PC2TV

WiFi 1080P streaming from
PC / Tablet / Smart phone

User's Manual

FEDERAL COMMUNICATIONS COMMISSION

This device complies with Part 15 of the FCC Rules Operation is subject to the following two conditions: this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiated radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. However, there is no grantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Notice: Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

CE DECLARATION

This device complies with CE . These limits are designed to provide reasonable protection against harmful interface in a residential installation.

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TABLE OF CONTENTS

CHAPTER 1. OVERVIEW..... 1
1.1 Introduction..... 1
1.2 Features..... 1
1.3 Specifications..... 1
1.4 System Requirements..... 2
1.5 Package Contents..... 3

CHAPTER 2. OUTLINE DESCRIPTION..... 4

CHAPTER 3. SOFTWARE INSTALLATION..... 5

CHAPTER 4. HARDWARE INSTALLATION..... 7
4.1 PC2TV Connection..... 7
4.2 AP Mode Connection..... 7
4.3 STA Mode Connection..... 9
4.4 Other Connection..... 11

CHAPTER 5. PC2TV MODE OPERATION..... 12
5.1 Starting..... 12
5.2 Advanced “Play” Management of PC2TV Utility..... 13
5.3 PC2TV Control..... 14

CHAPTER 6. DLNA MODE OPERATION..... 18
6.1 Turn-on Media Streaming..... 18
6.2 Stream A File to DMR..... 20

CHAPTER 7. TROUBLESHOOTING..... 22

1.1 Introduction

The PC2TV delivers Full HD resolution (HDMI out) from computer/Tablet/Smart-phone wirelessly to your home Entertainment center; it brings video and audio to the big size TV/LCD Monitor/Projector wirelessly via standard Wi-Fi technology. Providing Wi-Fi transmission up to 180 feet (open site). You can now enjoy Movie, Internet, Games, and Business Presentation (power point….) on big screen without cable limitation and hassling. It is an ideal solution for both home and office use.

1.2 Features

- Wireless connectivity from computer to Full HDTV, monitors, projectors via Wi-Fi
- Support DLNA mode for Video/Audio/Image transmission from DLNA compliant devices (e.g. Computer/Tablet/Smart phone..)
- Delivers smooth video output upto 1080P by 30fps
- Support PC2TV Apps startup with Windows logon
- Support automatically reconnection function
- Push button to reset the device to default
- Build-in Wi-Fi module and antenna
- Mirror display both on Computer and TV/Monitor simultaneously
- Extend display on Computer and TV/Monitor in Windows 7 system
- Long distance wireless transmission up to 180 feet (open site)
- HDMI output (both audio & video), compatible with LCD TV/ Monitor /Projector
- PC/Movie mode performance switchable
- Output display overscan adjustable
- Complies with IEEE 802.11 b/g/n
- Ports include 2 x USB 2.0 for mouse/keyboard(wire or wireless) application
- Easy firmware upgrade

1.3 Specifications

- **Video:**
  - HDMI output resolution up to 1080P by 30 fps
  - Desktop/NB computer :
    - Duplication mode (mirrors the computer's screen)
    - Extend mode (Windows 7)
  - DLNA streaming from DLNA compliant devices (e.g. Computer/Tablet/Smart phone..)
- **Audio:**
  - HDMI Digital audio out.
  - 3.5mm Stereo audio jack
- **Wirelessly :**
  - Frequency : 2.4 GHz ISM Bands 2.412-2.484 GHz
  - Modulation : 802.11 g/n: OFDM, 802.11b: CCK(11, 5.5Mbps), QPSK(2Mbps), BPSK(1Mbps)
  - Compliant with IEEE802.11n Draft 3.0 standard.
  - High speed wireless connection up to 150Mbps.
  - Meets 64/128-bit WEP, WPA, and WPA2 security standards.

- Output Power :
  802.11b: 16 dBm +/-1.5dBm (11Mbps)
  802.11g: 14 dBm +/-1.5dBm (54Mbps)
  802.11n: 13 dBm +/-1.5dBm (HT20 MCS7)11 dBm +/-1.5dBm (HT40MCS7)
- Receive Sensitivity :
  802.11b: 11M -76 dBm
  802.11g: 54M -67dBm
  802.11n: HT20 MCS7 -64dBm , HT40 MCS7 -61dBm

- **USB :**
  - USB HID mouse/keyboard.
- **Power consumption :** 5V DC, 900mA
- **Dimensions :** 133 x 71 x 27 (mm)
- **Antenna :** Build-in Omni directional Antenna.

1.4 System Requirements

- **PC to TV mode :**
  - **Basic Requirements:**
    - CPU: Intel Pentium4; 3.0G or better.
    - RAM: 1GB or better.
    - Windows XP X86/64 / Windows Vista X86/64 / Windows 7 X86/64
    - CD-ROM drive (For software installation)
    - HDMI cable
    - Display device with HDMI input (e.g. TV/Monitor/Projector)
    - Wi-Fi 802.11 b/g/n or Ethernet 10Base-T/100Base-TX.

  - **720p Output advanced Requirements:**
    - CPU: Core2Duo 2.0G or better
    - RAM: DDR2-800, 2GB or better.
    - Graphic: Chipset integrated (Intel GMA X3100) or better
      NVIDIA GeForce 8400 GS / ATI Radeon X300 stand along graphic chip or better
    - LAN: WiFi 802.11n or Ethernet 100Base-TX or better.

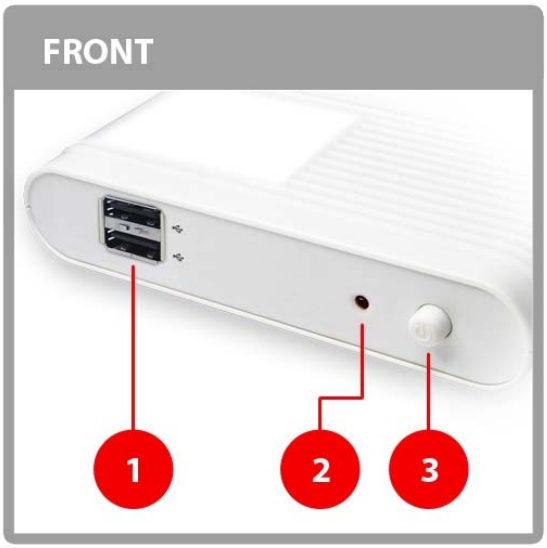
  - 1**080p Output advanced Requirements:**
    - Windows 7 X86/64
    - CPU: 2nd Generation Intel®Core™Processor (Code name: Sandy bridge)
    - RAM: DDR2-800, 2GB or better.
    - Graphic: Enabled Sandy bridge Integrated Graphic Display (IGD)
    - LAN: WiFi 802.11n or Ethernet 100Base-TX or better.

- **DLNA mode :**
  - Digital Media Server
    (DMS; e.g. include PCs and network-attached storage (NAS) devices…etc.)
  - Digital Media Controller
    (DMC; e.g. include Internet tablets and Wi-Fi enabled digital cameras…etc.)
  - Mobile Digital Media Server
    (M-DMS; e.g. include mobile phones and portable music players…etc.)
  - Mobile Digital Media Controller
    (M-DMC; e.g. include personal digital assistants (PDAs) and smart phones…etc.)
  - DLNA certified software
    (e.g. include Windows Media Player 12…etc.)

1.5 Package Contents

- PC2TV device x 1
- DC5V power adapter x 1
- PC2TV Software / Manual CD x 1
- Quick Installation Guide x 1

2. Outline Description



1. : USB port for HID device(Keyboard, Mouse...)
2. **Power LED :** When power ON, the power LED Will light up.
3. **Power Button :** Power ON / OFF



4. **DC5V :** Power in.
5. : Audio out;
   Connect to external speaker / headphone.
6. **HDMI :** HDMI out both video and audio;
   Connect to TV or monitor with HDMI input port.
7. **LAN :** Optional application to connect computer or router via network cable.
8. **RST.:** Reset PC2TV device to default
   Poke the RST. button for 10 seconds until monitor screen black.

※ Please update your graphic card driver to the latest version.

3.1 Software Installation

3.1.1 Please insert "Multimedia Installation Kit" CD-ROM into your CD-ROM drive;

3.1.2 Please setup “PC2TV” Application Software”

3.1.3 Setup wizard is running in the background, please wait for a few minute.

3.1.4 After drivers and utility installed, the PC2TV benchmark tool would be prompted to evaluate your computer.

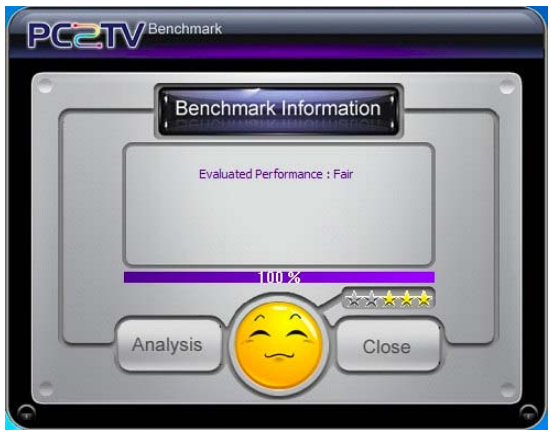
Click “**Analysis**” to evaluate your computer.

or

Click “**Close**” to close the PC2TV benchmark tool. (Skip 3.1.6)



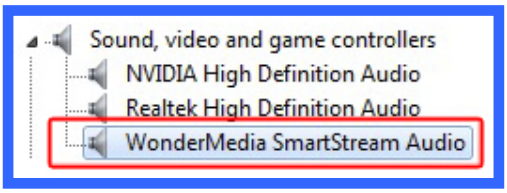
3.1.5 After evaluated, it will show the capability of your computer for PC2TV application. (**Note 1**)



3.1.6 After the benchmarking is done, click “**Close**” and restart your computer.

3.1.7 After restart computer, “**PC2TV**” icon will show on the desktop, Please check the Device Manager, PC2TV application is installed successful in your computer.

Device Manager



Note: In Windows 7/ Vista, AC’97 Audio device, the audio device will be changed to “WonderMedia SmartStream Audio” when the first time install software, it may cause your computer no sound, please change the audio device to AC’97 Audio manually after the first time install software. See TROUBLESHOTING Q2.2

Note 1

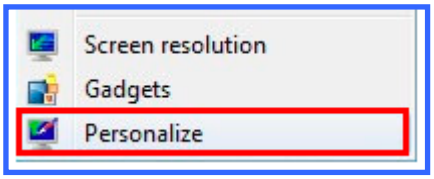
Star Level in PC2TV Benchmark Tool

The following star level is to evaluate your computer, and then give you some suggestions to run PC2TV application.

