



Streaming Video Solutions for Higher Education

Joseph Labrecque
University of Denver

John Schuman
Adobe Systems Incorporated



DU Website Videos

- DU Today
- Departmental websites
- Archived speeches

Live Events

- Concert performances
- Building dedications
- Commencements

CourseMedia™ Content

- CourseMedia™ video / audio
- Sharing on Blackboard
- Internal generator / player for public videos

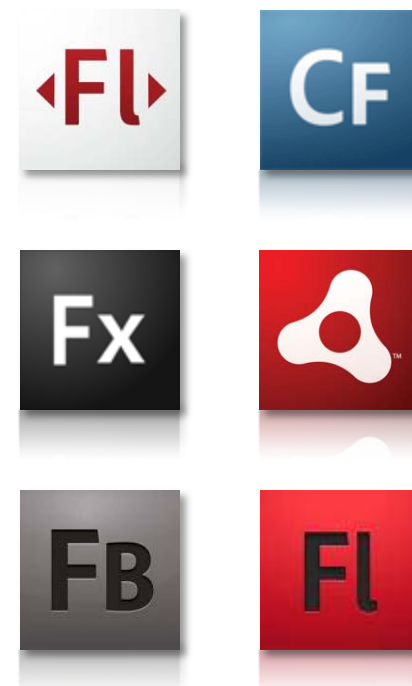


Flash Media Interactive Server

- Streaming Media Committee
- Using FMS since 2004
- Explored Flash Video and Quicktime
- First used for video-on-demand (QT for live feeds)
- Now used for both video-on-demand and live
- Two FMS instances in current use
- One server dedicated to CourseMedia™

Adobe Flash Platform

- Coldfusion servers
- Flex framework
- Flash Player
- Adobe AIR Runtime



Web-Based Video-on-Demand

- DU Today news features
- Speech archives
- Deans' welcome messages
- Campus tours
- Departmental website videos

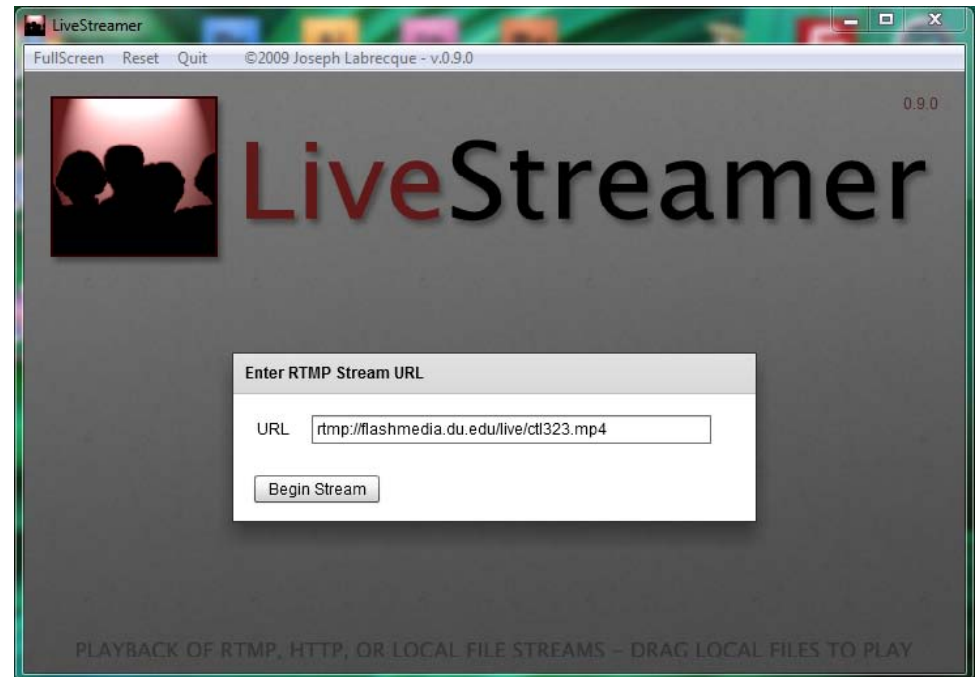
Additional Usage

- BCR's Collaborative Digitization Program
- Assessment materials (DU Portfolio)
- Course lecture distribution
- University College language courses
- AIR-based installation kiosks

The screenshot displays the University of Denver website's 'Housing & Residential Education' section. The page features a navigation menu with links for 'EXPERIENCE RESIDENTIAL LIFE', 'GET INVOLVED', 'BUILDINGS', and 'HOUSING RESOURCES'. The main content area is titled 'Nelson Hall Video Tour' and contains a video player showing a person in a kitchen setting. The video player includes a progress bar and a timestamp of 00:01:58. The footer of the page provides contact information: '2055 E. Evans Suite 200, Denver, CO 80208 Telephone: 303-871-2246 Fax: 303-871-4064 housing@du.edu'. It also includes a copyright notice for 2009 and a statement that the University of Denver is an equal opportunity/affirmative action institution.

