



GenWatch3[®]
GW_System Summary
Software Version 2.3
Module Book

GenWatch3[®]

Trademarks

The following are registered trademarks of Motorola: SmartZone, SmartNet, ASTRO®.

Any other brand or product names are trademarks or registered trademarks of their respective holders.

The Genesis Group Trademark Information

GenWatch3® is a registered trademark of GenCore Candeo, LTD., a subsidiary of Burks Gencore Co., Inc. D.B.A. The Genesis Group and Phil Burks.

Copyright

Copyright © 2010; Burks Gencore Co., Inc. D.B.A. The Genesis Group and Phil Burks. All rights are reserved. No part of this publication or the associated program may be reproduced, transmitted, transcribed, in whole or in part, in any form or by any means, whether it is mechanical, magnetic, optical, electronic, manual or otherwise, without the prior written consent of Burks Gencore Co., Inc. D.B.A:

The Genesis Group and Phil Burks
601 Shelley Dr., Suite 202
Tyler, Texas 75701.

Includes technology licensed from Motorola.

Disclaimer

The GenWatch3 Users Manual is printed in the U.S.A. Burks Gencore Co., Inc. D.B.A. The Genesis Group and Phil Burks believe that the information included in this manual is correct; however, Burks Gencore Co., Inc. D.B.A. The Genesis Group and Phil Burks reserves the right to alter, revise and make periodic changes to the manual and its contents. Burks Gencore Co., Inc. D.B.A. The Genesis Group does not assume responsibility to notify any person of such revisions or changes. While we have taken strides to carefully examine our software and documentation and believe that it is reliable, the Genesis Group and Phil Burks assume no responsibility for the use of the manual, or GenWatch3 software, nor for any patent infringements or other rights of third parties who may use the manual or the GenWatch3 software. Burks Gencore Co., Inc. D.B.A. The Genesis Group and Phil Burks make no representations or warranties with respect to the contents or fitness for a particular purpose beyond the cost of the software paid by the end-user.

The software contains valuable trade secrets and proprietary information. Unauthorized use of the manual or software can result in civil damages and criminal prosecution. As an end user, you agree to abide by and heed these statements.

License

Title to the media on which the program is recorded and to the documentation in support of the product is transferred to you, but title to the program, and all subsequent copies of the program, despite the form or media in or on license is not a sale of the original or any subsequent copy. You assume responsibility for the selection of the program to achieve your intended results, and for the installation, use, and results obtained from the program.

Refer to the GenWatch3 Manual Overview for your full license. All license information contained on pages 4-7 (Book 600-2.3.0-AA.1) are to be considered as contained herein.

Support

Customer satisfaction is our number one priority at Genesis. We are here to provide you with the best software possible, and we want to know when you have any questions, concerns or problems with GenWatch3 so that we can make it a better product for everyone.

Refer to the *Troubleshooting & Support* section of the GenWatch3 Manual Shell (Book 600-2.3.0-AA.1) for complete support and contact information.

Document History

Revision	Description	Author
2.0.2	Initial Release	JAW
2.0.3	Revision before release	JAW
2.0.4	Revision before release	JAW
2.0.4	Typo Correction: Bug 3399	KIH
2.0.5	Revision before release	TDW
2.0.6	Updated screenshots	REB
2.0.6	Updated screenshots	CLB
2.0.6.6	Changes before release	WRK
2.2	Document reviewed	WRK
2.3	Release Revisions	REB

Table of Contents

<i>Trademarks</i>	3
<i>The Genesis Group Trademark Information</i>	3
<i>Copyright</i>	3
<i>Disclaimer</i>	3
<i>License</i>	3
<i>Support</i>	3
DOCUMENT HISTORY	4
TABLE OF CONTENTS	5
ABOUT THIS MANUAL	7
GOALS	7
WHO SHOULD READ THIS MANUAL?	7
HOW THIS MANUAL IS ORGANIZED	7
CHAPTER 1 OVERVIEW	9
TERMS	9
WHAT IS GW_SYSTEM SUMMARY?	9
SELECTING VIEWS	10
<i>System Summary Grid</i>	11
Changing the Selected System	12
<i>Usage Graph by System Component</i>	13
<i>Usage Graph by Time</i>	14
USING UP-TO-THE-MINUTE GRAPHS	15
<i>Graph Display Options</i>	15
<i>Navigation</i>	17

Goals

This manual describes the role and function of the GW_System Summary module in the GenWatch3 solution.

