

WVU Classroom Technology Design Requirements

AMX Touch Panel Control Interface

- Updated March 2018 -

1. Introduction

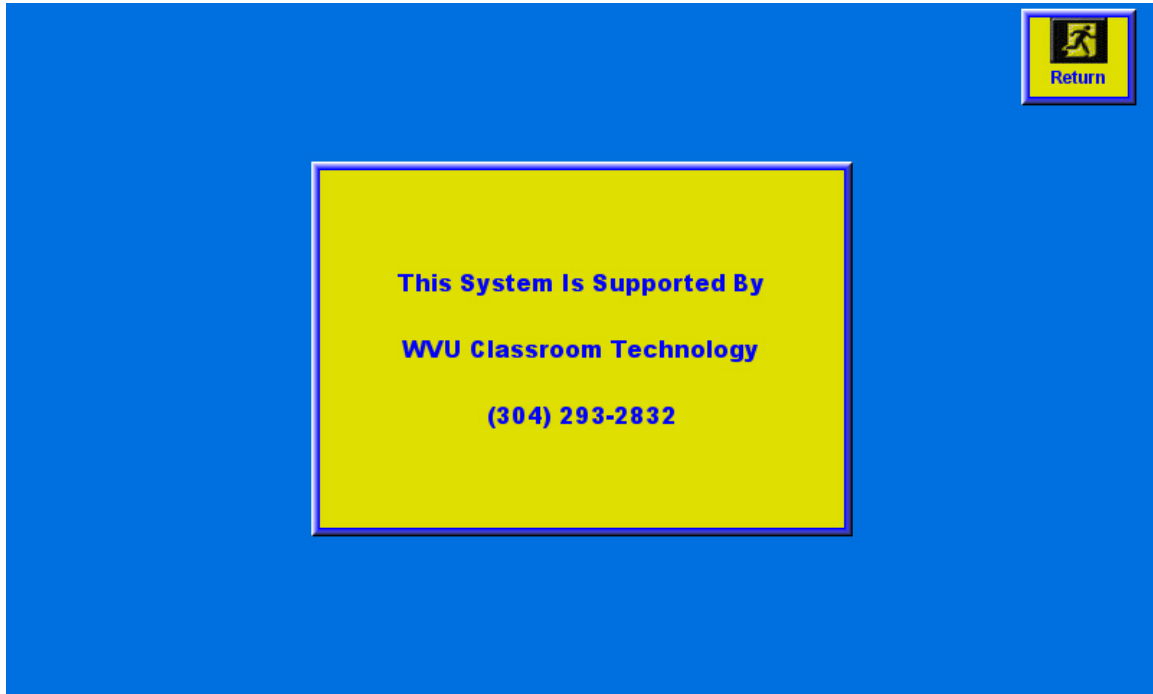
This written description, along with touch panel page examples and an equipment list (Guidelines Section 6) shall be used to determine the exact design layouts and functional requirements for WVU standards in regard to classroom technology control systems. Touch panel template files and in-room demonstrations may be available upon request.

