

**WIN-911 V7.14**

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# Introduction

## Getting Started

### What is WIN-911?

WIN-911 is the most proven and advanced alarm notification software suite available for the automation industry. Capable of using standard telephone lines, cellular networks and Internet systems, WIN-911 can reach you wherever you are. After an alarm is detected from your automated process, WIN-911 will notify a list of users about the alarm condition with an SMS, e-mail, page or voice call. In addition to simple notification, WIN-911 allows users to interact with your SCADA/HMI by accepting alarm acknowledgements and requests for report data. WIN-911 interfaces with OPC DA, DDE servers as well as with GE's iFIX, FactoryTalk View ME, FactoryTalk View A&E, RSView SE, RSView32, Wonderware's InTouch or Archestra System Platform.

WIN-911 has three standard package offerings: Pro, Basic, and Lite. WIN-911 Lite allows users to configure 24 digital alarms and notify users through a single notification method. The Basic version allows users to send e-mails, pages and one-way text messages. It has no limit on the number of configurable alarms and supports unlimited ME Direct Connect alarms. WIN-911 Pro supports all of the features of the Basic version in addition to two-way text messages and voice calls. See the [Standard Products](#) section for details.

## **What's New**

Specter Instruments is pleased to introduce the following Additions to WIN-911:

- **FactoryTalk View ME Direct Connect**
- **Mobile-911 View**
- **911Heath**

## Hardware Requirements

A system with at least a Pentium 4 processor running at 2.1 GHz and with 2 GB of memory is recommended. A display resolution of 800x600 or greater is required. Your system may require additional memory if other programs are to be run simultaneously. One gigabyte of free disk space is required. Be aware that wave files require 11 to 44 kilobytes of storage per second of playtime.

The following operating systems are supported by our products.

Product	Windows 2003 SP1	Windows 2008	Windows XP SP2	Windows 7	Windows CE
WIN-911	Yes	Yes	Yes	Yes	No
WEB-911 Services	Yes	Yes	Yes*1	Yes	No
WEB-911 XTools	Yes	Yes	Yes	Yes	No
Mobile-911 Server	Yes	Yes	Yes	Yes	No
WIN-911 ME Alarming	Yes	Yes	Yes	Yes	No
WIN-911 ME Alarming CE	No	No	No	No	Yes

1. XP Home is not supported.

Dial-out paging requires a dedicated data modem and phone line. Voice calls require either a compatible TAPI modem or a Dialogic Telephonic Card and a dedicated analog voice line. When doing paging and voice notifications on the same system, two dedicated lines are strongly recommended. Failure to place each piece of hardware on a dedicated line may delay or prevent notification.

SMS notification requires a compatible GSM or CDMA modem with a text messaging plan.

If alarm history printing is desired, a dedicated printer port and printer are required. A simple printer should suffice since no graphics are used. Specter Instruments recommends that a dot matrix printer be used, or similar such device capable of printing a "line-at-a-time" as opposed to one that requires an entire page be defined before it will begin to print (such as lasers and ink-jets).

Note: When the WIN-911 Alarm Printer owns a printer, no other task can access it. The Alarm Printer does not use the Windows device drivers for printing; printing is done through standard ASCII output. Other Printing tasks require a separate printer port and printer.

WEB-911 XTools require Microsoft .NET 4.0 and Internet Information Services to be on the WIN-911 server machine. Microsoft .NET 4.0 must be installed on all WEB-911 XTools client machines. See, "Installing WEB-911 Services."

Mobile-911 Server requires Microsoft .NET 4.0 and may require Internet Information Services if installing Mobile View. Mobile-911 Server is not required to be installed on the same machine as WIN-911. Mobile-911 Server may also require an Internet connection.

## Software Maintenance and Support

Registered users are given a Software Maintenance and Support number when the software is unlocked. This Software Maintenance number is required to receive telephone and email support.

For telephone support call Specter Instruments at 512-326-1011 x3 or toll free in the US and Canada at 1-800-331-8740 x3, and have your Software Maintenance number ready. Support hours are Monday through Friday, 8:00 AM to 5:00 PM (GMT -06:00) Central Time.

Telephone support, email support and relocks after the expiration of the support program will require renewing your Software Maintenance agreement. Email support will be directed through your Software Maintenance and Support page at: [www.specterinstruments.com](http://www.specterinstruments.com) menu option Support | Software Maintenance.

Installation guides, informational documentation, as well as solutions to common problems can be found in the Knowledgebase under the Support menu option.

In addition to technical support, participants are entitled to software version upgrades as they become available, relocks, as well as software newsletters with updates.

To renew your Software Maintenance and Support agreement call Specter Instruments Sales at 512- 326-1011 x2 or toll free in the US and Canada at 1-800-331-8740 x2.

# Licensing Options

## Standard Products

The WIN-911 software package can be licensed to any one of the three Standard Products listed below. See the 'WIN-911 V7 Price Sheet' for details.

### WIN-911/Basic

WIN-911 Alarm Software for 1-way alarm notification will allow you to:

- Complement and enhance any Windows 7, Server 2008, XP, Server 2003, or 2000 compliant application program by giving it alarm and reporting capabilities.
- Notify personnel using e-mail, Paging and 1-way SMS.
- Utilize the Windows multimedia capability to alert users of out-of-tolerance conditions.
- Easily create both sound and visual messages and associate these with values found in your HMI/SCADA package and/or Windows OPC and DDE.
- Report alarms on screen with audio alert sounds (including speech) and through e-mail, pages, and SMS messages.
- Group and classify alarms (including priority levels), allowing different action responses as your needs dictate.
- Alert users if servers or source of data becomes disconnected or inoperable.
- Sort and view alarm data by any field (date, priority, group, tag name, etc.) at runtime with the Alarm Log Manager formatted alarm logger.
- Alert HMI and/or other applications of WIN-911's operational status by serving a constantly changing "heartbeat" via WIN-911's System Health Poke.
- Alert HMI and/or other applications of WIN-911's paging modules operational status.
- Supports the unlimited ME Direct Connect option.

### WIN-911/PRO

WIN-911 Alarm Software for 1-way and 2-way alarm notification will also allow you to:

- Notify and acknowledge alarms by telephone/voice dial-up.
- Acknowledge alarms by replying with an SMS text message.
- Modify existing WIN-911 configurations on the fly from a networked location.
- Change the current state of WIN-911 from a networked location.
- Offers professional sounding voices as an alternative to the standard Microsoft choices.
- Inquire of other plant conditions using WIN-411 after WIN-911 has reported an out-of-tolerance alarm.
- Call the computer at any time from a touch-tone telephone to check on current operating conditions.
- Change any digital or analog value from a touch-tone telephone. (Changes are only possible if the configuration allows.) The following security is available for selecting a point to change:

1. Special Access Code for changes per user.
  2. Selection of a numeric password for each point to change.
  3. High/Low limits for analog changes for individual points.
  4. Confirmation of intended change of value prior to the actual change.
  5. Watchdogs that can prevent access to reports on data source loss.
- Supports state-of-the-art performance in voice technology for alarm and report annunciation. Variable rate and pitch control allows fine-tuning of the audio to match exact user needs.
  - Supports the unlimited ME Direct Connect option.

## WIN-911/L

WIN-911 Lite will allow you WIN-911 PRO functionality with the following restrictions:

- Alarms can accommodate a total of 24 digital and unlimited watchdog alarms. Filter and Analog alarms are not supported in Lite Mode.
- User can select a single type of remote notification, such as: Voice Telephony, 2-way SMS, Numeric or Alphanumeric pagers, Voice Pagers, or E-Mail.
- Lite mode does not include WIN-411 reporting capability, but users can acknowledge alarms from the voice telephony or the 2-way SMS connection.
- The computer/voice telephony interface must be a TAPI Voice Modem.
- Premium Voice is not included.
- XTools are not supported.

## Feature Upgrades

The following Feature Upgrades may be purchased and licensed in addition to some of the Standard Products. See the 'WIN-911 V7 Price Sheet' for details.

### WIN-911/FT

WIN-911 FactoryTalk Alarm and Events Client offers a seamless connection to FactoryTalk's Alarm & Event servers:

- Subscribes to FactoryTalk Alarm and Events based on a user defined filter criteria.
- Alarm properties and configuration are maintained at the PLC level, instead of in WIN-911.

### WIN-911/ME

WIN-911 ME Direct Connect offers a seamless connection to FactoryTalk View ME and PanelView Plus CE.

- Subscribes WIN-911 to WIN-911 ME Alarming Control ActiveX Object.
- WIN-911 can be deployed on a local ME platform or on a remotely located platform with network access to the ME platform.
- Alarm properties are maintained at within ME Station level, instead of in WIN-911.

### WIN-911/PV

WIN-911 Premium Voice offers both male and female professional sounding voices as an alternative to the standard Microsoft choices:

- The Premium Voice package includes three new text-to-speech engines: Cepstral Diane, Cepstral David, and Cepstral Callie.
- The Premium Voice package also allows the user to adjust the Rate and Pitch of the premium voice.
- SAPI 5.0 or SAPI 5.1 speech engine can be used with WIN-911's Text-to-Speech.

### WEB-911 XTools

WEB-911 XTools is a suite of ActiveX controls that allow you to modify existing WIN-911 configurations on the fly including:

- A networked solution to edit Contacts, Schedules, and Notification Methods by leveraging Microsoft .NET and Internet Information Services.
- A networked solution for switching WIN-911 between an Active and Standby state.

- The capability to install the XTools client in any ActiveX container, including most SCADA nodes. The XTools client also supports Windows Vista and Windows Server 2008.

## Mobile-911 V2

Mobile-911v2 is a smart phone application that allows for powerful organization of multiple alarm messages and provides a convenient way to acknowledge each alarm back to WIN-911.

- Mobile-911v2 is compatible with Apple iOS, Google Android and a version is planned for Blackberry devices.
- Mobile-911v2 pushes alarms to your mobile device over Apple's Push Notification service or Google's Cloud to Device Messaging Service.
- An Internet connection is required on both your Mobile-911 Server machine and your mobile device.
- MobileView displays alarms in an alarm summary accessed through a web browser using a secure log in. This allows the user to access and acknowledge alarms from anywhere that has an Internet connection.

## Installation

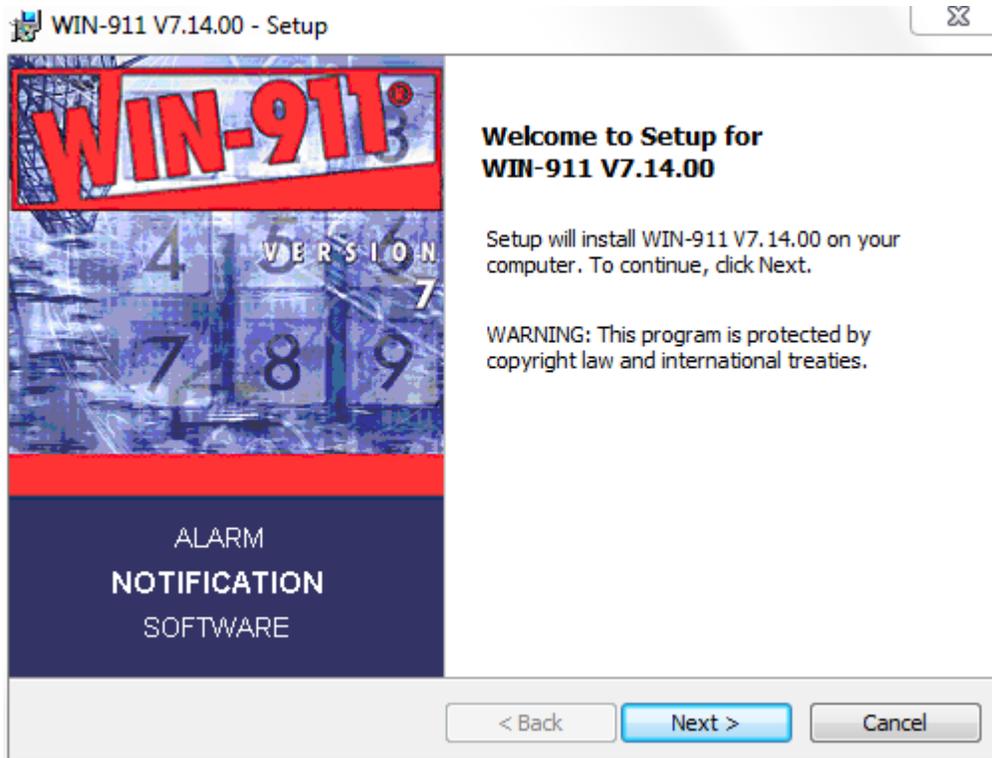
### Installing WIN-911 V7

Insert the WIN-911 V7 Alarm Notification Software CD.

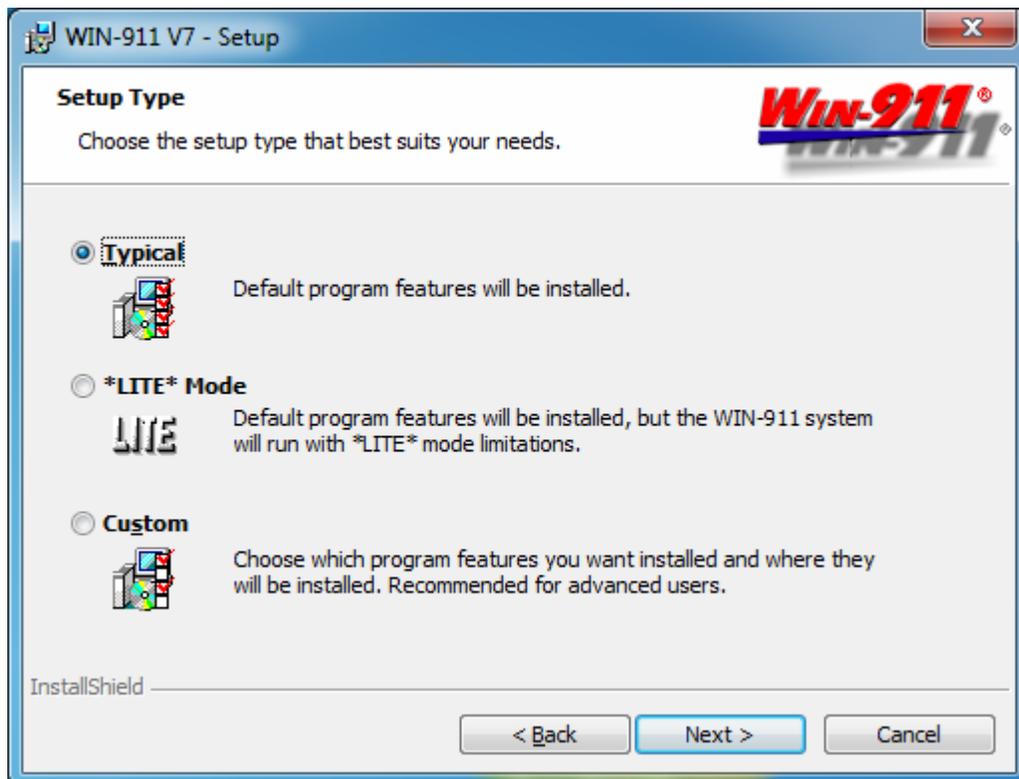
Select WIN-911.



Click, Next. If prompted to install .NET 4.0 follow the on screen instructions. Then continue through the License Agreement and Customer Information.



Select Typical to run the default installation. This will install to the default location C:\Program Files\Specter Instruments\WIN-911 V7. The following program features will be installed: WIN-911 V7, Tools, and Application Demos.



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Select \*LITE\* Mode to run the default installation with LITE mode limitations.

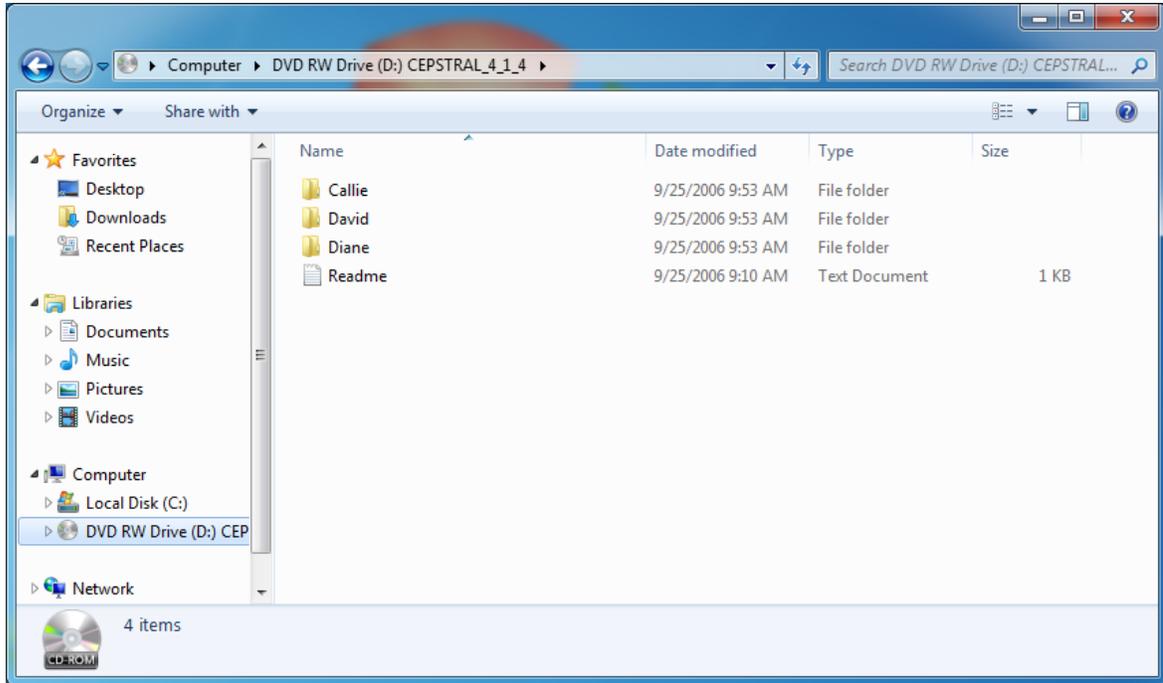
Select Custom to change any of the default installation settings, such as the WIN-911 install path.

Select Next, click Install, then Finish.

Note: WIN-911 V7 is fully functional for a 30-day DEMO period from the time of installation. After the DEMO period expires WIN-911 must be licensed. See, 'WIN-911 Licensing and CopyShield Administration' for details.

## Installing WIN-911 Premium Voice

Insert the Cepstral Version 4.1.4 Premium Voice Install CD. This disk should be included with your WIN-911 V7 package.



To install the voice for Callie, browse the CD and run the install named:

**`\\Callie\Cepstral_Callie_windows_4.1.4.msi`**

To install the voice for David, browse the CD and run the install named:

**`\\David\Cepstral_David_windows_4.1.4.msi`**

To install the voice for Diane, browse the CD and run the install named:

**`\\Diane\Cepstral_Diane_windows_4.1.4.msi`**

Note: WIN-911 Premium Voices are operational during the DEMO period. After the WIN-911 DEMO period expires the WIN-911 Premium Voices must be licensed. See, ['WIN-911 Feature Upgrade'](#) for details.

## Installing WEB-911 Services

WEB-911 Services requires WIN-911 Version 7.13.00 to be installed first. It also requires Internet Information Services (IIS) and Microsoft Framework .NET 4.0.

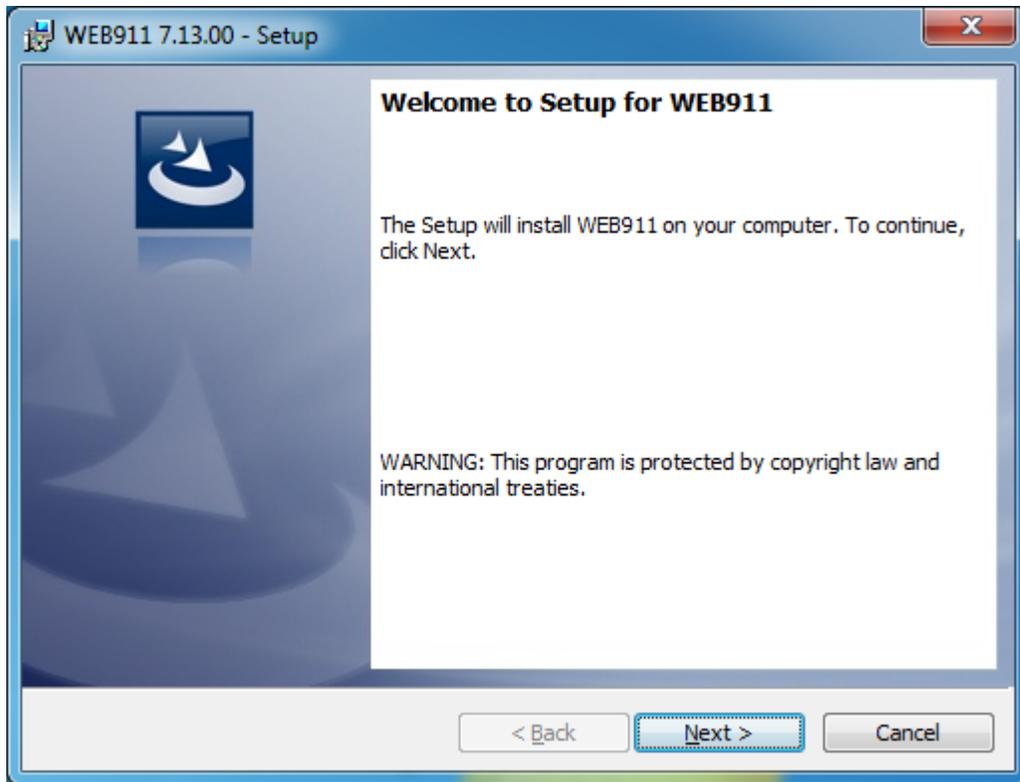
IIS must be installed prior to installing WEB-911 Services. IIS can be found in Administrative Tools. If IIS is not installed, run the IIS install from Add or Remove Programs -> Add/Remove Windows Components. The operating system install disk is required to complete the IIS installation.

Microsoft Framework .NET 4.0, if installed, can be found in Add or Remove Programs. If .NET 4.0 is not installed, WEB-911 Services will install it for you.

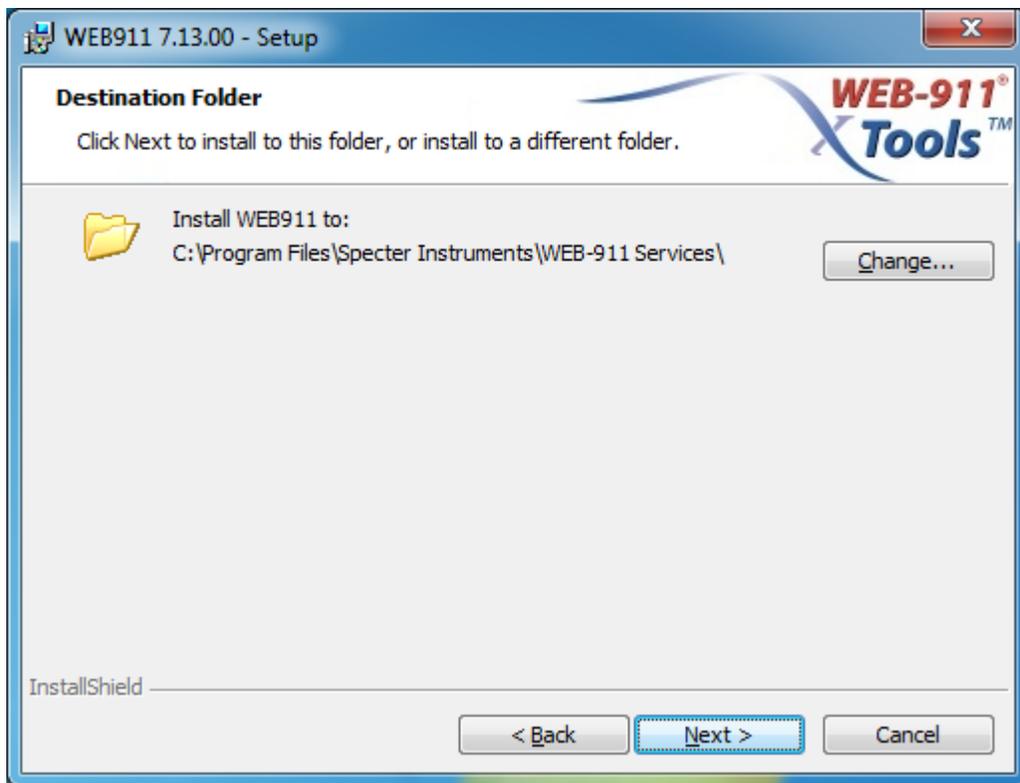
Insert the WIN-911 V7 Alarm Notification Software CD.



Select WEB-911 Services. If prompted to install .NET 4.0 follow the on screen instructions.



Click, Next. Continue through the License Agreement.



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Click Next to continue with the default path. Select Change... if you would like to use a custom path, and then click Next.

Click Install, then Finish.

Note: WEB-911 Services will run in a 30-day DEMO period from the time it is installed. After the WEB-911 Service DEMO period expires WEB-911 Services must be licensed. See, 'WIN-911 Feature Upgrade' for details.

## Installing WEB-911 XTools Client

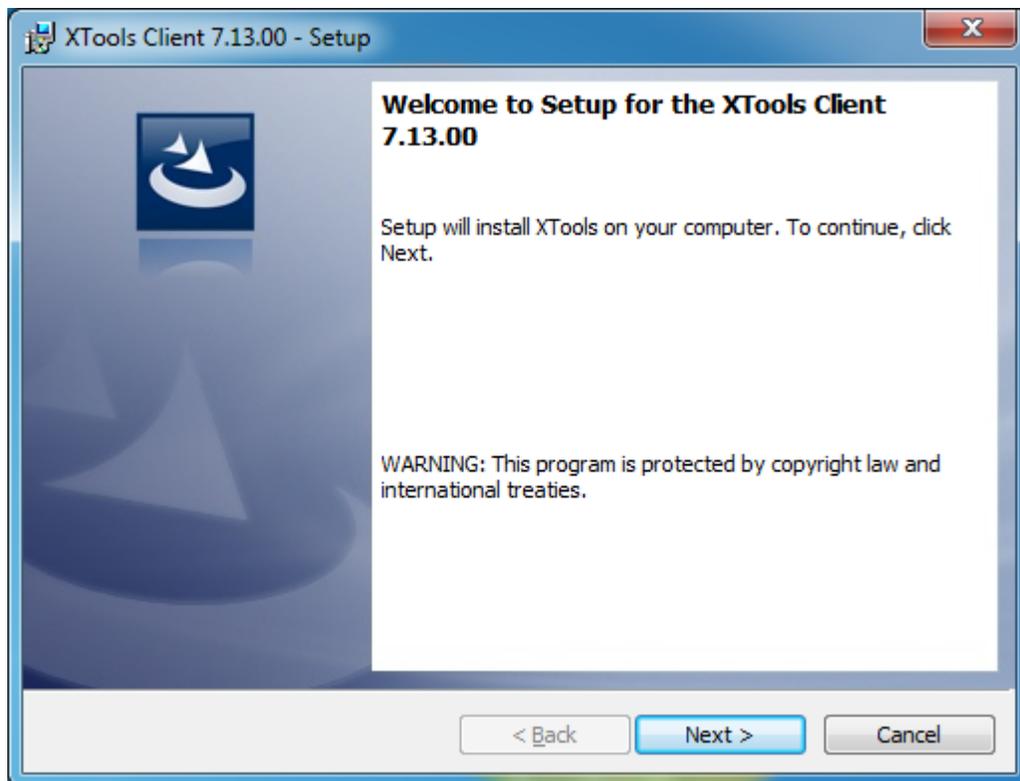
The WEB-911 XTools Client requires Microsoft Framework .NET 4.0. If installed, it can be found in Add or Remove Programs. If .NET 4.0 Framework is not installed, WEB-911 XTools Client will direct you to the install

The WEB-911 XTools Client can be installed on any machine on the network. The XTools controls can be inserted into any ActiveX container.

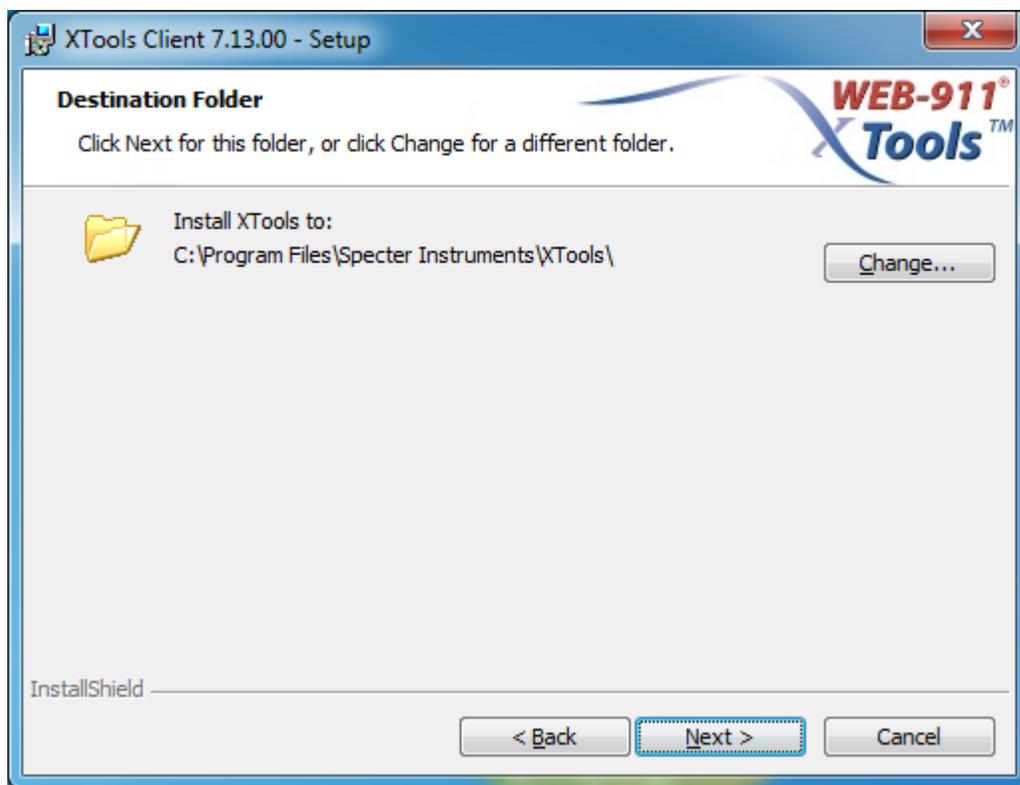
Insert the WIN-911 V7 Alarm Notification Software CD.



Select XTools Client. If prompted to install .NET 4.0 click Yes.

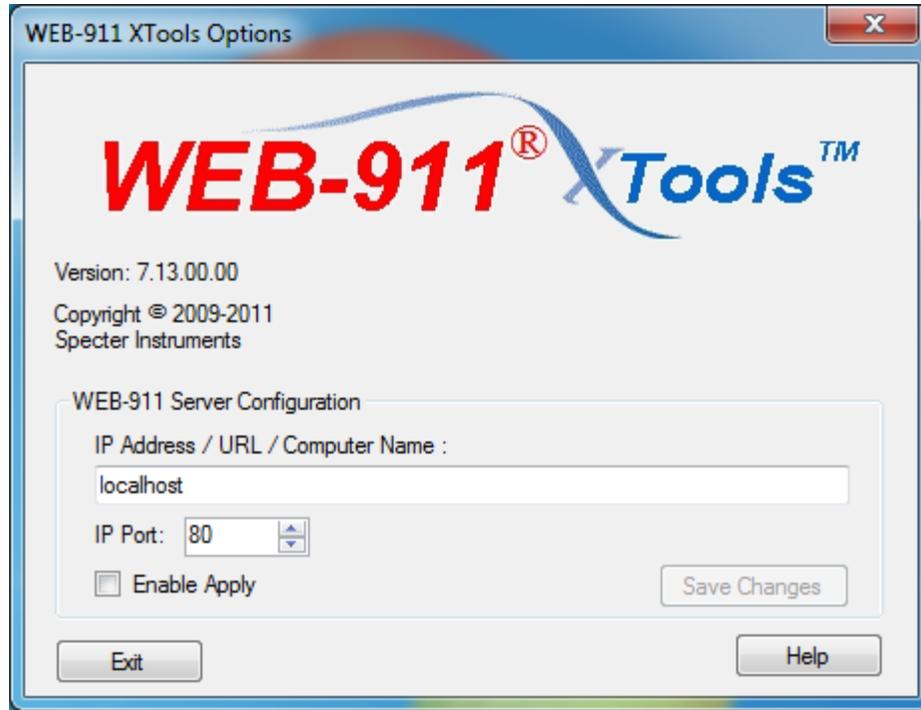


Click Next. Continue through the License Agreement.



Click Next to continue with the default path. Select Change... if you would like to use a custom path, and then click Next.

Click Install.



The WEB-911 XTools Options window allows the user to configure the location of the server. Click Save Changes and Exit to apply your changes. Then click Finish

Note: WEB-911 Services will run in a 30-day DEMO period from the time it is installed. After the WEB-911 Service DEMO period expires WEB-911 Services must be licensed. See, 'WIN-911 Feature Upgrade' for details.

## Installing Mobile-911

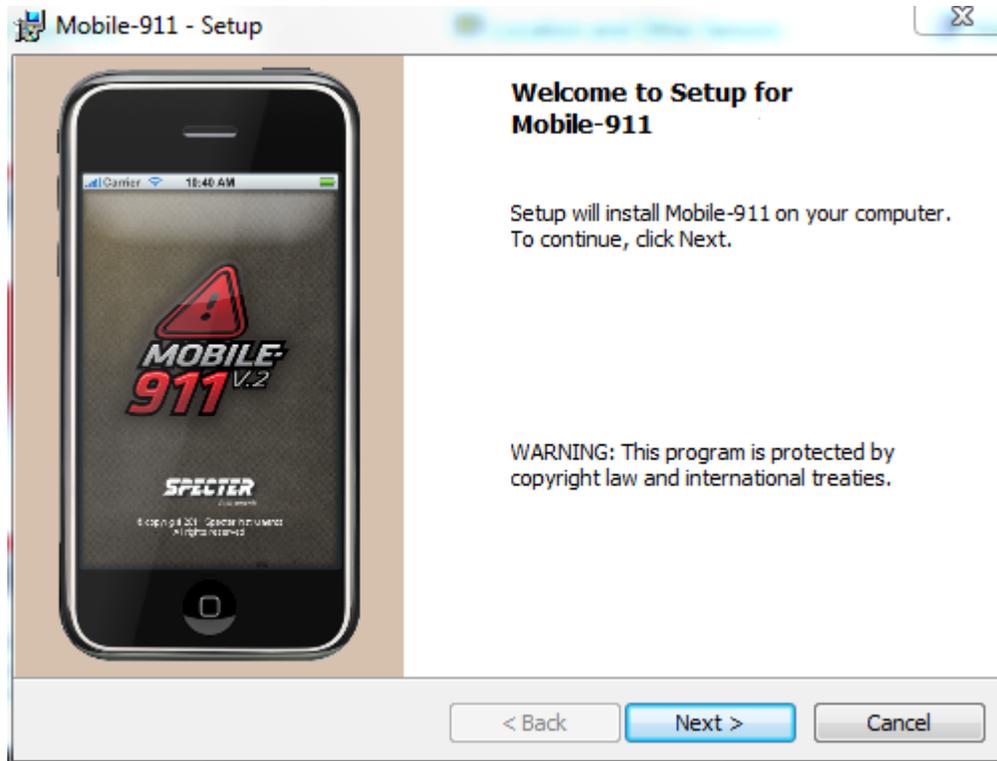
Mobile-911 requires Microsoft Framework .NET 4.0. If installed, it can be found in Add or Remove Programs. If .NET 4.0 Framework is not installed, Mobile-911 will direct you to the install. The Mobile-911 server also requires Internet Information Systems if the MobileView option is selected to be installed.

The Mobile-911 Server can be installed either on the same machine as WIN-911 or another machine with a networked connection to the WIN-911 computer. The Mobile-911 Server machine must have access to the internet. Setup instructions can be accessed electronically after the Mobile-911 installation is complete.

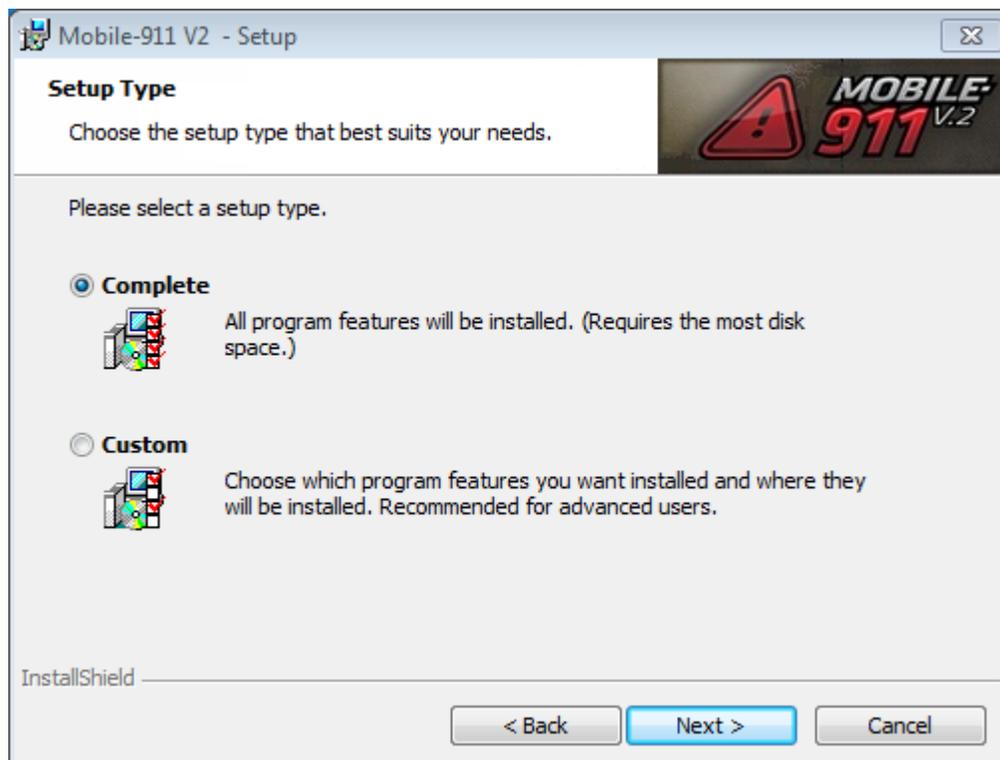
Server setup instructions can also be found on our website: [www.specterinstrument.com](http://www.specterinstrument.com) under Support | Knowledgebase.



Select **Mobile-911**. If prompted to install .NET 4.0 follow the on screen instructions.

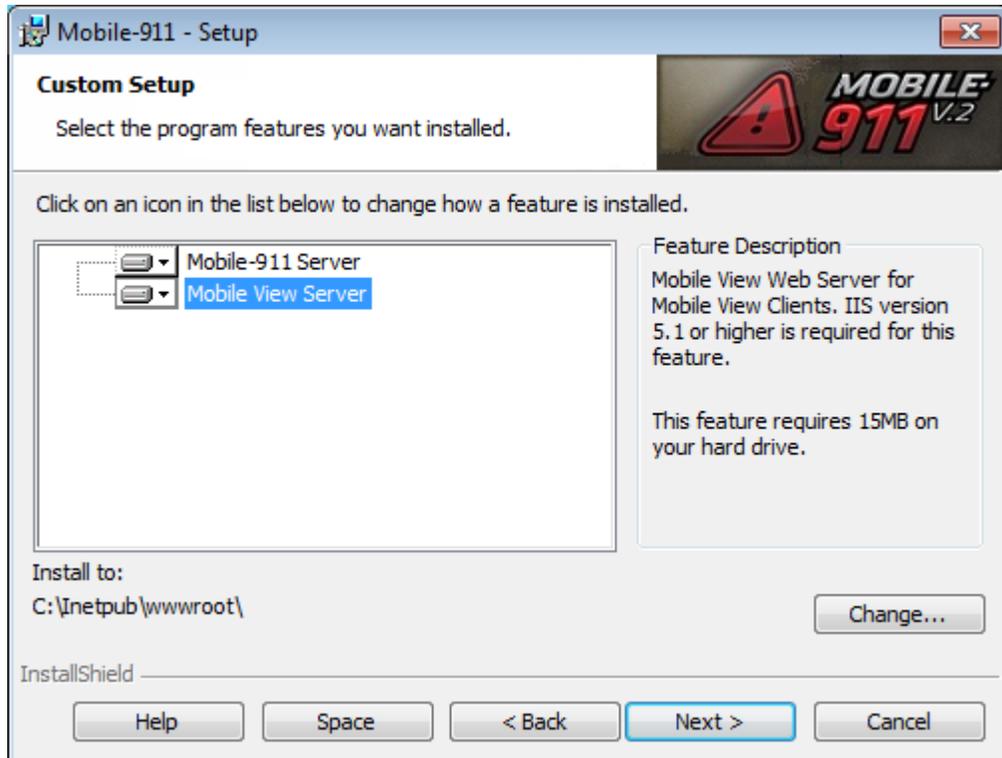


Click, **Next**. Continue through the License Agreement.



Click **Next** to continue with the **Complete** install. Select **Custom** if you would like to use a custom path and or would like to disable the MobileView Server install. Then click **Next**.

The Mobile-911 View Server requires IIS. If you only plan to use the Mobile-911 smart phone applications and do not want to install IIS, you must disable the Mobile-911 View Server feature.



Click **Next** to continue with the selected features and custom path.

Click **Install**, then **Finish**.

## Installing Mobile-911v2 on Apple iOS

Mobile-911 is available in Apple's App Store for any iOS 4. and iOS 6 device. Download and install the application directly from your Apple device. Future updates will be available from the App Store as well.

Once installed, important setup information is included in the application's help section

## Installing Mobile-911v2 for Android

Mobile-911 for Android is available for Android 2.2 and up. At the time of this writing, the latest version of Android is 4.1. Because we cannot anticipate future changes in the OS, we cannot guarantee that all future versions will be supported.

Mobile-911v2 requires Google Play and a touch screen.

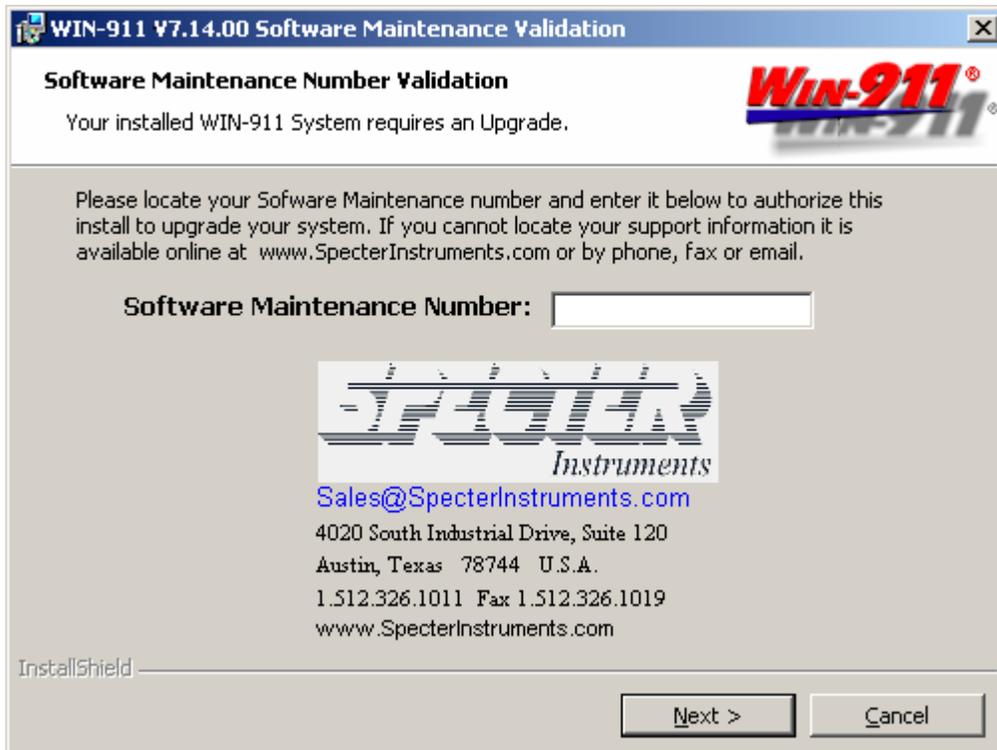
Mobile-911v2 is available on Google Play. Future versions will be released through Play as well.

Once installed, important setup information is included in the application's help section.

# Upgrading WIN-911

## Upgrading to a New Version

Any version upgrade from a previous version to the latest version of WIN-911 will require a Software Maintenance Number to install. If you cannot locate your Software Maintenance information, it is available online at [www.specterinstrument.com](http://www.specterinstrument.com) or by phone, fax, or e-mail. If you do not have a Software Maintenance Number contact Specter Instruments at 512-326-1011 x2 or toll free in the US and Canada at 1-800-331-8740 x2.



Enter the Software Maintenance Number and click the Next button to upgrade the WIN-911 version. Then the install will proceed.

Note: A version upgrade to 7.14.00 PRO from a 7.09 or older PRO or TEP version will include new features such as Premium Voice and WEB-911 XTools. You will need to obtain a new license file to actually enable those features during runtime. Email a new license request file to [license@specterinstrument.com](mailto:license@specterinstrument.com) or call at 512-326-1011 or toll free in the US and Canada at 1-800-331-8740 to obtain a new license file.

## Adding Feature Upgrades

Once your system has been licensed it can be upgraded to support more features (perhaps by adding Telephony, Mobile-911 v2, FactoryTalk Alarm & Event, Premium Voice, 2-way SMS Messaging, or even WEB-911 XTools) with a newer license. Start Scan & Alarm with the Shift or Ctrl key depressed. This will cause the CopyShield Administrator to appear. Contact Specter Instruments Sales Department at 512-326-1011 x2 or toll free in the US and Canada at 1-800-331-8740 x2, with the original CD Tracking Number (and Purchase Order number or Credit Card) to retrieve a subsequent license to enable more features for your WIN-911 system. The CD Tracking Number is viewable in the WIN-911 Configurator | Help | About.

Note: A version upgrade to 7.14.00 PRO from a 7.09 or older PRO or TEP version will include new features such as Premium Voice and WEB-911 XTools. Both the PRO and BASIC license support unlimited ME Direct Connect but you will need to obtain a new license file to actually enable this and the previously mentioned features during runtime. Email a new license request file to [license@specterinstruments.com](mailto:license@specterinstruments.com) or call at 512-326-1011 or toll free in the US and Canada at 1-800-331-8740 to obtain a new license file.

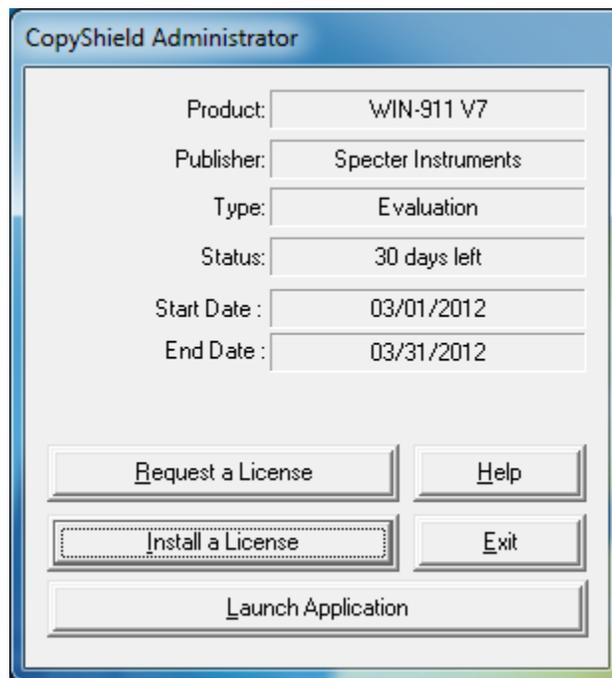
# WIN-911 Licensing and CopyShield Administration

## Request a License

In order to receive your permanent license, WIN-911 must be registered with Specter Instruments. Unlicensed installations will run under a 30 day demo period.

## Requesting a License

The first time Scan & Alarm is started and until it is licensed the CopyShield Administrator dialog appears. Click Request a License and complete the following form that will provide Specter Instruments with the data necessary to generate a license file for your computer.



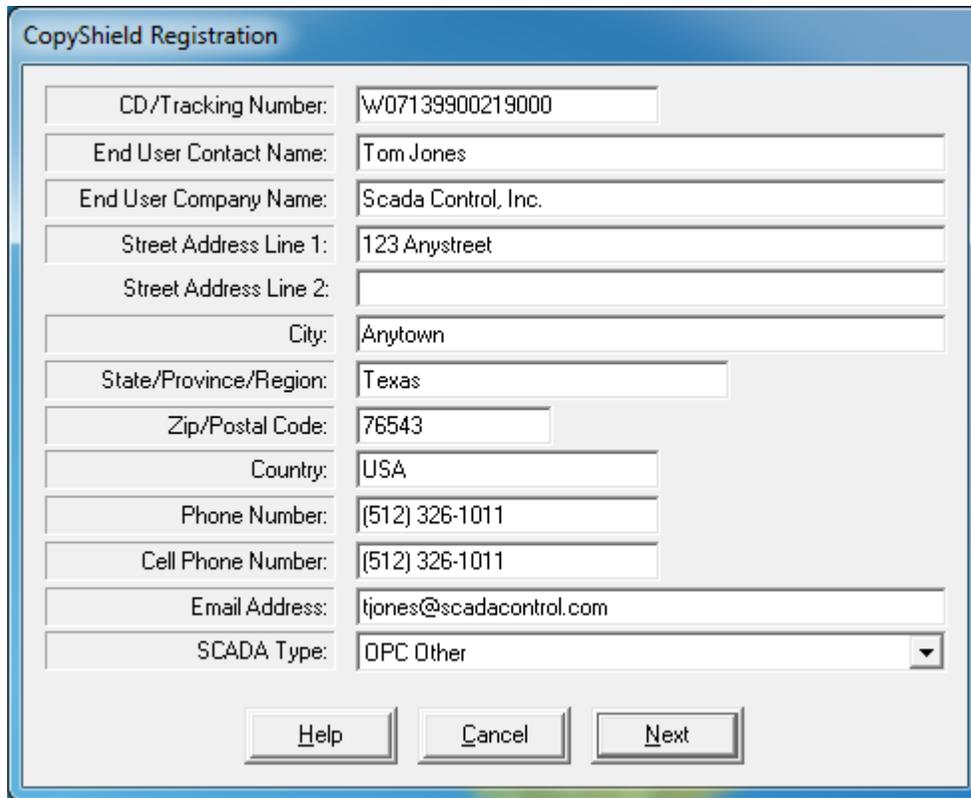
The screenshot shows the CopyShield Administrator dialog box. The title bar reads "CopyShield Administrator". The dialog contains the following information:

Product:	WIN-911 V7
Publisher:	Specter Instruments
Type:	Evaluation
Status:	30 days left
Start Date :	03/01/2012
End Date :	03/31/2012

Below the information are several buttons:

- Request a License
- Help
- Install a License (highlighted with a dashed border)
- Exit
- Launch Application

Click Request a License.

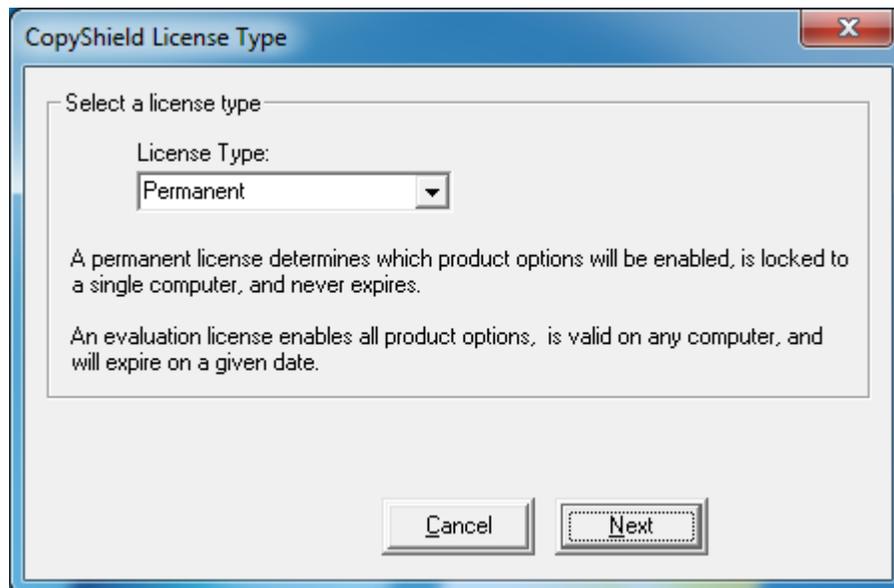


The image shows a 'CopyShield Registration' dialog box with the following fields filled out:

CD/Tracking Number:	W07139900219000
End User Contact Name:	Tom Jones
End User Company Name:	Scada Control, Inc.
Street Address Line 1:	123 Anystreet
Street Address Line 2:	
City:	Anytown
State/Province/Region:	Texas
Zip/Postal Code:	76543
Country:	USA
Phone Number:	(512) 326-1011
Cell Phone Number:	(512) 326-1011
Email Address:	tjones@scadacontrol.com
SCADA Type:	OPC Other

Buttons: Help, Cancel, Next

Fill out the appropriate fields including the CD Tracking Number located on the install CD. Click Next.



The image shows a 'CopyShield License Type' dialog box with the following content:

Select a license type

License Type:  
Permanent

A permanent license determines which product options will be enabled, is locked to a single computer, and never expires.

An evaluation license enables all product options, is valid on any computer, and will expire on a given date.

Buttons: Cancel, Next

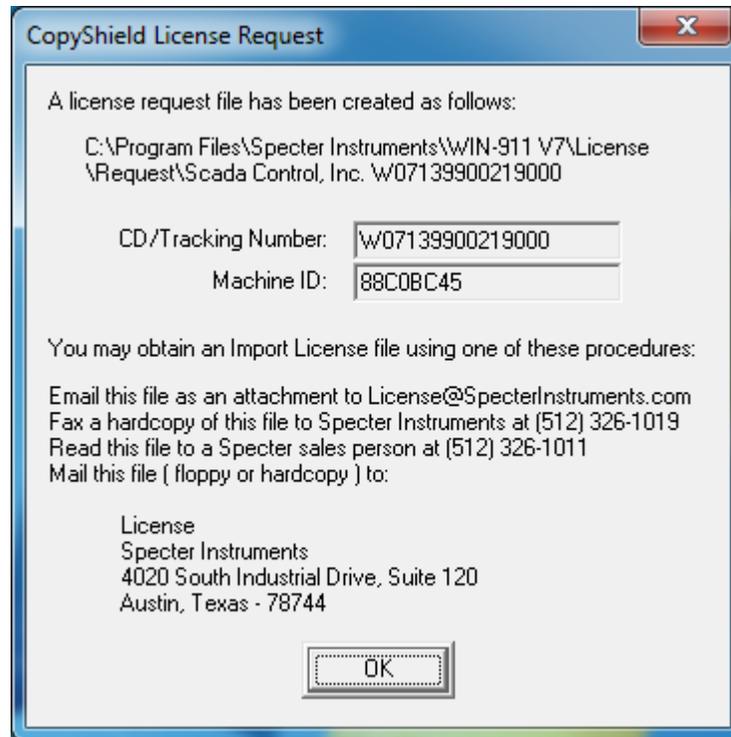
From the pull-down menu select the type of license you wish to request. A Permanent license will remove restriction on running Scan & Alarm on this machine. Evaluation will extend the demo to some point beyond the normal 30-day limit. Click Next.



Enter the CD tracking number found on the CD in this text entry box. If you don't have an install CD, contact Specter Instruments for a CD tracking number. Note that a CD Tracking Number is not required for an Evaluation extension, only a Permanent license. Click Next.



From the pull-down menu, select the Machine ID for your license. Specter recommends selecting the Hard Disk Drive since Windows creates virtual Network Adapters whose ID's can change on a reboot. Click Next.

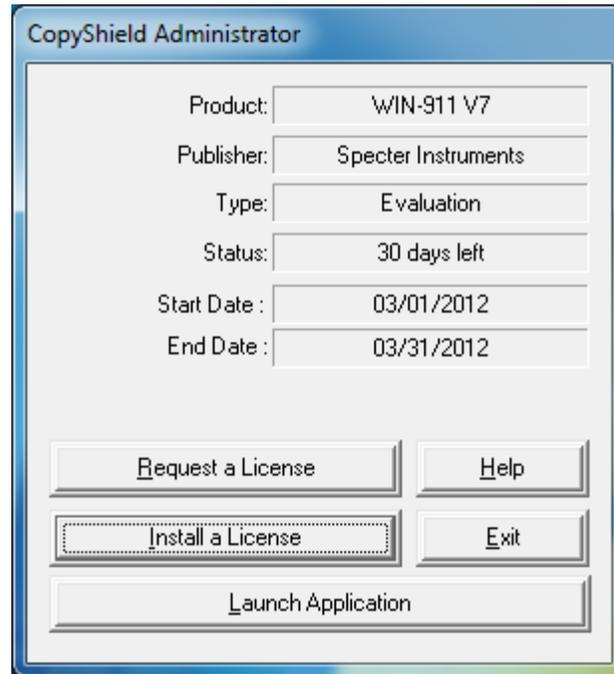


The license file location is printed at the top of the window. Be sure to make note of it. Click OK and email the \*.CSR file to [license@specterinstruments.com](mailto:license@specterinstruments.com).

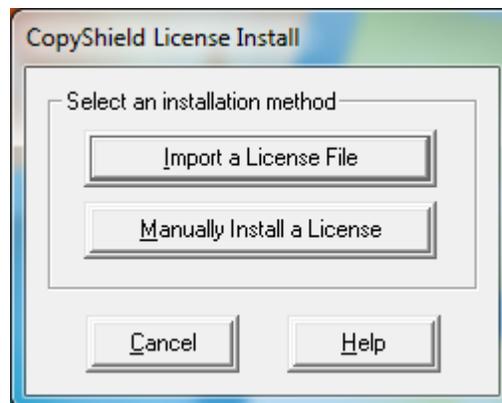
## Import a License

After receiving your license file via e-mail from Specter Instruments, copy the \*.CSL file into the C:\Program Files\Specter Instruments\WIN-911 V7\License folder.

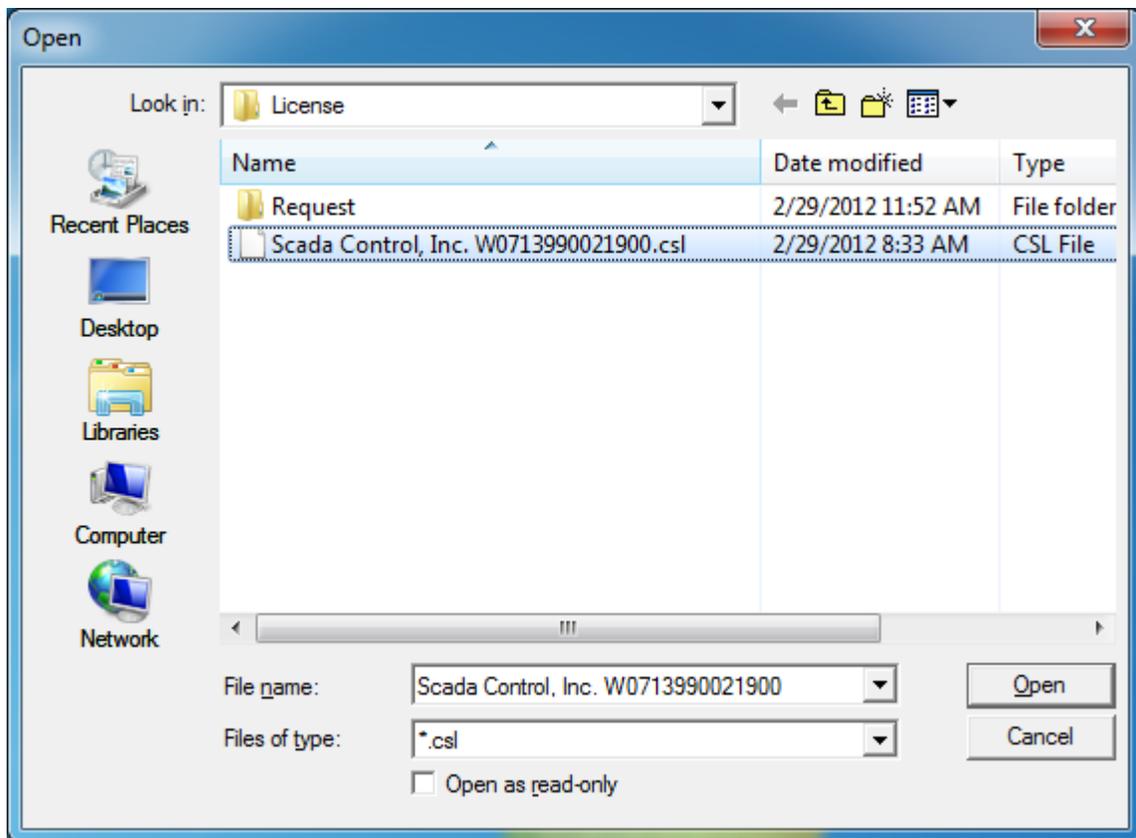
Start WIN-911 Scan & Alarm so that the CopyShield Administrator splash screen appears.



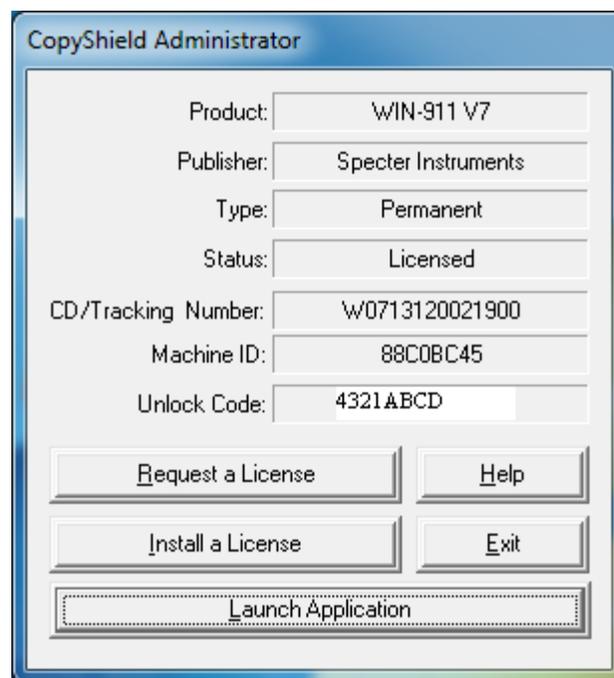
From the CopyShield Administrator click Install a License.



Click Import a License File.



Select the license file and click Open.



Confirm that the license was properly installed, as indicated by the status field.



# CopyShield Overview

## CopyShield Overview

The copyright on this software product is enforced by CopyShield, a node-locked software licensing scheme. There are two types of licenses: Evaluation licenses and Permanent licenses.

### Evaluation Licenses

An evaluation license is valid on any machine for a specific range of dates. Before the start date and after the end date, the license is expired. At the discretion of the software publisher, an evaluation license can be automatically installed the first time the application is launched. The set of product options enabled by an evaluation license is also at the discretion of the software publisher. When an application is launched with an evaluation license, the [CopyShield Administrator dialog](#) will be displayed as a reminder that you have an evaluation license and to allow you to [Request a License](#) or [Install a License](#). In addition, once a day at midnight a CopyShield License Expiration dialog will be displayed as a reminder of the number of days left before the evaluation license expires. If you allow the evaluation license to expire, the application will be shut down and you will not be able to launch it again until you have installed a new license.

### Permanent Licenses

A permanent license is valid for a given set of product options on a specific machine. If you install this product on another machine or require a different set of product options, then you must obtain a new license. There is one exception to this rule: if an Ethernet adapter is used to identify your machine, then this product, along with the license and Ethernet adapter, can be installed on another machine. A permanent license never expires.

# CopyShield Administrator

## CopyShield Administrator

The CopyShield Administrator dialog displays and facilitates administration of your software license. In addition to viewing your current license, you may [Request a License](#), [Install a License](#), and launch the application.

Note: Once a permanent license has been installed, the Administrator dialog will not be displayed automatically. Display of the Administrator dialog can be forced by holding the Ctrl key down while launching the application. This procedure is required for making modifications to an existing license, such as adding additional product options.

### Fields and Controls

- **Product**

The name of the licensed product. A product specifies the software application and may include information which limits the versions of the application that are licensed.

- **Publisher**

The name of the company that publishes the software application.

- **Type**

The type of license, either 'Evaluation' or 'Permanent'.

- **Status**

The current status of your license. A permanent license will show a status of 'Permanent'. An active evaluation license will show a status of 'nn days left', indicating the number of days until the license expires. An expired evaluation license will show a status of 'Expired'. A corrupt or missing license will show a status of 'Invalid'.

- **Start Date / End Date**

For evaluation licenses, the range of dates for which the license is valid. Before the start date and after the end date, an evaluation license is expired.

- **Unlock Code**

This code is generated by the software publisher and is used to determine the validity of the license.

- **Request a License**

Used to [Request a License](#).

- **Install a License**

Used to [Install a License](#).

- **Help**

Displays this help screen.

- **Exit**

Exits the license dialog without launching the application.

- **Launch Application**

Exits the license dialog and (if the license is valid) launches the application.

## Request a License

### Request a License

You must request a license in order to:

- Extend an evaluation license
- Obtain a permanent license
- Move your application to a different machine (except when using an Ethernet adapter as the machine identifier)
- Upgrade to enable additional product options

#### Step by Step Instructions

- From the [CopyShield Administrator dialog](#), click the Request a License button.
- The [CopyShield Registration dialog](#) will be displayed. It is important that the registration information be as complete and accurate as possible to avoid delay in issuing your new license. When you have entered and/or reviewed the registration information, click the OK button.
- A series of dialogs will be presented starting with the [CopyShield License Type dialog](#). These dialogs are presented in a wizard style that provides on screen instructions. The exact sequence of dialogs is dependent on the type of license selected. Use the Next and Previous buttons to navigate through the dialogs. Click the Finish button to complete the license information.
- The [CopyShield License Request dialog](#) will be presented giving instructions for submitting a license request.

## CopyShield Registration

The registration dialog displays and facilitates administration of your software registration. This information will be included when you [Request a License](#). The process of obtaining a license will go more smoothly if this information is accurate and complete.

### Fields and Controls

- **CD Tracking Number**

Enter this number from your original software installation CD. If you have an evaluation CD, either obtain a tracking number from the software publisher or leave this field blank. For permanent licenses, this field determines which application options are enabled.

- **End User Contact Name**

The name of a person working for the company which owns the software. This is the person who will be contacted with any license or application issues that may arise.

- **End User Company Name**

The name of the company which owns the software.

- **Street Address Line 1**  
**Street Address Line 2**  
**City**  
**State/Province/Region**  
**Zip/Postal Code**  
**Country**

The mailing address of the contact at the company which owns the software.

- **Phone Number**

The phone number of the contact at the company which owns the software.

- **Cell Number**

The cell number of the contact at the company which owns the software.

- **Email Address**

The email address of the contact at the company which owns the software.

- **Preferred SCADA**

Please select the SCADA system that WIN-911 will be receiving alarms from.

## **CopyShield License Request**

The License Request dialog provides instructions for submitting a license request. These instructions are specified by the software publisher. Click the OK button to dismiss the dialog.

### **Fields and Controls**

- **OK**

Dismiss the dialog.

## Install a License

### Install a License

Install a new software license. A license can be imported from a CopyShield License (.CSL) file or installed manually. If you have a CSL file, you should import it. If you do not have a CSL file, you must install manually. Note that attempting to install an invalid license will cause the [CopyShield Invalid License dialog](#) to be presented and the current license will remain in effect.

#### Installing from a CSL file

- Put your CSL file in an accessible location. By default, the browser will search for CSL files in the License folder of the application directory. This file must be obtained from the software publisher.
- From the [CopyShield Administrator dialog](#), click the Install a License button.
- The [CopyShield License Install dialog](#) will be presented. Click the Import a License File button.
- A file Open dialog will be presented. Browse to and select the new license file. When you have finished your selection, click the Open button.

#### Installing Manually

- Have your license information handy. This information must be obtained from the software publisher.
- From the [CopyShield Administrator dialog](#), click the Install a License button.
- The [CopyShield License Install dialog](#) will be presented. Click the Manually Install a License button.
- A series of dialogs will be presented starting with the [CopyShield License Type dialog](#). These dialogs will guide you through the installation process. The exact sequence of dialogs is dependent on the type of license selected. Use the Next and Previous buttons to navigate through the dialogs. Enter the license information provided by the software publisher. Click the Finish button to complete the license specification.
- The [CopyShield License Unlock Code dialog](#) will be presented. Enter the unlock code provided by the software publisher and then click the OK button.

## **CopyShield License Install**

The License Install dialog facilitates importing a CSL license file or manually installing a license. If you have a CSL file, click the Import a License File button, otherwise click the Manually Install a License button.

### **Fields and Controls**

- **Import a License File**  
Launches a file browser for selection of the CSL license file to import.
- **Manually Install a License**  
Launches a series of dialogs which guide you through the installation process.

## CopyShield Invalid License

Displayed when attempting to install an invalid license. The current license will remain in effect.

### Fields and Controls

- **OK**

Dismiss the dialog.

## CopyShield License Unlock Code

Enter a license unlock code when installing a license. This code can only be provided by the software publisher and is used to validate your software license.

### Fields and Controls

- **Unlock Code**

Enter the 8 digit hexadecimal unlock code provided by the software publisher.

- **OK**

Install the new license.

- **Cancel**

Abort the license install and return to the [CopyShield Administrator dialog](#).

## CopyShield License Type

Select a license type when requesting or installing a license.

### Fields and Controls

- **License Type**

The default selection is Permanent.

Select Permanent if you own or intend to own the software and are installing the license on the machine where it will be permanently located. A permanent license is valid for a given set of product options and never expires.

Select Evaluation if you wish to obtain or extend an evaluation license. An evaluation license is valid for a specific range of dates. Before the start date and after the end date, the license is expired. The set of application options enabled by an evaluation license is also at the discretion of the software publisher.

- **Cancel**

Abort the license request/install and return to the [CopyShield Administrator dialog](#).

- **Next**

Advance to the next dialog in the request/install sequence.

Permanent licenses continue with the [CopyShield License Options dialog](#).

Evaluation licenses continue with the [CopyShield License Start End Dates dialog](#).

## CopyShield License Start End Dates

Select starting and ending dates when requesting or installing an evaluation license. An evaluation license is valid for a specific range of dates.

### Fields and Controls

- **Start Date**

The default selection is the current date.

This is the first day that the evaluation license will be valid. Before this date the evaluation license will be expired.

- **End Date**

The default selection is 30 days from the current date.

This is the last day that the evaluation license will be valid. After this date the evaluation license will be expired.

- **Previous**

Return to the [CopyShield License Type dialog](#).

- **Cancel**

Abort the license request/install and return to the [CopyShield Administrator dialog](#).

- **Finish**

When requesting a license, advance to the [CopyShield License Request dialog](#).

When installing a license, advance to the [CopyShield License Unlock Code dialog](#).

## CopyShield License Options

Enter product options when requesting or installing a permanent license. A permanent license is valid for a specific set of product options. The software publisher defines the set of valid option strings. The options are represented by the last 2 or 3 digits or characters of the CD Tracking #.

### Fields and Controls

- **CD Tracking Number**

The default selection is the CD Tracking Number entered in the [CopyShield Registration dialog](#).

The CD Tracking Number can be found on your original software installation CD and determines the product options that will be enabled.

If you have a demo CD or you are requesting additional product options, you must obtain a CD Tracking Number from the software publisher.

- **Previous**

Return to the [CopyShield License Type dialog](#).

- **Cancel**

Abort the license request/install and return to the [CopyShield Administrator dialog](#).

- **Next**

Advance to the [CopyShield License Machine ID dialog](#).

## CopyShield License Machine ID

Select machine ID when requesting or installing a permanent license. The machine identifier is either the MAC address of an installed Ethernet adapter or the serial number of your hard disk drive. A permanent license is locked to a single machine based on this value.

### Fields and Controls

- **Machine ID**

The default selection is the first Ethernet controller's MAC address, or the volume ID of the hard disk drive if no Ethernet controllers are found.

It is highly recommended that you install and select the Hard Disk Drive prior to requesting a permanent license. Note: Selecting the Hard Disk Drive will require a new unlock code if you should have to reformat or replace your disk drive.

By selecting an Ethernet adapter, your license will be independent of the disk drive from which the application is launched. This option is not recommended.

- **Previous**

- Return to the [CopyShield License Options dialog](#).

- **Cancel**

Abort the license request/install and return to the [CopyShield Administrator dialog](#).

- **Finish**

When requesting a license, advance to the [CopyShield License Request dialog](#).

When installing a license, advance to the [CopyShield License Unlock Code dialog](#).

## CopyShield License Expiration

The license expiration dialog provides a daily reminder that the application is running under an evaluation license and will soon expire.

Fields and Controls

Continue

Dismiss the dialog.



# WIN-911 Overview

## System Architecture

### What is the Direct Connect?

The Direct Connect option provides a means of bypassing Windows DDE/OPC and connecting directly to FIX®, Wonderware®, FactoryTalk View®, and RSView32®. Unlike the DDE/OPC option (which is a generic data exchange medium), the Direct Connect is a custom data source developed with the use of toolkits provided by the perspective HMI developers. FIX/Wonderware InTouch/Wonderware Archestra//RSView32/RSView SE//FactoryTalk View Alarm & Event/FactoryTalk ME/viewLinc users will find this option time saving during configuration because WIN-911 does not require the re-entry of redundant information. Instead, WIN-911 references much of the information required for a configuration directly from the HMI. More importantly, the user will find this mode of operation delivers superior performance in the following areas: 1) Speed of connection and data point updates; 2) Data security and integrity; 3) Setpoints and alarm limits can be changed dynamically at the source.

A configuration can be run in the Direct Connect mode exclusively or simultaneously with DDE/OPC connections. It is important to note, however, that some of the terms (Application, Topic, and Item name) are components of Microsoft's DDE or OPC Foundation's OPC address nomenclature. In a Direct Connect Data Source, Application and Topic Names are replaced with an invocation string that sets the mode of operation. When a Direct Connect mode is selected, the appropriate strings are automatically appended.

## System Components

### Applications

WIN-911 is comprised of three applications used to configure, view history, and run Scan & Alarm.

### WIN-911 Configurator



The WIN-911 Configurator is a comprehensive, yet easy to use tool which will allow the user to develop his WIN-91 application with confidence and efficiency. The result of the configuration process is a configuration Microsoft database (\*.MDB) and initialization file: WIN-911.ini.

### Scan & Alarm



The Scan & Alarm (TeleDAC.exe) module is the engine that connects the WIN-911 functions with the outside world. It is the OPC/DDE/Direct Connect Client connection that performs logical functions such as: comparing current values with alarm limits or conditions, keeping track of acknowledgments, and updating the alarm history log files. It will read the \*.MDB and WIN-911.ini file and automatically start or stop the associated modules which are required for the application. In summary, Scan & Alarm:

1. Selects the modules required for the run-time application
2. Automatically starts each module selected in the proper sequence
3. Attaches to all OPC, DDE, and Direct Connect Servers
4. Bypasses and restores data points from the active callout list
5. Overrides and restores names from the contact lists
6. Shows and hides the Status Display for startup summary information
7. Monitors data points for alarm conditions
8. Automatically shuts down each module

The Scan & Alarm system can be started by the Run program, double clicking on the TeleDAC.exe, Restart.exe, or using the Windows Startup program or a third party's startup program. To shutdown Scan & Alarm, right-click on the thumbnail icon and left-click Exit WIN-911 or run the Shutdown.exe applet. A confirmation-of-intent will appear requiring the operator to select Exit before the program will shutdown.

### Alarm Log Manager



The Alarm Log Manager can display archived alarming data, sort the data by any column and append comments to individual events. To use this application, WIN-911 must be configured with the Monthly MDB log file format.

## **Service**

### **WIN-911 as a Service**

WIN-911 can run as a service under the local system account when launched by the service wrapper. The service wrapper, or 911SRV, will launch WIN-911 automatically when configured to do so in the Global Options\Initialization tab of the WIN-911 Configurator.

A few limitations include the following:

1. DDE data sources are not supported.
2. Network OPC is not supported (only local).
3. RSView SE Direct Connect data sources are not supported.
4. RSView32 Direct Connect data sources are not supported.
5. WIN-911 must be shutdown by the service control manager, shutdown.exe or restart.exe
6. Bypass and override must be accessed through bypass.exe and override.exe
7. The Alarm Monitor Window and TeleDAC screen will not be displayed on Windows Vista and above.
8. Desktop interaction must be enabled on 911SRV for the Alarm Monitor Window and TeleDAC to be displayed.

## Modules

WIN-911 is composed of a combination of the following modules which run independently while working seamlessly together:

### WIN911 Alarm Monitor



The WIN911 Alarm Monitor is optional and is only used when the user wishes to see a visual display of either the entire history of alarms and errors, or just a summary of current alarms. It is also required if the user needs the capability to acknowledge alarms by an operator at the computer and send manual e-mail, SMS (via e-mail) and pages.

### WIN911 Dialout Pager & WIN911 Local Dialout Pager



Two modules, WIN911 Dialout Pager and WIN911 Local Pager, are optional and started when the user configures pager connections. They communicate with the Scan & Alarm module and manage all paging activity. This includes managing pager connections and their schedules.

WIN911 Dialout Pager processes alphanumeric and/or numeric paging that requires a commercial paging service.

WIN911 Local Pager processes alphanumeric and/or numeric paging that connects directly to a paging transmitter via a serial COM port and does not require a paging service interface.

### WIN911 Voice & WIN911 TAPI



Two modules, WIN911 Voice and WIN911 TAPI are optional and are only used when voice connections (Voice, Voice Pager, and Dialout Announcer or 411 Reports) are configured. Both communicate with the Scan & Alarm module and manage all voice dial-out, dial-in, and call progress duties such as assembling the voice messages and recognizing touch-tone security codes.

### WIN911 Announcer



The WIN911 Announcer is optional and is only used when the user has selected the local sound option. A computer sound card is required for this option and should not be confused with the telephony card that is required for the voice functions.

## WIN911 Alarm Printer



The WIN911 Alarm Printer is optional and is only required when the user has selected the alarm printer option. A local LPT port and dedicated printer are required.

## WIN911 IP



The WIN911 IP is optional and is only required when the user has selected the IP option. Either a RAS connection or IP Address must be defined.

## WIN911 SMS



The WIN911 SMS is optional and only required when SMS connections have been assigned to phonebook entries that have group assignments. It communicates with the Scan & Alarm module and manages communications to cell devices via GSM modem.

## WIN911 Alarm Logger



The WIN911 Alarm Logger is optional and only required when the user wishes to archive an alarm group's events on a daily/monthly log of any alarm activity, error messages, phone and pager activity, and diagnostic logging.

## WIN911 E Mail



The WIN911 E Mail is optional and is only required when e-mail connections have been assigned to phonebook entries that have group assignments. It communicates with the Scan & Alarm module and manages communications to the SMTP/POP3 server.

## Mobile-911



Mobile-911 is optional and is only required when Mobile-911 connections have been assigned to phonebook entries. It communicates with the Mobile-911 Server to send

messages to applications running on smart devices such as cell phones or tablets. The Mobile-911 Server also sends and receives messages to and from Mobile View.

## Applets

WIN-911 Version 7 includes six small application programs (applets) that interact with the main Scan & Alarm executable to modify the program on the fly or shut it down altogether. These can be used with scripting to better control WIN-911 from a SCADA application.

### Standby



The Standby applet (yellow icon) acts in a global manner to disable all WIN-911 monitored data points from active callout consideration. This modifies the program operation without having to shutdown Scan & Alarm to modify the configuration. Hence, no loss of alarm coverage.

Warning: This applet can be configured not to require a user Ack code for execution. If you do not wish to use this function please delete it to avoid unauthorized manipulation of the alarm system.

Warning: If 911SRV.exe Service wrapper is controlling TeleDAC.exe, "Interact with Desktop" must be enabled for the Standby applet to function.

### Activate



The Activate applet (green icon) restores WIN-911 from Standby mode. Notifications for unacknowledged alarms will be triggered when WIN-911 goes into active mode.

Warning: This applet can be configured not to require a user Ack code for execution. If you do not wish to use this function please delete it to avoid unauthorized manipulation of the alarm system.

Warning: If 911SRV.exe Service wrapper is controlling TeleDAC.exe, "Interact with Desktop" must be enabled for the Activate applet to function.

### Bypass



The Bypass applet (green and yellow icon) suppresses selected alarms from being notified. This modifies the program operation without having to shutdown Scan & Alarm to modify the configuration. Hence, no loss of alarm coverage.

Warning: This applet can be configured not to require a user Ack code for execution. If you do not wish to use this function please delete it to avoid unauthorized manipulation of the alarm system.

Warning: If 911SRV.exe Service wrapper is controlling TeleDAC.exe, "Interact with Desktop" must be enabled for the Bypass applet to function.

## Override



The Override applet (blue and yellow icon) suppresses selected individuals in a group phone list from being called in the event of an alarm. This modifies the program operation without having to shutdown Scan & Alarm to modify the configuration. Hence, no loss of alarm coverage.

Warning: This applet can be configured not to require a user Ack code for execution. If you do not wish to use this function please delete it to avoid unauthorized manipulation of the alarm system.

Warning: If 911SRV.exe Service wrapper is controlling TeleDAC.exe, "Interact with Desktop" must be enabled for the Override applet to function.

## Shutdown



The Shutdown applet (red icon) allows other applications to shutdown Scan & Alarm so that start/stop operations can be completely automated. By default, Scan & Alarm requires confirmation before it will perform a shutdown, but this applet shuts down Scan & Alarm in a single step.

Warning: This applet can be configured not to require a user Ack code for execution. If you do not wish to use this function please delete it to avoid unauthorized manipulation of the alarm system.

Warning: If 911SRV.exe Service wrapper is controlling TeleDAC.exe, "Interact with Desktop" must be enabled for the Shutdown applet to function.

## Restart



The Restart applet (red and green icon) allows the user to silently shutdown and restart WIN-911 Scan & Alarm through the execution of a single applet. The shutdown and restart (or start if Scan & Alarm is not running during execution) is "silent," meaning that it occurs with minimal GUI activity. The only events that will be visible will occur as a result of errors during the restart phase. Otherwise, the shutdown and restart cycle will be invisible to the user.

Restart also has the ability to start Scan & Alarm with a particular configuration file. This can be done by running a command line for Restart.exe. For example, /OPC Demo.mdb.

Note: The Restart applet will function even when Scan & Alarm is controlled by the 911SRV Service Wrapper.

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Warning: This applet can be configured not to require a user Ack code for execution. If you do not wish to use this function please delete it to avoid unauthorized manipulation of the alarm system.

## Tools

WIN-911 Version 7 includes four applications that make managing the WIN-911 system easy and intuitive

### Product Component Versions



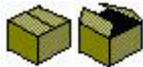
The Product Components Version is a valuable trouble-shooting device for determining the version of every Specter software component and support software on the system. This program is particularly useful when updating a system from a previous version. If different versions of the components are co-mingled WIN-911 may not run properly.

### DDE Client



The DDE Client is a tool for trouble shooting DDE servers. It can connect to a server, read and write a DDE value. This tool can verify syntax, display current values, and determine value format.

### WIN-911 User File Backup/Restore



Backing up or restoring your WIN-911 system has never been easier with the WIN-911 User File Backup/Restore tool. With a click of the mouse all of the files needed to preserve your configuration for backing up and/or reinstalling your WIN-911 software are stored in the default location. The same program can both backup and restore user-generated files with the two icons provided.

#### **XP & Server 2003**

**C:\Documents and Settings\User Name\Local Settings\Temp\911**

#### **Windows 7 & Server 2008**

**C:\Users\User name\AppData\Local\Temp\911**

The same program can both backup and restore user-generated files with the two icons provided.

### 911Health



The functionality of several WIN911 components is made verifiable through the use of the 911Health program. The modules TeleDAC (Scan & Alarm), Mobile-911, WIN911 SMS, and WIN911 IP each write a status message to the registry. 911Health reads the registry message and serves it to an OPC Server that the user configures. These status messages can be used to alert users and other programs of problems WIN-911 may be experiencing. Such problems include the operation and successful processing of configured tasks for TeleDAC, Mobile-911, WIN911 SMS, and WIN911 IP.

# Remote Alarm Notification

## The Sound Clips

Note: WIN-911 provides two options for voice sources, Wave files pre-generated with Text-to-Speech and/or human voice recording, or 2) Runtime Voice Synthesis. Those using the Runtime Voice Synthesis do not need to manage sound files because there are none. With this option all speech is generated during runtime as it is needed.

WIN-911 uses Microsoft's multimedia feature to offer sound to enhance your alarm reporting needs. If you are not familiar with this capability, a review of the Windows documentation is advisable. In Windows the Sound Recorder icon is generally found under the "Accessories" folder. The "Help" information found here is usually all that is needed for review. Text-to-Speech may also be used with the WIN-911 Configurator to generate the "\*.wav" files. Third party sound software tools are available which will allow even more editing features.

In using voice to alert users of an alarm condition, WIN-911 has strived to conserve as much disk space as possible, considering the large memory appetite of sound clips (\*.wav files.) The typical example of a verbal alarm message might be: "AREA 3," "The Oven Temperature," "Is," "Above the High Limit." Each message within quotations is a separately recorded sound clip.

The "Is" and "Was" sounds are used in most common alarm messages, although they can be turned off. Continuing the above example: If the temperature decreased into the normal range and the alarm was unacknowledged, the verbal message would be: "AREA 3," "The Oven Temperature," "Was," "Above the High Limit." Upon the operator acknowledging the alarm via a telephone, the message would be: "AREA 3," "The Oven Temperature," "Is," "Normal." If the alarm is acknowledged via the personal computer keyboard, then the acknowledgment is silent. Using "Is" and "Was" as global sound clips greatly reduces the need for additional custom messages.

The sound clips (\*.wav files) furnished with this package are a sampling of miscellaneous industrial sounds such as Bells, Sirens, Alert Horns, and Whistles. These sounds are recorded in an 8-bit format. These .wav files are located on the install CD in **\Support\Sound Effects** and must be manually copied into the **C:\Program Files\Specter Instruments\WIN-911 V7\Sound Files** for use. It may be helpful at this time to play back a sampling of these clips, to verify your sound card is operational and the WIN-911/411 sound files are installed properly.

Note: Users of the Dialogic card and TAPI voice telephony can only play uniformly formatted "\*.WAV" files that conform to the following parameters: PCM, 11 kHz or 8 kHz sample rate (one or the other but NOT both), 8 bit, and Mono. Check each of the existing files with Sound Check and convert them as needed.

Note: Runtime Voice Synthesis does not play pre-recorded sound files that require format management.

One of the strong benefits of the WIN-911/411 offering is the ability for you to customize the alarm sounds to fit your exact application. Use of a microphone and the sound card recording options are all that is necessary.

Helpful Hints:

1. Don't try to record sound clips for your application until you are familiar with the WIN-911/411 requirements. Use the demo clips furnished to learn.
2. Typically, you will have a "pause" or "dead space" at the beginning and at the end of each sound clip. WIN-911/411 patches several clips together to form a message, and the dead spaces will not allow a smooth speech pattern. To cure this, use the sound recorder's edit features to cut out the dead space found at both ends of the sound clip.
3. Using higher sample rates will use more disk space and use more system resources, but it will offer better quality. The recommended setting is to use "Telephone Quality" in Windows XP, Server 2003, and 2000.
4. Just as with the sound card, a higher quality microphone produces better sound clips.

## Sound Source

WIN-911 Version 7 infuses Text-to-Speech (TTS) technology for generating sound files quickly and concisely. The TTS engine reads ASCII text strings and generates voice messages to verbalize the contents of the string. Scan & Alarm gives the option to use one of three sound sources to best fit his/her needs: Wave Files Only, Text To Speech Wave Files, and Runtime Voice Synthesis.

### Wave Files Only

When this option is selected, WIN-911's original and default mode of playing voice announcements and telephony, Scan & Alarm uses only pre-recorded wave files. Wave Files Only allows the user to use wave files created outside of WIN-911.

### Text To Speech Wave Files

When this option is selected, TTS technology is invoked. It will be used by the configurator to generate sound files for use by Scan & Alarm. This option provides the developer with two ways to generate wave files. One way is automated and can be done with the "Sound Build" button or is part of the Configurator shutdown. The other is manually, using the "Convert Text to Wave" dialog.

### Runtime Voice Synthesis

When this option is selected TTS technology is invoked at runtime. It can be used directly by Scan & Alarm to generate the speech as it is needed without the requirement of sound files.

## **Hardware**

### **Pager Modem Selection**

A data modem is necessary to use the pager option of WIN-911. Due to the current state of typical pager services, most modem connections are still at 1200 or 2400 baud. Any Hayes compatible modem capable of operating at the baud rate of your pager service will be sufficient. If a higher speed modem is used, an appropriate setup may be needed to facilitate communications at lower baud rates.

Note: As a general rule, the more complex the modem, the more difficult the modem setup may become!

Note: The data modem used for paging is separate hardware from either the TAPI modem or Dialogic card that will perform your voice calls. Paging and voice functions are independent of each other and require separate phone lines and hardware.

## Voice Dialout Card Selection

A special Microsoft compatible card capable of playing voice messages over the telephone line is needed for the voice dial-out and dial-in options to function. There are two hardware options for conducting telephony calls: 1) any TAPI compliant modem capable of passing the TAPI Compatibility Tester (Windows XP, Server 2003, and 2000) or, 2) a Dialogic Telephonic card (Windows XP, Server 2003, and 2000). Refer to [www.specterinstruments.com](http://www.specterinstruments.com) -> Support -> Knowledgebase -> Dialogic Card Installation - 060001, for details about the Dialogic voice board.

## Voice Telephony Option One: TAPI

This option requires a TAPI voice modem and driver. To ensure the modem in the target system is TAPI compliant, please run the TAPI Compatibility Tester located in the WIN-911 Tools startup. For a list of recommended modems see, [www.specterinstruments.com](http://www.specterinstruments.com) -> Support -> Knowledgebase -> Recommended Voice Modem List - 060014.

Note: Some TAPI modems may require a sound device.

## Voice Telephony Option Two: Dialogic

This option requires a Dialogic card and Dialogic software. For information on the Dialogic cards, see [www.specterinstruments.com](http://www.specterinstruments.com) -> Support -> Knowledgebase -> Dialogic Card Information Sheet - 080002.

## **Sound Card Selection**

WIN-911 is designed to support standard, commercially available sound cards, which are made to support Microsoft Windows XP, Server 2003, and 2000 multimedia functionality. All Sound Blaster® compatible sound cards are provided with Windows drivers. Higher quality cards will produce better quality sounds and tend to give you better performance in harsh industrial environments.

Note: If you are using the Telephone Dial-Out option, you must adhere to specific sound file formats. See, 'Playing with Sound' for details.

WIN-911 uses a sound card/chipset to perform "Local Audio" annunciation as well as previewing speech during development. If local sounds are not required, the sound card is not needed in the runtime mode.

## Notification Methods

### Voice

#### Voice

This option requires a voice card. Alarms will be dialed out to a telephone number. When the line is answered, WIN-911 will ask for the contact's Access Code. Once a valid Access Code has been entered, WIN-911 will announce the current alarms with the option to repeat if necessary. When the contact continues, WIN-911 will then ask for an Acknowledgement Code. Finally, when the correct Acknowledgment Code is received, the current alarms will be acknowledged and the line will be placed on hook.

#### Voice Pager

This option requires a voice card. Alarms will be dialed out to a telephone number. When the line is answered, WIN-911 will announce the current alarms and hang up.

#### Dialout Announcer

This option requires a voice card. Alarms will be dialed out to a telephone number or intercom extension, then the alarms will be announced and the line placed back on hook. This connection type differs from the Voice Pager in that it does not require a dial tone or answer indication before alarms will be announced. It is designed for use with internal phone systems' public address extensions that do not provide a standard answer indication like a ring cadence break or voice menu.

## **Pager**

### **Dial-out Alphanumeric**

The pager option is designed to work with all alphanumeric pager units such as the units manufactured by NEC and Motorola. These units are typically capable of displaying 2 to 4 lines of 20 characters each. WIN-911's maximum message size is 199 characters.

A pager service is required that supports the TAP protocol, or private pager hardware that will allow messages to be sent via a personal computer. Examples of such service providers are Metrocall Corporation, Arch Wireless, or Motorola's People Finder. WIN-911 supports alphanumeric pager services through Motorola's TAP protocol (Telocator Alphanumeric Protocol). The standard TAP protocol, as implemented in the United States specifies communication parameters of seven bit ASCII with even parity. If the pager service or paging equipment does not support the TAP protocol, the WIN-911 alphanumeric paging option may require special setup.

### **Dial-out Numeric**

Any standard numeric pager, which requires a phone number to be called, and then a numeric message keyed on any touch-tone telephone, will work.

### **Local Alpha and Numeric**

WIN-911 supports local alphanumeric and numeric pagers via serial port connection to a transmitter. Pages are processed using the TAP or COMP2 protocols.

WIN-911 supports alphanumeric pager hardware through Motorola's TAP (Telocator Alphanumeric Protocol) and COMP2 protocol. Only one protocol can be selected for use. If the default TAP protocol is selected, the communication parameters are specified by default to be 7 data bits, even parity, and one stop bit. If COMP2 is selected the parameters are specified to be 8 data bits, even parity, and one stop bit.

Note: Numeric pagers are a class of pager manufactured by various vendors and capable of displaying up to 20 digits. This type of pager will not support alpha characters in its message stream.

## SMS

The SMS option requires a GSM modem with an active cellular account. The user is responsible for activating the modem with a GSM wireless service provider. An unlimited SMS messaging plan is recommended. Some SMS messaging features will need to be licensed. The WIN-911/Basic package will support 1-way SMS alarm messages as well as status checks sent via SMS. The WIN-911/Pro package supports everything the WIN-911/Basic package does and also includes 2-way messaging. The 2-way messaging feature gives the user the ability to acknowledge an alarm with a specifically formatted SMS message. The acknowledgement criteria, health status criteria, and the alarm request criteria are discussed below. For information explaining SMS message configuration and formatting see the SMS Definition section under WIN-911 Global Menus.

Note: The SMS option is only compatible with GSM and CDMA modems and their networks. For a list of recommended modems see, [www.specterinstrument.com](http://www.specterinstrument.com) -> Support -> Knowledgebase -> Recommended GSM Modem List - 080007.

### Acknowledgement Message

WIN-911 can be licensed to accept incoming acknowledgement message. This allows users to singularly ack alarm message via SMS. In order for WIN-911 to understand and accept the alarm acknowledgement, the sender and the message must meet a few requirements:

- The sender's phone number must be configured in the 'Phone Book' with an 'SMS' connection.
- The sender's name must be in the 'Selected Name List' in the Group for that particular alarm.
- The first 6 characters of the acknowledgement message MUST be the 'ticket number' associated with that alarm. The 'ticket number' is the 6-digit number found at the beginning of the SMS alarm message.
- The numeric 'Ack' code must be the last characters in the message. An 'Ack' code can be anywhere from 1-15 digits.
- The 'Ack' code and the phone number configured in WIN-911 must match the 'Ack' code sent in the SMS acknowledgement message and the phone number it was sent from must match the 'Ack' code and phone number configured in the 'Phone Book' in WIN-911.

Note: Some users may be able to use the Reply or Forward function to automatically enter the 6-digit ticket number. This would then only require the user to enter in their acknowledgement code at the end of the message. Make sure when using Reply or Forward that no extra characters are placed in front of the alarm message (e.g. RE: or FW:). Once the acknowledgement is received and accepted by WIN-911 all contacts in the Group's 'Selected Name List' for that alarm should receive a confirmation that the alarm has been acknowledged. If WIN-911 rejects the acknowledgement, the user who sent the acknowledgement should receive a failed acknowledgement message back.

## Health Status Message

The 'Health Status' message feature allows all configured SMS users to check the health of WIN-911 by simply sending the required message. This feature is supported by both 1-way and 2-way SMS licenses. In order for WIN-911 to understand and accept the 'Health Status' message, the sender and the message must meet a few requirements:

- The sender's phone number must be configured in the 'Phone Book' with an 'SMS' connection.
- The sender's name must be in a 'Selected Name List' for at least one Group.
- The SMS message needs to have the text STATUS and only the text STATUS in the message. This string is not case sensitive.

Once the status message is received WIN-911 will reply back to the sender with the message OK if WIN-911 is running or STANDBY if WIN-911 is in Standby mode. WIN-911 will reply with the message INVALID/MANUAL SMS RECEIVED if the sender did not send the proper message. No response, may be a result of one or more of the following:

- The sender did not meet the required criteria listed above.
- The computer is not running or is non-responsive.
- GSM modem is not functioning properly.
- The GSM cellular network is not functioning properly.
- WIN-911 is not running.
- The SMS DLL is not functioning properly.

## Alarm Request Message

The 'Alarm Request' message allows all configured SMS users to request alarm information at any given time. This feature is ONLY supported with a 2-way SMS license. In order for WIN-911 to understand and accept the 'Alarm Request', the sender and the message must meet a few requirements:

- The sender's phone number must be configured in the 'Phone Book' with an 'SMS' connection.
- The sender's name must be in a 'Selected Name List' for at least one Group.
- The SMS message needs to only contain one of the following text strings:
  - REQUEST ACTIVE ACKED
  - REQUEST ACTIVE UNACKED
  - REQUEST INACTIVE UNACKED
  - REQUEST UNACKED
  - REQUESTACTIVE

- REQUEST ALL

Once the request message is received and all three criteria are met, WIN-911 will reply back to the sender with one SMS message per alarm that meets the request.

