

ONVIF Test Tool v1.02 Installation Guide

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1 Installation guide

This installation guide document describes the procedure to install the ONVIF Test Tool v1.02 in section 2, ONVIF Test Tool installation.

Before installing the ONVIF Test Tool make sure the media framework **ffdshow** is installed. This framework is required for real-time audio and video playback and display. If installed prior to the installation of the ONVIF Test Tool, the framework will be automatically configured during the test tool installation process. Alternatively, the ffdshow framework can be configured manually as described in section 3, *Configuring ffdshow*. The ffdshow framework can be downloaded and installed from <http://sourceforge.net/projects/ffdshow-tryout/>

Windows Vista, and later Windows versions, requires the 'Function Discovery Resource Publication' service to be disabled for device discovery to work properly. Section 4, *Device Discovery Troubleshooting*, describes how to do that.

Windows XP has not IPv6 support installed by default. Section 5.1 Installing IPv6 in Windows XP describes the installation procedure. Also, Windows XP and potentially also other Windows versions might require the IPv6 routing table to be configured manually if IPv6 based tests will be run. A guideline of how to configure the IPv6 routing table is included in section 5, *Installing and configuring IPv6*.

The installation of ONVIF Test Tool v1.02 does not remove any previously installed ONVIF Test Tool versions. That is, they can successfully co-exist but if no longer needed, older ONVIF Test Tool versions can be manually uninstalled.

2 ONVIF Test Tool installation

2.1 Start installation

To start the installation of the ONVIF Test Tool launch **setup.msi** or **setup.exe**. They are located in the directory where the test tool zip-file was unpacked.

2.2 Welcome page

The first page of the installation application is the welcome page. Read through and note the copyright clause and then click 'Next' to proceed.



2.3 License Agreement

Read through the license agreement. If accepting the license agreement, select the 'I Agree' radio button and click 'Next' to proceed. Otherwise select the 'I Do Not Agree' and the installation will terminate without the ONVIF Test Tool being installed.



2.4 Target installation folder

Next page is the selection of the target installation folder. The installation application proposes a default target folder. To select another target directory click 'Browse ...' and select the desired new target directory.

Select whether the ONVIF Test Tool shall be available to all users of the target machine or only the one user installing the tool.

Once the target installation directory and tool availability are correct then click 'Next'.



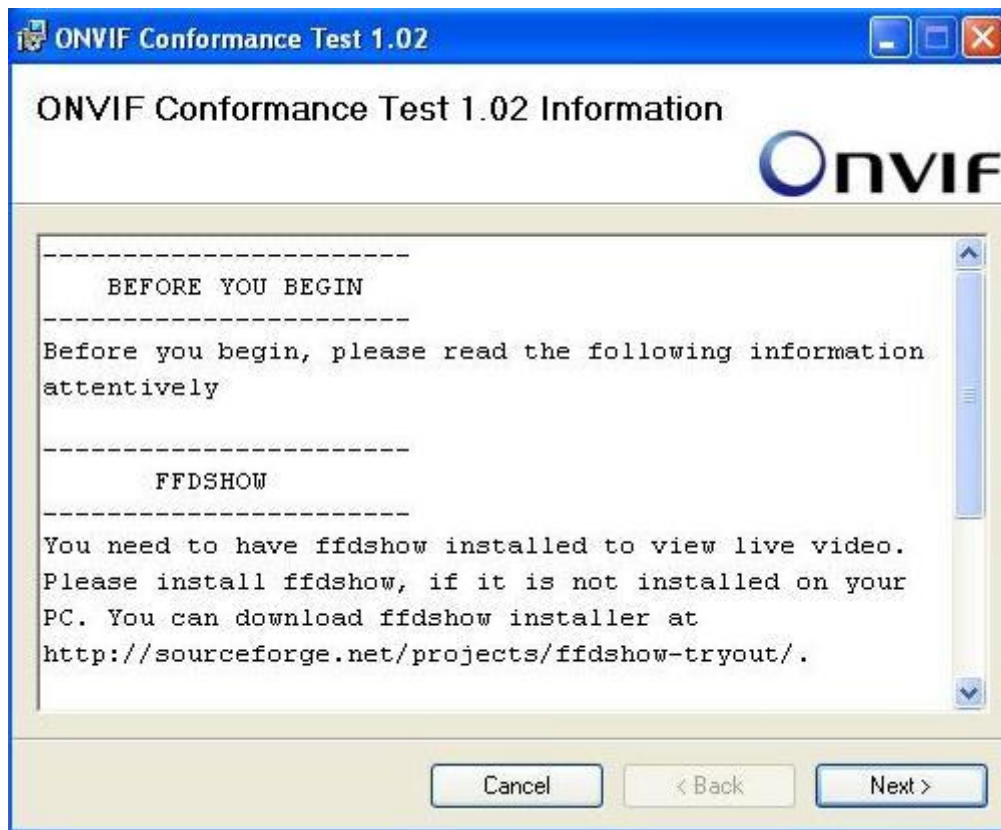
2.5 Start installation

The ONVIF Test Tool installation is now configured and the ONVIF Test Tool is now ready to be installed. Click 'Next' to proceed with the installation.



