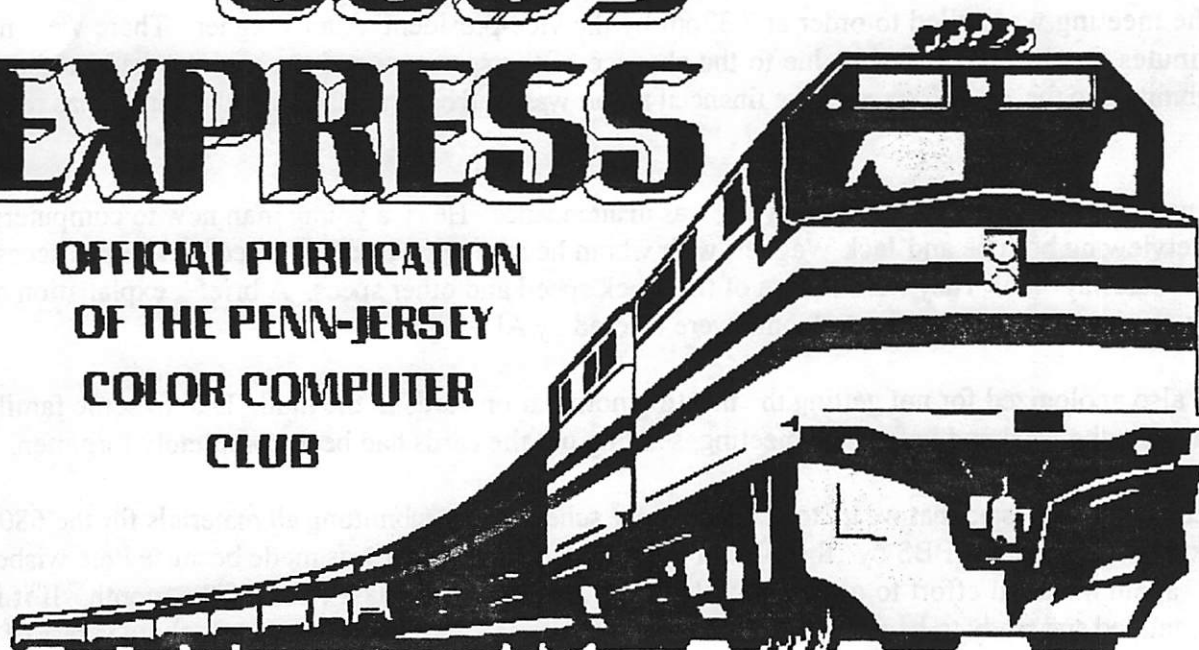


The 6809 EXPRESS

OFFICIAL PUBLICATION
OF THE PENN-JERSEY
COLOR COMPUTER
CLUB



SEPTEMBER 1994

In This Issue:

**The INTERNET TUTORIAL &
A Look at AMERICA ON LINE**

MINUTES OF JULY 28, 1995

These are the minutes of the July 28, 1995 meeting of the Penn-Jersey Computer Club.

The meeting was called to order at 7:32pm by the vice-president Alan Wagner. There were no minutes for the June meeting due to the absence of the secretary and the minutes had not been submitted to the 6809 Express. The financial report was read by Eric Rhyder and approved as read.

A new potential member, Adrion Snyder, was in attendance. He is a young man new to computers. Interviewing both he and Jack Wagner with whom he came, it was determined that he has access to a Gateway 486. They were unsure of the clock speed and other specs. A brief explanation of the origins of the club and a welcome were offered by Al Wagner.

Al also apologized for not getting the meeting notification cards in the mail. Due to some family business the weekend before the meeting, sending out the cards had been completely forgotten.

Peter Unks requested that we try to get back to the schedule of submitting all materials for the 6809 Express via the club's BBS by the 10th of the month. The request was made because Pete wishes to again make an effort to get the newsletter printed before the last week of the month. If it is assembled and ready to be printed, and maybe even printed, before the last week, there is less of a chance that an issue would be missed due to unforeseen occurrences at the Unks' household.

OLD BUSINESS

The up coming family night in September was discussed. Pete said he would get in touch with Mary Brown to arrange for the all important coffee pot to be at the meeting. Everyone is encouraged to set the 29th of September aside for this once a year special occasion. It is to be a family night and as such everyone is encouraged to bring the whole family. Each family is requested to bring some kind of snack item: chips, cake, cookies or the like. If you can't bring a snack, don't let that stop you from bringing yourself and the family. Besides the good conversation and camaraderie, Unks the Great is expected to put in an appearance with his usual entertaining magic show.

NEW BUSINESS

Al Wagner brought up a discussion of the purchase of a second hand VGA monitor by the club. The idea behind this is to allow better viewing when a demonstration is given using a laptop computer. Rather than someone having to drag a full system in, one of the members could bring in a laptop (much easier to carry than an under the desk tower) and use the club's monitor for the display. All in attendance seemed to feel that this was a good idea, but because of the light attendance, it was felt that a vote on such a subject should wait until a larger segment of the club was present.

Richard Kravits let us know that once again he had secured our room for another semester. There

was one question he had though concerning the November meeting. He did not know if we would beholding our meeting the week before or the day after Thanksgiving day. It was the consensus of those present that we had held our meetings on the day after in past years and thus had no reason to expect it to be different this year. On the basis of that consensus, Rich said he would secure the room for the 24th of November.

The question was brought up of what would be on the schedule for the demonstration at the August meeting. Eric Rhyder lamented that there was no phone in our room and hence he could not get out to the Internet and give a demonstration on the Net. Richard Kravits brought up the possibility of getting one of his friends who is into packet radio to give a demonstration of how to get on the Internet without a phone. It was decided he would make the attempt to set this up for the October meeting.

After the discussion about the October meeting Al forgot about the August meeting discussion and mistakenly closed the meeting at 8:30pm. It was quickly pointed out that we had still not decided on what would be done for August. A short discussion followed during which Pete volunteered to demonstrate some decision assisting software he has. He and Rich will get together before the next meeting and make sure the software is properly installed on one of Rich's laptops. The two pieces of software are "Mindprobe" and "Ideafisher".

AL WAGNER'S INTERNET TUTORIAL

This is the fifth installment in the current series on the Internet. Last time we discussed some about Netiquette and logging on to a Net computer as if your computer were an onsite terminal. Now we are going to look at how to get some of those great files you may have seen from the Net computer into yours. The means for doing this is called File Transfer Protocol or FTP. That is the subject of this installment and much of the next. It is a very heavily used feature of the Net.

Date: Wed, 01 Mar 1995 18:16:48 -0600
From: "L-Soft list server at University of Alabama (1.8a)"
<LISTSERV@UA1VM.UA.EDU>
Subject: File: "MAP13 LESSON"

MAP13: FTP (PART ONE)

"The desire of knowledge, like the thirst of riches, increases ever with the acquisition of it." -- Laurence Sterne, Tristram Shandy

Welcome back to the third week of the Roadmap workshop! I hope that you are having as much fun participating in this workshop as I am having teaching it! :)

Last week we used a tool called "Telnet" which allowed us to access remote computers and run programs on those remote computers.

This week we are going to use a tool called "File Transfer Protocol" (or "FTP") which will allow us to access remote computers and retrieve files from these computers. Actually, it is probably more accurate to say that we will be using "anonymous" FTP, but I'll explain that in a minute.

What sort of files are available through FTP? Well, "hundreds of systems connected to the Internet have file libraries, or archives, accessible to the public. Much of this consists of free or low-cost {computer} programs for virtually every make of computer. If you want a different communications program for your IBM, or feel like playing a new game on your Amiga, you'll {probably} be able to get it {using FTP}."

"But there are also libraries of documents as well. If you want a copy of a recent U.S. Supreme Court decision, you can {get a copy using FTP}. Copies of historical documents, from the Magna Carta to the Declaration of Independence are also yours for the asking ... You can also find song lyrics, poems, {and} even summaries of every {Animaniacs} episode ever made. You can also find extensive files detailing everything you could possibly want to know about the Net itself" (1)

Before we get too in-depth into FTP, I think that now is as good a time as any to quickly review the client/server relationship that I briefly mentioned in lesson three (MAP03: Levels of Internet Connectivity).

"Client" is just another word for a program running on your service provider's system that enables you to talk to, and get stuff from, distant computers. The client on your service provider's system takes your commands and turns them into requests for information from programs -- "servers" -- running on other, distant computers.

The client/server relationship allows you to TELNET into remote computers and run programs on those remote computers, and it also allows you to use FTP to get files from remote sites.

The client/server relationship is also what makes my job as an Internet trainer quite difficult. While all of the FTP clients out there do the exact same thing, they all use different commands to do it.

Fortunately, if you can understand the basics of what happens during an FTP session, the commands -- no matter what client you are using -- are pretty easy.

The basic steps in an FTP session are:

1. Start-up your FTP client
2. Give your FTP client an address to connect to (and, just like TELNET, step one and two can be combined into one easy step).
3. Identify yourself to the remote site
4. Give the remote site your password
5. Look around the directory for files
6. Change Directories
7. Set the transfer mode (optional)
8. Get the file(s) you want
9. Quit

The best way to understand what is going on is to look at a sample FTP session. The University of Alabama's connection to the Internet is through SURAnet (a large regional network), so I'm going to FTP to them.

