

# BBHN-MESH™ Software Applications

## Part 3: UI-View and APRS®

By Robert C. Mazur, VA3ROM, December 2013.

*Before connecting your MESH node router disconnect or turn off your computer's hardwired or Wi-Fi Internet! If required, Internet access is provided differently within the BBHN-MESH system.*

### Web and Local Servers for the Automatic Packet Report System

UI-View (<http://www.ui-view.org/>) is a free application providing real-time tactical APRS information via radio and/or a network system. It has built-in web (UI-WebServer) and local servers, and redistributes data through web browsers or to other users of UI-View within the BBHN-MESH. UI-View installation and setup aren't covered, but this website will help: <http://tinyurl.com/lcg4k29>.

You require two computers and properly configured MESH node routers; at least one computer must have UI-View to test the web server feature; testing the UI-View local server requires both computers to have UI-View.

*Use either a VHF receiver (144.39 MHz) or APRS Internet server (APRS-IS) to collect test data. The latest APRS-IS list address is: [aprs2.net/APRServe2.txt](http://aprs2.net/APRServe2.txt); use this with menu File > Download APRS Server List.*

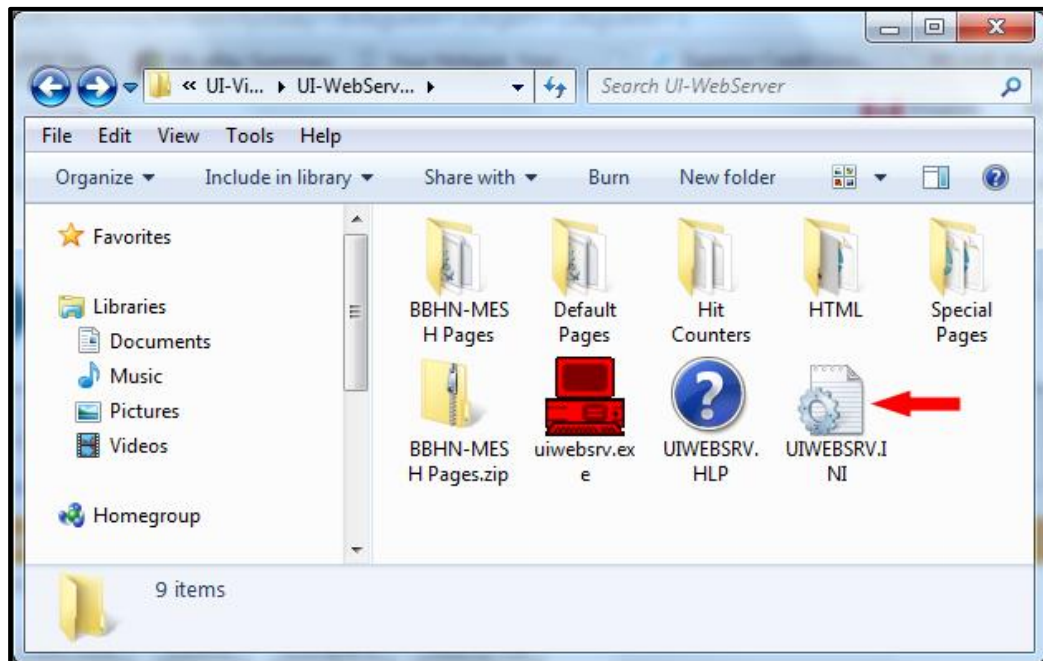
## Installing BBHN-MESH UI-WebServer Files

Included with this tutorial is a BBHN-MESH Pages.ZIP file containing revised UI-WebServer HTML code.