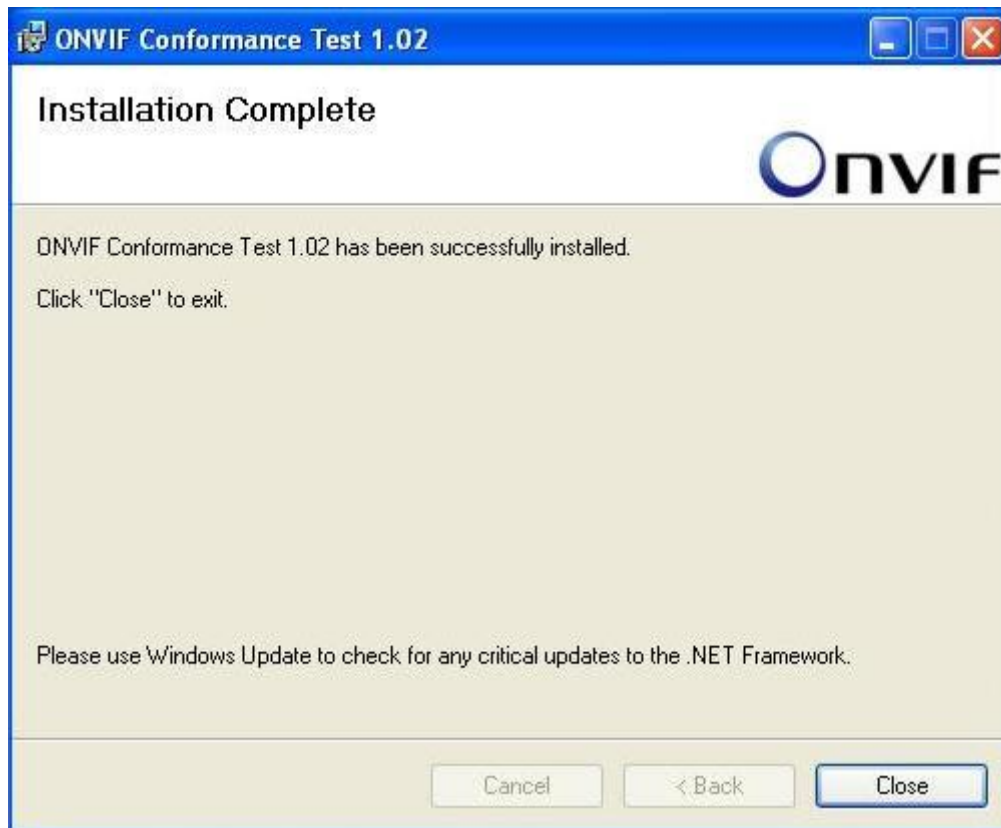
2.6 Installation information

The last step in the installation procedure is the installation information page. Carefully read through. Once finished, proceed by clicking 'Next'.



2.7 Finish installation

When installation is completed, click 'Close' to finish installation application. The ONVIF Test Tool is now ready for use.



2.8 Start application

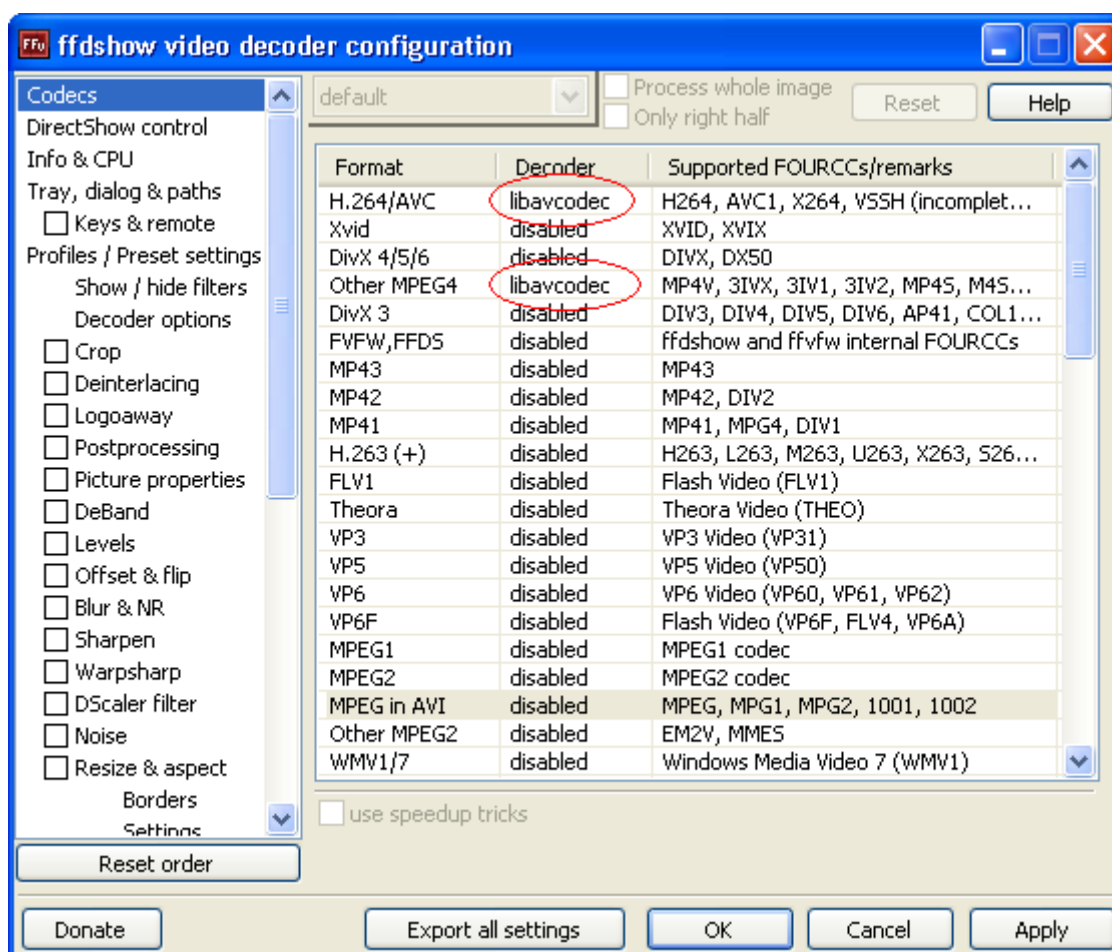
After the application installation is complete, there is a shortcut to the ONVIF Test Tool on the Windows Desktop and also one in the Start menu. Start the ONVIF Test Tool by clicking the icon.

