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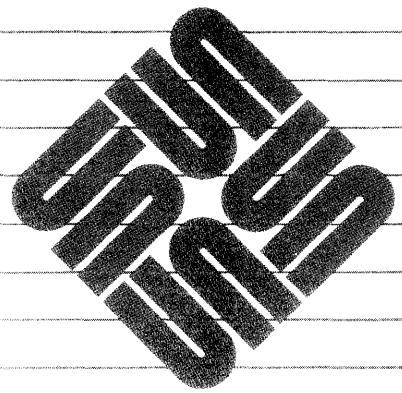
Mail *and* Messages: Beginner's Guide



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Preface

This document introduces the electronic mail and message facilities available on the Sun workstation. We assume that you have some experience with the Sun workstation, and the UNIX† operating system.

We provide examples to learn how to send, read, and reply to mail and messages, not detailed explanations of the inner workings of the mail and message programs. However, as in each of the *Beginner's Guides*, we refer to the other Sun documentation, drawing a road map for you to follow when you wish to learn more about a certain topic.

Mail and Messages describes how to send, read, store, reply to, and forward mail using the `mail` program. It introduces `mailtool`, a window and mouse mail program. In addition, this manual presents the various message programs and describes how mail travels over various networks. A command summary and a glossary provide easy access to the material.

Prerequisite documents

Getting Started With UNIX: Beginner's Guide

Companion documents

Setting Up Your UNIX Environment: Beginner's Guide
Windows and Window-Based Tools: Beginner's Guide
Self Help With Problems: Beginner's Guide
Doing More With UNIX: Beginner's Guide
Using the Network: Beginner's Guide

Commands Reference Manual

† UNIX is a trademark of AT&T Bell Laboratories.

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Overview

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1

Overview

Electronic mail and *electronic messages* ease communication in the workplace. Many people find it useful to send and receive electronic mail and messages through a computer network, especially when it is impossible or inconvenient to communicate in person, by phone, or by post office mail.

Sending *electronic mail* is like sending a telegram. You can read, save, and edit electronic mail when you receive it on your machine.

Initiating an *electronic message* is more like calling someone up on the phone than sending a telegram, because it is immediate and interactive. In other words, when you send an electronic message, the person who receives the message can read the message and reply to it while you wait. You can have an *asynchronous* electronic conversation, in other words, both parties sending and receiving messages simultaneously through the computer network without their messages interfering with one another.

Note: A *network* is a group of machines connected so they can transmit information to one another. A *local network* is the network surrounding your machine; whereas, a *remote network* is a network that doesn't include directly your machine. Networks link with each other using a *gateway*.

1.1. What Is `mail`?

`mail` is the program you can use to send electronic mail.[1]

There are three types of electronic mail addresses, depending upon the destination of the mail:

same machine
: Specify only the username of the mail recipient.

local network
: Specify the username, and in some cases the machine name, of the recipient.

remote network
: Specify the recipient's username and machine name, and in some cases the *network path* to the recipient.

Note: A *network path* is the sequence of machines you must specify to send mail between two machines when they are connected on a network that doesn't determine the path automatically.

An optional file in your home directory, called the `.mailrc` file, alters the default behavior of the `mail` program.[2]

---

[1] Historically, the `mail` and `Mail` programs differed considerably, but now they are the same. You can type either `mail` or `Mail` when you see examples that specify `mail`.

[2] To find out more about `.mailrc`, see *Setting Up Your UNIX Environment: Beginner's Guide*. To change most `mail` attributes, use `defaultsedit`, described in the chapter on other editing tools in *Windows and Window-Based Tools: Beginner's Guide*.

`mailtool` is `mail` enhanced with window and mouse capability. If you use the window system, try `mailtool` to see if you like it better than `mail`.[3]

1.2. What Is an Electronic Message?

There are four types of electronic messages, which are immediate and interactive:

same machine
: Use the `write` or `talk` program; specify username of recipient.

local network
: Use the `talk` program; specify username, sometimes machine name, of recipient.

broadcast
: Use the `wall` program; specify message text to send to all users on machine.

system
: Messages the system sends to your *console.*

Note: The *console* is the entire screen, or a special window on the screen, where system messages appear.

When you want to stop display of `write` and `talk` messages to your console, add

```
mesg n
```

(`n` stands for no) on a line by itself in your `.login` file.

When you put

```
biff y
```

on a line by itself in your `.login` file, the system displays mail message notifications on the console as mail messages arrive; by default, the system suppresses mail message notifications with `biff n`.

For more information on `mesg` and `biff`, including an example `.login` file, see *Setting Up Your UNIX Environment: Beginner's Guide.*

1.3. Other Useful Commands

A variety of other commands aid you in reading mail and sending messages. Further descriptions of these commands appear later in this manual.

`from`	Tells you who the mail in your system mailbox is from
`prmail`	Displays (with `cat`) the mail that you haven't yet read using `mail`
`users`	Lists the username for each user currently logged in on the local machine

[3] For more information, see the chapter on `mailtool`, Chapter 6.

`who` Lists the username, "terminal," and login time for each user currently logged in on the local machine

`w` Lists the username, "terminal," login time, and other statistics for each user currently logged in on the local machine

`rsh` *machine-name command*
Executes *command* on machine *machine-name*. Useful for listing usernames, and other information about people on other machines.

This completes the overview of electronic mail, electronic messages, and related commands.

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2

Sending Mail

The easiest way to use `mail` is to send a mail message to someone, even yourself. In fact, start by sending a mail message to yourself, so you can make sure that you have the hang of it before subjecting someone else to your trials, and so that you will have a mail message you can read "in your mailbox."

2.1. Sending a Mail Message

To send a mail message, type `mail` followed by the *username* of the recipient.

Sending a Mail Message To Yourself

To send a mail message to yourself, type `mail` followed by your *username*. Then, type the text of the message, on as many lines as you wish. Type your end-of-file character, usually CTRL-D, on a line by itself to terminate input of the message text.[4]

Figure 2-1 *Sending a Mail Message To Yourself*

```
venus% mail medici
Subject: Mail To Myself
Introspection is a narcissistic pursuit.
^D
venus%
```

`mail` changes the `^D` on the screen to `EOT` to confirm the end of text of your mail message.

Sending a Mail Message to Someone Else

When you decide you are confident enough to try sending a message to another user, type `mail` followed by the *username*, the message text, and CTRL-D. When you type CTRL-D, `mail` saves the text of the message and sends it to the destination *username*, provided it is within the local network.[5]

---

[4] In this example, `venus%` is the command prompt because venus is the name of the example machine. `medici` is the example username.

[5] When your machine isn't on a network, you can't send mail to users on other machines. Some facilities don't support the *yellow pages*, a directory of usernames and machine names. If your facility doesn't support the yellow pages, you have to specify the machine name along with the username of the mail message recipient. See the section on sending mail messages over local networks, section 4.5 , for more information. Chapter 9 , on sending mail over networks, provides information on sending mail messages over remote networks.

Figure 2-2 *Sending a Mail Message to Someone Else*

```
venus% mail watson
Subject: Tentative communication
Come here Watson.
I need you. (Type CTRL-D on next line to end text, send message.)
EOT
venus%
```

Note: Username `watson` probably doesn't exist on your machine or local network. The next section describes the result of sending mail to a nonexistent username.

It takes a little while for the mail facility to deliver mail. However, if the intended mail recipient doesn't receive the mail message you sent within a day, see the section on sending mail over networks, section 4.5 , to learn how to fix the problem.[6]

To specify multiple recipients for your mail message, type more than one username, each separated by a space character.

Sending Mail to a Nonexistent Username

If you send the mail message to a username that does not exist, `mail` will realize, after a minute or two, that it cannot deliver the mail message.

For example, if you send mail to nonexistent username `amorphous`, like this:

Figure 2-3 *Sending a Mail Message to a Nonexistent Username*

```
venus% mail amorphous
Subject: Greetings!
What are you up to,
old pal? (Type CTRL-D on next line to end text, send message.)
EOT
venus%
```

At this point, three things happen:

1) The mail facility displays an error message containing the nonexistent username, followed by three dots (. . .) and `User unknown`. In the case of the above example, the error message is:

```
amorphous... User unknown
```

[6] For more information on networks in general, see *Using the Network: Beginner's Guide.*

2) The mail facility delivers a mail message to you, the originator of the faulty message, that looks something like this:

Figure 2-4 *Mail Facility Message To Originator When User Unknown*

```
Unix-From: medici Thu Oct 31 23:59:59 1985
Return-Path: <MAILER-DAEMON>
Received: by venus.sun.uucp (3.0/SMI-3.0)
    id AB09802; Thu, 31 Oct 85 23:58:59 PDT
Date: Thu, 31 Oct 85 23:58:59 PDT
From: MAILER-DAEMON (Mail Delivery Subsystem)
Subject: Returned mail: User unknown
Message-Id: <8510220038.AB09802@venus.sun.uucp>
To: medici

   ----- Transcript of session follows -----
550 amorphous... User unknown

   ----- Unsent message follows -----
Return-Path: <medici>
Received: by venus.sun.uucp (3.0/SMI-3.0)
    id AA09798; Thu, 31 Oct 85 23:58:59 PDT
Date: Thu, 31 Oct 85 23:58:59 PDT
From: medici (Cosimo de' Medici)
Message-Id: <8510220038.AA09798@venus.sun.uucp>
To: amorphous
Subject: Greetings!

What are you up to,
old pal?
```

3) The mail facility delivers a mail message that looks something like this to your machine's Postmaster:

Figure 2-5 *Mail Facility Message To Postmaster When User Unknown*

```
Unix-From: medici Thu Oct 31 23:59:59 1985
Return-Path: <MAILER-DAEMON>
Received: by venus.sun.uucp (3.0/SMI-3.0)
    id AA09802; Thu, 31 Oct 85 23:58:59 PDT
Date: Thu, 31 Oct 85 23:58:59 PDT
From: MAILER-DAEMON (Mail Delivery Subsystem)
Subject: Returned mail: Mail problem
Message-Id: <8510220038.AA09802@venus.sun.uucp>
To: Postmaster

   ----- Transcript of session follows -----
550 amorphous... User unknown

  ----- Message header follows -----
Return-Path: <medici>
Received: by venus.sun.uucp (3.0/SMI-3.0)
    id AA09798; Thu, 31 Oct 85 23:58:59 PDT
Date: Thu, 31 Oct 85 23:58:59 PDT
From: medici (Cosimo de' Medici)
Message-Id: <8510220038.AA09798@venus.sun.uucp>
To: amorphous
Subject: Greetings!
```

Note: The *Postmaster* for a given machine is a username designated to receive notice of messages that the mail facility cannot deliver. Probably, either you or your system administrator will be the Postmaster for your machine.

