

# Quick Start Guide

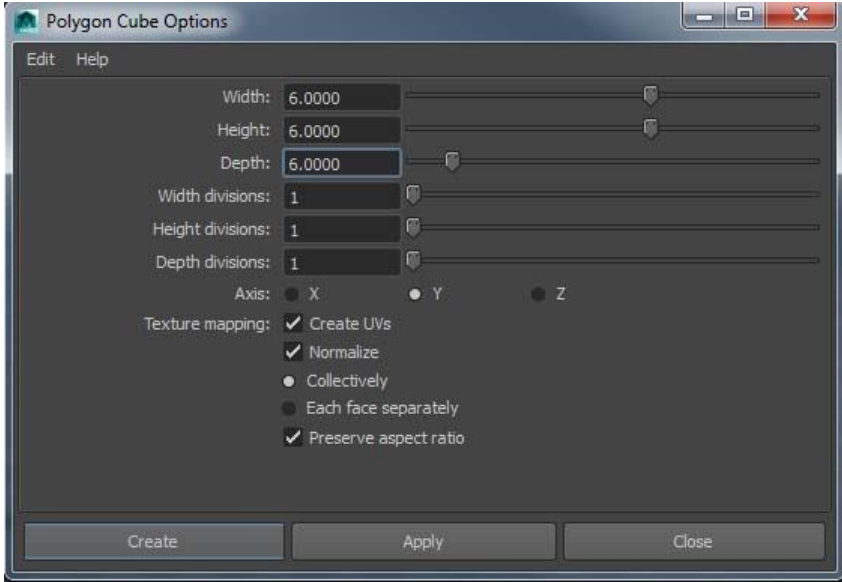
## Model a space crate

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## Initiate base model, adjust cube size/position, & save your scene

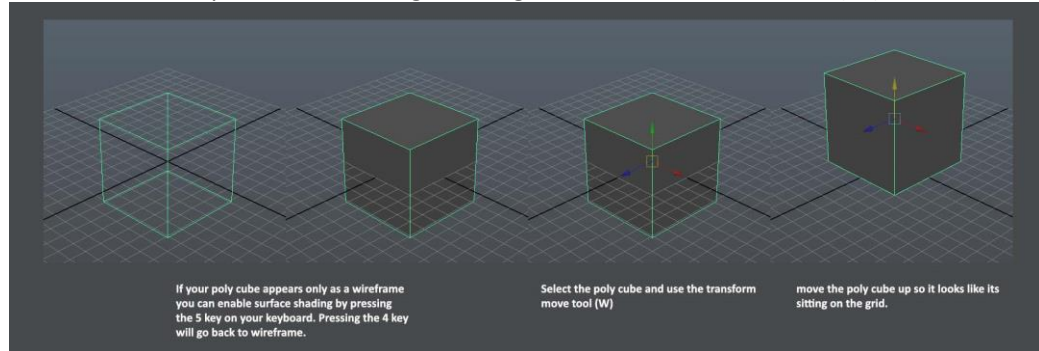
These four steps guide you through creating a new project in Maya, initialising a polygon cube as the space crate's foundation, adjusting the cube's size and position, and saving your scene.

Step	Action
1	<b>Initialise base model:</b> <ul style="list-style-type: none"><li>• Open Maya and create a new project following the default file structure.</li><li>• Create a polygon cube as the base model (i.e. mesh) for the space crate: Create &gt; Polygon Primitives &gt; Cube.</li></ul>
2	<b>Adjust cube size:</b> <ul style="list-style-type: none"><li>• The small square next to the cube is the option box. Selecting the option box will open a new window before creating the cube where you can input creation options you want to use, like size, number of faces, etc.</li></ul>  <ul style="list-style-type: none"><li>• Input dimensions (Width, Height, and Depth) of 6 units in the cube's option box and select Create.</li><li>• Anytime you create a polygon cube, Maya will generate one using the polygon cube options. If you want a cube of a distinct size or mesh detail, select the option box again and input the options you want.</li></ul>

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### Adjust cube position:

- The polygon cube will appear at the origin or centre of the scene, with the cube's base below the grid.
- Move the cube up and above the grid using the Move Transform tool (W).



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### Save your scene:


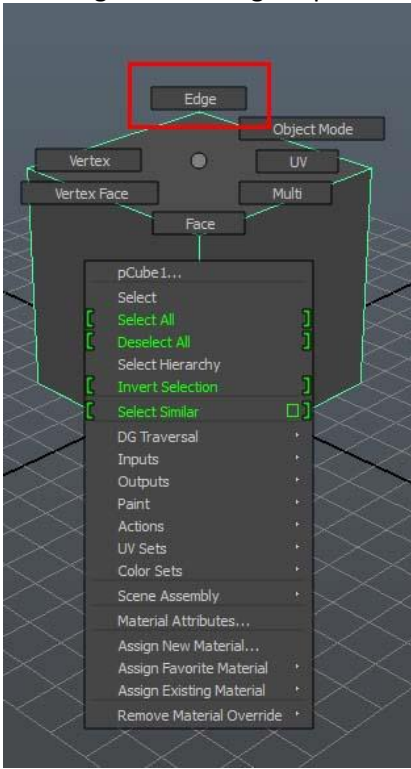
- Maya has a default file structure which you must follow for each new project you create or work on - there are often multiple files associated with each project, and the file structure keeps everything organised:



- Save your scene in the 'scenes' folder of your Maya project, choosing a filename if this is the first time you have saved.