2. Welcome Page



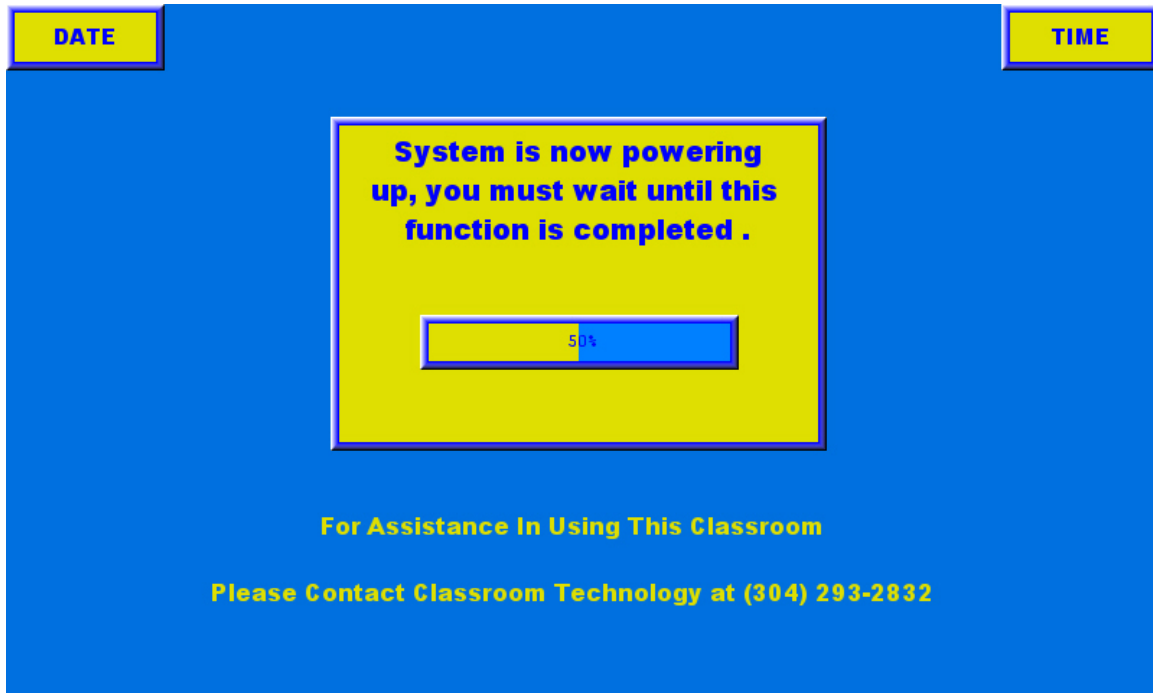
The Welcome Page is the first page a user should see when activating the AMX touch panel. It is also the initial page that should come up when the touch panel is powered on. Along the top of the screen are three information areas, which are displayed on nearly every page. In the upper right is a box that displays the current time, and in the upper left hand corner is a box that displays the current date. Pressing either the time or date boxes displays the Time and Date window (Section 12). In the upper middle of the page is a Title Bar which states the classroom building name and room number. In the middle of the page is a custom WV logo. Below this, in the lower middle of the screen, is a Session Start button that states “Touch Here To Begin Class”. When pressed, it opens a numeric keypad, into which the user must enter a numeric passcode (1950) to begin the class session. Upon entry of the proper passcode, the control system lowers the projection screen(s), powers on the projector(s), and takes you to the Power Up Page (Section 4). This passcode should be a button event in the Netlinx code on the system controller and not a stored password on the panel. A separate technician-only passcode to bypass the Power Up page and immediately proceed to the Operations page should also be included. Please contact the Classroom Technology office for additional details on this function.

3. Information Page



The Information Page is only accessible by pressing the Title Bar on the Welcome Page. This page displays a large box in the center of the page with the following message, "This system is supported by WVU Classroom Technology, (304) 293-2832. A button in the upper right corner allows the user to return to the Welcome Page.

4. Power Up Page



The Power Up page is activated when the classroom Session Start button is pressed from the Welcome Page. This page displays a large box in the center of the page with the following message, “System is now powering up, you must wait until this function is completed.” A bar graph that slowly fills from left to right timer shows the approximate delay for the power-up procedure to be completed. Additionally, a message is displayed at the bottom of this screen that states, “For assistance in using this classroom, please contact Classroom Technology at (304) 293-2832.” The date box and time box do not have functionality when pressed. This page acts in an informative manner, rather than an operative manner. Once the equipment has started, the user should not see this screen again. After the system has completed its power up cycle (based on the power up time for the installed projector), the touch panel will display the Operation Page.

5. Main Operations Page



The Main Operations Page is the standard control page and allows users to control source selection, lighting, volume, and functions of the device they are displaying. Each source and function is represented by a button with descriptive icon and text. In multi-projector classrooms, each projector can display any source independently of the other. The same source can be displayed on both screens by selecting the same source for each projector.

As earlier, the date and time buttons appear in their normal positions in the upper corners. However, the title bar located at the upper middle of the page is now labeled “Press Here To End Class” allowing the user to shut down the session and go to the End Class Page.

