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Subject: Re: IDLgrAxis and scaling  
Posted by [Mark Hadfield](#) on Wed, 19 Mar 2003 21:27:18 GMT  
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"Thomas Gutzler" <[tgutzler@ee.uwa.edu.au](mailto:tgutzler@ee.uwa.edu.au)> wrote in message  
news:[3E783423.4080505@ee.uwa.edu.au](mailto:3E783423.4080505@ee.uwa.edu.au)...

> Hi,  
>  
> I tried to prevent the axis-text to be scaled while scaling a model with  
> the axes added.

This is controlled by the RECOMPUTE\_DIMENSIONS property of the axis-text  
IDLgrText objects. Default is 0; you should use 1 or 2.

It's easy to specify RECOMPUTE\_DIMENSIONS for a text object you create  
yourself. But the tick-label objects are generated automatically, so you  
have to hunt them down. My MGHgrAxis object does this. The axis object keeps  
properties FONT and RECOMPUTE\_DIMENSIONS, which it applies to all the text  
objects it manages. The code looks like this:

```
self->GetProperty, TICKTEXT=oticktext, TITLE=otitle
if obj_valid(otitle) then begin
  ottitle-> SetProperty, RECOMPUTE_DIMENSIONS=self.recompute_dimensions
  ottitle->GetProperty, FONT=font
  if not obj_valid(font) then ottitle-> SetProperty, FONT=self.font
endif
for i=0,n_elements(oticktext)-1 do begin
  if obj_valid(oticktext[i]) then begin
    oticktext[i]-> SetProperty, $
      RECOMPUTE_DIMENSIONS=self.recompute_dimensions
    oticktext[i]->GetProperty, FONT=font
    if not obj_valid(font) then $
      oticktext[i]-> SetProperty, FONT=self.font
  endif
endfor
```

To look at this code in context, see

<http://www.dfanning.com/hadfield/README.html>

--  
Mark Hadfield "Ka puwaha te tai nei, Hoea tatou"  
[m.hadfield@niwa.co.nz](mailto:m.hadfield@niwa.co.nz)  
National Institute for Water and Atmospheric Research (NIWA)

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Subject: Re: IDLgrAxis and scaling

Posted by Thomas Gutzler on Thu, 20 Mar 2003 02:02:31 GMT

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Mark Hadfield wrote:

```
> "Thomas Gutzler" <tgutzler@ee.uwa.edu.au> wrote in message
> news:3E783423.4080505@ee.uwa.edu.au...
>
>> Hi,
>>
>> I tried to prevent the axis-text to be scaled while scaling a model with
>> the axes added.
>
>
> This is controlled by the RECOMPUTE_DIMENSIONS property of the axis-text
> IDLgrText objects. Default is 0; you should use 1 or 2
```

Yeah, that's what I thought, too.

Where is the difference between this:

```
> self->GetProperty, TICKTEXT=oticktext, TITLE=otitle
> for i=0,n_elements(oticktext)-1 do begin
>   if obj_valid(oticktext[i]) then begin
>     oticktext[i]->SetProperty, $
>       RECOMPUTE_DIMENSIONS=self.recompute_dimensions
>     oticktext[i]->GetProperty, FONT=font
>     if not obj_valid(font) then $
>       oticktext[i]->SetProperty, FONT=self.font
>   endif
> endfor
```

and that:

```
zaxis->GetProperty, Ticktext=text
text-> SetProperty, Recompute_Dimensions=1
```

I think there is none. The difference is somewhere else:

In MGHgrAxis::Init:

```
self.recompute_dimensions = $
n_elements(recompute_dimensions) gt 0 ? recompute_dimensions : 2
^
```

Setting Recompute\_Dimensions=2 instead of 1 solves it.

Thanks for that.

Tom

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Subject: Re: IDLgrAxis and scaling

Posted by [David Fanning](#) on Thu, 20 Mar 2003 02:09:30 GMT

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Thomas Gutzler ([tgutzler@ee.uwa.edu.au](mailto:tgutzler@ee.uwa.edu.au)) writes:

```
> I think there is none. The difference is somewhere else:  
> In MGHgrAxis::Init:  
>   self.recompute_dimensions = $  
>   n_elements(recompute_dimensions) gt 0 ? recompute_dimensions : 2  
>                                         ^  
> Setting Recompute_Dimensions=2 instead of 1 solves it.
```

I was going to recommend this method I use (especially  
in object graphics) of trying every possible value for  
every possible keyword, but it seemed, well, inelegant. :-(

Cheers,

David

P.S. Let's just say I'm pretty sure one of those funny  
cigarettes was being passed around when that Recompute\_Dimensions  
documentation was being written.

