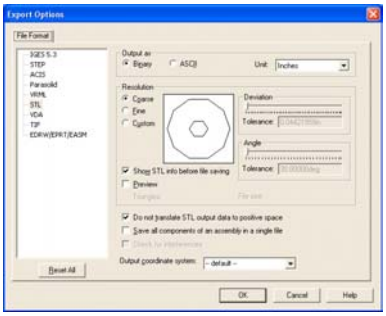
Predator Virtual CNC™ and Solidworks

Using Predator Virtual CNC and Solidworks to improve productivity

Abstract

This document outlines best practices for sharing data between Solidworks and Predator Virtual CNC. By utilizing Solidworks's solid modeling technology to create 3D parts, castings, molds and fixtures these components can be transferred into Predator Virtual CNC to improve the realism of CNC verification and machine simulation. We recommend the following procedure:

1. Run Solidworks
2. Open the appropriate 3D solid model
3. Select Insert, Features and Move/Copy within the Feature Tree to position the part's origin to orient the part to the machine datum
4. From the File menu select Save As and then specify STL in the Save As Type pulldown.
5. Click the Options button
6. Always enable the binary option and check the Do Not Translate STL Output Data To Positive Space option and click the OK button, see graphic
7. Specify an appropriate STL filename and click the SAVE button
8. Run Predator Virtual CNC
9. Create a Job and add the appropriate CNC program
10. Click the Stock tab and specify either STL Stock or STL Fixture in the pulldown
11. Click the Browse button and select the appropriate STL file; the 3D model will appear in the preview window
12. Finish the Job and run the CNC verification and simulation



NOTE: This process was tested using Predator Virtual CNC v5.1 and Solidworks 2004. Previous versions of Solidworks work similarly.

NOTE: STL file created in Solidworks can also be used for CAD Compare within Predator Virtual CNC and for modeling a machine's moving parts for machine simulation.

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