

XMSF Conferencing with Network EducationWare

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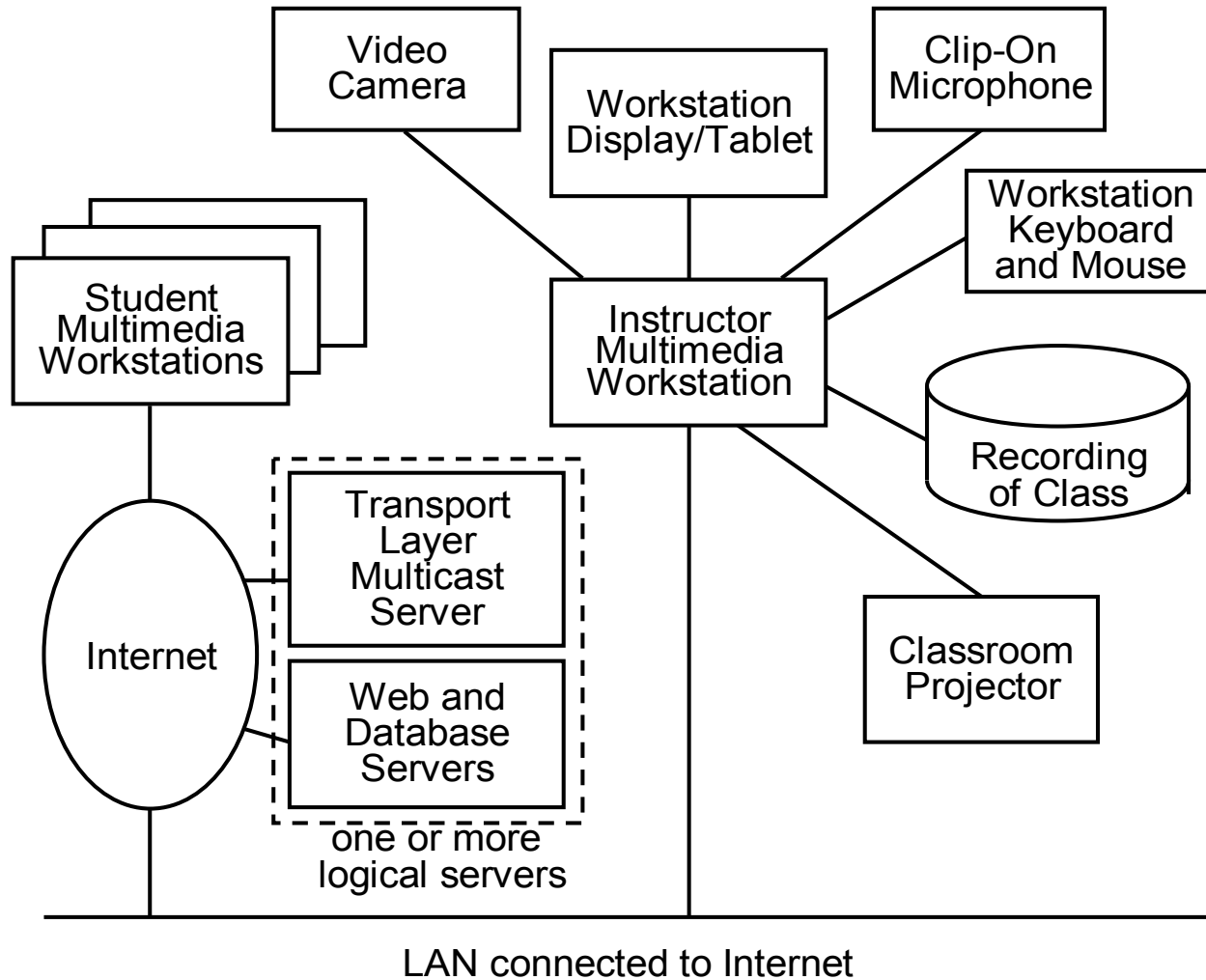
Presentation Overview

- Introduction - motivation
- NEW software
- User interface

Motivation for NEW

- Experience shows instructor-led education is most effective
- Synchronous course delivery from live instructors via Internet is practical today
 - Audiographic delivery is most cost-effective
 - Best when combined with asynchronous delivery
- How to make this affordable?
 - *Simulteaching* to in-person and Internet students
 - Dialup using inexpensive personal computers
 - Record as it is taught, for missed classes/review
 - No-cost, open-source software

