

Using Gopher on UNIX

SYNOPSIS

The Internet Gopher is a distributed document delivery service. It allows a neophyte user to access various types of data residing on multiple hosts in a seamless fashion. This is accomplished by presenting the user a hierarchical arrangement of documents and by using a client-server communications model. The Internet Gopher Server accepts simple queries, and responds by sending the client a document.

WARNING: Cal Poly's Gopher server will be shutdown sometime during the 1998-1999 Academic Year. A formal announcement will be made on the system at least two months before the shutdown date. All gopher information providers should migrate their information to the Cal Poly Web server if they haven't done so already.

HOW DO I START
GOPHER?

To start *gopher* from the system prompt on most UNIX systems enter

```
% gopher<CR>
```

This will start *gopher* pointed at the Cal Poly gopher server (gopher hole). Once started, the main gopher menu appears as follows:

```
Internet Gopher Information Client v2.1.3

Home Gopher server: gopher.calpoly.edu

--> 1. About Cal Poly's Gopher Server/
     2. Search Cal Poly Gopher Server Document Contents (WISindex-Mn.. <?>
     3. Search menu titles using jughead/
     4. Hot and New Topics/

     6. Cal Poly Campus Events and Calendars/
     7. Cal Poly Campus Information/
     8. Computing and Networking at Cal Poly/
     9. Electronic Information from GopherSpace/
    10. Electronic Phonebooks on the Internet/
    11. Miscellaneous Tid Bits/
    12. Open Class List/
    13. Other Gopher and Information Servers/
    14. Robert E. Kennedy Library Information/
    15. The Community (SLONET Gopher Server)/

Press ? for Help, q to Quit                                     Page: 1/1
```

Figure Gopher-1: Gopher Main Menu

The current gopher client on UNIX supports the following items (denoted by the text after the menu item):

<u>Item tag</u>	<u>Type</u>	<u>Description</u>
(none)	0	file
/	1	directory
<>	s	sound file

<Picture>	I,g	image file
<Movie>	;	movie file
<HOX>	4	BinHexed Macintosh file
<Bin>	9	binary file
<PC Bin>	5	DOS binary file
<CSO>	2	CSO (ph/qi) phone-book server
<TEL>	8	telnet connection
<3270>	T	telnet connection (IBM 3270 emulation)
<MIME>	M	Multi-purpose Internet Mail Extensions file
<HTML>	h	HyperText Markup Language file
<?>	7	index-search item
<??>	(none)	ASK form

HOW DO I MOVE THROUGH MENUS?

While using *gopher*, you may move through the on-screen menus by use of the Arrow Keys or vi/emacs equivalent. Some of these keystrokes are

- ("up")	Move to previous line. Stops when the top line of the menu is reached.
- ("down")	Move to next line. Stops when the last line of the menu is reached.
® or <CR> ("right" or "Return")	"Enter" current item. Move down one menu level, into a document, or initiate a file transfer of the indicated item.
↶ or u ("left")	"Exit" current item. Move back up one menu level.
>, +, <Pgdn>, or <space>	View next page.
<, -, <Pgup>, or b	View previous page.
0 through 9	Go to a specific line in the current menu screen.
m	Go back to the main menu.
q	Quit with prompt for confirmation.
Q	Quit unconditionally.
=	Display Technical information about current item.
^	Display Technical information about current menu.
O	change options
o	Open another gopher server.
s	Save current menu item to a file. Does not work in document viewing mode.
S	Save current menu listing to a file.
D	Download a file (requires kermit or zmodem protocols on your local workstation).
r	Go to the root menu of the current item.

R	Go to the root menu of the current menu.
f	Connect to an anonymous ftp host.
/	Search for an item in the current menu.
n	Find the next occurrence of the search string.
!	Shell Escape to execute a system command.
Ctrl-L, Ctrl-R, Ctrl-W	Redraw the screen (useful if an incoming message garbles the screen).
Ctrl-T	Shows the date and time on the machine that is running the gopher client.

HOW DO I CONFIGURE MY GOPHER?