Who Should Read This Manual?



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

How This Manual Is Organized

This manual is organized as follows:

- **Overview:** Describes the GW_System Summary module and GW_System Summary Graphical User Interface (GUI).

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 describes the GW_System Summary module and GW_System Summary GUI.

This chapter contains the following sections:

- **Terms:** Describes the terms that are needed to understand the GW_System Summary module.
- **What is GW_System Summary?:** Defines the GW_System Summary module and GW_System Summary GUI.
- **Selected Views:** Describes the selected views offered by GW_System Summary.
- **Using Up to the Minute Graphs:** Describes how to use the up to the minute graphs.

Terms

You will see these terms used in the Selecting Views section below:

- ❗ **Global Busy:** Busy occurrence where the call request did not acquire even a single channel on a single site.
- ❗ **Partial Busy:** Busy occurrence where the call request could not acquire at least one channel on one of the sites targeted by the call (GW_System Summary does not gather statistics on partial busies).
- ❗ **Channel Seconds:** The number of seconds a call used on each channel on each site involved in the call. For example, if the call lasted 5 seconds and required two channels, the call required 10 channel seconds.
- ❗ **Call Seconds:** The number of seconds a call required on a single channel on a single site.
- ❗ **Interconnect:** A call made from a telephone to a radio or vice versa.
- ❗ **Private:** A Push-to-Talk made from a radio to a specific radio.
- ❗ **Group:** A Push-to-Talk made on a talkgroup.

What is GW_System Summary?

The GW_System Summary module receives packets from each GenWatch3 input connection. The information in these packets is used to compile statistics for each connected system, zone, site and channel (frequency). The GW_System Summary GUI uses these statistics to display up-to-the-minute system usage information through a variety of graphs and charts.

