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; use this with menu File > Download APRS Server List.

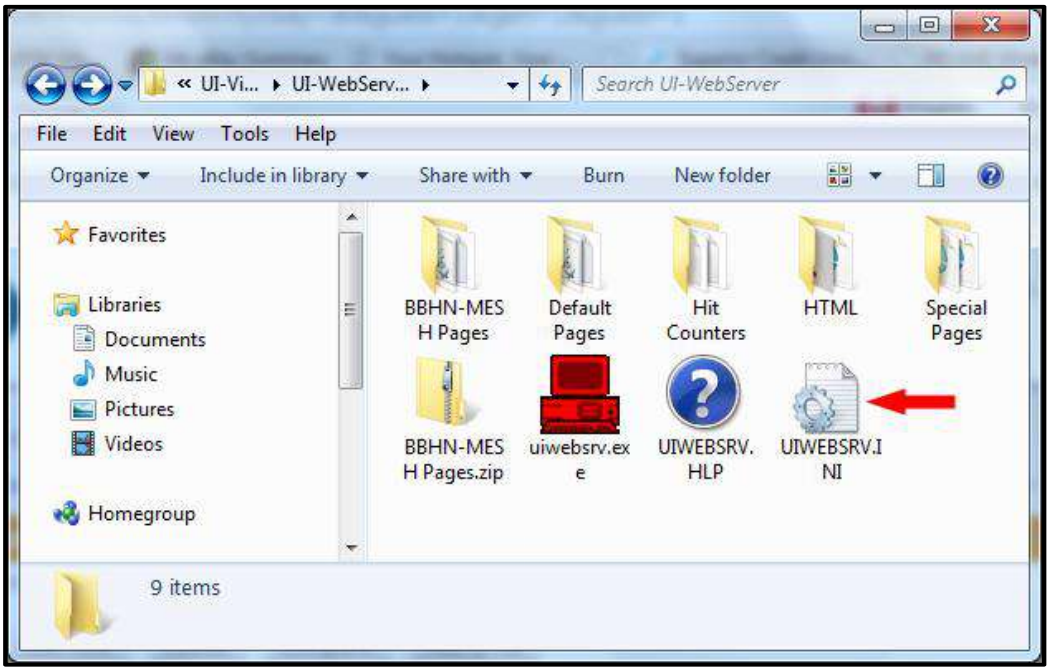
Installing BBHN-MESH UI-WebServer Files

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

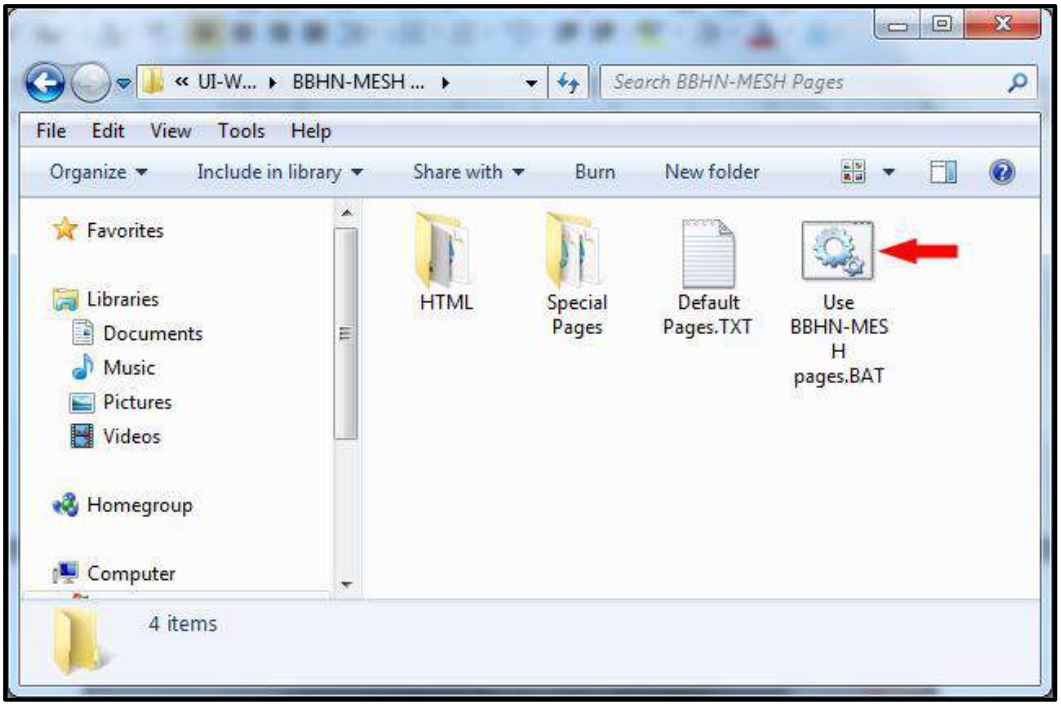
Shut down UI-View, and using Windows Explorer (or similar file manager):

