Subject: overlay a 3D polygon on a 2D grayscale image? Posted by Chunlei Liu on Tue, 27 Aug 2002 18:54:49 GMT

View Forum Message <> Reply to Message

Hi, there,

I have a 3D polygon and a 2D grayscale image. I am trying to overlay the polygon on the 2D image, so I can see the image through the semi-transparent polygon. Also, I am NOT intending to use the 2D image as a texture map.

I know David Fanning's website has an example of blending two 2D image together using alpha channel. I tryied to make the 2D image transparent (which is not what exactly I want), so I can see the polygon, but seems like it won't work that way.

Appreciate any help....

Chunlei

Subject: Re: overlay a 3D polygon on a 2D grayscale image? Posted by Rick Towler on Tue, 27 Aug 2002 20:37:01 GMT View Forum Message <> Reply to Message

"Chunlei Liu" <chunlei@stanford.edu> wrote

>

- > I have a 3D polygon and a 2D grayscale image. I am trying to overlay the
- > polygon on the 2D image, so I can see the image through the
- > semi-transparent polygon. Also, I am NOT intending to use the 2D image as
- > a texture map.
- > I know David Fanning's website has an example of blending two 2D image
- > together using alpha channel. I tryied to make the 2D image transparent (
- > which is not what exactly I want), so I can see the polygon, but seems
- > like it won't work that way.
- > Appreciate any help....

This could be a number of things.

First, make your polygon a wireframe.

How have you ordered your objects in Z and how are they ordered in your model? I would assume that you have the correct Z data coordinates placing your image behind your polygon... Objects are drawn according to their order in which they are added to the OG hierarchy. This means you need to add atoms from back to front in your scene. If you have only a single model make sure that you add the image first, then the polygon.

Do you see it now? If so, change your polygon to a solid and test your alpha blending. Can you still see it? If not, google this group for

"Pimento Problem" to find an detailed explanation of how IDL renders individual atoms and its importance when texturing with an alpha channel.

If you still don't see it make sure your view is set up correctly (maybe the polygon is behind you?). In fact, try using xobjview to view your model. It scales the view automagically.

-Rick

Subject: Re: overlay a 3D polygon on a 2D grayscale image? Posted by Chunlei Liu on Thu, 29 Aug 2002 23:53:08 GMT View Forum Message <> Reply to Message

Thanks for the tip... I could see both of them now. But I don't know how to make the polygon semi transparent. Right now it's not a problem for me, since the polygon is small...

Chunlei

On Tue, 27 Aug 2002, Rick Towler wrote:

> "Chunlei Liu" <chunlei@stanford.edu> wrote >>

- >> I have a 3D polygon and a 2D grayscale image. I am trying to overlay the
- >> polygon on the 2D image, so I can see the image through the
- >> semi-transparent polygon. Also, I am NOT intending to use the 2D image as
- >> a texture map.

>

>

>

- >> I know David Fanning's website has an example of blending two 2D image
- >> together using alpha channel. I tryied to make the 2D image transparent (
- >> which is not what exactly I want), so I can see the polygon, but seems
- >> like it won't work that way.
- >> Appreciate any help....
- > This could be a number of things.
- > First, make your polygon a wireframe.
- > How have you ordered your objects in Z and how are they ordered in your
- > model? I would assume that you have the correct Z data coordinates placing
- > your image behind your polygon... Objects are drawn according to their
- > order in which they are added to the OG hierarchy. This means you need to
- > add atoms from back to front in your scene. If you have only a single model
- > make sure that you add the image first, then the polygon.
- > Do you see it now? If so, change your polygon to a solid and test your
- > alpha blending. Can you still see it? If not, google this group for
- > "Pimento Problem" to find an detailed explanation of how IDL renders

individual atoms and its importance when texturing with an alpha channel.
If you still don't see it make sure your view is set up correctly (maybe the polygon is behind you?). In fact, try using xobjview to view your model.
It scales the view automagically.
-Rick
>

Subject: Re: overlay a 3D polygon on a 2D grayscale image? Posted by Rick Towler on Fri, 30 Aug 2002 18:21:01 GMT

View Forum Message <> Reply to Message

"Chunlei Liu" <chunlei@stanford.edu> wrote

>

- > Thanks for the tip... I could see both of them now. But I don't know how
- > to make the polygon semi transparent. Right now it's not a problem for me,
- > since the polygon is small...

You will need to texture map the polygon with an image object which has an alpha channel. And alpha channel is a 4th channel in an image which modulates the opacity of an image. values of 0 are transparent and values of 255 are opaque. There should be enough in the help files to get you started.

-Rick

```
On Tue, 27 Aug 2002, Rick Towler wrote:
>> "Chunlei Liu" <chunlei@stanford.edu> wrote
>>> I have a 3D polygon and a 2D grayscale image. I am trying to overlay the
>>> polygon on the 2D image, so I can see the image through the
>>> semi-transparent polygon. Also, I am NOT intending to use the 2D image as
>>> a texture map.
>>> I know David Fanning's website has an example of blending two 2D image transparent (
>>> which is not what exactly I want), so I can see the polygon, but seems
>>> like it won't work that way.
```

```
>>> Appreciate any help....
>>
>> This could be a number of things.
>> First, make your polygon a wireframe.
>>
>> How have you ordered your objects in Z and how are they ordered in your
>> model? I would assume that you have the correct Z data coordinates
placing
>> your image behind your polygon... Objects are drawn according to their
>> order in which they are added to the OG hierarchy. This means you need
>> add atoms from back to front in your scene. If you have only a single
model
>> make sure that you add the image first, then the polygon.
>>
>> Do you see it now? If so, change your polygon to a solid and test your
>> alpha blending. Can you still see it? If not, google this group for
>> "Pimento Problem" to find an detailed explanation of how IDL renders
>> individual atoms and its importance when texturing with an alpha
channel.
>>
>> If you still don't see it make sure your view is set up correctly (maybe
the
>> polygon is behind you?). In fact, try using xobjview to view your
model.
>> It scales the view automagically.
>> -Rick
>>
>>
>>
>
```