

# Essentials

## Engineering College Information Technology Update

Wow. A lot happened this summer. Where to start?

The new College computer labs in 1220 and 1231 SC have completed their first year of service in good style. As normally occurs over the summer, CSS replaced the oldest machines with newer ones (see "What's New in the Labs?" on page 4) and updated some of our software (see "Unix Software Updates" on page 7), including the Unix operating system installed on the network. The 50-50 mix of Unix to Windows computers has been changed to a 60-40 mix. The Windows computers all have X-Windows graphics terminal software (XWinPro) so they can be used to get a graphical login to a Unix computer if you need to use a Unix workstation and one isn't available. The Windows computers are single-user computers while the Unix computers are multi-user, so the lower number of Unix computers will not be a problem.

For the last year CSS has been in temporary offices on the south end of the first floor of the new wing, while our offices on the 3<sup>rd</sup> floor were remodeled. As a result of some late summer changes, the newly combined IE and ME offices are now located in the west end of the third floor and CSS will be staying where we have been for the past year. This change keeps the computer support staff closer to the computer labs and to the 1245 computer classroom. (See also "Where to Find CSS" on page 5.)

In addition to the lab changes, there have been changes in the server room as well. The mail  
*"Update..." continued on page 2*

## Survival Tips for New Students

If you are new to the college and you have picked up this newsletter hoping to find useful computing information, thanks, congratulations on being so astute, and keep reading for those information nuggets.

If you went through orientation this summer, you already have your computer account login ID and password. Go to the Computer Systems and Support (CSS) main office, 1256 SC, to pick up the *CSS Quick Start Guide*, a 4-page handout with information you need to get started working with engineering computers and workstations.

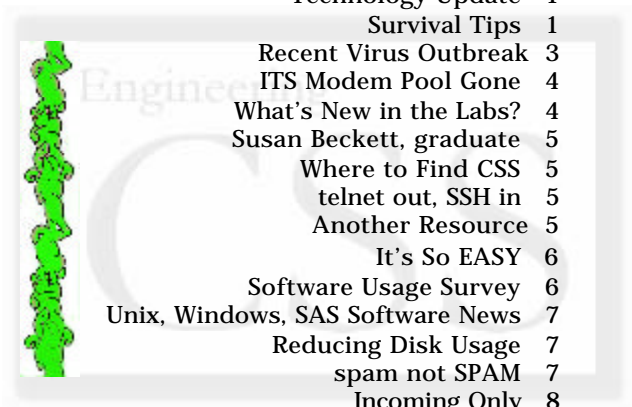
Here are some survival tips.

- **Read the CSS User's Guide** (on-line at <http://css.engineering.uiowa.edu/usersguide/>) for information about everything. It is the easiest place to find out how to do things in our computer environment.

*"Survival..." continued on page 2*

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server was replaced with a new server that is much faster than the old machine. The application and news servers were also upgraded to newer and faster machines and given more reliable disk storage. The old application server had a recurring hardware problem that caused several service disruptions during the spring semester. Still to come: we have ordered but not yet installed two replacements for our aging file server. The new servers will have more file space, meaning that you will also get more file storage (home directory) space.

We have installed but not yet completed configuring a second web server to augment the existing web server and provide some new capabilities. The current web server is a Unix-based Apache server and the new one will be a Microsoft IIS web server. The new web server should be operational by mid-semester.

In July and August CSS staff spent lots of time dealing with the results of Internet attacks on machines in this College. There has been a significant increase in Internet attacks due to an Internet worm that breaks into vulnerable Microsoft web servers. The University has taken a proactive approach by scanning the University computers to identify ones that have been broken into or that are vulnerable. Before it was identified, one of the College's research computers was broken into and caused network problems for almost an entire morning. As a result of the increasing problems caused by those sort of attacks, the College has decided to place filters on the College networks that block incoming service requests to users' computers. A special network will be made available for those that need to set up incoming Internet services like web servers or file servers. For more information, read the article "Incoming Only" on page 8.

