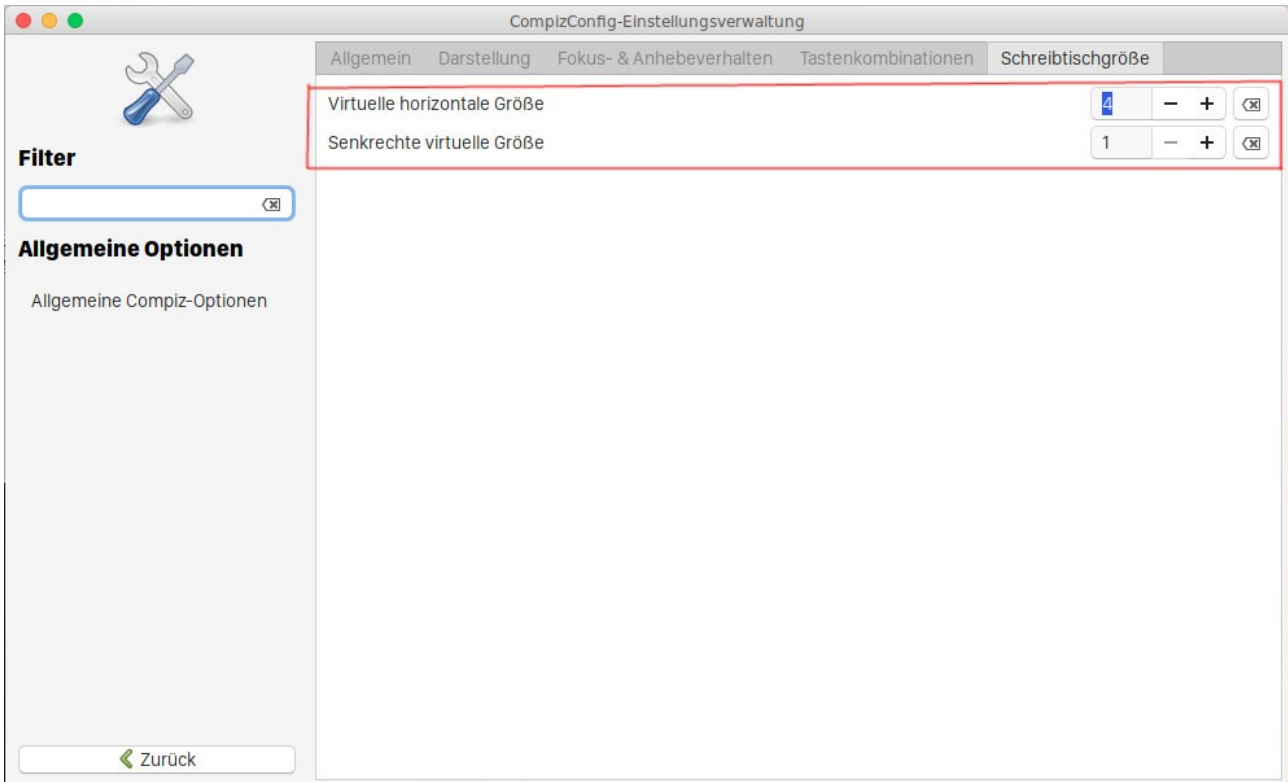


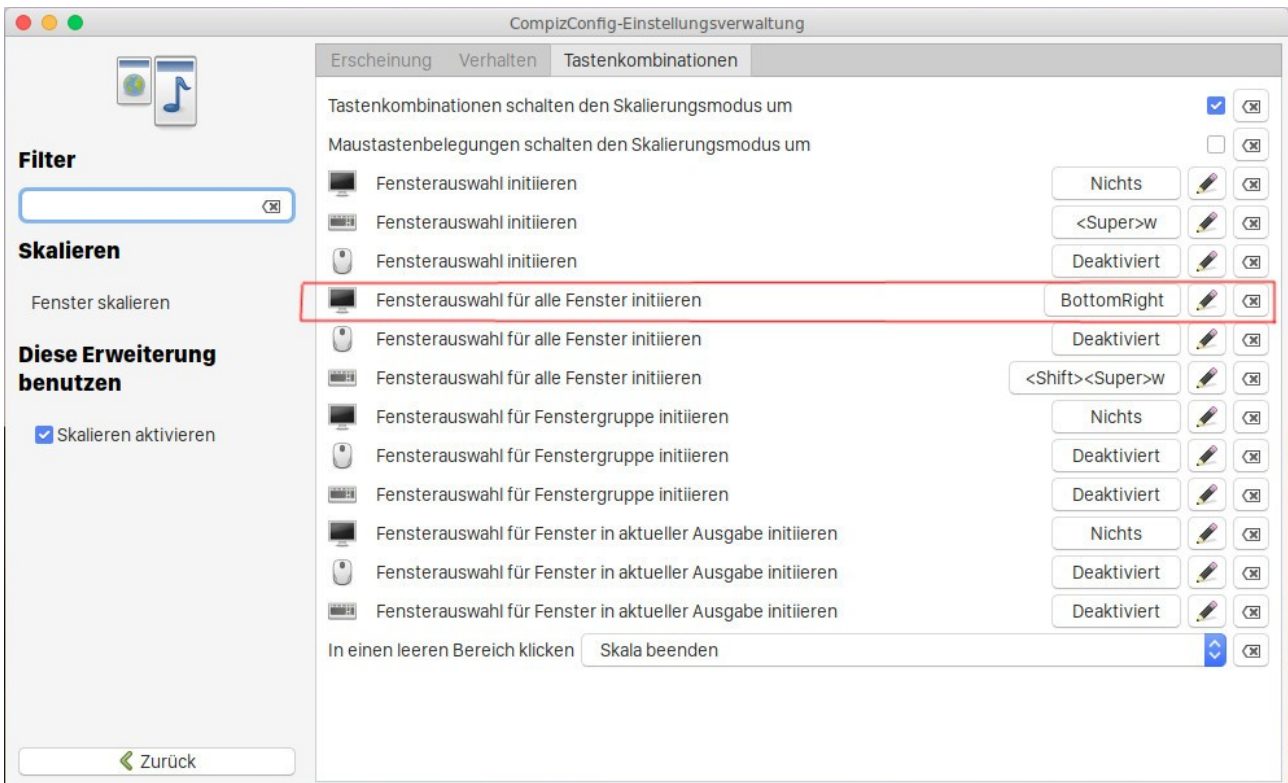
Instructions for reproducible error generation

Please test under the following constellation:

