

CommandCNC 1.0

Release Notes

CommandCNC version 1.0 adds support for CandCNC's new combined motion and breakout board called the EBOB.

The EBOB is a 5th generation direct ethernet breakout board that has UDP/IP communication to CommandCNC. It uses the latest high density FPGA technology to both handle large amounts of I/O and to generate the motion signals in real time.

The EBOB will replace the UBOB and Mesa 7i92 cards in all future CandCNC products in the very near future, and this document lists some of the new features and details the differences in the software setup. The main differences will be in the Configurator, and every effort has been made to make the transition as painless as possible for users.

Some of the new features with the EBOB are:

- Up to 8 motors. CommandCNC currently supports only 6 axes but more can be added. If you were to use all 6 axes and one was a gantry with 2 motors, you would use 7 motors.
- 12 Outputs in addition to a couple used only for the DTHC.
- 16 isolated inputs.

For anyone with an existing system – you will not need to change anything in your config. Simply load and save it as you should do for every CommandCNC update, and everything will work as before.

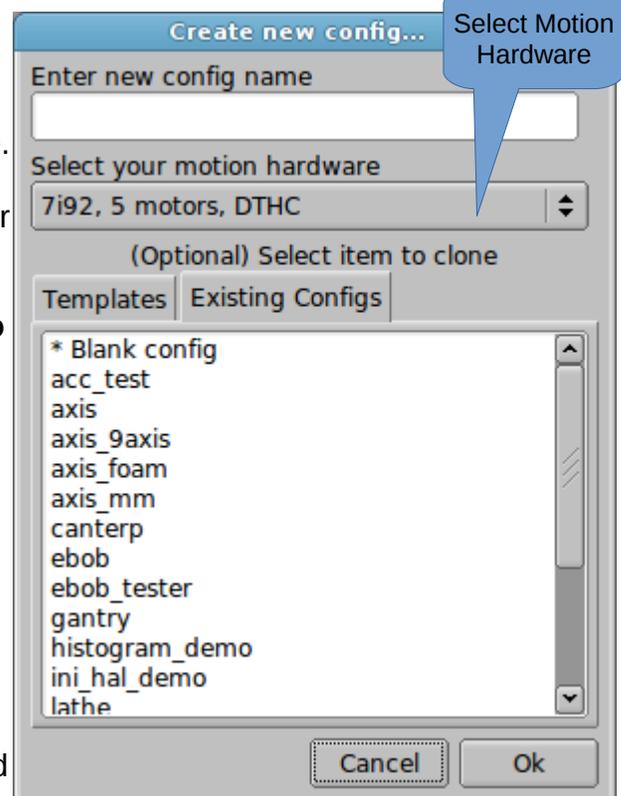
All systems that are shipped with an EBOB inside will have a config set up for the EBOB that can be used as a starting point to customize for your table.

