

GNU Interactive Tools

A Set of Interactive Programs
Edition 2.2, for GIT version 4.3.11
June 1996

by Tudor Hulubei and Andrei Pitis
"Politehnica" University of Bucharest
Romania

Copyright © 1992, 1993, 1994 Free Software Foundation, Inc.

Permission is granted to make and distribute verbatim copies of this manual provided the copyright notice and this permission notice are preserved on all copies.

Permission is granted to copy and distribute modified versions of this manual under the conditions for verbatim copying, provided that the entire resulting derived work is distributed under the terms of a permission notice identical to this one.

Permission is granted to copy and distribute translations of this manual into another language, under the above conditions for modified versions, except that this permission notice may be stated in a translation approved by the Foundation.

1 Introduction

GIT is a set of interactive tools. It contains an extensible file system browser, an ascii/hex file viewer, a process viewer/killer and some other related utilities and shell scripts. It can be used to increase the speed and efficiency of most of the daily tasks such as copying and moving files and directories, invoking editors, compressing and uncompressing files, creating and expanding archives, compiling programs, sending mail, etc. It looks nice, has colors (if the standard ANSI color sequences are supported) and is user-friendly.

GIT runs on a wide variety of UNIX systems because it uses the **GNU Autoconf** package to get system specific information. Please refer to the **PLATFORMS** file included in the standard distribution for a detailed list of systems on which **GIT** has been tested.

One of the main advantages of **GIT** is its flexibility. It is not limited to a given set of commands. The configuration file can be easily enhanced, allowing the user to add new commands or file operations, depending on its needs or preferences.

GIT also provides a shell like command prompt, just to make sure that the entire power of the UNIX shell commands is still there.

2 Distributing GNU Interactive Tools

GIT is "free software"; this means that everyone is free to use it and free to redistribute it on certain conditions. **GIT** is not in the public domain; it is copyrighted and there are restrictions on its distribution, but these restrictions are designed to permit everything that a good cooperating citizen would want to do. What is not allowed is to try to prevent others from further sharing any version of **GIT** that they might get from you. The precise conditions are found in the GNU General Public License that comes with **GIT** and also appears following this section.

The easiest way to get a copy of **GIT** is from someone else who has it. You need not ask for our permission to do so, or tell any one else; just copy it. If you have access to the Internet, you can get the latest distribution version of **GIT** from host '`prep.ai.mit.edu`' using anonymous login. See the file '`/pub/gnu/GETTING.GNU.SOFTWARE`' on that host to find out about your options for copying and which files to use.

You may also receive **GNU Interactive Tools** when you buy a computer. Computer manufacturers are free to distribute copies on the same terms that apply to everyone else. These terms require them to give you the full sources, including whatever changes they may have made, and to permit you to redistribute the **GNU Interactive Tools** received from them under the usual terms of the General Public License. In other words, the program must be free for you when you get it, not just free for the manufacturer.

3 Using GNU Interactive Tools

The `GIT` package contains three interactive programs and a few additional utilities. Here there is a description of each of them.

3.1 The `GIT` file system browser

`git` is a file system browser with some shell like features designed to make your work much easier and much efficient. It displays one or two panels, each one containing a file system directory. You can browse the directory tree with the usual cursor keys, pressing `ENTER` when you want to enter or leave a directory and `TAB` when you want to change the panels.

Under the two panels there is a shell like input line which you can use to type normal shell commands. The input line can handle an unlimited number of characters and keeps a history of typed commands (using the GNU history library).

Under the input line there is a status bar. You can see there the status of the currently executed command, the warnings and errors and you will be prompted if a decision has to be taken.

3.1.1 Key binding conventions

`git` now provides a new, easy to remember, scheme to bind commands on keys. This is only a convention, if you define new key bindings you may, or may not follow it.

All the file commands start with `^C`. This prefix can be followed by some modifiers, in order to affect the default behavior of the given command. These modifiers are `b` and `r`.

`b` - this modifier specifies that the command will run in background:

```
^CM = CHMOD; chmod %s{New mode of %i: ,%m} %i;;;y
```

defines a command that changes the current selected files mode in foreground, while

```
^CbM = B-CHMOD; chmod %s{New mode of %i: ,%m} %i&;;;y
```

defines a background command that does the same thing.

`r` - this modifier specifies that the command will be run recursively:

```
^CrM = R-CHMOD; chmod -R %s{New mode of %i: ,} %i;;;y
```

defines a command that recursively changes the mode of the selected files.

The `b` and `r` modifiers can be combined, the resulting command running recursively and in background:

```
^CbrM = B-R-CHMOD; chmod -R %s{New mode of %i: ,} %i&;;;y
```

You should also note that for some commands (like `gzip`) there is no need for a non-recursive version. Running `gzip` recursively on files is harmless. If there is a directory between these files, `gzip` will recursively compress that directory, so you can use the same key binding for recursively and non-recursively compressing. In fact, it is a matter of selecting files or directories.

Unfortunately, we can't run `chmod` recursively trying to change the mode of all the files in a directory to `0644` because that directory might contain subdirectories and removing the execution permission from them is a bad idea. So, in this case, we need separate commands.

3.1.2 Panel modes

`git` has three major modes of displaying the panels. In the first (default) mode, two panels are displayed, each one using half of the screen. In the second mode, only one panel uses the entire screen. In the third mode, only the status bar and the input line are displayed, both panels being hidden.

Briefly, a panel can use the entire screen or just half of it. Even when a panel is hidden, it still exists.

Users can switch between these three major modes as needed:

`^X 0`

Enlarges the other panel to use the entire screen. It also changes the minor mode to `'Enable all'`. The current panel will become invisible (`'enlarge-other-panel'`).

`^X 1`

Enlarges the current panel to use the entire screen. It also changes the minor mode to `'Enable all'`. The other panel will become invisible (`'enlarge-panel'`).

`^X 2`

Switches back to the two panel mode (`'two-panel-mode'`).

`^O, ESC o`

Switches to the tty mode (no panels on the screen) (`'tty-mode'`).

Basically a panel displays the files and directories in a directory. You can optionally specify some additional information about each entry (file, directory, ...) to be displayed (a minor mode).

When using the full screen mode, all the minor modes here can be used. In half screen mode, the `'panel-enable-all'` mode is not available.

These are the panel minor modes:

`ESC d o`

Display the entry owner and group (`'panel-enable-owner-group'`).

`ESC d d`

Display the entry date and time (`'panel-enable-date-time'`).

`ESC d s`

Display the entry size (`'panel-enable-size'`).

`ESC d m`

Display the entry mode (`'panel-enable-mode'`).

`ESC d f`

Display the entry full name (`'panel-enable-full-name'`).

`ESC d a`

Display the entire information about file (`'panel-enable-all'`).

This mode is only available if the panel has been enlarged to use the entire screen with `'enlarge-panel'` or `'enlarge-other-panel'` (`'panel-enable-all'`).

There is also another way to change the panel minor modes:

`^], ^[]`

Switches to the next panel minor mode (`'panel-enable-next-mode'`).

3.1.3 Sorting methods

Entries in a panel can be sorted in different ways. These are the available options:

ESC s n

Display the panel entries sorted by their names
(`'panel-sort-by-name'`).

ESC s e

Display the panel entries sorted by their extensions
(`'panel-sort-by-extension'`).

ESC s s

Display the panel entries sorted by their sizes
(`'panel-sort-by-size'`).

ESC s d

Display the panel entries sorted by their `'last modified'` stamps
(`'panel-sort-by-date'`).

ESC s m

Display the panel entries sorted by their modes
(`'panel-sort-by-mode'`).

ESC s o i

Display the panel entries sorted by their owner ids
(`'panel-sort-by-owner-id'`).

ESC s g i

Display the panel entries sorted by their group ids
(`'panel-sort-by-group-id'`).

ESC s o n

Display the panel entries sorted by their owner names
(`'panel-sort-by-owner-name'`).

ESC s g n

Display the panel entries sorted by their group names
(`'panel-sort-by-group-name'`).

There is also another way to change the sort method:

ESC s u

Switch to the next panel sort method (`'panel-sort-next-method'`).

3.1.4 Moving the cursor in the panel

Moving the cursor in the panel is very easy. If your keyboard has arrows, use them. If the arrow keys don't work (it might be due to a badly configured *TERM* environment variable), you can use the Emacs commands bindings as well.

UP, $\sim P$

Move the cursor vertically up one entry (`'previous-line'`).

DOWN, $\sim N$

Move the cursor vertically down one entry (`'next-line'`).

HOME, *ESC* <

Move the cursor on the first entry in the panel (`'beginning-of-panel'`).

END, *ESC* >

Move the cursor on the last entry in the panel (`'end-of-panel'`).

PGUP, *ESC* *v*

Move the cursor vertically down one page (`'scroll-down'`).

PGDOWN, $\sim V$

Move the cursor vertically down one page (`'scroll-up'`).

$\sim X P$

In order to optimize the screen output, you can modify the scroll step (`'set-scroll-step'`). This is the number of lines to try scrolling a panel when the cursor moves out. The `'StartupScrollStep'` specifies the initial scroll step, but using `'set-scroll-step'` you can dynamically change it.

TAB, $\sim I$, $\sim X o$

Move the cursor in the other panel (`'other-panel'`).

