

SS 7012 Sample Software documentation

1. Scope

- 1. This Sample Software is exclusive to the DC signal source SS7012.
- 2. This software is made for the purpose of controlling the SS7012 with your PC using USB cable.

2. Notes on Use

- 1. Before starting up the software, please understand how to use the DC signal source SS7012 and Communication package SS9000 referring to the instruction manuals.
- 2. The setting file (SS7012Setting.ini) will be created and placed in the same directory or folder when this software is terminated.
- 3. The copyright to the executable program file and associated documents is owned by HIOKI E.E. CORPORATION.
- 4. This utility may not be bundled with software or other publications which are sold for profit without the express written permission of the copyright owner.
Further, this product may not be modified without the express written permission of the copyright owner.
- 5. This program is free software. It is provided for use at the user's risk.
HIOKI disclaims any and all responsibility for any consequences arising out of use of this software.

3. Operating Environment

- 1. PC
 - OS: Windows XP SP3, Vista
 - Display resolution: 1024x768 pixels or better
 - Number of USB ports: 1 port or more
 - Others: .NET Framework 3.5

4. How to connect PC and SS7012

- 1. Install the USB driver into your PC referring to the instruction manual of the communication package SS9000. Then turn on the power of the SS7012 and connect your PC and the SS7012 by the USB cable.
- 2. Open Device Manager and scroll down to "PORT (COM & LPT)" and expand the section to see "Prolific USB-to-Serial Comm Port (COMX)". The number at the position of X in brackets is the COM port number to be used for this software.

5. How to start up Sample Software

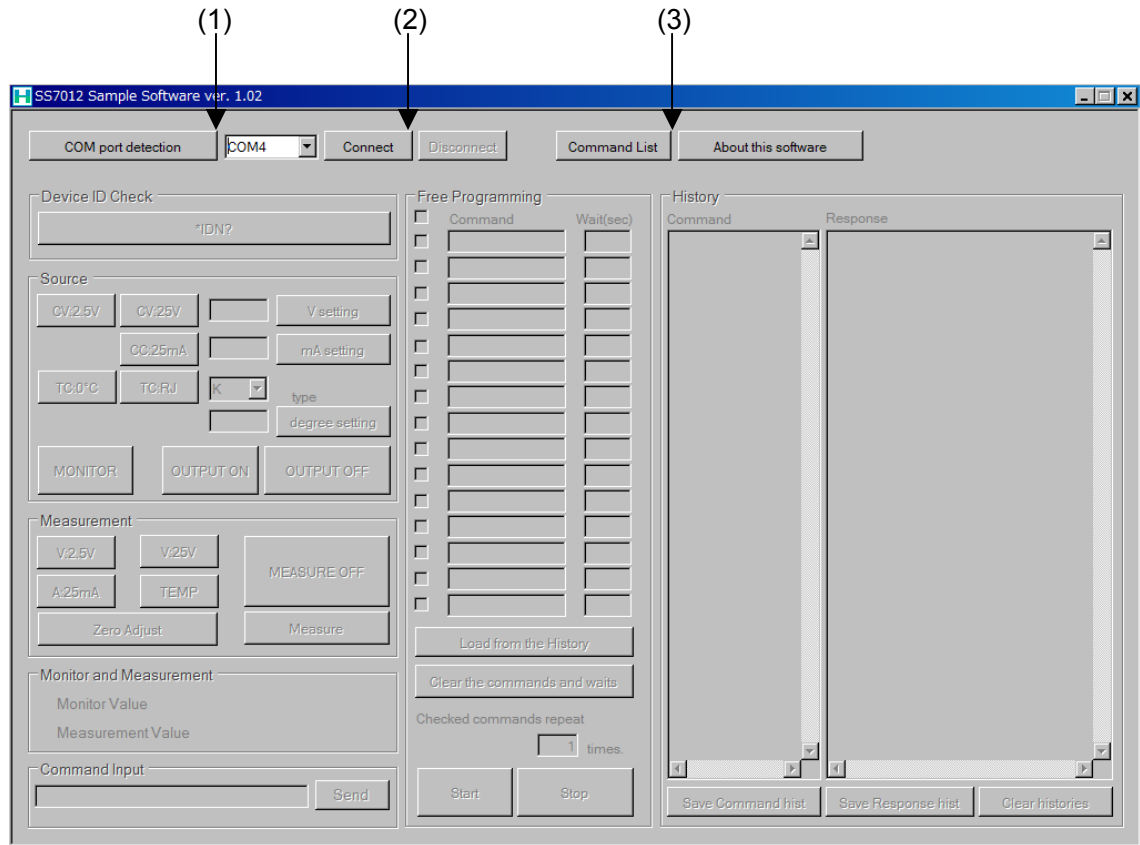
- 1. This software contains executable file only and so the installation is not necessary. Execute the "SS7012 SampleSoftware.exe" file.

