



Object Library

Otis Elevator Object

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OTIS ELEVATOR OBJECT

INTRODUCTION

The Otis Elevator object represents Otis elevator in an Otis high level elevator integration. The Otis Elevator object must be a child of the Otis Controller object.

In a high level elevator integration, the access control system interfaces with the elevator control system through a communications protocol. Granting access to floors is achieved by sending telegrams to the elevator controller; reporting the pressed floor buttons is achieved by receiving telegrams from the elevator controller.

The arrows in the diagram show the message flow between the different components of the elevator interface.

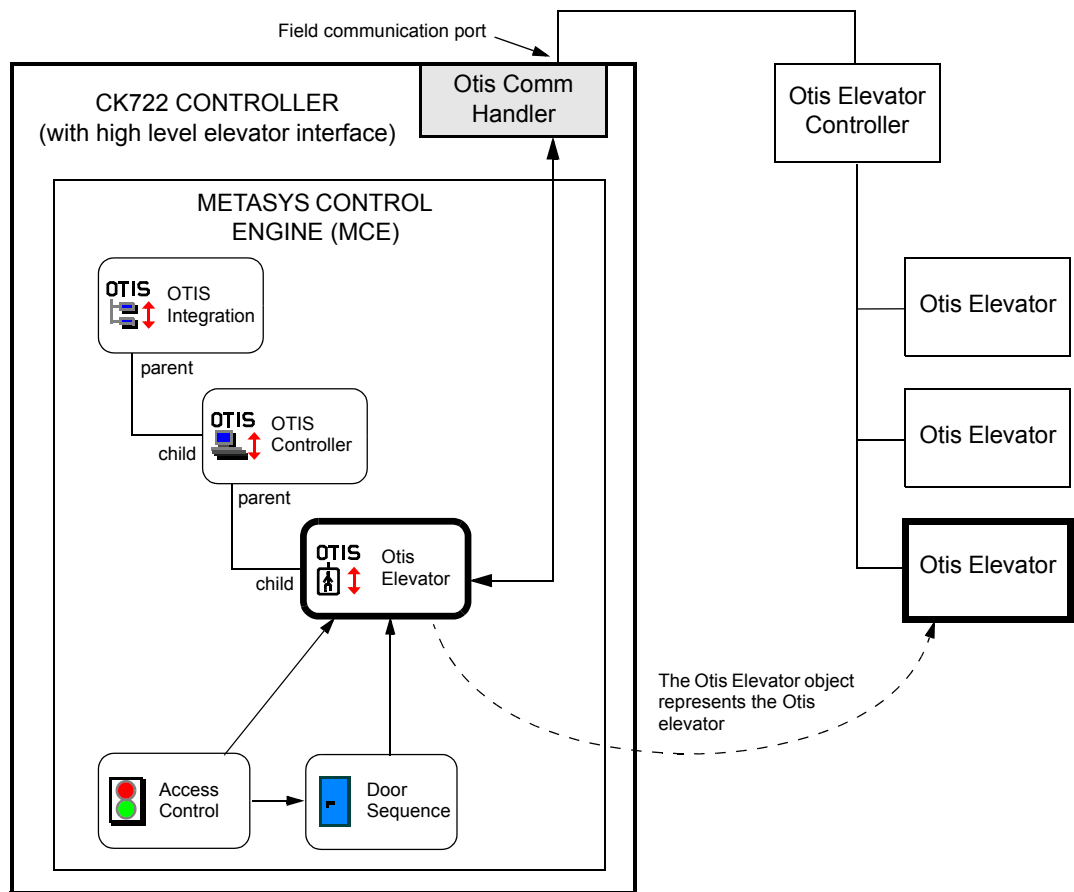


Figure 1: Otis Elevator

ATTRIBUTES

This section describes visible attributes specific to the Otis Elevator object. This object also contains:

- Attributes common to all objects in the P2000 Security Management System. For details, see the *General Object Information* document.
- Internal attributes, which are invisible to the user and cannot be modified directly, but may be referred to throughout this document.

Table 1: Otis Elevator Object Attributes

Attribute Name	Attribute Number	Data Type	Notes	Initial Value	Values/Options /Range
<i>Access Control Object</i>	4072	Object Reference	WCAN	-	-
<i>Access Time</i>	2268	Unsigned16	WCA	5	1 to 1000 seconds
<i>Door Sequence Object</i>	3022	Object Reference	WCAN	-	-
<i>Elevator Address</i>	4077	Unsigned8	WCA	1	1 to 8
<i>Error Notification</i>	3040	Boolean	WCA	1	
<i>Floor List</i>	4073	List of Floor B	WCAN	-	Max. 256 entries
<i>Floor Tracking</i>	4074	Boolean	WCA	1	-
<i>Group Address</i>	871	Unsigned8	WCA	1	1 to 8
<i>Notification Class</i>	17	Unsigned32	WCA	1	-
<i>Notify Priority</i>	3644	Unsigned8	WCA	-	-

A - Archive, C - Configurable, N - Value not required, W - Writable

Access Control Object – Specifies which Access Control object the Elevator object shall use to obtain input from the reader(s).