Compiz settings workspaces

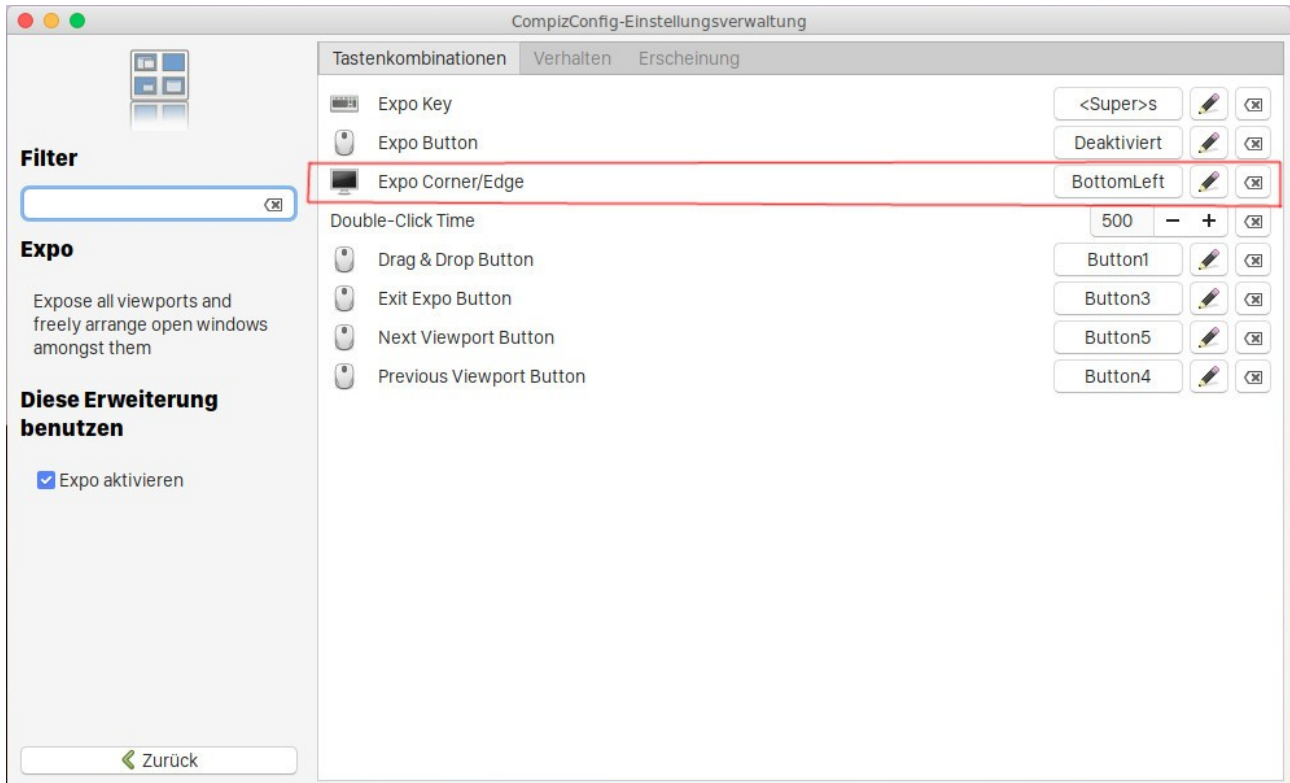


Compiz Plug-in settings Scale



Instructions for reproducible error generation

Compiz Expo settings

