

IntuiLink PSA/ESA-E/L/EMC-series Spectrum Analyzer Toolbar in Excel

What would you like to do?

- >> Connect to the spectrum analyzer and verify communication
- >> Connect to a spectrum analyzer on a remote host
- >> Capture the current spectrum analyzer settings
- >> Restore previously stored settings to the spectrum analyzer
- >> Edit the name of a saved state setting
- >> Remove saved state settings
- >> Export current spectrum analyzer settings to a PC file
- >> Import spectrum analyzer settings from a PC file
- >> Get data from the spectrum analyzer
- >> Create an Excel graph
- >> Start obtaining repeated measurements from the spectrum analyzer
- >> Stop obtaining repeated measurements from the spectrum analyzer
- >> Get an image of the spectrum analyzer display
- >> Delete the spectrum analyzer toolbar from Excel
- >> Restore spectrum analyzer toolbar to Excel
- >> Select the toolbar startup options
- >> Disconnect from the spectrum analyzer
- >>
- >>



Connect to the spectrum analyzer and verify communication

1. Make sure that your spectrum analyzer is physically connected to your computer and turned on.
2. Click **Connect to Spectrum Analyzer** on the spectrum analyzer toolbar.
3. Highlight the address from the **Select Instrument Address** list for the spectrum analyzer that you want to connect to.

Note:

The instrument addresses listed are for instruments connected to the computer shown under the **Select Instrument Address** list. Look at the label above the **Identify Instruments** button. The name will be either "My Computer" or the name or IP address of a remote host. If you want to change the host computer, press the **Advanced** button and follow the instructions in [Connect to a spectrum analyzer on a remote host](#).

4. Click **Identify Instrument(s)**.

The instrument type, name, and address appear in the **Identified Instruments** list on the right. Instruments supported by the PSA/ESA toolbar are in bold type.

Tip: You can double-click on the instrument address and the instruments at that address will appear in the **Identified Instruments** list.

5. In the **Identified Instruments** list, highlight the instrument that you want to connect to.
6. Click **Connect**.

A green icon appears to the left of the instrument that is connected. The corresponding icon on the toolbar also turns green (after you close the dialog box) to indicate the instrument is connected.

Tip: You can double-click on the instrument to connect to it.

If you do not know the address, you have two options:

- You can select the address that you think may be correct and click the **Identify Instrument(s)** button to determine the type of instrument at that address.

OR

- You can select more than one address (hold down the Shift key while clicking with the mouse or hold down the CTRL key while dragging the mouse) and click **Identify Instrument(s)**. All the instruments at the selected addresses are listed, with the instruments supported by the toolbar in bold.

See the [troubleshooting](#) section of the online help if you still cannot connect to the instrument.

See Also

[Disconnect from a spectrum analyzer](#)

[Connect to a spectrum analyzer on a remote host](#)



Connect to a spectrum analyzer on a remote host (Windows NT or Windows 2000 only)

This procedure assumes that you have already installed the PSA/ESA software on the remote host and have a spectrum analyzer connected to the remote computer via GP-IB or RS-232.

1. Click **Connect to Spectrum Analyzer** on the toolbar.
2. In the **Connect** dialog box, click **Advanced**.

The **Advanced** dialog box appears.
3. Enter the IP address or DNS hostname of the remote computer where the spectrum analyzer is connected.
4. Click **Add**. The hostname or IP address is now listed in the drop-down box under **Select Instrument Address By Host:**

5. From the drop-down box, select the remote host that you want to connect to.

Note:

To list only those instruments connected to your computer, select **My Computer** from the drop-down list.

6. Click **Close**.

In the **Connect** dialog box, the addresses for the remote host appear in the **Select Instrument Address** list, and the host name or IP address is displayed just above the **Advanced** button.

Note:

Windows 9x does not support remote instantiation of COM server processes. Visit Microsoft's Web site and search for the Knowledge Base article #Q165101 for more detail.



Capture the current spectrum analyzer settings

1. Click **Capture/Restore Spectrum Analyzer Settings** on the spectrum analyzer toolbar.
2. Click **Capture New ...** to capture the current spectrum analyzer state settings.
The **Capture New State** dialog box appears.
3. Enter a name for the state settings.
4. Enter a description (optional).
5. Click **OK**. The information appears in the list in the **Capture/Restore Settings** dialog box.

Note: The instrument state settings are saved in the document.

