



# CB Electronics

## PDStem

### Windows/Mac Stem Definition s/w

Provisional

The screenshot shows the PDStem software interface with a table of stem definitions and various control panels.

Description	Name	PD #1	PD #2	Fmt/Obj	Len	Start Track	S.Safe	P.Mast	Port
Effects Stem	Fx	Stem 1	Stem 1	7.1	8	1			O/P#1
Music Stem	Mx	Stem 2	Stem 2	7.1	8	9			O/P#1
Dialog Stem	Dx	Stem 3	Stem 3	7.1	8	17			O/P#1
Object Stem	Ob	Stem 4	Stem 4	Ob	24	25			O/P#1
* Object Stem *	Ob1				8	41			O/P#1
Print Master Stem	PM7	Stem 7	Stem 7	7.1	8	1	S.Safe	PM	O/P#2 (I/P)
Print Master Stem	PM2	Stem 7	Stem 7	Stereo	2	9	S.Safe	PM	O/P#2 (I/P)

Control panels include:

- File Edit view: Clear, Disk, Load, Save, view comms, Test, show all, Error 0
- PD-1/2/3: Connect, Write, Abort, Two PD-1/2/3's, Two Protocols
- Add/Modify Stem: StemName, Description (PM2, Print Master Stem), Remove, Add
- Port: O/P#1, O/P#2 (I/P)
- Track Format: Mono, Stereo, 5.1, 7.1, 9.1
- Objects: Prefix Qty (Ob 24), L,R
- Buttons: Delete, Add, Update



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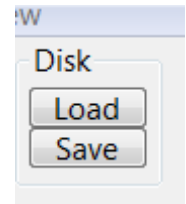


## PDStem

This document only describes the use of the PD2-Stem-win/mac program to define the setup of the PD-1net, PD-2 or PD-3 Pec-Direct controllers.

The PD-1 has been in existence since Protocols 7.3, until this software was developed at the request of a customer the only way to build the stems was "Autostem", this used the track names within Protocols to build a stem list. The "AutoStem" feature is still built into the PD-1/2/3 and will now work across two machines.

The PDStem software allows you to define stems that are independent from the protocols track layout. You can save and recall stem layouts at will and move the stems around within the PD-1/2/3, this feature is especially useful in dual operator systems where the layout of the two PD-1/2/3 do not have to be identical.

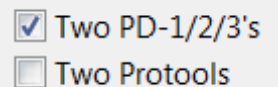


## System Settings

There are a two system dependant settings

### Two PD-1/2/3's

For Dual operator systems with two PD-1/2/3 check the Two PD-1/2/3's box. This will add an extra column (PD-1#2) and will allow you to define the stem layout differently for the two operators. By default they will be identical.



### Two Protocols

The latest PD-2 software allows you to use both RS-422 ports as outputs in order to control two Protocols, this allows you to have 128 tracks on the first protocols and 64 tracks on the second protocols.

## Defining a Stem

1) Select the Stem name and description from the drop down list, if the name or description do not exist, type in a new name and description.

**Note** Remember that only the first 4 characters of the name are displayed and to insert a comma between the Stem Name and Description.

If you want to use the name again you can add it to the list using the [Add] key, you can remove any that you do not want by selecting them and clicking on the [remove] key.

2) If your system has two protocols connected then you will need to select the Output port.

3) Select the track format, this defines the number of tracks and the track names. Five user programmable keys are provided for this, if the format you require is not there right click on any key and you can define your own!

**Note.** Remember to insert a comma between track names.

Object stems are treated differently as it can be very tedious to type in 40 objects. To define the format of an object stem you edit the Prefix and the Qty and then select using the [Obj] key.

## Adding a stem

Once the stem has been defined the track layout is shown in the Box and the stem may be added to the list using the [Add] key.

