Procom PPC Software User's Manual

Version 1.1

<u>**Notice:**</u>

The ECU/CDI has been programmed with 9 selectable built-in maps and is READY TO USE WITHOUT reprogramming. Just select a map, PLUG IN & GO. However, if you are determined to reprogram it, you have to read through this manual and follow the procedures. The basic computer and dyno tuning knowledge is required. The 3D combination maps are already built in; you are able to adjust the maps based on default baseline of position "0" to "9". In addition, you can select a map from our CD kit or free download more maps from www.procomeng.com. **Warning:** The maps downloaded or imported must be installed into position "0" only!

Contents

1. General

This software is designed for end users to re-program the Procom ECU/CDI to achieve maximum performance or enhance personalization. This simple but powerful software allows you to edit the data in ECU/CDI, write new data into ECU/CDI or reset the default to ECU/CDI. It applies for Procom ECU/CDI models 2009 or later.

You are advised to read this manual carefully before you attempt to re-program Procom ECU/CDI. You may want to check our website to see whether there is a newest edition or update of this manual since it was printed.

1.1 Procom programmable ECU/CDI kit

The Procom programmable ECU/CDI kit comes with Procom Hi-Performance ECU/CDI, *Procom Programmable Power Curves (PPC)* software CD and a USB cable.

The ECU/CDI has been programmed at the default status and is ready to use WITHOUT your effort to program it. However, if you are determined to reprogram it, you have to read through this manual and follow the procedures as follows.

1.2 How to connect ECU/CDI for programming?

Before you start programming your ECU/CDI, you have to connect Procom ECU/CDI with your computer through the USB cable we provided. Plug one end of the USB cable into your computer USB port and connect the other end to Procom ECU/CDI.

1.3 Operation system requirement:

Windows 2000 or newer.
Resolution of Display: 1024x768 or higher.

P.S.
(1). If you have limited dyno tuning knowledge but still wish to increase the Rev. limit, you may do so without changing Procom default "0" baseline maps.
(2). The standard Procom PPC software is for various models of Procom ECU/CDI, just ignore the rang of RPM if it is beyond your machine's Rev. Limit. In addition, ignore the functions that are not applicable to your ECU/CDI.

Disclaimer: As these products are high performance parts and will increase the performance of your machine, purchase and use of our high performance parts are at your own risk. By purchasing and use these parts, our maximum liability is the amount you paid for the item.

2. How to Install Procom PPC Driver?

Before you begin installation of this driver, please make sure that the ECU/CDI is not connected with your computer.
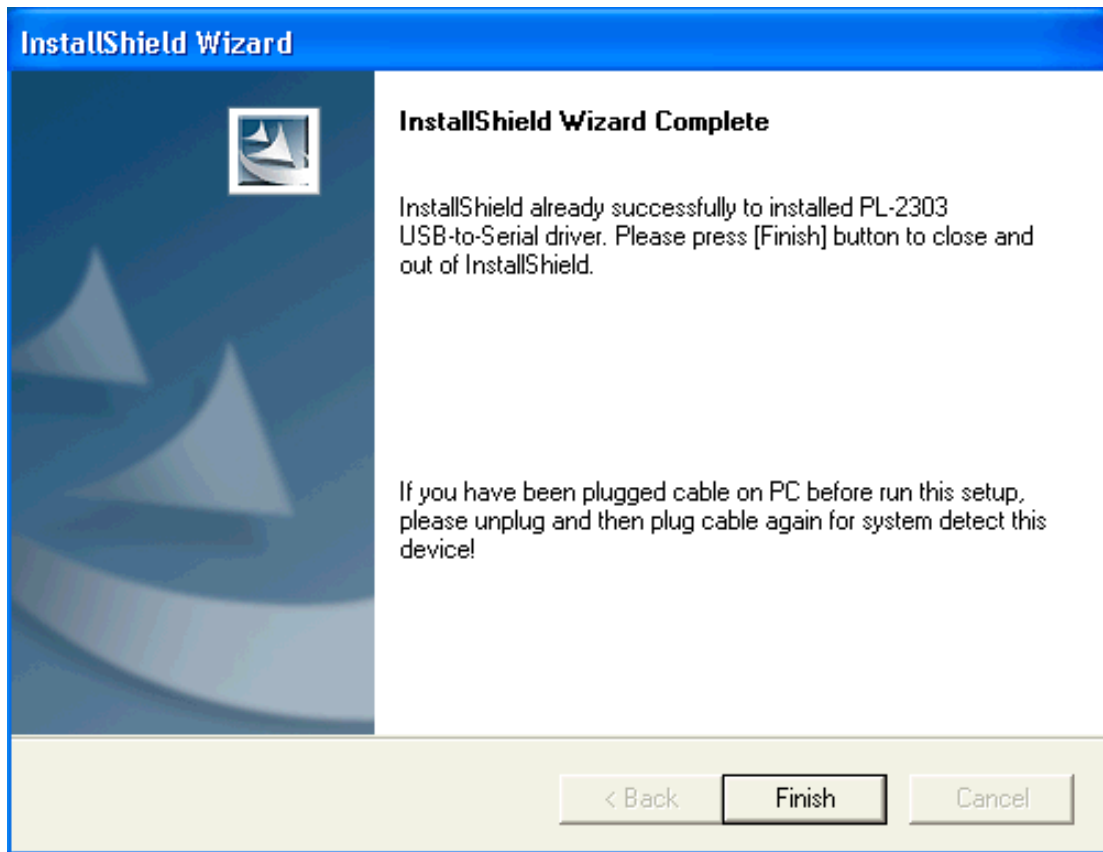
2.1 Step 1
Insert the CD into your CD-ROM. Open the CD and double click on Procom Driver Installer.exe. The InstallShield Wizard will appear as below.
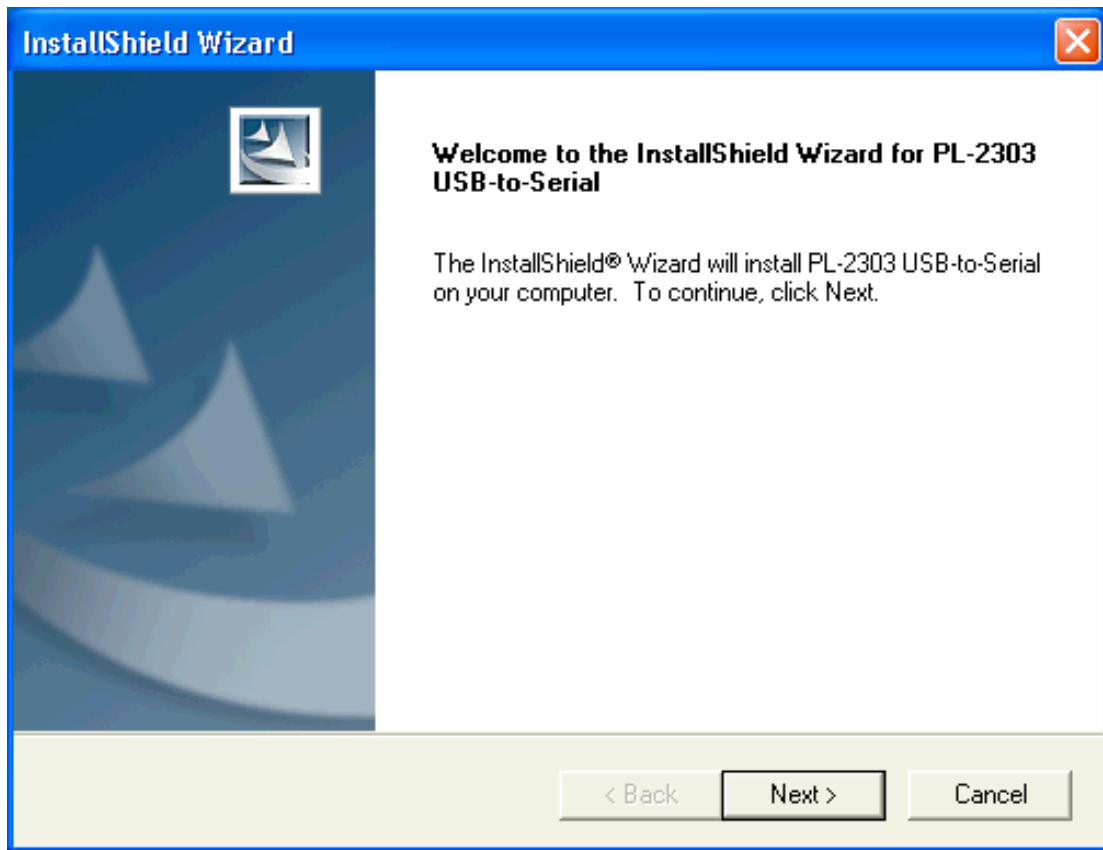
Click on "Next" to continue…until the following appears.

2.2 Step 2

Click "Finish" to complete this installation and then ***restart your computer.***

Notes:

If the driver was not installed successfully or does not work properly with your ECU/CDI, then follow the steps below to re-install it:

(1). Disconnect the ECU/CDI with your computer.

(2). Uninstall the PL-2303 USB-Serial Driver from your computer.

(3). Restart your computer.

(4). Re-install the driver.

