information services and technology

IS&T

News about Information Services and technology throughout MIT

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Inside! Schedules of Hands-on Training Courses and Free Computer Events

High School InvenTeams Create Devices That Help Others

• Kayla Willis

Instead of building robot arms to play catch with or scripting computer code to do one's homework, the next generation of inventors is developing devices to help others. From June 20 to 22, twenty-two InvenTeams from across the nation will congregate on MIT's campus for the 2007 Odyssey – the finale event to showcase and present invention prototypes.

InvenTeams is an initiative of the Lemelson-MIT Program, which awards grants of up to $10,000 to high school teams to develop, during the school year, inventions that address problems of their choosing. Seven InvenTeams from the 2006–2007 academic year used their problem-solving and engineering skills to design assistive technology. Four of the teams adapted common electronic devices to provide greater independence to people with disabilities.

Pulsing Laser Remote Control

According to Henry Evans, a Californian who is paralyzed from the neck down, "Caregivers have big hearts, but little patience for technology. They refused to use my environmental control unit, because they had to boot up a computer when I wanted to flip on the light switch." When Chris Tacklind, an InvenTeams mentor, visited Evans, a former colleague, in the hospital, he saw an opportunity for a group of creative young inventors to make a difference in the quality of Evans' life. The Palo Alto High School InvenTeam signed up for the challenge.

Evans explained his frustrations with the environmental control unit's complicated interface. "Although it is simple for a techie to set up, I don't live with a techie," said Evans. Tacklind and the 30 students on the InvenTeam brainstormed ways to create an easy-to-operate system that would help Evans navigate through his house independently.

The InvenTeam decided to design a custom remote-control laser device that could be mounted on Evans' eyeglasses. The device they developed directs a pulsing laser to switch on lights or a television, or to perform other day-to-day tasks. The remote control operates through a solar cell, which recognizes the pulsing laser and feeds information into a tiny computer.

More affordable and easier to operate than other environmental control units, this device has given Evans newfound freedom. "It only requires the caregiver to put on my glasses; from there on I do everything. In fact, I can now switch on the light across the room faster than an able-bodied person, with no help. It restores a small part of my independence. As a bonus, the laser cost tens of dollars instead of thousands, so you don't need insurance to get it," said Evans.

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InvenTeams

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In April, alongside university research labs, start-ups, and design studios, the Palo Alto High School InvenTeam displayed its prototype at the Stanford Graduate School of Business "Cool Products Expo," which features cutting-edge technologies from companies. In May, the Palo Alto InvenTeam attended the Maker Faire – a showcase organized by the staff of *Make* and *Craft* magazines to celebrate science, art, crafts, and engineering. In June, the students will present their invention at MIT.

Remember This!

The Bromfield School InvenTeam of Harvard, Massachusetts, also received a grant for 2006-2007. Starting in October, this InvenTeam, consisting of seven students, met twice a week for three-hour sessions. Its goal was to develop a user-friendly operating system for those affected by early-stage Alzheimer's Disease, dementia, and other memory-related illnesses.

This InvenTeam focused on creating a device that would remind users to take their medication or close an open door. Unofficially known as the "aPod," this invention works on a Bluetooth-enabled Palm handheld which has an easy-to-use three-button shell. The students programmed the device to receive wireless alerts from an electronic pill-box and a door sensor; these alerts are displayed as simple text messages on the Palm screen. The device also generates follow-up reminders that reappear at intervals on the screen until a task has been completed.

"It is more user-friendly and provides confirmation that the user actually performed a necessary function," said Connor MacKenzie, a tenth-grade team member. "Also, it is designed to be fairly inexpensive when commercialized." Possible future functions of the memory-assistive device include brainteasers, music, mind games, and a directory with names and pictures of family and friends. These options are meant to stimulate the brains of people who have early-stage Alzheimer's Disease.

Last fall, the Bromfield School InvenTeam met with Colin Twitchell, Director of the Lemelson Assistive Technology Development Center of Hampshire College. Twitchell collaborated with the students to create a clay-model prototype to assess the device's form, size, and weight.

