Spara View

for Spara Go System

User Guide

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1 Introduction

This manual describes how the Spara View[™] web user interface to the plant behaves. The Spara View and Spara Hub[™] interfaces can both be used to connect with the plant. Spara View is used primarily for local access, for example, when no internet connection is available. The Spara Hub platform provides more features and is the primary interface to Spara Go.

Definitions

Spara Go[™] application: The software application that collects meter and load data, controls the Spara Go appliance, manages the demand, and communicates with the Spara View user interface or the Spara Hub platform.

Spara Go appliance: The hardware platform that provides meter and load data to the Spara Go application. The Advantech ARK 1122 is the current Spara Go appliance.

Spara View: The local user interface to the Spara Go application and appliance.

Spara Hub: The cloud-based, full-featured interface to the Spara Go application and appliance.

Generic UI Behavior

There are different types of fields in Web UI. Here are some examples:

Text Fields

Text fields that can be edited by the user have a white background. Clicking the text field once will place the edit cursor on it for editing. Double-clicking the text field will highlight the complete string for replacement. Pressing Enter or clicking the **Submit** button will submit the data to the Spara DM appliance configuration file. You can edit several text fields at once without pressing Enter or clicking the **Submit** button. The data is not submitted until you press Enter or click **Submit**.

Status Fields

Status fields that cannot be edited by the user have a gray background. These fields display parameters, states, and outputs.

Buttons

There are two kinds of buttons:

- · Clicking one kind of button opens a display.
- Clicking the other kind of button displays parameter states.

Image Fields

Image fields show images which will display equipment states or open a new display.

Drop-down list

Drop-down lists show all setting options; you can select one of them. After selecting the desired option, click **Submit** to commit the changes and update the plant.

See Also

Spara Go Quick Start Guide: Provides instructions for connecting to the Spara Go appliance, an introduction to the Spara View interface in Simulation mode, and information on configuring Modbus TCP communications.

Spara Go Configuration Guide: Provides detailed setup information, the appliance terminal interface

reference, the Modbus TCP map, and load control implementation examples.

Spara Hub User Manual (available from the Spara Hub context help and user documentation links): Provides user and reference information on the Spara Hub Demand Manager user interface.

2 Startup

2.1 Login and Initial Screen

Launch Spara View in the browser by navigating to the local LAN URL of the Spara Go appliance. The default address of the Spara appliance Ethernet Port 0 is 192.168.1.99.

The plant is password protected; you will be prompted to log on. Enter your user name and your password, and click **Login**. Default user names and passwords are emailed to the person registered with Powerit Solutions at the time of purchase.

👝 Poweri	t Solut	ions-	
User			
Password	gin		

The Spara DM application uses secure communication (HTTPS). The first time you access the Web pages the browser may display a message that there is no acceptable security certificate. Accessing the Spara DM application does not present a security risk. Click "Continue to this website".

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C: Certifica	ate Error: Navigation Blocked - Windows Internet Explorer	J@
0@	- 11.11#tps://10.1.1.115/Spara.html V Ivve Search	
Eile dit	Wexx JEF es Iodx tlep	
<u>(j</u>	Cerdicate Error:Navigation Blocked	- ~
0	There is a problem with this website's security certificate.	٦
	The security certificate presented by this webste was not issued by a trusted certificate authority. The security certificate presented by this webste was issued for a different webste's address.	
	Security certificate problems may indicate an attempt to foolyou or intercept any data you send to the server.	
	We recommend that you close this webpage and do not continue to this website.	
	Ø d≤ <i>her</i> e to close this webpage.	
	O Continue to this website (not recommended).	
	O More information	
-1	1	
	I GInternet BI_100%	

2.2 Navigation Bar

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- A. Displays the Energy Monitor page.
- B. Displays the Loads page for the defined load groups.
- C. Displays the **Demand Settings** page.
- D. Displays the <u>Alarms</u> page.
- E. Displays the Admin Configuration page.
- F. Opens a new window that displays the Spara Hub platform.
- G. Opens a new window that displays the Customer Service Request form on the Powerit Solutions website.
- H. Logs the current user out of Spara View.

3 Energy Monitor

The energy data is shown numerically and graphically. The following shows the relationship between the data displayed on the **Energy Dashboard** and the **Energy Monitor**.



See the next sections for detailed information on the displays.

