

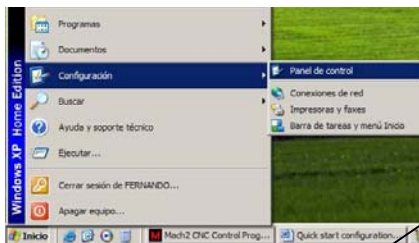
Quick start configuration for Mach3 software

Step 1: Parallel Port information

Before start to use your 3 or 4 axis driver board, you must know what kind of parallel port and address your PC has, if this is on board or if you are using a PCMCIA card.

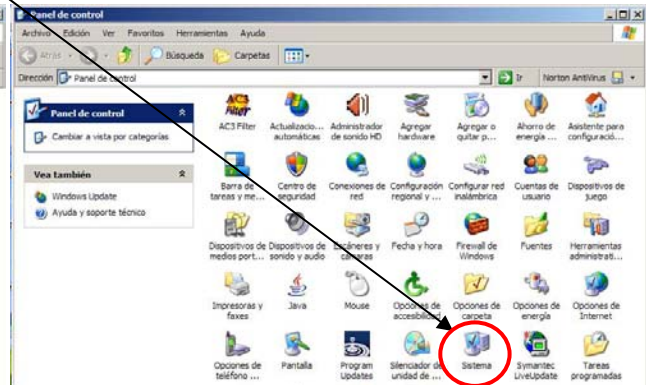
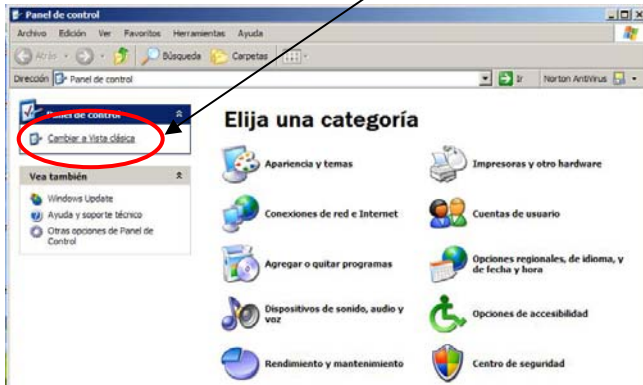
The PC parallel port address is important in Mach3 in order to know where is the Parallel Port, if your have a PC Desktop the Parallel Port is integrated in the CPU, probably the address is **378h** (0x378).

For PCMCIA card or another kind of Parallel Port you can follow these steps in order to get the Parallel Port address.

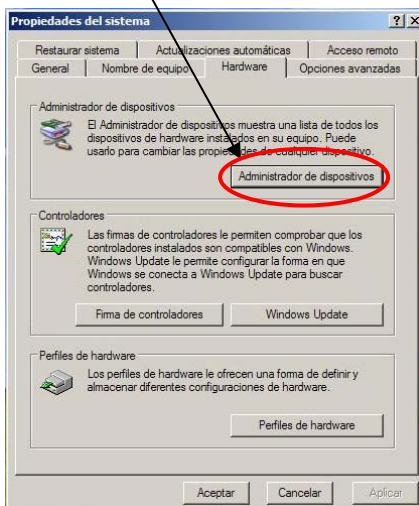


Click on **Start** button, bottom left side of your PC Desktop; go to **Configuration/Control Panel**.

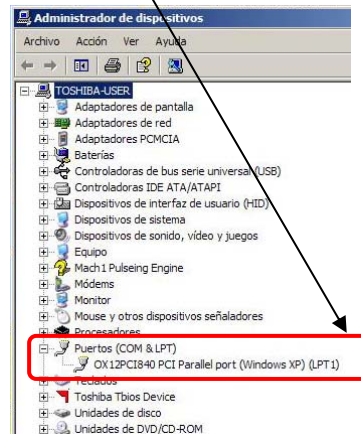
If you can not see the System icon, click on **Change to classical view**, once you can see the **System** icon double click on it.



Choose the **Hardware** label of the **System Properties** window, then, click on **Device Manager** Button.