"I am amazed at what quick studies the kids are. They learned about new software, hardware, and wireless technologies at a fast pace," said Barbara Petroulis, one of the InvenTeam's mentors and mother of a ninth-grade InvenTeam member, Mac Devlin.

IT to the Rescue

Two other 2006–2007 InvenTeams created assistive devices that rely on information technology: the InvenTeam from Miller Place High School in Miller Place, New York designed a wheelchair tip alarm, and the InvenTeam from Westview High School in Beaverton, Oregon developed a tactile graphing calculator for the blind.

Odyssey 2007

All 22 InvenTeams will showcase their inventions – which span health, safety, environmental, and consumer products – in an informal exhibit on June 20 and 21 from 9:30 a.m. to noon on Student Street in the Stata Center (Building 32). The InvenTeams will present their invention processes on June 20 and 21 from 5:30 to 8 p.m. and on June 22 from 10 a.m. to noon at the Kirsch Auditorium in the Stata Center. These events are free and open to the public. For more information, visit

`web.mit.edu/inventeams/odyssey.html`

It's Time to Renew MIT Personal Certificates

Certificates are your key to secure web services at MIT – including ECAT, Employee Self-Service, SAPweb, and WebSIS. Personal certificates expire periodically, and renewal is not automatic. To get a new certificate that will last until July 31, 2008, go to

`web.mit.edu/ist/topics/certificates`

and click on the link "Get MIT Personal Certificate." Note that if you use certificates on multiple machines, you will need to get a new certificate for each machine.

Web Browser Recommendations

Before you renew your certificates, check to see that your web browser is up to date. The current web browsers recommended by IS&T, by platform, are

- Windows
  - *Internet Explorer 6.0.2 SP 2 or later* for Windows XP SP2
  - *Internet Explorer 7* for Vista Enterprise
- Macintosh
  - *Safari 2.0.3 or later* for Mac OS X 10.4.9 or later on PowerPC Macs
  - *Safari 2.0.4 or later* for Mac OS X 10.4.9 or later on Intel Macs
- Linux
  - *Firefox 1.5.0.x*

IS&T also supports Firefox as an alternate browser on Windows and Macintosh computers. Firefox's update system checks to see if you're running the latest version, and notifies you when an update is available.

It is important that you apply all critical operating system and web browser patches. For instructions on how to do this automatically, see

`web.mit.edu/ist/topics/security/patch.html`

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ZoomText Magnifies Screen Views for the Visually Impaired

• Mary Ziegler and Matthias Thorn

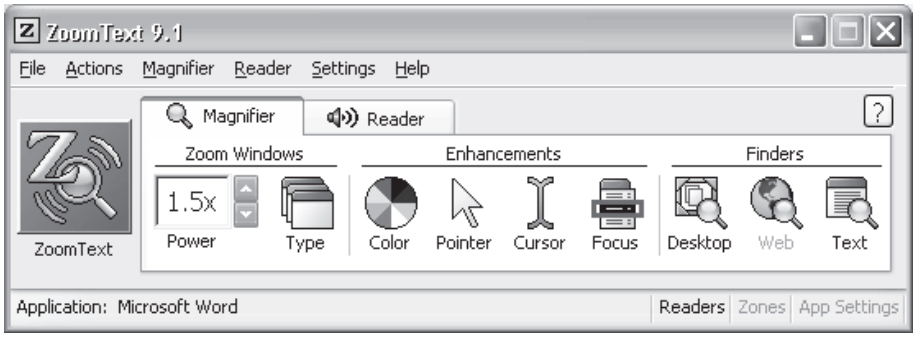
If you find you're having trouble seeing the text on your computer screen, you're not alone. Fortunately, both Windows and Macintosh operating systems offer some flexibility in increasing font sizes and display resolutions. If your visual impairment is severe, however, you will most likely need a more sophisticated solution. When this is the case, the IS&T ATIC Lab recommends dedicated magnification software, such as ZoomText Magnifier/Reader 9.1.

