CONFIGURING THE VIEWMARQ LED DISPLAY

CHAPTER
6

In This Chapter...

Introduction

The ViewMarq LED message display is fully configurable from the ViewMarq Software. It is not necessary to set any dip switches or jumpers on the display to configure it. Through the ViewMarq Software the following can be configured:

1) Display Name and ID

2) Global Communication Settings and Options

3) Ethernet Communications

4) RS-232 Communications (Port 1)

5) RS-485 Communications (Port 2)

The configuration settings may be saved to a file for storage and may be opened later to load to a message display.

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NOTE: *This configures the ports on the ViewMarq display hardware as opposed to "PC to LED Communications" links which configure your PC to communicate to the Viewmarq display.*

Message Display Selection and Configure Message Display

1) Select the Link to the message display to be configured.   See Chapter 4 - PC to ViewMarq Communication. The Link may be an Ethernet Modbus TCP, Serial ASCII or Serial Modbus.
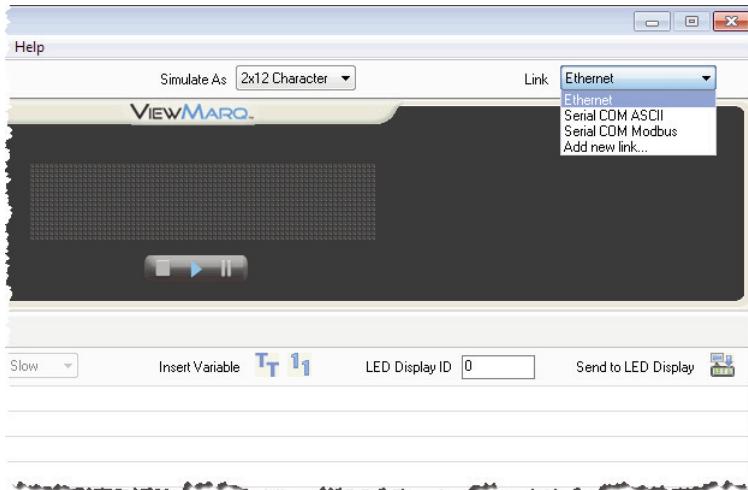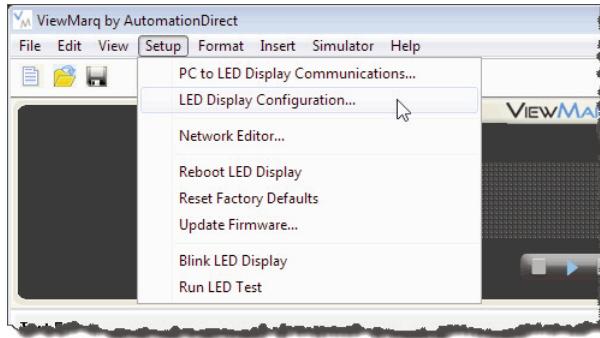

Attention!: Message display configuration can only be accomplished point-to-point, PC to one ViewMarq.

2) To begin the message display configuration, select the LED Display Configuration button...

...or choose **LED Display Configuration** from the **Select** menu as shown.

NOTE: *When the LED Display Configuration Dialog opens, the software will attempt to read the settings from the display associated with the selected Link. If there is no connection, an error message will be displayed. A Configuration file may still be created. Simply select **OK** and continue.*

If the software detects a message display, it will read the configuration and display it in the LED Display Configuration dialog as shown.

NOTE: *If the ViewMarq LED display panel has the Startup Message displayed, the display may go blank while the LED Display Configuration is aquiring information from the panel.*
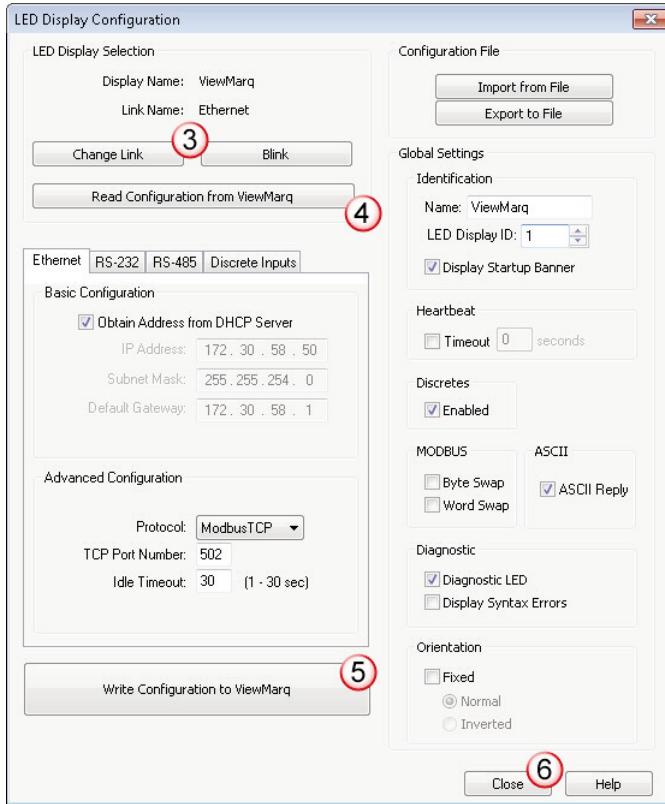
3) Select the **Blink** button to make sure you are connected to the message display. If not, click the **Change Link** button and select the proper link for the message display you are configuring.

