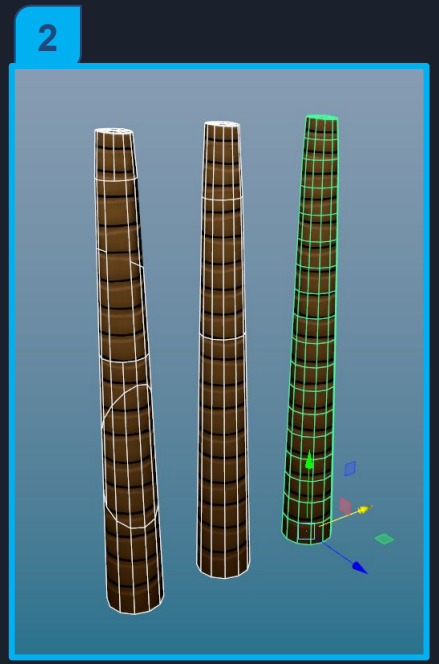
Rigging Test

Rigging a palm tree and testing deforming geometry

Revision: 001 by Paco Casares

Rigging Test|Contents



This practical lesson will cover the following:

1. Project Setup
2. Analyse Geometry
3. Select Objects
4. Apply Skin Deformation
5. Play and Analyse How Each Mesh Deforms
6. Summary

This lesson we apply a Bind Skin to the palm tree meshes and analyse how the geometry deforms. This is to understand the importance of good topology for clean deformation.

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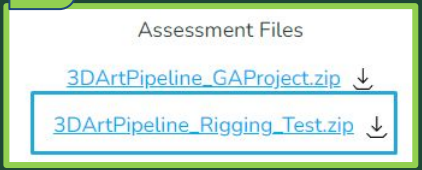
Rigging Test|Set Project

1



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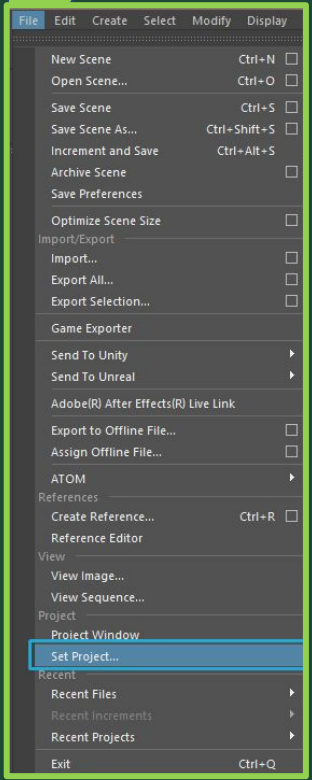

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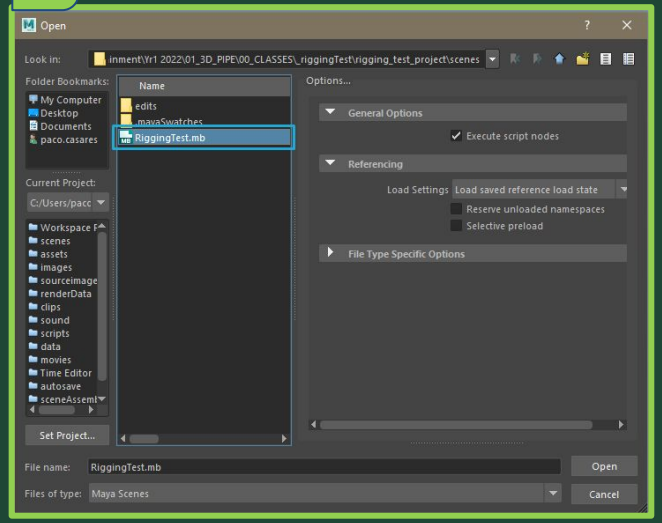