3.1 Energy Dashboard



- A. **Time** Time of the Spara DM controller's internal clock.
- B. Power Management Displays the state of power management controls.
- C. **Mode** The demand mode for the setpoint that is currently active. This is the utility's TOU billing category (e.g., peak, part-peak, off-peak). Go to the <u>Demand Settings</u> page to view or change mode settings.
- D. Spara Hub Displays whether Spara Hub control is enabled or disabled.
- E. Alarm indicator Displays a green icon if no alarms are active. A red icon will display when an alarm is active. Go to the <u>Alarms</u> page to view alarm settings.
- F. Power
 - Setpoint The current kW setpoint. Go to the <u>Demand Settings</u> page to view or change setpoint settings. This is calculated from the debit period setpoint entered in kWh.
 - 2. Average The current kW usage calculated from kWh pulses. Default is a 1 minute average.
 - Projected Diff The difference between the projected peak kW usage for the current debit period and the kW setpoint.
 - 4. Reduction The amount of kW currently reduced.
- G. Energy Consumption
 - Setpoint The current setpoint in kilowatt hours (kWh). Go to the <u>Demand Settings</u> page to view or change setpoint settings.
 - 2. Current Period The kilowatt hours (kWh) used in the current debit period.
 - 3. Previous Period The total kilowatt hours (kWh) used in the previous debit period.
 - Daily The daily consumption of kilowatt hours (kWh). The value will reset based on the Bill Date value found on the <u>Demand Settings</u> page.
 - Weekly The weekly consumption of kilowatt hours (kWh). The value will reset based on the Bill Date value found on the <u>Demand Settings</u> page.
 - Monthly The monthly consumption of kilowatt hours (kWh). The value will reset based on the Bill Date value found on the <u>Demand Settings</u> page.
- H. Debit Period
 - 1. Length Amount of time of one debit period measured in minutes.
 - 2. Time Left Amount of time remaining in the current debit period measured in seconds.
 - 3. Subinterval The total number of subintervals in one debit period.

3.2 Energy Monitor



- A. Meter Scaling Displays the meter configuration and values registered from the utility meter.
- B. Y-axis All data displayed on the graph is measured in kilowatt hours (kWh). This value is reset to zero at the beginning of every debit period.
- C. **Energy Setpoint** The current energy setpoint in kilowatt hours (kWh). Go to <u>Demand Settings</u> page to view or change setpoint settings.
- D. Active Energy The total kilowatt hours (kWh) used in the current debit period.
- E. Reduced Energy The total kilowatt hours (kWh) reduced in the current debit period.
- F. X-axis Displays time in 10 minute increments.
- G. Y-axis The data in the bar graph is displayed in kilowatts (kW).
- H. Estimated Limit Displays the amount of power (kW) that could be utilized for the remainder of the current debit period.
- I. Total Power Displays the amount of power (kW) currently in use.
- J. Power Reduced Displays the amount of power (kW) currently reduced.

3.3 Energy Pulse



- A. Back Returns to the Energy Monitor page.
- B. Update Rate Displays page refresh information measured in seconds. The minimum value is 5 seconds. The Update button can be used to manually refresh the page. The Submit button saves any changed values to the system.
- C. **Scaling** These values determine the kWh per pulse value used in the energy calculation. The upper value is divided by the lower value (i.e., 1008/100 = 10.08 kWh/pulse).
- D. Energy consumption The energy consumed during the previous and current debit periods.
- E. Average Power Calculated by averaging energy consumption during the last time period (e.g., 4 minutes, 2 minutes, 60 seconds). The value is calculated after the kWh/pulse scaling factor has been applied.

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4 Loads



- A. Load Configuration Displays Load Configuration page for the loads displayed.
- B. Update Rate Displays page refresh information measured in seconds. The minimum value is 5 seconds. The Update button can be used to manually refresh the page. The Submit button saves any changed values to the system.
- C. Load Description of the monitored load.
- D. Status Status of the monitored load (e.g., Running, Off, Reduced).
- E. Priority Priority for the device. Go to the Load Configuration page to view or change priority settings.
- F. **Base power** The amount of power (kW) the load is running at when not reduced. The percentage is based on the maximum value set on the Load Settings display.
- G. Current power The actual amount of power (kW) the load is currently using, which is either the normal or reduced power for the load. The percentage is based on the maximum value set on the Load Settings display.
- H. **Constraints** A green lightning bolt indicates the device is operating with no constraints. A locked lightning bolt indicates a constraint is active. Constraints prevent the load from being reduced.
- Demand A green lightning bolt indicates the load is enabled to be controlled. A red lightning bolt indicates the load is being reduced. A gray lightning bolt indicates the load is not enabled for control by the Spara system.
- J. **Settings** Displays a pop-up window where you can enter the minimum and maximum settings. See <u>Load Settings</u>.

