CNC12 installation instructions:

1.) Make sure the CNCPC meets the Acorn specification requirements found on this page.
https://www.centroidcnc.com/centroid_diy/acorn_quick_start_guide.html

2.) Configure Windows 10/11 for CNC use, video found on this page. Verify that Windows is up to date with the latest .NET Framework updates.
https://www.centroidcnc.com/centroid_diy/acorn_quick_start_guide.html

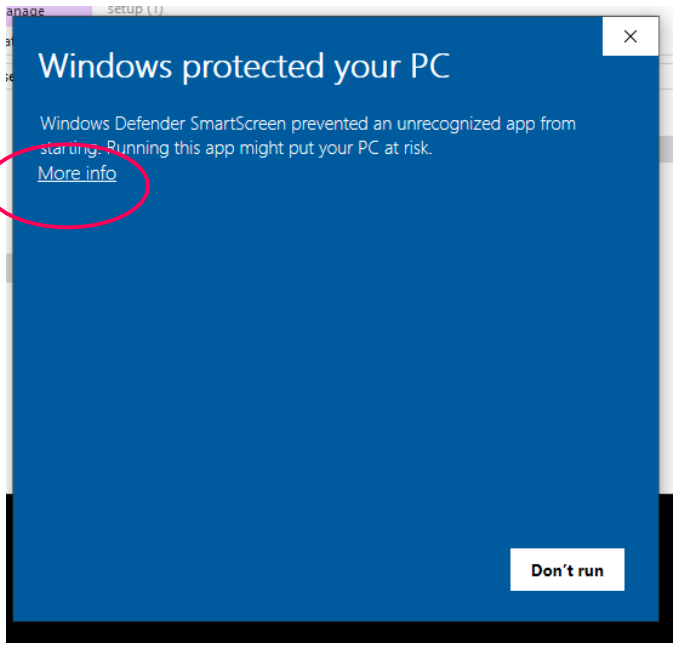
3.) Download and unzip the CNC12 installer zip file.
https://www.centroidcnc.com/centroid_diy/centroid_cnc_software_downloads.html

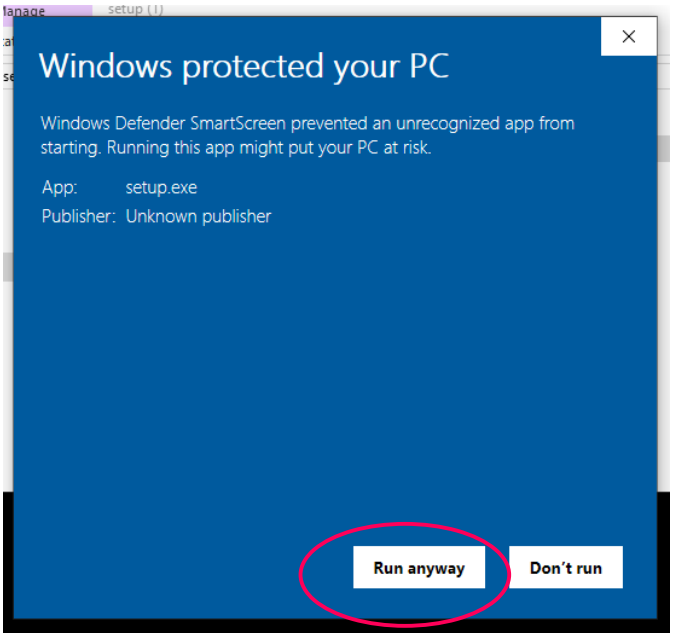
EXTRACT the zip file.

4.) With the CNC control board up and running connected with a heartbeat in BENCH TEST configuration (see example video showing this)

