

## ScadaPhone Version 6.2.4.116 Release Notes - Expanded

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## Overview:

This document briefly describes the “**New Features**” and “**Improvements**” in ScadaPhone Version Release 6.2.4.116. For more detailed descriptions, refer the following documents:

- ScadaPhone WebServer Interface
- Alarm Bypass Configuration
- Wav Phrase Organizer
- Duplicate Alarm name Resolution
- ScadaPhone Alarm Browser for iFix
- IP Network Connected Cell Router Configuration

## Bugs Fixed:

### 1. No Alarm Reports (via Email, SMS, SNPP)

No Alarm Reports (via Email, SMS, SNPP) if default **Weekday** action schedule (with **AnnounceAndCall** action from 8AM to 5PM) is configured and there is no **Announcement Device** (Soundcard or VoiceModem). This caused the emails not to be sent.

#### Resolution

ScadaPhone Version 6.2.4.116 now checks for the availability of an **Announcement Device** before triggering **AnnounceAndCall** action; if no **Announcement Device** is detected, ScadaPhone proceeds directly to **Call** action and adds a message in red to the **ActivityLog**.

```

CLogViewer: ActivityLog@*.CLog (2,759 lines)
File Clipboard Search Filter Display Activity Distribution Graph SMSMsg Count Stats Logged CS Filter
2020/01/09 07:42:41.702 [ 0.027] Saving Call Log
2020/01/09 07:50:42.884 [XX.XXX] PROGRAM START
2020/01/09 07:50:42.998 [ 0.114] EXE Path: C:\ScadaTEC\ScadaPhone\6.2.4\ScadaPhone.exe
2020/01/09 07:50:43.012 [ 0.014] Project Path: C:\ScadaTEC\ScadaPhone\Projects\VModemCalloutTest
2020/01/09 07:50:43.027 [ 0.015] InstallationInfo: ~SN CA87-7E1E 6.2.4.108 CE95-2491
2020/01/09 07:50:43.573 [ 0.546] ScadaPhone is now in RUN MODE
2020/01/09 07:50:43.619 [ 0.046] Restoring AlarmStateAndServiceInfo: StateInfo.Count=1 Alarms; ServiceInfo.Count=0 Contact Histories
2020/01/09 07:50:53.277 [ 9.658] [General] NextReportableAlarm = Alarm1
2020/01/09 07:50:53.278 [ 0.001] [General] NextReportableContact = Gmail Contact
2020/01/09 07:50:53.279 [ 0.001] [General] AnnounceAndCall: Announcement Device (Soundcard or VoiceModem) not available, proceed to callout
2020/01/09 07:50:53.280 [ 0.001] [General] warning system operator of impending call-out

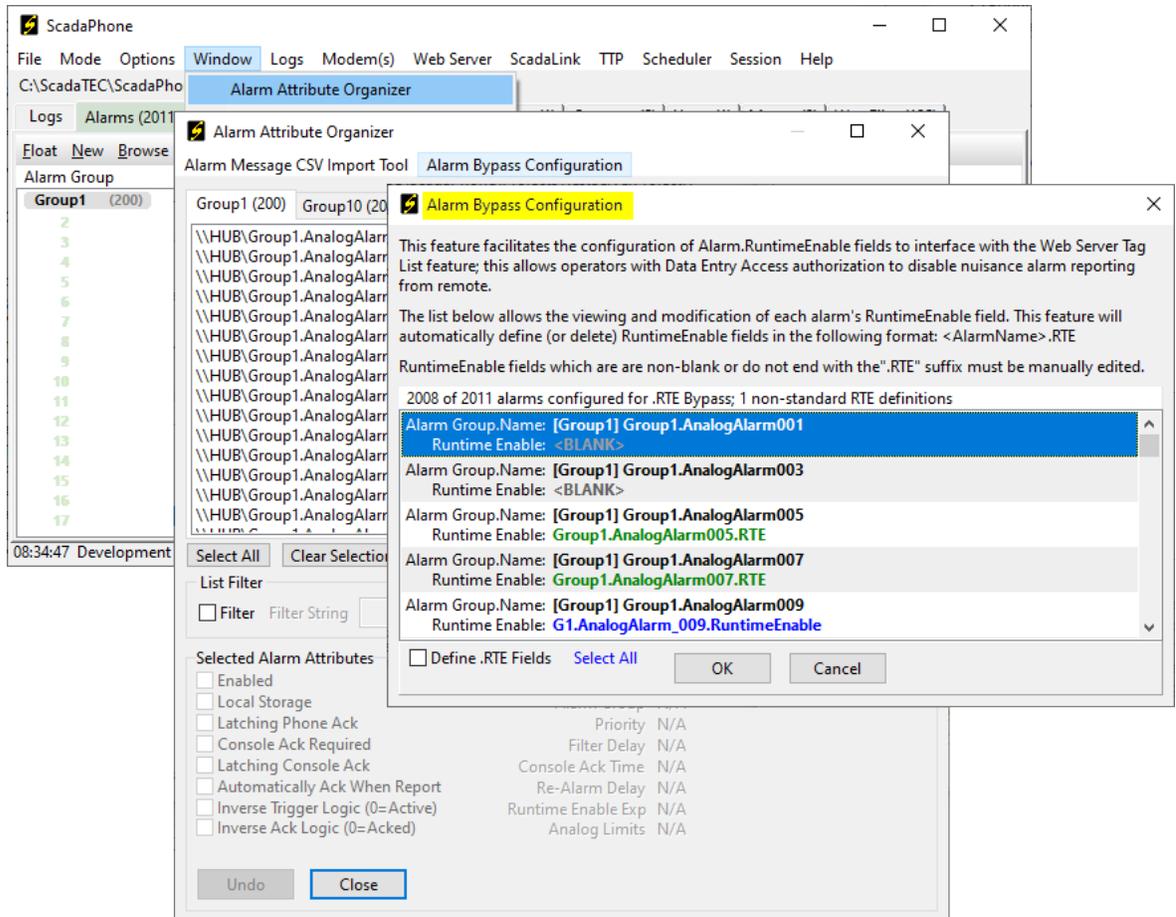
```

## New Features:

### 1. Added Features to the WebServer

#### 1.1 Alarm Bypass Configuration

This window (accessible from the **Alarm Attribute Organizer**) provides a way to quickly setup **Run Time Enable (RTE)** holding tags and insert them into all project alarms. The **RTE** tags are intended for use in conjunction with the **WebServer TagList** feature to support **RTE** tag manipulation from remote.

