

ME Direct Connect

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ME Direct Connect

Overview

Introduction

The ME Direct Connect provides connectivity between WIN-911 and FactoryTalk View Machine Edition and/or PanelView Plus CE. Through the direct connection, WIN-911 receives alarm event information by interfacing with ActiveX servers deployed on ME and PanelView Plus platforms. The connection is established and maintained via the Windows Communication Foundation (WCF) which uses service oriented architecture principles to ensure secure distributed computing. WIN-911 contracts as a WCF client to the ActiveX WCF server via user defined endpoints (IP Address and port number). The server routes alarm events to WIN-911 for monitoring and remote notification. This event contract model allows for a single point of maintenance within ME with regard to alarm setpoints and acknowledgements, as ME has the sole responsibility for determining what is and is not an alarm. The direct connection also allows for acknowledgements to be passed back and forth seamlessly.

Important Notes

- WIN-911 must be installed on a Windows OS with access to the ME/PanelView Plus network.
- Requires a minimum version of FactoryTalk View ME 6.0.
- A good understanding of Microsoft networking, including the configuration of firewalls, DNS, and WINS is extremely helpful when integrating a distributed WIN-911 system.
- Should communication between WIN-911 and ME/PanelView Plus be lost, the connection will be reestablished when it becomes available again.
- The ME Direct Connect ONLY supports Digital and Watchdog Alarm Tags.
- Watchdog Timers are supported and must monitor a changing alarm, rather than a changing data value. For more information, see the section on ME Direct Connect Watchdog Timers.
- WIN-411 reporting, Bypass Data Pokes, and Alarm Suppression are not supported for the ME Direct Connect.
- Multiple PanelView Plus devices and ME stations can interface with a single instance of WIN-911.
- Each PanelView or ME station can be configured for up to fifty alarm data points (Alarm01-Alarm50).

Step by Step Configuration

ME Direct Connect

Follow these steps in order to connect to FactoryTalk View ME and PanelView Plus devices and receive alarms through your desired notification options.

1. Install "WIN-911 ME Alarming.ocx" server on all FactoryTalk View ME platforms that you want WIN-911 to monitor.
2. Install "WIN-911 ME Alarming CE.ocx" server on all PanelView Plus CE devices you want WIN-911 to monitor.
3. From the FactoryTalk View Studio: Insert "WIN-911 ME Alarming Control" into display.
4. Connect all ME tags (including IP Addresses, Port Numbers, Communication Errors, Alarms and their respective Acknowledgements) to their respective ActiveX Object Properties.
5. Create a new configuration file in the WIN-911 Configurator.
6. Create a new ME Direct Connect data source definition for each platform you want to monitor.
7. Import your alarm tags.
8. Create a user within the phone book and assign him a notification method and duty schedule.
9. Associate that user with an alarm group by placing him in the Selected Name List of a Group.
10. Save your configuration and start the Scan & Alarm executable.

Note: This manual only covers the ME Direct Connect data source. For information concerning remote alarm notification, see the Configurator manual.

ME Terms & Definitions

About ActiveX objects

An ActiveX object is an off-the-shelf software component that provides functions which can be accessed by FactoryTalk View ME Station through the object's properties. By putting an ActiveX object in a graphic display, then assigning tags to the object's properties, the object can interact with the data source.

Tips

IMPORTANT: The run-time behavior of ActiveX objects depends on the vendor's implementation. Test objects thoroughly before you run a project to ensure they behave as expected.

For information to be passed between FactoryTalk View ME Station and an ActiveX object, it must be in one of the formats used by tags, that is, an analog or digital number, or a string.

To define properties for an ActiveX object, move the mouse to the object, then right-click to display the context menu and choose Property Panel. Make the desired changes in the Properties tab. Then click the Connections tab, and assign tags or expressions to the displayed properties.

To name an ActiveX object, use the Name property on the object's Property Panel; type a name for the object, or accept the default name.

ActiveX controls must be available for both the Windows 7 Professional, Server 2003, XP, Vista, Server 2008 platform and for the PanelView Plus and PanelView Plus CE platform. To be able to use it at run time, you must have the version of the control that is compatible with the operating system of the run-time

ActiveX Properties

Properties are data members of the ActiveX control that are exposed to the container. Properties provide an interface for applications that contain ActiveX controls (FactoryTalk View ME Station) and the ActiveX control container (WIN911 ME Alarming Control).

HMI Tags

HMI tag names can be up to 255 characters long and can contain the following characters:

A to Z

0 to 9

underscore (_) and dash (-)

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Use the backslash (\) to separate the parts of a tag name in a folder. For example, the tag name tanks\oil\temperature would be a tag named "temperature" in the "oil" folder, which is in the "tanks" folder.

You can use mixed case. Tag names preserve upper and lower case for readability but are not case sensitive. For example, the tag name MixerValve1 is the same as mixervalve1.

HMI Tag Types

When you create a tag, you assign it a tag type and a data source. Tag type specifies how the application interprets data from the programmable controller, or other source, and how it is represented in the application. Data source specifies where the data for a tag will come from.

These are the tag types:

Analog

Analog tags store a numeric value from a range of values defined for the tag. Use them to represent devices that can have a range of values such as temperature, pressure, flow, or the position of a rotary control.

Digital

Digital tags will accept any numeric value. Zero will be written as False (0) and any non-zero number will be written as True (1). Use them to represent devices that have two states: on or off, such as switches, contacts and relays.

