Elecard MPEG-2 PlugIn for WMP
v.5.4
User Guide
Notices

Elecard MPEG-2 PlugIn for WMP v.5.4 User Guide

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For information, contact Elecard.
Tel: +7 (3822) 488-580.

More information can be found at: https://www.elecard.com
For Technical Support, please contact the Elecard Technical Support Team: tsup@elecard.com

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1. Introduction

1.1 Preface

Elecard MPEG-2 PlugIn for WMP is the package of Elecard components for media data receiving from network using UDP, RTP or RTSP protocols or from files, and decoding MPEG-2 video and MPEG-1/2 audio streams. The package can be used with all generations of WMP (Windows Media Player) or any other application based on the DirectShow architecture.

The PlugIn supports the following media data formats:

- **Video**
  - MPEG-2 video (ISO/IEC 13818-7)
  - MPEG-1 (ISO/IEC 11172-2)

- **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)

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

MPEG-2 PlugIn for WMP includes the following components:

| Table 1. Elecard MPEG-2 PlugIn for WMP Components |
|-----------------------------------------------|-----------------------------------------------|
| **Component**                                  | **File Name**                                  | **Description**                                 |
| Elecard MPEG-2 Video Decoder                   | em2vd.ax                                      | DirectShow filter for real-time video decoding. Provides high resolution, full quality decoding, optimized for the most efficient CPU usage. |
| Elecard MPEG Audio Decoder                     | emad.ax                                       | DirectShow filter for software-only decoding MPEG-1, MPEG-2, MPEG-2.5 and LPCM audio streams. |
| Elecard MPEG Demultiplexer                     | empdmx.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                | empdpdmx.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 NWSource-Plus                          | enwsplus.ax                                   | DirectShow filter for receiving media data from the network. It receives the RTF and UDP packets and feeds the filter graph with stream data contained in these packets. |
### 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:

```
video://server_address:port[/data_path],
```

where:
- **server_address** – server IP or DNS name;
- **port** – server port number for RTSP commands (unsigned integer value from 1 to 65535; 554 - default value);
- **data_path** – media file for playback.

**For example:**

```
video://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. 233.5.5.5).
- **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