The Operations Page functions are broken down into three main sections. On the left of the page is a section titled Room Sources. This is the area in which the user determines which source (PC, Laptop, Aux Laptop, Doc Cam, Aux Video) to utilize. When pressed, the button becomes highlighted and the control system can then route that source video to the projector and audio to the speakers by following the source selection with pressing Display Left and/or Display Right. The process of selecting a source changes the touch panel display to that source-specific page. In a single projector classroom, the user selects any source installed in the classroom with a single press of a button.

In a classroom with multiple projectors, the installed computer has a secondary monitor output card allowing for dual-desktop functionality. To allow either computer desktop to be displayed, these rooms have separate buttons labeled PC 1 and PC 2. This affords the user the opportunity to show more than one full-screen computer application at a time. This is accomplished by selecting which computer monitor to show, PC 1 or PC 2.

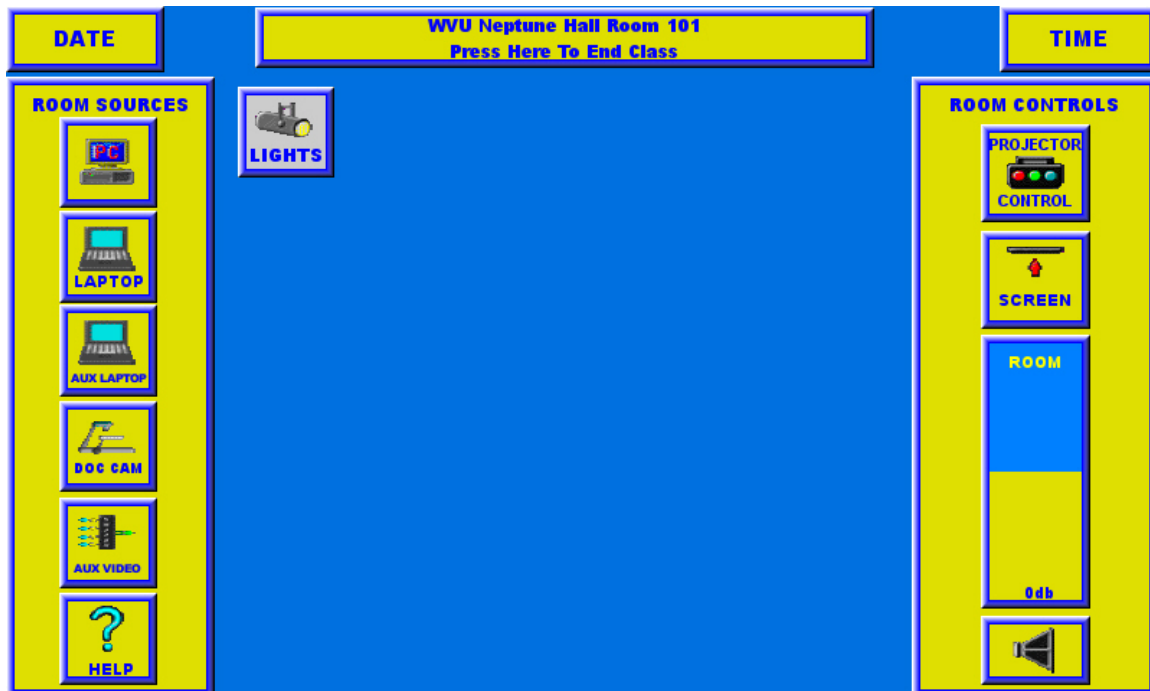
In the middle of the Operations Page is a video window, serving as a user display for document camera viewing at the lectern. In the upper left corner of the video window is a Light Control button which opens the Lighting Control Page (Section 11). In rooms with more than one projector, below the video window are buttons titled “Display Left”

and “Display Right”. Three projector rooms will have Left, Center, and Right buttons. These are used to designate the different projectors for the source inputs. A single source can be shown on multiple displays by pressing the display buttons in sequence.

The right side of the Main Operations Page contains the Room Controls section. The top button(s) in this section enables the user to raise and lower the projection screen(s) without terminating the class session on the controller. The button(s) directly underneath the screen button(s) are used to turn the projector(s) on and off. Since projectors take some time to warm up/cool down, a countdown feature needs to be shown as variable text on the projector power button, temporarily disabling it from being used.