If no response is received, there may not be alarm messages that meet the request. To confirm WIN-911 is still healthy send a Health Status message (described in the previous section).

If WIN-911 replies with the message INVALID/MANUAL SMS RECEIVED then the sender did not send one of the six messages described above. Double check the sent text for errors.

If WIN-911 replies with the message EVENT REQUEST REJECTED PER LICENSE then the sender met all the criteria described above, but the sender is not licensed for 2-way SMS messaging.

## **E-Mail**

The e-mail option requires an e-mail account and connection via a LAN (or WAN) connection. Messages can be sent directly to the account of a recipient or to a paging company that will in turn send a page or fax.

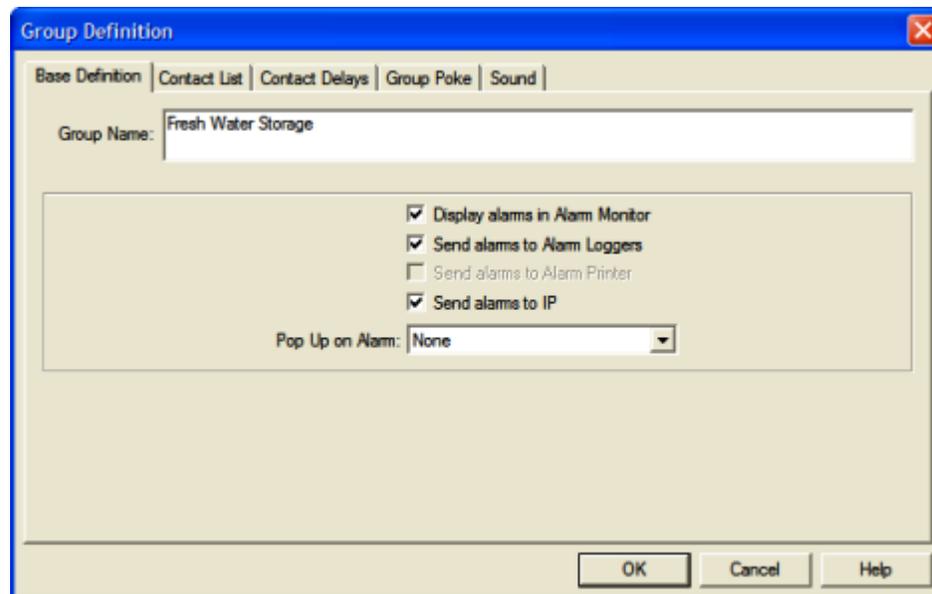
Note: In an effort to reduce the number of phone lines WIN-911 needs to accomplish its alarm notification, users who wish to implement both dialout paging and e-mail should use their e-mail account to deliver messages to the page provider or be sure the e-mail connection is via LAN/WAN.

## IP

The WIN-911 IP connection is designed to send alarm messages over a network through a TCP socket. It is compatible with RAS and Ethernet connections. In order to utilize this feature, users must develop their own application to accept alarm messages and handle them accordingly. The user's application can also monitor health status information that WIN-911 stores in the registry. The WIN-911 IP connection adds a tremendous amount of extensibility to WIN-911.

## Alarm Messages

Alarm messages are sent through the IP connection on a per group basis. To enable IP for a group, open a group definition and select Send alarms to IP. With this option selected, all alarms in the selected group will be sent through the IP feature to a remote computer.



When an alarm is received, it is sent as an ASCII string through the TCP port specified in your WIN-911 IP settings. This connection can be made through RAS, LAN or WAN. If utilizing a RAS connection, you must specify the name of the RAS connection you have set up in Windows. If you are using a LAN or WAN, then you must configure WIN-911 with the remote computer's IP address. For reliability, configure all remote computers as well as the local computer with static IP addresses. If you must use DHCP, reserve an IP address for each machine. WIN-911 cannot resolve hostnames with WINS or DNS.

The beauty of the WIN-911 IP connection is that it is highly configurable. When an alarm is received it is formatted and then sent over the network as ASCII text. Each message starts with a configurable message prefix and ends with a configurable suffix. The contents of the message can contain any number of fields. These fields may be labeled with their field names and are also delimited by a user defined delimiter. When developing your application, determine which fields are required and use the message format settings to properly parse alarms.

## Acknowledgements/Expected Responses

Once an alarm message is sent, WIN-911 can be configured to await a response from the remote computer to confirm that the message was delivered. WIN-911 can also acknowledge alarms based on whether or not the Expected Response was received.

## Primary/Secondary Remote Computers

The WIN-911 IP connection has redundancy features built into it. In addition to a primary remote machine, you may configure a secondary remote machine. When a configurable amount of failures has been reached, WIN-911 will attempt to use the secondary connection. A failure constitutes a failure to establish a TCP socket connection or other type of failure associated with TCP. Also, if you've enabled WIN-911 to wait for an Expected Response, then a failure occurs when that response is not received for an alarm. Once WIN-911 fails over to the secondary connection, it will send alarms to that secondary connection until the connection is closed. When a new connection is attempted, WIN-911 will first attempt the primary remote computer.

## Health Status

Health status information can be monitored by the user's application to monitor the health of both WIN-911 and the hardware being used to send alarm messages via IP. Two values need to be monitored and compared in the registry to understand the current health of WIN-911:

- HKLM\SOFTWARE\Specter Instruments\WIN911 IP\Health
- HKLM\SOFTWARE\Specter Instruments\WIN911 IP\Time

Health stores the most current state of WIN-911. Time stores the time stamp of the most current state stored in the Health. The Health value should be updated approximately once a second. If the Time value is more than a few seconds old, the application should assume the Health value is bad. The three possible Health values and the format for the Time value are described below:

### Health:

- OK - Healthy. WIN-911 and its hardware is functioning properly.
- FAIL - All message attempts have failed for a particular alarm. This included attempts made to the secondary remote machine if configured.
- STOP - The WIN911 IP DLL has been stopped by the shutdown of WIN-911.

### Time:

- YEAR:DAYOFYEAR:HOURL:MINUTE:SECOND - For example:,  
2009:033:14:30:25 (Feb 2, 2009 2:30:25 PM GMT)

## Data Poke

The ASCII OPC/DDE Poke feature is an easy to use function enabling the WIN-911 software modules to be integrated into other Microsoft Windows application programs. This standard option will allow the TEXT Alarm Messages to be displayed within other programs, and it will allow these programs to "Acknowledge" the WIN-911 alarms. Pager and voice operational status can be monitored by other programs through the use of the Pager, Voice, and System Health. An example of the Pager Health poke might include a situation where a digital OPC/DDE tag belonging to an HMI package is poked a zero (0) when the pager applet is functional. If the modem stops responding, a failure is generated and a digital one (1) is poked, replacing the zero and indicating the loss of functionality.



# Configurator Basics

## The WIN-911 Configuration Window

In the WIN-911 folder, or in the Start Menu, click the WIN-911 Configurator icon. The WIN-911 Configurator window now appears, ready for you to begin work. This is the configuration utility for both WIN-911 and WIN-411 options. Note the WIN-911 Configurator saves the position when the program is exited and will return to the last saved position when it is re-selected.

Note: Double quotes (") are illegal characters and are not to be used in any WIN-911 configuration.

The WIN-911 Configurator Window consists of several distinct areas: Title Bar, Menu Bar, Toolbars, and the Status area.

The Title Bar displays the configuration name, Min/Max, and exit controls only.

The Menu Bar provides access to the various configuration menus from the mouse or keyboard. The Mode menu provides toggling between special modes of operation. The Global menu provides configuration options for items that are global to the system. The Configure menu provides configuration options that are specific to a single configuration. The Tools menu provides miscellaneous development and security aids. The Help menu provides help access.

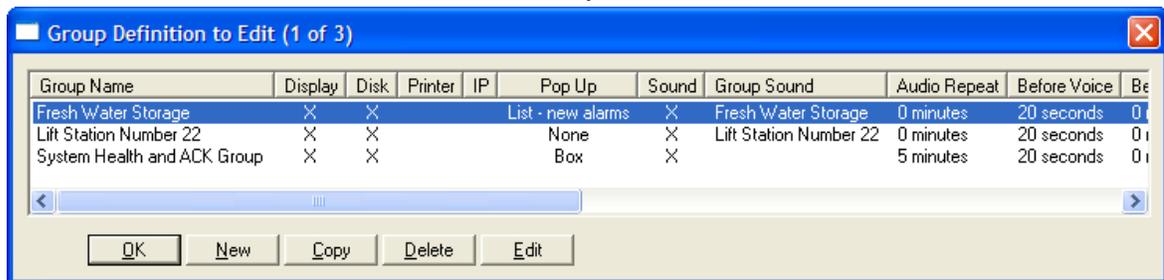
The Tool Bars present the menu options as graphic buttons for easy access. Buttons are grouped in the same order as the menu commands for intuitive use. Note: Some controls are not supported with all data sources. This will be depicted by a control being disabled or a message box when clicked.

A text description of the button will appear as the mouse cursor is parked over the button of interest.

The WIN-911 configuration utility is a true Windows based application. It follows the Microsoft Windows conventions for getting around the screen and working with windows, menus, dialog boxes, and the Windows Clipboard. Refer to your Microsoft Windows documentation for an explanation of Windows basics.

## Common Dialog Boxes

During configuration, you will be using some custom WIN-911 dialog boxes. The dialog boxes are designed to be consistent in entries and formats. Many of these dialog boxes will appear to be almost identical other than the content. Generally, the first dialog box is the summary listing of the subject button selected. The title bar identifies the dialog summary with a numeric indication of the total number of listings and the specific listing highlighted. If more items are listed than can be shown in the space selected, a vertical slider bar will appear to the right of the dialog box



At the bottom of the above form, you will notice several selection buttons:

### OK

The OK button is the only way to exit WIN-911 dialog list forms. It returns you to the last WIN-911 dialog form or main Window.

### New

Clicking the New button will bring up a blank configuration dialog form for a fresh entry.

### Copy

The use of the Copy button is a great time saver if you are configuring several similar users, groups, or alarms/points. Select (highlight) the item with the cursor, and then select Copy. An exact copy is made of the selected configuration item. Make just the changes necessary to the copy, and save by selecting the OK button.

### Delete

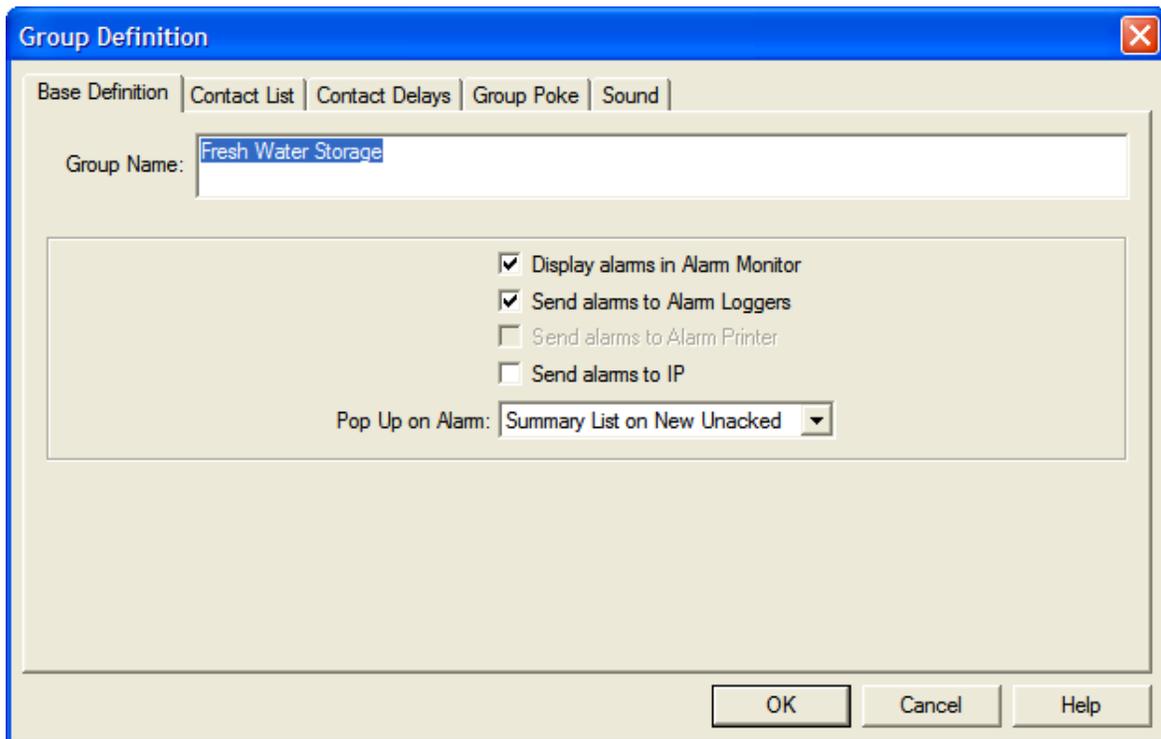
Highlight an item in the list and click Delete to remove it from the list.

### Edit

Highlight an item in the list and click Edit to make changes. Alternatively, you may also double click an item to modify it.

## Definition Dialog Boxes

Once you have selected from the summary list box (either to edit an existing definition or to create a new definition), the definition dialog box will appear. The following example is a common definition dialog box. The box shows all currently defined entries and a variety of tabs.



### Selection Tabs

If the definition dialog box has multiple options, or configuration steps, they may be accessed by selection tabs located across the top of the dialog box.

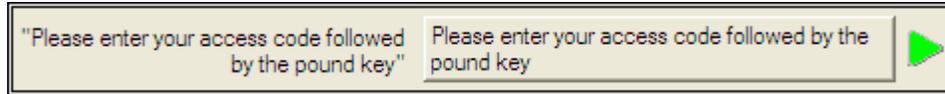
### Check Boxes or List Boxes

Configuring a WIN-911 application is a combination of selecting options and entering text messages for each alarm. Most of the choices are made with simple check boxes, radio buttons, or pull down list boxes.

## Sound Button

### Sound Button

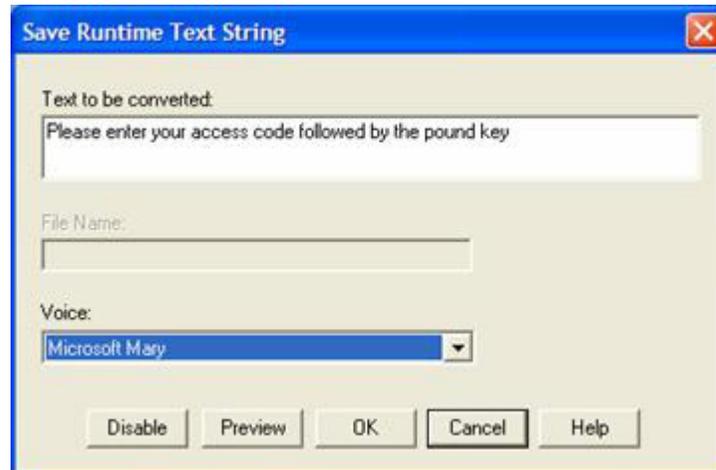
The sounds used throughout the system are selected through a common sound dialog box. The only way to get to the "Select Sound File" or the "Save Runtime Text String" is to select the sound buttons found throughout the WIN-911 Configurator. Such a button is shown below:



The Green arrow at the right of the sound button is a "preview speech" play-button that will play the sound that will be used for that section of the audio message.

## Save Runtime Text String

Runtime Voice Synthesis users need to specify the text that will be read to synthesize the speech used during a telephony call or local annunciation. Clicking the sound button will present the Save Runtime Text String dialog



### Disable

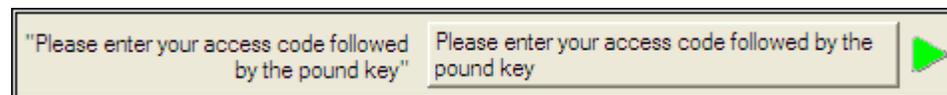
The "Disable Sound" button is used to select silence instead of a sound. It will return a blank to the sound selection button.

### Preview

If a sound card is installed the "Preview" button will cause the system to output the text-to-speech sound. This can be useful when you are uncertain which annunciation is appropriate.

### OK

The "OK" button return you to the previous configuration step and the Sound Selection button will show the text that will be verbalized

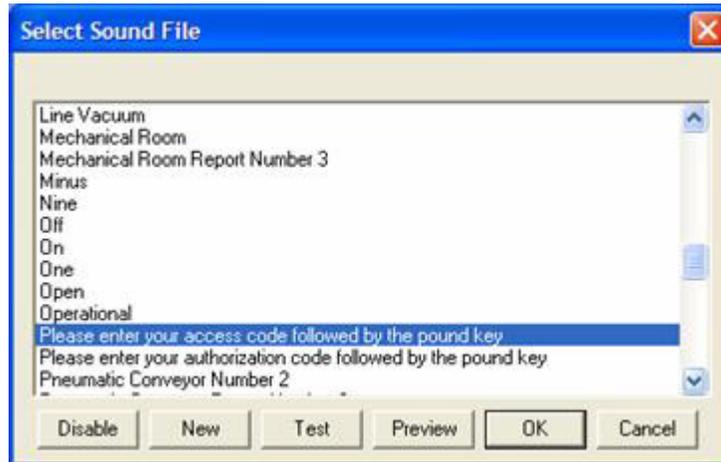


### Cancel

The "Cancel" button will exit from the dialog box without saving any of the changes.

## Convert Text to Wave File

If you are not using Runtime Voice Synthesis then the voice messages are pieced together from a selection of pre-existing sound files which are maintained in the Sound Files sub-folder of your WIN-911 V7 folder. Clicking on one of these buttons will bring you to the “Select Sound File” list box.



From the Select Sound File list box highlight the desired sound file or click New to create the desired sound file.

### File List Box

This box shows all of the “\*.WAV” files in the defined sound directory. The selection of the WIN-911 sound directory is found in the Global selections. If there are more files than the display area can show, a scroll bar will appear. The dialog box is exited by either: Double clicking on the desired sound file, or Selecting the “Disable Sound” or the “OK” Button.

### Disable

The “Disable Sound” button is used to select silence instead of a sound. It will return a blank to the sound selection button.

### New

The “New” will create a new sound file and associate that sound with this segment of the message string. The dialog box listed below will allow you to name the file, enter the text of the file to be converted and select the voice with which the file is to be created.

Note: Text to Speech must be both installed and enabled to use this feature.

### Test

If “Wave Files Only” or “Text To Speech Wave Files” within Common Sounds, Controls is enabled, this button allows the selected “\*.wav” file to be tested for compatibility with WIN-911.

### Preview

If a sound card is installed the "Preview" button will cause the system to output the selected sound. This can be useful when you are uncertain which file is appropriate when two or more filenames are similar.

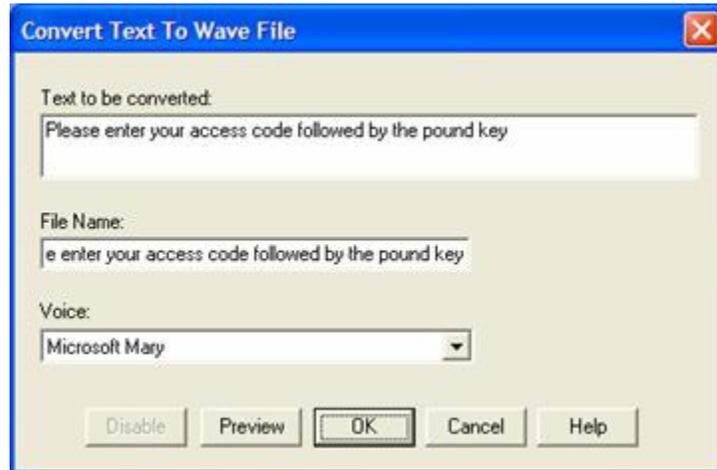
## OK

The "OK" button will select the highlighted sound file for the selected sound button which is being defined. This action will return you to the previous configuration step and the sound selection button will show the name of the sound file just selected.

## Cancel

The "Cancel" button will exit from the dialog box without saving any of the changes.

## Edit Wave File Dialog



The Convert Text To Wave File dialog is accessed by clicking the New button on the Select Sound File dialog.

### Disable

The “Disable Sound” button is used to select silence instead of a sound. It will return a blank to the sound selection button.

### Preview

If a sound card is installed the “Preview” button will cause the system to output the selected sound. This can be useful when you are uncertain which file is appropriate when two or more filenames are similar.

### OK

The “OK” button will close the text box, ending the text string edit. This action will return you to the previous configuration step and the Sound Selection button will show you the name of the sound file created.

### Cancel

The “Cancel” button will exit from the dialog box without saving any of the changes.

# Configurator Menu

## File



The File menu contains a set of commands that are used for creating, opening, and saving configurations. Access to the configuration file is made through filenames that have an extension of "\*.MDB". The global configuration information is saved in unique ".MDB" files and the "WIN-911.ini" file which will be used by all WIN-911 programs.

This pull-down menu also contains the WIN-911 Printer Configuration which is used to specify a local or shared network printer and its properties. This printer is to be used by the configurator to print out the users configuration (\*.MDB) file as well as the global settings from the "WIN-911.ini" file. This is not to be confused with the alarm printer, which is not shared with a network or Windows, but slaved to the local system on which WIN-911 is installed.

## New

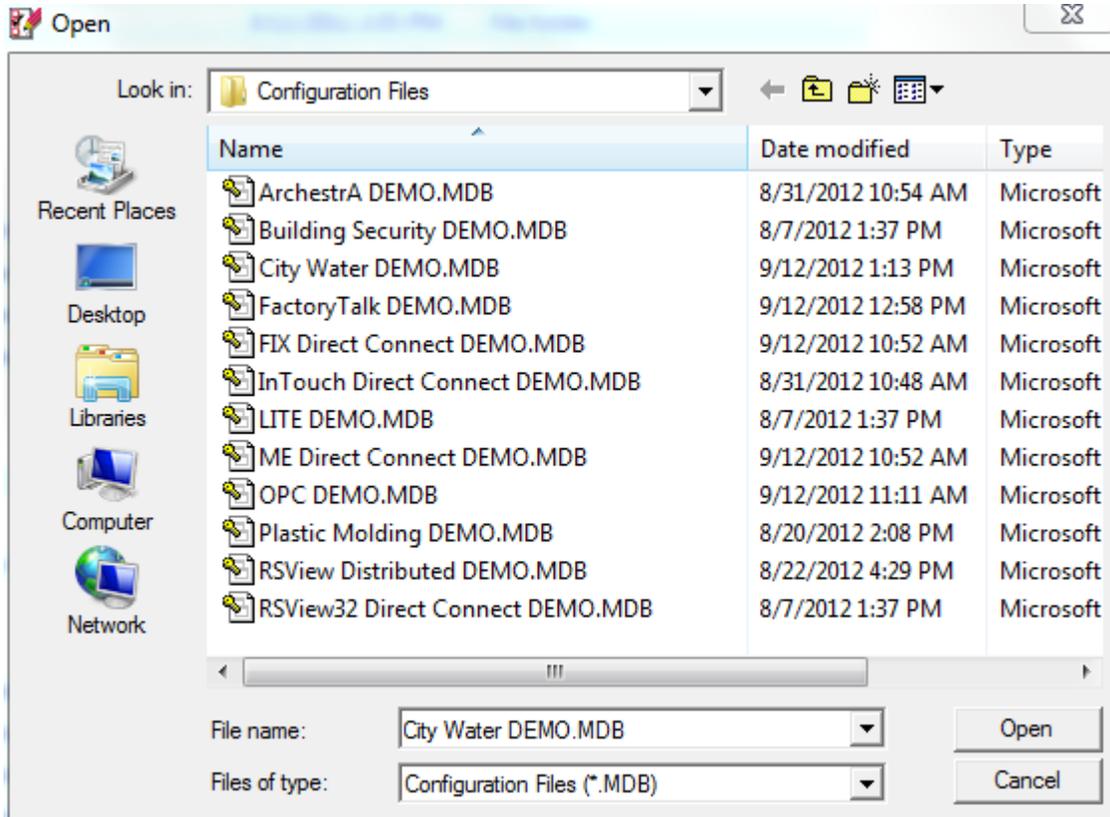
Use this command to create a new WIN-911 configuration for alarming and reporting. No dialog box is brought up when this is selected.

Note: If the current changes have not been saved when you attempt to create a new configuration or attempt to exit the Configurator, a dialog box will pop up and ask if you want to save the changes.

## Open

Use this command to open an existing configuration for editing. This uses the common open file dialog box as shown below.

Note: If the current changes have not been saved when you attempt to open another configuration, a dialog box will pop up and ask if you want to save the changes.



Select the directory in the "Look In:" pull down. Select the desired .MDB file by clicking on it. The selected file should be indicated in the "File Name" list box. Clicking on "Open" will start up the Configuration Utility with the selected "\*.MDB" database.

## Import



WIN-911 Import function makes the configuration process fast and easy. FIX, OPC, RSView SE, RSView32, Wonderware InTouch, and ME Direct Connect users can use this tool to browse large databases, custom select data or alarms to monitor and import it into a WIN-911 configuration.

Note: If you do not want to import more data sources and tags into your currently open configuration, be sure to select "File" and "New" from the menu to create a configuration that only contains data from the import.

Special Note for Lite Mode Users: Block import is disabled. The Lite Mode User may only select one tag at a time during import.

## Save

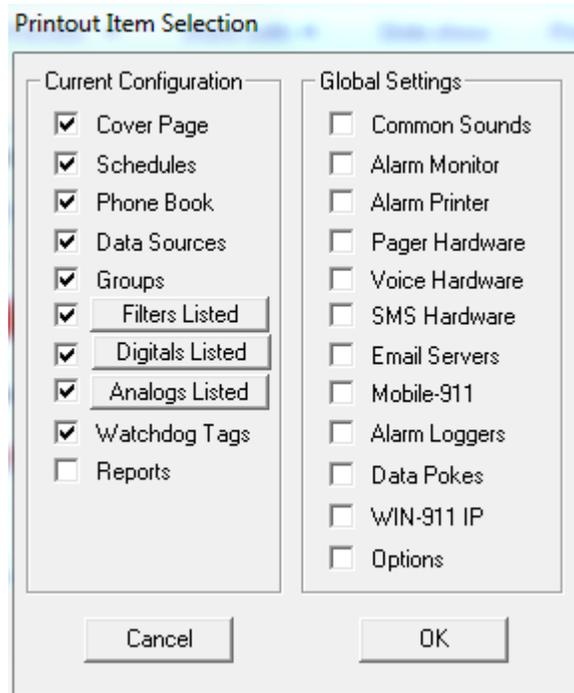
Use this command to save the currently loaded configuration under the existing file name. No dialog box will pop up when this option is selected. Note: To see the name of the current "\*.MDB" file configuration, look at the title bar of the window or go to "Options" button and the "Paths" tab.

## Save As

Use this command to save the currently loaded configuration under a new name.

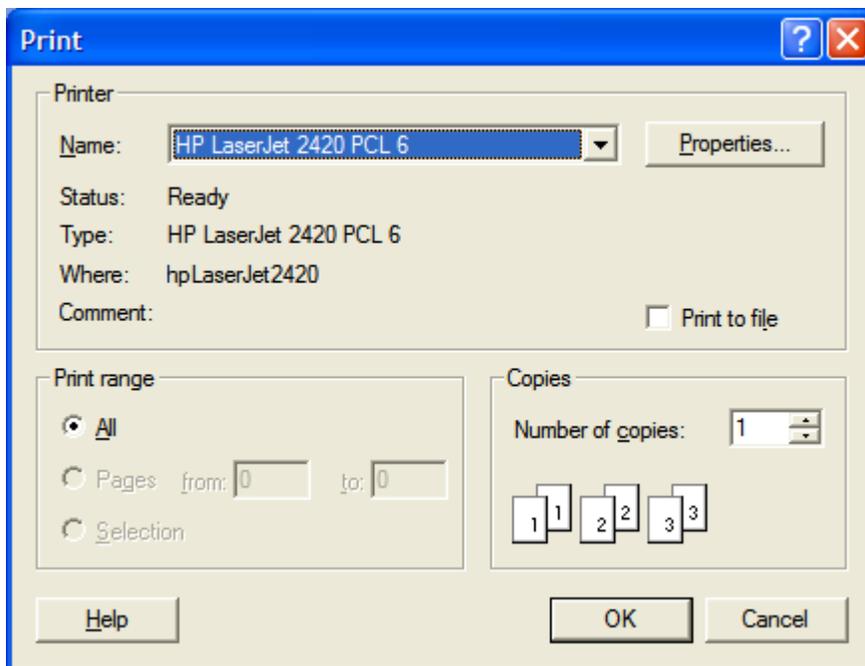
## Print

Use this command to invoke a dialog box which provides the user with the option of printing the current configuration (\*.MDB) file and the global settings contained in the "WIN-911.ini" file.



Use the Print Item Selection dialog to select the fields of interest then click OK.

Note: In Lite mode Analogs and Reports will not be selectable.



This dialog box allows the user to select the appropriate network printer, Properties, Print Range, and number of copies.

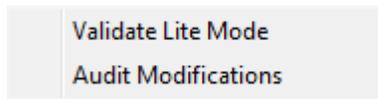
Note: This printer should be a local or shared network printer and not be confused with the optional alarm printer which is not shared on a network or the operating system.

## Exit

Use this command to exit from the WIN-911 Configurator.

Note: If the current changes have not been saved when you attempt to exit, a dialog box will pop up and ask if you want to save the changes.

## Mode



The "Mode " menu contains a set of options - Lite and Audit Modifications.

### Validate Lite Mode

This button verifies that the current configuration is valid for Lite mode and returns a list of issues that must be modified if it is not.

WIN-911 Lite is a mode of operation which allows you the standard WIN-911 functionality with the following restrictions:

- Alarms can accommodate a total of 24 digital and unlimited watchdog alarms. Analog and Filter alarms are not supported in Lite Mode.
- User can select a single type of dial-out connection, such as: Voice Telephony, Numeric or Alphanumeric Pagers, Voice Pagers, E-Mail, or SMS.
- Lite mode does not include WIN-411 reporting capability, but users can acknowledge alarms from the voice telephony connection.
- The computer/voice telephony interface must be a TAPI Voice Modem.

### Audit Modifications

All modifications made to the WIN-911 Configuration and WIN-911.ini files are archived in text files located in the same folder as the log files. These files are in a daily text file format and are titled CYYDAY, where YY is the last two digits of the year and DAY is the three digit Julian day of the year. For example May 9, 2005 would be C05129.txt.



The Configure menu defines the specific configuration information for a single application (either WIN-911 or WIN-411). This configuration information is stored in the "\*.MDB" file. For details on each one of the Configure settings see, WIN-911 Configuration. For details on Report Definitions settings see, WIN-411 Configuration.

## Schedule Definitions

The Schedule Definition allows the user to view and configure duty schedules.

## Phone Book Definitions

The Phone Book Definition allows the user to view and configure contacts. It also allows the user to assign access and acknowledge codes, connections, and duty schedules.

## Data Source Definitions

The Data Source Definition allows the user to view and configure a data source connection.

## Group Definitions

Group Definitions allows the user to build Groups. Groups are used to associate information with a specific set of contacts.

## Filter Definitions

Filter Definitions allows the user to configure all filter points. Filter tags are different from statically configured tags in that no import is necessary. Filter tags subscribe to alarms on the fly, depending on the criteria configured. Not all data sources support Filter Definitions.

## Digital Definitions

Digital Definitions allows the user to configure all digital points. Not all data sources support Digital Definitions.

## Analog Definitions

Analog Definitions allows the user to configure all analog points. Not all data sources support Analog Definitions.

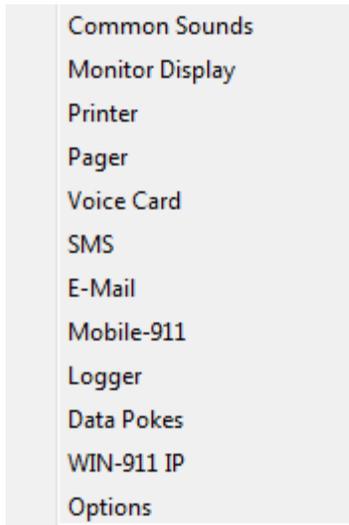
## Watchdog Timer Definitions

Watchdog Timer Definitions allows the user to configure all watchdog timers.

## Report Definitions

Report Definitions allows the user to configure WIN-411 reports. Not all data sources support Report Definitions.

## Global



The Global menu provides commands that are used to define the global configuration information such as common sounds, alarm message formats, and hardware assignments. For details on each one of the Global settings see, WIN-911 Global Menus.

### Common Sounds

The Common Sounds defines all global sounds. It also allows the user to select the sound source, wave format, default voice, and toggle the local announcer options.

### Monitor Display

The Monitor Display defines the message format for the Monitor (both the alarm history and alarm summary.) It also allows the user to select the acknowledgement options, security display options, and the alarm message color choices.

### Printer

The Printer Definition defines specific hardware and alignment definitions used by the alarm printer. The definitions are for printer parallel port assignment and alarm text formatting.

### Pager

The Pager defines the alphanumeric and numeric pager settings, as well as the message format.

### Voice Card

The Voice Card defines the parameters associated with voice telephony. It allows the user to define the type of telephony hardware, timing parameters, and volume.

### SMS

SMS defines the parameters associated with SMS messaging. It allows the user to define SMS device settings, message formats and acknowledgement formats.

## E-mail

E-mail defines the e-mail parameters. It allows the user to configure SMTP settings, including authentication. It also allows the user to define the e-mail format.

## Mobile-911

Mobile-911 defines the parameters associated with Mobile-911 messaging. It allows the user to configure WIN-911 settings for communicating with the Mobile-911 Server, and alarm and acknowledgment message formatting.

## Logger

The Logger defines the types of historical logging and their format for archiving.

## Data Pokes

Data Pokes define group acknowledgement messages for OPC/DDE and heartbeat pokes. The heartbeat monitors system health, pager health and voice health.

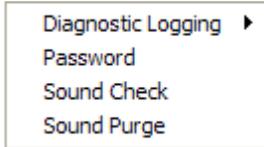
## WIN-911 IP

WIN-911 IP defines the parameters associated with an IP message/acknowledgement connection. It allows the user to define the IP connection settings, protocol, and message formats.

## Options

Options allows the user to customize and tune WIN-911 and WIN-411 to meet various application or performance needs.

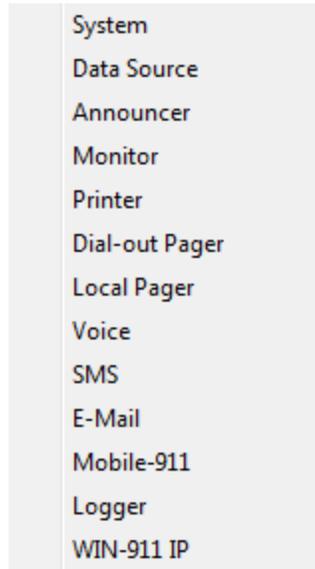
## Tools



The Tools pull-down menu provides the user with extensive trouble shooting resources as well as password protection for the Configurator and Scan & Alarm shutdown.

### Diagnostic Logging

When any of the following options are checked, extensive diagnostic information is logged to the Scan & Alarm status window and History view of the Alarm Monitor during runtime. The log files are also populated with extensive information. Since this can put a strain on the PC, Specter recommends only enabling Diagnostic Logging to help troubleshoot known issues.



### System

Turns on all Diagnostic logging.

### Data Source

Logs data source messages to Scan & Alarm and displays them in Status display, the Monitor display and the log files. This tool is very useful in trouble shooting communication problems between WIN-911 and the data server or SCADA. Specter recommends that you make a single tag test configuration that focuses on a tag at a time for diagnosis due to the amount of information that this tool will generate.

### Announcer

Logs announcer module messages to Scan & Alarm. Intercepts Announcer module shutdowns.

## Monitor

Logs monitor module messages to Scan & Alarm. Intercepts Monitor module shutdowns.

## Printer

Logs printer module messages to Scan & Alarm. Intercepts Printer module shutdowns.

## Dialout Pager

Logs Dialout Pager module messages to Scan & Alarm and displays them in the Monitor. This tool is very useful in trouble shooting communication problems with the pager service provider. With this you can monitor the conversation between the WIN-911 modem and the pager service modem. Intercepts Dialout Pager module shutdowns.

## Local Pager

Logs local pager messages to Scan & Alarm and displays them in the Monitor. Intercepts Local Pager module shutdowns.

## Voice Connections

Logs voice module messages to Scan & Alarm and displays them in the Monitor. Will also show failed attempts to play audio. Intercepts Voice module shutdowns.

## SMS

Logs SMS module messages to Scan & Alarm and displays them in the Monitor. Intercepts SMS module shutdowns.

## E-Mail

Logs e-mail module communications between itself and the e-mail service provider to Scan & Alarm. Diagnostic messages from the e-mail server that are usually transparent to the user can be extracted using this tool. Intercepts E-Mail module shutdowns.

## Mobile-911

Logs Mobile-911 messages between WIN-911 and the Mobile-911 server and displays them in the Alarm Monitor (History view) and Logger. Intercepts Mobile-911 module shutdown.

## Logger

Logs logger module messages to Scan & Alarm. Intercepts Logger module shutdowns.

## WIN-911 IP

Logs WIN-911 IP module messages to Scan & Alarm. Intercepts IP module shutdowns.

## Password

WIN-911 security can be enhanced with the use of a user/administrator defined password that will be required to start the WIN-911 Configurator or shutdown Scan & Alarm. If the user wishes to require a Password to shutdown WIN-911 they must enable this option in the Monitor Definition.



To set and remove a password the user/administrator must enter and confirm the password from within the Configurator's Tools menu.

## Sound Check

Voice telephony requires a standard sound file ("\*.wav") format to ensure smooth operation if Runtime Voice Synthesis is not enabled. The formats that are acceptable are PCM format, 11025 Hz or 8000 Hz sample rate, 8 bit, and mono for Dialogic or any format for TAPI. Because the sound files can be developed independently and with different voices, both sample rates can end up in the Sound Files folder. Such a mixing of sample rates can degrade the WIN-911 voice module so Specter requires that you standardize on one sample rate.

To help in this portion of the development if Runtime Voice Synthesis is disabled, the Sound Check tool can be invoked for a global sound file scan or a single file-at-a-time spot check.

The global sound check is performed during WIN-911 Configurator shutdown or via the 'Sound Check' button in Sound Controls. This tool will check the format of each sound file and produce a comprehensive list of offending "\*.wav" files. This list is placed in the WIN-911 V7 folder in the form of a text file titled "TeleDAC Sound Check.txt". This can be viewed and printed out using Notepad.

A single file spot check is available in any Select Sound File dialog. If Sound Check is turned on, the Test button is enabled, and when depressed will scan the highlighted sound file.

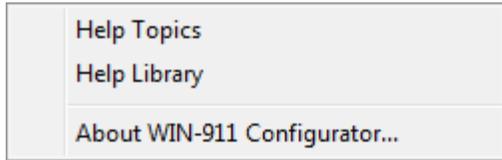
Any incorrectly formatted or unlicensed premium voice file will be detected.

Note: Runtime Voice Synthesis does not play pre-recorded sound file that require format management.

## Sound Purge

**WARNING!** The Sound Purge option on the tools menu or the Sound Purge button in Sound Controls deletes all .wav files in the current sound file directory. This can be used to fix corrupted wave files by deleting them, and then allowing WIN-911 to rebuild the .wav files with the correct format automatically, during shut down or with the Sound Build button. Sound Purge may also be used to modify properly working wave files with, for instance, a different voice.

## Help



The Help menu contains a set of options - Help Topics and Help About

### Help Topics

Help Topics will bring up the Configurator's help file, WIN911 Configurator.CHM. This is the main help file containing all WIN-911's generic help. Any help files specific to a particular data source are accessed through the Data Source Definition help button.

### Help Library

The help library contains all support documentation for WIN-911.

### Help About

Help | About will bring up the Configurator's Help About window. Here the user can view the WIN-911 Program and Configurator version number and the type of license installed. Below describes how the license can be interpreted:



The fourth line in Help About represents the license installed. The first part will always read 'WIN-911/'. What follows the WIN-911/..... reveals the license installed. Multiple licenses can be installed on one WIN-911 machine.

- DEMO: Thirty day, fully functional demo
- \*LITE\*: Lite Mode
- Basic: E-mail & Paging
- Pro: Telephony, E-mail & Paging

- V: Premium Voice
- X: X-Tools
- R: FactoryTalk
- M(10-100): Mobile-911, the number specified indicates the number of authorized Mobile-911 clients.
- ME(1-xx): ME Direct Connect

The software release version, as well as the version number of each component, may be found by clicking the "Versions" button.

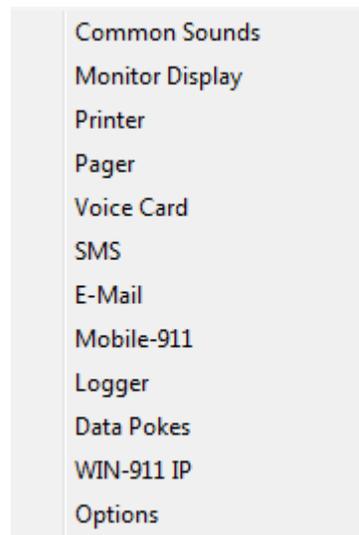
Current Specter Product Components Identified :	
911HealDB.EXE	7.09.00.00
911Backup.EXE	7.09.00.00
911SRV.EXE	7.06.00.00
Alarm Log Manager.EXE	7.08.00.00
DDE Server.DLL	7.08.00.00
FactoryTalk Alarms and Events.DLL	7.08.00.00
FIX Remote Alarm.DLL	7.08.00.00
InTouch Direct Connect.DLL	7.08.00.00
OPC Data Server.DLL	7.08.00.00
RSView SE Direct Connect.DLL	7.09.00.00
RSView32 Direct Connect.DLL	7.08.00.00
TeleDAC.EXE	7.09.00.00
WIN911 Alarm Logger.DLL	7.08.00.00
WIN911 Alarm Monitor.DLL	7.09.00.00
WIN911 Alarm Printer.DLL	7.08.00.00
WIN911 Announcer.DLL	7.08.00.00
WIN911 Dialout Pager.DLL	7.09.00.00
WIN911 E Mail.DLL	7.08.00.00
WIN911 IP.DLL	7.09.00.00
WIN911 Local Pager.DLL	7.08.00.00
WIN911 SMS.DLL	7.09.00.00
WIN911 TAPI.DLL	7.09.00.00
WIN911 Voice.DLL	7.09.00.00
WIN911 Configurator.EXE	7.09.00.00
WIN911 Database.DLL	7.09.00.00
WIN911 Module Utilities.DLL	7.09.00.00
Help Library.EXE	7.09.00.00
911Signal.EXE	7.09.00.00
Activate.EXE	7.05.00.00
Bypass.EXE	7.05.00.00
DDEClient.EXE	7.05.00.00
Override.EXE	7.05.00.00
Restart.EXE	7.09.00.00
Shutdown.EXE	7.07.00.00
Standby.EXE	7.05.00.00
TAPI Test.EXE	7.05.00.00
WIN911 Bridge Service.EXE	7.07.00.00
XMLRSView.EXE	7.05.00.00
WBSRSView.EXE	7.07.00.00
IISReg.EXE	7.08.00.00
SpecterEntities.DLL	7.08.00.00
CtrlCommon.DLL	7.08.00.00
LibraryCustomConfig.DLL	7.08.00.00
WIN911ControlLibrary.DLL	7.08.00.00
Versions.EXE	7.09.00.00

# Global Menu

## Global Menu



The "Global" menu provides settings that are used to define the global configuration information such as common sounds, alarm message formats, and hardware assignments. The Options selection allows customizing such things as: Initialization Adjustments, Path Selections, and Timing Adjustments. All changes made to Global configuration information is stored in the WIN-911.INI file.



## Common Sounds

### Common Sounds



This button is used to select all global sounds. The "Is" and "Was" sounds are used on most alarm announcements. The other sounds are used for verbal phone dial-ups and for the verbalization of analog values. At the end of each selection process, you may select from the following action buttons:

#### Help

The "Help" button will bring up help information for the currently active tab.

#### OK

The "OK" button is used to accept and store the changes.

#### Cancel

The "Cancel" button is used to ignore all changes made in this dialog box.

### Sequence of a Typical WIN-911 Alarm Dial-Out

Alarm detected, dial first phone number:

Sequence of sounds:

1. "Hello,.....", from Common Sounds
2. "Phone Book Name Sound", from Phone Definition (if defined)
3. "Please enter your access code followed by the pound key", from Common Sounds

User enters access code.

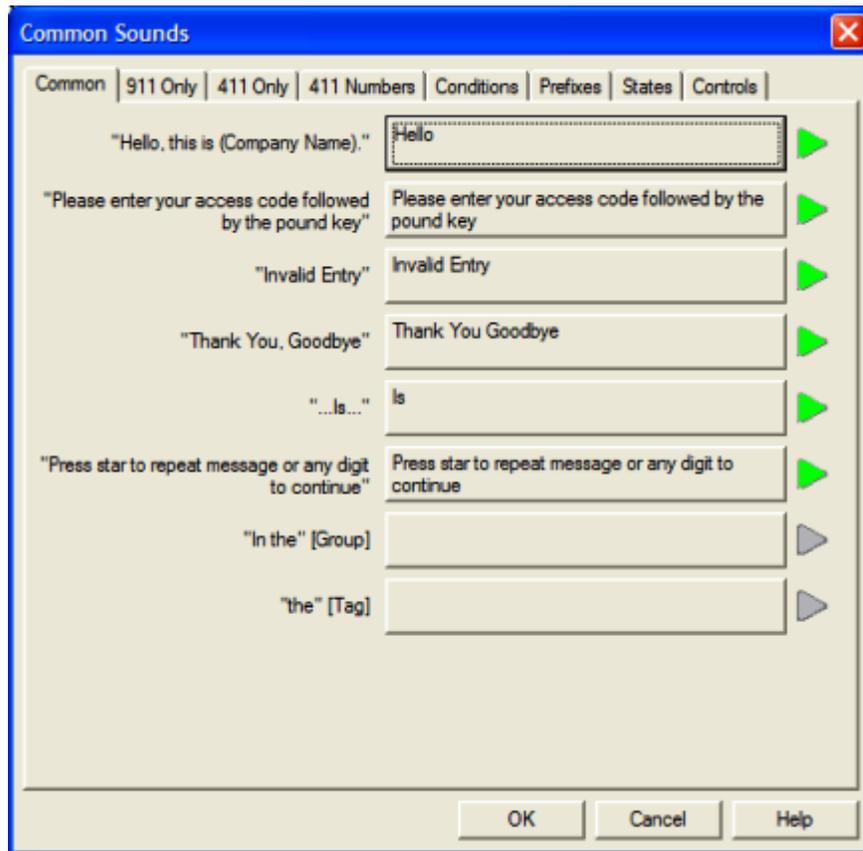
Sequence of sounds:

1. The Alarm Sounds, from Group and Alarm Definition and/or Data Source Definition.
2. "Press star to repeat message,....", from Common Sounds
3. "Enter your Alarm Acknowledgment Code", from "911 Only" Sounds tab

User enters acknowledgment code.

1. "Alarms acknowledged", from "911 Only" Sounds
2. "Thank You, Good-bye", from Common Sounds

## Common



### "Hello, this is (Company Name)"

The "Hello, this is (Company Name)" sound should identify the monitoring system to the person receiving or making the call. A typical message is "This is the Acme Water District Monitoring System". This message will be followed by the Phone Book Name sound (if defined) for a dial-out alarm announcement. A typical Name message might say "A message for Mr. Jones."

### "Please enter your access code followed by the pound key"

The "Please enter your access code followed by the pound key" sound asks the user to enter his/her unique access code. A typical message is "Please enter your access code followed by the pound key...". Note: For Voice Page or Dialout Announcer applications, this sound does not apply.

### "Invalid Entry"

The "Invalid Entry" sound is used to inform the caller that he has entered an invalid code or out-of-range data entry. This message is normally "Invalid Entry...".

Note: For Voice Page or Dialout Announcer applications, this sound does not apply.

### "Thank You, Goodbye"

The "Thank You, Goodbye" sound is given right before the system disconnects. A typical message is "...thank you...goodbye". Note: For Voice Page or Dialout Announcer applications, this sound is ignored.

### "...Is..."

The Is sound is used when reporting an active alarm. It is placed between the Tagname and the alarm condition.

### "Press star to repeat message, any other key to continue"

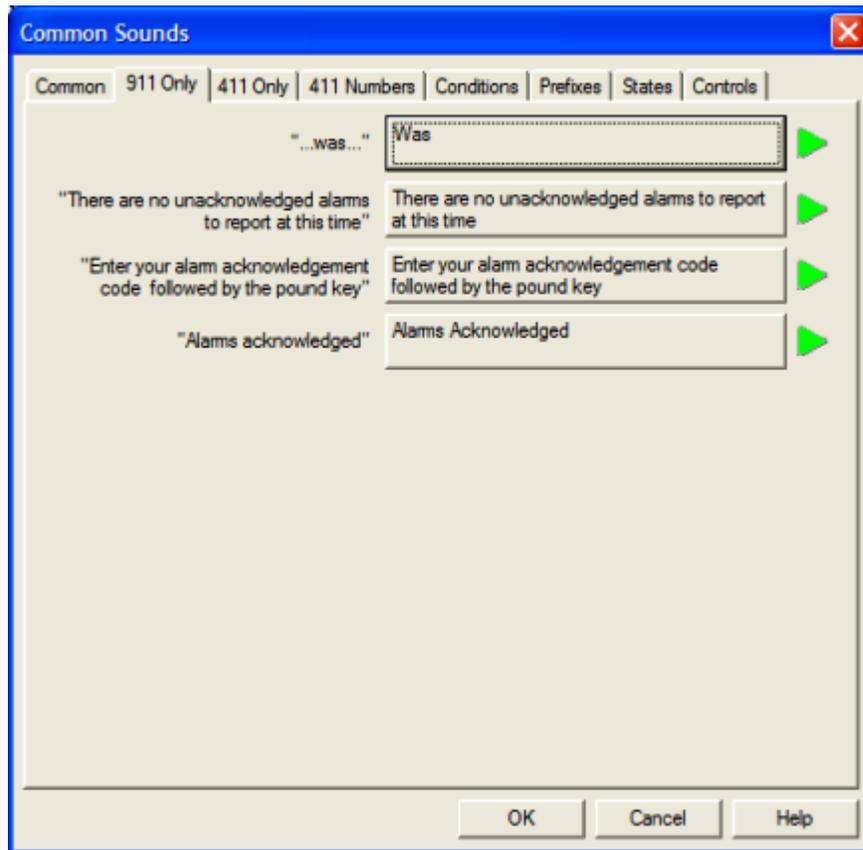
The "Press star to repeat message, any other key to continue" sound is used to offer the user the ability to repeat the verbalized message or skip ahead to the next user entry. This message is normally "Press star to repeat message, any other key to continue.....".

### "In the" [Group]

The "In the" sound is the prepositional phrase relating the Group name with the rest of the message. This sound is undefined by default.

### "the" [Tag]

The sound "the" is the article pointing to the tag which follows in the verbalization of the message. This sound is undefined by default.

**911 Only****"...was..."**

The Was sound is used when an alarm has returned to a normal state, and is not acknowledged. It is placed between the Tagname and the alarm condition.

**"There are no unacknowledged alarms to report at this time"**

The "There are no unacknowledged alarms to report at this time" sound is used to inform the caller that there are no reported alarms that have not been acknowledged for the group(s) which he is authorized to hear. This message is normally, "There are no unacknowledged alarms to report at this time."

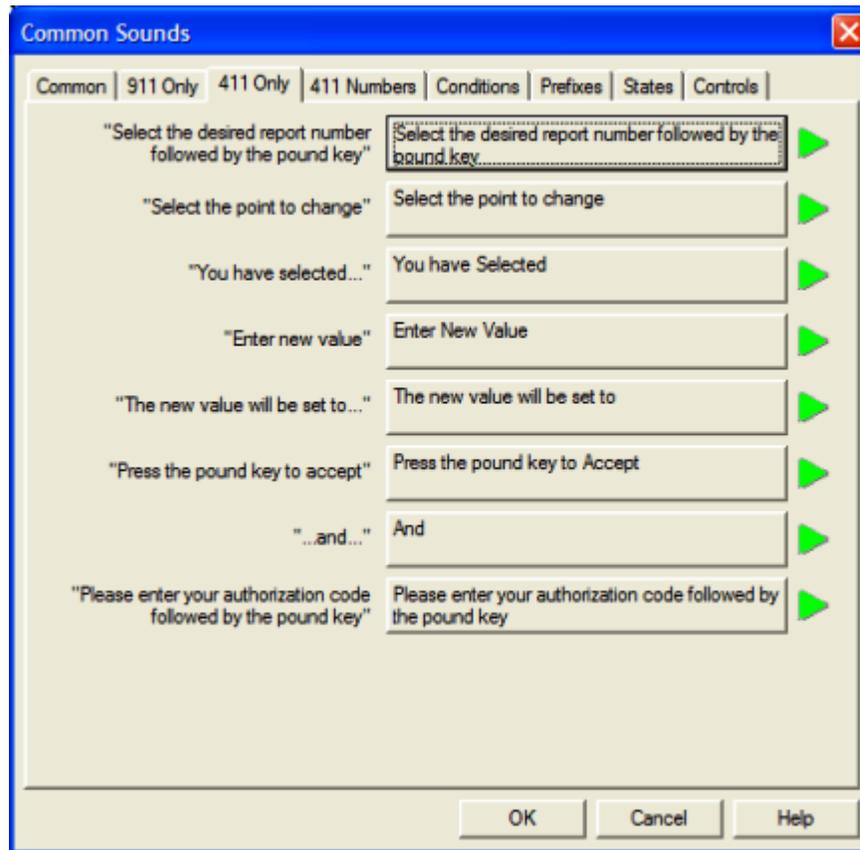
**"Enter your alarm acknowledgment code followed by the pound key"**

The "Enter your alarm acknowledgment code followed by the pound key" sound is used to request the alarm acknowledgment code. This message is normally "Enter your alarm acknowledgment code followed by the pound key..."

**"Alarms acknowledged"**

The "Alarms acknowledged" sound is used to inform the user that a successful acknowledgment code was entered and that all alarms heard in their entirety were acknowledged. This message is normally "Alarms acknowledged..."

## 411 Only



Note: WIN-411 Reports are not available in Lite mode or with the RSView SE Direct Connect, Factory Talk Alarms and Events, RSView32 Direct Connect, or the ArchestrA Direct Connect.

### "Select the desired report number followed by the pound key"

The "Select the desired report number followed by the pound key" sound is used to request the user to select a pre-configured report number. This message is normally "Select the desired report number followed by the pound key..."

### "Select the point to change"

The "Select the point to change" sound is used to request the user to select a numerical password to enable a point to be changed. This message is normally "Select the point to change....."

### "You have selected"

The "You have selected" sound is used to verbally confirm a user selection of a report number. This message is normally "You have selected...."

### "Enter new value"

The "Enter new value" sound is used to advise the user to key in the new value to be changed. This message is normally "Enter new value".

**"The new value will be set to"**

The "The new value will be set to" sound is used to verbally confirm the new value, prior to actually making the change. This message is normally "The new value will be set to...."

**"Press the pound key to accept"**

The "Press the pound key to accept" sound is used to confirm a selection or entered value at various stages of the WIN-411 processing sequence. This message is normally "Press the pound key to accept....."

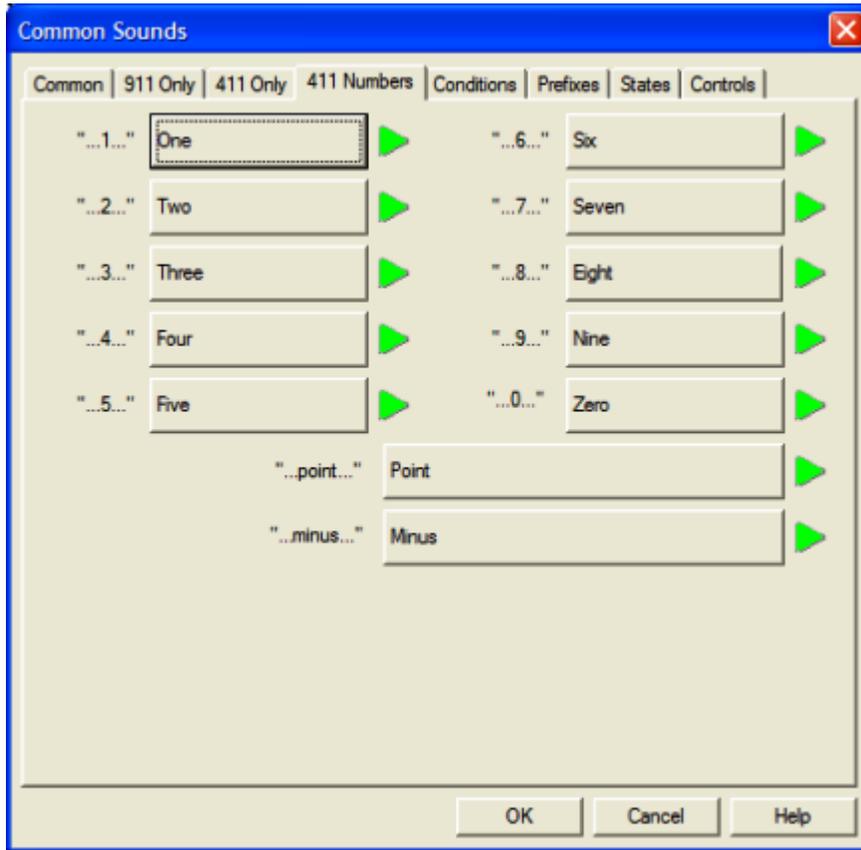
**"...and..."**

The "and" sound is used to add two messages together. An example would be: "The level is 45 feet, and is above the high level".

**"Please enter your authorization code followed by the pound key"**

The "Please enter your authorization code followed by the pound key" sound is used to request the operators' authorization code before changing any values in the WIN-411 system. This is a security feature used to protect the process. This message is normally "Please enter your authorization code followed by the pound key."

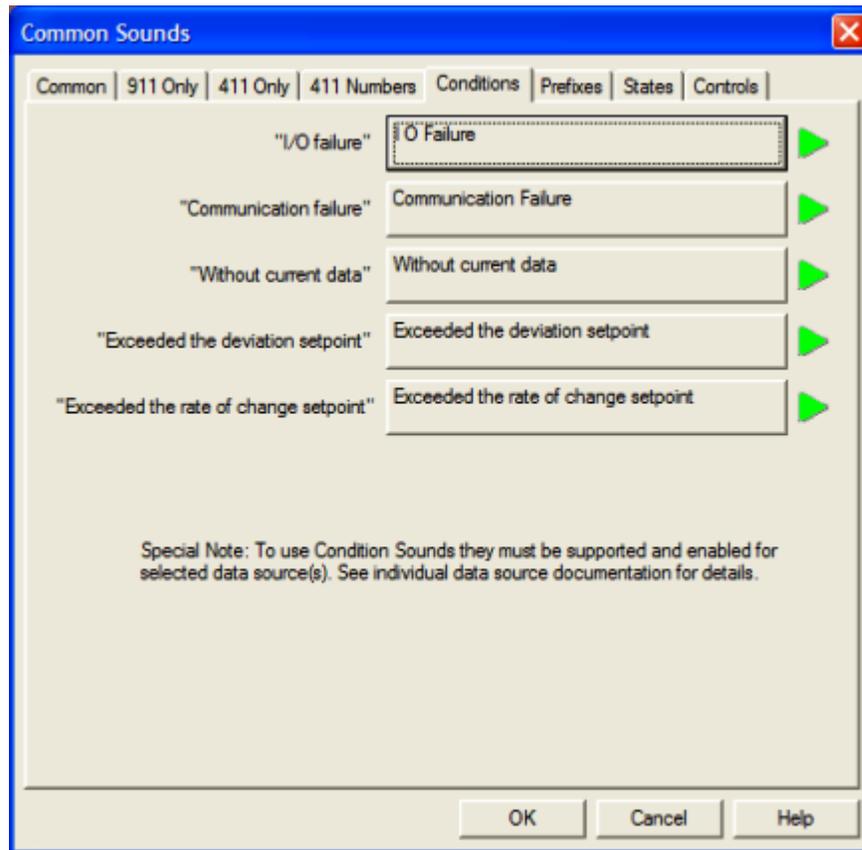
## 411 Numbers



Note: WIN-411 Reports are not available in Lite mode, RSView SE Direct Connect, Factory Talk Alarms and Events, or RSView32 Direct Connect.

In reporting an analog value, WIN-411 must be able to verbalize a numeric value. This is done by recording a sound clip of each digit. A value of "-2.33" would be reported as "Minus two point three three".

## Conditions



### "I/O failure"

The "I/O failure" sound is used to warn the user that the particular I/O point is in failure. This message is normally "I O failure..."

### "Communication failure"

The "Communication failure" sound is used to warn the user that the communication with the I/O hardware is in failure. This message is normally "Communication failure..."

### "Without current data"

The "Without current data" sound is used to inform the user that the data is not current for a particular I/O point. This message is normally "Without current data..."

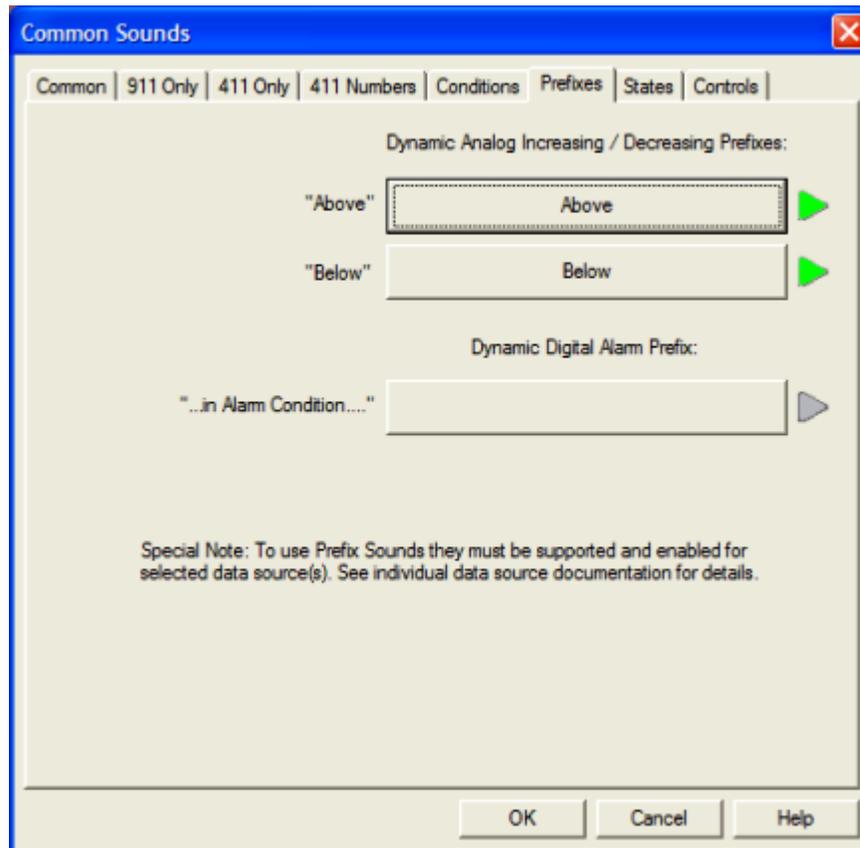
### "Exceeded the deviation setpoint"

The "Exceeded the deviation setpoint" sound is used in deviation alarm annunciations to explain that an alarm has occurred by way of the value increasing above the deviation setpoint. This message is normally, "Exceeded the deviation setpoint".

### "Exceeded the rate of change setpoint"

The "Exceeded the rate of change setpoint" sound is used in rate of change alarm annunciations to explain that an alarm has occurred by way of the value changing from one value to another. This message is normally, "Exceeded the rate of change setpoint".

## Prefixes



### "Above"

The "Above" sound is used in analog alarm annunciations to explain that an alarm threshold has been exceeded by way of the value increasing above a specified limit. This message is normally, "Above".

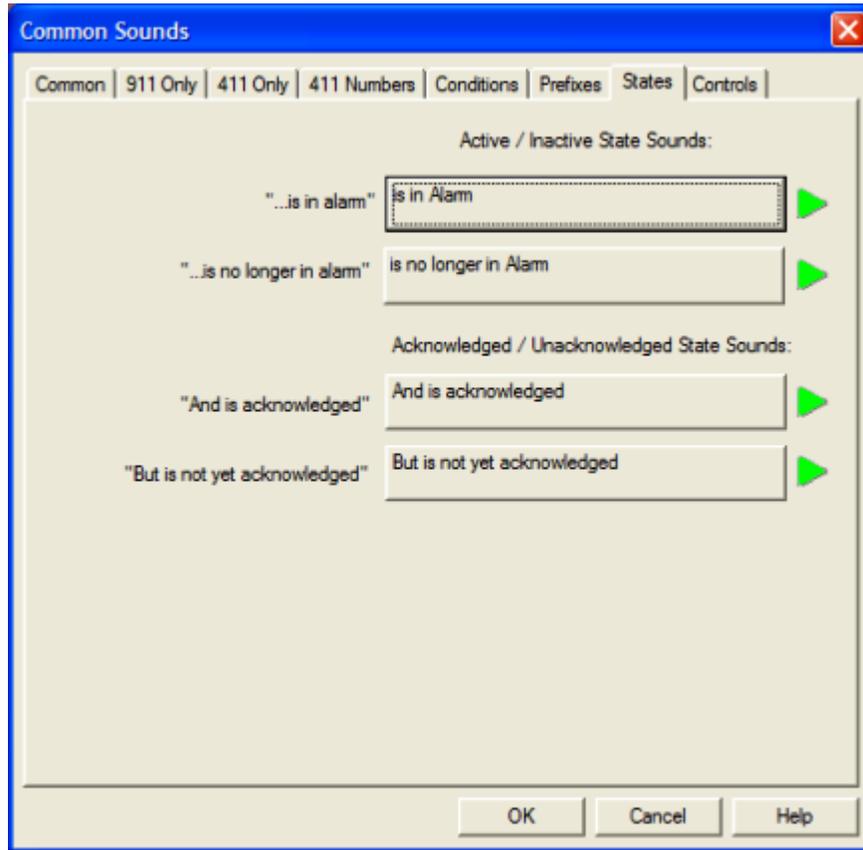
### "Below"

The "Below" sound is used in analog alarm annunciations to explain that an alarm threshold has been exceeded by way of the value decreasing below a specified limit. This message is normally, "Below".

### "...in Alarm Condition..."

The "...in Alarm Condition..." sound is used in digital alarm annunciations, as a prefix, to help describe the alarm condition message defined in the data source. This sound is undefined by default.

## States



### "...is in alarm"

The "...is in alarm" sound is used to inform the user that the alarm is in the active state. This message is normally, "...is in alarm".

### "...is no longer in alarm"

The "is no longer in alarm" sound is used to inform the user that the alarm is now in the inactive state. This message is normally, "...Is no longer in Alarm".

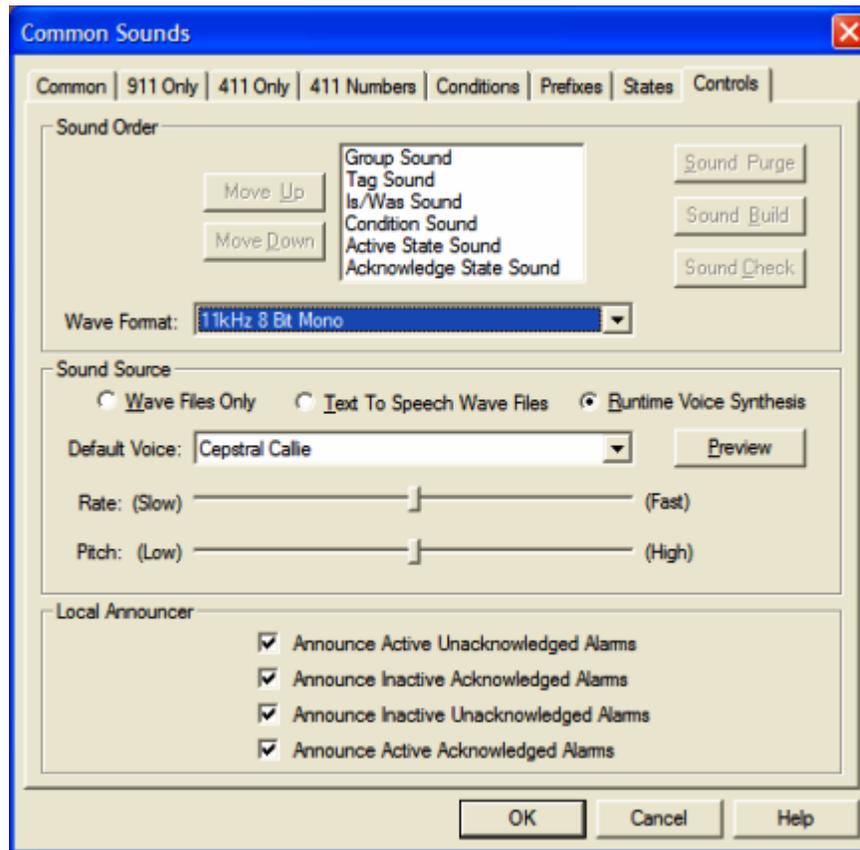
### "And is acknowledged"

The "And is acknowledged" sound is used to inform the user that the alarm has been acknowledged. This message is normally, "...And is acknowledged".

### "But is not yet acknowledged"

The "But is not yet acknowledged" sound is used to inform the user that the alarm is still unacknowledged. This message is normally, "...But is not yet acknowledged".

## Controls



### Sound Order

The Sound Order stack determines the sequence in which segments of the alarm message are to be verbalized. The top segment is the first to be verbalized. To change the order of the message, highlight the segment to be moved and click the Move Up or Move Down button.

The Group Sound is configured in the Group Definition. The Tag Sound is defined in the Analog, Digital, Watchdog, or Filter Definition. The Is/Was Sound, Condition Sound, Active State Sound, and the Acknowledge State Sound are all defined in Common Sounds.

### Sound Purge

**WARNING!** The Sound Purge button deletes all wave files in the current sound file directory. This can be used to fix corrupted wave files by deleting them, and then allowing WIN-911 to rebuild the wave files with the correct format automatically, during shut down or with the Sound Build button. Sound Purge may also be used to modify properly working wave files with for instance a different voice. The Sound Purge option can also be found in the Tools menu at the top of the WIN-911 Configurator.

### Sound Build

The Sound Build button rebuilds all missing wave files with the selected format and voice. If using Premium Voice, Sound Build rebuilds the wave files with the rate and pitch as well as the selected format and voice. This button functions the same as when the Configurator is shutdown.

## Sound Check

Voice telephony requires a standard sound file ("\*.WAV") format to ensure smooth operation. The formats that are acceptable are PCM format, 11025 Hz or 8000 Hz sample rate, 8 bit, and mono for both Dialogic and TAPI. Because the sound files can be developed independently and with different voices, both sample rates can end up in the Sound Files folder. Such a mixing of sample rates or wave formats can cause the voice module and hardware to malfunction. Specter requires that you standardize on one sample rate.

To help in this portion of the development if Runtime Voice Synthesis is disabled, the Sound Check tool can be invoked for a global sound file scan on the spot. This button will check the format of each sound file and produce a comprehensive list of offending "\*.WAV" files. This list is placed in the WIN-911 V7 folder in the form of a text file titled "TeleDAC Sound Check.txt". This can be viewed and printed out using Notepad.

The sound check button works very similarly to the Sound Check option in the Tools menu, except the global sound file scan happens on the spot instead of at shutdown. More can be read about the Sound Check options in the Tools menu in Chapter 14.

## Wave Format

The wave file format can be specified with this pull-down, giving the user the ability to directly control the sample rate, number of bits, and audio quality.

Note: Users of the Dialogic card or TAPI modem can only play uniformly formatted "\*.WAV" files that conform to the following parameters: PCM, 11 kHz or 8 kHz sample rate (one or the other but NOT both), 8 bit, and Mono. Check each of the existing files with Sound Check and convert them as needed.

Note: Runtime Voice Synthesis generates audio streams using the selected Wave Format.

## Wave Files Only

WIN-911 will use only pre-generated wave files when "Wave Files Only" is selected. This selection is what you would use if you created your wave files externally and put them onto your system. For users using earlier versions or upgrading, this will be the selection you would probably prefer.

## Text To Speech Wave Files

WIN-911 can use Text To Speech technology to generate audio announcements for use by the WIN-911 Announcer and Voice/TAPI modules. To do this you must select "Text To Speech Wave Files". When this radio button is selected TTS technology is invoked. It can be used by the Configurator to develop sound files for use by Scan & Alarm.

The sound file option (WIN-911's original and default mode of playing voice announcements and telephony) provides the developer with two ways to generate wave files. One way which is automated and part of the WIN-911 Configurator shutdown routine. The other is manual, using a "Convert Text to Wave" dialog or the "Sound Build" button.

The automated shutdown routine generates sound files based on available text located in the associated sound buttons. This is a time saving function that can generate large numbers of wave files quickly. The drawback to this feature is that the text located in the associated text box may be insufficient for human consumption. A Tagname may be "Lift22\_em\_gen" and require a sound file with some more elaborate speech like "Lift Station Number 22, Emergency Generator". When this situation arises, simply click on the Tagname sound button and click "New" and then the "Convert Text to Wave File" dialog will allow you to specify the exact text you want WIN-911 to announce for that field.

## Runtime Voice Synthesis

WIN-911 Voice, TAPI, and Announcer modules will play speech that is generated during runtime by reading appropriate text fields as opposed to playing wave files. This is a space saving feature for the hard drive because it doesn't need to save any sound files in the Sound Files folder. This also guarantees that all of the audio will be uniformed, since it uses the Wave Format configured above.

When using Runtime Voice Synthesis the sound buttons become text boxes that contain the text that will be "read" by Scan & Alarm during voice annunciations of the WIN-911 Announcer, Voice, and TAPI modules. When one of these buttons is selected the dialog that will appear is titled "Save Runtime Text String." Rather than associating a sound file from the Sound Files folder, the Configurator saves the defined text string. The "Convert Text to Wave File" dialog does not appear in this mode.

## Default Voice

This pull down menu selects the default voice to be used by the Text-To-Speech engine during the generation of speech. Both Text To Speech wave files and Runtime Voice Synthesis are effected by the default voice.

## Rate

The Rate slider bar varies the pace at which the premium voice engine annunciates the messages (premium voices only).

Note: The Rate slider is only active when a Premium Voice is selected.

## Pitch

The Pitch slider bar varies the pitch that the premium voice engine annunciates the messages (premium voices only).

Note: The Pitch slider is only active when a Premium Voice is selected.

## Announce Active Unacknowledged Alarms

This checkbox determines whether local audio will include/exclude announcements for "active" alarms that are "unacknowledged".

### **Announce Inactive Acknowledged Alarms**

This checkbox determines whether local audio will include/exclude announcements for "inactive" alarms that are "acknowledged".

### **Announce Inactive Unacknowledged Alarms**

This checkbox determines whether local audio will include/exclude announcements for "inactive" alarms that are "unacknowledged".

### **Announce Active Acknowledged Alarms**

This checkbox determines whether local audio will include/exclude announcements for "active" alarms that are "acknowledged".

# Monitor Definition

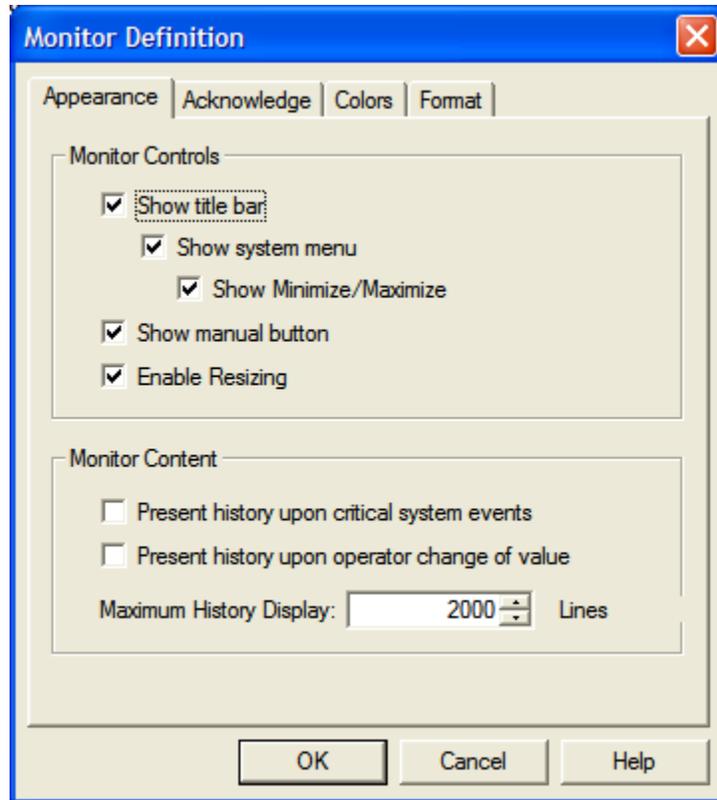
## Monitor Definition



This button defines the message format for the Monitor window (both the alarm history and alarm summary). It also selects the acknowledgment options, the security display options, and the alarm message color choices.

## Appearance

These options allow the developer to customize the attributes and the contents of the alarm monitor window.



### Show title bar

Selecting this check box will make the title bar visible on the alarm monitor window. Leaving the check box blank will hide the title bar. With the title bar hidden the user cannot modify (drag) the location of the window nor can the user minimize/maximize the window. The user still has the ability to resize the window.

Note: Selection of this option will override Show systems menu and Show Minimize/Maximize selections.

### Show systems menu

Selecting this check box will make the Minimize/Maximize controls and the Windows Exit control visible. Leaving the check box blank will hide all three system menu controls.

Note: Selection of this option will override Show Minimize/Maximize selections.

### Show Minimize/Maximize

Selecting this check box will make the Windows Minimize/Maximize controls visible. Leaving the check box blank will hide the controls.

## Show manual button

Selecting this check box will make the Manual Message button visible on the alarm monitor. This control can be used to manually send e-mails and pages. Leaving this check box blank will hide the button.

Note: There must be at least one e-mail, SMS, or Pager notification configured for the Manual Message button to be visible.

## Enable Resizing

Selecting this check box will allow the window to be re-sized by dragging the edges vertically, horizontally, or diagonally. Leaving the box unchecked will put the window in a state that cannot be re-sized.

## Present history upon critical system events

Selecting this check box will cause the Alarm Monitor to switch its presentation mode from Summary to History in the event of any critical system events.

Note: The Display Lock button will override this behavior anytime it is engaged.

## Present history upon operator change of value

Selecting this check box will cause the Alarm Monitor to switch its presentation mode from Summary to History in the event of an operator change of value via WIN-411.

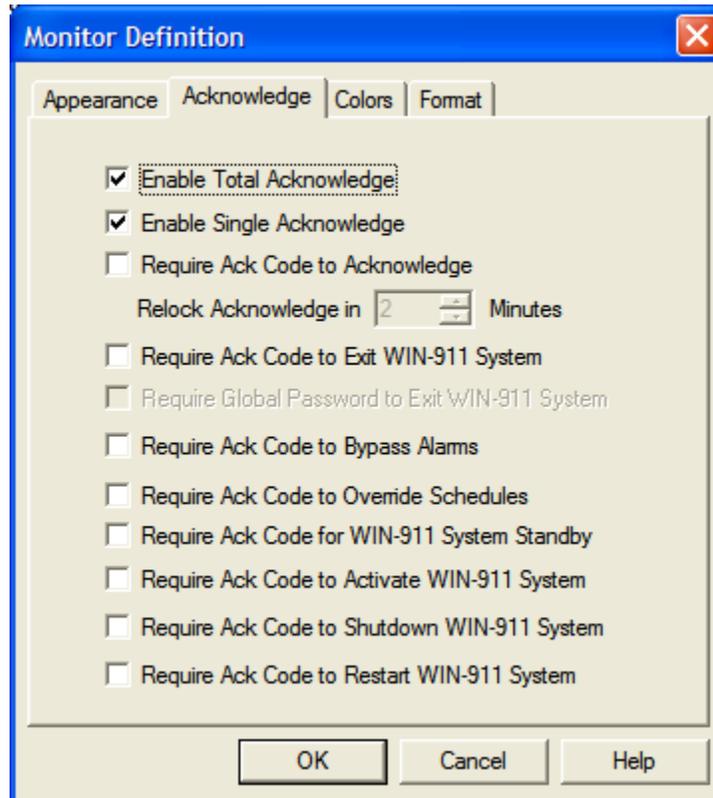
Note: The Display Lock button will override this behavior anytime it is engaged.

## Maximum History Display

Use this spinner-box to limit the number of lines (records) that will appear when the Alarm Monitor is running in history mode (maximum is 10,000).

## Acknowledge

These options select different acknowledgment choices available in the runtime Alarm Monitor. These options affect local system acknowledgments only. It does not affect dial-in acknowledgments or acknowledgments made from the HMI/SCADA software. The selections may be used in any combination.



### Enable Total Acknowledge

The user may acknowledge all current alarms at one time by using the "Acknowledge" button on the monitor dialog. Selecting this check box will make the "Acknowledge" button visible, leaving this box unchecked will hide the button.

### Enable Single Acknowledge

Some applications require individual acknowledgments on an alarm by alarm basis. Selecting this check box will allow this option. An alarm is acknowledged by double clicking the displayed alarm message in the monitor's summary view. Leaving this box unchecked will disable single acknowledgments.

### Require Ack Code to Acknowledge

If security and/or enhanced historical alarm record keeping are needed, the user may use this option to require an operator to enter his/her name and acknowledgment code in order to have access to local alarm acknowledgments. Selecting this box will activate this feature. The user also may acknowledge more than one alarm at a time by extending the

"Relock Time". "Relock Acknowledge in" is used to control how long access is allowed in minutes before the Ack Code is required to be entered again. If the user selects this option and selects two minutes for relock, the user may acknowledge as many alarms as he wishes, without re-entering his code, for up to 2 minutes. In this example, if two minutes elapses after his last acknowledgment, the system will relock and require his/her user information to be re-entered to acknowledge the next alarm. A selection of "0" minutes for relock would require re-entering the code for each alarm. Leaving this box unchecked will disable password protection.

If the check box is selected, you will notice a button entitled "Lock" which becomes visible during the relock time described above. Clicking on the button will abort the timer and automatically relock the acknowledgment sequence, thus requiring re-entry of the acknowledgment code to acknowledge the next alarm.

### Require Ack Code to Exit WIN-911 System

This security feature is provided to restrict unauthorized personnel from shutting down WIN-911 Scan & Alarm. When selected, a valid "User Name" or "Access Code" and the matching "Ack Code" is required before WIN-911 will shutdown.

Note: The "Shutdown.exe" and "Restart.exe" command applet ignores this setting and will shutdown Scan & Alarm automatically. You must enable "Require Ack Code to Shutdown WIN-911 System" and "Require Ack Code to Restart System" for WIN-911 to require an ack code for both applets.

### Require Global Password to Exit WIN-911 System

This security feature is provided to restrict unauthorized personnel from shutting down WIN-911 Scan & Alarm. When selected, the global password is required to shutdown Scan & Alarm.

A Password must be configured in order to have this option enabled. The password is configured in the Tools menu of the Configurator. See, "WIN911 Configurator.CHM -> WIN-911 Configurator Menu -> Tools -> Password" for further details.

### Require Ack Code to Bypass Alarms

This security feature is provided to restrict unauthorized personnel from bypassing alarms. When selected, a valid "User Name" or "Access Code" and the matching "Ack Code" is required before the user can bypass alarms.

### Require Ack Code to Override Schedules

This security feature is provided to restrict unauthorized personnel from overriding dialout schedules. When selected, a valid "User Name" or "Access Code" and the matching "Ack Code" is required before the user can override dialout schedules.

### Require Ack Code for WIN-911 System Standby

This security feature is provided to restrict unauthorized personnel placing WIN-911 in Standby mode using the Standby applet. When selected, a valid "User Name" or "Access

Code" and the matching "Ack Code" is required before the user can change the WIN-911 system from Active to Standby.

### Require Ack Code to Activate WIN-911 System

This security feature is provided to restrict unauthorized personnel placing WIN-911 in Active mode using the Activate applet. When selected, a valid "User Name" or "Access Code" and the matching "Ack Code" is required before the user can change the WIN-911 system from Standby to Active.

### Require Ack Code to Shutdown WIN-911 System

This security feature is provided to restrict unauthorized personnel from shutting down WIN-911 using the Shutdown applet. When selected, a valid "User Name" or "Access Code" and the matching "Ack Code" is required before the user can shut down the WIN-911 system.

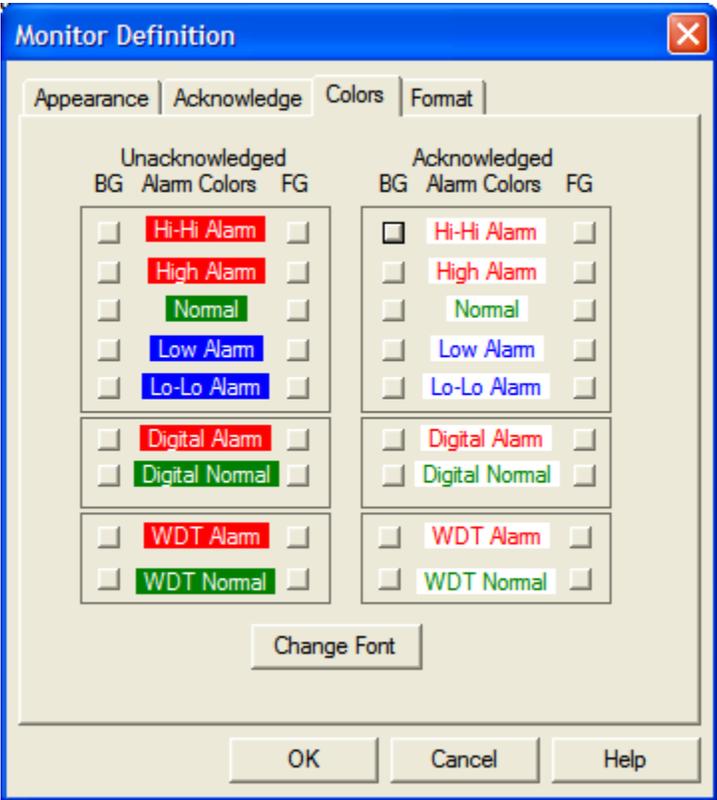
### Require Ack Code to Restart WIN-911 System

This security feature is provided to restrict unauthorized personnel from restarting WIN-911 using the Restart applet. When selected, a valid "User Name" or "Access Code" and the matching "Ack Code" is required before the user can restart the WIN-911 system.

Note: If WEB-911 is installed alongside your WIN-911 installation, the XStandby, XActivate, and XApply XTools will allow standby, activate, and restart (respectively) without an Ack Code. WEB-911 provides its own security.

## Colors

Both the Font Size selection and the Color selection are only applicable for the Alarm Monitor and the Alarm Log Manager.



Notice that the user has complete selection of foreground and background colors for both "Unacknowledged" and "Acknowledged" alarms for each of the WIN-911 alarm types.

### BG

The BG column is used to select the background color. The selection will then be displayed to the right of the control.

### FG

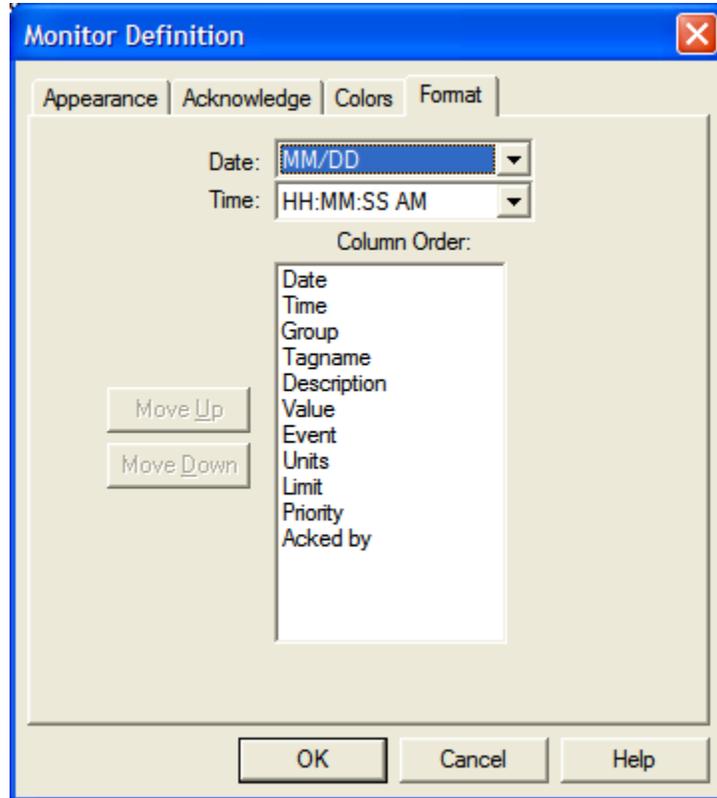
The FG column is used to select the foreground color. The selection will then be displayed to the left of the control.

### Change Font

The Change Font button brings up the default Windows font selection window. The user has the ability to select Font, Font Style and Size.

## Format

Each of the items listed on this page is automatically saved as an individual column listing. You may change or move the appearance (or order) of each column as it is displayed on the monitor. If, for example, you are not interested in displaying the Priority (as you have configured all alarms with the same priority), you may move its column position to the last, and modify the width of the column to a width of zero. To do this, highlight "Priority" in the list box and "Move Down" to the bottom. You must wait until runtime to adjust the width of the column.



## Date

This field is used to select the desired date format in the alarm messages. The options provided through a pull down list box are:

- None
- MM/DD
- MMM DD
- MM/DD/YY
- MMM DD YYYY
- DD/MM

DD MMM

DD/MM/YY

DD MMM YYYY

## Time

This field is used to select the desired time format in the alarm messages. The options provided through a pull down list box are:

None

HH:MM (24 Hour)

HH:MM AM

HH:MM:SS (24 hour)

HH:MM:SS AM

## Event

Is the item in an alarm condition, or has it returned to normal? For a Digital Alarm, the "Event" conditions are:

\*ALM\* = unacknowledged active alarm.

ALM = acknowledged active alarm.

>ALM = unacknowledged return-to-normal alarm (inactive alarm).

OK = acknowledged return -to-normal alarm (inactive alarm).

For an Analog Alarm, the conditions are: \*High\* (first level high alarm), \*HiHi\* (the second or highest alarm), \*Low\* (the first low alarm), \*LoLo\* (the second or lowest alarm). When an analog alarm returns to normal without first being acknowledged the event field reports <High or <<HiHi.

## Priority

Each alarm may be given one of three "Priorities": High, Medium, or Low. A discussion on alarm priorities is found in the alarm configuration section of this manual, (WIN911 Configurator.CHM -> WIN-911 Configuration -> Digital Definitions, Analog Definitions and Watchdog Timer Definitions).

## Group

The name given to a group of alarms, such as: "Reactor Three" or "Section 5 Lift Stations".

## Tagname

The name given to a unique alarm.

## Description

A text field used to describe the "Tagname", or the alarm description. Example: "Water level".

## Value

The numeric value of the alarm at the exact time it was reported.

## Units

The Engineering Unit description of the analog value: DEG.F, or GPM.

## Limit

The value of the alarm limit.

## Acked By

If the proper "Acknowledgment Option" was chosen, this would list the name of the individual who acknowledged the alarm. For system events (e.g. shutdown of WIN-911), this field will contain the actor responsible for the event (e.g. the windows login, "XTools Client", etc.).

## Column Order

The alarm message is composed of up to eleven text fields that can be arranged in any order. The user can rearrange the order to suit his/her needs by highlighting the item and clicking the Move Up/Move Down buttons.

## Printer Definition

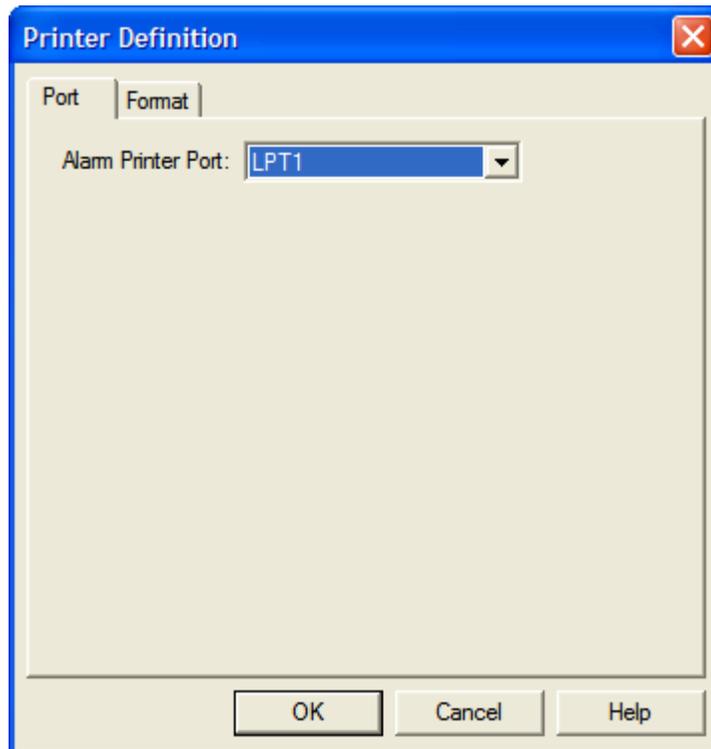
### Printer Definition



This button is used to define specific hardware and alignment definitions used by the alarm printer. The definitions are for alarm printer parallel port assignment and the alarm text formatting.

Note: Specter recommends a dot matrix or any other type of printer that is capable of printing one line at a time. Page at a time printers will not be able to provide real-time information because data is buffered until a page worth of alarm information has been received.

## Port



The printer can be assigned to None, LPT1, LPT2, or LPT3.

Note that if a printer port is assigned for alarm printing, no other tasks can access the printer. Do not configure an operating system printer on the LPT port. Alarm printing is sent to the printer as normal text rather than through standard Windows drivers. The alarm reporter will not use any special features of the printer.

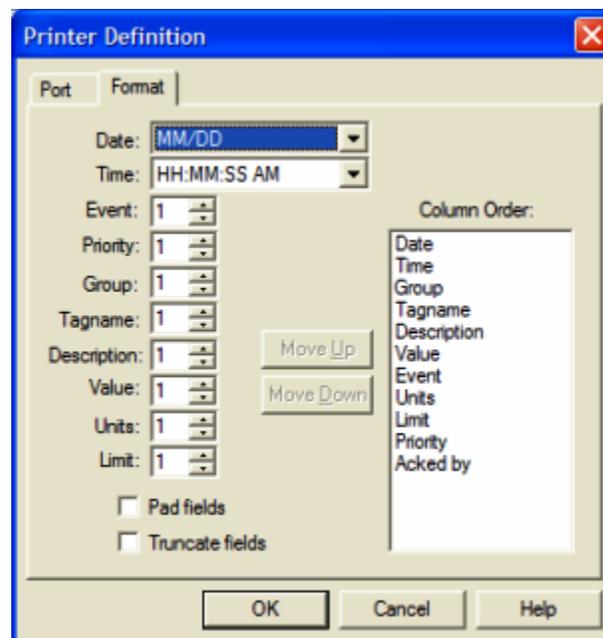
Note: It is possible to redirect the Alarm Printer Port to a network printer located on a remote node using a batch file. Refer to our [knowledgebase](http://specterinstruments.com/knowledgebase) at [specterinstruments.com](http://specterinstruments.com)

## Format

Upon a pre-selected condition, an alarm message will be assembled by WIN-911 and displayed on the output device to bring attention to the condition. The message is composed of up to ten concatenated text fields. These fields can be arranged in any order, rigorously formatted, or omitted altogether. Date and Time styles are configured by pull-down menus while the other fields are formatted by a combination of a text box entry along with pad and truncate field check boxes.

The user may wish to view the alarm message in a columnar form for presentation effect. To do this the user should specify each field's character count by adjusting the number in the associated text box. To omit the field simply enter zero. Checking the Pad Fields option will ensure that each field contains at least the specified number of characters. Checking the Truncate Fields option will shorten the field to the specified size, should it exceed the specified length.

The user may wish to view the entire text of each field. To do so, uncheck the pad and truncate fields and ensure that the number one (1) is entered for the character count. This free-form format will take only the number of characters needed to complete each of the desired fields.



## Date

This field is used to select the desired date format in the alarm messages. The options provided through a pull down list box are:

None

MM/DD

MM/DD/YY

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MMM DD YYYY

DD/MM

DD/MM/YY

DD MMM YYYY

## Time

This field is used to select the desired time format in the alarm messages. The options provided through a pull down list box are:

None

HH:MM (24 Hour)

HH:MM AM

HH:MM:SS (24 hour)

HH:MM:SS AM

## Event

Is the item in an alarm condition, or has it returned to normal? For a Digital Alarm, the "Event" conditions are:

\*ALM\* = unacknowledged active alarm.

ALM = acknowledged active alarm.

>ALM = unacknowledged return-to-normal alarm (inactive alarm).

OK = acknowledged return-to-normal alarm (inactive alarm).

For an Analog Alarm, the conditions are: \*High\* (first level high alarm), \*HiHi\* (the second or highest alarm), \*Low\* (the first low alarm), \*LoLo\* (the second or lowest alarm). When an analog alarm returns to normal without first being acknowledged the event field reports <High or <<HiHi.

