

VClass Mobile Classroom 0.9.x (pre-release)



1. Introduction

Mobile Classroom (MC) is a SIP-based extension to the VClass E-learning platform. This application provides real-time services to VClass, such as audio/video conferencing or instant messaging.

2. Hardware Requirements

Minimum Hardware Requirements

CPU: Pentium 1GHz
RAM: 256 MB
HDD: at least 20MB
Network: 128Mbps broadband connection (ADSL, ISDN)

Optimal Hardware Requirements

CPU: Pentium 2.0GHz
RAM: 512 MB
VDO: at least 32 MB accelerator card
HDD: at least 20MB
Network: 256Mbps broadband connection (ADSL, ISDN), LAN or wireless.

3. Required Software

The following software must be installed in **exact** order as given in the list below:

Mandatory

- **Java Runtime Environment 1.5.x** : application is made in Java and requires **JRE 1.5.0+** installed on your computer. Make sure that JRE is installed on your machine by issuing `java -showversion` command in your console (Command Prompt in Windows, terminal in UNIX-based systems). If help version and help information is displayed, check version and see if it is 1.5.0 or more (e.g. 1.5.0_04, 1.5.0, 1.5.0_06b2). In case, if JRE 1.5.x is not a part of your system yet, make sure to download it from <http://java.sun.com/javase/downloads/index.jsp> and install it.
- **Java Media Framework (JMF) 2.1.1e** : To correctly process audio and video this application requires an installation of a media component for Java called JMF. JMF package can be obtained at the following URL: <http://java.sun.com/products/java-media/jmf/2.1.1/download.html>
 - o **Note:** When installing JMF, tick “**Permit writing local files from an applet (See readme.html)**” option in Select Components window.

Optional

- **UCL Whiteboard Tool** : MC uses 3rd party multicast whiteboard software called **WBD** in order to operate in full potential. Before installing MC, obtain conferencing software from <http://www-mice.cs.ucl.ac.uk/multimedia/software/> and install it on your machine.
- **DVTS Application** : In order to conduct DVTS tests or send DV quality video from instructor to students, MC requires installation of **DVTS application** created by WIDE project, Japan. Installation files and instructions may be found at <http://www.sfc.wide.ad.jp/DVTS/software/> or on the DVTS simulator page of your student and instructor accounts. Installation of DVTS 0.0.1 for Windows is generally preferred.

4. Features of Mobile Classroom

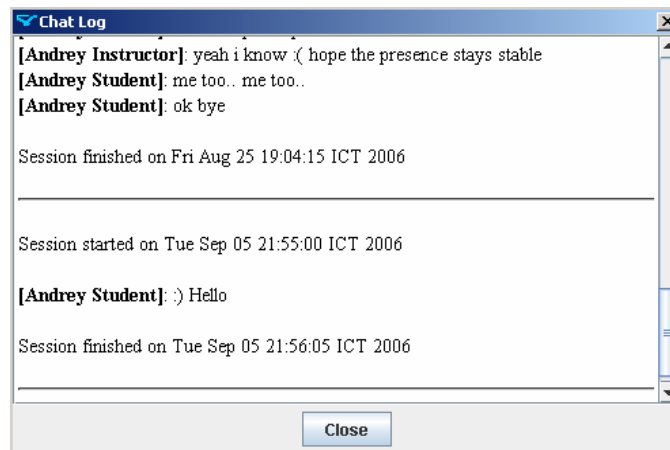
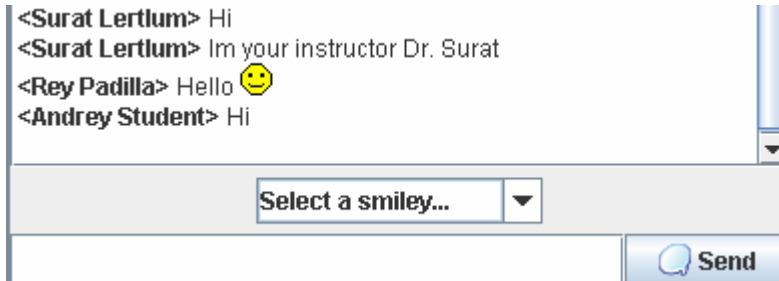
- **Audio/Video Conferencing:** separated audio/video conferencing for each class. Press “Audio” button on the toolbar to start audio conferencing. The announcement will be played, indicating that you have joined class’ conference room. If bandwidth allows, start a video tool by pressing on a “Video” button located on the same toolbar.