4.1 Load Settings

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Digital (Group 1	•		Load Confi	guration Up	date Rate 60 s Up	date Submit
			Group_Di	iscrete			
			Load1 ×				
Load :	Load1			se power	Current power	Constraints : 🗡	
Status :	Off		kW Min: 0	0 kW	0 kW	Demand : 🗲	
Priority :	1		Accept C	0 %	0 %		Settings
Load :	Load2		Ba	se power	Current power	Constraints : 🗲	
Status :	Off			0 kW	0 kW		
Deiosity				0 %	0 %	Demand :	
Priority :	1						Settings

- A. **kW Max** Maximum kW output for the load.
- B. **kW Min** Minimum kW value to which the load is allowed to be reduced.
- C. Accept Saves any changed values to the system.

4.2 Load Configuration

(

Analog Loads		Back	Update Ra	ite 60	s Update	Submit		
Load1	D		Tin Reduct	ie Require	ements(min) Run Time	After	Ad van œ Con trol in	d Options Oper, Ref.
Demand Mode	Enable	Priority	Min	Max	Min	Max	5 Steps	Constr. Reset
DC Off-Peak				10		2		
DC Peak	✓	El	F O	GO	H O	2		K
DP Low	✓	1		10		2		
DP Medium	√	1	0	10	0	2	✓	✓
DP High	✓	1	0	10	0	2	✓	✓
DR High	✓	1	360	360	0	0	✓	✓

Discrete Loads		Back	Update k	ate 60 s	Opdate	Submit		
Load1			Tir	ne Require	ments(min)	1	Advance	d Options
			Reduc	tion	Run Time	After	Control in	Oper. Ref.
Demand Mode	Enable	Priority	Min	Max	Min	Max	5 Steps	Constr. Reset
DC Off-Peak	\checkmark	1	0	10	0	2		
DC Peak	✓	1	0	10	0	2		
DP Low	✓	1	0	10	0	2		
DP Medium	✓	1	0	10	0	2		
DP High	\checkmark	1	0	10	0	2		
DR High	✓	1	360	360	0	0		

- A. **Back** Returns to the **Loads** page.
- B. Update Rate Displays page refresh information measured in seconds. The minimum value is 5 seconds. The Update button can be used to manually refresh the page. The Submit button saves any changed values to the system.
- C. **Demand Mode** Indicates the name of the demand mode or applied schedule; same as the setting displayed on the **Energy Dashboard**.
- D. **Enable** Indicates whether the load is enabled for reduction. A checkmark indicates the load is enabled. No checkmark indicates the load is disabled.
- E. Priority The value that determines what order the loads are reduced. There is no set range for priority; however, it is recommended that all values are in the range from 1-10 for simplicity. The lowest priority value will be reduced first. If two or more loads have the same priority, then the reduction process will alternate which load is affected first (e.g., (1) Load A, Load B, Load C (2) Load B, Load C, Load A, Load B).
- F. Reduction Min The minimum amount of time the load can be reduced.
- G. Reduction Max The maximum amount of time the load can be reduced.
- H. Run Time After Min The minimum amount of time the load cannot be reduced after it has been reduced for the Min Reduction time. This will cause the load to be constrained until the prescribed time has elapsed.

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- Run Time After Max The minimum amount of time the load cannot be reduced after it has been
 reduced for the Max Reduction time. This will cause the load to be constrained until the prescribed
 time has elapsed.
- J. **Control in 5 Steps** (Analog Loads only) Indicates whether a priority range is used for reduction. When enabled, the load is divided into 5 equal steps and assigned priorities. For example, if the priority is set to 3, the load would be divided into 5 equal steps with priorities 3, 4, 5, 6, 7.
- K. **Oper. Ref. Constr. Reset** (Analog Loads only) Indicates whether a time constraint reset is used that makes loads available for immediate reduction after release.

