WAVEWIN

DISPATCH TABLE

QUICK START

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Acknowledgments

Preface

This document contains information about the Wavewin Dispatch application.

This document is intended for use by individuals working in protection, engineering, and system operations.

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System Requirements & Installation

This chapter lists the system requirements needed for installing and running the Wavewin software. It also describes the installation procedures and provides technical support information.

System Requirements

The system requirements are listed below.

- An IBM or compatible PC with an 80486 microprocessor or higher.
- 500 Megabytes of memory.
- 2 gigabytes of available hard disk space.
- A VGA, 8514/A, or compatible graphics adapter.
- Microsoft Windows version 98 or higher.

Installation

The system files are distributed in a compressed format. To install the software follow the instruction for the type of storage media distributed with this manual.

Web: To install the software from the Web access the www.wavewin.net web site. Under the "Wavewin Upgrades" link click on the Wavewin application to download. Enter your username and password. The username and password are case sensitive. Click on the software link to download the latest system's executable files. Open the zip file and run the install.

CD: To install the software using a CD place the CD into the CD drive. The installation program will run automatically. If the installation program is not displayed, navigate to the CD's root drive and double click on the install.exe application.

Follow the instructions to fully install the software.

Figure 1.1 Destination Folder

Define the destination folder for the system files then click Next to start the installation.

The destination folder is the location where all files are to be copied. Use the browse button to select an existing folder.

Figure 1.2 Finish Install

The install is now complete click Finish to end the installation.

Starting the Software

After you have installed the software on your computer, you are ready to begin. How you begin depends on your own style. If you like to dive right in and learn by doing the system provides on-line help to assist you. If you prefer a structured learning approach, read the quick start chapters to get familiar with the software.

To run the software, click on the installed desktop icon or open the Start menu, navigate to the installed Program folder and click on the Wavewin32 shortcut.

Technical Support

Although this system is easy to use and understand, at some point you may encounter a technical question, feel that the system has improperly operated, or have suggestions for future improvements. In either case, contact Softstuf using one of the following methods:

Phone:	215-922-6880, hours are from 9:00 a.m. to 8:00 p.m. Mon- Fri, (EST).
Fax:	215-625-2497, response time is 24 hours.
E-mail:	support@softstuf.com, response time 24 hours.

C H A P T E R 2

Dispatch Table Quick Start

The Dispatch Table is used to request event files and meter information upon demand from one or more devices.

The dispatch table communicates to the Wavewin device manager through message files saved in the message folder. The message folder is defined in both the dispatch table (Dispatch Properties dialog) and the device manager (Save & Archive dialog). These fields must point to the same folder. The device manager polls the device(s) specified by the message files and responses with either an “Unable to Connect” or “Poll Complete” status. Refer to Figure 2.1