Before I do that, though, there are three things that I need to emphasize:

1. FTP requires a heck of a lot of resources, both on your system and on the remote system that you are accessing. Because of this, FTP sessions should only be run during non-working hours (usually 6 PM to 6 AM local).

I realize that this constraint is going to be a difficult for those of you who are reading this at work, and who only have Internet (and FTP access) through your employer. However, as responsible Internet citizens we have to remember that the FTP sites are providing us FTP access out of the kindness of their hearts. If we take advantage of this kindness, and access various FTP sites during working hours, those FTP sites may decide to close their doors to the public ... and then EVERYONE loses.

2. In light of what was said in #1, please do not flood SURAnet. Later this week I will post a list of FTP sites that you can visit (much like the TELNET list I posted Friday). Until I post that list, just sit back and enjoy the show :)
3. Since this lesson is already over 100 lines long, I hope that you won't mind if I break this FTP lesson into two lessons. The first lesson will be today, and I'll finish tomorrow. This will mean that we will end this lesson in the middle of our sample FTP session, but it will also mean that this lesson won't be the size of a small book :)

Starting an FTP session is pretty easy. For most of you, all you have to do to start-up your FTP client is type

```
ftp
```

on you system's command line (or, if you are in a Windows or Mac environment, double-click on the FTP icon).

From there, you would give the client an FTP address to connect to.

Like TELNET, however, there is a way to combine these two steps into one, easy step. For most of you, to access your FTP client and give your client an address to hook up to, all you would have to do it type the command

```
ftp <site address>
```

and replace <site address> with the address of the FTP site that you want your client software to access.

In our example, the SURAnet FTP address is ftp.sura.net, so I would

type

```
ftp ftp.sura.net
```

to start an FTP session. (Note that the second "ftp" is part of SURAnet's FTP address. If I wanted to ftp to info.umd.edu, I would type "ftp info.umd.edu"; if I wanted to ftp to lcs.mit.edu, I would type "ftp lcs.mit.edu").

Once I hit the enter key, the following appears on my screen:

```
ftp ftp.sura.net
Connecting to ftp.sura.net 128.167.254.179, port 21
220 nic.sura.net FTP server (Version wu-2.4(1) Fri May 20 10:20:58
EDT 1994) ready.
USER (identify yourself to the host):
```

The second line tells me that my system is connecting to ftp.sura.net (and even gives me the IP number for ftp.sura.net), the third line is some automatic information from SURAnet, and the bottom line is asking me to log in.

If I had an account on the SURAnet system, I would enter my SURAnet user ID. But, since I don't have an account on this system, I have to find another way to access the system. ;)

This is where the "anonymous" FTP I mentioned earlier comes in :) The other way to access some FTP sites -- at least those FTP sites that allow outside access -- is to use the userid "anonymous". By using the name "anonymous", you are telling that FTP site that you aren't a regular user of that site, but you would still like to access that FTP site, look around, and retrieve files.

So, where it says USER, I type the word

```
anonymous
```

hit enter, and cross my fingers. If SURAnet does not allow anonymous access, I'm about to find out :)

```
>>>USER anonymous
331 Guest login ok, send your complete e-mail address as password.
Password:
```

COOL! Its going to let me in. All I have to do is give the site a password.

Out of politeness to the FTP site, if you login as "anonymous", you need to use your full Internet address as your password. This helps the FTP site keep track of who has visited its site.

So, since it wants my password, and since the password for any anonymous FTP session is my full Internet address, I type

```
pcrispe1@ua1vm.ua.edu
```

(Stop laughing -- p-crispy-one is *NOT* funny!!). Once I hit enter, my screen fills with the following:

```
>>>PASS *****
230- SURAnet ftp server running wuarchive experimental ftpd
230-
230-Welcome to the SURAnet ftp server. If you have any problems
with
230-the server please mail the to systems@sura.net. If you do
have problems,
230-please try using a dash (-) as the first character of your
password
230- -- this will turn off the continuation messages that may be
confusing
230-your ftp client.
...
230 Guest login ok, access restrictions apply.
Command:
```

Notice the line "Guest login ok, access restrictions apply." This means that the site has given me access, but I only have access to the files that are available to the general public.

Okay ... now what? I've started-up my FTP client, I've given the client an FTP address to connect to, I've identified myself to the remote site (I told it that I am anonymous), and I've given the site my password.

Now it's time to see what sort of files and directories are around, and to get those files ... which we will do tomorrow :)

HOMEWORK:

1. See if your local Internet service provider has a handout on FTP commands.
2. If you do not have FTP access, please be patient. I'll show you how to access FTP by e-mail on Wednesday.
3. There ***WILL*** be a pop quiz sometime this week, and the quiz will cover lessons 1-10 :)

SOURCES:

(1) The "EFF's Guide to the Internet", reprinted by permission.

MAP14: FTP (PART TWO)

"Technology ... the knack of so arranging the world that we need not experience it." -- Max Frisch, Homo Faber

Yesterday I told you that the basic steps in an FTP session are:

1. Start-up your FTP client
2. Give your FTP client an address to connect to (and, just like TELNET, step one and two can be combined into one easy step).
3. Identify yourself to the remote site
4. Give the remote site your password
5. Look around the directory for files
6. Change Directories
7. Set the transfer mode (optional)
8. Get the file(s) you want
9. Quit

I've accessed SURAnet's FTP site (<ftp.sura.net>), told the site that I am "anonymous", and given the site my full Internet address as my password.

Now that I'm in, I'm going to look around and see what the SURAnet FTP site has to offer.

(BTW, you can see a list of all of the acceptable commands for your FTP client by typing "help")

On most FTP clients, the command to list the contents of the current directory on the remote machine is just

```
dir
```

My FTP client accepts and uses the "dir" command, so I type

```
dir
```

and the following appears on my screen:

```
>>>PORT 130,160,4,100,212,230
200 PORT command successful
>>>LIST
150 Opening ASCII mode data connection for /bin/ls.
total 728
drwxrwx--x 3 0 0 512 Aug 5 01:55 bin
drwxr-xr-x 2 0 1 512 May 10 12:47 etc
drwxrwxrwx 6 0 10 512 Oct 21 11:37 incoming
drwxr-xr-x 2 0 0 8192 Feb 15 1992 lost+found
-rw-r--r-- 1 0 1 350142 Oct 25 00:00 ls-lR
drwxrwxr-r 24 0 100 512 May 3 13:25 pub
```

This is a listing of all of the stuff in the current directory. Let's take a look at the first entry and see if we can figure out what all of this means:

```
drwxrwx--x 3 0 0 512 Aug 5 01:55 bin
```

If the line begins with a "-" instead of a "d", it is a file. The letter "d" at the beginning of this example tells me that this is not a file -- it is a subdirectory.

What does **THAT** mean? Well, pretend that the FTP site is simply a big house. You walk into the house through the front door, and you find yourself standing in an entry hall. The entry hall may have some neat stuff in it, but it also has doors leading to other rooms throughout the house.

The subdirectories -- the "d"s -- are just doors to other "rooms"

at the FTP site, and the files -- the "-"s -- are the neat stuff that you can get while you are at the site.

Getting back to our example,

```
drwxrwx--x 30 0 512 Aug 5 01:55 bin
```

the "drwxrwx--x" tells us that this entry is a subdirectory (the "rwxrwx--x" part is just some security stuff). The "512" tells us the size of the subdirectory in bytes. The "Aug 5 01:55" tells us the date and time that this subdirectory was last updated. The last part -- the "bin" -- tells us the name of the subdirectory.

Let's look at one more example:

```
-rw-r--r-- 10 1 350142 Oct 25 00:00 ls-IR
```

There is a "-" instead of a "d", so this is a file. The "350142" tells us that the size of this file is 350,142 bytes, the file was last updated at midnight on October 25, and the name of this file is "ls-IR".

Let's get back to the main SURAnet directory contents:

```
drwxrwx--x 30 0 512 Aug 5 01:55 bin
drwxr-xr-x 20 1 512 May 10 12:47 etc
drwxrwxrwx 60 10 512 Oct 21 11:37 incoming
drwxr-xr-x 20 0 8192 Feb 15 1992 lost+found
-rw-r--r-- 10 1 350142 Oct 25 00:00 ls-IR
drwxrwxr-r 240 100 512 May 3 13:25 pub
```

I want to change this main directory and get into a subdirectory. To change directories on most FTP clients, you use the command

```
cd <directory>
```

and replace <directory> with the name of the directory that you want to access.

Since I am interested in public information, I'm going to get into "pub" directory ("pub" is the standard FTP abbreviation for "public"). I type

```
cd PUB
```

and the following appears on my screen:

```
>>>CWD PUB
550 PUB: No such file or directory.
```

Uhhh ... what happened?

One of the unfortunate shortcomings of FTP is that, for most of you, FTP is **case sensitive**. My "cd PUB" command did not work because there is no "PUB" directory ... but there **IS** a "pub" directory :)

Let's try it again. I type

```
cd pub
```

and the following appears on my screen:

```
>>>CWD pub
250 CWD command successful.
```

Cool! It worked!

