Subject: X3D/VRML Color & Textures
Posted by ttoinou on Mon, 18 Mar 2013 18:15:10 GMT
View Forum Message <> Reply to Message

Hi all.

When I upload a X3D file with colored triangles the preview image is monochrome.
Are the preview images & the 3d viewer in color now or not ?

Sorry for not answering on " http://feedback.shapeways.com/forums/111989-shapeways-feedback/suggestions/2421281-color-3d-viewer" but it doesn't work !

EDIT :
The only thing I'm able to upload in color is in X3D a set of IndexedTriangleSet !
However this doesn't work when I replace the color attribute with a texture..
Triangulated objects with TriangleSet don't work, and primitives like spheres and cylinders are always monochrome !

Thanks in advance.
Antoine.

Subject: Re: Color Preview
Posted by virtox on Mon, 18 Mar 2013 18:31:50 GMT
View Forum Message <> Reply to Message

Do you mean vertex coloring?

I remember having troubel with vertex colors using x3d.
VRML worked better when I tried.

Cheers,

Stijn

Subject: Re: Color Preview
Posted by ttoinou on Mon, 18 Mar 2013 18:38:08 GMT
View Forum Message <> Reply to Message

To each vertex of each triangle is associated a color.
I thought that the inside of each triangle was colored thanks to a barycentric combination of the three colors... Maybe Shapeways does not support that ?

My code looks like this

```
[...]
<Shape>
<TriangleSet solid='false' ccw='true' colorPerVertex='true' normalPerVertex='true'
containerField='geometry'>

<Coordinate point='0.957427144050598 -0.1507 [....] '/>
<Color color='0 [......] '/>

</TriangleSet>
</Shape>
[...]
```

Here is the object made public and downloadable :
http://www.shapeways.com/model/981967/color-tetrahedron.html

Subject: Re: Color Preview
Posted by virtox on Mon, 18 Mar 2013 18:41:01 GMT
View Forum Message <> Reply to Message

Yes that is vertex coloring

Can you try vrml?

Subject: Re: Color Preview
Posted by ttoinou on Mon, 18 Mar 2013 18:43:38 GMT
View Forum Message <> Reply to Message

Okay I didn't know that .
The thing is that I'm trying to create a software that produce X3D or VRML file in order to create a colored fractal.
But I'll try to learn it if I have to !

Subject: Re: Color Preview
Posted by virtox on Mon, 18 Mar 2013 18:50:00 GMT
View Forum Message <> Reply to Message

Well, I think this may be a bug, I figured it was my own files that gave the trouble.

You can use free Meshlab to convert the models to test quickly if vrml will work.

And vrml is a dead simple format, should be fun to learn

Btw, welome to the "club"

3d color fractals are fun!

Subject: Re: Color Preview
Posted by ttoinou on Mon, 18 Mar 2013 19:47:45 GMT
View Forum Message <> Reply to Message

Meshlab does not support colors..

I like your Julia vase !

I've tried in VRML :

```
Shape {
 appearance Appearance {
  material Material { }
  texture ImageTexture {
   url "Untitled.png"
  }
 }
 geometry Cylinder {
     radius 1.3
     height 80.0
  }
}
```

It does not work !

Here is the link to the object made public :

http://www.shapeways.com/model/982445/vs-2012-essai-vrml.htm l .

Subject: Re: Color Preview
Posted by virtox on Mon, 18 Mar 2013 19:54:35 GMT
View Forum Message <> Reply to Message

Are you sure you have the latest? Meshlab supports colors just fine!
My vrml is a bit rusty, so unsure whether you example is correct.

Subject: Re: Color Preview
Posted by wedge on Tue, 19 Mar 2013 09:33:33 GMT
View Forum Message <> Reply to Message

ttoinou: the vrml seems corret. Work in my vrml browser.
Maybe its a good idea to add at the start of the vrml.

Quote:#VRML V2.0 utf8

But it is not a tesselatet Objekt. Not sure if shapeways support untesseletet vrml objects.

Quote:Here is the link to the object made public :
http://www.shapeways.com/model/982445/vs-2012-essai-vrml.htm l .
Sorry, you don't have permission to perform this action. ?

Subject: Re: Color Preview
Posted by ttoinou on Tue, 19 Mar 2013 12:22:39 GMT
View Forum Message <> Reply to Message

Sorry the cylinder is now public.
What is your VRML Viewer ? I have freeWRL but you can't move the object..

Subject: Re: Color Preview
Posted by wedge on Tue, 19 Mar 2013 12:37:46 GMT
View Forum Message <> Reply to Message

ok now with texture it is also colored

I Use the VR/AR-Framework .instantreality (http://www.instantreality.org/)

But I have a Idee where the Problem can be:
The Obejct is describe parametric and not teselated. So ther are no texture Coordinates (UW-Map) explicit declared. And it seems the shapeway engine do not generate texture coordinates for parametrcic object. Why shuold it? Normaly all objects are discribed triangulated.