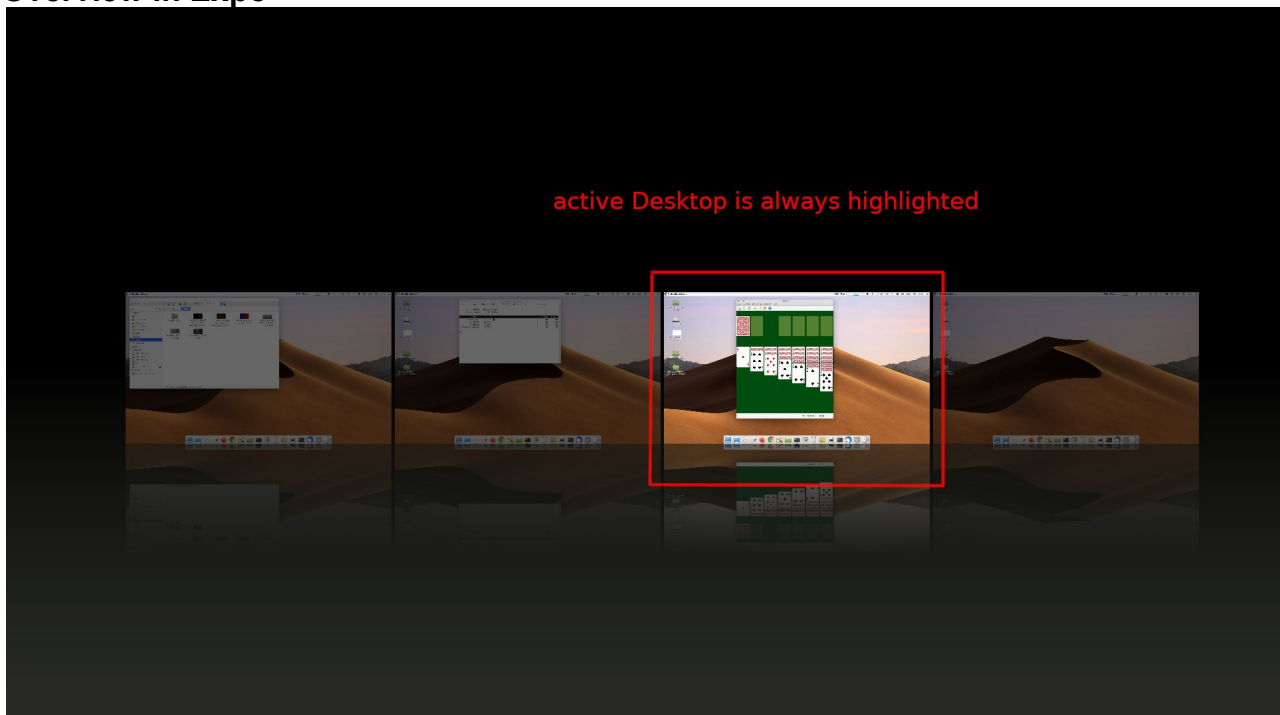


Workspace 1: ‚Videos‘ window with playable h.264 AVC video which one is supported through hardware acceleration in intel i965 driver

