

# SPLINE TOOLS FOR **DEEP** ( **PAINT 3D.**

A TUTORIAL

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## Spline Tools for Deep Paint 3D, version 2.0

What it is....

Version 2.0 introduces Spline Tools that will enable artists to easily create smooth, curved, precision shapes. Shapes can be created, edited and saved to a palette for later use. Options include paint snap, stroke and fill. This feature provides powerful drawing tools for designers and artists.

What it does....

This tutorial will take you through all of the features of Spline Tools. It's designed for the user who is already familiar with Deep Paint 3D.

If you are not familiar with the Deep Paint interface, then begin by reading Chapter 1, [Interface Overview in the Deep Paint 3D on-line help](#).

### Conventions

- Menu and Sub-menu choices are separated by the greater than sign, as in the example, **View>Palettes**.
- Commands and selections are displayed in **bold** typeface.

Specific keystrokes are represented with in caps with angle brackets e.g. **<ESC>**.

### Tutorial Roadmap – Features

This tutorial highlights these features:

#### Tools

#### Shapes Palette

#### Working with Splines, three examples



## Tool Palette

case the spline is closed.

The Corner Tool allows you to shape corners. Click-dragging on a vertex defines both incoming and outgoing handles symmetrically. Dragging a handle moves just the handle alone, allowing you to shape corners.



Corner Tool

The Insert Tool inserts a vertex at the spline position clicked. Dragging on a vertex moves it.



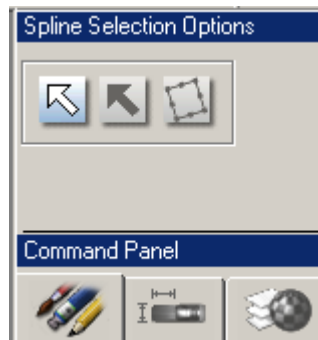
Insert Vertex Tool

This tool deletes the vertex clicked.



Delete Vertex Tool

## Spline Selection Options



Select Vertex Tool

Select Vertex Tool allows you to select vertices from the current spline by dragging the mouse.

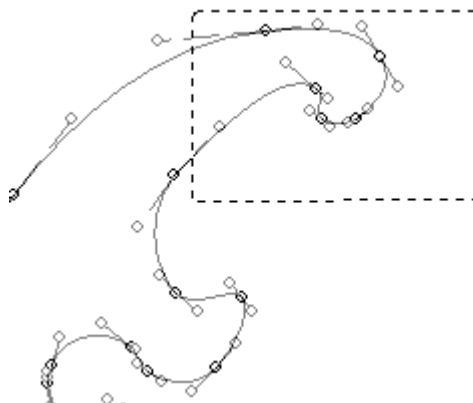
Press **Shift** while selecting individual vertices to add to the selection.

Press **Alt** while selecting to subtract vertices from the selection.

Press **Shift + Alt** to select the intersection of the selection and the dragged rectangle.

You can also move the vertices by dragging on a vertex.

Note the use of Delete in this mode.



## Tool Palette

You can remove a selected vertex by pressing **Delete**. Note that the rest of the vertices are selected so that by pressing **Delete** again, removes the entire spline.

Select Spline allows you to choose the current spline with a click. All vertices will be selected. Handles will also display.

While in this mode the entire spline can be panned and deleted.

Use **Esc** to deselect the spline.

Transform mode operates on the currently selected vertices and their handles. The bounding rectangle becomes visible in this mode.

Drags inside the rectangle move the selection and pivot.

Drags outside the shape rotate the selection around the pivot.

Drags on the handles scale the selection around the pivot. This includes flipping the selection.

Drag on the pivot just moves the pivot.

