Many thanks to our sponsors:
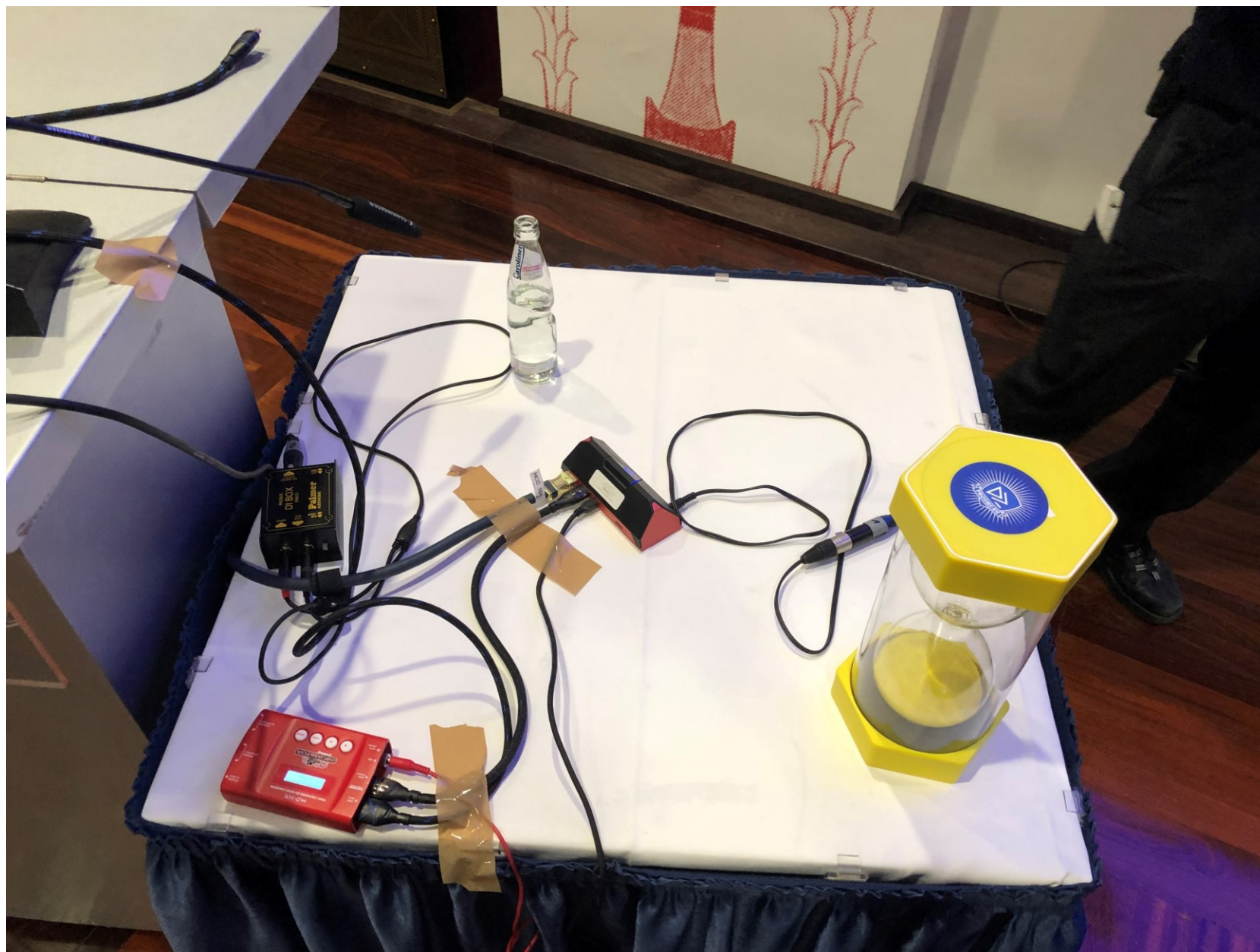
about_Session

```
{

    "Title"   : "about_VideoProcessing",

    "Speaker" : "Thorsten Butz",

    "Uri"     : "thorsten-butz.de",

    "Twitter" : "@thorstenbutz",

    "Podcast" : "slidingwindows.de"

}
```

@thorstenbutz

Toolbox

Tools & Services

 Open Broadcaster Software (OBS)

 FMPEG

 Camtasia

 auphonic.com

Hyper fast Audio and Video encoder
usage: ffmpeg [options] [[infile options] -i infile]... {[outfile options] outfile}...

Getting help:
    -h   -- print basic options
    -h long -- print more options
    -h full -- print all options (including all format and codec specific options, very long)
    -h type=name -- print all options for the named decoder/encoder/demuxer/muxer/filter/bsf/protocol
    See man ffmpeg for detailed description of the options.