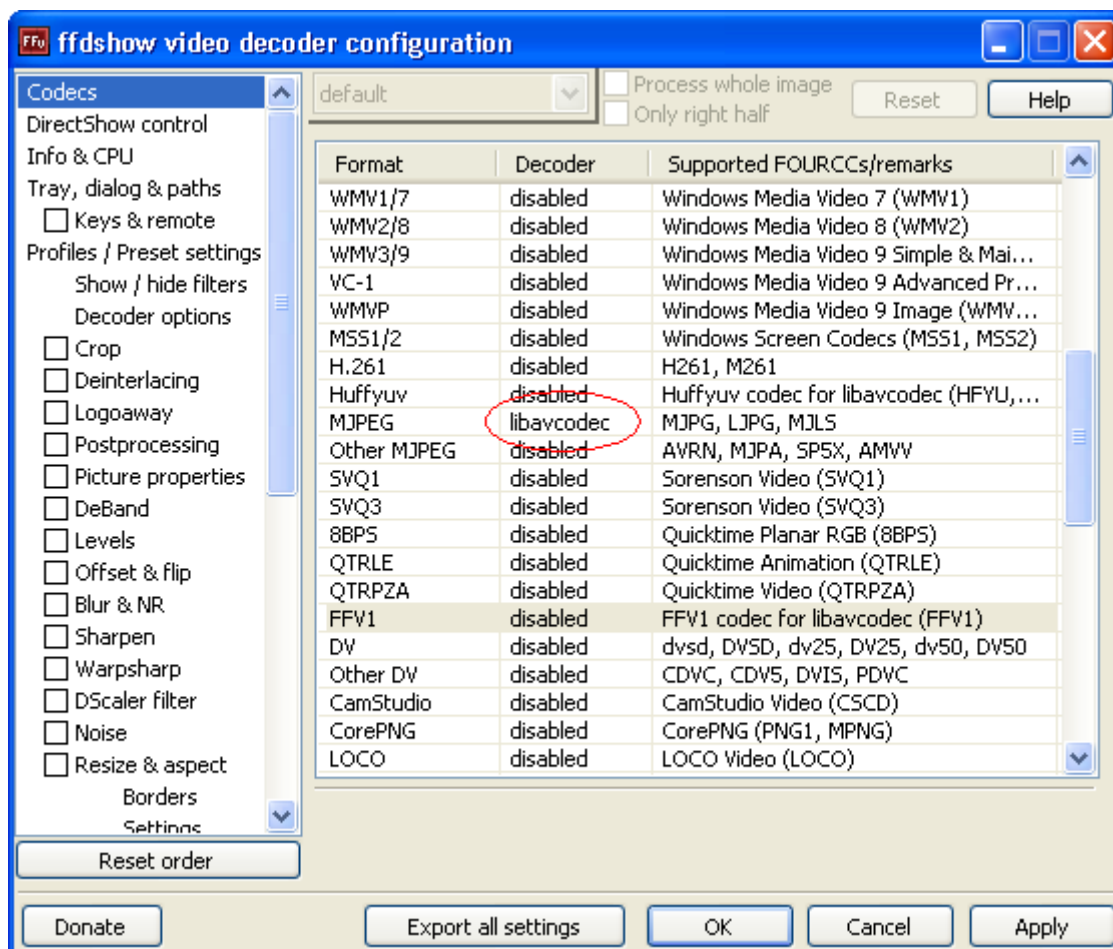
3 Configuring ffdshow

To display and playback video and audio the ONVIF Test Tool requires a multimedia framework, such as the ffdshow, to be installed on the computer. If ffdshow is installed before the installation of the ONVIF Test Tool, the installation program correctly configures ffdshow for use with the ONVIF Test Tool. Alternatively, ffdshow can be manually configured following the instructions below.

3.1 Video decoder configuration

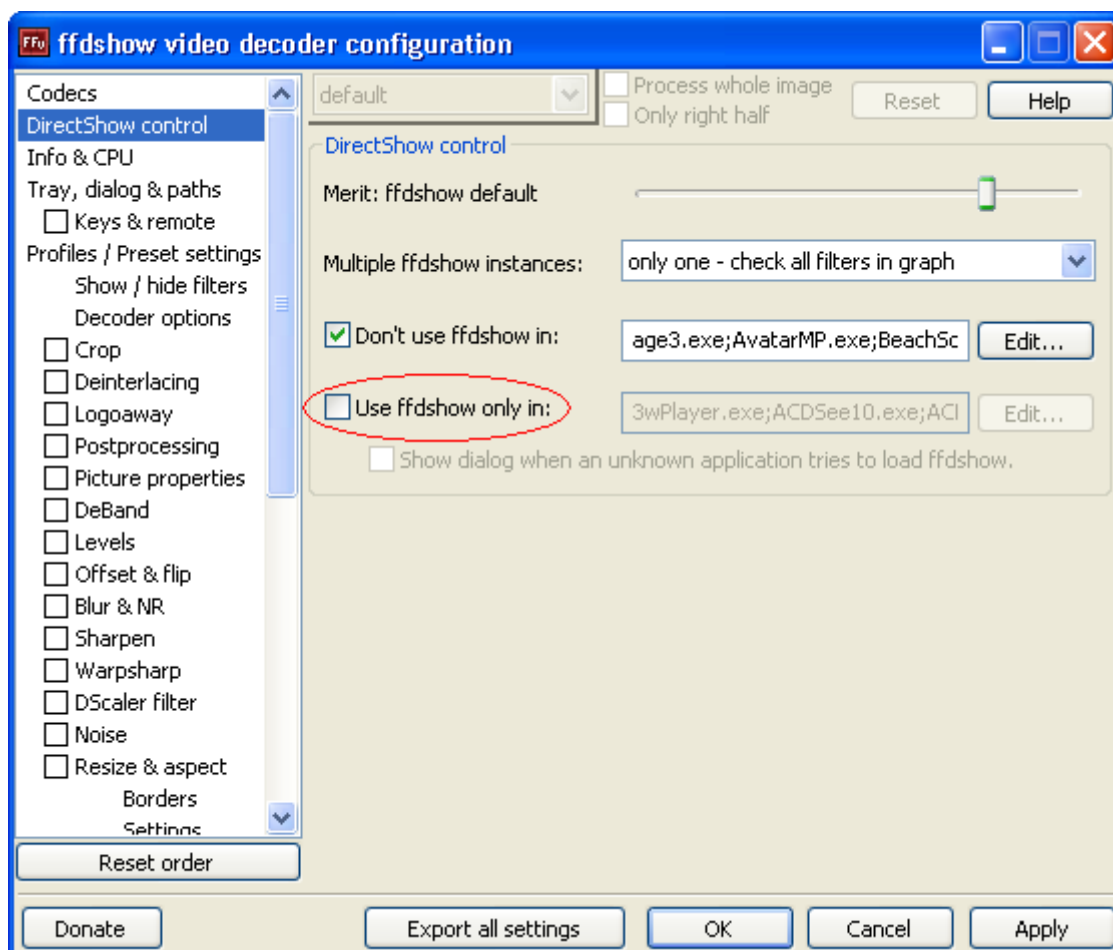
To configure ffdshow, launch the ffdshow video codec configuration utility and select the codecs configuration as illustrated below. Make sure 'H.264/AVC' and 'Other MPEG4' video formats have the 'libavcodec' selected as decoder, as well as the 'MJPEG' video format further down the video format list.





