

Toolset Omega Device Setups and Variants

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Overview

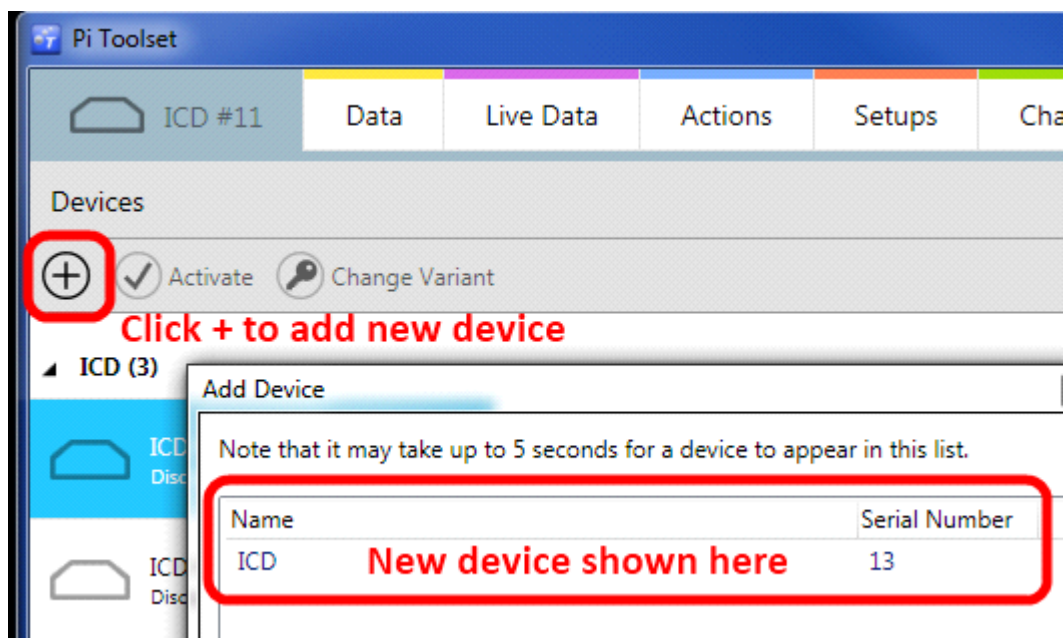
Pi Toolset uses TCP style communication over ethernet to configure a wide number of Omega products (called Devices). While this makes Toolset very versatile each Omega Device must be configured carefully before use.

To allow different specification of Device Cosworth Electronics uses software tokens to enable or disable certain functions to match the Device - each level of a device is called a variant.

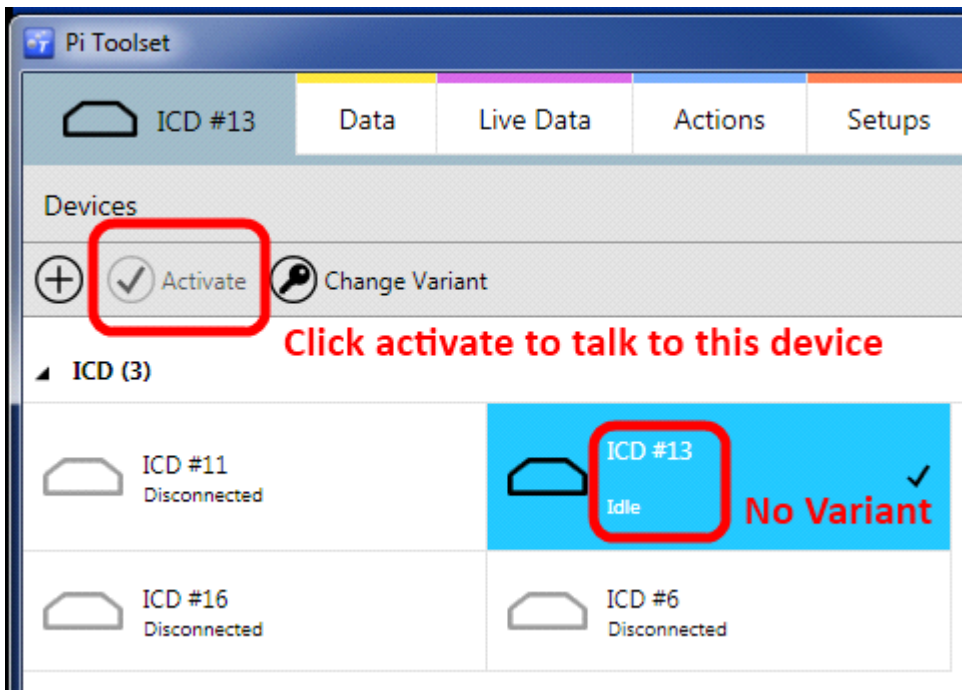
This user guide explains some of the principles and how to get going with Toolset and the different Omega Devices and the variants of those devices.

