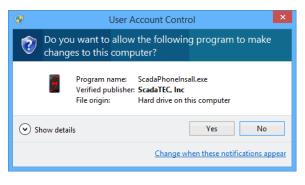


ScadaPhone Installation & Quick Start::

This document outlines the procedure for installing **ScadaPhone** and configuring a simple-but-functional project on your computer. The objective is to give an abbreviated step-by-step procedure for getting from **Software Installation** to **Live Demonstration**. Many features and details are intentionally omitted from this document for the sake of brevity.

Software Installation::

When installing ScadaPhone on a computer running under Windows Vista or higher, the Windows User Account Control (UAC) prompt is displayed; this is triggered because ScadaPhoneInstall.exe must request administrative privileges in order to make necessary changes to the Windows Registry and the hard drive. Click the Yes button to proceed with the installation.



ScadaPhone Installer	×
SCADATEC	
ScadaPhone Version 5.5.40.926 Installation	
Program Directory C:\ScadaTEC\ScadaPhone\5.5.40	
Sample Project C:\ScadaTEC\ScadaPhone\Projects\Sample	
Install	
ScadaPhone Installer	×
GCADATEC	×
	×
ScadaPhone Version 5.5.40.926	×

The Main Window of the **ScadaPhone Installer** only presents 3 options (initially):

- The Program Directory defaults to C:\ScadaTEC\ScadaPhone\<version> The version number is included in this path to ensure that subsequently installed versions of ScadaPhone do not overwrite existing installations; this is done in case the user decides to revert back to an older version in the event of licensing or compatibility issues. Adherence to this directory style is strongly recommended, but if an alternate installation location is desired, click the bluehyperlink label to select an alternate installation path.
- If ScadaPhone has never been installed on the computer, an optional Sample Project can be installed; if the installation program detects a previous installation of ScadaPhone, the Sample Project option is omitted (see lower graphic) and the newly-installed version of ScadaPhone will be initialized to run the same project already selected by the previous installation.
- If the user wishes to change the location of the **Sample Project**, the blue-hyperlink label allows the user to select an alternative folder into which the **Sample Project** will be extracted.

When the installation options are set to acceptable values, clicking the **Install** button will either commence the file extraction process or display the following prompt regarding the **removal of existing shortcuts**:

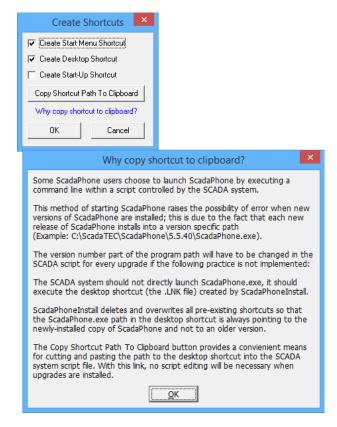
It is highly recommended that the **Yes : Delete old shortcuts...** option be selected (for the reasons outlined in the **Existing Shortcut(s) Removal Explanation** window).

After the files have been extracted, a prompt to **Create Shortcuts** is displayed. The default options are set to create a ScadaPhone shortcut on the Windows **Start Menu** and the Windows **Desktop**; if ScadaPhone needs to be launched on Start-Up, the 3rd check-box can be ticked to have the install program add the appropriate **.LNK** file to the **StartMenu\Programs\Startup** folder.

If you intend to launch ScadaPhone via some other means (e.g. a script command executed by the SCADA software), you can obtain a the path to the **Start Menu** shortcut (**.LNK** file) by clicking the **Copy Shortcut Path To Clipboard** button.

Using the **Start Menu** shortcut to launch ScadaPhone is preferable to having scripts reference the actual **ScadaPhone.exe** path, because of the reasons outlined in the **Why copy shortcut to clipboard** window.

After the **Create Shortcuts** prompt is closed, the installation process should be complete.



Configuring ScadaPhone::

After installation is completed, ScadaPhone can be launched by clicking one of the shortcuts created by the install program or by double-clicking the **ScadaPhone.exe** file in the **Windows Explorer**.

