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News about information systems throughout

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High Finance: Sloan Opens State-of-the-Art Trading Room

Lee Ridgway

The Sloan School recently opened a fully equipped, state-of-the-art trading room – the first ever built on a university campus. Identical in every detail to the best trading rooms in financial capitals around the world, the Sloan facility provides MBA students with hands-on experience in trading and finance. It is also a lab in the traditional MIT sense, where research can be conducted in the areas of finance and financial engineering.

Today's financial markets would not be possible without significant technological resources. The Sloan trading room reflects this high-tech environment. To give some idea of the technology involved, here is a quick tour of the Sloan facility.

At the front, near the ceiling, is that well-known symbol of financial markets, the electronic tickertape. While tickertapes in most trading arenas carry information from a single exchange, such as the New York Stock Exchange, Sloan's Trans-Lux Jet tape can carry price information from multiple markets, covering all 300,000 financial instruments worldwide; the software that makes this possible was written at MIT. Although supplied by Reuters as a live feed with the latest information, the Sloan tape is delayed by 15 minutes from real-world markets.

To give added flexibility for teaching and setting up simulations, selections from the Reuters feed can be limited to certain stocks or bonds. (In a classic college touch, the phrase "No food or drink allowed!" occasionally appears among the price quotes.)

Underneath the tickertape are two Trans-Lux DataWall panels, which display late-breaking news and other financial information fed from Reuters. The DataWalls can also be controlled and fed locally, for tailoring to teaching and presentation situations.

Around the room are 23 trading stations, installed on desks designed and built by Woodtronics for trading rooms. These desks accommodate – neatly and stylishly – the connections, bundles of wires, computers, telephone stations, and necessary ventilation. The trading stations are Acer Pentium PCs. Placed among them are 23 IPC Tradenet MX telephones, consoles designed for fast-paced trading. These phones, while the real thing, are not connected to the outside world – no real trading takes place through them.

Supporting this setup is a series of servers, data feeds, databases, and network connections that help manage the entire operation, serve up real-time information, and provide historical data and information about financial instruments and companies. Such a high volume of data comes in via the network that the trading room is on its own MITnet subnet; otherwise, it would overwhelm the Sloan subnet.

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Loaded onto the trading-room machines is a selection of software to manage and help make sense of the vast amount of available data. Included are packages for customizing the display environment, for analysis and visualization, and for portfolio management and trading. Two examples are the Reuters Personal Trader Workstation (PTW) and the Financial Trading System (FTS).

Reuters Personal Trader Workstation

This software, used by professional traders, offers graphics and spreadsheet analytical functions through links to real-time and historical data. With PTW the user can customize the PC's screen with numerous simultaneous windows, each with a different data service or application, including graphical manipulation and charting. With the Personal Data Dictionary, the user defines the data items that are to be fed into other applications.

Financial Trading System

This package, designed as an educational tool, links together a network

of computers to form a financial market. With FTS a variety of financial instruments can be defined and traded, including stocks, bonds, options, and futures, as well as more complex securities such as caps, floors, and swaps. One class scenario might be a simulation where a trading environment is set up with artificial securities and the factors that affect their payoffs. FTS generates a random information structure and outcomes while the traders on the network make the market; FTS performs bookkeeping and networking tasks as if in a real market. Trading sessions with FTS have already been used in classes such as Investments (15.433), and in extracurricular activities.

Trading Room as Research Facility

While the Sloan trading room accurately reflects today's financial markets, it is also intended to be a research facility with the potential to play a central role in shaping innovations in the practice of finance. As with other research centers at MIT, cross-disciplinary collaboration is being encouraged. Possible avenues of research, some already under way, include projects to develop novel visualization techniques for representing complex portfolios; studies on the psychology of financial markets and how human behavior

influences trading decisions; and computational techniques that incorporate artificial intelligence and neural-network theory in order to evaluate and learn, at a very sophisticated level, from past market experience.

In the area of visualization, a complex portfolio might be represented in a kind of 3D, color landscape. By "flying" over this landscape, a fund manager would be able to analyze the complicated relationships among the portfolio's components, and gain a better understanding of related performance and management issues.

Another aspect of the Sloan trading room is reflected in the enthusiasm shown for it by faculty, staff, and students. A grassroots movement, initiated by students interested in financial technology, resulted in the formation of the Trading Room Task Force. Informal and self-organized, student groups work on developing curriculum applications. A coordinating committee, headed by Professors Andrew Lo and Paul Asquith, monitors the students' work and integrates their efforts into the overall capabilities of the lab.