- **Class Presence:** you can see, who is currently inside the class you are attending and who is not. Instructors and facilitators of the class are shown in a blue color, while students are displayed in yellow.




- **Class-wide IM:** send an instant message to your instructor or your classmates. Messages will reach all the online participants of the class. All the messages that were sent within a class are recorded for future reference. You may start a your instant messaging log window by pressing “Chat Log” button on the resource toolbar



- **Shared Presentation:** shared presentation synchronized with your instructor. A list of presentations is found right under the slide area. You may choose to use low quality slides by checking one of the checkboxes on the right of the presentation list. Low quality slides are processed and displayed faster (good for slow computers). An “Instructor synchronizer” checkbox allows students synchronize presentation slides with their instructor.

Geoinformatics to Reveal the Past

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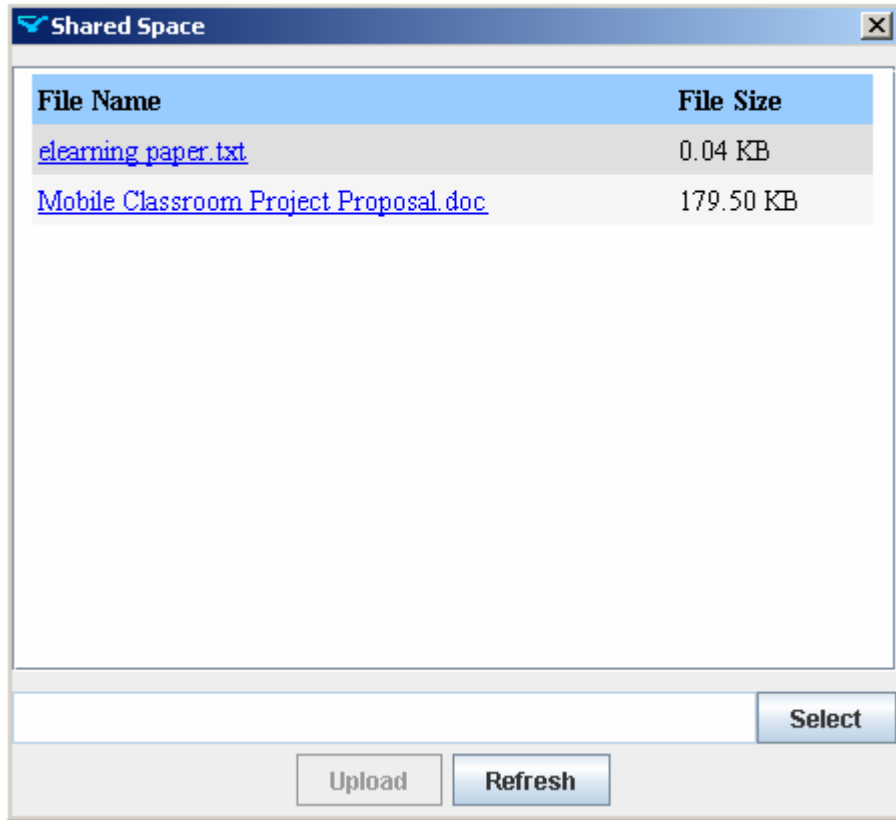
Slide 40 out of 75

Geoinformatics to Reveal the Past (image)