ScadaPhone	- 🗆 🗙
File Mode Options Window Logs Modem(s) WebServer ScadaLink TTP Scheduler Session Help)
C:\ScadaTEC\ScadaPhone\Projects\Sample	
Summary (0) Menus (8) Alarms (11) Contacts (5) Users (4) Mail Boxes(3) Wav Files (39) Discretes (13) Analogs (5)	Strings (2)
Alarm Name	
[ChemicalTeam] ChlorineLevelLow	
[General] MainStWetWellLevelLow	
[General] PAL_Water_Distribution	
[General] PLC5CommFault	
[General] SodiumHyperChloriteTankLevelHigh [General] SteamTurbineBearingAlarm	
[General] TextMsgAlarm1	
[General] TextMsg/aarm2	
[General] TurbHighAlarm	
[General] Turbine 1Abnormal Shutdown	
General TurbinePump2LAHShutdown	
New Edit Delete Play Browse	
17:46:43 Development Mode	

ScadaPhone's **Main Window** has an intuitive layout which displays the path to the currently loaded project folder (highlighted in yellow, above), the current time and program state (highlighted in green), and a tab control which provides one-click access to the various lists of information defined in the current project; all project-configuration operations are reachable from either the top menu bar or the buttons at the bottom of each page of the tab control.

When ScadaPhone is launched for the first time on a machine which had no previous version of ScadaPhone installed, the project will be set to either **Sample** or **Project1** (depending upon whether or not the **Sample Project** was extracted by the install program). To start a new project: Click the **File/Project/Load/New** menu item and enter an appropriate name for the new project.

In this example, a new **project folder** named **AnytownWTP** will be created.

						ScadaPh	ione				-	□ ×	
File	Mode C	Options	Wind	ow Logs	Modem(s)	Web Server	ScadaLink	TTP	Schedul	er Session	Help		
	Project Program	+		oad/New lecent		Mail Boxe	es(3) Wav Fil	es (39)	Discretes	: (13) Analog:	s (5) Strir	ngs (2)	
	Exit Save Conemican earing onice Save As					Se	lect Dir	ectory		×	¢		
ĮG	eneral] Maiı eneral] PAL eneral] PLC	_Water		xport nport		Directory <u>N</u> ar C:\ScadaTEC	me: C\ScadaPhone\	Project	s\ <mark>Anytowr</mark>	WTP			
ĮĠ	eneral] Sod eneral] Stea	amTurbi	N	Aerge		Directories:				Eiles: (*.*)	1.051		٦
ĮĠ	eneral] Text eneral] Text eneral] Turb	tMsgAla		reate Resto estore	ore Point	ScadaT			î	AlarmMsgHis Alarms.txt Analogs.csv	tory.csv	Â	1
	eneral] Turb eneral] Turb			xplore Compatibili	ty	Projec			-1	CModemCon Contacts.txt Discretes.cs	tĨĨ	.csv	
				New	Edit		outControllerLo	ogs	~	Drives:		~	-
21:24:26 Development Mode							OK	Can	icel	Help			

The newly-created project will initially have no **Alarms**, **Contacts**, or **Tags**, but there will be two automatically-created Menus: **MainMenu & AckWithoutLoginMenu**:

1	ScadaPhone – 🗖 🗙				
File Mode Options Window Logs C:\ScadaTEC\ScadaPhone\Projects\Anytow Summary (0) Menus (2) Alarms (0) Conta Menu Name AckWithoutLoginMenu MainMenu	Modelli Conngulation				
	Voice Modem Configuration This configuration is invalid Image: Configuration is configured as being attached to COM1: Reset Show Interview Modem model : Do Not Force Ignoring Timeouts (00:01:34) Modem model detected: Unknown Ignore <dle>d codes</dle>				
21:46:55 Development Mode	Cellular Modem Configuration Enable Cellular Modem Interface This configuration is not active The Cellular Modem is currently configured as being attached to N/A Reset Show Force modem model : N/A Modem model detected: N/A				
	SMS Service Center Number: <none> Lock Port Settings 115200,N,8,1 Configure user defined modem recognition strings and AT command strings (advanced)</none>				

In addition to the two predefined menus, various other configuration settings are set to default values. The default modem setup assumes a **Voice Modem** will be installed on **COM1:** and the **Cellular Modem** interface is **disabled**.

If you have and intend to use a **Voice Modem** in your project, you can leave the check-mark in the **Enable Voice Modem Interface** check-box, but you may need to change the **COM** setting (by clicking on the underlined **COM** label) to direct ScadaPhone to the proper port number. If you do not intend to use **Voice Modem** with this project, clear the **Enable** check-box.

If you intend to use a **Cellular Modem**, there are a few more setup options, but the **Enable** & **COM Port** setup is the same. If you intend to run both **Voice** & **Cellular** modems, enable both; if your project will be using no modems (i.e. using **email** or network-based **paging**), leave both **Enable** boxes unchecked.

