

Move Exceeds Limits in VR CNC Milling

Article #2006

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

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



The entire line will be highlighted in the Editor as shown below.

```
Editor - C:\Program Files\Den
(Author - Coree
(Date - 03 September 2
(Machine - TRITONNS
(Description - Exercise
G20
[BILLET X4.0000 Y2.75
[TOOLDEF T1 D.25
N10 M06 T1
N20 M03 S3000
N30 G00 X.5 Y.5 Z.15
N40 G01 Z-.1 F10
N50 Y2.25
N60 G00 Z.15
```

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 cutting movement (Z-) is too deep.
- 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 (-1). The billet Z size is .75 inches. Thus, if indeed machining, the cutter would plunge through the stock and hit the machine table.

1.) Check the highlighted line. Do you see any apparent mistypings or improper movements?

2.) Check that the offset file is activated.

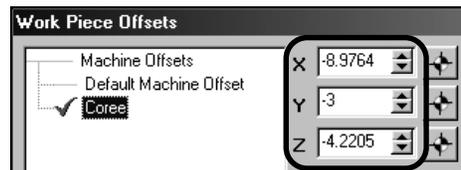
- a.) Click the Offset button.
- b.) A red check mark should be shown before the offset you would like to use. To activate an offset, right-click the offset then left-click Make Current.



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, Y, and Z values. Something other than zero should be shown. If not, you will need to reset the offsets. Refer to document #2000 for instructions.



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

4.) If the error is still occurring, you may need to increase axis travel. If the cutting tool cannot physically reach a certain area on the stock, the exceeds limits error may occur. Refer to document #2004 for help with this.