



CLASSROOM MANAGEMENT SYSTEM USER MANUAL



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Introduction

CMS is a Classroom Management System that makes the best use of audiovisual aids to enhance the learning-teaching interaction in the computer classroom. It provides a set of teaching tools which enables media-rich instruction and a motivation for the students to learn better, faster and to retain information longer.

CMS incorporates the functions of DVR, a comprehensive system that makes language learning much more interactive than the ordinary classroom. With the aid of a video or audio file, the overall class learning curve is steepened because the students' attentiveness is enhanced.

This User Manual guides you through the installation and setup processes of CMS. It provides a comprehensive description of available functions, facilitating interaction between teacher and students in class.

2 ***System Requirements***

Supported Operating Systems

- Microsoft Windows 2000 Professional Edition with Service Pack 4 or above
- Microsoft Windows XP Professional, Home Edition with Service Pack 2 or above
- Microsoft Windows Server 2003 Enterprise, Standard Edition
- Microsoft Windows Vista Ultimate, Enterprise, Business, Home Premium, Home Basic Edition

Applications

- DirectX9.0 or above
- Windows Media Player 9 or above
- Internet Explorer 6.0 or above

Teacher Computer

- CPU: Pentium (III) 300MHz (Recommend Pentium (4) or higher)
- RAM: 256MB or higher recommended
- HDD: 1.5GB of available hard disk space
- Teacher Software Size: 36MB
- Flexible size of Windows displays support; Recommend display resolution:
 - Single Monitor setting: 1,024x768 or 1,280x1,024
 - Dual Monitor Setting: *Primary Monitor – 1,024x768 or 1,280x1,024
*Extension Monitor – 1,024x768 or 1,280x1,024
 - Teacher operation panel can be movable and drag to any places on desktop, interface can be resizable to best fit the screen size.
 - Multiple Monitor screens support.
 - Teacher operation panel is designed to display on secondary monitor by default when multiple monitors are installed in Teacher workstation.
- Network Interface Card
- On-board or additional display adapter(s) (optional for multiple monitors support) with 64MB or above video memory

Student Computer

- CPU: Pentium (III) 300MHz (Recommend Pentium (4) or higher)
- RAM: 128MB or higher recommended
- HDD: 1.5GB of available hard disk space
- Student Software Size: 22MB
- Recommend display resolution: Matched to teacher screen resolution.
1,024x768 or 1,280x1,024
- Network Interface Card

Sound Card

- Multiple sound cards support
- Full-duplex sound card or USB audio device

Networking Requirements

- At least ONE network connection
- TCP/IP Protocols
 - ◇ Each student and teacher computer must have a unique IP address. Make sure that no two students and teacher have the same IP address. Consult with the Network Administrator to verify that the IP addresses you intended to use will not interfere with other system components.
 - ◇ Set the same subnet mask for all students and teacher.
 - ◇ IP address assignment of student's and teacher's computer is both supported the static and dynamic (DHCP) methods.
- LAN Card: 100/1000 Mbps & supports Wake-on-LAN feature.
- Switch: 100/1000 Mbps; * IGMP filter support recommended

Optional Accessories

- Headset with Microphone
- USB Audio Box
- AV Controller Module
- PCI Video Capture Card (with 320 x 240 resolution and RGB 24 bits compression capturing format recommended) or USB 2.0 external capturing device
- USB Web Cam (* disable the microphone of web cam after installation)

3

Installation

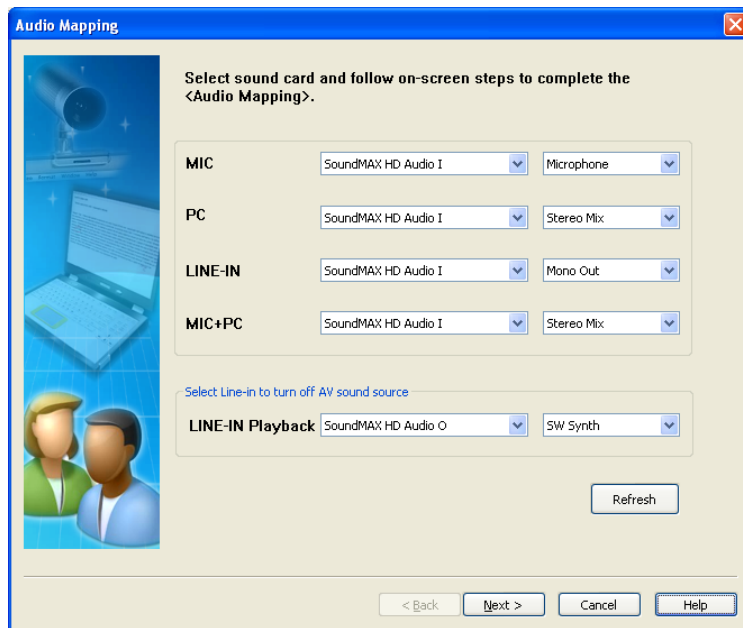
The installation processes of CMS Teacher and CMS Student are the same. To install CMS Teacher, run Teacher20.exe. To install CMS Student, run Student20.exe.

1. Follow the on-screen instructions to install CMS. Please note that you have to accept the End-User License Agreement in order to use the software.
2. After naming the Start Menu folder in which the shortcuts are to be placed, the user is asked whether a desktop icon is desired.
3. After installation, the following dialog appears:



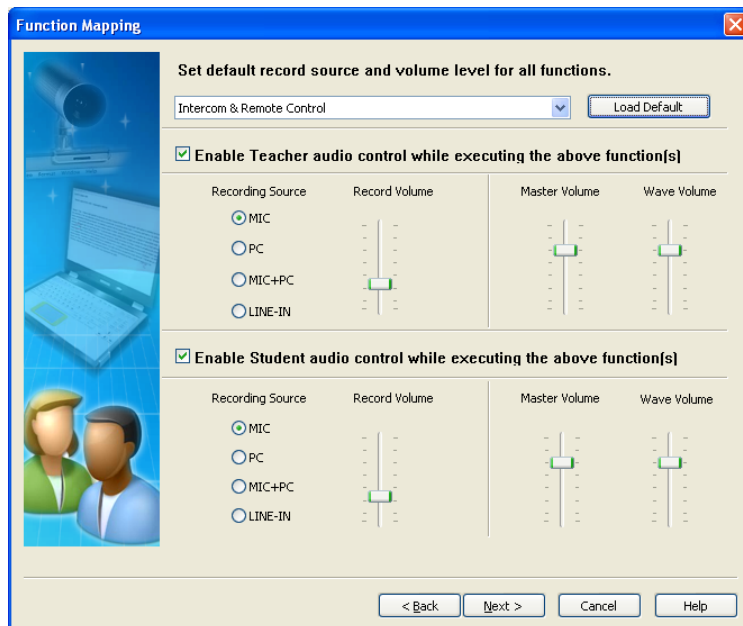
Click "Continue Anyway" to proceed the driver installation.

4. In audio mapping, select the appropriate sound cards and record sources. The "Refresh" button puts the current setting on screen.

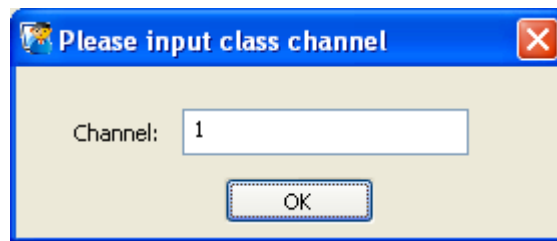


Click "Next" to continue.

5. In function mapping, this dialog is displayed. The settings are similar to volume control and are self-explanatory. If you are not sure what settings fit best, it is recommended to use the default settings by clicking "Load Default".



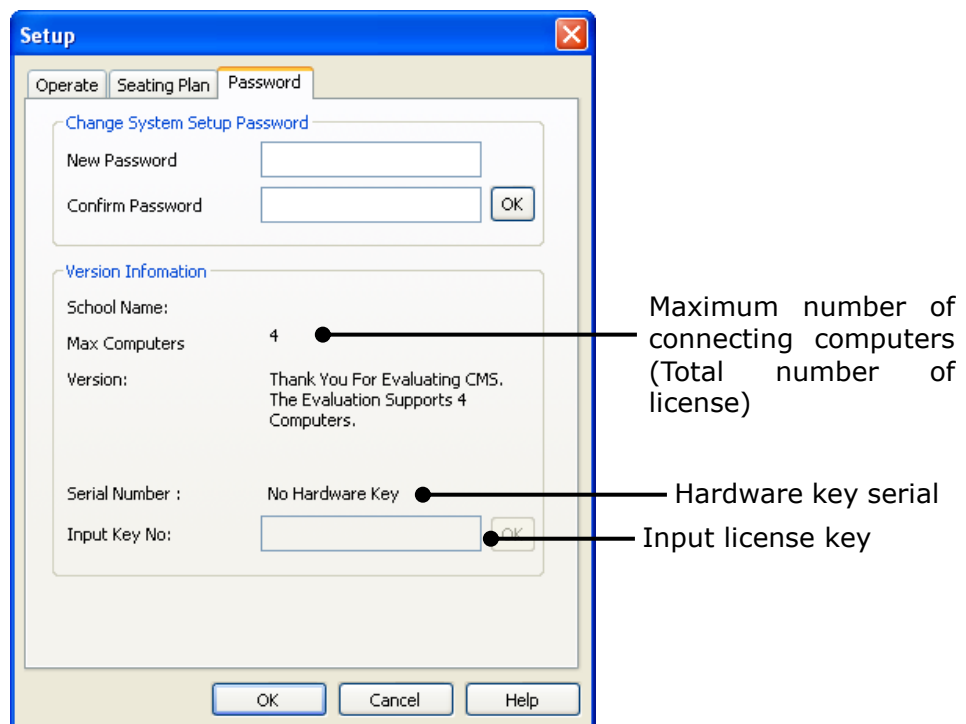
6. Next, the system installs the functional driver on the computer.
 - **While this is being done, the screen flickers. This is normal.**
7. Select the class channel. This is an integer between 1 and 200 inclusive. For the students to be correctly assigned to the corresponding teacher, they have to be in the same channel as the teacher (and other students in a different channel).
 - **Teacher can define to use more than 1 channel under "Settings" for connecting students in different channels.**



8. Installation is now complete.
9. Before the first time you run the program, connect the license hardware key to the parallel port or USB port.

Runs CMS Teacher and inputs the license key under Password tab of Settings.

- **You don't have to input any license password if the License Dongle is already decoded.**



4

Startup

4.1 Teacher



1. Run CMS Teacher on the teacher's computer.
2. The default class and teacher are named "Public".

4.2 Student

CMS Student is automatically invoked upon logon to the student's computer. This is indicated by a "Student" icon in the system tray. Student clicks on the icon to get the following function panel.

The image shows a vertical green function panel titled "Student". It contains five buttons: "USER" (with a student icon), "Attendance" (with a student and book icon), "Hands up" (with a student icon), "Text Chat" (with a speech bubble icon), and "DVR" (with a camera icon). Callouts point to each button with the following descriptions:

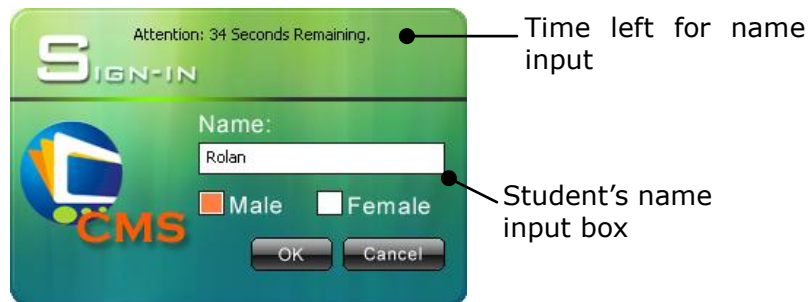
- USER:** Displays student's name after logged in
- Attendance:** Inputs student name and records its attendance
- Hands up:** Requests help from Teacher (Same as pressing [F12])
- Text Chat:** Text Chatting between Teacher and Student
- DVR:** Opens Student's DVR in Self-Learning mode

Student function toolbar:

The image shows a horizontal green toolbar with the word "Student" on the left. It contains five buttons: "USER" (with a student icon), "Attend" (with a student and book icon), "Hands up" (with a student icon), "Text Chat" (with a speech bubble icon), and "DVR" (with a camera icon). A sixth button with a double-headed arrow icon is on the right. A callout points to this button with the description: "Switches to use standard Student function panel".

Note: This is a different style of function panel that can be chosen by student's desire. The same functions can be invoked under this toolbar.

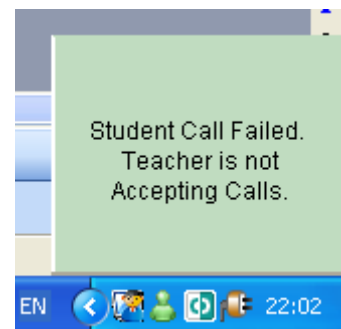
Following is the Student sign-in and name input box:




Within the 60 seconds count-down period, entering the student's name and selecting the gender, the session begins.

Once logged in, the student's computer can be identified by name. The student's computer is under control of the teacher who is in the same channel regardless of the sign-in status of the student's computer.

A MSN Messenger style-like popup notification is used to display ad-hoc notification on Students.



