

USE XSI CHARACTER TOOLS TO CREATE A CUSTOM CHARACTER AND EXPORT TO HALF LIFE 2 DEATHMATCH



Custom model Dolly fell down the stairs

[text in square brackets are hints or additional information]

BASIC CHARACTER MODELING AND TEXTURE PAINTING

Top tool bar: Model > Primitive > Model > Body Man / Woman

['A' to frame all.]

'8' to open explorer, notice that UV clusters already assigned.

[UV are the texture coordinates U = horizontal, V = vertical]

Create a black (or other solid color) 512 x 512 image in Photoshop

Apply to the model with Textures > Add Image > New from file and choose the existing explicit UV projection from the Texture Projection dropdown menu. You now have a blank canvas on which to paint.

Select Edit > Projection to bring up the texture editor and take a look at the unfolded UVs.

[alt + 7 = texture editor for selected object]

In the texture editor > View > uncheck Show Overlaps

Edit > Stamp Mesh and save as a .psd (click yes when asked if you want to change texture to the newly created one.

Open the stamped texture in Photoshop

Click on the magic wand tool and set tolerance to 0 and uncheck contiguous. Click on the black area then Select > Inverse.

Ctrl-C to copy then create new layer and Ctrl-V to paste in the UV lines.

Create another new layer move it below the UV lines layer and fill it with black. We now have a blank layer on which to paint with the grid on a separate layer as a reference.

Paint the model with colors of your choice. Save the texture and notice that it is updated in XSI. In Photoshop turn off the reference grid and save again to remove the yellow lines.

In XSI click on Sym[metry] and Prop[ortional] to sculpt the geometry of the model.

Experiment with functions like Smooth – Model > Deform > Smooth

Check out Model > Primitive > Faces and Character – Man

THE VALVE BIPED GUIDE

ValveSource > Character Rigs > Male / Female Rig

Import your character (if not already in the scene)

[‘5’ to open the browser]

Open the explorer and cut the model from the hierarchy and paste into the Scene Root. Delete the parent.

[‘8’ to open the explorer]



pay special attention to the hands!

By this stage your explorer window should look something like this (except for the SMDEXportProperty which comes later). This example is for my Dolly model (see above). Dolly is the merge of two meshes (head and body) hence the “polymsh” which you saw before in the time bomb exercise.

Scale model to fit the biped rig. Move the bones of the rig if necessary to make them line up with the model.

Transform > Freeze all transformations to set scale to one.

[Model > Model > New Model creates a new model which references the underlying mesh NOT REQUIRED]

ENVELOPING

[enveloping is assigned the bones to vertices]

Select character > animate > envelope > set envelope > yes

Open explorer > middle click on envelope deformer > right click to exit

Check for movement by moving effectors

If necessary reassign vertices to bones using the Weight Paint Panel [View > Animation > Weight Paint Panel]. Click Pick to select bone then 'W' to paint the area of the character influenced by that bone.

Select model and click I to show number of triangles. This must be less than 7,500 and preferable around 5,000.

Select model and generate tga render map. Property > Rendermap. Save as the same name as the model.

Copy the render map to C:\Program Files\Valve\Steam\SteamApps\YOUR_STEAM_ACCOUNT\sourcesdk_content\hl2mp\materialsrc\

Delete the materials object and reapply the rendermap.

[Change path to external tga image file list in XSI OPTIONAL]

EXPORTING FROM XSI AND COMPILING

Since using default animations export to Humans folder in the SDK
C:\Program Files\Valve\Steam\SteamApps\YOUR_STEAM_ACCOUNT\sourcesdk_content\hl2mp\modelsrc\humans_sdk\Male\Group03m

Export the SMD file. Make sure Steam, SDK and Model Viewer are running before exporting. Note: only one SMD file is required for a character model (a prop also requires phys and idle).

Drag tga texture from materialsrc folder to the vtex.exe. vtf file should appear in the materials folder. Check the output screen of the vtex.exe to verify where the texture was created. Move it if necessary. Move vtf to C:\Program Files\Valve\SteamApps\YOUR_STEAM_ACCOUNT\half-life2\deathmatch\hl2mp\materials\models\your_folder_name\. Create VMT file in the same folder.

Place .qc file in same folder as the SMD C:\Program Files\Valve\Steam\SteamApps\YOUR_STEAM_ACCOUNT\sourcesdk_content\hl2mp\modelsrc\humans_sdk\Male\Group03m

Edit the highlighted lines of the .qc file to match your folder and file names.

\$modelName your_folder_name\your_model_name.mdl
\$cdmaterials models\your_folder_name\

do not delete any of the material clusters

if you apply texture from here then you don't need to change the path

If there are a couple of rendermaps floating around, then you need to make sure the correct one is applied. On the top toolbar, go to Render > Get > Texture > Clip > your_render_map_image_name

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.  
. .  
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.  
$model msc "your_model_name.smd"{  
. .  
.  
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```

Compile the .qc file. The compiled file should appear in

View the model in the model viewer.

If texture does not appear check the name of the VMT file and the location of the texture assumed by the model using MDLTextureInfo.exe [see Jo Adkins blog for download].

GETTING IT INTO THE GAME


LOD optimization [optional]. Requires creating several more models with lower triangle counts and editing the qc file.

19 characters are available to be replaced in DM. Humans go in hl2mp\models\Humans\Group03 Male_01.mdl, etc


Icons are saved to hl2mp\materials\VGUI\playermodels\Humans\Group03 [male and female characters]

Copy model files to C:\Program Files\Valve\Steam\SteamApps\YOUR_STEAM_ACCOUNT\half-life 2 deathmatch\hl2mp\models\Humans\Group03 and rename as male_01...

Check in model viewer



you do not need to move the texture files because their location is referenced in the model file.



see the list I blogged to find out which number you are!