Software DOCUMENTATION

SL31-EDA4

Doc version	Date	Modifications	Writer	Soft Version
1.2	06/06/2013	Add lamp measure	HD	SV1.5

SUMMARY

I. Configuration variables NCI

Variable	Type	Description
nciPwrUpState	**UCPT_PwrUpState{** **SNVT_switch Output1Lamp1 [100,0 1]** **SNVT_switch Output1Lamp2 [100,0 1]** **SNVT_switch Output2Lamp1 [100,0 1]** **SNVT_switch Output2Lamp2 [100,0 1]** **}**	**Output1Lamp1** : State of lamp 11 at supply . **Output1Lamp2**: State of lamp 12 at supply **Output2Lamp1 :** State of lamp 21 at supply. **Output2Lamp2**: State of lamp 22 at supply.
nciBallast	**UCPT_Ballast** **{** **Unsigned RelayOperation [0]** **Unsigned RelayUtility [0]** **Unsigned OutputDali1 [1]** **Unsigned OutputDali2 [1]** **Unsigned Measure [0]** **Unsigned Input [0]** **Unsigned short Output1Ballast1 [1]** **Unsigned short Output1Ballast2 [2]** **Unsigned short Output2Ballast1 [1]** **Unsigned short Output2Ballast2 [2]** **}**	 **RelayOperation :** Relay functioning NF -> 0 ; NO->1 **RelayUtility :** Use the relay for supply the ballasts ->1 Not use the relay for supply the ballasts ->0 **OutputDali1 :** Ouput DALI1 in Broadcast ->1 else -> 0 **OutputDali2 :** Output DALI2 in Broadcast ->1 else -> 0 **Measure :** Measures active ->1 else ->0 **Input :** N/A **short Output1Ballast1 :** Address of DALI ballast associate to nviLampValue11. **short Output1Ballast2 :** Adress of DALI ballast associate to nviLampValue12. **short Output2Ballast1 :** Adresse of DALI ballast associate to nviLampValue21. **short Output2Ballast2 :** Adresse of DALI ballast associate to nviLampValue22.
nciDimLowLevlLig	**SCPTminSetpoint [0]**	Dimming minimum applicable
nciEnablStatusMs	**UCPTenableStatusMsg** **{** **lamp_current_high ::1 [1]** **lamp_current_low::1 [1]** **main_current_high::1 [1]** **main_current_low::1 [1]** **lamp_voltage_high::1 [1]** **lamp_voltage_low::1 [1]** **main_voltage_high::1 [1]** **main_voltage_low::1 [1]** **powerfactor_low::1 [1]** **OLC_temp_high::1 [1]** **power_high::1 [1]** **power_low::1 [1]** **relay_failure::1 [1]** **cap_failure::1 [1]** **lamp_failure::1 [1]** **ballast_failure::1 [1]** **inter_com_failure::1 [1]** **exter_com_failure::1 [1]** **main_volt_below_spec::1 [1]** **lamp_restart_count::1 [1]** **fading_ready::1 [1]** **ballast_temp_high::1 [1]** **digi_in_A::1 [1]** **digi_in_B::1 [1]** **time_elapsed::1 [1]** **time_prev::1 [1]** **bit_27_res::1 [1]** **…** **bit_38_res::1 [0]** **bit_39_res::1 [0]** **bit_40_res::1 [0]** **}**	Active the alarm of the nvoOLCStatus.x **lamp_current_high :** N/A **lamp_current_low :** N/A **main_current_high:** (1) active nvoOLCStatus.main_current_high **main_current_low:** (1) active nvoOLCStatus.main_current_low **lamp_voltage_high :** N/A **lamp_voltage_low:** N/A **main_voltage_high:** (1) active nvoOLCStatus.main_voltage_high **main_voltage_low :** (1) active nvoOLCStatus.main_voltage_high **powerfactor_low :** (1) active nvoOLCStatus.powerfactor_low **OLC_temp_high :** (1) active nvoOLCStatus.OLC_temp_high **power_high :** (1) active nvoOLCStatus.power_high **power_low:** (1) active nvoOLCStatus.power_high **relay_failure :**N/A **cap_failure:**N/A **lamp_failure:** (1) active nvoOLCStatus.lamp_failure **ballast_failure:** (1) active nvoOLCStatus.ballast_failure **inter_com_failure:**N/A **exter_com_failure:** (1) active nvoOLCStatus.exter_com_failure **main_volt_below_spec:**N/A **lamp_restart_count :** N/A **fading_ready :** N/A **ballast_temp_high** : N/A **digi_in_A:**N/A **digi_in_B:**N/A **time_elapsed**: (1) active nvoOLCStatus.**Time_elapsed**. **time_prev:** N/A