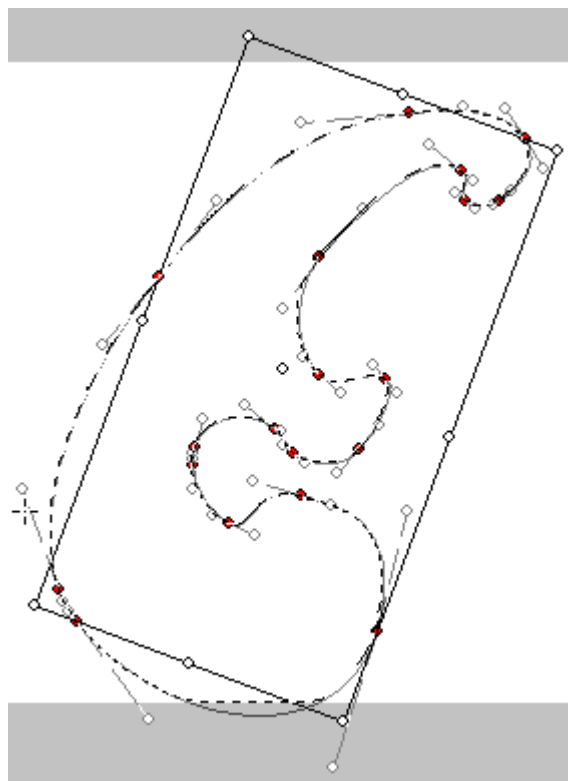
Press **Shift** while scaling to lock the aspect.



Select Spline Tool



Selection Transform Tool



## Shapes Palette

**Description:** The Shapes Palette allows you to store and apply shapes.

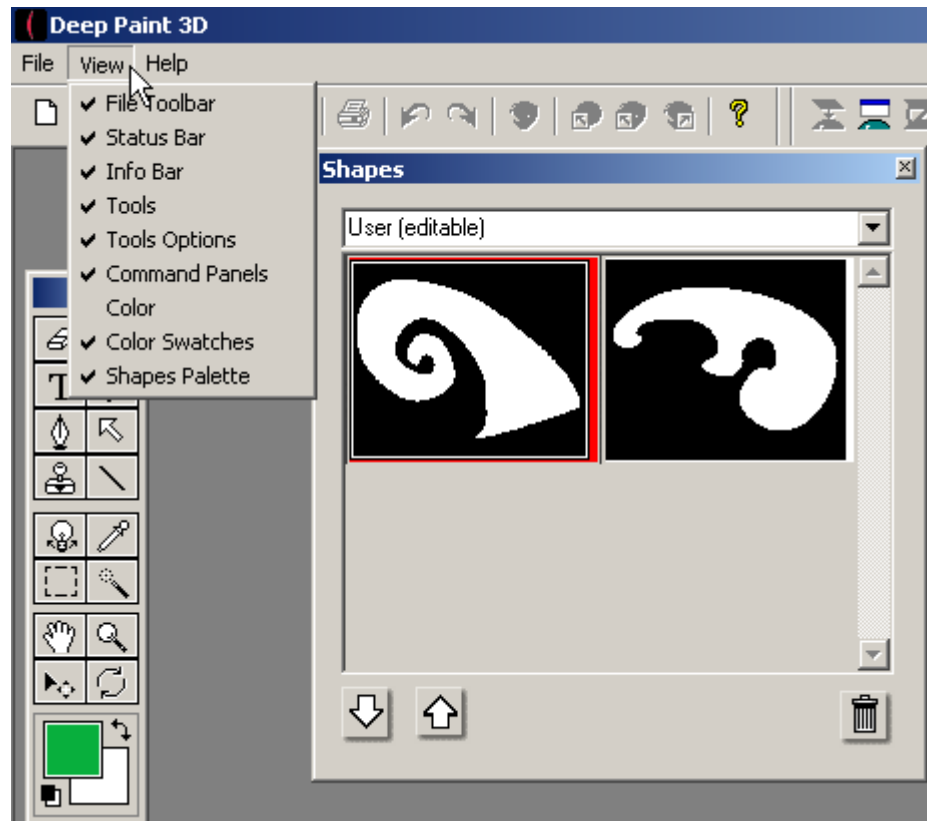
### Shapes Palette

The down arrow adds the selected shape in the palette to the current view.

The up arrow adds the current spline shape in the current view to the palette.

The trashcan deletes the selected shape in the palette.

The drop-down list chooses the folder of shapes to display. These folders are just like any folder on your computer and can be added. The folder name must contain (editable), as seen in this example for the up arrow and trashcan to work.