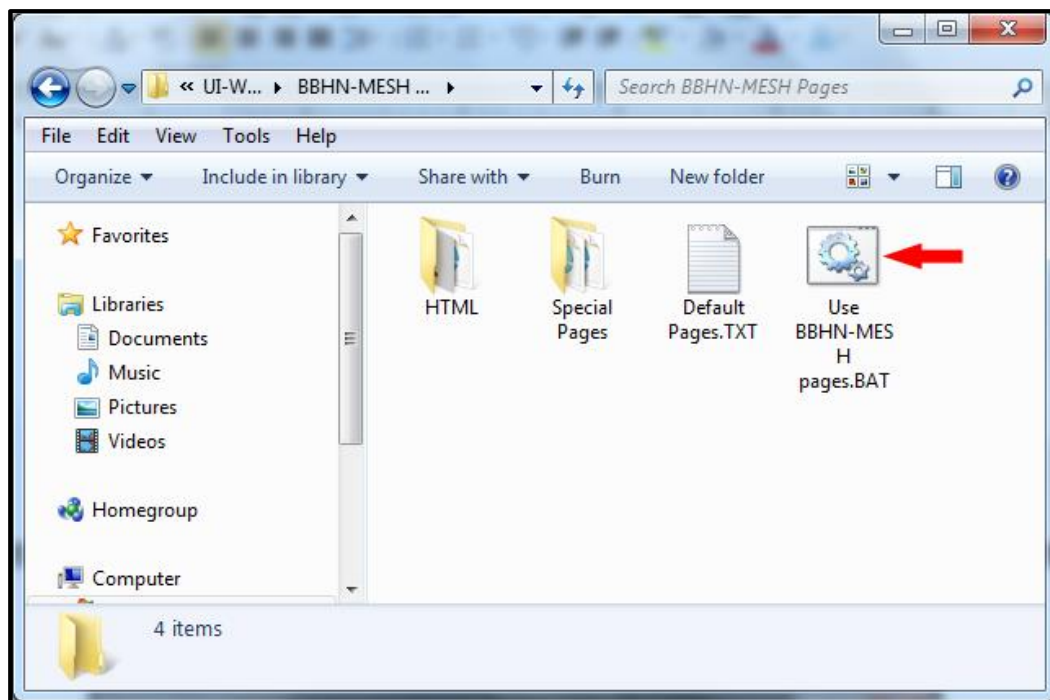
Shut down UI-View, and using Windows Explorer (or similar file manager):

- Copy BBHN-MESH.ZIP to the **Peak Systems > UI-View32 > UI-WebServer** folder. *(The root folder is normally C:\ or C:\Program Files).*
- Unzip it inside the **UI-WebServer** folder.
- Double-click on the newly created **BBHN-MESH Pages** folder.
- Double-click on **Use BBHN-MESH pages** (DOS batch file).

*To restore the original UI-WebServer files, go to the **Default Pages** folder and double-click on **Use default pages**.*



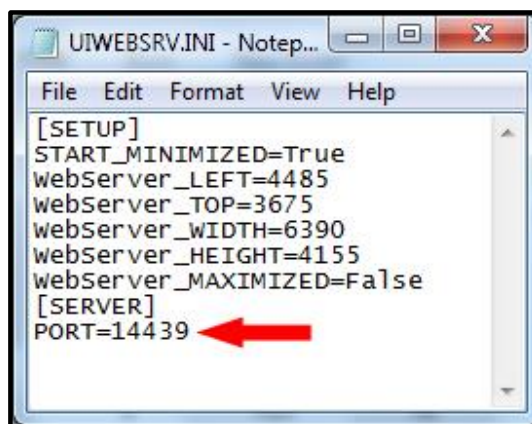
*UI-WebServer folder after you copy and unzip BBHN-MESH Pages. ZIP. In the next section, we'll edit UIWEBSRV.INI. I've changed folder options to show file extensions.*