3. How to Install Procom PPC Software?

Procom PPC Software is designed for end users to re-program the Procom ECU/CDI to achieve maximum performance or enhance personalization. This simple but powerful software allows you to edit the data in ECU/CDI, write new data into ECU/CDI or reset the default to ECU/CDI.
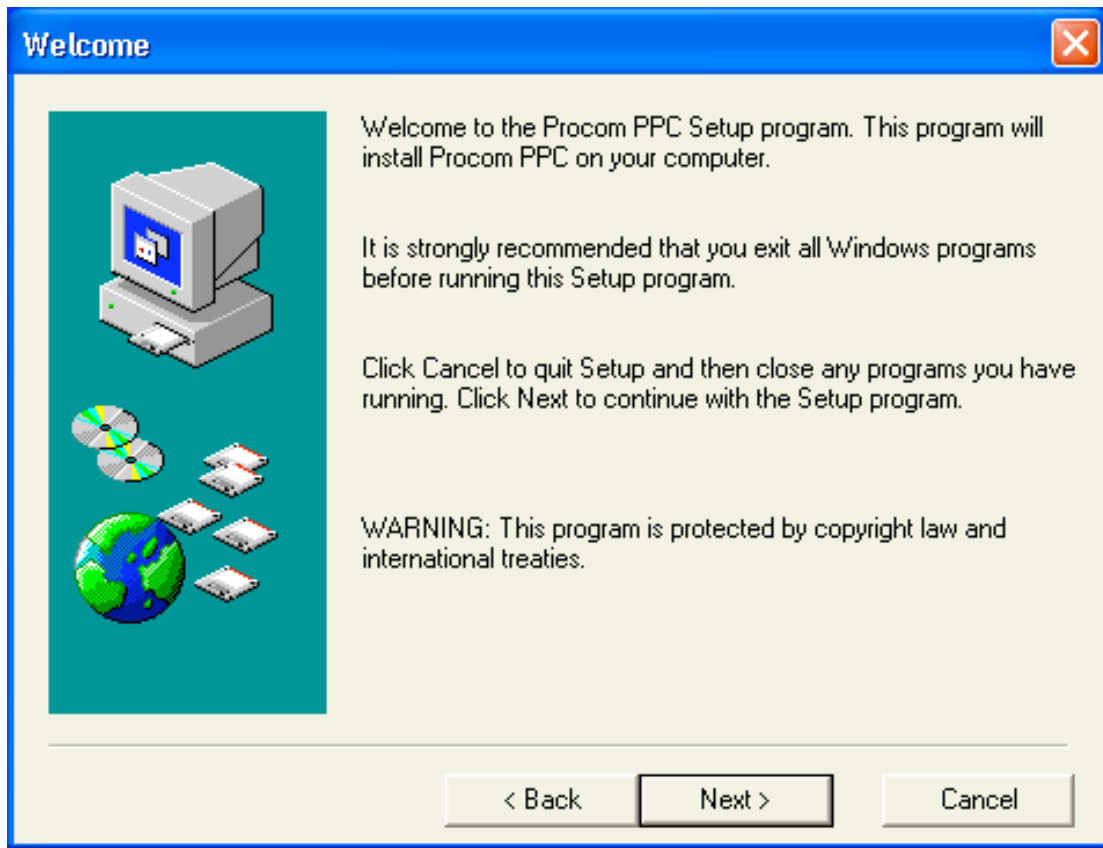
3.1 Step 1
Insert the CD into your CD-ROM. Open the CD and double click on ProcomPPC Setup.exe until the following appears:
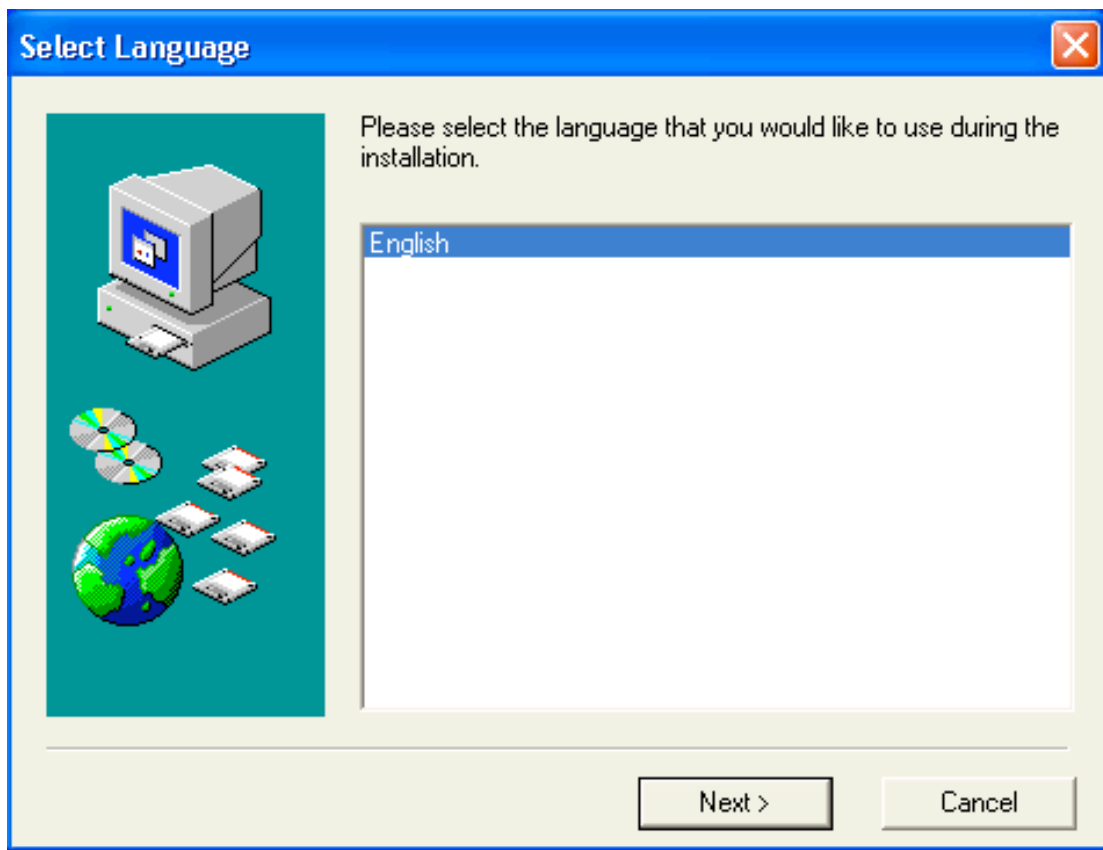
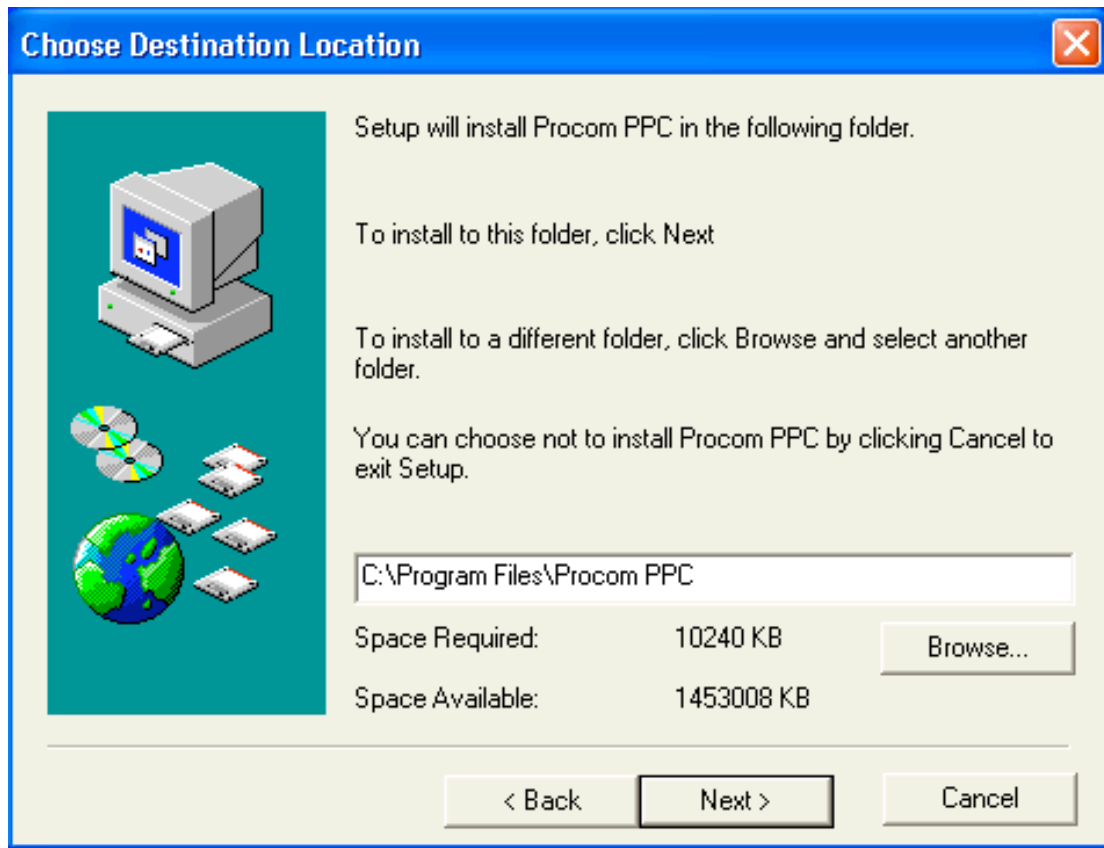Select your preferred language and click "Next" to go to next step…

3.2 Step 2

Make sure that all other programs have been closed in your computer, and then click "Next" to continue…

3.3 Step 3

If you like to install this software into the default directory as appears, just click "Next" to go to next step…Otherwise, click "Browse" to select a different directory you prefer and then click "Next" to continue…

3.4 Step 4
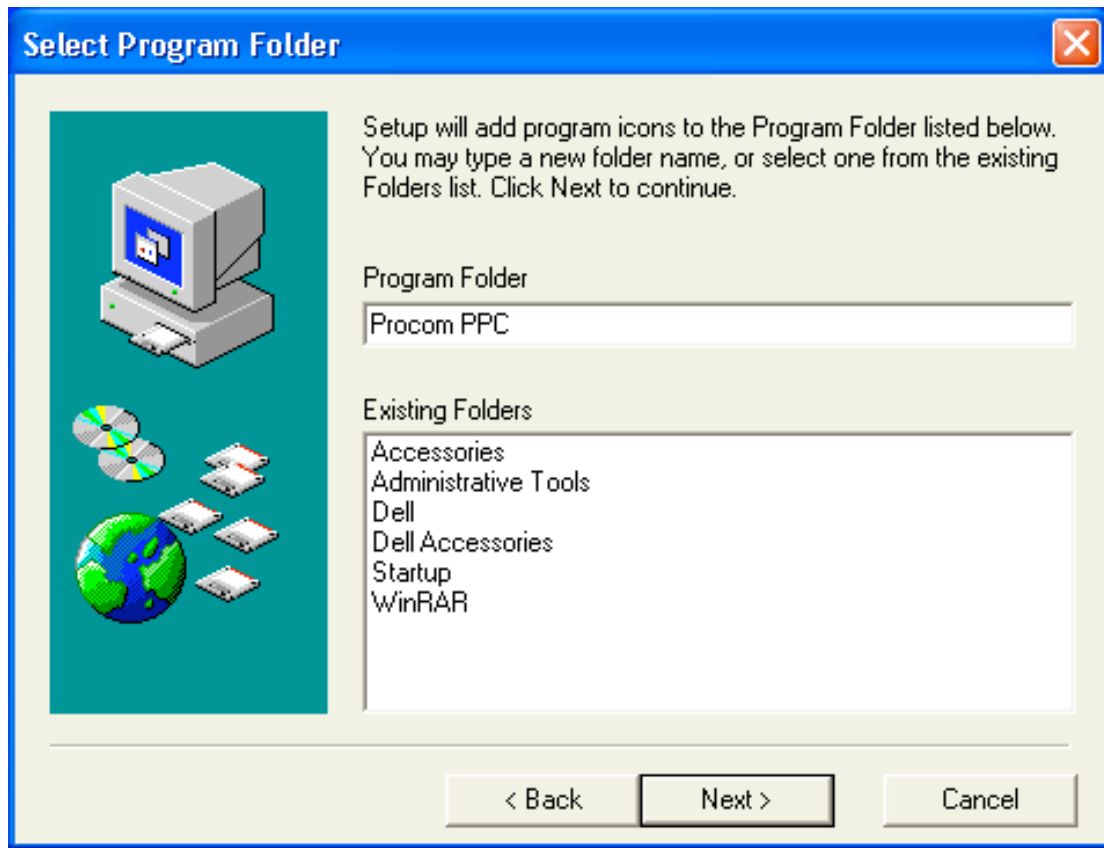
This setup will add the "ProcomPPC" folder into your computer. You may type a different name of the folder or select one from the list of Existing Folders. Then click "Next" to go to next step…

