

Essentials

Embrace the Change



No jargon summary: First read the “New Rating System” article on page 2. Then read this article. This is a 1-tongue article, but only in spots. I summarized the article by making each topic **bold**. You can scan the bold type to get a feel for the extent of changes and activity in the College and CSS in particular.

Change is the one constant in information technology. Embrace it and enjoy rush or fight it and suffer—your choice. With the new building opening up, we all have many new changes to embrace. We can enjoy four new (almost complete) **media-equipped classrooms**: 1505, 2217, 2229, 3505 SC. Each has a high-powered Windows computer with a super bright (4000 ANSI lumens!) Sharp projector. (An inexpensive 60-watt bulb averages 600-900 lumens.) These LCD projectors are so bright you can clearly see details of a 1280x1024 image with all of the lights on (and you shouldn’t look directly at the bulb, just like not looking at the sun). They are incredible. Additionally you can read inside about the newly equipped **computer classroom in 1245 SC** with 32 student computers (pg. 4). Not enough change? Then visit the **Black and Gold Labs**, our two new computer labs in 1220 and 1231 SC. They have an innovative “no door” design with many windows that, we hope, make them inviting to students.

In addition to facilities and hardware, we have also been busy with software. **HP-UX 11**, the updated operating system on the Unix workstations, has been running in the labs since June; we still have a few key machines to upgrade to version 11 over the winter break. CSS is also preparing to update to **Windows 2000** (Win2K), the next version of Windows NT. Preparation

includes, just as on the Unix workstations, testing all of the current Windows software under Win2K. See articles inside for updates on updated and new software CSS installed on both Windows and Unix machines (pg. 3, 5, 7). The newest program we have running isn’t described in other articles. Beginning just after Thanksgiving, several students and classes will be using **EASY** (Evaluation and Assessment Survey), a locally developed database survey application.

More change. The number of computers in the Black and Gold Labs will increase for the first time in years. Look for **13 new, fast Windows computers** that are scheduled to arrive and be installed over the winter break. Also, look for a couple of new **scanners**.

Here’s an example of change that should make you happy, not concerned: an increase in server disk space resulting in **increased disk quota**. We have ordered six larger hard drives for the file server; the drives will be installed over the winter break. Look for the down-time announcement, probably early morning December 27th. Disk quotas will rise soon after. Check out our **new file server room** and watch the blinking

“Change...” continued, pg. 2

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"Change..." from pg. 1

lights. We put in the glass windows for this very purpose. It is on the ground floor right at the base of the central stairwell in the new wing.

Other projects are in the works as well.

.. **Virus Scan of Email.** We are working out some difficult system programming details for the email transport program so that we can scan and possibly disinfect all email going in and out of the College.

.. **Spam.** Our email spam filter has been upgraded. We are considering changing the mail system to deliver spam, aka junk mail, to a spam folder in your mail store. Now we filter and delete spam. Under this new system, you would get the spam and you could read or delete it as you like. Old spam email will be automatically deleted, just as we do with the Trash folder.

.. **Engineering Directory.** We are working to upgrade our directory service to work directly from the database in which account information is created and kept. You use the directory to look up email addresses when you enter a person's name in the To: field when writing email.

.. **Active Directory.** We have been working intensely (meetings twice a week) on the University-wide Windows Active Directory project. We expect the University to bring up Active Directory before the end of the year. This project will support campus-wide user account login IDs (like using the new Hawk ID) and help to standardize password policies across campus.

.. **Download Site.** Yet another project just rolled out is the new CSS secure download site. Details inside on pg. 4.

.. **Reorganized Web Pages.** One project we have been working diligently on and are quite excited about is a totally new CSS web site that is easier to navigate and more information friendly.

.. **SecureCRT.** Soon the College and the campus will be expecting everyone to use SSH (SecureCRT) to log in to machines remotely. SecureCRT here will provide one entry point

New Rating System

We know that we in Computer Systems and Support often speak in jargon that sounds like gibberish to the rest of the world. I try to keep the jargon quotient in *Essentials* as low as possible so that all of you can understand what we are trying to tell you. I sometimes fail, I know. And there is a part of our audience that understands the jargon and prefers to have it. With this issue, I'm instituting a new rating system that tells you the jargon quotient of articles. The rating is 0-2 tongues.



A tongue is illustrated here. No tongues means there is no jargon and it should be easy to read and understand. Two tongues means lots of jargon. All 2-tongue articles will include a short summary in plain English that (I hope) captures the sense of the article.