Workspace 2: terminal with ‚intel_gpu_top‘ to check if hardware acceleration is used

Workspace 3: normal program window e.g. ‚solitaire‘

Overview in Expo



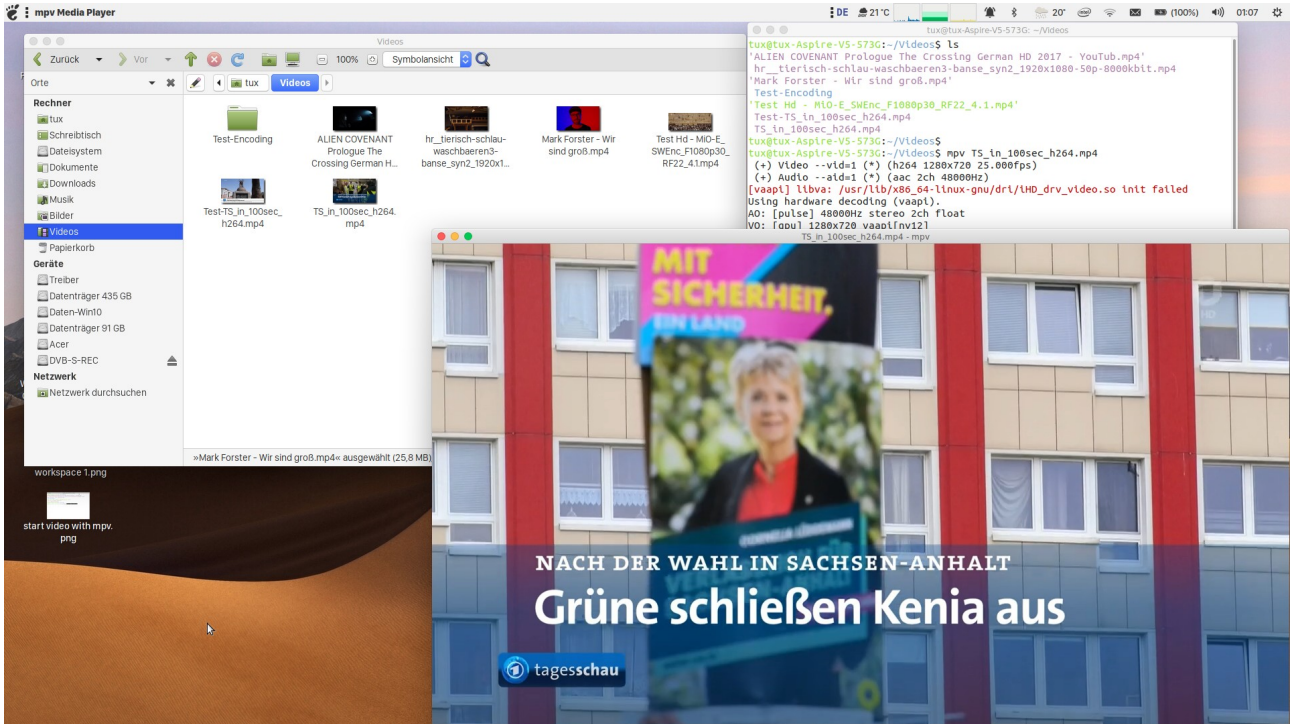
Instructions for reproducible error generation

