LONMARK®
Functional Profile:
Scene Panel

Overview

This document describes the profile for a scene panel object. The profile is used for all type of scene control panels with or without specific hardware. The hardware function is not specified here. The scene panel object can be used both for closed and open loop applications.
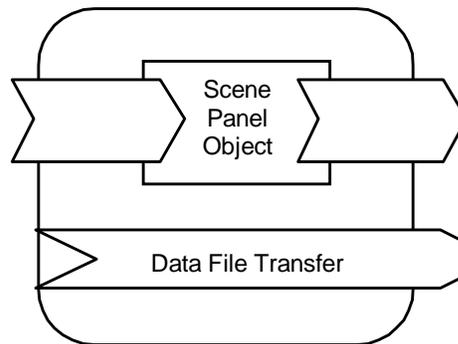

Figure 1.1 Scene Panel Functional Profile

Example Usage

The scene panel object output is connected to the scene controller object input. Each lamp or group of lamps have their own controller. When several scene panels are connected to the same controller or group of controllers, an optional feedback connection can be used to synchronize panels. An optional control output is used for "manual" adjustment ("master fade") of the scene. Local control of a lamp can be done with a switch. When lamps are adjusted locally, a new scene can be stored using "learn current" configuration property. The function stores current values under given scene number. Configuration properties are not shown in this example.
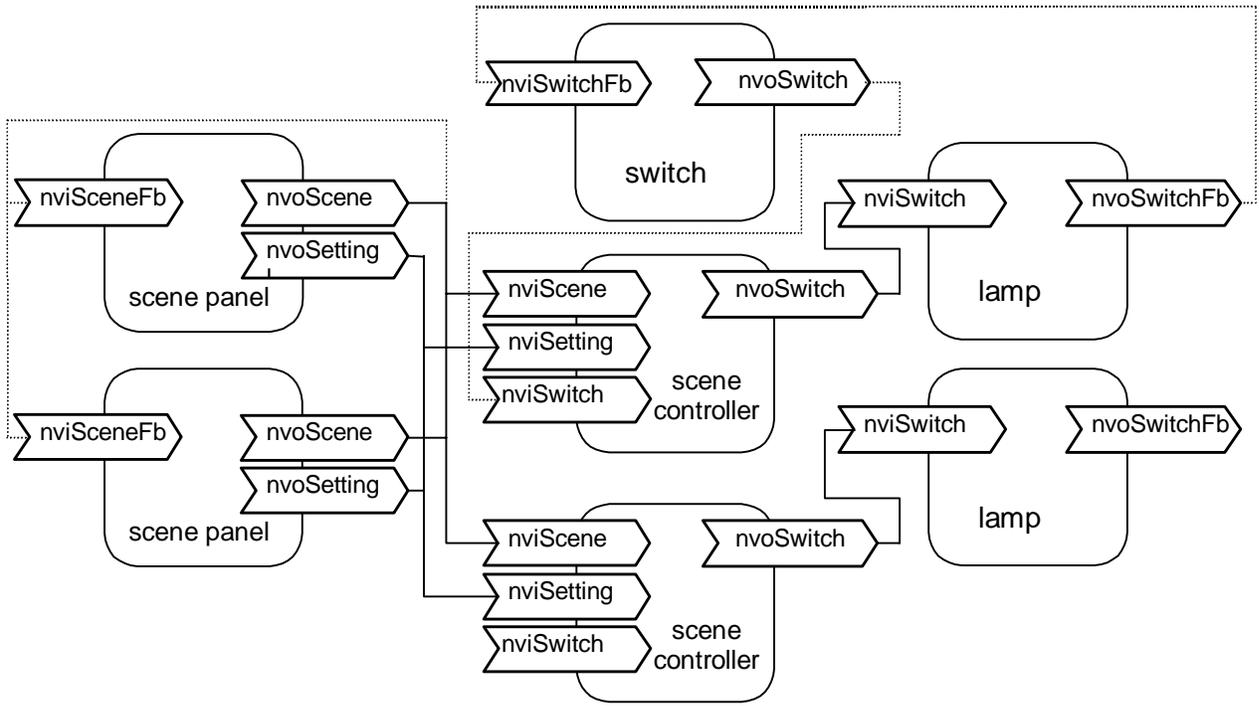
Figure 1.2 Example

Object Details

The scene panel is used to trigger or control scenes. The panel is bound to scene controller or other type of controller with scene input.
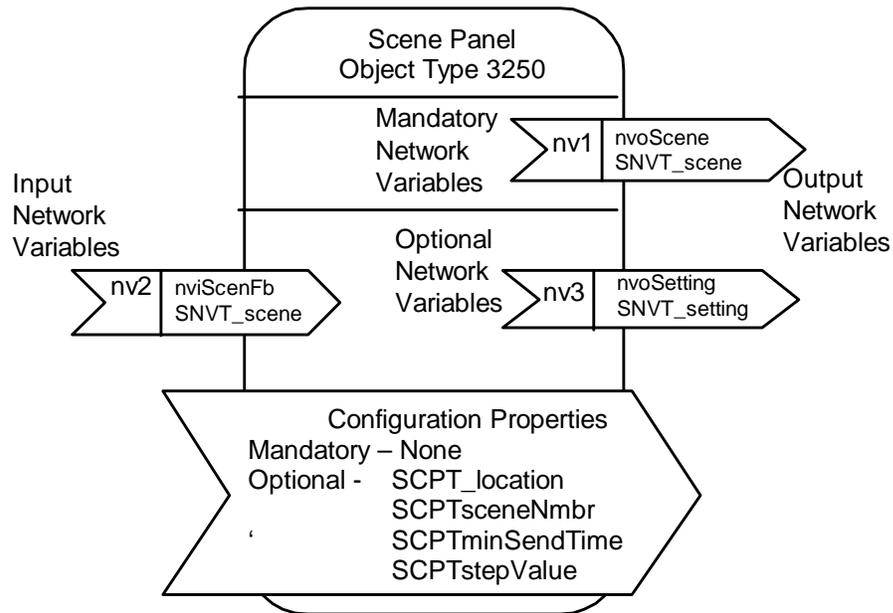
Figure 1.3 Object Details

Table 1.1 SNVT Details

NV # (M/O)*	Name	In/Out	SNVT Type	Class	Description
1 (M)	nvoScen	Out	SNVT_scene	nv	Scene trigger output
2 (O)	nviSceneFb	In	SNVT_scene	nv	Scene number feedback
3 (O)	nvoControl	Out	SNVT_control	nv	Master fade output

* M = mandatory, O = optional

Table 1.2 SCPT Details

SCPT index (M/O)*	Name	Description
17 (O)	SCPT_location	Location label
94 (O)	SCPTsceneNmbr	Scene number for first scene of the panel
52 (O)	SCPTminSendTime	Min. send time for master fade output
95 (O)	SCPTstepValue	Fade step value for master fade

* M = mandatory, O = optional

Mandatory Network Variables

Scene Output

```
network output SNVT_scene nvoScene;
```
This output network variable provides the scene output.

Valid Range

The valid range is the range of SNVT_scene. RECALL and LEARN with associated scene number. Scene number 0 is not used.

When Transmitted

Whenever change of scene is initiated by the application.

Update Rate

There is no maximum update rate.

Default Service Type

The default service type is acknowledged.

Optional Network Variables

Scene Feedback Input

```
network input SNVT_scene nviScenFb;
```
This input network variable provides feedback from other scene panels.

Valid Range

Valid range is the range of SNVT_scene. RECALL with associated scene number is used to indicate scene selection. Scene number 0 is not used.

Default Value

The default value is scene number 0 meaning feedback not received.

Setting Output

```
network output SNVT_setting nvoSetting;
```

When the scene panel has master fade control option, this output network variable is used. The lighting scene can be adjusted up or down without calling up a new scene.

Valid Range

The valid enumeration range is OFF, ON, DOWN, and UP. The value for UP and DOWN command is 0,5 to 100%.

When Transmitted

Whenever change is initiated by the application.

Update Rate

There is no maximum update rate. The default minimum update rate is 100 ms. Minimum update rate is optionally configurable.

Default Service Type

The default service type is acknowledged.

Configuration Properties

Location Label

```
network input config SNVT_str_asc nciLocation;
```

This input configuration network variable is used to store ASCII text. It provides more space for descriptive location information.

Valid Range

Any NUL terminated ASCII string of 31 bytes total length.

Default Value

An ASCII string containing all zeros.

Scene number

```
network input config unsigned short nciSceneNumber;
```

This input configuration network variable is used to set the number of the first scene for the panel. Other numbers are subsequent. The total number of scenes is hardware dependent.

Valid Range

The valid range is 1 to 255. 0 is not used.

Default Value

The default value is 1.

SCPT Reference

SCPTsceneNmbr #94

Minimum Send Time

```
network input config SNVT_time_sec nciMinSendTime;
```

This input configuration network variable is used to set the minimum time between subsequent updates of fade output variable (nvoContr).

Valid Range

Min.   0,1 seconds
Max.   2,0 seconds

Default Value

0,1 seconds

SCPT Reference

SCPTminSendTime #52

Master Fade Step Value

```
network input config SNVT_lev_cont nciStepValue;
```

This input configuration network variable is used to set the step value for fade control. This variable sets the speed of the ramp, when nciMinSendTime sets the time between subsequent updates.

Valid Range

Min.   **0,5 %**

Default Value

The default value is 2,5 %.

SCPT Reference

`SCPTstepValue #92`

Data Transfer

Manufacturer specific, if used.

Power-up State

The object does not update any output values after power-up or reset.

Boundary and Error Conditions

None.

Additional Considerations

The basic profile defines a scene panel with configurable subsequent scene numbers. A device may have other manufacturer specific scene number properties.