

Using
DataView[®]
With Power Meters

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



Table of Contents

Alarms	3
1. Configuring an Alarm Search	3
2. Viewing an Alarm Search	5
3. Creating a DataView Report.....	6
4. Saving the Data to a Spreadsheet.....	6

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.

Alarms

Alarm 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 an alarm 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 Alarm Search

1. Begin by selecting “**Configure**” from the “**Instrument**” menu of the control panel.
2. When the “**Configure the Instrument**” window opens, select the “**Alarm Conditions**” tab from the top of the window. This will display the options for setting up an alarm search.

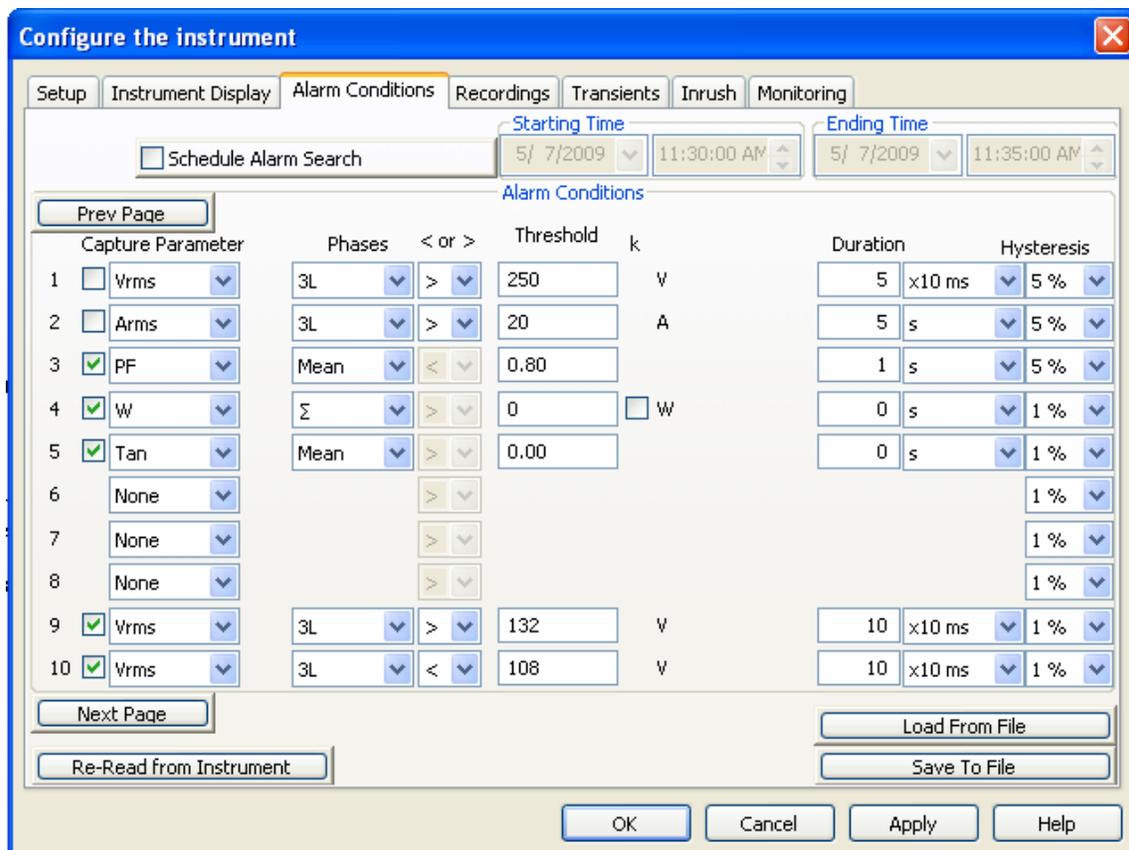


Figure 1

There are a variety of alarm conditions that can be part of the setup. Some give a choice of phases, “3L” for any of lines 1, 2, 3, “N” for neutral current, “Sum” for the sum of phases. Some give a choice of greater or less than. Those that measure a harmonic value, give a choice of harmonic number

Schedule Alarm Search: Check this box to activate the alarms, and set a starting and ending time and date to assign the time period during which the alarms will be active.