For more information on the Sloan trading room, see the Web pages at <http://web.mit.edu/sloan-comp/www/trader/>

The Eudora E-Mail System: Tips for a Smoother Installation

It's been a month since Eudora was released to the MIT community. Most of those who downloaded Eudora were able to install and use it from the start. However, the Computing Help Desk did receive questions, most of which fell into four categories. The answers to these questions are in the *Basic FAQs About Eudora at MIT* at

<http://web.mit.edu/tps/www/eudora/faq.html>

The four types of issues that arose with Eudora installation are summarized below. Related links in *Basic FAQs* are listed at the end of each bullet.

- *Kerberos errors (Eudora/Macintosh).* Some Macintosh users were getting Kerberos errors because their Eudora installation conflicted with previous versions of Kerberos on their machines. (Click on "Getting Kerberos errors using Eudora for the Mac.")

- *Kerberos errors (Eudora/Windows 95).* Users with PCs running Windows 95 and using the Microsoft networking capabilities that come with it also got errors related to Kerberos after installation. Their configurations required additional Kerberos files that are normally installed when using LAN WorkPlace for networking, but are not part of the Microsoft networking software. (Click on "Problems with installing Eudora to run with Windows 95.")

- *Multiple Eudora users on one machine.* Some offices want to set up one computer to handle multiple Eudora users. This requires additional steps after installation. (Click on "Setting up multiple users of Eudora on one computer.")

- *Incomplete user information.* In some cases, there was confusion as to how to fill in the post office server information related to a user's e-mail address, which is required for Eudora to work. (Click on "Getting 'connection came up halfway and failed' error.")



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FileMaker Pro 3.0 from Claris Goes Relational

Tony Jackson
Claris Corporation

The big news about FileMaker Pro 3.0 – the latest version of the popular database program for Macintosh and Windows – is that it offers relational capabilities. You can now share data between separate files, and when you change data in one file, the changes display automatically in any related file. (For a more in-depth discussion, see “Relational Databases” on page 6.) FileMaker Pro 3.0 also offers improved text handling and aids for easier data entry, among many other new features.

System Requirements

To run FileMaker Pro 3.0, your computer must meet the following minimum system requirements:

Macintosh

- Any Macintosh running System 7.1 or later
- 8MB RAM (recommended for 680x0 machines; required for Power Macintoshes)

Windows

- Intel-compatible PC running Windows 95 or Windows NT 3.51 or later
- 8MB RAM (16MB recommended for Windows NT 3.51)

Improved Text Handling

FileMaker Pro 3.0 has a text ruler, which you can use whether you are designing a form in Layout mode or entering data in Browse mode. The text ruler gives you instant access to fonts, and lets you change font size and font styles. You can also set Paragraph formatting from the ruler: this includes alignment, indents, margins, and tabs. A field can have hanging indents and custom tab stops, for example.

Value Lists

FileMaker's value lists can be used for two purposes: to make data entry easier (via a pop-up list or menu), or to ensure that data is valid (e.g., that the two-letter state code entered is a valid state.) While value lists aren't new to FileMaker, they have been significantly improved in version 3.0.



In previous versions, each item had to be typed into a value list. While that's still an option in 3.0, you can also define a value list based on existing values in another field. If you have a list of states in one database, you can use that list to define a value list of states in all your databases. If you modify the field that the value list is based on, all of your pop-up lists are updated automatically. Even better, you now have the option to show a second field in a pop-up value list. A good example would be a product number field, in which the pop-up list displays a list of product numbers *and* names, making it easier to select the correct product from the list.

Other Data Entry Aids

FileMaker Pro 3.0 offers several other ways to streamline data entry:

- The Revert Record command lets you undo all changes to the current record.
- The Replace command lets you replace a field's value in every record in the file. You can even replace using a calculation.
- You can validate data by calculation (e.g., Is Amount < Credit Limit?), and specify a message to be displayed if validation fails.

Wait, There's More

Other key features of the new FileMaker Pro include the following:

- *TCP/IP support.* This means that FileMaker Pro databases can be hosted over the Internet.
- *More files, bigger files.* You can now open up to 50 files simultaneously. Further, the 32MB file size limit has been upped to two gigabytes.
- *Merge fields.* Rather than requiring you to create a merge document (such as a form letter) in a word processing program, merges can be generated entirely within FileMaker Pro. This feature allows for easier text integration and is much more efficient than sliding fields.
- *Enhanced scripting.* FileMaker's ScriptMaker feature now offers loops, conditionals, and error checking.

