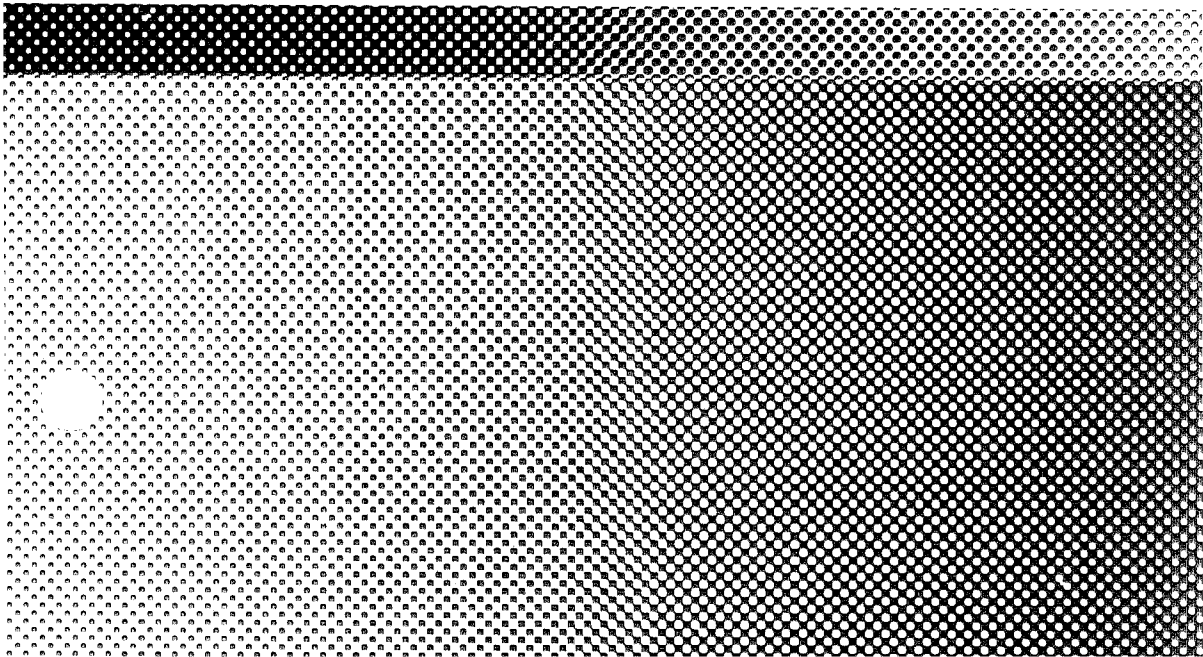


**Replace this
page with the
HELP
tab separator.**



AT&T 3B2 Computer
UNIX™ System V Release 2.0
Help Utilities Guide



CONTENTS

- Chapter 1. INTRODUCTION**
- Chapter 2. HELP MENU**
- Chapter 3. STARTER MODULE**
- Chapter 4. GLOSSARY MODULE**
- Chapter 5. LOCATE MODULE**
- Chapter 6. USAGE MODULE**
- Chapter 7. ADMINISTRATION UTILITIES**

Chapter 1

INTRODUCTION

	PAGE
GENERAL	1-1
FEATURE DESCRIPTION	1-2
HOW COMMANDS ARE DESCRIBED	1-2
GUIDE ORGANIZATION	1-4

Chapter 1

INTRODUCTION

GENERAL

This guide describes command formats (syntax) and use of the Help Utilities provided with your AT&T 3B2 Computer. The commands and procedures described in this guide are for someone who needs help in using the **UNIX*** System. This utilities is an interactive, menu-driven facility that provides information on the UNIX System. There are four major sections or modules in the Help Utilities. These modules will be described in later chapters of this guide.

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FEATURE DESCRIPTION

The Help Utilities is an optional 3B2 Computer add-on feature. It allows you to easily get a variety of information about the UNIX System while on the computer.

Feature highlights include:

1. **Starter Module** - general UNIX System information
2. **Glossary Module** - definitions of UNIX System terms and symbols
3. **Locate Module** - function-related commands
4. **Usage Module** - how to use some UNIX System commands
5. **System Administration Operation.**

HOW COMMANDS ARE DESCRIBED

In the command format discussions, the following symbology and conventions are used to define the command syntax.

- The basic command is shown in bold type. For example: **command** is in bold type
- Arguments that you must supply to the command are shown in a special type. For example: **command** *argument*
- Command options and arguments that do not have to be supplied are enclosed in brackets ([]). For example: **command** [*optional arguments*]

- The pipe symbol (|) is used to separate arguments when one of several forms of an argument can be used for a given argument field. The pipe symbol can be thought of as an exclusive OR function in this context. For example:
command [*argument1* | *argument2*]

In the sample command discussions, the lines that you input are ended with a carriage return. This is shown by using <CR> at the end of the lines.

Refer to the *AT&T 3B2 Computer User Reference Manual* for UNIX System V manual pages supporting the commands described in this guide.

The following conventions are used to show your terminal input and the system output:

This style of type is used to show system generated responses displayed on your screen.

This style of bold type is used to show inputs entered from your keyboard that are displayed on your screen.

These bracket symbols, < > identify inputs from the keyboard that are not displayed on your screen, such as: <CR> carriage return, <CTRL d> control d, <ESC g> escape g, passwords, and tabs.

This style of italic type is used for notes that provide you with additional information.

GUIDE ORGANIZATION

This guide is structured so you can easily find information without having to read the entire text. The remainder of this guide is organized as follows:

- Chapter 2, "HELP MENU," describes the **help** command and the top level menu of the Help Utilities.
- Chapter 3, "STARTER MODULE," describes the **starter** option and its lower level menu screens.
- Chapter 4, "GLOSSARY MODULE," describes the **glossary** option and its lower level menu screens.
- Chapter 5, "LOCATE MODULE," describes the **locate** option and its lower level menu screens.
- Chapter 6, "USAGE MODULE," describes the **usage** option and its lower level menu screens.
- Chapter 7, "ADMINISTRATION UTILITIES," describes the administration commands used to add or change information in the Help Utilities.