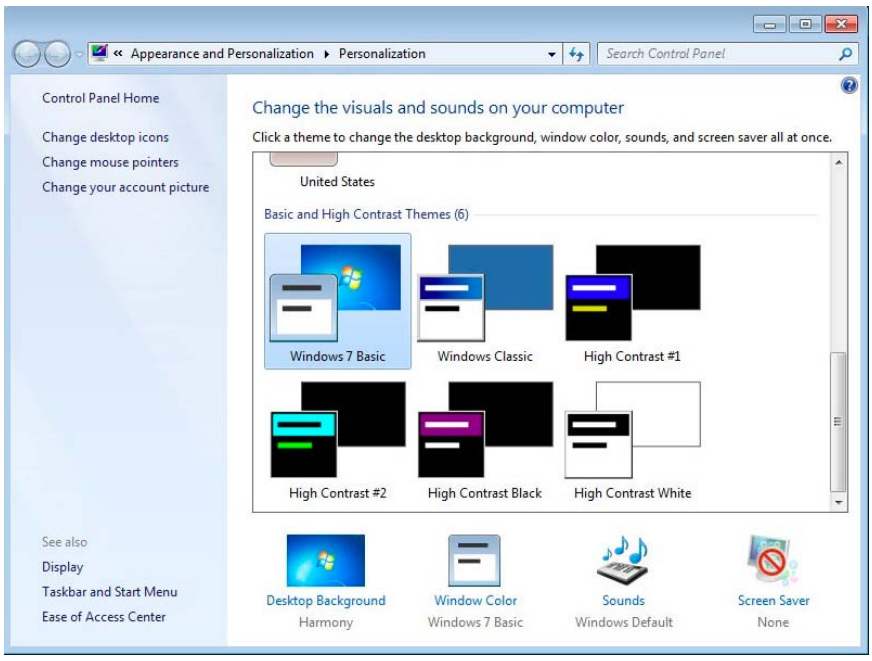
Stars	Level	Explanation
1 star	Lowest	The capability of CPU and Graphic are poor to support PC2TV application.
2 stars	Low	Acceptable for picture/music playback and web surf, but suggested to downgrade the desktop resolution to support video playback.
3 stars	Fair	Fair for picture/music playback and web surf; sometimes lag for video playback.
4 stars	Good	Smooth to support web surf and video playback.
5 stars	Excellent	Great capability to support PC2TV application.

If you get poor star level in Windows 7 / Vista, it is recommended to Choose a "Basic and High Contrast Themes" instead of "Aero Themes" and run "PC2TV Benchmark" again.

1. Right click the desktop and select Personalize.



2. Choose a "Basic and High Contrast Themes" instead of "Aero Themes".

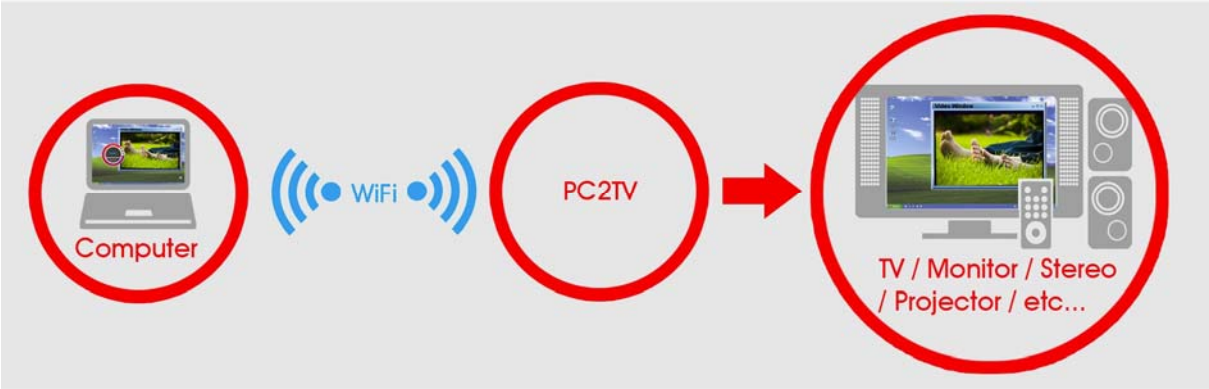


3. Close the window.

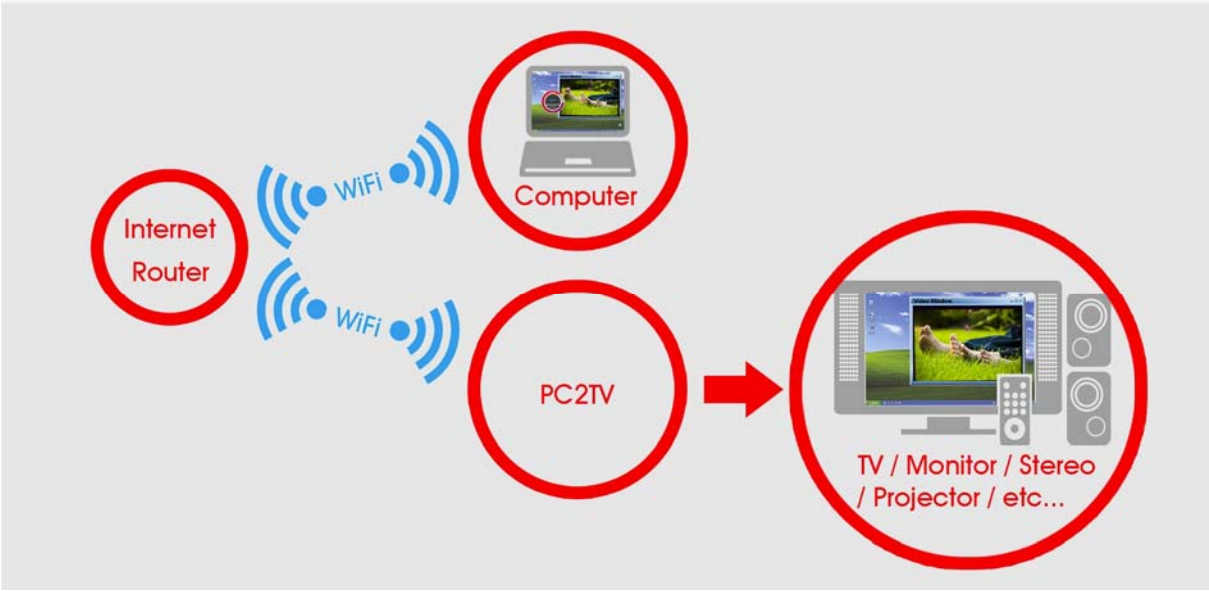
4.1 PC2TV Connection

There are 2 basic connections mode (AP mode & STA mode) between PC2TV and computer. You can choose either one just depend on your application

4.1.1 AP Mode

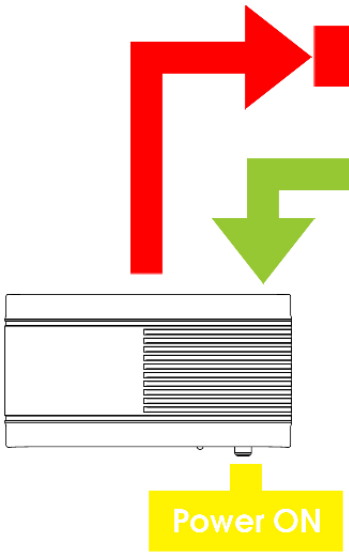


4.1.2 STA Mode



4.2 AP Mode

1. AP Mode Hardware Connection



(1) Properly connect HDMI (PC2TV device) output port to TV / Monitor / Projector / etc…

(2) Connect power adapter to “DC5V” (PC2TV device) power jack.

(3) Power on PC2TV device. Waiting around **40~60 seconds**. And then it will run into the **Ready** screen. (If waiting over 60 seconds, please restart PC2TV device)

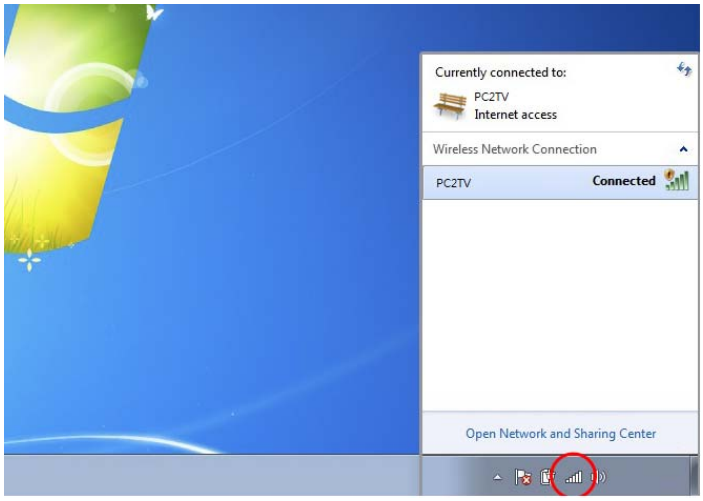


- The screen of PC2TV device should stay at the waiting screen as the picture.

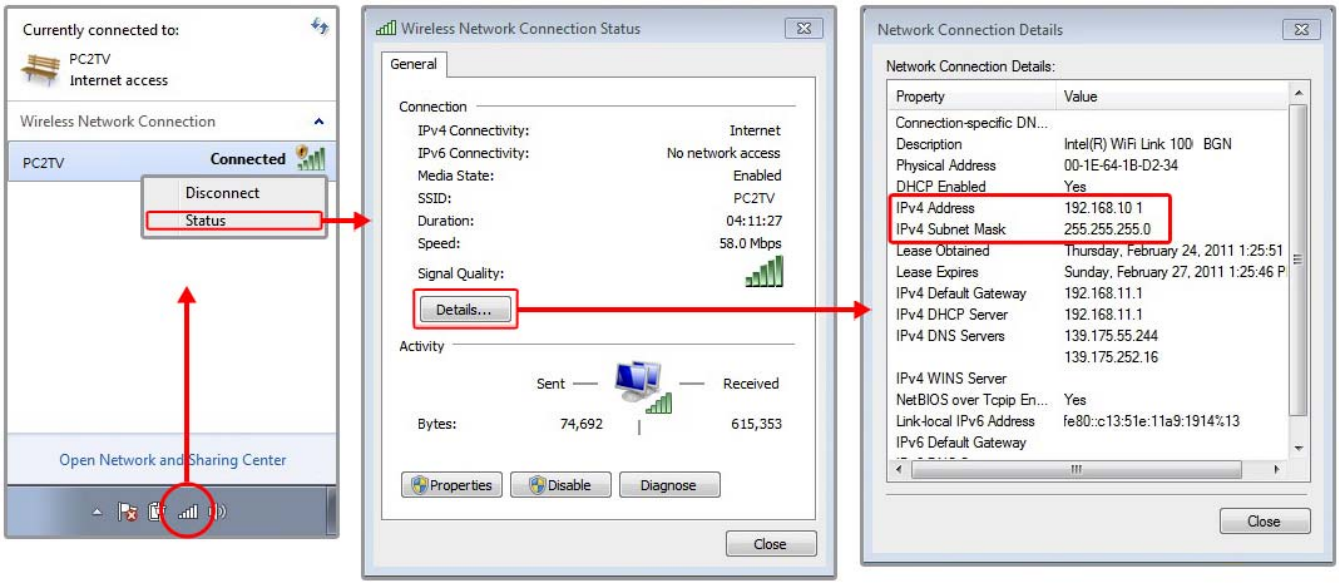
- The device information and Wi-Fi configuration are shown as well.

2. Wi-Fi Connection、

After the PC2TV device is ready, please link your computer's Wi-Fi to the "device SSID" of the PC2TV device.



