Help for Batch Interpreter

The batch interpreter is an important tool to increase the productivity when working with experimental data. It can perform typical operation with all data in the file list of *Multiplot* such as display on screen or creating a graphic file of a specific format. Batch interpreter can also be used to load a large number of files from a file list. Even sequences of operations can be performed by batch interpreter. Its main function in the author's group is to generate standardized printout for note books and archiving. Based on the printouts specific data sets can be selected for closer inspection.

The menu options within the batch interpreter are:

File/Load batch file:
This batch files allow for instance to load files from a list, make a printout of them and export the data to ASCII files. An example of a batch file is supplied in the installation path under ~/lib/example.bat. (You may need to change paths before running it).
File/Change default path
As described for *Single Plot*.
File/Selection of graphic format
As described for Single plot
File/Close/open log file
Batch interpreter keeps a log file where all operations are noted. Such a log file can be closed and a new can be opened. The log file is written to ~/scratch.
File/Exit
Returns to *Multiplt*.

Command/Make file list
Generates a file list from an input directory. The input directory can be selected using the path selection tool.
Command/Edit file list
Allows editing a file list formed by *Command/Make file list*. You enter a zero for those files that shall not be processed. Editing requires <***Enter***> when selecting the cell and <***Enter***> when confirming the change to the individual cell. Finally you confirm all changes. If you cannot see the full filename (with path), click on the cell, press <Enter> and scroll through the content of the cell. Recommendation: Use input path that contain only the data you want to process. This avoids somewhat inefficient editing of input files.
Command/Load file list
Selects a file with a file list. All data sets contained in the files listed in the file list will be loaded into *Multiplot*. It is not required that the list file is in the same directory as the data files.
Command/File filter
This selects or unselects certain data sets which are loaded in *Multiplot*. If there are for example all data sets generated in one day. You want to make a printout of all data sets except line scans that contain only 2 or 3 points (because they were interrupted because of wrong settings) you can do here. You can restrict printing to only 3D images or cyclic voltammograms etc.
Command/Print

A printout with the default settings of the currently selected graph format is generated for each data set contained in the *File List* of *Multiplot*. Graphic files are written to the current output path.

Command/Export

All data sets contained in *File List* of *Multiplot* will be exported to ASCII.

Help

Not active in the moment.

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The following section illustrates the generation of a notebook printout using the Batch Interpretor

The first part consists in loading all the data files into the file list of *Multiplot*. There are different ways to do this. They are described in the following section

1. Empty the input directory or create a new empty subdirectory of you preferred input directory. Load your all your measurement data files into the input directory or the new subdirectory.

2. Empty your output directory.

3. Start MIRA. In the startup section select *Multiplot* and your preferred INI-file.

Now you can either proceed with steps 4 or 8 or 10. Combination of the different loading methods are possible as well.

4. Start the *Batch Interpreter* from *Multiplot File/Start* batch interpreter.

5. In the *Batch Interpreter* select *Command/Make file list*. Select the path, where your experimental data files are located. Confirm the settings by <*Ok*>. Select a name and a path for the file list to be generated. Recommendation: Use the input path to store the file list with the experimental data.

7. In the *Batch Interpreter* select *Command/Load file list*. Select the file list you have just created. All files in this file list will be loaded into *Multiplot*.

Proceed with step 13.

8. Load files into *Multiplot* with the menu *File/Add file* to list or *File/Load IDL binary*. Note that you can select multiple files. Files can be loaded from different directories.

9. Start the *Batch Interpreter* from *Multiplot File/Start* batch interpreter.

Proceed with step 13.

10. If Single Plot is running, you can load data from Single Plot with File/Open file, File/Load IDL binary or File/Import ASCII.

11. Transfer the data to *Multiplot* by File/Add to MULTIPLT list.

12. Start the *Batch Interpreter* from *Multiplot File/Start* batch interpreter.

Proceed with step 13.

13. From the *Batch interpreter* select the graphic file type from *File/selection* of graphic format. Select the output directory in *Batch interpreter File/Change default paths.*

14. From *Batch interpreter* select Commands/Print. You will be asked for the name of an output file list. This list will contain the full name (including path) of the graphic files and a descriptive short name of the data file (e.g. image.xys_Block:1). This file will make the further work much easier. It can be placed anywhere. If you do not want to make such a file, select <***Cancel***> in the file selection box. A printout will be generated for each file and each data block in multi-image files. The printout will be made to your output directory.