Chapter 2

HELP MENU

	PAGE
GENERAL	2-1
HELP UTILITIES TREE	2-2
SETTING UP YOUR TERMINAL	2-3
HELP MENU	2-4
Entering the Help Menu	2-4
Help Menu, Options	2-5
Bypassing the Help Menu	2-6
Illegal Entries	2-6
LOWER LEVEL MODULES	2-7
Module Menus	2-7
Module Contents	2-7

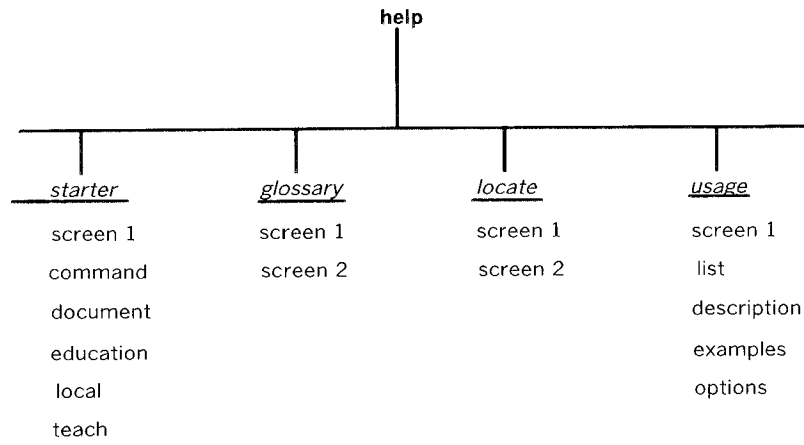
Chapter 2

HELP MENU

GENERAL

This chapter describes the **help** command and the top level menu of the Help Utilities. The top level menu is the *help menu*. There are several menus in the modules of the Help Utilities. In these menus there may be one or several screens of other menus or information. These layers of menus and information screens are connected together and branch out like the branches of a tree.

HELP UTILITIES TREE



SETTING UP YOUR TERMINAL

There are a few things you might have to do for the Help Utilities to work to its full potential with your terminal. Some of the modules have screens that are more than one page long. These screens have options that allow you to move forward and backward, one page at a time. Important information in some screens is also made more noticeable by highlighting words or letters. This highlighting does not show up on all terminals or on terminals that are defined wrong in your **.profile**. The following information will help you to set up your terminal so that it will work as well as it can with the Help Utilities.

If the **TERM** variable is not set in your **.profile** file, the default terminal will be a 450 hard-copy terminal. You must set the **TERM** variable if your terminal is not a 450 hard-copy terminal. All the functions of help will not be available if your **TERM** variable is set wrong or not set at all. For instance, the paging back and forth of some screens will not be available on some terminals. The paging options **n** and **b** are available in some of the screens that are more than one page long. The help facility also requires that the tabs are set on your terminal. If the tabs are not set, the data displayed may look like garbage.

The **SCROLL** variable may also be set in your **.profile** according to your preference. The default for **SCROLL** is **yes** (**SCROLL = yes**). If the **SCROLL** variable is set to **no** (**SCROLL = no**) and then exported, the screen will be cleared before printing the next screen of data. If you want the screen to scroll, you must set **SCROLL = yes** and then export **SCROLL**, or you can simply delete the **SCROLL** variable from your **.profile**. You should also delete the exporting of **SCROLL** if you delete the variable **SCROLL**. The lines that should be in your **.profile** are shown below:

```
SCROLL=yes
export SCROLL
```

or

```
SCROLL=no
export SCROLL
```

Option	Description
s	Enters starter screen 1
l	Enters locate screen 1
u	Enters usage screen 1
g	Enters glossary screen 1
q	Quits and exits to shell.

Bypassing the Help Menu

There may be several steps in the process of reaching the information for which you are searching. You may skip the step of entering the help menu once you become familiar with the lower level modules. For example, if you want to enter the starter screen 1, you can skip the help screen by entering:

```
help starter<CR>
```

or you can enter:

```
starter<CR>
```

Illegal Entries

Error messages are sometimes printed when you enter an unknown or illegal character while in any menu of the Help Utilities. The Help Utilities is an interactive system and will tell you when you make certain mistakes. If an illegal character is entered while in a menu, the following error message is printed.

```
_ is an invalid choice. Enter a choice shown above.  
Enter choice > _
```

Now you may enter a legal choice.

LOWER LEVEL MODULES

There are four lower level modules each with a set of menus with options for selecting various other menus or information. The information in these modules will be described later.

Module Menus

These menus are interactive, which means the computer will prompt you with a list of choices. Then, you must decide what to do. If a mistake is made, the computer will print an error message and allow you to make another choice. In this way, the computer will teach you how to use the Help Utilities.

Note: The **h** (help) option of the lower level module screens is only available if you enter that module from the help menu.

Module Contents

- **Starter Module** - contains general information on the UNIX System and information for beginners.
- **Glossary Module** - contains a list of terms and symbols and the definitions of those terms and symbols.

- **Locate Module** - is a means of identifying UNIX System commands by their function.
- **Usage Module** - contains information about specific UNIX System commands with descriptions, options, and examples demonstrating some typical uses.

Chapter 3

STARTER MODULE

	PAGE
GENERAL	3-1
STARTER MODULE SCREENS	3-2
Entering Starter Screen 1	3-2
Starter Screen 1 Options	3-3
Entering Starter Command Screen	3-3
Starter Command Screen Options	3-3
Entering Starter Documents Screen	3-5
Starter Documents Screen Options	3-5
Entering Starter Education Screen	3-6
Starter Education Screen Options	3-6
Entering Starter Local Screen	3-7
Starter Local Screen Options	3-7
Entering Starter Teach Screen	3-8
Starter Teach Screen Options	3-8

Chapter 3

STARTER MODULE

GENERAL

This chapter describes the **starter** module and its lower level screens. These screens contain general information for beginners. There are six screens in the starter module, each with its own options. All these options require only a single-character entry followed by a carriage return for the operation to start.

STARTER MODULE SCREENS

The *starter module* contains the following:

- **Command screen** - lists some of the basic commands and terms for a beginner to learn.
- **Document screen** - is a list of important basic UNIX System documents.
- **Education screen** - is a list of training centers for UNIX System courses, including addresses.
- **Local screen** - lists the name, location, and telephone number of your local system administrator.
- **Teach screen** - lists information about available on-line teaching aids.

Entering Starter Screen 1

The *starter screen 1* can be entered from the help menu as explained in Chapter 2. You can also enter the starter screen directly from the shell command level. Whether you enter directly from the shell or from the help menu, you will be put in starter screen 1. From there you can choose an option for one of the other starter screens. Each screen of the starter module can be entered from the starter screen 1 by using the appropriate option.

The *starter screen 1* menu entry methods are shown below:

To enter, type: **help**<CR> then enter option **s**<CR>
or type: **help starter**<CR>
or type: **starter**<CR>

Starter Screen 1 Options

The options of the *starter screen 1 menu* are shown below:

Options	Description
h (help)	Returns to help screen 1
q (quit)	Quits and exits to shell
c (command)	Displays command screen
d (document)	Displays document screen
e (education)	Displays education screen
l (local)	Displays local screen
t (teach)	Displays teach screen.