String

String tags store ASCII strings that can be a string of characters or whole words. The maximum size string allowed is 82 characters.

Array

Array tags are used with alarms. Rather than using a tag for each alarm trigger, you can create an array tag with a specific number of elements and connect an alarm trigger to each element. This frees up more tags for other uses.

Expression

An expression is a tag name or an equation that returns a numeric value, true/false value, or text string. For expressions that return true/false values, 1 and other non-zero values signify True, and zero signifies False. Expressions allow you to make the data you gather from devices more meaningful by comparing it to other values, combining it with other values, or creating cause-effect relationships between values.

WIN-911 ME Alarming Control Object Properties

Alarm01 - Type: Long

Indicates an alarm. The alarm becomes active when the value of this property changes from 0 to non-zero. The default value is 0 (inactive).

Alarm01Ack - Type: Integer

Indicates an acked alarm. An alarm is acked when either PVP or ME changes the value of this property from 0 to 1.

Alarm01RemoteAck - Type: Integer

Indicates a remotely acked alarm. An alarm is remotely acked when the control sets the value of this property to 1. The default value is 0 (unacked).

ME911IPAddress - Type: String

Stores the IP address of the local computer. The control uses this property to accept connection requests from WIN-911.

ME911Port - Type: Long

Stores the port number of the local computer. The control uses this property to accept connection requests from WIN-911.

W911CommsError - Type: Integer

Indicates the status of communications with WIN-911. If communications are functional, the value of this property is 0; if not, the value is 1.

W911DSIPAddress - Type: String

Stores the IP address of the computer running WIN-911. The control uses this property to connect to WIN-911.

W911DSPort - Type: Long

Stores the port number of the computer running WIN-911. The control uses this property to connect to WIN-911.

W911ErrorLog - Type: String

Stores the most recent error or status message generated by the control.

Preparing Machine Edition for WIN-911 Integration

Before WIN-911 can be configured and connected to FactoryTalk View Machine Edition or PanelView Plus CE, ActiveX objects must be installed and configured.

Installing WIN-911ME Alarming on FactoryTalk View Machine Edition

On the ME platform insert the WIN-911 install CD and run the setup.



Select the ME ActiveX button on the WIN-911 Setup splash screen and complete the install process.

Repeat this step for all ME platforms that WIN-911 is to connect to.

Installing WIN-911 ME Alarming on PanelView Plus CE

In the Support folder of the WIN-911 install CD is a sub-folder labeled CE which contains the Readme and software files required to install and register the WIN-911 ME Alarming object for PanelView Plus.

1. Copy `..\Support\CE\WIN-911_ME_Alarming.cab` from the WIN-911/ME install CD to the PanelView+ using removable media.
2. Paste the `WIN-911_ME_Alarming.cab` file anywhere in the PanelView Plus environment.
3. Double-click the `WIN-911_ME_Alarming.cab` to execute the installation.
4. Click OK when you get the confirmation the control has been installed. The `.cab` file will be deleted automatically upon completion.

Configuring WIN-911 Alarming Control ActiveX Object

From the ME Studio select or create a display to insert the ActiveX control.

From the ME Object menu select Insert an ActiveX Control.



Scroll to the bottom and highlight WIN-911 ME Alarming Control. You will then need to draw an area in the display for the control to be embedded.

	Number of Alarms	0
	Active Unacked	0
	Active Acked	0
	Inactive Unacked	0
WIN-911 ME Alarming [0.7.5]		

Configuring Tags for WIN-911 ME Alarming Control

Tags will need to be created for the ActiveX control to read from and write to. These tags will be used to set IP addresses, port numbers, communication error and alarm event messages.

The following are hypothetical examples of how to create tags that will write to and read from the ActiveX Control.

Example for MEstationIP

Once the project has been created and the ActiveX Object inserted, right-click on the Tags branch of the project explorer and select Open.

Tag

Name:

Type:

Description:

Length:

Data Source

Type: Device Memory

Initial Value:

Retentive

Buttons: Close, Accept, Discard, New, Help

Search For:

- system

Tag Name	Type	Description
1		

- 1) Create a tag name such as "MEStationIP" (user defined).
- 2) The tag type for this function needs to be "String" (see WIN-911 ME Alarming Control Object Properties).
- 3) Enter a user defined description like "This tag will set the IP Address of the WIN-911 ME Alarming Control"
- 4) Set the Data Source Type to "Memory".
- 5) Set the Data Source Initial Value to desired IP Address.
- 6) Click Accept to close save the tag definition dialog.

Example for Alarm1

Tag

Name:

Type:

Description:

Minimum: Scale:

Maximum: Offset: Data Type:

Data Source

Type: Device Memory

Initial Value:

Retentive

Close

Accept

Discard

New

Help

Search For:

Tag Name	Type	Description
1		

system

- 1) Create a tag name such as "Alarm1" (user defined).
- 2) The tag type for this function needs to be "Analog" (see WIN-911 ME Alarming Control Object Properties).
- 3) Set Minimum to 0 (default).
- 4) Set Scale to 1 (default).
- 5) Set Maximum to 1000. Note: This is a hypothetical example, not a required maximum value.
- 6) Set Offset to 0 (default).
- 7) Set Data Type to (Default).
- 7) Set the Data Source Type to "Memory".
- 8) Set the Data Source Initial Value to Zero (0).
- 9) Click Accept to close save the tag definition dialog.

