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MPlayer
tips & tricks

With practical examples!

Red Hat
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Abstract

A hopefully funny presentation on how MPlayer is great and what you can do with it if you don't want to be a poor Totem/Kaffeine/WMP user.
Rated R for pervasive strong language and some sexuality.

Agenda

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MPlayer

- One of the first Linux media players
- Runs on Linux, Windows, Mac OS X and others
- Homepage: http://www.mplayerhq.hu/

What makes MPlayer different?

(let's ignore *vlc* for a while, it can do some of these things as well)

- Monolithic player, bundled with a lot of codecs (great on Windows)
- All functions available as command line options and you can just pipe things into it
- Works in text console - libaa, libcaca, framebuffer, vesa, svga, directfb, cvidix, hw decoders
- MEncoder - encodes whatever MPlayer plays

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Compile! Why?

- Distros can't include it for license/patent reasons
  (but extra repos like *livna* can and do, of course)
- Optimization, no need for runtime CPU detection
- Subversion repo - bleeding-edge stuff
- Last release was in October 2006
  (but a thread about releasing rc2 has started at least $2\times$ since then)
- Packages may (and do) lack some things you need
  For example *AMR*:
    - Audio codec used in mobile phones (.amr and .3gp files)
    - More info at
      http://www.mplayerhq.hu/DOCS/HTML/en/audio-codecs.html#amr

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GUI

(this slide intentionally left almost blank)

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Basic configuration

- In the ~/.mplayer/config file

Sane defaults

```
cache=8192
ao=alsa ...
vo=xv ...
fixed-vo=1
double=1
dr=1
vf=pp=ha:a/va:a/dr:a/al:a/tn:a,scale
```

Profiles

- Group often used settings into profiles
- Great for MEncoder settings (e.g.: -profile mpeg4, -profile mpeg4-hq, ...)
- You can use more than one -profile, and you can use profile=<name> in the definition of another profile

Sample

```
[deint]
vf=pp=fd/ha:a/va:a/dr:a/al:a/tn:a,scale
[dvb]
profile=deint
cache=1000
cache-min=50
```

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Section 5
Subtitles

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Subtitles – intro

- There's no chance you'll find a subtitle format MPlayer doesn't understand

Tips

- Simple time adjustment – z and x keys

- Subtitle track switching – j

- Favourite languages?
  slang=cz,cze,en,eng (DVD vs. Matroska)

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Appearance

- Font
  - ~~Raster~~ / Vector (freetype, fontconfig, . . .)
  - Usage:
    ```
    -fontconfig
    -font 'DejaVu Serif'
    -font 'DejaVu Sans:weight=bold'
    ```
- Size
  - Usage:
    ```
    -subfont-text-scale 2.1
    ```
- Shadow, outline
  - Usage:
    ```
    -subfont-blur 4
    -subfont-outline 6
    ```

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Appearance cont.

- Color
    - With GL videoout, `-vo gl:osdcolor=0xffffff` manpage
    - SSA/ASS renderer supports it with any videoout
      `-ass-color RRGGBBAA`
- Ugly subtitles with low-resolution videos
    - Does not happen with GL videoout
    - Otherwise, you have to use the *scale* filter:
      e.g. `-vf scale=1000:-2`
- Subtitles in black bars
    - Use GL videoout,
    - (with `-ass-use-margins`)
    - or `-ass-bottom-margin 100`,
    - or the expand filter `-vf expand=::::1:1280/800`.

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Charset conversion

- With vector subtitles *only*
- Usage:
  -subcp cp1250
- Automatic charset detection:
  - ENCA – Extremely Naive Charset Analyser
  - Usage:
    -subcp enca:cs:cp1250

Section 6
Practical usage tips

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DVB – digital television

- Timeshift – luxury you must have
    - MPlayer can't do that, but . . .
      http://git.nomi.cz/?p=tomi/timeshift;a=summary
    - Usage: $ tvshift "stream source"
- Accelerated MPEG2 decoding – *xvmc* videoout
    - supported on some NVIDIA, Intel and Unichrome cards
    - bob deinterlacing – like TV, 50 fields per second
    - Usage:
      -vf-clr -vc ffmpeg12mc -vo xvmc:bobdeint
- Dual audio
    - Czech audio in left channel, original in right
    - Balance using (and) keys, or
    - ```
      [left]
      af=channels=2:2:0:0:0:1
      [right]
      af=channels=2:2:1:1:1:0
      ```

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Dumping

- Stream dumping – downloading from all sources MPlayer knows:
  - Grabbing from DVB
  - Grabbing (and decrypting) DVDs
  - Downloading from MMS, Real RTSP, etc.
- Usage:
  ```
  -dumpfile filename -dumpstream
                     -dumpvideo/-dumpaudio
  ```
- Subtitle dumping/conversion; see -dump-... in manpage

Advertisement^WTip

Archive downloader for Czech TVs (NOVA, Česká Televize, ...)
http://nomi.cz/projects.shtml?id=stahni.nova

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Software volume regulation

- Until PulseAudio becomes usable, no comfortable way of per-application volume adjustment
- Different content $\Rightarrow$ different volume
  DVDs are way less loud than MP3s
- Affects the *mute* function as well
- Usage:
  -softvol -softvol-max 1000

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Section 7
New features

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DVD menu

- Work in progress
- Usage:
  [dvd]
  nocache=1
  mouse-movements=1
  vo=xv (gl hides the mouse)

  mplayer dvdnav://
- Example

FAQ

- **Q:** *We think this sucks.*
  A: We too. Use
  mplayer dvd:// instead, this
  is just to stop others bitching
  we can't play DVD menus.

- **Q:** *How can we switch
  audio/subtitle tracks then?*
  A: You can't switch them
  using the DVD menu anyway.
  Ok, well, j switches subtitles
  and # switches audio tracks.

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SSA/ASS ({,Advanced} SubStation Alpha)

- Rich subtitle format often used in Matroska
- Much more than just text – Colors, effects, fonts, . . .
- . . . and Karaoke!
  (created using *aegisub*, if anyone's interested)
- Usage:
  `-ass`
  (this just turns on the libass renderer; all the other `-ass-`. . .
  options are better desribed in the manpage)

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faster H264 codec

- (not news, but getting faster every month)
- Multithreaded decoding added a few weeks ago
- Usage:
  `-lavdopts fast:skiploopfilter=all:threads=N -vf-clr`