



# Essentials

## Disk Quota Increases

Over break, CSS installed new file server disks that resulted in an increase of 50gb (gigabytes) of file storage. This has allowed us to increase disk quotas for all engineering accounts. We increased student quotas by 67% and faculty and staff quotas by 40%. The new quotas are:

student 100 soft/125 hard  
staff 175 soft/225 hard  
faculty 350 soft/400 hard

(Your soft limit is the point at which the system will tell you that you are nearing your quota. The hard limit is hard; you cannot go over it, and getting to that limit has dire consequences.)

These new quotas apply only to home directory disk quota, not mail quota. CSS has not changed mail quotas recently. To find your disk quota use and limit on Windows: **Start | Programs | Utilities | engineering college disk usage**; Unix: from a shell prompt, **quotas**. (To find your mail quota, go to <http://imap.engineering.uiowa.edu/mailtools/index.html>)

Faculty may also purchase additional disk quota for \$5.00 per 100 megabytes per month. Call the CSS main office, 5-5751, to arrange that increase.

We just wrote a new é-tude (a short, technical article) on disk quotas and suggestions for staying under your quota, what files you can delete, and what files you should not delete. Find all the é-tudes at <http://www.icaen.uiowa.edu/e-tudes/index.html>

~ Susan Beckett

## Color Laser Printing

CSS has an HP color laser printer that is available for all students, staff, and faculty in the college. The color printer lives in 1253 SC, the CSS Consulting office. It costs \$.30/page. The printer can print duplex (on both sides) and print on transparencies. The output is outstanding; the colors are bright and deep, even the black.

Students who want to print on the color printer should save the file(s) to print on their home directory. The file can be created from a Unix or a Windows application, and must be of a format printable to a laser printer (e.g., PostScript). Come to the consulting office, 1253 SC where the consultant on duty will give you access to the color printer. Students will log in to a computer in the consulting office to print, so logout in the lab before coming to print. If you want to print on transparencies, bring them along.

Staff and faculty who want to use the color laser printer should call Sheila Arndt, 5-5751, or send her email to arrange using a University MFK to pay for color printing.



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# EASY - Evaluation & Assessment Survey: A Computer-based Survey Tool

## Introduction

Last semester several instructors asked their students to take a survey about their engineering courses. They used EASY, a computer-based survey tool developed for the College. This first time that EASY was used there were 78 surveys containing 2857 questions. These surveys targeted 78 different courses, and of the 3058 enrolled in these courses, 2077 (68%) took the survey, a good response.

Maybe you took an EASY survey. Maybe you've heard about EASY but are not sure exactly what and why it is. This article explains what the EASY survey is, why it was developed, how it works, and what it is used for.

## EASY Background

The college administration asked CSS to develop a computer-based survey design and administration package to collect data from students about their experiences in engineering courses. The college and departments need this information for the periodic ABET reaccreditation process. They wanted a flexible program that would allow a variety of course-specific questions and be useful for: exit surveys, ACE (SPIF, spot-forms), incoming freshman profiling by the Student Development Center, alumni surveys, custom course-specific surveys created by the instructor, and more.

Associate Dean Gary Fischer, Carrie Hogarty, Financial Services, and I designed, developed, tested, and deployed the resulting EASY package. We began last July and were done in time to use EASY the first week of December 2000.

## What is EASY?

EASY is a flexible, database-driven software package to:

- Design questions that can be one choice in a list or free-form comments
- Group questions into named sets for ease of use and reuse
- From these questions, create surveys tailored to a specific objective
- Present questions to people being surveyed
- Store all survey components and responses in a relational database for fast, powerful analysis
- Keep the stored answers anonymously
- Provide security so that only the creator or instructor can view results

## How is EASY used?

The details of using EASY are beyond the scope of this article. There is lots of information about EASY on the CSS web site at <http://css.engineering.uiowa.edu/easy/>. An EASY survey can be given one or more times per semester for any number of semesters. Also, multiple surveys for the same course can be running concurrently.

