

PV-6800 Software

1 Introduction

Software PV-6800 is control software for IT6800 series programmable power supplies. It can work with all single-output power supply models. Please make sure that you purchased IT-E131 communication cable, and use IT-E131 to connect the power supply and computer before the communicating. This software can accomplish all the functions of the power supply, such as setting constant voltage, setting constant current, max voltage etc. Also you can make quickly settings or make a program for the output voltage and current by the computer. In addition, PV6800 offer a GO/NG test function for automatic factory testing .It brings you much convenient when you use the power supply.

2 Installation

1. Requirements for the computer

Pentium III or Pentium IV processor-based personal computer
Windows 98/2000/XP or Windows NT4.0

2. Insert the CD-Rom which supplied with the instrument to the CD driver, and install the software step by step according to the instructions. The software PV-6800 and PC-6800 will be installed on your computer at the same time.

3 Functions of PV-6800


Start the software PV-6800, the windows is as follows:

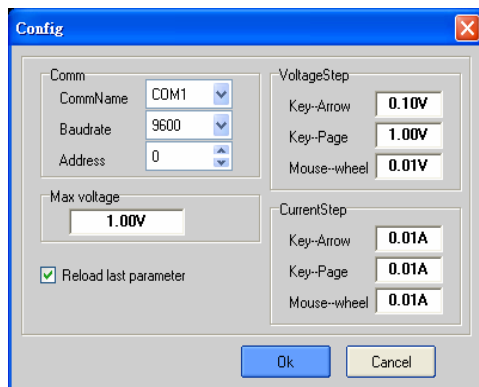


- ① Configure the software operation environments.
- ② Voltage chart, it can show you a chart of the voltage.
- ③ Current chart: it can show you a chart of the current.
- ④ To set the remote mode of power supply.

- ⑤ To set the output state ON/OFF.
- ⑥ To enable the local numeric key ⑦, it means that if you select “Enable” on this button, when the power supply is under remote control mode, you can press numeric key ⑦ to change the control mode to front panel control mode.
- ⑦ Annunciators display.
- ⑧ Status bar, it can show you the power supply model, communication status and operation status.
- ⑨ To set current value, use the rotary knob to set the current value, the setup value and measurement value will be displayed.
- ⑩ To make a program of voltage and current values for the power supply, or to set the output value quickly.
- ⑪ Using the rotary knob to set the voltage value, the setup value and present value will be displayed in the 2 indicators.

3.1 Configure the system

The first step for communication is to configure the system, click Configure , the windows will display as follows:



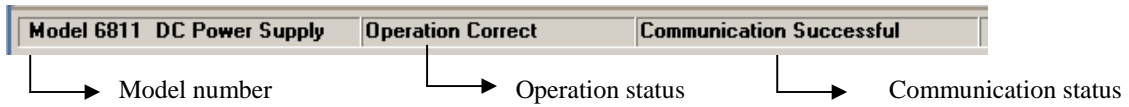
- 1) Comm: to set the communication port, baud rate and address.
- 2) Max voltage: to set a maximum voltage value in the voltage range. For example, the voltage range of IT6822 is 0~32V, then you can set a maximum voltage at 24V.
- 3) Voltage step: to set the step size of Arrow key, page up/down key, and Mouse-wheel. When you set the value by clicking the knob, you can use the arrow keys (↑, ↓, ←, →), page up/down keys or mouse wheel to adjust the value more slightly.
- 4) Reload last parameter: if you select it, then it will reload the parameter settings of last time you close this software.



Note: When you set the communication port, please make sure that the baud rate and address of the computer are the same as the power supply.

