Messaging Alerts

Overview:

This TechNote describes how to setup Event Based Messaging Alerts in the **g!** System. These alerts include the ability to call, email and text message a single contact or list of contacts based on event triggers. In addition, core module 5.2 and up also provide the ability to "Pop" a message onto an Elan Touch Screen. Event Triggers come from an array of internal triggers in the **g!** System and external triggers from controlled devices such as security zone faults, or thermostat temperature readings. Alerts can be stacked, so that multiple alert types (phone & email, for example) are sent from a single trigger. Alerts can also be added to existing event maps.

Phone Alerts:

Note: Phone Alerts are not available on the MultiBrick.

Phone Alerts Overview:

Phone alerts allow the g! controller to dial out and deliver a TTS (Text-To-Speech) message over the phone. To setup Phone Alerts, you must configure Contacts with Phone Numbers on the System Tab, so the Controller has numbers to call; configure the modem, so the Controller may interface with the phone line; configure TTS messages on the Messaging tab, which are what the Controller will say when dialing the alert; and create event maps to trigger the call when a specific event happens.

NOTE: The Messaging Pro App is **REQUIRED** for phone features such as phone alerts.

Configure Phone Alerts:

1. Setup Contacts with phone numbers on the System Tab under Contacts and Users. Enter the phone number as it should be dialed, including any prefix or area code information. Omit punctuation such as dashes or parentheses. For example:

   Under this tab you will also see settings for the Number of Dials (N.Dials)--how many times the Controller should attempt to call this contact; and Ack Ends Call--which prompts for the contact to acknowledge receipt, so the Controller will stop attempting calls for this alert.

2. Setup the Controller modem so the Controller can interface with the phone line and dial out. (If you have already set up your Modem as part of Messaging configuration, skip to Step 3.)

   a. To configure the Controller for interfacing with the Phone Line, connect the phone line to the modem as appropriate.

   b. In Configurator, under the Messaging Tab, right-click Telephone Systems and choose "Add New Device".

   c. Add a Generic Telephone Controller. (Note: 4.0 Build 1512 or later this has been renamed Internal Telephone Controller).

3. Configure a TTS message on the Messaging Tab. This will be read by the Controller using its Text-to-Speech engine, and will be read as typed.

   a. Add a new Text/Speech message by right-clicking on Text/Speech Messages and choosing "Add New Text/Speech Message".

   b. Name your message something memorable as to the type of the alert it will be, for example name a security panel related message something like "Security Alert" or "Security Alarm".

   c. Type in text to be read by the Controller to your contact when triggered.
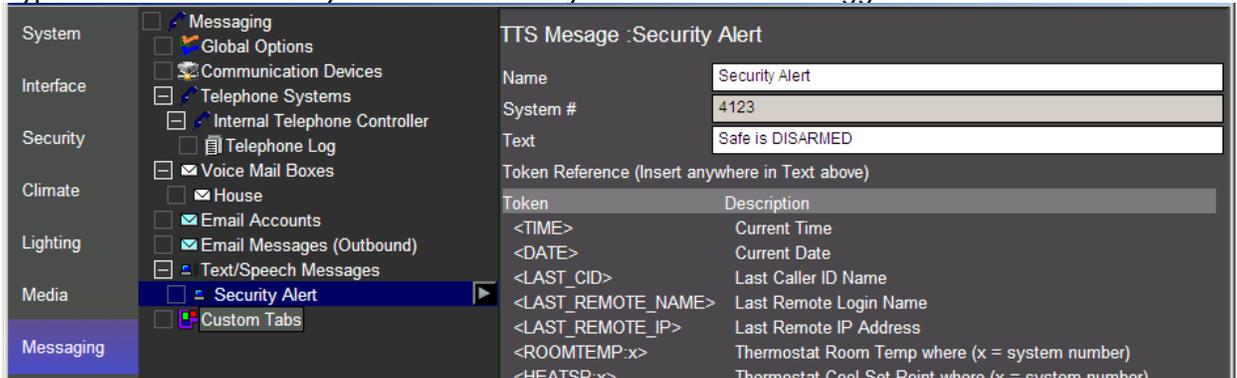
Tokens are optional. See Using Tokens *below for details.*

4. Create an Event Map to set the Controller to send the message when a certain system event occurs.

   a. Under the Event Mapper tab, right-click Event Maps and Add New Event Map. We recommend naming all your messaging alert event maps with the prefix Alert: to keep them organized.

   b. Add an Event to trigger sending your message in the first box, labeled Events. For this example, we want to send a message when the Safe Security Partition is disarmed:
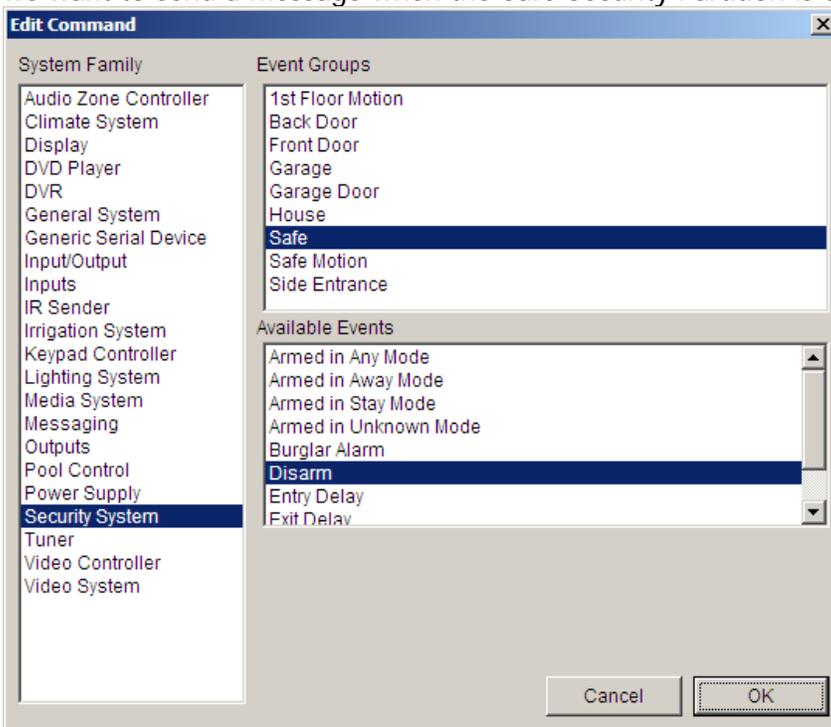
   c. Add a Command to select the action of sending your message in the 3rd box, labeled Commands. In this Example, we are sending our Security Alert Text/Speech message to Contact Johnny Alertzberger. Choose the System Family: Messaging, and then choose your contact under Command Groups. Finally, choose the Call command and the specific message you wish to send under Options.
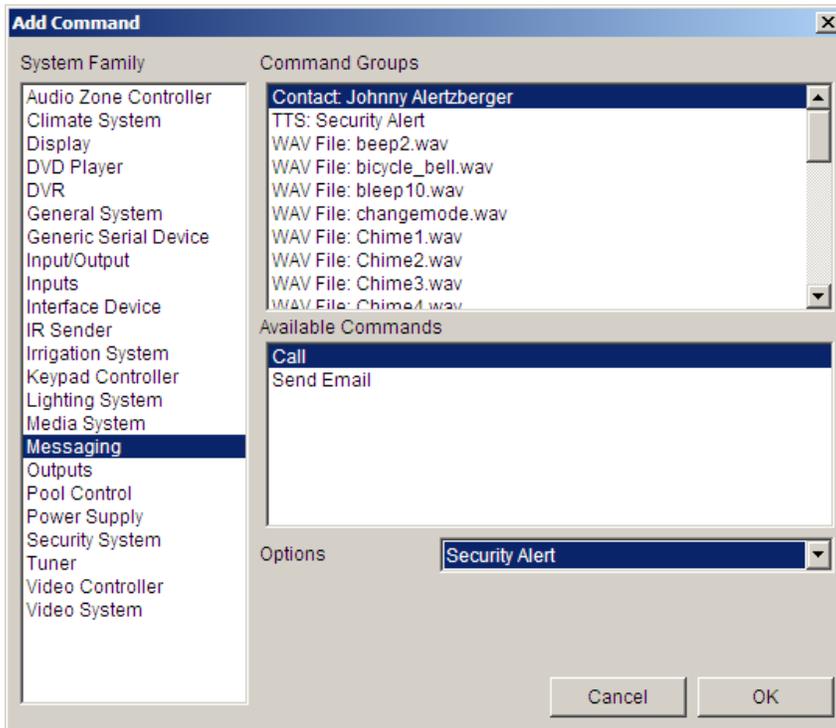
5. Test your alert to ensure proper function. Remember, pressing "Test Commands Now" on the Event Map will only test that the message is sent correctly (the outgoing phone call), and will not test that the message is being *triggered* correctly.

Pop Message Alerts

Pop Message Alerts allow a pre-configured message to "pop up" on an Elan g! Touch Screen. The Pop Message will appear as text inside a bubble on top of the current Viewer screen. Pop Messages can interrupt things like screen saver, and will wake up a screen that is asleep. A user may dismiss a Pop Message by tapping anywhere on the screen, or the message will disappear on its own after about 10 seconds. Pop Message is not available on OSD or iOS devices. To Configure a Pop Message Alert, you must add a TTS message to provide the text content for the Pop Message, and create an Event Map to trigger the Pop Message to appear.

1. Configure a TTS message on the Messaging Tab. This will be displayed on the touch screen as Pop Message.

   a. Add a new Text/Speech message by right-clicking on Text/Speech Messages and choosing "Add New Text/Speech Message".

   b. Name your message something memorable as to the type of the alert it will be, for example name a HVAC related message something like "Temperature Alert".

c. Type in text to be display by Touch Screen as a Pop Message when triggered.

TTS Mesage :Temperature Alert	
Name	Temperature Alert
System #	33186
Text	House is <ROOMTEMP:21147>!

Token Reference (Insert anywhere in Text above)

Token	Description
<TIME>	Current Time
<DATE>	Current Date
<LAST_CID>	Last Caller ID Name
<LAST_REMOTE_NAME>	Last Remote Login Name
<LAST_REMOTE_IP>	Last Remote IP Address
<ROOMTEMP:x>	Thermostat Room Temp where (x = system number)
<HEATSP:x>	Thermostat Cool Set Point where (x = system number)
<COOLSP:x>	Thermostat Heat Set Point where (x = system number)
<NVMAIL:x>	Number of voicemails in mailbox (x = system number)
<NEMAIL:x>	Number of emails in mailbox (x = system number)
<OUTSIDET>	Outside Temperature
<OUTSIDEH>	Outside Humidity

Tokens are optional. See Using Tokens *below for details.*

2. Create an Event Map to set the Controller to send the message when a certain system event occurs.

   a. Under the Event Mapper tab, right-click Event Maps and Add New Event Map. We recommend naming all your messaging alert event maps with the prefix Alert: to keep them organized.

   b. Add an Event to trigger sending your message in the first box, labeled Events. For this example, we want to send a message when the House temperature sensor is too hot or cold.