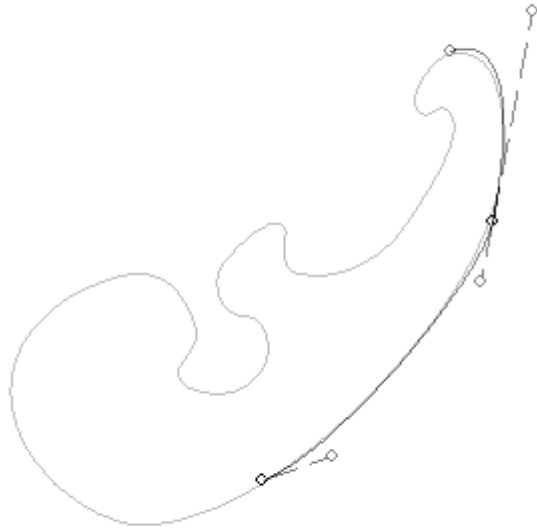
## Working with splines, three examples

### Fine-tuning a spline

When beginning to draw or trace an object using the Spline Edit Tool in the Append mode, add a minimum of vertices to begin to assume the desired shape.

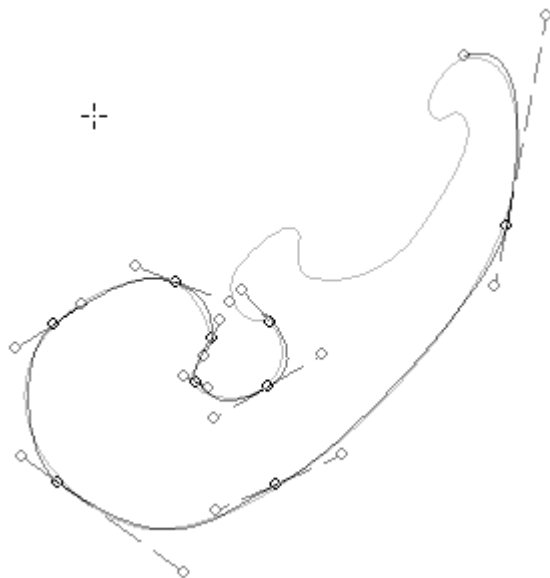
Remember to work in one direction and that touching the last vertex in the Append mode, erases it.

Handles help shape the line. Experiment with lengthening and shortening the handles while rotating them. It doesn't take long to get a feel for it.



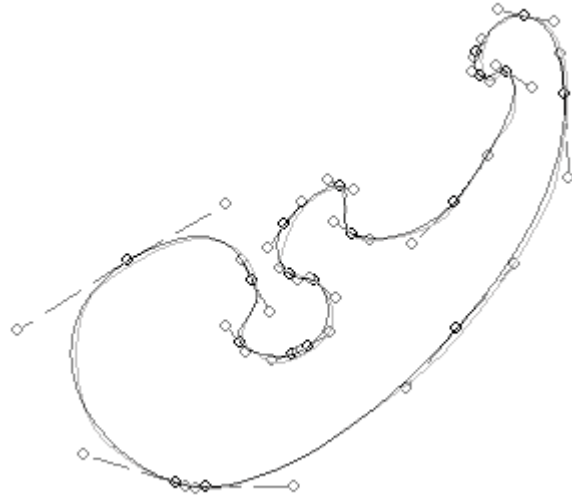
Switch to the Add mode to add extra vertices for tight places.

You can move a vertex while in this mode by click-dragging.



## Fine-tuning a spline

Using a combination of Add and Delete mode will fine-tune your spline.



## Painting along a curve

The right-mouse menu of the spline has three options. Snap to Curve allows the brush position to snap to the spline.

Toggle **Brush Cursor** on to view the shape of the brush head before or while you paint.

