Exciting news! As announced in the August INFOShare, ITS is proud to unveil the anticipated expansion, standardization, and support of classrooms with computer/projector, audio/video, fixed-workstations. During this first phase of the project, 21 rooms in Kettler and ET, which currently house no computing technology, have been selected for the installation of teaching workstations with 'state-of-the-art' technology. This will also set the standard for equipment and documentation on teaching stations across campus.

CIM Audio Visual was awarded the contract for this project and will be on-site between December 18 and January 6 to install the new workstations and equipment without having to schedule downtime for these rooms while classes are in session. Earlier this semester, ITS installed a “demo” workstation in our KT205B training facility where open forums were held for faculty and staff to test and evaluate the equipment for functionality and ease of use. We have incorporated this valuable feedback to produce the final specifications for what you will see installed on these workstations in the spring semester. The new workstations will include:

- A new lectern, specially designed by Spectrum
- DVD/VCR combination units
- New Panasonic projectors
- New Dell teaching computers
- Touch panel control system by Crestron
- Remote support from ITS

This easy-to-use, centralized system means that there will no longer be remote controls in the rooms. All audio and video devices can be activated and adjusted via the Crestron touch-panel interface, which combines tactile buttons with advanced touch-screen technology.

The most outstanding feature we can now offer with this new equipment is remote support directly from the Help Desk. Instructors can request assistance by pressing “Call for Help” on the touch panel. An alarm will sound immediately at the Help Desk, where employees will assist via telephone or via automated remote control, directly to the workstation. They can also dispatch a technician to the room if necessary.

ITS will hold an open house in January for all faculty and staff to examine the new classroom technologies. Watch for an announcement on “This week at IPFW.” We would love to have you stop by!

For those of you who have used the new Macromedia Breeze service available to faculty and staff this semester, changes will take place over the winter break on the West Lafayette Breeze servers. Adobe has announced a name change and facelift for the Macromedia Breeze interface. For more information see: http://www.adobe.com/products/connect/

“Adobe® Connect™, derived from the product formerly known as Macromedia Breeze, is a secure, flexible web communication system that enables IT professionals to support and extend the functionality of Adobe Acrobat® Connect Professional to provide enterprise web communication solutions for training, marketing, enterprise web conferencing, and online collaboration.” According to West Lafayette’s ITaP, changes from the client perspective will be primarily cosmetic. In mid 2005, the Adobe Corporation acquired the Macromedia Breeze product line along with other Macromedia products. Since that time, the products have remained under the Macromedia name. As expected, Adobe has now asserted themselves a bit more and will change the Breeze product name. Many customers view the change as simply a re-branding of the product. We do not foresee any significant changes to the user experience. Current Macromedia Breeze users will be notified when West Lafayette administrators plan the change. The ITS Web page http://www.its.ipfw.edu/resources/breeze/default.shtml will soon reflect this update.
Although cluster computing has been around since the 1970’s, it is an unfamiliar concept to many people. A computer cluster is a group of computers (PCs) coupled together so that they can work as if they were a single computer. Clustering personal PCs improves the performance over that of a single computer and typically makes them more cost-effective than single computers of comparable speed. Recently, due to the vision of IT management and technologists, cluster computing became a reality on the IPFW campus. Known as Beowulf clusters or parallel clusters, this project provides the university community with specialized application computer clustering.

Sam Whiteman, Parallel Systems Programmer for the ITS Infrastructure group, has been working on this project since 2004 and affirms that the IPFW cluster IPFWCL1 has grown significantly from 80-nodes to 128-nodes over the past two years. Sam explains that rather than disposing of obsolete, yet working PCs at salvage, they are now loaded with a Linux operating system and moved to the cluster (IPFWCL1) or used in custom-built clusters requested by individual faculty or departments. Each computer in the cluster is known as a “node,” so when coupled with other nodes, they operate as one larger, faster computer.

Sam recently built a 24-node cluster upon request for the Chemistry department (pictured below) but a more typical four-node cluster can also be requested for individual faculty members for smaller cluster projects. Typical uses for cluster computing include: computation applications such as complex pattern-matching and analysis, research and scientific applications including engineering simulations and fine element analysis; and large-scale processing of data. In anticipation of your cluster questions, we refer you to the following short list of FAQs.

