

## Memorandum

Date: 13 February 2013  
To: 6.033 Staff  
From: Anna Waldo  
Subject: Improved Versioning File System

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As a result of users' complaints of being unable to conveniently access and view old version of files, I have developed a new and improved versioning file system. Instead of writing over old version of files when new edits are made, both the old and new versions of the file are stored, while not taking up a relatively large amount of space on the computer.

### Storing All Versions Of Files

With this new versioning file system, old versions of files will be stored such that users may conveniently view any of these files, without any work on the user's part. The system manages file changes; whenever changes are made to a file, a copy of the file before the changes is saved in addition to the new version of the file. To conserve storage space, the system keeps track of the amount of changes made and updates only when significant changes have been made or when the program is terminated. This way the system is not cluttered. This will increase user productivity by decreasing the amount of time spent manually saving multiple versions of files, while still running at almost the same speed as the earlier system.

### Maintaing Files In An Orderly And Convenient Fashion

This is a user friendly system that does not require users to manually archive old versions of files, while still having all the benefits of having such files at the users' disposal. Users have the ability specify which files they wish to archive, as well as to dispose of old versions of files should they desire. This system can hold as many different versions of a file as the user wishes, and are stored in the same namespace as the newest version of the file, thus ensuring that the user may easily access the version of the file from any point in time that has not been manually deleted. The system operates nearly the same way the old system does from the user's point of view, so there will be little to no learning curve involved.

### Timeline Of Action

Should this project be approved, in two weeks I will write and submit a design proposal for your approval. In the next two weeks I will implement any suggestions or revisions you wish to include in the system. Two weeks later I will have the final implementation and report of the versioning file system for your reference.