FAQs: WiJET Networking

Equipment needed and preamble:

Equipment needed for successfully integrating a WiJET to an existing network:

- WiJET.G / WiJET.Gmac / WiJET.Video
- Presentation Session Manager (PSM)
- Web-based Administration Tool (Firmware)
- Network Access Point (AP) or wireless enabled router.
- 802.11b/g wirelessly enabled PC or Laptop.

The term "WiJET" in this document refers to all models of the WiJETs.

The term "PSM" in this document refers to the Presentation Session Manager software and applies to the standard PSM as well as the "on-demand" PSM that is housed within the firmware of the WiJETs themselves.

Only WiJET.Gs with firmware versions 1.2 or higher have IP addressing mode options; and only WiJET.Videos with firmware versions 1.1.d or higher have IP addressing mode options. All WiJET.Gmacs support IP addressing modes. If you need to assign an IP address to the WiJET and you have an older version of the firmware, contact OTC Technical Support for firmware upgrade patches for your unit. Firmware upgrades are free for registered users.

Factory default settings and the Auto-IP function:

The factory default radio mode of the WiJETs is for the units to operate as a Local Access Point (AP). By default, a function called "Auto-IP" is also in effect. This combination allows users to use wirelessly enabled computers (usually laptops and PDAs) to connect with and establish sessions with the WiJETs easily and without needing a high level of technical or networking knowledge.

The Auto-IP function allows for the WiJET unit and the PSM to negotiate an IP address for the WiJET to use in order to facilitate a session – both the PC and the WiJET needs to be on the same subnet for a session to be successfully established. If given a new IP address by the Auto-IP function, the WiJET will keep its newly acquired IP address at the end of a session (and will retain it until it either gets a new one or is rebooted).

The Banner Page System Status Indicators

```
SSID=WiJET.Video                                              Version: x.x³
Channel=11        Mode=Local Access Point    IP=169.254.98.171    MAC=00:60:B3:25:4B:41
RF activities detected on other channels (none).
```

This display (the WiJET.Video version is shown) gives the administrator useful information on the status of the WiJET. These include the unit's current:

- SSID (if you change nothing else, for security reasons, change at least the unit's SSID).
- Firmware version number.
- Operating channel.
- Radio operation mode (either **Local Access Point** or **Infrastructure Station**).
- IP address (Factory defaults: WiJET.G: **169.254.98.170** / WiJET.Video: **169.254.98.171**).
- MAC address (unique to each unit).
- RF activity in the unit's vicinity.
- The green square indicates that WEP encryption has not been enabled – this will be yellow if the unit has been secured.

WiJET IP Web-based Administration Tool

The WiJET's IP address mode and other operational characteristics can be set from the unit's web-based administration tool. This tool can be accessed in one of two ways.

Standard Method	Direct Method
1. Connect to the WiJET wirelessly. 2. Establish a session with the PSM 3. Right click on the PSM icon in the System tray. 4. Select "Show connected units". 5. Choose (highlight) the WiJET to be accessed and click "Admin".	1. Connect to the WiJET wirelessly. 2. Note the WiJET's current IP address on the start-up banner screen. 3. Using a web-browser, http to the WiJET's IP address. (You may need to change the PC's IP address so that it resides on the same subnet as the WiJET).
Default account: **admin** Default password: **public**	

Networking Procedure

Setting up a WiJET to operate on an existing Network requires two passes.

Step 1. Required configuration settings under the Administration Tab

- Under the device name field, enter a name that describes the WiJET on the network. This can be up to 25 characters long. This function is purely administrative, but does impact how the WiJET is described in the Connection List dialog panel.
- Select the IP addressing mode.

For Firmware Versions prior to 2.4:	
Automatic:	When the WiJET is in infrastructure station mode, it will detect for the presence of a DHCP server. If one is found, it will take its starting IP address from the DHCP server. If no DHCP server is detected, it will default to one of the factory set default IP addresses. The Auto-IP feature is enabled.
Manual-Static:	The WiJET can be assigned a fixed IP address. The fields below are used to enter the IP address, subnet mask and default gateway values. Note that the Auto-IP feature is enabled and that the WiJET can change IP addresses when negotiating with PSMs running on PCs with IP addresses in a different IP address range. The WiJET will, however, always revert back to the assigned fixed IP address when rebooted.