1) Where would the cluster be located? The cluster may be kept at the requestor’s office or home.
2) What would a cluster cost? The cost to the requestor would be nominal. The requestor would be responsible for the hub/ switch for interconnecting all stations, a power strip, and (if the cluster went off campus) a monitor. ITS would provide the mouse, keyboard, monitor (on campus), one P3-450 or better head node, three P2-400 or better computing nodes, Ethernet cables and power cords, 8GB of hard disk space, and approximately 192+ MB of memory. Software could be loaded to be compatible with IPFWCL1, or operating system of the requestor’s choice.
3) Who maintains the cluster? Routine maintenance and final disposition of these systems are the responsibility of the requestor.

For more information on cluster computing, you may phone Sam Whiteman at 16076 or e-mail whiteman@ipfw.edu.

Professor Ron Duchovic appears to have limitless energy for teaching and research, and he is also no stranger to cluster computing. Ron has an extensive background in computers ranging from personal computers to supercomputers. He did postdoctoral work at Northwestern University and the Argonne National Laboratory and has worked at many notable laboratories, including NASA’s Ames Research Center.

In May 2006, Ron attended a week-long conference in Houston, Texas, presented by the National Computer Science Institute with funding from the National Science Foundation and the Shodor Education Foundation. The topic was cluster and parallel computing. When he returned, Ron contacted ITS to build a cluster containing 24 nodes, which is currently still in the developmental stages in the Chemistry department.

His most recent project is a hand-me-down supercomputer from the University of Illinois at Chicago. Known as the Origin 2000, it contains 128 processors. Ron explains that this machine is not a “cluster” but rather a “highly parallel machine” so it is better to refer to it as a multi-processor, 64-bit scientific computer. He gained experience with this type of supercomputer some years ago at the National Center for Supercomputer Applications (NCSA) at Urbana-Champaign. Once the Origin 2000 is fully functional he will use it in part for a project, the origins of which go back to 1999 when he spent his sabbatical at the Argonne National Laboratory. There, he developed the first release of POTLIB 2001, a Fortran library of Potential Energy Functions that can be used in chemical dynamics and chemical kinetics calculations. In conjunction with this project, he was awarded over $129,000 in 2004 from the National Science Foundation. The results of POTLIB 2001 are available at The Queen’s University, Belfast, Northern Ireland, the University of Minnesota, and here at IPFW. Ron hopes to demonstrate that the POTLIB 2001 library will run on highly parallel machines like the Origin 2000 as well as on clusters.

At IPFW, Ron has taught a computer methods in chemistry course as well as interdisciplinary science courses for non-science majors, a freshman chemistry course, junior level physical chemistry, and a graduate course in physical chemistry. He acknowledges, “In the big picture, the research that will be done makes the most sense when it complements my teaching. My research keeps me engaged with the frontiers of chemistry and it’s fun to do! I can then bring this enthusiasm into the classroom. Further, my research simply keeps my mind engaged with asking questions and I’m able to demonstrate that characteristic to my students. I am able to offer them a research experience. I don’t think that research at a primarily undergraduate institution should be focused on itself; our job is to educate and to give our students a solid base on which they can build a future. This might involve a research career and study at a major research institution. But this is just one of many possibilities.”
Instant Messaging Security Risks

By Michael F. Kanning, IT Security Officer & Manager of Applications

Use of Instant Messaging (IM) is swiftly increasing in popularity. Although communicating via IM has many of the same security and privacy risks as e-mail, there are additional dangers. Instant messaging may lack encryption or offer weak encryption of messages between IM users. Consequently, it bypasses protections designed to limit the transmission of computer viruses and malware. Further, it permits retrieval of IM conversations by providers and unauthorized third parties.

Because IM use is pervasive, University constituents should be compliant with state and federal laws that are relevant to the use of this technology. Indiana law requires that all records created, received, retained, or maintained by a public agency are public records and must be disclosed upon request. “Public records” include communications which are generated both on paper and electronically. Accordingly, if you store any messages on University equipment, they are considered “public” records.

In May 2006, nearly 354 million users were taking advantage of IM’s accessibility and convenience. Keep in mind that for some University records, federal and state law retention requirements exist. This means that business records that contain data covered under GLBA or HIPAA need to be retained for a certain number of years. These requirements would apply to any IM logs as well.

Although Purdue policy neither supports nor endorses the use of IM as a means for conducting official University business, all employees should be aware of the risks of sending information via instant message.

Using IM for University business must be justified by the individual departments. All departments are reminded to follow Purdue’s data handling requirements when handling University data and are strongly encouraged to be mindful of laws relating to document creation and retention, as well as the general dangers of IM usage. If you have questions pertaining to your particular situation, please feel free to contact me by phone 481-6200 or by e-mail at kanningm@ipfw.edu.

