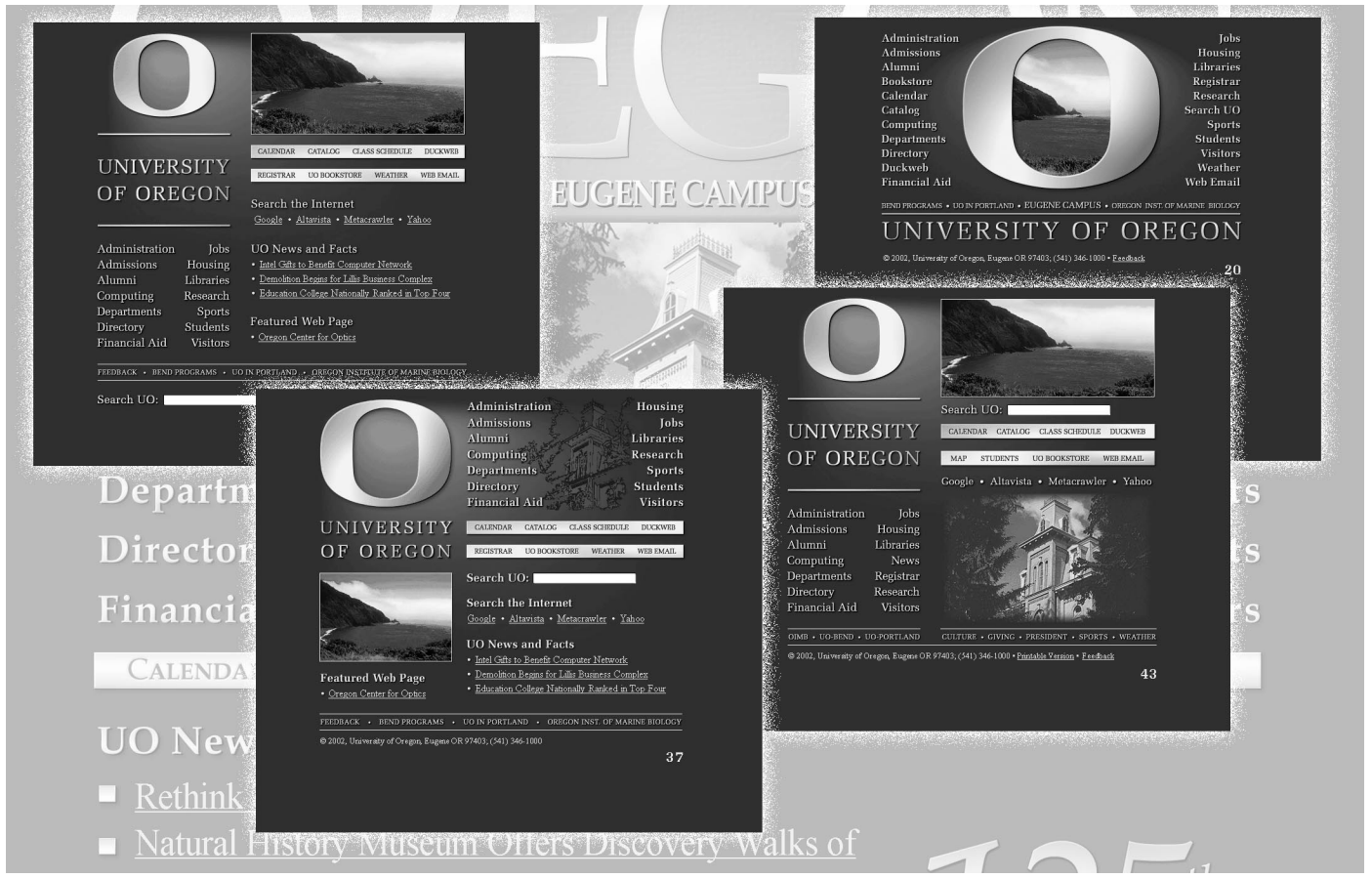


COMPUTING NEWS

SUMMER 2002



The UO home page is getting a face-lift! More than 40 new designs utilizing the university's new "O" logo have been under consideration to replace the current UO home page in the fall. See page 9 for details.

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Reminder: AppleTalk and Novell IPX Went Away July 1



Check out the illustrated information pages at <http://micro.uoregon.edu/iponly/>

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As many departments are already aware, Network Services began phasing out AppleTalk and Novell IPX network routing on campus in January. On July 1, the entire campus network migrated to TCP/IP-based service in preparation for a global network upgrade.

TCP/IP-based services are available for both Novell (Windows) and AppleTalk (Macintosh) systems. To use them, you'll probably need to reconfigure servers and desktop computers if you haven't already done so. Novell IPX services will now work only inside your subnet (typically, your subnet is in your building).

If you use a Mac, you can still use the Chooser to see resources on your own subnet. With versions OS 8.6 and higher, you can specify a TCP/IP resource in the Chooser, but you'll need to know the TCP/IP addresses for the servers and printers you wish to select.

Everyone also needs to be sure they have current software. (The minimum software version for Novell to enable TCP/IP services is 4.0, but version 5 is recommended. The minimum version of MacOS is 8.6.)

Need Help?

If you rely heavily on AppleTalk, Network Services (nethelp@ns.uoregon.edu) can help you make the necessary adjustments to keep your in-building AppleTalk zone working smoothly. If you need help with reconfiguration or determining the TCP/IP addresses of the various servers and printers on campus, start by consulting the illustrated information pages at <http://micro.uoregon.edu/iponly/>. These pages explain the reasons behind the upgrade to TCP/IP and give step-by-step instructions for Mac TCP/IP printing and file sharing. Still more resources are available at <http://ns.uoregon.edu/appletalk/>. For additional advice regarding the transition to TCP/IP, contact Microcomputer Services (346-4412, microhelp@lists.uoregon.edu).

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Photography: Dave Ragsdale



Got Extras?

If your campus department receives surplus copies of *Computing News*, you may return them to the UO Computing Center for redistribution.

We're Not Alone...

Here's a partial list of the many other universities who are eliminating—or have already eliminated—AppleTalk:

Arizona:

<http://info-center.ccit.arizona.edu/~ccitinfo/newsletters/nov99/appleout.htm>

Berkeley:

<http://istpub.berkeley.edu:4201/bcc/Spring2001/net.appletalk.html>

Carnegie Mellon:

<http://www.cmu.edu/computing/project/appletalk-phaseout/>

Cornell:

<http://www.cit.cornell.edu/network-services/appletalk/>

MIT:

http://web.mit.edu/is/dept-comp/policies/apple_talk_routers.html

Michigan:

http://www.engin.umich.edu/caen/news/Volume_18/mar-apr/backbone.shtml

New Hampshire:

<http://www.unh.edu/tech-services/appletalk/>

Northwestern:

<http://www.tss.northwestern.edu/reference/appletalk/>

PennState:

<http://www.otc.psu.edu/services/staff/data/backbone/appletalk.html>

Rutgers:

<http://please.rutgers.edu/show/AppletalkTransition/index2.html>

Stanford:

<http://www.stanford.edu/group/networking/atalk/appletalkindex.html>

UCSC:

[http://nsacnews.ucsc.edu/stories/storyReader\\$125](http://nsacnews.ucsc.edu/stories/storyReader$125)

UCSF:

http://biochemistry.ucsf.edu/~tech/Support/appletalk_phase_out.html

USC:

<http://www.usc.edu/isd/publications/now/photos/IPmemo.html>

UO Hosts I2 Multicast Workshop

From June 19 to 21, the University of Oregon hosted an IP multicast workshop at the UO Computing Center.

The workshop, which was set up to instruct participants in designing and constructing a set of interconnected multicast networks, covered such topics as router configuration, multicast addressing, network protocols, and SSM (Source Specific Multicast). Instructors Greg Shepherd of Juniper Networks and Beau Williamson of Cisco Systems guided students through a set of intensive hands-on exercises intended to help them attain the ability to independently engineer multicast networks within their own campuses or gigaPoPs.

Nearly 30 attendees—including some from as far away as Buenos Aires, Bangkok, and the U.K.—signed up for the workshop, which was made possible by contributions from the University of Oregon, Juniper Networks, and Cisco Systems. For more information on Internet2 multicast activities, go to <http://multicast.internet2.edu/>

NANOG, ARIN to Hold First Joint Meeting in Eugene this Fall

The American Registry for Internet Numbers (ARIN) and the North American Network Operators Group (NANOG) are planning their first joint meeting this fall. The event, which is hosted by the University of Oregon and Sprint Corporation, will be held from October 27 to November 1. (This is the second time the UO has hosted a NANOG meeting in Eugene; the first Eugene NANOG meeting was cohosted by the UO and Verio at the Eugene Hilton Conference Center in May 1999.)

NANOG is a forum for coordination of network operations in North America. Membership typically comprises senior engineering staff from tier 1 and tier 2 Internet service providers, who meet regularly to exchange technical information and discuss ways to cooperate in implementing network service solutions. ARIN is a nonprofit corporation that administrates the registration of Internet Protocol (IP) numbers for North America, South America, the Caribbean, and sub-Saharan Africa.

NANOG will meet Sunday through Tuesday; and ARIN, Wednesday through Friday. Scheduling these meetings back-to-back will give network operators a great opportunity to participate in ARIN policy discussions. More information about the meeting, including registration details, will be posted later this summer at

<http://www.nanog.org/arin.html>

<http://www.arin.net/membership/meetings/index.html>

Apache 1.3.26 Installed on Gladstone, Darkwing

Systems staff recently updated Apache server software to version 1.3.26 on Gladstone and Darkwing. This latest version of Apache addresses a possible denial-of-service problem in previous versions that was the subject of a recent security advisory (http://httpd.apache.org/info/security_bulletin_20020617.txt).

For those who can't upgrade immediately, a Perl patch is available at http://httpd.apache.org/info/security_bulletin_20020617.txt

First Annual UO Computing Conference a Big Hit

On May 2, Microcomputer Services and the Computing Center presented the first annual UO Computing Conference in the EMU.

Designed to encourage information sharing from various areas of networking and computing expertise, the conference attracted 80 attendees from the university and local school districts. It was organized into nine separate sessions and covered topics ranging from general troubleshooting techniques to the topology of UONet and an introduction to PHP, Windows XP, and Mac OS X.

The most popular session was "UONet Unveiled." This session, which was presented by Network Services staff members José Dominguez and Dale Smith, gave attendees an in-depth, behind-the-scenes view of the university's network and its services.

Conference organizer Patrick Chinn was pleased with the results. "We wanted folks to get together and share their knowledge with each other," Chinn said. "This was a good step in the right direction."

