IntuiLink for Basic (Agilent E3600-series) DC Power Supplies

Agilent **IntuiLink** for Agilent **E3600-Series** <u>DC power supplies</u> offers the following capabilities:

- Make a variety of measurements and insert them in Excel or Word
- Save and restore instrument settings
- Log measurements to Excel
- *Programming* examples included for several popular programming environments

For the <u>non-programmers</u> – A simple **Toolbar Add-In** for Word and Excel

Once installed, the toolbar is automatically loaded and operates just like any other toolbar in these applications. Use the **Tools | Add-Ins** menu to *add* or *remove* the toolbar from the application.

Word:

Excel:

Installation requirements

Minimum Operating System requirements:
  * Windows 95/98, or Me
  * Windows NT 4.0 (with SP4 or greater), or
  * Windows 2000

Minimum MS Office application requirements:
  * Microsoft Office 97 (Word or Excel) or
  * Microsoft Office 2000

Supported Agilent Instruments

E3631A, E3632A, E3633A, E3634A
E3640A, E3641A, E3642A, E3643A, E3644A, E3645A,
E3646A, E3647A, E3648A, E3649A

Toolbar *Overview*
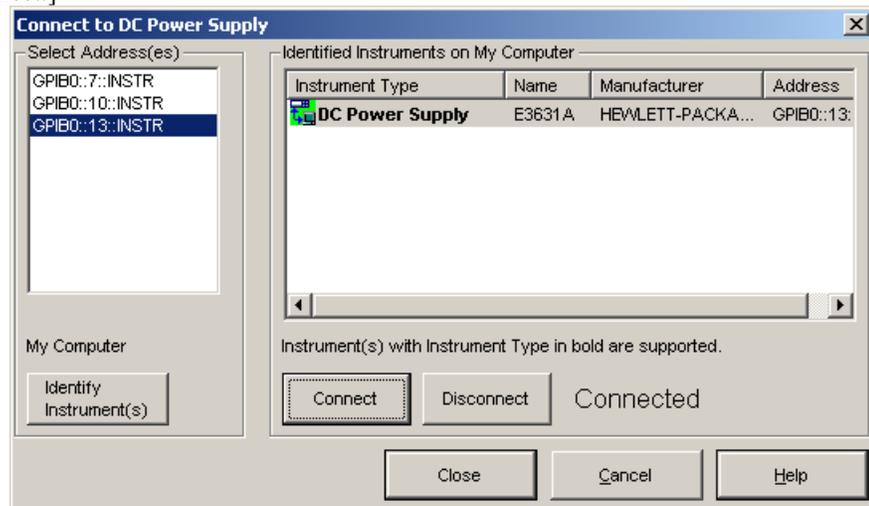
Agilent **About** DC Power Supply Toolbar:

Returns the software version number and allows you to select the local language for the dialog boxes and help system.
Please, do not change the language.

Connect to the DC Power Supply and verify communication

Configures the remote interface connection to the DC power supply.

1. Make sure that your DC Power Supply is physically connected to your computer and turned ON.
2. Click 'Connect to DC Power Supply' icon.
   3. Highlight the address from the **Select** Instrument **Address(es)** list for the instrument you wish to connect.]
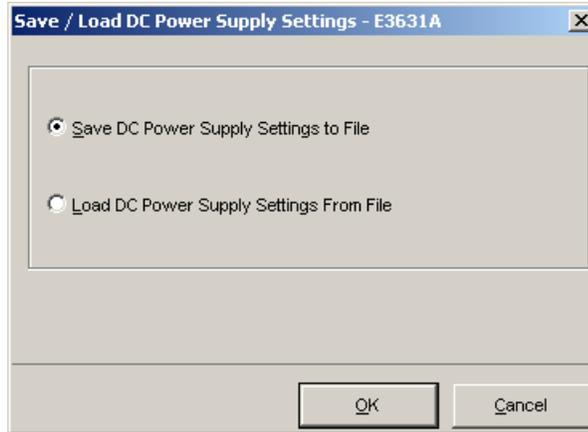

