AllJoyn™ Lighting Service Framework Controller Service 14.12 Interface Definition

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Contents

1 Introduction

1.1 Purpose

This document describes the specification of the AllJoyn™ Lighting Service Framework Controller Service interface. An application uses this interface to control multiple lamps and interact with the Lighting SDK.

1.2 Scope

This document is intended for software engineers for AllJoyn lighting applications. It assumes familiarity with the AllJoyn SDK.

1.3 References

The following reference documents are found on the AllSeen Alliance web site's Doc and Downloads section.

- *AllJoyn ™ Framework Tutorial*
- *AllJoyn™ Data Type Signature*
- *AllJoyn™ Lighting Service Framework Lamp Service Interface Definition*

1.4 Acronyms and terms

Term	Definition
AllJoyn™ device	A device that supports the AllJoyn framework and can connect to a personal network.
Controller	An AllJoyn™ device that implements the collection of Controller Service interfaces. It can reside in a router, gateway, smartphone, tablet, etc.
Lamp service	Client interface implemented in an AllJoyn™ enabled lamp.
Lighting service framework	AllJoyn™ framework for building a complete lighting solution consisting of Controller Service and Lamp Service interfaces.

2 Definition Overview

2.1 Overview

The Controller Service interface is implemented on a target device, more specifically it is a logical unit that can reside in a router, gateway, smartphone/tablet, or home automation controller. The interface allows a device to listen and connect to other AllJoyn™ lighting devices on the network, such as Lamp service. Once connected the controller can perform various operations on the Lamp service. For example, toggle lamp power state, change lamp color and brightness, and retrieve lamp specific details and attributes.

The controller service acts as a bridge between lamps and developer built AllJoyn™ applications. Such applications have the ability to connect directly to the controller service and interact with all the lighting devices connected to the controller itself.

3 Error Handling

The method calls in the controller service interface return response codes in order to indicate whether the call resulted in an error or was successful.

Table 1. Controller service response codes

Response Code	Description
LSF_OK	Successful status
LSF_ERR_NULL	Unexpected NULL pointer
LSF_ERR_UNEXPECTED	An operation was unexpected at this time
LSF_ERR_INVALID	A value was invalid
LSF_ERR_UNKNOWN	An unknown value
LSF_ERR_FAILURE	A failure has occurs
LSF_ERR_BUSY	An operation failed and should be retired later
LSF_ERR_REJECTED	The request was rejected
LSF_ERR_RANGE	Value provided was out of range
LSF_ERR_INVALID_FIELD	Invalid param/state field
LSF_ERR_MESSAGE	Invalid message
LSF_ERR_INVALID_ARGS	The arguments were invalid
LSF_ERR_EMPTY_NAME	The name is empty
LSF_ERR_RESOURCES	Not enough resources
LSF_ERR_REPLY_WITH_INVALID_ARGS	The reply received for a message has invalid arguments
LSF_ERR_PARTIAL	The requested operation was only partially successful
LSF_ERR_NOT_FOUND	The entity of interest was not found
LSF_ERR_NO_SLOT	There is no slot for new entry
LSF_ERR_DEPENDENCY	There is a dependency of the entity for which a deleted request was received.
LSF_ERR_CODE_LAST	The last LSF response code

4 Controller Service Interface

4.1 Interface name

Interface name	Version	Secured	Object path
org.allseen.LSF.ControllerService	1	no	/org/allseen/LSF/ControllerService

4.2 Properties

Property name	Signature	List of Values	Writable	Description
Version	u	Positive integers	No	Interface version number.

4.3 Methods

4.3.1 LightingResetControllerService

Inputs

None.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.

Description

Reset the state of the Lighting Controller Service. Clears any defined presets, lamp groups, and scenes.

4.3.2 GetControllerServiceVersion

Inputs

None.

Outputs

Parameter name	Mandatory	Return signature	Description
version	Yes	u	Controller service version number.

Description

Gets the version of the Controller Service.