A student starts the EASY Survey program in a CSS lab or 1245 SC by using the shortcut on the Windows Start menu or by typing **easysurvey** from a Unix shell. The student is then presented with a list of all currently running surveys for courses in which s/he is enrolled. The student chooses the survey to take. Any survey can be quit before completion and then restarted where the student quit. Once the survey is completed, the student cannot take that particular survey again. When a survey is over and grades have been turned in, the instructor who designed the survey can view the data. I developed a set of canned reports using Seagate Software Crystal Reports, a Windows database reporting application.

## Conclusion

We expect the EASY survey system to become more and more widely used in the college. Arrangements are underway to have students take an EASY survey for certain required courses outside of the college (e.g., physics) to ascertain how well those courses meet the educational needs of engineering students. Feedback from the December surveys conducted has already been incorporated into both the survey design components and the survey program, and we'll continue to make the system as friendly as possible for both faculty and students.

CSS maintains the EASY database, code, and installing software needed to run EASY on the workstations. With some assistance, Carrie is developing and maintaining the reports used by the faculty to pull the data for their surveys. If you have questions or concerns regarding the EASY surveys, please direct them to Gary Fischer, [gfischer@engineering.uiowa.edu](mailto:gfischer@engineering.uiowa.edu)

~ Jim Cramer



## New Mail Bell — Specify a Folder —

CSS has implemented a new service bell, or whistle, if you prefer, for people who use the engineering mail server and who use IMAP (not POP). You can use a form of your email address to have mail returned to a specific folder. Here's how you might use this new service. You subscribe to the Tourbus listserv and want all that mail to be put in a specific folder. Create a new folder named "tourbus" and then subscribe to the Tourbus<sup>1</sup> mailing list with the address:

`bgreen+tourbus@engineering.uiowa.edu`  
Mail that I get from this list will be put into the (new) "tourbus" folder. You can use this new service as a way of keeping your Inbox cleaner and your mail more organized.

To use the service, you must do two things:

1. create a folder for the incoming message
2. use an expanded address:  
`loginID+folder@engineering.uiowa.edu`
  - include the + [plus sign] between your login ID and the folder name
  - do not put spaces in the address
  - use your Engineering account address, not your Ph alias

You must check these folders for new messages because the mail clients (Netscape, Eudora, Pine, WebMail) do not automatically notify you of new messages in those folders.

### More Notes for the Technically Curious

You can do the same thing with filters in Netscape, Pine, or Eudora. That is, you can create a filter that moves messages of a specific type into the desired folder. In the future, we will use this to filter spam. When we are ready to do that, you'll notice a new folder named "Spam". Mail coming from known spam sites will be put into the Spam folder, rather than being rejected.

### Extent of Service

This new service won't work with AOL, Hotmail, Yahoo, etc. IMAP is the norm for WebMail, Pine, and Netscape users. Eudora users can choose to run Eudora as an IMAP client (recommended) or a POP client (Tools | Options | Incoming Mail.)

~ Diana Harris, Dave Funk

## Student Dial-in Service: Use It

Since classes began last fall, students have had access to fast dial-in service using their Hawk ID. If you have a computer, phone line, modem, and modem software at home, you can use this service to get access to a browser, email, and your engineering files. The cost of providing this service comes partly from student computer fees, so you should use what you are paying for.

Read the ITS web page

[http://www.its.uiowa.edu/its/cs/helpdesk/remote\\_access/](http://www.its.uiowa.edu/its/cs/helpdesk/remote_access/) for set up information, phone numbers to dial, and how to use the service.

## Tape Backup: Price Reduced, Services Expanded

CSS has provided backup services to faculty and staff since August 1999 ("Backups for Hire", *Discover*, V. 6, No. 2, August 1999, if you care to check the original announcement). We could offer this service because we had just purchased and installed a vastly improved tape backup unit that is used primarily to backup the network drives, including home directories. The service offered is to backup local drives, or specific folders on those drives of Windows machines. The original price of this service was \$2.50/100mb backed up. CSS has now reduced that price to \$0.50/100mb or \$5.00/gb of data backed up to tape. Current users will pay the new price automatically.

