Purpose: This document will explain how to configure Windows 7/10 so that the CNC11 software will function correctly. The settings for Windows 10 are very similar as Windows 7. Some of the fields may just be in a slightly different location. Below is a link to a video which shows the setup for Windows 10.

https://youtu.be/Akmw8ak_TlM

Required Materials:

- SATA II SSD
- USB or SATA DVD player
- USB mouse
- copy of Windows 7/10 Home Premium 64-bit
- copy of the latest version of CNC11 software

Instructions for Configuring Windows 7/10

1.) Install SSD and DVD player into servo PC/console. Make sure to plug the SATA cable from the SSD into SATA0 on the motherboard. Software **MUST** be loaded on the system that you are working on. It **CANNOT** be loaded onto an SSD remotely and then installed onto the control. Windows does not allow that.

2.) Connect a SHIELDED CAT5/CAT6 Ethernet cable to the on-board Ethernet port and the MPU11.

- 3.) Power on the MPU11 and servo PC/console.
- 4.) Insert the Windows 7/10 DVD and install the Windows software.
- 5.) Using the mouse, right click on the task bar, which is located on the bottom of the screen, and select "Properties".



6.) Check the "Auto Hide" option.

Taskbar	Start Menu	Toolbars		
Taskb	ar appearance			
V Lo	ck the taskbar			
V AL	to-hide the tas	kbar		
🔲 Us	e small icons			
Taskb	ar location on s	creen:	Bottom	•
Taskb	ar buttons:		Always combine, hide labels	-
Notifi	ation area			
Custo	mize which icor ation area.	ns and not	ications appear in the Custo	omize
Previe	ew desktop with	Aero Pee		
Temp Show	orarily view the desktop buttor	desktop i at end o	hen you move your mouse to the taskbar.	the
VUS	e Aero Peek to	preview t	e desktop	
How do	I customize the	e taskbar?		
			OK Cancel	Apply

7.) Right click on the "Action Center" icon, which is the green flag that is located on the right side on the task bar.



9.) Click on "Change Settings".

Control Panel Home <u>Change Action Center settings</u> Change User Account Control	Review recent messages and resolve problems Action Center has detected one or more issues for you to review.
settings	Security
View archived messages View performance information	Virus protection (Important) Windows did not find antivirus software on this computer. Turn off messages about virus protection
	Maintenance
	Set up backup Set up backup Your files are not being backed up. Turn off messages about Windows Backup
	If you don't see your problem listed, try one of these:
See also	Troubleshooting Find and fix problems Recovery Restore your computer to an
Backup and Restore	earlier time
Windows Update	
Windows Program	

10.) Make sure that all of the options have their respected boxes unchecked.

🕞 🔵 🗢 🏲 « Action Center 🕨 Change Action Center settings	Search Control Panel
Turn messages on or off For each selected item, Windows will check for <u>How does Action Center check for problems?</u>	or problems and send you a message if problems are found.
Security messages	
Windows Update	Spyware and related protection
Internet security settings	User Account Control
Network firewall	Virus protection
Maintenance messages	
Windows Backup	Check for updates
Windows Troubleshooting	
Related settings	
Customer Experience Improvement Progr	ram settings
Problem reporting settings	
Windows Update settings	
	OK Cancel

11.) Click on the "Start" button and select "Control Panel".



12.) Select "User Accounts & Family Safety".



13.) Click on "User Accounts"



14.) Create an administrative account with the name CNCuser.

User Accounts ar	nd Family Safety 🕨 User Accounts	- ↓	Search Control Panel	
Control Panel Home	Make changes to your user account			
Manage your credentials Create a password reset disk Link online IDs Configure advanced user profile properties	Create a password for your account Change your picture Change your account name Change your account type		CNCuser Administrator	
Change my environment variables	🛞 Manage another account 🛞 Change User Account Control settings			

15.) Select "Change User Account" and lower the slider bar to "Never Notify".

User Account Control S Choose User Acco <u>Tell me m</u> Alway:	Settings when to be no unt Control helps ore about User Act s notify	otified about changes to your computer prevent potentially harmful programs from making changes to <u>count Control settings</u>	your computer.
- [-	Never notify me when:	
-	-	 Programs try to install software or make changes to my computer I make changes to Windows settings 	
-	-	Not recommended. Choose this only if you need to use programs that are not certified for Windows 7 because they do not support User Account Control.	
Never	notify		
		В ОК	Cancel

16.) Go back to "Control Panel" and select "System & Security".



17.) Select "Windows Update"



18.) Click on "Install Updates".



19.) The computer may need to be restarted after the updates are done installing. Go back to the above screen and keep clicking "Install Updates" until you see the screen below. Next click on "Change Settings" on the left hand tab.



20.) Select "Important Updates" and then select "Never Check for Updates".