Adding a Device

Clicking the + icon adds a device to Toolset, here we have ICD #13.

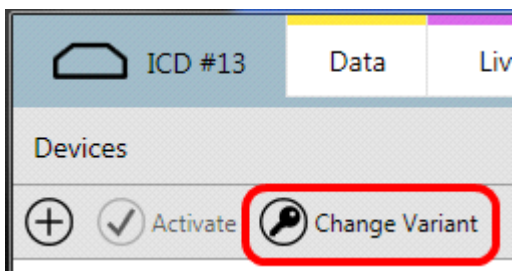


Selecting ICD #13, and clicking activate we see the following, in this instance there is no token on the Box and so the box announces no variant.

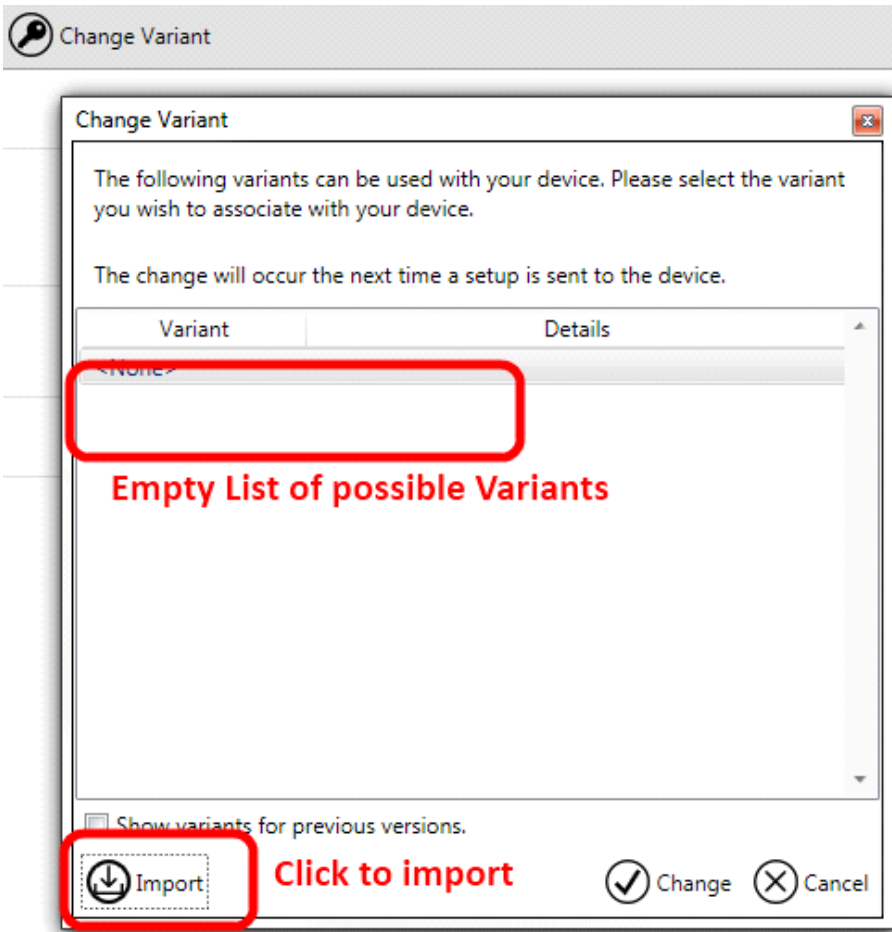


Setting the Variant of the Device

In the event of the box not having a variant then it will be necessary to attach a token to the box ready to be sent with the setup. With the device activated then click the change variant button