Print help / information / capabilities:
-L   show license
-h topic   show help
-? topic   show help
-help topic   show help
--help topic   show help
-version   show version
-buildconf   show build configuration
-formats   show available formats
-muxers   show available muxers
-demuxers   show available demuxers
-devices   show available devices
-codecs   show available codecs
-decoders   show available decoders
-encoders   show available encoders
-bsfs   show available bit stream filters
-protocols   show available protocols
-filters   show available filters
-pix_fmts   show available pixel formats
-layouts   show standard channel layouts
-sample_fmts   show available audio sample formats
-dispositions   show available stream dispositions
-colors   show available color names
-sources device   list sources of the input device
-sinks device   list sinks of the output device
-hwaccels   show available HW acceleration methods
Global options (affect whole program instead of just one file):
-loglevel loglevel set logging level
-v loglevel   set logging level
-report   generate a report
-max_alloc bytes   set maximum size of a single allocated block

-y   overwrite output files
-n   never overwrite output files
-ignore_unknown   Ignore unknown stream types
-filter_threads   number of non-complex filter threads
-filter_complex_threads number of threads for -filter_complex
-stats   print progress report during encoding
-max_error_rate maximum error rate ratio of decoding errors (0.0: no errors, 1.0: 100% errors) above which ffmpeg returns an error instead of success.
-vol volume   change audio volume (256=normal)

Per-file main options:
-f fmt   force format
-c codec   codec name
-codec codec   codec name
-pre preset   preset name
-map_metadata outfile[,metadata]:infile[,metadata] set metadata information of outfile from infile
-t duration   record or transcode "duration" seconds of audio/video
-to time_stop   record or transcode stop time
-fs limit_size   set the limit file size in bytes
-ss time_off   set the start time offset
-sseof time_off   set the start time offset relative to EOF
-seek_timestamp   enable/disable seeking by timestamp with -ss
-timestamp time   set the recording timestamp ('now' to set the current time)
-metadata string=string add metadata
-program title=string:st=number... add program with specified streams
-target type   specify target file type ("vcd", "svcd", "dvd", "dv" or "dv50" with optional prefixes "pal-", "ntsc-" or "film-")
-apad   audio pad
-frames number   set the number of frames to output
-filter filter_graph set stream filtergraph
-filter_script filename read stream filtergraph description from a file
-reinit_filter   reinit filtergraph on input parameter changes
-discard   discard

-disposition   disposition

Video options:
-vframes number   set the number of video frames to output
-r rate   set frame rate (Hz value, fraction or abbreviation)
-fpsmax rate   set max frame rate (Hz value, fraction or abbreviation)
-s size   set frame size (WxH or abbreviation)
-aspect aspect   set aspect ratio (4:3, 16:9 or 1.3333, 1.7777)
-vn   disable video
-vcodec codec   force video codec ('copy' to copy stream)
-timecode hh:mm:ss[:;.]ff set initial TimeCode value.
-pass n   select the pass number (1 to 3)
-vf filter_graph   set video filters
-ab bitrate   audio bitrate (please use -b:a)
-b bitrate   video bitrate (please use -b:v)
-dn   disable data

Audio options:
-aframes number   set the number of audio frames to output
-aq quality   set audio quality (codec-specific)
-ar rate   set audio sampling rate (in Hz)
-ac channels   set number of audio channels
-an   disable audio
-acodec codec   force audio codec ('copy' to copy stream)
-vol volume   change audio volume (256=normal)
-af filter_graph   set audio filters

Subtitle options:
-s size   set frame size (WxH or abbreviation)
-sn   disable subtitle
-scodec codec   force subtitle codec ('copy' to copy stream)
-stag fourcc/tag   force subtitle tag/fourcc
-fix_sub_duration   fix subtitles duration
-canvas_size size   set canvas size (WxH or abbreviation)
-spre preset   set the subtitle options to the indicated preset

Basic encoding

An interview with Tobias Weltner

```powershell
1  $ffmpeg    = 'C:\bin\ffmpeg\bin\ffmpeg.exe'
2  $ffprobe   = 'C:\bin\ffmpeg\bin\ffprobe.exe'
3  $videofile = 'C:\aboutVideoProcessing\TobiasInterview\IMG_1713.MOV'
4  $newfile   = 'C:\aboutVideoProcessing\TobiasInterview\IMG_1713_30fps.MP4'
5  $intro     = 'C:\aboutVideoProcessing\IntroOutro\IntroPSConfEU2022.mp4'
6  $outro     = 'C:\aboutVideoProcessing\IntroOutro\OutroPSConfEU2022.mp4'
7  $start     = '00:00:08'
8  $end       = '00:06:16'
9
```

