StarNavi

End-User Manual

Introduction

StarNavi is a new file system navigator designed to explore alternatives to the traditional desktop metaphor. It represents the user's files as stars in a galaxy, with the galaxy capable of being rebuilt according to new view rules, such as sorting by name or tags instead of a simple directory navigation.

StarNavi was programmed using straight OpenGL and SDL, using FreeGLUT as its backend for event-listening. Stars are rendered using PNG image files, which are currently loaded through the Developer's Image Library, or DevIL. StarNavi also utilizes Framebuffer objects for render-to-texture, which requires OpenGL 3.0 or above. Development packages for these libraries are available through most Linux package managers, allowing for StarNavi to be easily compiled on most Linux systems.

Compiling StarNavi

Warning: StarNavi was built on a Linux system, and as such, Linux is the only operating system StarNavi is guaranteed to run on. Though built using free libraries, StarNavi has yet to be tested on Windows or Mac OS machines. Additionally, while the current version of StarNavi is “stable”, it is still in the alpha stage of development. Compile/run at your own risk.

To Compile:

1) Make sure you have the following packages installed:
    - OpenGL development libraries (mesa on Linux)
    - DevIL development library
    - SDL development libraries
    - SDL-ttf development library (may install Truetype /Freetype packages)
    - freeglut development library
2) Download the StarNavi source code from https://github.com/InvalidAddress/StarNavi
3) Unzip the source code
4) In a terminal, navigate to the directory of the unzipped source code, and type “make” (no quotes).

If your system was configured properly there should now be a “starnavi” executable in the same directory as the source code. In order for it to run properly, the “images” directory that was with the source code needs to be in the same directory as the StarNavi executable. Additionally, it may be wise to add the directory where StarNavi resides to your system's PATH variable, to make running StarNavi easier.

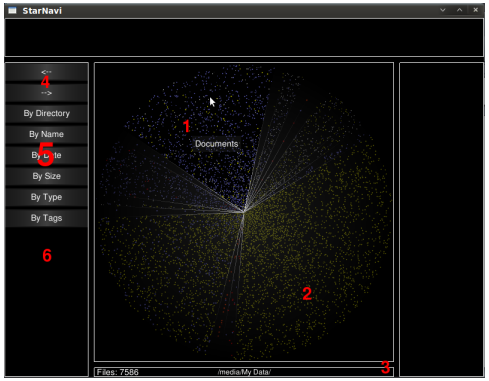
Running StarNavi

After compiling, starting StarNavi is as easy as double-clicking the executable. Without parameters though, StarNavi will only index the directory in which it resides. A more flexible way to use StarNavi is to run it from the terminal, which will be easy if you followed previous advice and added StarNavi's location to your PATH variable. From the terminal you can tell StarNavi which directory to index and navigate by using the path of the directory as StarNavi's one and only parameter.

If you know what you're doing, you can make desktop and menu shortcuts that open StarNavi at a favorite location. This manual will not go into the details of how to do this; if you would like to know how to set this up, please look through the help files of your desktop manager.

Using StarNavi

StarNavi's Interface:



1) Active Sector
2) Inactive Sectors
3) Status Bar
4) Navigation Buttons
5) Cluster Mode Buttons
6) Tags list (empty)

Important Terms:

Star: A file. Color is dependent on MIME type, and diameter is dependent on the size of the file (in bytes).

Sector: A slice of the Galaxy; it contains stars, and represents a logical division, according to the galaxy's clustering mode.

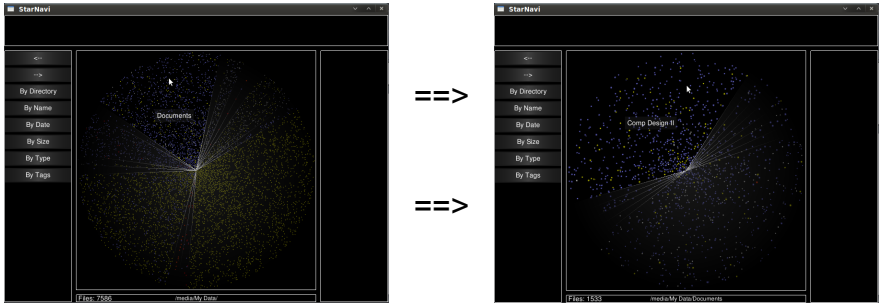
Galaxy: A collection of sectors. Can represent a directory, or a set files that are in some way connected (similar tags, modified on the same day, etc).