This service is now available to Windows machines everywhere, including machines that are not on the Engineering Computer Network.

~ Matt McLaughlin

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<sup>1</sup> Tourbus is a twice weekly newsletter worth the few minutes it takes to read it. This from their web site [www.tourbus.com](http://www.tourbus.com): "Net gurus Bob Rankin and Patrick Crispin explain Internet technology in plain English with a dash of humor, in a FREE twice weekly email newsletter. Since 1995, Tourbus riders have been getting the scoop on search engines, spam, viruses, cookies, urban legends, and the most useful sites on the Net. So why surf when you can ride the bus? Join 90,000 others from 130 countries, and hop on the Bus today."

## Windows 2000 Transition Notes

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**No jargon summary:** *Windows 2000, the next version of the Windows NT operating system for Intel-based computers, is on its way here. With Windows 2000 comes new stuff including Active Directory, Microsoft's way of managing computers and users by creating domains. A domain is a group of computers or people. In our case, the domains will be groups of computers. Within the domain, management of a specific computer or the abilities of a specific user can be handled in ways not possible with Windows NT.*

CSS is planning to implement the Windows 2000 (w2k) operating system for most of the computers in the College this summer. Soon the Gold North lab will have a w2k table. Initially these computers will have Microsoft Office 2000, Eudora 5, Adobe Acrobat, Internet Explorer. As software is tested and verified as working on w2k, it will be added to those machines. If you use the experimental w2k machines in the Gold North, and have problems, please send mail to [consultant@engineering.uiowa.edu](mailto:consultant@engineering.uiowa.edu) describing the software in question, as well as other issues. In the short term, printing will not be available on these machines.

If you want to try the w2k computers, you must first change your password on an existing Windows or HP-UX machine. Changing your password will allow passwords on the current domain, ICAEN, to be synchronized with the new Engineering domain that w2k uses.

The DNS (domain name service) name of the new domain is *enr.uiroot.uiowa.edu*. From the structure of this DNS name you can see that the engineering domain is a child domain of the new enterprise-wide Windows 2000 domain *uiroot.uiowa.edu*, the name of the University of Iowa forest in Windows 2000. Other member domains of the forest will be *medicine.uiroot.uiowa.edu* (College of Medicine), *iowa.uiroot.uiowa.edu* (Liberal Arts College and most other resources east of the Iowa River), and *uihc.uiroot.uiowa.edu* (University of Iowa Hospitals and Clinics). There may be other Windows 2000 domains in the future.

CSS will implement a number of *Organizational Units (OU)* within our Engineering domain to provide much improved user authentication services, in addition to improved inde-

pendence for groups that need to configure research and teaching clusters of machines. For example, suppose a researcher wishes to bring up a number of Windows 2000 computers to support a current project, yet wants to avoid the management duties of account creations, home directory support, user profile support, etc. With the creation of a "Research OU" within the Engineering domain, we can provide authentication services integrated with our already existing account structure. Still the researcher can retain complete control over the software loads on her machines, including who can logon and use them.

This process of delegation is embedded in the Windows 2000 Active Directory structure. Delegation provides extreme granularity for setting what users can do and the responsibility they have for their own or other accounts. We are very excited about being able to offer authentication and access services as well as non-intrusive support for security patches, virus scanner updates, and deployment of college-licensed software to groups within the College of Engineering. If you have technical suggestions concerning domain/OU design, please send email to: [david-grimmer@uiowa.edu](mailto:david-grimmer@uiowa.edu)

The Engineering domain is scheduled to be in production in late summer. At that time all public lab machines and College staff machines will be running Windows 2000.

~ David Grimmer

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## Eudora Classes and What's Next

During the semester break, I taught three Eudora 5 classes to more than 20 faculty and staff. Some could not come to any of those sessions, so I will teach another Eudora 5 class on Monday, 19 February, 1:30-2:30pm in 1245 SC. If you want to come to class, just show up. If you want only the handout, write me email and request it.

