

Wi-Fi Display User's Manual



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1.Package Contents:

Please check the following items are included in your **Wi-Fi Display** package:

- Main Unit X1
- Antennas X2
- 5V/2A Power Adapter X1
- Installation CD X1
- User's Manual (In the CD) X1



2. Before you start

Wi-Fi Display is the one device that can show all contents of your Windows® or Mac® computers on your TV wirelessly. You can easily control computers with your mouse and/or keyboard. You can share any content from your computers with your friends and family in your living room.

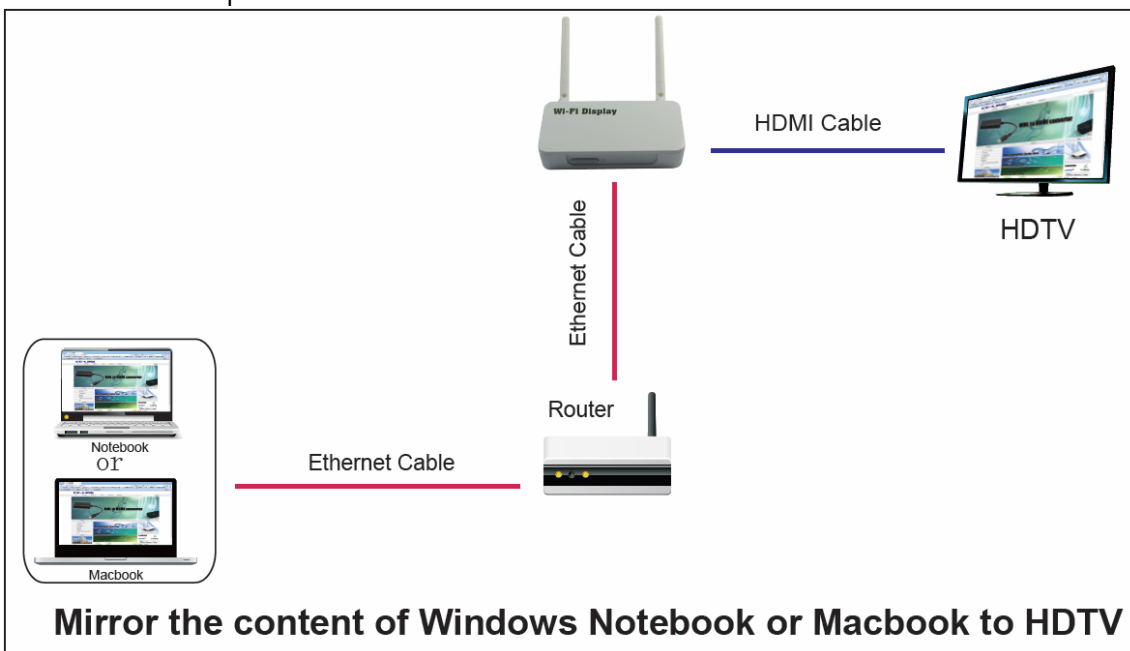
Also, if your mobile phone or pad is Android OS with a built-in DLNA function, you can push the picture, music and audio from Android mobile devices to HDTV for sharing a big screen.

Also, if your home Router have no Wi-Fi function, connecting this product to your home Router, you will get a Wi-Fi Router, then all mobile network devices can also access into the Internet, such as personal notebook, mobile phone, etc.

Setup Possibilities:

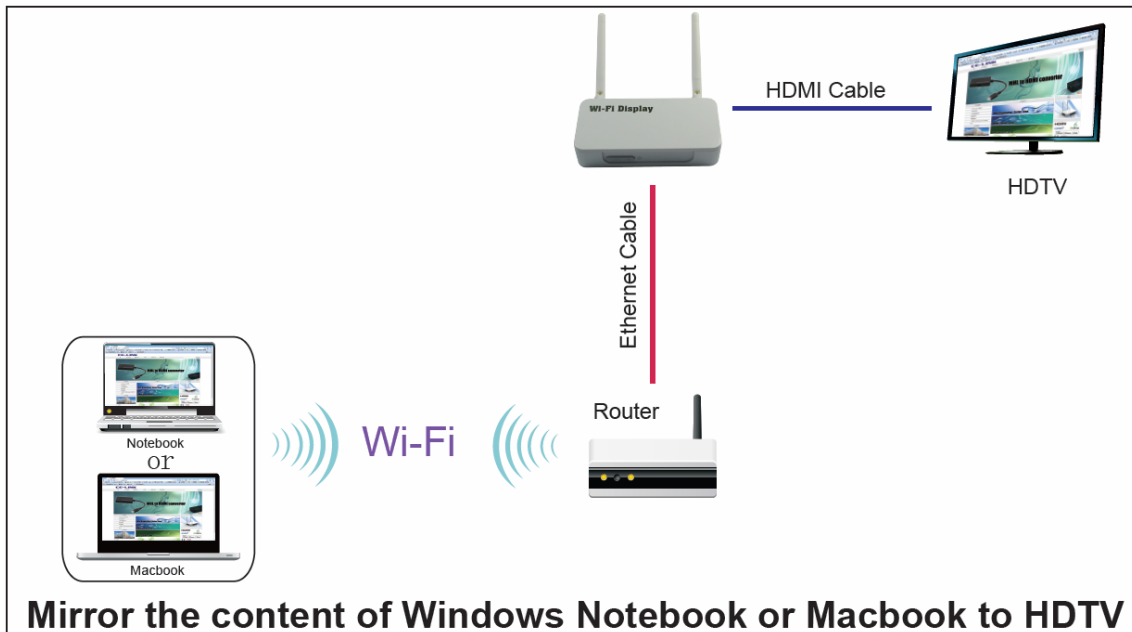
a) Ethernet Connection: Best performance for Windows or Mac computer

Whenever possible, always use Ethernet cables to connect **Wi-Fi Display** device to your home network. This setup provides best performance for both remote operation and internet connection.



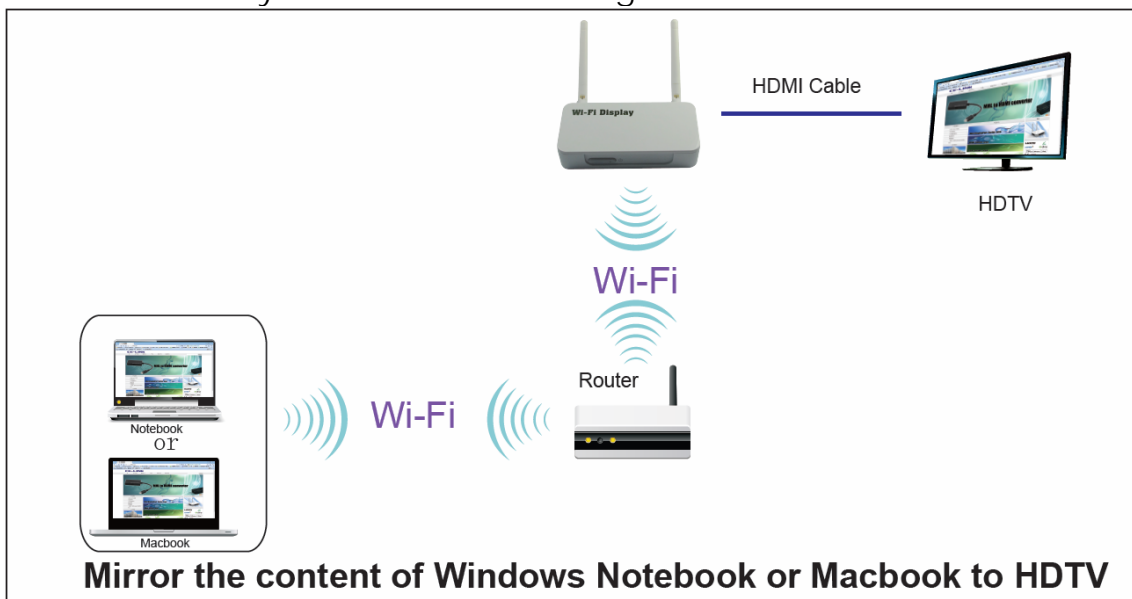
b) Partly wireless Connection: Reasonable Performance for Windows or Mac computer

If wireless connection is preferred, you can connect your home AP and **Wi-Fi Display** via cables, and access either from your home AP or **Wi-Fi Display**.



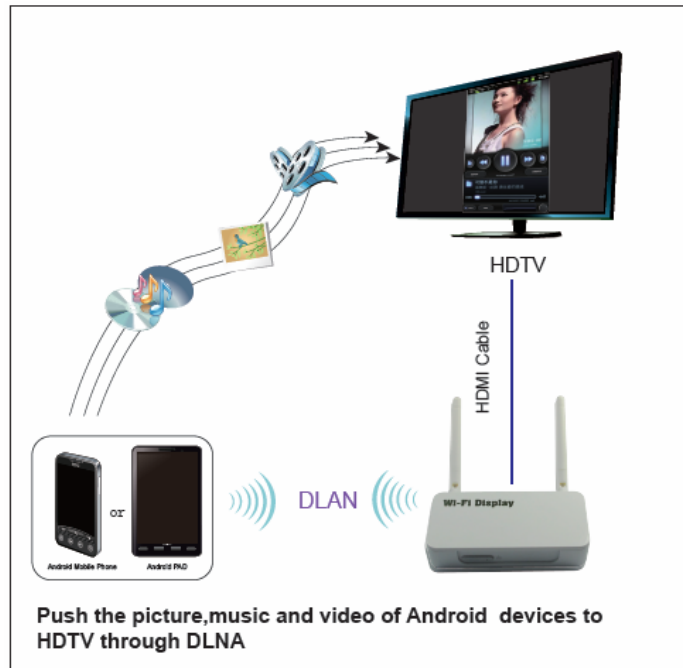
c) Purely wireless Connection: Basic performance for Windows or Mac computer

You can also try setting up **Wi-Fi Display** as a wireless client to your home AP via AP-Client mode. However, this setup is more complicated and vulnerable to any interference in Wi-Fi signal.



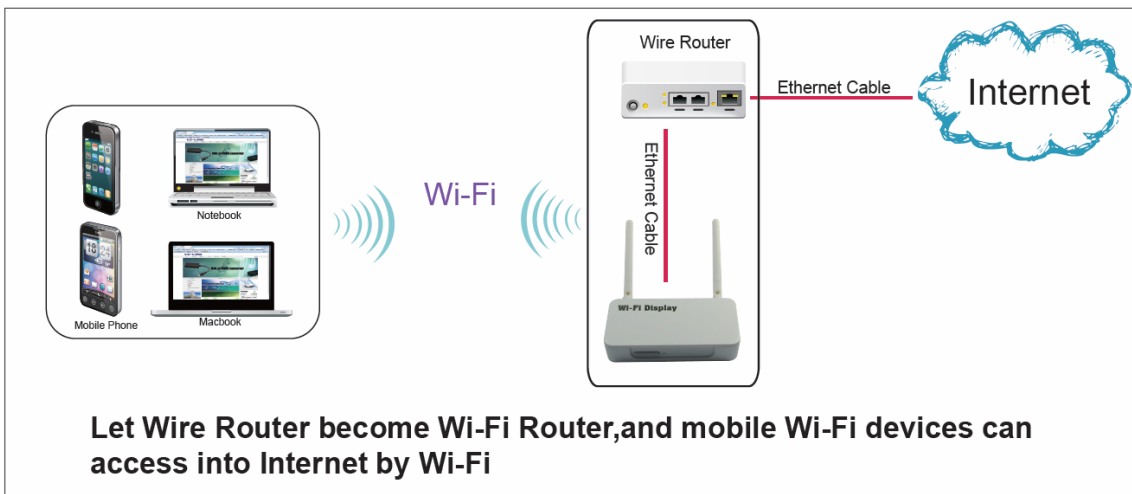
d) DLNA function for Android mobile devices

if your mobile phone or pad is Android OS with a built-in DLNA function, you can push the picture, music and audio from Android mobile devices to HDTV for sharing a big screen. For some mobile devices, maybe some media format can not be supported on this product.