- *Customizable templates.* FileMaker on CD comes with over 40 templates, for items ranging from mailing lists and time sheets to certificates and invoices. You can also get them at ftp://ftp.claris.com/pub/USA-Macintosh/Templates/FileMakerPro3/CD-ROM_extras/Templates.hqx

Upgrade Concerns

With so many new features, Claris needed to create a new file format for version 3.0. This means that you can't open 3.0 files with previous versions of FileMaker, although you can convert your older files into 3.0 format. (FileMaker Pro will even rename your old files when you convert them so you'll have a backup in 2.1.)

If you want to share files with other users, everyone needs to be running the same version of FileMaker. If your office uses FileMaker Pro Server, it will need to be upgraded to Server version 3.0 when everyone's client software is upgraded. Keep in mind that the Windows version of FileMaker Pro 3.0 requires Windows 95.

The good news is that you don't have to relearn how to use FileMaker. Version 3.0 doesn't change how you use existing 2.1 features; it simply adds new capabilities. Many people don't need a relational database, and with FileMaker Pro 3.0, you're not required to create one. Still, should you want to make a database relational, FileMaker Pro 3.0 provides a seamless way to do so.

Purchase, Support, Training

You can buy FileMaker Pro 3.0 for Macintosh or Windows at the MIT Computer Connection in W20-021. The introductory price is \$115. The MCC also sells a 10-pack for the Macintosh for \$1059.

IS offers partial support for FileMaker Pro 3.0, and plans to offer full support soon.

The IS Training Lab has several FileMaker classes scheduled for the Spring quarter, including one that focuses on new features in FileMaker Pro 3.0. For more information, call x3-7685 or send e-mail to <wray@mit.edu>.

The FileMaker User Group meets in E40-302 on the second Thursday of the month. Contact Joni Bubluski at x3-3551 <bubluski@mit.edu> for details. ☺

Try These Tips to Locate Someone's E-Mail Address

John Rusnak

With so many people connected to the Internet, correspondence via electronic mail has soared. Yet while sending e-mail is easy, tracking down a person's e-mail address can be difficult. This article gives tips on finding e-mail addresses for people outside of MIT. (To learn how to find the e-mail addresses of MIT community members, request the *MITnet Online Directory Quick Guide* [QG-18] by calling x3-5150 or sending e-mail to <sendpubs@mit.edu>).

Be advised at the outset that your searches may not always be successful. For this reason, your best bet is to ask a person for their e-mail address if you intend to correspond with them.

At Educational Institutions

Many colleges and universities put their student and staff information online and make it readily available to outsiders. To look for an e-mail address in this category, check to see if the college has a Web page. A list of such pages, maintained by former MIT student Christina DeMello, is available at <http://web.mit.edu/cdemello/www/univ.html>

Many schools with Web pages provide links to their online directories.

Another method is to use your Web browser to connect to `gopher://gopher.mit.edu/`

and then to select Other Information Servers→Other Institutions On-Line Directory. From there you can narrow your search by continent and by school. Once you pick the desired school, enter the person's name in the search field.

At Commercial Institutions

Most businesses do not make their internal information as freely available as educational institutions do. Still, there are ways to find or make an educated guess about a person's e-mail address if they are affiliated with a company. To start, you can use WHOIS, a gopher-based service that you can get to via the Web by opening `gopher://rs.internic.net/7waissrc%3A/rs/whois.src`

In the search field, enter the name of the company where the person works – for example, lotus.com (commercial addresses end in .com). If you use Athena, at the `athena%` prompt you can enter the command `whois lotus.com`

Next, look for the e-mail address of the contact person listed in the company's WHOIS data. Since many companies follow a uniform format for e-mail addresses, you can guess at an employee's e-mail address by mimicking the address of the contact person. If the e-mail address of contact Bill Smith is <bsmith@company.com>, there's a good chance that the e-mail address of co-worker Lucy Mikado will be <lmikado@company.com>.

At Online Services

Some people connect to the Internet via a commercial service provider such as America Online, CompuServe, or Prodigy. It is very difficult to find or guess e-mail addresses of subscribers to these services, because the service providers want to protect their customer's personal data.

