

User Manual

StreamTo
Version 1.0.0

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Build 1
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1 Usage

StreamTo is a console tool running on MS-Windows or Linux based USB-Host computers. At least one USB OABR-Stick Raw must be connected and latest `broadway2_api` must be already installed as described in `broadway2` user manual.

The `streamto` tool supports:

- FC611 - USB OABR Adapter Raw (TJA1100MRA4)
- FC612 - USB OABR Adapter Raw (TJA1101)

2 Overview

StreamTo supports following use-cases.

- Stream mpeg-4 ts-files from file to Layer2 as AVTP
- Receive Ethernet Layer2 stream and convert to Layer3 RTP

For build-in help simply enter:

```
> streamto -h
```

2.1 File to AVTP stream

With this command, a recorded ts-file can be used as source and stream AV contents on Ethernet Layer2. Means, would replace an AVTP Ethernet camera and enables a pre-defined stream for validation and verification of video monitors and decoders connected direct to Automotive Ethernet Layer2.

Open the specified H.264/H.265 TS file and send contents as IEEE P1722 AVTP compliant stream.

```
> streamto ts2av <ts-file> \  
[-s <stream_id>] [-m <destination_mac_address>]
```

Options:

`-s <stream_id>` IEEE 802.1Qat stream ID. Defaults to zero if this option is not specified.

`-m <destination_mac_address>` Destination MAC address.
Defaults to FF-FF-FF-FF-FF-FF (broadcast) if this option is not specified.

`-d <device_instance>` Zero-based index of the device instance to use, default 0.

`-v` enable verbose mode

2.2 AVTP stream to RTP

Receive an IEEE P1722 AVTP compliant stream, convert it to an RTP/UDP stream, and forward it to the specified host. For simplest usage, using localhost as destination, will enable to run VLC MediaPlayer on given RTP port to decode and show received Layer2 AVTP streams.

```
> streamto av2rtp <destination_host> \  
  [-u <unique_id>] [-m <source_mac_address>] \  
  [-p <port_number>] [-d <device_instance>]
```

Options:

`<destination_host>` target ip-addr on TCP/IP.
Default port is 5000

`[-u <unique_id>` Unique ID used in the IEEE 802.1Qat stream ID, default 0.

`[-m <source_mac_address>]` MAC address specified as string with 12 characters (e.g. '112233445566'), default 0xFFFFFFFF

`[-p <port_number>]` Port number to be used, default 5000.

`[-d <device_instance>]` Zero-based index of the device instance to use, default 0.

2.3 RTP to VLC Media Player

Requires installed VLC Media Player. VLC Media Player is available for Windows and Linux.

Famous and well known open-source Video LAN tool can be downloaded here:

<https://www.videolan.org/vlc/index.de.html>

As streamto supports the conversion from received AVTP Layer2 streams

to standard Layer3 RTP protocols, VLC Media Player needs just to be configured for receiving this RTP network stream to decode and show it.