Entering Starter Command Screen

The *starter command screen* is entered from starter screen 1. The *starter command screen* menu entry method is shown below:

To enter, type: **c**<CR>

Starter Command Screen Options

The options of the *starter command menu* are shown below:

Options	Descriptions
h (help)	Returns to help screen 1
q (quit)	Quits and exits to shell
s (starter)	Returns to starter screen 1.

Below is an example of the *starter command* screen:

```
Commands & Terms to learn first

The most basic UNIX System commands and terms are listed here.
New system users should master these commands and understand the
meaning of these technical terms before going on to anything else.

      Command                               Technical Terms
-----
cat      ed      mv      command      password
cd       grep    pwd     directory   pathname
chmod    ls       rm      file        program
cp       mail     who     file system  shell
date     mkdir

for command information:                    for definitions:
1. enter: q to quit                          1. enter: q to quit
2. type: usage cmd_name,                    2. type: glossary tech_term
where cmd_name=a command name              where tech_term=a term from the list

-----
Choices:  s (restart starter),  h (restart help),  q (quit)
-----
Enter choice > _
```

You can use the commands and terms in this screen to get familiar with using the Help Utilities and learn the commands and terms at the same time.

Entering Starter Documents Screen

The *starter documents screen* is entered from starter screen 1. The *starter documents screen* menu entry method is shown below:

To enter, type: **d**<CR>

Starter Documents Screen Options

The options of the *starter documents menu* are shown below:

Options	Description
h (help)	Returns to help screen 1
q (quit)	Quits and exits to shell
s (starter)	Returns to starter screen 1.

The following is an example of a few of the documents listed in the documents screen:

- Basics for UNIX System Users
- Using the File System
- Screen Editor (vi) Tutorial
- Shell Tutorial
- File System Hierarchy/Pathnames
- Text Formatters Reference.

Entering Starter Education Screen

The *starter education screen* is entered from starter screen 1. The *starter education screen* menu entry method is shown below:

To enter, type: **e**<CR>

Starter Education Screen Options

The options of the *starter education menu* are shown below:

Options	Description
h (help)	Returns to help screen 1
q (quit)	Quits and exits to shell
s (starter)	Returns to starter screen 1.

The following is an example of how information about a training center is listed in the education screen.

Name:	AT&T Technologies Dublin Training Center
Location:	Dublin OH
Information:	Call: 800-TRAINER
Audience:	AT&T personnel and commercial customers

Entering Starter Local Screen

The *starter local screen* is entered from starter screen 1. The *starter local screen* menu entry method is shown below:

To enter, type: I<CR>

Starter Local Screen Options

The options of the *starter local menu* are shown below:

Options	Description
h (help)	Returns to help screen 1
q (quit)	Quits and exits to shell
s (starter)	Returns to starter screen 1.

Below is an example of the type of information found in the local screen:

Local System Information:

The following is an example of information for your system that is to be supplied by your system administrator:

SYSTEM ADMINISTRATOR: Chip Logic
PHONE NUMBER: 555-8669
SYSTEM NAME: 3B2
PROCESSOR TYPE: WE3200

Choices: s (restart starter), h (restart help), q (quit)

Enter choice > _

Entering Starter Teach Screen

The *starter teach screen* is entered from starter screen 1. The *starter teach screen* menu entry method is shown below:

To enter, type: **t**<CR>

Starter Teach Screen Options

The options of the *starter teach menu* are shown below:

Options	Description
h (help)	Returns to help screen 1
q (quit)	Quits and exits to shell
s (starter)	Returns to starter screen 1.

Below is an example of the teach screen:

```
Teaching Aids Available On-Line

Name:      UNIX Instructional Workbench

Description: Programs for computer-aided instruction.

Courses:   1. Fundamentals of the UNIX System
           2. Advanced Use of the UNIX System Text Editor
           3. UNIX System Memorandum Macros
           4. Table Processing (tbl) Using the UNIX System

Ordering:  Order UNIX System Instructional Workbench through your
           AT&T Technologies Regional Representative (AT&T
           affiliates) or by contacting AT&T Technologies
           Licensing at (919) 697-6930 (commercial customers).

Choices:   s(restart starter), q(quit), h(help)
```


Chapter 4

GLOSSARY MODULE

	PAGE
GENERAL	4-1
GLOSSARY MODULE SCREENS	4-1
Entering Glossary Screen 1 (Terms)	4-2
Glossary Screen 1 Options	4-2
Entering Glossary Screen 2 (Definitions)	4-4
Glossary Screen 2 Options	4-4

Chapter 4

GLOSSARY MODULE

GENERAL

This chapter describes the **glossary** module and its lower level screens. There are two screens of the glossary module, each with its own options. Most of these options require only a single character entry followed by a carriage return for the operation to start. The option *UNIX term* is the only exception.

GLOSSARY MODULE SCREENS

The *glossary module* contains the following:

- **Glossary screen 1** - A list of *UNIX terms* that are defined in *glossary screen 2*.
- **Glossary screen 2** - The definition of the terms listed in *glossary screen 1*.

Entering Glossary Screen 1 (Terms)

The *glossary screen 1* can be entered from the help menu as explained in Chapter 2. You can also enter the glossary screen directly from the shell command level. If you enter from the shell, you can go directly to glossary screen 2 by entering a *UNIX term* as the last argument on the command line. If you leave off the *UNIX term* argument you will be put in glossary screen 1. From there you can choose an option for one of the other glossary screens.

UNIX term can be a word or phrase special to the UNIX System (file, shell, link, or mode). The term is entered at the bottom of glossary screen 1; then, glossary screen 2 is automatically entered, and the definition is printed on the screen.

The *glossary screen 1* menu entry methods are shown below:

To enter, type: **help**<CR> then enter option **g**<CR>
or type: **help glossary**<CR>
or type: **glossary**<CR>

Glossary Screen 1 Options

The options of the *glossary screen 1 menu* are shown below.

Option	Description
h (help)	Returns to help screen 1 (if you entered from the help menu)
q (quit)	Quits and exits to shell
n (next)	Goes to next page
b (back)	Goes back one page
<i>UNIX term</i>	Goes to glossary screen 2 and displays definition of the <i>UNIX term</i> entered.