3.5 Step 5
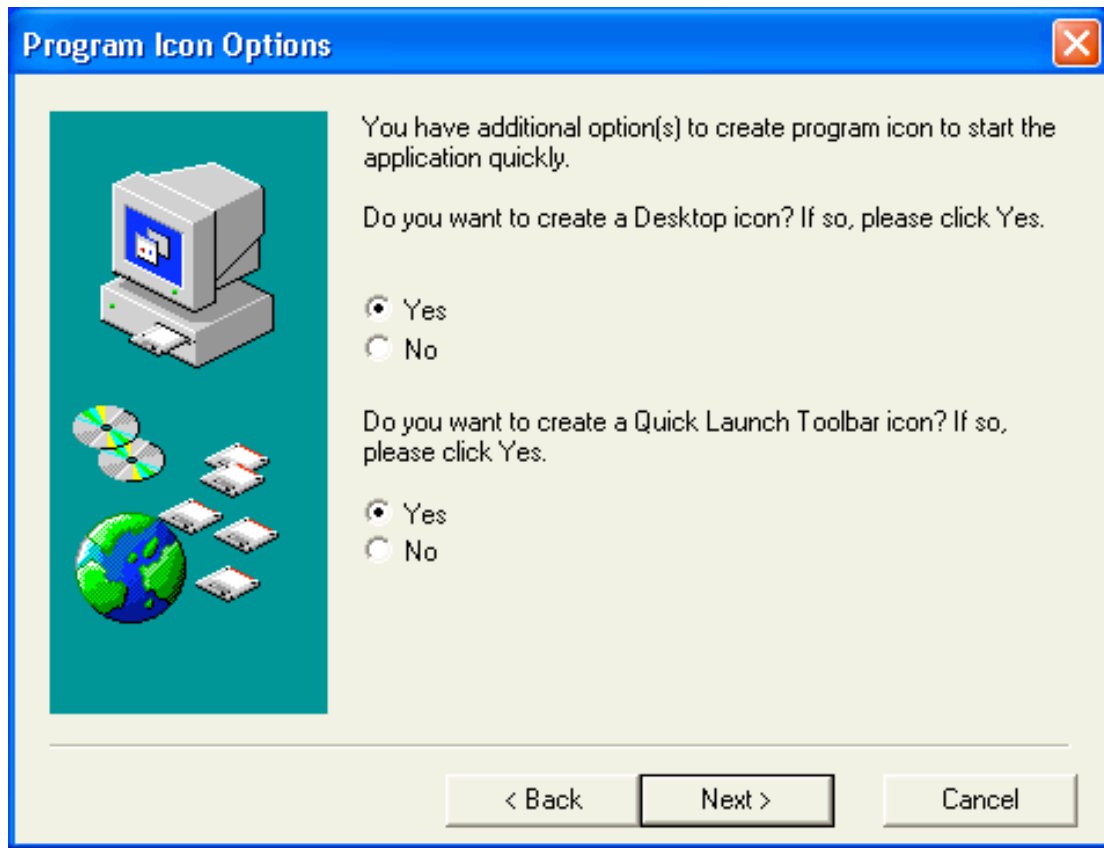
If you like to create a shortcut on your desktop and create a quick launch toolbar, just click "Next" to go to next step…Otherwise, select your preference and then click "Next" to continue…

3.6 Step 6
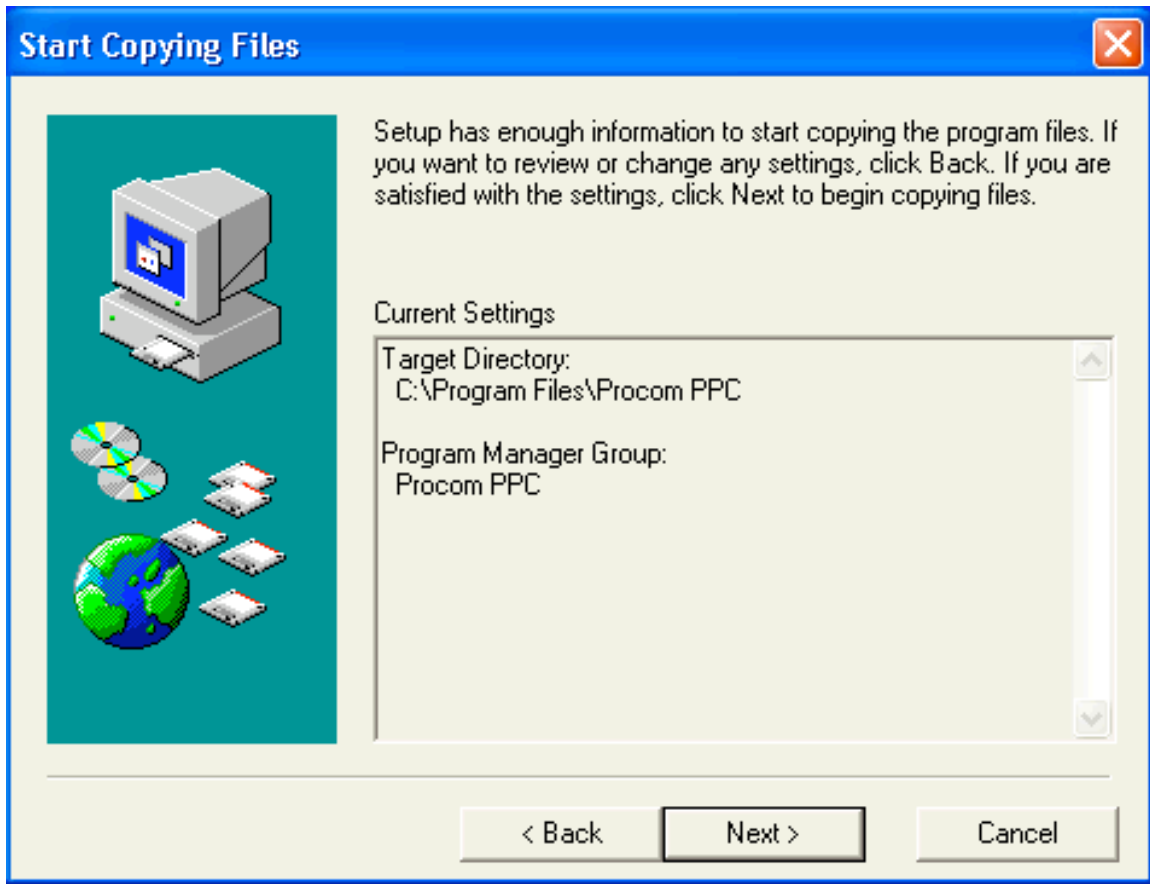
The Setup is ready to copy the files into your computer, click "Next" to wait for the following appears…Otherwise, click "Cancel" to quit Setup or click "Back" to review/change your settings, and then click "Next" to wait for the following appears…

