
Subject: 2007 IDL Christmas Card

Posted by [ronn](#) on Sun, 09 Dec 2007 23:13:42 GMT

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Hello Everyone,

David beat me to it but I have finished the 2007 IDL Christmas Card. You do need a good graphics card (I am running a GeForce 6600 GT). If you don't have the shader capability you will see a white snowflake with no texture mapping.

Our 2007 Christmas card is a snowflake floating lazily in space (At least there is a star background). To appreciate this years card you will need IDL 6.4 and a graphics card that supports OpenGL shaders. Shaders are great for doing things like byte scaling, look up tables, etc directly on the graphics card hardware. You can also implement special effects like warping, lenses, etc. Display rates of 100 frames/sec are possible with this hardware approach.

This years card uses the shader to create a snowflake that looks like glass reflecting another image. As the snowflake rotates in space the shader recomputes the texture mapping on the fly with no discernable speed hit on the rotation.

The default setup has the snowflake being rotated around an axis that wanders randomly in space. If you just want it to spin fixed at the center just comment out this line in the program

```
self.axis = self.axis + randomn(seed,3)/10.0
```

You can download the zip file here.

<http://www.kilvarock.com:80/freesoftware/objects/shadersnowflake.zip>

Have a Merry Christmas!

-Ronn Kling

Subject: Re: 2007 IDL Christmas Card

Posted by [Kenneth Bowman](#) on Mon, 10 Dec 2007 15:51:55 GMT

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In article <e1e3ec13-a3b2-47b8-977c-f8edd343baae@d21g2000prf.googlegroups.com>, "ronn@rlkling.com" <ronn@rlkling.com> wrote:

> You can download the zip file here.

>

> http://www.kilvarock.com:80/freesoftware/objects/shadersnowflake.zip
>
> Have a Merry Christmas!
>
> -Ronn Kling

I hate to be the Grinch, but on my Macs, it crashes thusly

```
IDL> shadersnowflake
% Compiled module: SOURCEPATH.
% Loaded DLM: JPEG.
% Loaded DLM: DXF.
% GET_DXF_OBJECTS: DXF not supported on this architecture
% Object reference type required in this context: ODXF.
% Execution halted at: SHADERSNOWFLAKE::INIT 95
/Network/Servers/csrp.tamu.edu/Volumes/csrp0/Home
/bowman/idl/test/shadersnowflake/shadersnowflake.pro
%          OBJ_NEW
%          SHADERSNOWFLAKE 165
/Network/Servers/csrp.tamu.edu/Volumes/csrp0/Home/bowm
an/idl/test/shadersnowflake/shadersnowflake.pro
%          $MAIN$
```

Ken

Subject: Re: 2007 IDL Christmas Card
Posted by [ronn](#) on Tue, 11 Dec 2007 00:17:36 GMT
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On Dec 10, 10:51 am, Kenneth Bowman <k-bow...@tamu.edu> wrote:
> In article <e1e3ec13-a3b2-47b8-977c-f8edd343b...@d21g2000prf.googlegroup s.com >,
>
> "r...@rlkling.com" <r...@rlkling.com> wrote:
>> You can download the zip file here.
>
>> http://www.kilvarock.com:80/freesoftware/objects/shadersnowflake.zip
>
>> Have a Merry Christmas!
>
>> -Ronn Kling
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```
> % Loaded DLM: DXF.
> % GET_DXF_OBJECTS: DXF not supported on this architecture
> % Object reference type required in this context: ODXF.
> % Execution halted at: SHADERSNOWFLAKE::INIT 95
/Network/Servers/csrp.tamu.edu/Volumes/csrp0/Home
> /bowman/idl/test/shadersnowflake/shadersnowflake.pro
> % OBJ_NEW
> % SHADERSNOWFLAKE 165
/Network/Servers/csrp.tamu.edu/Volumes/csrp0/Home/bowm
> an/idl/test/shadersnowflake/shadersnowflake.pro
> % $MAIN$
>
> Ken
```

Sorry about that. When I read the DXF documentation I completely missed that it didn't work on OSX and 64 bit machines.

Well, if you can find a Linux or Windows box it is a cool looking demo.

-Ronn

Subject: Re: 2007 IDL Christmas Card
Posted by [warner.pete](#) on Tue, 11 Dec 2007 17:12:22 GMT
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Thanks, that is both cool and impressive.

Subject: Re: 2007 IDL Christmas Card
Posted by [David Fanning](#) on Fri, 14 Dec 2007 14:18:53 GMT
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ronn@rlkling.com writes:

```
> Hello Everyone,
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```

- > etc directly on the graphics card hardware. You can also implement
- > special effects like warping, lenses, etc. Display rates of 100
- > frames/sec are possible with this hardware approach.

Oh, wow! Got my new graphics card installed (less than two hours!!) and that snowflake looks terrific. Thanks!

Cheers,

David

P.S. Have to go. Need a new power supply. :-(

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")