5 Demand Settings



- A. Update Rate Displays page refresh information measured in seconds. The minimum value is 5 seconds. The Update button can be used to manually refresh the page. The Submit button saves any changed values to the system.
- B. Enabled Lets you enable or disable Demand Control. This is the "Master On/Off Switch".
- C. Spara Hub Lets you select either Spara Hub or Local (Spara View) power management control.
- D. Enable Setpoint Ramp When enabled, changes in the setpoint will ramp down at the defined rate.
 - 1. **kWh Decrease Setpoint Ramp** Setpoint decrease in kWh/second, from previous setpoint to current setpoint.
 - kWh Increase Setpoint Ramp Setpoint Increase in kWh/second, from previous setpoint to current setpoint.
- E. Profile Settings Displays the Setpoint Definition dialog box.
- F. Enable Simulation Enables or disables simulation mode. Enabling results in simulated data appearing in the displays.
- G. Click to open the Event System Configuration display.

5.1 Setpoint Definition



- A. Select Setpoint and Limits The active profile.
- B. **Minimum** and **Maximum** Defines the allowable kWh range.
- C. Select Mode Select either a setpoint profile or a constant setpoint.
- D. 💁 Click to open <u>Profile Definition</u> window.
- E. Current Value The current setpoint value.
- F. **OK/Cancel** Saves or discards the changes made.

5.2 **Profile Definition**



A. **Profile** – The current profile.

- B. Add New Click to open the Create New Profile dialog box.
- C. Copy Click to copy the current profile.
- D. Delete Click to delete the current profile.
- E. Check Click to have the system verify that the profiles are configured correctly.
- F. Schedule Rules The list of schedule rules for the profile.
 - 1. Moves the rule up or down in priority. The default rule cannot be moved.
 - 2. Click to delete the rule.
 - 3. Click to edit the rule.
 - 4. Click to open the Add New Profile Configuration dialog box.
- G. Add New Rule Click to open the Add New Profile Configuration dialog box.

- H. Time Segments Shows the defined time segments. Values correspond to the graph segments.
- I. Add New Segment Click to open the Enter Start Time and Setpoint Value dialog box.
- J. Graph The graph shows the 24-hour energy setpoint profile. To change the graph, move the handles. The entries under **Time Segments** will be changed accordingly.
- K. Current Value The current setpoint.
- L. OK/Cancel Saves or discards the changes.



- M.**Name** Profile name.
- N. Units The units of the signal being monitored.
- O. Default Value The default setpoint value.
- P. OK/Cancel Saves or discards the changes.



- Q. **Name** The rule name.
- R. Time Range The time range in which the rule applies.
- S. Elements Click on any element to add it to the Time Range field.
- T. Tokens Click on any token to add it to the Time Range field.
- U. Constants Click on any constant (if any are defined) to add it to the Time Range field.
- V. OK/Cancel Saves or discards the changes.



- W.Time The start time of the time segment.
- X. Value The value of the setpoint.
- Y. OK/Cancel Saves or discards the changes.

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6 Event System Configuration

Event System Configuration Table

Use this configuration table to view or define rate schedules.

	Event	System Configuration	
			Basic Advanced
Events	•		D,
	C I		
Event Name	Definition	Clear	1 • 11 `
Lvent Name			
Peak			
Peak PartPeak			

- A. Basic Displays Basic Event System Configuration page. Advanced Displays Advanced Event System Configuration page. Consult Powerit Support at 1-877-772-7201 or email support@poweritsolutions.com for Event System Configuration training before attempting to set up schedules using the Advanced Tab.
- B. Event Name Name of a specific schedule.
- C. **Definition** Displays the times and dates the given schedule will be active. **Note**: Double-click a schedule name to edit the definition.
- D. '+' button Adds a new event name and definition to the table.
- E.'-' button Deletes the selected event and definition in the table.
- F. Clear Clears the definition for the selected event.
- G.'?' button Displays Event System Configuration status (error status).

6.1 Schedule Setup

Basic – Recurrence tab

vents		Add New Event Definition				
		A Event Name	Recurrence Expression			
vent Name	Definition		Point Event 🔽 🔶 🛛			
eak		◎ None ◎ Daily ◎ W	/eekly 🔘 Monthly 🔘 Yearly			
artPeak		Wee	ekday 🔽 🗲 🗉			
R		for example: 10:30:00	30-Oct-2010			
		5tart Time	Start Date			
		End Time	End Date			
	(H Event Range				
		for example: 30-Oct-2010,	Oct-2010 or 2010			
	(Range Start	Range End			

- A. Event Name Name of schedule as it will display in the Event System Configuration table.
- B. Recurrence/Expression Toggle between selection boxes and expression-based schedule setup.
- C. Recurrence Select when the schedule will be active (e.g., daily, weekly, etc.).
- D. Point Event Select the checkbox for a 1 second event occurring at the set time.
- E. Weekly Recurrence If Weekly is selected, use the dropdown menu to further specify the recurrence.
- F. **Start Time** and **End Time** Enter the time range the schedule will be active. The times are based on a 24-hour clock. Hours, minutes, and seconds are required.
- G. Start Date and End Date Enter the dates the schedule will be active.
- H. Event Range If checked, allows a recurring event to be active only in a date range. Does not apply for events with recurrence set to 'None'.