4.4 Signals

Signal name	Parameter name			Sessionless	Description
	Name	**Signature**	**Mandatory**		
ControllerServiceLightingReset				Yes	Notify any listener that the controller service has been reset.

5 Lamp Interface

5.1 Interface name

Interface name	Version	Secured	Object path
org.allseen.LSF.ControllerService.Lamp	1	no	/org/allseen/LSF/ControllerService

5.2 Properties

Property name	Signature	List of Values	Writable	Description
Version	u	Positive integers	No	Interface version number.

5.3 Methods

5.3.1 GetAllLampIDs

Inputs

None.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampIDs	Yes	as	Array of lamp IDs where each ID represents a lamp connected to the controller.

Description

Get the Lamp IDs of all lamps connected to the Controller Service.

5.3.2 GetLampSupportedLanguages

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.
supportedLanguages	Yes	as	Array of languages supported by the lamp.

Description

Gets the supported languages for the specified lamp.

5.3.3 GetLampManufacturer

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.
language	Yes	s	The language of the returned result. Must be a language supported by the lamp.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.
language	Yes	s	The language of the returned manufacturer result.
manufacturer	Yes	s	Name of the manufacturer.

Description

Gets the manufacturer name for the specified lamp.

5.3.4 GetLampName

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.
language	Yes	s	The language of the returned result. Must be a language supported by the lamp.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.
language	Yes	s	The language of the returned manufacturer result.
lampName	Yes	s	Name of the lamp.

Description

Gets the name for the specified lamp.

5.3.5 SetLampName

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.
lampName	Yes	s	The new name of the lamp.
language	Yes	s	The language in which the lamp name is inputted. Must be a language supported by the lamp.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.
language	Yes	s	The language of the returned manufacturer result.

Description

Sets the name for the specified lamp.

5.3.6 GetLampDetails

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.
lampDetails	Yes	a{sv}	Map containing details of the lamp.

Description

Gets the details for the specified lamp.

5.3.7 GetLampParameters

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.
lampParameters	Yes	a{sv}	Map containing the parameters values of the lamp.

Description

Gets all the parameter of the lamp.

5.3.8 GetLampParametersField

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.
lampParameterFieldName	Yes	s	The field name of the lamp parameter to query.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp
lampParameterFieldName	Yes	s	The field name of the returned lamp parameter.
lampParameterFieldValue	Yes	s	The value of the queried parameter field.

Description

Gets the value of a specific parameter for the lamp.

5.3.9 GetLampState

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.
lampState	Yes	a{sv}	Map containing the current state values of the lamp.

Description

Gets all the state values of the lamp.

5.3.10 GetLampStateField

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.
lampStateFieldName	Yes	s	The field name of the lamp state to query.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.
lampStateFieldName	Yes	s	The field name of the returned lamp state key.
lampStateFieldValue	Yes	s	The value of the queried state field.

Description

Gets the value of a specific state field for the lamp.

5.3.11 TransitionLampState

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.
lampState	Yes	a{sv}	The lamp state to transition to.
transitionPeriod	Yes	u	Time in ms for the transition to occur over.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.

Description

Change the specified lamp's state via transition.

5.3.12 PulseLampWithState

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.

Parameter name	Mandatory	Signature	Description
fromLampState	Yes	a{sv}	The "fromState" or the first lamp state of the pulse effect.
toLampState	Yes	a{sv}	The "toState" or the second lamp state of the pulse effect.
period	Yes	u	The period (in ms) of a single pulse. That is the elapsed time of one fromLampState and one toLampState.
duration	Yes	u	The time (in ms) spent in the each lamp state for a single pulse.
numPulses	Yes	u	The total number of pulses for the effect.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.

Description

Perform a pulse effect on the specified lamp using lamp states.

5.3.13 PulseLampWithPreset

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.
fromPresetID	Yes	u	The preset in which the pulse effect starts.
toPresetID	Yes	u	The preset in which the pulse effect ends.
period	Yes	u	The period (in ms) of a single pulse. That is the elapsed time of one fromLampState and one toLampState.
duration	Yes	u	The time (in ms) spent in the each lamp state for a single pulse.
numPulses	Yes	u	The total number of pulses for the effect.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.