The positive feedback from participants almost certainly guarantees that the conference will become an annual event. "We're tentatively planning another conference for next year," Chinn said. "It's too early to announce any dates or locations, but once we make those decisions we'll post them on the conference website (<http://micro.uoregon.edu/conference/>)."

Want to give a presentation next year?

If you're interested in presenting a session at next year's conference, contact Patrick Chinn at 346-0940 or write pchinn@darkwing.uoregon.edu

Network Services Upgrades Statistics Server, Codebase



**New Netviewer
interface provides
better flexibility, ease
of management**

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To provide better flexibility and ease of management, Network Services recently upgraded its network management tools for gathering SNMP traffic data.

Its new server, netstat.uoregon.edu, runs a codebase called Netviewer that was developed by Stephen Fromm, a network and operations systems engineer for NERO (Network for Research and Education in Oregon). Netviewer serves as a flexible front end for communicating with network devices and provides a seamless interface with RRD (Round Robin Database), an improved version of the traditional MRTG code formerly employed by Network Services.

The new database statistics at <http://netstat.uoregon.edu> are dynamically generated every five minutes. Router interfaces on UOnet are sorted by network address, router, traffic, and errors. The site also displays statistics on UOnet backbone switches, campus border routers, and modem pool traffic, as well as statistics for the Oregon Gigapop and Oregon Internet Exchange (OIX).

Although the old server name (gupta.uoregon.edu) redirects you to the new server, you should update your bookmarks and direct your network traffic queries to <http://netstat.uoregon.edu>

Note: You won't be able to access the netstat server from off-campus, unless you connect via the UO's VPN (virtual private network). See "Virtual Private Network Services Ready for UO Off-Campus Cable Modem/DSL Users," in the Spring 2002 issue of *Computing News* (available online at <http://cc.uoregon.edu/cnews/spring2002/vpn.html>).

OREGON WebMail Problems?

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Occasionally, we get reports of problems when Oregon users try to access their email via classic WebMail from Infinite.com (<http://webmail.uoregon.edu>).

Sometimes the indexes on the WebMail box itself get scrambled, and sometimes the scrambled indexes are those created by the VMS mail server software on Oregon. You can tell your mailbox indexes have been corrupted if you have problems opening your messages. Once this happens, the only solution is to write system@oregon.uoregon.edu and ask us to delete one or both sets of indexes. The indexes will then be recreated properly the next time you access your mailbox.

To avoid problems, it's a good idea to use *only* Internet Message Access Protocol (IMAP) rather than POP (Post Office Protocol) mail clients to access your mail. The main difference between POP and IMAP is where they keep their mail files. POP brings the mail onto the local machine (the machine you're using to read your email), and manipulates that email locally. IMAP keeps all the email on the server (e.g., Darkwing, Gladstone, Oregon) and manipulates the email files there.

WebMail is IMAP only. Eudora Pro is an example of an email program that uses IMAP as well as POP, and most new email programs can be configured to use either IMAP or POP. Mixing protocols (e.g., using a POP client like *old* POP3-only versions of Eudora at work, and using WebMail at remote locations) can get you into trouble, as can using command-line programs like VMS MAIL in conjunction with WebMail.

If you're going to read your email at multiple locations, IMAP is the best choice because it stores all your mail in one place and retains any changes you make to your mail folders when you read, delete, or reorganize your messages. In addition, the remote server that stores your IMAP mail is backed up frequently, so even if your local computer crashes, your email is still safe.

If you're unsure what protocol you're using for email, contact a Microcomputer Services consultant at 346-4412, or send email to microhelp@lists.uoregon.edu

**See Current Port Scanning
Reports at
<http://isc.incidents.org/top10.html>**

The ten most frequently used ports and the IP addresses of the top ten would-be attackers are posted daily on the Internet Storm Center website at <http://isc.incidents.org/top10.html>

E-Shop Adds New Custom Services

If you're looking for new backup solutions for your desktop or laptop, look no further than the Electronics Shop ("E-Shop") in 151 McKenzie.

The shop's technicians can build or install whatever best suits your needs, whether it's a USB / Firewire external hard drive,



Rob Jaques (shown here checking a motherboard) is one of the licensed E-shop technicians on hand to serve you.

a custom Zip drive, or a CD-RW drive. You have your choice of portable pocket cases in a variety of sizes and styles for these backups, too. All cases have a one-year warranty and range from \$60 to \$90.

In addition to these new custom backup services, E-Shop technicians continue to offer extensive personal computer hardware support and repair services to UO students, faculty, and staff. They are experienced with many brands of microcomputers, laptops, and peripherals, including Apple and Windows / Intel machines, and can also perform upgrades. The shop keeps memory in stock for virtually all Mac and Windows / Intel-based desktop computers, and other items can be ordered upon request.

The shop is open from 8 am to 5 pm Monday through Friday, except holidays. Parking is available in the McKenzie parking lot on the west side of the building.

All shop services are available on a first-come, first-served, carry-in basis. On weekdays, bring your computer equipment to 151 McKenzie Hall and check it in with the receptionist. The E-Shop will call you when the work has been completed, and you may pick up your machine at the McKenzie Hall reception desk.

If you have any questions concerning repairs or upgrades, send an email message to hardwarehelp@oregon.uoregon.edu, or call Rob Jaques or Robert Bennett at 346-3548.

Some Summer Tips for List Owners

Head off problems by editing your .config file

Lucy Lynch

Listmaster

listmaster@lists.uoregon.edu

To avoid auto-responder list bombings this summer, try adding this to your .config file:

```
# taboo_headers      [regexp_array] (undef) <resend>
# If any of the headers matches one of these regexps,
# then the
# message will be bounced for review.
taboo_headers        <<  END
/*vacation/i
/*out\sof\soffice/i
END
```

(Note that the /i option will catch both upper and lower case items.)

For details on how to edit .config files, see

<http://darkwing.uoregon.edu/~llynch/majordomo/get-config.html>

Majordomo Documentation for Listowners

UO pages:

<http://cc.uoregon.edu/maillinglists/manage.html>

Workshops:

<http://darkwing.uoregon.edu/~llynch/majordomo/>

Problems:

<http://darkwing.uoregon.edu/~majordom/problems.html>

'The Most Dangerous Software Ever Written'...

If you use Windows, Outlook, and Internet Explorer, don't miss the article "The Most Dangerous Software Ever Written," in the July 2002 issue of *Network Magazine* (<http://www.networkmagazine.com/article/NMG20020701S0007>).

X on X: Running X Windows



Binary release of X11R6 gives Mac OS X users the best of two worlds

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When Apple brought out its new operating system, Mac OS X, I was ecstatic. The OS was based on Unix, an operating system I've been playing and working with for several years. With its Unix roots, OS X would be all things to all people: strong, fast, and flexible with its Mach kernel and BSD underpinnings, and elegant and easy to use with its well-designed Mac interface. Brains and brawn! Style and panache! Mork and Mindy! Well, sort of. . .

The OS X interface is very clean and well thought out, designed to be relatively intuitive and uncluttered. Its Unix base has made the OS powerful, clean, and stable. But I missed the Unix tools I'd become used to: a terminal window I didn't have to search for, Xemacs for text editing and coding, and redirection of X Windows applications from other hosts on campus and abroad.

Enter X11R6

Now that the Xfree86 Project (<http://www.xfree86.org>) and the XonX project (<http://sourceforge.net/projects/xonx/>) have released a binary distribution of X11R6 that runs as an application under Mac OS X, we really do have the best of both worlds.

Installing X11R6. X11R6 installation is relatively simple if you have some background in Unix and an understanding of how X Windows works going in. But if you've never worked with a Unix command prompt or opened an Xterm window on an X terminal, then this installation may not be for you.

(Disclaimer: Installing X Windows or any other software may cause your computer to perform erratically—up to and including not working at all! Before installing software, it's always advisable to back up your documents, programs, graphics, and other work. Also, because this installer file is so large—52MB—it can take a considerable period of time to download. Home users should think twice before attempting to download it.)

You can download the installation file from http://telia.dl.sourceforge.net/sourceforge/xonx/XInstall_10.1.sit On campus, you can also get it from CC Public Domain at [ftp://ccpd.uoregon.edu/CC%20Public%20Domain/Macintosh%20System%20Software/MacOS%20X%20software%20\(unsupported\)/Install_X_Windows/XInstall_10.1.sit](ftp://ccpd.uoregon.edu/CC%20Public%20Domain/Macintosh%20System%20Software/MacOS%20X%20software%20(unsupported)/Install_X_Windows/XInstall_10.1.sit)

Running the Xinstall application will prompt you for your root password. In most cases, if you are the only user on the

computer, that password will be the password you defined for your account on that computer. Once you've provided root authentication, the application will proceed to install the Xfree86 4.2.0 package on your computer. When installation is complete, an X icon will appear in your taskbar.

Those of you who have installed Linux or some other OpenSource Unix implementation may be anticipating several hours of configuration, tweaking, massaging, and cursing trying to get the X environment working. But with Mac OS X, this is just not the case. The developers who ported X Windows to the Mac had the advantage of a stable, well-defined hardware and software platform. My experience with the Darwin X package was that it worked immediately, with no tweaking involved.

The OS X Interface

The initial installation provides your X Windows environment with the *twm* window manager. (A window manager is an application that provides the services for graphical user interface. It wraps the windows in menu bars, adds buttons, pop-down menus, and all the other graphical elements that create the look and feel of a graphical—as opposed to command-line—environment.)

You can run X Windows either rootless (with the windows coexisting with your Mac OS X Windows) or full-screen in an environment that takes up your whole desktop. Allowing your X Windows and Aqua interface windows to coexist gives you more flexibility, while the full screen environment offers more functionality from the X Windows window manager.

Even in full-screen mode, you can switch easily to the Mac OS X Aqua environment with a quick key combination (Cmd-Opt-a).

The initial distribution comes with only the standard and traditional X Windows applications: *xterm*, *xman*, *xeyes*, and *oclock*, to name a few. These applications provide a bare minimum of functionality to the X Windows environment, just enough to test the installation. For more options, you'll need to get more software.