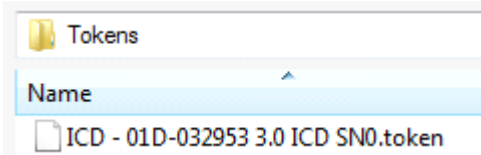


Which then brings up a new dialogue that controls the tokens.
Here is a blank box;

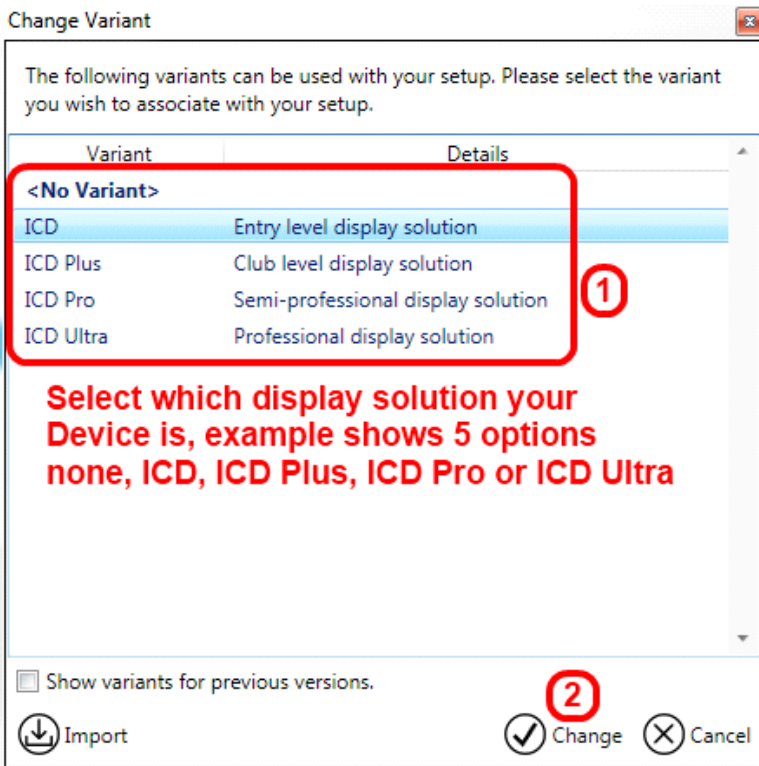


Click Import and navigate to where the end user has stored their tokens. Once imported the token is stored and cached in Toolset, so this operation should only be required once.

This screenshot shows the base level of variant for dash serial number 0;



Tokens are necessary to switch on or off the corresponding parts of Toolset that match that version of Omega device the user has. With the token selected, select the appropriate variant (1) and click change (2). It is also possible to go backwards on the variants to make base level products if required (unusual).



This then sets the token for the active device to be an ICD Pro. The small yellow warning triangle reminds us that the setup is still yet to be sent to the box;



Once a valid setup has been sent to the box the icon looks like this (no yellow triangle)