Subject: Re: Color Preview
Posted by ttoinou on Tue, 19 Mar 2013 13:02:26 GMT
View Forum Message <> Reply to Message

I thought SW accepted WRL.. They should communicate about what they really accept.
I'll look into this texture coordinates thing.

That doesn't explain the first issue : Color Tetrahedron .
I've also tried a textured cylinder in X3D (it doesn't work) :

```
<Shape>
  <Appearance>
    <Material/>
    <ImageTexture url="'Untitled.png" '/>
  </Appearance>
  <Cylinder radius="1.0" height="80.0">
  </Cylinder>
</Shape>
```

Subject: Re: Color Preview
Posted by ttoinou on Sat, 23 Mar 2013 17:26:16 GMT
View Forum Message <> Reply to Message

I've succeeded in uploading colored triangles in X3D with IndexedTriangleSet. I don't understand why it works with IndexedTriangleSet and not with TriangleSet...

But if I upload the same model where I put a texture instead of colors SW doesn't accept it ! (still in X3D, maybe that could work in VRML)

Subject: Re: Color Preview
Posted by ttoinou on Wed, 27 Mar 2013 18:17:12 GMT
View Forum Message <> Reply to Message

I tried a textured IndexedFaceSet in VRML and Shapeways does not accept it (it is not precised why).
It opens well in Meshlab and with Instant Player (with textures of course).
I really don't see what i'm doing wrong!

```
NavigationInfo {
  type [ "EXAMINE", "ANY" ]
}
Background {
skyColor [ 1 1 1 ]
}
Transform {
  scale 1 1 1
  translation 0 0 0
  children
  [
Shape
{
appearance Appearance {
texture ImageTexture { url "TEXTURE.png" }
material Material {
ambientIntensity 0.2
specularColor 0.1 0.1 0.1
shininess .5
}
}
geometry IndexedFaceSet
{
creaseAngle .5
solid TRUE
coord Coordinate
{
point
[
1.14891254901886 -0.180906772613525 48.6943778991699,-0.57445627450943
-0.795805394649506 49.6802253723145,-21.9450969696045 -40.180908203125
-16.6253528594971,-21.9450969696045 -40.180908203125
-16.6253528594971,-0.57445627450943 -0.795805394649506
49.6802253723145,-23.6684665679932 -40.7958068847656
```

-15.6395034790039,-0.57445627450943 -0.795805394649506
49.6802253723145,-0.57445627450943 0.976712167263031
48.594783782959,-23.6684665679932 -40.7958068847656
-15.6395034790039,-23.6684665679932 -40.7958068847656
-15.6395034790039,-0.57445627450943 0.976712167263031
48.594783782959,-23.6684665679932 -39.0232887268066
-16.7249431610107,-0.57445627450943 0.976712167263031
48.594783782959,1.14891254901886 -0.180906772613525
48.6943778991699,-23.6684665679932 -39.0232887268066
-16.7249431610107,-23.6684665679932 -39.0232887268066
-16.7249431610107,1.14891254901886 -0.180906772613525
48.6943778991699,-21.9450969696045 -40.180908203125
-16.6253528594971,1.16819250583649 0.143330127000809
49.2238540649414,-0.324288666248322 -0.389187723398209
50.0776214599609,1.14891254901886 -0.180906772613525
48.6943778991699,1.14891254901886 -0.180906772613525
48.6943778991699,-0.324288666248322 -0.389187723398209
50.0776214599609,-0.57445627450943 -0.795805394649506
49.6802253723145,-0.324288666248322 -0.389187723398209
50.0776214599609,-0.324288666248322 1.14585757255554
49.1376037597656,-0.57445627450943 -0.795805394649506
49.6802253723145,-0.57445627450943 -0.795805394649506
49.6802253723145,-0.324288666248322 1.14585757255554
49.1376037597656,-0.57445627450943 0.976712167263031
48.594783782959,-0.324288666248322 1.14585757255554
49.1376037597656,1.16819250583649 0.143330127000809
49.2238540649414,-0.57445627450943 0.976712167263031
48.594783782959,-0.57445627450943 0.976712167263031
48.594783782959,1.16819250583649 0.143330127000809
49.2238540649414,1.14891254901886 -0.180906772613525
48.6943778991699,0.346410125494003 0.599999964237213
49.9695930480957,0.346410125494003 0.599999964237213
49.9695930480957,1.16819250583649 0.143330127000809
49.2238540649414,1.16819250583649 0.143330127000809
49.2238540649414,0.346410125494003 0.599999964237213
49.9695930480957,-0.324288666248322 -0.389187723398209
50.0776214599609,0.346410125494003 0.599999964237213
49.9695930480957,0.346410125494003 0.599999964237213
49.9695930480957,-0.324288666248322 -0.389187723398209
50.0776214599609,-0.324288666248322 -0.389187723398209
50.0776214599609,0.346410125494003 0.599999964237213
49.9695930480957,-0.324288666248322 1.14585757255554