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



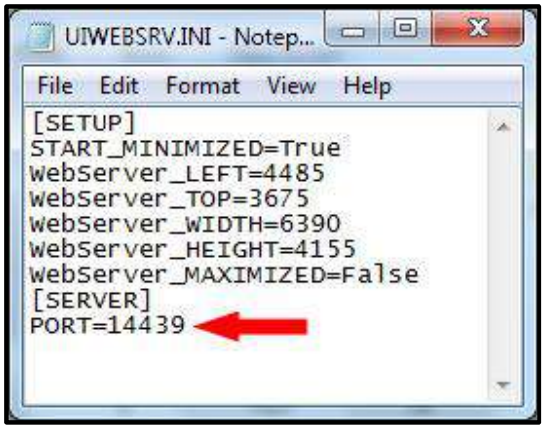
UI-WebServer folder after you copy and unzip BBHN-MESH Pages. ZIP. In the next section, we'll edit UIWEBSERV.INI. I've changed folder options to show file extensions.



BBHN-MESH Pages folder

Configuring UI-WebServer INI

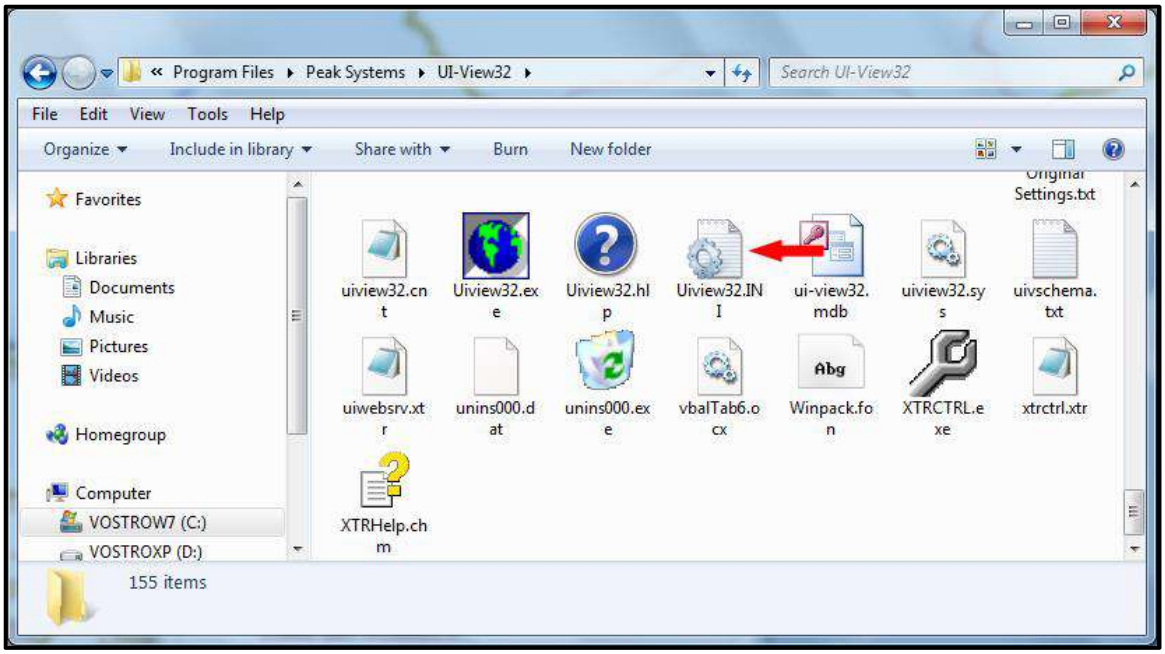
a. Load **UIWEBSRV.INI** with Notepad (or similar text editor).
b. Make **PORT** value **14439**.
c. Save the file.