*BBHN-MESH Pages folder*

### Configuring UI-WebServer INI

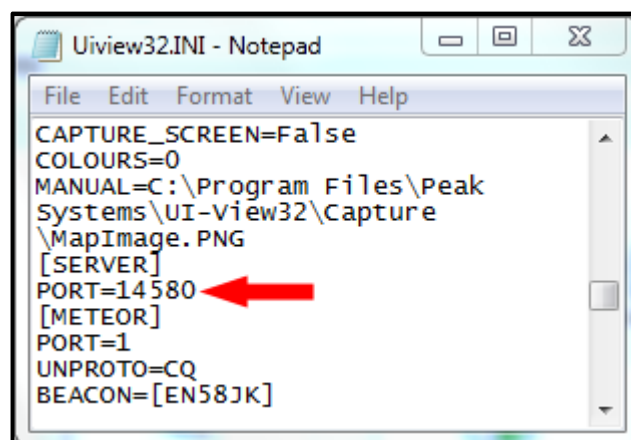
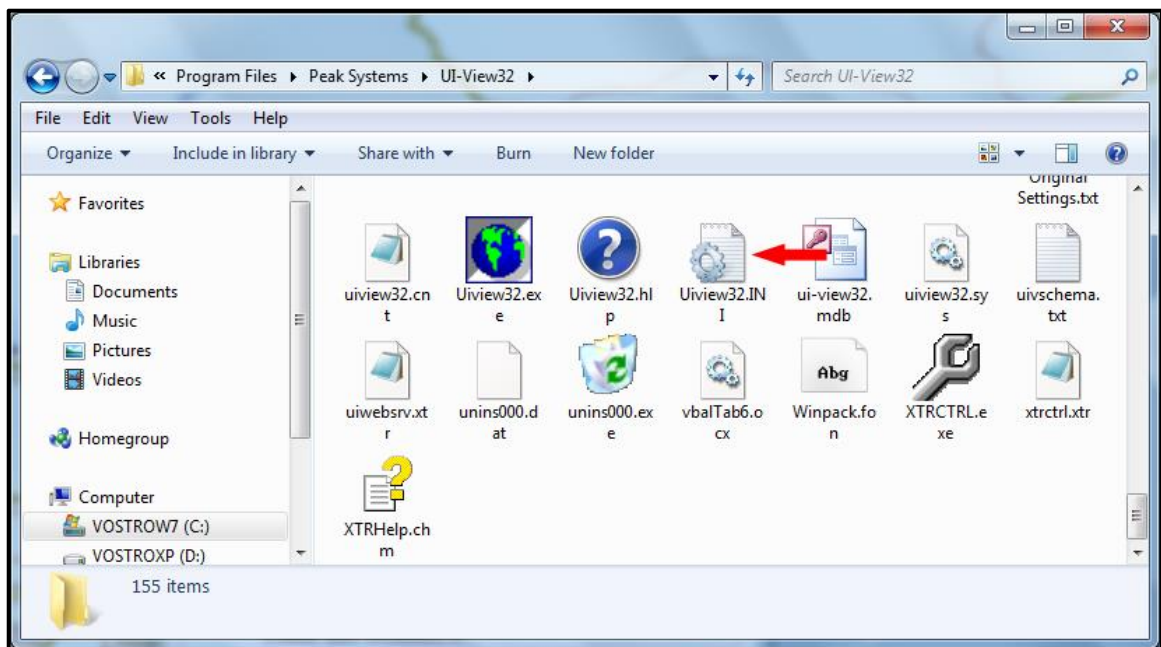
- Load **UIWEBSRV.INI** with Notepad (or similar text editor).
- Make **PORT** value **14439**.
- Save the file.



## Configuring UI-View INI

Using Windows Explorer (or equivalent file manager):

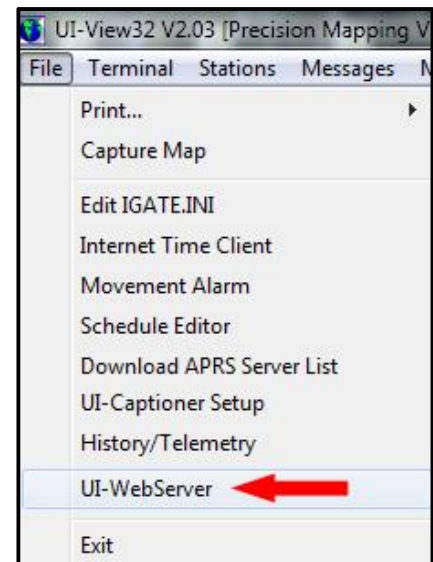
- Move to the **Peak Systems > UI-View32** folder.
- Load **Uiview32.INI** file with Notepad (or similar text editor).
- Search for **[SERVER]**.
- Change **PORT** value to **14580**.
- Save the file.