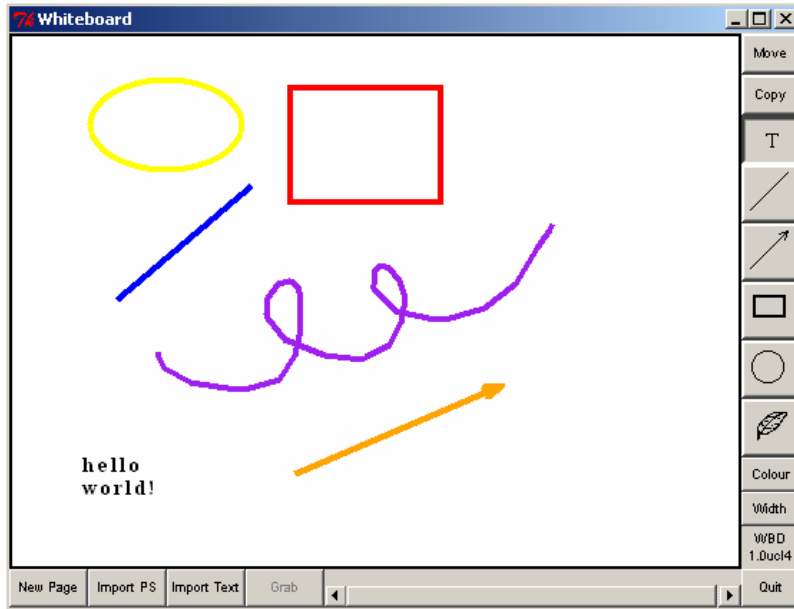
Low quality slides

Instructor synchronizer

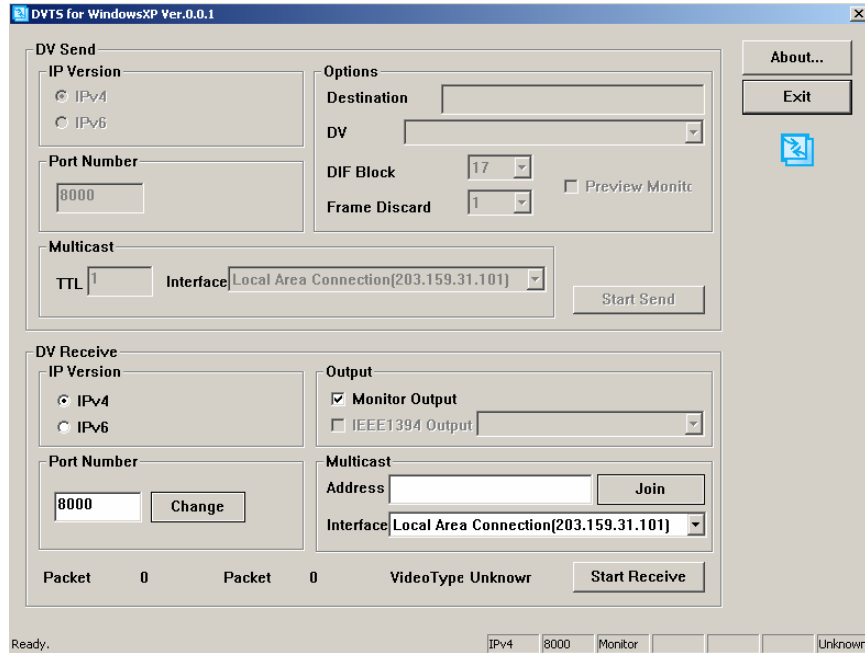
- **Shared Space:** shared space for easy interclass file exchange. A “Folder” button on the resource toolbar starts a separate window, which allows students or instructors upload and download files. A single upload file size is, however, limited to 10MB only.



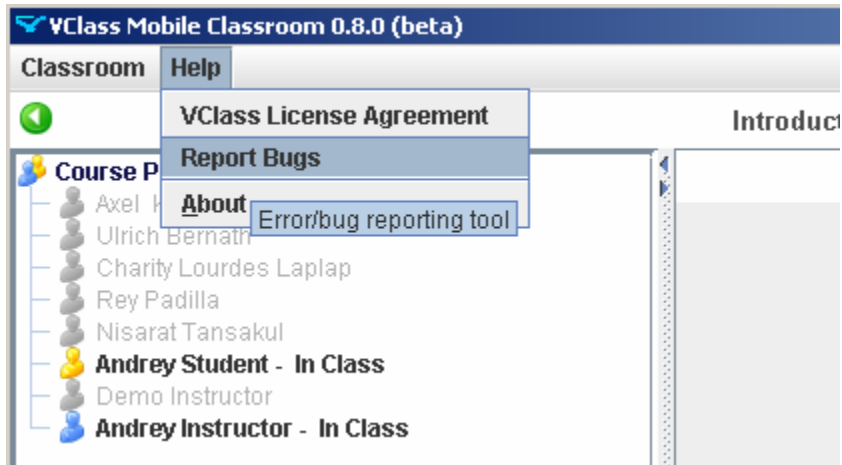
- **Shared Whiteboard Tool:** shared whiteboard is also a third-party application called **WBD**. Before using this tool, install **WBD** application into a default directory of your machine. In order to start using shared whiteboard, press “Draw” button on the tools panel and wait for **WBD** to load. Once **WBD** is loaded, simply start drawing on the white canvas and everyone else in the classroom will be able to see the same drawing.