The mail facility delivers to the Postmaster notice of the mail message you sent *without* delivering the message text; so your mail is still somewhat confidential, even when you make a mistake.

Aborting a Mail Message

When you have started to send a message, but you decide you no longer want to send it, type your *interrupt character*, usually CTRL-C, to abort the message. `mail` displays a message asking you to confirm the message abort by typing CTRL-C once again. `mail` won't send a mail message when you abort it using the second CTRL-C.

Figure 2-6 *Aborting an Attempt at Sending a Mail Message*

```
venus% mail nowhere
Subject: Over the Rainbow
Some electronic mail is not meant for anyone to^C
(Interrupt -- one more to kill letter)
^Cvenus%
```

Note: When you want to abort a message while typing the subject, you must type RETURN after the first CTRL-C to get `mail` to interpret the interruption properly.

2.2. Summary

In this chapter, you learned the quickest way to send a mail message. Next, you can learn how to read your mail.

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Reading Mail

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3

Reading Mail

`mail` is an interactive program that permits you to:

- Look at a numbered list of mail messages
- Read mail messages
- Save mail messages selectively to files
- Sort mail messages into folders
- Delete mail messages

This chapter describes all these operations and explains how to read mail messages you have saved in files and folders.[7]

3.1. Starting `mail`

To start `mail` so that you can read your mail messages, type `mail`, without any arguments, to the command prompt.

Figure 3-1 *Starting* `mail` *To Read Messages*

```
venus% mail
Mail version SMI 3.0 Mon Feb 17 00:20:58 PDT 1986  Type ? for help.
"/usr/spoool/mail/medici": 2 messages 2 new
>N  1 medici             Thu Oct 31 23:59  12/323   Mail To Myself
 N  2 MAILER_DAEMON      Fri Nov  1 00:02  26/725   Returned Mail: User un
&
```

`mail` displays the program name, program version number, and version date, then informs you that you can type a question mark (`?`) to get help information.

On the second line, `mail` specifies which file it picks up your mail from, in other words your *mailbox*, tells you how many messages you have, and whether they are *new* or *unread*. In the example above, the mailbox directory is `/usr/spool/mail/medici`, with two new messages.

[7] When you are using SunView, the window system and text facility, you may prefer the `mailtool` window and mouse interface to the mail facility.

Starting on the third line, `mail` displays a numbered list of the messages in your mailbox. Each of these lines specifies:

message status	New (N), unread (U), or old (no message status listed)
message number	Number you can use to specify that message
originator	Name of user (sometimes machine) message came from
time sent	Date and time originator sent the message
size	Number of lines, number of characters, in message

Note: All messages that are neither new (N) nor unread (U) are old messages that you have read (no status indicator). `mail` marks messages you've saved to a file or folder with an asterisk character (*).

The line beginning with a greater-than symbol (>) is the *current message.*

Note: The *current message* is the message that you last read, or the first message you read by default when obtaining new mail. Within the numbered list of messages, a greater-than symbol (>) prefaces the current message listing.

In the example, the `N` means the message is new; `1` is the message number; `medici` is the originator; `Thu Oct 31 23:59` is the date and time `medici` sent the message, and `12/323` means there are 12 lines and 323 characters in the message.

Finally, `mail` displays an ampersand prompt (`&`) to let you know you can type `mail` commands.

If you start `mail` when you don't have any messages waiting for you in your mailbox, you will see something like this:

Figure 3-2 *Starting* `mail` *with an Empty Mailbox*

```
venus% mail
No mail for medici
venus%
```

Each time you log in, your machine informs you if you have mail in your system mailbox by displaying

```
You have mail.
```

on a line by itself just after your regular login messages.

3.2. How To Read Mail Messages

Once you have entered `mail` and examined the numbered list of mail messages, you can read a given message by typing its *message number* to the `mail` prompt.

For the initial example above, there are two messages, with message numbers one and two. Type `1` to the `mail` prompt, and `mail` displays the first message.

Figure 3-3 *Reading a Mail Message*

```
venus% mail
Mail version SMI 3.0 Mon Feb 17 00:20:58 PDT 1986  Type ? for help.
"/usr/spoool/mail/medici": 2 messages 2 new
>N  1 medici             Thu Oct 31 23:59  12/323   Mail To Myself
 N  2 MAILER_DAEMON      Fri Nov  1 00:02  26/725   Returned Mail: User un
& 1
Message  1:
From medici Thu Oct 31 23:58:59 1985
Return-Path: <medici>
Received: by venus.sun.uucp (3.0/SMI-3.0)
        id AA12623; Thu, 31 Oct 85 23:59:59 PDT
Date: Thu, 31 Oct 85 23:59:59 PDT
From: medici (Cosimo de' Medici)
Message-Id: <8510232235.AA12623@venus.sun.uucp>
To: medici
Status: R

Introspection is a narcissistic pursuit.

&
```

3.3. Looking at the Numbered Mail Message List

Now that you have read the first message in your mailbox, when you next look at the numbered mail message list, the `N` status of that message no longer appears.

To look at the numbered mail message list, type `headers`, or just `h`, to the `mail` prompt.

Figure 3-4 *Looking at the Numbered Mail Message List*

```
...

& h
>   1 medici             Thu Oct 31 23:59  12/323   Mail To Myself
 N  2 MAILER_DAEMON      Fri Nov  1 00:02  26/725   Returned Mail: User un
&
```

The `N`, for new message, no longer appears just after the greater-than sign; you changed the status of the message when you read it.

3.4. Reading the Current Mail Message

Instead of specifying the message number, you could type `print` to the `mail` prompt to read the *current message* in your mailbox. `p` works as an abbreviation for `print`.

Figure 3-5 *Reading the Current Mail Message*

```
...

& p
Message  1:
From medici Thu Oct 31 23:58:59 1985
Return-Path: <medici>
Received: by venus.sun.uucp (3.0/SMI-3.0)
        id AA12623; Thu, 31 Oct 85 23:59:59 PDT
Date: Thu, 31 Oct 85 23:59:59 PDT
From: medici (Cosimo de' Medici)
Message-Id: <8510232235.AA12623@venus.sun.uucp>
To: medici
Status: R

Introspection is a narcissistic pursuit.

&
```

As another alternative, when you want to read the next mail message in the list, simply type [RETURN].

3.5. Mail Message Format

What is all that stuff in the mail message?

A mail message has two parts: the *header* and the *body*. When you send a mail message the quick way you learned in Chapter 2 , you don't see the header, except for the `Subject:` field. When you compose a message in Chapter 4 , you'll see more of the header. But mostly, you see the header when reading your mail.

The header comprises a number of *fields*. Fields describe attributes of the mail message, such as:

`Return-Path:`	Address used to return mail that is undeliverable
`Received:`	Machine, message identification information, and arrival time for each machine along the message's *network path.*
`Date:`	Time sent, including date
`From:`	Username (sometimes machine name) of message originator
`Message-Id:`	Message identification information
`To:`	Username (sometimes machine name) of message recipient
`Subject:`	Subject of message

You can set up `mail` so that you don't see certain mail message header fields. See the Man Page, online or in the *Commands Reference Manual*, for more information.

The text of your message that appears *below* the message header is called the message *body*.

3.6. Saving Mail Messages in Files

To save a mail message into a file, type `save`, or the abbreviation `s`, followed by the *message number* and the *filename* of the file you want to contain the message. `mail` responds by displaying the filename, followed by the status of the file, and the size of the file.

For example, to save the first mail message in the example user's mailbox into the file `first.mail`:

Figure 3-6 *Saving a Mail Message into a File*

```
...

& h
>   1 medici              Thu Oct 31 23:59  12/323   Mail To Myself
 N  2 MAILER_DAEMON       Fri Nov  1 00:02  26/725   Returned Mail: User un
& s 1 first.mail
"first.mail" [New file] 12/333
&
```

Note: When you save a message to a file, but you don't specify which message number, `mail` assumes that you want to save the current message into the filename you specify.

Now, the file `first.mail` contains the header and body of mail message number one.

3.7. Saving Mail Messages in Folders

A *folder* is a special kind of file that you can use to store and organize your mail messages. Saving a mail message in a folder is like saving a mail message in a file. You can often distinguish a folder from a file because folders generally begin with a plus sign (+).

Before using folders, you must choose a directory with name *directory-name*, for example `storage`, into which `mail` will locate all folders with names that have an initial plus sign. Indicate that folder name to the mail facility by putting

`set folder=`*directory-name*

on a line by itself in your `.mailrc` file.

Note: The initial plus sign on a folder name is an abbreviation for the directory you specify with the `folder` variable in your `.mailrc` file.

To save a mail message in a folder, type

`save` *message-number* *+foldername*

to the `mail` prompt.

