

MESH TEMPLATES

STARTER KIT



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- What's inside a MESH Template Package?
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GETTING STARTED WITH MESH

What is MESH?

The term “MESH” refers to 3D models which are now able to be uploaded into Second Life.

These models are different to sculpties in that they are not limited to 1024 faces, this enables them to be made with higher detail. They can also contain weight data allowing them to move with your avatar animations.

MESH models are created using external 3D modeling programs such as 3ds Max, Blender, Maya ([Click here for More Info](#))



To view MESH, you must use a MESH-Enabled viewer such as:

- Official Second Life Viewer
- Firestorm
- Exodus
- and **More...**

This Starter Guide is included with the MESH STARTER KIT by TD TEMPLATES. The STARTER KIT contains a Women's Tee Shirt Template with Copy/Mod Perms for you to start experimenting with mesh. Available In-Store & on SL Marketplace (A Full Permission version of the Tee Template is also available)



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WEARING MESH CLOTHING

How is MESH clothing worn?

Mesh clothing items appear in your inventory with an object icon as opposed to Shirt/Jacket/Pants etc.

-  - S Womens MESH Tee Shirt
-  - XS Womens MESH Tee Shirt
-  - XXS Womens MESH Tee Shirt

You can wear mesh clothing by right clicking the object in your inventory and clicking “Wear”.

Delete

Wear

Add

You can wear the item on any attachment point on your avatar (eg. Upper Arm L) and it will still appear in the same position. This is due to a process known as “rigging” or “skinning” which we will cover later.

If you have two mesh clothing items which use the same attachment point, click “Add” instead of wear and you will be able to wear multiple mesh items on that attachment point.

Mesh clothing also often includes a *Wearable Alpha Clothing Layer*. This is worn to make parts of the avatar invisible so they don’t show through the mesh clothing.

-  Clothing
-  ALPHA MESH Womens Tee (wear me)

Alpha Layers are covered in more detail on Page 10.

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WHAT'S INSIDE A MESH TEMPLATE PACKAGE?

MESH Clothing Objects

These are the actual wearable mesh items in the various sizes.

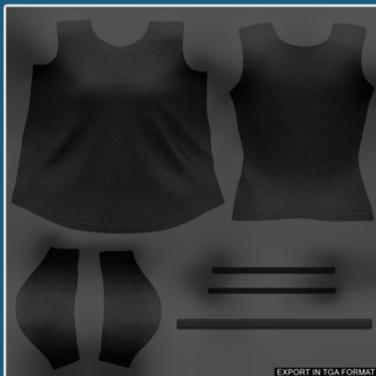


PSD Download Registration Box



This is the box you place on the ground to gather your login details for downloading the PSDs from our website.

* PSD Files are layered image files which contain the different elements of the outfit on different layers.

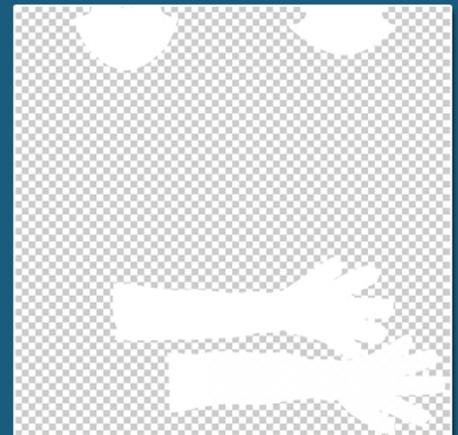


Full Perm Clothing Textures

These are the TGA clothing textures that are placed onto the mesh outfit.

Wearable Alpha Layer & Alpha Layer Texture

This makes parts of the avatar's body invisible so they don't show through the mesh. (more on page 10)



UV Guide

Think of the UV Guide as the different parts of the outfit unwrapped and flattened so that you can texture them easily. Similar to the Chip Midnight/Robin Wood SL avatar UV guides. (more on page 8)



ALSO INCLUDED WITH TEMPLATES:

- Instructions
- Sizing Guidelines
- Shadow Map (More on Page 9)
- Demo Overlay
- (The demo overlay makes it easier to create demos from the templates)
- And More...