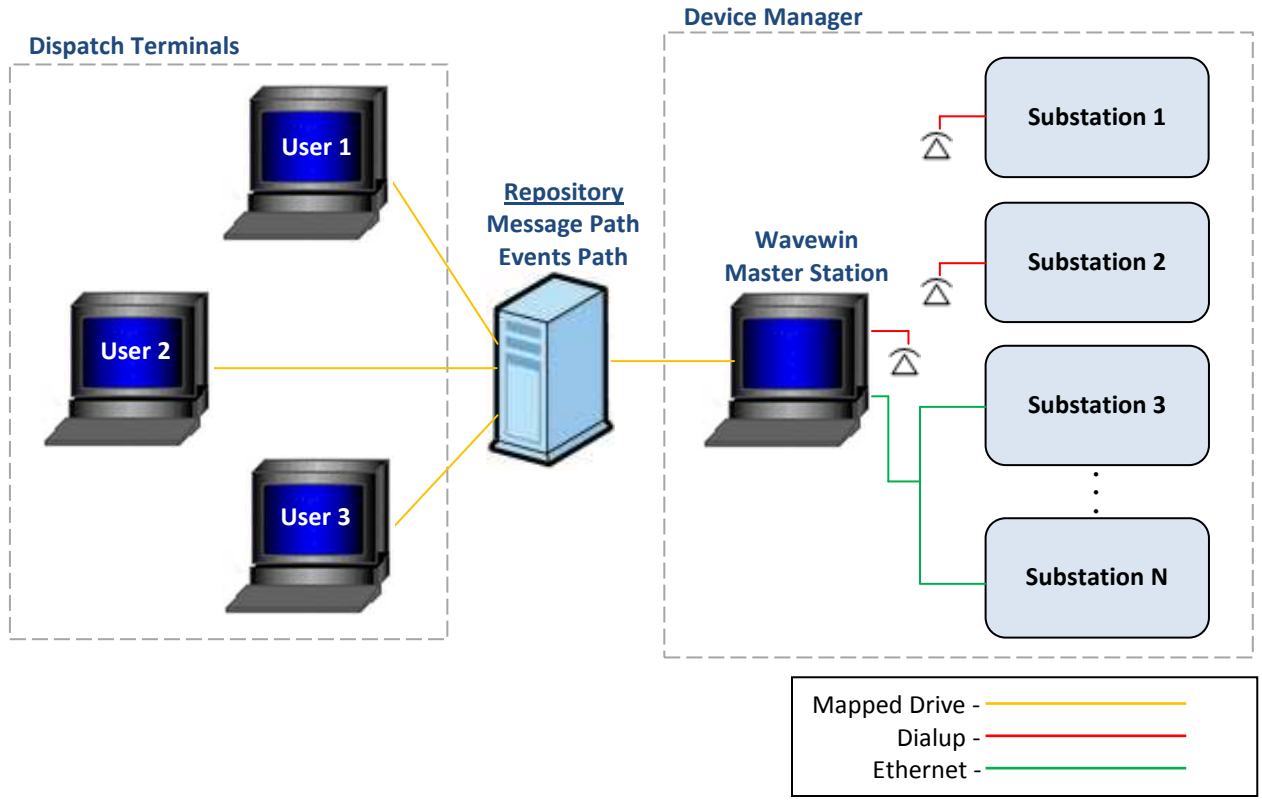
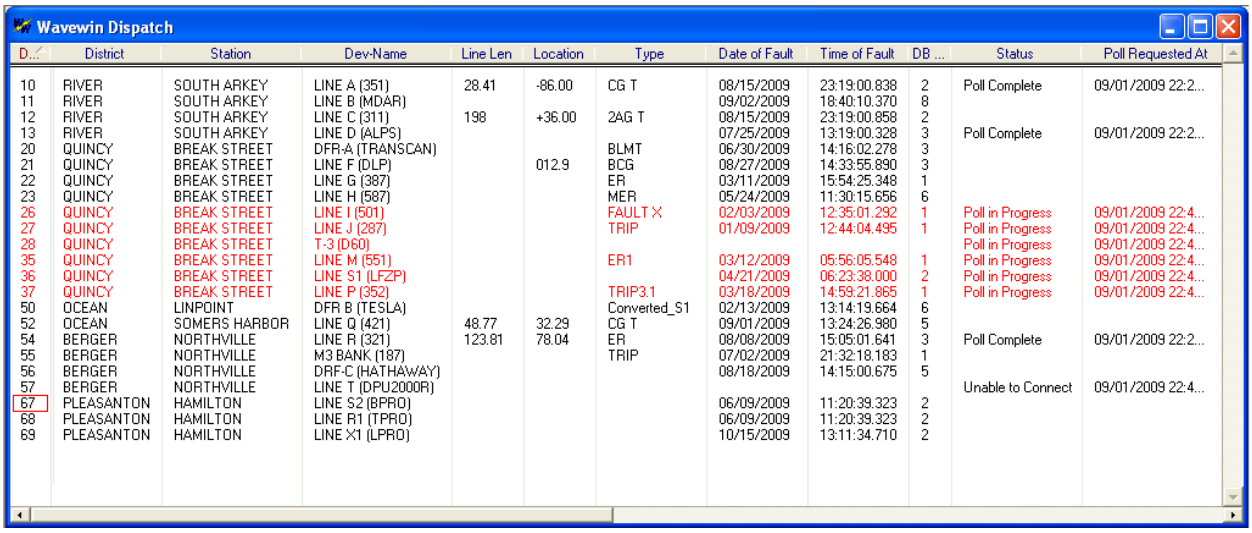


Figure 2.1 Dispatch Table and Device Manager

Dispatch Example

The Dispatch Table columns are created from the fields exported from the device manager, the fields in the event filenames and from the message files stored in the message folder. Refer to Figure 2.2.

The dispatch table will not open if the “Master Station.txt” does not exist in the message folder. Refer to “Exporting devices to the Dispatch Table” for more information on how to export the device manager fields.