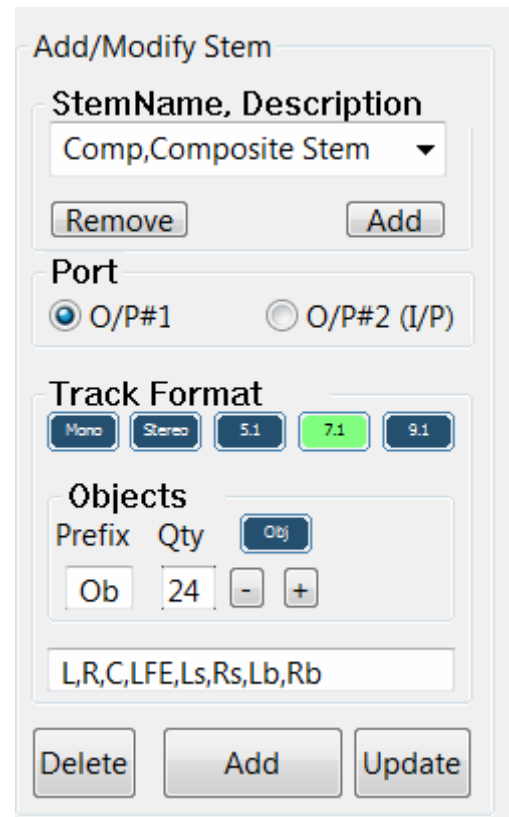
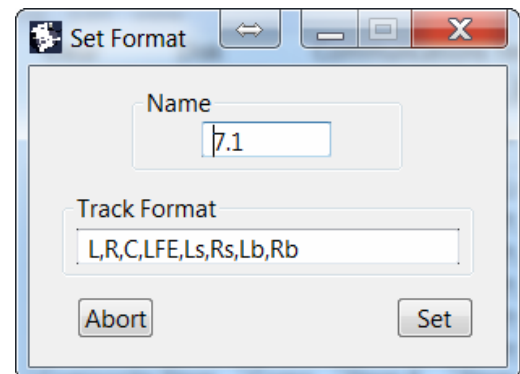
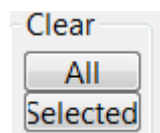
## Modifying an existing stem

To Modify an existing Stem, highlight the stem by clicking on the stem name or description. This will copy the current settings to the Add/Modify panel, change as required and use the [Update] key.

## Deleting existing stems

To delete a single stem , You can also use Clear [All] to delete all stems or Clear [Selected] to delete a selected stem, highlight the stem by clicking on the stem name or description then use the Add/Modify [Delete] key or the Clear [Selected] key.

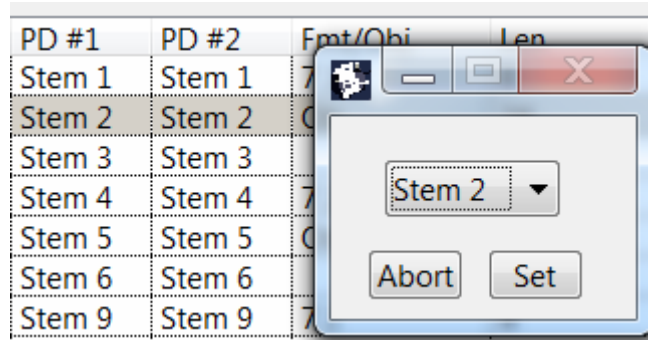
You can delete all stems using the Clear [All] keys.



# Adjusting the stem layout for the PD-1/2/3's

Once all the stems have been defined in the DAW format you may wish to modify the stem layout on the PD-1/2/3. On a complex mix you may wish to move the printmaster stems and/or extra object stems to the second bank. To do this Click on a stem in either the PD #1or PD #2 column, you can then use the drop down menu to select an unused stem.



# Enable/Disable Solo Safe, Print Master

By clicking in the appropriate boxes you can enable/Disable Solo Safe and printmaster

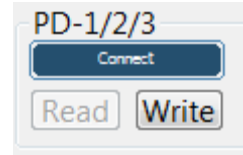
## Selecting O/P#1 or O/P#2

If Two Protools is enabled clicking in the Port column will swap between the O/P#31 or O/P#2. track numbering is updated with every change.

S.Safe	P.Mast	Port
		O/P#1
		O/P#1
		O/P#1
		O/P#1
		O/P#1
		O/P#1
<b>S.Safe</b>	<b>PM</b>	O/P#2 (I/P)
<b>S.Safe</b>	<b>PM</b>	O/P#2 (I/P)

# Communicating the stem setup to the PD-1/2/3

The PDStem program is connected to the PD-1/2/3('s) via Ethernet, to successfully communicate the connected devices must first be discovered and once discovered all devices must be on the same subnet.



On the main panel click on connect, this will open the Communications window which has five of pages.

## Enet

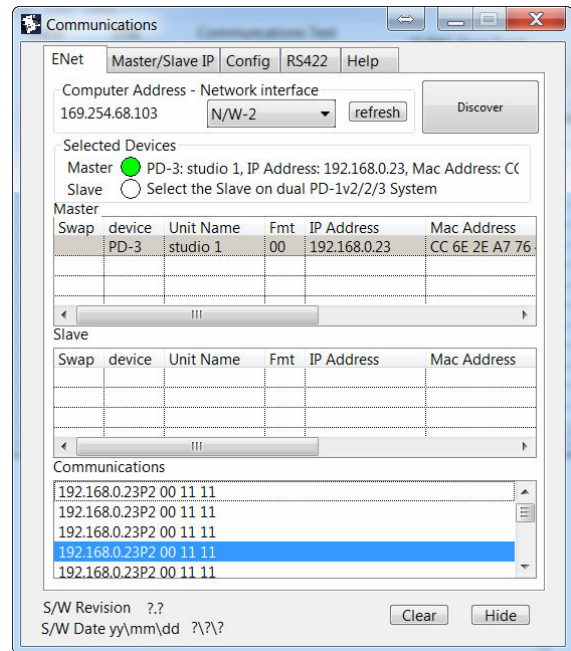
### Ethernet discovery and selection page

#### Network Interface:

Where your computer has more than one Network you must select the correct network in this case N/W-2. The Computer IP address may help in deciding which network to use. If you change the network on your computer use the [Refresh] key to update the list(I have a USB Wifi dongle).