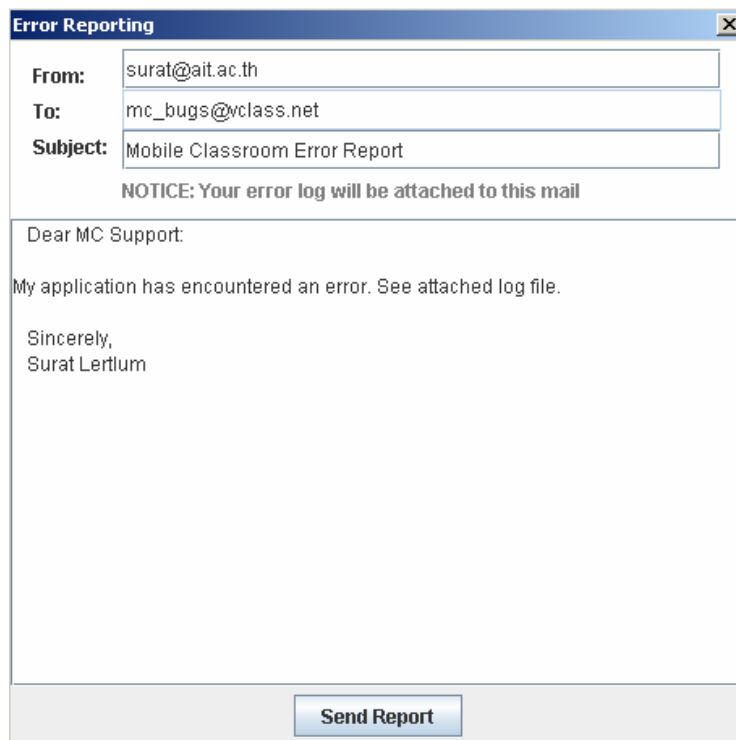
Digital Video Transport System (DVTS): DVTS application should be installed to its default location to ensure fully operational environment. DVTS Session Information window, which helps convey necessary information to sender, relay and receiver parties, is popped up when “DVTS” button is clicked on the resource toolbar. **DVTS application** itself may be started from inside the DVTS Session Information window by clicking on the “Run DVTS” button.



- **Online Error/Bug Reporting:** Mobile Classroom provides error reporting mechanism. Whenever an error occurs or a bug is encountered, choose “Report Bugs” from “Help” menu and send a report.



Your error log will be attached to the outgoing email, which will be sent to MC support team. Please, describe your problem in details inside the message field. This will help us find existing bugs inside the Mobile Classroom with ease and provide an instance response to your needs.



If error report cannot be sent at this time, you may choose to send it manually. Go to your system's account directory and find file named **mc.log**. Examples of account directory paths:

Windows 2000/XP: C:\Documents and Settings\\

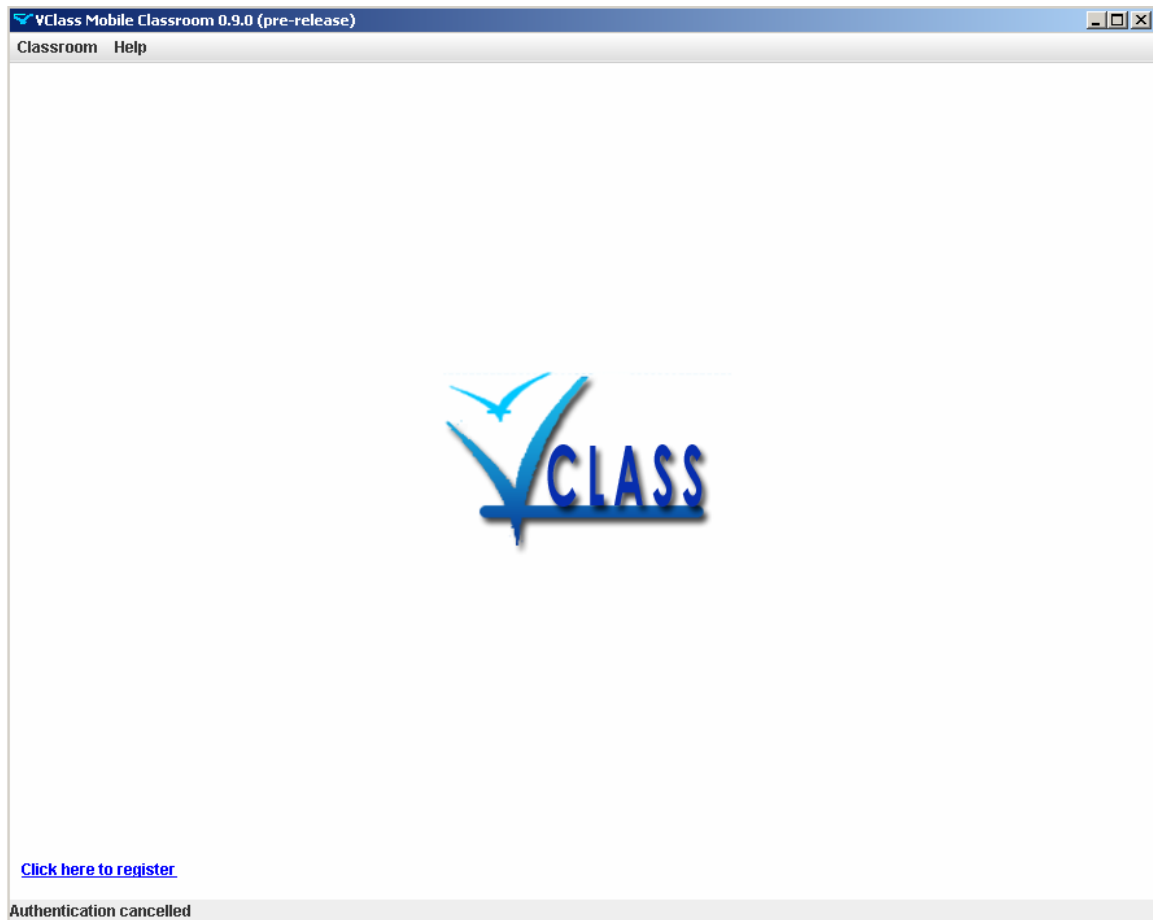
Linux: /home/<username>/ or /usr/home/<username>/

