An introduction to Audio Visual presentation methods in Dalby Hall, Argiro Student Center, Maharishi University of Management (MUM)

Summary:
This paper describes methods that can be used to support events that use the audio-visual features in MUM’s Dalby hall. It includes the basic terminology of the av connectors that are most commonly used in the hall. A full list and pictures of the AV gear is also included.
A visual glossary of common AV connectors and selected Dalby Control Booth equipment:

Jack  a female connector or receptacle, often mounted on a surface or plate.
Plug  a male connector

Common AV Connectors:

“RCA” connectors:

Male Female

“S-Video” (also known as mini-din 4 pin) connectors

Male Female

VGA connectors (also known as “DE-15” or “D-sub 15”)

Male Female

XLR connectors: 1/8” (3.5mm mini-plug) “Tip/Ring/Sleeve” connectors.

Female Male Male Female
¼" (6.35 mm) “Tip/Ring/Sleeve” connectors:

Coaxial “F” connectors:

RJ11 (“telephone”) connectors: An RJ45 connector (for internet) looks very similar, but it has 8 conductors.

The “DA”- refers to the Kramer Video Distribution Amplifier:

A larger Kramer “DA” is also available:
The “Xantech” - refers to the Xantech Universal remote control:

The “rack” – refers to the 19” rack of av equipment in the Dalby Control Booth. This picture shows an empty rack with the door on. The rack in the Dalby Control Booth has the door removed.
The first point is to understand the basics about the many Audio/Visual items in the hall. Here is the list:

**Components of the hall itself:**
- **Venetian blinds** on the west wall. Be sure to close these during an event requiring darkness, like a movie.

- **Recessed ceiling lighting**: The is divided into 4 sections:
  1. West hallway (at the top of the hall).
     - The switch for this hallway is on the wall immediately to the east of the upper double-door.
  2. Upper Hall
  3. Mid-hall
  4. Stage.

The special light switches for the Upper Hall, Mid-Hall and Stage are placed together one a “3-gang box”.

There are 3 identical banks of these:
- The first bank is on the small wall on the northwest corner of the hall, immediately east of the double-door at the upper end of the hall.
- The second bank is on the north wall of the stage, near the east wall.
- The third bank is in the control booth.

Here is a diagram of the face of one of these switches that explains how to use them:

- Pressing here does one of two things: If the lights are **on**, it will slowly turn them off. If the lights are **off**, it will slowly **restore** the previous lighting.

- Press here to increase lighting one increment.

- Press here to decrease lighting one increment. Note that this will not turn the lights off completely.
o **Spotlights.** 8 of these are on the west part of the hall, suspended from the ceiling. 2 are mounted on the north and south walls at the midpoint of the hall and the last 4 are suspended from the ceiling directly over the stage and pointing straight down. The controls for the spotlights are in the control booth.

Note that the four northern spotlights on the west part of the hall currently have a rose-colored gel, which can make a rosy "glow" on stage.

o **Stage Audio Monitors** are the speakers on the floor directly in front of the stage.

o A **motorized projection screen** is on the east wall. This is controlled from the control booth.

o **Motorized shades** are on south wall. The controls for this are on the north wall of the booth, and on the wall of the southeast corner of the stage.

o **Microphone stands** are on the southwest corner of the stage. Occasionally they are stored behind the stage. Two have "Cut-out" style cradles and are to be used for the wireless microphones only. The rest have "solid-body" cradles and are to be used for the wired microphones.

o There are many **AV receptacles** are on the "Stage Front". This is the small riser where the west part of the stage descends to the floor. They are marked:
  - "XLR-1",
  - "XLR-2",
  - "XLR-3",
  - "XLR-4",
  - "XLR-5" and XLR-6". These are typically used for wired microphones and electrical music instruments.

Near the panel for XLR-3 and XLR-4 is a special panel containing receptacles used to receive av during presentations (like a computer presentation). It contains:
  - VGA jack, marked "Computer In"
  - White RCA jack for left audio channel
  - Red RCA jack for right audio channel
  - Yellow RCA jack for video
  - S-video jack

Adjacent to this panel is a surface-mounted jack containing service for campus telephone and Internet

To the north and south of this panel are two panels with a VGA receptacle marked "Video Out". They contain the current outgoing video signal. They are typically used for the Stage Video monitors (TVs), which are stored in the control booth.

o **Remote-control cameras:**
  - The "Seats" Camera (which views the audience seats) is located in the southeast corner of the stage, about 8 feet from the floor.
  - The "Stage" Camera (which views the stage) is on the northwest corner of the hall about 8 feet from the floor.

o Two **main speakers** and two **subwoofers** are mounted on the East wall.
Main Components of the control booth:

On the North wall:
- 2 telephones are mounted, each with a separate phone number.

  Booth light switch

- A bank of light switches containing 3 special light switches for the hall's recessed lighting. These are divided into "Upper", "Mid" and "Stage just like in the hall.

- A light switch that controls the recessed lighting in the western hallway.