Add Event		
System Family	**Event Groups**	
Audio Zone Controller	HVAC Trigger	
Climate System	Sense Input 1	
Display	Sense Input 2	
DVD Player	Sense Input 3	
DVR	Sense Input 4	
Energy Monitoring	Sense Input 5	
General System	Sense Input 6	
Generic Serial Device		
Input/Output		
Inputs	**Available Events**	
Interface Device	Numeric Trigger	
IR Sender		
Irrigation System		
Keypad Controller		
Lighting System		
Media System		
Messaging		
Outputs		
Pool Control		
Security System		
Tuner		
UPS (Uninterruptible Pow		
Video Controller		
Video System	Cancel	OK

Note: Numeric Trigger setup is explained in the Advanced *section at the end of this document.*

   c. Add a Command to select the action of Pop Message in the 3rd box, labeled Commands. In this Example, we are displaying the message on a In Wall Touch Screen. Choose the System Family: General System, and then choose your Touch Screen under Command Groups. Finally, choose the Pop Message command and the specific message you wish to use under Options.
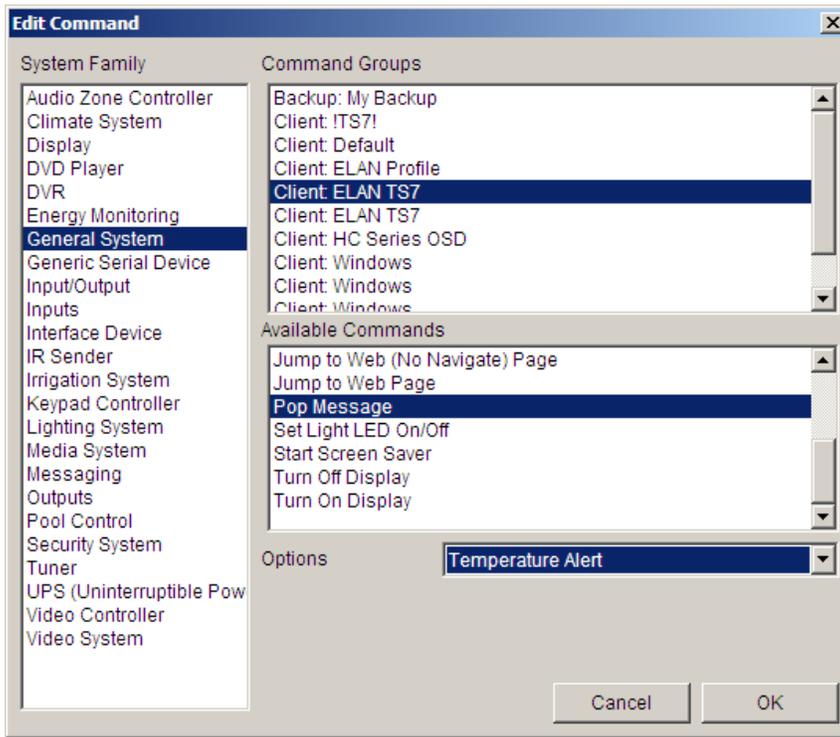
3. Test your alert to ensure proper function. Remember, pressing "Test Commands Now" on the Event Map will only test that the Pop Message appears as desired on the desired touch screen, and will not test that the message is being *triggered* correctly.

E-mail Alerts:

E-Mail Alerts Overview:

Email alerts allow the g! controller to connect to the internet and send a pre-configured email message to desired recipients. To setup E-Mail Alerts, you must configure Contacts with E-Mail address on the System Tab; configure the outgoing server, so the **g!** System can send E-Mails; configure E-Mail messages (outbound) on the Messaging tab, which are what the Controller email; and create event maps to trigger the e-mail when a specific event happens. Note: The Controller/MultiBrick must have internet access to send an alert via E-mail.

NOTE: The messaging tab is NOT required for e-mail/txt message alerts.

Configure E-Mail Alerts:

1. Setup Contacts with e-mail addresses on the System Tab under Contacts and Users.

2. Configure the outgoing mail server on the Messaging Tab under **Global Options**. You may need to find out the customers email server information to set this up, or you may use your own if your company has its own outgoing server.

Note: the default address included in this area is non-functional. You must enter your own server here. If you do not have one of your own, you may use a free account, however, only standard SMTP is supported currently, and there is no support for SSL encryption used by services like hotmail or gmail. GMX.com is a free e-mail provider that is known to work. You may also wish to setup a company alert e-mail if you have your own hosting (website) provider.

NOTE: Many ISP's block SMTP transmissions on port 25 that are not going to their server to prevent spam. GMX.COM is known to support access on port 587 as well as port 25, or you may use the customers ISP e-mail account instead.