$\sim X P$

Switch the two panels. This command works even when `git` is not in the `'two panels'` mode (`'switch-panels'`).

3.1.5 Selecting files

INS, $\sim T$, $\sim X \backslash$, $\sim \backslash$

Toggle the `'selected'` flag of the current file (`'select-file'`).

$\sim C s$

Select (marks) all the files matching a pattern (`'select-files-matching-pattern'`). The user will be prompted for a pattern to match against.

$\sim C u$

Unselect (unmarks) all the files matching a pattern (`'select-files-matching-pattern'`). The user will be prompted for a pattern to match against.

3.1.6 Incremental searching files in a panel

Users sometime need to search a file in a panel, especially when the panel contains a big number of entries. For that reason `git` provides an incremental search feature. Using forward and backward incremental search, files can be very easy located. Wrapped incremental search is also provided.

`^S`, `^Xs`

Incremental search forward a file name in the current panel (`'isearch-forward'`). Pressing `^S` or `^Xs` again will force `git` to go to the next entry that matches the current isearched string. When the end of the panel is reached, the isearch is restarted from its beginning.

`^R`, `^Xr`

Incremental search backward a file name in the current panel (`'isearch-backward'`). Pressing `^R` or `^Xr` again will force `git` to go to the next entry that matches the current isearched string. When the beginning of the panel is reached, the isearch is restarted from its end.

3.1.7 Using the input line

The input line is one of the main methods used by `git` to interact with the user. All the answers the user should give in order to perform some operation and all the shell like commands are built using it. So here is a description of all the basic editing operations that the `'input line'` provides. They are very much inspired from `Emacs`, so `Emacs` users should have no problem using them.

3.1.7.1 Inserting Text

Typing characters is the most usual way of inserting text into the input line. Key sequences starting with printable ascii characters are not allowed in `git` so typing `a` for example results in inserting `a` at the current point position. Of course, there are some other ways of inserting text into the command line and here there is a description of most of them.

ESC RET

Copy the current file name into the input line at the current point position (`'file-to-input-line'`).

ESC ESC RET

Copy the other panel path into the input line at the current point position (`'other-path-to-input-line'`).

`^X ^G`

Copy the names of all the selected files into the input line at the current point position (`'selected-files-to-input-line'`).

3.1.7.2 Moving Point

`^B`, *LEFT*

Move the point backward one character (`'backward-char'`).

^F, RIGHT

Move the point forward one character (`'forward-char'`).

ESC b

Move the point one word backward (`'backward-word'`).

ESC f

Move the point one word forward (`'forward-word'`).

^A

Move the cursor at the beginning of the input line (`'beginning-of-line'`).

^E

Move the cursor at the end of the input line (`'end-of-line'`).

3.1.7.3 Deleting and killing text

DEL, ^D

Delete the character under the cursor (`'delete-char'`).

^H, BKSPC

Delete the character before the cursor (`'backward-delete-char'`).

ESC BKSPC

Delete backward one word (`'backward-kill-word'`).

ESC d

Delete forward one word (`'kill-word'`).

ESC k

Delete the entire line (`'kill-line'`).

^U

Delete all the characters between the beginning of the input line and the point (`'kill-to-beginning-of-line'`).

^K

Delete all the characters between the point and the end of the input line (`'kill-to-end-of-line'`).

ESC SPC

Delete all the spaces around the point, leaving only one space (`'just-one-space'`).

*ESC *

Delete all the spaces around the point (`'delete-horizontal-space'`).

^W

Save the region between the point and the mark into the kill "ring" and then kills it (`'kill-region'`). Note that there is no real kill-ring here. The so-called kill-ring has only one entry.

ESC w

Save the region between the point and the mark without killing it (`'kill-ring-save'`).

3.1.7.4 Case conversion of words.

ESC l

Convert the following word to lower case, moving over.
(‘downcase-word’).

ESC u

Convert the following word to upper case, moving over.
(‘upcase-word’).

ESC c

Capitalize the following word, moving over.
(‘capitalize-word’).

3.1.7.5 Reusing recent input line arguments

A separate history is kept for both built-in and user-defined commands. If you call a command that you have used before, you can re-edit a previously entered string in order to minimize the amount of characters needed to be typed for the new one. There is no limit on the number of strings that can be kept in the history.

ESC p

Walk backward through the history of previously entered strings
(‘previous-history-element’).

ESC n

Walk forward through the history of previously entered strings
(‘next-history-element’).

3.1.7.6 Commands to set the mark

~SPC

Set the mark at the current point position (‘set-mark’).

~X ^X

Exchange the current point position with the mark one
(‘exchange-point-and-mark’).

3.1.7.7 Reinserting recently killed text

~Y

Reinsert a previously killed text at the current point position
(‘yank’).

3.1.8 File operations

3.1.8.1 Copying Files

F5, ^C C

Copy the currently selected files and directories to the user supplied path (‘copy’).

^C b C

Copy the currently selected files and directories to the user supplied path. The operation is performed in background (‘B-COPY’).

3.1.8.2 Moving Files

F6, ^C T

Move the currently selected files and directories to the user supplied path (`'move'`).

^C b T

Move the currently selected files and directories to the user supplied path. The operation is performed in background (`'B-MOVE'`).

3.1.8.3 Creating Files

The easiest way to create a new file is to start an editor passing the file name as an argument. Most editors will try to create the file if the file doesn't exist. See Section 3.1.8.8 [Editing Files], page 12, for more information.

3.1.8.4 Deleting Files

F8, ^C D

Delete the currently selected files and directories (`'delete'`).

^C b D

Delete the currently selected files and directories. The operation is performed in background (`'B-DELETE'`).

3.1.8.5 Linking Files

^C H

Create a hard link from the current files to a user supplied file name (`'LINK'`).

^C b H

Create a hard link from the current files to a user supplied file name (`'B-LINK'`). The action is performed in background.

^C S

Create a symbolic link from the current files to a user supplied file name (`'SYMLINK'`).

^C b S

Create a symbolic link from the current files to a user supplied file name (`'B-SYMLINK'`). The action is performed in background.

3.1.8.6 Renaming Files

^C R

Rename the current file or directory with the user supplied name (`'RENAME'`).

^C b R

Rename the current file or directory with the user supplied name. The operation is performed in background (`'B-RENAME'`).

3.1.8.7 Changing a file's inode mode, owner and group

`^C M`

Change the mode of the currently selected files inodes ('CHMOD').

`^C b M`

Change the mode of the currently selected files inodes. The operation is performed in background ('B-CHMOD').

`^C r M`

Recursively change the modes of the selected files inodes if one of them is a directory ('R-CHMOD').

`^C b r M`

Recursively change the modes of the selected files inodes if one of them is a directory. The operation is performed in background ('B-R-CHMOD').

`^C O`

Change the owner of the currently selected files inodes ('CHOWN').

`^C b O`

Change the owner of the currently selected files inodes. The operation is performed in background ('B-CHOWN').

`^C r O`

Recursively change the owners of the selected files inodes if one of them is a directory ('R-CHOWN').

`^C b r O`

Recursively change the owners of the selected files inodes if one of them is a directory. The operation is performed in background ('B-R-CHOWN').

`^C G`

Change the group of the currently selected files inodes ('CHGRP').

`^C b G`

Change the group of the currently selected files inodes. The operation is performed in background ('B-CHGRP').

`^C r G`

Recursively change the groups of the selected files inodes if one of them is a directory ('R-CHGRP').

`^C b r G`

Recursively change the groups of the selected files inodes if one of them is a directory. The operation is performed in background ('B-R-CHGRP').

3.1.8.8 Editing Files

F4

Call the default editor with the current file name as an argument ('EDIT').

^X e

Call the default editor with the selected files names as arguments ('MULTIPLE-EDIT').

^X ^F

Create a new file by calling the default editor with the user supplied file name as an argument ('FILE-CREATE').

^X 4 a

Call the default editor in order to edit the `ChangeLog` file ('CHANGE-LOG').

The default editor can be specified using the `EDITOR` or `GIT_EDITOR` environment variables. See Section 4.1 [Environment Variables], page 24, for more information.

3.1.8.9 Viewing Files

F3, ^X h

Call the default viewer (`gitview`) with the current file name as argument ('VIEW').

^X v

Call the default pager (`more`) with the currently selected file names as arguments ('MULTIPLE-VIEW').

3.1.8.10 Compressing Files

^C z

Compress the currently selected files and directories ('COMPRESS').

^C b z

Compress the currently selected files and directories. The operation is performed in background ('B-COMPRESS').

^C Z

Uncompress the currently selected files and directories ('UNCOMPRESS').

^C b Z

Uncompress the currently selected files and directories. The operation is performed in background ('B-UNCOMPRESS').

^C f Z

Uncompress the currently selected files and directories ('F-UNCOMPRESS'). Force uncompression of links.

^C b f Z

Uncompress the currently selected files and directories. Force

uncompression of links. The operation is performed in background ('BF-UNCOMPRESS').

3.1.8.11 Encoding Files

^C e

Encode the currently selected file ('UUENCODE').

^C b e

Encode the currently selected file. The operation is performed in background ('B-UUENCODE').

^C E

Decode the currently selected file ('UUDECODE').

