

GH Everyware Release Notes 2.7.9

July, 2025

How to install 2.7.9

2.7.9 will install easily as a new, or over any previous 2.7.x install. Just run the .msi for either the Client, or the Server, whichever you need on that machine. Although the installer will not make changes or delete your files, just to be safe, please backup:

Server - your wio Profiles directory and your "Devicemanager.xml"

Client – backup your "user"\documents\GH Everyware Client directory.

As in previous releases, we recommend installing either the Server, or the Client on any one machine unless you need to run the Server and two client instances (SO2R 2nd radio separate client) OR the customer user directory feature. (It's still better to run server on a separate computer)

If you are upgrading from a 2.6.n release, please carefully review the file relocation information in the earlier 2.7.4 release notes that are included in this .zip.

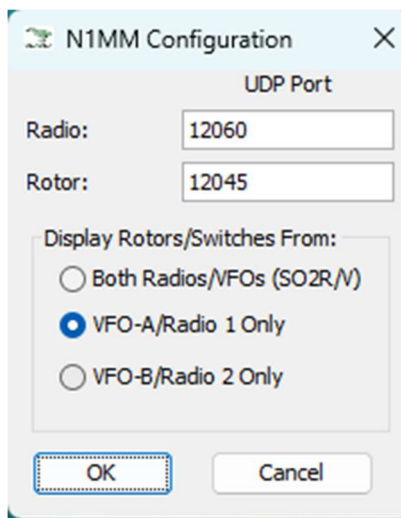
The release version features and changes noted are serial, so please review the features/changes as noted in the 2.7.4 document. We will increase the priority of updating the full manual, but for now, (as before) the base manual goes back to 2.4. and the changes are documented only in the release notes.

The Change Log begins on page 7 after this updated information on GH Everyware automated control.

Automation from Logging software for auto band changes, frequency control and rotor control. Latest information:

GENERAL INFORMATION:

One of the most powerful and useful features of GH Everywhere, is the ability to automate and control on-screen displays to match the current operating situation. It's important to understand how this works in order to allow proper configuration, and to know how this affects your Client display. For any of these features to work, the correct SETUP for the sending logger or application must be made. See the end of this section for info on each Logger/Program setup. Then, to match this for Green Heron Client, use the Configuration\Software Control menu. Here's the one for N1MM. Port selections (and in some cases, IP) must match what you have in the sending application. Additionally controls the radio scope for this client. Both radios, or just one. This is to allow a Client to get info from just one radio so that a 2nd Client (SO2R Client) or another computer even, can act on just the 2nd radio



There are multiple facets to this automation:

1. Each individual device control (Rotator, Switch, stack, etc.) has a line entry in one of the "Switch Bands" or "Rotor Configuration" menu items that are used to set display (or not to display) that device on any specific band. There are three

tables, one for Switches, one for Rotor Tray Display, and one for Rotor Map display. Switches and Rotor Tray default to ALL ON, Rotator Map defaults to ALL OFF

Here's a snippet of a Configuration\Switches\Switch Bands table from that menu. This one is showing the "HF Contest" bands as it is set in the "Bands to Use" item. Other possibilities are "HF All" and "VHF". It's divided up that way to try to keep the columns down to a visually manageable number. You may need to use all three depending on how many bands you use in your setup.

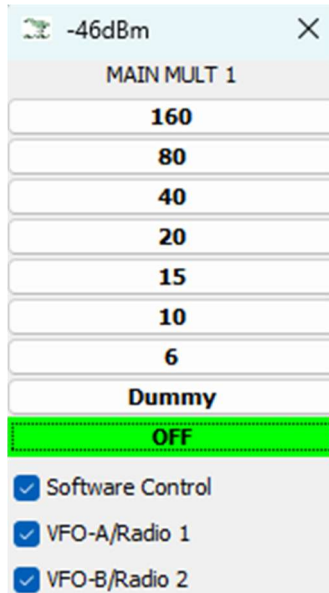
Switch Configuration							
Switch	All	160M	80M	40M	20M	15M	10M
All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
uWave IF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Select	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
15 8 Circle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
160 RX 4SQ	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
160 TX	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 RX 8 Cr	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40 RX 8 Cr	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Meter Amp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Relay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
80 RX 8 Cr	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
80 TX 4Sq	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
80 and 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ALT Mult 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

When your client is in BAND Auto, the onscreen display for any item will follow the logging program frequency control. NOTE: if you are not using automation from a logger/program, then you May use Band MANUAL and select the band yourself OR make sure that all items are checked for every band, on all Bands-to-use. Using Band Manual with Band selected as ALL, will force everything to show all the time.