Select "1" if you want the Event to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Priority

Each alarm may be given one of three "Priorities": High, Medium, or Low. A discussion on alarm priorities is found in the alarm configuration section of this manual, (WIN911 Configurator.CHM -> WIN-911 Configuration -> Digital Definitions, Analog Definitions and Watchdog Timer Definitions).

## Group

The name given to a group of alarms, such as: "Reactor Three". Select "1" if you want the Alarm Group description to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Tagname

The name given to a unique alarm. Select "1" if you want the "Tagname" to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Description

A text field used to describe the "Tagname", or the alarm description. Example: "Water level". Select "1" if you want the comment field to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Value

The numeric value of the alarm at the exact time it was reported. Select "1" if you want the value to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Units

The Engineering Unit designation for the analog value. Select "1" if you want the Engineering Units to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Limit

The value of the alarm limit. Select "1" if you want the "Limit" to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Pad Fields to Fixed Length

If you select the "Pad Fields" check-box, the number in the text box (character count) that is associated with each item becomes the fixed length of that item, padded with spaces out to the specified length.

## Truncate Fields to Fixed Length

If you select the "Truncate Fields" check-box, the number in the text box (character count) that is associated with each item becomes the maximum length of that item. (In the examples above, the selection of "1" would be nonsensical as only one character of each selection would be visible.)

## Column Order

The alarm message is composed of up to eleven text fields that can be arranged in any order. The user can rearrange the order to suit his/her needs by highlighting the item and clicking the Move Up/Move Down buttons.

## Pager Definition

### Pager Definition



This button defines the hardware settings and message format for numeric and alphanumeric pagers.

WIN-911 can send the alarm messages to alphanumeric pagers such as the pagers manufactured by NEC and Motorola. These pagers have different display sizes, although the most common size is 4 lines of 20 characters. The overall message size is usually limited to 199 characters, with the pager handling the scrolling through the message parts. In addition, many pagers include a received message date and time stamp so that date and time do not need to be sent.

The pagers typically have 6K to 8K of memory for messages so that the message capability exceeds the needs of even a shutdown situation. The user must manually clear the messages when they are no longer needed.

## Ports

The "Ports" tab consists of serial port selection for the modem, and baud rate settings. Numeric and local pager information is also set-up here.

Note: An important point to keep in mind when configuring applications to process e-mail, SMS, and pager messages is that their respective modules operate independently. If not properly implemented they may interfere with each other. Dial-out paging requires a dedicated modem and phone line. e-mail uses whichever server connection has been established, including but not limited to dialup networking. Ensure there is no sharing of hardware (serial port) resources.

The screenshot shows the "Pager Definition" dialog box with the "Ports" tab selected. The "Dial-out Paging" section has "Port" set to "COM3", "Data Bits" to "7", "Baud" to "2400", and "Parity" to "Even". The "Alphanumeric Password" field is empty. The "Local Paging" section has "Port" set to "None", "Data Bits" to "7", "Baud" to "2400", and "Parity" to "Even". The "TAP Protocol" radio button is selected. The "Global Numeric Page Message" field contains "[411]". The "Numeric Delay Between" is set to "5" seconds. The "OK", "Cancel", and "Help" buttons are at the bottom.

### Dial-out Paging Port

The pager modem can be set to use None, COM1, COM2, COM3, up to COM256 for sending paging information.

Note: Although Windows does allow the use of COM3 and COM4 for communications, COM1 cannot be used simultaneously with COM3, or COM2 cannot be used simultaneously with COM4, unless different IRQs are used. This effectively means that COM3 and COM4 should not be used in industrial applications unless special hardware is used, or software adjustments are made.

### Dial-out Alphanumeric Password

The TAP protocol offers an optional security password. If implemented, enter the six-character password in this text-box. If no password is required leave the text-box blank.

## Global Numeric Page Message

The purpose of the Global Numeric Page Message is to identify WIN-911 as the originator or the numeric page. The numbers entered here are prefixed to the actual alarm numbers. For example: A Base Number of "411" and an alarm message number of "66" will be received at the numeric pager as "41166". Numeric messages must be enclosed in square brackets "[ ]".

## Baud Rate

Both the dial-out and local pager connection can be set to a baud rate of 110, 300, 600, 1200, 2400, 4800, 9600, 14400, 19200, 38400, 57600, 115200, or 128000. The word size and parity are handled automatically. This selection controls the speed at which WIN-911 will "talk" to the local modem and/or transmitter, not the external baud rate between the local modem and the pager company's modem.

## Data Bits

Both the dialout and local pager connection data bits can be selected using the provided pull-down menus. The default setting is 7 data bits which is the setting specified by the TAP protocol.

## Parity

Both the dialout and local pager connection parity can be selected using the provided pull-down menus. The default setting is Even parity which is the setting specified by the TAP protocol.

## Local Port

The local pager transmitter can be set to use None, COM1, COM2, COM3, up to COM256 for sending paging information.

Note: Although Windows does allow the use of COM3 and COM4 for communications, COM1 cannot be used simultaneously with COM3, or COM2 cannot be used simultaneously with COM4, unless different IRQs are used. This effectively means that COM3 and COM4 should not be used in industrial applications unless special hardware is used, or software adjustments are made.

## TAP or COMP 2 Protocol Radio Button

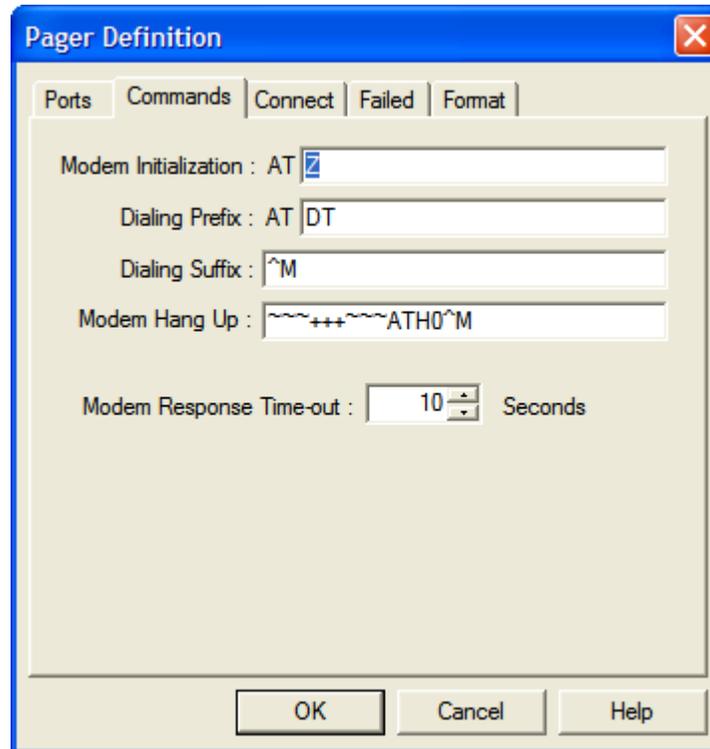
The WIN911 Local Pager.dll can process numeric and alphanumeric pages with either the TAP or COMP-2 protocols. Make the selection by clicking on the appropriate selection.

## Numeric Delay Between

The delay between the numeric pager dial-string and the entry of the message string is set in this text-box. The default setting is five seconds.

## Commands

The modem control commands are modem-specific commands that are used for putting the modem in the proper mode. The default commands should work with most "Hayes" compatible modems.



### Modem Initialization

This command is sent to the modem at program start up. The string sent includes commands needed for proper operation with WIN-911. In the case of modems with non-volatile RAM, this string will most likely be 'ATZ^M'. Note that '^M' is equivalent to a carriage return. This string may be customized, depending on the pager company modem setup.

Please note that only a "Z" is required in the modem initialization list box because WIN-911 automatically attaches an "AT" prefix and a carriage return "^M" suffix to the entry.

Note: Modems with non-volatile memory should be properly configured, and then the configuration should be saved in the modem's memory.

### Dialing Prefix

This command instructs the modem to dial using either tone or pulse dialing. "Hayes" compatible modems use the command 'ATDT' for tone dialing and 'ATDP' for pulse dialing.

If your phone system requires a dialing prefix (such as 9 to get an outside line on a PBX system), you may specify this prefix after the dialing command. To specify a delay time of

two seconds, place a comma after the prefix (2 seconds is the default for a comma; see your modem manual for the proper register set). For example, the dialing command to get an outside line (on most PBX systems) and pause for 4 seconds might be 'ATDT9,,'.

Note: Only the "DT" is required in this list box because WIN-911 automatically appends an "AT" to the beginning of this entry.

## Dialing Suffix

The dialing suffix is appended to the end of the dialing command.

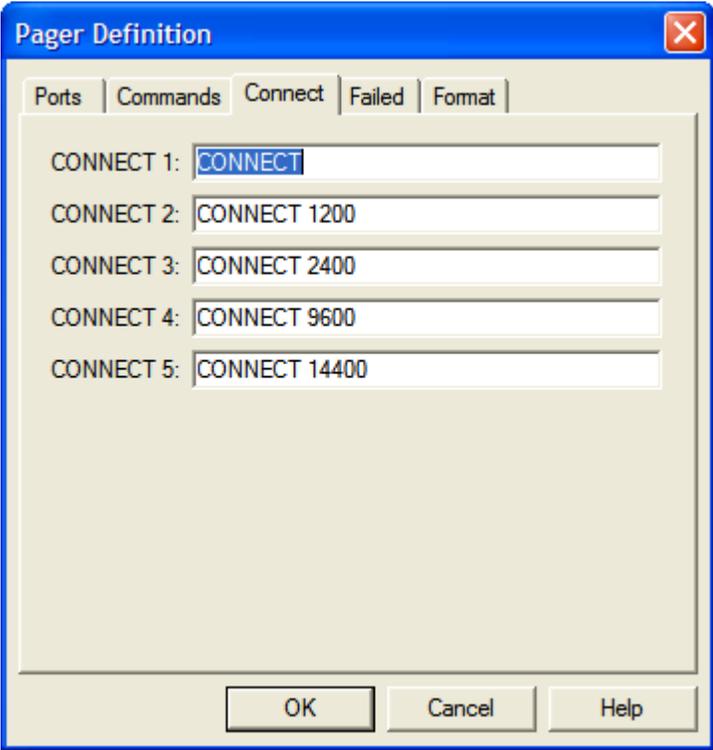
## Modem Hang-Up

The modem hang-up instructs the modem to go "on hook" and return to command mode.

## Modem Response Timeout

During WIN-911 Scan & Alarm startup, WIN-911 initializes the pager modem by sending it ATZ commands and awaiting an OK response from the modem. This parameter varies the amount of time WIN-911 will wait for the OK response. The default time is one second.

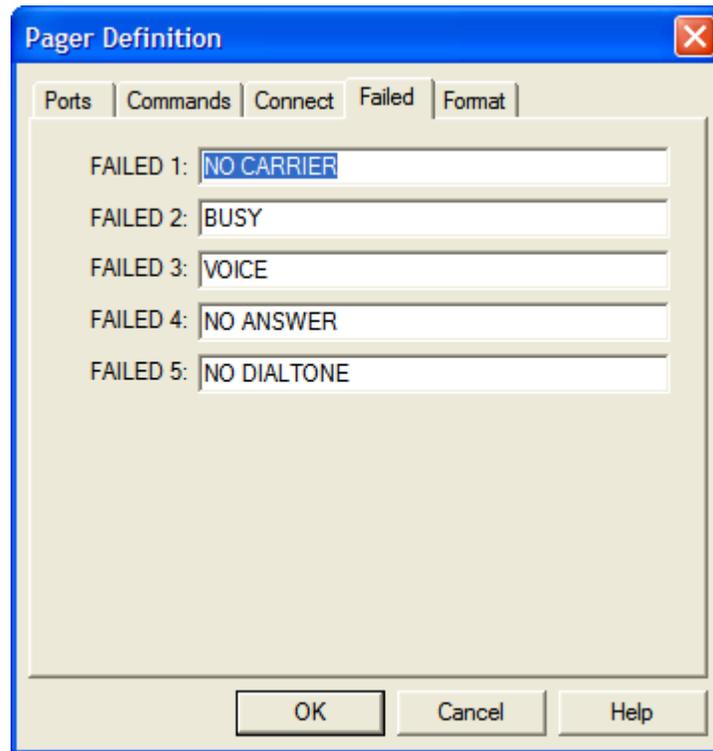
# Connect



The connect result codes are messages sent by the local WIN-911 modem to the Pager Applet to indicate the state of the connection. The messages defined in this section are case sensitive and must exactly match the result messages returned by the local modem. The listings above indicate successful connections.

Note: If none of the "Connect Result Codes" in the left column match the modem's response, the modem configuration will fail. Any of the "Connect Codes" in the left column may be altered to reflect the actual response of the modem. Example: Change the "Connect" to "Connect 300".

## Failed



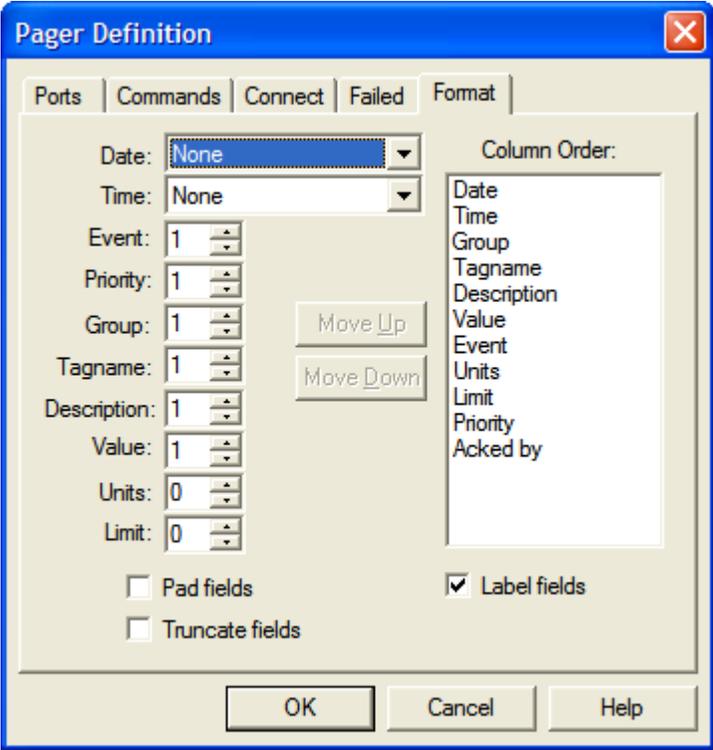
If the connection was not successful, one of these failure codes will be logged.

## Format

When an unacknowledged alarm event is received, an alarm message will be assembled by WIN-911 and displayed on the output device to bring attention to the condition. The message is composed of up to ten concatenated text fields. These fields can be arranged in any order, rigorously formatted, or omitted altogether. Date and Time styles are configured by pull-down menus while the other fields are formatted by a combination of a text box entry along with pad and truncate field check boxes.

The user may wish to view the alarm message in a columnar form for presentation effect. To do this the user should specify each field's character count by adjusting the number in the associated text box. To omit the field simply enter zero. Checking the Pad Fields option will ensure that each field contains at least the specified number of characters. Check the Truncate Fields option to shorten the field to the specified size, should it exceed it.

The user may wish to view the entire text of each field. To do so uncheck the pad and truncate fields and ensure that a number one (1) is entered for the character count. This free-form format will take only the number of characters needed to complete each of the desired fields.



### Date

This field is used to select the desired date format in the alarm messages. The options provided through a pull down list box are:

None

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MM/DD

MM/DD/YY

MMM DD YYYY

DD/MM

DD/MM/YY

DD MMM YYYY

## Time

This field is used to select the desired time format in the alarm messages. The options provided through a pull down list box are:

None

HH:MM (24 Hour)

HH:MM AM

HH:MM:SS (24 hour)

HH:MM:SS AM

## Event

Is the item in an alarm condition, or has it returned to normal? For a Digital Alarm, the "Event" conditions are:

\*ALM\* = unacknowledged active alarm.

ALM = acknowledged active alarm.

>ALM = unacknowledged return-to-normal alarm (inactive alarm).

OK = acknowledged return-to-normal alarm (inactive alarm).

For an Analog Alarm, the conditions are: \*High\* (first level high alarm), \*HiHi\* (the second or highest alarm), \*Low\* (the first low alarm), \*LoLo\* (the second or lowest alarm). When an analog alarm returns to normal without first being acknowledged the event field reports <High or <<HiHi.

Select "1" if you want the Event to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Priority

Each alarm may be given one of three "Priorities": High, Medium, or Low. A discussion on alarm priorities is found in the alarm configuration section of this manual, (WIN911 Configurator.CHM -> WIN-911 Configuration -> Digital Definitions, Analog Definitions and Watchdog Timer Definitions).

## Group

The name given to a group of alarms, such as: "Reactor Three". Select "1" if you want the Alarm Group description to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Tagname

The name given to a unique alarm. Select "1" if you want the "Tagname" to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Description

A text field used to describe the "Tagname", or the alarm description. Example: "Water level". Select "1" if you want the comment field to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Value

The numeric value of the alarm at the exact time it was reported. Select "1" if you want the value to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Units

The Engineering Unit designation for the analog value. Select "1" if you want the Engineering Units to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Limit

The value of the alarm limit. Select "1" if you want the "Limit" to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Pad Fields to Fixed Length

If you select the Pad Fields check box, the number in the text box (character count) that is associated with each item becomes the fixed length of that item, padded with spaces out to the specified length.

## Truncate Fields to Fixed Length

If you select the Truncate Fields check box, the number in the text box (character count) that is associated with each item becomes the maximum length of that item. (In the examples above, the selection of "1" would be nonsensical as only one character of each selection would be visible.)

## Label Fields

If you select the Label Fields check-box, the message will be formatted with column headers and line breaks for each columns results. If the check box is left unchecked, the message will concatenate all the columns results into a single line of text.

## Column Order

The alarm message is composed of up to eleven text fields that can be arranged in any order. The user can rearrange the order to suit his/her needs by highlighting the item and clicking the Move Up/Move Down buttons.

## Voice Card Definition

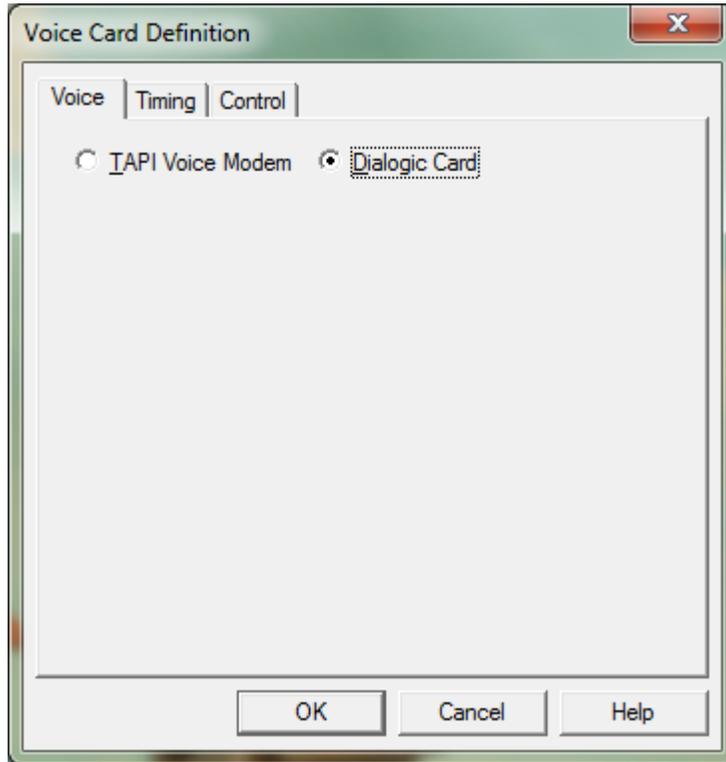
### Voice Card Definition



This button defines the parameters associated with voice telephony. From this dialog you can define the type of telephony, the timing parameters such as number of rings before answering an inbound call, and volume. This section is optional and only used if you are conducting voice telephony call-outs and/or call-ins.

Special Note: When running in Lite Mode Dialogic cards are not supported. All Voice connections must use a TAPI modem.

## Voice

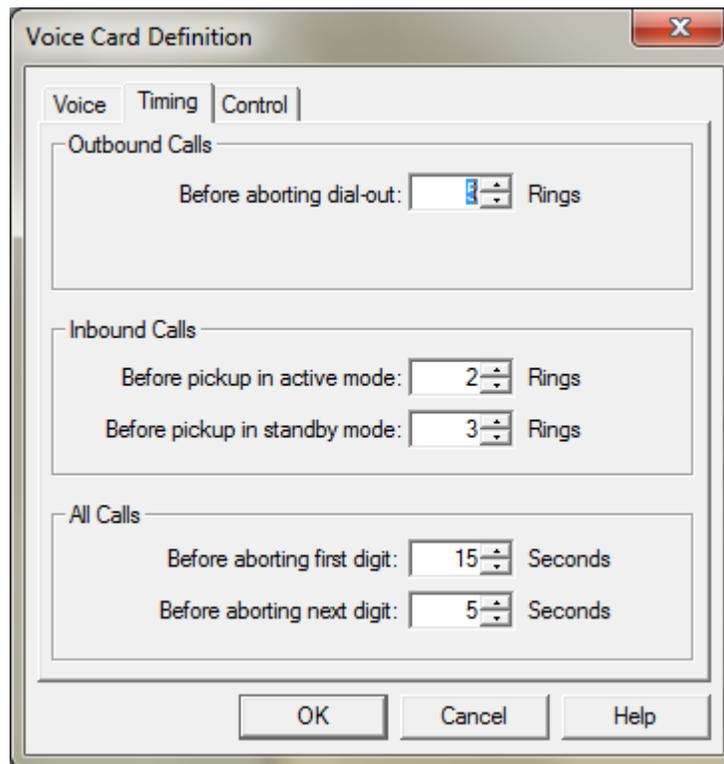


WIN-911 may use either a TAPI voice modem or Dialogic voice card to handle voice notification. Use the radio button to select the hardware you will be using.

The drop down menu for compatible devices will list all TAPI compliant modems on your system. Use it to select your TAPI modem. WIN-911 will be unable to use a TAPI modem if more than one modem appears in this list. If more than one TAPI compliant modem is installed, one must be removed.

**Special Note:** Do not share the TAPI Voice Modem COM port with Local Pager port, SMS port, or Dialout Pager port selection. WIN-911 will not share COM ports. TAPI Voice alarming module will not run when a shared COM port is defined.

## Timing



### Before aborting dial-out

Enter the number of rings that WIN-911 will allow before it aborts a voice dial-out attempt.

### Before pickup in active mode

Enter the number of rings that WIN-911 will allow before it answers an inbound voice call in active mode.

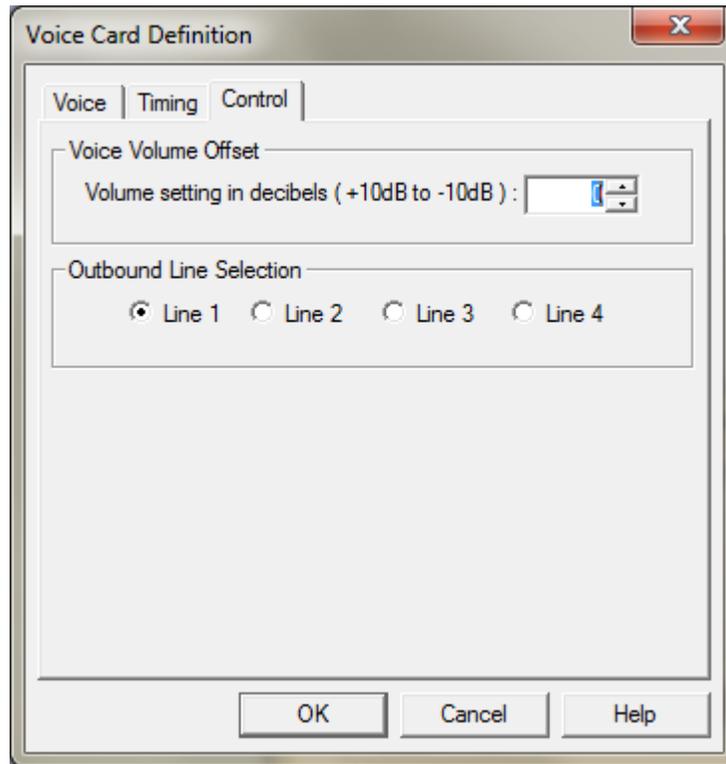
### Before pickup in standby mode

Enter the number of rings that WIN-911 will allow before it answers an inbound voice call in standby mode.

### Before aborting first digit & Before aborting next digit

The default time between a computer requested input and the beginning of a user response (touch-tone button) is 15 seconds and five seconds before next digit entered. If the first tone is not entered during the first 15 seconds or the next digit within 5 seconds, WIN-911 will abort the requested task and hang-up. If you wish to change the default value, you must edit to increase or decrease the values. If a user input is received prior to the timeout, the task is completed.

## Control



### Volume setting in decibels (+10dB to -10dB)

This setting offsets the default volume of the telephony card up to plus or minus 10 decibels. This parameter is valuable in applications where there is a lot of ambient industrial noise. The default setting is zero.

### Outbound Line Selection

The dialogic card has four phone ports and can receive calls on any of those ports. The board may only place calls on a single line. Select the line you wish to place your outgoing calls on with this radio button.

# SMS Definition

## SMS Definition



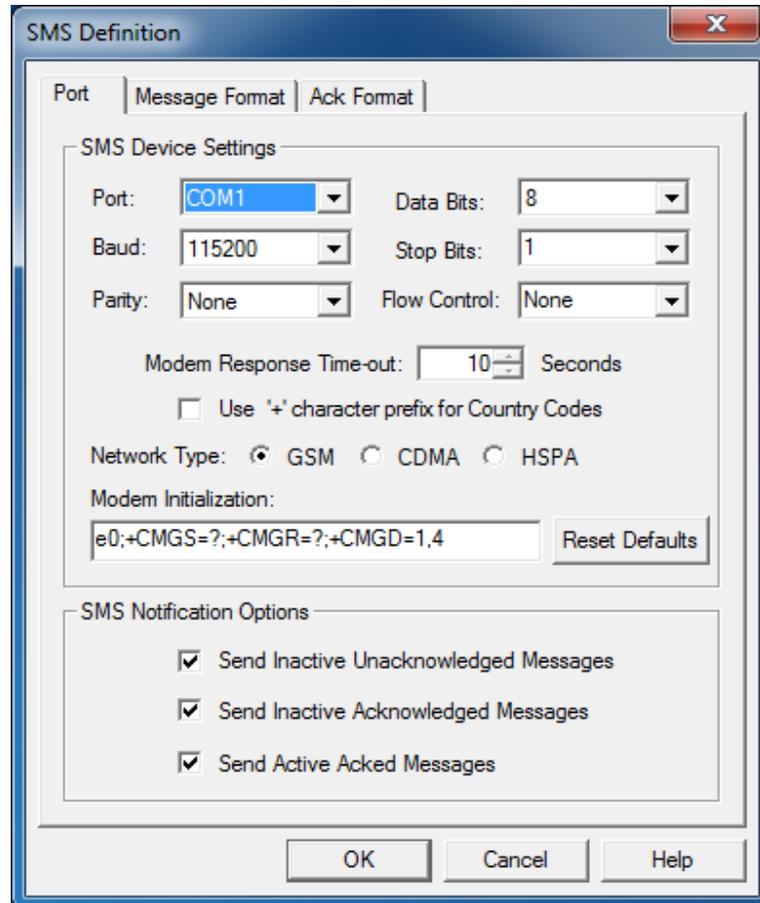
This button defines settings and message formats for the SMS notifier.

WIN-911 can send alarm messages in the form of SMS messages to cell phones using a wireless GSM modem. The WIN-911/PRO license allows the user to remotely acknowledge alarms by sending a text message back to the GSM modem. The specifics of the Ack message are explained in the "Ack Format" section below. WIN-911/PRO licensed users can also send a health status request to monitor the health of WIN-911. A list of recommended GSM modems can be found on our website at [www.specterinstruments.com](http://www.specterinstruments.com) -> Support -> 24/7 Online-> AppNotes -> WIN-911-> Recommended GSM Modem List - 080007.

The overall message size for an SMS message is limited to 160 characters. WIN-911 uses some number of characters to format alarm messages and acknowledgments. As a result, the character limit is slightly less than 160 for both. These limits are discussed in the "Message Format" and "Ack Format" sections below.

## Port

The "Port" tab is used to configure the necessary settings for WIN-911 to communicate with the installed GSM modem.



## Port

The GSM modem will be installed on one of the computer's 256 COM ports. Phone and Modem Options in the Control Panel will tell you to which COM port the modem is installed. The correct COM port should be configured here.

Special Note: Do not share the SMS COM port with Local Pager port, TAPI Voice Modem port, or Dialout Pager port selection. WIN-911 will not share COM ports. The SMS alarming module will not run when a shared COM port is defined.

## Data Bits

The GSM modem data bits can be selected using the provided pull-down menu. The default setting is 8 data bits. Refer to the modem's documentation or contact the modem manufacturer for the recommended Data Bits.

## Baud

The GSM modem's baud rate may be set from 110 to 921,600. This selection controls the speed at which WIN-911 will "talk" to the GSM modem. Refer to the modem's documentation or contact the modem manufacturer for the specified recommended Baud.

## Stop Bits

The GSM modem's Stop Bits may be set with 1, 1.5, or 2 stop bits using the provided pull-down menu. Refer to the modem's documentation or contact the modem manufacturer for the recommended Stop Bits.

## Parity

The GSM modem's connection parity may be set to Even, Odd, None, Mark, or Space, using the provided pull-down menu. The default setting is None. Refer to the modem's documentation or contact the modem manufacturer for the recommended Parity.

## Flow Control

The GSM modem's Flow Control may be set to CtsDtr, CtsRts, DsrDtr, DsrDts, None, or XonXoff, using the provided pull-down menu. The default setting is None. Refer to the modem's documentation or contact the modem manufacturer for the recommended Flow Control.

## Modem Response Timeout

This is the total time WIN-911 will always wait for an expected response from the modem. Setting this value too low may cause the initialization and/or modem commands to fail. The default value is 10 seconds.

## Use "+" character prefix for Country Codes

Some cellular networks require a "+" be prefixed to the beginning of phone numbers. Should yours require this, check this option.

## Network Type

Select the type of network you will be using: either GSM, CDMA, or HSPA. Changing this selection will also change the Modem Initialization string to match the string that is required for either network.

## Modem Initialization

This string represents the AT command sent to initialize and test the GSM modem. The default value for GSM networks is: "e0;+CMGS=?;+CMGR=?;+CMGD=1,4," which turns echo of commands off, tests that sending SMS is supported, tests that reading SMS messages is supported, and deletes ALL received SMS messages currently on the modem (also testing that deletion of SMS messages is supported). The default string for CDMA networks is: "e0," which turns echo off. These default strings are suitable for most modems, however additional AT commands may be needed to initialize the modem (e.g. unlocking a locked SIM card, or switching a quad-band modem's country code). Refer to your modem's documentation or contact its manufacturer for the necessary AT initialization strings.

## Reset Defaults

Click this button to restore your SMS Device Settings to the default settings. The Network Type setting will not be affected.

## Send Inactive Unacknowledged Messages

Check this box and WIN-911 will send messages for inactive alarms that are not acknowledged. Leaving this box unchecked means that will not send a message when an alarm returns to a normal state.

## Send Inactive Acknowledged Messages

Check this box and WIN-911 will send messages for inactive alarms that are acknowledged.

## Send Active Acknowledged Messages

Check this box and WIN-911 will send messages for active alarms that are acknowledged.

## Message Format

Upon a pre-selected condition, an alarm message will be assembled by WIN-911 and displayed on the output device to bring attention to the condition. The message is composed of up to eleven text fields. These fields can be concatenated or delimited, arranged in any order, rigorously formatted, or omitted altogether. Date and Time styles are configured by textboxes and pull-down menus while the other fields are formatted by a combination of a text box entry along with minimum/maximum field size lengths.

The user may wish to view the alarm message in a labeled columnar form for presentation effect. To do this the user should enable "Label Fields" and maybe specify each field's character count by adjusting the number in the associated text box. To omit the field simply uncheck the box next to the field in the Field Selection.

The user may wish to view the entire text of each field. To do so uncheck the minimum and maximum length and place checks in everything under Field Selection. This free-form format will take only the number of characters needed to complete each of the desired fields.

```
000012
Tag: TANK
Desc: HI Level Alarm
Value: 56 ft
Ack:
```

Note: SMS alarm messages sent by WIN-911 can contain up to 134 characters, meaning anything over this number will be concatenated after the 134th character. You can enable/disable alarm fields as well as adjust the maximum field length for each individual field to insure the contact receives the entire intended alarm message.

Note: Every SMS alarm message will contain a 6-digit ticket number at the beginning of each message. This ticket number is used by WIN-911 to keep track of the active alarm. Also the end of every message will contain the string "Ack:". If the recipient wants to acknowledge the alarm they will need to send a reply back to the modem. The first 6 digits of the acknowledgement must be the ticket number, and the recipient's Ack code must be at the end of the message. More details about acknowledging alarms via SMS are discussed under 'SMS' in the 'Overview' section at the beginning of the help file.

The image shows a software dialog box titled "SMS Definition" with three tabs: "Port", "Message Format", and "Ack Format". The "Message Format" tab is active. It contains a "Field Selection" list with the following items: Tagname (checked), Description (checked), Value (checked), Event (checked), Acked By (unchecked), Priority (unchecked), Limit (unchecked), Units (unchecked), Group (unchecked), Time (unchecked), and Date (unchecked). Below the list are "Move Up" and "Move Down" buttons. To the right, the "Fields" section has "Label Fields" (checked) and "Abbreviate Labels" (checked). Below that, "Field Suffix (Delimiter)" is set to "NEWLINE (\n)". The "Length" section has "Minimum" (unchecked) and "Maximum" (unchecked) options, and a "Field Size" spinner box set to 10. At the bottom are "OK", "Cancel", and "Help" buttons.

## Tagname

The name given to a unique alarm. This check box is used to enable/disable the Tagname field. (See Minimum/Maximum Length below for configuring a desired character length.)

## Description

A text field used to describe the Tagname, or the alarm description. Example: "Water level". This check box is used to enable/disable the Description field. (See Minimum/Maximum Length below for configuring a desired character length.)

## Value

The numeric value of the alarm at the exact time it was reported. This check box is used to enable/disable the Value field. (See Minimum/Maximum Length below for configuring a desired character length.)

## Acked By

The user who acked the alarm. If an Ack Code was required to acknowledge the configured WIN-911 user will be logged. If no Ack Code was required the logged in Windows user will be logged. This check box is used to enable/disable the Acked By field. (See Minimum/Maximum Length below for configuring a desired character length.)

## Priority

Each alarm may be given one of three "Priorities": High, Medium, or Low. A discussion on alarm priorities is found in the alarm configuration section of this manual, (WIN911 Configurator.CHM -> WIN-911 Configuration -> Digital Definitions, Analog Definitions and Watchdog Timer Definitions). This check box is used to enable/disable the Priority field. (See 'Minimum/Maximum Length' below for configuring a desired character length.)

## Event

Is the item in an alarm condition, or has it returned to normal? For a Digital Alarm, the "Event" conditions are:

\*ALM\* = unacknowledged active alarm.

ALM = acknowledged active alarm.

>ALM = unacknowledged return-to-normal alarm (inactive alarm.)

OK = acknowledged return -to-normal alarm (inactive alarm.)

For an Analog Alarm, the conditions are: \*High\* (first level high alarm), \*HiHi\* (the second or highest alarm), \*Low\* (the first low alarm), \*LoLo\* (the second or lowest alarm). When an analog alarm returns to normal without first being acknowledged the event field reports <High or <<HiHi.

This checkbox is used to enable/disable the Event field. (See 'Minimum/Maximum Length' below for configuring a desired character length.)

## Limit

The value of the alarm limit. This check box is used to enable/disable the Limit field. (See Minimum/Maximum Length below for configuring a desired character length.)

## Units

The Engineering Unit designation for the analog value. This check box is used to enable/disable the Unit field. (See Minimum/Maximum Length below for configuring a desired character length.)

## Group

The name given to a group of alarms, such as: "Reactor Three". This check box is used to enable/disable the Group field. (See Minimum/Maximum Length below for configuring a desired character length.)

## Label Fields

If you select the "Label Fields" check box, each field of the message will be prepended with a field label (e.g. "Limit: " will appear before the value of the alarm limit). If the check box is left unchecked, only the contents of the fields will be in the message. Note that enabling Label Fields will reduce the amount of characters available in the SMS message, but will make the message more readable.

## Abbreviate Labels

If you select the Abbreviate Labels check box, the longer field labels will be abbreviated (e.g. "Desc.:" instead of "Description"). This will leave more characters for the alarm message.

## Field Suffix (Delimiter)

The "Field Suffix (Delimiter)" is used to separate the enabled fields in the message. By default NEWLINE (\n) is selected. The user has the option to select one of the fourteen predefined delimiters or can type in a custom delimiter by typing in the drop down menu. Only one custom delimiter can be configured at a time. All custom delimiters will appear in the message exactly as it appears in the Field Suffix (Delimiter) dropdown box. Some delimiters in the list format the message such as NEWLINE (\n). This delimiter makes each field appear on a new line. Below explains what will appear in the message when selected.

LINEReturn (\r\n) = This will separate each selected field with a carriage return - line feed resulting in each selected field being on a new line.

NEWLINE (\n) = This will separate each selected field with a line feed resulting in each selected field being on a new line.

NONE ( ) = This will result in nothing separating each selected field. The alarm message will be concatenated without spaces.

PERIOD (.) = A "." will be used to separate selected fields.

RETURN (\r) = This will separate each selected field with a carriage return resulting in each selected field being on a new line.

SPACE ( ) = A space will be used to separate selected fields.

TAB (\t) = Five spaces will be used to separate selected fields.

## Minimum Length

If you select the Minimum Length check box, the number in the Field Size text box (character count) that is associated with each item becomes the minimum length of that item. This can be configured for each selected field.

## Maximum Length

If you select the Maximum Length check box, the number in the Field Size text box (character count) that is associated with each item becomes the maximum length of that item. This can be configured for each selected field.

## Field Size

The number of characters selected allowed for the Minimum, Maximum or both field lengths. This can be configured for each selected field.

## Column Order

The alarm message is composed of up to eleven text fields that can be arranged in any order. The user can rearrange the order to suit his/her needs by highlighting the item clicking the Move Up/Move Down buttons. Once the order is set, all selected fields will group at the top of the list .

## Ack Format

Upon an alarm acknowledgement, an ack message will be assembled by WIN-911 and displayed on the output device. The message is composed of up to eleven text fields. These fields can be concatenated or delimited, arranged in any order, rigorously formatted, or omitted altogether. Date and Time styles are configured by textboxes and pull-down menus while the other fields are formatted by a combination of a text box entry along with minimum/maximum field size lengths.

The user may wish to view the ack message in a labeled columnar form for presentation effect. To do this the user should enable "Label Fields" and maybe specify each field's character count by adjusting the number in the associated text box. To omit the field simply uncheck the box next to the field in the Field Selection.

The user may wish to view the entire text of each field. To do so uncheck the minimum and maximum length and place checks in everything under Field Selection. This free-form format will take only the number of characters needed to complete each of the desired fields.

<b>Alarm Acked</b>
<b>000012</b>
<b>Tag: TANK</b>
<b>Desc: HI Level Alarm</b>
<b>Value: 56 ft</b>
<b>Ack: Tom Jones</b>

Note: SMS acknowledgement messages in WIN-911 can contain up to 140 characters, meaning anything over this number will be concatenated after the 140th character. You can enable/disable alarm fields as well as adjust the maximum field length for each individual field to insure the contact receives the entire intended alarm message.

Note: The beginning of every SMS acknowledgement message will contain the string "Alarm Acked" followed by the 6-digit ticket number. This ticket number is used by WIN-911 to keep track of all active alarms.

The image shows a software dialog box titled "SMS Definition" with three tabs: "Port", "Message Format", and "Ack Format". The "Message Format" tab is active. It contains a "Field Selection" list with the following items: Tagname (checked), Acked By (checked), Description (checked), Value (checked), Priority (unchecked), Event (unchecked), Limit (unchecked), Units (unchecked), Group (unchecked), Time (unchecked), and Date (unchecked). Below this list are "Move Up" and "Move Down" buttons. To the right, the "Fields" section has "Label Fields" (checked) and "Abbreviate Labels" (checked). Below that, "Field Suffix (Delimiter)" is set to "NEWLINE (\n)". The "Length" section has "Minimum" (unchecked) and "Maximum" (unchecked) checkboxes, and a "Field Size" spinner box set to 10. At the bottom of the dialog are "OK", "Cancel", and "Help" buttons.

## Tagname

The name given to a unique alarm. This checkbox is used to enable/disable the Tagname field. (See Minimum/Maximum Length below for configuring a desired character length.)

## Description

A text field used to describe the Tagname, or the alarm description. Example: "Water level." This check box is used to enable/disable the Description field. (See 'Minimum/Maximum Length' below for configuring a desired character length.)

## Value

The numeric value of the alarm at the exact time it was reported. This check box is used to enable/disable the Value field. (See Minimum/Maximum Length below for configuring a desired character length.)

## Acked By

The user who acked the alarm. If an Ack Code was required to acknowledge the configured WIN-911 user will be logged. If no Ack Code was required the logged in

Windows user will be logged. This checkbox is used to enable/disable the Acked By field. (See Minimum/Maximum Length below for configuring a desired character length.)

## Priority

Each alarm may be given one of three Priorities: High, Medium, or Low. A discussion on alarm priorities is found in the alarm configuration section of this manual, (WIN911 Configurator.CHM -> WIN-911 Configuration -> Digital Definitions, Analog Definitions and Watchdog Timer Definitions). This check box is used to enable/disable the Priority field. (See 'Minimum/Maximum Length' below for configuring a desired character length.)

## Event

Is the item in an alarm condition, or has it returned to normal? For a Digital Alarm, the "Event" conditions are:

\*ALM\* = unacknowledged active alarm.

ALM = acknowledged active alarm.

>ALM = unacknowledged return-to-normal alarm (inactive alarm).

OK = acknowledged return-to-normal alarm (inactive alarm).

For an Analog Alarm, the conditions are: \*High\* (first level high alarm), \*HiHi\* (the second or highest alarm), \*Low\* (the first low alarm), \*LoLo\* (the second or lowest alarm). When an analog alarm returns to normal without first being acknowledged the event field reports <High or <<HiHi.

This checkbox is used to enable/disable the Event field. (See 'Minimum/Maximum Length' below for configuring a desired character length.)

## Limit

The value of the alarm limit. This check box is used to enable/disable the Limit field. (See 'Minimum/Maximum Length' below for configuring a desired character length.)

## Units

The "Engineering Unit" designation for the analog value. This check box is used to enable/disable the Unit field. (See Minimum/Maximum Length below for configuring a desired character length.)

## Group

The name given to a group of alarms, such as: "Reactor Three". This check box is used to enable/disable the Group field. (See 'Minimum/Maximum Length' below for configuring a desired character length.)

## Label Fields

If you select the "Label Fields" check box, each field of the message will be prepended with a field label (e.g. "Limit: " will appear before the value of the alarm limit). If the

checkbox is left unchecked, only the contents of the fields will be in the message. Note that enabling Label Fields will reduce the amount of characters available in the SMS message, but will make the message more readable.

## Abbreviate Labels

If you select the "Abbreviate Labels" check box, the longer field labels will be abbreviated (e.g. "Desc.:" instead of "Description"). This will leave more characters for the alarm message.

## Field Suffix (Delimiter)

The "Field Suffix (Delimiter)" is used to separate the enabled fields in the message. By default NEWLINE (\n) is selected. The user has the option to select one of the fourteen predefined delimiters or can type in a custom delimiter by typing in the drop down menu. Only one custom delimiter can be configured at a time. All custom delimiters will appear in the message exactly as it appears in the Field Suffix (Delimiter) dropdown box. Some delimiters in the list format the message such as NEWLINE (\n). This delimiter makes each field appear on a new line. Below explains what will appear in the message when selected.

LINEReturn (\r\n) = This will separate each selected field with a carriage return - line feed resulting in each selected field being on a new line.

NEWLINE (\n) = This will separate each selected field with a line feed resulting in each selected field being on a new line.

NONE ( ) = This will result in nothing separating each selected field. The alarm message will be concatenated without spaces.

PERIOD (.) = A "." will be used to separate selected fields.

RETURN (\r) = This will separate each selected field with a carriage return resulting in each selected field being on a new line.

SPACE ( ) = A space will be used to separate selected fields.

TAB (\t) = Five spaces will be used to separate selected fields.

## Minimum Length

If you select the Minimum Length check box, the number in the Field Size text box (character count) that is associated with each item becomes the minimum length of that item. This can be configured for each selected field.

## Maximum Length

If you select the Maximum Length check box, the number in the Field Size text box (character count) that is associated with each item becomes the maximum length of that item. This can be configured for each selected field.

## Field Size

The number of characters selected allowed for the Minimum, Maximum or both field lengths. This can be configured for each selected field.

## Column Order

The alarm message is composed of up to eleven text fields that can be arranged in any order. The user can rearrange the order to suit his needs by highlighting the item and clicking the Move Up/Move Down buttons. Once the order is set, all selected fields will group at the top of the list .

## E-Mail Definition

### E-Mail Definition



WIN-911 can send alarm messages via the Internet as a standard e-mail client. WIN-911 will use the systems established Internet connection to e-mail alarm information. The connection must be a WAN/LAN connection such as DSL. This is a very powerful tool that can result in remote alarm notification being received by a variety of output devices. Depending on the user's service providers, this module can send messages to other computers, paging services that convert e-mail messages to pages, SMS, fax's, etc.

Note: Specter Instruments does not support the use of Dial-up Networking to connect to an ISP for e-mail service access. No customer support will be extended to users attempting this kind of connection setup.

## SMTP Account

The SMTP Account page sets up the e-mail account from which the alarm messages originate. This requires an e-mail account with an SMTP server and Internet connection.

The screenshot shows the 'E-Mail Definition' dialog box with the following fields and options:

- SMTP Account** | Authentication | Format
- SMTP Server Name: [Text Box]
- Source E-Mail Address: [Text Box]
- Subject Source:
  - User Defined
  - Group
  - Tagname
  - Description
- Fail connect attempt in : [10] seconds if no response
- SMTP Port : [25]
- Buttons: OK, Cancel, Help

### SMTP Server Name

Enter the SMTP server name in this text box.

### Source E-Mail Address

Enter the e-mail address of the account the alarm messages will originate from. The source e-mail must be a valid e-mail account on the SMTP server.

### Subject Source

Define the subject of your alarm messages here. You may specify a literal text string for all message subjects by selecting User Defined and then entering that string in the field below. Additionally, the message subject may contain the Group, Tagname or Description of the alarm that triggered the e-mail.

Keep in mind that some mail servers require a subject message. Also, some mail clients will mark messages that do not contain subjects as spam.

### Fail connect attempt

Enter the amount of time to allow the E-Mail client/server connection to occur before aborting the attempt. The default setting is 10 seconds and the upper limit is 300.

## SMTP Port

The default port for SMTP servers is 25. If your server listens on another port, enter that port number here.

## Authentication

Authentication is available using the POP3 standard. The requirement of this option depends on the e-mail service provider. SMTP account settings must be completed first before POP3 may be enabled. All possible combinations of SMTP and POP3 authentication are selected via the radio buttons.

The screenshot shows the 'E-Mail Definition' dialog box with the 'Authentication' tab selected. The dialog has three tabs: 'SMTP Account', 'Authentication', and 'Format'. Under the 'Authentication' tab, there are four radio buttons: 'None', 'SMTP', 'POP3', and 'SMTP/POP3'. The 'SMTP/POP3' option is selected. Below the radio buttons are several input fields: 'POP3 Server Name:', 'POP3 User Login Name:', 'POP3 User Login Password:', 'POP3 Port:' (with a text box containing '110'), and a checkbox labeled 'Share POP3 User Login?'. At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

### POP3 Server Name

Specifies the service provider for incoming messages.

### POP3 User Login Name

Specifies the account name assigned by the POP3 service provider.

### POP3 User Login Password

Enter the service provider assigned password here.

### POP3 Port

The default port for POP servers is 110. If your server listens on another port, enter that port number here.

### Share POP3 User Login Name and Password?

This check box enables SMTP authentication using POP3.

### SMTP User Login Name

Specifies the authentication account name assigned by the SMTP service provider if different than POP3.

### SMTP User Login Password

Enter the service provider assigned authentication password here.

## Format

Upon a pre-selected condition, an alarm message will be assembled by WIN-911 and displayed on the output device to bring attention to the condition. The message is composed of up to eleven concatenated text fields. These fields can be arranged in any order, rigorously formatted, or omitted altogether. Date and Time styles are configured by pull-down menus while the other fields are formatted by a combination of a text box entry along with pad and truncate field checkboxes.

The user may wish to view the alarm message in a columnar form for presentation effect. To do this the user should specify each field's character count by adjusting the number in the associated text box. To omit the field simply enter zero. Checking the Pad Fields option will ensure that each field contains at least the specified number of characters. The Truncate Fields option make the character count the maximum size.

The user may wish to view the entire text of each field. To do so uncheck the pad and truncate fields and ensure that a number one (1) is entered for the character count. This free-form format will take only the number of characters needed to complete each of the desired fields.

The screenshot shows the 'E-Mail Definition' dialog box with the 'Format' tab selected. The 'SMTP Account' and 'Authentication' tabs are also visible. The 'Format' tab contains the following elements:

- Date:** A pull-down menu set to 'None'.
- Time:** A pull-down menu set to 'None'.
- Event:** A spin box set to '1'.
- Priority:** A spin box set to '1'.
- Group:** A spin box set to '1'.
- Tagname:** A spin box set to '1'.
- Description:** A spin box set to '1'.
- Value:** A spin box set to '1'.
- Units:** A spin box set to '0'.
- Limit:** A spin box set to '0'.
- Column Order:** A list box containing the following items: Date, Time, Group, Tagname, Description, Value, Event, Units, Limit, Priority, Acked by.
- Move Up / Move Down:** Two buttons for reordering the column order list.
- Pad fields:** An unchecked checkbox.
- Truncate fields:** An unchecked checkbox.
- Label fields:** A checked checkbox.
- Buttons:** 'OK', 'Cancel', and 'Help' buttons at the bottom.

## Date

This field is used to select the desired date format in the alarm messages. The options provided through a pull down list box are:

None

MM/DD

MM/DD/YY

MMM DD YYYY

DD/MM

DD/MM/YY

DD MMM YYYY

## Time

This field is used to select the desired time format in the alarm messages. The options provided through a pull down list box are:

None

HH:MM (24 Hour)

HH:MM AM

HH:MM:SS (24 hour)

HH:MM:SS AM

## Event

Is the item in an alarm condition, or has it returned to normal? For a Digital Alarm, the "Event" conditions are:

\*ALM\* = unacknowledged active alarm.

ALM = acknowledged active alarm.

>ALM = unacknowledged return-to-normal alarm (inactive alarm).

OK = acknowledged return -to-normal alarm (inactive alarm).

For an Analog Alarm, the conditions are: \*High\* (first level high alarm), \*HiHi\* (the second or highest alarm), \*Low\* (the first low alarm), \*LoLo\* (the second or lowest alarm). When an analog alarm returns to normal without first being acknowledged the event field reports <High or <<HiHi.

Select "1" if you want the Event to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Priority

Each alarm may be given one of three Priorities: High, Medium, or Low. A discussion on alarm priorities is found in the alarm configuration section of this manual, (WIN911 Configurator.CHM -> WIN-911 Configuration -> Digital Definitions, Analog Definitions and Watchdog Timer Definitions.)

## Alarm Group

The name given to a group of alarms, such as: "Reactor Three". Select "1" if you want the Alarm Group description to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Tagname

The name given to a unique alarm. Select "1" if you want the Tagname to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Description

A text field used to describe the "Tagname", or the alarm description. Example: "Water level." Select "1" if you want the comment field to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Value

The numeric value of the alarm at the exact time it was reported. Select "1" if you want the value to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Units

The Engineering Unit designation for the analog value. Select "1" if you want the Engineering Units to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Limit

The value of the alarm limit. Select "1" if you want the "Limit" to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Pad Fields to Fixed Length

If you select the Pad Fields check box, the number in the text box (character count) that is associated with each item becomes the fixed length of that item, padded with spaces out to the specified length.

## Truncate Fields to Fixed Length

If you select the Truncate Fields check box, the number in the text box (character count) that is associated with each item becomes the maximum length of that item. (In the examples above, the selection of "1" would be nonsensical as only one character of each selection would be visible.)

## Label Fields

If you select the Label Fields check box, the E-Mail will be formatted with column headers and line breaks for each columns results. If the checkbox is left unchecked, the e-mail will concatenate all the columns results into a single line of text.

## Column Order

The alarm message is composed of up to eleven text fields that can be arranged in any order. The user can rearrange the order to suit his/her needs by highlighting the item and clicking the Move Up/Move Down buttons.

## Logger Definition

### Logger Definition



This button defines the types of historical logging and their format for archiving. Alarm information, non-alarm events, and diagnostic information are among the things WIN-911 can record for later analysis. This is an excellent tool for reconstructing events and verifying accountability. Any one or both of the following log types can be used simultaneously.

## Daily TXT

Daily Text file option will archive alarm activity in a 24 hour based "\*.TXT" file. The files are titled by Julian date such as "A00285.txt", where A is always the first character, followed by two digits for the year and then three digits for the Julian day of the year. Hence, the text file A07285.txt is the text file for 11 October, 2007, as it is the 285th day of the year.

The screenshot shows the 'Logger Definition' dialog box with the 'Daily TXT' tab selected. The title bar reads 'Logger Definition' and 'Daily TXT | Monthly MDB'. Below the title bar is a text box containing 'Generate a daily text log file'. The main area contains several configuration fields: 'Date' (MM/DD), 'Time' (HH:MM:SS AM), 'Event' (1), 'Priority' (1), 'Group' (1), 'Tagname' (1), 'Description' (1), 'Value' (1), 'Units' (0), and 'Limit' (0). To the right of these fields is a 'Column Order' list with the following items: Date, Time, Group, Tagname, Description, Value, Event, Units, Limit, Priority, and Acked by. Below the fields are two checkboxes: 'Pad columns' and 'Truncate columns'. At the bottom left is a text box for 'Days before deleting daily text log file' with the value '0'. At the bottom right are three buttons: 'OK', 'Cancel', and 'Help'.

Upon a pre-selected condition, an alarm message will be assembled by WIN-911 and written to the log file storing a record of the condition. The message is composed of up to eleven concatenated text fields. These fields can be arranged in any order, rigorously formatted, or omitted altogether. Date and Time styles are configured by pull-down menus while the other fields are formatted by a combination of a text box entry along with pad and truncate field check boxes.

The user may wish to view the alarm message in a columnar form for presentation effect. To do this the user should specify each field's character count by adjusting the number in the associated text box. To omit the field simply enter zero. Checking the Pad Field option will ensure that each field contains at least the specified number of characters. The Truncate Field option make the character count the maximum size.

The user may wish to view the entire text of each field. To do so uncheck the pad and truncate fields and ensure that a number one (1) is entered for the character count. This free-form format will take only the number of characters needed to complete each of the desired fields.

## Date

This field is used to select the desired date format in the alarm messages. The options provided through a pull down list box are:

None  
MM/DD  
MM/DD/YY  
MMM DD YYYY  
DD/MM  
DD/MM/YY  
DD MMM YYYY

## Time

This field is used to select the desired time format in the alarm messages. The options provided through a pull down list box are:

None  
HH:MM (24 Hour)  
HH:MM AM  
HH:MM:SS (24 hour)  
HH:MM:SS AM

## Event

Is the item in an alarm condition, or has it returned to normal? For a Digital Alarm, the "Event" conditions are:

\*ALM\* = unacknowledged active alarm.

ALM = acknowledged active alarm.

>ALM = unacknowledged return-to-normal alarm (inactive alarm).

OK = acknowledged return-to-normal alarm (inactive alarm).

For an Analog Alarm, the conditions are: \*High\* (first level high alarm), \*HiHi\* (the second or highest alarm), \*Low\* (the first low alarm), \*LoLo\* (the second or lowest alarm). When an analog alarm returns to normal without first being acknowledged the event field reports <High or <<HiHi.

Select "1" if you want the Event to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Priority

Each alarm may be given one of three "Priorities": High, Medium, or Low. A discussion on alarm priorities is found in the alarm configuration section of this manual, (WIN911 Configurator.CHM -> WIN-911 Configuration -> Digital Definitions, Analog Definitions and Watchdog Timer Definitions.)

## Group

The name given to a group of alarms, such as: "Reactor Three". Select "1" if you want the Alarm Group description to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Tagname

The name given to a unique alarm. Select "1" if you want the Tagname to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Description

A text field used to describe the Tagname, or the alarm description. Example: "Water level". Select "1" if you want the comment field to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Value

The numeric value of the alarm at the exact time it was reported. Select "1" if you want the value to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Units

The Engineering Unit designation for the analog value. Select "1" if you want the Engineering Units to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Limit

The value of the alarm limit. Select "1" if you want the "Limit" to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Pad Fields to Fixed Length

If you select the Pad Fields check box, the number in the text box (character count) that is associated with each item becomes the fixed length of that item, padded with spaces out to the specified length.

## Truncate Fields to Fixed Length

If you select the Truncate Fields check box, the number in the text box (character count) that is associated with each item becomes the maximum length of that item. (In the examples above, the selection of "1" would be nonsensical as only one character of each selection would be visible.)

## Column Order

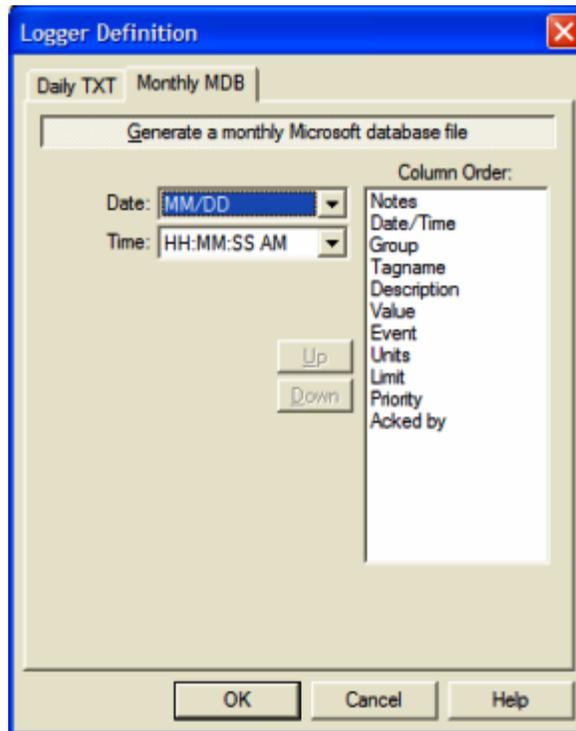
The alarm message is composed of up to eleven text fields that can be arranged in any order. The user can rearrange the order to suit his/her needs by highlighting the item and clicking the Move Up/Move Down buttons.

## Days Before Deleting Daily Text Log File

When daily text files are selected as the log file type, the number of days can be specified that the files are to be kept and then automatically deleted. This is an optional house keeping function. The default selection is zero, which means the log files will NOT be automatically deleted.

## Monthly MDB

The Monthly MDB option archives data in a monthly based Microsoft Access database file. This format allows the user to sort data and append notes to events using the Alarm Log Manager. This Alarm Log Manager can be found in the WIN-911 Tools folder. The files are titled with the word History followed by the month and year. An example would be History 102007.mdb for October 2007.



Upon a pre-selected condition, an alarm message will be assembled by WIN-911 and displayed on the output device to bring attention to the condition. The message is composed of up to eleven concatenated text fields. These fields can be arranged in any order. Date and Time styles are configured by pull-down menus. Unlike the Daily Text File all other fields are included in their entirety because the database is not restricted in the number of characters each field can contain or an overall character count for an event.

## Date

This field is used to select the desired date format in the alarm messages. The options provided through a pull down list box are:

- None
- MM/DD
- MM/DD/YY
- MMM DD YYYY
- DD/MM

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DD/MM/YY

DD MMM YYYY

## Time

This field is used to select the desired time format in the alarm messages. The options provided through a pull down list box are:

None

HH:MM (24 Hour)

HH:MM AM

HH:MM:SS (24 hour)

HH:MM:SS AM

## Column Order

The alarm message is composed of up to eleven text fields that can be arranged in any order. The user can rearrange the order to suit his/her needs by highlighting the item and clicking the Move Up/Move Down buttons.

## Data Poke Definition

### Data Poke Definition

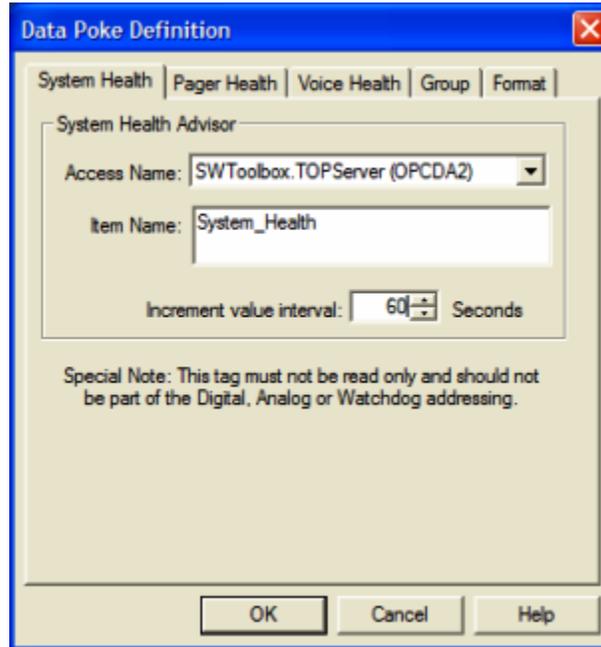


A Data Poke is basically a write operation performed on your SCADA/HMI. This has several uses, which are discussed in the following sections.

Note: Do not configure WIN-911 to use the same tag for multiple Data Pokes.

## System Health

The System Health Poke sends a heartbeat signal to your HMI/SCADA server. When provided with a valid item name, WIN-911 will regularly increment a number on your server to demonstrate the fact that WIN-911 is still running. Should your server detect that the tag is no longer being incremented, you can take corrective action.



### Access Name

Select the data source that should be written to here.

### Item Name

This is the address of the tag you wish to write to. Consult your server's documentation for the proper syntax.

### Increment value interval

This is the amount of time between writes.

*Special Note:* This tag must not be read only and should not be part of the Digital, Analog, or Watchdog addressing.

## Voice Health

This selection provides clients/servers with an indication of the voice applet's status by poking a digital (discrete) message. Conditions that represent a failure will be either the failure of the voice board or a user defined number of unsuccessful call-out attempts. The voice board and drivers must be present and the timer must be started for the first condition to report successfully. A failure of this condition constitutes a fatal error and no voice call-outs will occur; WIN-911 must be restarted for the voice applet to be restored. The second condition is determined by a user defined number of unsuccessful call-out attempts. A healthy voice applet will report a digital one (1) and a failure will report a zero (0).

The screenshot shows a dialog box titled "Data Poke Definition" with a blue title bar and a red close button. It has five tabs: "System Health", "Pager Health", "Voice Health" (selected), "Group", and "Format". Below the tabs, there is a text input field labeled "Number of fails before changing health indicator:" with the value "1". Below that is a section titled "Voice Health Advisor" containing a dropdown menu for "Access Name:" with "None" selected, and an empty text input field for "Item Name:". At the bottom of the dialog, there is a "Special Note:" that reads "This tag must not be read only." and three buttons: "OK", "Cancel", and "Help".

### Number of fails before changing health indicator

The user defined portion of the "Health Indicator" is set in this field. The default number of failures for this application is three (3). Note that these are not indicative of a fatal error (WIN-911 does not need to be restarted.). The alarm will be reset after the next successful voice call.

### Access Name

The "Access Name" is used to select a predefined data conversation from the list defined in the Data Source Definition. This field must be defined.

### Item Name

The "Item Name" is used to identify the particular item that WIN-911 will poke to. The actual name entered will vary from server to server. Consult the server documentation for additional information. This field is case sensitive and must be defined.

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Special Note: This tag must not be read only and should not be part of the Digital, Analog, or Watchdog addressing.

## Pager Health

This selection provides clients/servers with an indication of the paging applet's status by poking a digital (discrete) message. An error free indication depends on two conditions being satisfied; one of which is user defined and the other is modem dependent. The first condition requires the modem be present and the timer started for the first condition to report successfully. A failure of this condition constitutes a fatal error and no paging will occur; WIN-911 must be restarted for paging to be restored. The second condition is determined by a user defined number of unsuccessful paging attempts. A healthy pager applet will report a digital one (1) and a failure will report a zero (0).

### Number of fails before changing health Indicator

The user defined portion of the "Health Indicator" is set in this field. The default number of failures for this application is three (3). Note that these are not indicative of a fatal error (WIN-911 does not need to be restarted.). The alarm will be reset after the next successful page.

### Access Name

The "Access Name" is used to select a predefined data conversation from the list defined in the Configure/Data Source Definition. This field must be defined.

### Item Name

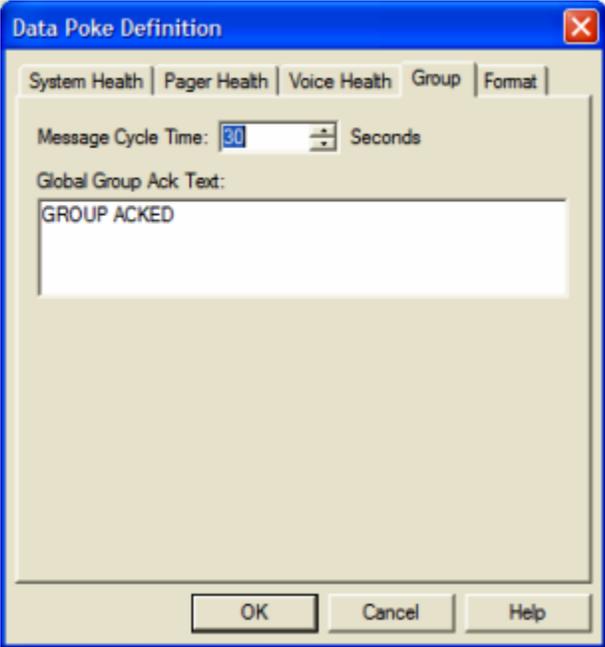
The "Item Name" is used to identify the particular item that WIN-911 will poke to. The actual name entered will vary from server to server. Consult the server documentation for additional information. This field is case sensitive and must be defined.

Special Note: These tags must not be read only and should not be part of the Digital, Analog, or Watchdog addressing.

Note for COMP2 Users: This function is very limited for pager systems using COMP2. This protocol is a simplex or unidirectional protocol and is not capable of determining which pages are transmitted successfully and which are not. The only thing it determines is whether the selected COM port is available during startup.

# Group

If more than one alarm occurs per "Group", the message will change (at a default rate of every 30 seconds) to effectively scroll through all alarms in the selected alarm group. If all of the alarms in this group are acknowledged in WIN-911, a "GROUP ACKED" string value is sent to the data source application, thus reporting the "Group" is cleared. If all of the alarms in this group are acknowledged in the data source application, an "Ack" string value (case sensitive) is read by WIN-911 and immediately replaced with a "GROUP ACKED", thus reporting the "Group" is cleared. If the user wants to change the scroll time, or create a custom message to be sent in place of the "GROUP ACKED" default, change the ASCII format using this tab. Note: A blank or empty field will effectively erase or clear a message display or HMI screen reference.



## Format

The alarm message text string will change each time an alarm state change occurs for that group. Note that only unacknowledged alarms will be transferred or "Poked". The message is composed of up to eleven concatenated text fields. These fields can be arranged in any order, rigorously formatted, or omitted altogether. Date and Time styles are configured by pull-down menus while the other fields are formatted by a combination of a text box entry along with pad and truncate field check boxes. This format does not pertain to the Health pokes.

The user may wish to view the alarm message in a columnar form for presentation effect. To do this the user should specify each field's character count by adjusting the number in the associated text box. To omit the field simply enter zero. Checking the Pad Fields option will ensure that each field contains at least the specified number of characters. The Truncate Fields shortens the field to the selected size.

The user may wish to view the entire text of each field. To do so uncheck the pad and truncate fields and ensure that a number one (1) is entered for the character count. This free-form format will take only the number of characters needed to complete each of the desired fields.

The screenshot shows the 'Data Poke Definition' dialog box with the 'Format' tab selected. The dialog has tabs for 'System Health', 'Pager Health', 'Voice Health', 'Group', and 'Format'. The 'Format' tab contains the following controls:

- Date:** A pull-down menu showing 'MM/DD'.
- Time:** A pull-down menu showing 'HH:MM:SS AM'.
- Event:** A spin box with '1'.
- Priority:** A spin box with '1'.
- Group:** A spin box with '1'.
- Tagname:** A spin box with '1'.
- Description:** A spin box with '1'.
- Value:** A spin box with '1'.
- Units:** A spin box with '0'.
- Limit:** A spin box with '0'.
- Pad fields
- Truncate fields
- Column Order:** A list box containing: Date, Time, Group, Tagname, Description, Value, Event, Units, Limit, Priority, Acked by.
- Buttons:** 'Move Up', 'Move Down', 'OK', 'Cancel', and 'Help'.

## Date

This field is used to select the desired date format in the alarm messages. The options provided through a pull down list box are:

None

MM/DD

MM/DD/YY

MMM DD YYYY

DD/MM

DD/MM/YY

DD MMM YYYY

## Time

This field is used to select the desired time format in the alarm messages. The options provided through a pull down list box are:

None

HH:MM (24 Hour)

HH:MM AM

HH:MM:SS (24 hour)

HH:MM:SS AM

## Event

Is the item in an alarm condition, or has it returned to normal? For a Digital Alarm, the "Event" conditions are:

\*ALM\* = unacknowledged active alarm.

ALM = acknowledged active alarm.

>ALM = unacknowledged return-to-normal alarm (inactive alarm).

OK = acknowledged return -to-normal alarm (inactive alarm).

For an Analog Alarm, the conditions are: \*High\* (first level high alarm), \*HiHi\* (the second or highest alarm), \*Low\* (the first low alarm), \*LoLo\* (the second or lowest alarm). When an analog alarm returns to normal without first being acknowledged the event field reports <High or <<HiHi.

Select "1" if you want the Event to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Priority

Each alarm may be given one of three "Priorities": High, Medium, or Low. A discussion on alarm priorities is found in the alarm configuration section of this manual, (WIN911 Configurator.CHM -> WIN-911 Configuration -> Digital Definitions, Analog Definitions and Watchdog Timer Definitions.)

## Group

The name given to a group of alarms, such as: "Reactor Three". Select "1" if you want the Alarm Group description to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Tagname

The name given to a unique alarm. Select "1" if you want the "Tagname" to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Description

A text field used to describe the Tagname, or the alarm description. Example: "Water level". Select "1" if you want the comment field to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Value

The numeric value of the alarm at the exact time it was reported. Select "1" if you want the value to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Units

The "Engineering Unit" designation for the analog value. Select "1" if you want the Engineering Units to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Limit

The value of the alarm limit. Select "1" if you want the "Limit" to be visible, "0" will ignore it. (See below for padding or truncating message lengths.)

## Pad Fields to Fixed Length

If you select the "Pad Fields" check-box, the number in the text box (character count) that is associated with each item becomes the fixed length of that item, padded with spaces out to the specified length.

## Truncate Fields to Fixed Length

If you select the "Truncate Fields" check-box, the number in the text box (character count) that is associated with each item becomes the maximum length of that item. (In the examples above, the selection of "1" would be nonsensical as only one character of each selection would be visible.)

## Column Order

The alarm message is composed of up to eleven text fields that can be arranged in any order. The user can rearrange the order to suit his/her needs by highlighting the item and clicking the Move Up/Move Down buttons.

## IP Definition

### IP Definition



WIN-911 can send alarm messages in the form of ASCII text to networked clients. Alarm message transmission can be done either over a RAS (Remote Access Service) connection or across a LAN. The IP notifier is a 2-way notifier which means it can listen for acknowledgement responses to come back from the remote endpoint. In order to make use of the IP connection, an application must be developed by the user in order to receive and handle messages.

## Connection Settings

The Connection Settings tab contains the connection settings for both your primary and secondary remote machines, as well as your local machine. Communication timing is also set-up here.

**IP Definition**

Connection Settings | Protocol | Message Format

**Primary Remote**

Dialup Connection (RAS):

IP Address: 192 . 168 . 1 . 190

Attempts: 1 IP Port: 8100

**Secondary Remote**

Use Secondary

Dialup Connection (RAS): BackupComputer

IP Address: 0 . 0 . 0 . 0

Attempts: 3 IP Port: 8100

**Local**

IP Address: 192 . 168 . 0 . 111

IP Port: 8100

**Timing**

Delay Between Attempts (seconds): 2

Maximum Idle Time (seconds): 5

Minimum Disconnect Time (seconds): 0

Hardware Acquire Delay (seconds): 9

OK Cancel Help

### Primary Remote Dialup Connection (RAS)

Enter the name of the primary RAS Connection. This Dial-up connection is configured to connect to the primary remote computer via telephone line and modem.

### Primary Remote IP Address

Enter the IP Address of the primary remote computer.

### Use Secondary

Select this check box if the user wishes to configure a secondary remote connection. The secondary remote connection is used only after WIN-911 fails to send the alarm message to the primary remote machine. WIN-911 will continue to send messages to the secondary remote machine until the connection is disconnected. The next time WIN-911 receives an alarm, it will try to send to the primary remote machine.

### Secondary Remote Dialup Connection (RAS)

Enter the name of the secondary RAS Connection. This Dial-up connection is configured to connect to the secondary remote computer via telephone line and modem.

### Secondary Remote IP Address

Enter the IP Address of the secondary remote computer. IP addresses can only be used with an 'Always-On' Internet connection, such as cable or DSL.

### Attempts

This field configures the number of attempts to be made before failing over to the secondary connection.

### IP Port

This is the TCP port through which the IP connection will be made to the primary/secondary/local endpoint. Any firewall used must allow connections through this port.

### Local IP Address

Enter the IP address of the local machine. If only RAS connections are being used, the IP address comes from the RAS connection configured.

### Delay Between Attempts (seconds)

This is the number of seconds waited before attempting to send another message after a failed attempt.

### Maximum Idle Time (seconds)

This is the number of seconds to wait for a new alarm before disconnecting from a remote endpoint. If you are connecting through an always-on connection, WIN-911 will close the TCP socket. If you are using a RAS connection, WIN-911 will close the TCP socket and disconnect from the RAS.

### Minimum Disconnect Time (seconds)

After disconnecting, WIN-911 will wait this number of seconds before establishing a new connection to a remote endpoint. This allows a window of time for another application to access the modem COM port.

### Hardware Acquire Delay (seconds)

When configured to use a RAS Connection on a particular modem, should that modem be unavailable, WIN-911 will terminate any active connection on the modem in order to send out an alarm message. The hardware will not immediately become available as the phone line may still be in use. The hardware acquire delay is the amount of time WIN-911 will wait before actually attempting to connect.

## Protocol

The screenshot shows the 'IP Definition' dialog box with the 'Protocol' tab selected. The dialog is divided into three sections: 'Transmit Control', 'Receive Control', and 'Diagnostics'. The 'Transmit Control' section has a 'Transmit Timeout (seconds)' spinner set to 5. The 'Receive Control' section has an 'Expected Response' text box containing '###ACK###', a 'Response Timeout (seconds)' spinner set to 5, and a checked checkbox for 'Acknowledge Alarm when Expected Response received'. The 'Diagnostics' section has an unchecked checkbox for 'WIN-911 IP Diagnostics enabled'. The 'Keep-alive Ping' section has a 'Ping Message' text box containing 'PING', a 'Ping Interval (seconds)' spinner set to 999, and an unchecked checkbox for 'Use Message Prefix and Suffix'. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

### Transmit Timeout (seconds)

This is the amount of time WIN-911 will attempt to send an alarm across the IP connection. If transmission is not completed within this amount of time, WIN-911 will consider the attempt to have failed.

### Expected Response

This is the response string expected from the remote endpoint upon receipt of an alarm message. WIN-911 will not consider the alarm message delivered successfully unless this string is received. If this field is left empty, then WIN-911 will consider the alarm message delivered when transmission is completed and will not wait for a response.

## Response Timeout (seconds)

The maximum time to wait for a response to an alarm message. This setting is used only if an expected response is defined.

## Acknowledge Alarm when Expected Response received

If this option is checked, then WIN-911 will acknowledge the alarm sent through the IP connection when the Expected Response is received. This effectively acknowledges alarms upon delivery and receipt of delivery. This setting is used only if an Expected Response is defined.

## WIN-911 IP Diagnostic Enabled

This control will enable or disable diagnostic logging, which is useful for debugging issues with the IP notification module. It is recommended that diagnostic logging not be used under normal, working circumstances.

## Keep-alive Ping

The ping message text may be used to demonstrate to any client application that WIN-911 is still connected. It is essentially, a heart beat message. The text is configurable and may be preceded or followed by the message prefix and suffix as defined on the format tab.

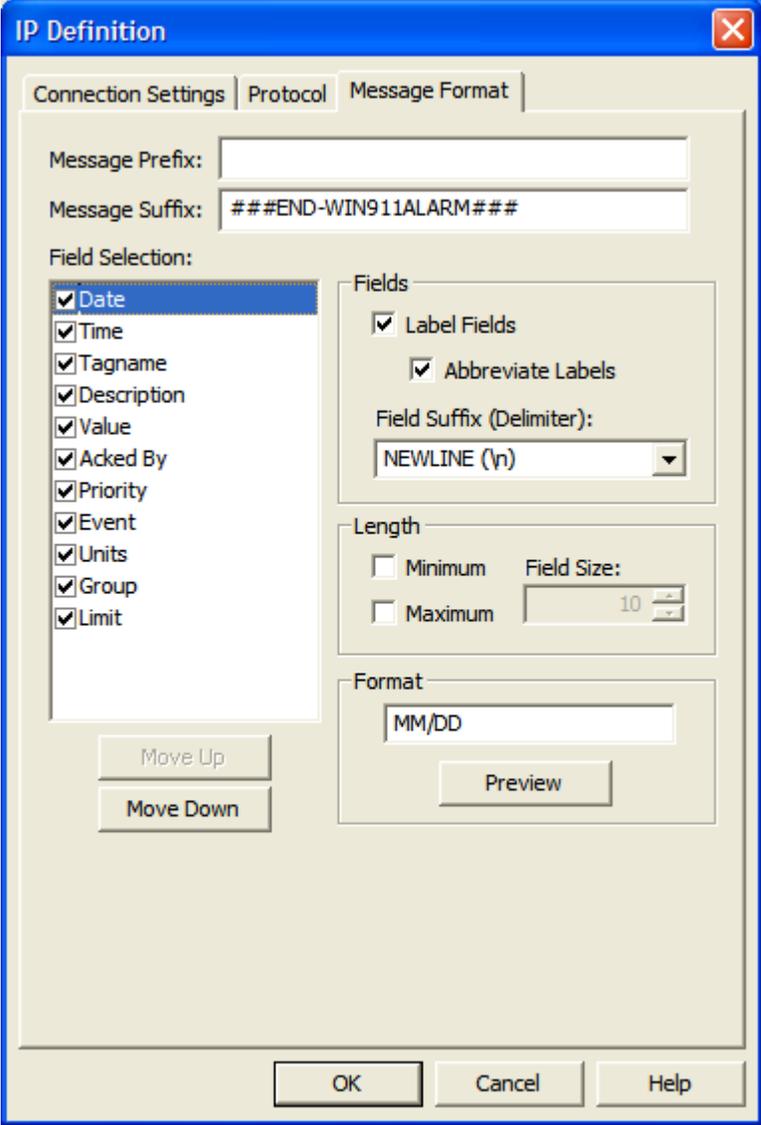
## Use Message Prefix and Suffix

This check box will append any message prefix and suffix to the message string. The default setting is unchecked.

Note: his setting is shared by the menu item of the same name under the Diagnostic Logging global menu.

## Format

The format tab's settings determine the format of all alarm messages sent by the IP Notifier. An alarm message may contain any of the eleven available alarm fields listed here, arranged in any order. Each field may be padded or truncated to a specified length. Alarm strings are in the ASCII format and terminated by null characters.



### Message Prefix

If supplied, the message prefix text will be appended to the beginning of each alarm message.

### Message Suffix

If supplied, the message suffix text will be appended to the beginning of each alarm message.

## Date

Use the check box to enable or disable the date field. Select the date field to format the date's appearance. The format is defined below.

## Format

"M" = A single digit representation of the month. (e.g. 1-12)

"MM" = A two digit representation of the month. (e.g. 01-12)

"MMM" = An abbreviated representation of the month (e.g. Jan.)

"MMMM" = The full month name (e.g. January)

"D" = A single digit representation of the day of the month. (e.g. 1-31)

"DD" = A two digit representation of the day of the month. (e.g. 01-31)

"DDD" = An abbreviated representation of the day of the week (e.g. Mon.)

"DDDD" = The full name of the day of the week (e.g. Monday)

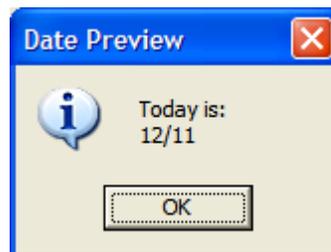
"YY" = A two digit representation of the year. (e.g. 08, 09, 10, etc.)

"YYYY" = A four digit representation of the year. (e.g. 2008, 2009, 2010, etc.)

In addition to these 10 date formats, other characters can be used to help format the date. Any other character configured will appear in the message as it does in the Format text box. For example: MMM DD, YYYY = Jan. 11, 2009 or M/D/YY = 1/11/09. Use the Preview button under the Format text box to preview your configured format..

## Preview

The preview button is only visible when the date field is enabled and selected. This button can be used to preview the date format. Note that the preview does not consider minimum and maximum length options and represents the date string prior to any padding or truncation.



## Time

There are eight available formats for the time field. Examples of the eight selections are presented below.

HH:MM:SS AM/PM ----- (e.g. 02:05:30 PM)

HH:MM AM/PM ----- (e.g. 02:05 PM)

HH:MM:SS (24 hour) ----- (e.g. 14:05:30)

HH:MM (24 hour) ----- (e.g. 14:05)

HH:MM:SS AM/PM ZONE ----- (e.g. 12:05:30 PM CST)

HH:MM AM/PM ZONE ----- (e.g. 12:05 PM CST)

HH:MM:SS ZONE (24 hour) ----- (e.g. 14:05:30 CST)

HH:MM ZONE (24 hour) ----- (e.g. 14:05 CST)

## Tagname

The tagname represents the name of a unique alarm.

## Description

The description provides more context for any given alarm.

## Value

The value of an alarm can be included in the alarm message. This is the value of the alarm point at the moment when the alarm was triggered.

## Acked By

The "acked by" field lists the user who has acknowledged the alarm. If an Ack Code was required to acknowledge the alarm, then WIN-911 user will be logged. If no Ack Code was required, then the current Windows user will be used.

## Priority

Each alarm may be assigned one of three priorities: high, medium or low as determined by your alarm tag's settings. Check this box to pass the priority along in your alarm message.

## Event

The event field indicates the current status of an alarm. A digital alarm may be in one of the following states:

ALM\* = unacknowledged active alarm.

ALM = acknowledged active alarm.

>ALM = unacknowledged return-to-normal alarm (inactive alarm).

OK = acknowledged return -to-normal alarm (inactive alarm).

An analog alarm may be in one of the following states:

\*High\* (first level high alarm)

\*HiHi\* (the second or highest alarm)

\*Low\* (the first low alarm)

\*LoLo\* (the second or lowest alarm).

When an analog alarm returns to normal without first being acknowledged the event field reports <High or <<HiHi.

## Limit

This is the alarm limit set point.

## Units

This is the engineering unit for an analog value.

## Group

The name given to a group of alarms, such as: "Reactor Three".

## Label Fields

The "label fields" option is designed to increase the readability of alarm messages. When enabled, the name of each field will appear before the field's value.

## Abbreviate Labels

When "abbreviate labels" is selected, longer field labels will be abbreviated (e.g. "Desc.." instead of "Description").

## Field Suffix (Delimiter)

The Field Suffix (Delimiter) is used to separate alarm fields. By default, NEWLINE (\n) is selected. In addition to the fourteen predefined delimiters, users may specify their own custom delimiter. All custom delimiters will appear in the message exactly as it appears in the Field Suffix (Delimiter) drop down box. Some delimiters in the list format the message such as NEWLINE (\n). This delimiter makes each field appear on a new line. Below explains what will appear in the message when selected.

AMPERSAND (&) = An "&" will be used to separate selected fields.

ASTERISK (\*) = An "\*" will be used to separate selected fields.

COMMA (,) = A "," will be used to separate selected fields.

DOLLAR (\$) = A "\$" will be used to separate selected fields.

EXCLAMATION (!) = An "!" will be used to separate selected fields.

LINERETURN (\r\n) = This will separate each selected field with a carriage return - line feed resulting in each selected field being on a new line.

NEWLINE (\n) = This will separate each selected field with a line feed resulting in each selected field being on a new line.

NONE () = This will result in nothing separating each selected field. The alarm message will be concatenated without spaces.

PERIOD (.) = A "." will be used to separate selected fields.

POUND (#) = A "#" will be used to separate selected fields.

RETURN (\r) = This will separate each selected field with a carriage return resulting in each selected field being on a new line.

SPACE ( ) = A space will be used to separate selected fields.

TAB (t) = Five spaces will be used to separate selected fields.

TILDE (~) = A "~" will be used to separate selected fields.

## Minimum Length

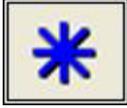
When minimum length is enabled, the field size determines the minimum length of the currently selected field. If the length of the selected field's value is less than the field size, then it will be padded with spaces.

## Maximum Length

When maximum length is enabled, the field size determines the maximum length of the currently selected field. If the length of the selected field's value is greater than the field size, then it will be truncated to meet the field size.

# Options

## Options

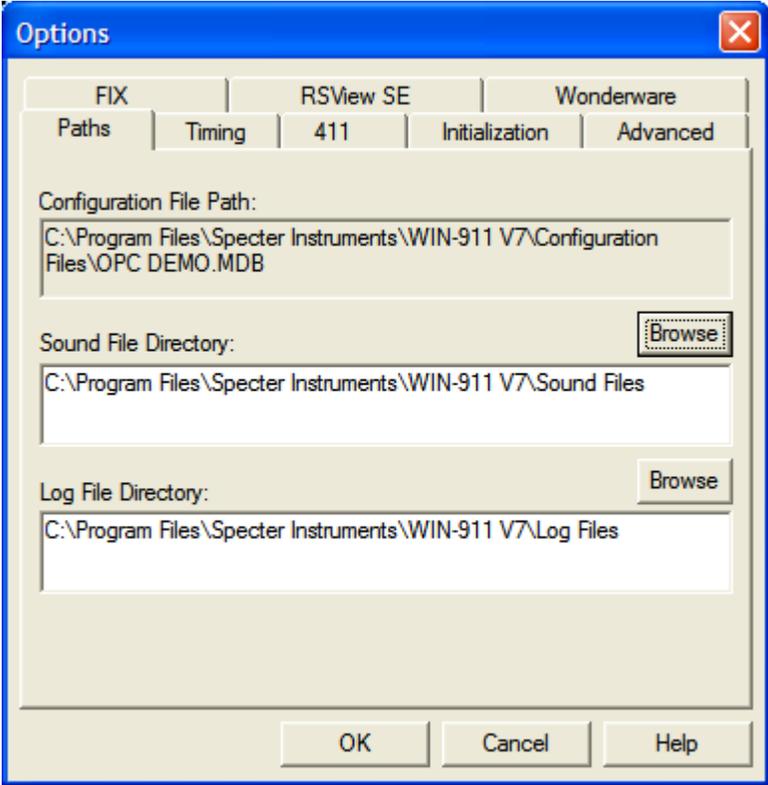


These selections will allow the user to customize and tune WIN-911 to meet various application or performance needs. Upon selecting "Options", you may make modifications to data initialization, select non-default paths, and adjust Pager and Watchdog Timing adjustments. Global Direct Connect options are set here as well.

## Paths

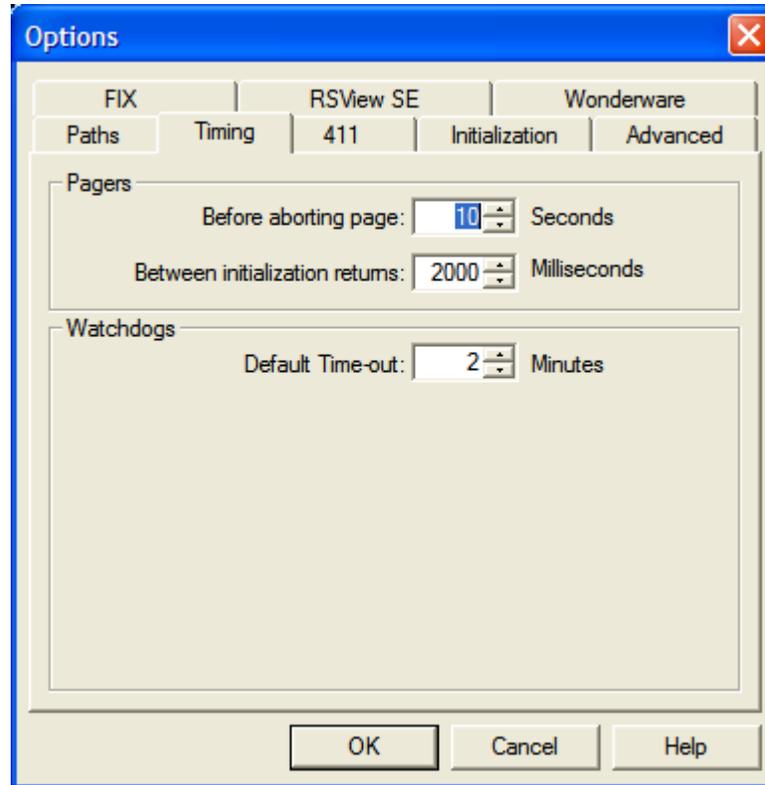
By default, Specter Instruments uses the WIN-911 directory for the runtime executable modules. For the sound files and the historical log files, sub-directories are used. Both of these selections can be modified by changing the default choices. The example below shows the default for both the sound files and the alarm history files.

The "Configuration Path" is chosen automatically when you open a selected "\*.MDB" configuration file. The default for the configuration files is a sub-directory named "Configuration Files".



## Timing

Two types of timing adjustments are available with this option: Paging and Watchdog Timeouts.



### Pagers

#### Before aborting page:

Enter the seconds that WIN-911 will wait before terminating an alphanumeric dialout page. The default setting is 5 seconds.

#### Between initialization returns:

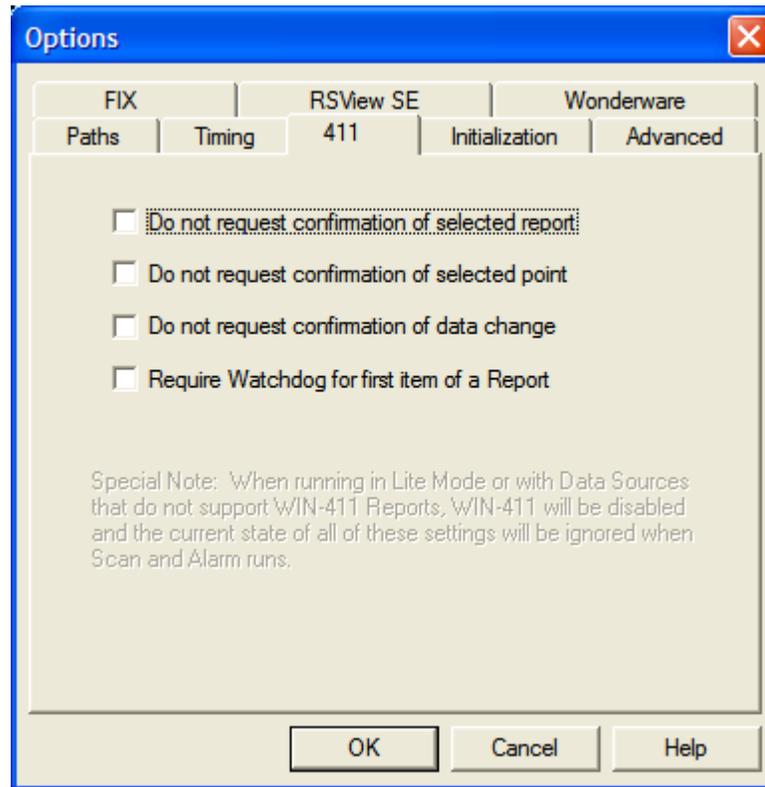
During initialization with the pager service, WIN-911 generates a series of "Carriage Returns" (CRs) and waits for a response of "ID=". If the pager service requires a slower or faster sequence of (CRs), the delay time can be modified. The default setting is 2000 milliseconds.

### Watchdogs

#### Default Time-out:

A "Watchdog Alarm" is a type of WIN-911 alarm which monitors the data source. If a device, DDE Server, or cable is disconnected, an alarm can be sent to the user to warn of current problem conditions. Each "Watchdog" has a selectable timeout. This option will

allow the user to change the default setting from 2 minutes to other values. Entries must be in whole minutes only.

**411**

Special Note: When running in Lite Mode, RSView SE Direct Connect, RSView32 Direct Connect, or FactoryTalk Alarms and Events, WIN-411 Reporting will always be disabled and the current state of all these settings will be ignored when Scan & Alarm runs.

### Do not request confirmation of selected report

Selection of this checkbox bypasses the need for operator confirmation of the report to be played. The default selection for this checkbox is unchecked.

### Do not request confirmation of selected point

Selection of this checkbox bypasses the need for operator confirmation of the point to be changed. The default selection for this checkbox is unchecked.

### Do not request confirmation of data change

Selection of this checkbox bypasses the need for operator confirmation of the new value to be set. The default selection for this checkbox is unchecked.

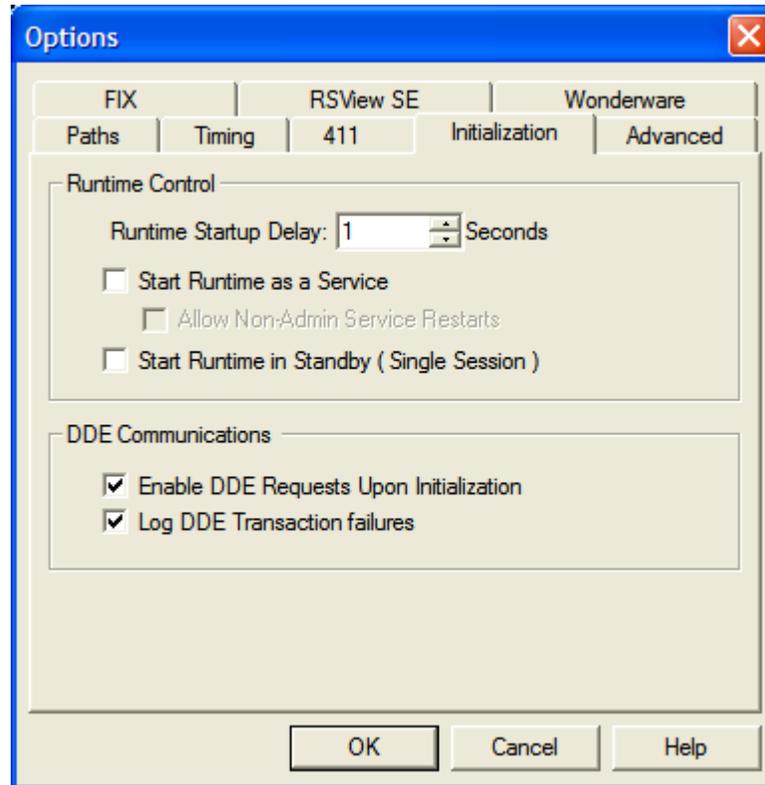
### Require Watchdog for first item of a Report

Selection of this option will force the first item of each report to be a watchdog type verification. When this feature is enabled, and the user attempts to access reports, report

access will not be granted (if the report was defined containing a watchdog and the watchdog is in the failed state).

## Initialization

These options modify the way WIN-911 is initialized as a client, control DDE error messages, and offers timing adjustments to allow for large applications to stabilize prior to initialization.



### Runtime Startup Delay

In automatic start-up applications, a delay is often needed to allow the previously launched data source or hardware to finish initialization prior to a client application starting its initialization routine. This is most often seen in larger applications. This option gives the user a way to set a delay before all initialization of Scan & Alarm, including hardware. This is especially important when running Scan & Alarm as a service. When Scan & Alarm is configured to run as a service it can initialize before hardware components have time to start (i.e. Dialogic card).

### Start Runtime as Service

Selection of this check box will cause the Scan & Alarm to start as a service. Windows will need to be restarted in order for the Windows system services to start Scan & Alarm as a service. When running as a service WIN-911 will be started automatically during the startup of the operating system and will run in the background regardless of who (if anybody) is logged in. WIN-911 behaves in much the same way as it does when running as an application with a few exceptions. For a more detailed explanation of how Scan & Alarm runs as a service see, WIN911 Configurator.CHM -> Overview ->WIN-911 As a Service.

## Allow Non-Admin Service Restarts

Selection of this check box will allow a non-administrator to stop and start WIN-911 when it is running as a Window's service. If this check box is unchecked only users logged in with Administrative privileges will be able to restart the WIN-911 system.

## Start Runtime in Standby (Single Session)

Selection of this check box will cause the Scan & Alarm to start in Standby mode for a single session. When in standby mode alarm monitoring will occur but no remote notification will be conducted. This mode of operation is implemented for users wishing to achieve WIN-911 redundancy. Running the Activate.exe program will change WIN-911's mode to Active and remote notification will begin. Once WIN-911 has been activated the check box will clear. You must go back into the configuration and recheck the box to reset.