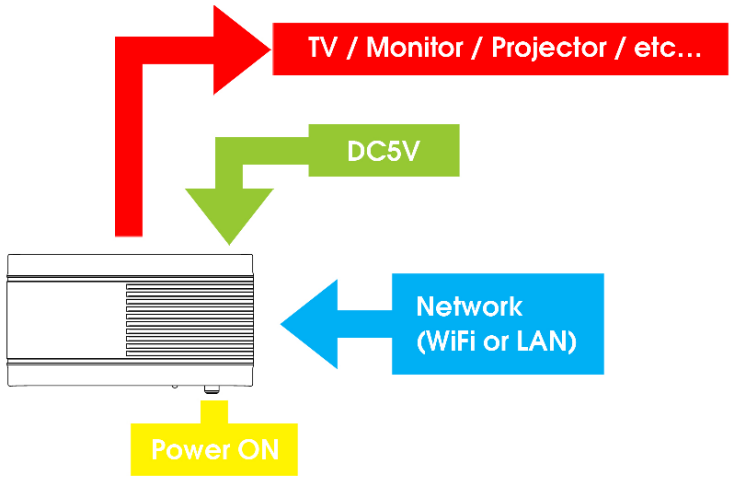
- The default of "device SSID" is "**PC2TV**".



- After the Wi-Fi was linked, please go to Wireless Network Connections -> Status -> Details to check IPv4 address; The IPv4 address should have gotten **192.168.10.x**

4.3 STA Mode

1. STA Mode Hardware Connection



(1) Properly connect TV / Monitor / Projector / etc… to HDMI (PC2TV) output port.
(2) Connect power adapter to “DC5V” (PC2TV) power jack.
(3) Power on PC2TV device. Waiting around **40~60 seconds**. And then it will run into the **Ready** screen. (If waiting over 60 seconds, please restart PC2TV)
(4) Connect Wi-Fi to PC2TV. **(see AP Mode 2. Wi-Fi Connection)**

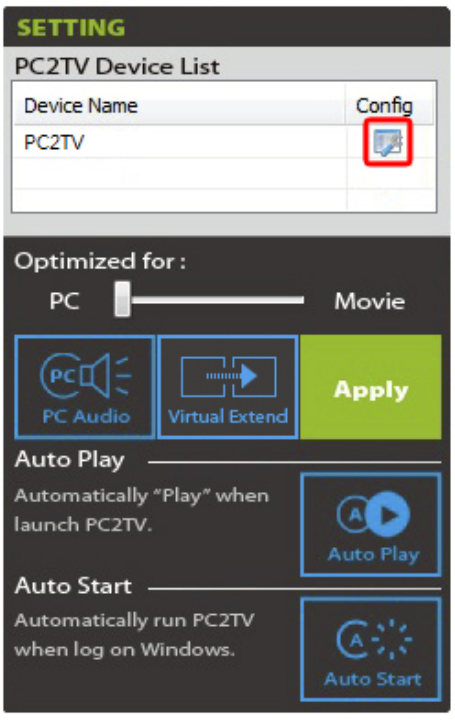
2. Network Setting

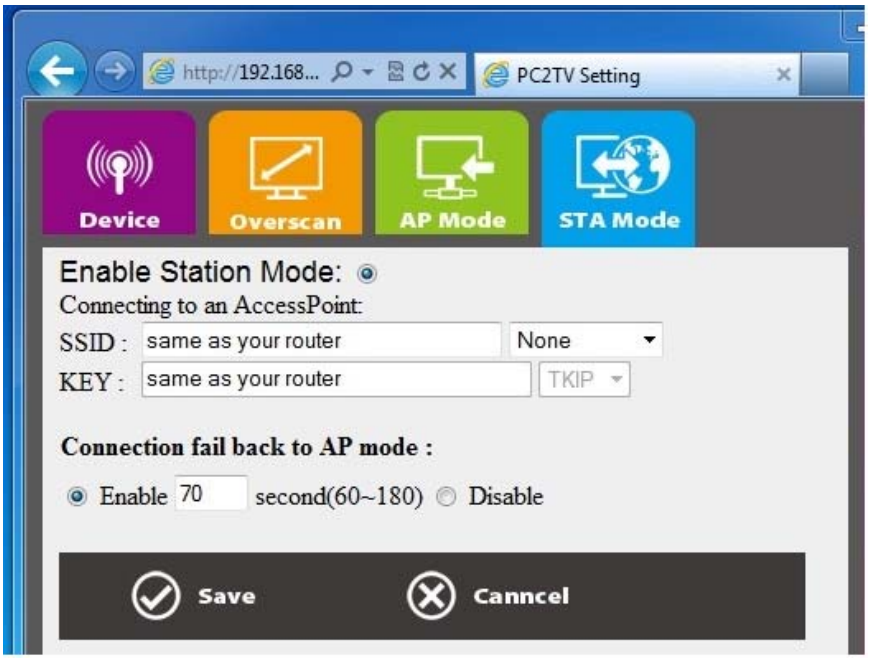
Follow **5.1 PC2TV starting**, double click on PC2TV icon,

Click Setting and go to setting menu



click  to make network setting.



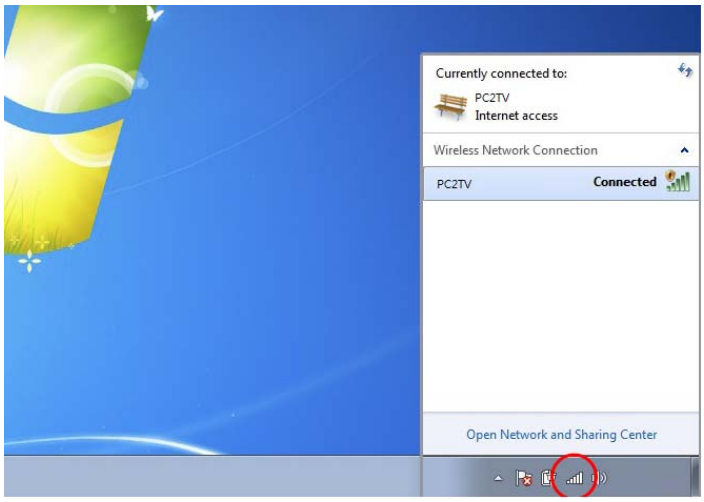


Select STA Mode Tag, **Enable Station Mode** and **Change the SSID and KEY,** The settings for SSID and KEY have to be the same as the setting in wireless router (the default SSID name is PC2TV) After change please click “save” and restart PC2TV Device,
then connect the PC wifi to the router.

Note: Require Router support DHCP and set DHCP function on.

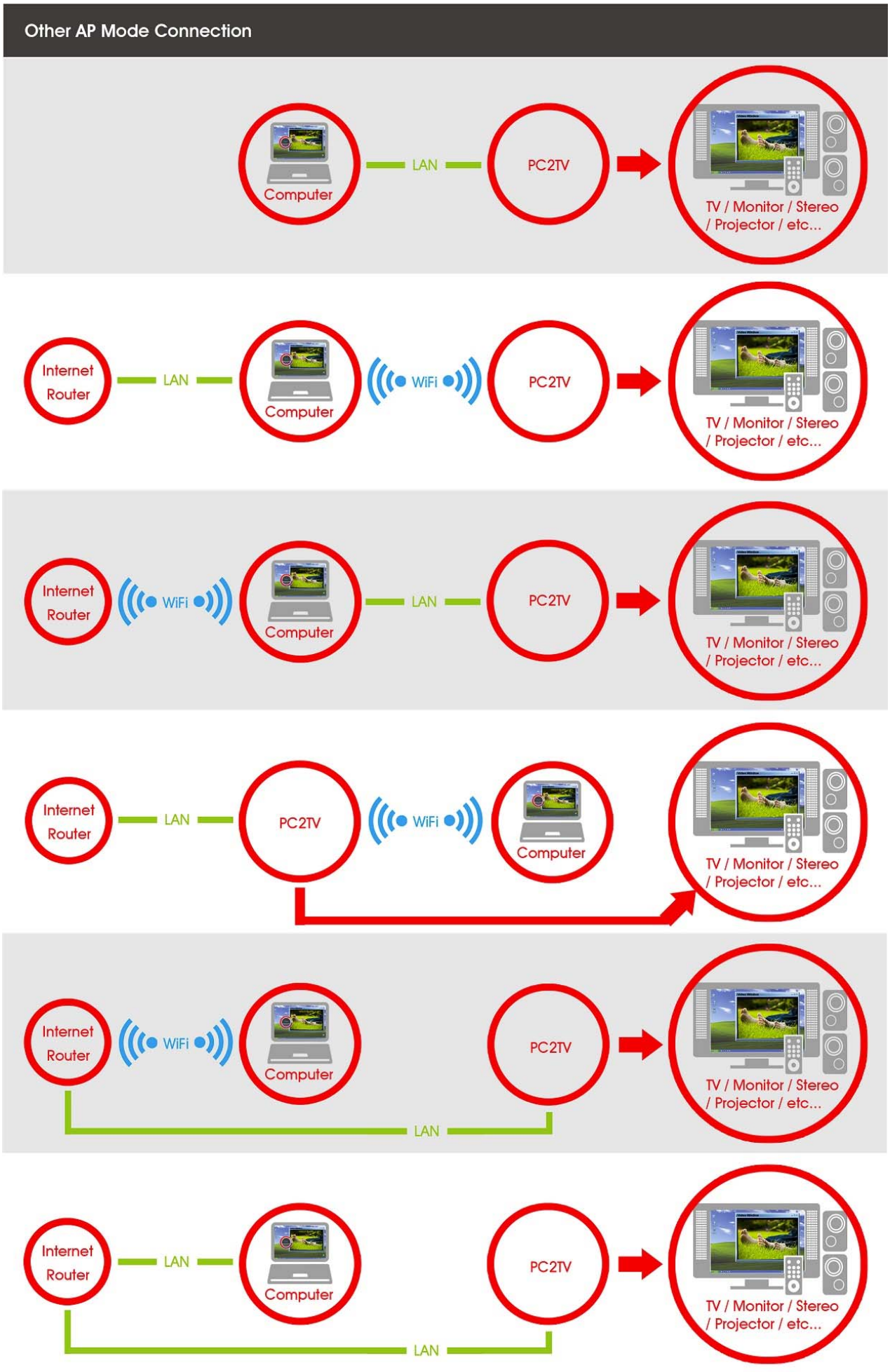
3. Computer Wi-Fi Connection

After the PC2TV device is ready, please link your computer’s Wi-Fi to the “router SSID”



- Link to your router SSID name

4.4 Other Connection

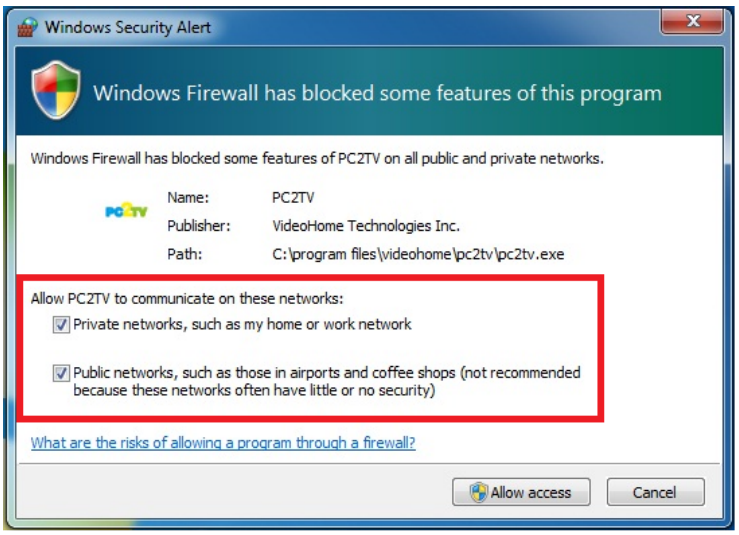


5.1 Starting

NOTE: We suggest turn off screensaver on your computer when using PC2TV.

