

MAYAH Communications

Application Note 6

HTTP streaming

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1 HTTP / Shoutcast / Icecast streaming

Most MAYAH codecs are able to generate different-coded audio streams (encoder algorithms) at the same time. The count of streams depends on the used model.

The generation of the streams can be executed from any web client/player by running HTML-command files stored in the WWW directory of the addressed device.

The first network interface card (control NIC) will be used for HTTP streaming by default and not the second network interface card (streaming NIC) if available. The file 'WebserverOnStreaming.nic' in the WWW folder of the device enables also the streaming NIC for HTTP streaming if present! Please create this file in the corresponding device folder to use the Webserver (including HTTP streaming) on all NICs and reboot the device to activate or deactivate this special mode.

2 HTTP Command Files

Structure of a HTML command file (see also example files):

Syntax:

```
<!--#exec cgi="/streamfile.cgi <Param1> <Param2> <Param3>
                                <Param4> <Param5>"-->
```

Parameter:

- Param1: [Subcodec]
- Param2: [Algorithm]
- Param3: [Samplerate]

Param4: [Bitrate]
 Param5: [Mode]

Subcodec defines the encoder that should run the requested algorithm. This value is valid from 1 to the maximum subcodec entry.

Please note that only different subcodecs can be streamed at the same time.

Algorithm, Samplerate, Bitrate, Mode are to be used as defined in the encoder section of the communication command reference manual. The additional value '**none**' for **algorithm** is to be set for using the actual encoder settings, e.g. `<!--#exec cgi="/streamfile.cgi 1 none 44100 48000 mono"-->`. In this case values for sample rate, bit rate and mode have to be set, but are not relevant.

Note: Streaming with different sample rates only works properly, if the rates are multiples of the running sample rates. Example: A mix of 32 and 48kHz doesn't work. A mix of 8, 16, and 32kHz or a mix of 8, 16 and 48kHz works fine.

Note: The encoder audio type or the audio mixer (see Communication Reference Manual) has to be set individually for each used subcodec.

3 Execution of HTTP Command Files

Any HTTP request will start an audio stream/encoder with the requested parameter, if no other audio stream/encoder is active on this slot at this time. After the last HTTP request has been done by the web client/player, the audio stream/encoder will be stopped.

File extensions of HTML command files are ignored by the Streaming server. This option supports different web browsers and the use of any extensions to start special players for the selected algorithms which is important for HTML-programming.

Example: An HTTP request on STREAM1.mp2, STREAM1.wav or STREAM1.mp3 by a web browser is executed by the Webserver through the HTTP command file STREAM1.htm.

Example files:

Stream1.htm :

```
<!--#exec cgi="/streamfile.cgi 1 mpeg13 44100 48000 mono"-->
```

Stream2.htm :

```
<!--#exec cgi="/streamfile.cgi 2 mp3pro 44100 48000 mono"-->
```

Stream3.htm :

```
<!--#exec cgi="/streamfile.cgi 3 mpeg13 44100 48000 mono"-->
```

Stream4.htm :

```
<!--#exec cgi="/streamfile.cgi 4 mp3pro 44100 48000 mono"-->
```

Note: If the used StreamingServer is connected to another Centauri, this is done automatically via subcodec 1, so a simultaneous streaming on this slot will cause transmission failures. In this case use one of the other slots.

4 HTTP streaming on non streaming devices

HTTP streaming on these devices could be only used if the device is running in the loop mode (com_interface loop) and the encoder is configured for the corresponding HTTP streaming.

5 Issues to consider in case of double assignment of a subcodec

When establishing a connection from a Centauri 300x to a Streaming Server, subcodec 1 will automatically be used. If this subcodec is also used for streaming, the following effects can appear: At certain intervals the audio will be pulled off and after a short break it is then streamed faster. This causes a so-called Micky Mouse effect. To prevent this phenomenon the streaming should not be routed over the first subcodec in this case.