

News about **i**nformation **s**ystems throughout



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Market Maker: Let Software Agents Buy and Sell for You

Lee Ridgway

Among the definitions of *agent* is someone whom you authorize to act on your behalf. Another is a person or thing that acts or has the power to act. For the Software Agents Group at the MIT Media Lab, these definitions are the starting point for some innovative developments that could make your desktop computer an active collaborator or personal assistant.

Associate Professor Pattie Maes, founder and director of the Software Agents Group, describes the current, dominant mode of interaction between user and computer as direct manipulation. The user initiates most or all tasks and monitors all events. Maes and her group are working toward what she terms indirect management, a co-operative process between users and software agents to initiate, perform, and monitor tasks and events.

A software agent is personalized and customized, can take the initiative, is autonomous and long-lived, and is adaptive to new or changing situations. An agent acquires competence from its owner-user and other agents with which it may interact, gradually becoming more effective as it learns the user's interests, habits, and preferences. The agent, however, does not replace the interface between the computer and the user and, in fact, should not

prohibit the user from taking direct action with the system.

An agent's scheme of operation is fairly straightforward. You set up criteria for the agent so that it can perform specific tasks from your computer on your behalf. Depending on the task, the agent may work with information, such as e-mail, that comes to your machine, or may go out on the network to interact with other agents. As the agent carries out its work, it monitors events and procedures and reports back to you or delivers information to your computer.

Market Maker

Electronic commerce – the buying and selling of goods or services online – is prime territory for software agents. Market Maker, a project in the Software Agents Group that started last year, is a prototype e-commerce infrastructure that uses agents. It has its roots in an earlier electronic marketplace project from the Media Lab, Kasbah, which began in 1996. Market Maker, as its name implies, brings together buyers and sellers – or rather computerized agents who represent buyers and sellers and negotiate on their creator's behalf. Its creators are Pattie Maes and graduate student David Wang.

Birth of a Salesman

Say you want to sell a book. In Market Maker, you create an agent to do it for you by filling out a simple

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MARKET MAKER

continued from page 1

Web form. You describe the book according to cover type and genre (e.g., Textbook, Fiction, Children's) and then specify the title and author. You can include information about the edition, and whether it is associated with an MIT course. Buyers are often interested in the condition of a book, so you can select from a pop-up menu of descriptive terms, such as "Brand new" or "Slightly damaged." You can add your own description of anything you think might help your agent find matches.

You then set agent control parameters. These include the number of days you want the agent to be active, your desired starting price and acceptable final price which, in the spirit of bargaining, should be lower than your starting price. You next set another function that relates to bargaining: how quickly or slowly you want your price to drop over the number of days your agent is active. For example, if your agent is active for 10 days, your starting price is \$20 and your final price is \$10, you could select a pricing function that would decrease the

price \$1 per day. You can also select from two other, more gradual functions, where the price doesn't drop so quickly until closer to when the time limit is up.

Once you've created the agent, it posts the information about the book and your selling terms in Market Maker's electronic realm.

Buyer's Market

Say you want to buy a certain book. You create a software agent using the same descriptive criteria that a seller would, although the pricing gets turned around: you first set a desired, starting price and then an acceptable final price, which logically should be higher than your starting price. As a buyer, you select a pricing function based on how quickly you would accept a rise in price over time.

If you are a serendipitous buyer, you may browse through the marketplace to see what is being offered for sale. Categories include books, music, computer games, and translation services. If an item catches your interest, you can create an agent to bid for the item.

Reputation Rating

Participants in electronic commerce may not have information about each

other's reputation. An innovative feature of Market Maker is its reputation rating service, useful for gauging the trustworthiness of other buyers and sellers. Created by graduate student Giorgos Zacharia, Market Maker's reputation mechanisms are based on collaborative rating and personalized evaluation of the ratings assigned to each user.

Every Market Maker participant has a cumulative trustworthiness rating, ranging in five stages from horrible to great (everyone starts with an average rating). When creating an agent, you can limit the interactions of your agent to agents whose owners have a specified minimum rating. After deals are completed, agents ask their owners to rate the other user. These ratings form a universal reputation for every user on the system.

