



**TANGO**  
Device  
Server

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# **Machine Status User's Guide**

## **MSTATUS Class**

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**Revision: REL1\_0 - Author: pons**  
**Implemented in C++ - CVS repository: ESRF**

### **Introduction:**

A class which computes all alarms displayed on CTRM screens

### **Class Inheritance:**

- Tango::Device\_4Impl
  - MSTATUS

### **Class Description:**

## Properties:

<b>Class Properties</b>		
<b>Property name</b>	<b>Property type</b>	<b>Description</b>
<b>Python_path</b>	Tango::DEV_STRING	Path where python sequence are located
<b>Log_path</b>	Tango::DEV_STRING	Path where are logged alarm and fault.

<b>Device Properties</b>		
<b>Property name</b>	<b>Property type</b>	<b>Description</b>
<b>Devices</b>	Array of string	List of sub device needed to compute the global state
<b>Voice_warning_message</b>	Tango::DEV_STRING	Message sent to the speaker when the global state is ALARM
<b>Voice_fault_message</b>	Tango::DEV_STRING	Message sent to the speaker when the global state is FAULT
<b>Python_seq</b>	Tango::DEV_STRING	name of the python sequence used to translate sub device states
<b>Voice_state</b>	Tango::DEV_SHORT	Tell if messages must be sent to the speaker (0 or 1)
<b>Inhibited</b>	Array of short	To inhibit devices in the devices list. one (0 or 1) per device
<b>Voice_dev</b>	Tango::DEV_STRING	Name of the speaker device
<b>Label</b>	Tango::DEV_STRING	Label for the alarm device
<b>Voice_unknown_message</b>	Tango::DEV_STRING	Message sent to the speaker when the global state is UNKNOWN

### Class Properties Default Values:

<b>Property Name</b>	<b>Default Values</b>
Python_path	No default value
Log_path	No default value

### Device Properties Default Values:

<b>Property Name</b>	<b>Default Values</b>
Devices	No default value
Voice_warning_message	No default value
Voice_fault_message	No default value
Python_seq	No default value
Voice_state	No default value
Inhibited	No default value
Voice_dev	No default value
Label	No default value
Voice_unknown_message	No default value

## **States:**

<b>States</b>	
<b>Names</b>	<b>Descriptions</b>
<b>ON</b>	*
<b>OFF</b>	*
<b>ALARM</b>	*
<b>FAULT</b>	*
<b>STANDBY</b>	*
<b>MOVING</b>	*
<b>UNKNOWN</b>	*
<b>DISABLE</b>	Disabled state
<b>INIT</b>	

## **Attributes:**

<b>Scalar Attributes</b>			
<b>Attribute name</b>	<b>Data Type</b>	<b>R/W Type</b>	<b>Expert</b>
<b>VoiceState</b>	DEV_SHORT	READ	No
<b>Inhibited</b>	DEV_SHORT	READ	No
<b>Alarm_message</b>	DEV_STRING	READ	No
<b>Fault_message</b>	DEV_STRING	READ	No
<b>Unknown_message</b>	DEV_STRING	READ	No

<b>Spectrum Attributes</b>			
<b>Attribute name</b>	<b>Data Type</b>	<b>X Data Length</b>	<b>Expert</b>
<b>Devices</b>	DEV_STRING	512	No
<b>InhibitedDevices</b>	DEV_SHORT	512	No
<b>Sub_states</b>	DEV_STRING	512	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>DevInhibit</b>	DEV_STRING	DEV_VOID
<b>DevUninhibit</b>	DEV_STRING	DEV_VOID
<b>DevEnableVoice</b>	DEV_VOID	DEV_VOID
<b>DevDisableVoice</b>	DEV_VOID	DEV_VOID
<b>DevHistory</b>	DEV_VOID	DEV_STRING
<b>DevUninhibitAll</b>	DEV_VOID	DEV_VOID
<b>DevVoiceState</b>	DEV_VOID	DEV_SHORT
<b>DevInhibitState</b>	DEV_VOID	DEV_SHORT
<b>DevSetAlarmMessage</b>	DEV_STRING	DEV_VOID
<b>DevSetFaultMessage</b>	DEV_STRING	DEV_VOID
<b>CompleteStatus</b>	DEV_VOID	DEV_STRING
<b>GetLabel</b>	DEV_VOID	DEV_STRING
<b>DevSetUnknownMessage</b>	DEV_STRING	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:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM

- Tango::FAULT
- Tango::STANDBY
- Tango::MOVING
- Tango::UNKNOWN
- Tango::DISABLE
- Tango::INIT

## 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:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN
  - Tango::DISABLE
  - Tango::INIT

## 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:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY

- Tango::MOVING
- Tango::UNKNOWN
- Tango::DISABLE
- Tango::INIT

## 4 - DevInhibit

- **Description:** This command inhibit a device in the devices list. That means the device is no more used to compute the global state. Argin : device name to inhibit
- **Argin:**  
**DEV\_STRING** : Device name to inhibit for the global state calculation
- **Argout:**  
**DEV\_VOID** :
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN
  - Tango::DISABLE
  - Tango::INIT

## 5 - DevUninhibit

- **Description:** This command Uninhibit a device in the devices list. That means the device is used to compute the global state. Argin : device name to activate
- **Argin:**  
**DEV\_STRING** : Device name to activate for the global state calculation
- **Argout:**  
**DEV\_VOID** :
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN

- Tango::DISABLE
- Tango::INIT

## 6 - DevEnableVoice

- **Description:** Enable the speaker.
- **Argin:**  
**DEV\_VOID :**
- **Argout:**  
**DEV\_VOID :**
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN
  - Tango::DISABLE
  - Tango::INIT

## 7 - DevDisableVoice

- **Description:** Disable the speaker.
- **Argin:**  
**DEV\_VOID :**
- **Argout:**  
**DEV\_VOID :**
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN
  - Tango::DISABLE
  - Tango::INIT



## 8 - DevHistory

- **Description:** Return the last stored alarm and fault message.
- **Argin:**  
**DEV\_VOID :**
- **Argout:**  
**DEV\_STRING :** Log message history
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN
  - Tango::DISABLE
  - Tango::INIT

## 9 - DevUninhibitAll

- **Description:** Uninhibit all device.
- **Argin:**  
**DEV\_VOID :**
- **Argout:**  
**DEV\_VOID :**
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN
  - Tango::DISABLE
  - Tango::INIT

## 10 - DevVoiceState

- **Description:** Return the state of the speaker
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_SHORT :
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN
  - Tango::DISABLE
  - Tango::INIT

## 11 - DevInhibitState

- **Description:** Return if there are some inhibited devices in the list.
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_SHORT :
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN
  - Tango::DISABLE
  - Tango::INIT

## 12 - DevSetAlarmMessage

- **Description:** Configure the voice alarm message.
- **Argin:**  
**DEV\_STRING** : Message sent to the speaker when device is alarm
- **Argout:**  
**DEV\_VOID** :
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN
  - Tango::DISABLE
  - Tango::INIT

## 13 - DevSetFaultMessage

- **Description:** Configure the fault voice message.
- **Argin:**  
**DEV\_STRING** : Message send to the speaker when the device is fault.
- **Argout:**  
**DEV\_VOID** :
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN
  - Tango::DISABLE
  - Tango::INIT

## 14 - CompleteStatus

- **Description:** Return a detailed status.
- **Argin:**  
**DEV\_VOID :**
- **Argout:**  
**DEV\_STRING :** Detailed status
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN
  - Tango::DISABLE
  - Tango::INIT

## 15 - GetLabel

- **Description:** Return the label device property
- **Argin:**  
**DEV\_VOID :**
- **Argout:**  
**DEV\_STRING :** Device label
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN
  - Tango::DISABLE
  - Tango::INIT

## 16 - DevSetUnknownMessage

- **Description:** Set the message sent to the test talker when unknown state
- **Argin:**  
**DEV\_STRING :**
- **Argout:**  
**DEV\_VOID :**
- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::STANDBY
  - Tango::MOVING
  - Tango::UNKNOWN
  - Tango::DISABLE
  - Tango::INIT

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