is&t

News about information services and technology throughout MIT

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

This Is the House That Sass Built, and CAD/CAM Rules

• **Robyn Fizz**

Five houses are under construction across the street from the Museum of Modern Art (MoMA) in New York City. The rampant buzzing and banging are in preparation for a MoMA show that opens in July – *Home Delivery: Fabricating the Modern Dwelling.*

Being chosen to design one of these five houses would be a big deal for most architects. For Lawrence Sass, Director of the Digital Design Fabrication Group in the Department of Architecture at MIT, building a house for the MoMA show is one step in a larger quest. Sass and his group are developing a new science for constructing "premanufactured" homes on site using CAD/CAM software. Their techniques can be applied across the spectrum, from shotgun houses in New Orleans to mansions in the Hamptons.

PreFabulous

Sass makes it clear: if you think you know about prefab housing, think again. Today's premanufactured houses are not uninspired factory-built units. Several features place Sass's dwellings in a new era:

- The houses are made out of flat wooden pieces that a crew cuts on site using a portable router. There is no factory or assembly line involved.
- The structural components – frame and ribs – snap-fit together like puzzle pieces. No nails, screws, or bolts are used. Local laborers can assemble a house in a matter of days or weeks.
- While houses share a basic shell, they can be customized in terms of layout and ornamentation – things like hand rails, trim pieces, facades, and doors.
- Due to the precision with which CAD/CAM machinery cuts wood, high-quality carpentry can be produced at low cost.
- Because the components interlock and the corners are rigid, the houses are much stronger than their traditional counterparts. They can withstand winds of 140 miles per hour.

Sass thinks it will take years for people to embrace digitally fabricated houses. But he does expect them to catch on, just as personal computers, email, and the Web took off exponentially after a period of slow adoption.

These "mass-customized" homes offer compelling advantages. They are relatively inexpensive – because the shell is mass-produced and the components are cut on site. They also allow for significant customization. Via the Web, individuals can select from a menu of house shapes and details. They can also make their own designs, by drawing components or uploading photos of what they like (e.g., a door or pediment).

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The House That Sass Built
continued from page 1

Components can vary in size and shape, but they are made following the same set of rules. For example, different houses can have different ceiling heights and windows: rules then determine how to fit these components together in a structurally sound way. Similarly, ornamentation can express individual tastes, but the rules for attaching it to buildings are always the same.

Sass credits Neil Gershenfeld, Director of the MIT Center for Bits and Atoms and the creator of Fab Labs, as a major inspiration for his work. With Fab Labs, technical information is shared over the Internet and product-making takes place locally using low-cost printers. To learn more about Fab Labs, visit FabCentral at **fab.cba.mit.edu**.

Computation Innovation
Computation is at the core of Sass's work. He starts with a design for a house in AutoCAD. This 3D shape needs to be converted into a 2D drawing that can be cut by machine. This translation is accomplished in AutoCAD by subdividing geometry into smaller and smaller parts. With houses comprised of 1200 or more pieces, the devil is in the details. For Sass, this is where the real research lies. Standard CAD software is not designed to subdivide shapes in optimal ways or to deal with the output of physical products.

Computation also comes into play through three computer-controlled tools that Sass and his group employ for prototyping, testing, and construction.

First, they use a 3D printer to create plaster models of houses, one paper-thin layer at a time. These plaster prototypes let them study and agree on a building's shape and details. (Emanuel Sachs, an MIT professor of mechanical engineering, invented the 3D printer in the 1980s. Its use for architectural models is relatively recent.)

Next, Sass's group assembles a model made of thin wooden parts cut by laser. This prototype, one-sixth the size of the final building, lets the group test the assembly of components. It is used to identify errors in CAD geometry and flaws in the construction system. With interlocking parts, perfect alignment is critical.

Once it's finalized, the file of the laser-cut model is scaled up six times. AutoCAD feeds this data to a router the size of a kitchen table. The router cuts parts out of seven-by-three-foot sheets of plywood and construction can begin. The house is literally built on the spot.

Historically, creativity in architecture has been very expensive, unlike creativity in painting or photography. Sass's digital approach lets innovative architects test designs before they build.

