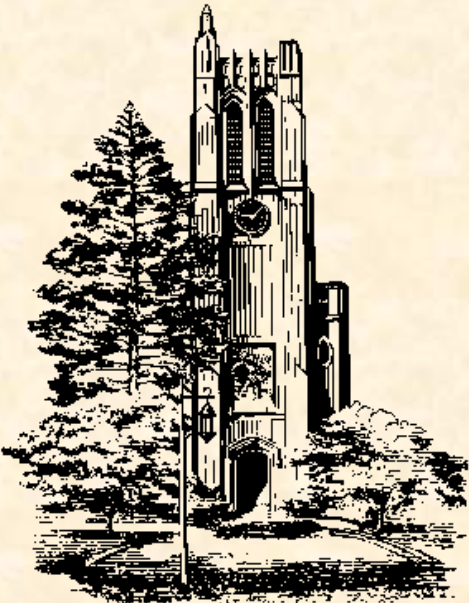# Technical Specification / Schedule TechSmith Video Player

Team 6: TechSmith
CSE 498, Collaborative Design

Brandon Turner
Thomas Lavoy
Christopher Harter
Jason Conley

Department of Computer Science and Engineering
Michigan State University

Fall 2007

Project Overview

- Screen Recorder
  - Creates Content and Uploads
- Website
  - Finds Content and Hosts
- Player
  - Allows Consumption of Content

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Functional Specifications

- Screen Recorder
  - Create Video and Audio(or both)
  - Record whole screen or single window.
  - Minimizes to tray during recording
  - Hotkey enables end of recording
  - Encodes as WMV
  - Attaches meta data
  - Uploads file to host.

Functional Specifications

- Website
  - Allows users to find videos
  - Shows thumbnails of videos
  - Web Services
    - Upload video
    - Get Tags
    - Get Meta Data
    - Add Tags
  - Hosts WMV
  - Hosts Silverlight Player

Functional Specifications

- Player
  - Play / Pause
  - Seeking and position tracking
  - Art-Tag
  - Text-Tag
  - Automatic chapter creation from tags
  - Tag filtering
  - Tag based and magnified navigation control
  - Reply to tag

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System Components

- Screen Recorder
  - .NET 3.0
  - WPF
  - TechSmith SDK
- Website
  - ASP.NET
  - Windows 2003
  - MSSQL 2005
- Player
  - Silverlight 1.1
  - C#

