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1995-03-27

# Bulletin of Computing Services/Information Services / 1995-03-27

Monterey, California, Naval Postgraduate School

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# BULLETIN

OF

## Computer

## Information



## Services



## Services



Naval Postgraduate School

Monterey, California

March 27, 1995

### Computer Center News

### Knox Library News

#### Hot New Web Sites

There's much interest these days in the Web. Web viewers are available for PCS and Macs, as well as most Unix workstations on campus. Many departments and individuals are finding the Web to be an effective way to make information available in a timely manner. Especially attractive is the ability to make graphics, sound, and even video clips available to those you need to inform.

Note: To access the sites shown below, in Netscape click on Open and then type in the address shown. If you need more help accessing the Web, send mail to *consult* or see consulting, In-146, x 3429, 0900-1130 and 1315-1545.

The addresses tend to take more than a single line of text in the paper version of this Bulletin. For ease in transferring this Bulletin to gopher and the Web, we won't try to put these URL's into a separate table. If a URL takes more than one line, be sure to type it in on one line without spaces.

Miss the news this morning? The latest weather maps are (see *Web* on p. 2)

**Be sure to look at the end of this Bulletin for the schedule of talks given by Computer Services!**

#### BOSUN via the Internet

BOSUN can now be accessed via the Internet. This may come as a surprise to some, since access via the NPS gopher, Peacock, has been available for more than a year. But that access has been limited to those using a UNIX workstation. Attempts to access BOSUN using a PC have, until now, consistently been met with frustration. Hopefully, the following procedure will help make our online catalog truly accessible worldwide.

Establish a telnet session to the following IP address: 131.120.50.3. That's the McData gateway in the Computer

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Center. Once connected, allow a slight delay. Then, at the "McData(?)>" prompt press <Enter> or <Return>. You should receive a screen with "Naval Postgraduate School - 01" at the top. Type

`bosun`  
[not case sensitive]. You should see a BOSUN logo screen, complete with an anchor drawn in ASCII characters. Clear your screen--<Ctrl - C> usually works here. Type

`lux1`  
This is not really a password. Follow the instructions on the screen for searching the NPS OPAC. When done, clear your screen, and type  
`csst logoff`  
to disconnect.

No prior approval or security clearance is required. Your PC must have the ability to do VT100 or VT220

emulation. Contact Doug Gould (x3342) for problem resolution.

*Doug Gould dgould*

## *New CD-ROM References*

Three exciting new CD-ROM products were recently added to the Dudley Knox Library's growing reference collection. They are: the Commerce Department's National Trade Data Bank (NTDB), and the National Economic, Social and Environmental Data Bank (NESE) as well as the State Department's Foreign Affairs on CD-ROM (USFAC).

The NTDB is updated monthly and contains the full-text of over 100,000 documents issued by US government agencies. It includes market research reports, domestic and foreign economic data, trade information, country studies and more. Besides the various agencies within the Dept. of Commerce, participating agencies include: CIA, Dept. of Labor, Dept. of State, the Federal Reserve, Small Business Administration and more.

NESE is similar to NTDB except that it is updated quarterly and its coverage is strictly domestic. It also includes documents from the Commerce Dept., the Justice Dept., the Energy Dept., the General Accounting Office and more.

The USFAC, updated quarterly, provides full-text access to a selection of over 500 documents covering official statements, testimony, transcripts, foreign policy fact sheets and country information. This includes the *US Department of State Dispatch*, country background notes, congressional and special reports and regional maps.

*Larry Gaber lgaber*

## **Web (cont'd.)**

available at

<http://thunder.atms.purdue.edu>

and they arrive in seconds, too.

Remember Steve Lamont? A few years ago, he was well-known here for developing projects on a variety of platforms. He's been at UC San Diego for several years now; those who remember him might like to take a look

at his CERFnet Comics.

They're informative, entertaining, and a good example of what can be done on the Web. Besides his technical skills, he's a good cartoonist.

[http://www.cerf.net:80/cerfnet\\_new/about/comics/comics.html](http://www.cerf.net:80/cerfnet_new/about/comics/comics.html)

A little while ago, we were excited about making the Bulletin available via gopher. (Issues since the beginning of 1993 are now available.) Now the Bulletin is available via the Web. It's now what you get when you click on Computer and Information Systems Bulletin, on the NPS home page.

Also available, the NPS Computer Club:

<http://dubhe.cc.nps.navy.mil/~npscompu>

A few days ago, someone asked consult "Where can I get a world atlas online?" I used the Web Crawler searcher, available within the Net Search button on the Netscape header, to search for just those two words. In a few seconds, I got a long list; the first item was just called Geography. Within it was the following URL, a collection of thousands of maps visible online, many two or three times as high and wide as the full Sun monitor, providing great detail. If you like maps, you'll go crazy here.

[http://rowan.lib.utexas.edu/Libs/PCL/Map\\_collection/Map\\_collection.html](http://rowan.lib.utexas.edu/Libs/PCL/Map_collection/Map_collection.html)

*Larry Frazier frazier@nps.navy.mil*

## *Earlybird Update*

In the January issue of this Bulletin, we told you how to access Earlybird (news of DoD interest culled daily from newspapers and magazines) via the Internet. Earlybird can now be viewed at a public PC in the Computer Services Library, and one in Knox Library. At Knox, a paper copy of each day's edition is printed out for you to photocopy if you need to.