To save example message number one into a folder called `testmail`:

Figure 3-7 *Saving a Mail Message into a Folder*

```
...

& h
>*   1 medici              Thu Oct 31 23:59  12/323   Mail To Myself
 N   2 MAILER_DAEMON       Fri Nov  1 00:02  26/725   Returned Mail: User un
& save 1 +testmail
"+testmail" [New file] 12/333
&
```

Note: The asterisk (*) in the numbered message list indicates that you have saved that message into a file or folder. The asterisk replaces any new (N) or unread (U) message status indicator when you save a message.

3.8. Quitting `mail`

To quit `mail`, type `quit`, or the abbreviation `q`, to the `mail` prompt.

The `quit` command moves any messages you haven't saved in a file or folder from your mailbox into a file called `mbox` in your home directory. For example, when you have two messages which you read, but didn't save in a file or folder, `mail` displays the notification:

```
Saved 2 messages in mbox
```

When you quit `mail` without reading a mail message that appeared in the numbered mail message list, `mail` will hold the unread message in your mailbox. Then, when you start `mail` again, the unread mail message will reappear in the numbered mail message list with a message status *unread* (U).

Figure 3-8 *Quitting* `mail`

```
...

& q
Held 1 message in /usr/spool/mail/medici
venus%
```

3.9. Reading Messages in a File

You can use an editor to look at mail messages that you've saved in a file, or you can read the messages with the `mail` program. To use `mail`, type `mail` followed by the option `-f` *filename*. For instance, to read the example message saved in the file `first.mail`:

Figure 3-9 *Reading a Mail Message Saved in a File*

```
venus% mail -f first.mail
Mail version SMI 3.0 Mon Feb 17 00:20:58 PDT 1986  Type ? for help.
"first.mail": 1 message 1 new
>   1 medici            Thu Oct 31 23:59  12/323   Mail To Myself
& p
Message 1:
From medici Thu Oct 31 23:58:59 1985
Return-Path: <medici>
Received: by venus.sun.uucp (3.0/SMI-3.0)
        id AA12623; Thu, 31 Oct 85 23:59:59 PDT
Date: Thu, 31 Oct 85 23:59:59 PDT
From: medici (Cosimo de' Medici)
Message-Id: <8510232235.AA12623@venus.sun.uucp>
To: medici
Status: R

Introspection is a narcissistic pursuit.

& q
"first.mail" complete
venus%
```

When you save a message in a file, `mail` won't move it automatically into the `mbox` file. However, `mail` notifies you that the mail message is still in the file by displaying "*filename*" `complete`, or in the case of this example `"first.mail" complete`.

3.10. Reading Messages in a Folder

Reading a message saved in a folder is similar to reading a message saved in a file — type `mail` followed by the option `-f` *+foldername*. For instance, to read the example message saved in the folder `+testmail`:

Figure 3-10 *Reading a Mail Message Saved in a Folder*

```
venus% mail -f +testmail
Mail version SMI 3.0 Mon Feb 17 00:20:58 PDT 1986  Type ? for help.
"+testmail": 1 message 1 new
>   1 medici            Thu Oct 31 23:59  12/323   Mail To Myself
& p
Message 1:
From medici Thu Oct 31 23:58:59 1985
Return-Path: <medici>
Received: by venus.sun.uucp (3.0/SMI-3.0)
        id AA12623; Thu, 31 Oct 85 23:59:59 PDT
Date: Thu, 31 Oct 85 23:59:59 PDT
From: medici (Cosimo de' Medici)
Message-Id: <8510232235.AA12623@venus.sun.uucp>
To: medici
Status: R

Introspection is a narcissistic pursuit.

& q
"+testmail" complete
venus%
```

When you save a message in a folder, `mail` won't move it automatically into the `mbox` file. However, `mail` notifies you that the mail message is still in the folder by displaying *"foldername"* `complete`, or in the case of this example `"+testmail" complete`.

3.11. Deleting Mail Messages

To delete a mail message, type `d`, for delete, followed by a space character, and the *message number* of the message.

Figure 3-11 *Deleting a Mail Message*

```
venus% mail
Mail version SMI 3.0 Mon Feb 17 00:20:58 PDT 1986  Type ? for help.
"/usr/spoool/mail/medici": 2 messages 2 new
>*  1 medici            Thu Oct 31 23:59  12/323   Mail To Myself
 N  2 MAILER_DAEMON     Fri Nov  1 00:02  26/725   Returned Mail: User un
& d 2
& h
>*  1 medici            Thu Oct 31 23:59  12/323   Mail To Myself
& q
venus%
```

3.12. Summary

In this chapter, you learned how to read mail messages, save them into files and folders, read the messages you saved in files and folders, and delete mail messages.

4

Composing Mail Messages

Composing Mail Messages **29**

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4

Composing Mail Messages

When you want to send a mail message without worrying about mistakes you type in the message text, you can *compose* the message using the `vi` text editor.[8] This chapter describes how to:

- Compose a message using `vi` within the `mail` program
- Carbon copy the message to other users
- Abort a mail message
- Compose a mail message while reading your mail
- Send mail over local networks.[9]

4.1. Composing a Mail Message Using `vi`

To compose a mail message using `vi`, first type a mail message as you learned in the chapter on sending a mail message (Chapter 2). In other words:

- Type `mail`
- Wait for the `Subject:` prompt
- Type the subject of the message
- Type RETURN
- Type any of the message body text you desire

Next start `vi`:

- On a line by itself, type `~v`
- Type RETURN.

The tilde character (`~`) signals `mail` to interpret the following character (`v`) as a command, in this case a command to start up the visual text editor `vi`.

---

[8] For more information about `vi`, see the chapter on editing files in *Getting Started With UNIX: Beginner's Guide.*

[9] For information on sending mail over remote networks, see Chapter 9 .

Figure 4-1 *Starting* `vi` *From Within* `mail`

```
venus% mail wilde
Subject: The Importance of Being Earnest
~v
```

After a moment, the `vi` interactive screen appears, ready for you to edit an empty file located in your `/tmp` directory.

Figure 4-2 *The* `vi` *Interactive Screen and Temporary File*

```
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
"/tmp/Re6374" 0 lines, 0 characters
```

Next, type `i` to insert the message text.[10] Type the message text, followed by [ESC] to tell `vi` that you've entered all of the text. Then, type a colon (`:`) to enter colon mode, followed by `wq` and a carriage return to write, or save, the file, and to quit `vi`.

Figure 4-3 *Entering the Message Text Using* `vi`

```
Ignorance is like a delicate exotic fruit;
touch it and the bloom is gone.
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
:wq
```

[10] The text is from Oscar Wilde's *The Importance of Being Earnest.*

`mail` displays `(continue)` to let you know when it takes over from `vi`. At this point, you can type in more message text, or type CTRL-D to end the message text and send the mail message. Once again, the `^D` symbol on the screen changes to `EOT`, end of text, as `mail` acknowledges your instructions and sends the mail message.

Figure 4-4 *Returning from* `vi` *to* `mail` *and Sending the Mail Message*

```
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
"/tmp/Re6374" 2 lines, 75 characters
(continue)
EOT
venus%
```

You have successfully composed and sent a mail message using `vi` within `mail`.

When you can't remember one of the `mail` commands beginning with the tilde character, type the tilde character followed by a question mark (`~?`) and RETURN to get a list of such commands.

4.2. Adding a Carbon Copy to Someone Else

Before you send your mail message, you can specify that a *carbon copy* of the message go to additional users.

Do so by typing the tilde character (`~`), letter `c`, a space character, and the usernames you want to receive a carbon copy, each separated by a space character. Then send the mail message as usual by typing CTRL-D.

4.3. Aborting a Mail Message

Aborting a mail message from within `vi` isn't all that different from aborting a regular mail message. Quit `vi` to return to `mail` — type

ESC :wq RETURN

then, when you're back in `mail`, type CTRL-C twice in succession.

4.4. Composing a Mail Message While Reading Your Mail

When you want to compose a mail message while reading your mail, starting with the ampersand `mail` prompt (`&`), rather than the command prompt, you can type `m` followed by the *username(s)* of the mail recipient(s) and RETURN.

`mail` responds just like it does when you compose a message starting from the command prompt. So type:

- The message subject to the `Subject:` prompt
- RETURN
- The message text
- CTRL-D to send the message

You'll end up back at the ampersand mail prompt where you can continue to read your mail.

4.5. Sending Mail Messages Over Local Networks

When your local network doesn't include the *yellow pages* facility that automatically determines machine names associated with a username, you must specify the machine name along with the username of the person you are sending a mail message.

Construct a mail address with the *username*, an at-sign (`@`), and the user's *machine name*. For example, to send mail to user `stein` at machine `rose`, type `stein@rose` as the mail address.[11]

Figure 4-5 *Sending Local Network Mail: Mail Address That Includes the Machine Name*

```
venus% mail stein@rose
Subject: Grammar: Part II
Arthur a grammar.
Questionaire in question.
What is a question.
Twenty questions. (Type CTRL-D on next line to end text, send message.)
EOT
venus%
```

[11] The message text in the example is from *How to Write* written by Gertrude Stein between 1927 and 1931.

4.6. Summary

Now you can compose a mail message using `vi` within `mail`. You can produce carbon copies of your mail and compose a mail message while reading your mail. You can abort the mail message when you decide you don't want to send it. And you can send mail on a local network that isn't running the yellow pages.

5

Replying to Mail

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5

Replying to Mail

After you read a mail message, you may want to *reply* to it, to answer questions or make comments. When you reply to the message, you can insert a copy of the message you're answering into your reply message. This chapter tells how.

This chapter also explains how to insert a copy of a file into a mail message.

5.1. Replying to a Mail Message

After reading a mail message, you can reply by typing `reply` *message number* to the `mail` prompt. `r` works as an abbreviation for `reply`.

