Projector Sound in SP105

Date: 02/17/2023   Version: 1.1

IMPORTANT: There is no Crestron flat panel control device in SP105.
               The controls are on the wall near the entranceway.
               This is a control panel of several buttons.

1. **Connect the Projector to the Linux PC**

   1.1 Power on the Projector and Lower the Projection Screen

   Upon entering, press the upper left-hand button labelled [POWER] once which both turns on the projector and lowers the projector screen.

   If the projector is in sleep mode and the screen is down, then you could power the device off by holding the same [POWER] button down for five (5) seconds to raise the screen and power off the projector completely. Then release the [POWER} button and press it just once to lower the screen and power on the projector. The LED for that button should turn from amber to red.

   Hold down for 5 seconds
   to turn off

POWER	VOL ▲
MUTE	VOL ▼
MAC MINI	BD/DVD
HDMI IN	VGA IN
AIR MEDIA	LINUX PC
▶	■

   1.2 Link the Projector to the Linux PC

   On the same control panel, there is a button labelled [LINUX PC]. Press that button to select that as the input to the projector. The LED for that button should turn from amber to red.

2. Set Up the Computer to Work with the Projector

2.1 Log in to the Computer Science Department's Linux computer in SP105 using your Computer Science Department username/password for authentication.

2.2 Mirror the desktop to the projector screen. You accomplish this using the script "mirror_105". To run this script, launch a terminal with the three-key combo

[Ctrl] + [Alt] + T

or by searching for terminal in the list of user applications from the search tool in the upper left hand corner of the menu bar at the top of the desktop display. Once you have a Bash shell, command prompt ($) enter the command "mirror_105".

```
$ mirror_105
```

The output of this script is a simple two-choice list of options.

```
username@sp105$ mirror_105
```

Enter desired configuration…

"1" for mirror monitor to overhead
"2" no mirror (extended display)

Choose option "1" and then press [Enter] to make your selection to mirror the desktop to the projector. The process takes about five seconds (5 sec) for the display to be mapped to the projector. The command prompt in your terminal should return immediately, however.

```
username@sp105$ mirror_105
```

Enter desired configuration…

"1" for mirror monitor to overhead
"2" no mirror (extended display)
1
username@sp105$

3. Generate some audio output on the computer

Open your favorite web browser, e.g. Firefox or Chrome, and navigate to YouTube. Search for your favorite music video or any long-playing video that has audio. For example,

Lofi Hip Hop Radio – Beats to Relax To

4. **Edit the "Sound Settings" using the Sound Preferences UI**

From the top menu bar, right-click on the speaker symbol (generally located between the battery symbol and the date/time. From the drop down menu, click on "Sound Settings…" to open the Sound Preferences UI.
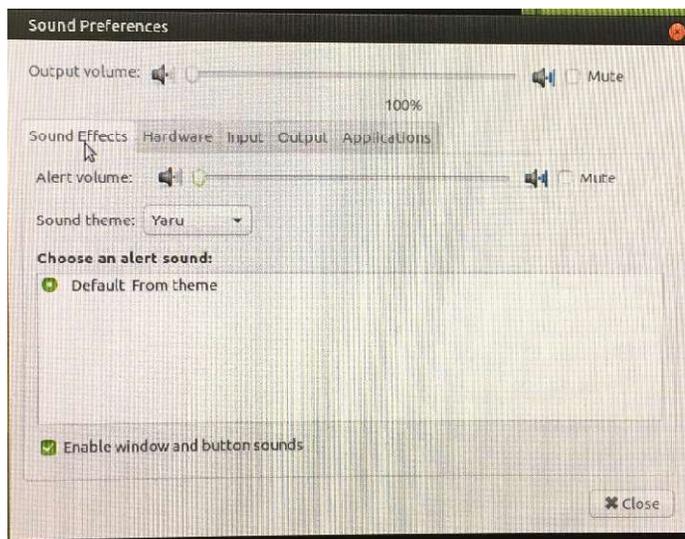

4.1 Sound Effects

Click on the first tab [Sound Effects] in the Sound Preferences UI.
Leave the defaults as listed below and shown in the image below.

Sound theme: Yaru

Choose an alert sound:
● Default from theme

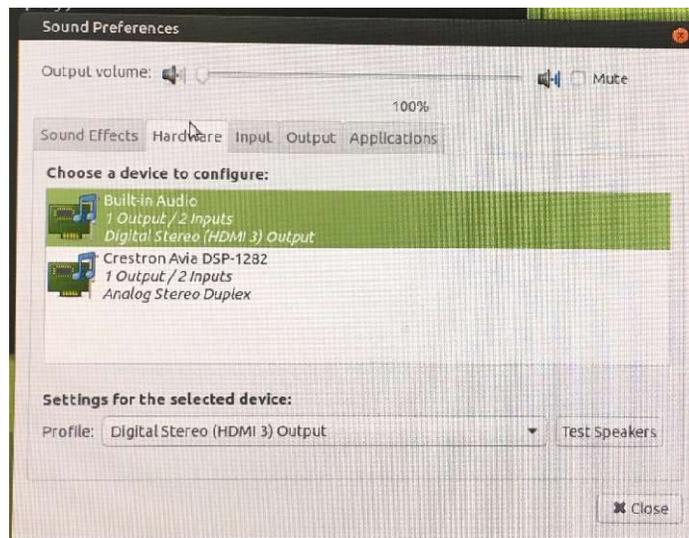X Enable window and button sounds

4.2 Hardware

Click on the second tab, [Hardware], in the Sound Preferences UI. Verify or modify the settings to match the defaults as listed below and shown in the image below.

