Windows Collaborative Teaching Cluster

Classroom Equipment Guide

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Carnegie Mellon University
Computing Services 08/13
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Contents</td>
<td>2</td>
</tr>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Connect a Device</td>
<td>4</td>
</tr>
<tr>
<td>Select a Lectern Mode</td>
<td>5</td>
</tr>
<tr>
<td>Use the Touchscreen</td>
<td>6</td>
</tr>
<tr>
<td><strong>Teaching Mode</strong></td>
<td></td>
</tr>
<tr>
<td>Display a Device</td>
<td>7</td>
</tr>
<tr>
<td>Display Controls</td>
<td>8</td>
</tr>
<tr>
<td>Synchronize all Displays with Main Display</td>
<td>9</td>
</tr>
<tr>
<td>Route Student Computers to Displays</td>
<td>10</td>
</tr>
<tr>
<td>Combined Image to All Displays (Split-Screen)</td>
<td>11</td>
</tr>
<tr>
<td>White Board to All Displays or Single Display</td>
<td>12</td>
</tr>
<tr>
<td>Display a Blu-Ray/DVD/MP3 Disc or Auxiliary Device</td>
<td>13</td>
</tr>
<tr>
<td>Play Audio</td>
<td>14</td>
</tr>
<tr>
<td>Use the Document Camera</td>
<td>15</td>
</tr>
<tr>
<td>Document Camera Controls</td>
<td>16</td>
</tr>
<tr>
<td><strong>Student Mode</strong></td>
<td></td>
</tr>
<tr>
<td>Display a Device and Play Audio</td>
<td>17</td>
</tr>
<tr>
<td>Troubleshooting</td>
<td>19</td>
</tr>
</tbody>
</table>
Features

**Teaching Mode**

Display
- from lectern desktop
- from student machines
- from other devices
- from document camera
- from Blu-ray or DVD

Play Audio
- from any selected device

**Student Mode**

- Display student machine on designated LCD display
- Play audio from student machines

Provide Feedback

For CTC equipment suggestions, questions, or to schedule an equipment demonstration, contact Clusters Services: clusters@andrew.cmu.edu or call 412-268-8776.
Connect a Device

Equipment Cables in the Room
Provided at Tables: 2 HDMI, 1 VGA, and 1 Audio cable for additional laptop connections

Provided at Lectern: 1 VGA, 1 HDMI, and 1 Audio cable

Equipment Cables/Adapters Not Provided

IMPORTANT! If you are using the following equipment, be sure to bring the appropriate cable or adapter with you:

- iPad, iPhone, iPod Touch - Composite AV Video USB cable, VGA adapter, or HDMI adapter
- Addtl. Laptop - VGA or HDMI cable
  Note: Cables are provided for 1st laptop
- Mac Laptop - Mac adapter
- Music Device - mini-to-mini cable
- VCR / Video Camera - RCA cable
- Internet - Ethernet Cable (if unable to use wifi)

Connections available from the front panel of the Lectern:
Select a Lectern Mode

Touching anywhere on the touch screen wakes the system. Select between Teaching or Student mode.

Display the document camera, blu-ray player, laptop, etc. in addition to displaying student computers on LCD displays

Display student computers or auxiliary inputs from each table to a designated LCD display

To toggle between modes and clear all LCD displays, touch the System ON/OFF button.
Use the Touchscreen

Depending on the mode selected, the touch screen changes to display *Teaching Mode* or *Student Mode* options.

**Teaching Mode**

**Student Mode**

What to display

Additional Options

Where/How to display

**NOTE:** All computers and LCD displays are labeled for easy identification.
Teaching Mode: Display a Device

1. Touch a Lectern Device to Display. Touch the connection type, if applicable.
2. Touch Main Display Primary Source or Main Display Secondary Source (under the Main Display Source banner).
3. Touch Synchronize all Displays with Main Display under Display Controls.

NOTE: The touch panel also acts as the lectern display.

