LightSync G2 MZD-4 Scene Control

Overview:
The Intended use is to create dimming level scenes for the operator to select and allow dimming adjustment of the selected scene.

Operation:
The LightSync G2 Multi Zone Dimmer (MZD) - 1, 2, 3, & 4 zone stations can be configured for scene recall and dimming, each zone button can be set-up to recall a dimming scene level of one or multiple dimmer outputs. The press and hold Ramp-Up and Ramp-Down buttons could then dim the scene from its selected or current state.

This can also be done in a combination of Scene and Zone buttons, an MZD-4 station could be used for 2 Scenes and 2 individual zone buttons with the ramp-up/ramp-down at the bottom. Pressing and holding to select the Scene or a Zone button would select the dimmer channels attached to the scene or individual channel for the zone button for dimming control. If no scene or zone is selected, the Ramp-Up/Down buttons operate all dimmer outputs from their current state.

Programming:
The first four buttons can be configured with any dimmer level scene in the node the station is connected to for each dimmer output controlled. With an MZD-4 station used for 4 Scenes controlling the EVO panels 4 relay/dimmer outputs, the Ramp-Up/Down buttons would then Dim all 4 zones from the current selected scene level.

Typical conference room Scenes:

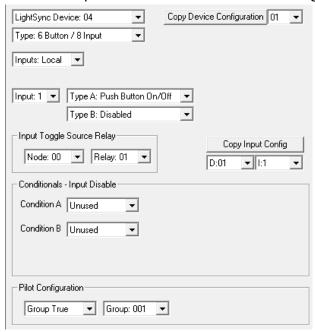| Button	Name	Zone/Dimmer Output Level%
1	Welcome	1/10%, 2/30%, 3/40%, 4/10%
2	TV/Projector	1/10%, 2/20%, 3/30%, 4/0%
3	Discussion	1/30%, 2/50%, 3/60%, 4/30%
4	Presentation	1/50%, 2/70%, 3/80%, 4/50%

Relay/Dimmer Zones:
1-Perimiter down light, 2-Center down light, 3-Indirect up light, 4-TV/Project wall down light)

The "Welcome" or first scene will also act as an All-On/Off relay control for the space and set the intended Welcome scene dimming levels.

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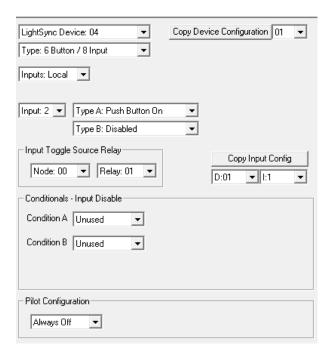
Configuring the LightSync Station:

In this example I have used the first available LightSync switch station in a LL-EVO panel "LS:04"

Input One is set for "Push Button On/Off" and will turn all 4 relays on/off, and set the dimmer levels for the scene, I have chosen "Groupe True" for "Group: 001" to allow the status LightSync LED to indicate an "All On state", if one or more relay is turned off the status will go out.
Inputs 2-6 are all set for "Push Button On" with the status LED set for "Always Off"

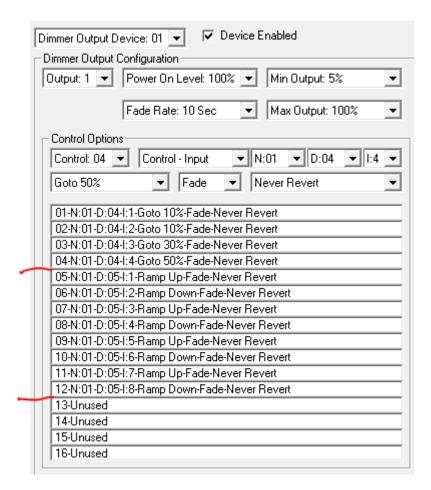These scene buttons will show no status.

