Certified Capability List

This Capability List is based on a certification session performed by the *TALQ Certification Tool (v2.6.2-online.5) on 2025-05-26 11:32:46.081 +0200.*

The Capability List is a consolidated list of TALQ features which are implemented in a product.

The tool has succesfully performed *51 tests*.

Product details

Product Name	esave sLControl
Company	esave AG
Type	CMS
URL	https://talq.esaveag.com:3031/
Notes	
Generated on	2025-05-26 11:32:46.081 +0200
Supported profiles	• Lighting • Lighting Asset Management
API version certified:	2.6.2
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Functional tests

The Functional Tests help customers understand the capabilities of a TALQ-certified product. All functional test cases are presented to provide comprehensive context, and successful completion of each test is indicated with a tick mark. Each Functional Test is related to a set of required TALQ

technical test cases.

Configuring

7 of 11

Support light point control features ✔

The CMS properly handles the bootstrap process and creates the associated light point control functions and services. **CFG-1**

Support cabinet control lighting features

The CMS properly handles the bootstrap process and creates the associated cabinet control lighting functions and services. **CFG-2**

Support sensor-based light point control features

The CMS properly handles the bootstrap process and creates the associated sensor-based light point control functions and services. **CFG-3**

Discovery of the network of devices ✔

The CMS receives and handle all the devices that are sent by the Gateway and properly handles their device classes, asset and other properties. **CFG-4**

Initialize light point electrical alarm thresholds ✔

The CMS is able to set light point electrical alarm thresholds in the Gateway, including Lamp Voltage Too High/Low, Lamp Current Too High/Low, Active Power Too High/Low and Power Factor Too Low **CFG-5**

Initialize and change the cabinet control alarm thresholds ✔

The CMS is able to set cabinet control electrical alarm thresholds in the Gateway, including < to be defined > **CFG-6**

Initialize and change the light point parameters

The CMS is able to set the light point parametes in the Gateway. **CFG-7**

Initialize and change a group of luminaires ✔

The CMS is able to manage a group of light points and send it to the Gateway. **CFG-8**

Change the sampling frequency for measurements ✔

The CMS can configure the sampling rate of values . **CFG-9**

Change the reporting frequency for measurements ✔

The CMS can configure the reporting frequency of values . **CFG-10**

Update the firmware of the hardware devices

The CMS can send a data package to the Gateway to update the firmware on a physical device. **CFG-11**

Monitoring **9 of 11**

Measure and report basic electrical values (Current/Voltage/Active Power/Power Factor) ✔

The CMS properly handles electrical values including mains voltage, current, active power and power factor sent by the Gateway using one of the data logging service. **MTG-1**

Measure and report cumulating energy counter ✔

The CMS properly handles energy counter sent by the Gateway using one of the data logging service. **MTG-2**

Report lamps' number of operating hours ✔

The CMS properly handles lamp operating hours sent by the Gateway using one of the data logging service. **MTG-3**

Report lamps' number of switch-on counter ✔

The CMS properly handles lamp switch-on sent by the Gateway using one of the data logging service. **MTG-4**

Report lamps' number of supply loss counter ✔

The CMS properly handles supply loss count sent by the Gateway using one of the data logging service. **MTG-5**

Monitor the lamp level feedback when a manual override command is sent ✔

The CMS properly sends a manual override command and can use On-Demand read to check that the lamp level feedback is getting close to the command after a configurable delay. **MTG-6**

Report temperature ✔

The CMS properly handles temperature values sent by the Gateway using one of the data logging service. **MTG-8**

Report presence detection ✔

The CMS properly handles presence detection values sent by the Gateway using one of the data logging service. **MTG-9**

Report noise level

The CMS properly handles noise level values sent by the Gateway using one of the data logging service. **MTG-10**

Report light level ✔

The CMS properly handles light level values sent by the Gateway using one of the data logging service. **MTG-11**

Report firmware updating process

Tha CMS properly handles events sent by the Gateway during the firmware update process. **MTG-12**

Controlling **6 of 7**

Manual control over a light point ✔

The CMS can send a simple manual override command to one single light point. **CTR-1**

Manual control over a group of light points ✔

The CMS can send a simple manual override command to a group of light points. **CTR-2**

Manual control with a delay ✔

The CMS can send a manual override command to one single light point with a delay in the command execution. **CTR-3**

