WinTV Extend

Stream live TV over WiFi or the Internet

Quick Installation Guide

Overview

WinTV Extend is an Internet streaming server which is part of the WinTV v7 application. WinTV Extend makes a connection with a remote device such as an iPad or iPhone, takes the live video from WinTV v7, formats it and then transmits it over the Internet to the remote device.

Currently, WinTV Extend supports the following devices:

- Apple iPad, iPhone and iPod touch
- Apple Mac with Safari and a Flash 10.1 player
- Windows 7 based PCs with any Internet browser and Flash 10.1
- Android phones and tablets running Android version 2,2 or later

How does WinTV Extend work

To send live TV from a WinTV-HVR TV tuner over the Internet to a remote device such as an iPad or iPhone, the WinTV v7.2 software has a built in component called 'WinTV Extend'.

Here are the steps WinTV Extend uses to send TV to a remote device:

- A PC at home (or in the office) has a WinTV-HVR and WinTV v7.2 installed. WinTV v7 does not have to be running on the PC. Until WinTV Extend starts to send video to the remote device, WinTV v7 can be used to watch TV on the PC screen.
- WinTV Extend receives a connection request over the Internet (or over a local WiFi connection) from the remote device (iPhone, etc).
- WinTV Extend asks the user of the remote device for a Pin number.
- If the Pin number is correct, WinTV Extend sends the remote device a TV channel list (all of the channels the WinTV-HVR can tune to).
- The user of the remote device can click on the channel name or number they want to watch, and the channel number is sent to

WinTV Extend. WinTV v7 stops displaying live video on the PC, and the WinTV-HVR inside the PC tunes to the requested channel.
- Once the tuning is complete, WinTV Extend starts to create a buffer which stores about 25 seconds of live TV, then starts to transmit the live TV video to the remote device.
- The remote device receives the video, and starts to play the video on the screen.

What is needed to use WinTV Extend

If you are using WinTV Extend to watch live TV on your iPad or other device in the home over Wi-Fi, then you just need a PC and an installed WinTV-HVR. The installation should be pretty simple.
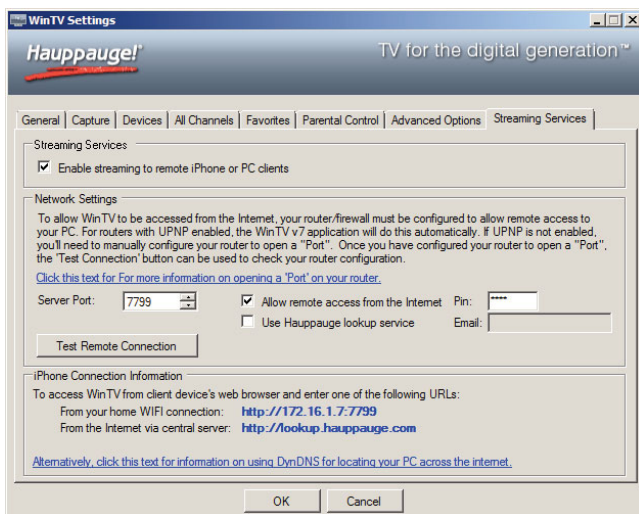
If you are using WinTV Extend to watch live TV from outside your home, besides a PC and an installed WinTV-HVR product you need to have a **Port** assigned in your firewall in which the video can pass from WinTV Extend to your remote device.

Most home and office routers block all network connections except for standard web browser connections which flow through **Port 80**. To use WinTV Extend, you need to have your router allow Internet communication through **Port 7799** (port 7799 is the default port used by WinTV Extend, but this port number can be changed).

Configuring WinTV Extend

Once WinTV v7.2 is installed, you can run the WinTV application. Set up your channels as instructed in the **WinTV v7 Quick Install Guide**.

Click the **Configuration button** on WinTV v7 (the gear icon) and then click the **Streaming Services tab**. This is where you will configure WinTV Extend.

Note: If you want to watch live TV over the Internet with WinTV Extend, you need to open a Port on your router for WinTV Extend. See the section below called Opening a Port on Your Router for some tips. If you are only using W-Fi in your house to watch TV from Extend, you do not need to open a port on your router.
If you do not want to watch Entend TV from outside your home, then un-check "Allow remote access from the Internet".