Also, the Systems Management department at NPS has a link to Earlybird on their Web home page. (See Computer Services staff if you have any trouble locating their home page.) You can download the current day's copy, and you can retrieve a viewer for PCS or Macs, so you can view Earlybird from your own PC or Mac. (Earlybird is distributed in a format for which no Unix-based viewer yet exists.)

*Larry Frazier frazier@nps.navy.mil*

## WordPerfect and HTML

This Bulletin is available via the Web (see "Hot New Web Sites" in this Bulletin). Do you have a need to print documents that look somewhat like this Bulletin, and also to present them via gopher and/or the Web? This Bulletin is created in WordPerfect using a style sheet developed here. Styles, if you aren't familiar with them, make it easy to change the appearance of a document. Styles are available to change a document looking like this Bulletin on paper to its equivalent on the Web or in gopher, which you can view.

This system only works for documents to which you have applied these Styles (although Center staff member Chuck Taylor is working on macros to translate any Wperf document to HTML). The process entails adding a style to each header and example you see in this Bulletin. However, once you have the styles in, you can produce output in any of the three formats. Updating files in the three areas becomes easier as well. Contact Larry Frazier, In-113, x2671 if you're interested.

Larry Frazier [frazier@nps.navy.mil](mailto:frazier@nps.navy.mil)

## Clean Up Your HTML Files

"Weblint is a perl script which picks fluff off html pages, much in the same way traditional lint picks fluff off C programs" is the first line of the Weblint home page.

Basically, it looks for HTML syntactical errors and confusions (<A><STRONG> </A></STRONG>, for example). It's been installed on the VisLab SGI's, with a man page, or you can get your own copy at

<http://www.khoros.unm.edu/staff/neilb/weblint.html>

or you can go to the following URL:

<http://www.unipress.com/weblint/>

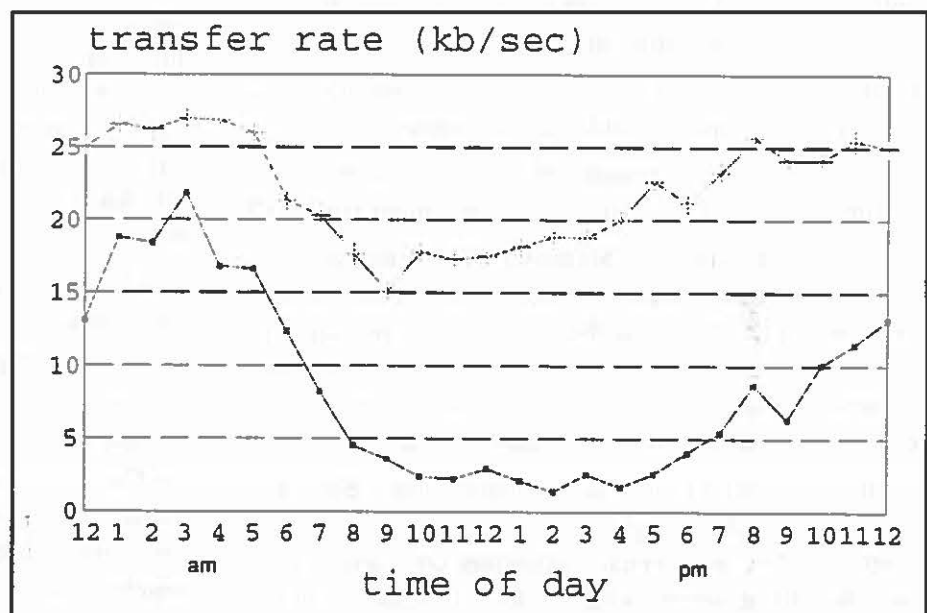
and submit the address of any HTML document on the Web; it will check the page for you.

Matthew Koebbe [phaedrus@nps.navy.mil](mailto:phaedrus@nps.navy.mil)

## Traffic Jams on the Info Highway

Have you wondered when is the best time to work on the Internet? This was the subject of an experiment conducted by a local middle school student with the support of Computer Services. To measure the traffic patterns, a file was repeatedly FTP'd from each of two East coast sites, recording the transfer rate. The transfer was done every hour, day and night, for one month.

The average rate by hour for weekdays was calculated and is presented in the accompanying graph.



The faster the transfer rate, the quicker the response time, or the less time you will spend waiting while transferring files on the Internet.

The pattern of average transfer rate formed from each site suggests that the 'best' time of the day to work on the Internet is about 4 in the morning. As the day progresses the transfer rate gets slower and slower. So, for quick results, get on the Internet as early in the morning as you can.

Matthew Kocher and Helen Davis

## Visualization Lab

### Grab a Video Frame

Have you ever wanted to grab images off of a video



tape and store them in a file on your computer? Well, now you can.

In the VisLab (In-148), we have an SGI Indy that is hooked up to a VHS video cassette recorder and television monitor. You may play any regular video tape in this machine and capture images from it (copyright permitting) to raster image files on the computer. You may also record movies (in SGI's proprietary format) with synchronized audio at up to 10 frames per second. (The video portion can be converted to mpeg.)

