# Texturing in maya 2017 pdf

Know the basics: Maya Part 1: InterfaceLeal Basics: Maya Part 2: Viewports and NavigationLegation of basics: Maya Part 3: ModelingNow the basics: Maya Part 4: AnimatingKnow Basics: Maya Part 6: Motion Graphics The process of creating and assigning materials to Maya is relatively simple. With each release of Maya there are improvements and changes in materials, renderers and workflows that all contribute to mish-mash options; not ideal for a beginner. It becomes even more challenging with the 2017 release, which dropped the mental beam as the default render and led in Arnold to take his place. Step 1: What is hypershides? Hypershade is Maya's name for its built-in materials editor. Hypershade makes it sound a lot more glamorous than it really is! The editor essentially allows you to create and organize your materials before applying them to objects in your scene. In the next step, we will work through the interface. Hypershade is Maya's material editor. Step 2: Hypershade interfaceFor opening the Hypershade window, just go to Window -> Rendering Editors -> Hypershide. You can also use the icon on the status bar toolbar. Running through the interface you first have a browser that is a list of all materials, textures and lights. After that you have Material Viewer where you can see the rendering of your materials. Then you have a workspace that allows you to create your network of shaders. There are some other bits and bobs, but these are the main parts! The interface is basic but sufficient. Step 3: Create the material as previously mentioned your material types are on the left side of the Hypershade window. Just one click on one of the types of material will create material for you and add it to Material Viewer. For this article, why not go ahead and find arnold materials and choose aiStandard. If you're using an Arnold renderer, it's these Arnold materials that are best suited to your workflow. Creating material is as simple as clicking on it from a list. Step 4: Attributes of materialsTo click on the material and assign material to select. If you then move the Hypershade window out of the way and focus on the Attribute Editor. Here you will find all the attributes for the material of the selected object. I would strongly recommend though using the Property Editor inside Hypershade to customize the properties of your shader. Then you will get instant feedback from the View Materials panel in Hypershade. Use the Hypershade Property Editor to view information about your content. Step 5: Adjusting the materialIn the property editor there are a series of deployments that control things like diffuse and reflection, etc. I was so impressed with how easy the sliders are for use and instantaneous obtained through the Materials Editor. Arnold has done a great job of removing a lot of unnecessary jargon to make property editing quick and easy. Have a go at adjusting some properties and seeing how it affects your material. Adjustments can be made to the colors and fields of values from inside Hypershade. Step 6: Add maps to attributesYour make materials that step further, and make them even more powerful, you want to use bit files to drive inputs. A classic example for this will be when wanting to create an uneven surface, like a brick texture. Using a grey, high-resolution image that represents altitude data will push your materials to the next level of realism. To add a map to an attribute, simply click on the checker next to the attribute and select File from the list. Use maps to take your materials to the next level. Now that we have created our material, we want to assign it to the object. Do this by selecting the object and moving to the Hypershade window. Right-click the story, and then click Assign Material to Select. If you want to apply the same material to multiple objects, just select multiple objects before assigning the material to the selection. Before you see the results, you'll need to apply the materials to the objects. Step 8: Arnold's other aiStandard materials are not Arnold's only material. In Hypershade, you've noticed a series of others, including aiHair and aiSkin. These materials are specially configured to work with these types of objects and better starting positions than aiStandard. Tweaking their properties and getting visual feedback in the materials viewer is exactly the same, but you'll notice that the properties are slightly different. Arnold's materials give you a great starting point. Step 9: Seeing the results in the default view, your view should be set to Viewport 2.0, which should give you the best results. This will allow you to see your textures in high detail and how they interact with your lighting. To change the viewport rendering, simply go to Renderer at the top of the view and you'll notice a selection of options. Change the renderer to see the results in the view. Step 10: UV MappingOne is a really important aspect that we unfortunately didn't get time to cover in this UV display series. It's a reflection that tells Maya how to wrap material on your object. This process can get very complicated very quickly, so I would strongly recommend reading on it because if it's done badly then it's really noticeable. Good display also ensures that unwanted tiles are eliminated. Ultraviolet reflection tells Maya how to apply the material to the object. Tip: Viewport appearanceFor different scenarios, you'll want to customize the look of your model in view. It is often useful to see the edges of the grid superimposed on the texture. Do this by going to the Shading part of the view menu and The frame is shaded. Adjust the appearance of the view on the your needs. Related linksFor more information from Paul Hutton, check out C A Design ServicesDownload Maya 2017Perform maya 2017 on TwitterPlay a copy of the Beginner's Guide to Creating Characters in MayaKnow Basics: Maya