15. Start MS Excel.
If you use Excel 2003 or older, load the file MIRA_VM_02_2003.XLS
If you use Excel 2010, load the file MIRA_VM_02_2010.XLS
Both Excel files are provided in the installation directory of MIRA_VM_02. Confirm <***Makros aktivieren***> or <***Activate macros***>.

16. On the Excel worksheet press <***Clear old content***>.

17 On the Excel worksheet press <***Read file list***>, a file selection tool appears. You should select the output file list, which was created in step 14. The file list will be loaded. The file list appears underneath the three buttons in column E. In column D you have one entry of the name of the list file.

You may load more list files. They will be appended to the current list file.

18. On the Excel worksheet press <***Import graphic files***>. All graphic files will be imported and formatted. Postscript files will be displayed only as empty frames.

19. Make a printout using the printers installed on your computer. Only columns A to C will be printed. The printout should look like the Figure on the last page of this document.

The printout is optimized for European A4 paper size. To change the size of the columns to adapt for US letter size go within the Excel on Excel/Macro/Visual basic editor. Go to the very top of the program listing. You find there 2 lines

Const col_width# = 29#
Const picture_width# = 153#

Increase the values 29 and 153 to fit to your paper size.
Repeat steps 15-19 until you are satisfied with the result.

Note: Imported PostScript files will only produce meaningful printouts if sent to a PostScript printer. If you are unsure whether you have a PostScript printer, consult your computer administrator.

Advice: If you have a PostScript printer, this should be the preferred file type. It can, of course, only be used if you have a PostScript printer available.
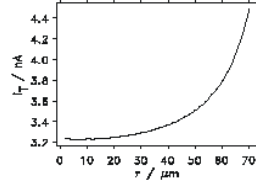
The whole sequence of steps 1-18 may take something like 3 minutes for 100 files. Printout of course depends on you computer, the performance of the printer and the type of connection from your PC to the printer.

The printout should look like the following page.

07241546.cv
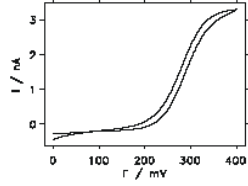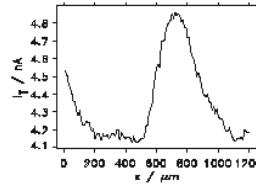
07241547.Zsc

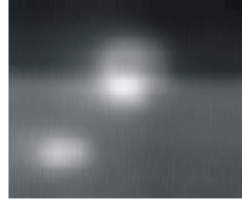07241548.Zsc
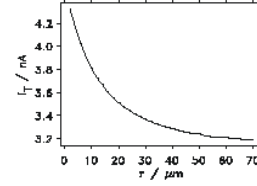
07241550.Zsc
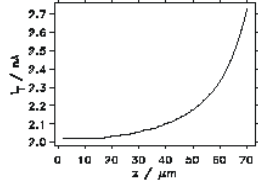
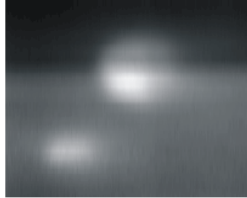07241551.Zsc
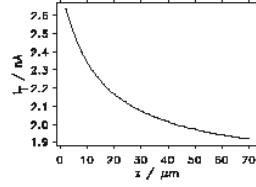
07241553.Zsc
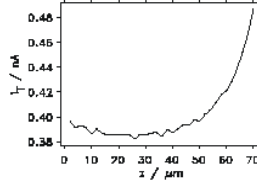
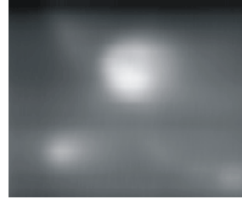07241554.Zsc
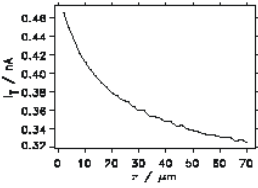
07241624.Xsc

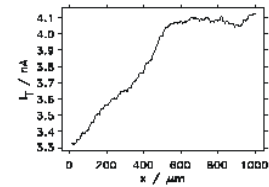07241744.xys

07241744.xys :BLOCK 1

07241905.xys

07241905.xys :BLOCK 1

07241912.Xsc

07242025.xys

07242025.xys :BLOCK 1