



GUARDIAN

General User Alert Display Panel

Graphical User Interface

Guide for Users

version **OB8.1.1**

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-INTRODUCTION-

Guardian (the **General User Alert Display Panel**) is an AWIPS utility that works as a communicator, primarily from software to human. All communication traffic that used to funnel through the Announcer (Red-Banner pop-ups, text messages in the D2D) and that used to funnel through the D2D Decision Assistance Monitor Buttons now goes through Guardian. And, via Guardian's powerful and flexible configurations, users can now decide how they want Guardian to communicate to them.

Ye Olde Announcer

As of OB7.2, all messages that used to go through the old Announcer application (executable named fxaAnnounce) to the display now go from the Announcer to Guardian, which then displays the message based in its configuration. Guardian has more Category and Priority flexibility than Announcer, but this won't be fully realized until all of the Announcer's clients become Guardian clients. This transition is not expected to begin until OB8.1 or OB8.2 and may take several builds to be complete.

Decision Assistance Monitors

Before OB7.2, there existed several "Monitor Buttons", just below the WarnGen button in the D2D. For example, SCAN, FFMP, and SAFESEAS all had a Monitor Button presence there. Now that Guardian is here, these Monitor Buttons exist in the Guardian Main GUI in the Monitor Section. See the [Monitor Section](#) for functional details.

-WHAT'S NEW?-

- **Forced Responses**

Before Guardian was released, it was recognized that some WFOs might want to make certain Guardian responses locked so regular users could not change them (ie: turn them off), but we decided not to field such functionality until we heard back from more users than what was available during independent Alpha Testing. Now that the users have spoken, it is clear that folks want to be able to force some responses in Guardian, and that these need to be set up for all users all of the time. Thus, we now provide methods for WFO office management to force and lock various Guardian responses. We have a separate User's Guide for this functionality that can be obtained from the Guardian web page.

- **Monitor Button Actions**

The actions that execute the Monitor Button Action and Monitor Button reset (clear) have been changed. See the [Monitor Section](#) for details.

-GUARDIAN MESSAGES-

The Big Three

Each Guardian message will be presented based on the Big 3 attributes: [Source](#), [Category](#), and [Priority](#). Knowing how these three attributes are used by Guardian will allow you to customize Guardian's responses more to your liking.

Source Key

Each of Guardian's client applications is given a Source Key. For example – the Announcer was given the “ANNOUNCER” Source Key and FFMP was given the “FFMP” Source Key. Upon delivery, only the Announcer and Decision Assistance Applications (SCAN, FFMP, SAFESEAS, SNOW) were given Source Keys. *For each Source Key and Priority combination, the user can define how Guardian should convey messages.* See the [Configuration GUI](#) section.

New Source Keys can be created using the [Configuration GUI](#). We expect many Local Applications to want to send messages to Guardian, thus each Local Application will need to be given a new Source Key. See the “[How Do I?](#)” section for details on how to provide a new Source Key and plug a Local Application into Guardian.

Only Source Keys that you have created locally are eligible to be deleted. Delivered Source Keys are permanent (for each delivered AWIPS build).

Category

Each message sent to Guardian has a Category associated to it, such as RADAR or LOCAL or SYSTAT. You can use the Category to direct text messages to different Text Sections in the Guardian [Main GUI](#). See [Appendix A](#) for a listing and intended definition of those Categories provided in the delivered default configuration.

As with Source Keys, new Categories can also be created. We assume that trying to provide a default list of Categories that everyone will be satisfied with is near-impossible, so if you need a Category that was not provided in order for your Local Applications to be useful as local Sources, you can create it in Guardian. See the “[How Do I?](#)” section for details.

Only Categories that you have created locally are eligible to be deleted. Delivered Categories are permanent (for each delivered AWIPS build).

NOTE: We wanted to provide Categories that are general, but not too general. **We do not want software developers deciding how data gets used – that should be up to the forecasters.** We believe that the decision on which Categories are of interest to which NWS Forecaster *tasks* should be made by the forecaster.

Priority

Each message sent to Guardian also has a Priority associated to it. This priority is an integer number with zero (0) being the highest priority and five (5) being the lowest priority. We expect that priorities 0, 1, 3, and 5 will get the most use, but wanted to

provide additional flexibility in case users felt it was needed. (Changing this later would yield more headaches for developer and user alike.)

We feel, in order for Guardian to be more valuable to the forecaster, the definitions of the Priorities need to be the same for the software developers as it is for the users. A perfect match can never be achieved, but the definitions in [Appendix B](#) are provided to both users and developers, with the hope that we can get ‘close enough’ to a common understanding. If this common understanding is not ‘close enough’, users may feel they have to gage their Priority configurations based on Source Key, which we are trying to avoid. The users of Guardian should expect that all incoming messages of, say, Priority 3 pretty much indicate the same level of importance, no matter which Source Key the message is coming from.