^C b E

Decode the currently selected file. The operation is performed in background ('B-UUDECODE').

3.1.8.12 Encrypting Files

^C p

Encrypt (using `pgp`) the current file ('ENCRYPT').

^C P

Decrypt (using `pgp`) the current file ('DECRYPT').

3.1.8.13 Comparing Files

^C =

Compare (using `diff`) the current ASCII file with the other panel current file ('DIFF'). If both entries are directories, a recursive diff is performed.

^C ESC =

Compare (using `diff`) the current ASCII file with its latest backup. The latest backup is the file having the same name and a '~' at the end ('LAST-BACKUP-DIFF').

^C B

Compare the current file with the other panel current file. A binary comparison is performed ('BINARY-COMPARE').

3.1.8.14 Spelling Files

^X I

Run the `ispell` command with the current file name as an argument.

3.1.8.15 Wiping Files

^C W

Call `gitwipe` to wipe the selected files. Asks for confirmation before actually wiping them in order to avoid errors ('WIPE').

See Section 3.6 [gitwipe], page 22, for more information.

3.1.8.16 Searching Files

ESC %

Search files on the file system, starting from the current directory ('FIND').

ESC &

Use 'locate' to search files on the file system, starting from the current directory ('LOCATE').

^X w

Locate the binary, source, and manual page files for a command ('WHEREIS').

^X W

Locate a command; display its pathname or alias ('WHICH').

3.1.8.17 Managing tar based archive files

^C a

Create a **tar** archive containing all the currently selected files and directories ('TAR').

^C b a

Create a **tar** archive containing all the currently selected files and directories. The operation is performed in background ('B-TAR').

^C A

Expand the **tar** archive pointed by the cursor into the current directory ('UNTAR').

^C b A

Expand the **tar** archive pointed by the cursor into the current directory. The operation is performed in background ('B-UNTAR').

^C x

Create a compressed **tar** archive containing all the currently selected files and directories ('TAR-COMPRESS').

^C b x

Create a compressed **tar** archive containing all the currently selected files and directories. The operation is performed in background ('B-TAR-COMPRESS').

^C X

Expand the compressed **tar** archive pointed by the cursor into the current directory ('UNCOMPRESS-UNTAR').

^C b X

Expand the compressed **tar** archive pointed by the cursor into the current directory. The operation is performed in background ('B-UNCOMPRESS-UNTAR').

3.1.8.18 A different action for each file type

Many files on UNIX systems have one or more extensions specifying their types. For example, a file that ends in `.c` is a file containing a C program, while a file ending in `.tar.gz` is a tar archive compressed with the `gzip` utility. Having a default action for each file type, binded on the same key, seems to be a good idea because you can use that key to obtain type specific information about a file or to process it in some type specific way much easier. The `GIT` package contains a script called `gitaction` that is used to detect the current file type and perform a type specific action. See Section 3.8 [gitaction], page 22, for more information.

`F2`, `^X a`

Perform an action on the current file, depending on its type ('`FILE-ACTION`').

3.1.9 Directory operations

3.1.9.1 Creating directories

`F7`, `^X M`

Create a new subdirectory in the current directory with the user supplied name ('`make-directory`').

3.1.9.2 Copying directories

`F5` (*for directories*), `^C C` (*for directories*)

Copy the currently selected files and directories to the user supplied path ('`copy`').

`^C b C` (*for directories*)

Copy the currently selected files and directories to the user supplied path. The operation is performed in background ('`B-COPY`').

3.1.9.3 Deleting directories

`F8` (*for subdirectories*), `^C D` (*for subdirectories*)

Delete the currently selected files and directories ('`delete`').

`^C b D` (*for directories*)

Delete the currently selected files and directories. The operation is performed in background ('`B-DELETE`').

3.1.9.4 Moving directories

`F6` (*for directories*), `^C T` (*for directories*)

Move the currently selected files and directories to the user supplied path ('`move`').

`^C b T` (*for directories*)

Move the currently selected files and directories to the user supplied path. The operation is performed in background ('`B-MOVE`').

3.1.9.5 Renaming directories

`^C R` (*for directories*)

Rename the current file or directory with the user supplied name ('RENAME').

`^C b R` (*for directories*)

Rename the current file or directory with the user supplied name. The operation is performed in background ('B-RENAME').

3.1.9.6 Summarize directory usage

`^C U`

Display the output of the `du -s` command on the status line ('DIRECTORY-USAGE').

3.1.9.7 Changing directories

`^X d`, `^X ^D`

Change the current working directory. The user is asked for a new directory name and the new directory is added to the directory history ('change-directory').

See Section 3.1.9.8 [Dirs History], page 16, for more information.

`ESC a c`

Change the current directory of the current panel to the directory of the other panel ('adapt-current-directory').

`ESC a o`

Change the current directory of the other panel to the directory of the current panel ('adapt-other-directory').

3.1.9.8 Directory History

Users usually work on a limited set of subdirectories. Providing a fast method of switching between a number of intensively used directories is a good idea and `git` has a set of builtin commands for doing it.

Usually new directories are added to the directory history when the 'change-directory' built-in command is used. `git` also adds the current directory to the history list when started, when the directory history is reseted and when a command having a non empty 'new-dir' field successfully completes its execution. See Section 4.2.3.22 [new-dir], page 29, for more information.

`^X ^N`

Go to the next directory in the history ('next-directory').

`^X ^P`

Go to the previous directory in the history ('previous-directory').

`^X ^R`

Reset the entire directory history. As explained above, the current directory becomes the only directory in the history ('reset-directory-history').

3.1.9.9 Hot Keys

`git` provides default key bindings for switching to a number of important directories as `"/`, `"..`", `"$HOME"`, etc.

ESC /

Go to the `'/'` directory (`'ROOT-DIR'`).

ESC .

Go to the `'..'` directory (`'UP-DIR'`).

ESC h

Go to the `'~'` (`$HOME`) directory (`'HOME-DIR'`).

ESC i

Go to the `'usr/include'` directory (`'INCLUDE-DIR'`).

ESC 1

Go to the `'mnt/fd0'` directory (`'FIRST-FLOPPY-DIR'`).

ESC 2

Go to the `'mnt/fd1'` directory (`'SECOND-FLOPPY-DIR'`).

3.1.10 Compiling programs

F9, ^X m

Run the `make` command in the current directory.

^X b m

Run the `make` command in background in the current directory.

See Section 3.8 [gitaction], page 22, for more information.

3.1.11 Sending/receiving ascii/binary mail

^C 2 a

Send the current current ascii file by mail to an user supplied email address.

^C b 2 a

The same as above, the only difference being that the command runs in background.

^C 2 b

Send the current current binary file by mail to an user supplied email address. The file is uuencoded first.

^C b 2 b

The same as above, the only difference being that the command runs in background.

ESC x r m

Run the `emacs -f rmail` command. This will start the Emacs's `'rmail'` function so that you can read your mail.

3.1.12 Starting a sub-shell

`^X z`

Call a sub-shell as specified by the `$GIT_SHELL` environment variable (`'SUB-SHELL'`).

See Section 4.1 [Environment Variables], page 24, for more information.

3.1.13 Using `grep` and recursive `grep`

`^X g`

Search using `grep` all the selected files for a given pattern (`'GREP'`).

`^X g`

Search recursively using `gitrgrep` all the user specified files and directories for a given pattern (`'RECURSIVE-GREP'`).

See Section 3.10 [gitrgrep], page 23, for more information.

3.1.14 Locking your console

Having a lock feature might be a good idea and, since not all the UNIX systems provide one, `git` tries to get around the problem . . .

`^X p`

Prompt the user for a password and locks the console until the same password is reinserted (`'lock'`).

3.1.15 Refreshing the screen contents

Sometimes your screen needs to be refreshed. Just think about what happens when somebody wants to talk with you and the talk daemon writes something like this

```
Message from Talk_Daemon@galei.cs.vu.nl at 12:15 ...
talk: connection requested by andrei@galei.cs.vu.nl.
talk: respond with: talk andrei@galei.cs.vu.nl
```

on your screen. And sometimes you might also want to re-read the current directories. `git` provides some built-in commands for refreshing the screen contents.

`^L`

Re-read the directories contents re-displaying them using optimizations. Only those parts of the screen that have changed are repainted (`'refresh'`).

`^X l`

Refresh the entire screen contents without using optimizations. Useful when some "nice" program wrote something on the screen, because `git` has no way to detect this (`'hard-refresh'`).

3.1.16 Resetting your terminal

`^X ^L`

Call `reset` in order to reset the terminal to its default settings (`'TTY-RESET'`).

3.1.17 Mounting/unmounting file systems

People dealing with lots of files usually need to save/restore/copy files from/to other file systems. In order to be more efficient, `git` provides a set of key bindings for mounting and unmounting file systems. See Section 3.7 [gitmount], page 22, for more information.

The default key bindings set has been designed to work under `Linux`, but it can be easily changed for other UNIX systems with different device names. Reading the configuration file `.gitrc.common` should be enough. See Section 3.1.9.9 [Hot Keys], page 17, for more information.