Below are a few of the terms listed in glossary screen 1:

#	\$
*	&
HOME	UNIX
block	command line
field	file
group	link
login	mode
owner	pathname
pipe	prompt
root	root directory
shell	string
user ID	white space

Entering Glossary Screen 2 (Definitions)

The *glossary screen 2* menu entry methods are shown below:

To enter, type: **help glossary** *UNIX term*<CR>
or type: **glossary** *UNIX term*<CR>
or type: **UNIX term**<CR> (from glossary screen 1)

Glossary Screen 2 Options

The options of the *glossary screen 2 menu* are shown below:

Option	Description
h (help)	Returns to help screen 1 (if you entered from the help menu)
q (quit)	Quits and exits to shell
g (glossary)	Returns to glossary screen 1.
n (next)	Goes to next page
b (back)	Goes back one page.

Below is an example of a description found in glossary screen 2. The definition shown is for the terms **root** or **root directory**.

root : root directory

The root directory is the base of the tree structure of the file system of a UNIX System. It is represented as a slash (/) at the beginning of every "full pathname".

* defined in the glossary

Choices: UNIX_term (from list), g (restart glossary) q (quit)

Enter choice > _

Chapter 5

LOCATE MODULE

	PAGE
GENERAL	5-1
LOCATE MODULE SCREENS	5-1
Entering Locate Screen 1	5-2
Locate Screen 1 Options	5-2
Entering Locate Screen 2	5-3
Locate Screen 2 Options	5-3
LOCATE EXAMPLE	5-4

Chapter 5

LOCATE MODULE

GENERAL

This chapter describes the **locate** module and its lower level screens. There are two screens in the locate module, each with its own options. All these options require only a single-character entry followed by a carriage return for the operation to start.

LOCATE MODULE SCREENS

The *locate module* contains the following:

- **Locate screen 1** - A description of **locate**, and a list of related commands for each *keyword* with a short example of how the function-related keywords are used.
- **Locate screen 2** - A description of related commands.

A *keyword* is a word (not a command) that is related to a group of commands through its function. **Print** is a word that can be related by function to such commands as: **pr**, **ls**, or **cat**. So, if you need to know what command will do a function (such as: hunt for an item), you enter that word (**hunt**). All the commands that do a similar or related function to **hunt** will be listed on the screen. You can then choose the command that will best suit your needs. If you need more information on **hunt** or other commands, you may enter the **usage** screen or reference the *AT&T 3B2 Computer User Reference Manual*.

Entering Locate Screen 1

The *locate screen 1* menu entry methods are shown below:

To enter, type: **help**<CR> then enter option **l**<CR>
or type: **help locate**<CR>
or type: **locate**<CR>

Locate Screen 1 Options

The options of the *locate screen 1 menu* are shown below:

Options	Descriptions
h (help)	Returns to help screen 1
q (quit)	Quits and exits to shell
k (<i>keyword</i>)	Goes to locate screen 2 (Enter <i>keyword(s)</i> after new prompt).

Entering Locate Screen 2

The *locate screen 2* menu entry methods are shown below:

To enter, type: **help locate** *keyword(s)*<CR>
or type: **locate** *keyword(s)*<CR>
or type: **k**<CR> (from locate screen 1)

Locate Screen 2 Options

The options of the *locate screen 2 menu* are shown below:

Options	Descriptions
h (help)	Returns to help screen 1
q (quit)	Quits and exits to shell
k (<i>keyword</i>)	Enter <i>keyword(s)</i> after new prompt (displays commands found using the keyword entered)
c (command)	Enter <i>command name</i> , then enter option [d, e, o] (links to usage screens) d displays the usage description screen e displays the usage examples screen o displays the usage option screen
n (next)	Goes to next page (on some terminals)
b (back)	Goes back one page (on some terminals).

Note: The **c** option goes to the Usage Module and the appropriate screen.

LOCATE EXAMPLE

Below is an example of the locate screen:

```
locate: Find UNIX System Commands with keywords

Give locate a list of one or more keywords related to the work
you want to do. It will print a list of UNIX System
commands whose actions are related to the keywords.
For example, the keyword list:

print file could produce the list:  The cat (concatenate) command
                                     The ls (list) command
                                     The pr (print) command

To use locate, enter a k. When the "Enter keywords" prompt
appears, enter the keywords on one line, separated by blank spaces.

  choices  description
    k      Enter a list of keywords
    q      Quit

Enter choice > _
```

If you enter a **k** as the choice above, the following prompt will be displayed:

```
Enter keyword(s) >
```

If you enter **print** as the keyword at the keyword prompt in locate screen 1, the following would be displayed in locate screen 2:

```
The cat (concatenate) command
The echo command
The ls (list) command
The pr (print) command
The pwd (print working directory) command
The tail command
```

```
Choices:  c (cmd info),  k (new keywords),  q (quit)
```

```
Enter choice >
```


Chapter 6

USAGE MODULE

	PAGE
GENERAL	6-1
USAGE MODULE SCREENS	6-2
Entering Usage Screen 1	6-2
Usage Screen 1 Options	6-3
Entering Usage List Screen	6-3
Usage List Screen Options	6-4
Entering Usage Description Screen	6-4
Usage Description Screen Options	6-5
Entering Usage Example Screen	6-5
Usage Example Screen Options	6-6
Entering Usage Options Screen	6-7
Usage Options Screen Options	6-8
USAGE MODULE EXAMPLES	6-9
Usage Screen 1 Example	6-9
Usage List Screen Example	6-10
Usage Description Screen Example	6-11
Usage Examples Screen Example	6-12
Usage Options Screen Example	6-13

Chapter 6

USAGE MODULE

GENERAL

This chapter describes the **usage** module and its lower level screens. There are five screens in the usage module, each with its own options. All these options require only a single-character entry followed by a carriage return for the operation to start.

USAGE MODULE SCREENS

The *usage module* contains the following:

- **Usage Screen 1** - A menu of the possible options.
- **Usage Command List Screen** - A list of all UNIX System commands supported by the Help Utilities.
- **Usage Command Description Screen** - A description of the commands listed in the command list screen.
- **Usage Command Examples Screen** - Examples of how to use each of the commands listed.
- **Usage Command Options Screen** - All the available options for each of the commands listed.

Entering Usage Screen 1

The **usage** module is used to get information on specific commands. Once you enter usage screen 1, you may print out a list of supported commands or get information on a specific command. To get information on a command, just choose option **c** and enter the command after the second prompt. You must then choose what type of information you want. You can get a description, an example, or possible options of the command. After you enter this choice, you will be allowed to make one of several choices.

The *usage screen 1* menu entry methods are shown below:

To enter, type: **help**<CR> then enter option **u**<CR>
or type: **help usage**<CR>
or type: **usage**<CR>

Usage Screen 1 Options

The options of the *usage screen 1 menu* are shown below:

Options	Description
h (help)	Returns to help screen 1
q (quit)	Quits and exits to shell
p (print)	Prints usage list screen command list
c (command)	Enter <i>command name</i> , then enter option [d, e, o] d displays the description screen e displays the examples screen o displays the option screen.

