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Overview

- The project studies the windowing BitTorrent algorithms aiming to create **view-as-you-download user experience for video-on-demand**,
- at the same time **minimizing the server load by using BitTorrent**.
- Embedding videos on web pages is enabled by using the novel **"torrentfile:" URL scheme**.
- Both **simulations** and **PlanetLab experiments** are used as research methods.

Project so far

Simulations:

- Simulations of the algorithms were run in summer 2007
- Initial results look promising.

Prototype implementation:

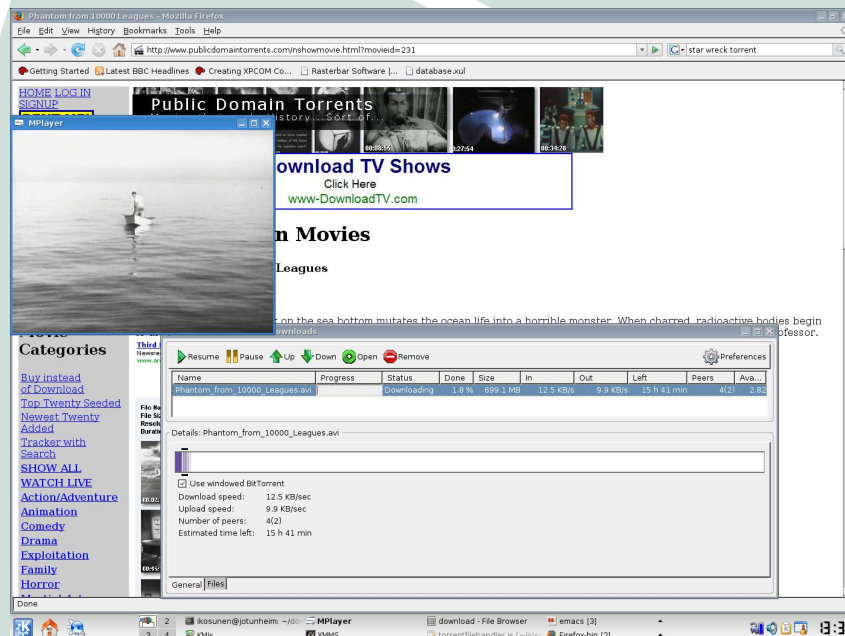
- The studied algorithms have been taken into use in the FusionFox 2.0 FireFox extension.

PlanetLab experiments:

- An experimentation platform is being built on the PlanetLab for benchmarking the algorithms on the Internet.

Demo: FusionFox 2.0, a web browser BitTorrent extension with view-as-you-download capabilities

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Benefits

- Using BitTorrent eases the server load by utilizing the upload bandwidth of the video viewers.
- Windowing BitTorrent algorithms allow the viewers to watch the video while it is still being downloaded – with traditional BitTorrent the video cannot be viewed until it has arrived completely.

Possibilities

- Cost efficient and load-tolerant IPTV applications can be embedded into the web browser.
- By using the "torrentfile:" URL scheme it is possible to create YouTube-like video-on demand sites where the videos are transferred using BitTorrent.
- Modified algorithms could be used for "live-broadcasting" over the peer-to-peer network.