

# Interactive Activities in Music Using Macromedia Flash Streaming Audio and Video within Blackboard

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Macromedia Flash MX2004 Professional and Flash 8 (the newest version of Flash, released in 2006) can stream .mp3 and .flv (Flash Video) content over the web in special Flash components called "MediaPlayback" (Flash MX2004) and "FLV Playback" (Flash 8) Components.

## **Learning Flash and How to Stream Content**

1. There are any number of excellent books available. One of my favorites is *Macromedia Flash MX2004: Training from the Source* by Jen deHaan and published by Macromedia Press (2004).
  - a. See Chapters 7 and 8 for information on how to use sound and video, how to use screens, and how to use MediaPlayback Components in Flash MX2004.
2. *Macromedia Flash Professional 8: Training from the Source* by Tom Green and Jordan L. Chilcott also is published by Macromedia Press (2006).
  - a. See Chapters 5, 7, 8 and 9 for information on how to use audio and video in FLV Playback Components.
3. The Visual Quickstart Guides published by Peachpit Press are also excellent learning and reference guides to Flash.
  - a. *Macromedia Flash 8 for Windows and Macintosh* by Katherine Ulrich (2006).
  - b. *Macromedia Flash 8 Advanced for Windows and Macintosh: Advanced* by Russell Chun and H. Paul Robertson (2006).

## **How to Encode Audio and Video Files for Progressive Streaming Delivery in Flash**

1. Use the "Flash Video Exporter" that ships with the Flash program 7.2 and higher.
2. Once installed, export files to the .flv format from within Flash, or alternatively from within several popular software packages, such as Adobe After Effects, Final Cut Pro, and QuickTime Pro, among several others.

## **How to Place Flash Progressive Streaming Content in Blackboard**

1. Create content in Flash. Publish the Flash file (.swf) and the HTML container. The Flash .swf file is displayed within the Flash Player, and the HTML page contains the Flash Player. (These publishing options are found in "File > Publish Settings" within Flash). You will end up with two files:
  - a. Filename.swf
  - b. Filename.html
  
2. Create a zipped (.zip) file using any standard compression program, such as WinZip (<http://www.winzip.com>) that contains the following files:
  - a. Filename.swf
  - b. Filename.html
  - c. ALL of the media files (.mp3 and/or .flv) that your Flash presentation uses as streaming files. (Embedded content does not have to be included here, since it is already contained within the Flash .swf file. You only need to include the streamed content, such as your video files in the .flv format and your audio files in the .mp3 or .flv format).
  - d. You will end up with one .zip file that contains all of your Flash, html, .mp3 and .flv files.
  
3. Launch Blackboard. Create an Item in one of the Content Areas of your Blackboard site.
  - a. To add your Flash content to your Item, click "File to Attach"
    - i. Select your .zip file ONLY.
    - ii. Under "Special Action", select "Unpackage this file"
    - iii. Click "Submit" to upload your content to Blackboard.
    - iv. DO NOT leave this page while your content uploads.
  - b. When your content has loaded, Blackboard will list ALL of the files contained in your .zip file.
    - i. Select the Filename.html file
    - ii. Click "Submit" to load this selection.
  - c. That's it! Enjoy your content from within Blackboard.

## **Additional Resources**

Flash:	<a href="http://www.adobe.com/products/flash/flashpro/">http://www.adobe.com/products/flash/flashpro/</a>
Components:	<a href="http://www.adobe.com/devnet/flash/components.html">http://www.adobe.com/devnet/flash/components.html</a>
Development:	<a href="http://www.adobe.com/devnet/flash/">http://www.adobe.com/devnet/flash/</a>
Screens:	<a href="http://www.adobe.com/devnet/flash/screens.html">http://www.adobe.com/devnet/flash/screens.html</a>
Video:	<a href="http://www.adobe.com/devnet/flash/video.html">http://www.adobe.com/devnet/flash/video.html</a>
Public Domain	
Music Scores:	<a href="http://mutopiaproject.org">http://mutopiaproject.org</a>