Entering Usage List Screen

The *usage list screen* menu entry method is shown below:

To enter, type: **up**<CR> (at usage screen 1)

Usage List Screen Options

The options of the *usage list screen 1 menu* are shown below:

Options	Description
h (help)	Returns to help screen 1
q (quit)	Quits and exits to shell
c (command)	Enter <i>command name</i> , then enter option [d, e, o] d displays the description screen e displays the examples screen o displays the option screen.

Entering Usage Description Screen

The *usage description screen* menu entry methods are shown below:

To enter, type: **help usage** *command name*<CR>
or type: **usage** *command name*<CR>
or type: **d**<CR> from usage examples screen
or type: **d**<CR> from usage options screen

You may also enter the description screen from other screens. After entering **c** as the choice in the appropriate screen, you must enter a **command name**. You may then enter the description screen by choosing the **d** option when you are asked to enter a choice. The following methods show how to enter from each of the other screens.

To enter, type: **d**<CR> from usage screen 1
or type: **d**<CR> from usage list screen
or type: **d**<CR> from locate screen 2

Usage Description Screen Options

The options of the *usage description screen menu* are shown below:

Options	Description
h (help)	Returns to help screen 1
q (quit)	Quits and exits to shell
p (print)	Prints usage list screen
c (command)	Enter <i>command name</i> , then enter option [e, o] e displays the examples screen o displays the option screen
e (example)	Displays example screen
o (option)	Displays option screen
l (locate)	Returns to the locate command list (if you entered usage from the locate module).

Entering Usage Example Screen

The *usage example screen* menu entry methods are shown below:

To enter, type: **help usage -e command name**<CR>
or type: **usage -e command name**<CR>
or type: **e**<CR> from usage description screen
or type: **e**<CR> from usage options screen

You may also enter the example screen from other screens. After entering **c** as the choice in the appropriate screen, you must enter a **command name**. You may then enter the example screen by choosing the **e** option when you are asked to enter a choice.

The following methods show how to enter from each of the other screens:

To enter, type: **e**<*CR*> from usage screen 1
or type: **e**<*CR*> from usage list screen
or type: **e**<*CR*> from locate screen 2

Usage Example Screen Options

The options of the *usage example screen menu* are shown below:

Options	Description
h (help)	Returns to help screen 1
q (quit)	Quits and exits to shell
p (print)	Prints usage list screen
c (command)	Enter <i>command name</i> , then enter option [d, o] d displays the description screen o displays the option screen
d (description)	Displays description screen
o (option)	Displays option screen
l (locate)	Returns to the locate command list (if you entered usage from the locate module).

Entering Usage Options Screen

The *usage options screen* menu entry methods are shown below:

To enter, type: **help usage -o** *command name*<CR>
or type: **usage -o** *command name*<CR>
or type: **o**<CR> from description screen
or type: **o**<CR> from example screen

You may also enter the options screen from other screens. After entering **c** as the choice in the appropriate screen, you must enter a **command name**. You may then enter the options screen by choosing the **o** option when you are asked to enter a choice. The following methods show how to enter from each of the other screens:

To enter, type: **o**<CR> from usage screen 1
or type: **o**<CR> from usage list screen
or type: **o**<CR> from locate screen 2

Usage Options Screen Options

The options of the *usage options screen menu* are shown below:

Options	Description
h (help)	Returns to help screen 1
q (quit)	Quits and exits to shell
p (print)	Prints usage list screen
c (command)	Enter <i>command name</i> , then enter option [d, e] d displays the description screen e displays the examples screen
d (description)	Displays description screen
e (example)	Displays example screen
l (locate)	Returns to locate command list (if you entered usage from the locate module)
n (next)	Goes to next page
b (back)	Goes back one page.

USAGE MODULE EXAMPLES

The following examples may not be an exact copy of the data contained in your help database. Because, the local administrator may add, change, or delete information in the database. The content of individual screens may be different from what is shown here.

Usage Screen 1 Example

Below is an example of **usage screen 1**

```
usage: Information about Commands

usage provides information about specific UNIX System commands.
Enter one choice below to proceed.

      choices      Description
      -----      -
      c             Obtain usage information for a command
      p             Print a list of commands
      q             Quit
Enter choice > _
```

Usage List Screen Example

The following is an example of the **usage list screen**

```
usage: Information about Commands

The following commands are currently included in help:

cat    cd      chmod  cp      cut      date
echo   egrep  fgrep  file    find     glossary
grep   help   ln     locate  ls       mail
msg    mkdir  mv     news    pr       ps
pwd    rm     sleep  sort    starter  stty
tabs   tail   tee    time    touch    tty
uname  usage  wall   wc      who      write

-----
Choices:  c (enter cmd),  q (quit)
-----
Enter choice > _
```

If you enter a **c** as the choice above, the following prompt will be displayed:

```
-----
Enter command name > _
```

After you enter a *command name* (cmd_name) at the prompt above, the following prompt will be displayed:

```
-----
Enter d (description),  e (examples), or  o (options) > _
```

After entering an option at the prompt above, the chosen screen will be displayed.

Usage Description Screen Example

Below is an example of the **usage description** screen for the **cat** command:

```
cat
Syntax Summary:  cat [-u] [-s] [-v [-t] [-e] ] file_name ...
                where:
                    file_names are simple file names, relative
                    pathnames, or full pathnames.
Description:
    cat is shorthand for "concatenate."  It prints the
    contents of the file[s] specified as its argument[s].
    If more than one file is specified, cat will print
    each one in sequence on the standard output.
    See also:  cp(1), pg(1), pr(1).
-----
Choices:  o(options),  e(examples),  c(enter cmd),  p(print list),
          q(quit)
-----
Enter choice > _
```

You may now enter a choice, and the appropriate screen will be displayed (unless you enter a **q**).