5.1.1 Double click the icon on desktop.

5.1.2 System will pop up a security alert, please check to allow PC2TV to communicate Private and Public networks.



5.1.3 After starting application, you can see the PC2TV control window and start to search the PC2TV device.



Note: If you are waiting around 1 minute and PC2TV still can not search the device, Please see TROUBLESHOOTING Q.5

5.1.4 When getting PC2TV device, click "**Play**" to run the PC2TV application.



Note: If you are using NVIDIA display card in Windows XP system, it will pop up a notice window, please press "OK" or close.

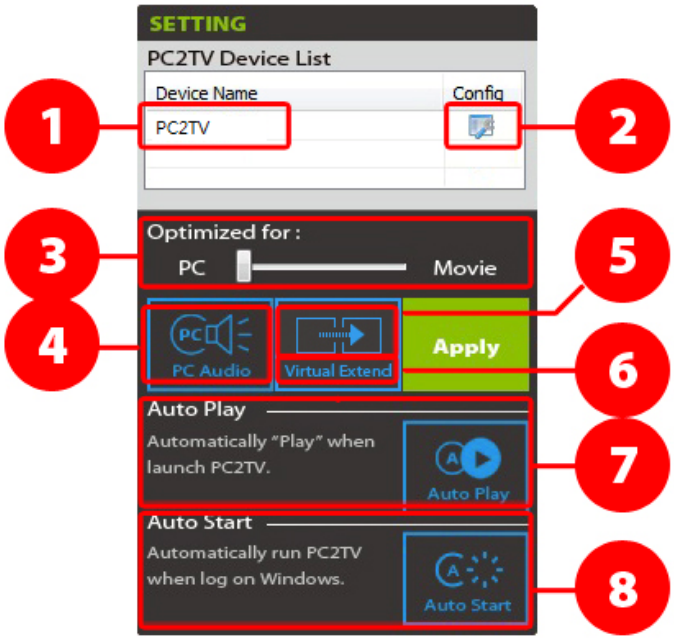


5.2 Advanced “Play” Management of PC2TV Utility

There are more adjustable Configurations for you to choose to “**Play**” PC2TV application.

Click “**SETTING**” to open the advanced menu.





1. You can see all of the connected PC2TV devices in the device list.
   Double click the “device name” to select/change the target device After setting,
   please click “**Apply**”

2. You can click  to link setting page.

3. Optimum Mode Settings:
   In order to provide the optimized performance between normal computer applications and video/movies playback, there are three settings for different using scenarios.

   A. The bar of “Optimum Mode” is set at “PC” mode in default for normal PC applications.
   B. If you want to see computer video/movies, set the bar of “Optimum Mode” to “Middle” mode.
   C. If the performance of video/movie is still not acceptable in “Middle” Mode, you can set it to “Movie” mode.

   After setting, please click “**Apply**”

4. PC Audio: Turn on/off PC Audio when running PC2TV. After setting, please click “**Apply**”

5. Extend Mode:
   Click  to extend the primary display.



Note:

- Extend mode support Windows 7 only, not for XP/Vista

- To correct output 1080P, please check troubleshooting Q9

6. Virtual Extend :

When using “Extend Mode” (See5.2- 5.). Click “Virtual Extend” when you got abnormal primary and/or extend display after “Play” PC2TV application, After setting, please click “**Apply**”



7. Auto Play:

Automatically “PLAY” when launch PC2TV. Light up “Auto Play” icon and exit PC2TV application. The setting will be effected when next launch PC2TV application

8. Auto Start:

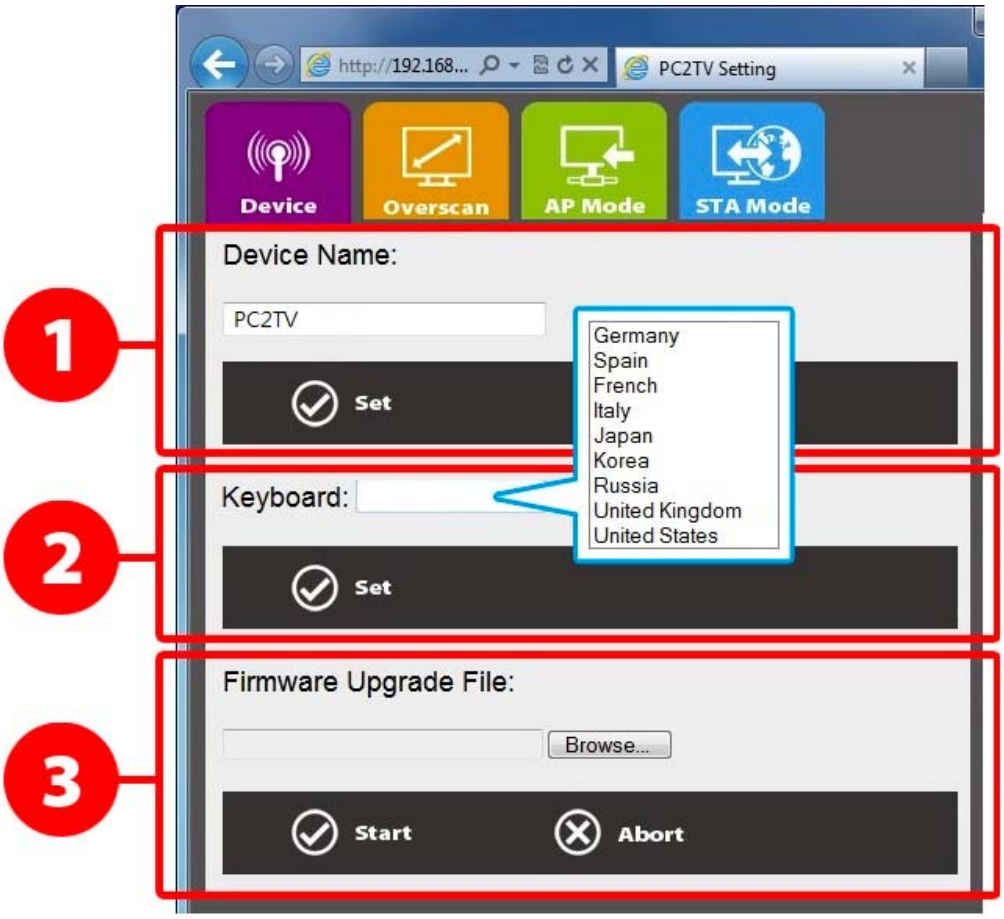
Automatically run PC2TV when log on Windows. Light up “Auto Start” icon and exit PC2TV application. The setting will be effected when next launch PC2TV application

Note: If the system pop up UAC warning message, please choose “Allow”

5.3 PC2TV Control

To set the PC2TV device settings

Note: The values of PC2TV Control can be only shown by Internet Explorer 7 or later version



5.3.1 Device

1. Device Name:

To change "**device name**", After change please click "**set**".

2. Keyboard:

Select the Keyboard type you are equipped.

3. Firmware Update File:

- Please follow the Firmware Update steps carefully, or else you may damage the device.

- If you are going to upgrade the firmware of PC2TV device, please prepare the suitable firmware package.

Update by PC2TV setting page

1. Please browse your PC to get an upgrade file (.tgz) for firmware upgrade of PC2TV device.

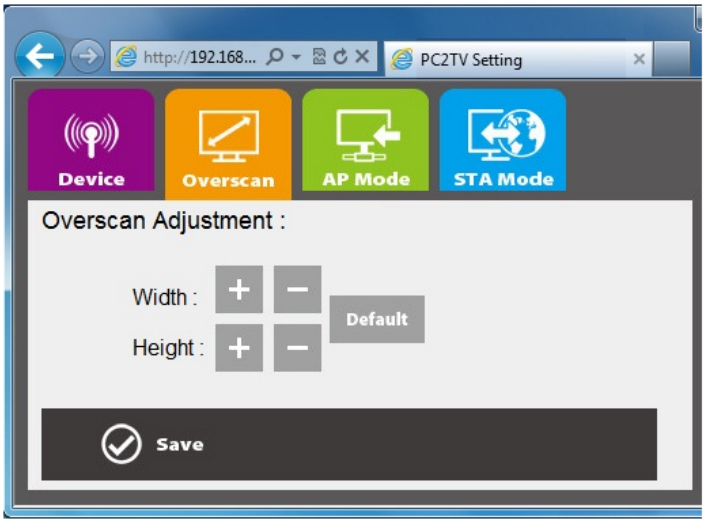


2. After confirmed the file, please click "Start" to send the file to PC2TV device, and then the upgrading procedure will start automatically.
3. Before finished the sending process, you can click "Abort" to break it off.

5.3.2 Overscan

Adjust screen width and height size, After change please click "**save**".

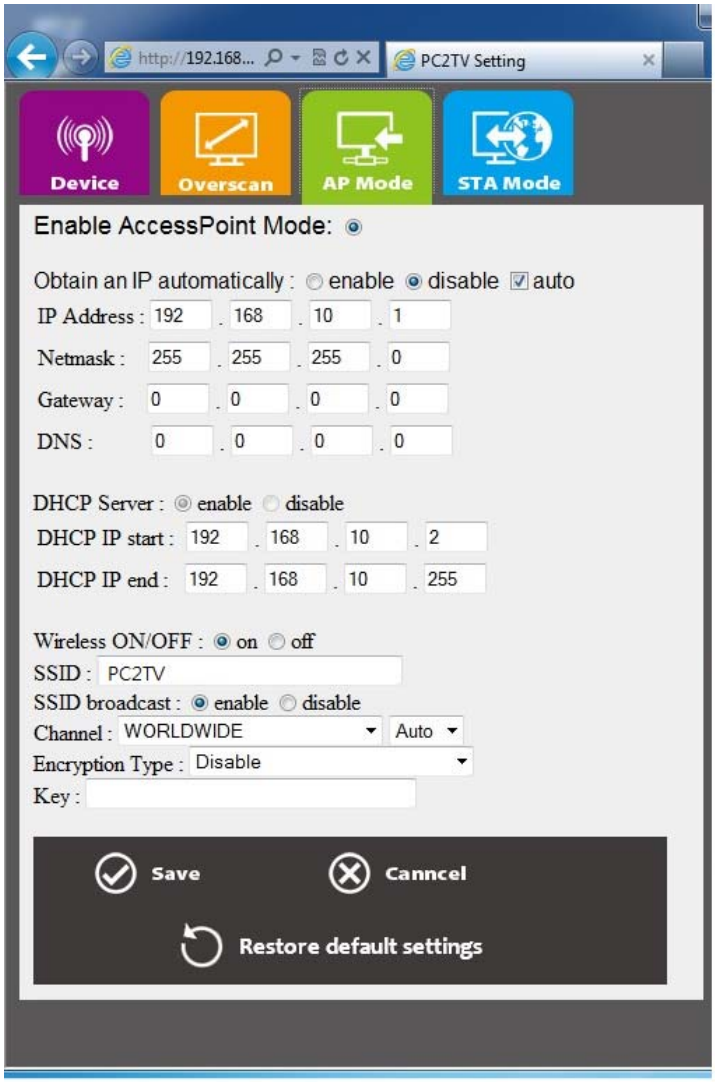
Note: In order to provide the stable performance for movie/video playback, the overscan adjustment function is disabled when the display resolution is at 1080P



5.3.3 AP (Access Point) Mode

To set the Network setting, After change please click "**save**".

