Exercise 1: Getting around the Linux i3 Window Manager

The Litwin control system uses the i3 window manager running on a Debian Linux operating system. i3 is controlled using keyboard shortcuts (also known as keybindings). Software application windows are displayed within "workspaces". Upon booting this PC, the i3 window manager will automatically start:

1. MagicQ lighting software on workspace "1:magicq"
2. Audacity sound editing software on workspace "2:audacity"
3. Asunder CD ripping software and the File Manager software on workspace "3:cd-rip"
4. A READ ME HELP FILE on workspace "4:HELP"

Find the READ ME HELP FILE on workspace "4:HELP" and read through it. Try out some of the keybindings and get a feel for the i3 interface. For a more visual point-and-click user, try clicking on different workspace icons at the bottom left of screen.

Exercise 2: Ripping a CD using Asunder

1. Use WINKEY + 3 keybinding or click workspace "3:cd-rip" to get to the Asunder software.
2. Open the CD tray on the computer and insert an audio CD (make sure to use an audio encoded CD).
3. After a short time the CD track information should appear in the Asunder window.
4. Adjust track information according to the dance piece(s) being worked on and click [rip] when ready.
5. Once the CD has been ripped, the new .wav audio files will be shown in the file manager window (by default audio files are placed withing the specific directory path /opt/magicq/show/audio).
6. Remove the CD and repeat this process if additional CDs need to be ripped.

Exercise 3: Editing an audio file using Audacity

NOTE: Audacity is not required for adding lighting cues to music/audio (MagicQ contains this function). Audacity is only needed if the audio file needs editing prior to adding lighting cues. Audacity can also be used to find specific times in the audio track for exact placement of lighting cues.

1. Use WINKEY + 2 keybinding or click workspace "2:audacity" to get to the Audacity software.
2. Within the Audacity window, click on [File] [Open] or use the keybinding CTRL + O.
3. Within the Open dialog box, select the required audio file and click [open]. If you cannot see the ripped audio files, make sure you are in the correct "MagicQ Audio" directory selected from the "Places" shortcut (this directory path is /opt/magicq/show/audio).
4. Time is shown along the top of the track waveform display. Selection position time is shown in the status display near the bottom of the window. Zoom functions are available near the upper right and playback transport controls are available near the upper left of the window.
5. Further instructions on editing the audio file can be found within Audacity under the [Help] menu.

Exercise 4: Controlling lights using MagicQ

MagicQ is a fully functional lighting console software, which can be programmed clicking graphical buttons with the mouse, keyboard keybindings, or external USB control devices. There are different graphical interface "panels". This worksheet assumes the use of the default "full" panel. Most of the screen is made up of a graphical representation of the buttons on a real lighting console. The centre of the screen will display different function windows with function softkeys around the edge.
NOTE: A full MagicQ manual can be found under the [Help] menu or in the "dance" user home directory.

1. Use WINKEY + 1 keybinding or click workspace "1:magicq" to get to the MagicQ software.
2. Click on [Continue Show] in the centre of the screen if needed.
3. If a new Litwin show is being programmed, then click on [File] [Open] from the top menu, click [yes] to erase current show from memory, and select [Litwin-Template.shw] icon.
4. Click [layout 1] button on upper right of interface to display the "programmer" layout windows.
5. Increase intensity (fade up) individual lights by clicking icons in [INTENSITY] window.
6. Select groups of lights by clicking on [GROUP] icons.
7. Select individual lights by clicking icons in [INTENSITY] window while holding down SHIFT key.

8. Select colour of lights by clicking on [COLOUR] icons (this is only available for LED lights).
9. Exact colour can be dialed in by clicking and dragging the Red, Green, Blue, and White encoder wheels graphically represented on the far left of interface (this is only available for LED lights).
10. Exact intensity for specific light or groups of lights can be controlled using FULL, @, and the numerical buttons in keypad on lower right of interface.
11. Individual lights can be selected using their numerical value (channel) in keypad of interface.
12. Click [clr] button on center right of interface to reset/remove all light settings in "programmer".

Exercise 5: Recording a lighting cue using MagicQ

MagicQ has the ability to record lighting cues within multiple "cue stacks" (also known as "playbacks").
A lighting programmer/operator can choose to record cues for multiple dance pieces into the same cue stack or can separate the cues into different cue stacks for playback of each dance piece. Each cue stack is visually represented at the bottom third of the MagicQ screen with graphical fader/slider, play [>] button, pause [|||] button and a selection [s] button. Above the graphical buttons are informational blocks listing the cue stack as PB1 through PB10 with cue stack name and the currently running cue name/number. By default in the "Litwin-Template.shw" file, PB10 contains a simple Houselights up and down cue stack.

1. Lights must be set for a lighting cue from within the "programmer" layout first (as per exercise 4).
2. Click [rec] button on center right of interface and then the [s] button of the required cue stack/PB.
3. Adjust lights for the next cue, then click [rec] button and [s] button of the same cue stack/PB.
4. Click [layout 2] to display/edit cue stack information and further details of the recorded cues.
5. The lower window, CUE, displays details on specific lights recorded in the currently running cue within the selected cue stack/PB.
6. The upper window, CUE STACK, displays details on the cues within the selected cue stack/PB.
7. Click [s] of the cue stack/PB to be edited and the cues recorded in that cue stack will be shown.
8. If cue name is wanted, click on [Cue text] block for specific cue, type text, and press Enter.
9. If cue fade needs changing, click on [Fade] block for specific cue, type time in secs, and press Enter.
10. If cue needs timecode (i.e. the cue will run/fire at an exact time in the dance piece):
    1. If [Halt] block is not set to "Tc", double-click on block and select [Timecode].
    2. Click on [Wait] block, type time for cue to fire in hours/minutes/seconds.milliseconds and press Enter (default input with no slashes assumes only seconds are being specified).
    3. Confirm [TC] on left soft button [C] is set to "Internal" and [TC] on soft button [D] s set to "On".
11. If a cue needs to to be removed, click [rem] then click the cue, and click [Yes] in the pop-up box.
NOTE: Any blocks which take time or numeric input can be double-clicked to display a graphical keypad.
If an info block is not shown, press arrow keys to move or click left soft button A to cycle [view modes].

Exercise 6: Adding an audio file to a MagicQ cue stack
1. Double-click [Audio] block of the specific cue (usually this will be the first cue of the dance piece).
2. Select the audio file required, which should have been ripped earlier to the /opt/magicq/show/audio.
3. Once the name of audio file is shown in the [Audio] block, it will start playing when that cue runs.
4. If additional audio control is required, type into [Audio] block of a specific cue the commands: stop (stops the audio playback) or jump (jumps audio track position to specified timecode Wait time).

Exercise 7: Playback cues within a MagicQ cue stack
1. Click [clr] to confirm the "programmer" is clear and confirm the GRAND fader at bottom left is up.
2. Click and drag the fader of the required cue stack/PB up to maximum at bottom of interface.
3. Upon start of dance piece, click play [>] button of the required cue stack/PB to run the first cue.
4. If cues are timecoded, then following cues will run at the times specified in their [Wait] blocks.
5. If cues are manual, then click [>] button to run each following cue in the cue stack.
6. Click [s] button of the cue stack/PB to view the running cues and timecode within [layout 2].
7. If selected cue stack needs to be cleared from running in playback mode, click [rel] button.

REMEMBER TO REGULARLY SAVE YOUR WORK! In MagicQ use the [File] [Save] menu item.