Trial Run

According to Wang, a new version of Market Maker will be available in April. To give it a try, go to

<http://maker.media.mit.edu/>

To learn more about the Software Agents group, see

<http://agents.www.media.mit.edu/groups/agents/>

Internet2 Moves Forward; Abilene Network Launched

Through the Internet2 project, the university community has joined with government and industry partners to accelerate the next stage of Internet development in academia. The focus of Internet2 is on building high-speed networks and creating advanced applications to meet emerging needs in research, teaching, and learning.

Ultimately, the goal is to transfer new network services and applications to schools at all levels and to the broader Internet community.

To learn more about Internet2 participants, news, and activities, see <http://www.internet2.edu/>

The Abilene Project

Significant Internet2 resources have been poured into a broadband network called Abilene. In late February, this network began nationwide operations, delivering high-speed services to 37

universities. More than 70 universities and research facilities are expected to connect to Abilene by the end of 1999.

As a backbone network, Abilene spans over 10,000 miles and operates at 2.4 gigabits per second, a speed 45,000 times faster than a 56K modem. It is serving as a test bed for future Internet applications, such as distance learning, telemedicine, and digital libraries.

Projects at MIT

Several media-rich projects at MIT stand to benefit from Internet2. Here are two that are already in use in classes:

- *Berliner sehen*. This hypermedia documentary is a learning environment for German language students. <http://web.mit.edu/fll/www/projects/BerlinerSehen.html>
- *The Digital Orthophoto Browser*. This browser enables spatial data analyses by providing access to aerial images of Boston, on the fly, from a multi-gigabyte repository of orthophotos. <http://ortho.mit.edu/>



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Mac OS 8.5: Full of Features and Configured for Use at MIT

Mary Ellen Bushnell

Some months ago Information Systems announced support for Mac OS 8.5.1, along with the assurance that a variety of software and hardware commonly used at MIT had been tested for compatibility with this version of the operating system. This article provides a brief overview of Mac OS 8.5.1 and what you need to run it.

What's New

Mac OS 8.5.1 offers an array of improvements.

- Processing is faster, for example when copying files, displaying images, and running AppleScripts.
- Disk First Aid now tests and repairs your startup disk after a system crash or improper shutdown.
- A revised Appearance control panel contains all the settings for customizing the look and feel of your desktop.
- "Smart" scroll bars let you navigate faster, and proportionally reflect how much of a document appears in the window.
- A Favorites folder under the Apple menu provides easy access to items you use frequently – from applications to URLs to shared folders on the network.
- A utility called Sherlock replaces Find under the Apple menu (though it's still called Find... under the Finder's File menu). Sherlock lets you find files, find by content, or search the Internet.
- Native AppleScript lets you automate nearly any task on your Macintosh system, such as printing and Sherlock searches.
- A revised onscreen help system lets you browse a list of help topics or search by keyword.

Now that you're aware of the many good reasons to upgrade to Mac OS 8.5, read on to find out about system requirements and the 8.5.1 update.

System Requirements

Apple's minimum requirements for Mac OS 8.5 are



The built-in Mac OS Help window displays a list of help topics with links to related material.

- A PowerPC-based computer that is Mac OS compatible
- At least 16MB of physical RAM and 24MB of virtual memory
Note: IS recommends at least 64MB of RAM for Institute Macintoshes.
- At least 160MB of free disk space to install the OS from the CD or 300MB of free disk space to download and install the OS from MIT's net-dist server

Upgrade Guidelines

If you have a Power Macintosh running Mac OS 8.0 or 8.1, IS encourages you to upgrade to Mac OS 8.5.1. If you have a Power Macintosh with Mac OS 7.6.1 or earlier, consult the minimum requirements to be sure your computer has the capacity to run 8.5.1.

If Mac OS 8.5 is already installed on your computer, IS strongly advises upgrading to Mac OS 8.5.1. This update has assorted fixes that increase system stability.

Computers that originally came with a 680x0 processor, even if upgraded with a PowerPC processor card, cannot be upgraded to Mac OS 8.5/8.5.1.

Availability

Currently, Mac OS 8.5 and the 8.5.1 updater are available to the MIT community only via online distribution. Start at the the Mac OS 8.5 and 8.5.1 Web page at

<http://web.mit.edu/is/help/macros/macros8.5.html>

Follow links to Mac OS 8.5, then to the section on How to Get Mac OS 8.5.