- I. Range Start and Range End If Event Range is selected, enter the date/month/(year optional) that the schedule will be active.
- J. Ok/Cancel Saves or discards the changes made to a given schedule.

Basic – Expression tab

	Add New Event Definition	<u> </u>
	Event Name	Recurrence Expressio
Definition	Cle	
	Definition	
	Operators () { } []	@!& TF
	Days We Wd S M	TWTFS
	Months JFMAMJ	JJASOND
	TOKENS	CONSTANTS
	Date(1)<12-*>	
	Date-Mon(1)<12-Jul>	
	Date-Mon(2)<12///*>	
	Date-Mon-Yr(2)<12/7/2012>	
	Mon-Yr(1) <jul-2012></jul-2012>	
	Mon-Wk-Day<7,1,4>	
	Time(1)<13:29>	
	Time(2)<13:29:20>	
	Definition	Definition Definition Operators () { } [] Days We Wd S M Months J F M A M TOKENS Date(1)<12-*> Date(2)<12/*/*> Date(2)<12/*/*> Date-Mon(1)<12-Jul> Date-Mon(2)<12/7/*> Date-Mon(2)<12/7/*> Date-Mon-Yr(1)<212-Jul> Date-Mon-Yr(1)<212/7/2012> Mon-Yr(2)<7/2012> Mon-Yr(2)<7/2012> Mon-Yr(2)<7/2012> Mon-Wk-Day<7,1,4> Time(1)<13:29> Time(2)<13:29:20>

- A. Event Name Name of schedule as it will display in the Event System Configuration table.
- B. Recurrence/Expression Toggle between selection boxes and expression-based schedule setup.
- C. **Definition** Complex general event expressions that cannot be defined using the recurring event definition view. Below the **Definition** field is a group of buttons and menus that can simplify writing an event expression.
- D. **Operators**, **Days**, **Months**, **Tokens** Click these buttons to add them to the definition or type them in manually.
- E. Constants If listed, click to add to the definition.
- F. '?' button Keyword and token definitions for defining event definition syntax.

G. Ok/Cancel – Saves or discards the changes made to a given schedule.

Advanced – Events Tab

Consult Powerit Support at 1-877-772-7201 or email support@poweritsolutions.com for Event System Configuration Training before attempting to set up schedules using the Advanced Tab.



- A. Basic Displays Basic Event System Configuration page. Advanced Displays Advanced Event System Configuration page.
- B. '+' button Adds a new event or constant name and definition to the table.
- C. '-' button Deletes the selected event or constant and definition in the table.
- D. Global Events pane Lets you declare any global event (i.e., create an event name that can be

referenced outside the event system).

- E. Force Event button Forces an event to be true even when its definition is false.
- F. Event Definitions pane Lets you define a global event explicitly or in terms of other global events or constants.
- G. Constants pane Lets you define a constant event, similar to the Event Definitions pane.
- H. '?' button Displays Event System Configuration status (error status).

Note: Any event can be completely defined using just the **Events** Tab, however, the remaining advanced tabs are helpful for organizing certain types of events.

7 Alarms & Email Notification

Alarm Groups

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B Ard	ive	Update 60 s Update Submit	
⊙→ 📕	Power Management		
	Meters		
	Loads - Discrete		
	Loads - Analog		

- A. Update Rate Displays page refresh information measured in seconds. The minimum value is 5 seconds. The Update button can be used to manually refresh the page. The Submit button saves any changed values to the system.
- B. Archive Displays the alarm history.
- C. Alarm group list Click the icon view the alarm window for each group.

Alarm Window D Delay Notification Email 1 UA01 Meter_1- Count 1, Y 0 s ✓ ~ ✓ ~ 2 UA01 Meter_2- Count 1, Y 0 s Status Legend \checkmark No Ala Unacknowledged - Not in Alar Unacknowledged - In Alarm Notifications Acknowledged - In Alarm Acknowledge All Email Config.