Another matter that must be addressed when setting up a project is
the creation of a Supervisor User. Most of ScadaPhone's
configuration controls require a Supervisor password when
ScadaPhone is in Run Mode ; however, at this point in the project-
setup process, ScadaPhone should be in Development Mode , so
there will be no supervisor-password prompts unless you try to
either switch to Run Mode or click any of the buttons at the bottom
of the Users tab (New, Edit & Delete). This would be a good point
at which to create a Supervisor User; to do this, select the Users
tab and click the New button (below the empty list box). Choose an
easy-to-remember password (blank is acceptable). You will need
to use this password to enter additional User information.

Create Supervisor ? ×
Supervisor Password Hide
1234 Confirm Password
1234
OK Cancel

In addition to the **Voice Modem**, ScadaPhone can also make audio announcements through the computer's **Sound Card**; to enable this reporting method, open the **Audio Device Options** window and tick the **Use Sound Card When Possible** check-box:

8					ScadaPhon	e				-		×
File Mode C:\ScadaTEC Summary (0) Alarm Name	Alarm Ack Options Alarm Announcement Alarm Logic Scan Rate Amplitude Adjustment Audio Devices Email Settings Incoming Calls Minimize On Startup Pager String			via telepho nly (mute sp	e (0) C	Scheduler Discretes (0)	Session Analogs (0)	Help Strings	[0]			
07:34:12 Deve	Text To Speech Watchdog Features Ack All Disable											

This option's default is **disabled**, due to the increasing trend for rack-mounted-server computers not having a **Sound Card** installed. If your system will have neither a **Voice Modem** nor a **Sound Card**, ScadaPhone will not be able to make audio announcements of alarm conditions and will be limited to **text messaging** (via Cellular **SMS**, **SNPP**, and/or **Email**).

If ScadaPhone's host computer has access to either a **LAN** or **Internet** based **SMTP Email** server, ScadaPhone can be configured to use that server via the **Email Settings** window (accessible via the **Options** menu item):

Note that multiple **SMTP Server** connections can be entered into the **Available SMTP Servers** list; this provides alternate connection paths in the event that the preferred server becomes unresponsive. Servers are listed in order of preference and can be **enabled** or **disabled** via the checkmarks on the left margin of the list. Server settings can be changed in the **Edit SMTP Server** window (which is opened by the **New & Edit** buttons below the server list).

Note that some SMTP servers (such as **Gmail**) require **Transport Layer Security** (because they are web-based); other servers

Email Settings ? ×	
Available SMTP Servers Smtp.myisp.com (sphone\pword)	Edit SMTP Server
	SMTP Server Name (or IP address) smtp.myisp.com
New Edit Delete 🖓 🖑	SMTP User Name sphone
ScadaPhone@ScadaTEC.com	SMTP User Password
Use Alarm As Email Subject Hint Use Dial-up Networking Timeouts OK Cancel	pword SMTP Server Port 25 Use TLS (Transport Layer Security) OK Cancel

(such as the **SMTP Server** of your **Internet Service Provider** or LAN-based **SMTP Gateways**) may not require a secure connection. Consult the technical documentation for your SMTP Server to obtain the proper settings for ScadaPhone to use.

At this point, you will probably have a viable reporting method configured (i.e. Voice Modem, Cellular Modem, Sound Card or Email); the next configuration step will be to establish a connection to an **OPC Server** via ScadaPhone's **ScadaLink** interface.

ScadaPhone's **ScadaLink** interface provides the communication link between ScadaPhone and the SCADA Server from which the alarm-status information is to be obtained. The **ScadaLink** interface has three modes of communication: **OPC**, **DDE** or **OLE**. This document will focus on the most common: **OPC**.

ScadaPhone	- 🗆 ×
File Mode Options Window Logs Modem(s) Web Server C:\ScadaTEC\ScadaPhone\Projects\Anytown\VTP2	ScadaLink TTP Scheduler Session Help Setup ScadaLink ? × Status Scan Rate Interface Type Interface Type Server Startup Delay ODE OPC OLE
Ack Agk All 08:28:06 Development Mode	OPC Quality Options Selected Server Discrete Representations ScadaTEC OPCHub Disable Server on remote machine Remote Machine Name Scan OK Cancel

Clicking the blue-hyperlink labeled **Selected Server** will open ScadaPhone's **OPC Server List** (which will have entries for many OPC Servers which are not actually installed on your computer). To select an OPC Server connection which *is* available on your computer, click the **Browse** menu item:

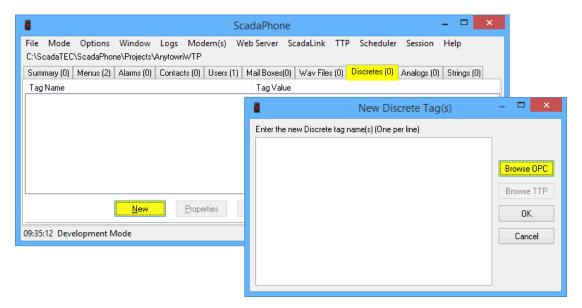
OPC Server	List ×		
New Browse Edit Delete	Check Registry		
Allen Bradley, RSView	~		
Allen Bradley, RSLinx Citect SCADA ClearSCADA	Select Brow	se Type	
GE Proficy, Cimplicity GE Proficy, iFix InduSoft, WebStudio	Browse For OPC Servers	On Local Computer	
LookOut SCADA ScadaTEC, DF1TagServer	Browse For OPC Servers O	n Network Computer	
ОК	Cance	l I	
		Select Server	×
Prog ID	Interface(s)	Description	Vendor
ScadaPhoneTestServer.OpcServer.	.1 DA1, DA2	My Opc Server	Unknown Vendor
CTAPILink.OpcServer.1	DA1, DA2	CTAPILink OPC Server	ScadaTEC
SchneiderElectric.SCADA.OpcDaSe	erver.1 DA1, DA2, DA3	Schneider Electric SCADA OPC DA Server	Schneider Electric (Australia) Pty Limited
Serck.ScxV60PCDA.MAIN.localhos	st DA1, DA2, DA3	SCX OPC Data Access Server on MAIN.localhost	Schneider Electric
ControlMicrosystems.KEPServerEX	DA1, DA2	KEPServerEX OPC Server for ClearSCADA	Schneider Electric
ScadaPhone.OpcServer.1	DA1, DA2	ScadaPhone OPC Server	ScadaTEC
OPCHub.OpcServer.1	DA1, DA2	ScadaTEC OPCHub	ScadaTEC
ModbusTagServer.OpcServer.1	DA1, DA2	ModbusTagServer	ScadaTEC
Schneider-Aut.0FS.2	DA1, DA2	Schneider-Aut OPC Factory Server	
<			>
	[0K Cancel	

Highlighting the desired **OPC Server** and clicking **OK** will configure the **ScadaLink** interface to attempt connections with the appropriate **OPC Server** "**Prog ID**". Before clicking **OK** on the **ScadaLink Setup** window, make sure that there is a check-mark in the **Enabled** box.

Now that the **ScadaLink** interface is setup, the next task will be to test the **OPC** link by adding some valid tag names to the **ScadaPhone Project** and placing ScadaPhone into **Run Mode**. In **Development Mode**, the **ScadaLink** interface remains idle unless the user requests to **Browse** the server.

In the next step, an **OPC Tag Browse** will be used to obtain a list of tag names from the **OPC Server's Tag Database** and add them to this ScadaPhone project. After the tags have been added, ScadaPhone can be placed into **Run Mode** and the ScadaLink interface will attempt to connect to the SCADA Server and poll for the current values of the specified tags. To trigger an **OPC Tag Browse**, ScadaPhone must be in **Development Mode** and either the **Discretes**, **Analogs** or **Strings** tab must be selected in ScadaPhone's main-window tab control.

From the **Discretes** tab, clicking the **New** button will open the **New Discrete Tag(s)** window:



Note that the **Browse OPC** button is enabled (because the ScadaLink interface has been configured for an **OPC** connection); clicking the **Browse OPC** button will abandon the **New Discrete Tags(s)** window in favor of the **OPC Tag Browser** window. Note that the **New Discrete Tags(s)** window will also allow the user to manually enter (or Paste from the clipboard) a list of tag names to add to the ScadaPhone project. This is useful for defining other types of tags (e.g. **Computed** tags or **Holding** tags, as opposed to **ScadaLink** tags), but we will focus on the **OPC Tag Browse** for the purposes of this example.

In this example, an ill-behaved OPC Server was purposefully selected in order to highlight an issue which you may or may not encounter when browsing your OPC Server: The **Data Types** of the tags returned by the **Browse** are supposed to be specified correctly in the browse data returned by the server; however, this is not always the case. In this example, the server returned **6** tags, but declared them all to be **String** data-type. This is not correct and needs to be remedied.

ScadaPhone's **OPC Tag Browser** allows the user to make modifications to the **Data Types** so that the browsed tags will be categorized correctly in the ScadaPhone project.

