

IRLPvCON 4.00

USER'S MANUAL

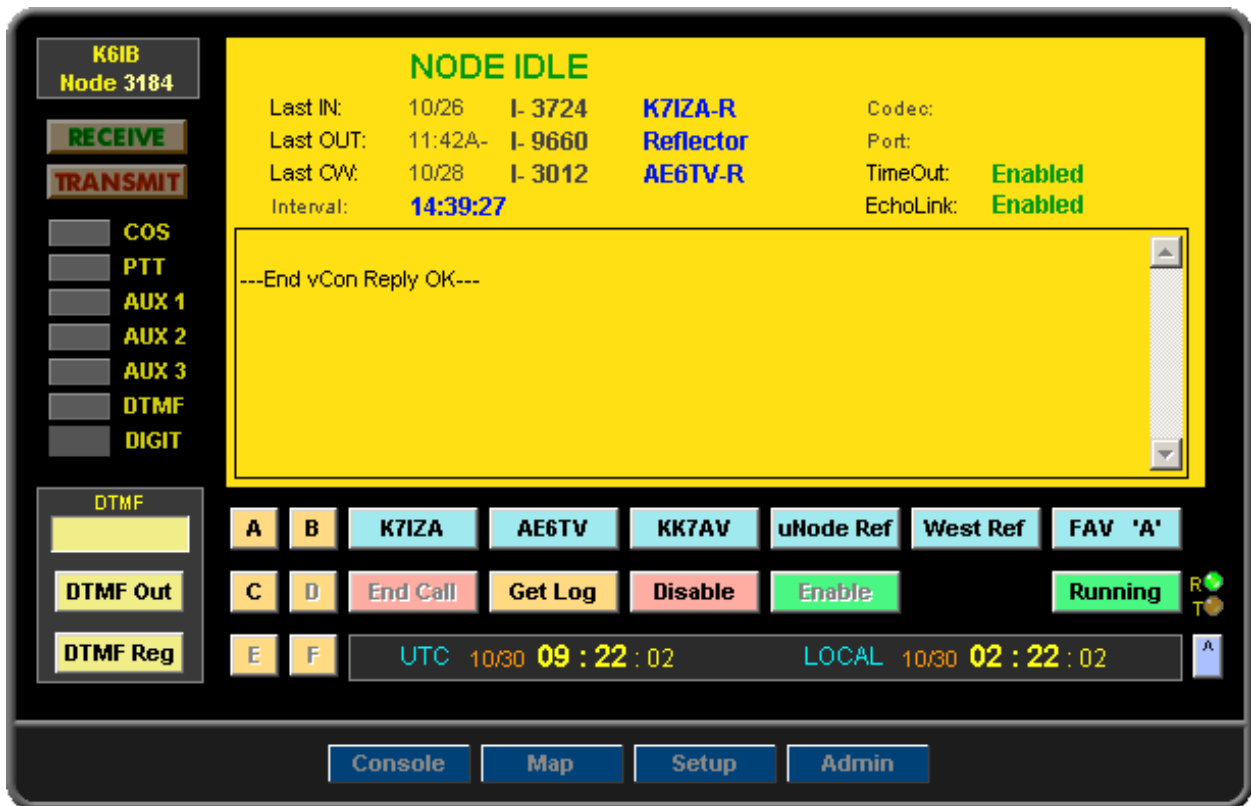
IRLPvCON Software Package

A Visual Point & Click User Interface & Monitor For IRLP Nodes



SOFTWARE VERSION
4.00

IRLPvCON



The IRLPVCON package was created to provide a complete real-time visual admin console for an IRLP node. It provides all of the monitoring and control functions necessary to operate an IRLP / EchoIRLP node using a JavaScript Enabled Web Browser. It also includes a real-time status monitor (IRLPvMON) and connection map monitor (IRLPvMAP).

To access IRLPVCON point a JavaScript Enabled browser to the URL:

[your-ip-address/irlpvcon](#)

This will bring up the main IRLPVCON Display with the Console Screen. The buttons along the bottom of the display are used to bring up different screens.

Clicking the **Console** button will bring up the Console Screen which is the main monitor and control screen for the operation of the IRLP Node.

Clicking the **Map** button will bring up the Connected Node Map Screen.