Announcer Translation

Below is a table showing how **Announcer** message attributes ([Categories](#) and [Priorities](#)) were translated to Guardian attributes in the delivered default Guardian configuration. The old Announcer behaviors were maintained by Guardian in its delivered default configuration for the [Source Key](#) “ANNOUNCER”. Note that the Announcer allowed the sender to force a sound file to be played. Guardian does not allow for the sender of messages to force any responses, but with the Forced Responses function (new in OB8.1.1), the WFO can, if they desire, force some responses for the entire WFO.

ANNOUNCER TRANSLATION		
Categories		
Announcer	Guardian	Announcer Action
RADAR	RADAR	Message goes to all machines.
LOCAL	LOCAL	Message goes to only sending machine.
SYSTEM	SYSTAT	Message goes to all machines.

Priorities		
Announcer	Guardian	Announcer/Guardian Action
ROUTINE	4	Text message.
SIGNIFICANT	2	Text message.
URGENT	1	Pop-up message window.

-MAIN GUI-

The Guardian Main GUI appears upon log-in on the KDE desktop and remains ‘on top’. This is where you will see the Monitor Buttons and Text lines. (See [Figure 1](#) for an example of one Layout of the MainGUI.) **In order to move the Main GUI**, you can right-click (Button-3) and drag anywhere in the Main GUI. A left-click (Button-1) or double-left-click is used to interact with the widgets in the Main GUI. These widgets are broken into 3 sections: Utility, Monitor, and Text.

Utility Section

By left-clicking (Button 1) on one of the Utilities below, the associated action will be executed. The graphical layout of the utilities will depend on the Layout chosen in the Configuration GUI's [Layout/Categories Section](#). These utilities are:

MAIN GUI: UTILITY SECTION		
Icon	Name	Action (Left-Click)
	Error Log	Provides a Guardian error information log – similar to the logs available for the Text Sections. Example: When Guardian receives a message with an unrecognized attribute, it will report this as an error. If no errors are present or if the Error Log has been cleared, it will have the base Guardian background color. If an error message has been generated, the color will reflect the severity and be based on the Priority color definitions for the “GDN_ADMIN” Source Key. Priorities 1, 2, and 3 are used by Guardian and delivered as red, yellow, and green.
	Tips	Provides a listing of some basic Guardian usage tips, such as how to move the Main GUI and what the Priority definitions are.
	Logo	Launches the Configuration GUI .
	Audio Icon	This white icon will appear if a sound (beep or audio file) is currently active. Clicking this will stop all sound activity coming from Guardian.

Monitor Section

This section provides the widget interface for any Source Key that has been identified as a Monitor. (This definition is achieved in the Configuration GUI, [Keys/Priorities Section](#).) The graphical layout of the Monitor Buttons will depend on the Layout chosen in the Configuration GUI's [Layout/Categories Section](#), but will be ordered according to the Source Key order. The behavior of these Monitor Buttons is supposed to be the same as the behavior of the Monitor Buttons when they were still in the D2D, which is:

ANNOUNCER TRANSLATION	
Action	Result
None	The Monitor Button will change color according to the messages sent to Guardian by the Monitor

	Application itself and the colors defined in the Configuration GUI's Keys/Priorities Section .
Double-Left-Click	The action defined for the Monitor Button's Source Key (in the Configuration GUI's Keys/Priorities Section) will be executed. For example – the FFMP Monitor Button will launch the FFTI GUI (which controls how FFMP monitors).
Middle-Click	This clears the Monitor Button: reverts its colors back to default and clears the sampling message (Cursor Focus below).
Cursor Focus	When the mouse cursor is placed over a Monitor Button and left there for a second or so, the text of the last message sent to Guardian by the Monitor Application itself will appear as a small text-popup, and disappear when the cursor is moved away.

Text Section

The Text Section is where the text messages that Guardian receives are displayed and blinked (if the configuration is defined to allow it). The graphical layout of the individual Text Sections will correspond to the Layout chosen in the Configuration GUI's [Layout/Categories Section](#).

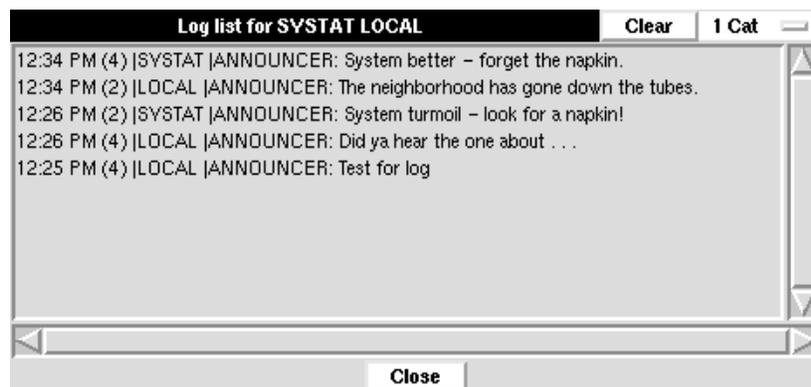
Each individual Text Section has a number of features:

TEXT SECTION FEATURES	
Feature	Description
Text Line	The text of incoming messages will be displayed in the Text Line (if the configuration is defined to allow this). The colors used for the foreground and background of the individual Text Section are defined in the Configuration GUI's Keys/Priorities Section . The Text line will Blink (alternate foreground and background colors) if the configuration dictates. Also – just like the Monitor Buttons, you can focus the mouse cursor over a Text Line to sample the text (for example: in the event that the text is too long for the Text Line).
Clear	The small “c” button will clear all Text Section Attributes when left-Clicked (Button1), except the Log. Clearing will remove text, color, audio (if present), Audio Flag (if present), and On-the-Heels (if present) from the Text Section.
Cease	Left-click (Button1) in the individual Text Section

	to cause any repetition (blink, beep, audio) to stop for only that one Text Section. Text and colors remain.
Audio Flag	If a message whose text is displayed in the Text Line also triggered an audio response, the foreground color will be used as a border for the Text Line.
‘On-the-Heels’	<p>If one message gets displayed in a given Text Line and then another comes in immediately after the first, the outer background of the text Section will turn light green, to signify an “On-the-Heels” situation. Such a situation is also triggered when one message yields a blink action, and another comes in before that blink has finished (based on the Blink Duration).</p> <ul style="list-style-type: none"> ▪ If you ever see an On-the-Heels situation, you can view the Message Log (below) to see what messages were missed, before Clearing. ▪ If On-the-Heels situations occur often, and the messages are of little importance, you may want to: <ul style="list-style-type: none"> ○ change your configuration to filter out more of the text messages or ○ split the Categories differently in the Layout or ○ Choose a Layout with more Text Sections.
Log	A single Left-Click (Button1) on the arrow to the right of the Text Line or a Double-Left-Click in the Text Line itself will yield a Message log for that individual Text Section.

Message Log

As mentioned above, each Text Section has its own Message Log that can be viewed by Left-Clicking (Button1) on the Text Section’s arrow or by Double-Left-Clicking on the Text Line itself. Currently, the Message Log window is intended for quick view and does



not move with the Main GUI – if the Main GUI is moved. Also – you can define how many message (per Category) to be stored in the Message Log in the Configuration GUI's [Common Settings Section](#).

The Message Log window has the following features:

TEXT LINE MESSAGE LOG	
Feature	Description
Category List	The header bar of the Message Log window will have a listing of which categories have been assigned to the Text Section.
Close	You can Left-Click (Button1) on the “Close” button or Left- Click in the body of the log to close the Message Log window.
Clear	Left-Clicking (Button1) on the “Clear” button will remove all of the message log entries from the Message Log window and from memory!
Clear Cat	Because you can assign multiple Categories to a single Text Section (via the Configuration GUI's Layout/Categories Section), you can also clear text messages from the log for single Categories at a time by selecting a Category from the “1 Cat” menu. (Button1)

-CONFIGURATION GUI-

The Configuration GUI is where all of the Guardian settings can be defined and managed. (See [Figure 2](#).) You should be able to rely on the delivered default configuration settings to provide the functionality that the Announcer provided. (Ie: Red-banners and D2D text messages.) If the Announcer was satisfactory to you, then you will not need to get into the Configuration GUI at all, at first. If you want to tailor Guardian to suit you, you will find it to be very flexible, which may seem complicated at first, but progress at your own pace and you will learn the details of what makes Guardian such a powerful tool.

Keep in mind: if you need a tip, try right-Clicking (Button3) over the various titles with a black background. Click again to remove the tip.

The main Sections of the Configuration GUI are:

- Action/Info Bar
- Layout/Categories
- Common Settings

- Key/Priorities

Action/Info Bar



The Action/Info Section is the top bar of the Configuration GUI and includes the following sections:

Configuration Interactions

The Configuration Interactions Section (left side of figure above) is where you do your configuration file manipulations and are able to close the Configuration GUI. The following list describes the buttons available in this section and the action resulting from a Left-Click (Button1):

CONFIGURATION INTERACTIONS	
Button	Action
Save	Saves all of the defined configuration elements to the currently active configuration file (which is labeled in the Configuration File Status section (below)).
Save As...	Provides a small GUI in which you can choose an existing file or provide a new file name in which Guardian will save all of the defined configuration elements. This is where you may save personalized configuration files. Provide new names that are clear and concise, like TomSvrWx or SmithAviation, etc.
Retrieve...	Provides a small GUI in which you can choose an existing file's configuration and instruct Guardian to ingest and use it.
Delete...	Provides a small GUI in which you can choose an existing configuration file and choose to delete the file.
Close	Closes the Configuration GUI (not the Main GUI).

NOTE: All configuration files are stored in the same directory:
/data/fxa/workFiles/Guardian.

NOTE: In the small file GUI, you can Double-Left-Click (Button1) on a file name to take the desired action. You are not required to select a file then left-Click (Button1) the button, though this is of course also allowed.

Configuration File Status

The configuration file currently being used by Guardian will be labeled at the top of the Configuration GUI in the middle of the Action/Info Bar. If any part of the active configuration has been changed but not yet saved to a file, you will see a red **X** to the right of the file name. Once you save, the red **X** will go away.

