Subject: Re: automatic placement of legend in 2-D graph
Posted by Jean-Paul Davis on Thu, 24 Jan 2008 19:30:15 GMT
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Okay, so I came up with an idea on my own that should work, but it appears impossible to implement using the IDLgrLegend object. Yeah, I know the simplest answer is to write my own Legend object (or use someone else's), but that's probably not the simplest course of action for me.

Anyway, here's the problem. I cannot get the IDLgrLegend object to recompute its dimensions with changes in the containing view object's viewplane rectangle. The heirarchy is rooted at this view object, which contains two model objects, one for the plot and axes objects, the other for the legend (so I can translate the legend around separately from the plot and axes objects). The dimensions returned by IDLgrLegend::ComputeDimensions or IDLgrLegend::GetProperty(xrange, yrange) are correct for the viewplane rectangle set when the IDLgrView object is initialized, but never change after that, regardless of the setting of IDLgrLegend's Recompute property and regardless of how many times I redraw the window after subsequent changes to the viewplane rectangle. Here is an example to show this:

```
ofont = obj_new('IDLgrFont', 'Helvetica', size=16.0)
oxtitle = obj_new('IDLgrText', string='X-AXIS TITLE', recompute=2,
font=ofont)
oxaxis = obj_new('IDLgrAxis', direction=0, location=[9999,0,0.01],
title=oxtitle)
oxaxis -> getproperty, ticktext=oxtlab
oxtlab -> setproperty, , recompute=2, font=ofont
omodel = obj_new('IDLgrModel')
omodel -> add, oxaxis
olegend = obj_new('IDLgrLegend', item_linestyle=[0], item_name=['Test
Legend'], font=ofont, glyph_width=3.0, gap=0.3)
olegend -> setproperty, recompute=1 ; according to documentation, this
cannot be set by init
olegmod = obj_new('IDLgrModel')
olegmod -> add, olegend
oview = obj_new('IDLgrView', viewplane_rect=[0.0,0.0,1.0,1.0])
oview -> add, omodel
oview -> add, olegmod
owin = obj_new('IDLgrWindow', graphics_tree=oview)
owin -> draw
lsize = olegend -> computedimensions(owin)
print, lsize
oview -> setproperty, viewplane_rect=[-0.2,-0.2,1.4,1.4]
owin -> draw
lsize2 = olegend -> computedimensions(owin)
```

print, lsize2

If IDLgrLegend were recomputing it's dimensions, then I'd expect lsize2 to be different from lsize (the legend is "wider" in the normalized coordinates indicated by oxaxis object after increasing the viewplane rectangle). Has anyone seen this or have a work-around?

Jean-Paul