You shouldn't shy away from 1- and 2-tongue articles. If you read enough of them, you'll come to understand them and become a part of the growing coterie that can deal comfortably with computers.

~ the editor



that will seek out the least burdened computer for the terminal session.

All students now have **56K modem Internet access** paid for by their student computer fees. Call the ITS help desk 4-4357 or check out the ITS web site for details (http://www.its.uiowa.edu/its/cs/helpdesk/remote_access/index.htm). The University is currently running a pilot project that would provide all faculty and staff the same Internet access. You may have noticed that the **campus Internet** is faster. ITS has completed a massive network upgrade of the entire core network infrastructure. In addition the University has been exempted from having to be behind the state's ICN Internet proxy server. For the 4 months that we were behind the proxy server, there were many complaints about slow web access.

Embrace the change . . . enjoy the ride. 8^)

~ Doug Eltoft

Windows 2000 in Your Future



No jargon summary: CSS will upgrade to the newest version of Windows NT software sometime soon. That new version is called Windows 2000. You should notice few differences between what you are using now and Windows 2000, though Windows 2000 should crash less than Windows NT4 (what you are running now).

For some time now CSS has been working on the transition from Windows to the more recent Windows 2000 (Win2K).

You'll notice that the Desktop looks like a blend of Windows 98 and Windows NT4, the version of Windows now running on the network. As such, you should hardly be disrupted doing typical computer tasks when learning the new interface. It will be possible to add one or more customized menus to the taskbar for users who prefer a QuickLaunch type of interface. Accessibility improvements include a Narrator to render dialog boxes into speech, and an on-screen keyboard to enable entering text with a mouse or pointing device.

The goals of Microsoft in designing Windows 2000 were increased reliability and robustness of the operation system under error conditions. Common Windows applications would overwrite critical system files without regard to the effect on other applications. Win2K is designed to prevent these types of problems by maintaining the most important system files in a protected area that can not be overwritten, using a technology called Windows File Protection.

Win2K brings full plug and play capability to the NT platform for the first time. Included with this technology is a dramatic decrease in the number of system restarts required when installing new software or hardware. Drivers certified to run on Win2K must be written so as not to require a system restart.

The operating system is designed to effectively use up to 4 gigabytes (gb) of RAM, much more than Windows 98 can utilize.

Windows 2000 uses Kerberos 5 security authentication. This will permit Windows clients and servers to cleanly integrate into existing

Kerberos realms. In addition, Linux and other client computers could be configured to authenticate directly to the Windows Domain, enabling easy access to home directories, email accounts, and other resources such as printers.

Searching for objects is much more powerful. With the integrated Active Directory LDAP protocol, one can search for persons, computers, printers, file shares, as well as other objects across an entire forest; our forest will be the University of Iowa.

Included with the movement to Windows 2000 will be a migration to Office 2000 Premium. The premium edition provides new programs such as Microsoft Publisher, Microsoft FrontPage, and Microsoft PhotoDraw; we have been lacking a non-Unix-based draw program in our public labs since the removal of the Macintosh computers.

~ David Grimmer



Call for Spring Semester Software Needs

If you have free, donated, or purchased software that is not already installed on the system and that you think you might want to use in teaching a class this spring semester, please let us know before the end of the year. Computer Systems and Support would like to have as much time as possible to load and test any new software and avoid as many last-minute software loads as possible for the spring semester. For Unix software, talk to Susan Beckett; for Windows software, talk to David Grimmer.

Note: CSS does not have any funds to purchase new software at this time, but we encourage you to submit a software request form for consideration for fiscal year 2002 funds (academic year 2001/2002).

~ Susan Beckett

1245 SC Classroom



The new 1245 SC classroom features 33 computers, 1 for the instructor and 32 for students who sit in two, long rows. Since every student has a computer, students can be actively involved in learning when in this classroom.

This semester students in Engineering I discussion sections are learning computer-aided design using Pro/Engineer, a 3D-drafting and modeling package. Students are given lessons in CAD engineering, then create parts; teaching assistants circulate to give students technical support. Before this room was available, students shared computers or met ad hoc in the CSS computer labs.

What's in the Room

The teaching station has a VCR, video camera system, amplified microphone, and computer workstation. This computer is connected to a high-resolution Sharp XU-100 projector that projects on a nine-foot screen an image bright enough to leave the lights on.

The 33 computers there are Hewlett Packard Visualize P-class Pentium IIIs running at 750 megahertz. All are equipped with a DVD/CD ROM drive and a 32-megabyte Synergy II card connected to a 19-inch display. The software available is the same as the computers in the Black and Gold labs and the the four general-assignment computer lecture rooms (1505, 2217, 2229, and 3505), including access to your home directory when you log in.

