MIT's Project Athena announces The Grand Opening on March 19, 1985 of the Student Center Cluster

Starting March 19, 1985, all MIT undergraduates may obtain Project Athena computer accounts at the Julius Stratton Library on the fifth floor of the Student Center (Building W20).

The Student Center facility has six Digital VAX/11-750 computers with 37 IBM and Digital terminals, and personal computers acting as terminals, attached to them. This facility is the largest Athena facility, with 5000 square feet of space. The Student Center Committee and the MIT Libraries agreed to donate the space for the cluster to Athena.

If you want to get an Athena account at the Student Center facility, you will need to register with Project Athena. Students who have taken courses supported by Project Athena need not register again; we have already created accounts for them on one of the Student Center machines.

If you don't have an account already from previous enrollment in a course supported by Project Athena, you should register by using the Project Athena Registration Program.

Articles on the next page explain why you should want to get your Athena account and how you can activate it easily.

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Project Athena dedicates this insert to

Karl Naoki Horita

an Athena Student Consultant.

March 3, 1963 — January 5, 1985

The Student Center Is For You!

Take advantage of the opportunity you have, as an MIT undergraduate, to obtain computer resources free of charge. Even if you have no experience with computers, you should consider this chance to learn about them. For more information on what you can do with an account, how to learn more about Athena software and hardware, and the other services Project Athena offers to you, read the rest of this special 4-page insert to the *The Tech*.

It contains schedules for Survival courses and Consultant Minicourses that can help you learn how Athena can best meet your needs. A schedule of consultants' hours for the Student Center facility will help you to get assistance. Some articles describe how Athena names its machines and rules about use of the machines. A special episode of *The Legend of Fred* brings some comic relief.

The director of Project Athena, Steve Lerman, adds a few paragraphs about the future of the project. Another article describes the Athena Network.

Finally, we present a welcome from the student members of the Athena staff. Indeed, all of us at Project Athena want to make the Project as accessible to you as we can. That's why we, along with members of the MIT faculty and staff and corporate donors to Project Athena, have made it possible for all undergraduates to obtain Athena accounts at the Student Center.

Accounts for all undergraduate students!!!

HOW TO REGISTER FOR AN ACCOUNT

1. Students who do not already have an Athena username MUST first reserve an Athena username by visiting a special Athena Registration Terminal located in the Student Center facility (fifth floor of Building W20). Students who have at one time enrolled in an Athena-supported course already have an Athena username and need not worry about this step in the registration process.

If you cannot run the Registration program and a consultant can't help you with the problem, visit Athena account administration staff in the carrel across from E40-442C (1-5pm) with proof that you are an enrolled MIT student.

2. Once a student has reserved an Athena username, Athena creates an account automatically (within 1-2 days) on one of five user machines in the Student Center facility.

Accounts at the W20 facility will appear on one of five user machines, based on the first letter of your last name:

A to C — louiswu D to H — nessus I to L — prill
M to R — speaker S to Z — teela

3. Either before or after you register for an Athena account, you should pick up our free introductory documentation (the Essential series– available in terminal rooms or at the IS Publications Office in 11-209), and attend an Athena Survival course (see article on Survival courses below), to learn how to use your account.

Why should you get an Athena account?

by Win Treese
Student Consultant Staff

Why would I want an Athena account? Because Project Athena has something for everybody.

Project Athena was founded as an experiment in the use of computers for education. But your Athena account won't restrict you to educational software. Athena offers many other tools that help you do your course work.

Writing Papers and Reports

Athena has several programs that make typing, proofreading, and retyping less frustrating and time consuming. Using Athena's *emacs* text editor, you can compose, rewrite, and edit your work without creating multiple drafts.

You can run your papers through the *spell* program to correct errors with ease.

Check your diction and writing style with the *diction*, *explain*, and *style* programs.

If you want your work to look professional, run it through the *Scribe* formatting program. *Scribe* can justify margins of text, create indexes and tables of contents, and insert footnotes at the bottom of the page.