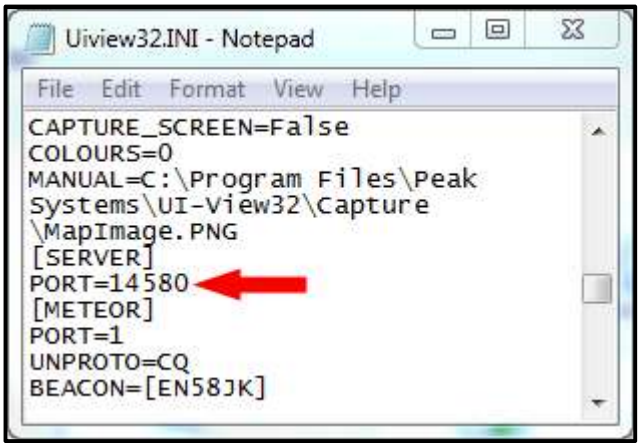


Configuring UI-View INI

Using Windows Explorer (or equivalent file manager):

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

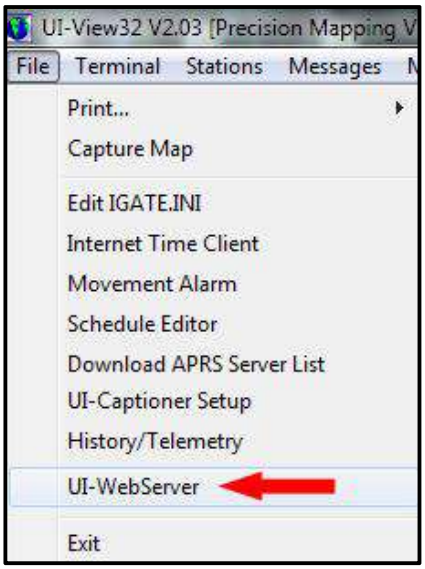


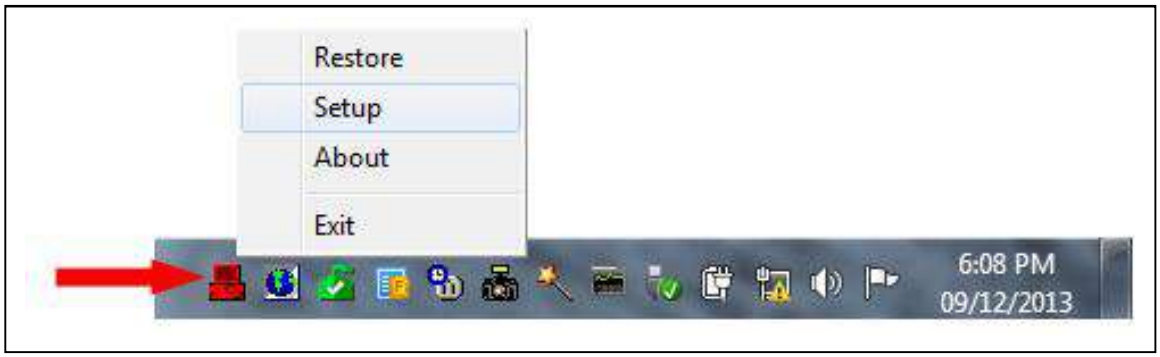


Running UI-WebServer

