Mac/gnuucp Reference Manual

Version 4.3

Produced by

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.c1.1.i.   Introduction

This package consists of two programs. The first is a HyperCard Mail
management stack from which you will be able to read and reply to mail. The
second program is called Mac/gnuucp and it performs the actual mail delivery
both to local machines and to remote computers.

This implementation of Mac/gnuucp assumes that you have a full 8-bit
connection to your remote UUCP site. This will most likely be the case if you call
the remote computer directly. Furthermore the line that is used cannot have any
type of flow control, such as ^S, ^Q control on the line. This will most likely be the
case if you call the remote computer directly. If you call your computer through a
terminal concentrator, check with the system administrator about the connection
requirements.

A typical interaction would be to start up Mac/gnuucp to call you mail forwarder or
any other site that may have mail for users at your site. Mac/gnuucp will collect
this mail and place it in a file in the Mail directory. The HyperCard stack can then
be started up and told to retrieve your new mail. Each message will be placed in
a separate card in the stack.

Mac/gnuucp grew out of a desire to be able to send and receive electronic mail
directly from a Macintosh computer to my colleagues on USENET and the
Internet. As the project evolved a HyperCard interface was added in order to
ease the growing volume of mail that my new program allowed me to receive.

The actual interface to the gnuucp portion of the code remains very Unix-like to
keep the project somewhat limited in scope. The program has been in constant
use for over 6 months now and has interfaced to SUN's, VAX'es and to other
instances of itself running on remote Macintoshes.

Perhaps the most interesting part of of this package is the HyperCard Mail
Reading and Replying Stack. Without that program the and the ability to easily
use Mac/gnuucp to deliver the mail. I would have Mac/gnuucp very hard to use.

The project would have never gotten off of the ground without the GNUUCP code
supplied by the Free Software Foundation. The source code claims that the
original implementor is unknown. John Gilmore made many additions to the code
before I received it

George Carrette made me aware of the GNUUCP code and has been kind
enough to allow literally hundreds of calls to his VAX for debugging purposes. To
this day he still acts as an intermediate host for mail being forwarded to USENET
and the Internet. The project would have surely never been completed without
his help.

Because this project uses GNU code the sources are available for a
nominal copying charge. The sources will also be posted to USENET.

To join the Mac/gnuucp electronic mailing list and be kept up to date on the future
development of this program please send $20 to
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.c1.2.i.   Installing Mac/gnuucp

.c2.2.1.i.   System Requirements

While Mac/gnuucp can undoubtedly be run on a machine without a Hard Disk we have never tried it. The program requires 256K of system memory. The Mac/gnuucp files require about 600K of space on your hard disk. In order to call other computer you will need a modem. We have tested the program extensively with a Hayes 2400 baud external modem and are confident that any modem with a Hayes compatible command set will function correctly. The sources for Mac/gnuucp require about 1 Megabyte of space. The biggest space requirement will be for disk space to hold all the mail that will be coming to your machine!

.c2.2.2.i.   UUCP login account

In order to use Mac/gnuucp most effectively, you will need access to a UUCP account on a Unix machine that you can call. Many of you will have one at work. Many Universities have machines which allow UUCP logins. If you are system manager for the Unix machine you will be calling simply set up a standard UUCP entry on it. If you are talking to the account manager simply ask for a UUCP login account. Don't forget to ask for both the login ID and password.

If all else fails the following people will supply you with a UUCP login for a small charge:

UUNET Communications Services
3110 Fairview Park Drive, Suite 570
Falls Church, VA 22042
+1 703 765 5050

They can also supply Internet registration services.

Mac/gnuucp can be run between to Macintoshes but again, if you have never configured a UUCP connection before, it will be simpler if you are connecting to a known working computer.

.c2.2.3.i.   StuffIt unpacking and Directory Creation

Mac/gnuucp comes packed in a StuffIt file. If you received Mac/gnuucp from USENET news then it probably came as a series of Binhex'ed files that needed to be joined together and unbinhexed to produce the StuffIt.

In order to make the installation as easy as possible we suggest that you follow the installation instructions exactly. Mac/gnuucp uses several subdirectories of its main installation directory to keep outgoing and incoming mail in. The names of these directories can be changed easily once you are confident the program is working correctly.

The installation directory we use will be called Mac/gnuucp and the StuffIt archive is constructed to create a directory of that name when it is extracted. All of the Mac/gnuucp files are contained in that directory. Simply extract the Mac/gnuucp folder and place it directly on the hard disk (Not inside of any folders).