More UNIXisms from the Fink Project

The Fink project (<http://fink.sourceforge.net/>) is engaged in actively porting Unix software to Mac OS X. They have ported the Debian Linux's *dpkg* and *apt-get* for distributing software, and are offering a growing shopping list of applications. Many of the most popular X Windows applications have been ported to the Darwin kernel, the underlying Unix implementation of Mac OS X. Many of the utilities are command line applications, which will work just as well from a Mac OS Terminal session, but there are also a number of X Windows applications provided by the installation. The Gnu Image Manipulation Program (GIMP) is one of these (see the article on page 16 for more information about The GIMP), as well as Xemacs,

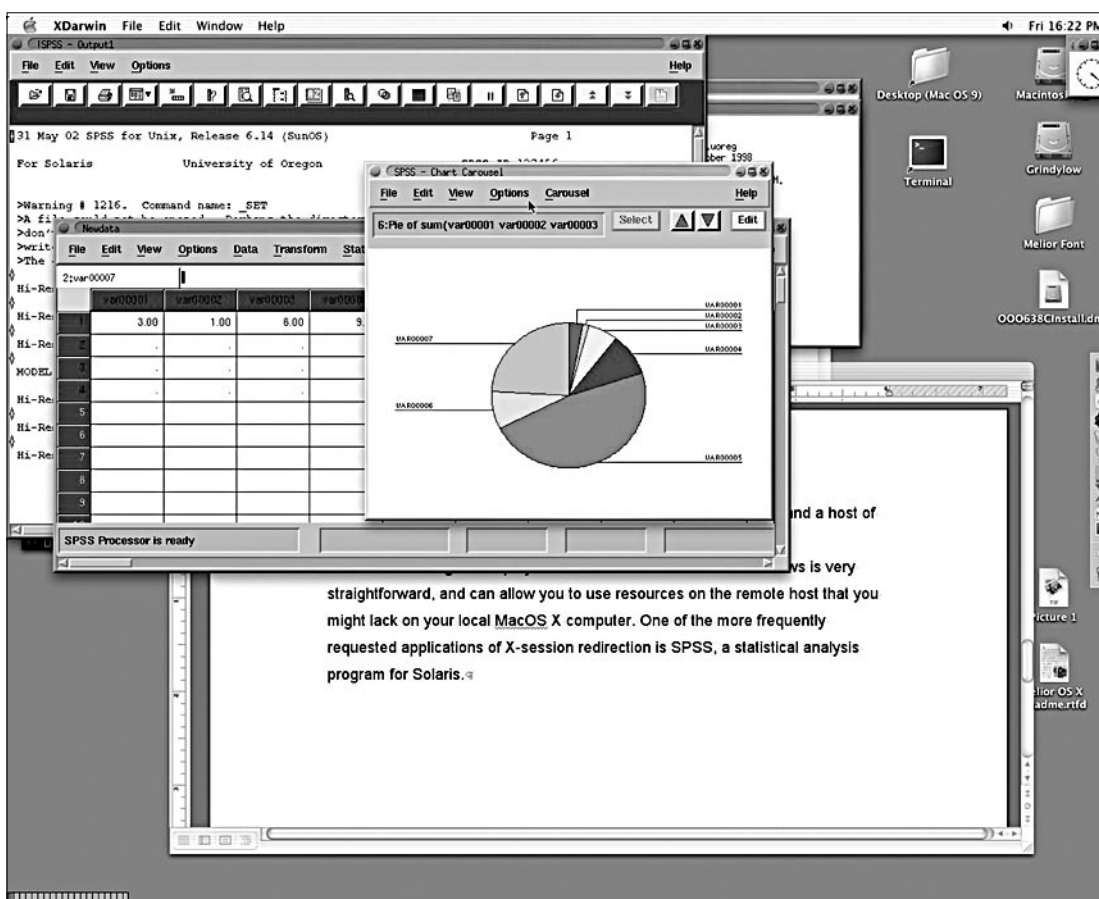
on Mac OS X Using X11R6

TCL/Tk, Eterm, and a host of alternate window managers for X Windows.

SPSS on Mac OS X? In addition to allowing X applications to run natively on Macs, when you run an X11 server on your Mac you can also display X windows output from applications running elsewhere. Redirecting the display from another Unix host with X Windows is very straightforward and can allow you to use resources on the remote host that you might lack on your local Mac OS X computer. (Use ssh to connect to the remote server from a local Xterm to automatically incorporate the X11 authentication information.)

SPSS users are often interested in redirecting SPSS X Windows output. SPSS on Darkwing runs fine with X Windows output redirected to the Mac OS X server. This should allow SPSS users to do their analysis and visualization work from Darkwing on their Mac OS desktop (see the example below).

As time goes on, more and more Unix applications should be ported to the Darwin core of Mac OS X, and to X Windows running on that Darwin core. If you're interested in getting involved in the porting efforts, or enjoy open-source development, visit the web page at <http://gnu-darwin.sourceforge.net/> for more information.



Example of Mac OS X in rootless mode, running SPSS.

SOME WEBSITES WORTH NOTING:

- *The Oregon University System Technology Plan*
Find the latest information on OUS technology planning at <http://www.ous.edu/its/technology/>
- *State of Oregon guidelines for accessible web page design:*
<http://www.oregon.gov/index.cfm?fuseaction=policy>

New Fully Wired EC CARES Facility Keeps Diverse Children's Services Well Connected

Joyce Winslow

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Connections are essential to Lane County's early intervention and early childhood special education program, EC CARES—connections to the UO, to other specialists, agencies, parents, teachers, children, and each other.

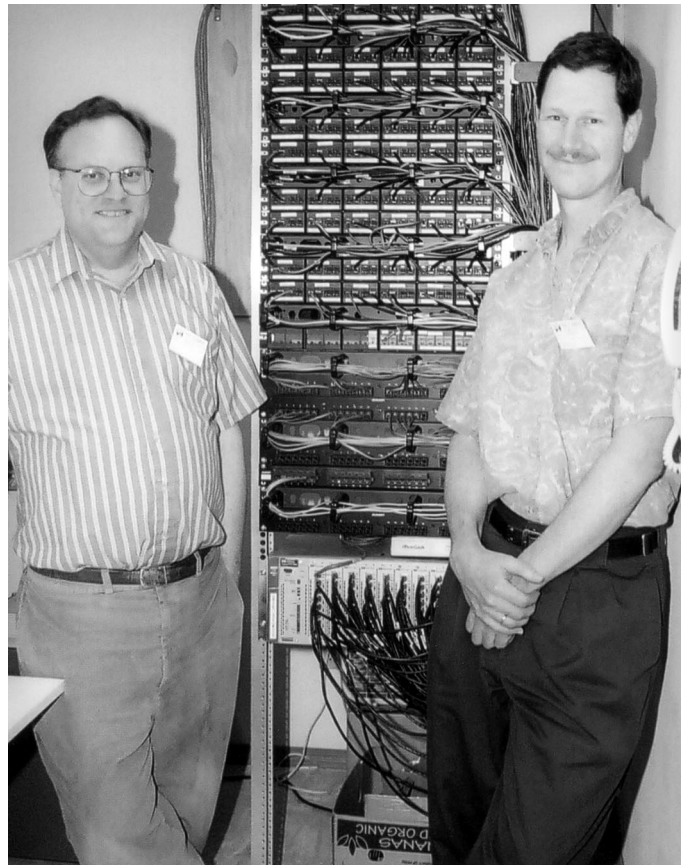
ECCARES, an acronym for "Early Childhood Coordination Agency for Referrals, Evaluations and Services in Lane County," is run through the UO College of Education and provides an array of special services to children from birth to school age who have developmental delays and disabilities. These services—all free to any child deemed eligible—are housed in a variety of settings and can include parent consultation and education as well as speech therapy, physical or occupational therapy, vision and hearing services, and assistive technology. Over 1000 children are served each year.

Because EC CARES' services are provided in such diverse locales as private homes, community or specialized preschools, clinics, and parent and toddler groups, good communication between the various therapists, program participants, and relevant agencies is critical. That's where the program's high-speed network plays a vital role.

EC CARES' new facility in the old Western Title building at 299 E. 18th Avenue boasts a data closet with brand-new network hardware (see photo at right). Thanks to the efforts of the Computing Center's Network Services group and UO Telecommunication Services, the building was completely wired and humming by the time the facility opened its doors last April.

For the more than 60 ECCARES staff—therapists, teachers, specialists, and administrators—computers are an essential tool. Aside from the creative role computers can play in the classroom, they serve a very practical need in helping staff track child information and assistants' schedules, monitor progress, and navigate the maze of required forms—including Medicaid billing, various state service plan and action forms, and goal data sheets. Staff members, who often work at several sites, can conveniently access the database from any computer with Internet access. The same database is also used by EC CARES subcontractors and various school districts.

Technology consultants Dan Smellow and Marc Levy assist in making these tasks as easy as possible. Since he came to EC CARES five years ago, Dan has been busy creating and fine-tuning the organization's FileMaker-based database system to handle the multitude of forms and records. He devotes all his energies to making the



Information Technology consultants Marc Levy and Dan Smellow show off the new network hardware at EC CARES.

system easy to navigate and use, and flexible enough to accommodate all the nuances of data entry required. Marc, who splits his time equally between consulting at TACS/WRRRC (Technical Assistance and Consulting Services/Western Regional Resource Center) and EC CARES, is on hand to provide general individual computer support and help with classroom projects: installing software, massaging hardware, and helping staff with all the little problems that crop up in the course of a day's work.

Both Dan and Marc are very enthusiastic about their new facility and network and telecommunications setup. "This new 100 megabit connection is *extremely fast*," Dan says. "It saves us time working with our databases, so our staff can spend more time helping kids and families."

Wireless access is the next technological enhancement in EC CARES' future. Network Services is currently working to provide EC CARES with a wireless connection to the university's network backbone, and Dan and Marc also hope to eventually provide laptops to staff so they can work more efficiently offsite.

UO Home Page Gets Face-lift

Joyce Winslow
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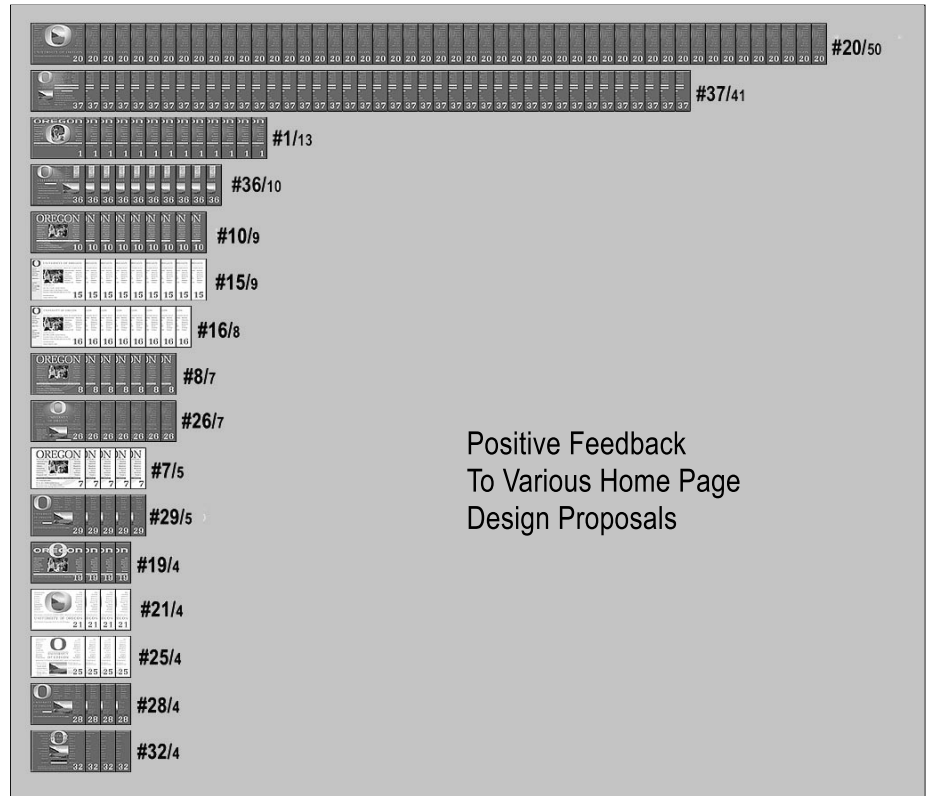
It's official: last spring, the "O" became the standard logo for the University of Oregon.

