GW3-TRBO®
SystemMap
Software Version 2.16.4
Module Book

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Refer to the *Troubleshooting & Support* section of the GW3-TRBO Manual Shell (Book 600-2.16.4-AA.1) for complete support and contact information.

Document History

Revision	Description	Author
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About this Manual

Goals

This manual describes the function and role of the System Map module in the GW3-TRBO solution and provides instructions on using the System Map Graphical User Interface (GUI).

Who Should Read This Manual?

This manual is written with an expected audience of novice to mid-level MOTOTRBO system users and novice to mid-level PC users.

How This Manual Is Organized

This manual is organized as follows:

- **Overview:** Describes the System Map module, the System Map GUI and the organization of the System Map information within the System Map 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.

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Chapter 1 Overview

This chapter describes the System Map module, the System Map GUI and the organization of the System Map information within the System Map GUI.

This chapter contains the following sections:

- **What is System Map?**: Defines the function and role of the System Map module in the GW3-TRBO solution.
- **Using the Systems Tree**: Describes how to use the System Map **Systems** Tree.
- **Using System Map Windows**: Describes how to use the System Map windows.

What is SystemMap?

Terms

- **System Map:** A system map is a window showing detailed, near-real time information about each peer registered under a common MOTOTRBO System.
- **Peer:** A device on the MOTOTRBO system registered as a peer.
- **Attachment List:** The groups assigned to a GW3-TRBO user in the Security GUI.

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Function

The System Map GUI shows the real-time status information for each peer registered on your MOTOTRBO systems.

The System Map module processes peer status information from the following types of packets received via the MOTOTRBO system:

- Peer Connect
- Peer Disconnect
- Peer Status Changed
- Backhaul Status (only on Digital Backhaul systems)

Each peer's status information is collected and organized under the peer's WACN Id and System Id.

The System Map GUI's **Systems** tree allows each user to choose one or more system maps to view. Each open System Map window periodically queries the System Map module for the current status information for each peer under its system. This means that you can keep the System Map GUI closed and the System Map module will continue to gather system map information.

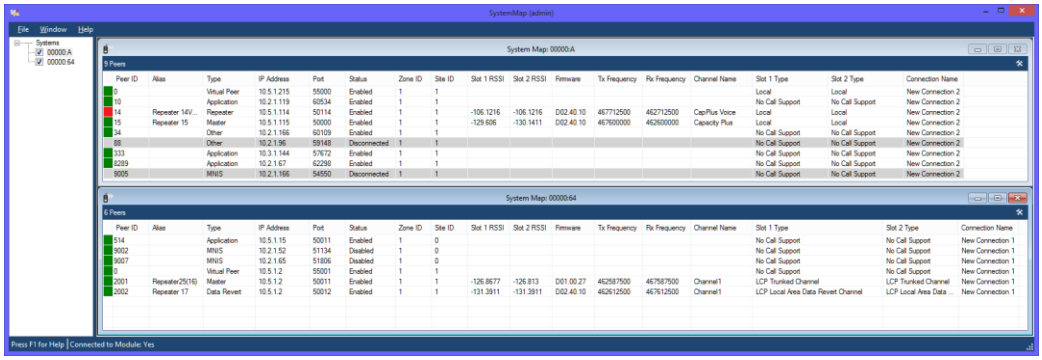

Figure 1.1 – System Map GUI

User Validation

The **Systems** tree only presents systems for which the user has access. To gain access to a system, the user must have at least one group from the system in their *attachment list* or have the *ViewAllGroups* privilege added to their role. To view or change a user's attachment list, see the **Group Filter** settings in Security. To view or change a user's role privileges, see the *Role Privileges* section in Security.

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Using the Systems Tree

Terms

- **Node:** An entry or item in a tree.
- **Attachment List:** The groups assigned to a GW3-TRBO user in the Security GUI.

Function

The **Systems** tree contains a *node* for each licensed WACN Id and System Id combination.

Notice that each system *node* in the **Systems** tree contains a check box. For these systems, the check box indicates if the System Map window for this system is loaded. System Map windows reside in the space to the right of the **Systems** tree. Having all System Map windows open is not necessary as the System Map activity is gathered in the System Map module, even if the System Map GUI is not open.

Checking the check box of a system *node* will show the system's System Map window. Unchecking the check box of a system *node* will hide the system's System Map window.

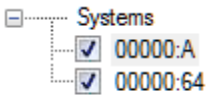

Figure 1.2 – System Map Systems Tree

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Using System Map Windows

The System Map window displays a real-time summary of the peers on your radio network. Peers represent the repeaters and applications to which GW3-TRBO is connected. Using the System Map window, you can quickly view the status of your repeaters.