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

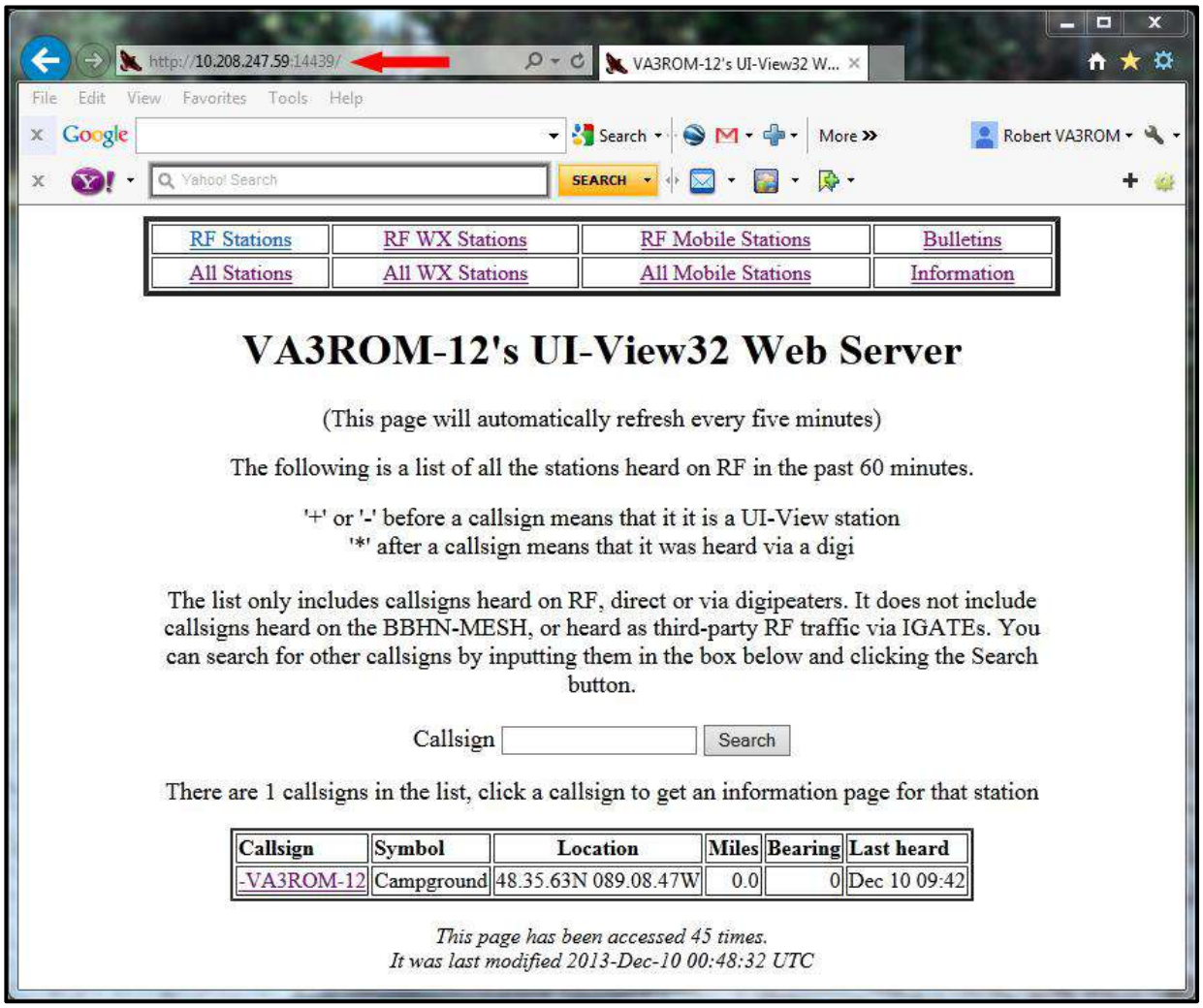
When minimized, a red UI-WebServer icon appears in the Windows system tray; it turns green when updating web pages. A mouse right-click on the icon accesses the Setup menu.