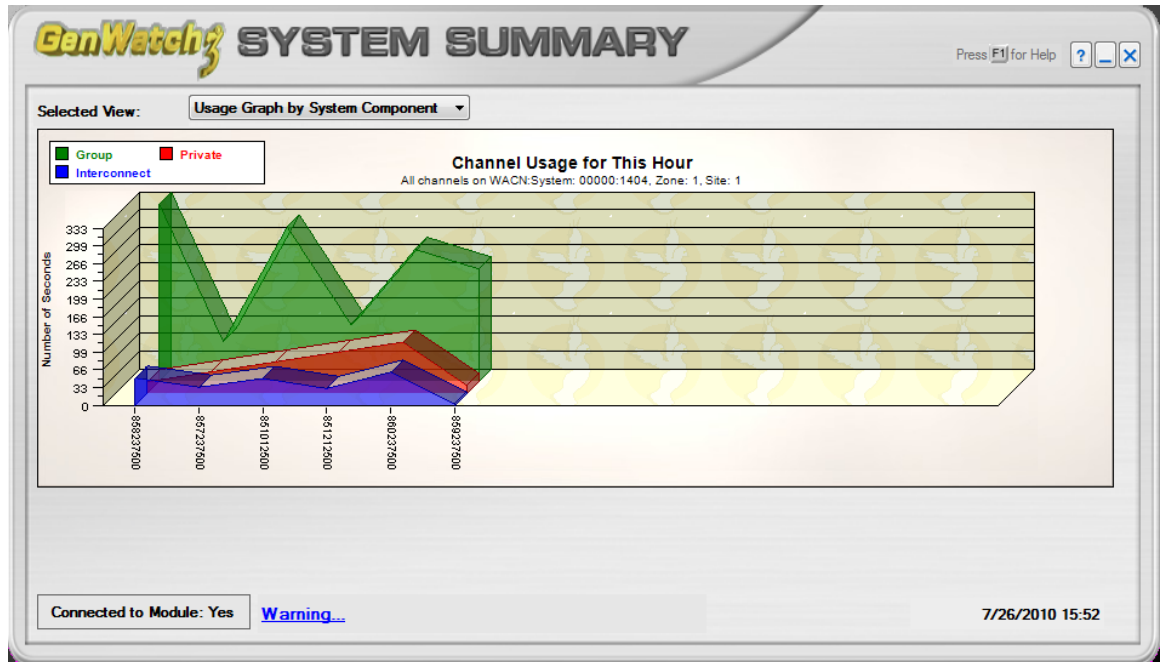


Figure 1.1 – GW_System Summary View window

Selecting Views

The **Selected View** feature allows you to toggle between the three reporting views. Each view shows the statistical data in a different way. These views include:

- **System Summary Grid**: Displays up to the minute usage values in a grid format.
- **Usage Graph by System Component***: Graphical view of usage by system components including:
 - System
 - Zone
 - Site
 - Channel
- **Usage Graph by Time***: Graphical view of usage by current:
 - Hour
 - Day
 - Month
 - Year

* These graphs will only show data received from the GW_RIMII, GW_Trbo, GW_Connect or GW_RSP25 modules.

These views are described in detail in the sections below.

System Summary Grid

The GenWatch3 **System Summary Grid** (Figure 1.2) displays up to the minute system usage values. These values include:

- **Total Packets Received:** Total number of all packets received from the GenWatch3 input connection(s) for the selected system.
- **Corrupt Packets Received:** Total number of corrupt packets received, as reported by the GenWatch3 input connection(s) for the selected system. Corruption is only reported on control channel inputs (e.g. GW_RIMII).
- **Percent Corrupt Packets:** Ratio of Corrupt Packets Received / Total Packets Received for the selected system. Try to maintain a corruption level of 0%, while less than 1-2% is acceptable. A weak control channel signal or interference on the control channel frequency may cause corruption.
- **Group Call Seconds:** Approximate total of group call channel seconds for the selected system.
- **Private Call Seconds:** Approximate total of private call channel seconds for the selected system.
- **Telephone Call Seconds:** Approximate total of telephone call channel seconds for the selected system.
- **Emergency Call Seconds:** Approximate total of emergency call channel seconds for the selected system. Emergency calls are group calls as well as emergency.
- **Total Call Seconds:** Approximate total of group, private and telephone call channel seconds for the selected system.
- **Total Calls:** Total number of Calls for the selected system.
- **Average Call Length:** Approximate average call length for the selected system, based on **Total Calls** and the total call seconds. This average uses call seconds, not channel seconds. For multi-site input, the call seconds value used for this average will, most likely differ from the **Total Call Seconds** value shown in the grid.
- **Busies – Quantity:** Total number of global busy occurrences received for the selected system.
- **Busies – Seconds:** Approximate number of globally busy seconds for the selected system.
- **Affiliations – Total:** Total number of affiliations, registrations and associations for the selected system.
- **Deaffiliations – Total:** Total number of deaffiliations, deregistrations and disassociations for the selected system.
- **Max Channels Used:** Number of distinct channels used for the selected systems.
- **Max Groups Used:** Number of distinct talkgroups used for the selected system.
- **Max IDs Used:** Number of distinct radio IDs used for the selected system.

The **System Summary Grid** shows each of the above values within multiple durations. The **Last Minute** duration represents the current minute. This current minute goes by the time on your computer. When your computer's current minute changes, then the current minute shifts over into the **Last 5 Minutes** category and the **Current Minute** is reset. The **Last Hour** duration includes all minutes within the last hour (most recent 60 minutes), including the current minute. The same is true for the **Last 3 Hours**, **Last 12 Hours**, etc.



The GW_System Summary module gathers system information even when the GW_System Summary GUI is closed. You can keep the GW_System Summary screen open or just open it when you want to see the grid or graphs.