Screen Selection

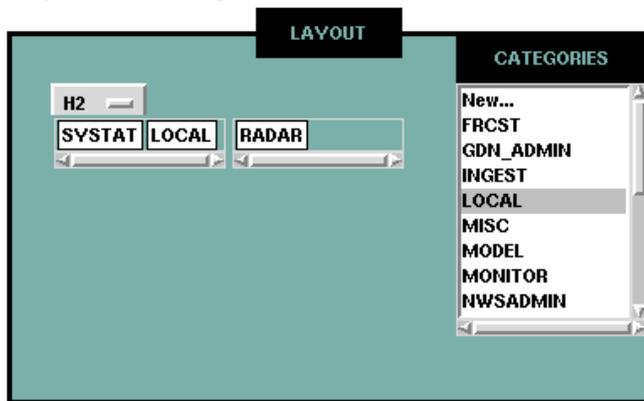
Guardian is currently designed to be graphically present on only one screen of the AWIPS lx/xt workstation. If you are on an LX, then you will be given the choice of which screen to use: **:0.0**, **:0.1**, and **:0.2**. Guardian will remember which screen you last chose the next time you log onto an AWIPS workstation. (This is user-dependent.) This can also be helpful in letting you know which screen the machine thinks has which designation. (Which screen you are on can also be helpful to NWS HQ or NCF debuggers when troubleshooting a Trouble Ticket.)

Restart

If some unexpected strange thing happens with Guardian (like it is hung or perhaps hogging CPU), you can attempt a restart by left-Clicking (Button1) the “Restart!” button.

Layout/Categories

The Layout/Categories section is where you define the layout of the Main GUI and which categories each Text Section is supposed to represent. Things you can do in this section are:



LAYOUT/CATEGORIES SECTION																	
Thing To Do	How To Do It																
Choose Main GUI Layout	Left-Clicking (Button1) on the upper left menu with the current layout as a label provides a menu from which you can choose the following with the specified Text Section layout:																
	<table border="1"> <thead> <tr> <th>Label</th> <th>Layout</th> </tr> </thead> <tbody> <tr> <td>Q2</td> <td>Quad2; provides 2 rows and 2 columns of Text Sections.</td> </tr> <tr> <td>H1</td> <td>Provides 1 horizontal Text Section (same as V1).</td> </tr> <tr> <td>H2</td> <td>Provides 2 horizontal Text Sections.</td> </tr> <tr> <td>V1</td> <td>Provides 1 vertical Text Section (same as H1).</td> </tr> <tr> <td>V2</td> <td>Provides 2 vertical Text Sections.</td> </tr> <tr> <td>V3</td> <td>Provides 3 vertical Text Sections.</td> </tr> <tr> <td>V4</td> <td>Provides 4 vertical Text Sections.</td> </tr> </tbody> </table>	Label	Layout	Q2	Quad2; provides 2 rows and 2 columns of Text Sections.	H1	Provides 1 horizontal Text Section (same as V1).	H2	Provides 2 horizontal Text Sections.	V1	Provides 1 vertical Text Section (same as H1).	V2	Provides 2 vertical Text Sections.	V3	Provides 3 vertical Text Sections.	V4	Provides 4 vertical Text Sections.
	Label	Layout															
	Q2	Quad2; provides 2 rows and 2 columns of Text Sections.															
	H1	Provides 1 horizontal Text Section (same as V1).															
	H2	Provides 2 horizontal Text Sections.															
	V1	Provides 1 vertical Text Section (same as H1).															
	V2	Provides 2 vertical Text Sections.															
	V3	Provides 3 vertical Text Sections.															
V4	Provides 4 vertical Text Sections.																

	M0	Provides zero Text Sections! Does include the Monitors.
		When you choose a Layout, the layout/category representation (below the Layout menu button) will change according to what you have chosen. If this is larger than the previous representation, some Layout Text Sections will be empty (no Categories assigned to it yet).
Add/Remove Categories to/from Layout Text Sections		You can Left-Click (Button1) and drag any of the Categories in any of the Layout Text Sections and the category list itself and drop the category where you want it.
Create Custom Category		Left-Click (Button1) on the “New...” selection in the Category List (at the top of the list) and you will be asked to provide a Category name and description. You can then choose to Save or Cancel.
Remove Custom category		Right-Click (Button3) on the Custom Category in the Category List and you will be presented with a menu. Choose ‘Delete’.

NOTE: You can use horizontal sliders in the Layout Text Section representation in order to see more of the Categories that have been assigned to each Text Section.

NOTE: When you make changes in this Section, they will be applied as soon as you choose them or take your action. You are not required to intentionally ‘apply’ them. (This is not true for the Keys/Priorities Section.)