To search for the e-mail address of online subscribers – or any Internet user – check out one of the Internet White Page services.

Internet White Pages

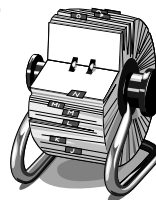
Internet White Page services provide the most comprehensive method of looking for e-mail addresses. You can access many of these services by going to the Directory menu in Netscape and selecting Internet White Pages. Two such services include Four11 and WhoWhere?, which you can find at

<http://www.four11.com/>

and

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

Each White Page service has its own interface, and different services employ different methods to gather e-mail addresses. Some search through Usenet postings, while others rely on Internet users to add their own information. With some experimenting, you can find the White Page service that gives you the best results. ☺



This column presents news and tips from the consultants who staff the Microcomputing Help Line, x3-0001. Check out their Web home page at <http://computing-help.mit.edu/>

Q Help! When my Web pages are viewed with Netscape 2.0, some of the hyperlinks don't show up! They do appear when viewed in earlier versions of Netscape. What's going on?

A With version 2.0 and later, Netscape changed the way it handles HTML coding mistakes, such as a missing end quote. Earlier versions let you get away with a missing quotation mark; for example, the following code lacks an end quote (") after "pagelink.html"

```
<A HREF="pagelink.html">Link to a page.</a>
```

With Netscape 2.0, this mistake is no longer ignored, and the text associated with this link will not show up on the Web page. If you notice missing text in your Web pages, check to see that all quotation marks are paired.

To help you validate your HTML code, several automatic validation services are available on the Web. One easy-to-use service is "A Kinder, Gentler Validator" at

<http://ugweb.cs.ualberta.ca/~gerald/validate/>

Q I have a document in Word 6 for Windows and I want to reorder the paragraphs. Is there an easier way than cutting and pasting, or dragging and dropping, each paragraph?

A Yes – it's called the Spike. This multiple cut-and-paste tool is part of Word 6 for Windows or Macintosh, and Word95 for Windows 95. The Spike collects text or graphics in the order in which you cut them, and with one operation pastes the Spike contents in the new order.

1. To move items to the Spike, select and cut each item in its new order, by pressing Ctrl+F3 in Windows, or Command+F3 on the Macintosh.
2. Position the insertion point where you want to place the rearranged items, and press Ctrl+Shift+F3 in Windows, or Command+Shift+F3 on the Macintosh. This pastes the Spike contents and clears it. ☺

Apple's System Update 2.0 Has Many Bug Fixes, Enhancements

Albert Willis

Apple Computer has released System Update 2.0, which updates System 7.5, 7.5.1, and 7.5.2 to System 7.5.3. It includes all of the patches and enhancements that Apple has released over the last few months: the 7.5.2 Printing Update, PowerBook 5300 System Software Update, and PowerBook 2300c Update. Anyone using these fixes should update to System 7.5.3, since it includes additional fixes and enhancements.

System Update 2.0 is recommended for any computer running System 7.5 or later, and is strongly urged for PCI Macintoshes (7200, 7500, 8500, 9500).

Precautions

As with any major upgrade, proceed with caution. Although 7.5.3 is more reliable and stable than previous system software versions, there is still the potential for problems when doing the upgrade.

It's important to make sure that you have the latest version of any third-party extension or control panel installed in your system. Upgrading to the new system without having done this could lead to system crashes or other problems.

One such utility to check is RAM Doubler, a popular RAM expander from Connectix. The latest version of RAM Doubler is 1.6.1. There's an updater on the CSS File Server, in the IS-CSS zone. Mount the Public volume and locate Updaters:RAM Doubler 1.6.1 Updater.

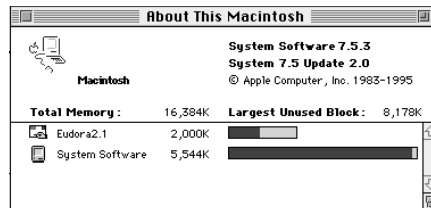
There is a known conflict between RAM Doubler 1.6.1 and System 7.5.3 on PowerBooks. One of the problems PowerBook owners are reporting is that the machine will crash with a Type 8 error when it wakes up from sleep mode. As of this writing, there isn't a fix from Connectix, but they are working on it. For more information, check Connectix's Web site at

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

Some modem software, such as Global Village's Global Fax software may also have problems with 7.5.3. Again, contact the vendor to find out how to upgrade your software.