IS plans to release a CD with the most recent version of the Mac OS sometime this spring.

MIT Extras

After upgrading to Mac OS 8.5.1, you will want to take advantage of some helpful, even crucial, adjustments specific to working at MIT. You can get these items from the Mac OS 8.5 and 8.5.1 Web page.

- **A plug-in for Sherlock.** Sherlock has been tailored to work with UltraSeek to search the MIT Web space.
- **Date & Time Assistant.** A new Date & Time control panel automatically handles Daylight Savings Time transitions and synchronizes the Macintosh's clock to a network time server. The Assistant makes all the appropriate settings changes for the MIT environment.
- **Remote Access AppleScript.** The Remote Access AppleScript changes a setting in the Remote Access control panel that lets you dial into Tether.
- **Set Netscape Default Assistant.** Mac OS 8.5 installs Microsoft Internet Explorer 4.01 and sets it as the default Web browser. However, Netscape is the supported browser at MIT and is required to access some MIT-only services. Running the Netscape Default Assistant makes the appropriate changes to your Internet preferences.

MIT Compatibility Notes

While IS has tried to ensure that recommended hardware and software is compatible with Mac OS 8.5/8.5.1, there are a few instances where MIT users may encounter problems.

Compatibility issues can occur between Mac OS 8.5/8.5.1 and Microsoft Office 98, FileMaker Pro, Acrobat Exchange, Tether, MacZephyr, and the HP LaserJet printer driver. Fortunately, there are fixes for all of these incompatibilities. For full details, see

<http://web.mit.edu/is/help/macros/macros8.5.html#s6>

Classes and Other Support

IS offers a free course and Quick Start class that focus on Mac OS 8.5. For details, check the Spring 1999 *IS Computer Training Catalog* or visit

<http://web.mit.edu/is/training/>

If you have questions about Mac OS 8.5 or the 8.5.1 updater, contact the IS Computing Help Desk at x3-1101 or <mac-help@mit.edu>. ☺



Update on Copyright Law in the Digital Era

Joanne Costello

Copyright law has always tried to strike a balance by assuring that authors retain ownership of their works while still allowing the public to have access to them and to build upon them. In the past, much of what might technically have been copyright infringement by individuals was ignored because there was no way to easily print or distribute large numbers of copies, and making and sharing small numbers of copies generally had little economic consequence.

Technology has upset this balance by making it incredibly easy to capture and distribute information, images, and sound. The World Wide Web is a prime example of how technology enables mass distribution of information. Once material (copyrighted or not) is in electronic form, anyone can reproduce and distribute it around the globe, without its creator's knowledge or consent.

New Law, Long Time Coming

While technology changes quickly, laws can take a long time to pass. The Network Notes column in May 1996 reported that voting was expected any day on the controversial *Copyright Protection Act of 1995*. But neither that law nor any other major copyright revision was passed until October 1998, when the *Digital Millennium Copyright Act* (DMCA) was enacted into Federal law.

A Global Approach

The DMCA has international roots. In December 1996, the U.S. participated in the Worldwide Intellectual Property Organization (WIPO) conference in Geneva. There, representatives of the member countries passed two treaties that set international standards for protecting intellectual property in the digital environment and for protecting copyrighted works, sound recordings, and musical performances from international piracy. The U.S. Senate ratified these treaties when it passed the DMCA.

Bill Contents

The DMCA is a complex piece of legislation. In addition to the WIPO protections mentioned earlier, the law

- Makes it a crime to circumvent anti-piracy measures built into most commercial software. It also outlaws the manufacture, sale, or distribution of code-cracking devices to illegally copy software.
- Limits liability on the part of Internet service providers (ISPs) for copyright infringement on the part of their clients. ISPs are expected to file with the U.S. Copyright Office the name of a designated agent to receive notifications of claimed infringement. Once notified, ISPs are expected to remove material from their sites if it appears to constitute copyright infringement.
- Makes certain exceptions to maintain the fair use doctrine, which traditionally has allowed libraries, educational institutions, and archives to do limited copying.