#### Discovery:

It is possible to have multiple systems on the same network or you may not know the address of the PD-1/2/3. Click on Discovery to find the units in your system. The units discovered are displayed in two lists Masters and Slaves, you always need a Master unit, and if setting up a dual operator system you will also need a Slave. You can change a unit from a master to a slave by clicking in the Swap column next to the device you wish to change.



#### Selected devices

This box shows the currently selected devices, when the circle is green a device is selected. By Default the first Master or Slave discovered is selected, , click on a different Master or Slave to change.

#### Master + Slave

Enlarge the window to see more information on the device.

Master									
Swap	device	Unit Name	Fmt	IP Address	Mac Address	Port	Master/Slave	Connected	Build Date
	PD-3	studio 1	00	192.168.0.23	CC 6E 2E A7 76 42	2716	M	No	23/06/2017

In a dual system the Master and Slave use the Unit Name to Communicate, Both units must have the same name.

#### Communications

This window displays your communications and is used for problem detection

#### Subnet Address



# PDStem: PD-1/2/3 Stem Definition s/w

All units in a system must belong to the same subnet, the subnet address is the first part of the IP address, in this case the first three numbers (IP mask = 255.255.255.00). In this case the PD-3 is on subnet 192.168.0 and the computer is on subnet 169.254.68 until they are on the same subnet no further communication is possible.

## Master/Slave IP

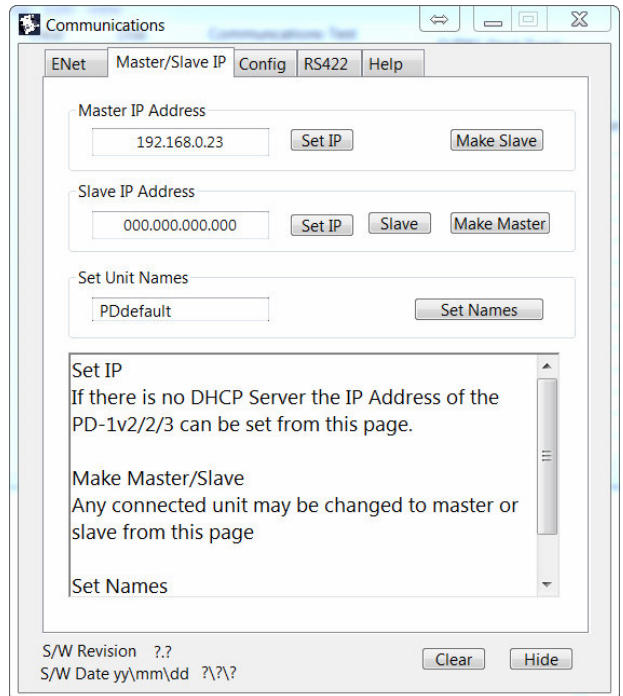
The Subnet address does not have to be set correctly for the commands on this page to work.

### IP Address

If you have a DHCP server connected to your network the PD-1/2/3 can be switched to DHCP in setup and the DHCP server will issue a name. If not you can use this page to set the IP address of the Selected Master and Slave.

### Set Unit Names

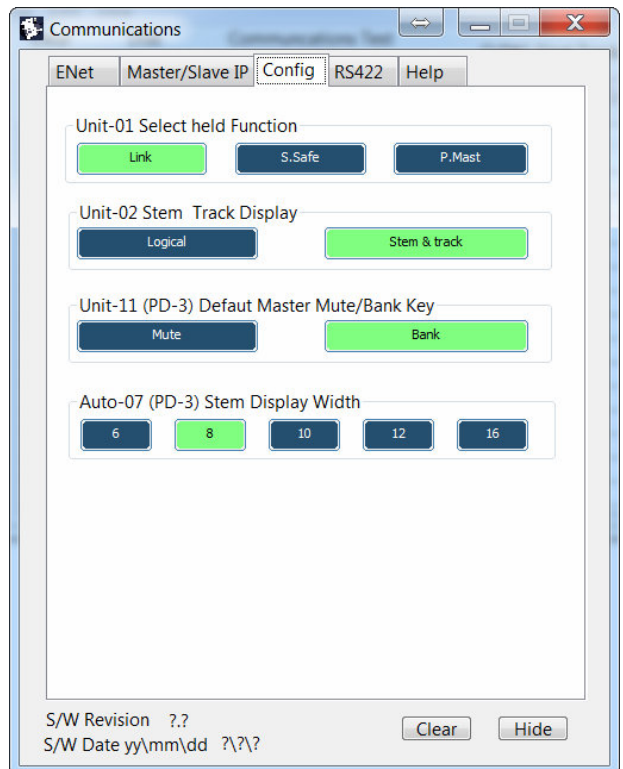
Set the Unit name for both master and slave or master only.