Common Settings

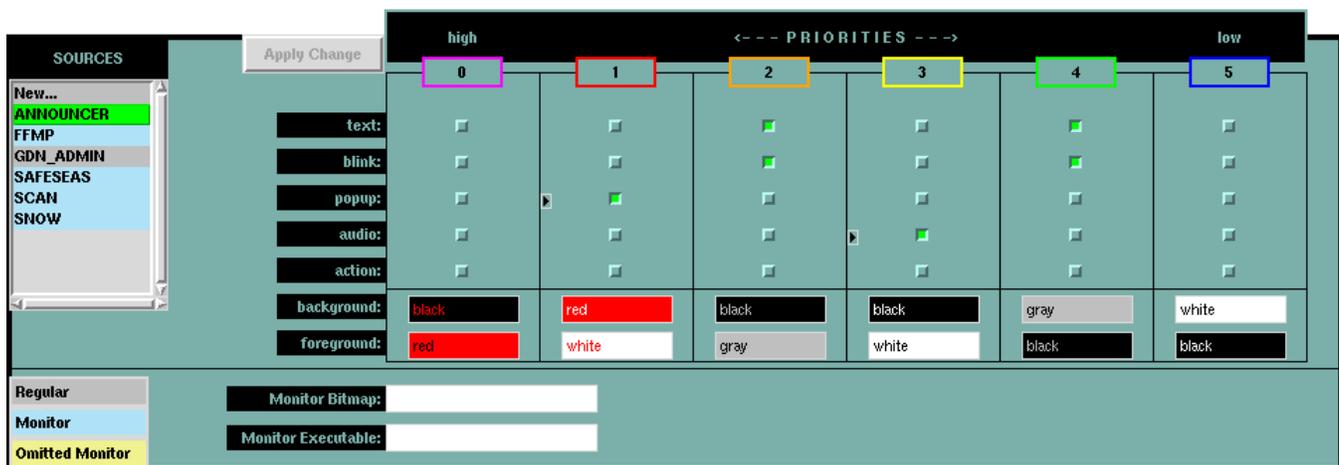
The Common Settings Section Allows you to provide settings that affect messages in general. The left column deals with Text Line responses and the right column deals with addition general elements. Here are the available settings and what they do:

COMMON SETTINGS	
Setting	Definition
Show PRIORITY	If this is toggled on, the Priority number of the message that was sent to Guardian will appear along with the text of the message (Text Line and

	Pop-up).	
Show SOURCE	If this is toggled on, the Source Key of the message that was sent to Guardian will appear along with the text of the message (Text Line and Pop-up).	
Show CATEGORY	If this is toggled on, the Category of the message that was sent to Guardian will appear along with the text of the message (Text Line and Pop-up).	
Blink Duration	The number of seconds a Blink action will repeat.	If you want either the Blink or Audio Durations to repeat until intentionally acknowledged, set the duration value to 0.
Audio Duration	The number of seconds an audio action (beep or file) will repeat.	
Expand Pop-up	When toggled on, when Guardian is instructed to present a pop-up, the pop-up will appear in expanded format (showing additional information like the log and attributes). See the Response Attributes Section for an example of expanded vs. normal pop-ups.	
Length of Log	The number provided here tells Guardian how many messages to keep and present in the Text Message Logs per category .	

NOTE: When you make changes in this Section, they will be applied as soon as you choose them or take your action. You are not required to intentionally ‘apply’ them. (This is not true for the Keys/Priorities Section.)

Keys/Priorities



The Keys/Priorities Section is where you configure and define your Source Keys and the Method Actions Guardian will take when it receives a message from another application.

Source Key List

Each Source Key that Guardian recognizes is listed in the Source Key List, labeled “SOURCES”. The color legend below the list describes what the colors mean:

Regular
Monitor
Omitted Monitor

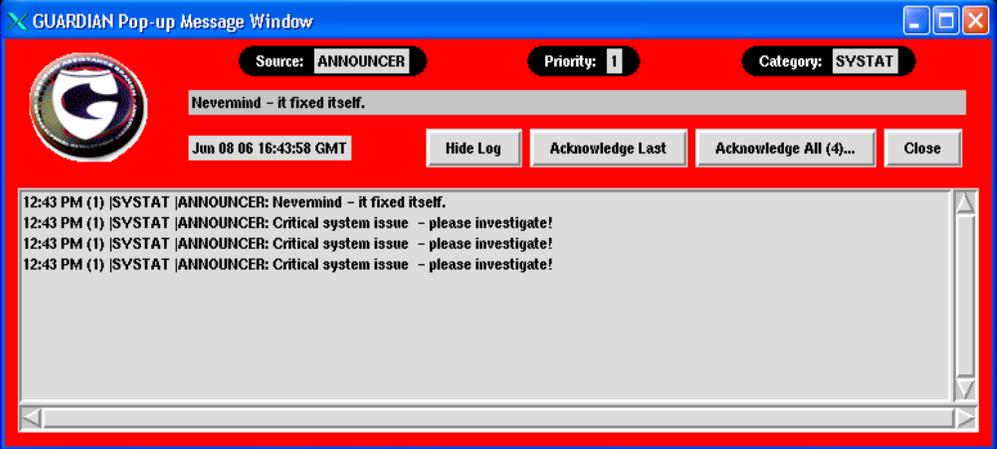
- Most Sources will be ‘Regular’.
- A Source Key becomes a Monitor when a Bitmap is defined for it in the Monitor Bitmap entry to the right of the color legend.
- If a Source has been defined as a Monitor, you can also provide an executable for it in the Monitor Executable entry, also to the right of the color legend. This executable will be run when you Left-Click (Button1) on the monitor’s Monitor Button in the Main GUI.
- You can **Omit/Include** Monitor Buttons from/in the Main GUI by Right-Clicking (Button3) on the Source Key in the List, which provides a small pop-up menu. Choose the Omit or Include selection and the Main GUI will respond immediately.
- **Any bitmaps used must be placed or already exist in a recognized Guardian directory.** (See [Appendix C.](#))