Description

Perform a pulse effect on the lamp using lamp presets.

5.3.14 TransitionLampStateToPreset

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.
presetID	Yes	u	The preset ID for the lamp to transition to.
transitionPeriod	Yes	u	Time in ms for the transition to occur over.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.

Description

Change the specified lamp's state to a preset via transition.

5.3.15 TransitionLampStateField

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.
lampStateFieldName	Yes	s	The field name key of the lamp state that will be transitioned.
lampStateFieldValue	Yes	s	The new value to be set for the state field key.
transitionPeriod	Yes	u	Time in ms for the transition to occur over.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.
lampStateFieldName	Yes	s	The name of transitioned lamp state field.

Description

Change a specific state field of a lamp via transition.

5.3.16 ResetLampState

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.

Description

Reset the entire lamp state of the specified lamp.

5.3.17 ResetLampStateField

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.
lampStateFieldName	Yes	s	The field name of the lamp state to reset.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.
lampStateFieldName	Yes	s	The name of the state field that was reset.

Description

Reset a particular state field of the specified lamp.

5.3.18 GetLampFaults

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.
lampFaults	Yes	au	Array of fault codes for the lamp.

Description

Gets the fault codes for the specified lamp.

5.3.19 ClearLampFaults

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.
lampFault	Yes	u	The lamp fault to clear.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.
lampFault	Yes	u	The fault code that was cleared.

Description

Clears the fault code for the specified lamp.

5.3.20 GetLampServiceVersion

Inputs

Parameter name	Mandatory	Signature	Description
lampID	Yes	s	The ID of the lamp to query.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp.
lampServiceVersion	Yes	u	The version number of the lamp service interface.

Description

Gets the version number of the Lamp Service running of the lamp.

5.4 Signals

Signal name	Parameter name			Sessionless	Description
	Name	Signature	Mandatory		
LampNameChanged	lampID	s	Yes	Yes	Notify listener that a lamp's name has changed.
	lampName	s	Yes		

Signal name	Parameter name			Sessionless	Description
LampStateChanged	lampID	s	Yes	Yes	Notify listener that a lamp's state has changed.
	lampName	s	Yes		
LampsFound	lampID	s	Yes	Yes	Notify listener that a new lamp was found.
LampsLost	lampIDs	as	Yes	Yes	Notify listener that lamps lost connection from the controller.

6 Lamp Group Interface

6.1 Interface name

Interface name	Version	Secured	Object path
org.allseen.LSF.ControllerService.LampGroup	1	no	/org/allseen/LSF/ControllerService

6.2 Properties

Property name	Signature	List of Values	Writable	Description
Version	u	Positive integers	No	Interface version number.

6.3 Methods

6.3.1 GetAllLampGroupIDs

Inputs

None.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampGroupIDs	Yes	as	Array of lamp group IDs where each ID represents a lamp connected to the controller.

Description

Get the lamp group IDs of all lamps connected to the Controller Service.

6.3.2 GetLampGroupName

Inputs

Parameter name	Mandatory	Signature	Description
lampGroupID	Yes	s	The ID of the lamp group to query.
language	Yes	s	The language of the returned result.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.

Parameter name	Mandatory	Return signature	Description
lampGroupID	Yes	s	The ID of the queried lamp group.
language	Yes	s	The language of the returned result.
lampGroupName	Yes	s	Name of the lamp group.

Description

Gets the name for the specified lamp group.

6.3.3 SetLampGroupName

Inputs

Parameter name	Mandatory	Signature	Description
lampGroupID	Yes	s	The ID of the lamp group to query.
lampName	Yes	s	The new name of the lamp group.
language	Yes	s	The language in which the lamp group name is inputted.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampID	Yes	s	The ID of the queried lamp group.
language	Yes	s	The language of the returned result.

Description

Sets the name for the specified lamp group.