Blueprint for the Future
Sass's proof of concept is the shotgun house he is building for the MoMA show. But his vision for housing goes beyond this structure, which he originally proposed for Katrina-hit wards in New Orleans. Sass foresees a time when a home's systems – solar panels, plumbing, appliances, and so on – will also be customizable. These components would have standard mechanisms, but could be any size or shape.

In case this isn't mind-bending enough, Sass has one more radical idea to share. Since his houses can be taken apart easily, why not recycle them every twenty years? As Sass sums it up, "Why retrofit when you can build a new home inexpensively?"

Sass's blog on the MoMA web site covers his concepts and processes in detail and includes photos that bring home the cutting edge of digital fabrication. See for yourself at **www.momahomedelivery.org**. §

Renew Your MIT Personal Certificates

Certificates are your key to secure web services at MIT – including ECAT, SAPweb and SAPweb Self Service, and WebSIS. Personal certificates expire by default each July 31, and renewal is not automatic. Personal certificates obtained starting June 2008 are good until July 31, 2009.

Before you renew your certificate, check to see that your web browser is up to date. IS&T recommends the following:

- Windows
  Internet Explorer 7 or Firefox 2.0.0.x
- Macintosh
  Safari 3.x or Firefox 2.0.0.x
- Linux 4.6 and 5.1
  Firefox 1.5.0.x
- Linux 4.7 and 5.2
  Firefox 3.0.x
- Athena
  Firefox 2.0.0.x

It is important that you apply all critical operating system and web browser patches and updates. For instructions on how to do this automatically, see **web.mit.edu/ist/topics/security/patch.html**.

Installing Your Personal Certificate
To get a new certificate, go to the Certificates at MIT page at **web.mit.edu/ist/topics/certificates** and click the Get MIT Personal Certificate link. If you'd like instructions to step you through installing your certificate, go to the Getting Started section on the Certificates at MIT web page and select the link for the browser you use.

Note that if you use certificates on multiple machines, you will need to get a new certificate for each machine. §

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Software Spotlight

Office 2008 for Mac Offers Streamlined Interface

• Bronwen Heuer and Esther Yanow

Office 2008 for Mac is the latest version of Microsoft's productivity suite for Mac OS X. It includes Word, Excel, and PowerPoint, as well as Messenger and Entourage. IS&T supports the first three programs, but does not support Messenger or Entourage. Office 2008 runs natively on PowerPC and Intel-based Macintoshes.

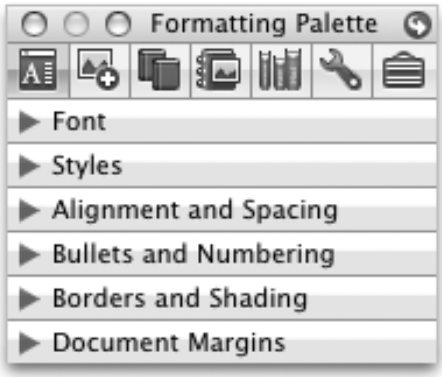
Streamlined User Interface

Office 2008 presents a different look and feel than Office 2004. The user interface consolidates many formatting tools in a new toolbar and toolbox.

The Toolbar now sits on the top of the window rather than being tied to the menu bar. Incorporated in the Toolbar is the Elements Gallery, a set of five buttons that let you add document elements, tables, charts, SmartArt graphics, and WordArt to documents. For Word, this gallery includes such document elements as cover pages, table of contents, headers, and footers; for PowerPoint, it includes slide themes, layouts, and transitions; and for Excel, sheet templates and charting styles.

The Toolbox, available from the Toolbar as a clickable icon, consolidates the Formatting Palette, Object Palette, Scrapbook, Reference Tools, Compatibility Report, and other application-specific tools in one convenient interface. You can customize its settings, such as which palettes to show and how the Toolbox should appear when not in use. In its upper right-hand corner is a small arrow. Clicking on it exposes the flip side of the palette, where you can manipulate settings for how the Toolbox appears.

The Formatting Palette changes with the type of object selected. When you select text, it displays tools for modifying text; when you select a graphic object, it shows tools for placement and enhancement of graphics. Office 2008 provides many new effects, making it simple to apply shading, reflections, and bevels.



When text is selected, the Formatting Palette displays tools and menus for working with text.

The Object Palette consolidates access to shapes, clip art, symbols, and pictures, and offers a quick route to your iPhoto library.