3.2 Status bar

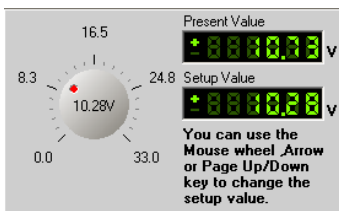
Status bar will give you the communication information. When the communication is successful, the status bar will display as follows:



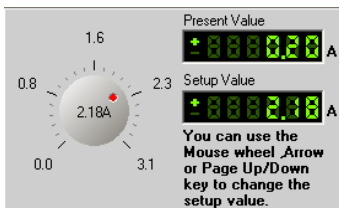
1. Model number, it will display the real part number of the field power supply which detected by the computer. (6811/6812/6821/6822/6823.....).
2. Operation status (**Operation correct/Check error**), if **Check error** appears here, it means that there is check error for your last operation command.
3. Communication status (**Communication successful/Communication waiting**), if **Communication waiting** appears here for more than 10 seconds, you need to check if there is any connection failure between computer and power supply. After confirming the effective connection, then re-configure the baud rate, address, com port etc, to make sure the same baud rate and address between power supply and computer.

3.3 Setting Voltage and current

1. Setting voltage/current by rotary knob



Use mouse to click on the rotary knob and move mouse to change the value. You also can use mouse wheel, or Page Up/Down keys and arrow keys (↑, ↓, ←, →) from the keyboard to change the voltage value more slightly. The setup value will be displayed on the second line indicator.



Use mouse to click on the rotary knob and move mouse to change the value. Also you can use mouse wheel, Page Up/Down keys and arrow keys (↑, ↓, ←, →) from the keyboard to change the current value more slightly. The setup value will be displayed on the second line indicator.

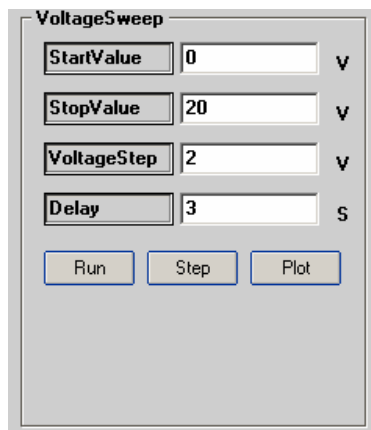
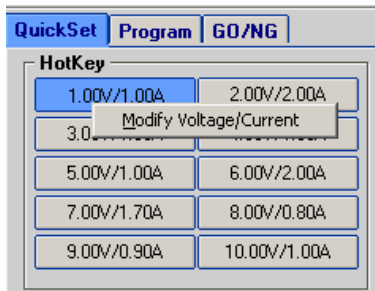


Note: Before you set the current and voltage value from the computer, please change the operation mode to PC Control mode by pressing

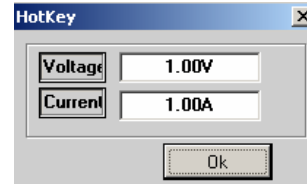


button.

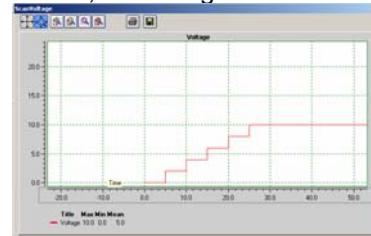
2. Quickly setting



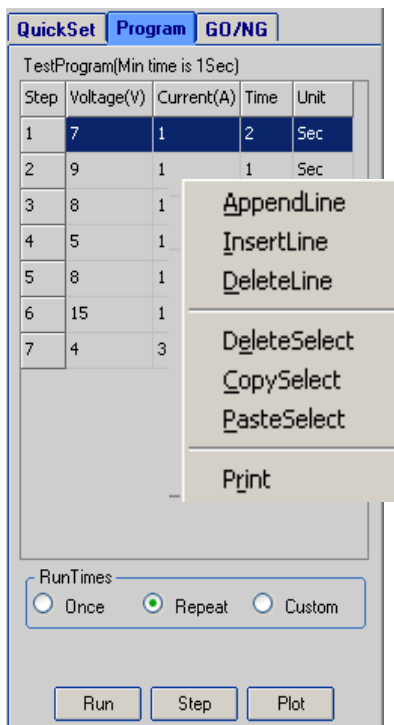
Hot Key: Right-click each Hotkey Button, it will display as "Modify Voltage/Current". Click "Modify/Voltage/Current", it will display as follows, change the voltage/current value as you desired, then click OK button to confirm.