As a convention, the `/mnt` directory is used to store an empty subdirectory for each mountable file system. Each file system is actually mounted in its counterpart `/mnt` subdirectory. Try to follow this convention since the `gitmount` script is heavily based on it. See Chapter 4 [Customization], page 24, for more information.

ESC m a

Call `mount(1)` in order to mount the first floppy (`/dev/fd0`) in the `/mnt/fd0` directory (`'MOUNT-A'`).

ESC m b

Call `mount(1)` in order to mount the second floppy (`/dev/fd1`) in the `/mnt/fd1` directory (`'MOUNT-B'`).

ESC m t

Call `mount(1)` in order to mount the file system corresponding to the currently pointed to subdirectory. For example, if you are in the `/mnt` directory and the cursor is on the `'fd0'` subdirectory, the first floppy will be mounted (`'MOUNT-THIS'`).

ESC r a

Call `umount(1)` in order to remove (unmount) the first floppy (`/dev/fd0`) (`'UMOUNT-A'`).

ESC r b

Call `umount(1)` in order to remove (unmount) the second floppy (`/dev/fd1`) (`'UMOUNT-B'`).

ESC r t

Call `umount(1)` in order to remove (unmount) the file system mounted into the currently pointed to subdirectory (`'UMOUNT-THIS'`). For example, if the current directory is `/mnt` and the cursor points to the `'fd1'` subdirectory, the second floppy will be unmounted.

3.1.18 Getting some useful system information

^X T

Call `date(1)` in order to display the current time/date (`'DATE'`).

ESC S f

Call `finger(1)` in order to display information about local and

remote users ('FINGER').

ESC S m

Call `mount(1)` in order to display a list of the currently mounted file systems ('MOUNTED-FILE-SYSTEMS').

ESC S q

Call `quota(1)` in order to display a user file system disk quota and quota ('QUOTA').

ESC S s

Call `df(1)` in order to get the status of the currently mounted file systems ('DISK-FREE-SPACE').

ESC S u

Call `users(1)` in order to get the name of the currently logged in users ('USERS').

ESC S v

Call `$GIT_VMSTAT(1)` in order to get the current virtual memory status. This is very system dependent, Linux uses `free`, other systems use `vmstat`, so the `$GIT_VMSTAT` variable is used to deal with this ('VIRTUAL-MEMORY-STATUS').

See Section 4.1 [Environment Variables], page 24, for more information.

ESC S w

Call `who(1)` in order to find out who is on the system ('WHO').

3.1.19 How to look at the environment variables

~X E

Call `env(1)` in order to display the current environment ('ENV').

3.1.20 Viewing/killing processes

There are at least two kinds of `ps(1)` utilities. One that accepts (more or less) combinations of the 'a', 'u', and 'x' flags and another that accepts combinations of 'e', 'f' and 'l' flags. Since is quite difficult to test which one works fine on a given UNIX system, `git` provides key bindings for both of them. Anyway, if your `ps(1)` fails to accept the predefined combinations, please take a look in its manual and then modify the `.gitrc.TERM` file as needed.

Since the number of possible combinations of flags in the `ps` command line is quite big and *very* system dependent, there is no real reason to display them all here. We are only interested in giving you a starting point in your search through the `.gitrc.TERM` file.

Note also that you can display a list of processes using `ps(1)` or browse through a list of them (killing as needed) using `gitps`. As a convention, we have used the same key sequence for a given set of `ps(1)` flags for both `ps(1)` and `gitps`, the only difference being that `ps(1)` keys end in an uppercase letter. See Section 3.2 [`gitps`], page 21, for more information.

Under Linux it is possible to see a tree of processes using `pstree(1)`.

Here there are the default key bindings for the 'e', 'f' and 'l' `ps(1)` flags combinations:

ESC P b, ESC P c, ESC P e

Call `gitps` or `ps(1)` in order to browse through or display a list of currently running processes ('GITPS', 'PS').

... and the default key bindings for the 'a', 'u' and 'x' `ps(1)` flags combinations:

ESC P a, ESC P l, ESC P u ESC P x, ESC P y

Call `gitps` or `ps(1)` in order to browse through or display a list of currently running processes ('GITPS', 'PS').

ESC P T

Call `pstree(1)` in order to display the tree of currently running processes ('PSTREE').

^X k

Call `kill(1)` in order to kill a user specified process with a given signal ('KILL').

3.1.21 Synchronizing the file systems

^X S

Call `sync(1)` in order to synchronize all the file systems ('SYNC').

3.1.22 Reading documentation

^X q

Read a manual page. The user is prompted for its name ('MAN').

F1, ^X i

Read an info documentation. The user is prompted for the documentation name ('INFO').

3.1.23 Exiting GNU Interactive Tools

F10, ^X ^C, ^X c

Exit GNU Interactive Tools ('exit').

3.2 The GIT process viewer/killer

`gitps` is an interactive process viewer/killer. It calls internally the `ps(1)` utility so that's the reason why `gitps` parameters are in fact `ps(1)` ones.

Running `gitps` it is self explanatory. Use the *arrows*, *PageUp*, *PageDown*, *Home*, *End*, *^N*, *^P*, *^V*, *ESC v* to move in the list, *^L* to refresh it and *F10* or *^G* to leave.

You can change these keys, just read the *GITPS-Setup*, *GITPS-Color*, *GITPS-Monochrome* and *GITPS-Keys* sections in the configuration files `.gitrc`.`TERM`.

3.3 The GIT ASCII/HEX file viewer

`gitview` is an ASCII/HEX file viewer. Use the *arrows*, *PageUp*, *PageDown*, *Home*, *End*, *^N*, *^P*, *^V*, *ESC v* to move in the file, *^L* to refresh the screen and *F10* or *^G* to leave.

You can change these keys, just read the `GITVIEW-Setup`, `GITVIEW-Color`, `GITVIEW-Monochrome` and `GITVIEW-Keys` sections in the configuration files `.gitrc.TERM`.

3.4 The GIT internal file compare utility

`gitcmp` is a file compare utility. It outputs to `stderr`, `git` catching its error messages this way.

`gitcmp` has been designed to be used in `.gitrc.TERM` (`git`'s configuration file) and should not be used as a stand alone program.

3.5 The GIT key sequences display utility

`gitkeys` is a program that displays the key sequence sent by the pressed key. This is the key sequence received by GIT tools, so this program is useful when setting up the `.gitrc.TERM` configuration files.

3.6 The GIT wipe file utility

`gitwipe` is an utility for wiping files. It overwrites the file contents with a random sequence of numbers and then calls `sync()`.

Note that `gitwipe` does *not* delete the file since (under Linux at least) the `sync()` system call might return before actually writing the new file contents to disk. Deleting the file might be dangerous because some file systems can detect that the blocks in the file are no longer used and never write them back to disk in order to improve performance. It is up to you to delete the file(s) at a later moment.

3.7 The GIT mount utility

`gitmount` is a script that allows you to mount any block device without specifying the file system type. You may now insert the floppy in the drive and type `'gitmount fd0'` and the first floppy will be mounted in the directory `/mnt/fd0`.

You don't need to know the file system type anymore. The directories `/mnt/fd0` and `/mnt/fd1` must exist. If you want to use `gitmount` with the block device `/dev/xxx` then the directory `/mnt/xxx` must exist too.

3.8 The GIT per file type action script

`gitaction` is a script that executes a different action for each file type specified. It is called by the `git` program when pressing *F2* or *^Xa*.

The first parameter is the current directory name and the second one is the file name to be matched against the default patterns. The matching is done using the shell 'case' statement.

4 Customizing GNU Interactive Tools

4.1 Environment Variables

The configuration files use shell environment variables to call the shell, editor, mail reader, compress and virtual memory status utility. That means that if you set *GIT_SHELL*, *GIT_EDITOR*, *GIT_RMAIL*, *GIT_COMPRESS* or *GIT_VMSTAT* to some value, that value will be used instead of the default one. The defaults are:

```
GIT_SHELL='/bin/sh'
GIT_EDITOR='vi'
GIT_RMAIL='emacs -f rmail'
GIT_PAGER='more'
GIT_COMPRESS='gzip -9'
GIT_VMSTAT='free'
```

If *SHELL* is defined, *GIT_SHELL* will be set to that value. If *EDITOR* is defined, *GIT_EDITOR* will be set to that value. If you want to change the default settings, put something like this into your *.profile*:

```
export GIT_SHELL='/usr/local/bin/bash'
export GIT_EDITOR='emacs'
export GIT_RMAIL='elm'
export GIT_PAGER='less'
export GIT_COMPRESS='compress'
export GIT_VMSTAT='vmstat'
```

4.2 Configuration Files

There is one configuration file per terminal type in *GIT*. The configuration file(s) reside in the user's home directory or (the default versions) in the directory $\$(\text{prefix})/\text{lib}$ (usually */usr/local/lib*).

Their generic name is *.gitrc.TERM*. *GIT* allows each terminal type to have its own configuration file (*TERM* is the value of the *TERM* environment variable (e.g 'vt102'); for the *Linux* console the configuration file is *.gitrc.console*).

Since most of the key bindings are common to all the terminal types, a configuration file called *.gitrc.common* is parsed before parsing the normal *.gitrc.TERM* configuration file, the later one defining only those keys that are terminal specific. However, if a key binding is redefined in the *.gitrc.TERM* file, that binding will be used.