3.7 Step 7
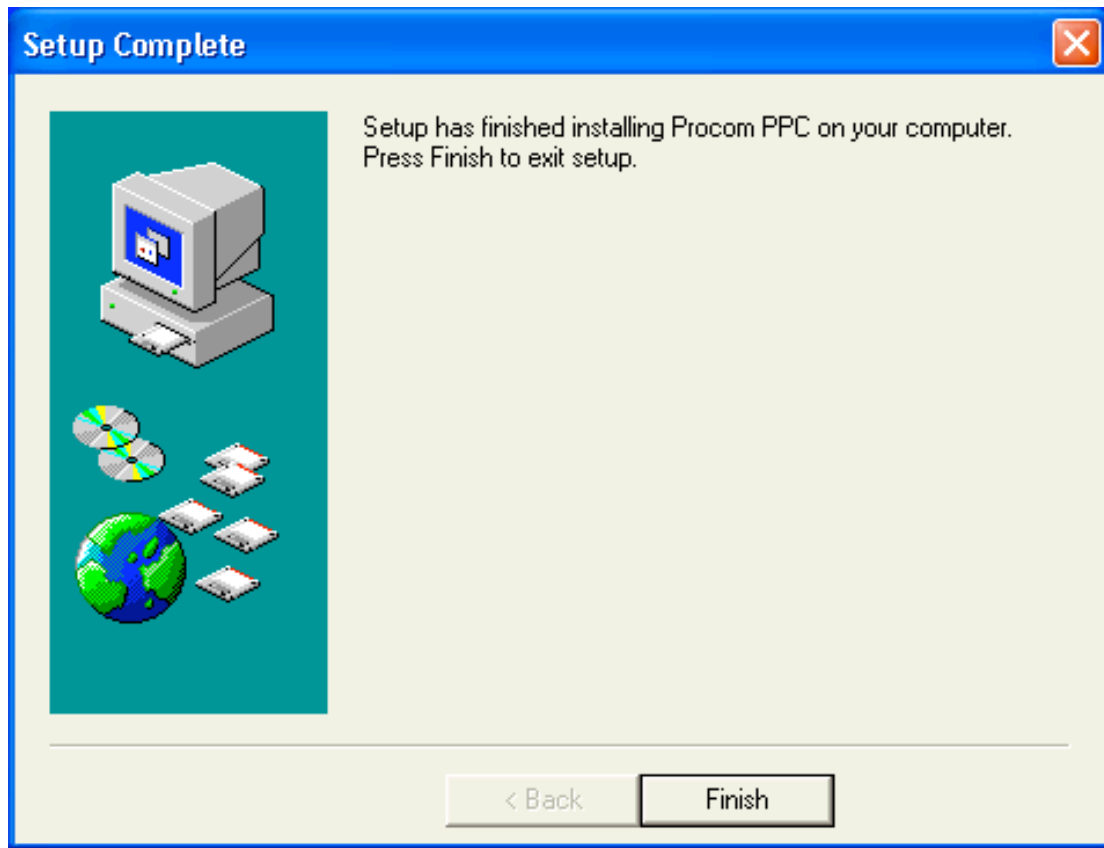
Click "Finish" to complete the setup…

3.8 Step 8
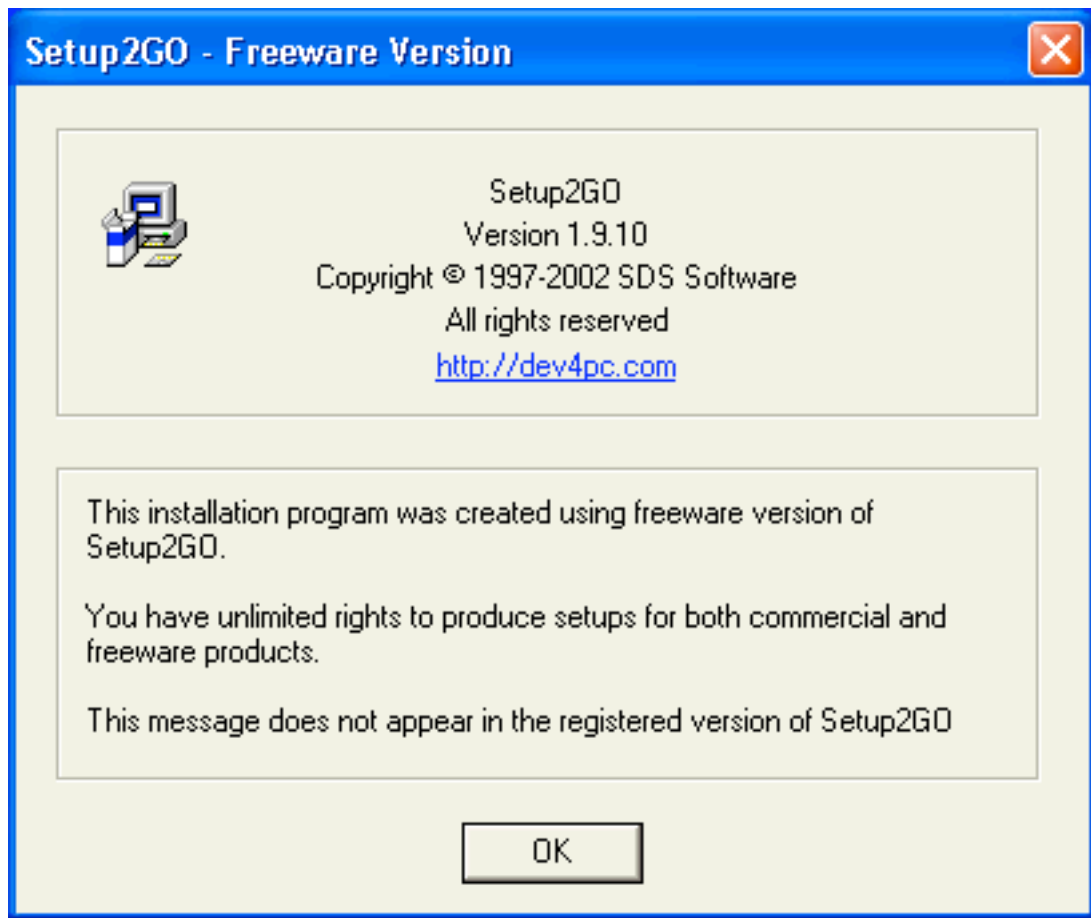
Congratulations! Procom PPC software has been installed successfully in your computer. Its copyright is protected by laws. Click "OK" to exit the installation.

4. How to Use Procom PPC Software?

Before re-programming your ECU/CDI:

(1). Please make sure the ECU/CDI is disconnected from the wire harness of your machine or make sure that your machine's ignition is turned off! Programming with ignition powered on may damage the ECU/CDI!

(2). The voltage of the sensors is very sensitive. We strongly recommend that you measure the sensor's existing voltage of your machine before this programming.

4.1 Description of functions under "Program"
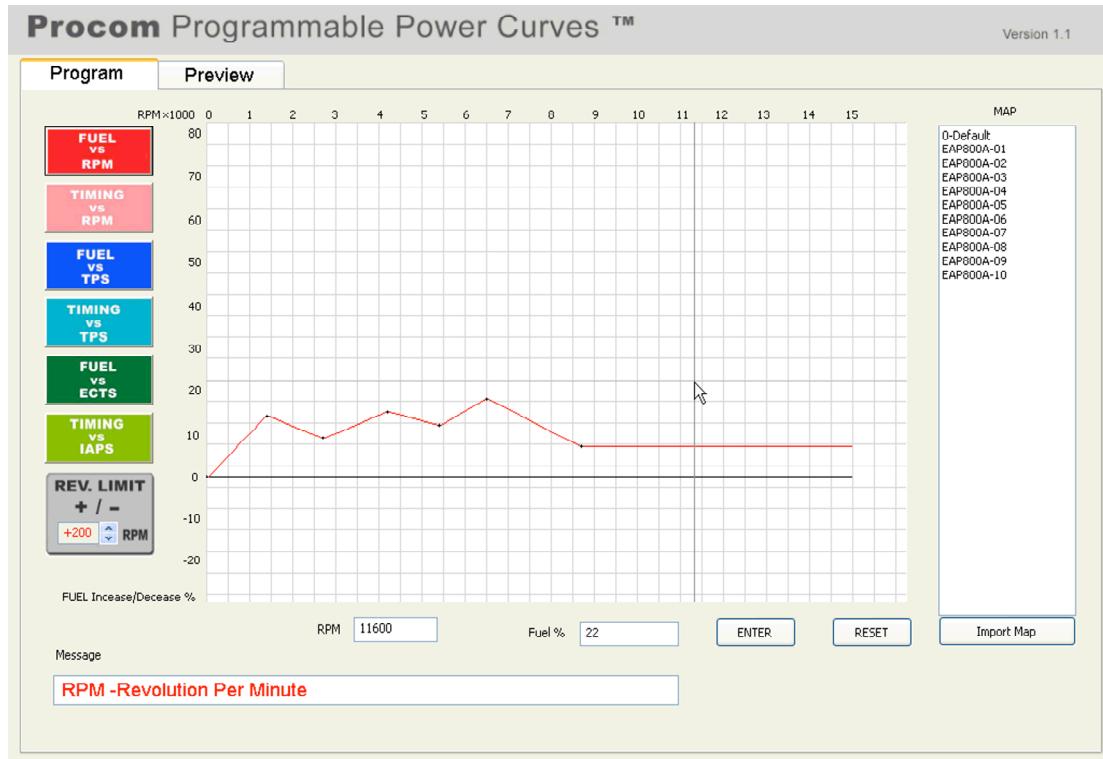
FUEL vs. RPM:	You can increase/decrease the fuel against the Revolution Per Minute (RPM).
TIMING vs. RPM:	You can increase/decrease the timing degree against the Revolution Per Minute (RPM).
FUEL vs. TPS:	You can increase/decrease the fuel against the Throttle Position Sensor (TPS).
TIMING vs. TPS:	You can increase/decrease the timing degree against the Throttle Position Sensor (TPS).
FUEL vs. ECTS:	You can increase/decrease the fuel against the Engine Coolant Temperature Sensor (ECTS).
TIMING vs. IAPS:	You can increase/decrease the timing degree against the Intake Air Pressure Sensor (IAPS).
REV. LIMIT:	You can click the up/down arrows to increase/decrease the Revolution Limit as you desire. The maximum increment/decrement is +3000/-3000RPM. **Warning:** Please consult with your local dealer before you do this. The over increment of Rev. Limit can damage your machine. Do this at your own risk!
Message:	Shows your current status.

|	
Map:	The map is a file folder containing above 6 colored functional data. It is savable, transferable and restorable. However, for your safety, the Rev. Limit data is NOT savable, transferable or restorable.
0-Default:	The map is Procom's manufacturing default map.
XXXXXXX-XX:	The "XXXXXXX" is for Procom ECU/CDI P/N, e.g. E-AP800-A.
-01	Map 01 is designed for beginning riders on stock machine.
-02	Map 02 is designed for medium-level riders on stock machine.
-03	Map 03 is designed for advanced riders on stock machine.
-04	Map 04 is designed for beginning riders on minor modified machine.
-05	Map 05 is designed for medium-level riders on minor modified machine.
-06	Map 06 is designed for advanced riders on minor modified machine.
-07	Map 07 is designed for beginning riders on general modified machine.
-08	Map 08 is designed for medium-level riders on general modified machine.
-09	Map 09 is designed for advanced riders on general modified machine.
-10	Map 10 is designed for riders on aggressively modified machine.
Import Map:	You can import Procom PPC maps from any folders in your computer including the maps you downloaded.
ENTER:	You can drag the color line to edit the data. Or you can input data by your keyboard and then press ENTER to edit the map.
RESET:	Click this to reset the edited data to base line "0".

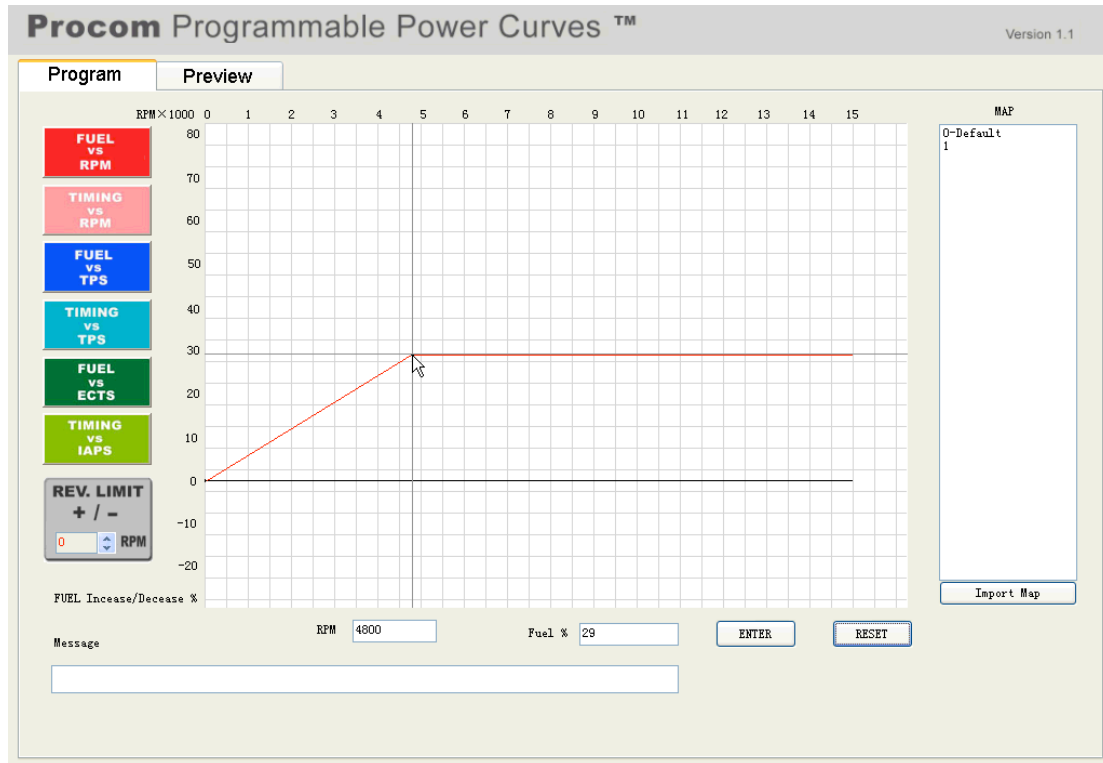## 4.2 Description of functions under "Preview"
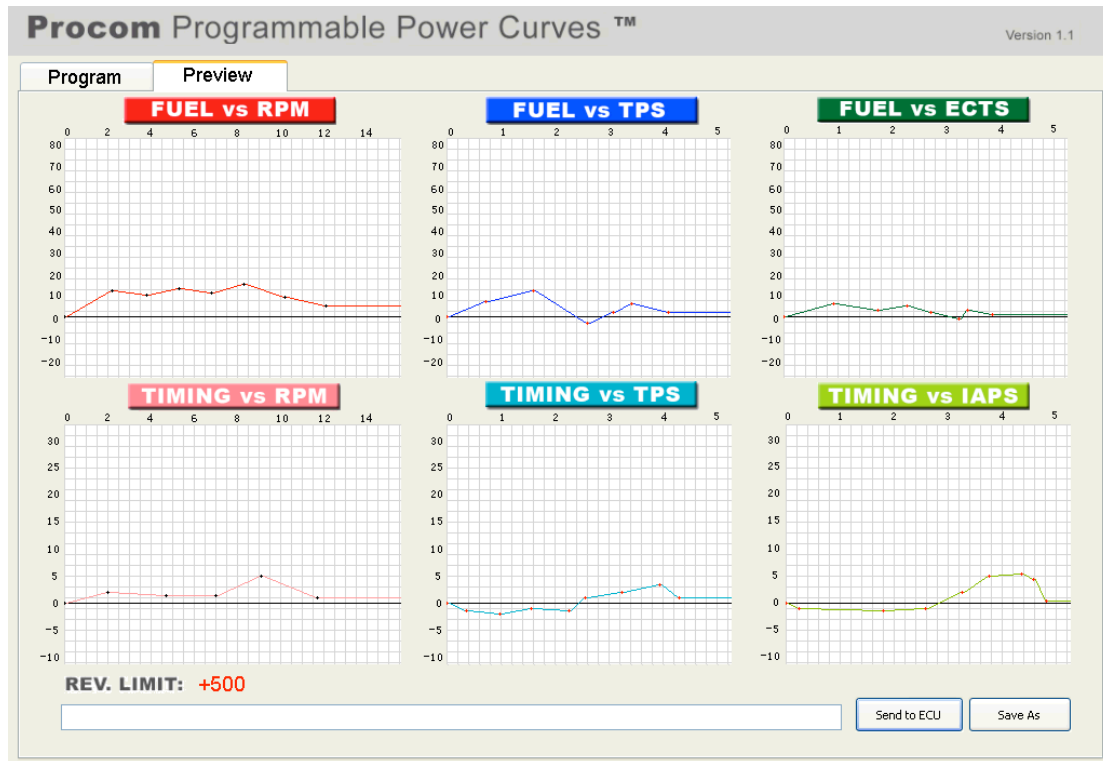
REV. LIMIT: Shows the RPM of the Rev. Limit you just changed.

Send to ECU: Click this button to send the data in this preview to the ECU/CDI.

Save As: Click this button to save the data in this preview as your preference.

4.3 How to add a point to create your map?

Open Procom PPC from the shortcut on your desktop or the folder you saved.

Click the colored button on the left to select which function tool you need to create your map now. Then drag the color line to the point for the data you want. At same time, the boxes below will show you the exact numeric values as you pointed. Once you release your mouse, the pointed data will be saved, and then you can create next point. Or you can manually input the numeric values to the boxes, then click ENTER, the data will be saved. At same time, the color line will move to the point according to the data you just entered.

4.4 How to modify a point from a map?
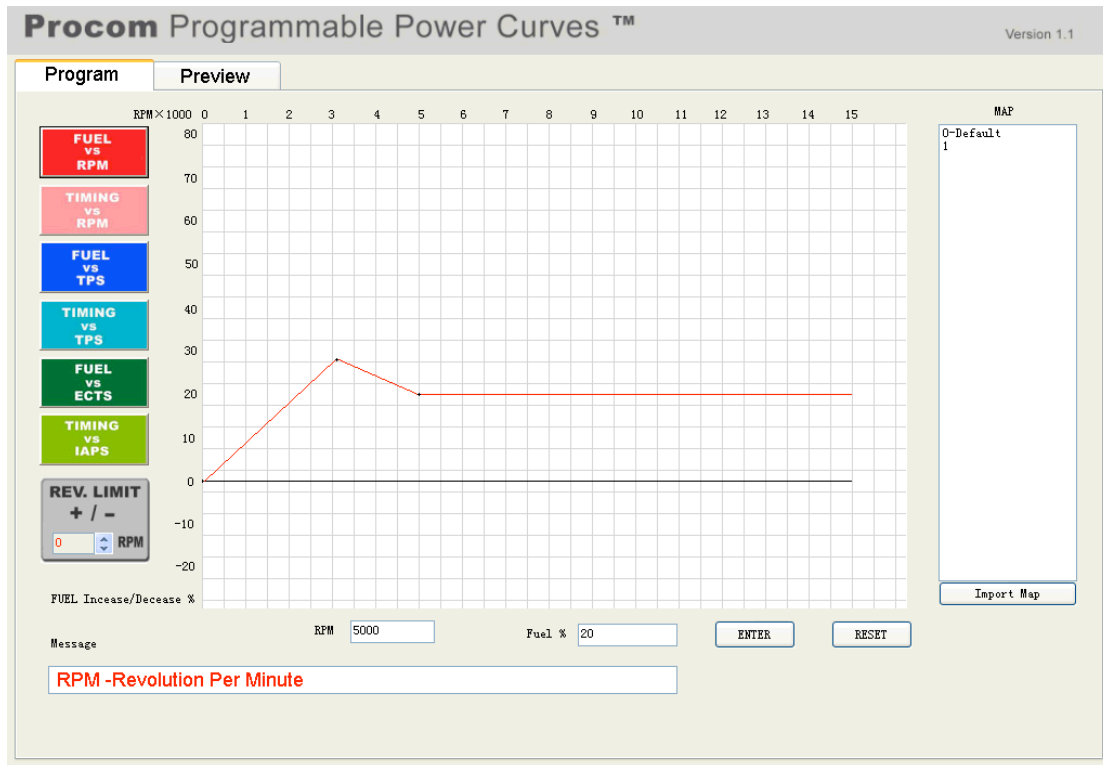
Click a point you want to modify, hold and drag it to a new point you desire and then release. Or you can click RESET button to start over again from the base line.

4.5 How to create another function data?
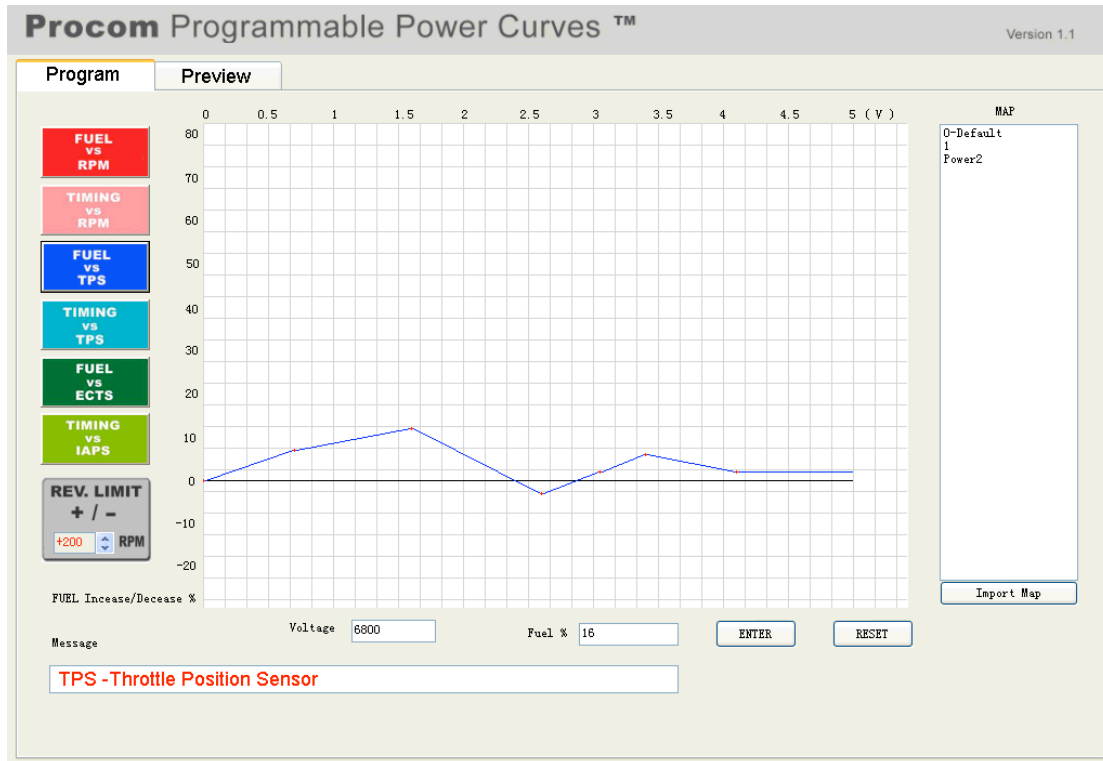
After you have finished creating one function data, such as, FUEL vs. RPM, then you just click the left colored function button to start creating a new function data, such as, FUEL vs. TPS. The previous function data you have just created is automatically saved.

