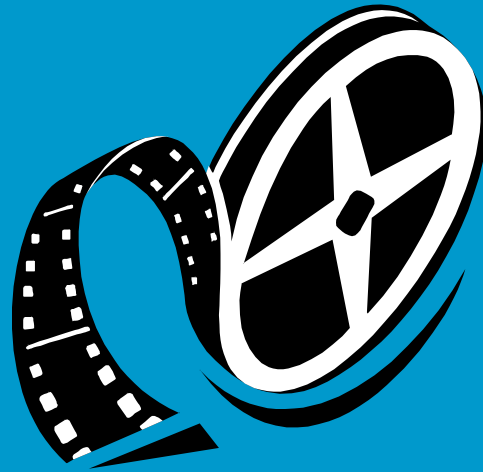


Broadcast Yourself



by David Klasinc a.k.a. BigWhale



Who's The Whale?

- ◆ David Klasinc in the hi-res, real, world
- ◆ BigWhale on the Internet
- ◆ Zealoting open source since 1991!
- ◆ Follow [@BigWhale](#) for a daily dose of spam ...



Today we're showin'

- ◆ Who's The Whale? → Introduction
- ◆ Put Your Face On The Screen → Capturing
- ◆ Permanent Storage → Saving
- ◆ Post Produced → Editing
- ◆ Putting It On *Teh InterWebz* → Publishing
- ◆ All Good Things → Come To An End



The Basic Tools

- ◆ Camera
 - Webcam
 - Camcorder
 - Studio camera
 - Better make it D-I-G-I-T-A-L
- ◆ Computer
 - PC Compatible will do
- ◆ Software
 - Ubuntu 9.10 Karmic Koala + Medibuntu
 - GStreamer, GStreamer tools
 - Kdenlive 0.9.6 from *ppa:sunab/ppa*



Capturing – Baby steps

- ◆ Simple capture
 - Video4Linux2 source
 - Device `/dev/video0`
 - Sink `xvimage`

```
$ gst-launch v4l2src device=/dev/video0 ! \
'video/x-raw-yuv,width=640,height=480,framerate=30/1' ! \
xvimagesink
```



Saving – All good, for now ...

- ◆ Storing requires a different sink
- ◆ Queues are fun ...
- ◆ ... but dangerous!

```
$ gst-launch v4l2src ! \
'video/x-raw-yuv,width=640,height=480,framerate=30/1' ! \
queue ! videorate ! 'video/x-raw-yuv,framerate=30/1' ! \
theoraenc ! queue ! oggmux ! \
filesink location=my_home_xxx_video.ogg
```



