Subject: IDL widget curve fitting program
Posted by robert.dimeo on Fri, 04 Oct 2002 18:15:00 GMT
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Hi,

I have recently completed writing a GUI wrapper for Craig Markwardt's great MPFIT routines and I am making it available to anyone who might be interested. It was written using objects in IDL 5.4 but it has not been tested on any of the previous versions back to 5.0. The program is called PAN (for Peak ANalysis) and I wrote it primarily for use by the neutron scattering community. However you can read in your ascii data (single or multiple groups) and fit functions (multiple) from the existing library (Gaussians, Lorentzians, lognormal, damped harmonic oscillator, sloping background) or type in your own fit function. I tried to write it to minimize the amount of information you have to type in by hand. For instance you use the mouse to specify initial fit parameters. As an example, a Gaussian's amplitude and center are specified with one mouse click and the width is specified with a second mouse click.

It goes without saying that this program would not have been possible without Craig's very flexible and simple-to-use MPFIT routines. Also I have used David Fanning's beautiful and simple-to-use FSC_PSCONFIG routines for the postscript output.

If you are interested in this program you can download it from my IDL programs web site http://www.ncnr.nist.gov/staff/dimeo/idl_routines.html. You can find it under the Object widget programs tag. Alternatively you can get it from ftp://ftp.ncnr.nist.gov/pub/staff/dimeo/pan.zip. There is an option to load a test data set so you can play around with the features before getting your own data read in. See the documentation for more details.

The program is zipped and, with the PDF documentation, it is about 950 kB. If you just want to see some documentation then you can also just download the the PDF file, ftp://ftp.ncnr.nist.gov/pub/staff/dimeo/pandoc.pdf.

Please let me know if you find this program useful.

Thanks,

Rob Dimeo

robert.dimeo@zzznist.gov
To contact me take the zzzz out of the e-mail address above.