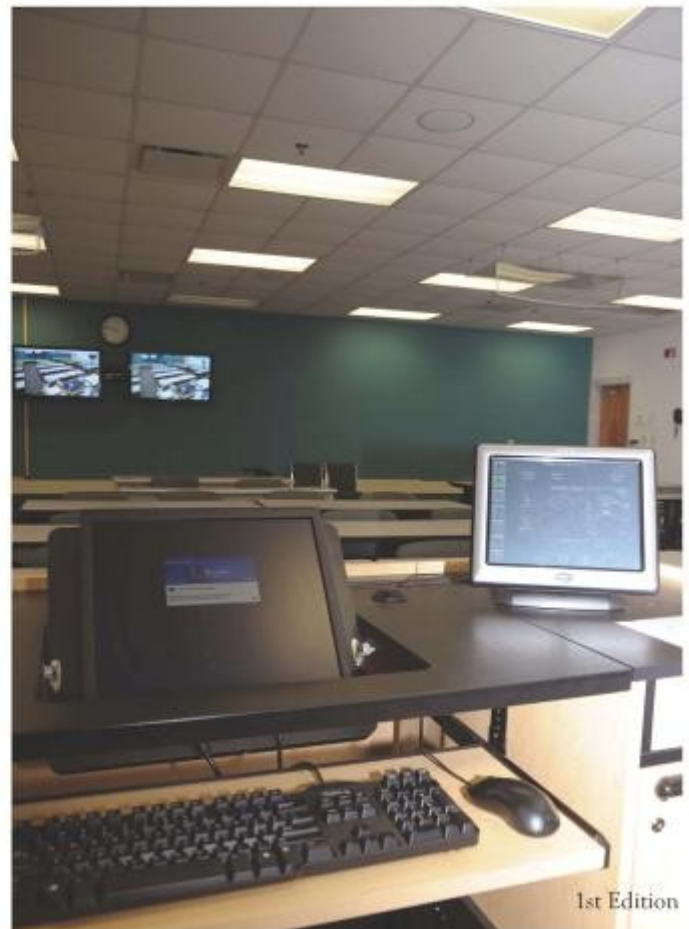




Interactive Television (ITV)

Columbia State
COMMUNITY COLLEGE

Technology and Best Practices Guide



1st Edition

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Notes:

Instructor Podium Touch Panel Operation (AMX Control Panel)

The AMX control panel is the device used to control instructor camera, student camera, document camera, computer, laptop, DVD, and VCR for broadcast. It is also used when presentation devices are used during a non ITV class session (i.e. an “on ground” course using an ITV room).



- 1) **Touch the AMX screen if it is blank to reveal the screen pictured below.**



AMX Control Panel Continued

- 2) **Touch the screen to begin (as illustrated on the previous page) to reveal the next screen. Tap the Remote Presentation.**



Note that there are two choices to make: Local Presentation (this room only) and Remote Presentation (local + far site). Local Presentation is selected if no broadcast is taking place, but the presentation equipment will be used in the classroom. Remote Presentation is selected if an ITV broadcast is taking place.

Remote Presentation is what will be covered in this guide. However, the principles of how a presentation device is displayed during a local presentation is essentially the same as selecting a device during broadcast. Cameras cannot be displayed during a local presentation.

- 3) **The next screen appears with a countdown to indicate the system is powering on.**

The Video Conference page will appear at the end of the countdown.



AMX Control Panel Continued

- 4) **Video Conference.** Selecting Remote Presentation switches the touch panel to the video conference mode. The video conference mode controls the selection of:
- Instructor camera (Inst Cam)
 - Student camera (Student Cam)
 - Computer (PC)
 - Laptop computer (Laptop)
 - Document camera (Doc Cam)
 - Digital video disc player (DVD)
 - Video cassette recorder/player for VHS tapes (VCR)

Tap the icon of the device you want to broadcast. Note that the center of the video conference control panel (gray area pictured below) will change based on the device selected. An explanation of most commonly used functions follows.



Notes:

AMX Control Panel Continued

5) **Instructor Camera (Inst Cam).** Tap the Inst Cam icon to broadcast the instructor camera. The center display changes to provide camera control icons: Zoom In and Zoom Out, and arrow keys to tilt the camera up, down, and pan the camera left and right. The display also provides preset icons that, when pressed, move the camera to predetermined positions. It also provides a video display to confirm the position of the camera.



Notes:

AMX Control Panel Continued

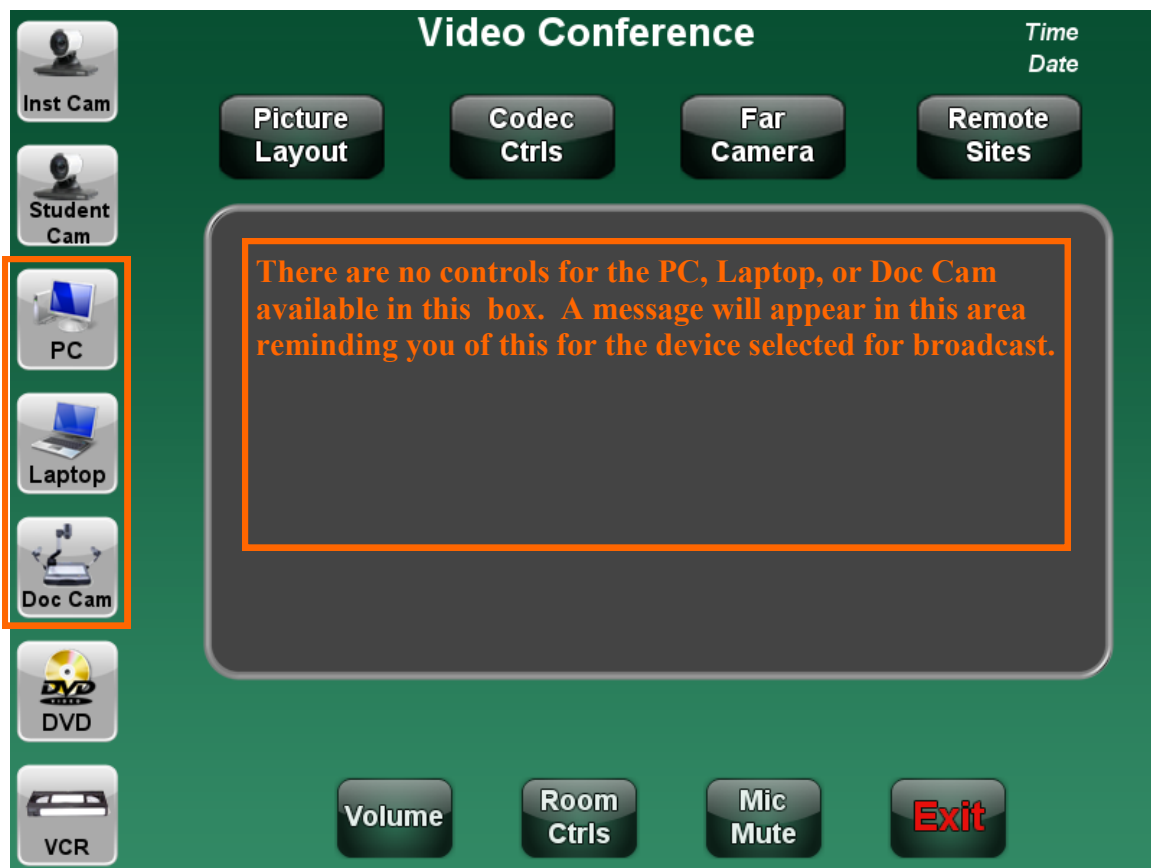
6) **Student Camera (Student Cam).** Tap the Student Cam icon to broadcast the student camera. The center display changes to provide camera control icons: Zoom In and Zoom Out, and arrow keys to tilt the camera up, down, and pan the camera left and right. The display also provides preset icons that, when pressed, move the camera to predetermined positions. It also provides a video display to confirm the position of the camera.



Notes:

AMX Control Panel Continued

7) **PC, Laptop, and Document Camera (Doc Cam).** Tap the icon of the device to broadcast that media. There are no controls in the center of the screen for the PC, Laptop, or Document Camera. Instructions to use the device controls will appear on the touch panel screen.