One final checkpoint is your hard disk driver. System 7.5.3 uses SCSI Manager 4.3. In order for System 7.5.3

to work correctly, you need a SCSI driver that is SCSI Manager 4.3 savvy. This is mainly an issue for people who use third-party disk formatting utilities, such as APS PowerTools or FWB Hard Disk Toolkit. Contact the vendor to get an updated version of their formatting utility, in order to update the SCSI driver. Similarly, those who work on pre-Quadra Macintoshes may need to get a copy of Apple's HD SC Setup 7.3.5 and use the Update option. This utility is on the CSS File Server in the IS-CSS zone. Mount the Public volume and locate AppleSoftware:Utilities: Apple HD SC Setup 7.3.5.



System 7.5 Update 2.0 upgrades your system software to version 7.5.3.

Open Transport 1.1

System Update 2.0 includes Open Transport 1.1, the latest version of Apple's new network software architecture. This is particularly important for the latest Power Macs (7200, 7500, 8500, 9500) that shipped with older, buggy versions of Open Transport. All Macintoshes with a 68030 or newer processor can now run Open Transport. (OK, not quite all; the desktop 5200, 5300, 6200, and 6300 series computers don't currently support it.) Although Open Transport gets installed automatically using the Easy Install option in the Installer, it isn't activated unless the machine was previously using Open Transport.

Under 7.5.3, you can switch between Open Transport 1.1 and "classic networking," using an application called Network Software Selector. This lets you continue to use older applications that may not work well with Open Transport.

Open Transport 1.1 should solve just about all of the networking problems that users of previous versions have experienced. If you use MacPPP 2.1.2SD (or later) or FreePPP 1.0.4 (or later) with MIT's Tether service, the service should be more stable. FreePPP 2.5 should be released soon; once it has been tested, IS expects to make this the recommended version for use with machines that use Open Transport 1.1.

Other System Improvements

The new version of the Finder offers lots of fixes and some enhancements. It's faster at opening windows and copying files. The Name field in the various list views are wider, so you can see more of a file's name. On Power Macintoshes, icons turn translucent when you drag them across the desktop.

System 7.5.3 includes the latest versions of important system components such as Apple Guide and QuickTime. PowerPC-native versions of low-level components such as Serial DMA, SCSI Manager, and the Resource Manager boost the performance of Power Macs.

Thorough Documentation

Another great feature of 7.5.3 is that it's well documented. Three "New in This Update" files describe all of the bug fixes and enhancements. Three "About..." files describe every extension, control panel, and system folder component that comes with the new system. Reading these files is a great way to learn more about how the system works, which is particularly helpful when you run into problems.

A Universal System

System 7.5.3 supports the concept of a "universal" system. System administrators will be able to create a hard drive that boots any Macintosh. The directions for doing this are included in the "Installing This Update" Read Me file. One caveat: to create a universal system, you need a machine that can run System 7.5. The newest machines support only 7.5.2 or above.

Distribution

There are several ways to get System Update 2.0: via MITnet, the Internet, or mail order. On MITnet, System Update 2.0 is on the CSS File Server, in the IS-CSS zone. Once you mount the Public volume, locate AppleSoftware:System Software: System 7.5 Update 2.0: System Update 2.0. Copy the System Update 2.0 folder to your hard drive (you'll need 20MB of free disk space). Please don't run the installer from the server! This would degrade server performance a great deal. After you copy the folder to your hard drive, run the Installer.

To download the Update from Apple's Web site, open the URL

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

You can also get the Update from Apple on CD-ROM or diskettes for \$13. To order, call 1-800-293-6617, x984. ☺

Relational Databases: More Power, More Planning

Robyn Fizz

With the release of FileMaker Pro 3.0, the average computer user can now create relational databases. This type of database involves links between different files through which data can be shared. In the past, creating such databases usually required some degree of programming.

While this article is written in the context of FileMaker Pro 3.0 (see the article on p. 3), most of the concepts apply to relational databases in general.

The Basics

A relational database lets you display, use, and edit data in one file that comes from another file. The data resides only in the related file, and the values displayed in the current (master) file get updated whenever the data in the related file changes. This promotes data accuracy, since you don't need to enter or update data in more than one place. In addition, the reduction in duplicate entries saves both time and disk space.