The procedure is fairly simple. You first need a Computing Services Unix account in order to log onto denebola.cc; then follow these steps:

Change directory to a large work area (especially if you are capturing a movie) and start the capture command:

```
cd /usr/tmp # denebola's disk with > 200 MB free
capture -n 1 # The '-n 1' says takes input from VCR
```

Insert your tape into the Magnavox VCR and press play. Your video should now be playing in the Capture Window on denebola. At the lower left of the Capture Window is an icon showing either a still camera, video camera, or microphone. You may click on this to change from still, movie, or audio-only capture.

Under the "Actions" pull down menu, select "Settings". A "Capture Image Settings" or "Capture Movie Settings" window will appear, depending on whether you had the still or movie camera selected in Step 2. In the top pink area you may enter the name of the file to be created; enter a name. There are several other options that you may select in this window, too many to discuss in this article.

In the Capture window click on the "Record" button to record the image or movie to the file you specified in Step 3.

After saving the file you may use display(1) (see the article "Image Editing on Suns" in this Bulletin) to edit an image and save in a different format; use moviemaker(1) to edit an SGI movie. We have tools to convert SGI Movies to MPEG (without audio)(using the mv2mpeg(1) command); we do not yet have any tools to create QuickTime movies.

If you have any problems, VisLab personnel are available to help you. To see examples of images and movies captured using this system, look at the Feeding Show section of my home page, which is at URL

<http://dubhe.cc.nps.navy.mil/~mccann/Feed/>

You will need to be on an SGI system with audio capability to view these movies. We have two systems with this capability in the VisLab.

*Mike McCann [mccann@nps.navy.mil](mailto:mccann@nps.navy.mil)*

## *VisLab's Power Onyx Upgraded*

The VisLab's Power Onyx, [algieba.cc.nps.navy.mil](http://algieba.cc.nps.navy.mil), has been upgraded from 64 MB of RAM to 448 MB of RAM; also, a 2 GB disk has been added.

448 MB does sound like a lot of RAM, but keep in mind that the word size on this machine is 8 bytes (the same as on the Cray). The new RAM size of 448 MB translates to 56 megawords (MW). For comparison, our 8 processor SGI 380 VGX (alioth) has 64 MW (256 MB RAM, 4 byte words), and our 8 processor Cray (sirius) has 256 MW (2 GB RAM, 8 byte words).

The 2 GB disk was split into 2 partitions: a 1 GB swap partition was added and a 1 GB partition will be set up as a local storage "work" area.

Our initial benchmarks show that for small (less than 16 MW) scalar jobs the Power Onyx will be faster than the Cray. Also, we believe that algieba is the fastest Matlab processor on campus; in general, it's two to three times faster than a Sun Sparc/10. Detailed Matlab benchmarks are posted above the machine's monitor in the VisLab.

This machine is now a real work horse; we think you'll be glad to add it to your stable of resources for long-running (Matlab and other) jobs.

*Mike McCann [mccann@nps.navy.mil](mailto:mccann@nps.navy.mil)*

## *Improve Your VisLab Disk Access*

You can now find out how much data is transferred to and from our Data Migration Facility each day. See the following URL:

<http://www.nps.navy.mil:80/VisLab/cray/dmastats.html>

These reports can help you decide which partition (/d1, /d2, /d3, or /u2) to use for storing your data. The idea is for you to pick the partition that has the least activity. This will help you access your data more quickly as the least active partitions migrate files to tape less frequently.

*Mike McCann [mccann@nps.navy.mil](mailto:mccann@nps.navy.mil)*

## *FDDI Ring in VisLab*

We have set up an FDDI ring between our two 8-processor hosts, alioth and sirius. This ring will soon be extended to the developing campus FDDI backbone and other labs on campus that are FDDI equipped. The new host's names, known only by each other, are "fddi-alioth" and "fddi-sirius".

So far this additional network is only beneficial if you use FTP to transfer data between the two hosts. Test transfers of a 36 MB file show that FTP over the ethernet goes at 7.4 Mbits/sec (not bad for 10 Mbit/sec ethernet!); over FDDI we get a 15.6 Mbit/sec transfer rate (a fraction of the 100 Mbit/sec FDDI (work remains to be done)).

The Cray disks are NFS mounted over the FDDI network to alioth at the /u1, /u2, /d1, /d2, /d3, and /sirius\_tmp mount points. But because of NFS protocol overhead there's not much to be gained by using these over the /h mount points for these partitions. Test copies of the same 36 MB file gave respective transfer rates of 2.7 Mbit/sec and 3.5 Mbit/sec over the ethernet and FDDI NFS mounts.

However, if the VisLab ethernet subnet (131.120.53.xx) ever becomes saturated, then it's good to keep in mind that we have this extra high-speed subnet (currently 131.120.54.xx).

*Mike McCann* [mccann@nps.navy.mil](mailto:mccann@nps.navy.mil)

## **Computer Services Suns**

### *"Don't Reboot These Suns"*

Fairly often, a PC will freeze, and you'll find it necessary to reboot. Sometimes that doesn't work, and you have to turn the machine off and then on again. Computer Services (and most Unix labs) asks everyone not to do the same with Unix workstations; it's almost always possible to remotely log in to the frozen machine and unfreeze it. Why don't we want you to reboot them or turn them off?

Unix workstations use a paging mechanism for disk reading and writing. They read and write from their disks a page at a time. Pages are stored temporarily in

RAM. When a page is full, or the file is closed, the page is written out to the disk. This is much more efficient than accessing the disk every time a single byte is written. The drawback is that if the power is cut off or the machine is rebooted, the disk will not be "synchronized" with the pages stored temporarily in RAM. Since Unix is multi-tasking, and each task can have multiple files open, there could be many pages "out of sync", and files could be corrupted. Unix workstations should be manually halted and rebooted only by system administrators.