D...	District	Station	Dev-Name	Line Len	Location	Type	Date of Fault	Time of Fault	DB ...	Status	Poll Requested At
10	RIVER	SOUTH ARKEY	LINE A (351)	28.41	-86.00	CG T	08/15/2009	23:19:00.838	2	Poll Complete	09/01/2009 22:2...
11	RIVER	SOUTH ARKEY	LINE B (MDAR)				09/02/2009	18:40:10.370	8		
12	RIVER	SOUTH ARKEY	LINE C (311)	198	+36.00	2AG T	08/15/2009	23:19:00.858	2		
13	RIVER	SOUTH ARKEY	LINE D (ALPS)				07/25/2009	13:19:00.328	3	Poll Complete	09/01/2009 22:2...
20	QUINCY	BREAK STREET	DFR-A (TRANSCAN)			BLMT	06/30/2009	14:16:02.278	3		
21	QUINCY	BREAK STREET	LINE F (DLP)		012.9	BCG	08/27/2009	14:33:55.890	3		
22	QUINCY	BREAK STREET	LINE G (387)			ER	03/11/2009	15:54:25.348	1		
23	QUINCY	BREAK STREET	LINE H (587)			MER	05/24/2009	11:30:15.656	6		
26	QUINCY	BREAK STREET	LINE I (501)			FAULT X	02/03/2009	12:35:01.292	1	Poll in Progress	09/01/2009 22:4...
27	QUINCY	BREAK STREET	LINE J (287)			TRIP	01/09/2009	12:44:04.495	1	Poll in Progress	09/01/2009 22:4...
28	QUINCY	BREAK STREET	T-3 (D60)							Poll in Progress	09/01/2009 22:4...
35	QUINCY	BREAK STREET	LINE M (551)			ER1	03/12/2009	05:56:05.548	1	Poll in Progress	09/01/2009 22:4...
36	QUINCY	BREAK STREET	LINE S1 (LFZP)				04/21/2009	06:23:38.000	2	Poll in Progress	09/01/2009 22:4...
37	QUINCY	BREAK STREET	LINE P (352)			TRIP3.1	03/18/2009	14:59:21.865	1	Poll in Progress	09/01/2009 22:4...
50	OCEAN	LINPOINT	DFR B (TESLA)			Converted_S1	02/13/2009	13:14:19.664	6		
52	OCEAN	SOMERS HARBOR	LINE Q (421)	48.77	32.29	CG T	09/01/2009	13:24:26.980	5		
54	BERGER	NORTHVILLE	LINE R (321)	123.81	78.04	ER	08/08/2009	15:05:01.641	3	Poll Complete	09/01/2009 22:2...
55	BERGER	NORTHVILLE	M3 BANK (187)			TRIP	07/02/2009	21:32:18.183	1		
56	BERGER	NORTHVILLE	DRF-C (HATHAWAY)				08/18/2009	14:15:00.675	5		
57	BERGER	NORTHVILLE	LINE T (DPU2000R)							Unable to Connect	09/01/2009 22:4...
67	PLEASANTON	HAMILTON	LINE S2 (BPRO)				06/09/2009	11:20:39.323	2		
68	PLEASANTON	HAMILTON	LINE R1 (TPRO)				06/09/2009	11:20:39.323	2		
69	PLEASANTON	HAMILTON	LINE X1 (LPRO)				10/15/2009	13:11:34.710	2		

Figure 2.2 Dispatch Table

The columns in the table are described in the following table. Not all columns are applicable for all devices.

Columns	Description	Source
Device Number	The device number assigned to the device in the device manager table.	Device Manager
District	The district name listed in the device manager's group name field. The district is separated from the station name with a dash (-). Example: RIVER-SOUTH ARKEY	Device Manager
Station	The station name listed in the device manager's group name field. The district is separated from the station name with a dash (-). Example: RIVER-SOUTH ARKEY	Device Manager
Dev-Name	The device name assigned in the device manager title field.	Device Manager
Line Len.	The length of the line associated with the device. The line length is added to the filename's eighth field (if available in the file) when the file is saved in the device manager. Refer to the Long File Naming Format section for more information on the structure of the file names.	Filename Fields
Location	The fault location of the event contained in the file. The fault location is added to the filename's ninth field (if available in the file) when the file is saved in the device manager. Refer to the Long File Naming Format section for more information on the structure of the filenames.	Filename Fields
Type	The type of fault for the event contained in the file. The fault type is added to the filename's tenth field (if available in the file) when the file is saved in the device manager. Refer to the Long File Naming Format section for more information on the structure of the filenames.	Filename Fields
Date of Fault	The date of the fault listed in the file. The date of the fault is added to the filename's first field when	Filename Fields

Columns	Description	Source
	the file is saved in the device manager. Refer to the Long File Naming Format section for more information on the structure of the filenames.	
Time of Fault	The time of the fault listed in the file. The time of the fault is added to the filename's second field when the file is saved in the device manager. Refer to the Long File Naming Format section for more information on the structure of the filenames.	Filename Fields
DB Recs	The total number of events files for the device in the event folder.	Event Folder
Status	The status of polling for the device. Refer to the Dispatch Polling section for more information on how devices are polled.	Message Folder
Poll Requested At	The date and time the last poll was requested for the device.	Message Folder
Poll Completed At	The date and time the last poll was completed for the device.	Message Folder
Poll Devices	The device number sequence to poll to download the latest events and meter information from the device.	Device Manager
Event Files	The path and filename of the latest event downloaded.	Event Folder

Open the Dispatch Table

The dispatch table can be opened 3 ways, from the file manager, from the device manager and through a command line parameter. To open the Dispatch Table from the file manager, select the "Dispatcher Table…" menu option under the "Options" menu. To open the Dispatch Table from the device manager, select the "Dispatcher Table…" menu option under the "Options" menu. The command line option is described in the next section.

The first time the dispatch table is opened the "Dispatch Properties" dialog is displayed. The "Message Folder" and the "Event Folder" must be specified prior to opening the dispatch table. These folders must be the same folders defined in the "Save & Archive" dialog in the device manager. Enter the folder where the polling messages are saved and enter the folder where the event files are saved.

The dispatch table also has an automatic refresh option that will automatically refresh the event and status information. To turn the automatic refresh option on, click on the "Turn ON Automatic Refresh" checkbox. Checked = ON. Also, enter the automatic refresh period. The period is specified in seconds. The default is 30 seconds.

