Gtree

1 Introduction

Gtree is an Xtree like file manager with a GUI interface.

It should run on any reasonably recent Linux system with GTK+ installed.

The current functionality is incomplete, but concentrates on Directory navigation and logging.

2 Main Window

The initial Gtree display is divided into a number of areas.

The largest panel is a Frame which contains a list of Directories and/or Files.

The area to the right displays Statistics about the item currently selected in the main Frame.

The bottom panel is a summary of the Commands which apply to the current selection.

3 Directory/File Frame

The Frame has 2 components. The top *Directory Window* is a tree display of Directories.

The bottom *File Window* is a list of Files currently selected in the Directory Window. The relative sizes of the Directory and File panes can be controlled by dragging on the divider (keyboard control coming).

To work with files the user enters the File Window. This hides the Directory Window (although it is still there in the background).

There is a second Frame, which is initially hidden, but can be made visible. The user can then switch between the left and right frame and hide the inactive frame. Each frame is independent - although the logged directories are the same, those which are displayed may be different.

3.1 Directory Window

The Directory Window is a tree display of Directories.

The top left is the displays the root node. The frame label (top-left border) is the full path to the currently selected directory.

Sub-directories are indented to the right and joined by tree lines.

The tree lines may contain expanders $\triangleright$ indicating that the directory may be expanded or $\triangledown$ indicating that it is already expanded.

The left column contains a checkbox; ☑ indicates that the directory has been "logged" or ☐ "un-logged". Initially Gtree logs a single node, and thus displays this as logged, and all of its sub-directories as un-logged.

3.1.1 Directory Window Navigation

The Directory Window can be navigated with the mouse using the scroll bar (if displayed), scroll-wheel, by clicking on a directory, or by using the following keys:-

Up/Down Arrows Move a single row, scrolling if necessary.

Left Arrow   Move to parent directory.

Right Arrow   Move to first child directory.

PgUp/PgDown   Scroll one screen up/down.

Home	Move to top row.
End	Move to last displayed row.

3.1.2 Directory Window Logging

Directories need to be logged before they can be used. This may be an unfamiliar concept, as most file managers log on the fly, but Gtree saves directory contents in an internal database.

When logging Directories Gtree does not follow symlinks, but Files display the target of the symlink.

Gtree does not log hidden directories, although hidden sub-directories may be displayed. The default may be changed (see Starting and Configuring Gtree). Individual hidden directories can be logged by selecting the directory and using one of the logging commands.

+	Log the selected directory. This displays files and all first level directories. If the directory is already logged it is relogged (losing any tags).
=	Same as '+'
*	Log all directories and sub-directories in branch. If the directory is already logged it is re-logged (losing any tags).
-	Un-Log all directories in branch, releasing all memory.
F6	Toggle between display of single directory or all sub-directories. This affects display only, directories are not re-logged.
F5	Toggle between display of directory and 1st level sub-directories or all sub-directories.
F8	Split or Un-Split the Directory/File Frame.

3.1.3 Directory Window Commands

Enter	Enter the File Window. If directory in not logged, then log first. This is only possible if there are visible files in the directory.
B	Enter the File Window, displaying all visible files in the Branch. This is only possible if there are visible files in the branch.
D	Delete the selected directory (if empty).
F	Enter a File Specification.
H	Hide or Show hidden directories. The state will be saved when Gtree is closed.
T	Tag all files which match the File Specification.
U	Un-Tag all files which match the File Specification.
Q	Quit

3.1.4 Ctrl-Directory Window Commands

B	Enter the File Window, displaying all tagged files in the Branch.
T	Tag all files in node which match the File Specification.
U	Un-Tag all files in node which match the File Specification.
I	Invert file tags.
Q	Quit

3.1.5 Alt-Directory Window Commands

Q   Quit

3.2 File Window

The File Window displays a list of files and information.

The Normal File Window displays files in a directory which match the current File Specification.
The Branch display shows all logged files in a branch which match the current File Specification.

The frame label (top-left border) is the full path to the directory containing the currently selected file.

The left column contains a checkbox; ☑ indicates that the file has been "tagged".

3.2.1 File Window Navigation

The File Window can be navigated with the mouse using the scroll bar (if displayed), scroll-wheel, by clicking on a file, or by using the following keys:-

Up/Down Arrows	Move a single row, scrolling if necessary.
PgUp/PgDown	Scroll one screen up/down.
Home	Move to top row.
End	Move to last displayed row.
F8	Split or Un-Split the Directory/File Frame.

