## Move Exceeds Limits in VR CNC Turning Article #3004

This document has been created to help troubleshoot "move exceeds limits" errors in the VR CNC Turning software.

When a "move exceeds limits" error occurs, a window will pop-up as shown below.

Machine Error	
Machine Error: Block 14 - Move Exceeds Limits	
OK	Details >

The line with the error will be specified. In the screenshot above, the software has found the error in block 14. A block equals one program line. In addition, the entire line will be highlighted in the Editor as shown below.



The software will highlight the line with the error(s).

Common causes of "move exceeds limits" errors are:

- Movement in CNC program exceeds the physical machine limits.
- Z negative movement would cause the cutting tool to go past the stock and crash into the chuck.
- The workpiece offsets are not set or are set incorrectly.

If the CNC program simulates OK but does not machine, usually the problem can be found in the offsets.

In the sample program above, the error is found in the Z negative value (-2). The billet Z size is 1.5 inches. Therefore, if indeed machining, the cutter would crash into the chuck.

- 1.) Check the highlighted line. Do you see any apparent mistypings or improper movements?
- 2.) Check that the offset file is activated.
  - a.) Click the Offset button.
  - b.) A red check mark should be shown before the offset you would like to use. To activate an offset, right-click the offset then left-click Make Current.
  - c.) Click the Offset button to close the window.
- 3.) Check that the offset holds values other than zero.
  - a.) Click the Offset button.
  - b.) Look at the X and Z values. Some thing other than zero should be shown. If not, you will need to reset the offsets. Refer to document #3000 for instructions on setting offsets.

Work Piece Offsets	
Offsets	x -1.1516 🜩
Offset 2	Z -2.4764 🜩
Offset 3	

c.) Click the Offset button to close the window.