GStreamer:

What is Gstreamer,
What is new and
simple video editing

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Summary

- Quick overview of GStreamer
- What's new since last year
- Editing with GStreamer

GStreamer

- Multimedia Framework
- Mature code base
- LGPL licensed core

Gstreamer Cont.

- De-facto standard for Linux systems
- Cross Platform
- Widely deployed

GStreamer Design

- Pipeline based design
- Close to 200 plugins available
- Not just playback
- Very clean and highly modular
- Both high level and low level APIs available

Gstreamer Licensing

- Trying to make things easy and business friendly
- Plugins-modules: Base, Good, Bad, Ugly
- Core LGPL, plugins can be of any license
- Codecs can come from a lot of sources

Gst-OpenMax, TI DSP plugins, IPP based pugins, Codec companies like Fluendo and Entropy Wave

High level libraries

- Telepathy and Farsight for VoIP and Videoconf
- Rygel or Coherence for UpnP/DLNA support
- Gnonlin for video editing support
- Gst-RTSP-server for advanced RTSP services

Playbin2

- Autoplugger
- Encoded output
- Improved HD support
- Improved streaming support
    - Congestion support, on-disk buffering
- Decodebin2
    - Faster, more versatile, better memory usage

RTP Support

- Playbin2 with full RTSP support
- RTP stack popular (Axis, Tandberg)
- Windows Media, Real Media, MPEG, Ogg
- gst-rtsp-server

Intelligent Download Buffer

- Visual feedback of download progress
- Intelligent pausing if network can not keep up
- Quicktime/YouTube style
- On-disk buffering

Collabora Multimedia

- Unlike a lot of open source projects, Gstreamer has well established professional support
- World Leading experts on GStreamer

OpenMax Support

- GStreamer Integration with OpenMax IL
- Bellagio/ST 100% supported
- ... easy path to native GStreamer support

OpenGL support

- gst-plugins-gl module
- OpenGL based video output (xvimagesink replacement)
- OpenGL ES 2.x support
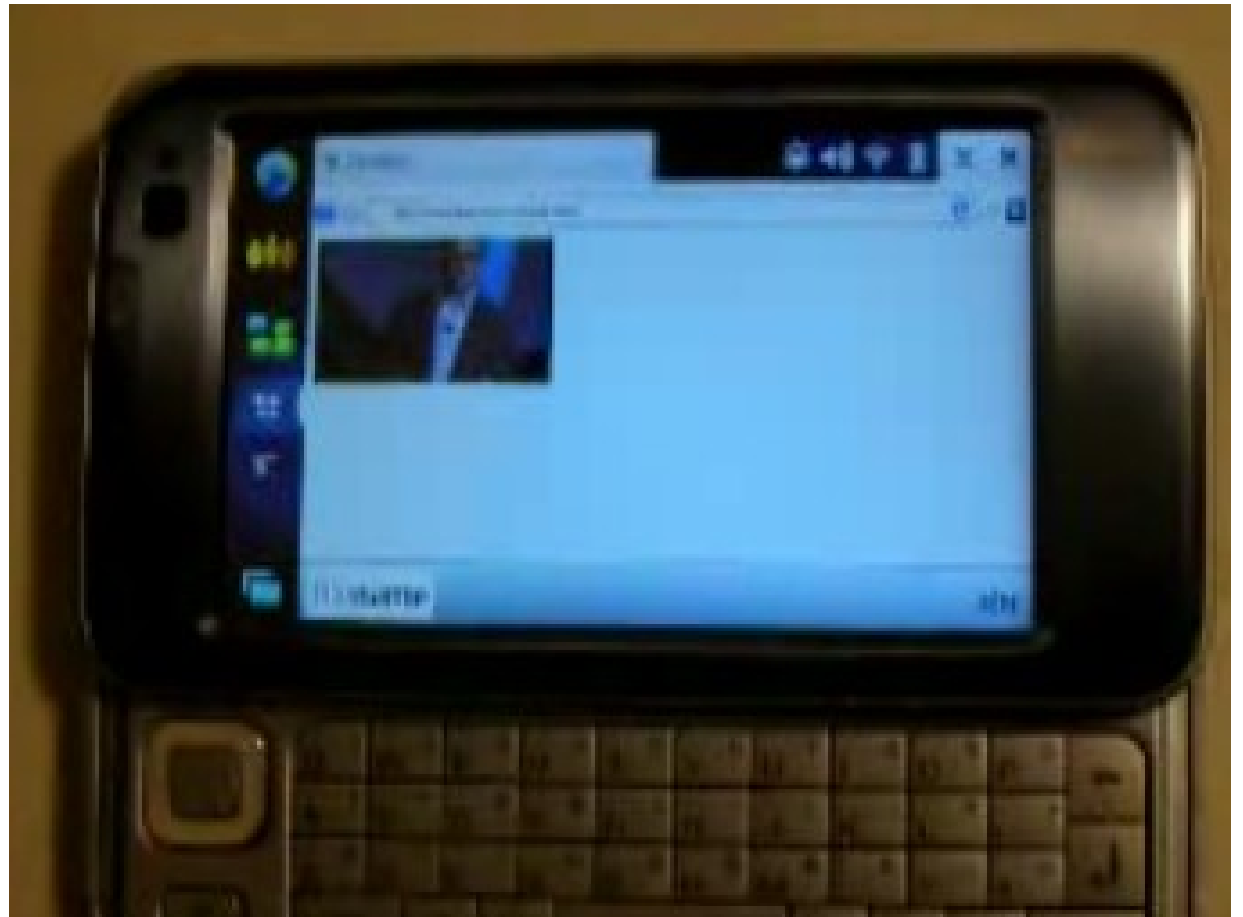- Enable video processing on the GPU in a GStreamer pipeline
- Any OpenGL video filters

