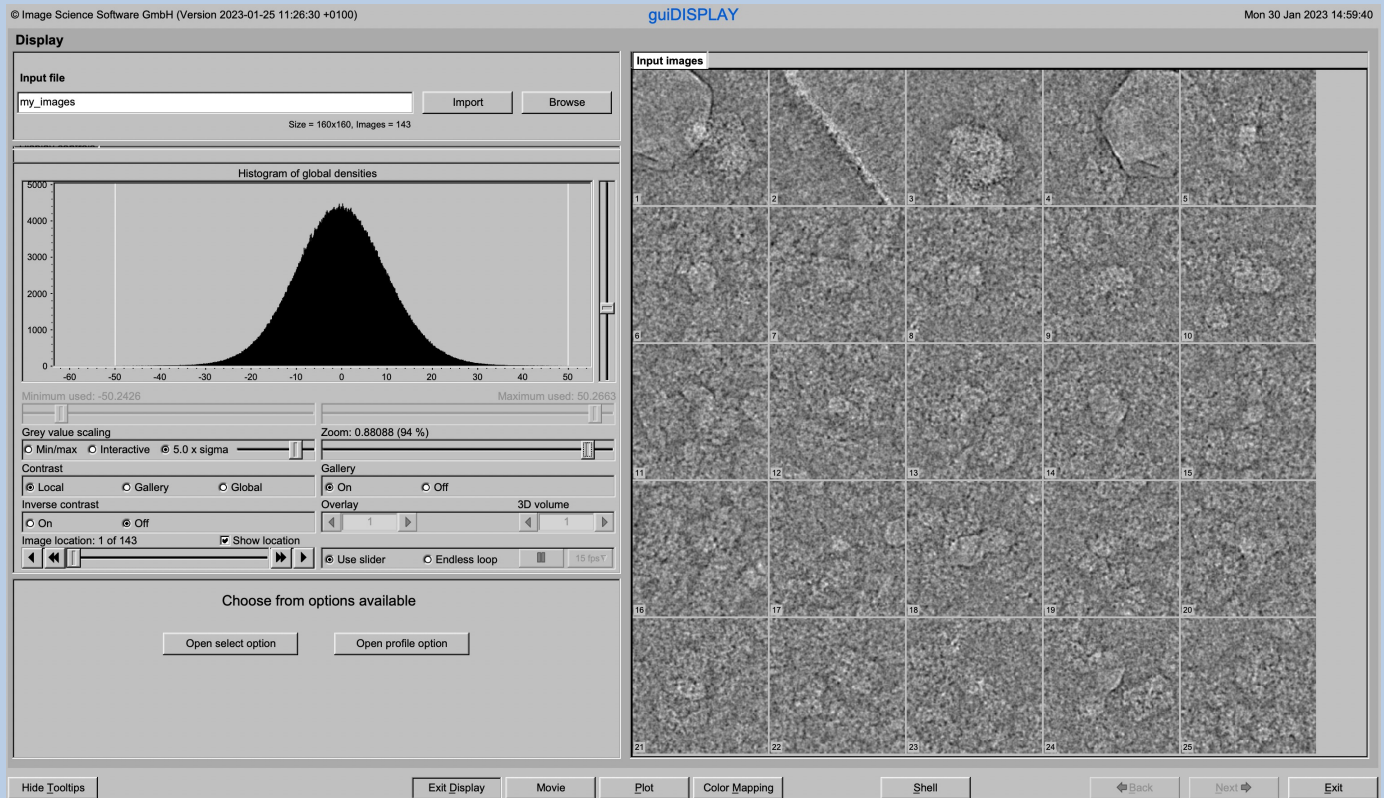




A Brief Introduction

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The IMAGIC guiPLOT program



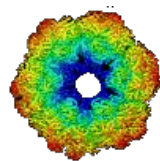
The **guiPLOT** program visualises curves stored in IMAGIC PLT files.