*Larry Frazier, Joe Blau*

## *Make Matlab a Good Neighbor*

In some cases, a Matlab job may take longer than a few minutes to run. If you have to leave the workstation for more than 20 min., it is not a good idea to lock the screen and leave. Better is to use background processing. Matlab can be started up in such a way that you can leave it running and logout. Then, you can return later and check to see if the job is finished. You can even put in Matlab commands that will note progress of the job. Here's what to do.

It's best if you remotely login to one of the four Sun workstations which are reserved for running background processes. Their names are work1, work2, work3 and work4. Simply type:

```
rlogin work3.cc
```

in order to remotely login to the Sun workstation named "work3". Why bother running on work1-4? Everyone is told not to turn off the public Sun workstations, but if the only machine not occupied is the one you have left locked, someone may turn it off. (It also means that you don't have to worry about using the 'nice' command in order to ensure that your Matlab job running in the background is not hogging the resources of the Sun workstation). Note: nice-ing a job assures that it won't steal CPU cycles from anyone logged in at a workstation, but Matlab is not very good at releasing memory to foreground jobs. This is why students get testy when they notice your Matlab job running in the background on a workstation they are using. Use work1-4.

Matlab will automatically execute the file named startup.m in your current directory, or (next in precedence) in your ~/matlab directory. Put the Matlab commands to be executed (including any calls to other .m

files) in startup.m.

BE SURE THE LAST MATLAB COMMAND IS  
`exit`

so that the Matlab process will die when your program is finished.

The command to start the job must include a redirection of any text output from matlab to some output file.

Also, there must be no commands that request keyboard input.

A sample command would look like:

```
matlab >& test1.out
```

(If you enter this command on the Unix command line, you won't see Matlab come up because screen output is being redirected away from the console.)

The ">&" characters redirect output and errors to the file whose name follows ("test1.out" in this example).

The last step is to type a Control-Z followed by typing the string `bg' and a Return. Control-Z suspends the job and "bg" restarts it in the background. (Starting the job and then suspending it assures that the startup.m file is read.)

Type:

```
ps -aux | grep your_login_account_name
```

if you want to verify that it is really running.

After you've followed the above steps, you may continue with other tasks or you can logout.

*Bob Limes, Chris Essert essert@nps.navy.mil*

## Image Editing on Suns

The ImageMagick suite of image displaying/editing tools has been installed on the Computer Center Suns (it is still available on the Visualization Lab SGIs as well).

`display(1)` is the replacement for `xv(1)`. We've built in support for the JPEG, TIFF, MPEG, and XPM image formats as well as the default support for PostScript, gif, iris (rgb), etc. Try

```
display image_filename
```

on the image of your choice. If you haven't used it before, notice that the left mouse button will give you a menu of options. Clicking the middle mouse button will provide an additional window which magnifies the area under the cursor (so long as you continue depressing the middle mouse button.).

Other programs in the suite and their uses include:

`convert(1)` - converts one image format to another,  
`animate(1)` - displays a sequence of images on any workstation running an X server,

`mogrify(1)` - transforms (scales, rotates, color reduces, etc.) an image or sequence of images,

`combine(1)` - combines multiple images in various ways,

`convert(1)`, `identify(1)`, `import(1)`, `montage(1)`, and `segment(1)` are also available; see the man pages. And there is an additional overview man page under the name ImageMagick(1).

(NOTE: It is our eventual plan to remove support for `xv(1)`, so please begin using these tools instead.)

*Matthew Koebbe phaedrus@nps.navy.mil*

## Printing WordPerfect and Graphics

The Sun operating system knows a PostScript file when it sees one, and prints it properly. It knows nothing about WordPerfect files, and makes a mess of printing them. In general, using Print Tool or lp or lpr to print a WordPerfect file results in one line of gibberish at the top of each of several hundred pages. Same thing with graphics files (like .gif, .tif, etc.) It's a mistake you make only once, if you're there to see what happened. A word to the wise should be sufficient: print Wperf files from Wperf.

*Larry Frazier frazier@nps.navy.mil*

## "Did Anyone Turn In a Diskette?"

Have you ever used floppy diskettes in the Sun workstations (yes, they do have floppy disk drives--on the right-hand side) and then logged off but forgot to eject your disk? There is now a friendly reminder service available which will automatically eject your floppy when you log off. All you have to do is to copy a file called "users.logout" (in a UNIX directory called /local/etc/userstuff) into your own ".logout" file in your home directory, which will then automatically run every time you log off a Sun workstation. The UNIX command to do this is:

```
cp /local/etc/userstuff/users.logout ~/.logout
```

(If you already have a ".logout" file, then you would

probably want to put this "users.logout" file in your own current ".logout" file.

*Chris Essert essert@nps.navy.mil*

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## Et Cetera

### *Sore Hands?*

Do your hands (or arms or shoulders or back or neck) hurt? Do you spend much time at a keyboard? You know where this is headed – this is a discussion of Repetitive Stress Injury. One such injury is carpal tunnel syndrome, but there are other related injuries. If you feel pain or numbness or tingling in hands, arms, or back, there's someone you can call at NPS: Michelle Jay (2475), a Safety/Occupational Health Specialist. She will come out and check your work area, give you information about exercises and work habits that should help your condition, and generally give you the benefit of her knowledge and experience.