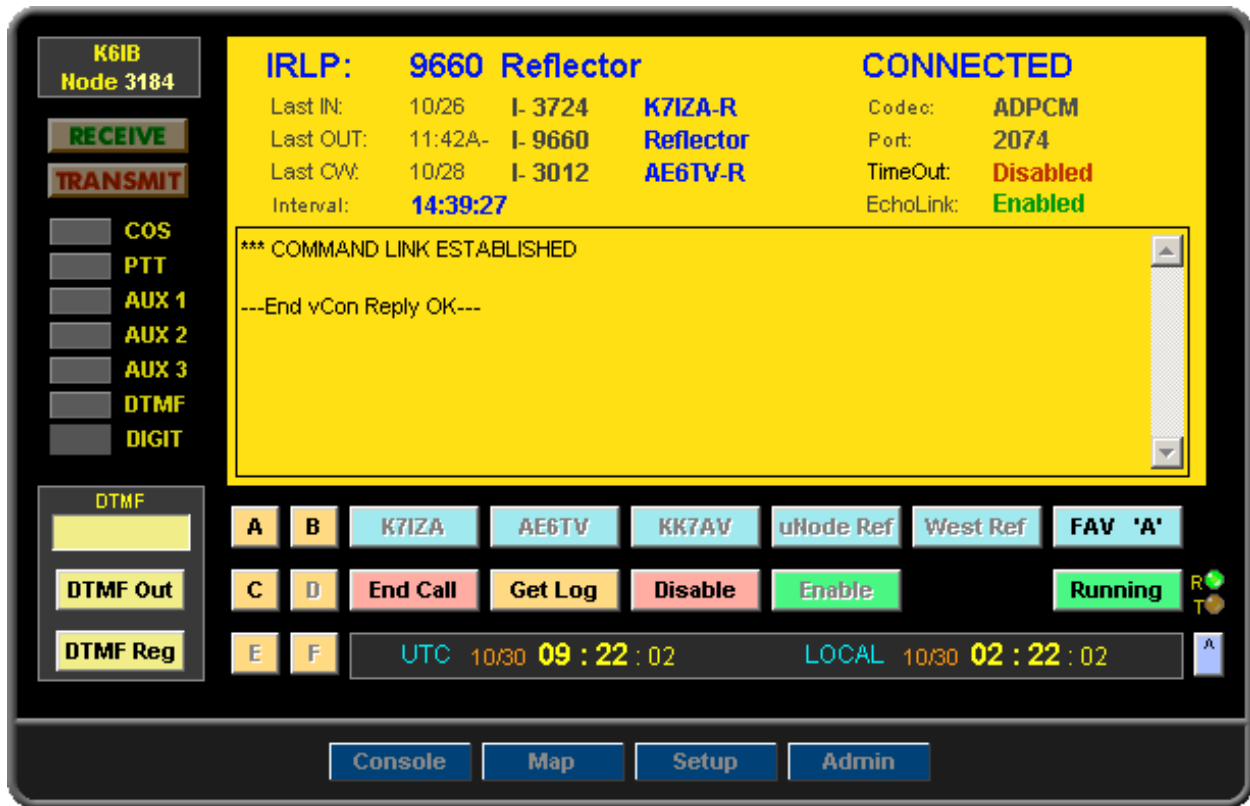
Clicking the **Setup** button will bring up the IRLPVCON Setup Screen used to setup information about the node and IRLPVCON operation

Clicking the **Admin** button will bring up the Admin Screen which is used to set password protection for IRLPVCON.

IMPORTANT NOTE:

The IRLPVCON program can be Password Protected. This protection is setup through the Setup Screen. It is Strongly Recommended that Password Protection be used if the unit's HTTP Server Port is exposed to the Wide Area Network (Internet).

CONSOLE



The Console Screen is the main monitor and control screen for the operation of the IRLP Node.

The Console Main Display Window shows the following information about the status of the Node.

The Top Line displays the nodes current state. If the node is connected it shows the connection type, IRLP or ECHO, and the connected node's Node Number and Callsign.

Last_In, **Last_Out** and **Last_CW** display the Last Call Received, Last Call Made and Last Call Waiting. The connection Time, or Date if greater than 24 hours, is also shown. If the Time shows a minus (-) it is the previous days time.

Interval displays the length of time the node has been in its current state.

Codec and **Port** display the Codec and Port being used when connected to another node.

TimeOut displays whether the Connection Timer is Enabled or Disabled.

EchoLink displays whether EchoLink operation is Enabled or Disabled. This Item is only shown if EchoIRLP has been installed on the node.

CONSOLE (cont)

The lower Window in the display shows the command response information returned from the last command sent from the console.

The Indicators to the left of the main window show the states of the nodes various Inputs and Outputs.

The Buttons below the main display window are used to send commands and control various functions on the Node. A detailed description of these buttons and their functions plus other command control options follows.

Note:

In operation it should be noted that depending on the state of the node, various buttons and options are disabled. For example if the node were connected, any button or option that would attempt to make a connection would be disabled while the End Call button would be enabled.

CONSOLE (cont)

Outputs, Last Reconnect, Connect Timer, EchoLink



The operation of the nodes Aux outputs can be controlled by moving the mouse cursor over the desired Indicator. At that time the indicator will show a 0 and 1 box. Click the 0 to force the Output Off or click the 1 to force the Output On.

