SAM GATES Igor Tool

Latest News

NEW!!! Version 1.2 of GATES (for GCMS and TCD data analysis):

GATES_1.2.zip

SAM_Data_Analysis_1.2.zip

With now background and normalization calculations.

A first version of a graphical help: GC-SCI-GEN-UM-02-1-SAM_Soft_Igor_Pro_Manual_2.pdf

Datasets to download: Download it from the SAM FTP.

Example of TID 21568: 2010-04-28-09.38.46-21568-cpt6-exp1_sol3.zip

TID 50529 from TESTBED: 2012-09-27-11.40.45-50529-SS_ega_gc_tls.zip?

TID 50534 from TESTBED: 2012-10-04-10.39.42-50534-SS_ega-gc-tls-V140.zip?

Previous Versions

Version 0.7 of the SAM Analysis Monitor for Igor Pro is online: SAM_Data_Analysis_IGOR_0.7.zip

Version 0.6 of the SAM Analysis Monitor for Igor Pro is online: SAM_Data_Analysis_IGOR_0.6.zip

Version 0.5 of the SAM Analysis Monitor for Igor Pro is online: SAM_Data_Analysis_IGOR_0.5.zip

Data Preparation

A specific file hierarchy is necessary for the text files. Please download examples zip files to test with the tool. These data are obtained with a python script calling the other 699util python scripts and is automatically executed at FIMOC (CNES, Toulouse). This script could be uploaded into the 699util for all the users.

Quickstart

1. If you don't have Igor Pro, install it from Wavemetrics
2. Download the "SAM Data Analysis" zip file (above), unzip it.
3. Installation of the tool:
    - Open Igor Pro, go to "Help" menu, then click on "Show Igor Pro User Files" in the menu.
    - You need to copy the SAM Data Analysis Folder inside this directory (at the same level as "Igor Extensions", "Igor Help Files", "Igor Procedures", "User Procedures" folders).
    - You then need to make 2 alias. 1 alias of the SAM Data Analysis Folder (right-click to have the option to make the alias), and move it into the "User Procedures" folder. 1 alias of the SAM_Main.ipf file inside the "SAM Data Analysis" Folder, and move it into the "Igor Procedures" folder.
    - You should have now, at the same level, the "SAM Data Analysis" folder with 7 .ipf files, the "User Procedures" with "SAM Data Analysis Alias", and the "Igor Procedures" with "SAM_Main.ipf alias" file.
    - Restart Igor Pro, you should have a new SAM menu.
    - The set up procedure is the same for Windows.
4. Update of the tool:
    - In general, just delete the old "SAM Data Analysis" folder, and put the new one at the same level, then restart Igor Pro. It should be enough.
    - If it does not work, just restart the whole install procedure with the new version.
5. Download some dataset (above). You can unzip it into any folder, but as Xina put tm.sam in a sam/gse/data/ directory, you could create a data/text/ directory for this use.
6. First basic steps:
    - Launch Igor Pro. You work automatically with a new experiment.
    - Launch the "SAM Data Visu" from the "SAM" menu (or just use the "command/ctrl-1" shortcut)
    - Click on "Browse", to load data.
    - Choose a dataset folder (just click one time on the folder, and "choose" it, you should not open the folder)
    - The initial objective was to plot the TCD signal, so it is lightly GC oriented, but basically you can choose to plot the "Sg1" TCD signal (the first gain), and to view QMS signal with it.
    - So You can add bands (between 1 and 22, like 1,2,4 or 4-7, without space), masses (same way, between 2 and 537), and range of masses (start of the first mass,interval, as 10,10, to plot masses 10 to 19 and move every 10 masses).
    - You can add the column temperature as well, by checking the "Temp. Col." box inside the CDH Parameters.
    - Then click on "Plot GCMS" to create (or recall) the graph.
    - Basically, with the plot graph, the best way to look at different peak on TCD is to use the zooming functionality above axes: put the mouse cursor on the horizontal axe, and you can use the wheel (or the 2-fingers zooming on mac trackpad) to quickly zooming in to a peak. It is very efficient after some training.
    - Now, the background calculation works. You can choose a marquee zone, right click on it, and create a background.

Tool Tips

- First important thing: sometimes, it goes wrong... The easiest way could be to restart a new experiment.
- The data are loaded into a special Igor Pro structure: the data folders. You can access it with the "data browser" in the "Data" menu, and navigate into the data folders, by TID number. You can load as many dataset as you want. One of the next functionality will be the possibility to plot the same parameter or the same signal for all the TID experiments loaded.
- Several functionalities are working in a development version, and will be very soon available for a new stable version. This tool is used to make the GC QuickLook product, with automatic peak detection and calcul of amplitudes, elution time... but it is a little more tricky, and will be explained in the manual.
- See other tips on the SAM Fitting tool for IGOR.

Features for next version (hope every week)

- Enhanced visualization when the TCD signal is not present
- Automatic elution time on plots
- Pressure plots with TCD and MS signals
- New function for masses, bands sums
- New panel with metadata keywords
- Refinements of the GC (TCD) QuickLook procedure
- Valves and Markers on plots
- Add science related HK
- HK plots through different TIDs

Revision #3
Created 23 March 2023 14:38:32 by Nick Dobson
Updated 13 April 2023 15:21:48 by Nick Dobson