

# ETC Application Note

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Application Note #

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## Unison Paradigm Control Functions and Indicator States

The Unison Paradigm Control System offers an extensive range of options for Control Functions, Actions, Macro Conditions and Indicator States. This Application Note is intended as a reference to identify the included functions as well as a description of how the function works. The LightDesigner Access level required to implement each function is also identified.

### Control Function Types

Name	Access Level	Description
Maintained Button	Basic	Maintained button with independent actions occurring when the button is in the down and up positions.
Momentary Button	Basic	Simple Momentary button with single action on button press
Repeating Button	Basic	Button that on a set interval repeats its assigned function when held down
Fader	Basic	Normal Fader behavior
Occupancy Sensor	Basic	Occupancy sensing function. Provides invert property to swap Occupancy versus No-Occupancy signals.
Photo Sensor Dimming	Basic	Receives a Light Level for use with Daylight Harvesting actions
Photo Sensor Switched	Basic	Receives a Light Level and triggers Dark and Bright actions based on threshold and delay time settings.
PSAP 1.1.0.9.0.018	Basic	Paradigm Serial Access Protocol
Occupancy Sensor w/Delay	Advanced	Occupancy sensing function that offers its own delay property to extend the Turn Off event (most useful when other hardware has no timer).

### Actions

Name	Access Level	Description
Page Change	Basic	Change Page on a Station
Channel Control	Basic	Controls Channel Intensity from a Fader
Channel Blue	Basic	Controls Channel Blue parameter from a Fader
Channel Green	Basic	Controls Channel Green parameter from a Fader

## Actions (cont'd)

Name	Access Level	Description
Channel Red	Basic	Controls Channel Red parameter from a Fader
Channel Set Intensity	Basic	Set Channel intensity to a specified value
Channel Toggle	Basic	Toggle Channel Intensity between its Min and Max
Channel Daylight Harvesting	Basic	Masters the intensity of a Channel for Daylight Harvesting, using either Open or Closed loop algorithms with delay time and thresholds determined by Target value +/- the Sensitivity Level.
Fade Time	Basic	Sets a fade time that will be used for Preset controls within the same control group
Group Control	Basic	Control Group intensity from a Fader
Group Master	Basic	Control of Group Master from a Fader
Group Set Intensity	Basic	Set Group intensity to a specified value
Group Toggle	Basic	Toggle Intensity between Min and Max for all Channels of a Group
Group Daylight Harvesting	Basic	Masters the intensity of a Group for Daylight Harvesting, using either Open or Closed loop algorithms with delay time and thresholds determined by Target value +/- the Sensitivity Level.
Macro Cancel	Basic	Cancels execution of a Macro
Macro Off	Basic	Turns Off a Macro, which will execute any Off steps associated with it
Macro On	Basic	Turns On a Macro, which will execute any On steps associated with it
Macro Toggle	Basic	Toggles Macro state between On and Off, and executes the associated steps
Manual	Basic	Activates Manual control over Faders within the same assigned Control Group, or on the same station
Off	Basic	Sets all Channel values in a Space to default levels, deactivates all Presets, and stops Sequences. This action will activate the designated Off Preset in a space.

## Actions (cont'd)

Name	Access Level	Description
Preset Activate (LTP)	Basic	Activates a Preset in a Latest Takes Precedence mode
Preset Deactivate (LTP)	Basic	Deactivates a Preset in a Latest Takes Precedence mode
Preset Deactivate (HTP)	Basic	Deactivates a Preset in Highest Takes Precedence mode
Preset Fader HTP	Basic	HTP Preset control from a Fader
Preset Activate (HTP)	Basic	Activates a Preset in Highest Takes Precedence mode and clears any lowered HTP Master
Preset Recall (LTP)	Basic	Recalls a Preset in a Latest Takes Precedence Mode with toggle Off
Preset Toggle (HTP)	Basic	Toggles a Preset in Highest Takes Precedence mode with toggle Off and sets HTP Master to Full
Rate	Basic	Sets a rate that will be used for Presets within the same control group
Record	Basic	Sets Record mode for all buttons on a station or within the same Control Group
Sequence Pause	Basic	Pauses a Sequence
Sequence Resume	Basic	Resumes a Sequence
Sequence Start	Basic	Starts or Activates a Sequence
Sequence Stop	Basic	Stops a Sequence
Sequence Toggle	Basic	Toggle sequence control that starts and stops a Sequence
Serial Send	Basic	Send a serial string
Set Target Lux Value for Station	Basic	Sets Target Lux value for Daylight Harvesting actions
Space EZ Set Arbitration	Basic	Modify output arbitration and sACN priority for all Channels within a Space
Space Lockout Set	Basic	Set lockout level for all Stations within a Space
Space Lockout Clear	Basic	Clears a Lockout for a Space

## Actions (cont'd)

Name	Access Level	Description
Space Lockout Toggle	Basic	Toggle lockout level for Stations within a Space
Space Lower	Basic	Decrease the intensity of all Channels within a Space
Space Master	Basic	Intensity Master control from all Channel within a Space from a Fader
Space Raise	Basic	Increase the intensity of all Channels within a Space
Space Daylight Harvesting	Basic	Masters the Intensities of all Channels within a Space for Daylight Harvesting, using either Open or Closed loop algorithms with delay time and thresholds determined by Target value +/- the Sensitivity Level.
Station Lockout Set	Basic	Sets Lockout Level for the specified Station
Wall Close	Basic	Closes a wall
Wall Open	Basic	Opens a wall
Wall Toggle	Basic	Toggles the state of a wall
Channel Set Arbitration	Advanced	Modify output Arbitration for a particular Channel
Channel Lower	Advanced	Decrease Channel intensity by a selectable value
Channel Set Minimum	Advanced	Set minimum intensity for a selected channel
Channel Set sACN Priority	Advanced	Set sACN priority for a selected channel
Channel Raise	Advanced	Increase Channel intensity by a selectable value
Record Specific Preset	Advanced	Issues a record command for a specific preset
Space Flick Warn	Advanced	Applies "flick warning" or temporary lowering of lights within specified Space to indicate a pending action will occur
Group Set Arbitration	Advanced	Modify output Arbitration for all Channels in a Group
Group Lower	Advanced	Decrease Group Intensity
Hide Popup	Advanced	Hide a Popup on a Paradigm Touchscreen

## Actions (cont'd)

Name	Access Level	Description
Override Disable	Advanced	Disables an Override object
Override Enable	Advanced	Enables an Override object
Override Toggle	Advanced	Toggles the state of an Override object
Preset Daylight Harvesting	Advanced	Applies HTP Preset control for Daylight Harvesting, using either Open or Closed loop algorithms with delay time and thresholds determined by Target value +/- the Sensitivity Level.
Sequence Jump	Advanced	Jumps to a specific step within a sequence
Sequence Master	Advanced	Control of a Sequence Intensity Master from a Fader
Sequence Rate	Advanced	Adjusts the speed of sequence steps
Sequence Record	Advanced	Issues a Record command for a step in a Sequence
Sequence Start, Pause and Resume	Advanced	Toggle Sequence control that starts, pauses, and resumes a Sequence
Show Popup	Advanced	Show Popup on a Touchscreen Station
Space Set Arbitration	Advanced	Modify output arbitration for all Channels within a Space
Space Set sACN Priority	Advanced	Modify sACN priority for all Channels within a Space
Take Control	Advanced	Take Control unlocks a Station or Control Group and activates its Faders while locking other Stations or Control Groups associated with the same Take Control ID.

## Macro Conditions

Name	Access Level	Description
If Button On	Basic	Make a decision if a button is on
If Channel above Threshold	Basic	Make a decision based on the level of a Channel
If Fader above threshold	Basic	Make a decision based on the level of a Fader
If Group intensity above Threshold	Basic	Make a decision based on the intensity level of a Group

## Macro Conditions (cont'd)

Name	Access Level	Description
If Macro on	Basic	Make a decision based on whether a Macro is on
If Override active	Basic	Make a decision based on whether an Override is active
If Page Active	Basic	Make a decision based on whether a Page is active
If Preset Active	Basic	Make a decision based on whether a Preset is active
If Sequence state is...	Basic	Make a decision based on the state of a sequence
If Space Lockout Level is....	Basic	Make a decision based on the lockout level of a Space
If Space Off	Basic	Make a decision based on whether all Channels in a Space are off
If Station Lockout Level is...	Basic	Make a decision based on the lockout level of a Station
If Timed Event Active	Basic	Make a decision based on whether a Timed Event is active
If Wall open	Basic	Make a decision based on whether a Wall is open

## Indicator Functions

Name	Access Level	Description
Active Page	Basic	Indicates the specified Station Page is Active
Action Status Green	Basic	Illuminates Green when the corresponding control action is active
Action Status Raise Lower	Basic	Illuminates when corresponding raise or lower action is active
Action Status Red	Basic	Illuminates Red when the corresponding control action is active
Channel Level	Basic	Channel intensity for displaying value on Level Indicators
Group Level	Basic	Group intensity for Level Indicators only
Macro Status	Basic	Indicates when a Macro is executing and when a Macro is On or has run On steps

## Indicator Functions (cont'd)

Name	Access Level	Description
Manual Status	Basic	Indicates Manual action status
Off Status	Basic	Indicates Off action status, will be active when system determines target Space is at defaulted levels.
Override state	Basic	Indicates Override state as On or Off, typically used with Override Toggle
Preset Fader HTP Status	Basic	Indicates fader has active HTP control of a Preset
Preset Status (HTP)	Basic	Indicates HTP Preset Activation Status
Preset Status (LTP)	Basic	Indicates LTP Preset Activation Status
Record Status	Basic	Indicates when Record mode is active
Sequence Status	Basic	Indicates Sequence playback status
Sequence Step	Basic	Indicates Sequence Step Activation Status
Space EZ Arbitration Type	Basic	Indicates matching Space Arbitration Type for the simplified or "easy" Arbitration action
Space Lockout Level	Basic	Indicates On when Lockout Level for the Space is at or above the specified level
Station Lockout Level	Basic	Indicates On when Lockout Level for the Station is at or above the specified level
Wall State	Basic	Indicates when Wall is in Open state
Channel Arbitration Type	Advanced	Indicates matching Channel arbitration type between a Channel and the function settings.
Channel Output Priority	Advanced	Indicates matching sACN Output Priority between a Channel and the function settings.
Group Arbitration Type	Advanced	Indicates matching Channel arbitration type between all Channels of a Group and the function settings.
Group Output Priority	Advanced	Indicates matching sACN Output Priority between all Channels of a Group and the function settings.

## Indicator Functions (cont'd)

Name	Access Level	Description
Macro Off Status	Advanced	Indicates when a Macro is executing and when a Macro is Off or has run Off steps
Preset Deactivate Status (HTP)	Advanced	Indicates HTP Preset Deactivation Status, On when Preset is not active
Preset Deactivate Status (LTP)	Advanced	Indicate LTP Preset Deactivation Status, On when Preset is not active
Space Arbitration Type	Advanced	Indicates matching Channel arbitration type between all Channels of a Space and the function settings.
Space Output Priority	Advanced	Indicates matching sACN Output Priority between all Channels of a Space and the function settings
Take Control Status	Advanced	Indicates Take Control status
Wall Close state	Advanced	Indicates when Wall is in Closed state