Manual control with a ramp ✔

The CMS can send a manual override command to one single light point with a rampup in the command execution. **CTR-4**

Automatic switch light on/off based on photocell value ✔

The CMS can send a control program that configures the Gateway to switch the light ON and OFF on a single light point. **CTR-5**

Automatic change of light level when presence detected ✔

The CMS can send a control program that configures the Gateway to change the light dimming level depending on a local presence sensor on a single light point. **CTR-6**

Automatic change of light level when noise detected

The CMS can send a control program that configures the Gateway to change the light dimming level depending on a local noise sensor on a single light point. **CTR-7**

Alarming **4 of 5**

Report lighting alarms to the CMS ✔

The CMS can handle lighting alarms sent by a Gateway using one of the data logger services. **ALR-1**

Report electrical alarms to the CMS ✔

The CMS can handle electrical alarms sent by a Gateway using one of the data logger services. **ALR-2**

Report invalid program and calendar ✔

The CMS can handle invalid calendar and control program alarms sent by a Gateway using one of the data logger services. **ALR-3**

Report activity for sensor based lighting

The CMS can handle activity detection events sent by a Gateway using one of the data logger services. **ALR-4**

Request the status of the alarm ✔

The CMS can ask the Gateway for the status of the alarm and handdle the response. **ALR-5**

Programming **8 of 9**

Fix time switching+dimming control program that applies to all days in the year ✔

The CMS can generate and send to a Gateway a control program that switches and dims a light point at fix time all days in the year. **PRG-1**

Astro-clock switching + fix time dimming control program that applies to all days in the year ✔

The CMS can generate and send to a Gateway a control program that switches a light point at sunrise/sunset +/- few minutes and dim it during an astro-clock active period, all days in the year. **PRG-2**

Photocell switching + fix time dimming control program that applies to all days in the year ✔

The CMS can generate and send to a Gateway a control program that switches a light point when photocell indicates darkness and dim it during the photocell active period, all days in the year. **PRG-3**

Photocell and astro-clock switching + fix time dimming control program that applies to all days in the year ✔

The Gateway ccan generate and send to a Gateway a control program that switches a light point when photocell indicates darkness or at sunrise/sunset +:- few minutes (the earlier for switch ON/OFF) and dim it during the photocell active period, all days in the year. **PRG-4**

Part night switching program

The CMS can generate and send to a Gateway a control program that switches a light point OFF at fixed time in the middle of the night. **PRG-5**

Support exceptional periods (e.g., Sept 10th to Oct 16th) ✔

The CMS can generate and send a calendar that has a default rule for all days in the year and another higher priority calendar that applies from DAY 1 to DAY 2. **PRG-6**

Support exceptional week days (e.g., every Saturday and Sunday) ✔

PRG-7

The CMS can generate and send to a Gateway a calendar that has a default rule for all days in the year and another higher priority calendar that applies every Saturday night and Sunday night, every day in the year.

Support exceptional week days (e.g., every Saturday and Sunday) and exceptional periods (e.g., Sept 10th to Oct 16th) ✔

The CMS can generate and send to a Gateway a calendar that has a default rule for all days in the year, another higher priority calendar that applies every Saturday night and Sunday night, every day in the year and another higher priority calendar that applies to every saturday between DAY 1 and DAY 2. **PRG-8**

Support dynamic lighting program based on sensor detection ✔

The CMS can generate and send to a Gateway a control program that has rule based on presence sensor. **PRG-9**

Capability list

Security

Enabled ✔

Functions

Basic

The Basic function describes the properties related to the physical asset to which the logical device is associated, such as identification (assetId) and location information.

Attributes

#	Attribute	Description

✔	assetId	Customer identifier of the asset. If multiple devices have the same assetId it means they belong to the same asset.
✔	serial	Serial number of the device.
✔	hwType	Hardware type of the device.
✔	hwVersion	Hardware revision of the device.
✔	swVersion	Software version installed on the device.
✔	location	Latitude, Longitude and Altitude. [DEPRECATED: This attribute has been deprecated and it will be removed in the next MAJOR release. Please use the new LocationSensorFunction.location instead.]
✔	timeZone	Time zone of the device. Time zone may be expressed in two formats. <timezone> where <timezone> is a time zone as defined in the zone.tab of the IANA timezone database [IANA]; and stdoffset[dst[offset][,start[/time],en d[/time]]] as defined by the Open Group for posix systems [POSIX]. [DEPRECATED: This attribute has been deprecated and it will be removed in the next MAJOR release. Please use the new TimeFunction.timeZone instead.]
✔	currentTime	Current time of the device defined as local time with time zone designator. [DEPRECATED: This attribute has been deprecated and it will be removed in the next MAJOR release. Please use the new TimeFunction.currentTime instead.]