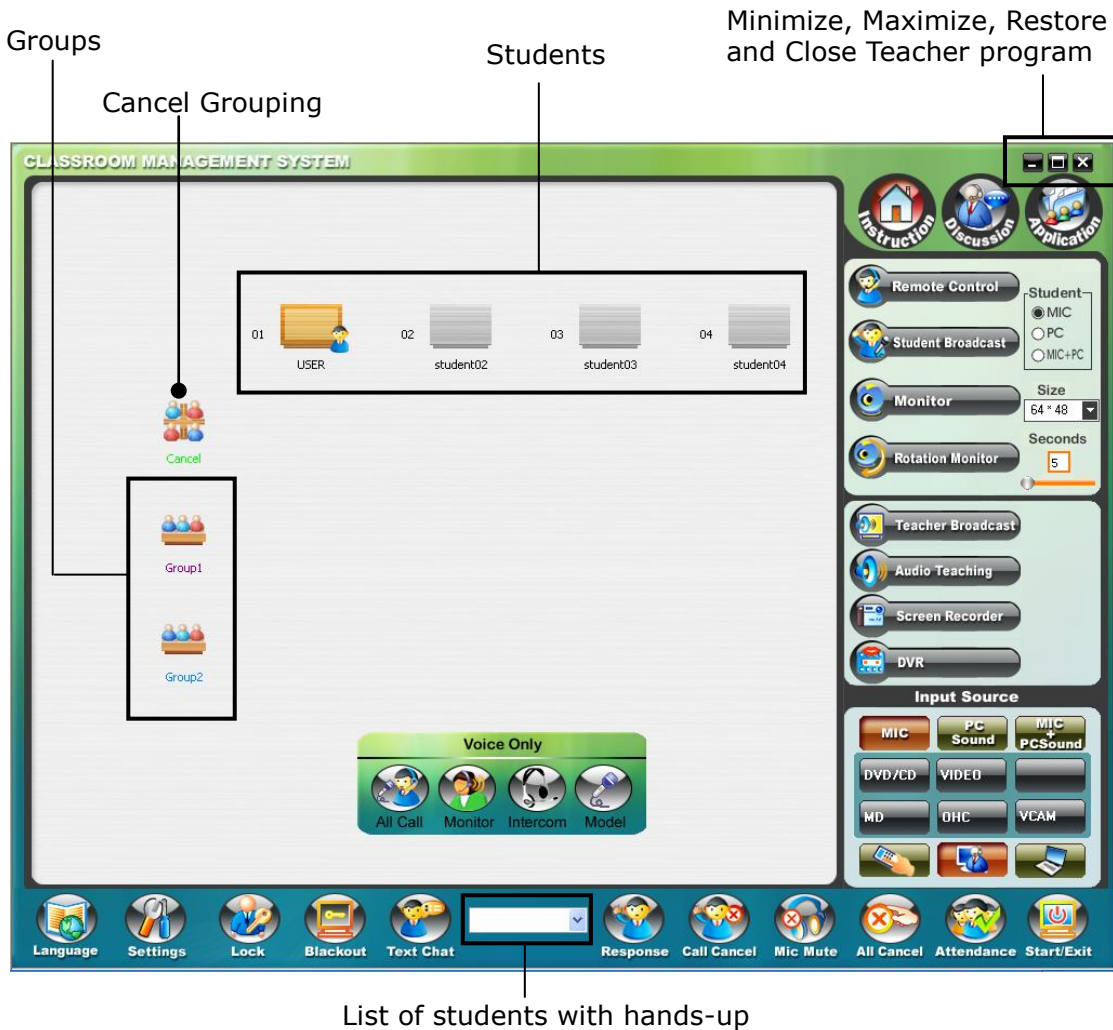
If CMS Student has not yet connected to the Teacher, the Student icon is shown in grey colour  in the system tray.

- **Student can still open up DVR in Self-Learning mode under function menu while not yet being connected.**

5



CMS Teacher



5.1 Main Screen



Teacher main panel provides flexible selection means for users in choosing the interface size. To change the size of the panel size, put the mouse pointer on the bottom-left of upper-right corner of the panel. Hold the mouse button, drag to resize the panel and release the mouse button when complete.

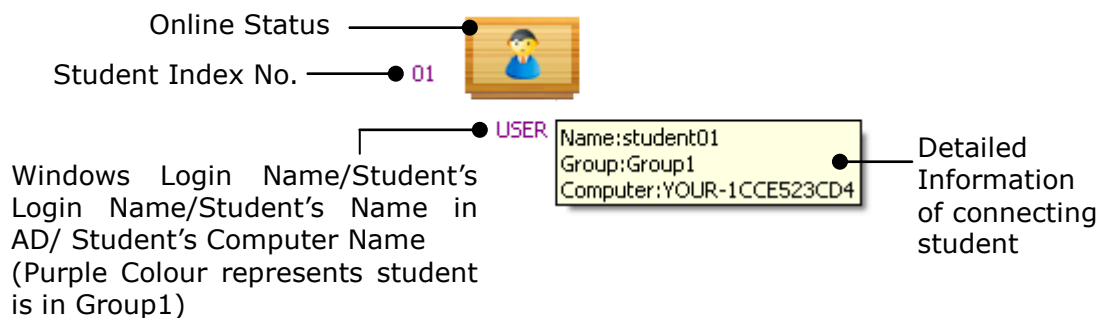
To minimize or maximize the panel, restore it to its previous size or close the panel Click the appropriate button in the upper-right corner of the panel:

- Click  to minimize the panel to a taskbar button. To restore the minimized window to its previous size, click its taskbar button.
- Click  to maximize the panel so it covers the full screen.

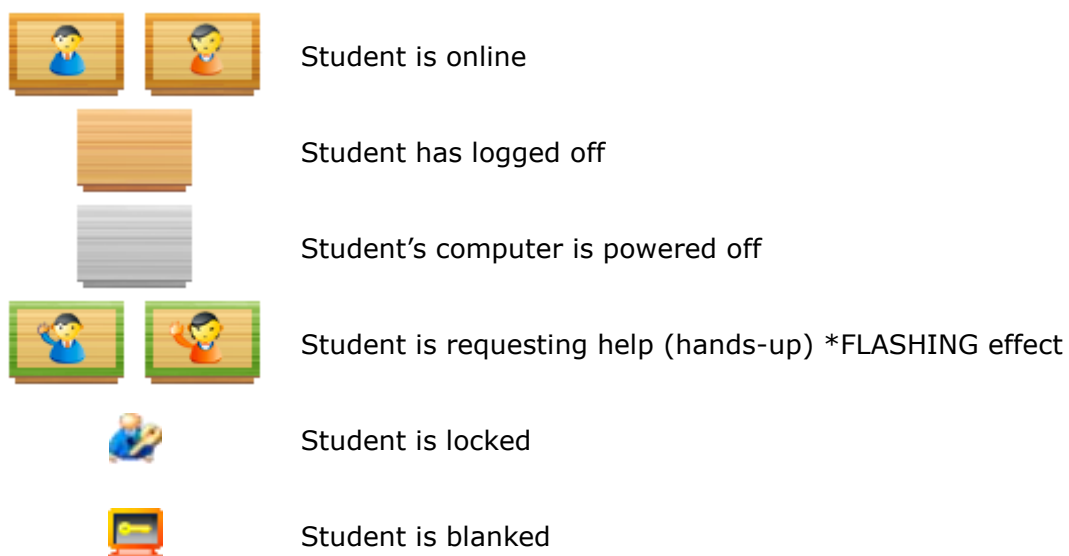
- After maximizing the panel, click  to restore the panel to its previous size.
- Click  to close the panel.














In the workspace, there are icons each representing a student. Boy and girl icons are used to identify gender of the students. The name displayed corresponds to the Windows Computer Name by default.



The display name can be changed under *Settings* by selections of "Windows Login Name", "Student's Login Name", "Student's Name in AD" and "Student's Computer Name". The icons can take on one or more indicators on the student's desk to indicate the student's status:




The Student icon will appear differently depending on the student status. Under different function condition, different graphical icons are displayed besides the student icon for expressing the current operation status. The following is a detailed description of the various statuses:



	Student is under remote control by the teacher
	Student's microphone is being monitored
	Student's screen is being monitored
	Student's screen is being in rotation monitored
	Intercom session with student in progress
	File transfer session with student in progress
	DVR session with student in progress
	Student's voice is in demonstration
	Student's screen and voice are in demonstration
	A video is being played to student
	Student is listening to teacher (audio teaching)
	Student is receiving teacher's screen and voice (teacher broadcast)
	Student is participating in an exam

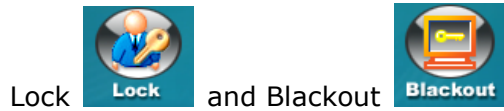
It supports maximum of 30 groups in a class. Group icons   ... are used different colours of text to identify each of them. Use drag-and-drop method to simply select the students and assign them to different groups.

Cancel Group icon  is used for clearing up all group arrangements of current class.

The commands along the bottom of the main screen include:



Lock & Blackout



Click the student in the workspace and click *Lock* to freeze that student's computer. In *Lock*, no keyboard or mouse inputs are accepted and the screen is frozen. No applications can be executed. In a similar fashion, click the student and *Blackout* to block the student's display in addition to *Lock*.

The following screens will be shown on student sides after applying *Lock* and *Blackout*:

[Lock] Displays on top right corner of Student's screen.



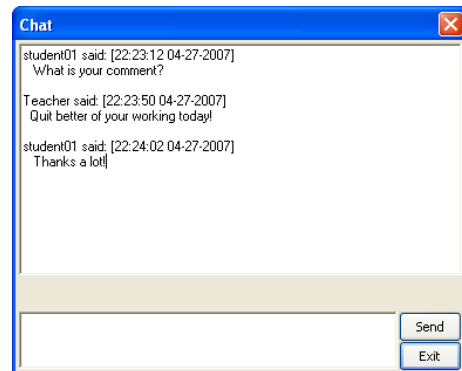
[Blackout] Displays on Student's screen and occupy full monitor to gain student attention.



To unlock the restriction, release locked or blackout student(s) and press the *[Lock]* or *[Blackout]* button again.

Text Chat

Invokes an IRC-style chat with the student. When the teacher sends the first message, it pops up notification on the student's screen. The student can click on the message to engage in a conversation with the teacher. Beside is a screenshot of the chat box as seen on the teacher's computer.



List of Students with Hands-up

This box lists all the students who have requested help by pressing F12. Select the concerned student and use the *Response* option to respond. Teacher can then instantly connect to and work interactively with that student using the Remote Control feature without interrupting the rest of the class.

Response

Selecting *Response* puts the teacher in remote control of that particular student. Selecting *Call Cancel* returns the concerned student to a normal status.

Call Cancel

Clear the hands-up information

Mic Mute

Turn off student's Mic playback volume.

All Cancel

Clear all students' status (Lock, Remote Control, etc.).

Attend Close

Enable students' late attendance record for the current class.

Attendance

Create *Attendance Log* outputs a .csv file serving the login details of all students in the session.

Start/Exit

Define class and student computers' control. Refer to section 5.2.

Language

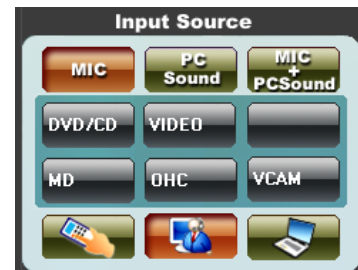
Select different language versions of CMS.

Settings

Refer to section 5.2.

Audio/Video Sources

Options include *MIC* (from teacher's microphone), *PC Sound* (from teacher's computer), *MIC+PC Sound*, and the *AV source buttons*, e.g. DVD/CD, VHS... (audio from teacher's line-in & video from AV Controller).

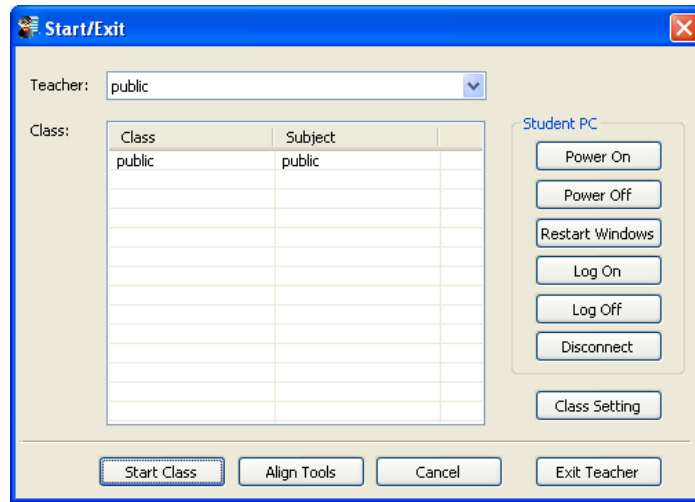


AV Control

It is specially designed for controlling the AV Controller under the CMS operation. Refer to section 5.13.

5.2 Management

Start/Exit



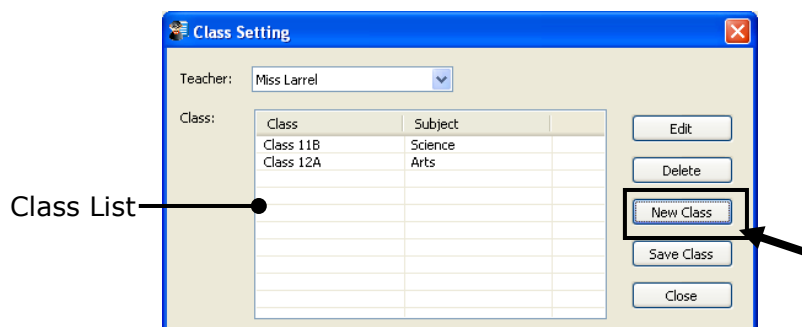
Teacher presses *Start/Exit* button to open up the above Class Management window.

