Caltech and the World Wide Web

The World Wide Web (a.k.a. WWW, or simply, the “Web”) is a distributed information system accessible via the Internet. The Web began at CERN (Switzerland) and has moved worldwide within the last year or so. From any number of network starting points (called “home pages”) Web users can browse their way through information around the globe.

Among the features of the Web are hypertext and multimedia. Using the Web’s hypertext feature, links can easily be created between information. Users navigate the Web simply by pointing and clicking with the mouse, no complex commands are required. The multimedia feature allows the storage and retrieval of text, graphics, animation, and sound.

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World Wide Web

The CCO is maintaining the Caltech home page (its “URL” is http://www.caltech.edu for those of you already using the Web).

Adding Information to the Web

Storing information in the Web is an effective and inexpensive way to disseminate information about your organization to the rest of campus, and (optionally) the worldwide Internet community. There are many possible applications; some examples of those already available on Caltech’s Web are preprints of research articles, class homework assignments, and departmental rosters (including photos).

The CCO is prepared to offer assistance to campus organizations or departments that want to set up Web home pages. Please contact Rich Fagen, ext. 3896, or via e-mail rich@cco.caltech.edu if you are interested in putting departmental information on the Web.

Several Caltech information services are now available on the WWW.

Personnel Directory

Information from the Caltech Personnel Directory is now available on the Web. This information is only accessible from computers inside Caltech, and contains campus information only (home information has been excluded).

Institute Archives

Roughly 2,000 photos from the Caltech Institute Archives have been scanned and placed in the Web. Web users can search the photo database on keywords and display selected pictures on their desktop computers. (See page 3 for a sample screen.)

Weekly Calendar

An electronic version of the Caltech Weekly calendar is available on the Web, back issues are kept there too. The Campus events calendar currently in the “INFO” system will be moved to the Web this summer.

Macintosh Certification Program

June Class - full

Beginning this fall, individual courses covering Apple System 7, Microsoft Mail, Word, and Excel, Aldus PageMaker, and Claris FileMaker Pro will be available with introductory and advanced courses alternating monthly. Classes will meet on Tuesday, Wednesday and Thursday, 9:30 A.M. to 12 NOON for three days a week in the Mac Training Lab, Room 170 Jorgensen.

Reservations: Betty McKenney, E-Mail McKenneyB@starbase1.caltech.edu or call ext. 4885.

Additional Computer Classes:

Maple and Mathematica Courses: Anyone interested in these topics should send e-mail to McKenneyB@starbase1.caltech.edu or call Betty McKenney at extension 4885. Please leave your name, department, mail code, extension and e-mail address.

Notice of classes offered by the Campus Computing Organization is posted on the World Wide Web. See class list on page 7 of this newsletter.

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The Caltech Institute Archives Web page displaying the results of a search on Feynman and DuBridge

Caltech Map

Take a tour of the Caltech campus without leaving your desk! A map (with several clickable “hot spots”) that allows the user to get photos of selected buildings is available on the Web.

In addition to the services listed above, roughly 20 organizations on campus are now making information available via the Web. The CCO is working with other departments to plan ways to make additional information services available.

To Access the Web from Campus

To access the Web, your desktop computer must be connected to the Caltech network, CITnet. This is usually done via an ethernet adapter (now standard equipment in most computers sold) and a cable to connect your computer to the campus network. On the software side, you will need a Web browser such as NCSA Mosaic, and software providing the TCP/IP protocol stack (the internal language of the Internet). Versions of TCP/IP for both PCs and Macs, as well as Mosaic are available from CCO.

If you need assistance getting connected to the network, or in getting started with the Web, please call the consulting group at extension 4602. The consultants can help get you started and give you a demonstration on how the Web works.

Accessing the Web From Home

To access the Web from home, you will need a personal computer, mo-

See World Wide Web, page 4
World Wide Web, continues from page 3
dem (preferably 9600 baud or higher),
Mosaic software and the TCP/IP
stack. You will also need an account
on the CCO “PPP” modem service. To
apply for this service send e-mail to
ppp@cco.caltech.edu. Mac users can
also use the Caltech AppleTalk Re-
mote Access service, see the user con-
sultants for more information.

The Web is also accessible via the
CCO VAX and SUN computers via a
program called “lynx”. This is a char-
acter-based browser (you can’t use the
multimedia features of the Web) that
will allow you to access the Web from
any terminal or personal computer.

The CCO is offering courses on
how to use the Internet. Next fall Tom
Boyce will offer a class on creating
documents for the Web. Contact Betty
McKenney for more information.

Personnel Directory

This is the on-line version of the Caltech Personnel Directory. It does not contain all
the information that is in the printed version.

To search for a name, enter it as the search string for this page. You can include first
or last names, or both. The search will not be case sensitive, so MacDonald and
macdonald are the same. If you want to search for part of a name, enter the part
followed by an asterisk (*). The asterisk can substitute for zero or more characters in
a name anywhere except the beginning.

If you don’t want to search for a name, you might want to go back to the Caltech
Home Page.

Sun Patches Available

SUN has placed one of their own sys-
tems at Caltech on which they will keep
up-to-date files containing the recom-
mended patches for Solaris 2.3 and the
security patches for various systems. It
is available via anonymous ftp to:

    patch.caltech.edu
    cd pub

    patches.4_5.tar.Z — the compressed tar image of the recommended
    patches for Solaris 2.3.
    security.tar.Z — the compressed tar image of a collection of security
    patches for various OS releases.

Here is an ls -l:

    -rw-r--r--  1 root  other  242 Apr 25 17:18 README
    -r--r--r--  1 root  other 13673233 April 20 22:45 patches.4_5.tar.Z
    -r--r--r--  1 root  other 11813579 Apr 20 22:45 security.tar.Z

As you can see, they are quite large. SUN may change this directory to make it
easier to use. Always check the README file. (Note that CCO will continue to
keep a more complete collection of Solaris 2.3 patches on ftp.cco.caltech.edu in:

    /caltech/sol-fixes

Bob Logan
New Color Printers

CCO now has three new color printers available: an Apple Color Printer, a Hewlett Packard DeskWriter 550c, and a Tektronix Phaser 300i.

The Apple and HP printers are both liquid inkjet type, like CCO’s NeXT Color Printer, but are only available to the Macintoshes. These printers are AppleTalk-based and are non-PostScript, although the DeskWriter 550c is upgradable to PostScript with an HP add-on. Both printers support Apple’s new color matching technology, ColorSync, that provides a better match between the colors you see on your monitor and what you see on the printed page. The Apple shares the same print engine as the NeXT Color Printer and prints at 360 dpi. The DeskWriter prints at 300 dpi and is a little faster than the Apple printer. Both of these printers provide output on either standard paper or special transparencies just for inkjet printers. CCO sells these transparencies at the front desk in Jorgensen. Special paper is also available if the image bleeds too much using standard paper.

Since these printers are non-PostScript laser printers in the normal sense, they require their own special printer drivers to be installed in the Chooser. If you print from our Mac labs here in CCO, the printer drivers have already been installed, so you may choose either printer. (As a little reminder, if you choose to print to one of our color printers from here in the labs, be sure to reselect one of the lab LaserWriters so that others won’t accidentally print to the color printers when they use the Mac after you.)

The Tektronix is a solid phase-change inkjet printer that can print on just about any type of paper, but still requires special transparency film. It has a resolution of 300 dpi and can print on up to 11 x 17 inch media. The Phaser is a network PostScript printer and is the first color printer available to all the CCO computer labs. Like the other Mac Lab printers, the Tektronix has its own driver selectable in the Chooser. The Intels have their own driver installed within Windows, and the Suns and NeXTs use the printer named Warhol. As mentioned before, please make sure the default printer is a regular laser printer after using the Tektronix Phaser 300i.

These printers are now available 24 hours, everyday, in Jorgensen 156a. A building key is necessary for after hours and weekend access.

Tom Boyce
Lynell Jackson

Intel to Donate Additional 486s

The Intel Corporation has agreed to donate an additional five 486-based computers and related equipment to the CCO’s Intel Lab (located in 156 Jorgensen). This donation will bring the number of systems in the lab to 20 (all systems have been donated to Caltech by Intel). The computers will run at 66 MHz and feature 16 megabytes of RAM, 17” Super VGA color displays. Microsoft Windows will be available on each system.

The CCO Intel Lab is a general purpose lab used by Caltech faculty, staff, and students (both undergraduate and graduate). The lab is served by a Novell Netware server. Several printers are available, including the new color Tektronix described in the previous article.

A wealth of software is available on each computer in the lab, including: FTP Software (Telnet and FTP), NCSA Mosaic, Maple, Pagemaker, Borland C++, Turbo Pascal, Microsoft Word, Excel, and Fortran. Mathematica and Autocad are available on selected systems.

Color LCD Panels for Loan

CCO now has two color LCD panels for projecting computer output. These panels support Macintosh and PC compatibles. These color panels come equipped with remote control devices. Reservations to borrow these can be made at the front office in Jorgensen, Ext. 4612.

Color LCD panel being used for Navigating the Internet class
Site Licensed Software

Site Licensed Software Updates

The following Caltech sitewide-licensed software is now available from the CCO Front Desk, 158 Jorgensen. Except where indicated, the software is available for the cost of the media (typically a few dollars).

Motif (Version 1.2.3)

Source code for the Motif graphical user interface environment for Unix computers is now available to borrow on 8MM tape.

Transcript (Version 4.0)

This software converts text files to PostScript, and has other printing utilities for UNIX computers. This is available via anonymous ftp. Send e-mail to root@cco.caltech.edu. This license is restricted to Campus only.

Maple (Version V Release 3)

This is the latest edition of the Maple symbolic mathematics software package. Maple is available for Macintosh, Microsoft Windows, Sun, VMS, HP, NeXT, etc. (The Mac and PC versions are available for the cost of the media. Versions for multi-user computers cost $300 for the first copy, and $100 for each additional copy on a cluster.)