1. Download and Unzip Rigging Test.
2. File > Set Project…
3. Locate unzipped project and set.
4. Open Rigging Test.

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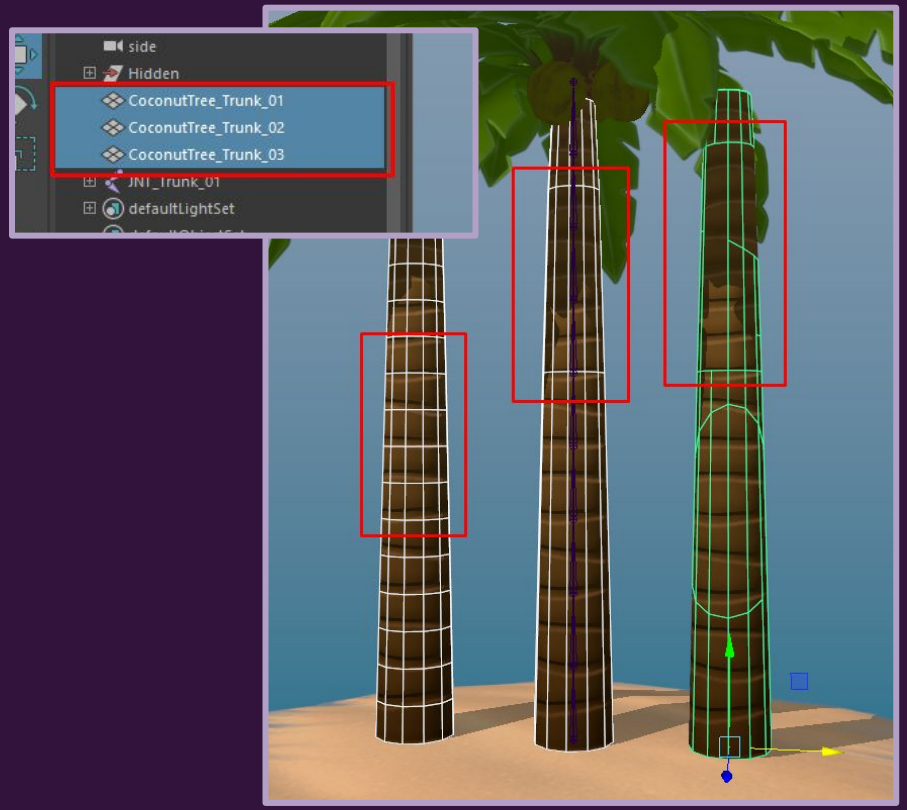
Rigging Test|Analyze Meshes



We will analyse the 3 different trunk meshes.

Select each trunk and move them aside to investigate each mesh.

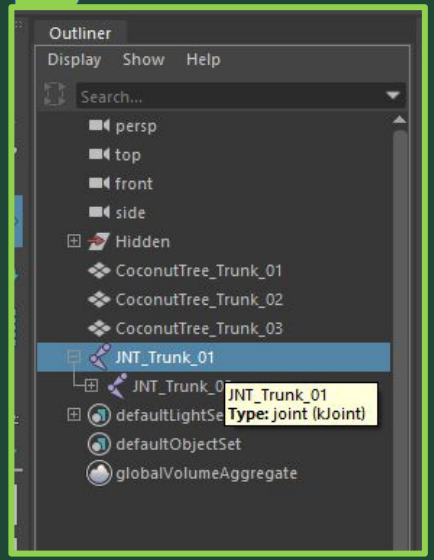
Analyse the topology of each tree mesh.

Then undo to return the tree to the start position.

In the next steps we will perform a deformation test.

Rigging Test|Select Objects

1



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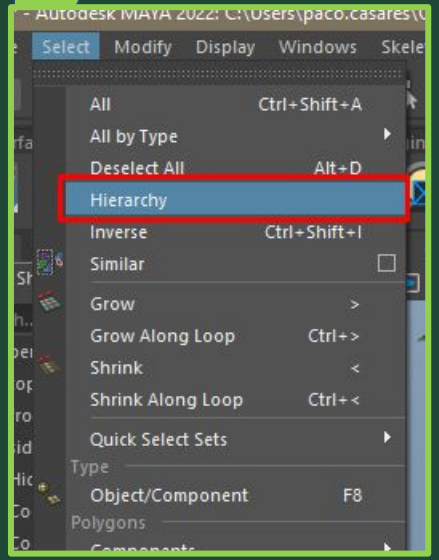

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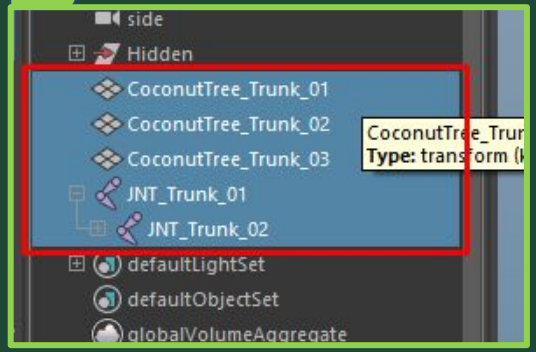
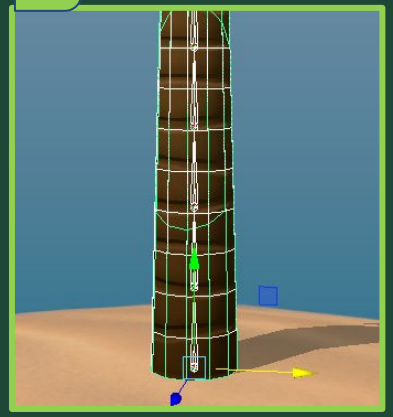


First we will select all the bones and objects that we want to Bind together. To ensure all the bones in the hierarchy are selected, we will use the **Select>Hierarchy** command.

1. Select the bone “JNT_Trunk_01” in the Outliner.
2. In the Main Toolbar go to Select then Hierarchy, this will select all the bones parented to the root bone “JNT_Trunk_01”.
3. Use the CTRL key to add the 3 trunk meshes to the selection.