## Running UI-WebServer

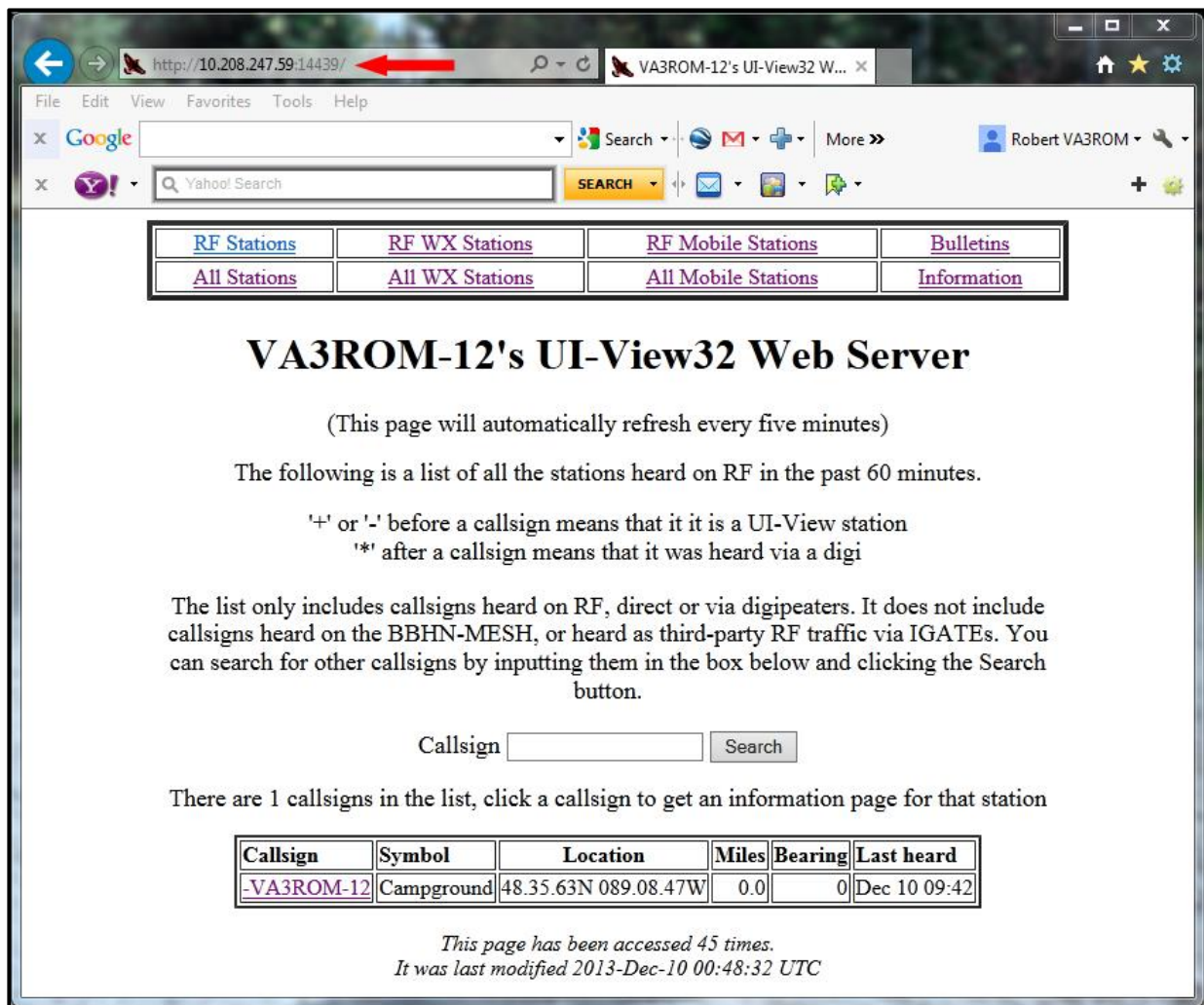
- Start UI-View on the web server MESH node computer.
- Select menu **File > UI-WebServer**.

*When minimized, a red UI-WebServer icon appears in the Windows system tray; it turns green when updating web pages. A mouse right-click on the icon accesses the Setup menu.*



## Using UI-WebServer

From all other MESH node connected computers, use any web browser and type in the UI-Webserver IP address (e.g. <http://10.208.247.59:14439/>). APRS data is collected and categorized for easy access. *The default start page is index.html but doesn't have to be specified.*



VA3ROM-12's UI-View32 Web Server

(This page will automatically refresh every five minutes)

The following is a list of all the stations heard on RF in the past 60 minutes.

'+' or '-' before a callsign means that it is a UI-View station  
'\*' after a callsign means that it was heard via a digi

The list only includes callsigns heard on RF, direct or via digipeaters. It does not include callsigns heard on the BBHN-MESH, or heard as third-party RF traffic via IGATES. You can search for other callsigns by inputting them in the box below and clicking the Search button.

