

Rhino 4 SR 4 20080807

New Features:

- **CurveThroughPt:** Control points and edit points can now be selected as input.
- **SelMappingWidget:** *New command* - Selects the texture mapping widget.

Enhanced Features:

- **Sweep1:** Road-like Top is now "session sticky" and reverts back to Freeform between sessions.

Bug Fixes:

- **Area:** When the command cannot calculate the area, instead of ignoring the surface, now it now reports "Unable to calculate area."
- **Blocks:** mpty block defintions and references to empty block definitions are now read by Rhino. References to empty block definitions can be selected by the SelAll, SelBlock, and SelBlockNamed commands. BlockManager can be used to destroy empty block definitions.
- **Command Prompt:** The command repeat and recently-used list was not working properly. This is fixed.
- **CommandHelp:** Context-sensitive help now works with scripts that pause for interactive input.
- **Context menus** are now enabled by default so they can be discovered by users.
- **Crash fixed:**
 - **Advanced display:** A crash when creating or deleting a new named display mode or renaming a new display mode has been fixed.
 - **BackgroundBitmap:** When a background bitmap file was deleted, Rhino could crash on startup.
 - **CPlane**
 - **Export**
 - **ExtractControlPolygon**
 - **Join:** An intermittant crash in the code that joins curves has been fixed.
 - **License manager**
 - **Open/Close/Save:** Crashes opening and closing Rhino.
 - **Open:LWO:** Crash opening Lightwave files.
 - **Options**
 - **Open:DXF**
 - **Paste:** Holding Ctrl+V to paste objects caused Rhino to close.
 - **Print**
 - **SaveSmall**
 - **Sweep1**
 - **Toolbar command** crashed Rhino on Vista Home Basic OS.
 - **Ungroup**
 - **WireCut**
- **CreateUVCrv:** Accuracy has been improved.
- **CrvSeam:** A problem flipping the direction with a mouse click has been fixed.
- **CurvatureAnalysis:** The false-color analysis failed on spheres. This is fixed.
- **Curve/Surface intersection:** Several bugs have been fixed. Affects commands such as Intersect, Split, Trim, Project, etc.
- **CurveBoolean:** Point objects that are in the group of curves are incorrectly selected at the end of the command along with the curve output. This is fixed.
- **Detail:** TiltView did not work properly in detail views. This is fixed.
- **Dialog boxes:** A problem with dragging the undocked Layer dialog box leaving screen artifacts behind has been fixed.
- **Dim:** A problem with including dimension text in the model extents has been fixed.
- **DimHorizontal:** A problem with placing the dimension line has been fixed.
- **Display:** Using GDI drawing feedback, the preview for an extruded planar curve was a solid, flat, unshaded layer color. This is fixed.
- **Drape:** Failed with autospacing set to No. This is fixed.