This is a brief hands-on on how to use IMAGIC GUI oriented programs and how to work with **guiPLOT**:

CONTENT:

- IMAGIC GUI programs How to use IMAGIC GUI programs
- guiPLOT How to plot/visualise curves
- Error hints How to send us feedback





IMAGIC

GUI Programs



The Working Directory

If **guiPLOT** is called from the programs list, by using an icon or in a command line the working directory will be your default system directory.

If **guiPLOT** is called by an IMAGIC command in a terminal / command window

```
IMAGIC-COMMAND : guiPLOT
```

the working directory will be the directory used in this window.

If you want to change this directory use the “Exit Plot” button

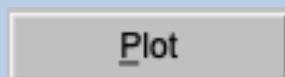


to navigate to the “Start” page where you can specify the working directory of **guiPLOT**.

All output files will be stored in the working directory which you have specified on the start page.

Input files can be chosen from other directories.

Click the “Plot” button to return to the “Plot” page.



Help

Move the cursor on (nearly) any item (questions, radio buttons, display windows...) shown on the pages and you will get context sensitive help.

Input file

my_plot Browse file

Please specify the name of the input PLT or 1D image file containing the curve(s) to be plotted. Use either the browse button or enter a file name in this field.

Horizontal scaling Use for all plots

0 0.23 Reset

Vertical scaling

-94.38 Reset

The horizontal scaling is done automatically using the curve values. If wanted you can change the horizontal scaling here.

Please specify the new minimum value in this (left) box.



The “Start” Page

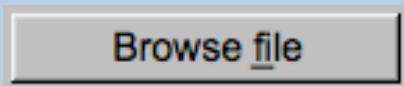
guiPLOT starts with the “Plot” page.

If you would like to adjust some **guiPLOT** programs setting before importing the images use the “Exit Plot” button to navigate to the “Start” page.

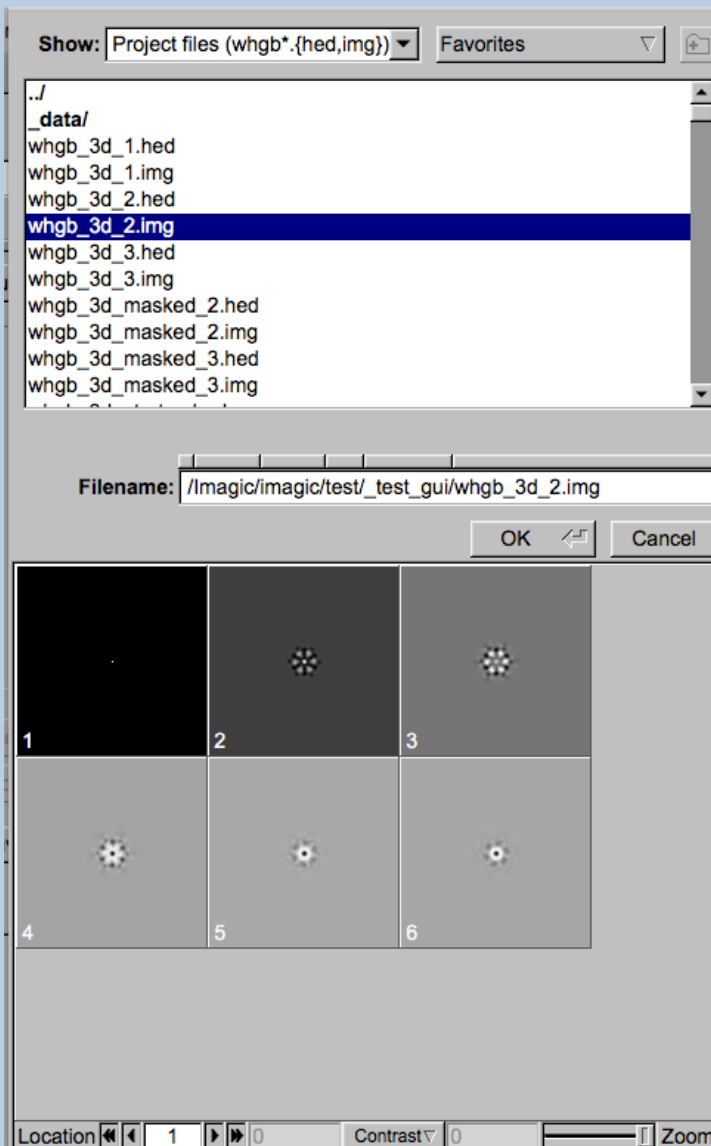


Input File Chooser

In most of the pages you are asked for input file(s) and you will find a “Browse file” button:

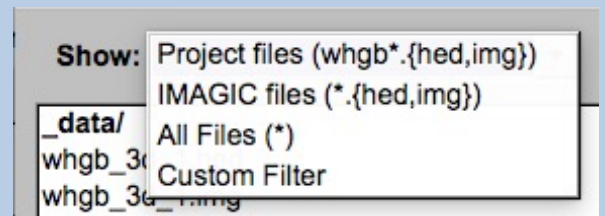


Pressing this button will open the IMAGIC file chooser:

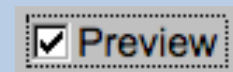


Choose the wanted file by clicking its name

You can use a pre-selection of the files shown:



If the images are in IMAGIC format you can get a pre- view of the images.

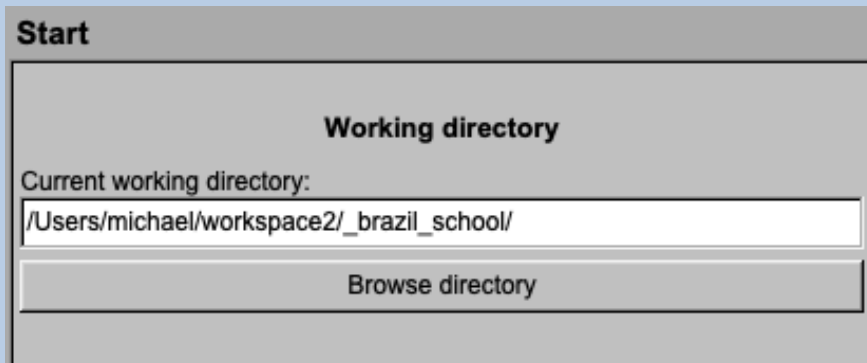


Note that you can store your directory in “Favorites”.



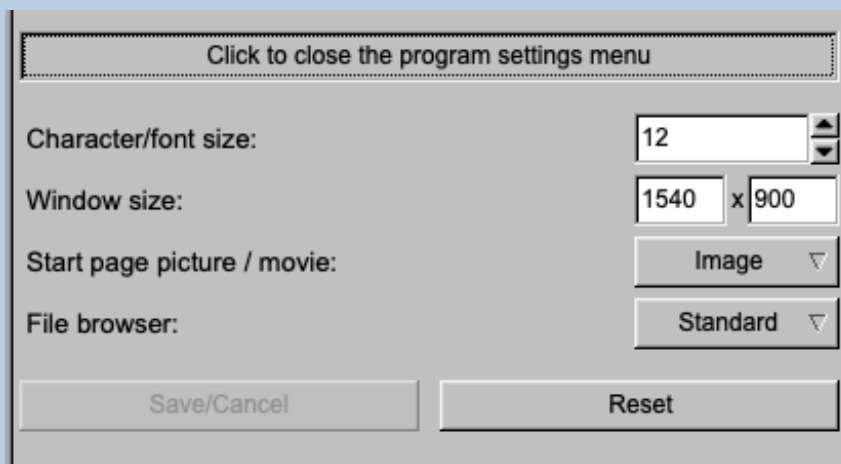
On the “Start” page you can set some program parameters:

a) the working directory

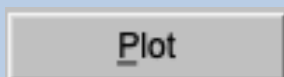


b) the size of the **guiPLOT** program windows and/or text
(a re-start is needed)

c) the type of file browser



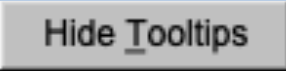
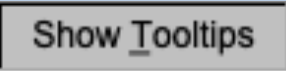
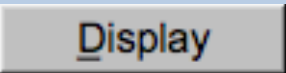
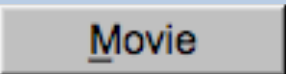
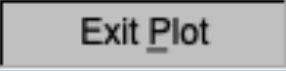