6. How to delete Sample Software

- 1. Delete both the SS7012SampleSoftware.exe and the SS7012Setting.ini.

7. Main Screen Configuration

-1. Before connecting



(1) “COM port detection”:

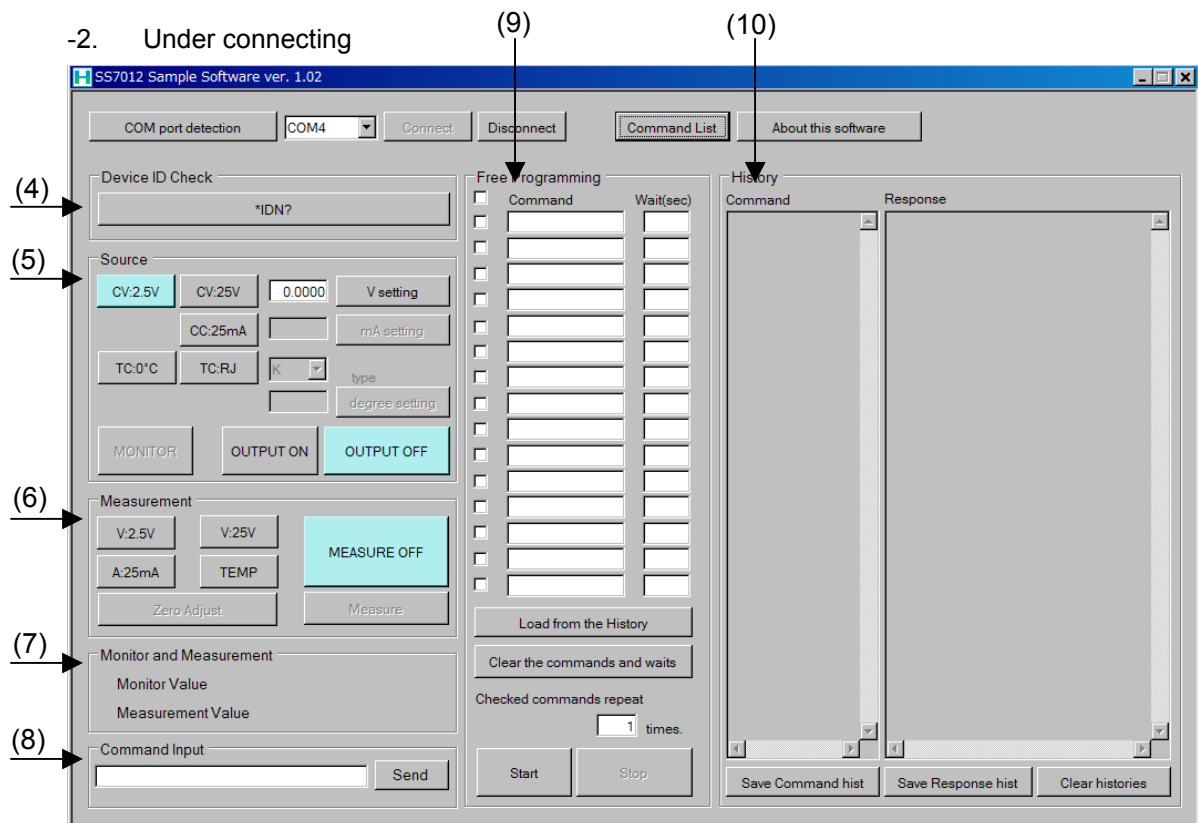
The COM ports available will be displayed in the combo box. Select the COM port to which the SS7012 is connected.

(2) “Connect” and “Disconnect”:

Click on the “Connect” button to connect to the COM port you selected at the step (1) above. Click on the “Disconnect” button to disconnect from the COM port.

(3) “Command List” and “About this software”:

The “Command List” button has a new window popped up and shows the list of commands available for the SS7012 and the descriptions on them. For the more detailed descriptions on them, please refer to the supplied communication specifications of the SS9000. The “About this software” button displays the Copyright description.



(4) “Device ID Check”:

After connecting COM port, click the “* IDN?” button to confirm the device ID. Please make sure that “HIOKI,SS7012, Ver ****” appears in the “Response” box of the “History” section(10).

(5) “Source”: Standard source functions can be controlled by the buttons.