- **Error Reporting:** The crash reporting mechanism has been improved.
- **Extend:** When boundary objects are both surface edges, the Arc option only worked on the first curve end. This is fixed.
- **ExtrudeCrv:** Direction option feedback color was incorrectly hard-coded to black. This is fixed.
- **FilletEdge:** Many special case failures have been fixed.
- **FullScreen:** Incorrectly caused menus to disappear. This is fixed.
- **Installer:** Patch installs did not work silently. This is fixed.
- **Intersect:** Several failure bugs have been fixed.
- **Join:**
 - A problem **joining the ends of an open arc** to form a circle that caused the change in the radius to be greater than the model tolerance has been fixed.
 - A problem with **joining chained edges** has been fixed.
- **LayerStateManager:** The scripted version failed to rename saved layer states. This is fixed.
- **MappingOn:** The mapping widget appearance has been revised to make it easier to see.
- **MatchSrf:** A problem with incorrect object highlighting has been fixed.
- **Mesh:** A problem with unsafe cancel while processing the mesh has been fixed.
- **Most recently-used commands:** Command names were incorrectly being added to the MRU list. This is fixed.
- **MoveUVN:** Running another command that changes objects while the MoveUVN dialog box was open caused a crash. To fix this, MoveUVN will no longer allow object changes while another command is running.
- **NextViewport:** Cycling through floating viewports did not work properly. This is fixed.
- **Open:3DM:** Models could open with the viewports incorrectly displayed. This is fixed.
- **Open:DWG/DXF:** A problem with opening AutoCAD files has been fixed.
- **Open:DWG/DXF:**
 - A problem with **title block text** shifting when importing to Rhino has been fixed.
 - A problem reading **splinefit splines** created from non-AutoCAD files has been fixed.
 - **Blocks** with names beginning with * did not import. This is fixed.
 - Trim curves on **AutoCAD solids** were improperly treated on import. This is fixed.
- **Open:DXF:** Polylines could be skipped on import. This is fixed.
- **Open:FBX:** A crash when opening files created from Max 2009 has been fixed.
- **Open:SolidWorks:**
 - **Drag and drop** operation to import SW file seemed to hang. This is fixed.
 - Command line **feedback** when opening a file has been improved.
 - When opening an SW assembly, all the parts are placed in a group. Subsequent assemblies were incorrectly placed in the same groups as the first ones. This is fixed. Now subsequent **assemblies are grouped** separately
- **Open:STEP:** When reading STEP files where not all objects have the same unit system, Rhino now converts all units to match the file unit system and scales objects appropriately.
- **Open:VRML:** A crash opening a file created with AutoCAD has been fixed.
- **Osnap:Mid:** In some cases, the Mid object snap did not work properly on surface edges. This is fixed.
- **Paste:** When pasting from the Clipboard, a model's basepoint is now assigned to 0,0,0.
- **Pipe:** In some cases, an extra cap was incorrectly created at the initial radius location. This is fixed.
- **PlanarSrf:** Self-intersecting curves were incorrectly reported causing the command to fail. This is fixed.
- **Plug-ins:** Plug-in based menu items do not display help strings on status bar. This is fixed.
- **PointDeviation:** The maximum and median calculations could be wrong when there were points selected that were not included because of the proximity angle test.
- **Print:** A problem with Dots with long text strings were not printing properly has been fixed.
- **Pull:** Curves that were very close to the pulling surface could give an incorrect result. This is fixed.
- **Remove Point/RemoveControlPoint:** It was not possible to remove the second to last control point or the first and last points. This is fixed.
- **Save:FBX:** Nodes must have unique names regardless of what they are. If layer names are the same as object names, for example, nothing is exported. This is fixed.
- **Save:STEP:** Some problems exporting STEP files to Altium, Inventor, and SolidWorks 2008 have been fixed.
 - Step can now be read by Altium Designer, Solidworks 2008, and Solid Edge.

- Step objects are assigned the layer color when appropriate.
- Open polysurfaces are assigned color correctly.
- Block instances with non-rigid transformations are exploded in the step file. So now mirrored or scaled objects are exported correctly.
- **Saving text** from dialog boxes: List command is an example. The text out dialog dialog did not save a unicode-encoded text file. This is fixed.
- **SelfPolyline**: Polycurves and single segment lines were incorrectly selected. This is fixed.
- **SetOneDaySunAnimation**: A problem with shadow direction at noon has been fixed.
- **SetUserText**: A problem with saving user text on light objects has been fixed.
- **ShrinkTrimmedSrf** sometimes continued to claim that it is shrinking surfaces even after they have been shrunk and even after they have been untrimmed and shrunk. This is fixed.
- **SmartTrack**: In floating viewports, the Ctrl key did not add SmartPoints. This is fixed.
- **SpaceBall**: A problem with selected object highlighting has been fixed.
- **Split**: An error splitting polycurves has been fixed.
- **Sweep2**: Tangency and curvature options did not work properly. This is fixed.
- **Sweep2**: The AddSlash feedback color was hardcoded to black. This is fixed.
- **TextObject**: Right-to-left reading text did not work properly. This is fixed.
- **TextObject**: The selected text was incorrectly not highlighted in the dialog box. This is fixed.
- **Texture Mapping**:
 - The **mapping widget** was incorrectly clipped or invisible in some views. This is fixed.
 - The **Equalize** and **Size to objects** buttons were dropped for V4. They have been restored.
- **Texture mapping**: Several bugs in the dialog box UI have been fixed.
- **Texture Mapping**: The Tab key allows cycling through the position/size/rotation fields in the mapping widget controls.
- **Texture mapping**: With some renderers (for example, Brazil and VRay) did not get the correct repeat amounts. This is fixed.
- This fixed some bugs in the scripted patch installation.
- **Toolbar**: A problem with toolbar display in Windows Vista has been fixed.
- **Toolbar**: Problems with redrawing the toolbar has been fixed.
- **Toolbars**: In localized versions of Rhino, copying a button to other toolbar changed the tooltip to English. This is fixed.
- **Trim**:
 - Several **failure bugs** have been fixed.
 - A problem with the interaction of curves near surface and closed curve seams has been fixed.
- **ViewCaptureToFile**: If the z-axis was displayed and the DrawCPlaneAxes option was set to no, the z-axis was incorrectly shown in the capture. This is fixed.
- **Viewports**: If the command prompt is not docked, Ctrl+Tab to cycle through viewports failed. This is fixed.
- **What**: The printout of edge and vertex tolerances for surfaces and polysurfaces was incorrect. This is fixed.