Live Video Streams

- Guest speakers
- Commencements
- Chancellor's inauguration
- Lamont School of Music performances
- Building dedications
- Bridges to the Future
- Cross-campus streams



CourseMedia™

- ColdFusion based web application with an integrated Flash toolset.
- Web-based video clip generator
- Per-object narrative recorder
- Embed code generator for Blackboard
- Integrated media viewer
- Content can be copyright-protected or public
- Content providers can generate embed codes for external, public videos



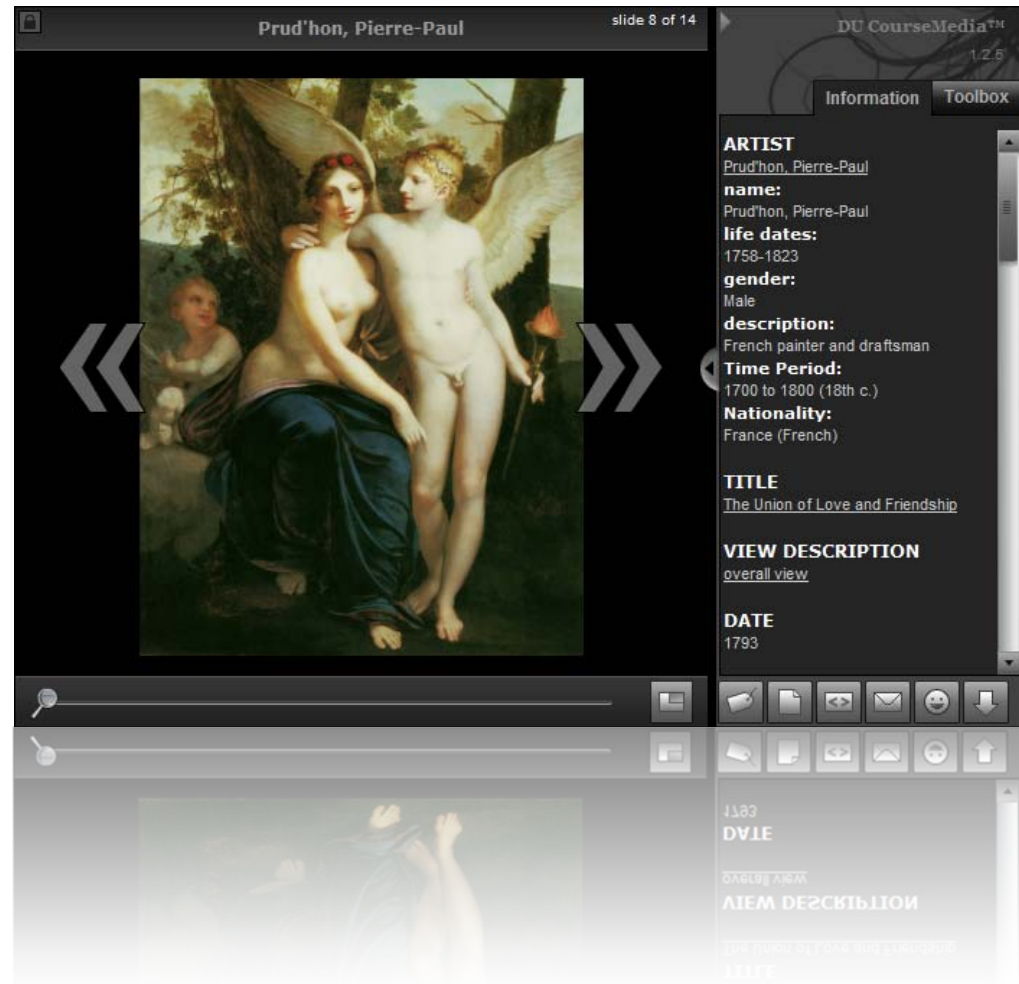
Features

- Faculty easily create video excerpts
- No duplication of video files
- Simply saves start and end data
- Full data display – length, position, etc.
- Multiple methods of creating a clip
- Social tagging and sharing
- Full metadata view
- Allows editing of existing clips