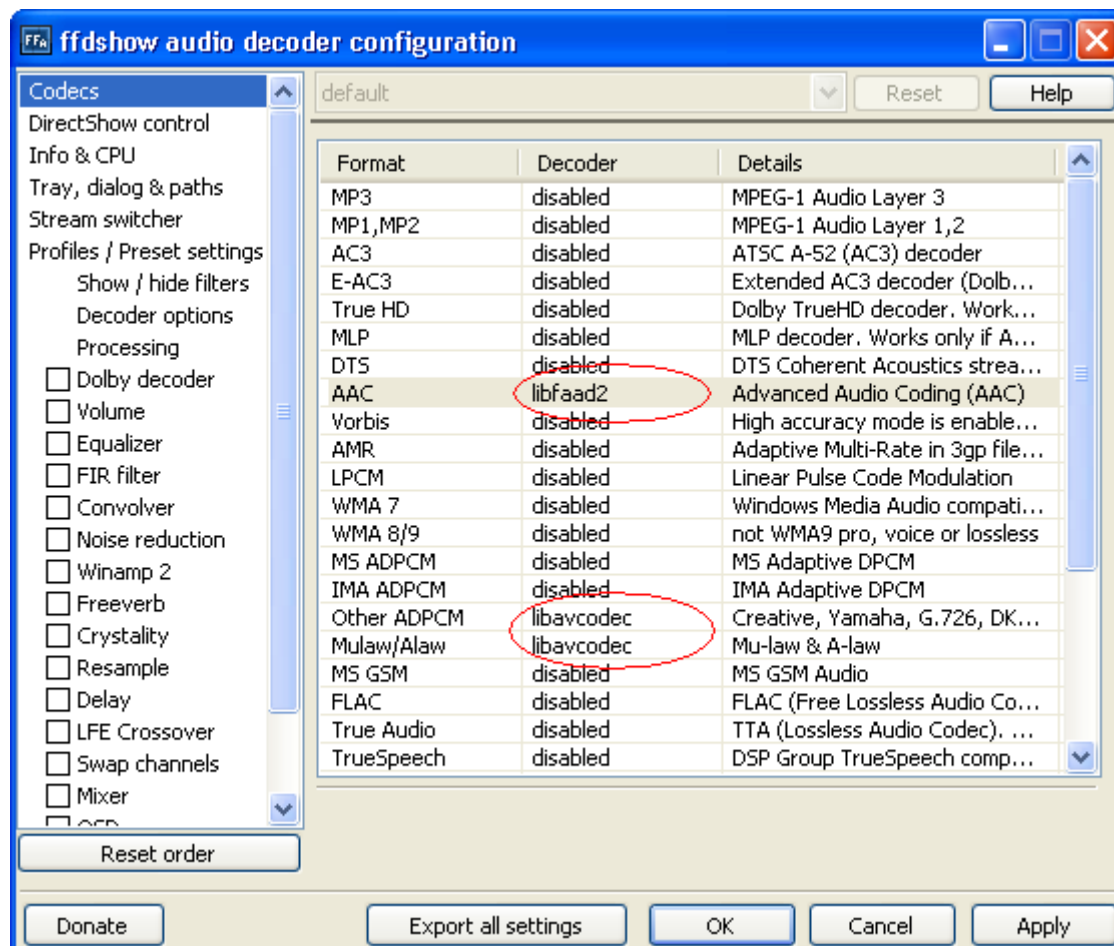
3.2 Video decoder DirectShow control

In the 'DirectShow control' menu pane, uncheck the 'Use ffdshow only in:' checkbox as illustrated below.