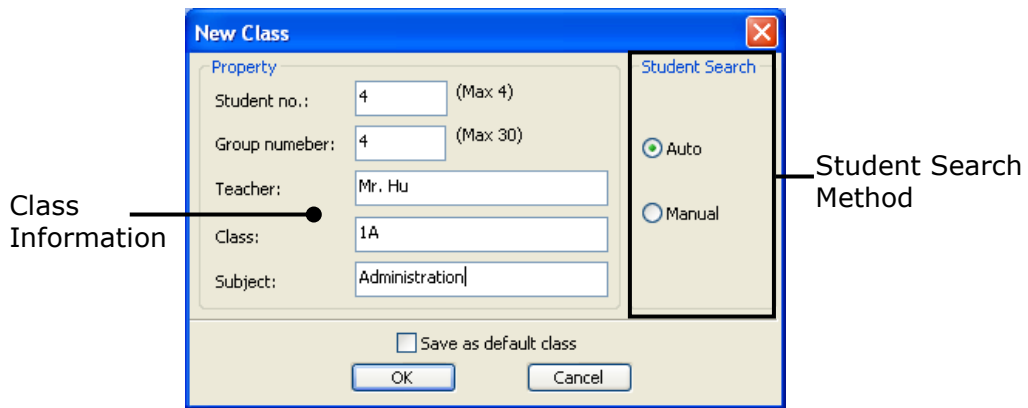
Profile

Teacher can select different profile to start class; different combinations of students, group arrangement and seating plan can be stored in different profiles for selection.

Class Setting

To setup and maintain of the class mode. Opens up a dialog box that enables the teacher to manage the list of classes.





Class Property

Define and input number of student, number of group, teacher name, class name and subject name for the new class.

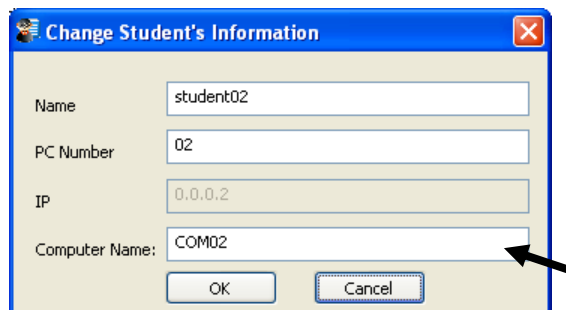
- Without decoded license dongle, the maximum number of student is limited to 4 only.
- The maximum number of group is 30.

Student Search Method


[Auto] Find students in the network and make the connections automatically.

[Manual] Create connections by inputting "Computer Name" of each student manually.

Double-click each student icon  in the seating plan and enter the Computer Name in the Change Student's Information box.





The student icon will appear as  on the seating plan once a student's connection made successfully.

Save as default class

Makes the new class as the default seating plan loading each time when the Teacher program starts up.

Align Tools

Provide tools to align the visual layout of students in the workspace. Create custom classroom layouts so the workspace represents the layout of the physical classroom.



aligns all the selected student icons to left.



aligns all the selected student icons to the top.



justifies all the selected student icons from left to right.



justifies all the selected student icons from top to bottom.

Start Class

Load a selected class (seating plan).

Power On, Power Off, Restart Windows, Remote Login, Remote Logoff, Disconnect

An efficient method to prepare the classroom at the beginning or end of the day. Select the student and click the command to execute the namesake functions:

- Power On or Off, Restart selected or all student computers from the Teacher PC.
- Send a Remote "Log On" to selected or all Student PC(s) at the beginning of class.
- Perform a Remote "Log Off" on selected or all student PC(s).
- Send a Remote "Disconnect" to turn off Student CMS program.

Exit Teacher

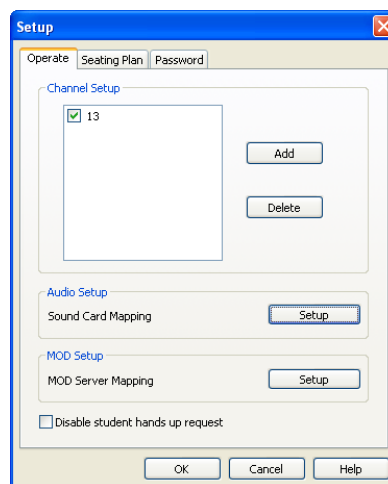
Quit CMS Teacher.

Settings

To customize the system settings of Teacher for various functions in order to optimize the effective use of the CMS system.

Clicks *Settings* button that locates at the bottom-left of the main screen and get the Setup window.

Prompts the teacher for a password and opens up a dialog, where the teacher can change the password for accessing these settings.



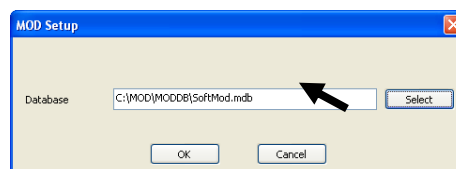
Operate

Channel ID relates the teacher to the students over whom the teacher has authority. Ensure that the teacher and the corresponding students are in the same channel, and put the other students in a different channel to correspond to other teachers. If teacher would like to connect students in other channels, define and enable Channel ID(s) under *Channel Setup* session.

Audio Setup enables the teacher to configure the audio acquisition devices of the teacher's computer. Click *Setup* for the Audio Mapping process.

MOD Setup enables the teacher to define the location of the MOD database.

- **MOD is an optional module of CMS system.**



Disable student hands up request

Option that disables students to request help by pressing F12.

Seating Plan

Position displays the option to lock the position of the student icons.

Wallpaper enables background display for the class layout. It supports bmp, gif, jpg, jpeg and png picture file format.

Student Icon Name Display Option defines the naming format of icon displays.

Password

Password Setup defines password of Settings window.

Version Information shows license information of using version and input field for license key.

5.3 Instruction

Remote Control

Puts the teacher in remote control of the selected student's computer. Work with individual student interactively without disturbing the rest of the class or leaving teacher's desk.

Student Broadcast

Sends the selected student's screen to and forces it display on all students' computers. It also sends sound from that student's selected sound acquisition device to all students' headphones.

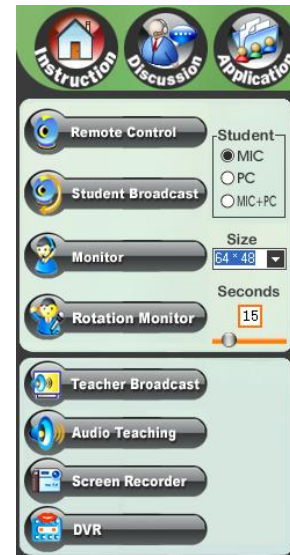
- **Selected student's recording source input can be changed with MIC, PC & MIC+PC options during Remote Control and Student Broadcast functions.**

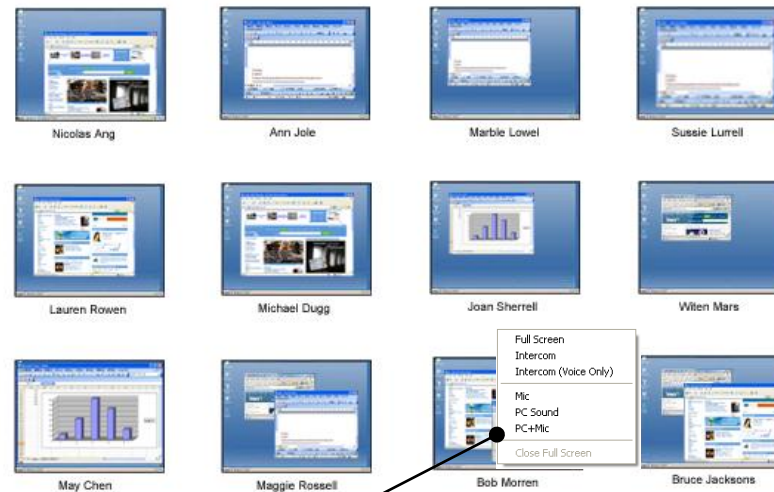
Monitor

It observes all student screens and monitor recording sound on teacher desktop simultaneously. The number of monitoring screens is unlimited. Student desktops appear as thumbnail images that you can resize. If can choose a monitoring student and switch for Remote Control or Intercom function.

Use Student Monitor function to monitor exactly what is happening on the student workstations and to see what the students are doing. It also supports the motion video monitoring from students'.

Note: Cannot be used simultaneously with *Rotation Monitor*.





Right-click screen of selected monitoring window, teacher can find its context menu with various functions

■ Resizing Monitoring Screens

To adjust the window size of monitored screen display, right-click the mouse button on the target student's screen and select <Full Screen> from the context menu. And select <Close Full Screen> to close the monitoring.

■ Remote Control Student

To remote control a currently monitored student screen, right-click on the monitored screen, and then select <Remote Control>.

■ Intercom with Student

To start intercom with selected student during monitoring, right-click on the monitored screen, and then select <Intercom (Voice Only)>.

■ Listen to Monitoring Student

By selecting one of the monitored screen & right-click the mouse, teacher can listen to the voice of the student via your headset by choosing <Mic>; to the sound that is playing in the student PC by choosing <PC Sound>; and both voice of the selected student and sound on the PC by choosing <PC+Mic>.

- **To use a different monitoring screen resolution, click the arrow, and then click a setting. As you increase the number of pixels, you display more information of monitoring screens, but the information decreases in size. The resolution options are 32x24, 64x48, 128x 96, 256x192 and 512x384.**

Rotation Monitor

Enables the teacher to monitor the screen of the students' computers in rotation. Student desktop appear as full screen that the time of monitor the next turn of screen can be defined on a preset basis. Cycle through each student workstation, one at a time, displaying their screens at the Teacher desktop with Student Name and PC No. displayed on upper-right corner.

Note: Cannot be used simultaneously with *Monitor*.

- **Thumbnails are refreshed for every seconds defined in the box by dragging the slider to specify the refreshing time with range from 5 seconds to 60 seconds.**

Teacher Broadcast

Sends the teacher's screen to and forces its display on all students' computers. Display the Teacher screen on the students' screen to provide real-time teaching. In additional the new broadcasting technology greatly improves the motion video show performance when the Teacher needs to demonstrate to multiple students. It supports any video material on any courseware broadcast to facilitate teacher; also it solves the dual-monitor support and the loading of bandwidth utilization issue. It also sends sound from the teacher's selected sound acquisition device to the students' headphones.

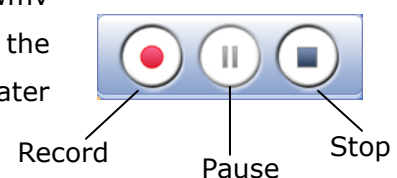
Drawing function provides annotation tools to meet different teaching and presentation needs. While the teacher screen is being broadcasted, the annotation tools can be used to highlight the relevant part of the screen that draws the student's attention. See section 5.11.

Audio Teaching

Enables the teacher to broadcast an audio to all students through the selected sound acquisition device.

Screen Recorder

Records all screen, keyboard, and mouse activity and audio of the teacher's computer and saves it in .wmv format. It incorporates audio support enabling the Teacher to record examples which can be later replayed.



"Record" button to start screen capturing. Select a directory and input name where you would like to screen recorded to be saved.

Select appropriate record source if you want to record sound with the screen motion.

"Pause" button to temporarily pausing record.

"Stop" button to finish screen recording.

DVR

Refer to section 5.12.

5.4 Discussion

Open a discussion box that all or selected students can talk with the group members and enter their comments in and that can be viewed between each members.

Pair Lesson and Random Pair are similar to Group Discussion in function nature. But, the group assignment is different. Group formed in Pair Lesson is in fixed pairs (one by next student). Random Pair is using pairs created by system randomly. Random Group is using member number by range of 3 to 8.

Add/Remove Table ("- " & "+ ")

Adds or removes a discussion table that can be performed before or during the functions.

Pair Lesson

Groups the students in pairs of two.

Random Pair

Groups the students at random in pairs of two.

Previous Pair

Puts students in pairs and engage them in audio conversation by using previous pair arrangement

Group Discussion

Displays a set of tables and the teacher can drag the student icons into the tables for discussion.

Random Group

Groups the students at random with the specified group size.

Previous Group

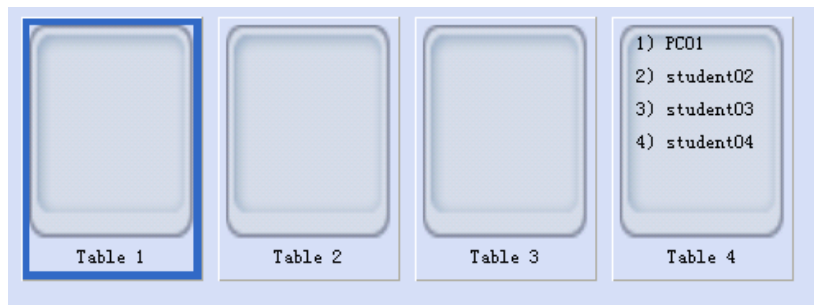
Put students in groups by using previous group assignment.



When the function button is clicked, uses *Add Table* "+" to create Table.

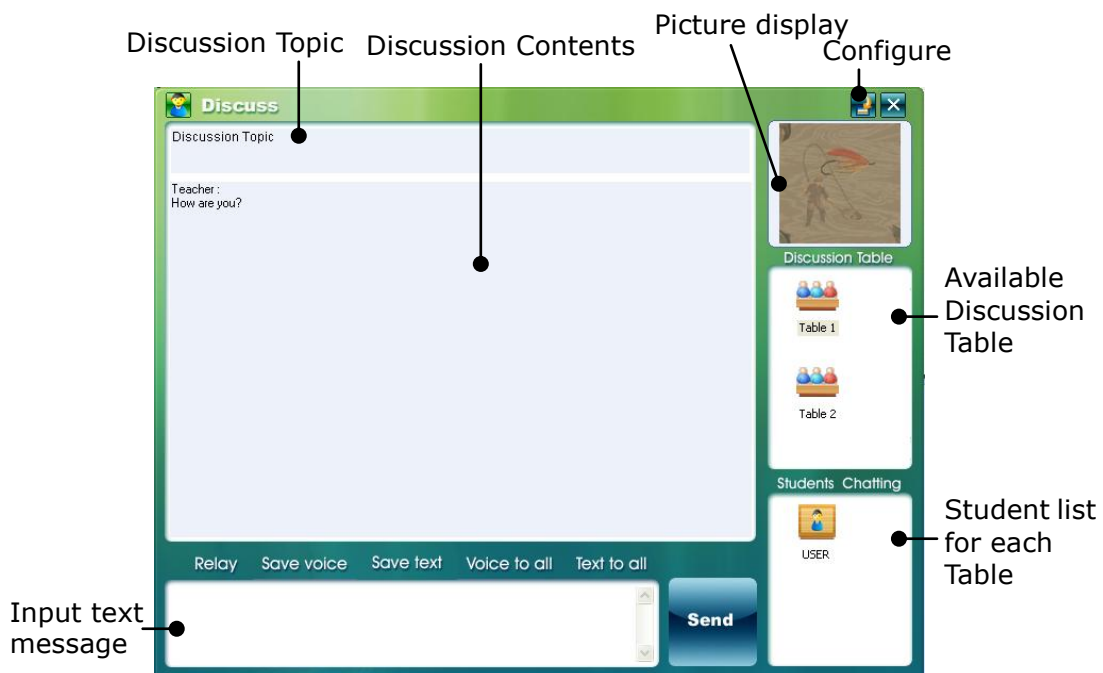
The discussion tables are shown, when appropriate, at the bottom of the main screen. Drag student icons from the seating plan into the Table and assign them belonging to different Tables.

