BestXYZ Processor

Requirements, Design, Implementation, Testing (RDIT)

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| User Story | Text |
| INPUTFILE | The user was able to specify an Input File in the main window by direct entry |
| INPUTSELECT | The user was able to select an Input File in the main window by browsing |

1. Requirements
   1. The user is able to type an input file path into a text field on a GUI interface
   2. The user is able to browse for an input file through a standard open file dialog
2. Design
   1. Use a framework to create a main GUI dialog
   2. Add a text entry field for manually specifying the input file path
      1. The text entry field will have placeholder text until the field is otherwise populated
   3. Add a button to the main GUI dialog to allow the user to browse for an input file
      1. Browsing for a file will populate the input file text entry field
3. Implementation
   1. Create a QT Window
   2. Add a QTextEdit that has an example file path as placeholder text
      1. If an invalid file path is specified then upon processing a QMessageBox will prompt the user with an error message
   3. Add a QButton to the GUI
      1. Upon clicking the QButton prompt the user with an open QFileDialog
      2. If the QFileDialog is cancelled, nothing populates the input file QTextEdit entry field
      3. Browsing for an Input file populates its corresponding QTextEdit and highlights the border of the QTextEdit green
4. Testing  
   Test Setup: A computer with the BestXYZ Processor application loaded and containing at least one reference receiver dataset.
   1. Open the BestXYZProcessor application
   2. Verify that an Input File text entry field is present on the GUI
   3. Verify that the user can type into the text entry field
   4. Verify that a button with a folder icon exists to the right of the text entry field
   5. Enter an invalid path into the input file text entry field. For Example: “3>N>N>N”
   6. Click the “Process” button and verify that a message box prompts the user with an error message, the border of the text entry field turns red, and no processing happens
   7. Repeat 4.5 and 4.6 but clear the entry field
   8. Use the folder button to pop up the standard open file dialog
   9. Cancel the dialog, verifying that no file path is entered in the text entry
   10. Reopen the standard open file dialog
   11. Browse for a file and verify that the file path is automatically entered into the text field to the left of it.
   12. Verify that the border of the text entry field is changed to green