By entering the *gopher* change options command ("O"), you can select from several main configuration options. These are displayed in a window as follows:

```

+-----Gopher Options-----+
|
|  -->  1. General Options
|        2. Configure Display Applications
|        3. Configure Printing Applications
|        4. Define New Content-Type
|
|  Your Choice (1-4):
|  [Help: ?] [Cancel: ^G]
|
+-----+

```

Figure Gopher-2: Gopher Options Menu

Each of these options is described in detail in the following sections.

A. GENERAL OPTIONS

The General Options menu allows you to set whether text that was included in a search should be bolded. This is usually a good idea as it helps you locate the text you are searching for while viewing the document.

```

+-----General Options-----+
|
|  Bold Search words in Builtin Pager  Yes
|
|  [Help: ^-] [Cancel: ^G] [Cycle Values: Space] [List Values: 1]
|
+-----+

```

Figure Gopher-3: Gopher General Options Menu

B. CONFIGURE DISPLAY APPLICATIONS

The "Configure Display Applications" menu allows the user to configure one or more applications to be used to display a particular item type.

NOTE: Several of these types are not "viewable" while running on an ASCII terminal and may require the capabilities of an X terminal or workstation to view properly.

```

+-----Configure Display Applications-----+
|
| Text                builtin
| Text/plain         builtin
| Audio/basic        /bin/false
| Image              xloadimage -fork %s
| Terminal/telnet    telnet %s
| Terminal/tn3270   tn3270 %s
| text/html         - none -
|
| [Help: ^-] [Cancel: ^G]
+-----+

```

Figure Gopher-4: Configure Display Applications Menu

The following values are recommended for those using ASCII terminals:

<u>Field Name</u>	<u>Recommended Value</u>
Text and Text/plain	" builtin " is recommended for beginners. More advanced users may wish to use " /bin/more - dvf ".
Audio/basic	Unless you are running on a workstation, " /bin/false " is recommended. This means you will not be able to hear Audio types.
Image	Unless you are running on a workstation, " /bin/false " is recommended. ASCII terminals are not capable of displaying graphics.
Terminal/telnet	The default value is recommended.
Terminal/tn3270	The default value is recommended. Be sure to make yourself familiar with the necessary keyboard mapping before starting a 3270 session.
text/html	At the time this document was printed, html viewers were not yet working with gopher.

Before making any changes to the above fields, make a note of their current values so you can reset them if problems develop.

C. CONFIGURE PRINTING APPLICATIONS

The "Configure Printing Applications" menu allows you to configure how different types of documents will be printed.

```

+-----Configure Printing Applications-----+
|
| Text                1p %s
| Text/plain         1p %s
| Audio/basic
| Image              1p %s
| Terminal/telnet
| Terminal/tn3270
| text/html
|
| [Help: ^-] [Cancel: ^G]
+-----+

```

Figure Gopher-5: Configure Printing Applications Menu

Please refer to the chapter "Fundamental UNIX Commands" for more information on printing files before modifying these fields.

A good recommendation for Central UNIX users is to leave the blank fields blank and change "lp %s" to "lp -t i i_BOXnn %s" where it appears. (Remember that "nn" stands for a box number in the printout distribution area in Building 14 and "i i" stands for your first and last initials.)

D. DEFINE NEW CONTENT TYPE

Sometimes, there are specific types that you may wish to treat differently or some servers may define types that the client is not configured for by default. Advanced users may wish to access these fields to provide correct display and printing applications for working with a specialized type.

```

+-----Define New Content-Type-----+
|
| Content-Type Name
| Display Application
| Printing Application
|
| [Help: ^-] [Cancel: ^G]
|
+-----+

```

Figure Gopher-6: Define New Content Type Menu

HOW DO I USE
BOOKMARKS?

Bookmarks may be used to "tag" items for viewing when you are done searching. Bookmark commands are

- a* Add current item to the bookmark list.
- A* Add current directory/search to bookmark list.
- v* View bookmark list.
- d* Delete a bookmark.