The elongated slider bars labeled “Room Audio” and “Mic Audio” are audio adjustment bars. Utilizing these, the user is able to adjust the volume of room sources or the room microphones by sliding a finger up or down the bars, or pressing at a location on the bar. A room without microphones will not have that slider or mute button. The current audio level is shown on each volume slider bar. When the class session is started, audio levels of the slider bars (and therefore the equipment) should auto-set to ¼ of full.

The button below each audio slider bar is used to mute or un-mute audio. When one of the buttons is pressed to activate mute, the audio is muted and that button’s icon highlights. To un-mute, press the button again or touch the slider bar and the original button is restored and audio is re-activated. When the class session is started, neither audio should be muted.



6. Projector Power Page



The Projector Power Page is activated when a projector power button is pressed on the touch panel. It reads “If you wish to turn the projector OFF or ON please press the IMAGE OFF or IMAGE IN button. PLEASE NOTE: Turning the projector OFF or ON will take approximately two minutes. If you do not wish to turn off the projector, press the RETURN TO CLASS button to return to normal operation.” This is followed by two buttons, one allowing them to confirm projector shutdown and one allowing them to return to the class session. Followed by the direction “If you are trying to display a room source, please return and use the display buttons below.”

7. PC and Laptop Page



The pages that come up when the PC 1, PC 2, or Laptop buttons are selected from the room sources list is the same as the Operations Page with the addition of an “Auto Adjust” button below the video window. The Auto Adjust button selects the auto-adjust feature on the projector, allowing the PC and/or laptop signal to be recalibrated by the user when it looks out of frame. Since no additional functions are available, all other buttons are available and look the same as the Operations Page.