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TEXTURING / MODIFYING MESH TEMPLATES

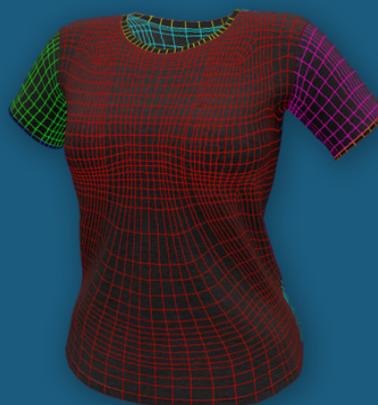
A STEP BY STEP GUIDE

In this quick guide we're going to be demonstrating how to modify the texture of a mesh template using the PSD file included in the starter kit.

Side Note: You can also use the Full Perm TGA texture files by exporting them out of SL. (Open the texture from your inventory, then click Save as TGA in the texture window)

1. Open the PSD file in your graphics program - Photoshop, GIMP etc.
2. Import your design, pattern or logo onto a new layer.

We use the "UV Guide" layer as a guide to find which part of the of the texture corresponds to the front part of the shirt.



The red part of the UV Guide represents the front of the shirt so that is where we want to place our design.

Position the design accordingly to where you wish to place it on the shirt.

Note: The order in which you place your design layer can affect its overall appearance on the outfit. Experiment with the layer order as well as opacity & blending modes i.e Overlay/Multiply/Soft Light (These are usually located above the layer list)



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TEXTURING / MODIFYING MESH TEMPLATES

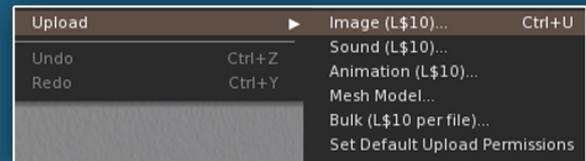
CONTINUED...

3. Save (Export) the texture as a TGA (Targa) File.

Templates from TD will indicate which format to save the file as.

4. Import the texture into SL. In the official viewer, click BUILD from the top toolbar then choose UPLOAD > IMAGE.

It costs L\$10 to upload a texture into SL.



5. Place your MESH outfit onto the ground.

(if you can't rez the outfit, visit a sandbox where you have build rights)

6. Drag the texture you uploaded from your inventory onto the MESH outfit.



7. The MESH outfit is now ready to be worn with the recently uploaded texture.

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USING MESH TEMPLATES - UV GUIDE

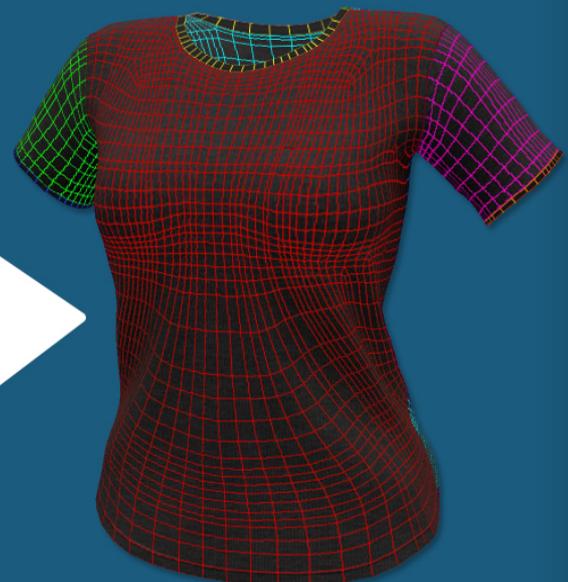
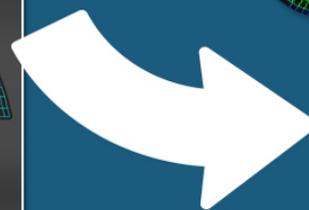
What is the UV Guide?

If you have created SL clothing before, you may be familiar with the Avatar UV Map Template which is offered by Chip Midnight/ Robin Wood. Basically a “map” showing where the flat texture is going to be projected onto the avatar when worn.

Mesh clothing does not adhere to the avatar UV map, each mesh item will have its own unique UV map suited to how it has been created.

Think of the UV Map as the different parts of the clothing unwrapped and flattened so that you can texture them easily.

Here is an idea of what the UV Guide looks like on the MESH shirt itself. You can see that the red part of the UV corresponds to the front of the shirt, the green part the right arm etc. The UV Guide is color-coded and labelled for ease of use.



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USING MESH TEMPLATES - SHADOW MAP

What is the Shadow Map?

The Shadow Map texture basically displays the shading of the mesh object as if it were illuminated with an indirect light source. To put it basically, it shows where the shadows/ highlights are on the mesh object.

How is the Shadow Map used?

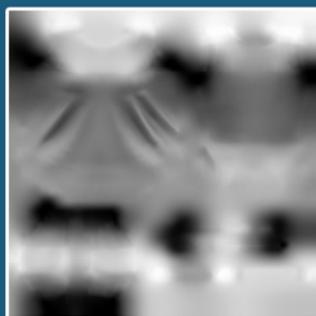
The shadow map is typically blended with the diffuse (main) texture to add depth to your mesh object. The main texture will be your pattern or fabric without shading. The shadow map emphasises the shadows and highlights on the mesh object.

The shadow map can be useful when adding your own fabrics/patterns to mesh templates. Ensure you have your fabric correctly aligned & positioned according to the UV guide then import the shadow map onto a new layer above it. Next, experiment with the blending modes (overlay/multiply/soft light etc.) & layer opacity on the shadow map layer until you are happy with the result. It's also possible to layer two shadow maps with different blending settings for added effect.

Here's an example combining the shadow map with a Pink Knit Texture:



Diffuse Map



Shadow Map



Note: The layer blending modes are typically located above the layer list in your graphics program.

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USING MESH TEMPLATES - WORN ALPHA LAYER

What is the Wearable Alpha Layer?

Most mesh outfits include a wearable alpha clothing layer, what this does is make parts of the avatar invisible so that your avatar doesn't show through the clothing when worn. This is important when it comes to fitting mesh clothing with your avatar.

The wearable alpha layer is made up of separate alpha textures, the alpha textures indicate the parts of the avatar which are invisible and which parts are visible.

These separate alpha textures are based on the SL avatar UV Guides which you will recognise if you've used the Chip Midnight/Robin Wood avatar templates.

The SL Avatar UV is divided into three parts, the Upper/Lower and Head. You can make alphas using any of these avatar UVs.

Here's an image demonstrating the effectiveness of using an alpha layer:

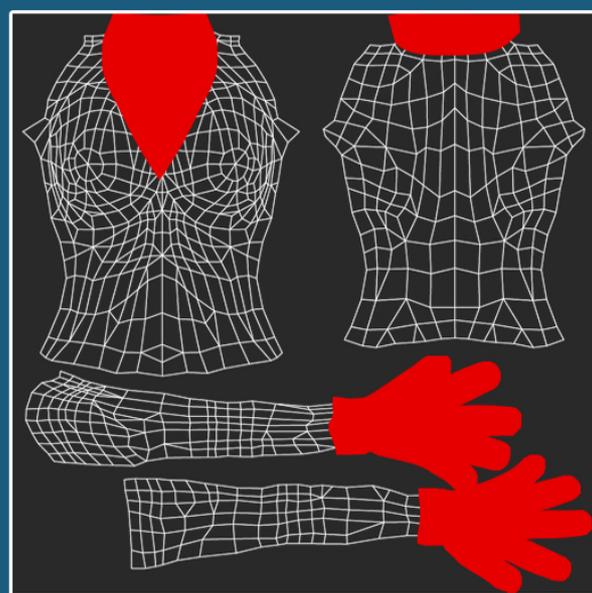
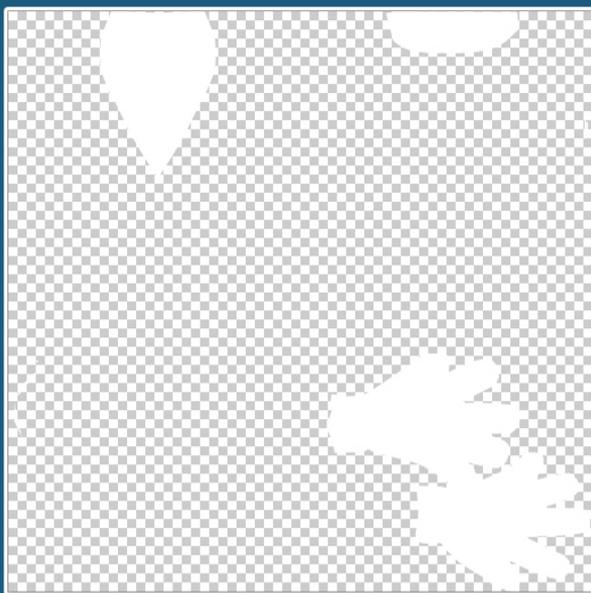


How is an Alpha Layer created? Can they be modified?