Alarm Window

- D. **Description** Description of the alarm.
- E. Acknowledge Shows the current state of the alarm. Click the icon to acknowledge the alarm.
- F. **Delay** The time delay before an alarm triggers an email after being on.
- G. Email Enables/disables email notification for that alarm.
- H. Notification Dropdown list of available email notifications to be sent. Select the one you wish to be sent with each alarm. If no notifications have been defined, click the Notifications button at the bottom of the display.
- I. Status Legend Provides the meaning of the alarm icons.
- J. Acknowledge All Click to acknowledge all unacknowledged alarms.
- K. Notifications Click to open the Notifications Setup dialog box where you can create messages.
- L. **Email Config** Click to open the Email Configuration dialog box where you can specify servers and define groups.

7.1 Notifications

Notification Setup	A
B Select Notification to Edit:	- -
	C>>Name:
Entering Leaving	
	Clear
Schedule:	
Subject:	
Message: Insert	
●	

- A. '+' -' buttons Adds a new Notification to the **Name** field for editing or deletes the highlighted/ selected notification from the drop-down list.
- B. Select Notification to Edit Drop-down list containing previously created notifications.
- C. Name The name of the email notification currently selected.
- D. Entering/Leaving tab Toggles between setups for alarm entering notification and alarm leaving notification.
- E. To Group Drop-down list containing email groups created using the email configuration.
- F. **Schedule** Drop-down list containing schedules created using the event system configuration. Select the schedule for the times that the system is allowed to send the alarm notification.
- G. Subject Subject of the email.
- H. Insert Displays a pop-up window with list of stored system bodies that, will be automatically entered into the email message box when an alarm is activated or deactivated. (Consult Powerit Support at 1-877-772-7201 or email support@poweritsolutions.com for help using the Insert function).
- I. Message Message of the email.
- J. Clear Clears all the fields in the notification.
- K. Accept Saves the notification.

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7.2 Email configuration

Servers

Email Config	guration		
A .			Config Status
Servers	Groups		
(D Servers		ເ>+−
	Name	 	
F	Host	Port	
Authenti	ication None	~	
From A	ddress		
🚺 Use	rname	↓	
Pas	iswo rd		
			Accept

- A. Servers/Groups Toggles between Servers and Groups configuration tabs. Add or delete a new or existing email server on the Servers tab.
- B. **Config Status** Status indicator will be a green check mark if servers and groups are correctly setup. Status indicator will be a red exclamation mark if an error has occurred when attempting to send a notification.
- C. '+'/'-' Adds or deletes an SMPT email server.
- D. Servers Displays list of available email servers.
- E. **Name** The name of the server you wish to configure.
- F. Host The host IP address or name of the SMTP server.
- G. Port The host port number that is allowed for communication between the Spara appliance and the server.
- H. Authentication The authentication credentials required by the server (e.g., None, TLS or SSL). Username and password required if TLS or SSL is selected.
- I. From Address Email address (up to 60 characters) from which notification email will be sent.
- J. Username Username if required for server authentication.
- K. Password Password if required for server authentication.
- L. Accept Saves the changes made to the notification server.

Groups



- A. Servers/Groups Toggles between Servers and Groups configuration tabs. Define an email group on the Groups tab.
- B. Groups List of available email groups.
- C. Group Indicator Double-click on the group indicator to open a window to send a test message to the group to verify email setup.
- D. '+''-' buttons (Groups)- Adds or deletes an email notification group.
- E. Name Name of the email notification group.
- F. '+'/-' Adds or deletes a group member.
- G. List List of group email addresses.
- H. Email Server Email server to use with the specified group.
- I. Accept Saves the changes made to the Groups configuration.

8 Admin Configuration

Users with admin permission can specify various settings for the Spara DM controller and user permissions.

8.1 System Configuration

Use the settings on these tabs to set the date and time for the Spara DM controller.

Date & Time Configuration



- A. System Configuration Displays the System Configuration page.
- B. Date & Time Displays the Date & Time tab.
- C. Current Time Shows the current time on the Spara controller.
- D. Time Zone Shows the current Spara controller time zone configuration.
- E. **Update** Updates the current time.
- F. Set Date and Time Select the current month, day, and year.
- G. Hour / Min / Sec Enter the current hour, minute, and second.
- H. Set Saves the changes on the Spara controller.

Network Time Protocol

To enable a Network Time Protocol Server, check the **Enable Network Time Protocol** box, click **Add**, and enter the IP address of your NTP Server.

