



**GenWatch3<sup>®</sup>**  
**GW\_Channel**  
**Software Version 2.3**  
**Module Book**

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**GenWatch3<sup>®</sup>**

600-2.3.0-I.1  
4/8/2011



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## ***Document History***

<b>Revision</b>	<b>Description</b>	<b>Author</b>
2.0.2	Initial Release	
2.0.3	Updated Screenshots	CBH
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### Goals

This manual describes the role and function of the GW\_Channel module and Graphical User Interface (GUI) in the GenWatch3 solution.

### Who Should Read This Manual?



This manual is written for an intended audience of novice to mid-level trunked system users and novice to mid-level PC users.

### How This Manual Is Organized

This manual is organized as follows:

- **Overview:** Defines the GW\_Channel GUI and the organization of the channel information.
- **Using GW\_Channel:** provides instructions on reading the GW\_Channel data and setting up the GUI to satisfy your viewing needs.

This manual contains the following images, used to indicate that a segment of text requires special attention:

-  **Additional Information:** Additional information is used to indicate shortcuts or tips.
-  **Warning:** Warnings are used to indicate possible problem areas, such as a risk of data loss, or incorrect/unexpected functionality.



This chapter defines the GW\_Channel GUI and the organization of the channel information.

This chapter contains the following sections:

- **What is GW\_Channel?:** Defines the GW\_Channel GUI.

## *What is GW\_Channel?*

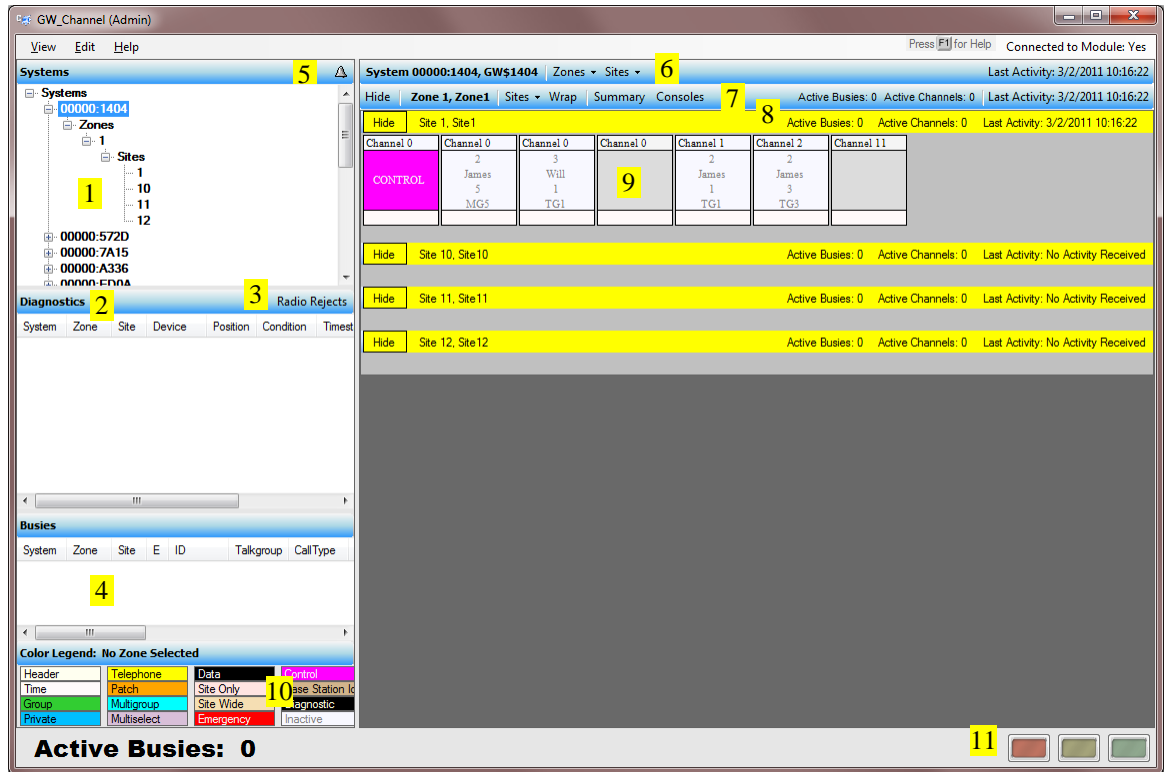
The GW\_Channel GUI displays real-time, decoded channel activity, diagnostics, busies and rejects. The GW\_Channel GUI displays activity for each channel on individual virtual repeater channel blocks. The diagnostics, busies and reject reasons are shown in their own respective lists on the left side of the GUI.



This GUI's information is volatile. This means that if you close this GUI, GW\_Channel will not save the information in the Diagnostics, Busies and Reject Reasons lists or any information in the channel monitors.



GW\_Channel resources, such as systems, zones, sites and channels, reflect the changes made to these resources in GW\_Alias. For example, if you change a site's alias in GW\_Alias, GW\_Channel will reflect this change. These changes may take up to 30 seconds to propagate to the GW\_Channel GUI.



**Figure 1.1 – GW\_Channel GUI**

The following parts of the GW\_Channel GUI are labeled in the image above:

1. System Panel
2. Current View label
3. Swap View button (Diagnostics/Radio Rejects)
4. Busies
5. Sounds Button
6. System Activity header
7. Zone Activity header
8. Site Activity header
9. Channel Box
10. Color Legend
11. Threshold Lights

This chapter provides instructions on understanding the GW\_Channel data and setting up the GUI to satisfy your viewing needs.