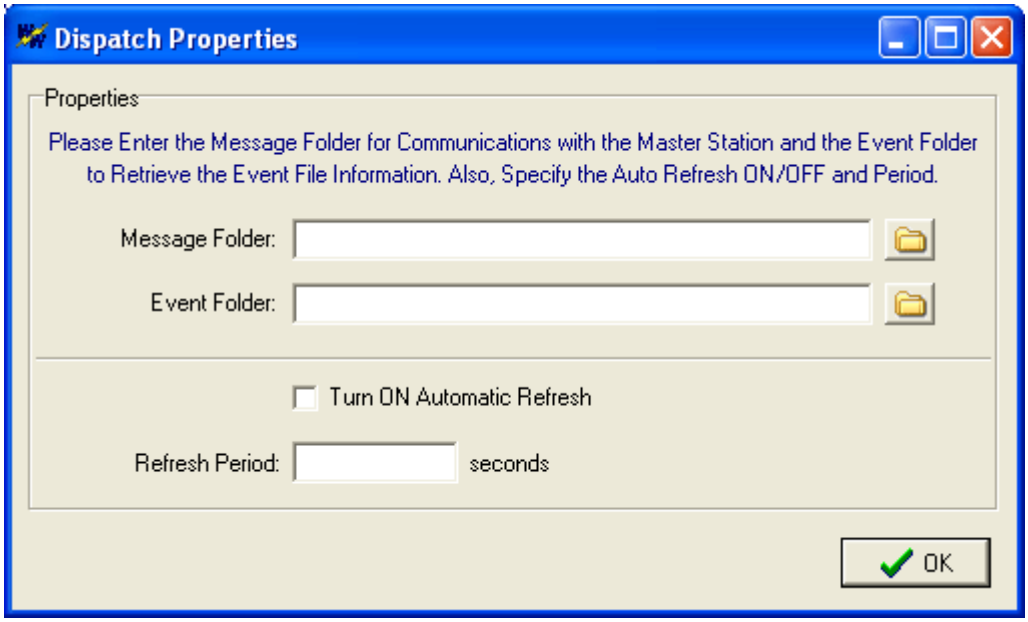


Figure 2.3 Dispatch Properties Dialog

COMMAND LINE PARAMETER

The Dispatch Table can be automatically opened when Wavewin runs using the command line parameters. To add the "dispatcher" command line parameter opposite click on the Wavewin icon or shortcut. Add "dispatcher" after the Wavewin folder and filename in the target field. Refer to Figure 2.4.

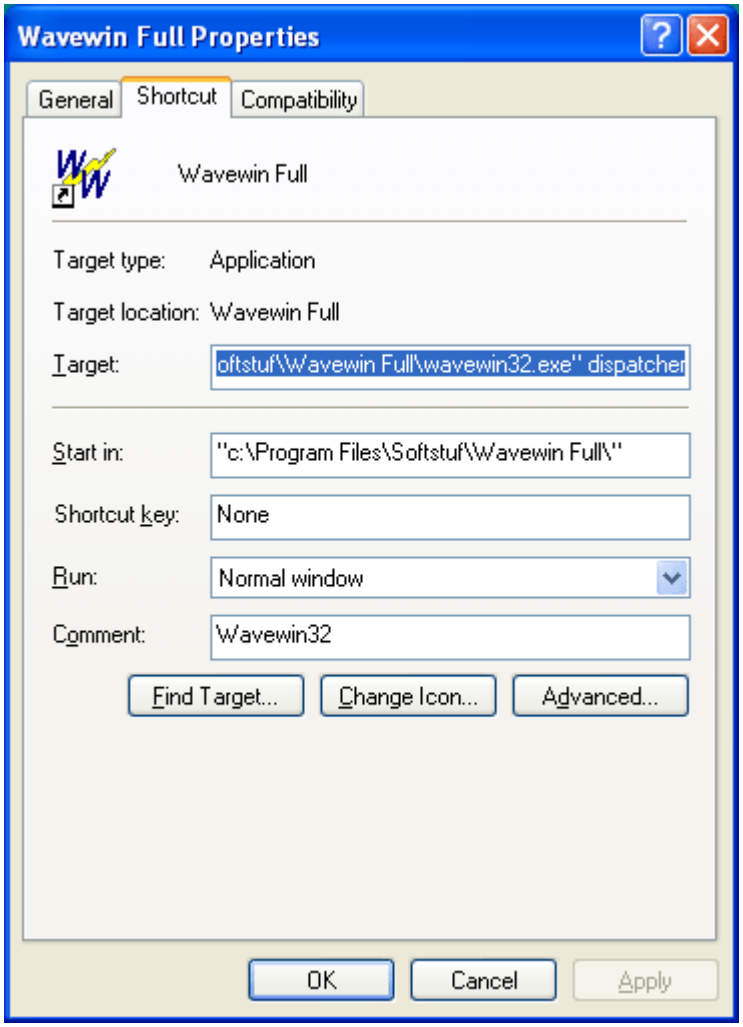


Figure 2.4 Dispatch Table – Command Line Parameter

Dispatch Polling

Polling of the devices is initiated from the Dispatch table. To request a poll first mark all the devices to poll. Marked devices are displayed in red. Next, click on the Poll Request button in the button menu or select the “Request Poll” menu option under the “Options” menu. A message dialog is displayed listing the current status of each device requested. Refer to Figure 2.5.