3. Configure E-mail messages to send out when triggered.

   a. Add a new E-Mail Message by right-clicking on E-Mail Messages (outbound) and choosing "Add New E-Mail Message".

   b. Name your message something memorable as to the type of the alert it will be, for example name a security alarm message something like "Burglar Alarm".

c.   Format the E-Mail like you would normally with a subject and a message body. (Note that Tokens may be used here as well)
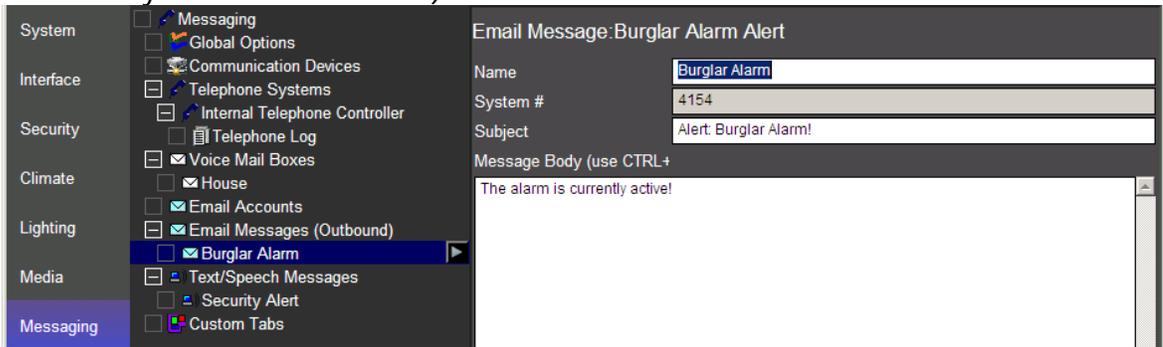
4. Create an Event Map to set the Controller to send the message when a certain system event occurs.

d.   Under the Event Mapper tab, right-click Event Maps and Add New Event Map. We recommend naming all your messaging alert event maps with the prefix Alert: to keep them organized.

e.   Add an Event to trigger sending your message in the first box, labeled Events. For this example, we want to send a message when the House Security Partition is in a Alarm State:
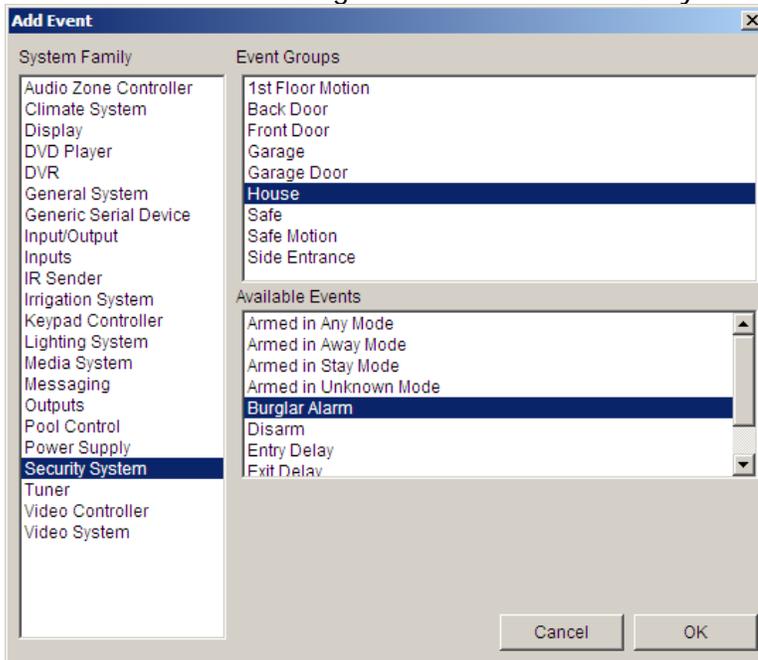
f.   Add a Command to select the action of sending your message in the 3rd box, labeled Commands. In this Example, we are sending our Burglar Alarm E-Mail message to Contact Johnny Alertzberger. Choose the System Family: Messaging, and then choose your contact under Command Groups. Finally, choose the E-Mail command and the specific message you wish to send under Options.
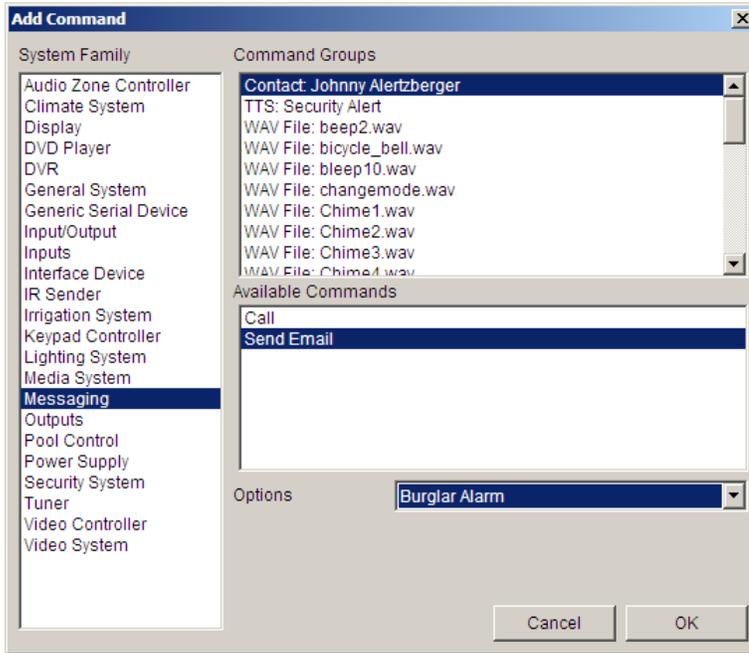
5. Test your alert to ensure proper function. Remember, pressing "Test Commands Now" on the Event Map will only test that the message is sent correctly, and will not test that the message is being *triggered* correctly.

