TANGO Device Server

CompactPCICrate User's Guide

CompactPCICrate Class

Revision: release_2_1_2 - Author: elattaoui
Implemented in C++

Introduction:

DeviceServer used to remotely access the operating system through TANGO.

Class Inheritance:

- Tango::Device_3Impl
  - CompactPCICrate

Properties:

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

Attributes:

Scalar Attributes			
Attribute name	**Data Type**	**R/W Type**	**Expert**
upTime	DEV_STRING	READ	No
time: gives the date of the day, and the current CPU hour.	DEV_STRING	READ	No
secondSince1970: gives the number of seconds elapsed since 1970	DEV_LONG	READ	No
cpuCharge: The cpu usage in percent.	DEV_SHORT	READ	No
physicalMemoryUsed: Total physical memory used (%).	DEV_DOUBLE	READ	No
swapUsed: Swap used (%).	DEV_DOUBLE	READ	No
virtualMemoryUsed: Virtual memory used in percent.	DEV_DOUBLE	READ	No
sortProcessesListBy: Specifies how to sort the processes list. Expected values : -> For *nix OS - PID - EXENAME: lexicographic order - DEFAULT : length of the entire string -> For win32 : above list + - MEMORY (actual process memory used) - PEAK (max memory used per process) - THREAD (number of process threads)	DEV_STRING	WRITE	No

Spectrum Attributes			
Attribute name	**Data Type**	**X Data Length**	**Expert**
servicesList: Show all services stopped or running on this machine	DEV_STRING	1024	No
processesList: Show all processes running on this machine	DEV_STRING	1024	No
doubledProcessesList: 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
Init	DEV_VOID	DEV_VOID
State	DEV_VOID	DEV_STATE
Status	DEV_VOID	CONST_DEV_STRING
ImmediateShutdown	DEV_VOID	DEV_VOID
DifferedShutdown	DEV_SHORT	DEV_VOID
ShutdownAndPowerOff	DEV_VOID	DEV_VOID
ShellExe	DEVVAR_STRINGARRAY	DEV_VOID
Reboot	DEV_VOID	DEV_VOID
KillProcessByPID	DEV_ULONG	DEV_VOID
StartService	DEV_STRING	DEV_VOID
ReStartService	DEV_STRING	DEV_VOID
ReStartStarterService	DEV_VOID	DEV_VOID
ReStartNTPDaemon	DEV_VOID	DEV_VOID
GetOSVersion	DEV_VOID	DEV_STRING
SearchProcesses	DEV_STRING	DEVVAR_STRINGARRAY
ProcessInfos	DEV_ULONG	DEVVAR_STRINGARRAY
ProcessModules	DEV_ULONG	DEVVAR_STRINGARRAY

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 - StartService

- **Description:** Start the specified service
- **Argin:**
  DEV_STRING : name of the service to start
- **Argout:**
  DEV_VOID : no argout
- **Command allowed for:**

11 - 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:**

12 - ReStartStarterService

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

13 - ReStartNTPDaemon

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

14 - 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:**

15 - SearchProcesses

- **Description:** Returns process(es) matching the pattern. This command is case insensitive.
- **Argin:**
  DEV_STRING : Pattern to found
- **Argout:**
  DEVVAR_STRINGARRAY : List of process(es) matching the pattern
- **Command allowed for:**

16 - ProcessInfos

- **Description:** Return process informations such as : - exe name - command line - memory usage - peak memory usage - started at - ended at - ...
- **Argin:**
  DEV_ULONG : Process PID
- **Argout:**
  DEVVAR_STRINGARRAY : Process Informations
- **Command allowed for:**

17 - ProcessModules

- **Description:** Process dlls loaded
- **Argin:**
  DEV_ULONG : Process pid
- **Argout:**
  DEVVAR_STRINGARRAY : List of loaded modules
- **Command allowed for:**

Frame Alert

This document is designed to be viewed using the frames feature. If you see this message, you are using a non-frame-capable web client.
Link to Non-frame version.

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Device Commands Description
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