Subject: Re: JHU/APL/S1R library update
Posted by rosentha on Tue, 15 Nov 1994 11:30:53 GMT
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Ray Sterner (sterner@strdev.jhuapl.edu) wrote:
: JHU/APL/S1R IDL anonymous ftp site update notice
: The latest update was made on 1994 Nov 14.
: The last update was made on 1994 July 1.
:
: fermi.jhuapl.edu IDL library ftp site description

: Purpose of this ftp site
: ----------
: This ftp site contains several JHU/APL/S1R 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 (~7.0k byte) for a guide to this ftp site.
: You may also want to get the one line description file cat.one (~31kb).

: What's New
: ----------
: New date/time string formatting codes: In the routine DT_TM_MAK, which
: may be used to convert a Julian day number and seconds into a
: date/time string (like Mon Nov 14 07:23:20 1994), two new formatting
: codes are available. I$, was available but not mentioned in the
: help text, displays the total time interval in day with 2 decimal places.
: H$ is new and displays the total time interval in integer hours. It is
: intended to be used with m$ and s$ as in H$:m$:s$ and will not wrap
: around to 0 at multiples of 24 hours. This allows a time axis to
: be labeled from 0:00 to 24:00 if desired. All the formatting codes
: in dt_tm_mak may be listed by the IDL command: help,dt_tm_mak(/help).
: DT_TM_MAK is used to format the date/time labels used by the routine

:   TIMEAXIS, which is used by JSPLOT (time series plots).
: Color bar upgrade: The labeled axis on the color bar drawn by the routine
:   CBAR may now be positioned on any side using the new keywords
:   /LEFT,/RIGHT,/TOP,/BOTTOM.
: New routine to draw a curve: The new routine XCURVE may be used to draw
:   a curve in the display window in one of the three standard coordinate
:   systems: data, device, normalized.
: Legend routine upgrades: Dick Jackson (djackson@ibd.nrc.ca) added the
:   FONT keyword and passed the thickness values on to the plot calls so
:   symbols have the correct thickness.
: Easy access to top color index: New routine, TOPC, returns the top color
:   index. Useful for statements like tv,bytscl(z,top=topc()).
: String editing routine upgrade: Trevor Harris (harris@hfrd.dsto.gov.au)
:   upgraded STRESS, one of the earliest routines in the library, to allow
:   target and replacement substrings to be arrays. This is done using
:   recursion.
: Obsolete routines dropped: the following routines were dropped from the
:   library since they have become obsolete: CRS, DATACRS, DEVCRS, NORMCRS,
:   AVE2D, SUM2D, CEIL, FLOOR. I would guess that if you have IDL v3.0
:   or later you will not need these. Old code will have to be modified.
:   Consider keeping a copy of the old JHU/APL/S1R library around until
:   your routines are all updated.
: New box color added: Sometimes an interactive box is hard (or impossible)
:   to see because it's color does not contrast with the underlying image.
:   This should now be less of a problem is color=-2 is used. This color
:   number plots the box outline using alternating dashes of 0 and the last
:   color index, usually contrasting colors.
: New routine to scramble integers: A new routine, SCRAMBLE, returns an array
:   of N scrambled integers from 0 to N-1.
: Inverse bilinear interpolation: The new routine, IBILIN, does inverse
:   bilinear interpolation. Here is theproblem: Assume a rectangular
:   image with known 2-d coordinates at the corners. Bilinear interpolation
:   may be used to find the 2-d coordinates at any point in the image
:   (from the pixel coordinates). However, knowing the 2-d coordinates
:   of a point, finding the corresponding pixel coordinates is not so
:   straightforward. This routine solves that problem with a consistent,
:   linear mapping.
: Finding the intersction of two great circles: A new routine, SPHGC, finds
:   the intersection coordinates of two great circles on a sphere. This is
:   the same as finding the poles of some coordinates system given
:   segments along two meridians.
: Adding brightness shading to an image: The new routine SHADE_IMG may be
:   used to shade a given image based on a given shading array. The shading
:   array is same size as image and ranges from 0 (black) to 1 (brightest).
:   The given image has its brightness modified by the shading array.
:   The resulting color image is returned along with the corresponding
:   color tables.
: Exploring an unkown data file: The new routine XDATAFILE may be used to

: explore a data file of unkown format. Displays a selected section of
: data as ascii text, bytes, integers, long integers, floats, and doubles
: all at the same time. Allows byte swapping.
: Pick one of the color table colors: The new routine PICKCOLOR allows the
: selection of a color from the current color table.
: Displaying text as an image: A new routine XTEXTIMG allows text from a
: text file to be displayed in an image window. This is a widget based
: interactive routine that allows text size, position, font, thickness,
: foreground and background color, and so on to be adjusted using widgets.
: This routine was designed to make viewgraph captions and works quite
: well for that purpose. It saves the resulting images in TIFF format
: (use XVIEW to convert to something else).
: Converting between Julian Days and Julian Seconds: two new routines,
: JD2JS and JS2JD do conversion between these two time systems. Many
: of the new JHU/APL/S1R routines that deal with time are based on
: Julian Seconds (do help,dt_tm_tojs(/help)).
: TV-like adjustments to a displayed image: A currently displayed image
: may be enhanced using the new routine XHSBC to adjust overall image hue,
: saturation, brightness, and contrast. Uses draw widgets instead of slider
: bars. This allows a 256 color image to be viewed during adjustment,
: slider bars would not. Brightness and contrast together adjust value:
: brightness is an offset in value, contrast is the deviation from
: the mean value.
: Drawing ellipses: A new routine, ELLIPSE, is a modification of ARCS
: by David Steele, Department of Physics and Astronomy, The University
: of Calgary. It makes it easy to draw ellipses in any of the coordinate
: systems. May specify semi-major axes, orientation, colors, centers,
: and line-styles. Inputs may be arrays making it very easy to draw
: very interesting figures.
: Preserving image shape: A new routine, IMGWINDOW, makes it easy to
: display an image anywhere in the window and keep the true shape.
: IMGWINDOW is used to find a normalized position value given three
: of the four position elements. The resulting position may be used
: with IZOOM to display an image with labeled axes.
: Zero padding on spectra: Zero padding was added to the two routines
: RSPEC (ensemble averaged spectrum of real 1-d data) and CSPEC
: (ensemble averaged spectrum of complex 1-d data). Zero padding
: gives finer spacing on the frequency axis but not more actual
: frequency resolution.
: World coastline (low resolution): The world coastline data has been moved
: from worldxdr.save2 to worldxdr.res. The old format was a save2 file,
: non-self-documenting. The new is a res file which is self-documenting.
: To access: resopen,'worldxdr.res',/xdr
: rescom
: resget,'lat',lat
: resget,'long',lng
: resget,'pen',pen
: resclose

: plot,[-180,180],[-90,90],/nodata
: plotp, lng, lat, pen

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`` Everyone knows the right answer is to hold a knife to the man's throat until he gives you the car, then knee the producer in the nuts and drive out through the studio's rear entrance! With both goats! "
(Terry Pratchett solves the Monty Hall Problem.)