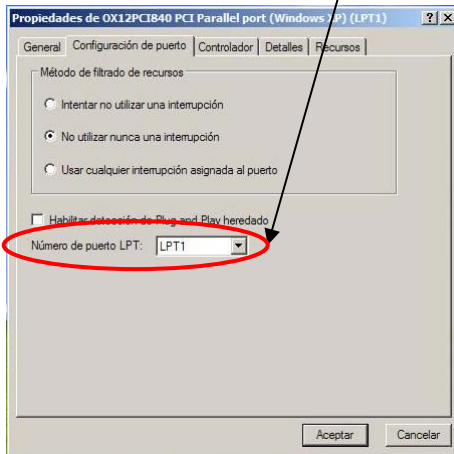


Click on **Ports (COM & LPT)**, here you can see all the ports your PC has. Then, double click on your LPT parallel port for settings.

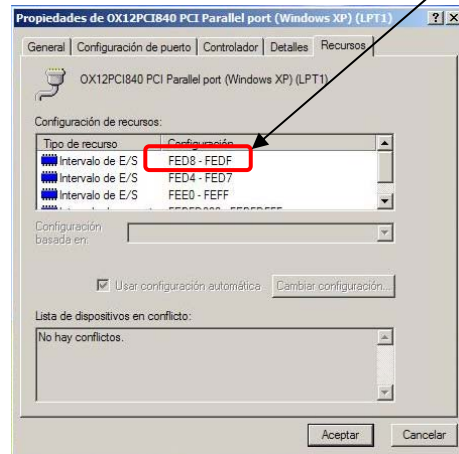


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Choose the **Port Settings** label of the **Properties of Parallel Port** window, here you can assign the port number, **LPT1** in this case.



Choose the **Resources** label of the **Properties of Parallel Port (Windows XP) (LPT1)** window; here you can see which is the address of the Parallel Port.

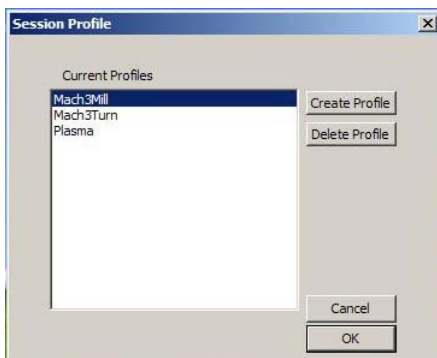


NOTE: Keep this number for the configuration in Mach3 software.

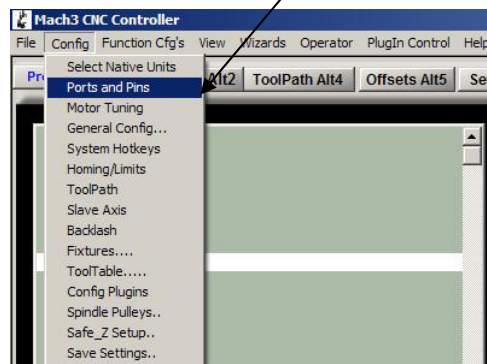
Step 2: Parallel Port configuration

Once you have installed the Mach3 software follow these steps for begin to use your stepper motor 3 or 4 axis drive.

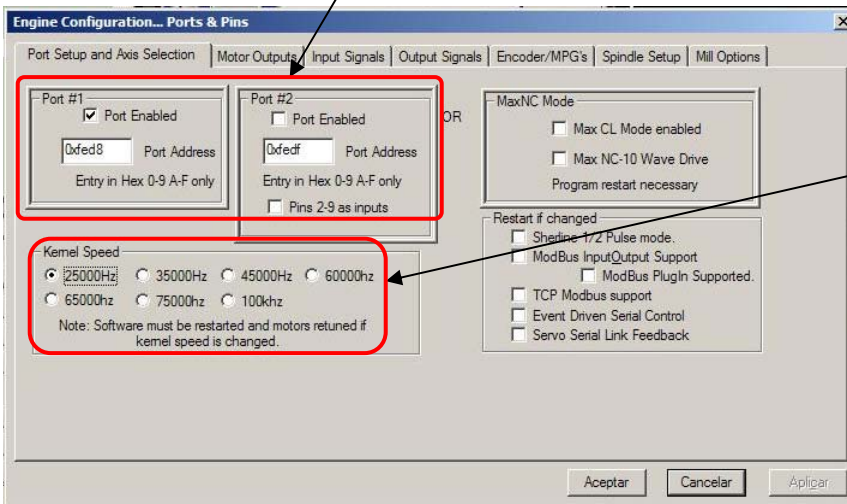
Run Mach3 Software, click on **Mach3Mill** or **Mach3Turn** it depends of your job, click on **OK**.



Click on **Config** menu, then, select **Ports and Pins** and click it, the following window will appear.