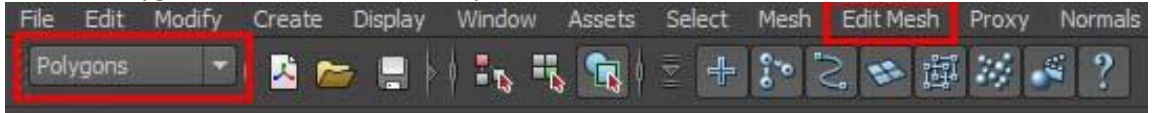
## Bevel for chamfered edges

These four steps guide you through bevelling the cube's edges by entering component mode, accessing the Bevel tool, and adjusting bevel options.

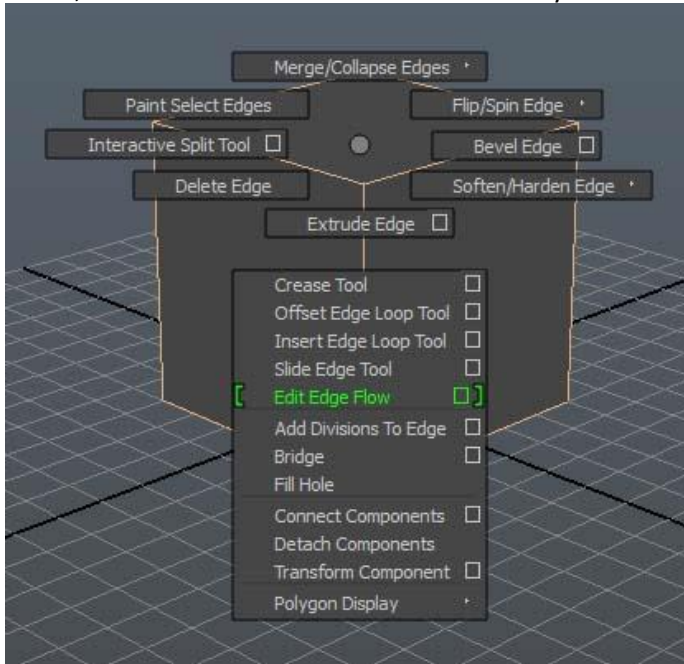
Step	Action
1	<p><b>Enter component mode:</b></p> <ul style="list-style-type: none"><li>• Enter component mode by either:<ul style="list-style-type: none"><li>○ clicking the component mode button at the top of the screen: </li><li>○ or, right mouse clicking and hold over the cube to bring up the marking menu and drag over the edges option: </li></ul></li><li>• The cube should have a light blue wireframe showing you are in component mode.</li></ul>
2	<p><b>Select cube edges:</b></p> <ul style="list-style-type: none"><li>• Select the cube edges you want to bevel – in this example, all the cube's edges.</li></ul>

3 **Open Bevel tool:**

- Open the Bevel tool by selecting Edit Mesh > Bevel.
- If you cannot see the Edit Mesh option at the top of the screen, make sure you have Polygons selected from the dropdown menu:



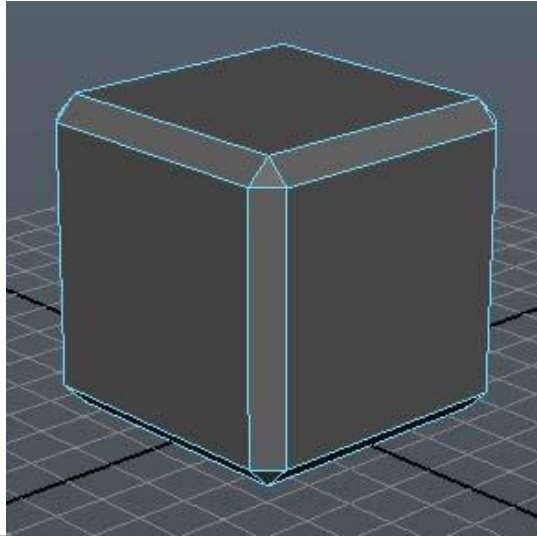
**Tip:** You can also access the Bevel tool using a marking menu. In component mode, with the edges selected, hold Shift + hold right mouse button. This brings up the modelling marking menu, which includes some of the most widely used modelling tools. Select Bevel Edge.



4 **Adjust Bevel options:**

- If you select the option box next to Bevel Edge, adjust bevel options:
  - Width – 1500
  - Segments – 1

- Your cube should now look like this:



## Extrude for additional detail

These four steps guide you through extruding the cube's faces by accessing the Extrude tool and performing three extrusions.