Application Highlights

While the revamped user interface may be the most obvious change in Office 2008, the suite's applications offer new features as well. Here are a few highlights.

- *Word 2008*

  A workspace called Publishing Layout View provides building blocks for creating layout-intensive documents.

  A Citations palette lets you build a database of references. It supports standard bibliographic styles, and lets you change all citations in a bibliography from one style to another.

- *Excel 2008*

  The Formula Builder tool provides a comprehensive list of Excel's formula functions and helps you to use them.

- *PowerPoint 2008*

  New templates give presentations a professional look.

  Using the Slides tab, you can view slides as thumbnail images and rearrange them.

File Formats and Compatibility

By default, Office 2008 uses Microsoft's Open XML formats (.docx, .xlsx, .pptx), which were introduced in Office 2007 for Windows. These formats are not compatible with previous versions of Office, but you can opt to save Office 2008 files in the older formats.

The Compatibility Report will flag items in your document that will not transfer if you save the file to an earlier version of Office. Office 2008 also provides a Fix button that will attempt to resolve incompatibilities.

Office 2008 does not support Visual Basic for Applications (VBA), the programming language used in macros. Testing has shown that Excel files created by SAP as part of the Annual Salary Review process are not compatible with Excel 2008 for Mac. IS&T recommends that Macintosh users who rely on VBA remain with Office 2004.

Updates

Office AutoUpdate for Mac, which comes with Office 2008, makes it easy to keep your Microsoft software up to date. Once you set it to check for updates – daily, weekly, or monthly – AutoUpdate delivers them directly to your computer.

The Microsoft Office 2008 for Mac Service Pack 1 (12.1.0), released in May, contains several improvements to enhance security, stability, and performance.

For details about Office AutoUpdate for Mac and the recent update, go to **www.microsoft.com/mac/downloads.mspx**.

How to Obtain

If your department, lab, or center participates in the Microsoft Campus Agreement at MIT, you can obtain the media from your area's software liaison. For a list of liaisons, go to **web.mit.edu/ist/topics/software/msca-officeliaisons.html**. Those not eligible for departmental funding can purchase Office 2008 from GovConnection via eCAT[3].

Support

In addition to its support of Office 2008, IS&T continues to support Office 2004. IS&T recommends that you check with your IT provider before installing Office 2008.

To learn more about system requirements, features, and known issues, see the Office 2008 for Mac page at **itinfo.mit.edu/product.php?vid=472**. You may also want to attend the new IS&T Quick Start class, Office 2008 for Mac: New Features (see the training insert for a schedule).

If you need help installing or using Office 2008, contact the Computing Help Desk at 617.253.1101 or computing-help@mit.edu. §

Network Notes

IS&T Expands Support for WIN.MIT.EDU

• Alex Kozlov

WIN.MIT.EDU, the centrally managed Windows domain for the MIT campus, has expanded significantly since its start in 1999. It is now used by about 10,000 faculty, staff, and students in more than 60 MIT departments, labs, and centers.

The domain offers opportunities for greater efficiency and collaboration across the Institute via a common set of services, data, and tools. Benefits for users include

- A server "home directory" with a 2GB quota
- A roaming profile, which lets users access their home directory from any machine in the domain
- Seamless integration into existing MIT infrastructure, including Kerberos, Moira, enterprise management interfaces, and the Data Warehouse
- Single sign-on using Kerberos
- Shared printing to a variety of MIT network printers, in addition to native Windows printing services
- Automatic daily backup of files
- The Windows Automatic Update Service (WAUS), with MIT-approved patches from Microsoft

Expanded Support

Over the years, support for WIN.MIT.EDU has been handled by IS&T's Network and Infrastructure Services Team (NIST) or Departmental IT Resources (DITR) Team, depending on the client and circumstances.

With the continued growth of the domain, IS&T saw the need to establish a standard support process. The Computing Help Desk has been designated as the first point of contact for WIN.MIT.EDU issues.