Cluster Mode: Files can be organized in ways other than where they are in a hierarchy. StarNavi has options to organize files by name, date, size, type, and associated tags.

Tag: Text that helps to identify the file in some way, like the name of the author, name of some collection it belongs to, personal identifiers such as clues to its content, etc.

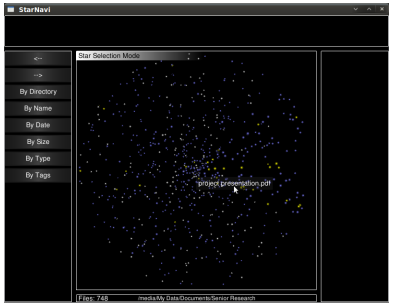
Using StarNavi (cont.)

Selecting a Sector:



In most cluster modes, selecting a sector will prompt StarNavi to build a new galaxy out of that sector's contents. If that new galaxy can be further divided according the the rules of the current mode, it too will be split into sectors, allowing the user to repeat the process. If there are no sectors, then the user will enter Star Selection Mode.

Star Selection Mode:



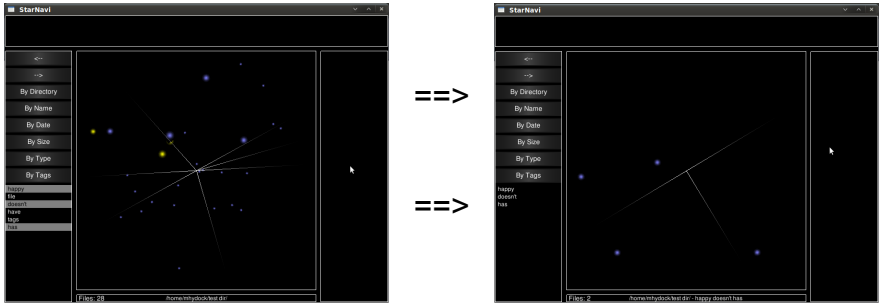
Star Selection Mode, as its name implies, allows the user to open any file they see by clicking its corresponding star. This mode is enabled under two different conditions: by reaching a galaxy with only one sector, or by right clicking anywhere on the galaxy.

Tag Mode

When StarNavi encounters a directory tree that contains files with tags, it will pull the tags from the tag files, and present them in a list underneath the cluster mode buttons. This list allows the user to change what files appear when organizing files by tag.

Selecting the desired tags and clicking the “By Tags” button will rebuild the galaxy to contain only files that have those tags, and each sector of the galaxy will pertain to one of the tags selected. Right now, files that have been tagged with more than one of the selected tags will appear in multiple sectors. While this is not necessarily a problem, it does hinder locating files that have a specific set of tags. An “AND” mode is planned for a future version.

After the galaxy has been rebuilt, the tags list will contain the previously selected tags, for reference. Clicking on a sector will rebuild the galaxy again, but this time the new galaxy will only contain those files, and will be in Star Selection Mode. At this point, the tag list will be rebuilt, and the user can start the tag selection process all over again, with only these files.



Tagging Explained

Tagged Browsing in StarNavi is a little unusual, and requires some explanation. StarNavi cannot read tags embedded in files, such as IDv3 tags in MP3's, or the metadata in JPEG's. Instead, StarNavi relies on special files that begin with a period and end with ".tag", with the name of the file between the period and the suffix. The name of the tag file must match the name of a file in the same directory for the tags to be applied by the indexer, otherwise the tag file is ignored.

At the current time, there is no application or function inside of StarNavi to create these tag files. Luckily, they are plain-text files, so if a user desires they can simply create a new file, name it accordingly, and fill it with identifiers, separated by spaces. The next time StarNavi is run, it will recognize the tag file, and populate the tags list with identifiers read in from the tag file. Due to the naming convention used, the file will appear hidden in most file system navigators, so if the user wishes to edit the tag file in the future, they should enable viewing of hidden files in their default file manager (StarNavi does not have this capability yet).