Choose a device to configure:

Built-in Audio
1 Output / 2 Inputs
Digital Stereo (HDMI 3) Output

Settings for the selected device:
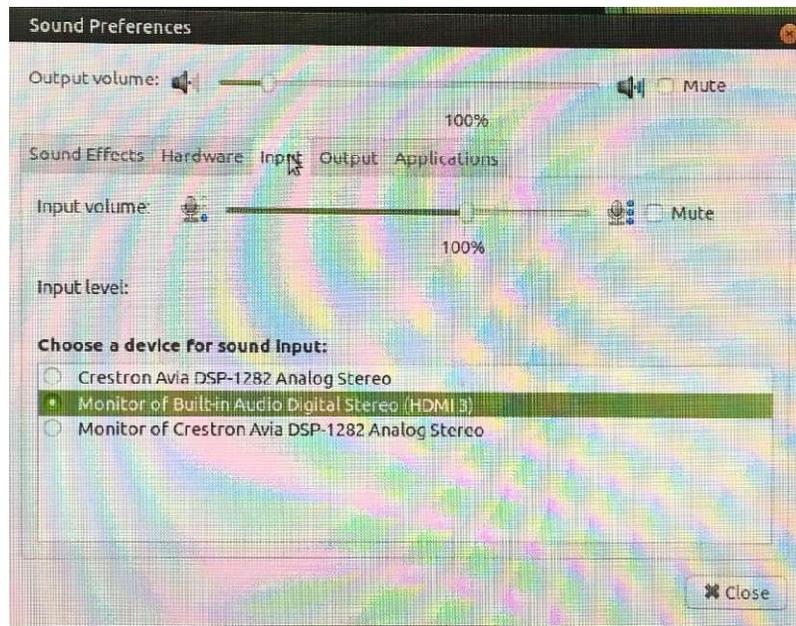Profile: Digital Stereo (HDMI 3) Output

4.3 Input

Click on the third tab, [Input] of the Sound Preferences UI.
Verify or modify the settings to match the defaults as listed below
and shown in the image below.

Output volume: 50%
Input Volume: 100%

Choose a device for sound input:

• Monitor of Built-in Audio Digital Stereo (HDMI 3)

4.4 Output

Click on the fourth tab, [Output] of the Sound Preferences UI.
Verify or modify the settings to match the defaults as listed below
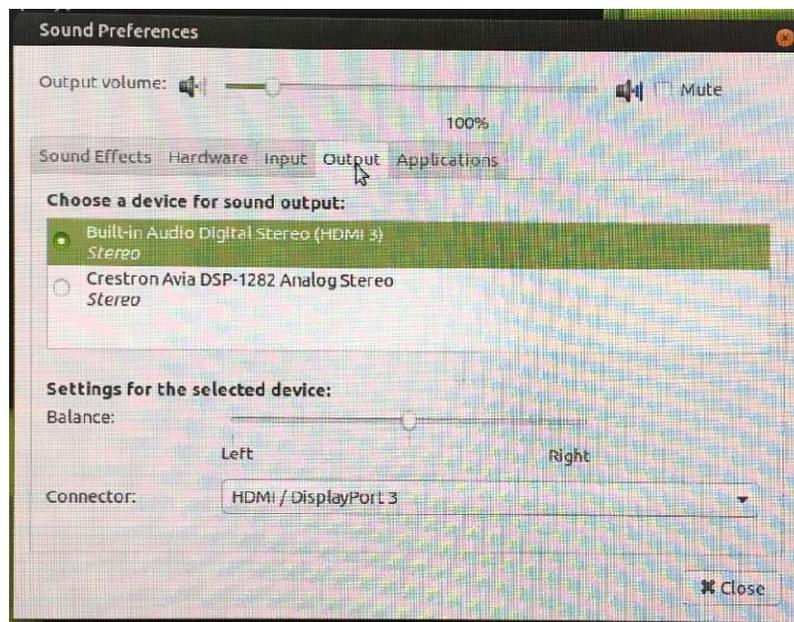and shown in the image below.

WARNING: You can click on the option which will highlight the HDMI 3 choice,
however, **you must click on the radio button** to select that choice.

Choose a device for sound output:

● Built-in Audio Digital Stereo (HDMI 3)
  Stereo

Settings for the selected device:
Balance: (center the balance between left and right)
Connector: HDMI/DisplayPort 3

5. **Sound Throughout the Room**

At this point sound should be streaming out of the speakers and into the room. The projector
volume can be controlled by the touch buttons on the wall near the entrance way if necessary or
through the application that you are using or via the speaker volume in the top right-hand area
of the menu bar for the desktop. If not, revisit the settings above and adjust, i.e. change away
from them and then reset them.