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CAD Users Guide To STL Export

This document contains an overview about how to export STL model for applications. The information may be outdated due to newer releases of the CAD systems. If you have information that is more up to date, please inform us about this.

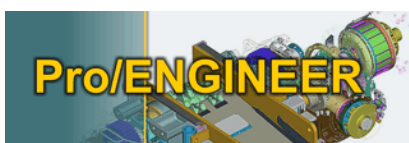
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A) SOLID WORKS

1. Tools > Options > Export
2. STL Options
3. Select Binary for file type
4. Set Quality to Fine
5. File > Save As
6. Set Save As Type to STL
7. Save



B) Pro/ENGINEER

1. File > Save As
2. Choose .STL
3. Set chord height to 0. The field will be replaced by minimum acceptable value
4. Set Angle Control to 0.5
5. Choose file name
5. Select OK



C) Unigraphics

1. File > Export > Rapid Prototyping
2. Set Output type to Binary
3. Set Triangle Tolerance to 0.0025
4. Set Adjacency Tolerance to 0.12
5. Set Auto Normal Gen to On
6. Set Normal Display to Off
7. Set Triangle Display to On

AutoCAD**D) AutoCAD**

Type these commands in AutoCAD's command line:

1. Set DISPSILH to 1
2. Set ISOLINES to 0
3. Set FACETRES to 10
4. Relocate the object to the positive X-Y-Z octant
5. Use the STLOUT command to export an STL file. (AMSTLOUT for AutoCAD Desktop files)

NOTE: Your design must be a three-dimensional solid object to output an STL file.

**E) Autodesk Inventor**

1. File > Save Copy
 2. Select STL
 3. Click the Options button, and choose the High detail level
 4. Click the Save Button.
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**F) CADKEY**

1. File > Export > STL
 2. Type in a filename and select OK
 3. Change Format to Binary
 4. Use default Facet Tolerance
 5. Additional export tolerance options are in the Solids99 Configuration window accessed from the Tolerance section of Configuration.
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**G) I-DEAS**

1. File > Export > Rapid Prototype File > OK.
2. Select the Part to be prototyped
3. Select Prototype Device then, SLA500.dat then OK
4. Set absolute facet deviation to 0.000395
5. Select Binary, then OK



H) IronCAD

1. Select Part Properties then Rendering
2. Set Facet Surface Smoothing to 150
3. Select File then Export
4. Select .STL



I) Mechanical Desktop

1. Use the AMSTLOUT command to export your STL file.
2. The following command line options affect the quality of the STL and should be adjusted to produce an acceptable file.
 - Angular Tolerance - This command limits the angle between the normals of adjacent triangles. The default setting is 15 degrees. Reducing the angle will increase the resolution of the STL file.
 - Aspect Ratio - This setting controls the Height/Width ratio of the facets. A setting of 1 would mean the height of a facet is no greater than its width. The default setting is 0, ignored.
 - Surface Tolerance - This setting controls the greatest distance between the edge of a facet and the actual geometry. A setting of 0.0000 causes this option to be ignored.
 - Vertex Spacing - This option controls the length of the edge of a facet. The Default setting is 0.0000, ignored.



J) SolidEdge

1. File > Save As
2. Set Save As Type to STL
3. Options
4. Set Conversion Tolerance to 0.001in or 0.0254mm.
5. Set Surface Plane Angle to 45.00
6. Save



K) Think3

1. File > Save As
2. Set Save As Type to STL
3. Save



L) 3D studio Max

First check for errors:

An STL object must define a complete and closed surface. Use STL-Check modifier to test your geometry before export your object to STL.

1. Select an object.
2. Click <Modify>
3. Click <More...>
4. Select "STL-Check" under Object-Space Modifiers
5. Select <Check>

If there are no errors, continue to export the STL file by:

6. <File> <Export>
7. Select "StereoLitho [*.STL]" in <Save as type>
8. Select location in <Save in>
9. Enter a name in <File name>
10. <Save>
11. <OK>

Export To STL dialog:

12. Object Name: Enter a name for the object you want to save in STL format.
13. Binary/ASCII: Choose whether the STL output file will be binary or ASCII (character) data. ASCII STL files are much larger than binary STL files.
14. Selected Only: Exports only objects that you selected in the 3D Studio scene.



M) Alibre

1. File
2. Export
3. Save As > STL
4. Enter File Name
5. Save



N) Rhino

1. File > Save As
2. Select File Type > STL
3. Enter a name for the STL file.
4. Save
5. Select Binary STL Files