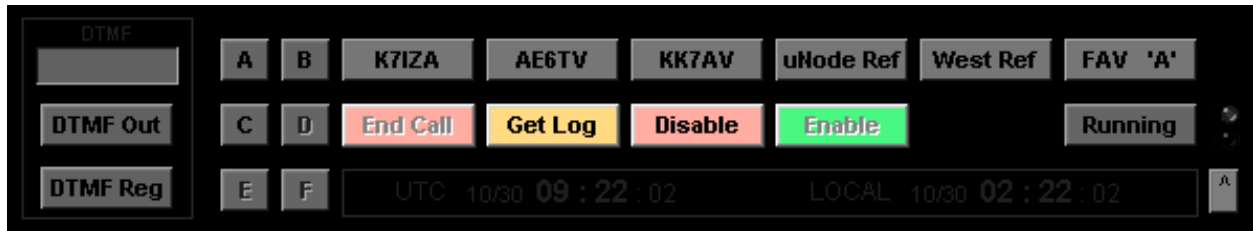
To reconnect to any of the Last Connections, move the mouse cursor over the desired Last Connection caption. The caption will become highlighted. Click the highlighted caption to reconnect to that node. This only works if the node is Idle.

To Disable or Enable the connection Time-Out Timer, move the mouse cursor over the Time-Out caption. The caption will become highlighted. Click the highlighted caption to toggle the Time-Out Timer operation.

If the node has EchoIRLP Installed then Echolink operation can be Enabled or Disabled by moving the mouse cursor over the EchoLink caption. The caption will become highlighted. Click the highlighted caption to Toggle the EchoLink Operation Mode. This only works if the node is not connected to another node.

CONSOLE (cont)

Standard IRLP Functions



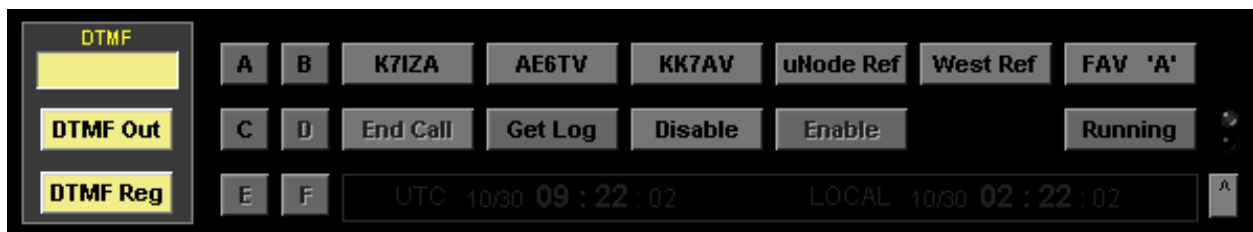
Clicking the **Enable** button will Enable IRLP operation.

Clicking the **Disable** button will Disable IRLP operation.

Clicking the **Get_Log** button will display the latest entries in the IRLP Log File in the display window.

Clicking the **End_Call** button will Disconnect the current connection.

Send DTMF Commands & Regenerated Tones



To Send a DTMF Command, enter the DTMF Text Code in the Yellow DTMF Text Box above the DTMF Buttons. Valid characters are:

0 1 2 3 4 5 6 7 8 9 A B C D * # S P

To Send the DTMF Code as a Command to the Node Click the **DTMF_Out** button.

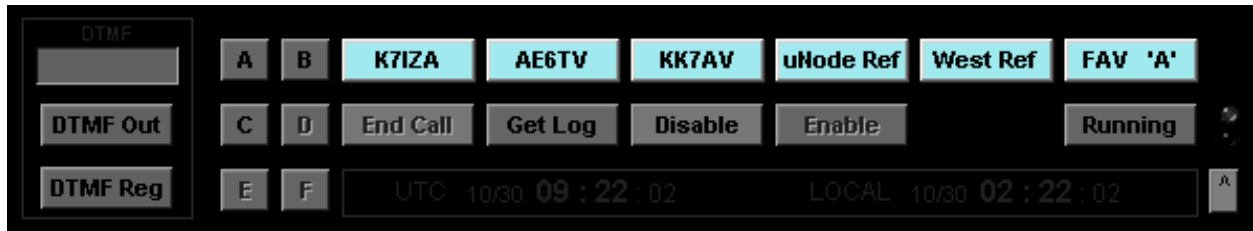
To Regenerate the DTMF Code as Audio Tones out of the Node Click the **DTMF_Reg** button.