The currently selected function button becomes colored.

One of the source functions: “CV:2.5V” “CV:25V” “CC:25mA” “TC:0°C” “TC:RJ” can be set. The setting value can be input in the text box on the right of the each function button. To change the setting value, input the desired value into the corresponding text box and click on the button on the right of the text box.

“OUTPUT ON” and “OUTPUT OFF”: Switch between ON and OFF.

To set the setting value, select the desired function, input the proper setting value into the text box and click on the button on the right.

“MONITOR”: Obtains the monitor value of the currently selected function.

(6) "Measurement": Standard measurement functions can be controlled by the buttons.

The currently selected function button becomes colored.

One of the measurement functions: "V:2.5V", "V:25V", "A:25mA", "TEMP", "MEASURE OFF" can be set.

"Zero Adjust": Performs zero adjust.

"Measure": Obtains the measurement value of the currently selected function.

(7) "Monitor and Measurement":

The monitor value will be obtained when "OUTPUT ON" is selected,

The measurement value will be obtained when "MEASURE OFF" is not selected.

(8) "Command Input":

Input the desired command text into the "Command Input" box and press Enter key of a PC or click on the "Send" button to send the command text.

(9) "Free Programming": Optional commands can be sent at optional time intervals.

Input the desired command to be sent into the "Command" box and input the desired time into the "Wait (sec)" box as the wait-time. Only when the "Start" button is clicked with the checked checkbox on the left of the "Command input" box, the command can be sent.

When all the selected commands are sent, the message box will pop up to confirm the completion of sending.

The text box of the last sent command becomes colored.

"Load from the History": Loads the maximum 15 commands from the top of the list of the "HISTORY" section.

"Clear the commands and waits": Clears the "Command" box and the "Wait (sec)" box.

"Checked commands repeat X times": The set of commands can be sent repeatedly by the entered number of times. The repeatable number of times is 143,165,576 maximum.

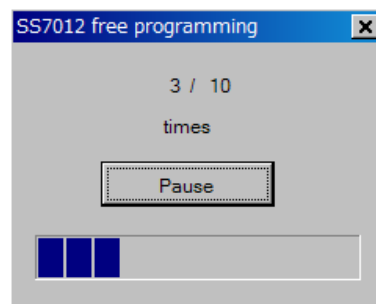
"Stop": Stops sending the commands if the "Stop" button is clicked while sending.

The top check box: Can check/uncheck all the boxes at a time.

Note: The input values of the “Checkbox”, “Command” and “Wait” time in the “Free Programming” section will be automatically saved. So the last values will be remained when a PC is started next time. (The data is being saved in the “SS7012Setting.ini” file.)

If the “Wait” box is blank, it will wait for longer than approx. 100ms before the next command is sent. The waiting time can be specified up to 60 sec. by using integer.

When the “Free Programming” starts to be executed, the box will appear as shown below. The button of this box switches between pause and restart.



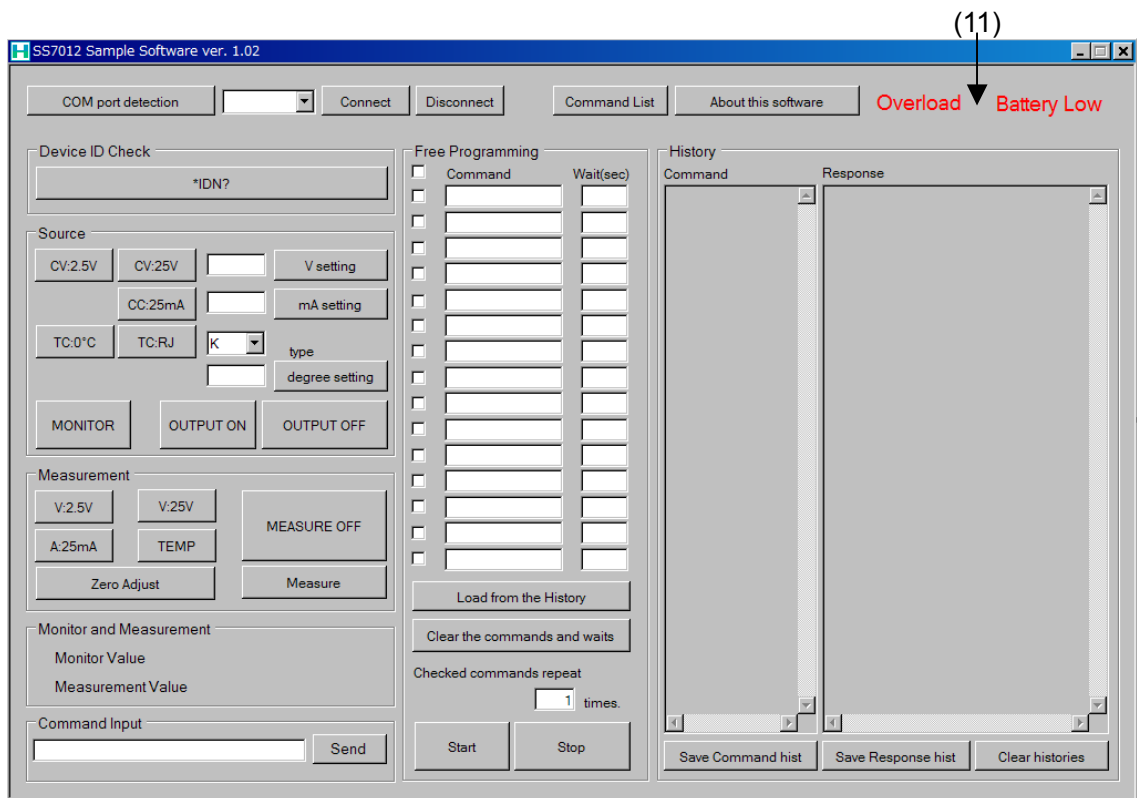
(10) “History”: Records the sent commands and received responses.