As well as keeping the existing networks going, ordering and installing new equipment, upgrading computers and software, and dealing with Internet attacks, we have been working with a campus-wide group on a Windows security server project. The work and discoveries of this project has resulted in our decision not to change the Windows operating system in the lab from NT to Windows 2000 (W2K) at the beginning of the semester. Early in the semester, though, we do plan to put 20 Windows 2000 computers in the 1220 and 1231 labs. Not only will these computers be running Windows

*"Survival..." continued from page 1*

- Your engineering account includes access to an **email** account with the same login ID and password.
- For **help**, call the CSS consultants at 5-5055, or come to the consulting office at 1253 SC, or write email to [consultant@engineering.uiowa.edu](mailto:consultant@engineering.uiowa.edu)
- The 1220 and 1231 **labs** are located on the 1<sup>st</sup> floor of the Seamans Center. They are open 24 hours/day, 7 days/week, though the building is not open all that time. You can get an access card from the Engineering Electronics Shop that will give you 24 x 7 access to the Seamans Center and the labs.
- If you have a computer (and a modem and communications software) at home, you can **login remotely** to the engineering network to access your files or send and receive email. Ask the consultants for details.
- Don't share your **password** with anyone.
- When working in the 1220 and 1231 labs, documents that you **print** are sent to one of the two laser printers in the lab. Each side printed costs \$.05; students get \$6.00/semester in print quota; you can add more by bringing cash to the CSS main office.
- On a Windows computer, browse through the Start | Programs menus to see what sorts of **Windows software** is available to use.
- From a Unix workstation, use the left, middle, and right mouse buttons to find available **Unix software**. Or look here for the list of Unix commercial software: <http://css.engineering.uiowa.edu/support/software/unixsoftware.html>

2000, they will be the newest and fastest PCs in the lab. (Again, read "What's New in the Labs?" on page 4.) Initially these W2K computers will not run all of the Engineering College software. As we verify that software runs under W2K, it will be installed on the new W2K computers. The rest of the Windows computers in the labs will not be upgraded until all of the applications are operational.

~ Doug Eltoft

## Recent Virus Outbreak

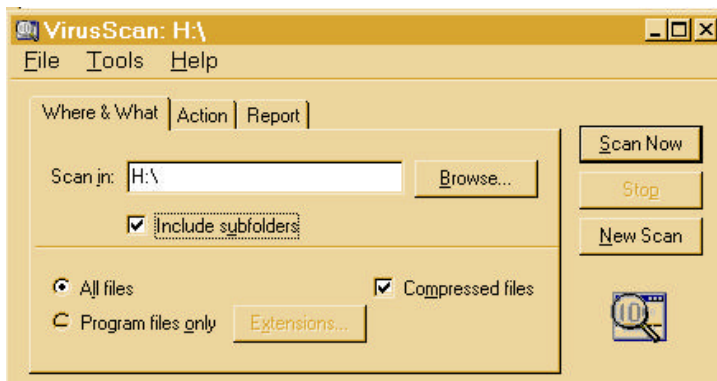
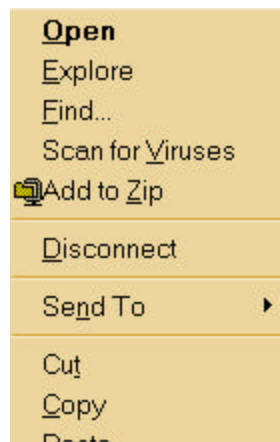
Recently CSS found a new occurrence of the Melissa virus that had infected and altered many files. The virus issue is not one that you can deal with once and then forget. Miscreants are constantly writing new viruses. CSS gets a new virus definition file weekly; this file contains fixes for the known viruses. It is updated regularly because new viruses are discovered regularly. Having virus scanning software helps only if people think to use it. You should be mindful of the possibility of receiving and distributing viruses every time you read email.

### What We've Done

CSS has purchased and installed McAfee VirusScan on all college-administered Windows computers. (Unix-related viruses are so rare that we don't even mention them.) At your command, VirusScan scans directories on demand. Find the VirusScan software from **Start | Programs | Network Associates | VirusScan**

### What You Should Do

Because files that you store on your home directory, the H:\ drive, could be infected, you should scan your H:\ drive regularly. When you arrive at your office, open My Computer, right click on H:\ and select Scan for Viruses. Select



**All files** and **Include subfolders** and then press **Scan Now**. Go get your morning beverage of choice while VirusScan runs; it will clean infected files automatically.