ZoomText 9.1, from Ai Squared, is a Windows-only application. The latest version, released in May, adds compatibility with Microsoft Office 2007 and Windows Vista. **Note:** While there is no comparable program for the Macintosh, it's still worth exploring the accessibility options that come with Mac OS X (see sidebar).

Two Editions

Ai Squared offers two editions of its program: ZoomText Magnifier and Zoom Text Magnifier/Reader. Each is packed with a highly customizable set of magnification features that address common challenges for low-vision users.

- *Improved font technology*. ZoomText 9's "xfont" technology improves the clarity of magnified text. You can also control the smoothing, level of boldness, and spacing between letters.
- *Magnification levels*. ZoomText offers incremental magnification levels ranging from 1.25 times to 36 times the normal screen size.
- *Magnification views*. You can magnify the entire screen or a portion of it, or move a "lens" across the screen.
- *Pointers and cursors*. Standard pointers and cursors can be difficult to locate or track. ZoomText provides six enlarged pointers and cursors, some with additional cross-hair bars or circles surrounding them. Their sizes and colors can be customized.
- *Color schemes*. Magnifying a standard Windows color scheme may not provide enough contrast or may include a color that is invisible to a colorblind user. ZoomText lets you select two-color modes (e.g., yellow on black), color dyes, or other colors.



ZoomText's user interface window contains all of the controls for operating the program.

- *Desktop finder*. This feature makes it easier to find desktop icons or items in the Windows Quick Launch bar.
- *Dual monitor support*. Using two monitors greatly increases the amount of magnified text you can view. You can also use one screen for a normal display size and the other for items you need to magnify.
- *Hot keys*. Adjusting settings with a pointing device can be tedious when the screen is magnified. ZoomText provides keyboard shortcuts (hot keys) for every setting and feature.

For users with advanced visual impairments, ATIC recommends ZoomText Magnifier/Reader. This adds text-to-speech screen reading functionality so that you can listen to what you are seeing. ZoomText Magnifier/Reader includes these screen reading tools:

- *AppReader*. This tool reads the text of an email, document, or web page while visually highlighting each word. The default highlighter is a red frame around each word.
- *DocReader*. This tool extracts the text from a document and puts it in a reader window that reformats the text for easier viewing and scrolling. You can also adjust the text size in the reader window.
- *SpeakIt*. With this tool, you can click on an item anywhere on your screen (even outside the active window) and ZoomText will read aloud any text associated with that item.
- *Echo reading*. ZoomText can speak back (echo) keys and words as you type them. A program echo feature also reads back all program controls (e.g., menus, buttons) as they become active. Three levels of verbosity let you decide how much information you want read to you.

Try Before You Buy

You can download a free 60-day trial version of ZoomText at

`www.aisquared.com`

At the same web site, you can purchase the Magnifier software for $395 or the Magnifier/Reader for $595.

ATIC Lab staff are available to demonstrate ZoomText and answer basic questions regarding setup and use. You can reach them at <atic@mit.edu> or 253-7808.

Accessibility Options for Macintosh Users

Macintosh OS X 10.4 offers several features for enhanced accessibility through the Universal Access preferences in the System Preferences panel:

- Screen magnification up to 20 times, which, as of OS 10.4.8, can be activated instantly by holding down the Control key and scrolling the mousewheel
- A scalable mouse cursor (to increase the size of the arrow, I-beam, cross-hair, or other cursor shape)
- Digital contrast adjustment with options for black-and-white, white-on-black, and grayscale screens
- Ability to navigate menus, windows, the Dock, and other interface elements using only the keyboard
- VoiceOver, Mac OS X's built-in screen reading technology

You can find out more about these features in the Mac OS Help documentation and at `www.apple.com/accessibility`.