The table facing east contains these items: Please see the diagram.
- Allen & Heath 14-channel mixer. Note the sliding controls are called “faders”.
- TELOS telephone hybrid - an audio teleconferencer
- “Leprecon” spotlight control console
- Samsung computer monitor
- Magnavox computer monitor
- Xantech "XTR39" universal remote in its cradle. (Called the "Xantech")
- 2 MiCom wireless handheld (baton) microphones
- A 4-receptacle 9V battery recharging station with rechargeable batteries
- Many spare non-rechargeable 9V batteries
- Sony remote-camera controller console

The 19" rack contains the following items: Please see the diagram.
- 13" TV - currently unused
- 2 MiCom wireless microphone receivers with 2 channels each (each can receive 2 microphones signals).
  Each channel is labeled with a number which corresponds to a wireless microphone.
- Symnet Digital Signal Processor (DSP)
- Kramer Video Distributer
- Kramer Digital Scan Converter
- Kramer “Video to SXGA/Scaler”
- Kramer “Presentation Switcher/Controller”
- Pyle Dual Audio-Casette Deck
- Green LED display and control to increase master volume
- Catel Television modulator
- Polycom video conferencing device
- Sharp VCR - note that av from the university tape library is received through this device
- Phillips DVD player with remote control
- AV receptacles for input and output
- SurgeX power conditioner and power distribution panel on reverse
- Sanyo DVD player with remote control - no video is hooked up to this currently, so it's typically used for CD music
- 3 Crown Amplifiers. The upper one drives the left (north) speaker, the middle one drives the subwoofer, the lower one drives the right (south) speaker

On the south wall window ledge are some devices and cabling:
- 2 Kramer Distribution Amplifiers (also known as a DAs). The smaller one should have a VGA cable already attached to the "Input" VGA connector and another VGA cable connected to the "Output 1" VGA connector.

On the south wall are utility hooks containing an assortment of cabling:
- "XLR" cables for microphones.
- "VGA" cables for video devices like computers and monitors
- cables ending with 1/8" plug and rca plugs, typically used for computers' av.
- 50' Power extension cord
- cables with male RJ45 connectors on each end, used for internet service.

On the west window ledge are two MiCom “lapel” wireless microphones and several wired microphones.

On the floor:
2 TVs used as "Stage Video Monitors" typically used for presenters on stage. These are useful if there will be people on the stage that wish to watch video without having to turn around to see the projection screen.

Black Acer Computer. This computer is typically used to do web streaming. The keyboard and mouse for this computer are on the south window ledge. Please do not use this computer unless you have been trained in how to do web streaming.
You will need a key to the Control Booth:

People wishing to manage the AV of an event in Dalby will need a key to the Dalby control booth (DCB). To get a key, please contact the AV dept manager. He will verify that you have been fully trained, and can then give you the "key agreement form". Please read it carefully before signing.

After you sign the form, the locksmith will be told that you have permission to have key. Then contact the locksmith to get the actual key.

Xantech points:

Using the Xantech from outside of the booth:
The Xantech remote is quite powerful and can be used successfully from almost anywhere in the hall. This can be useful, for example, if there isn’t an assistant in the booth and someone on stages wishes to change the system settings.

Xantech screen-saver mode:
After 30 seconds of inactivity, the Xantech will go into a “Power Savings” mode where its screen will turn blank. To restore the screen, touch anywhere on the screen, or tilt the Xantech gently in any direction.

Going to Xantech’s "Power Page"
In the sections below, you are asked to go to the “Power Page” of the Xantech. To do this, select any video source from the “Video Source” selection screen (such as “Stage Laptop”). Note the button on the lower-left of the screen marked “Power Page”. Press this button to go to the “Power Page”.
Planning for an event:

Each organizer of an event should ideally give you a fully detailed itinerary of the entire event. In reality, this will only happen if you request it.

Currently, organizers requiring AV support are asked to fill out the “MUM AV request form”, which is currently located at http://www.mum.edu/avrequest. This form asks the organizer for full details of the AV features for which they are requesting support. It should be completely filled out and submitted by the organizer. When this is done, the request will be sent to audiovisual@mum.edu.

When the request is received, it’s time to start planning for the AV for the event. Besides the logistical points about “date, starting-time, organizer’s name and contact information, ask yourself:

1. Has the event organizer requested an audio-only presentation using only microphones and/or musical instruments? If so, identify what type of audio presentations will be done:
   - Vocal or spoken word
   - Live instruments

Audio-only presentations are usually easier to manage and take less preparation time than an audio-visual presentation.

2. Has the event organizer requested a regular audio-video presentation? If so, identify what type of presentations will be done:

   Devices that present AV from the stage include:
   - Computer
   - Other video device like a DVD player or video cassette player

   Devices that present AV in the booth include:
   - Computer
   - DVD player in the rack
   - VHS-Video cassette in the rack
   - MUM tape library
   - Other video device
Here are the steps to follow before the event actually begins:

Come well before the event’s starting time to have the time to comfortably prepare and test the AV:

It’s good to start preparing about 1/2 hour before the event. Give yourself plenty of time, so you won’t be rushed. For complicated events requiring many av features, arrive even earlier.

