



Meet the Academic Computing Staff

Harvey Mudd College's Academic Computing Department is responsible for maintaining and supporting the mainframe UNIX and VMS-based computers as well as the Macintosh and PC file servers used by faculty, staff and students. Academic Computing also manages several microcomputer labs on campus, helps support departmental computer resources, and maintains the campus-wide network.

Richard Parker is the Director of Academic Computing. Richard is responsible for planning and budgeting for AC and develops policy recommendations regarding academic computing at HMC. He is chairman of the Harvey Mudd College Computing Committee and is on many other policy-making committees for the six Claremont schools including the Claremont Colleges Computing Committee. He also oversees the Claremont Intercampus Networking Effort.

Patience Brooks provides support for the Macintosh and PC-compatible computers in the Academic Computing labs, and in the faculty and staff offices as needed. She is responsible for the selection, installation and maintenance of software on the file servers, and oversees the maintenance of microcomputing hardware used in the labs and on the network. She administers accounts on the NetWare file servers, and can answer questions about the various microsystems and the software they run.

Andy Davenport is the Network Manager for Academic Computing. Andy is in charge of maintaining and improving the campus-wide network and the network connection to the rest of the Internet for Harvey Mudd College and the other Claremont Colleges.

Elizabeth Hodas is the department's User Support Coordinator. She is responsible for making sure that user support happens in a timely and efficient fashion. She serves as a liaison between faculty, staff and students and the rest of the AC staff. If you're not sure who to talk to when you have a computer problem, Elizabeth is the person to see first. She writes documentation on the various computer resources available at HMC and makes sure that the documentation available is current. She also edits AC's newsletter, *Occasional Downtime*, and organizes and runs workshops.

Anh Le handles the maintenance and repair of the college-owned microcomputers. He has a well-stocked workshop, and can order parts to replace anything he is unable to repair himself. Ahn also works with Andy to maintain and upgrade the campus network wiring.

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Protecting Your Data

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Just in case you are wondering who or what the cute(?), crazy (?), weird (?) cartoon drawings are—they are caricatures of the gravity-defying cinder blocks, or “warts” as Mudders affectionately call them, that are the hallmark of the College’s architecture.



Occasional Downtime is composed on a Apple Power Macintosh 6100/66 using Aldus PageMaker 5.0 and Microsoft Excel 4.0. The primary typefaces used are Times and Optima. We wish to thank Sally Rich Arroyo of the HMC Office of College Relations for all her help.

Sometime in each of our careers as computer users we have all gone through the trauma of losing data, either by carelessly deleting a crucial file or by having a hard drive crash or a floppy suddenly become unreadable. While these disasters are not always completely avoidable, there are ways to prevent some of the damage.

SAFE WAYS TO DELETE FILES

One way to avoid deleting files by mistake is to practice “safe delete.” In UNIX files are deleted using the `rm` command. An optional form of `rm` is `rm -i` which will cause `rm` to interactively ask you to confirm that you want to delete each of the files you name. This is especially valuable if you use wildcards when specifying filenames. The command `rm` is currently aliased to `rm -i` in the standard user setup on *osiris*. To check if this is true on your account, type `alias` to see what aliases are defined. If it isn't, you can create an alias to `rm` in your `.tcshrc` file so that you don't have to remember to include the optional flag. Just add this line to the file: `alias rm rm -i`. A similar option is available for the VMS command `DEL` by using the optional flag `/CONFIRM`. To change the default behavior of the command add this line to your login file: `DELETE=="DELETE/CONFIRM"`.

RECOVERING DELETED FILES

If you accidentally delete a file on a UNIX or VMS system you can often recover at least a recent version of the file. VMS for example will save multiple previous versions of files indicated by a semicolon followed by a number at the end of the filename. Emacs on UNIX will also save a previous version of a file indicated by the filename followed by a tilde (~). Emacs will also autosave intermittently while you

are editing a file, so that if the machine crashes or your modem disconnects while you are editing, you probably haven't lost much.

If you have deleted an important file (such as a project paper or thesis) and cannot recover a recent version, you can sometimes have the file recovered from tape backups of the system. File recovery will depend on the backup schedule for the particular system. Contact the system manager for help if you need to recover a file.

RECOVERING DELETED MAIL

Mail messages can sometimes be recovered after being deleted but it depends on the mail system used. Most of the systems used at HMC use a two-step process for deleting messages. When you delete a message it is marked for deletion, but not actually deleted until the e-mail program is exited. So if you delete a message and change your mind before quitting the program you can generally recover the message.