Events

#	Event type	Description
✔	deviceReset	The physical device containing the logical device was reset
✔	batteryMode	Device operating in battery mode
✔	installationMode	Device is being installed
✔	maintenanceMode	Device is undergoing maintenance
✔	cabinetDoorOpen	Cabinet door is open. [DEPRECATED: This attribute has been deprecated and it will be removed in the next MAJOR release. Please use the new SegmentMonitor.cabinetDoorOpen instead.]
✔	batteryShutdown	Indicates the device has shut down due to battery discharge
✔	locationUpdated	Indicates the location of a device has changed.

Communication

The Communication Function contains attributes related to the communication within the ODN, and between ODN devices and Gateways. Although communication within the ODN is outside the scope of the TALQ Smart City Protocol, this Function enables access to a minimum set of configuration and state information of the ODN communication interface in order to facilitate system management from the CMS.

Attributes

#	Attribute	Description
✔	physicalAddress	Physical address of the device. For example, IEEE MAC address. This attribute can be used to map between logical and physical devices. The format is specific to the ODN implementation.
✔	parentAddress	TALQ Address of the parent device, e.g. gateway. It shall point to a specific communication function.
✔	numberOfHops	Number of hops between the gateway and the ODN device represented by the device including this function.
✔	communicationQuality	Indicator of the quality of the communication with the device. 100% means good quality.

Events

#	Event type	Description
✔	communicationFailure	This event is generated by the ODN when the communication function is not operating as expected

Gateway

The Gateway function includes the necessary attributes to enable the communication between the CMS and the Gateway according to the TALQ Specification.

Attributes

#	Attribute	Description
✔	cmsUri	Base URI for TALQ communication that allows the Gateway to access the CMS. Must be an absolute URI. Other URI's for accessing CMS can be relative to this base.
✔	cmsAddress	CMS UUID address
✔	gatewayUri	Base URI for TALQ communication that allows the CMS to access the Gateway. Must be an absolute URI. Other URI's for accessing Gateway can be relative to this base.
✔	gatewayAddress	Gateway UUID address

✔	cmsRetryPeriod	Time duration before the CMS retransmits a message for which the expected response has not been received. This attribute can be used by the Gateway to avoid requests overload. Although this attribute will be mandatory for CMS in future MAJOR versions, to keep backward compatibility it is considered optional for the existing profiles.
✔	cmsNumberOfRetries	Maximum number of retries for a failed request sent by the CMS for which expected response has not been received. Default value shall be 3. This attribute can be used by the Gateway to avoid requests overload. Although this attribute will be mandatory for CMS in future MAJOR versions, to keep backward compatibility it is considered optional for the existing profiles.
✔	crlUrn	URI where the Gateway can obtain the Certification Revocation List (CRL).
✔	vendor	Vendor identification.

Lamp Actuator

The Lamp Actuator function includes attributes related to lighting control and it represents the smallest unit for control purposes. In practice, however, a Lamp Actuator function can control combinations of several lamps and control gear but all in the same way, as if they are all one individual unit.

Attributes

#	Attribute	Description
✔	defaultLightState	Sets the default light output for the lamp actuator. This shall be applicable if no other command is active. This attribute shall be set to 100% as default value.
✔	targetLightCommand	Latest command for the lamp actuator.
✔	feedbackLightCommand	This attribute reflects the command in effect and it might deviate from the actualLightState due to propagation time or due to internal ODN specific mechanisms to handle the priority of the requests.
✔	actualLightState	This attribute should reflect the physical state of the light source as much as possible, including factors such as CLO. It may be calculated or measured, depending on the specific ODN implementation, which is outside the scope of this specification.

✔	calendarID	TALQ Address of the calendar controlling this lamp actuator. If this attribute is empty, the behavior shall be determined by the ODN. If the attribute is invalid, the ODN shall trigger a generic invalid address event and the behavior shall be determined by the ODN.