.c2.2.4.i.   Configuring Mac/gnuucp

There are 2 files and a HyperCard stack that must be edited to complete the installation of Mac/gnuucp:

gnuucp.ctl (file)
l.sys (file)
User Mail (stack)

The gnuucp.ctl file sets up several parameters that characterize your Macintosh computer, your main mail forwarder and the characteristics of your modem and modem connection. It is a TeachText file with a simple format. It is reproduced below. The text in italics is not part of the file and is commentary on the contents.

.c3.2.4.1.i. gnuucp.ctl

nodename   YourMachineName *(lower case 8 chars or less)*
nodenamealias   YourMachineNameAlias *(8 chars of less)*
forwarder   YourMailForwarder *(Default mail forwarder)*
username   YourName *(lower case 8 chars or less)*
uucplogname   UUCPLogin *(Name for login to this host)*
uucppasswd   UUCPPass *(Password for this host)*
timezone   Zone*(Timezone string for this host , i.e. EDT)*
debug   1 *(Debug level 1-9)*
bytetimeout   15 *(Seconds to wait for next byte of data)*
connectwait   50 *(Seconds to wait for CONNECT Message)*
spool   :Spool *(Spool Directory)*
alias   :Alias *(Alias Directory)*
mail   :mail *(Mail Directory)*
logfile   :LOGFILE *(Mac/gnuucp LOGFILE)*
appendlogfile   Yes*(New LOGFILE for each Session)*
mlogfile   :MAIL_LOG *(Mac/gnuucp Mail LOG)*
pubdir   :uucppublic *(Public Directory)*
sysfile   :L.sys *(File for systems to call)*
userfile   :gnuucp.userfile *(Users)*

(Below are the definitions of modems and serial lines
 You probably will never need to change these)
port   serial none .AS1200 1200
port   serial none .AS2400 2400
port   serial none .AS4800 4800
port   serial none .AS9600 9600
port   serial none .BS1200 1200
port   serial none .BS2400 2400
port   serial none .BS4800 4800
port   serial none .BS9600 9600
port   ACU hayes .A1200 1200
port   ACU hayes .A2400 2400
port   ACU hayes .A4800 4800
port   ACU hayes .A9600 9600
port   ACU hayes .B1200 1200
port   ACU hayes .B2400 2400

port   ACU hayes .B4800 4800
port   ACU hayes .B9600 9600

nodename -   Here you put the name by which your machine will   be
known by on to other computers. It is best to keep
                   as short as possible since there still may be hosts on
                   the net that only understand 6 or 8 character names.
                   USE LOWER CASE.
                   FPR's machine name is fpr.

nodenamealias   Mac/gnuucp allows one alias name for your
                       machine. It is an alternate name used to
                       identify your host. After fpr became a
                       domain, we added the alias fpr.com.
                       USE LOWER CASE.
                       fpr's alias is fpr.com

forwarder   If Mac/gnuucp cannot identify the destination
                   for your mail by looking at sites that are directly
                   connected to it, it will send the mail off to the
                   forwarder for further action. Your forwarder is
                   presumably some larger machine with more
                   extensive mail tables.
                   USE LOWER CASE.

username   This is your name. Again make it short.
                  Some machines may only understand 6 or 8   character
names.
                  USE LOWER CASE.

uucplogname   This is the login name that remote   computers will use
when calling your   machine for mail.

uucppasswd   This is the password that remote computers
                    will use to login to your machine to get mail

timezone   This is the timezone string for this host. It is used   in
forming mail headers. A typical value is EDT
                  PST.

debug   This flag controls the level of debugging output for
               Mac/gnuucp. It can take on values from 0 to 9. At 0
               minimal information is printed out and the   program will not
pause at exit. Debug 1 prints out   minimal information but pauses at call
               completion. At debug level 9 the contents of every packet
transmitted is printed on the console. A debug level of 4 or 5 is when connecting
to an   unfamiliar host.

bytetimeout   This parameter may have to be tuned for
                     machine. It is the number of seconds to
                     wait for a byte of data before timing out.
                     15 is a good setting for a Mac II without much
                     multiprocessing.

connectwait   This is the number of seconds to wait for the
                     connect message from the modem.
                     50 is a good number for fpr's Mac II.

spool
alias
mail
logfile
mlogfile
pubdir
sysfile
userfile   These are the pathnames of various files
                             needed by Mac/gnuucp. They are set so that
                             they reside in the directory containing   Mac/gnuucp.
They can be changed but it is
                             not recommended.

appendlogfile   The value of this variable determines whether the
                             LOGFILE is truncated before each launch of
                             Mac/gnuucp. If the program is working   satisfactorily we
recommend a setting of "Yes" to   avoid creating a large LOGFILE. If the
value is   "No" the LOGFILE will accumulate indefinitely.

