
Subject: Re: Pan/Zoom Line Plots with Coyote Graphics

Posted by [Fabzi](#) on Fri, 25 May 2012 09:19:03 GMT

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Hi,

One of the nicest application I could imagine for this zoom plot is the capability to explore time series. However, I was not able to produce "satisfying" (nice-looking) visualizations using LABEL_DATE in a generic way (that means, for time series of any length or sampling resolution). I don't see any logic in the way IDL decides where to put its tick-marks: sometimes at noon, sometimes at midnight, sometimes is the day tick in the middle of what seems to be a day (12:00 -> 12:00), sometimes not, etc...

Does someone has a suggestion on how to use label_Date?

Bonus question: are IDL NG routines better at labeling time automatically? (in other words: should I go for IDL 8.2?)

Thanks a lot

On 05/17/2012 05:15 PM, David Fanning wrote:

> Folks,

>

> At my new job, we had a need to be able to zoom into a

> lot of data very quickly and then pan around the data

> to see what points are in the immediate vicinity.

>

> Python has a rudimentary capability like we wanted, but

> it's just a bit clunky and slow. You can pan IDL 8.1

> graphics (sometimes even when you don't want to!), but

> you can easily pan your plot off the face of the Earth

> and good luck writing or modifying one of *those* programs!

>

> So, to make a long story short, I had to un-retire for

> a day to write what we wanted in Coyote Graphics. It's

> pretty darn slick, even if I say so myself. :-)

>

> I have added it to the Coyote Library this morning:

>

> <http://www.idlcoyote.com/programs/cgzplot.pro>

>

> It is written as an object (although called like a procedure),

> and is a subclass of a new cgGraphicsKeywords object which

> handles graphics keywords. You will need this program, too.

>

> http://www.idlcoyote.com/programs/cggraphicskeywords__define.pro
>
> Basically, the program is an interactive wrapper to cgPlot
> and is called *exactly* like cgPlot, with all of cgPlot's
> keywords, etc.
>
> IDL> cgZPlot, cgDemodata(1), PSym=2, Color='red'
>
> The operations are simple. Zoom with the LEFT mouse button and
> pan with the RIGHT mouse button.
>
> If you click inside the plot with the LEFT mouse button, you can
> draw a rubberband zoom box to make your initial zoom selection.
> You can tweak your zoom by clicking the LEFT mouse button outside
> of the plot boundaries. Clicking at the top or bottom of the plot
> will zoom in or out, respectively, of the X axis. Clicking to the
> right or left of the plot will do the same with the Y axis. To
> restore the plot to its original dimensions, simply click and
> release inside the plot without moving the mouse. Complete
> directions are in the documentation.
>
> If a plot is zoomed, you can use the RIGHT mouse button to pan the
> plot in the graphics window.
>
> Panning and zooming are incredibly fast and smooth, even with a full
> size window on my display.
>
> Since I am retired, I figure I am done holding everyone's hand, so
> if you want nice looking file output, you will have to install
> ImageMagick and GhostScript (for PDF output). I figure most
> Coyote Library users will have these installed by now. If not,
> there is no hope for them anyway. :-)
>
> Cheers,
>
> David
>