Note: The setting is not necessary to be changed under normal usage.



Restore default setting:

Back to the default setting both AP and STA Mode.

(See Troubleshooting Q7)

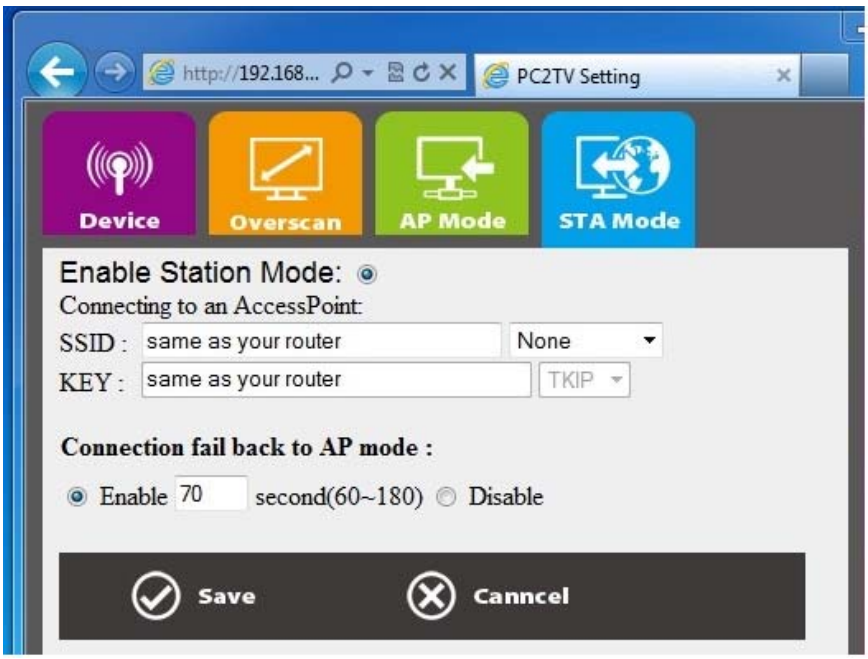
5.3.4 STA (Station / Client) mode:

STA Mode (Require Router support DHCP and set DHCP function on)

Set the SSID and KEY, After change please click “**save**” and restart PC2TV Device, then connect the PC wifi to the router.

Note:

1.The settings for SSID and KEY have to be the same as the setting in wireless router



Connection fail back to AP mode:

Enable and set the timer, when the connection fail over the time you are set, device will go back to AP mode.

6 DLNA-DMR Application

- The Digital Living Network Alliance (DLNA) is a non-profit collaborative trade organization comprising more than 250 member companies who have stated the common goal of using standards-based technology to make it easier for consumers to use, share and enjoy their digital photos, music and videos. About DLNA, please refer to its web site: http://www.dlna.org/home
- PC2TV device is designed to be a DLNA-DMR (digital media renderer), and you are able stream contents from PC (Windows 7 based), Mac, smart phone, and Tablet-PC to your TV through this device.

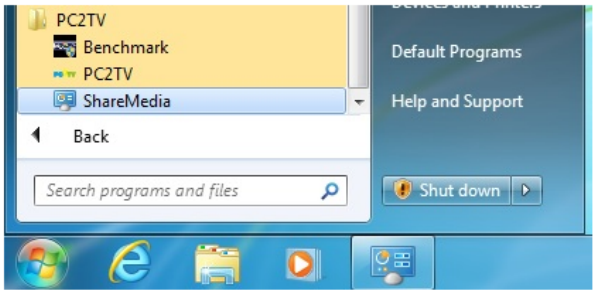


Usage of DLNA in Windows 7

6.1 Turn-on Media Streaming

- Before streaming a file to the DMR of PC2TV device by Windows 7, you have to connect the device with your PC and then turn on the media streaming first.
- Every time the device is disconnected with the PC, you have to run this section again before streaming a file to the DMR by Windows 7.

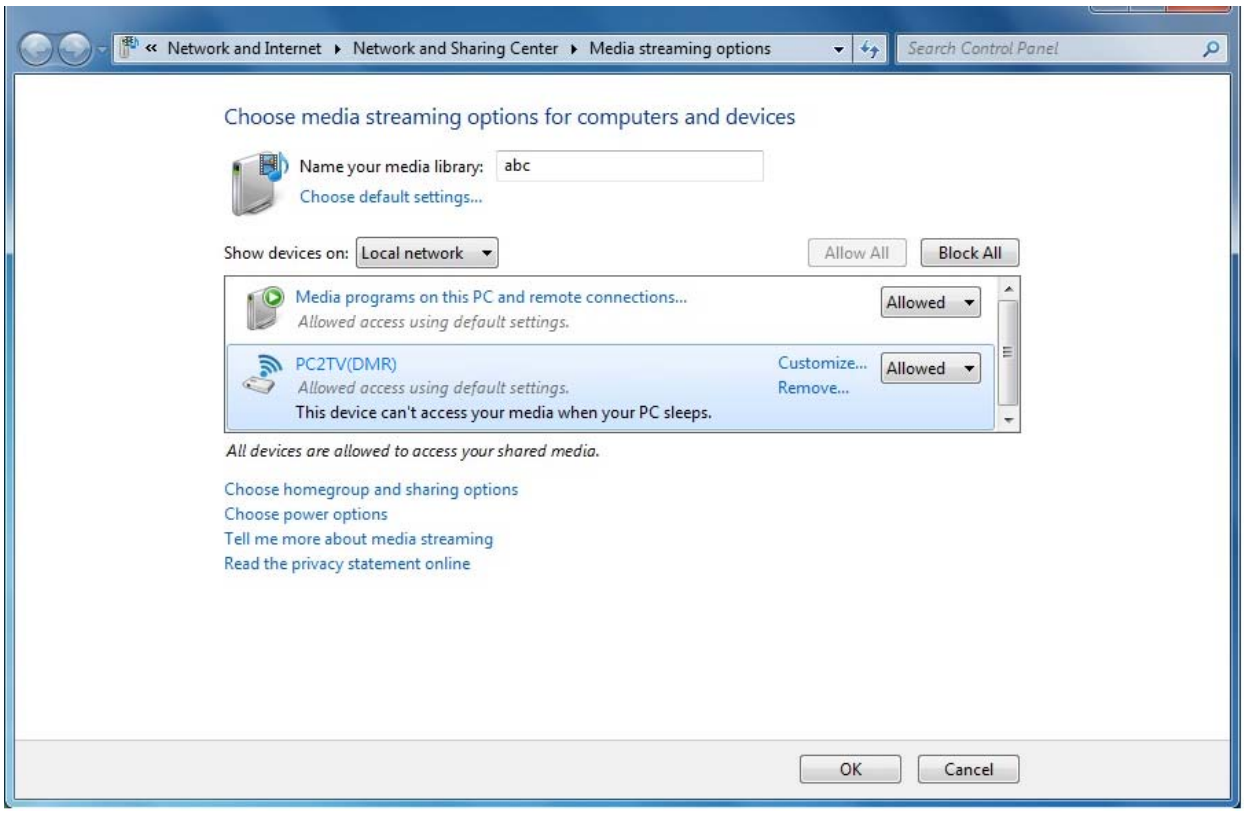
1. Click the “Share Media” icon under “PC2TV” from “All Programs”



2. Click “Turn on media streaming” to agree media streaming from your PC.



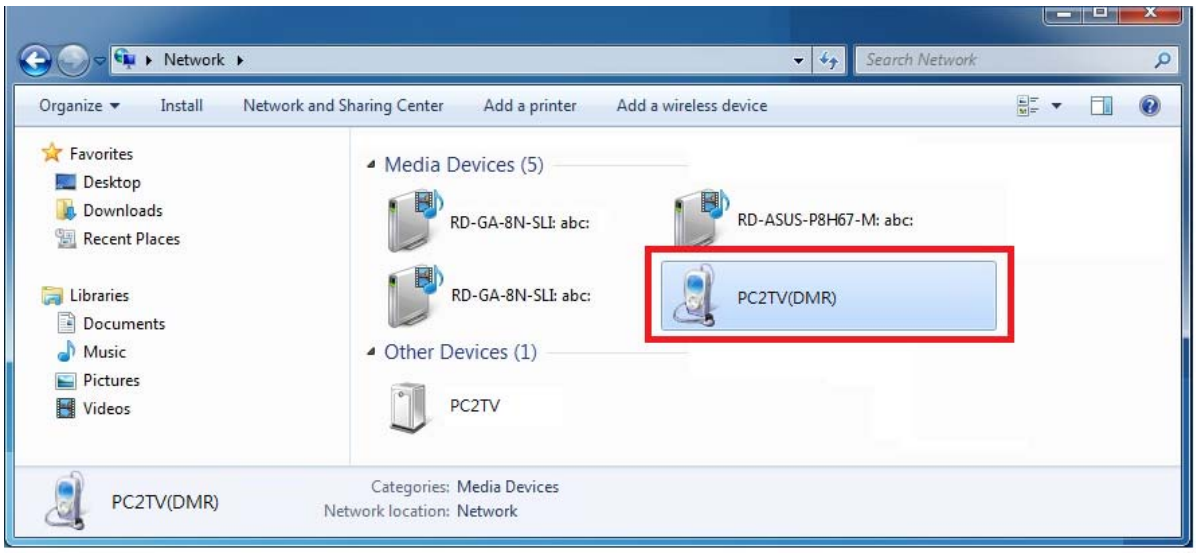
3. Please confirm the DMR device(s) is “allowed” and then click “OK”.



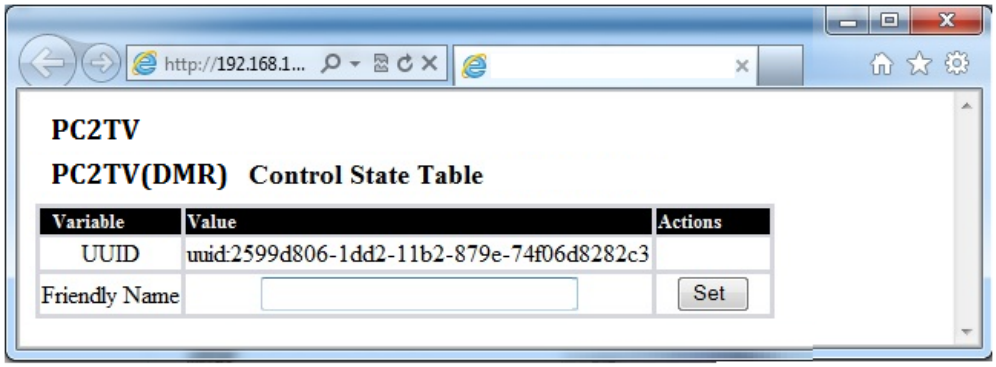
Note:

1. The PC2TV Device default friendly name of DMR is “PC2TV(DMR)”
2. If you want to change the “Friendly Name” of DMR

Before changing the “Friendly Name” of DMR, the network should be well connected by Ethernet or Wi-Fi.



Select “Network” from “Windows Explorer”, and then double click the “Friendly Name” form “Media Devices”.



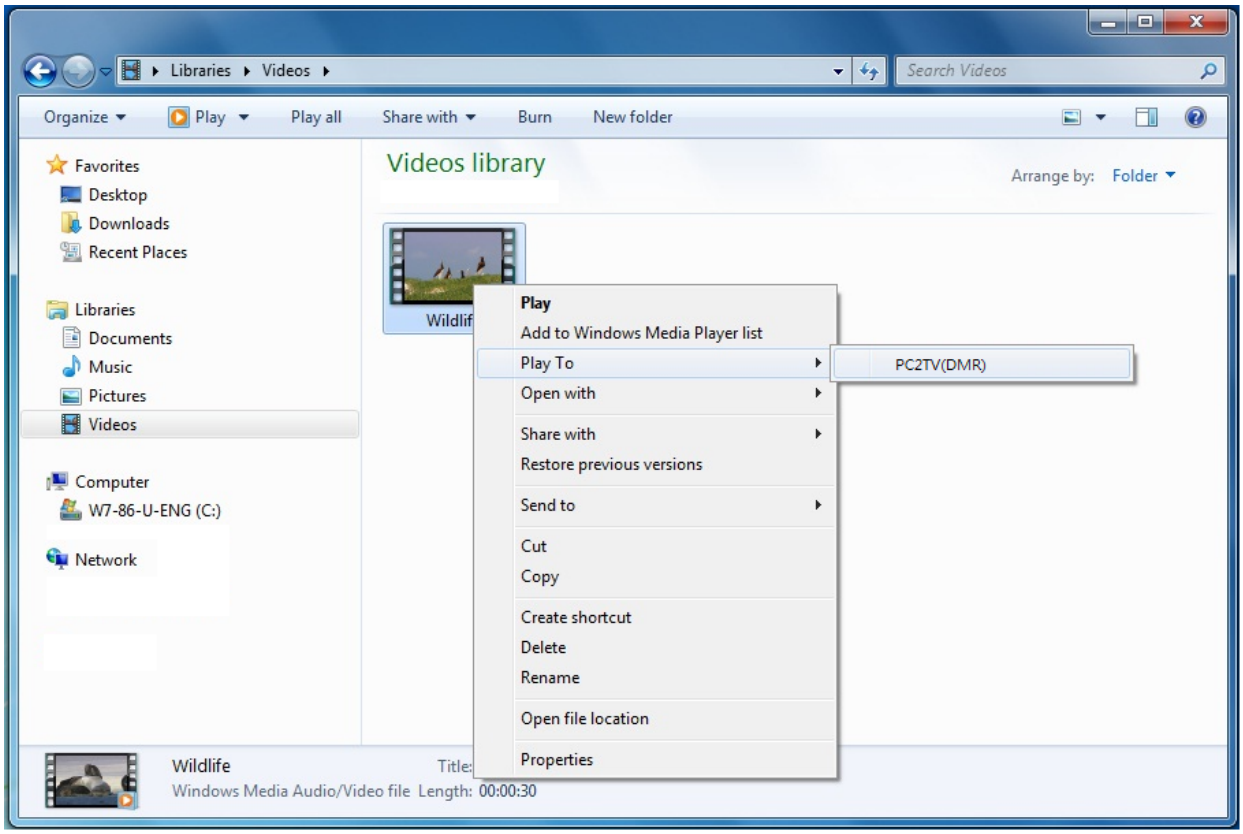
Note: If the system pop up warning message, please choose "Allow"

- You can change the "Friday Name" of DMR in this page.
- After changing the "Device Name", please click "Set".

If the warning page prompted, please click "Yes".

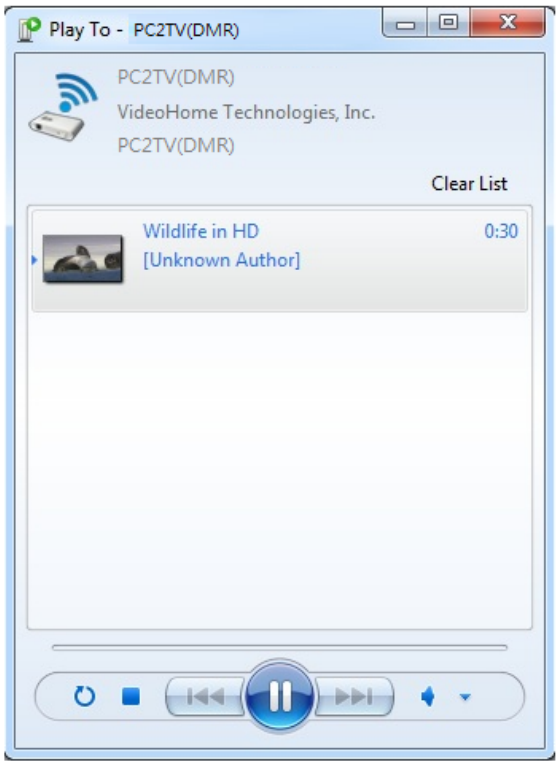
6.2 Stream A File to DMR

After turned on the media streaming, Follow the following steps to stream a file to DMR.



1. Open your folder with targeted media file(s).
2. Select the targeted file, and then click the right key of mouse on it.
3. Move the cursor onto "Play to", and then the list of DMR device(s) would be prompted by the side of "Play To".
4. Select a DMR device and then click it.

5. The DMC (Digital Media Controller) would be prompted on the desktop of Windows 7 for user to control, and the targeted file would start to be playback on the TV / Monitor



Q1: System pop up an error message (NetDispLib), when the PC2TV application software start up after installation.



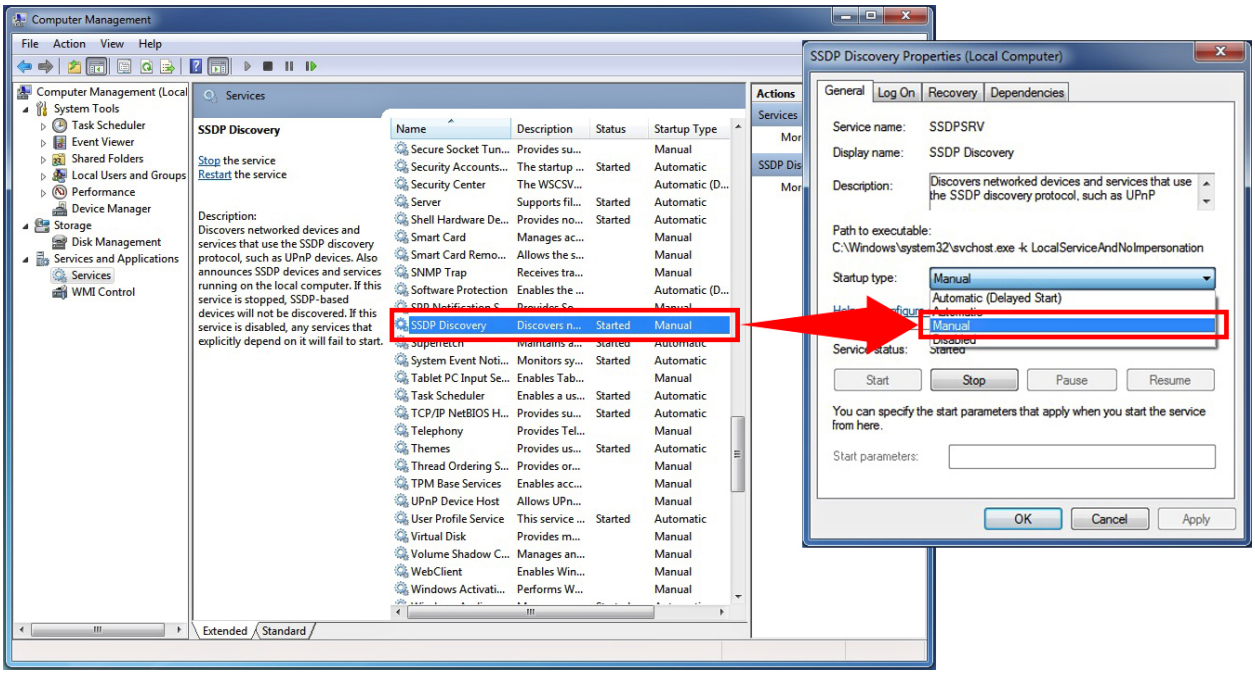
or



A1: **SSDP discovery service** to be disabled may cause the problem.

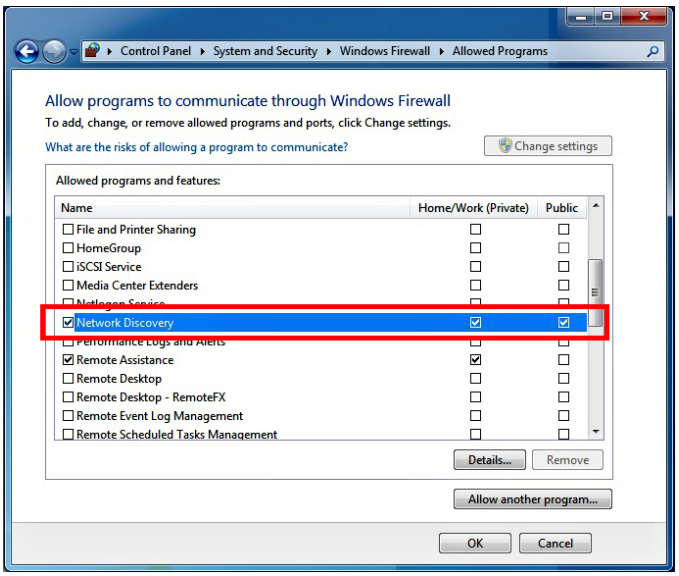
Enable **SSDP discovery service** to solve problem.

1. Right click on “My computer” and go to Computer Manager” → “Services and Applications”
2. Find “**SSDP discovery service**” and double left click on it.
3. Set Startup type to “**Manual**” and click “**Start**” → “**OK**”



4. In Windows 7, Check the **Network Discovery** “**Private**” and “**Public**” is allowed in Windows Firewall setting.

Go to “Control Panel” → “System and Security” → “Windows Firewall” → “Allow Programs”
Set “**Network Discovery**” → “**Private**” and “**Public**” to **Allow**.