Teacher can join discussion with different groups of students by selecting the Table icon. This is a screenshot of the discussion tables, with four students in Table 4:



Right-click the Table, to go into the *Configure*, setup the Discussion Topic and Display Picture.

Double-clicking the Table area, the Discussion window is displayed on the teacher's and the relevant students' computers:



Send

Sends out text message to all students in the same table.

Relay

Relays the discussion contents of one student to another.

Save voice and Save text

Save the discussion contents in *.mp3 and *.txt formats respectively.

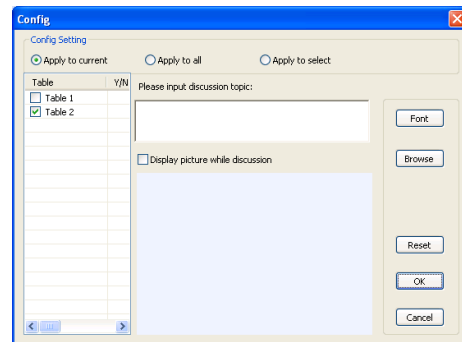
Voice to all and Text to all

Available only to the teacher. It enables the teacher to send voice or text to students in all tables.

Configure

Displays a dialog to change the discussion table settings. Options include discussion topic, topic display font style and picture of the topic.

Setup is optional for Discussion and Pairing functions.



- **Go into the Configure window before starting Pairing/Discussion, right-click any Discussion Table and select *Set Topic* option from the context menu.**
- **Config settings can be selected to apply for “current”, “all” or “selected” table(s).**

5.5 Application

File Collect/Distribute

Refer to section 5.7.

Restart Start

Enables the teacher to remotely launch a selected application/open a particular URL on the selected student's computer.

Application Monitor

Control and restrict the application usage of students.



Shows a list of the applications /current browsing URL that are running on all students' computers.

Right-click on the list to display the options to terminate the current/all application(s) on any particular student's computer.

Name	Current app	Running app
USER	Adobe - TechNote : Director minimum playbac...	

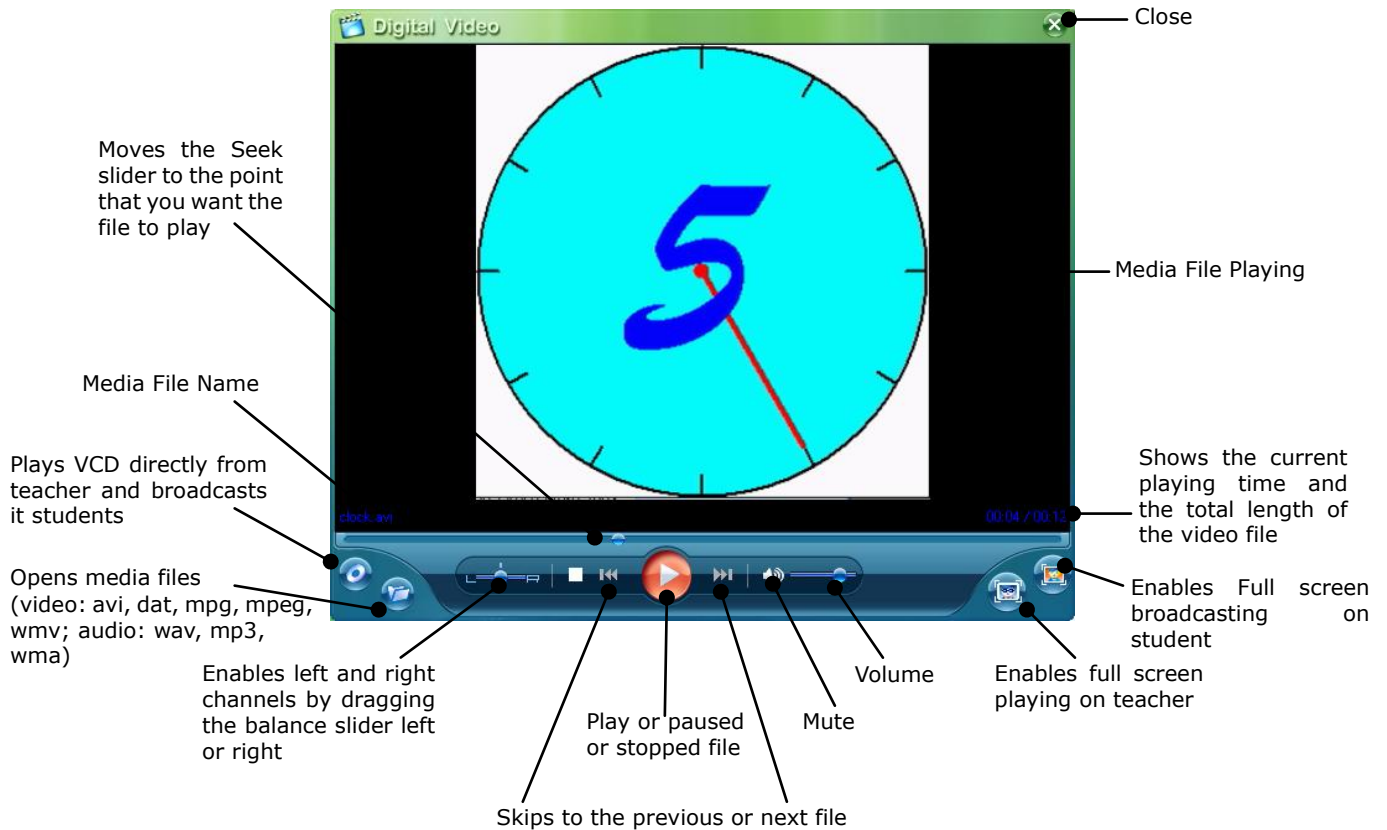
More details
Terminate this Application
Terminate all Applications

Exam

Refer to section 5.6.

Digital Video

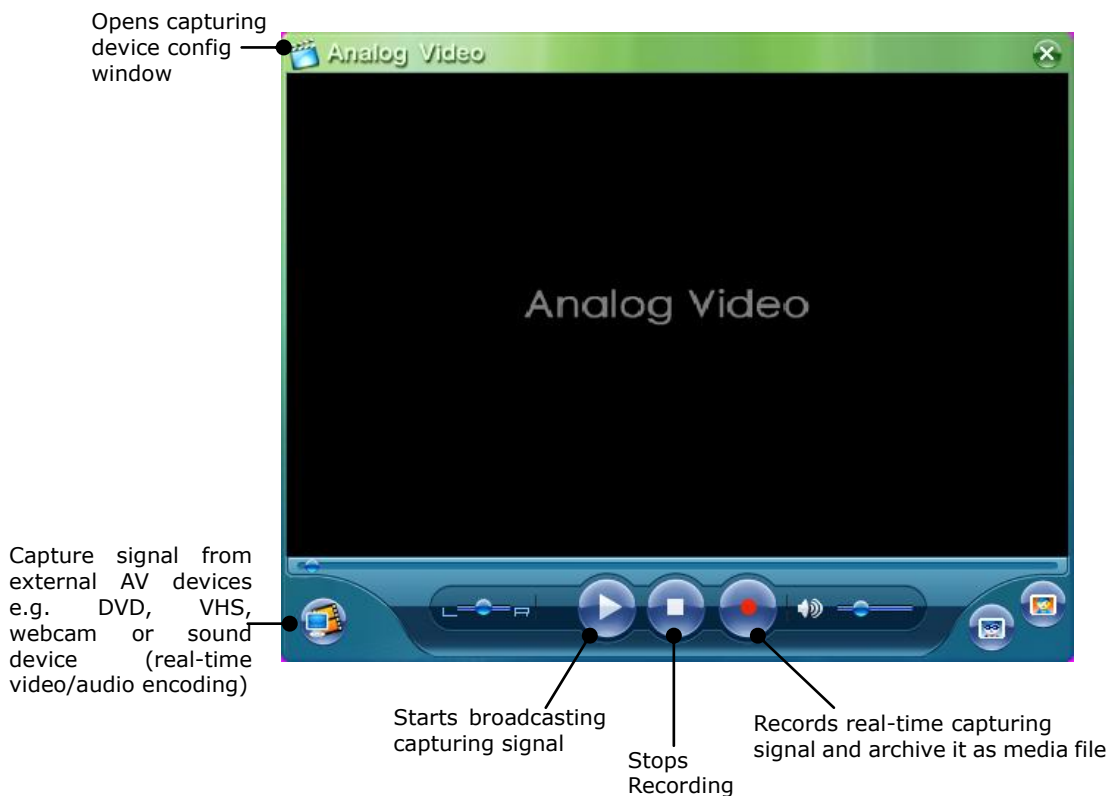
Plays back and broadcasts video/audio from disc or file to any selected Student workstations. These file formats are supported: avi, dat, mpg, wmv, wav, mp3 and wma.



Analogue Video

Real-time broadcast video from external AV device (e.g. DVR, VCR, etc) signal to the students. An image-capturing device, e.g. PCI capturing device, webcam is required to install on Teacher workstation. The real-time capturing signal can be archived as a digitized media file.

- **Analogue Video is an optional module of CMS system.**



- **The above two functions open up a video-playback window on the teacher's computer and relay the video being played to all students' computers. The teacher has sole control over playback.**
- **To resize the video-playback window, drag the lower right corner of the Player in any direction. To use full screen, click the Full Screen control button of teacher and student respectively.**
- **The buttons in the video windows are self-explanatory and function similarly to an ordinary disc player.**

MOD

Media-On-Demand (MOD) System allows teachers play video clips, audio clips or other presentations over the campus network. Together with the Microsoft Windows Server 2003 Media Services, MOD system support sending 50 or more digitized video/audio files concurrently to the students. Teacher has the ability to fully control broadcasting from the MOD system, as well as to allow students to receive different video/audio channels. For details, please refer to MOD User Manual.

URL/Application Filter

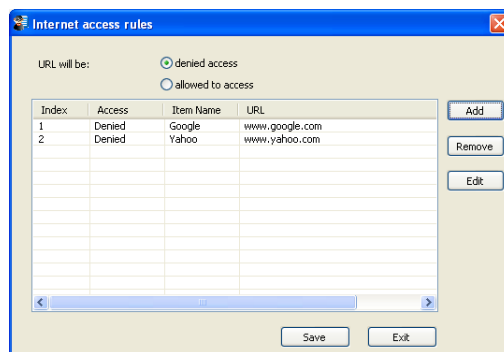
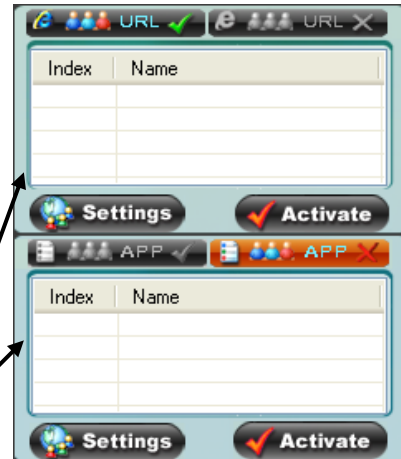
Restrict or approve the use of specific URLs and applications. Teacher has created "Allowed" & "Restricted" URL/application lists to control and restrict the URL/application usage of students. In addition teacher can temporarily suspend all Internet and/or application accesses of students.

Note: This feature only works with IE based browsers.

Settings

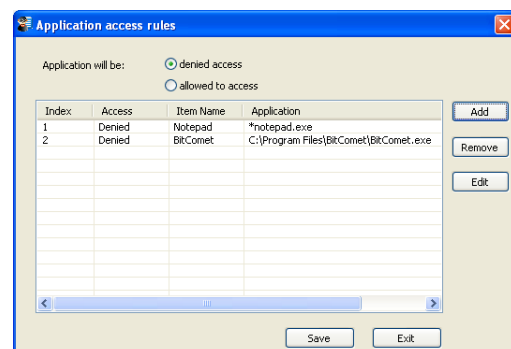
Displays a dialog that enables modification of the list. Use the radio buttons at the top of the edit windows to switch between deny and allow lists. Use buttons on the right to add, remove or edit each item, and the buttons at the bottom to save or create a new list. The wildcard character (*) is supported.

URL and Application
Allow & Deny Lists



Internet URL Access/Deny Rules Setup

Application Access/Deny Rules Setup



Denied access, Allowed to access

Options to switch displaying of denied and allowed type of access list.

Add, Remove, Edit

To create, delete and edit access rule(s) for Internet URL or Application.

Save

To confirm the rule(s) update.

Exit

To close the setup window.

Allowed Sites, Restricted Sites, Allowed Applications, Restricted Applications

Teacher clicks the buttons:

(i) "Allowed Sites" 

(ii) "Restricted Sites" 

(iii) "Allowed Applications" 

(iv) "Restricted Applications" 

to switch to mode of accessing "✓" and blocking "✗" of internet sites and execution of applications.