		B	
	Date & Time	Network Time Protocol	Time Zone
A System Configuration User Management	The hardware can syn the Network Time Prot Carlot Content of the Network Time NTP Server 0.pool.ntp.org	chronize its clock with a rem rocol ne Protocol	note time server using
		()	Edit
		6>	Delete
	Cane	cel	Accept

A. System Configuration – Displays the System Configuration page.

B. Network Time Protocol – Displays the Network Time Protocol tab.

C. Enable Network Time Protocol – Check to enable the Network Time Protocol (NTP).

Note: The clock on the controller is not perfect and will drift by some amount over time relative to a perfect clock. The oscillator that is the basis for tracking system time is rated at +/-20ppm, which means that it could gain or lose up to 1 second for every 50000 seconds. Compared to a perfect clock, this means that a controller could gain or lose a minute in as little as 35 days. The system clock can be configured to use NTP. NTP is a system in which a more reliable clock source running an NTP service is polled periodically by a client and allows the client to align its clock to the reliable source.

- D. NTP Server Lists the NTP servers you have added.
- E. Add Adds a new NTP Server to sync the Spara time to. To find a server in the same time zone as the site, see the USNO Network Time Servers list (http://tycho.usno.navy.mil/ntp.html).
- F. Edit Edits the selected NTP Server information.
- G. Delete Deletes the selected NTP Server.
- H. Cancel / Accept To reject changes, click Cancel. To save changes, click Accept.

Time Zone

	B. Contraction of the second se
	Date & Time Network Time Protocol Time Zone
C>	• UTC
System Configuration	Standard Setting
User Management	TimeZone PST8 Pacific Standard Time *
	Daylight Saving Observed (use defaults)
•	Custom Setting
	Time Zone Name (e.g. PST) UTC Offset Daylight Savings Name (e.g. PDT) UTC Offset
	DST Start Month January v Start Week 1 v Start Weekday Sunday v Start Time 0200.00 DST End Month January v End Week 1 v End Weekday Sunday v End Time 0200.00
	Cancel Accept

- A. System Configuration Displays the System Configuration page.
- B. Time Zone Displays the Time Zone tab.
- C. UTC Select to set the time zone based on the Coordinated Universal Time.
- D. Standard Setting (Recommended) Select to use the most common zones in the U.S. (i.e., Pacific = PST). Select the Daylight Savings Observed checkbox to enable application of normal daylight savings changes.
- E. **Custom Setting** If necessary, select and fill in the appropriate fields to name the zone and reference the site to Coordinated Universal Time (UTC).
- F. Cancel / Accept To reject changes, click Cancel. To save changes, click Accept.
- G. Plant Select from the dropdown list to switch between multiple controllers at your facility.

8.2 User Management

Use this page to manage user permissions.

Note: When adding a user, the user name cannot already exist in any group and it cannot be admin.

System Configuration	USER GROUPS		<u> </u>
₿	jDoe C>	► admin	X
€	New User)	

- A. User Management Displays the User Management page.
- B. Name of user group.
- C. Access level for user group. There are three possible levels:
 - User: Read-only
 - Operator: Can change the settings on all pages except the Admin Configuration page
 - Admin: Full rights (default)
- D. Opens window for editing the user group.
- E. Deletes the user group.
- F. New User Create a new user group. You will need to provide a password for the user group.

System Configuration		x
	web_admin	USER NAME
	jDoe	GROUP
	New User	admin
		PASSWORD
		RETYPE PASSWORD
		OK Cancel

9 Appliance Terminal Interface

This section provides detailed descriptions of the commands you may need to use during setup that are available through the Spara DM terminal interface. This interface can be accessed through the COM0 serial port or by connecting to the system with an SSH client.

When connected to the appliance through the terminal interface, you can get help on each command by entering: *command* --help

Networking Commands

Command:	net		
Purpose:	Interface to set the networking configuration for the appliance.		
Syntax:	net		
	net OPTION		
Options:	Available OPTION values follow.Documentation for each net subcommand is listed is the following sections.When no options are provided, the current network configuration is listed.add_routeAdd static route.		
	bootconfig	Boot method selection.	
	delete_route	Delete static route.	
	static_ip_address	Specify static IP address.	
	set_dns_server	Set a DNS server.	
	factory_defaults	Set networking parameters to the factory default	

NET Subcommands

Command:	net add_route			
Purpose:	Add a route to a machine. This tells the system how to route (i.e., what gateway to use) to reach a host that is not on the same subnet.			
Syntax:	net add_route	net add_route destination gateway metric		
Options:	destination	The IP address of a remote host to route to.		
	gateway	The IP address of the gateway to use to reach destination.		
	metric	The 'distance' to the target (usually counted in hops). This parameter may be needed by routing daemons, but should otherwise b		

Command:	net bootconfig	
Purpose:	Configure the IP address resolution.	
Syntax:	net bootconfig [static dhcp]	
Options:	static	Select static IP address resolution.
	dhcp	Select DHCP for IP address resolution.