Working with Setups

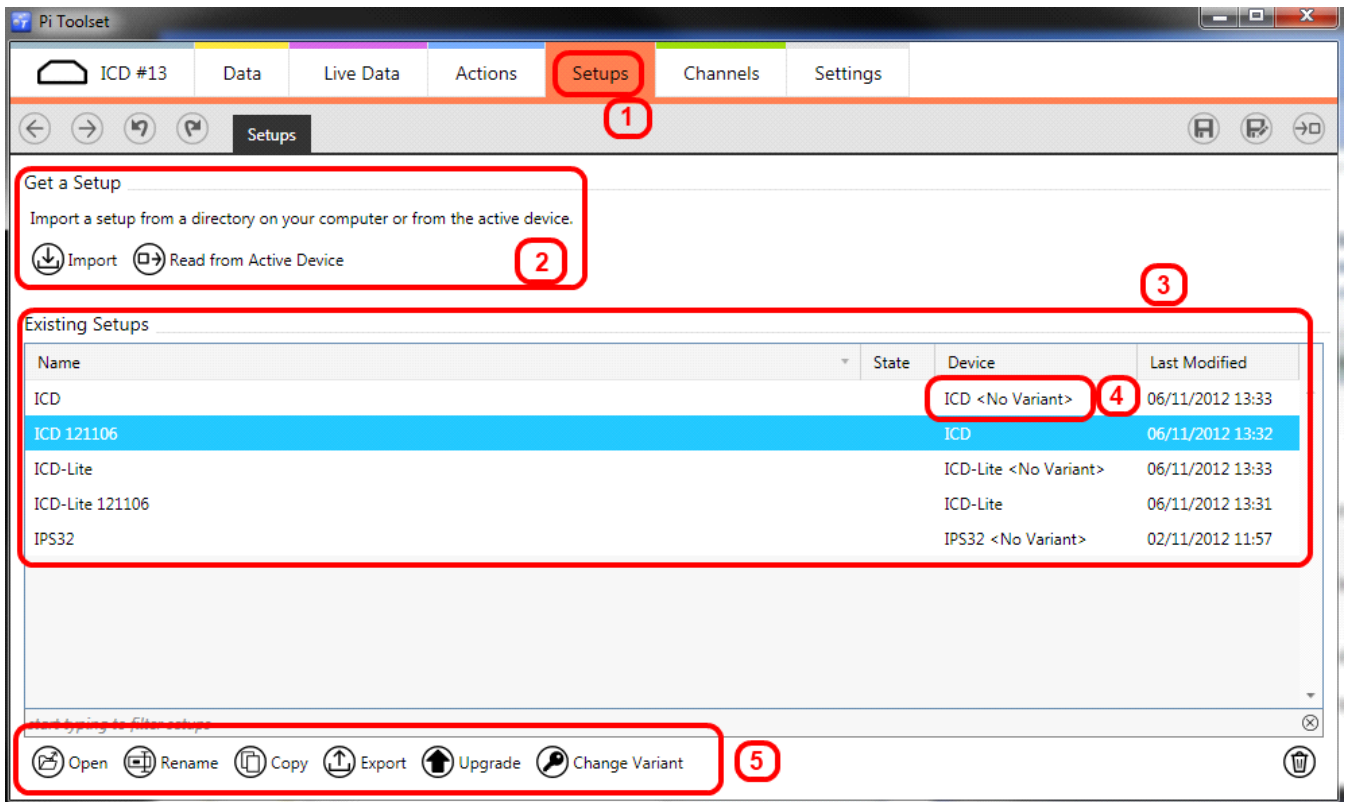
To work with the setups for a device click to the setups tab (1). All Device setups will appear in this list, with information shown as name, device type, device variant and a last modified timestamp.

If this list is empty it will be necessary to get a setup (2), either by importing the .toolset file supplied by Cosworth or from reading from the active device.

Once you have existing setups (3) to work with, a naming strategy becomes an important discipline.

In the screen shot we see that there is a setup that has no variant, this is probably an imported base level setup for that device and it is important to either set the variant or to make copies and to then set the variant.

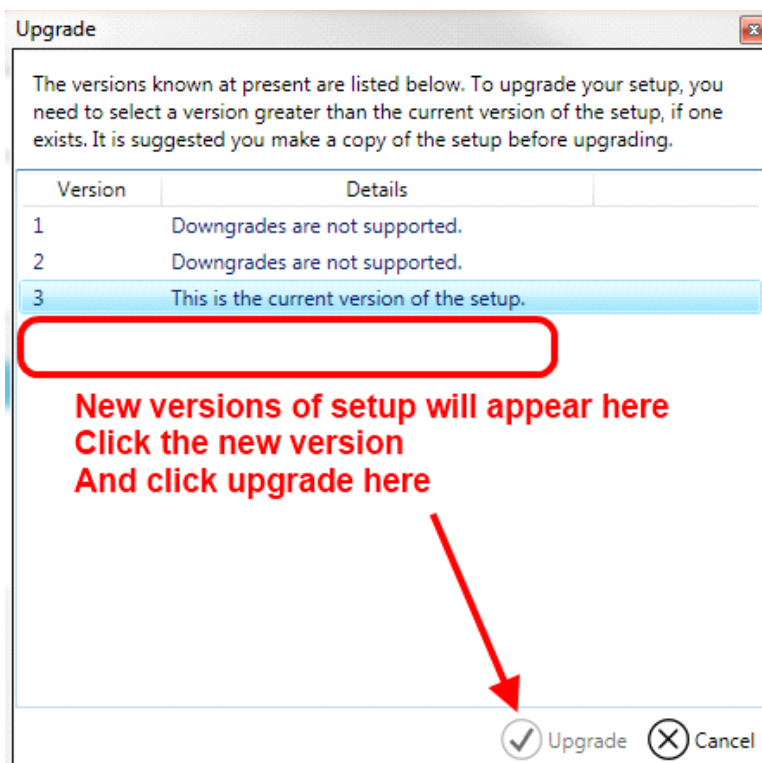
Working with the setups (5) it is possible to open the highlighted setup, rename the setup, make a copy of the setup, Export the setup to another folder, upgrade the version (if there is a major feature change), and finally to Change Variant - which brings up a similar dialogue box to the device variant selection method.