Text Message Alerts:

Text Message Alerts Overview:

Text Message Alerts use the email feature to send SMS messages to available cellular handsets. To setup Text Message Alerts, you must setup E-Mail Alerts. Configure Contacts with an E-Mail address formatted for text messaging on the System Tab; configure the outgoing server, so the **g!** System can send E-Mails; configure E-Mail messages (outbound) on the Messaging tab, which are what the Controller text message; and create event maps to trigger the text message when a specific event happens. Note: The Controller/MultiBrick must have internet access to send a text message.

NOTE: The messaging tab is NOT required for e-mail/txt message alerts.

Configure E-Mail Alerts:

1. Setup Contacts with the text messaging e-mail address on the System Tab under Contacts and Users. Create this Contact as a *new* contact to enter the text messaging e-mail address if you are also sending regular E-Mail Alerts.
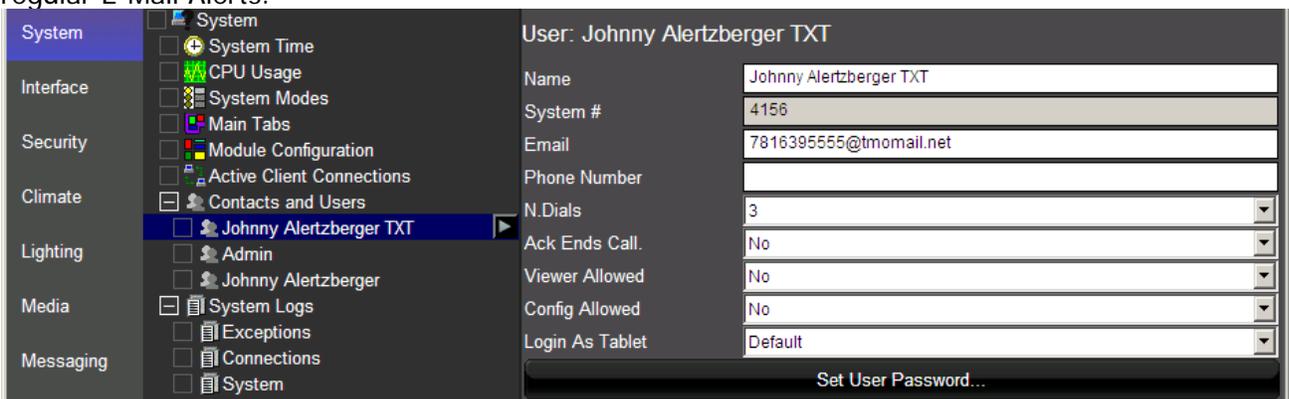
Note that you will format the email address as is specified for your particular provider. See the table below for major wireless carriers, or consult with the customers wireless service provider for this information. You may also find this info on the internet: http://www.notepage.net/smtp.htm

Carrier	Format
T-Mobile	phonenumber@tmomail.net
Virgin Mobile	phonenumber@vmobl.com
Cingular	phonenumber@cingularme.com
Sprint	phonenumber@messaging.sprintpcs.com
Verizon	phonenumber@vtext.com
Nextel	phonenumber@messaging.nextel.com
ATT	phonenumber@txt.att.net

phonenumber = 10 digit phone number

2. Configure the outgoing mail server on the Messaging Tab under Global Options. You may need to find out the customers email server information to set this up, or you may use your own if your company has its own outgoing server.

Note: the default address included in this area is non-functional. You must enter your own server here. If you do not have one of your own, you may use a free account, however, only standard SMTP is supported currently, and there is no support for SSL encryption used by services like hotmail or gmail. GMX.com is a free e-mail provider that is known to work. You may also wish to setup a company alert e-mail if you have your own hosting (website) provider.

NOTE: Many ISP's block SMTP transmissions on port 25 that are not going to their server to prevent spam. GMX.COM is known to support access on port 587 as well as port 25, or you may use the customers ISP e-mail account instead.

3. Configure E-mail messages to send out when triggered.

   a. Add a new E-Mail Message by right-clicking on E-Mail Messages (outbound) and choosing "Add New E-Mail Message".

   b. Name your message something memorable as to the type of the alert it will be, for example name a security disarmed message something like "Security Disarmed" or "Disarm Alert". You may also wish to add a TXT: prefix to all the E-Mail Messages you intend to text message. Note that you should be able to get double duty out of E-Mail Messages sent through e-mail or sent as a text message.

   c. Format the E-Mail like you would normally with a subject and a message body. When E-Mails are sent as text, it is common for the Text Message to be delivered with all text in one area, but the subject text contained in parentheses.

4. Create an Event Map to set the Controller to send the message when a certain system event occurs.

    a. Under the Event Mapper tab, right-click Event Maps and Add New Event Map. We recommend naming all your messaging alert event maps with the prefix Alert: to keep them organized.