*"Eudora " continued on page 5...*

## Matlab Toolbox Reorganization

Do you use the Simulink blocks in the Matlab Communications Toolbox? Then read on. The MathWorks has introduced a new product in Release 12 called the Communications Blockset. (Release 12 refers to the entire product suite and is the version we just installed over winter break.) This product includes the functionality of the Simulink blocks in version 1.5 of the Communications Toolbox plus many new features. Version 2 of the Communications Toolbox in Release 12 now contains only Matlab functions.

How does this affect us? With the creation of a new toolbox, comes a new toolbox license fee. We have the use of the Communications Blockset until we renew our license in August 2001. At that time, funds would need to be allocated (or reallocated) to add the Communications Blockset to our existing license. In order to evaluate allocation of funds, we would like to find out how many of you are using the Simulink blocks as well as other Matlab toolboxes. Give me a call, 335-5754, or send email ([susan-beckett@uiowa.edu](mailto:susan-beckett@uiowa.edu)) to let me know which Matlab toolboxes you can't live without. We will also conduct a more formal survey to assess need using EASY.

~ Susan Beckett



*"Eudora " continued from page 4...*

Why is CSS teaching Eudora classes? The first hint of a coming change was in the article in the previous issue of *Essentials* titled "No LDAP? What It Means." The upgrade, Netscape 6.0, does not include a mail client, like Messenger, that allows you to look up email addresses in the directory. Eudora is a mail client that includes directory lookup.

~ Diana Harris

## Lab Unix Workstations X-termed

What does that title mean? That the old, slow 32-bit Unix workstations, models B180, B180L, and B132L, now run an X-Windows session on a newer, faster 64-bit workstation. You can identify x-termed workstations because they are marked "L-ECNxxx hosted by L-ECNxxx".



You'll see such labels on machines in the Black and Gold Labs in SC, the workstations at the Main Library, and in the CBE lab in 121 CB. The host machine is in the same lab (Black south, for example) as the hosted machines, except for the CBE and library machines.

This hosting of 32-bit machines by 64-bit machines was accomplished over the semester break because Abaqus will run only on 64-bit machines and because the 64-bit machines are so much faster. If you need or want to work on a 32-bit machine, you can ssh to it directly with the command **ssh l-ecnxxx**.

From a Unix machine, if you use the command: **ssh login**, you'll be connected to a 64-bit machine. From a Windows machine, X-WinPro also goes to a 64-bit machine. See the related article "Using ssh" for information about improvements in our ssh service.

~ Matt McLaughlin

## No Food/Drink in Lab

There is a long-standing policy that no food or drinks are allowed in the CSS labs. Food, liquid, and computers are a bad combination when mixed. In an effort to enforce that policy, CSS is now deducting money from violators' print quota at the rate of \$.25/incident. The CSS staff, including lab technicians and consultants, may ask you to leave comestibles on the tables at the entrance to each lab. Please do so, even without being asked. If there are reports of people with food or drink in the lab, CSS staff may review the tapes from the video surveillance camera.

CSS tries to keep the lab and computers clean and pleasant to use. Please do your part in that effort.

## Firewall Service



***No jargon summary:** a **firewall** is a barrier. It keeps people out of your network or keeps people in your network from going outside of the network. People use firewalls to increase the security of their networks.*

***Root access** is having the keys to the kingdom; with root access to a machine you have access to everything.*

Did you know that your work computer is directly connected to the Internet? There is no firewall between you and all of the attackers to protect your computer. Furthermore did you know that our entire network gets scanned several times a day looking for vulnerabilities? While the Engineering College servers and CSS-administered computers are protected from most attacks by filters placed on our router, self-administered computers are not. There have been a few break-ins over the years. The most recent attacker gained root access to several computers. When this occurs, for the security of the rest of the network we must disconnect the compromised computers from the network until they are completely reloaded, patched for all known vulnerabilities, and pass a security scan. (Let me know if you are interested in having CSS do a security scan of your computer; there is no charge for a security scan.)