Also signed into law this fall was the Sonny Bono Copyright Term Extension. In general, it extends the terms of copyright for an additional 20 years. In particular, for works created after 1/1/1978, the terms of copyright are the life of the author plus 70 years. For specifics about works created before that date or works created by corporations, see the table at

<http://www.unc.edu/~uncnlg/public-d.htm>

On the Home Front

In its role as an ISP, MIT has designated <stopit@mit.edu> as the e-mail address to receive notifications of claimed copyright infringements.

To find out more about copyright laws and how to file a notification of a claimed infringement, see

<http://web.mit.edu/copyright/>

The MIT Copy Technology Centers offer a Copyright Clearance Service designed to help faculty comply with copyright law. For more information, visit

<http://web.mit.edu/ctc/www/copyclear.html>

The MIT Libraries maintain a copyright policies and procedures page at

<http://libraries.mit.edu/policies/copyright.html> Ø



This column presents news and tips from the consultants who staff the Computing Help Desk. Check out their Web site at

<http://web.mit.edu/helpdesk/>

Tip for Mac OS 8.5 Users

You can "tear off" the Application menu and display it as a small window called the Application Switcher. To do this, drag to the bottom of the Application menu, then drag beyond the menu. When an outline of a window appears, release the mouse button.

This window makes it easy to switch between applications, and also lets you see at a glance which application is the active one.



Q I have Microsoft Office installed on my computer, and use Microsoft Word routinely. There are times when I would like to compare two versions of a document side by side, but my monitor isn't big enough. I have to make the windows narrower to get them to fit on the screen, and then some of the text on the right-hand side of the files gets hidden. Is there a way to customize Word to make it easier to compare documents?

A There is. From Word's Tools menu, select Preferences... (Macintosh) or Options... (Windows). In the dialog box that appears, select the View tab (it's the default tab, so it is probably already selected). Click the Wrap to window checkbox at the bottom of the dialog box, then click OK.

Text in your documents should now wrap to the right edge of the window. You may need to close and reopen current windows for this option to take effect. The Wrap to window feature will continue to work no matter how you resize your windows. Note that this setting affects your screen display only; documents will print using their normal margins. Ø



NECX/SAPweb Duo Makes It Easy to Place MIT Computer Orders

Kathleen Moriarty

MIT departments, labs, and centers can now buy computer equipment and software directly from the NECX online catalog, and have the order automatically transferred into SAPweb. This integrated approach has several benefits:

- Departmental orders can be entered quickly and accurately.
- Approvals are handled electronically within SAP.
- Purchasers can easily track the status of their orders.

Get to the NECX Catalog

To connect to the NECX catalog and place an MIT order, you need Netscape (version 4 or higher), MIT Web certificates, and an SAP profile with the authority to create requisitions. Begin at the MIT gateway to NECX at

<http://web.mit.edu/ecat/necx>

If you already have your Web certificates, click on Connect to NECX.

On the NECX Welcome page, you can choose to make a personal purchase using a credit card, or to make an Institute purchase via SAPweb.

Register with NECX

Before placing your first Institute order, you must create a user profile with NECX. Information from this profile is fed to the NECX order form. Select Create User Profile from the second NECX Welcome page and fill out the form, including your name, MIT telephone number, e-mail address, and shipping address. Use the first address line for your MIT building and room number. Use the second address line for your street address or receiving room.

Create and Complete Your Order

Once you have located a product to order in the catalog, click on the Buy Now button on the product page. This takes you to your Shopping Cart, where the item appears on your order list. Click on Shop More to add products to your order, or on Submit Order if it is complete. The order is displayed again, giving you one more chance to make changes or cancel it. To proceed, click again on Submit Order.

You then receive an Order Confirmation number. Click on Submit Order to MIT to transfer the order into SAPweb. Enter your accounting information on the SAPweb form and click on Send Requisition to SAP. After the requisition is approved, a purchase order is created automatically and sent to NECX electronically. Once NECX processes the order in their system, they will send an e-mail message to confirm your order.

Tracking Your Order

You can track your order online. On the second NECX Welcome page, click on Track Your Order. This displays a list of orders that you placed within the past 30 days. Click on the order number to see the order statement where the status of each item is indicated. Once an item has shipped, you can click on the link under that item to view the UPS or FedEx tracking information.