1) When you enter Dalby from the outside hallway, turn on the western-hallway recessed lights and the bank of 3 switches so the upper, mid and stage recessed lights are lit.

2) Enter the control booth, unlock and fully open the sliding glass window.

3) Turn on power to the rack of av gear using the “Xantech” universal remote:

On the main page of the Xantech remote control, identify and press the button marked “A/V System Power Toggle.”

You can also power on the A/V system by pressing the button marked “On/Off” on the Kramer presentation switcher.
It takes about one-half minute to power up the audio equipment. You will hear many clicks during this time. When the audio rack is fully powered up, the status window of the “SurgeX Power conditioner” will display “System Status: All ON”. All the display in the 3 amps at the bottom of the rack will glow blue.

4) Prepare the audio for voice or instruments:

Start by determining which XLR receptacles on the stage-front will be the closest to each microphone you wish to place on the stage. XLR connections are typically for microphones and electrical instruments. Each wired microphone and electronic instrument requires its own XLR connection. There are 6 XLR ports available on the stage front. Each of the XLR receptacles corresponds to the fader on the mixer with the same number. For example, XLR-3’s volume is controlled with fader #3 on the mixer.
Here is a diagram of 6 XLR receptacles at the stage-front:

EAST

|       |
|       |
|       |
|       |
|       |

XLR-1   XLR-3   XLR-5
XLR-2   XLR-4   XLR-6

WEST

Note that XLR-1 currently is used for the TELOS and XLR-2 currently is used the Polycom. You can use those XLR jacks, but they will be combined with the TELOS or the Polycom audio signal, respectively.

Here is an example of how to prepare XLR connections on the stage front:

If the organizer requested a microphone and stand to be located on stage north, stage south and at a podium in the center, you may want to use XLR-2, XLR-3 and XLR-5, respectively. This means that during the event, faders #2, #3 and #5 will be active on the mixer.

5) If there will be electronic instruments used during the event, they can also be connected to an XLR port, if the instrument can be wired this way and if musician wishes to do so. There are cables on the racks that support this. These are the cables where one end is male XLR connector, the other end is male ¼” connector. It can be very useful to have instruments connected to the mixer during a concert to properly balance instruments and vocals. Ask the musician if they will need "phantom power". If they do, you can enable phantom power by depressing the red button near the top of the mixer on the proper channel.

6) If the event requires microphones, the organizer should specify which style they would like, and where they would like them placed:

There are 3 styles of microphones ready for use:
   a) Wireless-handheld (there are 2). These are labeled #1 and #2.
   b) Wireless-lapel (there are 2). These are labeled #3 and #4
   c) Wired (there are 3). Each wired microphone requires an XLR connection.

The organizer should specify which style they want to use, and where to place them, as precisely as possible. The organizer should also specify if they will want microphone stands and where to place them, as precisely as possible.

For example:
The organizer may want
   1) Two wired microphones, one on stage north and one on stage south, and both with stands
   2) One wireless-handheld microphone in the audience on the north stairs with a stand.

To prepare microphones for this example, perform the following steps:
   a) Bring down these items from the booth to the stage: 2 wired microphones, 2 XLR cables and a wireless-handheld microphone.

   Take a 9V battery from the battery charging station and properly load it the wireless microphone. Note the polarity MUST be correct. Test the microphone by switching it on and watching for a one-second red-flash on the led. Now see if the corresponding LEDs on the MiPro wireless receiver lights up. This means the microphone has established communication with its receiver.

   b) Connect each wired microphones into an XLR cable and connect the loose end of the XLR cable into a stage-front XLR receptacle. Note the receptacle number. This will be used to identify which fader must
be adjusted during the sound check and the event.

c) Get 3 microphone stands. 2 should have a solid-body cradle (for the wired microphones), and 1 should have a "hollow-body" to accommodate the wireless microphone.

d) Set the microphone stands where the organizer has requested them. You will have to use your best judgment if the organizer didn't specify where to place the stands clearly.

If you event is audio-only, the preparations stop here.
The following points are for events that will show video:

1) During a daytime event, close all the Venetian blinds on the west wall and lower the motorized shades on the south wall. There is a switch for this in the booth north wall and on the south-east corner of the stage.

Here is a picture of the switch in the booth:

![Switch in Booth]

Press the button marked with the bank of shades you wish to move. For example, press the top button to change the position of the first bank of shades. You can control all 3 shades at the same time by pressing the 1st, 2nd and 3rd buttons at the top (note the LED light next to each is illumined).

You can then press the ▼ (down) button to lower the shades, or the ▲ (up) button to raise the shades., or the STOP button to stop the progress of the shades if they are moving.

Here is a picture of the switch on the stage. Observe how it is an older model with a different look and operation.