🕒 🗢 🦉 « System	and Security + Windows Update + Change se	ttings 👻 🍫	Search Control Panel	٩
Choose When yo using the compute How doe Importar Recomm Who can Note: Win privacy st	e how Windows can install updates ur computer is online, Windows can automaticall se settings. When new updates are available, you r. s automatic updating help me? In updates Install updates automatically (recommended) Download updates but let me choose whether to Check for updates but let me choose whether to Check for updates but let me choose whether to Check for updates but let me choose whether to Never check for updates (not recommended) Give me recommended updates the same way I install updates Allow all users to install updates on this computed indows Update might update itself automatically fatement online.	y check for important up can also install them bef install them download and install the receive important updat ter first when checking for o	ndates and install them fore shutting down the m m tes ther updates. Read our	
			OK Cancel	



Control Panel Home

 System and Security Network and Internet Hardware and Sound Programs User Accounts and Family Safety Appearance and Personalization

Clock, Language, and Region

Ease of Access

Action Center Review your computer's status and resolve issues 🚱 Change User Account Control settings 🔰 Troubleshoot common computer problems Restore your computer to an earlier time Windows Firewall Check firewall status Allow a program through Windows Firewall System View amount of RAM and processor speed Check the Windows Experience Index 🚱 Allow remote access 🔰 See the name of this computer 🛛 🚱 Device Manager Windows Update Turn automatic updating on or off Check for updates View installed updates Power Options Require a password when the computer wakes Change what the power buttons do Change when the computer sleeps Backup and Restore Back up your computer Restore files from backup Windows Anytime Upgrade Get more features with a new edition of Windows 7



Administrative Tools Free up disk space Defragment your hard drive 🛞 Create and format hard disk partitions 🔰 🚱 View event logs 🔰 🚱 Schedule tasks 23.) Click on the down tab next to "Show additional plan".

Show additional plans	🕑

- 24.) Next select "High performance" then select "Change Plan Settings".
 - High performance



Favors performance, but may use more energy.

25.) Then select "Change Advanced Power Settings".

Change settings for the plan: High performance
Change settings for the plan. Figh performance
Choose the sleep and display settings that you want your computer to use.
Iurn off the display: ■ Never ■
Put the computer to sleep: Never
Change advanced power settings
Restore default settings for this plan

26.) You should now be at the Power Options screen.

1	Select the pow then choose so computer to n	ver plan that y ettings that re nanage powe	ou want to cus eflect how you r.	tomize, and want your
High p	erformance [Ac	tive]	•	
🗆 Hig	gh performance	2		•
Ξ	Require a pass	word on wak	eup	
	Setting: N	• •		
	rd disk			E
Ŧ	lurn off hard o	disk after		
⊡ De	sktop backgrou	nd settings		
+	Slide show			
	Dewer Saving	Mode		
	en	vioue		
	Rettinge			-
			Restore pla	n defaults

27.) Make sure that the settings are as described below:

```
High Performance
    - required password \rightarrow NO
HDD
    - Turn off HDD \rightarrow Never
Desktop Background
    - Slide Show \rightarrow Available
Wireless Adapter Setting
    - Power Saving mode \rightarrow Maximum performance
Sleep
    - Sleep after \rightarrow Never
    - Allow hybrid sleep \rightarrow ON
    - Hibernate after \rightarrow Never
    - Allow wake times \rightarrow Enable
USB Settings
    - USB selective suspend \rightarrow Disable
Power Buttons
    - Power button action \rightarrow Shut down
    - Sleep button \rightarrow Sleep
PCI Express
    - Link state power manage \rightarrow OFF
Processor Power Management
    - Minimum processor state \rightarrow 100\%
    - System cooling policy \rightarrow Active
    - Maximum processor state \rightarrow 100\%
Display
    - Turn off display after \rightarrow Never
Multimedia Settings
```

- When sharing media \rightarrow Prevent idling to sleep
- When playing video \rightarrow Optimize video quality

28.) Next the user password expiration needs turned off. Click the Windows icon, then type: cmd to bring up the command prompt.



29.) Make sure the title bar reads "Administrator: C\Windows\system32\cmd.exe", then type: **net accounts** (press enter). Third line down will read " Maximum password age (days): 42", confirm and then type: **net accounts** /**maxpwage:unlimited** (press enter).



30.) Type: net accounts again to verify that it says "unlimited" beside the "Maximum password age". If it does type: **exit** (press enter) to close the command prompt window.



31.) The "Internet Time" synchronization also needs turned off. To do this click on the Windows button and type: **time**, then click on "Date and Time" in the list.



32.) Click on the "Internet Time" tab and then click the "Change Settings" button.



33.) Uncheck the box for "Synchronize with an Internet time server", then click "OK" to close that window and click "OK" again to close the "Date and Time" window.



34.) Click on the "Start Button" and type: network connection in the search window. Click on "View Network".



35.) Right click on the network card. Click on "Properties".



36.) Click "Configure". Click on the "Power Management" tab and make sure that the "Allow the computer to turn off this device to save power" box is unchecked.



37.) After Windows 7/10 is configured the last thing you will need to do is activate Windows 7/10, which can be done via the Internet or phone.