Help With Lab Reports

Those of you who are taking lab courses try *RS/1*, an "automated laboratory notebook" program created by Bolt, Beranek, and Newman, Inc. *RS/1* makes it easier to write lab reports and generate graphs. It can help you analyze statistical data.

There are many "fun" programs too. The mail system lets you send messages to your friends on campus: those with Athena accounts, and those with accounts on Chaosnet, MIT's other computer network.

Athena now supports four popular languages: *C*, *Fortran*, *Pascal*, and *Lisp*. If you want to learn a language,you can take an MIT computer course. To learn *Fortran*, take 2.10; for *Pascal* take 1.00; take 6.001 to learn *Lisp*.

If you aren't sure where to start once you have an account, consider attending Athena's minicourse series (see the Minicourse article below).

If you have any questions or problems, look for a student consultant, wearing a Project Athena visor, who can give you help. Read more about our system in the Project Athena terminal room manuals. Once again, welcome to Project Athena!

Athena Minicourse Series

by Greg Greeley
Student Consultant

This term Project Athena will present a series of one-hour mini-courses that will explain various components of the Athena system.

If you wish to learn more about the system, these courses are highly reccomended.

Each course will be short, and will include a "hands on" session directly following each class.

The first three courses in the series are:

A Blackboard Tour of Athena

If you have never used the Athena computer system before, this is the course you should start with.

Editing on Athena

"Editing on Athena" introduces you to the *Emacs* text editor and describes how to use *Emacs* to create and edit files.

Using *Scribe* on Athena

"Using *Scribe*" shows you what Athena's text formatter, *Scribe*, can do. The formatter automatically adds margins and page numbers, and can create tables of contents, indexes - *Scribe* can even add footnotes to the bottom of a page.

The minicourses will be held on Mondays and Wednesdays at noon, and in the evening at 7:00. Except for the first Blackboard Tour in the Student Center's West Lounge, all minicourses will be held in the Student Center's Room 407.

USER MINICOURSE SCHEDULE

NAME	TIME	DATE	LOCATION
Blackboard Tour	7:00	March 18	West Lounge
Blackboard Tour	12:00	March 20	Room 407
Emacs	7:00	March 20	Room 407
Emacs	7:00	April 1	Room 407
Blackboard Tour	12:00	April 3	Room 407
Emacs	7:00	April 3	Room 407
Emacs	12:00	April 8	Room 407
Scribe	7:00	April 8	Room 407
Scribe	12:00	April 10	Room 407
Blackboard Tour	7:00	April 10	Room 407

(all classes will be held in the Student Center)

Athena Survival Courses

by Cecilia d'Oliveira
User Services Manager

If you are a first-time Athena user, consider attending a two-hour introduction to Athena entitled "Athena Survival." This Survival course will teach you the basics of the Athena system, such as how to log in to the computer, use the text editor for word processing of documents, send mail messages to other users, and run some of the other programs available to Athena users.

If you plan to attend a Survival course, obtain a free "Starter Set" of the Athena Essential series of documentation from the IS Publications Office in 11-209, weekdays from 11am to 3pm, or in any Athena cluster terminal room. Athena has scheduled the following Survivals for March and April:

Date	Time	Location
Thurs, 3/21	4-6PM	35-225
Thurs, 4/4	6-8PM	34-101
Thurs, 4/11	2-4PM	35-225

What's in a Name?

by Dave Grubbs
Software Release Engineer

When Project Athena first installed clusters of computers around the campus, the Athena staff decided to extend the Greek mythology motif begun with Athena, goddess of wisdom, by naming individual machines after the gods and goddesses, heroes and heroines, and other notable personalities of the mythological world. So the Building One machine names are zeus, hera, poseidon; the Building Eleven names are atlas, apollo, charon; and so on.

The problem is, we ran out of suitable names. New machines names now come from characters in the Twentieth Century mythology - Science Fiction. That is why you won't recognize the Student Center Cluster names unless you have read Larry Niven's *Ringworld*.