Helen Davis, on the Computer Services staff, was experiencing tingling and numbness in her hands. She called Michelle, who saw immediately that Helen's keyboard was too low (unusual; more people have trouble because their keyboard is too high, being placed on a standard desk), and gave her several simple exercises to do. Helen is feeling better already.

Larry Frazier, also of Computer Services, experienced tightness and pain in his forearms, and was diagnosed with tendinitis. Physical therapy got rid of the pain, and, to keep the pain from coming back, the department got him ergonomic keyboards, the kind that let you type with your hands in a more-relaxed position. Such keyboards are now available for Sun workstations, as well as PC's; contact him (x2671, In-113) if you'd like to see or try one.

For up-to-date info on typing injuries, check this URL: <http://www.cis.ohio-state.edu/hypertext/faq/usenet/typing-injury-faq/top.html>

If you aren't familiar with URLs and Web browsers, call Larry Frazier at x2671.

*Larry Frazier frazier@nps.navy.mil*

## *Big Iron is Dead*

### *Or So They Say*

Until recently, I thought mainframes were headed nowhere but downhill, that they were an idea whose time had come and gone, that IBM was fighting a sad losing rear-guard action.

Then I came across an interesting article in Computerworld (which bills itself as the Newspaper of Information Systems Management). IBM's worldwide mainframe shipments did fall in '92 and '93. In '94, total capacity shipped (measured in MIPS) increased 39% (though revenue continued to decline) and both MIPS and revenue are projected to be up in '95.

Now, granted, these are projections, but \$8 - \$9 billion a year is not a vanishing market. Only time will tell what – if anything – this has to do with NPS.

*Larry Frazier frazier@nps.navy.mil*

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## Personnel

### *CUC's First Rainbow Awards*

At its March 8 meeting, the Computer Users' Council presented the first Rainbow Award to three staff members and an NPS student who have distinguished themselves by extraordinary service in computing services on campus. The award seeks to recognize outstanding individuals who have reached out across the NPS community of users. Like a rainbow, they reach from one area to another.

The first award was presented to Hiram Cooke. According to the nomination, "Hiram is perhaps the most responsive Unix system administrator on campus. He regularly responds to (and fixes!) problems reported by users to the consult mail group." It goes on to say "Hiram takes the responsibility for the day-to-day, sometimes mundane, operation and maintenance of a 100-host, 2,000-user networked computing environment. He also has the skill and temperament required to work through problems and find solutions." Anyone who has worked with Hiram will agree that the first Rainbow



Award found a fitting recipient. Well done, Hiram!

Well-deserved awards were also presented to Helen Davis, Mike McCann and Jon Bigelow for the planning and presentation of Virtual Nite on February 3, 1995. This collaborative effort brought Peninsula educators to NPS for a presentation about educational uses of the Internet. Over 120 K-12 educators learned about electronic resources from a wide variety of hosts and media, including video and sound clips, home pages, and files.

Helen explained the resources and services while Mike ran the demonstration on the console. Jon recommended a basic configuration, both DOS and Mac, and explained the planning needs for designing a network connection. The presentation was enthusiastically received by the capacity crowd, who never suspected the crash of the LAN that the team faced one hour before scheduled showtime. Outstanding analysis skills in diagnosing the defective transceiver, and accurate repair work by Mike and his colleagues enabled the presentation to begin promptly. Good work!

We extend our congratulations and appreciation to these skilled individuals. Thank you for your efforts in enhancing the ADP environment at NPS! [The editor would like to add: all who have had anything to do with these individuals know that the performance for which they are being recognized is not a "flash in the pan" – it's their consistent pattern of work, year in, year out. Nice to see them recognized!]

We don't have pictures to show you, but all have their pictures in the "Zoo", available from the Computer Center home page.

Nominations for Rainbow Awards are being solicited by the CUC. Please send your nomination and a letter describing the activities or services that deserve recognition to [cuc@nps.navy.mil](mailto:cuc@nps.navy.mil) (via e-mail).

*Caroline Miller [miller@nps.navy.mil](mailto:miller@nps.navy.mil)*

### *Knox Library Welcomes George Goncalves*

George Goncalves, a member of Dudley Knox's Reference Staff for the last 7 months, has just been hired on a permanent basis.

He was born in Portugal and moved to the U.S. in 1979 – he's now spent more of his life here than elsewhere.

George has a BA in Drama from the University of California at Irvine, and an M.L.S. from U.C.L.A. His previous work included experience in an Education and Psychology Library, a film archive, and as a course developer for a S.O.F. foreign language instruction course.

## Computer Services Spring Quarter Talks

The Computer Services staff will give sixteen scheduled talks or sessions during the Spring Quarter to acquaint users with the Sun Workstations terminals in the public terminal areas and the services and facilities of the Computer Services Visualization Laboratory. The machines in these areas run Unix based Operating Systems.

If the scheduled talk times are inconvenient, Computer Services speakers can come to your class or meeting to present any of the talk subjects. Furthermore, speakers are available for an additional list of specialized subjects. Speakers have found "on request" talks an efficient way to present information.