This chapter contains the following sections:

- **Positioning Channels:** Describes how to position channels within a site.
- **Understanding Channel Status Data:** Describes each type of data displayed in the GW\_Channel GUI.
- **System Activity View:** Describes each section of the real-time system, zone, site and channel-based display.

## Positioning Channels



This section references setup processes in the GW\_Alias GUI. Please refer to Genesis document *GenWatch3 GW\_Alias Book (600-2.3.0-G.1)* for instructions on using the GW\_Alias GUI.

For single-site data sources, the GW\_Channel GUI is only aware of channels that are dynamically added in the GW\_Alias module or manually imported via the GW\_Alias GUI. To allow the alias module to dynamically add channels, select the **Dynamically Add Channels** checkbox on the **Site Options** panel within the GW\_Alias GUI (Figure 2.1). Channels for an ATIA connection will not be dynamically added and should be input manually.



**Figure 2.1** – Dynamically Add Channel Option in GW\_Alias GUI

For optimal performance, the GW\_Channel GUI requires that channels be positioned sequentially. This can be done in the GW\_Alias GUI. Assign a **Position** value to each dynamically added channel, beginning with your primary control channel. The actual **Position** values assigned to each channel can be arbitrary, but must be distinct.

**Example:** On a system with 9 channels, the primary control channel could be assigned number 1 and the least active dispatch activity channel could be assigned number 9.

Once the channels are assigned a position, the GW\_Channel GUI shows the channels in order of their position.



If a channel is marked as **Available** (not currently used) in the GW\_Alias GUI, the GenWatch3 GW\_Channel GUI will not display activity on this channel.



It is necessary to close and reopen the GW\_Channel GUI for changes to channel position (done in GW\_Alias) to take effect.

## ***Understanding Channel Status Data***

The GW\_Channel GUI displays a vast amount of information. This information is organized and displayed in the following areas:

- **Information Pane:** Shows the currently selected system; any radio rejects, diagnostics, and busies; and the **Color Legend**.
- **Activity Panel:** Shows site-based channel blocks when a site is double-clicked in the Systems Panel.

## **Information Pane**

The *Information Pane* contains multiple panels that may be resized or collapsed as desired. In addition to these panels, the *Information Pane* also contains the **Sounds** button.

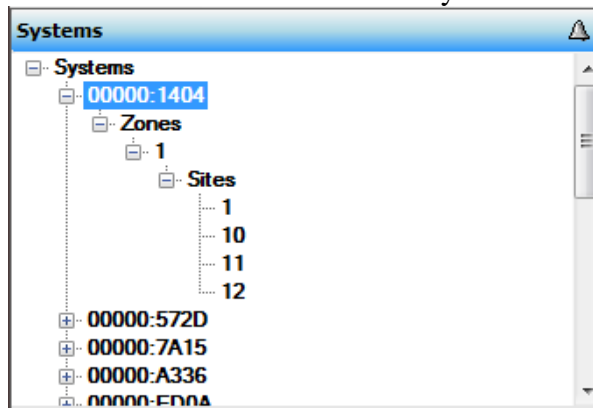
- **System Panel:** Shows each system, zone and site that currently exists in the GW\_Alias database.
- **Radio Reject / Diagnostics:** Shows real-time radio reject or diagnostic information as it is received.
- **Busies Panel:** Shows real-time busy activity as it occurs.
- **Color Legend:** Shows the meaning of channel activity colors.

## Systems Panel Data

The **Systems** Panel (Figure 2.2) shows the tree of known system resources which pertain to the channel hierarchy. In this hierarchy:

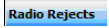
- Zones exist under systems.
- Sites exist under zones.
- Channels exist under sites.

This tree view structure displays this hierarchy down to the site level. To display channels on an existing site, double-click on a site in the **Systems** Panel's resource tree. To view this activity at the zone level, double-click on a zone.



**Figure 2.2** – Systems Panel Resource Tree

## Reject Reason Information

Notice the **Radio Rejects** button (  ) toward the middle-left of the GW\_Channel GUI. Click this button to show radio rejects on this section of the screen (Figure 2.3). The reject reasons list shows each reject reason that has appeared on the control channel since the GW\_Channel GUI was opened. Each reject reason in the list contains the following information:

- **System:** The System on which the rejection occurred.
- **Zone:** The Zone on which the rejection occurred.
- **Site:** The Site on which the rejection occurred.
- **Talkgroup:** The talkgroup on which the rejection occurred.
- **ID:** The ID that was rejected.
- **Reason:** The reported reason the rejection occurred.
- **Rejectee:** Identifies what was rejected. Can be one of the following:
  - Source
  - Target
  - Patch
- **Timestamp:** The last date and time the rejection occurred.
- **Count:** The number of times this rejection has occurred.

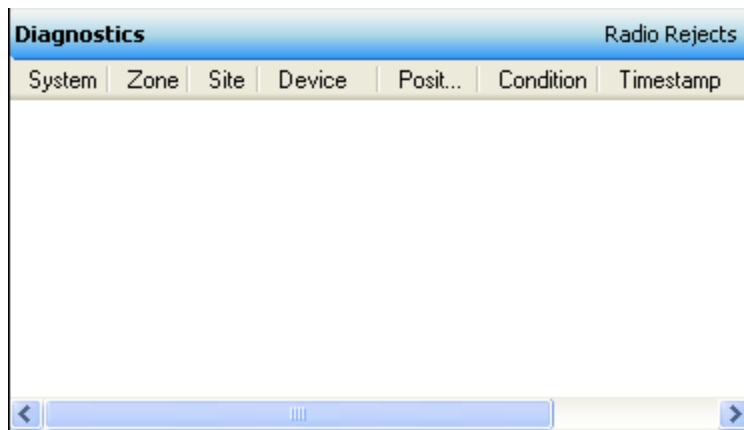
Radio Rejects									Diagnostics
System	Zone	Site	Talkgroup	ID	Reason	Rejectee	Timestamp	Count	
00000:1404	1	1	0	5	Phone Features Disabled	0	3/2/2011 10:...	2	