Now I need to see the contents of this new directory that I just entered. Do you remember what FTP command I should use? (Hint: it is "dir")

I type "dir", and the following appears on my screen:

```
>>>PORT 130,160,4,100,215,140
200 PORT command successful.
>>>LIST
150 Opening ASCII mode data connection for /bin/ls.
Total 56
-rw-rw-r-- 1 1023 100 4052 Apr 22 1994 README
drwxrwsr-x 2 1023 100 512 Aug 6 1993 SURAnet
drwxrwxr-x 6 1020 120 512 Mar 3 1992 archie
drwxrwxr-x 2 1034 120 512 Feb 15 1992 articles
drwxrwxr-x 2 1007 110 512 Jun 22 15:40 books
... <stuff deleted by me>
```

Whoa! That first file -- README -- looks pretty important. I bet

it contains some important information that will make my life a whole bunch easier (Good rule of thumb: if you see a file that contains the words README or INDEX, it is an important file).

I need to get this README file.

To get a file using FTP, you use the

```
get filename
```

command, replacing <filename> with the name of the file that you want to get. The get command retrieves the file from the remote site and stores the file on your service provider's system.

Since I want to get the README file, I type

```
get README
```

(making sure to use the correct case), and the following appears on my screen:

```
Invalid local filename; use 'name.type.mode' or 'name.type'
```

Now what?!?

This is a problem that some of you may have when you try to get "one word" files. Some local Internet service providers require files stored on their machines to have some sort of extension or type. You can't have a file whose name is just README ... it has to be README.<type> (i.e. README.DOC, README.TXT, etc).

Since the "get README" command did not work, I'm going to have to use the

```
get <filename> <name I want it saved as>
```

command, replacing <remote file name> with README, and replacing <name I want it saved as> with the name that I want the file to be saved as on my service provider's computer.

So, I type

```
get README README.DOC
```

and the following appears on my screen:

```
>>>PORT 130,160,4,100,218,90
200 PORT command successful.
>>>RETR README
150 Opening ASCII mode data connection for README (4502 bytes).
```

After a few additional seconds, the following is added to my screen:

```
226 Transfer complete.
4637 bytes transferred. Transfer rate 6.14 Kbytes/sec.
```

YIPPEE! It worked!! Let's quit FTP and see what we did.

To quit ftp, you need to use either the "bye" or "quit" commands.

On my client, the command is "quit", so I type

```
quit
```

and the following appears on my screen:

```
221 Goodbye.
Ready; T=0.54/0.96 01:45:53
```

Okay .. I got the file. But where is it? It is sitting on my account on my service provider's system!

Depending on your system, it is either easy or hard to get into the files that get from FTP (in Unix, type "ls"; in VM, type "fl"). Your local Internet service provider can tell you a little more about how to access, read, and print these files.

Looking at this new file that I just got from FTP, I discover that the contents of the README file are a brief explanation of what is in every subdirectory off of the pub directory (cool!):

The following items are available anonymous ftp from ftp.sura.net:

Directories found under pub:

archie/
client Information on the archie service as well as
software to use archie.

articles/
newsletter. Text versions of articles in the SURAnet
newsletter.

books/ Subdirectory containing information on ordering
discounted books through SURAnet.

databases/ The databases in raw format that are also offered
through our WAIS server.

dns/
Domain Software and documentation to help setup the
Name Server software on Unix machines (BIND)

fdic/ The Federal Deposit Insurance Corporation's ftp
archive.

... <<stuff deleted by me>>

NEAT! :)

I want to go back and get one of the articles in the SURAnet newsletter. Thanks to what I learned from the README file, I now know that the files that I am looking for are in "pub" directory and in the "articles" subdirectory.

In FTP notation, I can write this as

`/pub/articles`

This means the same thing as saying "in the pub directory, in the articles subdirectory" and, as you will soon see, this notation will eventually even save me a few steps.

Let's go back to SURAnet and get some newsletter articles!

I type

`ftp ftp.sura.net`

and the following appears on my screen:

Connecting to ftp.sura.net 128.167.254.179, port 21
220 nic.sura.net FTP server (Version wu-2.4(1) Fri May 20 10:20:58
EDT 1994) ready.

USER (identify yourself to the host):

Since I do not have an account on the SURAnet machine, I type

anonymous

and the following appears on my screen:

```
>>>USER anonymous
331 Guest login ok, send your complete e-mail address as password.
Password:
```

I type my full Internet address -- pcrispe1@ua1vm.ua.edu -- as
my password, and the following appears on my screen:

```
>>>PASS *****
230- SURAnet ftp server running wuarchive experimental ftpd
230-
230-Welcome to the SURAnet ftp server. If you have any problems
with
230-the server please mail the to systems@sura.net. If you do
have problems,
230-please try using a dash (-) as the first character of your
password
230- -- this will turn off the continuation messages that may be
confusing
230-your ftp client.
...
230 Guest login ok, access restrictions apply.
Command:
```

I know that I want to get into the pub directory, and then into
the articles subdirectory. I could type "cd pub" and then "cd
articles"
to get into the subdirectory that I want, but it would be easier to
just jump into the "articles" directory with one command.

I can make such a jump using the /pub/articles notation introduced a
few minutes ago. If I type


```
cd /pub/articles
```

I jump straight into the "articles" directory, and the following appears on my screen:

```
>>>CWD /pub/articles
250 CWD command successful.
Command:
```

Since I have no idea what is in the "articles" subdirectory that I just entered, I type

```
dir
```

and the following appears on my screen:

```
>>>PORT 130,160,4,100,222,127
200 PORT command successful
>>>LIST
150 Opening ASCII mode data connection for /bin/ls.
Total 382
-rw-rw-r-- 1 0 120 1510 Jan 3 1992 editors.box.text
-rw-rw-r-- 1 0 120 46167 Jan 3 1992 fall91.issue
-rw-rw-r-- 1 0 120 52864 Jan 3 1992 spring91.issue
-rw-rw-r-- 1 0 120 1515 Jan 3 1992 sub.form.txt
-rw-rw-r-- 1 0 120 36418 Jan 3 1992 summer91.issue
-rw-rw-r-- 1 0 120 53606 Jan 3 1992 winter90.issue
226 Transfer complete
```

COOL! These files already have extensions (*winter90.issue*, etc.), so getting them is going to be a breeze!

Let's get the Fall '91 issue. Since I want the file "fall91.issue", I type

```
get fall91.issue
```

and the following appears on my screen:

```
>>>PORT 130,160,4,100,224,34
200 PORT command successful
>>>RETR fall91.issue
```

150 Opening ASCII mode data connection for fall91.issue (46167 bytes).

After a few seconds, the following is added to my screen:

226 Transfer complete.
47151 bytes transferred. Transfer rate 16.58 Kbytes/sec.

IT WORKED!!! YAY!!! :)

I then quit FTP by typing either "bye" or "quit", and I am done!
The file "fall91.issue" is now sitting in my account on my
local Internet service provider's machine!!

TOMORROW:

- ASCII and Binary files
- getting multiple files
- file compression and unpacking
- *FTP using nothing but e-mail*

MAP15: FTPMAIL

"The whole of science is nothing more than a refinement of
everyday thinking." -- Albert Einstein, Out of My Later Years

Before we get to FTPmail, there are a few other things that I
want to discuss.

Yesterday I showed you how to retrieve a text file using FTP.
But how can a text file written on an IBM be read on an Apple
Macintosh or on a Unix workstation? Its easy -- thanks to something
called ASCII.

ASCII is the American Standard Code for Information Interchange,
and it is the standard format for transmitting textual data.

Any computer can read an ASCII text file. Without going too
in-depth into how ASCII works, let's just say that ASCII ensures
that the text in an ASCII text file will appear the same on any
computer regardless of the computer's brand name or operating
system.

ASCII is fine and dandy for saving and transferring text files, but it won't work with non-text, data files – like computer programs. Data files must be saved in "Binary" (which is just a bunch of zeros and ones).

Binary files are files that can only run on certain machines or programs. Good examples of Binary files include shareware software, Microsoft Word files, Microsoft Powerpoint presentations, satellite weather images, and sound files.

Remember, ASCII files are just 'plain' text files that can be read on any computer, and Binary files are files that can only be run on certain computers or programs.

Unfortunately, there is no universal default transfer mode for FTP clients. Some clients use ASCII as the default, and others use binary. This means that unless you tell your FTP client to do otherwise, all of your files will be transferred in the default transfer mode.

If your client's default transfer mode is ASCII and you try to retrieve a Binary file without first resetting the transfer mode, your Binary file will be transferred in ASCII and the file **WILL NOT WORK** once you get it.

Fortunately, changing the transfer mode in FTP is easy. All that most of you have to do to change the FTP transfer mode from ASCII to Binary is type

`binary`

right before you get the file, and the file will be transferred to you in Binary format.

To change back to ASCII transfer mode, just type

`ascii`

and FTP will reset its transfer mode to ASCII.

If you ever forget what transfer mode you are currently using -- something that I do **ALL** of the time -- all you need to do is

type

status

and your computer will display a whole bunch of information, including your transfer mode :)

BTW, how can you tell if a file is an ASCII file or a Binary file? Well, take a look at the extensions (remember, an extension is the stuff at the end of the file name -- the extension for CRISPEN.DOC is .DOC; the extension for SQUIRREL.TXT is .TXT). If the file's extension is .doc or .txt, or if the file does not have an extension, it is a good bet that the file is an ASCII text file. If the file has a weird extension -- like .gif or .zip -- it is a good bet that the file is a Binary file. There are, of course, always exceptions to this rule.

The "duck theory" also works pretty well in determining if a file is an ASCII or Binary file. The duck theory says that if it looks like a duck, waddles like a duck, swims like a duck, quacks like a duck, and is seen hanging around with other ducks ... it is probably a duck.