Attach this file to your email and send to mc_bugs@vclass.net or mc@interlab.ait.ac.th and you will be contacted shortly.

5. Installing and Using Mobile Classroom

Follow these easy steps:

1. Register with VClass and receive your login details first.
2. Login into VClass, go inside one of your classes and find a Mobile VClass link in the left menu. By clicking on this link, a new page will be displayed in the central frame of VClass' browser window. You may now install/run the application by clicking on "Open Mobile Classroom" link or just view a user guide.
3. During installation, you will be asked to accept a certificate.
4. After installation the application will start up automatically.
5. When application is running, you should see the following screen appear on your desktop:

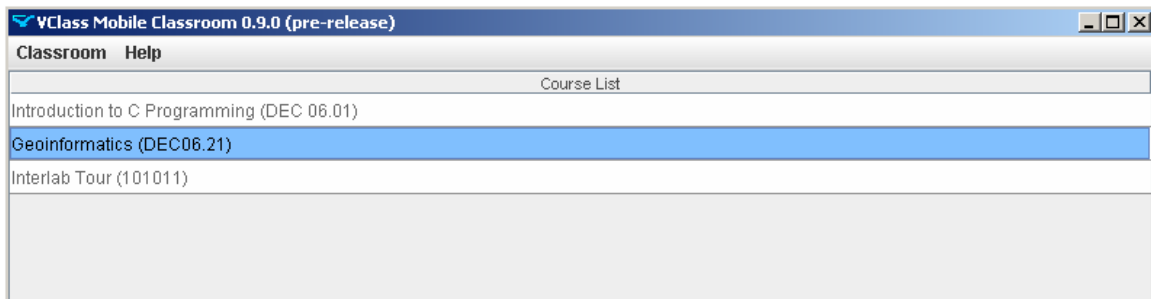


6. Sign in using your VClass account. You can go to the Classroom menu and select Sign In option or just click on the “Click here to register” hyperlink label in the bottom-left corner.