1 - C	O	PC Tag Browser 🛛 🗕 🗖 🗙
Analogs (0) Discretes (0)	Strings (6)	
Alarm1 Alarm1 Ack Alarm2 Alarm2Ack TankLevel1 TankLevel2		
✓ Show Tags Already Beir Use Filter Hint	ng Used	Select All All Selections All Selections
✓ Case Sensitive Filter		OK Cancel

To change Data Types: Highlight the erroneously-categorized tags by **left-clicking** them (use **Ctrl** & **Shift** to select multiple tags) and then click the appropriate **Switch to...** button. The tags will immediately be moved to the correct data-type tab. When the tags have all been correctly sorted, visit each tab and place check-marks next to the tags you would like to import into the ScadaPhone project. After the check-marks are set as desired, clicking **OK** will complete the **OPC Tag Browse** and return to the main window.

Upon returning to the main window, you will be able to see the tags which were added from the browse operation. Note that the font color for the newly added tag names is gray; this indicates that the tags are defined in the ScadaPhone project, bur are not being used in any alarm or user-defined menu. Unused tags will still be polled by the ScadaLink Interface, the gray font is used to signal that "*This tag is not being used and can be removed in order to avoid unnecessary polling*".

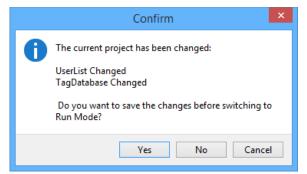
ScadaPhone	- 🗆 🗙
File Mode Options Window Logs Modem(s) WebServer ScadaLink TTP Scheduler Session C:\ScadaTEC\ScadaPhone\Projects\Anytown\/TP	Help
Summary (0) Menus (2) Alarms (0) Contacts (0) Users (1) Mail Boxes(0) Wav Files (0) Discretes (4) Analogs (2)	Strings (0)
Tag Name Tag Value	
Alarm1 Alarm1.Ack Alarm2 Alarm2.Ack	
New Properties Invert References	
10:33:20 Development Mode	.:

At this point, the **ScadaLink** connection can be tested by placing ScadaPhone into **Run Mode**. This is done via the **Mode** menu item on the main window. Also make sure that the **SCADA Server** is running and ready to service **OPC Client** connections.

Upon switching to **Run Mode**, ScadaPhone will display a "**Save Changes?**" prompt; click **Yes** to this prompt. Note that each time the project is saved to disk, a backup ZIP file containing the existing project files is created. This allows the system administrator to revert to a previous "known-good" copy of the project in the event that any of the project files are lost or become corrupted.

After answering the save-changes prompt, ScadaPhone will display the **Schedule Holes Warning** window which alerts the operator that there are periods of time in the upcoming week where there are **No Contacts Available** to receive alarm reports; this is correct because, at this point, no **Contacts** have been defined in this project. Simply click **OK** at the bottom of the window and it will be disabled for 5 minutes.

To see how the ScadaLink polling is going, open the **ScadaLink Status** window by clicking the **Status** menu item in the **ScadaLink** drop-down menu at the top of the main window. If the link is working correctly, the **Status** should be showing **Successful** most of the time.



Schedule Holes Warning					
WARNING : ScadaPhone has detected that there are "holes" in the callout schedule for the upcoming week. A schedule hole is a period of time where there are no contacts available to receive alarm callouts; if an alarm is triggered during a schedule hole. ScadaPhone will be unable to report it. The list below indicates where the holes are:					
Alarm Group : [General] Problem: No Contacts Available From Wed 10/22/14 10:45:00 To Wed 10/29/14 10:45:00					
Suppress This <u>Window</u> Exclude Alarm Group(s) Open <u>Scheduler</u>					

ScadaLink Status	? ×
Server : OPC : My Opc Server (ScadaPhoneTestServer.OpcServer.1) Status : Successful Tag Name : Alarn2 = 0 Scan Rate : 10.0 seconds per cycle, 0.6 tags per second, 100.0% Successful	

After verifying the **ScadaLink** communication, the next configuration step is to test the alarm reporting via whichever method was configured in the first part of this project setup (**Sound Card**, **Voice Modem**, **Cellular Modem** or **Email**).

To do this, at least one **Alarm** and one **Contact** needs to be defined in the ScadaPhone project. To proceed, switch ScadaPhone to **Development Mode** and select the **Alarms** tab on the main window.

Alarms can be defined individually via the **New** button, or defined in batches with the help of the **Alarm Browser** by clicking the **Browse** button.