Callsign

There are 1 callsigns in the list, click a callsign to get an information page for that station

Callsign	Symbol	Location	Miles	Bearing	Last heard
<a href="#">-VA3ROM-12</a>	Campground	48.35.63N 089.08.47W	0.0	0	Dec 10 09:42

*This page has been accessed 45 times.  
It was last modified 2013-Dec-10 00:48:32 UTC*



http://10.208.247.59:14439/mobilesall.html VA3ROM-12's UI-View32 W...

File Edit View Favorites Tools Help

Google Search Yahoo! Search SEARCH

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<a href="#">RF Stations</a>	<a href="#">RF WX Stations</a>	<a href="#">RF Mobile Stations</a>	<a href="#">Bulletins</a>
<a href="#">All Stations</a>	<a href="#">All WX Stations</a>	<a href="#">All Mobile Stations</a>	<a href="#">Information</a>

## VA3ROM-12's UI-View32 Web Server

(This page will automatically refresh every five minutes)

The following is a list of all the mobile stations heard in the past 60 minutes, both on RF and on the BBHN-MESH.

There are 32 callsigns in the list, click a callsign to get an information page for that station

<a href="#">AC0ID-10</a>	<a href="#">AF9T</a>	<a href="#">K0BAD-7</a>	<a href="#">K0BBC</a>	<a href="#">K0BSB-9</a>	<a href="#">K0JDD-9</a>	<a href="#">KB0BDN-1</a>	<a href="#">KB0UGF</a>
<a href="#">KB9WGA-2</a>	<a href="#">KB9ZES</a>	<a href="#">KC0IHJ-9</a>	<a href="#">KC0MKS-9</a>	<a href="#">KC0PTF-7</a>	<a href="#">KC0VRV-9</a>	<a href="#">KC9EGS-9</a>	<a href="#">KC9NVV-9</a>
<a href="#">KC9TNK-1</a>	<a href="#">KD0PI-9</a>	<a href="#">KD7MYA-2</a>	<a href="#">KE4KE-12</a>	<a href="#">KF0EN</a>	<a href="#">N0NAI</a>	<a href="#">N8XYR-5</a>	<a href="#">N9QWH-9</a>
<a href="#">VE3JJA-9</a>	<a href="#">VE4DIA-9</a>	<a href="#">VE4GLS-14</a>	<a href="#">W0NE-6</a>	<a href="#">W0NE-8</a>	<a href="#">W7LUS-10</a>	<a href="#">W9FZ-15</a>	<a href="#">W9QJQ-9</a>

*This page has been accessed 42 times.  
It was last modified 2013-Dec-10 00:49:24 UTC*

http://10.208.247.59:14439/find.cgi?call=K0BAD-7 VA3ROM-12's UI-View32 W...

File Edit View Favorites Tools Help

Google Search Yahoo! Search SEARCH

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<a href="#">RF Stations</a>	<a href="#">RF WX Stations</a>	<a href="#">RF Mobile Stations</a>	<a href="#">Bulletins</a>
<a href="#">All Stations</a>	<a href="#">All WX Stations</a>	<a href="#">All Mobile Stations</a>	<a href="#">Information</a>

## VA3ROM-12's UI-View32 Web Server

(This page will automatically refresh every five minutes)

### Information about K0BAD-7 (Van)

Location: 44.01.61N, 091.36.58W

The bearing from VA3ROM-12 to K0BAD-7 is 201 degrees, the distance is 336.9 Miles