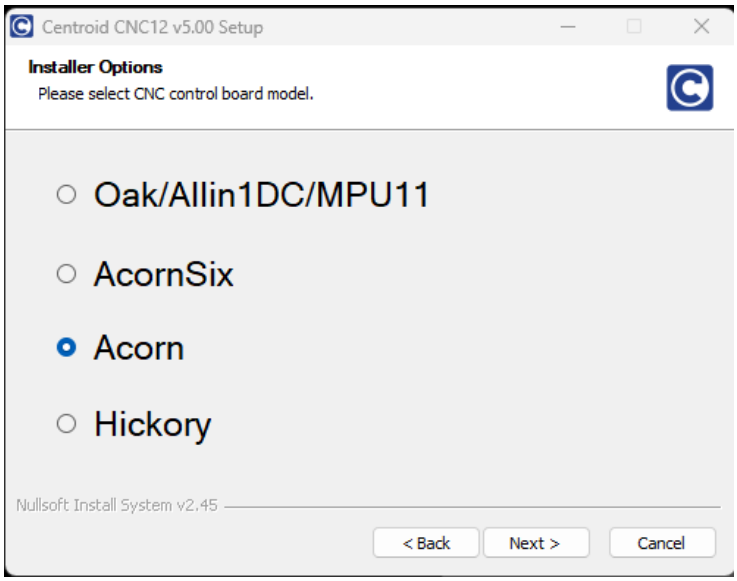
Double Click centroid_cnc12_v5.0_installer.exe

You may run into this Windows notification. Click “More Info” then click “Run Anyway” to continue.

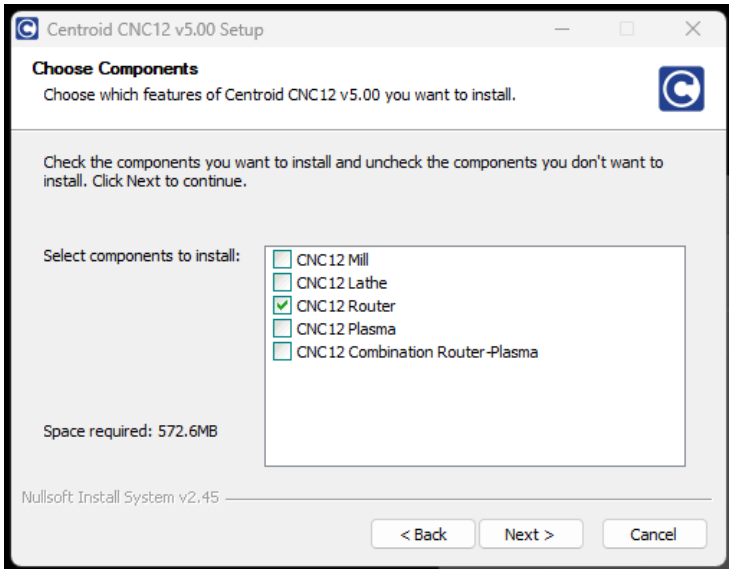




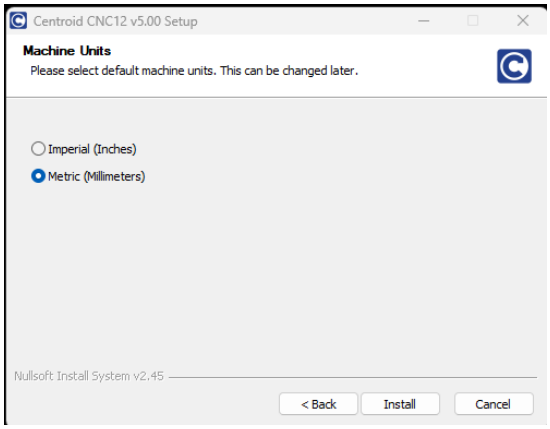
And then follow the instructions on the screen to install CNC12. Choose CNC controller board.



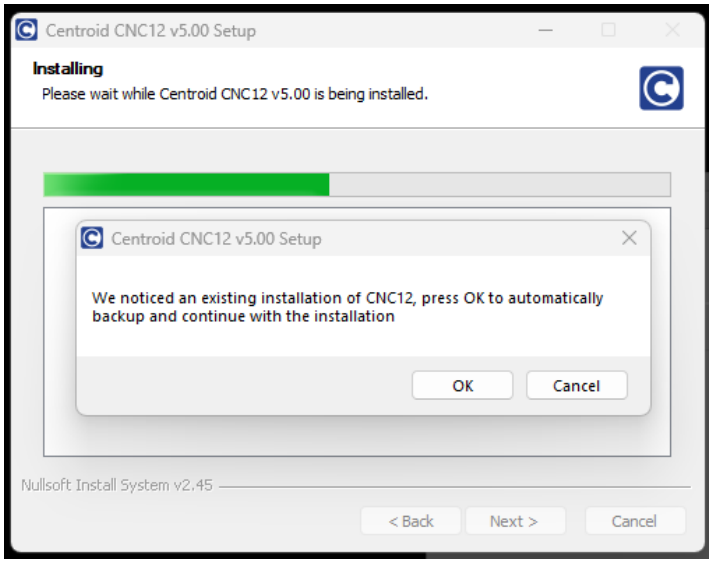
Choose Mill, Lathe, Router, Plasma or Combination Router Plasma install