Response Configuration

For each Source Key and Priority, you can define what actions you want Guardian to take when it receives a message from that Source and of that Priority. The following table lists the Attributes that Guardian uses when deciding how to present a received message, based on the configuration settings discussed above:

Response Attributes

MESSAGE RESPONSE ATTRIBUTES		
Attribute	Result	Special Notes
Text	The message sent to Guardian will be displayed in a Text Section, assuming the Category configuration dictates it as well.	When Text is first toggled on, Blink is also toggled on. If you do not want Blink enabled, toggle it off.
Blink	The message sent to Guardian will be displayed in a Text Section and will blink (alternate fore- and background colors) for the defined Blink Duration (See the Configuration GUI – Common Settings Section), assuming the Category configuration dictates it as well.	This will be disabled unless Text is toggled on. If there is no Text, then there is nothing to Blink.
Pop-up	The message sent to Guardian will be displayed in a separate pop-up window, with additional options of how that window shall be displayed.	When toggled on, this provides an Option Arrow. When Left-Clicked (Button1), this arrow will provide an entry, in which you can provide a bitmap or gif file to be used in the Pop-up window. This image file must exist in a recognized Guardian directory. (See Appendix C.)

	 <p>Condensed, 'normal' Pop-up window with default Guardian logo (no bitmap or gif defined).</p>  <p>Expanded, Pop-up window with default Guardian logo, log, and details, including Source Key, Priority, and Category.</p>	
Audio	<p>System Beep: The message sent to Guardian will cause a system beep noise that will repeat for the Audio Duration (See the Configuration GUI – Common Settings Section) and trigger the appearance of the audio icon.</p>	<p>If this is simply toggled on, the response will be the system beep. But, as with the Pop-up, if the option Arrow is clicked, you can provide the name of a sound file (which must be of the format recognized by the 'artsplay' command). This file must either already exist or be placed in a directory recognized by Guardian. See Appendix C for a list of directories.</p>
<p>Audio File: The message sent to Guardian will cause a sound file to be played repeatedly for the Audio Duration (See the Configuration GUI – Common Settings Section) and trigger the appearance of the audio icon.</p>		
Action	<p>The message sent to Guardian will cause an executable to be launched. This is a powerful response. Use with care!</p>	<p>When toggled on, the Option Arrow has already been activated, awaiting the entry of the executable file that Guardian will launch. This file must be in the user's command path in order for Guardian to find it.</p>
Background	<p>Used as the background color for the Text Line, the pop-up (if bitmap is defined for the Pop-up), and Monitor Buttons.</p>	<p>You can use the keyboard to provide a text or hex color word in the background and foreground entries, but you can also Right-Click (Button3) on them and use a graphical color chooser interface.</p>
Foreground	<p>Used as the foreground color for the Text Line, the pop-up (if bitmap is defined for the Pop-up), and Monitor Buttons.</p>	

As you change the various settings for a given Source Key, **the settings will not be used by Guardian until you Left-Click the “Apply Change” button** (which is situated

between the Source Key List and the Response Attributes Sections). This button will remain inactive until you have made a change for a given Source Key. If you have made changes to a Source Key, then try to change to another without applying those changes, Guardian will ask you to confirm.

-How Do I...?-

How Do I...?	
How do I...?	Steps to Take
<p>Send a message to Guardian manually</p>	<p>The command and arguments are: sendMsgToGuardian <i>key</i> <i>priority</i> <i>category</i> “<i>text</i>” (<i>machine</i>) where:</p> <ul style="list-style-type: none"> ▪ <i>key</i> is the Source Key (all upper case) ▪ <i>priority</i> is the priority integer ▪ <i>category</i> is the Category (all upper case) ▪ <i>text</i> is the text of the message (enclosed in quotes for multi-word text) ▪ (<i>machine</i>) is an optional argument, only to be used when the Category is “LOCAL”, in order to produce the correct ‘local’ response. <p>This command is just another AWIPS executable. A return status of 0 (zero) means success. Greater than 0 means failure. NOTE: Try not to send text messages with a line-break or carriage return in the text! It will affect its display in the text line.</p>
<p>How about in a script (ie: from cron or text trigger)?</p>	<p>Just use the command above in your script. If your script does not yet have an AWIPS environment established, you need to do so. See Appendix D for some examples. Here is an example for tcsh:</p> <pre>#!/bin/tcsh setenv FXA_HOME /awips/fxa source \$FXA_HOME/bin/readenv.csh \$FXA_HOME/bin/sendMsgToGuardian <i>args</i></pre>
<p>Keep Pop-ups from taking Window Focus?</p>	<p>Window focus has become an issue largely beyond the control of applications, and under the control of the desktop. For KDE, if you want the Guardian pop-ups to not take focus, you need to set your KDE setting to either “Focus Under Mouse” or “Focus Strictly Under Mouse”. Do not use “Focus Follows mouse”. You can define this with the KDE Control Center -> Desktop -> Windows Behavior -> Focus tab.</p>
<p>Minimize the Main GUI?</p>	<p>At this time, there is no way to minimize the Main GUI. It is always on top, all of the time, but is intended to not get in the way. The H2 layout ensures that the Main GUI is only as tall as a window title bar.</p>
<p>Change the appearance of the main GUI?</p>	<p>Use the Layout/Categories Section in the Configuration GUI to choose a different layout from the Layout Menu.</p>
<p>Create a Custom Category?</p>	<p>In the Layout/Categories Section in the Configuration GUI, Left-Click the “New...” Category selection in the Category List and provide the necessary information.</p>