Example for Alarm01Ack

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Tag

Name:

Type:

Description:

Data Source

Type: Device Memory

Initial Value:

Retentive

Search For:

	Tag Name	Type	Description
1			
2	Alarm1	Analog	

Buttons: Close, Accept, Discard, New, Help

- 1) Create a tag name such as "Alarm1Ack" (user defined).
- 2) The tag type for this function needs to be "Digital" (see WIN-911 ME Alarming Control Object Properties).
- 3) Set the Data Source Type to "Memory".
- 4) Set the Data Source Initial Value to one (1).
- 5) Click Accept to close save the tag definition dialog.

Example for Alarm01RemoteAck

Tag

Name:

Type:

Description:

Data Source

Type: Device Memory

Initial Value:

Retentive

Search For:

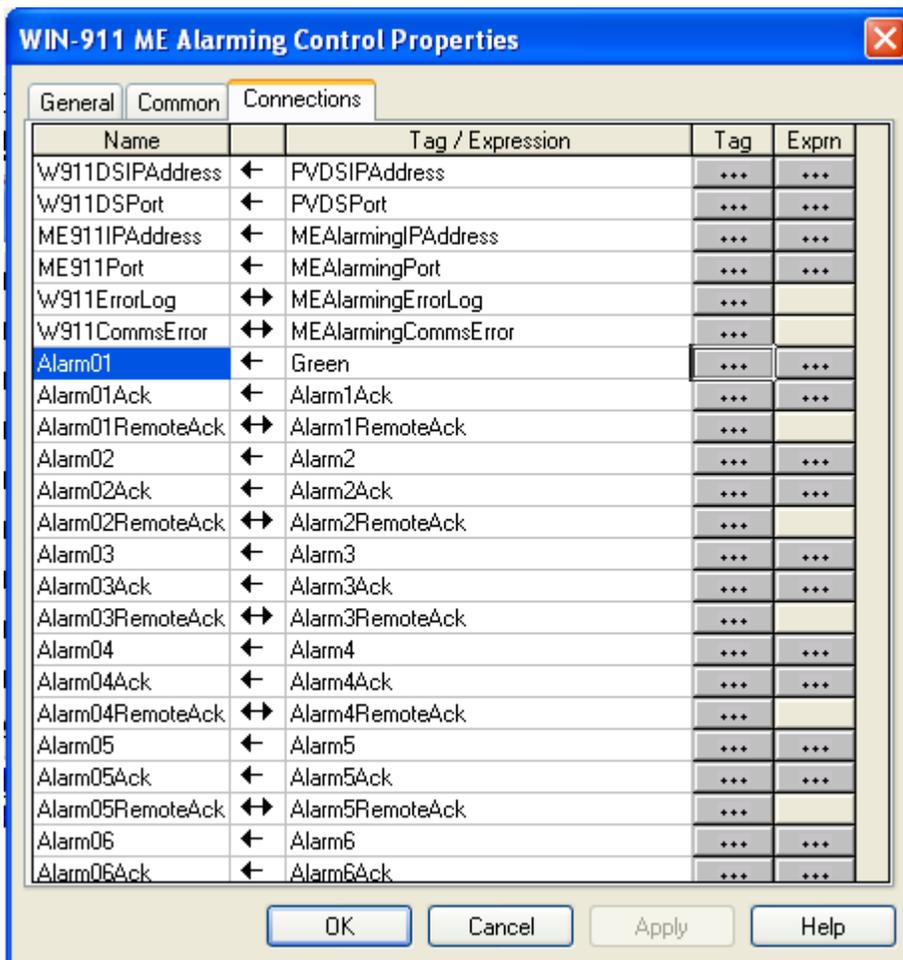
	Tag Name	Type	Description
1			
2	Alarm1Ack	Digital	
3	Alarm1	Analog	

Buttons: Close, Accept, Discard, New, Help

- 1) Create a tag name such as "Alarm1RemoteAck" (user defined).
- 2) The tag type for this function needs to be "Digital" (see WIN-911 ME Alarming Control Object Properties).
- 3) Set the Data Source Type to "Memory".
- 4) Set the Data Source Initial Value to zero (0).
- 5) Click Accept to close save the tag definition dialog.

WIN-911 ME Alarming Control Properties

Once your ME tags have been created they will need to be connected to the respective properties of the ActiveX Object. This can be done by right-clicking the ActiveX object in the display and selecting Properties. Then click the Connections tab.



Assign connections to objects (Connections tab)

ME Direct Connect

The Connections tab of the Property Panel displays all the object's connections that can have a tag or expression. If more than one object is selected in the display, nothing appears in the Connections tab.

If WIN-911 ME Alarming Control is selected, the Connections tab shows all the ActiveX control's properties that can have a tag or expression assigned.

Tip

To get help for the selected control in the Property Panel, click the ? button.

To assign a tag or expression to a connection

In the Connections tab, click a connection's row to select it.

In the Tag/Expression column, specify a tag name, or specify an expression if the connection accepts expressions and you want to assign one. To select a tag from the tag database, click on the browser button (...) in the Tags column. To open the Expression editor, click on the browser button (...) in the Exprn column.

Press Enter or click another cell in the grid to save the tag or expression assignment.

To delete a tag or expression assignment

Delete all non-blank characters in the Tag or expression column, or click the row and press Delete.

Press Enter or click another cell in the grid to save the change.

Columns

Name

This column shows the name of the connection.

Value update direction

This column shows an arrow to indicate which way data can flow between the connection and the data source.