Events

#	Event type	Description
✔	lightStateChange	Light state has changed
✔	invalidCalendar	The lamp actuator function has been allocated a calendar that it cannot implement
✔	invalidProgram	The lamp actuator function has been allocated a control program that it cannot implement

Lamp Monitor

The Lamp Monitor function enables monitoring of lamp parameters. A Lamp Monitor function should be associated with a specific lamp/control gear combination. Multiple lamp monitor functions may be implemented by a single device.

Attributes

#	Attribute	Description
✔	numberOfLamps	Number of lamps being monitored by the lamp monitor function.
✔	operatingHours	Number of hours the lamp is on. This is the value used in CLO and may be set by the CMS.
✔	temperature	Temperature of the device implementing this function. [DEPRECATED: This attribute has been deprecated and it will be removed in the next MAJOR release. Please use the new TemperatureSensorFunction.temperature instead.]
✔	supplyVoltage	RMS supply volts when supplyType is AC, supply voltage (V) when supplyType is DC.
✔	supplyCurrent	RMS supply current (A) when supplyType is AC, supply current (A) when supplyType is DC.
✔	activePower	Active power.
✔	powerFactor	Active power/Apparent power.
✔	powerFactorSense	Phase sense of power factor.
✔	activeEnergy	Cumulative active energy (since installation or counter reset).

Events

#	Event type	Description
✔	lampPowerTooHigh	Lamp power is greater than expected lamp power + lampPowerTolerance
✔	lampPowerTooLow	Lamp power is smaller than expected lamp power - lampPowerTolerance
✔	lampVoltageTooHigh	Level of lamp voltage (not supply voltage) is greater than highLampVoltageThreshold.
✔	lampVoltageTooLow	Level of lamp voltage (not supply voltage) is smaller than lowLampVoltageThreshold.
✔	currentTooHigh	Supply current is above the highCurrentThreshold defined in the lamp type
✔	currentTooLow	Supply current is below the lowCurrentThreshold defined in the lamp type
✔	powerFactorTooLow	The power factor is below powerFactorThreshold
✔	lampFailure	The lamp is not operating as it is supposed to (e.g. the lamp is broken). This event shall be used to detect a situation where the lamp (or LED module(s)) should be lit, but produce no light. This could be detected by the current flowing or power consumed.
✔	highTemperature	Indicates temperature is above the high threshold
✔	relayFailure	Set in case of internal relay is failing
✔	absoluteLampPowerTooHigh	Indicates the power is above the lampPowerHighThreshold in the lamp type
✔	absoluteLampPowerTooLow	Indicates the power is below the lampPowerLowThreshold in the lamp type
✔	controlGearCommFailure	Indicates failure of the control gear
✔	cyclingFailure	Indicates the lamp is constantly switching ON and OFF in an unexpected manner
✔	supplyLoss	Indicates loss of mains power
✔	contactorError	Indicates error in contactor
✔	lampUnexpectedOn	Indicates lamp is unexpectedly on
✔	leakageDetected	Indicates that an earth leakage fault has been detected

Electrical Meter

The electrical meter function supports electrical metering capabilities including measurements of voltage, current, power, energy, and power factor. This function may be associated with Luminaire Controllers, Cabinet Controllers or electrical meters installed in switch boxes. ODNs may implement both single phase and three phase meters. Typically meters within a control device will be single phase and stand-alone meters. A street side cabinet may have single phase or three phase meters.

Attributes

#	Attribute	Description
✔	totalPower	Sum of the active power consumed on phase 1, 2 and 3, or just the power for a single phase meter.
✔	totalActiveEnergy	Total cumulative kWh measured by the meter since installation date (or counter reset).
✔	totalPowerFactor	Total active power divided by total apparent power.
✔	supplyVoltage	Average between Phase1 RMS Voltage, Phase2 RMS Voltage and Phase3 RMS Voltage, or in the case of a single phase meter just the RMS supply voltage.
✔	totalCurrent	Sum of the RMS currents on phase 1, 2 and 3.
✔	averageCurrent	Average RMS current on phase 1, 2 and 3.

Events

#	Event type	Description

Photocell

A Photocell function models the capabilities of a photocell that can be used for lighting control. This function shall be supported by the CMS and optionally by the ODNs (Gateway).