Because of new network infrastructure, we are now offering a firewall service for self-administered computers. This service makes your computer invisible to the outside world, and so more secure, yet allows you access to the Internet. Most users will not notice any difference between having their computer directly connected to the Internet or having it behind a firewall. Accessing a remote service will be the same. You'll be able to browse the net and send email, for example. But access coming in will be blocked. This means that software that you install on your local computer that has a server function will not work. For example, AIM (AOL Instant Messenger) requires that a computer beyond the firewall listen for requests for service from your computer. If your computer is behind a firewall, those requests from outside are not heard because the outside world can not see a computer that is behind a firewall. That is the whole idea of a firewall.

## Conference Phone for Computers



We have purchased a nifty little router-switch from Linksys, the BEFSR81 Etherfast Cable/DSL Router. It provides expanded computer functionality in the Seamans Center conference rooms. (It can provide others services, too; read "Firewall Service" in this issue.) You can use the Etherfast Router like a conference telephone for computers. It allows up to eight computers to connect to each other and to the Internet; you can hold a meeting with eight people and their portable computers, which can be on line during the meeting.

It is easy to use. Check it out from the CSS office and take it to the conference room. Power it on and connect its WAN port to the network outlet in that room; a list of live network outlets is provided with the unit. Then connect each of the portables to the switch ports on the back of the Etherfast unit. All of the network cables are provided. Each computer should then be configured to get its address automatically from the network DHCP server. That's it. Start the meeting.

For the gear heads out there, the Etherfast unit combines the functionality of a router, a switch, a NAT server, a DHCP server, and a firewall. Check out the information at <http://linksys.com/products> and select **cable/dsl** then **BRFSR81**

To reserve the Etherfast router, contact Sheila in the CSS main office, 1256 SC, 335-5751 or [sheila@engineering.uiowa.edu](mailto:sheila@engineering.uiowa.edu). There is no charge to use the Etherfast router.

~ Doug Eltoft



If you are interested in firewall service for your self-administered computer, contact me for details. 5-5751 or [daeltoft@engineering.uiowa.edu](mailto:daeltoft@engineering.uiowa.edu). There is **no charge** for this service.

~ Doug Eltoft

## Using ssh



**No jargon summary:** clear text means that what you type can be read by anyone with enough time and maliciousness to be sitting around sniffing the packets of data that are passed on the wires that connect computers to phone lines and so on. It is bad because it isn't secure.

Everyone now should be using ssh (secure shell) to connect to remote machines, as you used to do with telnet. And when you use ssh to connect to a Unix workstation in the CSS labs, now you can (and should) connect to:

login.engineering.uiowa.edu

(or just **login** if connecting in SC) rather than specify a specific machine. (See the illustration.) This hostname connects you to the machine that has the lowest load use.

CSS encourages using **login** or **login.engineering** rather than specifying a specific machine, because this relay results in

better service. You are connected to the 64-bit Unix workstation with the smallest load use. It should be easier to remember "login" than a specific machine name, also.

If you get the message that begins "@@@@WARNING: HOST IDENTIFICATION HAS CHANGED @@@@@" when you ssh to **login**, reply **n** to the prompt, "Are you sure you want to continue connecting? yes/no". Then open the **known\_hosts** file in the .ssh directory and remove the entry for "login".

### Why ssh?

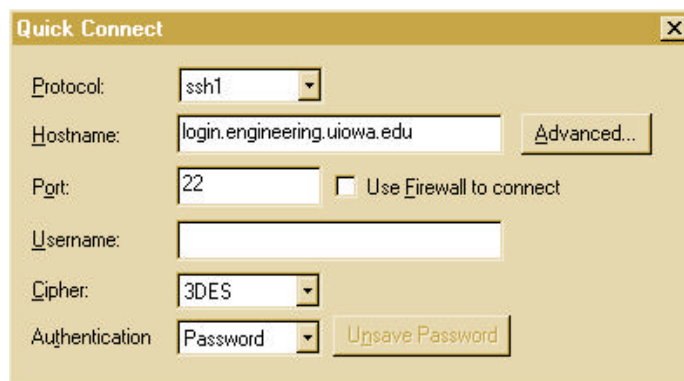
Why do we promote using ssh? ssh authenticates with your login ID and password just like a telnet session except the authentication is encrypted; in a telnet session your login ID and password travel the Internet in clear text. ssh encrypts not only the login ID and password but the entire session. ssh also provides an integrated way to transfer files without having

to open an insecure ftp connection. Once again the login server will direct your connection to the least loaded computer.