Ways of Sharing Information

As an example of a relational database, consider a department administrator tracking instructors and classes. The administrator sets up a relational database, with a class file and an instructor file. Each record in the class file contains information about a specific class: its name, unique number, description, prerequisites, schedule, and so on. Each record in the instructor file contains data about a given instructor: name, office, phone number, and so on. In this scenario, each class has only one instructor, but instructors may teach more than one class.

Let's look at two ways of sharing data between these files. One way is to view instructor information from the class file. That is, when viewing a class record, you might want to see who is teaching the class, even though the instructor data is stored in a separate file. To do this, you create a relationship from the class file (the master file) to the instructor file (the related file). You then add a field to the class file layout, and choose the instructor data from the Specify Field dialog box.

You could also share data between these files by viewing class information from the instructor file. That is,

you could view all the classes taught by a given instructor. Here, you would create a relationship from the instructor file (the master file) to the class file (the related file). Since instructors may teach more than one class, FileMaker requires an additional step. In order to display many instances of data (several classes for one instructor), you need to draw a layout object called a portal. This is done using the portal tool.

Relationships versus Lookups

If you have used earlier versions of FileMaker, you may be wondering how defining relationships differs from creating lookups. Keep in mind that a lookup *copies* data from one file to another. After the data is copied, it becomes part of the current file (as well as remaining in the file it was copied from). Data copied to the current file doesn't automatically change when the values in the other file change.

Defining Relationships

Defining relationships between a master file and related file is done through what is known as a match field. In the instructor file, you need a field that uniquely identifies each instructor. This could be a field that is already part of the database, such as social security number, or it could be an "instructor ID" field that contains different values for each record (such as INST1, INST2, INST3, etc.). The class file also needs an instructor ID field where the appropriate instructor ID is stored for each class. These fields become the match fields that define the relationships between the files.

Planning a Database

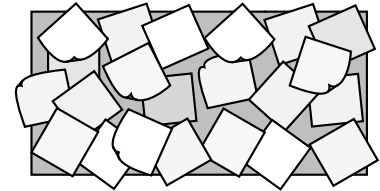
It's probably clear by now that relational capabilities can add flexibility and muscle to your databases. To unleash this power, however, requires a significant amount of planning. You need to decide what information to include in each file, what fields to create, what relationships to define, and what common values can work as match fields.

Here are some guidelines for thinking through the design of a relational database.

1. Be sure you thoroughly understand how relational databases work. Review the relevant material in the *FileMaker Pro User's Guide* and the program's online help. You may also want to get some hands-on experience in a classroom setting.

IS offers an Advanced FileMaker Pro 3 class that covers relational capabilities in detail. For more information, call x3-7685 or send mail to <wray@mit.edu>.

2. Ask yourself what pieces of information (or fields) you want to track in your database. A good way to approach this is to write each idea for a field on a post-it note and stick the post-its on a wall or whiteboard. Break information into the smallest appropriate pieces – for example, first name and last name fields, rather than just a name field. This gives you more options for sorting and manipulating data.



3. Begin to group the fields into logical categories. Having all the fields on post-its lets you rearrange them easily until you end up with groupings that make sense. Each grouping should be equivalent to a file.
4. Determine how you will uniquely identify each record in each file (e.g., an instructor ID field).
5. Decide how you might want to relate data between files. Which fields will store data, and which will use data from other files? Use unique identifiers as match fields to establish the relationship.

Having a picture on paper of all the fields, files, and relationships makes database creation and layout design significantly easier. This kind of planning is a key ingredient to success.

A Parting Caution

Relational databases streamline data entry and give you a lot of flexibility in organizing information. The down side of this power is that making the wrong moves within the database program can delete data permanently in all related files. For this reason you may want to set access privileges for your database, and make sure that anyone who modifies the database structure understands how the various files and fields relate. In addition, it's good practice to edit information in its original file. ☺



Cellular Telephone Service Options at MIT

Peggy Condon, Valerie Hartt

Cellular telephones have proven a popular, often necessary, way to stay in touch, especially if you are usually out of your office or on the road. MIT has agreements with Cellular One and Bell Atlantic NYNEX Mobile for cellular telephone services.

Rates for MIT are based on the number of subscribers MIT has signed up with each carrier. Due to its larger volume of MIT subscribers, Cellular One is a little less expensive than Bell Atlantic. In addition, Cellular One offers a maintenance plan and sells cellular phones at a discount.

Cellular One Plans

MIT has two discount rate structures with Cellular One: Corporate and Associate. To be eligible for the Corporate rate, you must have reason to use a cellular phone for MIT business and have departmental approval.