Notes:

AMX Control Panel Continued

8) **DVD.** Tap the DVD icon on the control panel to broadcast the DVD player. Note that commonly used controls are available on the AMX control panel.



Notes:

AMX Control Panel Continued

9) **VCR.** Tap the VCR icon on the control panel to broadcast the VHS tape player. Note that commonly used controls are available on the AMX control panel.



Notes:

AMX Control Panel Continued

10) **Volume.** Tap the Volume icon on the control panel to activate the volume controls. A volume controls window will pop up. Adjust the **Room Volume** or **Presentation Volume** as needed.



Room Volume: The Room Volume control adjusts the level of the audio coming through the classroom speakers. Tap the bottom speaker icon to lower the audio level. Tap the top speaker icon to raise the audio level. The slider bar to the left of the of the controls will indicate whether the audio level is lowered or raised. Tapping the Mute icon will mute the audio coming through the speakers.

Presentation Volume: The Presentation Volume control adjusts the level of the audio broadcast from the presentation devices (computer, laptop, DVD, and VCR). Tap the bottom speaker icon to lower the audio level. Tap the top speaker icon to raise the audio level. The slider bar to the left of the of the controls will indicate whether the audio level is lowered or raised. Tapping the Mute icon will mute the audio of the presentation devices broadcast.

Tap the **X** to exit the volume control window.

AMX Control Panel Continued

11) **Microphone Mute (Mic Mute).** Tap the Mic Mute icon on the control panel to mute your classroom microphones. The icon will change to a red color. This does not remotely mute the microphones at other sites. Tap the Mic Mute again to un-mute the microphones.

The participant site will have to tap Mic Mute on their AMX panel to mute and un-mute their microphones.



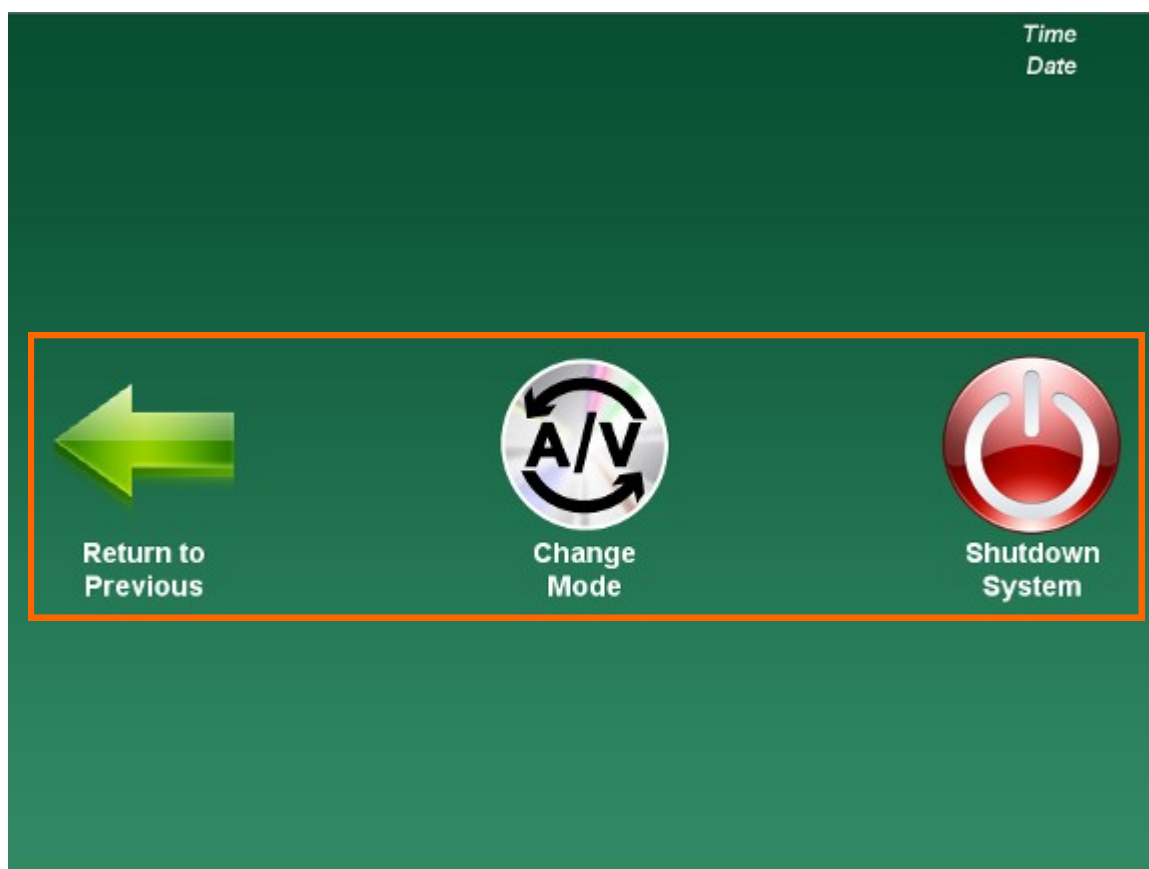
Notes:

AMX Control Panel Continued

12) **Exit.** Tap the Exit icon to exit the Video Conference control panel.



Tapping the Exit icon will take you to the following screen:



Return to Previous takes you back to either the Video Conference or Presentation control panel (depending on which mode was previously used).

Change Mode takes you to the "Please Make a Selection" screen: Local Presentation (this room only) and Remote Presentation (local + far site).

Shutdown System turns off all televisions in the room and sets the AMX panel to sleep mode.

Notes:

Tandberg's Codian Bridge Web Interface

Tandberg's Codian bridge is the device that interconnects sites for the purpose of two way audio and video connection. Think of the bridge as an electronic meeting place, where attendees are virtually brought together to meet and learn. The Codian bridge's web interface is what you will use when you need to reconnect a site that disconnected (i.e. when a power outage takes place) or if you want to disconnect an empty classroom (i.e., students are absent). Additionally, the web interface gives you the power to change the layout view, remotely control the student camera, send text messages for display on the classroom screen, and etcetera.

The information that follows will guide you through all basic, and some advanced, functions of Tandberg's Codian bridge.