As mentioned before, the wearable alpha layer comprises of one or more alpha texture(s) which are based on the SL Avatar UV.

Here is the Alpha Texture used to create the Men's Winchester Shirt Alpha used in the previous example, its based on the Upper SL Avatar UV.

Alongside it is an image of the alpha placed on top of the Upper Avatar UV, the color of the alpha has also been changed from white to red to see more clearly.



The grey & white checkered pattern on the left alpha texture image indicates transparency.

**TRANSPARENT PARTS OF THE ALPHA = INVISIBLE ON THE SL AVATAR.
WHITE PARTS OF THE ALPHA = VISIBLE ON THE SL AVATAR.**

The SL Avatar UV is used as a guide for which parts on the texture you wish to have transparent and which parts you wish to remain visible.

With this in mind, you can export out the alpha texture from SL and modify it using your graphics program to adjust which parts of your avatar you wish to have invisible when the alpha layer is worn.

Creating the Wearable Alpha Layer from the Alpha Texture

Right Click the clothing folder in your inventory and select New Clothes > New Alpha Mask (Might be named differently on other viewers)

A New Alpha Item will be created inside your clothing folder. Right click this item and choose Wear, then right click it again and choose Edit. The Editing Alpha Mask Window will appear.



Enter the name for the alpha layer at the top.

The white squares represent the different parts of the avatar, the Upper/Lower/Head etc.

You can apply one alpha texture to each of the squares.

Drag your Uploaded Alpha Texture from your inventory into one of the white squares corresponding to the part of the avatar you created the alpha for. (The alpha won't change until you've saved it)

Once you have placed the alpha textures into the squares, click Save to apply the changes to the alpha.

You can use multiple alpha textures to co-ordinate outfits, for example placing an upper alpha texture for a shirt in the upper square and a jeans alpha texture in the lower square in the Editing Alpha Mask window

Note: Some viewers don't support dragging the texture from your inventory, in which case left click the white square and select your alpha texture from the inventory list window that appears.

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WHY ARE STANDARD SIZES INCLUDED?

Rigged MESH does not have the ability to be re-sized/positioned in the same way as ordinary prims/sculpties therefore creators will usually supply a number of pre-defined sizes to cover as many of the variety of shapes across SL as possible.

What is Rigged MESH?

Rigged MESH refers to MESH models that have been uploaded into SL containing skin weight data which allows the model to move according to your avatar animation.



Many MESH Creators in SL (including TD Templates) base their pre-defined sizes on the Standard Sizing system which is a set of 10 standardized shapes, 5 for Men and 5 for Women.

You can find the standard sizing information in the MESH Starter Kit. The Standard Sizes Package can be found on SL Marketplace [here](#) (or search “standard sizing package”)

What is Unrigged MESH?

You will also find MESH templates which state they are unrigged such as shoes and other accessories that can be worn in the same way you would attach a sculptie or a prim. These MESH items can be resized in EDIT mode and moved/positioned to best fit your avatar.

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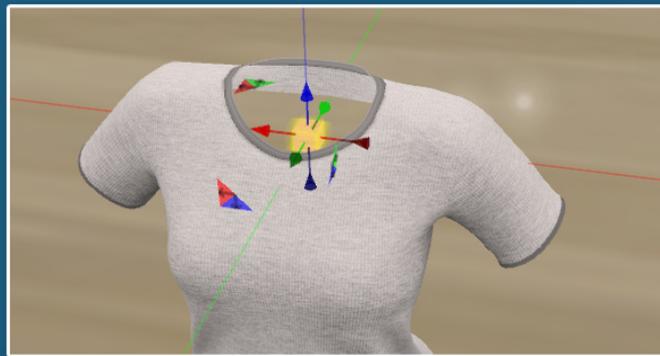
LINKING A PRIM TO ADD YOUR NAME AS CREATOR TO A MESH TEMPLATE

Linking a new prim which you have created as the root prim on a full perm mesh template will add your name as creator when the linked object is selected in EDIT mode and in properties in your inventory.