Tips for Managing Email and Spam

• Robyn Fizz

Most members of the community with MIT email accounts have made the switch to Outlook, Outlook Express, or Apple Mail, the email clients recommended by IS&T. All of these e-mail clients, along with MIT WebMail, use the Internet Message Access Protocol (IMAP). IMAP stores your email on a remote server, which you can access from multiple machines in different locations. Every user with an MIT account has one gigabyte of storage on the IMAP server.

Folders and Storage Options

While everyone has their own preferences for handling email, you may want to consider the following pointers for managing email effectively.

• A well-managed Inbox protects against inadvertent loss of mail. IS&T recommends that you store less than 3000 messages in your IMAP Inbox.

• You can create folders on the IMAP server to organize email outside of the server-based Inbox. You can also store folders locally, on your personal computer. Through preference settings in your email client, you can choose to have mail deleted from the IMAP server when you download it to your local machine, or keep mail stored in both places.

• You may want to keep email that requires action on the IMAP server and move email you want to archive to your local machine. By following this strategy, you won't bump into the 1GB storage quota on the IMAP server, and your archived mail will be backed up with other files on your local computer.

• Email attachments take up a lot of space. If you are closing in on your IMAP quota, you may want to move attachments to your local machine or delete them if you no longer need them.

• If you use a laptop and work in places where you frequently lose your network connection, you may want to move your "active" mail to the laptop, so that you will have uninterrupted access to it. Most email clients have an option that lets you cache your IMAP Inbox on your local machine. The next time you log on, that cache is updated.

• If you prefer to keep your email only on the IMAP server, be sure to back up your folders using WebMail. For instructions, see

`web.mit.edu/ist/services/email/webmail/using.html#save`

To learn more about managing mail with IMAP, go to

`web.mit.edu/ist/topics/email/gettingstarted.html`

Recent Spam Measures

This spring, IS&T took two measures to better manage the deluge of spam arriving at MIT. IS&T no longer delivers email originating from outside the Institute with a spam score of 25 or above, unless the addressor is in an individual's Allow list. Messages scored at 25 or above tend to be targeted at mailing lists rather than specific addresses, and are often ads for stocks, pharmaceutical offerings, and the like.

IS&T has also reduced the default setting for storing and auto-purging spam-scored messages from 21 days to 10 days. IS&T recommends that you check your Spamscreen folder periodically within that alloted time. If you will be away from your mail for longer than 10 days, you may want to customize this setting, which can be set as high as 31 days. For instructions, go to

`web.mit.edu/ist/services/email/nospam`

and select the Personalized Settings link.

Allow and Deny Lists

From the Personalized Settings page, you can also create Allow and Deny lists to ensure that email from particular addresses is flagged accordingly. Changes made here will be effective in all of your email clients. If you make updates to your Allow or Deny lists in WebMail or in your primary email client, they won't be applied universally.

To learn more about Allow and Deny lists, see Tech Tips on page 6.

Getting Help

For assistance with managing email and spam, contact the Computing Help Desk at <computing-help@mit.edu> or 253-1101.

This column presents announcements about IS&T-supported software. For more information about recent releases, see `web.mit.edu/swrt`

IS&T Releases TSM 5.4 for Macintosh and Windows

IS&T recently released Tivoli Storage Manager (TSM) 5.4 for Windows and Macintosh. TSM is IS&T's supported backup application.

TSM 5.4 adds support for Windows Vista and Intel machines running Mac OS X. This version is recommended for all Windows users running Windows 2003 Server, XP Professional SP2 and for all Macintosh users running Mac OS X 10.4 or later on PowerPC or Intel machines. **Note:** IS&T is not recommending Windows Vista at this time. For the current Vista support statement, see

`web.mit.edu/swrt/releases/vista/wait.html`

You can download TSM 5.4 from the MIT Software Distribution site at

`web.mit.edu/software`

Certificates are required.

To learn more about the latest versions of TSM, see these web pages:

Windows

`itinfo.mit.edu/product.php?vid=745`

Macintosh

`itinfo.mit.edu/product.php?vid=744`

For assistance with TSM, contact the Computing Help Desk at <computing-help@mit.edu> or 253-1101.