Interested faculty, staff, or students should contact one of the following (all phone prefixes are 656-):

Neil Harvey, phone 2088, e-mail harvey@nps.navy.mil  
 Dennis Mar, phone 2672, e-mail mar@nps.navy.mil

and for APL2/AGSS talks, Prof. Peter A. Lewis, phone 2283, e-mail lewis@nps.navy.mil

A brief description of scheduled and "on request" talks/sessions follows. If there is no time or date at the top of the description, it is an "on-demand" session. For scheduled sessions which require reservations, you may sign up in the "talk reservations" book in In-147, send e-mail to talks@nps.navy.mil or call ext. 3429.

### General-Interest Mainframe Talks

#### Introduction to VM/CMS/XEDIT

To schedule this talk, call Dennis Mar, x2672. This talk assumes no prior knowledge of the Center's mainframe computer, and covers use of the 3278 keyboard, how to logon and logoff, use of the function keys, online help files, and various general-purpose commands. It is recommended that all new mainframe users request this talk.

#### Intro to XEDIT the mainframe editor

To schedule this talk, call Dennis Mar, x2672. This talk provides elementary information about XEDIT, the mainframe full screen editor. The main emphasis is on methods for creating and changing programs and other files. Use of the PF keys and HELP facility in XEDIT are mentioned. The talk assumes little or no familiarity with XEDIT. It is recommended that all new mainframe users request this talk.

### Microcomputer Talks

#### Introduction to Kermit and SIMPC

1510 Monday	3 April	Chris Essert In-119
1110 Tuesday	4 April	Chris Essert In-119
1210 Monday	10 April	Chris Essert In-119

This talk is presented three times. It explains how to install and use SIMPC on your home computer so you can use full-screen facilities (like XEDIT and FILEL) and transfer files between your home PC and the Computer Center's Amdahl mainframe computer running VM/XA/CMS and MVS/ESA. This talk also illustrates how to connect your home PC to the Computer Center's Unix workstations by using MS-DOS Kermit, which allows graphics to be displayed on your home PC from such popular Unix software packages as MatLab and S-Plus, besides providing the usual file transfer capability. The talk discusses hook-up procedures, common problems encountered and their solutions. Version 6.1 of SIMPC and version 3.13 of Kermit will be distributed on 3 1/2 inch disks.

#### APL2/AGSS Computing Environments

1510 Thursday 19 April Prof. P.A.W. Lewis GI-203

APL2 is a modern APL language; AGSS is a scientific and statistical graphics package written in APL2. The combination of this interactive, array oriented language and the extensive suite of functions and graphics available in AGSS (A Graphical Statistical System) makes for one of the most effective computing environments currently available. This talk will discuss the use of the package for topics like regression, time series analysis and reliability data analysis in the mainframe computing environment. The APL2/AGSS software is available on microcomputers and the campus mainframe. On the mainframe, very large workspaces are available -- up to 999 megabytes.

#### WordPerfect Thesis

1010 Wednesday	19 April	Larry Frazier Ro-222
1510 Thursday	20 April	Larry Frazier Ro-222
0910 Monday	24 April	Larry Frazier Ro-222

This talk will be given three times; it shows how to produce a thesis in NPS-approved format using NPS Styles. The Style Sheets were developed at NPS to simplify the specific formatting requirements for theses. The talk is hands-on, and introduces the production of a thesis on Sun Unix WordPerfect (looks much like WordPerfect 6 Windows). DOS environment information is also presented. Printed documentation in the form of a sample thesis will be provided, and you'll be told how to get a copy of the software, which can be used with WordPerfect 5.1, 5.2, 6.0 DOS, and 6.0/6.1 Windows in labs and at home. Those attending this

talk must be familiar with WordPerfect. *The talk is open to anyone preparing a thesis at NPS, including spouses.*

There are approximately 15 workstations available. Those signing up first will have priority at the hands-on practice. Others will be able to watch and learn.

## Unix/Workstation Talks

### Unix Concepts

To schedule this talk, call Dennis Mar, x2672. This talk is presented in three 1 hr. sessions (part 1, 2, and 3) to acquaint users with the new Unix workstations and the Unix operating system. Signup is not required for this talk, but seating is limited to approximately 30 in In-119. The talk assumes little or no familiarity with Unix; it doesn't teach you how to view a file or create a directory (see following hands-on talk). This talk is open to faculty, students, NPS staff, staff of tenant activities, and spouses. The hierarchical structure of the Unix operating system will be discussed to show how commands may be derived from more 'basic' commands rather than from memorization. Emphasis is on the Unix perspective to file system structure, disk usage, communication, and information retrieval. Part 3 will focus on security concerns in the Unix and internet environments that are currently affecting computing and resources at NPS. Sessions may be attended more than once. The foils used in this talk are visible at URL <http://www.nps.navy.mil/Vislab/ShellScripts.fm.html>

### Unix Hands-On 1

1010 Monday 10 April Larry Frazier Ro-222  
1110 Tuesday 11 April Larry Frazier Ro-222

Most Unix systems at NPS provide graphical user interfaces that make it easier to get your work done. However, it can be helpful to have a general understanding of Unix itself, and there are times when you may need to create, copy, and delete files, create directories, etc., without the benefit of the graphical front end. This talk introduces such elementary topics, and might be all the Unix needed to get started on a Unix workstation. The Unix Concepts talk is more theory; this one is more command and procedure oriented. There are approximately 15 workstations available. Those signing up first will have priority at the hands-on practice. Others will be able to watch and learn.