4.6 FUEL vs. RPM function
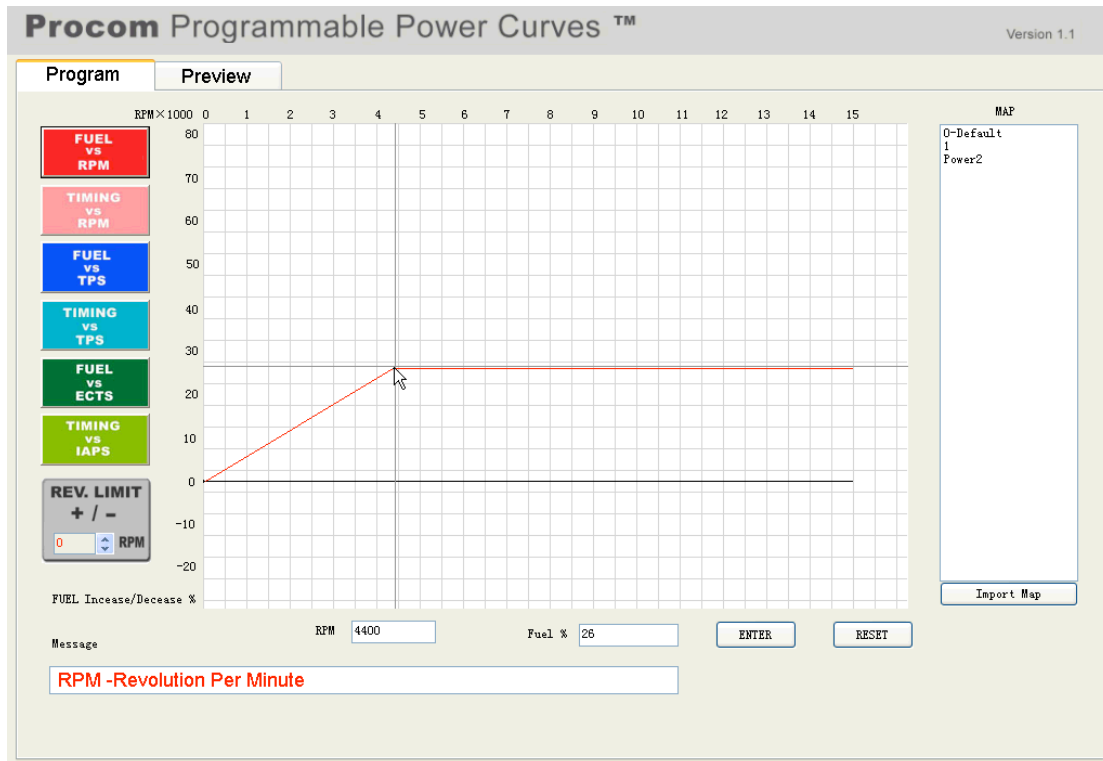
Once you click the red function button, the red line will appear. Then you can drag the red line to set up the data. At the same time, the box after "RPM" will indicate the numeric value of the RPM and the box after "Fuel %" will indicate the percentage of the fuel you want to increase/decrease while you drag the red line. Or you can manually input the numeric values to the boxes, then click ENTER, and the data will be saved. At the same time, the red line will move to the point according to the data you just entered.
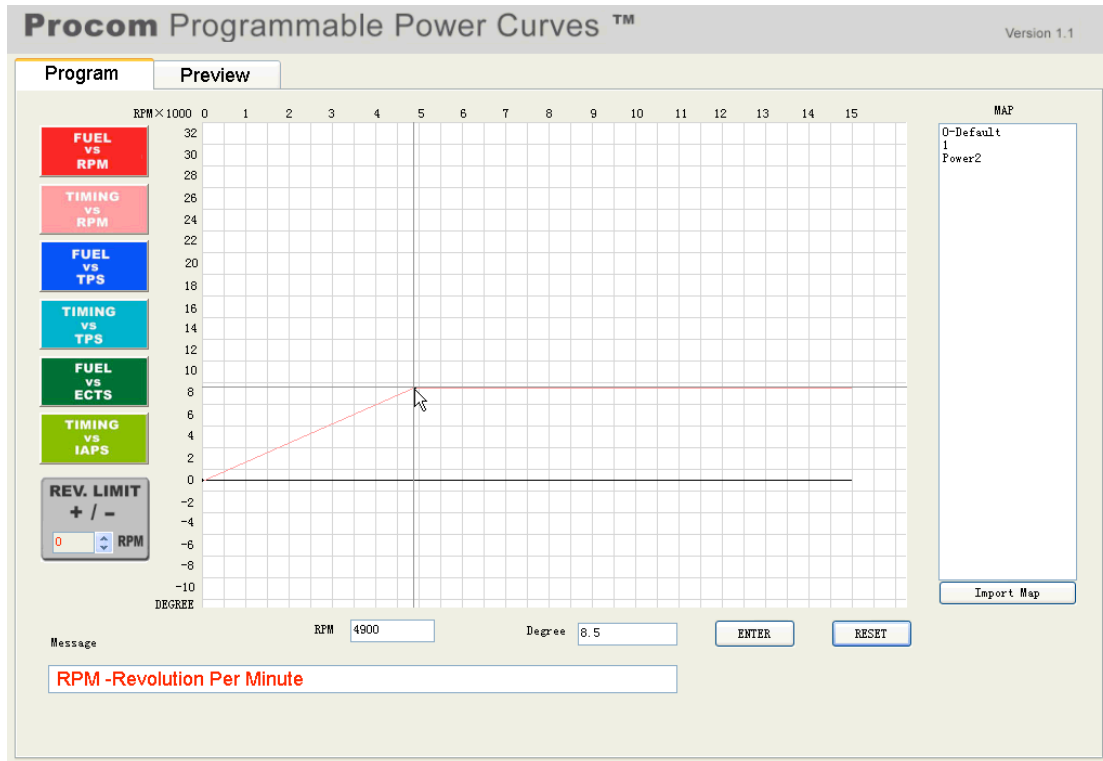
The numbers after the "RPMx1000" indicate engine RPM. The entering of RPM is multiple of 100 and the maximum RPM is 15,000. The numbers above the "FUEL Increase/Decrease %" indicate the fuel percentage you want to increase/decrease based on the built-in default value by the manufacturer, Procom. The maximum increment is 80% and the maximum decrement is 20%.
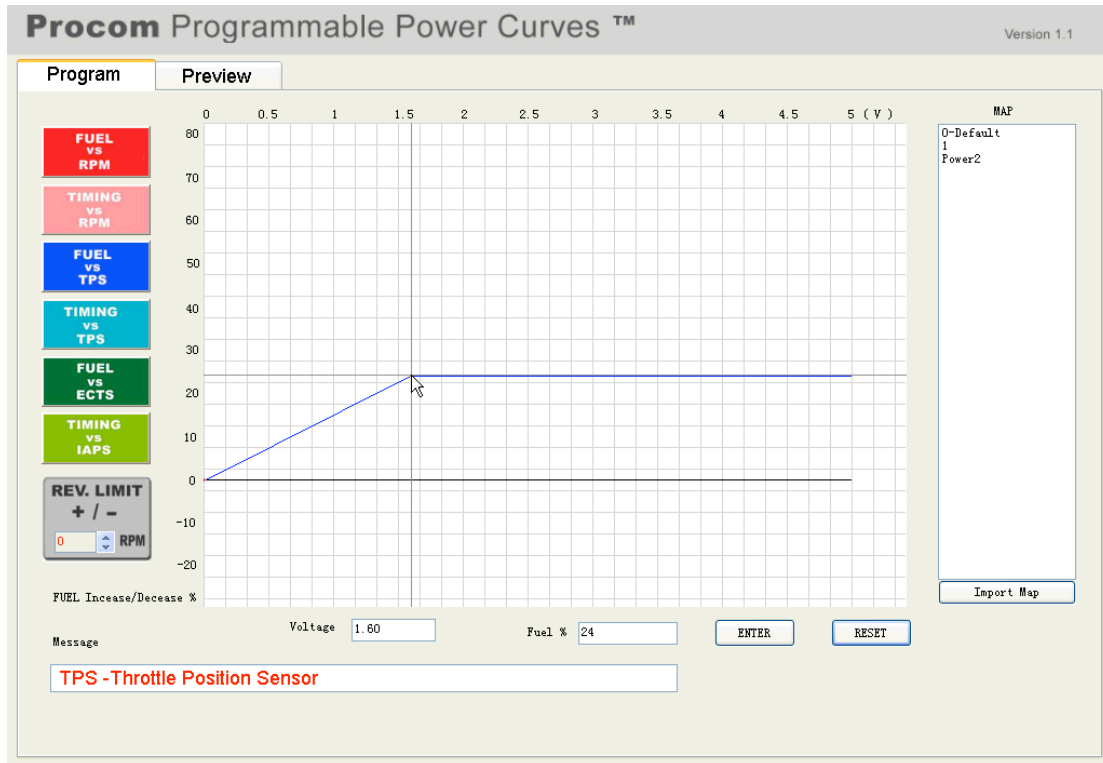
4.7 TIMING vs. RPM function

Once you click the pink function button, the pink line will appear. Then you can drag the pink line to set up the data. At the same time, the box after "RPM" will indicate the numeric value of the RPM and the box after "DEGREE" will indicate the timing degree you want to advance/retard while you drag the pink line. Or you can manually input the numeric values to the boxes, then click ENTER, and the data will be saved. At the same time, the pink line will move to the point according to the data you just entered.

The numbers after the "RPMx1000" indicate engine RPM. The entering of RPM is multiple of 100 and the maximum RPM is 15,000. The numbers above the "DEGREE" indicate the timing degree you want to advance/retard based on the built-in default value by the manufacturer, Procom. The maximum advancement is 32 degrees and retardation is 10 degrees.
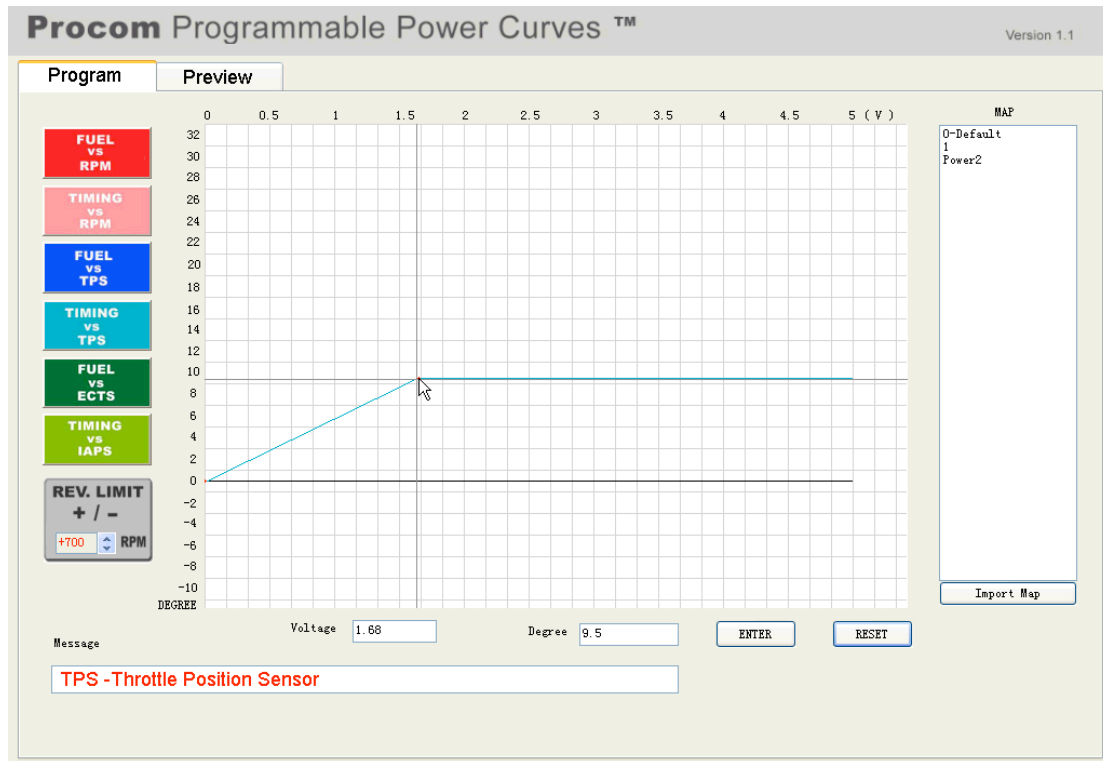
4.8 FUEL vs. TPS function

Once you click the blue function button, the blue line will appear. Then you can drag the blue line to set up the data. At the same time, the box after "Voltage" will indicate the numeric value of the TPS voltage and the box after "Fuel %" will indicate the percentage of the fuel you want to increase/decrease while you drag the blue line. Or you can manually input the numeric values to the boxes, then click ENTER, and the data will be saved. At the same time, the blue line will move to the point according to the data you just entered.