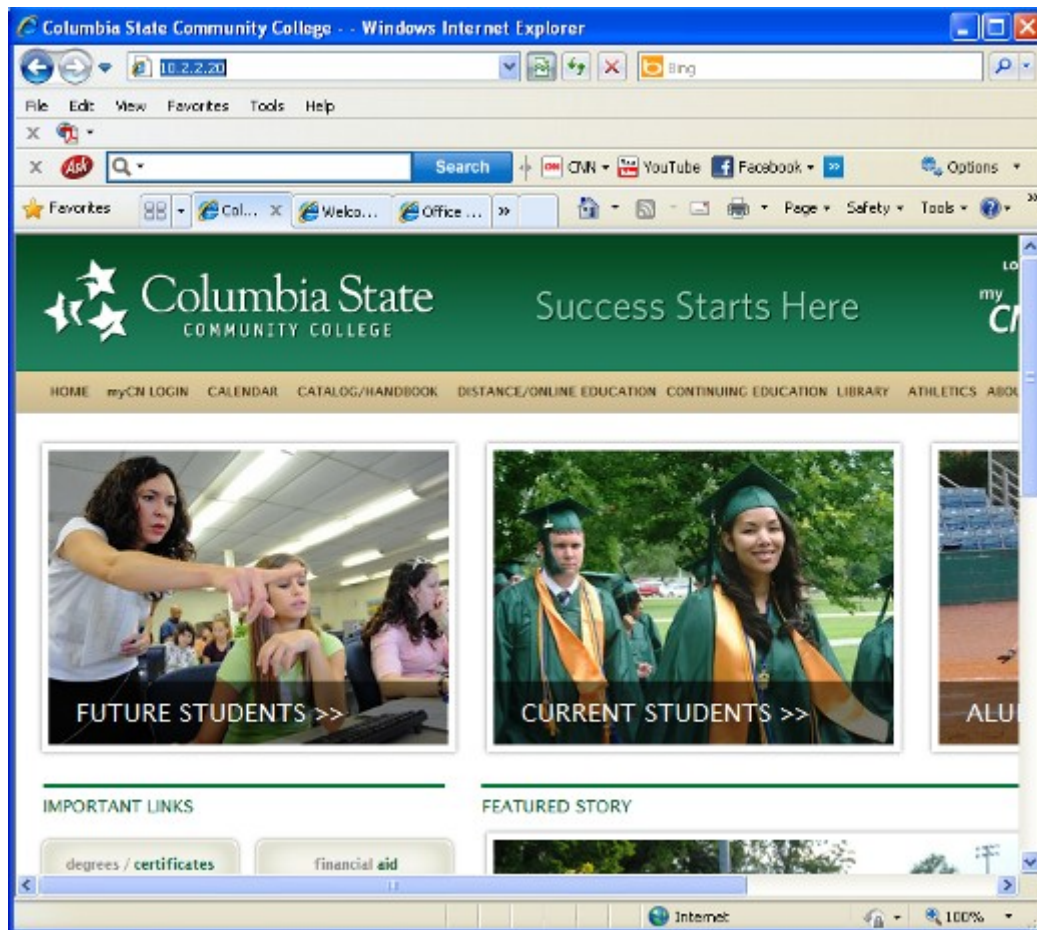
Logging On to Codian's Web Interface

1) Open the



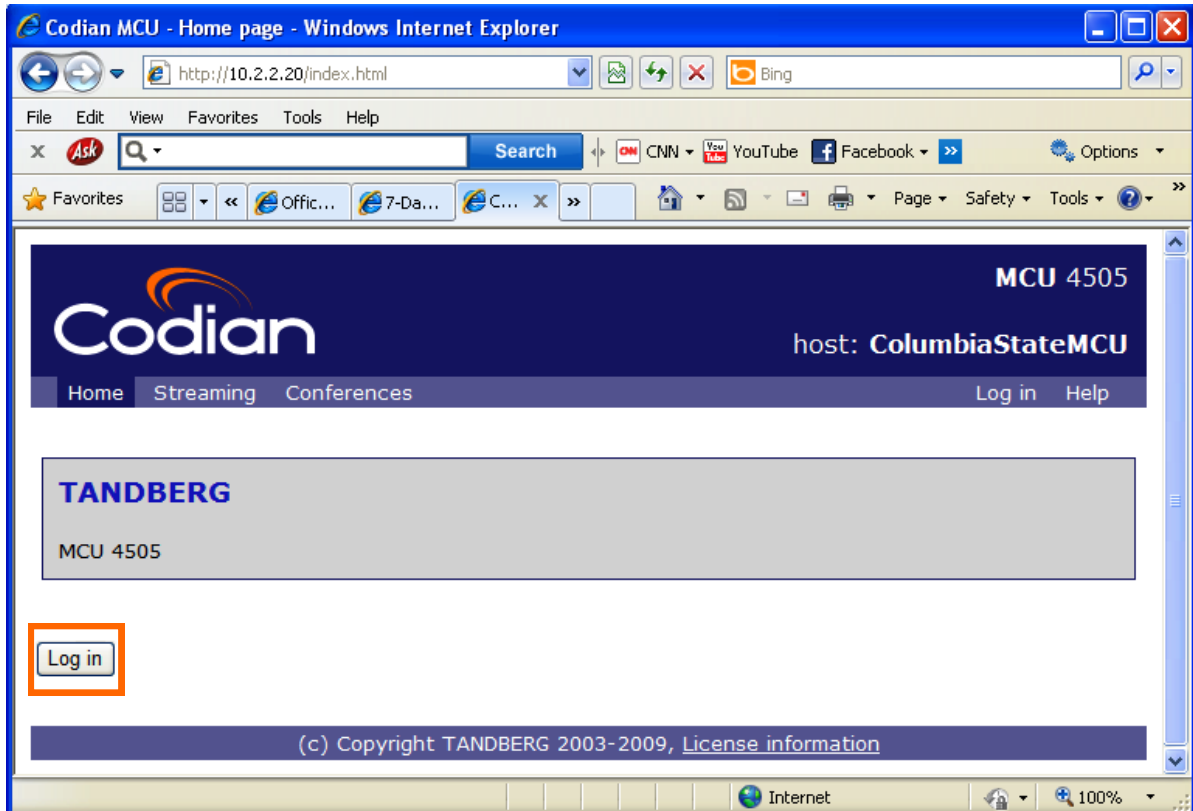
browser.

2) Type in 10.2.2.20 in the address bar (no www) and press Enter on the keyboard.



Logging On to Codian's Web Interface Continued

3) Click Log in to begin the process. You will be directed to the log in page.



NOTE: The instructions that follow in this guide assume that the login procedure has been completed. Logging in must occur to access the features of the Codian Bridge.

Instructions for logging into the system continue on the next page.

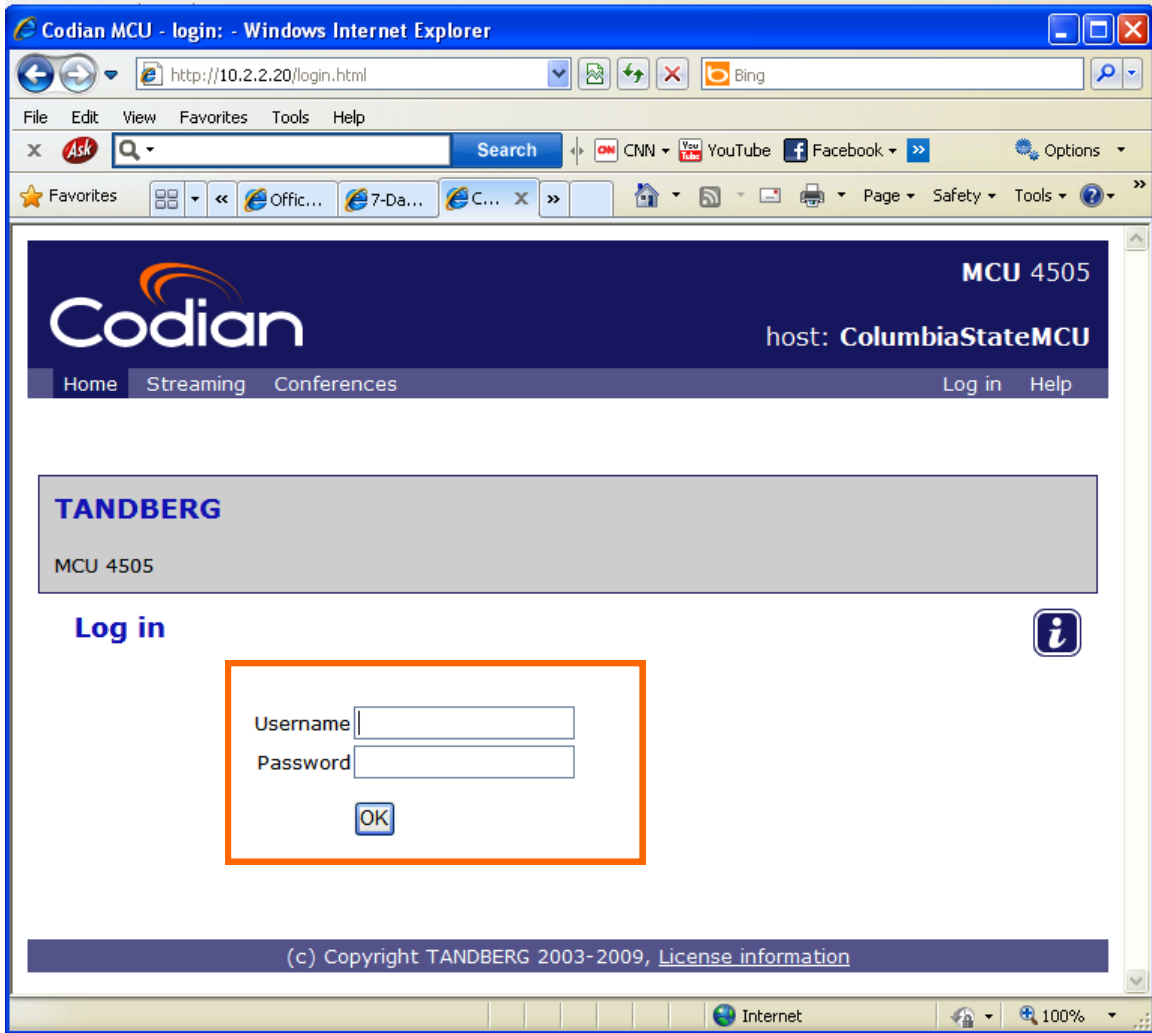
Notes:

Logging On to Codian's Web Interface Continued

4) Type in the Username and Password

USERNAME:

PASSWORD:



5) Click OK

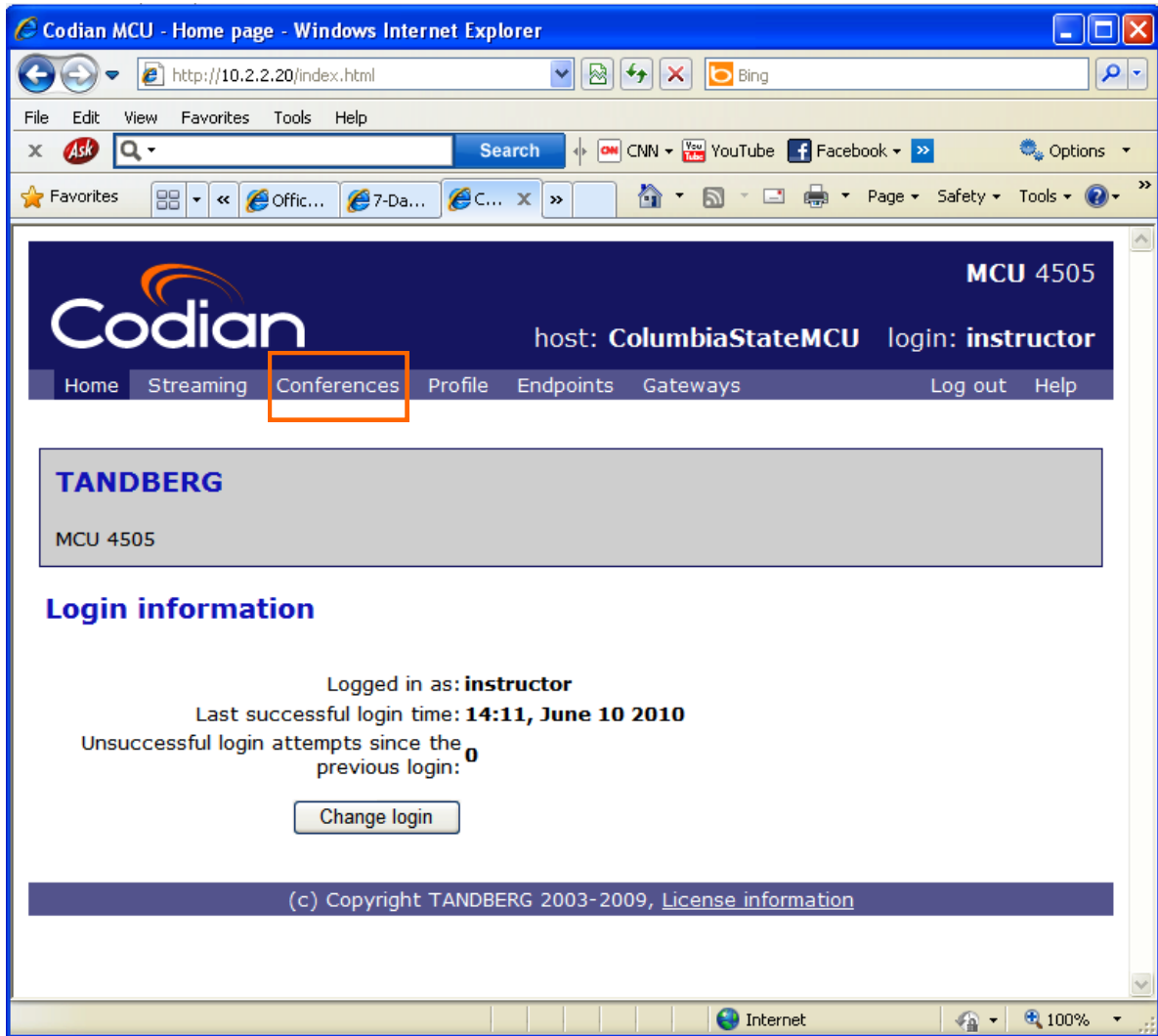
You will be directed to the home page of the Codian bridge.

Notes:

Features of the Codian Bridge

The Codian bridge has many features, and the pages that follow will cover the functions that will assist you when teaching a class or conducting a meeting. These functions will be found on the Conferences page. Remember to complete the login process before continuing.

- 1) Click on **Conferences**, which may be found below the Codian logo on the home page.



Notes:

Features of the Conferences Page Continued

The Conferences page lists the active conferences that are in progress. The scheduled conference section will only list the current conferences in progress and is not an indication of conferences to follow.

The screenshot shows the Codian MCU interface in Internet Explorer. The browser title is "Codian MCU - Conference list - Windows Internet Explorer". The address bar shows "http://10.2.2.20/conference_list.html". The page header includes the Codian logo, "MCU 4505", and user information: "host: ColumbiaStateMCU login: instructor". The navigation menu includes "Home", "Streaming", "Conferences", "Profile", "Endpoints", "Gateways", "Log out", and "Help". The breadcrumb trail is "Home > Conferences > Conference list".

Under the "Conferences" tab, there is a "Move participants" button and a section for "1 active conference". Below this is a table with the following data:

Name	Streaming	Description	Owner	Registration	Participants	Start time	Time remaining
500 - BUS 121 - Principles of A		<scheduled>	admin	Registered	5	07:49	42 minutes, 43 seconds

Below the table, there is a section for "1 scheduled conference" and buttons for "Delete selected" and "Add new conference". The page number "Page 1" is visible at the bottom right of the table area.

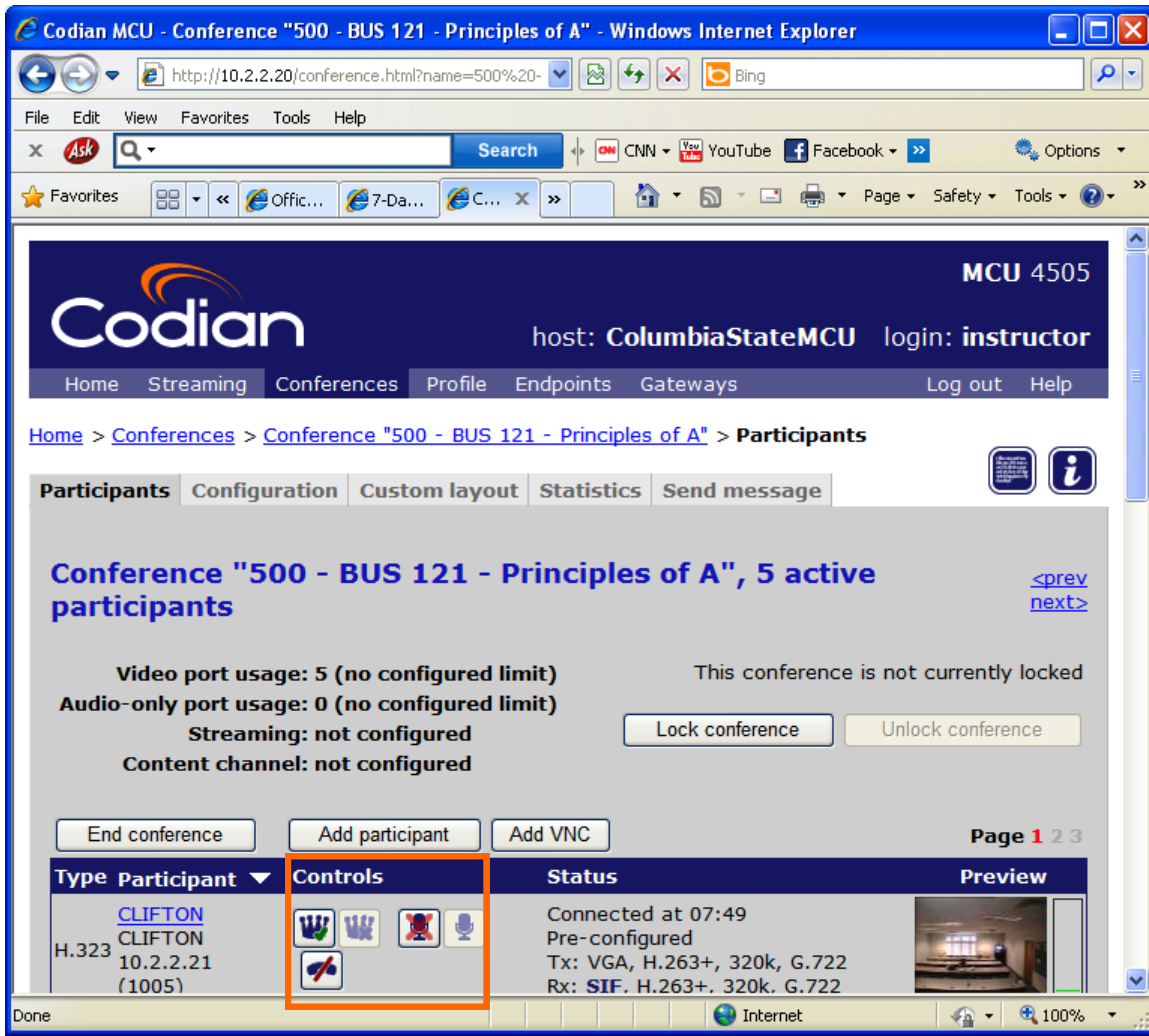
2) Click on the name of the conference. In the above example, the instructor clicks on 500– BUS 121– Principles of A.








