

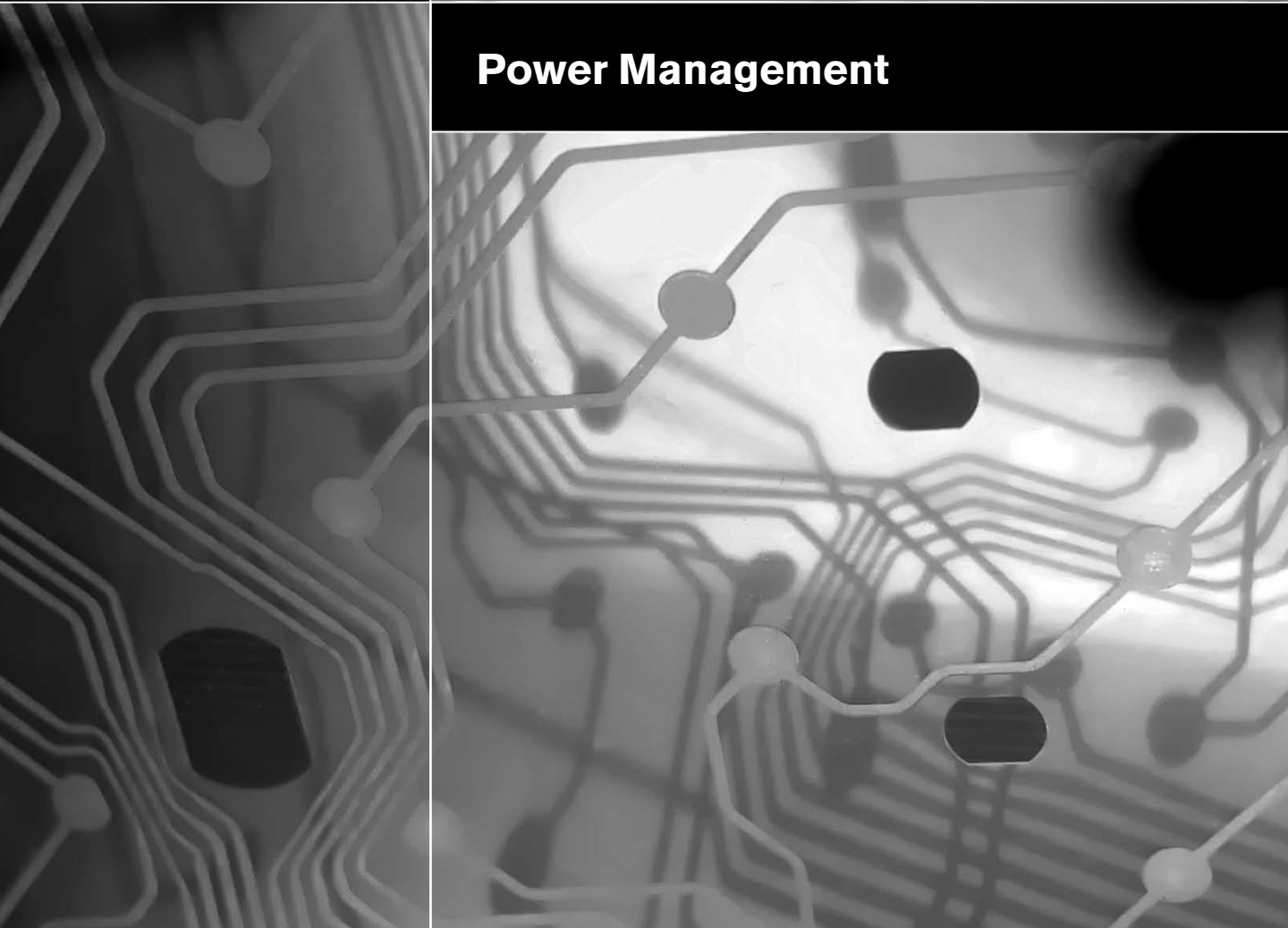


Avocent®

Technical Bulletin

DSView® 3 Software Plug-in

Power Management



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DSView 3 Software Power Management Plug-in

The power management plug-in logs historical data for power and environmental devices that are managed by the DSView 3 software. You can run power management reports for units in a DSView 3 infrastructure and execute power control functions for racks and power devices. Power and environmental devices may include PM Intelligent Power Distribution Units and Uptime Devices SensorHubs.