The default WinTV Extend Port is 7799 (but this can be changed). This Extend Port is used for both Wi-Fi and Internet Extend TV.

Step 1:

Click the button **Enable streaming to remote iPhone or PC clients**.

Step 2:

Click the **Test Remote Connection** button. This sends a message to Hauppauge requesting that a check be done on your WinTV Extend configuration.

When the message "**Local connection test succeeded**" appears, it means your home network is properly configured to watch WinTV Extend over your home Wi-Fi network.

If you want to watch TV from outside your home, look for the message "**Remote Connection test succeeded**". If you get a red error message, your firewall is blocking the connection for WinTV Extend. See the section below **Opening a Port on Your Router** for some tips.

Step 3:

An **IP address** is an **Internet address**. The result of Test Remote Connection in Step 2 are two Internet addresses which you should note:

- **WinTV Extend in your home (from a iPad, iPhone or iPod over Wi-Fi or a computer on your home network):** Use the Internet address which is listed as **From your home WiFi connection**. In this example, this address is:
http://172.16.1.7:7799

- **WinTV Extend from outside of your home over the Internet:** Next to the message **Remote Connection test succeded** there is the Internet IP address of your PC as seen from outside your home or office. In the example above, this address is:
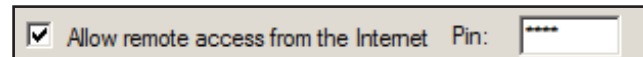**http://68.195.226.130:7799**

To connect to WinTV Extend from outside the home over the Internet, on your iPad or other Apple device, open the Safari browser and enter this address.

On a PC, open your web browser and enter this address.

You should see the WinTV channel list on your remote device.

Step 4:

The Pin number is used when accessing WinTV Extend over the Internet from outside your home. If you would like to use WinTV Extend from outside your home, click **Allow remote access from the Internet**. The default Pin is **0000**. You can change it if you like.
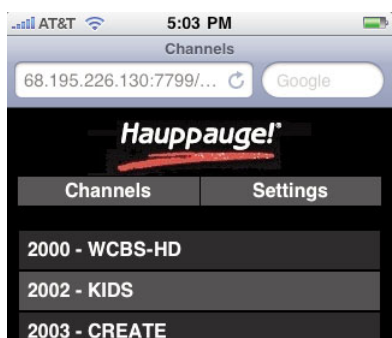

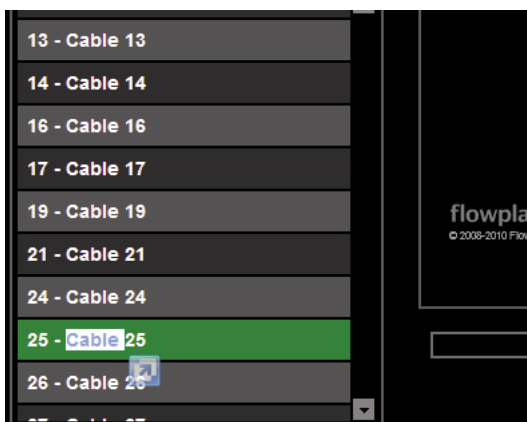### Watching TV on your iPhone, iPad or other remote device

On your iPhone, iPad or Mac, open the Safari browser. You can also use the **WinTV for iPad application** which can be downloaded from the Apple app store. On a PC, open any Internet browser.

Type in the address of your **WinTV Extend in your home** as determined in Step 3 above. For example, type:
http://172.16.1.7:7799

Once you have made a connection to WinTV Extend, you will see the Hauppauge main screen. On your iPhone you will see:

On an iPad, Mac or PC you will see the WinTV channel list next to the video window:

Once you see the channel list, you can then choose a channel by clicking on the channel number you'd like to watch.
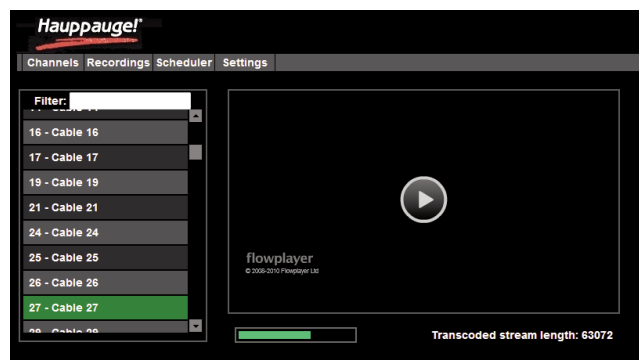
Note: when using Safari on the iPad, to scroll the channel list, use two fingers. Touch a channel number once to set the channel. Click once on the TV picture to see the video controls: 30 second replay, pause, play, full screen, audio volume adjust.

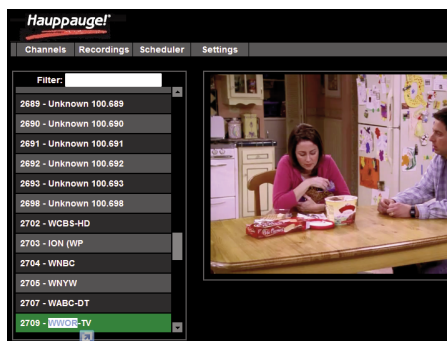You will then see a message on the screen which says:

   Buffering

After the WinTV Extend buffer on the PC is full, you will see a message:
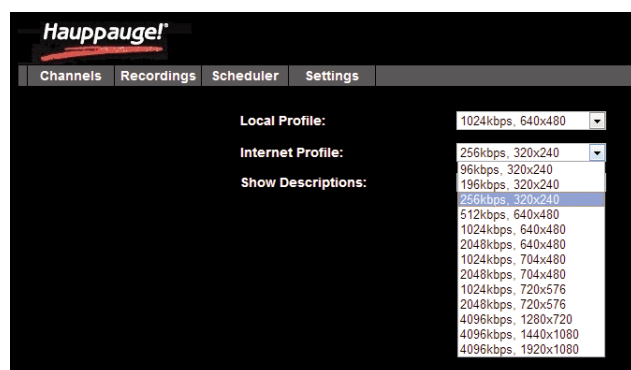
   Transcoding stream length

and a progress bar. Once the buffer has been turned into Apple video, you will see live TV playing on the screen of your remote device.

Data rate configuration

You can adjust the datarate for the transmission of video. **On your remote device** click the **Settings tab** and you will see a list of possible datarates. **For most 3G connection**s, you should keep the **Internet bitrate** at below 128kbps. For a WiFi network, you can choose a **Local bitrate** of **1024kbps or higher**.

Opening a Port on Your Router

In order for WinTV Extend to establish an Internet connection from a remote device such as an iPhone or iPad, **there needs to be an open Port on your Internet router**.
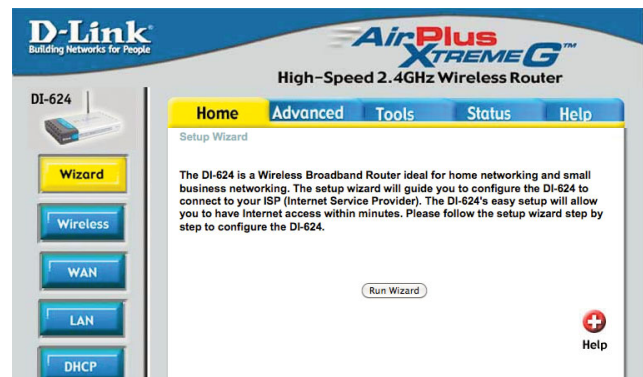
Each Internet router is different, but they all have settings which allow a user to specify **a Port number to open** and **a local Internet address to assign this port to**. We have a few router examples below from DLink and Netgear.
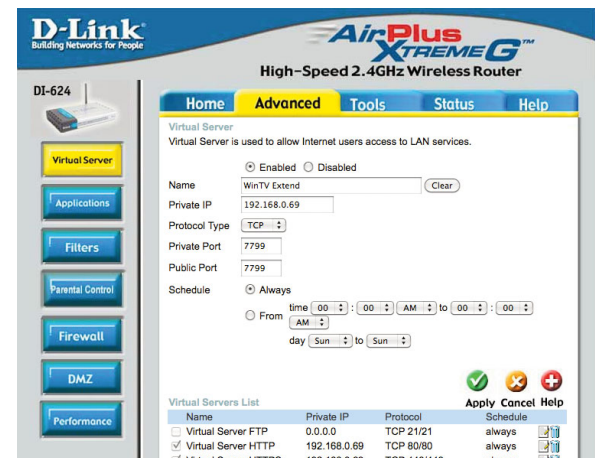
Configuring a port on your router