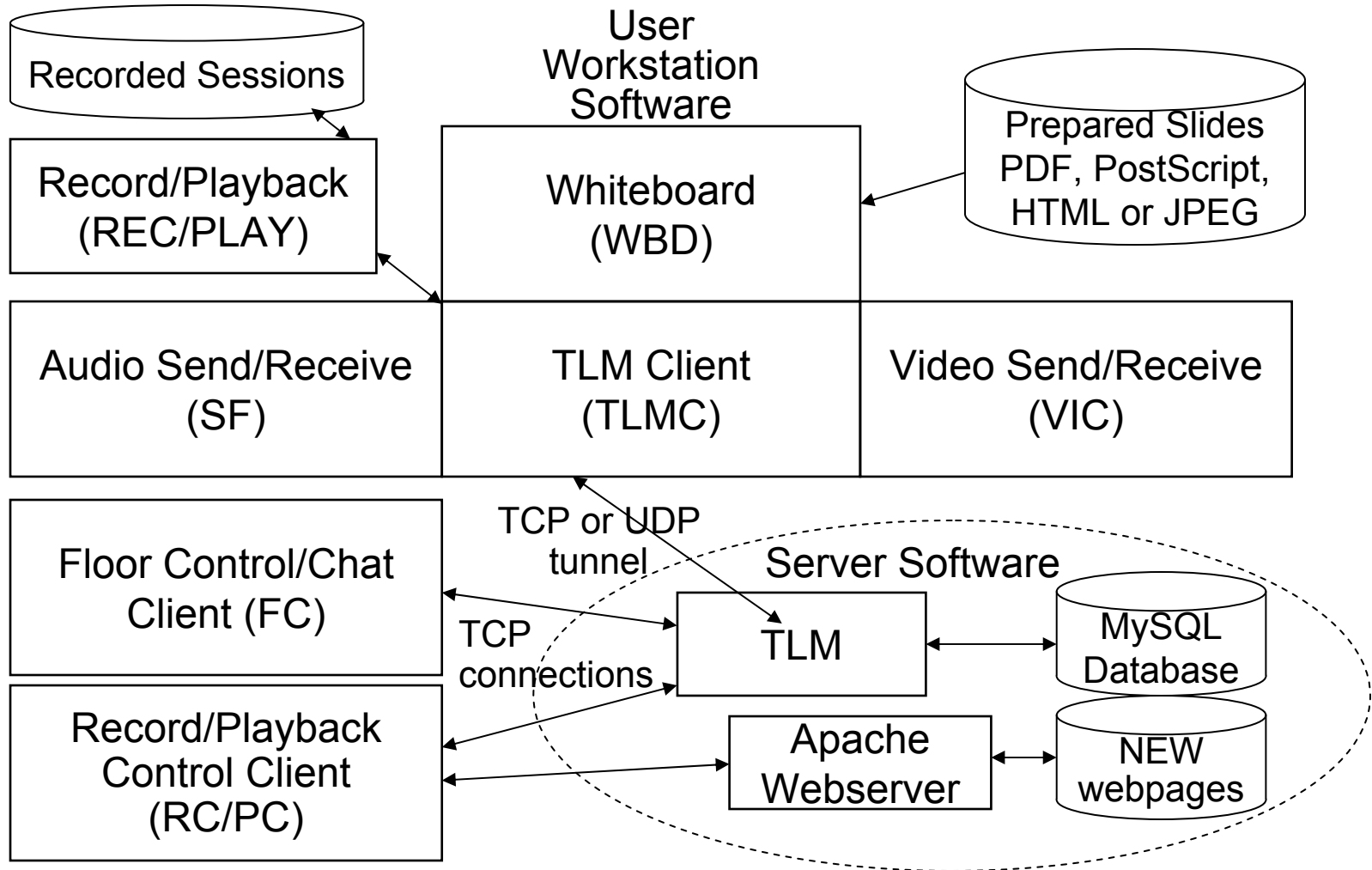
Simulteaching Setup



Attributes of NEW

- Works on inexpensive PC
- Works over dialup modem
- Quality: well designed, doesn't break
- Simple, robust, easy to use
- Scalable to large numbers of students
- Works despite firewalls and NATs
- Authentication and floor control

NEW Modules and Communications



System Structure

- Multi-platform target architecture
 - first release client is Windows-only
- Thirteen building blocks
 - all communicate via Internet Protocol
 - allows flexible configuration
- One server instance per session
 - peer-to-peer client supports range of modes
 - lecture, seminar, conferencing
 - two-way audio (also text questions and chat)

Assembled Tools - Teaching

NEW

Network Education Ware
Synchronous Internet Distributed Education

THE RECORDER IS WAITING TO BE STARTED

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01Network_Educati.pdf
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Release Floor

RED HAS THE FLOOR

Grant Next

Floor Rules

About FC

SEND

TO PROF:

SEND

TO ALL:

SYSTEM

MESSAGES:

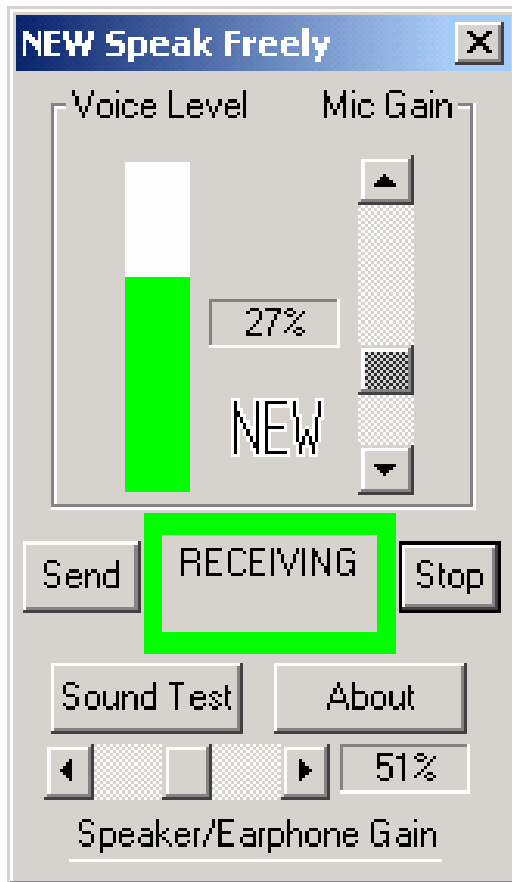
RECEIVED MESSAGES:

mpullen >Hello there

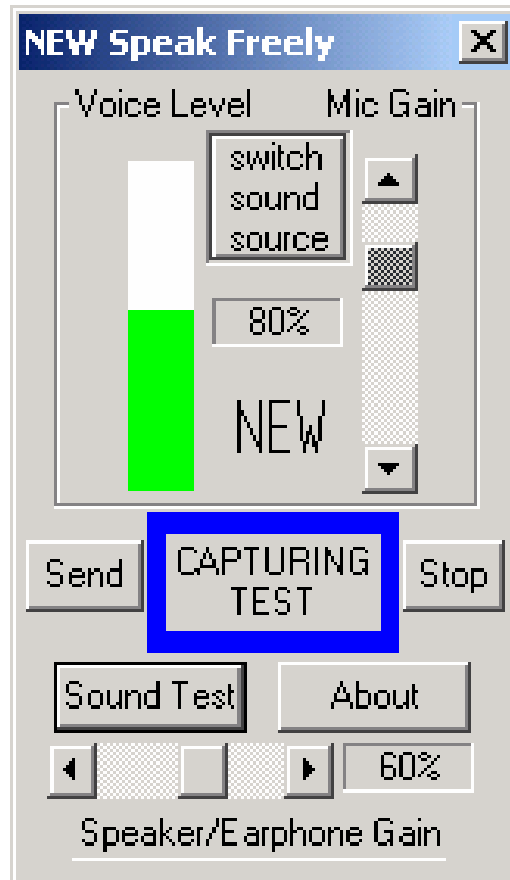
NEW Audio User Interface

(Speak Freely)

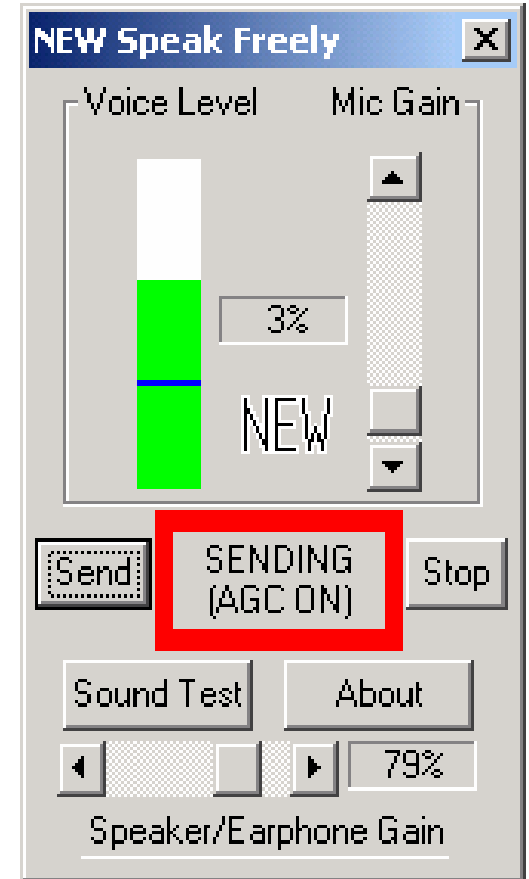
LISTENING...