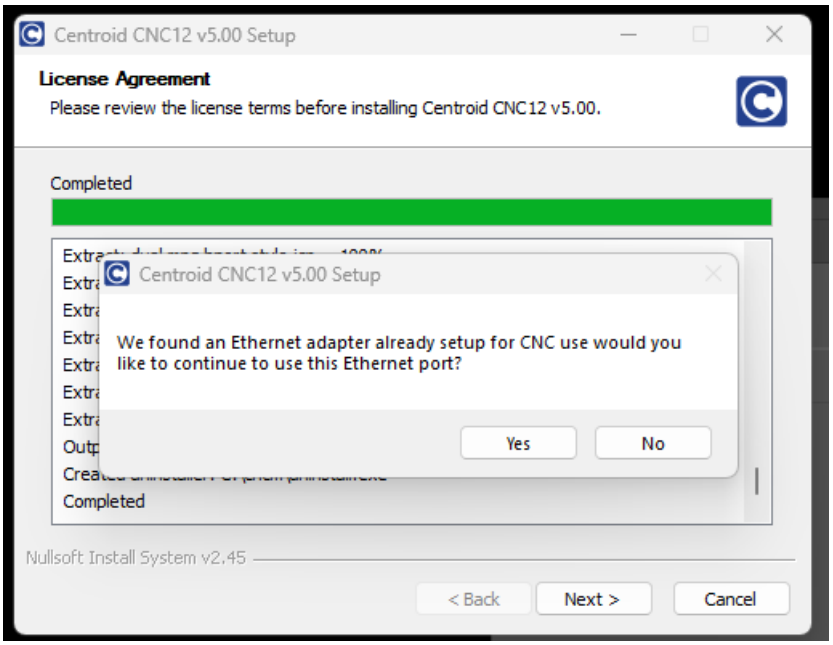
Choose inch or metric.



If you previously had an installation of CNC12 the installer will ask you if you'd like to back up that older installation.



If you previously had an Ethernet port setup for Centroid CNC use the installer will recognize it and ask you if you'd like to continue to use it.