The Associate rate is a special plan for individual subscribers, offered exclusively to employees of MIT. To take advantage of the Associate rate, you must have an existing contract or set up a new contract through a Cellular One agent. Your department then authorizes transfer of the contract to the MIT plan. Billing is still to the employee, but at rates discounted from regular individual rates. The employee must also pay the activation fee.

If you're interested in the Associate plan, you may want to talk further with a Cellular One account representative.

Cellular One sometimes offers promotional plans with no activation fee. When these are in effect, you can avoid paying an activation fee by signing up for the promotion, then switching later to the Associate plan.

Bell Atlantic Plan

Bell Atlantic NYNEX Mobile offers only a Corporate rate for MIT users. This type of account is for MIT business purposes, and requires departmental approval. Bell Atlantic does not offer a discount plan for individual MIT subscribers.

Rates

The table below outlines monthly rates and usage fees for cellular service from Cellular One and Bell Atlantic, effective May 1, 1996. Peak hours for both providers are Monday through Friday, 7am to 8pm. Off-peak hours are Monday through Friday, 8pm to 7am, and weekends.

Buying a Cellular Phone

MIT customers can buy cellular phones from Cellular One at a discount. They offer three models – two from Nokia and one from Motorola – for prices ranging from \$9.95 to \$39. All come with an overnight charger and one-year warranty.

Maintenance Plus

Cellular One's Maintenance Plus plan is free for MIT Corporate accounts. Individuals on an Associate plan can purchase it for \$5 per month. Maintenance Plus covers the following:

- One free removal and reinstallation per year
- One free antenna replacement per year

- One free cellular phone tune-up per year
- A free diagnostic test each time your phone is brought in for service
- Use of a loaner phone if your repair exceeds one hour
- Free repair or replacement, to the extent not covered by the manufacturer's warranty, of the following components: transceiver, data cable, mount, wiring, control head, horn relay, and hands-free device.



Short-Term Loaner Phones

There may be occasions when your department needs extra phones for a short period of time – for a special event, conference, or emergency. With an MIT requisition, you can get loaner cellular phones from MIT Telecommunications Systems in E19-741. The loaner fee is \$30 per phone for the first week, and \$20 for each additional week. Usage fees are \$0.34 per minute during peak hours, and \$0.30 per minute during off-peak hours.

If you need a cellular phone for an extended period, it is more cost effective to buy one.

Contact Information

You may want to contact Cellular One or Bell Atlantic NYNEX Mobile directly for more information about their rate plans and promotions, coverage areas, or system features. Contact information, including account representatives for MIT, is listed below.

- Bell Atlantic NYNEX Mobile
1600 Unicorn Park Drive
Woburn, MA 01801
617/932-1283
Account Representative: Jay Case
- Cellular One
686 Commonwealth Avenue
Brighton, MA 02135
617/566-1100
Account Representative: Susan O'Keefe

To find out about short-term loaner telephones, or to clarify basic questions about MIT's cellular phone options, call the Telecommunications Customer Service Center at x3-3690. ☺

MIT Rates for Cellular Telephone Services, as of May 1, 1996

	Cellular One		Bell Atlantic
	Corporate	Associate	Corporate
Monthly service rate	\$9.00	\$11.00	\$10.99
Peak usage fee/minute	\$.35	\$.36	\$.36
Off-peak usage fee/minute	\$.30	\$.32	\$.25
Activation fee	N/A	\$40.00	N/A



Getting Help

If you don't know where to get help for your computer, network, or telephone problems, call the IS Help Line, **x3-2001** – or direct dial one of the help lines listed to the right.

If you prefer to use electronic 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 help with...	Dial...	Or send a message to...
Athena Computing Environment	3-4435	olc@mit.edu
Athena hardware repairs	3-1410	hotline@athena.mit.edu
Computer sales	3-7686	mcc@mit.edu
DEC and Sun software	3-6320	help@isis.mit.edu
Disabilities and computing	3-7808	atic@mit.edu
IS mainframes	3-7230	mithelp@mit.edu
Microcomputer and printer repairs	3-0815	pcservice@mit.edu
Microcomputer use	3-0001	micro-help@mit.edu
Networks/MITnet	3-4101	net-help@mit.edu
Telephone repairs	3-4357	5help@mit.edu
Voice mail	3-3677	vmail@mit.edu



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