- Activate the "Allowed Sites" List. The Student will only be able to view URL(s) that are in the allowed list. All other URL(s) are blocked.
- Activate the "Restricted Sites" List. The Student will not be able to view URL(s) that are in the denied list but will be able to view all other URL(s).
- Activate the "Allowed Applications" List. The Student will only be able to execute application(s) that are in the allowed list. All other applications are blocked.
- Activate the "Restricted Applications" List. The Student will not be able to execute application(s) that are in the denied list but will be able to execute all other application(s).

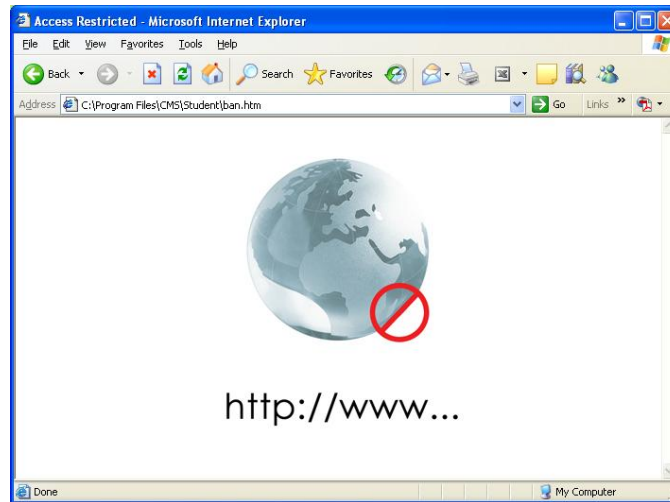
Activate

Enforces the specified restrictions when activated.

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Access Block Alert

Students get the following blocking page in Internet Explorer while accessing restricted site.

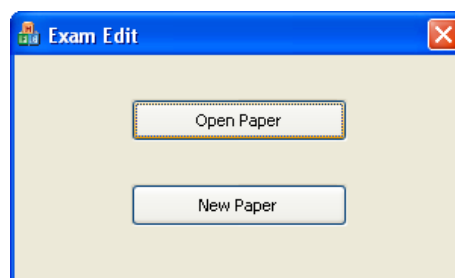


5.6 Exam

This is a feature that enables examinations to be conducted through CMS. This section will guide the user through the creation of an examination paper, the process of the actual examination, the grading and the analysis of results.

5.6.1 Creating a Paper

To begin with, an exam paper has to be created. Click *Edit* to open a dialog:



Open Paper

Loads an existing paper and start editing.

New Paper

Starts a new paper.

When *New Paper* is selected, the edit dialog is displayed. Below is the dialog shown with five sample questions shown. Enter the *Name* of the paper, the *Author* and the *Time Limit* in hours and minutes. The icons on the left specify the type of that particular question.



Multiple choice question



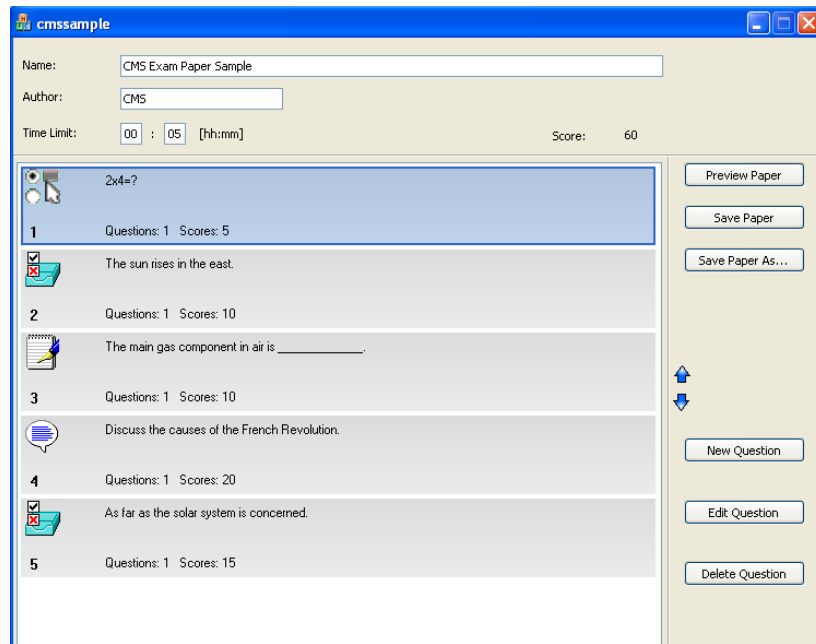
True-or-false question



Fill-in-the-blank question



Essay / Comprehension question



The commands *New Question*, *Edit Question* and *Delete Question* are self-explanatory. When creating or modifying a question, one of the following dialog boxes is displayed, depending on the question type:

Multiple Choice Question

Choose "Multiple Choice" as the question type.

Score

The score awarded to the student if this question is answered correctly.

Option

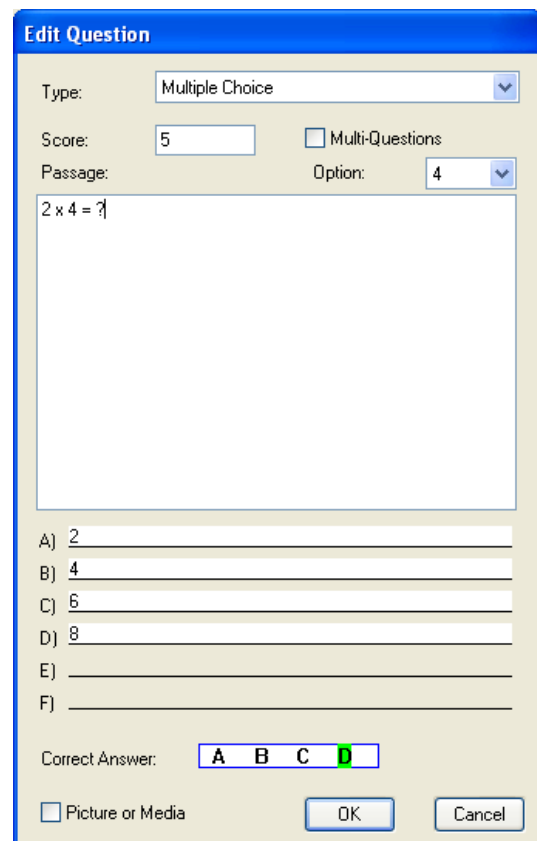
The number of options allowed for this question.

Passage

The contents of the question.

Correct Answer

If more than one answer is selected, the student will have to submit the



same selections to be awarded the score (selecting only one of the answers will NOT award the student with the specified score).

Picture or Media

Enables the attachment of an image file or a media file (audio or video) to the question.

Multi-Questions

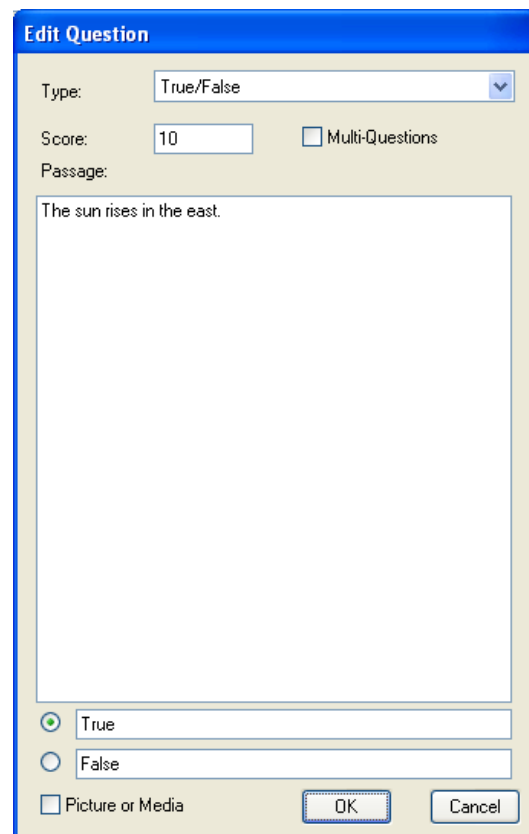
To be explained in a later section.

For multiple-choice questions, the choices shown on students' computers during the actual examination are deliberately shuffled.

True/False Question

Choose "True/False" as the question type.

For this question type, it is possible to have only two choices, and only exactly one of them can be selected as the correct answer.




The screenshot shows a dialog box titled "Edit Question" with a blue header. The "Type:" dropdown menu is set to "True/False". The "Score:" field contains the number "10". There is an unchecked checkbox for "Multi-Questions". The "Passage:" field contains the text "The sun rises in the east." Below the passage, there are two radio button options: "True" (which is selected) and "False". At the bottom left, there is an unchecked checkbox for "Picture or Media". At the bottom right, there are "OK" and "Cancel" buttons.

Fill-in-the-Blank Question

Choose "Fill in the Blank" as the question type.

For the question to be valid, the string "_____" must be included in the *Passage* to indicate the location of the "blank". This is automatically translated to allow the student to type in the answer in examination mode.

It is possible to have more than one "blank" in one question.

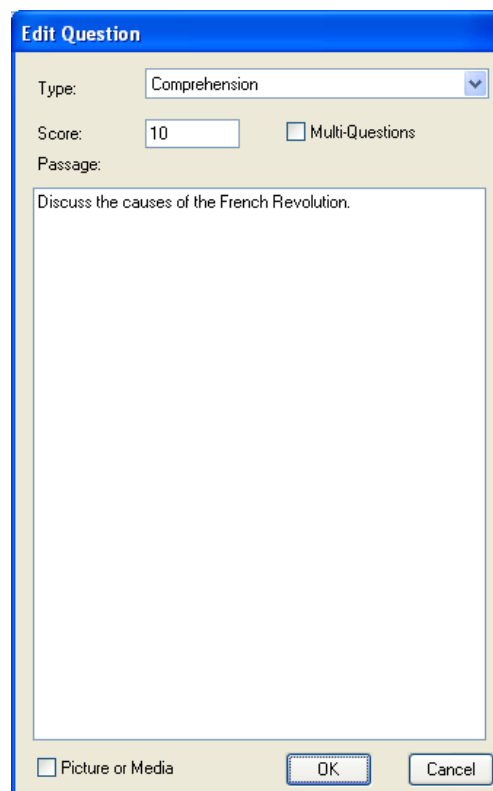


The screenshot shows the 'Edit Question' dialog box. The 'Type' dropdown is set to 'Fill in the Blank'. The 'Score' field contains the number '5'. The 'Multi-Questions' checkbox is unchecked. The 'Passage' text area contains the text 'The main gas component in air is _____.' At the bottom, there is a 'Picture or Media' checkbox (unchecked), and 'OK' and 'Cancel' buttons.

Essay / Comprehension Question

Choose "Comprehension" as the question type.

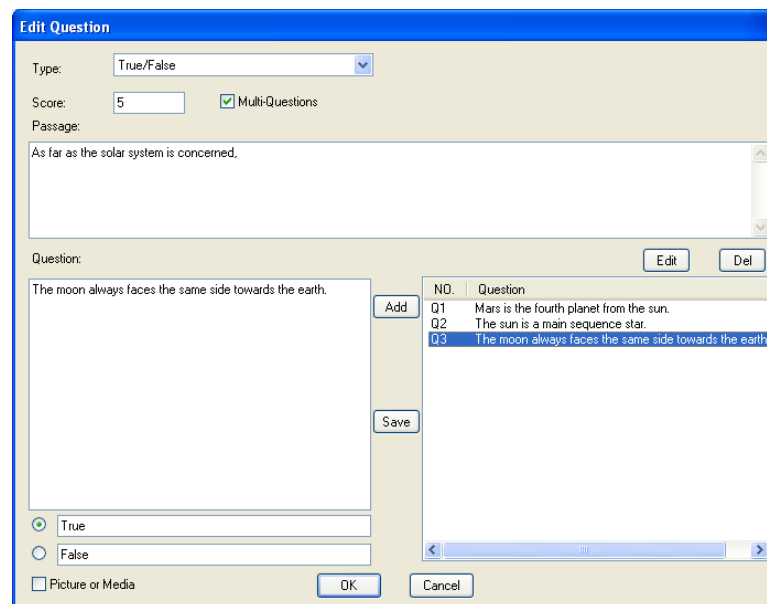
For this type of question, the student is given a text box for a paragraph-length or an essay-length answer.



The screenshot shows the 'Edit Question' dialog box. The 'Type' dropdown is set to 'Comprehension'. The 'Score' field contains the number '10'. The 'Multi-Questions' checkbox is unchecked. The 'Passage' text area contains the text 'Discuss the causes of the French Revolution.' At the bottom, there is a 'Picture or Media' checkbox (unchecked), and 'OK' and 'Cancel' buttons.

Multi-Question

Check the box *Multi-Question* to create multiple sub-questions surrounding one topic. This function is available to all four question types. The *Score* field now specifies the score for **each** of the sub-questions (not the score of the entire list of sub-questions shown).



Add

Clears the sub-question and answer textboxes for a new question.

Save

Saves the current sub-question and answer to the list on the right.

Edit

Select a sub-question in the list first, and then click this button to edit. When done, click *Save* to update.

Del

Deletes the sub-question.

When the questions are done, click *Save Paper* or *Save Paper As* to save the paper just created. Examination papers are saved in the *.exp format.