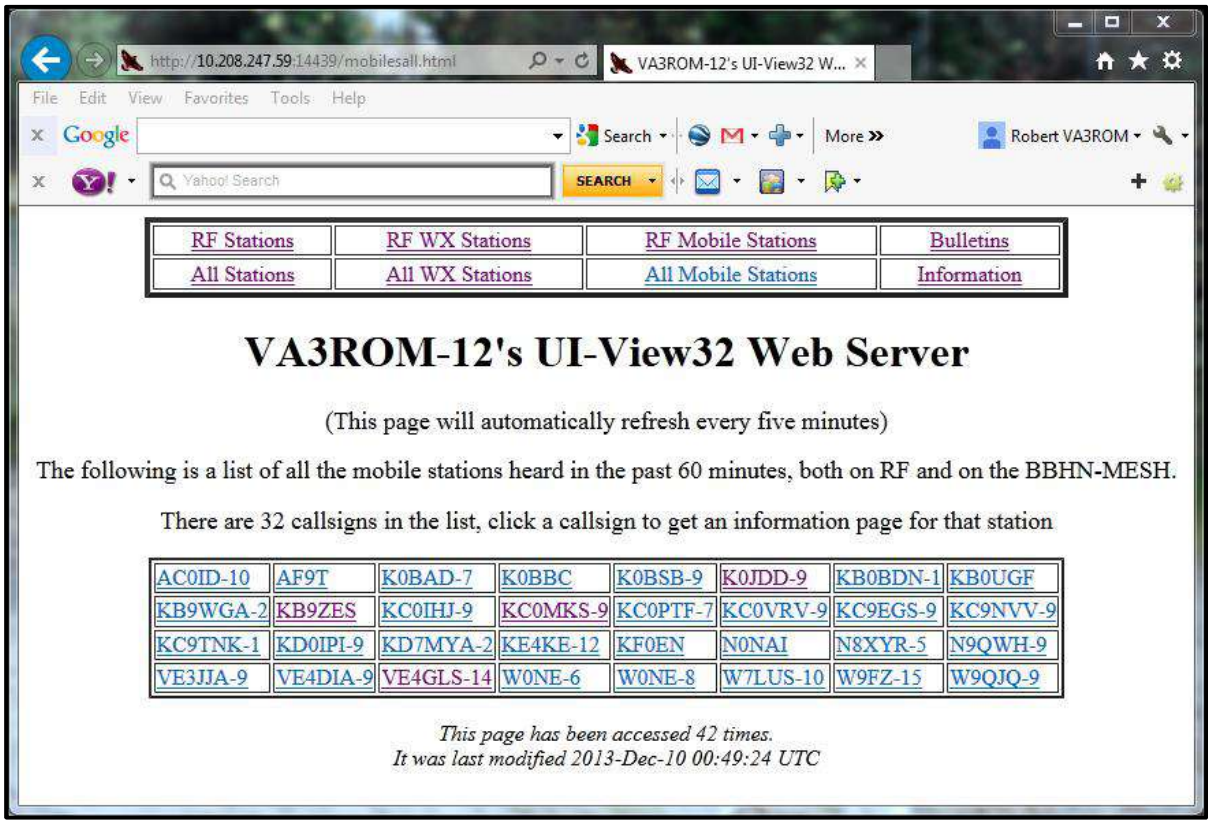


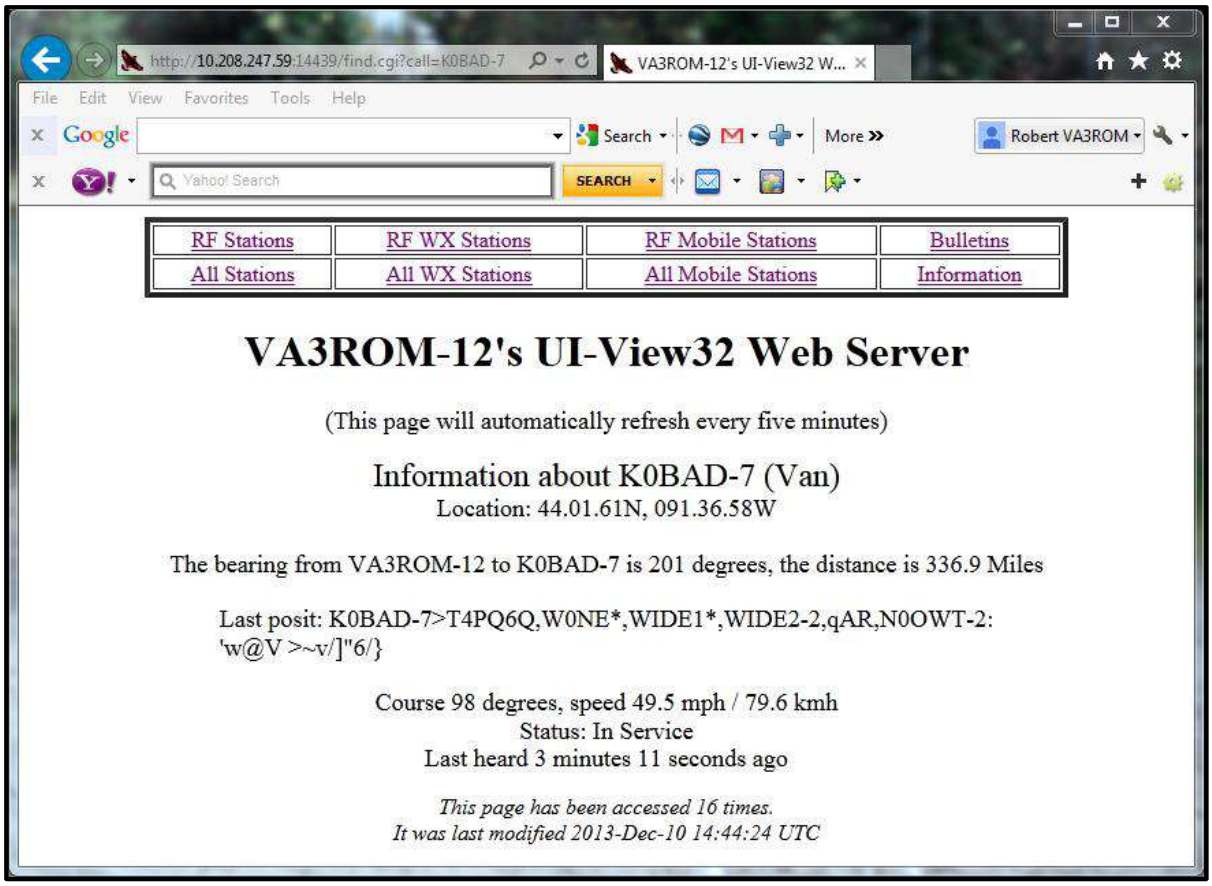


Using UI-WebServer

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.*



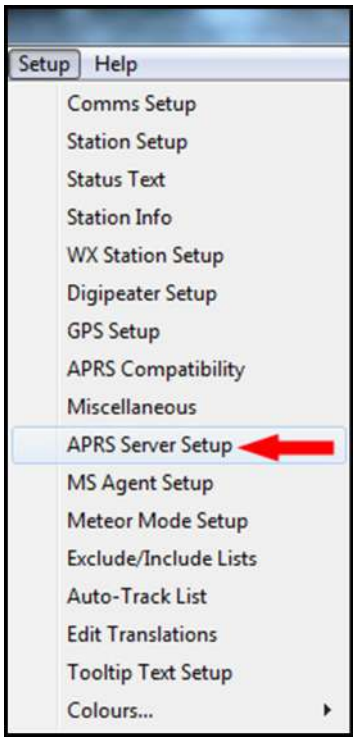

http://10.208.247.59:14439/mobilesall.html
VA3ROM-12's UI-View32 W...
File Edit View Favorites Tools Help
Google
Search
More
Robert VA3ROM
Yahoo! Search
SEARCH
RF Stations
RF WX Stations
RF Mobile Stations
Bulletins
All Stations
All WX Stations
All Mobile Stations
Information
VA3ROM-12's UI-View32 Web 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
AC0ID-10 AF9T K0BAD-7 K0BBC K0BSB-9 K0JDD-9 KB0BDN-1 KB0UGF