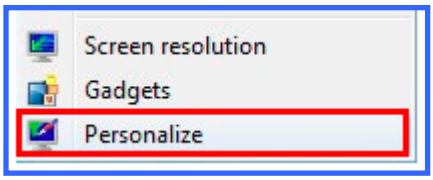


Q2: If you get bad or poor fluency in playing a video or movie through PC2TV application,

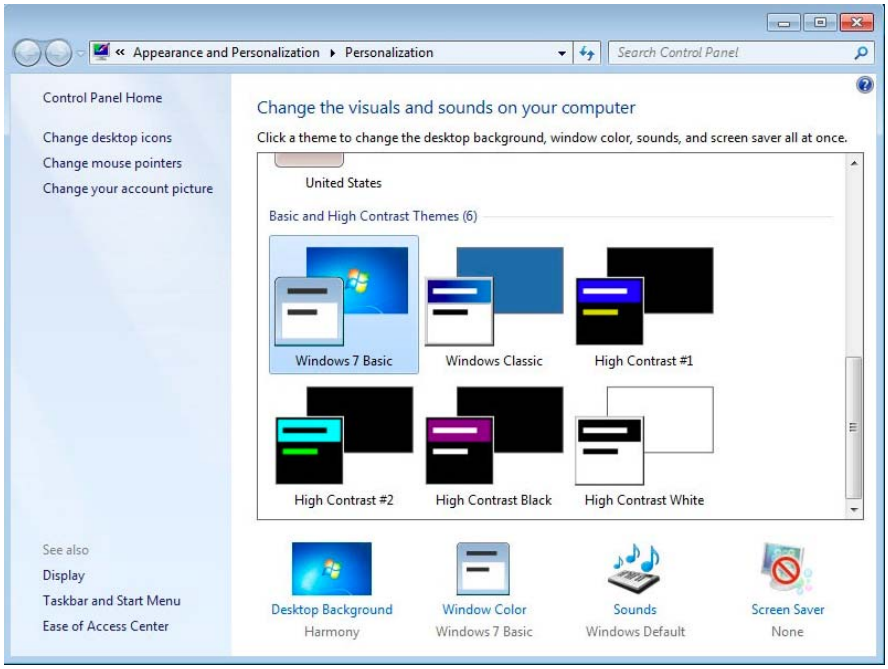
A2: Check the each following status.

(1) **Check Aero Glass themes of Windows 7 / Vista**

1. Right click the desktop and select Personalize.



2. Choose a “Basic and High Contrast Themes” instead of “Aero Themes”.

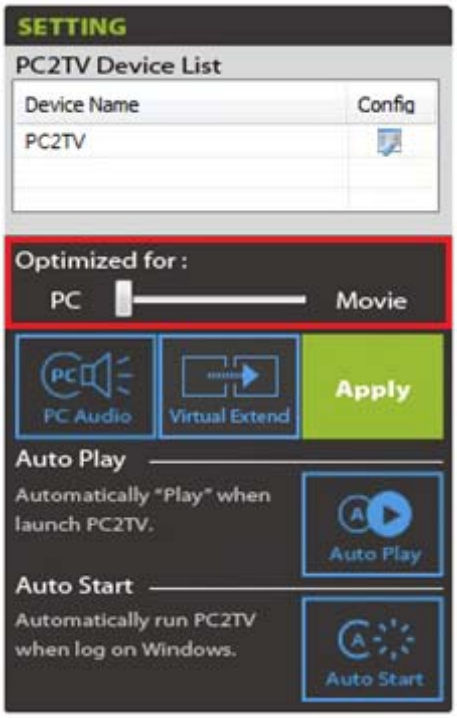


3. Close the window.

(2) **Check the “Optimum Mode” setting**

1. Click “SETTING” to open the advanced menu.





2. If the “Optimum Mode” is set at an inappropriate mode, please modify it.

A. The bar of “Optimum Mode” is set at “PC” mode in default for normal PC applications.

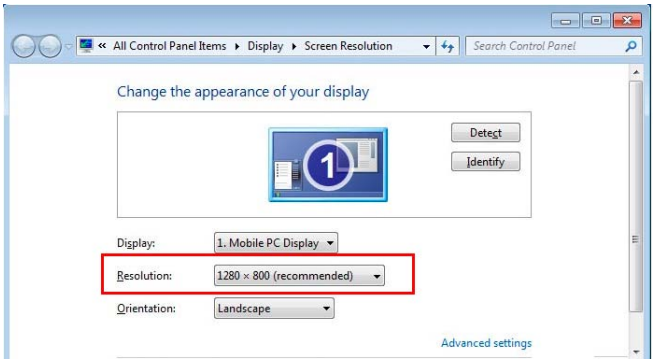
B. If you want to see computer video/movies, set the bar of “Optimum Mode” to “Middle” mode.

C. If the performance of video/movie is still not acceptable in “Middle” Mode, you can set it to “Movie” mode.

After setting, please click “**Apply**”.

(3) **Check your computer's Desktop Resolution**

If the "Resolution" setting is higher then the maximum supported one of your computer capability, please change the resolution to an appropriate one.

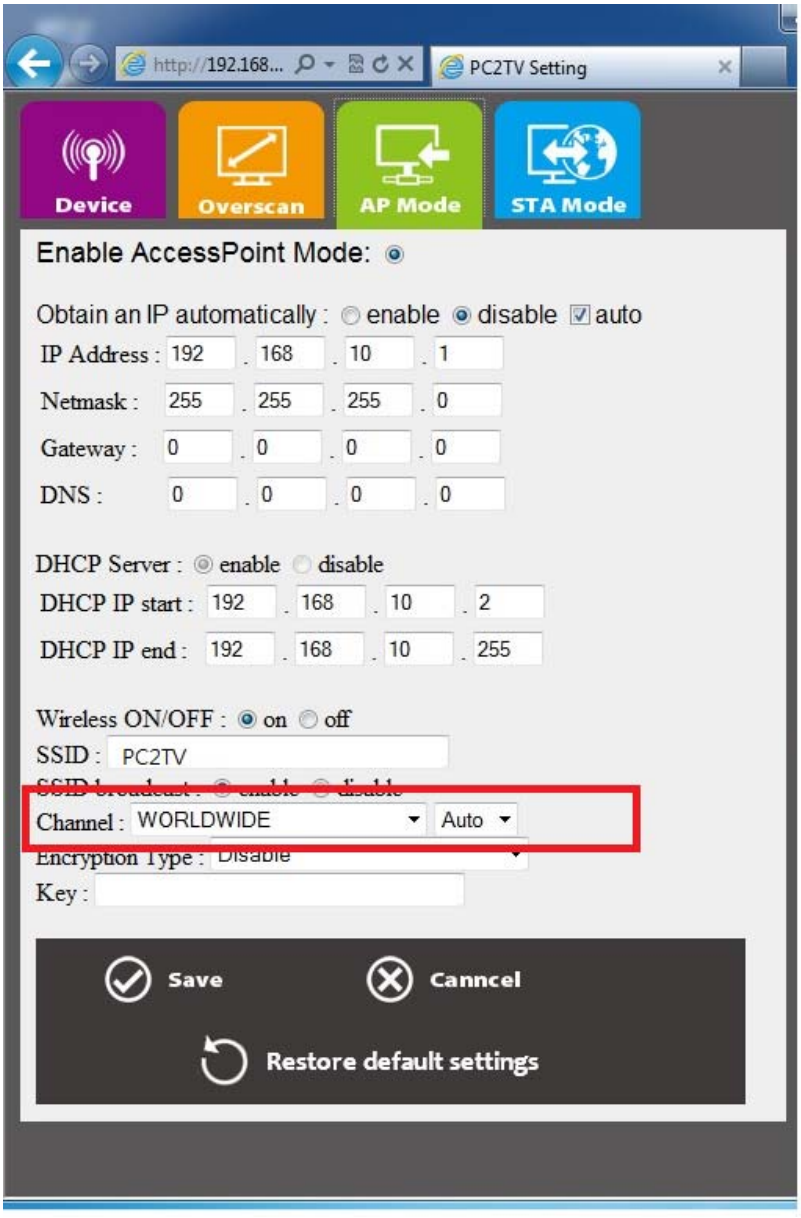


(4) **Change the Wi-Fi Channel**

This solution is only for Wi-Fi connection.

1. Go to the network setting page of PC2TV device.
2. Fix a connected channel instead of "Auto" and "Save" it and then connect the Wi-Fi again.

If the fluency is still poor after fixing a channel, please try other ones.



(5) **Please update your graphic card driver to the latest version.**

Q3: If the audio is not worked well after "Play" PC2TV application.

A3: 1. Please check the audio devices on your media player.

2. If the audio is not worked well after "**Stop**" PC2TV application (PC mode), please check the audio devices on your PC.
   2.1 Open the "Sound" from "Control Panel".
   2.2 The "Default Device" in the "Playback" Tab should be set at your PC's hardware audio speakers.
   2.3 If not, select it and then click "OK" or "Apply" to save the setting.
   2.4 Then close your media player and restart-up it again.
3. If the audio is not worked well after "**Play**" PC2TV application (TV mode), please check the audio devices on your PC.
   3.1 Open the "Sound" from "Control Panel".
   3.2 The "**Speakers**" should be set as "**WonderMedia SmartStream Audio**".
   3.3 If not, select it and then click "OK" or "Apply" to save the setting.
   3.4 Then close your media player and restart-up it again.

Q4: If the video is not worked well after "Play" PC2TV application when using NVIDIA display card in Windows XP system.

A4: If you are using NVIDIA display card in Windows XP system, it will pop up a notice window, please press "OK" or close.



Q5. When the PC2TV can not search the device.

A5. 1. Check the Device Manager and Local Area Connection Properties.

2. Check your computer's Wi-Fi has been linked to the "device SSID" of the PC2TV device, The default of "device SSID" is "**PC2TV**",
3. Check Windows default Firewall, please set the **PC2TV** as "allow" or "unblock"
4. If you have installed other Firewall besides Windows Firewall, please set the **PC2TV** as "allow" or "unblock".
5. Check the Connection blocked by firewall or anti-virus software. Please add **PC2TV** to allowed programs of your anti-virus program and firewall.

Q6. In STA Mode, the PC2TV can not search the device.

A6. 1. Check the SSID and Password are correct.

2. WEP can only support ASCII code 64bit 5 character/ 128bit 13 character.
3. Please update the router firmware to latest.
4. Set the bandwidth to 20M when use IEEE802.11n

Q7. If the wrong setting ever cause PC2TV not working properly, please refer below for adjustment: (reset SSID & Key under STA mode or back to default AP mode)

1. Power off the PC2TV Device.
2. Connect the PC2TV Device and PC via RJ-45 Cable
3. Power on PC2TV Device
4. Double click the PC2TV icon on desktop, go to advance menu, click  to make network setting.
5. Go to the AP Mode setting tag, click "**Restore default setting** " to back to the default setting both AP and STA Mode.
6. Starting restore process.
7. After "**Restore default setting** "successfully, PC2TV will run into the **Ready** screen.
8. Please remove RJ-45 Cable and restart PC2TV Device.
9. Now you can use/connect the device



Or

You can reset PC2TV device to default. Poke the RST. button for 10 seconds until monitor screen black.