The Oregon O will soon appear on all official stationery—everything from letterheads to shipping labels and business cards—and it will also be an important feature of UO websites.

In recent months, Computing Center web specialist Dave Ragsdale has been busy developing dozens of options for the new home page. In response to committee suggestions and feedback from various groups on campus, he has thus far produced more than 40 designs, four of which are leading contenders (see diagram at right).

Comments on the designs were solicited from diverse groups on campus, including Deans and Directors, the UO Senate, the Officers of Administration Association, and Departmental Computing.

The final decision on the new design will be made by the UO Home Page Committee later this summer, and the new home page should be "live" by fall.



Positive Feedback
To Various Home Page
Design Proposals

This diagram shows the responses from diverse groups on campus to some of the proposed home page designs. The number of "yes" votes appear after the design number and the slash (e.g., #20/50). You can see all the designs at <http://www.uoregon.edu/O/> (that's a capital letter "O," not a zero). For a current summary of feedback, go to http://cc.uoregon.edu/cnews/web_summary.html

Library Now Offers Secure Online Connections to Your Patron Information

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With a recent upgrade in software, all UO libraries now offer secure connections to patron information contained in the library's online catalog.

The required information to login to a library account—name, UO ID and Library PIN—is now encrypted when it is passed to the library's catalog server. Students, faculty, and staff can

log in to their library account to see what books they have checked out, renew books, and change personal information such as address, phone number, and email address.

Catalog searches done after logging into your patron account are also secure, as are interlibrary loan requests placed through the library catalog.

If you access your library patron account from a workstation that may be used by others, it is best to exit or quit all web browser sessions and

windows when you are finished to protect your privacy and prevent unauthorized use of your ID.

The secure connection is available only in the web-based version of the library's online catalog. The telnet or character-based version of the catalog is unable to offer this functionality.

The library's proxy server also offers secure connections for students and faculty using licensed resources from off-campus.

Time to Clean House: Ten Computer

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During the school year we're all too busy to take care of the computer housekeeping chores that can accumulate over time. But now that the slow days of summer are here, it's time to get caught up on your "spring cleaning."

1) Back Up Your PC's Hard Drive!

One of the most recommended (but most neglected) computing chores is backing up your PC's hard drive.

In some cases, users may not back up their hard drive because they may not know how. In other cases, they may be stymied by having high capacity hard drives and low capacity backup media. In still other cases, the problem is one of simple procrastination. But let's be frank: it really won't matter *why* you're not doing backups if your hard drive dies or your system gets stolen and you lose all your work.

Make it your top priority to do a full backup of your PC this summer... or, if nothing else, at least take a minute to copy any documents you've created and any important email stored on your PC onto a diskette. That isn't as good as a full backup, but it's definitely better than nothing.

A nice review of PC backup software is available at <http://www.cnet.com/software/0-806180-8-8131383-1.html>

If you need new backup hardware, you may want to contact the Computing Center's Electronics Shop at 346-3548 to discuss your options (for details, see "E-Shop Adds New Custom Services" on page 5).

2) Make Sure Your Operating System is Patched Up-to-Date

Most current versions of Windows include a feature known as "Windows Update" (you'll usually see it when you click on the "Start" button on the Windows task bar). Get in the habit of periodically checking "Windows Update" for any critical updates or service packs that may be available.

3) Make Sure You Have Norton AntiVirus Installed and Up-to-Date

Occasionally we see folks who don't know the university has a site license for Symantec's Norton AntiVirus—we do! We strongly encourage *all* UO faculty, students, and staff to take a few minutes this summer to make sure they have installed Norton AntiVirus and have run LiveUpdate to bring virus definitions up to date.

If you need a current copy of the Duckware CD-ROM, or if you need help using Norton AntiVirus, contact Microcomputer Services (microhelp@lists.uoregon.edu, 346-4412). More information on Norton AntiVirus is available on their website at <http://micro.uoregon.edu/av/nav.html>

4) Create a New PC Rescue Disk

While you're running Norton, take the time to create a current rescue disk, just in case you ever find that you can't boot from your hard drive. If you need it, you'll find a rescue disk will be worth its weight in gold.

5) Change Your Account Password(s)

If you haven't changed your Oregon/Darkwing/Gladstone password(s) in some time, summer's an excellent time to do so. (You'll be forced to change your password every six months, but you always have the option of changing your password more often than that, should you want to do so.)

An easy way to change your password is by using the web password changing form at <http://password.uoregon.edu/>

6) Delete Old Email You No Longer Need to Keep

If you're like most of us, you probably have hundreds (or even thousands) of email messages you no longer need. Another good summer project is to take a few minutes and remove expendable emails from your account.

If you're using web-based email for Gladstone/Darkwing (IMHO web email), make sure you also empty your trash after you've "deleted" messages (for details, see the article, "Wondering How to *Really* Get Rid of Your Messages in Web-based Email for Gladstone/Darkwing?" on page 19).

7) Check Your Web Pages for Dead Links

If you're a web page author, you almost certainly have accumulated some dead links on your web pages over time. One quick and easy checker that works well if you have only a handful of pages is LinkScan/QuickCheck (<http://www.elsop.com/quick/>) If you have a larger set of pages to check, you may want to consider getting and installing one of the Perl link checking scripts mentioned at http://www.hotscripts.com/Perl/Scripts_and_Programs/Link_Checking/

8) Check and Remove Any Spyware or Unwanted Cookies

Another chore worth your time is dealing with any advertising-related "spyware" files which may have been installed on your system without your knowledge. The

Chores to Pass a Slow Summer Day

best program for dealing with advertising-related files is probably AdAware 5.83. This software is available free from Lavasoft at <http://www.lavasoftusa.com/>

Many websites also write small chunks of data called “cookies” on your computer when you visit them. These cookies can be innocuous, but they can also be used by some sites to track the web pages you visit, or to target (and possibly increase) the advertisements you’re shown.

If you routinely accept cookies, you may want to periodically do a “cookie cleanup” to weed out cookies you don’t need. You can use browser cookie management features if your browser provides them, or use a third party cookie manager or blocker such as Cookie Pal. Cookie Pal is available for a free 30-day trial from Kookaburra software at <http://www.kburra.com/>

Note that if you remove some cookies, you may need to “reregister” when visiting particular websites, and if you block cookies entirely, you may be unable to use some sites (including many online shopping sites and UODuckWeb). One nice feature of Cookie Pal and similar cookie management products is that they make it possible for you to accept only cookies from selected sites (such as DuckWeb) and block all others.

9) Defragment Your Hard Drive

Over time, as information gets written to and deleted from your hard drive, the drive may become “fragmented.” That means that instead of being able to lay down a large file in one contiguous chunk, your PC may have to store a piece of that file on one part of your drive, and other pieces elsewhere on the hard drive. This process of hunting for space on your disk to hold parts of your files will gradually

result in your system becoming progressively slower unless or until you defragment your drive.

When you defragment your hard drive, chunks of files are moved around until all (or at least most) of your files are written in contiguous chunks.

On most modern versions of Windows, you can defragment your hard drive by going to Start—> Programs—> Accessories—> System Tools—> Disk Defragmenter. You can also purchase commercial disk defragmenting tools that have been optimized to run faster, or work better on nearly full hard drives, or that have other features not offered by the free basic defragmenting tool included with Windows. Executive Software’s Diskeeper 7.0 is probably the most common commercial defragmentation tool (see <http://www.executive.com/diskeeper/diskeeper.asp>).

10) Physically Clean Your System

The final summer computer housekeeping chore really *is* a genuine housekeeping chore: physically clean your PC!

Dust-filled fans, grimy crumb-laden keyboards, and fingerprints on your monitor all represent areas that should be tidied up. If you’ve built your own system, or are otherwise comfortable “going under the hood,” a nice list of tips for cleaning your hardware is at <http://www.pcworld.com/howto/article/0,aid,14872,00.asp>

If you’re not comfortable digging into the guts of your system to clean it, another option to consider would be to bring it in to the Computing Center’s Electronics Shop in Room 151 McKenzie for cleaning. (Standard fees apply for this work, like any other repair or maintenance done by the Shop. Call 346-3548 for details.)

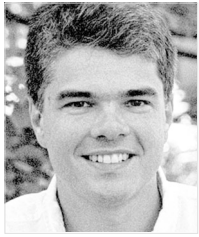
Watch for Gladstone, Darkwing Downtime in August

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Early on Wednesday morning, August 21, we will begin installing a major release of the Solaris operating system on Darkwing and Gladstone. The machines are likely to be completely unavailable from the start of the upgrade until its completion. If all goes well, they should be up again sometime the following day, but it’s possible that unforeseen problems could increase the down time through Friday, August 23. We will do our utmost to reduce the inconvenience, but everyone should be prepared for a two- or three-day hiatus.

Microsoft's .NET: the Shape of Things



.NET's flexible framework fosters modular software development

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For several years much has been written about Microsoft .NET, previously known by its development code name Hailstorm.

Microsoft .NET is difficult to describe because it is not a single product or service. Rather, it is a shift in technology that will occur behind the scenes and, if Microsoft is successful, will be implemented in future versions of Microsoft's desktop and handheld operating systems as well as its server software and Microsoft Office.

In a very basic sense, Microsoft .NET allows programmers to make applications more modular. To use software today I install it and run it: all the code the program needs has been installed on, and runs from, my computer.

In contrast, Microsoft .NET allows programmers to make parts of programs available over the Internet. Let's say Microsoft adds an English-to-Spanish language translation feature to its word processor, Word. Using .NET technology, your word processor would take the sentence to be translated, pass it to another computer on the Internet, where it gets translated into Spanish and returned to your Microsoft Word document on your computer.