KB9WGA-2 KB9ZES KC0IHJ-9 KC0MKS-9 KC0PTF-7 KC0VRV-9 KC9EGS-9 KC9NVV-9
KC9TNK-1 KD0IPI-9 KD7MYA-2 KE4KE-12 KF0EN N0NAI N8XYR-5 N9QWH-9
VE3JJA-9 VE4DIA-9 VE4GLS-14 W0NE-6 W0NE-8 W7LUS-10 W9FZ-15 W9QJQ-9
This page has been accessed 42 times.
It was last modified 2013-Dec-10 00:49:24 UTC

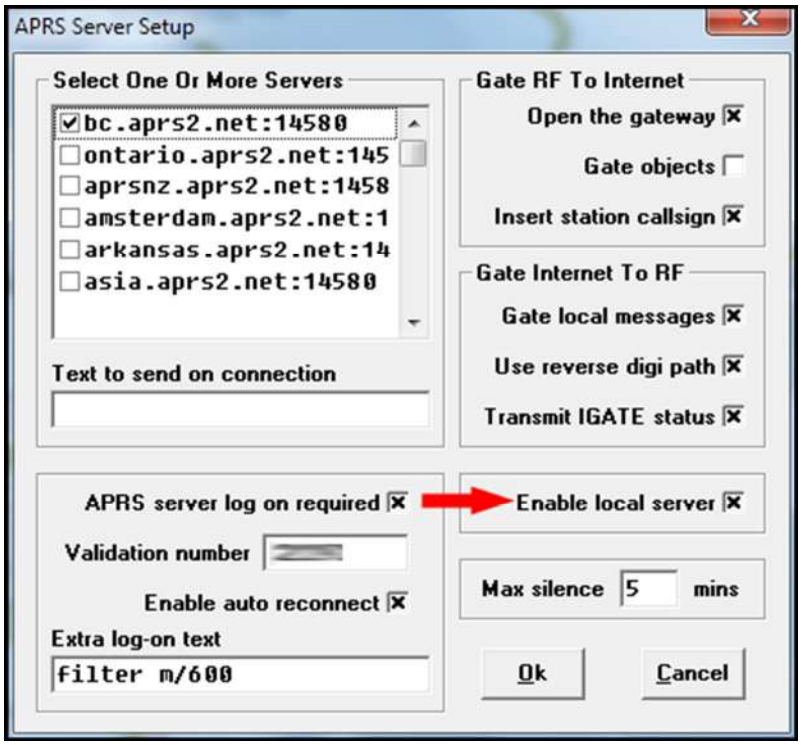

http://10.208.247.59:14439/find.cgi?call=K0BAD-7
VA3ROM-12's UI-View32 W...
File Edit View Favorites Tools Help
Google
Search
More
Robert VA3ROM
Yahoo! Search
SEARCH
RF Stations
RF WX Stations
RF Mobile Stations
Bulletins
All Stations
All WX Stations
All Mobile Stations
Information
VA3ROM-12's UI-View32 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.

