

Memorandum

Date: 15 February 2013
To: Ben Bitdiddle, Nemo Graphics Design Agency
From: Victor Hung
Subject: Request to Create an Internal Versioning File System

I am writing to propose the creation of a file system that will increase efficiency and error recoverability. This system will greatly benefit Linux users within our company who have an affinity for saving his or her work under multiple filenames to document changes. As such a system does not currently exist, the end product will provide organization and uniformity towards the company's file structure, as well as greatly decrease the time to switch between iterations of the same design.

Graphics Designer Friendly Versioning System

This file versioning system will keep track of old and new files in a storage-efficient manner. As files containing graphics may be quite large compared to those of text files, this file system focuses on reducing the space that a traditional file versioning system may require by using disk space proportional to one copy of the original file plus the changes. This implementation contains a feature where users may select particular files they may not want versioned, along with a garbage collection feature of older file versions. This product is an essential for our growing startup as there is currently no standard file saving protocols throughout the agency, increasing the chances of error and miscommunication.

Convenience from an Employee's Perspective

Designers within our agency will be able to incorporate this versioning file system into their Linux machine's seamlessly, and gain the benefits without a transition period. Currently, if an individual misinterprets a given set of specifications and ideals from a client, they may be required to look through a series of haphazardly named files that may or may not contain an older version of a design. With a standardized versioning file system, the designer will be able to quickly roll back and resume process from when the client was last satisfied. Lead designers managing larger projects may also find this internal product useful to easily view designs and revisions, using the different iterations of a file to make important decisions.

General Timeline of Project

In accordance with the current ongoing projects at Nemo Graphics Design Agency, the final design report of this internal versioning file system will be presented in 5 weeks (on or before March 22nd, 2013). The design phase will require one week, and the proposal will be completed in two weeks (March 1st, 2013). Minor fixes and smaller design considerations will proceed following the proposal. The major block of time allocated for designing the system will allow for multiple crucial design decisions of this project, including the representation of files on disk, file creation and naming, structure and hierarchy of files, and necessary operations.