LONMARK®
Functional Profile:
Vertical/Conveyer Transportation

Elevator/Lift
Voice Announcer
Overview

This document describes the Functional Profile of a Voice Announcer Object. Use of the standard Node object is implied. This profile applies to announcers objects pre-programmed with specific messages.

![Node Concept](image)

**Figure 1** Node Concept

Example Usage

The Elevator control sends out the required announcements when they are required, and in the correct order.

![Elevator Control Object](image) ![Voice Announcer Object](image)

**Figure 2** Example Usage of the Voice Announcer Object.
Object Details

Figure 3  Object Details
Table 1 SNVT Details

<table>
<thead>
<tr>
<th>NV # (M/O)*</th>
<th>Variable Name</th>
<th>SNVT Name</th>
<th>SNVT Index</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (M)</td>
<td>nviAnnounce</td>
<td>SNVT_count</td>
<td>8</td>
<td>Required announcement Number</td>
</tr>
<tr>
<td>2 (O)</td>
<td>nviCarDown</td>
<td>SNVT_switch</td>
<td>95</td>
<td>Indicates car is moving down.</td>
</tr>
<tr>
<td>3 (O)</td>
<td>nviCarUp</td>
<td>SNVT_switch</td>
<td>95</td>
<td>Indicates car is moving up.</td>
</tr>
</tbody>
</table>

* M = mandatory, O = optional

Table 2 SCPT Details

<table>
<thead>
<tr>
<th>Man. Opt. *</th>
<th>SCPT Name Type or SNVT</th>
<th>SCPT Index</th>
<th>Associated NVs **</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opt</td>
<td>SCPTlocation nciLocation</td>
<td>17</td>
<td>Entire Object</td>
<td>Used to provide physical location of the node</td>
</tr>
<tr>
<td>Opt</td>
<td>SCPTobjMajorVer nciObjMajorVer</td>
<td>167</td>
<td>Entire Object</td>
<td>Defines the major version number of the Object</td>
</tr>
<tr>
<td>Opt</td>
<td>SCPTobjMajorVer nciObjMinorVer</td>
<td>168</td>
<td>Entire Object</td>
<td>Defines the minor version number of the Object</td>
</tr>
<tr>
<td>Opt</td>
<td>SCPTnwrkConfig nciNetConfig</td>
<td>25</td>
<td>Entire Object</td>
<td>Defines the source of network configuration information</td>
</tr>
<tr>
<td>Opt</td>
<td>SCPTaudibleLevel nciDirVolume</td>
<td>228</td>
<td>Entire Object</td>
<td>Defines volume of announcement as % of max.</td>
</tr>
<tr>
<td>Opt</td>
<td>SCPTaudibleLevel nciAnnVolume</td>
<td>228</td>
<td>Entire Object</td>
<td>Defines volume of announcement as % of max.</td>
</tr>
</tbody>
</table>

* Man = mandatory, Opt = optional

** List of NVs to which this configuration property applies.
**Mandatory Network Variables**

**nviAnnounce**

```c
network input sd_string("@p|1") SNVT_count
nviAnnounce;
```

This input network variable is used to allow an external node to request the announcement of a particular phrase.

**Valid Range**

0 .. 65,535

0 = no announcement, cancel existing requests.

Message programming with number allocation is done on a per-job basis.

**Default Value**

0 = no announcement

**Configuration Considerations**

None.

**Optional Network Variables**

**nviCarUp**

```c
network input sd_string("@p|3") SNVT_switch nviCarUp;
```

This input network variable requests the node to append a “going up” announcement to a particular floor announcement.
Valid Range, ON-OFF

<table>
<thead>
<tr>
<th>Value</th>
<th>State</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANY</td>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>&gt;0</td>
<td>1</td>
<td>Append ‘UP’ announcement</td>
</tr>
<tr>
<td>ANY</td>
<td>0xFF</td>
<td>Undefined, No Action</td>
</tr>
</tbody>
</table>

Message programming done on a per-job basis.

Default Value

state = 0     value=0

Configuration Considerations

None

nviCarDown

network input sd_string("@p|2") SNVT_switch
nviCarDown;

This input network variable requests the node to append a “going down” announcement to a particular floor announcement.

Valid Range, ON-OFF

<table>
<thead>
<tr>
<th>Value</th>
<th>State</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANY</td>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>&gt;0</td>
<td>1</td>
<td>Append ‘DOWN’ announcement</td>
</tr>
<tr>
<td>ANY</td>
<td>0xFF</td>
<td>Undefined, No Action</td>
</tr>
</tbody>
</table>

Message programming done on a per-job basis.