Last posit: K0BAD-7>T4PQ6Q,W0NE\*,WIDE1\*,WIDE2-2,qAR,N0OWT-2:  
'w@V >~v/]"6/}

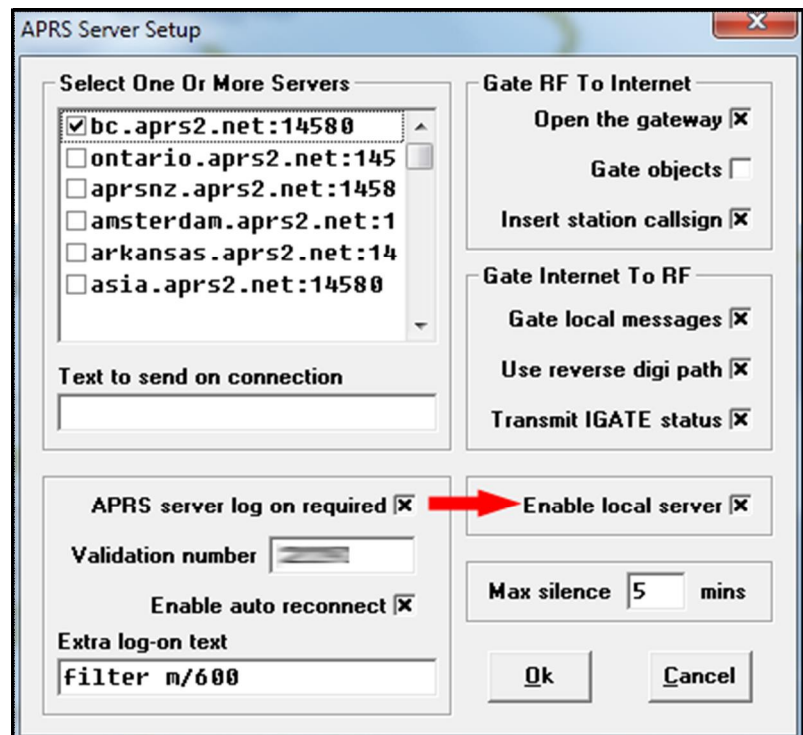
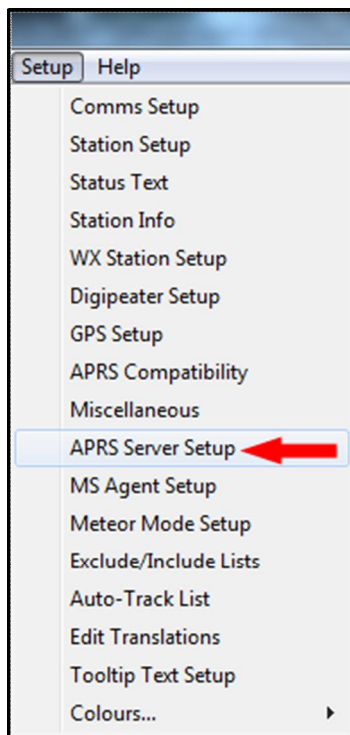
Course 98 degrees, speed 49.5 mph / 79.6 kmh  
Status: In Service  
Last heard 3 minutes 11 seconds ago

*This page has been accessed 16 times.  
It was last modified 2013-Dec-10 14:44:24 UTC*

## Running UI-View Local Server

Start UI-View on the designated local server MESH node computer.

- Select menu **Setup > APRS Server Setup**.
- Click the **Enable local server** check box.
- Click the **Ok** button.

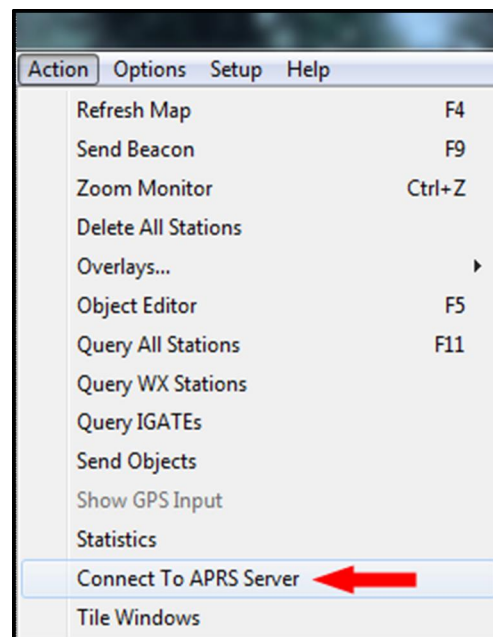
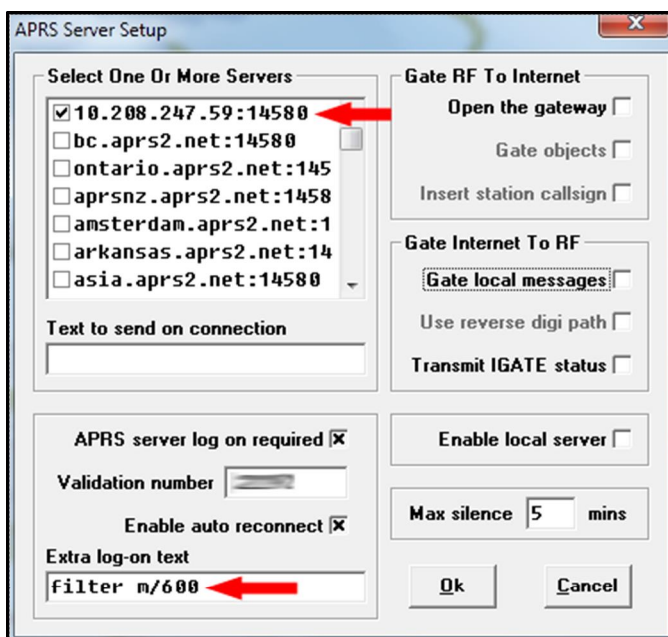


