



**TANGO**  
Device  
Server

# Magnet-vacuum interlocks device server User's Guide

## MagVacItlk Class

Revision: BaseRelease - Author: peru  
Implemented in C++ - CVS repository: ESRF

### Introduction:

This device server is in charge of elaborating the status of the various magnet and vacuum interlocks installed in a cell.

### Class Inheritance:

- Tango::Device\_4Impl
  - MagVacItlk

### Class Description:

This device server is in charge of elaborating the status of the various magnet and vacuum interlocks installed in a cell.

## Properties:

<b>Device Properties</b>		
<b>Property name</b>	<b>Property type</b>	<b>Description</b>
<b>Index</b>	Tango::DEV_SHORT	Index of the cell in the PLC.
<b>DeviceType</b>	Tango::DEV_STRING	Set to magnet_flow, magnet_temp or vacuum_flow
<b>LabelsProp</b>	Array of string	Array of label names.
<b>XLocationsProp</b>	Array of double	Array of X locations
<b>YLocationsProp</b>	Array of double	Array of Y locations.

## Device Properties Default Values:

<b>Property Name</b>	<b>Default Values</b>
Index	No default value
DeviceType	No default value
LabelsProp	No default value
XLocationsProp	No default value
YLocationsProp	No default value

**There is no Class properties.**

## Attributes:

<b>Scalar Attributes</b>			
<b>Attribute name</b>	<b>Data Type</b>	<b>R/W Type</b>	<b>Expert</b>
<b>Mag1_24V_State</b>	DEV_STATE	READ	No
<b>Mag2_24V_State</b>	DEV_STATE	READ	No
<b>Mag3_24V_State</b>	DEV_STATE	READ	No
<b>Vac1_24V_State</b>	DEV_STATE	READ	No
<b>General_24V_State</b>	DEV_STATE	READ	No
<b>WagoIsEmergency</b>	DEV_BOOLEAN	READ	No
<b>ModbusErrorString</b>	DEV_STRING	READ	No
<b>MagnetAllState</b>	DEV_STATE	READ	No
<b>MagnetBisState</b>	DEV_STATE	READ	No
<b>VacuumState</b>	DEV_STATE	READ	No
<b>ModbusError</b>	DEV_SHORT	READ	No
<b>SraState</b>	DEV_STATE	READ	No

<b>Spectrum Attributes</b>			
<b>Attribute name</b>	<b>Data Type</b>	<b>X Data Length</b>	<b>Expert</b>
<b>Labels</b>	DEV_STRING	30	No
<b>States</b>	DEV_STATE	30	No
<b>XLocations</b>	DEV_DOUBLE	30	No
<b>YLocations</b>	DEV_DOUBLE	30	No
<b>SraStates</b>	DEV_STATE	10	No

## **Commands:**

More Details on commands....

Device Commands for Operator Level		
Command name	Argument In	Argument Out
<b>Init</b>	DEV_VOID	DEV_VOID
<b>State</b>	DEV_VOID	DEV_STATE
<b>Status</b>	DEV_VOID	CONST_DEV_STRING
<b>Reset</b>	DEV_VOID	DEV_VOID

## 1 - Init

- Description:** This commands re-initialise a device keeping the same network connection. After an Init command executed on a device, it is not necessary for client to re-connect to the device. This command first calls the device *delete\_device()* method and then execute its *init\_device()* method. For C++ device server, all the memory allocated in the *nit\_device()* method must be freed in the *delete\_device()* method.  
 The language device desctructor automatically calls the *delete\_device()* method.
- Argin:**  
**DEV\_VOID** : none.
- Argout:**  
**DEV\_VOID** : none.
- Command allowed for:**

## 2 - State

- Description:** This command gets the device state (stored in its *device\_state* data member) and returns it to the caller.
- Argin:**  
**DEV\_VOID** : none.
- Argout:**  
**DEV\_STATE** : State Code
- Command allowed for:**

### 3 - Status

- **Description:** This command gets the device status (stored in its *device\_status* data member) and returns it to the caller.
- **Argin:**  
**DEV\_VOID** : none.
- **Argout:**  
**CONST\_DEV\_STRING** : Status description
- **Command allowed for:**

### 4 - Reset

- **Description:** Reset the interlock.
- **Argin:**  
**DEV\_VOID** :
- **Argout:**  
**DEV\_VOID** :
- **Command allowed for:**

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