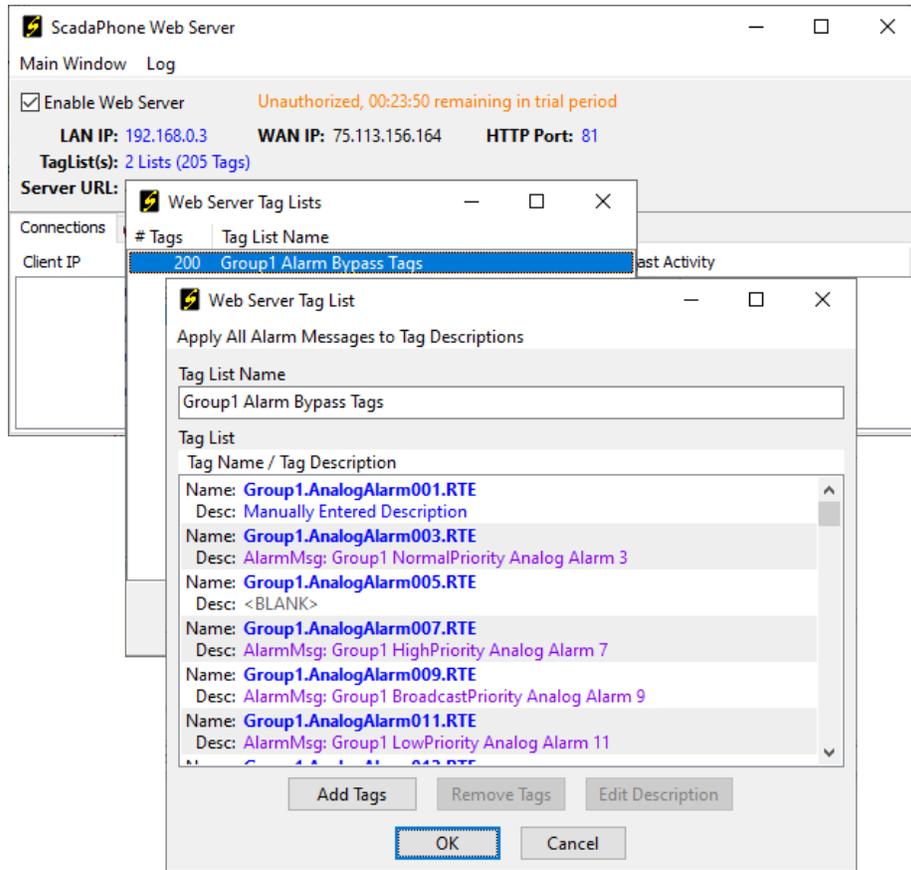


This feature only operates on alarms having either a **<BLANK> Runtime Enable** (shown in **gray font**) or a Runtime Enable consisting of a single tag ending with the **".RTE"** suffix (highlighted in **green font**). Runtime Enable expressions which do not conform to these requirements are shown in **blue font** and cannot be edited in this window.

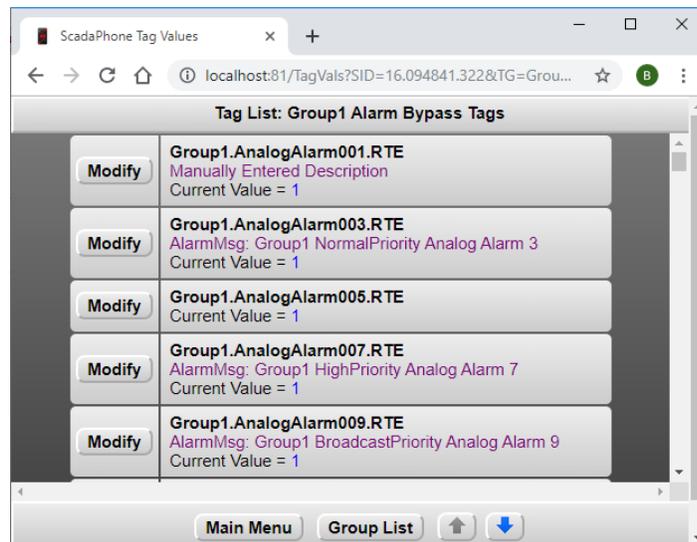
The complete setup of the Alarm Bypass feature is described in the "Bypass Alarm Using ScadaPhone WebServer" application note.

## 1.2 Web Server Tag List Item Description

In order to avoid operator confusion when interacting with **Web Server Tag Lists**, the **ScadaTEC Web Server** (in all apps) supports an optional **Description** field for each Tag List Item.

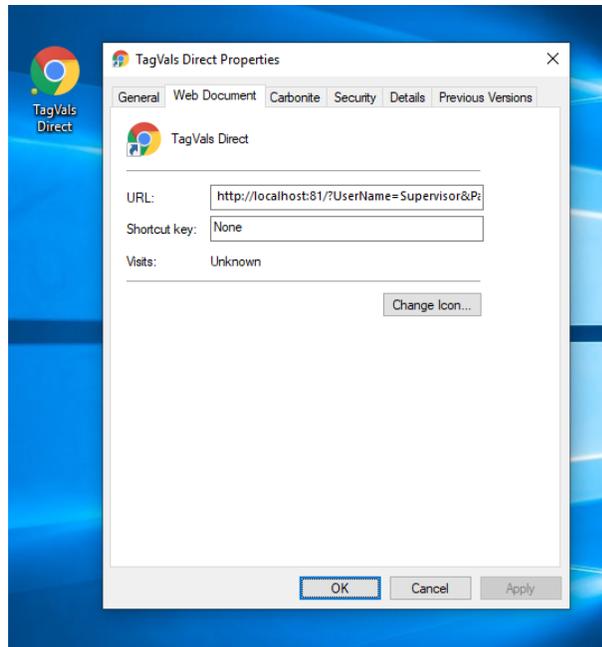


This is how the **Descriptions** are displayed on the Web Browser client:



### 1.3 Direct Access to Specific Pages

The **Web Server** now allows **Direct Access** to specific pages; this was added to direct links to Alarm Bypass Tag Lists, but can also be used to access any other page by the Web Server.



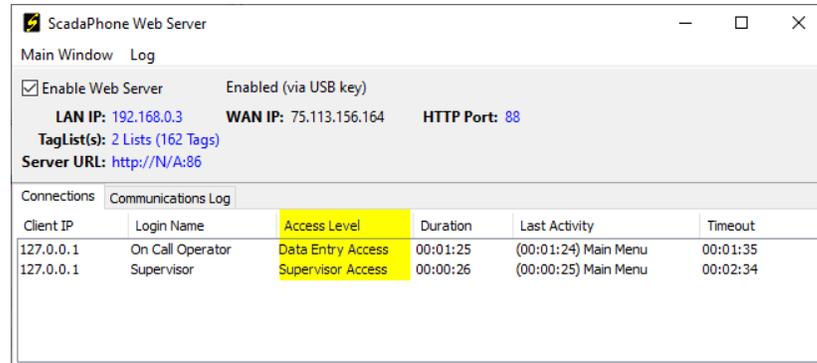
Windows Shortcuts perform what is known as a **Shell Execute** (in Windows terminology). If a SCADA system supports a **Visual Basic for Applications** interface (or equivalent), a **Shell Execute** function can be linked to an on-screen button in the SCADA system; this provides direct access to any ScadaPhone Web Server page (including specific **TagVals** page). When the user clicks a correctly configured button in the SCADA system, the local Web Browser will go directly to the specified page. For example, if the **.RTE** tags are accessible in a ScadaPhone Web Server **Tag List** named "RTE", the following **URL+Query String** can open the default web browser and navigate directly to that page:

```
http://localhost:81/?UserName=Bob&Password=123&Page=TagVals&ExtQuery=TG=RTE
```

This assumes that ScadaPhone has a **User** named **Bob** with password **123**; if the login credentials are invalid, ScadaPhone's Web Server will divert to the **Login** page.

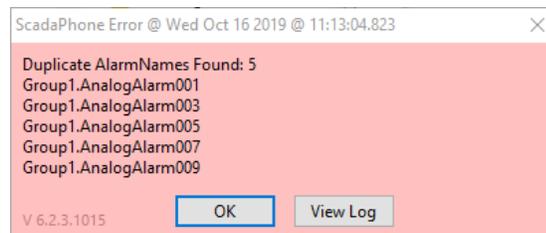
## 1.4 Added Web Server user Access Level display column

The **Web Server** window now displays the **Access Level** of each logged-in user.



