Scan to 3D SolidWorks Workflow
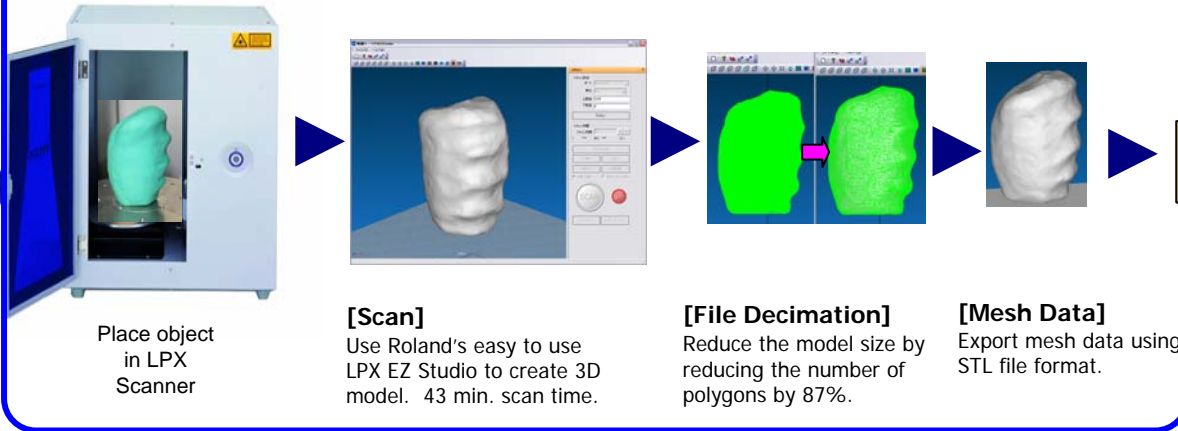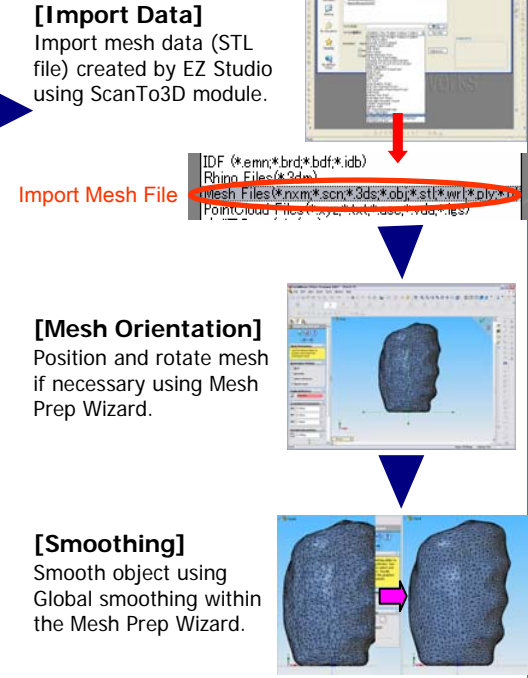
Roland

3DS SolidWorks

Using the LPX laser scanner scan data, the time required to create 3D CAD data can be reduced significantly. Using the ScanTo3D module within SolidWorks Office Premium 2007, the LPX scan data will work seamlessly with SolidWorks.

Roland LPX EZ Studio V2.0

Place object in LPX Scanner

[Scan]
Use Roland's easy to use LPX EZ Studio to create 3D model. 43 min. scan time.

[File Decimation]
Reduce the model size by reducing the number of polygons by 87%.

[Mesh Data]
Export mesh data using STL file format.

STL file

Use Roland SRP Modeling Machines to quickly create prototypes.

SolidWorks Office Premium 2007
ScanTo3D Workflow

SolidWorks Office Premium 2007

[Import Data]
Import mesh data (STL file) created by EZ Studio using ScanTo3D module.

IDF (*.emn;*.brd;*.bdf;*.idb)
Rhino Files (*.3dm)
Import Mesh File — Mesh Files(*.nxm;*.scn;*.3ds;*.obj;*.stl;*.wrl;*.ply;*.*)
PointCloud Files (*.xyz;*.txt;*.asc;*.vda;*.igs)

[Mesh Orientation]
Position and rotate mesh if necessary using Mesh Prep Wizard.

[Smoothing]
Smooth object using Global smoothing within the Mesh Prep Wizard.

SolidWorks Office Premium 2007

[Add features]
Create bosses, side housings, and mouse buttons.

[Create Button Holes]
Create mouse button holes

[Surface Offset & Thicken]
Perform surface offset with 0mm from solid body. Add thickness on the trimmed surface.

[Solid]
Clean extracted surfaces using tools such as Trim, Knit and Thicken to create a solid.
(Join the upper and lower surface by Boundary-Surface function)

[Surface Extraction]
Extract surfaces using the Surface Wizard.

[Separate by Colors]
Extract surface using Guided Creation in the Surface Wizard.