In this example, only one simple alarm will be created to test the alarmreporting configuration.

						So	adaPhor	ne					×
File	Mode	Options	Window	Logs	Modem(s) W	/eb Server	ScadaL	ink TTI	Scheduler	Session	Help	
C:\Se	cadaTEC	\ScadaPho	ne\Projects\	Anytown	WTP								
Sum	mary (O)	Menus (2)	Alarms (0)	Contac	ts (0) Use	rs (1)	Mail Boxes	(0) Way	/ Files (0)	Discretes (4)	Analogs (2)	Strings (C	ŋ
Alarr	m Name												
			<u>N</u> ew		<u>E</u> dit		<u>D</u> elete		<u>P</u> lay	<u>B</u> rowse			
12.04	20 D												
12:04:	39 Deve	elopment N	/lode										.:

Click the **New** button to open the **Alarm Information** window:

	Alarm Informa	ition	? ×
rowse Alarms			
larm Type (i) Discrete	Alarm 🔘 Analog Alarm 🗌	Local (store in Alarms.)	Local.txt)
ag/Alarm Name Alarm1	 I		
ag/Alarm Name Gamma			
Optional) Auto Suffix			
larm Group General			
riority Normal		Do Not Filter	
onsole Ack Time 01:00	:00 Re-Alarm Delay	Do Not Re-Alarm	
Enabled	Runtime Enable Exp		
Latching Phone Ack	Over Range Limit		
Console Ack Required	High High Limit		
Latching Console Ack	High Limit		
Automatically Ack When F	· · · · · · · · · · · · · · · · · · ·		
] Inverse Trigger Logic (0=4 Inverse Ack Logic (0=Ack	louvoj		
Voice Message Compo		Remove	Play
Voice Message Compo WavFile(Alarm1)	sition	Remove	Play Cancel
Voice Message Compo WavFile(Alarm1) Add	Insert Edit	ОК	Play
Voice Message Compo WavFile(Alarm1) Add	Insert Edit OK, Next OK, New	ОК	Play Cancel
Voice Message Compo WavFile(Alarm1) Add OK, Previous	Insert Edit OK, Next OK, New Message S	ОК	Play Cancel
Add OK, Previous	Insert Edit OK, Next OK, New Message S WAY File Name Alarm1	ОК	Play Cancel
Voice Message Compo WavFile(Alarm1) Add OK, Previous	Insert Edit OK, Next OK, New Message S WAV File Name	egment	Play Cancel
Voice Message Compo WavFile(Alarm1) Add OK, Previous Segment Type WAV File Analog Value Discrete Value	Insert Edit OK, Next OK, New Message S WAY File Name Alarm1 File Functions	egment	Play Cancel Play Browse

The highlighted items indicate the few configuration steps necessary to define a simple discrete-triggered alarm. The items highlighted in green show how to add a single WavFile segment to the alarm's **Voice Message**. When this alarm is triggered in Run Mode, it will send the "**Alarm1**" text when reporting to Cellular SMS, Email or Alphanumeric Pager; when reporting via Audio to a Sound Card or Voice Modem, ScadaPhone will look for a pre-recorded WAV file at the following file path:

<project>\WavFiles\Alarm1.wav

If no such file can be found, ScadaPhone will attempt to render it via the Windows **Text To Speech (TTS)** engine. If the **TTS** rendering is successful, the file will be saved in the proper location and will be available for all subsequent reports.

If rendering the file via **TTS** is not desirable, the audio file can also be recorded via microphone plugged into either the **Sound Card** or the **Voice Modem**. All ScadaPhone audio files are required to be 8000 samples-per-second, 16-bit samples, mono. After defining an alarm to test, an **Alarm Contact** must be defined. To define an Alarm Contact, select the **Contacts** tab of ScadaPhone's main window and select **New**:

1	ScadaPhone		- 🗆 🗙
File Mode Options Window C:\ScadaTEC\ScadaPhone\Projects\		ScadaLink TTP Scheduler Sessio	n Help
Summary (0) Menus (2) Alarms (2)	Contacts (0) Users (1) Mail Boxes(0)) Wav Files (2) Discretes (4) Analogs	(2) Strings (0)
Contact Name	Contact Type	Alarm Group Affiliation	
	<u>N</u> ew <u>E</u> dit	<u>D</u> elete	
14:43:26 Development Mode			.:

Clicking the **New** button opens the **Alarm Contact** window:

Alarm Contact ? ×							
Contact Info							
Contact Name Bob Smith							
Phone Number 555-1234							
Enable Tag <blank></blank>							
Contact Type							
● Voice or Numeric Pager Mark as "Reported" without requiring touch tone (DTMF) Explanation							
O SMS Text Message via Cellular Modem O Email via SMTP Server O Pager via SNPP Server							
TAP Protocol (via Volce Modern in data mode) Alphandment Pager Service of Sins gateway TAP Protocol (via Cellular Modern Circuit Switched Data Connection) Text Message							
O TAP Protocol (via TCP/IP) Text Message							
Pager ID N/A Password N/A COM Settings N/A							
Voice or Numeric Pager Options							
After dialing, use audio analyzer and answer detection scripts							
O Simply dial the number and begin playing the alarm list in a loop							
Answer Detection Scripts							
Voice(0.1) + Silence(0.5) = PlayAlarmsAndMenu(MainMenu)							
New Edit Delete							
Call Persistence Contact Persistence Ack Timeout = 30 Minutes Hint							
Based upon Hint Based upon Hint Count							
OK, Next OK, New							
1 attempt 1 attempt OK Cancel							

The **Alarm Contact** window has numerous dynamic controls which change their appearance based upon the selected **Contact Type**.

Clicking the various radio buttons contained in the **Contact Type** panel of this window will reveal and hide controls based on whether or not they are relevant to the selected type.

This example will assume that testing will be conducted trough a **Voice Modem**; to add an appropriate **Contact** to your project, you may need to select a different **Contact Type** to match the reporting method selected earlier in this process (e.g. Email, Cellular, etc...).

If any required fields are left blank, the pertinent controls will be highlighted in red and the **OK** buttons will be disabled until the required configuration information has been provided.

After the Alarm Contact has been configured, click OK to save it to the project's Contacts list.

The last required step in doing a complete alarm-report test is to add this **Contact** to an appropriate **Contact Sequence List** in the ScadaPhone **Scheduler**. ScadaPhone allows configuration of an unlimited number of alarm groups; each **Alarm Group** has its own unique **Contact Sequence List**. In this example, the only **Alarm Group** defined will be the default **General** group.

Upon exiting the **Alarm Contact** window, the **Schedule Holes Warning** window should be displayed; if so, click the **Open Scheduler** button in the lower right corner. If the warning window does not appear, the normal method for opening the **Scheduler** window is to simply click the **Scheduler** menu item from the main window:

ScadaPhone – 🗆							
	gs Modem(s) Web Server	ScadaLink TTP Scheduler	Session Help				
C:\ScadaTEC\ScadaPhone\Projects\Anyto		0 V	Augland (D) China (D)				
Summary (0) Menus (2) Alarms (2) Cor Contact Name	Contact Type	0) Wav Files (2) Discretes (4) Alarm Group Aff					
Bob Smith	Voice	N/A	indion				
	Scheduler		? ×				
	Scheduler						
General (2) Action Scheduling		Contact Scheduling					
Schedule names	Davie of success of the face disc	_					
Weekend	Day-of-week defaults Monday : Weekday Tuesday : Weekday Wednesday : Weekday Thursday : Weekday Friday : Weekday	Contact List (listed in sequen					
New Edit Delete	Saturday : Weekend Sunday : Weekend						
Delete Expired Schedules	Configure Upcoming Hours	Link To Next Contact					
Configure upcoming holidays	and special schedules (calendar)	Add/Remove Contacts	Edit 🔶 🗸				
	Alarm Contact G	rouping	? ×				
Ove General							
Available Contacts		Selected Contacts					
Bob Smith	•						
Ne	ew	\$ ₹					
	OK	Cancel					

Contacts are added to and removed from **Contact Sequence Lists** via the **Alarm Contact Grouping** window (which is opened from the **Add/Remove Contacts** button under the **Contact Scheduling** section of the **Scheduler**). All Contacts defined in the project are initially listed under **Available Contacts**; to move an **Available Contact** over to the **Selected Contacts** list, highlight it and click the right-arrow. To remove a **Contact** from a specific Alarm Group's **Contact List**, simply reverse the process. When finished, the **Scheduler** should look similar to the following:

	Scheduler	? 🗙	
General (2)			
Action Scheduling		Contact Scheduling	
Schedule names	Day-of-week defaults	Contact List (listed in sequence of callout)	
Weekday Weekend New Edit Delete	Monday : Weekday Tuesday : Weekday Wednesday : Weekday Thursday : Weekday Friday : Weekday Saturday : Weekend Sunday : Weekend	Bob Smith	
Delete Expired Schedules	Configure Upcoming Hours	Link To Next Contact	
		Add/Remove Contacts Edit 🔶 🖑	
Override Bit <none> Override Action Call, but do no</none>	and special schedules (calendar)	Configure contact availability schedule Schedule Rotations	
OK	Check For Schedule Hol	es Edit Alarm Groups	

ScadaPhone Runtime Testing::

At this point, ScadaPhone can now be placed into **Run Mode** and should be able to **connect** with the selected OPC Server, **poll** the selected OPC tag(s), **detect** an alarm condition in the SCADA Server and **report** the alarm message to the alarm contact.