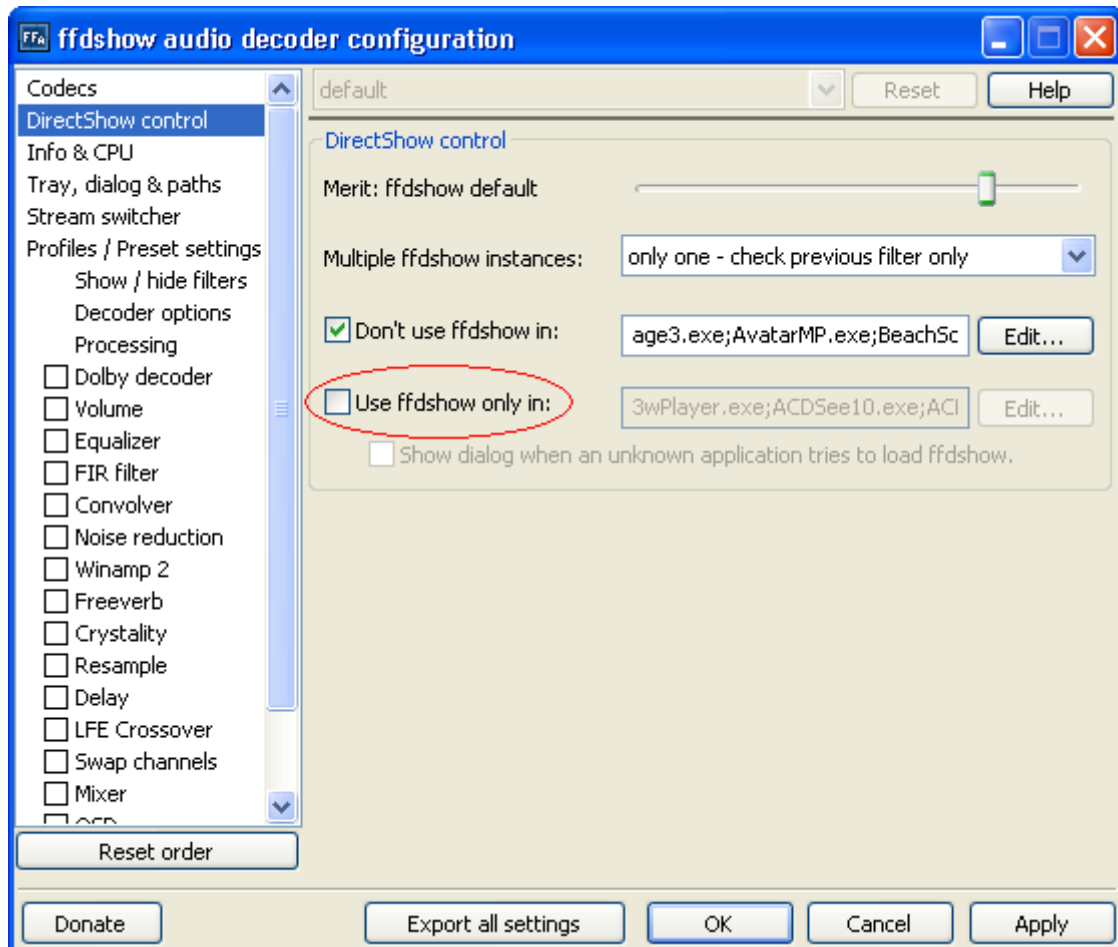
3.3 Audio decoder configuration

Launch the ffdshow audio codec configuration utility and select the 'Codecs' menu. Make sure 'libfaad2' decoder is selected for 'AAC' audio format, and 'libavcodec' is selected for 'Other ADPCM' and 'Mulaw/Alaw' audio formats, as illustrated below.





3.4 Audio decoder DirectShow control

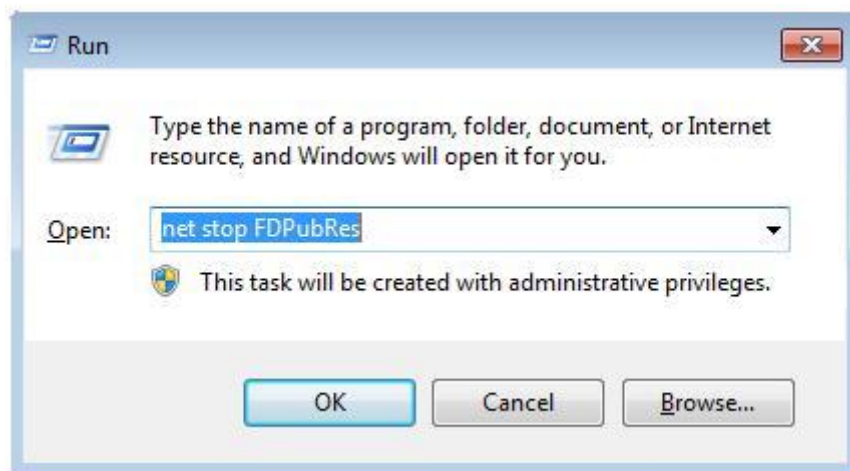
Similar as for video decoder configuration, also uncheck the 'Use ffdshow only in:' checkbox for DirectShow control in the audio decoder configuration.



