



VIDEO COMPRESSION GURU

Elecard AVC PlugIn for WMP v.3.4

User Guide

Notices

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CONTENTS

1. INTRODUCTION.....	4
1.1 PREFACE.....	4
1.1 SYSTEM REQUIREMENTS	5
2. OPEN URL DIALOG USE.....	6
2.1 RECEIVING DATA VIA RTSP PROTOCOL.....	6
2.2 RECEIVING STREAMS OVER THE NETWORK VIA UDP/RTP	6
2.2.1 <i>Multicast</i>	6
2.2.2 <i>Unicast</i>	7

1. Introduction

1.1 Preface

Elecard AVC PlugIn for WMP is the package of Elecard components for media data receiving from network using UDP, RTP or RTSP protocols, and playing back streams and files. The PlugIn allows decoding of AVC/H.264 (MPEG-4 P.10 ISO/IEC 14496-10) video, MPEG and AAC audio received from network or read from local media storage.

The PlugIn supports the following media data formats multiplexed into MPEG-1 System Streams (ISO/IEC 11172-1), MPEG-2 Program or Transport Streams (ISO/IEC 13818-1), MPEG-4 System Streams (MP4, ISO/IEC 14496-14), or 3GPP2 System Streams (3GPP TS 26.234 based on ISO/IEC 14496-12)

- **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

***Note:** Playing back and decoding of files are available only if third-party decoders are not installed in the current OS.*

Elecard AVC PlugIn for WMP includes the following components:

Table 1. Elecard AVC PlugIn for WMP Components

Component	File Name	Description
Elecard MPEG Audio Decoder	emad.ax	DirectShow filter for software-only decoding MPEG-1, MPEG-2, MPEG-2.5 and LPCM audio streams.
Elecard AVC Video Decoder	eavcdec.ax	DirectShow filter for decoding AVC/H.264 video (MPEG-4 P.10 ISO/IEC 14496-10) streams.
Elecard AAC Audio Decoder	eaacd.ax	DirectShow filter for software-only decoding MPEG-2 (ISO/IEC 13818-7) and MPEG-4 (ISO/IEC 14496-3) AAC audio streams.
Elecard MPEG Demultiplexer	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.
Elecard MPEG Push Demultiplexer	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.
Elecard MP4 Demultiplexer	emp4demux.ax	DirectShow filter for demultiplexing of ISO/IEC 14496-14 file format (MP4) and 3GPP2 System streams into a MPEG-4, H.263, AVC/H.264 video streams and AAC, AMR, MPEG-1/2 Audio Layer 3 audio streams.

Component	File Name	Description
Elecard NWSource-Plus	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.
Elecard RTSP Net Source	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® 8/10

2. Open URL Dialog Use

To receive media data broadcasted from a media server, click **Open URL** on the **File** menu of Windows Media Player or press hot keys **Ctrl+U**.

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`

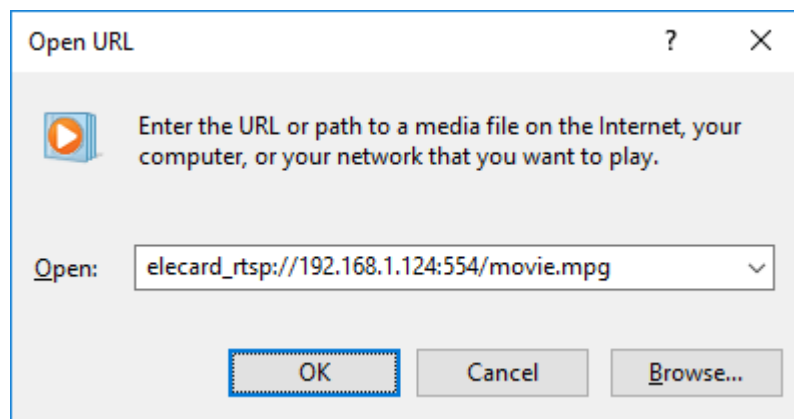


Figure 1. Windows Media Player - Open URL Dialog

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 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 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`