Note:

If the node is using a Prefix DTMF Code, be sure to add the Prefix Code to the Command DTMF Code

CONSOLE (cont)

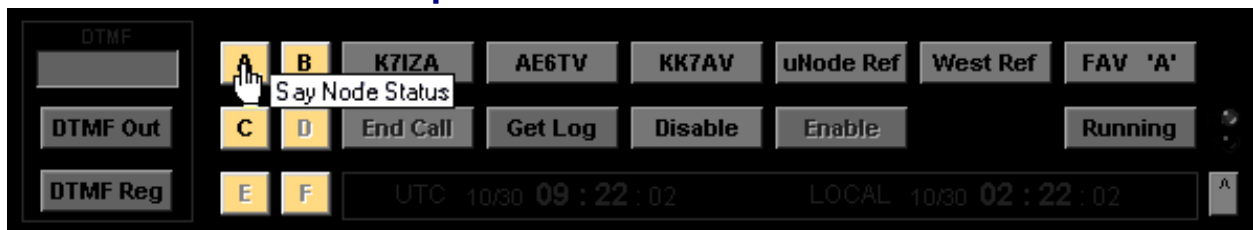
Favorite Node Buttons



IRLpvCON can have up to 15 Favorite Nodes programmed into it. The Favorite Nodes are arranged as three (3) banks of five (5) nodes each. Clicking a Favorite Button will connect the node to that Favorite's Programmed Node.

The far right **Select Fav** button is used to step between the three Favorite Banks.

Special Function Buttons



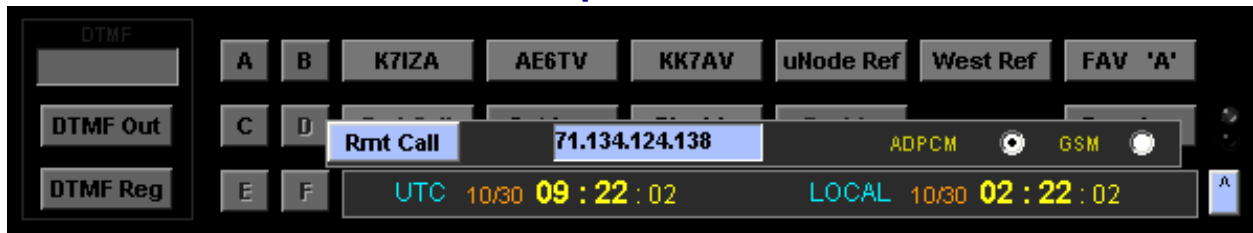
IRLpvCon can have up to 6 Special Functions programmed into it. These functions can be either a DTMF Command to the node or Regenerated DTMF Audio Tones for controlling a repeater linked to the node.

Clicking a Special Function button will perform that buttons programmed function. Moving the mouse cursor over the button will bring up the Popup Caption Name for that function.

Note:

Both the Favorite Node & Special Function Buttons Captions and DTMF Codes are programmed using the Setup Screen.

CONSOLE (cont) Flip Frame






The bottom right section of the console contains a Flip Frame. This frame can be set to display several items. To change which Flip Frame is in view, click the  button.

TIME CLOCK FRAME

The Time Clock Frame displays the current time in both UTC and the Local computer time. Clicking on 'LOCAL' in the time display can change the display format of the Local Time. This time is derived from the local computer's clock and not the IRLP Node.

REMOTE ADMIN FRAME

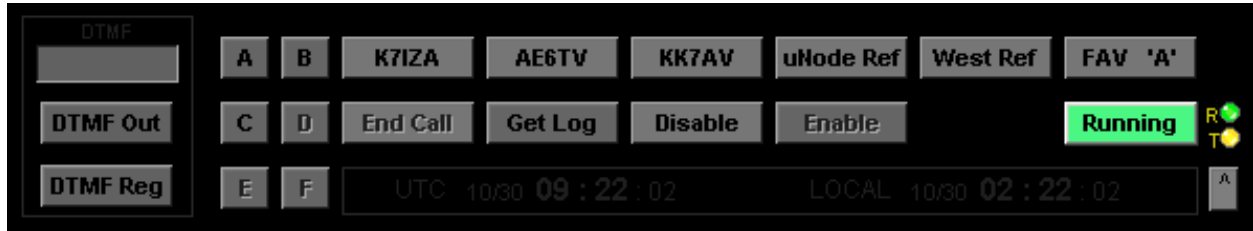
The Remote Admin Frame displays controls Remote Admin operation. The IRLP program allows for a Remote Call to the node. This permits a remote computer running the SpeakFreely program to communicate over the node. It Does Not Allow A Connection with Any Other IRLP Node.

To make a Remote Call to your node enter the IP Address of the computer running the IRLPvCON program in the Blue Remote Call Text Box. This Must Be An IP Address and Not A DNS Name. Select the Codec Type to use,  or . Click the  button.

This will connect the computer running IRLPvCON to the node. You can now use the SpeakFreely program to Talk and Listen over the node.