WIN.MIT.EDU domain users and container administrators can now follow a simplified process to access expanded resources for support. Here is the recommended path for getting help:

- WIN.MIT.EDU users are encouraged to get in touch first with their container administrator. Those who don't know who their container administrator is can find out by going to the Host and Administrator Lookup page listed in the box below.
- Container administrators with questions or problems should direct their queries to the IS&T Computing Help Desk. The Help Desk offers first- and second-tier support for WIN.MIT.EDU. If the consultant who initially responds to a WIN.MIT.EDU question or problem is not able to close the case, he or she will transfer it to a Windows expert on the Help Desk.
- Escalation paths to other IS&T groups – Windows Server Hosting, NIST, and DITR – are in place, and hand-offs will be made as needed.
- All cases are tracked in the IS&T RequestTracker system.

To reach the Computing Help Desk for assistance with WIN.MIT.EDU questions, call 617.253.1101, send email to computer-help@mit.edu, or use the Request Help form at **web.mit.edu/ist/helpdesk/help-form.html.** §

Web Sites for WIN.MIT.EDU Users and Administrators

WIN.MIT.EDU Main Help Page
web.mit.edu/win

WIN.MIT.EDU Container Request Form
https://web.mit.edu/ist/topics/windows/server/cr/2a.html

WIN.MIT.EDU Host and Administrator Lookup Page
https://wince.mit.edu/host2admin/index.jsp

Stock Answers for WIN.MIT.EDU Users
itinfo.mit.edu/answer.php?id=8780

Stock Answers for WIN.MIT.EDU Container Administrators
itinfo.mit.edu/answer.php?id=8781

Bits and Bytes

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

IS&T Evaluating Windows XP Service Pack 3

IS&T is evaluating Windows XP Service Pack 3 (SP3) for use in the MIT environment. SP3 is available via Windows Update and the Microsoft Download Center.

Recommendation to Wait

Since evaluation work is still under way, IS&T recommends that members of the MIT community hold off on installing SP3. The MIT WAUS server, WIN.MIT.EDU domain, and MIT Software Download page will not provide SP3 until late summer.

In the meantime, IS&T recommends that departments, labs, and centers test SP3 in their own environments.

Notable Features

SP3 is the last major cumulative update to the Windows XP operating system before its retirement. It includes network and security enhancements backported from Windows Vista. For details on SP3 and test results of its compatibility with IS&T-supported software, visit the SP3 Release Notebook at **web.mit.edu/swrt/releases/win-xp-sp3**.

To see Microsoft's Release Notes, go to **support.microsoft.com/kb/936929**.

Planning to Install

When the time comes to install SP3, plan and prepare carefully.

- Make sure that you have a full backup of your system and data before proceeding with the installation.
- Allocate enough time (at least two hours) for completing the installation. Note that you cannot use your computer during this time, since the installation process requires several reboots.

Support

If you have questions about Windows XP SP3, call the Computing Help Desk at 617.253.1101 or send mail to computing-help@mit.edu. §

Safe Computing

Safeguards for Social Security Numbers

• **Monique Yeaton**

We've all seen the bleak numbers in the news. Cybercrime – Internet banking and credit card fraud – is now the fastest growing sector of global organized crime, increasing at a rate of 40 percent each year and raking in $100 billion for the criminals. In the United States alone, the cost of identity theft last year was $45 billion and affected some 8 million people.

In response to concerns about identity theft and fraud, MIT has been escalating efforts across campus to better protect the sensitive information the Institute collects, electronically and on paper. To comply with MIT policies, industry standards, and state laws, several programs have been initiated in the past year.

Two of these programs have already been featured in this column: the Data Incident Response Team (DIRT), formed to respond to data security breaches on campus ("Data Incident Response Team Established at MIT," January/February 2008); and the MIT Merchant Services Project Team, formed to bring MIT merchants into compliance with the payment card industry's data security standards ("Protecting Data Through PCI Compliance," March/April 2008).

Program to Protect Personally Identifying Information

The program to protect Personally Identifying Information (PII) was launched last December. Its initial focus is to ascertain all the places at MIT where Social Security numbers (SSNs) have been collected or recorded – computer systems as well as paper files.

In addition, the program is working to reduce MIT's risks by limiting the number of

places where SSNs reside, reducing the number of people with access to SSNs, and ensuring that SSNs needed for business purposes are effectively protected.

Since the data collection effort encompasses the whole campus, members of the PII Team are available to talk with groups or individuals about different protection methods, from using cross-cut shredders to replacing SSNs with MIT ID numbers on forms.