move to workspace 1 with Expo and make Workspace 1 active

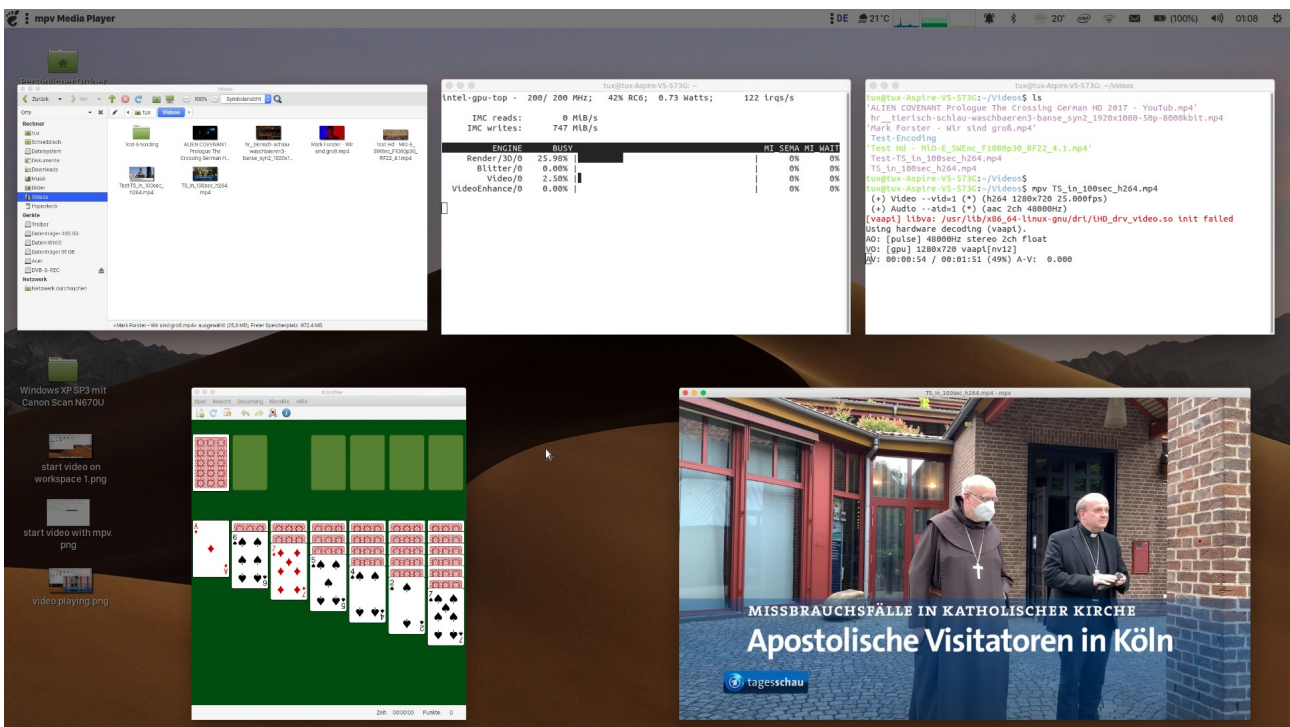
open terminal in ,Videos' window with ,open with terminal'

start video (h.264 AVC) with mpv in terminal

mpv starts with hardware acceleration support for i965 intel driver (no issues)



move mouse to the right bottom corner to activate Plug-in Scale (for all windows on all workspaces). You can see in the scaled windows the fluently motion of pictures



Instructions for reproducible error generation

You see the scaled mpv window has a flowing movement of pictures (normal) and the 3D-Render Engine in scaled terminal window on workspace 2 shows a relative constantly consumption of GPU.