6.3.4 CreateLampGroup

Inputs

Parameter name	Mandatory	Signature	Description
lampIDs	Yes	as	Array of lamp IDs to be included in the new group.
lampGroupIDs	Yes	as	Array of lamp group IDs to be included in the new group.
lampGroupName	Yes	s	The new name of the lamp group.
language	Yes	s	The language in which the lamp group name is inputted.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampGroupID	Yes	s	The ID of the newly created lamp group.

Description

Creates a new lamp group on the controller.

6.3.5 UpdateLampGroup

Inputs

Parameter name	Mandatory	Signature	Description
lampGroupID	Yes	s	The ID of the lamp group to update.
lampIDs	Yes	as	Array of lamp IDs to be included in the updated group.
lampGroupIDs	Yes	as	Array of lamp group IDs to be included in the updated group.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampGroupID	Yes	s	The ID of the updated lamp group.

Description

Updates a lamp group already existing on the controller.

6.3.6 DeleteLampGroup

Inputs

Parameter name	Mandatory	Signature	Description
lampGroupID	Yes	s	The ID of the lamp group to delete.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampGroupID	Yes	s	The ID of the deleted lamp group.

Description

Deletes a lamp group that exists on the controller.

6.3.7 GetLampGroup

Inputs

Parameter name	Mandatory	Signature	Description
lampGroupID	Yes	s	The ID of the lamp group.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampGroupID	Yes	s	The ID of the updated lamp group.
lampID	Yes	as	The IDs of the lamps contained in the group.
lampGroupIDs	Yes	as	The IDs of the lamp groups contained within the group.

Description

Get a lamp group which resides on the controller.

6.3.8 TransitionLampGroupState

Inputs

Parameter name	Mandatory	Signature	Description
lampGroupID	Yes	s	The ID of the lamp group to query.
lampState	Yes	a{sv}	The lamp state to transition to.
transitionPeriod	Yes	u	Time in ms for the transition to occur over.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampGroupID	Yes	s	The ID of the queried lamp group.

Description

Change the specified lamp group's state via transition.

6.3.9 PulseLampGroupWithState

Inputs

Parameter name	Mandatory	Signature	Description
lampGroupID	Yes	s	The ID of the lamp group to query.
fromLampState	Yes	a{sv}	The "fromState" or the first lamp state of the pulse effect.

Parameter name	Mandatory	Signature	Description
toLampState	Yes	a{sv}	The "toState" or the second lamp state of the pulse effect.
period	Yes	u	The period (in ms) of a single pulse. That is the elapsed time of one fromLampState and one toLampState.
duration	Yes	u	The time (in ms) spent in the each lamp state for a single pulse.
numPulses	Yes	u	The total number of pulses for the effect.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampIGroupID	Yes	s	The ID of the queried lamp group.

Description

Perform a pulse effect on the specified lamp group using lamp states.

6.3.10 PulseLampGroupWithPreset

Inputs

Parameter name	Mandatory	Signature	Description
lampGroupID	Yes	s	The ID of the lamp group to query.
fromPresetID	Yes	u	The preset in which the pulse effect starts.
toPresetID	Yes	u	The preset in which the pulse effect ends.
period	Yes	u	The period (in ms) of a single pulse. That is the elapsed time of one fromLampState and one toLampState.
duration	Yes	u	The time (in ms) spent in the each lamp state for a single pulse.
numPulses	Yes	u	The total number of pulses for the effect.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampGroupID	Yes	s	The ID of the queried lamp group.

Description

Perform a pulse effect on the lamp group using lamp presets.

6.3.11 TransitionLampGroupStateToPreset

Inputs

Parameter name	Mandatory	Signature	Description
lampGroupID	Yes	s	The ID of the lamp group to query.
presetID	Yes	u	The preset ID for the lamp to transition to.
transitionPeriod	Yes	u	Time in ms for the transition to occur over.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampGroupID	Yes	s	The ID of the queried lamp group.

Description

Change the specified lamp group's state to a preset via transition.

