Subject: textbaseline property not inherited by IDLgrText when specified in IDLgrAxis?

Posted by Brian Daniel on Tue, 10 Jan 2012 16:02:50 GMT

View Forum Message <> Reply to Message

Hi all,

I'm relatively new to object graphics. I've been playing with Michael
Galloy's mg_show_axes.pro routine and I wanted to extend his ability
to reorient the labels to be readable when the user has rotated the
axes. I wanted to extend that to the text labels on the axes
themselves.

Mike uses the textbaseline property of the axis object to do this.
xaxis->setProperty, textbaseline=[(newTransform[2, 2] gt 0 ? 1 : -1),
0, 0]
yaxis->setProperty, textbaseline=[0, (newTransform[2, 2] gt 0 ? 1 :
-1), 0]
zaxis->setProperty, textbaseline=[0, 0, (newTransform[1, 2] gt 0 ?
-1 : 1)]

where newTransform is the output of the trackball widget. Considering
the text object is inherited by the axis object, I thought that this
property would apply to the text object as well. Unfortunately, that
is not the case. Therefore, in the same location as Mike applies the
above transformation, I explicitly change the baseline property of the
text object via:

xaxis->getProperty, title=xText
yaxis->getProperty, title=yText
zaxis->getProperty, title=zText
xText->setProperty, baseline=[(newTransform[2, 2] gt 0 ? 1 : -1), 0,
0]
yText->setProperty, baseline=[0, (newTransform[2, 2] gt 0 ? 1 : -1),
0]
zText->setProperty, baseline=[0, 0, (newTransform[1, 2] gt 0 ? -1 :
1)]
xaxis->setProperty, title=xText
yaxis->setProperty, title=yText
zaxis->setProperty, title=zText

This doesn't work either. Does anyone (cough, Dr. Galloy, cough) have
any suggestions? Thanks.

-Brian

Subject: Re: textbaseline property not inherited by IDLgrText when specified in IDLgrAxis?
Posted by Michael Galloy on Thu, 12 Jan 2012 20:09:52 GMT
View Forum Message <> Reply to Message

On 1/10/12 9:02 AM, Brian J. Daniel wrote:
> I'm relatively new to object graphics. I've been playing with Michael
> Galloy's mg_show_axes.pro routine and I wanted to extend his ability
> to reorient the labels to be readable when the user has rotated the
> axes. I wanted to extend that to the text labels on the axes
> themselves.
>
> Mike uses the textbaseline property of the axis object to do this.
> xaxis->setProperty, textbaseline=[(newTransform[2, 2] gt 0 ? 1 : -1),
> 0, 0]
> yaxis->setProperty, textbaseline=[0, (newTransform[2, 2] gt 0 ? 1 :
> -1), 0]
> zaxis->setProperty, textbaseline=[0, 0, (newTransform[1, 2] gt 0 ?
> -1 : 1)]
>
> where newTransform is the output of the trackball widget. Considering
> the text object is inherited by the axis object, I thought that this
> property would apply to the text object as well. Unfortunately, that
> is not the case. Therefore, in the same location as Mike applies the
> above transformation, I explicitly change the baseline property of the
> text object via:
>
> xaxis->getProperty, title=xText
> yaxis->getProperty, title=yText
> zaxis->getProperty, title=zText
> xText->setProperty, baseline=[(newTransform[2, 2] gt 0 ? 1 : -1), 0,
> 0]
> yText->setProperty, baseline=[0, (newTransform[2, 2] gt 0 ? 1 : -1),
> 0]
> zText->setProperty, baseline=[0, 0, (newTransform[1, 2] gt 0 ? -1 :
> 1)]

This works for me (at least in the same manner as for the tick mark
value text, see below).

> xaxis->setProperty, title=xText
> yaxis->setProperty, title=yText
> zaxis->setProperty, title=zText

No need to do these lines though, [xyz]Text variables are references.

> This doesn't work either. Does anyone (cough, Dr. Galloy, cough) have
> any suggestions? Thanks.

Now make sure you understand that this example is somewhat limited in
that it makes the text read in the correct direction, but does not
swivel the text around so that it is right-side up. You would need to
play around with the UPDIR property as well to make the text fully readable.

Mike
--
Michael Galloy
www.michaelgalloy.com
Modern IDL, A Guide to Learning IDL: http://modernidl.idldev.com
Research Mathematician
Tech-X Corporation