Using the duck theory to determine if a file is an ASCII or Binary file, you can safely assume that if you have a file that looks like a ASCII text file and is seen in the same directory as other ASCII text files, you can safely assume that the file that you are looking at is, in reality, a DUCK :)

(First squirrels ... now ducks ... this workshop is getting to me)

MULTIPLE FILE TRANSFERS:

How can you transfer multiple files at the same time? Simple! Use the "mget" (multiple get) command!

Let's say that I want to get every file in a particular directory with the word "duck" in it. I would type

```
mget duck*
```

The * (a.k.a. "splat") is a "wild card" that tells the client to get every file that begins with the word "duck" and that has

any additional characters after the word "duck".

The best way to explain wildcards is to give you an example. Let's pretend that I have a directory with the following files in it:

duckreport.doc	ducket.exe
duck1.txt	duck2.txt
ducksoup	duck.gif

Where I place the wildcard in my mget command will determine what files I get:

<i>mget command:</i>	<i>files it would retrieve:</i>
mget duck*	duckreport.doc; ducket.exe; duck1.txt; duck2.txt; ducksoup; duck.gif
mget duck*.txt	duck1.txt; duck2.txt
mget duck.*	duck.gif

Before you continue on, take a minute and try to figure out why each of the mget commands retrieved different files. If you can figure it out -- and believe me folks, this is EASY -- you will be a master of the mget command :)

FTPMAIL:

If your local Internet service provider does not have an FTP client, you can still get FTP files by using a tool called FTPmail!

The steps in a basic FTPmail session are pretty easy:

1. Write an e-mail letter to an FTPmail site near you, and put the necessary FTPmail commands in the BODY of your letter.
2. The FTPmail site will write you back and tell you that it has received your request, and will tell you the number of requests ahead of yours (I still think that the number that they give you is just a random, large number (but I am probably mistaken)).
3. A day or two later -- yes, I said "day" -- the FTPmail system will e-mail you the file that you requested. The FTPmail system will also send you a copy of the

"transaction" as it occurred between FTPmail and the remote FTP site (this transaction will look a lot like the examples in yesterday's lesson).

Today, I am going to show you how to get ASCII text files using FTPmail. We'll talk about Binary files tomorrow.

The first step is finding an FTPmail site near you. FTPmail was developed at the Digital Western Research Laboratory, and their FTPmail address -- ftpmail@decwrl.dec.com -- is the most widely known (and widely used) FTPmail address in the world. Unfortunately, because of the traffic that this site sees, the decwrl address is also sometimes the slowest FTPmail site in the world :(<-- a frowning smiley

There are other FTPmail servers around the world that may be closer to you, and that may actually be faster than the decwrl address:

Australia	ftpmail@cs.uow.edu.au
France	ftpmail@grasp.insa-lyon.fr
Germany	ftpmail@ftp.uni-stuttgart.de
Great Britain	ftpmail@doc.ic.ac.uk
Ireland	ftpmail@ieunet.ie
Sweden	ftpmail@lth.se
USA	ftpmail@sunsite.unc.edu
USA	ftpmail@ftp.uu.net
USA	ftpmail@decwrl.dec.com

Once you have found a site closest to you, you are ready to start sending commands to the FTPmail address! The commands, just like all of the **LISTSERV** commands that I drilled into your head earlier in the workshop, need to be in the **BODY** of your e-mail letter.

The body of your letter to the FTPmail site will actually have **SEVERAL** commands in it. The basic FTPmail commands are, in order:

reply <your Internet address>

This tells FTPmail where to send the file(s) to.

connect <ftp site address>

This tells FTPmail the site that you want it to connect to.

<transfer mode>

This tells FTPmail if you want the files in ASCII or binary

chdir <directory>

This tells FTPmail in which directory the file that we want is located.

get <filename>

This tells FTPmail to get a specific file.

quit

Ends the FTPmail session

Yesterday, we ftp'd to ftp.sura.net, got into the /pub/articles directory, and got the file fall91.issue

To do this using FTPmail, I need to send an e-mail a letter to ftpmail@sunsite.unc.edu (or to any other FTPmail site), and the body of my letter would look like this:

```
reply pcrispel@ualvm.ua.edu
connect ftp.sura.net
ascii
chdir /pub/articles
get fall91.issue
quit
```

NOTE: IF YOU SEND THIS TO AN FTPMAIL SITE WITHOUT CHANGING THE REPLY-TO ADDRESS, THE FTPMAIL SITE WILL SEND THE FILE TO *ME*, NOT TO YOU. PLEASE CHANGE THE REPLY-TO ADDRESS :)

A day or two after I send this letter to the FTPmail address, I should see the file sitting in my e-mail box. Notice that I said "should." The traffic at the various FTPmail sites is often incredible, and sometimes requests get lost. If this happens to you, you should just send your request again :)

By the way, the "dir" command works just as well in FTPmail as it does in regular FTP! All you have to do is add the command "dir" after the "chdir" command:

reply pcrispel@ua1vm.ua.edu
connect ftp.sura.net
ascii
chdir /pub/articles
dir
quit

TOMORROW: - FTP File Compression/Decompression
- Binary files via FTPmail
- A few more FTPmail commands (i.e. chunksize).

HOMEWORK:

1. If you do not have FTP access through your local Internet service provider,
 - a. find the address of the nearest FTPmail site from the list above
 - b. send a letter to that FTPmail site with the word **HELP** in the body of your letter
 - c. ask your local Internet service provider if they have any size limits on messages to and from the Internet.

2. If you ***do*** have FTP access through your local Internet service provider, make sure that you
 - a. know how to access your FTP client
 - b. know the commands that your client allows
 - c. review MAP13 and MAP14

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To unsubscribe from any Roadmap workshop, please send an e-mail letter to **LISTSERV@UA1VM.UA.EDU** which says **UNSUB *** in the body of your letter.

The address that sent this e-mail letter (**CRISPEN@UA1VM.UA.EDU**) is actually the address of an automated error processor. Please **DO NOT** reply to this e-mail letter as the error processor will consider

your reply to be an error message and will delete your letter unread.
To contact Patrick Crispin, please use my PCRISPE1@UA1VM.UA.EDU
address.

```
(\_/) .~ ~. ))  
/OO / '  
{O_ \ {  
/.. ) \  
|-' \ } )  
.( _ ( )_ '  
'--~___&
```

PATRICK DOUGLAS CRISPEN
PCRISPE1@UA1VM.UA.EDU
THE UNIVERSITY OF ALABAMA

Warning: squirrels.

Well, that's it for this time. Next time we'll see more on FTP. Happy computing and remember your Netiquette.

Rick Hengeveld Looks at AMERICA (ON LINE)

Well curiosity finally got to me. After getting a couple of free 10 hour packages from AOL, I decided to take the plunge and look it over. That's a big step for me, because outside of checking out the Genie system a few years ago I have resisted logging onto any pay service. After all the local free BBS's in the area have always provided great service.

Anyway the thing that intrigued me was the graphical user interface system that AOL provides. While I'm not a great fan of the GUI in most cases, I was very curious as to how this was done in an online mode. I expected that the system would be very slow while all the onscreen menus were being sent across the phone line. Well it is very quick because all the menus usually sent are in fact kept on your HD and are placed on screen at a quick signal from AOL. Really quite interesting. As with any national service the amount of data available is staggering! While I haven't done extensive exploring, the system does provide an Internet gateway which will greatly increase an already mind blowing amount of goodies. Next time AOL sends you a 10 free hour signup, consider using it. And do allow the system to send you the artwork (Menus) all at once. Otherwise your system will halt while AOL sends the needed menus during your session whenever you access a new forum.

Will I keep the service after my free time has expired? I'm not sure, after all I am notoriously cheap! And I have to see how much AOL's information is worth to me, but so far I am impressed with the service.

More AL WAGNER'S INTERNET TUTORIAL

Welcome once again to the 6809 Express Library Car. This installment is loaded with some neat stuff, including a list of FTP sites that would keep one busy for a long time exploring all the avenues presented and insinuated. If you should decide to try some of the suggested exercises, please make sure that you follow >>ALL<< the instructions appropriate to that exercise. The obvious having been said, enjoy this installment. Oh, by the way, there is a surprise at the end of the lesson.

Date: Wed, 01 Mar 1995 19:49:20 -0600 (CST)
From: Roadmap Error Processor <CRISPEN@UA1VM.UA.EDU>
Subject: MAP16: FTP FILE COMPRESSION
Sender: ROADMAP WORKSHOP SUBSCRIPTION LIST <ROADMAP@UA1VM.UA.EDU>
To: Multiple recipients of list ROADMAP <ROADMAP@UA1VM.UA.EDU>
Reply-to: Roadmap Error Processor <CRISPEN@UA1VM.UA.EDU>
Organization: Roadmap For the Information Superhighway

MAP16: FTP FILE COMPRESSION

"Travel is glamorous only in retrospect." -- Paul Theroux,
quoted in The Observer

Own a personal computer for any amount of time, and you will quickly realize that the amount of storage space on your computer is limited. One way to deal with this problem is to use a compression software package that "squishes" unused programs into small "boxes", thus freeing up a little more of your disk space for other programs.

It turns out that storage space problems are not limited solely to personal computers. As the numbers of files that are available through ftp increases daily, ftp sites are actively looking for ways to squeeze more files into a limited amount of space.

The ftp sites accomplish this by using file compression.

