

CLIC^{1.0}



Interact



Agenda

- Features
- Architecture
- Schedule



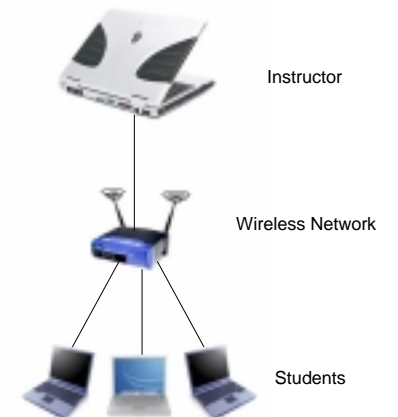
Features



Features > Architecture > Schedule

Software Overview

- **Basic Overview**
 - CLIC application resides on instructor's computer
 - Easy to install and support
 - Students connect wirelessly using a web browser
 - Professor uses GUI to see responses/comments
- **Target Audience**
 - Instructors who want more interactivity
 - Students who want more input in lectures but still remain anonymous





Student Client (Mockup)

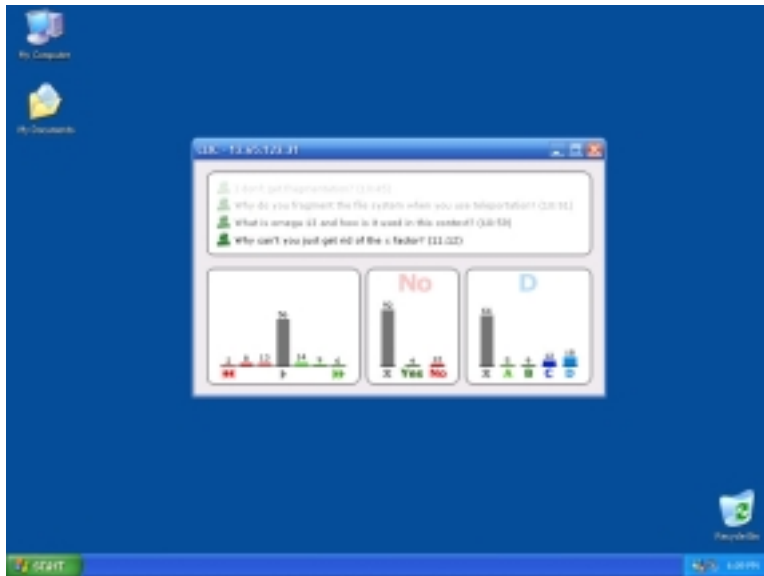


Student Client

- Lecture Speed
 - Slider to indicate preference
 - Returns to default over time
- Submit Responses
 - Respond to instructor questions
 - Select a button
- Comments
 - Pre-entered comments (e.g. "Please go back a slide")
 - General Comments



Professor GUI (Mockup)



Professor GUI

- Readability
 - Asses info at a glance
 - Easy to read format
- Lightweight Application
 - Run alongside PowerPoint
 - Helpful, but non-intrusive
- Student Responses
 - Display distribution of responses
 - Configurable display format
- Comments
 - Time stamped
 - Fade over time
 - Blocking option for malicious students



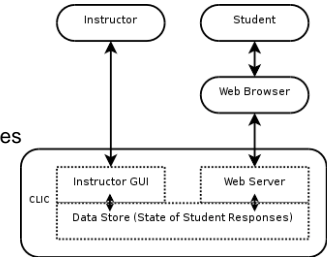


Architecture

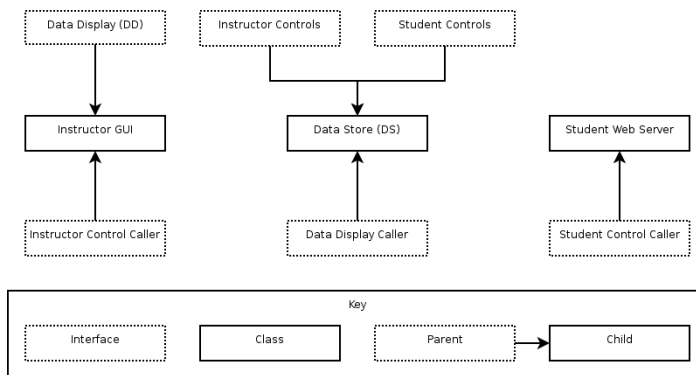


Application Components

- **Instructor GUI**
 - Displays student responses/comments
 - Handles instructor interaction (clear responses, etc.)
- **Data Store**
 - Keeps track of students logged in
 - Sends updates to GUI on student responses
- **Web Server**
 - Handles web requests from students
 - Sends responses to the Data Store
- **Web Browser**
 - Any JavaScript enabled browser
 - Wireless enabled computer
 - Displays the student interface