Voltage Sweep: To set voltage sweep. For example, StartValue=0.0V, Stop Value=10V, Voltage Step=2V, TimeDelay=2s. When you click the Run button, the voltage will change according to the voltage sweep setup value, then you can click Stop button to stop the voltage sweep. You can also click the Chart button, the voltage chart will display as follows:



3. Program setting



Program: Right-click on the Program area, the program tools (Append a line, Insert a line, Delete a line, Delete Select etc.) will appear on the window. Click the tools to program the steps.

Double-click on each value to change them from key board as you desired. Also you can change the time unit (hour/minute/second) by clicking on "Sec".

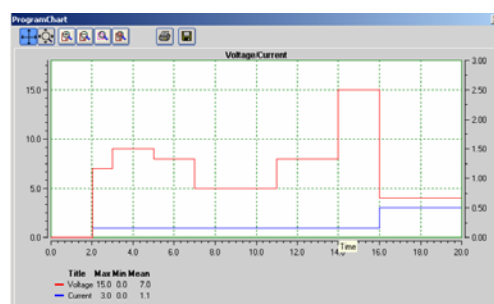
After programming, you can select a run mode for your program. (Run mode includes Once, Repeat and Custom).

Click "Run" button to send the program settings to the power supply. The power supply's output will respond to the program.

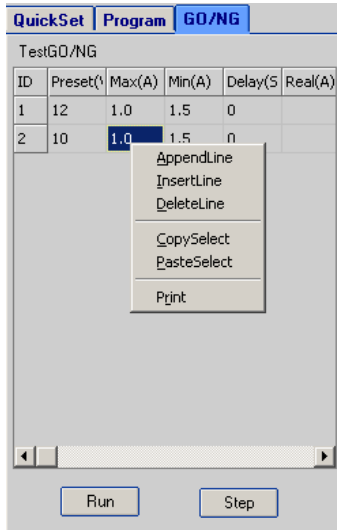
Click "Stop" button to stop sending the program settings to the power supply. The power supply state will return to the state before the program running.

Click "Chart" to show the voltage and current chart of the program.

You can do some analysis on the chart or print the chart. The chart is as follows:

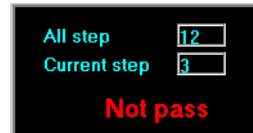
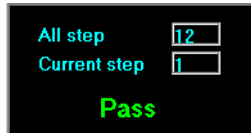


3.4. GO/NG Test Function

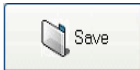


GO/NG is an auto test function, to test if the EUT (equipment under test) can meet the specification. To use this function, follow up the steps below:

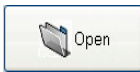
1. Right-click on the window, the edit tools (Append a line, Insert a line, Delete a line, Delete Select etc.) will appear on the window. Use the edit tools to edit the test steps.
2. To set the Voltage, Max Amps, Min Amps and Delay time according to the specifications of the EUT.
3. Click the Run button to start the test. If the Real Amps of all steps are in the range of Min Amps to Max Amps, then the EUT will pass the test, the Pass window will appear.
4. If there is a Real Amps beyond the range in any step, the EUT will not pass the test.



3.5 Save and Open

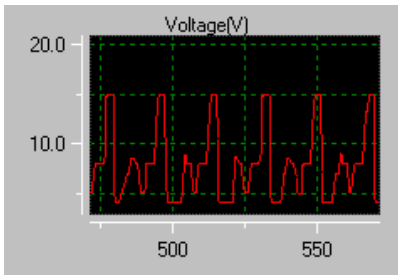


To save the program settings, quickly settings, voltage sweep settings and GO/NG settings as PAR file.