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

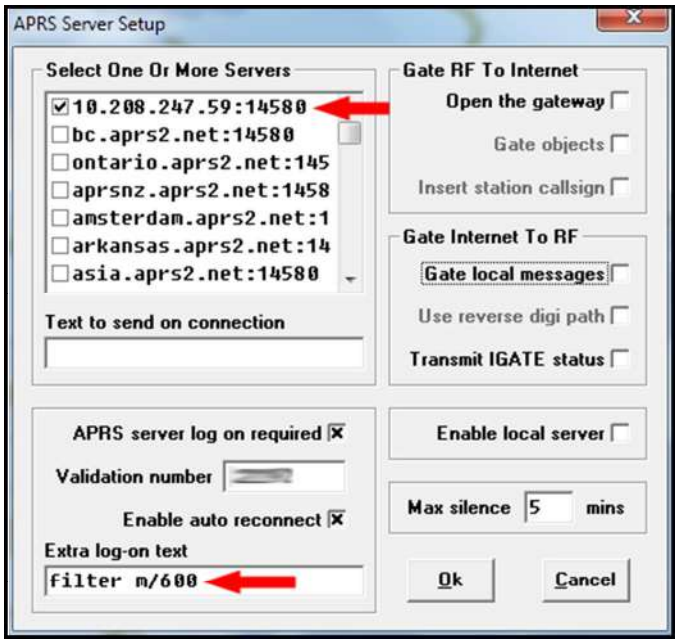


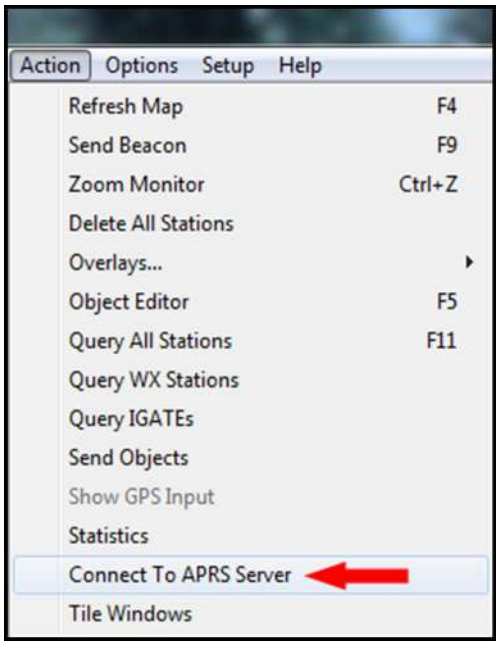


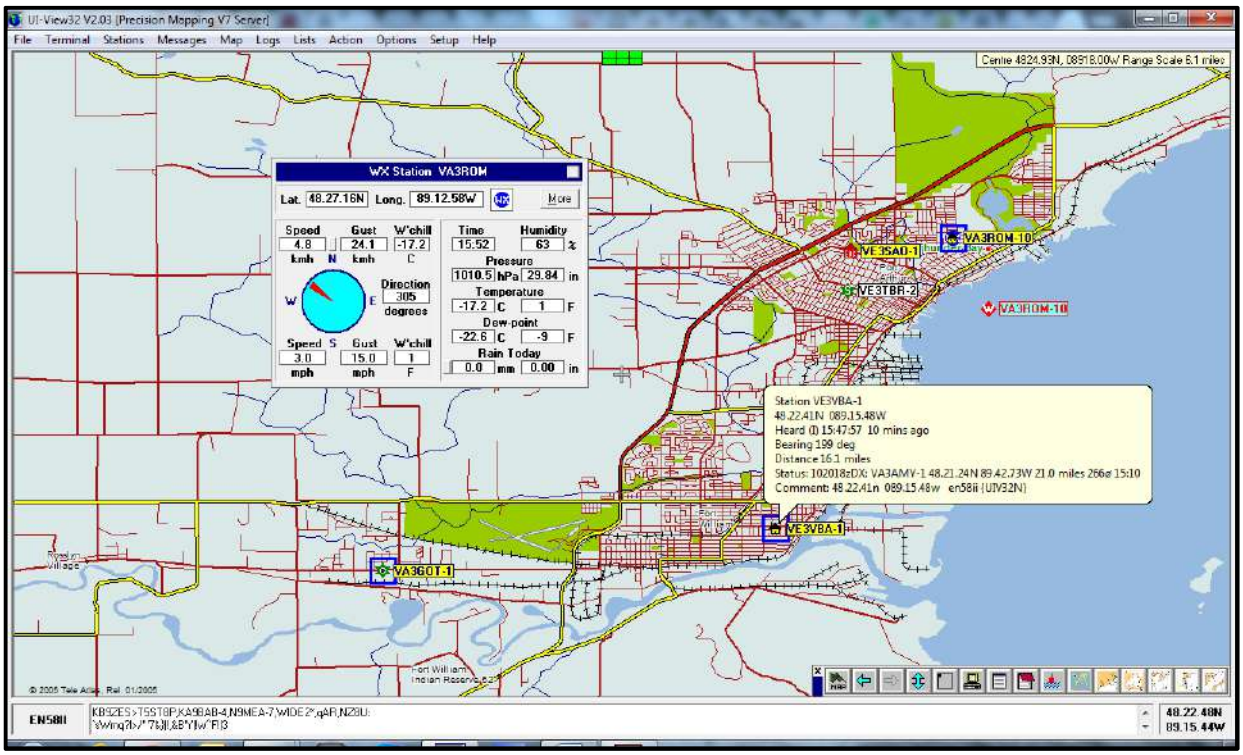
Using UI-View Local Server

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

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