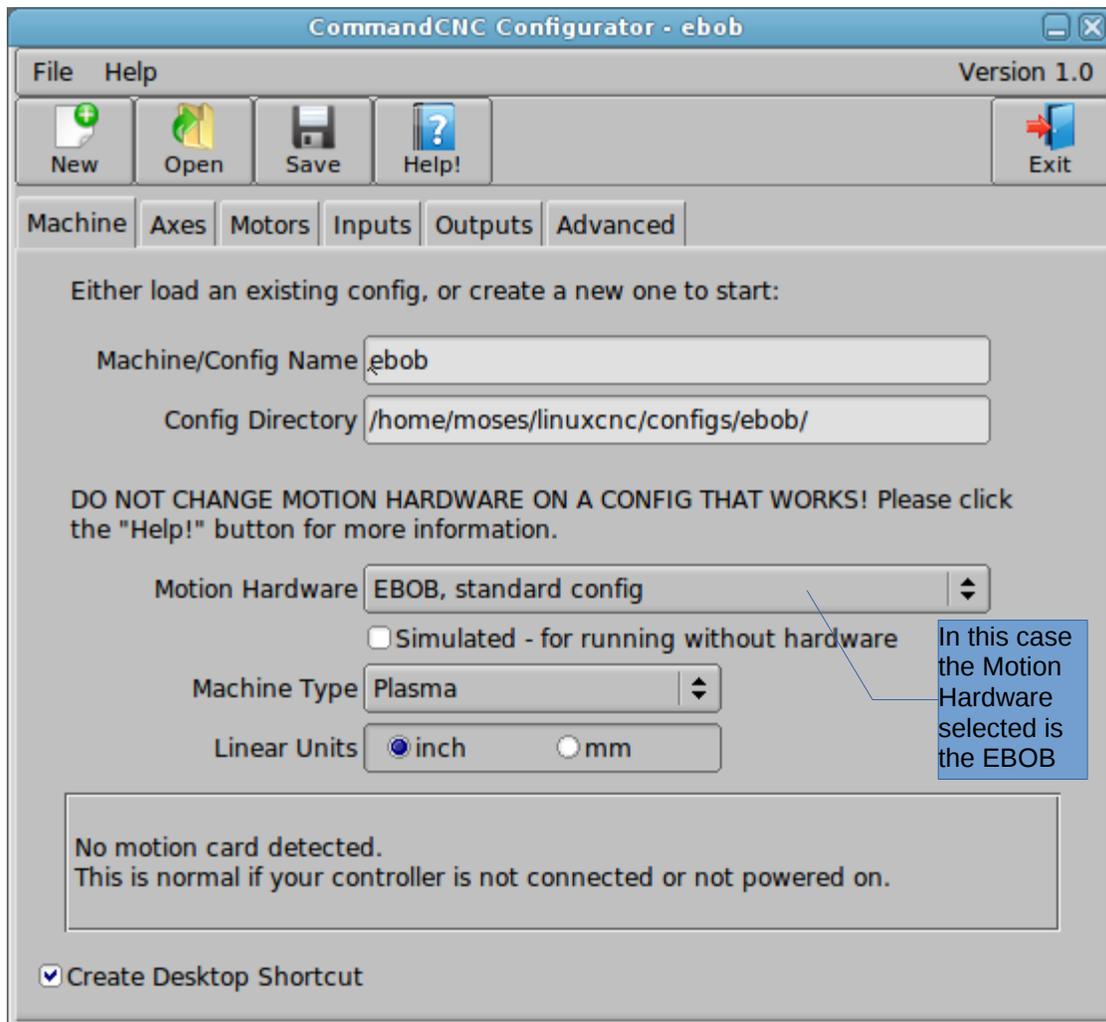
The Configurator now has an option to “Select your motion hardware in the “New config” dialog.

When you create or clone a config, you need to make sure the correct motion hardware is selected for your controller.

You can clone an existing config by selecting any config other than “* Blank config” or one of the template configs in the “Templates” tab.

If the config you clone was made for a different motion hardware, it will still clone and all the axis and motor settings will be the same – but the Inputs and Outputs need to be checked carefully and especially the Outputs will need to be changed because they will not map correctly.