### Introduction to the Unix Editor vi

1110 Wednesday 19 April Chris Essert Ro-222

Unix systems at NPS usually provide text editors that make it easier to get programs or data entered into the computer. The basic text editor that all Unix systems have is called

'vi,' a full-screen interactive editor. This talk introduces the most common vi commands that allow one to create new text, revise existing text, or append text to an existing file. There are a limited number of workstations available. Those signing up first will have priority at the hands-on practice. Others will be able to watch and learn.

### Unix: Hands-On 2

1010 Wednesday 12 April Larry Frazier Ro-222  
1110 Thursday 13 April Larry Frazier Ro-222

This is lesson 2, building on the Hands-on 1 talk; it covers Computer Services Unix features and other intermediate-level Unix commands. There are approximately 15 workstations available. Those signing up first will have priority at the hands-on practice. Others will be able to watch and learn.

### Cray YMP EL User Workshop

To schedule this talk, call Dennis Mar, x2672. This talk introduces users to the hardware and software available on the Cray Y-MP EL98. It is a hands-on class where attendees will run programs on the Cray via interactive login from the graphics workstations in the Lab. topics to be covered include: (1) Setting up a script to access data, compile & run a program, and store the resulting data. (2) Use of the Network Queuing System (NQS) to submit batch jobs and commands to monitor job progress. (3) Optimization of code, especially the vectorization of inner loops. (4) Using performance analysis tools to identify inefficient code. *Attendees should be familiar with Unix, vi, Fortran, and X-window concepts.* There are 15 terminals for the first 15 who sign up. Others will be allowed to watch. If you do not already have an account on the Cray then contact Ruth Roy at ext. 2796 or at [roy@nps.navy.mil](mailto:roy@nps.navy.mil)

### Introduction to the Vis Lab

0910 Friday 14 April Mike McCann In-148

This is a two hour introduction to the hardware and software available in the Vis Lab (In-148). The first hour will be an overview of the image processing and visualization packages in the lab, particularly Vis5d (which allows interactive display of multi-dimensional gridded data), including how to get your data into Vis5d format. The use of computer generated screen graphics to still hard copy or animated images, plus color presentation mediums of hard copy, transparency, or video tape will be covered. The presentation will assume a working knowledge of Unix (other Unix talks are announced above). The second hour will be devoted to hands-on use of the tools, including the video recording hardware. Space is limited.

## Introduction to Shell Scripts

To schedule this talk, call Dennis Mar, x2672. As users, much of our interaction with the Unix operating system is via a special program called the shell. The shell interprets commands that we enter at a prompt and takes appropriate action. The shell understands several programming constructs such as loops and conditional tests. It is often more efficient to undertake a short programming task with a shell script that uses existing and well tested Unix commands than to write a program in a language such as C or Fortran.

This talk covers the two shells in general use: the C Shell (/bin/csh) (the default interactive shell for most users on most Unix systems) and the Bourne Shell (/bin/sh) (commonly used for complex programming tasks). The foils used in this talk are visible at URL <http://www.nps.navy.mil/Vislab/ShellScripts.fm.html>

## Unix Open Houses and Internet Talks

### Introduction to the Internet

1010 Tuesday 11 April Helen Davis In-122  
1410 Wednesday 12 April Helen Davis In-122

This talk describes how to access and use the Internet. Demonstrations will include how to transfer files from remote locations with FTP (File Transfer Protocol), how to look at information at remote locations with TELNET, and how to locate information on the internet with Archie and Gopher.

### Internet Workshop

1010 Friday 14 April Center Staff In-141  
0910 Friday 21 April Center Staff In-141

These workshops will consist of a set of independent exercises on how to use the Internet; topics will include: how to transfer files from remote locations with FTP (File Transfer Protocol); how to look at information at remote locations with TELNET; and how to locate information on the internet with Archie and Gopher. Other useful procedures such as downloading files to a floppy disk with mcopy, how to recognize and decompress TAR files and others, how to send e-mail with mailtool including attached files, and local printing can be answered. The Center staff will be available to assist with any questions or problems that may arise.

## Statistics

### Introduction to Minitab

To schedule this talk, call Dennis Mar, x2672. Minitab is an interactive statistical computing system available on VM/CMS and under DOS in the LRCs. It is designed for moderate-size data sets which can be stored on the hard disk. Minitab is quick and especially useful for exploring data, plotting, and regression analysis.

### APL2/AGSS Computing Environments

Please see the description for this talk shown in the micro-computer section of the talk listings.

### Introduction to SAS

To schedule this talk, call Dennis Mar, x2672. SAS, the Statistical Analysis System, is a flexible program for handling all phases of data analysis: retrieval, data management, statistical analysis, and report writing. It has excellent features for merging and subsetting data sets. The speaker will describe the required data format and SAS control statements for a simple problem. SAS will be demonstrated in batch mainframe, timesharing mainframe, and batch Unix.

### Introduction to S-Plus

To schedule this talk, call Dennis Mar, x2672. S-Plus is a statistical programming language of great generality offering over 1,400 built-in functions. In addition, users may write their own specialized functions. This talk will introduce data input, data structures, functions, graphics screens, interactive help, and printing.

*Neil Harvey*



## Computer Help

Computer questions (Unix, PC, Mainframe, Cray)?