Variable	Type	Description
nciLampPower	**UCPTlampPower** **{** **SNVTpower Output1Lamp1 [150,0]** **SNVTpower Output1Lamp2 [150,0]** **SNVTpower Output2Lamp1 [150,0]** **SNVTpower Output2Lamp2 [150,0]** **}**	**Output1Lamp1 :** Lamp power 11 install (resolution 0,1W). **Output1Lamp2** : **:** Lamp power 12 install (resolution 0,1W). **Output2Lamp1 :** Lamp power 21 install (resolution 0,1W). **Output2Lamp2 :** Lamp power 22 install (resolution 0,1W).
nciLightId	**UCPTLightID** **{** **Unsigned long Lamp_Number [0]** **Unsigned char Lamp_Name [" "]** **SNVT_earth_pos Lamp_Pos[0,0,…]** **}**	**Lamp_Number :** Number of lamp. **Lamp_Name :** 16 alphanumeric code. **Lamp_Pos :** GPS coordonates.
nciOLCLimits	**UCPTOLCLimits** **{** **UNVT_amp_ac_mil lamp_current_high [0]** **UNVT_amp_ac_mil lamp_current_low [0]** **UNVT_amp_ac_mil main_current_high [3000]** **UNVT_amp_ac_mil main_current_low [0]** **SNVT_volt_ac lamp_voltage_high [0]** **SNVT_volt_ac lamp_voltage_low [0]** **SNVT_volt_ac main_voltage_high [250]** **SNVT_volt_ac main_voltage_low [200]** **SNVT_pwr_fact power_factor_low [0,00000]** **SNVT_power power_high [600,0]** **SNVT_power power_low [0,0]** **SNVT_time_hour lamplifetime [30.000]** **SNVT_time_hour lampalarm [25.000]** **}**	**lamp_current_high :**N/A **lamp_current_low :**N/A **main_current_high :** Main current high trigger. **main_current_low :** Main current low trigger. **lamp_voltage_high :** N/A **lamp_voltage_low :** N/A **main_voltage_high:** Main voltage high trigger. **main_voltage_low :** Main voltage low trigger. **power_factor_low :** Power factor low trigger. **power_high:** Power hight trigger. **power_low:** Power hight trigger. **Lamplifetime** : Lifetime constructor lamp. **Lampalarm:** N/A

II. Input variables NVI

Variable	Type		Description
nviLampValue11	**SNVT_switch**	**[100,0]** **[1]**	Lamp 11 command - Give an order (%) of dimming. - Command light off (0) or dimming (1).
nviLampValue12	**SNVT_switch**	**[100,0]** **[1]**	Lamp 12 command - Give an order (%) of dimming. - Command light off (0) or dimming (1).
nviLampValue21	**SNVT_switch**	**[100,0]** **[1]**	Lamp 21 command - Give an order (%) of dimming. - Command light off (0) or dimming (1).
nviLampValue22	**SNVT_switch**	**[100,0]** **[1]**	Lamp 22 command - Give an order (%) of dimming. - Command light off (0) or dimming (1).
nviRelay	**SNVT_switch**	**[100,0]** **[1]**	- Order (%) useless. - Command light off (0) or turning on (1).
nviRunHours11	**UNVT_time_hour**	**[0,0]**	Refresh or reset the run hours of lamp 11.
nviRunHours12	**UNVT_time_hour**	**[0,0]**	Refresh or reset the run hours of lamp 12.
nviRunHours21	**UNVT_time_hour**	**[0,0]**	Refresh or reset the run hours of lamp 21.
nviRunHours22	**UNVT_time_hour**	**[0,0]**	Refresh or reset the run hours of lamp 22.
nviEnergy11	**SNVT_elec_kwh_l**	**[0]**	Refresh or reset the energy.