For Firmware Versions 2.4 and higher:

Automatic:	When the WiJET is in infrastructure station mode, it will detect for the presence of a DHCP server. If one is found, it will take its starting IP address from the DHCP server. If no DHCP server is detected, it will default to one of the factory set default IP addresses. The Auto-IP feature is enabled. The word (auto) will be displayed after the WiJET's IP address on the banner display screen. If the IP address is displayed in red, and is one of the factory defaults, this indicates that there has been a problem with the WiJET accessing the local DHCP server.
Manual:	The WiJET can be assigned a fixed IP address. The fields below are used to enter the IP address, subnet mask and default gateway values. The WiJET will permanently retain its assigned IP address (*the Auto-IP function is turned off*). PCs on a different subnet or IP address range may not be able to establish a session with the unit if the local network is not set up to correctly route TCP/IP traffic. The word (manual) will be displayed after the WiJET's assigned IP address on the banner display screen.
DHCP:	The WiJET will take an IP address from the local DHCP server. The WiJET will permanently retain its assigned IP address (*the Auto-IP function is turned off*). PCs on a different subnet or IP address range may not be able to establish a session with the unit if the local network is not set up to correctly route TCP/IP traffic. The word (DHCP) will be displayed after the WiJET's IP address on the banner display screen. If the IP address is displayed in red, and is one of the factory defaults, this indicates that there has been a problem with the WiJET accessing the local DHCP server.

◉ Under the fields for the IP address information is a check box that can be used to disable the display of the WiJET's banner display status messages. The same information will always be available on the web-based Administration tool, but for WiJET's in a public display situation, for network security, it may be advisable to hide this information from general viewing. Uncheck the box to hide the messages.

◉ Finally click "Apply". The settings will be applied to the WiJET and after a few minutes, the unit will reboot. At this point, it is safe to close the browser (and we recommend that you do this to avoid accidentally sending the same information over to the WiJET again).

◉ Depending on operating circumstances, after the unit reboots, the PSM may or may not automatically re-establish a session (assuming that you used the standard method to access the web-based administration tool in the first place). If it does not, release the session and established a new session, then get back into the web-based administration utility. In any case, check the status message on the banner display to ensure that all the settings you have applied has been accepted.

What to do if you mess up and cannot access the WiJET again …

All WiJETs have a reset to factory default button. This is located on the left side of the unit on a WiJET.Video. On the WiJET.G and WiJET.Gmac, it is next to the VGA connector. The reset button can be accessed using a bent paper clip or other slim **blunt** probing tool. Please see the Technical Manual for specific resetting instructions.

Step 2. Required configuration settings under the Configuration Tab

- Change the unit to operate in **Infrastructure Station** mode.
- Scroll down towards the bottom and enter the correct **SSID** for the WiJET to use. This needs to be an SSID in use on your network. Failure to set the correct SSID will make it next to impossible to access the WiJET again without resetting the unit back to it's factory default state. Note also that SSIDs are case-sensitive (and watch out for extra hidden spaces at the end of the SSID).
- If your network uses WEP encryption, either 64-bit (some times referred to as 40-bit) or 128-bit, enter this now to match your network's settings. Also assign the correct key and indicate whether an open or shared key is used (default is shared). We recommend that for basic wireless security, at the very minimum, the default SSID should not be used.
- Finally click "Apply". The settings will be applied to the WiJET and after a few minutes, the unit will reboot. At this point, it is safe to close the browser.
- End the session (if one was started).

After **Step 2** the WiJET will be connected to a local network access point (or more specifically, the one you assigned the WiJET to via the SSID entry) and operating in **Infrastructure Station** mode. Check the status message on the banner display to ensure that all the settings you have applied has been accepted.

At this stage, your PC/laptop will no longer be able to connect wirelessly to the WiJET directly. Redirect your PC/laptop's wireless card at your network wireless AP or router – note that a hardwired Ethernet connection to the network will work also. Once a connection to the network or network AP has been established, you should be able to establish a session with the WiJET again. The major differences you will experience are:

- The ability to access Internet / network resources and display these on the WiJETs.
- With multiple WiJETs, users can choose which WiJET to connect with – or – even all available WiJETs up to a maximum of six for simultaneous presentations (requires 802.11g APs and Pentium III or better PCs).
- *ANY* PC/laptop on the network will be able to use the WiJET even if they are not wirelessly enabled as long as they have access to the network AP and runs the PSM locally.
- PCs that are on a different subnet within the same network can also use the WiJETs as long as they are (manually) added to the WiJET's Connection List. Note that for this to work, standard network TCP/IP traffic routing equipment must be in place (specifically routers).

Enhancements

You can also customize the graphic on the banner display page. Use this to display your company's logo instead of the factory default graphic. The image must be a JPG and should be no larger than 800x600 pixels and less than 2MB in file size. See the WiJET's Technical Manual for details; the basic steps are outlined below:

Step 3. Configuration settings under the Upload Tab

- Check the delete box next to the current banner and change the order to read "2".
- Browse to the file you want to upload and click ok.
- You can change the file name if you wish -- it needs to have the "jpg" extension.
- Change the duration to "-1".
- Change the order to read "1".
- Click "Upload and Apply Changes".
- The image will upload and the WiJET will reboot. After the WiJET is rebooted, the new graphic will be visible on the start up banner page.
- Optionally, the system status messages can also be hidden.