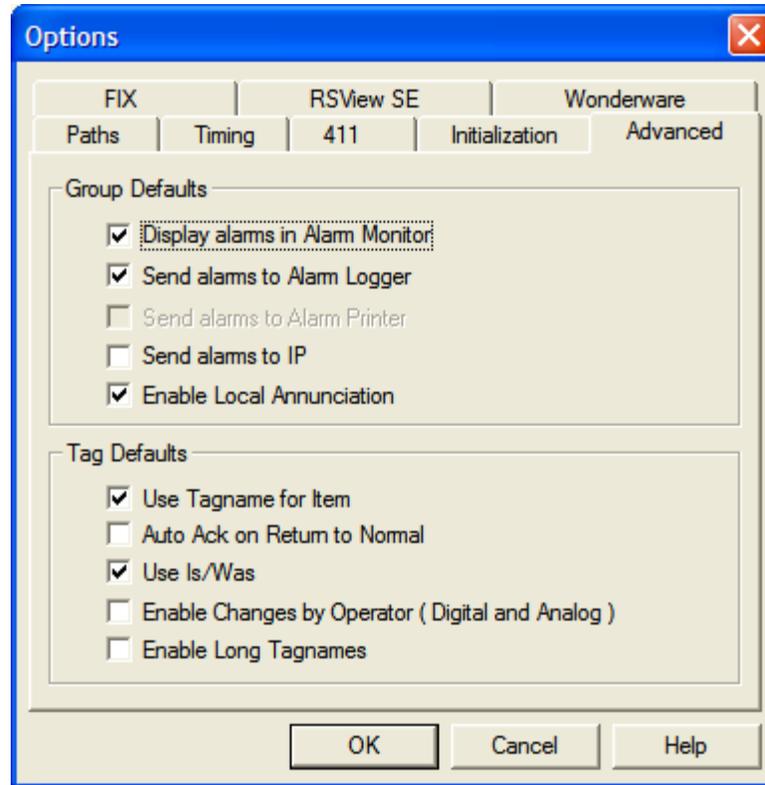
## Enable DDE Request Upon Initialization

All DDE servers and clients are not alike, and therefore require different initialization sequences. Selecting this check box will allow WIN-911 to be advised of any change and then request initial values. By leaving this box unchecked, WIN-911 will only be advised of a value change.

## Log DDE Transaction Failures

The user can choose if he wants to log a DDE transaction failure. Selecting this check box will enable logging of messages to the configured log file. Leaving it unchecked will ignore the system generated error mes

## Advanced



### Display alarms in Alarm Monitor

This check box will activate the "Monitor" applet when the WIN-911 module is launched. In the "Monitor" program, you may display either the "Summary Display" or the "History Display". Selecting the "Summary Display" will show only the alarms which are in alarm state (both new alarms and acknowledged alarms). Selecting the "History Display" will show the total history of all alarms since the data base was last cleared up to the user defined limit (default is 2000). It will give a historical time and date stamped record of each alarm transition (alarm, acknowledged, and return to normal or "OK").

Note: Any new groups created by a user edit or an import to the configuration will use this as the default setting for the new group.

### Send alarms to Alarm Logger

If this check box is checked, all activity, which would normally show up in the "History Display", will also be recorded to a log file. Error messages, event logging, call progression, and acknowledgement information are also logged. A new file is created daily or monthly, depending on user preference.

Note: Any new groups created by a user edit or an import to the configuration will use this as the default setting for the new group.

## Send alarms to Alarm Printer

If the "Printer" module is enabled, alarms will be sent to the printer selected in the Printer Definitions. (See WIN911 Configurator -> Global Menus -> Printer Definition".)

Note: Any new groups created by a user edit or an import to the configuration will use this as the default setting for the new group.

## Send alarms to IP

If the "IP" module is enabled, alarms will be sent to the configured IP address/ RAS connection defined in the "IP Definition" dialog. (See WIN911 Configurator -> Global Menus -> WIN911 IP".)

Note: Any new groups created by a user edit or an import to the configuration will use this as the default setting for the new group.

## Enable Local Annunciation

If a sound card is present in the system, you may choose to Enable the Audio Annunciation features in WIN-911.

Note: Any new groups created by a user edit or an import to the configuration will use this as the default setting for the new group.

## Use Tagname for Item

Selecting this box will cause the "Tagname" to be copied directly into the item name. This is useful when connecting to other tag oriented programs like Wonderware InTouch, GE FIX, or RSView SE, etc.

Note: Any new tags created by a user edit or an import to the configuration will use this as the default setting for the new tag.

## Auto Ack 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. Experiment with all three of these option boxes to get the results you desire.

Note: Any new tags created by a user edit or an import to the configuration will use this as the default setting for the new tag.

## Use Is/Was

In some cases, using the "Is / Was" sound 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. An example of this sound would be "The Pump IS on".

Note: Any new tags created by a user edit or an import to the configuration will use this as the default setting for the new tag.

## Enable Changes by Operator (Digital or Analog)

This check box will allow changes to this alarm or status point. If this check box is left unchecked, changes will not be allowed. Note: Change by Operator is not supported by Filter tags.

Note: Enable changes by operator will always be disabled and ignored in Lite mode.

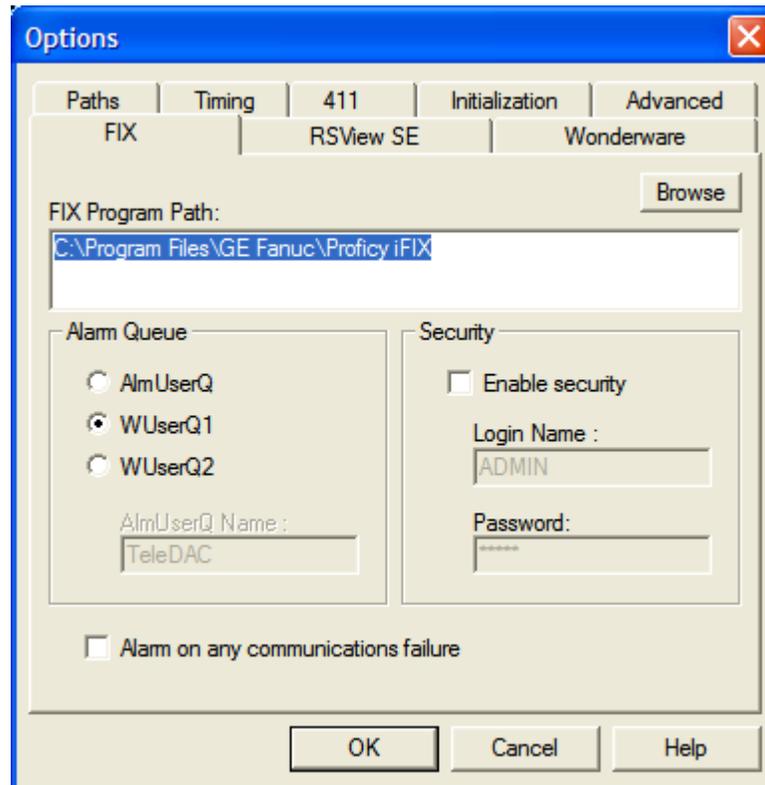
Note: Any new tags created by a user edit or an import to the configuration will use this as the default setting for the new tag.

## Enable Long Tagnames

This check box will only need to be checked if WIN-911 has an error while searching for lengthy tagnames. The checked box will prevent this error but, it will also slow down the search time considerably.

Note: Uses this as the default database search method for the WIN-911 Configurator.

## FIX



### FIX Program Path

Use of the "Direct Connect" option with GE's FIX will require providing WIN-911 with the location of the HMI package. The field provided allows the user a choice between manually entering the path, or using the "Browse" button to invoke the "Select FIX Directory" dialog box to define the path.

### Alarm Queue

WUserQ1, WUserQ2, or AlmUserQ can be selected to pass data to WIN-911 by choosing the appropriate radio button.

AlmUserQ Name must be declared by WIN-911 and when the AlmUserQ radio button is selected this text box is enabled. The default name is "TeleDAC" (case sensitive), but the user may name it anything up to sixteen characters.

Note: Specter Instruments recommends iFIX Dynamics users only use AlmUserQ rather than either of the WUserQ's.

Special Note for AlmUserQ: The following command line argument must be entered in the Configure Tasks list in the SCU: /nTeleDAC

### Security

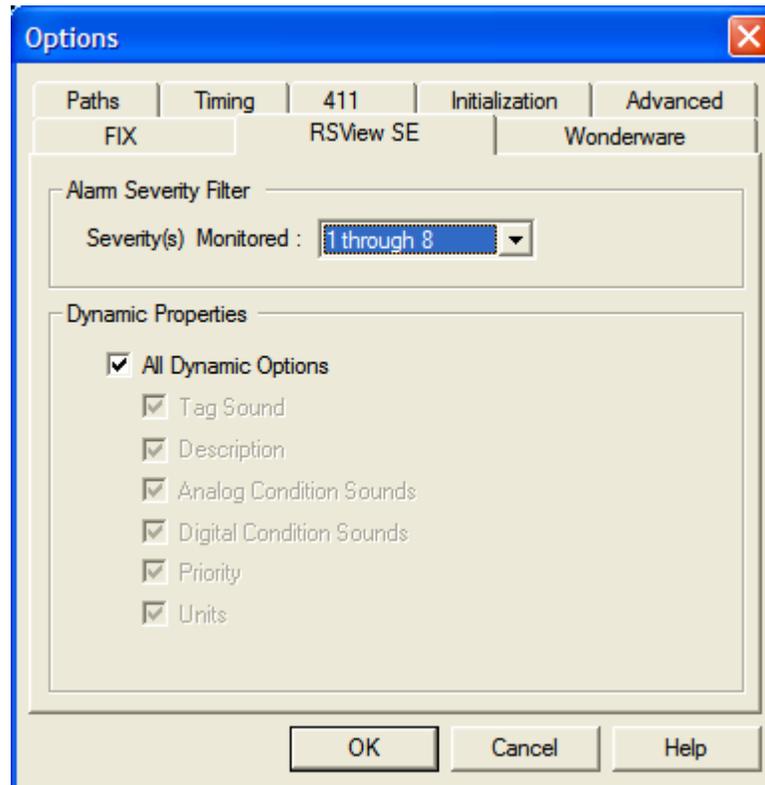
Enable Security checkbox configures WIN-911 for iFIX security features. Text boxes are provided for the iFIX security Login Name and Password.

Note: Be sure the user login used here can write to all alarm groups. If not, acknowledgements originating within WIN-911 will not be honored by iFIX.

### Alarm on any communications failure

Selection of the "Alarm on any communications failure" checkbox will allow dial-out alarm processing in the event of a communications failure. If this checkbox is not selected, alarm processing for communication failures will be prohibited.

## RSView SE



These are the Global Options for the RSView SE Direct Connect.

The RSView tab of the Global Options allows the user to select the Alarm Severity Filter and Dynamic Properties for the RSView SE Direct Connect data. These are global settings that apply to all RSView SE Data Sources.

### Alarm Severity Filter

The range of alarm severity that WIN-911 will monitor is selected through this pull-down menu. All alarms falling outside of the selected filter will be ignored. Level one severity is the most severe.

### Dynamic Properties

The RSView SE Direct Connect is designed to allow as much seamless integration between Rockwell and WIN-911 as possible. This includes receiving as much information from RSView SE as possible dynamically during runtime, thus preventing the need to redundantly and statically configure information in WIN-911. However, instances can arise where this is not desired or possible.

**All Dynamic Options:** Globally enables all dynamic functions (default setting).

**Tag Sounds:** Dynamic Tag Sounds is the preferred mode of WIN-911 audio annunciation. It uses a two tiered hierarchy of optional text sources to build the audio message at runtime. The first choice of a text source for the Tag Sound extraction is the RSView Tag

Description. This text will be provided to WIN-911 during runtime as the data is passed from RSVIEW SE. If the RSVIEW Tag Description is undefined then WIN-911 will use the WIN-911 Tag Sound which is statically defined in the WIN-911 configuration file. When both sound text sources are undefined no sound will be generated.

Description: Dynamic descriptions accept description text from RSVIEW during runtime as alarms occur and are passed to WIN-911. When static descriptions are configured or dynamic text is not available then WIN-911 uses the text defined in the alarm Base Definition.

Analog State Sounds: Dynamic Analog State Sounds are generated by reading text strings acquired from RSVIEW during runtime as the data is passed from RSVIEW to WIN-911. This string is called the "Threshold Label." If the Threshold Label is not available when the alarm data is passed, then WIN-911 falls back to the Analog Sound text that is statically defined in the WIN-911 configuration (Analog Definition, Sounds tab). When the check box is left unchecked then the RSVIEW Threshold Label is ignored and only the text in WIN-911 is used.

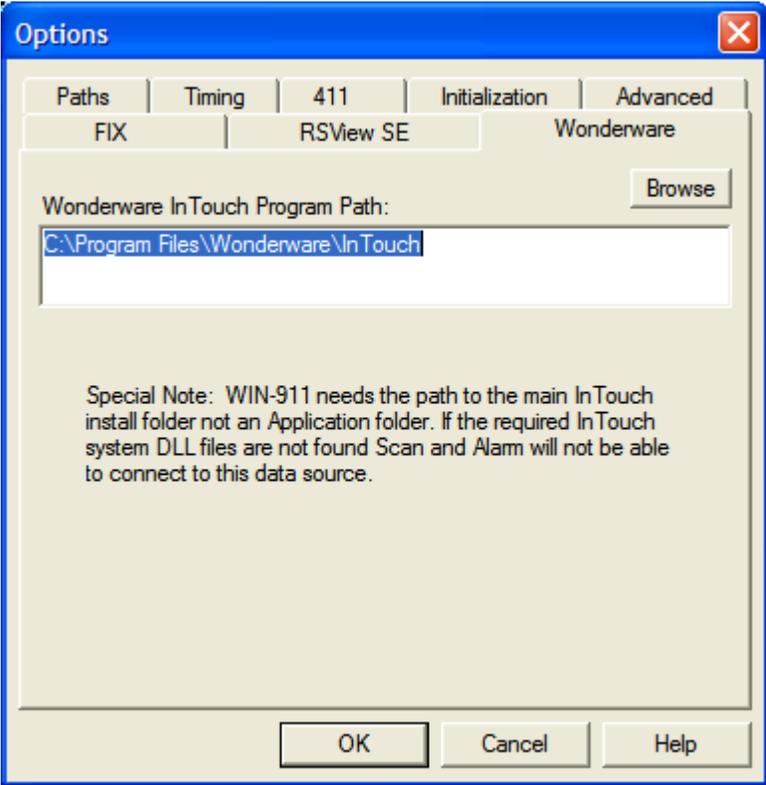
Note: If both the dynamic and static analog state sounds are undefined WIN-911 will use a hard coded string of "Threshold X" for alarm state annunciation, where "X" is a variable of 1 through 8 representing the actual level.

Digital State Sounds: Dynamic Digital State Sounds are generated by reading text strings acquired from RSVIEW during runtime as the data is passed from RSVIEW to WIN-911. This string is called the "Alarm Label." If the Alarm Label is not available when the alarm data is passed, then WIN-911 falls back to the Digital Sound text that is statically defined in the WIN-911 configuration (Digital Definition, Sounds tab). When the check box is left unchecked then the RSVIEW Alarm Label is ignored and only the text in WIN-911 is used.

Priority: Dynamic priority accepts severity level data from RSVIEW during runtime as alarms occur and are passed to WIN-911. When the alarm priority is configured statically WIN-911 sets the priority during configuration development and it is not modifiable at runtime.

Units: Dynamically configured units accept unit text from RSVIEW during runtime as alarms occur and are passed to WIN-911. When the engineering units are defined statically they are set in the WIN-911 Configurator during development in the Analog Alarm Base Definition tab and are not modifiable during runtime.

# Wonderware



## Wonderware InTouch Program Path

Use of the "Direct Connect" option with Wonderware's InTouch will require providing WIN-911 with the location of the HMI package. The field provided allows the user a choice between manually entering the path, or using the "Browse" button to invoke the "Select Wonderware InTouch Directory" dialog box to define the path.



# Configuration Menus

## Configure Menu

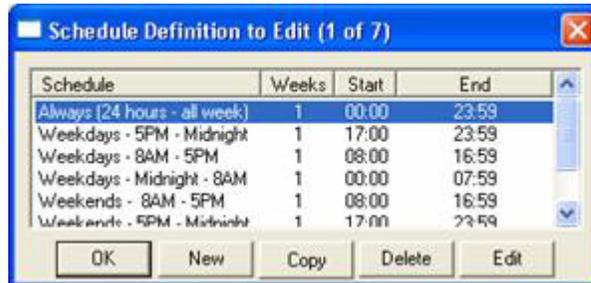


These buttons are used to define the specific configuration information for a single application (either WIN-911 or WIN-411). All changes made to Configuration information is stored in the "\*.MDB" file.

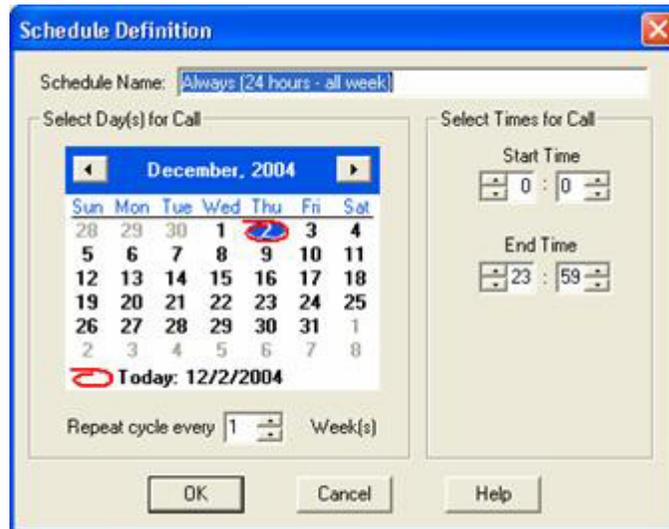
## Schedule Definitions



The list of defined schedules is shown here. If you wish to create a new schedule from scratch, select "New". You may edit existing schedules by either double clicking or highlighting the name and selecting the "Edit" button. You may have an unlimited number of schedules.



The default "Always (24 hours - All week)" schedule is shown below.



Here you will notice that the schedule configuration sheet utilizes a combination of a repeating cycle distributed across as many weeks as required superimposed on a calendar. You may name the "Duty Schedule" to fit your application.

Note: Time is defined using a 24-hour time convention. The Start Time must come before the End Time.

# Phonebook

## Phonebook



All WIN-911 users are defined in the Phonebook, along with their contact methods, access codes and schedule assignments. The following sections discuss the creation of users and their notification connections.

## Phonebook Entry to Edit

If no names have previously been configured, select "New". You may edit existing names by either double-clicking or highlighting the name and selecting the "Edit" button.



## Name Definition

This screen contains the definition for the user Tom Jones. His access code, acknowledgement code and all of his connections are defined here.

Name Definition

Name: Tom Jones

Name Sound: Tom Jones

Access Code: 911 Acknowledge Code: 911

Connection Entry to Edit (1 of 1)

Connection	Phone #/Device ID	Pager PIN/E-Mail	Schedule
Alpha Pager	32641	98745	Always (24 hours - all..

Move Up Move Down

OK Cancel New Copy Delete Edit Help

Connections are ordered. Use the Move Up and Move Down buttons to arrange the order in which your user's connections will be attempted.

## Name

The Name is a unique identifier for the person that will have Group access. This name is later found in a list box for selection purposes. Each name in the phone book can have three options for customizing an initiated call. The options include: phone numbers; choice of E-Mail, SMS, Voice, or Pager service; and Duty Schedule. Each phone or pager number also has its own selection for: number of retries, delay between retries, and a delay between this and the next phone number. The alarms to be directed to the dial-out connections are selected in the Group Definition section of the configuration.

## Name Sound

The user Name Sound is essentially a verbalization of the user name to be used in the "Voice" dial-out operation. As with any other sounds, the sounds are selected from a dialog box. A typical message might be "A message for Mr. Smith...". If your application is for 411 only, or Voice Pager, user name sound is ignored. User name sounds are not required.

## Access Code

The Access Code is a unique numeric code (maximum of 15 digits) that is entered by the user before alarm messages are provided over the telephone. This ensures that only authorized persons receive the alarm status reports.

## Zero Access Code

The prompt for an Access Code may be disabled by configuring a user in the Phonebook with an Access Code of zero. This is only possible when using a Dialogic board. The prompt will not be disabled when using a TAPI voice modem.

When a user in the Phonebook has an access code of zero, the access code prompt is bypassed and WIN-911 assumes that all subsequent dial-outs and call-ins are to the user with an Access Code of zero. As a result, this user must be in all groups if alarms for those groups are to be announced during a voice call.

When an alarm is acknowledged, an Acknowledgement Code must still be entered. This code may belong to any user in your Phonebook. If your Phonebook contains duplicate Acknowledgement Codes, then it is always assumed that the user who is acknowledging an alarm is the first user in the Phonebook alphabetically.

Note: This feature may allow security breaches to occur. Do not use this feature when liability or safety is an issue.

## Anyone (no code)

If a user name of "Anyone (no code)" (case sensitive) is defined, the access code will be requested, but a "#" key with no code will allow access, and an acknowledge code will be requested, but a "#" key with no code will acknowledge alarms. There still must be a unique Access Code entered in the phone Book of the configuration, but it will be transparent to the user when he/she interacts with the system.

Note: This feature may allow security breaches to occur. Do not use this feature when liability or safety is an issue.

## Duplicate Access Code

Multiple user names using the same access code can be configured. However, during the processing of inbound and outbound calls, WIN-911 will not be able to distinguish which user is calling in and WIN-911 will assume that the user calling is the first person in alphabetical order that has that Access Code assigned to it. Reusing access codes is not recommended.

Note: This feature may allow security breaches to occur. Do not use this feature when liability or safety is an issue.

## Acknowledge Code

The Acknowledge Code is a required numeric code (maximum of 15 digits) used to acknowledge an alarm condition, and can be used for local password entry. The combination of the user name and Ack code can be used to ensure that alarms are recognized by the appropriate persons if configured to be unique.

## Connection Definition

Select New or Edit to display the Connection Definition dialog.

### Connection

The first selection is a drop down list box to determine the type of connection.

- None
- Alpha Pager
- Voice
- Voice Pager
- Numeric Pager
- Local Alpha Pager
- Local Numeric Pager
- E-Mail
- Dial-out Announcer
- SMS Message
- Mobile-911

Note: Lite Mode only permits one type of connection to be configured per application.

### Phone Number

If the connection is defined as Voice, Voice Pager, Numeric Pager, SMS Message, or Dialout Announcer, this field contains the telephone number to be dialed. If Alphanumeric Pager is chosen, this field will contain the pager service number designed to accept incoming calls from modems. This is the dispatch number that the Pager Service will assign for automatic computer message dial-ups.

### Pager PIN

If Alphanumeric, Local Alpha, or Local Numeric Pager is chosen, this is where the individual pager PIN number is entered. The maximum size of this number is 255 digits. The number may include embedded Hayes commands such as "wait" and "pause". Consult the modem manual for specific information. This field will be inactive for any other type of connection.

## E-Mail

If E-Mail is chosen, enter the address of your contact here. You may send an E-Mail to multiple addresses by separating each address by a semicolon.

The address field is limited to 255 characters. If your e-mail addresses exceed that, you may place them in a text file. Each address should be separated by a newline. The text file must have an extension of .txt and must be placed in the root directory of your WIN-911 folder. By default this is: **C:\Program Files\Specter Instruments\WIN-911 V7\**. For example, you may place several addresses, each on their own individual line, in a file called "emails.txt." The file should then be placed in the root WIN-911 folder and the E-mail field should read "emails.txt" When a message is sent to that contact, emails.txt is opened and then each address in the file would be sent the same message. The number of addresses you may send to is limited only by your SMTP server.

## Device ID

The Device ID is required to send messages to mobile devices using the Mobile-911 application. This serves as a sort of phone number or address so that Mobile-911's push notifications can be routed to your device. Retrieve this number from the Mobile-911 application by navigating to your settings screen. Tap the Send Device ID button and an email will be composed that contains the Device ID. Send the ID to yourself so that you may copy and paste the ID from your email client.

## Country Code

If an SMS Message connection is defined, this field contains the contact's country code prefix. The country code for the United States and Canada is 1.

## Number of Retries

If the phone or pager service is busy, not answering, or is answered by an answering service, (Access Code was not entered), do you want to retry this number prior to going to the next listed number or next person in the "Phone Book"? Or, if the e-mail service does not send back a successful response, do you want to retry this e-mail address prior to going to the next listed number or person in the "Phone Book"? Or, if the SMS module is unable to send your message (e.g. signal strength too low), do you want to retry sending the message prior to going to the next listed number? A value of "0" in this box will only dial the number one time. A value of "3" (or any non-zero number) would retry this number an additional three times (or equal to the integer in the box). Not all connection types support retries.

## Delay Between Retries

This is the number of minutes or seconds to wait before trying a connection again.

## Delay Between Same Connection Type

Delay Between Same Connection Type is the number of minutes or seconds to wait before trying the next connection of the same type. If you wish to separate each SMS, e-mail, or other connection by five minutes, you would need to configure a five minute delay

between each connection. The important thing to note is that the delay is between the next connection of the same type, and not the next connection.

## The Duty Schedule

Each connection may have a unique schedule for selecting the day or days that each connection is valid, along with the starting time and stopping time for each day. The number is dialed only on valid days and times. If more than one number is valid, each valid number is called.

Note: A pre-existing, unacknowledged alarm will not be dialed out to a single user if he/she comes on-duty after that Item has gone into an alarm condition. If the Group has other users which were on call at the time of the alarm and the call-out is still in progress, he/she will be added to the call out list.

## Selecting a Duty Schedule

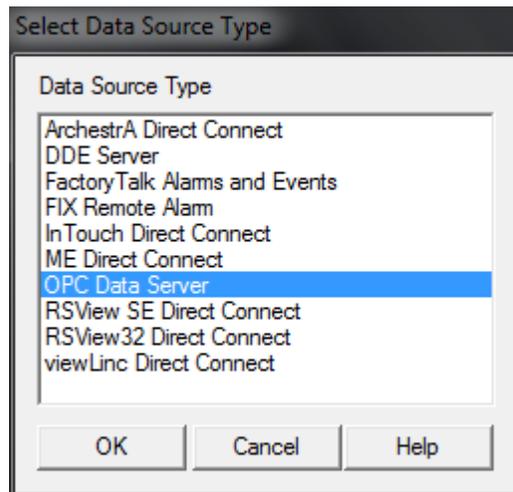
A list box selection will allow choices of pre-configured duty schedules. If you do not find a schedule which fits your needs for this number, you may edit or add additional duty schedules using the Schedule Definition discussed in the previous section.

## Data Source Definitions



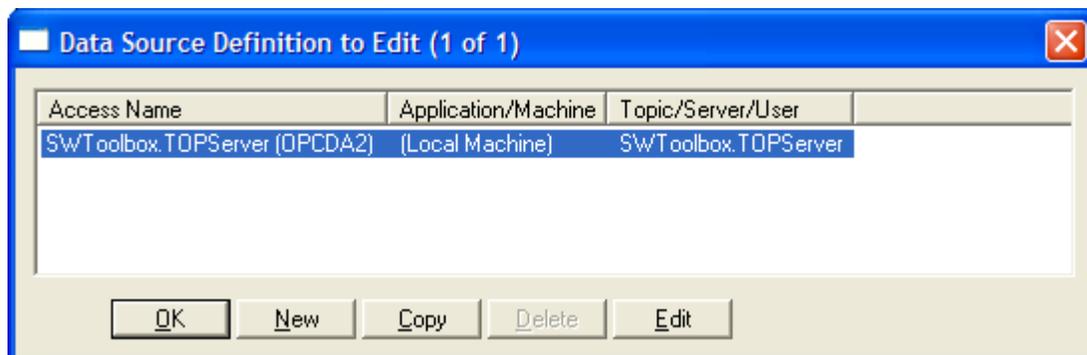
Data can be served to WIN-911 generically or by custom data services where WIN-911 is the client. OPC and DDE are the generic modes of data service and Direct Connect is the custom data service available to meet the needs of the user. For more specific details about the Data Source Definition see the data source's corresponding .CHM file in the WIN-911 Help Library.

Select the Data Source Type



The "Data Source Type" list box shows all available data source connections. The user specifies the data source by selecting one in the list. The user is then brought to a the "Data Source Options" window. For more details about the "Data Source Options" window, see the data source's corresponding .CHM file in the WIN-911 Help Library.

Data Source Definition to Edit



The "Data Source Definition to Edit" window shows all configured data sources. Selecting "Edit" or double-clicking on the "Access Name" will bring you back to the corresponding "Data Source Options" window.

# Group Definitions

## Group Definitions

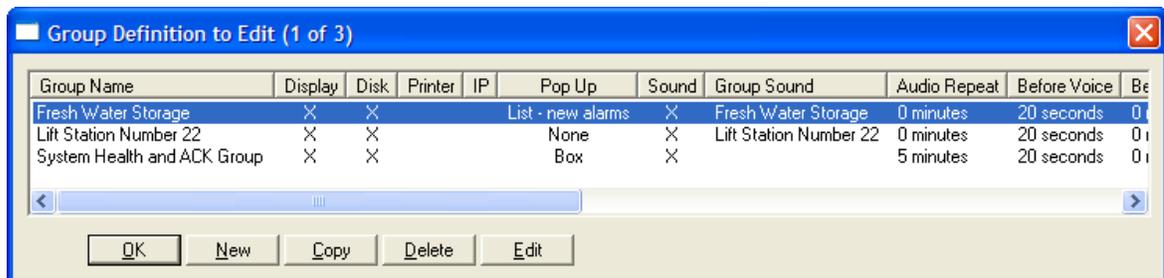


This button is used to build "Groups". Groups are used to associate information with people. Each data tag (alarm or information) is assigned to one group (and one group only). A Group can have any number of data tags assigned to it. Each group has its own Contact List that assigns people from the phone book and the order they are to be contacted in. With this functionality you can organize your remote alarm notification tasking in a compartmental fashion with different people (or teams) assigned to different alarms (or alarm areas).

An example of an effective Group strategy might be a city water system that is composed of a network of lift stations scattered throughout the city. If the city is large, you may need to organize your groups into lift stations, with different people assigned to each lift station.

## Group Definition to Edit

If a "Group" has not previously been configured, select "New". You may edit existing "Groups" by either double clicking on or highlighting the name and selecting the edit button. You may have an unlimited number of groups.



Selecting the "New", "Edit", or "Copy" button from the "Group Definition to Edit" brings you to the "Group Definition" dialog.

## Group Definition

A selection of the "Fresh Water Storage" group in the above example will bring up the "Group Definition" dialog box. You may have an unlimited number of groups. For example, you may want a separate group per lift station in a wastewater application.

It is with this dialog box that you can decide which alarms are to be "audible" and which shall be merely displayed on the video monitor and logged to the printer. This step also defines which alarms will be routed to the dial-up options. You may also use different groups to "direct" which alarms are routed to the supervisor and which are simply reported to the operators. Each alarm may only be used with one group. Applications,

which require that the same alarm be assigned to several "Groups", will require you to configure the same alarm with a different "Tagname" but with the same "Item Name".

## Base Definition

The screenshot shows a 'Group Definition' dialog box with the following elements:

- Tabbed interface with 'Base Definition' selected.
- 'Group Name' text box containing 'Fresh Water Storage'.
- Four checkboxes:
  - Display alarms in Alarm Monitor
  - Send alarms to Alarm Loggers
  - Send alarms to Alarm Printer
  - Send alarms to IP
- 'Pop Up on Alarm' dropdown menu set to 'Summary List on New Unacked'.
- 'OK', 'Cancel', and 'Help' buttons at the bottom.

### Group Name

This is a unique name used to identify the group. This name may be used in alarm messages if desired. This name will appear in a pull down list box for future "Group" selection. Note that if the name is changed after it is assigned to a specific data point, the name change will be shown automatically.

### Special Note for Numeric Pager Users

If a group reference number is needed in a numeric representation alarm, include it in the group name with square brackets, such as: Lift Station [22]. The numeric pager option will strip the alpha characters and send the numeric.

### Display alarms in Alarm Monitor

This check box will activate the "Monitor" module when the WIN-911 module is launched. In the "Monitor" window, you may display either the "Summary Display" or the "History Display". Selecting the "Summary Display" will show only the alarms which are in alarm state (both unacknowledged alarms and acknowledged alarms). Selecting the "History Display" will show the total history up to the user defined limit (default 2000) of all alarms and WIN-911 activities since Scan & Alarm was last started. It will give a historical time and date stamped record of each alarm transition (alarm, acknowledged, and return to normal or "OK").

### Send alarms to Alarm Logger

If this check box is checked, all activity, which would normally show up in the "History Display", will also be recorded to a log file. By default, all log files are stored in the "C:\Program Files\Specter Instruments\WIN-911 V7\Log Files" directory. Error messages, event logging, call progression, and acknowledgement information are also logged. A new file is created daily or monthly, depending on user preference.

## Send alarms to Alarm Printer

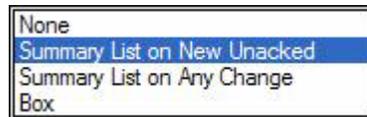
If the "Printer" module is enabled, alarms will be sent to the printer configured in the "Printer Definition" dialog.

## Send alarms to IP

If the "IP" module is enabled, alarms will be sent to the configured IP address/ RAS connection defined in the "IP Definition" dialog.

## Pop-Up Alarms

A selection of a "Pop-Up Alarm" for the group will cause one of the following reactions for any alarm condition in this group.



### None

A selection of "None" will disable the "Pop-Up" feature for this group of alarms.

### Summary List on New Unacked

If a "Pop-Up Alarms" selection of "Summary List on New Unacked" is made, any new unacknowledged alarms will cause the Monitor (Summary) view to appear over any other window. If the Monitor program is minimized, the view will be restored to the last location and size. The display option must also be selected.

### Summary List on Any Change

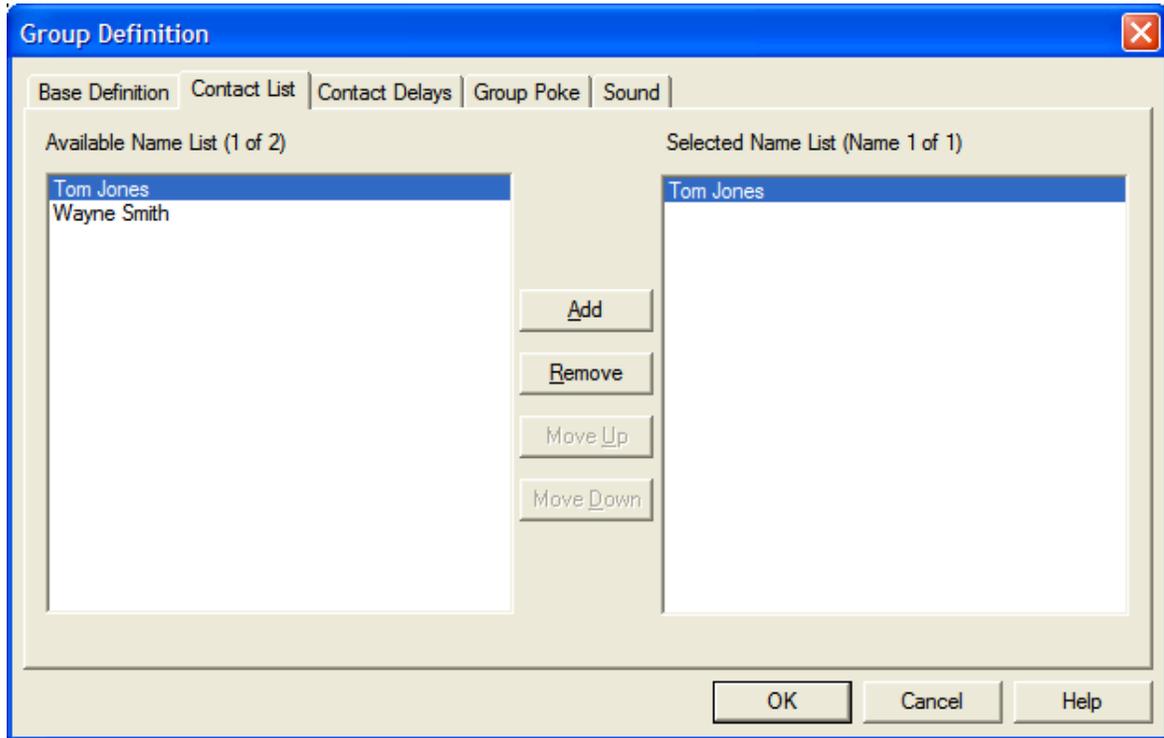
If a "Pop-Up Alarms" selection of "Summary List on Any Change" is made, any alarm (including a return to normal) will cause the Monitor (Summary) view to appear over any other window. If the Monitor window is minimized, the window will be restored to the last size. The display option must also be selected.

### Box

If the "Pop-Up Alarms Box" option is checked, any new unacknowledged alarms will appear in its own individual pop-up dialog box. The dialog box will appear over any other window and will disappear when the alarm is acknowledged. If this option is used, it is recommended that the WIN-911 Monitor run as a minimized window. The display option must also be selected.

## Contact List

Even though "Phone Book" names are selected here for remote dial-outs, it is important to realize that WIN-911 creates a different queue for each connection type. Therefore, it is possible for WIN-911 to be making an alphanumeric or numeric page and/or e-mail at the same time it is making a voice dial-out alarm call.



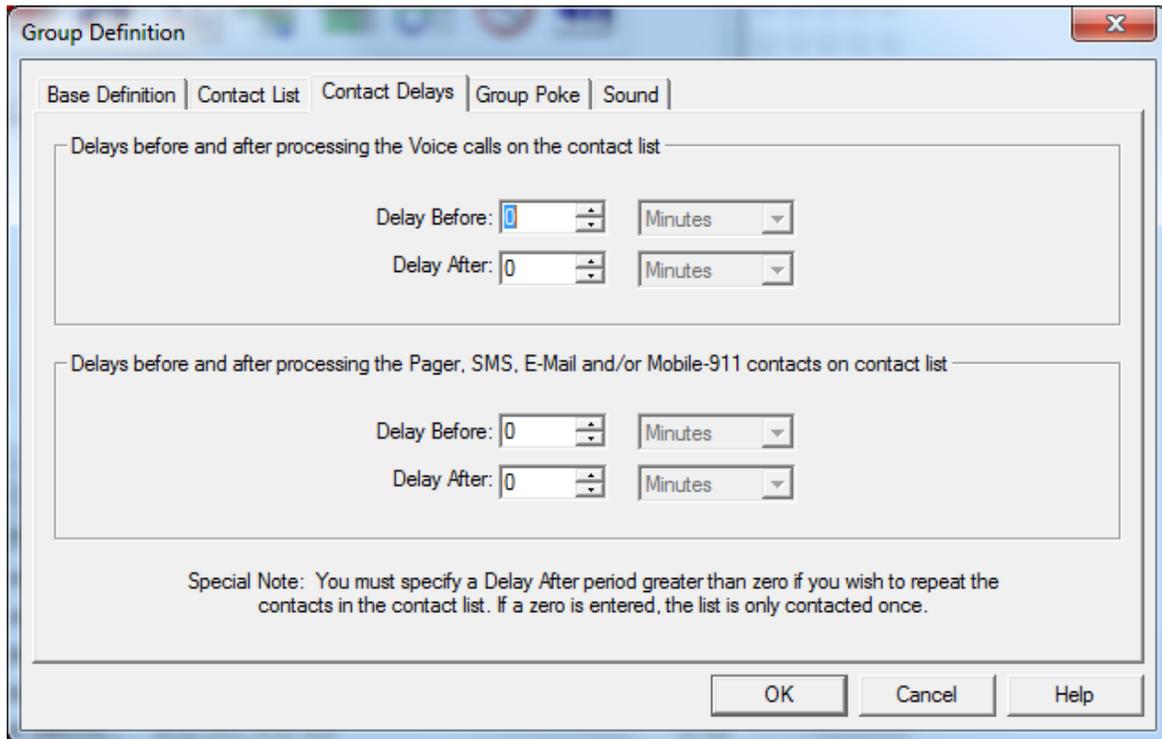
### Available Name List

The "Available Name List" contains all the contacts previously defined with in the "Phone Book Definitions".

### Selected Name List

The "Selected Name List" contains the "selected" names, which are assigned for this group. To select a name, highlight the desired name and click on the "Add" button. To remove a name from the "Selected Name List", highlight the desired name and click on the "Remove" button. You may place the same person in the list more than once. The location of the name in the list determines the order of alarm notification attempts. You may organize the list in any desired order by using the "Move Up" and "Move Down" Buttons. Phone numbers, retries, and retry delays are found in the "Phone Book."

## Contact Delays



### Delay Before First Voice Call

"Delay Before First Voice Call" is used to allow time for an alarm to be acknowledged locally before any voice calls are made. This time is expressed in either minutes or seconds, depending on the selection from the pull down list box. This setting is independent of the paging and e-mail delays.

Note: For voice calls there is only one delay timer, which is started with the generation of an alarm. If a second alarm is generated during the timeout, the timer will be reset for the callouts to begin. Configuring a long delay creates a situation conducive for a randomly extended delay before voice calls commence.

### Delay After Last Voice Call

"Delay After Last Voice Call" is used to select one of two possible options: 1) Single pass through the contact list, or 2) Continuous cycling through the group contact list until alarm(s) are acknowledged. A value of "0" will select a single cycle. Any other integer value will select continuous cycling and the delay time in minutes or seconds, depending on the selection from the pull down list box. This setting is independent of the paging and e-mail delays.

### Delay Before First Page, E-Mail, SMS and/or Mobile-911

"Delay Before First Page, E-Mail, SMS and/or Mobile-911" is used to allow time for an alarm to be acknowledged before any pages, e-mails, SMS, or Mobile-911 messages are

made. This time is expressed in minutes or seconds, depending on the selection from the pull down list box. This setting is independent of the voice delays.

### Delay After Last Page, E-Mail, SMS and/or Mobile-911

"Delay After Last Page, E-Mail, SMS and/or Mobile-911" is used to select one of two possible options: 1) A single pass through the contact list, or 2) Continuous cycling through the group contact list until the alarm(s) is acknowledged. A value of "0" will select a single cycle. Any other integer value will select continuous cycling and the delay time in minutes or seconds, depending on the selection from the pull down list box. This setting is independent of the voice delays.

Special Note: You must specify a Delay After period greater than zero if you wish to repeat the contacts in the contact list. If a zero is entered, the list is only contacted once.

## Group Poke

The "Group Poke" is used to send ASCII alarm messages to a DDE/OPC server. If the DDE/OPC address is used by an application program, the alarm messages can be used as any other ASCII string within the program. Some HMI software packages have the ability to build "script language programming". Using this feature will allow WIN-911 to acknowledge alarms in the HMI display, or to send an acknowledgement to a driver or field device (such as a PLC).

### Access

This field is a pull down list that contains all previously defined Data Source Access Names for data sources which support Group Pokes.

### Item

The "Item" field defines the "Item" that will receive the ASCII message containing the alarm string. The alarm string is configured in the "Data Poke Definitions" under the "Group Poke" tab. (see, WIN911 Configurator.CHM -> WIN-911 Global Menus -> Data Poke for details.) The message will change immediately each time a new alarm state change occurs for that group. Note that only unacknowledged alarms will actually be sent. If more than one alarm occurs in that group, the message will cycle every 30 seconds (default value) to effectively scroll through all alarms in the selected alarm group. If all of the alarms in this group are acknowledged, a "global string" is sent to the DDE/OPC address, thus overwriting the alarm string. If the user wants to change the message cycle time, or design a custom message to be sent in place of the "Global Group Ack Text", the default settings must be modified in the "Data Poke Definitions".

Special Note: This function is used for remote acknowledgement from within data source software or display of alarms for remote messaging systems. The data type for the tag used must be an ASCII string and must not be read only. This tag is not part of the Analog, Digital, Filter, or Watchdog address.

#### Group Poke - Interfacing 3rd Party Software

The "Group Poke" functions as a "Client" that will both read and write a DDE/OPC message. This will make it possible for a "third party" application to "Acknowledge" any WIN-911 Alarm Group. The purpose of the Group Poke is to receive acknowledgements from the applications software to WIN-911 or notify the applications software of new alarms.

It is quite often desirable to closely couple the graphics HMI software and WIN-911. Since WIN-911 is a generic solution to alarm management and telephonic data acquisition, a simple, universal interface between the two applications is made possible by the group poke transfer. This is configured as part of the "Group Definition" and is used to send alarm messages to a DDE/OPC server. If the HMI package has the ability to interpret ASCII strings and logically react to the string values (sometimes called "Script Language Programming"), the HMI software can interact with WIN-911. Using this feature will allow WIN-911 to acknowledge alarms via the HMI display or to send an acknowledgement to a driver or field device (such as a PLC).

To Send Alarms or "GROUP ACKED" from WIN-911 to the Applications Software:

Configure a "Data Poke" with a valid data link to the target applications software. This tag must be created and should be reserved within the application software for the purpose of receiving a text string. When an alarm occurs (which is assigned to this Group), WIN-911 will send the alarm message string to the Application's data address. The format and structure of the Data Poke message must be defined. To define the format of the transfer message go to the "Data Poke Definitions" from the main WIN-911 Configurator. There are nine fields available which may be selected for transmission, including time and date. (see WIN911 Configurator -> WIN-911 Global Menu -> Data Poke -> Format for more details.)

If more than one alarm has occurred for that "Group", the ASCII Messages for all active alarms will be transferred at a given cycle rate, effectively rotating the messages displayed in the application software. The time period for this rotation is defaulted to 30 seconds, but can be changed by a setting in the Message Cycle Time on the "Data Poke Definition's" "Group" tab. If all alarms in the "Group" are "Acknowledged", the global Acknowledge text string is sent to the Application's data address. If the user wants to change the scroll time, or edit the global Ack text string to be sent in place of the "GROUP ACKED", see WIN911 Configurator -> WIN-911 Global Menu -> Data Poke -> Format for more details.

To Send an "Ack" from the Applications Software to WIN-911:

When an Acknowledgement occurs within the HMI application software, the Application must write the text string "Ack" (case sensitive) to the data tag name. WIN-911 monitors all Data Poke tags and when the "Ack" is detected, WIN-911 will acknowledge all alarms within that Group. After acknowledgement occurs within WIN-911, WIN-911 will send a "GROUP ACKED" string (or custom message) to the data tag. This process will notify the

application that the alarms have been acknowledged and clear the application, making it ready for the next alarm condition.

Note: Do not use a single data address (TAG) in an HMI for more than one WIN-911 Group or for any other purpose.

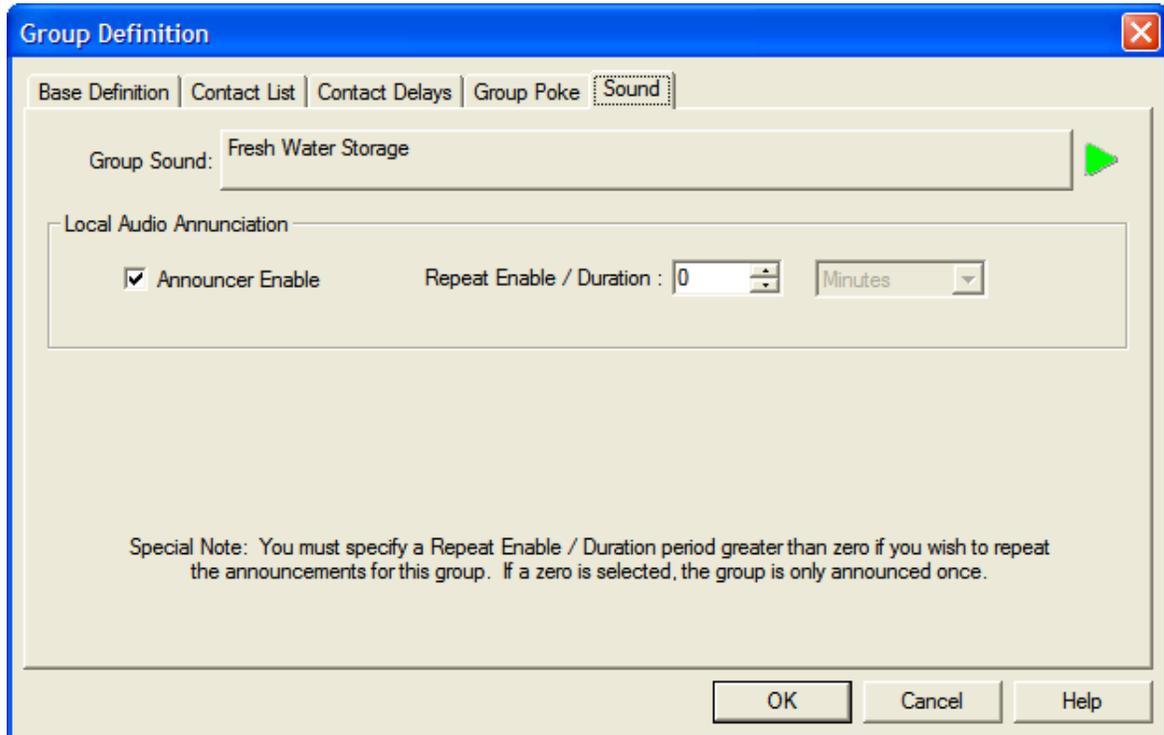
## Examples

If an alarm occurs in WIN-911, an ASCII alarm description is sent to the application software from WIN-911 to the designated tag within the application software. When the alarm is acknowledged within Scan & Alarm, WIN-911 sends an "all clear" message in the form of the Global Group Ack Text to replace the alarm description in the application software.

The application software can also acknowledge the alarm and transfer the acknowledgement back to WIN-911 by writing a literal ASCII string containing the three letter sequence of "Ack" (case sensitive) to the tag within the application software. WIN-911 will read the "Ack" message, acknowledge the alarm(s) within that Group, and then poke the user defined acknowledgement message (Global Group Ack Text).

## Sound

The Sound tab of the Group Definition dialog will associate a group sound and allow local sound to be activated at the runtime computer. In many applications, the operators may not be constantly watching the HMI/SCADA software. If an alarm occurs, much time may expire before a visual alarm is noticed. The Sound option on WIN-911 will alert the local operator of an alarm condition, which will then prompt attention.



### Group Sound

The Group Sound is essentially a verbalization (or sound effect) of the Group name to be used in both the audio annunciation and voice telephone connections. As with any other sounds, the sounds are selected from a dialog box. Another example of a common "Group Sound" is a siren, or alert horn.

### Announcer Enabled

If a sound card is present in the system, you may choose to Enable the Audio Annunciation features in WIN-911. Audio alarms are composed of several selected sounds, which are automatically strung together to form a message. The format of a complete audio alarm message is: GROUP SOUND + TAG SOUND + "IS / WAS" + CONDITION SOUND + ACTIVE STATE SOUND. Any one of the six parts can be turned off to fit your unique application. A typical example of a verbal alarm message is: "Conveyor Number 4", "Selector Arm", "Is", "Jammed", "and is", "Active". To continue the example: You might have 10 conveyor systems that are identical. To offer the same alarming capability to each one, you would only need to create 10 "Group Sounds" (Conveyor 1 through Conveyor 10) and create 10 groups of alarms. However, if you wanted all 10 conveyors to use the same paging or telephone list, then you would need to

have unique TAG sounds identifying each conveyor and possibly disabling the "Group" sound. All 10 alarms would be assigned to the same group.

### Repeat Enable / Duration

The Group Definition also gives you the choice of repeating the audio announcement of unacknowledged alarms. Selecting a "0" in the edit field will disable the repeat feature. A selection of "5" in the "Repeat" edit field "Minutes" in the Minutes/Seconds spinner will cause any unacknowledged alarm to be announced every 5 minutes (or seconds), until acknowledged.

Special Note: You must specify a Repeat period greater than zero if you wish to repeat the announcements for this group. If a zero is selected, the group is only announced once.

# Filter Definitions

## Filter Definition

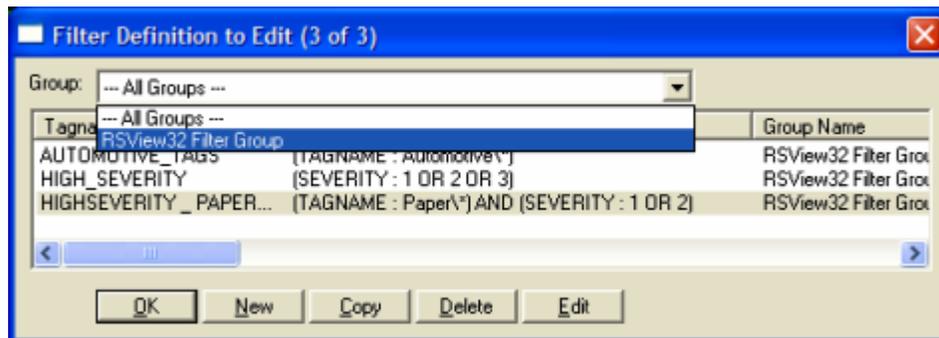


This button is used to define all filter points. Filter tags consist of both digital and analog points. Filter tags are different from statically configured Digital, Analog and Watchdog tags in that no import is necessary. Filter tags subscribe to alarms on the fly depending on the criteria configured. Criteria is configured at both the data source level (Global Options) and tag level (Filter Definition). Filter tags are configured using this button.

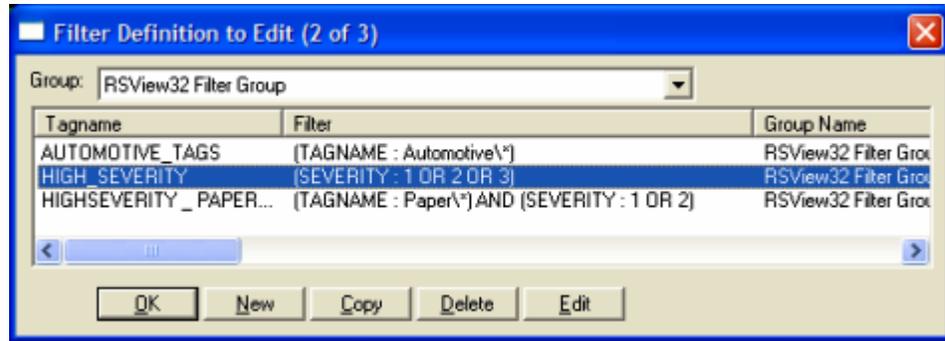
Note: Filter Tags are not supported by all data sources. See the data source's corresponding .CHM help file in the WIN-911 Help Library for more details on Filter Definitions.

## Filter Definition to Edit

"Alarms" are arranged by "Groups". Using the pull down list box, select the "Group" that the new or existing alarm is assigned. Only the alarms 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", "Copy" or double-clicking on the "Filter Tag" will bring up the Filter Definition window.

## Base Definition

## Tagname

The WIN-911 Filter Tagname is a symbolic tool that allows the user to assign names to a Filter tag or group of tags that are created by the tags filters and properties. It should be kept in mind that this is WIN-911's name for the Filter alarm point or points not the data sources.

## Filter

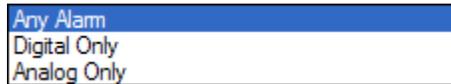
The "Filter" allows you to subscribe to a specific set of alarms. This can be done by clicking the Edit Filter button. The Edit Filter button opens up the data source's Filter dialog. The Filter dialog allows the user to configure filters using data and syntax specific to supported data sources. See the data source's corresponding .CHM help file in the WIN-911 Help Library for more details on the Filter dialog and Filter Syntax.

## Group Name

Alarms are organized by groups for reporting out-of-tolerance conditions. You have by now created a unique digital alarm or point. You must choose a predefined "Group" to specify the reporting actions for this alarm. (Remember, you have already selected a group name, specifying the reporting options and an optional sound for this group.) A

review of the "Group" button is not a bad idea here. To select another "Group", click on the drop-down arrow with the cursor and choose. You may change the Group assignment (move the tag to another group) simply by selecting another defined "Group" from the drop down list box.

## Alarm Type



Filter tags can monitor both Digital and Analog tags. If supported by the configured data source, the Alarm Type drop down menu allows the user to specify the type of alarm the Filter tag subscribes to. By default Any Alarm is selected.

## Use Is / Was

In some cases, using the "Is / Was" sounds will not make sense. If supported by the configured data source, selecting the check-box next to "Use Is / Was" will activate its use. Leaving the check-box blank will omit its use. An example of this sound would be "The Entry Door IS open".

## Access Name

The "Access Name" is used to select a predefined data conversation from the list of supported sources defined in the "Data Source Definitions".

## Automatic Acknowledgement

### Never

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

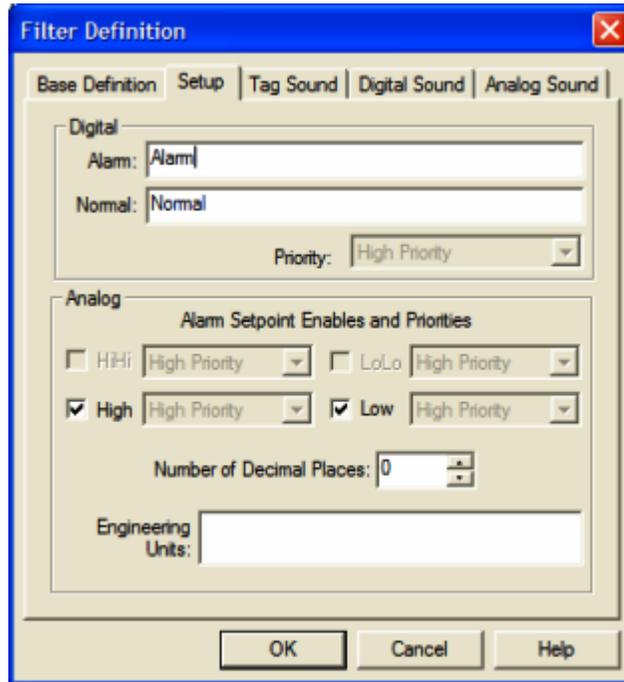
### On Alarm

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. Because the alarm is automatically acknowledged, the message coming back to a normal state would indicate that the condition is in the normal mode. The "Was" message would never be used.

### 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. Experiment with all three of these options to get the results you desire.

## Setup

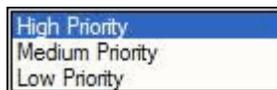


These settings are not supported by all data sources. Refer to the help document for your data source.

### Digital Alarm and Normal Labels

These text strings are generic labels for the Filter Digital Alarm and Normal conditions.

### Digital Priority



Alarm Priorities (Data Source) and Alarm Priorities (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 alarms will go to the front of the line in the contact sequence while alarms with the same priority are handled on a first come first serve basis.

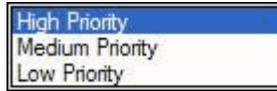
For more details on Digital Alarm Priority mapping see the data source's corresponding .CHM help file in the WIN-911 Help Library.

### Analog Alarm Setpoint Enables

"Analog Alarm Setpoints" are enabled and disabled using the four corresponding checkboxes. Since different data sources can have different ways for configuring setpoints and thresholds WIN-911 must map these thresholds to four setpoints. For more

details on Analog Alarm Setpoint mapping see the data source's corresponding .CHM help file in the WIN-911 Help Library.

## Analog Alarm Setpoint Priorities



Alarm Priorities (Data Source) and Alarm Priorities (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 alarms will go to the front of the line in the contact sequence while alarms with the same priority are handled on a first come first serve basis.

For more details on Analog Alarm Setpoint Priority mapping see the data source's corresponding .CHM help file in the WIN-911 Help Library.

## Number of Decimal Places

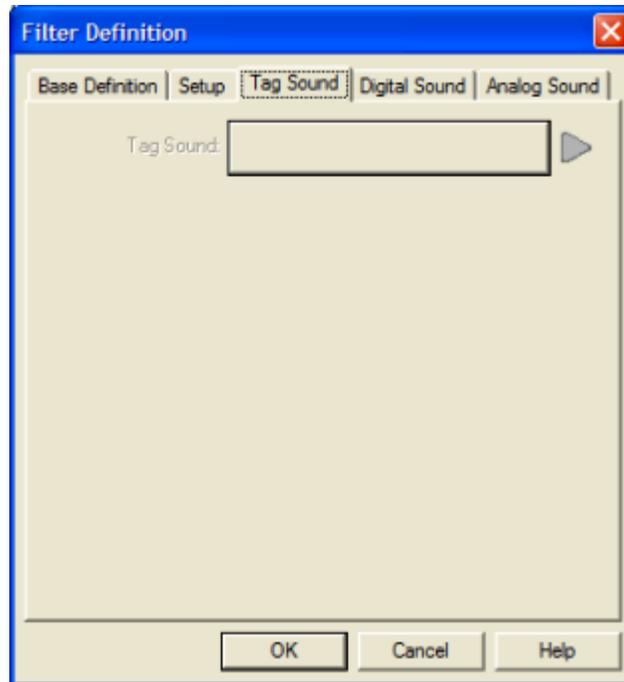
WIN-911 supports two types of analog data types: "Integer" or "Floating Point". WIN-911 supports: a) 32 bit signed integer values, and b) 32 bit IEEE floating point values. Note: Acceptable Floating Point numbers (without round-off errors) are  $3.4 \times 10^{38}$ , or a resolution of 7 digits. Values beyond seven digits will exhibit round-off errors. "Integer Data Type" is the default type and represented as "0" "Number of Decimal Places". To select "Floating Point", select the "Number of Decimal Places" to something other than "0".

## Engineering Units

The "Engineering Units" field is an optional text string which identifies the engineering units a value represents. Analog values may be scaled and displayed as real world units of measure.

## Tag Sound

The "Tag Sound" is essentially a verbalization of the "Tagname" to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box. This sound is required for any voice connection. Note that not all data sources support the tag sound; see the data source's corresponding .CHM help file in the WIN-911 Help Library for more details concerning Filter Tag Sounds



## Digital Sound

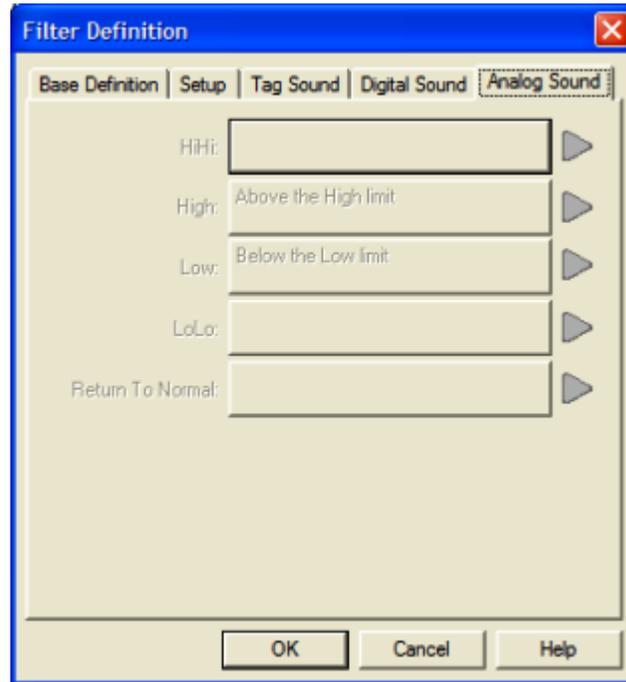
Sounds are essentially a verbalization of the alarm description and the "Alarm" and "Normal" sound to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box. Note that not all data sources support these digital sounds. Refer to the help documentation for your data source.



### Digital Alarm & Normal Sound

These sounds are the verbalization of the Alarm and Normal conditions. See the data source's corresponding .CHM help file in the WIN-911 Help Library for more details concerning Digital Alarm & Normal Sound.

## Analog Sound



Note that not all data sources support these analog sounds. Refer to the help documentation for your data source.

## Analog Alarm & Normal Sounds

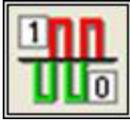
A specific sound can be configured for each of the alarm conditions. These sounds are normally the verbalization of the phrases "...above the threshold alarm", "...below the threshold alarm". In addition, there is a return to normal sound which may be the phrase "in the normal range".

## Engineering Unit Sound

The "Engineering Units" field is an optional sound which identifies the engineering units a value represents. Analog values may be scaled and displayed as real world units of measure. See the data source's corresponding .CHM help file in the WIN-911 Help Library for more details concerning Engineering Unit Sounds.

# Digital Definitions

## Digital Definition



This button is used to define all digital points. With both WIN-911 and WIN-411, alarms or monitored points are classified as either a Digital "1" or "0", "bit picked" Analog data values or Text Match ASCII strings. Digital alarms/points are configured within this button. (Note, some application software packages will convert a DDE/OPC digital value to an ASCII string, such as "OPEN" or "CLOSED". WIN-911/411 can also interpret these conditions as digital alarms. See below for an explanation.)

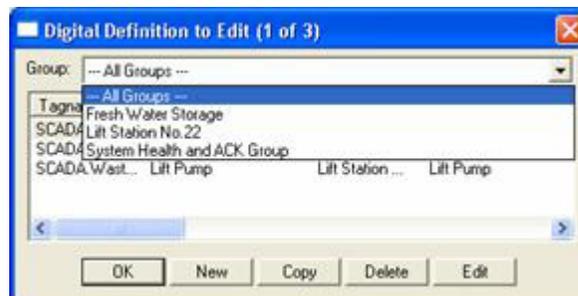
Note: The recommended maximum number of DDE Items should not exceed 1,500.

Note: Some data sources do not support Digitals.

Special Note: Lite Mode users are limited to a total of 24 digital tags and unlimited watchdog tags. Analog tags are not supported in Lite Mode.

## Digital Definition to Edit

Alarms/Points 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", "Copy" or double clicking on the Tagname will bring up the following dialog box:

## Numeric Pager Considerations

If the WIN-911 application requires numeric pagers (do not confuse with alphanumeric pagers), a special entry is needed during configuration. Any or all field(s): Group Names, Tagnames, Descriptions, or Digital States may have an embedded numeric touch-tone string. It must be surrounded by square brackets, and included in the format selection for pagers. Upon an alarm, the numeric data is stripped and sent out as a numeric page. Example: An alarm Tagname such as C\_44N [88] and a base number of 411 would be received by a numeric pager as 41188.

## Base Definition

### Tagname

HMI data point tag names tend to be cryptic and otherwise non-descriptive. The WIN-911 "Tagname" is a symbolic tool that allows the user to assign names to data points that are better fit for human consumption. It should be kept in mind this is WIN-911's name for the data point, and not the data source's. The Item Name is the data source's name for the data point and is independent of the Tagname (unless "Use Tagname for Item" is selected).

Tagname is a unique identifier for an alarm/point. It could be as simple as: "Boiler Temperature", although use of a structured tag naming convention is recommended. Thus, a temperature switch might be represented as TS0501, where: TS indicates a temperature switch, 05 indicates the process area, and 01 indicates that this is the first sensor of this type in this process area. The description can be placed in the description field.

### Description

The "Description" field is used to provide a more detailed description of an alarm or point. This information is in addition to the "Tagname" and "Alarm Group Name". It is best not to include the "Tagname" or "Alarm Group Name" in this description, since it is redundant. Typically, this is the beginning of the ASCII string message which can be displayed, logged, or paged.

### Group Name

Alarms are organized by groups for reporting out-of-tolerance conditions. You have by now created a unique digital alarm or point. You must choose a predefined "Group" to specify the reporting actions for this alarm. (Remember, you have already selected a

group name, specifying the reporting options and an optional sound for this group.) A review of the "Group" button is not a bad idea here. To select another "Group", click on the drop-down arrow with the cursor and choose. You may change the "Group" assignment (move the tag to another "Group") simply by selecting another defined "Group" from the drop down list box.

## Bit

Even though a digital alarm is a comparison of a "1" or "0", some applications require the data server to read a 16 bit word or a 32 bit word, and decipher the word into 16 or 32 unique digital alarms. This is exactly the purpose of this selection. If your data item is already broken into bit form, select Integer Bit 1 as your type. If your data item is an integer value, select the "Type" drop-down list arrow, and choose the correct bit to pick (from least to most significant) for this unique digital alarm/point.

If you are using the "ASCII string option" to define digital alarms, select "Text Match" for the Bit Type.

The "Remote Alarm" selection is a selection associated with the "Direct Connect" options only.

## Access Name

The "Access Name" is used to select a predefined data conversation from the list of supported data sources defined in the "Data Source Definition". This field must be defined.

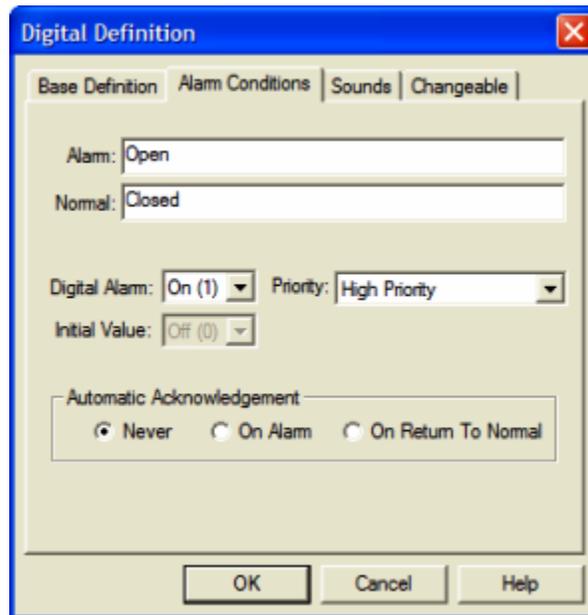
## Use Tagname for Item

Selecting this box will cause the "Tagname" to be copied directly into the item name. This is useful when connecting to other tag oriented HMI packages.

## Item Name

The "Item Name" is used to identify the particular item to monitor in the data source. The actual name entered will vary from server to server. Consult the server documentation for additional information. This field is case sensitive and must be defined.

## Alarm Conditions



### Alarm and Normal Labels

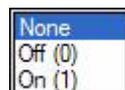
The text strings that identify the "Alarm" and "Normal" conditions which will appear on the alarm monitor displays, reports and pages are identified here. Examples may be "On/Off", "Open/Closed", "Normal/Alarm", or "Red/Green".

If you are using ASCII strings (as opposed to numeric 1 or 0) to represent the two digital conditions (ON/OFF, OPEN/CLOSE), you should have selected "Text Match" in the previous tab (Base Definition). In this mode of operation, WIN-911 uses these text strings as comparison templates for identifying digital conditions. The ASCII strings defined in these fields must match (case sensitive) the text being sent by the data source.

Note: Ensure that Digital data points defined using a Text Match comparison are configured with the exact ASCII string that will be provided by the data source. An inaccurate comparison template will not be able to interpret the incoming strings. It is also worth noting that this situation will not generate any error messages during runtime!

Note: Alarm and Normal text boxes change to On and Off when the digital data is not being monitored for alarm conditions.

### Digital Alarm



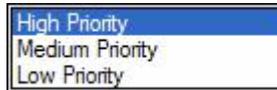
The "Digital Alarm" value is either a "1" or a "0". A digital alarm condition can be either a "1" state, or a "0" state. WIN-911 gives you the choice, since applications vary. Selecting "ON" from the pull-down list will cause an alarm to be reported if the digital value is a "1". The "OFF" selection reverses the choice.

If you are using WIN-411, you may want to monitor a digital condition but not want it alarmed. In this case, configure the digital point as if it were an alarm, but choose the "None" selection.

## Initial Value

Select the initialization value you wish WIN-911 to begin with upon start-up.

## Priority



For each alarm, you may select three levels of "Priority": High, Medium, and Low. Within a "Group", a higher priority alarm will bump a lower priority alarm down the queue to call out, even if the lower priority alarm was first in line.

## Automatic Acknowledgement/Never

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

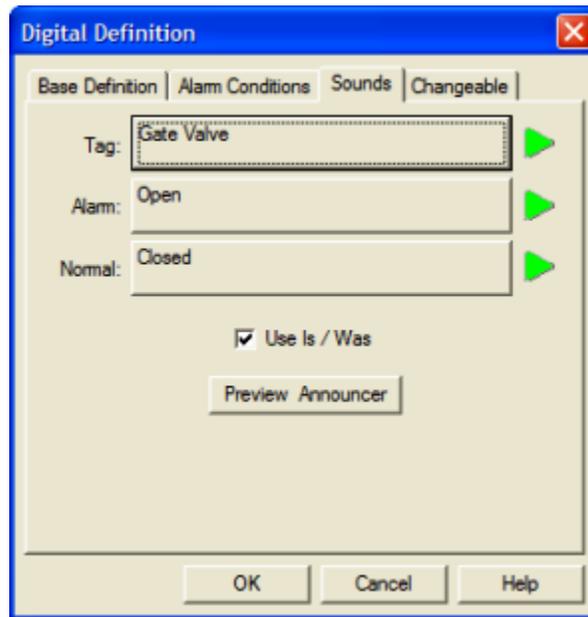
## Automatic Acknowledgement/On Alarm

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 same "Group". If this option is active, the message (going into an alarm condition) will not generate "Pop-Up" alarm messages or any of the "Dial-Out" options. Because the alarm is automatically acknowledged, the message coming back to a normal state would indicate that the condition is in the normal mode.

## Automatic Acknowledgement/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. Experiment with all three of these option boxes to get the results you desire.

## Sounds



"Sounds" are essentially a verbalization of the alarm description and the "on" and "off" sound to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box.

### Tag Sound

The "Sound" is essentially a verbalization of the "Tagname" and/or the description to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box. This sound is required for any voice connection or 411 Reports.

### Alarm & Normal Sound

These sounds are the verbalization of the "Alarm & Normal" alarm labels.

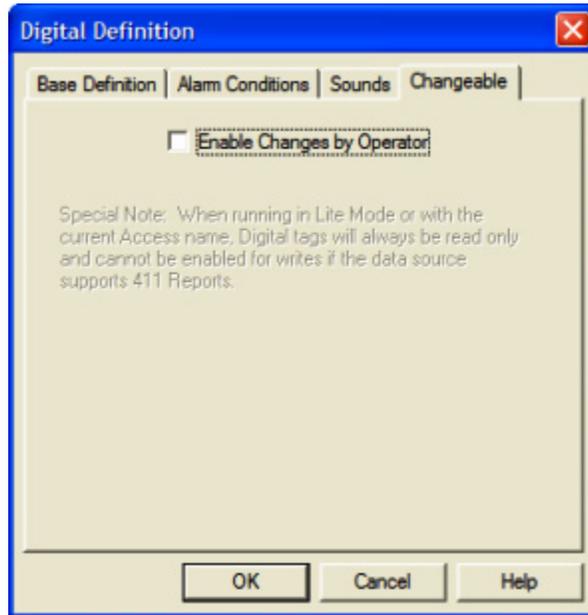
### Use Is / Was

In some cases, using the "Is / Was" sound 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. An example of this sound would be "The Pump IS on".

### Preview Announcer

Selecting this button will allow you to review this alarm's entire audio.. AS THEY WILL BE HEARD IN THE LOCAL ANNOUNCER.. for each condition of the alarm in the local announcer. Selecting the "Auto Acknowledge" option discussed above will affect whether you can test the "State Acknowledged" button. Note: If this control is disabled see the corresponding .CHM help file in the WIN-911 Help Library for more details.

## Changeable



The last tab selection is for WIN-411 applications only. If you are using the WIN-411 Option, a user may call-in to the computer to inquire on digital status conditions, not just alarm conditions. If configured, the user may even change the status from a touch-tone telephone. If the developer elects to allow the user to make changes, each alarm, or data point must be configured to permit changes.

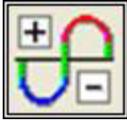
Note: Lite mode, RSView SE and RSView32 Direct Connect will not allow the enabling of changes by the operator because 411 reports are ignored.

### Enable Changes by Operator

This check box will allow changes to this alarm or status point. If this check box is left unchecked, changes will not be allowed.

# Analog Definitions

## Analog Definition



With both WIN-911 and WIN-411, alarms (or monitored points) are classified either as digital "1" or "0", or analog data values. "Analog Alarms" are configured with the "Analog Alarm Definition" button.

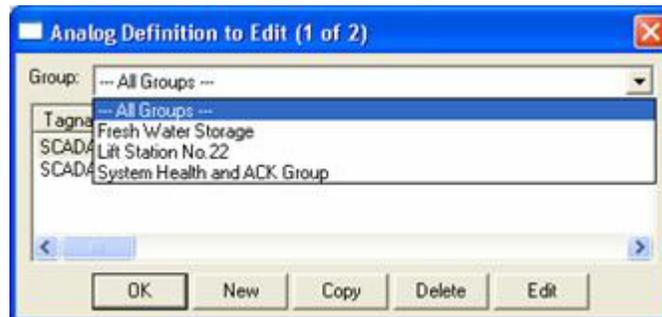
Note: The recommended maximum number of DDE Items should not exceed 1,500.

Note: Some data sources do not support Analog alarms.

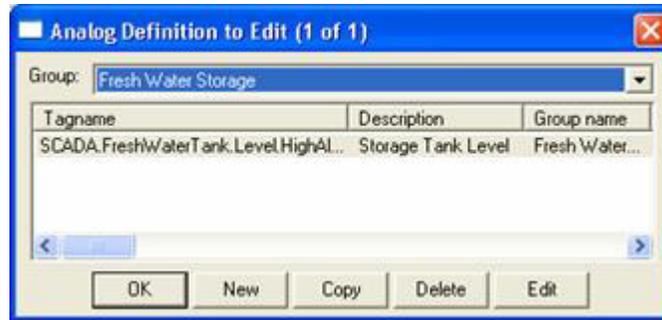
Special Note to Lite Mode Users: Analog alarms are not permitted in Lite Mode.

## Analog Definition to Edit

"Alarms/Points" 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 analog alarms.



Selecting "New", "Edit", "Copy" or double clicking on the "Tagname" will bring up the Analog Definition sheet.

## Numeric Pager Considerations

If the WIN-911 application requires numeric pagers (do not confuse with alphanumeric pagers), a special entry is needed during configuration. Any or all field(s): Group Names, Tagnames, Descriptions, or Digital States may have an embedded numeric touch-tone string. It must be surrounded by square brackets, and included in the format selection for pagers. Upon an alarm, the numeric data is stripped and sent out as a numeric page. Example: An alarm Tagname such as C\_44N [88] and a base number of 411 would be received by a numeric pager as 41188.

## Base Definition

The screenshot shows the 'Analog Definition' dialog box with the following fields and values:

- Tagname:** SCADA.FreshWaterTank.Level.HighAlarm25
- Description:** Storage Tank Level
- Group Name:** Fresh Water Storage
- Engineering Units:** Feet
- Data Source Access Name:** SWToolbox.TOPServer (OPCDA2)
- Use Tagname for Item
- Item Name:** SCADA.FreshWaterTank.Level.HighAlarm25

## Tagname

HMI data point tag names tend to be cryptic and otherwise non-descriptive. The WIN-911 "Tagname" is a symbolic tool that allows the user to assign names to data points that are better fit for human consumption. It should be kept in mind this is WIN-911's name for the data point, and not the data source's. The Item Name is the data source's name for the data point and is independent of the Tagname (unless "Use Tagname for Item" is selected).

Tagname is a unique identifier for an alarm/point. It could be as simple as: "Boiler Temperature", although use of a structured tag naming convention is recommended. Thus, a temperature switch might be represented as TS0501, where: TS indicates a temperature switch, 05 indicates the process area, and 01 indicates that this is the first sensor of this type in this process area. The description can be placed in the description field.

## Description

The "Description" field is used to provide a more detailed description of an alarm or point. This information is in addition to the "Tagname" and "Alarm Group Name". It is best not to include the "Tagname" or "Alarm Group Name" in this description, since it is redundant. Typically, this is the beginning of the ASCII string message which can be displayed, logged, or paged.

## Group Name

Alarms are organized by groups for reporting out-of-tolerance conditions. You have by now created a unique digital alarm or point. You must choose a predefined "Group" to specify the reporting actions for this alarm. (Remember, you have already selected a group name, specifying the reporting options and an optional sound for this group.) A review of the "Group" button is not a bad idea here. To select another "Group", click on the drop-down arrow with the cursor and choose. You may change the "Group" assignment (move the tag to another "Group") simply by selecting another defined "Group" from the drop down list box.

## Engineering Units

The "Engineering Units" field is an optional field, which provides text that identifies the engineering units. Analog values may be scaled and displayed as real world units of measure.

## Access Name

The "Access Name" is used to select a predefined data source conversation from the list of supported data sources defined in the Data Source Definition. This field must be defined.

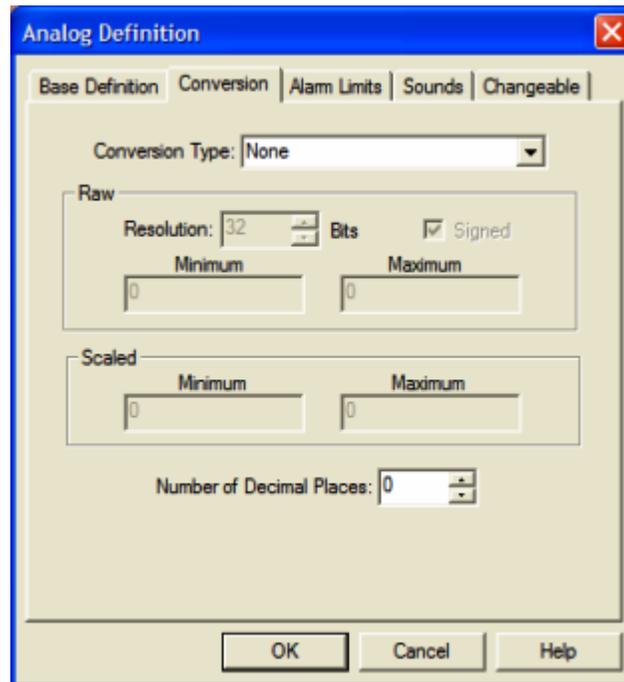
## Use Tagname for Item

Selecting this box will cause the "Tagname" to be copied directly into the item name. This is useful when connecting to other tag oriented HMI applications.

## Item Name

The "Item Name" is used to identify the particular item to monitor in the data source. The actual name entered will vary from server to server. Consult the server documentation for additional information. This field is case sensitive and must be defined.

## Conversion



### Conversion Type

"Conversion Type" defines which filter is applied to the raw data. Being a 32-bit application, analog data is treated as a 32-bit integer. Selection of "Floating Point" is not defined here (see below: "Number of Decimal Places" for floating point definitions).

The incoming values can be processed in four ways. The first and simplest is that the value is not scaled: numbers appear exactly as they are brought in. The next is a linear scaling: raw values in the specified range are converted to the engineering units' range. The third conversion is square root scaling where the square root of the raw value is taken and then the value is converted to the engineering units' range. Square root conversions are commonly used in flow calculations. The final conversion is "Bit Mask": a selection of the number of bits to use in displaying data or calculating scaling factors.



#### None

Selection of "None" will make data available in its raw or native form.

#### Linear

Selection of "Linear" will enable linear scaling. If this is selected, minimum and maximum values must be entered.

## Square Root

Selection of "Square Root" will first apply the "Square Root" of the raw data and then make the scaling selections available.

## Bit Mask

Selection of "Bit Mask" will strip the 32 bit native form to match the data coming from a field device. For example, if the A/D converter is 12 bits, you could select "Bit Mask" and then a resolution of 12 bits. These selections would then strip the excess data from the raw 32-bit form and present it as 12 bit data. Scaling selections would then be available if needed.

## Remote Alarming

This selection is used for Direct Connect data and is not selectable for DDE/OPC data.

## Raw Resolution

(See the above discussion on "Bit Mask".)

## Raw Signed

A selection of this check box will convert a 32 bit unsigned integer into a 16 bit signed integer.

## Raw Minimum/Maximum

The raw engineering units' values are used to create a multiplier for converting values.

## Scaled Minimum/Maximum

The scaled engineering units' values are used to create a multiplier for converting values. You should enter the minimum and maximum values in engineering units which correspond to the minimum and maximum raw data values. The software will automatically scale the incoming (or in the case of WIN-411, outgoing) data to the correct values for WIN-911 alarm comparison or WIN-411 reporting. Note that the min and max engineering units are used to clamp the converted value. The value will not exceed the min and max span.

## Number of Decimal Places

WIN-911/411 supports two types of analog data types: Integer or Floating-Point. WIN-911/411 supports: a) 32 bit signed integer values, and b) 32 bit IEEE floating point values. Note: Acceptable Floating-Point numbers (without round-off errors) are  $3.4 \times 10^{\pm 38}$ , or a resolution of 7 digits. Values beyond seven digits will exhibit round-off errors. Integer Data Type is the default type and represented as "0" Number of Decimal Places. To select Floating Point, select the Number of Decimal Places to something other than "0". This selection will also select the number of decimal places to verbalize in a WIN-411 Report.

## Scaling Examples

Depending upon the source, supplying data to OPC values may be scaled to "Engineering Units". However, some data may be in unscaled form. In the "Conversion" tab, you will find the "Conversion Type List Box": None, Linear, Square Root, and Bit Mask. Using the cursor and checking the "None" selection will disable any scaling routines for this "Tagname". Selecting "Linear" will activate the scaling routine. You must then fill in the minimum and maximum values for the raw data and corresponding minimum and maximum values for the scale's data. The scaling is performed based upon the entered values. For example: a Min/Max range for raw data of 0 and 50 and a Min/Max selection for engineering units of 0 and 100 would result in a 2:1 scaling factor. A raw data value of 25 would be scaled to 50. Also, it is important to note that the scaled values are not permitted to go beyond the Min/Max settings.

Choosing "Square Root" scaling will allow two scalings to be applied to the raw data. First, the "Square Root" of the raw data is taken, and then the results may be scaled. This calculation is useful in flow measurements.

## Alarm Limits

The four alarm limits are used to determine when alarm conditions occur. The value must be above the high limits for the high alarms and below the low limits for the low alarms. If the value is scaled, the limits must be within the scaled range. Notice that you do not have user defined visual alarm messages with Analog alarms. The visual messages are fixed: High, HiHi, Low, and LoLo. The alarm selection boxes are used to select the desired alarm states to be monitored. In WIN-411 applications, you may occasionally have a data point which you want to monitor, but not alarm. In such cases, do not select any of the Alarm States check boxes.

The screenshot shows the 'Analog Definition' dialog box with the 'Alarm Limits' tab selected. The dialog has five tabs: 'Base Definition', 'Conversion', 'Alarm Limits', 'Sounds', and 'Changeable'. The 'Alarm Limits' tab contains the following controls:

Enable	Alarm Limit	Alarm Priority
<input type="checkbox"/> HiHi	0	High Priority
<input checked="" type="checkbox"/> High	25	High Priority
Initial Value: 0		
<input type="checkbox"/> Low	0	High Priority
<input type="checkbox"/> LoLo	0	High Priority
Deadband: 0		
Automatic Acknowledgement		
<input checked="" type="radio"/> Never <input type="radio"/> On Alarm <input type="radio"/> On Return To Normal		

At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

### Initial Value

Select the initialization value you wish WIN-911 to begin with during start-up. The "Initial Value" is used to enter a first value into the variable before the first values are read. It is recommended that the "Initial Value" be set to a non-alarm level.

### Priority

The screenshot shows a dropdown menu with three options: 'High Priority', 'Medium Priority', and 'Low Priority'. 'High Priority' is currently selected and highlighted in blue.

For each alarm, you may select three levels of "Priority": High, Medium, and Low. For that "Group", a higher priority alarm will bump a lower priority alarm down the queue to call out, even if the lower priority alarm was first in line.

### Deadband

You may also select a common "Deadband" for each "Tagname". Entering a value into the "Deadband" edit field will activate this option. A value of "0" will cause an analog alarm to trigger at one digit over the alarm value, and will report a normal condition when the value equals the alarm value. A "Deadband" of "2" will execute an alarm exactly as before, but to report a "Normal" state, the value must fall 2 digits below the alarm setting.

### Automatic Acknowledgement/Never

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

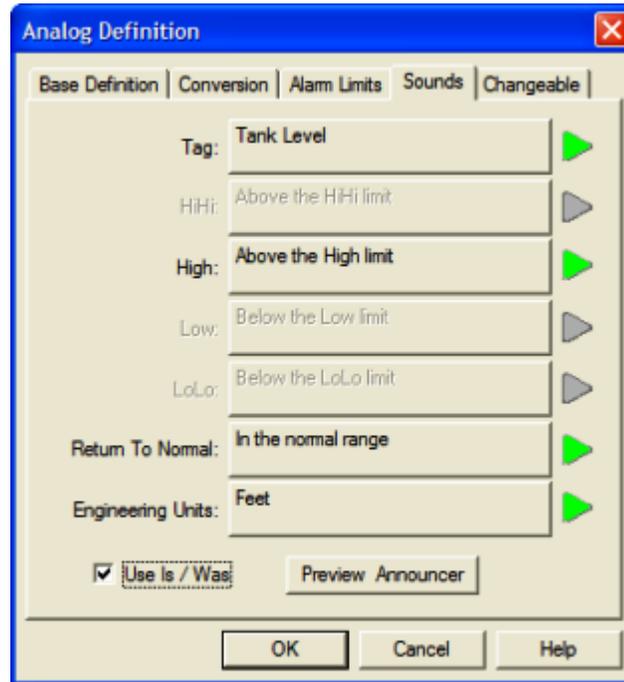
### Automatic Acknowledgement/On Alarm

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 same "Group". If this option is active, the message (going into an alarm condition) will not generate "Pop-Up" alarm messages or any of the "Dial-Out" options. Because the alarm is automatically acknowledged, the message coming back to a normal state would indicate that the condition is in the normal mode. The "Was" message would never be used.

### Automatic Acknowledgement/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. Experiment with all three of these option boxes to get the results you desire.

## Sounds



### Tag Sound

The "Tag Sound" is essentially a verbalization of the "Tagname" and/or the description to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box.

### Alarm Sounds

A specific sound can be specified for each of the alarm conditions. These sounds are normally the verbalization of the phrases "...above the high limit", "...above the HiHi limit", "...below the low limit", and "...below the LoLo limit". In addition, there is a return to normal sound, which may be the phrase "now normal".

### Engineering Unit Sound

The "Units" field is an optional sound which identifies the engineering units a value represents. Analog values may be scaled and displayed as real world units of measure.

### Use Is / Was

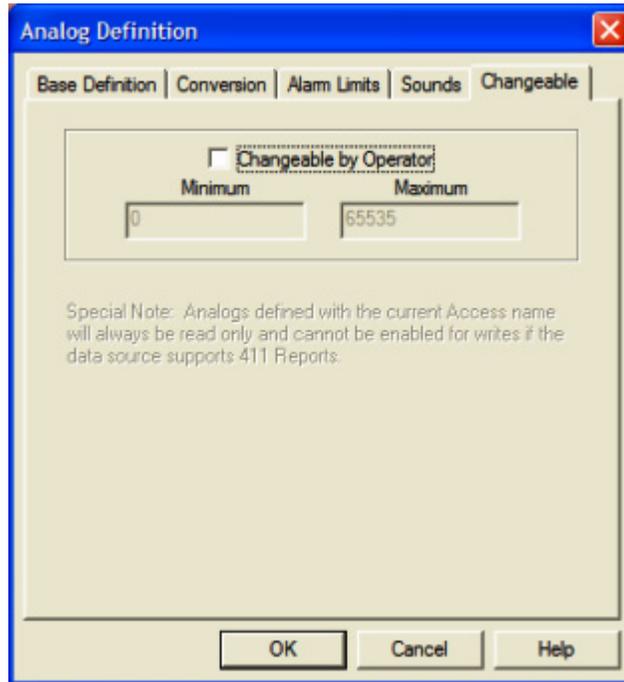
In some cases, using the "Is / Was" sound will not make sense. Selecting the check-box next to "Use Is / Was" will activate its use. Leaving the check-box blank will omit its use.

### Preview Announcer

Selecting this button will allow you to review this alarm's entire ... AS THEY WILL BE HEARD ... for each condition of the alarm in the local announcer. Selecting the "Auto Acknowledge" option discussed above will affect whether you can test the "In the Normal

Range" button. Note: If this control is disabled see the data source's corresponding .CHM help file in the WIN-911 Help Library for more details.

## Changeable



The last tab selection is for WIN-411 applications only. If you are using the WIN-411 Option, a user may call in to the computer to inquire on data values, not just alarm conditions. If configured, the user may even change a value from a touch-tone telephone. If the developer elects to allow the user to make changes, each alarm or data point must be configured to permit changes.

### Changeable by Operator

This check box will allow changes to this alarm or data point. If this check box is left unchecked, changes will not be allowed.

Note: Lite mode, RSView SE and RSView32 Direct Connect will not allow the enabling of changes by the operator because 411 reports are ignored.

### Minimum and Maximum Values

Changes will be allowed only within the "Minimum and Maximum" values.

You must assign the range allowed for a change.

Minimum Value: Integer.....-2147483648

Minimum Value: FP without round-off error ...-9999999

Maximum Value: Integer..... +4294967295

Maximum Value: FP without round-off error ...+9999999

# Watchdog Timer Definitions

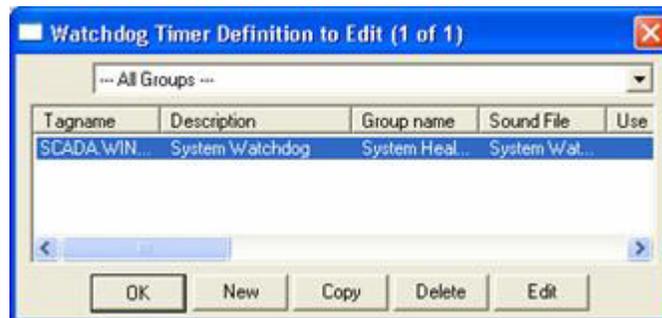
## Watchdog Timer Definition



Should trouble exist in either the server, cabling, or the actual control device, WIN-911 will stop receiving new data from its data source. For this reason, WIN-911's alarm reporting chores would be restricted, or totally shut down. Therefore, the "Watchdog Timer Alarms" have been implemented. This method will also detect when a PLC has been shut down for maintenance or program changes. The "Watchdog Timer" option in WIN-911 will alert you if the data source becomes inactive. "Watchdog Timers" are arranged by "Groups" just like other alarms/points. Using the pull down list box, select the "Group" that the new or existing alarm/point is assigned. Only the "Watchdog Timers" associated with the "Group" will be listed.

To utilize the "Watchdog Timer", you must choose a changing integer data value in each device to be monitored. A good example of such a data value would be a "continuous changing counter value" programmed into the PLC that you are monitoring. The "Watchdog Timer" would monitor this value. If the value does not change over a pre-selected time period, an "Alarm Message" would be generated. If you are not receiving data, you cannot alarm it. A typical voice message for this condition could be: "WARNING, PLC#4, HAS LOST COMMUNICATIONS WITH ALARM LOGGER".

## Watchdog Timer Definition to Edit



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

Selecting "New", "Edit", "Copy" or double clicking on the "Access Name" will bring up the Watchdog Timer Definition sheet.

## Numeric Pager Considerations

If the WIN-911 application requires numeric pagers (do not confuse with alphanumeric pagers), a special entry is needed during configuration. Any or all field(s): Group Names, Tagnames, Descriptions, or Digital States may have an embedded numeric touch-tone

string. It must be surrounded by square brackets, and included in the format selection for pagers. Upon an alarm, the numeric data is stripped and sent out as a numeric page. Example: An alarm Tagname such as C\_44N [88] and a base number of 411 would be received by a numeric pager as 41188.

## Base Definition

The screenshot shows the 'Watchdog Timer Definition' dialog box with the following fields and values:

- Tagname:** SCADA.WIN911SystemTags.OPCWatchdog.WatchdogSource
- Description:** System Watchdog
- Group Name:** System Health and ACK Group
- Data Source:**
  - Access Name: SWToolbox.TOPServer (OPCDA2)
  - Use Tagname for Item
- Item Name:** SCADA.WIN911SystemTags.OPCWatchdog.WatchdogSource

Buttons: OK, Cancel, Help

### Tagname

Tagname is a unique identifier of a watchdog alarm.

### 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 arranged by Group. Select the Group to which the Watchdog Timer should be assigned here.

### Access Name

The Access Name is used to select a predefined data source conversation from the list defined in the Data Source Definition. This field must be defined.

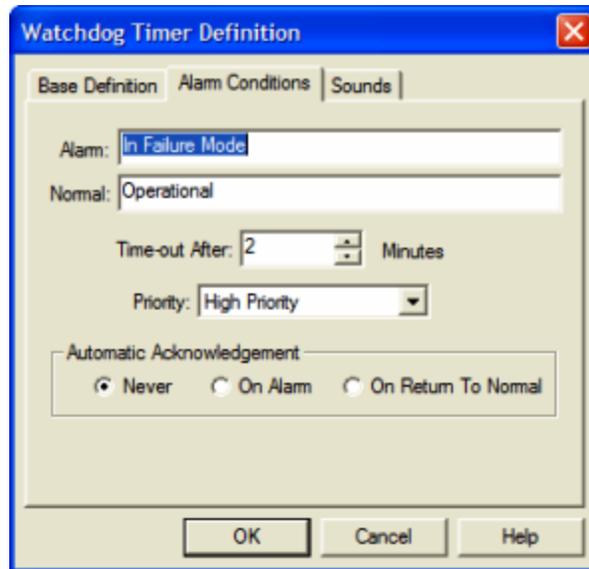
### Use Tagname for Item

Selecting this box will cause the Tagname to be copied directly into the item name. This is useful when connecting to other tag oriented HMI applications.

### Item Name

The Item Name is used to identify the particular item to monitor in the data source. The actual name entered will vary from server to server. Consult the server documentation for additional information. This field is case sensitive and must be defined.

## Alarm Conditions



### Alarm / Normal

The Alarm and Normal fields identify the normal and alarm states that appear on the alarm monitor displays and reports.