To operate the power management plug-in, you must organize units in an infrastructure in the DSView 3 software. Each infrastructure may contain up to four levels in the following hierarchy: “company,” “data center,” “row of racks” and “rack”; racks contain power and environmental devices. Power management reports are available for all infrastructure levels. Reports include total power consumption, threshold events, power consumption per phase, total energy consumption, temperature and energy costs for each unit. Comparative reports juxtapose the historical data of multiple units.

The information provided here is supplemental to the DSView 3 help.

System Requirements

- The power management plug-in requires DSView 3 software version 3.6 or later.
- A plug-in license is required for power management plug-in operations.

Prerequisites

Before power data can be collected, the following configuration must be complete:

- The voltage and power factor must be configured for each power device for which you want to collect data; see the DSView 3 help (keywords: power devices).
- An infrastructure with power and/or environmental devices must be configured. The Power Management link in the side navigation bar displays the organization configured from the Infrastructure window. Data monitoring must also be enabled on the units from the Infrastructure window.

In an infrastructure organization, a row of racks contains racks that each contain power and/or environmental devices. For DSView 3 systems consisting of hub and spoke servers, a row of racks and the racks and devices it contains must be assigned to the same DSView 3 server. For

example, a row of racks assigned to a hub server must not contain racks that are assigned to a spoke server. This configuration is required for the power management plug-in to accurately collect and aggregate historical data.

For more information, see the DSView 3 help (keywords: infrastructure).

Power Management Plug-in Settings

The following settings are globally applied to the DSView 3 server.

To modify power management plug-in settings:

1. Click the *System* tab, then click *Plug-ins* in the top navigation bar.
2. Click *Power Management* in the list of plug-ins.
3. Click *Settings* in the side navigation bar.
4. To specify where power monitoring logs are stored, enter a local or network shared location, using a UNC (Universal Naming Convention) path of up to 256 characters in the Location field. You cannot specify a mapped network drive. If the operating system supports case sensitive file names, use case sensitive text.

The default location is %<DSView 3 software installation directory>%\powerarchive.

NOTE: Power monitoring logs are not backed up by the DSView 3 software backup utility.

5. If a login will not be required to access the file location, disable the *Login required to access shared drive location* checkbox.

-or-

If a login will be required to access the file location:
 - a. Enable the *Login required to access shared drive location* checkbox.
 - b. In the Username field, enter the username (up to 256 characters) to access the file location.
 - c. In the Password and Confirm Password fields, enter the password (up to 64 characters).
6. In the Archive Interval section, select the maximum number of months that power monitoring logs should be stored before being automatically exported to .csv files.
7. In the Unit Nomenclature area, specify the temperature unit, power 3-phase description and currency to be used in power reports.
8. In the Plug-In Standard Properties area, specify the interval at which power monitoring data is collected.
9. Click *Save*.

Power Management Unit Overview Settings

You can configure settings for any level of the infrastructure (company, data center, row of racks or racks), or for individual power and environmental devices.

To view the status:

1. Click the *Units* tab.
2. Click *Units* in the top navigation bar.
3. Click *Power Management* in the side navigation bar.
4. Click on an infrastructure level or power device. The Unit Overview window opens.
5. Click *Power Management* in the side navigation bar.
6. Click *Status* in the side navigation bar. The latest power monitoring data gathered for the unit is displayed. Data provided varies based on the unit selected but may include current, power and voltage for each phase, total current, power and voltage, humidity and temperature. The list also displays if any thresholds were exceeded for any value.
7. Click *Close*.

