Valve Tango Cpp Class

Contents :

Valve Class Identification :

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

Valve Class Inheritance :

- Tango::DeviceImpl
  - Valve

Valve Class Description :

this class define the minimum interface for any type of valve.
we can open it, close it or reset it`s interlocks.
The status attribute should indicate clearly why the valve cannot be open or closed.

Valve Properties :

There is no class properties

There is no device properties

Valve Class Commands				
Name	**Input type**	**Output type**	**Level**	**Description**
State	DEV_VOID	DEV_STATE	OPERATOR	This command gets the device state (stored in its *device_state* data member) and returns it to the caller.
Status	DEV_VOID	CONST_DEV_STRING	OPERATOR	This command gets the device status (stored in its *device_status* data member) and returns it to the caller.
Open	DEV_VOID	DEV_VOID	OPERATOR	Open the valve. In case of a manual valve, this command should return an exception "Manual Valve cannot be remotly operated"
Close	DEV_VOID	DEV_VOID	OPERATOR	Close the valve. In case of a manual valve, this command should return an exception "Manual Valve cannot be remotly operated"
Reset	DEV_VOID	DEV_VOID	OPERATOR	reset the interlock that may block the valve

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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 Open :

Open the valve.
In case of a manual valve, this command should return an exception "Manual Valve cannot be remotly operated"

Open Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	null	..
Abstract	true	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command Close :

Close the valve.
In case of a manual valve, this command should return an exception "Manual Valve cannot be remotly operated"

Close Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	null	..
Abstract	true	..
Polling Period	Not polled	..

Command allowed for	All states	..

Command Reset :

reset the interlock that may block the valve

Reset Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	null	..
Abstract	true	..
Polling Period	Not polled	..
Command allowed for	All states	..

There is no attribute defined.

There is no dynamic attribute defined.

Valve Class States	
Name	**Description**
OPEN	the valve is open. can be identified by the state of an end switch.
CLOSE	The valve is closed. can be identified by reading the state of an endswitch.
MOVING	The valve is opening or closing
DISABLE	The valve cannot be moved due to an external condition. For instance a bad level of pressure. In such a case the movment will be possible only when the cause of the problem has disapeared. In any case, the Status attriute should indicate clearly the reason of this state.
FAULT	the state of the valve is incoherent. e.g. both end switches are pressed at the same time. or the compressed air is absent. In any case, the status attribute should indicate clearly the reason for this state.