    b. Add an Event to trigger sending your message in the first box, labeled Events. For this example, we want to send a message when the Safe Security Zone has been disarmed:
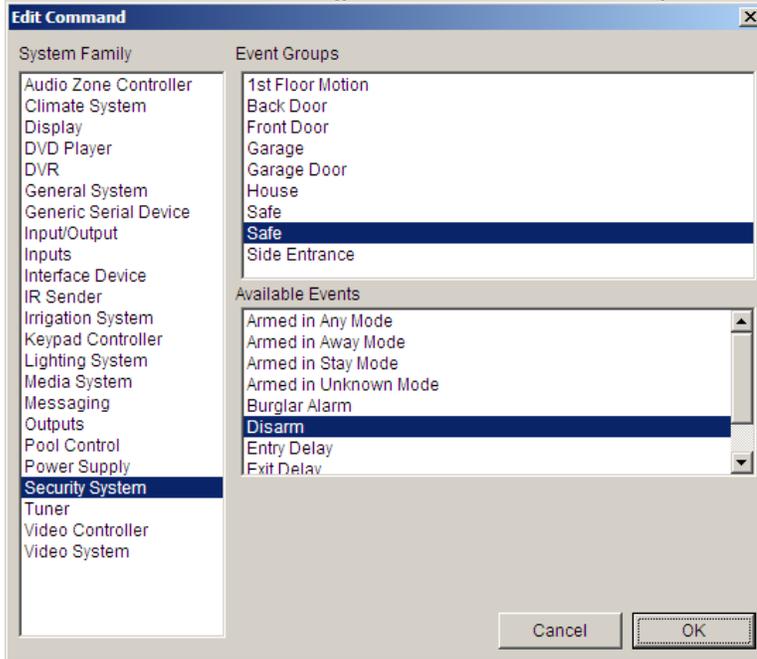
    c. Add a Command to select the action of sending your message in the 3rd box, labeled Commands. In this Example, we are sending our Safe Disarmed E-Mail message to Contact HomeLogic TXT. Choose the System Family: Messaging, and then choose your contact under Command Groups. Finally, choose the E-Mail command and the specific message you wish to send under Options.
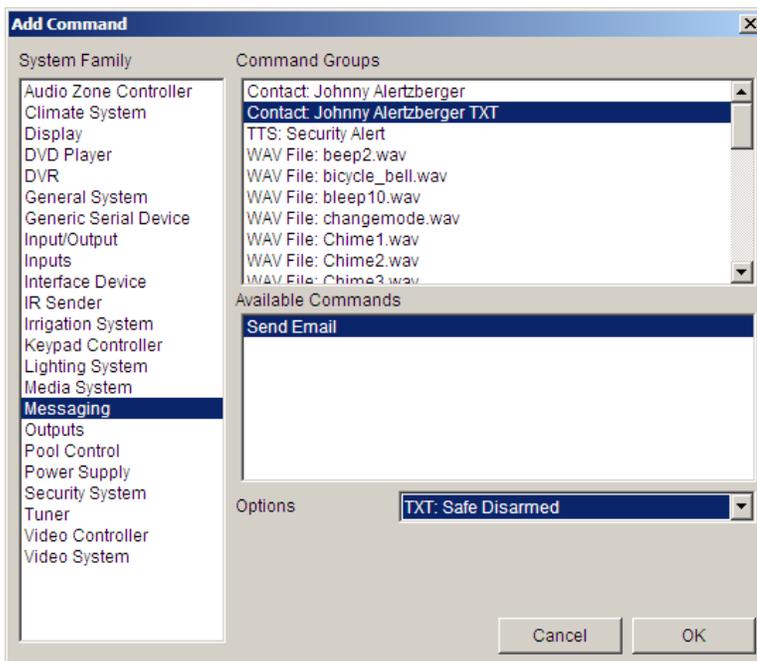
5. Test your alert to ensure proper function. Remember, pressing "Test Commands Now" on the Event Map will only test that the message is sent correctly, and will not test that the message is being triggered correctly.

Advanced Features:

There are many different things you can do with Alerts. Contained here is a quick guide to a few of the different Events (triggers), conditions and commands that you can use with Alerts. This not intended to be a complete list of possible uses, but rather as a starting point.

Trigger: Temperature

To trigger alerts based on temperatures, you must setup a **Numeric Trigger**. Numeric Triggers are configured on the Input/Output tab and can be attached to a specific thermostat, temperature sensor, or internet temperature reading. Each Numeric Trigger can only be attached to a single source however, so remember to create Triggers for each Thermostat or Sensor you wish to trigger an Alert from.

1. On the Input/Output Tab, Add a New Numeric Trigger by right-clicking on Numeric Triggers and choosing "Add New Numeric Trigger".

2. Edit the properties of the Numeric Trigger to suit your particular need. It is recommended that you name in a memorable way, such as "Basement Stat: Temp Low" for a basement low temperature trigger, or "Nursery Room: Temp Range" for a Trigger that will alert on a high or low value for the Nursery. This will become helpful especially in instances where you have multiple triggers.

3. Choose a thermostat, sensor, internet reading or other source from the Numeric Value drop down.

4. Choose a Trigger Type as appropriate. Options Include:
   o Trigger If Less Than (Useful for Low Temperature Trigger)
   o Trigger If Greater Than (Useful for High Temperature Trigger)
   o Trigger If In Between
   o Trigger If Not In Between (Useful for setting an acceptable temperature range to trigger when the temp is too low OR too high)
   o Trigger If Equals

5. Choose appropriate values for the Trigger Source (Numeric Value) and Trigger Type selected. See the example that follows:

Numeric Trigger: Temperature Low	
Name	Temperature Low
System #	4870
Numeric Value	Thermostat:ID1 Remote 1 Sensor 1
Trigger Type	Trigger if Not Between
Trigger when less than	40
OR when greater than	100

