



**TANGO**  
Device  
Server

# **OSManager User's Guide**

## **OSManager Class**

**Revision: - Author: taurel**  
**Implemented in C++**

### **Introduction:**

DeviceServer used to remotely access the operating system through TANGO.

### **Class Inheritance:**

- Tango::Device\_4Impl
  - OSManager

### **Properties:**

**There is no Class properties.**  
**There is no Device Properties.**

## Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
<b>upTime</b>	DEV_STRING	READ	No
<b>time:</b> gives the date of the day, and the current CPU hour.	DEV_STRING	READ	No
<b>secondSince1970:</b> gives the number of seconds elapsed since 1970	DEV_LONG	READ	No
<b>cpuLoad:</b> The cpu usage in percent.	DEV_SHORT	READ	No
<b>memoryTotal:</b> Total physical memory (kB).	DEV_LONG	READ	No
<b>memoryFree:</b> Physical memory available (kB)	DEV_LONG	READ	No
<b>swapUsed:</b> Swap used in percent.	DEV_DOUBLE	READ	No

Spectrum Attributes			
Attribute name	Data Type	X Data Length	Expert
<b>servicesList:</b> Show all services stopped or running on this machine	DEV_STRING	1024	No
<b>processesList:</b> Show all processes running on this machine	DEV_STRING	1024	No
<b>doubledProcessesList:</b> List of doubled processes if any.	DEV_STRING	1024	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>ImmediateShutdown</b>	DEV_VOID	DEV_VOID
<b>DifferedShutdown</b>	DEV_SHORT	DEV_VOID
<b>ShutdownAndPowerOff</b>	DEV_VOID	DEV_VOID
<b>ShellExe</b>	DEVVAR_STRINGARRAY	DEV_VOID
<b>Reboot</b>	DEV_VOID	DEV_VOID
<b>KillProcessByPID</b>	DEV_ULONG	DEV_VOID
<b>KillServiceByName</b>	DEV_STRING	DEV_VOID
<b>StartService</b>	DEV_STRING	DEV_VOID
<b>ReStartService</b>	DEV_STRING	DEV_VOID
<b>ReStartStarterService</b>	DEV_VOID	DEV_VOID
<b>ReStartNTPDaemon</b>	DEV_VOID	DEV_VOID
<b>GetOSVersion</b>	DEV_VOID	DEV_STRING

## 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 - ImmediateShutdown

- **Description:** Initiates an immediate shutdown of the operating system As this is not possible to get a remote indication of the real state of shutdown, , you should wait a few seconds before turning power off the crate, so that you let the system gracefully shutdown
- **Argin:**  
**DEV\_VOID** :
- **Argout:**  
**DEV\_VOID** :
- **Command allowed for:**

## 5 - DifferedShutdown

- **Description:** Initiates a shutdown after the number of seconds given as argument You should wait a few seconds before turning power off the crate to let the system gracefully shutdown
- **Argin:**

**DEV\_SHORT** : number of seconds before shutdown

- **Argout:**  
**DEV\_VOID** :
- **Command allowed for:**

## 6 - ShutdownAndPowerOff

- **Description:** Does an immediate shutdown and switch power off if possible Of course, the system must support the power-off feature.
- **Argin:**  
**DEV\_VOID** :
- **Argout:**  
**DEV\_VOID** :
- **Command allowed for:**

## 7 - ShellExe

- **Description:** execute a shell script with arguments as this : "cmd", "arg1 arg2 ..." For Linux, you can add the '&' character to avoid CORBA timeout !
- **Argin:**  
**DEVVAR\_STRINGARRAY** : path to the shell script,argument1, argument2 , ..]
- **Argout:**  
**DEV\_VOID** :
- **Command allowed for:**

## 8 - Reboot

- **Description:** Reboot system
- **Argin:**  
**DEV\_VOID** :
- **Argout:**  
**DEV\_VOID** :
- **Command allowed for:**

## 9 - KillProcessByPID

- **Description:** Kill a process identified by its pID.
- **Argin:**  
**DEV\_ULONG** : process ID
- **Argout:**  
**DEV\_VOID** : no argout
- **Command allowed for:**

## 10 - KillServiceByName

- **Description:** Kill a service identified by its name.
- **Argin:**  
**DEV\_STRING** : Name of the service to kill
- **Argout:**  
**DEV\_VOID** : no argout
- **Command allowed for:**

## 11 - StartService

- **Description:** Start the specified service
- **Argin:**  
**DEV\_STRING** : name of the service to start
- **Argout:**  
**DEV\_VOID** : no argout
- **Command allowed for:**

## 12 - ReStartService

- **Description:** Stop and start the specified service
- **Argin:**  
**DEV\_STRING** : name of the service to restart
- **Argout:**  
**DEV\_VOID** : no argout

- **Command allowed for:**

## 13 - ReStartStarterService

- **Description:** ReStart the local starter service
- **Argin:**  
DEV\_VOID : no argin
- **Argout:**  
DEV\_VOID : no argout
- **Command allowed for:**

## 14 - ReStartNTPDaemon

- **Description:** ReStarts the NTP Daemon service
- **Argin:**  
DEV\_VOID : no argin
- **Argout:**  
DEV\_VOID : no argout
- **Command allowed for:**

## 15 - GetOSVersion

- **Description:** Returns the OS version on which the device is running
- **Argin:**  
DEV\_VOID : no argin
- **Argout:**  
DEV\_STRING : OS version
- **Command allowed for:**

TANGO is an open source project hosted by :  


Core and Tools : CVS repository on tango-cs project  
 Device Servers : CVS repository on tango-ds project