Where to Go for Help

For a detailed *Guide to Purchasing Computing Equipment at MIT* go to

<http://web.mit.edu/ecat/necx-guide.html>

For help with navigating the NECX catalog or selecting products, contact the MCC at x3-7686 or <mcc@mit.edu>. ☺

IT Partners: A Forum for Technical Support Providers

Gayle Willman

On April 28, computer support providers from departments, offices, and labs will join staff from Information Systems for a half-day conference on current technology issues. The support providers participate in a special program on campus called IT Partners. Newcomers are welcome.

IT Partners offers extensive support and training opportunities for self-selected members of the MIT community who provide computing help to faculty, staff, and students in their local area. The program promotes information sharing and cooperative efforts to resolve technical problems. Members of IT Partners find that they benefit from a closer working relationship with their peers.

While an IT Partner can come from any part of MIT, all members share a

common goal: to enhance their skills so that they can help others in their local area use information technology.

Special Benefits for IT Partners

While IS provides a range of services to the MIT community, it recognizes that local support providers need additional technical information and organizational support to get their work done. IS has sponsored IT Partners for many years, and provides several benefits to its participants. These include:

- *Customized training and events.* To help IT Partners expand their skills as technology changes, the program offers special classes, presentations, and conferences.
- *Free seats in IS computer courses.* If a fee-based IS course still has available spaces after the "Register By" date, IT Partners can take the course for free. (Many courses do fill up, so if you want to be guaranteed a seat, you should register in advance and pay the course fee.)

- *Special relationships with IS consulting groups.* IT Partners are given special priority by the Computing Help Desk and other IS groups.
- *Private mailing list.* The IT Partners have their own mailing list, through which they can share experiences and raise questions for response by others in the group. Notices of upgrades, viruses, and security information are regularly sent to the list.

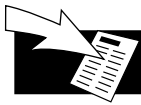
How to Join

If you'd like to join the IT Partners team and enjoy the benefits of membership, complete the IT Partners Program Application available from

<http://web.mit.edu/itpartners/>

For More Information

If you have any questions about the IT Partners program, contact Mike Sampson, the program's coordinator. You can reach him at x3-7712 or by sending an e-mail message to <sampson@mit.edu>. ☺



Better Web Publishing with the Ultraseek Search Engine

Robyn Fizz and Jag Patel

Ultraseek has been the search engine for MIT Web pages since November 1998. It combines speed with impressive indexing power.

Ultraseek's home at the Institute is

<http://search.mit.edu/>

Beyond this simple search interface, Ultraseek offers a variety of features that can benefit savvy Web publishers. This article offers guidance on how to make use of these features.

Determining Page Status

A good starting point is to find out whether Ultraseek is indexing your Web pages. To check an individual page, go to the main Ultraseek page and type the URL in the search field. Here is a sample query:

```
url:web.mit.edu/is/isnews/v14/
n01/140108.html
```

Note that you don't need to type `http://`, although the search will still work if you do.

If a page isn't in the index, you can add it via the Update URL form at

<http://search.mit.edu/help/addurl.html>

This alerts the engine to the presence of a new or updated page, and queues it for prompt revisiting.

You can also get a listing of the contents of a directory from the main search page. Here's a sample query

```
url:web.mit.edu/is/isnews/
```

Ultraseek returns the number of results found with this phrase in the URL.

Making Pages Search Friendly

Ultraseek uses both the title of a page and meta tags describing its content to score a document's relevance. Labeling your Web page with a title, a description, and some key words helps the search engine refine its "relevancy" ranking for the page. In other words, adding descriptive tags and elements can elevate a page's position in a list of results when the page is relevant to a user's search criteria.

CWIS provides a FAQ that explains how to specify meta tags in your documents. See

<http://web.mit.edu/cwis/faq/metatags.html>

Another good resource is the World Wide Web Consortium's *Notes on helping search engines index your Web site*. It's available online at

<http://www.w3.org/TR/PR-html40/appendix/notes.html#h-B.3>

You can also improve searchability by creating "blocks" of information on separate pages, rather than long documents that scroll on and on. If a search returns a long page, users may have trouble finding the relevant section.