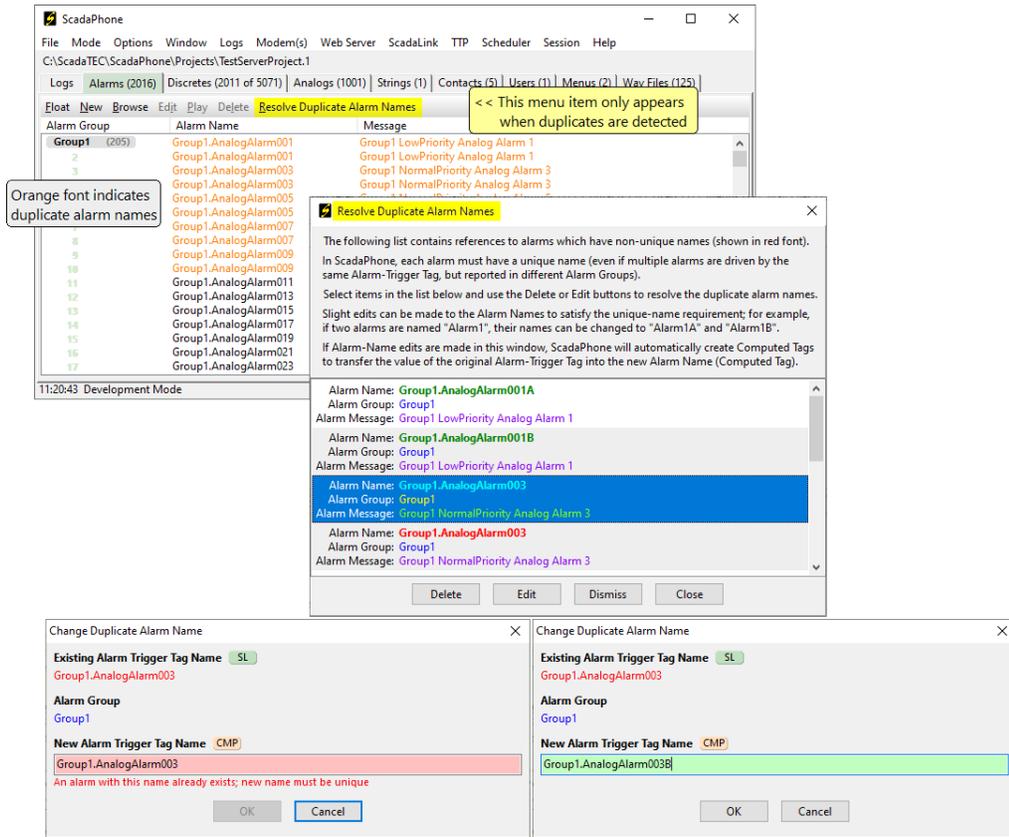
## 2. Added Duplicate Alarm Name Resolution window

ScadaPhone requires that all Alarm names be uniquely defined, but some imported projects (or projects externally manipulated by direct editing of the **Alarms.txt** file) have been found to contain duplicate Alarm names. ScadaPhone has always issued an error message when duplicate alarm names were detected.

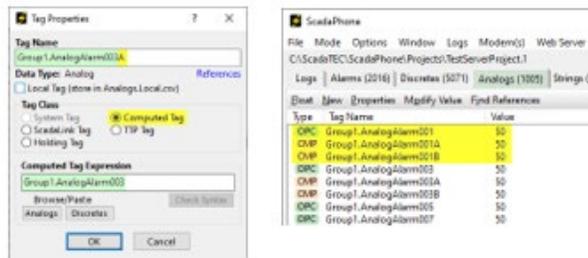


However, aside from issuing this error message (which was routinely ignored by some users), ScadaPhone did not have any means for assisting the user to resolve the issue.

As of version 6.2.3, there is now a utility window designed to help resolve duplicate alarm names.

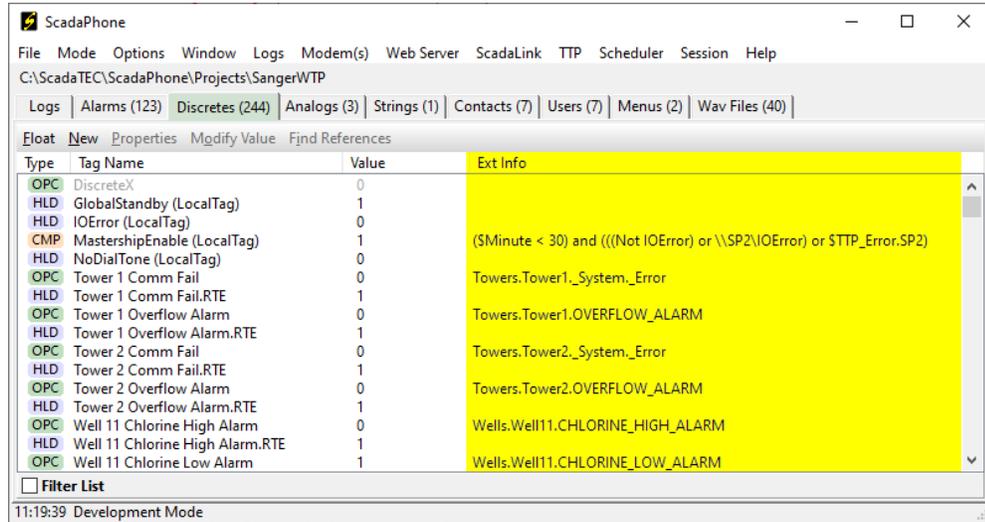


To preserve the linkage between the **original Alarm Trigger Tag** and the **new (computed) Alarm Trigger Tag** (alias), the alias merely tracks the value of the original tag (while also providing a unique name for the duplicated alarm). Alarm duplication is not a common practice, but some system designers use them to support multiple reporting strategies (by placing the duplicates in different alarm groups).



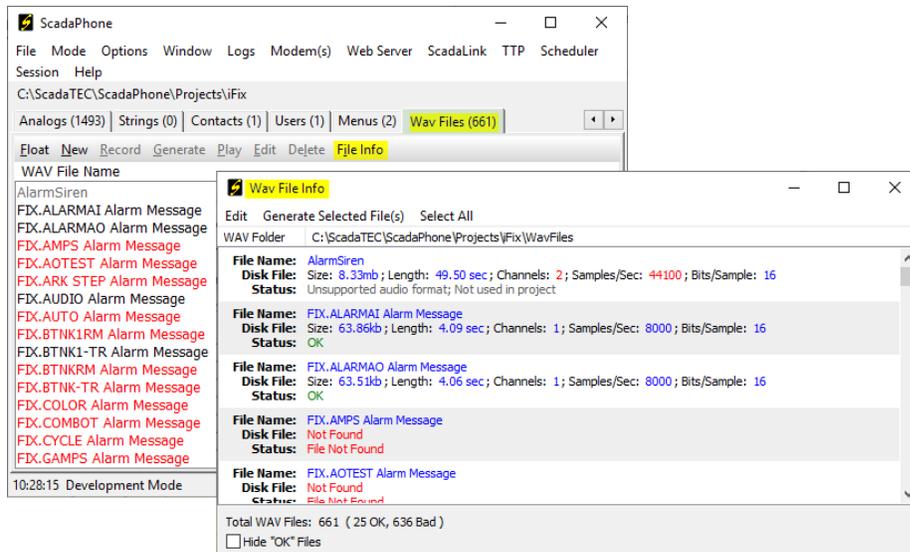
### 3. Added Ext Info (Extended Information) column

A 4<sup>th</sup> column has been added to **Analog**, **Discrete**, and **String** Tag List Windows which displays Extended Information related to tags (**ScadaLink Alias** for ScadaLink Tags, **Expression** for Computed Tags).