Prev Page & Next Page: Move between the 4 pages of alarms with 10 alarms per page (Model 8335 only).

Capture Parameter: The Alarm will be triggered based on the value of the selected parameter. Check the box next to the parameter to enable that alarm configuration.

Choices include:

None: no alarm

Vrms: voltage root mean squared

Urms: voltage phase to phase root mean squared

Arms: current root mean squared

VPST: voltage short term flicker

Vcf: voltage crest factor

Ucf: voltage phase to phase crest factor

Acf: current crest factor

Vunb: voltage unbalance

Aunb: current unbalance

Hz: frequency

Akf: current K factor

Vthd: voltage total harmonic distortion

Uthd: voltage phase to phase total harmonic distortion

Athd: current total harmonic distortion

W: active power

Harmonic Number: For alarm parameters, Vh, Ah, Uh, and VAh, selects which harmonic number is being used as an alarm condition. For example, Vh with a harmonic number of 2, will only look at Voltage phase to neutral, harmonic 2.

Phases: Some alarm conditions have a phase selection. W, VAR, and VA, have a choice of “3L” (each individual phase), or “Sum” which is the sum of phases. DPF, PF, and TAN have the choice of “3L” (each individual phase), or “Mean” which is the mean of phases.

Threshold: The value that must be reached to start an alarm. For “>” alarms, the value or higher must be reached, for “<” alarms, the value or lower must be reached.

Duration: The Alarm will only be recorded if the duration of the parameter meets the threshold criteria. The minimum alarm duration can be in minutes or seconds. In the case of Vrms, Urms or Arms not using neutral current, can also be in hundredths of a second. For Vrms, Urms, and Arms, it can be useful to set a duration of 0 seconds. In that case an event as short as a half cycle can be detected (8 milliseconds at 60Hz). For all other parameters, the minimum duration that can be detected is 1 second.

Hysteresis: This value for alarms is set to prevent multiple recordings of an event that goes above the threshold and a certain percentage below it at times.

Example: Alarm threshold is 100 Volts or higher, hysteresis is 1%. When the voltage goes up to 100V, the alarm condition starts. When it goes back down to 99V, the alarm condition stops.

3. Check the box next to “**Schedule Alarm Search**” and select starting and ending date and times to activate the Alarm Function.
4. Go through the alarm settings to configure them as desired. Information on these settings is shown above.
5. After finalizing all the settings click “**OK**” or “**Apply**” to apply the settings to the PowerPad. Confirm that the alarm search is scheduled by looking under the “**Status**” portion of the “**Instrument**” window.
6. Ensure the PowerPad is hooked up properly to make the recording and that it remains on until the alarm search is completed. If it is turned off at any point, the search will end. The PowerPad will perform the alarm 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 an Alarm Search

1. After the recording is completed, to view the recorded data click “**Recorded Data**” under the “**Instrument**” toolbar and then select the “**Alarms**” tab in the “**Recorded Data in Instrument**” window.