First, open a browser window on your PC. Then enter the local Internet address of your Router. Most routers use the address:

   http://192.168.0.1

You might need to enter a **Password**. Most routers have the password on a label on the bottom of the router. Once you have entered your password, you will see the main router menu:

In most routers, the setting of the Port is done in an **Advanced menu**. With this example using a D-Link router, click on the **Advanced tab:**

The local IP address of the PC running WinTV Extend can be found next to **From your home WiFi connection** in **Step 4** above. In this example, the local Internet address is:
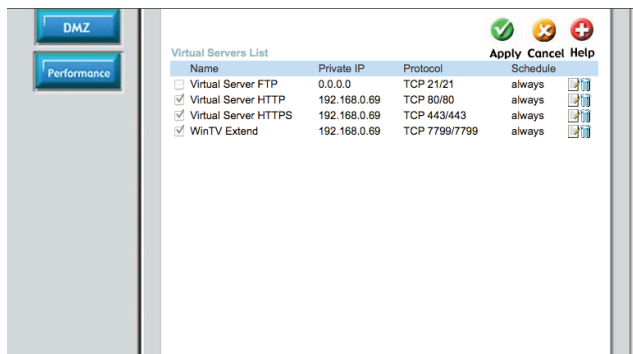
   192.168.0.69

The port being opened on the PC is:

7799

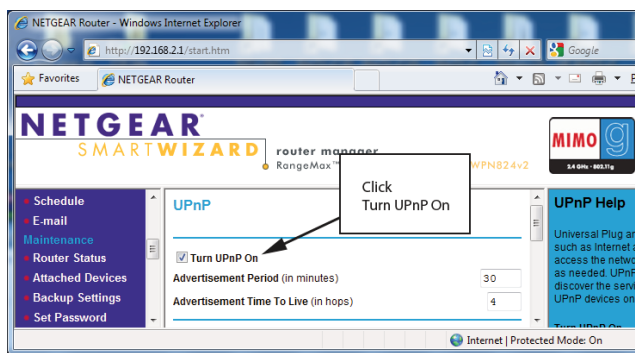Therefore, the complete local address of this PC is:

http://192.168.0.69:7799

When you have finished setting the Port for WinTV Extend, you will see it listed with the other open ports on your PC (ports 80 and 443 are need for all web browsers like Firefox or Internet Explorer):

Netgear WPN824v2 router

The Netgear router can often be configured through uPnP. WinTV Extend can use uPnP to configure the Port you have set in **Configuring WinTV Extend** (above). Once you have configured WinTV Extend, open the Netgear router setup and click on the **UPnP button** on the left and then click **Turn UPnP on**. Once this is done, go back to the WinTV Extend tab in WinTV v7.2 and click the **Test Remote Connection button**.
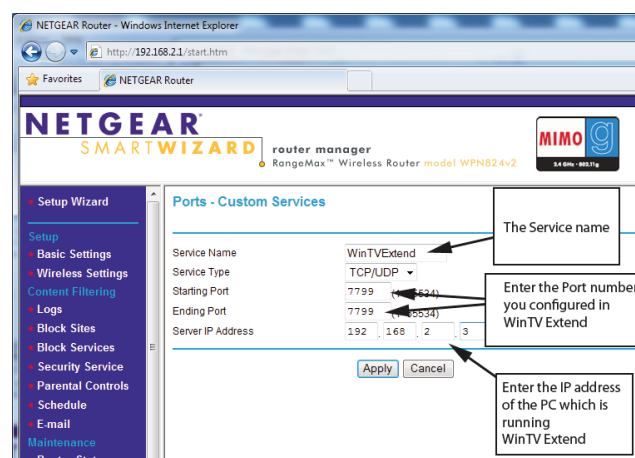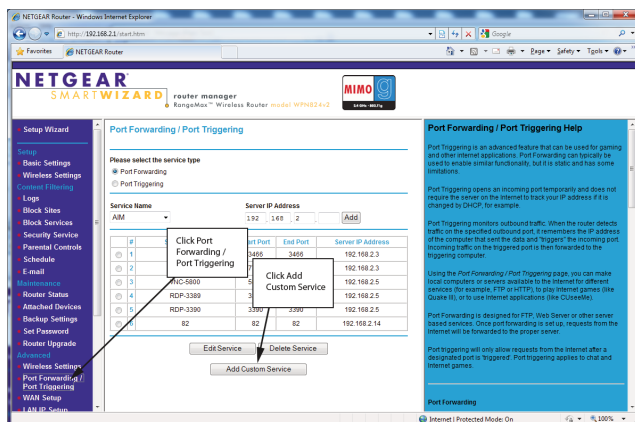