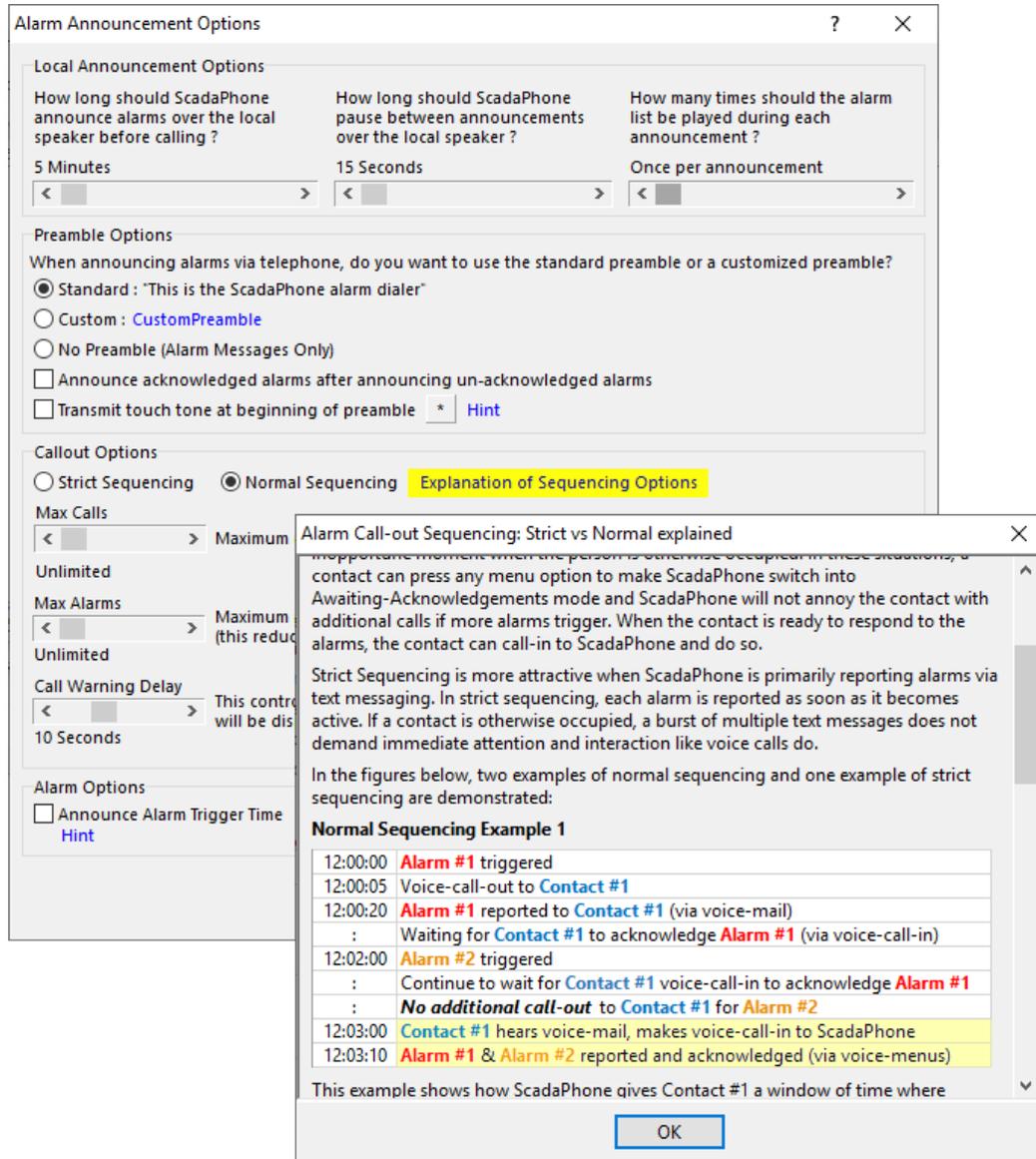
### 4. Added Wav File Info window

This window was added to provide a way to do a project-wide inspection of the **User Defined WAV** files at a glance. This assists the system designer in identifying and replacing WAV files that were not created with the proper audio format (8000 16-bit samples per second, mono). This window can be viewed from the WAV Files (tab/window) from the main window.



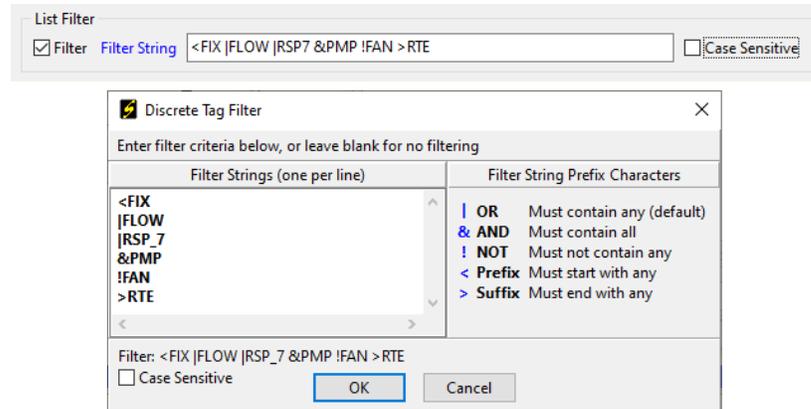
## 5. Added Sequencing Explanation Window

A new window which clearly explains the difference between **Normal** and **Strict** sequencing has been added.



## 6. Added Standardized List Item Filtering

Various **List Filters** implemented in numerous windows have been homogenized to use a common filtering scheme.

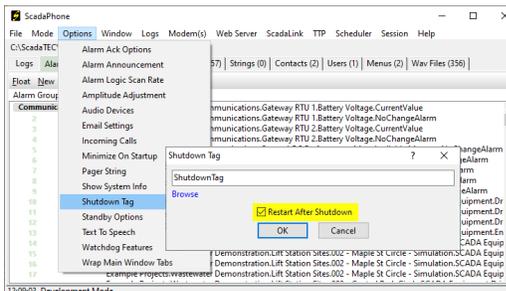


This filter scheme has been utilized in the following locations:

- **Alarm Attribute Organizer**
- **Analog/Discrete/String Tag Browsers**
- **Analog/Discrete/String tag list windows**
- **Citect Alarm Browser, Citect Tag Browser**
- **MailboxBrowser, MenuBrowser**
- **ClearScada Alarm Browser**
- **DeleteAlarm(s) window**
- **Removed Unused Tags window**
- **TagValueLog**
- **TagPropertyOrganizer**
- **WebServerTagBrowser**

## 7. Added Shutdown Tag / Restart Option

The Shutdown Tag window now has a new option to Restart ScadaPhone after shutting down.