The last information in the file describes the serial ports connected to the Mac. If
your modem is connected to the Printer port move the entries that start with .B
before the entries that start with .A. Otherwise you shouldn't need to change this
part of the file.

We can now discuss the configuring of the l.sys file. Below we display the entries
in a typical l.sys file:

.c3.2.4.2.i. l.sys

mach1 Any ACU 2400 5551212 login:-\r-login: logid word: passwd
   1   2   3   4   5   6   7   8   9   10
11
The above line says that to login to mach1
1) This entry is for mach1
2) Its O.K. to call at "Any" time of day. (This field is currently   ignored use -S
to force a call.)
3) Use any available modem (Our computer only has one)
4) Connect at 2400 baud
5) Dial phone number 555-1212
6) Look for the prompt "login:"
7) If the prompt isn't received send a return character
8) Then look for "login:"
9) Use the login ID logid
10) look for the string "word:" as a prompt for the password.
11) Use the password passwd.

Note that the items 5 thru 10 are called "send/expect" or "char" strings and are
processed in pairs until the end of the line is reached. The processing is
accomplished by sending a "send" string and then waiting for the expect string. A
send string can consist of several subpieces delimited by dashes. The characters
inside of the dashes are sent and the following response is expected.
For example the send string:
     -\r-in:-\d\r-in:
would cause a return character to be sent. The characters "in:" would then be
expected in return. If the "in:" was not seen a 1 second dely would happen and
then another return would be transmitted and then a return would be expected.

The possible control characters are listed below.

If the l.sys line is long, it may be convenient to continue it onto several lines in the file. To to this simply place a \ as the last character on the previous line.

Comment lines in the l.sys file are denoted by as the first character on the line.

In most instances you will only need to change items 1, 3, 4, 8, 10 to customize the entry to call a new site.
1) Change to the name of the site
4) Say what mode speed should be used for the connection
5) The phone number of the site.
9) The login ID assigned to you on the foreign machine.
11) The password for the above login ID.

In rare instances you may have to change items 6, 7,8,10.

6) If you are dialing a machine for which the login prompt is not "login:" but something else like "name:" then enter that string here. Sometimes, people use only the last 2 or 3 characters of the prompt, like "in:" if the phones lines are noisy.

7) When you login sometimes you need to type a return or a newline character to get a prompt to appear. You can put several sequences here depending on what the remove host needs. The allowed sequences are:

\r	sends		return
\n	sends		linefeed
\s	sends		space
\t	sends		tab
\\	sends		\\
\b	sends	s	hort break
\c	indicates	no carriage return at end of sequence
\d	waits		1 second

They can be combined in combination with ascii characters in a "send" string. The login sequence string consists of fields 6,7 and 8 and can contain multiple "send" strings which are delimited by a pair of '-' characters one at each end of the string.

8) This line should always be the same as 6

10) Change this line if the prompt for the password is not "password:" Note is this case how the last 5 characters of the prompt were used.

Another example:

mach2 Any serial 2400 00 in:UUCPlog word: UUCPpass

The only thing different in this example is the word serial after Any. This implies that the two machines are connected via a serial link at 2400 baud. The two computer are directly connected.

.i.Multiple System Phone Numbers;
There can be multiple consecutive entries for each system in the l.sys file. Each entry can specify a completely different means of connecting with the given host.

If the first entry fails each one will be tried in succession until either they all fail or a successful
connection has been made.

.c3.2.4.3.i. Mail Reader

In this section we configure the HyperCard mail reading/sending stack to read

and send mail using Mac/gnuucp.

Each user of the mail facility should have his only HyperCard stack for reading mail and it should contain his mail name and reply address.

To begin click make a duplicate of the "Mail Reader" HyperCard stack and rename it to the name of the person using it to read mail. Double click on the renamed stack. It will come up on a card that says "Mac/gnuucp Mail Reader." Click on the "Config" button. It will switch to a card on which you must fill out 5 fields:

User Name -   Enter the name of the user who will be using this   stack to read mail. It should be the same as the
                                  name of the stack.

Machine Name -   Enter the name of the machine. It should be the
                                  as the name in the gnuucp.ctl file.

Organization Name -   Enter the name of the organization that
                                  the machine belongs to. This will appear in the
"organization:" field of outgoing mail.