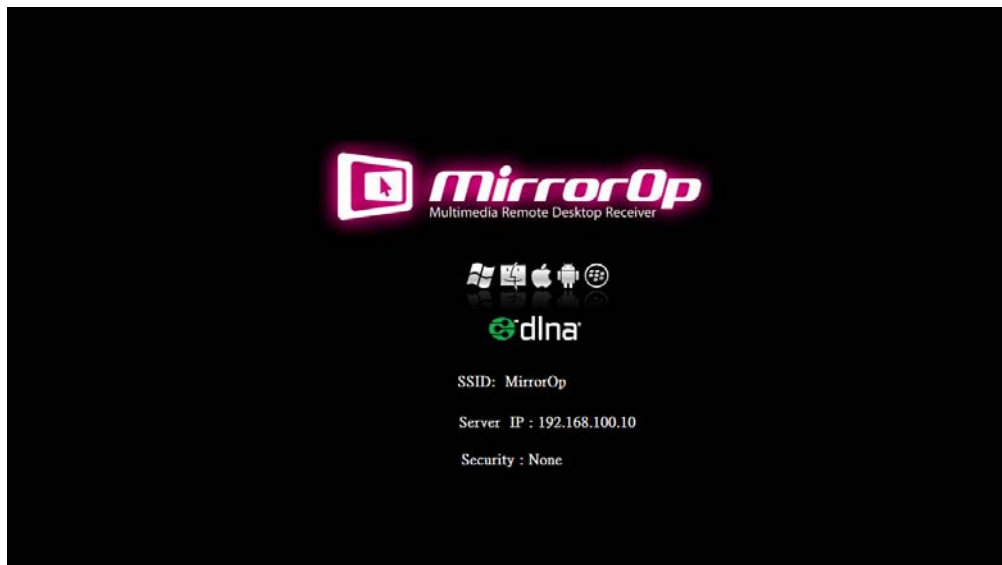
e) Wi-Fi Router Function

Let Wire Router become Wi-Fi Router and mobile Wi-Fi devices can access into Internet by Wi-Fi, such as personal notebook, mobile phone, etc.



3. Quick Start

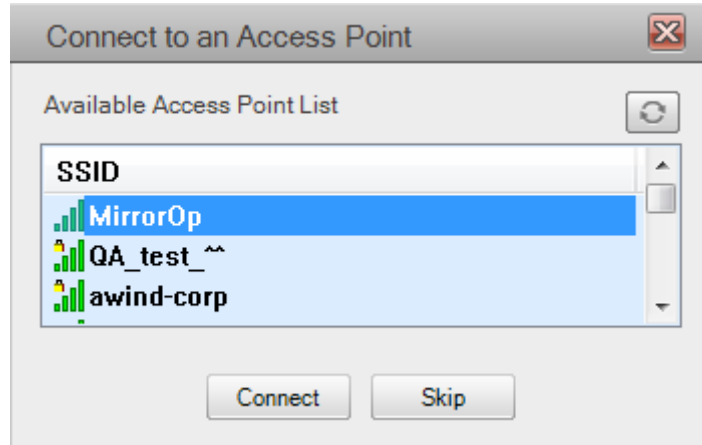
1. Connect the HDMI output on the **Wi-Fi Display** to your TV, and turn on your TV.
2. Connect the power adapter to your **Wi-Fi Display**, and plug in to your power outlet.
3. Press the Power button on **Wi-Fi Display** to turn on the device.
4. **Wi-Fi Display** will be powered ON. [Waiting for about 35 seconds](#), the Main Menu as below will be shown on your TV screen while system is ready.



5. Insert **Wi-Fi Display** CD and follow on-screen instructions to install software from the CD-ROM.
6. Find the following icon in "Applications\MirrorOp" folder (on Mac) or "Programs\MirrorOp Sender" folder (on Windows) to launch **MirrorOp Sender**.



7. Search Wi-Fi Access Point. Select your **Wi-Fi Display** device (default SSID is MirrorOp) from the list and click the Connect button.



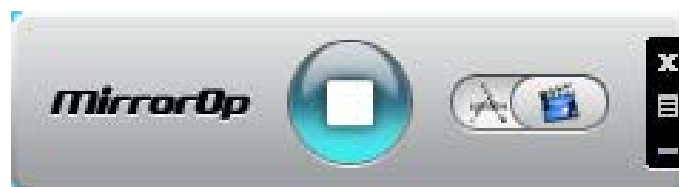
8. Connect to selected access point.
9. Connect to **MirrorOp** server. If only one server is found, it will automatically connect to the server.



10. The application will ask to adjust your PC resolution for best projection result, and then project your screen to TV. You should see your PC Desktop on TV screen now.



11. To finish projection, click the X button on the menu of **MirrorOp Sender** to leave projection. Your screen resolution would be restored to original one if you approve adjusting resolution with above step.

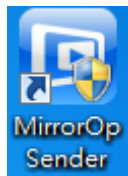


4. Using MirrorOp Sender for Win-OS

4.1 Start Program

After installing the program, you will see the MirrorOp icon on your desktop:

- 1) Double click it to execute MirrorOp Sender client.

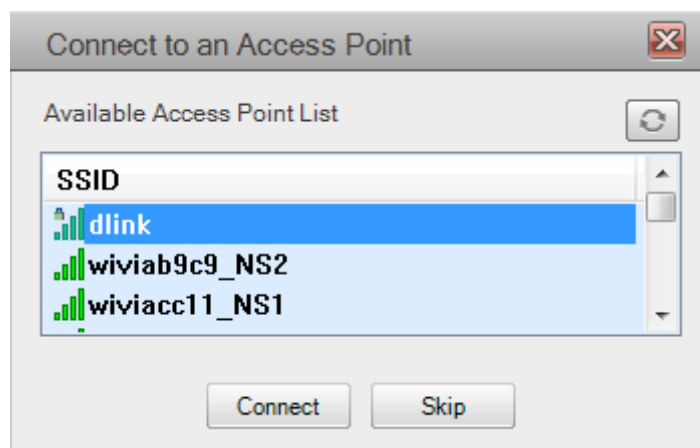


- 2) Program start to list all available Access Point List. (Auto Wi-Fi connect enabled)
- 3) Program start to search all available MirrorOP devices.
- 4) After MirrorOP device is found, click it to start projection.

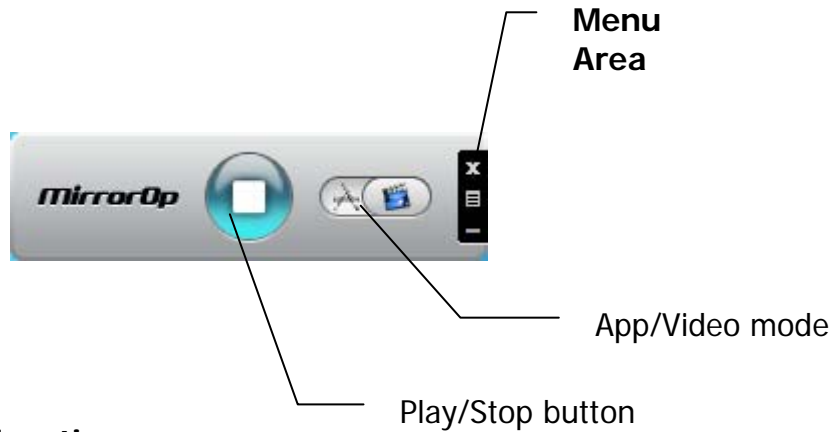
- **Search for device**



- **While Auto Wi-Fi connect is enabled, list all available access point list**




4.2 Main User interface



4.3 Screen Projection



Click the  button for full or split screen; you can project the main screen on to the display immediately.

Video Mode vs. App Mode




On **MirrorOp Sender** you can find a switch button for two modes:

Video Mode and **App Mode**; **Video Mode** is designed for smooth video experiences, so by default it has longer latency between your PC and TV.



If you have very good network connection (by Ethernet) and prefer to use low latency mode at all times, you may drag the switch to **App Mode**.



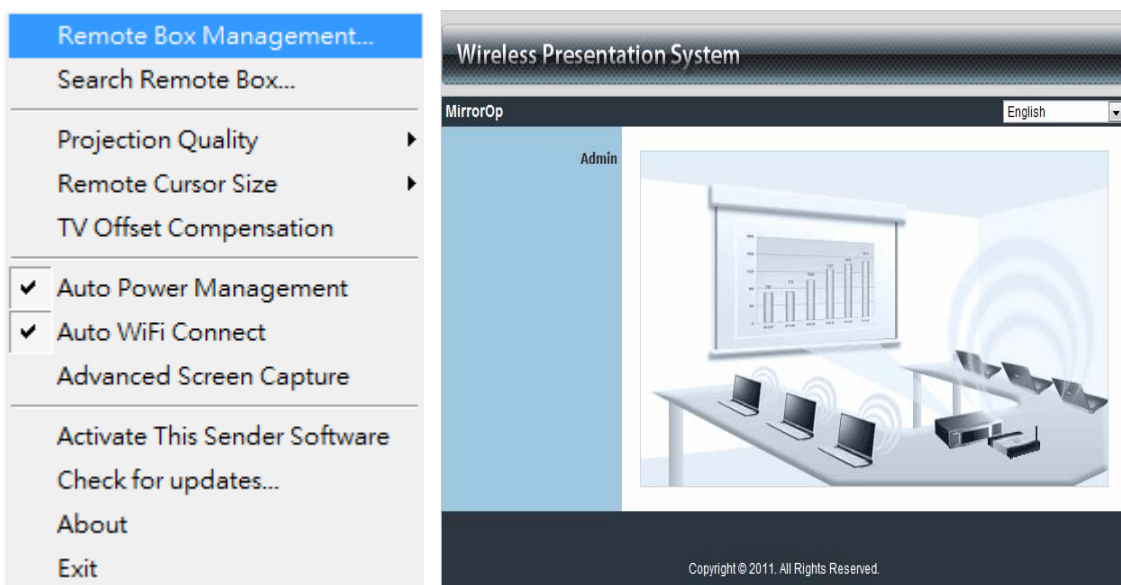
button	Description
	Full Screen Projection
	Video Projection
	Application Projection

4.4 Menu Description



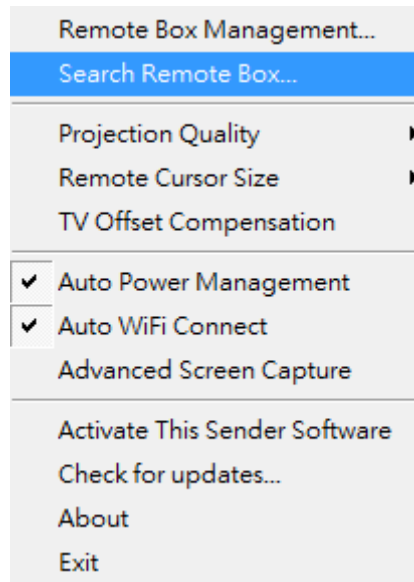
4.4.1 Remote Box Management

Click <Remote Box Management> to initial web management.

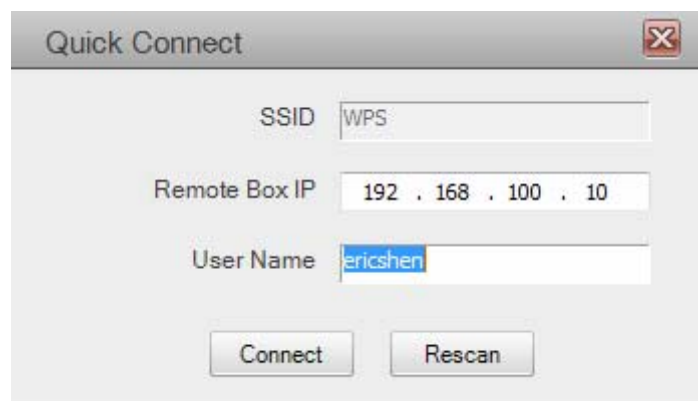


4.4.2 Search Remote Box

Click <**Search Remote Box**> to connect to another **MirrorOp**.

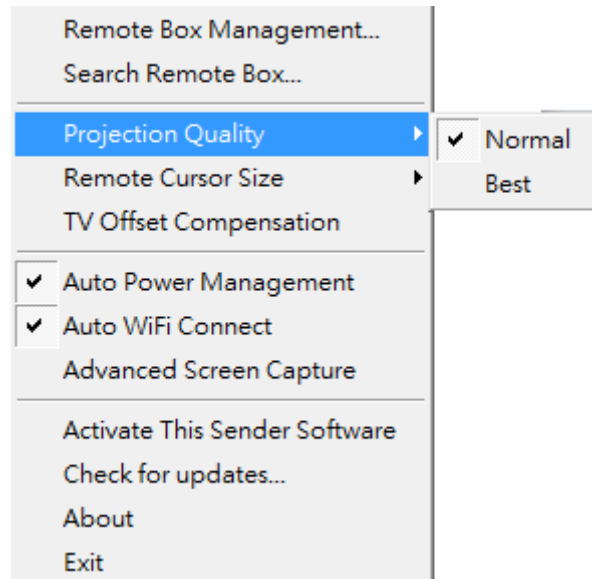


The last **MirrorOp** you connected is remembered. To connect another one, please click <**Rescan**>.