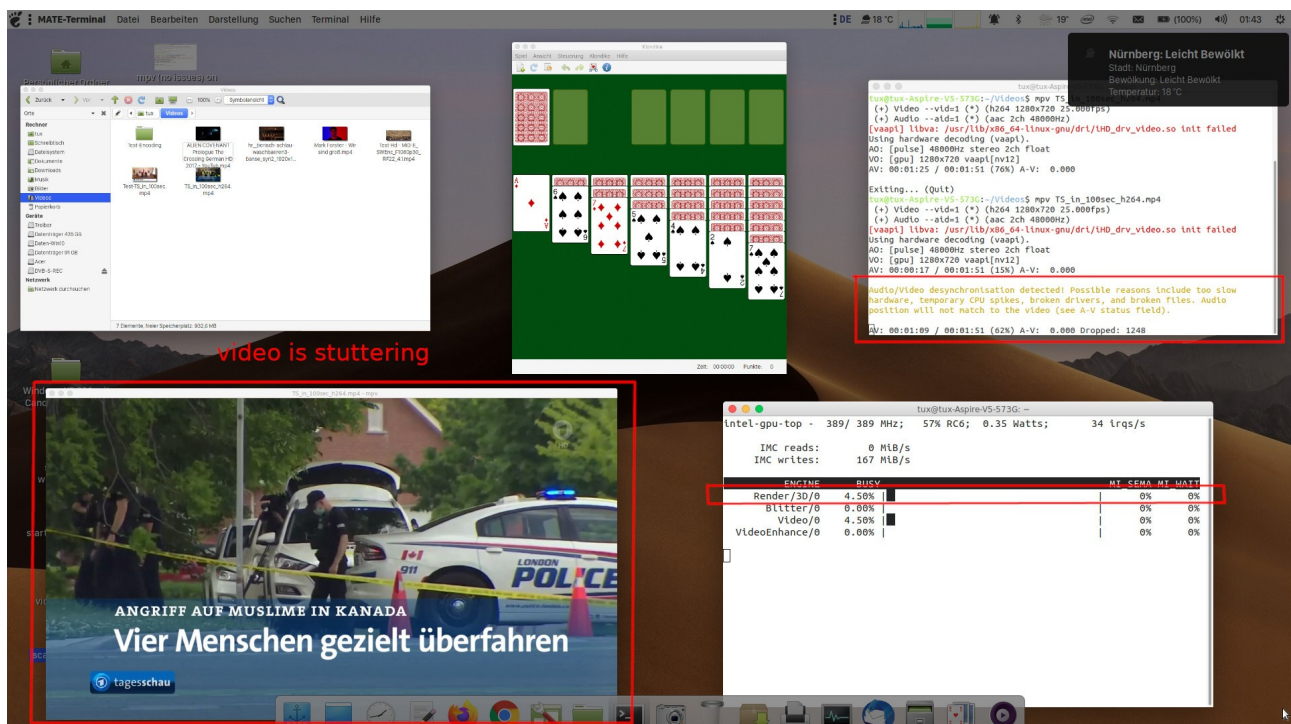
Now select the scaled terminal window on workspace 2 (with ,intel_gpu_top' output and you see the of the consumption of the 3D-Render Engine drops down nearly zero.

```
tux@tux-Aspire-V5-573G: ~
intel-gpu-top - 375/ 376 MHz; 45% RC6; 0.37 Watts; 55 irq/s

IMC reads: 0 MiB/s
IMC writes: 106 MiB/s

ENGINE BUSY MI SEMA MI WAIT
Render/3D/0 2.99% | | 0% 0%
Blitter/0 0.00% | | 0% 0%
Video/0 4.00% | | 0% 0%
VideoEnhance/0 0.00% | | 0% 0%
```

If you activate Scale plug-in (move mouse to right bottom corner) the scaled mpv video shows stuttering pictures (no flowing picture movement).



Instructions for reproducible error generation

The program mpv shows the following warning message:

Audio/Video desynchronisation detected! Possible reasons include too slow hardware, temporary CPU spikes, broken drivers, and broken files. Audio position will not match to the video (see A-V status field).

```
tux@tux-Aspire-V5-573G: ~/Videos
hr__tierisch-schlau-waschbaeren3-banse_syn2_1920x1080-50p-8000kbit.mp4
'Mark Forster - Wir sind groß.mp4'
Test-Encoding
'Test Hd - MiO-E_SWEnc_F1080p30_RF22_4.1.mp4'
Test-TS_in_100sec.mp4
TS_in_100sec_h264.mp4
tux@tux-Aspire-V5-573G:~/Videos$
tux@tux-Aspire-V5-573G:~/Videos$ mpv TS_in_100sec_h264.mp4
(+) Video --vid=1 (*) (h264 1280x720 25.000fps)
(+) Audio --aid=1 (*) (aac 2ch 48000Hz)
[vaapi] libva: /usr/lib/x86_64-linux-gnu/dri/iHD_drv_video.so init failed
Using hardware decoding (vaapi).
AO: [pulse] 48000Hz stereo 2ch float
VO: [gpu] 1280x720 vaapi[nv12]
AV: 00:00:04 / 00:01:51 (4%) A-V: 0.000

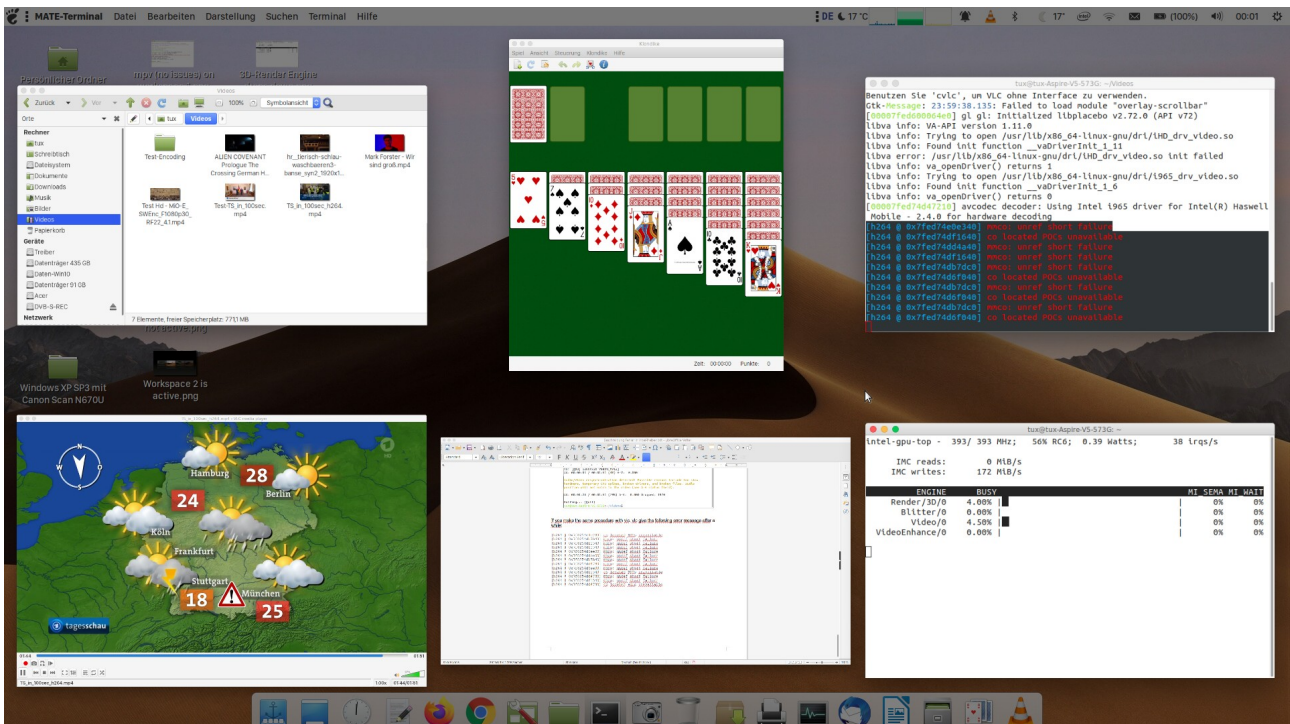
Audio/Video desynchronisation detected! Possible reasons include too slow
hardware, temporary CPU spikes, broken drivers, and broken files. Audio
position will not match to the video (see A-V status field).

AV: 00:01:28 / 00:01:51 (79%) A-V: 0.000 Dropped: 1970

Exiting... (Quit)
tux@tux-Aspire-V5-573G:~/Videos$
```

If you make the same procedure with vlc, vlc give the following error message after a while:

```
[h264 @ 0x7fed74e0e340] mmco: unref short failure
[h264 @ 0x7fed74df1640] co located POCs unavailable
[h264 @ 0x7fed74dd4a40] mmco: unref short failure
[h264 @ 0x7fed74df1640] mmco: unref short failure
```



Instructions for reproducible error generation

Please note that older Intel CPUs (with integrated GPU) up to Haswell are supported with the i965 Intel driver. However, newer CPUs (with integrated GPU) use the newer iHD driver from Intel, which may behave differently under certain circumstances!

I am aware that this is just a less important error that probably only occurs with very few users. Same behavior was on a notebook with Intel graphics (Sandy Bridge) without Optimus and Linux Mint MATE (with Compiz window manager) 19.3. Same behavior also with Linux Mint MATE (with Compiz window manager) 20.1 with my notebook with Optimus graphics.

On the other hand, under the Nvidia driver (closed source) mpv and vlc works without any problems. Either the modules for the Intel hardware acceleration in the programs vlc and mpv have a small error or the Intel driver may not be addressed correctly or has an error.

The programs that are based on gstreamer (gst-play-1.0 and parole (based on gstreamer) have been working perfectly with Intel graphics and Nvidia graphics since version 1.18 (installed by a ppa). Gstreamer worked with the standard version of Ubuntu 20.04 (with gstreamer 1.16) only with Intel graphics, since apparently there was no support for vdpau or it was not compiled in.

Or maybe it's a bug in Compiz

Strangely enough, mpv and vlc do not show this behavior in the Intel driver in new desktop environments (Ubuntu with Gnome 3 (with addon) and Elementary OS with Pantheon)! There, scaled video windows with an overview of all windows from all workspaces are displayed normally in a smooth sequence of images.