SAPgui 7.00 Revision 3 Available for Macintosh SAP Users

SAPgui 7.00 Revision 3 for Macintosh is the first version of the SAP client that supports both PowerPC and Intel Macintoshes running Mac OS X 10.4. SAPgui 7.00 Rev 3 also fixes a number of bugs that have been discovered since SAPgui 6.40 Rev 6 was released.

If you use an Intel Macintosh but access SAPgui for Windows via Citrix, consider upgrading to SAPgui 7.00 unless you need the iXOS viewer (for example, to view images of invoices or billing documents).

For documentation on SAPgui 7.00 Rev 3, including how to obtain it, go to

`itinfo.mit.edu/product.php?vid=740`

If you need help using SAPgui 7.00, contact the Help Desk at <computing-help@mit.edu> or 253-1101.

Thumb Drives: Easy for Storage But a Threat to Security

• Monique Yeaton

When you need to take home computer files or take them with you when traveling, you probably copy them onto a thumb drive (also known as a USB flash drive) and toss it into your briefcase. But wait. You thought you'd put the drive in your briefcase. Or was it in one of your pockets? Just where is that thumb drive?

Data to Go

A survey of IT managers conducted at the InfoSec security conference in London this year showed that while more than half use thumb drives daily, many still view portable storage devices as a major security threat. Often data managers don't know when data leaves the building. These drives are also lost frequently. If not encrypted, the data on them would be very easy to obtain. What if this were sensitive data?

It's easier than ever to take the data and run, while keeping it safe has become more challenging. Some companies try to limit the ability to connect portable storage devices to corporate

machines. However, one common practice – gluing shut an employee's USB port – can significantly hamper productivity. Thumb drives are an easy way to share, transfer, and store data.

Considerations

While encrypting such devices or creating policies to limit their use may be the answer for some organizations, from the "big picture" perspective it's important to know where the data is, who has access to it, and why or where it's being used. Without the ability to block or monitor what people put on these devices, educational institutions like MIT depend on adherence to IT policy and the good sense of their employees to ensure that data is protected.

A clear danger of routinely copying files onto thumb drives is that people become nonchalant about using them. Each time you copy data onto a portable device, you should think carefully about whether the data is sensitive or constitutes a risk if lost.

Keep in mind that risk travels a two-way street. At business conferences, thumb drives are sometimes handed out for free. But until you attach a thumb drive to your USB port, you can't know what it contains. If there is a malicious file on the drive, which activates as soon as you insert the drive in the port, it could harm your system. To be on the safe side, never trust an unknown thumb drive.

Sloan Students Collaborate with IS&T in Course 15.568

• Paul Heffernan

Each spring since 2005, the Sloan School's class in Practical Information Technology Management (15.568) has teamed up with IS&T on three initiatives. Acknowledging the benefits of this partnership, Jerry Grochow, Vice President for Information Services and Technology, and Professor Benjamin Grosof, who teaches 15.568, agreed to do it again this year.

The premise behind 15.568 is to complement students' knowledge of information technology (IT) by focusing on the organizational and people aspects of IT project management. Involvement in IS&T initiatives gives the students real-world experience in information gathering, analysis, meetings, and last-minute changes in scope and objectives.

The 15.568 Teams

Asked to look into a possible MIT Mobile web site, Mark Adkisson, Eric Adum, and Mark Egan, with Andrew Yu as the IS&T sponsor, surveyed students and concluded that there is a need for an MIT Mobile Portal that would be accessible from any cell phone or other mobile device. The screen size of devices, the way they are used, and expectations for interactivity were factors in Team Mobile's recommended list of features for the portal, which included a People Directory and ShuttleTrack information. The team also created an MIT portal prototype, and developed a plan with cost projections for implementing a mobile portal service at MIT.