Architecture Illustrated

- Workflow
- Interaction
- Database
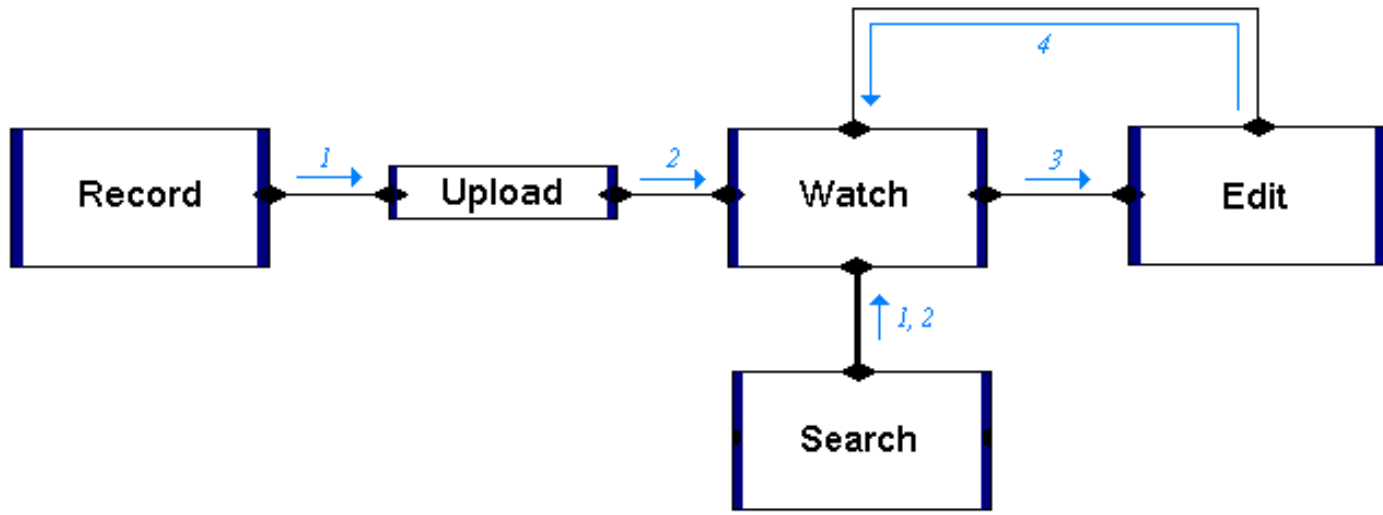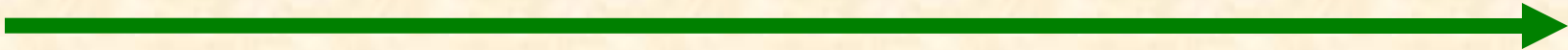