   4. Click **Identify Instrument(s)**. The instrument type, name, and address appear in the Identified Instruments list on the right. Instruments supported by the Agilent DC Power Supply Toolbar are in bold type.
   5. In the Identified Instruments list, <u>highligh</u>t the instrument that you wish to connect.
   6. Click **Connect**.
   7. A green icon appears to the left of the instrument that is connected.
8. Once you have established a connection, click Close to close the dialog. The toolbar will **remember** the connection for any future sessions. If the instrument I/O address is changed, be sure to reset the connection.

You are now ready to communicate with the instrument.

■ Save / Load Settings

Stores the instrument settings to a file or downloads a previously stored settings file to the instrument.

The settings for output voltage, current, display messages, and protection are saved. Triggered levels and status registers are not saved.

You can view the supported commands by opening the saved file in Notepad.

Save the DC Power Supply settings to a file

1. Click 'Save / Load DC Power Supply Settings' icon on the Agilent toolbar.
2. Select Save power supply settings to file and then click OK.
3. Navigate to the desired directory on your PC and enter a file name (**.cfg** file extension).
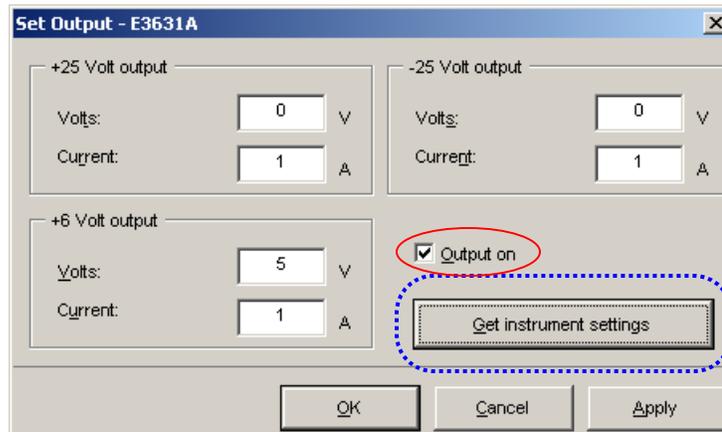4. Click Save to store the file.

Download previously stored settings to the DC Power Supply

1. Click 'Save / Load DC Power Supply Settings' icon on the Agilent toolbar.
2. Select Load power supply settings from file and then click OK.
3. Navigate to the desired directory on your PC and open the previously stored file (**.cfg** file extension).
4. Click Open to open the file and download the stored settings.

Change the settings of the DC Power Supply

Allows setting functions from the toolbar, or you can choose to set the functions at the instrument's front panel.

1. Click 'Set Output' icon on the Agilent DC Power Supply toolbar.
2. To load the instrument settings into the dialog box click on Get Instrument Settings.
3. Input the voltage and current settings.
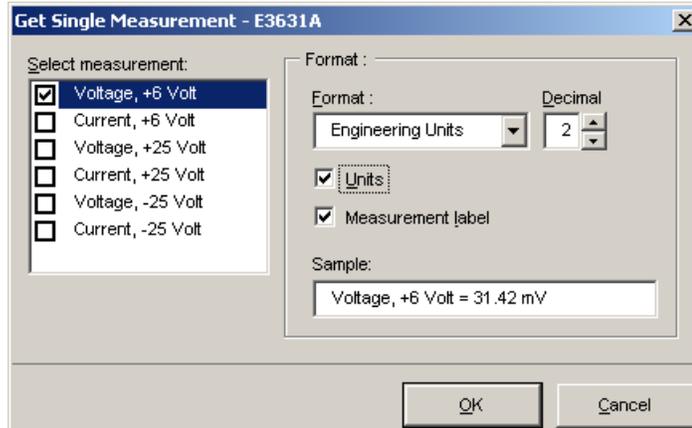4. Click OK to transfer the displayed values to the DC Power Supply