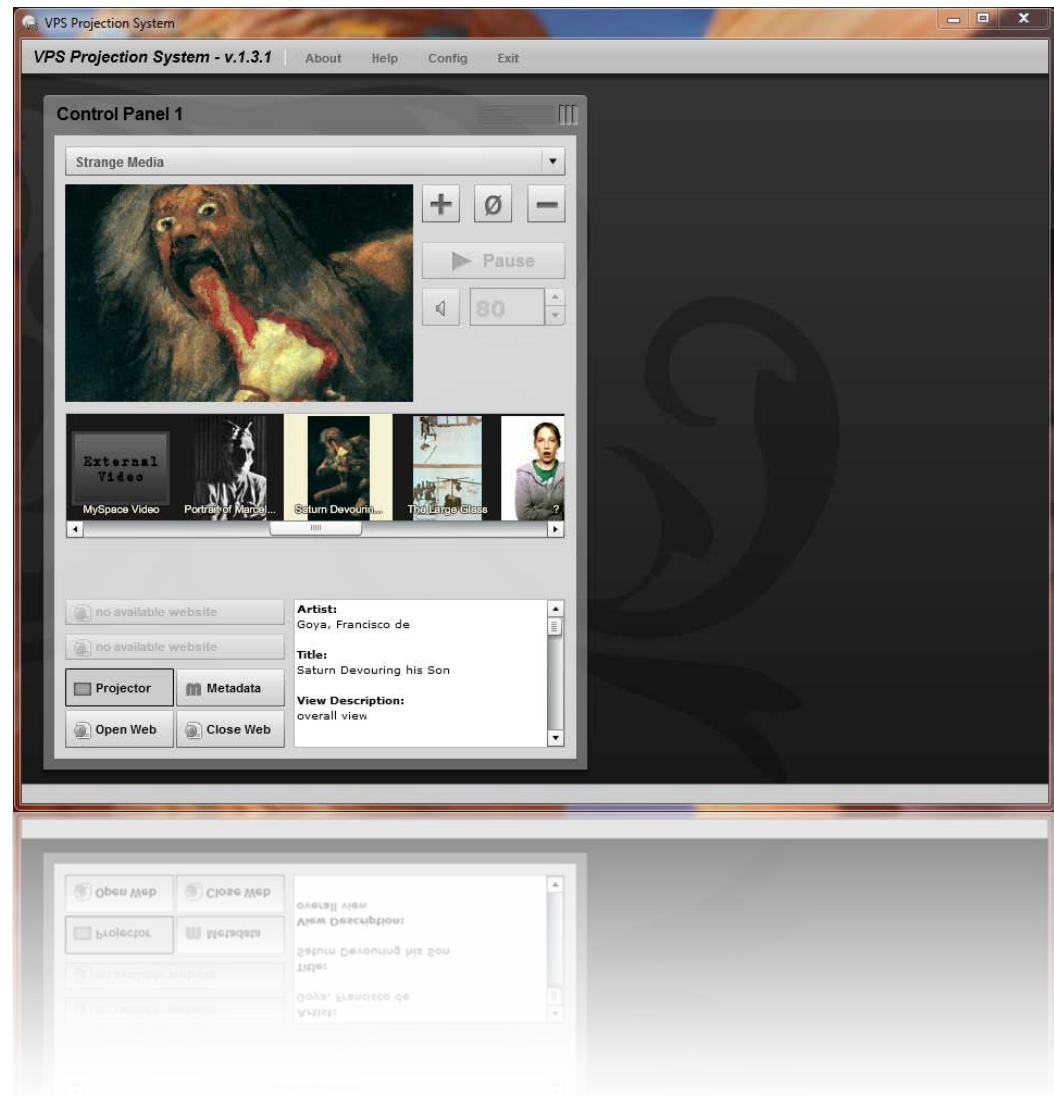
Features

- View gallery objects as “slideshow”
- Full metadata records
- Object manipulation tools
- Social tagging and sharing
- Full embed functionality
- Instructor notes, discussions, links
- Instructor object narrations
- Per-object security feature



Features

- Projects any gallery item
- Compare different objects
- Compare full object with detail
- Detects number of projectors
- Split screen for single projector
- Allows transparent manipulation
- Settings are saved upon use
- Auto updates from server



Social Video Event Player

- Working with University Communications
- Integrate social aspects into player
- Potential to use Social service library
- May also use Open Source Media Framework

AIR-Based Streaming Application

- Cross-platform, simple stream generator
- Similar in functionality to the Flash Media Live Encoder, but targeted for simplicity and DU specs
- Goal is to have anyone be able to stream live events on any platform

The screenshot shows the Adobe Labs website interface. At the top, the Adobe Labs logo is visible, along with navigation links for Home, Technologies, Wiki, Downloads, Community, RSS Feeds, and About Labs. A search bar is present on the right. Below the navigation, the page title is "Social" under the "Technologies" category. The main content area contains a description of the Social service, which enables developers to integrate leading social networks like Facebook and MySpace into their applications. It highlights that the service provides an abstraction layer to handle the complexity of multiple APIs and adapts to changes in underlying social network APIs. A "Features" section is followed by an "Authenticate" section, which states that users can be authenticated in two clicks using supported networks like Facebook, MySpace, Twitter, Yahoo, Google, and AOL. Below this, there are icons for these social networks. To the right, a "Download and Discuss" box offers a "Download the Social service library" and a link to "Discuss Social service in the forums". The right sidebar lists various Adobe technologies and tools, including Acrobat.com Presentations, Acrobat.com Tables, Alchemy, Blueprint, BrowserLab, CinemaDNG, ColdFusion Builder, Community Help, Configurator, Distributable Player Solution, Durango, Flash Builder 4, Flash Catalyst, Flash Player 10, Flex Builder for Linux, Flex 4 SDK, Hub, InContext Editing, JamJar, and knowhow.



Joseph Labrecque

Senior Multimedia Application Developer
Adobe Higher Education Leader

Email: Joseph.Labrecque@du.edu
Twitter: [@JosephLabrecque](https://twitter.com/JosephLabrecque)
Weblog: <http://inflagrantedelicto.memoryspiral.com/>



MAX

CONNECT. DISCOVER. INSPIRE.