### Email

Email attachments are the most common method for introducing and spreading viruses. Do not open attachments even if you know and love the sender. Download the attached file(s), perhaps in a folder in which you keep files to scan. (Using either Eudora or Netscape, right click on the attachment name; from Eudora select **Save Attachment As...** and from Netscape and WebMail select **Save Link As...**) Once the attachment has been downloaded, run Virus Scan (**Start | Programs | Network Associates | VirusScan**) and point to the folder with the downloaded attachments. As above, select **All files** and **Include subfolders**. When you know the file is not infected, open it. Here is your mantra; repeat and remember: **Download, Scan, then Open**.

### At Home

Download VirusScan for use at home by going to the CSS download site: <http://imap.engineering.uiowa.edu/download.html> or from the ITS web site: <http://www.its.uiowa.edu/its/cs/helpdesk/virus/index.htm>. Install VirusScan. Also remember to check the ITS download site regularly for the most recent virus definition files, and download and install them. Once this software is installed, use it. Always download and then scan email attachments before opening them. It is a good idea to scan your hard drive regularly as well to catch infected files you may have introduced from a floppy disk or other source.

Also, look at the CERT page on Home Network Security, [http://www.cert.org/tech\\_tips/home\\_networks.html](http://www.cert.org/tech_tips/home_networks.html)

"This document gives home users an overview of the security risks and countermeasures associated with Internet connectivity, especially in the context of "always on," or broadband access services (such as cable modems and DSL). However, much of the content is also relevant to traditional dial-up users (users who connect to the Internet using a modem)." There are sections that explain what security is, describe the current technology, define terms, what is at risk, and actions home users can take to protect their computer systems.

*"Virus..." continued on page 4*

## 5-6200 Modem Pool Gone.

### Use Remote Access

This is a reminder effective July 1, 2001 the University Modem Pool Service (335-6200) will be disconnected. If you or any of your colleagues are using the University's modem pool dial-in service please be aware of this date. The University has a new remote access service that is available to you and has better performance and features.

Do you remember seeing this announcement on the MOTD (message of the day)? Do you remember reading the article "Remote Access Service for Faculty & Staff" on page 3 of the May 2001 *Essentials*? If you have been using the 335-6200 number to dial into ITS and then connect to the Engineering network, you have already found that the 5-6200 number is now answered by a message reporting its demise. If you don't know what to do now, read the article in the May 2001 issue ([http://css.engineering.uiowa.edu/nl/essentials/may\\_01.pdf](http://css.engineering.uiowa.edu/nl/essentials/may_01.pdf)). For information about the ITS remote access service, go to [http://www.its.uiowa.edu/its/cs/helpdesk/remote\\_access/index.htm](http://www.its.uiowa.edu/its/cs/helpdesk/remote_access/index.htm). If you still have questions, call the CSS user consultants, 5-5055, [consultant@engineering.uiowa.edu](mailto:consultant@engineering.uiowa.edu)

~ Diana Harris

"Virus..." continued from page 3

### Other Sources for Information

Go to <http://www.tourbus.com/archives.htm> and look for 000150 01/07/24 TOURBUS - 24 JUL 01 - Virus Prevention 101 link and 000151 01/08/01 23:43 262 TOURBUS - 31 Jul 01 - Virus Prevention 102. The archives are filed most recent articles first. Read that article about how to prevent being infected by viruses. Here's a quotation from that article which might get your interest: "Even though I get viruses in my inbox every day, I've NEVER been affected."

The ITS Help Desk Virus Resource Center <http://www.its.uiowa.edu/its/cs/helpdesk/virus/index.htm>, has information about recent viruses found on campus, documentation on installing the VirusScan software, download links for the VirusScan files, and links to Network Associates and Symantec AntiVirus Research Center.

~ Diana Harris

## What's New in the Labs?

The College of Engineering 24-hour computer facility in rooms 1220 SC (east) lab and 1231 SC (west) lab have been reconfigured with additional computers and more powerful HP-UX workstations. The labs now contain 50 Unix workstations, including 20 new Hewlett Packard (HP) B2600s, and 72 Windows computers. The oldest Unix workstations, 11 B180s, will be replaced by Visualize Pentium III Windows computers later this fall when Windows 2000 comes to the labs.