-> connection updates the data source (write connection)

<- data source updates the connection (read connection)

<-> connection updates the data source and data source updates the connection (read-write connection)

Tag or expression

Type the tag name or expression associated with the connection .

Tag button (...)

Click this button to open the Tags dialog box and choose a tag instead of typing the tag name in the Tag or expression column.

Exprn button (...)

Click this button to open the Expression editor and create an expression instead of typing the expression in the Tag or expression column.

Running the PVP Control 10Tag Demo

WIN-911 includes a FactoryTalk View ME application for demonstration and evaluation purposes. It simulates a 10 tag ActiveX application that can interface with WIN-911 either remotely or locally and pass alarm and acknowledgement information.

To set up the application, open FactoryTalk View ME studio and create a project.

- 1) From the Tools/Application Manager/Restore Application.
- 2) Select the Restore FactoryTalk Machine Edition Application and use the browse button to select PVP Control 10Tags Demo.
- 3) From the Graphics branch of your Project Explorer double-click on MAIN that the following will appear:

The screenshot displays the FactoryTalk View ME application interface. It features a grid of 10 alarm tags (Alarm01 to Alarm10), each with a green 'Set' button. To the right is a status panel with a red 'Comm' indicator and a timestamp of 3:14:39 PM. Below this is a table showing alarm statistics:

	Number of Alarms	0
	Active Unacked	0
	Active Acked	0
	Inactive Unacked	0

Below the table is a blue error message: "RCV ERROR: IP address cannot be empty". There are also 'InAlmAll' and 'OutAlmAll' buttons. At the bottom left is an alarm history window with the following entries:

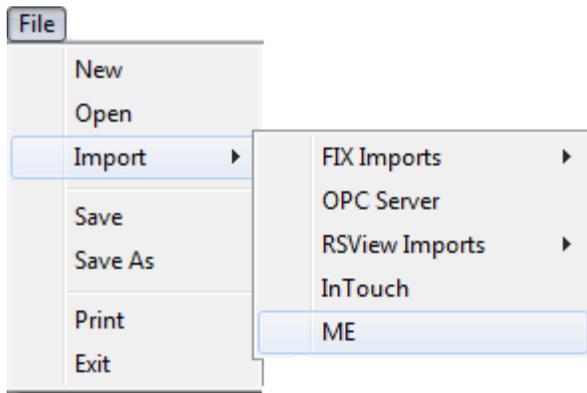
Alarm time	Message
* 3:12:43 PM	Comm Error
9:37:12 AM	Comm Error

At the bottom right are control buttons for 'ME Alarming IP Address', 'ME Alarming Port', 'Data Source IP Address', 'Data Source Port', 'Ack', 'Clear History', and 'Shutdown'. The 'ME Alarming IP Address' and 'ME Alarming Port' buttons are highlighted with a green border.

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- 4) Click "Run" to create a runtime file. After the start up is complete you can enter the IP addresses and Port numbers for the ME and WIN-911 platforms (ME Alarming for the ME platform and Data Source for the WIN-911 platform). Once these have been established WIN-911 is ready to connect and conduct remote alarm notification.
- 5) Start the WIN-911 Configurator and open the ME Direct Connect Demo.
- 6) From the Data Source Definition dialog enter the IP Addresses and Port Numbers for the ME and WIN-911 platforms.
- 7) Save the changes and start Scan & Alarm. You are now ready to simulate ME alarms using the Alarm01 through Alarm10 buttons, conduct remote notifications and alarm acknowledgements.
- 8) Use the Shutdown button on the lower right side of the PVP Control 10Tags Demo display to shutdown the application.

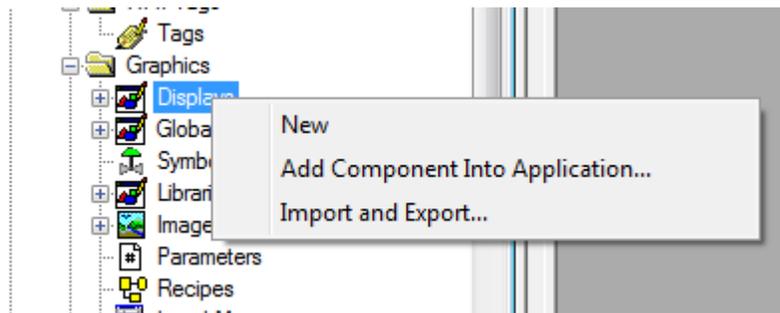
Importing Alarms from ME



WIN-911 provides a tool for importing ME tags from FactoryTalk.

Use the WIN-911 Configurator's "File\Import\ME" function to import your ME Alarm Control tags. The workflow begins in FactoryTalk where you will export your ME data into an *.xml file. Once the *.xml file is created you may use the WIN-911 Configurator Import utility to browse and selectively import tags and assign them to alarm groups.