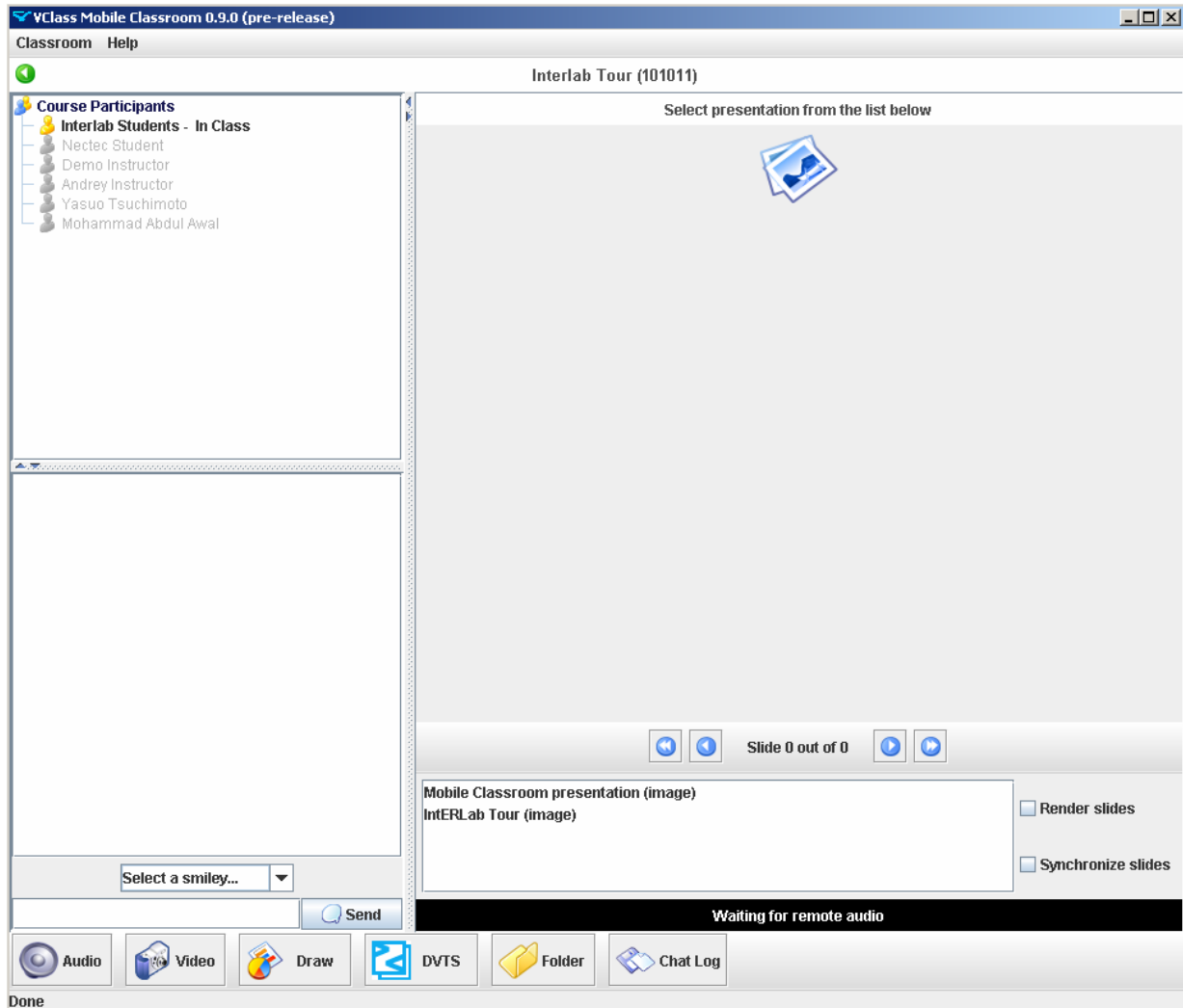
A login dialog box titled "Login sip.interlab.ait.ac.th". It contains a "Username:" field with the text "andrey" and a "Password:" field. Below the fields are three radio buttons labeled "Student", "Instructor", and "Facilitator", with "Student" selected. At the bottom are "OK" and "Cancel" buttons.

7. After successful signing in, the list of courses is now displayed. Double-click on any course entry to enter inside a virtual classroom.



A screenshot of the "VClass Mobile Classroom 0.9.0 (pre-release)" application window. The window has a menu bar with "Classroom" and "Help". Below the menu bar is a "Course List" section containing three entries: "Introduction to C Programming (DEC 06.01)", "Geoinformatics (DEC06.21)", and "Interlab Tour (101011)". The "Geoinformatics (DEC06.21)" entry is highlighted with a blue background.

- Once inside the classroom, you will see the list of course participants, a group chat panel, a presentation slides panel, an audio panel and a control toolbar, which allows you to toggle audio/video conferencing, shared whiteboard, open a shared folder or view a chat log for the course, you are currently inside of.



6. Known Errors and Bugs

1. Online/offline status of one or more participants is not working

Solution: Try waiting for some time or sign out and then sign in back. If problem persists, send a bug report.

2. Audio is not working. I end up with no audio at all, or at most one-way audio.

Solution: Immediately send your bug report and describe your problem in details inside the message body text area.

7. Future Considerations

Mobile Classroom is a work in progress. More tools and functionalities are yet to be added in order to enhance learning experience for your real-time distant learning.