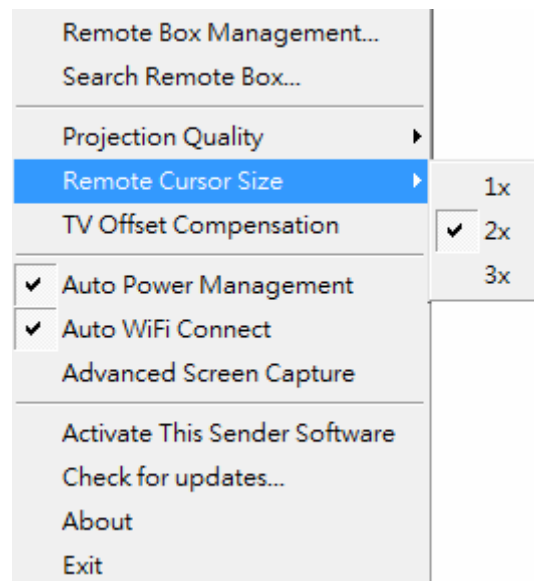
4.4.3 Projection Quality

Adjust projection image quality in <**Projection Quality**>. Higher quality requires higher bandwidth. Default is Normal.



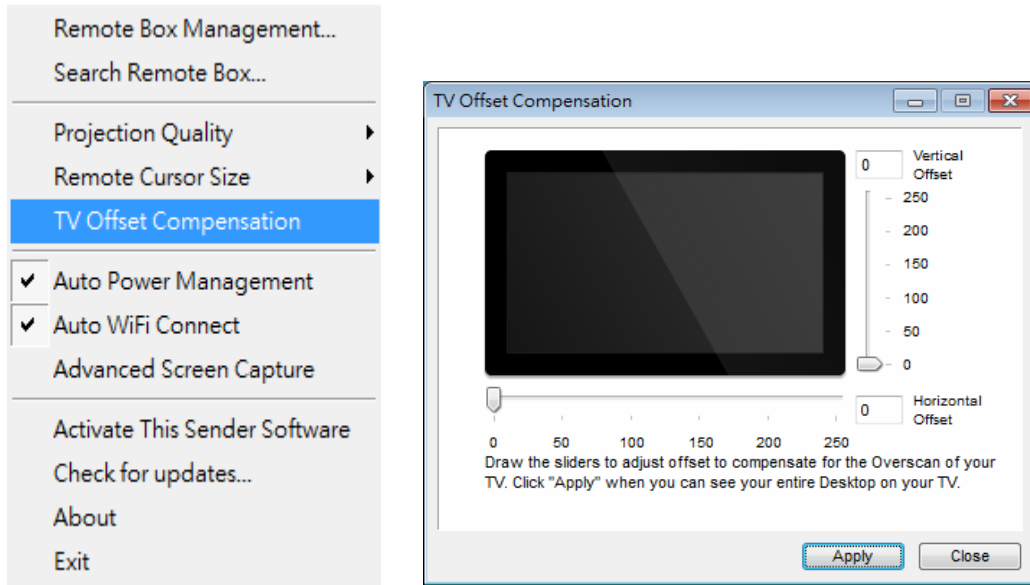
4.4.4 Remote Cursor Size

Adjust the cursor size on projection screen. When you select 3X option, that will adjust the cursor to big size. The default is 2X.



4.4.5 TV Offset Compensation

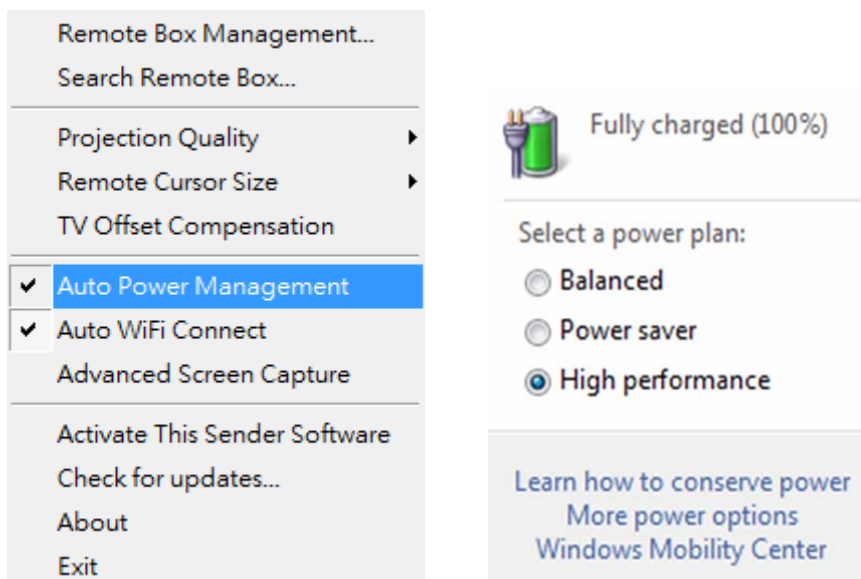
Most TVs has overscan design which will cut the edges of the Desktop. If you cannot turn off overscan from your TV OSD, please use the **<TV Offset Compensation>** to shrink projected screen to fit your TV.



Drag the sliders to set offset value. Click **<Apply>** to update TV projection. Check the TV screen. When the Desktop fits the TV, click **<Close>**.

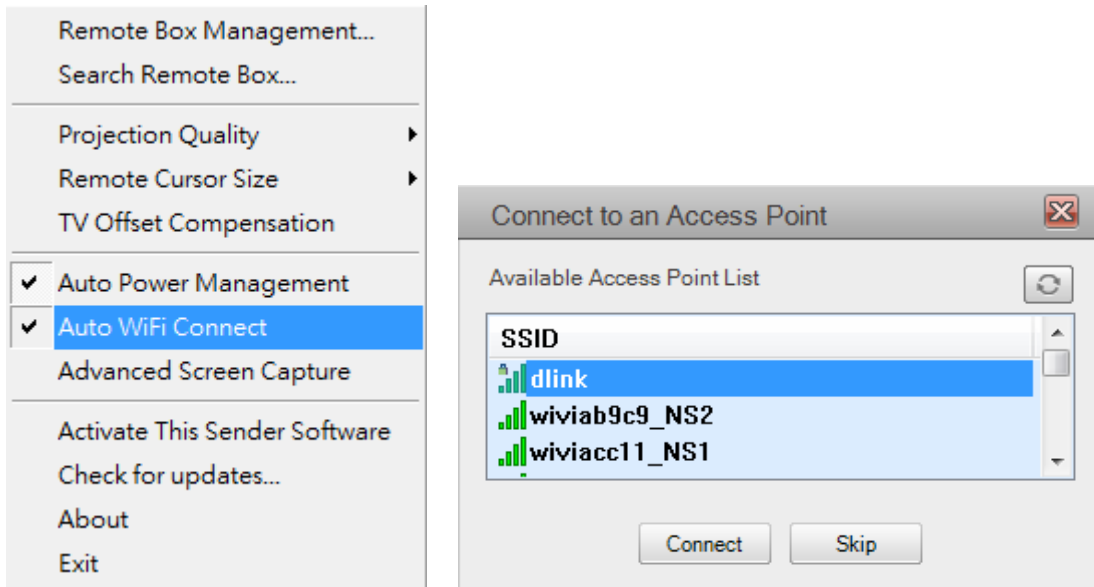
4.4.6 Auto Power Management

<Auto Power Management>To make the highest projection performance, application will turn the PC's windows power scheme from current settings to "highest performance", however, you can click the "Auto Power Manage" to enable or disable this function and restore you power scheme immediately.



4.4.7 Auto Wi-Fi Connect

Check <**Auto Wi-Fi Connect**> to let **MirrorOp** search and connect to access points, or turn it off to use your original Wi-Fi manager to connect to access points manually.

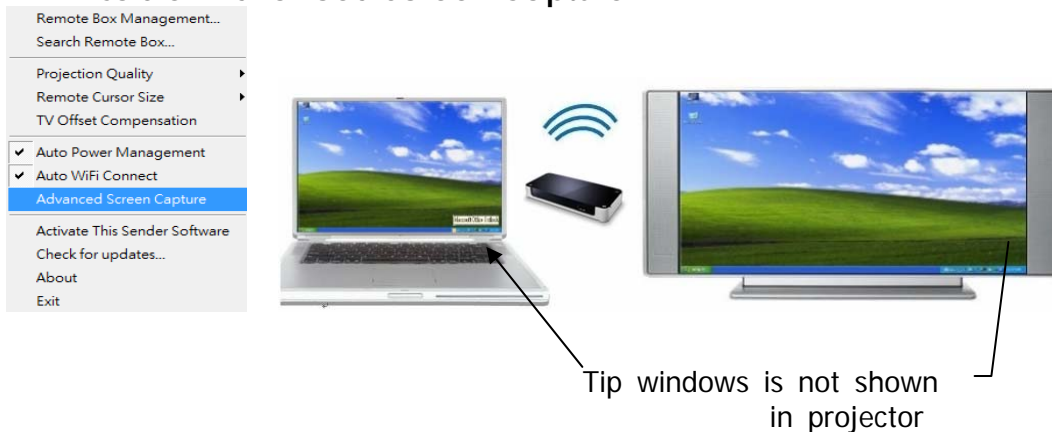


4.4.8 Advanced Screen Capture

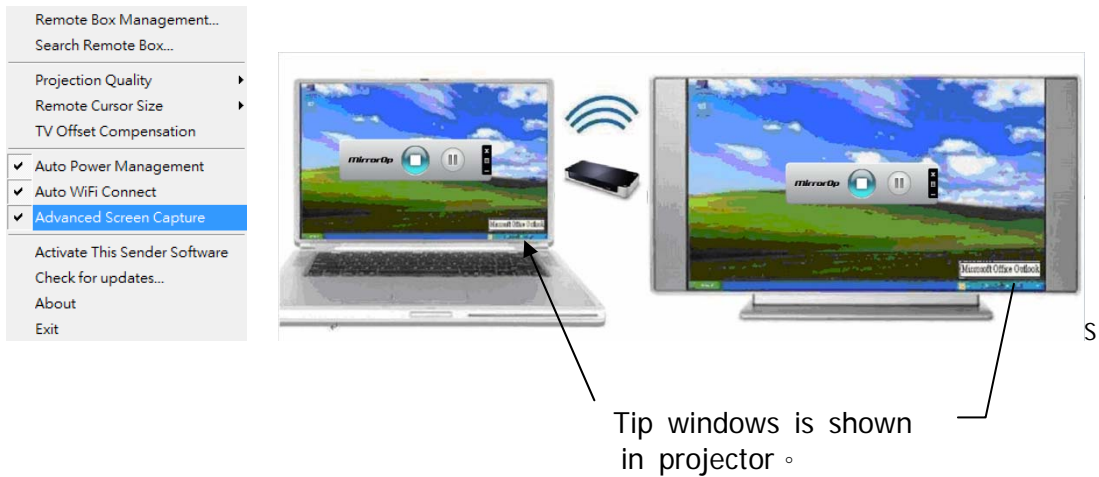
Click the <**Advanced Screen Capture**>, you will be able to see tip windows and other layered windows (include the main UI) on the connected display.

However, the mouse cursor may blink from time to time when you are projecting your PC screen!