4) Select **Read Configuration from ViewMarq** to read the current configuration from the message display.

NOTE: If the ViewMarq LED display panel has the Startup Message displayed, the display may go blank while the LED Display Configuration is aquiring information from the panel.

5) Adjust the settings as needed and click the **Write Configuration to ViewMarq** button.

6) Select **Close**.

Message Display Settings

Global Settings

Most of the settings in the configuration belong to a particular communication port; the global settings affect the entire message display. For example, if it is a communication setting such as Byte Swap, then it sets byte swap on all communication ports set to Modbus.

1) Name:

The Name cell is used for unique identification of the ViewMarq LED message display. There is a 15 character maximum for the name. This is the name that will be displayed on the startup message when the message display is powered up. It is also the name that is displayed in the Network Editor.

2) ID:

The ID is both the ASCII ID of the message display and the Modbus RTU Slave ID. The ID range is 1 – 247. The ID must be unique for Modbus communications.

3) Heatbeat:

When heart beat is enabled, the display is expecting a communication within the heart beat time (0 to 60 seconds). If this time elapses without a communication, then a Com Error message is shown on the LED display.

4) ASCII Reply:

When the ASCII Reply box is checked, the message display will send a reply message back to the originator of an ASCII message. The reply will either be OK or an error message. See Chapter 9 - Maintenance and Troubleshooting for a description of the reply messages.

NOTE: *If the message is sent to multiple ViewMarq displays (the ID in the ASCII string is 0 or contains multiple ID's), then the message display will not reply even though the ASCII Reply box is checked. This is to prevent multiple displays from talking over each other.*

5) MODBUS:

Byte Swap:

Depending on the Modbus Master configuration, the Byte Swap box may need to be checked in order to match the byte order of the master.

Word Swap:

Depending on the Modbus Master configuration, the Word Swap box may need to be checked in order to match the word order of the master.

NOTE: *If Byte Order is swapped in the LED display, the byte order must also be swapped in the Link for the PC to be able to send messages to the LED display.*

6) Diagnostic LED

The diagnostic LED is a way for a user to see if communications are successful to the panel without removing the back covers to watch the communication LED's flicker. When this box is checked, the lower left LED on the marquee display will stay lit. Each time the message display receives a message the LED will change color to indicate the communication was received. The message may not be displayed due to a Syntax Error or incorrect ID number, but the LED will still change color. It is a good practice to leave this setting on until you are sure everything is working correctly with your LED display and your messages are displaying as expected.

7) Display Syntax Errors

Display Syntax Errors enables the Viewmarq to scroll any Syntax errors that may occur. This setting is enabled by default in the display to aid in the development of your messages. See Chapter 9 - Maintenance and Troubleshooting for a complete list of the error messages.

8) Orientation

The ViewMarq LED message display has a unique feature that allows it to be mounted in either direction horizontally and the message will display right-side-up automatically. This is accomplished by an accelerometer in the CPU board. There may be times when this behavior is not desired. In a high vibration situation, the accelerometer may cause the display to swap back and forth. Or, you may wish to display a message up-side-down. If so, check this box and select an orientation, Normal or Inverted.

NOTE: The "artificial lean" seen in scrolling text is an optical illusion caused by the update rate of the display and the update rate of the human eye. Because of how the ViewMarq display is updated, the text will lean in a different direction depending on whether it is Normal or Inverted.

Communication Setting

Ethernet

Leave the Obtain Address from DHCP Server checked if your network has a DHCP server and you want the IP Address to be set automatically. Otherwise uncheck this box and set a Static IP Address and Subnet Mask.