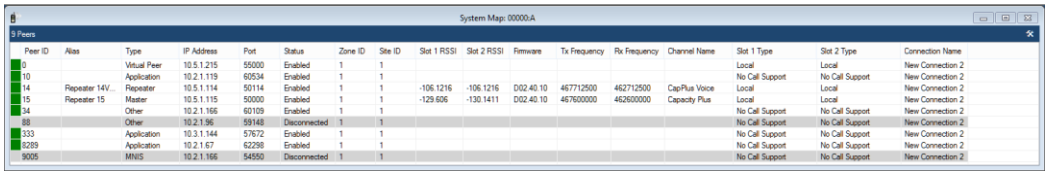

Figure 1.3 – System Map Window of a System

Each peer is represented by a row displaying the following elements shown on Figure 1.3:

- **Alarm Status:** A colored block indicates whether any alarms are active on the repeater. Green indicates no alarms; Red indicates one or more active alarms; Yellow indicates a link or drop repeater marked as Not Present (digital backhaul systems only).
- **Peer ID:** The ID of the peer. For a repeater, this value is programmed in the MOTOTRBO Customer Programming Software (CPS). For an application, this value is usually configured when setting up a connection.
- **Alias:** The name of the repeater as it is programmed into the CPS. This value is not displayed if the peer is not RDAC-capable. (IP Site Connect digital backhaul repeaters will have an alias of *[Digital Backhaul]* to distinguish them from the master/peer repeaters of the digital backhaul chain.)
- **Type:** Indicates the type of peer:
    - **Application:** A device identifying itself as a third-party application, such as a GW3-TRBO host.
    - **Data Revert**: A Capacity Plus or LCP data revert repeater
    - **Master**: The master peer in the peer network.
    - **MNIS**: The MOTOTRBO Network Interface Service peer.
    - **Other**: Any other peer that does not fall into one of the other known categories.
    - **Repeater**: A peer repeater.
    - **Virtual Peer**: A peer ID used by the repeater network as an abstraction of the rest slot on the system or site.
    - **Link**: An IP Site Connect digital backhaul repeater in the link role. These maintain connectivity between sites in the backhaul chain.
    - **Drop**: An IP Site Connect digital backhaul repeater in the drop role. These handle subscriber calls initiated by it or other drop repeaters in the backhaul chain.
- **IP Address:** Indicates the IP address used by the peer.
- **Port:** Indicates the port used by the peer.

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- **Status:** Indicates whether the repeater is Enabled or Disabled. Link and drop digital backhaul repeaters will have a status of Present or Not Present.
- **Zone ID:** The zone ID into which the peer is organized.
- **Site ID:** The site ID into which the peer is organized.
- **RSSI:** The number indicates the most recent known RSSI value for that slot. RSSI is requested from a repeater every few seconds. This value is not displayed if the peer is not RDAC-capable.
- **Firmware:** Displays the firmware version of the repeater peer.
- **Tx Frequency:** Displays the transmit frequency of a repeater peer.
- **Rx Frequency:** Displays the receive frequency of a repeater peer.
- **Channel Name:** Displays the currently active Channel on the repeater, as programmed in CPS.
- **Slot 1/2 Type:** Displays the type of call support provided by the indicated slot on the peer. The type is determined by the services the peer requests from the peer network. Possible types include:
    - **No Call Support:** Peer does not receive call audio or data.
    - **Local:** Single-site call support.
    - **Wide:** IP Site Connect call support.
    - **LCP Trunked Channel:** Linked Capacity Plus voice slot.
    - **LCP Local Area Data Revert Channel:** Single-site LCP data slot.
    - **LCP Wide Area Data Revert Channel:** Multisite LCP data slot.
- **Connection Name:** The name of the connection (as specified in the Trbo module) to which the peer is associated.

Organizing the System Map

The columns on the System Map window can be reordered by dragging the column header to the left or right. They can be resized by clicking the edge of the column header and dragging to the left or right. A column may be hidden by shrinking the column until it can no longer be seen.

The peer list may be sorted by clicking on a column header. Clicking the column header once will sort the list in ascending order by that column's values. Clicking the header of the column by which the list is currently sorted will toggle between ascending and descending order. If the **Zone ID** or **Site ID** column is used for sorting, the list will be sorted first by zone ID and site ID in ascending/descending order, then by Peer ID in ascending order. This allows the peers to be easily grouped by site.