The PII Team is interested in hearing from community members. If you encounter SSNs, especially in unexpected places, or want to request a presentation, contact the team at pii-protect@mit.edu. To learn more about MIT initiatives to protect sensitive information, visit **https://web.mit.edu/infoprotect/initiatives/initiatives.html**. §

Stronger Partnerships to Leverage IT at MIT

• **Kathy Pagones O'Neill and Steve Winig**

As the central information technology (IT) department at MIT, IS&T's role is diverse and complex. While many departments, labs, and centers (DLCs) at the Institute have strong relationships with IS&T staff based on specific projects and services, feedback indicated that they found it difficult to understand and navigate all of IS&T's product and service offerings.

To address this issue, IS&T launched a Relationship Management (RM) Program in 2005. The RM Team's dedicated staff work directly with DLCs to augment their understanding of IS&T services and to leverage IT in achieving their goals. The program holistically represents IS&T and its portfolio of 200-plus products and services.

In concert with other IS&T teams, the relationship managers work with DLCs to deliver services, resolve high-level issues, and advise on projects and future IT directions.

At this time, the RM Team has relationships with about half of the DLCs on campus. The depth of each relationship varies based on the needs of the DLC – some DLCs have mature IT organizations and simply want assistance navigating IS&T's service offerings, while others benefit from having strategic partners.

The Business Side of IT

IS&T relationship managers meet with decision makers in their assigned DLCs to learn about each DLC's vision and goals. Combining this with their knowledge of IS&T's services and industry trends, the relationship managers help their clients engage IS&T service providers and associated experts to make informed IT decisions.

According to Mary Callahan, Registrar, "The Registrar's Office and the Office of the Dean for Undergraduate Education have established partnerships with IS&T units. Complementing this, the IS&T relationship manager has worked hard to integrate IT services within what exists and to fill gaps to help further our needs."

Benefits

Through the RM program, IS&T and its customers gain awareness of each other's capabilities, constraints, and future directions. The program also helps make connections between different organizations at MIT, enabling DLCs to make more knowledgeable decisions. These insights then help to inform the development of IS&T products and services.

Find Out More

Given the growing popularity of relationship management programs in higher education and industry, Learning Tree International recently developed a class, *Relationship Management for IT Professionals*, at **www.learningtree.com/courses/902.htm**. IS&T's program is featured in a case study; Steve Winig, manager of the IS&T RM Team, provided advice on course content.

To learn more about IS&T's Relationship Management Program, visit **web.mit.edu/ist/org/rm**. You can also contact the team at ist-rm@mit.edu. §

Tech Tips: Office 2008 for Mac

This column presents tips about computing. For more information technology Q&As, check the IS&T Stock Answers database at **itinfo.mit.edu/answer**.

Q. I had created templates in Office 2004 and now, after installing Office 2008, I can't find them. Are they lost?

A. You may remember that Office 2004 put all templates under My Templates, a subfolder in the Applications folder. Microsoft has changed this folder location in Office 2008. Templates are now stored at [User Home Directory]/Library/Application Support/Microsoft/Office/User Templates/My Templates.

To move your templates to this new location, look first for a folder called Rescued Items that Office 2008 created on your desktop during the migration. In it, about four levels down, you'll find your templates. Open each one in turn and use the **Save As…** command to save it in the new format (for example, from .dot to .dotx). This will make the templates accessible in Office 2008.

Q. After installing Office 2008, some of my favorite clipart from Office 2004 is missing. Where did it go?

A. Your old Clipart Library is not gone (unless you removed the Office 2004 folder). You can find it here: /Applications/Microsoft Office 2004/Clipart. Select **Insert>Picture>Clipart>Import** to bring an image into your current Clip Gallery.

Q. I've read that people are missing fonts after upgrading to Office 2008. Is there a way to prevent this from happening?

A. During the Office 2008 installation, some of the fonts on your computer are replaced by new versions. Microsoft recommends that you close all other applications when installing new software. Should another application be running while you're installing Office 2008, the fonts in that application might not display correctly until you quit and then restart the application. If quitting and restarting the application does not resolve the issue, restart the computer.

Should you *not* want to install the Office 2008 fonts, take these steps.

