rhino**reverse**™
point mesh to NURBS

Release Notes

RhinoReverse Version 2.9 (24. September 2008)

1. Installation on Windows Vista

When trying to install earlier RhinoReverse versions, special configurations in Vista could lead to failures. This problem was solved by modifying the license management.
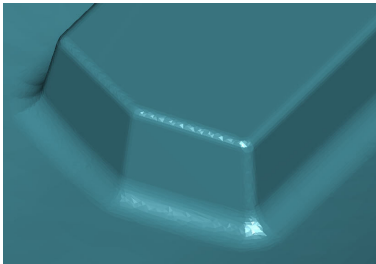
2. Calculation of start faces improved

In some special cases (dependent on given geometry) the automatic design of start faces could produce undersized or oversized faces. Sometimes the transitions between these faces can't be healed automatically after the approximation step. The algorithm was improved and now works correctly.
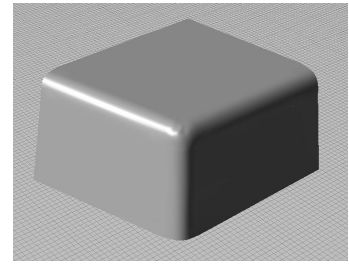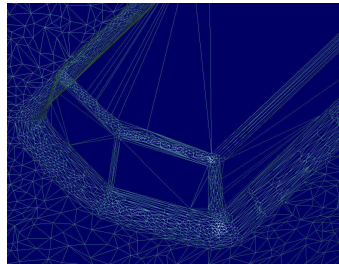
3. FEM- and CAD-meshes better to use

If meshes coming from any FEM-process or have been derived from CAD-surfaces they can sometimes show regions with large irregular triangles (see fig. below).

In this case insufficient mesh vertices are located within the closed loop of the sketched polyline curves. The resulting face may degenerate.

CAD-mesh with long irregular triangles   *Resulting NURBS*

In the new version artificial vertices will be calculated by a special interpolation scheme on the mesh. These intermediate vertices will be used for approximation resulting in improved results more consistent with the original form.

4. RRCommit function with two new options for curves

Option „CurveNetwork" produces a curve network that represents all sketched curves. All curves will be approximated within the RMS tolerance to lie directly on the mesh. This ensures that the curves intersect at their crossing points.
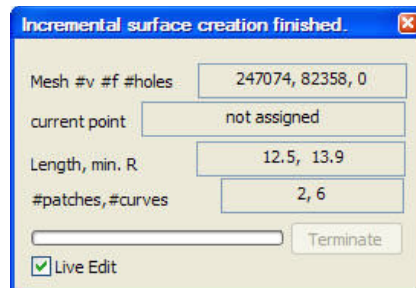
Option „SliceCurves" calculates a set of curves by slicing the given mesh with parallel planes. The planes are set parallel to the estimated principal axes of the given mesh.

5. Displaying of poly line points improved

The display size of the balls (poly line points) depends on the current mouse position on the mesh and the current perspective position of the model. In some cases the balls appeared far too large. This problem is solved.

6. General Information Window with more information

To give better control in rhino**reverse** when sketching poly lines, one line has been added to the General Information Window: The number of currently created faces (#patches) and curves (#curves) is now displayed.

General Information Window

7. New function to move complete poly line curves

It is now possible to move complete polyline curves on the mesh by keeping the Alt-button pressed when picking and dragging the curve with the left mouse button.

8. Middle mouse button

In earlier versions any user defined action triggered by the left mouse button was refused and canceled by RhinoReverse. This problem is solved. The middle mouse button now can be used again for a user defined action.

9. Layer management adjusted

The use of Rhinos layers to manage newly created faces has been changed. Now the current layer is used for the new faces: One sublayer with the current date is created for every new «commit» call (if the option «delete_old_srfs» was set to false).