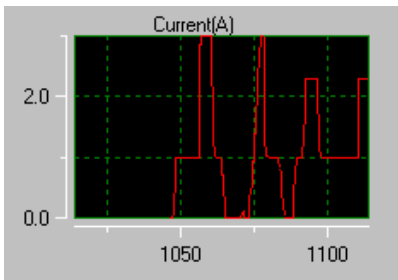
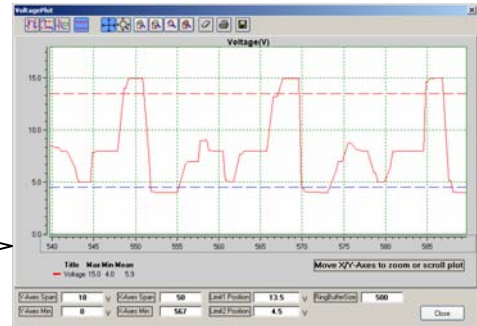
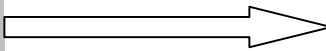


To open the PAR file for reloading the program settings, quickly settings, voltage sweep settings and GO/NG settings.

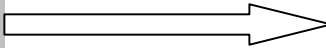
3.6 Present Voltage/Current Chart



Double click the voltage chart, the voltage chart will be enlarged and will display as more details.

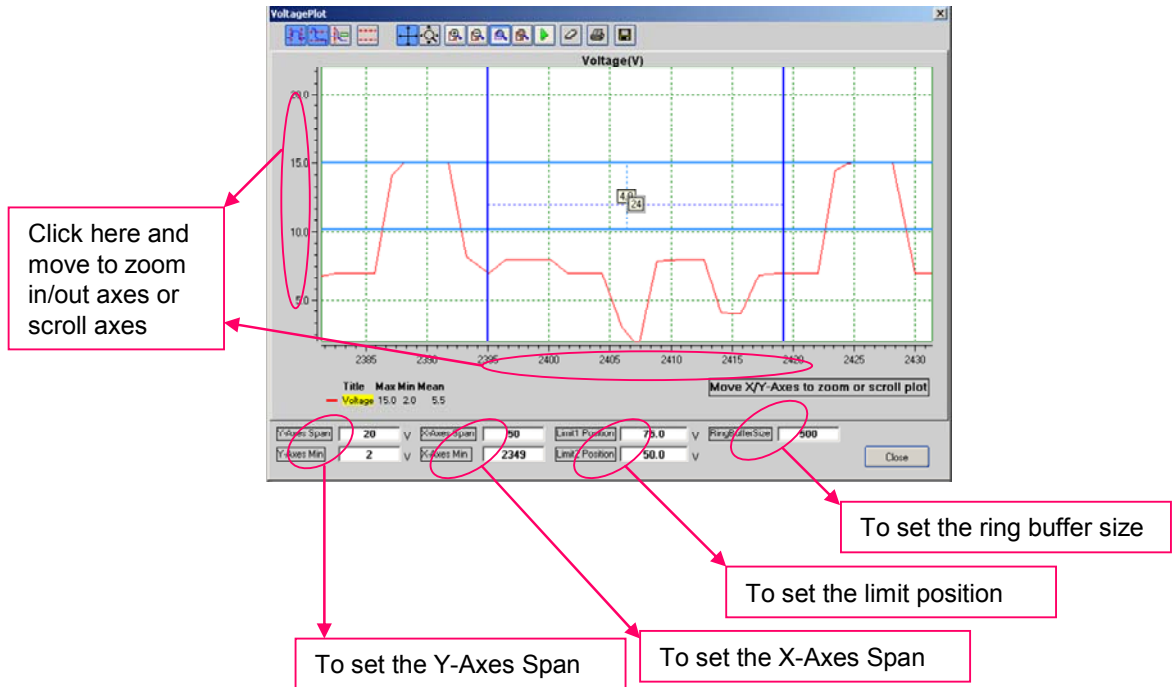
















Double click the current chart, the current chart will be enlarged and will display with more details.



3.7 Chart Description

The voltage and current chart can help you to analyze voltage and current changes more easily. We take the voltage chart as the example to let you know how to use it. The chart window is as follows:



-  Vertical marker
-  Horizontal marker
-  XY Value marker
-  Limit range between the minimum value and maximum value.
-  Scroll axes mode
-  Zoom in/out axes mode
-  Zoom out
-  Zoom in
-  Save the chart as a .BMP file.
-  Clear all data
-  Resume tracking
-  Auto scale
-  Print the chart
-  Zoom rectangle