See Also

[Restore previously captured settings to the spectrum analyzer](#)

[Export spectrum analyzer settings to a PC file](#)



Restore previously captured settings to the spectrum analyzer

1. Click **Capture/Restore Spectrum Analyzer Settings** on the spectrum analyzer toolbar.

2. From the list in the **Capture/Restore** dialog box, select the name of the state settings that you previously captured.
3. Click **Restore**.
4. Check the screen on the spectrum analyzer to verify that the settings were restored.

State settings are not tracked between work sessions. Therefore, when you exit this work session and start the software again, the state settings that you restored in this work session will no longer be in effect.

Note:

You cannot restore state settings to a different model of spectrum analyzer than was used to create the original settings file.

See Also

[Capture the current spectrum analyzer settings](#)

[Import spectrum analyzer settings from a PC file](#)



Edit the name of a saved state setting

1. Click **Capture/Restore Spectrum Analyzer Settings** on the spectrum analyzer toolbar.
2. From the list in the **Capture/Restore** dialog box, select the name of the saved state settings that you want to edit.
3. Click **Edit Name**.
4. Type in the new name for the saved state setting.

See Also

[Export spectrum analyzer settings to a PC file](#)

[Remove saved state settings](#)



Remove saved state settings

1. Click **Capture/Restore Spectrum Analyzer Settings** on the spectrum analyzer toolbar.
2. From the list in the **Capture/Restore** dialog box, select the name of the saved state settings that you want to remove.
3. Click **Remove**.

The state settings are deleted and are no longer available.

See Also

[Export spectrum analyzer settings to a PC file](#)



Export spectrum analyzer settings to a PC file

1. Click **Capture/Restore Spectrum Analyzer Settings** on the spectrum analyzer toolbar.
2. From the list in the **Capture/Restore** dialog box, select the name of the state settings that you previously captured.
3. Click **Export**.
4. Navigate to the desired directory on your PC and enter a file name, with the file extension .sta.
5. Click **Save** to store the file.

The file is now saved *outside* of the toolbar program. Settings are saved automatically *within* the document by using the capture feature.

See Also

[Import spectrum analyzer settings from a PC file](#)

[Capture the current spectrum analyzer state settings](#)



Import spectrum analyzer settings from a PC file

1. Click **Capture/Restore Spectrum Analyzer Settings** on the spectrum analyzer toolbar.
2. Click **Import**.
3. Navigate to the desired directory on your PC and select the previously stored state setting file (.sta file extension).
4. Click **Open** to open the file and download the stored settings to the spectrum analyzer.
5. From the list in the **Capture/Restore** dialog box, select the state setting that you just imported.
6. Click **Restore** to restore these settings.

Note:

You cannot import the settings to a different model of spectrum analyzer than was used to create the original settings file.

You can import files generated with the Agilent Technologies IntuiLink Spectrum Analyzer product (E4444A).

See Also

[Export spectrum analyzer settings to a PC file](#)



Get data from the spectrum analyzer

1. Click **Get Data** on the spectrum analyzer toolbar.
2. In the **Labels** list, select the desired annotations for the data.
3. Click the **Make Excel Graph** checkbox if you want to automatically create a graph of the data, in addition to collecting the data in tabular format.
4. Click the **Include Engineering Units** checkbox if you want to display data using engineering units.
5. In the **Start Cell** box, enter the starting cell where you want the information to be placed. If you leave this box blank, the default starting cell will be where your cursor was placed when you selected the **Get Data** button on the toolbar.
6. If you want to get repeated measurements of the data, click the **Get Repeated Measurements** checkbox. Then see [Start obtaining repeated measurements from the spectrum analyzer](#).
7. Click **Get Data** when you are ready to obtain the data.

See Also

[Start obtaining repeated measurements from the spectrum analyzer](#)

[Create an Excel graph](#)



Create an Excel graph

If you have previously collected data in a tabular format in a worksheet and now want to turn that data into a graph, follow these steps:

1. In your worksheet, select the cells that you want to use to create a graph.
2. In the Excel toolbar, click on the **Chart Wizard**.
3. Follow the instructions in the **Chart Wizard**.