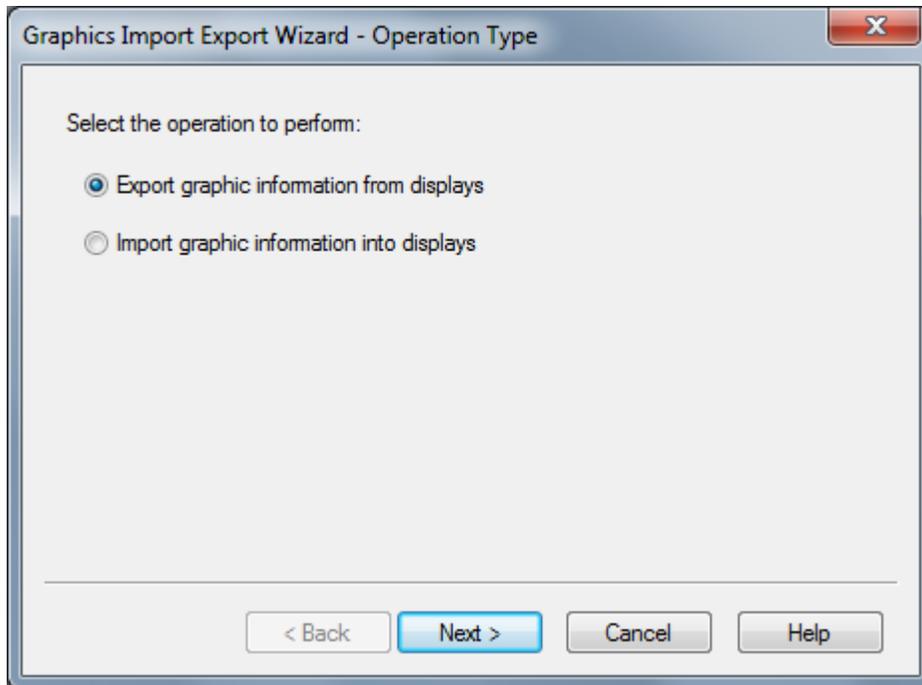
ME Alarm Control Import Process Step One: *FactoryTalk Studio Tag Export*



From the FactoryTalk Studio Application Explorer tree: right-click on the Displays icon and select the Import & Export Wizard.

Note: The display must be closed in order to conduct the export.

ME Direct Connect

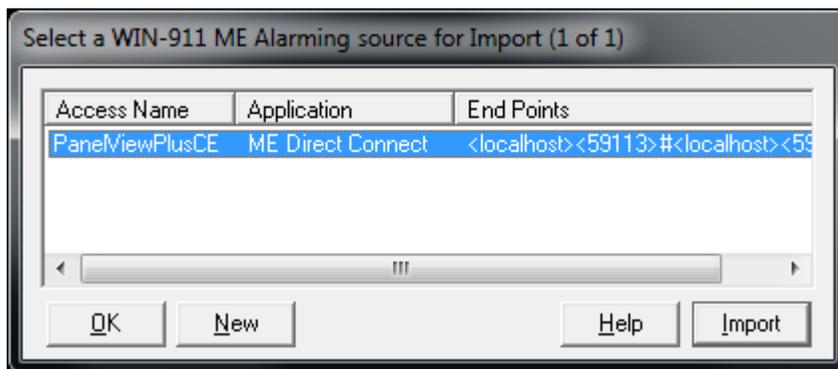


Select "Export graphic information from displays" and click Next.

Select the displays containing the tags WIN-911 is to monitor. This will generate an .xml file that WIN-911 can use to build a list of Alarm tag candidates for importing into a WIN-911 configuration file.

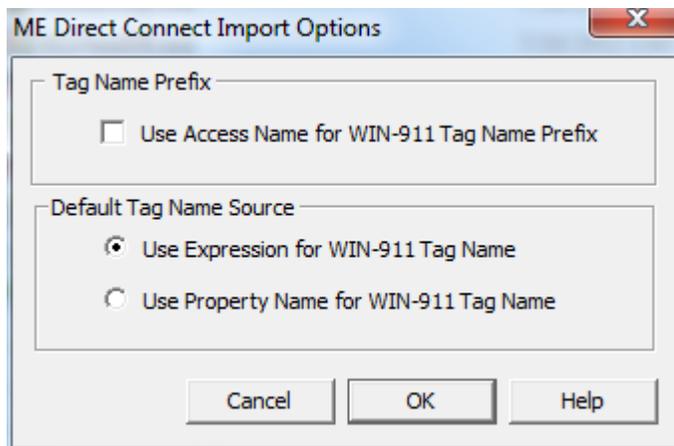
ME Direct Connect Import Process Step Two: *WIN-911 Import*

From the WIN-911 Configurator File pull-down menu select "File/Import/ME".



Highlight the desired Data Source by clicking the Access Name and then click the Import button on the lower right. If a Data Source for ME Direct Connect has not been configured, select new and define one before proceeding with the import. (See Data Source Definition)