III. Output variable NVO

Variable	Type	Description
nvoEnvironment11	**UNVT_environment** **{** **UNVT_amp_ac_mil lampCurrent** **SNVT_volt_ac lampVoltage** **SNVT_volt_ac supplyVoltage** **UNVT_amp_ac_mil supplyCurrent** **SNVT_temp_p ballastTemp** **SNVT_power power** **SNVT_pwr_fact powerFactor** **UNVT_time_hour runHours** **SNVT_elec_kwh_l energy** **}**	**lampCurrent (resolution 1mA):** Instant lamp 11 curent. **lampVoltage (resolution 1V):** Instant lamp 11 voltage. **supplyVoltage (resolution 1V):** Instant voltage. **supplyCurrent (resolution 1mA):** Instant current (all current through node). **ballastTemp (resolution 1°C):** Node temperature du contrôleur. **power (resolution 1W):** Instant power (all power through node). **powerFactor (resolution 0,005%)** : Power factor. **runHours (resolution 1h)** : Run Hours lamp11. **energy (resolution 0,1kWh)** : Node energy.
nvoEnvironment12	**UNVT_environment** **{** **UNVT_amp_ac_mil lampCurrent** **SNVT_volt_ac lampVoltage** **SNVT_volt_ac supplyVoltage** **UNVT_amp_ac_mil supplyCurrent** **SNVT_temp_p ballastTemp** **SNVT_power power** **SNVT_pwr_fact powerFactor** **UNVT_time_hour runHours** **SNVT_elec_kwh_l energy** **}**	**lampCurrent resolution 1mA):** Instant lamp 12 current. **lampVoltage (resolution 1V):** Instant lamp 12 voltage. **supplyVoltage resolution 1V):** N/A. **supplyCurrent (resolution 1mA):**N/A. **ballastTemp (resolution 1°C):** N/A. **power (resolution 1W):** N/A. **powerFactor (resolution 0,005%)** : N/A. **runHours (resolution1h)** : Run Hours lamp12. **energy (resolution 0,1kWh)** : N/A
nvoEnvironment21	**UNVT_environment** **{** **UNVT_amp_ac_mil lampCurrent** **SNVT_volt_ac lampVoltage** **SNVT_volt_ac supplyVoltage** **UNVT_amp_ac_mil supplyCurrent** **SNVT_temp_p ballastTemp** **SNVT_power power** **SNVT_pwr_fact powerFactor** **UNVT_time_hour runHours** **SNVT_elec_kwh_l energy** **}**	**lampCurrent (resolution 1mA):** Instant lamp 21 current. **lampVoltage (resolution 1V):** instant lamp 21 voltage. **supplyVoltage (resolution 1V):** N/A. **supplyCurrent (resolution 1mA):**N/A. **ballastTemp (resolution 1°C):** N/A. **power (resolution 1W):** N/A. **powerFactor (resolution 0,005%)** : N/A. **runHours (resolution1h)** : Run hours lamp 21. **energy (resolution 0,1kWh)** : N/A
nvoEnvironment22	**UNVT_environment** **{** **UNVT_amp_ac_mil lampCurrent** **SNVT_volt_ac lampVoltage** **SNVT_volt_ac supplyVoltage** **UNVT_amp_ac_mil supplyCurrent** **SNVT_temp_p ballastTemp** **SNVT_power power** **SNVT_pwr_fact powerFactor** **UNVT_time_hour runHours** **SNVT_elec_kwh_l energy** **}**	**lampCurrent (resolution 1mA):** Instant lamp 22 current. **lampVoltage (resolution 1V):** Instant lamp 22 voltage. **supplyVoltage (resolution 1V):** N/A. **supplyCurrent (resolution 1mA):**N/A. **ballastTemp (resolution 1°C):** N/A. **power (resolution 1W):** N/A. **powerFactor (resolution 0,005%)** : N/A. **runHours (resolution1h)** : Run hours lamp 22. **energy (resolution 0,1kWh)** : N/A
nvoLampValue11Fb	**SNVT_switch** **[xxx]** **[x]**	Feedback of lamp 11. Value = Instant percentage of dimming. State = Instant state.
nvoLampValue12Fb	**SNVT_switch** **[xxx]** **[x]**	Feedback of lamp 12. Value = Instant percentage of dimming. State = Instant state.
nvoLampValue21Fb	**SNVT_switch** **[xxx]** **[x]**	Feedback of lamp 21. Value = Instant percentage of dimming. State = Instant state.
nvoLampValue22Fb	**SNVT_switch** **[xxx]** **[x]**	Feedback of lamp 22. Value = Instant percentage of dimming. State = Instant state.