Many of these functions are similar to those we access every day using a web browser. Microsoft .NET brings that same functionality directly into Windows applications.

A key component of Microsoft .NET is the development environment. By defining how .NET works (.NET standards), developers can use Microsoft's developer tools (Visual Studio.NET) to write software that will consume or offer .NET services. Visual Studio .NET introduces a multitude of changes that are too numerous to list here. (I should note, however, that Visual Studio .NET is not required to produce .NET services.)

.NET Services

Although Microsoft is still two years away from full implementation of .NET, it already has its first service available. Known as Passport, this service is an end-user username/password authentication system employed on Microsoft websites and, to a lesser extent, on Windows XP.

Hotmail users have Passport accounts by default, since Microsoft uses Passport to authenticate Hotmail customers. Microsoft has already made Passport logins available via .NET so that online merchants can use it as a single source of user authentication.

According to Microsoft's website, current Passport customers include such major retailers as buy.com, Campmor, Crutchfield, and OfficeMax. *(For a cautionary note about the pitfalls of Passport, see the References section at the end of this article.)*

As Microsoft builds .NET services, it is also building support for these services into Microsoft Office and future versions of Windows. In Windows XP the most commonly integrated .NET feature is Passport user authentication.

The .NET Framework

The technology underlying Microsoft .NET is referred to as the .NET Framework. This framework employs a variety of technologies, some of which are current core standards, such as:

1. **HTML (HyperText Markup Language)**, the basic coding scheme for web pages.
2. **XML (eXtensible Markup Language)**, a format for structured documents and data.
3. **SOAP (Simple Object Access Protocol)**, a method of exchanging data using XML across the Internet.
4. **WSDL (Web Services Description Language)**, a language that provides a method of "advertising" available web services to others.
5. **CLR (Common Language Runtime)**, the execution engine for the .NET Framework. Among many other things, CLR allows software to be written in C++, VisualBasic, Perl, Jscript, and other languages.

The CLR is a key component to .NET's flexibility because any operating system that can run the CLR (and its companion component, Common Language Interpreter, or CLI) can execute .NET code. (An open-source, Linux-based version of the .NET Framework components is under development in the Mono project. See <http://www.go-mono.net> for more information.)

Software developers should seek in-depth details on the .NET Framework at <http://www.gotdotnet.com>

The .NET Business Model

Microsoft's original plan was to offer a suite of consumer-oriented .NET services under the name My Services. A sample of My Services offerings include Contacts, Calendar, Documents, and Wallet, among others.

My Services aims to become a "private, secure, digital safe deposit box." Users can store contact, calendar, and financial data using .NET's underlying transport and authentication technology, allowing the data to "follow" users from one electronic device to another.

to Come?

Some industry analysts have speculated that companies will want to license Microsoft's My Services and offer it under other brand names.

During testimony at the Microsoft antitrust case in May, Microsoft Vice President Jim Allchin described .NET My Services as being "in the middle of a fairly significant analysis and review." He went on to say, "We got feedback both from the business model as well as the technology that we needed to go back to the drawing board on it."

Microsoft's .NET business model may be in question, but it is clear that the company is forging ahead with the core technology. Microsoft will need more developers to adopt the underlying technology and produce some compelling .NET services, and it will need to make wise business decisions on how to offer My Services.

References

Passport, Microsoft's first .NET services release, has already drawn criticism for its potential security vulnerabilities. To learn more, see the following articles:

1. "Watch Out For Microsoft Passport Security Woes." Fall 2001 *Computing News*:

This article describes the vulnerability of Microsoft's Passport authentication program to Trojan Horse viruses. See <http://cc.uoregon.edu/cnews/fall2001/passport.html>

2. "Beware of Passport Perils." Winter 2002 *Computing News*:

Learn why identity theft is among the hazards of using Microsoft's "single identity" authentication system. See <http://cc.uoregon.edu/cnews/winter2002/passport.html>

3. "Risks of the Passport Single Signon Protocol" by David P. Kormann and Aviel D. Rubin, AT&T Labs-Research: <http://www.avirubin.com/passport.html>

Be Alert to Ongoing Microsoft Security Problems

New security problems continue to be reported with Microsoft products that both Windows users and server administrators should watch out for. Below are summaries of some of the more recent alerts.

Exchange 2000. In late May, Microsoft reported a critical vulnerability affecting email servers running Exchange 2000. To exploit the flaw, sophisticated attackers could create malformed email messages, ultimately causing a denial-of-service attack. Once the process starts it can't be stopped, and the server can be crippled for several hours. For details, see "MS sounds siren about Exchange hole" at <http://zdnet.com.com/2100-1104-928091.html>

Cumulative Patch for Internet Explorer 5.01, 5.5, and 6.0. Six additional vulnerabilities uncovered in Internet Explorer 5.01, 5.5., and 6.0 have led Microsoft to issue a new cumulative patch. In addition to addressing these new security holes, this patch (available at <http://www.microsoft.com/technet/security/bulletin/MS02-023.asp>) includes the functions of all previously released patches for these versions of IE.

Cross-site scripting (CSS), the most serious of the new IE vulnerabilities, has the potential to allow attackers to take control of a local computer zone and run code of their choice. CSS attacks occur when malicious data is entered on a website and either hosted on a web server or sent as HTML email. When the web page is viewed and a user clicks on the URL link, attackers' script is injected into the local resource, potentially giving them complete control of the system. Secure Sockets Layer (SSL) cannot protect against CSS-type attacks. For more details on this type of attack, see <http://spoor12.edup.tudelft.nl/SkyLined/index.php>

A tool to test websites for CSS is the Linux-based WhiteHat Arsenal 1.05, available at <http://community.whitehatsec.com>

Server Vulnerabilities. Recent Microsoft security bulletins cited several holes in Microsoft server products:

- **MS02-027.** Unchecked buffer in Gopher protocol handler can run code of attacker's choice. Critical for client computers running IE 5.01, 5.5, and 6.0, and for Internet or intranet servers running Proxy Server 2.0 or ISA Server 2000.

- **MS02-028.** Heap overrun in HTR chunked encoding could enable web server compromise. Affects hosting web servers using Windows NT, 4.0, or 2000. Can allow an attacker to run any code.

- **MS02-029.** Unchecked buffer in RAS (remote access service) software. Affects Windows NT 4.0, 2000, and XP servers. Can allow an attacker to run any code.

- **MS02-030.** A flaw in the way SQL 2000 servers handle XML that could allow an attacker to run script on the user's computer with higher privilege, as well as an unchecked buffer vulnerability in an ISAPI extension that could allow an attacker to run any code.

As always, it's a good idea to routinely run Windows Update.

Network Infrastructure Company Difficulties Still Not Over

Telecom struggles may affect Internet users in the short term

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As we first mentioned in the Fall 2001 issue of *Computing News*, and as we've continued to report since then, major Internet infrastructure companies continue to struggle financially.

Because of the crucial role some of these companies play, and because of the duration and magnitude of the financial difficulties some of these companies have been in, we believe it is important for you to be aware of what's been happening in the telecom industry. You may have read or seen a great deal about what's been going on with WorldCom, for example, but financial issues really aren't limited to just that one telecom firm.

Aside from WorldCom, at the time this was written on July 3 the following telecommunication companies were already in—or appeared to be headed for—increasingly precarious financial straits:

- **KPNQwest**, operator of the largest and fastest fiber optic backbone network in Europe, filed for bankruptcy, and its Ebone network ceased operations during the first week of July.
- **ITC DeltaCom**, a regional telecommunications provider, announced it was filing for Chapter 11 on June 26.
- **Digex**, a major web hosting company, was down to \$0.17/share on July 3 from a 52-week high of \$12.25/share. On June 27, Digex announced it was cutting seven

percent of its overall workforce (86 positions) to reduce expenses.

- **Equinix**, operator of numerous major carrier-neutral network interconnection and colocation facilities, was down to \$0.344/share on July 3 from a 52-week high of \$3.53/share.

- **RCN**, a broadband provider operating in major U.S. markets including Boston, NYC, Philadelphia, Washington DC, Chicago, San Francisco, Los Angeles and elsewhere, applied on June 5 to move its stock from the NASDAQ to the NASDAQ SmallCap Market. On July 3, RCN was trading at \$1.16/share.

- **Allegiance Telecom**, which recently purchased some WorldCom assets, was down to \$1.20/share on July 3, from a 52-week high of \$15.80.

- **Time Warner Telecom**, which had acquired basically all the assets of GST (another major facilities-based fiber optic carrier which had gone bankrupt somewhat earlier) was down to \$1.32/share on July 3 from \$33.80/share earlier in the year.

- **Cogent Communications**, an ethernet-based Internet service provider offering very competitively priced network services at speeds ranging from 100Mbps to 1 Gbps in the so-called "NFL cities," was down to \$1.40/share on July 3. Cogent had just acquired Allied Riser Communications last January.

- **Qwest**: During the last few months Qwest has had some tumultuous days, including a single day when its stock lost 57% of its market value. Shares are currently trading at only \$1.72/share, and Moody's is reviewing \$26 billion worth of Qwest debt for possible downgrade. In other Qwest news, CEO Joe

Nacchio, stepped down in June, and Qwest workers are taking unpaid leave over the summer in an effort to cut costs.

- **Genuity**: A traditional top Internet backbone provider whose portfolio includes what was really the first Internet network (BBNPlanet), Genuity was off 31.74% on July 2, and was trading at \$1.979/share on July 3, down from a 52-week high of \$61.40. The firm had executed a reverse 20-to-1 split of the company's common stock on May 30.

- **Level3**: A major national backbone provider considered on a par with WorldCom and Sprint with respect to its importance as an Internet backbone, LVL3 was trading at only \$2.57/share at the close of business on July 3.

- **Colt Telecom**, a leading European telecommunications provider with 1,892 route miles of fiber optic network and over 880,000 square feet of hosting space, was down to \$2.80/share on July 3, from a 52-week high of \$29.06/share.

The evolution of operations in these and other telecommunication companies may directly affect how the Internet works for you as an end user, although in many cases the physical assets of financially struggling firms will ultimately be acquired and operated by another provider. We urge you to remain alert, but calm, as the telecommunication market finds a new and more stable financial level.

Disclaimer: The above market note should not be considered investment advice. If you're considering buying or selling any financial instrument, we urge you to seek qualified investment advice before proceeding.

ISP Difficulties...

References

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"Digex Announces Workforce Reduction"

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http://biz.yahoo.com/djus/020627/200206270017000007_2.html

"Qwest Shares Fell 57.3% Wednesday"

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"UBS cuts ratings or targets of phone cos."