38.) Open "Windows Activation" by clicking the "Start" button, then right click "Computer", then click "Properties", and then click "Activate Windows now".

Note: If you are installing a new SSD in which Centroid has installed the Windows 7/10 operating system, you will NEED to change the product key before attempting to activate Windows 7/10 by clicking on the "Start" button, then click on "Control Panel", then click on "System & Security", then click on "System", scoll all the way to the bottom and click on "Change product key".

Vindows activation	
Windows is activated	
Product ID: 00359-OEM-8704027-70607	Change product key

V

39.) If using the Internet and Windows 7/10 detects an Internet connection, click on "Activate Windows online now", type in the Windows 7/10 product key when prompted, then click "Next" and follow the remaining instructions.

40.) If activating Windows 7/10 via the phone, click on "Show me other ways to activate", type in the Windows 7/10 product key when prompted, then click "Next", then click "Use the automated phone system", then click on the location nearest you from the drop-down list, then click "Next".

41.) Call one of the phone numbers listed and an automated system will guide you through the activation process.

42.) When prompted, enter the installation ID that's listed on the screen into the phone's keypad.

43.) Type the confirmation ID that the phone system gives you into the space provided under Step 3, then click "Next", and then follow the remaining instructions.

Instructions for Installing CNC11 Software

1.) Install CNC11 software. Make sure you configure the network adapter and install the appropriate PLC program if needed. Also, if you want the PLC Detective software, you will need to install WinPcap.

2.) Once the CNC11 software installation is complete, right click on the CNC11 icon located on the desktop and select "Properties". Select the "Shortcut" tab, then select "Advanced". Check the box for "Run as Admin". Select "OK", then "Apply", and then "OK".

3.) Go into "Control Panel", select "System and Security", and then "Windows Firewall". On the upper left side of the window click on "Allow a program of feature through Windows Firewall", find enem or enet in the list and check both boxes for private and public, then click Ok.

4.) If want to eliminate the scan & fix pop up and autoplay pop up when you plug in your USB stick, you will need to do the following. To suppress the scan & fix click on the Windows icon type: **msconfig** and click on the "Services Tab" then scroll down and uncheck "Shell Hardware Detection". Click "Apply" then "Ok" and then you will need to power cycle the PC. To suppress the autoplay click on Windows icon and type: **autoplay** then uncheck "use AutoPlay for all media and devices" and click "Save".

5.) You are now ready to run CNC11 software on your Windows 7/10 PC/console.

6.) If you clicked on the CNC11 icon to start the software and you are getting 64180 MPU11 not responding errors. You most likely didn't have the MPU11 connected to the PC when you installed the software. Check your Ethernet card to make sure it is configured properly.

7.) Go to "Control Panel" and select "Network and Internet".



8.) Click on "Network and Sharing Center".

1	Network and Internet			
←	$ ightarrow \star \star h$ 撞 > Control Panel	⇒ Net	work and Internet	ٽ ~
	Control Panel Home System and Security	ų	Network and Sharing Center	
•	Network and Internet Hardware and Sound Programs	• •	HomeGi Check network status, change network settings and set preferences for sharing files and printers. Internet Options Change your homepage Manage browser add-ons	
	Appearance and Personalization Clock, Language, and Region Ease of Access		Infrared Send or receive a file	

- 10.) Click on "Change adapter settings" on the upper left corner of the window.
- Network and Sharing Center



11.) Right-click on the network icon that is connected to the MPU11 and select "Properties".



12.) Highlight "Internet Protocol Version 4 (TCP/IPv4)" then click "Properties" again.

Local Area Connection Properties	×
Networking	
Connect using:	_
Realtek PCIe GBE Family Controller	
Configure	
This connection uses the following items:	
Client for Microsoft Networks	^
File and Printer Sharing for Microsoft Networks	
QoS Packet Scheduler	
Internet Protocol Version 4 (TCP/IPv4)	
Microsoft Network Adapter Multiplexor Protocol	
Microsoft LLDP Protocol Driver	
Internet Protocol Version 6 (TCP/IPv6)	~
< >	
Install Uninstall Properties	
Description	- 1
Transmission Control Protocol/Internet Protocol. The default	
wide area network protocol that provides communication	
across diverse interconnected networks.	
OK Cano	el

13.) Select "Use the following IP address" then set the IP address and Subnet mask to:

IP address: 10.168. 41.1 Subnet mask: 255.255.255.0

Internet Protocol Version 4 (TCP/IPv4)	Properties	×
General		
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.		
Obtain an IP address automatical	у	
• Use the following IP address:		- 1
IP address:	10 . 168 . 41 . 1	
Subnet mask:	255 . 255 . 255 . 🧕	
Default gateway:		
Obtain DNS server address autom	atically	
• Use the following DNS server addr	esses:	- 1
Preferred DNS server:		
Alternate DNS server:		
Validate settings upon exit Advanced		
	OK Cano	el

14.) Click OK and then try to start the CNC11 software again.

Document History

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