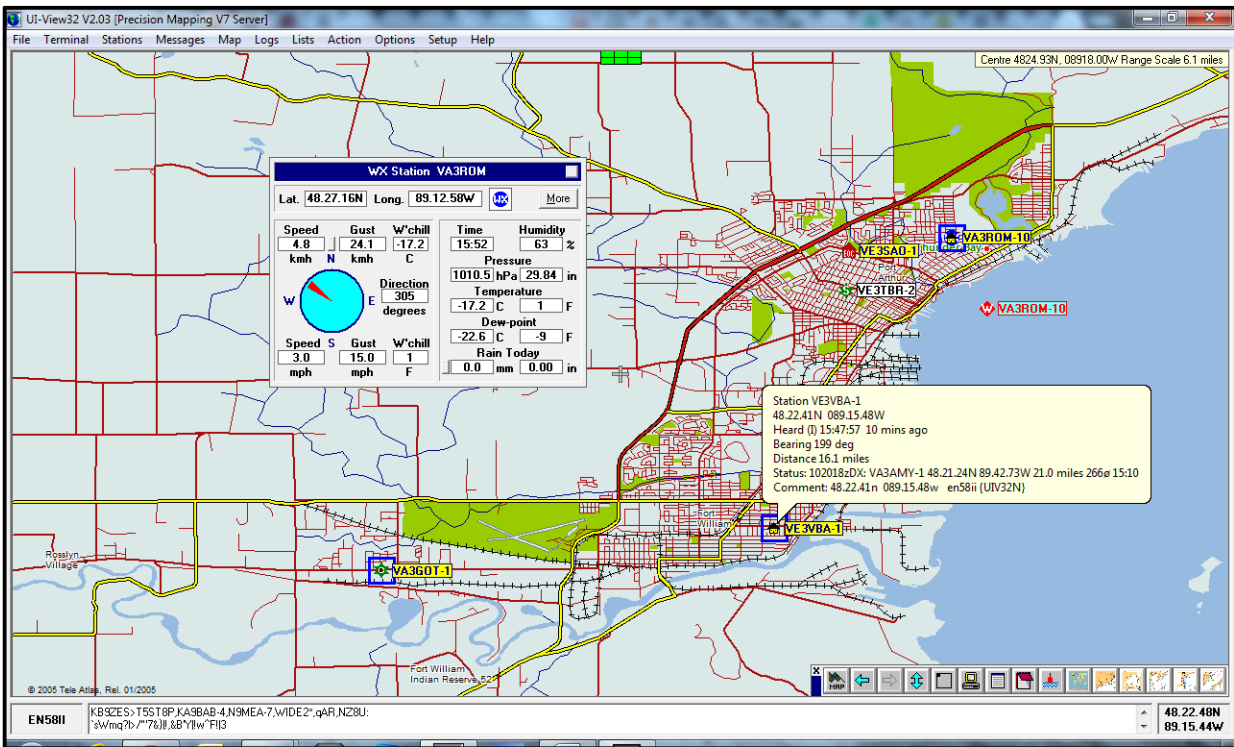


## Using UI-View Local Server

Start UI-View from all MESH node computers that will connect to the local server.