- **Disable "Advanced Screen Capture".**

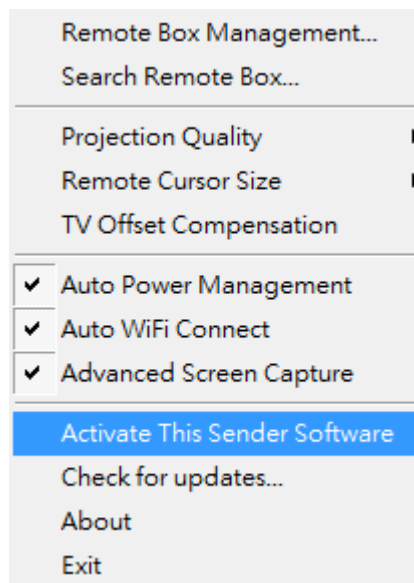


- **Enable "Advanced Screen Capture".**



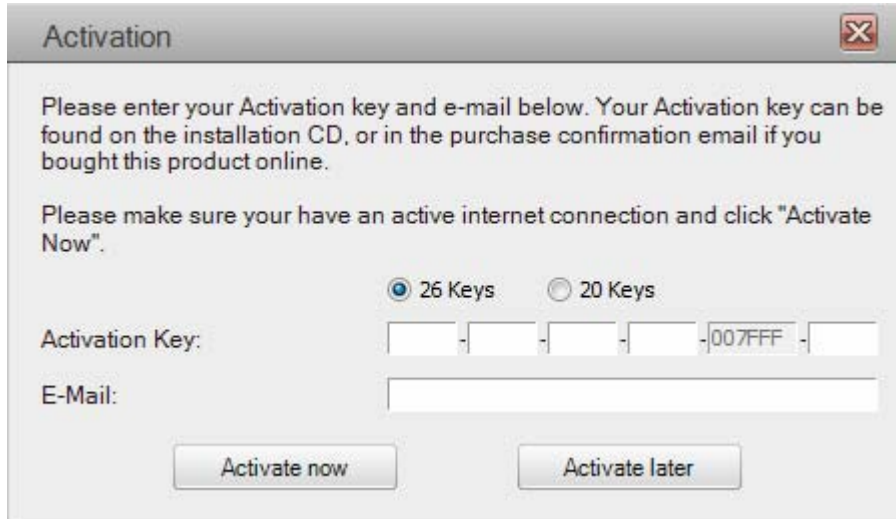
4.4.9 Activate This Sender Software

To activate, select <Activate This Sender Software> from the menu.



In the Activation dialog, input the activation key printed on the CD envelopes or received by mail. (The fifth field will be auto filled and please ignore it if this field is different from your key.)

Click "Activate now" to activate online.

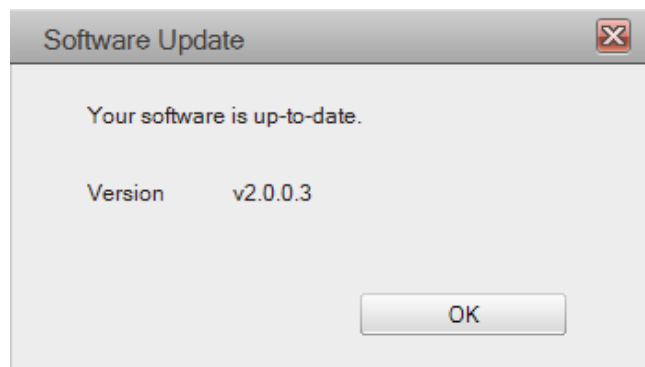
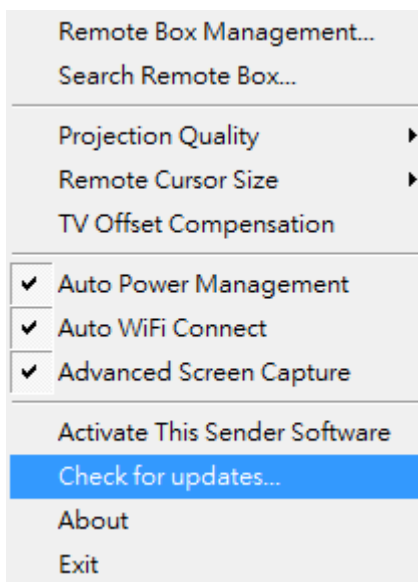


The software will connect to the activation server to validate the information. When validation is passed, your software will be activated.



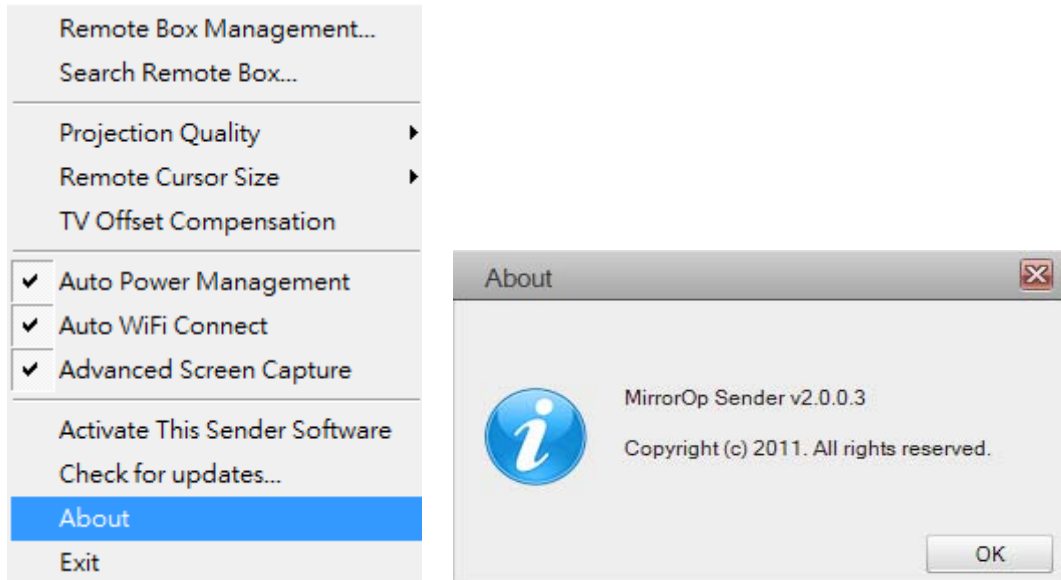
4.4.10 Check for updates

Click <Check for Updates> to check for updates.



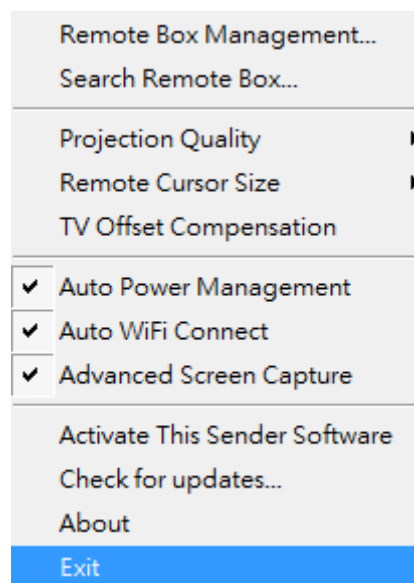
4.4.11 About

Click <**About**> to show system information. It includes product model name, Client version, IP address and other information



4.4.12 Exit

Click <**Exit**> to exit this application. It will stop current playing status and close the application immediate.



5. Using MirrorOp Sender for MAC-OS

Note:

For MAC-OS, you must purchase software and additional activation key.
http://www.mirrorop.com/product_Mac_Sender.html

5.1 Start Program

After installing the program (*.pkg file), you will see the MirrorOp icon on your dock:

- 1) Clicking it to execute MirrorOp Sender client.

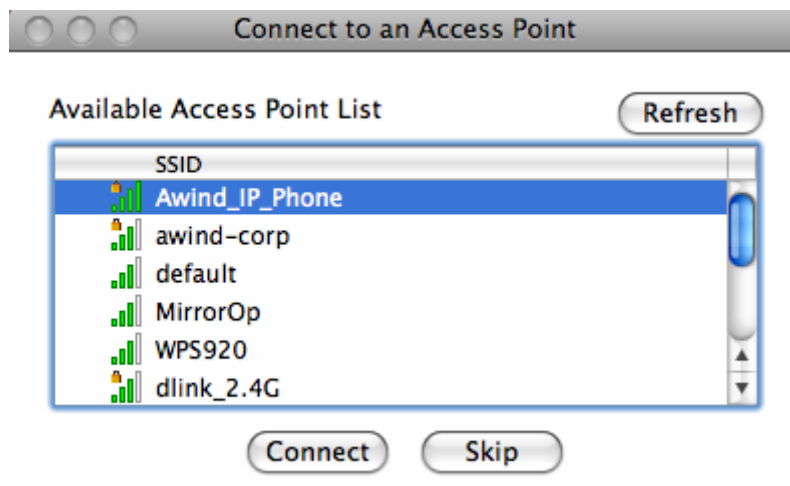


- 2) Program start to list all available Access Point List. (Auto Wi-Fi connect enabled)
- 3) Program start to search all available MirrorOp devices.
- 4) After MirrorOP device is found, click it to start projection.

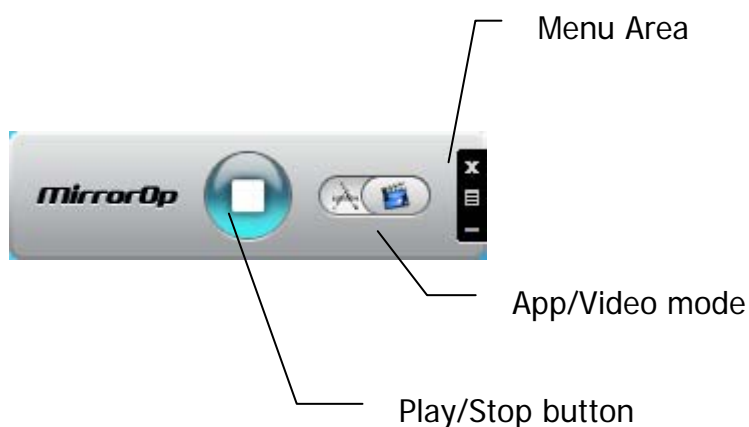
- Search for device



- While Auto Wi-Fi connect is enabled, list all available access point list




5.2 Main User interface



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Click the  button for full or split screen, you can project the main screen on to the display immediately.

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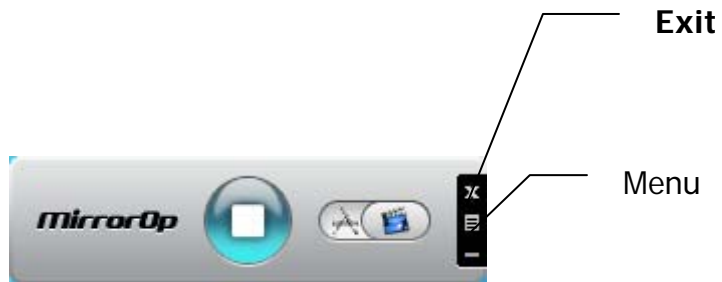


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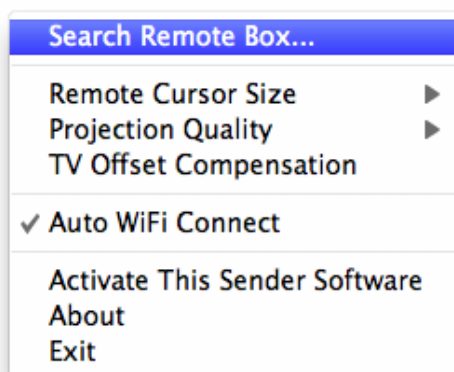
button	Description
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	Application Projection

5.4 Menu Description

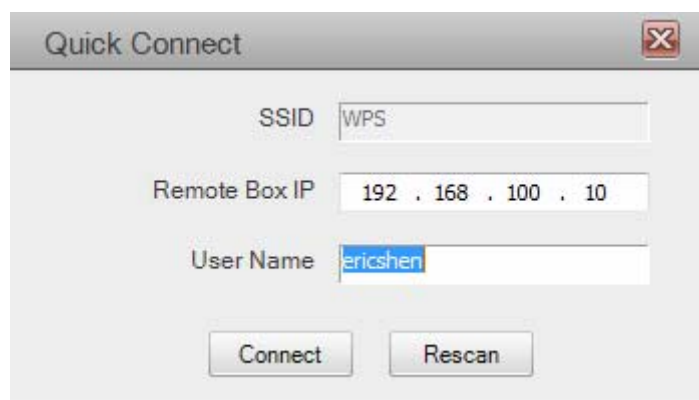


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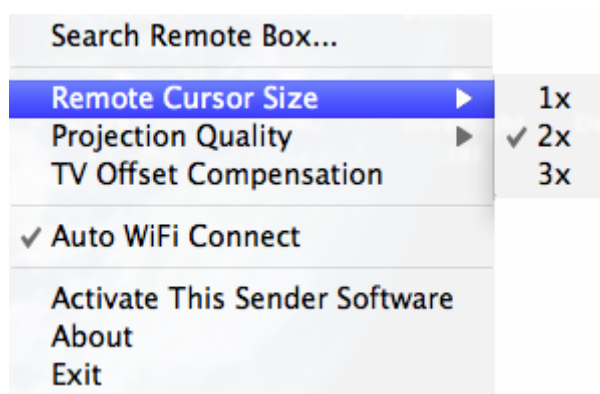


The last **MirrorOp** you connected is remembered. To connect to another one, Click **<Rescan>**.