- Switches that are defined in your Device Manager/Profiles (in GHE Server) as "Band Switches", where you have previously defined the frequency ranges for the positions in that switch. Then, these have an additional ability to select which position of the switch to be set to active depending on the Frequency (1 KHz resolution) of one or both radios. The display of the switch follows the band from the description above, but the selection of the positions within the switch use additional information from the logger frequency message. The switch MUST be on-screen as set by the band, for any position change to be

affected. **BAND AUTO** must be selected for Band Switches to work as it's this selection that turns on the communications listening from the sending logger or other program.

A "Band Switch" will have additional check boxes withing the switch display like this one:



In order to activate the auto selection of positions in this switch, you must have the **Software Control** box checked, along with one or both of the **VFO/Radio** selections to indicate which radio(s) to follow. See the release notes 2.4 through 2.7.4, enhanced SO2R control for more detailed information when using SO2R.

SUMMARY: for Band Switches to work:

- Switch must be defined in Server as a band switch with frequency ranges defined (see the manual for this).
- Software Control (for the desired Logger/Source) must be setup and working.
- **BAND AUTO** must be enabled.
- The Band switch display in Client must have the Software Control checked.

EXCEPTIONS

- An added feature of Band Switches is contained within the Switch Position name itself. If you name a position with “OFF” or “DUMMY” contained within the switch position name, that will cause any selection (manual or Dummy) to stick in that position until you (or another client) manually changes that switch position. This allows you to turn off a switch and leave it off until it’s manually changed.
 - If more than one position in a switch matches the frequency range, the first position entry (from the WIO Profile definition in Server), the first one listed is the one that gets selected automatically. Then, any manual change to another position will stick as long as the other position also matches the current frequency. If you select one that doesn’t match, or the frequency changes to match a new position, the next auto selection will take place.
3. Rotators may get their Turn command from the Logger (where supported). In N1MM, this is the <alt> j feature. This is more useful for VHF operation where you may want an antenna to go to exactly the right heading as defined in N1MM from the 6 digit grid entered. This does NOT use the Rotor SETUPS within N1MM. The turn command from an <alt> j is included in a Rotor UDP message from N1MM and read by client. Any rotator that is on-screen (tray) AND has a check mark at the rotor left side, will turn to the commanded heading as sent by N1MM based on call or location entry window.

N1MM:

N1MM integrates using UDP Radio and UDP Rotor Broadcast. N1MM+ defaults to rotator on port 12045 which matches the GH Everyware port in the N1MM settings. This allows <alt> J to turn rotators through the GH Everyware system.

Radio broadcast from N1MM usually works fine on default port 12060 but if you have other applications using that port, you will want to change the GHE Radio port setting to a different port, and add that port to the N1MM Radio Broadcast list. When using N1MM Radio broadcast, mouser clicks into most used GHE windows (rotor control, button switches, etc) will auto-return keyboard focus to the N1MM entry window location. I believe that N1MM is the only program that supports the auto-return at this time

See the sections on SO2R and the 2nd Radio operation for information on the ways to best integrate with N1MM for more than one radio. You can use one or two GH Clients to either show and control GHE Windows from the sum of both radios, or have different client windows for the 2nd radio depending on the SO2R implementation you desire.

DX LOG and DX Labs Commander:

Both of these loggers employ the N1MM UDP Command structures for the most part and they setup the same way. Use the GHE N1MM software control setups for both of these applications.