6.3.12 TransitionLampGroupStateField

Inputs

Parameter name	Mandatory	Signature	Description
lampGroupID	Yes	s	The ID of the lamp group to query.
lampGroupStateFieldName	Yes	s	The field name key of the lamp groupstate that will be transitioned.
lampGroupStateFieldValue	Yes	s	The new value to be set for the state field key.
transitionPeriod	Yes	u	Time in ms for the transition to occur over.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampGroupID	Yes	s	The ID of the queried lamp group.
lampGroupStateFieldName	Yes	s	The name of transitioned lamp group state field.

Description

Change a specific state field of a lamp group via transition.

6.3.13 ResetLampGroupState

Inputs

Parameter name	Mandatory	Signature	Description
lampGroupID	Yes	s	The ID of the lamp group to query.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampGroupID	Yes	s	The lamp group ID of the queried lamp.

Description

Reset the entire lamp group state of the specified lamp.

6.3.14 ResetLampGroupStateField

Inputs

Parameter name	Mandatory	Signature	Description
lampGroupID	Yes	s	The ID of the lamp group to query.
lampGroupStateFieldName	Yes	s	The field name of the lamp group state to reset.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampGroupID	Yes	s	The ID of the queried lamp group.
lampGroupStateFieldName	Yes	s	The name of the state field that was reset.

Description

Reset a particular state field of the specified lamp group.

6.4 Signals

Signal name	Parameter name			Sessionless	Description
	Name	Signature	Mandatory		
LampGroupsNameChanged	lampGroupsIDs	as	Yes	Yes	Notify listener that a lamp group's name has changed.

Signal name	Parameter name			Sessionless	Description
LampGroupsCreated	lampGroupsIDs	as	Yes	Yes	Notify listener that a new lamp group is created.
LampGroupsUpdated	lampGroupsIDs	as	Yes	Yes	Notify listener that a lamp group was updated.
LampGroupsDeleted	lampGroupsIDs	as	Yes	Yes	Notify listener that a lamp group was deleted.

7 Preset Interface

7.1 Interface name

Interface name	Version	Secured	Object path
org.allseen.LSF.ControllerService.Preset	1	no	/org/allseen/LSF/ControllerService

7.2 Properties

Property name	Signature	List of Values	Writable	Description
Version	u	Positive integers	No	Interface version number

7.3 Methods

7.3.1 GetDefaultLampState

Inputs

None.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampState	Yes	a{sv}	Map containing the default lamp state.

Description

Gets the default lamp state.

7.3.2 GetDefaultLampState

Inputs

Parameter name	Mandatory	Signature	Description
lampState	Yes	a{sv}	Map containing the new default lamp state.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
lampState	Yes	a{sv}	Map containing the default lamp state.

Description

Sets the default lamp state.

7.3.3 GetAllPresetIDs

Inputs

None.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
presetIDs	Yes	as	Array of preset IDs.

Description

Get all IDs of presets which reside on the controller.

7.3.4 GetPresetName

Inputs

Parameter name	Mandatory	Signature	Description
presetID	Yes	s	The ID of the preset to query.
language	Yes	s	The language of the returned result.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
presetID	Yes	s	The ID of the queried preset.
language	Yes	s	The language of the returned result.
presetName	Yes	s	Name of the preset.

Description

Gets the name for the specified preset.

7.3.5 SetPresetName

Inputs

Parameter name	Mandatory	Signature	Description
presetID	Yes	s	The ID of the preset to query.
presetName	Yes	s	The new name of the preset.
language	Yes	s	The language in which the preset name is inputted.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
presetID	Yes	s	The ID of the queried preset.
language	Yes	s	The language of the returned result.

Description

Sets the name for the specified preset.

7.3.6 CreatePreset

Inputs

Parameter name	Mandatory	Signature	Description
lampState	Yes	a{sv}	The lamp state to represent the preset.
presetName	Yes	s	The name of the new preset.
language	Yes	s	The language in which the preset name is inputted.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
presetID	Yes	s	The ID of the newly created preset.

Description

Creates a new preset on the controller.