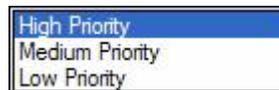
### Time-out After \_\_ Minutes

Watchdog Timers monitor a changing value within your data source. If WIN-911 does not see that value change after a certain period of time, it will place the Watchdog Timer into its alarm state. This is the length of the timer. If an update from the point being monitored is received after the alarm has been triggered, then the Watchdog Timer will return to its normal state.

If this field is set to zero, the Watchdog Timer will alarm when connectivity to the data source is lost.

Note: RSViewSE, RSView32, and FactoryTalk data sources behave differently with respect to watchdogs. Refer to the help documentation for these data sources.

### Priority



For each alarm, you may select three levels of Priority: High, Medium, and Low. For each Group, a higher priority alarm will bump a lower priority alarm down the queue to call out, even if the lower priority alarm was first in line.

### Automatic Acknowledgement

## Never

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

## On Alarm

Selecting this option will cause the Watchdog Timer to become acknowledged upon receipt. It will still be announced by the local announcer, however no remote alarm notification will occur.

## On Return To Normal

Selecting this radio button will cause the alarm to automatically acknowledge as it returns to normal. This means that all notifications for the Watchdog Timer will end when it returns to normal.

## Sounds



### Tag, Alarm, and Normal Sounds

Like other WIN-911 alarms, the "Sounds" are essentially a verbalization of the description, and the normal and timer failure text to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box.

### Use Is / Was

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 THEY WILL BE HEARD ... for each condition of the alarm in the local announcer.

# WIN-411 Reports

## Overview

WIN-411 is a set of reporting features in WIN-911 which allow you to get the current status of any data point. Simply build a report and access it by report number later on via voice call or SMS message.

WIN-411 Voice Reports also allow you to change data values from a touch tone phone. Data points that require this ability, must be configured as changeable in their digital or analog definition.

The following data sources are supported by WIN-411:

- InTouch
- OPC
- DDE
- FIX

If your data source is not supported by WIN-411, a good solution is to create an OPC connection to your SCADA/HMI package for data only, while keeping your direct connection for alarming purposes.

Note: WIN-911 Lite does not support WIN-411 Reports.

## Prerequisites

### General Knowledge

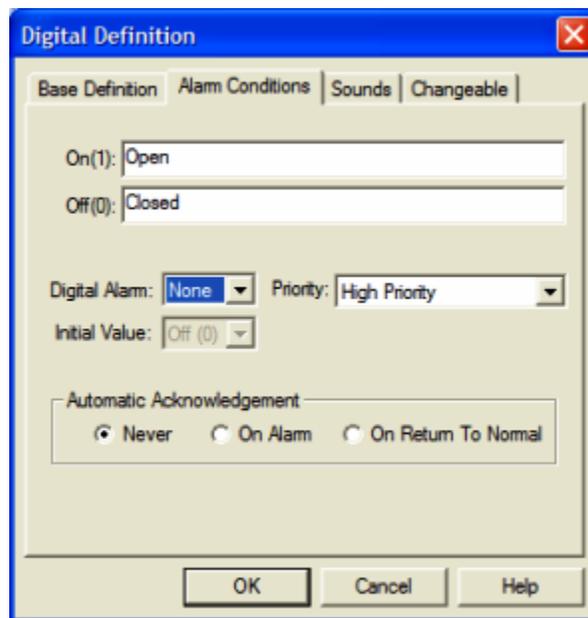
Prior to using this chapter to begin configuring WIN-411 Reports, you must have completed the configuration of each of the data points or alarms to be monitored. If you have not configured the data points or alarms, go to the "WIN-911 Configuration" section of this help file.

### A Data Point vs. an Alarm?

If you are using the WIN-911 alarm capabilities, you must configure data items as alarms. If you are using the WIN-411 monitoring capabilities, you may either monitor alarm values or just the data values. If you are configuring a data item to be both an alarm and a data value, just configure the item as if it is a normal WIN-911 alarm. If you are configuring a data item to be a data value only (with no alarming capabilities), you must configure the items in the following manner:

### Digital Data Point

Configure the item as if it were an alarm, but select "None" for the Digital Alarm list box found in the Alarm Conditions tab.



### Analog Data Point

Configure the item as if it were an alarm, but do not select any of the four Alarm States check boxes found in the Alarm Limits tab.

Analog Definition

Base Definition | Conversion | Alarm Limits | Sounds | Changeable

Enable	Alarm Limit	Alarm Priority
<input type="checkbox"/> HiHi	0	High Priority
<input type="checkbox"/> High	25	High Priority
Initial Value:	0	
<input type="checkbox"/> Low	0	High Priority
<input type="checkbox"/> LoLo	0	High Priority

Deadband: 0

Automatic Acknowledgement

Never    On Alarm    On Return To Normal

OK   Cancel   Help

## **The Audio**

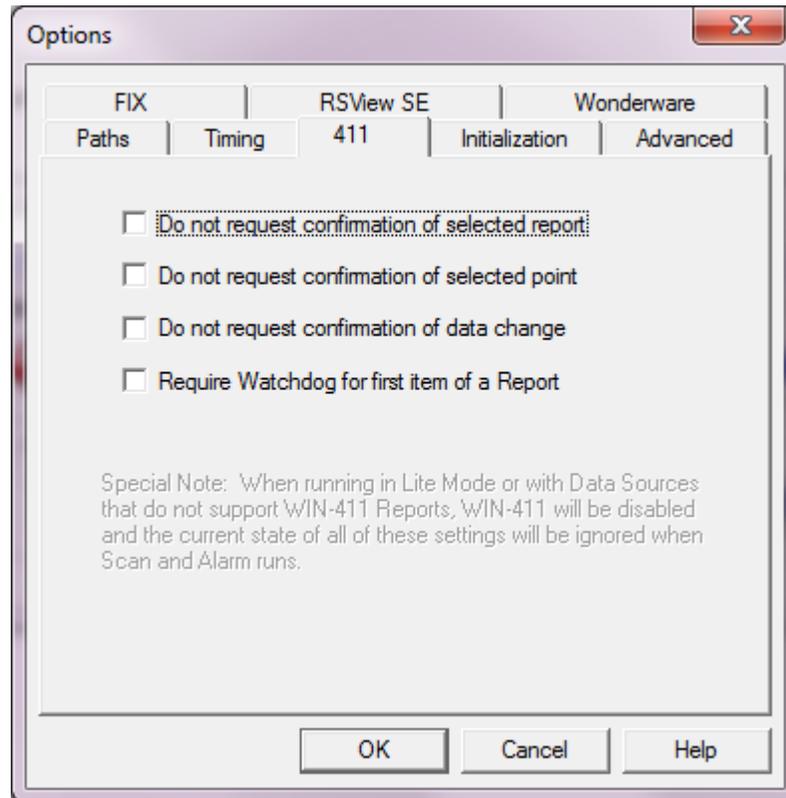
### **Global Sounds**

Review the "WIN-911 Global Menu" section in this help file. Be sure you have completed the necessary Common Sounds and the special WIN-411 sounds or text strings necessary for Scan & Alarm to read during Runtime Voice Synthesis.

### **Data Point Sounds**

Configure the digital, analog and watchdog data point sounds as if they were alarms. If you are not alarming an analog data point, you may omit the alarm sounds for these items, but you must create and use the Tag Sounds and State Sounds for digital points and watchdogs.

## 411 Options



Special Note: When running in Lite Mode, RSView SE Direct Connect, RSView32 Direct Connect, or FactoryTalk Direct Connect, WIN-411 Reporting will always be disabled and the current state of all these settings will be ignored when Scan & Alarm runs.

### Do not request confirmation of selected report

Selection of this checkbox bypasses the need for operator confirmation of the report to be played. The default selection for this checkbox is unchecked.

### Do not request confirmation of selected point

Selection of this checkbox bypasses the need for operator confirmation of the point to be changed. The default selection for this checkbox is unchecked.

### Do not request confirmation of data change

Selection of this checkbox bypasses the need for operator confirmation of the new value to be set. The default selection for this checkbox is unchecked.

### Require Watchdog for first item of a Report

Select of this option to require the first item of your report to be a watchdog. If this feature is enabled, report access will not be granted if the watchdog is in the failed state.

## Voice Report Definitions

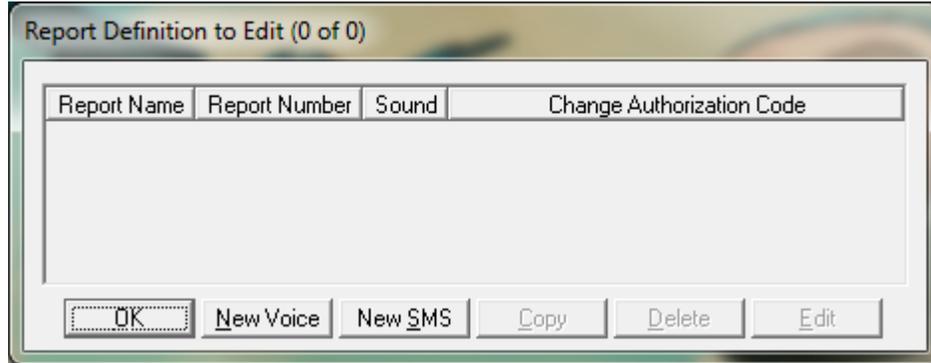
### Report Definition



From the WIN-911 main menu, select the "Define Report" button to build or edit WIN-411 reports. The Report Definition list box will pop-up.

### Report Definition to Edit

If no reports have previously been configured, select "New". You may edit existing reports by either double clicking or highlighting the report name and selecting the "Edit" button. You may have an unlimited number of reports.



### Report Definition

The example shown is a previously configured report, which has been named: "Fresh Water Storage Report Number 1". A total of three data points are assigned to this report.

## Report Name

The "Report Name" is a required unique identifier for each report. You may configure an unlimited number of reports.

Helpful Hint: Verbalizing data values as voice communications is time consuming. It is suggested to keep each report as short as possible, but make as many reports as needed to meet your application needs. In a waste water application, you might want to have a separate report for each lift station consisting of no more than four data items or alarms.

## Report Sound

A "Report Sound" is required. Use the same technique as discussed in earlier sections to generate audio. Define a sound, which describes the report. In the example above, the report audio was: "Fresh Water Storage Report Number 1".

## Voice Report Number

Each report must be assigned a unique number. This number may be any unsigned integer (1 to 15 digit number) and does not need to be sequential. Think of this as the second level of security (the first being the initial user access code). To make it more user friendly, some developers will match the report number with the report name (Lift Station 22 would be report number 22).

## Change Authorization Code - Optional

If the user is allowed to change any of the data points in this report, a third level of security is available, an access code for changes. Without this code, a user may monitor data values, but he may not change them. This number may be any unsigned integer (1 to 15 digit number) and does not need to be sequential. Change authorization code is required even if no points are changeable.

### Disabling Security:

If this level of security is not desired, enter a zero in this field and a change authorization code will not be requested.

Note: Disabling may allow security breaches to occur. Do not use this feature when liability or safety is an issue.

### Available Tags

The "Available Tag List" contains all the data points or alarms that have been previously defined, assigned to the "Group", and have a tag sound defined. A WIN-411 Report may consist of data points or alarms from more than one "Group". You may select "All Groups" to view all available "Tags".

Note: For a data point to appear in the WIN-411 configuration sheet it must have the appropriate sound(s) assigned to it.

### Selected Tags

The "Selected Name List" contains the data points or alarms which have been selected for this Report. To select a data point or alarm, highlight the desired data point/alarm in the Available Tag List and click on the "Add" button. Data points/alarms from any Group may be included in a single Report. To remove a tag from the Report list, highlight the desired tag and click on the "Remove" button. You may organize the list in any desired order by using the "Move Up" and "Move Down" buttons.

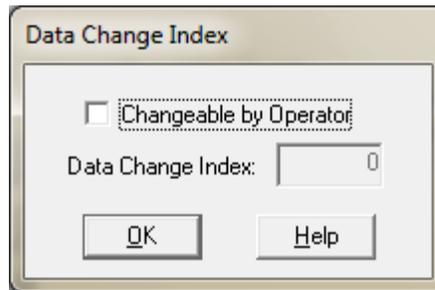
Note: It is a good idea to place a watchdog tag in each report as the first item in the report. This way an expired watchdog will alert the user accessing the report that there may be no connection to the data source and report values may be invalid.

## Defining a Data Point to Change

### Data Change Index

From the "Report Definition" edit box, select the data point to change by double-clicking the left mouse button on the data point's ID field found in the report list. This will bring up the "Change Definition" edit box. The example below is from the continuing Pneumatic Conveyor Number 2 example.

Note: This dialog box will not be activated if you did not select the data point to allow changes. This selection is made available during configuration of the digital or analog alarm (data points).



### Changeable by Operator

Select the "Changeable by Operator" check box to enable the change index field for the tag. The software enables the appropriate input field.

Note: If a tag was imported as read-only and you attempted to make it changeable by adding a change index, a warning message will be presented to inform you the point may not be able to be written to.

### Data Change Index

The "Data Change Index" is the fourth level of security (or password) allowing for a change of a data value. This number may be any unsigned integer (1-65535), and does not need to be sequential. Each data point must have a unique "Data Change Index" within the same Report.

## Miscellaneous

### Number of Decimal Places to Verbalize

If the data point is a floating point analog value, the number of decimal places to verbalize in reporting the value is defined in the Analog Definition. Details about this can be found in WIN-911 Configuration section of this help file. Whatever you select for the Number of Decimal Places to display is also the number of Decimal Places to verbalize. If you select the number "3", the data value will be reported to three decimal places. A value of 14.0 will be reported as 14.000; a value of 632.8733492 will be reported as 632.873. Up to fifteen digits total can be verbalized.

### Helpful Hint:

Verbalizing data values as voice communications is time consuming. It is suggested to keep each report as short as possible, but make as many reports as needed to meet your application. In a wastewater application, you might want to have a separate report for each lift station consisting of no more than four data items or alarms.

### WIN-411 & InTouch Direct Connect

When developing a WIN-411 report using InTouch Direct Connect with digital data that is to be reported only and not monitored for any alarm condition, ensure that the "Bit:" field is set for anything except "Remote Alarming".

## SMS Report Definitions

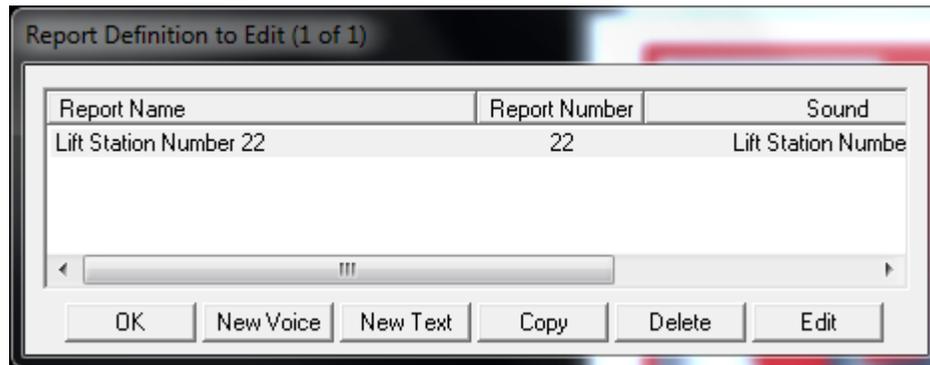
### Text Report (Mobile-911 or SMS) Definition



Before data values can be requested from WIN-911, a 411 report must be built. Click the 411 icon to edit 411 reports.

### Report Definition to Edit

If no reports have previously been configured, select "New Text". You may edit existing reports by either double clicking or highlighting the report name and selecting the "Edit" button.



### Report Definition

Text Report Definition

Text Report (Mobile-911 or SMS) Definition

Report Name: Mobile-411:      Default Short Descriptions (35 Character Maximum)

Text Report Number: [ ]       User Defined     Copy Descriptions     Copy Tagnames

-- All Groups --

Available Tag List (1 of 5)

Tagname	Description
R22C2	The Gate Valve is
R22C3	The Pump is
R22C4	The Tank Level is
R22C6	The Waste Level is
R22C7	The Pump is

Selected Report Item (0 of 0)

Tagname	Short Description
---------	-------------------

Buttons: Add, Remove, Move Up, Move Down, Edit

Buttons: OK, Cancel, Help

A 411 report contains a set of data points which may be requested by report number or individually through an SMS message or Mobile-911 transaction. When a request is made for a 411 report, every data point in the report will be sent back to the phone which requested the report as separate text messages. Request an individual report item by its index number and that item will be sent to the requesting phone. The following is a description of the elements of a Text Report.

## Report Number

The Report Name is a unique identifier for each Mobile-911 or SMS report. The maximum length of this field is three digits. Reports are requested by number.

## Available Tags

The Available Tag List contains all of the tags available for inclusion in a Mobile-911 or SMS Report. They are organized by group. Use the drop down menu to select the groups you would like to see.

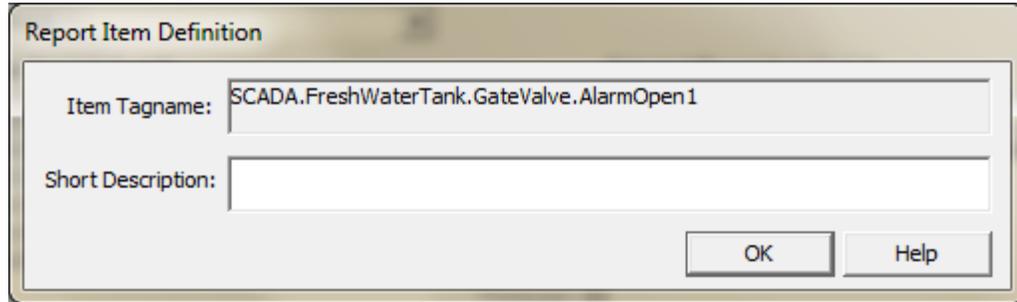
Note: For a data point to appear in the WIN-411 configuration sheet it must have the appropriate sound(s) assigned to it.

## Selected Tags

The Selected Report Item list contains all items in your report. A Report Item has two components, a tagname, which is the name of the tag within WIN-911 and a short description. When a report is delivered it will contain both of these fields. The tagname is the name of the report item and the short description gives more context. The Default

Short Descriptions radio button determines what the default short description of a tag will be when it is added to a report.

Add a Report Item to your SMS Report by selecting it in the Available Tag List and then clicking add. If the Default Short Description is set to User Defined, then you will be prompted for a Short Description.



The image shows a dialog box titled "Report Item Definition". It contains two text input fields. The first field is labeled "Item Tagname:" and contains the text "SCADA.FreshWaterTank.GateValve.AlarmOpen1". The second field is labeled "Short Description:" and is currently empty. At the bottom right of the dialog box, there are two buttons: "OK" and "Help".

When the Default Short Description is set to Copy Descriptions, then the tag's description is copied into the Short Description field. Likewise, when Copy Tagnames is selected, the tagname is copied into the Short Description field.

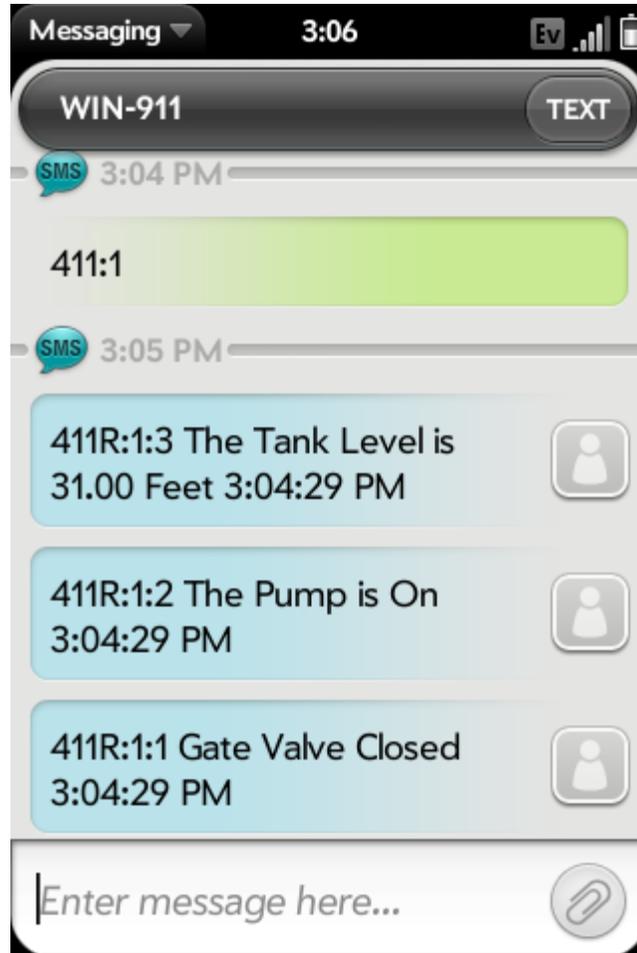
Remove a Report Item by using the remove button or right clicking the Report Item. Use the Move Up and Move Down buttons to arrange the order of the Report Items.

## Requesting Reports

Once a report is defined, it may be requested using its report number. Send a text message to the WIN-911 machine containing the text "411:<report number>." For example, to request report 21 send in the following:

411:21

If the phone which sent in the request is configured within WIN-911, then WIN-911 will respond with the 411 report. An example report is shown below:



If you would like to request a single Report Item send in the text "411:<report number>:<report item>." If you would only like the first item of report 21 send in the following:

411:21:1

If WIN-911 cannot determine which report you would like, possibly because of a formatting error or because that report does not exist, it will respond with "BAD411-REPORT:<report number>." If the report item you've specified does not exist, then it will respond with "BAD411-ITEM:<item number>." If you are not licensed for 411 reports, you will receive "411 Request Rejected per license."

# WIN-911 Runtime

## Scan & Alarm Operation



The WIN-911 runtime system (Scan & Alarm) operation is TeleDAC.exe (executable) which reads the configuration, starts the appropriate DLL's, scans the alarm conditions, makes on-the-fly configuration modifications, and shuts down Scan & Alarm. Once started, controls can be accessed through the tray icon. By right-clicking on the tray icon, a control menu will pop-up giving the operator the options to show or hide the status windows, bypass alarms, override contact's schedules, and shutdown WIN-911.



Because WIN-911 is usually a mission critical application, three security options are offered that prevent unauthorized personnel from modifying or shutting down WIN-911: 1) Requiring User Name and Ack codes to modify or shutdown Scan & Alarm (see "WIN-911 Global Menus.CHM" -> Display Definition -> Monitor Appearance -> Monitor Acknowledge). 2) A global password can be set that will be required to access the WIN-911 Configurator and can be configured to shutdown Scan & Alarm (see "WIN-911 Global Menus.CHM" -> Display Definition -> Monitor Appearance -> Monitor Acknowledge). 3) A combination of 1 and 2.

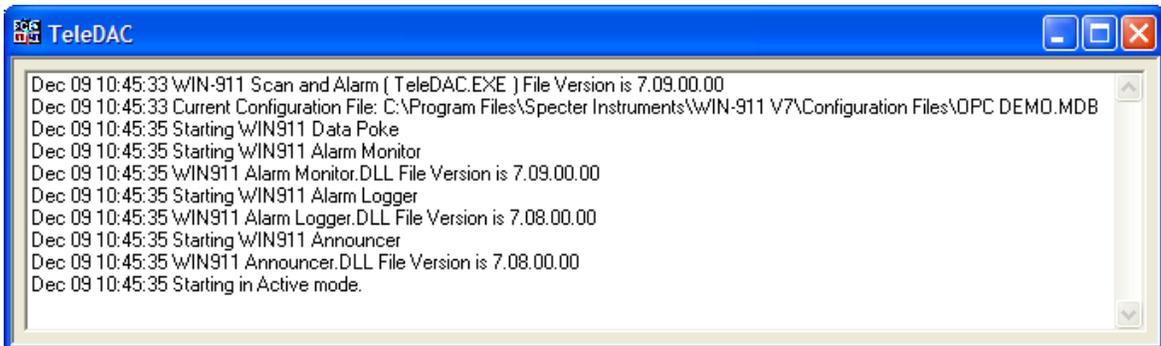
When "Interact with Desktop" is Enabled WIN-911 will function the same way it does now except you can't exit Scan & Alarm in the usual manner. You would have to go through the Service Control Manager to shut it down or use the Restart.exe applet.

When "Interact with Desktop" is Disabled the user cannot use the WIN-911 Alarm Monitor and hence, cannot acknowledge alarms or send manual messages. All the tray icons are disabled as well as all applets, except Restart.exe.

## Startup

Starting of WIN-911 can be done a variety of ways, such as double clicking the TeleDAC.exe from Explorer, using the Start\Run -> TeleDAC.exe, or Start Button -> All Programs -> WIN-911 V7 -> Scan & Alarm task bar sequence or the Restart.exe applet. Windows can start WIN-911 automatically with the Windows Startup program or WIN-911 can be launched by another vendor's startup program. It can also be started when Windows boots via the 911SRV.exe Service Wrapper. Note: Starting WIN-911 automatically can launch WIN-911 before the data source or hardware is ready. Utilize the delay configured in the Global Options/ Initialization tab to give the hardware and data source plenty of time to initialize.

Launching the WIN-911 program will automatically launch all modules necessary to run the configured application. Each module's status during startup will be displayed on the WIN-911 Status window (TeleDAC). This information will provide an overview of the module connections and any error messages. Once they are launched, the WIN-911 Status window will minimize to the system tray. To review the launch messages after the status window is minimized right-click the Scan 911/411 tray icon and select "Show Status" from the pop-up menu. If you want to close this windows after reviewing the messages, right-click the tray icon and select "Hide Status".



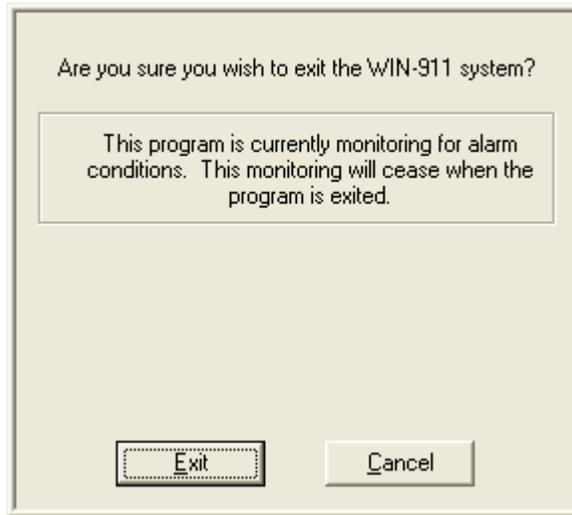
The screenshot shows a window titled "TeleDAC" with a blue title bar and standard Windows window controls (minimize, maximize, close). The main area contains a log of startup events:

```

Dec 09 10:45:33 WIN-911 Scan and Alarm ( TeleDAC.EXE ) File Version is 7.09.00.00
Dec 09 10:45:33 Current Configuration File: C:\Program Files\Specter Instruments\WIN-911 V7\Configuration Files\OPC DEMO.MDB
Dec 09 10:45:35 Starting WIN911 Data Poke
Dec 09 10:45:35 Starting WIN911 Alarm Monitor
Dec 09 10:45:35 WIN911 Alarm Monitor.DLL File Version is 7.09.00.00
Dec 09 10:45:35 Starting WIN911 Alarm Logger
Dec 09 10:45:35 WIN911 Alarm Logger.DLL File Version is 7.08.00.00
Dec 09 10:45:35 Starting WIN911 Announcer
Dec 09 10:45:35 WIN911 Announcer.DLL File Version is 7.08.00.00
Dec 09 10:45:35 Starting in Active mode.
  
```

## Shutdown

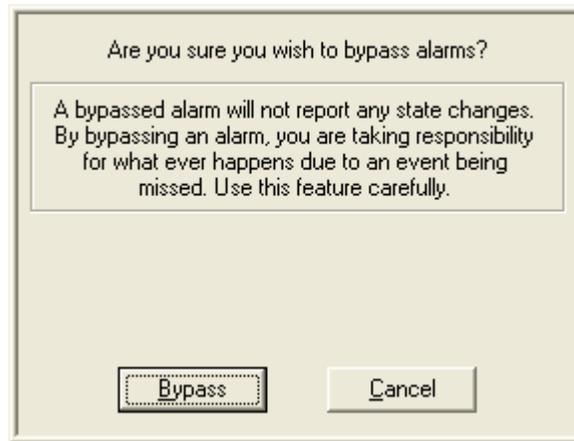
WIN-911 can be shutdown one of three ways: 1) right-clicking on the tray icon will pop up the control menu where Exit WIN-911 can be selected; 2) from the Status (TeleDAC) window; click the 'X' will invoke the shutdown sequence; 3) using the Shutdown.exe command applet. Except when using the Shutdown.exe, confirmation of intent to shutdown WIN-911 will appear prompting the operator to confirm the shutdown by clicking Exit. If WIN-911 is running as a service it can be shutdown one of two ways: 1) executing Restart.exe, or 2) stopping the WIN-911 Service Wrapper in the Windows Service manager shuts down Scan & Alarm. Note: Only a Windows user with Administrative privileges can stop the WIN-911 service.



Note: Security is available with this function that would require a user name and ack code before the function will execute. Additionally, the global system password can be required when the Shutdown.exe command applet is used.

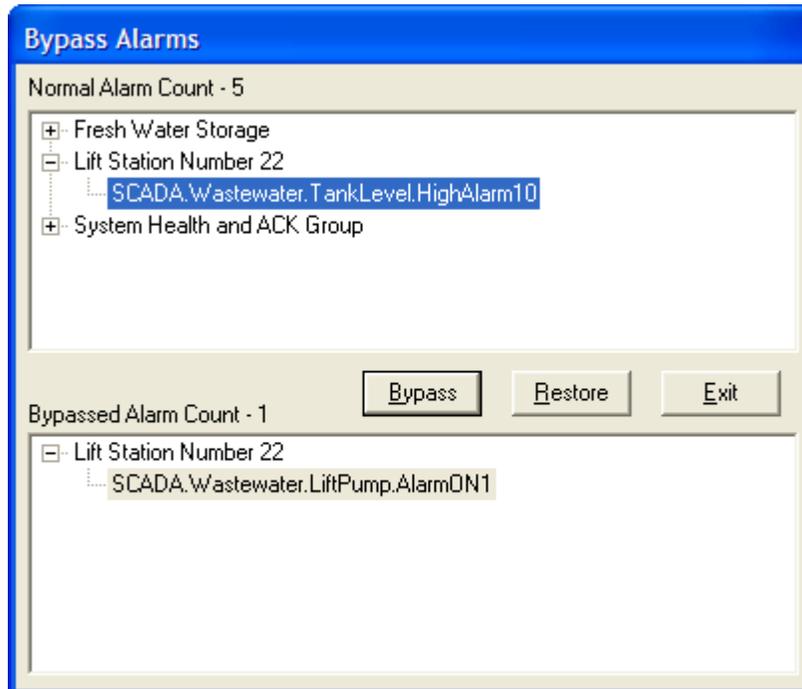
## Bypassing Alarms

Alarms can be removed from and returned to the active callout list without having to take WIN-911 offline and modify its configuration. This is done with the Bypass Alarms command, accessed by right-clicking on the tray icon and selecting Bypass Alarms or running the Bypass.exe from the Tools folder. When selected the following dialog box will appear:



This warning is to ensure that the operator is aware that the bypassed alarm will not be called out. To accept responsibility, click Bypass and select the alarms to bypass.

Note: This confirmation dialog only appears when alarms are bypassed directly by TeleDAC.exe and not the third party BYPASS.exe scripting tool, unless the global setting for user Ack on Bypass is set.

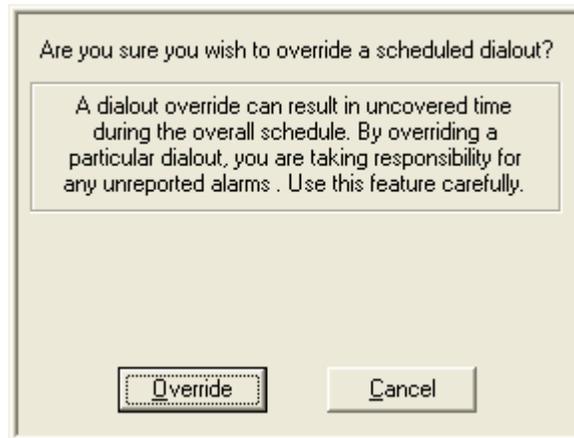


WIN-911 V7.14

Note: Security is available with this function that would require a user name and ack code before the function will execute.

## Dialout Override

Individuals scheduled in a group's phone list can be removed from and returned to the active callout list without having to take WIN-911 offline and modify its configuration. This is done with the Dialout Override command, accessed by right-clicking on the tray icon and selecting Dialout Override or running the Override.exe from the Tools folder. When selected the following dialog box will appear:



This warning appears to ensure the operator is aware that the person who is being removed from the callout list will not receive remote notification of any alarm condition until restored. To accept responsibility, click Override and select the users to override.

Note: This confirmation dialog only appears when schedules are overridden directly by TeleDAC.exe and not the third party Override.exe scripting tool.

Warning: All Override information is stored globally, independent of the configuration file. Any user placed in override may or may not be in the current list for the active configuration.

**Override a Scheduled Dialout**

Define Override

User:

Permanent
  Date:

Override Date	User Name
December 21, 2012	Tom Jones
December 23, 2012	Tom Jones
Permanent	Wayne Smith

Overrides can be scheduled one of two ways, either permanently or by date. As the name would indicate, anyone who is overridden using the Permanent button is immediately overridden and will remain so until manually restored using the delete button. The Selected Date button will schedule an override for each selected 24-hour calendar date. You can have as many "selected date " based overrides as you need and that override will be restored automatically to the active call out list at midnight of the following day.

Note: Security is available with this function that would require a user name and ack code before the function will execute.

## The WIN-911 Alarm Monitor



By default, the WIN-911 Monitor will automatically be launched at runtime. After initialization the Monitor window appears in Summary mode, ready for you to begin work. Note that the size and position is saved when the program is exited and the monitor window will return to its last position and size when restarted. Note that if WIN-911 is exited when the monitor is minimized, next time WIN-911 is started the monitor will be minimized.

Warning: When 911SRV.exe service wrapper is controlling WIN-911, "Interact with Desktop" must be enabled to use the Monitor.

The Monitor Window consists of several distinct areas: Title Bar, Control Bar, Display area, and Scroll Bar.

WIN911 Alarm Monitor \*\*\* ACTIVE \*\*\*

Control Bar: Acknowledge, History (Record 0 of 10), Summary, Display Lock

Date	Time	Group	Tagname	Description	Value	Event	Units	Limit	Priority	Acked
12/09	10:47:36 AM	System Health and ACK Group	SCADA.WIN911SystemTags.OPCWatchdog_WatchdogSource	System Watchdog	In Failure Mode	*ALM*			High	
12/09	10:47:42 AM	System Health and ACK Group	SCADA.WIN911SystemTags.OPCWatchdog_WatchdogSource	System Watchdog	In Failure Mode	ALM			High	Windows stev
12/09	10:49:05 AM	Lift Station Number 22	SCADA.Wastewater.LiftPump.AlarmON1	Lift Pump		Bypass	Bypass		Event	Bypassed by \
12/09	10:49:05 AM	Scan and Alarm		Alarm SCADA Wastewat					Event	WIN-911
12/09	10:49:22 AM	Lift Station Number 22	SCADA.Wastewater.LiftPump.AlarmON1	Lift Pump		Restored	Restored		Event	Restored by W
12/09	10:49:22 AM	Scan and Alarm		Alarm SCADA Wastewat					Event	WIN-911
12/09	10:49:42 AM	Scan and Alarm		Override (Scheduled) ena					Event	Windows stev
12/09	10:49:47 AM	Scan and Alarm		Override (Permanent) ena					Event	Windows stev
12/09	10:51:19 AM	System Health and ACK Group	SCADA.WIN911SystemTags.OPCWatchdog_WatchdogSource	System Watchdog	Operational	OK			High	
12/09	10:51:28 AM	Fresh Water Storage	SCADA.FreshWaterTank.GateValve.AlarmOpen1	Gate Valve	Open	*ALM*			High	

The Control Bar provides access for six items. The "Acknowledge" button may be selected by mouse commands or by pressing (and holding) the Alt key and the letter key that is underlined. If the mouse is used, the command is initiated when the mouse button is released.

The Control Bar also presents the "Summary" and "History" radio buttons. The "Summary" and "History" buttons will allow an easy selection of desired visual presentation of alarms, and status information.

The third item in the Control Bar is the "Alarm Count Box". It will provide the user with a count of total alarms visually available (depending on the Summary or History selection). If more alarms are listed than can be displayed, it will give information as to the total number of alarms and which one is currently being displayed. An example would be :

"Record 14 of 14 "

The fourth item is the Lock button. This button relocks the Acknowledge feature after a user has entered his/her acknowledge code to acknowledge alarms. This is a configurable security feature that removes acknowledgement authorization before the

designated relock time has elapsed. The Lock button only appears when the WIN-911 system is unlocked. If the configuration doesn't require an acknowledge code to acknowledge alarms then the button will not appear.

The fifth item is the "Manual Message" button, which will be available if paging, SMS, or e-mail notifications have been configured.

The sixth item is the "Display Lock". When depressed this button stops the automatic scrolling of the monitor as the space required to display the activity exceeds the space provided for the monitor. This button also disables all events from toggling between current History and Summary views.

The Display area provides a scrollable window showing the alarm lines. The scroll bar adjusts as the alarm buffer grows, so that the entire buffer can be accessed.

Also, unless otherwise configured the Alarm Monitor window can be resized using the Min/Max buttons in the top right of the Monitor window. The window can also be resized by stretching the border both vertically and horizontally. The columns within the Monitor window also can be resized by dragging the column borders horizontally.

## Event Status Reporting

During a normal alarm dial-out sequence, the status events of the page, e-mail, SMS message, or telephone call are logged in the "History " display. These include such items as: Who is being called? Did the person answer? Did they acknowledge the alarm? To view these events, select the "History " radio button.

Upon a serious failure or event, such as losing a server, the status is logged as described above, but the "History " display is automatically selected by default. Global monitor settings can disable this behavior.

## Acknowledge Button

The Acknowledge button will acknowledge all of the active alarms requiring acknowledgment (not one at a time). See the "Acknowledge Options" section to customize acknowledgment selections.

When the default alarm colors are used, acknowledged alarms appear in reverse video from the unacknowledged alarms. For example, red characters on white background indicate an acknowledged alarm and white characters on red background indicate an unacknowledged alarm.

## Summary and History Buttons

The "Summary / History" radio buttons will select the desired visual mode. The alarm history displays the alarms in the order that they occurred. The most recent alarm is always shown on the bottom of the display. Note that the screen buffer permits a maximum of 2,000 alarms by default (10,000 max); the oldest alarms will be scrolled off the list. The additional alarms will be contained in the archive file if it was selected in the Group Definition. The alarm summary display is built from the alarm history display and shows only the alarm points which are in an alarm state (whether acknowledged or not). The alarm summary display will not show alarms that have cleared (and been

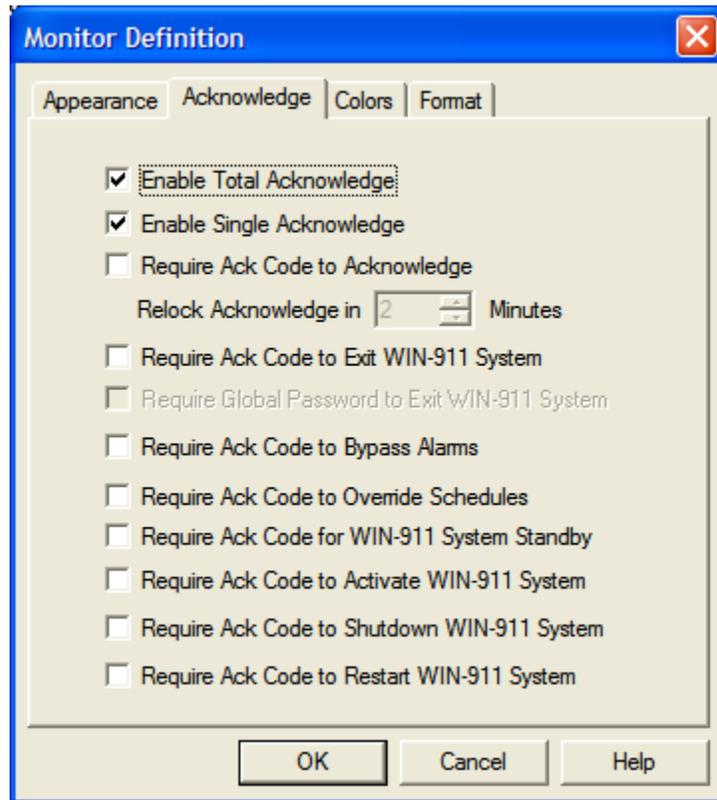
acknowledged). Also shown in the History display are logged event states such as telephone and pager progress, who was called, who acknowledged, etc.

## Pop-Up Window

The pop-up window option allows the user to enable the WIN-911 Monitor window to be the top window. This can be configured in the alarm group definition to either pop-up when a new alarm occurs or upon any event.

## Acknowledgment Options

In the WIN-911 Configurator -> Display Definition -> Acknowledge tab. See "WIN-911 Global Menu.CHM ", for more information. Default settings are shown below.



### Enable Total Acknowledge

The user may acknowledge all current alarms at one time by clicking on the menu bar "Acknowledge " button. Leaving this box unchecked will disable the "Total Acknowledge" option.

### Enable Single Acknowledge

Some applications require individual acknowledgments on an alarm by alarm basis. Selecting this check box will allow this option. An alarm is acknowledged by double-clicking a displayed alarm in the Summary display. Leaving this box unchecked will disable single acknowledgments.

## Require Ack Code to Acknowledge

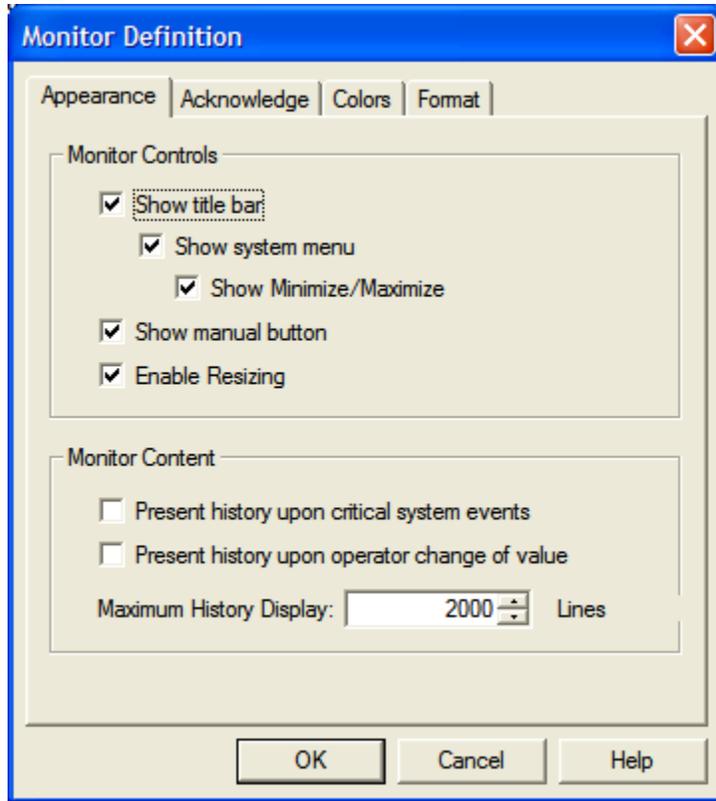
If security and/or enhanced historical alarm record keeping are needed, the developer may use this option to require an operator to enter his/her user name and acknowledgment code in order to have access to local alarm acknowledgments. Selecting this box will activate this feature. The user may also acknowledge more than one alarm at a time. That is the purpose of the relock time. The developer may select this in minutes. If the developer selects this option and selects 2 minutes for relock, the operator may acknowledge as many alarms as he/she wishes, without re-entering his/her code. In this example, if two minutes elapse after the last acknowledgment, the system will relock and require a password to be re-entered to acknowledge the next alarm. A selection of "0" minutes for relock would require re-entering the code for each alarm. Leaving this box unchecked will disable password protection. If this option is implemented, the "Alarm Monitor" would appear as follows:

Date	Time	Group	Tagname	Description	Value	Event	Units	Limit	Priority	Acked
12/09	10:47:36 AM	System Health and ACK Group	SCADA.WIN911SystemTags.OPCWatchdog.WatchdogSource	System Watchdog	In Failure Mode	*ALM*			High	
12/09	10:47:42 AM	System Health and ACK Group	SCADA.WIN911SystemTags.OPCWatchdog.WatchdogSource	System Watchdog	In Failure Mode	ALM			High	Windows stev
12/09	10:49:05 AM	Lift Station Number 22	SCADA.Wastewater.LiftPump.AlarmON1	Lift Pump		Bypass	Bypass		Event	Bypassed by \
12/09	10:49:05 AM	Scan and Alarm	Event	Alarm SCADA.Wastewat					Event	WIN-911
12/09	10:49:22 AM	Lift Station Number 22	SCADA.Wastewater.LiftPump.AlarmON1	Lift Pump		Restored	Restored		Event	Restored by W
12/09	10:49:22 AM	Scan and Alarm	Event	Alarm SCADA.Wastewat					Event	WIN-911
12/09	10:49:42 AM	Scan and Alarm	Event	Override (Scheduled) ena					Event	Windows stev
12/09	10:49:47 AM	Scan and Alarm	Event	Override (Permanent) ena					Event	Windows stev
12/09	10:51:19 AM	System Health and ACK Group	SCADA.WIN911SystemTags.OPCWatchdog.WatchdogSource	System Watchdog	Operational	OK			High	
12/09	10:51:28 AM	Fresh Water Storage	SCADA.FreshWaterTank.GateValve.AlarmOpen1	Gate Valve	Open	*ALM*			High	

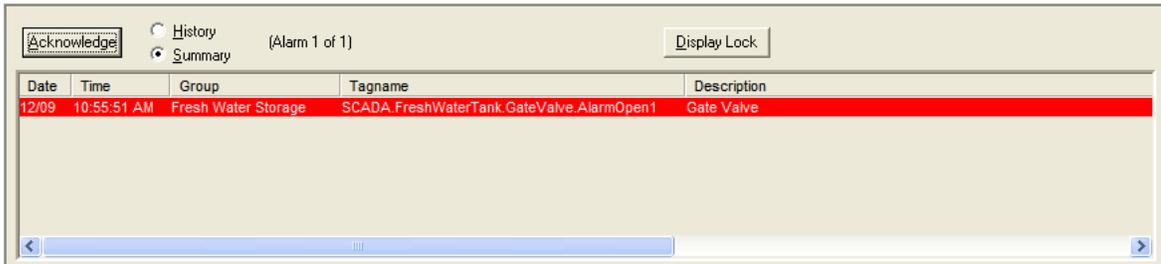
If an alarm is activated, the user may acknowledge it in any of the modes of acknowledgment, but he/she must first enter his/her name (Operator) and "Ack" code (from the Phone Book) before the acknowledgment is processed. The user's access code is also accepted in place of the user's name.

## Appearance

In some applications, the developer may desire to "Lock Out" unauthorized access to the standard Windows access tools such as: no access to "minimize or maximize", or "elimination of the standard Windows frame" around the Monitor. These modifications are available in the Global Monitor settings in the WIN-911 Configurator. (See "WIN-911 Global Menu.CHM" -> Monitor Definition -> Monitor Appearance, for more information.) Default settings are shown below.



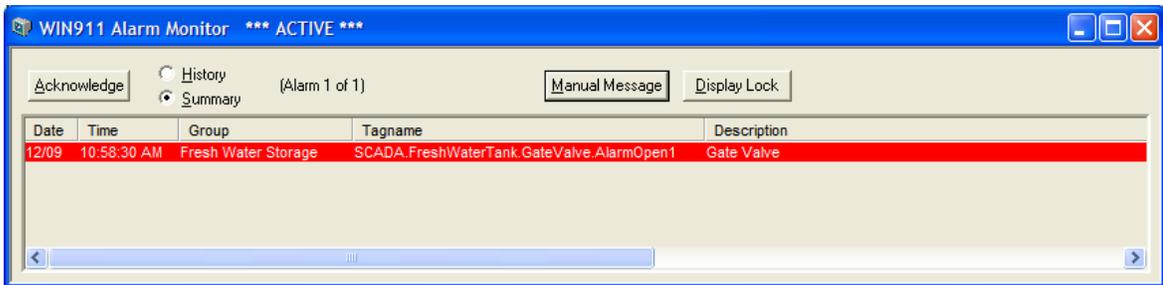
The developer may remove any or all of the standard Windows access tools such as: Caption Bar, Min/Max Commands, and the Windows Frame. The following is an example of the WIN-911 Monitor with all controls removed:



## Manual Messenger

Options are available to allow users to be remotely notified of alarm conditions by automatic paging, e-mail, and/or SMS message. Pager selections include numeric, alphanumeric, local alpha, and local numeric pagers.

The "Manual Message" button will only be present when Pager, E-Mail, and/or SMS connections have been configured for at least one user. WIN-911 is designed to alert alarm events by sending the alarm message to targeted remote messaging devices. The "Manual Message" button will allow the user to create a custom message, and send it to anyone in the WIN-911 phone book that has a remote messaging connection. In the example below, the user selected Tom Jones from the Phone Book, and typed in a custom message. Clicking the Send button will send the message.



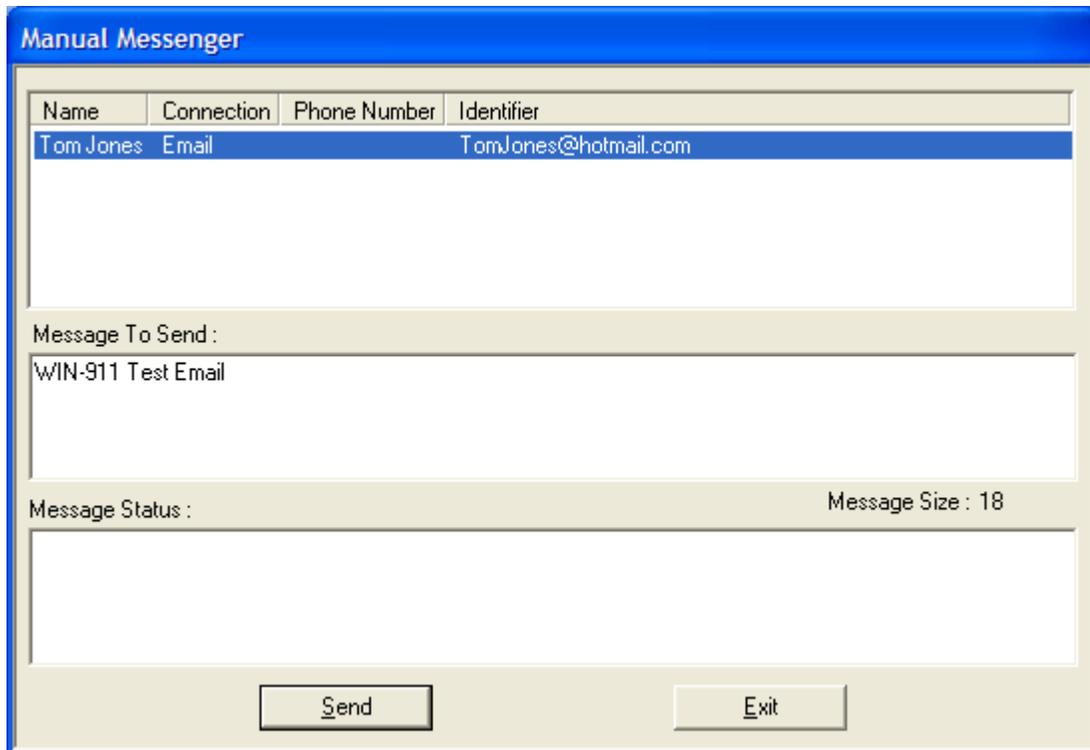
### Message to Send

Type the message you wish to be sent in the Message to Send text box.

Note: When sending messages to numeric pagers, enclose the digits you wish to send in brackets. e.g., [123]

### Message Status

In the Manual Messenger dialog box, the user has access to status information on the messaging connections. The information shown in this box will indicate the progress of message negotiations with the server.



## 2-way SMS Manual Messages

Sending a manual message via SMS is slightly different than sending a manual message via e-mail or pager. This is because a SMS manual message will accept a reply in the form of a SMS message. The SMS messenger is a 2-way communication where e-mail and Paging are only 1-way. If a contact in the 'Phone Book' sends a SMS text message to WIN-911 while the Manual Messenger is open the sent text should appear in the "Message Status" window. Note: Every SMS message that is sent to the Manual Messenger will result in WIN-911 responding with a SMS message saying "Invalid SMS received: ....". Although it is not an invalid message to the Manual Messenger, it is an invalid message to TeleDAC.exe. Just ignore the "Invalid SMS" response if sending manual messages.

## Alarm Logger



The Alarm Logger module can be selected for long term storage of alarm history data. Alarm archiving is selected in the group definitions. In addition to the normal alarm history data, there are additional historical elements such as system startup and shutdown. This is meant to allow more complete alarm analysis. Also, this file is very useful if you are using remote notification as it will document who was contacted and what their response, if applicable, was.

### Monthly MDB File

The data format for this file is Microsoft Access database format (\*.MDB located in the Log Files folder) and uses date and time style and column order as defined by the Monthly MDB tab of the global definition of the WIN-911 Configurator. This data file can be viewed dynamically by Alarm Log Manager.

The alarm database is built on a monthly basis and is designed to take advantage of the files ability to sort data, add notes to events and refresh the presentation to include the most recent events.

### Daily Text File

The data format for this file is ASCII and uses the alarm string format setup by the Daily TXT tab of the global definition in the WIN-911 Configurator. It may be viewed with any text editor. The file may be sent to the Print Manager to obtain a printout of the history for some selected day.

A new file is created daily. The filename is built based upon the Julian date. The format of this name is the letter 'A', followed by a two-digit year and then a three digit Julian date. The extension of the file is ".TXT ". The file created on February 15, 2005 would be A05046.TXT (as that is the 46th day of the year 2005).

# Alarm Log Manager



Alarm events that are archived using the Access MDB File format can be viewed with the Alarm Log Manager giving the user the ability to sort, enter comments, print out records, and refresh current events.

Alarm Log Manager 7.08.00.00

Events: 2000 Start: 12/ 9/2008 10:00:14 AM Apply Update Print Help

Notes	DateTime	Group	Tagname	Description	Value	Event
	12/09 10:45:34 AM					Startup
	12/09 10:47:38 AM	System Health and ACK Group	SCADA.WN911SystemTags.OPCWatchdog.W...	System Watchdog	In Fail...	*ALM*
	12/09 10:47:42 AM	System Health and ACK Group	SCADA.WN911SystemTags.OPCWatchdog.W...	System Watchdog	In Fail...	ALM
	12/09 10:49:05 AM	Lift Station Number 22	SCADA.Wastewater.LiftPump.AlarmON1	Lift Pump		Bypass
	12/09 10:49:05 AM	Scan and Alarm	Event	Alarm SCADA.Wastewater.LiftPump.AlarmON1 has been B...		
	12/09 10:49:22 AM	Lift Station Number 22	SCADA.Wastewater.LiftPump.AlarmON1	Lift Pump		Restored
	12/09 10:49:22 AM	Scan and Alarm	Event	Alarm SCADA.Wastewater.LiftPump.AlarmON1 has been R...		
	12/09 10:49:42 AM	Scan and Alarm	Event	Override (Scheduled) enabled for Tom Jones on December ...		
	12/09 10:49:47 AM	Scan and Alarm	Event	Override (Permanent) enabled for Wayne Smith by Window...		
	12/09 10:51:19 AM	System Health and ACK Group	SCADA.WN911SystemTags.OPCWatchdog.W...	System Watchdog	Oper...	OK
	12/09 10:51:28 AM	Fresh Water Storage	SCADA.FreshWaterTank.GateValve.AlarmOpe...	Gate Valve	Open	*ALM*
	12/09 10:53:11 AM	Scan and Alarm	Event	Shutdown initiated by Windows stevens		
	12/09 10:53:14 AM					Shutdown
	12/09 10:53:41 AM					Startup
	12/09 10:53:43 AM	Scan and Alarm	Event	Override (Scheduled) enabled for Tom Jones on December ...		
	12/09 10:53:43 AM	Scan and Alarm	Event	Override (Permanent) enabled for Wayne Smith by		
	12/09 10:53:43 AM	Fresh Water Storage	SCADA.FreshWaterTank.GateValve.AlarmOpe...	Gate Valve	Open	*ALM*

35 events found

Events can be sorted by clicking on a column title bar in the Alarm Log Manager. This will be helpful in locating, organizing, and reorganizing events by any of the alarm message fields

By double clicking on any event in the Alarm Log Manager, a text box will appear, allowing the operator to add notes. These could include details of the event that are not part of the WIN-911 alarm message which could be helpful for event reconstruction and archiving.

For more detailed information about the Alarm Log Manager see the Alarm Log Manager help file.



# ArchestrA Direct Connect

## Introduction

### ArchestrA Direct Connection

#### Introduction

The ArchestrA direct connection provides connectivity between WIN-911 and Wonderware's ArchestrA Application Server. Through the direct connection, WIN-911 receives alarm event information by subscribing to alarm events, rather than creating alarms from data points. This event subscription model allows for a single point of maintenance within ArchestrA with regard to alarm levels and types, as ArchestrA has sole responsibility for determining what is and is not in alarm. The connection also allows for acknowledgments to be passed back and forth seamlessly.

Alarming may be implemented in two different ways. The first and most straightforward method is to subscribe to ArchestrA alarms directly. In this scenario data is gathered from field equipment and other sources and used as input to objects within ArchestrA. Alarm conditions are then specified for those objects within ArchestrA and WIN-911 subscribes to those alarm events.

The second method is to use ArchestrA as a proxy for InTouch alarms. In this scenario, alarms are configured within InTouch and then an InTouch Proxy object is created within ArchestrA. WIN-911 is then provided with a reference to the proxy which then provides alarm events to WIN-911. It is important to understand the distinctions between these two alarm types before continuing. If you need more clarification regarding InTouch Proxy alarms and ArchestrA, consult your ArchestrA documentation.

#### Important Notes

- WIN-911 must be installed on a deployed ArchestrA platform.
- Requires a minimum version of ArchestrA 3.1 SP3 Patch 1
- Communication with the galaxy requires an MXAccess license. MXAccess is included as part of an InTouch 10 license. If you would like to install WIN-911 on a system that does not have a licensed copy of InTouch, download an MXAccess license from our website.
- While multiple ArchestrA connections can be defined within WIN-911, WIN-911 may only connect to the Galaxy deployed on the same platform.
- Should communication between WIN-911 and ArchestrA be lost, the connection will be reestablished when it becomes available again.
- Watchdog Timers are supported and must monitor a changing alarm, rather than a changing data value. For more information, see the section on [Watchdog Timers](#).
- WIN-411 reporting, Bypass Data Pokes, and Alarm Suppression are not supported for the ArchestrA Direct Connection.
- Alarm extensions are not supported.

## Step by Step Overview

Follow these steps in order to connect to ArcestrA and receive alarms through your desired notification options.

1. Create a new configuration file in the WIN-911 Configurator.
2. Create a new data source definition for ArcestrA or your InTouch Proxy.
3. Import your alarm tags. If you wish to define tags manually, you must first create a group in which to place the tags.
4. Create a user within the phone book and assign him a notification method and duty schedule.
5. Associate that user with an alarm group by placing him in the Selected Name List of a Group.
6. Save your configuration and start the Scan and Alarm executable.

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

# ArchestrA Data Source Definition

## Data Source Definition

The Data Source Definition contains all of the settings required to connect to ArchestrA. Once created, alarm tags may be imported or manually defined to reference your ArchestrA Data Source definition. Open the ArchestrA Data Source Definition dialog by clicking the Data icon on the WIN-911 Configurator. Use the New and Edit buttons to create new connections or edit existing connections.



The image shows a dialog box titled "ArchestrA Direct Connect". It contains the following fields and controls:

- Access Name:** A text box containing the value "ArchestrA".
- ArchestrA User Account:** A section containing:
  - User Name:** An empty text box.
  - Password:** An empty text box.
  - NOTE:** This user account is common to all ArchestrA Galaxy and InTouch Proxy data source connections.
- Alarm Source:** A section with two radio buttons:
  - Galaxy
  - InTouch Proxy
- Buttons:** Below the radio buttons are two buttons: "Galaxy Settings" and "InTouch Proxy Settings".
- InTouch Proxy Name:** A text box with a "Browse" button to its right.
- Bottom Buttons:** "OK", "Cancel", and "Help" buttons.

### Access Name

The Access Name is a user defined name, used to represent a particular data source within WIN-911. Alarm tags are associated with data sources by referencing the Access Name of a Data Source.

### ArchestrA User Account

If security is enabled within ArcestrA, WIN-911 must authenticate with the Galaxy in order to receive and acknowledge alarms. ArcestrA may be configured to authenticate users against Galaxy user logins, OS users, or OS groups.

When the security mode is set to "Galaxy," you must provide a valid user name and password here for the Galaxy. If the security mode is set to "OS Users" or "OS Groups" then WIN-911 must be run under a Windows user account that can log into the Galaxy to receive and acknowledge alarms. In this scenario, WIN-911 does not require a User Name and Password as the permissions assigned to the account that WIN-911 is running under determines the level access WIN-911 has to the Galaxy.

Consult with your ArcestrA documentation and your ArcestrA configuration to determine a valid user name and password.

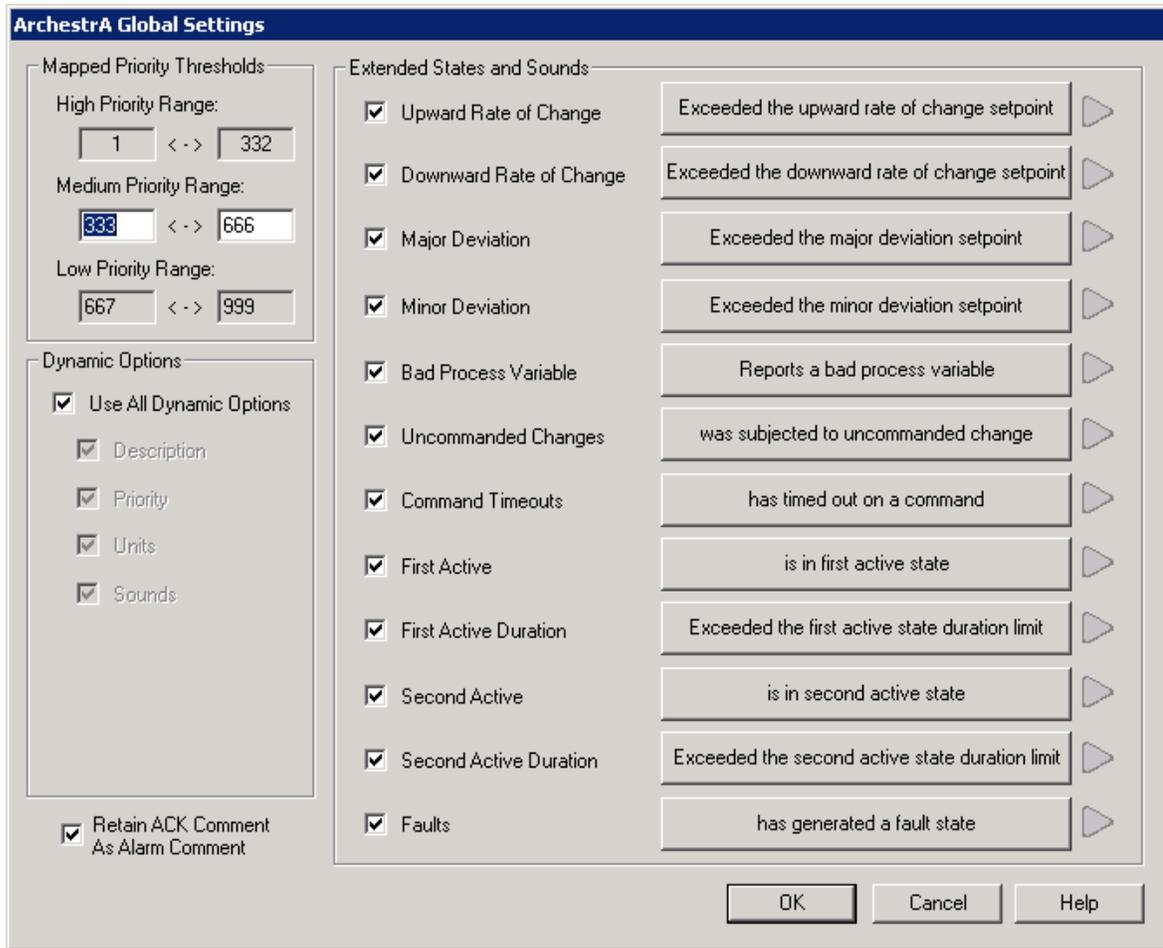
## Alarm Source

The alarm source setting determines whether the alarms you will be configuring for this data source will be owned wholly by ArcestrA or if they are InTouch alarms proxied by ArcestrA. If you are configuring an InTouch Proxy connection, you must specify the name of the proxy in the InTouch Proxy Name field.

Please be sure that you understand the differences between these types of alarms before proceeding. Remember that although data may be routed through ArcestrA from InTouch to create ArcestrA alarms, these are not proxy alarms. Proxy alarms are *alarms* that are defined in InTouch and then proxied through ArcestrA. You may define as many InTouch proxy Data Sources as necessary. It is, however, impractical to create multiple Data Source definitions for Galaxy alarms, as WIN-911 may only connect to the single Galaxy deployed to the same platform.

## ArcestrA Galaxy Settings

The ArcestrA Galaxy Settings dialog contains settings which govern the types of alarm events WIN-911 will subscribe to, as well as sound settings used for voice notifications and the local announcer. These settings are global to all ArcestrA Data Source definitions, meaning that editing these settings will change all ArcestrA data sources.



## Mapped Priority Thresholds

ArchestrA’s priority scheme ranges from 0-999 with 999 as the lowest priority. WIN-911 has three alarm priorities: low, medium and high. You may change which priority values map to which priorities within WIN-911 by editing the ranges here. By default, WIN-911 maps 1 – 332 to high, 333 – 666 to medium and 667 – 999 to low. Higher priority alarms take precedence over lower priority alarms for notification.

## Dynamic Options

Once connected to ArchestrA, WIN-911 can obtain object information dynamically. This reduces the configuration overhead within WIN-911 and centralizes alarm configuration within ArchestrA itself. If you wish to override any of the dynamic settings, deselect it here and then manually define the alarm attribute in your WIN-911 alarm definition. Attributes which may be dynamically subscribed to are:

- Description
- Priority
- Units
- Sounds

Select “Use All Dynamic Options” to subscribe to all attributes.

When the Dynamic Sounds option is enabled, WIN-911 will retrieve the text for speech synthesis from ArchestrA when an alarm is triggered. This text is pulled from the object description field and the alarm message field for Galaxy alarms. The text for speech synthesis is pulled from the comment field in InTouch for proxy alarms. Alarm conditions for InTouch proxy alarms are not dynamically obtained and must be defined within WIN-911 manually or through an alarm import.

## Extended States and Sounds

WIN-911 may subscribe to a variety of different alarm events which are issued by ArchestrA. You may subscribe and unsubscribe to them here. Consult with your ArchestrA documentation for a description of each of these. Deselect any option to unsubscribe from it, which disables alarming across the entire system for that type of alarm event.

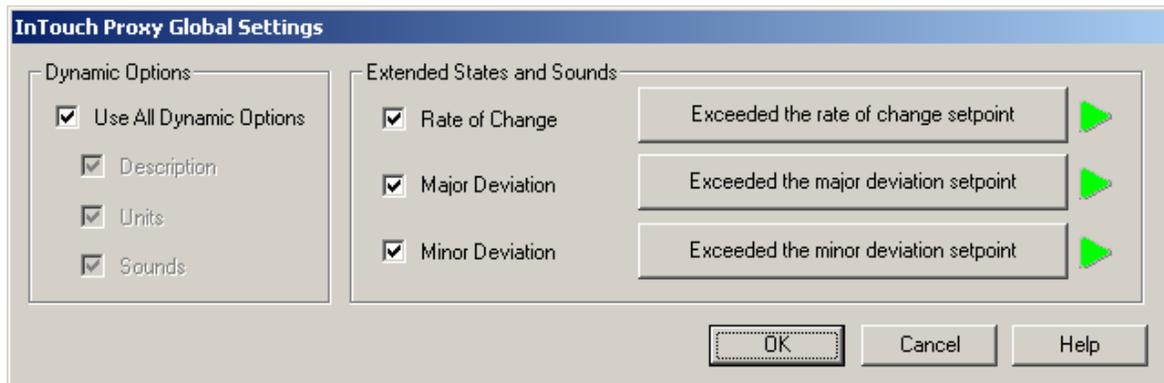
The local announcer and voice notification options will use the text beside any of the extended states listed here for voice synthesis. Click the button beside any option to edit the text for speech synthesis or to select a wave file to be played. You may also preview the voice synthesis by clicking the green play button.

## Retain ACK Comment as Alarm Comment

When an alarm is acknowledged by WIN-911, it passes the method of acknowledgment and the user who made the acknowledgment to ArchestrA Galaxy by writing to the AckMsg field of your alarm. When using an InTouch alarm display, that AckMsg field is displayed in the alarm comment field. If you wish to disable this behavior, deselect this box.

## InTouch Proxy Settings

Like the ArchestrA Galaxy Settings dialog, the InTouch Proxy Settings dialog contains settings which govern the types of alarm events WIN-911 will subscribe to as well as sound settings used for voice notifications and the local announcer. These settings are also global to all InTouch Proxies.



## Dynamic Options

As with ArcestrA Galaxy alarms, WIN-911 is capable of dynamically setting alarm attributes based upon your InTouch proxy alarm attributes. Deselect any of these options in order to specify your own values from within WIN-911 in your alarm definitions.

- Description
- Units
- Sounds

Select “Use All Dynamic Options” to subscribe to all attributes.

## Extended States and Sounds

InTouch tags may have Rate of Change, Major and Minor Deviation alarms associated with them in your InTouch tag database. Deselect any of these options to unsubscribe from a specific alarm event for all InTouch Proxies.

## InTouch Proxy Name

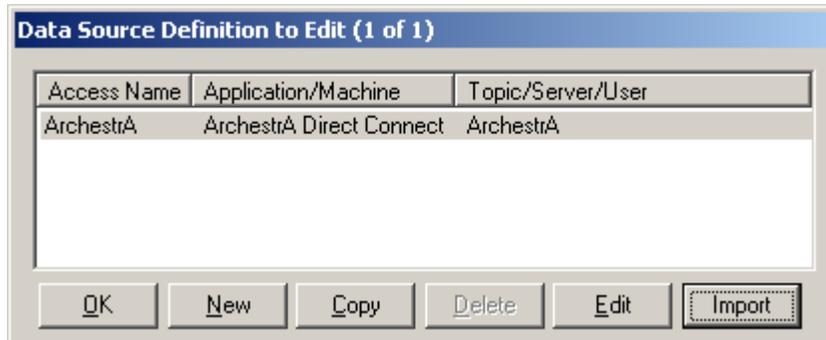
When connecting to an InTouch Proxy within your ArcestrA Galaxy, you must specify the proxy’s name. Click the browse button to browse your ArcestrA Galaxy for proxies. In order to browse your Galaxy, you must first specify a valid username and password in the ArcestrA User Account fields below.

Note: User names and passwords may not exceed 127 characters in length.

## Importing Alarms from ArcestrA

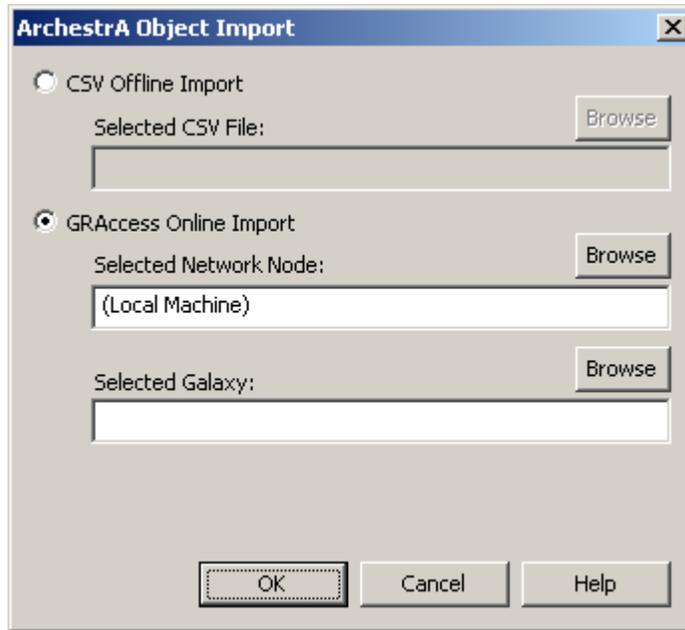
### Importing Alarms from ArcestrA

Once an ArcestrA data source is defined, tags can be imported which reference it. This is the most efficient method of creating tags in WIN-911, as it creates alarm groups within WIN-911 and insures that the syntax used when defining tags is correct. Alternatively, you may manually create groups and alarm tags.



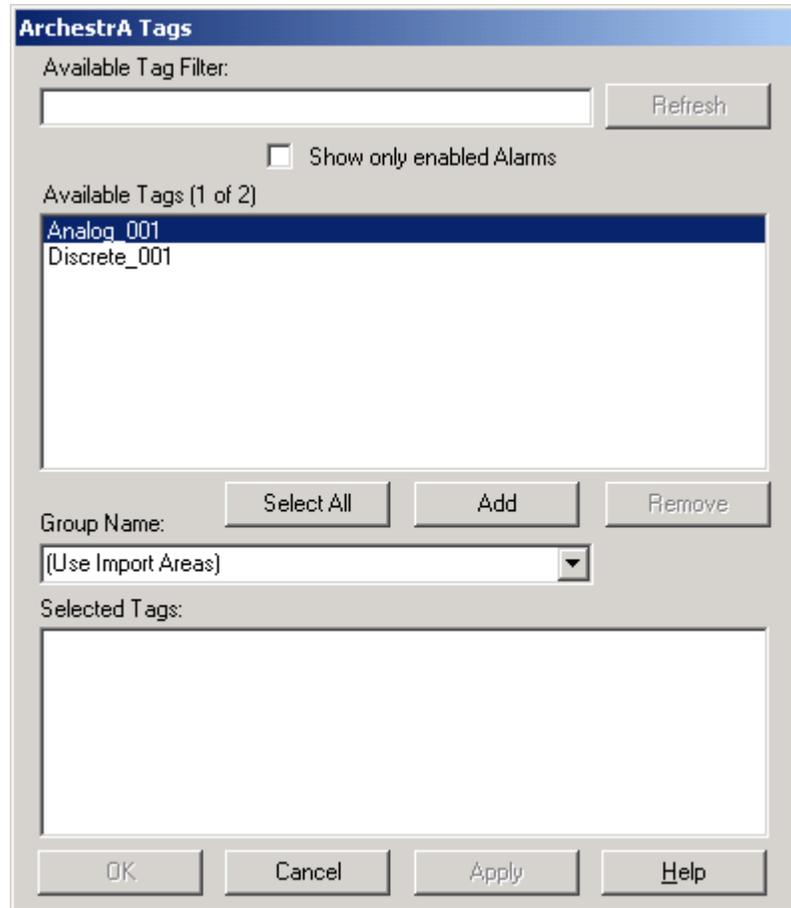
To begin the import process, select the ArcestrA Data Source Definition from the data source selection dialog and then click import. If you are importing alarms from an ArcestrA Galaxy and are on a platform with the ArcestrA IDE installed, you will be presented with the option of importing alarms from a CSV file or importing alarms directly from ArcestrA. If you will be importing from a CSV file, select the objects you would like to export from ArcestrA and export them to a CSV using the Galaxy Dump. Select the CSV in WIN-911 by first selecting CSV Offline Import and then use the browse button to locate your CSV file on the disk. Click OK to have WIN-911 read the CSV file. InTouch proxy alarms must be exported from InTouch with Wonderware's DBDump utility and then imported from the resulting CSV file. Each import is discussed below.

### Importing ArcestrA Alarms



If the machine you are on does not have the ArchestrA IDE installed, then your only option will be to use the CSV import.

To import directly from ArchestrA use the GRAccess Online Import. Provide the name of the computer where the Galaxy Repository resides in the Selected Network Node field, then set the Selected Galaxy field to the name of the Galaxy you wish to import from. You may use the browse buttons to search for both of these pieces of information. In order to import alarms, the user name and password you configured in your data source definition must be valid. If they are not, you will be prompted for them. Click OK and WIN-911 will request a list of tags from ArchestrA.



After the Configurator has received the list of available tags, they will be presented to you in the tag selection dialog. Select the tags you would like to import and click add and then apply to import them. Use the Group Name drop down box to change the Group to which tags will be imported. You may import tags to several different groups. By default the Use Import Areas option will be selected. This will create a set of groups within WIN-911 that correspond to the areas in ArchestrA and place all alarms in the appropriate group.

### Available Tag Filter

The available tag filter will filter the available tag list according to the text entered in it. Type any text in it, then click refresh and the available tag list will show only those alarms which contain that text.

### Show Only Enabled Alarms

By default, the available tag list will make all analog and discrete devices available for import as alarms. These objects may or may not have alarming enabled. If you wish to import only those objects which are configured as alarms, enable the Show only enabled Alarms options and click refresh.

Unsupported alarm types and tags which are already defined within your WIN-911 configuration will not be listed in the list of available tags.

## Importing InTouch Proxy Alarms

Proxy alarms are defined within InTouch and then fed to WIN-911 through ArcestrA. Export the alarms from InTouch using its DBDump utility. Select your Data Source definition from the Data Source selection dialog and click Import. You will then be presented with a tag selection dialog. It functions in the same manner as the ArcestrA tag selection dialog discussed previously.

### After the Import

Once your alarm tags are imported, the only task left to complete is to setup remote alarm notifications for your alarm groups. You may review, edit or delete your WIN-911 tag definitions by opening the digital or analog alarm definitions from the Configurator.

## Importing Tags Later On

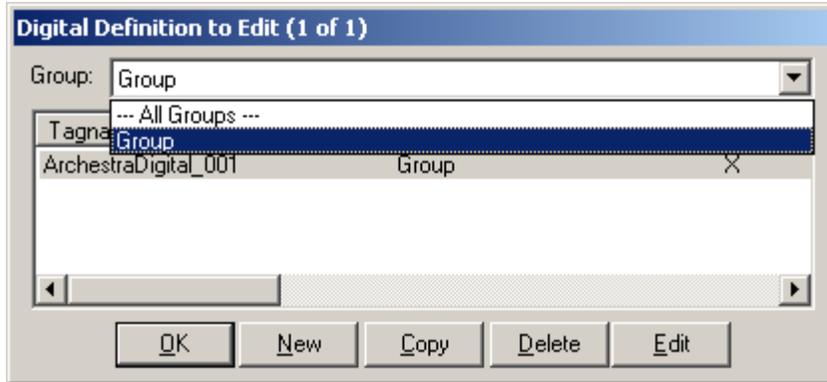
Should your ArcestrA Galaxy or InTouch Tagname dictionary grow, new tags may be imported from them. Simply repeat the steps outlined above. Existing tags will not be affected and the tag selection dialog will only present you with tags which are not currently defined within WIN-911.

# ArchestrA Digital Definitions

## ArchestrA Digital Definitions

### Editing or Creating Digital Alarms

Click the Digital Definition icon on the Configurator to create or edit digital alarms. The digital alarm selection dialog will appear.



Use the drop down menu to select a Group to browse its alarms. Click the new or edit buttons to create or edit digital alarms.

### Digital Definition

The Digital Definition dialog contains the alarm settings for a single digital alarm. Each of these settings is discussed below.

### Base Definition

The screenshot shows a 'Digital Definition' dialog box with the following fields and values:

- Tagname:** OrchestraDigital\_001
- Description:** (empty)
- Group Name:** Group
- Bit:** Remote Alarm
- Data Source:** Orchestra
- Access Name:** Orchestra
- Use Tagname for Item
- Item Name:** OrchestraDigital\_001

Buttons at the bottom: OK, Cancel, Help.

## Tagname

The tagname is a human friendly alias of an individual alarm in ArcestrA or InTouch. It does not reference an ArcestrA alarm or InTouch tag. It is simply a pronounceable name used to identify alarms in WIN-911. If your object or InTouch tag has a friendly enough name, select the Use Tagname for Item option presented below. This option is selected by default for all tags created using the import feature.

## Description

The Description field is used to provide more context for a particular alarm. By default, WIN-911 receives this information when an alarm event is received from ArcestrA. If you wish to edit this field you must deselect this [dynamic option](#) from within your ArcestrA data source definition.

## Group Name

Each alarm must be associated with a group. Select the Group to which the alarm will be assigned by using the drop down box. Alarm notifications are processed on a per Group basis. See the Configurator manual for detailed information regarding groups and alarm notification.

## Bit

This field is disabled for ArcestrA Data Sources.

## Access Name

The Access Name references data sources within WIN-911. To reference an ArcestrA data source, and thus configure this alarm as an ArcestrA Galaxy or InTouch Proxy alarm, select the Access Name of an ArcestrA data source.

## Use Tagname for Item

When this option is enabled, the Tagname is copied into Item Name field. If your ArcestrA object or InTouch Proxy alarm's name is descriptive enough, enable this option and set the Tagname field to the name of your alarm within ArcestrA.

## Item Name

The Item Name references object name of your ArcestrA object. It is important that you supply the unique ArcestrA tagname here, if you are referencing a digital or analog device within ArcestrA. WIN-911 interprets all item names which contain a "." as field attributes. If you are referencing an analog or digital device which is contained by another object, do not use the contained name to reference the object within WIN-911.

If you are defining an InTouch Proxy alarm, there is no need to specify the name of the proxy. In fact, the following Item Name would not work: "InTouchProxy\_001.AlarmName," as WIN-911 already prefixes the proxy name to the Item Name causing the previous Item Name to effectively be "InTouchProxy\_001.InTouchProxy\_001.AlarmName." Never specify the InTouch Proxy's name this way.

## Alarm Conditions

The screenshot shows the 'Digital Definition' dialog box with the 'Alarm Conditions' tab selected. The dialog has four tabs: 'Base Definition', 'Alarm Conditions', 'Sounds', and 'Changeable'. The 'Alarm' field contains 'In Alarm' and the 'Normal' field contains 'Normal'. The 'Digital Alarm' dropdown is set to 'On (1)' and the 'Priority' dropdown is set to 'High Priority'. The 'Initial Value' dropdown is set to 'Off (0)'. Under the 'Automatic Acknowledgement' section, the 'Never' radio button is selected, with 'On Alarm' and 'On Return To Normal' also available. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

## Alarm and Normal Text Strings

The Alarm and Normal strings for ArcestrA alarms are defined within the Galaxy and do not need to be redefined here. If you do not wish to use ArcestrA's settings deselect the dynamic option for your ArcestrA Galaxy or InTouch Proxy Data Source.

## Digital Alarm

Alarm states are managed within ArcestrA or the InTouch Proxy.

## Initial Value

The initial value of alarms is managed within ArcestrA or the InTouch Proxy.

## Priority

By default the priority of ArcestrA alarms is obtained at runtime. To override ArcestrA's priority settings, disable the dynamic priority option within your ArcestrA Data Source definition. The priority, at the time of import, filtered through WIN-911's priority mapping will be utilized.

The priority of InTouch Proxy alarms is not obtained dynamically. Priorities are set during the CSV import of tags. You may change the priority of InTouch Proxy alarms by making a selection from the priority combo box.

## Automatic Acknowledgement

WIN-911 can automatically acknowledge alarms when the alarm meets certain conditions.

### Never

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

### On Alarm

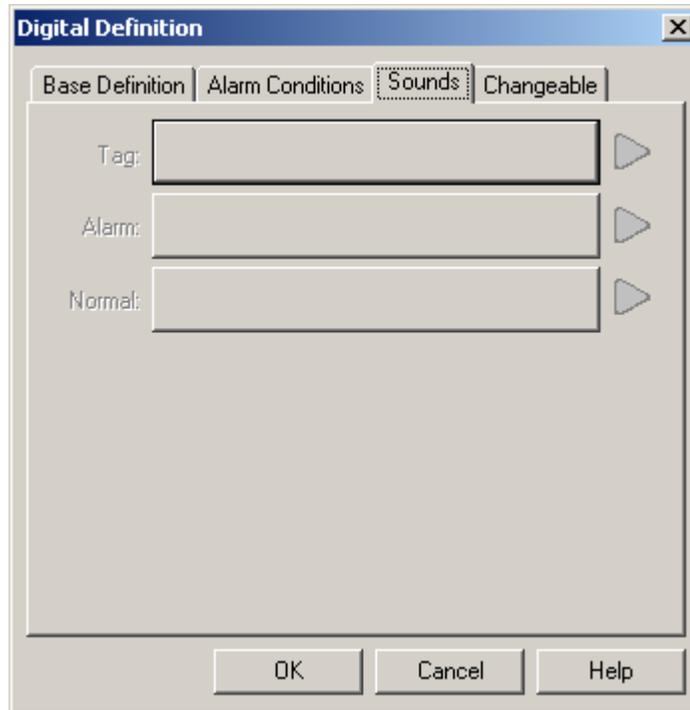
When this option is selected, all alarms are acknowledged by WIN-911 when they are received. This prevents all notifications from occurring, except the local announcer.

### On Return to Normal

Select this option to have WIN-911 acknowledge an alarm when ArcestrA alerts it that the alarm has returned to normal. This will prevent notifications from being processed when an alarm returns to normal.

## Sounds

The Sounds tab is used to manage the verbalization of alarms. By default the text used to synthesize speech is dynamically obtained at runtime from ArcestrA and the controls here are disabled. Disable the dynamic sound option within your ArcestrA data source to manually define all sounds.



## Tag Sound

The Tag Sound field defines the text or wave file that will be played when announcing the name of an alarm. By default, the text used for speech synthesis is provided by ArchestrA. Disable the [dynamic sounds](#) option in your ArchestrA Data Source to manually configure this or any other alarm sound. When using dynamic sounds, the tag sound comes from the object description field in ArchestrA, from the .Desc or .ShortDesc field. The InTouch proxy tag sound is pulled from the tag's comment field.

## Alarm & Normal Sound

These fields determine the text or wave file which will be used when announcing the state of an alarm. When the [dynamic sounds](#) option is enabled, these sounds are provided by ArchestrA. Galaxy alarm sounds are pulled from the object's description and the alarm message field (.DescAttrName). Proxy alarm and normal sounds are not dynamically retrieved from ArchestrA and must be defined within WIN-911 through an import or be manually defined. Dynamic Sounds must be turned off to manually define alarm sounds.

Note: If a Digital Alarm Prefix sound is defined, under Common Sounds, it will be prefixed to the Alarm Sound.

## Changeable

This feature is not supported for ArchestrA data sources.

# ArchestrA Analog Definitions

## ArchestrA Analog Definitions

Define Analog Alarms to monitor analog alarms within ArchestrA or non-discrete InTouch Proxy alarms.

Note: Analog alarms are not permitted in Lite Mode.

## Analog Definition

Analog alarms are very similar to digital alarms. Settings which are identical to both analog and digital alarms will not be mentioned here so as to avoid any unnecessary repetition. It is recommended that you read the section on [digital alarms](#), if you have not already, before proceeding any further.

## Base Definition

The screenshot shows the 'Analog Definition' dialog box with the 'Base Definition' tab selected. The dialog has five tabs: 'Base Definition', 'Conversion', 'Alarm Limits', 'Sounds', and 'Changeable'. The 'Base Definition' tab contains the following fields and controls:

- Tagname:** A text box containing 'ArchestraAnalog\_001'.
- Description:** An empty text box.
- Group Name:** A dropdown menu showing 'Group'.
- Engineering Units:** An empty text box.
- Data Source:** A section containing:
  - Access Name:** A dropdown menu showing 'ArchestrA'.
  - Use Tagname for Item
  - Item Name:** A text box containing 'ArchestraAnalog\_001'.

At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

## Engineering Units

Engineering units are provided by ArchestrA when an alarm event is received. If you would like to manually define your engineering units, disable the [Units Dynamic Option](#) in your Data Source Definition, and then define it here.

Note: The text placed here is used to generate the sound for engineering units if voice synthesis is enabled.

## Conversion

Because most of these settings are defined within ArcestrA or InTouch, they are disabled here with the exception of Number of Decimal Places.

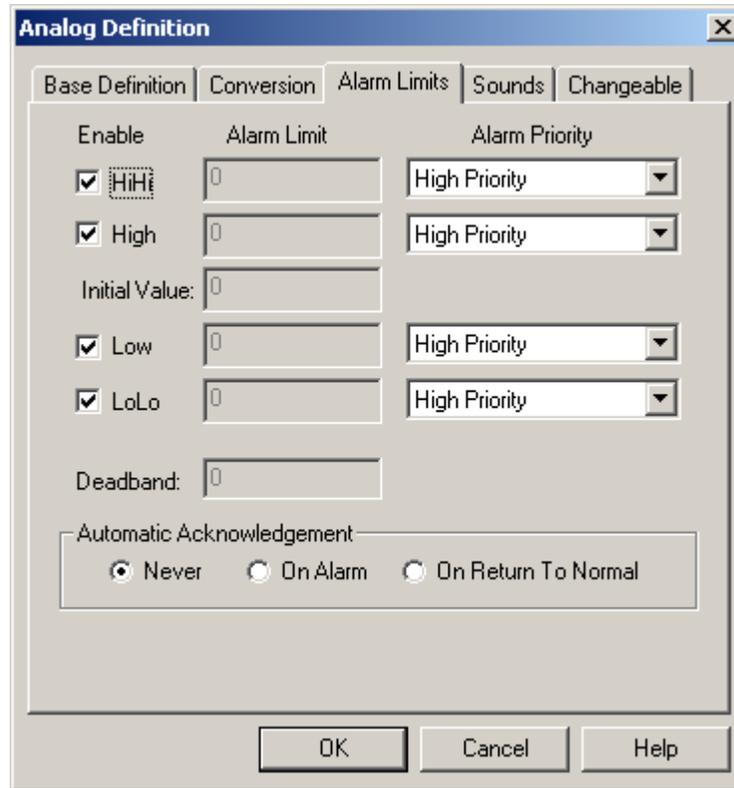
The screenshot shows the 'Analog Definition' dialog box with the 'Conversion' tab selected. The 'Conversion Type' is set to 'Remote Alarm'. Under the 'Raw' section, 'Resolution' is set to 32 Bits, and the 'Signed' checkbox is checked. The 'Minimum' and 'Maximum' fields are both set to 0. Under the 'Scaled' section, the 'Minimum' and 'Maximum' fields are also set to 0. The 'Number of Decimal Places' is set to 0. The dialog has 'OK', 'Cancel', and 'Help' buttons at the bottom.

### Number of Decimal Places

WIN-911 supports 32 bit signed integers and 32 bit floating point values. A 32 bit integer is the default data type. For floating point numbers set the number of decimal places to something other than zero.

### Alarm Limits

WIN-911 may subscribe to Hi, HiHi, Low, and LoLo alarm events for analog alarms. Deselect any of these fields to unsubscribe from a specific event and thus disable that alarm. Alarm limits are configured within ArcestrA or InTouch and as such they are disabled here.



## Deadband

Deadbands are configured within ArcestrA or InTouch and as a result this option is disabled here.

## Sounds

The screenshot shows the 'Analog Definition' dialog box with the 'Changeable' tab selected. The dialog contains the following fields and values:

Field	Value
Tag:	ArchestraAnalog_001
HiHi:	HiHi
High:	High
Low:	Low
LoLo:	LoLo
Return To Normal:	Normal

Buttons at the bottom: OK, Cancel, Help.

A specific sound can be configured for each of the alarm limits, which are listed in the image above. When using Dynamic Sounds, the text used for speech synthesis is pulled from the object description and alarm message fields. InTouch proxy alarms use the tag's comment field. The alarm condition field must be specified manually or be imported during an alarm import.

## Changeable

ArchestraA alarms cannot be a part of 411 reports and this tab is disabled.

# ArchestrA Watchdog Timers

## ArchestrA Watchdog Timers

The connectivity of mission critical application must be verifiable. WIN-911 implements Watchdog Timers to do just that. ArchestrA Watchdog Timers monitor a changing alarm event. If no alarm event is passed to WIN-911 after a period of time the Watchdog Timer Alarm is triggered. WIN-911 requires a Discrete Device alarm or discrete alarm from your InTouch Proxy in order to create Watchdog Timers.

Click the red clock icon to create or edit Watchdog Timers. The selection dialog functions identically to the alarm selection dialogs discussed earlier.

## Watchdog Timer Definition

Watchdog Timers have several configurable attributes. Due to their similarity to other alarm types, identical settings are omitted from this discussion. See the section covering [digital alarms](#) for topics that are not discussed here.

## Base Definition

The screenshot shows a dialog box titled "Watchdog Timer Definition" with three tabs: "Base Definition", "Alarm Conditions", and "Sounds". The "Base Definition" tab is selected. The dialog contains the following fields and controls:

- Tagname:** A text box containing "ArchestrAWatchdog".
- Description:** An empty text box.
- Group Name:** A dropdown menu showing "Group".
- Data Source:** A section containing:
  - Access Name:** A dropdown menu showing "ArchestrA".
  - Use Tagname for Item
- Item Name:** A text box containing "ArchestrAWatchdog".

At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

## Item Name

The Item Name must refer to an ArchestrA DiscreteDevice with alarming enabled or a discrete InTouch Proxy alarm. The alarm which you are referencing should continuously cycle in and out of alarm to demonstrate ArchestrA's presence.

## Alarm Conditions

The screenshot shows the 'Watchdog Timer Definition' dialog box with the 'Alarm Conditions' tab selected. The 'Alarm' field contains 'In Alarm' and the 'Normal' field contains 'Normal'. The 'Time-out After' is set to 2 minutes, and the 'Priority' is set to 'High Priority'. Under 'Automatic Acknowledgement', the 'Never' radio button is selected.

### Alarm and Normal

The Alarm and Normal text are used to display the alarm in the Alarm Monitor Window and for text based notification methods as well.

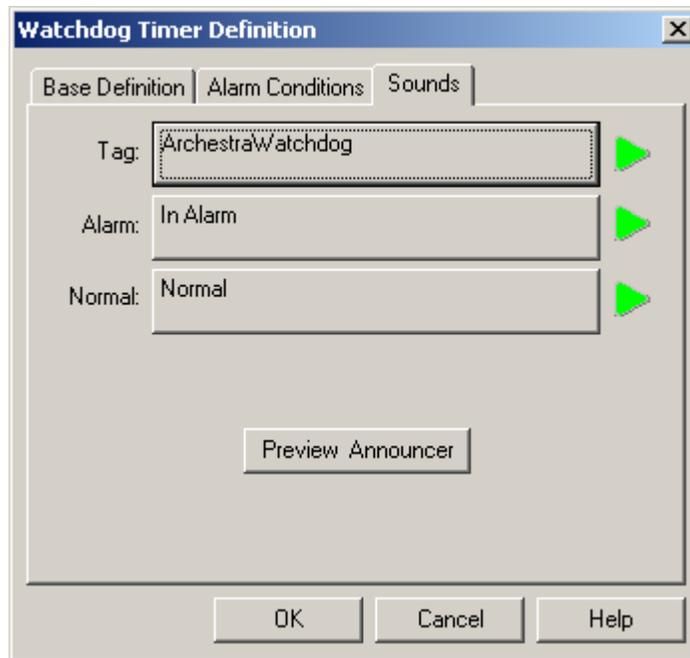
### Time-out After \_\_ Minutes

This is the period of inactivity that must elapse before the Watchdog Timer Alarm is triggered. After an update from ArchestrA is received regarding the Watchdog Timer tag, the counter is reset. If an update regarding the Watchdog is received after the alarm has already been triggered, it will return to normal.

### Priority

There are three Priority levels for alarms within WIN-911: High, Medium, and Low. When processing remote notifications, higher priority alarms trump lower priority alarms in call out precedence. Select the priority you wish to assign to your Watchdog Timer from the drop down box.

## Sounds



## Tag, Alarm, and Normal Sounds

Like other alarms, the sounds configured here are used to vocalize the tagname and alarm states. Click the sound button to set the text which will be used for voice synthesis or to select a .wav file to be played.

## Preview Announcer

Click this button to preview the alarm sounds.



# FactoryTalk Alarms and Events

## Overview

The "FactoryTalk Alarms and Events" option provides a means of connecting directly to Rockwell's FactoryTalk Services. The WIN-911 direct-connect interface to FactoryTalk facilitates access to alarms generated by FactoryTalk Alarm and Events. This means the alarms are configured and generated at the PLC level and not by WIN-911.

Multiple data sources can be configured for FactoryTalk Alarms and Events. This allows the user to connect to multiple applications as well as configure separate Event Subscription parameters. FactoryTalk Alarms and Events supports the ability to reconnect to FactoryTalk Services if it ever loses its connection.

FactoryTalk Alarms and Events does not support an import of tags. Tags can only be subscribed to through Filter Tags.

Note: The FactoryTalk Alarms and Events ONLY supports Alarm tags.

Note: The FactoryTalk Alarms and Events does not yet support the following: WIN-411 reporting; Bypass; ALARM OFF command and SUPPRESS command from FactoryTalk View.

FactoryTalk Alarms and Events supports watchdog timers. FactoryTalk Alarms and Events watchdog timers can be configured in two ways. WIN-911 must monitor a changing alarm condition as opposed to a changing data value. In this case the watchdog timer would be set to value greater than the interval of the reoccurring alarm condition. You can also use a FactoryTalk Alarms and Events watchdog timer to monitor the connection to the FactoryTalk A & E server. This will only report an alarm if WIN-911 loses its connection with FactoryTalk. Both watchdogs have the ability to return to the normal condition.

