Sprint 2 Retrospective

Team YFFS



Team 22

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**What Went Well?**

* As a user, I would like to be able to, create directories for files.

Completed By: Zachary Kent and Wyatt Dahlenburg

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| Task Description | Actual Time | Comments |
| Research how directories are set up in a filesystem | 5 | Looked at online documentation of other filesystems and similar coursework in CS354 |
| Modify permissions so that folders are recognized differently than regular files | 5 | Created a directory attribute for each file that can be used to identify the location of a file in a given directory |
| Update yffs-ls to display only the files within a specified folder | 4 | Completed and added functionality to make sure no duplicate folder names existed. |
| Update yffs-add and yffs-edit to insert files into a folder | 5 | Files are added to a folder correctly through add and edit. |
| Update yffs-rm to remove contents recursively from a folder | 5 | Remove has a recursive flag “-r” that can be used to remove all contents of that folder. |

* As a user, I would like to maintain ownership and permissions of files.

Completed By: Sam & Max

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| Task Description | Actual Time | Comments |
| Document intended permission setup (including default permissions) | 2 | Went through and added comments to the tools. |
| Research os-checking and user checking on each platform | 4 | Researched windows, mac, and linux users. |
| Implement ownership checking for all platforms | 5 |  |
| Implement yffs-chmod in order to change permissions | 2 | Created a new tool to change permissions. |
| Implement yffs-chown in order to change owner | 3 | Created a new tool to change to owner. |
| Write shell script to test permissions with different users | 2 | This was completed in the demo. |

* As a user, I would like my tools to respect the ownership and permissions of files.

Completed By: Sam & Max

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| Task Description | Actual Time | Comments |
| Change all library functions to appropriately check for the owner or user | 2 | Add permission checking to all operations on files. |
| Debug and test ownership permissions | 6 | Implemented permission bits using the bits in the yffs header |
| Change all library functions to appropriately check for read/write permissions | 3 | Permission bits are properly edited, read, and verified in Linux |
| Debug and test read/write permissions | 2 |  |
| Make all necessary changes to each tool (yffs-\*) to maintain all permission cohesion | 4 | Edited each tool to handle different sets of permissions. |
| Debug changes to tools | 5 |  |

* As a user, I would like to be able to define a hash for all filenames to be obfuscated.

Completed By: Max

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| Task Description | Actual Time | Comments |
| Research hash functions and general encryption | 5 | No problems |
| Write an encryption method that works with every tool | 10 | I had problems integrating obfuscated file names with directories. |
| Write a decryption method that works with every tool | 10 | obfuscation and directories did not integrate easily at all |
| Give users a choice of encryption type | 4 | No problems |
| Test encryption/decryption, verify they work correctly | 4 | Testing was easy after I ended up getting everything to work |

* As a user, I would like to have a complete documentation of the filesystem tools.

Completed By: Brian

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| Task Description | Actual Time | Comments |
| Research man and the markup language used | 7 | troff and groff tutorials covering syntax and conventions were readily available online |
| Edit makefile to add documentation to appropriate directories | 3 | Added command to the makefile to include a path to the man pages in user’s manpath |
| Create manpage for yffs library | 4 | Introductory page for the entire yffs project is made and stored in a local folder (similar to ‘sources’ for the yffs-tools). |
| Create manpage for yffs tools:   * yffs-add * yffs-edit * yffs-create * yffs-ls * yffs-rm * yffs-cat * yffs-chmod * yffs-chown | 14 | Man pages are created and stored in a local folder (similar to ‘sources’ for the yffs-tools) and a path to the folder is added to the user’s manpath environment variable |

**What Didn’t Go Well?**

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| Task Description | Actual Time | Comments |
| Implementing the directories | 7 | Implementing our directory structure required us to store more information between executions. Our team had difficulty finding a way to store this information in such a way that it would be easily accessible by the operations that need it. |
| Implementing the owner & permission information | 10 | Similar to implementing directories, our team struggled to maintain flags between executions. |
| Obfuscate filenames | 15 | Changing directories and and how the filenames were stored caused some problems when we came together as a group to merge code. |

**How Could We Improve?**

During this second sprint our team made improvements in some of the areas where we were lacking during sprint one. Our ability to communicate as a team has improved as we get familiar with working with one another. With that being said, our team has suffered a noticeable lack of focus during sprint two. During sprint one there was more motivation, in part due to the excitement of kicking off a new project. During sprint three it will be important to stay focused on our objectives and not get distracted. Another issue that we ran into during this sprint was an increase in scheduling conflicts. As the semester goes on, our individual workloads increase and sometimes it is hard to find working time slots. To improve on this and try to spread our work out, we are going to be more firm in consistently meeting during our scheduled times. With these things in mind, our team will continue to become more effective and reach its final form in sprint three.