

## jb Engine Tools | by Josh Buck | CGARTISTRY

In 2008 I wrote two scripts, jb UDK Tools and jb Unity Tools. These scripts aided in the set up of the grid in Maya for game-engine pipelines and provided a few useful tools for environment-artists. These scripts were downloaded tens of thousands of times and I still get the random email asking for an update. Here it is!

jb Engine Tools allows for easy setup of the Maya grid for game engines with presets for different engines, as well as color scheme presets for the grid and background. Tools include stack, align, set pivot point, grid nudge, and a metric/standard calculator.

Don't like my personal settings for grid layouts or wish to add your own engines and/or presets? You can do this and add custom color schemes easily by editing the included JSON file.

### Use:

Run jb Engine Tools and pick a layout from the Layout Presets. Each preset can be tweaked in real-time by editing the associated grid fields.

You can always return to default settings by selecting the default preset.

To add presets, edit the associated JSON file, *jbEngineToolsSettings.json*

### Tools:

#### Pivot

Each of the 9 radio buttons represents the *bottom* of the selected object, facing down the Z axis. Select an object in object mode select a radio button and press the *Set* button.

The *Zero* button sets the pivot to 0, 0, 0 in world space

The *Center* button centers the pivot in the object based on the average world-space position of all vertices.

#### Object

Translates or rotates an object using the 6 direction buttons.

*Translate* will move an object based on the grid divisions.

*Rotate* will rotate an object around its pivot point based on the amount in the float field.

*Center* will center the object around 0, 0, 0 in world space, based on the bounding-box of the object.

*Sit* will sit an object on the ground plane (0 in Y) based on the bounding box of the object.

#### Stack

Stacks objects in selection order based on the radio button selected and the bounding box of all objects. By using the bounding box, objects can be stacked with any pivot point settings and from any location, with or without active transforms.

#### Align

Aligns objects in position or orientation. Aligns the second selected object to the first selected.

#### Calculator

Simultaneously calculates all fields, converting metric to standard and standard to metric. Enter a value in any field and press enter to calculate and display the results.