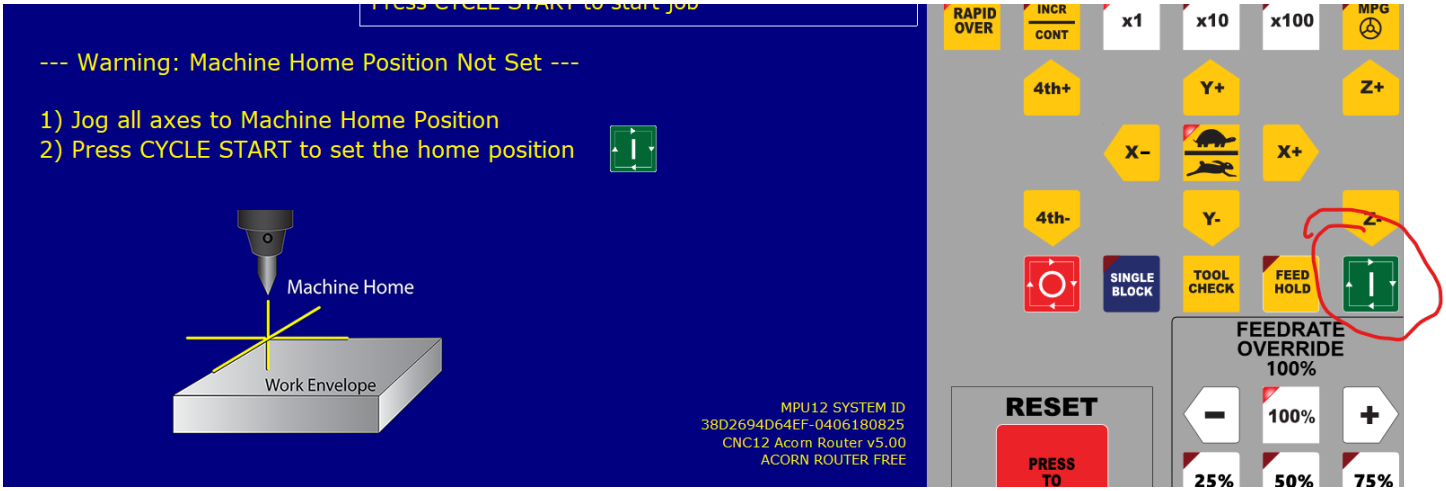


4.) After the installer is finished, and with the CNC control board up and running with a heartbeat connected in BENCH TEST configuration (see video showing this) double click on the CNC12 Desktop Icon to start CNC12.

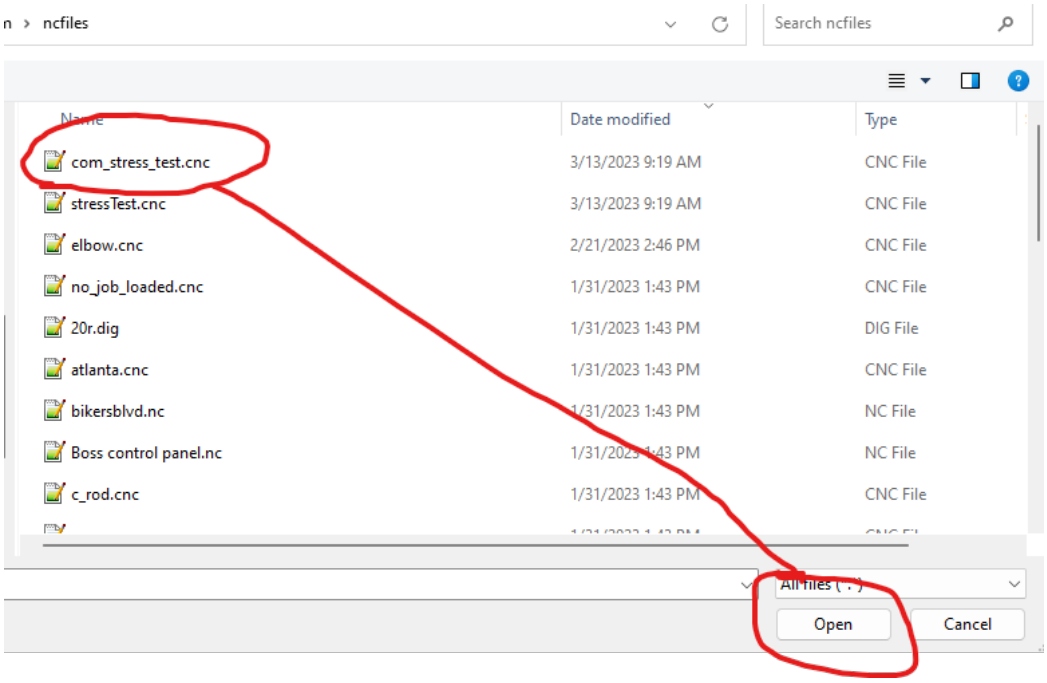
CNC12 will update the firmware on the CNC control board. Follow the instructions on the screen.

5.) With CNC12 running, now Run the communications Stress Test G-code program.