Delete a Custom Category?	In the Layout/Categories Section in the Configuration GUI, Right-Click on the desired Custom Category in the Category List and choose the ‘Delete’ pop-up menu option.
Re-assign Categories to Text Sections?	In the Layout/Categories Section in the Configuration GUI , Click-drag-and-drop Categories in and between the Layout Text Section representations and the category List.
Create a Custom Source?	In the Keys/Priorities Section in the Configuration GUI, Left-Click the “New...” Source Key selection in the Source Key List and provide the necessary information.
Delete a Custom Source?	In the Keys/Priorities Section in the Configuration GUI, Right-Click on the desired Custom Source Key in the Source Key List and choose the ‘Delete’ pop-up menu option.
Make a Source a Monitor?	<ul style="list-style-type: none"> • In the Keys/Priorities Section in the Configuration GUI, select the desired Source Key from the Source Key List and provide a bitmap file in the Monitor Bitmap entry widget. This bitmap must exist in a recognized Guardian directory. (See Appendix C.) • For a Monitor Source Key’s Monitor Button to respond with color change and text as expected, make sure any messages being sent to Guardian for this Monitor use the Category “MONITOR”. • It is suggested that Monitor Source Keys do not allow a text response. If they allowed this, then the information would be duplicated in Guardian, which is undesirable.

BIG FIGURES

Utility Section:
Button-1
- on 'i' to get **Tips** and
- on 'x' to get **Error Log**
- on logo to launch **Configuration GUI**
- on audio icon (if present) to **stop audio**

Monitor Section:
Focus for monitor text
Button-1 for possible Monitor action.

Text Section:
Double Button-1 to get message log
Focus for sampled full text message
Button-1 to Cease all blinking and audio
Button-1 on "c" to clear the text and cease all blinking and audio

To Move:
Button-3 and drag anywhere in Main GUI

On-The-Heels:
Green background shows when a message has come in right after another. Viewing log will clear this.

Audio:
If text is accompanied by audio, the foreground color is used as border.

Figure 1 An example of the Main GUI with brief Section explanations.