Usage notes:

If static IP address resolution is selected, the static IP address must first be set using the **net static_ip_address** command.

Command:	net delete_route	
Purpose:	Remove a route to a machine. This command is the inverse of net add_route.	
Syntax:	net delete_route destination	
Options:	destination The IP address of the route entry to remove.	

Command:	net static_ip_address	
Purpose:	Set the IP address to use when the bootconfig (IP address resolution) is static.	
Syntax:	net static_ip_address address [mask]	
Options:	address	The IP address to use when the bootconfig is static.
	mask	The address mask to use. This option is usually only needed when the system subnet is unusual. If the option is not provided, 255.255.255.0 is assumed.

Command:	net set_dns_server	
Purpose:	Set the Domain Name Server for resolution of symbolic host names.	
Syntax:	net set_dns_server ip_address	
Options:	ip_address	The IP address to use to resolve symbolic host names.
Usage notes:		

Use set dns_server none to clear the DNS server setting.

Command:	net factory_defaults
Purpose:	Reset networking configuration to the factory defaults.
Syntax:	net factory_defaults

System Time Control Commands

Command:	ntp	
Purpose:	Set and query the current NTP (Network Time Protocol) configuration.	
Syntax:	ntp status	
	ntp setup [0 1 [IP_ADDR[,prefer] [IP_ADDR]]]	
Options:	status	Report the current NTP configuration and status.

setup	Set up the NTP configuration.
	When the next argument is 0, NTP is disabled, but the current
	configuration is retained.
	When the next argument is 1, NTP is enabled with the given server list.
	The server list is a list of IP addresses that are running NTP servers.
	If an IP address is followed by ',prefer', the given host will be the
	preferred NTP server.
	If the NTP client is being started and no server list is provided (e.g., ntp
	setup 1), the previously set server list is used.

Command:	systime		
Purpose:	Control and rep	ort the system time.	
Syntax:	systime		
	systime set MMDDhhmmCCYY		
	systime hwsync		
	When no optior displayed.	is are provided, the current system and hardware clock times are	
Options:	set	Set the current time with the given time string.	
	hwsync	Sync the hardware clock to the current system time.	

Command:	tzsetup	
Purpose:	Control and report the time zone.	
Syntax:	tzsetup -r	
	tzsetup -s TZS1	RING
Options:	-r	Report the system time zone.
	-s	Set the system time zone to the given time zone string.
	TZSTRING	std offset dst [offset],start[/time],end[/time]
	TZSTRING	std offset dst [offset],start[/time],end[/time]

Usage notes:

Enter **tzsetup** --help for detailed information on defining the TZSTRING, as well as examples. The system must be rebooted for a new system time zone setting to take effect. See **reset**.

General

Command:	reset
Purpose:	Reboot the device.
Syntax:	reset

10 Spara Hub

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The Spara Hub button displays the Spara Hub platform login page. Spara Hub is the cloud-based platform that you can use to control the demand management settings and view and analyze the system performance.

	Spara Hub
	USERNAME PASSWORD LOGIN Forgot Password2
About Us Customer Support Contact Us Version	© 2008-2014 Powerit Solutions. All rights reserved.

11 Help Desk

When you select the **Help Desk** button in the navigation bar, a link to the Powerit Solutions' online 24X7 help request form is displayed. You may submit requests to the Spara Support department by following this link and completing the online form. This will initiate a support case in the Powerit Solutions' case management system and you will be contacted by a support representative.

Home Solutions Products Industries Partners Service & Support Resource Library
Customer Service Request
For clients who have questions or require service on their products, please feel free to contact our Fech Support engineers at 866.493.2020.
If you have a Customer Service Request, please submit the form below. Rease note that ALL FIELDS ARE REQUIRED:
Company: *
Name *
Base 1
Otr ¹
State/Province:*
Country: *
Subject: *
Description: *
Case Reason * [*Rose: W
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