ME Direct Connect Import Options



Tag Name Prefix

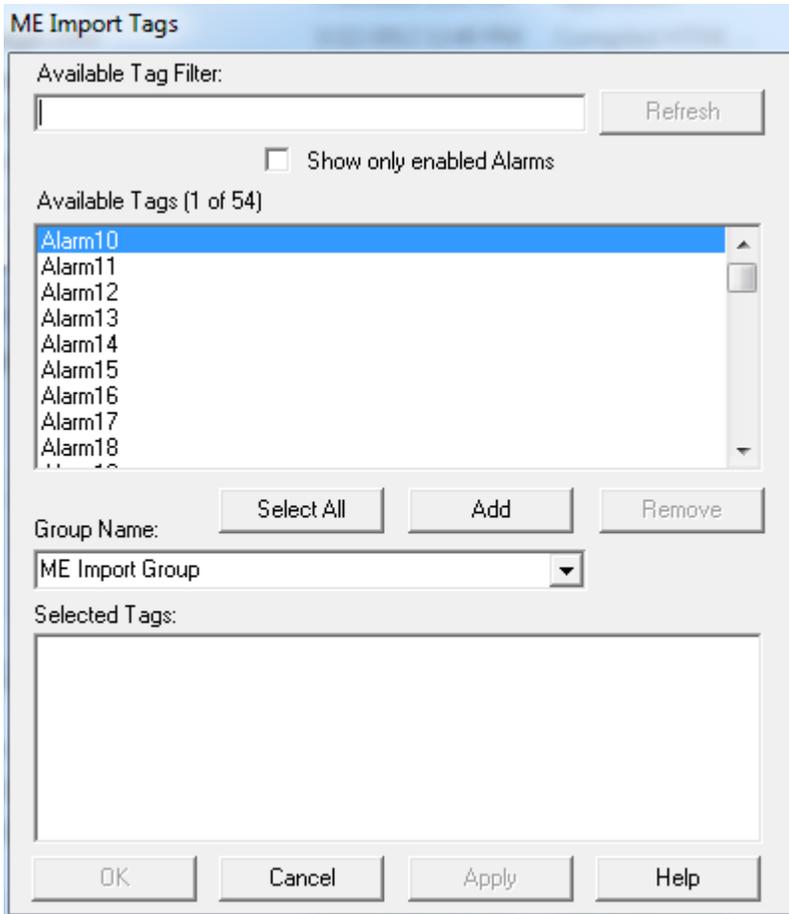
Each WIN-911 Tag Name must be unique to WIN-911. In the case where WIN-911 is monitoring multiple ME devices it must have a way of differentiating between alarm tag "Alarm01" on PanelView1 and "Alarm01" on PanelView2. By including the Access Name in the WIN-911 Tag Name each alarm tag can be kept unique. Check "Use Access Name for WIN-911 Tag Name Prefix" to accomplish this.

Default Tag Name Source

WIN-911 can use either the ME Expression for the WIN-911 Tag Name or the ME Property Name. This option is designated with the "Default Tag Name Source" radio button.

ME Import Tags

ME Direct Connect



The "Available Tag Filter" is a tool for suppressing the list of available tags to candidates that contains specific strings entered into that text box provided.

Selecting the "Show only enabled Alarms" check box will suppress the list of "Available Tags" to include only candidates that are configured for alarming within ME.

Once a selection of tags has been moved to the "Selected Tags" list you must click the "Apply" button to bring them into the WIN-911 configuration. Once tags have been added they are removed from the "Available Tags" and "Selected Tags" list, indicating that they are already part of the current configuration and are no longer available for importing.

Data Source Definition



This button is used to setup data communications. Data point addressing can be monotonous and syntactically rigorous. Rather than being forced into remembering (and exactly typing) the Direct Connect invocation string for each “Item Name” to be alarmed, you merely select the appropriate data source type from the selection list. When you define data points, a selection box will provide you with a list of “Access Names” to choose from. Simply select “ME Direct Connect”.

Note: The data source definition may be configured as part of the import process of the WIN-911's ME Import subroutine.

ME Direct Connect

Access Name:
PanelViewPlusCE

ME Alarm Control and WIN-911 End Points:
<127.0.0.1><59113>#<127.0.0.1><59114>

ME Alarm Control Socket

Device Name or IP: 127.0.0.1 Port: 59113

WIN-911 Socket

Local Machine Name or IP: 127.0.0.1 Port: 59114

OK Cancel Help

Access Name

A data source for ME Direct Connect users consists of the Access Name which is used to identify the individual data source and the WIN-911 and ME Alarm Control Socket end points. Both end points must be present to be valid and the user can configure as many Access Names as needed, as long as they are unique.

ME Alarm Control and WIN-911 End Points

ME Alarm Control and WIN-911 End Points text box displays the configured socket end points. The ME device is listed on the left and WIN-911 on the right.

ME Alarm Control Socket

WIN-911 provides two methods of specifying the FactoryTalk View ME platform socket:

- 1) In networks that have dynamically assigned IP addresses, Device Names (and/or Local Machine Names) may be used in lieu of an IP Address.
- 2) With networks that employ a static IP addressing scheme WIN-911 can be configured to use the IP address of a device or computer by selection the ME Alarm Control device IP address in the field provided.

The socket port is defined by entering a five digit number in the provided text box.

WIN-911 Socket

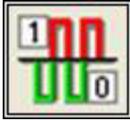
WIN-911 provides two methods of specifying the WIN-911 platform socket:

- 1) In networks that have dynamically assigned IP addresses the Device Name (and/or Local Machine Name) may be used to designate the specific machine within the network that is independent of the current IP Address.
- 2) With networks that employ a static IP addressing scheme WIN-911 can be configured to use the IP address of a device or computer by selection the WIN-911 IP address in the field provided

The socket port is defined by entering a four to five digit number in the provided text box.

Digital Definitions

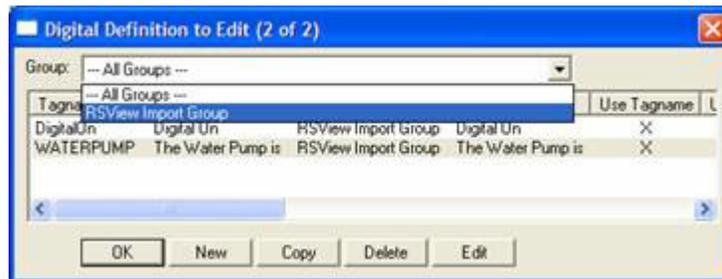
Digital Definitions



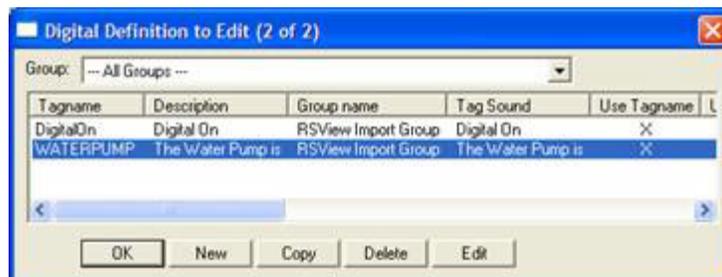
Click this icon to configure digital alarms. Digital alarms are alarms which are either on or off, also known as discrete alarms in other applications.

Digital Definition to Edit

Alarms are arranged by Groups. Using the pull down list box, select the Group that the new or existing alarm/point is assigned. Only the alarms/points associated with the Group will be listed. You may select the appropriate "Group" by the pull-down list box, or select "All Groups".



After selecting the specific Group or selecting "All Groups," you are ready to add or modify digital alarms.



Selecting New, Edit or double-clicking on the Access Name will bring up the Digital Definition sheet

Base Definition

Tagname

ME alarm names may not be descriptive enough. The WIN-911 Tagname is a user defined alias of an alarm, which WIN-911 will report as the name of the alarm. This is not used to reference the alarm in ME unless the Use Tagname for Item check box is checked. Each WIN-911 Tagname must be unique.

Description

The Description field is used to provide a more detailed description of an alarm.

Group Name

Alarms are organized by Group. See the WIN-911 Configurator manual for a detailed explanation of Groups. Use this drop down menu to select the Group with which you wish your alarm to be associated.

Bit

This option is disabled for ME alarms.

Access Name

The Access Name refers to the Data Source Definition previously defined. Select desired Access Name (which will specify the specific PanelView device) defined in the Data Source Definition to configure the current alarm as an ME Direct Connect tag.

Use Tagname for Item

Select this option to have the Tagname field copied into the Item Name field. Use this option if the ME alarm name is descriptive enough as to not require an alias.

Item Name

The Item Name refers to the name of the alarm as it is defined within ME Alarm Control. Its syntax must match the ME text or WIN-911 will fail to establish an advise link and no data concerning this tag will be shared with WIN-911.

Alarm Conditions

Alarm and Normal Text Strings

The "Alarm" and "Normal" text strings are not used in the ME Direct Connect.

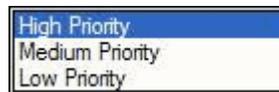
Digital Alarm

The "Digital Alarm" state for ME alarms are defined within the ME Alarm Control database and do not need to be redefined here. Since this information is accessed directly from ME, this field is disabled.

Initial Value

The "Initial Value" for ME alarms are defined within ME and do not need to be redefined here. Since this information is accessed directly, this field is disabled.

Priority



Alarm Severity (ME) and Alarm Priority (WIN-911) accomplish much the same thing by sorting alarm message urgency in a way that ensures the alarm with higher urgency gets priority in the remote notification sequence. Higher priority/severity alarms will go to the front of the line in the contact sequence while alarms with the same priority/severity are handled on a first come first serve basis.

Automatic Acknowledgement

Never

Selecting this radio button will require a manual acknowledgement of the alarm.

On Alarm

Selecting this radio button will cause the alarm to automatically become "Acknowledged" as it enters into an alarm condition. This option would allow audio reports of an alarm's current condition without initiating other reporting options listed in the "Group". If this option is active, the message (going into an alarm condition) will not generate "Pop-Up" alarm messages or any of the remote notification options.

On Return To Normal

Selecting this radio button will cause the alarm to automatically acknowledge as it returns to normal. This option removes the requirement that the associated alarm be responded to by a person in the event that no one has acknowledged the alarm at the time it returns to a normal condition.

Sounds

Tag, Alarm, and Normal Sounds

Like other WIN-911 alarms, the “Sounds” are essentially a verbalization of the description, and the Alarm and Normal text to be used in the audio announcement. As with any other sounds, the sounds are selected from a dialog box. Unlike Digital and Analog Tags, Watchdog sounds are not dynamic.

Is/Was Selection

In some cases, using the “Is / Was” audio will not make sense. Selecting the check-box next to “Use Is / Was” will activate its use. Leaving the check-box blank will omit its use.

Preview Announcer

Selecting this button will allow you to review this alarm's entire audio as it will be heard on the local announcer, for each condition of the alarm. Type topic text here.

Changeable

ME Direct Connect does not support the modification of data.

Analog Definitions

ME Direct Connect does not support analog data tags.

Watchdog Timer Definitions

Watchdog Timer Definition



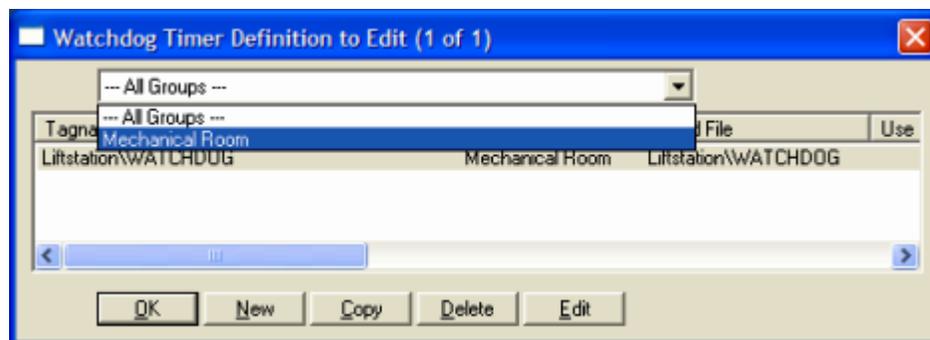
The integrity of mission critical data such as that which WIN-911 is tasked to monitor must be verifiable. This means that the data servers must have a way to demonstrate their presence and operational capacity. WIN-911 provides the user with Watchdog Timers for this very purpose. The ME Direct Connect provides two methods for verifying the health of the ME Alarm Control network. One option verifies the functional condition of the PanelView Plus and the second verifies the condition of the individual devices (PLCs) configured within the PanelView network.

Note: Unlike other WIN-911 Watchdog functions, the ME Direct Connect Watchdog monitors a machine's response and/or changing alarm condition rather than an actual changing value.

A typical voice message for this condition could be: "WARNING AREA #4 HAS LOST COMMUNICATIONS WITH PLC 5."

Watchdog Timer Definition to Edit

Alarms/Points are arranged by Group. Using the pull down list box, select the Group to which the new or existing watchdog alarm is assigned. Only the watchdogs associated with the Group will be listed. You may select the appropriate Group from the pull-down list box, or select All Groups.



After selecting the specific Group or selecting All Groups, you are ready to add or modify watchdog timer alarms.

ME Direct Connect



Selecting New, Edit or double-clicking on the Tagname will bring up the Watchdog Timer Definition sheet.

Base Definition

Tagname

Tagname is a unique identifier for the alarm. Tagname duplication is not permitted. ME Direct Connect limits the amount of alarm points WIN-911 can monitor to fifty points per PanelView network.

Description

The Description field is used to provide a more detailed description of a watchdog alarm. This information is in addition to the Tagname and Group Name. It is best not to include the Tagname or alarm Group Name in this description, since it is redundant.

Group Name

Alarms are organized by groups for reporting alarm conditions.

You have by now created a unique Watchdog alarm. You must choose a predefined Group to specify the notification tasking for this alarm. See the section titled "Group Definition" for more details. To select another Group, click on the drop-down arrow with the cursor and choose.

Alarm Conditions

Alarm and Normal

The Alarm Conditions text identifies the normal and alarm conditions that appear on the alarm monitor displays and reports.

Time-out After __ Minutes

The Time-out After __ Minutes field is a count down timer preset. The timer is reset based on flags specified by the configuration. Should the timer ever count down to zero WIN-911 will generate a Watchdog alarm for the specified Tagname. The ME Direct Connect provides the user with two reset flags, 1) an open socket response from the PanelView device, and 2) an alarm message from one of the machines within the ME environment. The setting of either flag will cause the timer to reset.

There are two implementation options available for ME Direct Connect. Option one verifies the presence and operational capacity of the PanelView Plus device. Option two verifies the operational capacity of the individual PLC within the PanelView network.

Option 1: In order to monitor the operational capacity of a PanelView device, set the Time-out After __ Minutes to 0 (zero). In this option WIN-911 establishes a connection with the socket assigned to PanelView every 30 seconds. If PanelView fails to respond to the WIN-911 request three consecutive times WIN-911 will generate a Watchdog alarm.

Option 2: In order to monitor the operational capacity of an individual PLC within a PanelView network, set the Time-out After __ Minutes to 1 (one) or higher. In this mode WIN-911 passively waits for an alarm message from the ME tag specified in the Item Name of the Base Definition. If an alarm message is not received within the configured time-out WIN-911 will issue a Watchdog alarm. Note: The PLC will have to be programmed to cycle an alarm message at such a rate that WIN-911 can expect to receive and alarm message well within the configured time-out. Specter recommends that the PLC be programmed to generate at least three alarm conditions within desired WIN-911 time-out. (i.e. for a 1 minute Watchdog Time-out, the PLC should generate a corresponding alarm every 20 seconds.)

Priority

For each alarm, you have the option to select from three levels of priority: High, Medium, and Low. A higher priority alarm will supercede a preexisting alarm of lower priority in the notification queue.

Automatic Acknowledgement

Never

Selecting this radio button will require a manual acknowledgement of the alarm.

On Alarm

Selecting this radio button selection will program WIN-911 to immediately acknowledge this tag as it enters into an alarm condition. This option would allow local reports (i.e. audio, printing, and logging) of an alarm's current condition without initiating remote reporting options (e.g. voice, SMS, etc.) listed in the Group. If this option is selected, the message (going into an alarm condition) will not generate Pop-Up alarm messages or any of the Dial-Out options and is intended for maintenance purposes.

On Return To Normal

Setting this radio button selection will program WIN-911 to automatically acknowledge the alarm tag if it returns to normal before it has been manually acknowledged.

Sounds

Tag, Alarm, and Normal Sounds

Like other WIN-911 alarms, the “Sounds” are essentially a verbalization of the description, and the Alarm and Normal text to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box. Unlike Digital and Analog Tags, Watchdog sounds are not dynamic.

Is/Was Selection

In some cases, using the “Is / Was” audio will not make sense. Selecting the check-box next to “Use Is / Was” will activate its use. Leaving the check-box blank will omit its use.

Preview Announcer

Selecting this button will allow you to review this alarm's entire audio as it will be heard on the local announcer, for each condition of the alarm. Type topic text here.