Two teams were tasked with evaluating Stellar – MIT's course management system (CMS). One team, composed of Yaser Khan, Shalewa Odusanya, and Lev Popov, looked at Stellar's use by Engineering departments at MIT. The other team, with members YunJa Chen, Davy Kim, and Xianghua Lu, studied its use by other departments at MIT. Arti Sharma and Wilson D'Souza were the IS&T co-sponsors.

Both teams conducted student surveys, interviewed faculty, and compared Stellar with CMSs in use at other universities. The team that focused on Engineering departments presented several recommendations to IS&T, including a strong vote for setting up a Stellar portal page.

The other team also compared Stellar with Sloanspace – a CMS in use at the Sloan School. This team recommended creating a student board of volunteers to gather feedback about Stellar, as well as an online forum where faculty can post questions and solutions about using Stellar.

All three teams benefited greatly from the involvement of Anya Gupta, a graduate student who served as the teaching assistant for the class.

Summing Up

IS&T plans to implement many of the recommendations from the 15.568 teams. The findings of the two Stellar teams will be closely reviewed by IS&T and new features and improved functionality will be integrated into the next release of the system, Stellar 3.0. An MIT Mobile Portal is high on IS&T's priority list.

Tech Tips: Spam Settings

This column presents tips about computing. For more information technology Q&As, check the IS&T Stock Answers database at

`itinfo.mit.edu/answer`

Network Notes (page 4) details two measures IS&T has taken to reduce the flow of spam into MIT inboxes. For even more control over spam, use the following tips to manage your Allow and Deny lists. These lists let you identify senders you want to receive messages from and senders you want flagged as spammers, so that their mail never arrives in your Inbox.

Q Where do I find my Allow and Deny lists?

A Go to the Spam Screening at MIT page at

`web.mit.edu/ist/services/email/nospam`

and select the Personalized Settings link. You must have a personal certificate in your web browser to manage your spam screening settings.

Q Why would I want to add a sender to my Allow list?

A Managing spam is not a perfect science and "false positives" can occur. A message that the email system scores as spam might be a message that you requested or expected. By adding email addresses to your Allow list, you ensure delivery to your Inbox of all mail from those senders.

Q Can I add a group of senders to my Allow or Deny lists?

A You can flag a group of senders by using pattern-matching expressions. If you want to allow or deny all mail from a given domain, go to the Allow or Deny field and type the @ sign followed by the domain name (e.g., `@whatyouwishtoallowordeny.com`).

Here are a couple of MIT-specific examples:

- Typing `@mit.edu` into the **Add an Entry to your Allow list** field specifies that you want to receive email from all users with an @mit.edu address. **Note:** This would not include subdomains such as @csail.mit.edu or @plant.mit.edu.
- Entering `@.*mit.edu` into the **Add an Entry to your Allow list** field specifies that you want to receive mail from all MIT addresses, including those in subdomains such as @csail.mit.edu and @plant.mit.edu.

Q Will the settings affect all of my email clients?

A Individuals often use various email clients to access their MIT email. You may prefer Apple Mail at work and WebMail when checking from home. Allow or Deny entries made from the Personalized Settings page will take effect in all of your email clients. If you make updates to your Allow or Deny lists in WebMail or your primary email client, they will *not* be applied across the board.

Computer Currents

Understanding Energy Speak

• Laxmi Rao

The Institute is exploring effective ways to reduce the energy used by computers and other IT devices. IS&T will be making recommendations on this front this summer, so stay tuned. Meanwhile, it may be helpful for community members to understand some of the basic terms used to discuss the measurement of energy.

Potent Words

Energy is the property of a physical object (such as a brick) or a field (such as a magnetic field) that allows it to do measurable work on another object or field. Energy is measured in **joules (J),** named for James Prescott Joule, a pioneering physicist.

It takes approximately one joule of energy to

- Lift a small apple 39 inches against gravity
- Heat one gram of dry, cool air by one degree Celsius

The San Francisco earthquake of 1906 released an estimated 10^{17} joules, equivalent to the energy of 90,000 space shuttles at take-off.

Power is the rate at which electrical energy is transmitted per unit time. The *watt* is the unit of power measurement equal to one joule per second.