49.1376037597656,0.346410125494003 0.599999964237213
49.9695930480957,0.346410125494003 0.599999964237213
49.9695930480957,-0.324288666248322 1.14585757255554
49.1376037597656,-0.324288666248322 1.14585757255554
49.1376037597656,0.346410125494003 0.599999964237213
49.9695930480957,1.16819250583649 0.143330127000809
49.2238540649414,-21.9450969696045 -40.180908203125
-16.6253528594971,-23.6684665679932 -40.7958068847656
-15.6395034790039,-22.2722263336182 -40.456672668457
-17.0756721496582,-22.2722263336182 -40.456672668457
-17.0756721496582,-23.6684665679932 -40.7958068847656
-15.6395034790039,-23.7647094726563 -40.9891891479492
-16.2219009399414,-23.6684665679932 -40.7958068847656
-15.6395034790039,-23.6684665679932 -39.0232887268066
-16.7249431610107,-23.7647094726563 -40.9891891479492
-16.2219009399414,-23.7647094726563 -40.9891891479492
-16.2219009399414,-23.6684665679932 -39.0232887268066
-16.7249431610107,-23.7647094726563 -39.4541435241699
-17.1619205474854,-23.6684665679932 -39.0232887268066
-16.7249431610107,-21.9450969696045 -40.180908203125
-16.6253528594971,-23.7647094726563 -39.4541435241699
-17.1619205474854,-23.7647094726563 -39.4541435241699
-17.1619205474854,-21.9450969696045 -40.180908203125
-16.6253528594971,-22.2722263336182 -40.456672668457
-17.0756721496582,-22.2722263336182 -40.456672668457
-17.0756721496582,-23.7647094726563 -40.9891891479492
-16.2219009399414,-23.4404201507568 -40.5999984741211
-17.3097286224365,-23.4404201507568 -40.5999984741211
-17.3097286224365,-23.7647094726563 -40.9891891479492
-16.2219009399414,-23.4404201507568 -40.5999984741211
-17.3097286224365,-23.7647094726563 -40.9891891479492
-16.2219009399414,-23.7647094726563 -39.4541435241699
-17.1619205474854,-23.4404201507568 -40.5999984741211
-17.3097286224365,-23.4404201507568 -40.5999984741211
-17.3097286224365,-23.7647094726563 -39.4541435241699
-17.1619205474854,-23.4404201507568 -40.5999984741211
-17.3097286224365,-23.7647094726563 -39.4541435241699
-17.1619205474854,-22.2722263336182 -40.456672668457
-17.0756721496582,-23.4404201507568 -40.5999984741211
-17.3097286224365,-23.4404201507568 -40.5999984741211
-17.3097286224365,-22.2722263336182 -40.456672668457
-17.0756721496582,-23.4404201507568 -40.5999984741211 -17.3097286224365]

```
}
coordIndex
[

0 1 2 -1
3 4 5 -1
6 7 8 -1
9 10 11 -1
12 13 14 -1
15 16 17 -1
18 19 20 -1
21 22 23 -1
24 25 26 -1
27 28 29 -1
30 31 32 -1
33 34 35 -1
36 37 38 -1
39 40 41 -1
42 43 44 -1
45 46 47 -1
48 49 50 -1
51 52 53 -1
54 55 56 -1
57 58 59 -1
60 61 62 -1
63 64 65 -1
66 67 68 -1
69 70 71 -1
72 73 74 -1
75 76 77 -1
78 79 80 -1
81 82 83 -1
84 85 86 -1
87 88 89 -1 ]
texCoord TextureCoordinate
{
point
[
0 0, 1 0, 0 1, 1 1
]
}
texCoordIndex [
```

0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1,0 1 2 -1, 2 1 3 -1]
}
}
]
}

Subject: Re: Color Preview
Posted by stonysmith on Wed, 27 Mar 2013 19:04:25 GMT
View Forum Message <> Reply to Message

In your posting above, you're missing this header line from the top of the file:
#VRML V2.0 utf8

Then, are you uploading a ZIP that includes no folders, and includes the file TEXTURE.png ??
That file name is case sensitive, etc.

Subject: Re: Color Preview
Posted by stop4stuff on Wed, 27 Mar 2013 19:21:49 GMT
View Forum Message <> Reply to Message

As I understand, VRML is a 'markup language' intended for online browser viewing, not all functions may work the same with Shapeways for a model upload - basically if it works and looks good with Accutrans3D, it should work with Shapeways (Meshlab can be temperamental with colour models, might show ok, but messes up the save)

Ah, just remembered why - Meshlab messes up the save because it can cope with overlapping colour geometry, whereas Shapeways does not.

Paul

Subject: Re: Color Preview
Posted by ttoinou on Thu, 28 Mar 2013 18:42:37 GMT
View Forum Message <> Reply to Message

It worked !

Sorry I should have re read the whole thread before complaining...
Thanks to all of you .

(but there's a lot of things that still don't work.. anyway I'll stick with VRML & IndexedFaceSet)