Attributes

#	Attribute	Description
✔	onLevel	Illuminance level at which the photocell switches to on state.
✔	offLevel	Illuminance level at which the photocell switches to off state.
✔	photocellOutput	Output state of the photocell. Possible values are ON (means the illuminance level has fallen below the onLevel) and OFF (means the illuminance level has risen above the offLevel).

Events

#	Event type	Description
✔	photocellOutputOn	The photocell output has changed to ON

Light Sensor

A Light Sensor function models the output of light sensor. This function is optional for both CMS and Gateway, but when supported the requirements in this section shall apply.

Attributes

#	Attribute	Description
✔	levelHighThreshold	Light level above which a levelTooHigh event is triggered.
✔	levelLowThreshold	Light level below which a levelTooLow event is triggered.
✔	lightLevel	Illuminance level.

Events

#	Event type	Description
✔	levelTooHigh	Indicates the light level is above the levelHighThreshold
✔	levelTooLow	Indicates the light level is below the levelLowThreshold

Temperature Sensor

The Temperature Sensor function allows a CMS to monitor the temperature in a device and send events in case the value is above/below configurable thresholds.

Attributes

#	Attribute	Description
✔	temperatureHighThreshold	Threshold above which a temperatureTooHigh event is triggered.
✔	temperatureLowThreshold	Threshold below which a temperatureTooLow event is triggered.
✔	fireDetectionThreshold	Threshold above which a fireDetected event is triggered.
✔	temperature	Output temperature.

Events

#	Event type	Description

✔	temperatureTooHigh	Indicates the output temperature is above the temperatureHighThreshold.
✔	temperatureTooLow	Indicates the output temperature is below the temperatureLowThreshold.
✔	fireDetected	Indicates the output temperature is above the fireDetectionThreshold.

Presence Sensor

The Presence Sensor function allows a CMS to detect presence. This function may be used in Parking Place detectors as well as in dynamic outdoor lighting scenario.

Attributes

#	Attribute	Description
✔	presenceStatus	Presence status.
✔	presenceStatusChanged	Indicates the presence status changed.

Events

#	Event type	Description
✔	presenceStatusChanged	Indicates the presence status changed.

Location Sensor*

The Location Sensor Function is used to indicate that an object has changed position attributes configurable by the CMS or based on internal setup of the vendor. For example, a specific location (latitude, longitude) of a device could be defined by the vendor. If the device is equipped with a GPS, it could send a specific event indicating that its position is different to the one defined by the CMS. We might also want to let the configuration to the vendor itself and simply define events notifying the CMS that the default configuration has changed. For example, a garbage bin could have its location defined based on a sensor placed on the floor. If the bin is not above this sensor, the vendor will trigger an event. In this last case, the CMS does not need to configure anything.

Attributes

#	Attribute	Description
✔	expectedLocation	Nominal location of the device
✔	locationChangedThreshold	Distance (meters)
✔	location	Location of the device

Events

#	Event type	Description
✔	locationChanged	Triggered when the difference between location and expectedLocation is above locationChangedThreshold

Luminaire Asset

This entity contains the managed and tracked attributes of a specific Luminaire, excluding the concept of Controller and Driver.

Attributes

#	Attribute	Description
✔	luminaireTypeAddress	Address of the Luminaire Type
✔	bracketTypeAddress	Address of the Bracket Type
✔	serial	Serial number of the Luminaire
✔	projectID	Name of the Project / Tender
✔	luminousFluxConfiguration	Programmed light output of the luminaire
✔	paintingColor	Painting color of the luminaire expressed as a color system-color value, (e.g: RAL-7035)
✔	virtualPowerOutput	Percentage of nominal power at which the light source should be set when the Command is set to 100%.
✔	installationTimestamp	Installation date and time of luminaire
✔	identification	Luminaire identification. (e.g: as per DiiA/D4i specification part 251 (MB1 extension)).
✔	identificationNumber	Luminaire identification number. (e.g: as per DiiA/D4i specification part 251 (MB1 extension))
✔	mountingOption	Installed direction of the luminaire to the support
✔	warrantyExpirationDate	Warranty expiration date. It can be reset
✔	manufactureYear	Year of manufacture of the luminaire.
✔	manufactureWeek	Week of manufacture of the luminaire.
✔	warrantyYears	Number of years for warranty
✔	applicationType	Application Type of the luminaire asset depending on the use case.