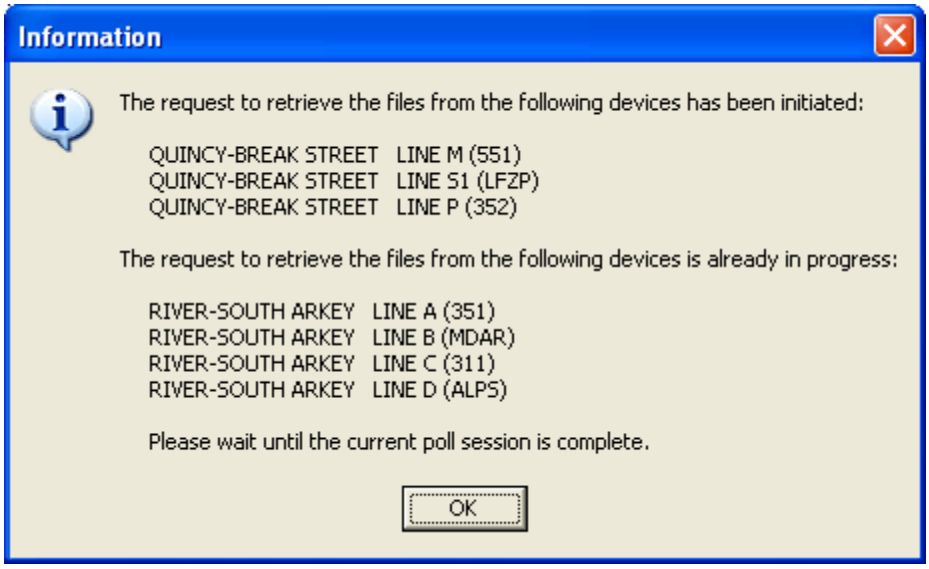


Figure 2.5 Poll Status Message

The devices that can be polled are listed under the “initiated” list and the devices that are already scheduled to be polled are listed under the “already in progress” list. The “Status”, “Poll Initiated At” and “Poll Complete At” columns display the status of the poll. The “Status” column has the following updates:

- **Poll Requested:** When a poll is requested the dispatch table saves a POL message in the message folder for each device marked. The Status column is updated with “Poll Requested” and the Poll Requested At column is updated with the date and time the poll was requested.

- **Poll in Progress:** The device manager monitors the message folder for POL files. Once it sees a POL file it starts the polling process and renames the POL file to a CAL file indicating the poll is in progress. The dispatch table also monitors the message folder. When it sees a CAL file it updates the Status column to “Poll in Progress”.

- **New Files:** During the polling process the dispatch table checks if new event files were downloaded. At each automatic refresh period the dispatch table will count the number of event files in the events folder. It the number of event files counted is greater than the device’s DB Recs column then the Status column is updated with “New Files”.

- **Poll Complete:** When a poll is successfully completed the device manager will rename the CAL file to a DON file. The dispatch table will update the Status column with “Poll Complete” and update the Poll Completed At column with the date and time the poll completed.

- **Unable to Connect:** When the device manager encounters a problem connecting to the device the CAL file is renamed to an NCR file. The dispatch table will update the Status column with “Unable to Connect” and update the Poll Completed At column with the date and time the poll completed.

Table Features

The following sections describe the main features in the dispatch table.

REQUESTING A POLL

To request a poll first mark the devices to poll. Next, either click the poll request button in the button menu or select the “Request Poll” menu option under the “Option” menu.

The status of the poll is displayed in the “Status”, “Poll Requested At” and “Poll Completed At” columns. The “Status” column updates when the poll is started and when it is completed. It also indicates if new event files have been downloaded. The “Poll Requested At” displays the date and time the last poll was requested. The “Poll Completed At” is updated once the poll has been completed. The time difference between the Poll Requested At and the Poll Completed At shows how long it took to complete the poll.

DISPLAYING EVENT FILES

All the events downloaded from the devices are saved to the events folder. To list the events for a specific device double click on the device in the dispatch table. All event, history and summary files for the selected device are marked and group at the top of the file manager table. Refer to Figure 2.6.