1. Insert the Office 2008 installation DVD in the DVD drive.
2. On the desktop, double-click the **Microsoft Office 2008 DVD**.
3. Double-click **Office Installer** and then follow the instructions on the screen until you reach the step for Installation Type.
4. For Installation Type, click **Customize**.
5. Clear the **Office Fonts** check box and click **Install**.

Q. Why do equations saved in Word 2007 for Windows not appear in Word 2008 for Mac?

A. Word 2007 uses Windows Office Math Markup Language for equations. This format is not supported in Word 2008 for Mac; as a result, equations from Word 2007 appear as placeholders in Word 2008. Word 2008 does have its own Equation Editor. §

m.mit.edu: MIT's Web Pages Go Mobile

• **Lee Ridgway**

If you have a mobile device that displays web pages, you can now get essential information from MIT's web site whenever and wherever you want. The MIT Mobile Web provides pages optimized to display conveniently on different types of mobile devices. In most cases, this means a basic text-only view, with minimal graphics, for easy viewing on small screens. Links function as expected, and full search capabilities are available where applicable.

What's There

The current MIT Mobile Web provides access to MIT's people directory, campus map, shuttle schedule, events calendar, student career services, emergency information, and the 3DOWN services status site. Students can use the mobile version of Stellar to get the latest news for any class with a Stellar web site. In its mobile version, each site offers the same information and functions as its full-fledged counterpart at **web.mit.edu**. New sites will be added as they are "mobilized."

The MIT Mobile Web home page on a Windows Mobile 6 Professional smart phone

What You Need

To use MIT Mobile Web, you will need a web-capable device, such as

- "Feature" phones, including flip, slider, and bar phones;
- Smartphones (BlackBerry, Windows Mobile, Treo, Centro, etc.);
- Apple's iPhone or iPod Touch;
- WiFi-capable PDAs (Windows Mobile, Palm T|X)

You will also need a way to connect to the Internet, either through the data plan from your carrier, or with WiFi if the device has that capability. Note that although the MIT Mobile Web is free, you may incur extra data charges depending on your service plan.

To connect to the MIT Mobile Web, launch the browser for your device and go to **m.mit.edu.** (Do not use "**www**" in the web address).

Preview and Support

For more information, and to preview **m.mit.edu** in your computer's browser, go to **mobi.mit.edu/about**. If you have questions or feedback about the service, send email to mobiweb@mit.edu. §

Launched 25 Years Ago, Project Athena Lives On

• **Earll Murman**

How different would MIT's educational computing environment be in 2008 if Project Athena had not been launched 25 years ago? The question may have no clear answer, but it deserves reflection as Athena celebrates its silver anniversary.

The MIT computing environment of 1983 was vastly different from today's. Personal computers were curious toys; a few workstations existed here and there; computing was done with CRT terminal access to time-shared mainframes or mini-computers. There was no Internet or World Wide Web, no ubiquitous email or instant messaging. With the exception of minimal resources for the Student Information Processing Board (SIPB), student access was limited to computers in course labs or research labs – each with its own operating system, application software, and usage protocols. That all changed – forever – with Project Athena, which began in 1983 and ended in 1991.

Back to the Future

Leaders at Digital Equipment Corporation (DEC), IBM, and MIT foresaw the era of distributed computing – with personal computers and workstations linked through networks – and came together to accelerate its take-off with Project Athena. The $100 million research project had two main goals:

- Develop and deploy a computing environment of networked workstations to serve a campus community the size of MIT
- Undertake far-reaching educational experiments to transform the pedagogy across MIT's five schools

These somewhat conflicting goals tugged at each other, but together they engaged a wide range of faculty, students, and staff in advancing the state of academic computing. Overall, the objective was to learn and in doing so, to prepare for the future.

The client-server system architected by Professor Jerome Saltzer was one of the most advanced of its time, and its legacy is embedded in today's Athena Computing Environment at MIT. The Kerberos authentication software developed by Project Athena staff remains a preeminent contribution to system security, while the X Window System pioneered a display protocol for graphical user interfaces. Other Athena-developed software also had a major impact. Hesiod and Moira provided campuswide usernames. Zephyr enabled campuswide instant messaging. For the first time, MIT users could log onto any Athena workstation and return to their personal computing environment, just as they'd left it at the end of their last session. And students could print out assignments at clusters across campus, for free.