The example shows how you can read a message, then reply by typing only `r`, for reply. `mail` assumes you're replying to the current message when you don't specify a message number.

`mail` constructs the `To:` and `Subject:` fields automatically from the mail message you're answering. It replies to the sender of the original mail message and precedes a copy of the original subject line with the string `Re:`.

Type CTRL-D on a line by itself to send the mail when you've finished entering the message text.

Figure 5-1 *Replying to a Mail Message*

Note: For the purpose of the examples in this chapter, assume that users `sappho` and `rimbaud` sent the example mail messages. You can generate mail by sending mail to yourself or waiting for a colleague to send you some.

```
venus% mail
Mail version SMI 3.0 Mon Feb 17 00:20:58 PDT 1986  Type ? for help.
"/usr/spoool/mail/medici": 2 messages 2 new
>N  1 sappho@aphrodite   Thu Oct 31 23:59  21/391   Love and Sun
 N  2 rimbaud@verlaine   Fri Nov  1 00:02  16/515   Vagabonds
& p
Message  1:
From sappho@aphrodite Fri Nov  8 13:09:46 1985
Return-Path: <sappho@aphrodite>
Received: by venus.sun.uucp (3.0/SMI-3.0)
        id AA09267; Fri, 8 Nov 85 13:09:36 PST
Date: Fri, 8 Nov 85 13:09:36 PST
From: sappho@aphrodite (Sappho)
Message-Id: <8511082109.AA09267@venus.sun.uucp>
To: medici@venus
Subject: Love and Sun
Status: R

I confess

I love that
which carresses
me. I believe

Love has his
share in the
Sun's brilliance
and virtue

& r
To: sappho@aphrodite
Subject: Re:  Love and Sun

In the words of the popular band Ministry:
"Oo, you got to work for love."
EOT
&
```

As usual, `mail` confirms the end of text of the message with `EOT`, then sends the message.[12]

5.2. Inserting a Copy of a Mail Message

Note: Inserting a copy of a mail message with `~m` *message number* is something like entering `vi` from `mail` by typing `~v`.

To insert a copy of the message to which you are replying within the text of the reply:

- Reply to the message using `reply` *message number*
- Typing the tilde character (`~`) and `m`, for message, and an optional *message number*
- Type RETURN.

[12] The poem is by Sappho.

Even though you can't see the text of the inserted mail message, `mail` inserts the message you specify into the message you are preparing to send. `mail` confirms the operation by displaying the notification `Interpolating:` followed by the message number, and `(continue)` on the next line.

The inserted message appears indented eight characters from the left margin of the message text.[13] This is useful when you want to further edit the message with `vi`, adding pertinent comments right near the appropriate parts of the original message.

End the message text as usual by typing a CTRL-D on a line by itself.

Figure 5-2 *Inserting a Mail Message into Your Reply*

```
...
& r
To: sappho@aphrodite
Subject: Re:  Love and Sun

~m
Interpolating: 1
(continue)
What a beautiful poem, my dear!
EOT
&
```

[13] When you want to insert a message without indentation, use `~f` instead of `~m`.

In this example, user `sappho` receives a message that looks like this:

Figure 5-3 *Inserted Mail Message After Delivery of Reply*

Note: In the example, user `sappho`'s machine name is `aphrodite`.

```
aphrodite% mail
Mail version SMI 3.0 Mon Feb 17 00:20:58 PDT 1986  Type ? for help.
"/usr/spool/mail/sappho": 2 messages 2 new
>N  1 medici             Fri Nov  8 14:13   13/374   Re:  Love and Sun
 N  2 medici             Fri Nov  8 14:14   33/722   Re:  Love and Sun
& 2
Message 2:
Date: Fri, 8 Nov 85 14:14:04 PST
From: medici (Cosimo de' Medici)
Message-Id: <8511082214.AA09430@oscar.sun.uucp>
To: sappho@aphrodite
Subject: Re:  Love and Sun
Status: R

        From sappho@aphrodite Fri Nov  8 13:57:32 1985
        Return-Path: <sappho@aphrodite>
        Received: by venus.sun.uucp (3.0/SMI-3.0)
                id AA09370; Fri, 8 Nov 85 13:57:15 PST
        Date: Fri, 8 Nov 85 13:57:15 PST
        From: sappho@aphrodite (Sappho)
        Message-Id: <8511082157.AA09370@venus.sun.uucp>
        To: medici
        Subject: Love and Sun
        Status: R

        I confess

        I love that
        which carresses
        me. I believe

        Love has his
        share in the
        Sun's brilliance
        and virtue

What a beautiful poem, my dear!
& q
Saved 1 message in /usr/sappho/mbox
aphrodite%
```

5.3. Inserting a Copy of a File

Note: When you're inserting a copy of a file from another directory, use the absolute pathname to specify the filename.

Inserting a copy of a file into a mail message is like inserting a copy of a message into another message. Start to send a mail message, or reply to a mail message as before, only type the tilde character (`~`) and `r` *filename*, followed by [RETURN]. `mail` will insert the file called *filename* into your mail message. Type [CTRL-D] to end the message text and send the message. We continue with user `medici` as he struggles to form a more satisfactory reply to `sappho`:

Figure 5-4 *Inserting a File into a Mail Message*

```
...
& r
To: sappho@aphrodite
Subject: Re:  Love and Sun

~r blank.verse
"blank.verse" 0/0
EOT
Null message body; hope that's ok
& q
Saved 1 message in /usr/medici/mbox
Held 1 message in /usr/spool/mail/medici
venus%
```

When you send a message that doesn't contain any characters in its body, `mail` presents the notification

```
Null message body; hope that's ok
```

while sending the message.

With this method of inserting a file into mail messages, you can insert files into an original message as you compose it, or into messages to which you're replying.

5.4. Summary

You have successfully replied to a mail message, inserted a mail message into another mail message, and inserted a file into a mail message. That covers the basics of the `mail` program.

For more information about `mail`, like how to reply to a message with a copy to all the recipients of the original message, see the `mail` Man Page, online or in the *Commands Reference Manual.*

6

The Window-Based `mailtool`

The Window-Based `mailtool` **45**

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6

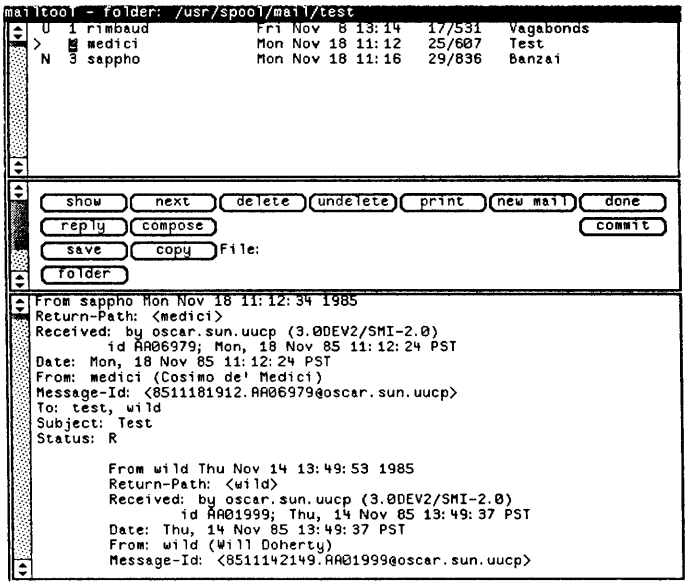
The Window-Based mailtool

mailtool is a window and mouse mail program, so you must run it in within suntools, the SunView window system. mailtool allows you to view, store, compose, and send mail messages. It provides a powerful interface for mail operations, including scrollable windows, a command panel, and most of the features of the text facility.

Although mailtool provides the SunView capabilities, it sends the commands to the mail program through a *pipe*, or software connection, between the two programs.

Read *Windows and Window-Based Tools: Beginner's Guide* for the basics of how to run a window-based tool, before reading this chapter to learn the specifics of mailtool.

Figure 6-1 mailtool



mailtool icon

6.1. `mailtool` Options

`mailtool` accepts all the standard window-based tool options, plus

`-x`	expert mode, don't ask for confirmation of commands
`-i #`	check for new mail every # seconds (default 5 minutes)

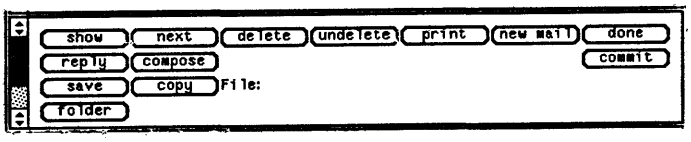
6.2. Selecting a Mail Message

To *select*, or choose, a mail message, *click*, or press and release, the left mouse button anywhere in the header window line that corresponds to that message.

6.3. `mailtool` Buttons

You can execute all of the `mail` operations using `mailtool` in a way you'll probably find easier. For instance, you can select many of the operations by clicking the left mouse button on *command panel* buttons.

Figure 6-2 `mailtool`: *Command Panel Subwindow Buttons*



This list describes briefly the function of each button on the `mailtool` command panel. All buttons except [next] and [undelete] operate on the currently selected message. You have to scroll the command panel to permit access to some of the buttons.

[abort]
Quit the tool without modifying your system mailbox

[cd]
Change to the directory specified in the `Directory:` text item

[cancel]
Abort the message you're composing in the composition subwindow

[commit]
Commit changes to your system mailbox

[compose]
Open the composition subwindow to compose, or forward, a message

[copy]
Copy the selected message to the file or folder specified in the `File:` text item

[deliver]
Send the message you're composing in the composition subwindow

[delete]
Delete the selected message

[done]
Commit changes and close the tool

Note: Don't treat the system mailbox as a folder or you may damage some of your mail. When you want to get new mail, select the [new mail] button.