Q8. The PC2TV can not work when I am in the Ethernet cable application.

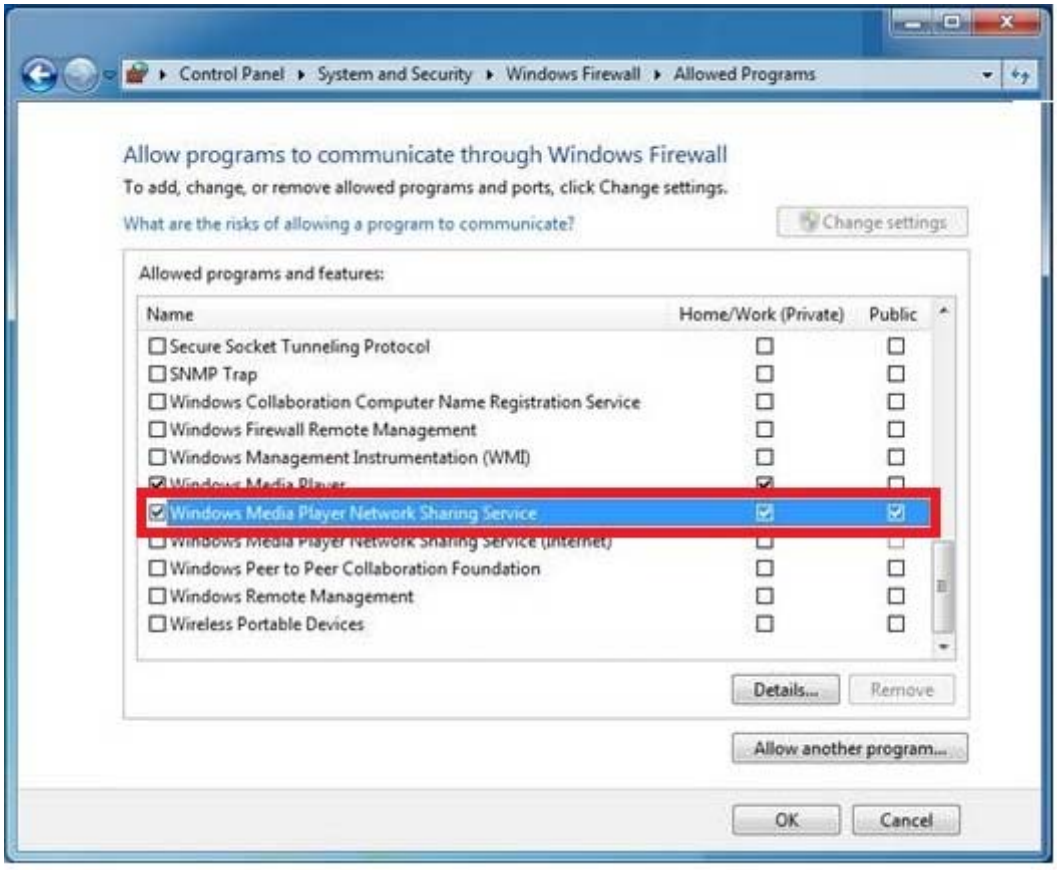
A8. Please make sure the Ethernet cable is properly connected on PC2TV first, and then power on the device.

Q9. If it can not connect DLNA or no respond:



A9. 1. Please download a Hotfix from Microsoft website.
Hotfix Download Link: http://support.microsoft.com/kb/2619260/en-us
("Play To" feature does not work when two network adapters are on different subnets or when you enable Wi-Fi Direct concurrent mode in Windows 7)

2. Go to “Control Panel” → “System and Security” → “Windows Firewall” → “Allow Programs”
Set “**Windows Media Player Network Sharing Service**” → “**Private**” and “**Public**” to **Allow**.



Q10. PC2TV Supported Display Resolutions

1. Maximum Resolution Support and Conditions

- The PC2TV device is able to support 1920 x 1080 (HDTV: 1080P) for PC2TV application, but the following conditions are all required:
  1. The PC is powered by 2nd Generation Intel Core i3 / i5 / i7 series CPU (Intel's codename: SandyBridge).
  2. The operation system should be Windows 7.
  3. The PC's graphic driver(s) should be updated to the latest one(s).
  4. The working graphic on PC should be Intel's graphic; AMD/ATI or Nvidia graphic is not able to support it.
- Lack of either of above conditions, PC2TV device could only support the display resolution up to 1280 x 720.
- DLNA-DMR application would always support the maximum resolution of TV / Monitor (under 1080P.)

2. Principals of PC2TV Resolution Implementation

- After "Play" PC2TV application, the TV / monitor would follow the three principals to implement the display resolution. By the way, the "Extension Screen" follows the same principals.
  1. The resolution of PC's desktop should be implemented on your TV / Monitor, once it is within your TV / monitor's EDID (Extended Display Identification Data) information. Please refer to your TV / monitor's user manual to check its resolution support table. If not, please see "Auto-720P".
  2. "Auto-720P" means the PC's desktop resolution is higher then 1280 x 720 (HDTV:720P), but TV / monitor's EDID does not support it and only supports 1280 x 720, then 1280 x 720 would be implemented as the display resolution on both sides of PC and TV / monitor. If not, please see "Auto-XGA"
  3. "Auto-XGA" means the PC's desktop resolution is higher then 1024 x 768 (XGA), but TV / monitor's EDID supports neither PC's desktop resolution nor 1280 x 720, then 1024 x 768 would be implemented as the display resolution on the TV / monitor.
- For HDMI output, the supported resolutions of PC2TV application are only 1920 x 1080, 1280 x 720, 1024 x 768, and 800 x 600. If the PC's resolution is not set at one of them, the 1280 x 720 or 1024 x 768 would be implemented automatically as the display resolution on the TV / monitor, after "Play" PC2TV application.

3. PC2TV Resolution Implementation Table

- The following two tables show the implemented display resolution of your TV / monitor after "Play" PC2TV application.
- If your PC's desktop resolution is not set as one of the first column (Resolution Setting of PC's Desktop) in the tables, PC2TV application might work abnormally.
- The implemented display resolutions would not guarantee the performance of PC2TV application.

PC2TV Support Resolution Table - 1					
	TV/Monitor	TV / Monitor Highest Support Resolution (EDID Support)			
PC		1024x768	1280x800	1280x1024	1366x768
Resolution Setting of PC's Desktop	800x600	800x600	800x600	800x600	800x600
	1024x768	1024x768	1024x768	1024x768	1024x768
	1280x720	1024x768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1280x768	1024x768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1280x800	1024x768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1280x1024	1024x768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1366x768	1024x768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1440x900	1024x768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1600x1200	1024x768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1680x1050	1024x768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1920x1080	1024x768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)

PC2TV Support Resolution Table - 2					
	TV/Monitor	TV / Monitor Highest Support Resolution (EDID Support)			
PC		1440X900	1600X1200	1680X1050	1920X1080
Resolution Setting of PC's Desktop	800x600	800 x 600	800 x 600	800 x 600	800 x 600
	1024x768	1024 x 768	1024 x 768	1024 x 768	1024 x 768
	1280x720	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1280x768	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1280x800	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1280x1024	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1366x768	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1440x900	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1600x1200	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1680x1050	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)
	1920x1080	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	Auto 720P or 1024X768 (Auto-XGA)	1920 x 1080 Auto 720P or 1024X768 (Auto-XGA)

Q11. DLNA Support Formats

- In order to support multimedia streaming of DLNA, you need at least a DLNA-certificated PC (Windows 7 based), smart phone, Tablet-PC, and/or DLNA-certificated software (DMC, DMS) to connect to PC2TV device.
- The following tables show the formats that are supported for each content type, including the associated file extension and Multipurpose Internet Mail Extensions (MIME) type.

1. Supported Picture Formats

The following picture formats are supported by PC2TV device.

Format*	File Extension	MIME type
GIF	gif	image/gif
PNG	png	image/png
BMP	bmp	image/bmp
JPEG	Jpg / jpeg	image/jpeg

* Because of limited memory buffer, the largest supportable picture is 16M Bytes for JPEG format, and 5M pixels for GIF, PNG, and BMP formats.

2. Supported Audio Formats

- The following audio formats are supported by PC2TV device.
- Besides, PC2TV device could only support 2-channels audio content. To stream audio contents with multi-channels (over 2-channels) would be mute.

Format	File Extension	MIME type
LPCM	pcm, wav, l16	audio/L16
MPEG-1 Layer 3	mp3	audio/mpeg
WMA	wma	audio/x-ms-wma
WAV	wav	audio/wav
MPEG-4	mp4	audio/mp4
AAC	aac	audio/vnd.dlna.adts
OGG	ogg, oga, ogv	audio/ogg
3GP	3gp, 3g2	audio/3gpp

3. Supported Video Formats

- The following video formats are supported by PC2TV device.
- Besides, the bit-rate of a video content is recommended to under 15 Mbps to be streamed through Wi-Fi network, otherwise, the display fluency might be poor.
- In MPEG-4 support formats, Microsoft MPEG-4 V1/2/3 are exceptions.

Format	File Extension	MIME type
WMV	mpe, mpeg, mpg	video/mpeg
AVI	avi	video/avi video/x-ms-avi video/x-msvideo
MPEG-1	mpg, mpeg	video/MP1S
MPEG-2	mpg, mpeg	video/MP2P
MPEG-TS	m2t, tts	video/vnd.dlna.mpeg-tts
MPEG-4	mp4, mp4v, mpeg4, m4v	video/mp4 video/x-divx video/divx
3GP	3gp, 3gpp	video/3gpp
3GP2	3g2, 3gpp2	vidoe/3gpp2
MOV	mov	video/quicktime
MPEG	mpe, mpeg, mpg	video/x-mpeg
MPEG-2	mpe, mpeg, mpg	video/mpeg2
WMV	wmv	video/x-ms-wmv
DVR-MS	dvr, dvr-ms	video/x-ms-dvr
ASF	.asf .wma .wmv	video/x-ms-asf

* Only Windows Media Video v9 (WMV3 / WVC1) is supported in WMV format.

Q12. Support Formats of Media Sharing Feature in Microsoft WMP

- WMP (Windows Media Player) Sharing supports the distribution of audio, picture, and video content, as well as playlists. The following tables show the formats that are supported for each content type, including the associated file extension and MIME type.
- WMP Sharing is able to “Play to” contents to PC2TV device, but it does not expose content for which the MIME type cannot be determined.

1. WMP Sharing Supported Picture Formats

Format*	File Extension	MIME type
JPEG	jpg	image/jpeg
PNG	png	image/png

2. WMP Sharing Supported Audio Formats

Format	File Extension	MIME type
WMA	wma	audio/x-ms-wma
MPEG-1 Layer 3	mp3	audio/mpeg
WAV	wav	audio/wav
LPCM	N/A	audio/L16

3. WMP Sharing Supported Video Formats

Format	File Extension	MIME type
WMV	wmv	video/x-ms-wmv
MPEG-2	mpeg, mpg	video/mpeg
MPEG-1	mpeg, mpg	video/mpeg
AVI	avi	video/avi
DVR-MS	dvr-ms	video/x-ms-dvr