Reply Address -   This will appear in the "Reply-to:" filed of
                                  outgoing mail. Supplying a return address
                                  lessens the possibility of network mailer   errors.
Typically it will be something of the   form:
fred%macintosh.uucp@forwarder.edu.
                                  If you are unsure what to put here ask your
                                  contact at your forwarder.

Initial CC: List -   Enter a comma-separated list of names. This
                                  will be entered on the CC: line of every mail
                                  message that is sent from the stack. A single
                                  address with no commas is also acceptable.

Mail Directory -   Here simply put the fully qualified name of   the
directory that contains Mac/gnuucp. This   name includes the name of the
hard disk and   does not contain a colon on the end. It will   typically
be something like   "MyHardDisk:Mac/gnuucp".
                                  This can be done using default setup by   clicking
on the "SetMe" button on the config   card. If you are using a non-standard
                                  configuration, unlock the filed and set it
                                  manually.

At this point Mac/gnuucp should be installed and ready to test.

.c1.3.i.   Testing Mac/gnuucp

If you have followed the installation to this point you are ready to try testing your

installation of Mac/gnuucp. We will do this in 3 steps;
Local mail delivery, Remote Mail Loopback, and finally mail to
postmaster@fpr.com. When mail has passed these tests you have
successfully installed Mac/gnuucp.

.c2.3.1.i.   Local Mail Delivery

To test local mail delivery you will start up the HyperCard stack you created to
read and send mail. You will then send mail to yourself, start up Mac/gnuucp to
deliver the mail. Finally you will start up the HyperCard stack to make sure that
the mail arrived.

1) Send Mail

Double click on the configured mail stack.
When the stack comes up, click on the "Send Mail" button
When the next card comes up, click in the filed named "To:"
Fill in your name, i.e. the 6 or 8 character name you have chosen to use to
receive mail.
Click on the "Subject:" field, put "Testing 1 2 3" in there/
Click on the large field at the bottom of the card. This is where the body of your
message goes type "4 5 6" here.
Finally Click on the "Send It" button.

You should hear some disk activity and the watch cursor should appear. After a
few seconds the arrow cursor should come back. Any other response means that
you have configured the HyperCard stack incorrectly. Most likely the error is in
specifying the "Mailer Directory" on the Config card. Check all of the settings and
try again.

2) Deliver Mail

To deliver the mail we must start up Mac/gnuucp. Open the directory containing
Mac/gnuucp and double click on its icon. To cause local delivery without actually
making a phone call we will use the name of a non-existent computer. In this
case we will call the computer "local". When the console window comes up
simply type:
      -Slocal
the full line in the window will be

Mac/gnuucp -Slocal

Then click on the OK button. Some text should appear in the console window
like:

gnuucp log on tty '' starting 4/30-23:36:50-57
- gnuucp (4/30-23:36:50-57) GNUUCP (Version Fort Pond Research-2.0)
- gnuucp (4/30-23:36:51-57) OK (mail jim :Spool:D.tmpA0146)
- gnuucp (4/30-23:36:51-57) DELETED (:Spool:D.tmpA0146)
Could not call system local
jim uuxqt (4/30-23:36:51-57) OK (startup)
jim uuxqt (4/30-23:36:51-57) Completed (No Work)

If your out looks like that reproduced above you have successfully sent mail to
yourself. Now lets read the mail from HyperCard.

Start up your personalized HyperCard Mail reader. Wait a few seconds for it to check
your mail. It should print out a message saying "You have new mail" in the "Notes"

window. Click on the "Get New Mail" button. Some diagnostic information should flow through the notes window. When the cursor next appears the mail will be in your HyperCard stack.

You can now click on the "Next" button to move to the mail that was just delivered to the stack. Next and Previous move through the existing mail messages.

.c2.3.2.i.   Remote Mail Loopback Delivery

You can now try sending mail to yourself via your remote mail forwarder. To do this you will need to know how to address mail to yourself via the remote machine. His might be of the form:

forwarder!mac!user - where forwarder is the name of the machine
                                         you will be calling, mac is the name of your mac
and user is your name.

or:

forwarder!user%mac.uucp -   where the symbols have the same
                                              meaning as above.

The system manager of the machine you will be calling will know the appropriate syntax.

Be aware that Mac/gnuucp doesn't know anything about complex addresses, internet or USENET. It simply understand the "!" addresses and anything else gets forwarded.

Go through the same steps as for local delivery except that you will use your loopback address.