Start obtaining repeated measurements from the spectrum analyzer

1. Click **Get Data** on the spectrum analyzer toolbar.

2. In the **Labels** list, select the desired annotations for the data.
3. Uncheck the **Make Excel Graph** checkbox if you do not want to automatically create a graph of the data.
4. Click the **Include Engineering Units** checkbox if you want to display data using engineering units.
5. In the **Start Cell** box, enter the starting cell where you want the information to be placed. If you leave this box blank, the default starting cell will be where your Excel cursor was placed when you selected the **Get Data** button on the toolbar.
6. Click the **Get Repeated Measurements** checkbox.
7. Click the **Repeated Measurements....** button.

The **Repeated Measurements** dialog box appears.

8. In the **Repeated Measurements** dialog box, specify the time you want the measurements to start.

Click **Immediately** if you want the measurements to start right away.

Click **At set time** to specify a time to start. If you chose **At set time**, enter the date and time you want the measurements to start.

9. Specify the time interval at which you want the data collected. For example, if you want to collect data every 1 ½ hours, enter 1 in the hours box, 30 in the minutes box, and leave the seconds box blank.
10. To have the collection last for a specified length of time, click **Duration** and enter the hours, minutes, and seconds that you want the collection to last.
11. Alternatively, to have the collection last for a specific number of measurements, click **Number of measurements** and enter the number of measurements that you want.
12. Click **OK** when you are finished.

The **Get Data** dialog box now shows the conditions that you have set for collecting repeated measurements.

13. Click **Get Data** to start the collection.

Note:

Once you have started collecting repeated measurements, the other functions of the PSA/ESA toolbar become inactive, with the exception of the **Stop Repeated Measurements** button. You must stop collecting repeated measurements before you can perform any other functions from the toolbar. If you press the **Stop Repeated Measurements** button while data is being transferred, the transfer will not stop until the worksheet is complete.

See Also

[Stop obtaining repeated measurements from the spectrum analyzer](#)



Stop obtaining repeated measurements from the spectrum analyzer

To stop obtaining repeated measurements:

1. Click **Stop Repeated Measurements** on the spectrum analyzer toolbar.

If this button is unavailable, there are no repeated measurements being obtained.

Note:

You can click **Stop Repeated Measurements** at any time while repeated measurements are being gathered. If you click this button between collection intervals, the data transfer will stop immediately. If you click this button while data is being gathered, the data transfer will not stop until the worksheet in progress has been completed.

See Also

[Start obtaining repeated measurements from the spectrum analyzer](#)



Get an image of the spectrum analyzer display

1. Place your cursor in the spreadsheet where you want the image to be displayed.
2. Click **Get Screen Image** on the spectrum analyzer.
3. Click **Place in Active Document at cursor** (the default) to place the image in the current document. An image of the current spectrum analyzer display is placed in the spreadsheet in the active cell. If the active cell is not available (for example, your cursor is in a cell that has data in it) the image will be placed starting at cell A1.

OR

Click **Save to File** to save the image to a file.

4. If you **Save to File**, navigate to the directory in which you want to place the file.
5. Specify a file format, either .bmp, .wmf, .gif, jpg, .emf, or .tif.
6. Click **Save**.

Note:

Depending on the type of instrument connection, there may be up to a 10 second delay while the picture transfers from the instrument.

Delete the spectrum analyzer toolbar from Excel

If you want to delete the spectrum analyzer toolbar from the current Excel session, follow these directions.

1. From the **Tools** menu in Excel, select **Add-Ins**.
2. Clear the check box next to 'ESA Spectrum Analyzer Add-in'. Make sure that the box is not checked.
3. Click **OK** to delete the toolbar.

Alternatively, you can just hide the toolbar.

1. From the **View** menu in Excel, select **Toolbars**.
2. Uncheck the box next to 'ESA Spectrum Analyzer'.

Note:

When you first install the software, the spectrum analyzer toolbar is automatically loaded each time you start Excel.

See Also

[Restore the toolbar to Excel](#)

[Select the toolbar startup options](#)

Restore the spectrum analyzer toolbar to Excel

If you want to restore the spectrum analyzer toolbar to the current Excel session, follow these directions.

1. From the **Tools** menu in Excel, select **Add-Ins**.
2. Check the box next to 'ESA Spectrum Analyzer Add-in'.
3. Click **OK** to restore the toolbar.

Or if you have just hidden the toolbar:

1. From the **View** menu in Excel, select **Toolbars**.
2. Check the box next to 'ESA Spectrum Analyzer'.

Note:

When you first install the software, the spectrum analyzer toolbar is automatically loaded each time you start Excel.