![Switch on Stage]

To use this switch:

a. Press the "Set" button. When the 1st red LED light is flashing, you can press the up or down buttons to raise or lower the 1st bank of shades.
b. Press the "Set" button again. When the 2nd red LED light is flashing, you can press the up or down buttons to raise or lower the 2nd bank of shades.
c. Press the "Set" button again. When the 3rd red LED light is flashing, you can press the up or down buttons to raise or lower the 3rd bank of shades.
2) If the projection screen is not already lowered, you can lower it with the Xantech remote control:

Observe the main screen on the Xantech:

Press the button marked "Screen Down". After a few seconds delay, the projection screen should slowly lower into place.

An alternate way of lowering the screen is to press the button marked "Proj Screen ON / ↓" button on the Presentation switcher.

3) Press the power button on the Magnavox monitor to turn it on. This will give you an immediate view of the system’s current video signal.

4) Turn on the video projector with the Xantech:

Press the button marked "Projector On". **It takes about 2 minutes to fully power-up the projector before it will actually start showing video sent from the system.** You will see a white on blue "Panasonic" message appear after about a minute. When the projector is fully warmed up, this message will go away.
This can also be done from the Presentation Switcher by pressing the button labeled “Proj ON” to Power up the projector.

Alternately, you can use the projector’s remote control to turn on the projector. Press the button marked “1”

5) On the mixer: push the fader marked “Current Video Source” to slightly below unity (the “0” level). This fader controls the volume level for the current video source.

6) Verify the 2 gray dials on the mixer that control the stage audio monitors’ master volume are set to about the “2 ‘o’ clock” position. Also, verify the 2 yellow faders are at unity (the “0” level).

7) If the organizer wishes to use 1 or 2 “Stage Video monitors” (the TVs), bring these down from the booth. Attach the VGA connectors to the stage front at the VGA receptacle marked “Video Out”. Turn on the TVs and verify a video signal is shown. Place the TV where the organizer wishes. Typically, the TV is set on the stage or a low table facing the presenters. It’s nice to put foliage or props around the TV so it’s not as obvious.

You are now ready to start the checklist for the specific presentation type:
A) To manage a Computer presentation from the stage, perform the following steps:

1) Set the "Video Source" to "Stage PC". This can be done using the Xantech remote control. Observe the main screen on the Xantech:

![Xantech Remote Control](image1)

Press the button marked "Stage PC".

This can be also done by pressing the button marked "Stage PC" on the Presentation Switcher.

2) Now is a good time to bring some gear from the booth down to the stage:

Bring down the following items to the center of the stage front:
1) the DA and 2 VGA cables (for the video signal) and
2) a cable with one end a 1/8" male (mini-plug) and on the other end, 2 RCA males (for the audio signal) to the stage.

A VGA cable must be connected to the DA on the port marked "Input" and the other VGA cable must be connected to the DA on the port marked "Output 1", or any other "Output" port.

If the computer to be used is a laptop Macintosh, you must use a "Macintosh VGA adapter". These adapt the Mac's video port to the VGA cable that connects to the computer. We tell all event organizers that plan to use Macintoshes to be sure to bring their own Macintosh VGA adapters, but this vital piece is often forgotten. We keep extras for such occurrences on the south window ledge. There are four types:

- VGA to (regular) DVI
- VGA to Mini-DVI
- VGA to Micro-DVI
Connect the appropriate VGA adapter to the Macintosh.

Connect the empty end of the first VGA Cable (connected to the DA port "Input" to the computer's video output port. In the case of a Macintosh, connect this cable to the VGA side of the Macintosh VGA adapter.

Connect the empty end of the second VGA Cable (connected to the DA port marked "Output 1") to the Stage Front VGA receptacle marked "Computer In".

Connect the red and white RCA plugs to the Red and white RCA Female receptacles. These are located just below the Stage front Connector marked "Computer In".

Connect the 1/8” male (mini-plug”) to the computer’s “headset” port. This is a 1/8” female (mini-plug) receptacle and it’s usually green-colored.

3) Now power up the computer to see if video shows properly on the big screen. Most computers will automatically start sending video to the screen when they detect a video cable is connected to the external monitor port. In case it doesn’t, here are some steps to try:

Macintoshes have a control panel called “Displays”. Open this control panel and press the button marked “Detect Displays”. Experience shows that the smoothest looking resolution for Macintosh is 1024 x 768 at 60Hz.

Laptop PC’s can be told to send video to the laptop screen and video port simultaneously by pressing on the blue-Function key (Fn), holding it down, and slowly press the appropriate “F” key repeatedly. This “F” key depends on the computer manufacturer. You should have a key on your keypad that looks similar to this:

F5 seems to be the most common.
Observe following a picture similar to the following:

When you will see the small picture showing a PC and external monitor is highlighted, release both keys. This picture means that the PC will send video to both an external monitor (the av system in Dalby) and the laptop screen as well. The video signal on the large projection screen should stabilize after a few seconds.

4) You are now ready to check the sound: One simple way to do this is to generate a sound on the computer and verify that sound comes out of the main speakers AND the stage audio monitors. You can test left and right audio on a PC by going to the sound control panel and click on the master volume control LEFT or RIGHT.