Changing the Selected System

If the GW_Alias database contains more than one system, then the **Selected System** drop-down list will contain multiple System IDs.

To display the statistics of a non-selected system, choose the system ID within the **Selected System** combo box. Statistics for systems are gathered, even when the system is not selected.

The screenshot shows the GenWatch SYSTEM SUMMARY window. At the top, it says 'Selected View: System Summary Grid'. Below this is a table with the following data:

	Last Minute	Last 5 Minutes	Last 15 Minutes	Last Hour	Last 3 Hours	Last 6 Hours	Last 12 Hours	Last 24 Hours
Total Packets Received	78	330	764	2929	8248	12154	12154	12154
Corrupt Packets Received	0	0	0	0	0	0	0	0
Percent Corrupt Packets	0	0	0	0	0	0	0	0
Group Call Seconds	8	49	49	142	206	208	208	208
Private Call Seconds	25	25	25	25	25	25	25	25
Telephone Call Seconds	0	0	0	0	0	0	0	0
Emergency Call Seconds	0	0	0	0	0	0	0	0
Total Call Seconds	33	75	75	167	231	233	233	233
Total Calls	5	16	16	39	54	55	55	55
Average Call Length	6.6	4.59	4.59	4.24	4.22	4.18	4.18	4.18
Buses - Quantity	0	0	0	0	0	0	0	0
Buses - Seconds	0	0	0	0	0	0	0	0
Affiliations - Total	0	0	0	6	11	11	11	11
Deaffiliations - Total	0	0	0	1	2	3	3	3
Max Channels Used	4	5	5	5	5	5	5	5
Max Groups Used	1	2	2	3	3	3	3	3
Max IDs Used	1	1	1	1	1	2	2	2

At the bottom of the window, it shows 'Connected to Module: Yes', 'Selected System: 1404 (System 1404)', and the date/time '1/19/2010 13:42'.

Figure 1.2 – System Summary Grid

Usage Graph by System Component

The **Usage Graph by System Component** shows up to the minute usage statistics for the selected component(s). Components include:

- **All Systems:** This includes all systems, zones, sites and channels.
- **All Zones:** This includes all zones, sites and channels under a specific System.
- **All Sites:** This includes all sites and channels under a specific zone.
- **All Channels:** This includes all channels under a specific site.
- **Frequency XXXXXXXXX:** This includes only the selected channel.

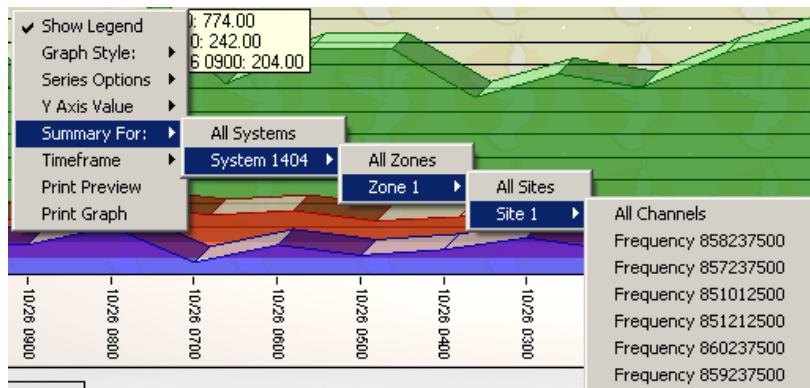


Figure 1.3 – System Component Selection (Summary For:)

The *Using Up-to-the-Minute Graphs* section below describes how to customize the graph to your liking.