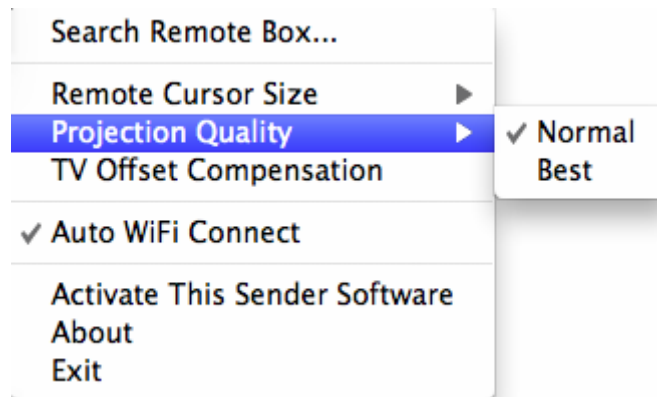
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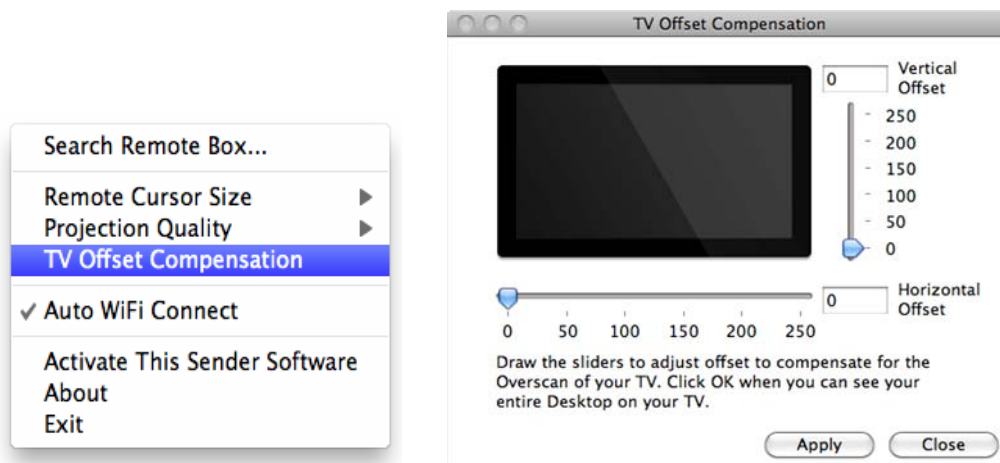
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5.4.4 TV Offset Compensation

Most TVs has overscan design which will cut the edges of the Desktop. If you cannot turn off overscan from your TV OSD, please use the **<TV Offset Compensation>** to shrink projected screen to fit your TV.



Drag the sliders to set offset value. Click **<Apply>** to update TV projection. Check the TV screen. When the Desktop fits the TV, click **<Close>**.

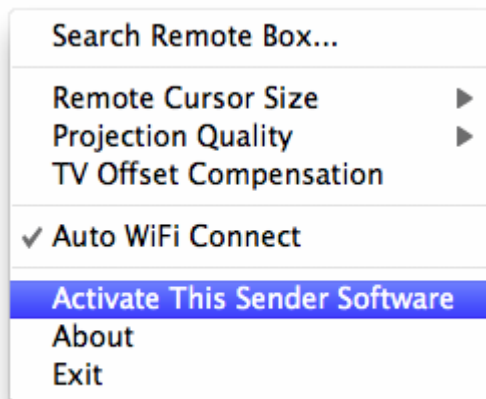
5.4.5 Auto Wi-Fi Connect

Check **<Auto Wi-Fi Connect>** to let **MirrorOp** search and connect to access points, or turn it off to use your original Wi-Fi manager to connect to access points manually.



5.4.6 Activate This Sender Software

To activate, select “Activate This Sender Software” from the menu.

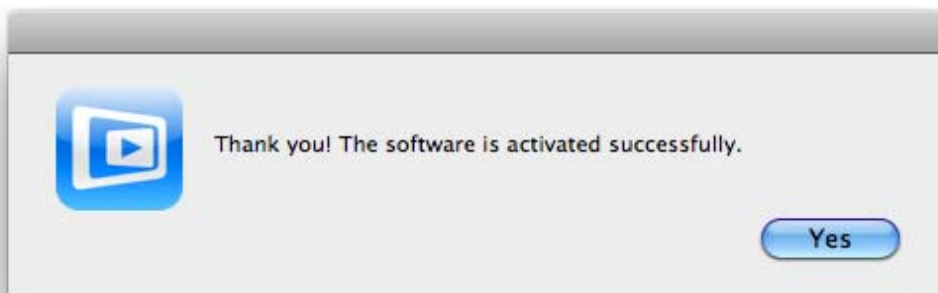


In the Activation dialog, input the activation key printed on the CD envelopes or received by mail. (The fifth field will be auto filled and please ignore it if this field is different from your key.)

Click “**Activate now**” to activate online.

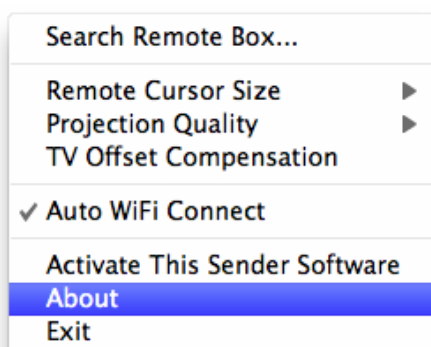


The software will connect to the activation server to validate the information. When validation is passed, your software will be activated.



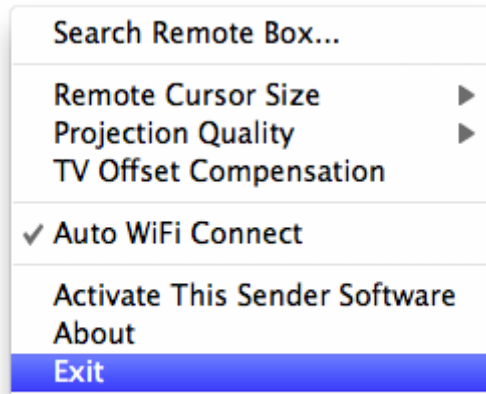
5.4.7 About

Click <**About**> to show system information. It includes product model name, Client version, IP address and other information



5.4.8 Exit

Click <**Exit**> to exit this application. It will stop current playing status and close the application immediate.



5.4.9 Main Menu Bar

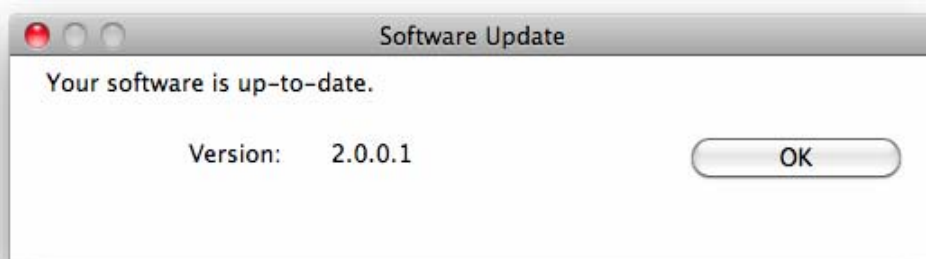
The menu bar in Top left-hand corner, and click <**MirrorOp Sender**> button.



Click <**About**> to show version information of this program.



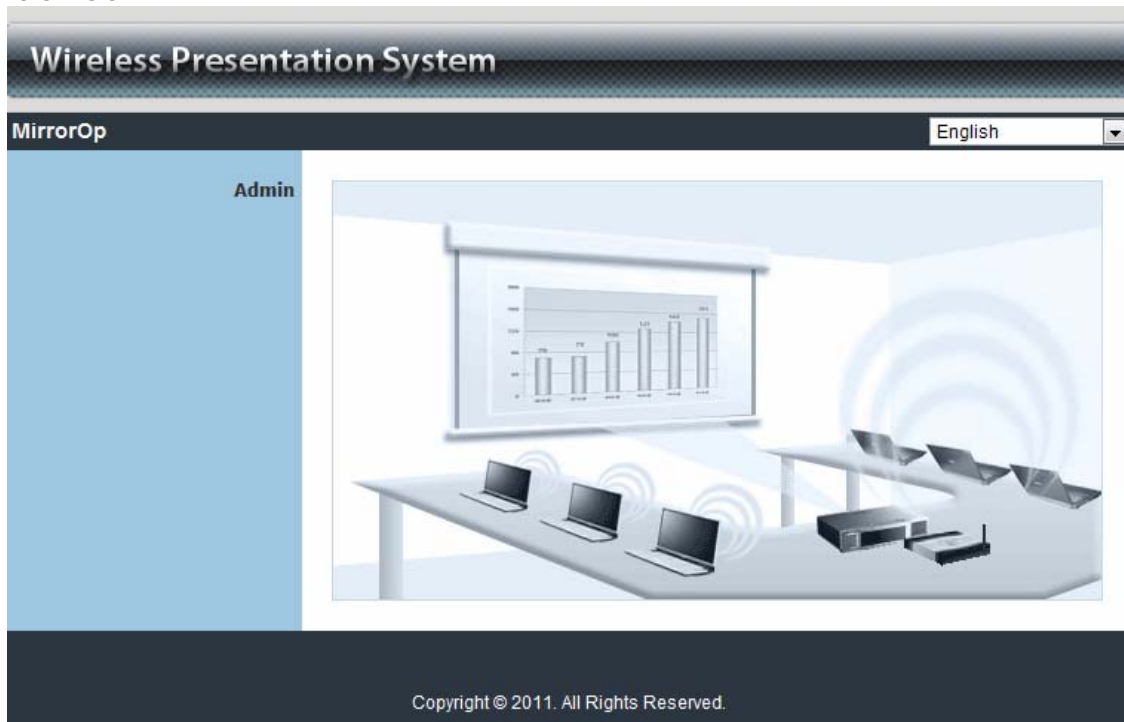
Click <Check for Updates> to check for updates.



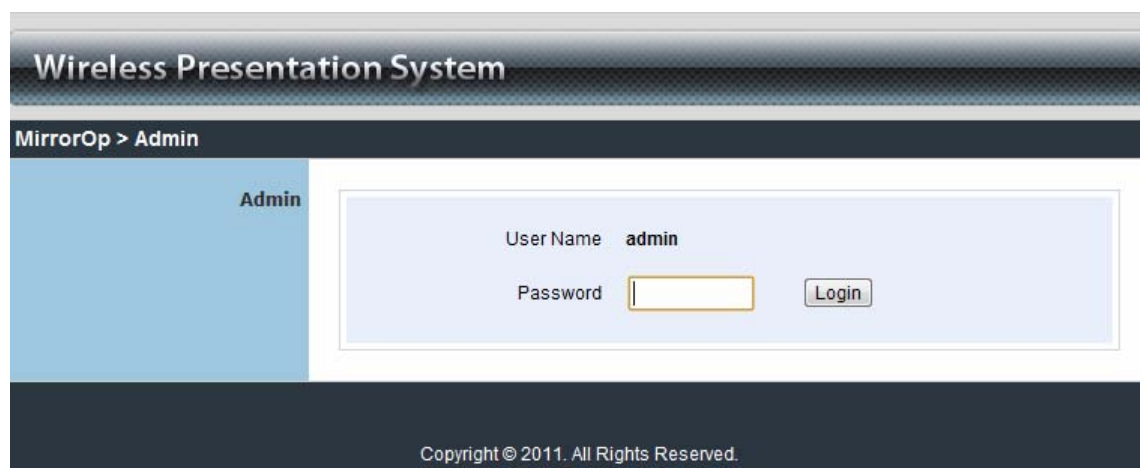
6 Web Management

■ Home Page

- ◆ Make sure your PC is connected to **MirrorOp** device successfully.
- ◆ Open your browser, and enter the IP address of your **MirrorOp** device.