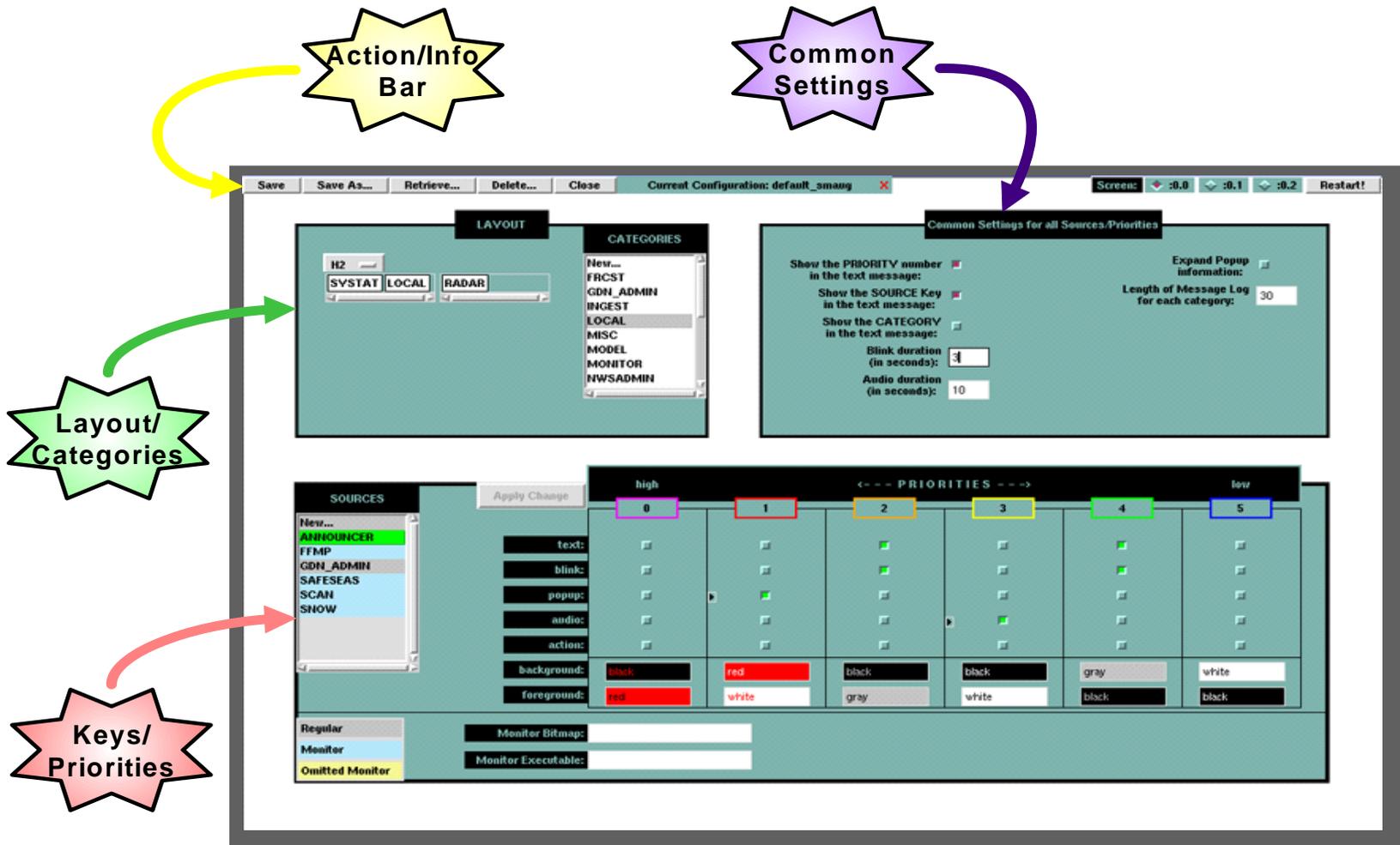


Figure 2 Overview of the Configuration GUI.

APPENDIX A: CATEGORY DEFINITIONS

CATEGORY DEFINITIONS	
Category	Definitions
FRCST	Related to general forecasts
GDN_ADMIN	Internal Guardian messages – users should not use this Category for anything.
INGEST	AWIPS data ingest/receipt
LOCAL	Message from one machine to itself only (such as D2D product loading messages)
MISC	Miscellaneous
MODEL	Model related
MONITOR	Used by Monitor applications. Only use this category with a Monitor application, not when assigning Categories to text sections.
NWSADMIN	NWS Administrative messages
OBS_SFC	Surface Observations
OBS_UPPR	Upper Observations
RADAR	Radar Message
SECURITY	DOC Security issues
SEND	AWIPS data transmission (not Text Product)
SVRWX_O	Severe Weather Operations
SYSCOM	System Communications
SYSTAT	System Status
TXTPROD	Text Product related
WARNINGS	Warning product related
‘Special’ Categories in bold. Guardian handles Special Categories differently than all other categories.	
Entries in yellow indicate Categories that are used upon delivery in AWIPS OB7.2. All other categories provided are in anticipation of expansion (except those noted in gray). All other Categories should not be assigned (yet) to Text Sections until they are used either by local application guardian clients or Guardian clients ported from the Announcer. These entries also have a direct translation from the old Announcer. See Announcer Translation .	

APPENDIX B: PRIORITY DEFINITIONS

PRIORITY DEFINITIONS	
Priority	Definition
0	Critical: Information that must be acted upon immediately and must not be ignored! This would include “emergency” information.
1	Significant: Due to significant importance, the software developer suggests the use of a pop-up, or some other significant emphasis. This may not be an “emergency”, but it still very important.
2	In between Medium and Significant – perhaps information that is ‘WFO-required’ or linked to policy requirements.
3	Medium: Fairly important, but not crucial.
4	A step above informational. ‘Suggested reading’, but not ‘required’.
5	Informational: Perhaps not even important enough for a notice of any kind. Informational.
<p><u>NOTES:</u></p> <ul style="list-style-type: none"> ▪ In order to keep things simple (especially at the inception of Guardian), it is suggested that Priorities 2 and 4 not be used, unless 1, 3, and 5 just will not do. ▪ Priorities may have specific uses and definitions, when relative to a Monitor, which do not conform to the definitions above! 	

APPENDIX C: RECOGNIZED DIRECTORIES

RECOGNIZED FILE DIRECTORIES
In order for Guardian to see various user-input files, they must exist in one of these directories:
<code>/awips/fxa/data/sounds</code>
<code>/awips/fxa/data</code>
<code>/data/fxa/customFiles</code>
<code>/data/fxa/workFiles/Guardian</code>

APPENDIX D: USING GUARDIAN IN SCRIPTS/CRONS

When using the `sendMsgToGuardian` command in a script or cron, you need to ensure that the proper AWIPS environment has been defined for your script/cron. Of course, when using a shell script, you have a large number of options on how to define or obtain argument values – it depends entirely on what you are doing and how you want to do it. (Don't forget to wrap your actual message text in double-quotes (“”))

Here is one example for use in a tcsh script:

```
#!/bin/tcsh
setenv FXA_HOME /awips/fxa
source $FXA_HOME/bin/readenv.csh
$FXA_HOME/bin/sendMsgToGuardian args
```

Here is an example cron entry that defines the proper environment (note the use of “**fxa csh -c**”):

```
0 * * * * fxa csh -c `${FXA_HOME}/bin/sendMsgToGuardian args'
```