5) If the presenter requires internet service for their presentation this can be easily accommodated: There are extra internet cables (RJ45 male on end) on the hooks on the booth. Bring one down and attach one end to the computer, and the other to the blue receptacle on the phone jack on the stage front. Verify the computer now has internet service.
B) To manage a **Computer presentation, where the presentation is done from the booth**, perform the following steps:

1) Set the "Video Source" to "Booth Computer ". This can be done with the Xantech remote control. Observe the Xantech’s main screen:

   ![Xantech Remote Control](image1)

Press the button marked "Booth PC".

This can be also be done by pressing the button marked "Booth PC" on the Presentation Switcher.

2) Now is a good time to bring some gear from the booth down to the stage:

Bring down the following items to the center of the stage front:
1) the DA and 2 VGA cables (for the video signal) **and**
2) a cable with one end a 1/8" male (mini-plug) and on the other end, 2 RCA males (for the audio signal) to the stage.

A VGA cable must be connected to the DA on the port marked "Input" and the other VGA cable must be connected to the DA on the port marked "Output 1", or any other "Output" port.

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5) If the presenter requires internet service for their presentation this can be easily accommodated: There are extra internet cables (RJ45 male on end) on the hooks on the booth. Bring one down and attach one end to the computer, and the other to the blue receptacle on the phone jack on the stage front. Verify the computer now has internet service.
C) To manage a S-Video (Separate video) video source from the stage, perform the following steps:

Examples of this would be a VCR or DVD player that has a S-video jack for the video-out signal.

1) Set the "Video Source" to "Stage S-Video". To do this with the Xantech,

   ![Image of Xantech AV System Power Toggle]

   Press the button marked "Others". You will see the following screen on the Xantech:

   ![Image of Xantech Choose a Video Source]

   Press the button marked "Stage SVide". This can be also be done by pressing the button marked "Stage S-Video" on the Presentation Switcher.

2) Bring two cables each having a RCA male connector on each end. These will carry the audio signal. Also bring down a cable with a S-Video male connector to carry the video signal.

   Connect one end of the Red and white RCA plugs to the Red and white RCA Female receptacles on the device generating the audio signal, and the other ends to the red and white RCA jacks on the stage front. These are located just below the Stage front Connector marked "Computer In".

   Connect one of the S-Video cable to the end to the device generating the video signal and the other to the S-Video jack on the stage-front.

3) You are now ready check the av.
D) To manage a **DVD presentation, where the presentation is done from the booth**, perform the following steps:

1) Set the "Video Source" to "Booth DVD". To do this with the Xantech,

![Image of AV System Power Toggle, Screen Down, Screen Up, Projector On, Projector OFF, Projector Shutter Toggle]

Press the button marked "Booth DVD ".

This can also be done by pressing the button marked "Booth DVD" on the Presentation Switcher.

2) Insert your DVD into the DVD player in the av rack and observe the screen. You can now play a short section of the DVD to check the av.
E) To manage a **C-Video (Composite video) video source from the stage.** Examples of this would be a VCR or DVD player with a RCA jack for the video-out signal.

Set the "Video Source" to "Stage C-Video". To do this with the Xantech,

Go to the "video source" page and press the button marked “Others”.

Observe the page for Other video sources:

Press the button marked "Stage Composite".

This can also be done by pressing the button marked "Stage C-Video" on the Presentation Switcher.

2) Bring three cables each having a RCA male connector on each end. Two of these will carry the right and left audio signal, the third will carry the video signal.

Connect one end of the rca cable with the Red and white RCA plugs to the Red and white RCA Female receptacles on the device generating the audio signal, and the other ends to the red and write rca jacks on the stage front. These are located just below the Stage front Connector marked “Computer In”

Connect one end of the third cable to the end to the device generating the video signal and the other to the stage front Yellow RCA receptacle.

3) You are now ready to play your test media and check the av.
F) To manage a **VHS videocassette presentation, where the presentation is done from the booth**, perform the following steps:

1) Set the "Video Source" to "Tape Library". To do this with the Xantech,

   ![Xantech Control Panel](image)

   Press the button marked “Tape Library”.

   This can also be done by pressing the button marked "Booth VCR " on the Presentation Switcher.

2) Insert your VHS videocassette into the VCR in the av rack and observe the screen. You can now play a short section of the videocassette to check the av.

   ![VCR Remote Control](image)

   There is a remote control for the VCR stored next to it, if you wish to use it:
Note that you can also issue the STOP and PLAY commands to the VCR from the Xantech. To do so, observe the Xantech screen:

You can press the stop or play button on this screen to stop or play the cassette.
G) To manage a **tape library presentation**, perform the following steps:

This is prepared the same as for “VHS video tape cassette presentation” with the notable exception: There is no tape to insert. You must contact the MUM tape librarian at x4045 to ask which channel contains the program to be shown for your event. Then use the up and down arrows on the VCR in the av rack to set it to that channel.