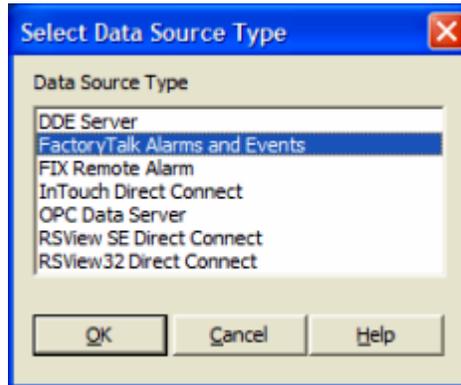
FactoryTalk Alarms and Events supports Filter tags. Filter tags allows WIN-911 to subscribe to alarm events according to a configured filter. The FactoryTalk Alarms and Events filter supports Alarm Name, Alarm Class, and Severity. This expidites the WIN-911 alarm configuration process.

The FactoryTalk Alarms and Events tag properties are configured at the PLC level making all properties dynamic with respect to WIN-911. This means that a tag can be reconfigured in FactoryTalk and those changes are automatically reflected in WIN-911.

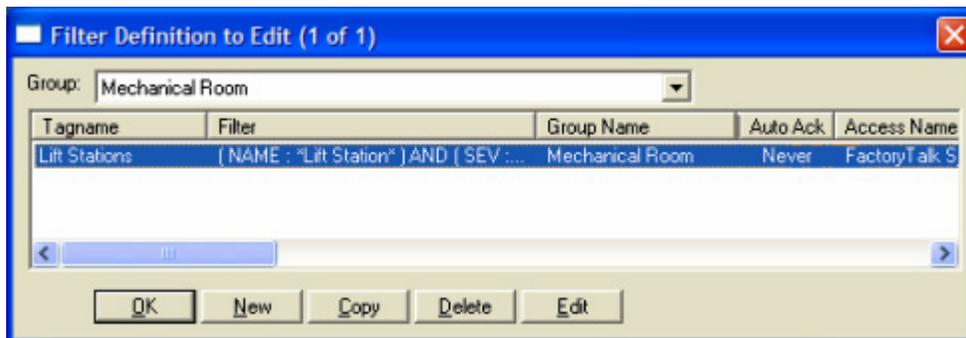
Note: The FactoryTalk alarm message is used as the alarm's description.

FactoryTalk assigns one of four Priorities to Alarms: Urgent, High, Medium, Low. WIN-911 can subscribe to FactoryTalk alarms based on the Priority. Priorities are configured at the data source level. Any FactoryTalk Alarms configured outside the selected Priorities will be ignored by WIN-911. All Priorities are selected by default. FactoryTalk also assigns Severities to alarms, ranging from 1 (least severe) to 1000 (most severe). Severities are configured at the tag level in the Filter Tag definition.

## Data Source Definition



FactoryTalk Alarms and Events can be configured with multiple FactoryTalk data sources. When a FactoryTalk Alarms and Events data source is selected, the FactoryTalk Data Source Settings window is opened. Once the Connection Settings and Event Subscription forms are filled out the data source is created. The FactoryTalk Data Source Settings dialog can be used to filter alarms. The Filter Definition is also enabled when a FactoryTalk Alarms and Events data source is defined.



# FactoryTalk Data Source Settings

## Event Subscription

The "Event Subscription" specifies which FactoryTalk alarm events are sent to WIN-911 by the FactoryTalk Alarm and Events server. Events that match the subscription criteria will generate alarms in WIN-911. The user is able to specify three criteria: Priority, Area/SubArea and Event Sources. The three criteria are described in detail below.

### Priority

The alarm "Priorities" are selected using the corresponding check boxes. Only those events whose priority is selected here will be sent to WIN-911. By default all priorities are checked.

Note: WIN-911 does not support all combinations of Priorities. The four unsupported case are: Urgent & Low only; High & Medium only, High & Low only, and Urgent & Medium only.

### Area/SubArea

Only those events whose Area/SubArea match the criteria will be sent to WIN-911. By default all areas are specified.

### Event Sources

Only those events whose source match the criteria will be sent to WIN-911. By default all sources are specified

Note: It is possible to configure an Event Subscription that doesn't subscribe to a single alarm.

## Connection Settings

All Connection Settings can be found in both FactoryTalk View Studio and FactoryTalk Administration Console.

### Access Name

The "Access Name" is a user defined name used to represent this particular data source.

### Application

The "Application" is the name of an application configured in FactoryTalk View. If FactoryTalk Services is installed the WIN-911 Configurator will try to connect to the application name in order to verify it exists.

### FactoryTalk Global Options

The Factory Talk Global Options are applied to ALL FactoryTalk sources. This means that only one Directory Scope can be configured and only one User Name and Password can be configured. If the Directory Scope, User Name or Password is changed in any configured FactoryTalk data source, all FactoryTalk data sources will use those settings. If FactoryTalk Services is installed the WIN-911 Configurator will verify that the Global Options configured exists.

### Directory Scope

Every FactoryTalk View Application is configured with a "Directory Scope". A stand-alone application is configured as "Local". Distributed or networked applications are configured as "Network."

### FactoryTalk User & Password

The "FactoryTalk User Name" and "Password" are configured here. This information can be found in the FactoryTalk Administration Console.

### Ignore Bad and Uncertain Events

Select this check box to prevent the alarming and logging of bad or uncertain events. This can significantly reduce the amount of activity WIN-911 processes.

Note: This is a global option that affects all FactoryTalk AE tags.

# Alarm Filters

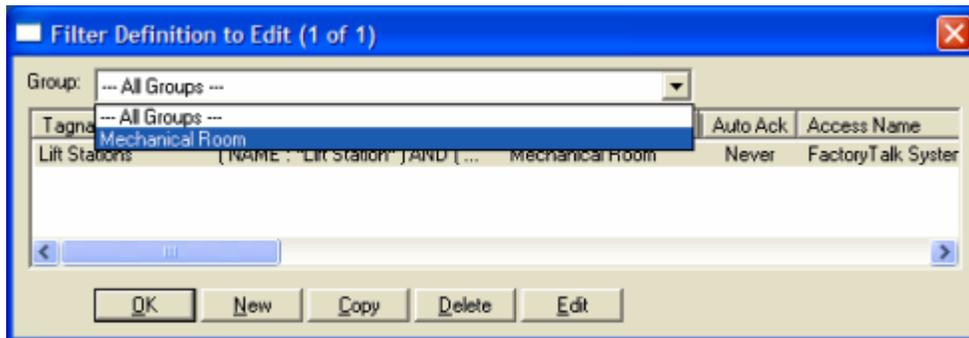
## Filter Definitions



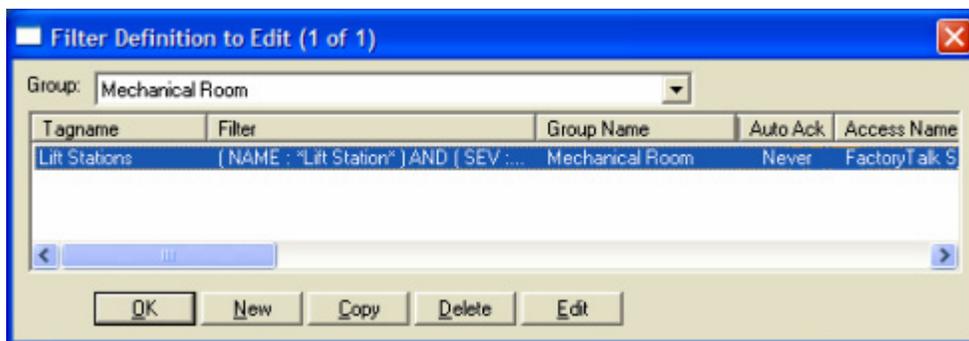
This button is used to define filter tags. Filter tags subscribe to alarms on the fly depending on the criteria configured. Filter tags are configured using this button.

## Filter Definition to Edit

Alarms are arranged by Groups. Using the pull down list box, select the Group that the new or existing alarm belongs to. Only the Filter tags 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 filter tags.

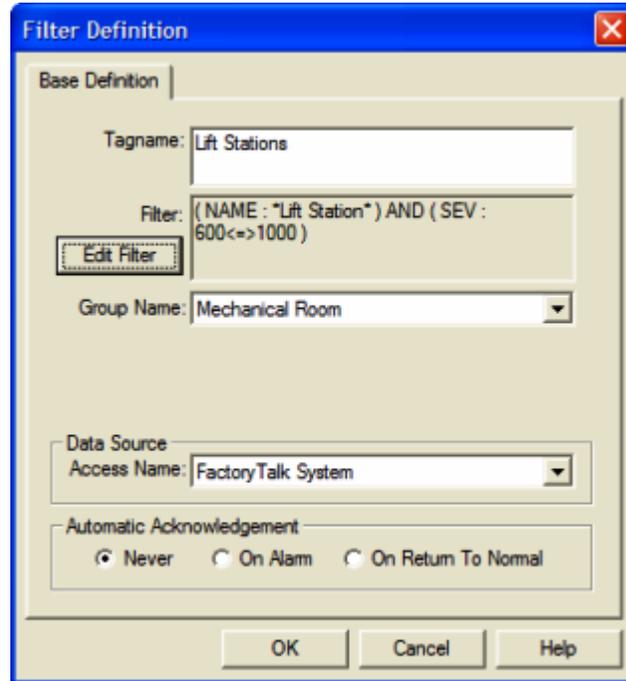


Selecting New, Edit or double-clicking on the Filter Tag will bring up the Filter Definition window.

## Filter Definition

Selections must be made for the user defined tagname, the filter criteria, group selection, as well as acknowledgement choices. Each choice is described below.

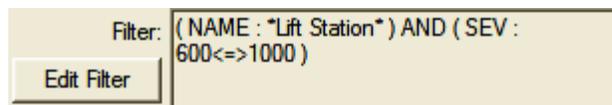
## Base Definition



## Tagname

The WIN-911 Filter Tagname allows the user to assign names to a filter tag or group of tags that are created by the tags filters and properties. It should be kept in mind that this is WIN-911's name for the filter alarm point or points, not FactoryTalk View's.

## Filter



The FactoryTalk Alarms and Events Filter allows you to subscribe to a specific set of alarms. This can be done by clicking the Edit Filter button. The Edit Filter button opens up the FactoryTalk Filter Editor window. Here the user can configure the Alarm Name filter, Alarm Class filter and Severity filter. See the section titled "FactoryTalk Filter Syntax" for more details.

## Group Name

Alarms are organized by groups for reporting out-of-tolerance conditions. You have by now created a filter tag. You must choose a predefined Group to specify the reporting actions 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. You may change the Group assignment (move the tag to another group) simply by selecting another defined Group from the drop down list box.

## Access Name

The Access Name is used to select a predefined FactoryTalk Alarms and Events server from the list defined in the data sources. This field must be defined.

## 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 local reports (e.g. 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 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 the normal condition. This option precludes the need for human interaction if no one has acknowledged the alarm at the time it returns to a normal condition.

## Filter Syntax

The "FactoryTalk Filter Editor" dialog box allows the user to filter a specific alarm or group of alarms for alarm notification. All alarms that make it past the FactoryTalk Data Source "Event Subscription" filter are then further qualified by the three filters (Filter on Alarm Name, Filter on Alarm Class and Filter on Alarm Severity) seen on this dialog. Only alarms being passed through the FactoryTalk Data Source "Event Subscription" filter (configured in the FactoryTalk Data Source Settings) will be effected by the FactoryTalk Filter(s).

### Filter on Alarm Name

The "Filter on Alarm Name" can be toggled on/off using the checkbox. If the checkbox is checked, the user can define a filter based on the alarms' name. The Alarm Name filter can contain up to 140 characters. This filter will omit all alarms that do not match the name defined. No double quote characters ( " ) are accepted. The filter also honors two wildcard characters, asterisk ( \* ) and question mark ( ? ). The asterisk ( \* ) symbol is a wildcard character representing any valid character string. The question mark ( ? ) symbol is a wildcard representing any valid single character.

A filter defined with an asterisk ( \* ) will subscribe to all tag names. A filter defined with six question marks ( ?????? ) will subscribe to all tag names containing exactly six characters. A filter defined with a tag name and an asterisk ( "Liftstation \*" ) will subscribe to all alarms whose name starts with "Liftstation " (including space character).

### Filter on Alarm Class

The "Filter on Alarm Class" can be toggled on/off using the checkbox. If the checkbox is checked, the user can define a filter based on the alarm class. The alarm class filter can contain up to 50 characters. This filter will omit all alarms that do not exactly match the alarm class defined. No double quote characters ( " ) are accepted. The filter also honors two wildcard characters, asterisk ( \* ) and question mark ( ? ). The asterisk ( \* ) symbol is a wildcard character representing any valid character string. The question mark ( ? ) symbol is a wildcard representing any valid single character.

A filter defined with an asterisk ( \* ) will subscribe to all alarm classes. A filter defined with six question marks ( ?????? ) will subscribe to all alarm classes containing exactly 6 characters. A filter defined with an alarm class and an asterisk ( "Class12\*" ) will subscribe to all alarms whose alarm class begins with "Class12."

### Filter on Alarm Severity

The "Filter on Alarm Severity" can be toggled on/off using the checkbox. If the checkbox is checked, the user can define a filter based on the alarm severity. This filter will omit all alarms that do not fall within the alarm severity range. The alarm severity range is configured by typing in a MIN and MAX value. The MIN and MAX values can range from 1 to 1000 where the MIN value must be less than or equal to the MAX value. MIN and MAX values are included in the range.

Note: It is possible to configure a Filter that filters all possible alarms.

# Watchdog Timer Definitions

## Editing Watchdogs



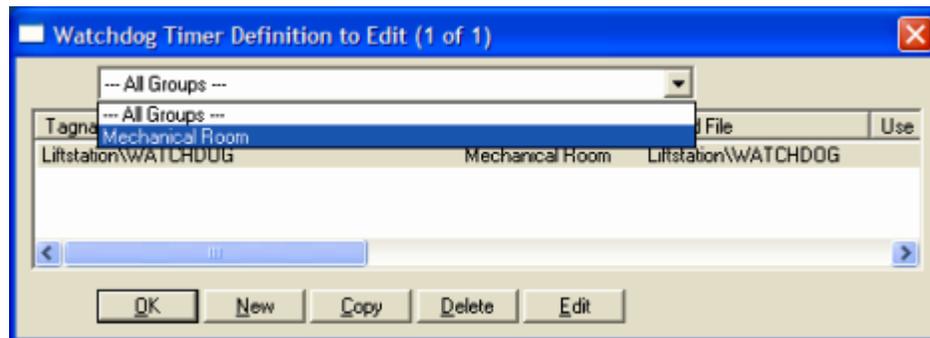
The integrity of mission critical data such as that which WIN-911 is tasked to monitor must be verifiable. This means that the data servers must have a way to demonstrate their presence and functionality. WIN-911 provides the user with Watchdog Timers for this very purpose. This function monitors one or two things (user definable) to ensure data and/or servers are healthy: 1) observe a changing alarm condition that is guaranteed to cycle at a specified rate, or 2) a message from FactoryTalk Services indicating a loss of alarm information.

Note: Unlike other WIN-911 Watchdog functions, the FactoryTalk Alarms and Events Watchdog monitors a changing alarm condition rather than a changing value.

To utilize the Watchdog Timer setup a data point that is continuously cycling in and out of alarm condition. A typical voice message for this condition could be: "WARNING AREA #4 HAS LOST COMMUNICATIONS WITH ALARM LOGGER."

## 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.



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

## Base Definition

The screenshot shows the 'Watchdog Timer Definition' dialog box with the 'Base Definition' tab selected. The fields are as follows:

- Tagname: Liftstation\WATCHDOG
- Description: (empty)
- Group Name: Mechanical Room
- Data Source: (empty)
- Access Name: FactoryTalk System
- Use Tagname for Item
- Item Name: Liftstation\WATCHDOG

### Tagname

The tagname is an alias of the Watchdog tag in the FactoryTalk's Alarm & Event server. This is a user friendly name for the alarm and not the address of the A&E Watchdog tag.

### 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 reporting actions 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. A review of the Group button is not a bad idea here. To select another Group, click on the drop-down arrow with the cursor and choose.

You may change the Group assignment simply by selecting another defined "Group" from the drop down list box.

### Access Name

The Access Name is used to select a predefined FactoryTalk Alarms and Events server from the list defined in the data sources. This field must be defined.

## Tagname for Item

Selecting this box will cause the Tagname to be copied directly into the item name. This check box is intended to be a time saving mechanism that can be utilized when the Tagname and Item Name are not required to be different.

## Item Name

The Item Name is used to identify the particular item to monitor via FactoryTalk Alarm and Events. This field is case sensitive and must be defined.

For FactoryTalk A&E watchdogs, you must specify three components: Area Name, A&E Server Name, and the A&E Tag. The correct syntax for this is:

AreaName:A&EServerName:Tag

-- e.g.,--

Area1:Samples Water AE Alarms:AEWatchdog

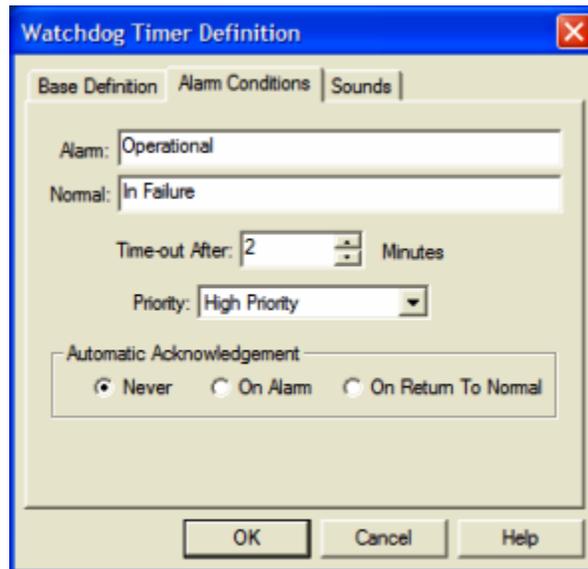
If the A&E Server is located on the Root Area, only the A&E Server name and the A&E Tag are required. The correct syntax for this is:

:A&EServerName:Tag

-- e.g.,--

:Samples Water AE Alarms:AEWatchdog

## 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. Each time a new alarm state is reported for the selected item, the counter is reset to the preset value. If the timer ever counts down to zero, the alarm occurs. This entry is in one-minute increments.

If a value of 0 minutes is configured in the field, the Watchdog alarm will be triggered by a loss of communication with the data source. e.g. Project Stop, exit, etc. Since, the FactoryTalk Alarms and Events data source can re-establish communication with WIN-911, these Watchdogs can return to normal.

### Priority

For each alarm, you may select three levels of Priority: High, Medium, and Low. For each Group, a higher priority alarm will bump a lower priority alarm down the queue to call out, even if the lower priority alarm was first in line.

### Automatic Acknowledgement

#### Never

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

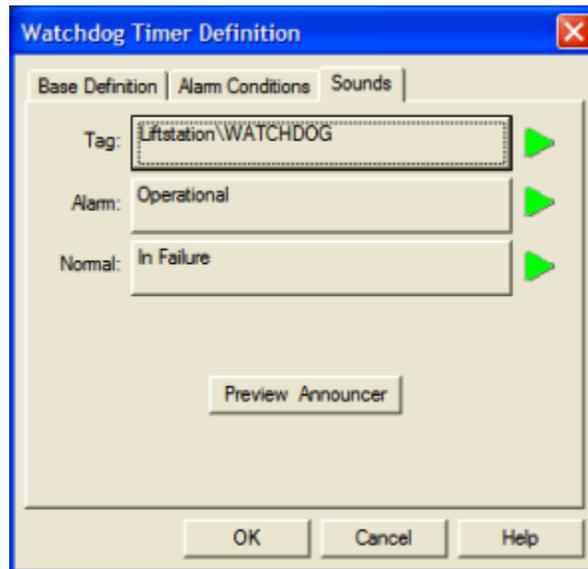
#### On Alarm

Selecting this radio button will cause the alarm to automatically become Acknowledged as it enters into an alarm condition. This option would allow 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 active, the message (going into an alarm condition) will not generate Pop-Up alarm messages or any of the Dial-Out options.

### On Return To Normal

Selecting this radio button will cause the alarm to automatically acknowledge as it returns to normal.

## 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.

### Preview Announcer

Selecting this button will allow the user to review the alarm's entire audio ... AS IT WILL BE HEARD IN THE LOCAL ANNOUNCER ... for each condition of the alarm.



# RSView32 Direct Connect

## Overview

The "RSView32 Direct Connect" option provides a means of bypassing Windows DDE/OPC and connecting directly to Rockwell's RSView32. The WIN-911 direct-connect interface to RSView32 facilitates access to alarms generated by RSView32. This means RSView32 owns the alarms, unlike an OPC or DDE connection where WIN-911 must determine alarm conditions.

Only a single data source can be configured for the RSView32 Direct Connect. This is because only a single data source is needed to connect to the RSView32 project. The RSView32 Direct Connect supports the ability to reconnect to RSView32 if it ever loses its connection.

The WIN-911 configurator has an import facility for RSView32 Alarms that takes as input the Tag and Alarm \*.CSV files that are exported with the RSView32 Tag Import and Export Wizard. These \*.CSV files contain information about Tags and Alarms from a specific Project. When importing Alarms from RSView32, the user must select the Tag and Alarm \*.CSV files.

Note: The RSView32 Direct Connect ONLY supports Alarm tags.

Note: The RSView32 Direct Connect does not support the following: WIN-411 reporting; running as a service; Bypass; ALARM OFF command and SUPPRESS command from RSView32.

The RSView32 Direct Connect does support watchdog timers. RSView32 watchdog timers must monitor either a cycling alarm condition or just the connection to RSView32. In order to monitor a cycling alarm condition, WIN-911 must be provided the address of the alarm which cycles in and out of alarm. Should WIN-911 not see any updates regarding this alarm after a period of time, then WIN-911 will report a failure on the watchdog timer. If you wish to monitor only the connection to RSView32, set that period of time to zero. Both of these scenarios are discussed further in proceeding sections.

The RSView32 Direct Connect supports filter tags. Filter tags allow WIN-911 to subscribe to alarm events, while filtering out events with which it is not concerned. The alarm filter may filter based upon tagname and alarm severity. This greatly reduces configuration overhead, as WIN-911 will not need a reference to each and every alarm in order to report them.

Note: A Filter tag will never result in RSView32 Tags from the "System" subfolder. An Analog or Digital tag must be statically defined to monitor RSView32 "System" tags.

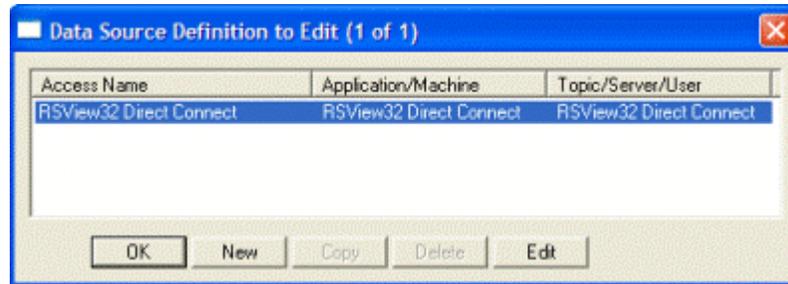
The RSView32 Direct Connect also supports Dynamic properties. These properties: Sounds; Description; Priority; and Units, take text strings configured in RSView32 and use them in WIN-911. These also have the ability to be disabled, allowing the user to configure these properties manually in WIN-911.

RSView32 assigns Severities to Alarms, ranging from 1 (most severe) to 8 (least severe). WIN-911 uses this information in two ways. First, WIN-911 can monitor RSView32 Alarms based on the Severity of the Alarm. A property for severity is configured at the data source level. Any RSView32 Alarms outside this range will be ignored by WIN-911. The default Severity filter range for WIN-911 is 1-8 so that no Alarms are ignored. The Second use of Severities by WIN-911 is to assign Priorities, which are used in determining the order that notifications are sent. Static Priorities are set during imports where Severities 1-3 map to High Priority, 4-6 map to Medium Priority, and 7-8 map to Low Priority. These Static Priorities are only used if WIN-911 is not configured for Dynamic Priorities. For Dynamic Priorities, the Priorities can be manually mapped to a severity at the data source level.

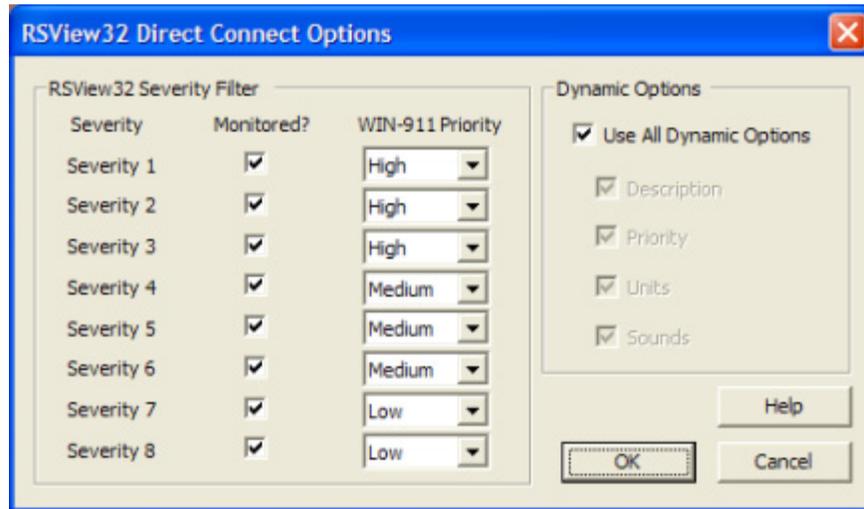
RSView32 Analog Alarms allow up to 8 Thresholds to be configured. Thresholds must be either Increasing or Decreasing. An Increasing Threshold generates an alarm when the process variable goes above the Threshold, and a Decreasing Threshold generates an alarm when the process variable goes below the Threshold. Increasing Threshold alarms are mapped to WIN-911 High alarms and Decreasing Threshold alarms are mapped to WIN-911 Low alarms.

## Data Source Definition

RSView32 can only be configured with a single RSView32 data source. When the RSView32 Direct Connect data source is selected the RSView32 Direct Connect Options window is open. Once the options are selected the WIN-911 Configurator automatically configures the Access Name, Application Name and the Topic Name, as seen below. The RSView32 Direct Connect Options menu can be used to filter alarms. The Filter Definition is also enabled when an RSView32 data source is defined.



## Global Options



The RSVIEW32 Direct Connect Options are global options.

Note: RSVIEW32 Watchdogs do not use Dynamic Options.

### RSVIEW32 Severity Filter

The range of alarm severity that WIN-911 will monitor is selected by placing a check in the 'Monitored?' column. All alarms falling outside of the selected severities will be ignored. The user can map the priority of each severity by using the corresponding pull-down menu in the 'WIN-911 Priority' column. This user-defined mapping is only referenced when the Dynamic Options "Priority" is selected.

### Dynamic Options

The RSVIEW32 Direct Connect is designed to allow as much seamless integration between Rockwell and WIN-911 as possible. This includes receiving as much information from RSVIEW32 dynamically during runtime, thus preventing the need to redundantly and statically configure information in WIN-911. However, instances can arise where this is not desired or possible.

### Use All Dynamic Options

Globally enables all dynamic functions.

### Description

Dynamic Description uses the RSVIEW32 Tag Description text during runtime as the data is passed from RSVIEW32 to WIN-911. If the Tag Description is not defined in when the alarm data is passed from RSVIEW32, WIN-911 uses the statically defined description in the WIN-911 configuration. When the check box is left unchecked the RSVIEW32 Tag Description is ignored and only the text in WIN-911 is used.

### Priority

Dynamic Priority uses the 'WIN-911 Priority' associated with the 'Severity' configured in the RSView32 Direct Connect Options during runtime as the data is passed from RSView32 to WIN-911. If the Priority check box is left unchecked, WIN-911 uses the statically defined priority in the WIN-911 tag configuration.

## Units

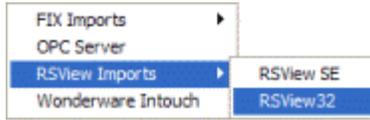
Dynamic Units uses the RSView32 Unit text during runtime as data is passed from RSView32 to WIN-911. If the Unit check box is left unchecked, WIN-911 uses the statically defined unit in the WIN-911 configuration.

## Sounds

With dynamic sounds enabled, WIN-911 pulls text from RSView32 for speech synthesis at runtime. It uses a two tiered approach. The tag sound is pulled from the RSView32 tag description, if that field is unavailable, then WIN-911 will use the RSView32 tag name.

If dynamic sounds are disabled, then the text present in the WIN-911 tag sound and tag description will be used for speech synthesis. If those fields are undefined, then the tag name will be used instead.

## Import Source



Use the WIN-911 Configurator's File\Import function to import your RSVIEW32 tags. The workflow begins in RSVIEW32 Works where you will export your RSVIEW32 data into \*.CSV files. Once the \*.CSV (Tag and Alarm) files are created you may use the WIN-911 Configurator Import function to browse and selectively import tags and assign them to alarm groups.

## RSVIEW32 Import

### Generate RSVIEW32 Export

From the RSVIEW32 Works Project pull-down menu select Import & Export Wizard.

Select the Operation you would like to perform.

Export RSVIEW32 database to CSV files.

Choose the RSVIEW32 project that contains the tags you want to export.

Project: **C:\Program Files\Rockwell Software\Samples\RSVIEW\Samples\Samples.rsv**

Note: Choose the proper \*.RSV file and take note of the path as you will need it.

Specify names for the destination files.

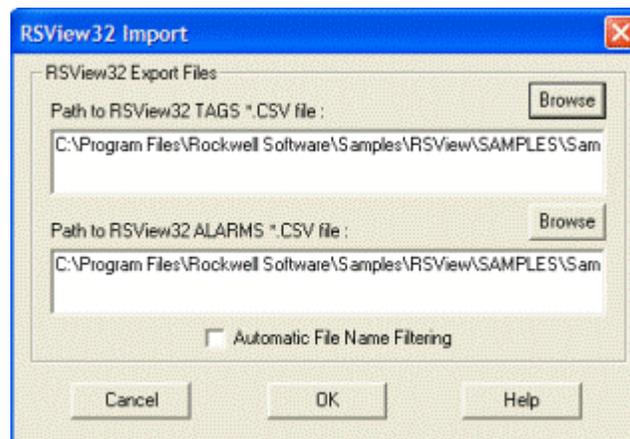
Only check Tags and Alarms, name the files and take note of the paths so you can find them during the WIN-911 import.

Click Finish to complete the export portion.

### Start WIN-911 Import

From the WIN-911 Configurator File pull-down menu select Import/RSVIEW Imports/RSVIEW32.

RSVIEW32 Export Files



**Path to RSView32 Tags \*.CSV**

Use the Browse button to map the location of the "\*\*Tags.CSV" file created by the export.

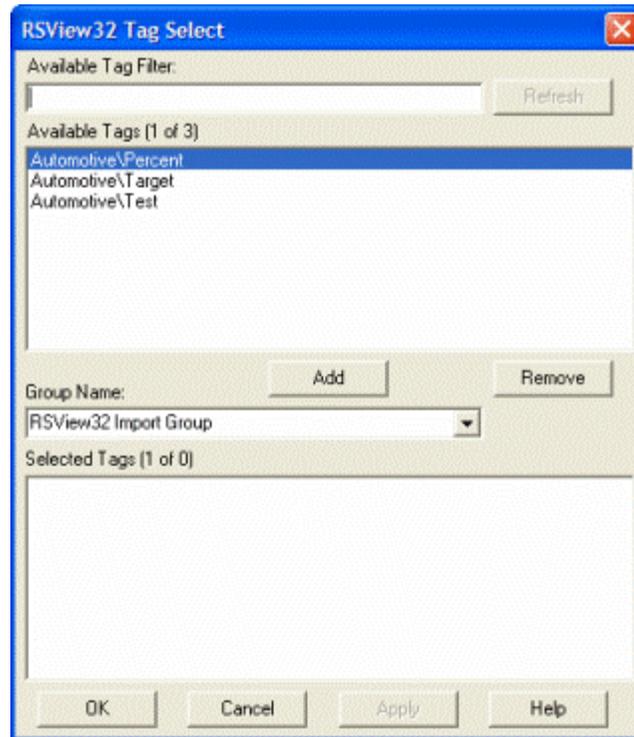
**Path to RSView32 Alarms \*.CSV**

Use the Browse button to map the location of the "\*\*Alarms.CSV" file created by the export.

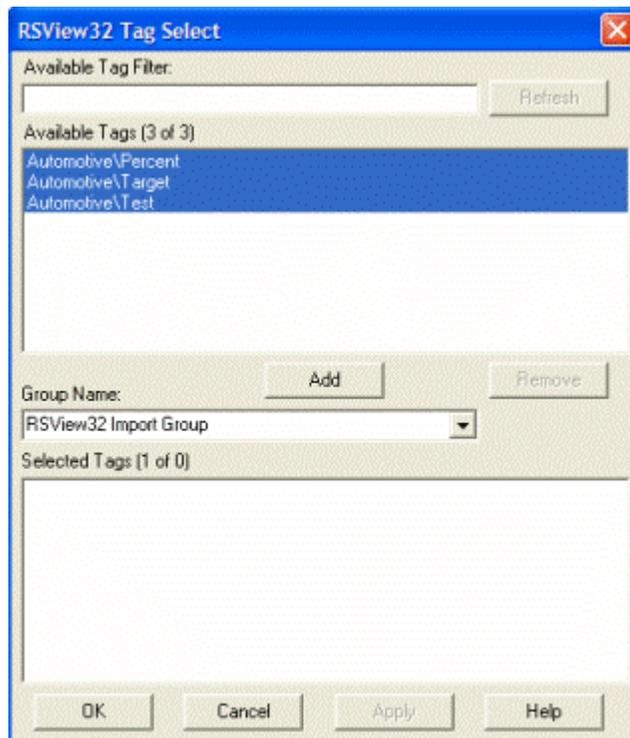
**Automatic File Name Filtering**

File filtering suppresses all files except ones ending in "-Tags.CSV" for the tag import and "-Alarms.CSV" for the Alarm import, to make selection of the proper files easy.

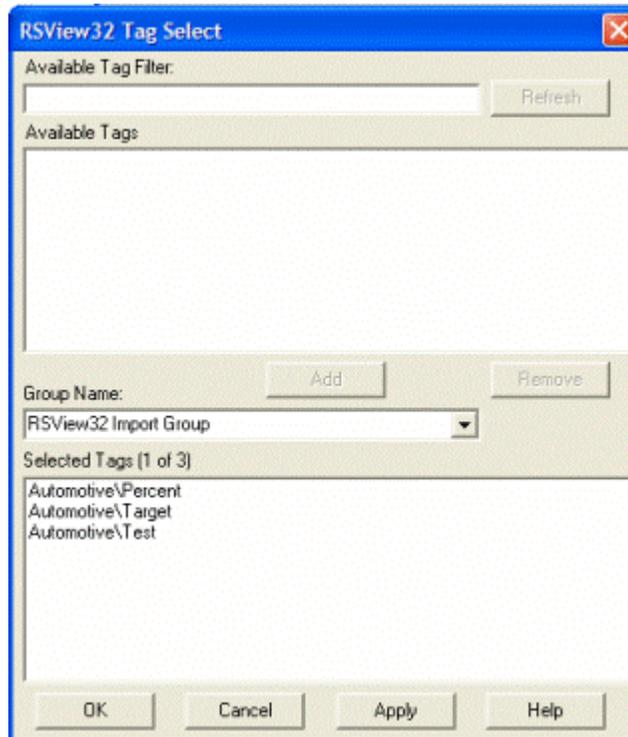
## Importing Alarms



*To select a block of tags to import quickly, click on the first tag of the block.*



*Next, scroll down to the bottom of the block list and shift-click the last tag.*



*Once all the tags are selected, press the Add button and the application will fill the Selected Tags.*

If you wish to deselect any of the tags from the list before the import is applied, select them from the Selected Tags using the Remove button. Otherwise, select Apply and the WIN-911 database import will execute.

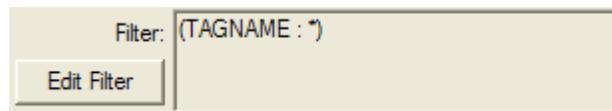
## Alarm Filters

### Base Definition

#### Tagname

The WIN-911 "Filter Tagname" is a symbolic tool that allows the user to assign names to a filter tag or group of tags that are created by the tags filters and properties. It should be kept in mind that this is WIN-911's name for the filter alarm point or points not RSVIEW32's.

#### Filter



The RSVIEW32 Filter allows you to subscribe to a specific set of alarms. This can be done by clicking the Edit Filter button. The Edit Filter button opens up the RSVIEW32 Filter window. Here the user can configure the Tagname filter and Severity filter. See section title RSVIEW32 Filter Syntax for more details.

#### Group Name

Alarms are organized by groups for reporting out-of-tolerance conditions. You have by now created a unique filter alarm. You must choose a predefined "Group" to specify the reporting actions for this alarm. (Remember, you have already selected a group name, specifying the reporting options and an optional sound for this group.) A review of the "Group" button is not a bad idea here. To select another "Group", click on the drop-down arrow with the cursor and choose. You may change the "Group" assignment (move the tag to another group) simply by selecting another defined "Group" from the drop down list box.

The default group name will be "RSVIEW32 Import Group."

#### Alarm Type



RSVIEW32 Filter tags can monitor both Digital and Analog tags. The Alarm Type drop-down box allows the user specify the type of alarm the Filter tag subscribes to. By default Any Alarm is selected.

#### Access Name

The "Access Name" is used to select a predefined data conversation from the list defined in the "Data Source Definitions".

#### 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

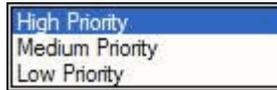
Selecting this radio button will cause the alarm to automatically acknowledge as it returns to normal. This option removes the requirement that the associated alarm be responded to by a person in the event that no one has acknowledged the alarm at the time it returns to a normal condition. Experiment with all three of these options to get the results you desire.

## Setup

### Digital Alarm and Normal Text Strings

These text strings are not used in the RSView32 Direct Connect options.

### Analog/Digital Priorities



Alarm Severity (RSView32) 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.

Things to note when assigning priorities:

- Only tags that fall within the globally set Alarm Severity Monitored range will be monitored for remote notification regardless of assigned priority (See Options RSView32).
- During the import, and only for imports, WIN-911 will distribute the selected Severity range evenly through the three tiered WIN-911 Priority Range (High, Medium, and Low). Although the actual Alarm Severity may differ in RSView32 (example tag alarm 1 and tag alarm 2 are configured for severity 1 and 2, respectively), if the alarms are grouped in the same WIN-911 Alarm Priority (example High Priority for Severities 1 and 2), they will be called out on a first come, first serve basis.
- If RSView32 is set to use dynamic Priorities, this setting is ignored.

### Analog Alarm Setpoint Enables

RSView32 Analog Alarms allow up to 8 Thresholds to be configured. RSView32 Thresholds must be either Increasing or Decreasing. An Increasing Threshold generates an alarm when the process variable goes above the Threshold, and a Decreasing Threshold generates an alarm when the process variable goes below the Threshold. Increasing Threshold alarms are mapped to WIN-911 High alarms and Decreasing Threshold alarms are mapped to WIN-911 Low alarms.

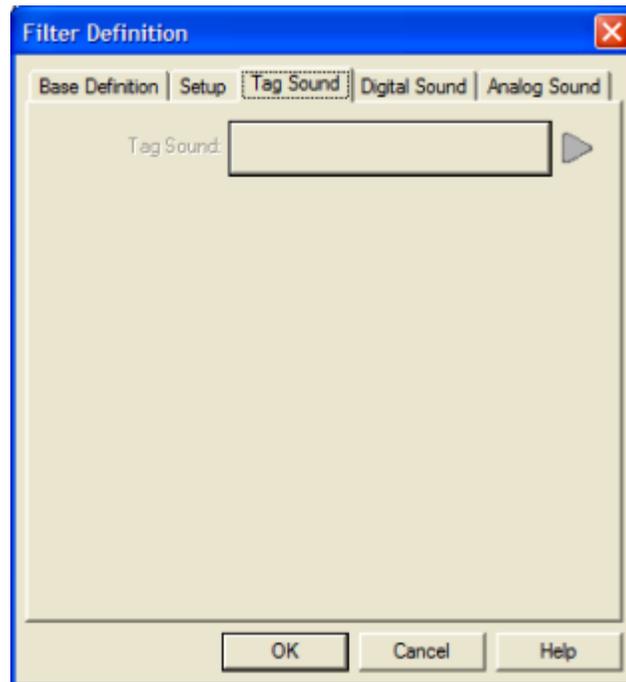
Things to keep in mind when configuring Alarm Limits

- If High and/or Low limits are selected for monitoring then each new threshold that the tag advances through will trigger a new alarm. So if a High threshold alarm exists and the next threshold on the increasing scale is breached then a second "High" alarm will be generated in WIN-911.

### Number of Decimal Places

WIN-911 supports two types of analog data types: "Integer" or "Floating Point". WIN-911 supports: a) 32 bit signed integer values, and b) 32 bit IEEE floating point values. Note: Acceptable Floating Point numbers (without round-off errors) are  $3.4 \times 10^{38}$ , or a resolution of 7 digits. Values beyond seven digits will exhibit round-off errors. "Integer Data Type" is the default type and represented as "0" "Number of Decimal Places". To select "Floating Point", select the "Number of Decimal Places" to something other than "0".

## Tag Sound

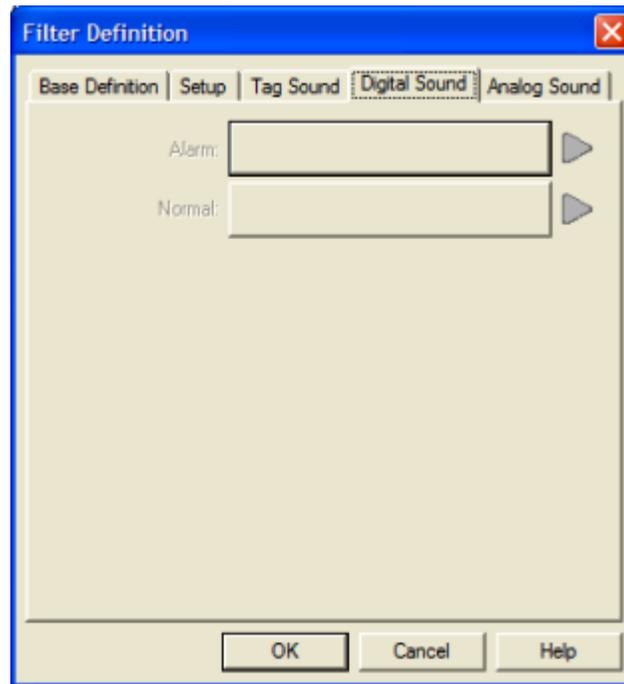


The "Tag Sound" is essentially a verbalization of the "Tagname" to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box. If your data source is configured to use dynamic sounds this sound box will be disabled and ignored. See RSView32 Direct Connect Options concerning Dynamic Sounds.

## Tag Sound

Define the text to be used for speech synthesis here. If you have selected the wave files only option in your sound configuration, select a wave file here as well. This will be used to announce the name of the tag currently in alarm.

## Digital Sound



Sounds are essentially a verbalization of the alarm description and the "Alarm" and "Normal" sound to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box.

### Digital Alarm & Normal Sound

Define the text to be used for speech synthesis here. If you have selected the wave files only option in your sound configuration, select a wave file here as well. These sounds will be used to announce the normal and alarm states of digital alarms.

## **Analog Sound**

### **Analog Alarm & Normal Sounds**

A sound can be specified for each of the analog alarm conditions. These sounds are normally the phrases "...above the threshold alarm", "...below the threshold alarm". In addition, there is a return to normal sound which may be the phrase "in the normal range".

### Filter Definitions



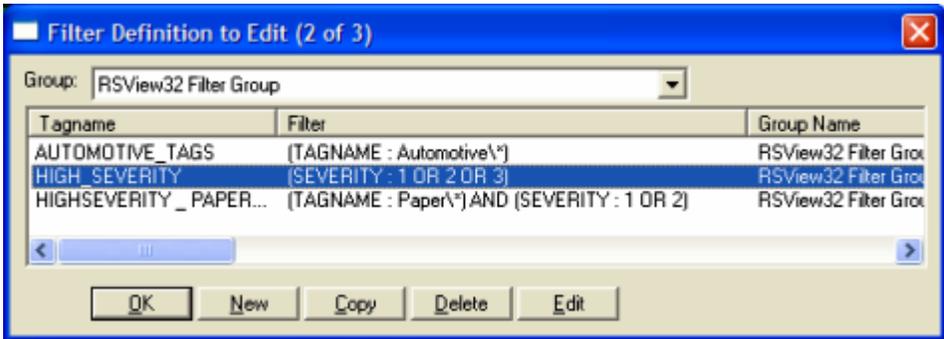
This button is used to define all filter points. Filter tags consist of both digital and analog points. Filter tags are different from statically configured Digital, Analog and Watchdog tags in that no import is necessary. Filter tags subscribe to alarms on the fly depending on the criteria configured. Filter tags are configured using this button.

### Filter Definition to Edit

"Alarms" are arranged by "Groups". Using the pull down list box, select the "Group" that the new or existing alarm is assigned. Only the alarms 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.

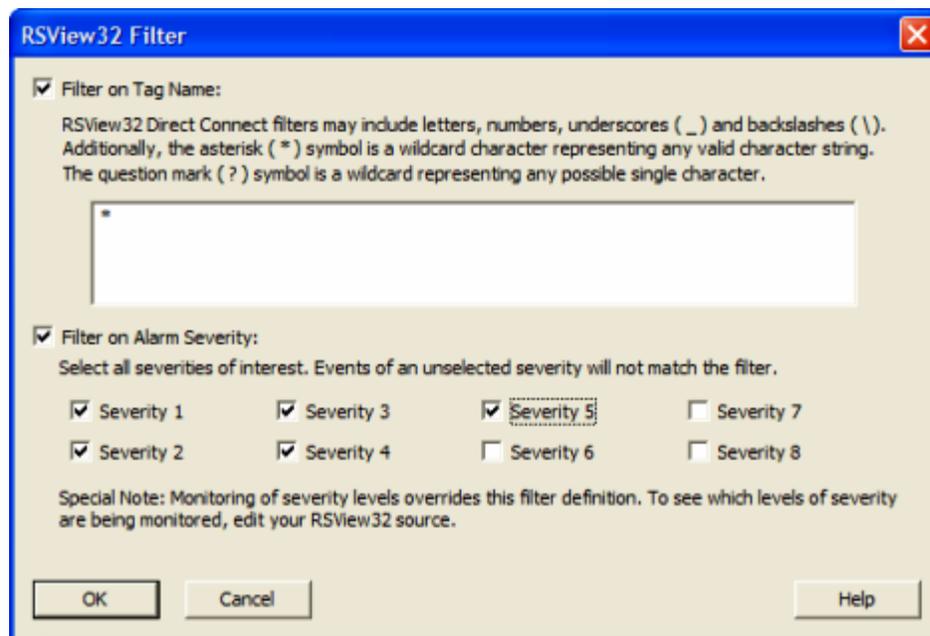


Selecting "New", "Edit" or double-clicking on the "Filter Tag" will bring up the Filter Definition window.

## Filter Syntax

There are two levels of filtering for RSView32. The first level is in the RSView32 Data Source Definition. There you may filter alarms based on their severity. Any alarms that occur which are not in the severities defined there will not be discarded.

The second level is discussed here. Here you may filter alarms based on tag name and severity. If both options are selected, they are combined with a logical and operation. That is to say that an alarm must match both the tag name pattern and the alarm severity filter. Only alarms which fall within the constraints of a second level filter will be reported as alarms by WIN-911. You may define as many second level filters as you wish. As each of these must be assigned to a group, that is the only way to have different call out lists for different alarms when using filters.



### Filter on Tag Name

Check this option to filter alarms based on tag name. Only alarms that match the text pattern entered here will be reported by WIN-911. You may enter a literal string as well as an asterisk for a wild card string. Use a question mark to match any single character.

Valid characters in your string literal are: alphanumeric characters, underscores, and backslashes.

Enter a single asterisk to subscribe to all tag names. A filter with six question marks will subscribe to all alarms with a tag name of exactly six characters. A filter defined as "Automotive/\*" will subscribe to all alarms that begin with "Automotive/."

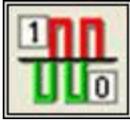
### Filter on Alarm Severity

Check this option to filter alarms based on their severity. Only alarms that fall within the severities selected here will be reported by WIN-911. Keep in mind, however that the filter

defined in your RSView32 data source definition sits above this filter and if an alarm does not pass through it, then it cannot pass through this filter as it has already been discarded.

# Digital Definitions

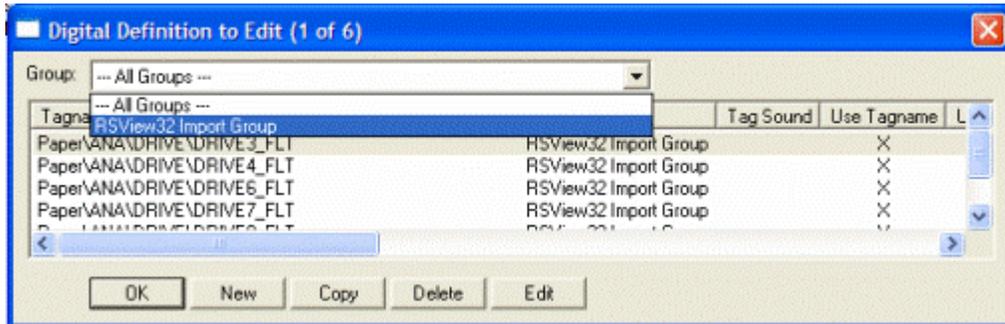
## Digital Definition



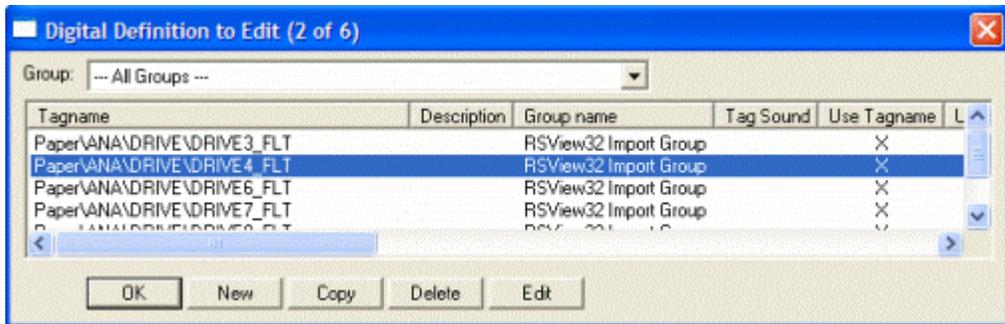
Click this icon on the configurator to manually define or edit digital alarms. A digital alarm is an alarm which is either on or off.

## Digital Definition to Edit

Alarms are arranged by Groups. Using the pull down list box, select the Group that the new or existing alarm is assigned. Only the alarms 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 Digital Tag will bring up the Digital Definition window.



## Alarm Conditions

### Alarm and Normal Text Strings

The "Alarm" and "Normal" text strings are not used in the RSView32 Direct Connect.

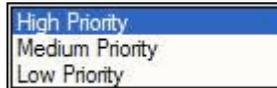
### Digital Alarm

The "Digital Alarm" state for RSView32 alarms are defined within the RSView32 database and do not need to be redefined here. Since this information is accessed directly from RSView32, this field is disabled.

### Initial Value

The "Initial Value" for RSView32 alarms are defined within RSView32 and do not need to be redefined here. Since this information is accessed directly, this field is disabled.

### Priority



Alarm Severity (RSView32) 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.

Things to note when assigning priorities:

- Only tags that fall within the globally set Alarm Severity Monitored range will be monitored for remote notification regardless of assigned priority (See Options RSView32).
- During the import, and only for imports, WIN-911 will distribute the selected Severity range evenly through the three tiered WIN-911 Priority Range (High, Medium, and Low). Although the actual Alarm Severity may differ in RSView32 (example tag alarm 1 and tag alarm 2 are configured for severity 1 and 2, respectively), if the alarms are grouped in the same WIN-911 Alarm Priority (example High Priority for Severities 1 and 2), they will be called out on a first come, first serve basis.
- If RSView32 is set to use dynamic Priorities, this setting is ignored.

### 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**

Sounds are essentially a verbalization of the alarm description and the "Alarm" and "Normal" sound to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box.

### **Tag Sound**

The "Tag Sound" is essentially a verbalization of the "Tagname" and/or the description to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box.

### **Alarm & Normal Sound**

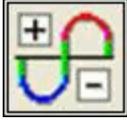
These sounds are the verbalization of the Alarm and Normal conditions.

## **Changeable**

This option is not supported in ME Alarm Control.

# Analog Definitions

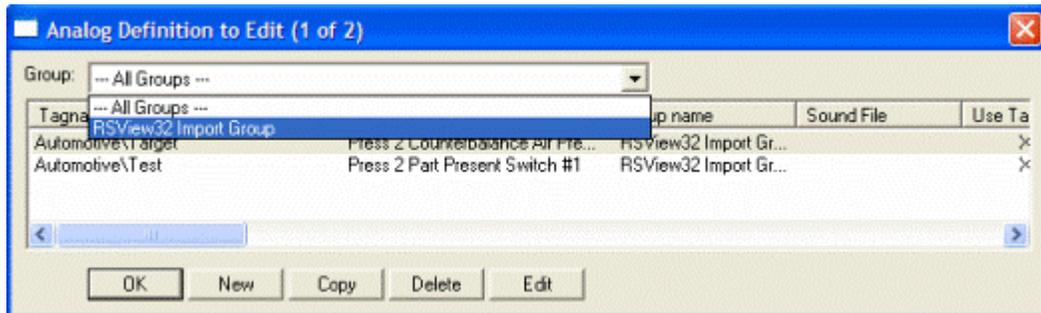
## Analog Definition



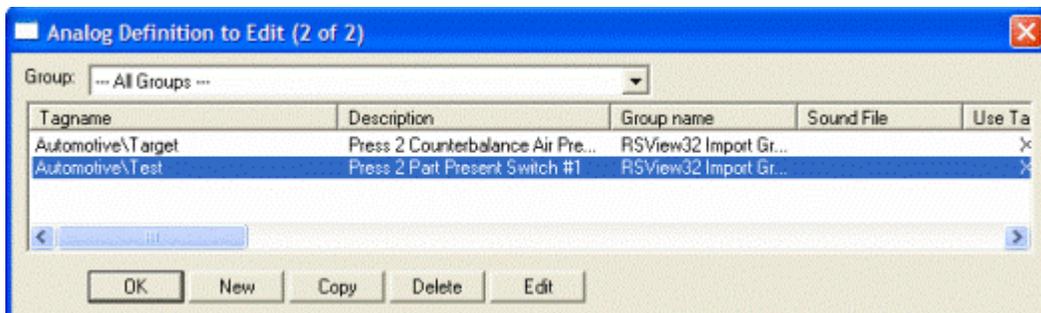
This button is used to define all analog points. With WIN-911, "Integer" or "Floating Point" data values are classified as Analog alarms. Analog alarms are configured with the "Analog Alarm Definition" button.

## Analog Definition to Edit

"Alarms" are arranged by "Groups". Using the pull down list box, select the "Group" that the new or existing alarm is assigned. Only the alarms 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 analog alarms.



Selecting "New", "Edit" or double-clicking on the "Analog Tag" will bring up the Analog Definition window.

## Base Definition

### Tagname

RSView32 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 RSView32 unless the Use Tagname for Item check box is checked.

### Description

The Description field is used to provide a more detailed description of an alarm or point. One of the time saving features of the RSView32 Direct Connect option is how WIN-911 utilizes the Description field as defined within the SCADA package if dynamic Descriptions are being used.

### 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.

### Engineering Units

The Engineering Units field for RSView32 alarm points can be defined here. This will append the engineering units to the alarm value.

### Access Name

The Access Name refers to the Data Source Definition previously defined. Select RSView32 Direct Connect to configure the current alarm as an RSView32 alarm.

### Use Tagname for Item

Select this option to have the Tagname field copied into the Item Name field. Use this option if the RSView32 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 RSView32. Its syntax must match the RSView32 alarm exactly.

## **Conversion**

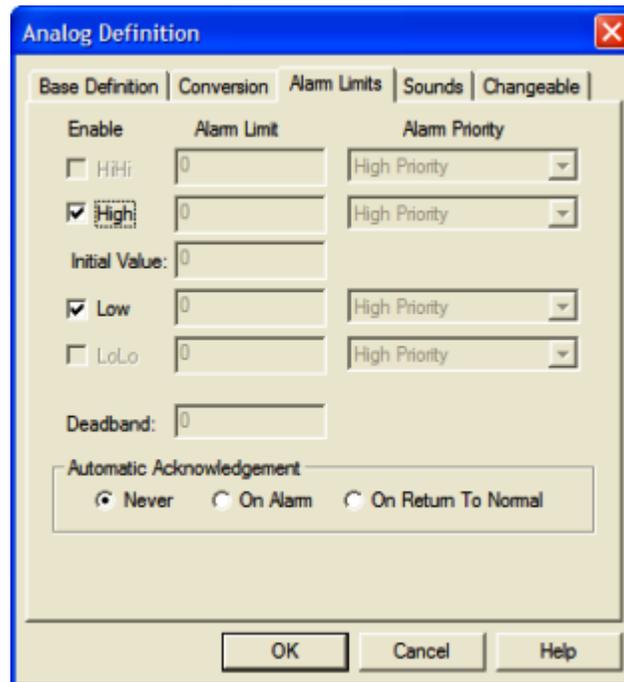
### Conversion Type

"Conversion Type" defines which filter is applied to the raw data. Because RSView32 performs these functions internally, further scaling would produce invalid results. With the sole exception of "Number of Decimal Places", this dialog box is disabled for the RSView32 Direct Connect option.

### Number of Decimal Places

WIN-911 supports 32 bit signed integers and 32 bit floating point values. A 32 bit integer is the default data type. For floating point numbers set the number of decimal places to something other than zero.

## Alarm Limits



RSView32 Analog Alarms allow up to 8 Thresholds to be configured. RSView32 Thresholds must be either Increasing or Decreasing. An Increasing Threshold generates an alarm when the process variable goes above the Threshold, and a Decreasing Threshold generates an alarm when the process variable goes below the Threshold. Increasing Threshold alarms are mapped to WIN-911 High alarms and Decreasing Threshold alarms are mapped to WIN-911 Low alarms.

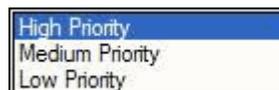
Things to keep in mind when configuring Alarm Limits:

- If High and/or Low limits are selected for monitoring then each new threshold that the tag advances through will trigger a new alarm. So if a High threshold alarm exists and the next threshold on the increasing scale is breached then a second "High" alarm will be generated in WIN-911.

### Initial Value

The "Initial Value" function is set within the RSView32 and is not a valid function for WIN-911. This field is disabled for the RSView32 Direct Connect.

### Priority



Alarm Severity (RSView32) 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.

Things to note when assigning priorities:

- Only tags that fall within the globally set Alarm Severity Monitored range will be monitored for remote notification regardless of assigned priority (See Options RSVIEW32).
- During the import, and only for imports, WIN-911 will distribute the selected Severity range evenly through the three tiered WIN-911 Priority Range (High, Medium, and Low). Although the actual Alarm Severity may differ in RSVIEW32 (example tag alarm 1 and tag alarm 2 are configured for severity 1 and 2, respectively), if the alarms are grouped in the same WIN-911 Alarm Priority (example High Priority for Severities 1 and 2), they will be called out on a first come, first serve basis.
- If RSVIEW32 is set to use dynamic Priorities, this setting is ignored.

## Deadband

The "Deadband" function is set within the RSVIEW32 and is not a valid function for WIN-911. This field is disabled for the RSVIEW32 Direct Connect.

## 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 "Dial-Out" 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. Experiment with all three of these options to get the results you desire.

## **Sounds**

### **Tag Sound**

The Tag sound is played to announce the name of the current alarm. The text that will be synthesized for speech will appear here. Remember that what is present here is only taken into account if the Dynamic Sounds option is disabled.

### **Alarm Sounds**

These sounds are played to announce the state of the alarm. The sound selection box operates in the same manner as the tag sound selection box.

## **Changeable**

This feature is not supported for RSView32 Direct Connect data sources.

# Watchdog Definitions

## Watchdog Definition



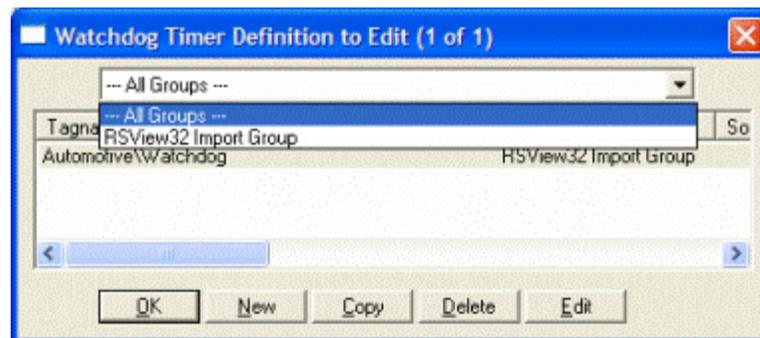
The integrity of mission critical data, such as that which WIN-911 is tasked to monitor, must be verifiable. This means that the data servers must have a way to demonstrate their presence and functionality. WIN-911 provides the user with Watchdog Timers for this very purpose. This function monitors one or two things to ensure data and/or servers are healthy: observe a changing alarm condition that is guaranteed to cycle at a specified rate, or a message from RSView32 indicating a loss of alarm information.

Note: Unlike other WIN-911 Watchdog functions, the RSView32 Watchdog monitors a changing alarm condition rather than a changing value.

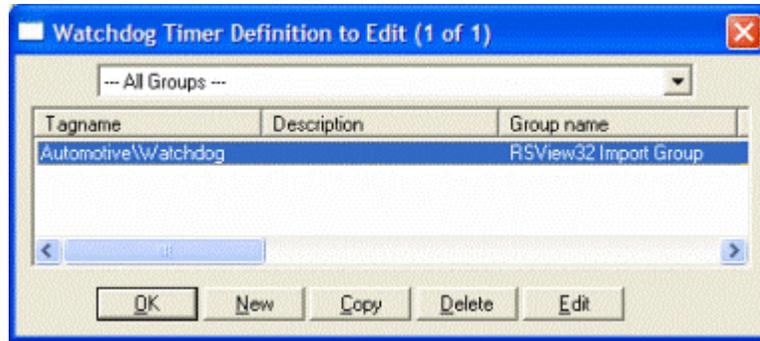
To utilize the Watchdog Timer setup a data point that is continuously cycling in and out of alarm condition. A typical voice message for this condition could be: "WARNING, AREA #4, HAS LOST COMMUNICATIONS WITH ALARM LOGGER".

## Watchdog Timer Definition to Edit

"Alarms/Points" are arranged by "Groups". Using the pull down list box, select the "Group" that the new or existing watchdog alarm is assigned. Only the watchdogs 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 analog alarms.



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 Watchdog Alarm.

### 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

Like other alarms, Watchdog Timer Alarms are organized by Group. Select the Group to which you wish to assign your Watchdog Timer here.

### Access Name

The Access Name is used to select a predefined RSView32 Direct Connect server from the list defined in the data sources.

### Tagname for Item

Select this option to have the Tag Name copied into the Item Name field. Use this if your RSView32 alarm name is descriptive enough to suit your needs.

### Item Name

The Item Name refers to the alarm within RSView32 that is to be monitored. Its syntax and case must match exactly to what is defined in RSView32.

## Alarm Conditions

### Alarm and Normal

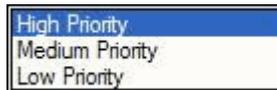
The Alarm and Normal text identifies the normal and alarm states that appear on the alarm monitor displays and reports.

### Time-out After \_\_ Minutes

Watchdog Timers monitor a cycling alarm condition. If WIN-911 does not see a change in that alarm after a certain period of time then WIN-911 will sound the alarm, indicating that communication is lost. That amount of time is defined here. When an update is seen by WIN-911, the Watchdog Timer Alarm will return to normal.

If a value of zero minutes is set here, then WIN-911 will trigger the Watchdog Timer Alarm the moment that the connection with RSView32 is lost.

### Priority



For each alarm, you may select three levels of "Priority": High, Medium, and Low. For each "Group", a higher priority alarm will bump a lower priority alarm down the queue to call out, even if the lower priority alarm was first in line.

### 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 "Dial-Out" 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. Experiment with all three of these options to get the results you desire.

## 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 filtered.

### Preview Announcer

Selecting this button will allow the user to review the alarm's entire audio ... AS IT WILL BE HEARD IN THE LOCAL ANNOUNCER ... for each condition of the alarm.



# RSView SE Direct Connect

## Overview

The RSView SE Direct Connect option provides a means of connecting directly to Rockwell Supervisory Edition version 3.20/4.0 or FactoryTalk View SE 5.0. The WIN-911 direct connect interface to RSView SE/FactoryTalk View SE facilitates access to alarms generated by RSView SE/FactoryTalk View SE.

An Area can contain at most one server. Stand-alone Applications consist of a single root Area with a single server. Distributed Applications support a hierarchy of Areas branching from the Root Area and allow Areas to be contained within other Areas allowing for multiple Servers. The important concept to take from this discussion is that an RSView SE/FactoryTalk View SE Alarm can be uniquely identified by specifying a Tag and its location within an Area hierarchy.

Many RSView SE/FactoryTalk View SE Alarms can be associated with a single Area. WIN-911 implements Data Sources so that the Area information needs to be configured only once. An RSView SE Direct Connect Data Source must specify a location within an Area hierarchy. WIN-911 defines an Alarm with a Data Source (Area path) and an Item Name (Data Tag), which uniquely identifies an RSView SE/FactoryTalk View SE Alarm. Multiple data sources can be configured for RSView SE Direct Connect. Each Area/Server WIN-911 is monitoring will require its own data source to be configured. The RSView SE Direct Connect supports the ability to reconnect to any of the configured data sources if the connection is ever lost.

The WIN-911 configurator has an import facility for RSView SE/FactoryTalk View SE Alarms that takes as input the Tag and Alarm \*.CSV files that are exported with the RSView SE Tag Import and Export Wizard. These \*.CSV files contain information about Tags and Alarms from a specific Project, but do not specify the Area that contains that project. When importing Alarms from RSView SE/FactoryTalk View SE, the user must select the Tag and Alarm \*.CSV files and must specify the Area path associated with those files. The WIN-911 import facility uses the Area path to generate a Data Source and associates the imported Alarms with that Data Source.

Note: The RSView SE Direct Connection only supports alarm tags. As 411 reports require data tags, they are not available to RSView SE Direct Connections.

The RSView SE Direct Connect supports watchdog timers. The RSView SE watchdog timers can be configured in two ways. Since WIN-911 only receives alarm event information from RSView SE/FactoryTalk View SE and not data tag event information, WIN-911 must monitor a changing alarm condition opposed to a changing data value. In this case the watchdog timer would be set to value greater than the reoccurring alarm condition. You can also use the RSView SE watchdog timer to monitor the connection to the RSView SE/FactoryTalk View SE area/server. If the connection to the specific area/server is lost, WIN-911 will create an alarm. Both watchdogs have the ability to return to normal.

The RSView SE Direct Connect does not support Filter tags. The RSView SE Direct Connect does however support Dynamic properties. These properties: Tag Sound;

Description; Analog State Sound; Digital State Sound; Priority; and Units, take text strings configured in RSVIEW SE/FACTORYTALK VIEW SE and use them in WIN-911. These also have the ability to be disabled allowing the user to configure these properties manually in WIN-911.

RSVIEW SE/FACTORYTALK VIEW SE assigns Severities to Alarms, ranging from 1 (most severe) to 8 (least severe). WIN-911 uses this information in two ways. First, WIN-911 can filter RSVIEW SE/FACTORYTALK VIEW SE Alarms based on the Severity of the Alarm. A Severity filter is configured with a range of Severities. Any RSVIEW SE/FACTORYTALK VIEW SE Alarms outside this range will be ignored by WIN-911. The default Severity filter range for WIN-911 is 1-8 so that no Alarms are ignored. The Second use of Severities by WIN-911 is to assign Priorities, which are used in determining the order that notifications are sent. Static Priorities are set during imports where Severities 1-3 map to High Priority, 4-6 map to Medium Priority, and 7-8 map to Low Priority. These Static Priorities are only used if WIN-911 is not configured for Dynamic Priorities. For Dynamic Priorities, Severities are mapped to Priorities by spreading the Severities as evenly as possible over the three WIN-911 Priorities based on the configured Severity filter. For example, if the configured Severity Filter range is 1-5, then Severities 1-2 map to High Priority, 3-4 map to Medium Priority, and 5 maps to Low Priority.

RSVIEW SE/FACTORYTALK VIEW SE Analog Alarms allow up to 8 Thresholds to be configured. RSVIEW SE/FACTORYTALK VIEW SE Thresholds must be either Increasing or Decreasing. An Increasing Threshold generates an alarm when the process variable goes above the Threshold, and a Decreasing Threshold generates an alarm when the process variable goes below the Threshold. Increasing Threshold alarms are mapped to WIN-911 High alarms and Decreasing Threshold alarms are mapped to WIN-911 Low alarms.

## WIN-911 Bridge Service

The RSView SE Direct Connect has a unique service that runs between RSView SE/FactoryTalk View SE and Scan & Alarm to provide a bidirectional interface. The WIN-911 Setup installs the service if it detects the presence of RSView SE/FactoryTalk View SE on the local computer. After the installation RSView SE/FactoryTalk View SE will have to be restarted, at which time the RSView SE/FactoryTalk View SE Client will launch the WIN-911 Bridge Service as part of its startup routine.

When running in distributed mode, RSView SE/FactoryTalk View SE Clients receive information concerning what services to start based on information provided by its server, including the command to start the WIN-911 Bridge Service. If you are deploying WIN-911 on a distributed system and require information from a remotely located server, then the administrator will need to modify the SLHMI-MLHMI Target.xml and SLHMI Target.xml on the remote machines. This is accomplished through running the XMLRSView.exe tool (located in WIN-911 V7\Tools) on the remote server machine.

Adding the \*.XML initialization files for both client and server machine:

Run the following command line from a command prompt in the folder where the XMLRSView.exe resides (for remote servers you will have to copy the file to the remote computer where the server resides):

**C:\Program Files\Specter Instruments\WIN-911 V7\Tools\XMLRSView.exe**

If WIN-911 and RSView SE/FactoryTalk View SE do not interface properly, refer to RSView SE Direct Connect Trouble Shooting, at the end of this Help file, for manual registration procedures.

Note: When a RSView SE/FactoryTalk View SE "Patch" or "Upgrade" is applied to your Rockwell system, the "\*.XML" files are likely to be recreated and hence, lose the WIN-911 Bridge Server commands. You must re-run the XMLRSView.exe on all WIN-911 concerned computers each time you update the Rockwell software .

# Importing Alarms From RSVIEW SE

## Import Source



Use the WIN-911 Configurator's File\Import function to import your RSVIEW SE/FactoryTalk View SE tags. The workflow begins in RSVIEW SE/FactoryTalk View SE where you will export your RSVIEW SE/FactoryTalk View SE data into \*.CSV files. Once the \*.CSV (Tag and Alarm) files are created you may use the WIN-911 Configurator Import function to browse and selectively import tags and assign them to alarm groups.

## RSVIEW Supervisory Edition Import

### Generate RSVIEW SE/FactoryTalk View SE Export

- From the RSVIEW SE/FactoryTalk View SE Studio Tools pull-down menu select Tag Export and Import Wizard.
- Select the Operation you would like to perform.
- Export RSVIEW SE/FactoryTalk View SE tag database to \*.CSV files.
- Choose the RSVIEW SE/FactoryTalk View SE project that contains the tags you want to export.
- Project Type: Supervisory Edition
- Project: C:\Documents and Settings\All Users\Documents\RSVIEW Enterprise\SE\HMI Projects\My App\WWTP App.sed

Note: Choose the proper \*.SED file and take note of the path.

- Specify names for the destination files
- Check both Tags and Alarms, name the files and take note of the paths so you can find them during the WIN-911 import.
- Click Finish to complete the export portion.

### Start WIN-911 Import

From the WIN-911 Configurator File pull-down menu select Import/RSVIEW SE.

### RSVIEW SE Export Files

Path to RSVIEW SE Tags \*.CSV

Use the Browse button to map the location of the “\*Tags.CSV” file created by the export.

#### Path to RSVIEW SE Alarms \*.CSV

Use the Browse button to map the location of the “\*Alarms.CSV” file created by the export.

#### Automatic File Name Filtering

File filtering suppresses all files except ones ending in “-Tags.CSV” for the tag import and “-Alarms.CSV” for the Alarm import, to make selection of the proper files easy.

#### RSVIEW SE Project

##### Area Name



*A screenshot of the explorer pane in FactoryTalk Studio with the area highlighted in blue.*

FactoryTalk places HMI tags in areas. You must specify the name of your area here. This field is case sensitive and the area name must be preceded by a slash, "/." In the above screenshot of the FactoryTalk Studio explorer pane, the Waste Water Project HMI server, along with its HMI alarm tags, appear under the Waste Water area. In this example, you would enter "/Waste Water" in Area Name field to monitor alarms on the Waste Water Project server.

Stand-alone or local SE applications may not have an area defined. In this case, simply enter a slash in the Area Name field.

#### **Use Areas for Tag Name Prefixes**

This option prepends the area to the tag names during an import. This is an easy way to keep tags organized when configuring a multi-area Distributed project.

#### **Use Area to generate Access Name**

This option makes the Area Name the Access Name. If the Area Name is cryptic then you may wish to use a different and more meaningful name. The Access Name must be unique and each Area must have its own Access Name.

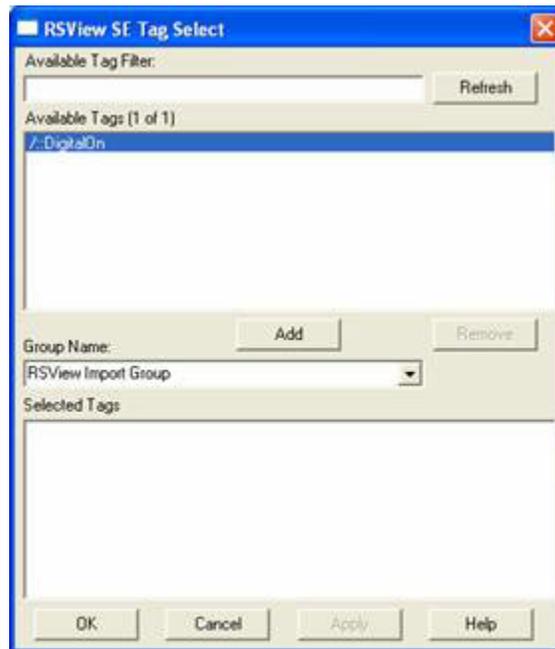
### **WIN-911 Data Source**

#### **Access Name**

The "Access Name" is a unique user defined string that identifies the RSVIEW SE Direct Connect conversation. This name is later found in a pull down menu for selection purposes. You may have as many "Access Names" as needed. Each Access Name assigns the associated tag name to the RSVIEW SE/FactoryTalk View SE Area.

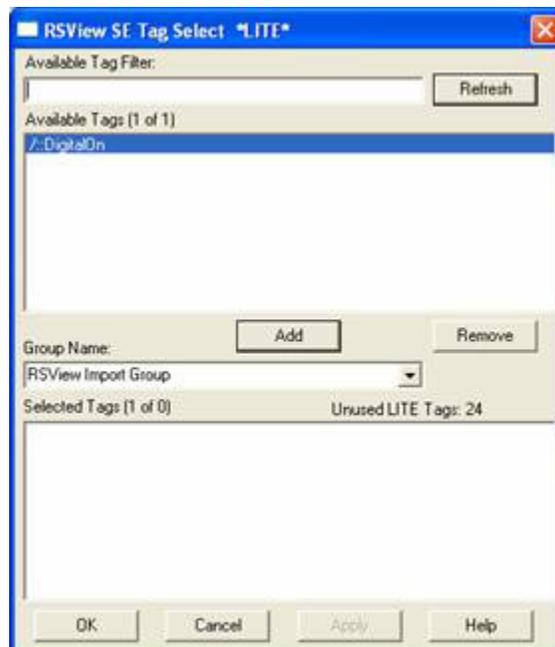
Click OK to proceed to the tag import.

## Importing Alarms



To select a block of tags to import quickly, click on the first tag of the block.

Note: Lite Mode users are prohibited from conducting block imports.



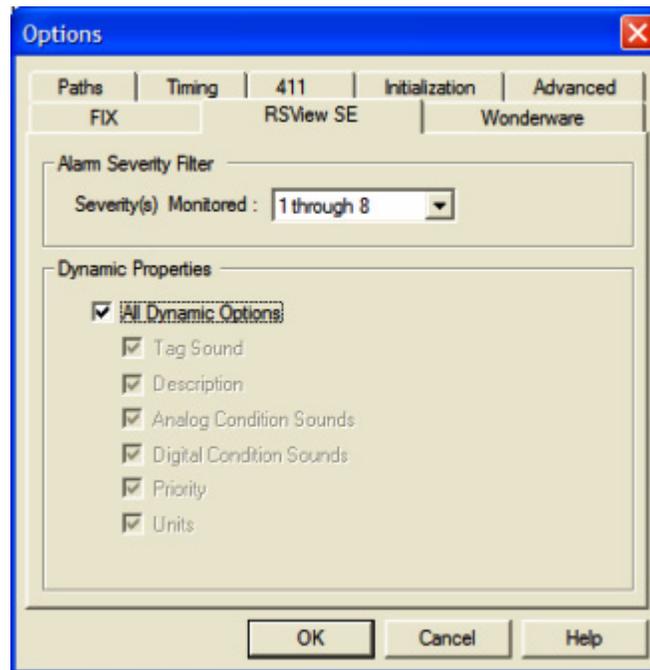
Next, scroll down to the bottom of the block list and shift-click the last tag.



Once all the tags are selected, press the Add button and the application will fill the Selected Tags.

If you wish to remove any of the tags from the list before the import is applied, select them and click the Remove button. Otherwise, click Apply and the WIN-911 database import will complete.

## Global Options



The RSView SE tab of the Global Options allows the user to select the Alarm Severity Filter and Dynamic Properties for the RSView SE Direct Connect data.

Note: RSView SE Watchdogs do not use Dynamic Properties.

### Alarm Severity Filter

The range of alarm severity that WIN-911 will monitor is selected through this pull-down menu. All alarms falling outside of the selected filter will be ignored. Level one severity is the most severe.

### Dynamic Properties

The RSView SE Direct Connect is designed to allow as much seamless integration between Rockwell and WIN-911 as possible. This includes receiving as much information from RSView SE/FactoryTalk View SE as possible dynamically during runtime, thus preventing the need to redundantly and statically configure information in WIN-911. However, instances can arise where this is not desired or possible.

### All Dynamic Options

Enables all dynamic functions.

### Tag Sounds

Dynamic Tag Sounds is the preferred mode of WIN-911 audio annunciation. It uses a two tiered hierarchy of optional text sources to build the audio message at runtime. The first choice of a text source for the Tag Sound extraction is the RSView SE/FactoryTalk View

SE Tag Description. This text will be provided to WIN-911 during runtime as the data is passed from RSVIEW SE/FactoryTalk View SE. If the RSVIEW SE/FactoryTalk View SE Tag Description is undefined then WIN-911 will use the WIN-911 Tag Sound which is statically defined in the WIN-911 configuration file. When both sound text sources are undefined no sound will be generated.

## Description

Dynamic descriptions accept description text from RSVIEW SE/FactoryTalk View SE during runtime as alarms occur and are passed to WIN-911. When static descriptions are configured or dynamic text is not available then WIN-911 uses the text defined in the alarm Base Definition.

## Analog State Sounds

Dynamic Analog State Sounds are generated by reading text strings acquired from RSVIEW SE/FactoryTalk View SE during runtime as the data is passed from RSVIEW SE/FactoryTalk View SE to WIN-911. This string is called the "Threshold Label." If the Threshold Label is not available when the alarm data is passed, then WIN-911 falls back to the Analog Sound text that is statically defined in the WIN-911 configuration (Analog Definition, Sounds tab). When the check box is left unchecked then the RSVIEW SE/FactoryTalk View SE Threshold Label is ignored and only the text in WIN-911 is used.

Note: If both the dynamic and static analog state sounds are undefined WIN-911 will use a hard coded string of "Threshold X" for alarm state annunciation, where "X" is a variable of 1 through 8 representing the actual level.

## Digital State Sounds

Dynamic Digital State Sounds are generated by reading text strings acquired from RSVIEW SE/FactoryTalk View SE during runtime as the data is passed from RSVIEW SE/FactoryTalk View SE to WIN-911. This string is called the "Alarm Label." If the Alarm Label is not available when the alarm data is passed, then WIN-911 falls back to the Digital Sound text that is statically defined in the WIN-911 configuration (Digital Definition, Sounds tab). When the check box is left unchecked then the RSVIEW SE/FactoryTalk View SE Alarm Label is ignored and only the text in WIN-911 is used.

## Priority

Dynamic priority accepts severity level data from RSVIEW SE/FactoryTalk View SE during runtime as alarms occur and are passed to WIN-911. When the alarm priority is configured statically, WIN-911 sets the priority during configuration and it is not modifiable at runtime.

## Units

Dynamically configured units accept unit text from RSVIEW SE/FactoryTalk View SE during runtime as alarms occur and are passed to WIN-911. When the engineering units are defined statically they are set in the WIN-911 Configurator during development in the Analog Alarm Base Definition tab and are not modifiable during runtime.

## 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 “RSView SE Direct Connect”.

Note: The data source definition is automatically configured if the RSView SE database was imported using WIN-911's RSView SE import utility.

The screenshot shows a dialog box titled "RSViewSE Direct Connect Options". It has two text input fields. The first field is labeled "Access Name:" and contains the text "SE". The second field is labeled "Area Name:" and contains the text "/Waste Water". At the bottom of the dialog, there are three buttons: "OK", "Cancel", and "Help".

A data source for RSView SE Direct Connect users consists of two fields, the Access Name and an Area Name. Both must be present to be valid and the user can configure as many Access Names as needed, as long as they are unique.

### Access Name

The Access Name is a tool that can be used to give a cryptic Alarm Area name an alias name that may be more user friendly than the actual alarm area syntax. This name will show up in the Digital and Analog definition dialogs to assign the proper area to the tag.

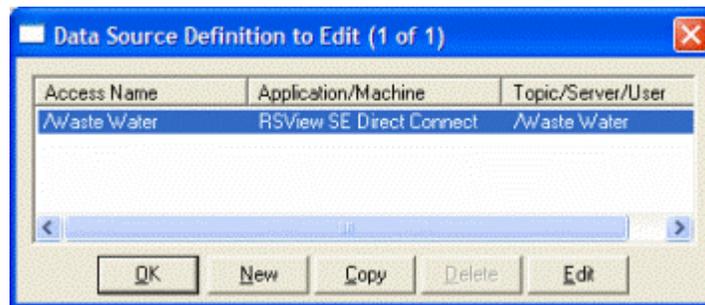
### Area Name



*A screenshot of the explorer pane in FactoryTalk Studio with the area highlighted in blue.*

FactoryTalk places HMI tags in areas. You must specify the name of your area here. This field is case sensitive and the area name must be preceded by a slash, "/." In the above screenshot of the FactoryTalk Studio explorer pane, the Waste Water Project HMI server, along with its HMI alarm tags, appear under the Waste Water area. In this example, you would enter "/Waste Water" in Area Name field to monitor alarms on the Waste Water Project server.

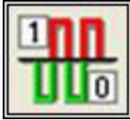
Stand-alone or local SE applications may not have an area defined. In this case, simply enter a slash in the Area Name field.



Selecting "Edit" or double-clicking on the "Access Name" will bring you back to the RSView SE Direct Connect Options window. If more than one area needs to be defined click New. Selecting "New" will bring you back to the Select Data Source Type window.

# Digital Definitions

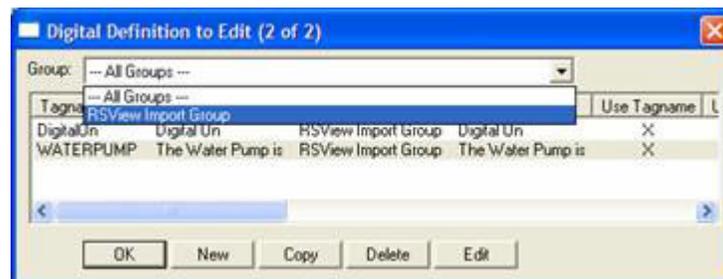
## Digital Definition



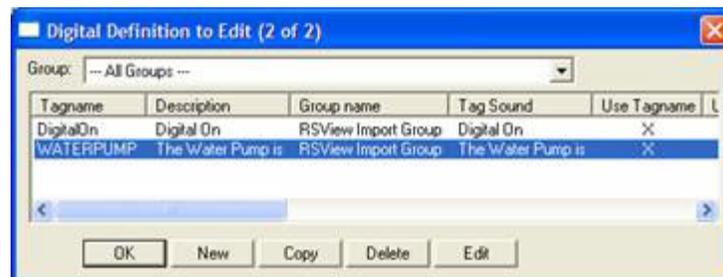
Click this icon to configure digital alarms. Digital alarms are alarms which are either on or off, also known as discrete alarms in other applications.

## 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

The Tagname is an alias for the RSView SE tag. This allows you to provide a more human friendly name for your alarm.

### Description

The Description field is used to provide a more detailed description of an alarm or point. One of the time saving features of the RSView SE Direct Connect option is how WIN-911 utilizes the "Description" field as defined within the SCADA package.

### Group Name

Alarms are organized by Group. Select the name of the group you wish to assign an alarm to here.

### Bit

This field is disabled for RSView SE alarms.

### Access Name

The Access Name refers to the Access Name of your RSView SE Data Source.

Note: If the wrong Access Name is assigned to a Tag or if the Access Name contains a syntax error in the Area Name it will not function at runtime.

### Use Tagname for Item

Select this box to copy the Tagname into the Item Name field. Use this if the name of your tag in RSView SE is user friendly enough.

### Item Name

The Item Name field is used to reference the tag inside of RSView SE. Its syntax must match RSView SE's tag exactly. It is case sensitive.

## Alarm Conditions

### Alarm and Normal Text Strings

The Alarm and Normal text strings for RSVIEW SE/FactoryTalk View SE data points are defined within the RSVIEW SE/FactoryTalk View SE database and do not need to be redefined here. If nothing is defined in RSVIEW SE/FactoryTalk View SE, WIN-911 will default back to the text entered here.

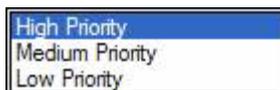
### Digital Alarm

The “Digital Alarm” state for RSVIEW SE/FactoryTalk View SE data points are defined within the RSVIEW SE/FactoryTalk View SE database and do not need to be redefined here. Since this information is accessed directly from Supervisory Edition, this field is disabled.

### Initial Value

The “Initial Value” for RSVIEW SE/FactoryTalk View SE data points are defined within Supervisory Edition and do not need to be redefined here. Since this information is accessed directly, this field is disabled.

### Priority



Alarm Severity (RSVIEW SE/FactoryTalk View SE) 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.

Things to note when assigning priorities:

- Only tags that fall within the globally set Alarm Severity Filter range will be monitored for remote notification regardless of assigned priority (See Options RSVIEW SE/FactoryTalk View SE).
- During the import, WIN-911 will distribute the selected Severity range evenly through the three tiered WIN-911 Priority Range (High, Medium, and Low).
- Although the actual Alarm Severity may differ in RSVIEW SE/FactoryTalk View SE (example tag alarm 1 and tag alarm 2 are configured for severity 1 and 2, respectively), if the alarms are grouped in the same WIN-911 Alarm Priority (example High Priority for Severities 1 and 2), they will be called out on a first come, first serve basis.

### Automatic Acknowledgement

Never

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

## On Alarm

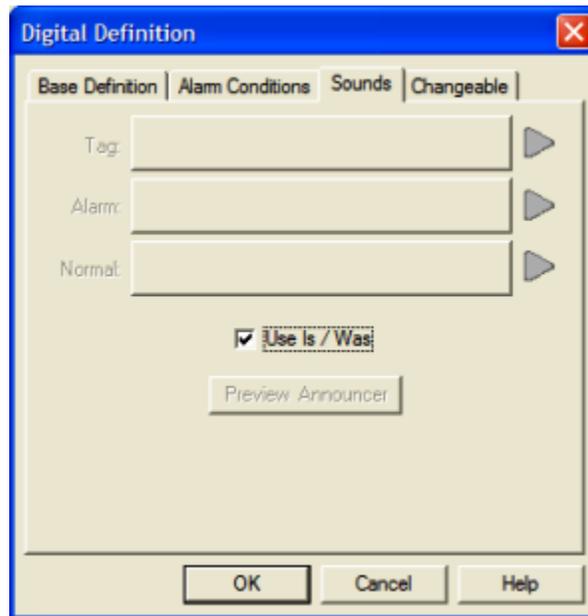
Selecting this radio button will cause the alarm to automatically become Acknowledged as it enters into an alarm condition. This option would allow audio reports of an alarm's current condition without initiating other reporting options listed in the Group. If this option is active, the message (going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

## 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. Experiment with all three of these options to get the results you desire.

## Sounds

Sounds are essentially a verbalization of the alarm description and the “Alarm” and “Normal” sound to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box. The sound and preview buttons are disabled when Dynamic sounds are selected in the data source's global options.



### Tag Sound

The Tag Sound is essentially a verbalization of the Tagname and/or the description to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box. This sound is required for any voice connection. See RSVIEW SE Options concerning dynamic tag sounds.

### Alarm & Normal Sound

These sounds are the verbalization of the Alarm and Normal conditions.

Note: If Digital Alarm Prefix sound is defined, under Common Sounds, it will be appended to the beginning of the Alarm Sound.

### Use Is / Was

In some cases, using the “Is / Was” sounds 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. An example of this sound would be “The Entry Door IS open”.

### Preview Announcer

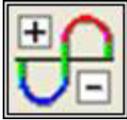
Selecting this button will allow you to review this alarm's audio as it will be heard on the local announcer for each condition of the alarm. Selecting the Auto Acknowledge option discussed above will affect whether you can test the State Acknowledged button.

## **Changeable**

This feature is not supported for RSView SE Direct Connect data sources.

# Analog Definitions

## Analog Definition

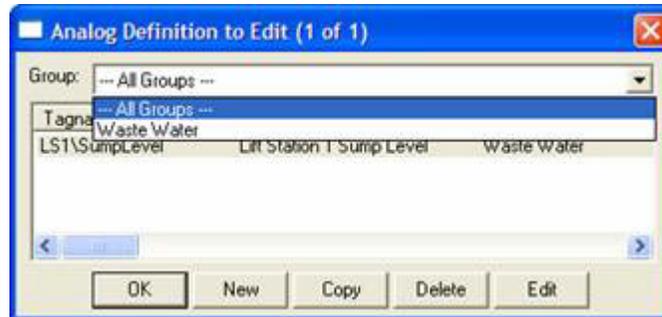


With WIN-911, alarms are classified either as Digital, or Analog data values. Analog alarms, also known as level alarms, are configured with the Analog Alarm Definition button.

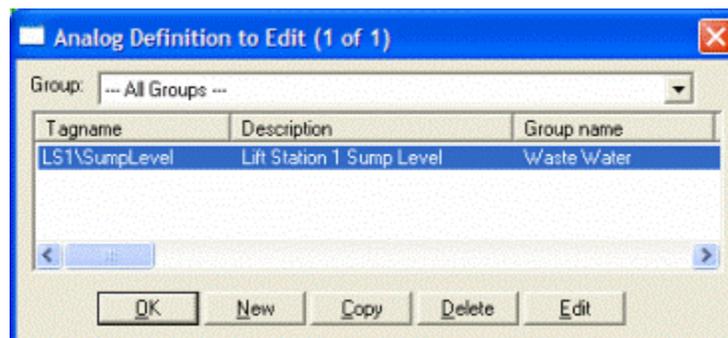
Special Note to Lite Mode Users: Analog alarms are not permitted in Lite Mode.

## Analog 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 analog alarms.



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Selecting New, Edit or double-clicking on the Tagname will bring up the Analog Definition dialog.

## Base Definition

The screenshot shows the 'Analog Definition' dialog box with the following fields and values:

- Tagname:** LS1\SumpLevel
- Description:** Lift Station 1 Sump Level
- Group Name:** Waste Water
- Engineering Units:** (empty)
- Data Source:** (empty)
- Access Name:** /Waste Water
- Use Tagname for Item
- Item Name:** LS1\SumpLevel

Buttons at the bottom: OK, Cancel, Help.

### Tagname

RSView SE/FactoryTalk View SE data point tag names tend to be cryptic and otherwise non-descriptive. The WIN-911 “Tagname” is a symbolic tool that allows the user to assign names to data points that are better fit for human consumption. It should be kept in mind that this is WIN-911's name for the data point, and not Rockwell's. The “Item Name” is Supervisory Edition's name for the data point and is independent of the “Tagname” (unless “Use Tagname for Item” is selected).

### Description

The Description field is used to provide a more detailed description of an alarm or point. One of the time saving features of the RSView SE Direct Connect option is how WIN-911 utilizes the Description field as defined within the SCADA package.

### Group Name

Alarms are organized by Group. Select the name of the group you wish to assign an alarm to here.

### Engineering Units

The Engineering Units field for RSVIEW SE/FactoryTalk View SE data points are defined within the Supervisory Edition import and can be redefined by replacing the text located here.

Note: The text here is used to generate the sound for engineering units.

## Access Name

The Access Name is used to select a predefined data conversation from the list defined in the Data Source Definitions. The RSVIEW SE Direct Connect convention uses this field to assign both the RSVIEW SE Direct Connect and the Area.

Note: If the wrong Access Name is assigned to a Tag or if the Access Name contains syntax errors in the Area Name it will not function at runtime.

## Use Tagname for Item

Selecting this box will cause the Tagname to be copied directly into the item name. This is useful when connecting to other tag oriented programs.

## Item Name

The Item Name is used to refer to the RSVIEW SE tag. Its syntax must match exactly what is defined within RSVIEW SE.

## **Conversion**

### Conversion Type

Conversion of raw data is not supported for RSView SE connections.

### Number of Decimal Places

WIN-911 supports 32 bit signed integers and 32 bit floating point values. A 32 bit integer is the default data type. For floating point numbers set the number of decimal places to something other than zero.

## Alarm Limits

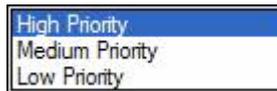
RSView SE/FactoryTalk View SE Analog Alarms allow up to 8 Thresholds to be configured. RSView SE/FactoryTalk View SE Thresholds must be either Increasing or Decreasing. An Increasing Threshold generates an alarm when the process variable goes above the Threshold, and a Decreasing Threshold generates an alarm when the process variable goes below the Threshold. Increasing Threshold alarms are mapped to WIN-911 High alarms and Decreasing Threshold alarms are mapped to WIN-911 Low alarms.

Things to keep in mind when configuring Alarm Limits

## Initial Value

The Initial Value function is set within the RSView SE/FactoryTalk View SE and is not a valid function for WIN-911. This field is disabled for the RSView SE Direct Connect.

## Priority



Alarm Severity (RSView SE/FactoryTalk View SE) 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/urgency are handled on a first come first serve basis.

Things to note when assigning priorities:

- Only tags that fall within the globally set Alarm Severity Filter will be monitored for remote notification regardless of assigned priority (See Options RSView SE).
- During the import, WIN-911 will distribute the selected Severity range evenly through the three tiered WIN-911 Priority Range (High, Medium, and Low).
- Although the actual Alarm Severity may differ in RSView SE/FactoryTalk View SE (example tag alarm 1 and tag alarm 2 are configured for severity 1 and 2, respectively), if the alarms are grouped in the same WIN-911 Alarm Priority (example High Priority for Severities 1 and 2), they will be called out on a first come, first serve basis.

Note: This selection will be disabled when Dynamic Priority is enabled.

## Deadband

The “Deadband” function is set within the RSView SE/FactoryTalk View SE and is not a valid function for WIN-911. This field is disabled for the RSView SE Direct Connect.

## 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 “Dial-Out” options. Because the alarm is automatically acknowledged, the message coming back to a normal state would indicate that the condition is in the normal mode. The “Was” message would never be used.

### 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. Experiment with all three of these option boxes to get the results you desire.

## Sounds

The sound and preview buttons are disabled when Dynamic sounds are selected in the data source's global options.

### Tag Sound

The Tagname Sound is essentially a verbalization of the Tagname and/or the description to be used in the audio annunciation. As with any other sounds, the sounds are selected from a dialog box. See RSVIEW SE Options concerning dynamic tag sounds.

### Alarm Sounds

A specific sound can be specified for each of the alarm conditions. These sounds are normally the verbalization of the phrases "above the threshold alarm," "below the threshold alarm." In addition, there is a return to normal sound which may be the phrase "in the normal range."

Note: The Common Sounds, RSVIEW SE Only tab defines Alarm State Prefixes that can be appended to the beginning of the Alarm Sounds.

### Is / Was Selection

In some cases, using the "Is/Was" sound 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 audio as it will be heard on the local announcer for each condition of the alarm. Selecting the Auto Acknowledge option discussed above will affect whether you can test the State Acknowledged button.

## **Changeable**

This feature is not supported for RSView SE/FactoryTalk View SE Direct Connect data sources.

