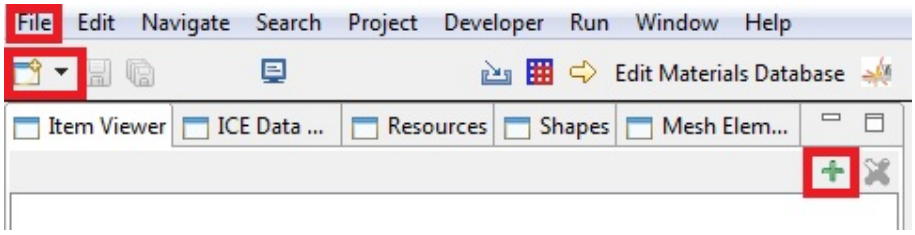
This article is designed to outline the basic controls of ICE's Geometry Editor.

1 Getting Started

Once ICE is installed on your computer, there are no further dependencies or preparation required to use the Geometry Editor.

2 Opening a Geometry Editor

To open a Geometry Editor in ICE, you have three options:



Top to bottom, they are:

1) Click the File menu, then New, then Other... and select the Create Item Wizard in the new dialog and press Next. Then, select Geometry Editor from the list and press Finish.

2) Click the New button. Select Create Item Wizard in the new dialog and press Next. Then, select Geometry Editor from the list and press Finish.

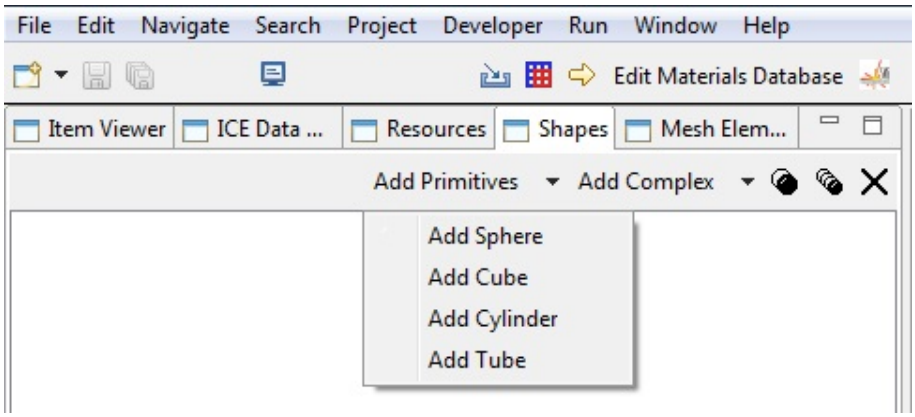
3) Enter the ICE Perspective by clicking the Open Perspective button in the upper right corner of the screen, select ICE from the dialog that pops up, and click OK. Afterwards, click the Create an Item button, select Geometry Editor, and click OK.

3 Working with the Geometry Editor

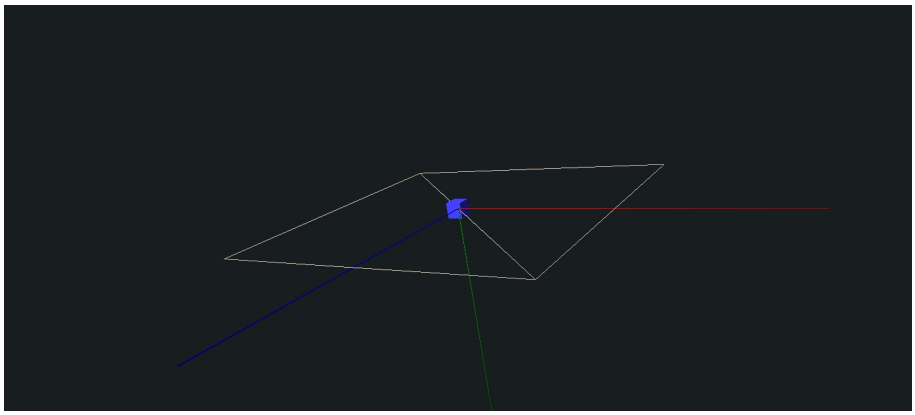
4 Camera

You can change the perspecive of the camera by clicking and dragging inside the Geometry Editor. You can see this initially by the way the three axes and the reference plane move as you rotate the camera about the origin. Scrolling the mouse wheel will zoom the camera in or out.

