



**GenWatch3<sup>®</sup>**  
**GW\_AMNP Module**  
**Software Version 2.12**  
**Module Book**

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**GenWatch<sub>3</sub>**

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Refer to the GenWatch3 Manual Overview for your full license. All license information contained on pages 4-7 (Book 600-2.12.0-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 600-2.12.0-AA.1) for complete support and contact information.

## Document History

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### Goals

This manual provides instructions on creating and managing GW\_AMNP connections.

### Who Should Read This Manual?

This manual is intended for an audience of Project25 (P25) trunking system administrators and persons tasked with using GenWatch3 on a P25 system.

### How This Manual Is Organized

This manual is organized as follows:

- **Overview:** Describes the GW\_AMNP module and its role in the GenWatch3 solution.
- **Managing GW\_AMNP Connections:** Describes how to create and manage GW\_AMNP connections.

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 contains the following section:

- **What is GW\_AMNP?:** Defines the GW\_AMNP module and its role in the GenWatch3 solution.

## ***What is GW\_AMNP?***

The GW\_AMNP module enables GenWatch3 to monitor P25 Trunking systems by receiving and decoding packets on the AMNP network. The AMNP network provides system events and call activity. AMNP packets are normally received via IP port (UDP or TCP).

Each packet source is controlled by a GW\_AMNP connection. The GW\_AMNP graphical user interface (GUI) allows you to manage each AMNP connection. The number of connections allowed within the GW\_AMNP GUI is restricted by your GenWatch3 license.



This chapter gives instructions on how to manage GW\_AMNP connections.

This chapter contains the following sections:

- **GW\_AMNP Connections:** Describes GW\_AMNP connections.
- **Connection Properties:** Detailed description of the GW\_AMNP connection properties.

### GW\_AMNP Connections

Each connection in the **Connections** list represents a connection to an AMNP network. Connections receive AMNP packets via IP port (UDP or TCP). The status of each connection is represented by a radio icon that appears in the Windows system tray (the bottom right of your desktop). The icon has the following statuses:

-  : Connection status unknown.
-  : Connection has received packets within the last 5 seconds.
-  : Connection has not received packets within the last 5 seconds (blinks between red and white background).

### Adding a Connection

To receive packets from a packet source, you must add a GW\_AMNP connection.

To add a GW\_AMNP connection, take the following steps:

1. Click the **Add** button: GW\_AMNP will show the default settings for a new connection and a Connection Name value of something similar to 'new connection 1'.
2. Change the connection properties (described below) to the desired values.
3. Click the **Update** button.



**You are not done yet!** Remember to import your channels into the GW\_Alias module. For more information, see Chapter 11 of the GW\_Alias book. This step is required for reporting.

## Updating a Connection

In most cases, after you configure a GW\_AMNP connection, you will not need to update it. However, you can update the GW\_AMNP connection properties in case you make a data entry error, or if the settings change for some reason. To update an existing connection, take the following steps:

1. In the **Connections** list, select (click on) the connection that you wish to update: This will show the properties of this connection.
2. Update the properties that you wish to change.
3. Click the **Update** button.

## Deleting a Connection

In most cases, after you add a GW\_AMNP connection, you will not need to delete it. However, you can delete a GW\_AMNP connection in case you no longer want to monitor the connection's packet source. To delete an existing connection, take the following steps:

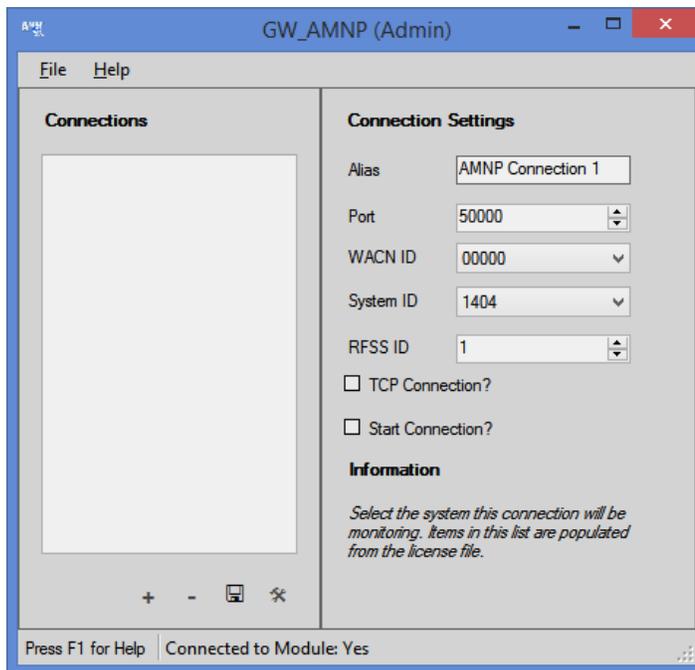
1. In the **Connections** list, select (click on) the connection that you wish to delete. This will show the properties of this connection.
2. Click the **Delete** button. This will result in a confirmation prompt.
3. Click **Yes**.

## Connection Properties

Each GW\_AMNP connection contains many properties. The properties are defined in detail below.