Default Value

state = 0     value=0
Configuration Considerations

None

Configuration Properties

**Location Label (Optional)**

```c
network input config sd_string("&1,\p,0\x80,17")
SNVT_str_asc nciLocation;
```

This configuration property can be used to provide the location of the Object/node, where \( \p \) is the Object index. The above code declaration is for providing the location of the Object. If it is preferred, the location of the node can be represented with the following code declaration:

```c
network input config sd_string("&0,,0\x80,17")
SNVT_str_asc nciLocation;
```

**Valid Range**

Any NULL-terminated ASCII string up to 31 bytes of total length (including NULL). The string must be truncated if the length does not allow the 31st character to be the NULL (0x00).

**Default Value**

The default value is an ASCII string containing all zeroes.

**Configuration Requirements/Restrictions**

This CP has no modification restrictions (no_restrictions). It can be modified at any time.

**SCPT Reference**

SCPTlocation (17)
Object Major Version (Optional)

network input config sd_string("&1,\text{p},0\text{\char'\x84},167")
unsigned short nciObjMajVer;

This configuration property can be used to provide the major version number of
the Object when implemented on a device.

Valid Range

Any integer number from 1 to 255. Only 1-byte of information is accepted.

Default Value

The default value is one (1).

Configuration Requirements/Restrictions

This CP is a constant (const\_flg). It is not to be modified except that it is
allowable to modify the value in a download of new code to the device.

SCPT Reference

SCPTobjMajVer (167)

Object Minor Version (Optional)

network input config sd_string("&1,\text{p},0\text{\char'\x84},168")
unsigned short nciObjMinVer;

This configuration property can be used to provide the minor version number of
the Object when implemented on a device.

Valid Range

Any integer number from 0 to 255. Only 1-byte of information is accepted.

Default Value

The default value is zero (0).
Configuration Requirements/Restrictions

This CP is a constant (const_flg). It is not to be modified except that it is allowable to modify the value in a download of new code to the device.

SCPT Reference

SCPTobjMinVer (168)

Network Configuration Source (Optional)

network input config sd_string("&1,p,0\x80,25")
SNVT_config_src nciNetConfig;

All nodes that support self-installation must provide this configuration property to allow a network tool to also install the node.

Valid Range

When a node is self-installed this variable should be set to CFG_LOCAL when the node is manufactured. A variable set to CFG_EXTERNAL signifies that a network tool will assign network addresses for the node.

Default Value

For a self-installed node the default value is CFG_LOCAL.

Configuration Requirements/Restrictions

This CP has no modification restrictions (no_restrictions). It can be modified at any time. If a change is made from External to Local (unlikely), the node will need to be reset.

SCPT Reference

SCPTnwrkcnfg(25)

Announcement Volume (Optional)

network input config sd_string("&1,p,0\x80,228")
SNVT_switch nciAnnVolume;

This configuration property can be used to adjust the volume of the announcement.
If this property is not implemented, the volume can simply be adjusted by a manual setting.

**Valid Range**

<table>
<thead>
<tr>
<th>Value</th>
<th>State</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANY</td>
<td>0</td>
<td>Audio OFF</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>Audio OFF</td>
</tr>
<tr>
<td>&gt;0</td>
<td>1</td>
<td>Minimum Volume, (0.5% to 100%)</td>
</tr>
<tr>
<td>200</td>
<td>1</td>
<td>Maximum Volume, (100%)</td>
</tr>
<tr>
<td>ANY</td>
<td>0xFF</td>
<td>Undefined, No Action</td>
</tr>
</tbody>
</table>

**Default Value**

not defined

**Configuration Requirements/Restrictions**

This CP has no modification restrictions (no_restrictions). It can be modified at any time.

**Direction Volume (Optional)**

```c
network input config sd_string("&1,p,0\x80,228")
SNVT_switch nciDirVolume;
```

This configuration property can be used to adjust the volume of the direction announcement.

If this property is not implemented, the volume can simply be adjusted by a manual setting.

**Valid Range**

<table>
<thead>
<tr>
<th>Value</th>
<th>State</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANY</td>
<td>0</td>
<td>Audio OFF</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>Audio OFF</td>
</tr>
<tr>
<td>&gt;0</td>
<td>1</td>
<td>Minimum Volume, (0.5% to 100%)</td>
</tr>
<tr>
<td>200</td>
<td>1</td>
<td>Maximum Volume, (100%)</td>
</tr>
<tr>
<td>ANY</td>
<td>0xFF</td>
<td>Undefined, No Action</td>
</tr>
</tbody>
</table>
Default Value
not defined

Configuration Requirements/Restrictions
This CP has no modification restrictions (no_restrictions). It can be modified at any time.

Key for Unresolved References

\( p \) is this Object’s index relative to the node sd_string declaration, when implemented.

Power-up State

There is no immediate network action on Power-up State.
The will be no indication until an input is received.

Boundary and Error Conditions

None specified.

Additional Considerations

None specified.