Remark:
The displayed values are the settings for the DC Power Supply and *not* the metered readings of the output.
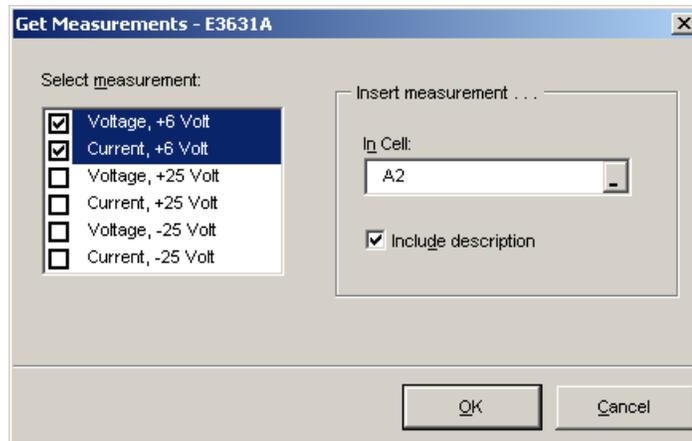
📊 Capture measurements from the DC Power Supply

Acquires a single measurement from the instrument and places it in the active worksheet or document.
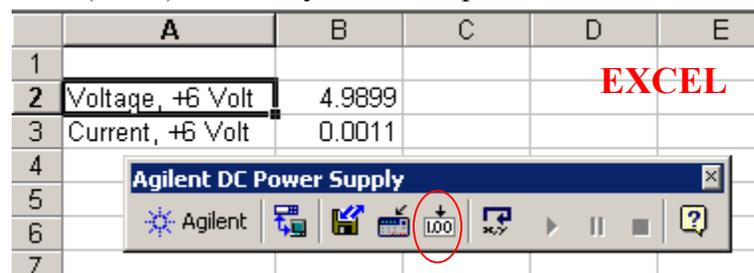
Word dialog box:

Excel dialog box:

1. Click 'Get Measurement' on the Agilent DC Power Supply toolbar.
2. From the Select measurement list, select one or more measurement functions.
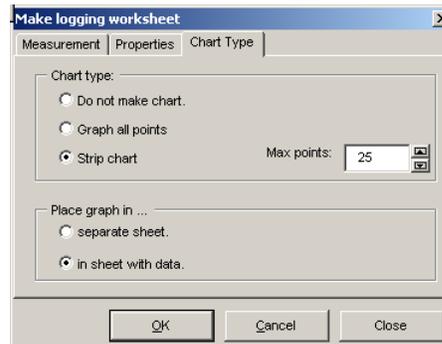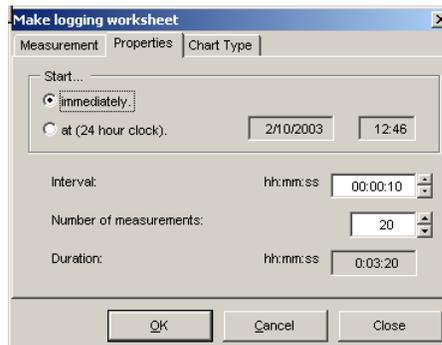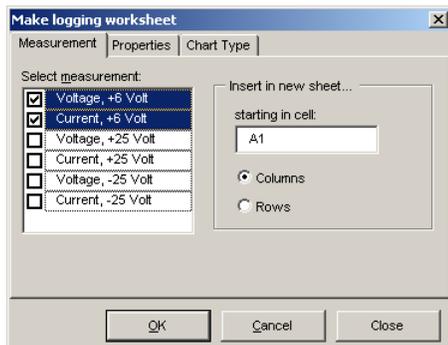3. Select the cell (Excel) in which you want to place the measurement.

If desired, one of the check boxes to annotate each reading with the description or units.
4. Click OK.

