Subject: IDLgrModel::Scale
Posted by Mark Guagenti on Thu, 20 Jul 2000 07:00:00 GMT
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Hello,
I can't seem to figure out how the IDLgrModel::Scale method works. When I scale a model that only contains a 2D image by doing the following:

oModel->Scale, 1.2, 1.2, 1

what would the equivalent of doing it with the congrid function? Wouldn't it be:

imgData = Congrid(imgData, imgsizeX*1.2, imgsizeY*1.2

I guess I really don't understand how the scale method works. Any enlightenment would be very appreciated.

Thanks,
Mark

-- Mark

Grace and peace to you from God our Father and the Lord Jesus Christ.
1 Cor. 1:3

Subject: Re: IDLgrModel::Scale
Posted by Rick Towler on Mon, 24 Jul 2000 07:00:00 GMT
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Hi Mark,

There will undoubtedly be a far better answer to your post but I might be able to get you thinking.

> I can't seem to figure out how the IDLgrModel::Scale method works. When I
> scale a model that only contains a 2D image by doing the following:
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> oModel->Scale, 1.2, 1.2, 1

You seem to be using it correctly. :)

The difference is that in object graphics your scaling doesn't actually change the objects data. Your second approach (using congrid)operates on the image data itself and "scaling" the image smaller will result in

lost data.

-Rick

Mark Guagenti wrote:
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Subject: Re: IDLgrModel::Scale
Posted by Mark Guagenti on Tue, 25 Jul 2000 07:00:00 GMT
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Hello All,
I guess the best way to describe my problem is that I need to be able to scale the image data itself, but I also need to scale the other graphic atoms that are in a model object. So that's why I was wondering how the IDLgrModel::Scale method works because I thought the best approach would to be scale all the atoms in the model with the IDLgrModel::Scale and then scale the image data with congrid. Where I run into a problem is that if I do oModel->Scale, 1.2, 1.2, 1 I can't go and do Congrid(imgData, imgsizeX*1.2, imgsizeY*1.2) on the image data and get the same proportions. Does any one have an idea that might help?

Thanks in advance,
Mark

Rick Towler wrote:

> Hi Mark,
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> be able to get you thinking.
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Subject: Re: IDLgrModel::Scale
Posted by davidf on Wed, 26 Jul 2000 07:00:00 GMT

Mark Guagenti (guagenti@foodsci.purdue.edu) writes:

> I guess the best way to describe my problem is that I need to be able to scale
> the image data itself, but I also need to scale the other graphic atoms that are
> in a model object. So that's why I was wondering how the IDLgrModel::Scale
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> in the model with the IDLgrModel::Scale and then scale the image data with
> congrid. Where I run into a problem is that if I do oModel->Scale, 1.2, 1.2, 1
> I can't go and do Congrid(imgData, imgsizeX*1.2, imgsizeY*1.2) on the image data
> and get the same proportions. Does any one have an idea that might help?

I think you might be confusing the *visualization* of the data
with the data itself. Congrid, of course, will change the
actual dimensions of the image itself. Scale will effect
how the image (independent of its actual size) will be
viewed in the arbitrary coordinate system established
by the viewplane rectangle.

Although we often think of resizing the image when we
display it in direct graphics, this is completely
unnecessary in object graphics. In the latter system
all the details are done for us simply by the way
we place the image into the viewplane rectangle (and
by the way the viewplane rectangle is mapped into the
destination object).

Here is another case where it is best to forget everything
you ever learned about direct graphics if you are going
to successfully work with object graphics. :-)

Cheers,

David

--
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