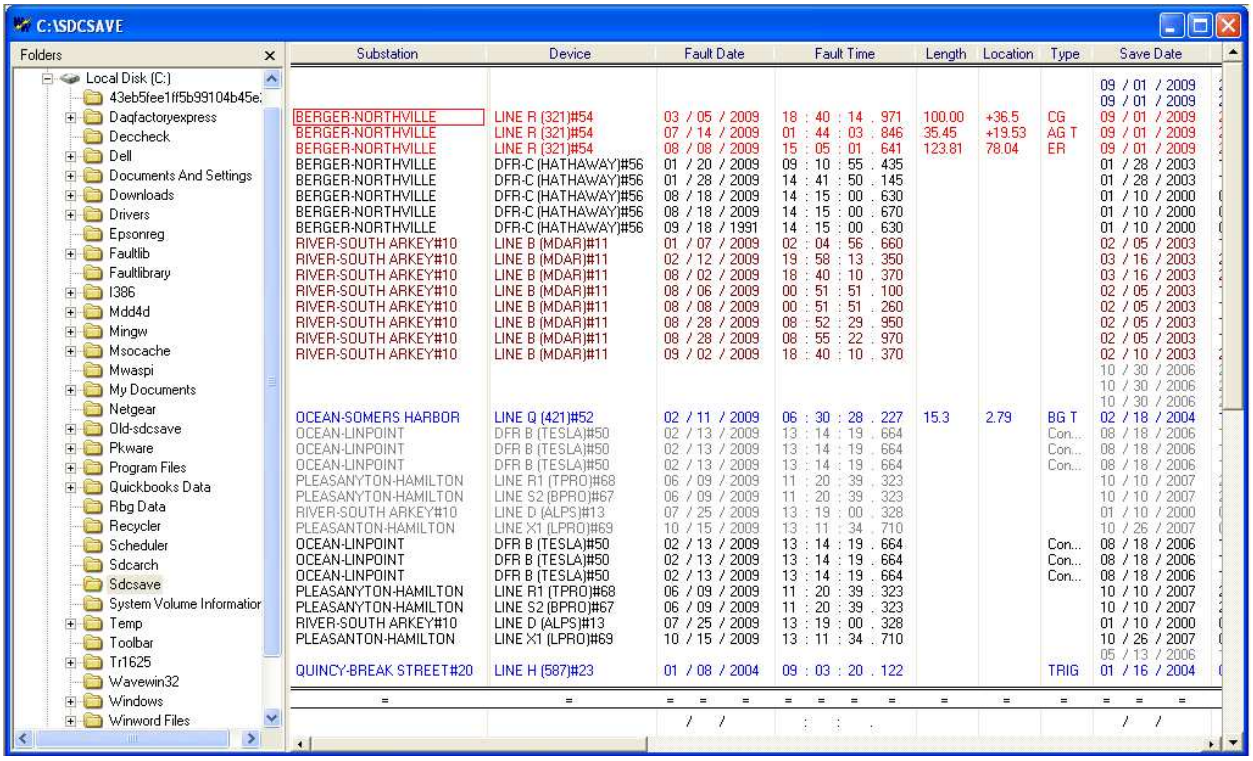


Figure 2.6 Event List

To view only the event files first select the device then click on the “View Events” button in the button menu or select the “View Events…” menu option under the “Options” menu. To view only the history files click on the “View History” button or select the “View History…” menu option under the “Options” menu.

To return to the dispatch table press the ESC key in the file manager or click the “Back” button Back in the system toolbar.

VIEWING METER INFORMATION

Each time a device is polled the meter information is also downloaded (VA, VB, VC, & IA, IB IC). To view the meter values select the desired device then click on the “Meter Information” button in the

button menu or select the “View Meter Values…” menu option under the “Options” menu. The meter information is displayed is an ASCII text editor. Refer to Figure 2.7. To return to the dispatch table press the ESC key in the ASCII editor or click the “Back” button Back in the system toolbar.

