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Subject: Projecting Images in Meshlab?

Posted by [jaxelrod](#) on Sun, 16 Dec 2012 05:06:53 GMT

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I have a project which requires me to orthogonally project an image directly onto a rectangular (in the xy plane) surface. The surface has large variation in z-elevation since it is a topographic dataset. However, whenever I try to project my raster layer onto the mesh in Meshlab, it never quite aligns correctly (the image is projected such that it does not entirely cover the mesh). I have a suspicion that this has something to do with Meshlab wanting to use perspective when calculating its projection, but I DON'T want that. I merely want to drop each pixel value from the image directly down onto the mesh.

Does anyone know how to do this? It really doesn't even need to happen in Meshlab if it can be done elsewhere (I have Autodesk Maya, but have never used it before. I'm also proficient in MATLAB, which is where I have been generating the STL meshes I've been working with in Meshlab). I'm looking for a finished product ready to export as .x3d or .wrl for color printing in sandstone.

-Thanks in advance from a first-time user  
Jeremy

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Subject: Re: Projecting Images in Meshlab?

Posted by [neuralfirings](#) on Sun, 16 Dec 2012 12:54:08 GMT

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I've been experimenting with topo maps in Blender, I'm not as familiar with Meshlab though.

Do you need hard edges or soft edges?

If soft edges, I find that it's important to align it well (subdivisions to pixels) in Blender. If you email me and send the height map you're using, I can better help you out as well.

nancy at neuralfirings.com

Thanks

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Subject: Re: Projecting Images in Meshlab?

Posted by [jaxelrod](#) on Sun, 16 Dec 2012 18:34:09 GMT

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It would be difficult to send you the mesh(es) and image(s) since the mesh is about 40MB...

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Subject: Re: Projecting Images in Meshlab?  
Posted by [Fredd](#) on Mon, 17 Dec 2012 00:09:16 GMT  
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at 40MB its going to have enough mesh resolution to be sure. Blender does have UV project which sounds rather like what you are attempting. Blender is free and the technique only has maybe 7 steps. Might be worth looking into. There are several sites, and irc channels you can get help at.

Keith

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Subject: Re: Projecting Images in Meshlab?  
Posted by [jaxelrod](#) on Mon, 17 Dec 2012 23:06:35 GMT  
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Sorry, but I'm a total noob at GUI modeling programs for aesthetic creation. Can you please point me in the right direction?

I've found that the problem in Meshlab is that when I project the image, it projects it onto the XY plane from the camera location, which means that anything in front of the XY plane will have a smaller image (like putting your hand in front of a slide projector). However, I cannot figure out how to make the camera have an orthogonal field of view (equivalent to having it infinitely far away with a FOV in the limit of 0 degrees)...so I'm stumped. It's SUCH a simple thing to do, so I can't imagine why it seems so hard. I have all of the data arranged, it's just not in the data structure (i.e. file format) that Shapeways needs to print. And so I'm having to delve into imprecise GUI stuff to make that leap.

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