Step	Action						
1	<p><b>Stay in component mode:</b></p> <ul style="list-style-type: none"> <li>Remain in component mode to continue adding detail to your model using the Extrude tool.</li> </ul>						
2	<p><b>Select cube faces:</b></p> <ul style="list-style-type: none"> <li>Select the faces of the mesh inside the bevelled edges.</li> </ul>						
3	<p><b>Open the Extrude tool:</b></p> <ul style="list-style-type: none"> <li>Open the Extrude tool by selecting Edit Mesh &gt; Extrude.</li> </ul> <p><b>Tip:</b> You can also access the Extrude tool using the modelling marking menu. With the faces selected In component mode, hold Shift + hold right mouse button to bring up the modelling marking menu. Select Extrude Face.</p>						
4	<p><b>Perform three extrusions:</b></p> <ul style="list-style-type: none"> <li>Use the Extrude tool three times:           <table border="1" data-bbox="375 865 1414 1331"> <tbody> <tr> <td>a</td> <td> <ul style="list-style-type: none"> <li>Single click on one of the scale manipulators to switch the extrusion centre handle to scale.</li> <li>Use the centre scale handle to scale the extruded face globally to create a face inside the cube.</li> <li>Use the Z translate handle to push the extrusion back into the cube slightly.</li> </ul> </td> </tr> <tr> <td>b</td> <td> <ul style="list-style-type: none"> <li>Use the G key with the faces selected to quickly repeat an extrusion (the G key is the shortcut for repeating the last used action or tool).</li> <li>Click once on one of the scale handles to switch to scale.</li> <li>Scale the new extruded face globally to create a new face inside your first extrusion.</li> </ul> </td> </tr> <tr> <td>c</td> <td> <ul style="list-style-type: none"> <li>Use the G key to repeat your extrusion action</li> <li>Use the Z-axis handle (Blue) to pull out the extruded face to create a small bump on the model.</li> </ul> </td> </tr> </tbody> </table> </li> </ul>	a	<ul style="list-style-type: none"> <li>Single click on one of the scale manipulators to switch the extrusion centre handle to scale.</li> <li>Use the centre scale handle to scale the extruded face globally to create a face inside the cube.</li> <li>Use the Z translate handle to push the extrusion back into the cube slightly.</li> </ul>	b	<ul style="list-style-type: none"> <li>Use the G key with the faces selected to quickly repeat an extrusion (the G key is the shortcut for repeating the last used action or tool).</li> <li>Click once on one of the scale handles to switch to scale.</li> <li>Scale the new extruded face globally to create a new face inside your first extrusion.</li> </ul>	c	<ul style="list-style-type: none"> <li>Use the G key to repeat your extrusion action</li> <li>Use the Z-axis handle (Blue) to pull out the extruded face to create a small bump on the model.</li> </ul>
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Select all faces inside the beveled edge, tumble around your object to ensure you have all faces selected.

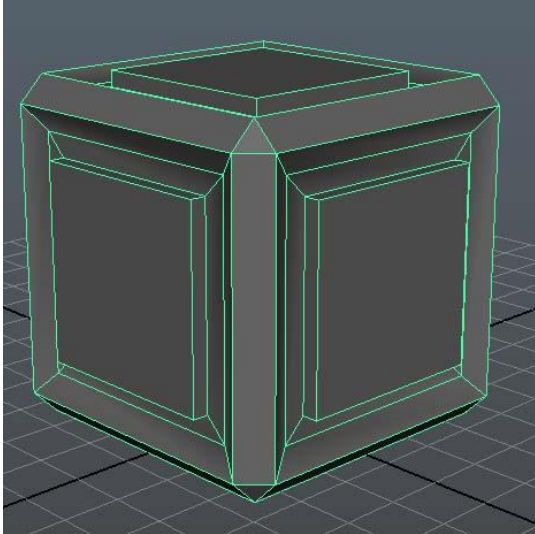
**Extrude 1**  
First use the scale transformation to scale the new extruded face uniformly then translate the face in the Z axes slightly.

**Extrude 2**  
Scale the extruded face uniformly to create another face inside the first extrusion.

**Extrude 3**  
Translate the face in the Z axes to pull out a new set of extruded faces and create a bump out in the model.

## Review model and save

These three steps guide you through reviewing your model and saving it to JPG format.

Step	Action
1	<p><b>Review your model:</b></p> <ul style="list-style-type: none"><li>You should now have a completed model that looks like this:</li></ul> 
2	<p><b>Take a screenshot:</b></p> <ul style="list-style-type: none"><li>Press the Print Screen key on your keyboard to capture the entire screen or use a third-party tool (Snipping Tool, Snip &amp; Sketch, or similar) to capture the model.</li></ul>
3	<p><b>Paste and save:</b></p> <ul style="list-style-type: none"><li>Open an image editor (e.g., Microsoft Paint, Adobe Photoshop) and paste the screenshot (Ctrl + V).</li><li>Save the image in your preferred format (JPEG, PNG, etc.).</li></ul>