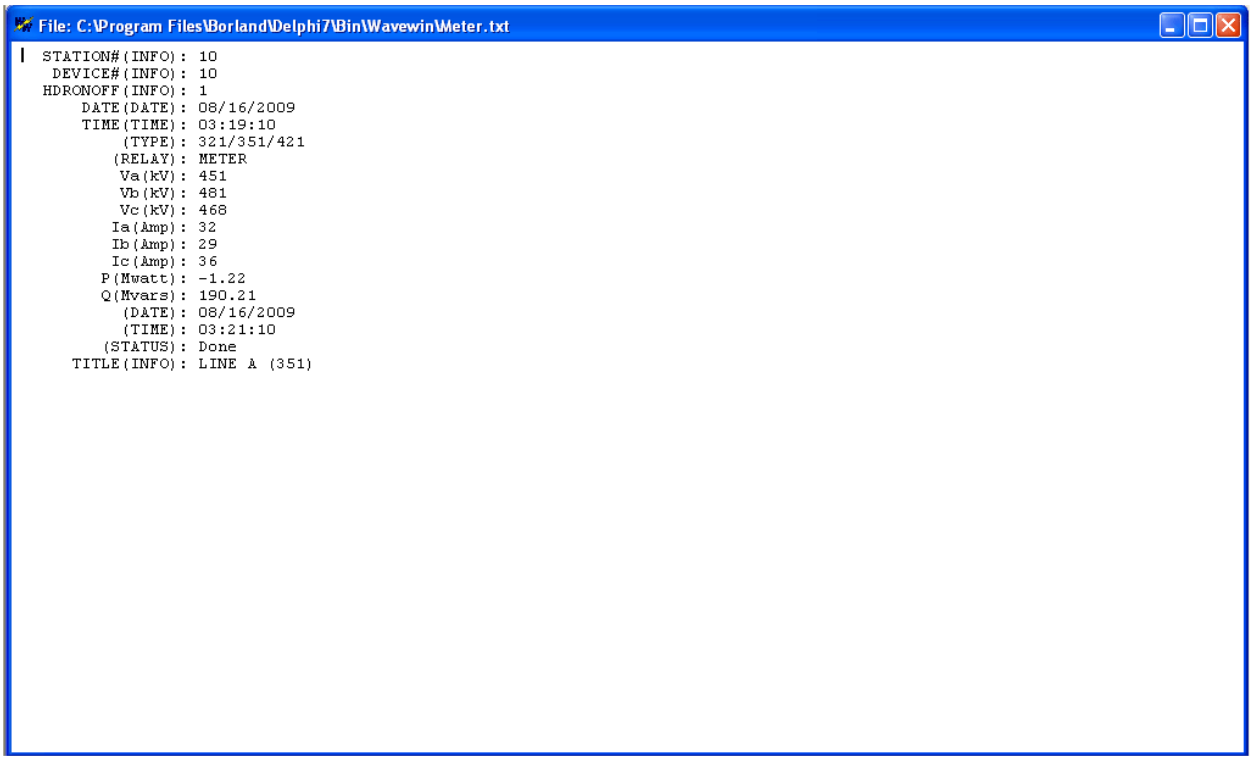


Figure 2.7 Meter Information

REFRESH THE TABLE

The Dispatch Table columns can be manually or automatically refreshed. To have the table automatically refreshed open the “Dispatch Properties” dialog from the “Options” menu. Refer to Figure 2.8.

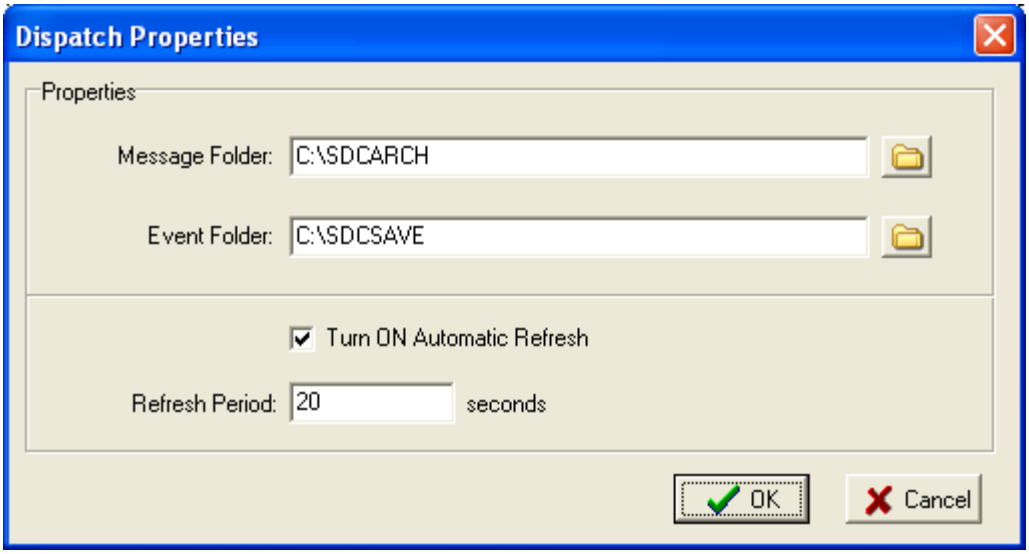


Figure 2.8 Automatic Refresh

Click on the “Turn ON Automatic Refresh” checkbox. If the box is checked the automatic refresh is ON. Also, enter the refresh period. The period is measured in seconds. The default is 30 seconds. The automatic refresh will update the event and status columns only.

To manually refresh the table click on the Refresh button in the button menu. All of the columns in the table are updated.

CUSTOMIZING THE DISPATCH TABLE

The columns displayed in the table can be repositioned through the “Table Properties” menu option under the “Options” menu. Refer to Figure 2.9. Use the Move Up and Move Down buttons to change the position of a column. The table columns can also be resized. Position the mouse over the column separator in the table and drag the mouse to the desired location or double click on a column separator to resize the column to the largest display.

The size of the font displayed in the table can also be changed. Use the “Table Font Size” drop down list to select the desired font.

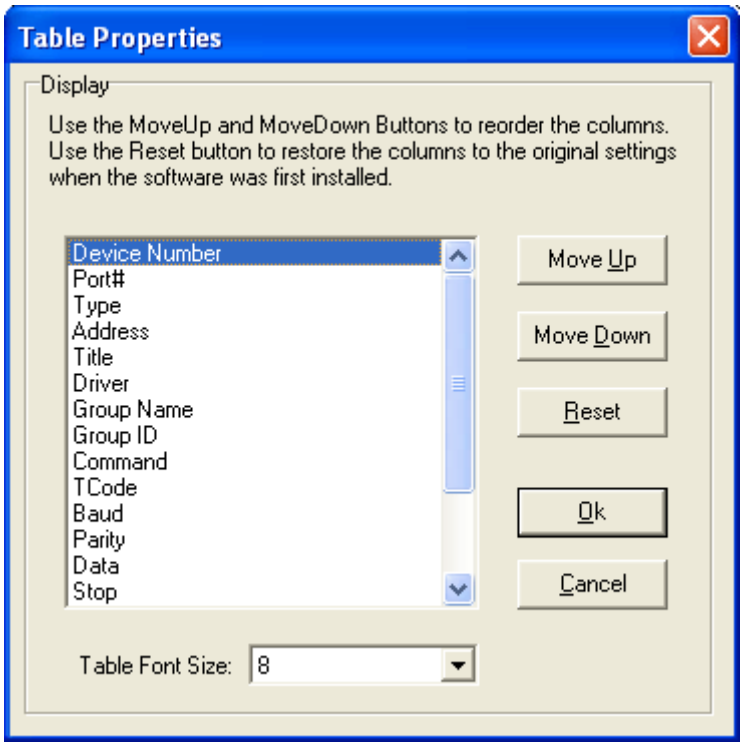


Figure 2.9 Device Display Dialog

QUERYING DEVICES

The query fields are used to search for specific information in the dispatch table. Query fields are located below the table. Use the tab key to move the cursor from the device table to the query fields and the up arrow to return to the table. Use the Ctrl-Left/Right arrow keys to move between the query fields. Each field contains a criteria and an operator. Refer to Figure 2.10.