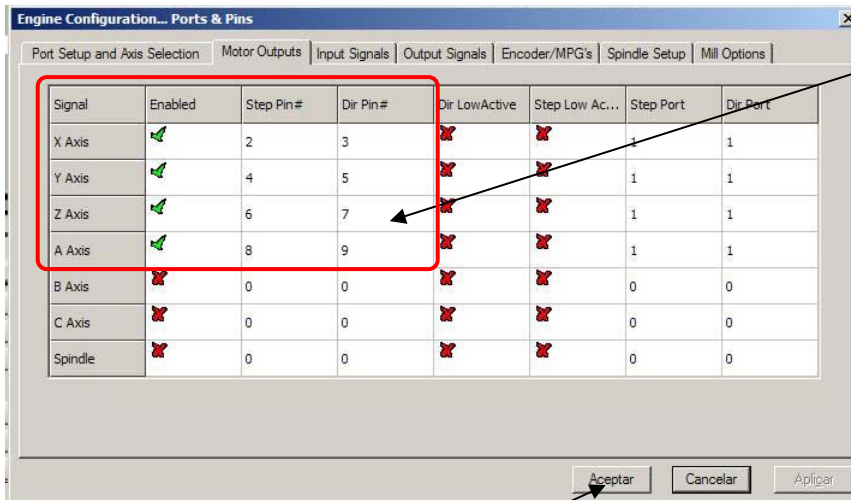


In **Port Setup and Axis Selection** label, you can enable/disable the Parallel Port 1 or 2; also you can assign their address respectively.



Step pulse maximum frequency in the Parallel Port.

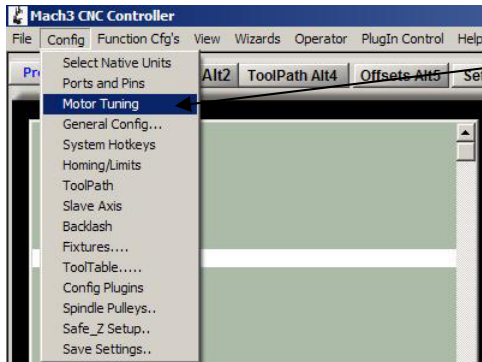
If your PC has standard resources we suggest to choice **25000Hz** but if your PC is powerful you can choice higher speeds.



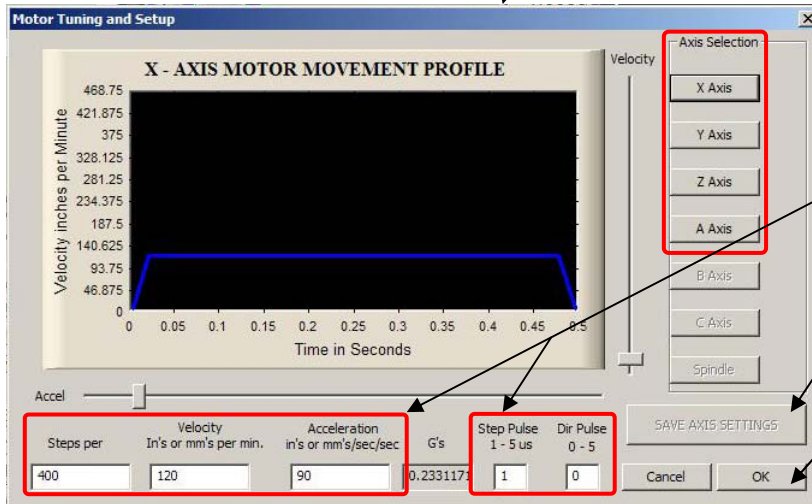
In **Motor Outputs** label, you can enable how many axes do you want, match Step and Dir pin number and assign them to the port number that you want.

When you have finished click on **OK**.

Step 3: Motor Tuning



Click on **Config** menu, then, select **Motor Tuning** and click it, the following window will appear.



We strongly suggest the following values per axis:

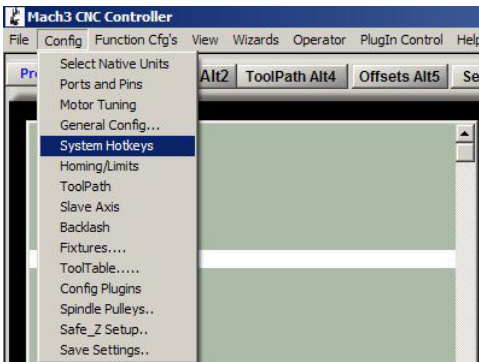
- Velocity = 120 [units/min]
- Acceleration = 90 [units/sec²]
- Steps per unit = 400
- Step Pulse = 1 [µsec]
- Direction Pulse = 0 [µsec]

Select the first axis, type the suggested values, click on **SAVE AXIS TUNING** button, do the same for the entire enabled axis.