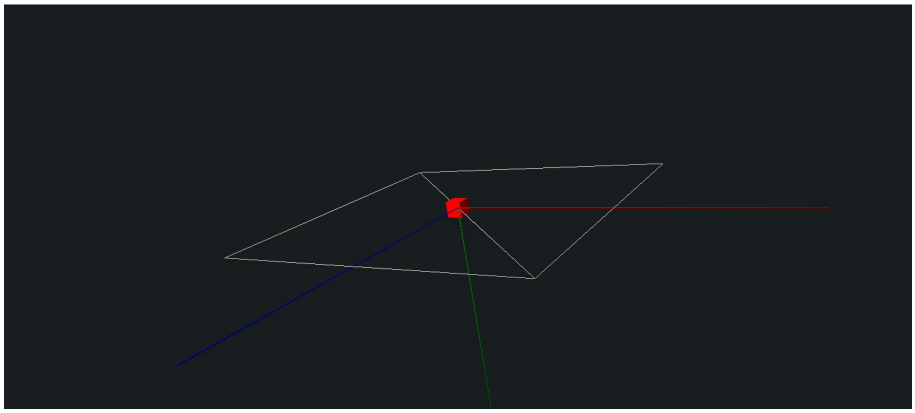
5 Primitive Shapes



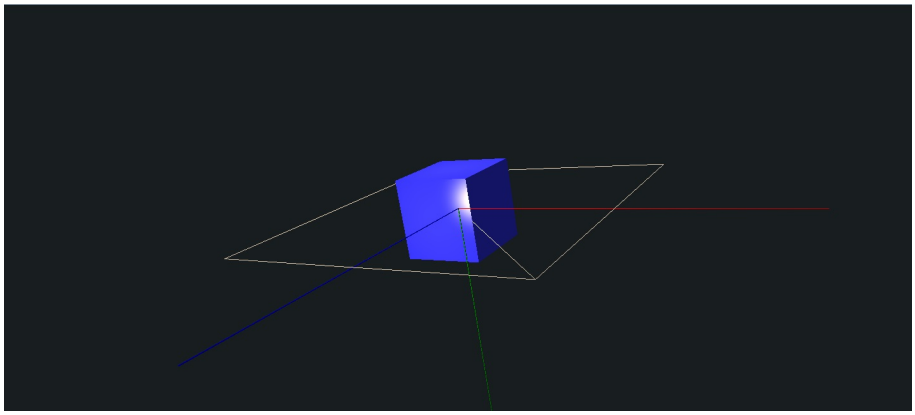
Simple shapes can be added with the Add Primitives dropdown menu in the Shapes view. Simply select an object from the menu to add it to the scene.



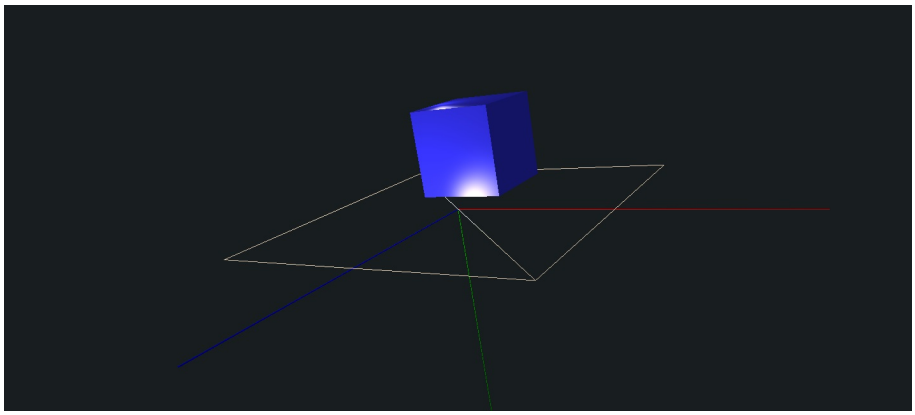
Clicking on the shape's name in the Shapes View will cause that shape to turn red in the editor.



