1 Integration Testing

1.1 Subsystem Testing

File Manager Test

Name
Create, Save and open

Summary
Open a new instance of FunSheets with a default grid. Modify the values of the grid using primitive and formula values. Save the sheet to a new file, and then re-open it.

Precondition
None

Main Scenario

1. Open Funsheets using the default Icon or executable.
2. Modify one or several cell blocks.
3. Select the 'File' menu item and select 'Save'. Give file a new name
4. Close the instance of FunSheets
5. Open a new instance of FunSheets, Select 'File' menu item and select 'Load'.
6. Navigate to the previously saved file and select it.
7. Varify the primitive and formula values are consistant.

Exceptions

1. User must have write privilages to the save location.

Expected Results

1. If User has write privilages to system location FunSheets will create a .csv file located at the directory selected in the dialog box
2. If the User does not have write privilages FunSheets will report and access denied error and no files will be saved

Postcondition And Results

1. User created .csv file is saved to hard disk. Results are successful

Priority
High (Main requirment)

Name
Open a third-party modified .csv

Summary
Open the .CSV using a text editor, or third-party spreadsheet application and modify the cell values.

Precondition
Pre-Existing .csv file created from FunSheets

Main Scenario

1. Open the funSheets .csv file is default text editor
2. Modify one or several cell elements and save the file
3. Open a new instance of FunSheets, Select 'File' menu item and select 'Load'.
4. Navigate to the previously saved file and select it.
5. Varify the primitive and formula values are consistant.

Exceptions

1. If third-party modifications do NOT follow the formatting requirments of FunSheets the .csv file will not open. Internally we will trap an exception and report that the file is not valid.

Expected Results

1. If the .csv file is modified and the changes adhear to the formatting requirments of FunSheets the spreadsheet application will open successfully and the changes will be visable to the user.
2. If the .csv file is modified and the changes conflict with the formatting requirments of FunSheets the file is deemed incompatable and an error message should be displayed.

Postcondition and Results

1. Modified .csv that conforms to formatting was open successfully and the changes were viable. Test Successful
2. Modified .csv that conflicts to formatting was open successfully, error were not reported. Test failed see example input IT_SUB_FM_Test2.csv

Priority
Low (Modifing .csv outside FunSheets is not supported)

Name
Create a new .csv overwrite old data

Summary
Open and existing .csv, use the 'File' menu option to create a new spreadsheet

Precondition
Pre-Existing .csv file created from FunSheets

Main Scenario

1. Open Funsheets using the default Icon or executable.
2. Select the 'File' menu item and select 'New' or press 'CTRL + N' for new
3. Accept warning for unsaved data.
4. Select the 'File' menu and select 'Save' or press 'CTRL + S'
5. Overwrite existing filename

Exceptions

1. None

Expected Results

1. Warning message is displayed to warn the user about overwriting data.
2. Accepting the warning will overwrite the saved file and data is lost
3. Canceling the warning message will preserve the old file without datalost

Postcondition and Results

1. No warning message is display. (Test failed)

Priority
High - Loss of data is unacceptable without a warning message to the user

Name
Open an existing file without saving the current document

Summary
After working on a file proceed to open an existing file without saving the current project

Precondition
Pre-Existing .csv file created from FunSheets

Main Scenario

1. Open Funsheets using the default Icon or executable.
2. Modify one or several fields in the grid
3. Select the 'File' menu and select 'Load' or press 'CTRL + L'
4. Navigate to an existing .csv file and select it.
5. Review warning message.

Exceptions

1. None

Expected Results

1. Warning message is displayed to warn the user about unsaved data
2. Accepting the warning will open the existing file, and all current work will be lost
3. Canceling the warning message will preserve the current instance and allow the use to save the file.

Postcondition and Results

1. Warning message is displayed and information is clear. Pressing 'Cancel' preserves the instance without data loss. Test successful
2. Warning message is displayed and information is clear. Pressing 'Ok' will load the selected file and all current data is lost. Test successful

Priority
Successful