You can also use the Xantech to change the VCR's channel:

After pressing “Tape Library” on the Xantech, you should see:

![Press the button marked “Numbers” and observe the following screen:](image)

Press the button marked “Numbers” and observe the following screen:

![Press the number of the channel you wish the VCR to be tuned to. You will need to enter a leading “0” for channels between 2 and 9.](image)
H) To manage a Polycom video conference using the Polycom device in the booth, perform the following steps:

1) Set the "Video Source" to "Polycom". To do this with the Xantech,

   Press the button marked "Polycom".

   This can be also done by pressing the button marked "Polycom" on the Presentation Switcher.

Currently, Fader #2 controls the volume for the Polycom.

You are now ready to test the av.
I) To manage a **C-Video (Composite video) video source from the booth**, perform the following steps:

Examples of this would be a VCR or DVD player with a RCA jack for the video-out signal.

1) Set the "Video Source" to "Booth Composite #1". To do this with the Xantech,:

   Go to the "video source" page and press the button marked "Others".

   Observe the page for Other video sources:

   Press the button marked "Booth Composite #1". This can also be done by pressing the button marked "Booth C-Video1" on the Presentation Switcher.

2) Bring three cables each having a RCA male connector on each end. Two of these will carry the right and left audio signal, the third will carry the video signal. Typically the color codes of the connectors will be red (right audio channel), white (left-audio channel) and yellow (video signal).

   Connect one end of the rca cable with the Red and white RCA plugs to the red, white and yellow RCA Female receptacles on the device generating the audio signal, and the other ends to the red, white and yellow rca jacks on the “Booth AV Input” section marked “CV Input 1”. These are located about half-way down the av rack.

   Connect one end of the third cable to the end to the device generating the video signal and the other to the stage front Yellow RCA receptacle.

3) You are now ready to test the av generated from your device.
J) To manage a second C-Video (Composite video) video source from the booth. Examples of this would be a second VCR or DVD player with a RCA jack for the video-out signal.

1) Set the "Video Source" to "Booth Composite #2". To do this with the Xantech:

Go to the "video source" page and press the button marked "Others".

Observe the page for Other video sources:

Press the button marked "Booth Composite #2". This can also be done by pressing the button marked "Booth C-Video2" on the Presentation Switcher.

2) Bring three cables each having a RCA male connector on each end. Two of these will carry the right and left audio signal, the third will carry the video signal. Typically the color codes of the connectors will be red (right audio channel), white (left-audio channel) and yellow (video signal).

Connect one end of the rca cable with the Red and white RCA plugs to the red, white and yellow RCA Female receptacles on the device generating the audio signal, and the other ends to the red, white and yellow rca jacks on the “Booth AV Input” section marked “CV Input 2”. These are located about half-way down the rack.

Connect one end of the third cable to the end to the device generating the video signal and the other to the stage front Yellow RCA receptacle.

3) You are now ready to test the av generated from your device.
K) To manage a **S-Video (Separate video) video source from the booth**, perform the following steps:

Examples of this would be an extra VCR or DVD player with a S-Video jack for the video-out signal.

1) Set the "Video Source" to "Booth S-Video". To do this with the Xantech,

Go to the "video source" page and press the button marked “Others”.

Observe the page for Other video sources:

Press the button marked "Booth Svideo". This can also be done by pressing the button marked "Booth S-Video1" on the Presentation Switcher.

2) Bring two cables each having a RCA male connector on each end. These will carry the audio signal. Also bring down a cable with a S-Video male connector to carry the video signal.

Connect one end of the Red and white RCA plugs to the Red and white RCA Female receptacles on the device generating the audio signal, and the other ends to the red and white rca jacks on the stage front. These are located just below the Stage front Connector marked "Computer In"

Connect one of the S-Video cable to the end to the device generating the video signal and the other to the S-Video jack on the stage-front.

3) You are now ready to test the av.
L) To manage an telephone conference call (using the TELOS telephone hybrid) from the booth, perform the following steps:

This is an audio-only feature.

The telephone with phone-number (641-472-1233) currently is the one that must be used for conference calls.

To call long-distance you will need a code, which can be obtained from the MUM Communications dept.

To prepare for this, it's wise to establish a connection at least 3 minutes before the call actually starts. For major events, establishing a connection 5 minutes before the call actually starts is best. Listen carefully for a clean connection. If it's not clean, re-establish the call and re-verify the quality of the line. You may have to do this once or twice with some long-distance connections.

If you need to have several speakers on the call simultaneously, you can use the Telephone “Bridge”. Contact MUM Communications for information about using the “Bridge”. When using the “Bridge”, be sure to tell all Bridge participants that they must put their phones on "Mute" until they wish to speak. Also tell them that they should use the handset to speak and not the speakerphone, if at all possible.

When the event is ready for the caller to be on the house speakers, press the “ON” button on the front of the TELOS telephone hybrid. Now when the speaker talks, his voice will be heard in the hall. When someone in the hall talks into a microphone, the speaker will be able to hear.

When the “ON” button is depressed, a green light glows on the TELOS. At this point, you may hang up the phone if you wish, since the TELOS is in control of the call.

Currently, fader #1 on the mixer controls the volume for the speaker's voice.