[folder]
Commit changes and switch to the file or folder specified in the `File:` text item

[new mail]
Commit changes and reread the system mailbox to see new mail

[next]
Show the next message in the message subwindow

[preserve]
Hold the selected message in system mailbox after next commit

[print]
Print the selected message on a hardcopy printer

[quit]
Commit changes and quit the tool

[reply]
Open the composition subwindow to reply to the selected message

[save]
Save the selected message in the file or folder specified in the `File:` text item

[show]
Show the selected message in the message subwindow

[undelete]
Undelete the most recently deleted message(s) — can repeat use

[.mailrc]
Source your `~/.mailrc` file to acquire the current option settings

6.4. Replying, Composing, Replacing, and Folders

[reply] (and [compose]) split the message subwindow; the reply message appears in the bottom portion.[14] Also, [deliver] and [cancel] buttons appear. When you finish editing the reply, press the [deliver] button to hand the message back to `mail` for delivery; the reply subwindow disappears. The [cancel] button cancels the message.

You can replace a message with an edited version of the message. When you edit a message, then press any button, `mailtool` will ask if you want to save the edited message. Click the left mouse button to confirm that you want to replace the message in the folder with the message you edited.

Just as in `mail`, folder names are generally a plus sign (+) followed by the name of the folder, for example `+meetings`.

[14] You can specify the proportions for the split of the message subwindow by setting the `msgpercent` option in the `Mail` category of `defaultsedit`. For more information, see the section on `defaultsedit` in the chapter on other editing tools from *Windows and Window-Based Tools: Beginner's Guide.*

6.5. Text Items

Text items in the command panel are:

`File:` *file/folder name* for [save], [copy], and [folder].
`Directory:` *current directory*

6.6. `mailtool` Menus

One type of menu in the command panel is the *button command menu.*

Button command menus extend the functionality of the button command by providing variations on that command or related commands. Experiment with these menus by pressing the right mouse button while the cursor is over the button.

For instance, pressing the right mouse button on [next] pops up a menu with `next` and `prev` items, so you can decide to view the previous message, instead of the next message.

6.7. Accelerators to `mailtool` Buttons

All command panel button menus have corresponding keyboard accelerators. You can use the [SHIFT] and [CTRL] keys to perform the accelerations.

In general, if a command has an *inverse* function, like reversed direction, use the [SHIFT] key on that button to invoke the inverse operation.[15] Use [CTRL] to *strengthen* a command or invoke a related function.

When a menu has actions corresponding to all four combinations of [SHIFT] and [CTRL], you can accelerate the menu items as follows:

Menu item 1 Click on the button

Menu item 2 Hold [SHIFT] while clicking on the button

Menu item 3 Hold [CTRL] while clicking on the button

Menu item 4 Hold [SHIFT] and [CTRL] when clicking on the button.

With this organization of commands, you can learn the keyboard accelerators quickly by browsing the button menus to discover what additional commands are available.

Note: Remember that folder names are of the form *+folder* and are relative to the directory specified by the `folder` variable.

The other type of command panel menu is the *file menu.* The menu behind the [folder] button shows you all your folders. The menu behind the `File:` text item holds the most recently used file (and folder) names. Selecting a name from these menus replaces the contents of the `File:` item just as if you typed the name. This name is used for the [save], [copy], and [folder] commands. Filenames typed into the `File:` field are relative to the directory specified in the `Directory:` field.

To switch to a folder, select it from one of the file menus or type directly into the `File:` text item, and press the [folder] button.

---

[15] The sense of opposite direction may be modified by the `allowreversescan` specification in a `.mailrc` file located in your home directory; run `defaultsedit`. See *Windows and Window-Based Tools: Beginner's Guide* for more information.

To return to your system mailbox, use the [new mail] button — **do not** use your system mailbox as a folder.

6.8. Variables in the .mailrc File

mailtool interprets several variables in addition to those of *mail*. You can set these variables in your .mailrc file, located in your home directory, using defaultsedit.

allowreversescan
: Allows you to work through your mailbox in the reverse, as well as forward, directions. This will affect which message is *next* – if the sense of direction is *reverse* then the message displayed by [next] is actually the *previous* one.

autoprint
: Display the next message when the current message is deleted or saved

bell
: Number of times to ring the bell when new mail arrives

cmdlines
: Number of lines in command panel

expert
: Sets expert mode — no confirmations required (same as the -x option)

filemenu
: List of files to initialize the File: menu, for example +mbox +trash

filemenusize
: Specifies the maximum size of the File: menu

flash
: Number of times to flash the window or icon when new mail arrives

headerlines
: Number of lines in header subwindow

interval
: Interval in seconds to check for new mail (same as the -i option)

maillines
: Number of lines in mail message subwindow

msgpercent
: Percent of the message subwindow to remain visible during a reply or compose operation

printmail
: The command to use when printing mail — default is lpr -p.

trash
: Name of trash bin (if set to +trash, you can access it like any other folder)

When you've set the trash variable, mailtool moves all deleted messages to the trash bin. You can look at the trash bin as with any other folder by typing its name to the File: item and pressing the [folder] button. You empty the trash bin when you press [done].

You can make your .mailrc file set a variable conditionally, depending on whether it's running within or outside of suntools, the window environment.

The command `if t` tests whether you're running `mail` from a terminal at the time you read the `.mailrc` file. For example, when you insert:

```
if t
else
    set autoprint
    cd
endif
```

into your `.mailrc` file, `mailtool` sets the `mail` variable `autoprint` and changes to your home directory when you start `mailtool` within the window environment.[16]

Caution: Using the `if t` conditional expression in your `.mailrc` also affects the `mail` when used in other ways, as with pipes.

6.9. Reopen Reads New Mail Automatically

If you close `mailtool` with [done], when you reopen it `mailtool` reads your new mail automatically (as if you had selected [new mail] after opening the tool). When you close `mailtool` with the `close` menu item, or one of the accelerators, `mailtool` won't automatically read in new mail.

6.10. Printing Mail with `mailtool`

The [print] button prints the message using the command line you specify with the `printmail` variable.

By default, `printmail` is assigned to `lpr -p` and uses the default printer, as specified by the `PRINTER` environment variable.

6.11. The Trash Bin

You can set the `trash` variable to a file or folder name. When you do so, `mailtool` moves all deleted messages to the "trash bin" file or folder you chose. You can look at the trash bin by typing the name of the trash bin file or folder to the `File:` text item and pressing the [folder] button. The trash bin empties — "taking out the trash" — when you press [done].

[16] For more information on the `.mailrc` file, see the `mail` Man Page, online or in the *Commands Reference Manual.*

6.12. Hoisting the Flag for New Mail

When you get new mail, `mailtool` notifies you that the mail has arrived by displaying `[New Mail]` at the end of the window namestripe. Also, when the `mailtool` is iconic, the little mailbox raises its flag, and a letter appears in its mail slot.

`mailtool` icon — no mail

You can the `flash` and `bell` mail variables for additional notification of the arrival of new mail.[17]

`mailtool` icon — new mail

6.13. Summary

You have learned the basics of `mailtool`. For more information, see the `mailtool` Man Page, online or in the *Commands Reference Manual.*

[17] Use `defaultsedit`, described in the chapter on other editing tools from *Windows and Window-Based Tools: Beginner's Guide.*

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Messages

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7

Messages

This chapter describes messages, so that you can communicate with other users more immediately and interactively than by electronic mail.

There are three kinds of electronic messages:

- Interactive messages with `talk` or `write`
- Broadcast messages with `wall`
- System messages from your machine

7.1. Interactive Messages: `talk`

With the `talk` program, you can converse on your screen with someone else who is either using a terminal on your machine, or using another machine on your local network.

Note: When using the window system, initiate your `talk` message session in the window you want to use for the session. Pick a window that is large enough to contain a fair amount of text.

To start `talk`, type `talk` *username@machine-name* to your command prompt, followed by RETURN. In this example, user `medici` attempts to contact user `michaelangelo`.

Figure 7-1 *Starting a* `talk` *Message Session*

```
venus% talk michaelangelo@david
```

`talk`'s interactive screen appears and `talk` attempts to connect with the other user's machine. Until `talk` connects to the other machine, it displays the notification:

```
[No connection yet]
```

Once connected, `talk` notifies you that it is waiting for the other person to respond:

```
[Waiting for your party to respond]
```

`talk` "rings" the other person again and again, printing a message repeatedly on the screen while waiting for a response. If the other person isn't a user, or

isn't logged at that time, `talk` responds with:

```
[Your party is not logged on]
```

But when `talk` finds the other user, the `talk` interactive screen displays a line to split itself in half like this:

Figure 7-2 `talk`'*s Interactive Screen*

```
[Ringing your party again]
[Ringing your party again]
[Ringing your party again]

_______________________________________________________________
```

To facilitate a connection, `talk` displays a message that includes your username and machine name on the other user's screen. In the case of example username `medici`'s attempt, `talk` displays the following message on user `michaelangelo`'s screen:

Figure 7-3 `talk` *Notifies the Other User*

```
Message from Talk_Daemon@venus at 0:01 ...
talk: connection requested by medici@venus
talk: respond with:  talk medici@venus
```

The other user must respond by typing `talk` followed by the *username* and *machine name* of the person who is attempting to talk. In our example, `michaelangelo` types:

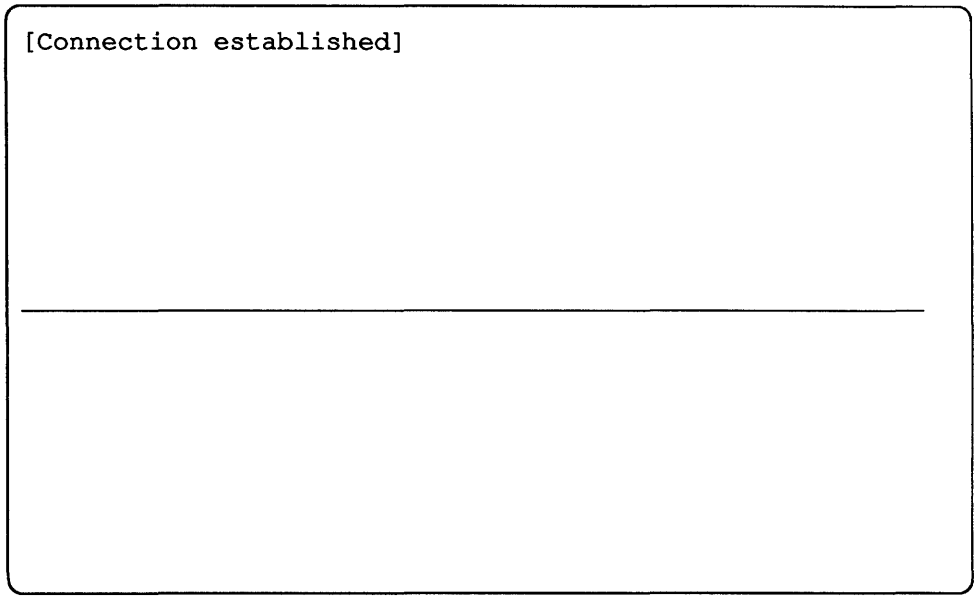
```
talk medici@venus
```

to confirm the `talk` connection with user `medici` on machine `venus`.

If `michaelangelo` is busy, or wants to ignore `medici`, he refuses to answer `medici`'s request, and eventually `medici` gives up, typing [CTRL-C] to exit from the `talk` interactive screen.

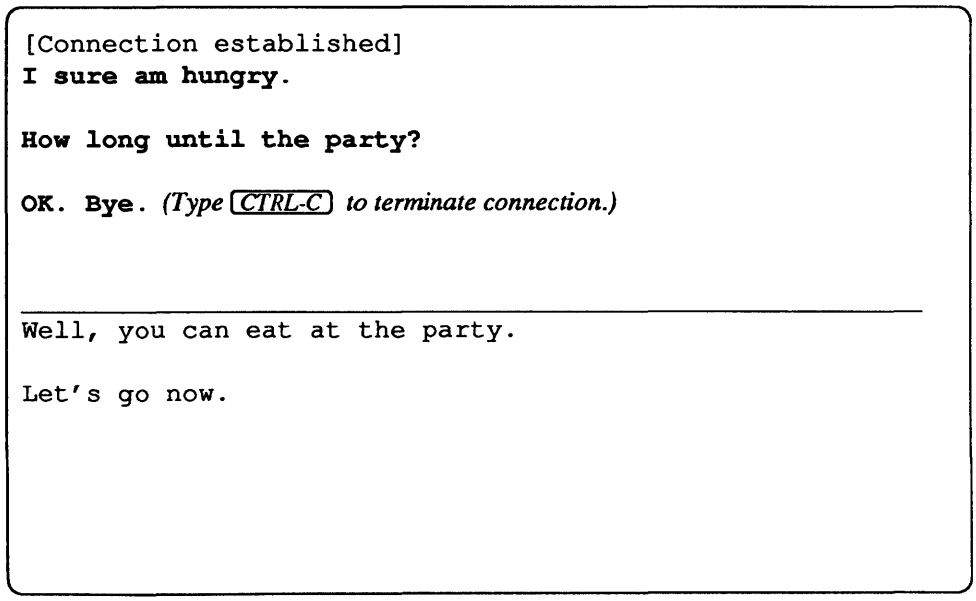
However, if `michaelangelo` successfully responds to `medici`'s request, `talk` establishes a link between the two users.

Figure 7-4 `talk` *Establishes Message Link Between Two Users*



Now, both users can type messages on the screen at the same time without interfering with each other. Both users see the messages they've typed on the upper half of their own screens or windows; the other user's messages appear on the lower half of their screens.

Figure 7-5 *Chatty* `talk` *Screen*



When they have finished typing messages, *either* user types CTRL-C to terminate the `talk` message session.

To prevent `talk` messages from appearing on your screen, add

```
mesg n
```

on a line by itself in your `.login` file before you start a work session.

For more information on `talk`, see the `talk` Man Page, online or in the *Commands Reference Manual.*

7.2. Interactive Messages: `write`

`write` differs from `talk` because `write`:

- doesn't use the entire screen or window
- only reaches users on the same machine or workstation you're sending messages from

One user `writes` a message to the other. Then, the other user can `write` a reply, reply in some other way, or decide not to reply.

To `write` a message to someone using a terminal on your machine, type `write` *username* to the command prompt, followed by RETURN.

In this example, user `medici` decides to `write` some messages to user `sappho`. He types in the text of an introductory message on lines following the `write` command line. To send the introductory message text, type RETURN.

Figure 7-6 *Writing a Message to Another User*

```
venus% write sappho
Do you want to
chat? (Type RETURN to send message text.)
...
```

The message appears on the other user's screen almost immediately afterwards.

`sappho` decides to exchanges messages with `medici`, so she types `write`, followed by his username, RETURN, and her message in reply.

Figure 7-7 `write` *Message Appears on Another User's Screen*

```
venus%
Message from venus!medici on ttyp2 at 1:01 ...
Do you want to
chat?
write medici
Sure, what's up? (Type RETURN on next line to send message text.)
...
```

As you can see, `write` automatically identifies the machine, username, and terminal where the message originated, and the time the message arrived.

The two conversationalists can continue to write messages back and forth, without retyping the `write` command, until they want to stop. Then, *both* users must type CTRL-D on a line by itself to terminate the `write` connection.

Figure 7-8 *Terminating a* `write` *Connection*

```
venus% write sappho
Do you want to
chat?
Message from venus!sappho on ttyp3 at 1:02 ...
Sure, what's up?
Oops, I'm late for an
appointment - gotta
run! (Type CTRL-D on next line to send message, terminate connection.)
venus%
```

`write` displays the end-of-file indicator, `EOF` on the other user's screen (for this example, user `sappho`'s screen) to notify that person that her conversational partner (user `medici`) terminated the connection.

Just as with `talk`, you can prevent `write` messages from appearing on your screen by adding

```
mesg n
```

on a line by itself in your `.login` file before you start a work session.

For more information on `write`, see the `write` Man Page, online or in the *Commands Reference Manual.*

7.3. Broadcast Messages: `wall`

Note: Most users sharing a machine don't appreciate people who send spurious messages to everyone on the machine.

When you want to send a message to everyone on your machine at once, use the `wall`, write to **all**, command. Usually, people broadcast messages only to announce that the machine is going down for maintenance, or for other important messages that affect everyone using the machine.

Type `wall` followed by RETURN. Then, type the text of the message, followed by CTRL-D on a line by itself. The message appears on the screen — in the console window — almost immediately after you send it.

Figure 7-9 *Sending a Broadcast Message Using* `wall`

```
venus% wall
This machine will go down for maintenance at
noon today. (Type CTRL-D on next line to end text, send message.)
^D
Broadcast Message from venus!medici (ttyp4) at 12:00 ...

This machine will go down for maintenance at
noon today.

venus%
```

The same message appears on the screen, or console window, of anyone else who is logged in to that machine.

For more information on `wall`, see the `wall` Man Page, online or in the *Commands Reference Manual.*

7.4. System Messages

System messages are like broadcast messages, only the system generates them automatically to notify you about something that may be important. One common system message is the *message of the day.*

When you log in, you often see two system messages — one about the operating system, the other about new mail — shown here as examples:

Figure 7-10 *Example System Messages*

```
venus login: medici
Password:
Last login: Fri Oct 31 23:59:59 from console
Sun UNIX 4.2 Release 3.0 (DIONE_CLIENT) #1: Fri Feb 14 00:00:01 PST 1986

You have mail.
venus%
```

7.5. Summary

In this chapter, you learned about the four types of electronic messages and how to send some of them. Now, you've covered the basics of both electronic mail and electronic messages.

8

Other Features

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8

Other Features

A variety of commands can help you read and send mail and messages.

8.1. Mail From Whom? The `from` Command

When you want to know whom your mail is from, without reading it using `mail`, type `from` to your command prompt. For each mail message waiting in your mailbox, `from` displays `From` followed by the sender's username, and the date and time it arrived in your mailbox.

Figure 8-1 *Who's My Mail From? The* `from` *Command*

```
venus% from
From sappho@aphrodite Sun Apr 1 8:45:12 1985
From rimbaud@verlaine Sun Apr 1 8:45:22 1985
From michaelangelo@david Sun Apr 1 8:45:45 1985
venus%
```

For more information on `from`, see the `from` Man Page, online or in the *Commands Reference Manual.*

8.2. What's In My Mailbox? The `prmail` Command

When you want to read the mail in your mailbox without using the `mail` program, type `prmail`, for **print mail**, to your command prompt. For each mail message waiting in your mailbox, `prmail` displays all of the headers and the message text.

Figure 8-2 *What's In My Mailbox? The* `prmail` *Command*

```
venus% prmail
From sappho@aphrodite Sun Apr 1 8:45:12 1985
Received: from aphrodite.sun.uucp by venus.sun.uucp (3.0/SMI-3.0)
     id AA00704; Sun, 1 Apr 85 8:45:00 PST
Return-Path: <sappho@aphrodite>
Received: by aphrodite.sun.uucp (3.0/SMI-3.0)
Date: Sun, 1 Apri 85 8:45:00 PST
From: sappho@aphrodite (Sappho)
Message-Id: <8511132115.AA00741@aphrodite.sun.uucp>
To: medici@venus
Subject: Love and Sun

I confess

I love that
which caresses
me. I believe

Love has his
share in the
Sun's brilliance
and virtue
venus%
```

For more information on `prmail`, see the `prmail` Man Page, online or in the *Commands Reference Manual.*

8.3. Who's Logged In On This Machine? `users`, `who`, and `w`

When you want to find out who's logged on to your machine, you can use one of three commands: `users`, `who`, and `w`.