Attention!: DHCP is not recommended on a control network where a static IP address is essential. With this feature enabled, a different IP address may be assigned on each power up.

The Modbus TCP Protocol is the only protocol available for Ethernet.

The default port for Modbus TCP is 502. Only change this port number if you have experience with Modbus TCP communications. If the port number is changed, port 502 is still active.

Set the Idle timeout as is necessary on your network conditions depending on network traffic and delays.

RS-232 (Port 1)

1) Protocol:

The available protocols are ASCII and Modbus. This will need to match the master device connected to this port.

2) Node ID:

Node ID is set by the Global ID setting for the message display. It only applies to Modbus. Node ID can be 1 – 247.

3) Baud Rate

The Baud rate must match the master device. The available settings are 38400, 19200, 9600, 4800, 2400 bps. For longer cable runs or where there is communication noise, reducing the baud rate may prevent communication timeouts.

4) Parity

The Parity must match the master device. It can be set to Odd, Even or None. This setting is purely preference or determined by the master device limitations.
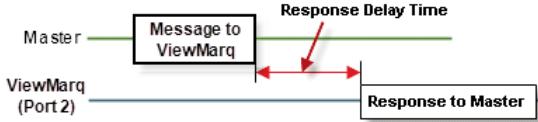
5) Stop Bit

The only setting for Stop Bit is 1.

6) Data Bits

The number of Data Bits must match the master device. Modbus only allows 8, so this setting is disabled when the Modbus protocol is selected. When ASCII is selected, the available settings are 7 or 8.
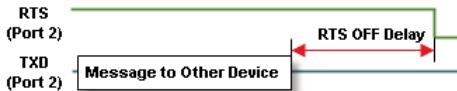
7) Response Delay

ViewMarq is a slave device. The Response delay is used to adjust the Delay time before ViewMarq responds to the other device.

8) RTS Off Delay

Set this parameter to Delay the timing to turn OFF the RTS (Request To Send) signal after message is sent. Typically the RTS Off delay is only required if a media converter is used on the port.
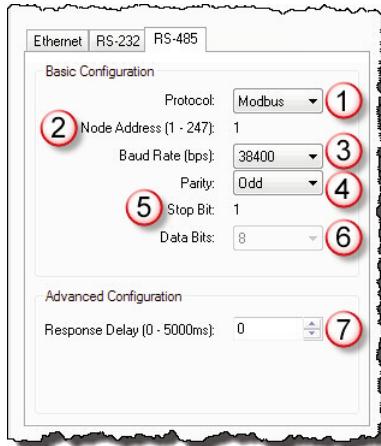

9) RTS On Delay

Set this parameter to Delay the timing to start sending the Message through Port 1 after the RTS (Request To Send) signal turns ON.

RS-485 (Port 2)

1) Protocol:

The available protocols are ASCII and Modbus. This will need to match the master device you plan to communicate to this port.

2) Node ID

Node ID is set by the Global ID setting for the marquee. Node is not active when ASCII is selected. Node ID can be 1 – 247.

3) Baud Rate

The Baud rate must match the master device. The available settings are 38400, 19200, 9600, 4800, 2400 bps. For longer runs or where there is communication noise, reducing the baud rate may prevent communication timeouts.

4) Parity

The Parity must match the master device. It can be set to Odd, Even or None. This setting is purely preference or determined by the master device limitations.
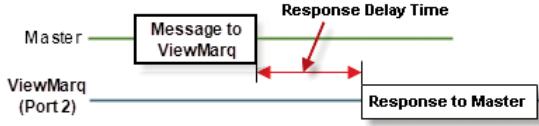
5) Stop Bit

The only setting for Stop Bit is 1.

6) Data Bits

The number of Data Bits must match the master device. Modbus only allows 8, so this setting is disabled when the Modbus protocol is selected. When ASCII is selected, the available settings are 7 or 8.
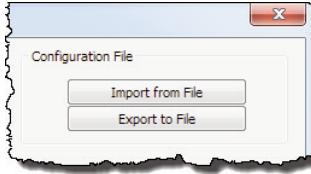
7) Response Delay