⟲ Open a **Logging Worksheet** and Log Data **in Excel**

Sets up a worksheet template, retrieves measurements at periodic intervals and inserts them in the worksheet. (Excel only)

1. Click 'Make Logging Worksheet' on the Agilent DC Power Supply toolbar.
2. Click the **Measurement** tab. Select one or more measurement to log.
3. To change the number of measurements, trigger level and other trigger parameters, click on Properties
4. Click the **Properties** tab. Select when the logging should begin. You may select either Immediately or at a time you enter.
5. Select the logging interval by entering the hour (hh) minute (mm) or second (ss) values. Insure that the logging interval is large enough to measure all the selected measurements for a consistent time stamp.
6. Click the **Chart** tab. You may select the type of chart to make and whether the chart is to be included in the current worksheet or in a separate worksheet. If you select Strip Chart, enter the maximum number of points that will be displayed in the strip chart.
7. Click OK.
8. Logging will begin according to the settings you made. While the logging is in

progress, you can ⟲ ▶ ‖ ■

Start logging or continue paused logging.
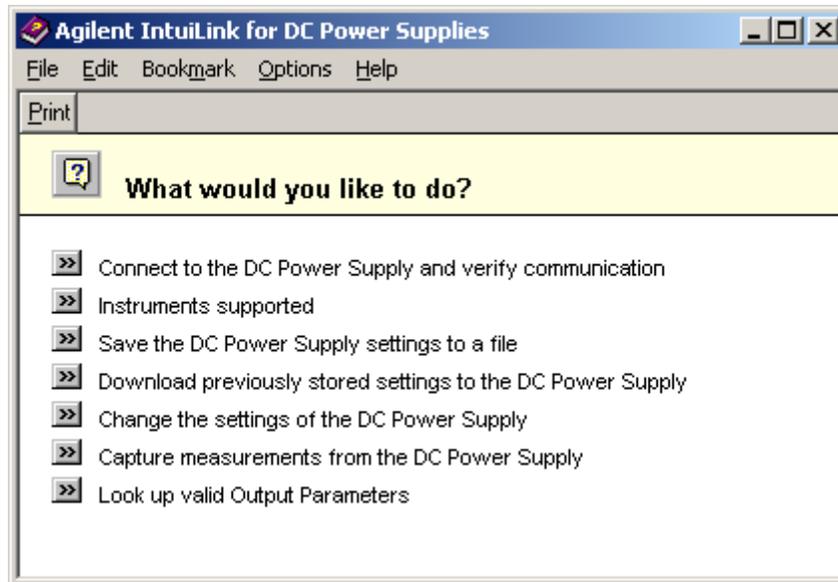Pause the logging.
Stop the logging.

Remarks:
The time of the measurement is determined by the number of readings, the total measurement time may be longer than the time of the logging interval. In that case the recorded time will not have a constant interval. Use a longer logging interval to achieve consistent logging times.

Toolbar Help

Provides step-by-step explanations to help you learn to use the toolbar.

Appendix

1. Automate tasks using an Excel macro

You can automate most of the operations on the Agilent DC Power Supply Toolbar using an Excel macro. You can then run the macro to automatically "play back" the recorded actions. Refer to the 'Excel help system' for more information on using macros.

<u>Note</u>: Make Logging Worksheet is not supported for macro recording.

The recorded macro automatically lists the required arguments. You may want to record the macro in several different ways to see how the arguments are actually used. All descriptive arguments use English (non-translated) text inside the quotation marks. Numeric arguments, must be enclosed in quotation marks ("1") as demonstrated in the recorded macro.

2. Output Parameters

This summarizes the valid values for setting the output voltage and current.

Instrument **E3631A**	Max Voltage	Max Current	Max Voltage Protection Level
Positive 6 Volt	6.18	5.15	n/a
Positive 25 Volt	25.75	1.03	n/a
Negative 25 Volt	25.75	1.03	n/a