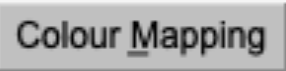
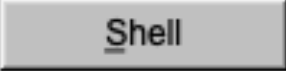
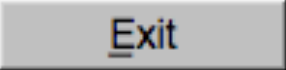
Having adjusted all setting use the “Plot” button to navigate back to the “Plot” page.



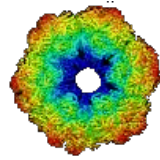
The Toolbar

There is a toolbar at the bottom of each **guiPLOT** page.

The toolbar buttons:

	Show or hide the context sensitive tooltips (the help text may sometimes disturb)
	
	Open a DISPLAY page to visualize IMAGIC images. Refer to guiDISPLAY .
	Open a MOVIE page (display in an endless loop). Refer to guiDISPLAY
	Go to the “Start” page
	Go back to the “Plot” page
	Open a DISPLAY page to visualize IMAGIC images using a colour map stored in another input.
	Run a shell / terminal page command
	Exit guiPLOT



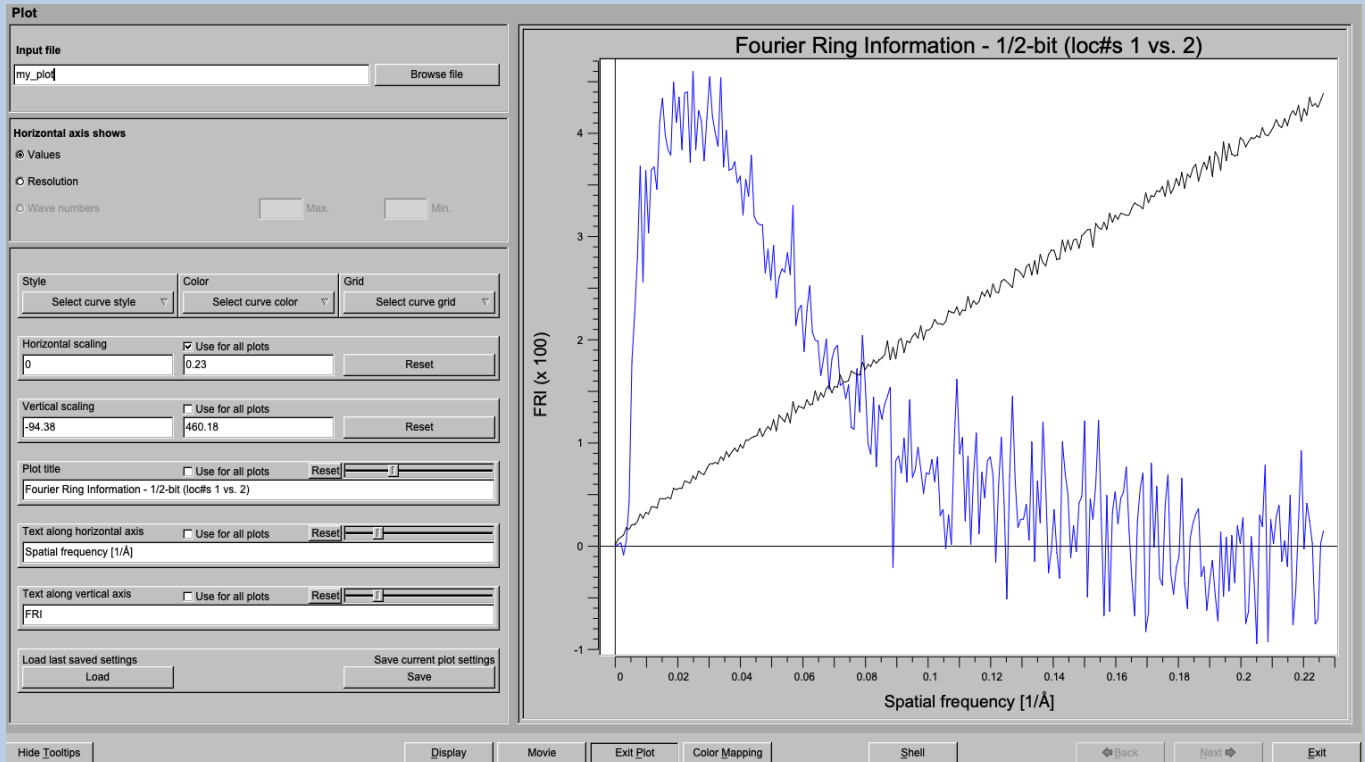


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guiPLOT



The "Plot" page



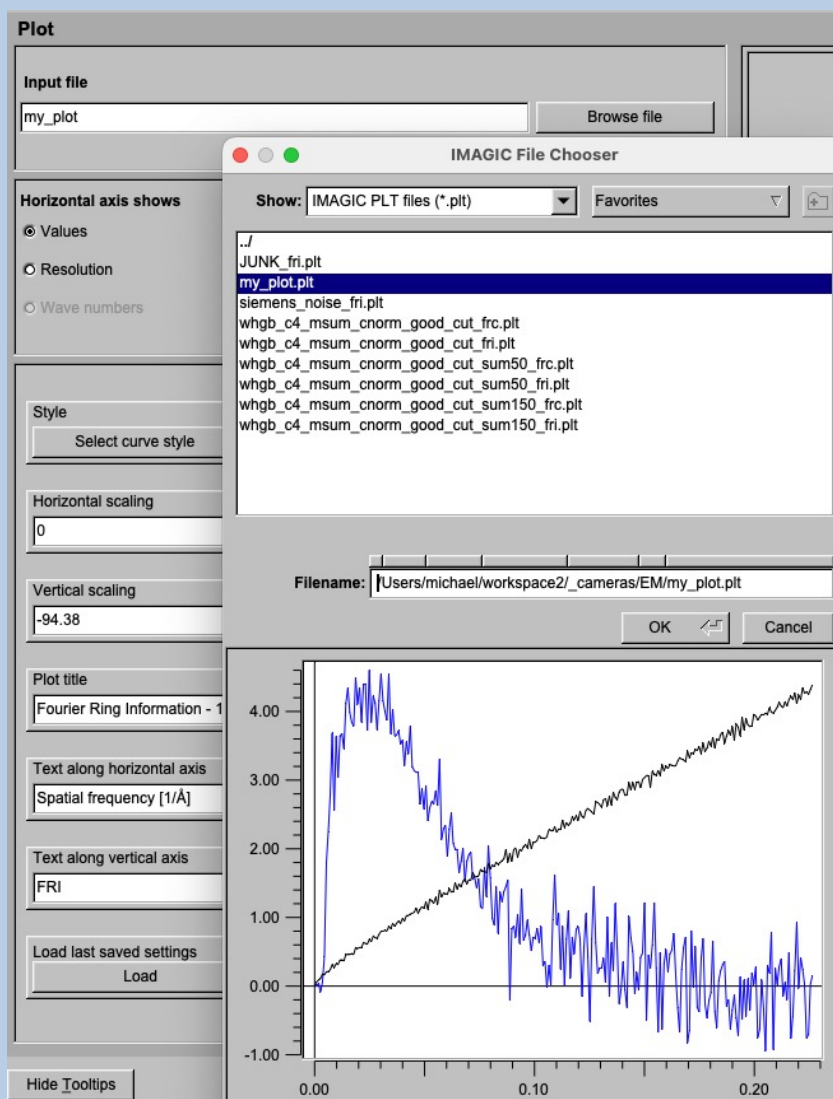
On the left-hand side you can specify the input file and adjust the plot parameters. The curves are displayed in the window on the right-hand side.

First specify the name of the file with the curves to be displayed. Either enter the name of the file into the text field

or use the "Browse" button to browse for an PLT image file.

