AlarmWorX32 Multimedia – Acknowledgment of Alarms Using Email or SMS

APPLICATIONS NOTE

April 2010

Description: Guide to setting up AlarmWorX32 Multimedia Email and SMS Agents with acknowledgment
OS Requirement: Win 2000, XP Pro, Server 2003, Vista, Server 2008, Windows 7
General Requirement: GENESIS32, AlarmWorX32 Multimedia, an email client like Microsoft Outlook (for Email Agent), cell phone or modem (for SMS Agent).

Introduction

AlarmWorX32 Multimedia (MMX) is a distributed, enterprise-wide alarm notification system that delivers real-time alarm information to the end-users, wherever they may be. The notification messages are sent to a recipient via Multimedia Agents (such as email, pager, fax, voice, text-to-speech, phone, software or Ethernet hardware marquees and more).

The Email and SMS agents send alarm messages to end-users via modem or email. The recipient can acknowledge the alarms remotely by using the mobile device or replying to the email. This application note describes how to setup the Email and SMS agents to allow acknowledgement. Similar steps can be used for Skype or Messenger.

Machine Setup

Before you begin setting up AlarmWorX32 Multimedia agents with acknowledgment, you need to know how to install AlarmWorX32 Multimedia correctly.

Email:

The installation defaults the active email agent to SMTP (outgoing mail only). If you want to receive alarm acknowledgment via email you need to select "For use with Microsoft Outlook" or "For use with Microsoft Outlook Express, Lotus Notes, Simple MAPI mail" (depending on your mail client) during installation. The "For use with SMTP server" agent cannot process incoming emails for acknowledgement.

For more details look for the application note entitled *AlarmWorX32 Multimedia – Which Email Agent is Right for You*.

SMS:

For SMS, you need to select the Modem/ISDN carrier and GSM/PCS during the installation and configure your device (cellular phone or modem). Please consult the help files or look for the application note entitled *AlarmWorX32 Multimedia - SMS with a Cellular Phone* or *AlarmWorX32 Multimedia - SMS with a Modem.*

Once you have the correct agents installed and configured, you need an alarm in your alarm server that will cause the message to be sent out. You can generate a new alarm or use the ones from the sample AlarmWorX32 Server configuration. For more details on configuring the AlarmWorX32 Server, please consult the help files or look for the application note entitled *AlarmWorX32 Server - Server Configuration Quick Start*.

Email Agent Configuration

This example uses default AlarmWorX32 Server and AlarmWorX32 Multimedia Configurations. For more details on how to customize these configurations, please see the application notes entitled *AlarmWorX32 Multimedia – Alarm Management Quick Start* and *AlarmWorX32 Server - Server Configuration Quick Start.*

Please follow these steps to configure the Email Agent in AlarmWorX32 Multimedia Configurator:

1. Open AlarmWorX32 Multimedia Configurator from Start → Programs → ICONICS AlarmWorX32 Multimedia.
2. In the left pane, select Alarm Configurations → Multimedia Agents → E-mail.
3. Click on "General Setting". For Mail Client Interaction, select one of the "Acknowledge On" options. Fill out the MAPI settings according to the *AlarmWorX32 Multimedia – Which Email Agent is Right for You* application note.

   NOTE: Remember that SMTP does not support acknowledgement.

4. Right-click on the E-mail folder and create a new Media Item. Name it "Test Email".
5. Select "Default Email" as the email template, select Scheduling and Role as desired, and enter the "Send To" email address.
6. In order to acknowledge alarms you must enter a number in the "Acknowledge Code" field.

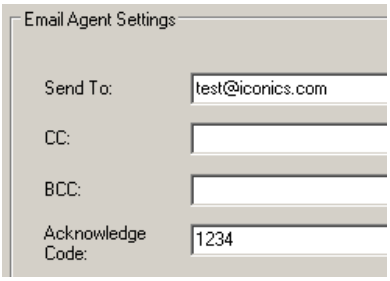

Figure 1 - Email acknowledge code

6. In the left-hand pane, click on Alarm Configurations → Default → Email Action Set.

7. In the right-hand pane, check the box "Enable this Action Set" if it is not already checked.
8. In the Action Destination column, select your "Test Email" agent.

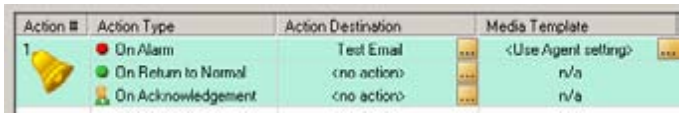

Figure 2 - Configuring Action Destination

9. In the "Stop Actions Condition" section, check the box for "Acknowledgement Received". Additionally you can set the "Actions Loop" settings to repeat the actions.
10. Click the stoplight icon to put the AlarmWorX32 Multimedia Server into runtime.

Test Email Agent Settings

To test the Email Agent with acknowledgment we need to create a simple GraphWorX32 display with a process point and an AlarmWorX32 Viewer ActiveX to generate the alarm.

