The Spline Patch Tool

By Andrew Holifield
1. Make sure you are working in points mode, then place five points in a smooth curve in the top view using the ‘Create: Points: Points’ tool (or the shortcut ‘+’).
2. Next, select the “Make Curve” tab and use the “Make Open Curve Tool” (shortcut ‘^P’).
3. Place four more points in the back view starting slightly to the right and up from the first point of the first curve.
4. Deselect the points just placed and reselect them (making sure to include a point from the first curve) from one side to the other. I arbitrarily used left to right, but right to left works as well.
5. Use the “Make Open Curve” tool to create another curve
6. In the right view port, place three final points in between the first two curves.
7. Deselect the points, then reselect them from one side to the other making sure to include the end points from the previous two curves.
8. Switch over to polygons mode and select the construct tab at the top of the screen, then deselect the current polygon selection.
9. Next you want to select the curves in a specific order. If you select in a clockwise motion, the generated polygons appear on the opposite side of the model.
10. The vertex of the spline patch is between the first two curves selected. Select the curves in a clockwise motion, starting on the right and ending with the base.
11. Select the ‘Construct: Patches: Patch’ tool (or use the shortcut ‘^F’). This brings up the “Make Spline Patch” dialog box. “Perpendicular” refers to the number of columns and “parallel” is the number of rows. Enter five for each of these values and press ok.
12. The spline patch is complete. Now you can delete the curves used to make it, or undo and create an other patch with greater or fewer polygons in it.
Pointers and Tips

- You do not have to use the same number of points for each curve, I did to make the tutorial simpler.
- When using spline patch some of the polygons may not appear. This could be because the curves are too steep. Try using the top for the vertex or smoothing out the curves to correct this.
- Entering different values for “parallel” and “perpendicular” will result in different smoothness for the spline patch.
Questions?