# Code Workstation

## Status Report 8

### 2/22/2016 - 3/21/2016

https://github.com/lrickard/CodeWorkstation/wiki

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# Project Schedule

## Current Schedule

Below is the rough plan we made for the semester that outlines what our focuses should be throughout the semester at a high level.

| Code Workstation Gantt Chart | 2/5 | 2/19 | 3/4 | 3/18 | 4/1 | 4/15 | 4/29 | 5/11 |
|---|---|---|---|---|---|---|---|---|
| Create Button Buttons | | | | X | | | | |
| Create Basic Command Box for output | | | | X | | | | |
| Test Button Buttons | | | | X | | | | |
| Create Command Box Auto Run Functionality | | | | X | | | | |
| Test Command Boxes | | | | X | | | | |
| Create and Test Drop-Down Menus | | | | X | | | | |
| Create Dock and Dock creation system | | | | X | | | | |
| Test Dock Creation system and scalability of existing features | | | | X | | | | |
| Make Command Box moving intuitive | | | | X | | | | |
| x | **x** | **x** | **x** | X | x | x | x | x |
| x | **x** | **x** | **x** | X | x | x | x | x |
| Implement keyboard shortcuts | | | | X | | | | |
| Usability testing | | | | X | | | | |
| Debugging and Interface polishing | | | | X | | | | |

The following schedule is a more granular breakdown of what each team member plans on doing.

1/23/2016 - 1/29/2016

~~Lukas: Make granular plan regarding specific work distribution.~~

~~Jake: Figure out how to make a pyQT application run on a fresh system. Create CW installation/run instructions.~~

1/30/2016 - 2/5/2016

Lukas: Make testing plan for integrating features together. Experiment with right click menus for testing.

~~Jake: Start working on Button button dialog box.~~

2/6/2016 - 2/12/2016

~~Lukas:Start working on Command box dialog.~~

~~Jake: Finish basic Button Button dialog box.~~

2/13/2016 - 2/19/2016

~~Lukas: Create usable Command box autorun functionality with time intervals~~

~~Jake: Create testable Button button creation. Satisfy "Create a new button" user story.~~

2/20/2016 - 2/26/2016

~~Lukas: Integrate existing features.~~

Jake: ~~Work on drop down menus~~ and right click menus.

2/27/2016 - 3/4/2016

Lukas: Start docking/Undocked command box features.

Jake:~~Finish drop downs~~ and start on keyboard shortcuts for testing.

3/5/2016 - 3/11/2016

Lukas: ~~Integrate existing features.~~

Jake: Load/responsiveness test existing features. Determine if optimization/redesign is needed.

3/12/2016 - 3/18/2016

Lukas: Start docking resize or snapping features.

Jake:~~ Start window resizing testing and control.~~

3/19/2016 - 3/25/2016

Lukas:Start programmable shortcuts

Jake:~~ Start text editing features (If latency exists) [Save, SaveAs, Open]~~

3/26/2016 - 4/1/2016

Lukas: Integrate existing features.

Jake: ~~Debug and finish resizing features.~~

4/2/2016 - 4/8/2016

Lukas: Make command box moving intuitive

Jake: Polish Button Mechanism and appearance [Stretch]

4/9/2016 - 4/15/2016

Lukas: Usability testing (Get people to try it)

Jake: Add shortcut features with are determined to be most convenient.

4/16/2016 - 4/22/2016

Lukas: Polish visuals. Work on release documentation/Poster board.

Jake: Fill out test plan. Ensure goals are met/given up on completely.

4/23/2016 - 4/29/2016

Lukas: Finish release documentation.

Jake: Ensure presentation/demo is ready.

## Schedule Changes

In our schedule we have underlined past goals that we still have not finished. We have striked out goals which we have accomplished or consider done. We have marked things red which we do not plan to do. The plan has changed a good amount. We are replacing the plan to make snapping work correctly with a plan to just make command boxes move with right click commands between the different docks on the page. This is called “Make command box moving intuitive” in the schedule. We are replacing resizing testing with feature and appearance polishing because resizing does not seem to be a big problem with how we now plan to finish our program.

## Current Status

We’ve implemented opening and saving of files fully, and should be able to start using our project as our primary text editor soon. Getting command boxes to populate and update automatically was an order of magnitude more difficult than we thought it would be, but we figured it out in the end. Turns out Qt does not play nice with other threads. We figured out how to make signaling do what we needed it to and now we have the primary functionality of command boxes implemented.

THE CODE CHANGES:
The code is not as clean as it could be but it should be relatively self explanatory.
Main Creates a Qt window and a thread which constantly runs commands when they have been registered to run by a command box or a button. It outputs the results of these commands into the same list where it retrieved them at a different sub index. This thread then calls a function in the main window which emits a signal. This signal triggers the window to run a function which updates the command boxes in the MAIN thread.

WHAT YOU CAN PLAY WITH
Currently there is no error protection, so malformed commands break the concurrent thread, but command box features and button features are working in a rudimentary form. Go wild testing them if you wish.

# Plan for 2/22/2016 - 3/21/2016

## Immediate Tasks:

- Make the enter key submit the dialogs correctly for a new Button or Command Box
- Add location radio buttons to the new Command Box dialog
  (And add the functionality for command boxes being added to different parts of the window of course)
- Make right clicking a button or a command box present edit and move options
- Change the name of all the user interface elements so that they are rational and make the code more readable
- Update class specifications and interaction diagrams to reflect how our code actually works
  [By a thread with a loop accessing global variables and sending out a signal to update all the command boxes]

## Start on:

1. Keyboard shortcuts
2. Updating Wiki to reflect how the program actually functions

## Work on most:

1. Button Creation and Button Editing
2. Command Box Creation features and Command Box settings editing

## Finish:

1. Our documentation (SDD in particular)
2. Drop-down menus

## Challenges and Concerns

We believe that most of our concerns are behind us now that we have 90% of our planned functionality tested. Although we do not have all of the button and command box features implemented that we plan to have in the end, all the mechanisms needed for us to reach our goals have been tested. We are still confident we can complete our project and make it awesome in a timely manner.

## Updated Artifacts

Status Report 8 - New
Code - New things added
System Design Document - Updated class diagram to reflect some changes (Minor)

### Included with Update

Project Proposal (Unchanged)
Requirements Analysis Document (Unchanged)
Wiki and Repository (Linked in document - not included in zip)
Status Report 1, 2, 3, 4, 5, 6, and 7 (These will not change)
Test Plan(in process still)