OPTIONAL: Select a Display Controls option and/or maximize the screen using the plus icon or touch the black screen icon to clear; exit the maximized screen by tapping anywhere on the screen.
Teaching Mode: Display Controls

**NOTE:** *Display Control* buttons are on/off toggles while *Annotation Mode* buttons are single selection buttons. Multiple *Display Controls* options can be selected and combined with *Annotation Modes*.

A highlighted blue button means the selection is enabled. E.g. from the image below, *Route Student Computers to Displays* is enabled.

- **Display Controls**
  - Synchronize all Displays With Main Display
  - Route Student Computers to Displays

- **Annotation Modes**
  - Combined Image to all Displays
  - White Board to all Displays
  - Single Display

- Displays lectern devices to only the main LCD display or to all LCD displays in the room.

- Displays a student computer to all or only specified LCD displays.

- Displays one lectern/one student computer OR two student computers as a side-by-side (split-screen) display on all screens with annotation tools.

- Displays a blank whiteboard with annotation tools to all of the room LCD displays.

- Displays a single display with annotation tools.
Display Controls: Synchronize all Displays with Main Display

1. Touch a Lectern Device to Display.
2. Touch **Main Display Primary Source** or **Main Display Secondary Source** (under the **Main Display Source** banner).
3. Touch **Synchronize all Displays With Main Display**.

**OPTIONAL:** Use the **Main Display Secondary Source** to preview your device’s display prior to projecting on the **Main Display Secondary Source**.
Display Controls: Route Student Computers to Displays

1. Touch **Route Student Computers to Displays**.
2. Touch a student seat number from the map.  
   **NOTE**: Each computer/LCD display is labeled and corresponds with the map.
3. Touch an area to display the device:
   a. Display on the primary LCD display
   b. Display on any individual LCD display in the room
   c. Display using Synchronize all Displays With Main Display to project the same image to all LCD displays.
Display Controls: Combined Image to All Displays (Split-Screen)

1. Select one of the following:
   a. Touch a Lectern Device to Display — OR —
   b. Touch Route Student Computers to Displays and select a seat number.
2. Touch Main Display Primary Source for the 1st device.
3. Repeat step 1 for the 2nd device.
4. Touch Main Display Secondary Source for the 2nd device.
5. Touch Combined Image to all Displays. A split-screen of the 1st and 2nd devices appears on all LCD displays.
Display Controls: White Board to All Displays or Single Display

**NOTE:** For White Board to all Displays, select **White Board to All Displays**. No further action is necessary.

1. Touch a **Lectern Device to Display**.
2. Touch **Main Display Primary Source** under the **Main Display Source** banner.
3. Touch **Synchronize all Displays with Main Display** under **Display Controls**.
4. Touch **Single Display** and touch **Main Display Primary Source** (under the **Main Display Source** banner).
5. Use the **Annotation Menu Bar** to make your desired annotations on your display.
Teaching Mode: Display a Blu-Ray/DVD/MP3 Disc or Auxiliary Device

Select Auxiliary for any of the following: Music, VCR, Video Cameras, older iPods, iPads, and iPhones (using Composite cables)

1. Touch **Blu-ray/CD Player** or **Auxiliary** from the Lectern Device to Display.
2. Touch **Main Display Primary Source** or **Main Display Secondary Source** (under the Main Display Source banner).
3. Touch **Synchronize all Displays with Main Display** under Display Controls.
4. **OPTIONAL**: Select a Display Controls option and/or maximize the screen using the plus icon or touch the black screen icon to clear; exit the maximized screen by tapping anywhere on the screen.
5. Use the Player Controls for Blu-Ray/DVD/CD or the Input Controls for Auxiliary devices.
Teaching Mode: Play Audio

1. Select a Lectern Device to Display for playing audio.
2. Touch the audio icon in the volume section. Touch Main Display Primary Source or Main Display Secondary Display (under the Main Display Source banner) to activate sound.
3. Use the slider to adjust volume settings.

NOTE: Ensure the appropriate device is selected. The system follows the device that is selected to produce audio.