The good news is that a compressed file takes up a lot less space on the ftp site's computer. The bad news is that a compressed file is absolutely useless until you uncompress it.

Wait ... it gets worse. Before you can uncompress a file, you have to know what compression method was used to compress the file in the first place. Unfortunately, there is no one standard ftp file compression method – there are HUNDREDS of different file compression methods in use today :(

If you have to know what compression method was used before you can uncompress a file, how are you ever going to figure out which method was used? Well, it is actually pretty easy:

1. Most ftp directories have a READ.ME file that shows an index of all the files that are in that directory. Some really nice ftp sites have *expanded* READ.ME files that include a mention about what compression method was used and where you can get a free copy of the software needed to uncompress the files.
2. Look at the files' extensions. By looking at the extensions and comparing them to the chart below, you will be able to determine what compression method was used and what particular software is needed to uncompress the file.

Fortunately, most uncompression software is either public domain (meaning that it is completely free) or shareware (meaning that you can get a copy of it for free, but the author expects you to send him some money for the program if you decide to keep it and use it). Best of all, most uncompression software is available through ftp! :)

The list below shows some of the most popular extensions that you are bound to encounter during your visits to ftp sites around the world. It also shows transfer modes needed to retrieve files with these extensions, what uncompress software package you need to uncompress the files after you retrieve them, and it even gives some additional comments about each of the extensions.

Paraphrasing something I said in MAP01, I want you to be aware that the one compression method that isn't listed below is going to be the one compression package that you ADORE. Please do not take this personally. There are literally HUNDREDS of compression methods in use today, and there is no way that I can list all of them.

SUGGESTION: Save the following list, and use it as a reference tool

for when you encounter an extension that you have never seen before :)
Also, please notice that the following list talks about "archie".
Archie is an FTP search tool that we will discuss tomorrow.

(the following list was adapted from "The EFF's Guide to the Internet"
by Patrick Crispen)

FILE EXTENSION	TRANSFER MODE	UNCOMPRESS PACKAGE	ADDITIONAL COMMENTS
-------------------	------------------	-----------------------	---------------------

.txt or .TXT	ASCII		By itself, this means the file is a document rather than a program, and does not need to be uncompressed
.ps or .PS	ASCII		A PostScript document (in Adobe's page description language). You can print this file on any PostScript capable printer or use a previewer, like GNU project's GhostScript.
.doc or .DOC	ASCII		Another common extension for text documents. (Be careful, though: .doc and .DOC extensions are also used for Microsoft Word documents (which are Binary files). The duck theory will help you determine the difference) No decompression is needed, unless it is followed by:
.Z	Binary	uncompress	This indicates a Unix compression method. To uncompress type uncompress filename.Z and hit enter at your host system's command line. u16.zip is an MS-DOS program that will let you download .Z files and uncompress them on your own computer.

The Macintosh equivalent program is called MacCompress (use archie to find these).

- .zip or .ZIP** Binary PKZip or Zip/Unzip This indicates the file has been compressed with a common MS-DOS compression program, known as PKZIP (use archie to find PKZIP204.EXE). Many Unix systems will let you un-ZIP a file with a program called unzip.
- .gz** Binary gunzip A Unix version of ZIP. To uncompress, type

gunzip filename.gz

at your host system's command line.
- .zoo or .ZOO** Binary zoo A Unix and MS-DOS compression format. Use a program called zoo to uncompress.
- .shar or .Shar** Binary unshar Another Unix format. Use unshar to uncompress.
- .tar** Binary tar Another Unix format, often used to compress several related files into one large file. All Unix systems will have a program called tar for "un-tarring" such files. Often, a "tarred" file will also be compressed with the gz method, so you first have to use uncompress and then tar.
- .sit or .Sit** Binary StuffIt A Macintosh format that requires the StuffIt program.
- .ARC** Binary ARC or ARCE Another MS-DOS format, which requires the use of the ARC or ARCE programs.
- .LHZ** Binary LHARC Another MS-DOS format; requires

the use of LHARC.

"A few last words of caution: Check the size of a file before you get it. The Net moves data at phenomenal rates of speed. But that 500,000-byte file that gets transferred to your host system in a few seconds could take more than an hour or two to download to your computer if you're using a 2400-baud modem. Your host system may also have limits on the amount of bytes you can store online at any one time. Also, although it is really extremely unlikely you will ever get a file infected with a virus, if you plan to do much downloading over the Net, you'd be wise to invest in a good anti-viral program, just in case." (1)

FTPMAIL AND BINARY FILES

Yesterday, I showed you that it is possible to get ftp files using e-mail by sending an e-mail letter to one of the following addresses

Australia	ftpmail@cs.uow.edu.au
France	ftpmail@grasp.insa-lyon.fr
Germany	ftpmail@ftp.uni-stuttgart.de
Great Britain	ftpmail@doc.ic.ac.uk
Ireland	ftpmail@ieunet.ie
Sweden	ftpmail@lth.se
USA	ftpmail@sunsite.unc.edu
USA	ftpmail@ftp.uu.net
USA	ftpmail@decwrl.dec.com

with the following commands in the body of your e-mail letter

```
reply <your Internet address>
connect <ftp site address>
<transfer mode>
chdir <directory>
get <filename>
quit
```

Before I introduce you to the new stuff, there are a couple of things that I want to review with you.

First, the

```
reply <your Internet address>
```

command tells the FTPmail address where you want the file sent.
If you use the example that I gave you yesterday

```
reply pcrispel@ua1vm.ua.edu
connect ftp.sura.net
ascii
chdir /pub/articles
get fall91.issue
quit
```

without changing the reply address, FTPmail is going to send the file to *ME*, not to you :)

Please remember to change the reply line to include *YOUR* Internet e-mail address.

Also, I did not mention this yesterday, but FTPmail limits you to only one CHDIR command per letter.

Finally, yesterday I asked you to contact your local Internet service provider to see if they placed any size limits on file transfers. If they do, there is an additional command that you need to add to your list of commands

```
chunksize <size>
```

This command will break the files into chunks that your system can handle. If your system has a 50,000 character limit on messages from the Internet, your chunksize command should be

```
chunksize 49000
```

(you want to make sure that you set your chunksize below what your system's limits are). This command will break your file into 49,000 character chunks, and will then send the chunks to you :)

You already now how to retrieve ASCII text files using FTPmail. Today, I am going to show you how to retrieve Binary files using FTPmail.

Binary file transfers using FTPmail aren't difficult ... they

just require a few additional steps. Because all e-mail has to be in ASCII form, FTPmail has to encode your Binary file in ASCII before it can e-mail the file to you. Once you get the file, you can then decode the file back into Binary :)

Fortunately, there are two ways that FTPmail can encode Binary files into ASCII. The first way it can do this is through something called "uuencode." As long as you have a uuencode program -- and uuencode programs are all over the place (chances are your site has uuencode stored on its system) -- the whole process is simple.

The second encoding type that you can use is called "btoa" (binary to ascii). Your local Internet service provider will be able to tell you a little more about btoa.

So, to get ASCII files using FTPmail, you would use the following commands in the body of your letter to the FTPmail address:

```
reply <your Internet address>
connect <ftp site address>
ascii
chdir <directory>
chunksize <size>
get <filename>
```

and to get Binary files using FTPmail, you would use the following commands in the body of your letter to the FTPmail address:

```
reply <your Internet address>
connect <ftp site address>
<uuencode or btoa>
chdir <directory>
<encoding type>
chunksize <size>
get <filename>
```

SOURCES

(1) "The EFF's Guide to the Internet", reprinted by permission.

Date: Thu, 02 Mar 1995 21:18:15 -0600 (CST)

MAP17: ARCHIE

"If the hill will not come to Mahomet (sic), Mahomet will come to the hill." -- Francis Bacon, Of Boldness

Wouldn't it be great if there was some sort of "search" program that would look through hundreds of different anonymous ftp sites and tell us where all of the files that we want are located?

Well, such a search program exists. It is called "Archie".

Archie is actually a collection of servers. Each of these servers is responsible for keeping track of file locations in several different anonymous ftp sites. All of the Archie servers talk to each other, and they pool their information into a huge, global database that is periodically updated.

"The Archie catalog subsystem maintains a list of about 1200 Internet anonymous ftp archive sites of approximately 2.5 million unique filenames themselves containing 200 Gigabytes (that is, 200,000,000,000 bytes) of information. The current catalog requires about 400 MB of disk storage." (1)

You can search this database for file locations simply by giving an Archie client or server a keyword to search for.

A few minutes ago I did an Archie search using the keyword "ROADMAP". Archie sent me back a whole bunch of information in the following format:

```
Host theory.lcs.mit.edu (18.52.0.92)
Last updated 06:21 10 Oct 1994
```

```
Location: /pub/areaii
FILE -rw-r--r-- 159326 bytes 14:52 13 Sep 1994 roadmap.ps
```

What does all of this tell me? Well, this tells me the address of the anonymous ftp site is

```
theory.lcs.mit.edu
```

the directory that the file is located in is

/pub/areaai

and the name of the file is

roadmap.ps

Archie doesn't retrieve the file for me, but it does tell me exactly where the file that I am looking for is located. Once I know the file's location (and its filename), retrieving the file using ftp is easy!

There are three ways that you can access Archie:

1. through an Archie client running on your local Internet service provider's system,
2. through a telnet connection directly to an Archie server, or
3. by sending an e-mail letter directly to an Archie server.