nvoOLCStatus11	**UNVT_lamp_status** **{** **SNVT_time_stamp_p time_actual** **alarm_actual** **{** **lamp_current_high ::1** **lamp_current_low::1** **main_current_high::1** **main_current_low::1** **lamp_voltage_high::1** **lamp_voltage_low::1** **main_voltage_high::1** **main_voltage_low::1** **powerfactor_low::1** **OLC_temp_high::1** **power_high::1** **power_low::1** **relay_failure::1** **cap_failure::1** **lamp_failure::1** **ballast_failure::1** **inter_com_failure::1** **exter_com_failure::1** **main_volt_below_spec::1** **lamp_restart_count::1** **fading_ready::1** **ballast_temp_high::1** **digi_in_A::1** **digi_in_B::1** **time_elapsed::1** **time_prev::1** **bit_27_res::1** **…** **bit_40_res::1** **}** **SNVT_time_stamp_p time_previous** **alarm_previous** **{** **lamp_current_high ::1** **lamp_current_low::1** **main_current_high::1** **main_current_low::1** **lamp_voltage_high::1** **lamp_voltage_low::1** **main_voltage_high::1** **main_voltage_low::1** **powerfactor_low::1** **OLC_temp_high::1** **power_high::1** **power_low::1** **relay_failure::1** **cap_failure::1** **lamp_failure::1** **ballast_failure::1** **inter_com_failure::1** **exter_com_failure::1** **main_volt_below_spec::1** **lamp_restart_count::1** **fading_ready::1** **ballast_temp_high::1** **digi_in_A::1** **digi_in_B::1** **time_elapsed::1** **time_prev::1** **bit_27_res::1** **…** **bit_40_res::1** **}** **}**	**time_actual** : N/A. Alarmes actuelles : **lamp_current_high :** N/A. **lamp_current_low :** N/A. **main_current_high** Main high current. **main_current_low:** Main low current. **lamp_voltage_high :** N/A. **lamp_voltage_low:** N/A. **main_voltage_high:** Main high voltage. **main_voltage_low :** Main low voltage. **powerfactor_low :** Power factor low. **OLC_temp_high :** temperature node high **power_high :** Power high. **power_low:** Power low. **relay_failure :**N/A. **cap_failure:**N/A. **lamp_failure: L**amp 11 failure. **ballast_failure:** ballast lamp 11 failure. **inter_com_failure:**N/A. **exter_com_failure:** DALI communication failure . **main_volt_below_spec:**N/A. **lamp_restart_count :** N/A. **fading_ready :**N/A. **ballast_temp_high** : N/A. **digi_in_A:**N/A. **digi_in_B:**N/A. **time_prev** : N/A **time_elapsed** : lamp 11 lifetime failure.. **time_previous :**N/A. Alarmes précendentes : N/A.