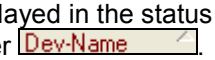
The criterion is directly entered from the keyboard, and may include the “*” and “?” wild cards. Operators are located above the criteria fields and can be changed by clicking the mouse button on the operator symbol or by pressing the F9 key. The selectable options include equal to (=), less than (<), and greater than (<).

Figure 2.10 Query Fields

When a query is launched, the engine numerically compares the specified criteria with the information in the table. If numerical comparison is not possible then it symbolically compares. When multiple fields are defined, the engine searches for a match on the first field “AND” on the second field “AND” on the third field and so on.

Three query options are available: Query All, Query Marked, or Query Unmarked. Devices that meet the specified query requirements are marked, grouped, and displayed at the top of the table. Use the tab and Ctrl-Left/Right arrow keys to navigate through the query fields and the <enter> key to execute the query.

SORTING DEVICES

The column headers displayed at the top of the table are used to sort the devices in ascending or descending order. Use the Sort menu options to sort all or marked devices with respect to the selected sort field. To set the sort field, place the cursor in the desired column and select “Set Sort Field” from the “Sort” menu. Clicking on the column header also sets the active sort field. The active sort field is displayed in the status bar at the bottom of the window. The active sort column header displays the sort order 

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MARKING/UNMARKING DEVICES

Devices are marked and unmarked through the “Mark” menu option, the spacebar, or the mouse button. Use the shift+mouse click button to mark a group of devices or the ctrl+mouse click button to randomly mark devices. Marked devices are displayed in red and can be grouped (Alt+M,G), sorted (Alt+S), printed (Alt+P,P) or polled (Alt+O,R).

DELETNG DEVICES

Devices must be marked in order to delete them from the table. To delete a device, mark the device and press the delete key or select “Delete” from the “File” menu. The software prompts for confirmation, click **Yes** to continue or **No** to Cancel.

Devices that are deleted from the Dispatch table will be restored the next time the Dispatch Table is opened or a manual refresh is selected.

SAVING THE DISPATCH TABLE

The device information listed in the Dispatch table can be saved to a .csv file. When the dispatch table is opened all the device information displayed in the columns is saved to the Dispatchers Table.csv file located in the Wavewin folder. To save the current state of the dispatch table to this file select the “Save” menu option under the “File” menu.

To save the current state of the Dispatch table to a new file select the “Save As…” menu option under the “File” menu. The window’s “Save As” dialog is displayed. Select the destination folder and enter the filename using the .csv file extension. The dispatch files can be used for generating report files.

A P P E N D I X A

System Keys

This section lists the function keys, cursor keys, and menu buttons available in the device manager, query fields and DXF display.

Dispatch Table

Cursor Keys	Description
Left Arrow	Move the cursor bar to the left one position.
Right Arrow	Move the cursor bar to the right one position.
Up Arrow	Move the cursor bar up one position.
Down Arrow	Move the cursor bar down one position.
Page Up	Display the devices on the previous page.
Page Down	Display the devices on the next page.
Home	Move the cursor to the first column in the port table.
End	Move the cursor to the last column in the port table.
Ctrl+Home	Move the cursor to the first device in the table.
Ctrl+End	Move the cursor to the last device in the table.
Tab	Move the cursor from the device table to the query fields.
Delete	Delete all the marked devices in the table.
Enter	Display the event, summary and history files for the selected device.

Menu Buttons	Description
Print	Print all of the devices in the table.
Request Poll	Request a poll for all of the marked devices.
Event Files	Display the events files for the seclected device.
History Files	Display the history files for the selected device.
Meter Values	Display the last polled meter values for the selected device.
Refresh	Refresh the Dispatch table.
Mark	Mark or Unmark the marked devices.
Query	Query the devices.

Query Fields

Function Keys	Description
F1	Display the query help file.
F5	Query all the marked devices in the active configuration.
F6	Query all the devices in the active configuration.
F7	Query all the unmarked devices in the active configuration.
F8	Clear the query criteria and set all the query operators to “=”.
F9	Toggle through the available query operators for the active query field.

Cursor Keys	Description
Up Arrow	Return the cursor to the device table.
Right Arrow	Move the cursor one position to the right, wraps to next field at the end.
Left Arrow	Move the cursor one position to the left, wraps to next field at the beginning.
Tab	Move the editor to the next query field.
Shift+Tab	Move the editor to the previous query field.
Enter	Process the query criteria for all devices in the active configuration.

Menu Button	Description
 Query	Query all devices in the active configuration.

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