# Watchdog Timer Definitions

## Watchdog Timer Definition



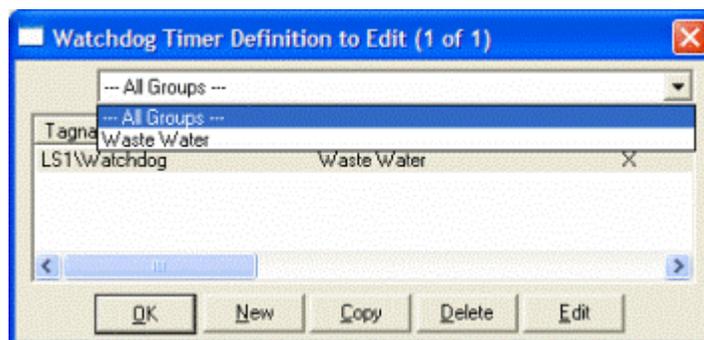
The integrity of mission critical data such as that which WIN-911 is tasked to monitor must be verifiable. This means that the data servers must have a way to demonstrate their presence and functionality. WIN-911 provides the user with Watchdog Timers for this very purpose. This function monitors one or two things (user definable) to ensure data and/or servers are healthy: 1) observe a changing alarm condition that is guaranteed to cycle at a specified rate, or 2) a message from RSVIEW SE/FactoryTalk View SE indicating a loss of alarm information.

Note: Unlike other WIN-911 Watchdog functions, the RSVIEW SE Watchdog monitors a changing alarm condition rather than a changing value.

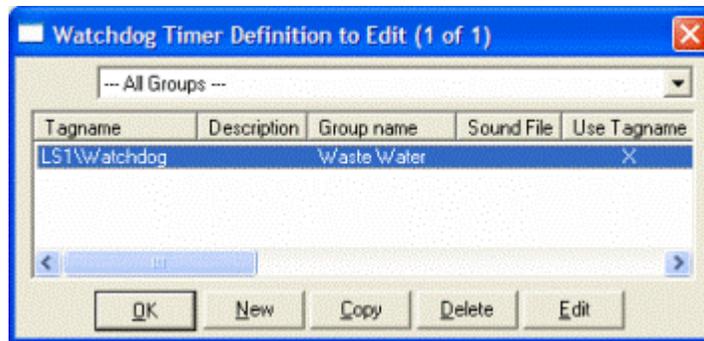
To utilize the Watchdog Timer setup a data point that is continuously cycling in and out of alarm condition. A typical voice message for this condition could be: "WARNING AREA #4 HAS LOST COMMUNICATIONS WITH ALARM LOGGER."

### Watchdog Timer Definition to Edit

Alarms are arranged by Groups. Using the pull down list box, select the Group that the new or existing watchdog alarm is assigned. Only the watchdogs 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 analog alarms.



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

## **Base Definition**

### **Tagname**

The Tagname is a unique identifier of an alarm/point.

RSView SE/FactoryTalk View SE Watchdog's ignore the severity level defined in RSView SE/FactoryTalk View SE for the alarm used to monitor an Area. It also ignores the selected range the user has setup in "Options."

### **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 out-of-tolerance conditions. Select the Group that you wish to assign the Watchdog Timer to here.

### **Access Name**

The Access Name is used to select a predefined RSView SE Direct Connect server from the list defined in the data sources. This field must be defined.

### **Tagname for Item**

Selecting this box will cause the Tagname to be copied directly into the item name. This is useful when connecting to other tag oriented programs.

### **Item Name**

The Item Name is the name of the cycling alarm you wish to monitor within RSView SE. This field is case sensitive.

## Alarm Conditions

### Alarm and Normal

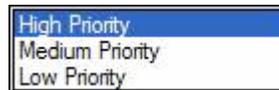
The Alarm States text identifies the normal and alarm states that appear on the alarm monitor displays and reports.

### Time-out After \_\_ Minutes

The Time-out After \_\_ Minutes field is a count down timer preset. Each time a new alarm state is reported for the selected item, the counter is reset to the preset value. If the timer ever counts down to zero, the alarm occurs. This entry is in one-minute increments.

If a value of zero minutes is configured in the field, the Watchdog alarm will be triggered by a loss of communication with the data source, or to be more specific, a loss of communication with the configured area. Since, the RSVIEW SE Direct Connect data source can re-establish communication with WIN-911, these Watchdogs can return to normal.

### Priority



For each alarm, you may select three levels of Priority: High, Medium, and Low. For each Group, a higher priority alarm will bump a lower priority alarm down the queue to call out, even if the lower priority alarm was first in line.

### 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 alarm will not generate Pop-Up alarm messages or any of the Dial-Out 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. Experiment with all three of these options to get the results you desire.

## **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.

## Troubleshooting

If WIN-911 and RSView SE/FactoryTalk View SE do not properly interface then check the following troubleshooting steps to resolve issue.

### WIN-911 Bridge Server

The RSView SE Direct Connect has a unique service that runs between RSView SE/FactoryTalk View SE and Scan & Alarm to provide a bidirectional interface. The WIN-911 Setup installs the service if it detects the presence of RSView SE/FactoryTalk View SE on the local computer. After the installation RSView SE/FactoryTalk View SE will have to be restarted, at which time the RSView SE/FactoryTalk View SE Client will launch the WIN-911 Bridge Service as part of its startup routine.

When running in distributed mode, RSView Clients receive information concerning what services to start based on information provided by server(s), including the command to start the WIN-911 Bridge Service. If you are deploying WIN-911 on a distributed system and require information from a remotely located server, then the administrator will need to modify the SLHMI-MLHMI Target.xml and SLHMI Target.xml on the remote machines. This is accomplished through running the XMLRSView.exe tool (located in WIN-911 V7\Tools) on the remote server machine.

Adding the \*.XML initialization files for both client and server machine:

Run the following command line from a command prompt in the folder where the XMLRSView.exe resides (for remote servers you will have to copy the file to the remote computer where the server resides):

**C:\Program Files\Specter Instruments\WIN-911 V7\Tools\XMLRSView.exe**

If WIN-911 and RSView SE/FactoryTalk View SE do not interface properly refer to Chapter 14, RSView Direct Connect Trouble Shooting Discussion, WIN-911 Bridge Service, for manual registration procedures.

Note: When a RSView SE/FactoryTalk View SE “Update” or “Upgrade” is applied to your Rockwell system, the “\*.XML” files are likely to be recreated and hence, lose the WIN-911 Bridge Server commands. It is good practice to re-run the XMLRSView executable on all WIN-911 concerned computers each time you update the Rockwell software .

The following procedures contain three independent and self-contained steps. At the completion of each step WIN-911 and RSView SE/FactoryTalk View SE should be tested for proper interface. If the test is successful then there is no need to proceed to the next step.

#### Step One: Register Service with XMLRSView.exe

To manually run the XMLRSView.exe from the command prompt within the WIN-911 Tools folder and execute the program with the following command line:

**C:\Program Files\Specter Instruments\WIN-911 V7\Tools\XMLRSView.exe**

Retest WIN-911 and RSView.

### Step Two: Manually Register Service with Notepad

There are two XML files located in Rockwell Software\Rockwell Enterprise folder that need to list the WIN-911 Bridge Service: SLHMI-MLHMI Target.xml and SLHMI Target.xml.

To locate them quickly use Explorer to navigate the Rockwell Software (most likely located in Program Files)\Rockwell Enterprise folder. Sort the files by Type and reverse the order so the XML files are on top.

Begin with the SLHMI-MLHMI Target.xml. Open the file with Notepad and look for the </HMISERVICES> section terminator. Add a line above the section terminator with the following text:

```
<HMISERVICE Name="WIN911 Bridge Service" ServiceID="{8545C8E4-06E3-4DC8-BB4B-CA454418EF73}" Client="RsHmi.Win911BridgeService.1" TestRun="0" Style="0" Managed="1"/>
```

Note: In order to avoid syntax errors Specter Instruments has placed a file in the WIN-911 Tools folder with the proper data. Open the WIN-911 Target.xml file with Notepad and Copy the "<HMISERVICE..." command line, then Paste it in the proper location.

Repeat the above procedure for the SLHMI Target.xml file.

Retest WIN-911 and RSView SE/FactoryTalk View SE.

### Step Three: Manually register Service using the Command Prompt

To manually register the service from the command prompt use the following command including the double quote (") characters surrounding the service name:

FactoryTalk View SE 6.0 and up:

```
"C:\Program Files\Specter Instruments\WIN-911 V7\Tools\6xx\WIN911 Bridge Service.exe" /RegServer
```

Previous versions:

```
"C:\Program Files\Specter Instruments\WIN-911 V7\Tools\WIN911 Bridge Service.exe" /RegServer
```

Note: Technically you do not have to go to the System32 folder to register the service but the path was included to show the location.

Retest WIN-911 and RSView SE/FactoryTalk View SE.

Should the need arise, you can manually unregister the service use the following command line:

FactoryTalk View SE 6.0 and up:

```
"C:\Program Files\Specter Instruments\WIN-911 V7\Tools\6xx\WIN911 Bridge Service.exe" /UnregServer
```

Previous versions:

**"C:\Program Files\Specter Instruments\WIN-911 V7\Tools\WIN911 Bridge Service.exe" /UnregServer**



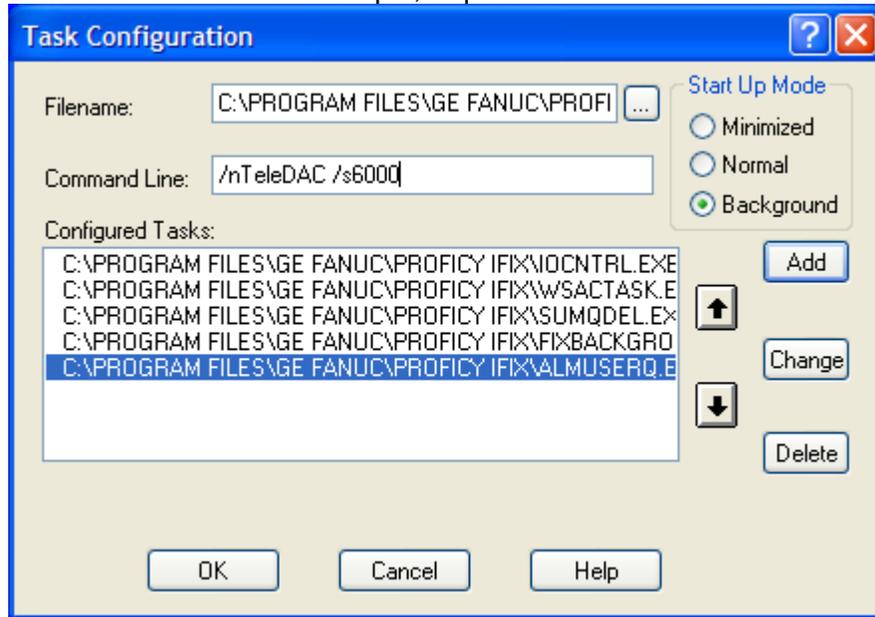
# FIX Direct Connect

## FIX Direct Connect Setup (Required)

The FIX Remote Alarm relies on a UserQ (choose from AlmUserQ.exe, WUSERQ1.exe, WUSERQ2.exe) to receive data as well as alarm information. This UserQ can be set to launch during the iFIX startup by using the Task Configuration tool located in the System Configuration Utility (SCU).

1. Before you begin the AlmUserQ.exe will need to be moved from the WIN-911 folder to the Proficy iFIX folder. The AlmUserQ.exe is located by default in C:\Program Files\Specter Instruments\WIN911 V7\Tools\. Copy the file to C:\Program Files\GE Fanuc\Proficy iFIX\. (If using iFIX 3.5 or earlier copy the file to C:\Dynamics)
2. Select Start | Programs | Proficy HMI SCADA - iFIX | System Configuration.
3. From the Configure pull-down menu, select Tasks... to launch the Task Configuration dialog window.
4. Use the Filename: selection field to include AlmUserQ.exe (or WUSERQ1.exe, or WUSERQ2.exe) in the Configured Tasks: list. The path by default will be C:\Program Files\GE Fanuc\Proficy iFIX\ AlmUserQ.EXE. This task can be run in the background by selecting Background under Start Up Mode.
5. Next you will need to include a command line argument. First you must give the AlmUserQ a name. This name is defined in the WIN-911 Configurator under the FIX tab in Global Options. By default the name is TeleDAC. The command line argument should read /nTeleDAC  
A queue size can also be configured in the command line. To specify the number of events the queue can hold, add a space followed by a /sXXXX, where X is the

number of events. For example, a queue size limit of 6000 events is /s6000.



6. Click Add to place the AlmUserQexe /nTeleDAC /s6000 in the Task Configuration list. If you are using the Task Configuration tool to start WIN-911, make sure TeleDAC.exe is placed after the UserQ
7. Select OK and Save the configuration. Restart iFIX.

## FIX Direct Connect Demonstration

In order to gain a quick and thorough understanding of the capabilities of the FIX Direct Connect, Specter presents the FIXDEMO. Located in the **C:\Program Files\Specter Instruments\WIN-911 V7\Tools** folder are all the components necessary to run a complete interactive WIN-911 - FIX demonstration. (This demo requires iFIX or FIX32 to be resident on your host node!) With this demo you will be able to monitor and control predefined data points. From the iFIX (or FIX32) View screen you will be able to vary analog tank levels and toggle digital switches, sending data points in and out of alarm. You may also change values via WIN-411, as well as query reports of current operating conditions. The FIXDEMO is designed to provide you with a comprehensive illustration of the functionality of the WIN-911 - iFIX (or FIX32) ensemble.

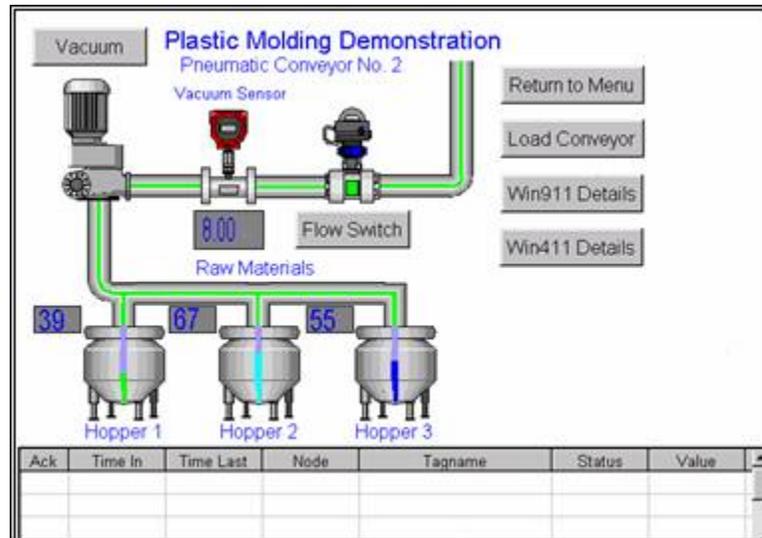
1. Using Windows Explorer, open the FIXDEMO folder located in the **C:\Program Files\Specter Instruments\WIN-911 V7\Tools\FixDemo\Dynamics** (or FIX32) directory where you will find the applicable PDB and .GRF .ODF files. Copy the Dynamics.pdb or Fixdemo.pdb into the iFIX Pdb folder and the .GRF or ODF files into the iFIX Pic folder. Next, copy the AlarmAreas.aad into the iFIX Pdb and the FIX Local folders.
2. Using the iFIX System Configuration utility, double-click on the PDB and select Dynamics for the database name. For FIX32 select Fixdemo.pdb.
3. In the iFIX or FIX32 System Configuration utility, select Task Configuration and ensure that AlmUserQ.exe (or WUSERQ1.exe for FIX32) is included in the Configured Tasks window. See the above section, "iFIX Startup Modifications (Required)."
4. From the iFIX or FIX32 Program Folder select Startup. After the startup sequence is complete, go back to the iFIX Program Folder and launch the View program. From the View Menu Bar, select File, Open, Fixmenu.grf or Fixmenu.odf. This will bring you to the Welcome screen:



This is the main menu of the Dynamics. From here you can toggle between the Plastic Molding, City Water, and Building Security demos. You may also review the requirements

for running this demo or exit the View program altogether. Let us start by launching the WIN-911 runtime module with the “FIX Remote Alarm DEMO” configuration.

1. Launch the WIN-911 Configurator and select File, Open, FIX Direct Connect DEMO.mdb. This will set the current configuration pointer to run this configuration the next time TeleDAC.exe is started.
2. Start TeleDAC.exe and observe the “Status” of the runtime module during the launch sequence to ensure all components start successfully.
3. Returning to the FIXMENU, select the Plastic Molding button.

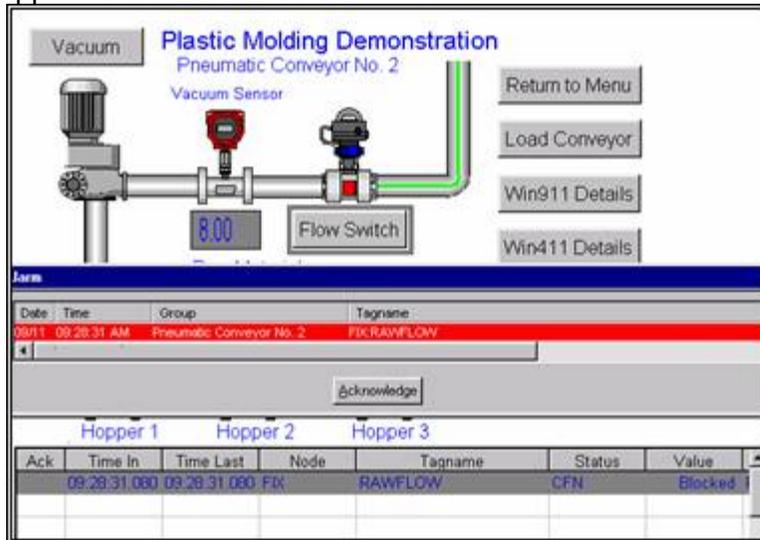


Located in this View screen are digital toggle switches: Load Conveyor, Flow Switch, analog Hoppers #1, #2, and #3 and an analog keyboard entry field for the Vacuum Sensor. Also located in the “Plastic Molding/Raw Material Hopper Levels” view screens are WIN911/411 Details that define the alarm limits that have been configured for each data point. The Return to Menu button returns the user to the FIXMENU; and at the bottom of the screen is the alarm message window, which details the status of current alarms.

Let's experiment with the Plastic Molding demo:

1. Select the Load Conveyor button at the top right of the Plastic Molding window. This will change the color of the conduit to green, representing the flow of raw materials.
2. Click the Flow Switch button, which will invoke a push button entry to appear. Select Close and OK, causing the Flow Sensor to close, simulating the indication of material flow stoppage. This will cause an alarm message field and a Box to

appear over the view screen.



- Acknowledge this alarm from WIN-911 by clicking on the Acknowledge button located in the lower center of the pop-up box. Notice that the pop-up box disappears and a check appears to the left of the alarm message window, indicating the current alarm had been acknowledged.
- Click on the Flow Switch button a second time to reopen the flow. The raw materials flow will be restored and the alarm message will turn green and disappear, indicating the data point returned to its normal state.
- Now click on WIN911 Details and note the low limit for the Vacuum Sensor:



- Next, highlight the Vacuum Sensor value box located at the top center, just below the analog gauge. Using your keypad, enter 2 and hit return. This will send the value below the low limit, causing another pop-up box to appear on top of the view screen.

Please continue to experiment with the WIN-911 - FIX32 ensemble using WIN911/411 Details to cue you in on the system alarm limits. The Pneumatic Conveyor, City Water, and Building Security operate in the same general manner, although each varies slightly to illustrate the different ways WIN-911 can be configured to process data. Modification to the FIX Direct Connect.mdb to include pager and voice connections will give a more comprehensive demonstration of WIN-911 capabilities.

Note: When changing from one demo to another, it is best to acknowledge and clear all items of the current demo. Otherwise, alarm messages pertaining to the current demo may show up in a later demo and cause confusion.

## FIX Block Types

WIN-911's FIX Remote Alarm option supports nine Fix block types for local node monitoring:

1. Analog Input (AI) - Read/Write
2. Analog Output (AO) - Read/Write
3. Analog Alarm (AA) - Read/Write
4. Analog Register (AR) - Read/Write
5. Digital Input (DI) - Read/Write
6. Digital Output (DO) - Read/Write
7. Digital Alarm (DA) - Read/Write
8. Digital Register (DR) - Read/Write
9. Multiple Digital Input (MDI)

Support has been added for Rate of Change and Deviation alarms.

Special Block Types have been added for Bailey DSC:

1. Block Device Driver (BDD)
2. Block Digital Input (BDI)
3. Remote Control Memory (RCM)
4. Block Multistate Device Driver (BMD)
5. Remote Motor Control Block (RMC)
6. Remote Manual Set Constant (RMS)
7. Block Analog Input (BAI)
8. Block Station (BST)
9. Data Acquisition Analog (DAA)

Special Block Types have been added for Texas Instruments. Refer to TI for details.

1. AAO Data (AAO)
2. BMS Data (BMS)
3. DAO Data (DAO)

Special Block Type has been added for GE Infrastructure sensing. Refer to GE Infrastructure Sensing for details.

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Kaye Analog Alarm (KAA)

Special Block Type has been added for GxP Automation. Refer to GxP Automation for details.

Analog Alarm Modified (AAM) - Read/Write

## Import Source

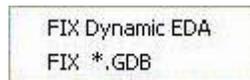


Use the WIN-911 Configurator's File\Import function to save time and energy as well as ensure data-point syntax accuracy. This easy to use function will scan the FIX database for all data-points that WIN-911 can monitor and present them in a list of data-point import candidates. From that list you select the needed data singularly by clicking individual points or in mass by clicking the first in a series and shift-clicking on the last.

Note: The only tags that will appear for import are block types that WIN-911 can monitor (AA, AI, AO, AR, DA, DI, DO, DR, MDI, BDD, BDI, RCM, BMD, RMC, RMS, BAI, BST, DAA, AAO, BMS, DAO, KAA, AAM), all other tags will not show up for selection.

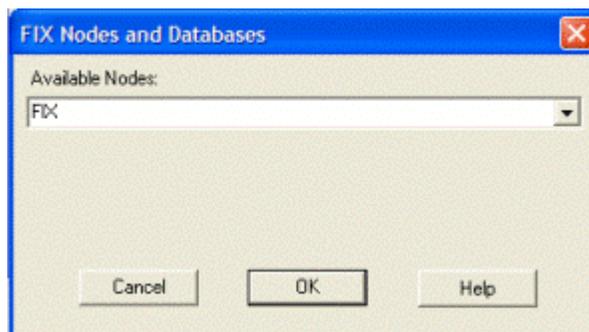
Warning: It is possible to manually define tags in WIN-911 for unsupported block types; however, at runtime those alarms will not function.

There are two methods of importing to choose from: 1) FIX Dynamic EDA and 2) FIX \*.GDB. The Dynamic EDA is the easier and preferred method. The only drawback is that the FIX must be running to perform this kind of import.



## FIX Dynamic EDA Database Select

Prior to importing FIX data dynamically you must have FIX running. The FIX Dynamic EDA import works for all versions of Fix: FIX32 or iFIX. The Dynamic EDA Import can be used without interrupting the FIX; it is definitely less time consuming than the GDB import, and supports the same block types as the GDB import. The first step in doing the FIX Dynamic import is to select a node name.



WIN-911 communicates with the running FIX32 or iFIX and gives you a list of node ns from which to choose. If the FIX is a stand alone system WIN-911 will show you all of the names associated with this particular node such as its physical, logical and backup names. When FIX is networked WIN-911 will show you all node names this particular node is aware of plus all of its variations. Once a Node name is selected from the drop down list, you will be presented the FIX Tag Select dialog box.

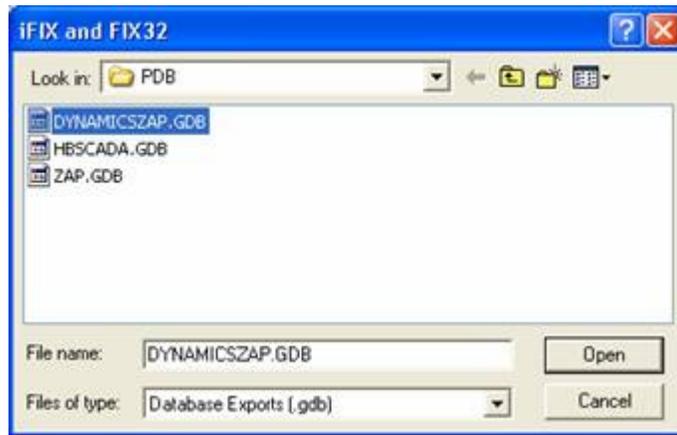
## Redundant Applications

When importing tags from a redundant FIX Node the user wants to select the local logical node name from the Available Nodes: list. This will import the tags into WIN-911 with the proper node prefix for representing both physical nodes in the redundant pair.

## FIX \*.GDB Database Select

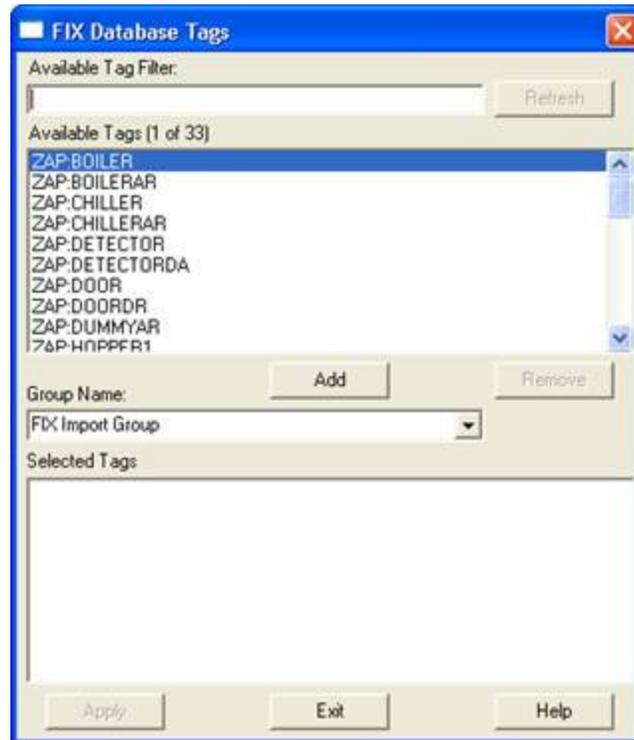
From the iFIX Database Manager select Database\Export\\*.GDB to generate a “\*.GDB” file from the master “\*.PDB” file.

From the File pull-down menu in the WIN-911 Configurator select Import\iFIX and FIX32.

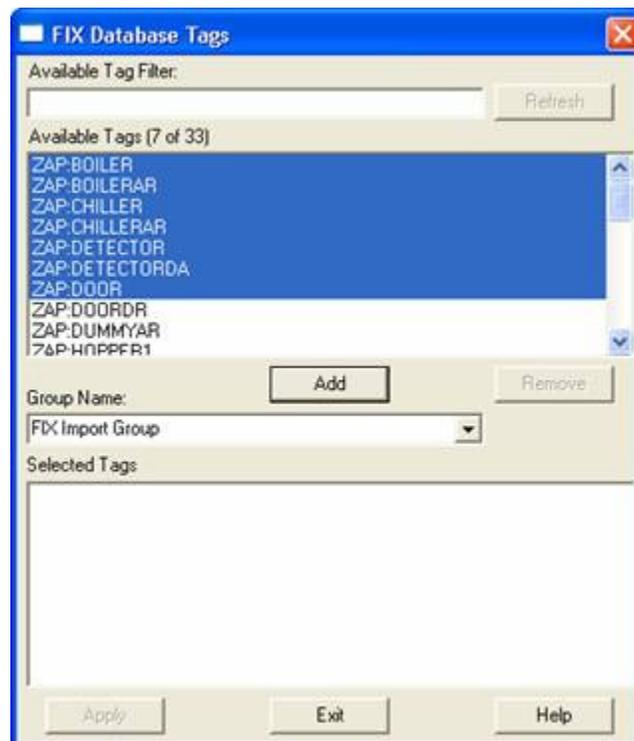


Select the appropriate “\*.GDB” file by browsing the appropriate folder.

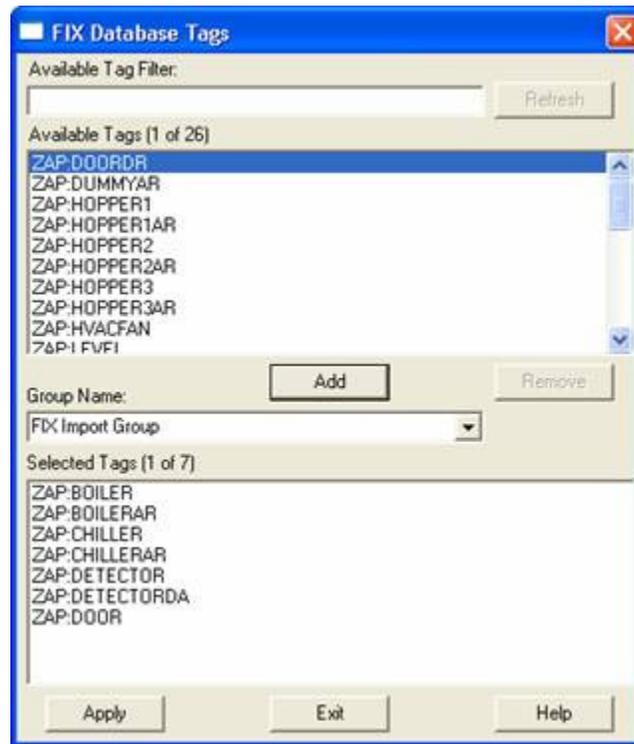
## Importing Tags



To select a block of tags to import quickly, click on the first tag of the block.



Next, scroll down to the bottom of the block list and shift-click the last tag.



Once all the tags are selected, press the Add button and the application will fill the Selected Tags from the entire “\*.PDB” database.

If you wish to deselect any of the tags from the list before the import macro is run, select them from the Selected Tags using the Remove button. Otherwise, select Apply and the WIN-911 database import will execute.

## Global Options

### FIX Program Path

Use of the Direct Connect option with GE's FIX will require providing WIN-911 with the location of the HMI package. The field provided allows the user a choice between manually entering the path, or using the Browse button to invoke the Select FIX Directory dialog box to define the path.

### Alarm Queue

WUSERQ1, WUSERQ2, or AlmUserQ can be selected to pass data to WIN-911 by choosing the appropriate radio button.

AlmUserQ Name must be declared by WIN-911 and when the AlmUserQ radio button is selected this text box is enabled. The default name is "TeleDAC" (case sensitive), but the user may name it anything up to sixteen characters.

Note: Specter Instruments recommends iFIX Dynamics users only use AlmUserQ rather than either of the WuserQ's.

Special Note for AlmUserQ: The following command line must be entered in the Configure Tasks list in the SCU: "/nTeleDAC"

### Security

Enable Security checkbox configures WIN-911 for iFIX security features. Text boxes are provided for the iFIX security Login Name and Password.

Note: Be sure that the user login entered here can write to all alarm groups WIN-911 is monitoring, or acknowledgements originating from WIN-911 will not be honored by iFIX.

### Alarm on any communications failure

Select this check box to allow alarm notifications in the event of a communications failure.

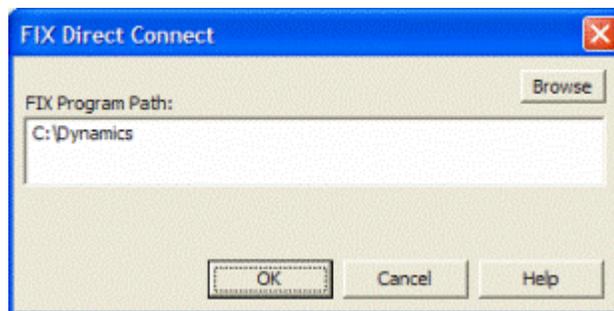
## Data Source Definition



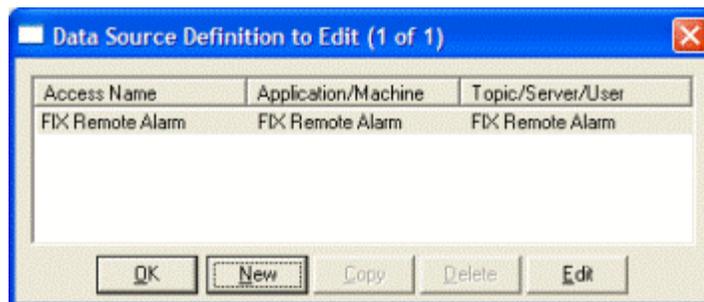
This button is used to setup data communications. Data point addressing can be monotonous and syntactically rigorous. Rather than being forced into remembering (and exactly typing) the Direct Connect invocation string for each "Item Name" to be alarmed, you merely select the appropriate data source type 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 "FIX Remote Alarm".

Note: The data source definition is automatically configured if the FIX database was imported using one of WIN-911's FIX import utilities.

Here the FIX Program Path is defined. You may use the Browse button to locate the path. Click OK.

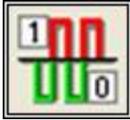


Selecting "Edit" or double-clicking on the "Access Name" will bring you back to the FIX Program Path window.



# Digital Definitions

## Digital Definition

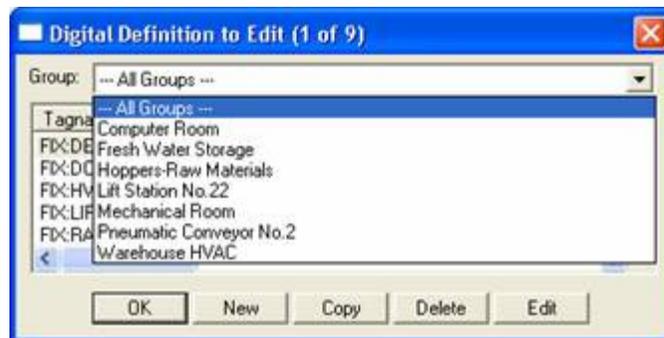


This button is used to define all digital points. With both WIN-911 and WIN-411, alarms or monitored points are classified as either a Digital “1” or “0”, or “bit picked” Analog data values. Digital alarms/points are configured within this button.

Special Note: Lite Mode users are limited to a total of 24 digital tags and unlimited watchdog alarms. Analog tags are not supported in Lite Mode.

## Digital Definition to Edit

Alarms are organized by Group. 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 dialog.

## Base Definition

### Tagname

The tagname is an alias of the FIX alarm name. This is only a user friendly name for the alarm. It is not used to address the alarm within FIX.

### Description

The Description field is used to provide a more detailed description of an alarm or point. One of the time saving features of the FIX Remote Alarm option is how WIN-911 utilizes the Description field as defined within the SCADA package. This field is active when the tag is imported; if it is manually created, then the field is disabled.

### Group Name

Alarms are organized by Group. Assign the alarm Group using the drop down menu here.

### Bit

If you are using the FIX Remote Alarm option, this field will be disabled, as Remote Alarm is the only valid selection.

### Access Name

The Access Name is used to refer to your FIX Data Source Definition.

### Use Tagname for Item

Check this box to copy the Tagname into the Item Name field.

### Item Name

The Item Name is used to identify the particular item to monitor from the FIX. The actual name entered here must conform exactly to the FIX's data point nomenclature. In the case of the FIX Remote Alarm option for FIX, the Item Name must be entered as such:

Node:Tag Name

This field is case sensitive and must be defined.

Note: The Terms "Node" and "Tag Name" are terms specific to the FIX. FIX Tag Names do not include filters. Please refer to FIX documentation for details. You can also use the FIX's SCU and Database Builder to determine proper input for both. Care should be taken not to confuse WIN-911's "Tagname" and the FIX's "Tag Name".

## Alarm Conditions

### Alarm and Normal Text Strings

The Alarm and Normal Text Strings for FIX data points are defined within the FIX SCADA package and do not need to be redefined here. Since this information is accessed directly from the FIX, these fields are disabled.

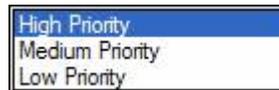
### Digital Alarm

The Digital Alarm state for FIX data points are defined within the FIX SCADA package and do not need to be redefined here. Since this information is accessed directly from the FIX, this field is disabled.

### Initial Value

The Initial Value for FIX data points are defined within the FIX SCADA package and do not need to be redefined here. Since this information is accessed directly from the FIX, this field is disabled.

### Priority



The Priority for FIX data points are defined within the FIX SCADA package and do not need to be redefined here. Since this information is accessed directly from the FIX, this field is disabled. Within a Group, a higher priority alarm will bump a lower priority alarm down the queue to call out, even if the lower priority alarm was first in line. Alarm priority is originally defined when a point is imported.

Note: iFIX 4.0 uses a seven layered priority structure that maps to WIN-911's three layered structure as follows: Critical, HIHI, and HIGH iFIX priorities are translated to WIN-911's High Priority. Medium iFIX priorities map to WIN-911's Medium Priority, and LOW, LOLO, and INFO iFIX priorities translate to WIN-911's Low Priority.

## Automatic Acknowledgement

### Never

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

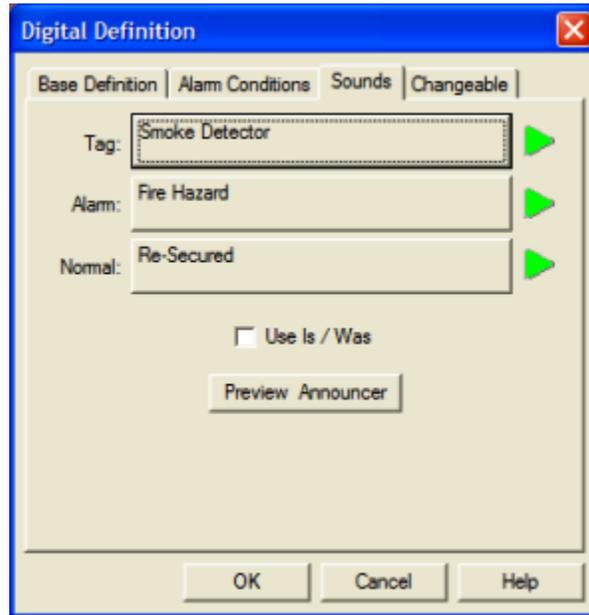
### On Alarm

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 Dial-Out options. Because the alarm is automatically acknowledged, the message coming back to a normal state would indicate that the condition is in the normal mode. The Was message would never be used.

## 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. Experiment with all three of these options to get the results you desire.

## Sounds



### Tag Sound

The Tag Sound text is used to synthesize audio for the name of your alarm. If you are using the Wave Files Only option, you may select your wave file here.

### Alarm & Normal Sound

The text here is used to announce the normal and alarm states of you alarm.

### Use Is / Was

In some cases, using the Is/Was sounds 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. An example of this sound would be "The Entry Door IS open".

### Preview Announcer

Selecting this button will allow you to review this alarm's audio ... AS IT WILL BE HEARD IN THE LOCAL ANNOUNCER ... for each condition of the alarm. Selecting the "Auto Acknowledge" option discussed above will affect whether you can test the "State Acknowledged" button.

## **Changeable**

The last tab selection is for WIN-411 applications only. If you have chosen the WIN-411 option, a user may call-in to the computer to inquire on digital values, not just alarm conditions. If configured, the user may even change the value from a touch-tone telephone. If the developer elects to allow the user to make changes, each alarm, or data point must be configured to permit changes.

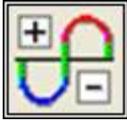
### **Enable Changes by Operator**

This check box will allow changes to this alarm or status point. If this check box is left unchecked, changes will not be allowed.

Note: Digital Block types that are writable are FIX version dependent.

# Analog Definitions

## Analog Definition

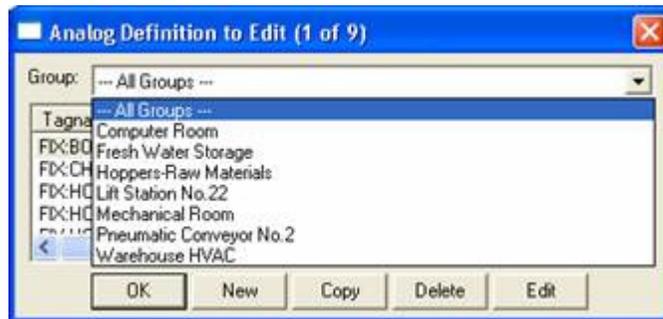


Click this icon to edit Analog Alarms, otherwise known as level alarms.

Special Note to Lite Mode Users: Analog alarms are not permitted in Lite Mode.

## Analog Definition to Edit

Alarms/Points 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 from , or select All Groups.



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



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

## Base Definition

### Tagname

The tagname is an alias of the FIX alarm name. This is only a user friendly name for the alarm. It is not used to address the alarm within FIX.

### Description

The Description field is used to provide a more detailed description of an alarm or point. One of the time saving features of the FIX Remote Alarm option is how WIN-911 utilizes the Description field as defined within the SCADA package. This field is enabled when the tag is imported, if it is manually created, then the field is disabled.

### Group Name

Alarms are organized by Group. Assign the alarm Group using the drop down menu here.

### Engineering Units

The Engineering Units field for a FIX data point is defined within the FIX SCADA package import and can be redefined.

### Access Name

The Access Name is used to refer to your FIX Data Source Definition.

### Use Tagname for Item

Check this box to copy the Tagname into the Item Name field.

### Item Name

The Item Name is used to identify the particular item to monitor from the FIX. The actual name entered here must conform exactly to the FIX's data point nomenclature. In the case of the FIX Remote Alarm option for FIX, the Item Name must be entered as such:

Node:Tag Name

This field is case sensitive and must be defined.

Note: The Terms "Node" and "Tag Name" are terms specific to the FIX. FIX Tag Names do not include the filter. Please refer to FIX documentation for details. You can also use the FIX's SCU and Database Builder to determine proper input for both. Care should be taken not to confuse WIN-911's "Tagname" and FIX's "Tag Name".

## **Conversion**

### Conversion Type

The FIX Direct Connect does not support conversion of raw data values.

### Number of Decimal Places

WIN-911 supports 32 bit signed integers and 32 bit floating point values. A 32 bit integer is the default data type. For floating point numbers set the number of decimal places to something other than zero.

## Alarm Limits

The four Alarm Limits are used to determine when alarm conditions occur. The value must be above the high limits for the high alarms and below the low limits for the low alarms. If the value is scaled, the limits must be within the scaled range. With the FIX Remote Alarm option, the Alarm Limits are set within the FIX; hence, the "Alarm Limit" input fields are disabled.

Notice that you do not have user defined visual alarm messages with Analog alarms. The visual messages are fixed: High, HiHi, Low, and LoLo.

The alarm selection boxes are used to select the desired alarm states to be monitored. In WIN-411 applications, you may occasionally have a data point which you want to monitor, but not alarm. In such cases, do not select any of the Alarm States check boxes.

The screenshot shows the 'Analog Definition' dialog box with the 'Alarm Limits' tab selected. The dialog has five tabs: 'Base Definition', 'Conversion', 'Alarm Limits', 'Sounds', and 'Changeable'. The 'Alarm Limits' tab contains the following controls:

Enable	Alarm Limit	Alarm Priority
<input type="checkbox"/> HiHi	0	High Priority
<input checked="" type="checkbox"/> High	160	High Priority
Initial Value: 140		
<input checked="" type="checkbox"/> Low	135	High Priority
<input type="checkbox"/> LoLo	0	High Priority
Deadband: 0		
Automatic Acknowledgement		
<input checked="" type="radio"/> Never <input type="radio"/> On Alarm <input type="radio"/> On Return To Normal		

At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

## Initial Value

The Initial Value function is set within the FIX and is not a valid function for WIN-911. This field is disabled for the FIX Remote Alarm.

## Priority

The screenshot shows a dropdown menu for 'Alarm Priority' with three options: 'High Priority', 'Medium Priority', and 'Low Priority'. 'High Priority' is currently selected and highlighted in blue.

The Priority for FIX data points are defined within the FIX SCADA package and do not need to be redefined here. Since this information is accessed directly from the FIX, this field is disabled. Within a Group, a higher priority alarm will bump a lower priority alarm

down the queue to call out, even if the lower priority alarm was first in line. Alarm priority is originally defined when a point is imported.

Note: iFIX 4.0 uses a seven layered priority structure that maps to WIN-911's three layered structure as follows: Critical, HIHI, and HIGH iFIX Priorities are translated to WIN-911's High Priority. Medium iFIX priorities map to WIN-911's Medium Priority, and LOW, LOLO, and INFO iFIX priorities translate to WIN-911's Low Priority.

## Deadband

The Deadband function is set within the FIX and is not a valid function for WIN-911. This field is disabled for the FIX Remote Alarm.

## 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 Dial-Out options. Because the alarm is automatically acknowledged, the message coming back to a normal state would indicate that the condition is in the normal mode. The Was message would never be used.

### 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. Experiment with all three of these option boxes to get the results you desire.

## Sounds

### Tag Sound

The Tag Sound text is used to synthesize audio for the name of your alarm. If you are using the Wave Files Only option, you may select your wave file here.

### Alarm Sounds

A specific sound can be specified for each of the alarm conditions. These sounds are normally the verbalization of the phrases "above the high limit," "above the HiHi limit," "below the low limit," and "below the LoLo limit." In addition, there is a return to normal sound which may be the phrase "now normal."

### Engineering Unit Sound

The Engineering Units field is an optional sound which identifies the engineering units a value represents. Analog values may be scaled and displayed as real world units of measure. Typical units are DEGF and GPM.

### Is / Was Selection

Check this box to use the Is and Was sounds.

### Preview Announcer

Selecting this button will allow you to review this alarm's audio ... AS IT WILL BE HEARD IN THE LOCAL ANNOUNCER... for each condition of the alarm. Selecting the "Auto Acknowledge" option discussed above will affect whether you can test the "State Acknowledged" button.

## Changeable

The last tab selection is for WIN-411 applications only. If you have chosen the WIN-411 option, a user may call in to the computer to inquire on data values, not just alarm conditions. If configured, the user may even change a value from a touch-tone telephone. If the developer elects to allow the user to make changes, each alarm or data point must be configured to permit changes.

### Changeable by Operator

This check box will allow changes to this alarm or data point. If this check box is left unchecked, changes will not be allowed.

### Minimum and Maximum Values

Changes will be allowed only within the minimum and maximum values.

You must assign the range allowed for a change.

Minimum Value: Integer.....-32768

Minimum Value: FP without round-off error ...-9999999

Maximum Value: Integer..... +65535

Maximum Value: FP without round-off error ...+9999999

## Watchdog Timer Definitions

### Watchdog Timer Definition

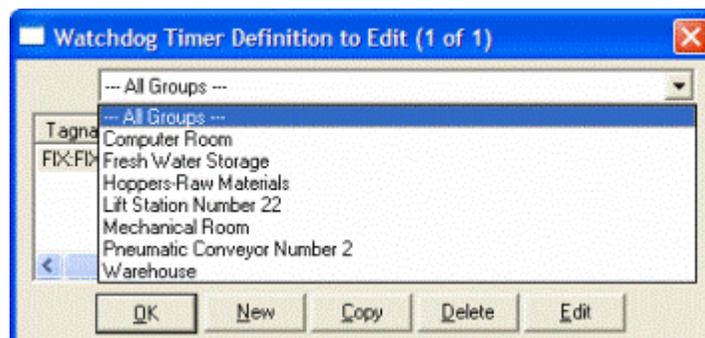


Most applications for WIN-911 and WIN-411 are industrial alarming or monitoring requirements that are being fed factory floor data from a FIX Remote Alarm Server. Should trouble exist in either the server, cabling, or the actual control device, WIN-911/411 will stop receiving new data from the source. For this reason, WIN-911's alarm reporting chores would be restricted, or totally shutdown. Therefore, the Watchdog Timer Alarms have been implemented. This method will also detect when a PLC has been shut down for maintenance or program changes. The Watchdog Timer option in WIN-911 will alert you if FIX Direct Connect activity from specific devices becomes inactive. Watchdog Timers are arranged by Groups just like other alarms/points. Using the pull down list box, select the Group that the new or existing alarm/point is assigned. Only the Watchdog Timers associated with the Group will be listed.

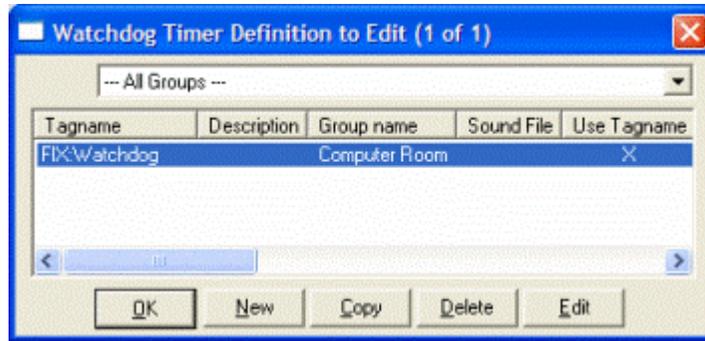
To utilize the Watchdog Timer, you must choose a changing integer data value in each device to be monitored. A good example of such a data value would be a "continuous changing counter value" programmed into the PLC that you are monitoring. The Watchdog Timer would monitor this data value. If the value does not change over a pre-selected time period, an Alarm Message would be generated. If you are not receiving data, you cannot alarm it. A typical voice message for this condition could be: "WARNING, PLC#4, HAS LOST COMMUNICATIONS WITH ALARM LOGGER."

### Watchdog Timer Definition to Edit

Alarms/Points are arranged by Groups. Using the pull down list box, select the Group that the new or existing watchdog alarm is assigned. Only the watchdogs 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 analog alarms.



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 of an alarm/point.

### Description

The Description field is used to display more information about a particular alarm.

### Group Name

Alarms are organized by groups for reporting out-of-tolerance conditions.

You have by now created a unique Watchdog alarm. You must choose a predefined Group to specify the reporting actions for this alarm. (Remember, you have already selected a group name, specifying the reporting options and an optional sound for this group.) A review of the Group button is not a bad idea here. To select another Group, click on the drop-down arrow with the cursor and choose.

You may change the Group assignment simply by selecting another defined Group from the drop down list box.

### Access Name

The Access Name is used to select a predefined FIX Remote Alarm server from the list defined in the data sources. This field must be defined.

### Tagname for Item

Selecting this box will cause the Tagname to be copied directly into the item name. This is useful when connecting to other tag oriented programs.

### Item Name

The "Item Name" is used to identify the particular item to monitor via FIX Direct Connect. The actual name entered will vary from server to server. Consult the server documentation for additional information. This field is case sensitive and must be defined.

## Alarm Conditions

### Alarm and Normal

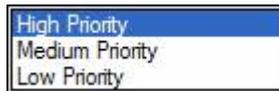
The “Alarm States” text identifies the normal and alarm states that appear on the alarm monitor displays and reports.

### Time-out After \_\_ Minutes

The “Time-out After \_\_ Minutes” field is a count down timer preset. Each time a new value is read into the selected item, the counter is reset to the preset value. If the timer ever counts down to zero, the alarm occurs. This entry is in one-minute increments. If you have a very slow changing server, a selection of 10 minutes might be appropriate. A faster application might require a time-out setting of 1 minute.

If a value of “0” minutes is configured in the field, the Watchdog behaves like a one-shot alarm that does not care if the value ever changes. The alarm for a “0” minute Watchdog will be triggered by a loss of communication with the data source. Since the FIX Remote Alarm cannot reestablish communication with WIN-911, these Watchdogs can never return to normal.

### Priority



For each alarm, you may select three levels of “Priority”: High, Medium, and Low. For each “Group”, a higher priority alarm will bump a lower priority alarm down the queue to call out, even if the lower priority alarm was first in line.

### 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 “Dial-Out” options. Because the alarm is automatically acknowledged, the message coming back to a normal state would indicate that the condition is in the normal mode. The “Was” message would never be used.

#### 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

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to a normal condition. Experiment with all three of these options to get the results you desire.

## 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 other sounds, the sounds are selected from a dialog box.

### 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 IN THE LOCAL ANNOUNCER... for each condition of the alarm.

## FIX Data Integrity Errors

There are three basic error conditions that are monitored regarding I/O connection health and data security. These are as follows:

Error	Definition
<b>I/O Failure</b>	A failure between the driver and device
<b>Communication Failure</b>	A failure between the SCADA and driver
<b>No Data Yet</b>	E1212: No data available, ???
<b>Exceeded the deviation setpoint</b>	This alarm occurs when the current value of the block varies from the Target Value field by an amount greater than the deviation alarm's value
<b>Exceeded the rate of change setpoint</b>	Value exceeds rate of change setting

Please refer to FIX documentation for information regarding these messages.

### INI Settings for Communication Alarms

The WIN-911.ini file stores configuration settings relating to communication failure alarms. If you would like to change the way WIN-911 handles these alarms, the file may be edited with a text editor. Find the [FIX Remote Alarm] heading and add the settings you wish to use to the bottom.

#### StaticDescriptions

Type StaticDescriptions=1 and WIN-911 will use the description defined in WIN-911 for the alarm, instead of the FIX comment field.

#### CommErrorIgnore

Type CommErrorIgnore=1 and all comm error events will be ignored.

# InTouch Direct Connect

## Overview

The InTouch Direct Connect option provides a means of bypassing Windows DDE/OPC and connecting directly to Wonderware's database. Unlike the DDE and OPC options (which are generic data exchange mediums), the InTouch Direct Connect is a custom data source developed with the use of Wonderware's IDEA toolkit. InTouch users will find this option time saving during configuration because WIN-911 does not require the re-entry of redundant information. Instead, WIN-911 references much of the information required for a configuration directly from InTouch. More importantly, the InTouch user will find this mode of operation delivers superior performance in the following areas: 1) Speed of connection and data point updates, 2) Data security and integrity.

A configuration can be run in the Direct Connect mode exclusively, or simultaneously with DDE and OPC connections. It is important to note, however, that some of the terms (Application, Topic, and Item names) are components of Microsoft's DDE/OPC address nomenclature. Although these definition fields are still part of the configuration, they take on different meanings and are governed by different constraints.

Only a single data source can be configured for the InTouch Direct Connect. This is because only a single data source is needed to connect to the InTouch database. InTouch must be running before WIN-911 can establish a connection. If at any time WIN-911 loses its connection to InTouch, WIN-911 must be restarted to establish the connection.

The WIN-911 configurator has an import utility for InTouch. The InTouch database must be exported to a \*.CSV file before you can import the tags into WIN-911.

The InTouch Direct Connect supports data tags or tags with alarming disabled. Data tags can be used in 411 Reports to monitor or manipulate values. Data tags cannot be used for alarming. The InTouch Direct Connect does not support Filter Tags.

The InTouch Direct Connect does support watchdog timers. The InTouch Direct Connect's watchdog timers can be configured in two ways. WIN-911 can monitor a tag's changing value by setting the timeout value greater than the time it takes the tag's value to change. You can also define the watchdog timer with a "0". A watchdog timer set to "0" strictly monitors the connection to InTouch. A watchdog timer set to "0" will only report an alarm if WIN-911 loses its connection to InTouch. Once the connection is lost WIN-911 must be restarted to reestablish connection with InTouch. Only the watchdog monitoring the changing value has the ability to return to normal.

## InTouch Direct Connect Demonstration

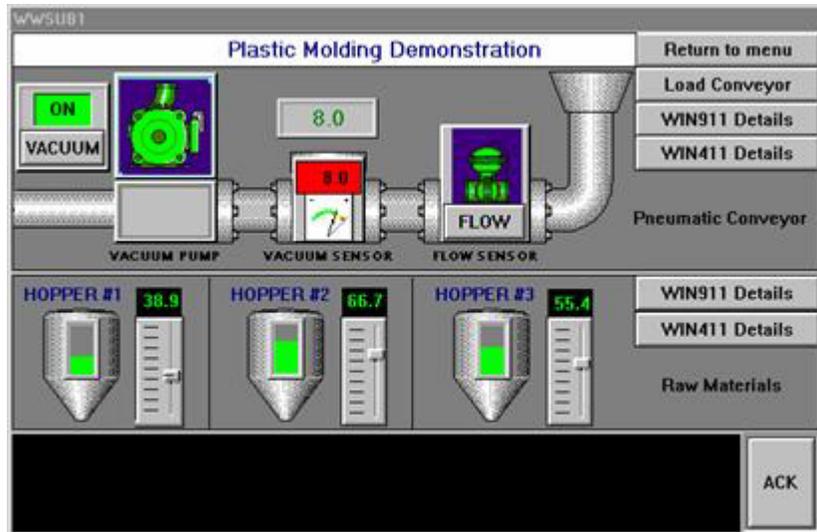
In order to gain a quick and thorough understanding of the capabilities of the InTouch Direct Connect, Specter presents the WWDEMO. Located in the "Program Files\Specter Instruments\WIN-911 V7\Tools" folder are all the components necessary to run a complete interactive WIN-911 - InTouch demonstration. (This demo requires InTouch to be resident on your host node!) With this demo you will be able to monitor and control predefined data points. From the Factory Suite 2000 InTouch "WindowViewer" you vary analog tank levels and toggle digital switches, sending data points in and out of alarm. You may also change values via WIN-411, as well as query reports of current operating conditions. The WWDEMO is designed to provide you with a comprehensive illustration of the functionality of the WIN-911 - Factory Suite 2000 ensemble.

1. Launch InTouch.
2. From the main InTouch menu go to Tools | Find Application. Then browse to **C:\Program Files\Specter Instruments\WIN-911 V7\Tools\WWDEMO**. Select "OK."  
(If asked to convert the WWDEMO because it was created with an older version of InTouch, click Yes)
3. Launch WindowViewer and open the WWMENU window:



This is the main menu of the WWDEMO. From here you can toggle between the Plastic Molding, City Water, and Building Security demos. You may also review the requirements for running this demo or exit the WindowViewer program altogether. Let's start by launching the WIN-911 runtime with the InTouch Direct Connect DEMO configuration.

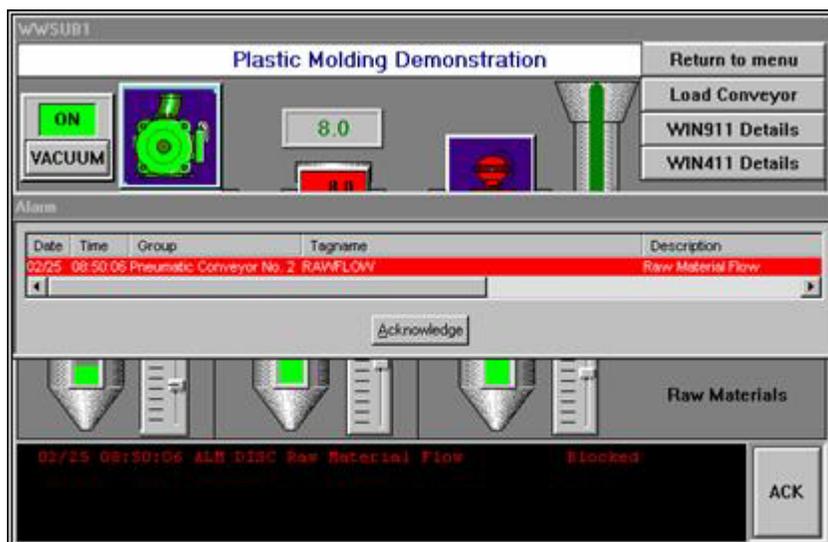
1. Launch the WIN-911 Configurator and select File | Open | InTouch Direct Connect DEMO.mdb. This will set the current configuration pointer to run this configuration the next time Scan and Alarm is started.
2. Start Scan and Alarm and observe the Status Window during the startup to ensure all components start successfully.
3. Returning to the WWMENU, select the Plastic Molding button.



Located in this window are digital toggle switches (Load Conveyor, FLOW, VACUUM), analog slider bars (HOPPER #1, #2, and #3), and an analog keyboard entry field (VACUUM SENSOR). Also located in the Plastic Molding/Raw Material Hopper Levels window are WIN911/411 Details that display the alarm limits that have been configured for each data point. The Return to Menu button returns the user to the WWMENU, and at the bottom left of the screen is the alarm message window, which details the status of current alarms. At the bottom right is an Ack button that can acknowledge a WIN-911 alarm from InTouch.

Let's experiment with the Plastic Molding demo:

1. Select the Load Conveyor button at the top right of the Plastic Molding window. A green inner-core will fill the conduit, representing the flow of raw materials.
2. Click the FLOW button, causing the Flow Valve to close, blocking the flow of raw materials. This will cause an alarm message field and a pop-up box to appear over the view screen.



3. Acknowledge this alarm from WIN-911 by clicking on the Acknowledge button located in the lower center of the pop-up box. Notice that the pop-up box disappears and the text in the alarm message window changes colors from red to white, indicating the current alarm had been acknowledged.
4. Click on the FLOW button a second time. The raw materials flow will be restored and the alarm message will disappear, indicating the data point returned to its normal state.
5. Now click on "WIN911 Details" and note the low limit for the Vacuum Sensor.
6. Next, highlight the Vacuum Sensor located at the top center, just above the analog gauge. Using your keypad, enter two and press return. This will send the value below the low limit, causing another pop-up box to appear on top of the view screen.



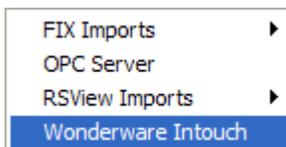
Please continue to experiment with the WIN-911 - InTouch ensemble using WIN911/411 Details to cue you in on the system alarm limits. The Pneumatic Conveyor, City Water, and Building Security operate in the same general manner, although each varies slightly to illustrate the different ways WIN-911 can be configured to process data. Modification to the InTouch Direct Connect.mdb to include pager and voice connections will give a more comprehensive demonstration of WIN-911 capabilities.

Note: When changing from one demo to another, it is best to acknowledge and clear all items of the current demo. Otherwise, alarm messages pertaining to the current demo may show up in a later demo and cause confusion.

## Import Source

Use the WIN-911 Configurator's File\Import function to save time and energy as well as ensure data-point syntax accuracy. This easy to use function will scan the InTouch database for all data-points that WIN-911 can monitor and present them in a list of data-point import candidates. From that list you select the needed data singularly by clicking individual points or in mass by clicking the first in a series and shift clicking on the last.

From the InTouch - Application Manager select DBDump -> CSV File to Dump To: \Name of CSV Dump files:\\*.CSV to generate a \*.CSV file from the master Tagname Dictionary.

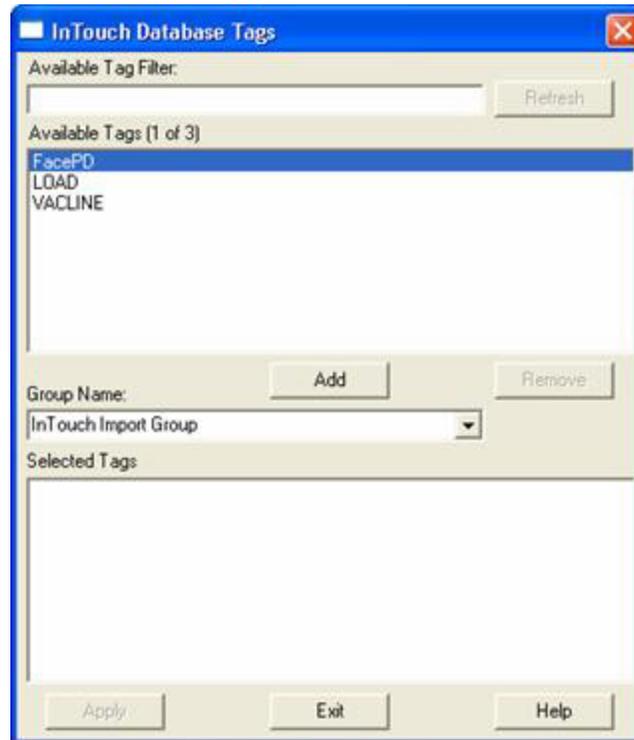


From the File pull-down menu in the WIN-911 Configurator select Import -> Wonderware InTouch.

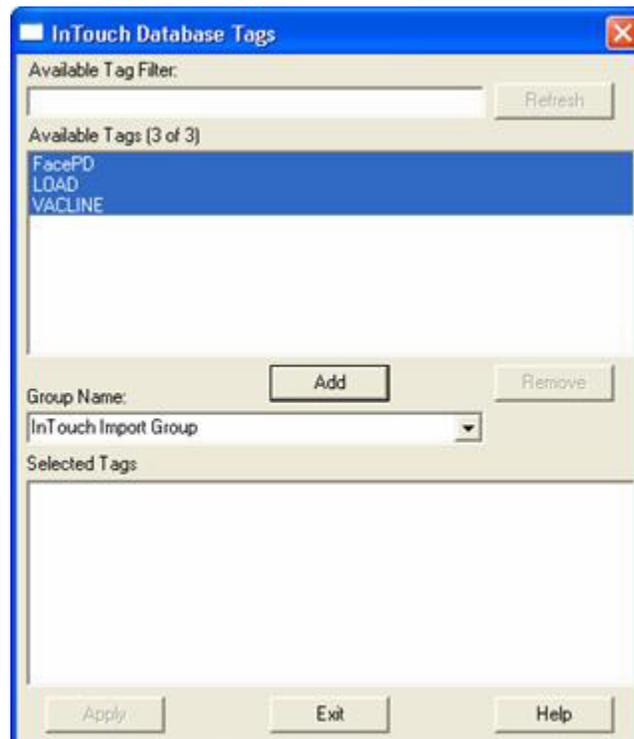


Select the appropriate "\*.CSV" file by browsing the appropriate folder.

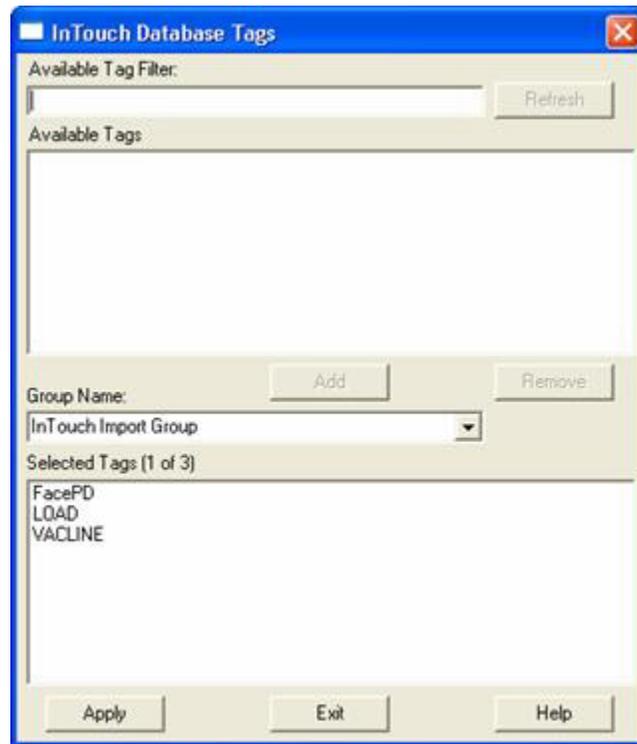
## Import Database Tags



To select a block of tags to import quickly, click on the first tag of the block. Note: Lite Mode users are prohibited from conducting block imports.



Next, scroll down to the bottom of the block list and shift-click the last tag.



Once all the tags are selected, press the Add button and the application will fill the Selected Tags with the entire tagname dictionary.

If you wish to deselect any of the tags from the list before the import is applied, select them from the Selected Tags using the Remove button. Otherwise, select Apply and the WIN-911 database import will execute.

## Global Options

### Wonderware InTouch Program Path

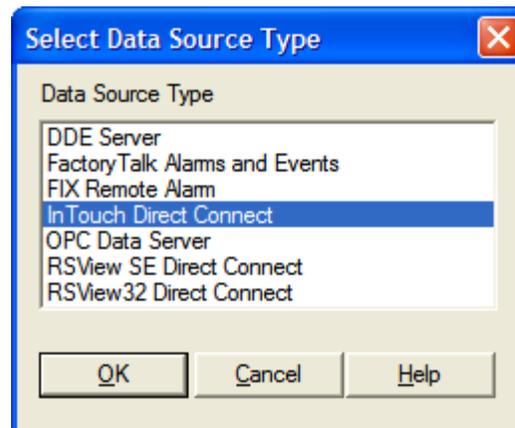
WIN-911 requires that the installation path of Wonderware's InTouch be provided so that it may access several dll's in order to function. Use the browse button to browse for the installation path or type it in manually. Be sure that you **do not** specify the location of your InTouch project.

## 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 from which to choose. Simply select InTouch Direct Connect.

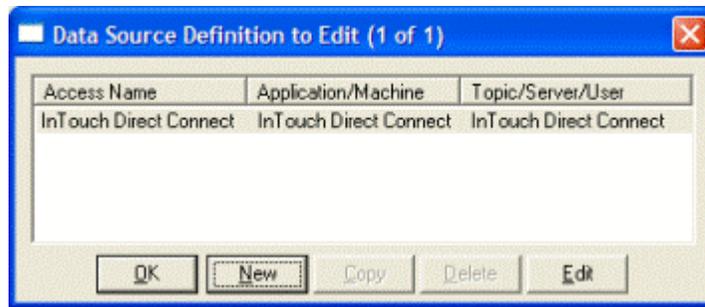
Note: The data source definition is automatically configured if the InTouch database was imported using WIN-911's InTouch import utility.



Here the InTouch Program Path is defined. Use the browse button to select the correct path. Select the installation location of InTouch, not your application's path. Click OK.

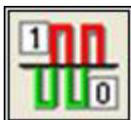


Selecting Edit or double-clicking on the Access Name will bring you back to the InTouch Program Path window.



# Digital Definitions

## Digital Definition

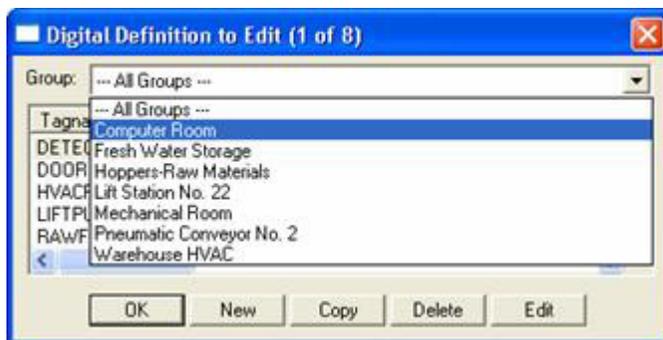


This button is used to define all digital points. With both WIN-911 and WIN-411, alarms or monitored points are classified as either a digital true or false. Digital alarms/points are configured within this button.

Special Note: Lite Mode users are limited to a total of 24 digital tags. Analog tags are not supported in Lite Mode.

## Digital Definition to Edit

Alarms are organized by Group. Select the appropriate group using the drop down menu, or by selecting "All Groups."



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



Click New or Edit to create or edit a Digital Alarm.

## Base Definition

### Tagname

The name of an actual data point within InTouch may be too cryptic or unreadable for some purposes, therefore WIN-911 provides a Tagname field which serves as an alias of an InTouch tag. The Tagname does not actually reference your data point within InTouch. It simply serves as a friendlier name.

### Description

The Description field provides more information about an alarm. When an alarm is sent from InTouch to WIN-911, the InTouch Comment field is used as the description regardless of what may be entered in WIN-911. The Description field in WIN-911 is only used when the Comment in InTouch is blank.

When an InTouch alarm is imported, WIN-911 retrieves the Comment field and places it in the Description. If there is no InTouch Comment, then the Tagname is used.

### Group Name

Alarms are organized by Group. Select the Group to which the current alarm should be assigned here.

### Bit

The InTouch Direct Connect relies on Wonderware to determine the state of an alarm, however some applications require WIN-911 to monitor an individual bit within a 16 or 32 bit word. This single word can then be used to create up to 32 individual alarms. If this is the case, select the correct bit using the drop down menu, otherwise select Remote Alarm.

### Access Name

The Access Name references the InTouch Direct Connect Data Source within your Data Source Definitions.

### Use Tagname for Item

Check this box to copy the Tagname into the Item field. If your InTouch tag has a descriptive and friendly enough name, there may be no need to have the Tagname and Item Name vary.

### Item Name

The Item Name references the tagname within InTouch. Its syntax must match exactly to what is present within the InTouch tagname dictionary.

## Alarm Conditions

### Alarm and Normal Text Strings

The text strings that identify the Alarm and Normal states, which will appear on the alarm history displays, reports and pages, are identified here. Examples may be "On/Off," "Open/Closed," "Normal/Alarm," or "Red/Green." These strings are imported from InTouch.

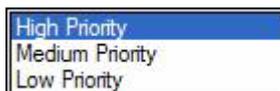
### Digital Alarm

The Digital Alarm state for InTouch alarming data points are defined within the HMI package and do not need to be redefined here. The alarm condition is imported. Digital data points that are simply being monitored (WIN-411) require an entry of None. The Alarm condition is imported.

### Initial Value

The Initial Value for InTouch data points are defined by InTouch, as a result, this field is disabled.

### Priority



For each alarm, you may select three levels of Priority: High, Medium, and Low. Within a Group, higher priority alarms will bump lower priority alarms down the queue for call out, even if the lower priority alarm was first in line. The tag's priority is provided by InTouch at runtime. 1 - 333 is mapped to high. 333 - 666 is mapped to medium and 667 to 999 is mapped to low.

### Automatic Acknowledgement

#### Never

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

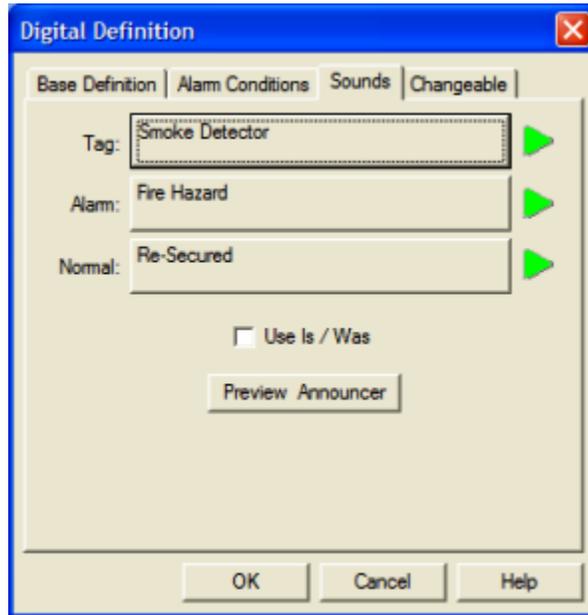
#### On Alarm

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. Because the alarm is automatically acknowledged, the message coming back to a normal state would indicate that the condition is in the normal mode. The "Was" message would never be used.

#### 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. Experiment with all three of these options to get the results you desire.

## Sounds



### Tag Sound

The text entered here is used for synthesizing the name of the alarm, when using speech synthesis. If you are using the Wave Files Only option, you may select a wave file here.

### Alarm & Normal Sound

The text here announces the alarm and normal states of the alarm.

### Use Is / Was

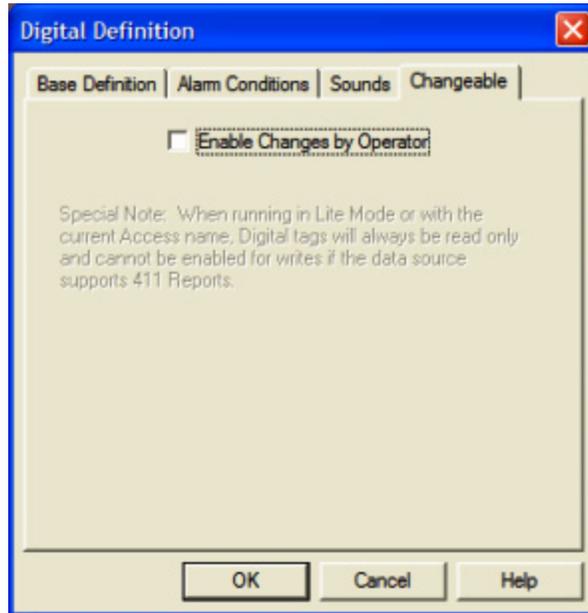
Check this box to have WIN-911 insert the word "is" or "was" between the Tag and Alarm or Normal sound when announcing the alarm.

### 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. Selecting the Auto Acknowledge option discussed above will affect whether you can test the State Acknowledged button. If sounds are not defined the Preview Announcer button will be disabled.

## Changeable

The last tab selection is for WIN-411 applications only. If you have chosen the WIN-411 Option, a user may call-in to the computer to inquire on digital values, not just alarm conditions. If configured, the user may even change the value from a touch-tone telephone. If the developer elects to allow the user to make changes, each data point must be configured to permit changes.



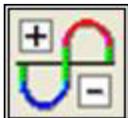
### Enable Changes by Operator

This check box will allow changes to this alarm or status point. If this check box is left unchecked, changes will not be allowed.

Note: Tags imported as read-only will deliver a warning if set to changeable.

# Analog Definitions

## Analog Definition

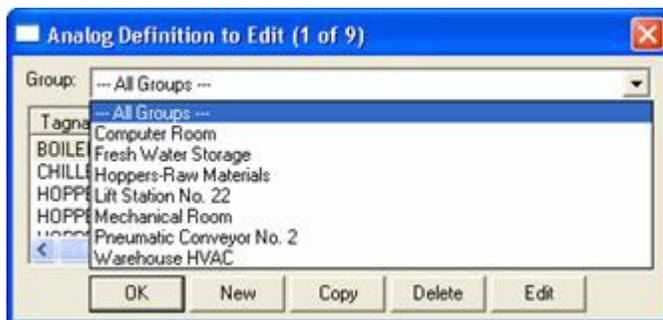


With both WIN-911 and WIN-411, alarms (or monitored points) are classified either as Digital "1", "0", Analog, or Watchdog data values. Analog alarms are configured with the Analog Alarm Definition button.

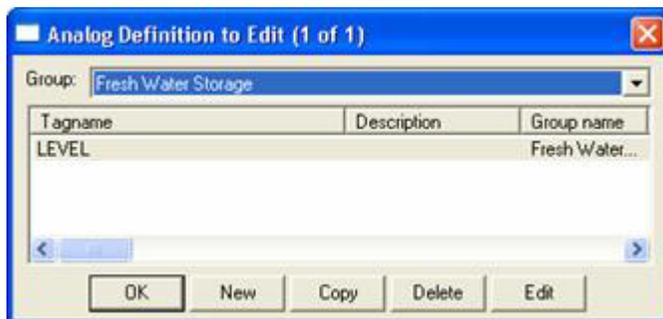
Special Note to Lite Mode Users: Analog alarms are not permitted in Lite Mode.

## Analog Definition to Edit

Alarms are organized by Group. Select the appropriate group using the drop down menu, or by selecting "All Groups."



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



Click New or Edit to create or edit an Analog Alarm.

## Base Definition

### Tagname

The name of an actual data point within InTouch may be too cryptic or unreadable for some purposes, therefore WIN-911 provides a Tagname field which serves as an alias of an InTouch tag. The Tagname does not actually reference your data point within InTouch. It simply serves as a friendlier name.

### Description

The Description field provides more information about an alarm. When an alarm is sent from InTouch to WIN-911, the InTouch Comment field is used as the description regardless of what may be entered in WIN-911. The Description field in WIN-911 is only used when the Comment in InTouch is blank.

When an InTouch alarm is imported, WIN-911 retrieves the Comment field and places it in the Description. If there is no InTouch Comment, then the Tagname is used.

### Group Name

Alarms are organized by Group. Select the Group to which the current alarm should be assigned here.

### Engineering Units

The Engineering Units field is optional. It provides text that identifies the engineering units of the current data point. Typical units are DEGF and GPM. Engineering units are imported from InTouch.

### Access Name

The Access Name references the InTouch Direct Connect Data Source within your Data Source Definitions.

### Use Tagname for Item

Check this box to copy the Tagname into the Item field. If your InTouch tag has a descriptive and friendly enough name, there may be no need to have the Tagname and Item Name vary.

### Item Name

The Item Name references the tagname within InTouch. Its syntax must match exactly to what is present within the InTouch tagname dictionary.

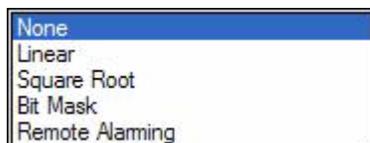
## Conversion

### Conversion Type

Conversion Type defines what filter is applied to the raw data. Being a 32-bit application, analog data is treated as a 32-bit integer. Selection of Floating-Point is not defined here (see below: “Number of Decimal Places” for Floating Point definitions).

If a data point is monitored for alarming, the selection of Remote Alarming will leave all alarm scaling to be set within the HMI. If a data point is monitored for reporting purposes (WIN-411) or you wish WIN-911 to alarm independent of the Wonderware's alarming package, then further scaling may be applied.

The incoming values can be processed in four ways. The first and simplest is that the value is not scaled; numbers appear exactly as they are brought in. The next is linear scaling; raw values in the specified range are converted to the engineering units' range. The third conversion is square root scaling where the square root of the raw value is taken and then the value is converted to the engineering units' range. Square root conversions are commonly used in flow calculations. The final conversion is Bit Mask; a selection of the number of bits to use in displaying data or calculating scaling factors.



#### None

Selection of None will make data be available in its raw or native form.

#### Linear

Selection of “Linear” will enable linear scaling. If this is selected, minimum and maximum values must be entered.

#### Square Root

Selection of “Square Root” will first apply the square root of the raw data and then make the scaling selections available.

#### Bit Mask

Selection of “Bit Mask” will strip the 32 bit native form to match the data coming from a field device. For example, if the A/D converter is 12 bits, you could select “Bit Mask” and then a resolution of 12 bits. These selections would then strip the excess data from the raw 32-bit form and present it as 12 bit data. Scaling selections would then be available if needed.

#### Remote Alarming

“Remote Alarming” is the only valid conversion type that can be applied to a data value that is being monitored for alarming via the “InTouch Direct Connect”. With this selection, the only active input field is Number of Decimal Places. The other fields are dynamically defined within the HMI.

## Raw Resolution

(See the above discussion on “Bit Mask”.)

## Raw Signed

A selection of this check box will convert a 32 bit unsigned integer into a 32 bit signed integer.

## Raw Minimum/Maximum

The raw engineering units' values are used to create a multiplier for converting values.

## Scaled Minimum/Maximum

The scaled engineering units' values are used to create a multiplier for converting values. You should enter the minimum and maximum values in engineering units, which correspond, to the minimum and maximum raw data values. The software will automatically scale the incoming (or in the case of WIN-411, outgoing) data to the correct values for WIN-911 alarm comparison or WIN-411 reporting. Note that the Min and Max engineering units are used to clamp the converted value. The value will not exceed the Min and Max span.

## Number of Decimal Places

WIN-911 supports 32 bit signed integers and 32 bit floating point values. A 32 bit integer is the default data type. For floating point numbers set the number of decimal places to something other than zero.

## Alarm Limits

The four alarm limits are used to determine when alarm conditions occur. The value must be above the high limits for the high alarms and below the low limits for the low alarms. If the value is scaled, the limits must be within the scaled range. With the Remote Alarming conversion, the Alarm Limits are set within the HMI; hence, the Alarm Limit input fields are disabled.

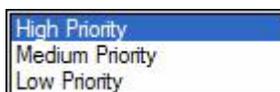
Notice that you do not have user defined visual alarm messages with Analog alarms. The visual messages are fixed: High, HiHi, Low, and LoLo.

In WIN-411 applications, you may occasionally have a data point which you want to monitor, but not alarm. In such cases, do not select any of the Alarm States check boxes.

## Initial Value

The “Initial Value” field is set within the HMI and is not a valid function for WIN-911. This field is disabled for the InTouch Direct Connect. Initial values are imported from InTouch.

## Priority



For each alarm, you may select three levels of Priority: High, Medium, and Low. For that “Group”, a higher priority alarm will bump a lower priority alarm down the queue to call out, even if the lower priority alarm was first in line. The tag's priority is provided by InTouch at runtime. 1 - 333 is mapped to high. 333 - 666 is mapped to medium and 667 to 999 is mapped to low.

## Deadband

The “Deadband” function is set within the HMI and is not a valid function for WIN-911. This function is disabled for the InTouch Direct Connect. Deadband is imported and translated from InTouch.

## 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 “Dial-Out” options. Because the alarm is automatically acknowledged, the message coming back to a normal state would indicate that the condition is in the normal mode. The “Was” message would never be used.

## 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. Experiment with all three of these option boxes to get the results you desire.

## Sounds

### Tag Sound

The text entered here is used for synthesizing the name of the alarm, when using speech synthesis. If you are using the Wave Files Only option, you may select a wave file here.

### Alarm Sounds

A specific sound can be specified for each of the alarm conditions. These sounds are normally the verbalization of the phrases "above the high limit," "above the hihi limit," "below the low limit," and "below the lolo limit." In addition, there is a return to normal sound, which may be the phrase "now normal."

### Engineering Unit Sound

The Engineering Units sound is an optional sound which identifies the engineering units a value represents. Analog values may be scaled and displayed as real world units of measure. Typical units are DEGF and GPM.

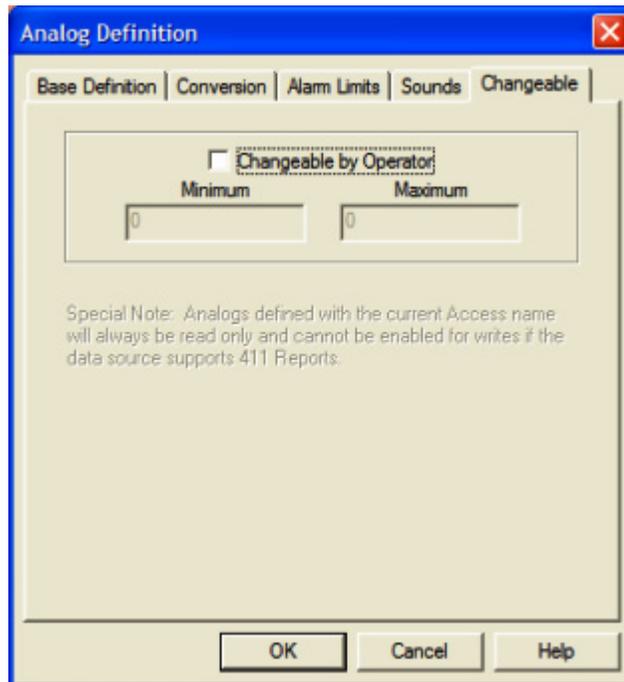
### Is / Was Selection

Check this box and WIN-911 will insert the word "is" or "was" between the Tag sound and the alarm limit sound.

### Preview Announcer

Selecting this button will allow you to review this alarm's audio as it will be heard on the local announcer for each condition of the alarm. Selecting the Auto Acknowledge option discussed above will affect whether you can test the State Acknowledged button. If sounds are not defined the Preview Announcer button will be disabled.

## Changeable



The last tab selection is for WIN-411 applications only. If you have chosen the WIN-411 Option, a user may call in to the computer to inquire on data values, not just alarm conditions. If configured, the user may even change a value from a touch-tone telephone. If the developer elects to allow the user to make changes, each alarm or data point must be configured to permit changes.

### Changeable by Operator

This check box will allow changes to this alarm or data point. If this check box is left unchecked, changes will not be allowed.

### Minimum and Maximum Values

Changes will be allowed only within the minimum and maximum values.

You must assign the range allowed for a change.

Minimum Value: Integer...-999999999

Minimum Value: FP without round-off error ...-9999999

Maximum Value: Integer... +999999999

Maximum Value: FP without round-off error ...+9999999

# Watchdog Timer Definitions

## Watchdog Timer Definition

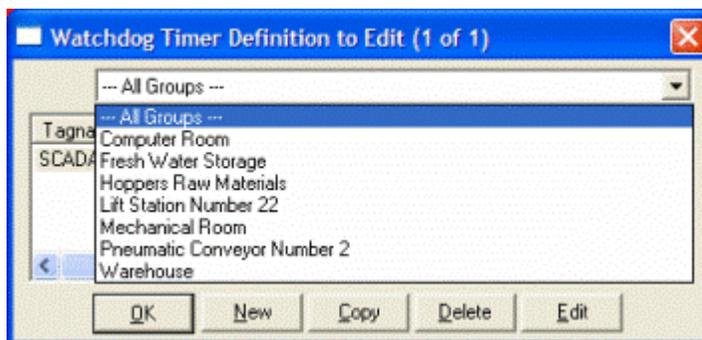


Most applications for WIN-911 and WIN-411 are industrial alarming or monitoring requirements that are being fed factory floor data from an InTouch Direct Connect Server. Should trouble exist in either the server, cabling, or the actual control device, WIN-911 will stop receiving new data from the source. For this reason, WIN-911's alarm reporting chores would be restricted, or totally shutdown. Therefore, the Watchdog Timer Alarms have been implemented. This method will also detect when a PLC has been shut down for maintenance or program changes. The Watchdog Timer option in WIN-911/411 will alert you if InTouch Direct Connect activity from specific devices becomes inactive. Watchdog Timers are arranged by Groups just like other alarms/points. Using the pull down list box, select the Group that the new or existing alarm/point is assigned. Only the Watchdog Timers associated with the Group will be listed.

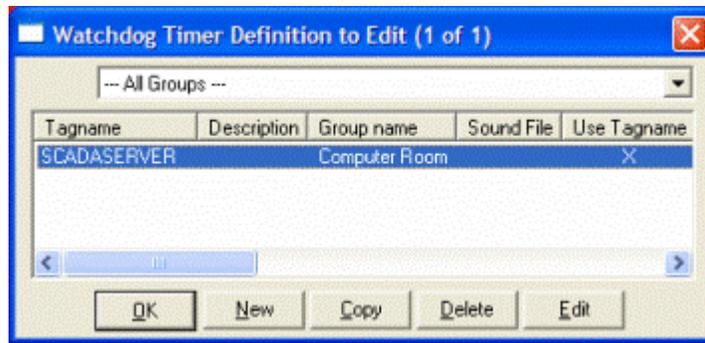
To utilize the Watchdog Timer, you must choose a changing integer data value in each device to be monitored. A good example of such a data value would be a "continuous changing counter value" programmed into the PLC that you are monitoring. The Watchdog Timer would monitor this data value. If the value does not change over a pre-selected time period, an Alarm Message would be generated. If you are not receiving data, you cannot alarm it. A typical voice message for this condition could be: "WARNING, PLC#4, HAS LOST COMMUNICATIONS WITH ALARM LOGGER."

## Watchdog Timer Definition to Edit

Alarms are organized by Group. Select the appropriate group using the drop down menu, or by selecting "All Groups."



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



Click New or Edit to create or edit a Watchdog Timer.

## Base Definition

### Tagname

Tagname is a unique identifier of an alarm/point.

### Description (Optional)

The Description Field is used to provide a more detailed description of an alarm point. 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 out-of-tolerance conditions. You must choose a predefined Group to specify the reporting actions for this Watchdog alarm. (Remember that you have already selected a group name, specifying the reporting options and an optional sound clip for this group.) To select another Group, click on the drop-down arrow with the cursor and choose.

You may change the Group assignment simply by selecting another defined Group from the drop down list box.

### Access Name

The Access Name references the InTouch Direct Connect Data Source within your Data Source Definitions.

### Tagname for Item

Check this box to copy the Tagname into the Item field. If your InTouch tag has a descriptive and friendly enough name, there may be no need to have the Tagname and Item Name vary.

### Item Name

The Item Name references the tagname within InTouch. Its syntax must match exactly to what is present within the InTouch tagname dictionary.

## Alarm Conditions

### Normal

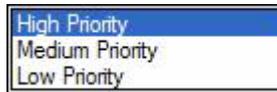
The Alarm States text identifies the normal and alarm states that appear on the alarm history displays and reports.

### Time-out After \_ Minutes

Watchdog Timers monitor a changing value within InTouch. If WIN-911 does not see that value change after a certain period of time, it will place the Watchdog Timer into its alarm state. This is the length of the timer. If an update from the point being monitored is received after the alarm has been triggered, then the Watchdog Timer will return to its normal state.

If this field is set to zero, the Watchdog Timer will alarm when connectivity to InTouch is lost.

### Priority



For each alarm, you may select three levels of Priority: High, Medium, and Low. For each Group, a higher priority alarm will bump a lower priority alarm down the queue to call out, even if the lower priority alarm was first in line. The tag's priority is provided by InTouch at runtime. 1 - 333 is mapped to high. 333 - 666 is mapped to medium and 667 to 999 is mapped to low.

## 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. Because the alarm is automatically acknowledged, the message coming back to a normal state would indicate that the condition is in the normal mode. The "Was" message would never be used.

### 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. Experiment with all three of these option boxes to get the results you desire.

## **Sounds**

### **Tag, Alarm, and Normal Sounds**

The text entered here is used to synthesize the name of the alarm as well as its alarm and normal states. If the option to use Wave Files Only is selected, then you may select a wave file here.

### **Is / Was Selection**

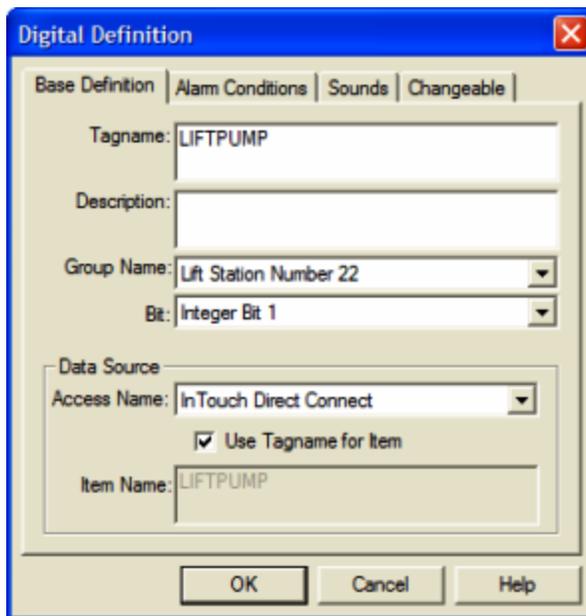
Check this box and WIN-911 will insert the word "is" or "was" between the tag sound and the alarm or normal sound.

### **Preview Announcer**

Selecting this button will allow you to review this alarm's audio as it will be heard on the local announcer for each condition of the alarm. If sounds are not defined the Preview Announcer button will be disabled.

## WIN-411 and the InTouch Direct Connect

When developing a WIN-411 report using Intouch Direct Connect with digital data that is to be reported only and not monitored for any alarm condition, ensure that the Bit: field is not set for Remote Alarming.



The image shows a screenshot of the "Digital Definition" dialog box in WinCC. The dialog has a blue title bar with a close button (X) in the top right corner. It contains several tabs: "Base Definition", "Alarm Conditions", "Sounds", and "Changeable". The "Base Definition" tab is selected. The fields are as follows:

- Tagname: LIFTPUMP
- Description: (empty)
- Group Name: Lift Station Number 22 (dropdown menu)
- Bit: Integer Bit 1 (dropdown menu)
- Data Source: (empty)
- Access Name: In Touch Direct Connect (dropdown menu)
- Use Tagname for Item
- Item Name: LIFTPUMP

At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".



# OPC

## Overview

The “OPC” data connection allows WIN-911 to connect to a wide variety of HMI/SCADA systems by using a generic data exchange medium, OPCDA server. WIN-911 serves as a generic OPCDA client. WIN-911 only supports Data Access (DA) servers not Alarm and Event (A&E) servers. Unlike the DDE option WIN-911 is capable of browsing tags in an OPCDA server and importing them into the WIN-911 configuration. The browse function can be limited by the OPC server.

A configuration can be run with a single OPC connection or can be run simultaneously with any of our other data connections (DDE, OPC, or Direct Connects). It is important to note, however, that some of the terms (Application, Topic, Item Name, OPC Machine Name, and OPC Server Name) are components of Microsoft's DDE/OPC address nomenclature. Although these definition fields are still part of the configuration, they take on different meanings and are governed by different constraints.

Typically, the OPC server must be running before WIN-911 can establish a connection. If at any time WIN-911 loses its connection to the OPC server, WIN-911 must be restarted to establish the connection again.

Like a DDE connection the data source is passing raw values to WIN-911. This means WIN-911 must be configured to alarm on appropriate set-points, therefore owning the alarms. The OPC connection supports data tags or tags without alarm set points configured. Data tags can be used in 411 Reports to monitor or manipulate values. The OPC connection does not support Dynamic Tags nor does it support dynamic features.

The OPC connection also supports watchdog timers. The OPC's watchdog timers can be configured in two ways. WIN-911 can monitor a tag's changing value by setting the timeout value greater than the time it takes the tag's value to change. You can also define the watchdog timer with a "0". A watchdog timer set to "0" strictly monitors the connection to the OPC server. A watchdog timer set to "0" will only report an alarm when WIN-911 loses its connection to server and the server reports that the connection was broken. Once the connection is lost, WIN-911 must be restarted in order to reconnect.

## What is OPC?

In 1994 a group of vendors representing a broad spectrum of disciplines in the industrial segment formed what is now known as the OPC Foundation. The OPC Foundation put forth the goal of developing a single client/server specification that would allow any vendor to develop software and applications that could share data in a fast, robust fashion, and do it in a way that would eliminate the proprietary schemes that forced these same vendors to duplicate development efforts. The OPC Foundation developed the specification called Data Access Specification 1.0a which was released in early 1996. Using this specification, vendors were able to quickly develop client server software.

OPC (OLE for Process Control) builds on the strengths of OLE (Object Linking and Embedding) to provide a complete data sharing medium that meets the rugged demands of industry. It allows a client to browse all OPC servers for data both on the local node as well as networks and provides a filtering mechanism to help narrow the scope. Data can then be imported and linked to the source for data sharing and manipulation. The communication process is faster than DDE and provides for a much greater amount of data sharing while maintaining integrity and security.

Based on Microsoft's OLE (now ActiveX), COM (component object model), and DCOM (distributed component object model) technologies, OPC consists of a set of standard interfaces, properties, and methods for use in process-control and manufacturing-automation applications. The ActiveX/COM technologies define how individual software components can interact and share data. Backed by Microsoft's NT technology, OPC provides a common interface for communicating with diverse process-control devices, regardless of the controlling software or devices in the process.

