



**Elecard AVC PlugIn for WMP**

**User Guide**

**Version 2.0**

## Notices

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# 1. Introduction

## 1.1 Preface

**Elecard AVC PlugIn for WMP** is the package of components for receiving media data from network (RTP, UDP packets, receiving streaming from RTSP server), and playback streams and files. The PlugIn allows decoding of AVC/H.264 (MPEG-4 P.10 ISO/IEC 14496-10) video, MPEG-2 (ISO/IEC 13818-7) and MPEG-4 (ISO/IEC 14496-3) AAC audio received from network or read from local media storage.

The PlugIn supports the following media data formats:

### Video

- AVC/H.264 (MPEG-4 P.10 ISO/IEC 14496-10)

### Audio

- MPEG-1 (ISO/IEC 11172-3) Layer I, II, and III
- MPEG-2 (ISO/IEC 13818-3)
- MPEG-2 (ISO/IEC 13818-3) extensions to lower sampling frequencies, including the unofficial MPEG-2.5 format
- LPCM (up to 7.1 / 24 bits / 96 kHz)
- MPEG-2 (ISO/IEC 13818-7) and MPEG-4 (ISO/IEC 14496-3) AAC

Elecard AVC PlugIn for WMP includes the following components:

Table 1. Elecard AVC PlugIn for WMP Components

Component	File Name	Description
<b>Elecard MPEG Audio Decoder</b>	emad.ax	DirectShow filter for software-only decoding MPEG-1, MPEG-2, MPEG-2.5 and LPCM audio streams.
<b>Elecard AVC Video Decoder</b>	eavcdec.ax	DirectShow filter for decoding AVC/H.264 video (MPEG-4 P.10 ISO/IEC 14496-10) streams.
<b>Elecard AAC Decoder</b>	eaacd.ax	DirectShow filter for software-only decoding MPEG-2 (ISO/IEC 13818-7) and MPEG-4 (ISO/IEC 14496-3) AAC audio streams.
<b>Elecard MPEG Demultiplexer</b>	empgdmx.ax	DirectShow filter for splitting of MPEG-1 System Streams (ISO/IEC 11172-1), MPEG-2 Program and Transport Streams (ISO/IEC 13818-1) into video and audio streams.
<b>Elecard MPEG Push Demultiplexer</b>	empgpdmx.ax	DirectShow filter for splitting of MPEG-1 System Streams (ISO/IEC 11172-1), MPEG-2 Program and Transport Streams (ISO/IEC 13818-1) into video and audio streams in a push mode.

Component	File Name	Description
<b>Elecard NWSource-Plus</b>	enwsplus.ax	DirectShow filter for receiving media data from the network. It receives the RTP and UDP packets and feeds the filter graph with stream data contained in these packets.
<b>Elecard RTSP Net Source</b>	ertspnws.ax	DirectShow filter that sets the connection with RTSP server sends request for starting, stopping, pausing the media broadcasting and positioning in the stream, receives media data from RTSP server.

## 1.2 System requirements

- SSE-enhanced CPU (Intel® Pentium III, Celeron, AMD® Athlon, Opteron etc.)
- 128 MB RAM
- Any VGA card
- Windows® 2000/XP/2003 Server/Vista

## 2. Open URL Dialog Use

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To receive media data broadcasted from a media server click **Open URL** on the **File** menu of Windows Media Player.

### 2.1 Receiving Data via RTSP Protocol

To receive data via RTSP protocol the media file address should be typed in the following way:

```
elecard_rtsp://server_address:port[/data_path]
```

where:

*server\_address* – server IP or DNS name.

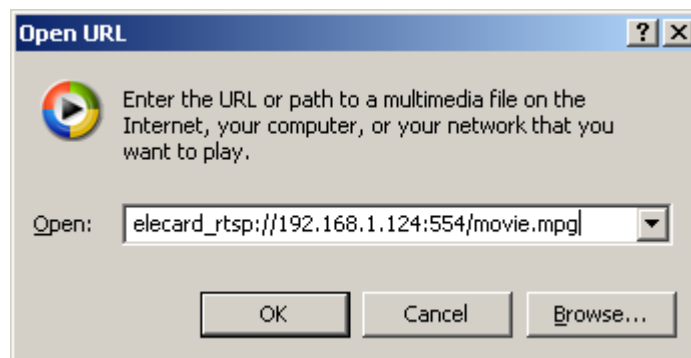
*port* – server port number for RTPS commands (unsigned integer value from 1 to 65535; 554 - default value).

*data\_path* – media file for playback.

**For example:**

```
elecard_rtsp://192.168.1.124:554/movie.mpg
```

Figure 1.Windows Media Player - Open URL Dialog



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**Note:** You can use Elecard VOD Server for broadcasting with RTSP controlling (<http://www.elecard.com/products/iptv-solutions/v-cinema/vod-videoserver.php>).

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## 2.2 Receiving Streams over the Network via UDP/RTP

To receive streams over the network via UDP/RTP the URL address should be typed as described below.

### 2.2.1 For multicast:

```
elecard://mcast_group:port[[:s=server_address][:i=interface]
[:t=payload_type]]/type
```

where:

*mcast\_group* – multicast IP address (e.g. 234.5.5.5).

*port* – unsigned integer value from 1 to 65535.

*server\_address* – data source server IP or DNS name.

*interface* – local interface IP.

*payload\_type* – stream payload type (m2p, m2t, m1s).

*type* – type of stream transport (udp or rtp).

#### For example:

```
elecard://234.5.5.5:10201:s=192.168.57.14:i=192.168.57.23:t=m2p/udp
```

or

```
elecard://234.5.5.5:10201/udp
```

### 2.2.2 For unicast:

```
elecard://server_address:port[[:i=interface][:t=payload_type]]/type
```

where:

*server\_address* – data source server IP or DNS name

*port* – unsigned integer value from 1 to 65535

*interface* – local interface IP

*payload\_type* – stream payload type (m2p, m2t, m1s)

*type* – type of stream transport (udp or rtp)

#### For example:

```
elecard://192.168.57.14:10201:i=192.168.57.23:t=m2p/udp
```

or

```
elecard://192.168.57.14:10201/udp
```

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**Note:** You can use Elecard NWServer for unicast/multicast streaming without RTSP controlling (<http://www.elecard.com/products/products-pc/sdk/decoder-sdk/>).

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