After you have clicked on the "Send It" button and quite HyperCard start up Mac/gnuucp by double clicking on its icon. When in comes up type:

-Sforwarder

where forwarder is the name of the machine in the l.sys file that you will be calling. You should see something like:

gnuucp log on tty '' starting 4/30-23:57:40-57
- gnuucp (4/30-23:57:41-57) GNUUCP (Version Fort Pond Research-2.0)
- gnuucp (4/30-23:57:42-57) XQT QU'ED (C rmail jim%fpr@mitech.com)
Trying mitech .A2400 0
- mitech (4/30-23:58:08-57) DIALED (mitech .A2400 0)
Didn't see expected string 'me:'
- mitech (4/30-23:58:29-57) SUCCEEDED (call to mitech)
- mitech (4/30-23:58:39-57) OK (startup)
jim mitech (4/30-23:58:39-57) REQUEST (S D.mitechA0117 D.mitechA0117 jim - D.mitechA0117 0666 jim)
jim mitech (4/30-23:58:45-57) REQUESTED (CY)
jim mitech (4/30-23:58:46-57) REQUEST (S B.fprA0117 X.fprA0117 jim - B.fprA0117 0666 jim)
jim mitech (4/30-23:58:51-57) REQUESTED (CY)
jim mitech (4/30-23:59:59-57) OK (conversation complete)
jim uuxqt (5/1-0:00:16-57) OK (startup)
jim uuxqt (5/1-0:00:16-57) FILE (:Spool:X.mitechA1856)
jim uuxqt (5/1-0:00:16-57) XQT (rmail jim < :Spool:D.mitechA1856 > :NULL)

jim rmail (5/1-0:00:17-57) OK (mail jim :Spool:D.tmpA0016)
jim rmail (5/1-0:00:17-57) DELETED (:Spool:D.tmpA0016)
jim rmail (5/1-0:00:22-57) OK (finished)

The above script indicates successful mail delivery. Unsuccessful delivery can be because of several things. The first thing to try is to log into the foreign machine with you UUCP login and password. You should see something like:

Shere

printed out on your terminal emulator. If not double check the phone number login ID and password.

If you are still unsuccessful you should try raising the debug level in the gnuucp.ctl file and watching the login process on the screen.

.c2.3.2.i.   Remote Mail Delivery to mac-gnuucp@fpr.com

As a final test of the mail delivery program send mail to mac-gnuucp@fpr.com and someone will answer your mail

.c1.4.i.   Mac/gnuucp Options

.c2.4.1.i.   Command Line Options

The interface to Mac/gnuucp is via a Standard Think C 4.0 console window. Options are specified in a Unix-like way via one positional argument and several switches.

The standard form is

Mac/gnuucp -SswxeC line-descrip
S,s, x and C require an argument as described below.

.c2.4.2.i.   Specifying a Serial Line and Modem Speed

If you are going to be using endless loop mode you must select a serial line and and speed to use. You must also say whether the line has a modem or is a direct serial connection to another computer. We specify this by the name of the serial line.

Lines starting with ".A" mean the modem port. Lines starting with ".B" mean the printer port. If the next character is an "S" then the line is direct if the "S" is missing then the line has a modem.

.A2400 - means use the modem line with a Hayes modem at 2400 baud.

.A1200 - means use the modem port with a Hayes modem at 1200 baud.

The description of the serial line is the last argument on the command line and any other arguments on the command line will be ignored. You only need to specify it if you will be waiting for incoming calls as the l.sys file specifies outgoing lines.

.c2.4.3.i. Call System
.i.-S, .i.-s

The command line option -S*system-name mans* to call the given system. Capital S mean to ignore time restrictions as specified in the l.sys file.

If there are multiple consecutive lines for the same machine in the l.sys files they are tried in succession until one of the calls succeeds.

If the -S option is given with no machine name argument then all machines with files queued for transfer are called.

The -s option means to adhere to the time restrictions specified in the l.sys file.

(Currently S calls the remove system as documented. The s option rejects all calls regardless of the time.)

.c2.4.4.i. Wait for Call
.i.-w

Giving this option on the command line means that after making an outbound call Mac/gnuucp will wait for an incoming call on the specified line.

If you use this option, make sure that you give the serial line that you want to list on as the last argument on the command line.

.c2.4.5.i. Debug
.i.-x

Using the -x option you can over-ride the debug logging level of Mac/gnuucp as specified in the gnuucp.ctl file. The debug value can be between 0 and 9. 0 gives the minimal amount of information and 9 gives information on each packet received and transmitted. Mac/gnuucp is delivered with the debug flag set to 1.