6. Create Event Map Trigger from the Inputs System Family, and then choose the appropriate Numeric Trigger. For Example:
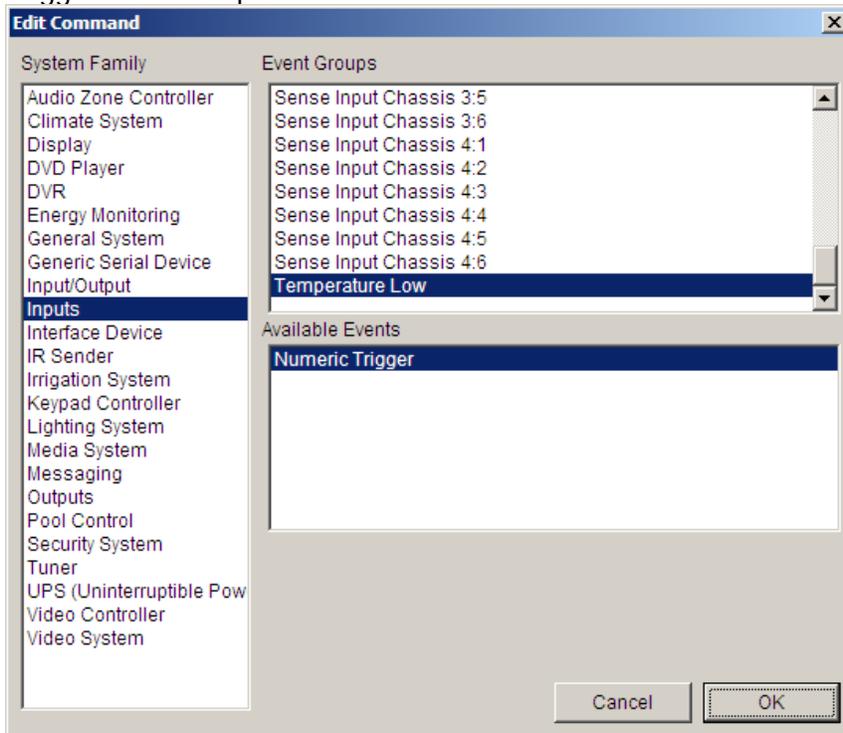
Trigger: Climate Error

It is possible to create an event map to notify you if supported thermostats stop responding, lockup or go offline. The event will occur when the red "Connecting to Thermostat" box appears on the Viewer. This event can enable you to be notified if a thermostat locks up or otherwise stops communicating, which could prevent a "stuck" HVAC call from the thermostat or other undesirable operation of the climate control.

> **Note: This feature is currently only supported on AprilAire 8870 communicating thermostats and <u>requires 4.0 Build 1619</u> or later.**

1. Setup supported thermostats as per the appropriate Integration Note.

2. Create email or TTS message(s) as desired on the Messaging tab. Name the alert something specific like "Thermostat Error", and setup an alert to state "One or more thermostats is offline <DATE> <TIME>" or something similar.
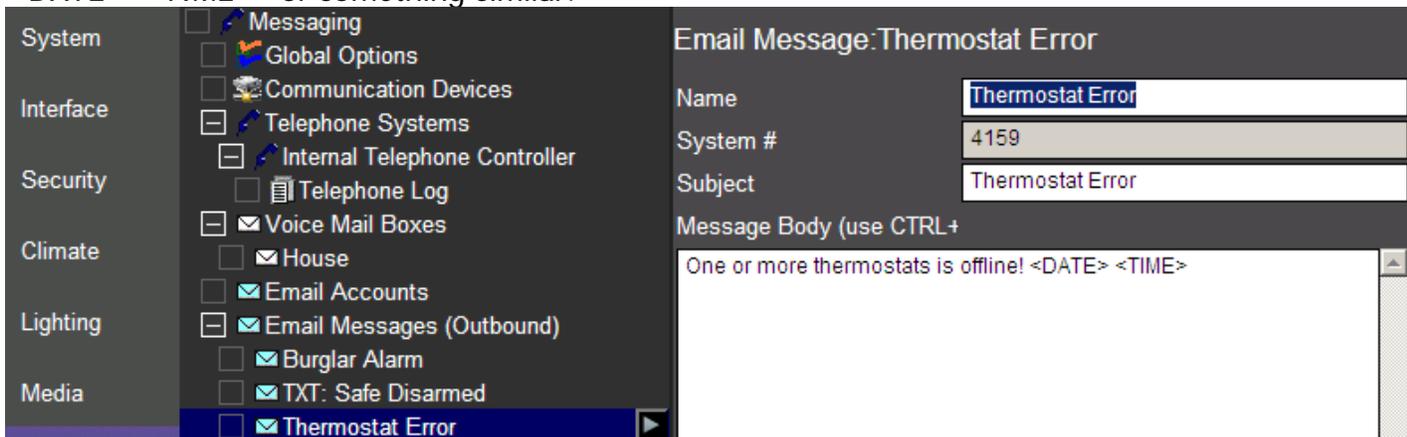
3. (Optional)On the Event Mapper tab of Configurator, create a Run-Once System Timer. This will be used to prevent a flood of messages and only allow the system to alert once per a customized time period. This is useful if the thermostats drop off in sequence, as each thermostat will generate a new event and potentially a new message.

4. Create a new event map and call it something like Alert: Thermostat Error.

5. Add an Event trigger for each thermostat in the system from System Family: Climate System, then Event Group: *Thermostat Name* then Event: System Not Responding. Note that you should be creating ONE event map with MANY event triggers. Recall that events will trigger as OR, so if any of the events occurs it will trip the event map.

6. (Optional) Add a Condition for the Run-Once Timer from System Family: General System, Event Group: *Run Once Timer Name*, with the Condition: Timer Active = FALSE. This will prevent the event map from tripping if the timer is running.

7. Add Commands to send the message alert from System Family: Messaging, Command Group: Contact *Contact Name,* Command: Send *Message.*

8. (Optional) Add a 2nd command to start the Run-Once System Timer from System Family: General System, Command Group: Run Once Timer Name, and choose "Start Timer At..." to manually enter the desired run time. This will start the timer after the alert is sent, and while the timer is still running, the event map will not trip again due to the Timer Active condition.