Jaggy Fonts? Try These Tips for Font Smoothing...

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The text we read on our computer displays is made up of dots, or pixels. When the computer draws curved or diagonal lines with dots, jagged edges are created. Technically, this is referred to as aliasing.

To solve this problem, programmers use a technique called anti-aliasing, which involves shading the pixels along the edge of curves to create a smooth line. Since the term anti-aliasing applies to both text and graphics, the term "font smoothing" is used to denote anti-aliased text.

Font smoothing was originally one of several system enhancements included in the Plus! pack for Windows 95. The feature is also included as standard in more recent versions of Windows and is available as a free download for Windows 95 users (see <http://www.microsoft.com/typography/grayscale/smoothen.htm>).

To enable font smoothing in Windows 98 and ME:

1. Click Start, point to Settings, then click Control Panel.
2. Double-click Display.
3. On the Effects tab, click the "Smooth edges of screen fonts" check box and click OK.

To enable font smoothing in Windows NT 4:

1. Click Start, point to Settings, then click Control Panel.
2. Double-click Display.
3. On the Plus! Tab, click "Smooth edges of screen fonts" and click OK.

To use ClearType for screen fonts in Windows XP:

1. Click Start->Control Panel->Appearance and Themes->Display.
2. On the Appearance tab, click Effects.
3. Select the "Use the following method to smooth edges of screen fonts" check box, and then click ClearType in the list.

For Macintosh users, Mac OS X 10.1.5 and later support font smoothing by default (earlier versions of Mac OS do not support font smoothing, but Mac 9.1 users can smooth fonts if they install Adobe Type Manager.) To adjust the minimum font size for smoothing, open System Preferences and click "General."

Some applications have not been updated to use the Quartz text engine built into Mac OS X. A freeware solution named Silk is available at <http://www.unsanity.com/download.php?product=silk>

Silk enables font smoothing in nearly any program running under Mac OS X.

Some users find anti-aliased text to look blurry or fuzzy, while others delight in its silky smoothness. Give font smoothing a try and see which you prefer.

Music Labels Plan to Sue Individual Song-swappers

In a July 3rd article by Anna Wilde Mathews and Bruce Orwall, the *Wall Street Journal* reported that major music companies are preparing to mount a broad new attack on unauthorized online song-swapping, targeting "individuals who are offering the largest troves of songs on peer-to-peer services."

Additional details about that initiative are available in the original article on MSNBC (<http://www.msnbc.com/news/775684.asp?cp1=1>).

New P2P Anti-Spam Application

Cloudmark has an interesting peer-to-peer application designed to help those using Windows 98/NT/2000/XP PC with Outlook 2000/XP filter spam. For more information, please see: <http://www.cloudmark.com/>

Introducing The GIMP: Funny



This alternative graphics program is freely offered to the public for use and development

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If you've been looking for a free graphics program with the capabilities of Photoshop and the flexibility to run on a variety of platforms, The GIMP (<http://www.gimp.org>) could be for you.

The GIMP started out as the General Image Manipulation Program, an attempt to give the Linux realm a program as flexible and extendable a graphics program as Adobe Photoshop. The authors eventually decided to issue the program under the GNU General Public License (GPL), and changed the name to the GNU Image Manipulation Program. Different meaning, still The GIMP.

Because the program was reissued under the GNU license, the underlying code was offered to the general public for examination and refinement (part of the GNU license requires that the source code be available for change and refinement). Although the GIMP was originally written for use under the X11 interface on Unix, it has since been ported to Win32 code for Windows, and is in active development as a MacOS X application. It currently runs under X11 on MacOS X.

This open-source model has allowed The GIMP to expand in capability, incorporating functions and modules from a multitude of sources. The GIMP incorporates much of the functionality of Adobe Photoshop, including layers, multiple levels of undo, filters, multiple file formats, and a flexible scripting language for automating multiple operations. I'd like to present a quick tour of The GIMP and show some of the capabilities of this truly useful program.

The Interface

The GIMP presents several floating palettes for its interface. Anyone who has Photoshop experience will be familiar with this use of multiple windows, although it can be confusing to the first time user (see illustration below).

The GIMP palette is the main window for the program, where all the tools and file menus are accessed. (All of these menus can also be accessed from a drop-down menu, by right-clicking on the image you're working with.) All the standard selection tools are present, as well as Text tools, Gradient and Pattern tools, Painting tools



Sample GIMP windows and palettes.

(such as Airbrush, Paintbrush, Pencil, etc.), and more esoteric tools like the Dodge/Burn tool, Paths, Sharpen, and Smudge.

Double-clicking on a tool will bring up the Tool Options palette, such as the settings for the Paintbrush tool shown in the top center menu in the illustration above. This palette will change, depending on the active tool at the time. There are any number of settings, which will modify the way the tool interacts with your image.

The Layers, Channels & Paths palette show the different layers you have created for your image. Several different options for the look and feel of an image can be stored in separate layers, then imposed and combined to create very different effects.

Filters

The GIMP offers more filters than I can mention, and more third-party extensions are available every day. Some of the standard filters available are Emboss, Lens Flare, Unsharp Mask, Gaussian Blur, Clouds, and a host of other filters. Other features include an Image Map dialog for creating active image regions for web pages and a Fractal Explorer module for integrating fractal patterns and regions into your images—the options are endless.

In addition to the pre-compiled filters, a flexible scripting language, Script-Fu, is included with the program. Script-Fu is based on Scheme, a functional programming language from the Lisp family of languages. It offers a very powerful recursion structure, strong typing of variables, and a large database of predefined functions and procedures.

Name, Cool Program

File Formats

The GIMP can save your finished image in most of the more popular file formats for Web development and page layout. JPEG, TIFF, Sun Raster, and Postscript are available. The GIF image format is not available by default due to some copyright and patent issues, but the emerging PNG standard is supported. Depending on the color scheme or

your image, you can convert between any of the supported image formats.

The GIMP may not be the best tool for your graphic needs, nor the easiest or most flexible tool to use. However, it has a clearly superior price/performance ratio, and given its low, low price (free!), I think it's well worth a try.

Worms Worms Worms...

Potential for 'Warhol,' Klez, VBS plagues underscore the need to play it safe

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Self-perpetuating, self-replicating "worms," those parasitic programs written intentionally to enter a computer without the user's knowledge or consent, continue to be an unpleasant fact of life in the Internet age. Some of the latest security threats are summarized below.

'Warhol Worms.' Among the next generation of these attackers could be a hypervirulent strain dubbed "Warhol Worms" by security watchdog Nicholas C. Weaver. These worms are capable of spreading much faster than their predecessors. Whereas notorious worms such as Code Red can spread rapidly in hours or days, Warhols can potentially infect all vulnerable hosts in less than an hour—sometimes in as little as 15 minutes. In his article "Warhol Worms: the Potential for Very Fast Internet Plagues" (<http://www.cs.berkeley.edu/~nweaver/warhol.html>), Weaver warns that the only way to stop this type of worm from wreaking havoc is to greatly reduce the number of vulnerable hosts available to it. Even in the aftermath of Code Red-inspired security precautions, Weaver says Microsoft IIS, Microsoft Exchange, and various peer-to-peer file sharing

programs (such as Napster) and messenger programs (such as AOL and MSN) are still "very good targets for active worms to exploit."

Klez: A worm that forges header addresses. In recent months, a number of campus users have reported receiving bewildering warnings that email messages with *their* email address in the "From:" header were rejected by a remote system because of virus or worm infestation. The affected users found these notices particularly bewildering because they have been careful to install Norton AntiVirus and keep their virus definitions updated.

Still others must daily trash messages with subject lines like "Let's be friends," "Japanese lass sexy pictures" and "Meeting Notice" (or worse).

These phenomena are the result of the latest variant of the Klez virus, which emails itself from infected machines using a phony "From:" address. Many of these viruses harvest email addresses from web pages that are in the browser web cache of an infected machine.

Symantec has issued a tool to remove infections of several strains of the Klez virus. You can download it from <http://securityresponse.symantec.com/avcenter/venc/data/w32.klez.h@mm.html>

This site also provides detailed information about the Klez worm family. For more articles about the Klez plague, see "Klez: Don't Believe 'From' Line" ([http://www.wired.com/news/print/](http://www.wired.com/news/print/0,1294,52174,00.html)

[0,1294,52174,00.html](http://www.wired.com/news/print/0,1294,52174,00.html)) and "Klez worm spreading rapidly" (<http://zdnet.com.com/2100-1105-891854.html>)

Another Microsoft Outlook worm: VBS.VBSWG.AQ@mm. If you use Microsoft Outlook or IRC (Internet Relay Chat) on Windows 95/98/NT/2000/XP, you may be vulnerable to a malicious Visual Basic Script (VBS) worm designed to send itself as an attached file called ShakiraPics.jpg.vbs. When the attachment is opened, the worm overwrites files with the extensions .vbs and .vbe with its own malicious code.*

A complete description of this worm is on Symantec's Security Response site at <http://securityresponse.symantec.com/avcenter/venc/data/vbs.vbswg.aq@mm.html>

Basic precautions: As always, keep your Norton Antivirus definitions current, don't open attachments you aren't expecting, avoid Outlook or Outlook Express (the most common infection vectors), and keep your system patches up to date. For detailed information on antivirus protection, see Microcomputer Services antivirus information at <http://micro.uoregon.edu/av/>

* Note that the Computing Center has implemented a VBS script block on Oregon, Darkwing, and Gladstone that checks the file names of email attachments. If the file attachment is of a type that could cause an infection, the system adds the suffix ".txt" to the name. The attachments are not otherwise altered in any way, and this precaution prevents most inadvertent infections on Windows machines.

UO Math Professor Wins Annual Apple Design Award

TeXShop application recognized as “Best Mac OS X Open Source Port”

Patrick Chinn

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What do you get when you cross a mathematician with a computer programmer?

Award-winning mathematical typesetting software!

Last May, University of Oregon mathematics professor Richard (“Dick”) Koch, along with Dirk Olmes and Gerben Wierda, were awarded an Apple Design Award for Best Mac OS X Open Source Port in an annual event honoring the best Macintosh software developers of the year. Their winning entry was a freeware program for Mac OS X named TeXShop.

TeXShop is an application that creates publication-quality output of math and other technical material. Rather than writing TeXShop from scratch, Koch and his colleagues based it on the Unix application TeX, a process called “porting.” Koch used TeX for the underlying processing and created TeXShop as the user interface for editing, previewing, and printing.

Koch, an amateur programmer for years, decided to port TeX to Mac OS X while attending Apple’s Worldwide Developer Conference two years ago. “During the conference, I decided that I could probably port TeX myself, since nobody seemed to be doing it,” Koch said. “I’ve been working on the program ever since.”