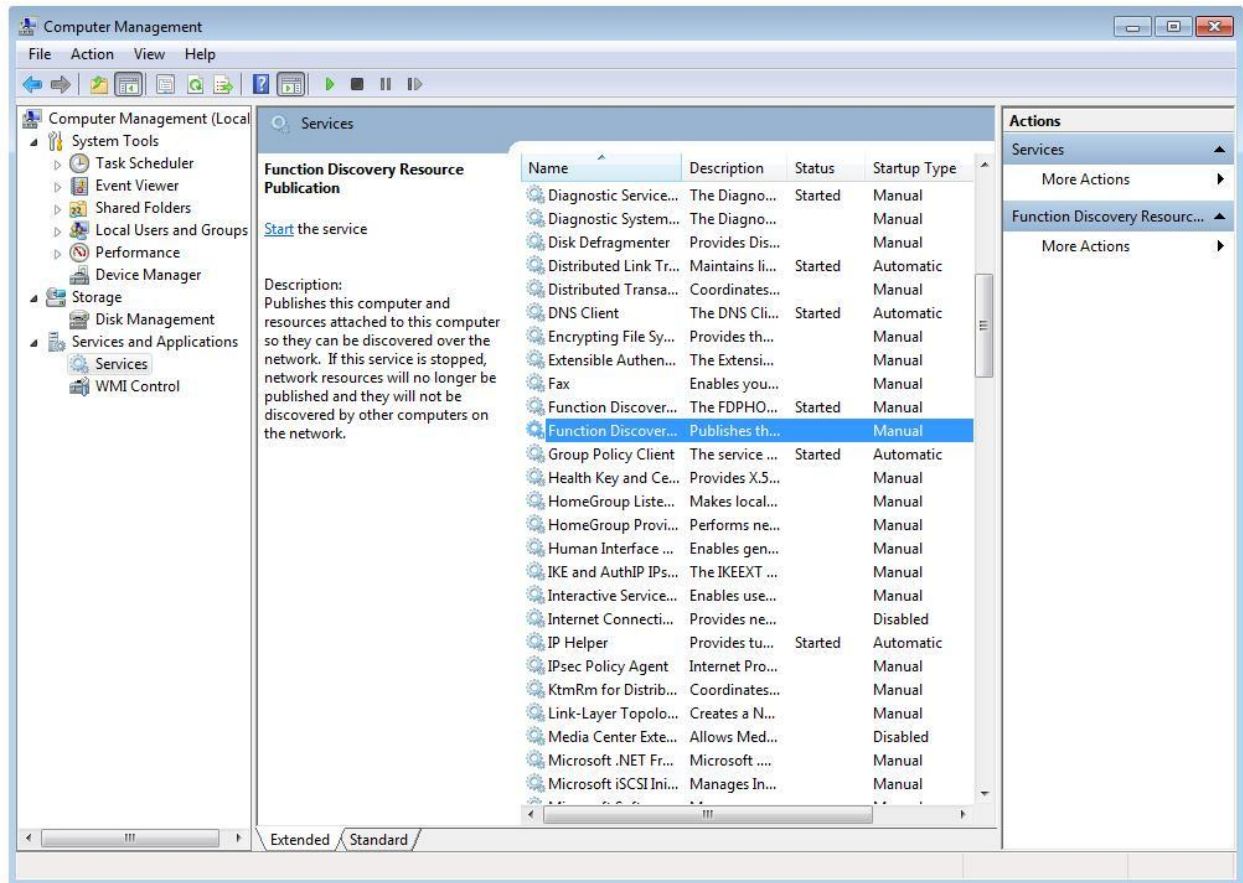
4 Device Discovery Troubleshooting

If using Windows Vista or higher, the Function Discovery Resource Publication service needs to be disabled for device discovery to work properly. This can be done either by executing the command 'net stop FDPubRes' in the Command Prompt, as illustrated below, or alternatively through the Services dialog, as described in the next section.

To disable the service make sure you are logged in as the Administrator. Press the -button of the keyboard and, while holding down the -button, press the 'R' key on the keyboard to open up the 'Run' dialog window. In the 'Open' text frame type 'net stop FDPubRes' as illustrated below, and press 'OK'.



Alternatively, start the Services tool and find the 'Function Discovery Resource Publication' in the service list. Make sure it is stopped, illustrated below.

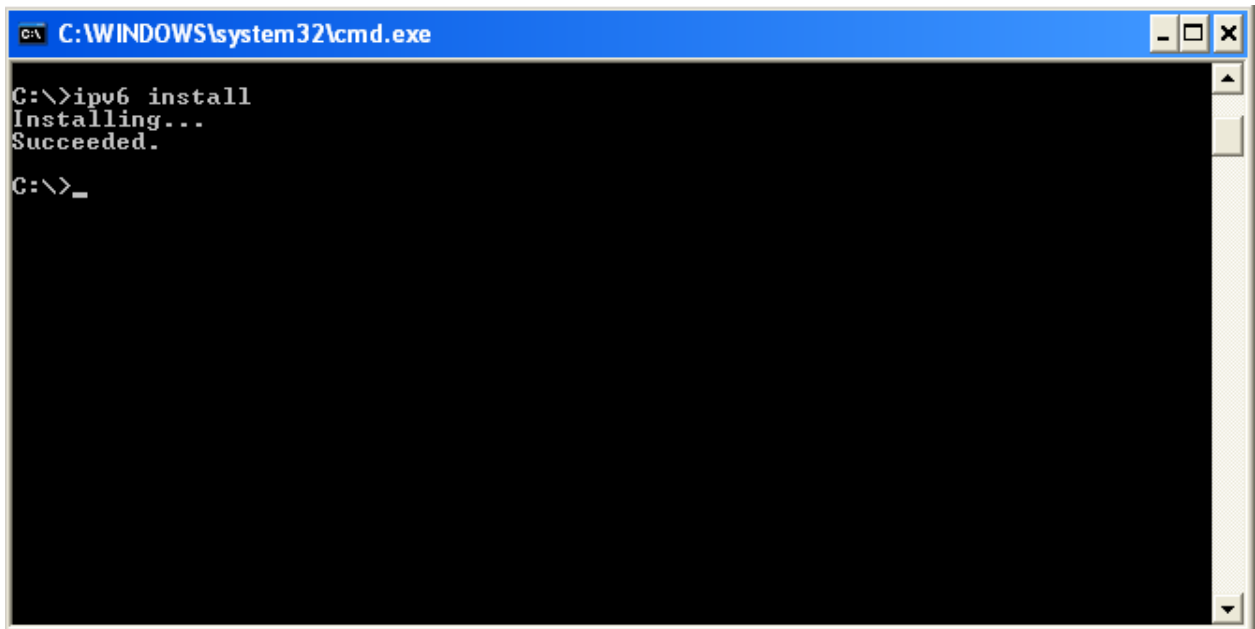


The service can also be disabled to prevent it from start after reboot using the management console.

5 Installing and configuring IPv6

5.1 Installing IPv6 in Windows XP

Windows XP does not have IPv6 installed by default. To install it start the Command Prompt and type 'ipv6 install' and press 'ENTER'.



A screenshot of a Windows XP Command Prompt window. The title bar reads 'C:\WINDOWS\system32\cmd.exe'. The command prompt shows the following text: 'C:\>ipv6 install', 'Installing...', and 'Succeeded.'. The cursor is on a new line after the prompt 'C:\>_'. The window has a blue title bar and standard Windows XP window controls (minimize, maximize, close) on the right.