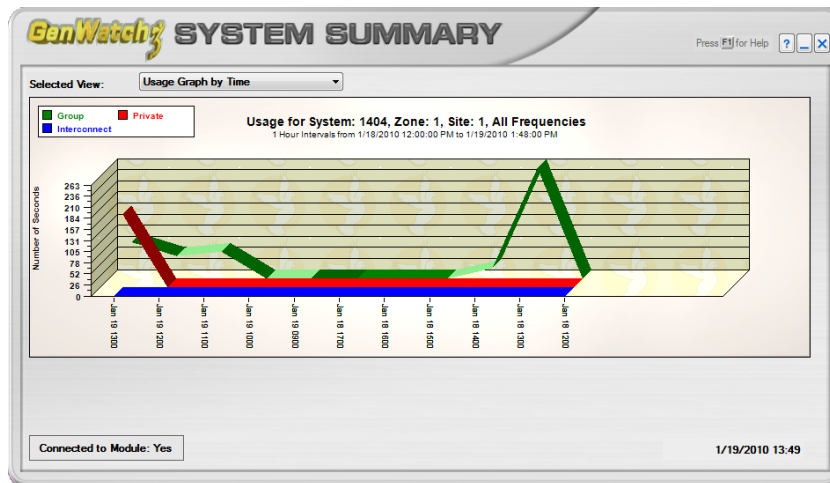



Figure 1.4 – Line 3D, non-stacked, 1-Hour interval Usage Graph by Time (All Channels on System 1404, Zone 1, Site 1)

 Usage Graph by System Component includes information only for channels (frequencies) that have been added to GW_Alias. Missing channels result in incorrect graph values.

Usage Graph by Time

The **Usage Graph by Time** shows up-to-the-minute usage for all components based on the selected time interval. Time intervals include:

- **Hour:** Includes only the current hour.
- **Day:** Includes only the current day.
- **Month:** Includes only the current month.
- **Year:** Includes only the current year.

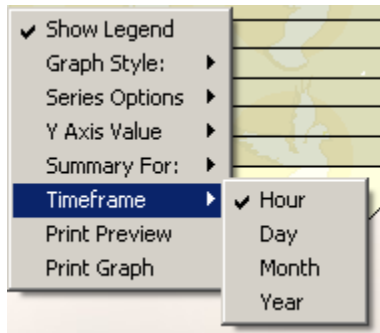


Figure 1.5 – Time Interval Selection (Timeframe)

The *Using Up-to-the-Minute Graphs* section below describes how to customize the graph to your liking.

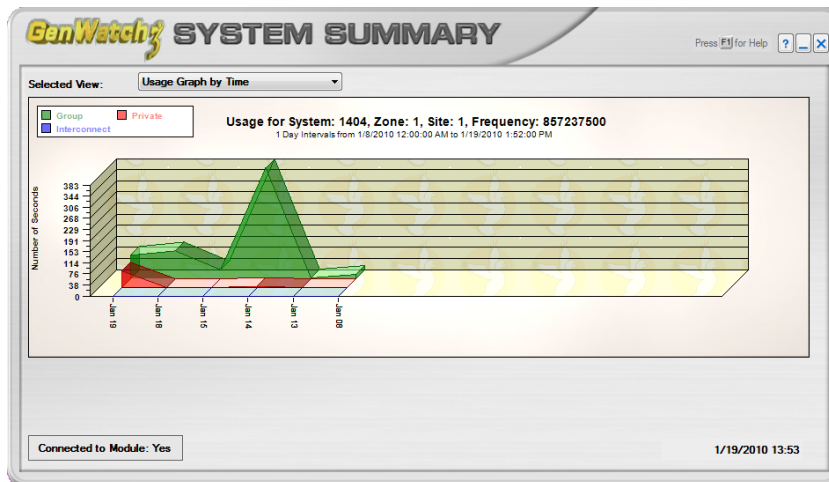


Figure 1.6 – Area 3D, non-stacked, 1-Day interval Usage Graph by Time (Specific Frequency on System 1404, Zone 1, Site 1)

Using Up-to-the-Minute Graphs

The GW_System Summary GUI offers two up-to-the-minute graphs in its **Selected View** list box. Each graph shows system usage-related statistics, but each one organizes the statistics in a different way. The **Usage Graph by System Component** graph organizes the statistics by component, including system, zone, site and channel. The **Usage Graph by Time** graph organizes the statistics by time interval. These intervals include:

- **Hour:** The current hour. When your system time hour changes, the values will reset.
- **Day:** The current day. When your system time day changes, the values will reset.
- **Month:** The current month. When your system time month changes, the values will reset.
- **Year:** The current year. When your system time year changes, the values will reset.