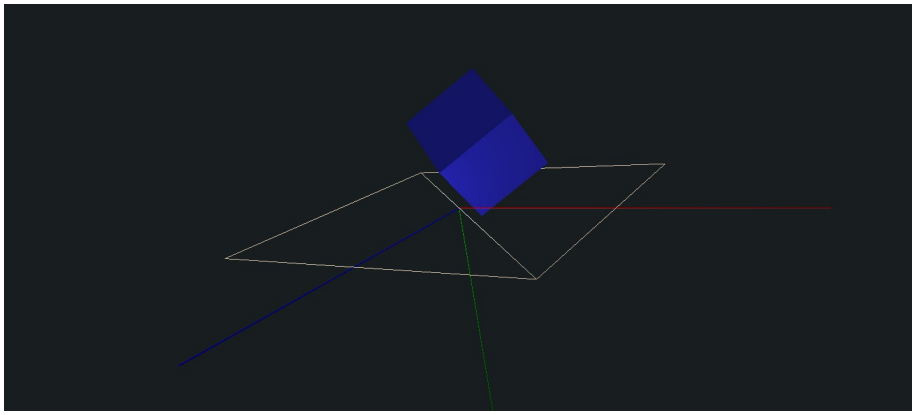
Selections in the Shapes View also activate the Transformation View in the lower left corner. Editing the values in this view will change the selected shape accordingly.



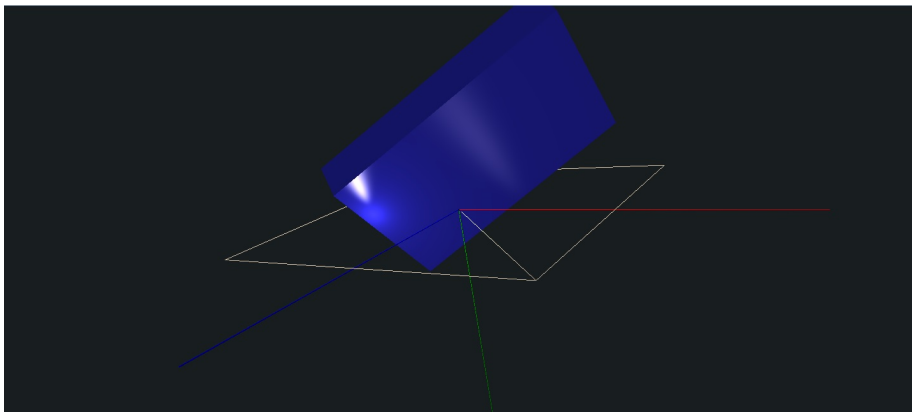
Size - Controls the overall size of the shape. Setting size to X is equivalent to setting the shape's three scales to X times their current value.



Translate - Controls the position of the shape. Setting one of the translations will move the shape that many units along the given axis.



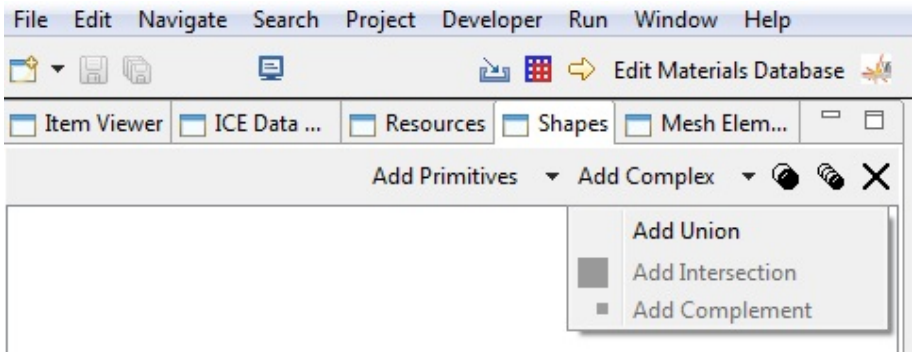
Rotation - Controls the orientation of the shape. Setting one of the rotations will rotate the shape the given number of degrees about that axis.