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View Menu

The **View** menu is accessible via the button in the upper-right corner of each System Map window. This menu includes the following options:

- **Font:** Provides options for changing the font and text size of the peer list.
- **Show Gridlines:** Toggles the display of gridlines on the peer list.
- **Reset Window Defaults:** Restores the display settings of the System Map window to their default values. Use this option to quickly undo changes to settings such as the column order, column widths, font or window size. The window position will not be changed.
- **Group By:**
    - **Do Not Group:** Disables grouping within this System Map window.
    - **Site:** Groups the peers within this System Map window by Zone and Site. While grouped, sorting works by sorting the items within the group. Sorting by group headers is not supported.

Choices made in the **View** menu, as well as changes made to the column order or column widths, will be saved when the System Map GUI is closed and remembered when reopening the System Map window. These settings are saved for each system and each GW3-TRBO user, so each user may have different preferred settings for each system.

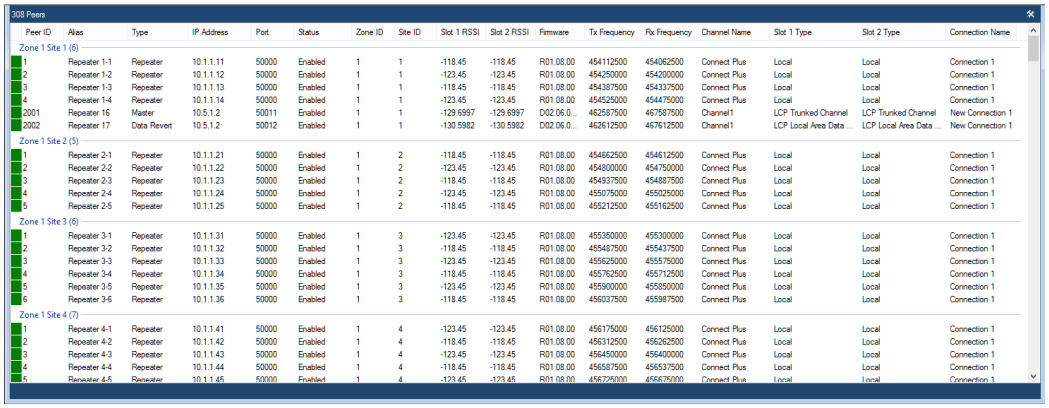

Figure 1.4 – System Map Window of a System with Site Grouping

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Peer Info Window

Double-clicking on a peer brings up the *Peer Info* window, which contains additional details about the peer, including the status of its alarms. Most of the information requires an active RDAC connection to obtain; therefore, XPR-series repeaters using firmware released prior to R01.06 will show limited details.

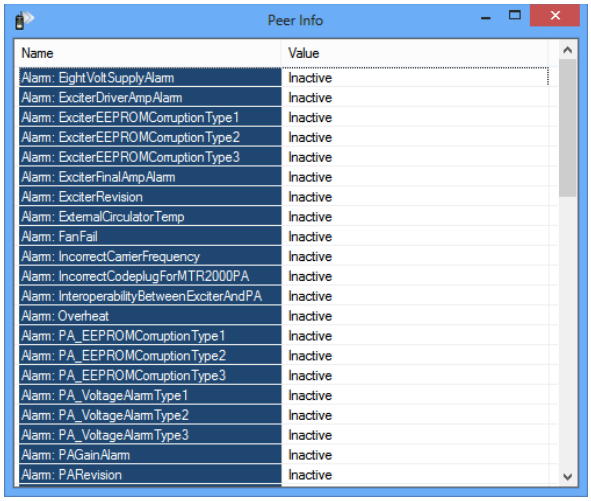

Figure 1.5 – Peer Info Window

Issuing Repeater Commands

The System Map window allows you to issue commands to repeaters. An active RDAC connection is required to issue commands. Commands are issued through the Halcyon module. Please see the *Command Type Validation* section in the Halcyon manual for information on required privileges in Security. To issue a command, right click a repeater and select the command from the popup menu. The following commands are supported:

- **Repeater Disable**
- **Repeater Enable**

The result of the command will be displayed in the status bar at the bottom of the System Map window. You can click this text to display a dialog box with more information.

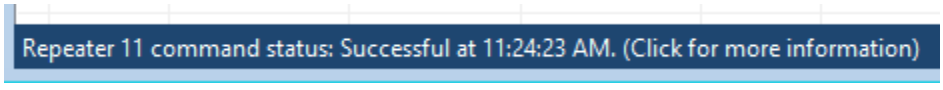

Figure 1.6 – Repeater Command Status Bar Message

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