Usage Examples Screen Example

If you enter an **e** as the option at the prompt in the **cat description** screen, the following **cat examples** screen will be displayed:

```
cat : Examples

          cat textfile
--> Prints, on the standard output, the contents of the
    file textfile in the current working directory.

          cat /etc/passwd /etc/group > groupfile
--> Prints the contents of /etc/passwd and then the contents
    of /etc/group and redirects the output to the file groupfile.

          cat /usr/src/cmd/* | grep stdio.h
--> Prints the lines that contain the pattern stdio.h from
    the files in the directory /usr/src/cmd.
```

Choices: o(options), d(description), c(enter cmd), p(print list),
q(quit)

Enter choice > _

Usage Options Screen Example

If you enter an **o** as the option at the prompt in the **cat examples** screen, the following **cat options** screen will be displayed:

```
cat : Options

-u          output is not placed in temporary storage before
           printing (unbuffered)
-s          suppresses messages about non-existent files
-v          causes non-printed characters to be printed (except tabs,
           newlines and form-feeds) (e.g. ^G is printed for the bell
           character)
-t          causes tabs to be printed as ^I (used only with -v)
-e          causes a $ character to be printed at the end of
           each line (used only with -v)
```

Choices: e(examples), d(description), c(enter cmd), p(print list),
q(quit)

Enter choice > _

Chapter 7

ADMINISTRATION UTILITIES

	PAGE
GENERAL	7-1
Entering the 'helpadm' Menu	7-1
'helpadm' Menu	7-2
CHANGING THE HELP DATABASE	7-3
Changing Starter Information	7-3
Example of Changing Starter Data	7-4
Changing Glossary Information	7-6
Modifying Command Information	7-10
Monitoring the Use of Help	7-17
RECOMMENDATIONS FOR FORMATTING DATA	7-19
General Rules for All Types of Help Screens	7-19
Guidelines for Glossary Screens	7-19
Guidelines for Description Screens	7-20
Guidelines for Options Screens	7-21
Guidelines for Examples Screens	7-22

Chapter 7

ADMINISTRATION UTILITIES

GENERAL

The Help Administration Utilities are interactive tools used by UNIX System administrators. The Administration Utilities enable administrators to add, change, or delete information in the Help database. The ability to monitor the use of the Help Utilities is also allowed for users with **root** or **bin** as a login.

Entering the 'helpadm' Menu

To use the **helpadm** command and change help data, you must be logged in as **root**, **bin**, or you must be a member of the group **bin** login. If anyone else tries to change help data, an error message is printed at their terminal, and they will be returned to the shell from which they entered the **Helpadm** utilities. The **helpadm** menu of options can be displayed by doing the following:

To enter, type: **helpadm**<CR>

'helpadm' Menu

The options of the **helpadm** menu are listed below:

Options	Description
1	To make changes to data in the starter module (only root logins may change starter data)
2	To make changes to data in the glossary module (only root or bin logins may change starter data)
3	To make changes to description, examples, options, and keyword data of the locate and usage modules (only root or bin logins may change starter data)
4	To stop monitoring the use of help (may be set by root or bin logins only)
5	To start monitoring the use of help (may be set by root or bin logins only)
q	Quits and exits helpadm menu, and returns you to the shell command level.

After entering the **helpadm** menu and selecting an option, you will be allowed to make the chosen action. The possible actions allowed in each menu and how to make those actions are described next.

CHANGING THE HELP DATABASE

There are three areas that you may enter, to make changes to the database. The three areas are:

- Starter
- Glossary
- Command information.

Only one person may change data in any one area at a time. If more than one person tries to change data in an area, a message is printed at the second or later person's terminal and they will be returned to the shell. If this happens, you should try to make your changes at another time.

Note: The default editor for editing the help database is the **ed** editor.

Changing Starter Information

After you enter the starter database, a menu of the starter screen is displayed at your terminal. A prompt is printed at the bottom of the screen requesting you to enter your choice of screens. After you respond, you are placed in the editor specified by the EDITOR shell variable in your **.profile**. The default editor is **ed**. However, you may change the editor that you default to by defining the EDITOR shell variable in your **.profile** and then exporting it. You must be logged in as **root** to change information in the starter database.

Exiting the Editor

When you have finished editing the data in a screen, you will be asked if you are satisfied with the screen you have changed. If you are not satisfied, you can re-edit the screen. When you have responded that you are satisfied with the screen, you are asked if you want the changes entered into the database. To have the changes entered, you must

respond by typing **y** for yes. If you do not type **y**, the database remains unchanged. This prompting sequence is used for most of the screens when exiting the edit mode.

Example of Changing Starter Data

The following is an example of how to change data in the starter database. To begin, enter:

helpadm<CR>

After entering **helpadm**, the first helpadm menu will be displayed. The **helpadm** menu is shown below:

```
helpadm: UNIX System On-Line help Administrative Utilities
These software tools will enable the administrator to change
information in the help facility's database, and to monitor
use of the help facility.

choices  description
1        starter
2        glossary
3        commands
4        prevent recording use of help facility
5        record use of the help facility
q        quit

Enter choice > _
```

If you enter **1** (starter) as the choice in the helpadm menu, the following starter menu will be displayed.

```
helpadm: starter
Which screens of starter do you want to make changes to?

choices  description
c        commands screen
d        documents screen
e        education screen
l        local screen
t        teach screen
q        quit

Enter choice > _
```

If you do not have permission to change starter information, the following message will be displayed; and you will be placed back in the shell from which you entered **helpadm**. Remember, only **root** can make changes to the starter database.

```
You do not have permission to change this starter screen.
Exiting with no changes to the help facility database.
```

Changing Glossary Information

After you enter the **glossary** database, you will be prompted for the term to be added, changed, or deleted. After you enter the option, you will be asked for the term which you are going to add, change, or delete. Once you enter the term, you will be placed into the default editor to edit the term. When you have finished editing, you can exit the editing process by using the procedure explained in the "Exiting the Editor" section of this manual.

Note: If the screen being edited is more than 17 lines, you will be put back into the editor to shorten the definition.

Adding a Term

If you wish to add a term to the glossary, you should choose the add option when prompted for the option. When you enter a glossary term that is not already in the glossary, you will be prompted with a message that states the entered term is a new term, and assumes you are adding the term. At this point you will be placed in the editor specified by the EDITOR shell variable. You may then add the definition of the chosen term. The definition cannot be more than 17 lines long. When you have finished editing, you can exit the editing process by using the procedure explained in the "Exiting The Editor" section of this manual.

Note: You may only change or delete glossary definitions if you have write permission for the **definition** file. If you do not have write permission for the definition file, an error message is printed at your terminal, and you will be returned to the shell.

Changing a Term

To change an existing term, you must enter the term when prompted for it. Once you enter an existing term, you will be prompted to choose between changing or deleting the term. If you wish to change the term, you should choose the modify option. After you enter the option, you will be placed into the default editor specified by the EDITOR shell variable.

You may then make your changes to the definition of the chosen term. When you have finished editing, you can exit the editing process by using the procedure explained in the "Exiting the Editor" section of this manual. The terms definition cannot be more than 17 lines long.