Controller Asset

This entity contains the managed and tracked attributes of a specific controller

Attributes

#	Attribute	Description
✔	controllerTypeAddress	Address of the Controller Type
✔	serial	Serial number of the Controller
✔	firmwareVersion	Version of the controller hardware firmware
✔	installationTimestamp	Installation date and time of OLC
✔	registrationTimestamp	Registration date and time of OLC
✔	projectID	Name of the Project / Tender
✔	controllerColor	Painting color of the controller expressed as a color system-color value, (e.g: RAL-7035)
✔	connectionType	Type of the connection to the luminaire
✔	warrantyExpirationDate	Warranty expiration date. It can be reset
✔	manufactureYear	Year of manufacture of the controller
✔	manufactureWeek	Week of manufacture of the controller
✔	applicationType	Application Type of the controller asset depending on the use case.

Services

Configuration Service

The TALQ Configuration Service enables discovery and configuration of devices and services

Options

#	Option	Value	Description

Control Service

The Control service describes the mechanisms to operate the actuator functions in order to enable schedule based and override control

Options

#	Option	Value	Description

Events

#	Event Type	Description
✔	invalidCalendar	An invalid calendar has been provided by the CMS to the ODN
✔	invalidProgram	A control program has been provided by the CMS, which cannot be implemented by the ODN

Data Collection Service

The TALQ Data Collection Service is a provision to configure how ODN measurements, status information and events are logged, and when or under what conditions the logged data is transferred to the CMS

Options

#	Option	Value	Description
✔	supportedModes	• EventRecordingMode • VendorRecordingMode • ImmediateReportingMode	Recording and Reporting modes supported

Events

#	Event Type	Description
✔	invalidLoggerConfig	The CMS has provided a data logger configuration that cannot be implemented by the ODN

On Demand Data Request Service

This service provides the mechanism to access attributes in the logical devices by requesting attribute values from the ODN

Group Management Service

This service provides the mechanisms to define and manage groups

Options

#	Option	Value	Description

Asset Management Service

The TALQ Asset Management Service provides a mechanism to transfer the types needed by the asset management functions

Test Service

This service provides a mechanism to reduce the human intervention during the certification tests, enabling the certification tests to maximise automation

Objects

Luminaire Type

The LuminaireType consists of a set of attributes that together characterize, i.e.: are generic for, a given luminaire, excluding the concept of Controller, Driver and Bracket.

Properties

#	Property	Description
✔	address	TALQ address of the Luminaire Type
✔	name	Descriptive name of the LuminaireType
✔	gtin	Global Trade Item Number of luminaire
✔	manufacturerName	Name of manufacturer
✔	productFamily	Product family name of luminaire
✔	model	Product model of luminaire
✔	maximumLuminousFluxOutput	Maximum Light Output luminous flux output
✔	minimumLuminousFluxOutput	Minimum Light Output of the luminaire
✔	lightSourceType	Light source type.
✔	lightDistributionType	Enumeration of possible light distribution type, using the Zhaga D4i enumeration. Please refer to ZD4i standard for more details.
✔	maximumPower	Maximum power that the Luminaire can operate at

✔	powerAtMinimumDimLevel	Power at minimum dim level for the luminaire.
✔	materialEnclosure	Material of enclousure of the body of the luminaire
✔	materialLlightCover	Material of light cover [DEPRECATED: This attribute has been deprecated and it will be removed in the next MAJOR release. Please use the new materialLightCover instead.]
✔	materialLightCover	Material of light cover
✔	luminaireEfficacy	Efficacy of the luminaire
✔	warmUpTime	Sets the delay after a Switch ON command during which the lamp actuator shall not perform any dimming command.
✔	maxOperatingHours	Maximum number of operating hours that the lamp is supposed to live with a given specification. This attribute can be used to set the old lamp attributes when the lamp reaches its expected useful life.
✔	lumenDepreciationCurve	Ordered set of entries (cumulative operating hours, correction factor in %) that form a piece wise linear approximation of the lumen depreciation correction factor curve. The first cumulative hours should be 0 and the last correction factor should be 100%. E.g.: 0 h, 80%; 5000 h, 85%; 10000 h, 90%; 15000 h, 95%; 20000 h, 100%.
✔	cloType	Determines where CLO (Constant Lumen Output) is implemented in the lamp control gear or in the ODN (e.g. control device). This CLO profile is needed even when CLO is implemented by the driver in order to obtain the expected lamp power.
✔	lightSourceManufacturerName	Name of light source manufacturer
✔	lightSourceLedEficacy	Efficacy of the LED

Bracket Type

The BracketType consists of a set of attributes that together characterize, i.e: are generic for, a given Bracket.