The `users` command displays, in alphabetical order, the username of each person logged in on your machine.

Figure 8-3 *Who's Logged In On This Machine? The* `users` *Command*

```
venus% users
medici rimbaud
venus%
```

The `who` command provides more information than `users` does. For each terminal running on your machine, `who` displays the username, the terminal name, and the date and time you created the terminal *process.*

Figure 8-4 *Who's Logged In On This Machine? The* `who` *Command*

```
venus% who
medici   console Apr 1 8:50
medici   ttyp0   Apr 1 8:51
medici   ttyp1   Apr 1 8:51
rimbaud  ttyp2   Apr 1 9:36   (verlaine)
venus%
```

Note: In the UNIX operating system, *processes* execute commands. For every *terminal*, there must be at least one process executing its commands. The process that supports a terminal may run without any actual piece of hardware — what we usually think of as a terminal — associated with it. Each window on a Sun Workstation counts as a separate terminal.

When a user has logged in to your machine from another machine, the name of that machine appears enclosed within parentheses after the rest of the information `who` displays about them.[18]

The `w` command gives yet more information. First, `w` displays system information, including the current time, how long since the last *reboot* of your machine, the number of terminals running on the machine, and system load information.

Note: People *reboot* their machines when something goes wrong and they want to start the machine from a known point, attempting to correct a minor problem, or to see if anything is seriously wrong.

For each terminal running on your machine, `w` displays the username, the terminal name, the time of terminal login, other system information, and what program that process is running.

Figure 8-5 *Who's Logged In On This Machine? The* `w` *Command*

```
venus% w
  9:43am  up 11:11, 4 users,  load average: 0.76, 0.45, 0.27
User     tty       login@  idle   JCPU   PCPU  what
medici   console   8:50am  3:02   4:40   3:59  clocktool -Wp 120 120
 -Ws 122 55
medici   ttyp0     8:51am     2   5:34   1:14  vi sculptor.list
medici   ttyp1     8:51am 94:14     15     15  date
rimbaud  ttyp2     9:36am     1      5      5  -csh
venus%
```

Note: The line in the figure starting with `-Ws` wrapped around, continuing from the end of the previous line.

For more information on `users`, `who`, and `w`, see the appropriate Man Page, online or in the *Commands Reference Manual.*

8.4. Who's Logged On Other Machines? Using `rsh`

On way to find out who is logged in on other machines within your local network, is to use the `users`, `who`, or `w` command in cooperation with the `rsh`, or remote shell, command.

[18] For more information, see the chapter about login access to other machines in *Using the Network: Beginner's Guide.*

Type `rsh`, followed by the *machine name* and *command* that you want to use. For example, when user `medici` on machine `venus` wants to find out lots of information about the users on machine `rose` (within `medici`'s local network):

Figure 8-6 *Finding Out Who's Logged In On Other Machines:* `rsh`

```
venus% rsh rose w
  9:52am  up 2:36, 5 users,  load average: 0.67, 0.49, 0.33
User     tty       login@  idle   JCPU   PCPU  what
stein    console   8:50am  9:21   3:40   3:92  clocktool -Wp 120 120
 -Ws 122 55
stein    ttyp0     8:51am     2    :43    :14  talk toklas@rose
stein    ttyp1     8:51am 94:14     12     12  date
toklas   ttyp2     9:36am     1     10     10  talk stein@rose
woolf    ttyp3     9:40am  2:15     22     22  vi room
venus%
```

Note: The `rsh` command may take a little while on loaded machines or networks.

Note: The line in the figure starting with `-Ws` wrapped around, continuing from the end of the previous line.

For more information on `rsh`, see *Using the Network: Beginner's Guide* and the `rsh` Man Page, online or in the *Commands Reference Manual.*

That finishes the description of other useful commands associated with mail and messages.

9

Mail Over Networks

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9

Mail Over Networks

This chapter describes remote networks for the purpose of understanding how to send mail across them. To find out about sending mail on your local network, see the chapter on sending mail (Chapter 2) and the section on sending mail over local networks (Section 4.5). For more information about networks in general, see *Using the Network: Beginner's Guide.*

9.1. What Is a Remote Network?

Earlier in this manual, you probably read the description of a remote network as a network that doesn't include, at least directly, the machine of the user to whom you're trying to send mail.

There are many different kinds of networks, each of which has a different syntax for the mail address of messages you want to send to the users on those networks. Some networks aren't connected to your network at all, so it is impossible to send mail messages to people on those networks.

9.2. What Networks Are Out There?

For the most part, you are likely only to encounter people you'd want to send mail to on one of two major networks:

- The UUCP network
- The Defense Data Network, or ARPANET/MILNET

Before attempting to send mail to someone on a remote network, you must find out which network they're on.

The UUCP Network

The UUCP network is a network of machines that extends across the United States and throughout the world. Machines on the UUCP network communicate with each other using UUCP, the UNIX† to UNIX copy program. UUCP enables UNIX machines to call each other up on phone lines to deliver messages.

† UNIX is a trademark of AT&T Bell Laboratories.

Sending Mail to People on the UUCP Network

To send mail to someone on the UUCP network, you must know the *network path*, or sequence of machines the mail message must travel through to get from your machine to the recipient's machine.

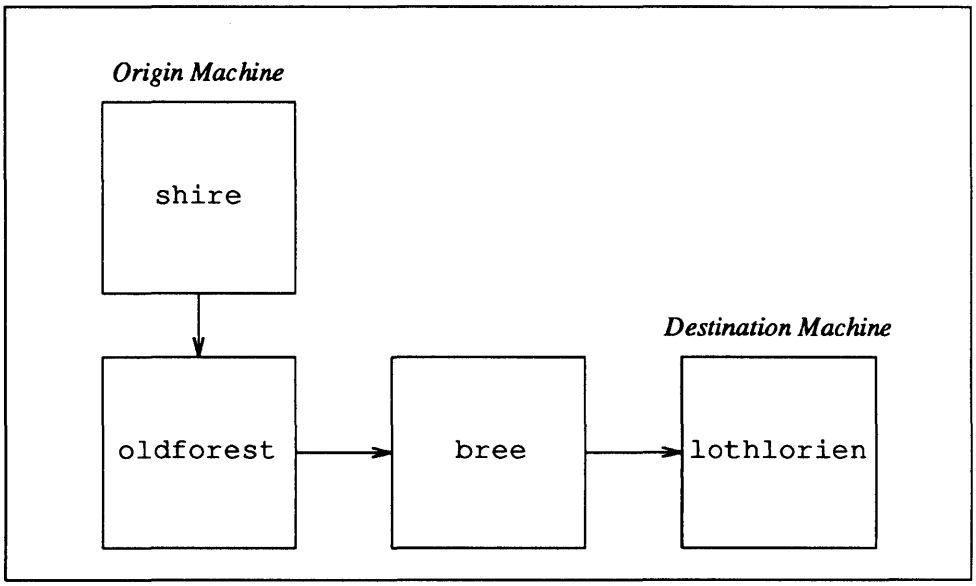
To find out machine name sequences necessary for mail addresses, ask prospective message recipients if they know the appropriate network path. At the least, find out the prospective mail recipient's username and machine name.[19]

You can figure out the prospective recipient's mail address from this sequence of machine names. Pretend to walk along the path between the two machines starting with the first machine in the sequence and separating each *machine name* with an exclamation point (`!`), also called "bang.". Add the recipient's *username* to the end of the address after one last exclamation point.

Note: UUCP mail addresses may get quite lengthy.

For example, to figure out the mail address that user `bilbo` on machine `shire` would use to send mail to user `galadriel` on machine `lothlorien`, walk from `shire` to `lothlorien`.

Figure 9-1 *Sequence of Machines in Network*



The sequence of machine names is: `oldforest`, `bree`, and `lothlorien`. The recipient's username is `galadriel`.[20] So the complete mail address is:

```
oldforest!bree!lothlorien!galadriel
```

[19] When the message recipient doesn't know the appropriate mail address, ask your system administrator, if you have one. The system administrator may know offhand, or may have a map of the network.

[20] These names and places come from J.R.R. Tolkien's *Lord of the Rings*.

Note: Don't add backslashes to mail addresses within the `mail` or `mailtool` programs.

When you specify the mail address on the command line after `mail`, make sure to put a backslash character (\) before each occurrence of an exclamation point (`oldforest\!bree\!lothlorien\!galadriel` to modify the above example), so that the shell interprets the address properly.[21]

You can learn about aliasing a mail address to another character string in the `mail` Man Page, online or in the *Commands Reference Manual.*

How Does Someone Send Mail to Me on the UUCP Network?

When people with accounts on a UUCP machine ask you how they can send mail to you, try to come up with the appropriate network path. Determine your username, your machine name, and other machines you know your machine talks to using UUCP.[22] Determine the other person's username, machine name, and associated machines. Hopefully, you will discover an associated machine in common, so that you can identify a network path between you.

For more information on the UUCP network, see your system administrator, or look in *System Administration for the Sun Workstation.*

The Defense Data Network, or ARPANET/MILNET

The Defense Data Network, or ARPANET/MILNET is a network financed by the Advanced Research Projects Agency of the U.S. Department of Defense. Some of the work that travels across the MILNET portion of the ARPANET/MILNET network is classified information, so access to that portion of the network is controlled.

Sending Mail to People on the Defense Data Network

To send mail to someone on the Defense Data Network, you must find out the username and machine name of the mail recipient, usually by asking the recipient. Unlike the UUCP network, however, you don't need to know the names of all the machines between your's and the recipient's machine. The Defense Data Network takes care of that part automatically.