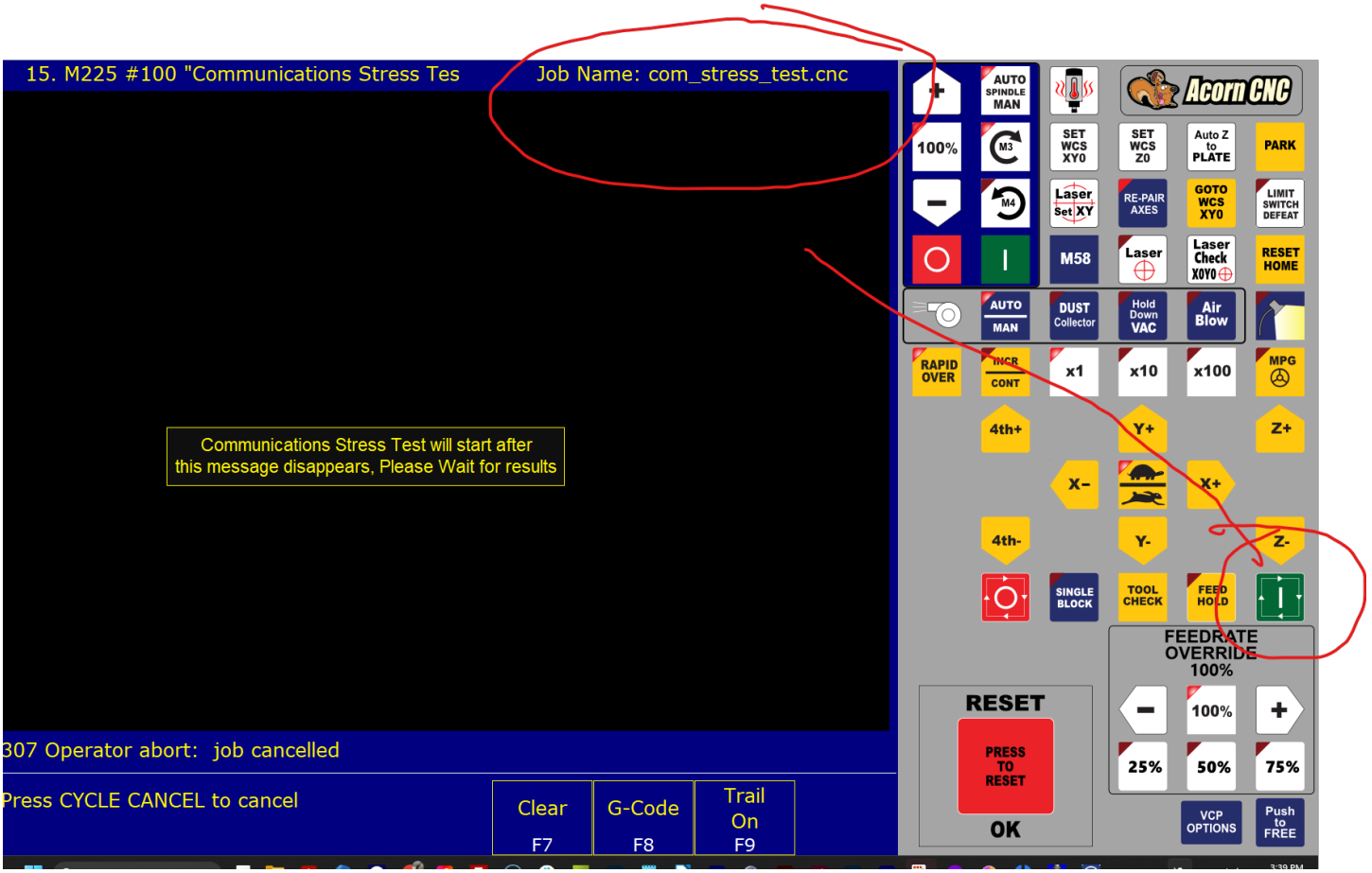
- Press cycle start button to set a home position.



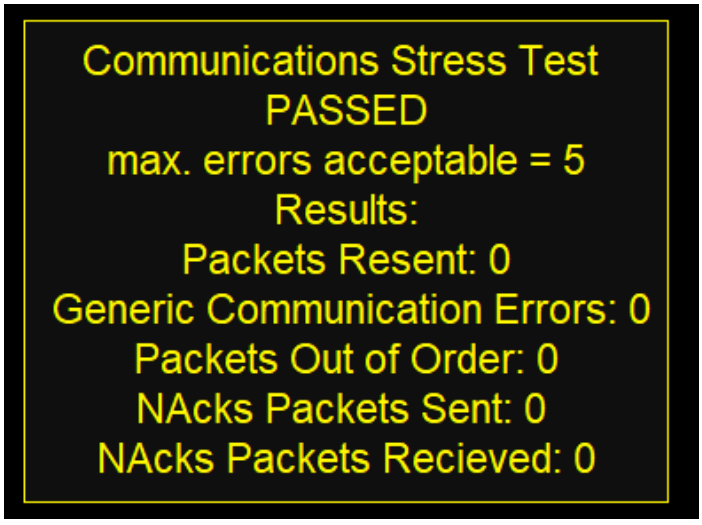
- Press F2 Load and navigate the file ‘com_stress_test.cnc’



- Press Cycle Start to run the Communications Stress Test



Wait for results. If Passed continue to next step. If Fail. STOP and resolve the Communication issue now.
Follow details in TB's 309 https://www.centroidcnc.com/dealersupport/tech_bulletins/uploads/309.pdf
and TB 270 https://www.centroidcnc.com/dealersupport/tech_bulletins/uploads/270.pdf



6.) Install the License file from the F7 Utility menu, Press F8 "Import License" or F8 "Options" and follow instructions.