“Save Command hist”: The commands currently displayed in the “History” section will be saved as a text file

“Save Response hist”: The responses currently displayed in the “History” section will be saved as a text file.

“Clear histories”: Clears the history data in the “History” section.

Note: The history data will be deleted once the software is terminated.



(11) "Overload" and "Battery Low"

In case of overload or low battery, the alarm display will appear.

-3.

8. Others

-1. The saved history data format

The history data of 【Save Command hist】 and 【Save Response hist】 will be saved as a text file with the following format.

"<Command/Response><CR><LF>" , to be repeated one time or more.

-2. Load of the saved history data into Microsoft Office Excel.

There are two methods.

(1) You can drag and drop the text file of the history data into the running Excel sheet.

(2) You can specify the text file of the history data by clicking 【File】 and 【Open】. (Choose the "All files (*.*)" in the "files of type" .) Follow the text file wizard.

-3. The setting file format

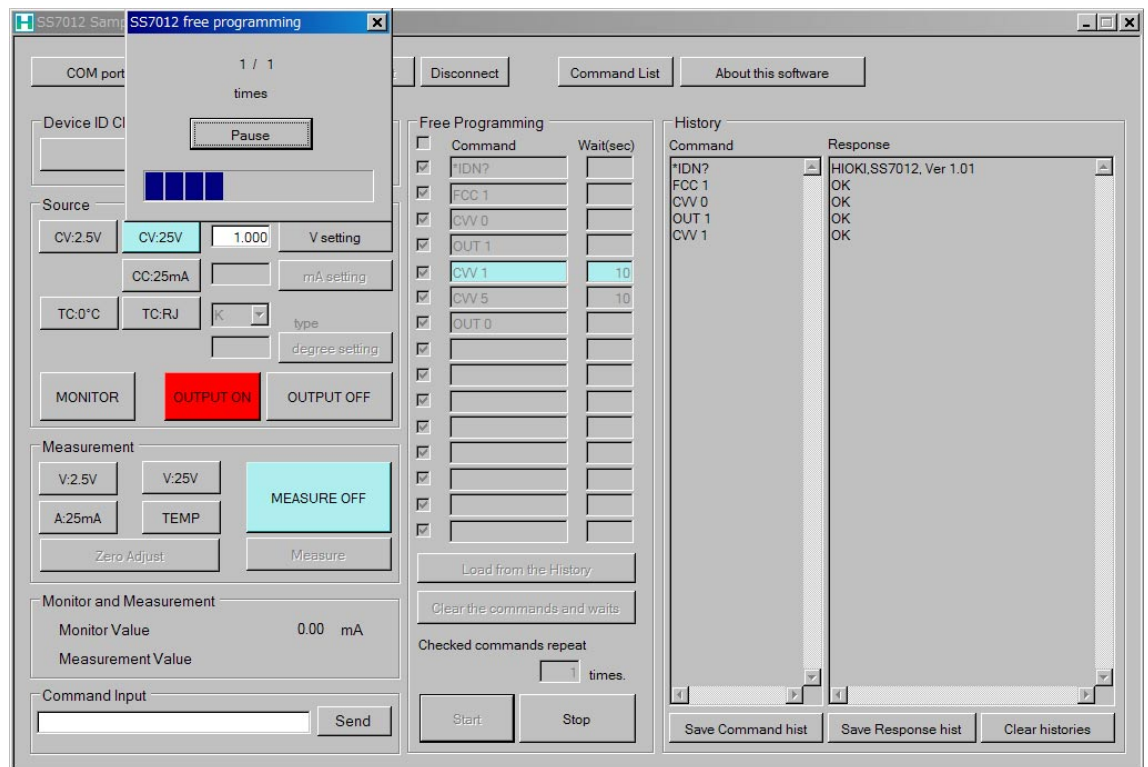
The format of the setting file (SS7012Setting.ini) used for this software is shown below.