The illustration on the next page is the result of clicking on the name of the conference.

Notes:

Features of the Conferences Page Continued

Clicking on the name of the conference will bring up the Participants web page. This is the page that provides access to controls such as making a participant “important” so the camera will not switch away from the classroom that needs to be seen by all sites. This is especially useful for lectures where presentation material is used, or when students are giving a presentation at a remote site (the site where the instructor is not present).



- Clicking on a control icon performs the defined function**
-  Makes participant important
 -  Makes participant unimportant
 -  Prevents others from seeing this participant's video contribution (mute).
 -  Allows others to see this participant's video contribution (stop muting).
 -  Prevents other participants from hearing this participant (mute).
 -  Allows other participants to hear this participant's audio (stop muting)
 -  Disconnects a participant from the conference

Features of the Conferences Page Continued

The screenshot shows a web browser window displaying the Codian MCU Conference page. The page title is "Codian MCU - Conference '500 - BUS 121 - Principles of A' - Windows Internet Explorer". The URL is "http://10.2.2.20/conference.html?name=500%20-". The page header includes the Codian logo, "MCU 4505", and "host: ColumbiaStateMCU login: instructor". The navigation menu includes "Home", "Streaming", "Conferences", "Profile", "Endpoints", "Gateways", "Log out", and "Help". The main content area shows the conference title "Conference '500 - BUS 121 - Principles of A', 5 active participants" and a status box indicating "This conference is not currently locked" with "Lock conference" and "Unlock conference" buttons. Below this are buttons for "End conference", "Add participant", and "Add VNC". A table lists participant details for "CLIFTON" (H.323 10.2.2.21 (1005)) with controls for mute, video, and chat, and a status of "Connected at 07:49 Pre-configured".

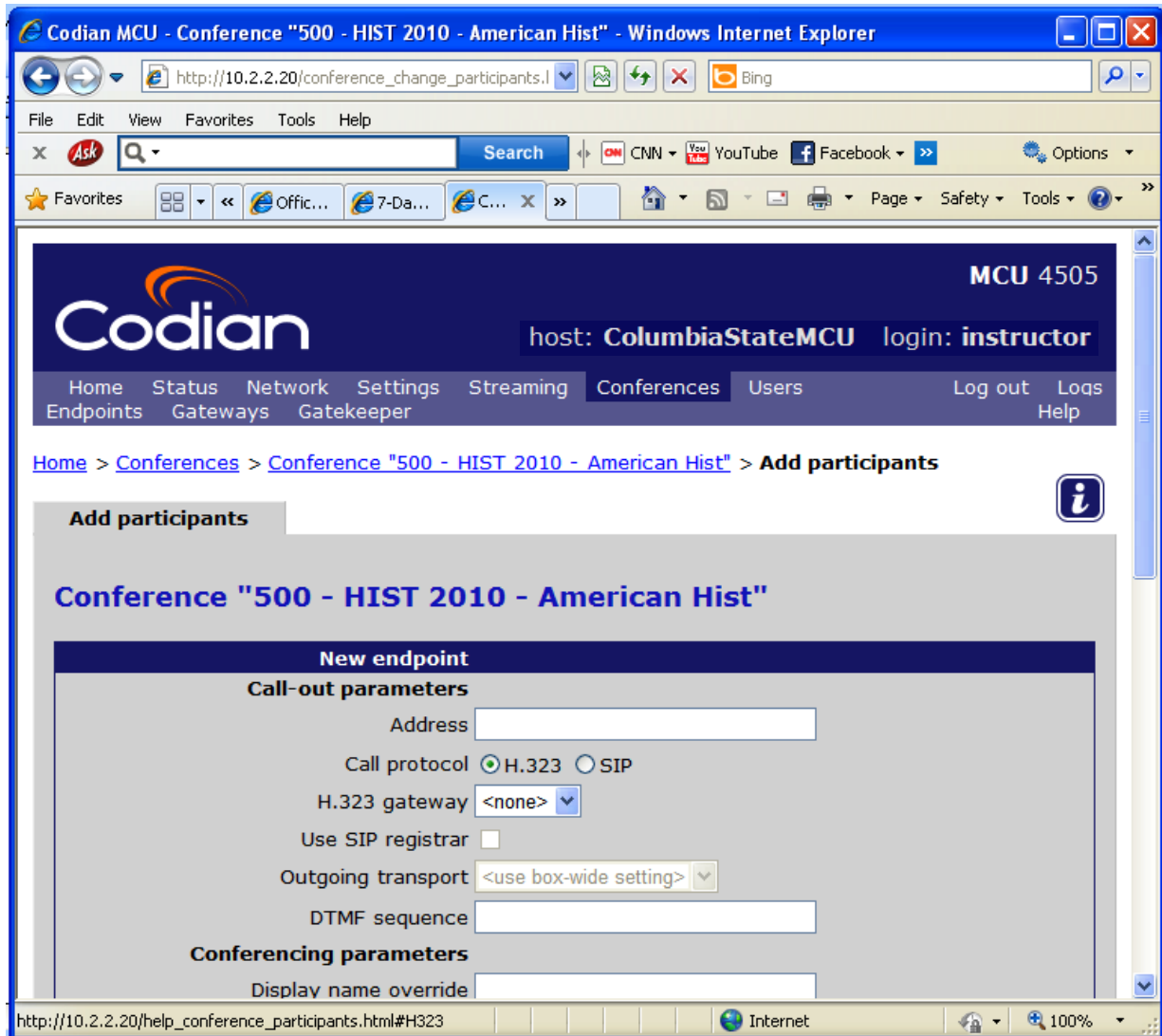
The conference page gives the instructor the ability to lock the conference, unlock the conference, end the entire conference, and add participants. The Add VNC control is not a function that is used.

- **Lock conference:** click Lock conference to prevent participants from joining the conference. No other participants can call into the conference when locked.
- **Unlock conference:** click Unlock conference to allow participants to join the conference. Additional participants may call into the conference.
- **End conference:** click on End conference to disconnect all sites, thus ending the session.
Note: The session will automatically end at the scheduled end time. This function is only used if needed, or if directed by technical support.
- **Add participant:** click on Add participant to add a site to the conference. After clicking on Add participant see following pages for detailed instructions.