7.3.7 UpdatePreset

Inputs

Parameter name	Mandatory	Signature	Description
presetID	Yes	s	The ID of the preset to update.
lampState	Yes	a{sv}	The lamp state to represent the preset.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
presetID	Yes	s	The ID of the updated preset.

Description

Updates an existing preset on the controller.

7.3.8 DeletePreset

Inputs

Parameter name	Mandatory	Signature	Description
presetID	Yes	s	The ID of the preset to delete.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
presetID	Yes	s	The ID of the deleted preset.

Description

Deletes an existing preset on the controller.

7.3.9 GetPreset

Inputs

Parameter name	Mandatory	Signature	Description
presetID	Yes	as	The ID of the preset to query.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
presetID	Yes	s	The ID of the queried preset.
lampState	Yes	a{sv}	The lamp state representing the preset.

Description

Fetches a preset that exists on the controller.

7.4 Signals

Signal name	Parameter name			Sessionless	Description
	Name	Signature	Mandatory		
DefaultLampStateChanged				Yes	Notify listener that the default lamp state has changed.
PresetsNameChanged	presetIDs	as	Yes	Yes	Notify listener that a presets name has changed.

Signal name	Parameter name			Sessionless	Description
PresetsCreated	presetIDs	as	Yes	Yes	Notify listener that a new preset has been created.
PresetsUpdated	presetIDs	as	Yes	Yes	Notify listener that a preset has been updated.
PresetsUpdated	presetIDs	as	Yes	Yes	Notify listener that a preset has been deleted.

8 Scene Interface

8.1 Interface name

Interface name	Version	Secured	Object path
org.allseen.LSF.ControllerService.Scene	1	no	/org/allseen/LSF/ControllerService

8.2 Properties

Property name	Signature	List of Values	Writable	Description
Version	u	Positive integers	No	Interface version number.

8.3 Methods

8.3.1 GetAllSceneIDs

Inputs

None.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
sceneIDs	Yes	as	Array of scene IDs.

Description

Get all IDs of scenes which reside on the controller.

8.3.2 GetSceneName

Inputs

Parameter name	Mandatory	Signature	Description
sceneID	Yes	s	The ID of the scene to query.
language	Yes	s	The language of the returned result.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
sceneID	Yes	s	The ID of the queried scene.

Parameter name	Mandatory	Return signature	Description
language	Yes	s	The language of the returned result.
sceneName	Yes	s	Name of the scene.

Description

Gets the name for the specified scene.

8.3.3 SetSceneName

Inputs

Parameter name	Mandatory	Signature	Description
sceneID	Yes	s	The ID of the scene to query.
sceneName	Yes	s	The new name of the scene.
language	Yes	s	The language in which the scene name is inputted.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
sceneID	Yes	s	The ID of the queried scene.
language	Yes	s	The language of the returned result.

Description

Sets the name for the specified scene.

8.3.4 CreateScene

Inputs

Parameter name	Mandatory	Signature	Description
transitionlampsLampGroupsToState	Yes	a(asasa{sv}u)	Collection of state transition effects to be included in the scene.
transitionlampsLampGroupsToPreset	Yes	a(asassu)	Collection of preset transition effects to be included in the scene.
pulselampsLampGroupsWithState	Yes	a(asasa{sv}a{sv}uuu)	Collection of state based pulse effects to be included in the scene.
pulselampsLampGroupsWithPreset	Yes	a(asasssuuu)	Collection of preset based pulse effects to be included in the scene.
sceneName	Yes	s	The name of the new scene.

Parameter name	Mandatory	Signature	Description
language	Yes	s	The language in which the scene name is inputted.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
sceneID	Yes	s	The ID of the newly created scene.

Description

Creates a new scene on the controller.