Construct the mail address by typing the recipient's *username*, followed by an at-sign character (`@`), the recipient's *machine name* and the suffix `.arpa`. So, for Defense Data Network user `spacewar` on machine `mars`, the appropriate mail address is:[23]

```
spacewar@mars.arpa
```

Type the mail address as an argument to `mail` on the command line, then compose and send the mail message as usual.

---

[21] The shell usually interprets exclamation points as part of the history mechanism. Putting a backslash before each exclamation point requires the shell to interpret the exclamation points as regular characters, rather than as special history mechanism characters. See the chapter on timesaving features in *Getting Started With UNIX: Beginner's Guide* for more information about the history mechanism.

[22] See the Man Page, online or in the *Commands Reference Manual*, for the `uuname` and `uupath` commands, if your site supports them.

[23] Soon, with changes in the Defense Data Network, you'll have to find out users' *domains* as well as their host names to send mail. Domains such as `edu` and `com` will replace `arpa`.

How Does Someone Send Mail to Me on the Defense Data Network?

Providing your username and machine name should be sufficient for someone on a Defense Data Network machine to send you mail.[24]

For more information on the Defense Data Network, see *Using the Network: Beginner's Guide*, and the references to ARPANET/MILNET in the `sendmail` configuration guide, located in *System Administration for the Sun Workstation.*

9.3. Summary

You've covered all of the basic material on electronic mail, electronic messages, associated commands, and mail over networks. For further reading, a command summary, and a glossary of terms, look in the appendices.

[24] Sometimes, the situation gets more complex. Contact your system administrator, or look in *System Administration for the Sun Workstation.*

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A

Further Reading

When you want to read more, start with these manuals:

Games, Demos, and Other Pursuits: Beginner's Guide
Doing More With UNIX: Beginner's Guide
Using the Network: Beginner's Guide

Commands Reference Manual
System Administration for the Sun Workstation

B

Command Summary

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B

Command Summary

This is a summary of all commands mentioned in this manual. Each command appears in alphabetical order by name, and includes a syntax diagram, and a brief paragraph describing its function.

The commands appear in one of four sections: `mail` commands, `mailtool` commands, message commands, other useful commands. Portions of commands that appear in **bold** are abbreviations for the command.

B.1. `mail` Commands

`mail`

`mail` [*username*]
`mail -f` *filename* / *foldername*
Start the `mail` program to read mail from the system mailbox or the specified file or folder name or, with *username*, send mail to that user (end message text with CTRL-D).

To the Ampersand `mail` Prompt

`h``eaders`

`h``eaders`
Display numbered mail message list.

message-number

message-number
Display mail message with that number.

`p``rint`

`p``rint` [*message-number*]
Display current mail message, or message with specified number.

`q``uit`

`q``uit`
`Exit mail` program.

`r``eply`

`r``eply` [*message-number*]
Reply to current mail message, or specified mail message.

`s``ave`

`s``ave` [*message-number*] *filename* / *foldername*
Save current mail message, or message with specified number, into specified filename or foldername.

`?`

`?`
For help information.

While Composing a Message

`~m`	`~m` [*message-number*] Insert a copy of the current mail message, or the specified message.
`~r`	`~r` *filename* / *foldername* Insert a copy of the specified file or folder.
`~v`	`~v` Enter `vi` text editor within `mail`.
`~?`	`~?` For help information.

B.2. `mailtool` Commands

`mailtool` Options

The `mailtool` command uses the standard options of window and mouse programs and:

`-i #`	check for new mail every # seconds (default 5 minutes)
`-x`	expert mode, don't ask for confirmation of commands

`mailtool` **Buttons**

`mailtool` command panel buttons are:

[abort]
Quit the tool without modifying your system mailbox

[cd]
Change to the directory specified in the `Directory:` text item

[cancel]
Abort the message you're composing in the composition subwindow

[commit]
Commit changes to your system mailbox

[compose]
Open the composition subwindow to compose, or forward, a message

[copy]
Copy the selected message to the file or folder specified in the `File:` text item

[deliver]
Send the message you're composing in the composition subwindow

[delete]
Delete the selected message

[done]
Commit changes and close the tool

[folder]
Commit changes and switch to the file or folder specified in the `File:` text item

[new mail]
Commit changes and reread the system mailbox to see new mail

[next]
Show the next message in the message subwindow

[preserve]
Hold the selected message in the system mailbox after the next commit

[print]
Print the selected message on a hardcopy printer

[quit]
Commit changes and quit the tool

[reply]
Open the composition subwindow to reply to the selected message

[save]
Save the selected message in the file or folder specified in the `File:` text item

[show]
Show the selected message in the message subwindow

[undelete]
Undelete the most recently deleted message(s) — can repeat use

[.mailrc]
Source your `~/.mailrc` file to acquire the current option settings

In general, [SHIFT] reverses the direction of a button command; [CTRL] strengthens the effect of the button command.

B.3. Message Commands

`talk` — `talk` *username*`[@`*machine name*`]`
Start interactive message session with specified user on local network; if no yellow pages, specify machine name of user too.

`wall` — `wall`
Send broadcast message to everyone on machine. Type message text starting on next line; end with [CTRL-D] on a line by itself.

`write` — `write` *username*
Send message to specified user. Type message text starting on next line; end with [CTRL-D] on a line by itself.

B.4. Other Useful Commands

`from` — `from`
Display addresses of senders of mail messages waiting in your mailbox.

`prmail` — `prmail`
Display mail messages waiting in your mailbox.

`rsh` — `rsh` *machine-name command*
Perform specified command on specified machine, for use in finding out information about who's logged in on other machines in your local network.

`users` — `users`
Display usernames of terminals running on your machine.

`w` — `w`
Display system information, including the current time, how long since last *reboot* of your machine, number of terminals running on the machine, and system load information. Then, display the username, the terminal name, the time of terminal login, other system information, and what program that process is running for each terminal running on your machine.

`who` — `who`
Display usernames, terminal names, and creation dates and times of terminals running on your machine.

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Glossary

This glossary lists mail and message terms in common use, especially in this manual. For commands, see the command summary, Appendix B .

abort a mail message
To decide not to send a mail message and to interrupt the mail sending process.

broadcast message
Message sent to all users on a machine

button
Either:

- One of the three buttons that you can press on a mouse.
- "Software" representations of buttons on a control panel within a window and mouse program like `mailtool`.

click
To press and release a mouse button.

command panel
With `mailtool`, a section of the window that presents the command buttons so you can select them.

compose
Create a mail message using a text editor like `vi`, or the text window of `mailtool`.

console
A terminal, or a special window on the screen, where system messages appear.

current message
The mail message that you last read, or the first mail message that `mail` pulls from your system mailbox when obtaining new mail.

electronic mail
The same as **mail**.

electronic messages
The same as **messages**.

field
One line in a mail message header that begins with a standard designator identifying its purpose.

flag
An indicator that looks like a flag on the `mailtool` icon that raises when you have new mail waiting in your mailbox.

folder
A special kind of file that you can use to store and organize your mail messages.

gateway
A link between two networks.

header
The part of a mail message that contains the information that identifies the message and makes it possible to deliver the message.

icon
A small rectangular window on the screen that identifies a closed, or iconic, window and mouse program.

interactive message
A message that someone can read and respond to while you, the message sender, wait.

local network
A network of machines directly surrounding your machine that may attach through a gateway to remote networks.

mail
Electronic correspondence from one user to another on a computer network.

mailbox
A file that stores your mail until you are ready to read it.

menu
With some window and mouse programs, a selection of possible action choices presented in a rectangular box. You pick items with the mouse.

menu item
One of the possible choices on a menu.

message header
The same as **header**.

message number
The same as **number**.

message status
The same as **status**.

message text
The same as **text**.

messages
Immediate and interactive electronic communication between users on a local computer network, not to be confused with a **mail** message.

network
A group of machines connected together so they can transmit information to one another. There are two kinds of networks: local networks and remote networks.

network path
A series of machine names used to direct mail from one user to another.

new message
A mail message that you have just pulled out of your system mailbox.

number
A mail message characteristic that allows you to choose that message.

old message
A message that you've already read.

pipe
Software connection between two programs.

Postmaster
The username designated to receive notice of messages that the mail facility cannot deliver.

process
The operating system software UNIX uses to execute commands.

remote network
A network that doesn't include, at least directly, a specific machine.

reply
Respond to a message.

ring a party
Try to attract the recipient of a `talk` message's attention by displaying messages on the recipient's screen.

select
Choose, usually by pressing mouse buttons.

shell script
A series of commands run as a program by the shell.

status
New, old, or unread classification of a mail message.

subwindow
One of multiple windows within a window-based tool like `mailtool`.

system message
Messages that the system generates automatically to notify you about something that may be important, such as new mail, message of the day, or login information.

terminal
A process running on a machine that originates with the physical device called a terminal, or as a software representation of such a physical device, like a window.

text
The part of the mail message that contains the communication to the recipient, to be distinguished from the message header.

trash bin
A file in which `mailtool` stores deleted mail messages.

unread message
A mail message that you already pulled from your system mailbox, but have not yet read.

window and mouse program
A program that makes use of SunView, the window system and associated software, so that you can use the mouse to locate and select for items within the tool, all within a window on your screen.

window-based tool
The same as **window and mouse program**.

yellow pages
A directory of usernames and machine names on a local network that provides automatic machine name addressing of mail messages.

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Revision History

Version	Date	Comments
A	17 February 1986	3.0 Release. Rework of **Communications** section of 2.0 Release of the *Beginner's Guide to the Sun Workstation*, and of 2.0 Release of the *Mail User's Guide*.

Notes

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