Features of the Conferences Page Continued

Add Participant

After clicking on Add participant (see previous page) you will be directed to the following web page.



Note: Site connections are made automatically. This feature is only used when a site needs to be connected that is not scheduled for connection, or if directed by technical support. Connecting a site that failed to connect automatically is covered in *"What to do if . . ."*.

Instructions for adding a participant continue on the next page.

Features of the Conferences Page Continued

Home > Conferences > Conference "500 - HIST 2010 - American Hist" > Add participants

Add participants

Conference "500 - HIST 2010 - American Hist"

New endpoint

Call-out parameters

Address

Call protocol H.323 SIP

H.323 gateway

Use SIP registrar

Outgoing transport

DTMF sequence

Conferecing parameters

Display name override

http://10.2.2.20/help_conference_participants.html#H323

To add a participant:

- 1) **Type a numeric address in the address box.** This may be an IP address or a 4 digit number assigned for speed dialing.

The speed dial numbers assigned are:

Columbia (Hickman 121) — 1001 Warf 105 (Columbia) — 1006
Franklin — 1002
Lewisburg — 1003
Lawrenceburg — 1004
Clifton — 1005

Note: The IP address of video conferencing sites outside of the Columbia State network (i.e., high schools) will need to be entered. The numbers and decimal points in the string of numbers must be entered. Consult the directory posted in the classroom for the IP address.

- 2) **Scroll down the page and click on Call endpoint.** Repeat the process to add additional participants.

Custom codec selection

Endpoints

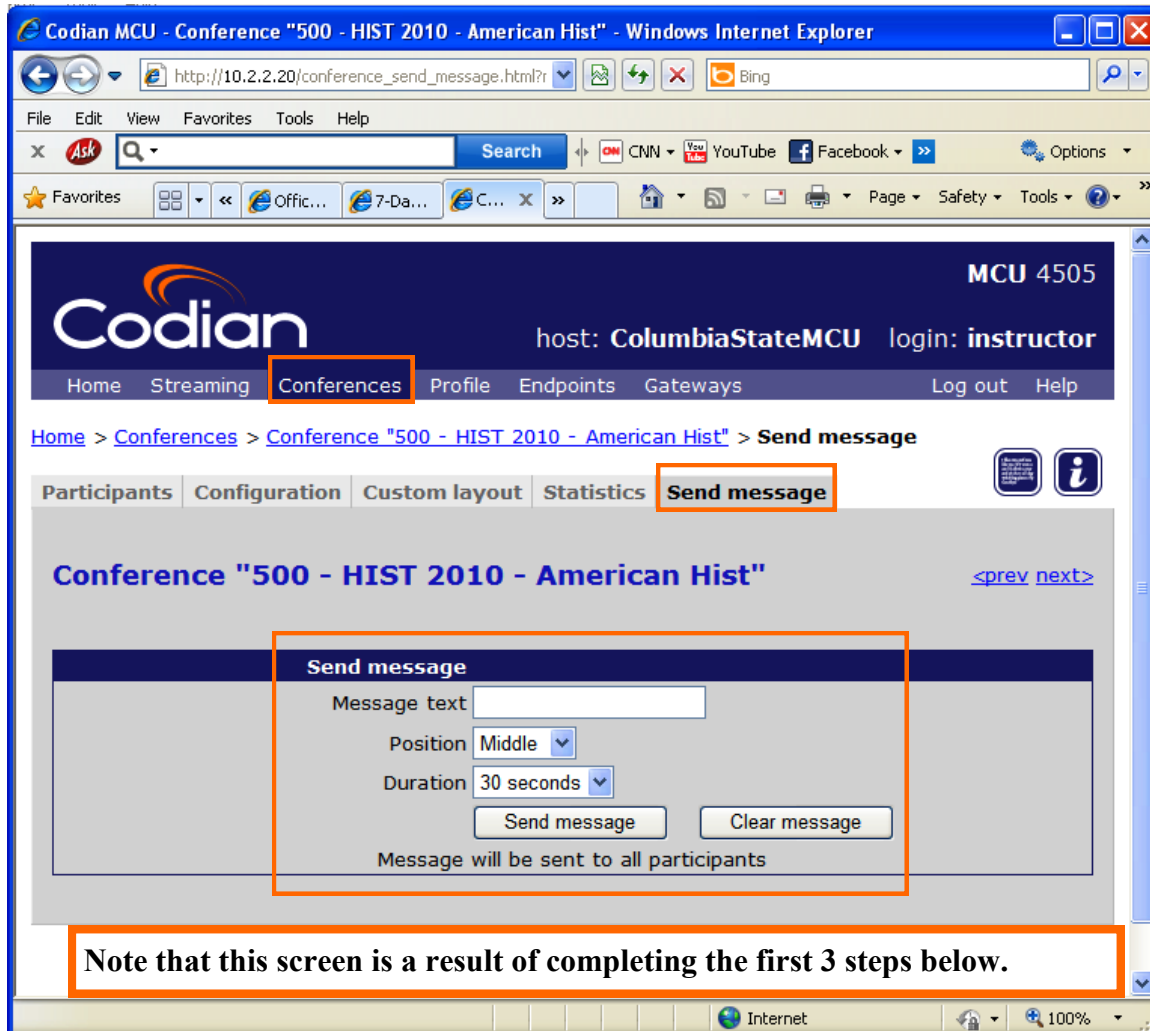
No available endpoints

Page 1 2 3 4 5 6 7 8 9 10

Features of the Conferences Page Continued

Sending a Text Message to all Participants

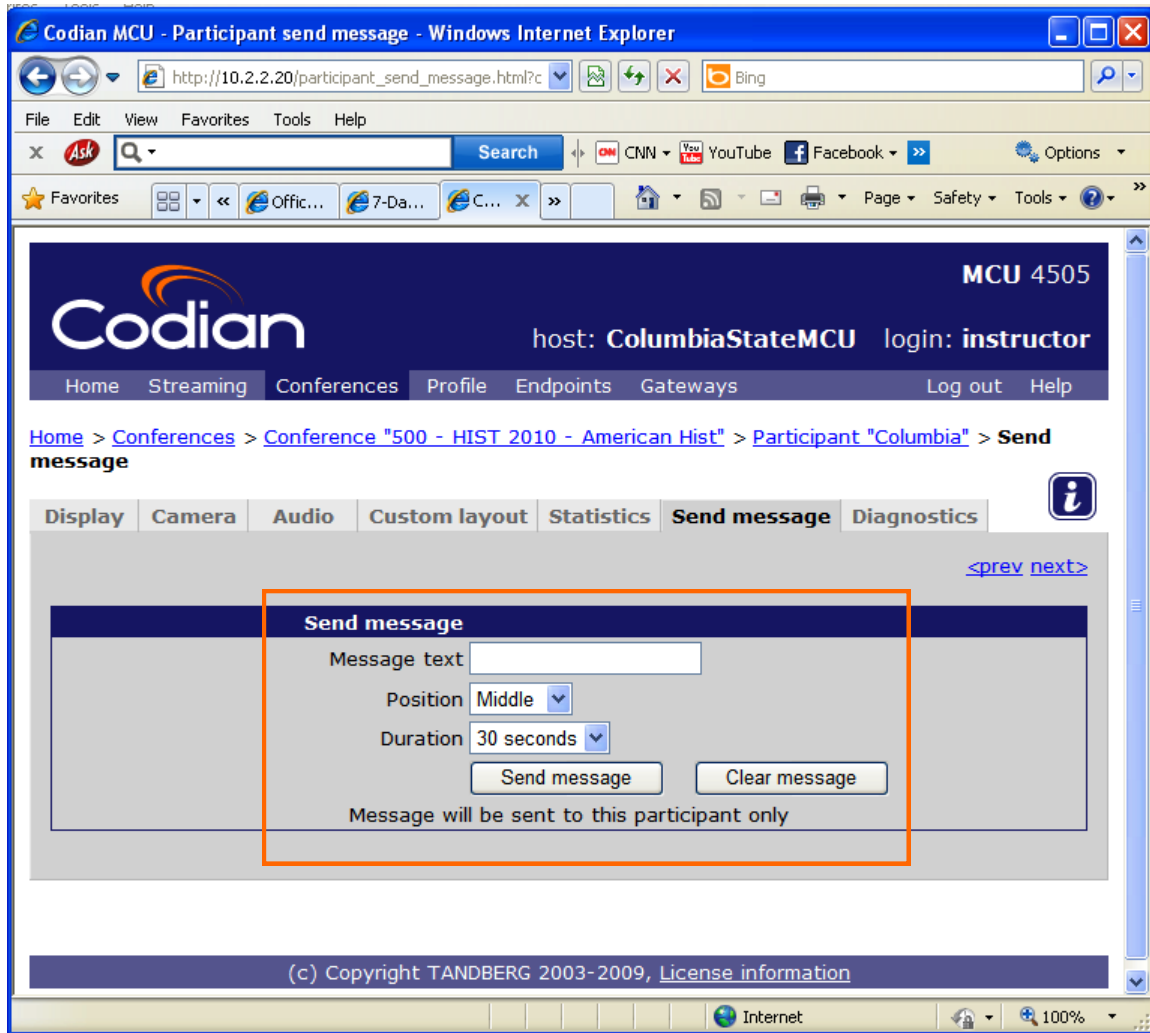
The Codian Bridge has a function that allows the sending of text messages to one or all sites. This section covers sending a message to all sites.