If you wish to speak to the caller privately during the call, lift up the handset and press the “OFF” button on the TELOS. You can now talk to the speaker using the handset. To again put the speaker on the house speakers, press the “ON” button on the TELOS.

When the conference call is concluded, press the “OFF” button on the front of the TELOS. Be very sure that the call is truly completed before doing this. Often a speaker will say “Goodbye”, and then have last-minute points to bring up.
Other Important points:

**CDs can be played anytime from the booth.**
To do so, simply insert a CD into the Sanyo CD player and press the play button. The volume for the CD is currently controlled with fader #14, which is labeled “Sanyo CD Player”. You can use the Forward and Reverse buttons on the CD player to go to desired selection. There is a remote control for the CD player next to it.

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**Audio-Cassette tapes can be played anytime from the booth.**

To do so, simply insert an audio-cassette into the “Pyle” cassette deck and press the play button on the deck. The volume control is a red dial on the mixer marked “2 Trk”. The audio-signal from the tape-deck will be part of the audio mix. The button on the mixer marked “2 Trk to LR” must be depressed when the tape deck is in use. When this button is depressed a small light next to it will glow green. It’s best just to leave this button depressed all the time.

---

**The projector’s shutter:**
You may need to suddenly stop showing video, depending on the organizer’s needs. In this case, it makes sense to simply activate the shutter. **Do not simply turn off the projector**, since it must be allowed to cool for 2-3 minutes before it can be restarted (which takes 2 more minutes).

The projector has a shutter that can be activated so that the video on the projection screen turns black. It takes about 2 seconds to activate.

You can use the Xantech to toggle the shutter: Observe the main screen on the Xantech remote control:
Identify and press the button marked “Projector Shutter Toggle”.

You can also use the Panasonic projector remote control or the front-panel of the Kramer Presentation Switcher to toggle the shutter.

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**Controlling lighting from the booth:**
You may need to change the lighting during the event, depending on the organizer's needs.

Recessed overhead lights on the west-hallway. This is a simple on/off light switch on the north wall.

Recessed overhead lights for the main hall: These special light-switches are also located on the north wall of the booth and are discussed in the beginning of this document.

Spot lights: Use the "Leprecon" console to manage the spotlights:
  The master fader controls the power output of all the faders. It usually best to set this to 100% before any event that will need spot lights.
  faders #1-4 are the north side spotlights
  faders #5-8 are the south side spotlights
  fader #9 is the north mid-hall spot
  fader #10 is the south mid-hall spot
  fader #11 is the 2 inner spots directly above the stage
  fader #12 control the 2 outer spot-lights directly above the stage.

  The Leprecon can be programmed with many different preset lighting levels for each spotlight, if desired.

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**Recording the event using the built-in cameras.**

One or both of the wall-mounted cameras can be used to videotape all or part of an event. The video signal is sent to the MUM tape library where it can be recorded and made into a DVD if desired. Contact the tape library at x4045 for further information. Note well: The video quality currently is like that of a home-movie, and is not at all suitable for broadcast. Be sure the event organizer is very aware of this point.

VERY IMPORTANT: If a camera is used, it becomes the current video source, and interrupts any current video presentation. Therefore, it usually only makes sense to use the cameras when there is no current video presentation. Typically (but not always), the Projector is OFF or has the shutter on when a camera is being used.

If you choose to use the cameras during the event:
A few days before the event, contact the MUM tape librarian to tell him of your plans. About 15 minutes before the event, call the tape librarian and do a video check to make sure the tape librarian is seeing the video signal from the camera.

To start using a camera:
- Turn on the Magnavox monitor to easily observe the video from the current video source.
- Turn on the camera controller console by pressing the power button. It's a push button located on the reverse of the console (not the underside). The console takes about 15 seconds to start. During the start-up time many lights will flash on the camera console.
- On the Xantech’s “Video Source” page, set the "Video Source" to "Camera Seats" or "Camera Stage" depending on what view you wish to have.

To do this with the Xantech, press the button marked “Seat Cam” or “Stage Cam”

This can also be done by pressing the button marked "Camera Seats " or "Camera Stage" on the Presentation Switcher.

You can use the joystick on the camera controller console to pan right or left, or tilt up or down. You can zoom-in by gently twisting the collar of the joystick clockwise, or zoom-out by gently twisting the collar of the joystick counter-clockwise.

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**Telephone service can be used on the stage**, if the organizer needs this.

If the presenter desires to use a telephone during the presentation:

Bring down a telephone (including its handset) and a phone cord from the west window ledge in the booth. Place the telephone where the presenter wants it, and connect one end of the telephone cable to the RJ11 receptacle on the phone jack on the stage front. Verify the phone has a dial tone.

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**A Sound Check is recommended before every event:**

It's convenient to have the unity (0) level of each active fader reflect a comfortable sound level. You can adjust the "trim" dial at the top of each used channel to do this:

Set the fader to unity (0), and generate a sound on each pertinent channel. Adjust the "trim" dial so that the sound is comfortable for the hall. Leave the trim at this setting during the event.