Experiments in Education

Over 125 educational experiments were undertaken in the Project Athena years. Through applications ranging from interactive video in foreign language instruction to simulations in engineering sciences, investigators explored the effectiveness of educational computing under a new paradigm. By and large, these efforts turned out to be more difficult than expected, partly because the software to build them was primitive and partly because effective learner-centric software is hard to develop. Although little of that software exists today, the lessons learned and knowledge gained are embedded in the MIT culture.

Legacy

So what impact did Project Athena have at MIT and beyond? Certainly one would point to the Athena Computing Environment, one of the most secure and accessible information systems anywhere. Kerberos remains a standard for authentication, while the X Window System has morphed into today's X11. And there are the faculty and administrators who learned from the experience and had the confidence to undertake another bold educational computing experiment years later – OpenCourseWare.

To learn more about Project Athena, read *MIT Project Athena: A Model for Distributed Campus Computing* by George A. Champine, Digital Press, 1991. To find out about Athena offerings today, go to **web.mit.edu/ist/topics/athena**. §

Training for Web Site Maintainers

• **Jeff Pankin**

Web sites are a standard venue for communicating just about everything under the sun. At a place like MIT, web sites range from the popular, ever-changing home page at **web.mit.edu** to sites for departments, courses, individuals, and activities.

Many staff at the Institute are called on to maintain web sites for their department, lab, or center, or for a professor or course. Despite the ubiquity of web sites, maintaining them isn't as straightforward as organizing a filing system or overseeing financial records. In fact, individuals who aren't familiar with Dreamweaver, hypertext markup language (HTML), cascading style sheets (CSS), and Athena lockers may find it daunting to maintain a web site.

Training Options at MIT

In response to requests from the community, IS&T developed a Quick Start class for web site maintainers about a year ago. This spring, IS&T introduced a two-hour hands-on course – Web Site Maintenance with Dreamweaver – as well as a new Quick Start on CSS. The two-hour course costs $50; the one-hour Quick Starts are free.

Web Site Maintenance with Dreamweaver is designed for new site maintainers with little or no experience. Participants learn how to make basic edits to web pages; the course also covers site management and best practices. Although not a prerequisite, attending IS&T's Dreamweaver Quick Start is recommended.

Cascading style sheets, which separate content from style and layout, make maintaining a web site faster and easier. IS&T's new CSS Quick Start focuses on using CSS to control fonts, colors, leading, margins, typefaces, and other aspects of style in web pages.

For details about these offerings, check the Training Catalog on the SAPweb Self Service page at **web.mit.edu/sapwebss/PS1/training_home.shtml**. This catalog lists all of the web publishing classes offered by IS&T. If you have questions about which class is right for you, contact the IS&T Training Registrar at 617.253.7685 or istrain-reg@mit.edu. §

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. (When logged into Athena, you can also use the **olc** command to send questions to Athena's online consultants.)

You can also submit a question online via the Request Tracker link 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, repairs	617.253.1101	computing-help@mit.edu
Athena computing environment	617.253.4435	olc@mit.edu
Disabilities and computing	617.253.7808	atic@mit.edu
Telephone support and repairs Traditional and MITvoip phones	617.253.4357	telephone-help@mit.edu
Traditional phone moves/changes For use by AOs/DLC administrators	617.253.3670	telecom-csr@mit.edu
Unix/Linux	617.253.1103	unix-linux-help@mit.edu

Surf Sites: New Directions in Housing

Lawrence Sass is riding the wave of the future with his science for building pre-manufactured homes on site (see lead article). Other housing trends have also emerged in the last few years: green buildings and roofs, smart homes, 3D modeling, universal design, livable communities, and housing for the poor, among them.

If you're interested in finding out about new directions in housing, the sites on the right are good places to start.

Adaptive Environments – Human Centered Design
adaptiveenvironments.org

Architecture for Humanity (and its Open Architecture Network)
architectureforhumanity.org

Google SketchUp
sketchup.google.com

Inhabitat – Prefab Housing
inhabitat.com/category/architecture

TechHome
techhome.com

Universal Home Design – Aging in Place, Housing for Adults Over 50
aarp.org/families/home_design

U.S. Green Building Council
usgbc.org

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