Availability

The 1245 classroom is available through the College of Engineering administration office. Do not request this classroom as the primary class location. Please allow the Facilities Service Group to schedule a general assignment classroom for your use when not instructing hands-on classes. Appropriate classes are those teaching specialized software that require students to work on and receive individual instruction during class time. Discussion sections and classes must limit student enrollment to 32 students. Classes requiring only an overhead projection system should make that request through FSG.

~ Christopher Fomon

The Black and Gold Labs

Please make friends with the Black and Gold Labs. The Computer Systems and Support computer labs have finally been christened. The east lab, 1220 SC, the one that opened first, is now the Black Lab. The former west lab, 1231 SC, is now the Gold Lab. We hope you'll find our labs as useful and friendly as a lab can be.



Address Auto-lookup in WebMail

You can use the Engineering directory when writing email with WebMail. If you know the individual's login ID, enter it on the To: line. "@engineering.uiowa.edu" will be added.

If you don't know the individual's login ID, after clicking **Create**, click **Address**, which opens the Address Book. Enter the person's name in the blank field and click **Search**. When the name you want is displayed, select the name and click the **To** button. You don't need to enter the entire name you are searching for, though the more information you give, the smaller the search results. For example, if you search for "Thom", you'll get a list of all people whose name includes those letters: first name "Thomas", last name "Thomas" and "Thompson".



Download Area


To make working off campus (or in some cases on campus) easier, CSS has created a secure download area. It contains the current virus data files, SecureCRT, X-WinPro, and other software for which the college or the university has a site license. Connect to <http://imap.engineering.uiowa.edu/download.html> and click on the software you want to download. You'll be asked to provide your login ID and password, which authenticate you as authorized to have access to the software; then the download begins.

The download page contains a brief description of the available files. If you have questions about using this page, talk to the CSS user consultants, 5-5055, 1253 SC.

~ Diana Harris

Winter Break Unix Software Updates

MathWorks Release 12



I expect to receive the newest release of Matlab, including Simulink and several other of our MathWorks products by the end of the year, and install it during the winter break. The older release will remain available for a few months in case there are problems with the new release. For information about the new release, visit http://www.mathworks.com/products/latest_features.shtml.

Pro/Engineer

Pro/Engineer 2000i2: I have received a minor upgrade for Pro/E 2000i2 and will install it over the Winter Break. The install should take less than half a day.

Fluent – Good News

Changes have been made with the gift license for Fluent that allows us to support Fluent on college computers.

New Software Update

For the latest news about Unix applications, including problem resolution, visit our Unix software web page at <http://css.engineering.uiowa.edu/support/software/unixsoftware.html>. For example, if you're experiencing a problem using an application (printing from Pro/E or finding a machine that Abaqus will work on), check out our software web page for the answers to these problems. If you don't see an answer, report the problem to our user consultants or to me and I'll investigate it promptly.

Spring Semester Software Update F77-Built IMSL Libraries

In September 2001, HP will cease all support for F77. Beginning with February 2000 issue of the CSS Newsletter, we started to encourage those of you using F77 for development to move to the Fortran 90 (F90) compiler. Anticipating this transition, we also upgraded our IMSL F77 libraries to F90.

The F77-built IMSL libraries are still available on the system. If you use the setup file `iptsetup.csh` (or `iptsetup.sh`), then you are still using the F77-built IMSL libraries. We encourage you to switch to the F90-built libraries. To

do so, use the setup file for the F90-built version of the libraries: `/usr/ui/class/aux/imsl_setup.csh` (or `imsl_setup.sh` for a Korn shell).


At the end of the spring 2001 semester, we plan to remove the F77-built IMSL libraries since HP support for the F77 compiler ends in September 2001. If you have questions about usage, please see me (1248 SC) or the CSS user consultants (1253 SC).

- Susan Beckett



Electronic Whiteboard in 4511 SC

The College of Engineering now has a specialized seminar room, 4511 SC, for small group conferences and seminars. What this room has that no other in the Seamans Center can boast about is a Smart Board, a computerized whiteboard. The Smart Board can be used to store a lecturer's notes and distribute final information to web sites or class pages. It can also be used as virtual ink and has keyboard- and mouse-free operation.



Several presentations have already been held in this room. One speaker gave a PowerPoint presentation with virtual ink annotations. A group brainstormed ideas, wrote them on the whiteboard, and then saved those ideas for the team to work on later. Some web and Internet training has also been done in 4511.