**Figure 2.3** – Radio Rejects List

## Diagnostics Panel Data

Notice the **Diagnostics** button ( [Diagnostics](#) ) toward the middle of the GW\_Channel GUI. Click this button to show diagnostics on this section of the GUI (Figure 2.4). The diagnostics list shows each diagnostic that has appeared on the control channel since the GW\_Channel GUI was opened. Each diagnostic in the list contains the following information:

- **System:** The System on which the diagnostic occurred.
- **Zone:** The Zone on which the diagnostic occurred.
- **Site:** The Site on which the diagnostic occurred.
- **Device:** The device, such as a board or control, within the controller that reported the diagnostic.
- **Position:** The channel position on which the diagnostic occurred.
- **Condition:** The condition of the reported device.
- **Timestamp:** The date and time this diagnostic was received.
- **Hardware:** System type.
- **Count:** The number of times this diagnostic packet was received.



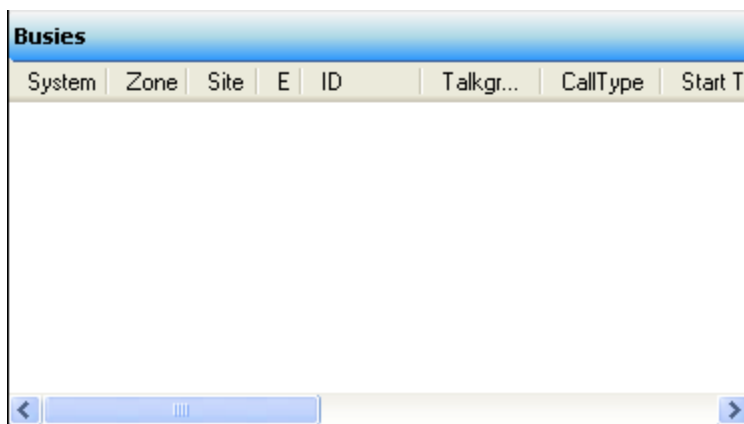
System	Zone	Site	Device	Posit...	Condition	Timestamp
--------	------	------	--------	----------	-----------	-----------

**Figure 2.4** – Diagnostics List

## Busies Panel Data

Busy packets are displayed in the **Busies** Panel (Figure 2.5) as they are received over the control channel. The following information is shown for each received packet:

- **System:** System on which the call occurred.
- **Zone:** Zone on which the call occurred.
- **Site:** Site on which the call occurred. This columns will show *Interzone* if the site ID is unknown (interzone or console busies).
- **E:** This column contains a flag indicating if the call was an emergency. If this was an emergency busy, this value will be 1. Otherwise, it will be 0.
- **ID:** Radio ID that initiated the busy call.
- **Talkgroup:** Group, if any, on which the busy call took place.
- **Call Type:** Call type of the busy call. This can be one of the following:
  - Dispatch
  - Private
  - Interconnect
  - Radio Data
  - OTAR
  - Page
  - FRF Page
- **Start Time:** Date and time the call started.
- **End Time:** Date and time the call ended.
- **Elapsed Time (ms):** Duration of the call.
- **Coded:** Flag indicating if the call was coded.
- **Digital:** Flag indicating if the call was digital.
- **Patch:** Flag indicating if the call was patch.
- **Multigroup:** Flag indicating if the call was multigroup.
- **Multiselect:** Flag indicating if the call was multiselect.
- **System Wide:** Flag indicating if the call was system wide.



System	Zone	Site	E	ID	Talkgr...	CallType	Start Ti
--------	------	------	---	----	-----------	----------	----------

**Figure 2.5** – GW\_Channel Busies List

Busy calls are shown in the **Busies** Panel only if GW\_Alias is aware of the system, zone and site on which the busy is occurring. For example, if a zone is not listed in the resource tree in GW\_Alias, busies occurring in that zone will not be listed in GW\_Channel. See the *GW\_Alias manual book* for information on how to enable the dynamic adding of zones and sites. The dynamic adding of resources will allow all busies for the currently selected system to be listed in GW\_Channel.

While a busy call is in the system's busy queue, it will show as a red entry in the list. Once the entry leaves the queue, it will show as a gray if it was a partial busy and black if it was a global busy. The **Active Busies** at the bottom of GW\_Channel will be shown in red when there are active busies and black otherwise.

## Color Legend

The **Color Legend** (Figure 2.6) shows the current color settings as configured via the **Sites** Menu discussed later in this document and depicted in Figure 2.8.

Color Legend: No Zone Selected			
Header	Telephone	Data	Control
Time	Patch	Site Only	Base Station Id
Group	Multigroup	Site Wide	Diagnostic
Private	Multiselect	Emergency	Inactive

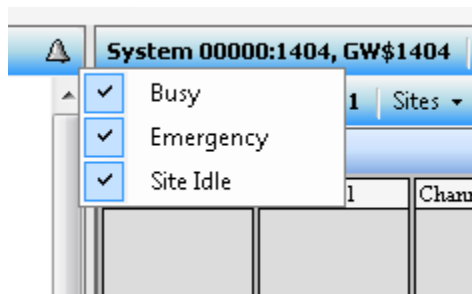
**Figure 2.6** – Color Legend



Conventional calls are colored the same as Group calls.

## Sounds Button

Click this button to toggle sounds on or off as desired (Figure 2.7).