For those of you who haven't had this pleasure, a brief introduction is in order.

louis wu

Louis Wu has just celebrated his 200th birthday. Wu leads a very cyclic life; every twenty years he becomes dissatisfied with human companionship and seeks relief by exploring the reaches of known space. On these excursions, he usually travels alone. As Wu begins his third century of life, he is itching for another trip.

nessus

Nessus is a creature known as a "Pierson's Puppeteer." Puppeteers are very intelligent beings that walk about on three legs. Each puppeteer carries two heads, flat in shape, which are "mounted on flexible, slender necks."

Nessus' people discovered the Ringworld, an artificial ring the size of the Earth's orbit which circles a sun far beyond the reaches of known space.

speaker

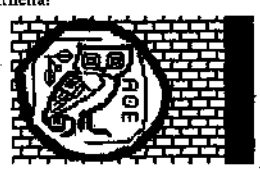
Speaker-to-animals is a member of the *kzin* race. The *kzin* are one of the most savage life-forms in known space. Your average *kzin* walks upright and looks like an eight-foot tall orange tabby cat. They like to eat meat that has been warmed to body temperature.

teela

Teela Brown is a twenty year old human who becomes Nessus' final recruit. Nessus, the puppeteer, believes Teela is Earth's luckiest human being because Teela is the sixth generation of her family to be born by reason of winning birth lottery tickets.

prill

Prill is the last of the Ringworld engineers. That is, she thinks she is. If you want to find out what happens when she meets up with Nessus' crew, you'll have to read the book.



Spring 1985 Consulting Hours in W20

Monday	3-5PM	7-11PM
Tuesday	3-5PM	7-11PM
Wednesday	3-5PM	7-11PM
Thursday	3-5PM	7-11PM
Friday		3-5PM
Saturday	No Coverage	
Sunday		5-9PM

Caveat Emptor (May the User Beware)

by Cecilia d'Oliveira — User Services Manager

We expect that students will use the Athena Student Center facility very heavily for course work, text processing, programming, electronic mail, etc. This means that printers will break down and run out of paper frequently, the facility will have a tendency to look used (messy), terminals will be a scarce resource, and the consultants will always seem to be occupied with someone else. The resources will be stretched to their limits. We will do what we can to keep things from getting out of hand, but we will need your help.

With this in mind, we set forth the following rules for the Student Center facility. These rules are not meant to be comprehensive, but to highlight areas that will undoubtedly be the source of the most problems. We will develop and modify this list will over time.

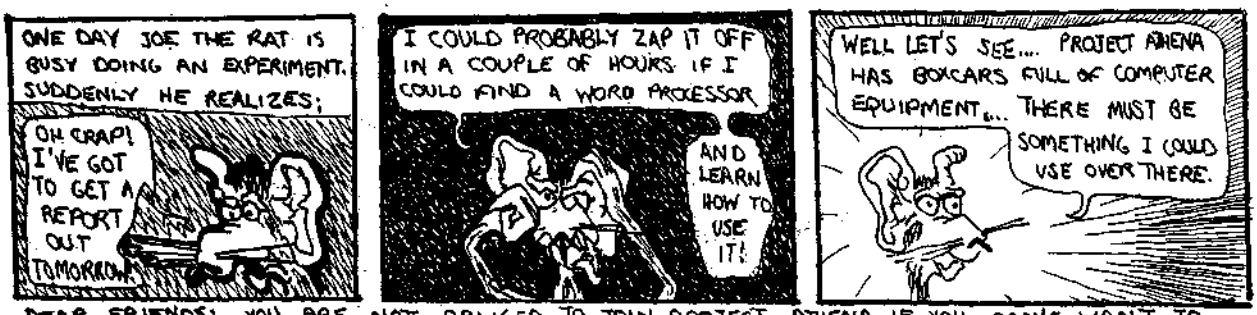
We do not intend to police Athena facilities to enforce these rules. We expect voluntary compliance and we believe that group pressure will be the most effective enforcement mechanism. However, your Student Center account is a privilege: If you abuse it, you may lose it, either temporarily or permanently, depending on the seriousness of the situation.