Rigging Test|Bind Skins

1



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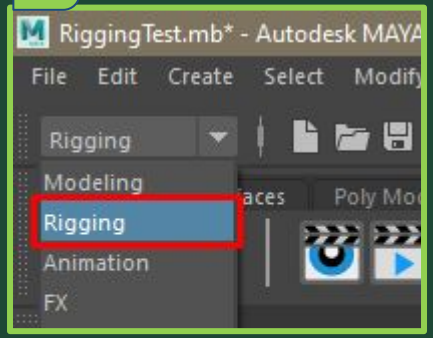

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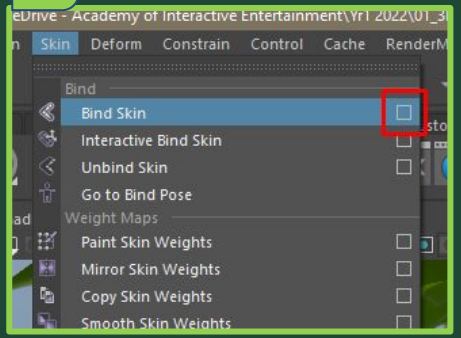
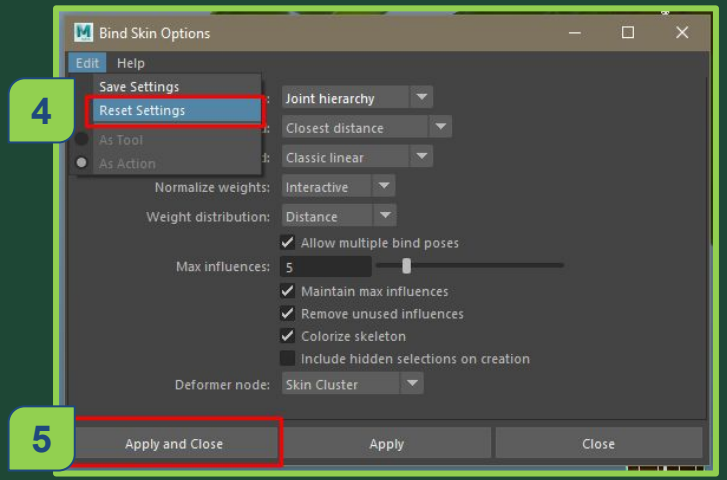


4

5



Now we will Bind the tree trunks to the bones. Binding the meshes to a skeleton connects the vertices to the bones through vertex weighting. The bind skin enables skinning of the meshes as each vertex is automatically weighted to the closest bone in 3D space.

1. Make sure all objects are selected as instructed from the previous slide.
2. Go to the Rigging Submenu.
3. Click on Skin>Bind Skin and then to the ▢ symbol for options.
4. Reset Bind Skin Settings. This will set all Bind Skin Options to default.
5. Click on the “Apply and Close” button.

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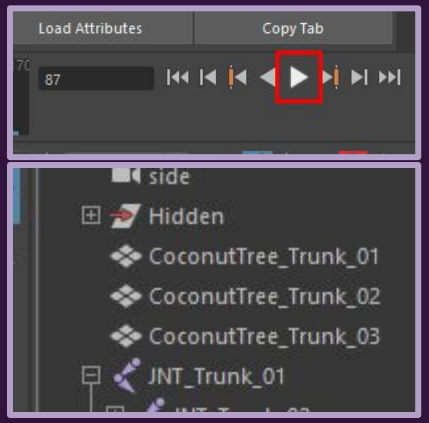
Rigging Test|Analyze Animated Meshes



Now that we have rigged the meshes, hide and unhide the trunks to test deformation of each.

H key will hide the selected meshes.

Play the animation or scroll the time slider to test how each trunk deforms.

Present your finding in the workbook by adding a screenshot of each trunk deforming and describe the topology requirements for adequate deformation.

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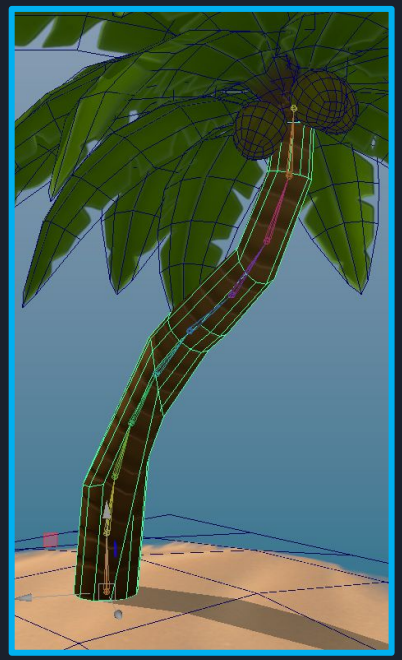
Rigging Test|Summary



In this practical lesson you have learned.

1. The benefits of correct geometry.
2. Why it is important to have enough edge loops.
3. How a mesh deforms if topology is broken.
4. How to do a basic skin Bind.

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