To modify the configuration:

1. Click the *Units* tab.
2. Click *Units* in the top navigation bar.
3. Click *Power Management* in the side navigation bar.
4. Click on an infrastructure level or power device. The Unit Overview window opens.
5. Click *Power Management* in the side navigation bar.
6. Click *Configuration* in the side navigation bar.
7. If you selected an infrastructure level, enter the maximum power consumption in watts in the field provided.

-or-

If you selected a power device, configuration data received from the power device is displayed. In the Settings area, enter the maximum total current, maximum power consumption, maximum current per phase and maximum power consumption per phase in the fields provided. The appropriate values for these settings can be found on the label on the power device hardware; see the power device installer/user guide for more information.

8. Click *Save*, then click *Close*.

To modify thresholds for rows of racks, racks or power devices:

1. Click the *Units* tab.
2. Click *Units* in the top navigation bar.
3. Click *Power Management* in the side navigation bar.
4. To modify thresholds for a unit, click on the name of a row of racks, rack or power device. The Unit Overview window opens. Click *Power Management* in the side navigation bar.

-or-

To modify thresholds for multiple units of the same type at once, select the row of racks, rack or power device from the list and click *Configure Thresholds* from the Operations menu.

5. Specify the threshold values for total current, power consumption, temperature, relative humidity, phase/circuit current and phase/circuit power consumption in the fields provided. For each category, enter the following values:
 - High Critical - When the actual rating is above this value, a high critical alarm is sent.
 - High Warning - When the actual rating is above this value, a high warning alarm is sent. This alarm is designed to indicate when the value is approaching a critical level, so it is recommended that the high warning value be slightly lower than the high critical value.
 - Low Warning - When the actual rating is below this value, a low warning alarm is sent. This alarm is designed to indicate when the value is approaching a critical level, so it is recommended that the low warning value be slightly above than the low critical value.
 - Low Critical - When the actual rating is below this value, a low critical alarm is sent.
6. Click *Submit*, then click *Close*.

When a threshold is met, a DSView 3 software event is generated.

Power Operations

To perform power operations on a power device or rack:

1. Click the *Units* tab.
2. Click *Units* in the top navigation bar.
3. Click *Power Management* in the side navigation bar.
4. Click on a power device or rack name. The Unit Overview window opens. Click the corresponding Tools icon or link to turn on, turn off or power cycle the power device.

-or-

Select the power device(s) from the list and select *Power Unit On*, *Power Unit Off* or *Power Cycle Unit* from the Operations menu.

Unit Reports

Unit reports display data for a single infrastructure level or power device.

To view unit reports:

1. Click the *Units* tab.
2. Click *Units* in the top navigation bar.
3. Click *Power Management* in the side navigation bar.
4. Click on an infrastructure or power or environmental device name. The Unit Overview window opens.

5. Click *Power Management* in the side navigation bar.
6. Click *Reports*.
7. Select a report from the Reports menu. Available reports vary based on the type of unit selected and what data each unit supports.
8. Enter the date and time range for the report in the fields provided.
9. Click *Run Report*.
10. The report is displayed as a line graph. Click the bar chart or table view icons to change the view, or click the interpolation icon to show only data points.
11. Click *Export Data* if you wish to export and save the report data as .csv file.
12. Click *Close*.