7.) Configure the Acorn/AcornSix setup Wizard as per the Acorn Installation manual. For Oak and Allin1dc follow their respective installation manuals/videos to configure CNC12 to a specific CNC machine tool.

8.) If desired customize the new VCP and Macros to match your specific application.
See the VCP 2.0 users manual
https://www.centroidcnc.com/centroid_diy/downloads/centroid_vcp_users_manual.pdf
and the Intro to Centroid Macro programming manual
https://www.centroidcnc.com/centroid_diy/downloads/acorn_documentation/centroid_cnc_macro_programming.pdf

Notes:

- CNC12 v5.0 optimized for 16:9 aspect ratio screens. For best results use a monitor that is 1920x1080 resolution and verify windows is set to this resolution.

- Release notes for CNC12 v5.0 https://www.centroidcnc.com/centroid_diy/downloads/centroid_cnc12_download/centroid_cnc12_v5.0_release_notes.pdf

- All Acorn documentation is on the Acorn Technical Support Forum click here.
https://centroidcncforum.com/viewtopic.php?f=60&t=3397

- Sign up for Free CNC Tech Support here.

https://centroidcncforum.com/

Updating From Previous versions of CNC12 for Acorn and AcornSix users:

1.) Start the existing installation of CNC12, Open the Wizard and make screen shots of each Wizard menu of the existing installation so you have a visual record of the current Wizard settings. (Store copies of the report and screen shots in a safe place (even on another computer as an extra precaution would be a good idea as well). Windows “Snipping Tool” is very handy for this. To find this program type in “snip” in the Windows search bar.

2.) Update the CNCPC Windows installation. Update Windows with the latest .NET Framework updates.

3.) Follow the CNC12 installation instructions above.

4.) Open the Wizard and re-enter the information and settings from the screen shots made in step 1 and press “Write settings to CNC control” and follow the instructions on the screen.

Note: If you have any custom macros or VCP buttons copy them over from the old install to the new install and restart CNC12. same with tool libraries, custom home programs and wcs positions. cncm.ol, cncm.tl, (mill offset and tool library), cnct.ttl (lathe tool library), cncm.wcs/cnct.wcs (WCS positions), license.dat is the Pro or Ultimate license file which can also be copied over from the old directory to the new one as well. Close CNC12 to do this.

And have no fear! It is easy to revert to any version of CNC12 in seconds. To do this, make a copy of the any working version of the cncm/cnct directory and store in a safe place. To revert back to any older version all you have to do is simply rename the new cncm directory (such as cncm_v4.82) and then copy back the old cncm direction and restart CNC12.

For Plasma it is always required to re-calibrate the Torch when a new version of CNC12 software is installed.
In the Plasma Installation manual continue with Step 4

4.) Verify Torch Touch Off and Breakaway functionality

5.) Verify basic torch function with the Torch Test Fire button on the VCP.

6.) Load a Profile using the Centroid Profile manager to select a Profile to match the material to test cut with.

7.) Run the Arc Voltage Calibration macro. See critical details to get this right in the corresponding section of this manual.

8.) Load and cut the Centroid test plate plasma G code program to verify operation.

If you had any custom profiles, simply copy them from the old install to the new one and restart CNC12.

Notes for Acorn and AcornSix ATC's , Custom PLC programs and VCP's

1.) When using a customized PLC program it is best to edit the Wizard generated v5.0 PLC program with those customization's previously made and recompile. This way the system will have the new features added to v5.0 and the customizations made previously to the PLC.