When ScadaPhone is in **Run Mode**, there are numerous logs which you can monitor to inspect status of ScadaPhone's SCADA Server polling, communications with the reporting devices, and many other indicators of system function.

		Call Log		
Date/Tim 2014/10/ 2014/10/ 2014/10/	findow Other Logs me Contact Name /2217:11:53 Bob Smith /2217:10:21 Bob Smith /2217:08:48 Bob Smith 19234 voice modem on COI	Contact N Contact 1 Alarm G	tties (2014/10/22 17:11:53) ame Bob Smith ype VoiceContact (General) X	
Main Window Modem Config Rest Log Other Logs 2014/10/22 17:11:21.594 0.003 400560 bytes 2014/10/22 17:11:21.594 0.003 400560 bytes 2014/10/22 17:11:21.594 0.003 400560 bytes 2014/10/22 17:11:21.697 0.003 HCRESSCO 2014/10/22 17:11:22.017 0.007 AT H +FCLASS=0 2014/10/22 17:11:22.017 0.017 AT H +FCLASS=0 2014/10/22 17:11:22.508 0.0370 MC <cr>-CLF> 2014/10/22 17:11:22.508 0.030 MC<cr>-CLF> 2014/10/22 17:11:22.508 0.030 MC<cr>-CLF> 2014/10/22 17:11:22.508 0.012 AT HO \Q5 643 2014/10/22 17:11:22.608 0.012 AT HO \Q5 643 2014/10/22 17:11:22.608 0.012 AT HTALSS== 2014/10/22 17:11:23.608 0.011 MC<cr>-CLF> 2014/10/22 17:11:23.608 0.0119 MT HTALSS== 2014/10/22</cr></cr></cr></cr>	ecorded ecCheck = TRUE <ccp> CCP> File Mode Options Windo C:\ScadaTEC\ScadaPhone\Project</ccp>	2014/10/22 @ 10.54.56 : MODE 2014/10/22 @ 10.55.04 : MODE 2014/10/22 @ 10.55.04 : MODE 2014/10/22 @ 10.55.10 : MODE Scadaf www.Logs_Modem(s)_Web S ctsv_Activity Log	"runs" of this project (updated every 5 minutes) 5 TART (RUN MODE) 0.14 Minutes : V 5 SWITCH: DEV MODE 0.08 Minutes : V 5 SWITCH: RUN MODE 0.08 Minutes : V Phone erver ScadaLink TTP Scheduler Session Vav Files (2) Discretes (4) Analogs raiting Phone Ack	Iersion 5.5.40.926 : Windows 8 (64 bit) Build: 9200 Iersion 5.5.40.926 : Windows 8 (64 bit) Build: 9200 Iersion 5.5.40.926 : Windows 8 (64 bit) Build: 9200 Iersion 6.5.40.926 : Windows 8 (64 bit) Build: 9200 Iersion 7.5.40.926 : Windows 8 (64 bit) Build: 9200 Iersion 7.5.40.926 : Windows 8 (64 bit) Build: 9200

Appropriately, the best place to start an analysis of ScadaPhone's activity is the **Activity Log**. The Activity Log gives a broad view of various system activities. If this analysis indicates that there is a problem with the **Voice Modem** function, a more specific analysis can be made by examining the **Voice Modem Log**; if there appears to be a problem connecting to the **SMTP Email Server**, an examination of the **Email Controller Log** will let you evaluate the issue more precisely. ScadaPhone's logs provide an invaluable diagnostic tool for troubleshooting and resolving abnormal system events.

As was stated at the beginning of this document, many features and details were intentionally omitted from this document for the sake of brevity. A more in-depth description of the these features can be found in the **Help Files**.

If you encounter any problems while going through this procedure, contact:

Email : <u>support@scadatec.com</u> Phone : 888-722-3283 (U.S.)

We will be happy to assist you in the evaluation process and look forward to hearing from you.