The numbers before "(V)" indicate TPS voltage. The maximum voltage is 5V. The numbers above the "FUEL Increase/Decrease %" indicate the fuel percentage you want to increase/decrease based on the built-in default value by the manufacturer, Procom. The maximum increment is 80% and the maximum decrement is 20%.
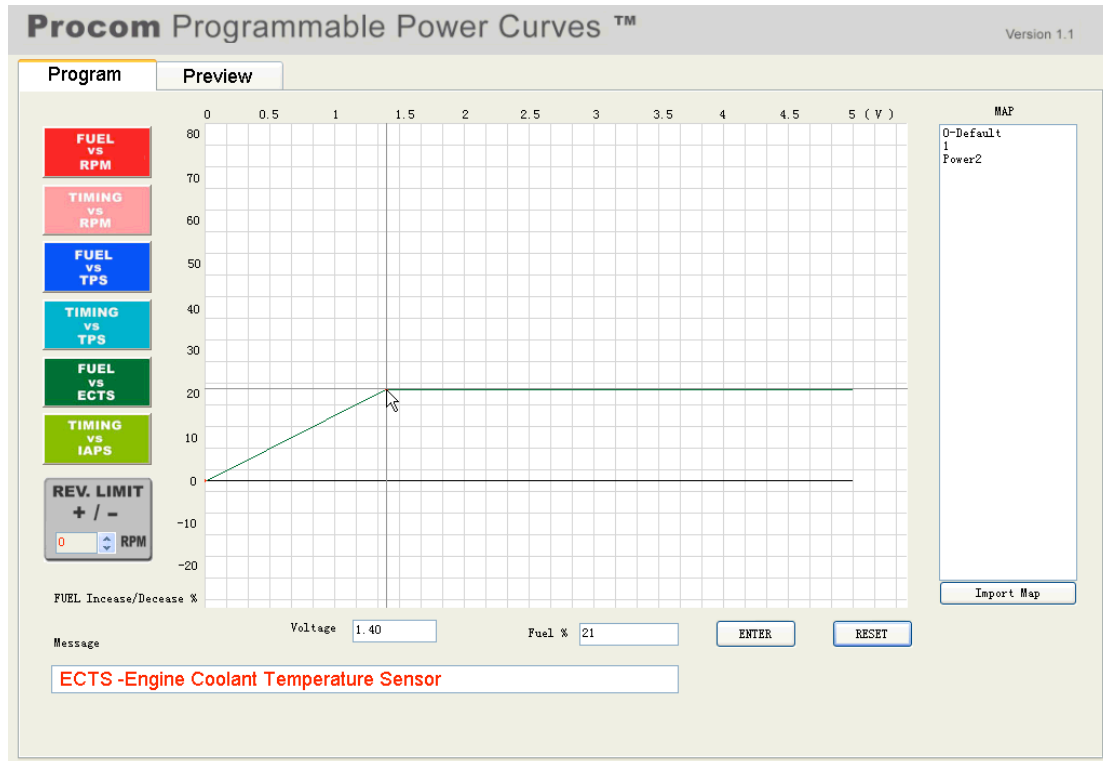
4.9 TIMING vs. TPS function

Once you click the light blue function button, the light blue line will appear. Then you can drag the light blue line to set up the data. At the same time, the box after "Voltage" will indicate the numeric value of the TPS voltage and the box after "Degree" will indicate the timing degree you want to advance/retard while you drag the light blue line. Or you can manually input the numeric values to the boxes, then click ENTER, and the data will be saved. At the same time, the light blue line will move to the point according to the data you just entered.

The numbers before "(V)" indicate TPS voltage. The maximum voltage is 5V. The numbers above the "DEGREE" indicate the timing degree you want to advance/retard based on the built-in default value by the manufacturer, Procom. The maximum advancement is 32 degrees and retardation is 10 degrees.
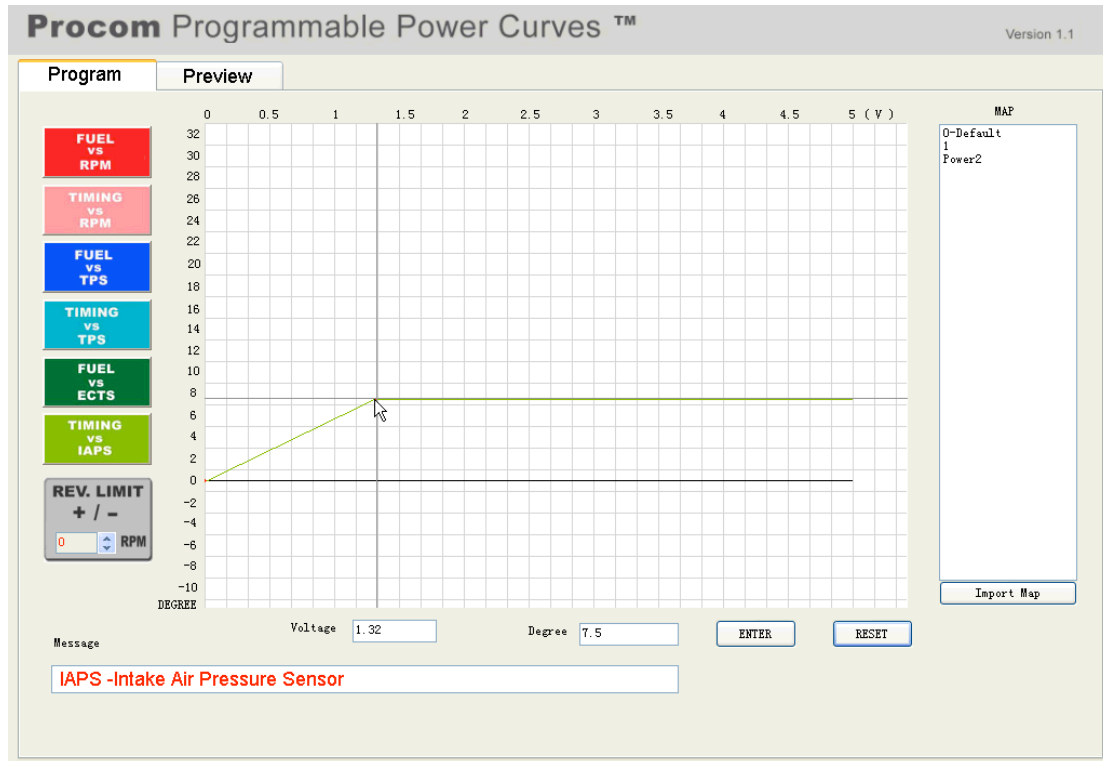
4.10 FUEL vs. ECTS function

Once you click the green function button, the green line will appear. Then you can drag the green line to set up the data. At the same time, the box after "Voltage" will indicate the numeric value of the ECTS voltage and the box after "Fuel %" will indicate the percentage of the fuel you want to increase/decrease while you drag the green line. Or you can manually input the numeric values to the boxes, then click ENTER, and the data will be saved. At the same time, the green line will move to the point according to the data you just entered.

The numbers before "(V)" indicate ECTS voltage. The maximum voltage is 5V. The numbers above the "FUEL Increase/Decrease %" indicate the fuel percentage you want to increase/decrease based on the built-in default value by the manufacturer, Procom. The maximum increment is 80% and the maximum decrement is 20%.

4.11 TIMING vs. IAPS function

Once you click the light green function button, the light green line will appear. Then you can drag the light green line to set up the data. At the same time, the box after "Voltage" will indicate the numeric value of the IAPS voltage and the box after "Degree" will indicate the timing degree you want to advance/retard while you drag the light green line. Or you can manually input the numeric values to the boxes, then click ENTER, and the data will be saved. At the same time, the light green line will move to the point according to the data you just entered.