1. Obey all Student Center library rules–show your id.
2. No smoking, eating or drinking in Athena terminal rooms.
3. Do not move terminal room equipment: call Athena
4. Do not lend your Athena account to a friend.
5. If there is terminal contention, or if the system load is high, do not play games on Athena machines.
6. Don't be a "computer hog." Run "selfish" jobs during off-hours.
7. Do not use Athena printers as copy machines.
8. If there is terminal contention, do not use rlogin, telnet, or the login server to log in to machines outside the Student Center facility.
9. Priorities in the use of the facility: course work, text processing, mail, hacking, then game-playing.

If you have any questions about these rules, please ask a consultant. Thank you for your cooperation.

The Legend of Fred

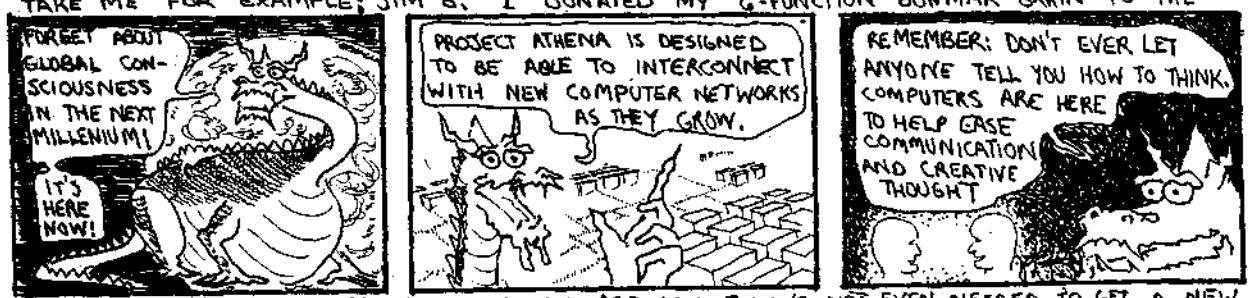
by Jim Bredt



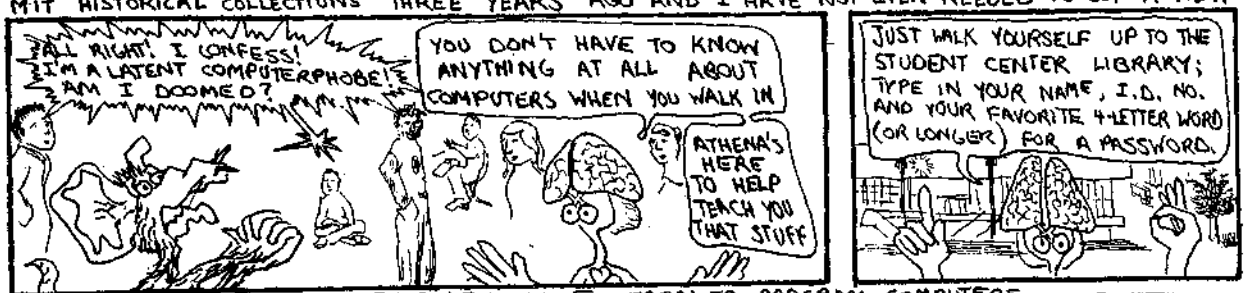
DEAR FRIENDS: YOU ARE NOT OBLIGED TO JOIN PROJECT ATHENA IF YOU DON'T WANT TO.

IT IS POSSIBLE TO SURVIVE AT MIT WITHOUT EVER LEARNING THE FIRST THING ABOUT COMPUTERS.

TAKE ME FOR EXAMPLE; JIM B. I DONATED MY 4-FUNCTION BOWMAR BRAIN TO THE



MIT HISTORICAL COLLECTIONS THREE YEARS AGO AND I HAVE NOT EVEN NEEDED TO GET A NEW



CALCULATOR IN ALL THIS TIME, LET ALONE LEARN TO PROGRAM COMPUTERS.

Principles Of Responsible Use Of Project Athena

Steve Lerman, Director of Project Athena, wrote these general guidelines for users of Athena facilities.

Project Athena is a five-year experiment in the use of a large, networked computer system as part of the educational process at MIT. Athena's distributed computer system will open up entirely new ways for members of the MIT community to share information. One consequence of linking the entire community together, however, is the potential for improper use of the system, a violation of MIT's high standards of honesty and personal conduct.