Campus Software Updates

By Joseph McCormick, Manager of User Technology Support

IT Services is proud to present this issue’s Software News covering major changes made on faculty/staff computers and in Student Access Labs from October to November, 2006. We hope this will help you make the best use of the software available on the IPFW network.

-Novell Client 4.91 - Service Pack 2
Available at: IPFW Icons > Novell > Novell Client 4.9.1 sp 2 > Reinstall.
This update was applied automatically, however if you experience problems with the Novell Client and feel comfortable you may attempt a reinstall.

-ChemDraw 8
Available in Student Access Labs at: IPFW Icons > Academic > Chemistry > ChemDRAW.
This is a chemistry department application which was previously only available for faculty members, it is now available for any chemistry student to use in a Student Access Lab.

-Mozilla Firefox 2.0
Available for Faculty at: IPFW Icons > Internet > Installs. Mozilla Firefox 2.0.
Also Available in Student Access Labs at: IPFW Icons > Internet > Mozilla Firefox 2.0.
For more information, see the following URL: http://www.mozilla.com/en-US/press/mozilla-2006-10-24.html

-Population Genetics Simulation & Tutorial
Available for Biology Department Faculty at: IPFW Icons > Dept Apps > Bio.
Also Available in Student Access Labs at: IPFW Icons > Academic > Biology.

-Windows Media Encoder 9
Available in Student Access Labs at: IPFW Icons > Accessories. Windows Media Encoder
This application is used for screen capture, video encoding, and broadcasting in the Windows Media Format.

-Folio 1.61
Available to IPFW Box Office Employees at: IPFW Icons > Dept Apps > Box Office.

New Faces in ITS

Bob Bailey - Bob moved from LRC to IT Services’ End-User Support team in November 2006. Before moving to ITS, Bob earned an Associates degree in electronic engineering from ITT Tech and worked in LRC eleven years as an Electronics Technician. He has lived in Hicksville, Ohio, most of his life and has two children: Rob, 28 and Kelley, 14. Bob’s hobbies include making multi-track recordings and playing bass guitar in a country gospel band. Home repair projects also take a lot of Bob’s time, including the two car garage he built this past summer. Welcome, Bob!

Michael Berkshire - Mike joined IT Services’ Systems Administration in October 2006. He is an Air Force veteran of Desert Shield/Storm. When he returned from military duty, Mike attended IPFW to pursue an IS degree from ’93 to ’94. He then went to Southwest Allen County Schools where he worked as a hardware technician and then a Network Technician. Mike's wife is currently attending IPFW and has nearly completed studies to become a United Methodist Minister. They have three children in elementary school. Welcome, Mike!
Out With the Old and In With the New—Web Server

The current IPFW web server is a whopping 10 years old! In light of its age, it is due to be replaced with a new server in the next few weeks. The upgrade will likely take place over winter break so we wanted to get the word out before many people left campus for the holidays. This upgrade will only affect department and faculty/staff web pages, not student web pages.

Most of the changes will be transparent, in that no URLs will change and no actual down time for visiting web pages is expected. There will be a 12-24 hour period of time where you won't be able to update pages. During this time, the server will be locked in read-only mode while we copy the files from one server to the other. Once the copy is complete and the hardware is replaced, connections to the P drive will again be allowed. In anticipation of your questions, we refer you to the following short list of FAQs.

1) What won’t change:
   a. The URL to any of your pages
   b. Your access to the P drive (other than the 12-24 hours it takes to copy files)
   c. The way you update your pages on campus

2) What will change:
   a. p:\users\username becomes p:\webmasters\username
   b. The new server name and webmasters folder will affect FTP settings (off campus editing)
   c. Macintosh users will mount WEB3_WEB instead of WEB1_WEB

Visit [http://www.its.ipfw.edu/news/changes/](http://www.its.ipfw.edu/news/changes/) for up-to-date information and specific details on what you will need to do before and after the upgrade. An e-mail will also be sent to all IPFW webmasters before the upgrade takes place.

Bits & Pieces

1. Coming Next Month in INFOShare
   - Alphabet Soup—Where Do I Store My Files?
   - Junk Mail Handling, Helpful Hints

2. GroupWise version 7.0 is being released to selected departments.

3. Gear up for Spring—WebCT Classes, DreamWeaver & more.

4. Training Sessions are subject to change. Please check the Training Schedule on the Web for the latest information.

5. Check out the new ITS Web site at [http://www.its.ipfw.edu](http://www.its.ipfw.edu).