### Connection Settings

- **Alias:** This name will be used to reference the connection.
- **Port:** Enter the port number on which to listen for packets on the AMNP Network. Packets may be received from multiple sources.
- **WACN ID:** Select the WACN ID assigned to this connection. The selection options are populated from the license file.
- **System ID:** Select the System ID assigned to this connection. The selection options are populated from the license file.
- **RFSS ID:** Enter the RFSS ID for this connection.
- **TCP Connection:** Determines if the connection should use TCP instead of UDP.
- **Start Connection:** If checked, then the GW\_AMNP module will start this connection when the module is started. If you want to retain the settings for a connection, but do not want to receive packets from the connection, uncheck this option. In most cases, this option should be checked.



**Figure 2.1** – GW\_AMNP GUI

## Text Validation

GW\_AMNP applies the following rules to the *Alias* text values entered:

- Leading and trailing spaces are removed from entered text values.
- All instances of invalid characters are removed from entered text values. All enterable characters are valid. Escape characters (such as tab) are invalid. Spaces are valid in all text values.

If invalid characters are entered into a textbox, GW\_AMNP will remove the invalid characters when you are finished editing the textbox. In this case, you will see the following message:

*This textbox contained invalid characters. These characters were removed.*

### Connection Settings

Alias	<input type="text" value="Connection 9-3"/>
Port	<input type="text" value="50000"/>

**Figure 2.2** – AMNP *Alias* with Invalid Characters (Alt+12 and Alt+16)

This chapter gives instructions on how to manage GW\_AMNP connection filters.

This chapter contains the following sections:

- **What are Connection Filters?:** Describes the GW\_AMNP connection filter.
- **Why Would I Create Connection Filters?:** Explains how connection filters can be used to offload monitoring and reporting to agencies.
- **Loading the Advanced Options Window:** Instructions on how to load the *GW\_AMNP Advanced Options* window.
- **Connection Filter Options:** Instructions on managing the GW\_AMNP Connection Filter.

### **What are Connection Filters?**

Each GW\_AMNP connection allows filtering based on groups assigned to a GenWatch3 user. Information that is filtered out on this level is not passed to the rest of the GenWatch3 modules. If a filter is set up, only packets that reference groups selected in the user's groups or radio IDs that reference this group as their default group are included.



**NOTE:** Default groups are assigned to radio IDs in the GW\_Alias GUI. Group filters are assigned to users in the GW\_Security module.

### **Why Would I Create Connection Filters?**

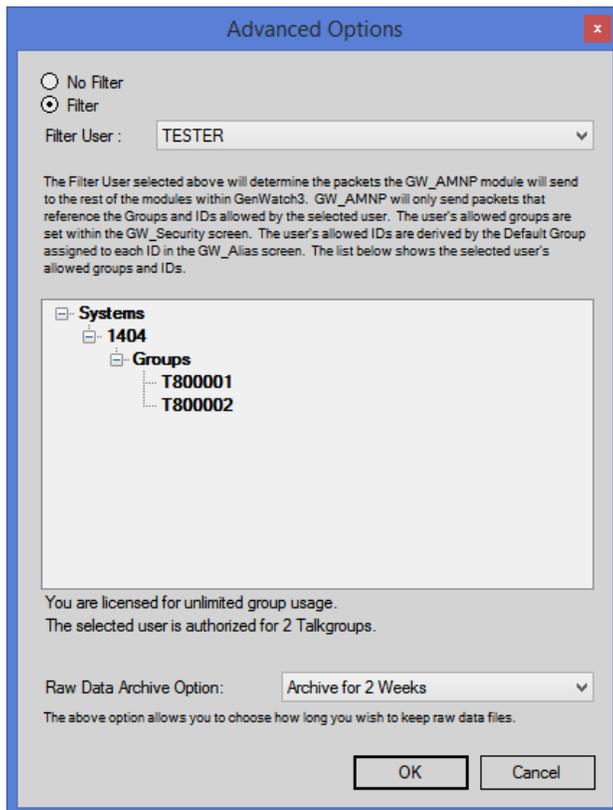
Connection filters are designed to allow system owners to offload the GenWatch3 monitoring and reporting capabilities onto agencies. In these installations, system owners would install and set up GenWatch3. During the setup an 'Agency A' GenWatch3 user is defined, containing only the groups available to that agency. This GenWatch3 user is used for the connection filter.

In the end, only the system owners know the logins that would allow changes to the GenWatch3 users. The system owners also create various GenWatch3 users to be used by Agency A. Agency A is now allowed to monitor and report on only the groups and radio IDs used by their agency.

## Loading the Advanced Options Window

To load the Advanced Options window, take the following steps:

1. Load the GW\_AMNP GUI.
2. In the **Connections** list, click on a connection: This will show the properties of this connection and enable the **Options...** button (bottom left of the window). You must be logged in as a user whose role contains the *SetupFilters* privilege for the GW\_AMNP module in order to see the **Options...** button.
3. Click the **Options...** button: This will show the *Advanced Options* window.