TESTING...



TALKING...



NEW Floor Control User Interface

To take the floor (or request it, if the session is moderated) click here

Type a message to the instructor (only) here

Type a message to everybody here

NEW Floor Control

Release Floor

Grant Next

Floor Rules

About FC

RED HAS THE FLOOR

nclark1	pmcandre	mpullen	csnow	bnemani
cgopalan	tngo6			

User full name: Pullen, Mark

SEND TO PROF:

SEND TO ALL:

LAUNCH URL:

SYSTEM MESSAGES:

RECEIVED MESSAGES:

nclark1 >time for class

TO PROF:csnow >when is assignment 3 due?

Gray means logged out

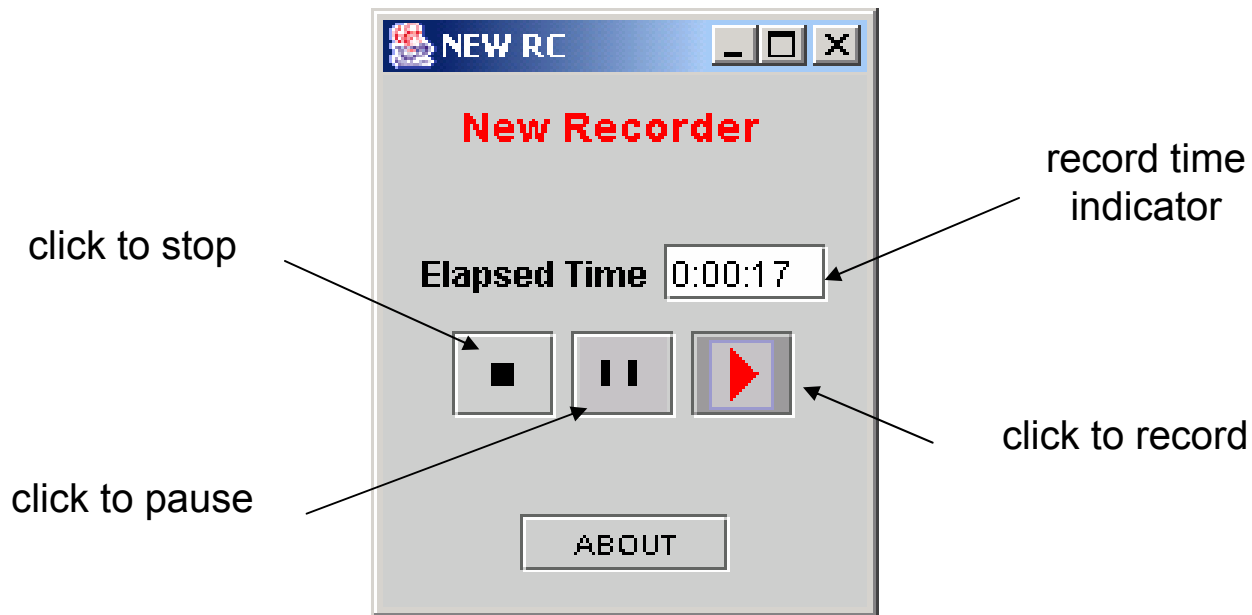
A URL typed here will show in everybody's browser, if you have the floor

The instructor sees floor requests in pink

To see a user's name, hold the cursor over their floor control cell (mpullen, in this case)