Deleting a Term

To delete an existing term, you must enter the term when prompted for it. Once you enter an existing term, you will be prompted to choose between changing or deleting the term. To delete the term, you should choose the delete option. If you choose the delete option, you will be asked again if you want to delete the term. For the term to be deleted, you must respond by typing **y** for yes. If you do not type **y**, the database remains unchanged. The following is an example of deleting a term after you have entered the glossary database from the helpadm menu.

```
Enter the name of the glossary term to be added/modified/deleted > list <CR>
list is already included in the glossary.
Do you want to m(modify) its definition or d(delete) it from the glossary?

Enter choice (m or d) > d<CR>
Are you sure you want to delete list from the glossary?

Enter choice (y or n) > y<CR>
list deleted from glossary.
```

Example for Changing Glossary Terms

If you enter **2** (glossary) as the choice in the first helpadm menu, the following prompt will be displayed:

```
Enter the name of the glossary term to be added/modified/deleted> _
```

ADMINISTRATION UTILITIES

If you edit the definition for **shell**, which is an existing term in the glossary, the following message will be printed:

```
Editing definition for shell
```

You will then be placed in the editor mode specified by the EDITOR export variable defined in your **.profile**. After you have finished editing the term chosen, you will be prompted with the following message:

```
Are you satisfied with this definition (y or n)? > _
```

If you enter **n** at the prompt above, the following message will be displayed, and you will be placed back into the editor again:

```
Re-editing definition for shell
```

After you have finished editing again, you will be prompted with the following message:

```
Are you satisfied with this definition (y or n)? > _
```

If you enter **y** at the prompt above, the following message will be displayed.

```
Do you want the data you have entered to be added to the
help facility database (y or n)? > _
```

If you enter **y**, the changes will be entered in the database, and you will be returned to the shell. If you enter **n**, the following message will be displayed:

```
Exiting with no changes to the help database.
```

You will now be returned to the shell.

Adding a term to the glossary data base is similar to changing data of a term. After entering a **2** in the first menu for the glossary option, the following prompt will be displayed:

```
Enter the name of the glossary term to be added/modified/deleted> _
```

You will then be placed into the editor to add the definition for the term. When you have finished editing, you must answer yes to the following prompts to have the data added to the database:

```
Are you satisfied with this definition (y or n)? > _
Do you want the data you have entered to be added to the help
facility database (y or n)? > _
```

When you have answered **y** to these prompts, the following message will be displayed:

```
Modifications to the help glossary complete.
```

Modifying Command Information

You must be logged in as **root** or **bin** to enter the command area of the Help Utilities database. If anyone else tries to change command data, an error message is printed at their terminal, and they will be returned to the shell. After you enter the command area database, you may add, change, or delete the following four types of command information:

- Description information
- Examples information
- Keyword information
- Options information.

You will be asked to enter the name of the command whose data is to be added, changed, or deleted. If the command is not in the **help** database, the facility assumes that the command is to be added to the database.

Note: You may only change or delete a command description file if you have write permission for the file. If you do not have write permission for the description file, an error message is printed at your terminal, and you will be returned to the shell.

Adding Command Information

If a command is to be added to the database, then you must enter information for description, example, options, and keywords when you are prompted.

If you are adding description, options, or examples information, you will be placed in the editor specified by the EDITOR shell variable. You can then make the additions to the database. Adding keyword information will be described later.

When you have finished editing, you will be asked if you are satisfied with the screen you have changed. If you are not satisfied, you can re-edit the screen. When you have responded that you are satisfied with the screen, you will be asked if you want the changes entered into the database. To have the changes entered, you must respond by typing **y** for yes. If you do not type **y**, the database remains unchanged.

You will automatically be allowed to edit the keyword list for a new command. There must be at least one keyword in the list before you will be allowed to exit the keyword list. A keyword must be a single word. When you have finished adding keywords, you must enter a period on a line by itself. You will then be asked if you are satisfied with the list. Once you respond to this prompt, you will be asked if you want the data you enter to be added to the database. To have the changes entered, you must respond by typing **y** for yes. If you do not type **y**, the database remains unchanged. This will complete the editing process for adding a command to the database. The administration facility will add the information and print out a message for each type of screen as the data is added for the new command. A message will also be displayed when all changes have been done.

Changing Command Information

If command information is to be changed, you will be given the option of choosing what part is to be changed: description, option, examples, or keywords. When you respond, you will be placed in the editor specified by the EDITOR shell variable. You can then make the changes to the database.

When you have finished editing, you will be asked if you are satisfied with the screen you have changed. If you are not satisfied, you can re-edit the screen. When you have responded that you are satisfied with the screen, you will be asked if you want the changes entered into the database. To have the changes entered, you must respond by typing **y** for yes. If you do not type **y**, the database remains unchanged.

When changing keywords in the keyword list, the list is printed on the terminal. Then, you are asked if you want to delete any keywords. If you do not want to delete any keywords, you enter a period on a line by itself. This will stop deletions and start additions. You will be prompted for a new keyword. A keyword must be a single word. To stop the adding process, you must enter a period on a line by itself. At this point, you will be given the option of adding more keywords or stopping.

Deleting Command Information

If the command already exists in the database, you will be given the choice of deleting the commands information when the command name is entered. If the command is to be deleted, all the command information: description, options, examples, and keywords will be deleted at the same time. You must respond by typing **y** when the prompt is displayed. You will then be asked if you are sure you want to delete the information.

The following is an example of removing the **ls** command:

```
Enter the name of the command to be added/modified/deleted > ls<CR>
The ls command is already included in help.

Do you want to delete information on ls (y or n)? > y<CR>
Are you sure you want to remove keywords, description, option,
and example information for ls (y or n)? > y<CR>
Keywords, description, option, and example information for
ls have been deleted from the help facility database.
```

Example for Modifying Command Data

The following is an example for adding a command to the help database. After you enter a **3** (command) as the choice in helpadm menu, the following will be displayed for adding the **split** command:

```
Enter the name of the command to be added/modified/deleted > split<CR>

New Command: split

This command is not currently included in the help facility.
You must enter a COMPLETE set of command data, including
description and syntax information, option information, usage
examples, and a keyword set, if ANY of the data you enter
are to be added to the help facility's database. You will
be asked to explicitly request that this data be included in
the help facility database at the end of this session.

Editing Description Screen For split
```

At this point you may add the description for the command being added to the database. Once the editing has been completed, the following prompt is displayed. You should then respond by entering a **y** or an **n**.

```
Are you satisfied with this screen (y or n)? > y<CR>
Description Screen Completed.
Editing Options Screen for split
```

At this point you may add the options for the command being added to the database. Once the editing has been completed, the following prompt is displayed. You should then respond by entering a **y** or an **n**.

```
Are you satisfied with this screen (y or n)? > y<CR>
Options Screen Completed.
Editing Examples Screen for split
```

At this point you may add the examples for the command being added to the database. Once the editing has been completed, the following prompt is displayed. You should then respond by entering a **y** or an **n**.

```
Are you satisfied with this screen (y or n)? > y<CR>
Examples Screen Completed.
Making Keyword List for split
Enter a single keyword for the command after each colon (:).
To stop adding keywords, enter a period (.).

      :
```


After entering the keywords as described and ending with a period, the keyword list you entered will be displayed on the terminal. The following prompts will be displayed after the keyword list:

```
Are you satisfied with this list? (y or n) > y<CR>
Do you want the data you have entered to be added to the help
facility database? (y or n) > y<CR>
```

Once you enter a **y** to have the data entered into the database, the following messages will be displayed as each type screen is written to memory.

```
Description Screen for split Updated
Options Screen for split Updated
Examples Screen for split Updated
Keyword List for split Updated.
Modifications to help database complete.
```

You will now be returned to the shell from which you entered the `helpadm` command.