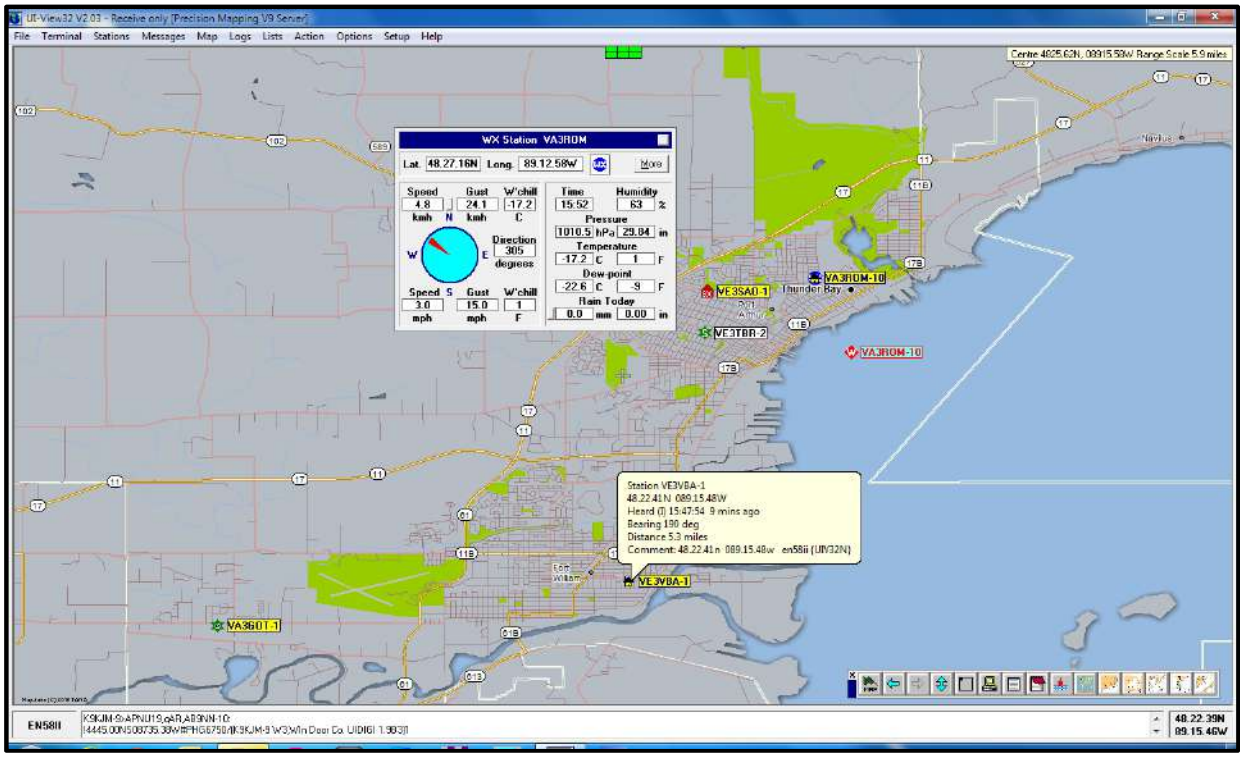






UI-View display (top) from the UI-WebServer and local server MESH node computer; Precision Mapping v8 (used here) creates dynamic maps without Internet access.

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 and I'll try to help if you do have any problems.—73