The load on all of the Archie servers is incredible. If your site has its own Archie client, you should use that client instead of telnetting or e-mailing to a distant Archie server.

To find out if your site is running its own Archie client, type the word

Archie

and see what happens. If you don't get an error message, you can safely assume that your site has its own Archie client :)

To actually conduct an Archie search using your site's Archie client, type

archie <searchterm>

replacing <searchterm> with what you want the client to search for. For example:

What you want Archie to search for	What you should type
-----	-----
files and directories	archie squirrel

that have the word
"squirrel" in their
titles

files that have the archie .win32
extension .win32

ACCESSING ARCHIE BY TELNET

The following are a few of the Archie servers that you can access
using telnet. Please use the username

archie

to login, and *please* use the server that is closest to you:

telnet address -----	location -----
archie.au	Australia
archie.edvz.uni-linz.ac.at	Austria
archie.univie.ac.at	Austria
archie.uqam.ca	Canada
archie.cs.mcgill.ca	Canada
archie.funet.fi	Finland
archie.univ-rennes1.fr	France
archie.th-darmstadt.de	Germany
archie.ac.il	Israel
archie.unipi.it	Italy
archie.wide.ad.jp	Japan
archie.hana.nm.kr	Korea
archie.sogang.ac.kr	Korea
archie.uninett.no	Norway
archie.rediris.es	Spain
archie.luth.se	Sweden
archie.switch.ch	Switzerland
archie.ncu.edu.tw	Taiwan
archie.doc.ic.ac.uk	United Kingdom
archie.hensa.ac.uk	United Kingdom
archie.unl.edu	USA (NE)
archie.internic.net	USA (NJ)
archie.rutgers.edu	USA (NJ)
archie.ans.net	USA (NY)

archie.sura.net

USA (MD)

To start an Archie search using an Archie server that you have telnetted to, type

find <searchterm>

replacing <searchterm> with what you want the server to search for (see example above).

After Archie has finished its search and printed its results on your screen, you can have Archie e-mail the results to you by typing

mail <your Internet address>

replacing <your Internet address> with your full e-mail address.

Finally, to quit your telnet session, type

quit

ACCESSING ARCHIE BY E-MAIL

To conduct an Archie search via e-mail, send an e-mail letter to the Archie server closest to you:

Archie mail address	location
-----	-----
archie@archie.au	Australia
archie@archie.edvz.uni-linz.ac.at	Austria
archie@archie.univie.ac.at	Austria
archie@archie.uqam.ca	Canada
archie@archie.cs.mcgill.ca	Canada
archie@archie.funet.fi	Finland
archie@archie.univ-rennes1.fr	France
archie@archie.th-darmstadt.de	Germany
archie@archie.ac.il	Israel
archie@archie.unipi.it	Italy
archie@archie.wide.ad.jp	Japan
archie@archie.hana.nm.kr	Korea
archie@archie.sogang.ac.kr	Korea

archie@archie.uninett.no	Norway
archie@archie.rediris.es	Spain
archie@archie.luth.se	Sweden
archie@archie.switch.ch	Switzerland
archie@archie.ncu.edu.tw	Taiwan
archie@archie.doc.ic.ac.uk	United Kingdom
archie@archie.hensa.ac.uk	United Kingdom
archie@archie.unl.edu	USA (NE)
archie@archie.internic.net	USA (NJ)
archie@archie.rutgers.edu	USA (NJ)
archie@archie.ans.net	USA (NY)
archie@archie.sura.net	USA (MD)

and in the body of your letter type

```
find <searchterm>
set mailto <your Internet address>
quit
```

replacing <searchterm> with what you want the server to search for, and replacing <your Internet address> with your e-mail address.

ADDITIONAL ARCHIE COMMANDS

The following Archie commands should work regardless of how you access Archie:

- help Displays a general help screen
- manpage Displays a ***HUGE*** manual that tells you everything you could possibly want to know about Archie (including how to limit or expand searches)
- servers Displays a list of all publicly accessible Archie servers worldwide. The names of the the hosts, their IP addresses and geographical locations are listed.
- whatis <substring> Searches the Software Description Catalog for the given substring, ignoring case. This catalog consists of names and short descriptions of many software packages,

documents (like RFCs and educational material), and data files stored on the Internet.

Example:

```
whatis uucp
```

in part gives as a result:

```
findpath.sh  UUCP Pathfinder
logfile-stats UUCP LOGFILE analyzer
mapstats     UUCP map statistics
              program.
```

HOMEWORK:

If you ***REALLY*** want to learn more about Archie (and I mean ***REALLY*** want to learn more), try using the "manpage" command in the Archie client or server that you are using.

SOURCES:

(1) from the Archie 3.2 manpage, available from any Archie mail or telnet site by typing "manpage"

Date: Thu, 02 Mar 1995 21:32:03 -0600 (CST)

MAP17B: FTP ADDRESSES

"Men don't stop to ask for directions on the Information Superhighway either!" -- anon

As promised, here is a list of Anonymous FTP sites that you can visit.

Most of the listings are of files that you can retrieve. All files are listed in the following format:

Address: ftp.sura.net
Path: /pub/nic/agricultural.list

You should have no problem figuring out what to do with the "Address" part.

Figuring out the "Path" part isn't difficult, but there is a trick that you need to remember: everything after the last / is the file name. **DO NOT USE THE FILE NAME IN YOUR CD OR CHDIR COMMANDS!**

For example, if the path entry is

Path: /pub/nic/agricultural.list

your "cd" or "chdir" command should be

`cd /pub/nic`

and your "get" command should be

`get agricultural.list`

Some listings do not list file names. These listings have a * after the last /. This means that you are going to have to use the "dir" command to look around that particular directory for the file(s) that you want to get.

Some other hints:

- The README file is your friend. Get it every time you see it!
- LOOK AROUND! Just because I have told you where a file is, that does not mean that that file is the only file that you can get. Use the "DIR" command often :)
- Just because the path address may be /pub/nic/articles, that does NOT mean that you have to go straight to that directory. You are more than welcome to take the "scenic route" to the file (example: type "cd pub", then type "dir" to look around the pub directory. When you are done in the "pub" directory, type "cd nic", and then type "dir" to look around the "nic" directory ...)
- Sites appear and disappear every second, and files are shifted around just as frequently. If you get into a site and can not find the file that you are looking for, look in the README

file for a directory of files. If that fails, get out of the site and try an Archie search for the file (using the file's name as the searchterm).

- Remember, with most FTP clients ***CASE COUNTS***. Typing get AGRICULTURAL.LIST won't work if the file is named agricultural.list
- If you are using FTPmail, you can use the "dir" command just as easily as everyone else. Just type "dir" on the line following your "chdir" command.

Finally, I want to -- once again -- thank Osborne/McGraw Hill for giving me permission to quote from "The Internet Yellow Pages" by Harley Hahn and Rick Stout. The following entries are verbatim from "The Internet Yellow Pages" (although all of the typos are mine).

AGRICULTURE

Not Just Cows

A guide to agricultural resources on the Net. Written by Wilfred Drew, this text directs the reader to many different agricultural resources, including BBSs, mailing lists, and other important services.

Address: ftp.sura.net
Path: /pub/nic/agricultural.list

ART

Arts Online

A bibliography of arts-related resources available on the Internet and other networks.

Address: nic.funet.fi
Path: /pub/doc/library/artbase.txt.Z

ASTRONOMY

Astro FTP List

A list with descriptions of FTP sites that contain astronomy and space research material.

Address: ftp.funet.fi

Path: /pub/astro/general/astroftp.txt

AUTOMOBILES

Automobile Archives

Mailing lists, archive and new user guides, consumer automobile FAQs, and other material about automobiles, automotive products, and laws.

Address: rtfm.mit.edu

Path: /pub/usenet/rec.autos.tech

AVIATION

Airport Codes

The three-letter identification codes for nearly every airport in the world.

Address: ftp.spies.com

Path: /Library/Article/Aero/airport.lis

BIOLOGY

Biological Sciences Conferences

A large list of mailing lists related to the biological sciences; divided into subject areas.

Address: ksuvxa.kent.edu

Path: /library/acadlist.file5

BIZARRE

Tasteless Tales

Dozens of the best tales from the Usenet group alt.tasteless, divided into anecdote, prank, tasteless fact, and art sections.

Address: ftp.spies.com
Path: /Library/Fringe/Gross/tasteles.92

BOOKS

Book Reviews

Why waste your time and money on an unrewarding book? Read the reviews in this newsgroup and find out the real scoop before you make a serious commitment. Save your excess time and money for unrewarding people. The Usenet newsgroup (alt.books.reviews) is for ongoing discussion and current reviews. To ... download {previous} reviews {use} Anonymous FTP.

Address: csn.org
Path: /pub/alt.books.reviews/*

Electronic Books at Wiretap

A huge list of full-length electronic books on the Internet Wiretap Gopher and FTP site.

Address: ftp.spies.com
Path: /Books/*

CANADA

Canadian Documents

The Canada Constitution Act, Canada Meech Lake Accord, Charlottetown Constitutional Agreement, excerpts from the Canada Constitution Act and proposals for shaping the future of Canada (in both French and English).

Address: ftp.spies.com
Path: /Gov/Canada/*

CHEMISTRY

Chemistry Information

An electronic reference source that uses library resources to answer frequently asked chemistry questions. It covers nomenclature, compound

identification, properties, structure determination, toxicity, synthesis and registry numbers. For each component it lists the most appropriate reference resources (online catalog, indexes, journals, etc.).