Comparative and Status Reports

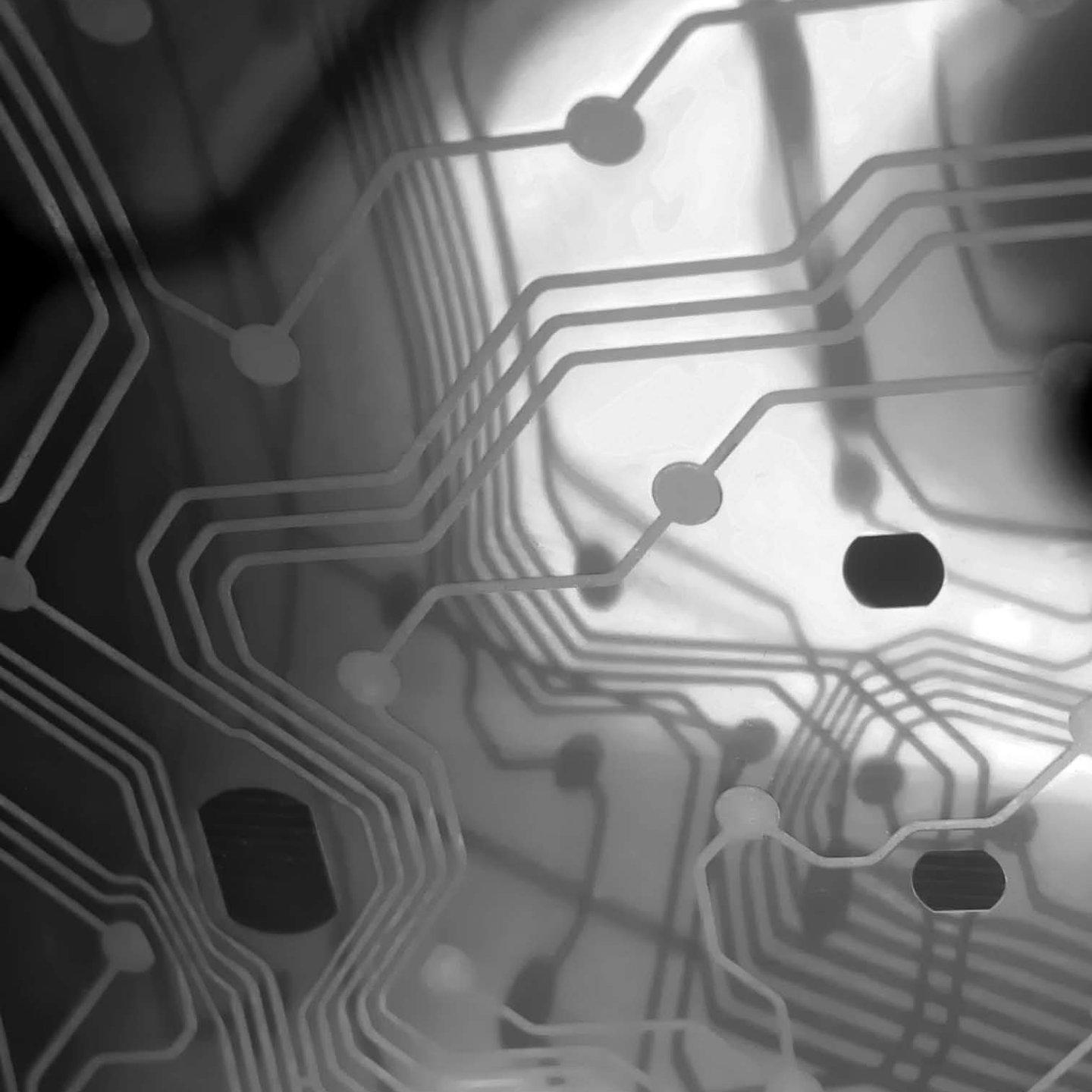
Comparative reports display data for multiple units of the same type; for example, you could compare power consumption for two power devices. You can also view Power Distribution Unit (PDU) status and power range reports.

To view comparative reports:

1. Click the *Reports* tab.
2. Click *Power* in the top navigation bar.
3. Select a report from the Reports menu.
4. (If applicable) Select a filter from the Filters menu. A detailed set of filter menus is displayed; select the appropriate values. Available items are displayed; select the items to be include in the report and click the >> button.
5. Enter the date and time range for the report in the fields provided.
6. Click *Run Report*.
7. The report is displayed as a line graph. Click the bar chart or table view icons to change the view, or click the interpolation icon to show only data points.
8. Click *Export Data* if you wish to export and save the report data as .csv file.
9. Click *Close*.

To view status reports:

1. Click the *Reports* tab.
2. Click *Power* in the top navigation bar.
3. Select *PDU Status* or *PDU Power Range* from the Reports menu. The report is displayed in table format.
4. Click *Export Data* if you wish to export and save the report data as .csv file.
5. Click *Close*.



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