## Config

The Subnet address MUST be set correctly for the commands on this page to work.

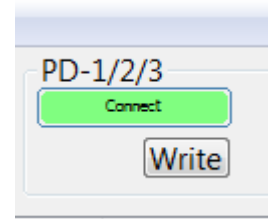
A selection of useful menu commands to make it easier to work with the PD-1/2/3. See the PD-1/2/3 user guide for more information.



## Writing the Stem list to the PD-1/2/3

Once the PDStem software is connected to the PD-1/2/3 you can write your stem list to the unit(s) thus will take about 60 seconds as it takes time to write to the eeprom.

When connected correctly to the PD-1/2/3 the [Connect] key will change to Green



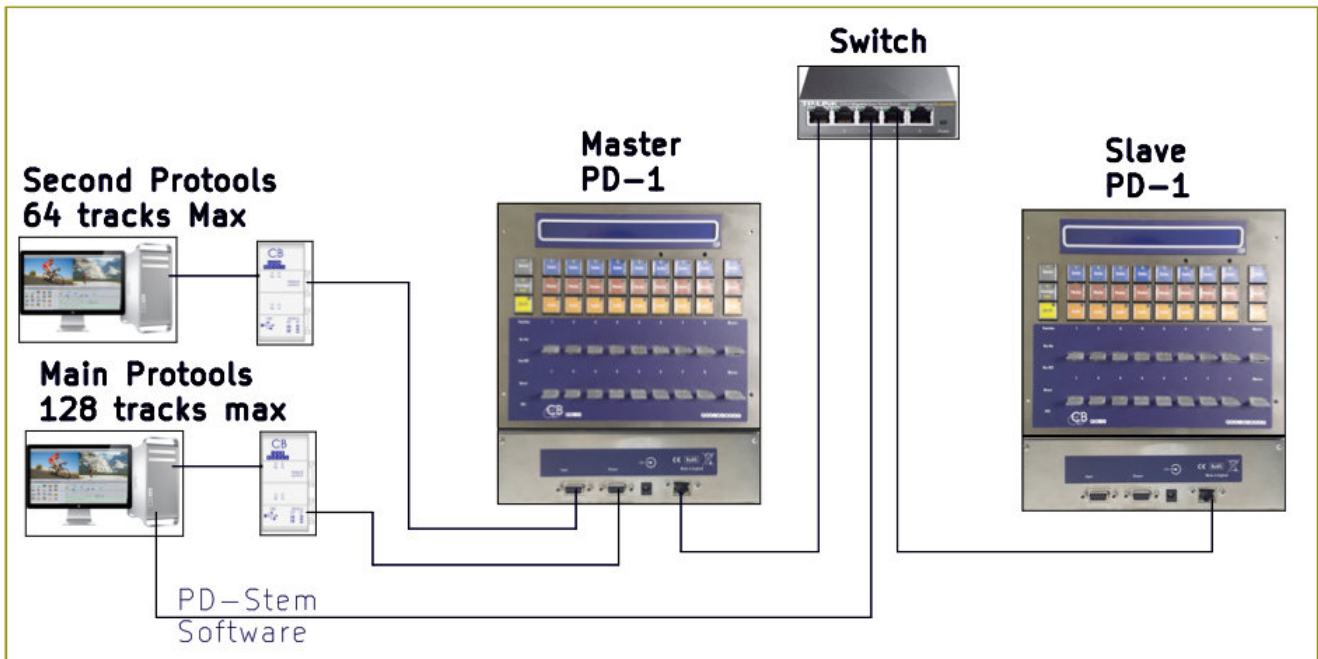
Click on the [Write] key send the data to the PD-1/2/3. If there is a communications error retry at least once.

## Connecting two Protocols to two PD-1net and PD-Stem Software

Connection to the Protocols is via RS422 using the USB-422 interface.

Note: the Main Protocols is connected from the PD-1net output port to port A on the USB-422, the second Protocols is connected from the PD-1net input port to port B on the second USB-422.

Connection between the computer running PD-Stem Software and one or two PD-1net's is via Ethernet.







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The information in this document is subject to change without notice.

The Information in the manual is updated as the PDstem S/W is improved, you can find the latest version of the software on the product web page.

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