# μView 1.0 - A Comprehensive *μSR* Data Access and Analysis Tool


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## Introduction to *μView*

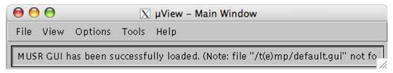
For decades the μSR community has used the legacy programs *msrfit* and *db* for fitting μSR time spectra and for "spreadsheet" displays, respectively. Both are graphics intensive tools, been ported to many computing platforms. In 1995 it was decided that graphical tools ought to be platform independent, and Java was selected as the most appropriate implementation language. A decade later, ***μView 1.0*** is ready for release: a Java applet that offers unique spreadsheet capabilities and direct access to μSR data files. It is freely available to all.

## System Requirements & Launching

Compatible with Linux/Unix/Mac/Windows platforms.
- Runs on Safari, Netscape (Firefox, Mozilla) but not on M$IE.
- Online (`http://musr.org/muview/`) or Locally (`muviewpackage.zip`)
-Requires a `.java.policy` file for access to local files.

*μView* Manual and Documentation are provided online or downloadable.

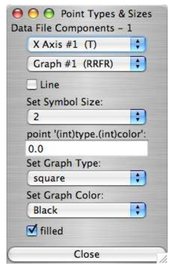
## The Main Window




- Save *μView* state
- Import DataTable from: *db*, MUD and XML files
- Export into *db* and XML formats

## Tools and Options

**Options:**
- Axis Types
- Point Types and Sizes
- Title and Labes
- Limits (Min & Max)
- Captions (Legends) Setup

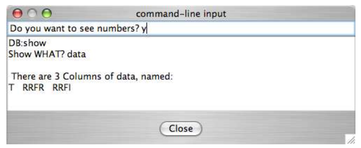




- Global Defaults
- Color Options; Label Font; Title Font; Numbers Font; Plot Setup (Pix); Graph Setup; Zero Axes Setup

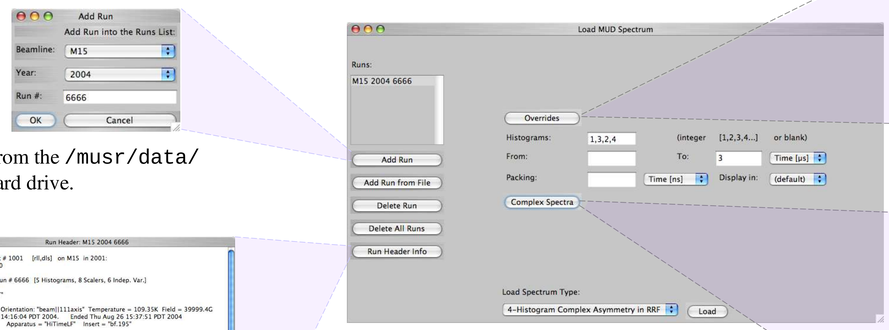
**Tools:**
- Command Line Console

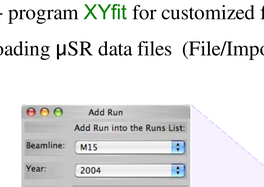
- Define Constant, Define Function
- Repack Selected DataTable
- Automatic Symbol Size Setup
- Plot Size Setup
- Print (PostScript)



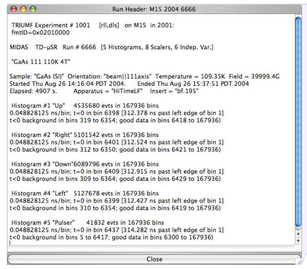

## Loading and exporting *db* and XML files

- *db* files load through Main Menu or Command Line Console.
- XML exports into C++ program XYfit for customized fitting.
- Separate window for loading μSR data files (File/Import MUD Spectrums from MUD ['`msr`'] file):

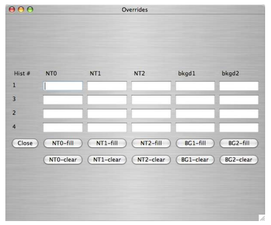


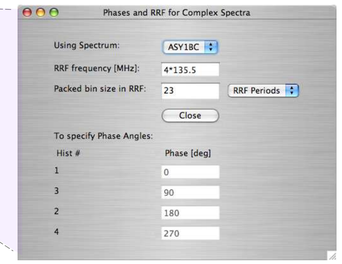

- Selecting MUD file from the `/musr/data/` folder on the local hard drive.




- Run Header information display:



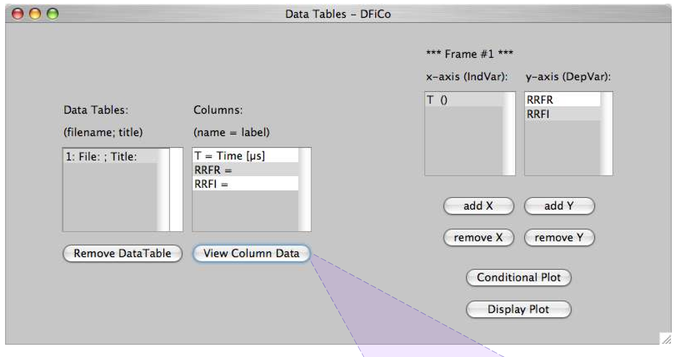

- **Overrides** of `nt0, nt1, nt2, bkgd1` & `bkgd2` values for every Histogram individually.

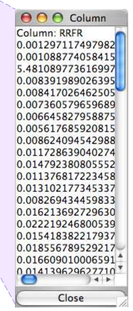



- Complex Spectrum variables window.
- Changeable Phase Angle fields for *n*-Hist Spectra.

**Spectrum types:**
- Raw Histogram(s)
- Early Bins
- Late Bins
- Background-Corrected Histogram(s)
- Asymmetry from Each Histogram
- Asym from Each Bkg-Corr Histogram
- 2-Histogram Asymmetry (i-j)/(i+j)
- 4-Histogram Complex Asymmetry in RRF
- n-Hist Complex Asym w/Phases in RRF

## Data Tables Window

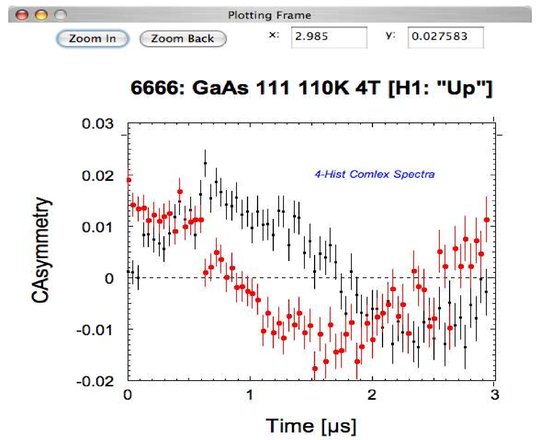



- Unlimited number of DataTables, Columns and Column Data
- Combining *x*-*y* plots from any DataTable Column in the same plot
- View individual data columns

## Plot Display

- Zoom Feature
- Asymmetric Error Bars
- *PostScript* output option




## Conclusion

- Open Source GPL