8. Document Camera Page

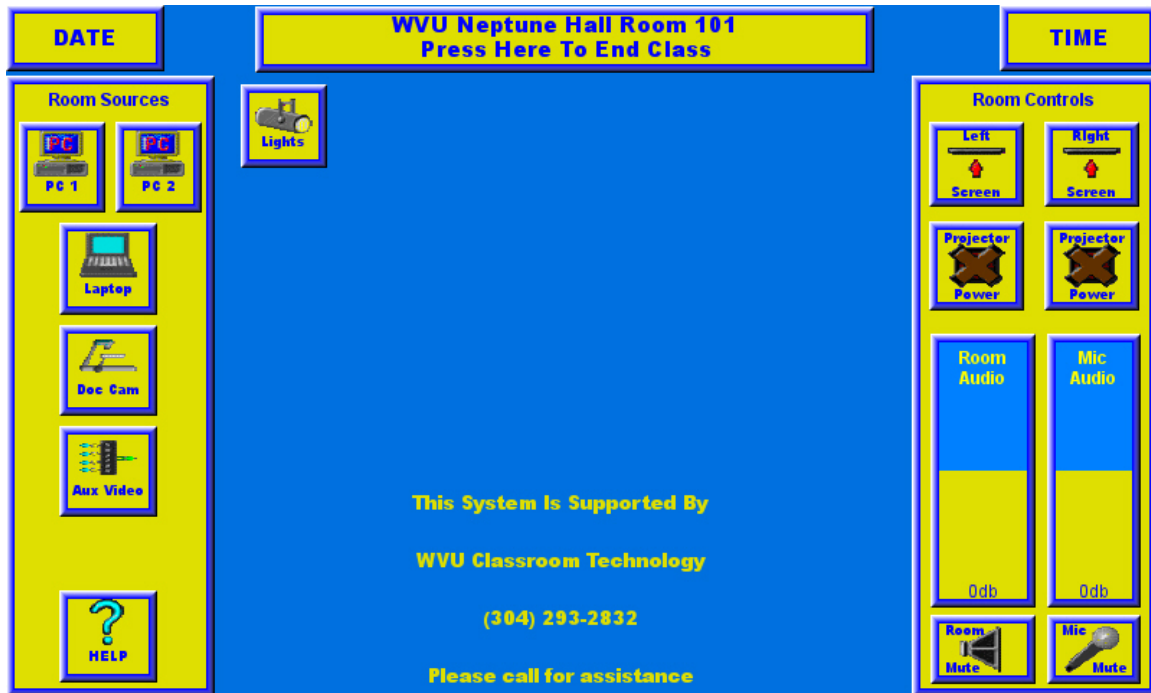


The Document Camera page comes up when the Doc Cam button is selected from the room sources list. The controls are the same as the Operations Page, plus additional specific document camera controls are located below the video window. Controls here give the user the ability to Power the unit, turn the lamp on and off, auto tune, white balance, zoom in and out, and flip image for use as a webcam. When the document camera is selected, it should automatically be powered on and the button should be highlighted. Zoom and Focus buttons should highlight only when being pressed.

9. Auxiliary Laptop and Auxiliary Video

The Auxiliary Laptop (HDMI) and Auxiliary Video buttons are the same as the Operations Page and do not need to exist as a separate page, since no additional functions are available for these sources. No picture, reference Section 5.

10. Help Page



The bottom button on the Room Sources section is the Help button. Pressing the help button displays the Help Page, which is similar the Main Operations Page without Display Buttons. It displays the following at the bottom of the page: “This system is supported by WVU Classroom Technology (304) 293-2832. Please call for assistance”.

11. Lighting Control Page



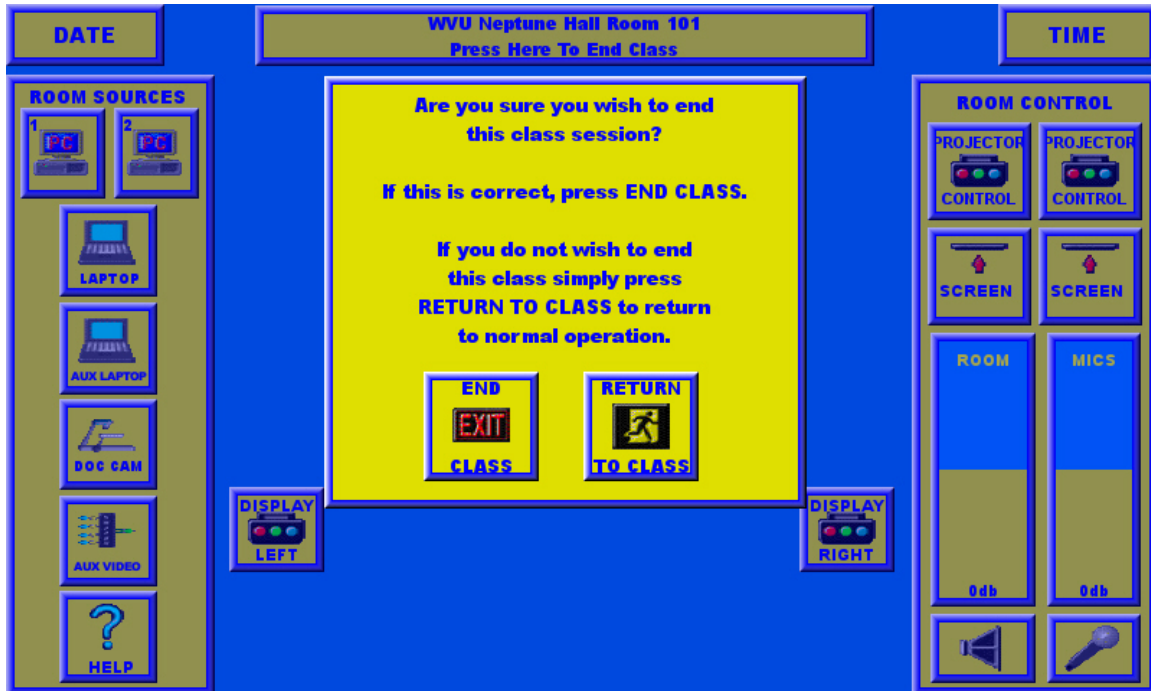
The Lighting Control button is located in the left top corner of the video window of the Operations Page and subsequent source control pages. The lighting control button opens the Lighting Control Page, which is comprised of the standard operations page, replacing the display with six additional buttons located below the video window. Of these new buttons, four are lighting preset buttons. Selecting one of the 4 lighting preset buttons will activate the dimming system's associated preset to control the brightness of lighting in the room and the 2 remaining buttons turn off and maximize the lights.