The room has a HP Kayak XA Windows computer, Smart Technologies' Expression Cart, and Smart Board, the Sharp NoteVision6 projector, and a speaker system. The Expression Cart has connections, (VGA, Serial, AC, and audio) for a laptop computer to easily connect to the projector, speakers, and Smart Board. The software available is the same as the computers in the Black and Gold labs and the the four general-assignment computer lecture rooms (1505, 2217, 2229, and 3505), including access to your home directory when you log in. In addition the Smart Board Driver, Smart Board Notebook are installed.

To use 4511 SC, talk to Sue Heeren, who schedules it for use as a 24-seat seminar room.

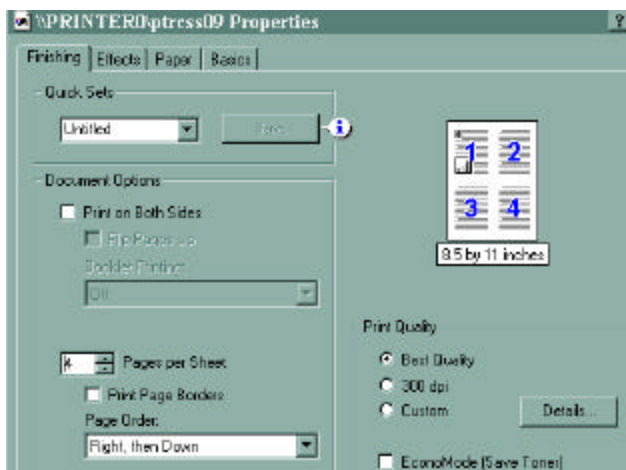
- Christopher Fomon

Lab Printing Notes

Don't Ignore this Article

What does it cost? And why? Printing costs \$.05 per side printed. Our original plan was to charge less for a duplex page (a page printed on both sides). We discovered, however, that because of how the new printer accounting software interacts with the printers, people were getting charged for pages that didn't print and for many pages when a single page caused a printing error. We chose a method of counting pages to be charged that is more accurate, but doesn't allow charging differently for duplexed pages.

One way to cut down on the cost of printing is to print 2, 4, 6, or more pages per sheet. In the Print dialogue box, select the printer to print to and then **Properties**. Select 2 (or more) Pages



per Sheet (see illustration of 4 pages per sheet). In this example, using Word, you get an image on the same screen of how the document will print. (See illustration of 4 pages printed on 1 sheet.) By selecting this option, it will cost \$.10 to print 8 pages of text rather than \$.40.

Unix Print output. When using X-WinPro to connect to a Unix machine, the default Unix printer is now one of the printers in the lab you are sitting in. So if you print something during the time you are connected to a Unix workstation, look for your printout on either of the printers in the lab where you are working.

~ Diana Harris

No LDAP? What It Means

The next version of Netscape, 6.0, does not include LDAP directory lookup in the Messenger mail program. What does that mean? It means that when you use Messenger to write a piece of email, you'll no longer be able to type in the name of the person in the Engineering College to whom you want to send email. CSS is currently evaluating what to support as our mail client, and will probably settle on Eudora 5 after doing more testing.



Do not panic. CSS will not yank Netscape Messenger away. We will offer training and individualized help moving to Eudora when we are ready to offer and support it.

Ask Diana— Multiple Mailboxes?

Q: I have two copies of the same email folders. How did that happen? Shall I delete the extra copy?

A: Although it looks like you have two copies of the same mail, you have only a single copy. So, **no**, don't delete the extra copy because it isn't an extra copy.


How did it happen that you saw two copies of the same mail? In Netscape, look **under Edit | Preferences | Mail & Newsgroups | Mail Servers** and you'll see that you have configured two mail servers: `imap.engineering.uiowa.edu` and `imap4.icaen.uiowa.edu`. Although those are two different names, they name the same mail server, the only mail server CSS runs. The correct way to remove the seemingly extra copy is to delete the mail server named `imap4.icaen.uiowa.edu` from your Preferences.

Moral of this story to all readers: if you still have a mail server named **imap4** and one name **imap**, delete the **imap4** server. If you have only one mail server and it is named `imap4`, add `imap.engineering.uiowa.edu`, make it the default, and delete the `imap4` server.

Need help? Have questions? Call the user consultants, 5-5055, 1253 SC.