TeXShop was written in Objective C using the Cocoa classes that Apple inherited from NeXT.

Koch was very surprised to win the award. “Most winners were commercial programs, so I’m happy that Apple awarded a prize to a completely free open-source project,” Koch said. In fact, he was so unprepared for winning that



Retiring UO mathematics professor Dick Koch, shown here outside his office in Deady Hall, has been surprised and pleased by the success of TeXShop.

he had to hastily arrange a last-minute trip to San Jose, California, to accept the award. “I got a call from Apple at 9:30 Wednesday morning, May 8. At 10:00 I walked into my discrete [math] class and canceled it. By 3:30 I was in downtown San Jose,” Koch said.

TeXShop was released under the GNU Public License and is available at <http://www.uoregon.edu/~koch/texshop/texshop.html>

In addition to Olmes and Wierda, Koch gave special recognition to others who made significant volunteer contributions to the creation of TeXShop. His long-distance collaborators—none of whom he’s ever met personally— included Geoffroy Lenglin and Jerome Laurens (France), Anton Leuski (United States), and Nicoals Ojeda Bar, an Argentinean high school student.

Jdbgmgr.exe Hoax Circulating on Campus

Last April, Symantec warned of a new hoax that tries to persuade Windows users to delete a legitimate file (Jdbgmgr.exe) from their computers by claiming it contains a virus. In mid-May, we began to get reports of this hoax circulating on campus.

If you receive email that contains a teddy bear icon and warns of a virus named Jbdbgmgr.exe, ignore the message. Background information on this hoax is available at <http://www.symantec.com/avcenter/venc/data/jdbgmgr.exe.file.hoax.html>

Wondering How to *Really* Get Rid of Messages in Gladstone/Darkwing Web-based Email?

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By now many of you are familiar with UO Web Email (<http://email.uoregon.edu>), the encrypted webmail option that makes it easy to access your email account securely from any networked computer.

Although the IMHO web-based email system for Gladstone and Darkwing can be easy to use, deleting your unwanted email messages (and having them purged from the mail host as well) is a little less intuitive. Follow steps 1-5 below to get rid of your unwanted email.

Deleting Messages:

1. In the Inbox folder view (or any of the email folders), **click in the checkbox** to the left of the message. This selects the message for subsequent actions.
2. **Click on the "Move marked to trash" button** below the email list. This will move your marked email to the Trash folder, a temporary holding space for deleted email.
3. Once you've moved all the email you'd like to delete to the Trash, **click the Mailboxes link** on the far left of the page.

Steps 1-3: Moving the mail you'd like to delete to the Trash

Step 1 (click in the checkbox)

Darkwing Web Email

Inbox:

#	M	N	A	-Date	-From	-Subject	-Size
1	<input type="checkbox"/>			10/15/2001 03:31pm	Jerry Smith (Test User)	TEST	0 K
2	<input checked="" type="checkbox"/>			10/15/2001 03:57pm	Jerry Smith	TEST22	0 K
3	<input type="checkbox"/>			10/16/2001 11:46am	Jerry Smith	TEST SSL TODAY	0 K
4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10/16/2001 11:46am	Dan Albrich	TEST	0 K
5	<input type="checkbox"/>			10/22/2001 09:38am	Jerry Smith	TEST - OCT 22	0 K
6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10/22/2001 09:40am	Jerry Smith	THIS CAN'T WORK CAN IT?	0 K
7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10/22/2001 09:41am	Jerry Smith	TEST 77	0 K
8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10/22/2001 09:42am	Jerry Smith	TEST 88	0 K
9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10/22/2001 09:43am	Dan Albrich	Re: microhelp: X-Originating-IP: [128.223.185.239] (fwd)	2 K
10	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10/22/2001 11:13am	Jerry Smith	TEST	0 K
11	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10/22/2001 11:15am	Jerry Smith	TEST #16	0 K
12	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10/28/2001 03:09pm	1/4'167	AU's	96 K

Step 3 (Open Mailboxes link)

Step 2 (Select 'Move marked to trash' button)

Emptying the Trash Can:

4. **Click on the Trash link** (the word itself, not the checkbox.) The checkbox selects the folder for further action; the word itself is a link to the **Trash folder** view shown below.

5. Once in the Trash folder view, the buttons "Delete ALL trash" and "Delete marked" are available. The **"Delete ALL trash" button will completely clear your trashed**

files. This is more than likely the option you need. Once your files are deleted, you'll have more space available and you may continue reading your email.

For more information on webmail, see the handout "Using UO Web-based Email on Gladstone and Darkwing," available in the Documents Room (175 McKenzie) and online at <http://cc.uoregon.edu/glwebmail.html>

Steps 4-5: Click the Trash link to open Trash folder, then choose Delete ALL Trash

Darkwing Web Email

M	Mailbox	M	Mail
<input type="checkbox"/>	Inbox	<input type="checkbox"/>	Drafts
<input type="checkbox"/>	Sent Items	<input type="checkbox"/>	trash
<input type="checkbox"/>	mary	<input type="checkbox"/>	saved-messages
<input type="checkbox"/>	sent-mail-jun-1998		

Delete marked Create a new mailbox

Trash:

#	M	N	A	-Date	-From	-Subject
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>		06/11/2002 11:34 am	Spencer Allan Smith	More IMHO Information! Read c...

Mark all

Delete marked **Delete ALL trash** Move

(Select a mailbox) Search... Check for new mail

Microsoft Locks Horns with Open-Source Software Providers

In response to increased competition, Microsoft has been working to reduce the use of open-source software such as Linux in every way it can.

Some government agencies have already cut costs considerably by using Linux, and open-source is becoming more popular with both business and government. Increasing use of Linux in school computer labs and administrative offices is also creating serious competition for Microsoft, as many institutions discover they can cut costs in half by migrating to open-source servers and software.

In addition to offering cost savings, RedHat Linux is making its products even more attractive by offering software and free technical support to schools.

To counter these incursions, Microsoft has stepped up the pressure on both government and school districts:

- In May, the *Washington Post* reported an aggressive lobbying effort launched by Microsoft to ban open-source use by the Pentagon (“Open-Source Fight Flares at Pentagon,” by Jonathan Krim, May 23, 2002, Page E01; if you’re a subscriber, you may access this article online by searching the *Washington Post* archives at <http://www.washingtonpost.com/wp-adv/archives/>).
- In another recent action, Microsoft threatened to audit 24 of the largest K-12 school districts in the Northwest “to certify license compliance.” (See Slashdot posting “Microsoft vs. Northwest Schools Part III” at <http://slashdot.org/articles/02/05/21/196252.shtml?tid=146>)

OpenSSH 3.4 is Here

The latest version of OpenSSH, the Internet encryption software, was released June 26. (OpenSSH protects your password and other vital information from being captured by attackers when you use the Internet.)

The new version fixes several serious bugs discovered in versions 2.3.1 through 3.3, including an input validation error that can result in abuse of root privileges. Details are available in a revised advisory released in June (<http://openssh.com/txt/preauth.adv>).

Upgrading to the latest version is highly recommended.

Mirror, Mirror... ftp.orst.edu Provides Fast Access to Popular Software

Joyce Winslow
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In network parlance, “mirroring” is the creation of a local cache of popular content that’s devised to conserve bandwidth and provide a useful service to local users. To create a mirror, a dedicated local server is set up to automatically store and regularly update resources such as popular software archives, making them readily available to local users—usually at a higher speed than heavily trafficked remote servers can deliver.

The mirrors at **ftp.orst.edu**, which are maintained by the network engineers at Oregon State University, are currently run on a Debian GNU / Linux machine with approximately 300GB of disk space. Mirrored sites include some that were requested from campus users and others by software vendors like Mandrake Linux. Scott Kveton, who serves as both the Unix System administrator and DNS/DHCP administrator at OSU, notes that ftp.orst.edu provides the secondary mirror for Mandrake Linux in the U.S., serving up close to three terabytes of data per month for that distribution alone.

Two other Linux distributions, Redhat and Debian GNU / Linux, are also mirrored at ftp.orst.edu. Kveton cites Debian GNU / Linux in particular as “a very special archive for us. It’s about 55 gigabytes in size and we use it quite heavily here on campus... We currently are using Debian for our DNS and DHCP servers, proxy, news servers, as well as ftp.orst.edu.”

The mirrors, which are maintained throughout the entire lifetime of the archived data/software, are updated at least once a day, and some are updated as often as four times a day.

Members of NERO (Network for Engineering and Research in Oregon) have special “local” access to ftp.orst.edu mirrors. This special access currently allows up to 100 concurrent users.

In addition to ftp.orst.edu, OSU also maintains a local mirror of MySQL (<http://mysql.orst.edu>), Comprehensive Perl Archive Network (<ftp://ftp.orst.edu/pub/CPAN>), GNU software archives (<http://gnu.orst.edu>), Ximian (<http://ximian.orst.edu>), and the Linux Kernel Archives (<http://kernel.orst.edu>).

For more information about the mirrors OSU maintains and how to access them, see <http://www.net.oregonstate.edu/ftp/>

Internet2 Taps Juniper for Next Generation Abilene Backbone Routing

Internet2, the high-speed academic and research network that comprises over 190 U.S. universities working with government and industry, recently announced a collaboration with Juniper Networks in a nationwide upgrade of its Abilene backbone.

When the upgrade is complete, Abilene will replace its Cisco GSR routers with eleven of Juniper's new T640 Internet Routing Nodes, which are among the largest and fastest routers available today. Aside from seamless multi-terabit scaling, the T640s offer IPv6 hardware forwarding. (IPv6 is the next generation for TCP/IP and offers vastly expanded numbers of network addresses.)

For more details on the Abilene upgrade, see "Internet2 Abilene Network to Partner with Juniper Networks..." at <http://archives.internet2.edu/guest/archives/12-NEWS/1og200204/msg00003.html>

For more information on Internet2, see the organization's website at <http://www.internet2.edu>

Campus Labs to Charge for Printing Next Fall

New Hybrid Wireless Ethernet Card Offers Both 802.11 and Bluetooth

With next-generation technology, you'll need only one card for all connections

This year you may expect to see new wireless ethernet cards on the market that promise to be the *only* card you'll need to connect to wireless device networks as well as 802.11b local wireless networks.

Whereas laptops and PDAs (personal digital assistants) usually need small separate wireless ethernet cards for both 802.11 and Bluetooth, the new technology makes it possible to use one card for all connections.

Handset manufacturing giant Nokia already has introduced its version of the hybrid, and GTran Wireless is coming out with its hybrid later this year. California-based chip maker Intersil has also announced the development of a hybrid card that can access 802.11 networks and connect devices to each other using the Bluetooth radio frequency communication standard.