Send email to [consult@nps.navy.mil](mailto:consult@nps.navy.mil)

or call ext 3429 or visit **Consulting (Help**

**Desk)**: In-146, Mon-Fri 0900-1130 1315-1545

**Status recording**: 656-2713

**Dial-up**: 656-2709; up to 9600 bps

**TAC Access**: 647-8422

## Computer Center POC

**NOTE**: Email addresses in this section are simply the last name @nps.navy.mil, unless shown otherwise in *italics*.

### Manager, Systems Support

David F. Norman *dfnorman* In-129 2574

### Manager, User Services (acting)

Dennis Mar In-133 2672

AIX: Jim Hart *jahart* In-106 3661

Editor, Bulletin Larry Frazier In-113 2671

User Registration Irma Bozardt In-147 2731

ADPSSO (Security) Neil Harvey In-108 2088

### Administrative Assistant

Mandy Drury In-130 2574

Shift Supervisor, Operations In-140 2721

Manager, Operations: Roy Romo In-118 2641

### Unix Systems Administration

Hiram Cooke, Joe Blau In-116 3662

## Unix Workstations

In-141 has 17 Sun SPARC 10/41; Ro-222, 15; Sp-311, 8; Ha-201C, 4. (Each has an HP LaserJet 4si printer.)

## Mainframes

We operate (1) An Amdahl 5995-700A (384 MB processor storage, 1 GB expanded storage). Interactive computing is provided under VM/XA CMS, batch processing under MVS/ESA with JES3 networking. (2) A Cray Y-MP/EL 98 (8 cpus, 2 GB memory, Unicos).

Hours of Operation: VM/CMS, MVS: 24 hrs/day, 7 days/wk

Status recording: 656-2713; Dialup: 656-2709 (to 9600 bps)

### Mainframe Terminals

In-141 3 3192-2 Graphics/APL

In-364E 14 3192 Graphics/APL

Bldg223 11 3178-2 (1 APL)

### Mainframe Printers

In-140 IBM 3800-3 Laser (215 ppm)

IBM 3262 Impact (650 lpm)

In-141 Tek 4693D Color Printer/Plotter

In-148 Shinko CHC-743MV Color Printer

In-364 IBM 3268 Impact (APL)

Sp-311 IBM 3203 Impact (1000 lpm)

Ro-222 Ha-201B IBM 3262 Impact (650 lpm)

## Manager, Visualization Lab In-148

Mike McCann In-102B 2752

Matt Koebbe In-102A *phaedrus* 3778

7 Silicon Graphics: 1 380 VGX, 1 Onyx, 3 4D TG, 1

Indigo<sup>2</sup>Extreme, 1 Indy, 1 ea.: Abekas frame recorder, Mac Quadra 700, HP 730, DECstation 5000, Sun SPARC 10/41

## Manager, Learning Resource Centers

Kathryn Strutynski GL-375 *kstrutynski* 2696

**LRC's**: Open: M-F 830-1630

Ro-262 20 Mac Quadra 700 6 PC 486/DX 50

GL-203 33 PC 486/DX 33

GL-318 19 HP 730 1 PC 486/DX 33

In-151 11 PC 386 (25/33) 1 HP LaserJet IIIsi

In-371 6 PC 486/DX 33 4 PC 386/25

GL-128 15 PC 386/20 2 Z-248 (286)

## Knox Library

Director: Maxine Reneker, Kn-261 2341

*MReneker* (this is a Novell/Banyan address)

## Library Catalog (BOSUN)

Available via dialup, and via gopher from most networked computers, and from VM/CMS.

Mon.-Thu. 0700-2300

Fri., Sat. 0700-1800

Sunday 0700-2200

## Administrative LAN Group POC

**Admin LAN System Status** 1051

Mgr: Joe LoPiccolo 2994

Codes 00, 01, 02, 03, 07 & Currics

Lonna Sherwin 1065

Codes 04, 06, 08, 51 Renée Lightcap 1066

Code 003, 42, 47 Chris Abila 2195

ME, AC, AD, PH, EC, SM, OC, OR,

MR, AA, SP, 52 Mohamed Abuaita 1064

Macintosh: Andy Melton 2975

## General Points of Contact

ADP Security, Jeff Franklin, He-E208 2469

Computer Advisory Board (CAB) Co-chairs:

Ted Lewis 2449

Jim Emery 3614

Computer Users Council (CUC)

R. Schwanz, President 3177

Dennis Mar, Secretary 2672

## NPS Computer Club

Club President: Bill Swain  
wtswain@nps.navy.mil

Vice President: Jim Cummiskey  
jccummis@cs.nps.navy.mil

Secretary: Kern D. Lunde  
lunde@aa.nps.navy.mil

Treasurer: David McDermitt  
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OS/2 Chair: Steve Decato swdecato@cs.nps.navy.mil

Mac Chair: Dan Starling

npsmug@eworld.com

BBS: Closet Gouge I & II: 1200, 2400, 9600,  
14400 bps; 8-N-1; 655-8785 or 655-8787

**Distribution:** List 3, plus: 20-B3, 200-B4, 200-B5, 2-B6, B15.

**Copy to:** 1-OR/Bi, 12-PERSEREC, 10-NTCC, 9-DMDC, 1-NAVSECGRUDET, 1-NOARL, 30-OC,  
5-FNOC Computer.