If you get the green **Remote Test Connection succeded** message, then you are good to go! If you get a red **Connection Test failed** message, you will need to manually configure your Netgear router to open Port 7799.
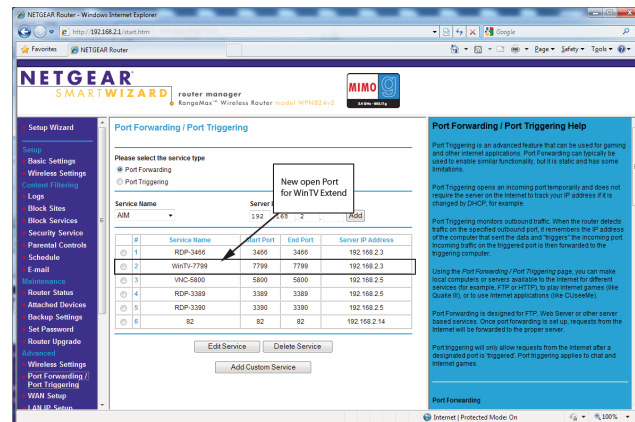
Manually configuring the Netgear WPN824v2 router

The configuration of the Ports in the Netgear router is done in the **Port forwarding / Port triggering menu**.

Once you are in the Port forwarding menu, click the **Port forwarding button** then click **Add Custom Service**.
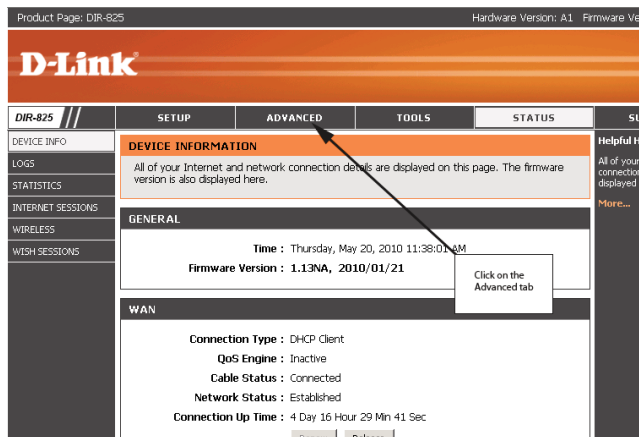

In **Ports - Custom Services**:

- the **Starting and Ending Port** (the default is 7799 and they should both be the same since WinTV Extend only uses one port)
- the **Server IP address** (the local IP address of your PC which is running WinTV Extend).
- **Service Type** should be TCPIP.
- You can also set the **Service Name** to WinTV Extend.

Then click **Apply**.

You will now see WinTV Extend listed in the list of Services which has Port Forwarding supported by your router.

D-Link DIR-825 Router

After you log in to the router, click the **Advanced tab**.

In the Advanced tab, click on **Virtual Server**.

In the spot for **IP Address**, enter the IP address of the PC which is running WinTV Extend. This address can be found next to **From your home WiFi connection** in **Step 4** above. In this example, the local Internet address is: **192.168.0.193**

Set your selected Port (WinTV Extend uses port 7799 as the default). Then click **Save Settings**.