
Subject: Re: PlotCtrl

Posted by [dolik.rce](#) on Wed, 19 Aug 2009 16:30:41 GMT

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Hi Koldo,

Thank you for trying it! I was aware of that freezing (and even mentioned it in the first post). As I found after posting, it happens when you reach the precision limit of double, specifically when $x_{\max} - x_{\min} < \sim 1e-15 * x_{\max}$. Actually this will happen in most of the plotting code, if you zoom in region not containing (0,0). (I just checked gnuplot and it has this limitation too, just throws error about plotting into empty graph). I'll probably add similar check if I can't solve it in better way, it definitely should not freeze:-) Anyway, it should not be any problem in real-world usage, because one usually does not have data with details of order $1e-15$ (relatively to the range, of course).

Concerning scatter: I've seen it some time ago... Today I checked the latest version and I must say it's a nice work. But with all the respect to Andrei-Catalin, it's not what I'm looking for. Or rather I'm missing there some features, like automatic handling of axis units, which you definitely need if you want zoom with mouse (which is not supported too, but that could be added easily). Also I've chosen Painter instead of Draw, to get antialiasing and nicer pictures, possibly suitable for print and/or publication.

And by the way, it has similar limit about zoom, it just does not freeze. If I understood the code correctly only scales from $1e-3$ to $1e5$ are fully supported. Physicist would have to wisely choose units to fit in this range or use some scaling. PlotCtrl, on the other hand, performs this scaling automatically and (as long as you stay near origin of coordinates) supports the whole range of double.

Regards,
Honza