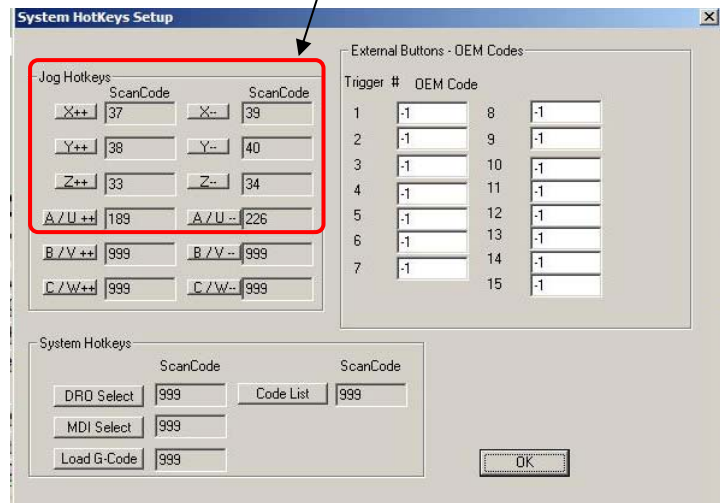
Once you have finished, click on

Step 4: How to move your motor (System Hotkeys)

Click on **Config** menu, then, select **System Hotkeys** and click it, the following window will appear.

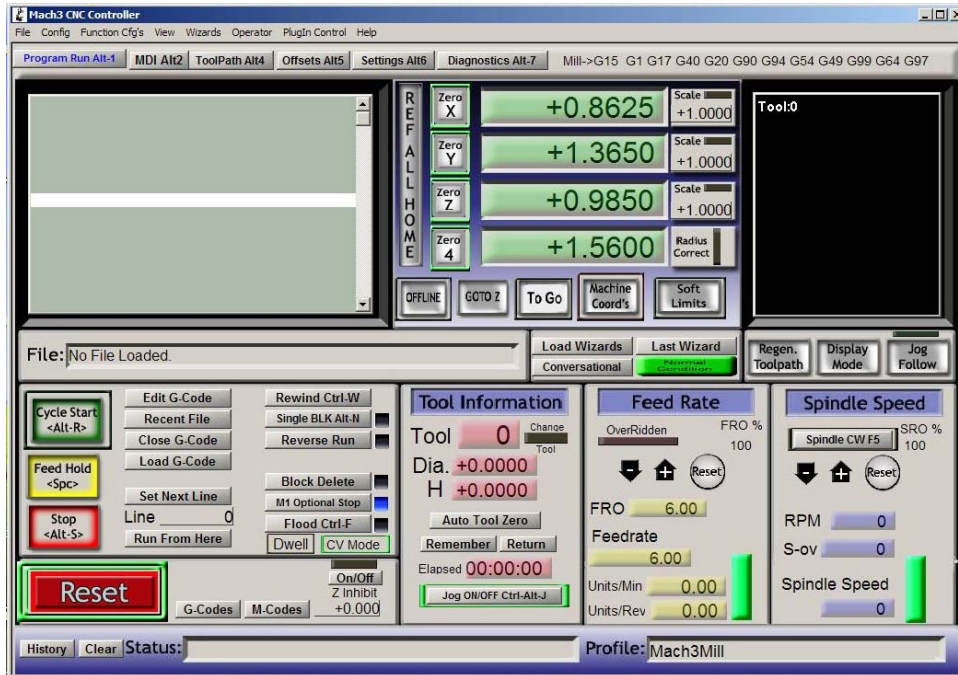


Click on the ++ or -- buttons for each enabled axis and press the key on your keyboard that you want to do this movement, i.e. click on X++ and press left arrow key ←, it moves axis X to left side. Click on **OK** when you've finished.



Quick start configuration for Mach3 software

In the main screen you will find many features that you can use to run your program, whatever you prefer to use you can type the keyboard keys, configured previously, to move your axes.



DON'T FORGET TO PLUG YOUR DRIVE BOARD TO YOUR PARALLEL PORT AND PLUG THE POWER SUPPLY TO THE DRIVER BOARD BEFORE RUN MACH3 SOFTWARE