**Figure 2.7** – Sound Options

Currently there are three available sounds:

- **Busy**: plays whenever a busy call occurs.
- **Emergency**: plays whenever an emergency call occurs.
- **Site Idle**: plays whenever a site has not had activity for longer than the number of seconds that is set as its idle interval.

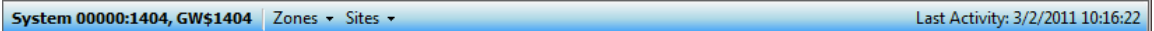
## System Activity View

To show the *System Activity View*, double-click on a system, zone or site in the *Systems Panel*. This will open the *System Activity View* for the system associated with the system, zone or site you double-clicked on. The *System Activity View* is made of the following parts:

### System Header

The *System Header* shows the following system-level information:

- **WACN:System ID:** WACN and SystemID
- **System Alias:** Alias of the system.
- **Zones:** Adjust settings for all zones in this system.
- **Sites:** Adjust settings for all sites in the system.
- **Last Activity:** Date and time of the last activity received by this system



System 00000:1404, GW51404 | Zones ▾ Sites ▾ | Last Activity: 3/2/2011 10:16:22

### Zones Menu

The *Zones Menu* on the *System Header* contains the following options:

- **View:** Allows selection of the summary/detail and wrapped/unwrapped of all zones within the system.
- **Background:** Allows for selection of background images for all zones within the system.

### Sites Menu

The *Sites Menu* on the *System Header* contains the following options:

- **Hide All:** Hide all channel displays of all sites within the system.
- **Show All:** Show all channel displays of all sites within the system.
- **Sort:** Allows for ascending or descending sorting of sites by ID or alias.
- **Font:** Allows for modification of the font used throughout the system.
- **Call Info:** Allows for selection of what information to display about activity in all channels within the system.
- **Width:** Allows for modification of the channel or site width.
- **Colors:** Allows for modification of the foreground and background colors of each activity type.
- **Background:** Allows for selection of background images for all sites (collectively) within the system.
- **Idle Timer:** Allows for setting the idle interval of all sites within the system.



The following options on the *Sites Menu* may be disabled when conflicting settings are detected in one or more zones within a system: **Hide All**, **Show All**, **Font**, **Call Info**. Changing the summary view settings on one or more zones may allow use of these options on the *System Header*.

## Zone Header

The *Zone Header* shows the following zone-level information:

- **Hide/Show:** Allows the *Zone Activity Area* under the *Zone Header* to be hidden or shown.
- **Zone ID:** ID of the zone.
- **Zone Alias:** Alias of the zone.
- **Sites:** Site-based options menu.
- **Wrap**
  - **On:** Channels/Sites are shown using as many rows as necessary to avoid the use of horizontal scrollbars.
  - **Off:** Channels/Sites are shown on a single row with horizontal scrollbars used as needed.
- **Summary**
  - **On:** Summarizes all channels in all sites under a zone by showing channels (without call info.) on sites with an adjustable width.
  - **Off:** Shows all channels (with the selected call info.) on sites which span the entire width of the *Zone Activity Area*.
- **Consoles:** Launches the console window for this zone.
- **Active Buses:** Number of active buses in this zone.
- **Active Channels:** Number of active channels in this zone.
- **Last Activity:** Date and time of the last activity received by this zone.

Hide | **Zone 1, Zone 1** | Sites ▾ Wrap | Summary Consoles | Active Buses: 0 Active Channels: 0 | Last Activity: No Activity Received

## Sites Menu

The *Sites Menu* on the *Zone Header* contains the following options:

- **Hide All:** Hide all channel displays of all sites within this zone.
- **Show All:** Show all channel displays of all sites within this zone.
- **Sort:** Allows for ascending or descending sorting of sites by ID or alias.
- **Font:** Allows for modification of the font used on channels within this zone.
- **Call Info:** Allows for selection of what information to display about activity in all channels within this zone.
- **Width:** Allows for modification of the channel or site width.
- **Colors:** Allows for modification of the foreground and background colors of each activity type (Figure 2.8).
- **Backgrounds:** Allows for selection of separate background images for the zone and for all sites (collectively) within the zone.
- **Idle Timer:** Allows for setting the idle interval of all sites within this zone.



The following options on the *Sites Menu* may be disabled based on the currently selected view settings: **Hide All**, **Show All**, **Font**, **Call Info**. Changing the summary view settings may allow use of these options on the *Zone Header*.



**Figure 2.8** – Channel Color Configuration

## Site Header

The *Site Header* shows the following site-level information:

- **Hide/Show:** Allows the *Channel Activity Area* under the *Site Header* to be hidden (minimized) or shown (maximized).
- **Site ID:** ID of the site.
- **Site Alias:** Alias of the site.
- **Active Buses:** Number of active buses on this site.
- **Active Channels:** Number of active channels on this site.
- **Last Activity:** Date and time of the last activity received by this site.