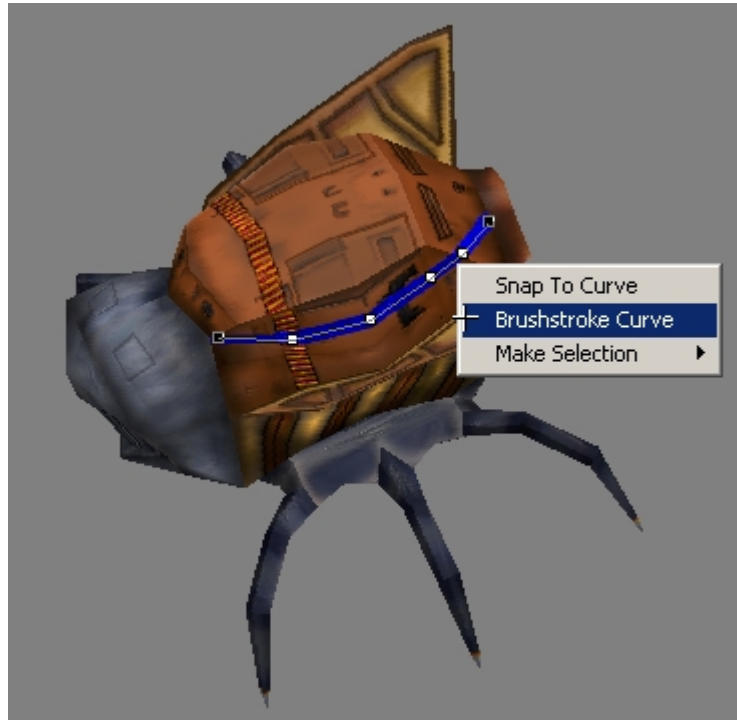
Remember, the spline is hidden in freehand mode. **Alt-Tab** toggles the appearance of the spline.

Use this option for greater control while painting along the spline.



## Painting along a curve

**Brushstroke Curve** strokes around the curve with the current brush. You don't have to move the mouse or stylus yourself.



Add another racing stripe by moving the spline.

Switch to Transform mode and shift the spline to another position.



## Painting along a curve

This is a simple example of what can be done with Splines. Experiment and see what you can create.



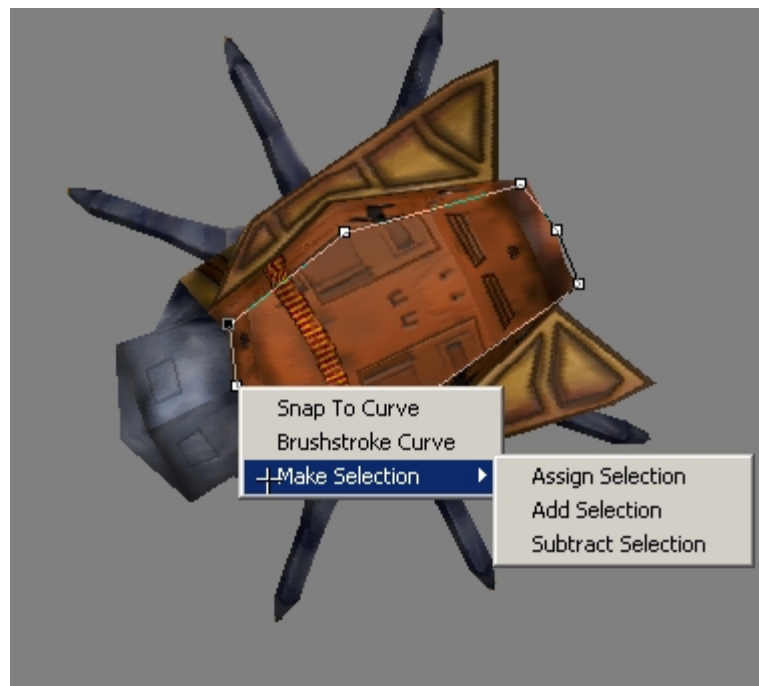
## Make Selection

The third right-mouse option, **Make Selection** has three options.

