Subject: Re: Multiple axes and plots with NG
Posted by chris_torrence@NOSPAM on Mon, 13 Jan 2014 15:16:36 GMT
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On Monday, January 13, 2014 6:52:08 AM UTC-7, Matthew Argall wrote:
>> Well, first of all, your final plot looks really nice. [...] By definition, once a plot is created, then all other plots that go on top of it (using say /overplot) must share the same "data space". In other words, they are all assumed to have the same data units. [...]
>
>
>
> Great! Thanks! I had an idea of what /Overplot does, but it is good to know for sure. Could you clarify what TARGET does, too?
>
>
>
> In the following example, "theAxis" can have a different range from "thePlot", but they share the same scale, so "theAxis" does not become completely visible until I expand the axis range of "thePlot". I suppose if I wanted the axes to be the same length and have different scales, I would have to use the Coord_Transform keyword, right? (any chance of getting an exponential transform for linear/log-scaled axes?)...
>
>
>
> thePlot = Plot(/Test)
>
> theAxis = Axis('Y', LOCATION=[200, -1], Axis_Range=[-2,2], Color='Blue', TextPos=1, Target=thePlot)
>
> thePlot.XRange = [-5,5]

Hi Matthew,

Yes, the TARGET just says that this axis "belongs" to this dataspace, and should share the same range as that dataspace. So, you are correct, in your example, that axis is going to have a "range" of the original plot (probably [-1,1]), regardless of what you put in for the axis_range. The axis_range is really only useful for creating an axis that only extends partway. For example:
thePlot = Plot(/Test)
theAxis = Axis('Y', LOCATION=[200, -1], Axis_Range=[0,1], Color='Blue', TextPos=1, Target=thePlot)

I'd have to think carefully about the exponential transform. I'm not sure what that would mean for the actual data scaling within the dataspace. It's supposed to be tied 1-1 with the axis.

-Chris