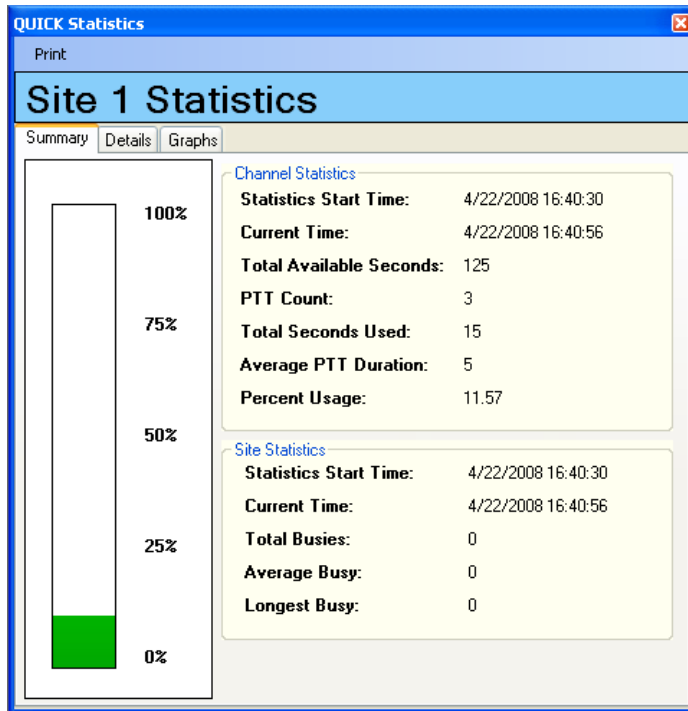


## Statistics

Right-clicking on a channel, site or zone will cause a context menu to be shown, with an option of viewing statistics. The *QUICK Statistics* window (Figure 2.9) can not be refreshed and does not update itself as activity is received. It displays a snapshot of known statistics for the moment it was opened.



**Warning:** To get accurate statistics on a client machine, the Windows system time on the client must be synced with the time on the GenWatch host machine.



**Figure 2.9** – QUICK Statistics Window

The *QUICK Statistics* window is divided into the following three tabs:

- **Summary:** Gives a high-level view of some commonly asked-for statistics at the channel and site level.
  - Channel statistics include the PTT count, seconds of airtime available, seconds of airtime used, average PTT duration and percent usage.
  - Site statistics include the total, average and longest busy.
- **Details:** Shows a list of the previously mentioned statistics where values for each are logged every five minutes the GW\_Channel GUI is open.
- **Graphs:** Shows a graph of the previously mentioned statistics, charted over time, in five minute increments.



The **Total Available Seconds** value is calculated by multiplying the number of seconds in the displayed interval by the number of channels displayed (or slots displayed, in the case of multislot-capable systems).

When opened at the site level, values found in the **Channel Statistics** section on the **Summary** tab represent the combined statistics for all channels within the site and values found in the **Site Statistics** section represent the statistics for the site. When opened at the zone level, values found in the Channel Statistics section on the Summary tab represent the combined statistics for all channels within all sites within the zone and values found in the **Site Statistics** section represent the combined statistics for all sites within the zone. These statistics are only gathered while the GW\_Channel GUI is open. Each time GW\_Channel is closed, all accumulated statistics are lost and cannot be recovered.

### Site Idle Interval

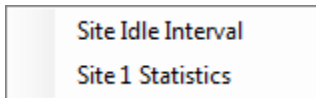
The site idle interval determines how long the GW\_Channel GUI should wait to provide a visual indication that a site is idle (no activity has occurred for ‘x’ amount of time).

Site idle intervals can be set at the following levels in the hierarchy:

- **Global:** All sites within all visible systems.
- **System:** All sites within the currently selected system.
- **Zone:** All sites within the currently selected zone.
- **Site:** The currently selected site.

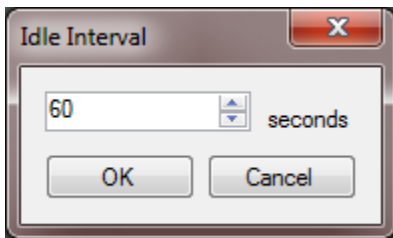
The global site idle interval can be set under the *Main Menu* by navigating to **Edit** → **Global Site Idle Interval**.

Right-clicking on a system, zone, or site shown on the right in GW\_Channel will provide an option for setting the system-wide, zone-wide or site-specific site idle interval, respectively, as shown in Figure 2.10.



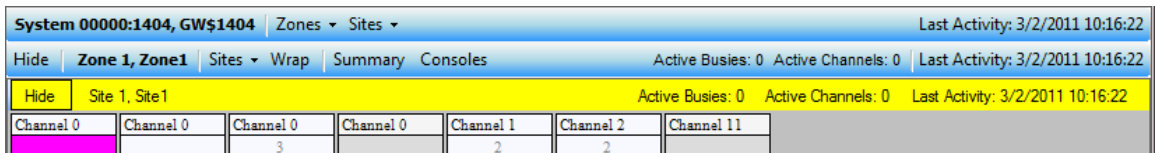
**Figure 2.10** – Site Idle Interval option

The desired interval can then be entered into the *Idle Interval* window, shown in Figure 2.11.



**Figure 2.11** – Idle Interval Window

A site’s idle state is indicated via the *Site Header*, which turns solid yellow, as shown in Figure 2.12.



**Figure 2.12** – A yellow site, indicating it is idle

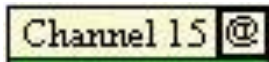
## Channel Activity

The *Channel Activity Area* (Figure 2.13) shows real-time channel-based activity as it occurs.

Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7 @
CONTROL			103794 DOT-1410-P 294 DOT-FRST...	104380 MSP-OP3 S4 54 MSP-2500	100354 MSP-321-M 74 MSP-2400	123544 AN-BPD00... 824 AN B C2C
				0:00 D	0:01 D	0:00 D
Channel 8	Channel 9 @	Channel 10	Channel 11	Channel 12 @	Channel 13	Channel 14
100732 CS-42-P 98 CS-4600	105220 EMSNM 38... 2044 EMSNM-FL	106198 EMSAL-OP... 2100 EMSAL-ALSN	107980 MCMW6342 3358 MCMW1	123407 AN-ZPD00... 802 AN TG1	BSI	100692 MSP-578-M 54 MSP-2500
	0:01 D		0:00 D	0:00 D		

**Figure 2.13** – Channel Activity

Channel block headers are color coded to indicate which channels are involved in a call across multiple sites or zones. If a call is being sourced from the site being viewed, the '@' symbol will appear on the right in the channel header, as seen in Figure 2.14:



**Figure 2.14** – Channel Header

The body of each channel block is colored according to the type of activity it is currently handling and corresponds to the **Color Legend**. Channels that do not contain any text in the body have not yet received activity.