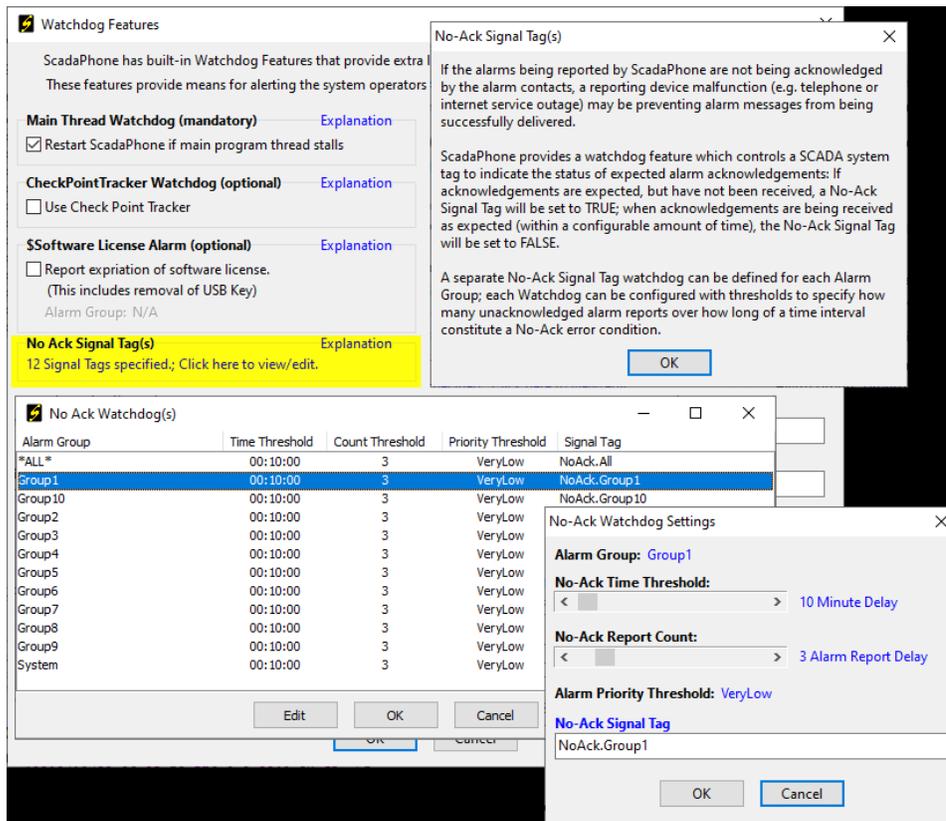
## 8. Added Support for 4G Serial and Ethernet Cellular Modems and Zoom Voice Modem

ScadaPhone has added Support for the following Modems:

- Multitech MTC-LNA4, MTC-LNEU4 Cellular Modem (Serial)
- Multitech MTR-LNA7, MTR-LEU7 (Ethernet Modem)
- Zoom Voice/Data USB Modem Model 3095A

## 9. No-Ack Watchdog Added

The **No-Ack Watchdog** can be accessed from the **Watchdog Features** window:



The **No-Ack Watchdogs** behave as follows:

- Each **Alarm Group** can be assigned a unique **Signal Tag**. When a **No-Ack** situation is detected, the bit is written to **TRUE** otherwise the bit is written to **FALSE**.
- The **\*ALL\*** alarm group wildcard applies to all alarms.
- To avoid processing delays in large projects the logic for this feature is driven once every 5 seconds.

- **Signal Tags** should not be used for more than one group; otherwise, bit-status oscillation can result.
- The **Signal Tags** can be classed as **Holding Tags**, **ScadaLink Tags** or **TTP Tags**; remote-based tags are read and written to the remote OPC/TTP server.

There are 3 Threshold values which define the **No-Ack** state (Time, Count and Priority), all 3 thresholds must be met or exceeded to trigger **No-Ack** status

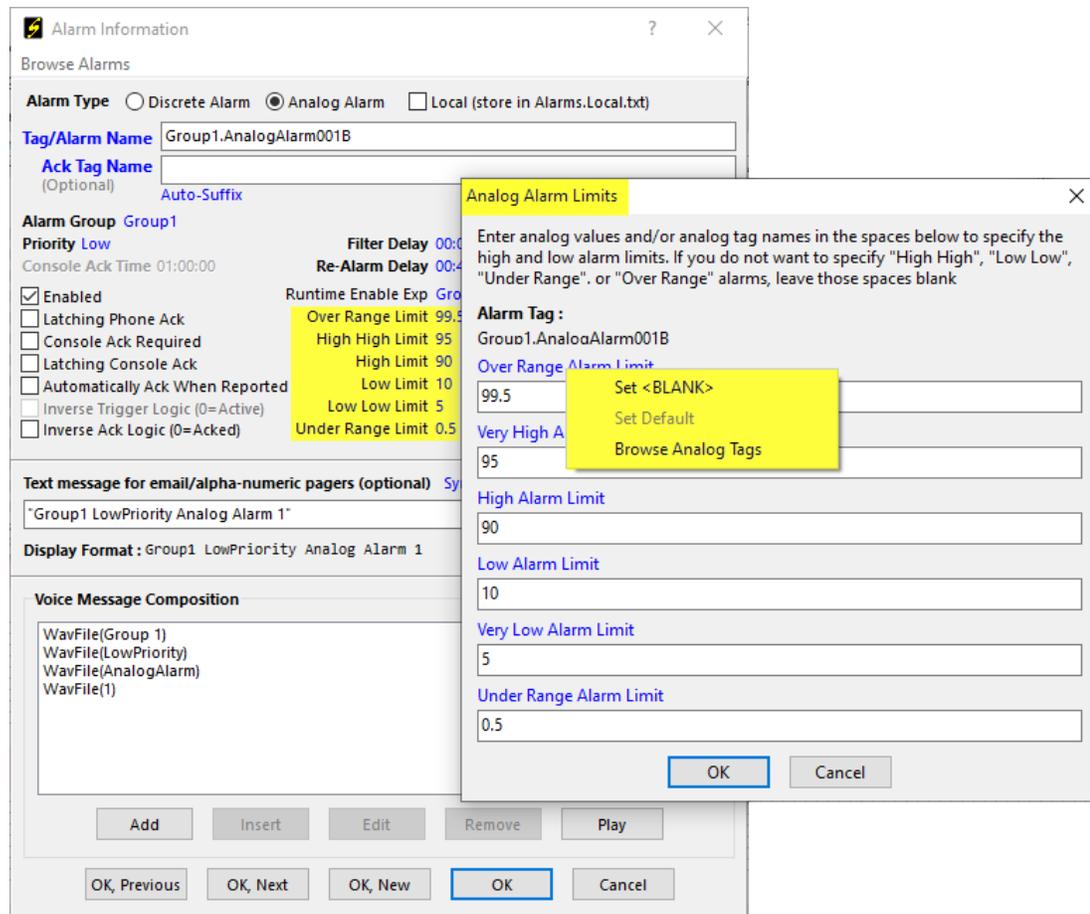
- **Time Threshold** specifies how long an alarm must be in the **Awaiting Acknowledgement** state
- **Report Count Threshold** specifies the minimum number of alarm reporting attempts required before the **No-Ack** status is triggered

**Alarm Priority Threshold** filters out all alarms below the specified priority; if the **Alarm Priority Threshold** is set to **Very Low**, then all alarms meet or exceed this threshold.

## Improvements:

### 1. Analog Alarm Limits (window)

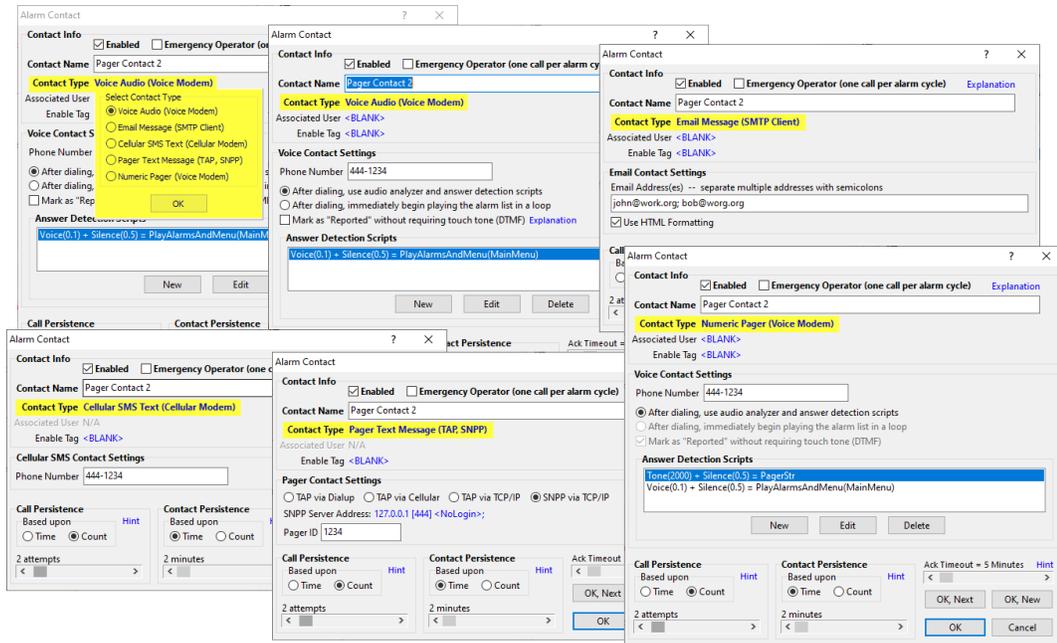
The **Analog Alarm Limits** window has been improved to accommodate longer tag names and a new **pop-up menu** has been added to handle automatic definition options (Set <BLANK>, Set Default, Browse Analog Tags). The **Set Default** option is aware of the **ScadaLink Setup** and inserts appropriately-suffixed limit tags; this allowed the removal of the old **Use Citect/iFix/ClearScada Defaults** buttons.