12. Time and Date Page



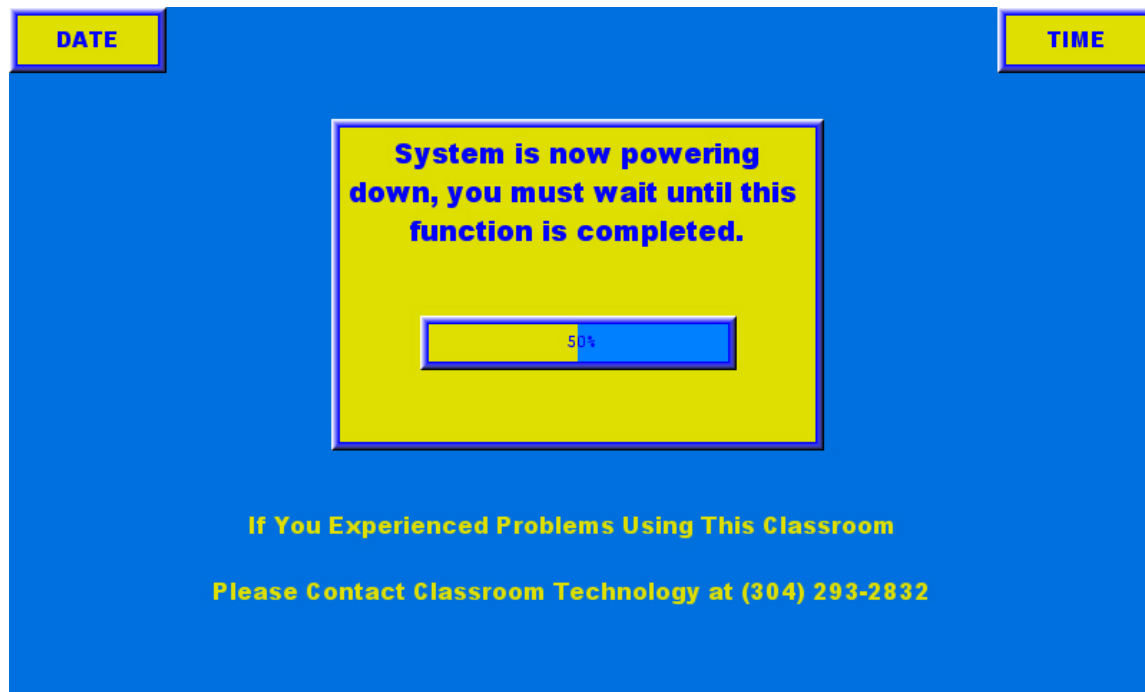
In the top left and right corners on most of the pages are the time and date buttons. When pressed, either button activates a page that covers the display with the time and date in an enlarged print. In the top right corner of this page should be a return icon, but pressing anywhere on the screen should return the touch panel to the previous page.

13. End Class Page



The End Class page is activated when the Title Bar is pressed from the Main Operation Page or any of the source control pages. This page displays the Operation Page dimmed, with an overlay box in the middle of the page containing text about ending the session. The text states “Are you sure you wish to end this class session? If this is correct, press END CLASS. If you do not wish to end this class simply press RETURN TO CLASS to return to normal operation.” Two buttons are available in the overlay box below the text. The left button ends class, leading to the Power Down page and will terminate the class session. The right button cancels the End Class page and returns the user to the Main Operations Page. All other buttons on the page have no function.

14. Power Down Page



The Power Down page is activated when the Exit button is pressed from the End Class Page. The Power Down page displays a large box in the center of the page with the following message, “System is now powering down, you must wait until this function is completed.” A status bar slowly declines from right to left showing the approximate delay for the power-down procedure to be completed. Additionally, a message is displayed at the bottom of this screen that states, “If you experienced problems using this classroom, please contact Classroom Technology at (304) 293-2832.” The date box and time box do not have functionality when pressed. After the system has completed its power down cycle, the touch panel will display the Welcome Page.