■ Login Web Admin



- ◆ Click [**Admin**] and then enter password to login web page.
- ◆ Default password is "admin".

■ System Status

Wireless Presentation System	
MirrorOp > Admin > System Status Logout »	
System Status	Model Name: MirrorOp
Network Setup	Versions
Change Passwords	Firmware Version: 0.0.0.8
Reset to Default	Network Status
Firmware Update	IP Address: 192.168.168.98
Reboot System	Subnet Mask: 255.255.255.0
	Default Gateway: 192.168.168.251
	Wireless MAC Address: E0:69:95:65:98:48
	Connection Status
	Projecting Status: Waiting for Projecting
	Total Users: 0
Copyright © 2011. All Rights Reserved.	

*** Click [**System Status**] to show current system status.

Model Name: Product model name

Versions:

- ◆ Firmware version: Product firmware version number.

Network Status:

- ◆ IP address: IP address of **MirrorOp** device.
- ◆ Subnet Mask: subnet mask
- ◆ Default Gateway: default gateway
- ◆ Wire MAC address: wire network MAC address

■ Network Setup

Wireless Presentation System

MirrorOp > Admin > Network Setup Logout »

System Status
Network Setup
 Change Passwords
 Reset to Default
 Firmware Update
 Reboot System

IP Setup

Obtain an IP address automatically Use the following IP address

IP Address: 192 . 168 . 100 . 10
 Subnet Mask: 255 . 255 . 255 . 0
 Default Gateway: 192 . 168 . 100 . 10
 DNS Server: 192 . 168 . 100 . 10

DHCP Server Setup

Auto Disable

Start IP: 192 . 168 . 100 . 11
 End IP: 192 . 168 . 100 . 254
 Subnet Mask: 255 . 255 . 255 . 0
 Default Gateway: 192 . 168 . 100 . 10
 DNS Server: 192 . 168 . 100 . 10

Wireless Setup

Region: WORLDWIDE
 SSID: MirrorOp
 SSID Broadcast: Enable Disable
 Channel: Auto
 Encryption: Disable
 Key:

Ap Client

Connect to Existing AP: Enable Disable
 Existing AP SSID:
 Encryption: Disable
 Key:

Apply Cancel

Copyright © 2011. All Rights Reserved.

< IP Setup >

You can select "obtain IP address automatically" or "Use the following IP address"

- ◆ IP Address: The default value is 192.168.100.10.
- ◆ Subnet Mask: The default value is 255.255.255.0
- ◆ Default Gateway: The default value is 192.168.100.10

< DHCP Server Setup >

You can select "Auto" or "Disable". When "Auto" is selected, it will automatically disable DHCP on **MirrorOp** if another DHCP server is detected, otherwise it will enable its DHCP service.

- ◆ Start IP: The start IP address of DHCP Server.
- ◆ End IP: The end IP address of DHCP Server.

< Wireless Setup >

- ◆ Wireless LAN: you can select "Enable" or "Disable"
- ◆ Region: default value is "Worldwide".

- ◆ SSID: SSID string, max. Length is 32 bytes.
- ◆ SSID Broadcast: you can select "Enable" or "Disable"
- ◆ Channel: to set fixed channel or Auto.
- ◆ Security: Disable/WEP/WPA/WPA2
- ◆ Key: Security key of your choice.

< AP Client>

- ◆ Connect to existing AP: Type in the Home AP SSID you want to connect.
- ◆ Encryption: Disable/WEP/WPA/WPA2
- ◆ Key: Type the Home AP's security key.

<Apply >: press button to select this mode

<Cancel>: press button to abort action.

<Back>: back to Operating mode main menu

■ Change Passwords

The screenshot shows the 'Change Passwords' page in the 'Admin' section of the 'Wireless Presentation System' web interface. The breadcrumb path is 'MirrorOp > Admin > Change Passwords'. A 'Logout »' link is visible in the top right. On the left, a navigation menu includes 'System Status', 'Network Setup', 'Change Passwords' (highlighted), 'Reset to Default', 'Firmware Update', and 'Reboot System'. The main content area is titled 'Admin' and contains two input fields: 'Enter New Password' and 'Confirm New Password'. An 'Apply' button is positioned to the right of the second field. The footer of the page reads 'Copyright © 2011. All Rights Reserved.'

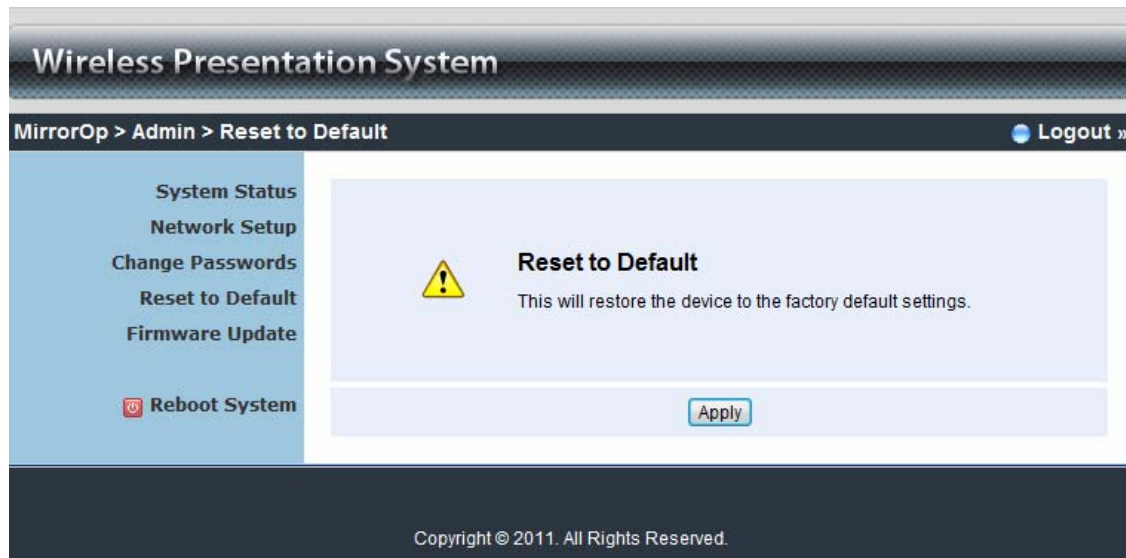
*** Click [**Change Password**] button to change password value.

<Enter New Password>: enter new password you want to change for each category.

<Confirm New Password>: double confirm new password.

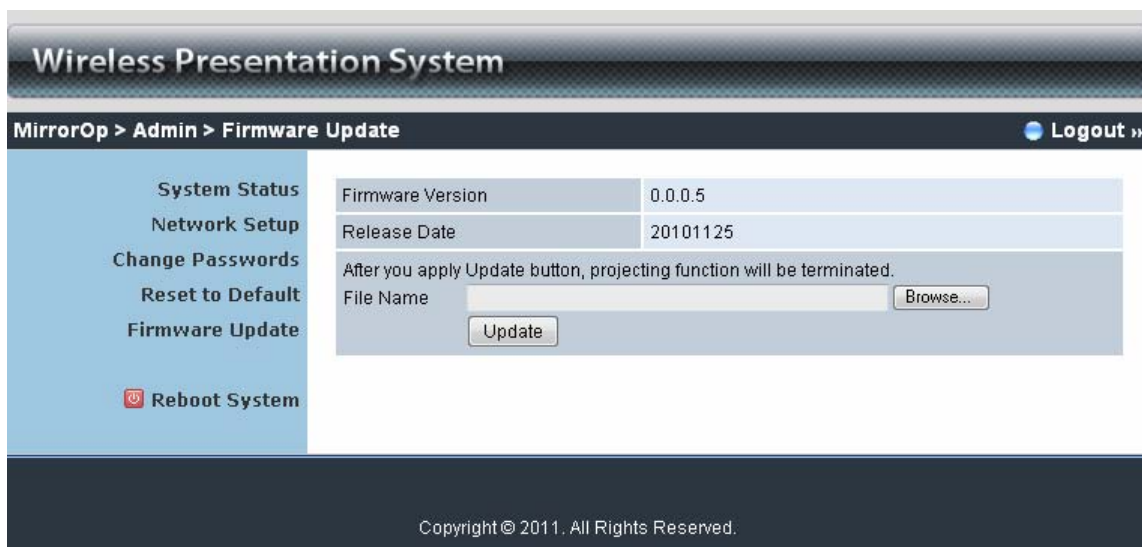
<Apply>: Confirmation and Save modifications.

■ Reset to Default



*** Click [**Reset to Default**] button to restore factory default settings.
 <**Apply**>: Confirmation and action.

■ Firmware Update



*** Click [**Firmware Update**] button to upgrade firmware.

- ◆ Firstly, you have to get latest firmware image file from your vendor.
- ◆ Click <**Choose File**> to specify file name you want to upgrade.
- ◆ Click <**Update**> to start.

The upgrade process takes about 5 minutes to complete. The **MirrorOp** device will reboot automatically when the process is completed.

Warning: Don't power off **MirrorOp** while firmware upgrade in progress, otherwise **MirrorOp** device may be damaged and have to be returned to your vendor for repair.

■ Reboot System



*** Click **[Reboot System]** button to restart system

<Reboot>: reboot system automatically.

■ Logout



*** Click **[Logout]** button to return to home page.

7 Using DLNA Function via Wi-Fi Display

7-1 What is the support on Wi-Fi Display for DLNA function?

Wi-Fi Display is the one of DMR (Digital Media Renderer) can play media contents which are streamed by DMC (Digital Media Player) from DMS (Digital Media Server).

Support Media format:

Video: AVI / ASF / WMV / MKV / MP4 / MOV / 3GP / TS / RM / FLV / MPG

Audio: LPCM / MP3 / AAC / WMA

Image: JPEG / PNG

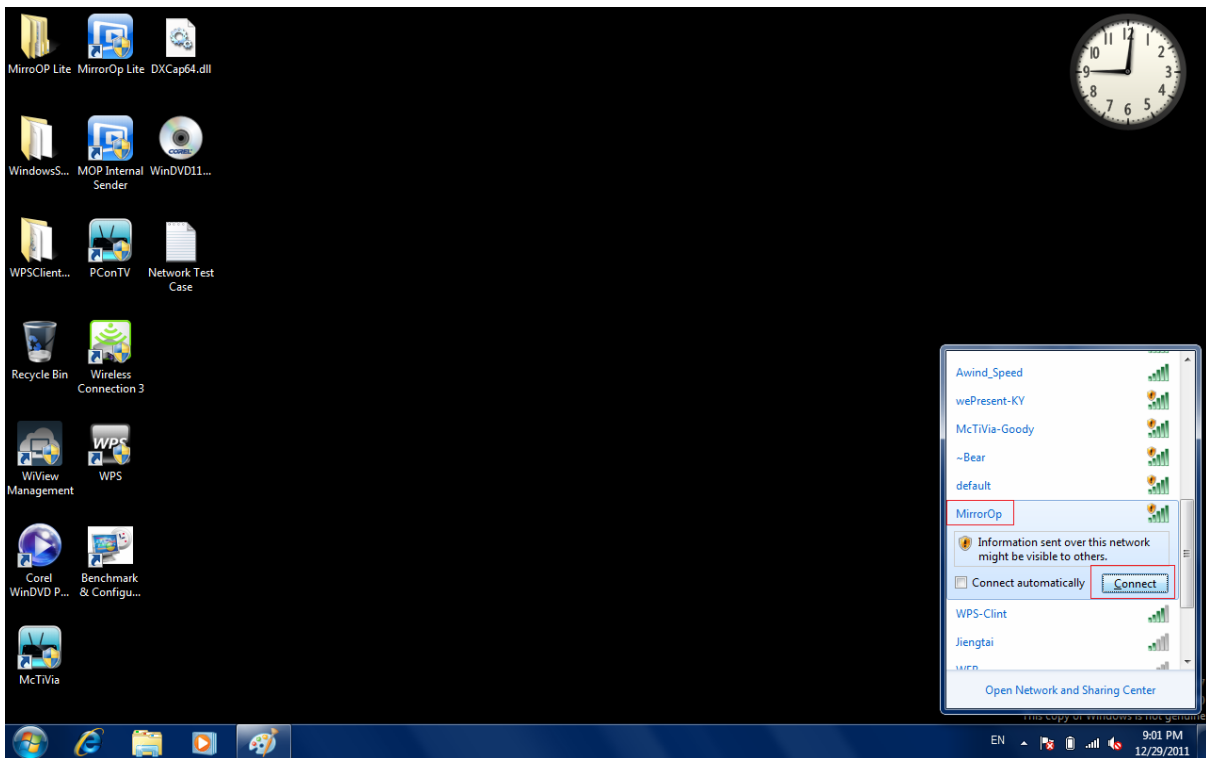
Notice: **Wi-Fi Display** supports above media format but some formats can be streamed by specific DMC.

7-2 Preparation

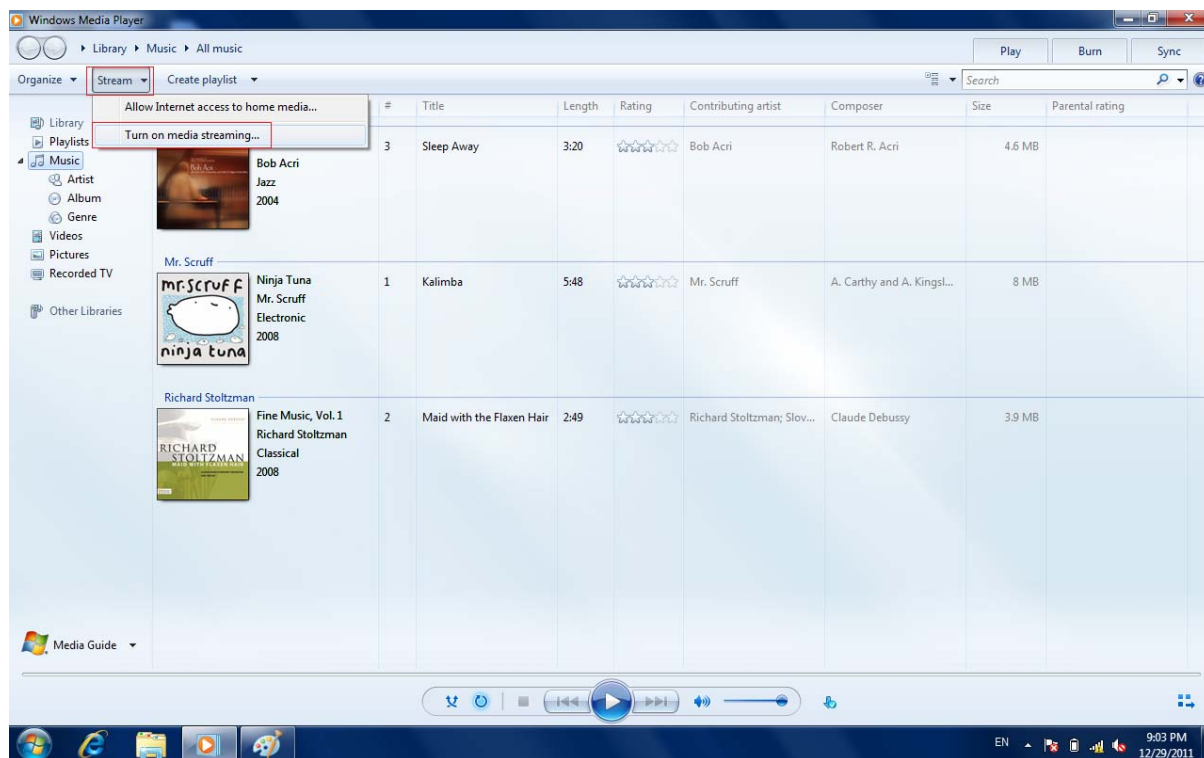
- Make sure the operation system is Windows Vista / Windows 7.
- Make sure Wi-Fi Display is ready for connecting on standby screen.
- Connect Wi-Fi Display and laptop by wire or wireless.

7-3 Quick Start

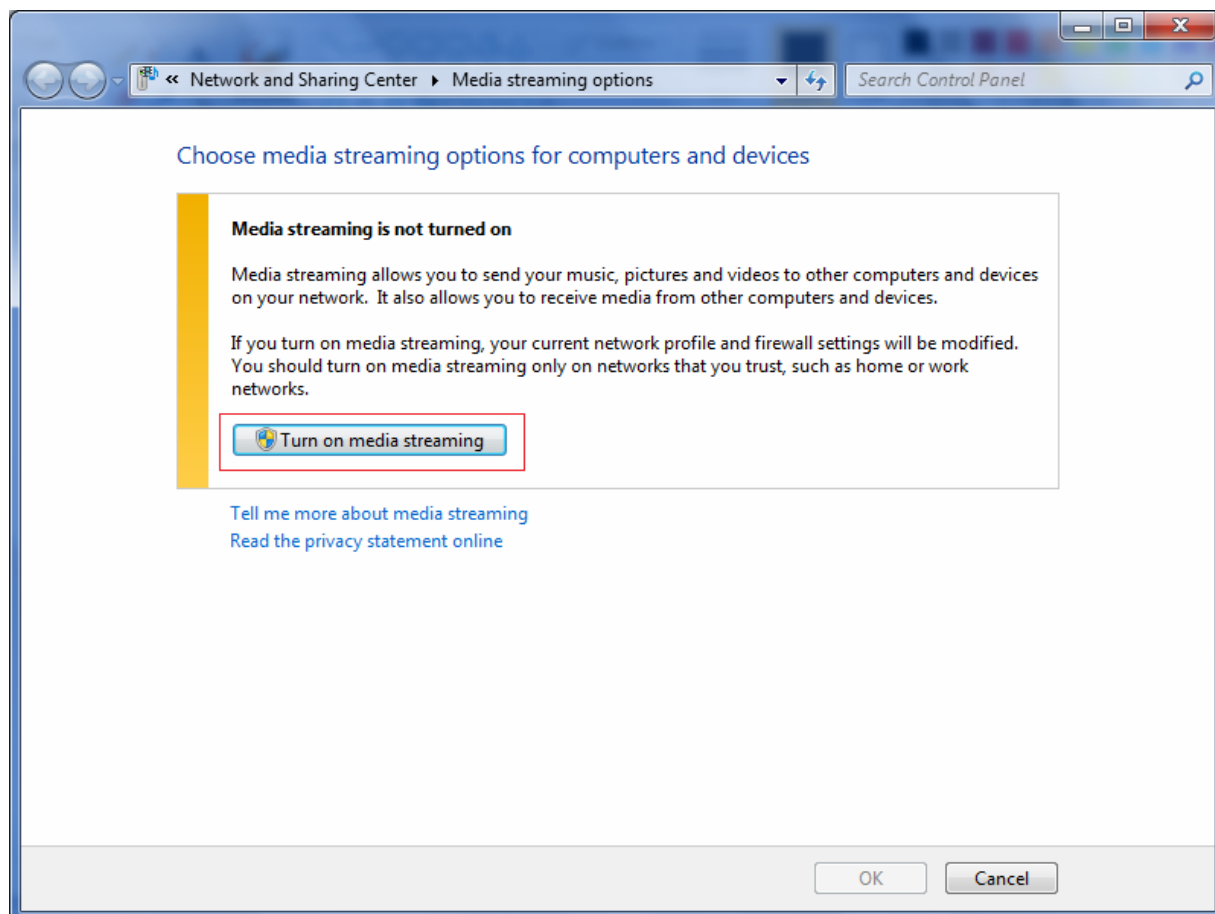
- Connect Wi-Fi Display device via wire or wireless.



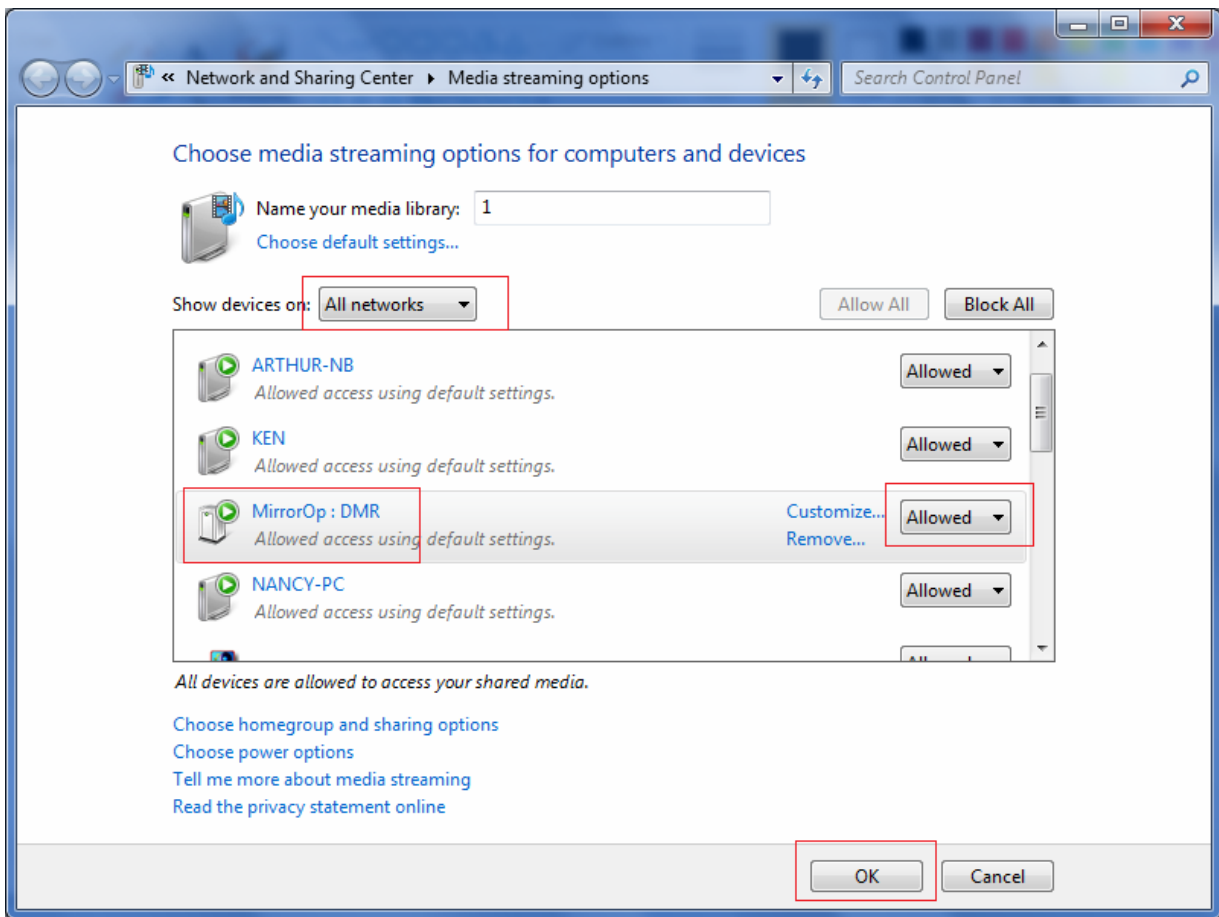
- Start Windows Media Player then click "Turn on media streaming" from "Stream" in menu.