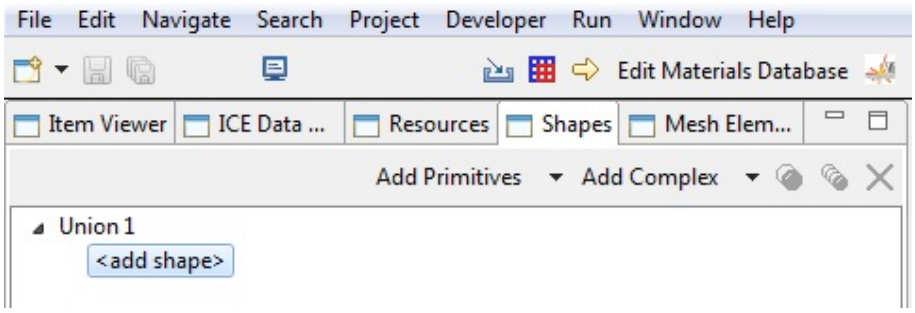
Scale - Controls the size of the shape in three directions. Setting one of the scales will stretch or compress the shape in that direction by a factor of the scale's new setting.

6 Complex Shapes

Multiple primitive shapes can be combined within a single grouping for easier editing. First, create a complex shape using the Add Complex button.



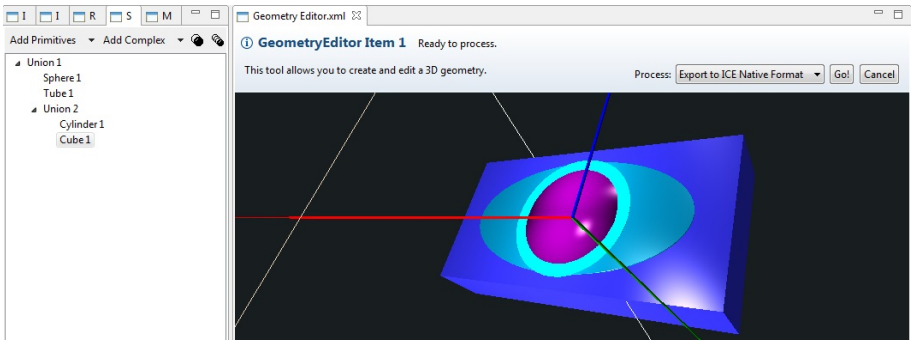
Currently, only unions are supported. The union will appear in the Shapes View with an empty spot for a child shape.



Select <Add Shape>and add a primitive shape as before to add the shape as a child of the union. To add additional shapes, select the child shape and add another as normal.

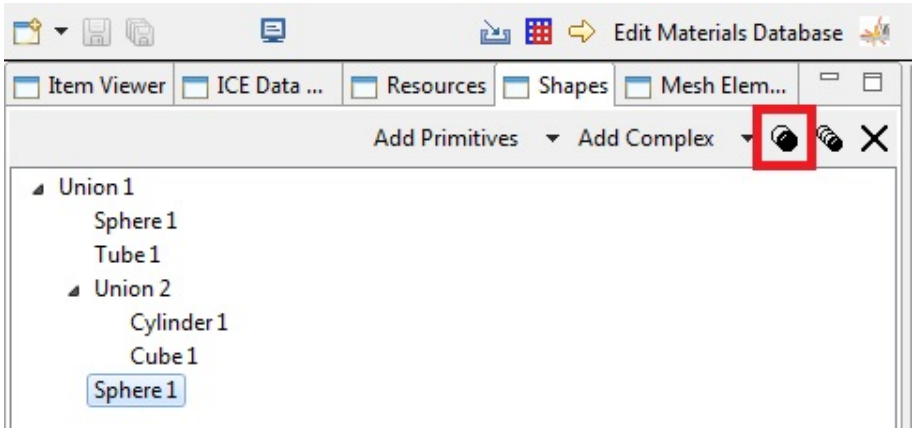
Selecting the union will select all of its child shapes, and changes to the transformation view will affect the entire complex shape. Individual shapes can still be selected for editing on their own.

You can add a complex shape as a child to a complex shape in the same way as a primitive shape, allowing for nested unions