**Figure 3.1** – Advanced Options Window

## Connection Filter Options

Each GW\_AMNP connection has a single Connection Filter. The list below describes the connection filter options:

- **No Filter:** If selected, then all packets will be passed to the GenWatch3 modules, regardless of radio ID or talkgroup. (This option is only available if you are not licensed for a specific list of talkgroups)
- **Filter:** If selected, GenWatch3 will only process packets with a talkgroup or radio ID matching ones defined in the **Filter User's** groups.
- **Filter User:** User whose **Group Filter** settings will be used to filter CAI packets. When you select a **Filter User**, the tree below the **Filter User** shows the Group and radio IDs that are allowed by the selected user.
- **License Threshold:** Two labels at the bottom of the **Connection Filters** window indicate how many groups you are licensed for and how many groups the selected user includes. You cannot select a **Filter User** whose **Group Filter** settings include more groups than are included in your license (This only applies if you are licensed on a set number of groups).
- **Raw Data Archive Option:** This option allows you to choose how long the GenWatch3 raw data files remain on your GenWatch3 computer.
  - **Do Not Archive:** GenWatch3 should not archive raw data files.
  - **Archive for 1 Week:** GenWatch3 should archive one week's worth of raw data files.
  - **Archive for 2 Weeks:** GenWatch3 should archive two weeks' worth of raw data files.
  - **Archive for 5 Weeks:** GenWatch3 should archive five weeks' worth of raw data files. (default)



Your GenWatch3 GW\_AMNP module may be licensed for a specific list of talkgroups. You can check this via the **View License** button on GW\_Launchpad. If your GW\_AMNP license information contains WACN, System and Talkgroup information, then you are licensed to a specific list of talkgroups. If you are licensed in this way, creating a **Filter User** will not override this license restriction (i.e., allow you to see more talkgroups than you are licensed for). However, you can use a **Filter User** to allow GenWatch3 to only process a subset of the talkgroups that you are licensed for. This is particularly useful if you, as a system owner, are licensed for twelve talkgroups and you are setting up an agency-based installation of GenWatch3 to monitor four of your twelve talkgroups.

## More on Raw Data Files

GenWatch3 stores raw data files on your GenWatch3 computer. Genesis and Motorola support personnel use these files to help diagnose control channel decode issues you may have with GenWatch3.

By default, GenWatch3 will keep five weeks (2-20 GB depending on RFSS activity) worth of raw data files per GW\_AMNP connection. You may wish to conserve hard drive space by choosing to only keep one week's worth of raw data files. We suggest you keep the full five weeks, just in case it takes you awhile to notice a control channel decode issue.

These raw data files are stored in the following directory:

*ProgramData\Genesis\GenWatch3\RawData\AMNP\<WACN>\<SystemId>\<RFSS ID>*

In the default GenWatch3 installation directory when WACN is 00003, the System ID is 002, the RFSS ID is 1 the GenWatch3 raw data directory is:

*C:\ProgramData\Genesis\GenWatch3\RawData\AMNP\00003\002\1\*

The files in this directory are in the following format:

*GW3\_<year><month><day>\_<hour>.RAW*

The raw data file for the 3:00pm hour on 10/12/2010 would be:

*GW3\_20101012\_15.RAW*

## Changing the Raw Data File Directory

Changing the GenWatch3 raw data directory is usually a bad idea. Support personnel will find it convenient if these files are always in the same place. However, if you have a small partition (small disk space) on drive C, you may wish to move this archive operation to another drive. To change the raw data file directory, take the following steps:

1. Browse to the GenWatch3 data directory. By default this folder is `C:\ProgramData\Genesis\GenWatch3`.
2. Double-click on the following file: `GenWatch3.config`: This may result in a dialog asking you to choose an application to use to open this file. In this case, choose Microsoft Notepad.

```
<Settings>
<ServerName>WILBUR</ServerName>
<GW3ServerName>WILBUR</GW3ServerName>
<RawDataFilePath>C:\ProgramData\Genesis\GenWatch3\RawData</RawDataFilePath>
<ThrottleRate>200</ThrottleRate>
<LicensePath>C:\Genesis\GenWatch3</LicensePath>
<MaxDatabaseSize>9000</MaxDatabaseSize>
</Settings>
```

**Figure 3.2** – GenWatch3.config File

3. Change the value in the `<RawDataFilePath></RawDataFilePath>` tag to the desired raw data file path (e.g., `E:\RawData` or `D:\RawData`). Make sure the path you choose is a valid hard drive, not a CD-ROM or DVD drive).
4. Click **File** → **Save** to save your changes.
5. GenWatch3 may take up to one hour to recognize this change.
6. If you wish to expedite this change, you can do so by updating an existing GW\_AMNP connection in the GW\_AMNP GUI (i.e., selecting a connection in the GW\_AMNP GUI's Connections List and clicking the **Update** button).



**Warning:** Make sure you only change the `RawDataFilePath` tag. Changing `GenWatch3.config` tags in other areas can cause your GenWatch3 software to become unstable or even unusable. When in doubt, ask for assistance from your IT department or Genesis support.