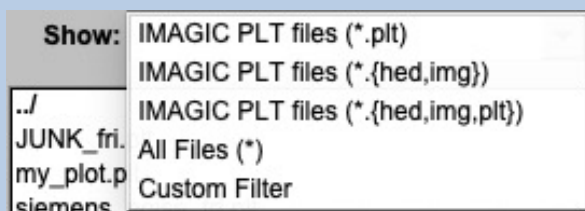


Clicking the “Browse” button will open the IMAGIC file chooser:

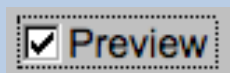


Choose the wanted PLT file by clicking its name

You can use a pre-selection of the files shown:



You can get a pre- view of the curves.



Note that you can store your directory in “Favorites”.



Plot Control

The plot/visualisation settings of the curves shown on the right-hand side can be adjusted on the left-hand side

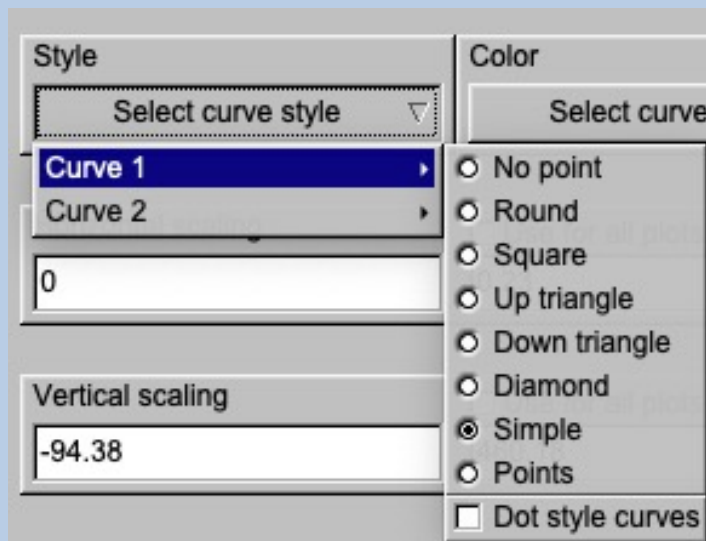
Style Select curve style ▾	Color Select curve color ▾	Grid Select curve grid ▾
Horizontal scaling 0	<input checked="" type="checkbox"/> Use for all plots 0.23	Reset
Vertical scaling -94.38	<input type="checkbox"/> Use for all plots 460.18	Reset
Plot title Fourier Ring Information - 1/2-bit (loc#s 1 vs. 2)	<input type="checkbox"/> Use for all plots	Reset <input type="range"/>
Text along horizontal axis Spatial frequency [$1/\text{Å}$]	<input type="checkbox"/> Use for all plots	Reset <input type="range"/>
Text along vertical axis FRI	<input type="checkbox"/> Use for all plots	Reset <input type="range"/>

The style of each curve per plot of the plotted curve can be chosen after clicking the “Style” button.

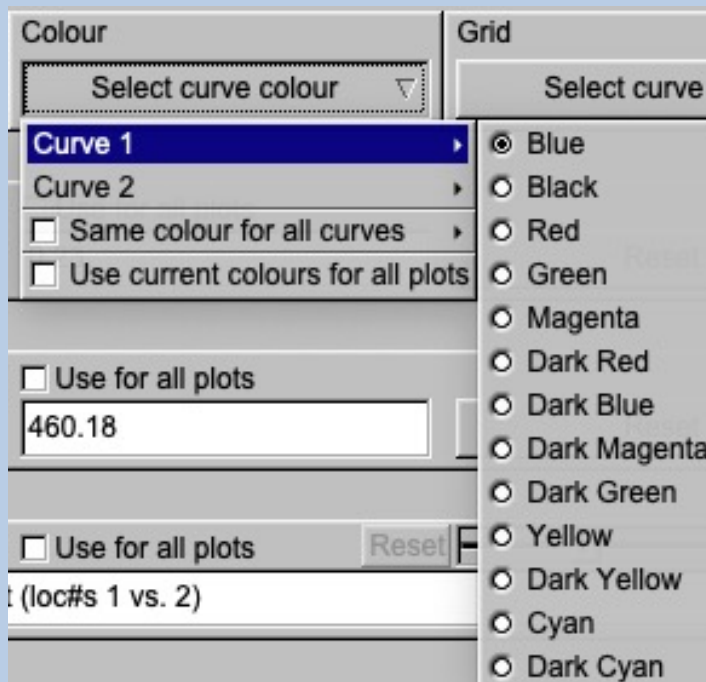
Style Select curve style ▾	Color Select curve
Curve 1	<input type="radio"/> No point
Curve 2	<input type="radio"/> Round
0	<input type="radio"/> Square
	<input type="radio"/> Up triangle
	<input type="radio"/> Down triangle
	<input type="radio"/> Diamond
Vertical scaling -94.38	<input checked="" type="radio"/> Simple
	<input type="radio"/> Points
	<input type="checkbox"/> Dot style curves