- 1) Click on Conferences
- 2) Click on the name of the conference
- 3) Click on the Send message tab
- 4) Enter a message in the Message text box (no more than 180 characters, including spaces).
- 5) Select Position on the screen that the message will display; top, middle, or bottom.
- 6) Select the Duration of the message; 10 seconds, 30 seconds, 1 minute, 5 minutes, 10 minutes or permanent (until the end of conference or until cleared)
- 7) Click Send message. The message will be displayed on the TV screens at all sites connected to the conference for the duration selected.
- 8) Click clear message to clear the message from the TV screens if desired.

Features of the Conferences Page Continued

Sending a Message to One Participant



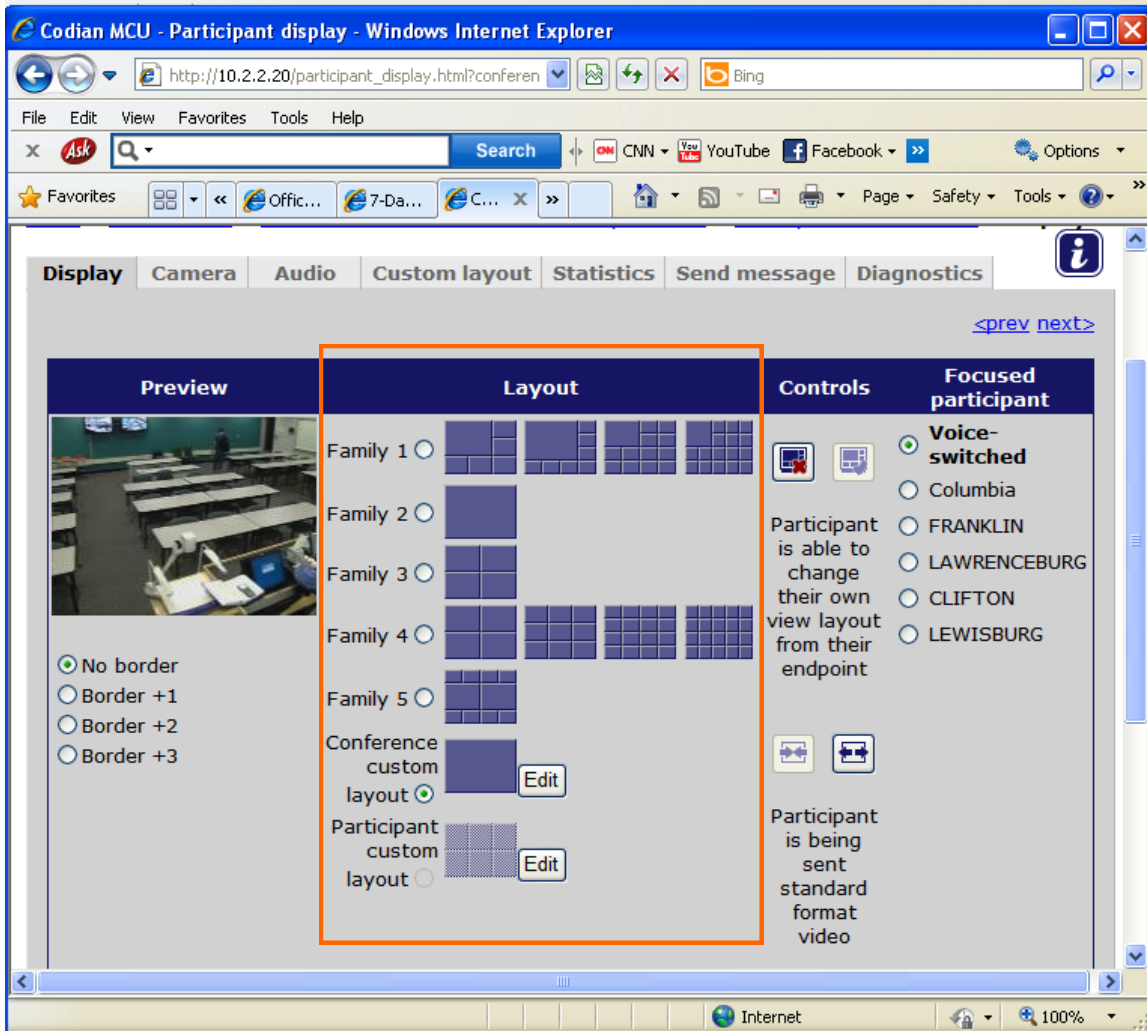
The above is the result of completing the first 4 steps below.

- 1) **Click on Conferences**
- 2) **Click on the name of the conference**
- 3) **Click on the name of the participant (i.e. Columbia)**
- 4) **Click on the Send message tab**
- 4) **Enter a message in the Message text box** (no more than 180 characters, including spaces).
- 5) **Select Position on the screen that the message will display;** top, middle, or bottom.
- 6) **Select the Duration of the message;** 10 seconds, 30 seconds, 1 minute, 5 minutes, 10 minutes or permanent (until the end of conference or until cleared)
- 7) **Click Send message.** The message will be displayed on the TV screens at the individual participant selected (i.e. Columbia). The message is displayed for the set duration.
- 8) **Click clear message to clear the message from the TV screens if desired.**

Features of the Conferences Page Continued

Participant Display Layout

The participant display layout may be changed to divide the picture on the television in various configurations. This feature is useful when giving tests, giving the instructor a method to monitor all classrooms at the same time.



- 1) Click on Conferences
- 2) Click on the name of the conference
- 3) Click on the name of the participant site you are teaching from (i.e. Columbia).
- 4) The screen pictured above will appear. Scroll down to see all layout choices.
- 5) Select the Family Layout to change the display in the classroom. The number of sites displayed is dependent on how many are connected. Conference custom layout is the default. Please put back on custom layout at the end of class session.

Features of the Conferences Page Continued

Camera Control for Remote Sites

A participant's camera may be controlled via the controls on the Camera tab.



- 1) **Click on Conferences**
- 2) **Click on the name of the conference**
- 3) **Click on the name of the participant** (i.e. Columbia)
- 4) **Click on the Camera tab** (pictured above)
- 5) **Click on one of the Camera control functions.** The camera can be panned left or right, tilted up and down, and zoomed in or out. The focus of the participant's camera may be adjusted with the focus control.

Note: The camera selected at the participant site cannot be changed remotely via the Codian Bridge. The participant must change the camera selection at their site using the AMX control panel.

What to do if . . .


Participant Disconnects

A situation could occur that causes a participant to disconnect from the conference (i.e. power outage at the campus). Perform the following steps to reconnect the disconnected participant and/or participants.