Frames complicate indexing, so it's best not to use them. But if you can't avoid them, consider repeating links from your navigation frame in your content frame. Ultraseek treats well-coded content frames as individual documents. This means that the content of framed sites is indexed, but when a user selects a result, it does not show the full frame set.

For more information about how Ultraseek handles frames, see

<http://software.infoseek.com/products/ultraseek/faqs/faq054.htm>

Find Out Who Links to Your Site

Using Ultraseek, you can find out who links to your site. This can be useful when you plan to make changes and want to alert publishers whose pages link to your site. On the main search page, use a query like this – typed on one line:

```
+link:web.mit.edu/is/isnews/
-url:web.mit.edu/is/isnews/
```

The first half of this code tells Ultraseek to list which pages link to your site. The second half excludes any of your own pages from being listed.

Redirecting Users

Sometimes you have to change a document's URL and need a quick way to redirect users to the new location. Don't use a symbolic link (an indirect pointer to a file); if you do, Ultraseek will index the new content with the old URL.

To make sure Ultraseek indexes the new location, create a redirect page at the old location using a refresh meta tag. This meta tag takes the following form:

```
<meta http-equiv="refresh"
content="0;URL=your new URL here">
```

The number before the semicolon is the time in seconds before the browser loads the specified URL. Using "0" causes a near-instantaneous redirect. The URL in the tag should be that of the new location.

Since some older browsers don't recognize the refresh tag, you should also place an actual HTML link to your new file on the redirect page.

Setting up Ultraseek to Search Just Your Pages

Ultraseek lets MIT Web publishers create a customized search interface for a specific set of pages. For example, the interface at

<http://web.mit.edu/is/isnews/search.html>

limits a search to pages in the *i/s* newsletter site.

The search interface can range from a simple box to a menu-driven page. As a publisher, you can set four types of variables: where to search, what to search for, time criteria, and display options.

You do need a basic understanding of forms to build a more advanced search. There's a *Fill-Out Forms Quick Guide* online at

<http://web.mit.edu/cwis/docs/forms.html>

For specific examples of code, see

<http://web.mit.edu/ultraseek/help/102/search-me.html>

There's More

You can view the material in this article online – with more examples of HTML code – at

<http://web.mit.edu/ultraseek/help/102/>

Correction

The last Publishing Pointers column on "Choosing File Formats for Web Documents" stated that there was no PowerPoint 98 Viewer for the Macintosh. In fact, around the time that issue went to press, Microsoft posted this Viewer online. You can download a copy at

<http://www.microsoft.com/macoffice/productinfo/98dl/pptvdl.htm>



MIT Payroll and Credit Union Report on Y2K Status

Gayle Willman

Knowing that year designations are often stored in computers in a two-digit form, there has long been a concern that some data systems may inaccurately read "00" as the year 1900 rather than 2000. Systems that don't recognize the 2000 date would fail to perform date-related calculations properly. Where financial systems are concerned, this is especially important.

If you are a member of the MIT community, you may be wondering about the impact of the Year 2000 on the systems in the Payroll Office and the MIT Federal Credit Union. Here's a brief – and reassuring – report.

Payroll

MIT's Payroll system was modified for Y2K compliance and the changes

went into production in October 1998, reports Suna Gulen of the Controller's Accounting Office. After the Y2K coding changes were made, the CAO used a VM2000 machine to conduct a



series of tests. First the CAO tested each part of the Payroll system separately. It then verified the system as a whole using small test databases. Next, it ran a parallel processing test using a full copy of the production database.

Testing of the Payroll system will continue throughout 1999 and into 2000 by running pre-payrolls on a

monthly basis. The Payroll Department is also working with outside banks and other agencies, to whom it transmits data, to ensure compatibility.

Credit Union

Similarly, the MIT Federal Credit Union reports its successful completion of Y2K tests of its critical data systems.

The testing done by the Credit Union simulated their internal data processing in 2000 and beyond. The testing also looked at interactions between the Credit Union's data systems and those of vendors and suppliers with whom they share data. Now that critical Y2K testing is complete, the Credit Union is testing noncritical systems. Systems' performance will also be monitored for accuracy and effectiveness.