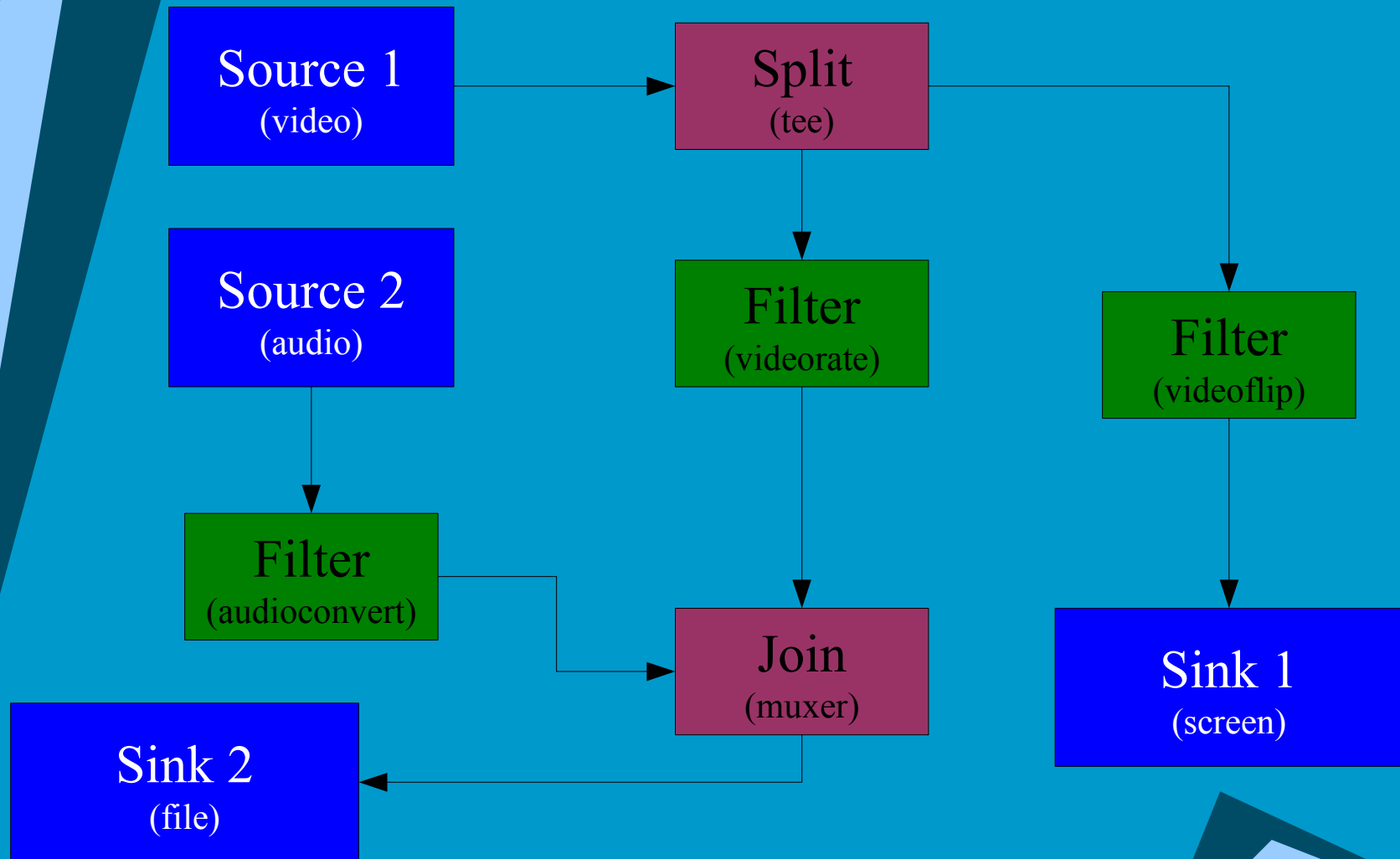
Saving – Nightmare begins

- ◆ Sync issues and the pain involved with it
- ◆ Things are sometimes random
- ◆ Driver or GStreamer issues?

```
$ gst-launch v4l2src ! \
'video/x-raw-yuv,width=640,height=480,framerate=30/1' ! \
queue ! videorate ! 'video/x-raw-yuv,framerate=30/1' ! \
theoraenc ! queue ! mux. \
alsasrc device=hw:1,0 ! \
'audio/x-raw-int,rate=48000,channels=2,depth=16' ! \
queue ! audioconvert ! queue ! vorbisenc ! queue ! mux. \
oggmux name=mux ! filesink location=my_home_xxx_video.ogg
```



GStreamer 101





Audio – Thirties are history

- ◆ Forget about artsy fartsy silent movies
- ◆ Unleash the power of command line
- ◆ Wear protection – your eyes could start bleeding

```
$ gst-launch v4l2src ! \
'video/x-raw-yuv,width=640,height=480,framerate=30/1' ! \
tee name=t_vid ! queue ! videoflip method=horizontal-flip ! \
xvimagesink sync=false t_vid. ! queue ! \
videorate ! 'video/x-raw-yuv,framerate=30/1' ! queue ! mux. \
alsasrc device=hw:1,0 ! \
'audio/x-raw-int,rate=48000,channels=2,depth=16' ! queue ! \
audioconvert ! queue ! mux. avimux name=mux ! \
filesink location=my_home_xxx_video.avi
```



Editing – Raw Frustration

- ◆ Strive for the best
- ◆ Raw stream is not editable
- ◆ Perhaps in a wrong container?
- ◆ The need to convert – into what?
 - Bazillion of formats
 - Theora really sucked :(
 - Perfectionism is a bad idea



Editing – Path to freedom

- ◆ MPEG2 was the answer
- ◆ Why not on-the-fly conversion, while recording?
 - I had the very same question!
- ◆ Again, the sync issues

```
$ gst-launch filesrc location=my_home_xxx_video.avi ! \
  decodebin name=decode decode. ! queue ! \
  mpeg2enc format=9 bitrate=10000 ! \
  avimux name=mux ! queue ! filesink location=home_pr0n.avi \
  decode. ! queue ! audioconvert ! mux.
```



Editing – Getting rid of the junk

- ◆ MPEG2 is editable! Success!
- ◆ Cinelerra – Usability nightmare
 - I gave up (for now)
- ◆ Kdenlive – Stability nightmare
 - Learn XML – Makes recovery of save files easier ;)
- ◆ Sadly, the list ends here ... :(



Publishing – Expose yourself

- ◆ YouTube
 - Ten minutes maximum
- ◆ Vimeo
 - Your own work
- ◆ Blip.tv
 - Money oriented
 - Less socializing



All Good Things ...

◆ Open Source – The Pros

- Accessible
- Free (O_o)
- It sort of works

◆ Open Source – The Cons

- It sort of works
- Sometimes frustrating
- Command line recording!?

◆ Closed source– The Pros

- It should work
- User support
-

◆ Closed Source – The Cons

- User support?
- Expensive (o_O)
- Not for hobbyist



... Must Come To An End.

◆ Q & A Time

- Questions?
- Anyone?
- You there, in the back?
- Oh, that is your hat ... ;)



Thank you.