.c2.4.6.i. Control File
.i.-C

This option allows you to specify a pathname for an alternate control file. Standard Macintosh pathname syntax can be used.

.c2.4.7.i. Waiting for Incoming Calls Without Calling Out First

To go into an endless loop waiting for incoming calls simple invoke Mac/gnuucp with a single argument which is the name of the serial line you will be using. Other arguments can still be specified except for the name of a system to call.

Mac/gnuucp -x9 .A2400

Will start Mac/gnuucp in listen mode.

.c2.4.8.i. Mac/gnuucp Documents and Automatic Calling

Included in the Mac/gnuucp directory is a file named "Call fpr" which is a Mac/gnuucp document. It has type "TEXT" and and creator "GNUU." The creator is officially registered with Apple. This file can be edited with the system editor "TeachText" since it is a TEXT document. To do this start TeachText and "Close" the open window. You will then be able to open a new document. Select Call fpr.

Call fpr has as its contents a single line of text that corresponds tot he command line that would be entered if Mac/gnuucp were started by itself. If Mac/gnuucp is launched with an associated call file it will use the arguments from the file instead of prompting for them on the command line.

This provide a simple method of avoiding the command line interface of the program.

This when coupled with the fact that with debug set to 0 Mac/gnuucp will not pause at exit gives a way to periodically call other machines with programs such as QuicKeys II.

.c1.5.i.   Mailing Lists Via the Alias Folder

If you examine the Mac/gnuucp folder you will notice a folder with the name "Alias." Inside of this folder are a series of files each of which contains a series of mailing addresses each on a separate line. An example is the bug-gnuucp file. When you open this file you will see that it contains:

#This a mailing list that forwards to all bug-gnuucp members
#It should contain one address per line

bug-gnuucp@fpr.com

What this means is that if you send mail to bug-gnuucp on your local machine, it will automatically forward to the Fort Pond Research bug-gnuucp mail file. Where it can be responded to. The format of the file requires comment lines to begin with a # as the first entry on the line. Comment lines can appear anywhere in the mailing list file. Each address should appear on its own line.

You can create any number of mailing lists on you local machine using this same technique. If you correspond regularly with a group of people on the same subject, you can make a mailing list that will reach them all with much less typing.

.c1.6.i.   HyperCard Stack Options

By using this HyperCard stack in conjunction with Mac/gnuucp you can communicate with multiple users on a single machine, users on a local area network and users connected to yours via the USENET or Internet.

What this program does is to provide an interface to the mail delivery routines of Mac/gnuucp. It will allow you to read, reply and save your mail to Macintosh files.

Each user of the Mail system serviced by Mac/GNUUCP will require his own HyperCard stack for mail reading. It must be customized for his use.

Configuration of this stack is done on the Configuration Card:

After Installation this program's operation should be easy to understand.

The "Get New Mail" card checks every few seconds to see if new mail has arrived and if it has it writes a message in the Notes: field of the card.

Clicking on "Get New Mail" will execute a script that will read all of your new mail messages into the stack with each message going on a new card.

Next, Previous and Next Unread are buttons for navigating among your messages.

Reply will automatically format an outgoing mail message to the originator of the message.

If a mail message is too large to be contained in a stack text field, it will automatically be written to a file instead and a note will be left in the body of the mail message saying where the mail message was put. The size for this conversion is currently set at 20,000 characters.

.c2.6.1.i.   User Name

In this slot enter the user name for the person receiving mail and using this stack to read it. (Note that Names with non-alphabetic characters are more likely to cause problems on USENET or the Internet.)

.c2.6.2.i.   Machine Name

In this slot you must enter the name by which your machine will be known on USENET or the Internet. (Note the same restriction as with user names applies here but more severely. Try to pick a name that is less than 6 characters and avoids special characters, especially periods and exclamation points. A period is a valid character if your machine is part of a domain.)

.c2.6.3.i.   Organization Name

This field can be pretty much whatever you want. It should be less than one line long. It will appear in the Organization: field of your mail headers.

.c2.6.4.i.   Reply Address

This field will appear in the Reply-To: field of your mail messages. It will also be used in the From: field of messages that you send. In many cases it is easier for you to supply a reply-to address than to expect the foreign host to decipher one from your original message. Most mailers understand the use of the Reply-to: field.