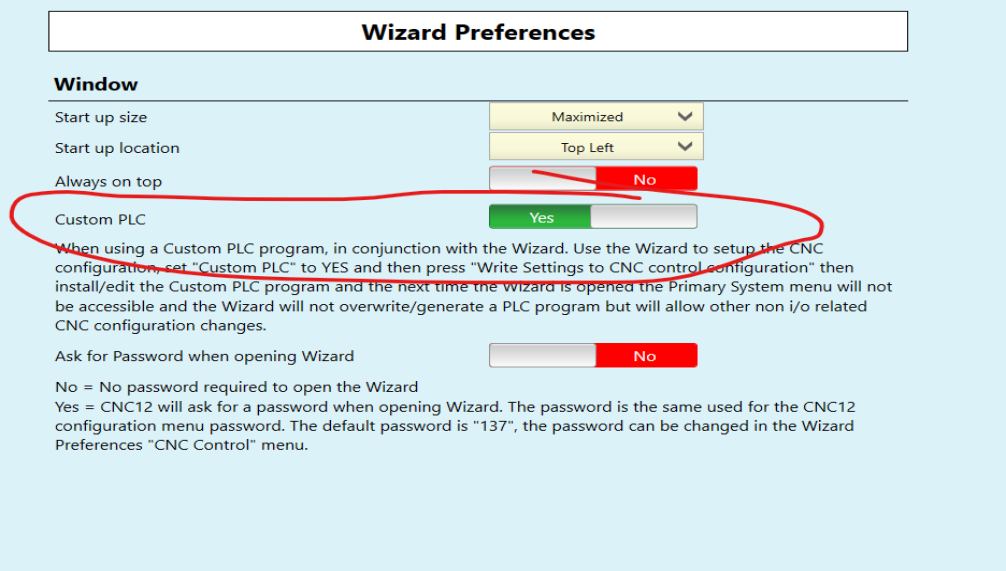
2.) If using a custom PLC program (a plc program that has been hand edited and compiled) there are two choices.

a.) Hand edit the v5.0 auto generated PLC program with your customizations and recompile. Edit the stock VCP skin to match your application if necessary. This is best solution as you will gain any new functionality that is included with v5.0 and have your old customizations at the same time.

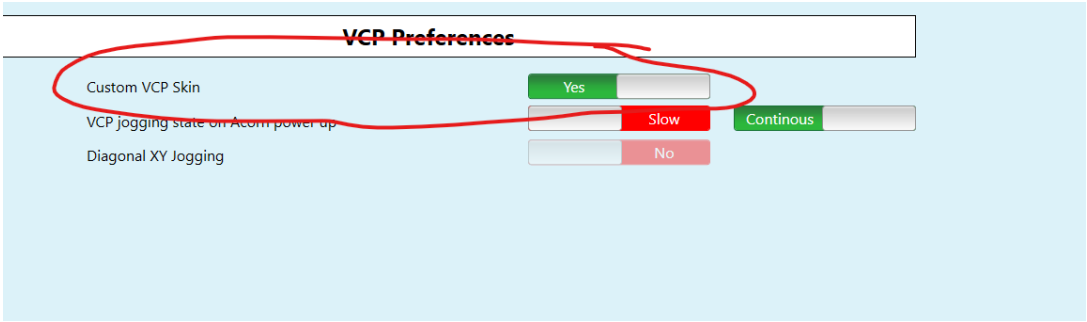
b.) Alternatively you could use 'Restore Report' with CNC12 and then choose "update Wizard with Custom PLC program in use" in the Wizard update pop up window. This forces v5.0 to use the old PLC program. Only choose this if you don't care about any new features of v5.0. This will retain the old customized PLC program and install a "Legacy VCP Skin" This Legacy Skin is user editable replaceable so it is up to you to copy over your VCP files and install them manually.

The Wizard update pop up menu will show up when using an older report UNLESS you have a "Custom PLC in use" selected. The wizard update pop up menu is SOLELY triggered by the Wizard looking at the PLC program comparing it to the currently loaded PLC program .If they don't match you get the update pop up menu
if they do match, no pop up menu.
if the report.zip has "custom PLC in USE" selected then no pop up menu.

As always if using a custom PLC and/or VCP let the Wizard know by selecting Yes to



and Yes to



when using old and/or custom PLC programs and VCP's.

- A New Acorn ATC menu has been added that replaces the old method of hand copying ATC PLC programs.

You can still use your existing working ATC programs or configure the new Wizard to work with the ATC.