See Also

[Delete the toolbar from Excel](#)

[Select the toolbar startup options](#)

Select the toolbar startup options

When you first install the software, the spectrum analyzer toolbar is automatically loaded each time you start Excel.

Remove toolbar at startup

To prevent the toolbar from loading each time you start Excel:

1. Locate the file named 'ESA.xla' in the following directory:
 \ Program Files \ Microsoft Office \ Office \ Startup
2. Select the above file, click the right mouse button, and then select **Delete**.

Restore toolbar at startup

If you have disabled automatic loading of the toolbar and now want to re-enable the feature, follow the steps below:

1. Locate the shortcut file named 'ESA.xla' in the following directory:
 \ Program Files \ Agilent \ IntuiLink \ ESA
2. Select the above file, click the right mouse button, then select **Create Shortcut**.
3. Move the shortcut copy of the file to the Microsoft Office Startup folder:
 \ Program Files \ Microsoft Office \ Office \ Startup



Disconnect from the spectrum analyzer

On many computers, the COM port is alternately shared by several peripheral devices. The **Disconnect** feature allows you to terminate your current connection to a spectrum analyzer without exiting the PSA/ESA E/L/EMC software, freeing up the COM port.

1. Click **Connect to Spectrum Analyzer** on the toolbar.

 If you are currently connected to a spectrum analyzer, the **Disconnect** button will be available. If you are not connected, the button is grayed out.
2. Click the **Disconnect** button in the **Connect** dialog box..

The current spectrum analyzer connection is terminated.

Note:

Connecting to a different spectrum analyzer will disconnect you from the current instrument. You can be connected to only one instrument at a time.

Connect to Spectrum Analyzer

In this dialog box, you specify the spectrum analyzer to which you want to connect.

Prerequisite

Make sure that your spectrum analyzer is physically connected to your computer and turned on.

Procedure

1. Highlight the address from the **Select Instrument Address** list for the spectrum analyzer that you want to connect to.

Note:

The instrument addresses listed are for instruments connected to the computer shown under the **Select Instrument Address** list. The name will be either "My Computer" or the name or IP address of a remote host. If you want to change the host computer, press the **Advanced** button and follow the instructions below under "To connect to an instrument on a remote computer".

2. Click **Identify Instrument(s)**.

The instrument type, name, and address appear in the **Identified Instruments** list on the right. Instruments supported by the software are in bold type.

Tip: You can double-click on the instrument address and the instruments at that address will appear in the **Identified Instruments** list.

3. In the **Identified Instruments** list, highlight the instrument that you want to connect to.
4. Click **Connect**.

A green icon appears to the left of the instrument that is connected. The corresponding icon on the toolbar also turns green (after you close the dialog box) to indicate the instrument is connected.

Tip: You can double-click on the instrument to connect to it.

If you do not know the address of the spectrum analyzer:

- Select the address you think may be correct and click **Identify Instrument(s)** to determine the type of instrument at that address.

OR

- Select more than one address (hold down the Shift key while clicking with the mouse or hold down the CTRL key while dragging the mouse) and click **Identify Instrument(s)**. All the instruments at the selected addresses are listed, with the instruments supported by the

toolbar in bold.

See the [troubleshooting](#) section of the online help if you still cannot connect to the instrument.

To disconnect from a spectrum analyzer:

If you are currently connected to a spectrum analyzer, the **Disconnect** button will be available. If you are not connected, the button is grayed out.

1. Click **Disconnect**.

The current spectrum analyzer connection is terminated.

To connect to an instrument on a remote computer (Windows NT or Windows 2000 only):

This procedure assumes that you have already installed the PSA/ESA software on the remote computer and have a spectrum analyzer connected to the remote computer via GP-IB or RS-232.

1. Click **Advanced**.

The **Advanced** dialog box appears.

2. Enter the IP address or DNS hostname of the remote computer.
3. Click **Add**. The hostname or IP address is now listed in the drop-down box under **Select Instrument Address By Host**:
4. From the drop-down box, select the remote host that you want to connect to.

Note:

To list only those instruments connected to your computer, select **My Computer** from the drop-down list.

5. Click **Close**.

In the **Connect** dialog box, the addresses for the remote host appear in the **Select Instrument Address** list, and the host name or IP address is displayed just above the **Advanced** button.

Note:

Windows 9x does not support remote instantiation of COM server processes. Visit Microsoft's Web site and search for the Knowledge Base article #Q165101 for more detail.