--  
David W. Fanning, Ph.D.  
Fanning Software Consulting, Inc.  
Phone: 970-221-0438, E-mail: [david@dfanning.com](mailto:david@dfanning.com)  
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Toll-Free IDL Book Orders: 1-888-461-0155

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Subject: Re: IDLgrAxis and scaling

Posted by [Mark Hadfield](#) on Thu, 20 Mar 2003 02:13:37 GMT

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"Thomas Gutzler" <[tgutzler@ee.uwa.edu.au](mailto:tgutzler@ee.uwa.edu.au)> wrote in message  
news:[3E792137.60009@ee.uwa.edu.au](mailto:3E792137.60009@ee.uwa.edu.au)...

```
> Mark Hadfield wrote:  
> Where is the difference between this:  
>  
>> self->GetProperty, TICKTEXT=oticktext, TITLE=otitle  
>> for i=0,n_elements(oticktext)-1 do begin  
>>   if obj_valid(oticktext[i]) then begin  
>>     oticktext[i]->SetProperty, $  
>>       RECOMPUTE_DIMENSIONS=self.recompute_dimensions  
>>     oticktext[i]->GetProperty, FONT=font  
>>     if not obj_valid(font) then $
```

```
>>      oticktext[i]->SetProperty, FONT=self.font
>>      endif
>>      endfor
>
> and that:
> zaxis->GetProperty, Ticktext=text
> text-> SetProperty, Recompute_Dimensions=1
```

Where does "that" come from? Did I miss a message?

The differences are:

- "that" is a lot shorter
- My code ("this") allows for the possibility that TICKTEXT is an array of IDLgrText object references. When IDL generates tick-text automatically it creates a single object, but it is possible for an array of object references to have been added via the axis's Init or SetProperty methods.
- My code also applies a default FONT property.
- As you noted elsewhere, my code allows self.recompute\_dimensions to be set by the MGHgrAxis object's Init or SetProperty methods, but the default is 2. The IDL documentation describes in detail the difference between RECOMPUTE\_DIMENSIONS = 0, 1, and 2, but I assumed you could read that for yourself. See, see, top do what I want.

--  
Mark Hadfield "Ka puwaha te tai nei, Hoea tatou"  
m.hadfield@niwa.co.nz  
National Institute for Water and Atmospheric Research (NIWA)

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Subject: Re: IDLgrAxis and scaling  
Posted by [Thomas Gutzler](#) on Thu, 20 Mar 2003 04:13:06 GMT  
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Mark Hadfield wrote:  
> "Thomas Gutzler" <tgutzler@ee.uwa.edu.au> wrote in message  
> news:3E792137.60009@ee.uwa.edu.au...  
>  
>> Mark Hadfield wrote:  
>> Where is the difference between this:  
>>  
>>  
>>> self->GetProperty, TICKTEXT=oticktext, TITLE=otitle  
>>> for i=0,n\_elements(oticktext)-1 do begin  
>>> if obj\_valid(oticktext[i]) then begin

```
>>>     oticktext[i]->SetProperty, $  
>>>         RECOMPUTE_DIMENSIONS=self.recompute_dimensions  
>>>     oticktext[i]->GetProperty, FONT=font  
>>>     if not obj_valid(font) then $  
>>>         oticktext[i]-> SetProperty, FONT=self.font  
>>>     endif  
>>> endfor  
>  
>> and that:  
>> zaxis->GetProperty, Ticktext=text  
>> text-> SetProperty, Recompute_Dimensions=1  
>  
>  
> Where does "that" come from? Did I miss a message?
```

Did my - or your - newsserver mess up my posting ?  
I can't believe that it cuts random lines off. "that" comes from my very  
first posting of "this" thread :)  
<http://groups.google.com/groups?selm=3E783423.4080505%40ee.uwa.edu.au&oe=UTF-8&output=gplain>  
ACK?

Tom

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Subject: Re: IDLgrAxis and scaling  
Posted by [Mark Hadfield](#) on Thu, 20 Mar 2003 04:42:03 GMT  
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"Thomas Gutzler" <tgutzler@ee.uwa.edu.au> wrote in message  
news:3E793FD2.5020900@ee.uwa.edu.au...  
> Did my - or your - newsserver mess up my posting ?  
> I can't believe that it cuts random lines off.

That's my story and I'm sticking to it :-)

The alternative (that I didn't read the entire thread carefully and remember  
everything I'd read) is too appalling to contemplate.

--  
Mark Hadfield "Ka puwaha te tai nei, Hoea tatou"  
[m.hadfield@niwa.co.nz](mailto:m.hadfield@niwa.co.nz)  
National Institute for Water and Atmospheric Research (NIWA)

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