.c2.6.5.i.   Mailer Directory

This field contains the pathname of the directory where Mac/gnuucp was installed in. The HyperCard stack needs this in order to find new mail. (Note that is a FULL PATHNAME like MyHardDisk:Directory1:Directory2:Mac/gnuucp

.c1.7.i.   Mac/gnuucp Maintenance

.c2.7.1.i.   Truncating the Logfile

Depending on the volume of mail that you send and receive you will need to truncate the LOGFILE more or less frequently. Certainly you should examine its size via the "Get Info" menu item on a regular basis. The file maintains a log of all mail transactions that your machine has completed.

Periodically reading it into a text processor, "marking and cutting" half of it and saving it back out to the file will decrease Mac/gnuucp disk space requirements.

.c2.7.2.i.   Examining the Spool Directory

About once a week you will also want to examine the contents of the "Spool" folder to make sure that it doesn't contain any extra or unsent mail.

Occasionally a transmission will be aborted in the middle. While Mac/gnuucp will know enough to start the transmission the next time you call you mail host, it may leave "junk" files around.

Use a DA like "FileStar" or "DeskZap" to set the file type of any files in this directory and examine them with an editor. If you can identify a problem please report a bug.

.c2.7.3.i.   Check for Mail to "Root" or "Postmaster"

On a regular basis check for mail for the users "Root" or "Postmaster." You can do that by creating two new HyperCard stacks, one with user name Root and one with user name Postmaster.

You can then start them up and see if the "You Have New Mail."
message appears in the Notes window of the Get New Mail card of the stack.

.c2.7.4.i.   Check for Mail to Unknown Users

Very occasionally mail will arrive for a user that is not known at your site.

Currently Mac/gnuucp will simply create a file with the Unknown users name in

the "Mail" folder in the Mac/gnuucp Hierarchy.

Periodically just check to see what users are receiving mail on your computer and take appropriate action for the the unintended users.

.c1.8.i.   Registering Your Site

Once you have mail working reliably and are sending mail regularly, you may want to register your machine in the uucpmaps. This will allow other machines to send you mail more easily and cheaply.

Once you fill out this map entry and then mail it to one of the addresses below so that the global usenet map will show your location and be better able to forward mail to you.

uucpmap@rutgers.edu
uucpmap@rutgers.uucp
....!rutgers!uucpmap

Below you change the items in italics to match you machine and location. **To ease the Formatting Issues use the form "UUCP MAP" in the "Net Registration" folder. A copy is reproduced below.**

-----Cut Here-----
#N*the name of your machine.*
#S*The model of your computer*; *The operating system version*
#O*The name of your organization*
#C*The local contact*
#E*Mail address of postmaster*
#T*Telephone number of contact*
#P*The address of the computer*
#L*Your longitude and latitude*
#W*The submitter of the entry*;*Date and time modified*
#
Your Machine Name   A machine that you call(*Call Frequency*)
Your Machine Name   A machine that you call(*Call Frequency*)
-----Cut Here-----

For example here is the entry for fpr:

#Nfpr
#SMAC-II; MAC-OS 6.0
#OFort Pond Research
#CJim O'Dell
#Efpr!postmaster
#T508 263 0141
#P15 Fort Pond Road, Acton, MA 01720
#L42 29.2 N / 71 26.0 W
#Wfpr!postmaster (Jim O'Dell); Sat Jan 20 14:04:00 EST 1990
#
fpr   mitech(DAILY)

This process should take a couple of weeks to percolate around the net.

.c1.9.i.   Making Your Site a Domain

In order to make it easier for people across the internet to send you mail you may want to register your site as an internet domain. This enables other sites to send you mail without knowing an explicit uucp path to your machine. To register a domain you need to get some internet site to be your forwarder. An internet site can be your forwarder without you being directly connected to it. If you know someone at an internet site that might be your forwarder contact them and ask. They must also be willing to give you a uucp account or to forward your mail to

the site you will be calling to collect your mail.

The UUNET site is willing to allow people to call to collect their mail and to act as an internet forwarder via a direct call. They charge a $35/month fee for this. Contact them at:

UUNET Communications Services
3110 Fairview Park Drive, Suite 570
Falls Church, VA 22042
+1 703 765 5050
uunet!uunet-request

In addition UUNET Communication Services will register your domain for you for a $35 one time charge if you provide them with the information below. Call them at the above address if you have any further questions.

BACKGROUND:

A "zone" is a registry of domains kept by a particular organization. A zone registry is "authoritative", that is, the master copy of the registry is kept by the zone organization, and this copy is, by definition, always up-to-date. Copies of this registry may be distributed to other places and kept in caches, but these caches are not authoritative because they may be out of date. An authoritative answer is required for certain decisions, such as "this mail cannot be delivered because there is no such domain", or "the name you have chosen is available and is now assigned uniquely to you."