RECOVERING FILES ON MICROCOMPUTERS

On the Macintosh, files are deleted by dragging them to the Trash can and then selecting Empty Trash from the Special menu. The system can be set up to bring up a dialog box asking you to confirm that you want to delete the items in the Trash when you empty it. If this option has been turned off you can turn it back on by clicking on the Trash icon, selecting Get Info from the File menu and clicking on the option for “Warn before emptying.”

If a file is trashed by mistake and you have already emptied the Trash, you can sometimes recover it by using data

recovery tools such as those provided by Norton Utilities and MacTools. The sooner you try to recover the file after deleting it the better your chances at successful recovery. The reason for this is that when a file is deleted it is not actually erased from the hard drive but merely marked as being free space. The sooner you try to recover the file the better your chances that the file's space has not already been reused. Norton Utilities and MacTools are also sometimes capable of recovering an entirely unusable hard drive after a crash. File and drive recoverability can be improved if you install the data recovery program and use it to protect your hard drive before you have a problem.

Microsoft Windows will ask you to confirm when you try to delete a file or directory. If this confirmation feature is disabled on your PC you can enable it by using the Options menu in the File Manager. MS-DOS 6.22 and Windows 3.1 come with built-in tools for protecting your drive to improve file recovery and for recovering deleted files. Undelete for MS-DOS and Undelete for Windows offer three levels of protection: standard, Delete Tracker, and Delete Sentry. The Undelete command also lets you recover deleted files, although of course successful recovery of the file depends on its condition. Norton Utilities and PCTools are two other tools available for the PC.

SAVING FILES AND BACKUPS

While this may seem like obvious, if not insulting, advice, the best way to prevent data loss is to save your files while you are working on them. The most common way work is lost is by not saving often enough. If your computer freezes or bombs or the power goes out, any unsaved work will be lost. Some applications, such as Claris FileMaker Pro, will save for you as you work. Others, such as Microsoft Word 6.0, have an autosave option which will automatically save a temporary copy which can be used (continued on page 7)

Editor's Notes

As you have probably gathered by now, this is a special issue of *Occasional Downtime*, the newsletter of the HMC Academic Computing Department. In this issue we have tried to give a quick overview of what Academic Computing does and who we are, as well as to try and answer some of the most common questions we are asked at the beginning of the semester. While this is intended primarily for our incoming new students and faculty, I expect that many of our incumbent faculty, staff, and students may find some new information, too.

This issue also contains an article on protecting your data, mostly some common-sense advice on how to avoid losing data. Look for the sequel—Data Privacy—in the next issue.

In the next issue we will also have Part III in our continuing series of articles on the World Wide Web—Creating Your Own Web Pages—which will describe how to get started creating your own HTML documents and how to make them part of the HMC Web.

Tricks&Tips and Fun and Totally Useless Sites will also return from their temporary hiatus which was due to space constraints for this issue.

—Elizabeth Hodas

Occasional Downtime is published bimonthly by the Academic Computing Department at Harvey Mudd College. It is also available in plain text format on the HMC Gopher Server and in a variety of formats on the HMC Web Server. Comments and questions can be directed to downtime@hmc.edu.

Chris Marble is the campus UNIX Systems Manager for Academic Computing. He generally provides UNIX support for machines in departments other than Academic Computing. This includes the HP 9000/700 series workstations in the Engineering, Math and Physics departments. Chris also works with departmental technical support personnel so that they can handle day-to-day operations like backups.

Matt Masterson is the Audio/Visual Manager. He provides audio/visual services for on-campus classes and events. He maintains the inventory of all A/V equipment and systems. He also trains and supervises student assistants in the use of A/V equipment.

Cynthia Souza handles administrative functions for AC. As the office manager, she maintains our budgets and is in charge of purchasing and all the accounting and payroll functions associated with AC. She maintains the inventory of all of AC's equipment, and keeps a calendar for the department. She can also provide user support for many of the more widely used software applications.

Roger Wiechman runs the VMS cluster at HMC. This busy general-access cluster is centered around *thuban*, alias *HMCVAX*. Roger installs new hardware and software on the clusters, sets up and maintains VMS user accounts, and can answer technical questions regarding VMS and its associated utilities as needed.