For more details, see Ben Charny's article, "Wireless firm adds hybrid modem to mix" online at <http://news.com.com/2100-1033-888634.html>

For more information on the 802.11 standard, go to http://searchnetworking.techtarget.com/sDefinition/0,,sid7_gci341007,00.html You'll find more information on Bluetooth at <http://www.bluetooth.com/>

What Are TCPA and Palladium and How Will They Affect Future Systems?

The Trusted Computing Platform Alliance, or TCPA, is an initiative led by Intel that provides for a monitoring component—a "smart chip"—to be mounted in the motherboards of PCs. Palladium, the Microsoft equivalent, builds on TCPA hardware and will be installed on future versions of Windows.

To get the facts on TCPA and Palladium, go to the FAQs site at <http://www.cl.cam.ac.uk/users/rja14/tcpa-faq.html>

As reported in the spring issue of *Computing News* ("Popular CC-EMU Lab Logs Heavy Use," <http://cc.uoregon.edu/cnews/spring2002/emu.html>), UO computing labs are increasingly popular. Printers, especially, are put to heavy use: in a single month, it is not unusual for as many as 669 reams of paper to be utilized in one lab alone, and toner cartridges must be frequently replaced.

Due to the rising cost of printing supplies and printer maintenance, computing labs on campus will be instituting printing charges in the fall. Fees are yet to be determined. Watch for details in the fall issue of *Computing News*.

Considering Filtering Software?

Censorware sometimes throws out the good with the bad

Joe St Sauver, Ph.D.

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Occasionally we get inquiries asking what sort of web filtering software we'd recommend for installation on a home computer. These inquiries usually originate from parents who are interested in trying to shield their children from objectionable material present on the Internet.

Our general recommendation has consistently been that there is no substitute for direct parental supervision, and that most people will generally be best off avoiding all web filtering software (sometimes called "censorware")—if for no other reason than that it will often block useful and typically innocuous websites.

Seth Finkelstein's "Anticensorware Investigations" site (<http://sethf.com/anticensorware/>) does an excellent job of highlighting some of the problems with filtering software. Finkelstein's site was cited in the May 31, 2002, federal district court decision overturning the Children's Internet Protection Act. (For more information on that suit, see <http://www.aclu.org/features/f032001a.html>)

Here are some examples of generally useful websites identified by Finkelstein that are sometimes blocked by filtering software:

- The Wayback Machine web archive (<http://web.archive.org/>), selected as site of the year by *Yahoo Internet Life* in January 2002. For details, see <http://www.yil.com/features/feature.asp?Frame=false&Volume=08&Issue=01&Keyword=topofnet&Page=01>
- Google's cached page archive (<http://www.google.com/>) and Image Search archive (<http://www.google.com/imghp?hl=en&ie=ISO-8859-1&q=>), and the Babel Fish language translation website (<http://babel.altavista.com/tr>).

'Potentially Objectionable' Content?

It may also be educational to see the list of categories of "potentially objectionable content" identified by one popular filtering product company, N2H2. The list of "potentially objectionable content" categories mentioned at <http://www.n2h2.com/products/categories.php> is amazingly broad. Among them are:

- search engines (described as "Sites that offer unfiltered, unrestricted, unverified search engines. Examples: <http://www.altavista.com/> ...")

- sites offering free web-based email, such as Hotmail
- sites offering free web pages, such as Geocities
- online auction sites, such as Ebay
- job search websites
- electronic commerce sites, such as Amazon ("Many e-commerce sites pose a risk to users by offering direct access to items that would normally be filtered under other categories such as Weapons, Profanity, Lingerie, or Pornography.")
- news sites, described as "Sites containing material reported in a newspaper, periodical, or a newscast, whether it is current or archived. Examples: <http://www.cnn.com/> <http://www.seattletimes.com/> "
 - "Sites that permit messages to be posted and read immediately. Examples: <http://www.oregonlive.com/forums/> ... "
 - "Sites that post jokes, humorous stories, or other forms of humor."
 - "Sites that include updated information about professional and collegiate sports, such as game scores, player status, trades, and commentary."
 - "Sites that include information about stock trading, stock quotes, or the stock market."
 - "Sites that contain updated information about various recreation and entertainment events such as movie listings, theater and concert schedules, or local entertainment."

The notion that online versions of content commonly found in a daily newspaper somehow merit filtering (at least at some locations) is, frankly, somewhat mind boggling.

Even those of us who may have attended conservative or religiously affiliated schools years ago—long before the Internet existed—were at least allowed to read news about sports, view the jokes published in *Reader's Digest*, and scan *U.S. News and World Report* magazine!

We continue to believe that the best way you can protect your children is by working directly with them when they're using the Internet, and by discussing with them what you believe is and is not appropriate for their level of intellectual and emotional development.

Advanced Algorithms Power Sophisticated Airfare Search Engine

If you're looking for the lowest fares between two locations in the United States, check out <http://beta.itasoftware.com/servlet/cvgdispatch/>. This search engine is particularly useful if you're willing to consider not just particular starting and ending airports, but also airports within some radius of your starting and ending points.

SUMMER WORKSHOPS

The Library and Computing Center are committed to making sure you have opportunities to build your technology skills. Toward that end, we provide a wide range of computer and Internet training, from novice to advanced skill levels. These information technology ("IT") workshops are free and open to currently enrolled students, as well as staff and faculty.

There is no registration; all seating is available on a first-come, first-served basis. **Unless otherwise indicated , prerequisites are required.** You *must* meet the workshop prerequisites as stated in the description.

Requests for accommodations related to disability should be made to **346-1925** at least one week in advance of the workshop. For more information, contact the Office of Library Instruction (**346-1817**, cbell@darkwing.uoregon.edu, <http://libweb.uoregon.edu/instruct>).

THE FALL WORKSHOP SCHEDULE WILL BE AVAILABLE IN LATE SEPTEMBER

Workshop	Day/Date	Time	Location	Presenter
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This schedule is subject to change. See <http://libweb.uoregon.edu/it/> for course outlines/materials and the most current information.

Web Publishing, Multimedia ✓ Prerequisites

Web Publishing I - ★✓ Prerequisites: Familiarity with a graphical web browser such as Netscape or Internet Explorer and an account on Darkwing or Gladstone (not Oregon!); you must know your username and password

Mon July 1	10 - 11:50am	144 Knight Library	Nicholson
Tue July 30	2 - 3:50pm	144 Knight Library	Frantz

Web Publishing II - ★✓ Prerequisites: Web Publishing I or equivalent knowledge and skills, and a web page you've created

Mon July 8	10 - 11:50am	144 Knight Library	Johnson
Tue Aug 6	2 - 3:50pm	144 Knight Library	Benedicto

Web Publishing III - ★ ✓ Prerequisites: Web Publishing II or equivalent knowledge and skills

Tue Aug 13	2 - 3:50pm	144 Knight Library	Bell
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Dreamweaver I ✓ Prerequisite: Web Publishing I & II or equivalent knowledge and skills

Fri July 12	10 - 11:50am	144 Knight Library	Nesselroad
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Dreamweaver II ✓ Prerequisite: Web Publishing III and Dreamweaver I or equivalent knowledge and skills

Fri July 19	10 - 11:50am	144 Knight Library	Smith
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New! Programming with PHP ✓ Prerequisite: Web Publishing I & II or equivalent knowledge and skills. Learn how to use this general-purpose scripting language that's especially suited for dynamic web pages.

Thu Aug 1	10 - 11:50am	144 Knight Library	Lechnyr
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Research Software ✓ Prerequisites

PsycINFO ✓ Prerequisite: Familiarity with a graphical web browser Learn how to maximize searching potential in the PsycINFO database. Also touches on finding materials using the library catalog.

Wed July 24	11 - 11:50am	267B Knight Library	Benedicto
Thu July 25	12:30 - 1:20pm	267B Knight Library	Benedicto

★ Requires an active account on Darkwing or Gladstone

COMPUTING CENTER GUIDE

UO Website

<http://www.uoregon.edu/>

Computing Center Website

<http://cc.uoregon.edu/>

Microcomputer Services

(151 McKenzie Hall)

- microcomputer technical support
- help with computing accounts, passwords
- scanning, CD-burning, digital video
- help with damaged disks, files
- system software help
- Internet connections, file transfers
- public domain software, virus protection
- software repair (carry-in only, \$60/hour, 1/2 hour minimum)

346-4412

microhelp@lists.uoregon.edu

<http://micro.uoregon.edu/>

Documents Room Library

(175 McKenzie Hall)

346-4406

<http://darkwing.uoregon.edu/~docsrn>

Large Systems Consulting

(Rooms 225-239 Computing Center)

- VMS, UNIX (Gladstone, Darkwing, Oregon)
- email, multimedia delivery
- scientific and cgi programming
- web page development
- statistics

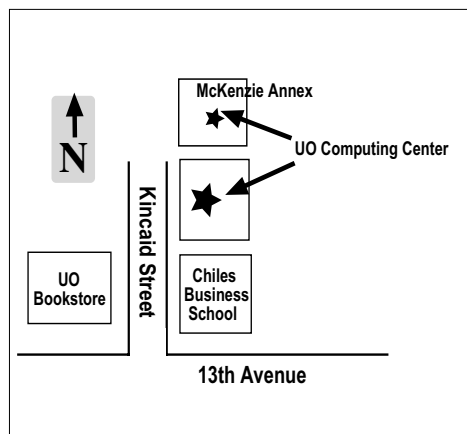
346-1758

consult@darkwing.uoregon.edu

consult@gladstone.uoregon.edu

consult@oregon.uoregon.edu

<http://cc.uoregon.edu/unixvmsconsulting.html>



Electronics Shop (151 McKenzie Hall)

For computer hardware repair, installation, and upgrade services, call **346-3548** or write hardwarehelp@oregon.uoregon.edu. Also see http://cc.uoregon.edu/e_shop.html

Network Services

Provides central data communication and networking services to the UO community.

346-4395

nethelp@oregon.uoregon.edu

<http://ns.uoregon.edu/>

Administrative Services

Provides programming support for administrative computing on campus, including BANNER, A/R, FIS, HRIS, and SIS. Call **346-1725**.

Modem Number

Dialin modem number for UOnet, the campus network: **225-2200**

Computing Center Hours

Monday - Friday 7:30 am - 5:00 pm

McKenzie Building Hours*

Monday - Thursday 7:30 am - 11:30 pm

Friday 7:30 am - 7:30 pm

Saturday 9 am - 9:30 pm

Sunday 9 am - 8:30 pm

* Note: These are building access hours; hours for individual facilities may vary.

COMPUTING NEWS
UO COMPUTING CENTER
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EUGENE, OR 97403-1212