8.3.5 UpdateScene

Inputs

Parameter name	Mandatory	Signature	Description
sceneID	Yes	s	The ID of the scene to update.
transitionlampsLampGroupsToState	Yes	a(asasa{sv}u)	Collection of state transition effects to be included in the scene.
transitionlampsLampGroupsToPreset	Yes	a(asassu)	Collection of preset transition effects to be included in the scene.
pulselampsLampGroupsWithState	Yes	a(asasa{sv}a{sv}uuu)	Collection of state based pulse effects to be included in the scene.
pulselampsLampGroupsWithPreset	Yes	a(asasssuuu)	Collection of preset based pulse effects to be included in the scene.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
sceneID	Yes	s	The ID of the updated scene.

Description

Updates a scene existing on the controller.

8.3.6 DeleteScene

Inputs

Parameter name	Mandatory	Signature	Description
sceneID	Yes	s	The ID of the scene to delete.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
sceneID	Yes	s	The ID of the deleted scene.

Description

Deletes an existing scene on the controller.

8.3.7 GetScene

Inputs

Parameter name	Mandatory	Signature	Description
sceneID	Yes	as	The ID of the scene to query.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
sceneID	Yes	s	The ID of the queried scene.
lampState	Yes	a{sv}	The lamp state representing the preset.
transitionlampsLampGroupsToState	Yes	a(asasa{sv}u)	Collection of state transition effects included in the scene.
transitionlampsLampGroupsToPreset	Yes	a(asassu)	Collection of preset transition effects included in the scene.
pulselampsLampGroupsWithState	Yes	a(asasa{sv}a{sv}uuu)	Collection of state based pulse effects included in the scene.
pulselampsLampGroupsWithPreset	Yes	a(asasssuuu)	Collection of preset based pulse effects included in the scene.

Description

Fetches a scene that exists on the controller.

8.3.8 ApplyScene

Inputs

Parameter name	Mandatory	Signature	Description
sceneID	Yes	s	The ID of the scene to apply.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
sceneID	Yes	s	The ID of the applied scene.

Description

Applies a scene to the scene's members.

8.4 Signals

Signal name	Parameter name			Sessionless	Description
	Name	Signature	Mandatory		
ScenesNameChanged	sceneIDs	as	Yes	Yes	Notify listener that a scenes name has changed.
ScenesCreated	sceneIDs	as	Yes	Yes	Notify listener that a new scene has been created.
ScenesUpdated	sceneIDs	as	Yes	Yes	Notify listener that a scene has been updated.
ScenesDeleted	sceneIDs	as	Yes	Yes	Notify listener that a scene has been deleted.
ScenesApplied	sceneIDs	as	Yes	Yes	Notify listener that a scene has been applied.

9 MasterScene Interface

9.1 Interface name

Interface name	Version	Secured	Object path
org.allseen.LSF.ControllerService.MasterScene	1	no	/org/allseen/LSF/ControllerService

9.2 Properties

Property name	Signature	List of Values	Writable	Description
Version	u	Positive integers	No	Interface version number.

9.3 Methods

9.3.1 GetAllMasterSceneIDs

Inputs

None.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
masterSceneIDs	Yes	as	Array of master scene IDs.

Description

Get all IDs of master scenes which reside on the controller.

9.3.2 GetSceneName

Inputs

Parameter name	Mandatory	Signature	Description
masterSceneID	Yes	s	The ID of the master scene to query.
language	Yes	s	The language of the returned result.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.

Parameter name	Mandatory	Return signature	Description
masterSceneID	Yes	s	The ID of the queried master scene.
language	Yes	s	The language of the returned result.
masteSceneName	Yes	s	Name of the master scene.

Description

Gets the name for the specified master scene.

9.3.3 SetMasterSceneName

Inputs

Parameter name	Mandatory	Signature	Description
masterSceneID	Yes	s	The ID of the master scene to query.
masterSceneName	Yes	s	The new name of the master scene.
language	Yes	s	The language in which the master scene name is inputted.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
masterSceneID	Yes	s	The ID of the queried master scene.
language	Yes	s	The language of the returned result.

Description

Sets the name for the specified master scene.