If the *GIT* package have been compiled without passing the '*--enable-terminfo*' option to the *configure* script and your system has a huge '*termcap*' database (*/etc/termcap*), you can copy the *termcap* definition(s) of your terminal(s) in a file called, lets say *.termcap* and put it in your home directory. After that, set your *TERMCAP* environment variable to point to it. You should add something like this to your *.profile*:

```
TERMCAP=/home/mike/.termcap
```

The interactive programs in the *GIT* package can run without such a file, but on systems with huge '*termcap*' databases, copying the definitions of the most used terminals in a local *.termcap* file will lead to a faster start.

The `.gitrc`.TERM it is first time searched in the home directory then, if not found, in the directory `$(prefix)/lib` (usually `/usr/local/lib`). The configuration file is structured on sections, each section containing variables in the following format:

```
'variable-name' = 'first-field';second-field'; ...
```

After the `'variable-name'` at least one space or tab is required. All characters after a `'#'` are ignored and if you comment a section name, the whole section is ignored.

Section names are enclosed in rectangular brackets (`'['` and `']'`). Note that this manual don't include them while referring to section names.

The `GIT` package contains three major programs: `git`, `gitps` and `gitview`. Each one has its own sections in the configuration files. There is also a global setup section called `'Setup'` that is used by all these programs.

4.2.1 Writing key sequences

`GIT` contains three interactive programs. Their names are: `git` (this is the file system browser), `gitps` (this is the process viewer/killer) and `gitview` (this is the ASCII/HEX file viewer). Each one of these programs has its own set of key bindings.

The convention used in describing key bindings are very simple. Here there are some examples that will help you to understand them. The corresponding `Emacs` conventions will help you even more.

`^A` means keeping the `Ctrl` key down and pressing the `a` key (`C-a`).

The `ESC` character is represented as `^[` so that you can use the meta character (`M-`) where available (or the `ESC` key):

`^[a` corresponds to `M-a` (pressing the `ESC` key and then `a`).

The `^` character is represented as `^^`.

The `backspace` character is represented as `^_`.

The `Ctrl-SPACE` character (`C-SPC`) is represented as `^$`.

The space (`SPC`) character is represented as `^@`.

Note that the key bindings notation described here is only used in the configuration files. For the sake of readability this manual uses `ESC` for the `ESC` key, `SPC` for the `SPACE` key and `RET` for the `RETURN` (`ENTER`) key.

4.2.2 The global setup section

In this section the variables have only one field.

`'TempDirectory'`

This variable specifies the location of the temporary files created by `git`.

`'AnsiColors'`

This variable should be set to `'ON'` if the terminal supports standard `'ANSI'` color sequences. Otherwise it should be `'OFF'`. If `'AnsiColors'` is `'ON'`, `'GITxxx-Color'` sections will be used in the configuration files `.gitrc`.TERM. Otherwise, `GIT` interactive programs will use the `'GITxxx-Monochrome'` sections.

`'UseLastScreenChar'`

This variable is used for terminals that can't write on the last character of the screen without scrolling the entire screen. If your terminal has no problem writing there (**Linux** console, vt100, vt102, xterm, ...) set it to 'ON'. Otherwise (hp`term`), it should be 'OFF'.

`'StartupScrollStep'`

This variable specifies the scroll step initial value for both panels.

4.2.3 git Sections

4.2.3.1 git Setup

In this section the variables have only one field.

`'StartupFileDisplayMode'`

This variable specifies the file specific information displayed at startup. It can be any of 'OwnerGroup', 'DateTime', 'Size', 'Mode' or 'FullName'. Its value initially affects both panels but it can be changed separately afterward.

`'StartupFileSortMethod'`

This variable specifies the startup sort method. It can be any of 'Name', 'Extension', 'Size', 'Date', 'Mode', 'OwnerId', 'GroupId', 'OwnerName' or 'GroupName'. Its value initially affects both panels but it can be changed separately afterward.

`'ConfirmOnExit'`

If this variable is 'ON', the user is prompted for confirmation at exit.

`'HistoryFile'`

This variable specifies the history file name. The default value is `~/.githistory`.

`'InfoDisplay'`

If this variable is 'OFF', auxiliary file informations are not displayed. This can be useful if you are using a very slow terminal.

`'LeadingDotMatch'`

If this variable is 'OFF' when matching files for `select-files-matching-pattern / unselect-files-matching-pattern` then the leading '.' in the file name is matched only explicitly.

`'TypeSensitivity'`

If this variable is 'OFF', colors are not used when displaying files. Normally, the information in the 'GIT-FTI' section is used to display files with different colors, depending on their types. Note that 'TypeSensitivity' is automatically set to 'OFF' when 'AnsiColors' is 'OFF'. See Section 4.2.4 [GIT-FTI], page 29, for mor information.

`'NormalModeHelp'` `'CommandLineModeHelp'`

These variables describe the status bar contents for each `git` mode when no errors occurred. `git` can display on the status bar a help string and/or some system information (system type, hostname, machine type and the current date) using escape characters:

```

\s    ->   the system type
\h    ->   the host name
\m    ->   the machine type
\d    ->   the current date

```

See Section 3.1.2 [Modes], page 4, for more information.

4.2.3.2 Using git on colors displays

In this sections the variables have only one field.

These section allows you to customize the colors of `git`. Reading the `.gitrc.TERM` configuration file is self explanatory.

4.2.3.3 Using git on monochrome displays

In this sections the variables have only one field.

These section allows you to customize the appearance of `git` on monochrome displays. Reading the `.gitrc.TERM` configuration file is self explanatory.

4.2.3.4 Defining keys

These section describes the actions `git` takes when a specified key is pressed. A variable can have up to 6 fields separated by `'`. Each line in this section looks like:

```
'key-sequence' = 'command-name';'formatted-command';'new-dir';
                'save-screen';'pause';'hide'
```

Note that you can't continue the variable fields description on the next line.

4.2.3.5 The key-sequence field

`'key-sequence'` is the key sequence associated with the given command. You can use any key sequence that doesn't start with an ascii character (0x20 to 0x7e).

Symbolic key names (*F0*, *F1*, *F2*, ... *F10*, *UP*, *DOWN*, *RIGHT*, *LEFT*, *INS*, *DEL*, *HOME*, *END*, *PGUP* and *PGDOWN*) can be used instead of the key sequence. If some keys don't have a `'termcap'`/ `'terminfo'` description (like the *F11*/*F12* keys on the Linux console) you can specify the key sequence in the usual way.

4.2.3.6 The command-name field

`'command-name'` is a command generic name. Even if it is not always used, the `'command-name'` must be present (if a command is associated with a `'key-sequence'`). If it is not, no action will be taken when pressing `'key-sequence'`.

There are two types of commands in `git`: built-in commands and user defined commands. If the `'command-name'` section contains a built-in command specification, the other fields are ignored.

Note that by convention built-in command names contain only lower case letters while user defined command names contain only upper case letters.

4.2.3.7 The formatted-command field

- `'formatted-command'` is a shell command which can contain some scanf like format specifiers. They are used to get the current entry name, owner, group, mode, etc.

Note that using uppercase `'format specifiers'` you will be able to access the other panel path, file and directory names, etc.

These are the available `'format specifiers'`:

4.2.3.8 The %s format specifier

The format of %s is: %s{question,default_answer}.

When `git` encounters a %s in the ‘formatted-command’ it asks the user the question ‘question’ whose default answer is ‘default_answer’ and replaces the ‘%s{ , }’ with the user’s answer. Both ‘question’ and ‘default_answer’ can contain any other ‘format specifiers’ except %s.

Note that there should be no spaces between %s and ‘{’.

4.2.3.9 The %f format specifier

`git` will replace %f with the current directory entry name only if it is a file (not a directory).

4.2.3.10 The %d format specifier

`git` will replace %d with the current directory entry name only if it is a directory (not a file).

4.2.3.11 The %l format specifier

`git` will replace %l with the current directory entry name only if it is a symbolic link with no target.

4.2.3.12 The %t format specifier

`git` will replace %t with the current directory entry name only if it is a named pipe.

4.2.3.13 The %z format specifier

`git` will replace %z with the current directory entry name only if it is a socket.

4.2.3.14 The %a format specifier

`git` will always replace %a with the current directory entry name.

4.2.3.15 The %m format specifier

`git` will always replace %m with the current file mode.

4.2.3.16 The %g format specifier

`git` will always replace %g with the current file group.

4.2.3.17 The %o format specifier

`git` will always replace %o with the current file owner.

4.2.3.18 The %p format specifier

`git` will always replace %p with the current panel path.

4.2.3.19 The %b format specifier

`git` will always replace %b with the current panel directory name.

4.2.3.20 The %i format specifier

`git` will always replace %i with all the current panel selected file names.

4.2.3.21 The %? format specifier

The format of %? is: %?{confirmation}.

`git` uses this format specifier only to ask for confirmation before expanding / executing the current command. The ‘confirmation’ string is displayed and, if the user doesn’t confirm, the command is aborted. Otherwise, %?{confirmation} expands to a null string and the command is expanded / executed normally.

4.2.3.22 The new-dir field

If the ‘formatted-command’ successfully exits (exit code = 0) or it has no body and this field is present then ‘new-dir’ will become the current panel directory.