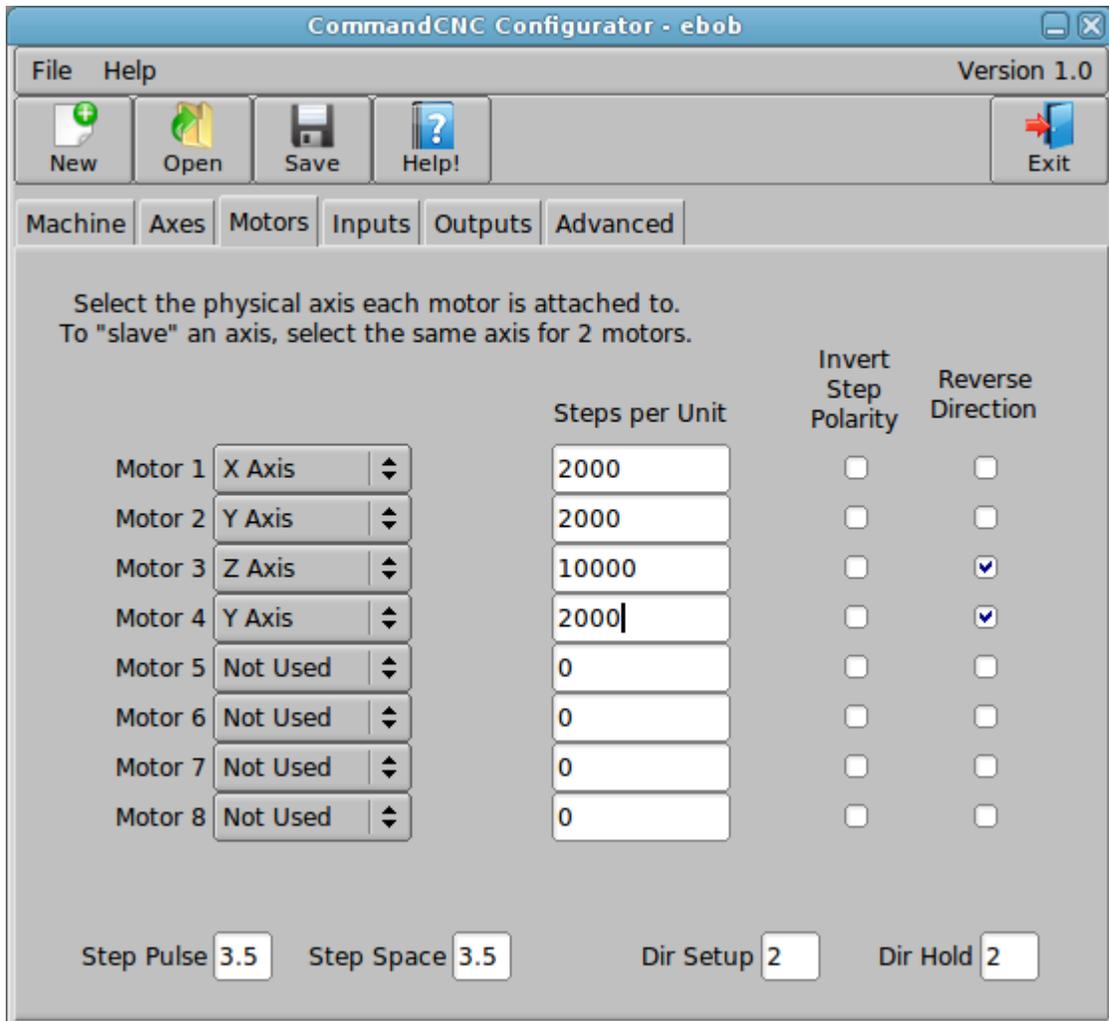


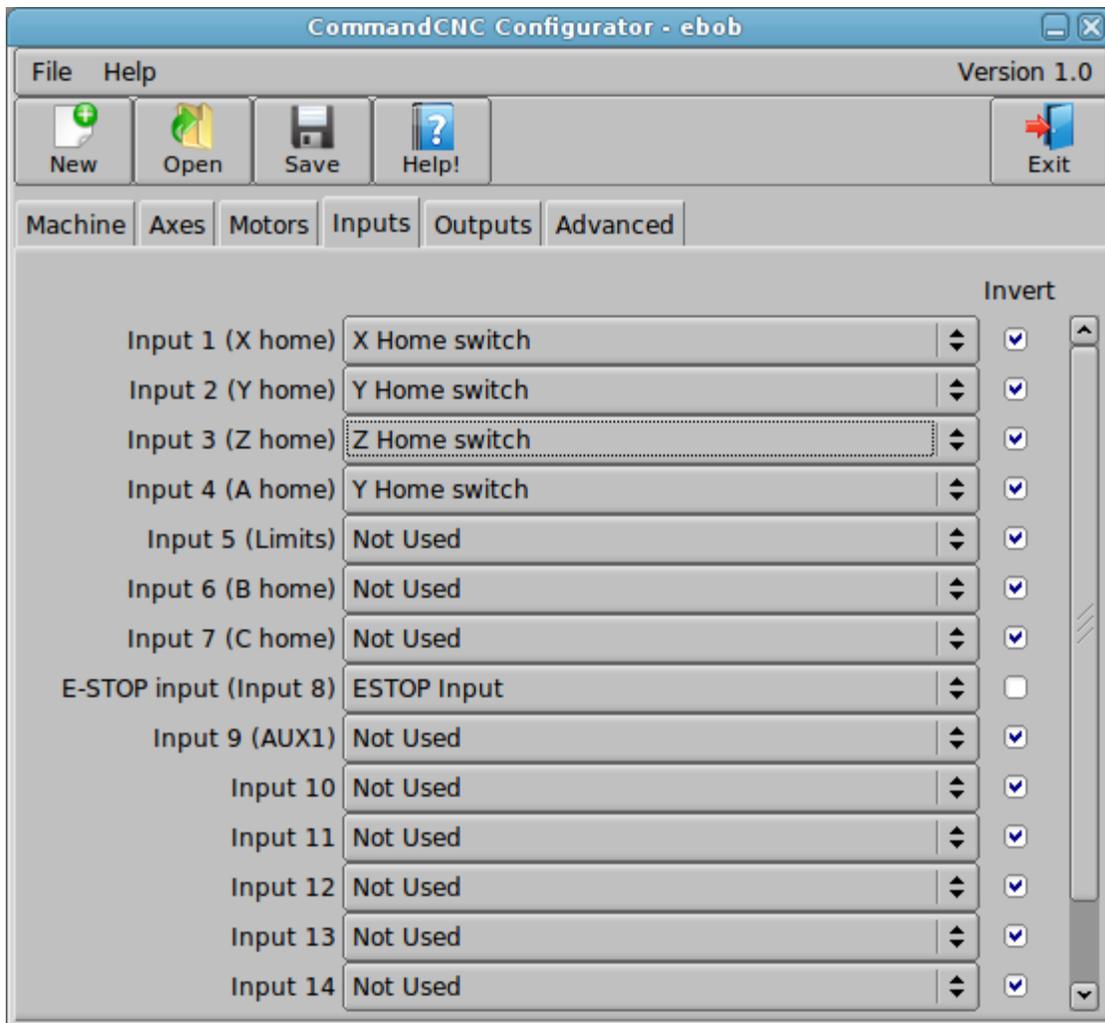
There is also a “Motion Hardware” option in the “Machine” tab (opening page) of the Configurator.