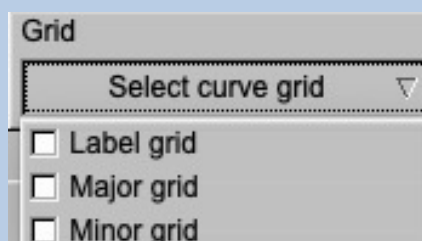
The style of each curve per plot of can be a chosen after clicking the “Colour” button:



To change the colour of a certain curve click the “Colour” button:



I wanted, you can add a grid:



The horizontal scaling of the curve can be adjusted by specifying the minimal and maximal value to be used :

Horizontal scaling	<input type="checkbox"/> Use for all plots	Reset
<input type="text" value="0"/>	<input type="text" value="0.23"/>	

The vertical scaling of the curve can also be adjusted:

Vertical scaling	<input type="checkbox"/> Use for all plots	Reset
<input type="text" value="-94.38"/>	<input type="text" value="460.18"/>	

Note that you can fix a chosen scaling for all plots by activating the option "Use for all plots":

Use for all plots

You can reset the scaling to the minimum/maximum of the current curve by clicking the "Reset" button:

Reset

You can also change the title as well as the horizontal and/or the vertical text of the plot:

Plot title	<input type="checkbox"/> Use for all plots	Reset	<input type="range"/>
<input type="text" value="Fourier Ring Information - 1/2-bit (loc#s 1 vs. 2)"/>			
Text along horizontal axis	<input type="checkbox"/> Use for all plots	Reset	<input type="range"/>
<input type="text" value="Spatial frequency [1/Å]"/>			
Text along vertical axis	<input type="checkbox"/> Use for all plots	Reset	<input type="range"/>
<input type="text" value="FRI"/>			

Use the sliders to change the size of the related text:

<input type="range"/>



Fix a specified text for all plots by activating the related option “Use for all plots”:

Use for all plots

Reset a text to the one found in the input PLT file by clicking the “Reset” button:

Reset

You can store the settings for later use by clicking the “Save” button:

Save current plot settings
Save

Load the last stored settings by clicking the “Load” button:

Load last saved settings
Load

MODE OF CURVE:

There are three plot options depending of the content of the plots:

Horizontal axis shows
 Values
 Resolution
 Wave numbers

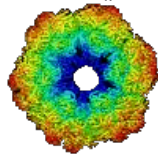
Values: A usual curve

Resolution: Each plot consists of a resolution plus a threshold curve

Wave numbers: The horizontal axis are wave numbers not pixel in Fourier space or resolution/information values.

Note an option can only be chosen if the input PLT file contains the needed information.





IMAGIC

guiPLOT

Feedback / Error hints

We intensively tested the **guiPLOT** program and tried to find all possible errors and inconsistencies. But the current program is very complex and still in progress. So you may still find some problems.

We are happy to get feed-back. Please send your comments, error hints etc. to

imagic@ImageScience.de

THANK YOU VERY MUCH.



Image Science

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