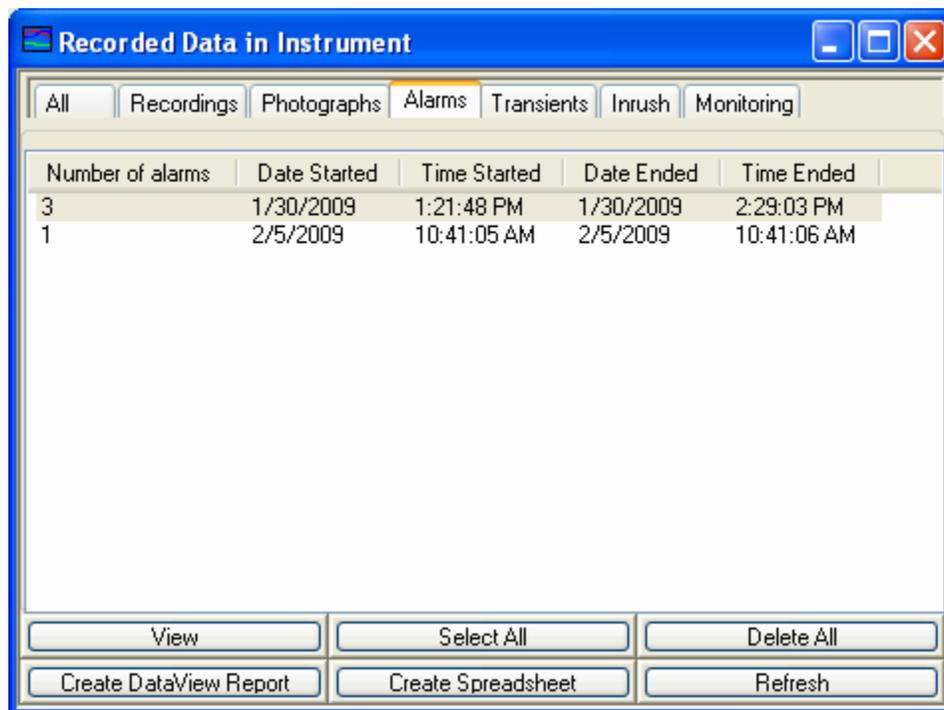


Figure 2

2. Select the alarm search from the list and click the “**View**” button to open the “**Alarm**” window. Alarm searches can also be viewed by selecting them from the “**Alarms**” drop-down menu in the Instrument window.