Intended Use

The hardware granted to Project Athena, and the software licensed for that hardware, are intended only for educational use by MIT community members. Use of Athena resources by anyone outside MIT requires approval of the Provost, and the sale of such use is prohibited. The use of Athena resources for financial gain is similarly prohibited. Use of Project Athena's facilities for sponsored research activities that normally would make use of other MIT facilities is not permitted, except by permission of the Director.

Privacy and Security

The UNIX (tm) operating system used by Project Athena facilitates sharing of information and software among its users. Security mechanisms for protecting information from unintended access, from within the system or from the outside, are minimal. These mechanisms, by themselves, are inadequate for a community the size of MIT's, for whom protection of individual privacy is as important as sharing. Users must supplement the system's security mechanisms by using the system in a manner that preserves the privacy of others.

For example, users should not attempt to gain access to the files or directories of another user without explicit authorization from that user (unless that user has intentionally made them available for public access). Nor should users attempt to intercept any systems communications, such as electronic mail or terminal dialog. Programs should not store information about other users without the users' prior knowledge. Personal information about another individual, which a user would not otherwise disseminate to the MIT community, should not be stored or communicated on the system without the other individual's permission. Such information includes grades, evaluation of students, and their work.

System Integrity

Actions taken by users intentionally to interfere with or to alter the integrity of the system cannot be permitted. These include unauthorized use of accounts, impersonation of other individuals in systems communications, attempts to crack passwords or encryption, and destruction or alteration of data or programs belonging to other users. Equally unacceptable are intentional efforts to restrict or deny access by others to any of the resources of the system.

Intellectual Property Rights

Some software and databases that reside on the system are owned by users or third parties, and are protected by copyright and other laws, together with licenses and other contractual agreements. Users must abide by these restrictions. Such restrictions may include prohibitions against copying programs or data for use on non-Athena systems or for distribution outside MIT, against the resale of data or programs or the use of them for noneducational purposes or for financial gain, and against public disclosure of information about programs (e.g., source code) without the owner's authorization. It is the responsibility of the owner of protected software or data to make any such restrictions known to the user.

Project Athena Staff

Project Athena's Future Directions

by Steven R. Lerman, Director

Despite its apparent large scale at the current time, Athena is just completing the first of its two, distinct phases. The current phase relies intensively on time sharing systems (the Digital VAXs), IBM PC/XTs, and the recently arrived IBM PC/ATs. This installed base of equipment was granted to Athena to begin the educational experiment without waiting for the next generation of computer hardware. However, the long term future of Athena lies in the hardware and software systems which are part of Phase 2.

The key elements of this second phase will be:

1. A greater degree of coherence between the systems provided by the two manufacturers. Both IBM and Digital intend to develop advanced workstations which run the Berkeley 4.2 version of UNIX.

2. A switch toward single user systems. This will mean a decommissioning of the VAXs from time sharing machines to some form of file service accessed over the network. Single user systems will be advanced, graphics workstations, each with computational capabilities that will give Athena users far better response than our current hardware provides.

3. Extension of Athena's facilities beyond the current public work areas. In the second phase, Athena will extend into dormitories, fraternities, laboratories, libraries, and various departmental areas. This extension will occur over the next three years.

4. Improvements to the software environment. Work is now underway to prototype software that will give students better interfaces to Athena software and will provide significantly improved graphics, networking facilities, hard copy output, database access and other services. The results of this work will gradually emerge from testing into widespread use on the Athena system as the second phase moves forward.

By the time Athena is over in about four years, I expect that we will have on the order of 2000 advanced workstations, all networked together to provide computational support to the students and faculty for educational purposes. An entire new generation of innovative, educational software will be created by the students, faculty, and staff of the Institute. The potential of this new set of educational ideas motivated MIT to undertake a project of the scale and difficulty of Athena. The process of realizing this potential will undoubtedly be a difficult one, requiring the help of almost all of the MIT community.

The Athena Network

by Ted Leung
Student Consultant

Project Athena links many computers into one campus-wide system with the Athena Network. This network makes it possible to send data between any two computers, similar to the way that AT&T's network allows any two telephones in the country to talk to each other.