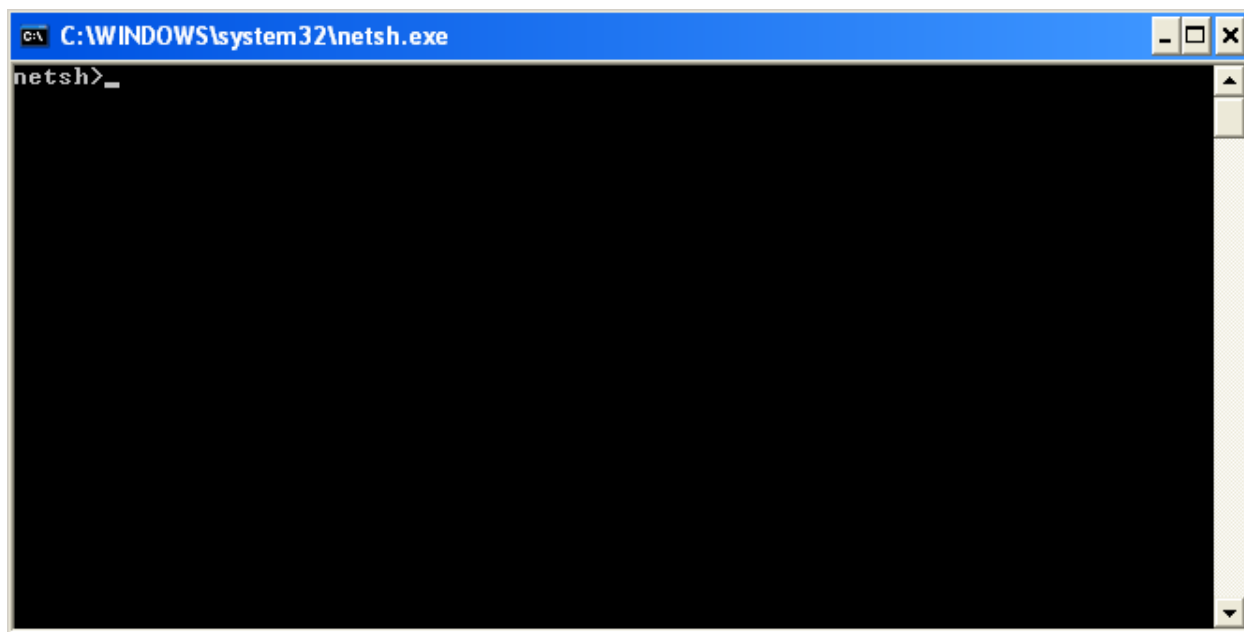
After installation is complete, reboot computer.

5.2 Configuring IPv6 routing

If experiencing problems connecting to devices using IPv6, manually configure the IPv6 routing table as described below. Note: This is typically seen on some Windows XP installations.

5.2.1 Start the netsh utility

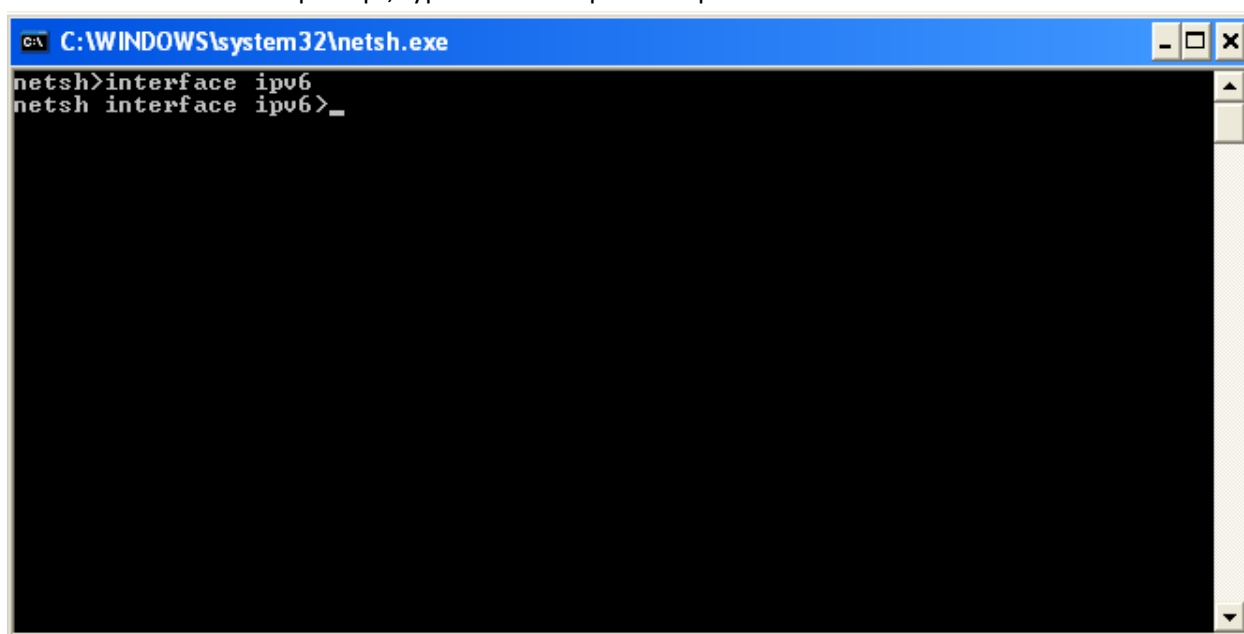
In the Command Prompt window, type 'netsh' and press 'ENTER'. A 'netsh' prompt will be shown, as is seen below.



```
C:\WINDOWS\system32\netsh.exe
netsh>_
```

5.2.2 Select IPv6 configuration

At the 'netsh' command prompt, type 'interface ipv6' and press 'ENTER'.



```
C:\WINDOWS\system32\netsh.exe
netsh>interface ipv6
netsh interface ipv6>_
```

5.2.3 Display current interfaces

To display the current interfaces, type 'show interface' and press 'ENTER' and the 'netsh interface ipv6' prompt.

Find the interface to be used, typically named 'Local Area Connection' and note its index in the 'Idx' column.

```
C:\WINDOWS\system32\netsh.exe
netsh>interface ipv6
netsh interface ipv6>show interface
Querying active state...

Idx  Met  MTU  State          Name
----  --  ---  -
5     2    1280 Disconnected   Teredo Tunneling Pseudo-Interface
4     0    1500 Connected      Local Area Connection
3     1    1280 Connected      6to4 Pseudo-Interface
2     1    1280 Connected      Automatic Tunneling Pseudo-Interface
1     0    1500 Connected      Loopback Pseudo-Interface

netsh interface ipv6>
```

5.2.4 Add routing entry

Also at the 'netsh interface ipv6' prompt, type 'add route prefix=<address prefix> interface=<interface idx>' and press 'ENTER'. The '<interface idx>' is the index of the network interface as being identified above. The '<address prefix>' is the prefix for the device (DUT) IPv6 address, in the format of '<address>/<prefix length>', e.g. '2001:1:1:1:1:1:1:1/128' or 'ff00::/8'.

```
C:\WINDOWS\system32\netsh.exe
netsh>interface ipv6
netsh interface ipv6>show interface
Querying active state...

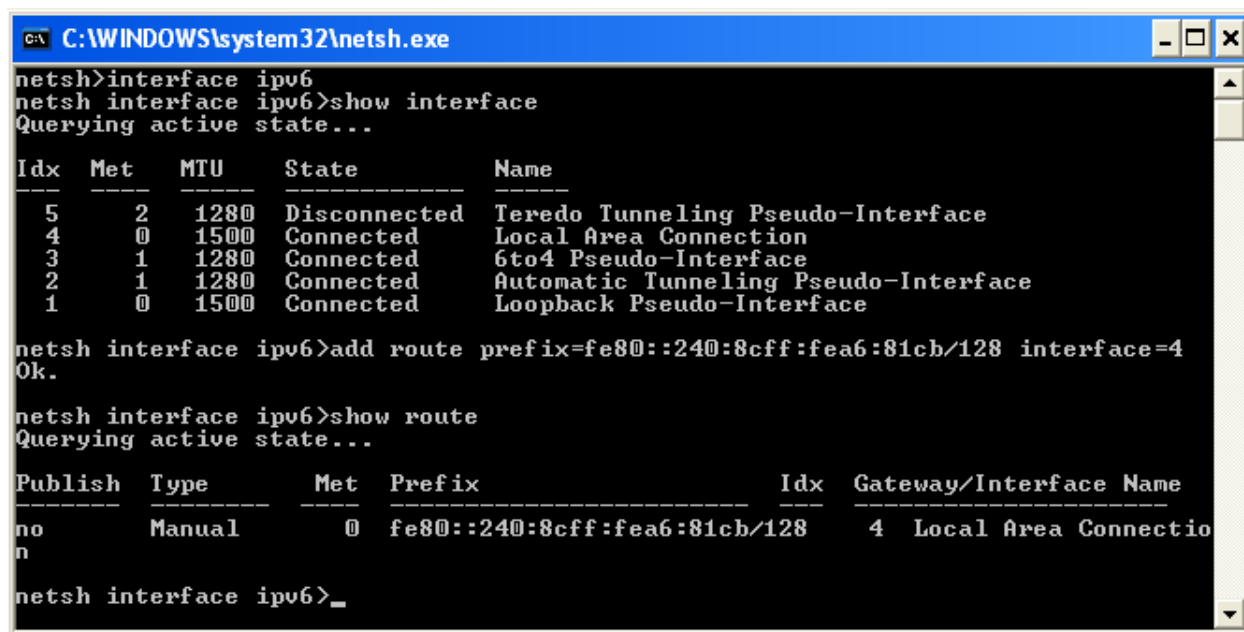
Idx  Met  MTU  State          Name
----  --  ---  -
5     2    1280 Disconnected   Teredo Tunneling Pseudo-Interface
4     0    1500 Connected      Local Area Connection
3     1    1280 Connected      6to4 Pseudo-Interface
2     1    1280 Connected      Automatic Tunneling Pseudo-Interface
1     0    1500 Connected      Loopback Pseudo-Interface

netsh interface ipv6>add route prefix=fe80::240:8cff:fea6:81cb/128 interface=4
Ok.

netsh interface ipv6>_
```

5.2.5 Verify routing information

To verify the added routing information, type 'show route' and press 'ENTER'. Verify that the new route is added to the routing table.



```

C:\WINDOWS\system32\netsh.exe
netsh>interface ipv6
netsh interface ipv6>show interface
Querying active state...

Idx  Met  MTU  State          Name
----  --  ---  -
5     2    1280 Disconnected   Teredo Tunneling Pseudo-Interface
4     0    1500 Connected      Local Area Connection
3     1    1280 Connected      6to4 Pseudo-Interface
2     1    1280 Connected      Automatic Tunneling Pseudo-Interface
1     0    1500 Connected      Loopback Pseudo-Interface

netsh interface ipv6>add route prefix=fe80::240:8cff:fea6:81cb/128 interface=4
Ok.

netsh interface ipv6>show route
Querying active state...

Publish Type    Met  Prefix                                     Idx  Gateway/Interface Name
-----
no       Manual    0    fe80::240:8cff:fea6:81cb/128             4    Local Area Connection

netsh interface ipv6>_
  
```

5.2.6 Add routing of other devices

All ONVIF devices to be tested for IPv6 based traffic needs to have a valid routing entry added to the routing table. That is, repeat the last two steps for all devices intended to be tested.

Note that routing for the address '2001:1:1:1:1:1:1:1' should be added to the routing table because it is used in the testing procedure.

5.2.7 Close netsh

To close the netsh configuration tool type 'close' and press 'ENTER'. The routing table of your windows installation has now been manually configured and can now be used by the ONVIF Test Tool to test IPv6 services.