Upgrading Setup Versions

To cope with new features in Toolset it may be necessary from time to time for Cosworth to upgrade the setups to a newer version. Upgrades are supplied by Cosworth in the form of a base level setup, which when imported will tell Toolset that there is a new version of setup available. It is then up to the user to upgrade their setups one one at a time.

This is an example of the dialogue seen by clicking the upgrade button;

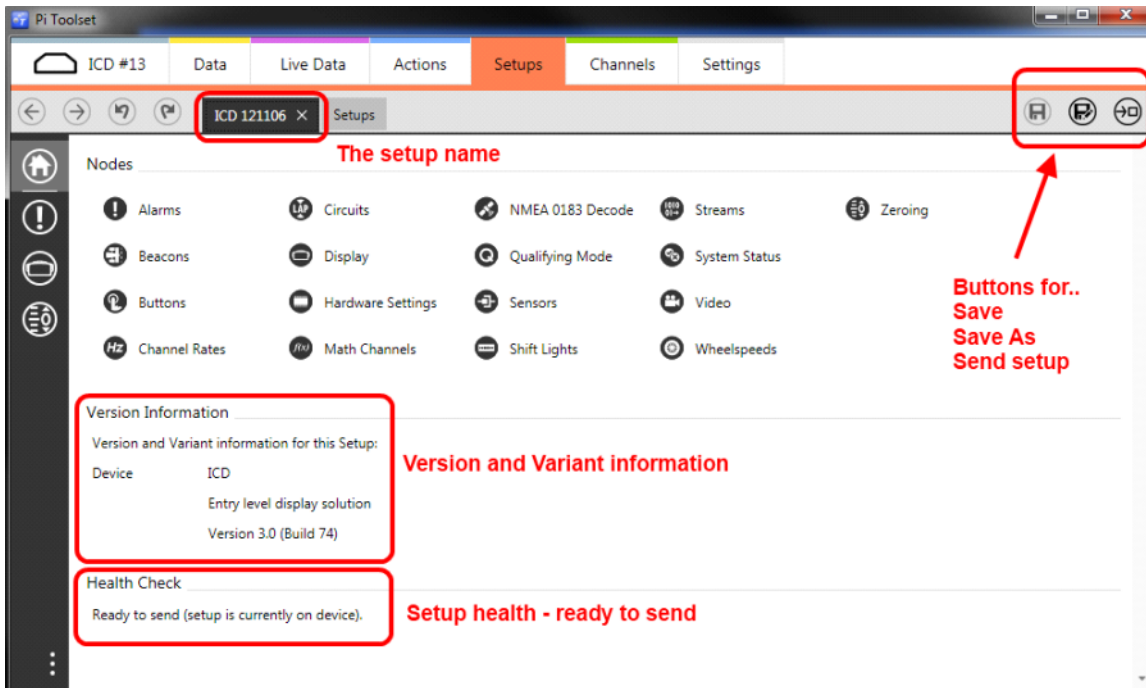


Once upgraded which is a permanent change (make copies if you want to go backwards)

Opening Setups

Once a setup is opened Toolset will show the homepage of that setup and from here all changes are made to the setup as the user wants.

An important piece of information is also displayed on the home page which may be of use to Cosworth for debug purposes, the screenshot below shows an open setup, the Version Information for that setup, and finally the Health Check of that setup.



The buttons on the top right side operate that setup. When a change is made to a setup (for example to the logging rates) then Toolset will show that the setup has not been saved with a * suffix to the setup name;



It is possible to save setup, or save as - which is useful in case you want to preserve the option of going back to the original setup.

Finally the send setup button sends to the active device.

Various interlocks and error checking is made such that it is impossible to send a setup that is not designed for that device, for example sending an IPS32 setup to an ICD.

Details on what each part of the setup does is covered in another user guide.