The following is an example of changing data of the **list** command in the help database. After you enter a **3** (command) as the choice in the helpadm menu, the following will be displayed for changing the list command.

```
Enter the name of the command to be added/modified/deleted > list<CR>
The list command is already included in help.

Do you want to delete information on list (y or n)? n<CR>
What part of the command data do you wish to edit?

Enter d(desc), o(options), e(examp), k(keywds), or q(quit) > d<CR>
Editing Description Screen for list
```

After editing the description of the command chosen the following prompt will be displayed.

```
Are you satisfied with this screen (y or n)? > y<CR>
What part of the command data do you wish to edit?
Enter d(desc), o(options), e(examp), k(keywds), or q(quit) > d<CR>
```

You may continue editing the different parts of the command in this way until you are satisfied with the results. When you have finished, you should enter a **q** (quit) at the following prompt and return to the shell:

```
Enter d(desc), o(options), e(examp), k(keywds), or q(quit) > q<CR>
```

Monitoring the Use of Help

The option of monitoring help has been provided if you want to keep a record of how the help facility is used. The monitor function can be turned off and on from the helpadm menu. Monitoring will not take place unless you turn on the monitor function. To set the option for monitoring you must enter the first helpadm menu and select option **5**. Option **4** of the menu turns the monitor function off, and option **5** turns the monitor function on. After entering the option, you will be returned to the shell level. However, if the **LOGNAME** variable is not exported in your **.profile**, the monitoring function may not work properly.

Setting the monitor function to record the use of help creates a file called **HELPLLOG**. A complete record of who uses the help command and every action taken while in the help facility is contained in this file. You may read this file to see the actions taken by anyone who uses the help facility to see such things as:

- Which commands are referenced.
- Who uses help.
- What mistakes are made using help.
- Which module is used most.
- What part of a command is referenced most often (options, descriptions, or examples).

Below is an example of the **HELPLOG** file:

```
login=bin      uname=wr3b2a      date=Fri July 19 10:46:03 1985
name=locate    response='l'      status=OK
name=locate    response='d'      status=ERROR
name=getkey    response='k'      status=OK
name=Keysrch   response='list'   status=OK
name=quit     response='q'      status=OK
login=bin      uname=wr3b2a      date=Fri July 19 10:47:03 1985
```

The **HELPLOG** file will occasionally need to be cleaned up. You can execute **helpclean** to clean out the HELPLOG file. The helpclean file is an executable file that removes the data in the HELPLOG file but does not remove the file. The data in the HELPLOG file is actually copied to the **oHELPLOG** file, and a new HELPLOG file is created. If you execute the helpclean command twice in succession, both the HELPLOG and the oHELPLOG files will be cleaned out. There are other ways in which you can cleanup the HELPLOG files. Some suggestions on other cleanup methods may be found in the *AT&T 3B2 Computer User Reference Manual*.

RECOMMENDATIONS FOR FORMATTING DATA

To help users of **helpadm** to input data in a consistent format, the following guidelines are recommended.

General Rules for All Types of Help Screens

- Data will be presented exactly as it is entered— so, it should be typed the way you would like it to appear.
- Use "`\S`" to cause words to be highlighted (displayed in reverse video) on the screen when it is displayed. The **helpadm** Utilities automatically puts the name(s) of the term highlighted into the buffer being edited when adding a new term. If the word is within the text, leave spaces before and after. For example:

```
text \S word \S text
```

If the word is not within text, spaces are not needed. For example:

```
text
```

```
\Sword\S
```

```
text
```

- The "`\S`" characters will not appear when the text is printed. Therefore, if you want words in a column to line up, you must account for any "`\S`" characters around the words.

Guidelines for Glossary Screens

- A blank line at the beginning of the screen is optional.
- Highlight the name of the term.

- Start typing the term in column 1.
- If more than one term has the same definition and is being defined on the same glossary screen, then separate the names of the terms by a colon. For example:

```
\S term1 : term2 \S
```

- Leave a blank line before beginning the text of a definition.
- The text of a definition is entered in paragraph form.
- You may start in column 1 or indent.
- Any examples in the text should be on a separate line.
- The examples should be centered and preceded and followed by blank lines, for example:

```
text
```

```
    example
```

```
continuation of text
```

Guidelines for Description Screens

- A blank line at the beginning of the screen is optional.
- Highlight the name of the command.
- Start typing in column 1 (the **helpadm** Utilities automatically puts the name of the command highlighted into the edited buffer when adding a new command).
- Leave a blank line.

- Enter a syntax summary and an explanation of terms in the syntax summary, as follows:

Syntax Summary:
.....

where: <explanation of terms
in syntax summary>

When typing the words " Syntax Summary," start typing in column 1.

- Leave a blank line.
- Type " Description:" in column 1, and then skip to the next line and type the description of the command indented, for example:

Description:
text indented

Guidelines for Options Screens

- A blank line at the beginning of the screen is optional.
- Highlight the name of the command and the word " Options" .
- Start typing the text in column 1, for example:

```
\S command-name \S: Options
```

(the **helpadm** Utilities automatically puts the name of the command highlighted into the screen).

- Leave a blank line.

- If the command has options, then type each one with an explanation, for example:

```
\S option \S explanation
.
.
.
```

- If there are no options, then type the following:
There are no options to \Scommand-name\S.

Guidelines for Examples Screens

- A blank line at the beginning of the screen is optional.
- Highlight the name of the command and the word " Examples" .
- Start typing the command in column 1, for example:

```
\S command-name \S : Examples
```

The **helpadm** Utilities automatically puts the name of the command highlighted into the screen.

- Leave a blank line.
- The example should be entered on a separate line and highlighted. The explanation should begin on the next line, for example:

```
\S command-name \S
text of explanation.
```

- Each example should be separated by one blank line.