





GENERAL INFORMATION				
SIMPLWINDOWS NAME:	Lutron HomeWorks QSX Single SetPoint 3rd Party HVAC Control v1.3			
CATEGORY:	Lighting, HVAC, Shades			
VERSION:	1.3			
SUMMARY:	This module provides monitor and control capability for a Zone component as part of a Lutron HomeWorks QSX solution.			
GENERAL NOTES:	This module interacts with a single Zone component, if multiple Zone components need to be managed, one module can be added for each component in the solution. This module requires one instance of the Lutron HomeWorks QSX Command Processor module to register with.			
CRESTRON HARDWARE REQUIRED:	Crestron 3-Series or 4-Series processor.			
SETUP OF CRESTRON HARDWARE:	N/A			
VENDOR FIRMWARE:	23.08.14f000			
VENDOR SETUP:	Lutron HomeWorks QSX Processor			







PARAMETER:	
Command_Processor_ID	Setting indicates the identifier of the Command Processor module this module registers with. A single program can contain multiple zone modules where multiple Lutron processors are involved.
Zone_Href_ID	Setting indicates the reference identifier for the HVAC zone to control.  Example: for zone href: /zone/1399, enter the value 1399 in the parameter field.
Thermostat_Device_Href_ID	Setting indicates the reference identifier for the thermostat device that the HVAC zone is assigned to. Only used when Temperature_Sensor_Mode parameter is set to Enabled.  Example: for device href: /device/1399, enter the value 1399 in the parameter field
Temperature_Sensor_Mode	Setting determines the Current Temperature reported.  Enabled: Uses the internal temp sensor of the thermostat Device.  Disabled: Uses the Set_Current_Temperature analog input.
Temperature_Scale	Setting indicates the temperature scale to use.  Values are 0 Fahrenheit or 1 for Celsius.







CONTROL:		
Set_SetPoint_Temperature	Α	Integer value to set the setpoint. Valid range is determined by thermostat.
Set_OperatingMode	Α	Integer value to set operating mode. Valid values are:  1 – Off  2 – Heat  3 – Cool  4 – Auto  5 – Emergency Heat  6 – Fan  7 – Dry
Set_FanMode	Α	Integer Value to set the fan mode. Valid values are:  1 - Auto 2 - On 3 - Cycle 4 - No Fan 5 - High 6 - Medium 7 - Low 8 - Top
Set_Current_Temperature	Α	Integer value to set the current temperature. Valid range is determined by the Temperature_Scale parameter. Enabled when the Temperature_Sensor_Mode parameter is set to Disabled.







FEEDBACK:		
Is_Initialized	D	High indicates the module is initialized. The module is initialized when all component state information has been updated in the module to reflect current component state.
Current_SetPoint_Temperature	Α	Integer value of the current setpoint.
Current_OperatingMode	Α	Integer value of the current operating mode. Valid values are:  1 – Off  2 – Heat  3 – Cool  4 – Auto  5 – Emergency Heat  6 – Fan  7 – Dry
Supports_OperatingMode_Off	D	High indicates operating mode off is supported.
Supports_OperatingMode_Heat	D	High indicates operating mode heat is supported.
Supports_OperatingMode_Cool	D	High indicates operating mode cool is supported.
Supports_OperatingMode_Auto	D	High indicates operating mode auto is supported.
Supports_OperatingMode_Emergency_Heat	D	High indicates operating mode emergency heat is supported.
Supports_OperatingMode_Fan	D	High indicates operating mode fan is supported.
Supports_OperatingMode_Dry	D	High indicates operating mode dry is supported.
Current_Fan_Mode	Α	Integer value of the current fan mode. Valid values are:  1 – Auto 2 – On 3 – Cycle 4 – No Fan 5 – High 6 – Medium 7 – Low 8 – Top





Partner: Lutron Model: HomeWorks QSX Device Type: Lighting



Supports_FanMode_On  D High indicates fan mode auto is supported.  Supports_FanMode_Cycle  D High indicates fan mode on is supported.  Supports_FanMode_NoFan  D High indicates fan mode on fan is supported.  Supports_FanMode_NoFan  D High indicates fan mode no fan is supported.  Supports_FanMode_High  D High indicates fan mode high is supported.  Supports_FanMode_Low  D High indicates fan mode low is supported.  Supports_FanMode_Low  D High indicates fan mode low is supported.  Supports_FanMode_Top  D High indicates fan mode low is supported.  Supports_FanMode_Top  D High indicates fan mode low is supported.  OperatingStatus_HeatLast  D High to indicate operating status heat stage one is active.  OperatingStatus_HeatStageTwo  D High to indicate operating status heat stage two is active.  OperatingStatus_HeatStageThree  D High to indicate operating status heat stage three is active.  OperatingStatus_CoolLast  D High to indicate operating status cool last is active.  OperatingStatus_CoolStageOne  D High to indicate operating status cool last is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage one is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage two is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status off is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status off is active.  OperatingStatus_EmergencyHeat  D High to indicate operating status off is active.  OperatingStatus_EmergencyHeat  D High to indicate operating status off is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status off is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status off is active.  OperatingStatus_EmergencyHeat  D High to indicate operating status off is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status off is active.  OperatingStatus_EmergencyHeat  A Integer to indicate the current temperature of the room.  Supports_TemperatureScale_Celsius  D High t			
Supports_FanMode_Cycle  D High indicates fan mode cycle is supported.  Supports_FanMode_NoFan  D High indicates fan mode no fan is supported.  Supports_FanMode_High  D High indicates fan mode high is supported.  Supports_FanMode_Medium  D High indicates fan mode medium is supported.  Supports_FanMode_Low  D High indicates fan mode low is supported.  Supports_FanMode_Top  D High indicates fan mode top is supported.  Supports_FanMode_Top  D High to indicate operating status heat last is active.  OperatingStatus_HeatStageOne  D High to indicate operating status heat stage one is active.  OperatingStatus_HeatStageThree  D High to indicate operating status heat stage two is active.  OperatingStatus_HeatStageThree  D High to indicate operating status cool last is active.  OperatingStatus_CoolStageOne  D High to indicate operating status cool stage one is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage two is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage two is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage two is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage two is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage two is active.  OperatingStatus_Dry  D High to indicate operating status dry is active.  OperatingStatus_Dry  D High to indicate operating status valid values are:  0 - Unknown  1 - High  2 - Medium  3 - Low  4 - Off  Current_Temperature  A Integer to indicate the current temperature of the room.  Supports_TemperatureScale_Celsius  D High to indicate that the Lutron system is set to temperature scale Celsius.	Supports_FanMode_Auto	D	High indicates fan mode auto is supported.
Supports_FanMode_NoFan  D High indicates fan mode no fan is supported.  Supports_FanMode_High  D High indicates fan mode high is supported.  Supports_FanMode_Medium  D High indicates fan mode high is supported.  Supports_FanMode_Low  D High indicates fan mode low is supported.  Supports_FanMode_Top  D High indicates fan mode low is supported.  Supports_FanMode_Top  D High to indicate operating status heat last is active.  OperatingStatus_HeatLast  D High to indicate operating status heat stage one is active.  OperatingStatus_HeatStageOne  D High to indicate operating status heat stage two is active.  OperatingStatus_HeatStageThree  D High to indicate operating status heat stage three is active.  OperatingStatus_CoolLast  D High to indicate operating status cool last is active.  OperatingStatus_CoolStageOne  D High to indicate operating status cool stage one is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage two is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage two is active.  OperatingStatus_Coff  D High to indicate operating status off is active.  OperatingStatus_EmergencyHeat  D High to indicate operating status weregency heat is active.  OperatingStatus_Dry  D High to indicate operating status were gency heat is active.  OperatingStatus_Dry  D High to indicate operating status were gency heat is active.  OperatingStatus_Dry  D High to indicate operating status were gency heat is active.  OperatingStatus_Dry  D High to indicate operating status were gency heat is active.  OperatingStatus_Dry  A Integer value to indicate fan status. Valid values are:  O - Unknown  1 - High  2 - Medium  3 - Low  4 - Off  Current_TemperatureScale_Celsius  D High to indicate that the Lutron system is set to temperature scale Celsius.	Supports_FanMode_On	D	High indicates fan mode on is supported.
Supports_FanMode_High  D High indicates fan mode high is supported.  Supports_FanMode_Low  D High indicates fan mode medium is supported.  Supports_FanMode_Low  D High indicates fan mode low is supported.  Supports_FanMode_Top  D High indicates fan mode top is supported.  Supports_FanMode_Top  D High to indicate operating status heat last is active.  OperatingStatus_HeatStageOne  D High to indicate operating status heat stage one is active.  OperatingStatus_HeatStageTwo  D High to indicate operating status heat stage two is active.  OperatingStatus_HeatStageThree  D High to indicate operating status heat stage three is active.  OperatingStatus_CoolLast  D High to indicate operating status cool last is active.  OperatingStatus_CoolStageOne  D High to indicate operating status cool stage one is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage two is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status off is active.  OperatingStatus_EmergencyHeat  D High to indicate operating status off is active.  OperatingStatus_EmergencyHeat  D High to indicate operating status off is active.  OperatingStatus_Dry  D High to indicate operating status off is active.  OperatingStatus_Dry  D High to indicate operating status off is active.  OperatingStatus_Dry  D High to indicate operating status off is active.  OperatingStatus_Dry  D High to indicate operating status off is active.  OperatingStatus_Dry  A Integer value to indicate fan status. Valid values are:  O = Unknown  1 - High  2 - Medium  3 = Low  4 - Off  Current_Temperature  A Integer to indicate that the Lutron system is set to temperature scale Celsius.	Supports_FanMode_Cycle	D	High indicates fan mode cycle is supported.
Supports_FanMode_Medium  D High indicates fan mode medium is supported.  Supports_FanMode_Low  D High indicates fan mode low is supported.  Supports_FanMode_Top  D High indicates fan mode top is supported.  OperatingStatus_HeatLast  D High to indicate operating status heat last is active.  OperatingStatus_HeatStageOne  D High to indicate operating status heat stage one is active.  OperatingStatus_HeatStageTwo  D High to indicate operating status heat stage two is active.  OperatingStatus_HeatStageThree  D High to indicate operating status heat stage three is active.  OperatingStatus_CoolLast  D High to indicate operating status cool last is active.  OperatingStatus_CoolStageOne  D High to indicate operating status cool stage one is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage two is active.  OperatingStatus_Off  D High to indicate operating status off is active.  OperatingStatus_EmergencyHeat  D High to indicate operating status emergency heat is active.  OperatingStatus_Dry  D High to indicate operating status dry is active.  Current_Fan_Status  A D High to indicate operating status dry is active.  Current_Fan_Status  A D High to indicate operating status dry is active.  Current_Fan_Status  A D High to indicate operating status dry is active.  Current_Fan_Status  D High to indicate the current temperature of the room.  Supports_TemperatureScale_Celsius  D High to indicate that the Lutron system is set to temperature scale Celsius.	Supports_FanMode_NoFan	D	High indicates fan mode no fan is supported.
Supports_FanMode_Low  D High indicates fan mode low is supported.  Supports_FanMode_Top  D High indicates fan mode top is supported.  OperatingStatus_HeatLast  D High to indicate operating status heat last is active.  OperatingStatus_HeatStageOne  D High to indicate operating status heat stage one is active.  OperatingStatus_HeatStageTwo  D High to indicate operating status heat stage two is active.  OperatingStatus_HeatStageThree  D High to indicate operating status heat stage three is active.  OperatingStatus_CoolLast  D High to indicate operating status cool last is active.  OperatingStatus_CoolStageOne  D High to indicate operating status cool stage one is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage two is active.  OperatingStatus_Off  D High to indicate operating status off is active.  OperatingStatus_EmergencyHeat  D High to indicate operating status emergency heat is active.  OperatingStatus_EmergencyHeat  D High to indicate operating status dry is active.  OperatingStatus_Dry  D High to indicate operating status dry is active.  OperatingStatus_Dry  D High to indicate operating status dry is active.  OperatingStatus_Dry  D High to indicate operating status dry is active.  OperatingStatus_Dry  A Integer value to indicate fan status. Valid values are:  0 - Unknown  1 - High  2 - Medium  3 - Low  4 - Off  Current_Temperature  A Integer to indicate the current temperature of the room.  Supports_TemperatureScale_Celsius  D High to indicate that the Lutron system is set to temperature scale Celsius.	Supports_FanMode_High	D	High indicates fan mode high is supported.
Supports_FanMode_Top  D High indicates fan mode top is supported.  OperatingStatus_HeatLast  D High to indicate operating status heat last is active.  OperatingStatus_HeatStageTwo  D High to indicate operating status heat stage one is active.  OperatingStatus_HeatStageTwo  D High to indicate operating status heat stage two is active.  OperatingStatus_HeatStageThree  D High to indicate operating status heat stage three is active.  OperatingStatus_CoolLast  D High to indicate operating status cool last is active.  OperatingStatus_CoolStageOne  D High to indicate operating status cool stage one is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage two is active.  OperatingStatus_Off  D High to indicate operating status off is active.  OperatingStatus_EmergencyHeat  D High to indicate operating status emergency heat is active.  OperatingStatus_EmergencyHeat  D High to indicate operating status emergency heat is active.  OperatingStatus_Dry  D High to indicate operating status target is active.  OperatingStatus_Dry  D High to indicate operating status dry is active.  Integer value to indicate fan status. Valid values are:  0 - Unknown  1 - High  2 - Medium  3 - Low  4 - Off  Current_Temperature  A Integer to indicate the current temperature of the room.  Supports_TemperatureScale_Celsius  D High to indicate that the Lutron system is set to temperature scale Celsius.	Supports_FanMode_Medium	D	High indicates fan mode medium is supported.
OperatingStatus_HeatLast         D         High to indicate operating status heat last is active.           OperatingStatus_HeatStageOne         D         High to indicate operating status heat stage one is active.           OperatingStatus_HeatStageTwo         D         High to indicate operating status heat stage two is active.           OperatingStatus_CoolLast         D         High to indicate operating status cool last is active.           OperatingStatus_CoolStageOne         D         High to indicate operating status cool stage one is active.           OperatingStatus_CoolStageTwo         D         High to indicate operating status cool stage two is active.           OperatingStatus_EmergencyHeat         D         High to indicate operating status off is active.           OperatingStatus_EmergencyHeat         D         High to indicate operating status emergency heat is active.           OperatingStatus_Dry         D         High to indicate operating status dry is active.           OperatingStatus_One         D         High to indicate active operating status dry is active.           OperatingStatus_Dry         D         High to indicate active operating status dry is active.           OperatingStatus_Dry         D         High to indicate active operating status dry is active.           OperatingStatus_Dry         D         High to indicate operating status off is active.           OperatingStatus_Dry <td< th=""><th>Supports_FanMode_Low</th><th>D</th><th>High indicates fan mode low is supported.</th></td<>	Supports_FanMode_Low	D	High indicates fan mode low is supported.
OperatingStatus_HeatStageOne         D         High to indicate operating status heat stage one is active.           OperatingStatus_HeatStageTwo         D         High to indicate operating status heat stage two is active.           OperatingStatus_HeatStageThree         D         High to indicate operating status heat stage three is active.           OperatingStatus_CoolLast         D         High to indicate operating status cool last is active.           OperatingStatus_CoolStageOne         D         High to indicate operating status cool stage one is active.           OperatingStatus_Off         D         High to indicate operating status off is active.           OperatingStatus_EmergencyHeat         D         High to indicate operating status emergency heat is active.           OperatingStatus_Dry         D         High to indicate operating status dry is active.           Integer value to indicate fan status. Valid values are:	Supports_FanMode_Top	D	High indicates fan mode top is supported.
OperatingStatus_HeatStageTwo       D       High to indicate operating status heat stage two is active.         OperatingStatus_HeatStageThree       D       High to indicate operating status heat stage three is active.         OperatingStatus_CoolStageOne       D       High to indicate operating status cool last is active.         OperatingStatus_CoolStageTwo       D       High to indicate operating status cool stage two is active.         OperatingStatus_Off       D       High to indicate operating status off is active.         OperatingStatus_EmergencyHeat       D       High to indicate operating status emergency heat is active.         OperatingStatus_Dry       D       High to indicate operating status dry is active.         Current_Fan_Status       Integer value to indicate fan status. Valid values are:	OperatingStatus_HeatLast	D	High to indicate operating status heat last is active.
OperatingStatus_HeatStageThree  D High to indicate operating status heat stage three is active.  OperatingStatus_CoolLast  D High to indicate operating status cool last is active.  OperatingStatus_CoolStageOne  D High to indicate operating status cool stage one is active.  OperatingStatus_CoolStageTwo  D High to indicate operating status cool stage two is active.  OperatingStatus_Off  D High to indicate operating status off is active.  OperatingStatus_EmergencyHeat  D High to indicate operating status emergency heat is active.  OperatingStatus_Dry  D High to indicate operating status dry is active.  Integer value to indicate fan status. Valid values are:  0 - Unknown  1 - High  2 - Medium  3 - Low  4 - Off  Current_Temperature  A Integer to indicate the current temperature of the room.  Supports_TemperatureScale_Celsius  D High to indicate that the Lutron system is set to temperature scale Celsius.	OperatingStatus_HeatStageOne	D	High to indicate operating status heat stage one is active.
OperatingStatus_CoolLast         D         High to indicate operating status cool last is active.           OperatingStatus_CoolStageOne         D         High to indicate operating status cool stage one is active.           OperatingStatus_CoolStageTwo         D         High to indicate operating status cool stage two is active.           OperatingStatus_Off         D         High to indicate operating status off is active.           OperatingStatus_EmergencyHeat         D         High to indicate operating status dry is active.           OperatingStatus_Dry         D         High to indicate operating status dry is active.           Integer value to indicate fan status. Valid values are:	OperatingStatus_HeatStageTwo	D	High to indicate operating status heat stage two is active.
OperatingStatus_CoolStageOne         D High to indicate operating status cool stage one is active.           OperatingStatus_CoolStageTwo         D High to indicate operating status cool stage two is active.           OperatingStatus_Off         D High to indicate operating status off is active.           OperatingStatus_EmergencyHeat         D High to indicate operating status emergency heat is active.           OperatingStatus_Dry         D High to indicate operating status dry is active.           Integer value to indicate fan status. Valid values are:         0 - Unknown           1 - High         2 - Medium           3 - Low         4 - Off           Current_Temperature         A Integer to indicate the current temperature of the room.           Supports_TemperatureScale_Celsius         D High to indicate that the Lutron system is set to temperature scale Celsius.	OperatingStatus_HeatStageThree	D	High to indicate operating status heat stage three is active.
OperatingStatus_CoolStageTwo         D         High to indicate operating status cool stage two is active.           OperatingStatus_Off         D         High to indicate operating status off is active.           OperatingStatus_EmergencyHeat         D         High to indicate operating status emergency heat is active.           OperatingStatus_Dry         D         High to indicate operating status dry is active.           Integer value to indicate fan status. Valid values are:         0 - Unknown           1 - High         2 - Medium           3 - Low         4 - Off           Current_Temperature         A         Integer to indicate the current temperature of the room.           Supports_TemperatureScale_Celsius         D         High to indicate that the Lutron system is set to temperature scale Celsius.	OperatingStatus_CoolLast	D	High to indicate operating status cool last is active.
OperatingStatus_Off       D       High to indicate operating status off is active.         OperatingStatus_EmergencyHeat       D       High to indicate operating status emergency heat is active.         OperatingStatus_Dry       D       High to indicate operating status dry is active.         Integer value to indicate fan status. Valid values are:       0 - Unknown         1 - High       2 - Medium         3 - Low       4 - Off         Current_Temperature       A       Integer to indicate the current temperature of the room.         Supports_TemperatureScale_Celsius       D       High to indicate that the Lutron system is set to temperature scale Celsius.	OperatingStatus_CoolStageOne	D	High to indicate operating status cool stage one is active.
OperatingStatus_EmergencyHeat       D       High to indicate operating status emergency heat is active.         OperatingStatus_Dry       D       High to indicate operating status dry is active.         Integer value to indicate fan status. Valid values are:       0 – Unknown         1 – High       2 – Medium         3 – Low       4 – Off         Current_Temperature       A       Integer to indicate the current temperature of the room.         Supports_TemperatureScale_Celsius       D       High to indicate that the Lutron system is set to temperature scale Celsius.	OperatingStatus_CoolStageTwo	D	High to indicate operating status cool stage two is active.
OperatingStatus_Dry  D High to indicate operating status dry is active.  Integer value to indicate fan status. Valid values are:  0 - Unknown  1 - High  2 - Medium  3 - Low  4 - Off  Current_Temperature  A Integer to indicate the current temperature of the room.  Supports_Temperature Scale_Celsius  D High to indicate that the Lutron system is set to temperature scale Celsius.	OperatingStatus_Off	D	High to indicate operating status off is active.
Integer value to indicate fan status. Valid values are:  0 – Unknown  1 – High  2 – Medium  3 – Low  4 – Off  Current_Temperature  A Integer to indicate the current temperature of the room.  Supports_Temperature Scale_Celsius  D High to indicate that the Lutron system is set to temperature scale Celsius.	OperatingStatus_EmergencyHeat	D	High to indicate operating status emergency heat is active.
Current_Fan_Status  A  1 - High 2 - Medium 3 - Low 4 - Off  Current_Temperature  A Integer to indicate the current temperature of the room.  Supports_TemperatureScale_Celsius  D High to indicate that the Lutron system is set to temperature scale Celsius.	OperatingStatus_Dry	D	High to indicate operating status dry is active.
Supports_TemperatureScale_Celsius D High to indicate that the Lutron system is set to temperature scale Celsius.	Current_Fan_Status	Α	0 – Unknown 1 – High 2 – Medium 3 – Low
	Current_Temperature	Α	Integer to indicate the current temperature of the room.
Supports_TemperatureScale_Fahrenheit D High to indicate that the Lutron system is set to temperature scale Fahrenheit.	Supports_TemperatureScale_Celsius	D	High to indicate that the Lutron system is set to temperature scale Celsius.
	Supports_TemperatureScale_Fahrenheit	D	High to indicate that the Lutron system is set to temperature scale Fahrenheit.



## **Certified Module**

**Partner: Lutron** 



EcoMode_Is_Active	D Hight to indicate EcoMode is Active.
EcoMode_Is_Enabled	D High to indicate EcoMode is enabled.





Model: HomeWorks QSX Device Type: Lighting



**TESTING:** 

OPS USED FOR TESTING: CP3 1.8001.5061.26823

CP4 2.8001.00086

SIMPL WINDOWS USED FOR TESTING: 4.25

CRES DB USED FOR TESTING: 221.05

**DEVICE DATABASE**: 200.310

**SYMBOL LIBRARY USED FOR TESTING**: 1197

SAMPLE PROGRAM: Lutron HomeWorks QSX v1.3 Demo IP.smw

**REVISION HISTORY:** v1.3 – Initial Release