1. Rez the MESH Outfit on the ground and build a new box next to it.



2. Make the box smaller (about 0.03 for X,Y and Z) then position the box inside the outfit.



3. Right click the outfit and choose edit.

4. Hold SHIFT and left click the box you placed inside the outfit.

5. From the top toolbar, click TOOLS and choose LINK.

PLEASE NOTE

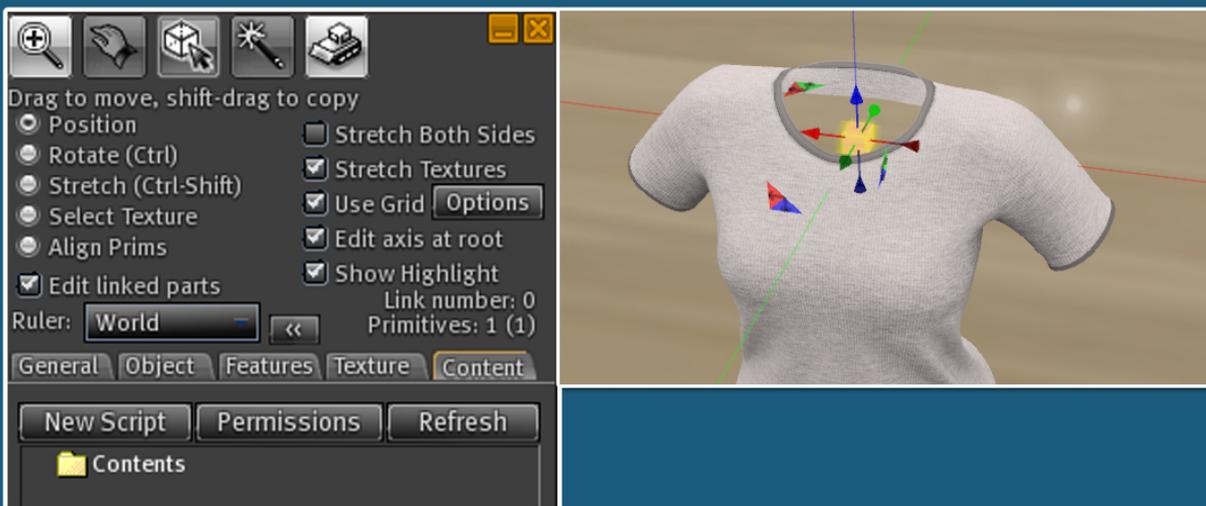
It is important to select the outfit first then your prim before linking to ensure your prim is the root prim.

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LINKING A PRIM TO ADD YOUR NAME AS CREATOR TO A MESH TEMPLATE

6. Next, you can make the box invisible by using an invisible texture (Included in the Template Package)

7. Right click the outfit, choose edit, then from the edit menu tick **EDIT LINKED PARTS** and left click the box in the middle.



8. Click the Texture Tab from the edit window and drag the Invisible Texture into the Texture square. The box will now turn invisible.



9. The outfit will now be linked to your box and the box will be the invisible root prim.

10. You can now rename the linked object and when you take it back into your inventory it will show your name as the creator.

1. Can I Attach Sculpt/Prims to MESH?

A. Yes, you can link prims and sculpts to mesh however I would not recommend linking them to rigged mesh clothing since they won't move with the avatar movement in the same way the rigged MESH does. The rigging skin weight data will not be carried over to the linked object.

The linked prim will only move according to the attachment point the rigged mesh is attached to on your avatar i.e R Upper Arm - I would suggest if you wish to add for example a sculpted cuff to wear it separately to the mesh outfit as opposed to linking it to the mesh.

2. Can I Resize MESH?

A. Rigged MESH cannot be resized, please refer to Page 13 regarding mesh sizing. Unrigged MESH however can be resized similar to how sculpts/prims can be stretched.

3. How do I apply textures to MESH?

A. Please refer to Page 6 which goes through the steps for texturing mesh templates.

4. How do I make sure the alpha looks right with the mesh?

A. The alpha part of this starter guide explores wearable alpha layers and how they work. To make modifications you can export the alpha texture out of SL and edit the shape of the alpha in your graphics program.

Also Refer to our In-Depth Alpha Guide Here:

<http://tdtemplates.com/tdquick1-mesh-alphas-101/>

Thank You for Reading

If you have any questions regarding mesh templates please IM Typhaon Nishi in-world.

or E-Mail - tdtemplates1@gmail.com

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We hope you enjoyed the guide,

Typhaon Nishi & Suzy Somerton

TD Templates

