



CNC-SIM/3D is an easy-to-use program that simulates **2, 2-1/2 and 3 axis CNC Machines** removing material from Stock in true Solid modeling. Using **CNC-SIM/3D** will increase your productivity, all but eliminate programming errors, and prevent machine down time while debugging. Powerful and easy-to-use tools allow debug errors in the toolpath, detect collision of the tool with material stock while rapping, estimate the machining time. **CNC-SIM/3D** can be customized to support a wide variety of CNC machines.

Key Benefits

- Customizable to support a wide variety of NC Code
- Cross Section display
- Trace forward / backward
- Built in Editor (for those last minute fixes)
- Dynamic Rotation of viewpoint
- Linear and Angular Measurement
- "STL Compare" function
- Volumetric Measurement
- Machining Time Calculation
- Rapid Collision Detection
- Canned Cycles and Subprograms interpretation

Supported Tool Profiles for Mill module:

- Ball End Mill
- Bull End Mill
- Flat End Mill
- Drills (including Center Drills)
- Also Tapered Tools

Supported Tool Profiles for Lathe module:

- External turning, threading, or grooving tools
- Internal boring, threading, or grooving tools
- Centerline drilling tools

Command Set:

- Zoom
- Scale
- Rotate
- Change viewpoint
- Step Forward / Backward
- Set Breakpoints
- Run to breakpoint

Display Modes:

- Tool path (see the actual tool path)
- Solid (see what your part looks like during machining)

The true power in this software lies in its ability to assist in identifying errors and fixing them cutting the actual material thereby saving both time and money. The powerful editing capability integrated with the viewer portion of the program, simplifies the tedious task of finding a problem spot in a file and fixing it.

CNC-SIM can EDIT NC files without exiting simulation mode. It enables real time correction and verification. Key features of **CNC-SIM** are FAST viewing with the ability to pause, change view, zoom in, section the stock, change display speed etc and then resume verification.

CNC-SIM supports forward and backward step-by-step modes, displaying of the current tool position, tool parameters and spindle speeds and allow easy isolate an area of concern. One can set up break points, reach a problem area, switch to a line by line mode, observe the cuts line by line, stop at a particular point, open the edit window and edit the line, without requiring any line numbers or other identifiers!

CNC-SIM allows the user to dynamically zoom, scale, rotate and explore the part and the path to resolve problems faster and with greater ease.

CNC-SIM provides accurate measurement capabilities to inspect the part at any time of processing, this includes thickness, distance between geometric features, angles, hole parameters etc. It also includes a unique property allows the measurement of control points on any vertical section.

Extremely easy Customization files for machine specific posts simply add to the file capability of **CNC-SIM**, allowing loading of different posts for different machines in the same session.

CNC-SIM reads a wide range of final posts processor and has a very simple configuration program that allows addition of more posts.