The character ‘~’ used at the beginning of the ‘new-dir’ field is replaced by the user’s home directory.

4.2.3.23 The save-screen field

This field is a character (usually ‘y’ or ‘n’) that tells `git` to save (‘y’) or not to save (‘n’) the terminal’s screen after executing the ‘formatted-command’. Saving the screen is not necessary while editing or viewing a file because the information left after the editor or the viewer exits is not important. Saving the screen means that that screen will be restored before the execution of the next command. Currently this field is used only if you are working as a super user under Linux on a virtual console. Its default value is ‘y’.

4.2.3.24 The pause field

Users may wish to read some commands’s results before repainting the panels. If this field is present `git` will wait for a key to be pressed before restoring the panels. Its default value is ‘n’.

4.2.3.25 The hide field

Some commands that don’t displaying any useful information if successfully complete their execution: `mount`, `chmod`, `chown`, `chgrp`, `sync` ... and, if an error occurs, a line or two are sent to `stderr`. If this option is ‘y’, the `stdout` and `stderr` will be redirected to some files (`stdout.pid` and `stderr.pid`, where `pid` is `git`’s `pid`) and only if the command’s exit code is not 0, the `stderr.pid` file will be displayed, line by line, onto the status bar. This way the panels will not be deleted and then repainted and the command appears to be built-in. `stdout.pid` and `stderr.pid` are created in the ‘TempDirectory’ specified in the ‘Setup’ section. Its default value is ‘n’.

4.2.4 Setting up colors for different file types

This sections contains entries of the form:

```
‘pattern’ = ‘foreground’; ‘background’; ‘brightness’
```

where ‘pattern’ is a file name matching pattern, ‘foreground’, ‘background’ and ‘brightness’ are the color specification to be used when a file whose name match the given ‘pattern’ is displayed in a panel. Colors can be turned off using the ‘TypeSensitivity’ variable in the ‘GIT-Setup’ section.

4.2.5 gitps Sections

4.2.5.1 gitps Setup

In this section the variables have only one field.

4.2.5.2 Using gitps on color displays

In this sections the variables have only one field.

These section allows you to customize the colors of `gitps`. Reading the `.gitrc.TERM` configuration file is self explanatory.

4.2.5.3 Using gitps on monochrome displays

In this sections the variables have only one field.

These section allows you to customize the appearance of `gitps` on monochrome displays. Reading the `.gitrc.TERM` configuration file is self explanatory.

4.2.5.4 Defining keys

4.2.6 gitview Sections

4.2.6.1 gitview Setup

In this section the variables have only one field.

4.2.6.2 Using gitview on color displays

In this sections the variables have only one field.

These section allows you to customize the colors of `gitview`. Reading the `.gitrc.TERM` configuration file is self explanatory.

4.2.6.3 Using gitview on monochrome displays

In this sections the variables have only one field.

These section allows you to customize the appearance of `gitview` on monochrome displays. Reading the `.gitrc.TERM` configuration file is self explanatory.

4.2.6.4 Defining keys

5 GNU Interactive Tools limitations

Background commands (& terminated) can be specified in the configuration file but their result (stdout and stderr redirection), will be overwritten by the result of newer commands and, if an error occurs, it will not be seen.

When `git` is compiled for `Linux`, the default built-in color descriptions are for color monitors, so you can't (decently) run `git` on a b/w monitor without the `.gitrc.TERM` file correctly configured. `.gitrc.TERM` should be configured with `'AnsiColors' = OFF`.

Job support is implemented only in `git`.

Due to the fact that the `'` character is used as a field separator in the configuration files, you can't write something like that in the `.gitrc.TERM` files:

```
^AAA = SHOW-USERS-AND-GROUPS; more /etc/passwd; more /etc/group
```

because `'more /etc/group'` will be considered as a directory to switch to. You must write a small script instead:

```
#!/bin/sh
more /etc/passwd more /etc/group
```

Supposing the script name is `show_ug`, the `.gitrc.TERM` line will look like this:

```
^AAA = SHOW-USERS-AND-GROUPS; show_ug
```

There is no support for appearance modes on magic-cookie terminals.

6 GNU Interactive Tools bugs

Any questions, comments, or bug reports, should be emailed to the authors. Please be sure to include the version number. The email addresses are:

tudorh@pub.ro

pink@pub.ro

Key Index

^		^C R (for directories)	16
^[5	^C s	6
^]	5	^C S	10
^A	8	^C T (for directories)	15
^B, LEFT	7	^C u	6
^C =	13	^C U	16
^C 2 a	17	^C W	13
^C 2 b	17	^C x	14
^C a	14	^C X	14
^C A	14	^C z	12
^C b 2 a	17	^C Z	12
^C b 2 b	17	^E	8
^C b a	14	^F, RIGHT	8
^C b A	14	^H, BKSPC	8
^C b C	9	^K	8
^C b C (for directories)	15	^L	18
^C b D	10	^O, ESC o	4
^C b D (for directories)	15	^R, ^Xr	7
^C b e	13	^S, ^Xs	7
^C b E	13	^SPC	9
^C b f Z	13	^U	8
^C b G	11	^W	8
^C b H	10	^X ^F	12
^C b M	11	^X ^G	7
^C b O	11	^X ^L	18
^C b r G	11	^X ^P	16
^C b r M	11	^X ^R	16
^C b r O	11	^X ^X	9
^C b R	10	^X O	4
^C b R (for directories)	16	^X 1	4
^C b S	10	^X 2	4
^C b T	10	^X 4 a	12
^C b T (for directories)	15	^X b m	17
^C b x	14	^X d, ^X ^D	16
^C b X	14	^X e	12
^C b z	12	^X E	20
^C b Z	12	^X g	18
^C B	13	^X G	18
^C C (for directories)	15	^X I	13
^C D (for directories)	15	^X k	21
^C e	13	^X l	18
^C E	13	^X N	16
^C ESC =	13	^X p	18
^C f Z	12	^X P	6
^C G	11	^X q	21
^C H	10	^X S	21
^C M	11	^X T	19
^C O	11	^X v	12
^C p	13	^X w	14
^C P	13	^X W	14
^C r G	11	^X z	18
^C r M	11	^Y	9
^C r O	11		
^C R	10		

D

DEL, ^D.....	8
DOWN, ^N.....	6

E

END, ESC >.....	6
ESC %.....	14
ESC &.....	14
ESC	17
ESC /.....	17
ESC \.....	8
ESC 1.....	17
ESC 2.....	17
ESC a c.....	16
ESC a o.....	16
ESC b.....	8
ESC BKSPC.....	8
ESC c.....	9
ESC d.....	8
ESC d a.....	4
ESC d d.....	4
ESC d f.....	4
ESC d m.....	4
ESC d o.....	4
ESC d s.....	4
ESC ESC RET.....	7
ESC f.....	8
ESC h.....	17
ESC i.....	17
ESC k.....	8
ESC l.....	9
ESC m a.....	19
ESC m b.....	19
ESC m t.....	19
ESC n.....	9
ESC p.....	9
ESC P a, ESC P l, ESC P u.....	21
ESC P b, ESC P c, ESC P e.....	21
ESC P T.....	21
ESC P x, ESC P y.....	21
ESC r a.....	19
ESC r b.....	19
ESC r t.....	19
ESC RET.....	7
ESC s d.....	5
ESC s e.....	5
ESC s g i.....	5
ESC s g n.....	5
ESC s m.....	5
ESC s n.....	5
ESC s o i.....	5

ESC s o n.....	5
ESC s s.....	5
ESC s u.....	5
ESC S f.....	20
ESC S m.....	20
ESC S q.....	20
ESC S s.....	20
ESC S v.....	20
ESC S w.....	20
ESC SPC.....	8
ESC u.....	9
ESC w.....	8
ESC x r m.....	17

F

F1, ^X i.....	21
F10, ^X ^C, ^X c.....	21
F2, ^X a.....	15
F3, ^X h.....	12
F4.....	12
F5 (for directories).....	15
F5, ^C C.....	9
F6 (for directories).....	15
F6, ^C T.....	10
F7, ^X M.....	15
F8 (for directories).....	15
F8, ^C D.....	10
F9, ^X m.....	17

H

HOME, ESC <.....	6
------------------	---

I

INS, ^T, ^X \, ^\.....	6
------------------------	---

P

PGDOWN, ^V.....	6
PGUP, ESC v.....	6

T

TAB, ^I, ^X o.....	6
--------------------	---

U

UP, ^P.....	6
-------------	---

Command Index

A

adapt-current-directory 16
 Adapt-other-directory 16
 ASCII-MAIL 17

B

B-ASCII-MAIL 17
 B-BINARY-MAIL 17
 B-CHGRP 11
 B-CHMOD 11
 B-CHOWN 11
 B-COMPRESS 12
 B-COPY 9
 B-COPY (for directories) 15
 B-DELETE 10
 B-DELETE (for directories) 15
 B-LINK 10
 B-MAKE 17
 B-MOVE 10
 B-MOVE (for directories) 15
 B-R-CHGRP 11
 B-R-CHMOD 11
 B-R-CHOWN 11
 B-RENAME 10
 B-RENAME (for directories) 16
 B-SYMLINK 10
 B-TAR 14
 B-TAR-COMPRESS 14
 B-UNCOMPRESS 12
 B-UNCOMPRESS-UNTAR 14
 B-UNTAR 14
 B-UUDECODE 13
 B-UUENCODE 13
 backward-char 7
 backward-delete-char 8
 backward-kill-word 8
 backward-word 8
 beginning-of-line 8
 beginning-of-panel 6
 BF-UNCOMPRESS 13
 BINARY-COMPARE 13
 BINARY-MAIL 17

