

Igor ICARTT GUI v4 changes

Version 4 of the Igor GUI is a major update intended to improve the user experience when creating and loading files. The code works on Igor versions 7, 8, and 9 on both Windows and macOS. However, there are a few minor things that work slightly differently on macOS for Igor versions 7 and 8.

If you have experiments with older versions of the GUI, it is recommended that you kill the panel and then the ICARTTFileFormat data folder!

1 macOS issues

- In Igor versions 7 and 8, the keyboard undo shortcut (CMD+Z) does not work in the revision comments notebook. You need to use the undo button on the panel.
- If you cmd+click on the already selected radio button for the edit notebook, nothing will happen. It does not appear that the control procedure ever gets called, unlike on Windows where a received focus event gets triggered. You can always open the edit notebook by clicking the Edit button, and cmd+clicking on a radio button that is not selected will open the edit notebook for that parameter.

2 Major change list

- Two global strings have been renamed. `DataManagerContactInfoStr` is now `DataManContactInfoStr`, and `DataSourceDescriptionStr` is now `DataSourceDescriptStr`. In version 3 of the GUI, control names were changed to include the tab number, and the names of the controls for those two strings had to be shortened to stay under the 31 character limit. In version 4, these two global string names have been changed so the name of the string is also in the control name to be consistent with the other control names.
- Previous versions of the GUI would abort when encountering errors with file creation or loading. Version 4 does away with much of that. Errors are now divided into fatal and non-fatal errors. Fatal errors still trigger an abort. Non-fatal errors during file creation are now logged to a notebook. You will not be able to create the file until all errors are dealt with, but you should be able to see all the issues at once instead of having to repeatedly click the create file button. Non-fatal errors during file loading will be printed to the command history so you can load files in loops.
- Based on other users' experiences trying to load files from the ASIA-AQ campaign, a lot of code was added to handle improperly formatted ICARTT headers, such as the wrong number of special comment lines, or issues with revision numbers or comments. The code will attempt to correct as many of these errors as it can. Any issues are printed into the command history. **It is the user's responsibility to make sure that the GUI's attempts to fix incorrectly formatted ICARTT files actually worked.**
- Many object names (variables, strings, free waves, wave references, etc.) in the code have been changed to be more descriptive, e.g. no single character names. This mainly affected functions taken from the General Macros. All free wave names start with "w" (for numeric waves) or "tw" (text wave).

- The setvariable for entering the revision comments has been replaced with an embedded notebook. The comments for each revision are supposed to be on separate lines, but you can't directly enter carriage returns into a setvariable, forcing you to use the edit notebook. Now you can bypass opening the edit notebook for this field.
- The edit notebook can now be opened by ctrl/cmd clicking on the radio button for that field.
- The listbox for the file path has been replaced with an embedded notebook to more gracefully handle long folder names/paths.