Joe Youn is the Information Resources Manager. He is employed by both Harvey Mudd College and CINE, the Claremont Intercampus Networking Effort. His CINE duties include maintaining and developing Claremont Colleges information systems (i.e. mailing lists, Gopher, World Wide Web, etc.) and administration of the

AC STAFF CONTACT INFORMATION

- ▼ Richard Parker
Director
1-8613, Richard_Parker@hmc.edu
- ▼ Patience Brooks
Microsystems Manager
7-4450, Patience_Brooks@hmc.edu
- ▼ Andy Davenport
Network Manager
7-4296, Andy_Davenport@hmc.edu
- ▼ Elizabeth Hodas
User Support Coordinator
7-4583, Elizabeth_Hodas@hmc.edu
- ▼ Anh Le
Service Technician
7-3364, Anh_Le@hmc.edu
- ▼ Chris Marble
UNIX Manager
7-4007, Chris_Marble@hmc.edu
- ▼ Matt Masterson
Audio-Visual Manager
7-3498, Matt_Masterson@hmc.edu
- ▼ Cynthia Souza
Administrative Aide
1-8006, Cynthia_Souza@hmc.edu
- ▼ Roger Wiechman
VMS Manager
7-4449, Roger_Wiechman@hmc.edu
- ▼ Joe Youn
Information Resources Manager
1-8640, Joe_Youn@hmc.edu

machines that support the information systems and the network monitoring workstation. Joe's HMC duties include the maintenance and development of HMC information systems and of campus-wide user registration databases as well as administration of the machines that support these systems. Joe is also the head administrator of the general-purpose HMC Academic Computing UNIX machine *osiris*. ☺

Using the Microcomputer Labs

Academic Computing maintains several microcomputer labs (primarily Macintosh and PC computers) on campus for use primarily by students, but also available for use by faculty and staff. The labs are open 24 hours a day. When school is in session there are student consultants available to answer questions during the day and on some evenings.

The labs are currently in a state of flux. Harvey Mudd College has received a grant to renovate the basement of Parsons to create new offices for the Academic Computing department, as well as three new microcomputer labs. This renovation will take place during the fall semester. One of the new labs will be set up as an electronic classroom with 25 Pentium computers. The other two labs will contain a mix of PCs and Macintosh computers. While this space is being renovated the PC/Macintosh lab has been moved to temporary quarters in the Engineering Clinic room in Parsons 278. There is also a smaller Macintosh lab in Parsons 273.

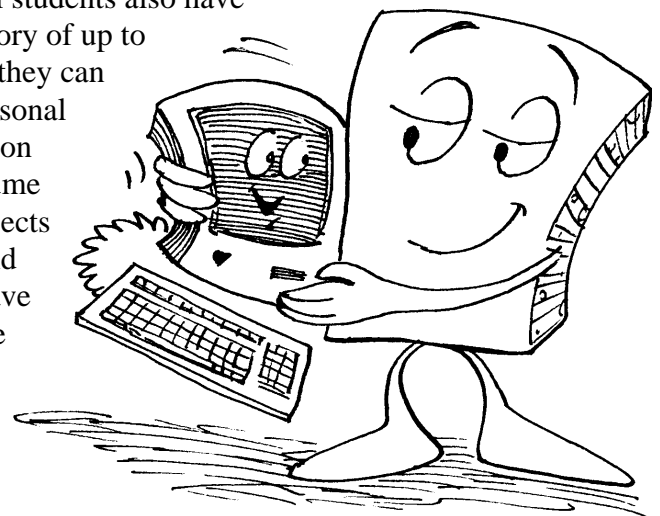
Academic Computing also has three postscript printers: Lassie and Odie are located in Parsons 278 and Cujo is located in Parsons 273. Lassie and Cujo are both capable of duplex (double-sided) printing. There is no charge for printing for HMC students. In addition there are color scanners available for use.

The microcomputer labs are set up so that there is only a minimum amount of software installed locally on each hard drive. Most of the software applications are installed on Academic Computing's NetWare file server instead. Installing the software on the file server rather than on each microcomputer allows us to upgrade software packages more easily and also permits us to offer wider access to software

for which we have only a few licensed copies. Having a minimum amount of software installed locally also makes it easier to maintain the microcomputers since the hard drives can easily be reformatted and restored to working order.

There are a wide variety of applications available on the file server. Besides the standard tools in Microsoft Office including Word, Excel, Powerpoint and Access, there are a great number of other more specific applications. For desktop publishing we have Adobe PageMaker; for graphics we have a wide selection including Adobe Photoshop and Illustrator. KaleidaGraph, Maple, Mathematica and SPSS are among the tools available for mathematics, graphing and statistics. In addition to applications packages like these we also have a selection of freeware and shareware utilities such as anti-viral programs and disk utility programs. The applications themselves are organized somewhat differently depending on whether you are using a PC or Macintosh.