### 2. Improved Alarm contact Window

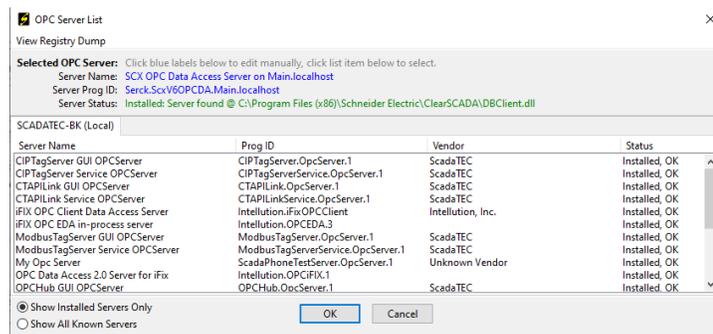
The **Alarm Contact** window has been significantly cleaned-up so that it is no longer cluttered with extraneous controls.

The **Contact Type** selector is now implemented as a pull-down box with radio buttons to select the type; once the **Contact Type** is selected, the pertinent controls are displayed and the irrelevant controls are hidden:



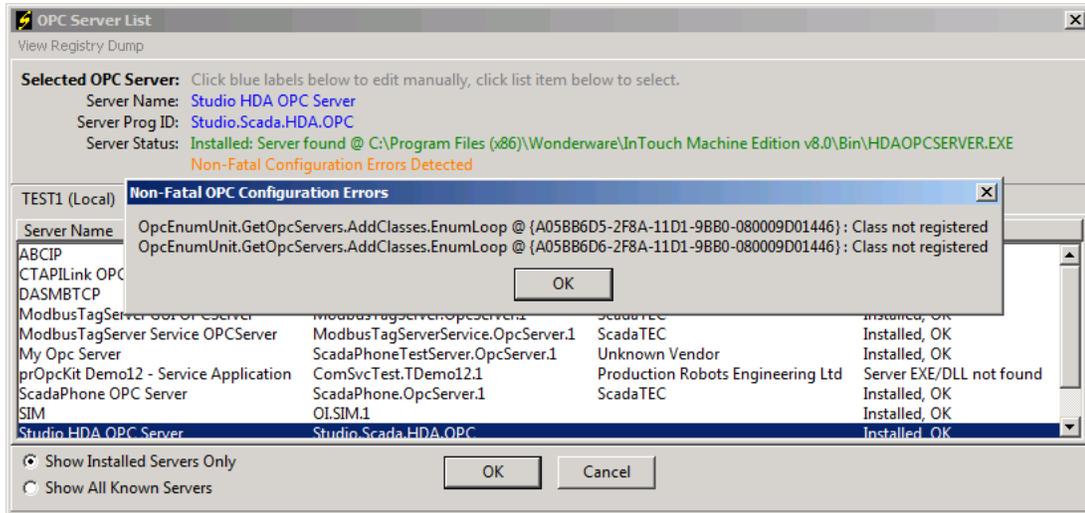
### 3. The ScadaLink OPC Server List

In previous versions, the **ScadaLink OPC Server List** initially showed a list of *known* servers (which was difficult if not impossible to maintain), to view the list of *installed* OPC Servers, the user had to click a **Browse Servers** menu item; the results of that server enumeration is now *initially* displayed when the **OPC Server List** window is opened. The list of *known* servers (which may or may not be installed) is blended with the installed list if the user clicks the **Show All Known Servers** button.



The enumeration procedure has also been improved to be more resilient when **OPC Enum** encounters errors. Previous versions would abort the enumeration when errors were encountered; now these errors are captured and added to a list.

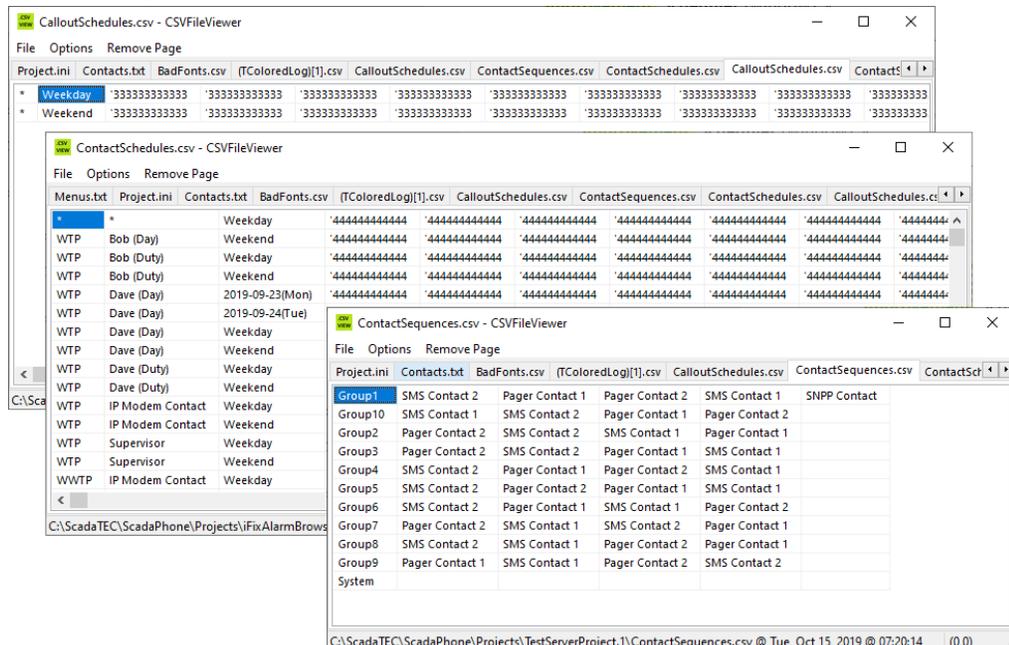
If the error list contains any errors after the enumeration is complete, an error label will be displayed; clicking the error label will display the contents of the error list. This feature has improved detection and reporting of the *absence* of the **OPC Core Components**.