Each Athena machine is a building block of a *cluster* of machines, housed within a room here at MIT. In turn, each cluster is a building block of the Athena Network.

The most visible of the Athena terminal rooms, commonly known as the "fishbowl," is in Building 11. The newest cluster is in the Student Center. Each cluster houses about six Athena machines. Buildings 1, 4, 11, 38, 66, E40, and W20 contain Athena clusters, and terminal rooms in Buildings 2 and 6 connect to machines housed in Building E40.

Athena named many of the computers after Greek goddesses and gods, so we have names like *mit-athena* and *mit-apollo*.

Because Athena's computers connect to each other through the network, users who have accounts on different machines can exchange files, send mail, or even "talk" to each other if logged in, using the computers at the same time! When one printer breaks down, you can simply send your file to a printer in another cluster.

The network at Athena is like the phone company's network. You can think of a specific cluster as a local telephone company network. In fact, one computer in each cluster, called the *file server*, routes all communications between computers within that cluster and "long distance" calls to computers in other clusters. The file server also controls the printers in the cluster. To reduce load, file servers have no user accounts. The file server machines for the various clusters are:

Building 1:	**mit-zeus**
Building 2:	**mit-achilles**
Building 4:	**mit-zeus**
Building 6:	**mit-achilles**
Building 11:	**mit-apollo**
Building 38:	**mit-trillian**
Building 66:	**mit-clio**
Building W20:	**mit-ringworld**

Network connections to the "outside world" allow users to send mail or talk to users at places other than MIT. *mit-athena* and *mit-charon* connect Athena machines to the Arpanet and the Usenet. All the machines in building 38 connect to MIT's Chaosnet. The network also permits you to dial-up to Athena from a terminal, or a personal computer, with a modem, and log in into any machine on the system, except for the computers in the Student Center.

This brief overview described the capabilities of the Athena network. Athena consultants will be glad to help you use the network in the ways described here.

Welcome from the Student Staff

by Mike Candan
Student Consultant

Project Athena currently employs 67 undergraduates. We are involved in just about every phase of the project, including building and maintenance of new clusters, providing personal help with the system, helping to maintain and improve system software, producing the Athena newsletter, and even doing most of the work on this *Tech* insert!!

Student consultants work in the walk-in centers (the major clusters) to provide help with the system software. The student operators see that the hardware is up and running. About half a dozen students work directly with the software developers, and we have another half dozen sprinkled in with the administrative personnel and assisting various staff members.

This cluster is for you! We're here to help, so please don't hesitate to ask.

Student Consulting

Christopher Andrews, Jon Athow, Gregory Belaus, Stephanie Brown, Marc Campos, Mike Candan, Charles P. Coleman, Tom Crowley, Micah Doyle, Andrew S. Gerber, Susan Gertzas, Greg Greeley, Aya Konishi, Viktram Kuriyan, Amy Lee, Rod Lehman, Ted Leung, Leon Liem, Vince Light, Ling Yi Liu, David Lyon, Sofia Merida, Craig Michelson, Daniel Morgan, Mason Nakamura, Ernest Prabhakar, Annette Rahm, Sonya Sakai, Dexter Sealy, Kenneth Szajda, Greer Tan, Yang Meng Tan, Andrew Thurling, Win Treese, Carl Waldspurger, Roger Zee

The Student Operators

Achal Aggarwal, Jay Adams, Syed Ali, Michael Bernard, David Carter, John Gray, Paul Howard, Robert Johnson, Sherman Luk, Dave Miner, Carlos Montero-Luque, Shojaat Nadeem, Sohail Qadir, Mark Roman, Edward Sieh, Michael Siemers, Gary Webster

Operations Staff

Paul Bourin, Jack Raush

Watchmakers (Operations Software)

John Barrus, Chris Kaplan, Warren J. Madden, Paul Viola, Nate Whitmal, Jonathan Wolf

Administrative Support

Keith Law, Tina Vargas

Documentation

Will Doherty, Boris Goldowsky

System Development

Jim Fulton, Mark Vandevoorde

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