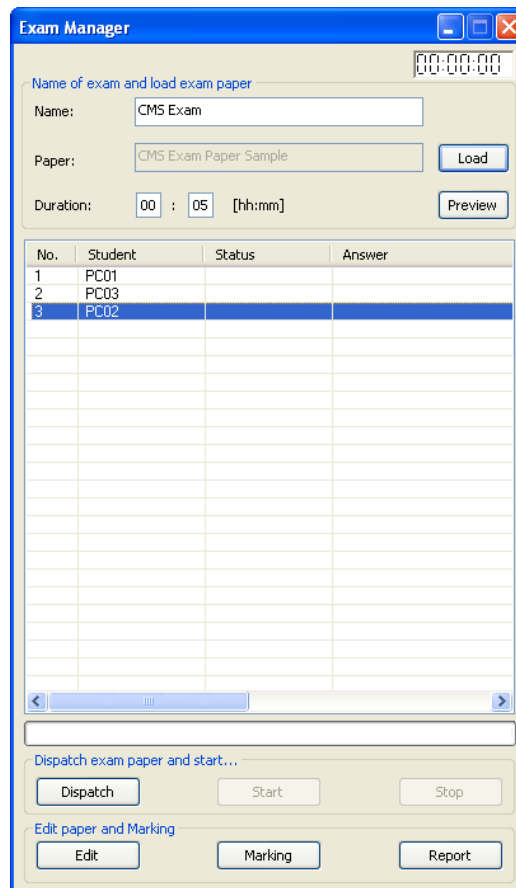
User can preview the paper in HTML format by clicking *Preview Paper*. The paper is then shown in the default browser window.

5.6.2 Starting the Examination

To start the examination, click *Open* in the CMS Teacher main window.

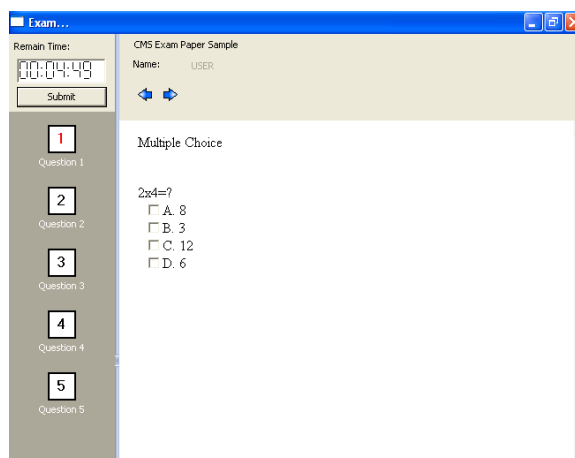
Click *Load* and select the *.exp file to load the paper first. The *Name* and *Duration* of the paper are automatically loaded, but it is still possible to change them at this point. The *Preview* button works the same as *Preview Paper* in editing mode.

Click *Dispatch* to distribute the paper electronically to the students' computers. Check the *State* of each student in the list to confirm that their computers are responding correctly. When all parties are ready, click *Start* to start the exam. Once this happens, the exam paper window appears on all students' computers, and the clock starts counting.



The student can jump forward or backward using the arrows, or directly to a question by clicking the icon on the left. The student can also change his/her name at any time during the examination. It is impossible to close this window when examination is in progress.

The command *Hand Up* hands in the paper and ends the examination for that particular student.



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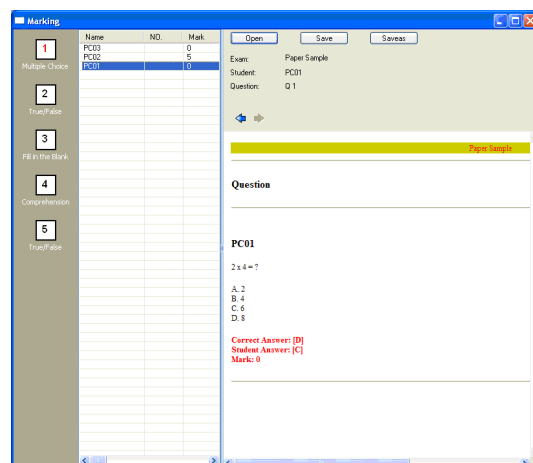
If the teacher presses the *Pause* button, the examination is paused. The window containing the questions disappears from the students' computers temporarily until the teacher resumes the examination by pressing the *Start* button.

If the teacher presses the *Stop* button before time is up, the examination is ended. The teacher then has the option to collect or discard the students' answers. The answers are saved in the teacher's computer in the *.exa format.

5.6.3 Grading the Examination

To grade the examination, click *Grading* in the main window. The immediate last examination is loaded for grading as default. To load examinations completed in the further past, click *Open* and select the corresponding *.exa file.

Upon loading, all multiple-choice questions and true-or-false questions are automatically graded. The fill-in-the-blank and essay questions, however, require manual grading. Click the student's name in the list to see the student's answer and the number of points awarded for that question.

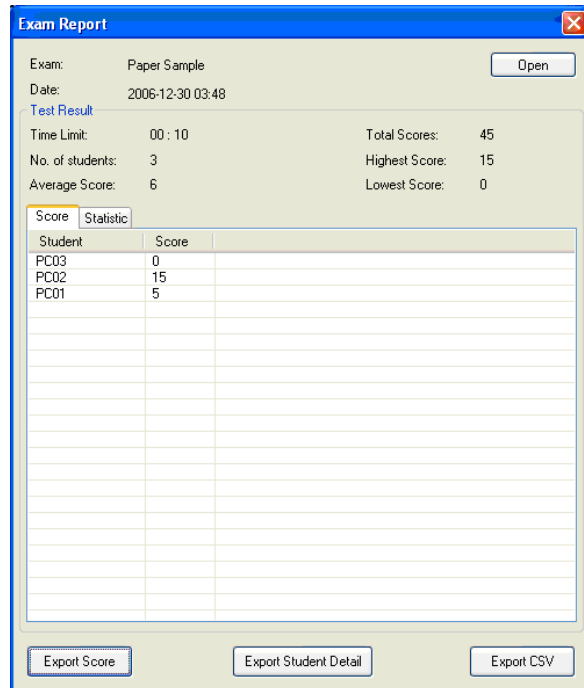


To grade fill-in-the-blank and essay questions, click the icons for these questions on the left. The answers typed by the student are shown. After evaluating the answer, enter the number of points awarded in the *Mark* column.

Click *Save* or *Save as* to save the grading work in an *.exa file. It is possible to save a set of answers that are partially graded for future grading.

5.6.4 Generating a Report

Click *Report* in the main window to generate a report. The immediate last examination is shown by default. To generate reports in the further past, click *Open* and select the corresponding *.exa file.



Click the *Statistic* tab to display answer statistics:

The three buttons at the bottom export the report data to file types legible to the common public:

Export Score

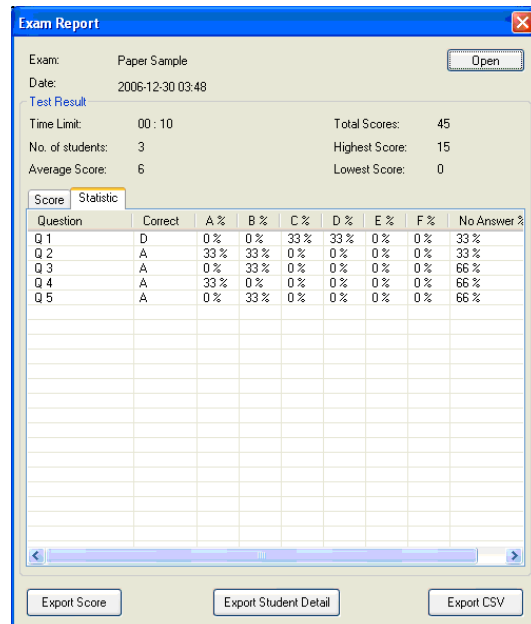
Exports an HTML file containing the scores of each of the students.

Export Student Detail

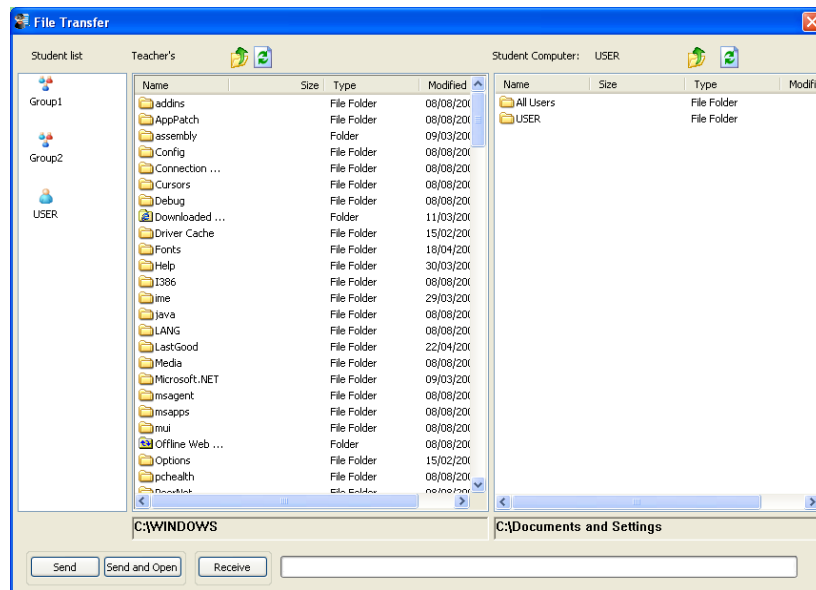
Exports a group of HTML files, one for each student, containing the questions, the answers given, the points awarded and the associated media files (if any).

Export CSV

Exports a CSV file containing the answer statistics.



5.7 File Collect/Distribute



Prepare files for students to work with in advance and automatically distribute them over the network. When the lesson ends Teacher can collect in the work for later review and marking. The new design on File Collect/Distribute allows teacher remote browsing student local computer, sending files to student computers, getting files from student computers and executing files after sending.

The uses of the two file list boxes are akin to Windows Explorer. The two icons at the top of each file list box are "Up One Level" and "Refresh".

To send a file to student

1. Select the file in the teacher's list box.
2. Select the student to receive the file in the student list.
3. Select the path in the student's list box.
4. Click "Send". If it is desired to open the file upon successful transmission, click "Send & Open".
5. When transfer is complete, a dialog will pop up on the student's computer listing the files transferred.

An alternate way to send a file to the student:

Select the path in the student's list box, and drag the desired file from the teacher's list box to the student's list box.

To obtain a file from student

1. Select the student who has the file in the student list.
2. Select the file in the student's list box.
3. Select the path in the teacher's list box.
4. Click "Receive".
5. The file is saved in the teacher's computer under the folder with the student's name. If the folder does not yet exist, it is automatically created.

An alternate way to receive a file from the student:

Locate the file in the student's list box, and then **select a directory** in the teacher's list box. Next drag the file into the teacher's list box.

When a group of students or "All" is selected instead of one single student before transfer, sending a file causes the file to be copied to the *same path* of the relevant students' computers. Similarly, the Receive command obtains the file of the *same name under the same path* from the relevant student's computers and stores them under folders of their respective names. The drag-and-drop method works in the same way when sending or receiving with respect to multiple student computers.

5.8 Voice Only Toolbar

This toolbar always keeps displaying whenever Teacher program starts. The Voice Only functions allow teacher to use audible communications to connected student workstations that have audio support installed.



All Call

Enables teacher to send audio announcement or voice command to all students. Students will be able to hear the Teacher but not being able to speak back. This function can be activated at the top priority of all functions.

Monitor

Enables the teacher to hear the sounds acquired at one selected student's computer. There is no indication on the student's computer.

Intercom

Enables the teacher to start an two way audio conversation with one selected student.

Model

Sends the selected student's sound to and forces it to receive by all students' computers.

5.9 Teacher Broadcast Toolbar

When the teacher selects the *Teacher Broadcast* function under the Instruction tab, a toolbar will appear on the teacher's screen upper-right corner. At the same time, the teacher's screen is forced display on all students' screens.



Drawing 

Opens up a drawing toolbox that enables the teacher to make markings on the screen. These markings are also displayed on the students' screens.

See section 5.11 for a detailed explanation of each of the commands.

Pause 

Pauses the broadcast. When *Pause* is activated, the students' screens are frozen and the teacher's screen is not displayed until *Pause* is deactivated.

Picture-in-Picture 

Displays the teacher's screen in a window as seen on the student's screen. Students can adjust the window arrangement and easily follow the step-by-step practice under the guidance of teacher under window mode.

The default screen will be displayed in full window. Click on the Picture-in-Picture button to activate the window projection in student screens.

In window mode broadcasting, teacher screen and student screen neatly fit each other in student computer screens, e.g. the upper half of the screen displaying the teacher's screen and the lower half of the screen displaying the program in use. Students can adjust the size and position of the teacher's projection window screen and place it on the desktop according to their own desire.

Exit 

Quits teacher broadcast mode and returns control of the student's computer to the student.

5.10 Remote Control Toolbar

When the teacher is in remote control of a student, the student's screen is displayed on the teacher's computer. The student has control of the mouse cursor only when the teacher does not move his mouse. In addition, this toolbar appears at the upper-right corner of the screen to provide for various functions.



Opens up a drawing toolbox that enables the teacher to make markings on the screen. These markings are also displayed on the students' screens.

See section 5.11 for a detailed explanation of each of the commands.



Locks the student's keyboard and mouse movements.



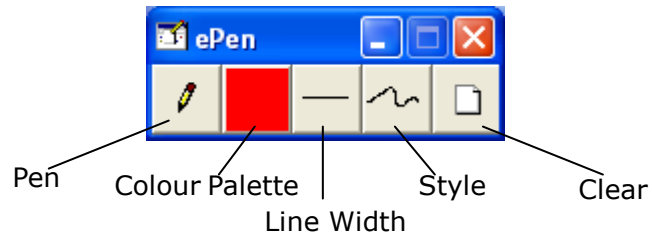
Controls student's screen in a window mode. The default screen will be displayed in full window. Click on the Picture-in-Picture button to activate the window projection of selected screen in student screens during Student Broadcast.



Quits remote control mode and returns control of the student's computer to the student.

5.11 Drawing Toolbar

The drawing toolbar is invoked when the teacher presses the *Drawing* button in the Teacher Broadcasting Toolbar or the Remote Control Toolbar.

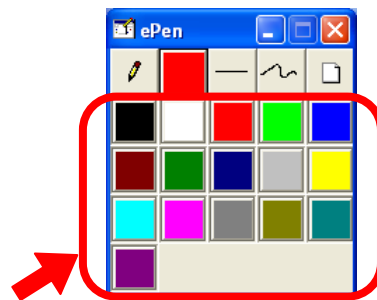


Pen

Enables drawing.

