Subject: Large File Plotting
Posted by Mark Przeslawski on Thu, 28 Sep 2000 07:00:00 GMT
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Does anyone have an example of plotting
very large time history data files. I tried
creating a 1 million point file and it plotted
okay. I tried a 10 million point file with
various plotting routines and it hung my
Windows 2000 machine (PIII, 700MHz,
256Mb RAM). I tried plot, live_plot,
and some of the coyote plotting
routines to no avail. What is needed is
something that can detect file size and
only display to the pixel resolution of the
screen.

Also, does anyone have experience pushing
this size data through the signal processing
routines? These are not atypical file sizes
that I need to handle.

Thanks,
Mark Przeslawski
nCode International

Subject: Re: Large File Plotting
Posted by John-David T. Smith on Fri, 06 Oct 2000 07:00:00 GMT
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Mark Przeslawski wrote:
>
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With this many points, 2-d plots will simply not convey the information contained in the data, no matter what the display medium. You could indeed use averaging or exclusion techniques to reduce the number of points plotted. A better technique in many cases is to convert your 2d value vs. time data into a 3-d value-time-density image, where density is the number density, i.e. dN/dvdt. You generate the density by binning into an appropriate number of 2d time*value elements, including estimated errors if necessary (individual points smeared out with varying weight over several bins). This image can be displayed inside of the plot region using whatever colormap and scaling suits you, or even with a contour map.

Good luck,

JD

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