Using

Data*View*®

With Power Meters

PowerPad® Model 3945
PowerPad® Model 8335
PowerPad® Jr. Model 8230
Power Quality Meter Model 8220

AEMC®
INSTRUMENTS
CHAUVIN ARNOUX GROUP

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This section will provide walkthroughs of the PowerPad's various functions in DataView. The walkthroughs assume that the user has first connected the PowerPad to a PC successfully and launched the **"Power Analyzer Control Panel"**. If this has not been done, refer to the tutorial Part 1 – DataView Software Setup.

Note: With many of the types of data that are recorded to the PowerPad, it is necessary to configure the start and stop time for the recording. When the PowerPad is configured for a recording, it must remain turned on until the recording is finished or the recording will be canceled or incomplete. During this time though, it is not necessary for the PowerPad to remain connected to the computer. When the PowerPad is running on batteries, as long as the PowerPad is connected to the computer, the battery life will shorten as the PowerPad screen will remain turned on and cannot enter sleep mode. When LCD is in sleep mode the PowerPad will still make the scheduled recording and can be brought out of sleep mode at any time by pressing any key, this will extend the battery life of the unit.

Transients

Transient searches can be set up and initiated in the Control Panel in addition to being viewed and analyzed. The first part of this section will explain how to set up a Transient search in the Control Panel. The second part of this section will explain how to view and export the resulting data to DataView or to MS Excel.

1. Configuring an Transient Search

1. Begin by selecting **"Configure"** form the **"Instrument"** menu of the control panel.

2. When the **"Configure the Instrument"** window opens select the **"Transients"** tab from the top of the window. This will display the options for setting up a transient search.
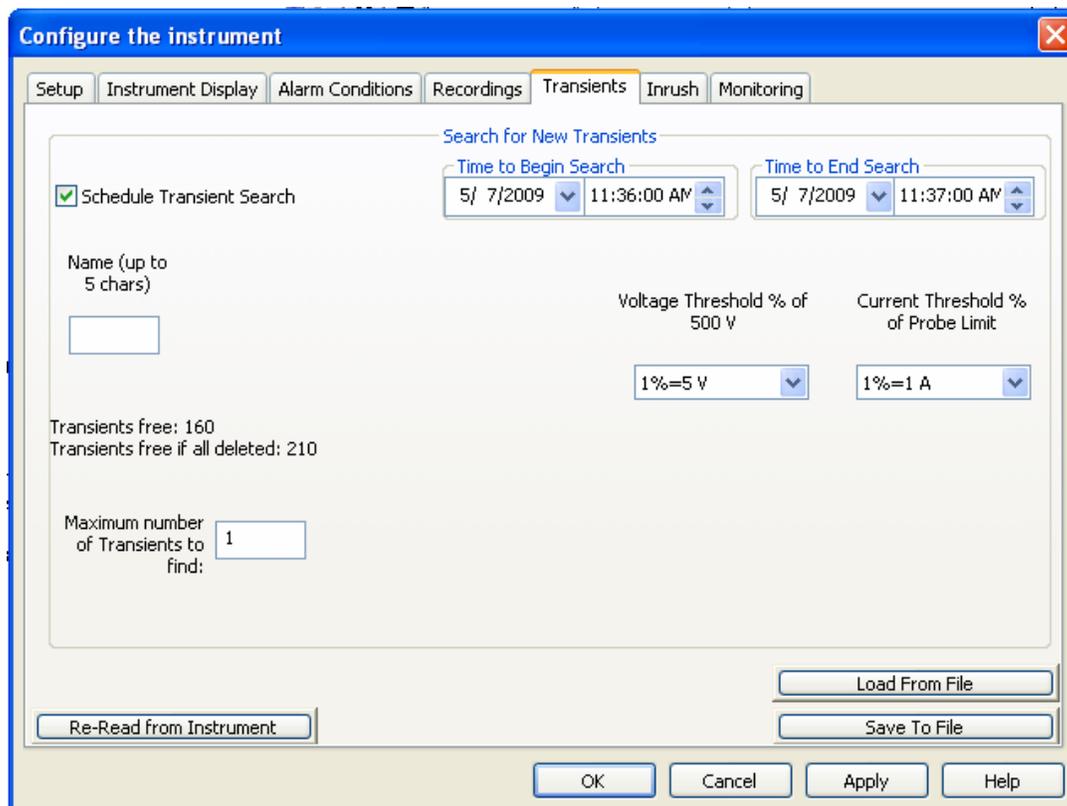
Figure 1

3. Check the box next to **"Schedule Transient Search"** to activate the search function, then select the time and date for the search to begin and end. The search will end early if it reaches the maximum number of transients.

4. Enter a name, of up to 5 characters, for the search to be saved as.

5. Select the maximum number of transients to store. The PowerPad can store up to a total of 210 transients, less for some models. You can remove existing transients in the **"Recorded Data"** window.

6. Set the Voltage and Current thresholds, choosing between 1, 2, 5, 10, 20, 50 and 100%. The thresholds determine when a transient event is found. If a data point in a waveform differs from the same data point in the previous cycles by more than the threshold, a transient event is found. The percentage is of constants, not the actual values of the waveforms. 100% of voltage is always 500volts. 100% of current depends on the type of current probe.