Flex-Radio:

The FRSTACK program provides an easy interface to GH Everyware by also emulating the N1MM UDP broadcast formats. Typically, for contest work, you would want to use the logger, but for Radio Broadcast of frequencies, FRSTACK works also. Setup GH Everyware as if it's using N1MM and match the port within FR Stack

WIN-Test:

Win-Test has its own broadcast formats, but also uses UDP. There are setups in GHE to specifically connect to WIN-Test for Radio and Rotor control.

N3FJP:

N3FJP uses TCP and has its own setup in the GHE Menus. The default settings will work with the default settings in N3FJP, but you need to enable the TCP communications in N3FJP and in the GHE Auto-Band menu.

Rotor control via N3FJP will work in conjunction with PSTRotatorAZ as a go-between and is documented by PSTRotatorAZ. (See next item too)

PSTRotatorAZ:

Cadnut's excellent, full featured program can act as a go-between from any logger from which PST Rotator has frequency information from, and then convert and forward on to GH Everyware using N1MM formatted UDP. There is a GHE Setup in

PST Rotator to set the UDP port and as with the others that use N1MM UDP, GH Everyware software setup is set with the N1MM dialogs.

2.7.9: - Client and Server Changes

- Fix an SO2R bug so that <alt-j> logger rotor control rotates selected rotators ONLY for the Client that is associated with the current focus radio. Previous releases would turn both client's active rotators. (Client)
- Added the ability to create a "Fixed" rotator (antenna) that does not show a heading value in the client. To set this, enter a value greater than 360 to the fixed heading value when connecting a "Fixed" rotator in the Server's Device Manager. Then the clients will display "---" instead of a possibly meaningless heading. (Client, Server)
- OK2ZAW stacks would not properly initialize upon server startup to the selected settings. This is fixed in 2.7.9. (Server)
- Added 60 meters to the Switch Bands and Rotor Display Bands selection tables. (Client)
- The 6 meter selections are now possible in "Bands to Use" of both HF Contest and HF All. No longer need to switch "Bands to Use" over to VHF in order to make a 6 meter change. (Client)
- Band Switch default positions are indicated by the word "Default" in the name. we have now added a shortcut of "*" (asterisk) at the beginning of the name to do the same thing. This is the name entered in the WIO Profile Position Name for the default band switch position when more than one antenna is possible for a given band. (Server)
- WIO editor panel now has 28 lines. More than that, will need to use a text editor capable of XML. Also, WIO editor can stay open to edit more profiles without closing and re-starting. (server)
- Virtual Switch editor now has 8 lines for things to switch/turn/send for a given virtual position. Increased from 4. (server)
- Fixed a "packet error" that would occasionally occur on GHE Base/Remote comms that was likely not noticed but could introduce unwanted delays in message processing. (server)

- **BUTTON COLOR FEATURES** - The previous scheme had a Switch Button Color that was a global setting allowing 4 different colors that affected all switches. (Green, Blue (Cyan), Red, and Black/inverted text). This was done as a request for outdoor use (FD) and to improve readability for some. This ability is now a "Default Global Setting under switches. But in addition, every individual button can be changed from that global, to one of: Red, Orange, Green, Cyan, Yellow, or Black/inverted. Access the color selection by right clicking on any button. The only one you cannot change is the "Pink" used for Matrix Lockout indicators for matrix band switches. The individual selection overrides the global color for that button. (Client)

Switch Maps (as used with 8 circles and 4 squares and similar directional switched antennas), have always had full color control of the map wedge for each individual control with color choosers just like rotor map display. We did not change this at all. The Global Setting affects these too if you haven't selected something else for them.

The list of individual button changes from the default are kept in Client File "buttoncolors.ini" and can be edited. Deleting the file will remove all previous individual selections in order to start over if desired.

2.7.8: - Client changes

- Fixes the intermittent loss of HOTKEYS reported by a few users. This was a lingering result of adding the SO2R Hotkey functions back in 2.7.5.
- Usability improvement to the new Rotator JOG buttons introduced in 2.7.6. Extended the timing so that one does not need to be quite so fast at re-clicking to add more Rotor Step Increments to the desired JOG. The turn initialization now waits one full second from the last JOB click.

