Subject: Help: Interpolation of 1D irregularly gridded data
Posted by dutch on Thu, 01 Apr 1993 15:50:16 GMT
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I need to interpolate from 1-dimensional irregularly sampled data. i.e. interpolate values from Y(t) where t is irregularly spaced.

IS THERE AN IDL 3.0 ROUTINE TO DO THIS EASILY AND QUICKLY.

I have written a routine to do this, but it can be quite slow, especially since I am working with large vectors. (my lookup table contains up to n=200 irregularly spaced points, and I need to interpolate up to m=30000 points from the table).
I have a written fully vectorised routine, which requires a m*n matrix, this is ok provided m*n < 500000 otherwise malloc fails (for the numbers quoted above m*n=6000000!) as I dont have enough memory, and I have to switch to a less vectorised (and slower) alternative algorithm.
I noticed that a 1-D INTERPOLATE routine is now available in IDL 3.0 but it assumes REGULARLY gridded data. I have also investigated the new 2-D interpolation routines for irregularly gridded data (TRIANGULATE, TRIGRID) but I can't make these work for 1-D data.

ANY ADVICE OR SUGGESTIONS WELCOME!

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#---------- / \ #
I'd rather have a full bottle in front _.--._/
of me than a full frontal lobotomy. v #
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