Address: ucssun1.sdsu.edu

Path: [/pub/chemras/*](#)

COMPUTERS: LITERATURE

Guide to PC Downloading

A guide to downloading Internet files to a PC, using the Procomm or Kermit communications programs and protocols.

Address: nic.funet.fi

Path: [/pub/doc/library/download.txt](#)

COMPUTERS: NETWORKS

Inter-Network Mail Guide

A publication by John Chew and Scott Yanoff that documents methods for sending mail from one network to another. If you're not sure how to e-mail someone at CompuServe, America Online or any of many different networks, or how to e-mail someone on CompuServe from Prodigy, this document has information and detailed instructions.

Address: <ftp.csd.uwm.edu>

Path: [/pub/internetnetwork-mail-guide](#)

CONSUMER INFORMATION

Credit Information

FAQ list detailing everything you need to know about consumer credit.

Address: rtfm.mit.edu

Path: [/pub/usenet/news.answers/consumer-credit-faq/*](#)

EARTH SCIENCE

Earth Science Resources

A list of earth-science-related Internet resources.

Address: csn.org

Path: [/COGS/internet.resources.earth.sci](http://COGS/internet.resources.earth.sci)

EDUCATION

Educational Listserv Lists

A guide to mailing lists relating to all aspects of education, arranged by subject area.

Address: nic.umass.edu

Path: [/pub/ednet/educatrs.lst](http://pub/ednet/educatrs.lst)

ENVIRONMENT

Ozone Depletion

FAQs discussing the depletion of the ozone layer, including the Antarctic ozone hole and ultraviolet radiation.

Address: rtfm.mit.edu

Path: [/pub/usenet/news.answers/ozone-depletion/*](http://pub/usenet/news.answers/ozone-depletion/*)

FOOD AND DRINK

Assorted Recipes

Numerous food and drink recipes, including beef jerky, fajitas, vegan recipes, the ultimate mixed drink list, and instructions for a medieval pig feast.

Address: ftp.spies.com

Path: [/Library/Article/Food/*](http://Library/Article/Food/*)

Address: ftp.uu.net

Path: [/doc/literary/obi/HM.recipes/TheRecipes](http://doc/literary/obi/HM.recipes/TheRecipes)

Path: [/doc/literary/obi/Recipes](http://doc/literary/obi/Recipes)

Path: [/doc/literary/obi/Usenet.Cookbook](http://doc/literary/obi/Usenet.Cookbook)

FREQUENTLY ASKED QUESTION LISTS

Usenet FAQ List Archive

It's the middle of the night. An emergency arises that requires you read one of the Usenet frequently asked question lists. So you fire up your favorite newsreader program only to find that the article that you want has expired. Never you mind. Many of the Usenet FAQ lists are available from the Usenet archive maintained by Jonathan Kamens.

Address: rtfm.mit.edu

Path: /pub/usenet/news.answers/*

FUN

Internet Hunt

A monthly scavenger hunt for facts and trivia on and about the Net. Be the first to submit the correct answers to the questions and win fame and notoriety {It worked for me -- I won the May 94 hunt}. Participate in the individual category, or work with friends in the team category.

Address: ftp.cic.net

Path: /pub/internet-hunt/*

GAMES

All About Games

Articles, rules, tips, spoilers, reviews, and FAQs for popular games and video games

Address: ftp.spies.com

Path: /Library/Media/Games/*

GARDENING

Gardening Information

A large collection of material about fertilizers, herbs, peppers, ivy, poisonous plants, pruning, roses, seeds, fruit trees, turf grasses, and much more. If your thumb doesn't turn green with all this help, give it up.

Address: sunsite.unc.edu

Path: /pub/academic/agriculture/sustainable_agriculture/recgardens/*

GEOGRAPHY

CIA World Factbook

The complete text. Detailed information about every country and territory in the world. Includes geographic, climate, economic, and political information.

Address: ucseix.sdsu.edu

Path: /pub/doc/etext/world.txt.Z

GOVERNMENT

Internet Sources of Government Information

Sources of U.S. federal government information compiled by Blake Gumprecht.

Address: ftp.nwnet.net

Path: /user-docs/government/gumprecht-guide.txt

GOVERNMENT: EXECUTIVE BRANCH

White House Press Releases

Press releases and other information about White House characters.

Address: ftp.spies.com

Path: /Clinton/*

HISTORICAL DOCUMENTS

American Historical Documents

Amendments to the Constitution, Annapolis Convention, Articles of Confederation, Bill of Rights, Charlottetown Resolves, the Constitution, Continental Constitution Resolves, Japanese and German Surrenders, Martin Luther King Jr.'s "I have a Dream" speech, Inaugural addresses, the Monroe Doctrine, Rights of Man, treaties and more.

Address: ftp.spies.com
Path: /Gov/US-History/*

HUMOR

Monty Python's Flying Circus

Collection of all of the popular Monty Python sketches and screenplays, including Holy Grail and Life of Brian.

Address: nic.funet.fi
Path: /pub/culture/tv+film/series/MontyPython

Address: ocf.berkeley.edu
Path: /pub/Library/Monty_Python

INTERNET: HELP

Jargon File

Pronunciation, definitions and examples of computer and Internet terms, acronyms and abbreviations. Humorous, but informative. This file is available via many Anonymous FTP from many sites, one of which is listed below. Search for "jargon" with Archie for others.

Address: world.std.com
Path: /obi/Nerd.Humor/webster/jargon

INTERNET: RESOURCES

Anonymous FTP Site List

A huge list of Anonymous FTP sites on the Internet.

Address: ftp.shsu.edu
Path: /pub/ftp-list/sites.Z

LANGUAGE

Latin Study Guides

Study Guides to Wheelock's Latin, the most widely used introductory Latin textbook in American colleges and universities.

Address: ftp.spies.com
Path: /Library/Articles/Language/latin.stu

LIBRARIES

Accessible Library Catalogs & Databases

A large document with detailed instructions on how to access the computerized library systems of many universities around the world.

Address: ftp.unt.edu
Path: /libraries/libraries.txt

LITERATURE: COLLECTIONS

Project Gutenberg

Project Gutenberg is planned as a storage- and clearing-house for making books available very cheaply. Much of the work, so far, has focused on classic literature (for which the copyright has expired). They have books by many authors, including Mark Twain, H.G. Wells, and F. Scott Fitzgerald. They also have The Bible, The Book of Mormon, and The Koran in ASCII format ...

Address: info.umd.edu
Path: /info/ReadingRoom/Fiction/*

Address: mrcnext.cso.uiuc.edu
Path: /pub/etext/*

Address: oes.orst.edu
Path: /pub/data/etext/*

MAGAZINES

E-Zine List

A list of electronic magazines available on the Internet.

Address: netcom.com
Path: /pub/johnl/zines/e-zine-list

MILITARY

U.S. Code of Military Justice

The first 12 chapters of this legal guide for the military.

Address: [ftp.spies.com](ftp://ftp.spies.com)

Path: /Gov/UCMJ/*

MUSIC

Top (and Bottom) 100 Lists

Various "100" lists, including MTV top 100 videos, top 100 albums, and worst 100 singles of the last 25 years.

Address: [ftp.spies.com](ftp://ftp.spies.com)

Path: /Library/Music/Lists/*

ORGANIZATIONS

Electronic Frontier Foundation

The Electronic Frontier Foundation's purpose is to ensure that the new communications technology era is available to everyone, and that everyone's ... rights are protected therein. Plenty of legal information, EFF publications, and many related articles and zines are available here.

Address: [ftp.eff.org](ftp://ftp.eff.org)

Path: pub/EFF/*

PHYSICS

Theoretical Physics Preprint List

Papers on general relativity and quantum cosmology, and high energy physics.

Address: [ftp.spies.com](ftp://ftp.spies.com)

Path: /Library/Document/particle.tbl

POLITICS: INTERNATIONAL

NATO Handbook

Documents explaining NATO (North Atlantic Treaty Organization) -- how it works, the future role of the alliance, its organization and structure, and other related information.

Address: ftp.spies.com
Path: /Gov/NATO-HB/*

PSYCHOLOGY

Psycology

A regularly published collection of articles from all areas of psychology. This resource is sponsored by the American Psychological Association.

Address: una.hh.lib.umich.edu
Path: /journals/psyc/*

SCIENCE

The Scientist

Online version of current issues of The Scientist, a biweekly tabloid newspaper for science professionals.

Address: ds.internic.net
Path: /pub/the-scientist/*

SPACE

Frequently Asked Questions About Space

Get answers to the most frequently asked questions ... regarding NASA, spaceflight, and astrophysics.

Address: ames.arc.nasa.gov
Path: /pub/SPACE/FAQ

SOURCES:

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PATRICK DOUGLAS CRISPEN
PCRISPE1@UA1VM.UA.EDU
THE UNIVERSITY OF ALABAMA

Warning: squirrels.

Here is the surprise I promised. This is your first Pop Quiz. The answers to the questions can be found in the first 17 lessons and Mr. Crispen's answers will be provided in the next installment. Once again, please follow the instructions. Good luck!

