CS Capstone Design

Alpha Prototype Demo Grading Sheet (100 pts)

TEAM: Team Controller

Overview: The purpose of the Alpha Prototype Demo is to clearly demonstrate the extend to which all core user flows envisioned for the product are supported by the current implementation. The flow of the demo is very natural: you simply introduce each of the major usage scenarios, and then follow through each of them, just as an end-user would in using the product. Grading is based on how completely the current product supports all key functional aspects within a coherent, realistic user flow. Interface refinement, clunkiness, and aesthetics should be ignored for now; the focus is simply on functional ability to complete the user flow.

This template is fleshed out by the team, approved by the team mentor, and brought to demo as a grading sheet.

Overview of major product use cases

Based on the Requirements document and subsequent development discussions with your client and mentor, briefly describe each of the key use cases for your product:

UC1: Installer will install application executable. Normal users will use the installer to get the application. This will install an executable file onto their computer without the use of administrator rights. The user will then have a working application to use at their discretion.

UC2: Serial connection. The normal user will then connect to the controller (simulated). After the application will let the user know they are connected to a controller, whether simulated or actual connection.

UC3: Viewing controller data. The normal user will be able to view the following controller data: events and errors (including cleared, uncleared) and electrical components of the weapon

UC4: User settings. The normal users will be able to save settings across different sessions of the application. This includes the logfile folder location and general connection settings.

UC5: Developer settings. Administrator users or developers users will be able to enable developer settings. This will allow the developers at Northrop Grumman to further develop the application for their specific needs.

User Flows: Detailed walk-through for each use case:

In this section, we outline the demonstrations of each use case that we have prepared, giving a step-by-step outline of the user flow that would be followed by a real user for that use case.

Use case 1: Installer will install application executable

User Flow: Step by step overview of user interactions with product

1. First the user will obtain the installer file
2. Then then user will interact with the installer by following the steps presented
3. The user the will finalize the installation and will have an installed executable of the file on their computer

Evaluation and Comments:

- ✔ Convincingly demo'd each of listed challenges?

- ✔ Other evaluative comments:

Use case 2: Serial connection

User Flow: Step by step overview of user interactions with product

4. The user would start the application
5. The user would then connect to the controller (device simulating a controller)
6. An indicator resembling a light will turn green to notify the user that the controller is connected
7. Once the application disconnects from controller the indicator will turn from green to red to indicate that the connection was ceased

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Use Case 3: Viewing controller data

User Flow: Step by step overview of user interactions with product

8. Once the controller connection has been established, the user can navigate to events, status and electrical
    a. Events will show the weapon's events and errors
    b. Status will show the current status of the weapon
    c. Electrical will show the name, voltage, and amps for each of the weapon's electrical components
9. The user can then look in depth at the events page with the filtering options that include:
    a. default
    b. all events
    c. all errors
    d. cleared errors
    e. active errors

Evaluation and Comments:

- ✔ Convincingly demo'd each of listed challenges?

- ✔ Other evaluative comments:

Use Case 4: User settings

User Flow: Step by step overview of user interactions with product

10. The user can change and save their serial connection and log file settings in the connection tab and events tab respectively.
11. Once the user closes the application, the user will then re-open the program and it will retain the modified settings from their last session.

Evaluation and Comments:

✔ Convincingly demo'd each of listed challenges?

✔ Other evaluative comments:

Use Case 5: Developer settings

User Flow: Step by step overview of user interactions with product

12. The developer user will be able to enable dev settings through a CMake build variable (1 = dev mode enabled, 0 = dev mode disabled).
13. Once enabled, the developer user will be able to control the information going into the product for testing. There will be a new tab called "Developer" that the user can navigate to.
14. The developer user will be able to start a simulated controller session running in the background.
15. The developer user will be able to view all randomly generated messages in the UI by the simulated controller.
16. The developer user will be able to send their own custom messages via serial communication from the simulated controller.
17. The developer user will be able to clear any non-cleared errors from the current simulated session.

Evaluation and Comments:

✔ Convincingly demo'd each of listed challenges?

✔ Other evaluative comments:

Known short-comings: Functionality still deficient/missing:

If there were challenges you listed earlier that were *not* covered by a demo, list here. This will hopefully be a short list…but better to be clear about where you are. If you have items here, you could list (if applicable) any pending plans/schedule to get this implemented.