

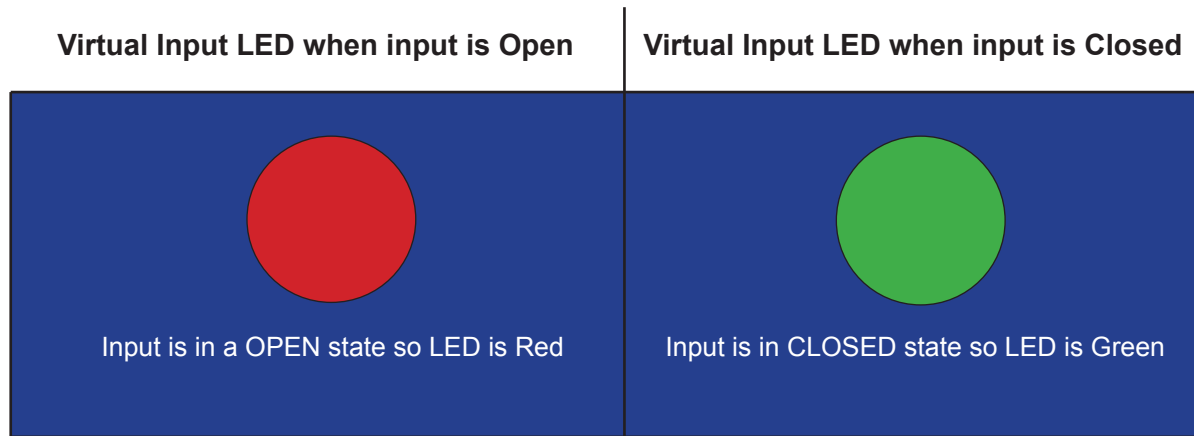
## Using the CNC12 PLC diagnostic screen.

From the main screen of CNC12 bring up the PLC diagnostic screen (aka Input and Output screen), by pressing the keys <ALT> and <i> at the same time. To exit from the Input and Output screen, press the keys <ALT> and <i> again at the same time.

The CNC12 PLC diagnostic screen can be used to observe the state of any input or output.

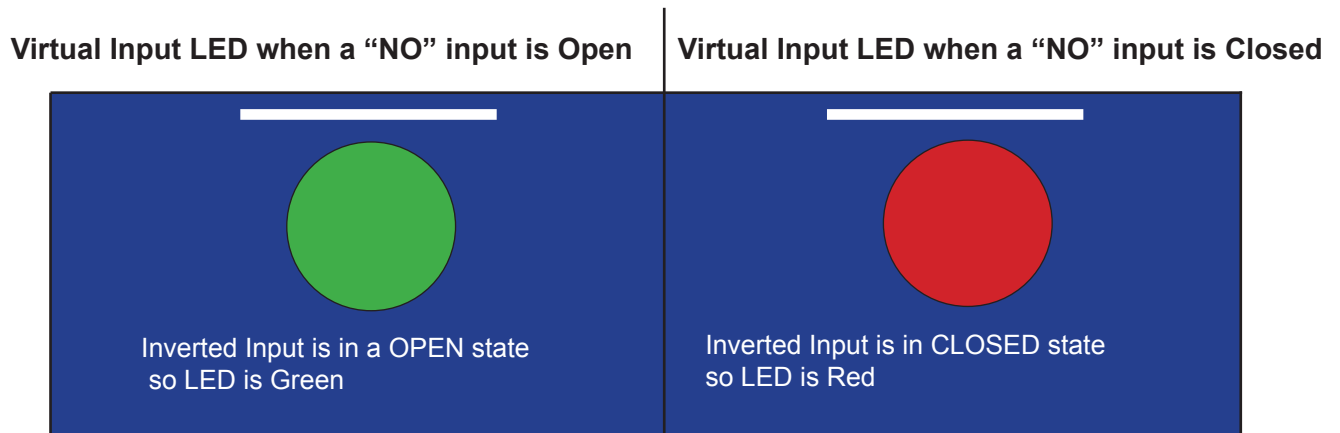
A red Virtual LED for an input indicates that input is "open"

A green Virtual LED for an input indicates that input is "closed"



If an input in the Wizard is set to NC the PLC diagnostic LED's appear as above.

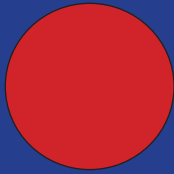
If an input in the Wizard is set to NO the PLC diagnostic LED's appear as below, a white line above the Virtual LED to indicate that the input has been Inverted.



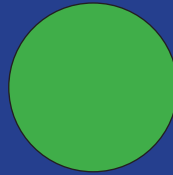


Another useful tool in the PLC diagnostic screen to use while testing and setting things up is ability to manually activate an output. Any output can be manually activated whether it has been assigned a PLC function or not. Move the cursor to the output number to activate, and press <CTRL>, <ALT> and <f> at the same time and the output activates. Press <CTRL>, <ALT> and <f> again at the same time and the output deactivates, Press <CTRL>, <ALT> and <f> again at the same time and the output returns to the normal programmed state. A white line will appear below an input that has been inverted either manually or by the Wizard.

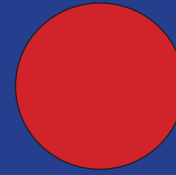
Normal Output (no white line) could be Red or Green depending on programmed function state



Output that is forced ON Activated with <CTRL ALT f >



Output that is forced OFF Deactivated with <CTRL ALT f >



For instance if i wanted to activate the output that controls a Dust Foot attachment on a CNC router spindle to test if the output has been wired properly to the corresponding air solenoid, move the cursor to the output number that has been assigned the Dust Foot function, in the case below output 44, and press <CTRL>, <ALT> and <f> at the same time and the output activates, Press <CTRL>, <ALT> and <f> again at the same time and the output deactivates, Press <CTRL>, <ALT> and <f> again at the same time and the output returns to the normal programmed state.

The screenshot shows a CNC control interface with a diagnostic screen. The top left displays 'WCS #1 (G54) Current Position (mm)' for X, Y, and Z axes. The top right shows 'Job Name: NO\_JOB\_LOADED.cnc' and 'Tool: T---H---'. The center displays 'Feedrate: 100% 0.0 mm/m' and 'Spindle: 0 A'. A 'Feed Hold' indicator is visible. The bottom left shows a grid of inputs and outputs, with 'OUT34 : DustFootActivate' highlighted by a yellow circle. The bottom right contains a control panel with buttons for 'RESET', 'FEEDRATE OVERRIDE 100%', and 'PUSH TO FREE'. The bottom of the screen has function keys: Setup (F1), Load (F2), MDI (F3), CAM (F5), Edit (F6), Utility (F7), and Shut Down (F10).

Be sure to return the output to its normal state when the output has been properly wired and configured with the Wizard for normal operation.