Assuming you have logged in (refer to pages 16 through 18 for login instructions):

- 1) Click on Conferences
- 2) Click on the active conference name (i.e. 500- MATH 1130 - . . .)
- 3) Scroll down the page to check if all participants are listed.
- 4) If one of the participants is missing, (i.e. Clifton), scroll down to the Previous Participants box:

Previous participants

Type	Participant	Controls	Status
H.323	CLIFTON		Connected at 14:40, disconnected at 14:44 MCU initiated disconnection

Pre-configured participant status

Type	Name	Status
H.323	Columbia	Participant connected
H.323	FRANKLIN	Participant connected
H.323	LAWRENCEBURG	Participant connected
H.323	LEWISBURG	Participant connected
H.323	CLIFTON	Participant has left

- 5) Click on the telephone icon under Controls to reconnect

Notes:

What to do if . . .

Participant or Participants Do Not Connect to Conference

Refer to *Adding a Participant* on pages 22 through 24 in the unlikely event that a participant, or participants, do not connect.

Participant Site Reports that there is No Video on TV Screens

- 1) Participant site should check to make sure the TV power is turned on.
- 2) HDMI cable on the television may be loose. Check connection.
- 3) Use Source button on TV or remote control to make sure that HDMI is the selected input source.

Participant Site Reports that they see themselves and not the remote participant's video (i.e. camera, PC, or other presentation source)

- 1) Participant site should touch the Codec Control icon on the AMX panel, and then press the Self View icon.

Participant Site Reports that they constantly see another participant on the screen

- 1) Use the participant control to make your site important (see page 21)

Participant Site Reports that the volume is too soft or too loud

- 1) Participant site should tap the volume icon on the AMX panel, and then tap the top speaker icon on Room Volume to increase volume or the bottom speaker icon on Room Volume to decrease the volume. Instruct participant site to tap the X on the volume control to close the volume controls. See page 12 for the illustration of this procedure.

Participant Site Reports that the audio from the DVD, VHS tape, or computer sounds distorted or is not loud enough

- 1) The instructor or presenter should try adjusting the presentation volume at the site they are broadcasting. Tap the volume icon on the AMX panel, and then tap the bottom speaker icon on Presentation Volume to decrease audio output. Press the top speaker icon on Presentation Volume to increase audio output. Tap the X to close the presentation volume controls. See page 12 for the illustration of this procedure.

CONTACT TECH SUPPORT IF YOU ARE UNABLE TO RESOLVE ANY ISSUE ON YOUR OWN. Contact information is posted in each classroom.

Best Practices

General Teaching Tips

Although each instructor is unique in his or her manner of communicating knowledge to students, and classes may exhibit special characteristics, the distance education experience can be more effective if the teacher can successfully adapt to the parameters of the technology. This adaptation can be a challenge for those accustomed to a traditional format, but the following tips or suggestions might prove beneficial to instructional performance and effectiveness in distance education courses.

For all modes of distance education instruction, consider the following:

Promote interaction between instructor and students, students and instructional materials. Work to develop a “learning community” within your class.

Develop and distribute a set of Frequently Asked Questions (FAQs) to reduce the number of times you will have to answer the same or similar student inquiries.

Provide a format for student emails in which they identify themselves and specific class, and concisely state questions. Internet discussion/chat is a good means for engaging students in interaction among themselves regarding the course.

Facilitate “connecting” of students by interacting about the course utilizing web-based email. *Columbia State Community College email must be used by faculty and students for class and college business communications.*

Provide Internet links to specific resources you wish your students to utilize.

Communicate with supporting staff at external locations. Get to know them...they can function as your “human” liaison with your students for systems operations, course administration, exam proctoring and technical problem-solving.

Do not rely solely on campus mail for distribution of material. Distribute syllabi and handouts electronically to students via e-mail or the college’s course management system. Another option is to politely ask staff at the extended campuses to distribute material to the students. Send an electronic copy to them for duplication and distribution.

Best Practices Continued

Tips for Teaching via ITV/Two-Way Video and Audio

Be familiar with the equipment. DO NOT WAIT UNTIL THE LAST MINUTE TO LEARN HOW TO OPERATE EQUIPMENT. Go to class prepared to show video clips or to use the document camera or other media device. Know the switching routines, and the camera functions. Arrive early enough before each class to ensure that equipment at all sites is operating properly, that voice levels are appropriate, and that video is clear.

Speak clearly and loudly, but do not yell. Because of the importance of the audio component in using compressed video, instructors should be at all times conscious of voice projection qualities and proper enunciation. Make it a point to speak clearly and precisely so you may be heard and understood in all classrooms. Also take into consideration that there are a few seconds of lag time to other campuses.

Pace your camera switching. Try to establish a reasonable and comfortable pace in switching cameras and try to switch when there is a reason for doing so. Too frequent switching, or failure to switch away from a static picture, can be distracting.

Discourage ambient noise. Caution students at all sites to avoid unnecessary noise, casual conversation or excessive fidgeting in class because the cameras are noise sensitive and will change locations on the TV monitor when noise is picked up.

Look at the camera. When speaking to students at distant locations, make an effort to look at the camera rather than exclusively at the TV monitor. You want the distant students to perceive that you are looking directly at him or her.

Ensure that you can see all the students and they can see you. As class begins, ensure that students at all sites are within the field of camera view. Not only do you want to see all your students at all times, you will want all other students to see fellow students. Seeing you helps distant students identify who you are and makes them feel they are part of your class.

Be prepared. Be prepared for the system to occasionally fail. Video record class instruction and distribute copies to each site if feasible. Post class notes and PowerPoint presentations in the college's course management system or e-mail material to students. Do what is humanly possible to ensure students do not fall behind due to a system failure.

Best Practices Continued

Ensure your students see you in the best “light”. Dress conservatively in blues and grays. Yellows, greens, and tans can make your skin look a sickly yellowish hue. Avoid whites (glare) and patterns (interference). Avoid large pieces of jewelry (flash distractions). Attend to manicure if you use the document camera (hands will be seen in extreme close-up).

Write legibly. When writing on the pad under the document camera, write clearly and in characters large enough for students to read. Use a dark pen when illustrating a point with transparencies.

Use visuals frequently. To avoid the “talking head” problem, rely heavily on visuals in class. To increase student interest, mix your use of visuals when you can.

For example: Make use of materials which can be broadcast by the document camera; use computer-accessed still pictures; action video clips, segments of commercial films when they fit your presentation content; use short video clips of guest lecturers who cannot physically be in your class; show slides; write or draw diagrams on a sketch pad under the document camera; use transparencies which you can highlight with a dark magic marker as you speak. **Note:** Fonts under 12 pts and textbook pages are hard to read when broadcast. Use larger fonts and zoom into smaller sections of textbook pages for easier reading.

Diversify your “delivery style.” Be willing to experiment with new teaching strategies and methods that might avoid the “talking head” or the tendency in televised classes for students to passively receive information.

Examples of instructional strategies¹: Lecture, guided discussion, brainstorming, case study, role playing, panel discussion, simulation, demonstration, and drill and practice.

¹ Holden, JT and Westfall, P; *An Instructional Media Selection Guide for Distance Learning, 2e*; retrieved July 13, 2010, www.usdla.org/USDLA_Ins_Media.pdf.

Best Practices Continued

Repeat questions. When students ask questions, get in the habit of repeating the questions so questions are clear to students at all locations. Do not assume that students will say that they did not hear the question or ask you to repeat the question.

Seat students to promote class cohesion. Encourage students at each location to sit at the front of the room and in view of the camera. This will better promote class cohesion and discussion.

Engage your students at other sites and promote interaction with them, i.e. call on students by name, refer to classes at other sites and speak directly to them etc. Additionally, making eye contact with the camera helps students at the distant sites feel connected.

Recognize motivated students. If you get to know your students well, there will be a number of motivated students at all sites that will be willing to help you keep the classes lively and energized. These interested students can contribute to discussion at all locations.

Rotating to other campuses is recommended for ITV/Two-Way Video and Audio instructors. Regularly originate your classes at different campus locations if possible. Teach most frequently from the location with the most students enrolled, however, teach from smaller enrollment locations at least once, and larger enrollment locations at least twice during the semester. At each location, make yourself available for a time before or after class to answer questions or to interact with students. It may be necessary to talk with students outside of the ITV room because another class may need to enter the room.

Notes:

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