Some radio systems divide their physical channels into two or more logical channels, called *slots*. For example, the MOTOTRBO radio system uses a multiplexing method known as Time Division Multiple Access (TDMA) to divide each 12.5 kHz frequency into two 6.25-kHz-equivalent slots.

If a channel is divided into slots, this will be represented in GW\_Channel by an additional block for each slot. A number to the right of the channel identifier will indicate the slot number, as shown in Figure 2.15.

Channel 10 1	Channel 10 2	Channel 11 1	Channel 11 2
8 Boggs 1 Police	8 Boggs 3 Fire Dept	8 Boggs 1 Brooks	8 Boggs 1 Police
0:02 D			

**Figure 2.15** – Channel Activity on a TDMA-capable site.

When GW\_Channel loads a site, it will display only one block for each channel. Additional slot blocks will be shown when call activity occurs on those slots. If a channel displaying multiple slots receives activity that spans the entire channel, the channel will be temporarily recombined into one extra-wide channel block, as shown in Figure 2.16 below.

Channel 10	Channel 11 1	Channel 11 2	Channel 13
PowerOutFail	8	8	
Malfunction	Boggs	Boggs	
	50	150	
	Testers	Spare	

**Figure 2.16** – Diagnostic affecting both slots of a TDMA-capable channel.

When GW\_Channel receives a duplex call it will display both the channels that the call is using in real time. GW\_Channel displays both occupied channels with the call information as seen in Figure 2.17 below.

Channel 10 @	Channel 11 @	Channel 14
8501132	8501132	1153744
R-132	R-132	1153744
8501058	8501058	1150343
R-058	R-058	1150BS 01
1:23 D	1:23 D	1:19 D

**Figure 2.17** – Duplex call shown occupying two active channels.

### Enhancements

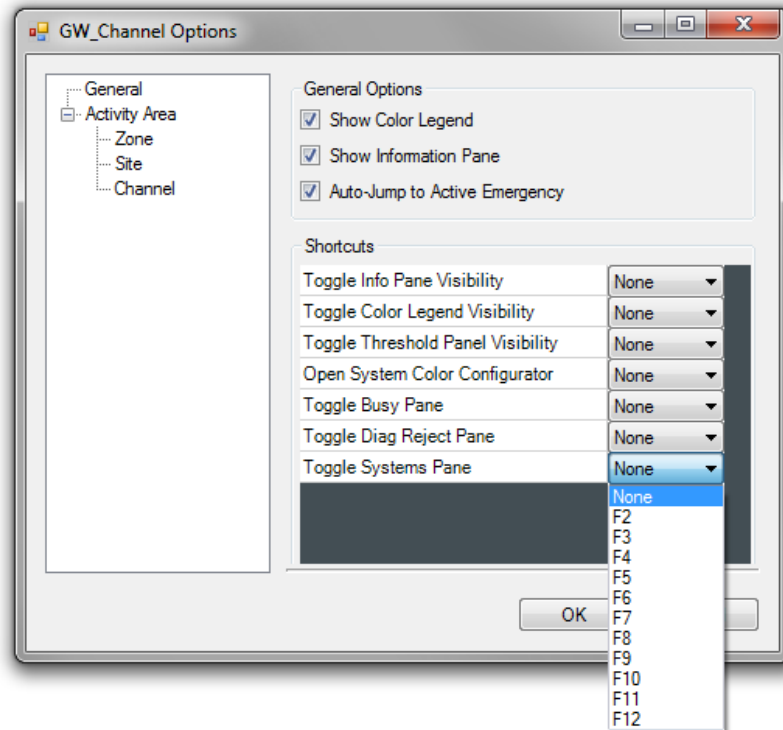
Enhancements for customizing or optimizing the behavior and appearance of channels are configurable on the *main menu*. The three enhancements to the default behavior and appearance of the *Channel Activity Area* can be accessed by navigating to **Edit** → **Enhancements** in the *main menu*.

- **Show Background Images:** Replaces the various gray-scale backgrounds of the Omni, Zone, and Site controls with user-selectable images.
- **Add Expected Channels:** Upon receiving activity on a channel, all channel blocks with a lower position number that have not already reported activity will be automatically added.
- **Variable Channel Heights:** Allows channel blocks to vary in height based on the call information the user has selected to be shown.

These options can be checked (enabled) and unchecked (disabled) from the main menu and are global preferences, saved per user session.

## Options

Options are used to further customize how Channel is used. The GW\_Channel *Options* window can be accessed by navigating to **Edit** → **Options** (Figure 2.18).



**Figure 2.18** – General Options

There are several different sections in the GW\_Channel *Options* window that can be accessed by clicking on the appropriate section on the left side of the window. The first section that shows up is the **General Options** section. The following options are available here:

- **General Options:** Visibility options that apply to the Channel GUI.
  - **Show Color Legend:** Toggle visibility of the **Color Legend** in the bottom of the **Information Pane** on the left side of the Channel GUI.
  - **Show Information Pane:** Toggle visibility of the **Information Pane** on the left side of the Channel GUI.
  - **Auto-Jump to Active Emergency:** Toggle feature for Channel to jump to a different system that has an active emergency.
- **Shortcuts:** Allows you to assign an option that can be toggled to a function key. (The function keys are the F1-F12 keys that are at the top of the keyboard.)
  - **Toggle Info Pane Visibility:** Toggles the **Show Information Pane** option with the designated key.