1. Run GraphWorX32 from Start → Programs → ICONICS GENESIS32 → GraphWorX32.
2. Create new display and insert an AlarmWorX32 Viewer ActiveX.
3. Add a process point to the display, enable data entry, and connect the data source to an OPC Server tag that is used in the AlarmWorX32 Server. If you left the Email Action Set with the default filter, use this tag:

   ICONICS.Simulator.1\SimulatePLC.ALARMMMX.CoreTempAlarm

4. Save the display and go into runtime.
5. Generate the alarm by changing the value to 1.
6. Open up your mail client and look for the email from AlarmWorX32 Multimedia.
7. The two long strings of letters and numbers at the end of the email make up an ID number that uniquely identifies this alarm message. To acknowledge the alarm, reply to the email with a message that contains the alarm ID and acknowledgement code in this format:

   ??ID1??
   ??ID2?? Ack

   For example, if the ID in the email was:

   ??1234567??
   ??8912345??

   and the acknowledge code was 1234, you could acknowledge the alarm by replying with this message:

   ??1234567??
   ??8912345?? 1234

8. Watch your AlarmWorX32 Viewer on the GraphWorX32 display to verify that the alarm has actually been acknowledged.

SMS Agent Configuration

If you already know how to setup Email agent, the SMS Agent settings should be easy. You need to have a modem prepared and configured. For more details how to setup your modem for use with AlarmWorX32 Multimedia see the application notes entitled *AlarmWorX32Multimedia –SMS with a Cellular Phone* or *AlarmWorX32 Multimedia – SMS with a Modem*.

Please follow these steps to allow acknowledgement from the pager agent. Like the email example, this example uses the default AlarmWorX32 Server and AlarmWorX32 Multimedia configurations.

1. Open AlarmWorX32 Multimedia Configurator from Start → Programs → ICONICS AlarmWorX32 Multimedia.
2. In the left pane, right-click on to Alarm Configurations → Multimedia Agents → Pager/SMS/GSM/TAP and select New → Media Item.
3. Give it the name "Test SMS". Select one of the "Default Pager" templates and enter your cell phone or pager number in the Pager Number field.
4. Select "Use GSM/PCS Service" and choose the service provider for your pager.
5. In order to acknowledge alarms you must enter a number in the "Acknowledge Code" field.

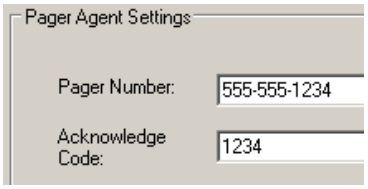

Figure 3 - Pager Acknowledge Code

6. In the left-hand pane, click on Alarm Configurations → Default → Pager Action Set.
7. In the right-hand pane, check the box "Enable this Action Set" if it is not already checked.
8. In the Action Destination column, select your "Test SMS" agent.
9. In the "Stop Actions Condition" section, check the box for "Acknowledgement Received". Additionally you can set the "Actions Loop" settings to repeat the actions.
10. Click the stoplight icon to put the AlarmWorX32 Multimedia Server into runtime.

Test SMS Agent Settings

Follow steps 1-5 in the "Test Email Agent settings" section to create a GraphWorX32 display to test acknowledging with the pager agent, but use this process point:

ICONICS.Simulator.1\SimulatePLC.ALARMMMX.SurfaceTempAlarm

1. If you have "Enable SMS Dialog" checked in the pager General Settings, the MMX Pager SMS Diagnostic Dialog will appear after you have triggered the alarm.

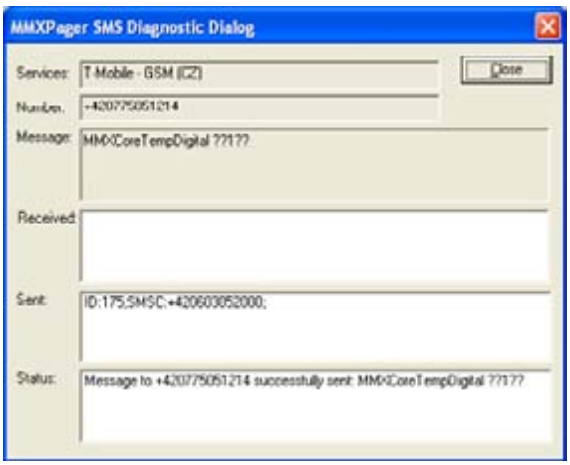

Figure 4 - Multimedia Pager SMS Diagnostic Dialog

2. The alarm message will include a number between question marks. This number is an ID that uniquely identifies the alarm message. To acknowledge the alarm, reply to the page with a message that contains the alarm ID and acknowledgement code in this format:

   ??ID?? Ack

   For example, using the ID in the figure above and an acknowledge code of "1234" you could acknowledge the alarm by replying with this message:

   ??1?? 1234

3. Watch your AlarmWorX32 Viewer on the GraphWorX32 display to verify that the alarm has actually been acknowledged.