TERMINAL   PROBLEMS   OUTPUT   DEBUG CONSOLE

```
(7.2.4) C:\>
```

Little helpers

```powershell
function Get-MP4Duration {
    [CmdletBinding()]
    param (
        [Parameter(Mandatory,ValueFromPipeline,ValueFromPipelineByPropertyName)]
        [ValidateScript({ Test-Path -Path $_ })]
        [string] $File,
        [switch] $asTimeSpanObject
    )
    process {
        [System.IO.FileSystemInfo ] $file = Get-Item -Path $file
        $shellObj = New-Object -ComObject Shell.Application
        $folderObj = $shellObj.Namespace("$($file.Directory)")
        $fileObj = $folderObj.ParseName("$($file.Name)")
        $duration = $folderObj.GetDetailsOf($fileObj, 27)
        ## Create a TimeSpan object
        $durationArray = $duration.Split(':')
        if ($asTimeSpanObject) {
         New-TimeSpan -Hours $durationArray[0] -Minutes $durationArray[1] -Seconds $durationArray[2] }
         else { $duration }
    }
}
```

Publishing

Auphonic Presets

Create a new preset [?]:

New Preset

Presets can store common metadata and options for a group of recordings (e.g. a podcast series).

You enter output files, cover image, file transfers, etc. only once and select the preset during a new file upload.

Create a **multitrack** preset:

New Multitrack Preset

PSConfEU 2022

2022-06-21   **UUID:** hJN6T5iDq4MfnvLovkmUKa   edit   duplicate

Create a new **production**:

New Production

PSConfEU 2019

01_BasicEncoding.ps1   02_Concatenating.ps1   03_SavePassword.ps1   03_SimpleTest_AuphonicAPI.ps1   04_SimpleTest_AuphonicAPI_EncodedPW.ps1   05_PublishVideo.ps1

C: > aboutVideoProcessing > 05_PublishVideo.ps1 > ...

```powershell
1   ## Auphonic: Publish video, file upload via Dropbox
2   $base64AuthInfo = [Convert]::ToBase64String([Text.Encoding]::ASCII.GetBytes(("{0}:{1}" -f $username, $password)))
3   $uri = 'https://auphonic.com/api/simple/productions.json'
4   $Form = @{
5       preset          = 'yP8qhASjirfXYMkUUz5krX' ## PSConfEU 2022
6       service         = 'B9PvumxddC6sqyW7nq45JW' ## Dropbox
7       title           = 'PSConfEU 2022: Interview Tobias Weltner'
8       input_file      = 'IMG_1713_30fpsInOut.MP4'
9       output_basename = 'IMG_1713'
10      action          = 'start'
11  }
12  Invoke-RestMethod -UseBasicParsing -Uri $Uri -Method Post -Form $Form -Headers @{Authorization = "Basic $base64AuthInfo" }
13
```

TERMINAL   PROBLEMS   OUTPUT   DEBUG CONSOLE   pwsh

(7.2.4) C:\>

Type here to search

https://auphonic.com/engine/

Auphonic Productions

Create a new audio post production [?]:

New Production

A production represents one processed audio or video file.

You might be interested in creating presets or integrating external services.

Create a new **multitrack production**:

New Multitrack Production

To start multiple productions at once,
use our **batch production** interface:

PSConfEU 2022: Interview Tobias Weltner

Audio Processing

2022-06-22   **UUID:** PXyXEEwBnnBRVkiDDD9EVC   **duplicate**

productions   presets   services   account   pricing   help   logout

Status of "PSConfEU 2022: Interview Tobias Weltner"

Current status: **SPEECH RECOGNITION**

Our servers are still working ... but encoding is already done and you can have a look at the output files below.

We will send you a notification when the post production is completely finished!

Stop Production

Your result files:

Filename	Type	Format	Bitrate	Length	Filesize	Download
IMG_1713.mp4	Video	mp4	124 k	00:06:39.429	67.6 MB	download

https://www.youtube.com/watch?v=DlCCimHl0LM

Search

SIGN IN

We're processing this video. Check back later.

PSConfEU 2022: Interview Tobias Weltner

Don't be scared of calling API...

PowerShell Conf...
1.3K views •
2 years ago

Diese Tomatenblätt...

SelfBio ✓
877K views •
1 year ago

State of the Shell -...

PowerShell Conf...
1.8K views •
2 years ago

Classes & runspaces...

PowerShell Conf...
2.9K views •

Finally

- Youtube
- [Local file](Local%20file)

Thank you for listening!

```
{

    "Title"   : "about_VideoProcessing",

    "Speaker" : "Thorsten Butz",

    "Uri"     : "thorsten-butz.de",

    "Twitter" : "@thorstenbutz",

    "Podcast" : "slidingwindows.de"

}
```