Campuswide Efforts

Year 2000 readiness efforts have been ongoing throughout the Institute. MIT's Year 2000 team looks forward to reporting on the successes of other departments in future issues of this newsletter. Also, watch for a special Y2K insert in an upcoming issue. ☺

Information to Have on Hand When Seeking Computing Help

Mary Ellen Bushnell

When you contact the IS Computing Help Desk with a problem, you will be asked a number of questions about your computer's configuration and the circumstances surrounding the problem. It would be helpful to have on hand some basic configuration items, such as

1. Computer make and model
2. OS and version number
3. RAM
4. Size of hard drive

If the problem appears to be network-related, you will also need to know your

5. IP address
6. Software name and version number

To find out how to gather this information, see the Windows and Macintosh sections that follow.

You should also be prepared to answer some basic troubleshooting questions:

7. Have you ever been able to do what it is you are now having trouble doing? If so, when was the last time you were successful in doing so?
8. Has anything changed on your system recently: new software, modem, cable, anything?
9. Can you describe the symptoms exactly, including any error messages?
10. Is the problem repeatable?

Windows

A standard installation of Microsoft Office 97 includes Office Tools. This utility summarizes most system information in one location. From the Start menu, choose Find/Files or Folders..., then type in `msinfo32.exe` and press Enter. The Microsoft System Information window opens to a screen that displays the information for items 1–4 above.

To find your IP address on Windows NT, 95, and 98, go to the Control Panel (Start Menu/Settings/Control Panel) and select Network. Select the Protocols tab, click on TCP/IP, then click on Properties to see your IP address.

There are two ways to find out what version of software you are using. If the application is open, look under the Help/About "product name" menu.

At the desktop level, right-click on the application icon and choose Properties.

Macintosh

Mac OS 8.x includes the Apple System Profiler, an application under the Apple menu that pulls together all of the information about your computer. The current version, 2.1.2, works with Mac OS 7.6 and above.

Under Mac OS 8.5, the Apple System Profiler brings up a window with tabs. The first tab gives information on items 1–3; the second tab, Devices and Volumes, has details about the drives. On machines with Mac OS 8.1, after launching the Profiler, go to the Select menu.

To find your IP address, choose Control Panels from the Apple menu, then choose TCP/IP.

To find the version number of an active application, select the first item under the Apple menu. At the Finder level, you can select the application icon and choose File/Get Info, or run the Apple System Profiler and choose the Application Information tab for a complete list of applications.





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

For a list of services offered by Information Systems, see the Web page at

<http://web.mit.edu/is/services/>

For help with...

Athena Computing Environment
Athena hardware repairs
Computer and printer repairs
Computer pre-sales consulting
Disabilities and computing
Macintosh computers
PC computers
Telephone repairs
UNIX/VMS (by subscription)
Voice mail
Year 2000 issues

Dial...

3-4435
3-1410
3-0815
3-7686
3-7808
3-1101
3-1102
3-4357
3-1103
3-3677
3-2000

Or send a message to...

olc@mit.edu
hotline@athena.mit.edu
pcservice@mit.edu
mcc@mit.edu
atic@mit.edu
mac-help@mit.edu
pc-help@mit.edu
5help@mit.edu
unix-vms-help@mit.edu
vmail@mit.edu
y2k-help@mit.edu



Surf Sites: Shopping Agents

Market Maker, the subject of this issue's lead article, is an MIT-based research project that offers individuals an electronic environment for buying and selling books and the like. For the serious shopper, the Web also offers a host of sites powered by search engines that can help you shop for a range of products: computers, cars, books, sporting goods, insurance, and so on. In addition to comparative pricing, most of these sites provide product information and reviews. Some offer extras like side-by-side comparison charts, discussion groups, classified ads, customer satisfaction ratings, and newsletters.

4 Less Network

<http://www.4less.net/>

Bottom Dollar

<http://www.bottomdollar.com/>

CompareNet

<http://www.compare.net/>

mySimon

<http://www.mysimon.com/>

RoboShopper

<http://www.roboshopper.com/>

Top10.ConsumerGuide

<http://www.top10guide.com/>

WebMarket

<http://www.webmarket.com/>



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