CONSOLE (cont)

Running/Start & Indicators

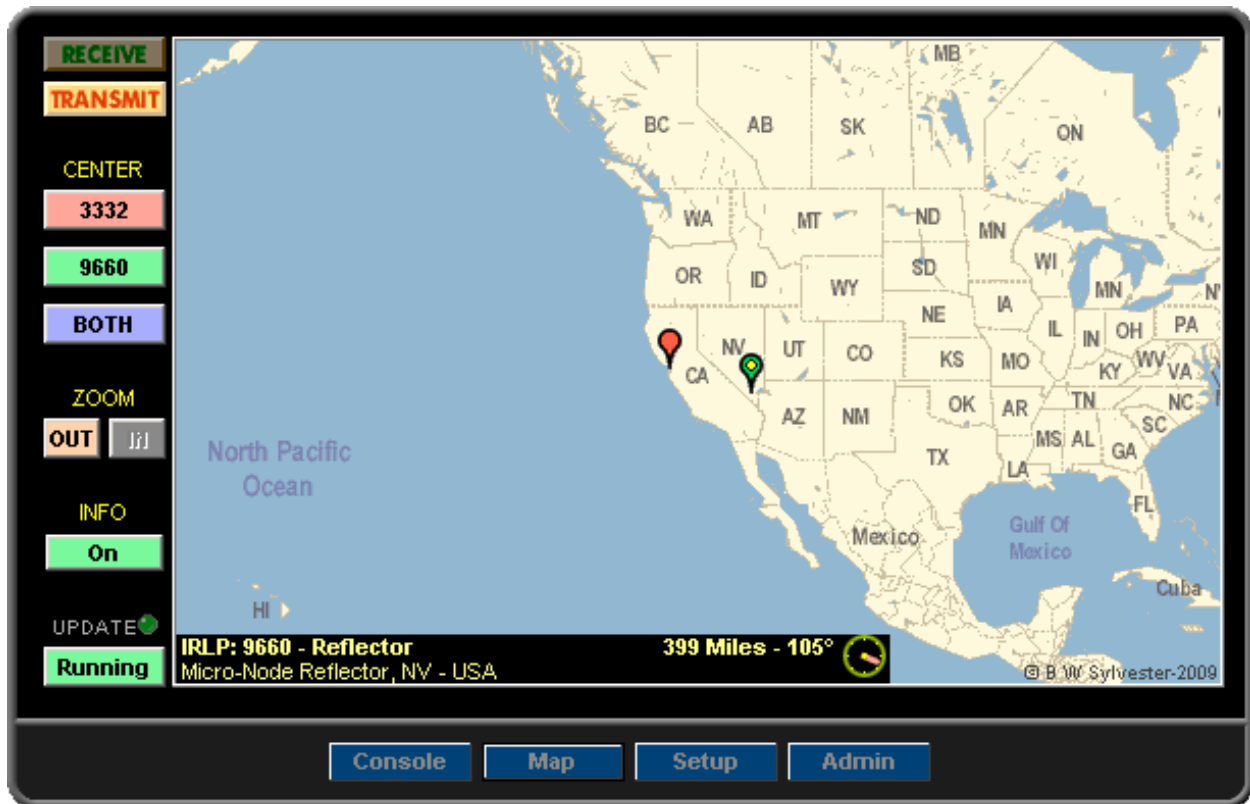


The **Running/Start** button sets the Console mode to Run or Halt. When the console is in the Run mode its buttons are active and the display is continuously updated with real-time node information.

The **T** indicator lights Yellow when the console is Transmitting a Command.

The **R** indicator lights Green when the console is receiving a new update.

MAP



The Map Screen displays the Local location and the location of any connected IRLP node. The Local location is shown with a Red Marker. This location is taken from the Latitude and Longitude values programmed in the Setup Screen.

When the node is connected to another node, that node's location will be displayed with a Green Marker. Either marker will display a Yellow Dot when that node is transmitting.

The Location plus the Distance and Bearing from the Local node to the connected node can be displayed by clicking the **INFO** button. This will bring up an Info window in the lower left of the map.

Clicking the Center buttons will center the map on the selected node or both. The Zoom buttons zoom the map view In & Out.

This screen displays real time information and can be started or halted by clicking the **RUNNING** button

Notes:

The Node's Latitude & Longitude Values MUST BE SET in the Setup Screen before the Map Monitor will work.

The Map will only show locations of IRLP nodes that have provided Lat/Long information to IRLP.net. The Map Will Not Show Locations For EchoLink Connections.

