Lock Test Plans

Generic SIMPL Test Plan

- [ ] 1. Create a SIMPL program, and then define the wrapper module for the device type you are testing. Test all inputs and outputs of the SIMPL wrapper module and verify that they work with your driver.

Crestron Home Verification Points

Configuration

- [ ] 1. Load the driver into the import folder on the CP4-R/MC4-R, then navigate to **Third Party Devices** in the **Pair Devices** page and wait for the list to update. Verify the manufacturer shows under the device type, and all supported models from the driver show under the manufacturer. Ensure there are no typos.

- [ ] 2. Add the driver to a room, and verify the add device dialog appears with the appropriate connection fields (IP/Hostname field).

- [ ] 3. Verify any additional attributes on the driver show in subsequent dialogs with the appropriate descriptions and fields.

- [ ] 4. Verify the driver is successfully added to the room.

- [ ] 5. Select the gear icon in the setup app. Verify that the **About** screen is displayed.

- [ ] 6. On the **About** screen, verify that the device name, room name, type, manufacturer, model, version, and control type are displayed correctly. Verify that device status is displayed and is reporting as online when the device is connected and offline when the device is disconnected.

- [ ] 7. Verify the connection status by unplugging the device. Verify that the status changes to offline within two minutes and that no errors are generated.

- [ ] 8. Reconnect the device and verify that the status changes to online shortly after.

- [ ] 9. Select the **Interrupts** tab. Verify that the **Unlocked from Keypad** event is displayed.

- [ ] 10. Enable the interrupt by filling the **Enabled** check box and then add a custom message. Verify that the interrupt occurs when the room is unlocked.
- [ ] 11. Disable the interrupt by clearing the **Enabled** check box. Verify that the interrupt does not occur when the room is unlocked.
- [ ] 12. Enable the interrupt again, then set the house to **Do Not Disturb.** Trigger the interrupt again. Verify that no interrupt occurs if **Bypass Do Not Disturb** is disabled. Verify that an interrupt occurs if **Bypass Do Not Disturb** is enabled.
- [ ] 13. Disable **Do Not Disturb**, enable **Mute Whole House**, and then add a time duration (in seconds). Verify that, if an interrupt is triggered, the whole house is muted for the set duration.
- [ ] 14. Disable **Mute Whole House**. Verify that, if an interrupt is triggered, the whole house is not muted.
- [ ] 15. In the run time app, select a room and check that a tile is displayed for doors. Verify that the feedback is shown correctly. For example, if all of the doors are locked, the tile should report the locked state.
- [ ] 16. Select the tile to view individual doors. Verify that, for each door lock, there is an individual tile that shows a slider with both locked and unlocked icons. Verify that the feedback shows the correct status for the lock.
- [ ] 17. Select the lock icon on a lock tile. Verify that the feedback in the tile shows a locking status before updating to the locked status.
- [ ] 18. Select the unlock icon on a lock tile. Verify that the feedback in the tile shows an unlocking status before updating to the unlocked status. Verify that an interrupt is triggered if enabled.
- [ ] 19. Select the lock and unlock icons in rapid succession. Verify there are no errors and that the driver does not go out of sync with the device.
- [ ] 20. Lock the door from its keypad. Verify that the feedback in the app shows that the door was locked.
- [ ] 21. Unlock the door from its keypad. Verify that the feedback in the app shows that the door was unlocked.

- [ ] 22. Using the **Scenes** button, select the **Lock All** button. Verify that all door locks change to a locked state.
- [ ] 23. Using the **Scenes** button, select the **Unlock All** button. Verify that all door locks change to an unlocked state.
- [ ] 24. Select the **Home** button. Verify that under **Control** > **Access**, there is a button for **Lock All Doors**.
- [ ] 25. Under **Control** > **Access**, select **Lock All Doors**. Verify that all doors are locked. Verify that, once selected, the button becomes grayed out with the message "All Doors Locked".
- [ ] 26. Under **Control** > **Access**, select **Access**. Verify that you are taken to a screen where all locks are listed and where you can lock or unlock any door lock shown.

User Management

- [ ] 1. Open the **Add User** dialog box. Enter the name, PIN, and schedule, and then set whether the user is enabled or disabled. Select **Submit**. Verify that the new user is created and that no errors are returned. Verify that the new user is added to the user list.
- [ ] 2. Create another new user, but omit required fields (such as name and PIN). Verify that the user is not created and that an error is returned. Verify that the user is not added to the user list.
- [ ] 3. Create another new user with special characters in the name field. Verify that the user is created and that no errors are returned.
- [ ] 4. Create another new user with the maximum allowable characters in the name field. Verify that the user is created and that no errors are returned.
- [ ] 5. Create an entry with a PIN that is shorter or longer than the required length. Verify that an error is returned and that a new entry is not created.
- [ ] 6. Create an entry with incorrect scheduling parameters. Verify that an error is returned and that a new entry is not created.

- [ ] 7. Create an entry that is both enabled and disabled. Verify that no errors are returned and that a new entry is created.
- [ ] 8. Attempt to unlock a door with a valid user in the system that is enabled. Verify that the door unlocks and that no errors are returned.
- [ ] 9. Attempt to unlock a door with a valid user in the system that is disabled. Verify that the door does not unlock and that an error is returned.
- [ ] 10. Attempt to unlock a door that is enabled and in range of its schedule. Verify that the door unlocks and that no errors are returned.
- [ ] 11. Attempt to unlock a door that is enabled but is outside of the range of its schedule. Verify that the door does not unlock and that an error is returned.
- [ ] 12. Attempt to unlock a door using a valid PIN code. Verify that the door unlocks and that no errors are returned.
- [ ] 13. Attempt to unlock a door using an invalid PIN code. Verify that the door does not unlock and that an error is returned.
- [ ] 14. Open the **Remove User** dialog box. Enter a valid user ID of a user that will be removed. Select **Submit**. Verify that the user is removed from the user list and that no errors are returned. Verify that you can no longer unlock the door with the removed user.
- [ ] 15. Attempt to remove the same user ID again. Verify that no other users are removed and that an error is returned.
- [ ] 16. Attempt to remove an invalid user ID. Verify that no other users are removed and that an error is returned.
- [ ] 17. Open the **Modify User** dialog box. Enter a valid user ID of a user that will be modified. Make a change to one or more parameters. Verify that the user list is updated with the changed parameters and that no errors are returned.
- [ ] 18. Enter a valid user ID and attempt to change a parameter to a value outside of its allowed range. Verify that the user ID is not updated and that an error is returned.

☐ 19. Enter an invalid user ID and attempt to change a parameter. Verify that no records are changed and that an error is returned.

☐ 20. Enter a valid user ID and attempt to change a parameter to its current value. Verify that the user ID is not updated and that no errors are returned.

System Tests

☐ 1. Simulate a power outage in the house by removing power from the processor, device, and network for at least 120 seconds, before restoring power. Verify once the program loads, the driver reconnects to the device and all functionality is restored within 60 seconds.

☐ 2. Simulate a network outage by disconnecting all network cables from the device and processor, or removing power from your router, and waiting at least 120 seconds before restoring. Verify the device and driver reconnect and all functionality is restored within 60 seconds.

☐ 3. Leave the driver connected to the device for a minimum of 24 hours, periodically checking functionality. After 24 hours, the driver should still be connected, all functionality should still work, and there should be no degradation in performance (functions should continue to work immediately and feedback should remain prompt and accurate).

☐ 4. Delete the driver from the system. The driver should no longer be listed in the room. No exceptions should be thrown in the error log.

Signature:

Date: