

Video Streams

The network camera provides several image and video stream formats. Your requirements and the properties of your network will determine the type you use.

The Live View page in the network camera provides access to H.264, Motion JPEG, and MPEG-4 video streams, and to the list of available stream profiles. Other applications and clients can also access these video streams/images directly, without going via the Live View page.

Note:

AXIS M1054 does not support MPEG-4.

How to stream MPEG-4/H.264

This video compression standard makes good use of bandwidth, and can provide high quality video streams at less than 1 Mbit/s.

Your viewing requirements and the properties of your network will determine which combination of protocols and methods to use. The available options in AMC are:

Unicast RTP	This unicast method (RTP over UDP) should be your first consideration for live unicast video, especially when it is important to always have an up-to-date video stream, even if some images are dropped.	Unicasting is used for video-on-demand broadcasting, so that there is no video traffic on the network until a client connects and requests the stream. Note that there is a maximum of 20 simultaneous unicast connections.
RTP over RTSP	This unicast method (RTP tunneled over RTSP) is useful as it is relatively simple to configure firewalls to allow RTSP traffic.	
RTP over RTSP over HTTP	This unicast method can be used to traverse firewalls. Firewalls are commonly configured to allow the HTTP protocol, thus allowing RTP to be tunneled.	
Multicast RTP	This method (RTP over UDP) should be used for live multicast video. The video stream is always up-to-date, even if some images are dropped. Multicasting provides the most efficient usage of bandwidth when there are large numbers of clients viewing simultaneously. A multicast broadcast cannot however, pass a network router unless the router is configured to allow this. It is not possible to multicast over the Internet, for example. Note also that all multicast viewers count as one unicast viewer in the maximum total of 20 simultaneous connections.	

AMC negotiates with the camera to determine the transport protocol to use in the order listed above. This order can be changed and the options disabled, to suit specific requirements.

Important!

H.264, MPEG-4, and AAC are licensed technologies. The network camera includes one H.264 viewing client license; and one MPEG-4 (AXIS M1054 excepted) viewing client license, and one audio client license (AXIS M1031-W and AXIS M1054 only). Installing additional unlicensed copies of the clients is prohibited. To purchase additional licenses, contact your Axis reseller.

AXIS Media Control (AMC)

AXIS Media Control (AMC) in Microsoft Internet Explorer in Windows is the recommended method of accessing live video from the network camera.

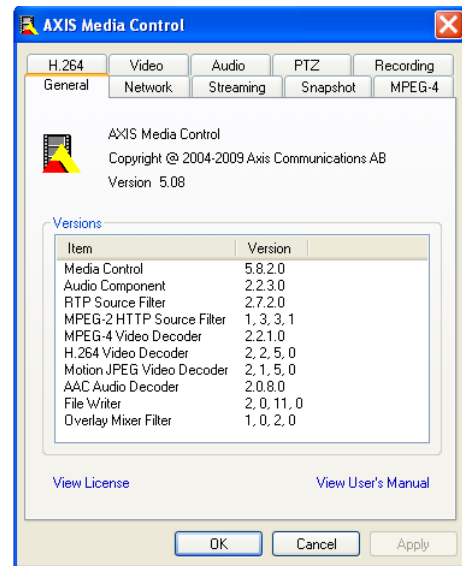
The AMC control panel can be used to configure various video and audio settings. Please see the readme file included in the tool for more information.

The AMC control panel is automatically installed on first use, after which it can be configured. Open the AMC Control Panel from:

- Windows Control Panel (from the Start menu)
- Alternatively, right-click the video image in Internet Explorer and click **Settings** to access the AMC window.

Note:

AXIS M1011 and AXIS M1011-W do not support audio.
 AXIS M1054 does not support MPEG-4.



Motion JPEG

This format uses standard JPEG still images for the video stream. These images are then displayed and updated at a rate sufficient to create a stream that shows constantly updated motion.

The Motion JPEG stream uses considerable amounts of bandwidth, but provides excellent image quality and access to every image contained in the stream. The recommended method of accessing Motion JPEG live video from the network camera is to use the AXIS Media Control (AMC) in Microsoft Internet Explorer in Windows.

Alternative methods of accessing the video stream

You can also access video/images from the network camera in the following ways:

- Motion JPEG server push (if supported by the client, Firefox, for example). This option maintains an open HTTP connection to the browser and sends data as and when required, for as long as required.
- Still JPEG images in a browser. Enter the path - `http://<ip>/axis-cgi/jpg/image.cgi`
- Windows Media Player. This requires AMC and the MPEG-4/H.264 viewing client to be installed. The paths that can be used are listed below in the order of preference:
 - Unicast via RTP: `axrtpu://<ip>/axis-media/media.amp`
 - Unicast via RTSP: `axrtsp://<ip>/axis-media/media.amp`
 - Unicast via RTSP, tunneled via HTTP: `axrtsphhttp://<ip>/axis-media/media.amp`
 - Multicast: `axrtpm://<ip>/axis-media/media.amp`
- To access the video stream from QuickTime™ the following paths can be used:
 - `rtsp://<ip>/axis-media/media.amp`
 - `rtsp://<ip>/axis-media/media.3gp`

Notes:

- The network camera supports QuickTime 6.5.1 and later.
- QuickTime adds latency to the video and audio stream (up to 3 seconds).
- It may be possible to use other players to view the MPEG-4/H.264 stream using the paths above, although Axis does not guarantee this.
- <ip> = IP address