The B2600 Unix workstation, the newest and fastest workstation in our labs, runs a RISC processor at 500MHz. When you use Unix-based software, such as Pro/Engineer or Mentor Graphics, look for one of these machines. The next best are the B1000 workstations. Both of these workstations are mini-towers. The other 11 Unix workstations, all in the 1220 south lab, are "xterms". They run only a remote x-window session from a nearby B1000 or B2600 workstation. Last year there were 3 or 4 B180s being hosted by the faster B1000 workstations; now the hosting workstations have only a single B180, always located in the same lab. In addition to the new workstations, the Unix machines are running an upgraded version of HP-UX, v. 11i.

When classes start, all the Windows computers in the facility will be running Windows NT. When CSS is confident that the software applications and user environment of Windows 2000 are ready, we will install 20 new HP Visualize P-class computers running Windows 2000. This P-class computer is based on the 1 Ghz Pentium III processor; those machines have 256 MB of random access memory (RAM) and a 32 MB nVidia video card. CSS will continue to make improvements in the lab software and hardware

as fall progresses; for example, we will install additional memory in existing Windows computers before we change their operating



system to Windows 2000.

HP Visualize P class computer

~ Christopher Fomon



**Susan Beckett, Master's degree  
in Conflict Resolution, Antioch  
College**

In addition to her computing skills, Susan can now provide mediation and conflict resolution services to the College. To use her mediation services, send Susan email with your request and send Sheila the MFK to charge. This is not a joke.

## Where to Find CSS

The Computer Systems and Support (CSS) staff offices are staying on the 1<sup>st</sup> floor. Until recently, we thought we were moving back to remodeled 3<sup>rd</sup> floor offices. Now we know that the CSS staff offices will remain on the first floor, down the hall from the 1220 and 1231 computer labs. We will add and remove some walls in the process of settling permanently into our space, but if you have been to see us before, you'll not have trouble finding us again. The consulting office is still in 1253 SC, the main office in 1256 SC, and the other staff offices next to those.

If you have questions and don't want to come visit us, call the consultants at 5-5055 or send email to [consultant@engineering.uiowa.edu](mailto:consultant@engineering.uiowa.edu)

## telnet out, SSH in

At the end of May 2001, CSS disabled telnet logins to the Engineering network. But you can still connect to a computer on our network by using SSH (Secure SHell). If you connect to our network from a remote location using a Unix workstation, use the **ssh** command instead of telnet. If you are connecting remotely with a Windows computer, you'll need software that runs SSH. You can download a copy of SecureCRT, a client program for Windows computers, from <http://imap.engineering.uiowa.edu/download.html>



For information on SSH and SecureCRT, read the article in the February 2001 issue of *Essentials* ([http://css.engineering.uiowa.edu/nl/essentials/feb\\_01.pdf](http://css.engineering.uiowa.edu/nl/essentials/feb_01.pdf)). Read the e-tude on SecureCRT ([http://css.engineering.uiowa.edu/e-tudes/securecrt\\_501.pdf](http://css.engineering.uiowa.edu/e-tudes/securecrt_501.pdf)).

If you have questions about SSH, SecureCRT, using [login.engineering.uiowa.edu](http://login.engineering.uiowa.edu), or other connection issues, talk to the CSS consultants, 5-5055, 1253 SC.

- Diana Harris

## Another Resource

Did you know that Carrie Hogarty, departmental information specialist, is a resource for help? She knows about the Office applications (Access, Excel, Word, and PowerPoint), using various college databases, and the EASY survey tool. For example, if you need to create mail merge documents and have questions, call Carrie. She is eager to share her skills and knowledge with staff and faculty in the college.

This summer Carrie used Crystal Reports to reproduce the discontinued hardcopy reports about currently enrolled students from the Registrar's Office. Those reports are now on a shared drive for access by those who need the information. More about this project in the next issue of *Essentials*.

Of course, the CSS consultants are also available to answer questions of all kinds. Call them at 5-5055, come to their office in 1253 SC, or send email to [consultant@engineering.uiowa.edu](mailto:consultant@engineering.uiowa.edu).