### Glossary of Terms:

#### What is RPC?

Remote Procedure Call (RPC) is a client/server infrastructure that increases the interoperability, portability, and flexibility of an application by allowing the application to be distributed over multiple heterogeneous platforms. It reduces the complexity of developing applications that span multiple operating systems and network protocols by insulating the application developer from the details of the various operating system and network interfaces; function calls are the programmer's interface when using RPC.

#### What is COM?

The Component Object Model provides standard interfaces and inter-component communications. Through COM, an application may use features of any other application object or operating system, or allow for software component upgrades without affecting the operation of the overall solution. COM can be used by developers and system integrators to create customized solutions. A binary standard, COM is generic and is the core of DCOM, ActiveX, and OLE technology.

#### What is DCOM?

The Distributed Component Object Model extends COM to networks (remote objects). It is a highly optimized protocol, where remote components appear to be local. DCOM was first released for Windows NT 4.0 in August 1996. Microsoft Java and VB Script support DCOM and ActiveX development. Other companies are developing versions of DCOM and ActiveX for non-Microsoft platforms.

**What is OLE?**

Object Linking and Embedding is used to provide integration among applications, enabling a high degree of application compatibility, even among diverse types of information. OLE technology is based on COM, and allows for the development of reusable, plug-and-play objects that are interoperable across multiple applications. It also provides for reusable, component-based software development, where software components can be written in any language, supplied by any software vendor.

**What is ActiveX?**

ActiveX is an umbrella term of a broad range of technologies that used to be known as OLE Controls, all of which rely on COM. A renaming and restructuring of the OLE Controls technology has made it object-based rather than object-oriented. ActiveX is an open, integrated platform that lets developers and Web producers create portable applications and interactive content for the World Wide Web. It is open, cross platform, and is supported on Mac, Windows, and Unix systems.

## **The OPC Conversation**

There are three parts to an OPC Address: OPC Machine Name or IP Address, OPC Server Name, and the Item Name. The OPC Machine Name specifies the network node that the data resides on, the OPC Server Name specifies the server that contains the data, and the Item name is the specific data point within the server.

## Preparing Your Computer and Network for OPC

This step is performed automatically by the WIN-911 install as an OPC client during setup for the WIN-911 computer. However, a remote network server may not be configured with the required components. If the WIN-911 Configurator cannot browse a remote node for OPC servers and tags, perform the following steps on that computer.

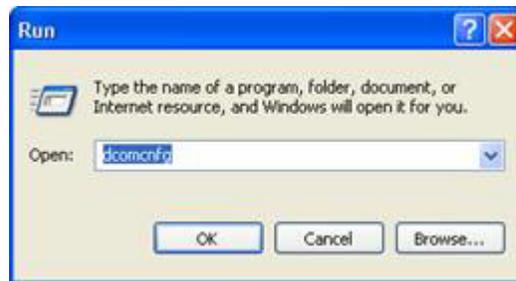
### Install the OPC Redistributable Package

OPC30030.exe . This can be found on your WIN-911 Version 7.09.00 CD within the Support folder or on our website at [www.specterinstrument.com](http://www.specterinstrument.com) | Download Center | Support.

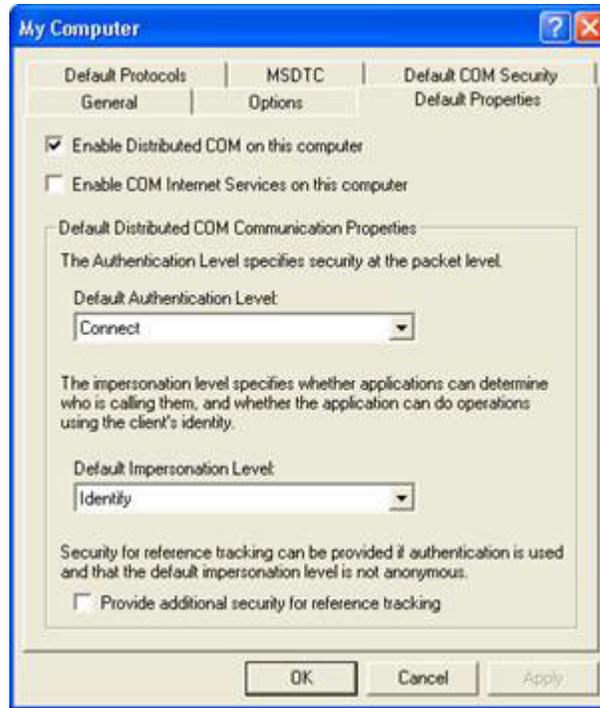
### Setup DCOM

Note: The following step is only necessary if the default installation does not result in an OPC enabled system. Configure DCOM on both the server and client machine.

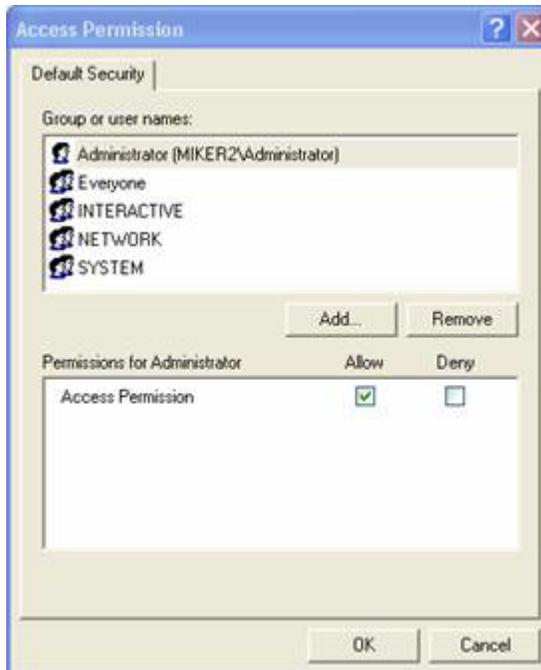
Run the DCOM configuration utility by selecting Run from your Windows Start menu.



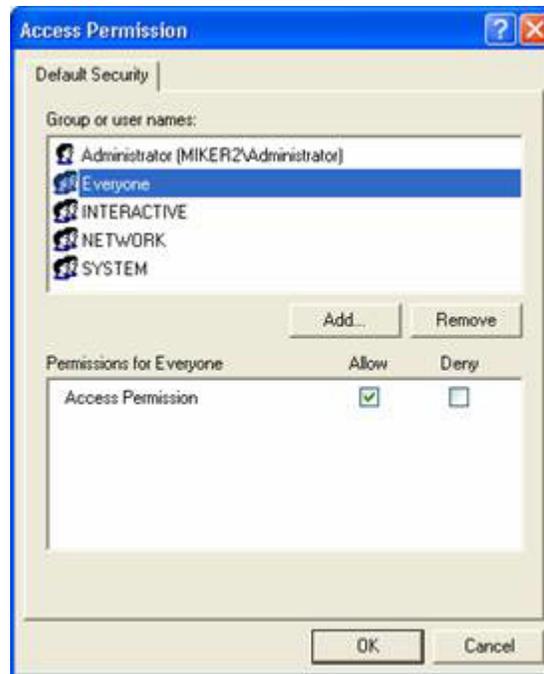
Type dcomcnfg in the field provided and click on OK. Highlight Component Services, then Computers, then My Computer. Select the Default Properties tab and check Enable Distributed COM on this computer. In addition, make sure that the Default Authorization Level shows Connect and the Default Impersonation Level is set to Identify. Uncheck the additional security for reference tracking box (match the settings below). Set default security right by selecting the Default Security tab.



Configure Access Permissions for the computer's DCOM via the Default COM Security tab. On the Access Permission window you can add individual users and groups to grant access to this particular computer on the DCOM level.



Make sure you select the correct domain or workgroup user list from the pull-down menu. Here you select your computer's domain or workgroup. For initial test purposes include Everyone in the Grant Access list.

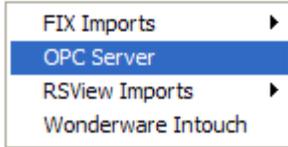


### Setup the User and Group Manager on remote computer (Optional)

Users on the remote computers require sufficient rights to browse, read, and if necessary, write the server/application.

With Windows XP, Server 2003, and 2000, access the Control Panel and start Users and Passwords. Ensure that Everyone or a specific user is included in the computer's User Account list with sufficient rights to read and, if necessary, write to the target application.

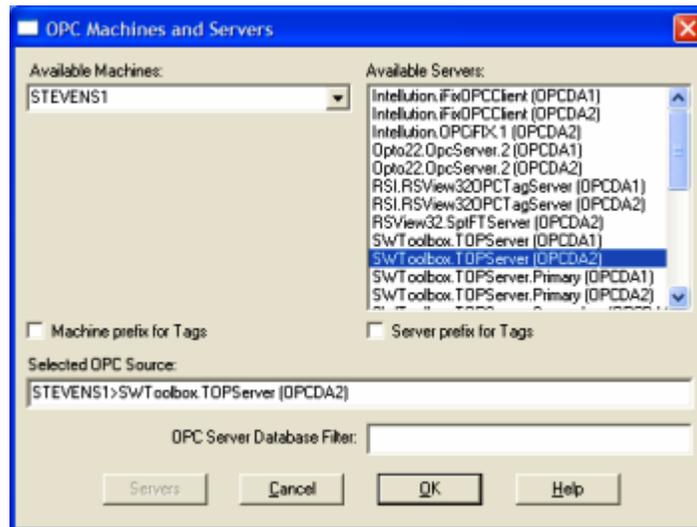
## Import Source



Use the WIN-911 Configurator's File\Import function to save time and energy as well as ensure data-point syntax accuracy. This easy to use function will scan the desired OPC database, locally or on a remote node, for all data-points that WIN-911 can monitor and present them in a list of data-point import candidates. From that list you select the needed data singularly by clicking individual points or in mass by clicking the "Select All" button.

## OPC Machines and Servers

The "OPC Machines and Servers" window allows the user to setup their OPC tag import. Here the machine name and server are selected along with the option to configure database filters and tag name prefixes.



### Available Machines

The "Available Machines" drop-down box allows the user to browse the network for available machines. The user also has the ability to manually type in the machine name or IP address. Manually typing in the machine name may work better than browsing the network since there can be hundreds of machines on a given network (and WIN-911 may take several minutes to obtain all the machine names).

### Available Servers

The "Available Servers" list box will show all available OPC Data Access servers (and their types) that are registered on the selected machine name or IP address.

### Machine prefix for Tags

The "Machine prefix for Tags" checkbox will append the machine name to the beginning of every tag found on the selected server.

### Server prefix for Tags

The "Server prefix for Tags" checkbox will append the server name to the beginning of every tag found on the selected server.

### Selected OPC Source

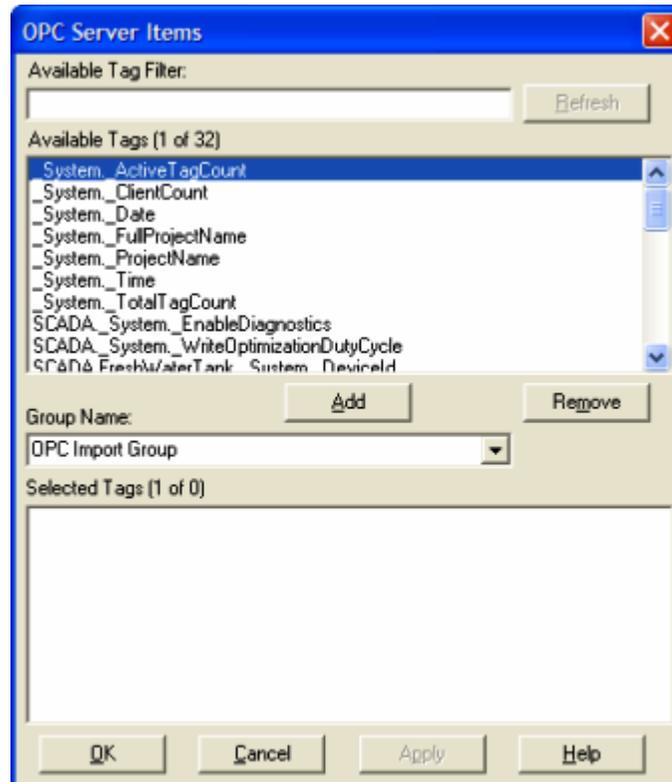
The "Selected OPC Source" text box defaults to a concatenated string comprised of the selected machine name followed by the ">" symbol and the OPC Server name. This text box also allows the user to manually configure any unique user defined Access name.

### OPC Server Database Filter

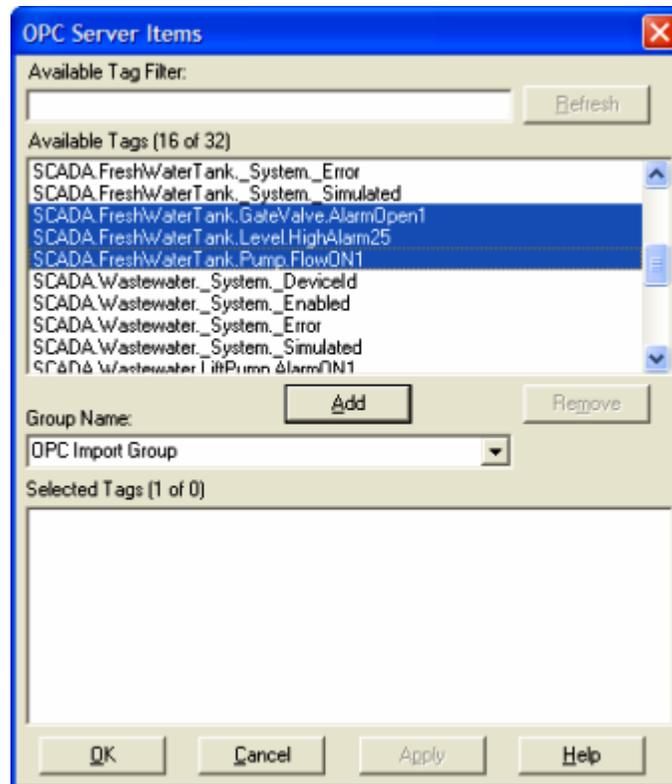
The "OPC Server Database Filter" is used to filter tags before the list is given to WIN-911. This filter MUST be supported by the OPC Server and is specific to each OPC Server.

## Importing Tags

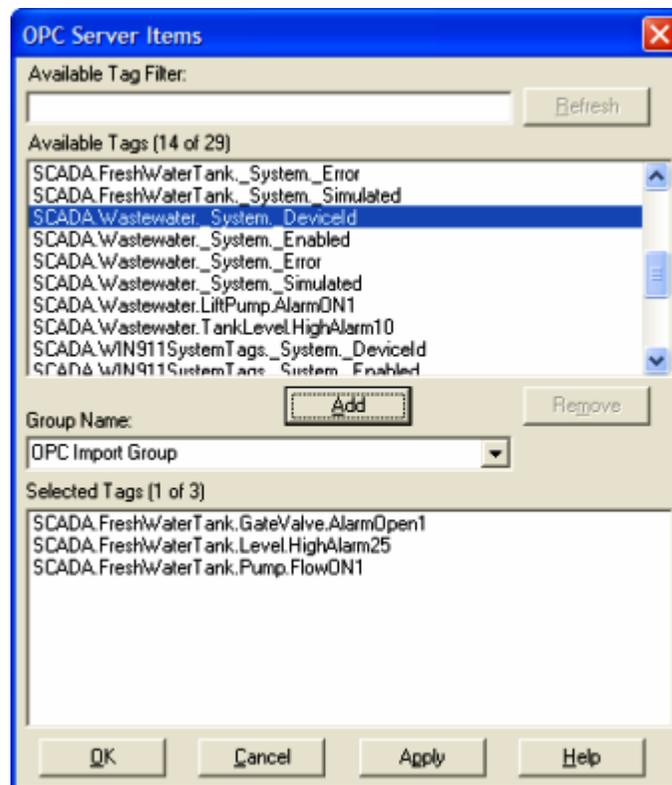
The OPC Server Items window allows the user to select desired tags from the OPC Server tag list, configure tagname filters to help in the tag name selection, and select or create tag's desired group.



To select a block of tags to import quickly, click on the first tag of the block.



Next, scroll down to the bottom of the block list and shift-click the last tag.



Once all the tags are selected, press the Add button and the application will fill the Selected Tags from the entire OPC Server tag list.

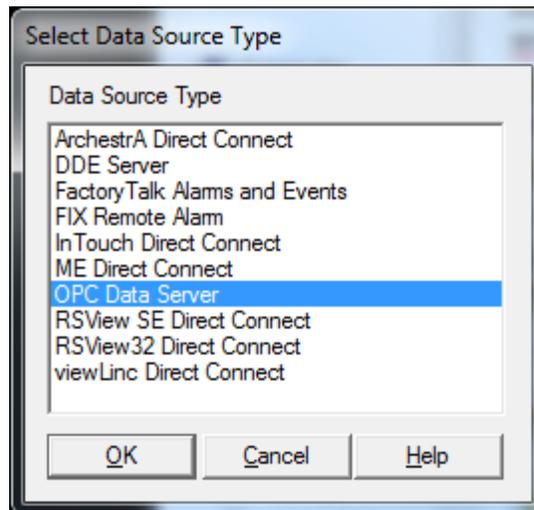
If you wish to deselect any of the tags from the list before the import macro is run, select them from the Selected Tags using the Remove button. Otherwise, select Apply and the WIN-911 database import will execute.

## Data Source Definition

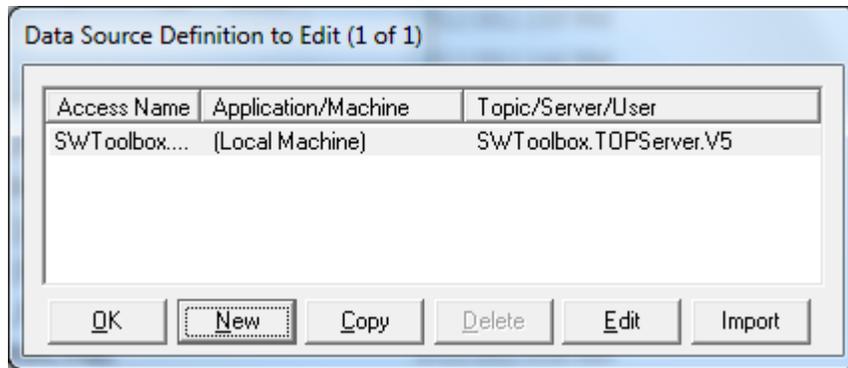


This button is used to setup data communications. Data point addressing can be monotonous and syntactically rigorous. Rather than being forced into remembering (and exactly typing) the OPC Server invocation string for each "Item Name" to be alarmed, you merely select the appropriate data source type 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 "OPC Data Server".

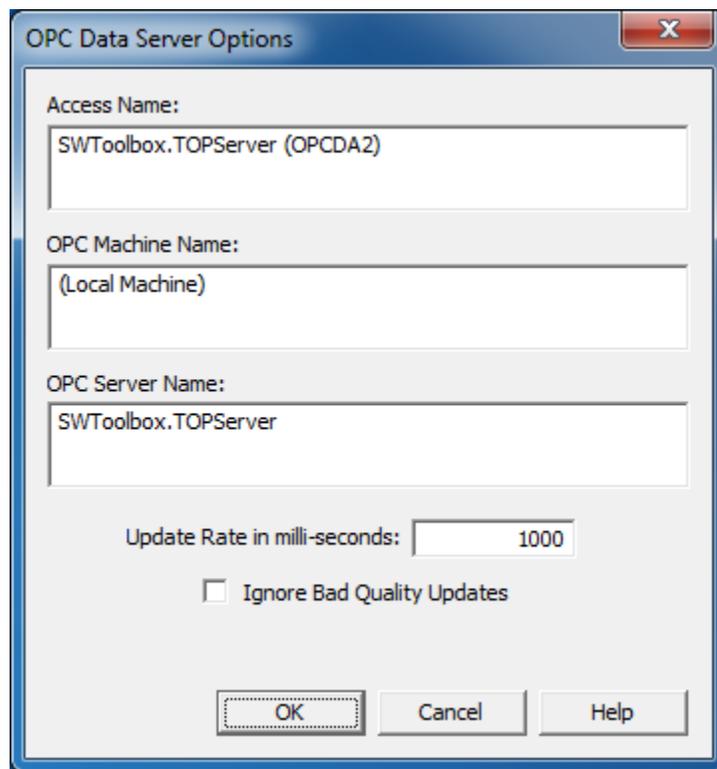
Note: The data source definition is automatically configured if the OPC Server database was imported using the OPC Server import utility.



The OPC Data Server Access Name, Machine Name, and Server Name are defined here. The "Access Name" is a user defined name used to represent this particular data source. The "OPC Machine Name" is the machine name where the OPC Server resides. This can be either a WINS hostname, IP address, or the text "(Local Machine)," to refer to the machine you are currently on. The "OPC Server Name" is the actual name of the OPC Server. Click OK.



Selecting "Edit" or double-clicking on the "Access Name" will bring you back to the OPC Data Server Options window.



Select "Ignore Bad Quality Updates" and WIN-911 will disregard OPC updates when the item quality is bad.

## Demo of WIN-911 Capabilities

The following OPC demonstration provides a basic understanding and working example of the WIN-911 system. These examples are self-contained and require no additional software other than what is included on the WIN-911 installation CD. If voice telephony is desired for the demo, then you will need a TAPI modem or Intel Dialogic card and a phone line. If you wish to demonstrate paging you will need a standard Hayes® compatible modem and phone line with a pager service provider and if you wish to demonstrate email you will need a LAN connection and email servers. Both demos will run with full functionality for 30 days.

## **Creating a Demo OPC Server**

Included in the WIN-911 software package is a “Promotional” copy of TOP Server and an OPC Project (WIN-911 OPC DEMO.opf) which will offer the feel of “real-world” events. These events will trigger alarm conditions and initiate responses in the Monitor.

Note: TOP Server is not required to run WIN-911; it merely offers easy access to “user defined” OPC values, and provides an OPC Server.

The demo mode of WIN-911 will fully support all alarming options. To demonstrate the pager option, you must have a data modem installed (either internal or serial port) or a local paging system. The demo mode is unlimited with respect to Tagnames, Groups and phone book telephone/pager entries, but will time out in 30 days.

### **Installing TOP Server & OPC Demo**

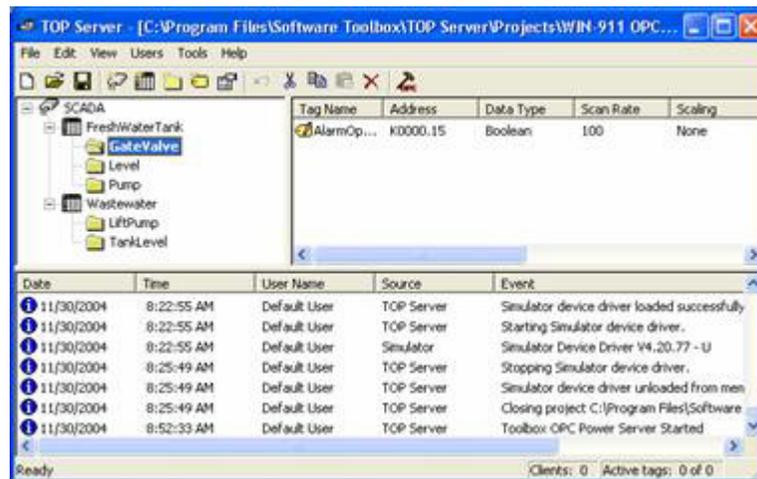
From the Support Folder of the WIN-911 install CD open the OPC Server Demo sub-folder and double-click on the topserverdemo.exe to run the setup. Step through the setup dialog to complete the software installation.

## Setting up the OPC Demo

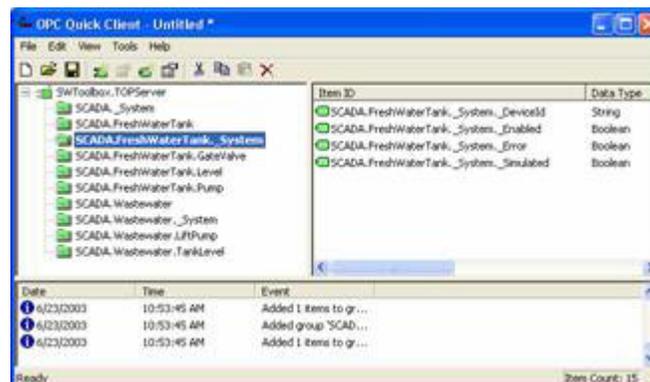
To run the OPC demo developed by Specter, you must copy the WIN-911 OPC Demo project from the **C:\Program Files\Specter Instruments\WIN-911 V7\Tools** folder. Copy the WIN-911 OPC DEMO.opf file to **C:\Program Files\Software Toolbox\TOP Server\Projects** folder.

Start TOP Server by clicking Start, Programs, Software Toolbox, TOP Server (sub folder), TOP Server (program).

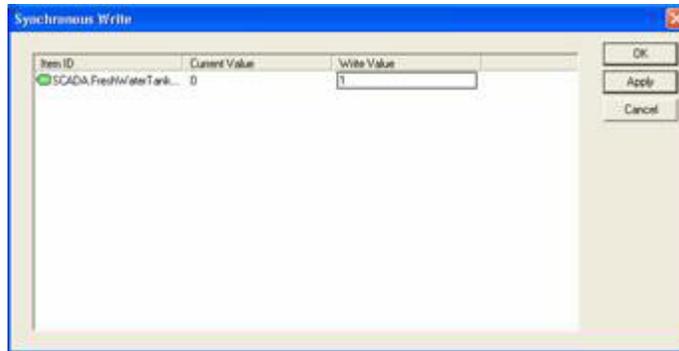
After the TOP Server launches, open the WIN-911 OPC DEMO.opf from the file pull-down menu.



In the Freshwater Tank tree highlight GateValve. This will display the AlarmOpen1 tag in the Tag Name list that makes up the demo. The Tag name is designed to describe the condition of the alarm which is “open” or “1”. All the tags in this demo are labeled in similar fashion. To manipulate these values you will need to start the OPC Quick Client by clicking the last button on the right of the TOP Server toolbar.



You are now ready to manipulate data in the TOP Server. This is done by highlighting the tag of interest and right-clicking to select Synchronous Write. For example, highlight the SCADA.FreshWaterTank.GateValve.AlarmOpen1.



Right-click the highlighted tag and select Synchronous Write. In the Write Value text box enter the new digital value of 1. Then click Apply to execute the write. The value will be updated in the TOP Server. All value manipulations are handled in a similar fashion.

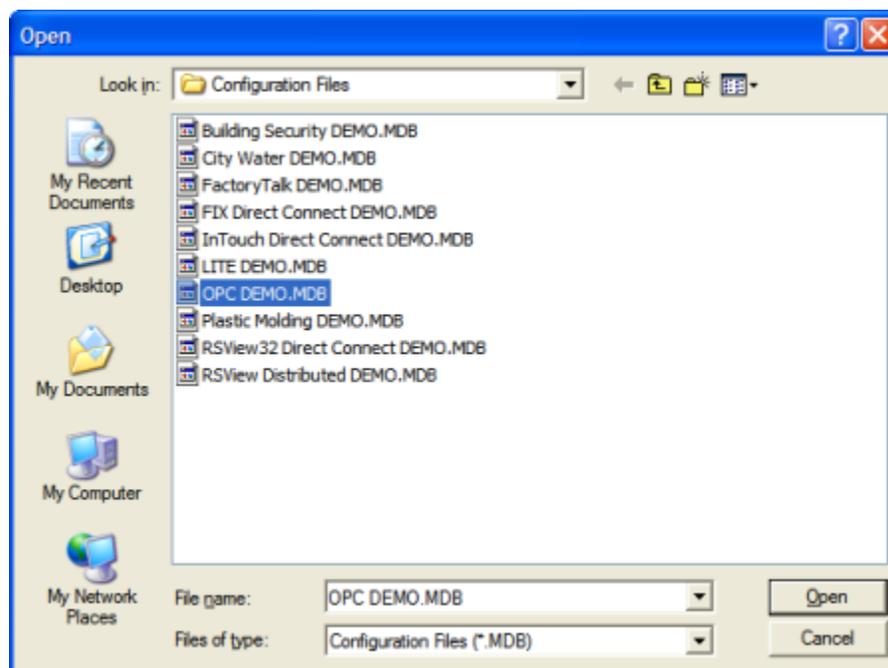
Now we are ready to bring WIN-911 online running the OPC DEMO (or LITE DEMO).

Note the OPC address for the data values. The OPC Machine Name is "(Local Machine)", the OPC Server Name is "SWToolbox.TOPServer" and the Item Name syntax is "SCADA.GroupName.AlarmCondition".

## Exploring the WIN-911 Configurator



The WIN-911 Configurator may be launched from your Windows Start Menu. If this is your first time to launch the Configurator, you will be asked to start a new configuration or to open an existing configuration. Open an existing configuration. Select the OPC DEMO.MDB or LITE DEMO.MDB" from the Open window, click Open. If you want to save the demo file as another name, from the Menu Bar select "Save As."



Click File, then Save to set this configuration file as your active configuration. For a complete review of the configurator and its functions, see the WIN-911 Configurator chm located in your installation directory.



## Running the OPC Demo



Start the Scan & Alarm from the “Start Program” button. This program will automatically start any modules needed to run the application. The demo application includes WIN911 Alarm Monitor and WIN911 Announcer. Size and position the Alarm Monitor window, TOP Server window, and OPC Quick Client window so that all windows can be seen at the same time.

From the OPC Quick Client, select SCADA.FreshWaterTank.GateValve and highlight SCADA.FreshWaterTank.GateValve.AlarmOpen1 in the right column. Then, right-click the highlighted tag and select Synchronous Write. In the Write Value text box enter the new digital value of “1” and click Apply. This simulates an alarm. You should now be experiencing multimedia alarming. The WIN-911 Alarm Monitor should be displaying an alarm and the sound card should be announcing the audio version of the same alarm.

You may acknowledge the alarm in one of two ways: a) by positioning the cursor over the alarm in the Alarm Monitor and double-clicking, or b) clicking on the Acknowledge button will “Ack” all alarms.

Exit the WIN-911 by clicking on the SCAN 911-411 tray icon with the right button. It is located in the Windows Tray Icon area. Then select “Exit WIN-911”.

If you have an alphanumeric pager, you may also try the pager option. You will first need to install a data modem. The following configuration changes are needed:

1. Select the correct Com Port for the modem by clicking on the “Pager” button and selecting the “Ports” tab.
2. From the Phone Book, double-click on “Tom Jones”, and then on the connection. Modify the connection from “None” to “Alpha Pager” and enter appropriate phone number and pager PIN number.
3. From the “Group” button, modify the groups to include Tom Jones on the group's Contact List.
4. Save and exit the configuration, and restart Scan & Alarm.

Note: If at any time you do not have a WIN-911 manual handy, just select the HELP button on the Configurator (it is an exact duplicate of the manual), or utilize the context sensitive help buttons or click on the Help Library icon to direct you to the exact reference in the manual.

Continue with the manual and try out some of the options as you read. WIN-911 was designed to meet the alarm reporting needs of most industrial applications.

Note: Refer to the last two sections of this chapter: “Typical Example of WIN-911 Voice Dial-Out” and “Typical Example of WIN-411 Inquiry” for a continuation of these demos.

## Typical Example of WIN-911 Voice Dialout

### Overview

The following is an example of what can be expected using the WIN-911 Dial-Out Option. Note that the Dialogic and TAPI options vary slightly at the beginning of the message. With the Dialogic option, connection detect circuitry recognizes a human voice on the line and automatically knows when the phone has been answered. The TAPI option simply loops a salutation until the recipient enters their access code, which indicates to WIN-911 that the phone has been answered. Afterwards the two voice modules function the same.

Upon an alarm (which was configured for a Voice connection), WIN-911 examines the phone book to determine if the first listed person is "on duty" (at this day and time). Assume Tom Jones was selected and he was scheduled to be "on call".

The phone rings at Tom Jones' home, and reports: "This is the Water District Monitoring System, with a call for Mr. Jones.... Please enter your access code followed by the pound key."

The access code is entered via the push button tone keypad on the telephone, followed by the # key. If the code is validated, all unacknowledged alarm messages that Mr. Jones needs to know about are reported for that alarm group, followed by: "Press star to repeat message, any other key to continue...". Assume Mr. Jones wished to continue. At this time another message is transmitted: "Enter you alarm acknowledgement code followed by the pound key."

If Mr. Jones wanted to acknowledge the announced alarms, he would then enter his acknowledgement code. If it was validated, he would then hear: "Alarms acknowledged..." and "...Thank you...good-bye".

Now, assume that Mr. Jones was not home when WIN-911 tried to call, and the baby sitter answered. In this scenario, after Mr. Jones' baby sitter answered the phone (and did not know the access code), the second name (or phone number) on the list would be called. Contact was made and the alarms were acknowledged. Upon returning home, Mr. Jones was informed of the call. He now decides to call to see if everything is going smoothly at the water department.

After dialing WIN-911's phone number, he would hear: "This is the Water District Monitoring System.... Please enter your access code followed by the pound key". Mr. Jones enters his code. The response would be: "There are no Unacknowledged Alarms to report at this time...". Mr. Jones can now have a good night's rest.

### WIN-911 Demonstration

The demonstration outlined here assumes that you have successfully completed the WIN-911 demonstration. Use any of the "DEMO" files furnished and installed with the WIN-911 software.

With the WIN-911 Configurator, modify the Phone Book to include a phone number, access and acknowledgement codes, and select "Voice" from the list box. Be sure the day of the week and times are selected so that a number will be called.

Also, from the "Group" button, select the name to be called. Next, be sure that the individual alarms listed are not selected for either "Auto Acknowledge", or "Acknowledge on Return", as the Voice/Dial-out will only report an unacknowledged alarm.

After the above modifications are made, save the configuration, launch Scan and Alarm.

# Typical Example of WIN-411 Inquiry

## Overview

The demonstration outlined here, featuring the power of WIN-411, assumes that you have successfully completed the WIN-911 demonstration above. Review the configuration of the 411 Reports, taking careful notice of the access numbers, voice report number, change authorization codes, and each data index number.

## Demonstration

Make sure there are no points which are within an alarm range in your OPC server.  
Launch the Monitor.

User dials the computer.

Computer answers: "Hello, this is the computer .... Please enter your access code followed by the pound key."

User enters his access code on the touch-tone phone and presses the # key...(911 & #).

Computer responds: "There are no unacknowledged alarms to report at this time. Select the desired report number followed by the pound key."

User enters the report number (22 & #).

Computer responds: "You have selected Lift Station number 22. Press the pound key to accept."

User confirms (#).

Computer: "Lift Station Number 22... the wastewater level is [value] feet."

"Lift Station Number 22... The pump is [on/off]."

" ... Press star to repeat message, any other key to continue."

User selects 5 (any number).

Computer: "Please enter your authorization code followed by the pound key."

User enters his authorization code for changes (411 & #).

Computer: "Select the point to change."

User enters the data change index number (10 & #).

Computer: "You have selected the .. pump ... Press the pound key to accept."

User confirms (#).

Computer: "Enter new value."

User enters a "1"(or "0") & #.

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Computer: “Lift Station Number 22... the pump...the new value will be set to .. [On/Off].  
Press the pound key to accept.”

User confirms (#).

Computer: “Select the point to change.”

User presses pound sign (#).

Computer: “Select the desired report number.”

User presses pound sign (#).

Computer: “Thank you, Goodbye.”

User disconnects.

## For More Details

Defined information about detailed configuration for OPC or DDE can be found in the main WIN911 Configurator help file located in the WIN-911 Help Library.



# DDE

## Overview

The DDE data connection allows WIN-911 to connect to a wide variety of HMI/SCADA systems by using a generic data exchange medium, DDE. WIN-911 serves as a generic DDE client. Since there is no means of browsing or importing, all tags must be manually configured in WIN-911.

A configuration can be run with a single DDE connection or can be run simultaneously with any of our other data connections (DDE, OPC, or Direct Connects). It is important to note, however, that some of the terms (Application, Topic, Item Name, OPC Machine Name, and OPC Server Name) are components of Microsoft's DDE/OPC address nomenclature. Although these definition fields are still part of the configuration, they take on different meanings and are governed by different constraints.

The data source must be running and DDE must be functioning before WIN-911 can establish a connection. If WIN-911 is connecting to a data source across the network using NETDDE, DDE Shares must be configured and the NETDDE must be functioning before WIN-911 can establish a connection. If at any time WIN-911 loses its connection to the data source, WIN-911 must be restarted to establish the connection again.

Like an OPC connection, the data source is passing raw values to WIN-911. This means WIN-911 must be configured to alarm on appropriate set-points, therefore owning the alarms. The DDE connection supports data tags or tags without alarm set points configured. Data tags can be used in 411 Reports to monitor or manipulate values. The DDE connection does not support Filter Tags; nor does it support dynamic features.

The DDE connection also supports watchdog timers. The DDE's watchdog timers can be configured in two ways. WIN-911 can monitor a tag's changing value by setting the timeout value greater than the time it takes the tag's value to change. You can also define the watchdog timer with a "0". A watchdog timer set to "0" strictly monitors the connection to the DDE server. A watchdog timer set to "0" will only report an alarm when WIN-911 loses its connection to the server and the server reports that the connection was broken. Once the connection is lost WIN-911 must be restarted to reestablish connection with server. Only the watchdog monitoring the changing value has the ability to return to normal.

## What is DDE?

DDE stands for “Dynamic Data Exchange.” DDE is a complete communication protocol designed by Microsoft to allow applications in the Windows environment to send/receive data and instructions to/from each other. It implements a client-server relationship between two concurrently running applications. The server application provides the data and accepts requests from any other application interested in its data.

To obtain data from another application, the client program opens a channel to the server application by specifying three things: the server Application name, the Topic name, and the Item name. For example, in the case of Excel, the application name is “Excel”, the topic name is the name of the specific spreadsheet that contains the data, and the item name is the specific cell on the spreadsheet.

When a client application sets up a link to another DDE program, it requests the server application to advise the client whenever a specific item's value changes. These data links will remain active until either the client or server program terminates the link or the conversation. They are a very efficient means of exchanging data. Once the link has been established, no communication occurs until the specified data value changes. WIN-911 uses DDE to communicate with other DDE application programs.

WIN-911 has a recommended limit of 1,500 DDE data points. Proceeding beyond this limit may cause the installation to not function properly due to Windows resource limitations (number of data handles available) or otherwise exhibit impaired performance. This limit will vary with each installation and is dependent on hardware configuration, networking requirements, and other Windows programs running at the same time. Specter does not extend telephone support for WIN-911 systems with over 1,500 DDE data points.

## The DDE Conversation

The DDE protocol identifies an element of data by using a three-part address. The three parts of a DDE address are: Application, Topic, and Item.

The syntax is:

### **Application | Topic ! Item**

Application refers to the name of the Windows program (server) which knows how to access the data element. Note that if NetDDE is used to acquire data over a network, the Application includes a network node name.

Topic is an application-specific sub-group of data elements. The user creates meaningful names (or uses the DDE Server default topic) for the PLCs and other devices, and uses these names as the topic names for DDE references; i.e., PLC-102.

Item indicates a specific data element within the specified topic. For many PLC servers, an item is an individual register, or I/O point in a PLC or other device.

A typical DDE address of a data value coming from an Excel server would be:

**Application = Excel**

**Topic = Sheet1.xls**

**Item = R1C3**

NetDDE is a standard feature of Microsoft Windows Operating Systems. It allows DDE data to be shared between computers. The standard DDE address is appended to the machine name. The syntax is:

**\\ Machine Name \ Application | Topic ! Item**

Consult your Microsoft Windows manual for more information on networking and NetDDE.

## **WIN-911 and Multiple DDE Servers**

WIN-911 has the capability to communicate with more than one DDE Server simultaneously if the application requires. If a DDE I/O Server is monitored by an HMI/SCADA package and WIN-911 needs to monitor the same data, the developer has two choices to make the connection. Each method has unique advantages over the other.

1. Configure WIN-911 to use the DDE I/O Server directly (just like the HMI/SCADA package). This is the preferred choice when the DDE Server resides on the same computer as WIN-911. It has the advantage of being more efficient and offers higher performance.
2. Use the HMI/SCADA DDE Server to collect all the data from across the network and serve it to WIN-911 using indirect DDE items (another set of Topics and Items). This has the advantage in networking applications. If other Servers on the network are lost, no re-initialization for WIN-911 is required to continue monitoring active DDE items.

## Quick Reference to SCADA DDE

SCADA	Application	Topic	Item
Wonderware	View	Tagname	<user defined>
iFIX	Dmdde	Data	<user defined>
RSView32	Rtdata	<folder name>	<user defined>
Micronet DDE	Micronet	Micronet	<user defined>
Citect	Citect	Variable	<user defined>
Lookout	Lookout	<folder name>	<user defined>
Excel	Excel	<spreadsheet name>	<user defined>

## DDE Connections with Wonderware's Drivers

### Overview

If you are using Wonderware's InTouch, or one of the Wonderware DDE I/O drivers, the following will show you how to provide WIN-911 access to the DDE data.

### Identifying the Actual InTouch DDE Address:

From the InTouch Tag Name Dictionary, you can select and inquire any Tag Name. Note that the InTouch Tag Name may not be the same as the actual DDE Item Name. After locating the Tag Name of interest, look at the bottom of the dialog box and record the actual DDE Item Name. This is the name required in WIN-911/411.

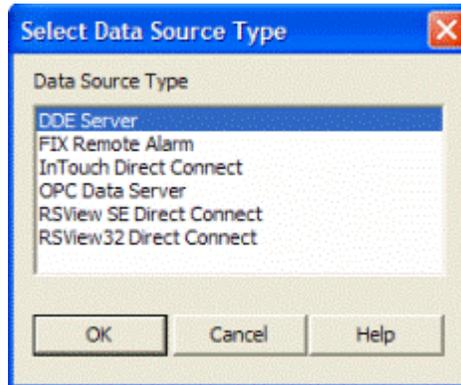
The screenshot shows the 'Tagname Dictionary' dialog box. The 'Tagname' field contains 'HOPPER1' and the 'Type' is 'I/O Real'. The 'Group' is '\$System'. The 'Comment' is 'Hopper One is'. The 'Access Name' is 'ANYNAME'. The 'Item' field at the bottom is 'HOPPER1'. There are also fields for 'Initial Value', 'Deadband', 'Eng Units', 'Log Deadband', 'Min EU', 'Max EU', 'Min Raw', 'Max Raw', and 'Conversion' (Linear/Square Root).

Note: If the Access Name button reveals a server other than View and a topic other than Tagname, InTouch is a DDE client. You may attach WIN-911 directly to the server or indirectly via the InTouch Tagname.

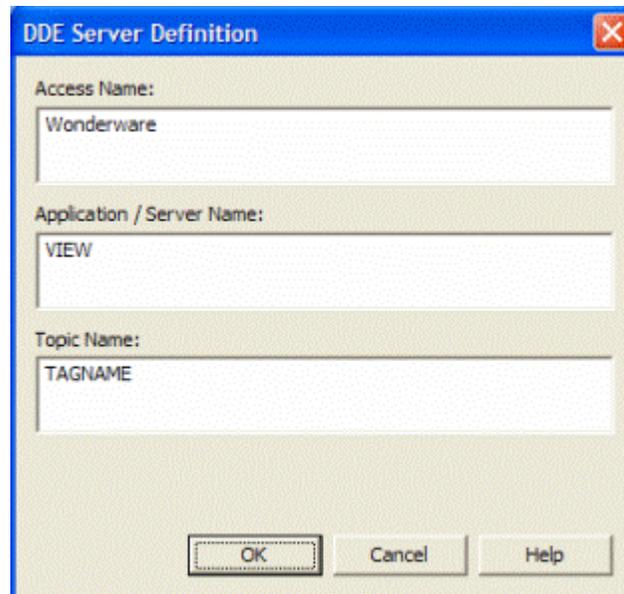
To complete a DDE address, you must have two pieces of additional information: a) the Application Name, and b) the Topic Name. These are found in InTouch by selecting the Access name button:

The screenshot shows the 'Add Access Name' dialog box. The 'Access' field is 'ANY NAME'. The 'Node Name' is 'WVNODE'. The 'Application Name' is 'VIEW'. The 'Topic Name' is 'TAGNAME'. There are radio buttons for 'Which protocol to use' (DDE, SuiteLink, Message Exchange) and 'When to advise server' (Advise all items, Advise only active items). There is also a checkbox for 'Enable Secondary Source'.

In the WIN-911 Configurator, select the button entitled Data Source Definition. Click New.



Select DDE Server and click OK.



This is very similar to InTouch; the Access Name is user defined. However, the Application Name and the Topic Name must match exactly as configured in InTouch.

Note: InTouch Direct Connect is the Direct Connect's invocation string and is not a valid Access Name for a DDE connection.

The last step is to identify the Item Name for the alarm/point you are interested in. Again, this must be the exact name as found at the bottom of the InTouch Tag Name Dictionary.

## DDE Connections with GE's FIX Drivers

### Overview

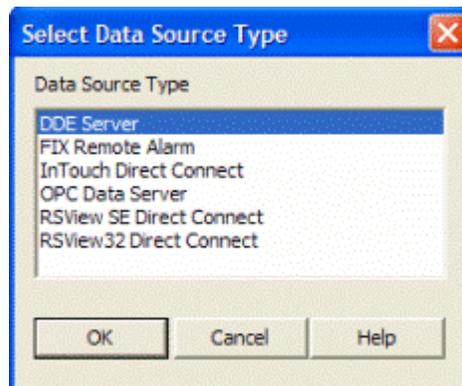
The following information will help in setting up WIN-911 to use with GE's FIX DDE Server for both local and NetDDE to access DDE Items within the FIX database.

### Identifying the FIX DDE Address

Two Possible DDE Application Names:

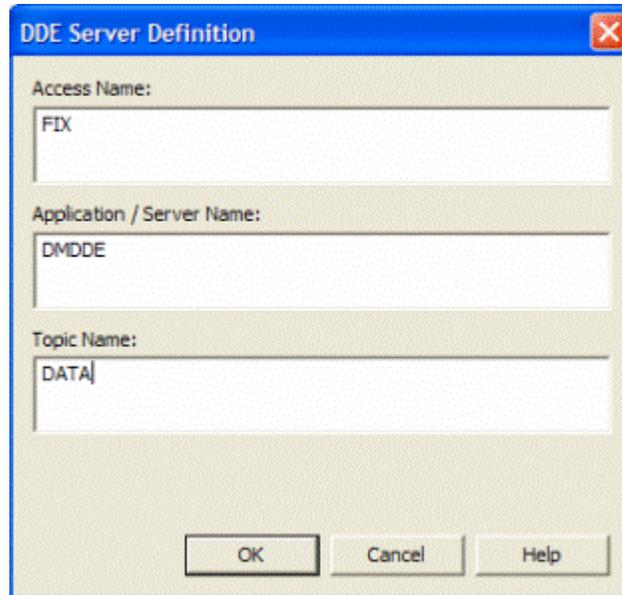
In the FIX Database Manger, you can view any tag defined in the database(s). For data tags, you can also determine the register Type field and Data field being used for the tag. You can see the elements defined for historical trending tags. The "Database Manager" will not show you the FIX data format filter or the DDE application and DDE topic. If you are configuring WIN-911 for tags on a FIX node locally, the Application will always be "DMDDE" with two possible topics. If you are configuring for tags on a FIX node across a network (NetDDE), the Application will always be "NDDE\$" with two possible topics.

In the WIN-911 Configurator, select the button entitled Data Source Definition, click New, then select "DDE Server."



Local or Networked Node DDE Server and Topic Names:

The local DDE Server name for the FIX is "DMDDE." The FIX DDE Server must be running with a valid database before Scan & Alarm is started. If Scan & Alarm is started first, there will be no DDE links established. The server provides two DDE topic names. These two topics have two different functions. The DDE topic named "DATA" is used to access live data values, and the DDE topic named "HTR" is used to access assorted elements of historical trending. For WIN-911, only live data would be monitored with alarms. Enter "DMDDE" in the Application/Sever Name field and "DATA" in the Topic Name field when configuring the WIN-911 Data Source Definition.



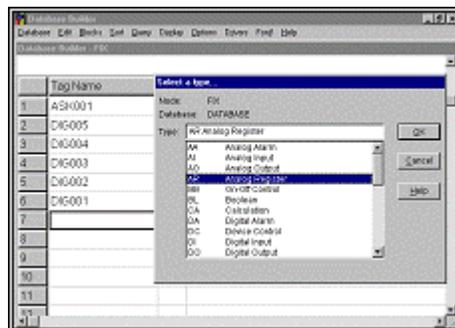
Note: "FIX Remote Alarming" is the Direct Connect invocation string and is not a valid Access Name for a DDE connection.

Finding the DDE Item Name:

Only tags defined in the active FIX database(s) will work with WIN-911. The Database Manager will show you the FIX node name, tag name, and block type for all tags contained within a database. You can also find the absolute maximum value range and whether or not outputs are enabled. The FIX default Digital block type labels (OPEN=0, CLOSE=1) for digital tags must match the "Alarm States" defined for a "Text Match" type digital tag in WIN-911.

Note: You may also set up the digital alarms to "Bit Pick" digital alarms from 32 bit analog values.

If an ASCII tag is going to be used to poke the alarms for a WIN-911 alarm group back to a text (TX) type block tag in the FIX data base, be sure the text tag has a higher I/O address than all other types. The maximum character string defined must be long enough for the longest alarm string that could be produced (including date and time stamps!).



The DDE Item names used by FIX tend to be lengthy and contain more information than the typical DDE Server uses to establish a DDE link. However, there is no way to shorten or simplify the item name. The first part of a FIX data tag name is the FIX node name. Be

aware that a single PC on a network used for a FIX DDE Server (SCADA node), when seen from somewhere else on the network, has two names associated with it which are both required to configure a NetDDE link. One name is the computer's name, the other is the FIX node name. The computer's name is used as a delimited prefix for the DDE Application, the FIX node name is used as a delimited prefix for the DDE data item. The first element of the FIX DDE item name is the node name followed by a colon ":" with no spaces. Then the FIX tag name (case sensitive) is followed by a period "." with no spaces. The final element of a FIX DDE Item name is a data format suffix (filter) for the tag value, usually "F\_CV", "A\_CV", or "A\_###" for all data tags. The following are FIX DDE Item examples:

CONTROL:METER.F\_CV Node named "CONTROL", tag named "METER", tag block type Analog, Floating point, current value

STATUS:MESSAGES.A\_CV Node named "STATUS", tag named "MESSAGES", tag block type Text, ASCII, current value

Note: An extension ".F\_CV" is a read only tag to WIN-911. Extensions of ".A\_###", and ".A\_CV" are read-write tags and can be used by WIN-411 to change a data value.

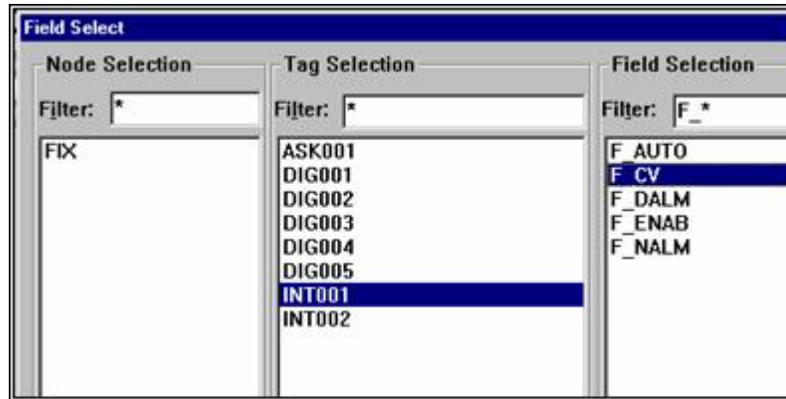
FIX DDE Item Name for Historical Tags:

The DDE Item names used by FIX for trending do not contain FIX node name prefixes. Instead, they begin with a "Pen Group" followed by a period "." with no spaces, a "Time Group" followed by a period "." with no spaces, followed by four "Y" or "N" (yes or no) characters followed by periods "." with no spaces, and the sample number. The DDE item name configured in WIN-911/411 for a historical tag must match the complete character string including all delimiters. Only an analog floating point type should be selected to define historical alarm/points in WIN-911. See the examples below:

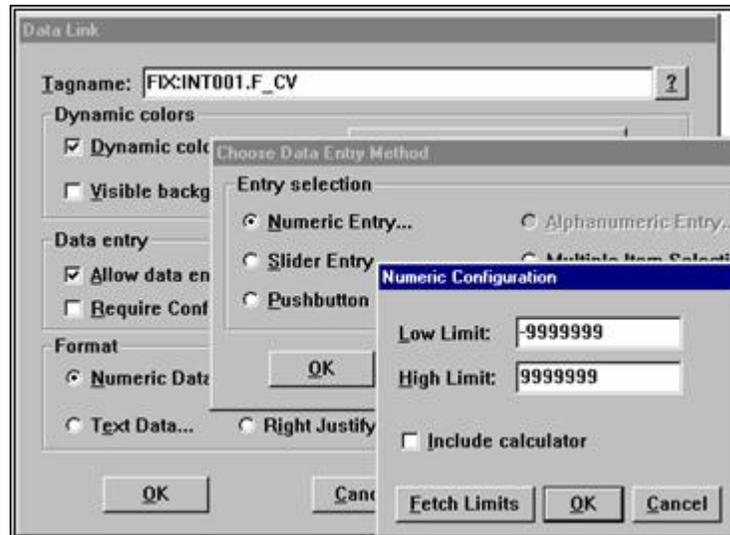
GROUP1.TIME1.Y.Y.N.N.10 Pen group "GROUP1", time group "TIME1", show node, show tag, do not show date, do not show time, 10 samples.

Using FIX Workspace to Reference DDE Item Information:

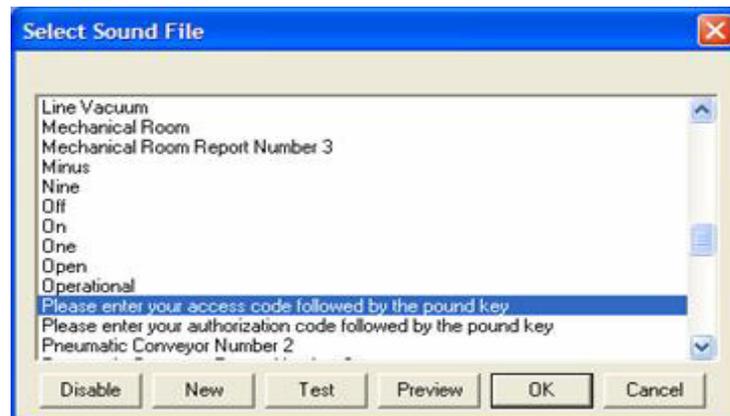
The easiest way to get the complete tag information in the FIX is through the drawing program. To cruise through the information about a tag that is already built into a view window, simply double click on the linked graphic. Cancel your way back out after you get what you need. To get information about a tag that is in the database, but is not part of the current view window, select "Tools", then "Link". Only tags that have a data format filter defined can be configured for WIN-911. For values used with WIN-911 alarming that are also used on a View screen, it is important to use the same data filter and value range. The following shows "Link" selecting a tag. The FIX node name prefix is the first column, the tag name is the second, and the data filter is the third. In the WIN-911 configuration, the DDE item would be defined as "FIX:INT001.F\_CV".



Additional information about a FIX tag can be found within the Data Link definition screens. Most important for configuration of WIN-911 are the portions that involve value range.



Another important user defined FIX data value range that you need to know about is the number of digits and if the format of the value is transferred using a decimal place. Within WIN-911, if the tag is not a Digital or Text block type, select "Floating Point" for the data type when defining any analog alarm/point.



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Starting WIN-911 with Task Manager

Using FIX "Task Manager" to start WIN-911 requires that you place the DDE Server before the TeleDAC.EXE in the list.

## Using NetDDE

NetDDE is a standard feature of Microsoft Windows Products. It allows DDE data to be shared between computers. The standard DDE address is appended with the machine name. The syntax is:

**\\ Machine Name \ Application | Topic ! Item.**

Consult your Microsoft Windows manual for more information on networking and NetDDE. Be sure all DDE Servers are “Shared” for NetDDE.

In completing the DDE Name Definition, use the “\\Machine Name\Application” as a single entry for the DDE Application\Server Name.

## Setting DDE Shares for NetDDE

Use of NetDDE requires the proper settings of DDE Shares on all nodes that Scan and Alarm will be interfacing. In this example we will setup a DDE Share for an Excel spreadsheet running on a remote node.

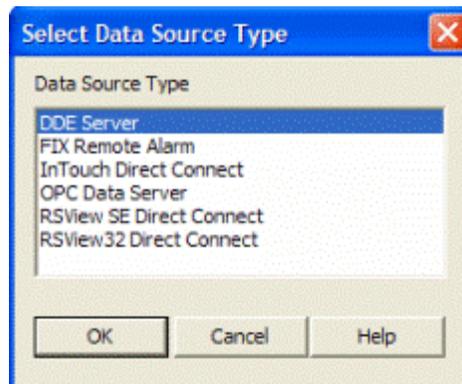
On the remote node setup the DDE Share as follows:

1. Run the DDE Share program by clicking Start, Run, and typing DDESHARE in the text box. After clicking OK the operating system will start the NetDDE Service.
2. From the DDE Share menu, select Shares, DDE Shares..., and the DDE Shares sheet appears.
3. Click on the Add a Share... button.
4. Enter the application name followed by a "|" in the Share Name text box. In this case "Excel|"
5. In the Old Style Application Name text box enter "Excel" and in the Old Style Topic Name text box enter "|". New Style and Static text boxes are to remain undefined. The Allow start Application and its service check boxes are left unchecked.
6. In the Item Security section, select the grant access to all items radio button.
7. Next, select the Permissions... button. The DDE Share Name Permissions sheet appears
8. Highlight Everyone in the Name box, and in the Type of Access pull-down menu select Full Control. Click OK to return to the DDE Share Properties sheet, and then OK again to get back to the main DDE Shares list where you should now see Excel|\* listed.
9. Highlight Excel|\* by single clicking on it and then click the Trust Share... button to bring up the Trusted Shares Properties sheet.
10. Select the Start Application Enable and Initiate to Application Enable check boxes and click OK.
11. At this time you should be able to access the spreadsheet from across the network using NetDDE.

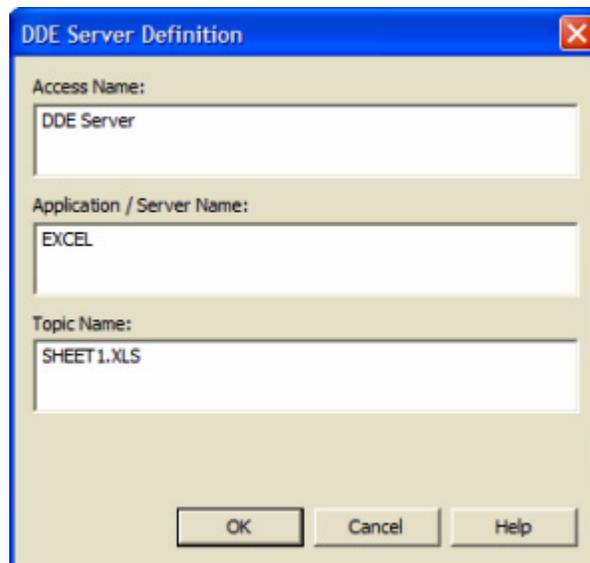
## Data Source Definition



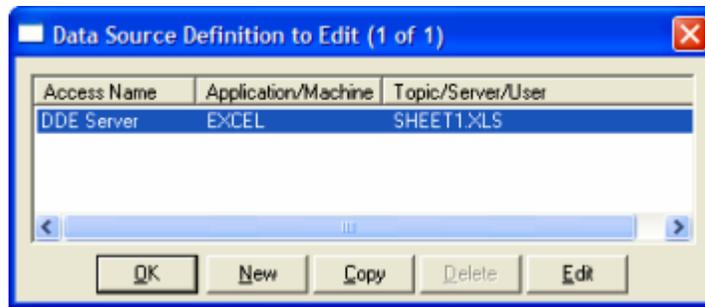
This button is used to setup data communications. Data point addressing can be monotonous and syntactically rigorous. Rather than being forced into remembering (and exactly typing) the DDE Server invocation string for each "Item Name" to be alarmed, you merely select the appropriate data source type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



The DDE Server Access Name, Application/ Server Name, and Topic Name are defined here. The "Access Name" is a user defined name used to represent this particular data source. The "Application/ Server Name" is the application where the DDE Server resides. The "Topic Name" is the DDE Topic for this particular DDE Server/ Application. Click Ok.



Selecting "Edit" or double-clicking on the "Access Name" will bring you back to the DDE Server Definition window.



## Demo of WIN-911 Capabilities

The following DDE demonstration provides a basic understanding and working example of the WIN-911 system. These examples are self-contained and do not require additional software not included in the WIN-911 install or on the install CD (Top Server). If voice telephony is desired for the demo, then you will need a TAPI modem or Intel Dialogic card and a phone line. If you wish to demonstrate paging you will need a standard Hayes® compatible modem and phone line with a pager service provider and if you wish to demonstrate email you will need a LAN connection and email servers. Both demos will run with WIN-911 in Demo mode (for 30 days).

## Creating a Demo DDE Server

Launch Microsoft Excel through the "Start" button -> "All Programs"; (or, if you are using the Excel Promotional software found in the "C:\Program Files\Specter Instruments\WIN-911 V7\Tools" directory, use Explorer). Use the "/File/Open" command to open the "WIN-911 V7\Tools" directory and select the 911DEMO.XLS file. This is a spreadsheet designed to offer WIN-911 active DDE data. Notice that the spreadsheet has three separate demos, referenced as: Plastic Molding DEMO.MDB, City Water Department DEMO.MDB, and Building Security DEMO.MDB. Select the demo of your choice and resize the window so that it looks like the illustration below:

TeleDAC Demonstration: *Plastic Molding DEMO.MDB*						
Group Name	>Raw Material Hopper Levels<			>>No. 2 Pneumatic Conveyor<<		
TagName	Hopper One	Hopper Two	Hopper Three	Vacuum Pump	Line Vacuum	Material Flow
Alarm Condition	Low <7.2	Low <7.2	Low <7.2	1=OFF	Low <4.5	1=Blocked
Variable	11.2	10.4	9.7	0	5.9	0
Report	>>>WIN-411 Report # 99<<<			>>>WIN-411 Report # 2<<<		
Change?	No	No	No	Yes	No	No
No. 2 Pneumatic Conveyor Group MMI/SCADA Interface Acknowledgement:						
Text String = GROUPACKED						
TeleDAC Demonstration: *City Water Department DEMO.MDB*						
Group Name	>>>>Fresh Water Storage<<<<			>>Lift Station No. 22<<		
TagName	Gate Valve	Supply Pump	Tank Level	Waste H2O Level	Lift Pump	
Alarm Condition	1=Open	1=Off	High >35	High > 5	0=Off	
Variable	0	0	31	3.8	1	

These Demos are designed for a simple understanding of WIN-911, and provide an example of how it interfaces with a data source. The digital alarms should be entered as a "0" or "1". The analog values are "Free Form".

The spreadsheet is protected and cannot be changed with the exception of the data field row entitled "Variable" and "Text String".

Note the DDE address for the data values. The Application is "EXCEL", the Topic is "911DEMO.XLS" and the Item Name is the row and column number of each variable data cell.

Take a moment to look at the spreadsheet. Each demo is named and has a corresponding WIN-911 configuration file found in the WIN-911 V7\Configuration Files folder. Each demo is similar in format:

1. The first line following the demo name is the WIN-911 Group names.
2. The following two lines list the WIN-911 Tagnames.
3. The next line describes the alarm condition: i.e., "Low < 7.2" indicates that the alarm is a floating point analog value with a low alarm setting of 7.2. A digital alarm might be listed as "1=Off", indicating a value of "1" as the alarm state and corresponds to a condition of "Off". A "0" value would be the normal state for that alarm.

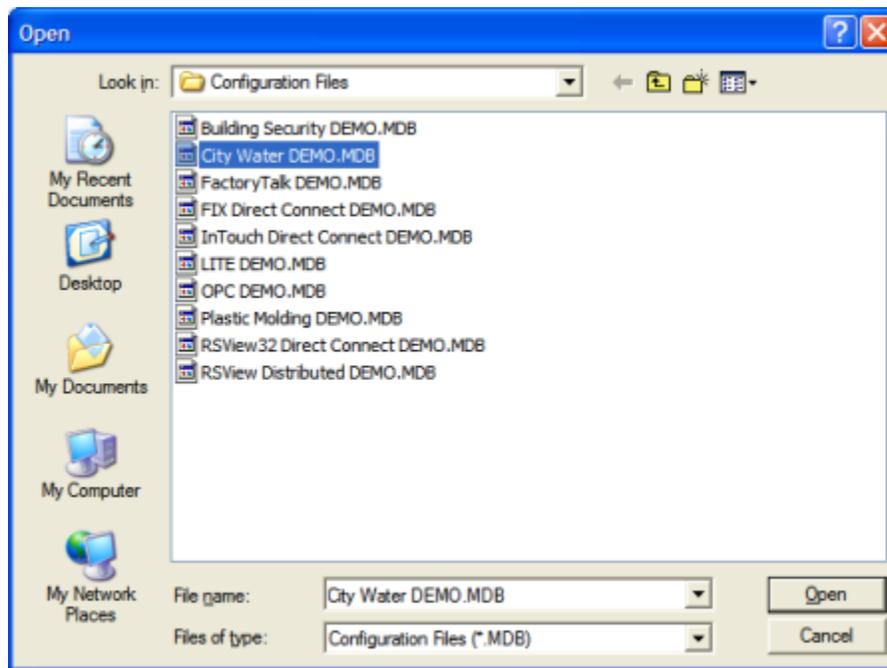
4. The next line (titled Variable) will allow you to enter values for the analog and digital alarms. Notice that the default values are all set to non-alarm conditions.
5. The next two lines apply to the WIN-411 "Inquiry" Option. The first line lists the WIN-411 name and number, and the next line indicates which alarm point may be changed.
6. The last two lines in each demo demonstrates the DDE ASCII POKE option which is used to allow HMI/SCADA software to be aware of WIN-911 alarms, and to allow the user to Acknowledge the alarms through simple scripting in the HMI/SCADA software. Upon an alarm in the Group, the alarm text message is sent to the HMI/SCADA software. If the string "Ack" is poked back to that DDE tag, WIN-911 will acknowledge the alarm condition.

## Exploring the WIN-911 Configurator



Start the WIN-911 Configurator from the "Start" button -> "All Programs" -> "WIN-911 V7" -> "WIN-911 Configurator". You will then need to open an existing configuration file. If this is not the first time the WIN-911 Configurator has been run, you will need to click "File" -> "Open" in the Configurator's menu.

Select one of the three demos: Plastic Molding DEMO.MDB, City Water DEMO.MDB, and Building Security DEMO.MDB. This tutorial will use the City Water DEMO.



Look behind all the various buttons, but do not change the configuration. Notice how the Group, Alarms, DDE Item names and the WIN-411 Reports correspond to the Excel spreadsheet. Reduce the program to icon size.

## Running the DDE Demo



Start Scan & Alarm from the "Start" button -> All Programs -> "WIN-911 V7" -> "Scan and Alarm". Size and position the Alarm Monitor window (and the Excel Window) so that both windows can be seen at the same time.

From the Excel spreadsheet, change the value in a cell in the "Variable" row to an alarm condition. This simulates an alarm. You should now be experiencing multimedia alarming. The monitor should be displaying an alarm and the sound card should be announcing the audio version of the same alarm.

You may acknowledge the alarm in one of three ways: a) by positioning the cursor over a red alarm banner in the Alarm Monitor and double-clicking, b) click on the Acknowledge button will "Ack" all alarms, or c) notice the "HMI/SCADA Acknowledgment" text on the last two rows of the Excel Demo. This is an example of how you can remotely acknowledge alarms from the data source. You will notice that the alarm message is presented as a Text String. Type the string Ack in this cell and hit return (it is Case sensitive.). Notice that this will acknowledge all outstanding alarms in the Alarm Monitor for that Group.

If you are running the "Plastic Molding DEMO", and let it run for at least two minutes, you received a "Watchdog" alarm, and it will repeat every 5 minutes until it is acknowledged. The purpose of a Watchdog alarm is to monitor the condition of the DDE Server and associated data. The Watchdog alarm was purposefully configured to look at an invalid data point. Watchdogs are highly recommended to validate healthy DDE data.

Exit the Scan & Alarm by right-clicking on the Scan 911-411 icon located in the system tray of your operating system, by the clock. Then select "Exit WIN-911."

If you have an alphanumeric pager, you may also try the pager option. You will first need to install a data modem. The following configuration changes are needed:

1. Select the correct COM Port for the modem by clicking on the "Pager" button and selecting the "Ports" tab.
2. From the Phone Book, double-click on "Tom Jones," and then on the connection. Modify the connection from "None" to "Alpha Pager" and enter appropriate phone number and pager PIN number.
3. From the "Group" button, modify the groups to include Tom Jones on the group's Contact List.
4. Save and exit the configuration, and restart Scan & Alarm.

If at any time you do not have a WIN-911 manual handy, just select the HELP button on the Configurator (it is an exact duplicate of the manual), utilize the contact sensitive help buttons, or click on the WIN-911 Digital Document to direct you to the exact reference in the manual.

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Continue with the manual and try out some of the options as you read. WIN-911 was designed to meet the alarm reporting needs of most industrial applications.

## Typical Example of WIN-911 Voice Dial-Out

### Overview

The following is an example of what can be expected using the WIN-911 Dial-Out Option. Note that the Dialogic and TAPI options vary slightly at the beginning of the message. With the Dialogic option, connection detect circuitry recognizes a human voice on the line and automatically knows when the phone has been answered. With most TAPI modems, simply loops a salutation until the recipient enters their access code, which indicates to WIN-911 that the phone has been answered. Afterwards the two voice modules function the same.

Upon an alarm (which was configured for a Voice connection), WIN-911 examines the phone book to determine if the first listed person is "on duty" (at this day and time). Assume Tom Jones was selected and he was scheduled to be "on call".

The phone rings at Tom Jones' home, and reports: "This is the Water District Monitoring System, with a call for Mr. Jones.... Please enter your access code followed by the pound key."

The access code is entered via the push button tone keypad on the telephone, followed by the # key. If the code is validated, all unacknowledged alarm messages that Mr. Jones needs to know about are reported for that alarm group, followed by: "Press star to repeat message, any other key to continue...". Assume Mr. Jones wished to continue. At this time another message is transmitted: "Enter you alarm acknowledgement code followed by the pound key."

If Mr. Jones wanted to acknowledge the announced alarms, he would then enter his acknowledgement code. If it was validated, he would then hear: "Alarms acknowledged..." and "...Thank you...good-bye".

Now, assume that Mr. Jones was not home when WIN-911 tried to call, and the baby sitter answered. In this scenario, after Mr. Jones' baby sitter answered the phone (and did not know the access code), the second name (or phone number) on the list would be called. Contact was made and the alarms were acknowledged. Upon returning home, Mr. Jones was informed of the call. He now decides to call to see if everything is going smoothly at the water department.

After dialing WIN-911's phone number, he would hear: "This is the Water District Monitoring System.... Please enter your access code followed by the pound key". Mr. Jones enters his code number. The response would be: "There are no Unacknowledged Alarms to report at this time...". Mr. Jones can now have a good night's rest.

### WIN-911 Demonstration

The demonstration outlined here assumes that you have successfully completed the WIN-911 demonstration. Use any of the "DEMO" files furnished and installed with the WIN-911 software.

With the WIN-911 Configurator, modify the Phone Book to include a phone number, access and acknowledgement codes, and select "Voice" from the list box. Be sure the day of the week and times are selected so that a number will be called.

Also, from the "Group" button, select the name to be called. Next, be sure that the individual alarms listed are not selected for either "Auto Acknowledge", or "Acknowledge on Return", as the Voice/Dial-out will only report an unacknowledged alarm.

After the above modifications are made, save the configuration, launch Scan & Alarm.

# Typical Example of WIN-411 Inquiry

## Overview

The demonstration outlined here featuring the power of WIN-411 assumes that you have successfully completed the WIN-911 demonstration above. Use any of the three DDE "DEMO" files furnished and installed with the WIN-911 software. Review the configuration of the 411 Reports, taking careful notice of the access numbers, voice report number, change authorization codes, and each data index number.

## Demonstration

Check the EXCEL spreadsheet and be sure no points are in alarm. Launch the Monitor.

User dials the computer.

Computer answers: "Hello, this is the computer .... Please enter your access code followed by the pound key."

User enters his access code on the touch-tone phone and presses the # key...(911 & #).

Computer responds: "There are no unacknowledged alarms to report at this time. Select the desired report number followed by the pound key."

User enters the report number (22 & #).

Computer responds: "You have selected Lift Station number 22. Press the pound key to accept."

User confirms (#).

Computer: "Lift Station Number 22... the wastewater level is [value] feet."

"Lift Station Number 22... The pump is [on/off]."

" ... Press star to repeat message, any other key to continue."

User selects 5 (any number).

Computer: "Please enter your authorization code followed by the pound key."

User enters his authorization code for changes (411 & #).

Computer: "Select the point to change."

User enters the data change index number (10 & #).

Computer: "You have selected the .. pump ... Press the pound key to accept."

User confirms (#).

Computer: "Enter new value."

User enters a "1"(or "0") & #.

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Computer: “Lift Station Number 22... the pump...the new value will be set to .. [On/Off].  
Press the pound key to accept.”

User confirms (#).

Computer: “Select the point to change.”

User presses pound sign (#).

Computer: “Select the desired report number.”

User presses pound sign (#).

Computer: “Thank you, Goodbye.”

User disconnects.

## **For More Details**

More information regarding the configuration of DDE data sources can be found in the main WIN911 Configurator help file located in the WIN-911 Help Library.



# viewLinc Direct Connect

## Getting Started with viewLinc

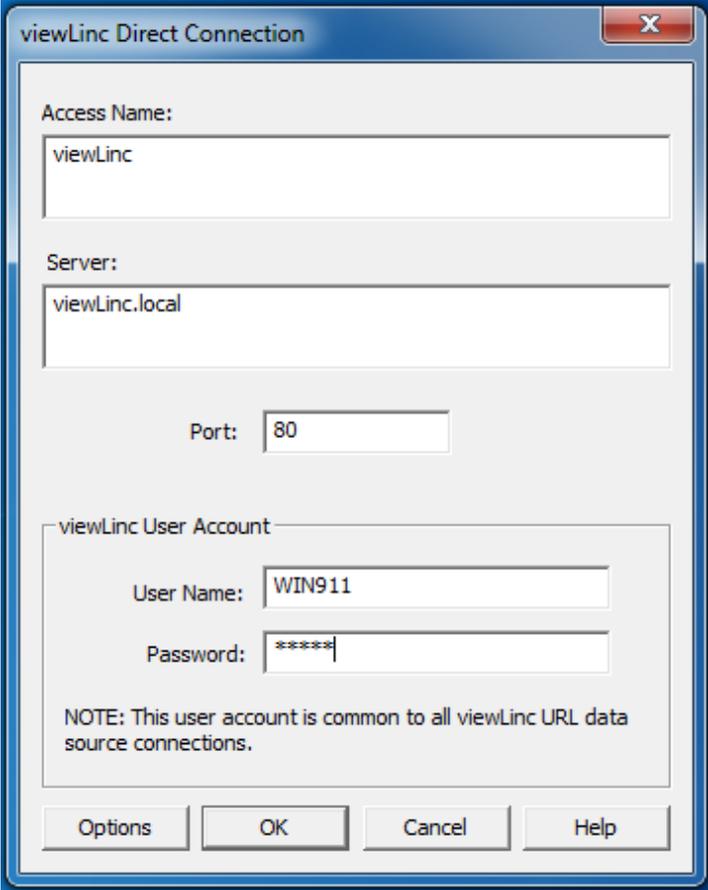
### Overview

WIN-911's viewLinc Direct Connection is designed to interface with a viewLinc server in a networked environment in order to receive and acknowledge alarms. This manual discusses the setup required for WIN-911 and viewLinc communications. See the Configurator Manual for instructions on configuring specific types of alarm notifications.

### Step-by-step Configuration

Three components need to be configured in order to receive and acknowledge alarms from viewLinc: a viewLinc Data Source, an Alarm Filter and an Alarm Group. The first step is to configure the Data Source connection. The Data Source defines the basic information required to connect to your viewLinc server, mainly the server name and the viewLinc user account that WIN-911 should log into the system with.

Create a Data Source by clicking Configure > Data Source Definitions > New. Select "viewLinc Direct Connect."



The screenshot shows a dialog box titled "viewLinc Direct Connection" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Access Name:** A text box containing "viewLinc".
- Server:** A text box containing "viewLinc.local".
- Port:** A text box containing "80".
- viewLinc User Account:** A container with two sub-fields:
  - User Name:** A text box containing "WIN911".
  - Password:** A text box containing "\*\*\*\*\*".
- NOTE:** "This user account is common to all viewLinc URL data source connections."
- Buttons:** "Options", "OK", "Cancel", and "Help" are located at the bottom of the dialog.

*All fields in this dialog are required. A detailed explanation of each setting can be found in the [Data Source Definition](#) topic.*

The next step is to create an Alarm Group. Alarm Groups associate specific alarms with a list of users to notify for alarm events. Create a Group by clicking Configure > Group Definitions > New. The only required field is the Name field. Groups are discussed thoroughly in the WIN-911 Configurator manual.

Finally, an Alarm Filter must be defined. Click Configure > Alarm Filters > New.

The screenshot shows a 'Filter Definition' dialog box with the following fields and options:

- Tab: Base Definition
- Tagname: Filter1
- Filter: (TYPE : T) (with an 'Edit Filter' button)
- Group Name: Group 1
- Alarm Type: Any Alarm
- Data Source: viewLinc
- Access Name: viewLinc
- Automatic Acknowledgement:  Never,  On Alarm,  On Return To Normal
- Buttons: OK, Cancel, Help

Filters determine which alarms will be monitored by WIN-911. Think of them as a search query. All viewLinc alarms which match your query will be monitored by WIN-911. Alarm Filters also associate those alarms with an Alarm Group. The Tagname field is used to name the Filter. The actual query is defined by clicking the "Edit Filter" button. The default filter is simply an asterisk, or wildcard character, which will match all alarms in your viewLinc system. A more detailed explanation of Alarm Filters is given later in this manual.

Bypass and data pokes are not supported for viewLinc Direct Connections

# Data Source

## Data Source Definition

The screenshot shows a dialog box titled "viewLinc Direct Connection". It contains the following fields and values:

- Access Name:** viewLinc
- Server:** viewLinc.local
- Port:** 80
- viewLinc User Account:**
  - User Name:** WIN911
  - Password:** \*\*\*\*\*

NOTE: This user account is common to all viewLinc URL data source connections.

Buttons at the bottom: Options, OK, Cancel, Help.

### Access Name

This is the name of your Data Source. It is used internally by WIN-911 to refer to your viewLinc connection and does not reference anything in your viewLinc connection. The access name is left solely to your discretion.

### Server

The server field refers to the name or address of your viewLinc host. It may be a Fully Qualified Domain Name, hostname or IP address.

### Port

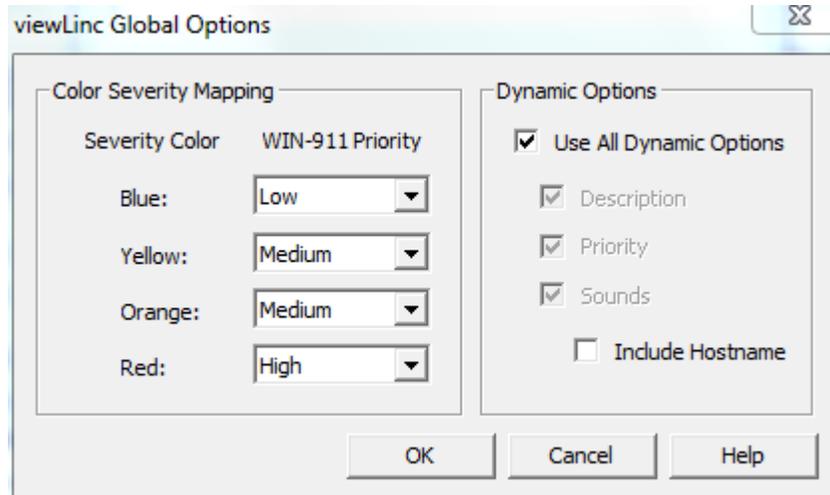
This is the TCP port that your viewLinc server hosts it website through. This is port 80 by default.

### viewLinc User Account

WIN-911 requires a viewLinc user account in order to receive and acknowledge alarms from viewLinc. This account must have "view" and "acknowledge alarms" permission in viewLinc.

The viewLinc user account specified here is global to all viewLinc Data Sources in your WIN-911 configuration. This means, if you're connecting to multiple viewLinc servers, the same user account must be present on all viewLinc servers.

## Options



### Color Severity Mapping

WIN-911 has three severity levels. Alarms with higher severity take precedence over other alarms for alarm notification. Match your viewLinc alarm color to the corresponding WIN-911 severity level here.

### Dynamic Options

Dynamic options are settings that can be retrieved directly from viewLinc and used for alarm notification. These include alarm descriptions, priorities and sounds. These settings are passed to WIN-911 as an alarm occurs. This centralizes your alarm configuration within viewLinc and allows you to tweak alarm descriptions, sounds and priorities without restarting WIN-911.

### Description

When dynamic descriptions are enabled, WIN-911 will use the same alarm description displayed by viewLinc's active alarm page.

### Priority

As previously mentioned, WIN-911 may map viewLinc's colors to WIN-911's own priority scheme. Check this box to enable this feature.

### Sounds

All of the sounds for individual alarms can be pulled directly from viewLinc when an alarm occurs. This will be a combination of the channel, logger, hostname and alarm description in viewLinc. An example alarm announcement may read as: "'Channel1' on logger 'logger1' on host 'server1' threshold channel value greater than 88 F."

## Include Hostname

Select this check box to include the server's hostname in the voice and local auto annunciation of alarms associated with this data source. The default setting is unchecked.

# Alarm Filters

## What is an Alarm Filter?

An Alarm Filter is a set of parameters that define which alarms should be monitored by WIN-911, much like a search query. This eliminates the need to maintain a list of each alarm in WIN-911. One can simply define a Filter that matches every alarm in a viewLinc system and never have to bother with manually defining or importing alarm tags in WIN-911.

viewLinc alarms may be filtered on zone, logger description, channel description, color and type. These parameters may be combined to create complex filters. Each parameter is combined logically with an "and statement." This makes it possible to create Filters with some specificity. If you want WIN-911 to monitor alarms in a specific zone that are also red, specify the zone description in your Filter and select the color red.

Alarm Filters also associate matching alarms to Alarm Groups. Alarm Groups manage which contacts are notified about specific alarms. Every alarm that matches an Alarm Filter will be sent to that Filter's Group. If you want one set of people to be notified about alarms in one zone and another set of people to hear about alarms in another zone, you need to create a Filter for each zone. You then need to assign each Filter to a different Group. The groups then specify who will be notified about the alarm.

## Base Definition

The screenshot shows the 'Filter Definition' dialog box with the following fields and options:

- Tagname:** Threshold Alarms
- Filter:** (TYPE : T) with an **Edit Filter** button
- Group Name:** Operators
- Alarm Type:** Analog Only
- Data Source Access Name:** viewLinc
- Automatic Acknowledgement:**
  - Never
  - On Alarm
  - On Return To Normal

Buttons at the bottom: OK, Cancel, Help.

### Tagname

The Tagname specifies the name of the filter. It has no bearing on the actual tags defined within viewLinc. It is a user defined name within WIN-911, used to refer to a Filter definition in the same way that an Access Name refers to a particular Data Source.

### Filter

The filter specifies the parameters used in the Filter's query.

### Group Name

Every filter must belong to a Group. Groups provide Contact Lists, which specify who gets alarm notifications and the order. All alarms matched by your Filter will be a member of the Group you specify here and will be sent to the Group's Contact List for notification.

### Alarm Type

Options for this setting include: "Analog," "Digital," and "Any Alarm." Select "Analog" if you want this filter to match only threshold or level alarms. Select "Digital" for any binary or discrete alarm. "Any Alarm" will allow either type of alarm to pass through the filter.

### Data Source

A Filter must be associated with a particular viewLinc server. This association is made by the Access Name of the viewLinc server.

## Automatic Acknowledgment

Alarms that match a particular Filter can be acknowledged when they are received or when they return to normal. Acknowledging an alarm when it is received by WIN-911 will prevent all alarm notification. Acknowledging an alarm when it returns to normal, will only prevent notification when an alarm returns to normal.

## Filter Syntax

Alarm filters determine which alarms will be monitored by WIN-911. A filter consists of several parameters, any of which may be combined with a logical "and statement." An alarm matches a filter if it matches all of the parameters specified.

### Use Type to Filter

Select threshold, logger, or host to monitor alarms associated with either threshold alarms, logger communication alarms or host alarms.

### Filter on Zones

Enter a string here to filter alarms by zone name. You may enter in literal text or the wildcard characters "\*", and "?." An asterisk will match any character any number of times. A question mark will match any one character once.

### Filter on Logger Description

You may also filter based on the logger description. Wildcard characters may be used here as well.

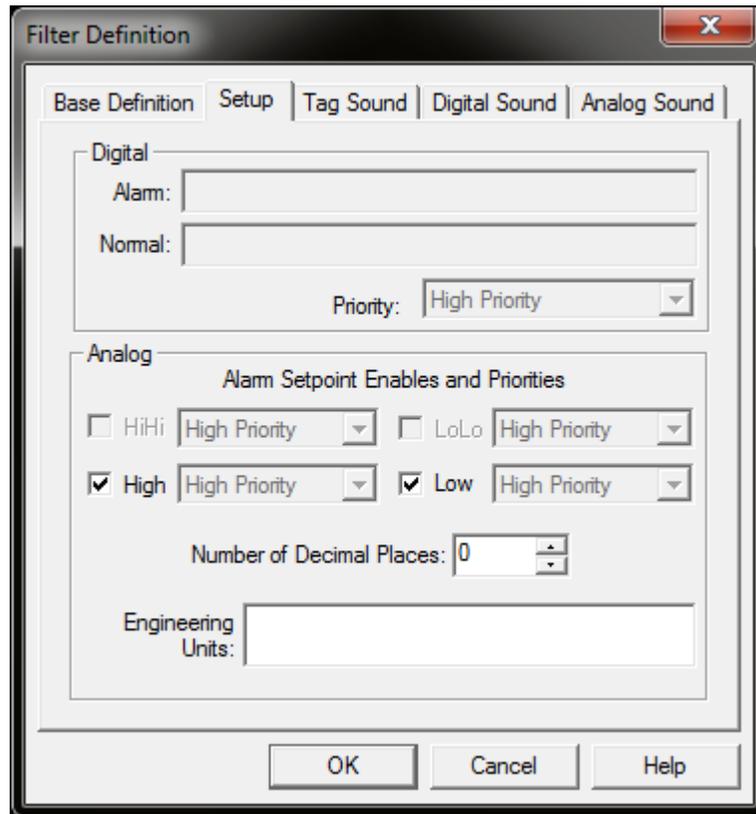
### Filter on Channel Description

You may also filter based on channel description.

### Filter on Color Severity

Alarms may be assigned colors within viewLinc. Check any color you wish to monitor here.

## Setup



### Alarm Setpoints and Priorities

Use the check boxes to enable or disable high or low threshold alarms. You may also assign a priority to all high or low threshold alarms with the drop down boxes. Priorities are assigned dynamically by default. See your viewLinc [Data Source Definition Options](#) to change this setting.

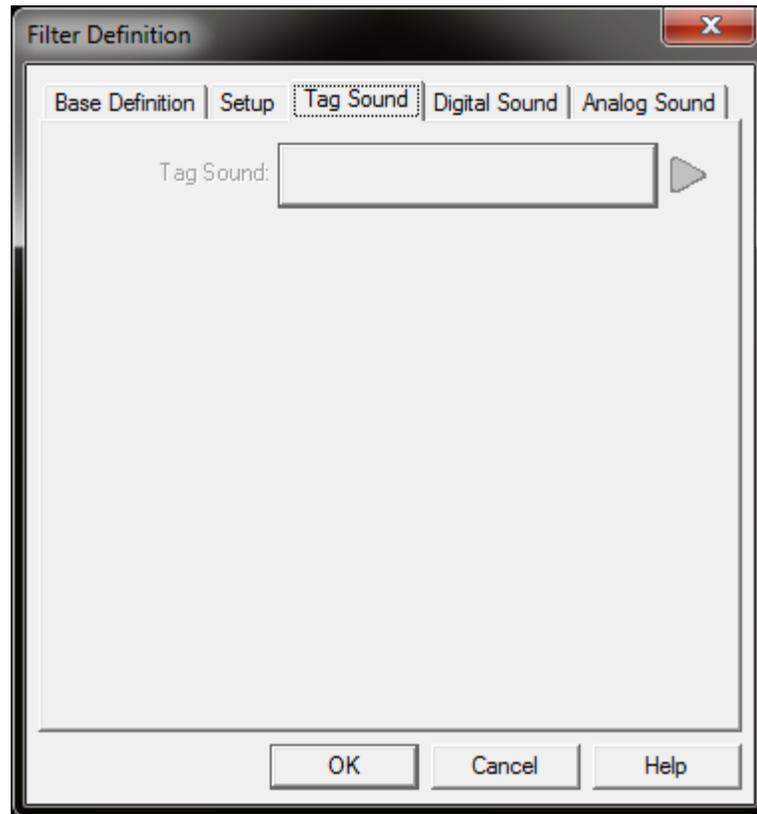
### Number of Decimal Places

WIN-911 will truncate any digital after the decimal place by default. Select the number of decimal places you wish WIN-911 to display here.

### Engineering Units

You can append engineering units to the values of your viewLinc alarms, e.g. "meters, Celsius."

## Sounds



The sounds defined here will be used to announce alarms that match this filter. These options will be greyed out by default. Filters can match multiple alarms, so in most applications it does not make sense to define a tag sounds in the filter. Sounds are generated dynamically by default, meaning that the tagname and alarm state sounds, as defined by viewLinc, are used to synthesize audio. If you wish to specify your sounds within WIN-911, disable dynamic sounds in your viewLinc Data Source definition's [options menu](#).

# Watchdog Timers

## Editing Watchdogs

### Overview

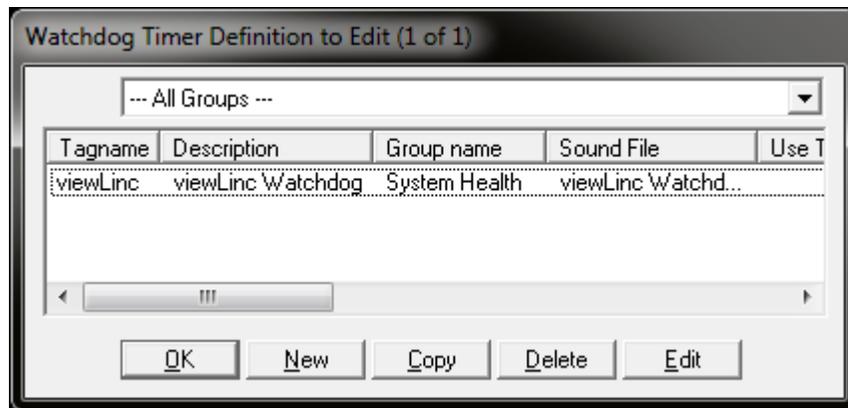
Watchdog alarms provide a way to notify users that WIN-911 has lost its connection to your viewLinc server. During this time, you may miss critical alarms. Avoid this dangerous scenario by using a Watchdog alarm.

viewLinc Watchdogs work a bit differently, than watchdogs defined for our other Data Sources. Typically, WIN-911 monitors a changing alarm or data value, which serves as a heartbeat. As long as WIN-911 receives the heartbeat updates, the Watchdog alarm will remain normal. Should the watchdog time-out before a heartbeat is heard from the server, an alarm is triggered.

Watchdogs for viewLinc do not require a heartbeat. WIN-911 will alarm on a Watchdog as soon as the connection to viewLinc is lost. This saves you from taking the extra step of creating a data point on your viewLinc server for WIN-911 to monitor.

### Step-by-step

Select Configure > Watchdogs from the Configurator to view a list of configured Watchdogs.



Click New to create a new Watchdog.

There are a few fields in the Watchdog definition that are required: the tagname, item name, access name, group name and time-out period. Everything else is optional, but recommended. Each of these settings is discussed in the following topics.

In order to receive a notification when WIN-911 loses connection to viewLinc, you must assign the watchdog to a group with contacts in the contact list. If you haven't created your group, you must do so before creating a watchdog. Watchdog alarms will be notified in the same way other alarms are. Watchdogs return to normal when viewLinc and WIN-911 are reconnected.

## Base Definitions

### Tagname

This is the name of your watchdog alarm. It must be unique.

### Description

Enter a description here to provide your users with more context than the tagname provides. It is a good idea to be as descriptive as possible, as the description may be used in notifications.

### Group Name

Watchdogs, like other alarms, must belong to a group. Groups provide Contact Lists, which specify who gets alarm notifications and the order.

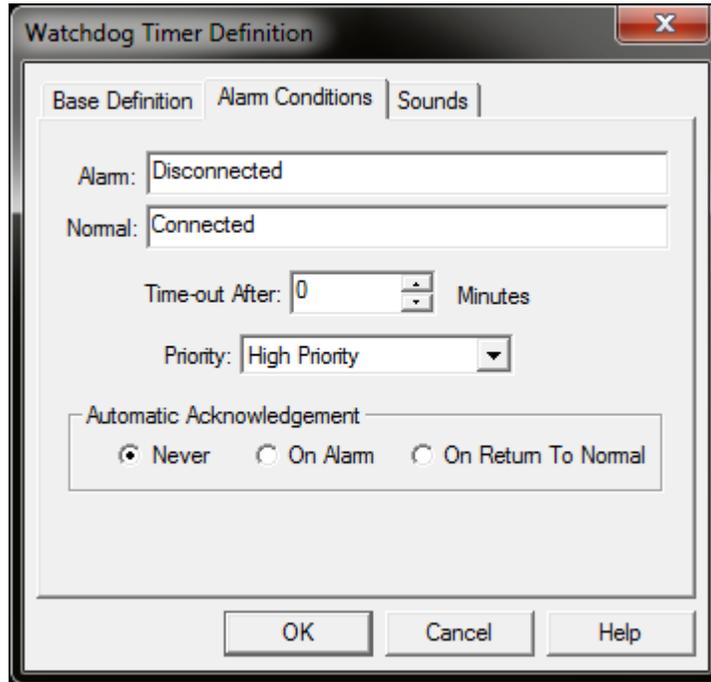
### Access Name

Alarms must be associated with a particular viewLinc server. Select the Access Name of the viewLinc server you wish the Watchdog to monitor.

### Item Name

Normally, the Item Name field would specify a particular tag on a SCADA package to monitor for updates, much like a heartbeat. However, viewLinc watchdogs do not require a server side heartbeat to monitor connectivity. Enter any text here, or check the "Use Tagname for Item" box to copy the tagname into this field.

## Alarm Conditions



### Alarm

The text entered here is used to display the alarm when in failure mode, that is, when WIN-911 is disconnected from viewLinc.

### Normal

This text is used when WIN-911 is normal, or connected to viewLinc.

### Time-out After

The time-out period for viewLinc watchdogs must always be zero.

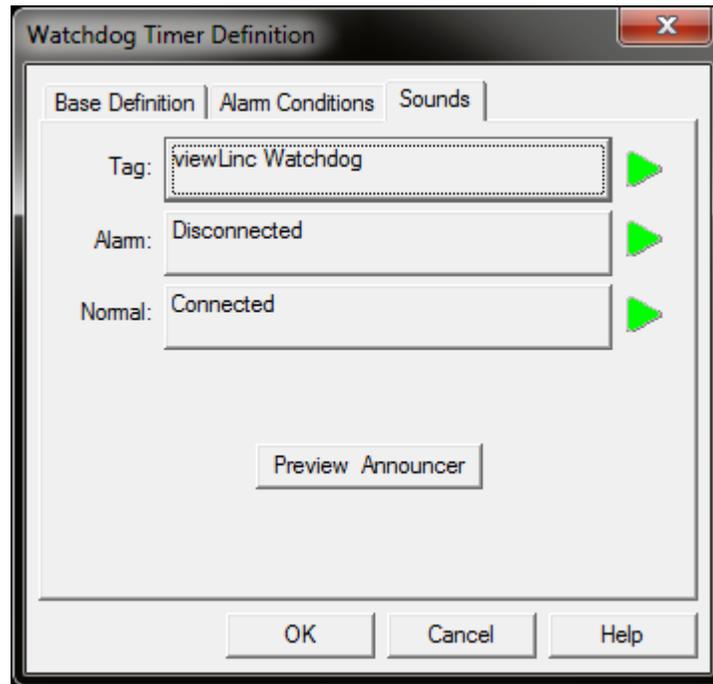
### Priority

WIN-911 has three priority settings: high, medium and low. Alarms with higher priority will be notified before alarms with lower priority.

### Automatic Acknowledgment

Watchdog alarms can be acknowledged when they are received or when they return to normal. Acknowledging an alarm when it is received by WIN-911 will prevent all alarm notification. Acknowledging an alarm when it returns to normal, will only prevent notification when an alarm returns to normal.

## Sounds



*In the above example, the watchdog alarm would be announced as, "viewLinc Watchdog is Disconnected."*

### Tag

This is the sound used to represent the tagname of your watchdog.

### Alarm

This represents the alarm or failure mode.

### Normal

This represents the normal mode.