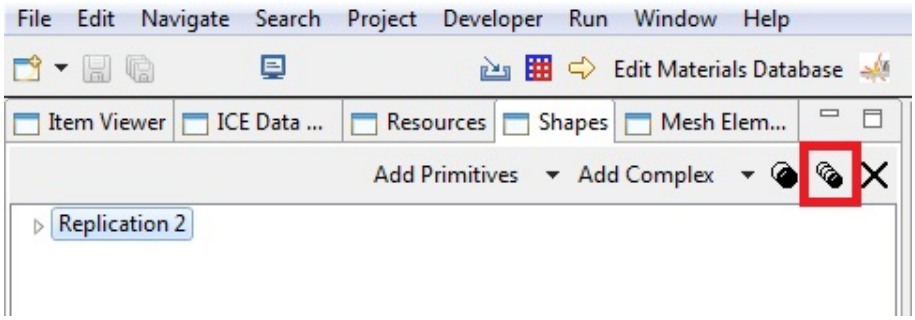


7 Copying

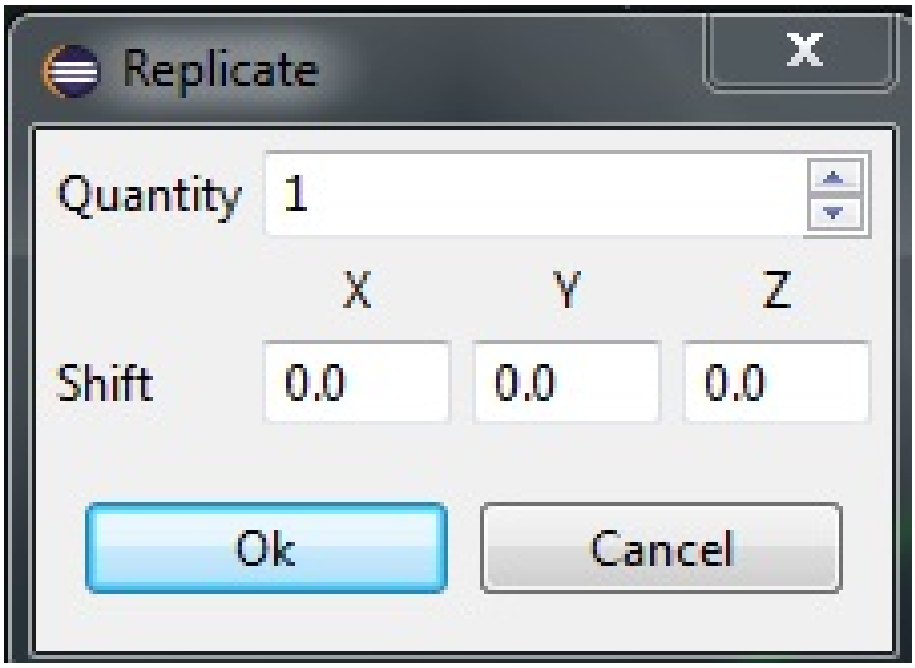
Once you have a shape created, you can automatically create copies of that shape.



Press the Duplicate Shape button, highlighted above, to create an exact copy of the selected primitive shape. The copy will appear as the child of the same complex shape as the original, if any, and can be modified independently after creation.



You can systematically create many copies of a shape with the Replicate Shape button highlighted above. This will open a new dialog.



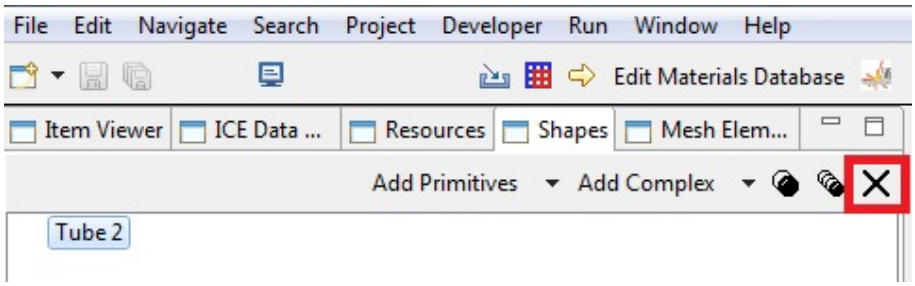
The quantity is the number of desired copies of the shape which should be in the replication. This includes the orignal (ie setting quantity to 2 will result in 2 shapes, the original and a copy).

The Shift boxes allow you to specify an offset to be placed between each copy. For example, if you set X to 100 and Y to 50, then each copy will be 100 units along the X axis and 50 along the Y away from the previous copy.

The original shape and all copies will be placed in a new complex shape, which will take the original shape's position in the tree.

8 Deletion

You may remove a shape and all its children by selecting it in the Shapes view and clicking the Delete button, highlighted below.


File Edit Navigate Search Project Developer Run Window Help
Edit Materials Database
Item Viewer
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Add Primitives
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