Subject: Re: XGobi
Posted by mcook on Fri, 20 Dec 1996 08:00:00 GMT
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Merry Christmas to you too!

It's funny you should ask, because I was thinking about doing the same thing. I was looking a little bit about how they interface to S. For the output to XGobi, it sounds like they just write the stuff to a file and fire it off, but on the return it places the info into an S object. I don't use S anymore, but I bet we could do the same thing for IDL. The doc also mentioned the XGobi folks are thinking of adding better "glue" (pipes?) to S in the future. I don't know much about process communication so I doubt I'll try to write anything like that.

If you're into XGobi, you might be interested in what I'm currently doing:

I use ENVI quite a bit. I've written several IDL functions to read and manipulate ROIs that I put out with ENVI. I've also just written routines to print out the ROIs in a format that XGobi expects and I've fired off XGobi (outside of IDL) to verify it works. I've even tried to maintain the first 10 color choices the ENVI ROI routine picks for subregions.

What I'm working on now is a little IDL tool that mimics some of the XGobi functionality to let me interactively select decision regions on the projected plane and give me the discriminant function that results. While I'm interactively playing with the discriminant, a click of the middle mouse button gives me the resulting classifcation that would result from each region in my training set. That gives me an idea of probability of miss and false alarm as I play around.

It's pretty neat (took less than a day), but so far I've only implemented two-class linear discriminants. I'm going to work on much more general cases over the holidays (if I can get the time).

When all this is said and done, I plan on adding an interface to ENVI to let me: pick ROIs, display the data with some of the functionality of XGobi (dump them for full XGobi functionality or tie in XGobi), interactively select classification regions, generate the discriminants, and apply the classification to an arbitrary region or other images. I think it'll speed up some of the analysis I want to do (which is the real reason for all of this).

Regards,
Mark

Dr. Mark K. Cook, MGTS

Systems Group
Texas Instruments, Inc.

In article <Pine.SUN.3.91.961220103635.23539B-100000@demsyd.syd.dem.csiro.au>,
Peter Mason <peterm@demsyd.syd.dem.csiro.au> wrote:
> Hi, and merry Christmas everyone.
>
> Has anyone ever written some IDL "glue" routines for working directly with
> XGobi? e.g., Via pipes?
> (XGobi is a wonderful public-domain Unix/X program which does multi-
> dimensional scatterplots with "projection pursuit" and all kinds of other
> features.)
>
> Cheers
> Peter Mason
> CSIRO DEM