3.2.2 File Window Commands

Enter	Return to the Directory Window
Esc	Same as Enter.
C	Copy the selected file. You will be prompted for target filename (no wildcards permitted) and then for the target directory. Directories will be created if necessary, and any existing file of the same name will be overwritten[1]. If the selected file is a symlink then this will be copied, not the target file.
D	Delete the selected file
F	Enter a File Specification.
T	Tag the selected file.
U	Un-Tag the selected file.
Q	Quit

3.2.3 Ctrl-File Window Commands

C	Copy tagged files. You will be prompted for the target directory. Files will be copied with the current name. Directories will be created if necessary, and any existing file of the same name will be overwritten[1]. If a taged file is a symlink then this will be copied, not the target file.
D	Delete tagged files which match the File Specification.
I	Invert file tags.
T	Tag all files which match the File Specification.

1	Options for overwriting target file and renaming will be added in future releases as well as history and more intelligent defaults.

U	Un-Tag all files which match the File Specification.
Q	Quit

3.2.4 Alt-File Window Commands

Q	Quit

3.3 Command Window

The Command Window, at the bottom of the Main Window, usually contains a summary of the Commands which apply to the Active Window. These change to reflect those available when Ctrl or Alt keys are depressed.

The Command Window is also used to get user input e.g. File Specification, target filename and directory for copy.

3.4 Statistics Window

The Statistics Window (on the right side) displays information about the Active Window, and the item selected in that window.

The top section contains the File Specification which is currently in effect.

The next section displays information about the Active Window and will show Node, Branch or Directory totals if the Directory Window, Branch File Window or Normal File Window is active.

This is in 3 sections:-

Total	shows count and total size of all files.
Matching	shows count and total size of files which match the current File Specification.
Tagged	shows count and total size of tagged files.

The next shows information about the **Current Directory** or **Current File**.

The current Gtree version is displayed at the bottom of the window.

4 File Specification

File Specifications are a means of filtering the files which are displayed in Gtree. Only files which match the current File Specification are displayed in the File Window.

The File Specification comprises one or more patterns, separated by spaces e.g *.txt *.doc.

Each pattern may contain '*' and '?' wildcards: '*' matches an arbitrary, possibly empty, string, '?' matches an arbitrary character.

NOTE patterns can not be enclosed in quotes due to a bug in g_shell_parse_argv().

(It is proposed to extend File Specifications to allow file date and size matching, regular expressions and a more flexible format.)

5 Split Frames

Gtree has 2 Directory/File Frames, although the right frame is initially hidden.

Each frame is independent - although the logged directories are the same, the display may be different.

The user can switch between the left and right frame and hide the inactive frame. The inactive pane retains its state, which is restored when it is made visible, although changes such as logging or releasing directories may modify this.

The inactive File Frame will be updated to reflect changes made in the active Frame only when it is selected, and may lose the selection if files have been deleted.

5.1.1 Split Frame Navigation

F8   Split the Directory/File Frame to show both left and right frames.
                      If already Split hide the inactive Frame.

Tab   Toggle to the other Frame, making it active.

A Frame can also be activated by clicking on any directory or file in the inactive pane with the mouse.

6 Starting and Configuring Gtree

Start gtree with an optional path e.g. **gtree** /

It will default to $HOME is none is specified.

Gtree will create a directory **gtree** and configuration file **gtree.ini** in the <u>directory for user-specific application configuration information</u> (~/.config in Ubuntu).

This file contains user specific configuration. Currently this only contains:-
[options]
date_disp_mode=%Y-%m-%d %H:%M
log_hidden_dirs=false

There is, as yet, no configuration program, so the only way to change this is by editing the ini file (*~/.config/gtree/gtree.ini* in Ubuntu).

The date string can contain any of the strftime parameters supported on your system. Useful values are:-
%c   The preferred calendar time representation for the current locale.
%D   The date using the format %m/%d/%y.
%F   The date using the format %Y-%m-%d.
%r   The complete calendar time using the AM/PM format of the current
%R   The hour and minute in decimal numbers using the format %H:%M.
%T   The time of day using decimal numbers using the format %H:%M:%S.
%x   The preferred date representation for the current locale.
%X   The preferred time of day representation for the current locale.

7 Limitations

Only a single path can be logged.

Gtree does not display progress and cannot be interrupted, if you try to log large directories or slow networks.

I do not recommend logging '*' on the root, particularly if you have mapped network drives.