Class Structure



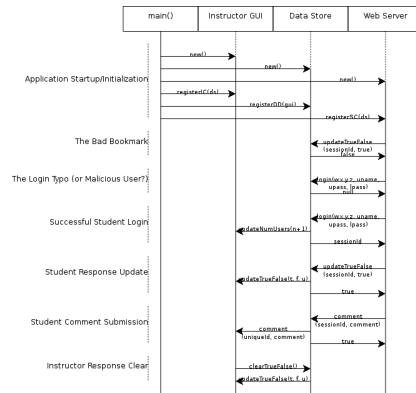
Interface Methods

Instructor GUI (Implements Data Display and Data Store Caller)	Data Store (Implements Data Store Instructor Controls, Data Store Student Controls, and Data Display Caller)	Web Server (Implements Data Store Caller)
void registerIC(Data Store)	void registerDD(Instructor GUI)	void registerSC(Data Store)
void updateNumUsers(int numUsersLoggedIn)		string sessionId login(IP address, string username, string userpassword, string lecturepassword)
void updateLectureSpeed(int[?] peoplePerOpinion)		bool updateLectureSpeed(string sessionId, int response)
void comment(string uniqueUserId, string comment)		bool comment(string sessionId, string comment)
void updateTrueFalse(int numTrue, int numFalse, int numUndecided)	void clearTrueFalse(void)	bool updateTrueFalse(string sessionId, bool response)
void updateMultCh(int[?] peoplePerAnswer, int numUndecided)	void clearMultCh(void)	bool updateMultCh(string sessionId, int response)



Usage Scenarios

- Scenarios
 - App. initialization
 - Bad bookmark
 - Malicious user/Incorrect password
 - Successful login
 - Submit Answers
 - Comment submission
 - Instructor clears GUI



Implementation Technologies

Student Side:

- Platforms: Portable devices with 802.11, web browser, JavaScript
- Languages: HTML and JavaScript, server side dynamic content if necessary
 - Wide support and easy configuration
- Risks:
 - Limited flexibility



Implementation Technologies

Professor Side:

- Platforms: Windows laptops with Ethernet connectivity, .NET 1.1
 - Portability is not a big concern
- Languages: C#
 - High-level, rapid development language, with strong GUI tools and support for the Windows platform APIs
- Technologies: Built-in lightweight web server, rather than a COTS solution



Implementation Technologies

Professor Side:

- Network: 802.11, either infrastructure or P2P ad-hoc
- Risks:
 - C# is unfamiliar
 - Anonymity is at the UI level only
 - Web server module may be complicated task
 - 802.11 or web server module scalability may become an issue
 - Network may be difficult to configure



Schedule



Features > Architecture > Schedule

Phase 1

	General		Milestones		
	Meetings	Milestones	Instructor GUI	Data Store	Web Server
Mon, 1/31	All-Group @ 4:30		Professor GUI Layout Implement the GUI specified in the LCA Feature Spec. and tie the GUI into the functions specified in the LCA Architecture Spec. Team Members: Justin, Dave, Micah	Implement Feedback Data Structures Data structures should handle a class of students, their current state, and should possibly sort students by their answer submission times (for smart mode) Team Members: Luan, Evan, Brian	Student GUI Layout Implement the front-end UI to the student client in HTML and JavaScript. Post beta: implement a feedback mechanism so students see when their votes were counted. Team Members: Krista, Colin
Tue, 2/01		LCA Due @ 10PM			
Wed, 2/02		LCA Presentation @ 12:30PM			
Thu, 2/03					
Fri, 2/04	In-Section @ 10:30				
Sat, 2/05					
Sun, 2/06					
Mon, 2/07	All-Group @ 4:30	Essays Due			
Tue, 2/08					
Wed, 2/09					
Thu, 2/10			Usability Test & Revise	Stability Test	Usability Test & Revise
Fri, 2/11	In-Section @ 10:30				
Sat, 2/12					
Sun, 2/13					
Mon, 2/14	All-Group @ 4:30				
Tue, 2/15					
Wed, 2/16					
Thu, 2/17					
Fri, 2/18	In-Section @ 10:30	Beta Release			



Features > Architecture > Schedule

Phase 2

	General		Milestones		
	Meetings	Milestones	Instructor GUI	Data Store	Web Server
Sat, 2/19			Post-Beta Features Implement the post-beta feature plan specified in the LCA Features Spec. Team Members: TBD	Post-Beta Features Implement the post-beta feature plan specified in the LCA Features Spec. Team Members: TBD	Post-Beta Features Implement the post-beta feature plan specified in the LCA Features Spec. Team Members: TBD
Sun, 2/20					
Mon, 2/21	All-Group @ 4:30				
Tue, 2/22					
Wed, 2/23					
Thu, 2/24					
Fri, 2/25	In-Section @ 10:30	Essays Due			
Sat, 2/26					
Sun, 2/27					
Mon, 2/28	All-Group @ 4:30				
Tue, 3/01			Testing Test Professor GUI based on the criteria specified in the LCA Features Spec. Team Members: All	Testing Test Feedback Data Structures and Algorithms based on the LCA Architecture Spec. Team Members: All	Testing Test Student GUI based on the criteria specified in the LCA Features Spec. Team Members: All
Wed, 3/02					
Thu, 3/03					
Fri, 3/04	In-Section @ 10:30	Final Release Due			
Sat, 3/05					
Sun, 3/06					
Mon, 3/07	All-Group @ 4:30				
Tue, 3/08					
Wed, 3/09		Use CLIC in Class!			