
Subject: Updates to Markwardt Library

Posted by [Craig Markwardt](#) on Thu, 22 Dec 2011 02:38:31 GMT

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Hi Folks--

These days I don't promote my IDL library of software on the news group much any more, but seeing David put out some update notices got me motivated. I added a bunch of new routines that people might find interesting. For newer readers who don't know me very well, I specialize in the numerical and astronomical, but also in getting IDL to do interesting tricks. Here are some of the new ones:

FLORMAT - Format a string with named format variables. This is an interesting twist that brings Python-like format strings to IDL (Python calls it "variable interpolation"). The key is that you can use named variables to make your format strings more readable instead of the impenetrable gobbledygook of normal IDL format strings. [*]
<http://www.physics.wisc.edu/~craigm/idl/io.html#FLORMAT>

GAPNAN - Insert NANs in time series gaps to facilitate plotting. It handles the case where you want to plot a time series with gaps, but don't want to connect the dots across gaps.
<http://www.physics.wisc.edu/~craigm/idl/arrays.html#GAPNAN>

PXPERFECT - Get 'pixel perfect' Postscript output which matches the on-screen version. I figured out all the pixel scaling and font sizing factors so that you don't have to. If you use this routine, your Postscript output (processed by Ghostscript) should match almost pixel-for-pixel with the on-screen direct graphics version. (fingers crossed!)
<http://www.physics.wisc.edu/~craigm/idl/graphics.html#PXPERFECT>

MPPROPERR - based on a user request, this routine provides a way to estimate the uncertainty in your model function values due to parameter uncertainties. Basically it answers the question of how sensitive your model is to parameter variations. (you will need to upgrade MPFIT to version 1.79 too)
<http://www.physics.wisc.edu/~craigm/idl/fitting.html#MPFIT>

TZOFFSET - Compute timezone offset from GMT for any date. If you've ever wanted to convert between local and UTC time values, this routine should help.
<http://www.physics.wisc.edu/~craigm/idl/ephem.html#TZOFFSET>

FILE_COMPILE - compiles an arbitrary procedure or function stored on disk. It deals with all the difficulties of using `RESOLVE_ROUTINE`, resetting your path, and catching errors, so you don't have to.

http://www.physics.wisc.edu/~craigm/idl/introspect.html#FILE_COMPILE

There are some other more minor changes. For more information, you can see here

<http://www.physics.wisc.edu/~craigm/idl/news.html>

Best wishes for the holiday season!
Craig Markwardt

[*] - It's hard to explain. You can click through to the documentation to read more about FLORMAT.