It's also nice to have a slip of paper that shows VERY CLEARLY which fader is controlling which microphone or device.
On the mixer, verify the 2 gray dials for the left and right "stage audio monitors" master volume are set to about the "2 'o' clock" position.

As a minor point, it’s customary to say the words “Sound Check” repeatedly when checking audio. If you need to do a long sound check, have an assistant read a document.

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**During the event:**

Monitor the sound levels continuously and adjust the pertinent faders to maintain a comfortable sound level for the hall.

Equalization (EQ) levels can also be adjusted on each channel on the mixer for optimum sound quality.

If you are operating one of the remote-control cameras, you will have to keep an eye on the monitor continuously and make appropriate adjustments in the pan, tilt and zoom as described above.

Be very alert to properly change the lighting appropriately during the entire event. Here are some examples:

1) Just before a movie or video begins, press all 3 switches for upper, midhall and stage, to turn off the ceiling recessed lighting. Just before the movie or video ends, again press all 3 switches to bring up the lighting in the hall.

2) During a dance or special performance, it's nice to use only the spotlights.

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**Immediately at the end of every event**, turn on the western-hallway lights so the audience can safely find their way to the double-door. This is not usually necessary if the shades are raised during a sunny daytime event.
1) AFTER THE EVENT:

1) Power down the projector. **This is most critical since the lamps used in this device are very expensive and have a short life.** This can be done using the Xantech:

Go to the power page, and observe the button marked “Projector OFF.” Press this button **TWICE.**

This can also be done from the Presentation Switcher by pressing the button marked “Proj OFF” **TWICE.**

This can also be done using the Panasonic projector’s remote control by pressing the “0” button **twice.**

2) **Very critical:** Put the Xantech in its cradle properly, being sure that the LED on the Xantech’s cradle glows green or red.

3 Power down the A/V System. This can be done using the Xantech:

Press the button marked “A/V System Power Toggle”. It takes about ½ minute to power down the audio equipment. You will hear many clicking sounds during this time. When the audio rack is fully powered off, the display in the 3 amps at the bottom of the rack will no longer glow blue.

This can also be done by pressing the “ON/OFF” button on the Presentation Switcher.
4) **CLOSE AND LOCK the sliding glass window securely.**

5) The microphone stands should be properly stored on the southwest corner of the stage.

6) Gather up all the gear that was originally in the control booth and put it away properly:
   a) Cables should be coiled up properly and hung on the hooks.
   b) All batteries should be removed from the wireless microphones and all rechargeable batteries should be placed in the recharging station.
   c) If you opened the window, close and lock it securely.
   d) **Close and lock the door to the booth securely.**
   e) Turn off the lights to the booth and hall itself.
Trouble Shooting Guide:

Most problems occur due to connectors not being snugly fitted together, so the first step to check is that all cables and connectors you have installed for your presentation are secure and are snugly fitting together. Be careful not to overtighten or distress connectors or cables, as this can easily damage them.

Sometimes connectors or cables will fail. For example, a pin inside a connector may be broken or damaged, or a connector may be very twisted on the end of a cable so it no longer is properly conducting signals. If you find a broken connector or cable, please clearly label it as a “suspect damaged cable”, and bring it to the MUM AV dept for a possible repair.

The next most common problem is that a non-lively video source has been selected. For example, the currently selected video source may be “Tape Library”, but you intend to show a computer-based presentation. In this case, Use the Xantech to again set the current video source to Stage Laptop”.

1) Video problems:
   • No video at all - (a black screen)
     a) For Stage Computer presentations:
        Unplug the power supply to the DA, wait 5 seconds, and plug it back in.
        Set the resolution to 1024 x 760.

     For PC’s press the Blue-Fn + “Fkey” to force the computer to send video to the external monitor port. “Fkey” may be F3 – F8 depending on the computer manufacturer. F5 seems to be very common.

     For Macintosh, open the “Displays” control panel and press the “Detect Displays” button to force the Mac to send video to the external monitor port.

     If you see a signal on the Magnavox monitor in the booth, but the large screen is black this means there is an issue with the projector:

     o Verify the projector has power. You will be able to see a white glow from the lamp shining through the reverse side of the projector. On the front side of the projector, a green led should be lit if it has power. If necessary, restart the projector after waiting about 3 minutes for it to cool.

     o Verify that the shutter on the projector is not engaged. To release it, press the “Shutter” button on the Panasonic projector remote. This can also be done from the Xantech

     • The video signal shows a pure blue screen:
        This means a video signal is being received by the system and projector, but has no information.
          a. Verify the Kramer boxes have power. They are: Kramer Video distributor, Kramer Scalar, Kramer Scan Converter, Kramer Presentation/Controller Switcher.

2) Audio symptoms:
   a) No Audio?
      Verify your source truly is generating audio. For example, a computer may be not actually be sending any audio signal at all.

      For no audio from a wireless microphone, first verify the microphone is properly turned on. If you still have no audio, verify that you are using a fresh battery with a full charge. There is a battery checker on the eastern window ledge. Note that rechargeable batteries have limited life spans, after which they will only hold a charge for a short time, and eventually will not hold a charge at all.
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