Part 1: InterfaceScisum Basics: Maya Part 2: Viewports and NavigationKnow Basics: Maya Part 3: ModelingSciration of the Basics: Maya Part 4: OrganizationInstance basics: Maya Part 5: AnimatingKnow Basics: Maya Part 6: Caring for motion graphics should be taken when moving scenes to Maya 2017+ from previous versions of Arnold for Maya, since some fundamental changes have been made to color management and the .tx texture of the workflow. These changes are listed below. For more information contact Arnold for Mayan 2017 release notes. Color ManagementAutodesk Color Management (also known as synergy or SynColor color management component) is a common technology component integrated into several autodesk applications. This allows you to consistently process, interpret and bind colors throughout the mixed pipeline. Autodesk Color Management is designed to support a variety of color management methodologies, including ACES, ICC, OpenColorIO and ASC CDL. This allows you to work with different color spaces and encodings so that you can accept new workflows or emulate outdated ones. Autodesk Color Management consists of a color engine along with a collection of transformations suitable for I/ O, display, and other situations. Conversions are provided as separate .7 files, academy/ASC XML color conversion format extensions. You can merge multiple files to create complex transformations, and you can also create your own files for custom purposes. The color two-click supports a wide range of color operations, including 1D-looking tables (LUTs), 3D LUTs, gamma, magazine/antilogue, exposure-contrast, matrix multiplication and many others. In addition to its own .lut and .3dl files, Autodesk Color Management can import many common color conversion file formats, including legacy Autodesk .lut and .3dl formats, as well as third-party formats such as Cinespace, Iridas, Pandora and Nuke.Color Management's Color Management for ArnoldMaya Color Management, now fully supported by Arnold in Maya 2017. The display view conversion defined in mayan settings (Windows->Settings/Settings-> Settings) is now applied to all display devices (Arnold RenderView, Maya Render Viewer, Material Viewer, VP2). Previous versions of MtoA do not support color management of input textures (including gamma). Maya 2017 now supports color management with input textures by default. So you may notice the difference in the gamut of your renders between Maya 2016 and 2017.By default, Maya Color Management sets all textures to sRGB. However, most of the time exr files are linear. The following example shows that when playing Ai Skydome light using an EXR file set to sRGB (default) compared to Raw. Image left (sRGB) (sRGB) bright because the sRGB view conversion is applied twice. Hdr card (Ai Skydome) installed on sRGB (default) HDR card (Ai Skydome) installed on Raw Method around this is to set a rule in Mayan color management so that all EXR files are installed on Raw color space. The color management rule has been added, which converts exr image input color space to Raw Also, you can set color management manually for an HDR card connected to Ai Skydome light. The color space of the HDR card installed on Raw' Color Management and Auto TXFor input textures color management rules are applied when converting textures to mipmaps (. TX). The Color Space attribute also appears on Arnold's image nodes and is taken into account during the TX conversion. The auto-tx attribute in Arnold Render settings is enabled by default. It automatically converts all files to .tx mipmaps when needed. Therefore, the default behavior is now that color management is correct for both input textures and display. The progress bar will appear on the first rendering (or when the texture is changed) to show how many images are converted to mipmaps. By turning off auto-tx, textures will have to be converted manually: the TX manager (Arnold->Utilities->TX Manager) now shows the color space for each texture and converts each of them to the corresponding one. The outdated gamma correction attributes from the Arnold render parameters (Display Gamma, Shader Gamma, Texture Gamma, Light Gamma) have been removed. The option texture_automip (similar to the new auto-tx but executed in RAM on each rendering) has also been removed. Input color space and rendering color space are now used by Maketx to control texture just before MIP mapping. You should take care of this option because all the textures on the stage will be converted to .tx and you may notice some differences in your renders. This may be evident in scenes that contain regular maps, offset vector maps and HDR maps used for lighting (color management is now supported by Ai Skydome light and Ai Sky shader in Maya 2017). Things to consider when using .tx textures in Arnold for Maya 2017:Arnold, by default, understands that everything is linear. The File color space in the node is respected by Arnold only if the texture is converted to .tx, and the Use existing .tx textures option on the Textures tab of the Visualization Options tab can be automatically converted to .tx (see above). Use existing .tx textures to have properly managed textures. You should use the latest version of the MtoA Maketx tool to convert all textures as they will be converted using the exact color space (delete any old existing .tx files). If you disable the Use existing .tx textures option and play JPEG files your render will be brighter as you double the sRGB color conversion. Arnold works linearly and therefore has no idea what the File In node will be like during playback. If your JPEG is not linear linear sRGB color space and you have a view conversion to sRGB, it will be equal to sRGB.'Auto-convert Textures to .tx' in Maya 2017 can overwrite any .tx files that were previously saved in 2016. Maya 2016 will then play a new .tx file in a different color space and appear incorrectly. Wrong.