Date: Wed, 01 Mar 1995 19:50:58 -0600 (CST)
From: Roadmap Error Processor <CRISPEN@UA1VM.UA.EDU>
Subject: MAP-EXTRA: POP QUIZ #1
Sender: ROADMAP WORKSHOP SUBSCRIPTION LIST <ROADMAP@UA1VM.UA.EDU>
To: Multiple recipients of list ROADMAP <ROADMAP@UA1VM.UA.EDU>
Reply-to: Roadmap Error Processor <CRISPEN@UA1VM.UA.EDU>
Organization: Roadmap For the Information Superhighway

MAP-EXTRA: POP QUIZ #1

"This is a test of the Emergency Broadband System. This is only a test. If this had been an actual emergency, your local newsgroups and mailing lists -- in voluntary co-operation with state and local officials -- would have posted alarmist spams announcing imminent death of the Internet. This concludes this test of the Emergency Broadband System. Thank you." -- Malinda McCall

DIRECTIONS:

Please read these directions carefully. This quiz has four parts:

- five multiple guess questions
- five true/false questions
- three short answer questions
- two bonus questions

The answers to this quiz will be e-mailed to you tomorrow. Do not, repeat DO NOT send your answers to Patrick or to the list. This quiz is entirely self-graded :)

PART ONE: MULTIPLE GUESS

Please read each paragraph carefully, and then select the response that best answers the question asked in the paragraph.

1. I'm subscribed to the 'squirrel' LISTSERV mailing list (SQUIRREL@UA1VM.UA.EDU). I just heard a story about how an energetic squirrel once crashed the mainframe at Mississippi State University during registration (a true story) and I want to share this information with everyone on the 'squirrel' mailing list. What address should I send my e-mail letter to if I want the letter to be distributed to everyone on the "squirrel" list?
 - a. LISTSERV@UA1VM.UA.EDU
 - b. SQUIRREL@UA1VM.UA.EDU
 - c. PCRSPE1@UA1VM.UA.EDU
 - d. PRESIDENT@WHITEHOUSE.GOV

2. I'm looking for a list of all known LISTSERV lists. What LISTSERV command should I use to get such a list?

- a. REVIEW GLOBAL
 - b. INDEX GLOBAL
 - c. LISTS GLOBAL
 - d. GET GLOBAL
3. Okay, I just got the "list of lists." I found a neat list called "navigate" but the list of lists only shows the address as NAVIGATE@UBVM. What address should I send my subscribe command to?
- a. NAVIGATE@UBVM
 - b. NAVIGATE@UBVM.BITNET
 - c. LISTSERV@UBVM.BITNET
 - d. PCRSPE1@UA1VM.UA.EDU
4. I want to subscribe to the alt.abuse.recovery newsgroup. I sent a e-mail letter to LISTSERV@UA1VM.UA.EDU with the command SUBSCRIBE ALT.ABUSE.RECOVERY JOE STUDENT, and I got back an error message saying that "alt.abuse.recovery" is unknown to the LISTSERV. What's going on?
- a. alt.abuse.recovery is full, and LISTSERV can not find any room to add you
 - b. alt.abuse.recovery is a Usenet newsgroup; you have to subscribe to the group from a Usenet reader
 - c. alt.abuse.recovery does not exist
 - d. the squirrels have eaten the alt.abuse.recovery newsgroup.
5. How can I unsubscribe from the Roadmap workshop?
- a. send an e-mail letter to ROADMAP@UA1VM.UA.EDU which says UNSUB * in the body of your letter.
 - b. send an e-mail letter to PCRSPE1@UA1VM.UA.EDU which says UNSUB * in the body of your letter.
 - c. send an e-mail letter to LISTSERV@UA1VM.UA.EDU which says UNSUB * in the body of your letter.
 - d. bug Patrick until he drops you from the workshop.

PART TWO: TRUE OR FALSE

Read each sentence carefully, and then determine if the sentence is true or false.

TRUE There is nothing wrong with giving my best
of my password.

FALSE WRITING IN ALL CAPS IS CONSIDERED TO BE GOOD
NETIQUETTE.

TRUE OR FALSE The word "squirrel" would be an excellent
password.

9. TRUE OR FALSE Letters to a LISTSERV list should be sent to
the LISTSERV address.

10. TRUE OR FALSE LISTSERV commands should be sent to the list
address.

PART THREE: SHORT ANSWER

11. One of my friends just e-mailed me a chain letter offering me
good luck so long as I send the chain letter to ten additional
people. Heck, there are several *hundred* people subscribed to
each of the Usenet newsgroups and LISTSERV lists. Why can't I
just forward the chain letter to these groups?

12. Patrick's dad said "DON'T include the entire contents of a
previous posting in your reply(s)." Why *can't* I do this?

13. If someone spams a list that I am on, what should I do? Why
shouldn't I just send my angry replies to the list?

BONUS QUESTIONS

14. How many National Football Championships has the University
of Alabama's Crimson Tide football team won?

- a. 9
- b. 10
- c. 11
- d. 12

15. Patrick Douglas Crispen is:

- a. overworked and underappreciated
- b. a great teacher

- c. a great person
- d. a squirrel

*** DO *NOT* SEND YOUR ANSWERS TO PATRICK CRISPEN OR TO THE LIST. ***
 *** THIS QUIZ IS SELF-GRADED, AND THE ANSWERS WILL BE E-MAILED ***
 *** TO YOU TOMORROW. ***

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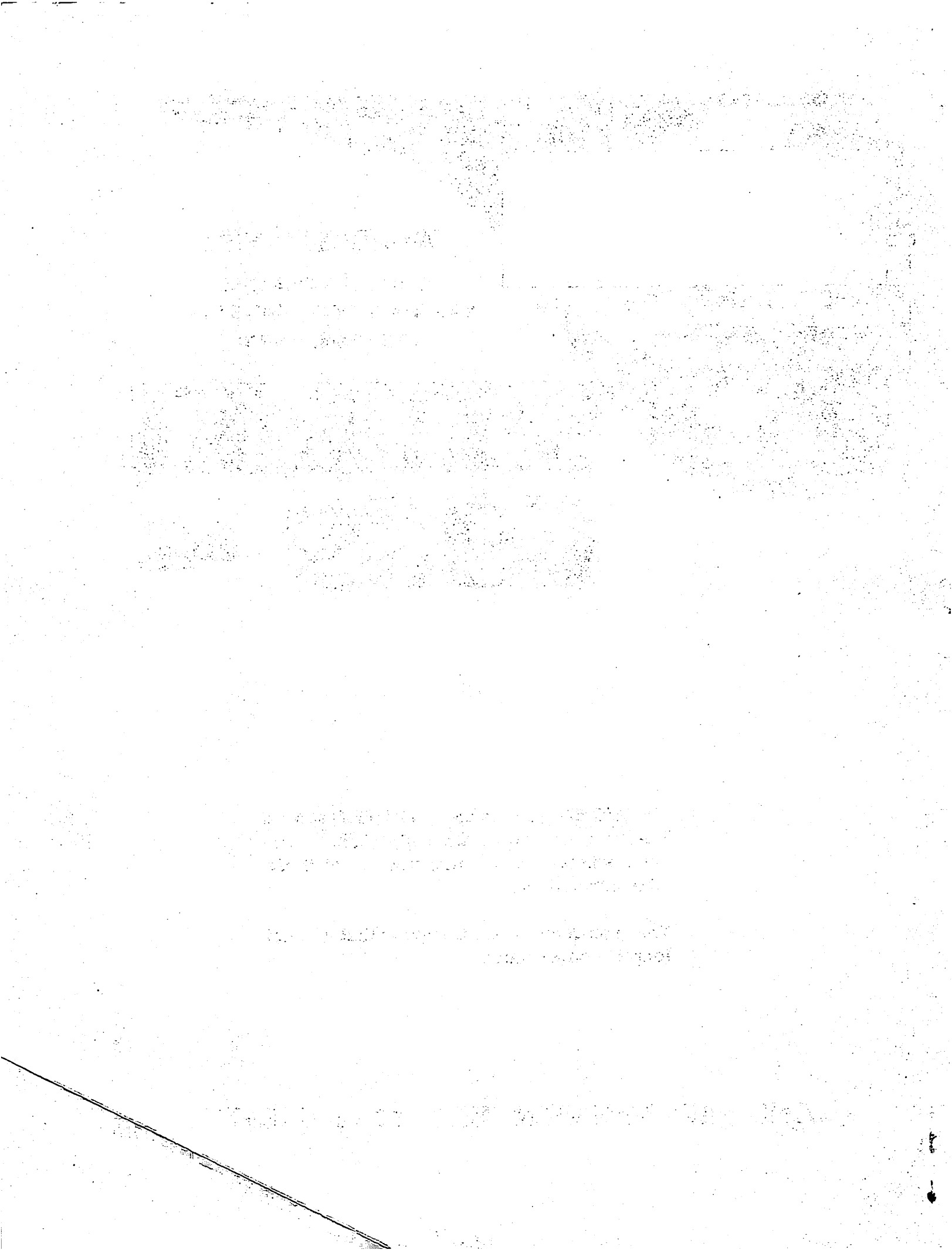
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.( _ ( ) _.'
'---~___&
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PATRICK DOUGLAS CRISPEN
 PCRISPE1@UA1VM.UA.EDU
 THE UNIVERSITY OF ALABAMA

Warning: squirrels.

Well, that's it for this installment. I hope you've enjoyed it and are learning something about the Internet that is really helpful to you. Until next time, Happy Computing!





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H. Peter Unks, Editor

FIRST CLASS MAIL

Eric Rhyder
PJCCC