C

capitalize-word 9
 change-directory 16
 CHANGE-LOG 12
 CHGRP 11
 CHMOD 11
 CHOWN 11
 COMPRESS 12
 copy 9

copy (for directories) 15

D

DATE 19
 DECRYPT 13
 delete 10
 delete (for directories) 15
 delete-char 8
 delete-horizontal-space 8
 DIFF 13
 DIRECTORY-USAGE 16
 DISK-FREE-SPACE 20
 downcase-word 9

E

EDIT 12
 ENCRYPT 13
 end-of-line 8
 end-of-panel 6
 enlarge-other-panel 4
 enlarge-panel 4
 ENV 20
 exchange-point-and-mark 9
 exit 21

F

F-UNCOMPRESS 12
 file-to-input-line 7
 FILE-ACTION 15
 FILE-CREATE 12
 FIND 14
 FINGER 20
 FIRST-FLOPPY-DIR 17
 forward-char 8
 forward-word 8

G

GITPS, PS 21
 GREP 18

H

hard-refresh 18
 HOME-DIR 17

I

INCLUDE-DIR	17
INFO	21
isearch-backward	7
isearch-forward	7
ISPELL	13

J

just-one-space	8
----------------------	---

K

kill-line	8
kill-region	8
kill-ring-save	8
kill-to-beginning-of-line	8
kill-to-end-of-line	8
kill-word	8
KILL	21

L

LAST-BACKUP-DIFF	13
LINK	10
LOCATE	14
lock	18

M

make-directory	15
MAKE	17
MAN	21
MOUNT-A	19
MOUNT-B	19
MOUNT-THIS	19
MOUNTED-FILE-SYSTEMS	20
move	10
move (for directories)	15
MULTIPLE-EDIT	12
MULTIPLE-VIEW	12

N

next-directory	16
next-history-element	9
next-line	6

O

other-panel	6
other-path-to-input-line	7

P

panel-enable-all	4
panel-enable-date-time	4
panel-enable-full-name	4
panel-enable-mode	4
panel-enable-next-mode	5
panel-enable-owner-group	4
panel-enable-size	4
panel-sort-by-date	5
panel-sort-by-extension	5
panel-sort-by-group-id	5
panel-sort-by-group-name	5
panel-sort-by-mode	5
panel-sort-by-name	5
panel-sort-by-owner-id	5
panel-sort-by-owner-name	5
panel-sort-by-size	5
panel-sort-next-method	5
previous-directory	16
previous-history-element	9
previous-line	6
PSTREE	21

Q

QUOTA	20
-------------	----

R

R-CHGRP	11
R-CHMOD	11
R-CHOWN	11
READ-MAIL	17
RECURSIVE-GREP	18
refresh	18
RENAME	10
RENAME (for directories)	16
reset-directory-history	16
ROOT-DIR	17

S

scroll-down	6
scroll-up	6
SECOND-FLOPPY-DIR	17
select-file	6
select-files-matching-pattern	6
selected-files-to-input-line	7
set-mark	9
set-scroll-step	6
SUB-SHELL	18
switch-panels	6
SYMLINK	10
SYNC	21

T

TAR	14
TAR-COMPRESS	14
tty-mode	4
TTY-RESET	18
two-panel-mode	4

U

UMOUNT-A	19
UMOUNT-B	19
UMOUNT-THIS	19
UNCOMPRESS	12
UNCOMPRESS-UNTAR	14
unselect-files-matching-pattern	6
UNTAR	14
UP-DIR	17
upcase-word	9

USERS	20
UUDECODE	13
UUENCODE	13

V

VIEW	12
VIRTUAL-MEMORY-STATUS	20

W

WHEREIS	14
WHICH	14
WHO	20
WIPE	13

Y

yank	9
------------	---

Variable Index

A

AnsiColors 25

C

CommandLineModeHelp 26

ConfirmOnExit 26

E

EDITOR 24

G

GIT_COMPRESS 24

GIT_EDITOR 24

GIT_RMAIL 24

GIT_SHELL 24

GIT_VMSTAT 24

H

HistoryFile 26

I

InfoDisplay 26

L

LeadingDotMatch 26

N

NormalModeHelp 26

S

SHELL 24

StartupFileDisplayMode 26

StartupFileSortMethod 26

StartupScrollStep 26

T

TempDirectory 25

TERM 24

TypeSensitivity 26

U

UseLastScreenChar 26

Concept Index

A

Adapt directory	16
Archive	14

B

Background directory copy	15
Background directory delete	15
Background directory move	15
Background directory rename	16
Background file copy	9
Background file delete	10
Background file move	10
Background file rename	10
Background make	17
Backward char	7
Backward delete char	8
Backward kill word	8
Backward word	8
bash	18
Beginning of line	8
Beginning of panel	6
Binary compare	13
Binary files by mail	17
Browsing through the process list	21

C

Capitalize word	9
Change the current panel directory	16
Change the other panel directory	16
Changing directory	16
Changing the current directory	16
Changing the directory	16
Changing the file's group	11
Changing the file's mode	11
Changing the file's owner	11
Changing the group in background	11
Changing the group recursively	11
Changing the group recursively in background ..	11
Changing the inode's group	11
Changing the inode's mode	11
Changing the inode's owner	11
Changing the mode in background	11
Changing the mode recursively	11
Changing the mode recursively in background ..	11
Changing the owner in background	11
Changing the owner recursively	11
Changing the owner recursively in background ..	11
chdir	16
chgrp	11
chmod	11
chown	11
Compile	17

Compiling programs	17
compress	12
Compressing directories	12
Compressing directories in background	12
Compressing files	12
Compressing files in background	12
Console lock	18
Convert to lower case	9
Convert to upper case	9
Copy file name to input line	7
Copying directories	15
Copying directories in background	15
Copying files	9
Copying files in background	9
Create directory	15
Create file	12
Creating a directory	15
Creating compressed tar archives	14
Creating compressed tar archives in background ..	14
Creating tar archives	14
Creating tar archives in background	14
csh	18
Current disk quota	20
Cursor backward	7
Cursor backward one word	8
Cursor down one entry	6
Cursor down one page	6
Cursor end	6
Cursor forward	8
Cursor forward one word	8
Cursor home	6
Cursor to BOL	8
Cursor to EOL	8
Cursor to the other panel	6
Cursor up one entry	6
Cursor up one page	6

D

date	19
Date and time	4
Date, time	4
Decoding files	13
Decoding files in background	13
Decompressing directories	12
Decompressing directories in background	12
Decompressing directories/links	12
Decompressing directories/links in background ..	13
Decompressing files	12
Decompressing files in background	12
Decompressing files/links	12
Decompressing files/links in background	13
Decrypting the current file	13
Delete char	8

Delete horizontal space	8
Delete line	8
Delete spaces	8
Delete word backward	8
Delete word forward	8
Deleting directories	15
Deleting directories in background	15
Deleting files	10
Deleting files in background	10
diff	13
Differences between ascii files	13
Differences between file and backup	13
Directory copy	15
Directory delete	15
Directory history reset	16
Directory mode	4
Directory move	15
Directory rename	16
Directory size	4
Directory usage	16
Disk free space	20
Downcase word	9
du	16

E

Editing a file	12
Editing multiple files	12
Editing the ChangeLog	12
Emacs rmail	17
Enable all	4
Enable next mode	5
Encoding files	13
Encoding files in background	13
Encrypting the current file	13
End of line	8
End of panel	6
Enlarge other panel	4
Enlarge panel	4
Entire screen	4
env	20
Exchange point and mark	9
Exiting	21
Extracting files from archives	14
Extracting files from archives in background	14

F

File action	15
File copy	9
File create	12
File delete	10
File edit	12
File mode	4
File move	10
File or directory mode	4
File or directory size	4
File rename	10

File search	14
File size	4
File system status	20
File view	12
File wipe	13
find	14
finger	20
First entry	6
Forward char	8
Forward word	8
Free disk space	20
Full directory info	4
Full directory name	4
Full file info	4
Full file name	4
Full file or directory name	4
Full info	4
Full name	4

G

git	3
gitaction	22
gitcmp	22
gitkeys	22
gitmount	22
gitps	21
gitredir	23
gitregrep	23
gitrfgrep	23
gitrgrep	23
gitview	22
gitwipe	22
Go to	17
Go to /	17
Go to the \$HOME directory	17
Go to the /usr/include directory	17
Go to the ~ directory	17
Go to the first floppy mount point	17
Go to the home directory	17
Go to the include directory	17
Go to the other panel	6
Go to the parent directory	17
Go to the root directory	17
Go to the second floppy mount point	17
Go up one directory	17
grep	18
Group and owner	4
Group, owner	4
gunzip	12
gzip	12