SETUP

The screenshot shows a web-based configuration interface for IRLPvCON. The title bar reads "IRLPvCON SETUP". Below it is a section titled "Monitor Setup Information" containing a table with the following data:

Variable	Value	Description
Frequency	434.300	Enter The Node Frequency In Mhz For Monitor Display. Example: 145.230
PL Tone	85.4	Enter The Node PL Tone In Hz For Monitor Display. Example: 100.0
Latitude	37.577	Enter The Latitude Of The Node For Map Monitor. (Decimal Degrees) Enter A NEGATIVE Number For A SOUTH Latiatude Value.
Longitude	-122.04	Enter The Longitude Of The Node For Map Monitor. (Decimal Degrees) Enter A NEGATIVE Number For A WEST Longitude Value.
EchoLink Node	304744	Enter The EchoLink Node Number If Node Is Using EchoIRLP. Used For Monitor Display Only.
Refresh Interval	1000	Enter Number Of Milliseconds Between Monitor Refreshes. (Minimum 500)

Below the table are three buttons: "Cancel" (red), "Reset" (yellow), and "Submit" (green). At the bottom of the screen are four navigation buttons: "Console", "Map", "Setup", and "Admin".

The IRLPvCON Setup Screen is used to set node information and operation variables for the operation of IRLPvCON, IRLPvMON and IRLPvMap programs. Enter the information and then click the **Submit** Button to save the information. After submitting changes it may be necessary to refresh the various monitor screens for the changes to take effect.

SETUP PROGRAM VARIABLES

Frequency

Enter the Frequency in MHz. that the node operates on. This value sets the Frequency that will be displayed on the IRLPvMON Monitor

PL Tone

Enter the PL Tone Frequency in Hz. That the node uses. This value sets the PL Tone that will be displayed on the IRLPvMON Monitor

Latitude

Enter the Latitude in decimal degrees of where the node is located. Precede the value with a minus (-) if the value is a South Latitude value. This will determine where the Local Node Map Marker Is Displayed and MUST BE SET for the IRLPvMAP Monitor to work.

Longitude

Enter the Longitude in decimal degrees of where the node is located. Precede the value with a minus (-) if the value is a West Longitude value. This will determine where the Local Node Map Marker Is Displayed and MUST BE SET for the IRLPvMAP Monitor to work.

SETUP (cont)

EchoLink Node

Enter the EchoLink Node Number if the node is using EchoIRLP. This value is only used to display the EchoLink node number on the IRLPvMON Monitor.

Refresh Interval

Enter the update refresh time interval in Milliseconds for the IRLPvMON and IRLPvMAP Monitor Displays. The minimum interval value is 500 Milliseconds.

Refresh Loops

Enter the number of update refresh cycles to display before the IRLPvMON and IRLPvMAP Monitors time out and have to be restarted. Enter "0" to Disable this Timeout Option.

Log Lines

Enter the number of Log Entry Lines to be returned to the Console Display when the Get Log button is clicked. This may be a value of 5 to 99 lines.

Console Color

Enter an RGB Console Background Color. This color will be used for the background color for the IRLPvCON Console Display. The value Must Be a Six (6) Digit Hex RGB value between 000000 and FFFFFFFF.

Monitor Color

Enter an RGB Monitor Background Color. This color will be used for the background color for both the IRLPvMON and IRLPvMAP Monitor Displays. The value Must Be a Six (6) Digit Hex RGB value between 000000 and FFFFFFFF.

LPT Port Address

In order for IRLPvCON to display the Indicators correctly it needs to know the LPT Port Address that the node is using for the IRLP Interface. **If This Value Is Set Incorrectly All The Indicators Will Be ON.** Use the Dropdown Box to select the Port Address for IRLPvCON to monitor. Most nodes use the default address of 0x378. Some computers that have the Video and LPT interface built on the board use 0x3BC. In rare cases it may have been setup as LPT2 with the address of 0x278. If necessary try each setting to find the one that makes the indicators work properly.

Note:

Be sure to click the Submit button after Making Changes to Setup Values

SETUP (cont)

Button	DTMF Code	Button Caption
Favorite A-1	3724	K7IZA
Favorite A-2	3019	AE6TV
Favorite A-3	3515	KK7AV
Favorite A-4	9660	uNode Ref
Favorite A-5	9250	West Ref
Favorite B-1		
Favorite B-2		
Favorite B-3		

SETUP FAVORITE NODE BUTTONS

The Favorite Buttons are arranged as three (3) banks each having five (5) favorites. Favorites A-1 through A-5 are in Bank A, Favorites B-1 through B-5 are in Bank B and Favorites C-1 through C-5 are in Bank C.

To add a Favorite enter the DTMF Command to use for the Favorite in the DTMF Code column and the Button Caption to display in the Button Caption column. The number of characters for the caption is limited to fit within the button.

