CSE 480: Distributed and Real-Time Systems

13 February 1996

Homework 3: Video and Audio Transmission and Playback

This assignment is to learn how to use the multi-media devices. In particular, this assignment is to make sure that you know how to use camera to capture image and then to display on the screen of a remote workstation, as well as how to use microphones to record sounds and then play on a remote audio device.

The cameras and microphones are attached to Sunworkstation along the left wall as you go into DSL. The sample video programs and audio programs are in the `~lee/CSE480/Video` and `~lee/CSE480/Audio` directories, respectively. Please read the README files in those directories for further instructions on how to use cameras and microphones.

For this assignment, you are to extend the program for the first assignment so that live images captured from a camera is displayed on its own machine as well as on two other remote machines. You should try with different parameters (e.g., frame rate, display size, etc.) to determine the best quality images.

And, develop similar programs for Audio.

What to hand in:

1. A brief write up on the overall structure of your system, and the designs and results of your experiment. If performance is not acceptable, speculate on causes and suggest possible fixes.

2. Email me where the source of your program is located.

3. Demo the working of your program in the lab on the due date or shortly thereafter.

Due Date: 29 February 1996, 5:00 pm