



# Ogg Theora

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# Ogg Theora: Activity

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- New decoder
  - `theora-exp` decoder and API promoted to mainline
  - Supports full specification
  - Additional asm optimization by Nils Pipenbrinck
- Monty developing new encoder: “thusnelda”
  - Uses `theora-exp` motion search, mode decision
  - New rate control module planned
- Google Summer of Code: André Costa
  - FPGA decoder implementation on a LEON3
  - Works at 96x80, but needs memory controller



# Ogg Theora: Challenges

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- Getting active developers
  - Require highly specialized technical background
  - Corporate interests focused on MPEG
- Good tool integration
  - Seeking support usually poor or broken
  - Virtually no chaining support
    - Needed for hybrid streams that are a mix of 24fps and 30fps content, since Theora is fixed-framerate
- Adoption



# Ogg Theora: Dependencies

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- Libraries in use: libogg
- Projects dependent upon
  - Players (totem, vlc, xine, mplayer, etc.)
  - Content creation (ffmpeg2theora, Cinelerra, LiVES)



# Ogg Theora: Next Steps

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- Decoder
  - ARM/DSP optimization (Nokia N800, etc.)
- Encoder
  - Make “thusnelda” the new mainline
    - Still much work to do before it is ready
- Opera/Firefox integration
  - The codec issue in HTML5 is still not resolved
  - A defacto standard is better than nothing