## It's So EASY

The college has now had two semester's experience with EASY, the survey instrument written by Jim Cramer at the dean's office request. More faculty will soon be using EASY for course surveys as part of the college's ABET accreditation process. But course surveys are not the only thing you can do with EASY.

CSS did a software use survey in May to find out what software had been used in engineering courses. (See the related article, "Software Usage Survey".) That survey will be repeated each semester for a couple more years and perhaps yearly after that. This fall Allen Bradley is managing a pilot study using EASY for ACE (Assessing the Classroom Environment) reporting. Nancy Schneider ran a survey in the freshman seminar to find out about incoming freshmen's study habits. The dean's office is considering several new uses for EASY including alumni and employer surveys.

What might you want to know about EASY? **First**, there is lots of help. The EASY web site has introductory and advanced information; <http://css.engineering.uiowa.edu/easy>. **Second**, you can install the EASY software on your machine if you have a self-administered computer (go to <http://css.engineering.uiowa.edu/easy/download.htm>). If you use a college-administered machine, send email to [datamgr@engineering.uiowa.edu](mailto:datamgr@engineering.uiowa.edu) to have the software installed. **Third**, you can write your own survey, or you can use the Survey Request Form (at <http://css.engineering.uiowa.edu/easy/documents.htm>) to write the survey questions and have Carrie Hogarty build the survey for you. **Fourth**, EASY surveys can be created and used at any time of the year and by anyone in the college. Student organizations take note; do you have questions to ask your members? **Fifth**, survey data are anonymous by default. **Sixth**, you can create a survey for any group in the college: all graduate students, P&S and merit staff, all CEE undergraduates, voting faculty, etc. Only people in the selected group can take a survey and they can respond to it only once each time it is administered.

Once the survey has run, you can get canned reports on the results from Carrie. One of the canned reports is a summary of all questions that required a comment. Carrie can email you

## Software Usage Survey

In May 2001, CSS conducted its first course software survey using the EASY software. Thirty-four faculty responded, providing information for 30 courses (4 responded that they did not use any software in their courses). Some of the results are summarized here. You can see a full report on the web at <http://css.engineering.uiowa.edu/support/software/survey/SWusageBySWPkgSp2001.pdf>. This information will help correlate engineering software usage with specific classes as well as help the college evaluate the centrality of software to the academic mission.

Software used in 4 courses: Matlab (262 total enrollment)

Software used in 2 courses: Ansys, Chemcad, IDL, Maple, Stella, VIP

Software used in 1 course: C, Fluent, Genetic programming software, HCS-3,

HEC-HMS, HP VEE, Heat Transfer, ITRAF, Interactive Thermodynamics, Mineql, Minitab, Pro/E, RAQS, SYNCHRO, Spice, TSIS, WP Bridge Designer, F90

The top software packages in terms of cumulative weeks usage were:

Matlab	29 weeks
IDL & VIP	22 weeks
Ansys	17 weeks
Chemcad	13 weeks

We will survey software usage again at the end of the fall semester and hope to double the response rate. We appreciate your assistance in establishing a better picture of classroom software usage.

- Susan Beckett



the survey results in PDF format (to view) or Excel (to manipulate the data).

Start by reading the EASY web pages. If you have questions or want help getting started creating a survey, call Carrie, 4-0812, or email: [carrie-hogarty@uiowa.edu](mailto:carrie-hogarty@uiowa.edu), or go to her office in 3016 SC.

## Unix Software News

The following Unix software packages were updated this past summer. For details on how to run any of this software, check out our Unix Software web page at

<http://css.engineering.uiowa.edu/support/software/unixsoftware.html>

VIP 1.4  
Pro/Engineer 2001  
Patran 2000 r(2)  
Maple 7  
IDL 5.4  
Gambit 1.3  
Fluent 5.5  
DADS 9.6  
Abaqus 6.2

~ Susan Beckett

## Windows Software Update

Matlab 6.1 was installed on all the Windows computers in the lab before classes started. Other applications that will be updated early this semester include new versions of GhostView, Eudora, and CorporateTime. Most of our Windows efforts are being directed at configuring and testing Windows 2000, and installing and testing applications to run under Windows 2000.

## SAS Support Discontinued

In June we announced that the SAS software would be removed from the system when our license expires on 31 August 2001 due to budget constraints and low usage.