7. After finalizing all the settings, click **"OK"** or **"Apply"** to apply the settings to the PowerPad. Confirm that the transient search is scheduled by looking under the **"Status"** portion of the **"Instrument"** window.

8. Ensure the PowerPad is hooked up properly to make the recording and that it remains on until the transient search is completed. If it is turned off at any point, the search will end. The PowerPad will perform the transient search regardless if it is connected to the computer or not as long as it never shuts down until the recording is finished.

2. Viewing a Transient Search

1. After the recording is completed, to view the recorded data click **"Recorded Data"** under the **"Instrument"** toolbar and then select the **"Transients"** tab in the **"Recorded Data in Instrument"** window.
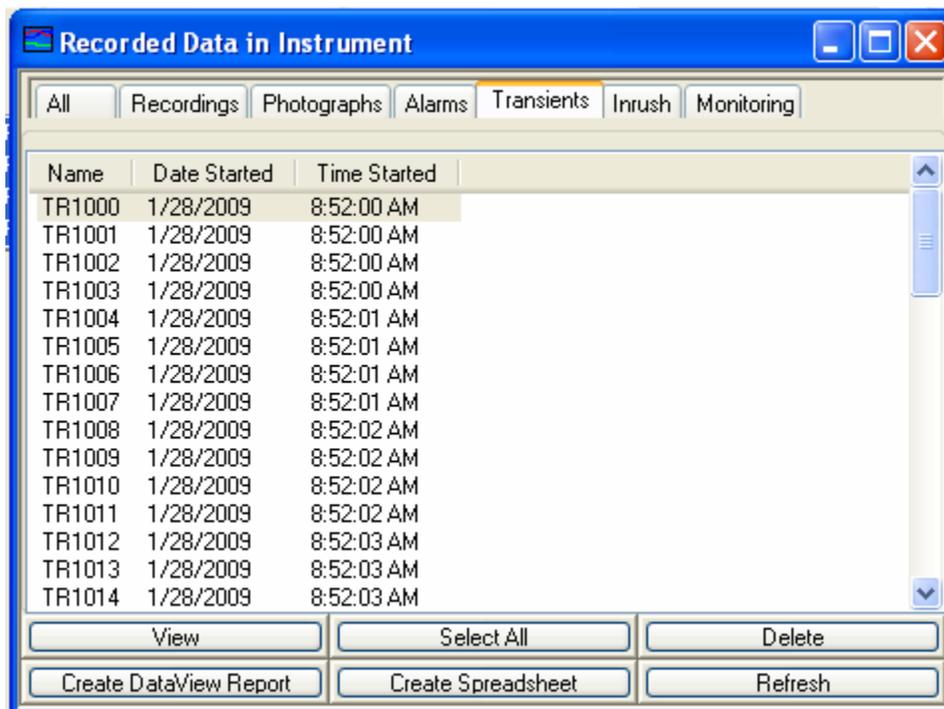
Figure 2

2. Select the desired Transient from the list and click the **"View"** button to open the **"Transient"** window. It is also possible to view transients by selecting them from the **"Transients"** drop-down in the "Instrument" window.

3. The transient window shows the waveform of transient incident along with its magnitude. It also shows the waveform of all the other PowerPad inputs during the incident.
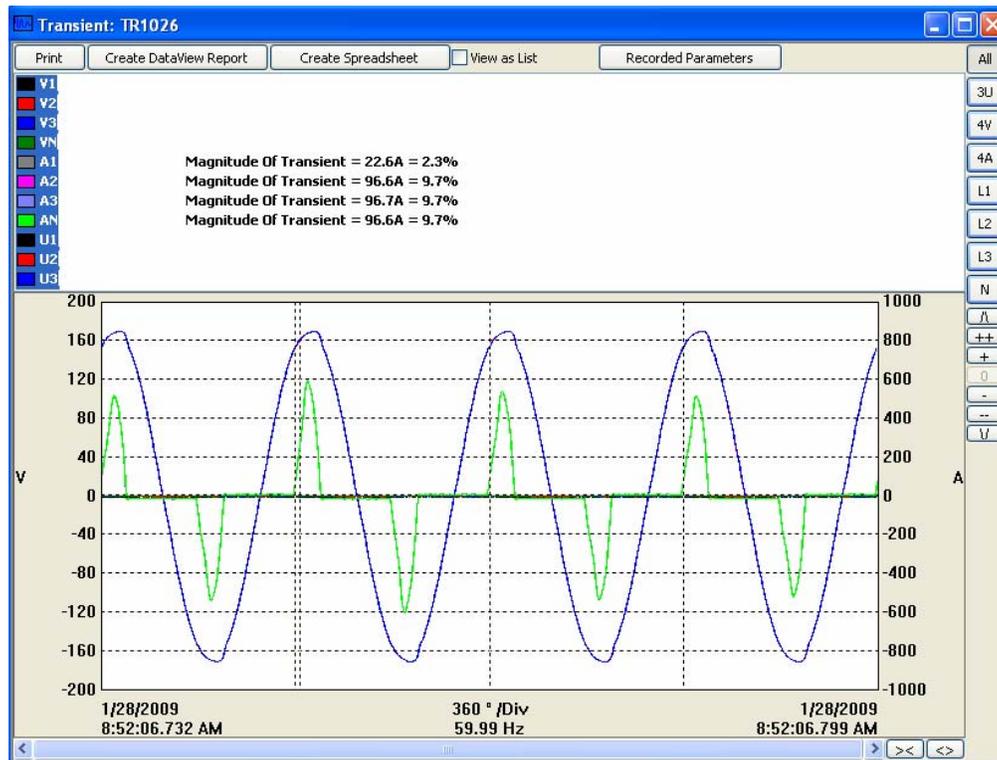
Figure 3