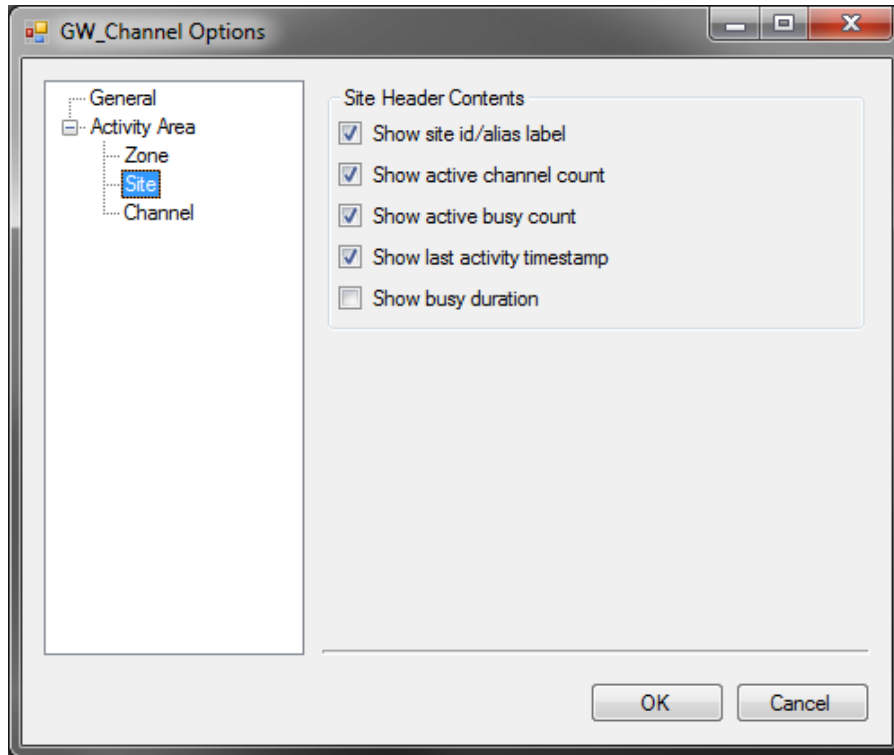
- **Toggle Color Legend Visibility:** Toggles the **Show Color Legend** option with the designated key.
- **Toggle Threshold Panel Visibility:** Toggles the visibility of the **Threshold Panel** with the designated key. (The **Threshold Panel** is the pop-up window in the bottom right corner with the flashing red, amber, and green lights)
- **Open System Color Configurator:** Opens the **Channel Color Configuration** window.
- **Toggle Busy Pane:** Toggles the visibility of the **Busy Pane** near the bottom of the **Information Pane**.
- **Toggle Diag Reject Pane:** Toggles the visibility of the **Radio Rejects / Diagnostics Pane** in the **Information Pane**.
- **Toggle Systems Pane:** Toggles the visibility of the **Systems Pane** in the **Information Pane**.

The second section of options is the **Activity Area** options. The **Activity Area** is the main portion of the window that contains the System, Zone, Site, and individual Channel information. There are individual option sections that allow for modification of options that apply specifically to these sub-sections of the *Activity Area*. The **Activity Area** has the following options:

- **Add Expected Channels:** Upon receiving activity on a channel, all channel blocks with a lower position number that have not already reported activity will be automatically added.
- **Variable Channel Heights:** Allows channel blocks to vary in height based on the call information the user has selected to be shown.
- **Show Background Images:** Replaces the various gray-scale backgrounds of the Omni, Zone, and Site controls with user-selectable images.

#### **Zone Options:**

- **Show zone id/alias:** Show the id/alias label of each zone in the *Zone Header*.
- **Show active channel count:** Show the number of active channels present in the zone in the *Zone Header*.
- **Show last activity timestamp:** Show the timestamp of the last activity that occurred within this zone in the *Zone Header*.
- **Show analog console site 0:** Show analog consoles as channels within site 0 of the appropriate zone.
- **Show digital console sites:** Show digital consoles with IDs from 1000 to 1999 as sites within the appropriate zone.



**Figure 2.19** – Site Options

**Site Options:**

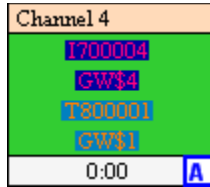
- **Show site id/alias:** Show the id/alias label of each site in the **Site Header**.
- **Show active channel count:** Show the number of active channels present in the Site in the **Site Header**.
- **Show active busy count:** Show the number of active busies in the Site in the **Site Header**.
- **Show last activity timestamp:** Show the timestamp of the last activity that occurred within the Site in the **Site Header**.
- **Show busy duration:** Show the duration of busies that occurred within the Site in the **Site Header**.

**Channel Options:**

- **Use colors from GW\_Alias:** Use the colors that are defined in the GW\_Alias module in the presentation of channels.