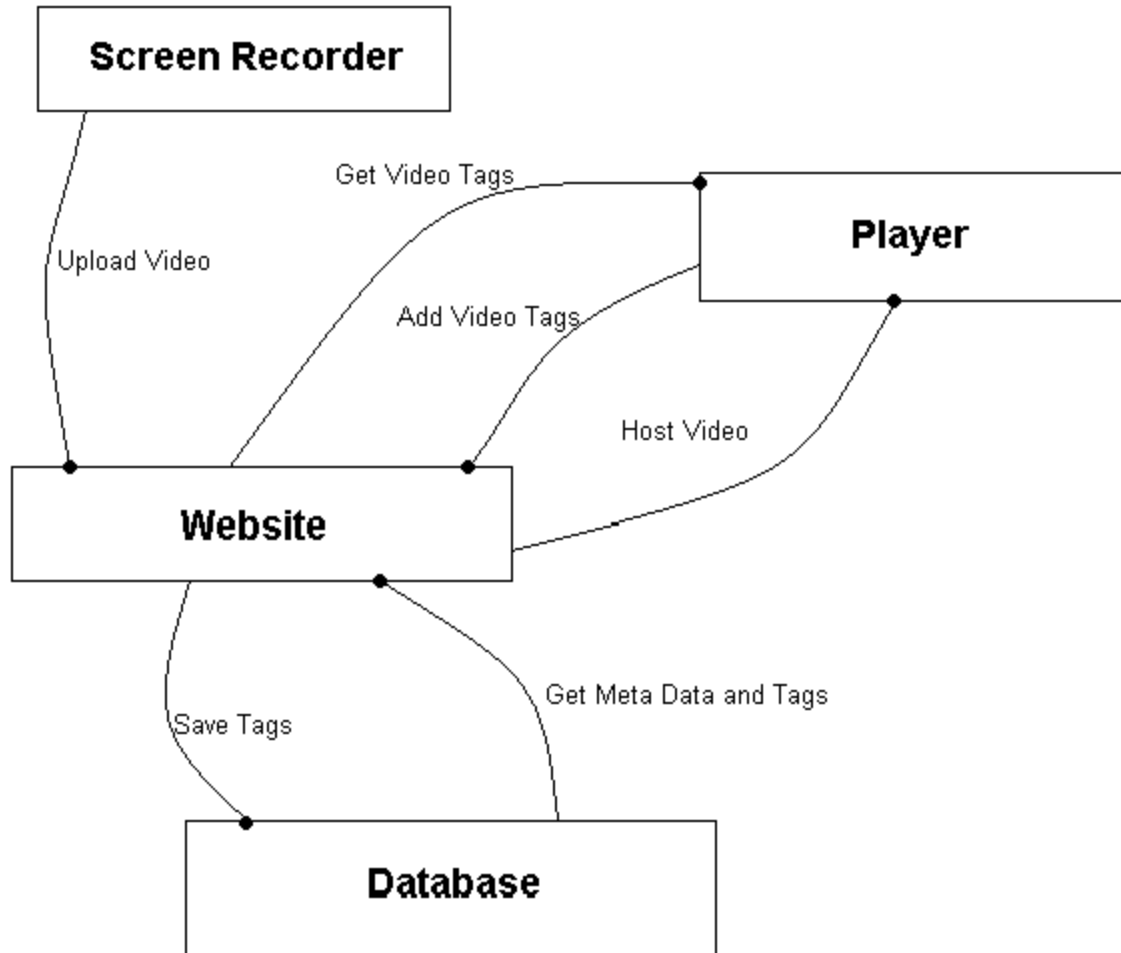- Recorder Mockup
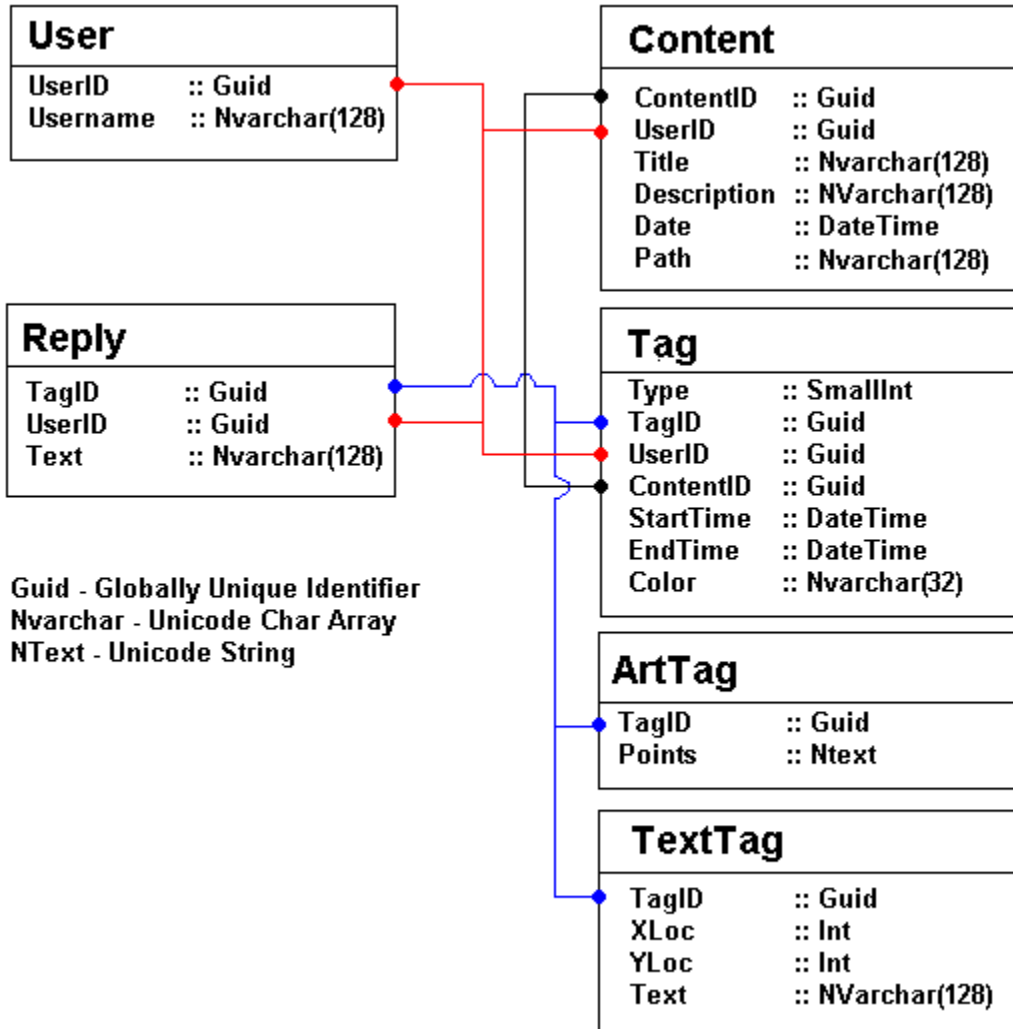- Player Mockup