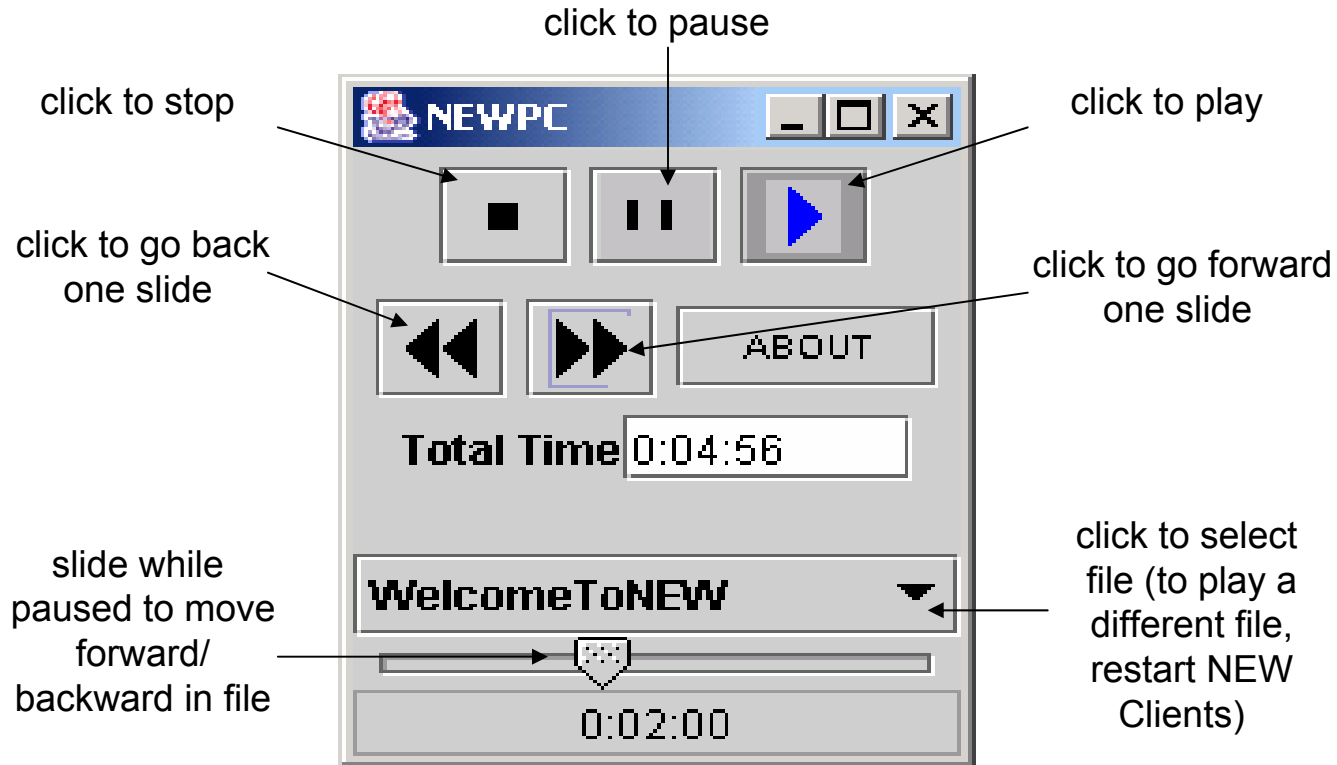
NEW Record User Interface

NEW RECORDING CONTROL



NEW Play User Interface

NEW PLAYBACK CONTROL



Talking Head Video Interface

(NEW also supports downloaded video clips)



Scaling Up Course Management

- Started with one course per semester
 - Ran it on desktop computer
- Now have twelve per semester
 - Need a real server
 - More than that: webpages and a database
- Learned how to scale up
 - And stay cost-effective

NEW Webpage Functions

- User authentication
- Download/install software
- Connect to live class
 - Spoken input and video optional
- Connect with a recorder for teaching
- Class chat room
- Review: playback, teaching slides
- Instructor email to class
- Upload/download slides and recordings
- Database and server administration

NEW Welcome Webpage

Network EducationWare

Director: Dr Mark Pullen

- MENU**
- Disted HELP/FAQs
- Report a problem
- Admin Functions
- Instructor FAQs
- Disted Home
- NEW Home
- NEW User Interface
- NetLab Home

Welcome to the NEW Distance Education System

Instructor: Mark Pullen Course: HSCI740

Select:

Preparation

- Download/install software
- Test your connection

Live Class Connection

Communication

- Chat room
- Email all students

Review

- Streaming playback
- Download playback
- See class slides

Uploads/Downloads

Submit Slides

Download Slides

Submit Recordings

Course records

- View course status
- View course roster
- Update session/add comment
- Add student (all sections)
- Update student (all sections)

Why NEW for XMSF

- Low-cost Internet conferencing
- Allows distributed meetings and courses
- Software model consistent with XMSF
 - Free for all academic/government purposes
 - Source posted on netlab.gmu.edu
- Linux version available in Spring 2005
- MacOSX version when resources allow

For more information:

<http://netlab.gmu.edu/NEW>

(in particular, see Quick Start page)