As the text in the screen says, do not change the motion hardware on a config which works for your machine! The primary reason this option is here is if you selected the wrong hardware when you created your config.

When EBOB is selected as the motion hardware, the interface changes to reflect the extra I/O available. Here are a few screenshots which show those changes:

The screen shot below is of the AXES tab in the Configurator. It shows that after the EBOB has been selected it automatically increases the number of definable motors to 8.



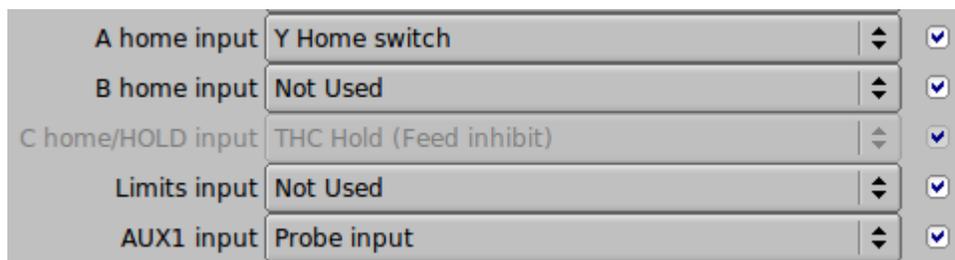


This screen shot shows the “Inputs” tab for EBOB – showing the extra inputs available.