The numbers before "(V)" indicate IAPS voltage. The maximum voltage is 5V. The numbers above the "DEGREE" indicate the timing degree you want to advance/retard based on the built-in default value by the manufacturer, Procom. The maximum advancement is 32 degrees and retardation is 10 degrees.
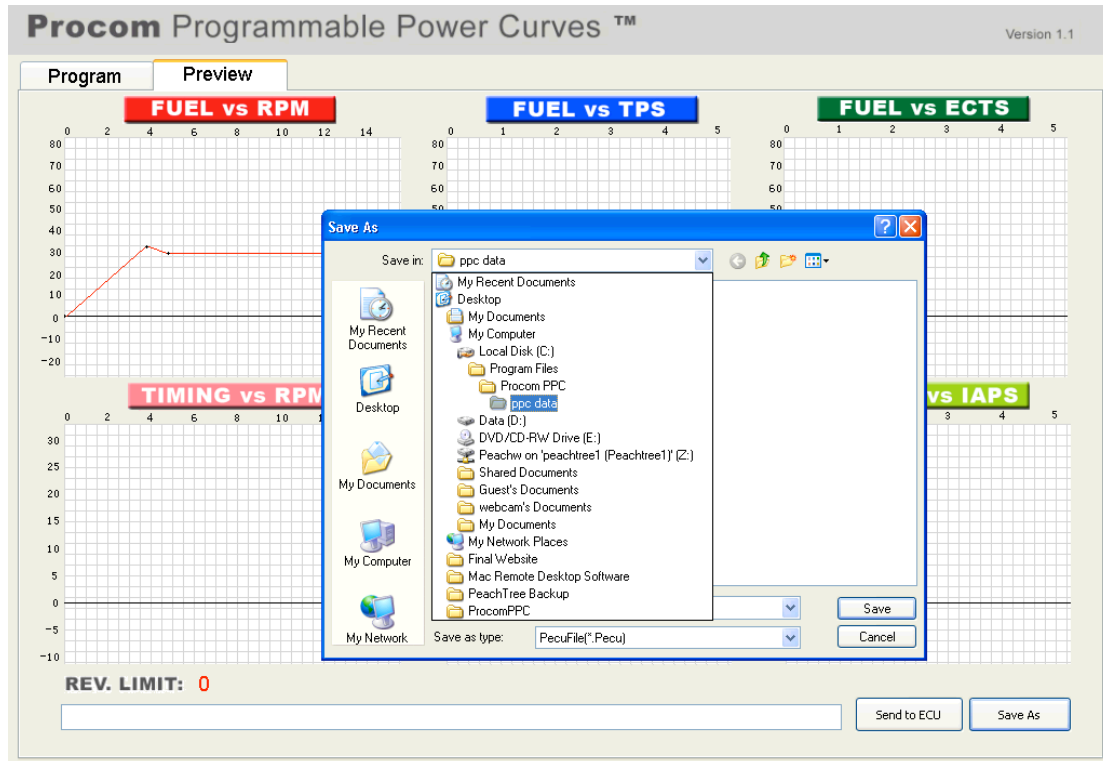
4.12 REV. LIMIT function
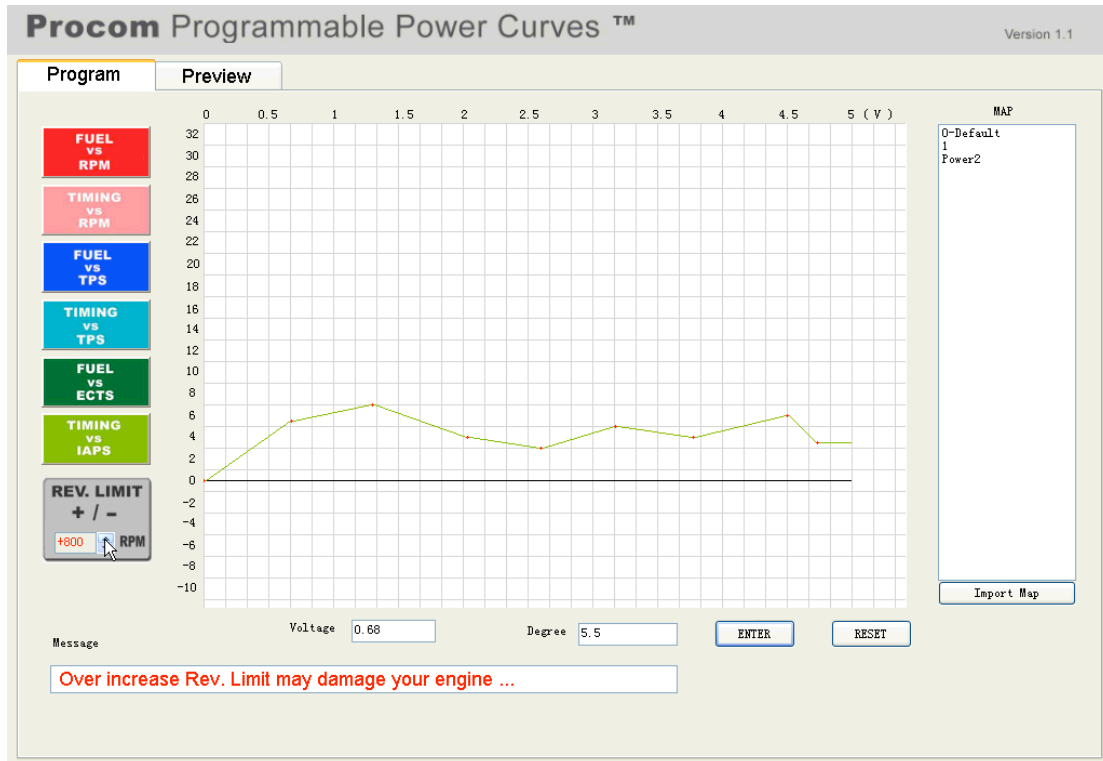
After editing the colored functional data, if you intend to change your machine's Revolution Limit, then you can go to the grey "REV. LIMIT" section and click the up/down arrows to increase/decrease the revolution limit as you desire. The maximum increment/decrement is +3000/-3000RPM. The value you selected to appear in the box will be automatically saved if you go to the next step.

Warning: Please consult with your local dealer before you do this. The over increment of Rev. Limit can damage your machine. Do this at your own risk!

4.13 How to preview and save your function data?

After you have completed creating your functional data and selected REV. LIMIT increment/decrement value, you can click the Preview button to review all the data you created. Then you can click the Program button to re-edit it if you want to make further changes or save it as a new map file if you are satisfied.

4.14 How to delete and export a saved map?
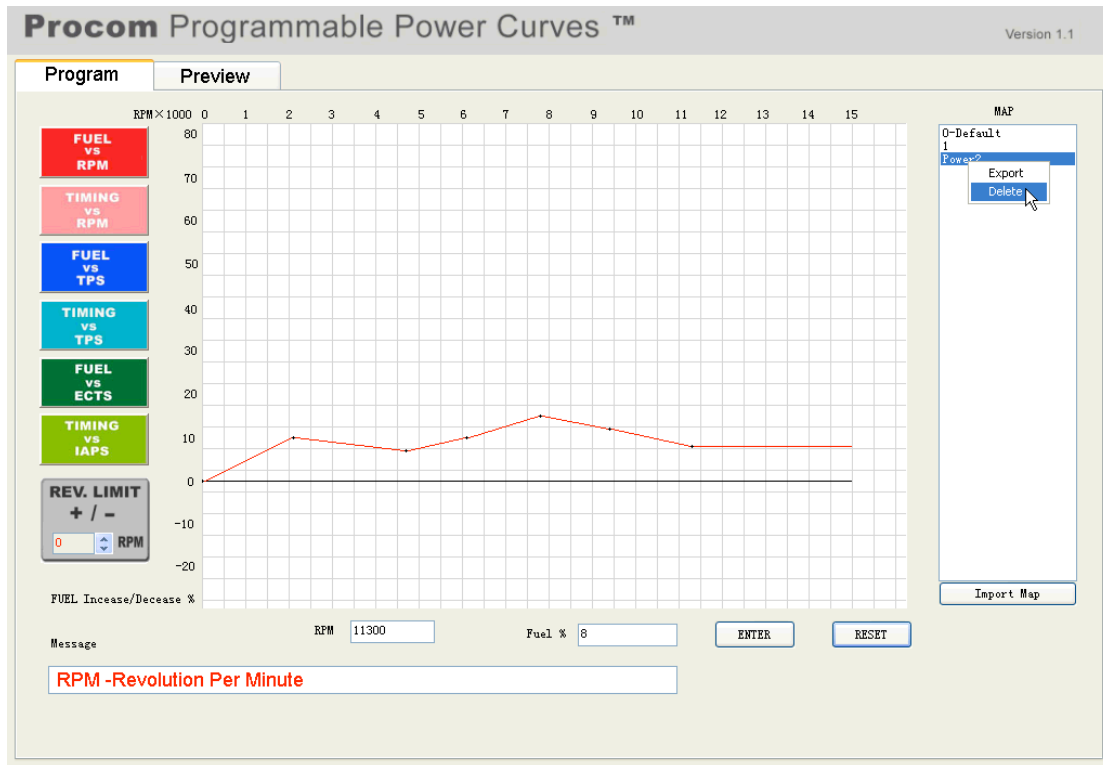
If you intend to delete a saved map, click the "Program", select the file name from the list in the box under the "MAP" shown in the picture above, then right click the mouse and click the "Delete". The map will be deleted permanently!

If you intend to export a saved map, click the "Program", select the file name from the list in the box under the "MAP" shown in the picture above, then right click the mouse and click the "Export", give a new name and save it to a new location.

4.15 How to send data to ECU/CDI?
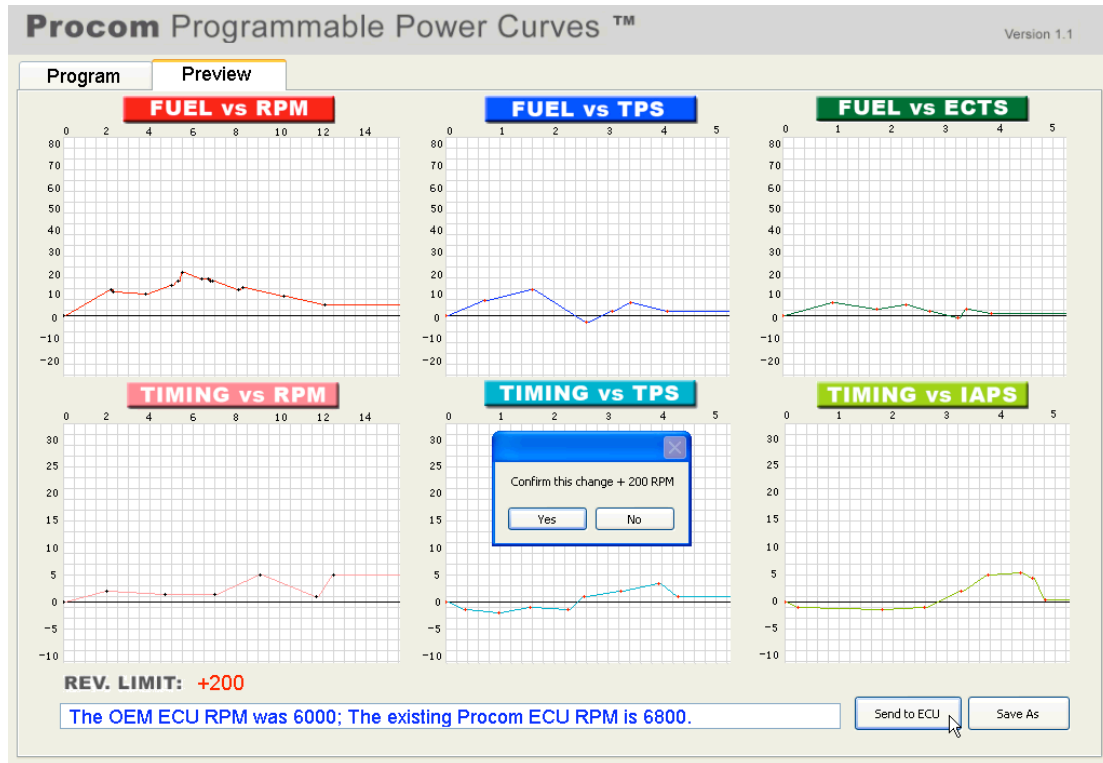
You can send currently previewed data to ECU/CDI. Or you can open a saved map from your computer to preview first and then send to ECU/CDI.

After you have previewed the data, make sure that the ECU/CDI is connected properly with your computer. Then you can click Send to ECU button to transfer the data to Procom ECU/CDI.

Once you click the Send to ECU button, a small window will pop up for you to confirm the changes of Revolution Limit. Please read carefully the message in the box below. Please compare and be aware of the OEM ECU/CDI RPM and the existing Procom ECU/CDI RPM. Then click Yes to confirm or click No to cancel. (**Warning:** The over Revolution Limit can damage your machine!)

When the message shows: Data has been transferred to ECU successfully…, which means that the new data has already overwritten the previous data in the ECU/CDI. Your updated ECU/CDI is ready for use now.

Notes:

(1). During transferring of the data to ECU/CDI, if the message indicates "*Failed*

connecting to ECU. Please re-check if all the connections are correct and proper…", please re-check if all the connections between ECU/CDI and your computer are correct and proper. Then try again.

(2). During transferring of the data to ECU/CDI, if the message indicates "*Failed connecting to ECU. Turn off the ignition and try again…*", please turn off the ignition of your machine promptly. Then try again.