ViewMarq is a slave device. The Response delay is used to adjust the Delay time before ViewMarq responds to the other device.
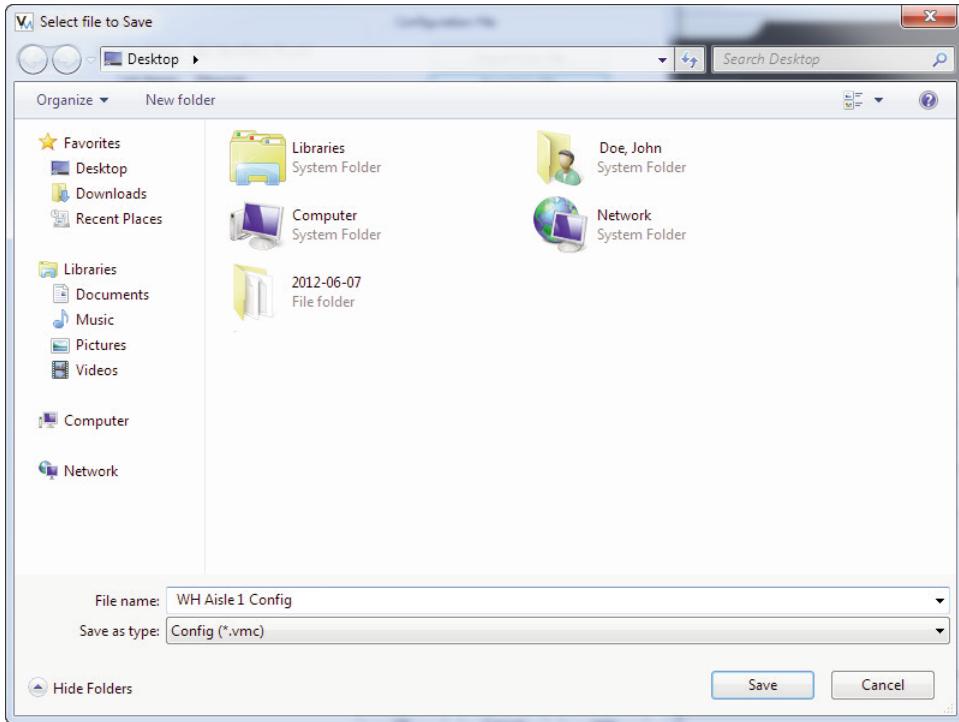
Export and Import Configuration

In order to save time, configurations can be saved to your PC and retrieved for later use.
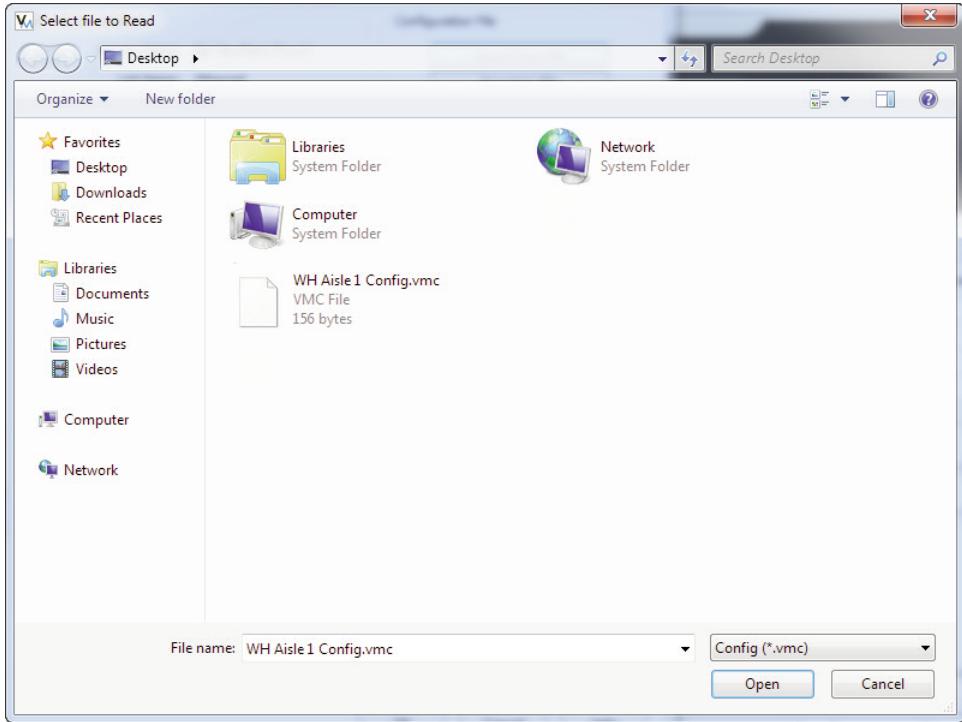

Export Configuration File

To save a configuration, select the **Export to File** button.

Enter a file name and select **Save**.

Import Configuration File

To use a saved configuration, select the **Import From File** button.

Browse to the desired configuration file location. Choose the file and select **Open**.