- A person climbing a flight of stairs works at the rate of about 200 watts
- A 2007 Toyota Prius hybrid is rated at 82,000 watts (110 horsepower)
- A compact fluorescent light bulb uses 15 watts; its incandescent equivalent uses 60 watts
- A CRT monitor averages 75 watts
- An LCD monitor uses about 30 watts

A *watt-hour* is the electrical energy expended by a one-watt load drawing power for one hour. A *kilowatt hour* (kWh) is a thousand watt-hours; this is the unit of measure employed by utility companies. A typical household in Cambridge uses an average of 700 kWh per month.

Environmental Comparisons of Energy Savings

Carbon dioxide (CO_2) emissions generated by fossil-fueled electricity are measured as *Lbs CO_2/kWh.* Based on data from the Energy Information Agency, saving one kilowatt hour of electricity reduces carbon dioxide emissions by 1.43 pounds.

Cars off the road is a helpful way to compare carbon dioxide reduction in terms of car emissions avoided. The Environmental Protection Agency (EPA) estimates that a car on the road contributes 11,560 pounds of CO_2 per year.

Acres of trees planted is another way to describe the positive environmental impact of CO_2 reduction from reduced power use – since trees sequester carbon dioxide. The EPA estimates that reducing CO_2 emissions by 7,333 pounds is equivalent to planting an acre of trees.

Sources for this article include the U.S. Environmental Protection Agency, the Energy Information Agency, Lawrence Berkeley National Laboratory, and Wikipedia.

Student Information System Due for Major Upgrade in July

• Janet Sahlstrom

On July 16, IS&T's Student and Administrative Information Services will go live with new code for the MIT Student Information System (MITSIS). MITSIS provides administrative system support to academic and student business processes.

This is the first major upgrade to MITSIS since it was first written in the early 1990s. Even so, the impact on users should be minimal. The system's look and feel will be different, but business processes, end user roles, and functionality will not change.

A Wide Reach

MITSIS users include faculty, students, and administrators across the Institute. The Registrar's Office, for example, uses MITSIS for registration, grades, scheduling, academic advising, tuition assessment, and catalog development. Student Financial Services relies on MITSIS for student accounts, funds management, billing, and loan processing. Many other offices, such as Undergraduate Advising and Academic Programming, Office of Faculty Support, Tech Cash, Dining, Housing, and the Medical Department, also use MITSIS.

In addition, the system serves as the back end for several web-based applications:

- *WebSIS* lets students view their accounts and maintain addresses and other personal information.
- *Web Grad Aid* is used by departmental administrators to process graduate student appointments and awards.
- The *Electronic Student Personnel Action Form* enables MIT employers to confirm a student's eligibility to be hired onto the hourly payroll.

MITSIS sends a daily feed of student biographic information into the SAP Payroll system; this data is then accessed when a student is hired.

Training Classes

IS&T will offer over a dozen MITSIS training sessions this summer. The classes will focus on changes to the look and feel of forms, technical transactions, and navigation. IS&T will also provide quick reference guides, online training demos, and other documentation; these materials will be available at go-live on July 16 from the User Docs web site at

`userdocs.mit.edu`

All in the Code

The MITSIS migration is a rewrite of the student information system to Oracle Forms 10g and Oracle 10g Database Release 2. This new platform is stable, supported, and upgradeable. It will eliminate operational risks associated with the old platform, which is a highly customized version of Banner, on Oracle Forms 3.0 and Oracle Database 7.3.

Completing this rewrite of the MITSIS code sets the foundation for the future of student systems and services at MIT. The successful implementation of the new MITSIS platform will make it possible to keep current with technology; it will also enable a strategic evaluation of the long-term direction of MIT's student information system.