DVB Support

- DVB-T, DVB-S, DVB-C, ATSC tested and confirmed working
- Deinterlacing, MHEG, scanning still to be done

Browser Support

- HTML5
- WebKit
- Firefox

Improved Platform Support

- Linux, Solaris, Windows and MacOSX
- S60 support (Ongoing)
- Android support (Ongoing)

Farsight2 and Telepathy

- Integrated VOIP and videoconferencing toolkit
- SIP, Gtalk and others
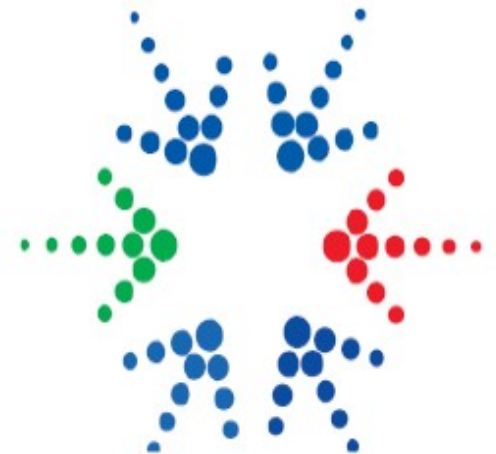- Many to many
- Collaboration

Various New Plugins

- New core and base release with improved support for interlaced media
- New high quality deinterlacer
- New fast tag reading system
- Camerabin
- Quicktime, MP4 and 3GPP muxer
- MXF demuxer and muxer

GStreamer and Mobile Platforms

- LiMo
- Access
- GPE
- Maemo
- OpenMoko
- Moblin

Gstreamer and Android

- Establish easy to build setup for putting Gstreamer on Android
- Optional integration of Gst-OpenMax
- Write java gluecode to link Gstreamer with existing Java multimedia APIs in a transparent manner
- Propose and write new Java APIs to expose all new features available through GStreamer

Editing

- Collabora putting a lot of effort into Gstreamer editing functionality
- Central core is the GNonLin set of editing plugins
- Synergy between embedded and desktop due to Pitivi

Editing Embedded

- Support basic features like cutting/trimming, adding/removing audio, simple text based introductions/credits

- Possibility to use some OpenGL based effects and transitions

- More editing features available for more high end devices

- Collabora to provide higher level helper library

Questions?

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