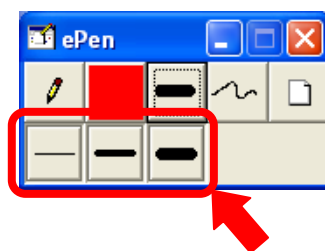
Colour Palette

Enables selection from a variety of colours.



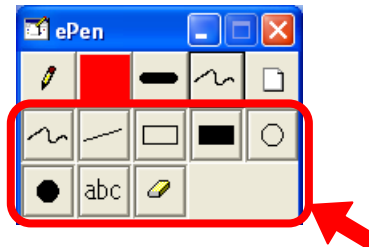
Line Width

Opens the line width toolbox, from which the user can select the line width.



Style

Opens the style toolbox, from which the user can choose the drawing style to place on the screen.



Curve

Draws a free-form line with the selected line width

Line

Draw a straight line with the selected line width.

Rectangle

Draws a rectangle with the current drawing colour.

Coloured fill Rectangle

Draws a coloured fill rectangle with the current drawing colour.

Ellipse

Draws an ellipse with the current drawing colour.

Coloured fill Ellipse

Draws a coloured fill ellipse with the current drawing colour.

Text

Inserts typed text at the selected location of the screen.

Eraser

Erases traces that already exist.

Clear

Clears all traces on the screen.

5.12 DVR

DVR is the multimedia language learning system. It simulates traditional cassette player in operation while offering additional functions for modern languages instruction and self-directed language learning. DVR provides a medium for the students to learn from a media clip (video or audio) that is played. It makes segmenting the selected clip possible, and allows the student to follow what is being played. This function is especially useful in language learning environments, when bookmarks can be placed such that each segment contains one sentence and the student can reiterate the dialog which is recorded after every segment.

To invoke DVR, select the students and the *Teaching* command, then the *DVR* button. This opens the DVR window on the teacher's and student's computers.

Main

This is main player window of DVR. It contains the essential playback controls as well as access to special DVR sub-panels: Waveform, Material File List, Media Player, Caption List.



Teaching/Self Learning

DVR is in the Teaching mode by default. This means that the teacher has control over what and when to play the media. In the Self-Learning mode, the selected media is sent to the students' computers, and the students are left to play or record by themselves.

Waveform, Media File List, Caption List, Media Player

These buttons open their respective windows which are explained in a later section.

Open

Opens a master track and puts it into DVR as the active track. These file types are supported: avi, dat, mpg, mpeg, wmv, wav, mp3, wma, dvr. The *.dvr type is a project file type created by DVR that contains the master track, the captions and bookmarks created.

Save

Saves the current media file.

Server

Open media/project files from a shared location of server (MOD Server).

Auto Next

Continues to the next segment when one segment has been finished.

Repeat

Sometimes you may want to drill a particularly important phrase or segment repeatedly. You can use the mouse to select a file segment on the Material track. Then click Repeat to play or record the same segment continuously. Click Repeat again when you want to stop the section repeating.

Recap

Jumps to the previous sentence or part of the file. DVR recognizes a silent gap between sentences and by clicking Recap takes you back to the last gap. This is useful when you want to practise the same phrase over and over again.

Speed

Adjusts the playback speed of the media. The setting ranges between -5 and 5,

with 0 being the normal speed and at steps of 20% of the normal speed.

Capture

Starts recording from the specified video-capturing device (e.g. PCI capture card, USB webcam...). When this function is invoked, the current media is closed. The device is specified in the Settings.

Master and Student record controls

These are the heart of the DVR system. The buttons are, from left to right:



Play the master track and record the student's track simultaneously



Play the master track and the student's track simultaneously



Play the master track first, then record the student's track

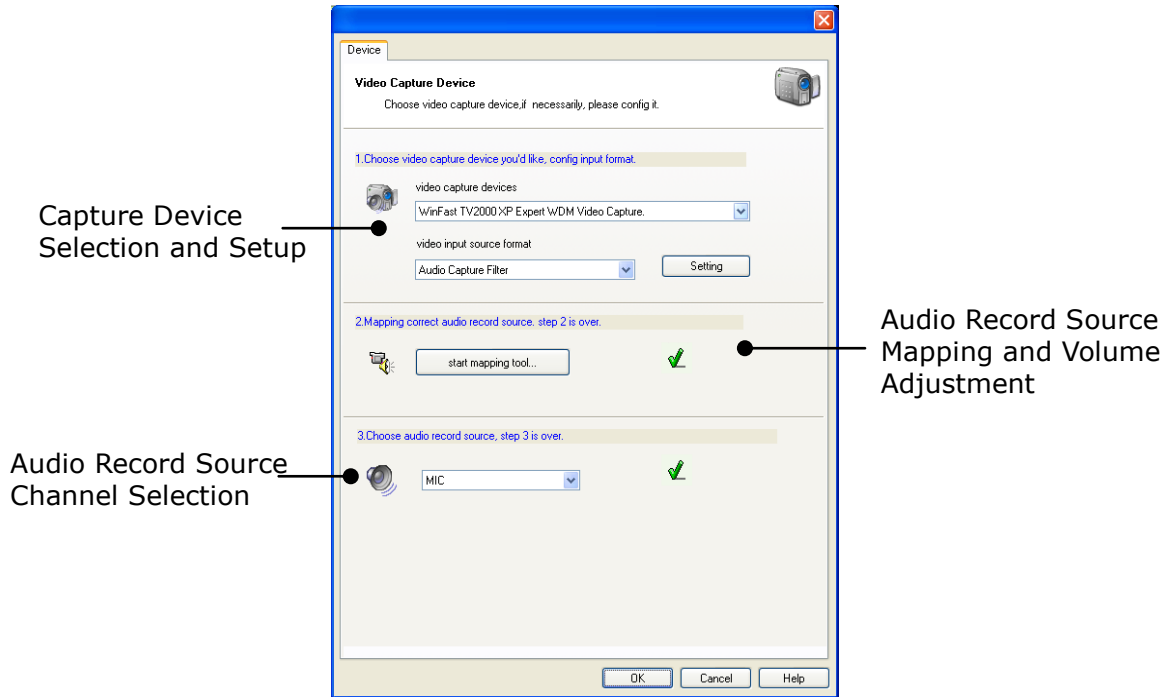


Play the master track first, then play the student's track

If *Auto Next* and/or *Repeat* is on, the playback and recording continue to the next segment or repeats the same segment automatically. Otherwise, the playback or recording stops when it reaches a bookmark, which indicates the end of a segment and start of the next.

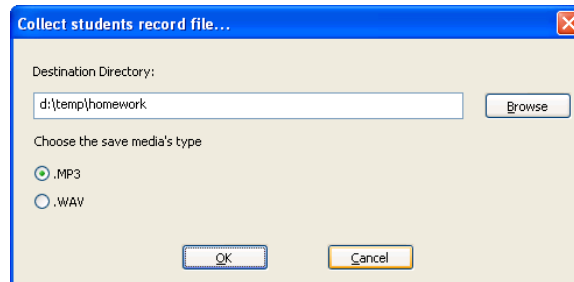
Settings

View or modify the video and audio record source settings. These settings are exclusive for DVR and are independent from those of the other functions in CMS.



Collect Files

Gets the student's tracks that are current from the students' computers and save them in the indicated directory as the selected type (mp3 or wav). Note that saving as *.mp3 involves a compression operation and hence takes longer than *.wav, but occupies less disk space.

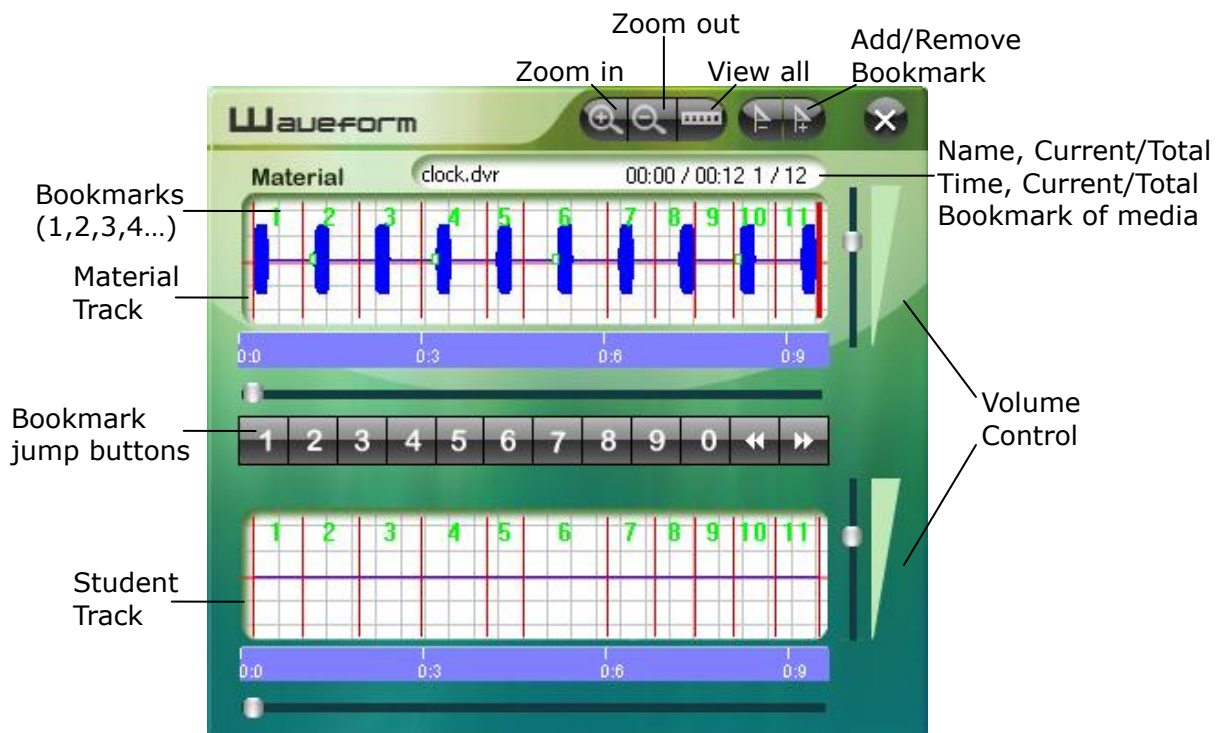


Save Files

Gets the student's tracks that are current from the students' computers and save them in the students' computers in the indicated directory.

Waveform

The Waveform window contains options to add or remove bookmarks and shows the waveform of the media being played.



Material Track, Student Track

Displays waveform of current material media and student recording.

Zoom In, Zoom Out

Zooms in and out of the waveform.

View All

Zooms out fully of the waveform and puts its entire length into view.

Bookmark Jump buttons

Jumps to the numbered bookmark segment. To jump to bookmarks with more than one digit, click on the digits in sequence. For example, click "1" twice to jump to bookmark 11.

Add/Remove Bookmark,

Add a bookmark into or remove one from the Material track.

Volume Control

Drag the Volume Control slider up to increase the volume, or down to decrease the volume of Material and Student tracks respectively.

Show Media File Information

Display File Name, Current Time/Total Time, Current Bookmark/Total Bookmark of current material media.

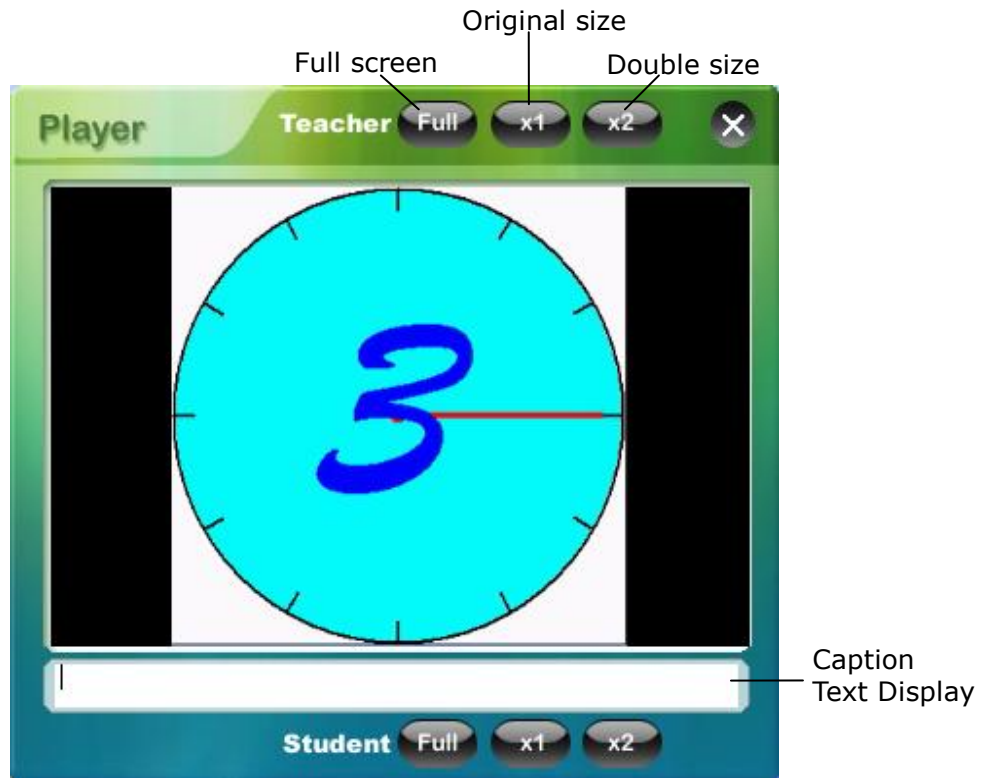
Material File List

The Material File List window shows files that are selected. The files selected can be quickly selected without the hassle of going to through directories and selecting files. Files listed are not loaded until they are specifically selected to be played, thus saving time loading all the media files.



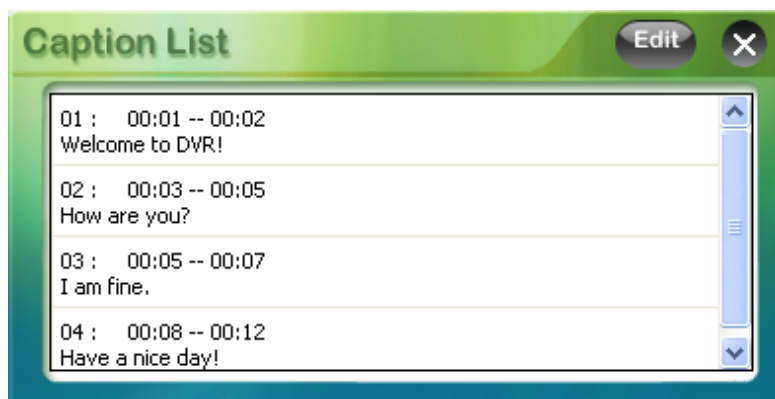
Media Player

The Media Player is the window where the video is played. There are size adjustment buttons for the teacher's view and for the student's view, or the size can be freely adjusted by resizing the window. When in full-screen view, click the mouse to return to original size view.



Caption List

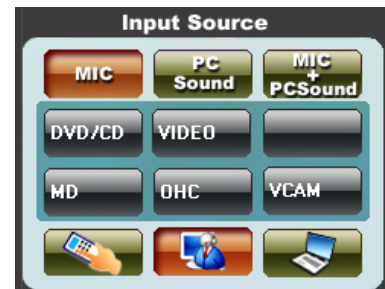
All captions are listed in this window. Captions appear, at the specified times, highlight in the list and display in the text box under the video when it is being played.



5.13 Audio/AV Source Input

Audio Source Input

Locates at the right bottom corner; it is used to choose different broadcasting sound sources.



- Choose "MIC" to let students to receive teacher voice.
- Choose "PC Sound" to let students to receive teacher PC sound.
- Choose "MIC+PC Sound" to let students to receive both teacher voice and PC sound.
- Choose AV Source buttons (e.g. DVD/CD, VHS...) to let students to receive AV sound sources (Line-in).

AV Source Input

The default AV sources are: DVD, VHS, Cassette, Visualizer, DV-CAM, teacher computer and laptop, etc. When using the AV System, the first six items correspond to the 6 channels in this order, while *Teacher Computer* and *Laptop* refer to the two VGA out ports.

- **The "AV Source Input" button name can be customized by Teacher.ini.**

AV Control



Opens up AV Control console. Clicks "AV Control" button again to hide the console. See section 6 for a detailed explanation.

Teacher Computer



Inputs sound source from Teacher Computer (MIC, PC Sound, MIC+PC Sound).

Laptop



Inputs source from Laptop machine (optional).

6

AV Control

This is an AV Control system that is best used in integration with the AV System. A virtual AV Control console is displayed when the AV Control command button is selected.

6.1 AV Control Console



Playback Commands

These commands require learning before they can be used. When the infrared signals have been learned, clicking these buttons is equivalent to pressing the corresponding buttons on the remote control units of the relevant devices.

Track Buttons

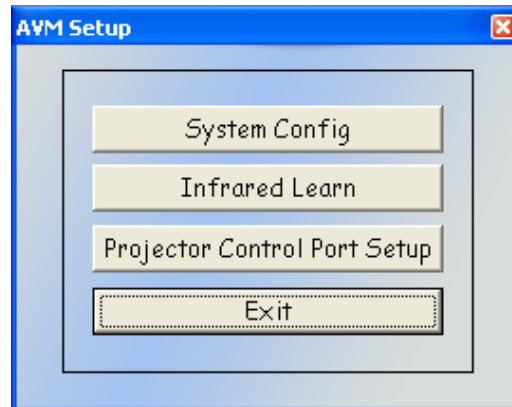
Shows track buttons. The track buttons are like the buttons on the remote control of a media player; they enable the user to jump to a selected track. Similar to the playback commands, the track buttons require learning before they can function.

Function Buttons

Similar to the playback commands, the function buttons require learning before they can function. In addition, there is a Mute button. This button does not require learning. It is used to turn off sound of connecting external amplifier.

6.2 AV System Setup

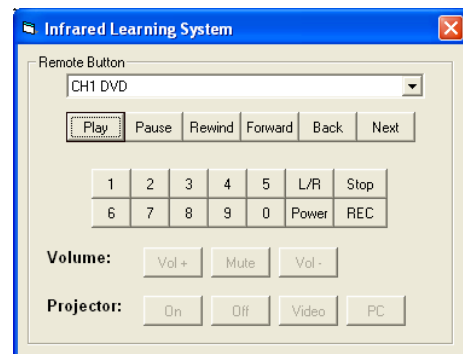
Before the infrared commands can be learned, the AV system has to be set up. **With CMS Teacher closed**, run AVControl.exe under "AVControl" folder of Teacher program installation path.



Infrared Learn

Use this command to initiate the learning process. The typical learning flow:

1. Select the channel
2. Select the button the function of which is to be learned
3. With the infrared emitter pointed towards the remote sensor AV System at a distance of 20-30 cm, presses the corresponding button on the remote control such that the infrared signal is emitted.
4. When the command has been learned, a beep sound is produced by the AV System.



Repeat these steps for each button, then for each channel. Return to the AV Control console to verify that the commands have been learned correctly.

Projector Control Port Setup

Use this command to configure the electrical signals emitted for the playback commands. This is applicable to projectors accepting serial port inputs besides infrared remote control signals. The typical learning flow:

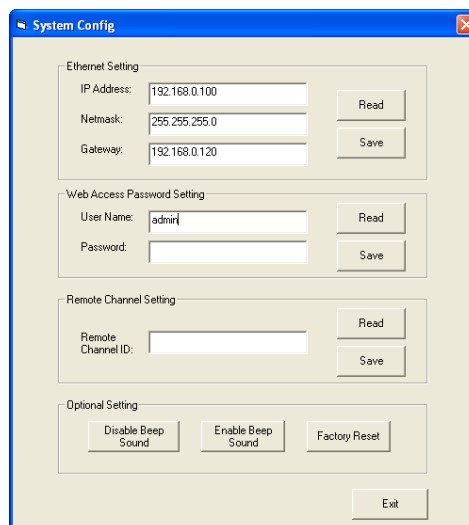
1. Select the channel
2. Select the button (on, off, video or PC)
3. Select the baud rate, data bit value, parity and stop bit settings. The typical settings for these are 9600, 8, none and 1 respectively (the default values).
4. Specify the number of data bytes and enter the control code to be transmitted for the corresponding command.
5. Click *Save* to save the command.

Repeat these steps for each command, then for each channel.

System Config

Use this command to configure the IP address of AV System. All current data, except *Password*, can be read from AV System by pressing the *Read* button.

Assign the Web IP, Netmask and Gateway addresses, the username and password for web access to the AV System. Also assign a unique ID for the AV System remote wireless connection.



The screenshot shows a window titled "System Config" with a blue border and a close button in the top right corner. The window contains four main sections:

- Ethernet Setting:** Includes input fields for IP Address (192.168.0.100), Netmask (255.255.255.0), and Gateway (192.168.0.120). There are "Read" and "Save" buttons to the right of the fields.
- Web Access Password Setting:** Includes input fields for User Name (admin) and Password. There are "Read" and "Save" buttons to the right of the fields.
- Remote Channel Setting:** Includes an input field for Remote Channel ID. There are "Read" and "Save" buttons to the right of the field.
- Optional Setting:** Includes three buttons: "Disable Beep Sound", "Enable Beep Sound", and "Factory Reset".

An "Exit" button is located at the bottom right of the window.

7

Troubleshooting

If you experience any difficulties while using CMS, check the Question and Answer list below for helpful information.

Q1 How do I upgrade/reinstall the CMS system?

A1 First, remove the CMS system, restart the computer, and then re-install the upgraded/latest version of CMS.

Q2 What is the security and license control for the CMS?

A2 We are using a hardware key for the CMS license control that should be decoded and attached on the teacher computer's parallel port or USB port during CMS Teacher program run.

For the CMS Demo Version, we don't need to have any hardware key. However, only maximum 4 students will be allowed to control

While you start the Teacher, if hardware key is connected, but not yet decoded, system will automatically turn into trial version. You can still use the system for 20 times and a maximum of 50 users.

Q3 Why are some Students unable to connect onto the CMS Teacher?

A3 Please make sure the teacher PC and the student PCs are using the same channel.

Q4 Can CMS support more than one classroom simultaneously in the same network?

A4 Yes, you will need to set different channels for each classroom during the installation or under the CMS Settings.

Q5 Why do the Student Workstations have problem connecting to the Teacher Workstations if Anti-Virus / Network Security program is installed?

A5 Some Anti-Virus / Network Security program have a Personal Firewall

capability and will block data packages that are transferred from the Teacher Workstation. Please disable Personal Firewall option or do manual configuration in order for the Student Workstations to connect to the Teacher Workstation.

Q6 Student connection failed and/or function not working properly, e.g. unable to use Teacher Broadcast and Remote Control functions. The Teacher screen broadcast never starts and/or remote control reports connection failed?

A6 CMS system employs multicast technology in order to more efficiently use network resources. However, some networks may not permit multicasting or may use hardware that makes multicasting impractical.

To solve this issue, first check with your network administrator and make certain that there are no restrictions on multicast traffic within the network segment in which CMS is being used.

Next, check the hardware devices employed in the network segment in which CMS is being used.

- If you are using managed switches, make sure that multicast and broadcast traffic is permitted with no throttling. Unmanaged switches are fine.
- If you are using hubs, make certain that they are not "daisy-chained"; that is, that one hub is not linked to another. Since hubs cannot balance traffic flow to machines as switches do, linking of hubs can cause multicast network traffic to become "out of sync" as some machines are able to respond more quickly than others. This in turn causes the multicast group to fail, and hence connection or function fails.

Q7 What will cause the video broadcast unsynchronized symptom in CMS Digital Video function?

A7 Both the teacher and student computers video adapter card quality and setting and the LAN network performance will affect the CMS Digital Video function. The symptom will cause the video broadcast to Student Workstations in unsynchronized outcome with Teacher Workstation. Please confirm the latest and correct video adapter card driver is installed, also DirectX 9.0 and Windows Media Player 9.0.

Q8 What is the minimum requirement of the video adapter card memory for the Teacher and Student Workstations?

A8 The minimum requirement of the video adapter card memory for the Teacher and Student Workstations is 64MB RAM or above.

Q9 What may affect the CMS File Collect/Distribute and Exam functions unusable?

A9 The network connection between the Teacher and Students will affect the CMS functions running. We are using TCP/IP protocol only for the CMS Teacher and Student Workstations connection. If you have encountered problem on the CMS functions, check if there is something like the IP address assignment and networking connection issues.

In addition, the Teacher should be aware of the Students' status from the seating plan, which can indicate the Student if he logs off or shuts down his computer.

Q10 What are the differences between CMS Professional and Lite version?

A10 The differences between CMS Professional version and Lite version are:

- CMS Professional provides Audio Group Discussion, optional Analog Video, AV Control, DVR and MOD functions for multimedia room and language laboratory.
- CMS Lite is not included the AV Control Panel and does not support audio discussion in Group, Discussion, Pair Lesson, Random Pair and Random Group functions. It provides classroom control functions, one-to-one audio plus text intercom and group text chat for computer room.

Q11 When the Teacher is broadcasting screen, why can't the Student Workstation receive the content?

A11 If the Student Workstation cannot receive the screen, system display driver might not install properly on Teacher Workstation. To remedy this, reinstall CMS Teacher on the Teacher Workstation, following the instructions to complete installation.

Alternatively, if the Teacher Workstation cannot receive particular Student Workstation's screen, system display driver might not install properly on Student Workstation. To remedy this, reinstall CMS Student on the Student

Workstation, following the instructions to complete installation.

Q12 When sound is sent during the broadcast, why can the Student Workstation not hear the sound?

A12 First, ensure that the required full duplex sound card is properly installed on the Teacher Workstation and the Student Workstations.

If so, please check the sound card driver and some sound card settings may require adjustment on the Teacher Workstation or the Student Workstations.

Q13 Why do the Student icons in the seating plan of the CMS Teacher panel change to offline status display unexpectedly?

A13 This may be occurring as a result of the Student Workstation disconnecting and connecting again after being restarted, or the connection may be interrupted as a result of CPU overloaded. After the completion of any running tasks, the connection can be restored.

Q14 After audio mappings have been configured for functions operation, why does the setup not take effect?

A14 Ensure the Load Default option was selected under configuring the related options in the Audio Mapping dialog box. After the setup of the related options, click Load Default first, and then follow the instructions to complete the mapping process.

Q15 During screen broadcast, why does the speed slow and the sound discontinue in full-screen mode?

A15 A great deal of CPU processing time will be occupied by the system as broadcast is being made in full-screen mode. In addition, processing power of connecting switch and memory usage of display cards may also affect.

Q16 Clicking Record button does not record anything

- A16
1. Make sure your sound card is full-duplex with AC'97 or Creative PCI Sound compatible or using our USB Audio Box
 2. The DirectX 9.0 or above has been installed.
 3. Complete and verify the DVR system setting.
 4. Make sure that appropriate recording source channel for the sound card is

selected on both Teacher and Student side when Record button is clicked.

5. Confirm the correct and updated sound card driver is installed.
6. Make sure that your microphone is connected correctly.

Q17 No waveform is generated after opening a file or recording

A17 Make sure the default directory for temporary files has sufficient free disk space and allowed the logged-in account to write file in it.

Q18 Capture function fail to capture external AV signal

- A18
1. Make sure the capturing device is installed and updated driver has been used.
 2. The capturing device includes a WDM driver.
 3. The DirectX 9.0 or above has been installed.
 4. The external AV source input and cabling has been well connected.
 5. Checking the DVR Settings

- End -