## 4. Scheduler Improvements

### 4.1 Consolidation of Schedule Data into CSV Tables

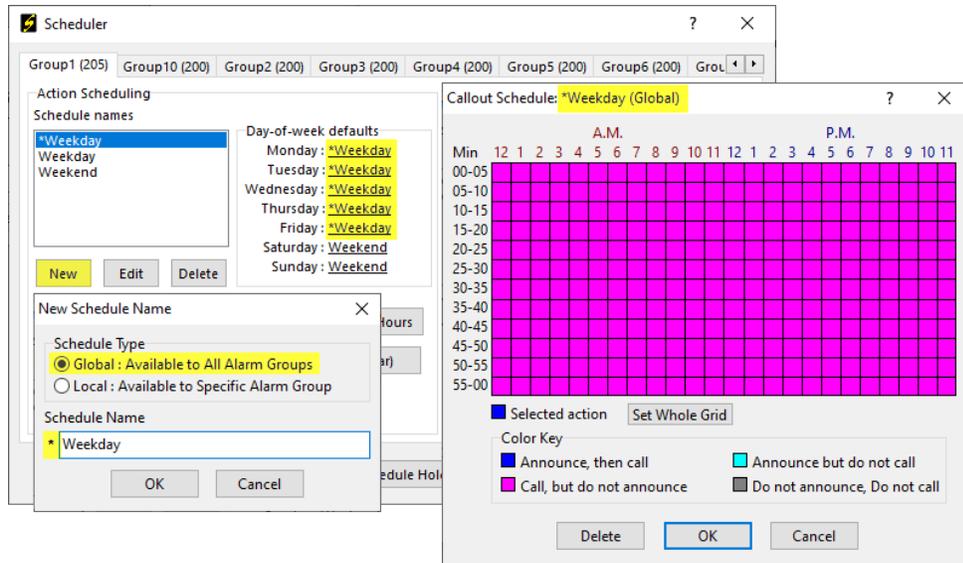
In previous versions, ScadaPhone's **Callout (Action) Schedules**, **Contact Availability Schedules** and **Contact Sequence Lists** were stored in separate text files in sub-folders within the project folder; this was inefficient for large/complex projects. All schedule info has been consolidated into CSV files at the root of the project folder.



## 4.2 Global Schedule Names (\*Wildcards)

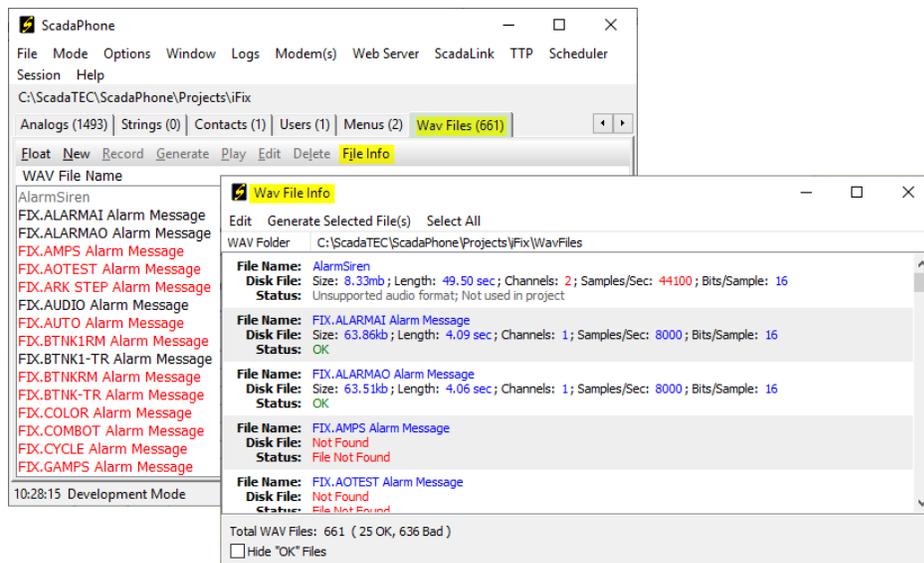
In previous versions, **common schedule data** had to be stored **redundantly**. In the new scheme, schedule names beginning with an asterisk are considered to be global (e.g. **\*Weekday, \*Weekend**).

For example, if there are **5 Alarm Groups** using the default **Weekday & Weekend** schedules, **10 separate schedules** are required. By using global schedule names, that count can be reduced from **10** down to **2 (\*Weekend and \*Weekday)**.



## 4.3 Flexible Scheduler (window)

Scheduler window can now be stretched and scaled to show long names and lists.



## 5. Improved TTPRedundancy / Remote Update / Project Sync

The **TTP Redundancy: Local vs Remote Configuration Comparison** window has been improved to give a clearer representation of project synchronization options. The new **Compare / Write / Read** buttons appear in the list box for each project element which differs between the **local** and **remote** TTP nodes:

Project Element	Node	Time Stamps	Count	Comparison	Actions
AlarmGroups	Local	2019/04/16 14:58:19 (equal)	13	Not Equal	Compare Write Read
	Remote	2019/04/16 14:58:19	12		
Alarms	Local	2019/04/28 09:44:03 (equal)	121	Equal	
	Remote	2019/04/28 09:44:03	121		
CalloutDOWDefaults	Local	2019/05/31 13:42:35 (newer)	12	Not Equal	Compare Write Read
	Remote	2019/04/29 09:12:40	11		
CalloutSchedules	Local	2019/05/31 13:42:35 (newer)	32	Not Equal	Compare Write Read
	Remote	2019/05/31 13:36:24	30		
ContactDOWDefaults	Local	2019/06/04 03:32:06 (equal)	48	Equal	
	Remote	2019/06/04 03:32:06	48		
Contacts	Local	2019/04/28 09:45:16	6	Not Equal	Compare Write Read
	Remote	2019/05/31 14:35:50 (newer)	6		
ContactSchedules	Local	2019/05/31 13:42:46 (equal)	98	Equal	
	Remote	2019/05/31 13:42:46	98		
ContactSequences	Local	2019/05/31 13:42:35 (newer)	13	Not Equal	Compare Write Read
	Remote	2019/04/29 09:12:40	12		
Tags.Analogs	Local	2019/04/28 09:44:40 (equal)	2	Equal	
	Remote	2019/04/28 09:44:40	2		
Tags.Discretets	Local	2019/04/28 09:45:03 (equal)	120	Equal	
	Remote	2019/04/28 09:45:03	120		
Tags.Strings	Local	2019/04/28 09:44:54 (equal)	1	Equal	
	Remote	2019/04/28 09:44:54	1		

Explanation

Write All Newer Definitions To Remote Node Close

Suppress automatic display of this window

When writing project data to the remote redundancy node, the **Remote Update** process can be somewhat lengthy; in order to reassure and inform the operator that the process is still in-progress, a new **TTP Redundancy Remote Update Progress** window has been created.