For cluster workstations in the room, select Digital Audio (HDMI) to route audio through the lectern. From the cluster workstation, complete the following:
1. Navigate to the Control Panel (typically Start > Control Panel).
2. Change the viewing mode to Large or Small Icons.
3. Double-click Sound to adjust preferences.
4. On the Playback tab, select Digital Audio (HDMI).
5. Click Set Default, then click Apply and OK.
6. From the lectern, select Desktop and toggle the audio button.

NOTE: Revert these changes by following the same steps and selecting Speakers.
Teaching Mode: Use the Document Camera

1. Touch **Doc Cam** under Lectern Device to Display.
2. Touch **Main Display Primary Source** or **Main Display Secondary Source** (under the Main Display Source banner).
3. Touch **Synchronize all Displays with Main Display** under Display Controls.
4. **OPTIONAL**: Select an Annotation Modes option
5. Adjust the document camera using the **Doc Cam Controls**.
Teaching Mode: Document Camera Controls

**Touch Panel Controls:**
- **Zoom** - Controls the image size
- **Focus** - Manually focuses the document camera
- **Lamp** - Turns the document camera light on/off
- **Freeze** - Creates a still image; display can be moved without altering the image on-screen

**Physical Document Camera Controls:**
- **Power** - Turns the device on/off
- **BRIGHT (-/+)** - Adjusts the brightness
- **AWC** - Automatically adjusts the color based on room lighting
- **FOCUS (-/+)** - Manually focuses the document camera
- **Zoom (-/+)** - Controls the image size
- **AF** - Automatically focuses the document camera
- **INT/EXT** - NOT AVAILABLE FOR CLASSROOMS
  IMPORTANT! If either options are on, no image will appear; press either button until both cycle off
Student Mode: Display a Device and Play Audio

1. Touch a **Seat Number** OR **Digital/VGA** button from each table. The device display will automatically appear on the table’s designated LCD display and is selected for audio control.

2. Use the volume controls to adjust volume settings

**NOTE**: Ensure the device is connected if selecting Digital/VGA. All computers and LCD displays are labeled for easy identification.
Troubleshooting

Q. How do I get out of a maximized screen and return to the lectern selection display?
   A. Tap anywhere on the touch panel to minimize and return to the lectern selection display.

Q. Why isn’t my laptop projecting?
   A. Ensure your device is connected using the appropriate cables.
      For Windows: Press the projection button on your laptop. This may be F4, F5, F7, or F8 but will vary based on manufacturer.
      For Mac: Navigate to System Preferences > Displays, and click the Arrangement tab to configure display options.

Q. Can I preview my device’s display prior to projecting to the LCD displays?
   A. Yes, use the Main Display Secondary Source to preview your device’s display prior to projecting on the Main Display Primary Source.

Q. Why isn’t my image being projected using the document camera?
   A. Check that the document camera is physically powered on and that INT/EXT option is NOT on. If INT/EXT option is on, press the button to cycle it off. Repeat the steps in Teaching Mode: Use the Document Camera.
Q. How do I project my laptop on a certain screen?
   A. From the touch panel, select the lectern device to display and touch the main display titles or touch an LCD display from the room map.

Q. What is the best resolution for projecting my display?
   A. 1080p or higher resolutions are preferred. It is generally good practice to set LCD monitors to their native resolution. You may need to configure your screen resolution for best results.

Q. How do I play audio from my device?
   A. Ensure the device used for audio is connected using the appropriate cables and selected. Check for any loose cables and ensure you have adjusted the volume slider. You may need to toggle the System On/Off if multiple devices are in use.

Q. I don’t have my files - how do I get to my CMU file storage?
   A. Access your files from the Andrew File System (AFS), Box, or MyFiles and SandBox. Visit http://www.cmu.edu/computing/accounts/afs-storage/ for more information.

   Faculty can request a Project Volume for additional storage space. Visit http://www.cmu.edu/computing/accounts/afs-storage/storage/projvol/ for more information.