**Assign Selection** creates or replaces the existing selection.

**Add Selection** adds to an existing selection.

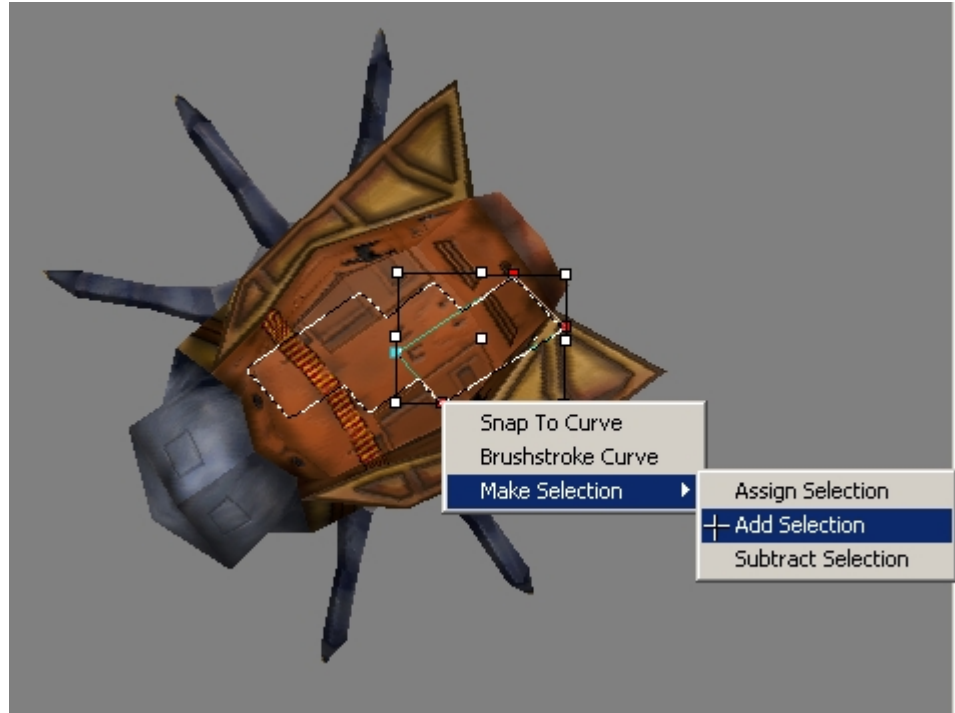
**Subtract Selection** subtracts from the existing



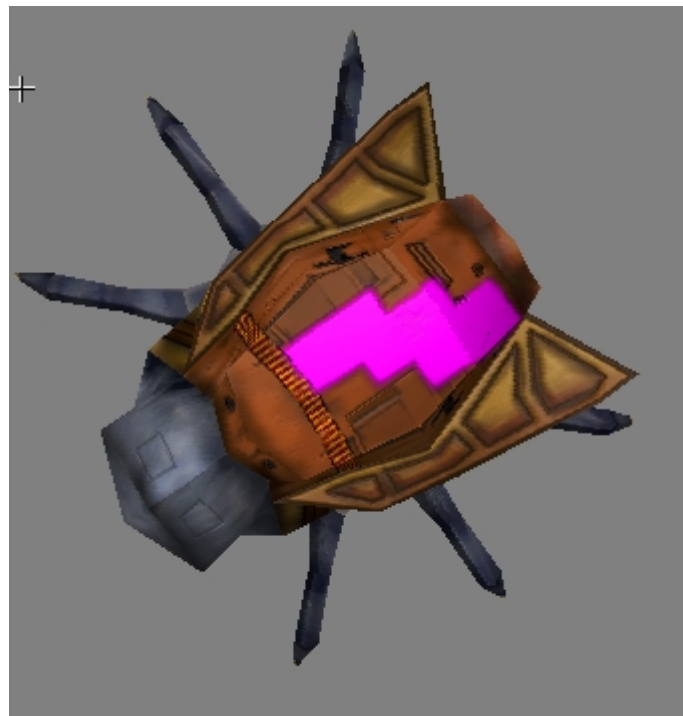
## Make Selection

selection.

Here's an example of how adding a selection works. The spline is moved each time.



Here the selection has been filled with color.



We encourage you to experiment and to submit your work to <http://righthemisphere.com/community/gallery/index.htm> for inclusion in the Right

Hemisphere gallery. We are even accepting objects for display in our new 3D Interactive Gallery!

If you have any questions, contact Customer Support at <http://www.righthemisphere.com/support.htm>.