If you are working on a machine that is not in a CSS lab, you may need to install software that supports ssh connections. The University has purchased a site license for an ssh Windows client called SecureCRT. Go to the CSS download site, <http://imap.engineering.uiowa.edu/download.html> to get SecureCRT.

If you would like help getting your SecureCRT properly configured, contact the CSS consultants at 335-5055.

~ Several of Us



## Jargon Rating Reminder



Just in case you missed the introduction last issue to our jargon rating system, here's a reminder. Sometimes the jargon quotient in computer articles becomes so high that only a few people understand it. I hope there are no such articles in this newsletter, but there must be jargon sometimes because the jargon describes accurately what is meant. Here's my system: 0-2 tongues is possible. No tongues means there is no jargon and it should be easy to read and understand. Two tongues mean lots of jargon. One tongue falls between. All 2-tongue articles include a no jargon summary.

## Upgrades to Classrooms

Over winter break the AV department upgraded the functionality of four general assignment classrooms in the Seamans Center. Now 1505, 2217, 2229, and 3505 have a sound system, VCR, convenient laptop connection, and a sophisticated (overhead) projector that uses a camera (Wolf Vision is the brand name). Two new rooms now have computers and projectors, 3115 and 3121.

Below is a chart that identifies the rooms with computers, their size, and what sort of equipment is in each.

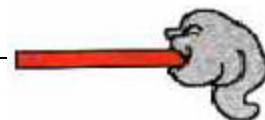
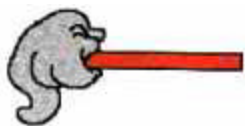
Room	Seats	Equipment
1505 SC Auditorium	140	computer, projector, VCR, sound, laptop, overhead
2217 SC	70	computer, projector, VCR, sound, laptop, overhead
2229 SC	70	ICN room; computer, 2 projectors, VCR, sound, laptop, overhead
3115 SC	40	computer, projector
3121 SC	40	computer, projector
3505 SC	70	computer, projector, VCR, sound, laptop, overhead
3029 SC	30	COW* or VOW# available
4130 SC	40	COW* or VOW# available

\* Computer on Wheels #Video on Wheels. You must reserve the COW or the VOW and get the key to the room where that equipment is stored. Call Reva Elder, 5-2571, or write email to [fsg-classroom-media@uiowa.edu](mailto:fsg-classroom-media@uiowa.edu)

### Software Available

CSS manages the classroom computers and has made available all the lab software when you login to your Engineering account. Both Windows NT and HP-UX software can be used. Non-engineering faculty can log in using the Instructor account, which gives access to a more limited set of software. Access to the Internet is available from an Engineering account or the Instructor account. If you encounter problems with the computers in these classrooms during the day, talk to the CSS consultants, 1253 SC, 5-5055; at night, call 5-1976.

~ Chris Fomon



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#### This issue:

Editor: Diana Harris. Contributors: Susan Beckett, Jim Cramer, Doug Eltoft, Chris Fomon, Dave Funk, David Grimmer, Diana Harris, Matt McLaughlin

#### Hours

Computer Labs — Black (1220 SC) and Gold (1231 SC) Labs are open 24 hours/day, 7 days/week. If you are in the Seamans Center before it closes, you can use the computer labs after the building closes.

Consulting, 1253 SC — M-Th 9am – 9pm; F 9am – 5pm; Sun 4pm – 9pm

CSS Main Office, 1256 SC — M-F 8am – noon, 1-5pm

#### Web Sites

This newsletter is published first to the CSS web pages at <http://css.engineering.uiowa.edu/nl/essentials>

The CSS pages are found at

<http://css.engineering.uiowa.edu>

The College of Engineering pages are at

<http://www.engineering.uiowa.edu>

The University of Iowa pages are at <http://www.uiowa.edu>