nvoOLCStatus12	**UNVT_lamp_status** **{** **SNVT_time_stamp_p time_actual** **alarm_actual** **{** **lamp_current_high ::1** **lamp_current_low::1** **main_current_high::1** **main_current_low::1** **lamp_voltage_high::1** **lamp_voltage_low::1** **main_voltage_high::1** **main_voltage_low::1** **powerfactor_low::1** **OLC_temp_high::1** **power_high::1** **power_low::1** **relay_failure::1** **cap_failure::1** **lamp_failure::1** **ballast_failure::1** **inter_com_failure::1** **exter_com_failure::1** **main_volt_below_spec::1** **lamp_restart_count::1** **fading_ready::1** **ballast_temp_high::1** **digi_in_A::1** **digi_in_B::1** **time_elapsed::1** **time_prev::1** **bit_27_res::1** **…** **bit_40_res::1** **}** **SNVT_time_stamp_p time_previous** **alarm_previous** **{** **lamp_current_high ::1** **lamp_current_low::1** **main_current_high::1** **main_current_low::1** **lamp_voltage_high::1** **lamp_voltage_low::1** **main_voltage_high::1** **main_voltage_low::1** **powerfactor_low::1** **OLC_temp_high::1** **power_high::1** **power_low::1** **relay_failure::1** **cap_failure::1** **lamp_failure::1** **ballast_failure::1** **inter_com_failure::1** **exter_com_failure::1** **main_volt_below_spec::1** **lamp_restart_count::1** **fading_ready::1** **ballast_temp_high::1** **digi_in_A::1** **digi_in_B::1** **time_elapsed::1** **time_prev::1** **bit_27_res::1** **…** **bit_40_res::1** **}** **}**	**time_actual** : N/A. Alarmes actuelles : **lamp_current_high :** N/A. **lamp_current_low :** N/A. **main_current_high:** N/A. **main_current_low:** N/A. **lamp_voltage_high :** N/A. **lamp_voltage_low:** N/A. **main_voltage_high:** N/A. **main_voltage_low :** N/A. **powerfactor_low :** N/A. **OLC_temp_high :** N/A. **power_high :**N/A. **power_low:**N/A. **relay_failure :**N/A. **cap_failure:**N/A. **lamp_failure:** Lamp 12 failure . **ballast_failure:** Ballast lamp 12 failure. **inter_com_failure:**N/A. **exter_com_failure:** DALI communication failure. **main_volt_below_spec:**N/A. **lamp_restart_count :** N/A. **fading_ready :**N/A. **ballast_temp_high** : N/A. **digi_in_A:**N/A. **digi_in_B:**N/A. **time_prev** : N/A **time_elapsed** : lamp 12 lifetime failure. **time_previous :**N/A. Alarmes précendentes : N/A.

nvoOLCStatus21	**UNVT_lamp_status** **{** **SNVT_time_stamp_p time_actual** **alarm_actual** **{** **lamp_current_high ::1** **lamp_current_low::1** **main_current_high::1** **main_current_low::1** **lamp_voltage_high::1** **lamp_voltage_low::1** **main_voltage_high::1** **main_voltage_low::1** **powerfactor_low::1** **OLC_temp_high::1** **power_high::1** **power_low::1** **relay_failure::1** **cap_failure::1** **lamp_failure::1** **ballast_failure::1** **inter_com_failure::1** **exter_com_failure::1** **main_volt_below_spec::1** **lamp_restart_count::1** **fading_ready::1** **ballast_temp_high::1** **digi_in_A::1** **digi_in_B::1** **time_elapsed::1** **time_prev::1** **bit_27_res::1** **…** **bit_40_res::1** **}** **SNVT_time_stamp_p time_previous** **alarm_previous** **{** **lamp_current_high ::1** **lamp_current_low::1** **main_current_high::1** **main_current_low::1** **lamp_voltage_high::1** **lamp_voltage_low::1** **main_voltage_high::1** **main_voltage_low::1** **powerfactor_low::1** **OLC_temp_high::1** **power_high::1** **power_low::1** **relay_failure::1** **cap_failure::1** **lamp_failure::1** **ballast_failure::1** **inter_com_failure::1** **exter_com_failure::1** **main_volt_below_spec::1** **lamp_restart_count::1** **fading_ready::1** **ballast_temp_high::1** **digi_in_A::1** **digi_in_B::1** **time_elapsed::1** **time_prev::1** **bit_27_res::1** **…** **bit_40_res::1** **}** **}**	**time_actual** : N/A. Alarmes actuelles : **lamp_current_high :** N/A. **lamp_current_low :** N/A. **main_current_high:** N/A. **main_current_low:** N/A. **lamp_voltage_high :** N/A. **lamp_voltage_low:** N/A. **main_voltage_high:** N/A. **main_voltage_low :** N/A. **powerfactor_low :** N/A. **OLC_temp_high :** N/A. **power_high :**N/A. **power_low:**N/A. **relay_failure :**N/A. **cap_failure:**N/A. **lamp_failure:** Lamp 21 failure . **ballast_failure:** Ballast lamp 21 faillure. **inter_com_failure:**N/A. **exter_com_failure:** DALI communication failure. **main_volt_below_spec:**N/A. **lamp_restart_count :** N/A. **fading_ready :**N/A. **ballast_temp_high** : N/A. **digi_in_A:**N/A. **digi_in_B:**N/A. **time_prev** : N/A **time_elapsed** : lamp 21 lifetime failure. **time_previous :**N/A. Alarmes précendentes : N/A.