Access Time – Specifies how long the elevator accepts floor button presses after elevator access was granted.

Door Sequence Object – Specifies which Door Sequence object the Elevator object shall consult for elevator override status.

Elevator Address – Specifies the numerical address of the elevator cab.

Error Notification – Specifies whether the Elevator object sends out extra notifications every time a error is encountered, such as missing data records or objects. These error notifications are in addition to all other notifications the Elevator object may generate.

Floor List – Specifies the elevator’s floor configuration. The Otis Elevator object requires the floors to be entered in ascending order, such that the lowest building level served by the elevator is the first entry, and the highest building level served by the elevator is the last entry. See “Floor B Data Type” on page 1-3 for details.

Floor Tracking – Specifies whether pressed floor buttons shall be reported to the host.

Group Address – Specifies the Otis group number of the elevator cab.

Notification Class – Specifies which Security Notification Class object the Elevator object shall use to send its notifications.

Notify Priority – Specifies the Priority parameter of all notifications generated by the Elevator object.

Floor B Data Type

The Otis Elevator object uses Floor B for its *Floor List* attribute.

Table 2: Floor B Data Type

Floor	Data Type	Values/Options /Range
<i>Floor Number</i>	Unsigned16	1 - 512
<i>Public Access Attribute</i>	Attribute reference	-

Floor Number – Specifies the 1 based floor descriptor as defined by the P2000 host. At the SCT (System Configuration Tool) this floor descriptor is displayed as the floor name defined at the P2000 host.

Public Access Attribute – Specifies a numerical attribute that enables public access to this floor when equal to 1. This attribute member may be left blank if no public access is desired.

COMMANDS

This section describes commands that can be issued to this object from SCT.

Table 3: Otis Elevator Object Commands

Command Name	Description
Change Attribute	See the description below.

The **Change Attribute** is a generic command available for writing the attributes of an object. It is mainly used to change an attribute value from those features which work only with commands. For the sole purpose of giving a generic example, there is no command defined to change the *Notify Priority* attribute of an object. **Change Attribute** could, therefore, be used to change the *Notify Priority* attribute through an interlock or multiple command, both features which require commands to be entered. The **Change Attribute** command requires two parameters:

- **Attribute** - This parameter specifies which attribute of the object is to be written. Only writable attributes may be changed by this command.
- **New value** - This parameter specifies new value to be written and must be the same data type as the attribute. The only data types allowed in this command are those allowed as command parameters. A command priority can be specified if the attribute to be changed is a prioritized attribute.

VIEWS

This section illustrates how the System Configuration Tool displays properties of the Otis Elevator object. This screen also allows you to set the values of configurable attributes. For more information refer to the *System Configuration Tool (SCT)* manual.

The screenshot shows the 'Configuration' window with the 'Edit' tab selected. The window displays a table of attributes and their values for an Otis Elevator object. The attributes are grouped into sections: Object, Engineering Values, and Notification.

Attribute	Value
Object	
Name	C0002-00036-Otis-E
Description	
Object Type	Elevator
Object Category	General
Partition	Super User
Public	<input type="checkbox"/>
Engineering Values	
Access Control Object	Object Name: Reference:
Door Sequence Object	Object Name: Reference:
Access Time	5 seconds
Floor Tracking	<input checked="" type="checkbox"/>
Anti-Tailgating	<input type="checkbox"/>
Group Address	1
Elevator Address	1
Floor List	Listof[0]
Notification	
Notification Class	1
Notify Priority	0
Error Notification	<input checked="" type="checkbox"/>

Figure 2: Configuration View

DESCRIPTION OF OPERATION

Access Output

Every change to the list of floors on public access is sent to the elevator controller task. Similarly, every change to the list of floors on elevator access is sent to the elevator controller task. That task is responsible for sending this information to the elevator controller in the appropriate format.

Floor Button Input

In a high level elevator integration the pressed floor button is reported to the access controls system via a telegram sent from the elevator controller.

When this information reaches the Otis Elevator object, the anti-tailgating and floor tracking features are invoked.

Anti-Tailgating

As soon as a pressed floor button is reported to the Otis Elevator object the anti-tailgating function is performed.

When the Anti-Tailgating attribute is set to “True,” a telegram is sent from the access control system to the elevator controller revoking the elevator access.

Floor Tracking

As soon as a pressed floor button is reported to the Otis Elevator object the floor tracking function is performed. The *Floor Tracking* attribute is the master switch to turn floor tracking notifications on or off. If generated, a floor tracking notification assigns the pressed floor button's *Floor Number* member with the last entity that requested access.

When the *Floor Tracking* attribute is set to “True,” a floor tracking notification is generated that assigns the pressed floor button's *Floor Number* member with the last entity that requested access. This notification is sent independent of whether the floor is allowed for access, as the reporting of the floor may occur with a significant delay.