



THE UNIVERSITY OF TENNESSEE

College of Engineering

The Min H. Kao Department of Electrical Engineering and Computer Science

- Announcement of a Master of Science - Pilot Defense -

202 Claxton

Wednesday, April 7, 2010 at 2:00 P.M.

Brian Scott Zachary, Masters Candidate

Dr. Michael W. Berry, Major Professor

"A Tool for Cross-Platform
Audio Recording and Video Transcoding"

Abstract

Voices Heard Media is a company whose technologies blend traditional media with an interactive web interface, allowing users to interact with TV and radio personalities and direct broadcasts with their questions and input. VHM has a need for a cross-platform tool that allows one of their clients (e.g. a radio host) to record an audio clip and transcode that audio to Flash video format (FLV) prior to uploading the content to VHM's server. This will allow the media personality to respond to questions posted to a website by his or her listeners by creating a web-embeddable video and instantly publishing it. The Java Recorder fulfills this need. It makes use of standard Java libraries to record audio on the client, and lets the user choose an appropriate image to represent the content. It uses mencoder (from the MPlayer suite of tools) to create a still video with this audio and image, and then transcodes the resulting video to FLV. FLV is desirable for its use of compressed audio for smaller file sizes, and the ease with which it can be embedded in a web page. Client side transcoding is necessary to reduce bandwidth usage (by an order of magnitude over uncompressed audio and video) and to reduce load on the server that receives the content by making further video processing unnecessary.