Properties

#	Property	Description

✔	address	TALQ address of the Bracket Type
✔	name	Descriptive name of the Bracket Type
✔	manufacturerName	Name of manufacturer
✔	productFamily	Product family name of bracket
✔	model	Product model of bracket

Controller Type

The ControllerType consists of a set of attributes that together characterize, i.e. are generic for, a given Controller.

Properties

#	Property	Description
✔	address	TALQ address of the Controller Type
✔	name	Descriptive name of the Controller Type
✔	locationPrecision	Accuracy of the location determination
✔	manufacturerName	Name of manufacturer
✔	productFamily	Product family name of the controller
✔	model	Model of the Controller
✔	mechanicalInterfaces	Type of mechanical connection or socket
✔	electricalInterfaces	The control interface protocol type of the connector of the driver.
✔	protocols	Type of digital communication of the controller

Event log data

Event log data contains a single event, with eventType and value, in each single log entry. It also includes information about whether the log denotes the start or end of the event. Furthermore additional information can be added with the info attribute.

Properties

#	Property	Description
✔	eventType	Identifier of event reported
✔	srcAddress	Address of Logical device or function within a logical device which is the source of the event or to which this event applies

✔	startEndFlag	If the event denotes either the start or end of a ‘special’ period, this flag shall be included

Command

A command defines a type of control action that can be applied to a function. Commands can be generated by a manual override action or by a control program.

Properties

#	Property	Description
✔	state	Light state to be applied to the lamp actuator
✔	reason	Indicates the command was triggered by override, sensor or control program
✔	cmsRefId	CMS reference, which can be used for data logging. The cmsRefId in a Command is a free text to be used by the CMS for any purpose, e.g: to differentiate contexts. It is a token that allows the CMS to match client requests to the original notification.
✔	refAddress	Reference to the source of the command, e.g. sensor or control program
✔	start	Time when the control action resulting from command shall start. This attribute is used only with override commands to set a time to start an override action. If not specified, the override command starts immediately.
✔	expiration	Time when the control action resulting from command shall be terminated. This attribute is used only with override commands to set a time to stop an override action. After the expiration of an override command, the system should go back to the state defined by the active control program. If not specified, there is no expiration for the override command.
✔	rampToLevelTime*	The time (in seconds) taken for the value to ramp to the specified level. The change will be finished rampToLevelTime seconds after: the scheduled time if the change comes from a control program; the reception of the request, or the command.start time attribute, if the change comes from an override command, or; the sensor event is raised if the control is sensor-based. If actions related to one command remain to be completed when a subsequent command is received, the subsequent command shall take precedence.

✔	rampFromLevelTime*	The time (in seconds) taken for the value to ramp to the specified level. The change will be finished rampFromLevelTime seconds after: the scheduled time if the change comes from a control program; the reception of the request if the change comes from an override command; expiry of the related command, or; the sensor event is lowered and the hold time subsequently expires if the control is sensor-based. If actions related to one command remain to be completed when a subsequent command is received, the subsequent command shall take precedence.

Group

A group is set of entities that can be addressed by the same group address. Devices and functions within devices can be assigned to a group. A group may also include other groups as members.

Properties

#	Property	Description
✔	address	Group address
✔	members	TALQ Addresses of members of the group

*: The Certification Test Tool is designed to provide a high level of confidence that complementary systems can communicate successfully. As both the protocol and the test tool evolve, all mandatory and other core tests are confirmed by comparison with real-life scenarios (plug-fest or similar). Some tests of optional and more peripheral features may not yet have been confirmed in this way; such features are identified with an asterisk (*).

This Capability List is based on a certification session performed by the TALQ Certification Tool (v2.6.2-online.5) on 2025-05-26 11:32:46.081 +0200.

TALQ Consortium