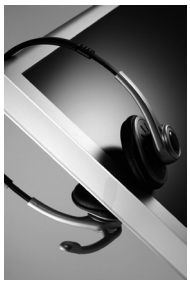
IS&T Help Desk Moves to New Call Distribution System

• Phyllis Galt and Joni Cyr

If you've called the IS&T Computing Help Desk recently, you may have noticed a change. IS&T's 5ESS Operations Team has installed a new Automatic Call Distribution (ACD) system, and the Help Desk has switched to this ACD for phone calls to its main number at 253-1101, as well as to Hardware Repair at 253-0815. The system, called eOn eQueue, is more flexible in its operation and more efficient at handling calls, even during periods of peak volume.

The new system has several features that improve the customer experience. It can

- Answer incoming calls with voice announcements, customized greetings, and system-generated messages that provide statistics such as estimated wait time and the number of available agents
- Play music while callers are on hold or in queue
- Announce information about known system or service outages
- Give callers the option to be routed back to an agent with whom they have had recent contact, within a set timeframe



Flexible Phones

The previous Pinnacle ACD system required Help Desk staff to use a specific set of phones in close proximity to the system. The eOn eQueue ACD lets the consultants use any phone – including 5ESS, VoIP, and cell phones – to connect to the system, on or off campus. In the event of an outage in Building N42 (the location of the Computing Help Desk), calls can be routed to other phones and work can continue without disruption.

Adoption by Other Offices

The eOn eQueue system is also being used by MIT's Admissions Office, and will soon be adopted by the MIT Federal Credit Union and HR Benefits. Each of these offices has different needs for handling incoming calls; IS&T 5ESS Operations, which manages the ACD on campus, will customize the eOn ACD system for each client.

ACD Support

If your MIT office or department handles large volumes of calls, it may be time to explore the advantages of using an ACD. For a service overview, including details about pricing, see

`web.mit.edu/ist/services/telecommunications/acd.html`

If you have questions about the eOn eQueue ACD, call 253-3670 or send mail to <telecom-csr@mit.edu>. **Note:** All requests for ACD service should go through your department's Administrative Officer or designated telephone service contact person.

Getting Help

If you don't know where to get help for your computer, network, or telephone problems, dial one of the help lines listed to the right.

If you prefer to use email, you can send your questions to the corresponding email addresses on the far right. (When logged into Athena, you can also use the `olc` command to send questions to Athena's online consultants.)

You can also submit a technology question online via Request Tracker on the Getting Help page at

`web.mit.edu/ist/help`

For help with...	Dial...	Or send a message to...
General computing questions Macintosh, Windows, network/ connectivity, business applications, computer buying advice	253-1101	computing-help@mit.edu
Athena Computing Environment	253-4435	olc@mit.edu
Computer and printer repairs	253-0815	pcservice@mit.edu
Disabilities and computing	253-7808	atic@mit.edu
Telephone and voice mail services	253-3670	telecom-csr@mit.edu
Telephone repairs	253-4357	3help@mit.edu
Unix/Linux	253-1103	unix-linux-help@mit.edu

Surf Sites: Assistive Technologies

As some of the InvenTeams will demonstrate during the 2007 Odyssey (see lead article), technology can dramatically improve the lives of those who have disabilities. The MIT Media Lab has also made a commitment to help usher in a new era in human adaptability, "where technology will merge with our bodies and our minds to forever change our concept of human capability." You can learn more at the Media Lab's h2.0 Symposium Archive at

`h20.media.mit.edu`

For online sources of news about assistive technologies, check out the web sites on the right.

Alliance for Technology Access
`www.ataccess.org`

American Foundation for the Blind
`www.afb.org/section.asp?sectionid=4`

assistivetech.net – National Public Website on Assistive Technology
`www.assistivetech.net`

Closing the Gap – Assistive Technology Resources
`www.closingthegap.com`

LD Online – Technology for Learning Disabilities
`www.ldonline.org/indepth/technology`

National Association of the Deaf – Technology
`www.nad.org/site/pp.asp?c=foINKQMBF&b=180437`

Working Together: Computers and People With Mobility Impairments
`www.washington.edu/doit/Brochures/Technology/wtmob.html`

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