Work flow

Diagram to illustrate the workflow of the player.

Interaction

Database

User

UserID	:: Guid
Username	:: Nvarchar(128)

Content

ContentID	:: Guid
UserID	:: Guid
Title	:: Nvarchar(128)
Description	:: NVarchar(128)
Date	:: DateTime
Path	:: Nvarchar(128)

Reply

TagID	:: Guid
UserID	:: Guid
Text	:: Nvarchar(128)

Tag

Type	:: SmallInt
TagID	:: Guid
UserID	:: Guid
ContentID	:: Guid
StartTime	:: DateTime
EndTime	:: DateTime
Color	:: Nvarchar(32)

Guid - Globally Unique Identifier
Nvarchar - Unicode Char Array
NText - Unicode String

ArtTag

TagID	:: Guid
Points	:: Ntext

TextTag

TagID	:: Guid
XLoc	:: Int
YLoc	:: Int
Text	:: NVarchar(128)

Recorder Mockup

TechSmith Capstone Screen Recorder

Begin Recording

☑ Record Video

☐ Record Audio

☐ Use hotkey 'Esc' to end recording.

Username:

CoolDude2000

◉ Record Whole Screen

◯ Record Selected Window

Microsoft Word - TechSmith Desgn Spec
Calculator.exe
Notepad.exe
Mspaint.exe
Internet Explorer - www.microsoft.com
Internet Explorer - www.techsmith.com
Windows Explorer - Desktop

Video Title:

Mspaint Tricks!

Upload!

Video Length: 1:34

Description:

This is a really cool video of me using MSPAINT!
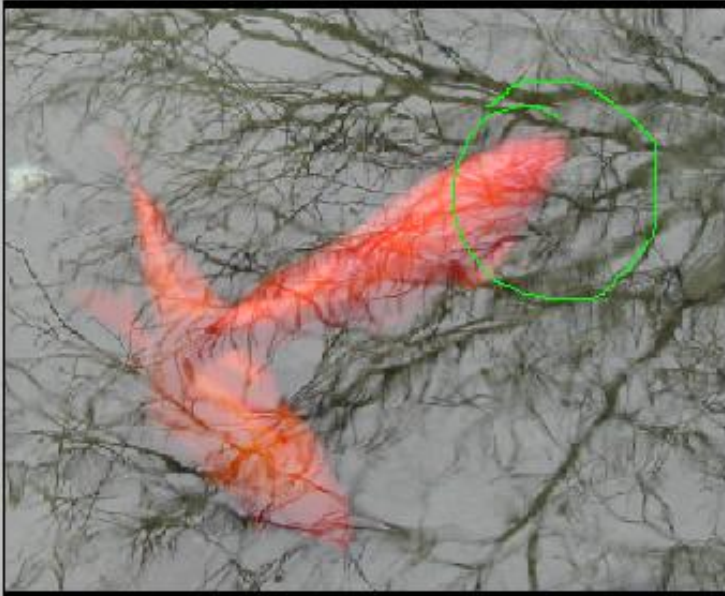
☑ View video after upload

Player Mockup

photo source: www.freeimages.co.uk
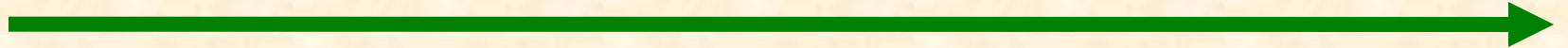
Risks

- Risks
- Silverlight
  - Most members unfamiliar with Silverlight
  - Brandon creating demo applications
- TechSmith SDK
  - No one has used the SDK or made a screen recorder
  - Group experimentation and overview of documentation
- Feature Creep
  - Project lends itself to becoming large and breaking past milestones
  - Nail down all features in the spec and stay focused only on those features.

Project Schedule - Recorder

1. Record Video
    a) Produce WMV file
    b) Date: Sept. 25, 2007
2. Single Window
    a) Record only a single window.
    b) Date: Sept. 28, 2007
3. Upload Video
    a) Move the video to the website
    b) Date: Oct. 6, 2007

(As of now all dates are tentative)

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Project Schedule - Website

1. Search Videos
   a) Find videos from title and description
   b) Date: Sept. 28, 2007
2. Video Previews
   a) See a preview of the video
   b) Date: Oct. 2, 2007
3. Watch Video
   a) Have the Silverlight host inside the website
   b) Date: Oct. 6, 2007

(As of now all dates are tentative)

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Project Schedule - Player

1. Design
   a) Have XAML to represent video player
   b) Date: Sept. 28, 2007
2. Text Tags
   a) Add text tags and have them persist to database
   b) Date: Oct. 12, 2007
3. Art Tags
   a) Add art tags and have them persist to database
   b) Date: Oct. 16, 2007

(As of now all dates are tentative)

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