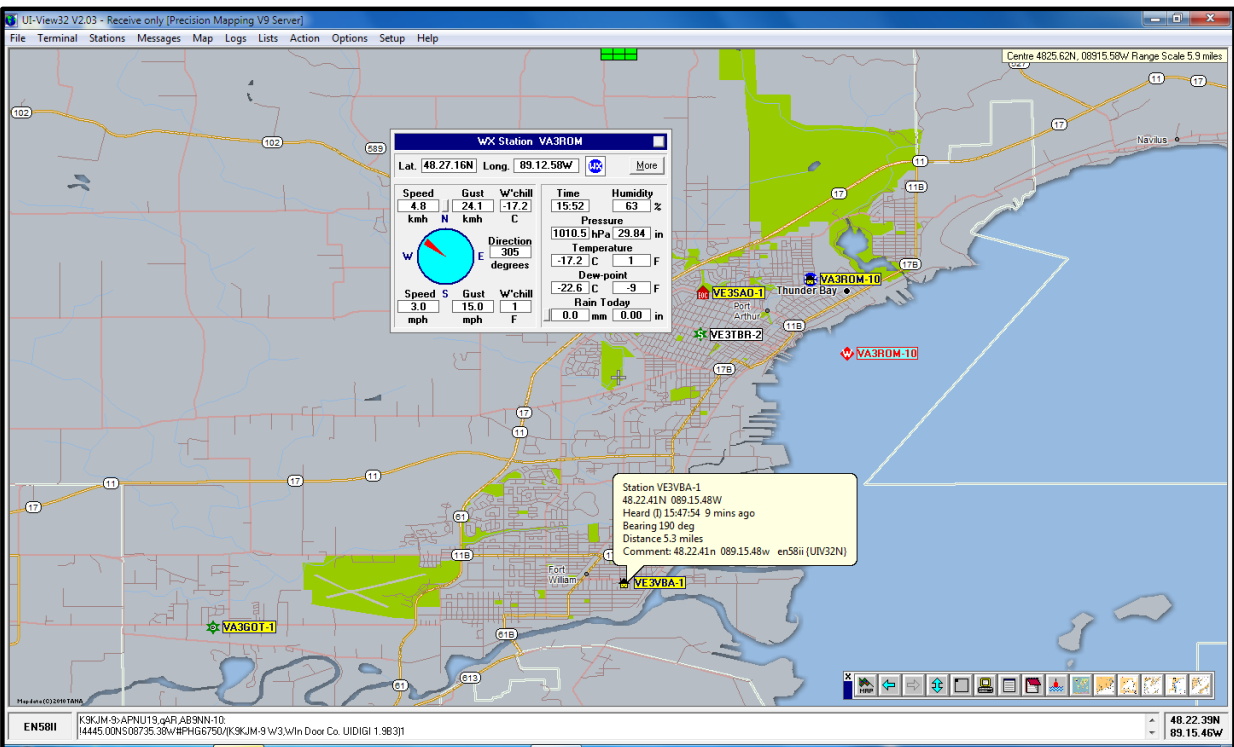
- Select menu **Setup > APRS Server Setup**.
- Click on **Select One or More Servers** list.
- Press the keyboard **Insert** key.
- Type in the **local server IP address**. (e.g. <http://10.208.247.59:14580>).
- Press the keyboard **Enter** key.
- Click on the **MESH node IP address** check box.
- Disable** any other APRS server addresses (Click on their check boxes).
- In the **Extra log-on text** field, enter your desired **APRS filter code(s)**.  
(See <http://tinyurl.com/k33snzl>).
- Click the **Ok** button.
- Select menu **Action > Connect to APRS Server**.





*UI-View display (top) from the UI-WebServer and local server MESH node computer; Precision Mapping v8 (used here) creates dynamic maps without Internet access.*

*UI-View display (bottom) from remote MESH node computer connected to the local server, using new Precision Mapping v9. You can also create custom static maps.*



## **Firewall Issues**

Windows XP doesn't seem to differentiate between private (called Home and Work) and public (MESH and other open access) networks, but Windows 7 really does and should normally "ask" for permission when it "thinks" there's some kind of security issue before allowing a program access to a network. This link explains how to configure the W7 (and probably W8) firewall settings: <http://tinyurl.com/2933r7b>.

## **My Final**

A lot of steps, but broken down in extreme minutia; UI-View "power-users" shouldn't have any problems.

My contact email is: [va3rom@gmail.com](mailto:va3rom@gmail.com) and I'll try to help if you do have any problems.—73