9.3.4 CreateMasterScene

Inputs

Parameter name	Mandatory	Signature	Description
scenes	Yes	as	Array of scenes to be contained in the master scene.
masterSceneName	Yes	s	The name of the new master scene.
language	Yes	s	The language in which the master scene name is inputted.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
masterSceneID	Yes	s	The ID of the newly created master scene.

Description

Creates a new master scene on the controller.

9.3.5 UpdateMasterScene

Inputs

Parameter name	Mandatory	Signature	Description
masterSceneID	Yes	s	The ID of the master scene to update.
scenes	Yes	as	The scenes to be included in the master scene.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
masterSceneID	Yes	s	The ID of the updated master scene.

Description

Updates a master scene existing on the controller.

9.3.6 DeleteMasterScene

Inputs

Parameter name	Mandatory	Signature	Description
masterSceneID	Yes	s	The ID of the masterScene to delete.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
masterSceneID	Yes	s	The ID of the master scene.

Description

Deletes an existing master scene on the controller.

9.3.7 GetMasterScene

Inputs

Parameter name	Mandatory	Signature	Description
masterSceneID	Yes	s	The ID of the master scene to query.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
masterSceneID	Yes	s	The ID of the queried master scene.
scenes	Yes	as	The scenes that are part of the master scene.

Description

Fetches a master scene that exists on the controller.

9.3.8 ApplyMasterScene

Inputs

Parameter name	Mandatory	Signature	Description
masterSceneID	Yes	s	The ID of the master scene to apply.

Outputs

Parameter name	Mandatory	Return signature	Description
responseCode	Yes	u	The result code of the operation.
masterSceneID	Yes	s	The ID of the applied master scene.

Description

Applies a master scene to the scene's members.

9.4 Signals

Signal name	Parameter name			Sessionless	Description
	Name	Signature	Mandatory		
MasterScenesNameChanged	sceneIDs	as	Yes	Yes	Notify listener that a master scenes name has changed.

Signal name	Parameter name			Sessionless	Description
MasterScenesCreated	sceneIDs	as	Yes	Yes	Notify listener that a new master scene has been created.
MasterScenesUpdated	sceneIDs	as	Yes	Yes	Notify listener that a master scene has been updated.
MasterScenesDeleted	sceneIDs	as	Yes	Yes	Notify listener that a master scene has been deleted.
MasterScenesApplied	sceneIDs	as	Yes	Yes	Notify listener that a master scene has been applied.

10 Leader Election and State Sync Interface

10.1 Interface name

Interface name	Version	Secured	Object path
org.allseen.LeaderElectionAndStateSync	1	no	/org/allseen/LeaderElectionAndStateSync

10.2 Properties

Property name	Signature	List of Values	Writable	Description
Version	u	Positive integers	No	Interface version number

10.3 Methods

10.3.1 GetChecksumAndModificationTimestamp

Inputs

None.

Outputs

Parameter name	Mandatory	Return signature	Description
checksumAndTimestamp	Yes	a(uut)	Object containing the checksum and timestamp for every blob.

Description

Get the checksum and timestamp for each blob on the controller.

10.3.2 GetBlob

Inputs

Parameter name	Mandatory	Signature	Description
blobType	Yes	u	The type of blob to fetch.

Outputs

Parameter name	Mandatory	Return signature	Description
blobType	Yes	u	The type of blob fetched.
blob	Yes	s	The payload of the blob
checksum	Yes	u	The checksum of the blob.

Parameter name	Mandatory	Return signature	Description
timestamp	Yes	t	The last modified timestamp of the blob.

Description

Get the blob given a specific blob type.

10.3.3 Overthrow

Inputs

None.

Outputs

Parameter name	Mandatory	Return signature	Description
success	Yes	b	Boolean indicating success or failure of the overthrow action.

Description

Attempts to overthrow other controllers as the leader.

10.4 Signals

Signal name	Parameter name			Sessionless	Description
	Name	Signature	Mandatory		
BlobChanged	blobType	u	Yes	Yes	Notify listener that a blob has changed on the controller.
	blob	s	Yes		
	checksum	u	Yes		
	timestamp	t	Yes		