

## Skilift Tango Cpp Class

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### **Skilift Class Identification :**

Contact : at null - null  
Class Family :  
Platform :  
Bus :  
Manufacturer :  
Manufacturer ref. :

### **Skilift Class Inheritance :**

- [Tango::DeviceImpl](#)
  - Skilift

### **Skilift Class Description :**

An exercise class for the Tango training

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## Skilift Properties :

There is no class properties

Device Properties			
Name	Description	Type	Default Value
Exception_trig	Triggers an exception in the exception command when set to true	boolean	false

Skilift Class Commands				
Name	Input type	Output type	Level	Description
<a href="#">State</a>	DEV_VOID	DEV_STATE	OPERATOR	This command gets the device state (stored in its <i>device_state</i> data member) and returns it to the caller.
<a href="#">Status</a>	DEV_VOID	CONST_DEV_STRING	OPERATOR	This command gets the device status (stored in its <i>device_status</i> data member) and returns it to the caller.
<a href="#">On</a>	DEV_VOID	DEV_VOID	OPERATOR	Switch on the Skilist
<a href="#">Off</a>	DEV_VOID	DEV_VOID	OPERATOR	Switch of the Skilift
<a href="#">Reset</a>	DEV_VOID	DEV_VOID	OPERATOR	Reset the Skilift after an emergency stop
<a href="#">EchoShort</a>	DEV_SHORT	DEV_SHORT	OPERATOR	The output is the input value multiplied by 2
<a href="#">EchoLongArray</a>	DEVVAR_LONGARRAY	DEVVAR_LONGARRAY	OPERATOR	Echos the input values and adds the results of a multiplication by 2. input = 1,3 output = 1,3,2,6
<a href="#">StringReverse</a>	DEV_STRING	DEV_STRING	OPERATOR	The output string is the input string in reverse order. input = "hello" output = "olleh"
<a href="#">Exception</a>	DEV_VOID	DEV_LONG	OPERATOR	The command returns an exception when the boolean property is set to

**Command State :**

This command gets the device state (stored in its *device\_state* data member) and returns it to the caller.

State Definition		
Input Argument	Tango::DEV_VOID	none.
Output Argument	Tango::DEV_STATE	State Code
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	true	..
Polling Period	Not polled	..
Command allowed for	All states	..

**Command Status :**

This command gets the device status (stored in its *device\_status* data member) and returns it to the caller.

Status Definition		
Input Argument	Tango::DEV_VOID	none.
Output Argument	Tango::CONST_DEV_STRING	Status description
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	true	..
Polling Period	Not polled	..
Command allowed for	All states	..

### **Command On :**

Switch on the Skilist

<b>On Definition</b>		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
		..
Command NOT allowed for	<ul style="list-style-type: none"><li>• ON</li><li>• FAULT</li></ul>	..

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### **Command Off :**

Switch of the Skilift

<b>Off Definition</b>		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
		..
Command NOT allowed for	<ul style="list-style-type: none"><li>• OFF</li><li>• FAULT</li></ul>	..

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### **Command Reset :**

Reset the Skilift after an emergency stop

Reset Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
		..
Command NOT allowed for	<ul style="list-style-type: none"> <li>• ON</li> <li>• OFF</li> </ul>	..

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### **Command EchoShort :**

The output is the input value multiplied by 2

EchoShort Definition		
Input Argument	Tango::DEV_SHORT	Input value
Output Argument	Tango::DEV_SHORT	Input value multiplied by 2
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
		..
Command allowed for	All states	..

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### **Command EchoLongArray :**

Echos the input values and adds the results of a multiplication by 2.

input = 1,3

output = 1,3,2,6

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<b>EchoLongArray Definition</b>		
Input Argument	Tango::DEVVAR_LONGARRAY	Array of long values
Output Argument	Tango::DEVVAR_LONGARRAY	Array of long values and multiplication results
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

### **Command StringReverse :**

The output string is the input string in reverse order.  
input = "hello"  
output = "olleh"

<b>StringReverse Definition</b>		
Input Argument	Tango::DEV_STRING	Input string
Output Argument	Tango::DEV_STRING	input string reversed
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

### **Command Exception :**

The command returns an exception when the boolean property is set to true

<b>Exception Definition</b>

Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_LONG	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
		..
Command allowed for	All states	..

Skilift Class Attributes							
Name	Inherited	Abstract	Attr. type	R/W type	Data type	Level	Description
<a href="#">Speed</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	The speed of the Skilift in meter per second
<a href="#">WindSpeed</a>	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	The actual wind speed on the mountain top
<a href="#">ScaAttr</a>	false	false	Scalar	READ_WRITE	Tango::DEV_SHORT	OPERATOR	Example of a scalar attribute
<a href="#">SeatsPos</a>	false	false	Spectrum	READ	Tango::DEV_LONG	OPERATOR	The actual position of all skilift seats
<a href="#">SpecAttr</a>	false	false	Spectrum	READ_WRITE	Tango::DEV_LONG	OPERATOR	Example of a spectrum attribute
<a href="#">ImaAttr</a>	false	false	Image	READ	Tango::DEV_LONG	OPERATOR	Example of an image attribute

**There is no dynamic attribute defined.**

### **Attribute Speed :**

The speed of the Skilift in meter per second

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	Skilift Speed
unit	m/s
standard unit	
display unit	
format	%4.2f
max_value	5
min_value	0
max_alarm	4
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

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### **Attribute WindSpeed :**

The actual wind speed on the mountain top

Attribute Definition	
Attribute Type	Scalar

Attribute Properties	
label	Wind Speed

Attribute Event Criteria	
Periodic	Not set



R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

unit	km/h
standard unit	
display unit	
format	%4.1f
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

### **Attribute ScaAttr :**

Example of a scalar attribute

<b>Attribute Definition</b>	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_SHORT
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	true
Write hardware	true

<b>Attribute Properties</b>	
label	Scalar Attribute
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	

<b>Attribute Event Criteria</b>	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set

at init.	
Read allowed for	All states
Write allowed for	All states

delta_time	
delta_val	

Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

### **Attribute SeatsPos :**

The actual position of all skilift seats

Attribute Definition	
Attribute Type	Spectrum ( 1000 )
R/W Type	READ
Data Type	Tango::DEV_LONG
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	Seats Positions
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

## **Attribute SpecAttr :**

Example of a spectrum attribute

<b>Attribute Definition</b>	
Attribute Type	Spectrum ( 100 )
R/W Type	READ_WRITE
Data Type	Tango::DEV_LONG
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

<b>Attribute Properties</b>	
label	Spectrum Attribute
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

<b>Attribute Event Criteria</b>	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

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## **Attribute ImaAttr :**

Example of an image attribute

<b>Attribute Definition</b>	
Attribute Type	Image ( 100 x 100 )

<b>Attribute Properties</b>	
label	Image Attribute

<b>Attribute Event Criteria</b>	
Periodic	Not set

R/W Type	READ
Data Type	Tango::DEV_LONG
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

Skilift Class States	
Name	Description
ON	The Skilift is switched on
OFF	The Skilift is switched off
FAULT	The Skilist was stopped for an emergency