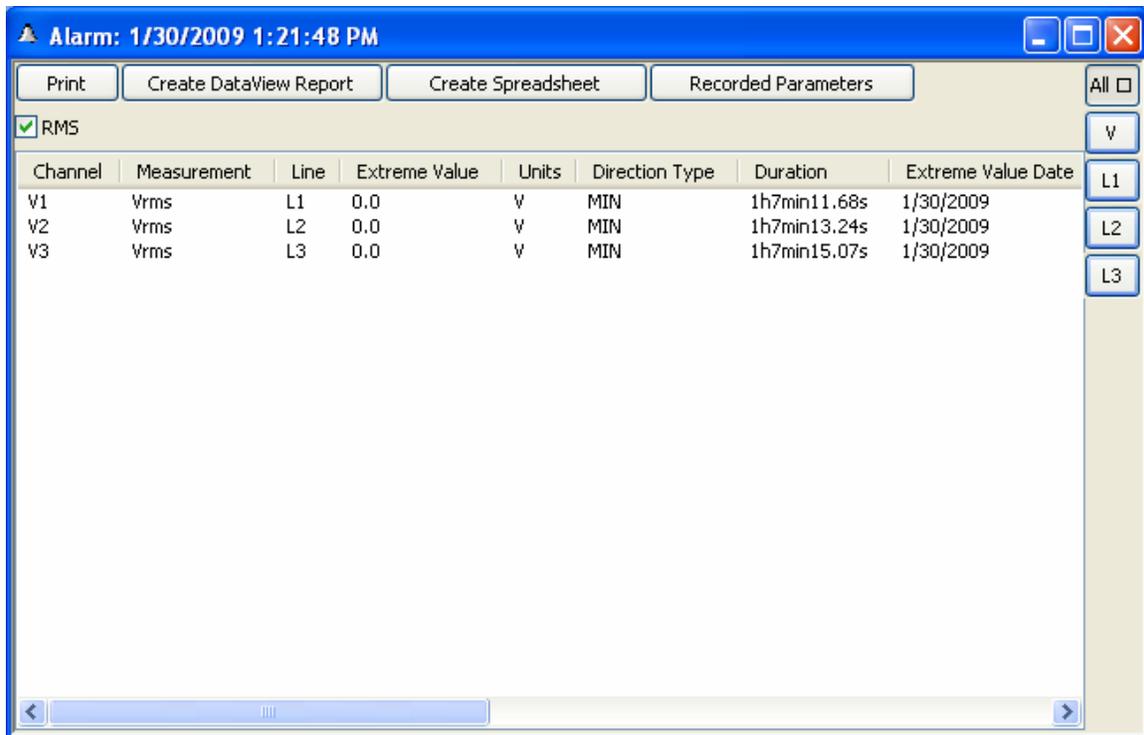


Figure 3

3. The Alarm window will display all the data from the recent alarm search. By clicking L1, L2, L3 or All it is possible to view the alarms separated by phase or all together.
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 “**Alarm**” 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 the Data to a Spreadsheet

1. From either the “**Recorded Data**” window, after selecting the desired recording, or from the “**Alarm**” window, click the “**Create DataView Report**” button to send 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.

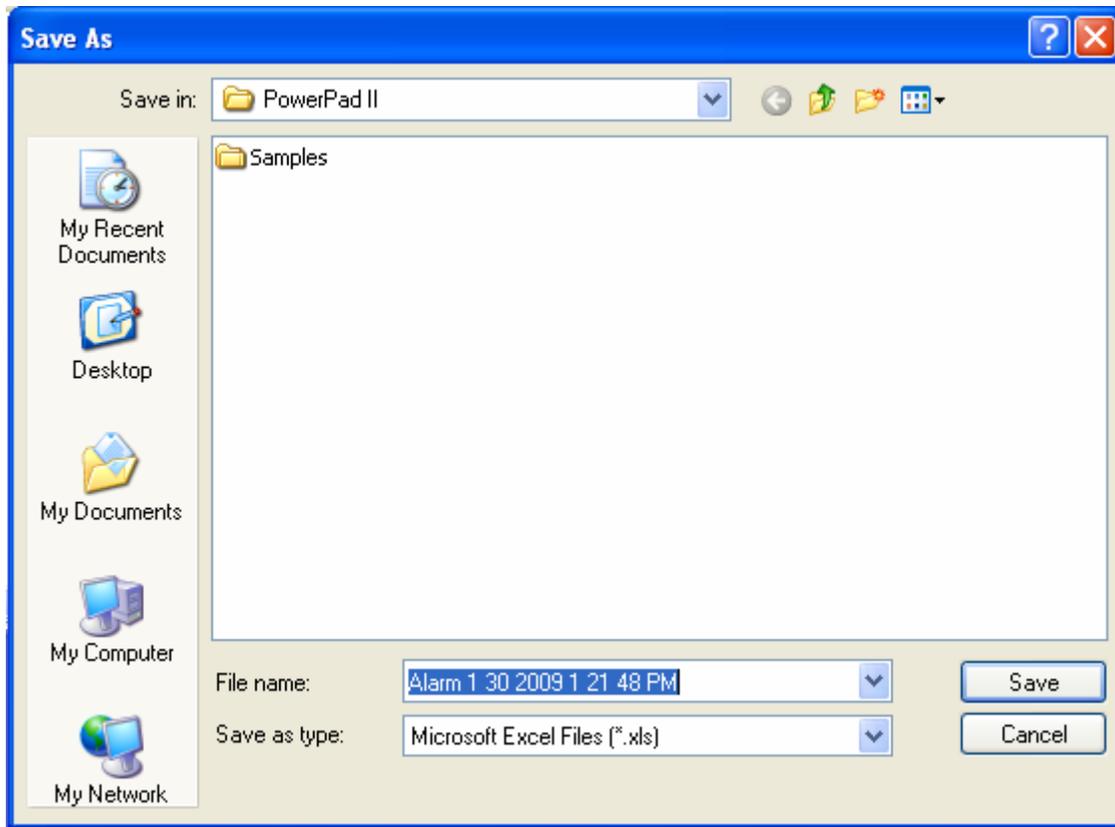


Figure 4

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.