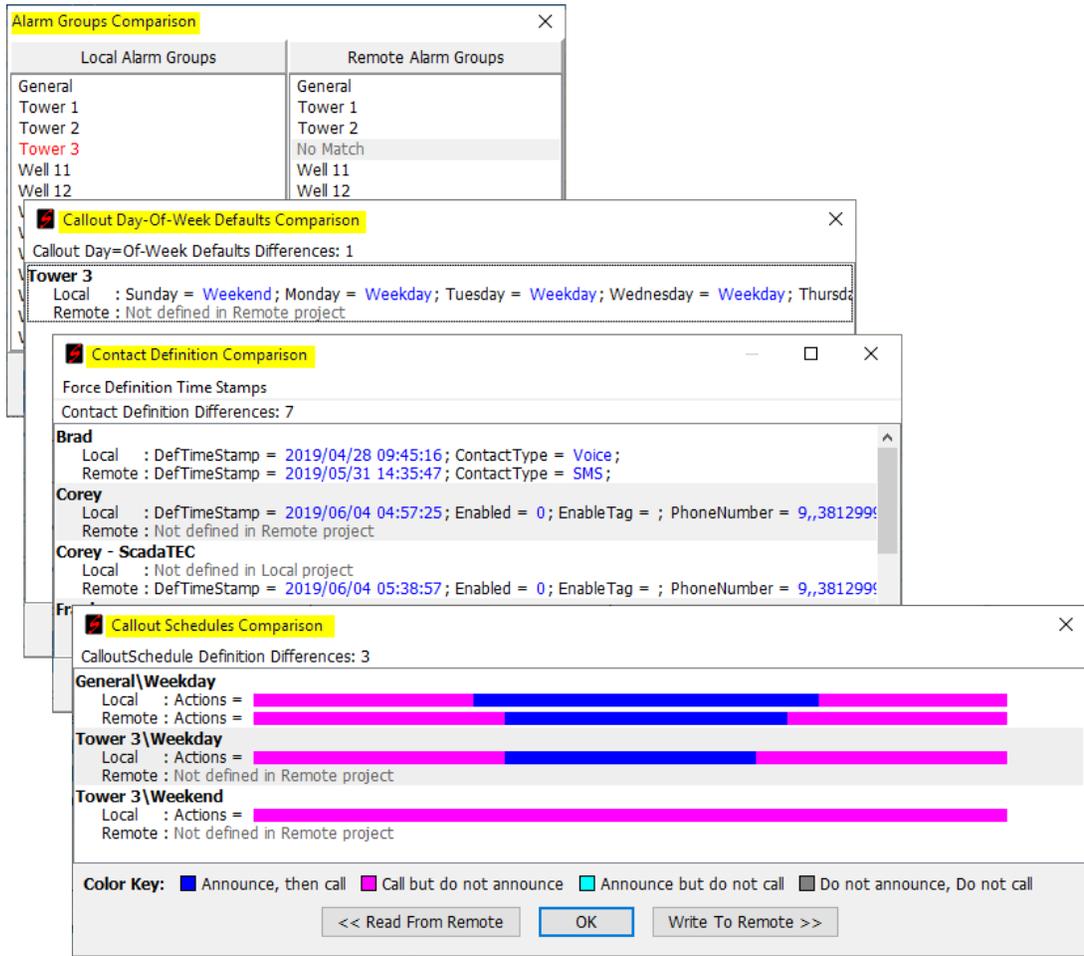
TTPRedundancy Remote Update Progress

Events & Status

13:07:52.347 Initiating RemoteUpdate  
 13:07:52.713 RemoteUpdate request sent  
 13:07:52.713 Awaiting RemoteUpdate response...  
 13:07:53.919 RemoteUpdate response received  
 13:07:53.919 Initiating SynchCheck  
 13:07:56.397 SyncCheck request sent  
 13:07:56.397 Awaiting SyncCheck response...

Completion Timeout: 00:00:21

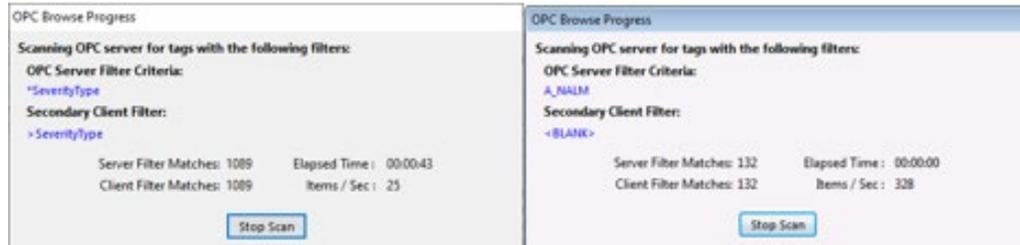
Each project element type has a type-specific **Comparison** window; these are the windows which are displayed when the **Compare** button is clicked.



Each Comparison window has a **Read From Remote** and **Write To Remote** button; these buttons serve the same function as the **Read** and **Write** buttons displayed on the **Local vs. Remote Configuration Comparison** window. This allows the user to inspect the project element differences before choosing with configuration information to accept (local or remote). These windows existed in the previous version of ScadaPhone, but the **Read** and **Write** buttons have been added and a few other display improvements have been made in this new version.

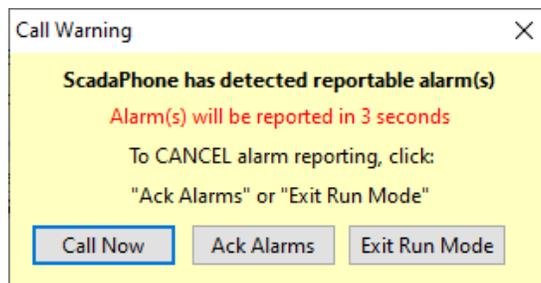
## 6. Improved Filtered OPC Browse

To avoid the extremely long browses encountered when browsing large **ClearScada** and **iFix** projects, the **OPC Browser** has been improved to perform the initial browse from the server as a **single pass** using a simple (one factor) filter (**.SeverityType** with **ClearSCADA**, **.A\_NALM** with **iFix**).



## 7. Improved Call Warning window

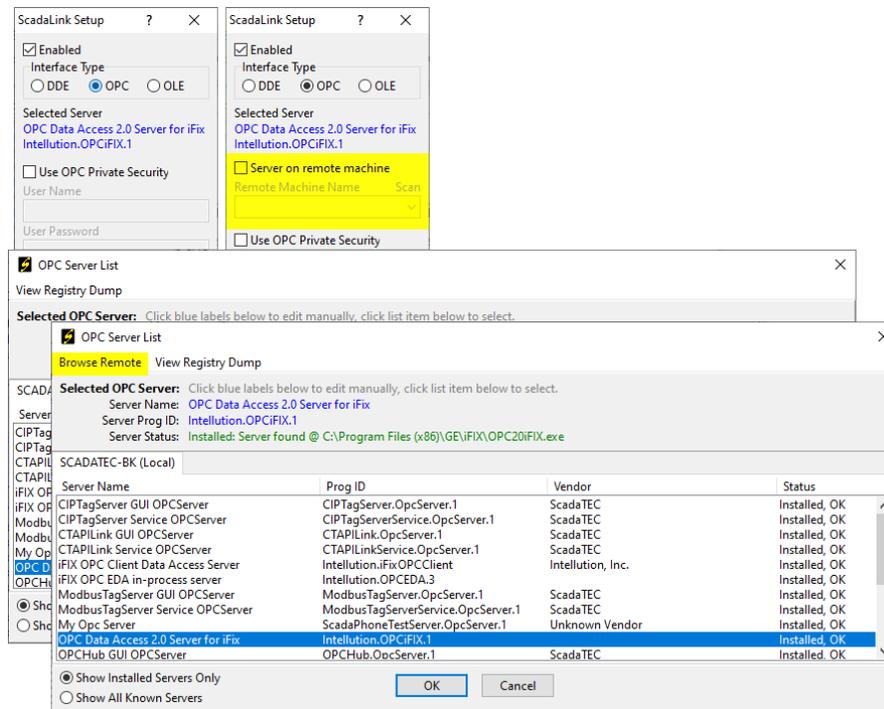
The **Call Warning** window has been re-worded and cleaned-up.



## Deprecated

### 1. Remote OPC Connection controls

Due to the notoriously difficult configuration and network performance issues associated with **Windows DCOM** (the foundation of **Remote OPC** connections), the setup controls for remote connections have been hidden by default; however, support for remote connections is still available if ScadaPhone is launched with a command-line switch (/DCOM).



## Removed

### 1. Removed: Main Window / File / Program / Remote Access Software (menu item)

This menu option used to open the **Remote Access Software** configuration window. This was used with old *dial-up* programs (such as *PCAnywhere*) which are now *obsolete*; therefore, ScadaPhone **RAS** interface has been removed.

### 2. Removed: Alarm Contact Grouping window / UpButton + DownButton

The **Up** and **Down** arrow buttons were removed because the **Selected Contacts** list is sorted alphabetically; therefore implying that there was any reason to reorder the list was wrong.

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