MacTCP (Version 2.0.4)

MacTCP is the TCP/IP protocol stack for the Macintosh. You will need this package to run Mosaic, Telnet, Fetch, or any other software that connects your Mac to the Internet.

Protel Advanced Schematic

Caltech has acquired a sitewide license for Protel’s Advanced Schematic 2.0. This program works under Microsoft Windows. With Advanced Schematic you may generate schematics, maintain libraries of parts, and output netlists to PCB programs and/or analog simulators. The program recommends a 386 or better with 4MB RAM. As always, more is better. The program comes with libraries of 15,000 components. These generally cover most logic components, but coverage of more complex components is hit and miss.

Motorola’s single chip micro library is based on a 1984 data book while Intel’s embedded controllers come from a 1992 data book. We will try to set up an anonymous ftp server of device libraries to manage up-to-date locally generated parts. Contact Art Zirger by e-mail (azirger@leonardo) for more information. Although the program is fairly intuitive for simple operations, manuals are available for reference at CCO and may be purchased for $45/set.

The companion PCB program Advanced PCB is also available at special pricing. Options include auto placement and a rip-up-and-retry maze router. Contact Lyn Hein in 07 Steele for more information on pricing and/or to place an order for any of these items.

Computerized Campus Forms

The Campus Computing Organization has prepared the following forms for use by the Campus. They are located on the Mac Lab File Server, CCO MacLab Apps, in the CIT Forms folder. These forms are customizable and can be automated to fill in information specific to your department. Most of these forms have been created in FileMaker Pro and are identical for Macs and PCs.

1. Employee Info Sheet (FMPro)
2. Material Transfer (FMPro)
3. Personnel Action Notice (PAN1, PAN 2) (FileMaker Pro)
4. Personnel Information Change Notice (FMPro)
5. Personnel Requisition (FMPro)
6. Project Request (FMPro)
7. Purchase Requisition Order Form (FMPro)
8. Travel Advance Request (FMPro and Excel)
9. Travel Expense Report (FMPro)
10. Work Order Authorization (FMPro)

CCO makes no guarantee with regard to these forms. They are provided merely to give you a head start. If you have any problems or questions regarding the use of these documents, send e-mail to McKenneyB@starbase1.caltech.edu or call Betty at ext. 4885.
**Excel Workshop**

June 7, 8, and 9 - 170 Jorgensen - 9:30 am to noon

An introduction to Excel including navigating around and selecting cells, copy and paste, formulas, charts, formatting documents and charts, and printing options

Instructor - Wayne Waller

**Publish & Subscribe**

Wednesday, June 22 - 170 Jorgensen - 9:30 am to noon

How to share and automatically update documents over the network, including publishing information from one program (e.g., Excel) within another program (e.g., Word).

Instructor - Wayne Waller

**Mac: Special Tools & Tricks**

Wednesday, July 6 - 170 Jorgensen - 9:30 am to noon

Saving time and getting the most out of your Mac’s electronic filing system. Special programs and utilities for managing your desktop.

Instructor - Wayne Waller

**Introduction to Scanning**

Wednesday, July 20 - 170 Jorgensen - 9:30 am to noon

Introduction to the use of scanners to capture photographs and line art for use in electronic documents.

Instructor - Wayne Waller

**Maple Class Summer 1994**

Tuesdays/Thursdays, July 12 - August 4 - 201 Booth - 10am to noon

This class will give the student a thorough introduction to Maple, both at the elementary and advanced levels. The first two weeks of class will cover the basics of Maple. This includes numbers, linear algebra, calculus, plotting, and some data analysis. In the second two weeks more advanced features of Maple will be discussed. Topics included in the second half of the course will be reading external data files, programming in Maple, manipulation of expressions, and libraries.

Instructor - Glen George

**Mathematica Class Summer 1994**

This class will give the student a thorough introduction to Mathematica, both at the elementary and advanced levels. The class is designed to allow participants the flexibility to attend only those sessions which they would find useful. The individual sessions will be as independent as possible, though knowledge of the information in the preceding sessions will be helpful.

Instructor - Glen George

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See [Computer Classes](#), page 8
AM  Data Analysis in Mathematica Reading/Writing Data Files Data Manipulation Statistics and Regression Plotting Data

PM  Mathematica Libraries Standard Mathematica Libraries MathLink Interfacing Mathematica to other programs

Instructor - Glen George

To register for these classes or get notice of future classes send e-mail to McKenneyB@starbase1.caltech.edu or call Betty McKenney at Ext. 4885. Please include your name, department, ext., mail code and e-mail address.

Job Openings for students:
CCO is looking for a student to assist in the Macintosh classroom and/or the office of the Director. Please contact Betty McKenney, Ext. 4885 or send e-mail to McKenneyB@starbase1.caltech.edu if you will be available on Tuesday, Wednesday or Thursday mornings, 9 AM to noon in the fall.

Subscribers:
Please cancel your subscription to the Caltech Computing Newsletter if you are leaving campus or graduating this June. If you would like to continue your subscription, please let us know your new address.

Computer Classes
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8/18/94

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