~ Diana

New Windows NT Applications Available This Fall



Several applications previously available only on HP-UX computers have been added to the Windows NT machines in the Black and Gold labs, 1220 and 1231 SC. The addition of these programs should help to alleviate the shortage of computers during the busiest times of the week. New applications for Windows include:

Matlab, version 5.3 This version is the same as the HP-UX version, with better support for formatted output to printers. You may wish to run your computationally intensive projects using Matlab on the higher performance HP-UX workstation. Then open the output figures in the Windows versions for formatting and printing. For most Matlab users, either platform will provide acceptable performance.

Maple 6 New version, up from 5.0. Maple is a mathematics analytical solution package.

Mathematica 4 Version update of the mathematics package.

Minitab 13 Minitab Release 13 is a powerful, statistical software package that provides a wide range of data analysis and graphics capabilities; intuitive user interface; clean, clear output; procedure-specific statistical guidance; and extensive, context-sensitive, online help.

IDL + VIP 5.3 VIP is the Visual IDL Programming environment. VIP is written in IDL (Interactive Data Language), and allows you to take advantage of the IDL computing environment — its powerful, array-oriented language, mathematical analysis, and graphical display techniques — without having to deal directly with the IDL command line or be familiar with the IDL function set and command syntax.

IDL provides a complete computing environment for interactive analysis and visualization of data. IDL integrates a powerful, array-oriented language with numerous mathematical analysis and graphical display techniques. Although programming in IDL is a time saving alternative to programming in Fortran or C, you must learn the usage of hundreds of IDL commands and routines. In the VIP environment, you can generate your own data analysis

procedures without knowing how to use IDL's function set.

HEC HMS and RAS This package is a powerful hydraulics watershed modeling and analysis software from the Army Core of Engineers. Very interesting package and worth a look.

ChemCad 5 New version of the powerful chemical engineering design package. It is used for steady-state simulation, physical properties calculations, equipment sizing and costing, and certain other chemical engineering calculations. Modules included:

CC-BATCH simulate batch distillation columns

CC-ReACS simulate batch reactor systems

CC-DCOLUMN generalized dynamic simulation of distillation columns

CC-THERM detailed design/rating/simulation of shell and tube heat exchangers

CC-PROPS calculate mixture physical and thermodynamic properties

~ David Grimmer



Disk Usage

For the past year, we have been tracking disk usage in order to give us a better idea of usage trends and network-wide storage needs. Click on this [link](#) to see a chart of the average daily use by different groups of users in the College for January 2000 through October 2000. (Of course this works only in the on-line version. Go there (http://css.engineering.uiowa.edu/nl/essentials/nov_00.pdf) now.

~ Susan Beckett

What You Are Using

Fall Semester,
August - November 3, 2000

Program	Launches
Netscape	26485
Screen lock	15056
Internet Explorer	13026
Microsoft Word	10617
Acrobat	6054
Excel	4882
Xserver	4099
telnet	4003
mail notifier	3701
equation editor	2152

These data come from the Windows NT machines. The last time I reported numbers, March 2000, the top 5 (most launched) programs were: Netscape, Microsoft Word, Internet Explorer, Excel, and the mail notifier. Things haven't change a lot.

You can see that Netscape and IExplorer were both used extensively; some of that use is certainly to read email with WebMail, though that statistic isn't available.



Tip:

You can look at your CorporateTime calendar from home. Go to <http://calendar.uiowa.edu/>

The Xerox Machine

In early November a Xerox photocopy machine arrived in the Gold Lab, 1231 SC. Photocopies cost \$.10/page if you pay with cash (nickels, dimes, quarters, \$1.00 and \$5.00 bills accepted) or \$.08/page if you use a Single Card copy card. Purchase the Single Card copy cards at the Main Library Document Center #8, or in card dispensers located on the 1st and 3rd floors of the Main Library. These cards cost \$5.00 when purchased with cash from a dispenser, and \$5.25 when purchased with cash or requisition at the Document Center.

Cards can be used at any of the 33 self-serve copies on campus. You can recharge the card at the copier in the Gold Lab. Instructions for recharging are on the copier.

CSS will add paper to the copier and call in problems. If the copier needs paper, come to the user consulting office, 1253 SC, and inform a consultant. Thanks.

~ Diana Harris



Tip:

Don't give folders (sub-directories) names with spaces. When you create folders into which you store email or other files, don't give those folders names with spaces. Use a hyphen (-) or underscore (_) to separate parts of the name. For example, a good mail storage folder is "replies_nov_00"; don't use "replies nov. 00".

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, Christopher Fomon, David Grimmer, Diana Harris

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
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>