Graph Display Options

The GW_System Summary graph offers many customization options.

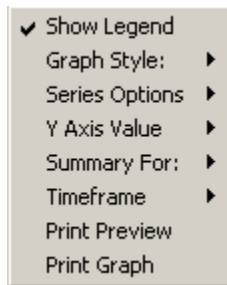
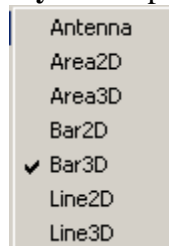


Figure 1.7 – Graph Customization Options

To access the graph options, right-click on the graph. This will show a menu with the following menu options:

- **Show Legend:** Toggle the legend in the upper-left corner of the graph.
- **Graph Style:** Graph style options:



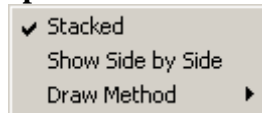
- **Antenna:** Bar graph shown with narrow lines.
- **Area 2D:** Each point is connected to the previous point with a line and the area under the line is filled in.

- **Area 3D:** Same as Area 2D, but includes shading.
- **Bar 2D:** Each value is shown using rectangles.
- **Bar 3D:** Same as Bar 2D, but includes shading.
- **Line 2D:** Lines connect each point on the graph.
- **Line 3D:** Same as Line 2D, but includes shading.

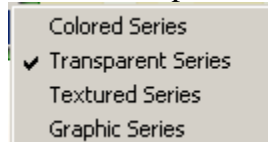


For Area 2D, Area 3D, Line 2D, and Line 3D, if only one point of data is available, then nothing will be displayed (e.g., only one Channel selected when viewing the Usage Graph by System Component).

- **Series Options:**

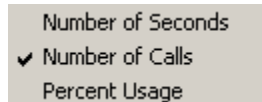


- **Stacked:** Each graph shows values for group, private and interconnect categories. If stacked, the categories share the same horizontal space.
- **Show Side by Side:** Each graph shows values for group, private and interconnect categories. **Show Side by Side** reserves a horizontal space for each category's value.
- **Draw Method:** Graphical options for the graph:



- **Colored Series:** Shows simple single-colored graphics on the bars and lines in the graph.
- **Transparent Series:** Shows transparent simple single-colored graphics on the bars and lines in the graph.
- **Textured Series:** Shows tiled graphics on the bars and lines in the graph.
- **Graphic Series:** Shows detailed images on the bars and lines in the graph.

- **Y Axis Value:**




- **Number of Seconds:** Values in the grid reflect a sum of call seconds.
- **Number of Calls:** Values in the grid reflect a call count.
- **Percent Usage:** Values in the grid reflect percent usage, i.e., number of seconds used out of all potential seconds.


- **Summary For:** Allows you to choose a component such as a system, zone, site or channel. This allows you to drill down and view the statistics for a specific component (see Figure 1.3).


- **Time Frame:** Organizes the statistics into the selected time interval: (See Figure 1.5)
 - **Hour:** In the **Usage Graph by Time** graph, this will show the last 48 hours.
 - **Day:** In the **Usage Graph by Time** graph, this will show the last 60 days.
 - **Month:** In the **Usage Graph by Time** graph, this will show the last 24 months.
 - **Year:** In the **Usage Graph by Time** graph, this will show the last 2 years.
- **Print Preview:** Allows you to see what the printed graph will look like before you print (see Figure 1.7).
- **Print Graph:** Opens the print dialog. This allows you to choose your printer settings and print the graph (see Figure 1.7).


Navigation


The following buttons allow you to navigate the graph results:


: Navigate to the beginning.

: Navigate 1 page toward the beginning.

: Navigate 1 position toward the beginning.

: Navigate 1 position toward the end.

: Navigate 1 page toward the end.

: Navigate to the end.