The final event map should look something like the following:

Note: If desired, you may create individual messages and event maps for each thermostat, to get particular detail on what thermostat has failed. However, one event map when any thermostat is offline will likely be sufficient to prompt an inquiry into the system.

Trigger: House Modes

To trigger alerts from a House Mode selection, create a trigger with the System Family: General System, then choose the Event Group: System Notifications. Select the appropriate House Mode. For Example:
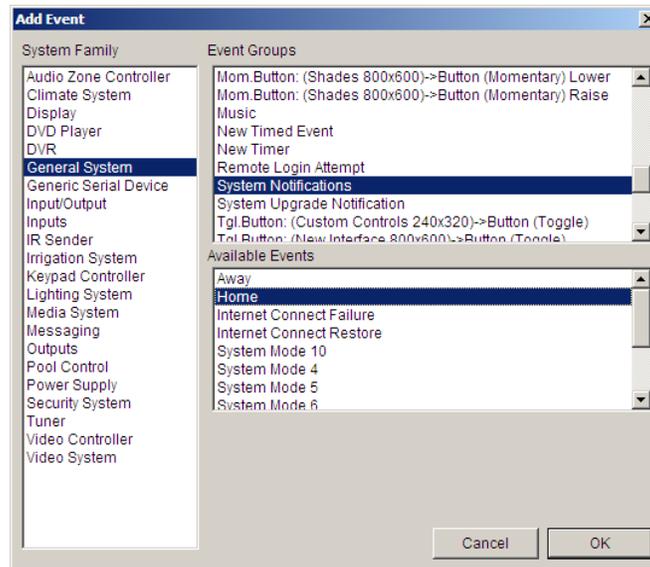
Trigger: Other Triggers

If you cannot find the trigger you want looking through System Families and Event Groups on the Event Mapper Tab, it may be easier to go the appropriate subsystem and create the Event Map from there. For example, if you want to trigger a messaging alert off of a specific security zone fault, find the zone you want in the list on the Security Tab, right-click and choose Create Event Map For> Faulted:
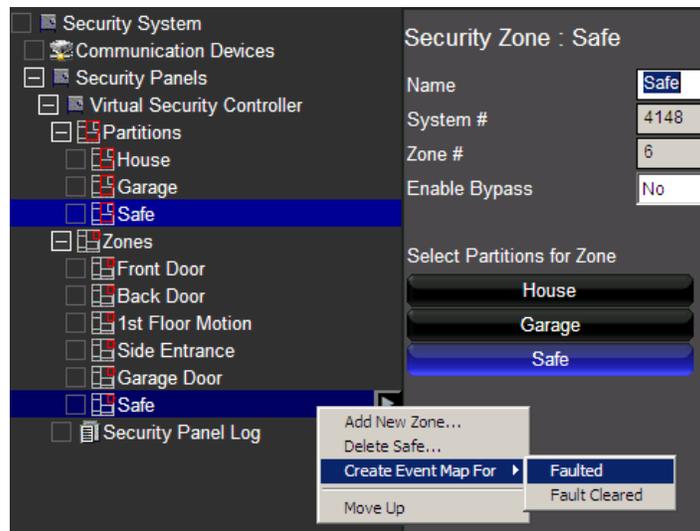
The same type of Event Map creation may be created for specific controls on custom interfaces by right-clicking on them:
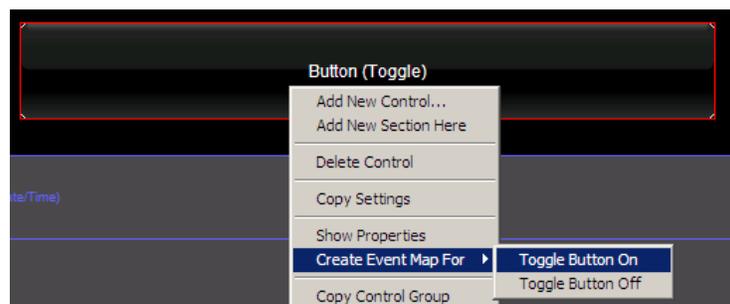
Using Tokens

When creating alert messages for e-mail/txt or phone (TTS) messages, Tokens are available to pull certain system information out in real time for inclusion in the outgoing message.

Tokens are listed under the TTS message screen, but are supported in e-mail/txt messages as well. A full list of tokens is below:

Token	Description
Token Reference (Insert anywhere in Text above)	
Token	Description
<TIME>	Current Time
<DATE>	Current Date
<LAST_CID>	Last Caller ID Name
<LAST_REMOTE_NAME>	Last Remote Login Name
<LAST_REMOTE_IP>	Last Remote IP Address
<ROOMTEMP:x>	Thermostat Room Temp where (x = system number)
<HEATSP:x>	Thermostat Cool Set Point where (x = system number)
<COOLSP:x>	Thermostat Heat Set Point where (x = system number)
<NVMAIL:x>	Number of voicemails in mailbox (x = system number)
<NEMAIL:x>	Number of emails in mailbox (x = system number)
<OUTSIDET>	Outside Temperature
<OUTSIDEH>	Outside Humidity

To use tokens, simply insert the token as listed into your message. Example:

For tokens that include an "x", this should be replaced with the system number of the device. The system number is a unique number associated with each system in g! and is typically displayed with that particular device. For example:

The System Number of the House Mailbox is 1.

To use a token requiring a system number, simply input the system number for the "x", like so:

<NVMAIL:1>