Viewing the bookmark list will result in a specialized menu being displayed with all of the marked items for menu options. They may then be dealt with individually.

HOW DO I REVIEW A
DOCUMENT AND WHAT
CAN I DO WITH IT?

When gopher displays a document on the screen it does so, by default, with an internal viewing utility. The screen looks like:

```

Cal Poly's Test Gopher Server (0k)                                     100%
+-----+
Welcome to the Cal Poly's Test Gopher Server!

This is Cal Poly's test gopher information server.  It has been set up
to starting testing the gopher mechanism for delivery of information and
as a possible replacement for CPNN.

During this test period, the server may be up or down intermittently and
should not be relied upon as a stable source of information.

Information Technology Services

+-----+
[Help: ?] [Exit: u]

```

Figure Gopher-7: Gopher Document Viewer

Pressing a "?" will result in the following help being displayed.

While in the viewer, the following commands are available:

<i>u</i> , ^G, ← (left)	Return to the menu.
<space>, ↓ (down)	Move to the next Page.
<i>b</i> , ↑ (up)	Move to the previous Page.
/	Search for text in the document.
<i>m</i>	Mail the current document.
<i>s</i>	Save the current document to a file.
<i>p</i>	Print the current document to the printer specified in the options setup.
<i>D</i>	Download the current document (requires Kermit or zmodem on your workstation).
?	Produces a floating help window on the screen.

WHAT IF THE DOCUMENT IS A FILE THAT IS TO BE TRANSFERED (<HQX>, <BIN> OR <PC BIN>)?

If the menu item ends with a <hqx> symbol, *gopher* transfers the file to your host as a text file. The file is a bin-hex file meant to be decode with the bin-hex utility on a Macintosh.

If the menu item ends with **<bin>** or **<pc bin>** symbol, *gopher* transfers the file to your host as a binary file. This file may be destined for a host of the same hardware type as you are on or for another type such as a PC.

In some cases, *gopher* cannot transfer the file itself using utilities available to it. In that case, *gopher* will give you the procedure required to transfer the file to your host.

WHAT IF THE MENU ITEM STARTS A TELNET SESSION (<TEL> OR <3270>)?

If the menu item ends with a **<tel>** or **<3270>** symbols, *gopher* will inform you that it is about to start a telnet session for you. Gopher will give you instructions on how to quit the telnet session and return to the program as well as how to prevent the telnet session from starting. The telnet sessions are used quite often to communicate with other non-gopher and non-WAIS information servers. Beware of **<3270>** sessions without first determining keyboard mappings for *tn3270* on your system.

WHAT ARE GOPHER'S START-UP OPTIONS?

Gopher has both command line startup options and uses environmental variables to set startup options.

The most commonly used startup option is used as follows:

```
% gopher [hostname] [port]<CR>
```

where *hostname* is the name of a host system with a gopher server and *port* is the TCP/IP protocol port number for that gopher server. Most gopher servers use port 70 (the default).

Additional startup options are listed in the on-line man page.

GOPHER_TELNET

The program *gopher* will use to contact telnet services. The default is "**telnet**".

GOPHER_TN3270

The program *gopher* will use to contact telnet services that require IBM 3270 block mode terminal emulation. The default is "**tn3270**".

GOPHER_HTML

The program *gopher* will use to read HyperText Markup Language documents. There is no default.

GOPHER_PRINTER

The program to use to print information when print is selected. The default is "**lp - tii_BOXnn**" on Central UNIX, "**lp**" on most other UNIX systems on campus.

On Central UNIX, you may indicate additional printer information by using the **GOPHER_PRINTER** variable. Examples are:

```
% setenv GOPHER_PRINTER "lp - tii_BOXnn"<CR>
```

sets the variable in the C-shell or T-shell. Do not forget to replace *ii* with your two initials and *nn* with the box number that will receive the printer output.

```
$ GOPHER_PRINTER="lp - tii_BOXnn"; export GOPHER_PRINTER<CR>
```

provides the same effect for the Bourne and Korn shells.

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NOTES