If you are interested in continued use of SAS, ITS has negotiated a site license for the Windows and Mac versions. You can purchase the media and a license through the IMU bookstore to run SAS on your office or home machine. Students can purchase a copy of SAS at a very aggressive price as well. See the Campus Software listing for the current pricing, <http://www.its.uiowa.edu/its/cs/software/softwarelisting.html>

~ Susan Beckett

## Reducing Disk Usage

Users often ask the CSS consultants what to do when they run out of disk quota in the home directory. So one of the consultants wrote an e-tude to answer that question. The resulting document covers finding and deleting large files, using the zip or tar commands to compact files, and where else to store files. For the complete version, read the e-tude *Reducing Disk Usage* at <http://css.engineering.uiowa.edu/e-tudes/index.html>. You'll learn how to sort files so that you can identify large files. Deleting a large file is usually more efficient than deleting many small files. The e-tude covers core, cache, application data files, and music and game files, many of which can be deleted.

Once you have removed the large (and small) files you no longer need, you may still need to free up more disk space. Read the e-tude to learn how to compress files by zipping or tarring them. Or store files on a Zip disk. For all the details, go to the URL above.



## spam not SPAM

We do not object to use of this slang term to describe UCE (unsolicited commercial email), although we do object to the use of our product image in association with that term. Also, if the term is to be used, it should be used in all lower-case letters to distinguish it from our trademark SPAM, which should be used with all uppercase letters.

from [http://www.spam.com/ci/ci\\_in.htm](http://www.spam.com/ci/ci_in.htm)

## Incoming Only



Sometime soon this month (August), the services available on the 128.255.20.xxx and 128.255.23.xxx subnets will be restricted to allow outgoing services only. The recent spate of network attacks on more

than a dozen computers on the 20 and 23 subnets prompted this action. One of those attacks slowed down our router, resulting in delays and unavailable services for all computers on the Engineering College network.

Only Windows computers that are **not** college-administered by Computer Systems and Support are on the affected subnets. CSS will notify all computers, and their owners, on the affected nets of this change before the switch is made.

If you need service coming in from another network (EE, IIHR, Internet, for example), get the Application for Incoming Service Form from CSS, 1256 SC. Please complete this form for each computer that needs incoming service. Information you'll need to complete the form includes:

computer: hostname, room number/location of computer, network port number of computer  
person responsible for administering the computer: name, room number, phone number

Only individuals with a permanent University appointment can be the responsible person. Those individuals must agree to manage the computer in a way that maintains its integrity and

security. For example, the administrator must promptly install operating system security patches as they are announced and monitor the machine's use. Failure to keep a computer well maintained will result in denial of incoming services.

If you have questions about how this change will affect you, please call the CSS user consulting office, 5-5055.

## User Forum: Look for It

As announced in the last issue of *Essentials*, CSS will hold a forum this September to learn what you can tell us about being better computer support people. To ensure that you can speak freely, Fred Streicher has agreed to moderate the forum and no one from CSS will attend. We will publish notes from the forum, and we will respond to what you tell us.

The details of date, time, and place have not been settled. Invitations and announcements of the event will appear early next month. Look for those notices; come or send comments to Fred.

~ Diana Harris

*Essentials* is a publication of the Computer Systems and Support (CSS) in the College of Engineering at the University of Iowa. *Essentials* is published during the year whenever there is sufficient news to report to the user community. You have permission to re-print all or part of this newsletter for nonprofit purposes if you 1) acknowledge this source, and 2) send a copy of your publication with the reprinted material to: Newsletter Editor, Computer Systems and Support, 1253 SC, University of Iowa, Iowa City, IA 52242.

This issue:

Editor: Diana Harris. Contributors: Susan Beckett, Doug Eltoft, Chris Fomon, Diana Harris

**Jargon Rating:** 0-2 tongues. 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 at the top.



## Hours

Computer Labs — The 1220 (east) and 1231 (west) labs are open 24 hours/day, 7 days/week. With an access card, you can enter the building and the labs after the building closes.

Consulting, 1253 SC — M-Th 8am – 5pm; 6-9pm; F 8am – 5pm; Sun 6pm – 9pm

CSO 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>