Subject: JHU/APL IDL Library update
Posted by sterner on Fri, 01 Jul 1994 12:51:18 GMT
View Forum Message <> Reply to Message

JHU/APL IDL anonymous ftp site update notice
The latest update was made on 1994 July 1.
The last update was made on 1994 Apr 11.

fermi.jhuapl.edu IDL library ftp site description

Purpose of this ftp site

This ftp site contains several JHU/APL IDL libraries.

The library routines fall into the following broad categories:
Text Files, Text strings, Date & time routines, Information,
Plotting/Graphics, Imaging, Array processing, Math, Programming,
Widget tools, Library maintenance and documentation, and Miscellanious.
One demonstration library is currently included for the eqv routine.

Accessing the ftp site (Make sure you use ftp, not telnet)
---
ftp fermi.jhuapl.edu (128.244.147.18)
For Name type: anonymous
For Password enter: your email address (ex: sterner@tesla.jhuapl.edu).
Change directory by entering: cd pub/idl
Set the correct transfer type: ascii (for README, cat.one, doc_guide.txt)
or binary (for the *.Z files).
To get a file enter: get filename
When finished enter: bye.

Get the ascii file README (~6.6k byte) for a guide to this ftp site.
You may also want to get the one line description file cat.one (~30kb).

What's New

New documentation: The first of a series of reports documenting routines
in this IDL library is now available in the file idl_time.ps.Z. It
describes a number of library routines related to time. It is a 17 page
PostScript document in a compressed file.
Interactive cross-hair cursor: the new routine CROSSI
works for any of the 3 standard coordinate systems (dev,norm,data).
Has several interesting features: continuous readout of position,
may display time axis coordinate as a date/time string,
has an optional magnified view window. The last item allows easy
single pixel cursor positioning. The keyword /JS works with time series
plots made by JSPLOT and time series images made by IZOOM,/JS. The
interactive vertical and horizontal lines, VER and HOR, have also been

upgraded. VER allows /JS.

Paint option in XVIEW image display routine: XVIEW is an image display routine that makes it easy to convert from one image format to another (formats supported by IDL). A new addition is the Paint Pixels option in the Tools and Functions menu. The new routine PAINT is used to handle this option. The flood fill option of paint is not real fast but it seems to work ok and may still be useful. Paint calls a seedfill routine. Two such routines, SEEDFILL (fill a region bounded by given values) and SEEDFILLR (fill a connected region of constant value) may be useful but are not real fast since they use loops.

Curve editor: the new routine PLTCRV is useful for modifying curves with small numbers of points (fewer than 100 roughly). One of the options is a spline curve. Try tho following:

```
x=maken(10,20,7)
y=randomu(i,7)*30
pltcrv,x,y,spline=100,xran=[5,25],yran=[0,40]
```

Pick the Edit Points option and move points around. Don't let the green curve get too wild or you will get arithmetic errors (harmless but not under my control (from the nr_splint routine). Actually you can blow the routine up if you get too extreme). You can also nail the green curve down by adding points and let it loose by dropping points.

Shaded surface routine: the new routine SHADE_SURF2 combines the shades image option in shade_surf with the ordinary shading done by shade_surf. It may be useful since small details become visible with the shading.

Hotlist widget: The WWW access program mosaic has a nice hotlist. The new routine XHOTLIST allows such a hotlist to be added to your widget routines. The routine XVIEW uses XHOTLIST.

Highlighting horizontal and vertical lines: The routines HOR and VER have been upgraded. They now allow the region between pairs of lines to be filled with a specified color. Alternately, the lines can be indicated by custom arrowheads at each end so the line itself is not obscured.

Date/time string fractions of seconds: DT_TM_FROMJS now allows fractions of a second to be specified, either as a decimal fraction or as a ratio.

World map showing daylight and night: The new routine SUNCLOCK displays a world map showing daylight, night, and three twilights. Just type sunclock. Takes a while to compute and is a memory hog, but looks nice.

Images of periodic time series data: May be made with the new routine CYPH which rearranges given time series data into a cycle/phase image. Such an image is a very interesting way to view a large amount of time series data, especially if it has one or more periodic components. Some examples of such data: tide height, variable star light curve, pulsar data, daily temperature, and so on. Periods may be determined quite well, even with a lot of data gaps.

A number of other new routines and upgrades were also made.

Ray Sterner sterner@tesla.jhuapl.edu
Johns Hopkins University North latitude 39.16 degrees.

Applied Physics Laboratory
Laurel, MD 20723-6099

West longitude 76.90 degrees.