To use the microcomputers in the labs you will first need to login to the file server. All new students are automatically given an account and password on the file server. All students also have a home directory of up to 10MB where they can store their personal files. In addition there is a volume for group projects so students and faculty can have a shared space to store files.



Supported Software at HMC

Academic Computing maintains a large collection of both Macintosh and PC software on its file servers. This software is available to all HMC faculty, staff and students with a valid account and password for the file servers. All new students are automatically issued an account; faculty and staff who do not have an account can contact Patience Brooks.

The software can either be run off the file server over the network or, license permitting, copied from the server onto a local hard drive. The file server contains both freeware software, which can be copied freely, and shareware software, which can be copied but for which the user is responsible for any shareware fees. Commercial software installed on the server is regulated by a key server which controls how many users can access the software at any one time and which requires that you be connected to the network. This is necessary for software packages such as Aldus PageMaker and Adobe Photoshop for which we only have a certain number of licensed copies. We are legally required to delete any unlicensed software that we find on our machines.

GUIDELINES FOR ALL INSTALLED SOFTWARE

In general, software is installed on our file server because it has been requested by a department or individual faculty member as a necessary resource for academic course work, or because it is perceived to be potentially useful to a significant fraction of the HMC community. In either case, the requesting party serves as sponsor for the software package, and is responsible for providing legal copies of installation disks (or CD-ROMs) and documentation. Academic Computing will install the software, and will ensure that the software can be launched and exited correctly. The sponsor who requested its installation is responsible for running any tests after the software is installed. If

necessary, Academic Computing will run further tests if provided with test files and procedures.

The sponsor should furnish information about the software's publisher, so that Academic Computing can contact technical support, if necessary, and a copy of the manual, or other documentation, as appropriate to add to our documentation library. The sponsor is responsible for providing all other documentation and supplying assistance to those using the software; we will route all questions relating to the use of the software back to the sponsor. At the sponsor's request, we will investigate and provide information on how to print from within the software or use the software to access other existing Academic Computing resources. We will upgrade the software if requested to do so by the sponsor.

AC SOFTWARE SUPPORT LEVELS

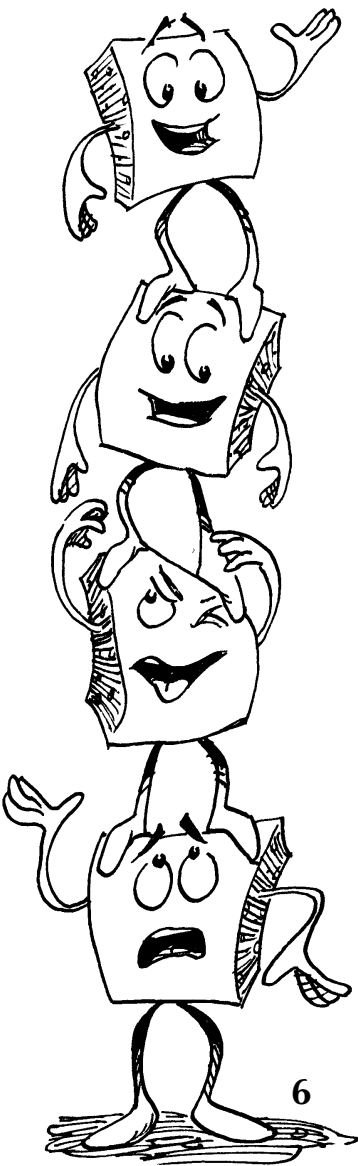
Academic Computing has developed a three-level system of support for the software installed on its file servers.

LEVEL 1: Software which is used by a single course or department for instructional purposes, or which is of potential interest but limited importance to the HMC computing community.

LEVEL 2: Software which is used by multiple courses or departments, or by a core course which is required for most or all students, or which is of general interest and significant importance to the HMC computing community.

LEVEL 3: Software which is of critical importance to the HMC computing community.

Academic Computing is effectively the sponsor of all level 3 software. We will maintain the software's manuals in our



manual library, and will contact the publisher for technical support in areas beyond our expertise. Our student consultants will be able to answer simple operational questions about the software, and some consultants or Academic Computing staff members will be able to answer more technical questions. As appropriate, we will offer periodic workshops to novice users for software considered to be of critical importance to computing campus-wide, and will offer intermediate workshops for particularly complex and/or important software. Upgrades to level 3 software will usually only be performed during the breaks between semesters. Academic Computing will take responsibility for locating, purchasing, installing, testing, and upgrading the software.