A registered domain name is necessary to use software (including smail) which supports domain addresses. This name must be unique in the world, and must be registered with the appropriate registry. You also need to be in a domain that has a forwarder from the ARPANET.

Currently, the domain tree in the USA has three major top level domains: COM for companies, EDU for educational institutions, and GOV for government entities. Three other top level names exist: MIL, NET, ORG, but are somewhat specialized. For the most part, countries other than the USA are using the ISO 3166 2 letter abbreviation for their country as a top level.

The second level is generally the name of the organization, using the shortest possible abbreviation that is clear and unique, thus ATT, DEC, IBM, HP, etc. The choice of exact name is up to the organization, and longer names, such as Berkeley.EDU or Tektronix.COM are perfectly acceptable. Just remember that people must type the name, as well as see it displayed.

Not all countries use the second level for the organization. In particular, Australia and Britain have set up second level domains OZ.AU and AC.UK for their academic communities, and put the organization at the third level.

The third and subsequent levels, if used, should be organizational units within the organization. Try to keep the number of levels to a minimum, since people have to type the names. More than four total levels (country, org, org-unit1, and org-unit2) should rarely be needed. The actual organizational units to be used are up to you, for example, they might be departments, or they might be machine names.

CHOSING NAMES:

Names are case independent. uucpnames MUST be all lower case. "vax", "u3b20", and the like are terrible host names, because sooner or later you'll have more than one vax, or more than one 3b20, and the names will be confusing. We recommend organizational names, based on the department or project the machine is used for. Of course, in order to keep the names reasonably short and to avoid duplicating names in the hierarchy, some compromise will be needed. For example, csvax.CS.UND.EDU is redundant, but RISC.CS.UND.EDU might be a good name for the computer used by the RISC project in the CS department.

Please note that you should support both RFC 976 and the documents it refers to, in particular RFC 822 and RFC 920. This means, for example:

(a) The name "postmaster" on all machines visible to the outside
     should be forwarded to the technical contact. This can be
      easily done with an alias in /usr/lib/aliases, if your site
       runs sendmail or smail release 2.0 or beyond.

(b) Your machine should not alter valid RFC 822 headers, such as
      From:, of mail it generates or forwards. Many machines
      running sendmail have a bug which adds uucpname! to the
      front of such addresses. Installing smail will fix the bug
       because mail passed through the machine is not passed through
       sendmail. We hope to make a fix to sendmail available, also,
       at a later date.

COSTS:

UUNET charges a one time fee of $35 for processing the forms and setting up the servers. This fee does NOT include a connection to the uunet computer.

Payment may be sent to:

UUNET Communications Services
3110 Fairview Park Drive, Suite 570
Falls Church, VA 22042
+1 703 765 5050
uunet!uunet-request

or we will invoice you. Please indicate the name of your domain and the uucp name of your gateway machine so that we may properly credit you.

Information about UUNET's other services Can be obtained by sending your postal address to uunet!uunet-request.

IMPLEMENTATION DETAILS:

We will notify you (via mail to "postmaster" in your domain) when your domain is registered. You cannot use your domain name in outgoing mail until registration is completed, although it is OK to install smail (using the host.UUCP domain) ahead of time. We do recommend that you set up to accept incoming mail for your domain name ahead of time, if this is convenient.

Several steps are needed before your registration is complete. Some of these steps are approval by the NIC, setting up the nameservers, setting up the forwarder. Seeing your domain published in the UUCP map is not, by itself, sufficient (or necessary) for the use of your domain name.

FORWARDERS:

A forwarder is a kind of mail bridge host between DDN (formerly called the ARPANET) and UUCP. The DDN nameserver structure directs all DDN mail for your domain to the forwarder, and the forwarder passes the mail from DDN into UUCP. Forwarders can also forward your mail from UUCP to DDN, but it is not strictly necessary to use your forwarder for this, since mail to any of the published UUCP->DDN gateways can do this.

To register your domain, you need to have a forwarder. If you know of an Internet site that is willing to be a forwarder for your domain, let us know. As a last resort, uunet can be a forwarder for you. HOWEVER, we require that you obtain the permission of the site that is directly connected to uunet before we start forwarding mail through them.

THE APPLICATION:

Because of formatting Issues Use the ïform
"Internet Forwarder" in the "Net Registration" folder. It will make the application process much simpler.

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