"<True/False><Tab><Command><Tab><Wait-time><CR><LF>" , to be repeated 15 times.

9. Appendix (Display screen samples)

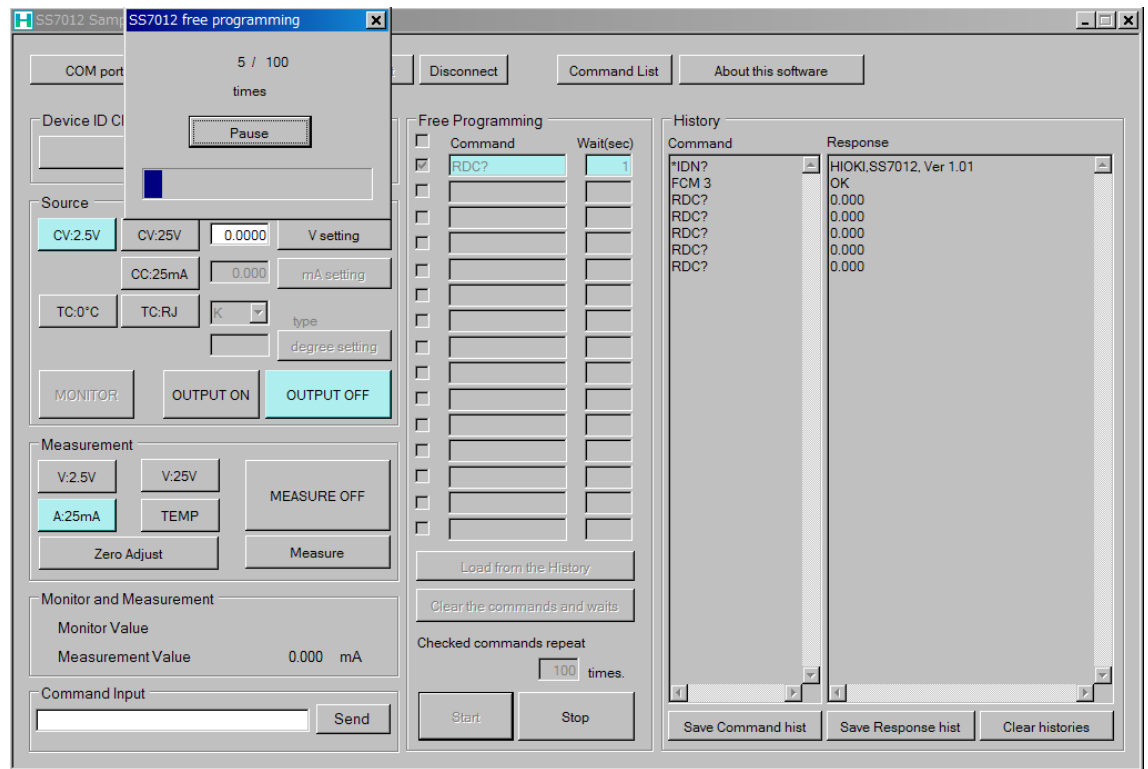
-1. 1V for 10 sec. and 5V for 10 sec. with CV25V source function. (Free Programming).

- (1) Check Device ID
- (2) Set source function to "CV: 25V"
- (3) Set to 0V
- (4) Click on "OUTPUT ON"
- (5) Set to 1V (wait for 10 sec.)
- (6) Set to 5V (wait for 10 sec.)
- (7) Click on "OUTPUT OFF"



-2. To measure current 100 times every 1 sec. Interval

- (1) Check Device ID
- (2) Set measurement function (A:25mA)
- (3) Measure current (This part is free programming).



-3. To measure load current 60 times every 1 min. interval with 24V source voltage supply.

- (1) Check Device ID
- (2) Set source function (A:25mA)
- (3) Set to 24V
- (4) Click on “OUTPUT ON”
- (5) Monitor load current (This part is free programming).