*   Checking the **View as List** box shows all the waveform data as a list of numerical data points.

*   **All, 3U, 4V, 4A, L1, L2, L3,** and **N** choose which channels will be displayed. (Depending on which model there will be less channel options.)

*   **Recording Parameters** allows the user to set Primary and Secondary voltage parameters.

*   To the right of the graph there will be a vertical string of button to modify the graph view:
    o   **Λ** scrolls the graph up.
    o   **V** scrolls the graph down.
    o   **+** zooms in on the graph.
    o   **++** zooms in faster.
    o   **-** zooms out on the graph.
    o   **--** zooms out faster.
    o   **0** restores the default graph view.

*   At the bottom of the graph there is a scroll bar and two horizontal buttons that change the time scale of the graph
    o   **><** decreases the time scale making the graph longer
    o   **<>** increases the time scale making the graph shorter

- **Create DataView Report** inserts the data into a DataView report which you can then view, modify and save.

- **Create Spreadsheet** saves the data in a MS Excel spreadsheet which you can then view and modify.

- **Print** prints what you are currently viewing in the window.

4. If desired it is possible to export the data using "Create Dataview Report" or "Create Spreadsheet".

3. Creating a DataView Report

1. From either the **"Recorded Data"** window, after selecting the desired recording, or from the **"Transient"** window, click the **"Create DataView Report"** button to send the data to DataView.

2. The data should now be inserted into a DataView Report using the relevant template.

4. Saving to a Spreadsheet

1. From either the **"Recorded Data"** window, after selecting the desired recording, or from the **"Transient"** window, click the **"Create DataView Report"** button to sent the data to DataView.

2. A **"Save As"** window will appear requesting that a name and location to save the spreadsheet file be chosen. It also allows the file to be saved as the default .xls file (MS EXCEL) or as a .csv file. When finished, click the **"Save"** button.
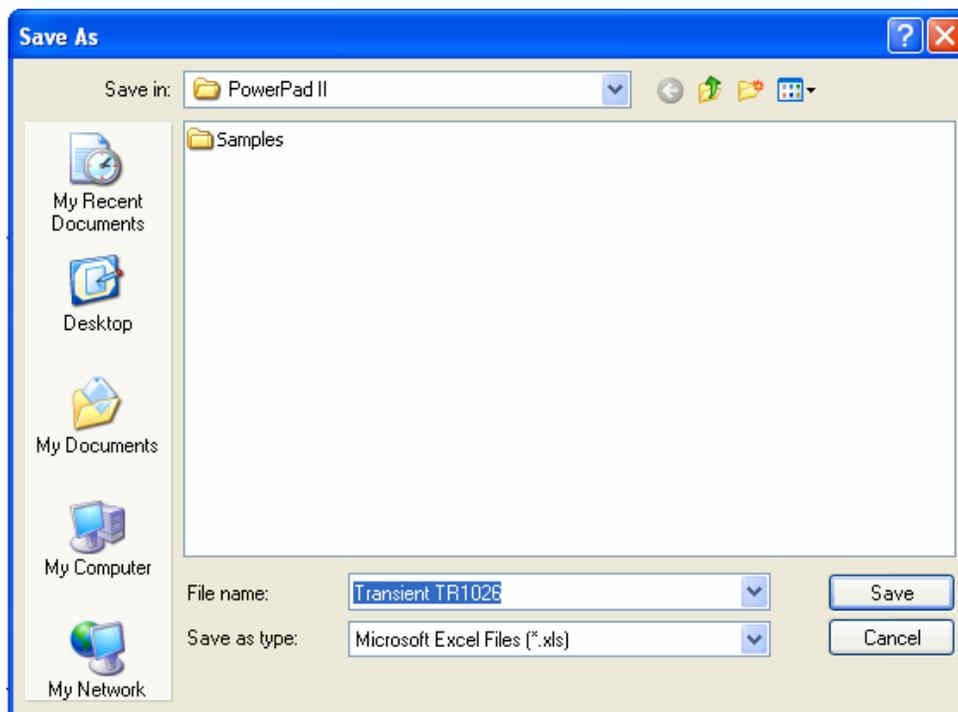
Figure 4

3. After saving the spreadsheet a window will appear asking if viewing of the spreadsheet is desired. If "Yes" is clicked, the corresponding spreadsheet will open.