Valid Characters for the DTMF Command Code Are:

0 1 2 3 4 5 6 7 8 9 A B C D S P

Note:

If the node is using a Prefix DTMF Code, be sure to add the Prefix Code to the Command DTMF Codes

Note:

Be sure to click the Submit button after Making Changes to Setup Values

SETUP (cont)

Button	Send DTMF Code	Popup Caption	Regen
Function A	S0	Speak Node Status	<input type="checkbox"/>
Function B	S9	Speak Local Time	<input type="checkbox"/>
Function C	D123P1	Enable Link	<input checked="" type="checkbox"/>
Function D	D123P0	Disable Link	<input checked="" type="checkbox"/>
Function E			<input type="checkbox"/>
Function F			<input type="checkbox"/>

Changes May Not Become Effective Until The Console Screen Is Refreshed

Cancel Reset Submit

Console Map Setup Admin

SETUP FUNCTION BUTTONS

To add a Special Function enter the DTMF Command or Regenerated Code to use for the Special Function in the Send DTMF Code column and the Popup Caption to display in the Popup Caption column.

If the DTMF Code is to be sent as an IRLP DTMF Command leave the Regen Box Unchecked. If the DTMF Code is to be sent as Regenerated DTMF Audio check the Regen Box.

Valid Characters for the DTMF Command Code Are:

0 1 2 3 4 5 6 7 8 9 A B C D S P

Note:

If the node is using a Prefix DTMF Code, be sure to add the Prefix Code to the Command DTMF Codes

Note:

Be sure to click the Submit button after Making Changes

ADMIN

SET IRLPvCON PASSWORD PROTECTION

To Set IRLPvCon Password Protection Enter A User Name And Password. BOTH ARE CASE SENSITIVE
To DISABLE Password Protection Leave BOTH BLANK
Enter Information And Then Click ' SET PASSWORD'

USER NAME: PASSWORD:

SET PASSWORD

USER MANUAL Click USER MANUAL To View The Users Manual For IRLPvCON 4.00

Console Map Setup Admin

SET PROTECTED IRLPvCON ACCESS

To setup or change the setting for Protected Access to the IRLPvCON program enter the User Name and Password to use in the **USER_NAME** and **PASSWORD** Text Boxes. Be aware that Both Of These Are Case Sensitive.

After entering the User Name and Password click the **SET_PASSWORD** Button. This will bring up a Verify Screen. To set the new User Name and Password click the **SUBMIT** button on the Verify Screen.

Note:

To Disable Password Protection Leave The USER NAME and PASSWORD Text Boxes Blank And Click SET PASSWORD.

See the Trouble Shooting Section on how to Reset Password Protection if password login information is forgotten.

IMPORTANT NOTE:

It is **Strongly Recommended** that Password Protection be used if the unit's HTTP Server Port is exposed to the Wide Area Network (Internet).

USERS MANUAL FOR IRLPvCON 4.00

Click the **USER MANUAL** button to view the PDF Users Manual for IRLPvCON 4.00.

IRLPvMON



The IRLPvMON Monitor Screen is a display that shows the real-time status of the node. It is a Monitor Only and has No Control Capability.

Since the monitor has no capability to control anything on the node it is not behind the IRLPvCON password protection system. This allows the Monitor to be viewed by anyone while still providing protection to the IRLPvCON package.

To access the Monitor Screen point a JavaScript Enabled browser to the URL:

[your-ip-address/irlpvmon](#)

ADD IRLPvMON TO YOUR WEB SITE

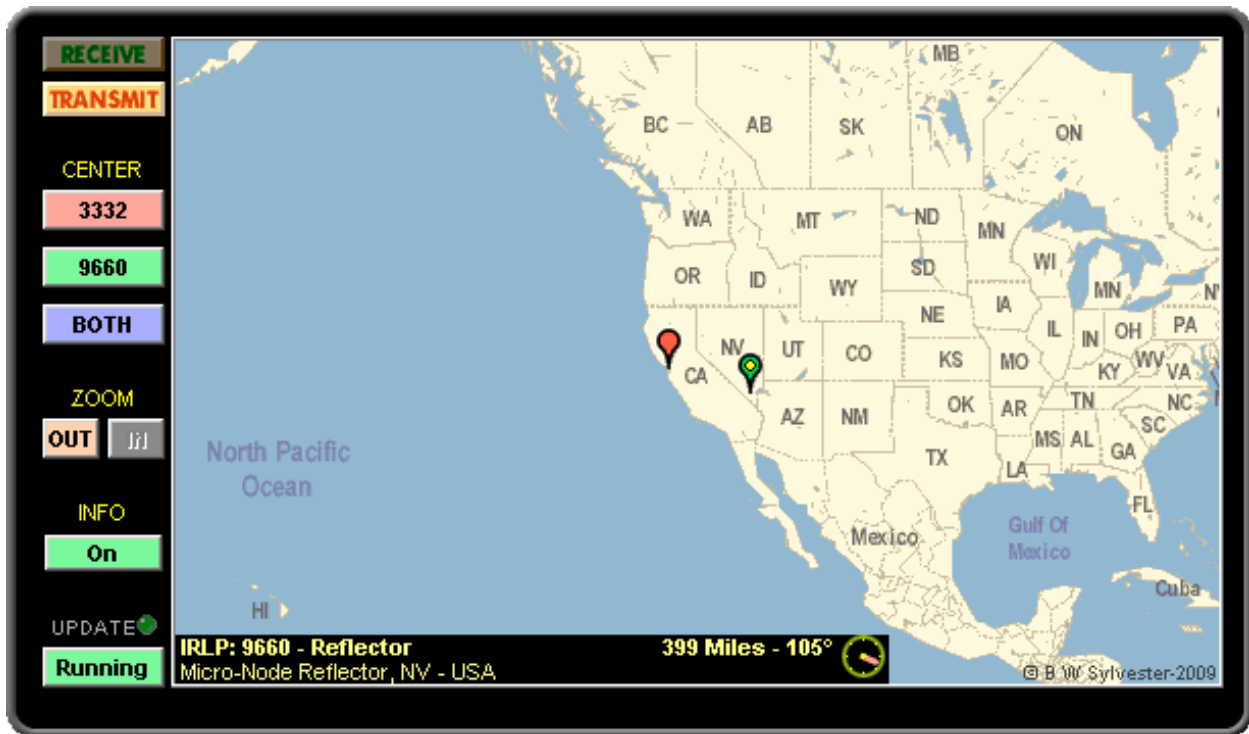
IRLPvMON can be easily added to any web site by inserting it as an IFrame in an HTML document on any server.

HTML Code Example:

```
<IFRAME HEIGHT="200" WIDTH="540" BORDER="0" FRAMEBORDER="0"  
SCROLLING="NO" NORESIZE="NORESIZ"  
SRC="your-ip-address/irlpvmon/"></IFRAME>
```

In order to make the monitor blend in with your web site's colors the background color of the monitor may be set to any color. This is done using the Monitor Color setting in the Setup Screen.

IRLPvMAP



The IRLPvMAP Monitor Screen is a real-time map display that shows your node's location and the location of any IRLP node that is connected to it. To work It requires the Latitude and Longitude information be set using the Setup Screen.

It is a Monitor Only and like the Monitor Screen it is not behind the IRLPvCON password protection system.

To access the IRLPvMAP Screen point a JavaScript Enabled browser to the URL:

[your-ip-address/irlpvmap](#)

ADD IRLPvMAP TO YOUR WEB SITE

IRLPvMAP can be easily added to any web site by inserting it as an IFrame in an HTML document on any server.

HTML Code Example:

```
<IFRAME HEIGHT="364" WIDTH="620" BORDER="0" FRAMEBORDER="0"  
SCROLLING="NO" NORESIZE="NORESIZ"  
SRC="your-ip-address/irlpvmap/"></IFRAME>
```

In order to make the monitor blend in with your web site's colors the background color of the monitor may be set to any color. This is done using the Monitor Color setting in the Setup Screen.

TROUBLE SHOOTING

Remove IRLPvCON Password Protection

In case the IRLPvCON Password Protection information is forgotten the protection can be removed by doing the following. Log into Linux as user root and enter the command:

```
/var/www/irlpvutil/remove_pwd
```

Connection Information Does Not Display

If the connection information does not display and the node already had the scripts "custom_on" & "custom_off" installed for other operations it is possible that the new lines for IRLPvCON were not placed in a location where they would be executed. To fix this problem, make sure the lines below are located in their respective script file where they will always be executed and not after an Exit statement or in a Conditional Section.

Make sure that the line

```
/var/www/irlpvutil/vstat_on $1
```

in the /home/irlp/custom/custom_on file Will Always Be Executed.

and the line:

```
/var/www/irlpvutil/vstat_off
```

in the /home/irlp/custom/custom_off file Will Always Be Executed

All The Console Indicators Are On

The IRLPvCON program LPT Port Address is probably set incorrectly. Read about 'LPT Port Address' in the Setup Section of this Manual.

Apache Listen Port Setting

Be Aware: If you have installed the IRLP Remote Admin Program, Apache may have been set to listen on port 15426. If that is the case All Browser Calls to the Apache server Must be made with that port number.

Example:

```
http://your-ip-address:15426/irlpvcon
```

APPENDIX

IRLPvCON Software Package

I hope you will find IRLPvCon a useful tool on your IRLP node. If you encounter problems or have questions or comments, let me know. Please include the word "irlpvcon" in the subject line of any E-Mails.

Brent - K6IB

E-Mail: irlp@K6IB.com

Web Site: K6IB.com

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