## Alias Colors

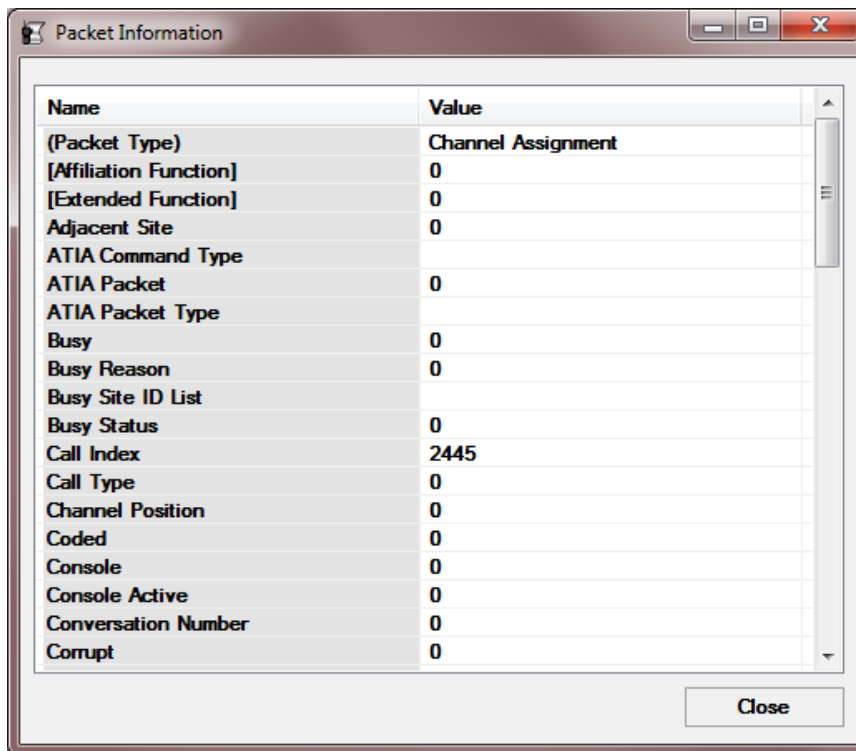
Channel activity information displayed within each channel can be shown using the colors selected in GW\_Alias for radio IDs and talkgroups, as shown in Figure 2.20. This setting can be toggled on or off under the *Main Menu* by navigating to **View → Use Alias Colors**.



**Figure 2.20** – Channel activity shown with the colors specified in GW\_Alias.

## Packet Information Window

It is possible to get additional information about a call or event by double-clicking on any channel that has received activity.

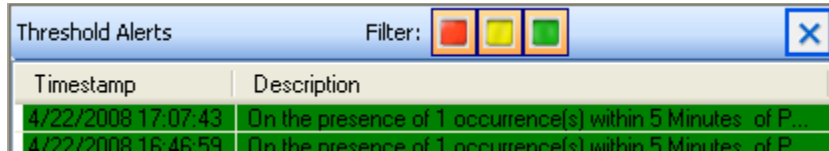


**Figure 2.21** – Packet Information Window

The *Packet Information* window provides a list of all information GenWatch3 has about the current (or last known) activity for the channel.

## Threshold Lights

Threshold lights will flash when GW\_Channel receives a message from the GW\_Trigger module regarding a threshold that has been reached. Depending upon how the threshold is set up, the red, amber or green light will flash. Clicking on one of the three lights will open the **Threshold Alert** panel (see Figure 2.22).



**Figure 2.22** – Threshold Alert panel without any filtering enabled

### Example Thresholds

Threshold triggers are created in GW\_Trigger and can be configured to alert users to a wide range of conditions. The following example would alert users to the absence of call activity.

*On the lack of 1 occurrence within 10 minutes of PTT events, trigger this red/amber/green light using the color amber.*

The light color should be used to indicate the severity of a trigger, and since it's possible for the previous condition to arise within a fully operational site, the amber threshold color has been selected. The next example shows a trigger that causes the red threshold light to flash when more than 5 busies occur in less than 1 minute.

*On the presence of 5 occurrence(s) within 1 minute of Busy events, trigger this red/amber/green light using the color red.*

See the *GW\_Trigger module book* for information about other triggers, detailed setup options and more examples.

## Threshold Alert panel

The **Threshold Alert** panel lists all thresholds that have been reached and allows the thresholds to be filtered by color, which corresponds to severity, where green indicates a normal priority and red indicates the highest priority. Each item listed contains the timestamp of when the threshold was reached and its description. Each item will also be displayed in bold until it is acknowledged.

Single-clicking on an item in the list will acknowledge the alert. If a trigger is based upon a threshold event, double-clicking on its threshold alert item in the alert panel will reposition the *Activity View* of GW\_Channel to show the site on which the activity was initiated. Alerts of a certain color can be filtered out by turning off the filter lights at the top of the **Threshold Alert** panel. Click the **X** button at the top right of the panel to close it.

## Console Window

The Console Window (Figure 2.23) displays console activity separate from the main Channel View. The window is opened by clicking **Consoles** on the **Zone Header**.

Hide	Console Site 0, Consoles							Active Buses: 0	Active Consoles: 5	Last Activity: 9/1/2010 21:43:12
5176	23162	53007	54543	57027	57101	57701	60529			
377	3177	1605	3522	32	13	3177	973			
	1:47	0:05		0:00						
60564	60594	60602	60621	60744	63480	64951				
978	980	983	986	996	2405	1263				
	0:27					0:09				

Hide	Console Site 1018, GWS1018		Active Buses: 0	Active Consoles: 0	Last Activity: 9/1/2010 21:42:34
Channel 1	Channel 2				
36214	36041				
4912	4477				

Hide	Console Site 1020, GWS1020						Active Buses: 0	Active Consoles: 3	Last Activity: 9/1/2010 21:43:12
Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6				
55601	32060	55605	55604	30528	30470				
4440	4440	4519	4441	4519	4441				
0:01				0:02	0:07				

Hide	Console Site 1021, GWS1021			Active Buses: 0	Active Consoles: 1	Last Activity: 9/1/2010 21:43:12
Channel 1	Channel 2	Channel 3				
55601	55601	32060				
4440	4440	4440				
	0:01					

Hide	Console Site 1022, GWS1022		Active Buses: 0	Active Consoles: 0	Last Activity: 9/1/2010 21:42:31
Channel 1	Channel 2				
55615	55607				

Figure 2.23 – Console Window for Zone 1