THE SUPPORTED SOFTWARE LISTS

Every software package supported by Academic Computing has an entry in our supported software list, containing the following information: program name, version number, publisher, and the level of support assigned to the software. The Macintosh and PC lists also mirror the directory structure of the file server they are installed on and can be used to help locate a particular software package on the file server itself.

The Supported Software Lists can be found both on the HMC Gopher server and on the Web server at <http://www.hmc.edu/comp/doc/>. 🐾

WHERE TO GO FOR HELP

- ▼ Send e-mail to one of the system support mailing lists:

mac-system-1@hmc.edu
pc-system-1@hmc.edu
system@thuban.hmc.edu
system@osiris.hmc.edu

- ▼ Talk to the student Lab Consultant on duty.
- ▼ Call the Help Desk phone line at 7-7777.
Or send e-mail to help-desk@hmc.edu.

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to recover unsaved changes in case of a power failure or other problem. Another option, which some programs also offer, is to have the program remind you to save at specified intervals.

Creating backups of the files on your computer is also an important step in protecting your data. While backups of the UNIX and VMS systems and of the file server Kato are regularly performed by Academic Computing, backing up files on your desktop Macintosh or PC is your responsibility. Many departments have backup systems such as DAT drives for their computers. If your department does not have this facility then you can back up individual files to floppies or to your home directory on the file server Kato. It is important to remember to back up not only files that you are working on day to day, but also files that you might not automatically think of as being in use. For instance, if you are using Eudora to read and send mail you should be backing up all of your Eudora mailboxes. Other files you might not immediately think of include checkbook files, calendar files, and contact/address files.

VIRUS PROTECTION

Installing virus protection software on your desktop computer is another way to protect your files. Viruses can be introduced into your system from a variety of sources, but the most common way is through infected floppy disks. Running an antiviral program is a good way to prevent your data from being corrupted by a virus. It is also a good idea to regularly scan your hard drive for viruses. Academic Computing has several freeware antiviral programs on Kato. Disinfectant 3.6 for the Macintosh is located in the Utilities folder. On the PC antiviral programs are located in the directory `G:\apps\utils\dos\antivir\`. 🐾

QUESTIONS *and* ANSWERS

Q: How do I use the micros in the labs?

A: On the PC you must first type in your Kato login name and password before launching Windows. Your home directory is automatically mapped to the H: drive. To logout quit Windows and then type logout at the DOS prompt.

On the Macintosh opening any of the aliases to applications, files or folders stored on Kato will bring up a dialog box asking you to login to Kato. Student home directories are located in the volume identified by their class year. Home directories for faculty and staff are located in the volume called Department Homes. To logout from Kato select Restart from the Special menu.

Q: I forgot my password. What do I do?

A: If you can, send e-mail to PWCHANGE@hmc.edu, indicate that you've forgotten your password, specify which account (e.g. VMS, osiris, NetWare Server), and include your name and userid. E-mail requests sent before 3:00 p.m. will be ready the following weekday afternoon (after 1:00 p.m.). You must pick up your new password from the Academic Computing office, and must show ID. If you can't send e-mail, you can stop by the AC office to request the password re-set. Emergency, on-the-spot re-sets are done at the system manager's discretion.

Q: What's the code to get into the labs?

A: To get the lab code you must stop by our office. You must have Harvey Mudd College I.D. Non-HMC faculty, staff or students should first see

Patience Brooks in Parsons 271 to find out if they are eligible for an account on our file server.

Q: One of the lab printers is out of paper, where do I go to get more?

A: If there is a consultant on duty, see the consultant first. Otherwise paper for the lab printers is available in Parsons 269. You should be prepared to show ID.

Q: The toner is low on one of the lab printers. Who do I tell?

A: See the lab consultant on duty, or send e-mail to ac-consultant-1@hmc.edu indicating the lab and printer. As soon as a consultant is available, the toner cartridge will be replaced.

Q: How do I get my dorm computer connected to the HMC network?

A: Detailed documentation on how to get connected to the HMC network is available on the World Wide Web from AC's home page. You should also talk to your dorm network administrator.

Q: Where do I get a cable/connector for the port in my dorm room?

A: Huntley Bookstore sells cables and connectors. Just tell them which dorm you live in.

Q: I need an IP address, what do I do?

A: Send e-mail to: IP-request@hmc.edu. A form will be sent to you. Fill in the information requested and send it to IP-submit@hmc.edu. The network manager will e-mail your IP address within 48 hours. 🐾