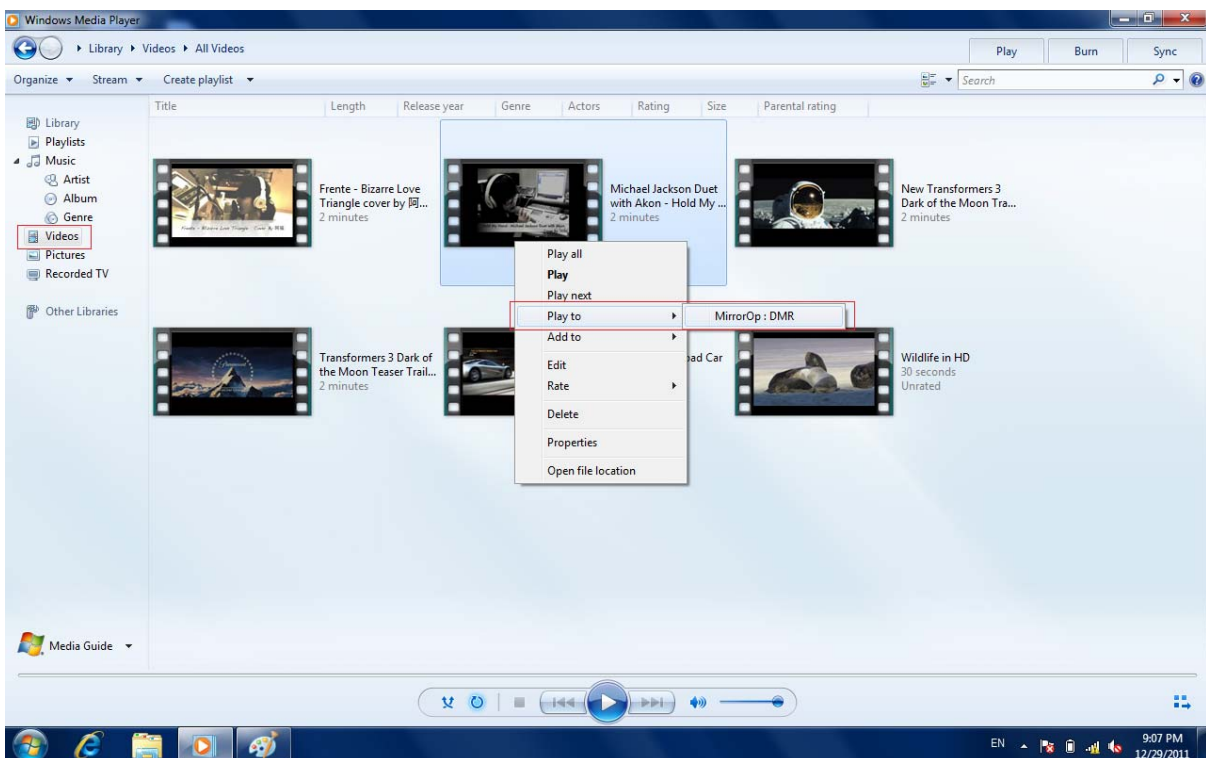
c. Click "Turn on media streaming" button.

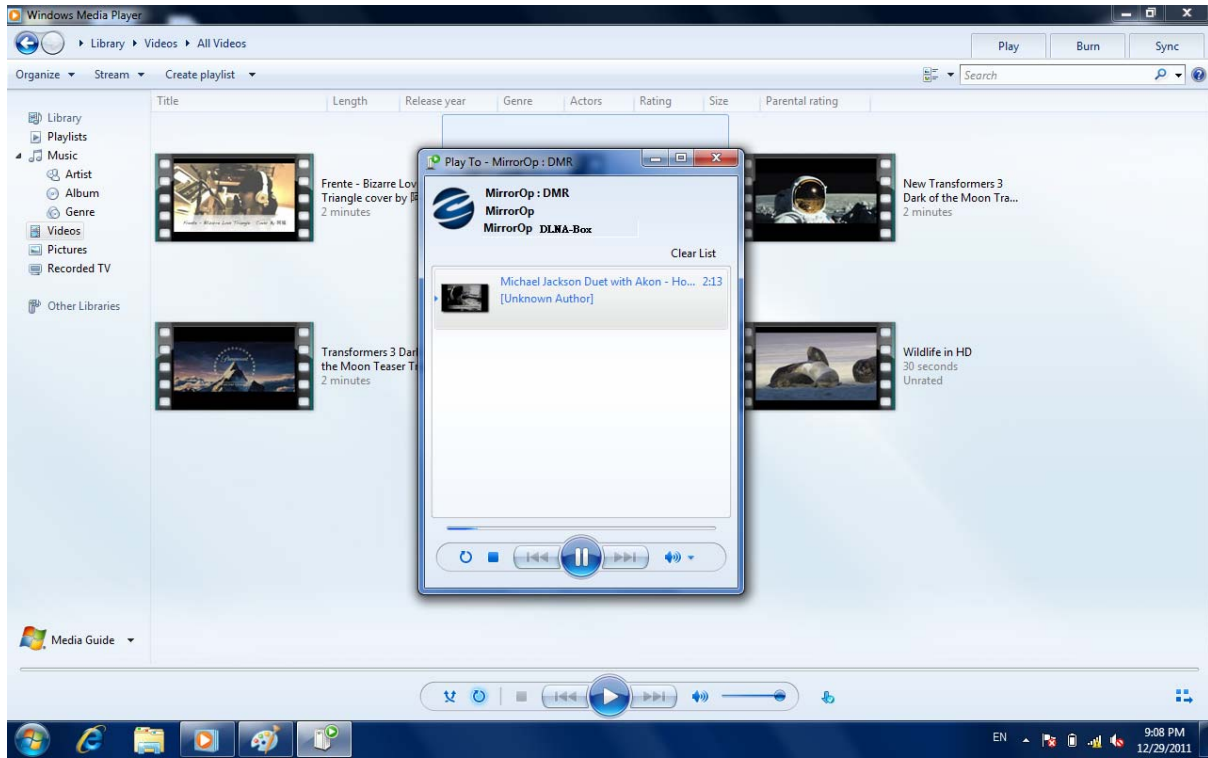


d. Select "All networks" from "Show device on:" and make sure "MirrorOp: DMR" is selected as "Allowed" then click OK button to finish setting. After finished setup, you can stream media content to DMR device direct.

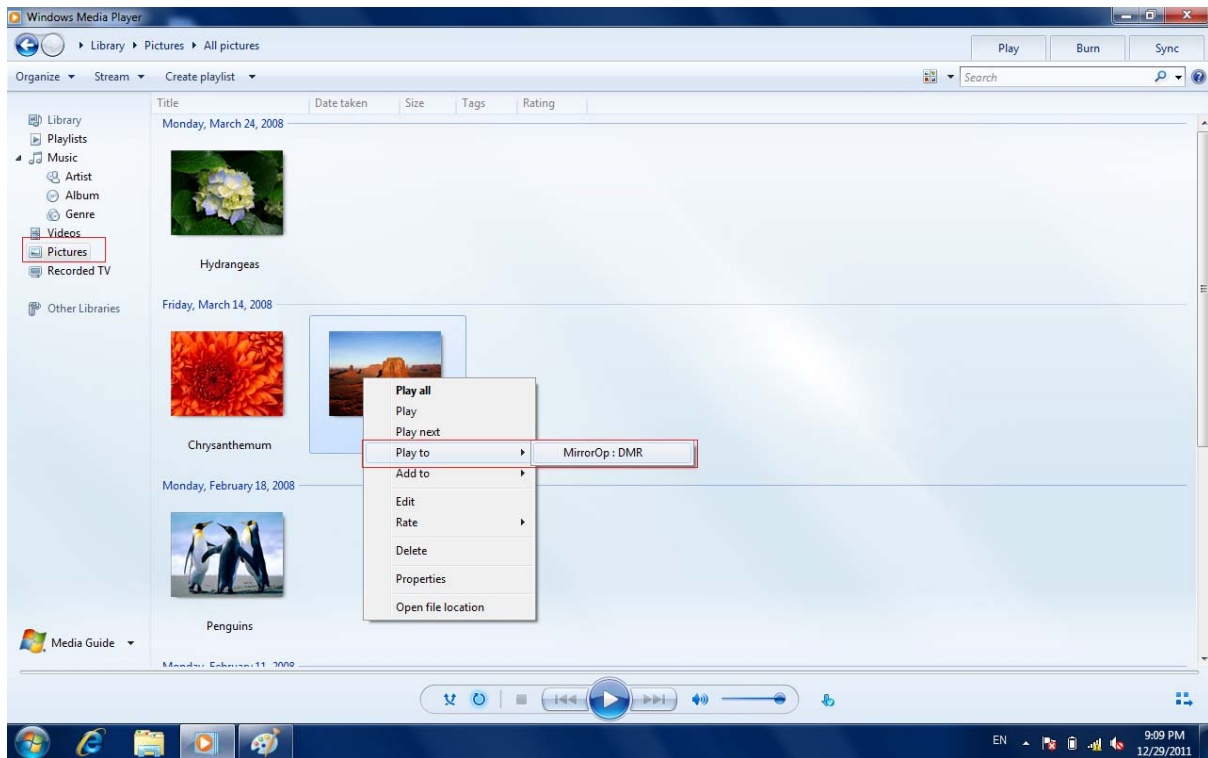


e. Video streaming: Go to Video Library then right-click on video file you want to stream. Then select MirrorOp DMR device from menu list of Play to. After that, the video is streamed on your TV which connected with your MirrorOp device.

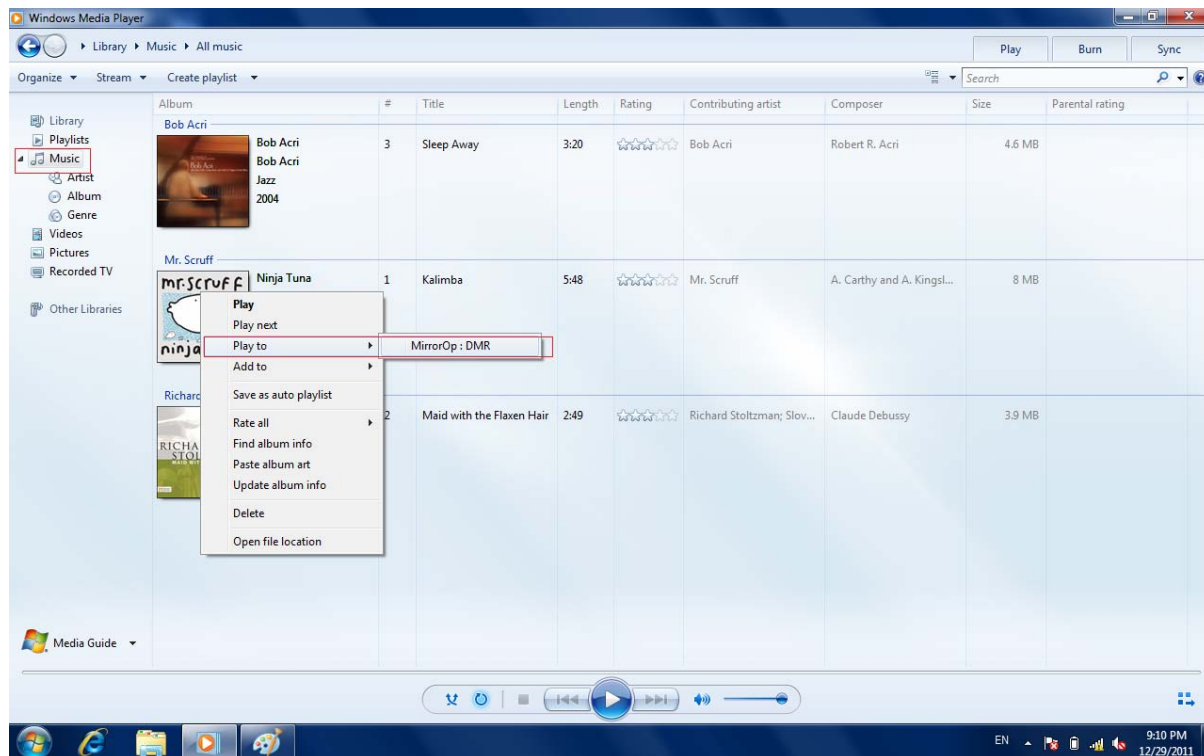




- f. Photo streaming: Go to Picture Library then right-click on photo file you want to stream. Then select MirrorOp DMR device from menu list of Play to. After that, the photo is streamed on your TV which connected with your MirrorOp device.



- g. Music streaming: Go to Music Library then right-click on photo file you want to stream. Then select MirrorOp DMR device from menu list of Play to. After that, the music is streamed on your TV which connected with your MirrorOp device.



RF Exposure Statement

To maintain compliance with FCC's RF Exposure guidelines, this equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

8 System requirements

Mac PC Requirements

CPU Grade	Intel Dual Core 1.4 GHz or better (PowerPC not supported)
Graphics	nVIDIA or ATI graphic card with 64MB VRAM or above
Operating System	Mac OS X 10.5+
Recommended Models	MacBook after 2009-01-21 All series of MacBook Pro MacBook Air after 2010-06-08 All Mac Desktops that meet the above hardware requirements

Windows PC Requirements

CPU Grade	Dual Core 1.8 GHz or better (excluding atom processor)
Display Adaptor	nVIDIA or ATI graphic card with 64MB VRAM or above
Operating System	Windows Vista, Windows 7, Windows XP
WiFi	802.11n

FCC Warning:

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- NOTE: 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 radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee 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 turning 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.

P/N5024