H

Half screen	4
Hard links to files	10
Hard refresh	18
Hot Keys	17

I

Incremental search backward	7
Incremental search forward	7
Isearch backward	7
Isearch forward	7
ispell	13

J

Just one space	8
----------------------	---

K

Kill line	8
Kill region	8
Kill ring save	8
Kill to beginning of line	8
Kill to end of line	8
kill word	8
Killing processes	21

L

Last backup diff	13
Last entry	6
Linking files in background	10
locate	14
Locating files	14
Locking the console	18
Logged in users	20
Looking at the environment	20

M

Major modes	4
make	17
Make directory	15
Making a directory	15
Mark file	6
Minor modes	4
mount	19
Mounted file systems list	20
Mounting file system	19
Mounting first floppy	19
Mounting floppy	19
Mounting second floppy	19
Mounting subdirectory	19
Mounting the first floppy	19
Mounting the second floppy	19
Mounting this file system	19
Moving directories	15
Moving directories in background	15
Moving files	10
Moving files in background	10
Multiple edit	12

N

Next directory history entry	16
Next history element	9
Next sort method	5
No panels mode	4

O

One panel	4
Other panel path to input line	7
Owner and group	4
Owner, group	4

P

Previous directory history entry	16
Previous history element	9
Program search	14

Q

Quota	20
-------------	----

R

Re-reading directories	18
Reading info documentation	21
Reading mail	17
Reading manual pages	21
Recursive grep	18
Refreshing directories	18
Refreshing the screen	18
regexp	18
Renaming directories	16
Renaming directories in background	16
Renaming files	10
Renaming files in background	10
Reset the directory history	16
Resetting the terminal	18

S

Save and delete region	8
Save into the kill ring	8
Screen refresh	18
Scroll step	6
Searching binaries	14
Searching files	14
Searching patterns in files	18
Searching programs	14
Searching regular expressions	18
Select file	6
Selected files to input line	7
Selects files matching pattern	6
Sending ascii mail	17
Sending ascii mail in background	17
Sending binary mail	17
Sending binary mail in background	17
Sending files by mail	17
Sending mail	17
Sending text by mail	17
Set mark	9
Set the mark	9
sh	18
Shell	18
Sorted by date	5
Sorted by extension	5
Sorted by group id	5
Sorted by group name	5
Sorted by mode	5
Sorted by name	5
Sorted by owner id	5
Sorted by owner name	5
Sorted by size	5
Sorting	5
Sorting by date	5
Sorting by extension	5
Sorting by group id	5
Sorting by group name	5
Sorting by mode	5
Sorting by name	5
Sorting by owner id	5
Sorting by owner name	5
Sorting by size	5
Spell checking	13
Spelling files	13
Swapping	20
Switch panels	6
Symbolic links to files	10
sync	21
Synchronizing file systems	21
System users	20

T

Tar archive	14
tcsh	18
Terminal reset	18
Time and date	4
Time, date	4
Toggle flag	6
Toggle panels	6
tty mode	4
Two panel mode	4
Two panels	4
Type specific file action	15

U

umount	19
Uncompressing directories	12
Uncompressing directories in background	12
Uncompressing directories/links	12
Uncompressing directories/links in background	13
Uncompressing files	12
Uncompressing files in background	12
Uncompressing files/links	12
Uncompressing files/links in background	13
Unmark file	6
Unmounting file system	19
Unmounting first floppy	19
Unmounting floppy	19
Unmounting second floppy	19
Unmounting subdirectory	19
Unmounting the first floppy	19
Unmounting the second floppy	19
Unmounting this file system	19
Unselects files matching pattern	6
Uppercase word	9
uudecode	13
uuencode	13

V

Viewing files	12
Viewing multiple files	12
Viewing processes	21
Viewing the process tree	21
Virtual memory status	20

W

whereis	14
which	14
who	20
Wiping files	13
Wrapped incremental search	7
Wrapped isearch	7
Wrapped search	7

Y

Yanking, reinserting 9

Short Contents

1	Introduction	1
2	Distributing GNU Interactive Tools	2
3	Using GNU Interactive Tools	3
4	Customizing GNU Interactive Tools	24
5	GNU Interactive Tools limitations	31
6	GNU Interactive Tools bugs	32
	Key Index	33
	Command Index	35
	Variable Index	38
	Concept Index	39

Table of Contents

1	Introduction	1
2	Distributing GNU Interactive Tools	2
3	Using GNU Interactive Tools	3
3.1	The GIT file system browser	3
3.1.1	Key binding conventions	3
3.1.2	Panel modes	4
3.1.3	Sorting methods	5
3.1.4	Moving the cursor in the panel	6
3.1.5	Selecting files	6
3.1.6	Incremental searching files in a panel	7
3.1.7	Using the input line	7
3.1.7.1	Inserting Text	7
3.1.7.2	Moving Point	7
3.1.7.3	Deleting and killing text	8
3.1.7.4	Case conversion of words	9
3.1.7.5	Reusing recent input line arguments	9
3.1.7.6	Commands to set the mark	9
3.1.7.7	Reinserting recently killed text	9
3.1.8	File operations	9
3.1.8.1	Copying Files	9
3.1.8.2	Moving Files	10
3.1.8.3	Creating Files	10
3.1.8.4	Deleting Files	10
3.1.8.5	Linking Files	10
3.1.8.6	Renaming Files	10
3.1.8.7	Changing a file's inode mode, owner and group	11
3.1.8.8	Editing Files	12
3.1.8.9	Viewing Files	12
3.1.8.10	Compressing Files	12
3.1.8.11	Encoding Files	13
3.1.8.12	Encrypting Files	13
3.1.8.13	Comparing Files	13
3.1.8.14	Spelling Files	13
3.1.8.15	Wiping Files	13
3.1.8.16	Searching Files	14
3.1.8.17	Managing tar based archive files	14
3.1.8.18	A different action for each file type	15
3.1.9	Directory operations	15
3.1.9.1	Creating directories	15
3.1.9.2	Copying directories	15

3.1.9.3	Deleting directories	15
3.1.9.4	Moving directories	15
3.1.9.5	Renaming directories	16
3.1.9.6	Summarize directory usage	16
3.1.9.7	Changing directories	16
3.1.9.8	Directory History	16
3.1.9.9	Hot Keys	17
3.1.10	Compiling programs	17
3.1.11	Sending/receiving ascii/binary mail	17
3.1.12	Starting a sub-shell	18
3.1.13	Using grep and recursive grep	18
3.1.14	Locking your console	18
3.1.15	Refreshing the screen contents	18
3.1.16	Reseting your terminal	18
3.1.17	Mounting/unmounting file systems	19
3.1.18	Getting some useful system information	19
3.1.19	How to look at the environment variables	20
3.1.20	Viewing/killing processes	20
3.1.21	Synchronizing the file systems	21
3.1.22	Reading documentation	21
3.1.23	Exiting GNU Interactive Tools	21
3.2	The GIT process viewer/killer	21
3.3	The GIT ASCII/HEX file viewer	22
3.4	The GIT internal file compare utility	22
3.5	The GIT key sequences display utility	22
3.6	The GIT wipe file utility	22
3.7	The GIT mount utility	22
3.8	The GIT per file type action script	22
3.9	The GIT stdout to stderr redirection script	23
3.10	The GIT recursive grep script	23
4	Customizing GNU Interactive Tools	24
4.1	Environment Variables	24
4.2	Configuration Files	24
4.2.1	Writing key sequences	25
4.2.2	The global setup section	25
4.2.3	git Sections	26
4.2.3.1	git Setup	26
4.2.3.2	Using git on colors displays	27
4.2.3.3	Using git on monochrome displays	27
4.2.3.4	Defining keys	27
4.2.3.5	The key-sequence field	27
4.2.3.6	The command-name field	27
4.2.3.7	The formatted-command field	27
4.2.3.8	The %s format specifier	28
4.2.3.9	The %f format specifier	28

4.2.3.10	The %d format specifier	28
4.2.3.11	The %l format specifier	28
4.2.3.12	The %t format specifier	28
4.2.3.13	The %z format specifier	28
4.2.3.14	The %a format specifier	28
4.2.3.15	The %m format specifier	28
4.2.3.16	The %g format specifier	28
4.2.3.17	The %o format specifier	28
4.2.3.18	The %p format specifier	28
4.2.3.19	The %b format specifier	28
4.2.3.20	The %i format specifier	28
4.2.3.21	The %? format specifier	29
4.2.3.22	The new-dir field	29
4.2.3.23	The save-screen field	29
4.2.3.24	The pause field	29
4.2.3.25	The hide field	29
4.2.4	Setting up colors for different file types	29
4.2.5	gitps Sections	29
4.2.5.1	gitps Setup	30
4.2.5.2	Using gitps on color displays	30
4.2.5.3	Using gitps on monochrome displays	30
4.2.5.4	Defining keys	30
4.2.6	gitview Sections	30
4.2.6.1	gitview Setup	30
4.2.6.2	Using gitview on color displays	30
4.2.6.3	Using gitview on monochrome displays	30
4.2.6.4	Defining keys	30
5	GNU Interactive Tools limitations	31
6	GNU Interactive Tools bugs	32
	Key Index	33
	Command Index	35
	Variable Index	38
	Concept Index	39