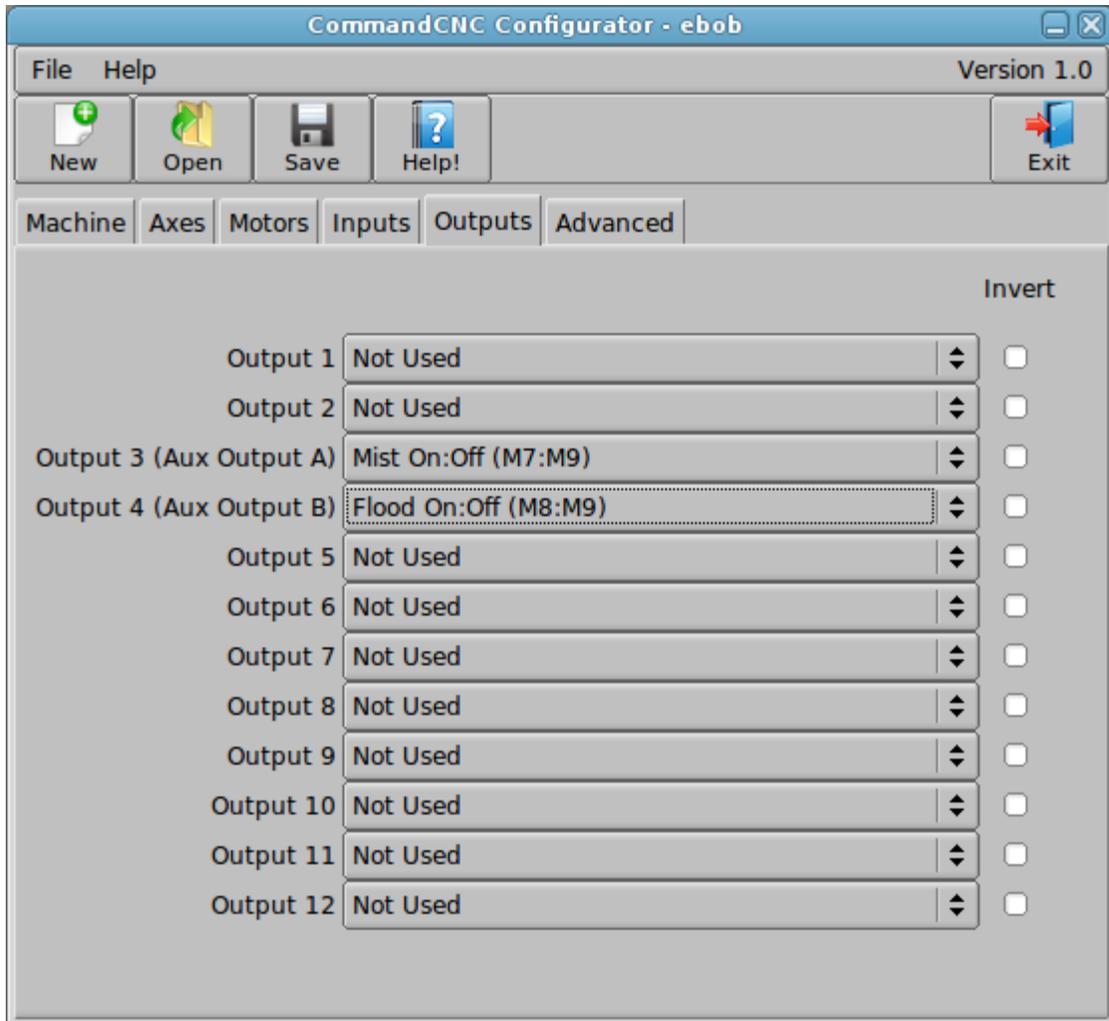
Another change to note is that **the “THC Hold” function no longer needs to be connected for Plasma machines!**

For EBOB motion hardware that function is not in the list for each input and is connected behind the scenes to a dedicated input.

For 7i92 motion hardware the input “C home/HOLD input” which must be set to “THC Hold (Feed inhibit)” is now set automatically and the dropdown list is disabled for that input as shown below.



However: if you select “Router” or “Oxy-fuel” for the machine type in the “Machine” tab, this input will be enabled again and can be used as a normal input.

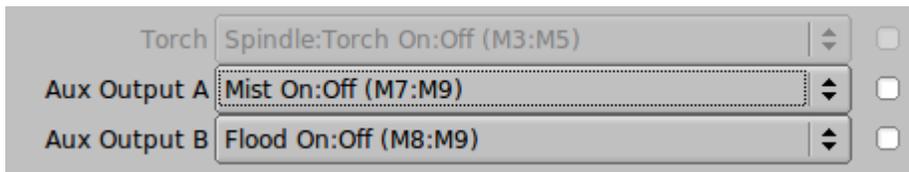


This screen shot shows the “Outputs” tab for EBOB – showing the extra outputs available.

For Outputs on a Plasma machine, the **“Spindle:Torch” function is now connected automatically.**

For EBOB motion hardware the function is not available to be used if the “Machine Type” on the Machine tab is set to “Plasma”, but it **is** available to be assigned to any output if the machine type is set to “Router” or “Oxy-fuel”.

For 7i92 motion hardware the “Spindle:Torch” function is automatically connected to the correct output and the dropdown list is disabled for that output as shown below.



If the “Machine Type” is set to “Router” or “Oxy-fuel” this output is still not available because it is wired to the DTHC in hardware; but the “Spindle:Torch” function is available to be assigned to one of the other outputs.