2.7.7: - Client changes

- Enhancement to Rotor Presets to Improve visibility of Rotor Name, added adjustable font sizes for preset displays. Right click in the panel blank area, or the Rotor Name to set a new font size. Other preset windows will update to the new font upon the next open of that rotor preset window. Saves the font size.
- Client installation improvement for multi-user PC environments. If a user who did not install the client attempts to run it, we previously required to manually create the GH Everywhere Client directory in that user's documents folder. 2.7.7 now opens a dialog to "OK" the automatic creation of the needed directory and ensures that the default Image is placed into the correct location.

2.7.6: -Client Changes

- "JOG" buttons replace the TURN BUTTONS.
The Jog Buttons turn the rotator by the amount of the step size. You can click multiple times to get multiples of the step size, within about 1/2 second before it will actually lock-in and send the rotor command to go there. Watch the Turn Heading to see where it's going to go. Displays of the HOTKEY assignments added to the JOG and STOP buttons. Intended primarily for VHF work, but should be more useful than the old TURN buttons that just turned the connected rotator for 2 seconds.
- Fix bug that was introduced in the previous 2.7.5 release that would halt HOTKEY after a <ctrl>, <win>, or <shift> sequence when that special key was released before a target key.
- Increased the allowable rotators in the ROTOR TRAY CONFIGURATION window from 25 to 60.
- Fix for the "Cannot Read Imagefile" message that would sometimes occur due to the install over an older stale or wrong rotor map image location parameter.

2.7.5: Client and Server

- Add missing 3400 MHz Band
- Fixes the TCP Client (as set in the Client Servers Menu) to be compatible with RT-21 LAN or WiFi Server modules. This allows Client to connect to standalone RT-21s without a GH Server at the station end.
- When used with DX Labs Commander for radio UDP broadcast. We translate the 4 possible radios messages as:
 - Radio 1 or Radio 3 will control Radio 1 GHE devices
 - Radio 2 or Radio 4 will control Radio 2 GHE devices
- Properly saves Win-Test custom TCP address (bug fix)
- SO2R 2nd Radio Adds 2nd Radio HOT KEY support selection based on active devices for each Client instance separately based on which N1MM entry window has focus.

Setup all of your hotkeys using the main client and changing bands to get to the desired widget you to which you want to assign keys. Then start the 2nd Radio client to pickup the new keystroke memory. Then, when you have radio UDP working on both clients (radio 1 to Client, radio 2 to 2nd

Radio Client) the hotkeys will work on the main client's windows when you have N1MM focus on the 1st radio. The 2nd Radio's client windows will be hotkey controlled when N1MM focus is on the 2nd Radio.

- Includes OK2ZAW Stack (1-4) and 5-8) into the embedded stack control for rotor panels.
- Once a band switch device is set to a position named "OFF" from any client, that device will remain OFF until it's manually returned to another position. The switch will be OFF to automatic band changes until manually changed.
- Finally fixed the issues surrounding use of WRTC bands (HF ALL) and VHF Bands. There is a new menu item to select which set of bands to use, then the configuration windows and the manual band selection window will be correct until the selection is changed. Increased the default sizes of the configuration windows to be less likely to always need resizing to see everything.
- Allows only one Server instance – prevents the bogus "Port in use" error when you attempt to start more than one. Shows the Server splashscreen longer while server is getting everything initialized and running.
- Defaults to a better remote TCP port to use for remote access. 17220 instead of 10000. It will keep the old one for previous installs. We don't recommend using 10000 if your Server is open to remote access.
- 4 clients connections allowed is new default (previously 2)
- Server log window saves size and location, and minimizes state for auto-starting from the Start Menu. New menu item for Start Minimized.
- Fixes a bug that prevented than 2 or 3 switch devices that could be switched at the same time via band selection or hotkeys.
- Improved the profile editor form for proper rendering on high resolution displays. Sometimes, one of the checkboxes would be hidden.
- Update the 3rd party SerialIO library for improved Windows 11 compatibility.