Configuring the Dimmer outputs:

At the dimmer Output Control screen, I have created the 12 dimmer control points for the 4-Scene, the first 4 "Control Options" lines are configured for the first 4 buttons and will use the "Goto xx%" level to set the scene. The next 8 control option lines are configured for the 4-scene Ramp Up/Ramp Down control and use the 2nd address associated with the MZD station #05.

The Last two sets of control options lines can then be used for additional MZD-4 switches with standard Zone control, of this dimmer output requiring two lines each.

Notice that LightSync address 07 and 09 are the MZD device 2nd address used for dimming and the stations are set for 06 and 08 for the individual on/off zone control and zone selection.

Using the Copy Configuration and Copy Control Options buttons.
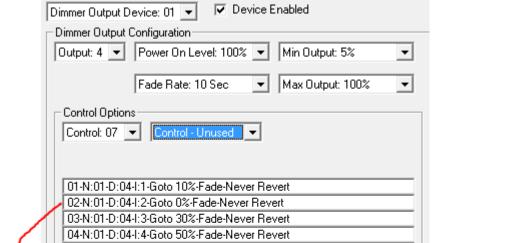

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The other 3 dimmer outputs can easily be configured the same way requiring the programmer to only change the Goto xx% level and scene dimming selections for each dimmer output.

Note: Scene 2 sets dimmer output 4 to 0% and could be configured to not dim the 4th zone if this scene is selected for dimming control. In this way the operator can increase the room level without including the downlights over the TV/Projection screen.
If the Ramp-Up/Down buttons are used without selecting the scene 2 then all 4 zones would then dim from their current state.

This is done by changing the Ramp up and down command option lines 07 and 08 to "Unused"

Dimmer Output Device: 01 ▼   ☑ Device Enabled

Dimmer Output Configuration
Output: 4 ▼   Power On Level: 100% ▼   Min Output: 5% ▼
Fade Rate: 10 Sec ▼   Max Output: 100% ▼

Control Options
Control: 07 ▼   Control - Unused ▼

01-N:01-D:04-I:1-Goto 10%-Fade-Never Revert
02-N:01-D:04-I:2-Goto 0%-Fade-Never Revert
03-N:01-D:04-I:3-Goto 30%-Fade-Never Revert
04-N:01-D:04-I:4-Goto 50%-Fade-Never Revert
05-N:01-D:05-I:1-Ramp Up-Fade-Never Revert
06-N:01-D:05-I:2-Ramp Down-Fade-Never Revert
07-Unused
08-Unused
09-N:01-D:05-I:5-Ramp Up-Fade-Never Revert
10-N:01-D:05-I:6-Ramp Down-Fade-Never Revert
11-N:01-D:05-I:7-Ramp Up-Fade-Never Revert
12-N:01-D:05-I:8-Ramp Down-Fade-Never Revert
13-N:01-D:07-I:7-Ramp Up-Fade-Never Revert
14-N:01-D:07-I:8-Ramp Down-Fade-Never Revert
15-N:01-D:09-I:7-Ramp Up-Fade-Never Revert
16-N:01-D:09-I:8-Ramp Down-Fade-Never Revert

Programming that allows all 4 buttons used for scenes and selection of scenes for dimming will require using 12 program control lines in the dimmer output configuration, this will limit the number of scene control dimmer stations to one per room. 2 additional standard MZD 4-Zone stations can be added using 2 program control lines each before the 16 total program control lines are used up.

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Standard Evo programming uses an optional Dim to Off/On control, driven from the current dimmer level so that when lowering the lights to 0% the load relay will be switch off, and then back on when ramping up from 0%. Typically set for 7% off and 8% on because the max dim is set for 5% to protect the LED driver. The levels can be adjusted if the LED driver can dim down to 1%, this function can be turned off if not wanted.

A 4-Scene station can be used in combination with 2 individual LightSync MZD-1,2,3, or 4 zone stations.

Note: Programming at the Dimmer output that uses a Preset for Ramp-up/Down will not operate properly. Presets are a Network wide operation and the dimmer output will run to 0% or 100% and will not stop when the button is released.