nvoOLCStatus22	**UNVT_lamp_status** **{** **SNVT_time_stamp_p time_actual** **alarm_actual** **{** **lamp_current_high ::1** **lamp_current_low::1** **main_current_high::1** **main_current_low::1** **lamp_voltage_high::1** **lamp_voltage_low::1** **main_voltage_high::1** **main_voltage_low::1** **powerfactor_low::1** **OLC_temp_high::1** **power_high::1** **power_low::1** **relay_failure::1** **cap_failure::1** **lamp_failure::1** **ballast_failure::1** **inter_com_failure::1** **exter_com_failure::1** **main_volt_below_spec::1** **lamp_restart_count::1** **fading_ready::1** **ballast_temp_high::1** **digi_in_A::1** **digi_in_B::1** **time_elapsed::1** **time_prev::1** **bit_27_res::1** **…** **bit_40_res::1** **}** **SNVT_time_stamp_p time_previous** **alarm_previous** **{** **lamp_current_high ::1** **lamp_current_low::1** **main_current_high::1** **main_current_low::1** **lamp_voltage_high::1** **lamp_voltage_low::1** **main_voltage_high::1** **main_voltage_low::1** **powerfactor_low::1** **OLC_temp_high::1** **power_high::1** **power_low::1** **relay_failure::1** **cap_failure::1** **lamp_failure::1** **ballast_failure::1** **inter_com_failure::1** **exter_com_failure::1** **main_volt_below_spec::1** **lamp_restart_count::1** **fading_ready::1** **ballast_temp_high::1** **digi_in_A::1** **digi_in_B::1** **time_elapsed::1** **time_prev::1** **bit_27_res::1** **…** **bit_40_res::1** **}** **}**	**time_actual** : N/A. Alarmes actuelles : **lamp_current_high :** N/A. **lamp_current_low :** N/A. **main_current_high:** N/A. **main_current_low:** N/A. **lamp_voltage_high :** N/A. **lamp_voltage_low:** N/A. **main_voltage_high:** N/A. **main_voltage_low :** N/A. **powerfactor_low :** N/A. **OLC_temp_high :** N/A. **power_high :**N/A. **power_low:**N/A. **relay_failure :**N/A. **cap_failure:**N/A. **lamp_failure:** Lamp 22 failure. **ballast_failure:** Ballast lamp 22 failure. **inter_com_failure:**N/A. **exter_com_failure :** DALI communication failure. **main_volt_below_spec:**N/A. **lamp_restart_count :** N/A. **fading_ready :**N/A. **ballast_temp_high** : N/A. **digi_in_A:**N/A. **digi_in_B:**N/A. **time_prev** : N/A **time_elapsed** : lamp 22 lifetime failure. **time_previous :**N/A. Alarmes précendentes : N/A.

nvoRelayFb	**SNVT_switch [xxx] [x]**	Relay ON : Value =100 & State =1 Relay OFF : Value=0 & State=0
nvoVersionSoft	**SNVT_address [xx][xx]**	Version software NC. Version software 2nd processeur.

IV. Versions

Indice Document	Date	Rédacteur	Modifications	Ver. soft
1.0	05/09/11	R. FRANCOIS	Creation of document	SV1.0
1.1	20/12/11	HD	Add measure	SV1.3
1.2	06/06/13	HD	Add lamp measure	SV1.5