

## Wiviz

Wiviz, an open source GPL project, allows you to use your WRT to see other networks. Using a dynamic Javascript-based interface it scans for networks and then shows signal strength and effects of antenna adjustment in real time. The second generation [wiviz2](#) has recently been released! This version fixes the previous difficulty to accommodate all icons on the screen by continuously moving all detected stations on a trajectory around the receiving station.

[1] DD-WRT mini and full releases starting from V23SP3 come with Wiviz2 preinstalled! [2]

Other installable package for example for Wifi enabled PDA are apparently not available yet!

## Contents

- [1 Installation of Wiviz \(v1\)](#)
  - ◆ [1.1 Wishlist](#)
  - ◆ [1.2 Minor GUI Fix](#)
- [2 Wiviz under DD-WRT v24 final](#)
- [3 Wiviz under DD-WRT V24 SP1](#)
- [4 External Links](#)

## Installation of Wiviz (v1)

The latest version of DD-WRT (23 sp2 mini) does not seem work with Wiviz! There seems to be a change in the web interface to the [WL](#) tool. Please see the relevant discussion on the [talk page](#) for further details. Desweiterm scheint die Seite im Firefox 2.0.0.1 nicht richtig zu funktionieren !

Thanks to Lament who has ported Wiviz to DD-WRT!

1. Enable jffs2, and clean jffs2 (administration tab -> management in the control interface)
2. Use [telnet or SSH](#) (if enabled) to log in as root on the router.
3. Next type the following commands (in bold).
  1. **cd /jffs/** *This puts us in the jffs directory from root directory*
  2. **wget http://lament.rutka.net/wiviz-jffs.tar.gz** *This downloads the permanent (ie, stored in jffs file structure) program*
  3. **tar -xvzf wiviz-jffs.tar.gz** *This extracts files*
  4. **ln -s /jffs/www /tmp/** *This makes the symlink. Please note that there are 3 spaces in this line*
    - ◆ If the symbolic link already exists the command **ln -s /jffs/www /tmp/** will fail and you will first have to use : **rm -r /tmp/www** and then **ln -s /jffs/www /tmp/**

That should allow your browser to see the wiviz page at

<http://192.168.1.1/user/wiviz/wiviz.html> or <http://routerip/user/wiviz/wiviz.html>

Finally clean up by typing

**rm wiviz-jffs.tar.gz** *This will remove the downloaded compressed file*

**USING A SAMBA SHARE INSTEAD OF JFFS** If you lack the space necessary to install on JFFS (Using a large installation on a WRT54G is the usual reason) you can simulate JFFS using a network share. See [jffs on](#)

## WRT54G.

You will need to create a subdirectory `/jffs/etc/` if it doesn't already exist.

**ls /jffs/** List the `jffs/` directory to see if `etc/` exists.

If not, then **mkdir /jffs/etc** Makes the new subdirectory `etc/`

**mkdir /jffs/etc/config** Creates a new subdirectory to `/jffs/etc/` of `config/` **echo "rm -r /tmp/www" > /jffs/etc/config/wi-viz.startup** Creates startup file with first line **echo "ln -s /jffs/www /tmp/" >> /jffs/etc/config/wi-viz.startup** Appends second line **chmod 700 /jffs/etc/config/wi-viz.startup** Sets file permissions

In order to get around not being able to change to channel hopping, you can manually create a wiviz config file.

**echo "channelset=hop&hopseq=1,6,11" > /tmp/wiviz-cfg**

`channelset` = Either the word "hop" or the channel number to monitor. The default is to monitor the channel already in use by the card. `hopseq` = A comma separated list of channels to hop through in the order of your choice.

**Note:** The wiviz page only displays output - the input settings do not function with DD-WRT.

**Note:** Channel hopping does NOT work when in AP mode.

## Wishlist

- Integrate Wiviz by means of links into the routers HTTP system
- Graphical signal strength and noise plot function
- List stations mode with their signal strength graph on the side (to allow to identify directions when scanning using directional antennae)
- Automate antenna comparison by using the firmware antenna selector function
- IPs be extracted from the packets?

## Minor GUI Fix

- Network icons drift out of the screen and everything shifts out of sight:

-> Solution: Replace the declump function in wiviz.js Java Script with this:

```
function declump() {
    var c = 0;
    var top = 150, bottom = -350, left = 550, right = -550;
    for (i = 0; i < hosts.length; i++) {
        for (j = 0; j < hosts.length; j++) {
            if (i == j) continue;
            e1 = document.getElementById(hosts[i].mnm);
            e2 = document.getElementById(hosts[j].mnm);
```

## Wiviz

```
if (!e1 || !e2) continue;
x1 = parseInt(e1.style.left);
x2 = parseInt(e2.style.left);
y1 = parseInt(e1.style.top);
y2 = parseInt(e2.style.top);
ox = x2;
oy = y2;
if (x2 > left) x2 = left;
if (x2 < right) x2 = right;
if (y2 > top) y2 = top;
if (y2 < bottom) y2 = bottom;
dist = Math.sqrt(Math.pow((x1-x2), 2) + Math.pow((y1-y2), 2));
if (dist == 0) {
    x2 += Math.random() * 5;
    y2 += Math.random() * 5;
    dist = 10;
}
if (dist < 100) {
    cx = (x1-x2) * 5 / (dist / 3);
    cy = (y1-y2) * 5 / (dist / 3);
    x2 -= cx;
    y2 -= cy;
}
if (hosts[j].apnmem == hosts[i].mnmem
    || hosts[i].apnmem == hosts[j].mnmem) {
    if (dist > 150) {
        cx = (x1-x2) * 5 / (dist / 3);
        cy = (y1-y2) * 5 / (dist / 3);
        x2 += cx;
        y2 += cy;
    }
}
if (Math.abs(ox-x2) > 2 || Math.abs(oy-y2) > 2) {
    e2.style.left = parseInt(x2);
    e2.style.top = parseInt(y2);
    c++;
}
}
}
```

## Wiviz under DD-WRT v24 final

Status -> Wireless -> Wiviz Survey button

### Windows:

Firefox 3.0.1 - 3 on Windows properly displays the Wiviz layout.

### Linux:

*However*, Firefox 3.0.1 - 3 on Linux do not properly display the layout (freezing behavior). Other Mozilla-based browsers do display the layout properly: SeaMonkey, Galeon, Epiphany.

Konqueror does properly interpret the Wiviz layout and other portions of the whole WebGUI.

## Wiviz under DD-WRT V24 SP1

You can find Wiviz under Status -> Wireless -> Wiviz survey. Alternative you can go to [http://192.168.1.1/Wiviz\\_Survey.asp](http://192.168.1.1/Wiviz_Survey.asp)

**\*Note\***: Only Internet Explorer shows wiviz correctly (Tested with: Internet Explorer 8 Beta 1, Firefox 3.0.1 (fail) and Opera 9.52 (fail))

## External Links

<http://devices.natetrue.com/wiviz/> Wiviz Official Site

<http://forum.bsr-clan.de/viewtopic.php?p=26257> See Forum Post