



TANGO
Device
Server

TANGO Device Server User's Guide

PySerial Class

Revision: - Author: lkrause2
Implemented in Python

Introduction:

Python Serial Line device server for windows and linux

Class Inheritance:

- PyTango.Device_4Impl
 - PySerial

Properties:

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

States:

States	
Names	Descriptions
ON	Serial Port Open
FAULT	
OFF	

Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
Port	DEV_STRING	READ_WRITE	No
Baudrate	DEV_LONG	READ_WRITE	No
DataBits	DEV_SHORT	READ_WRITE	No
StopBits: 1 2	DEV_SHORT	READ_WRITE	No
Terminator: CR LF CR/LF NONE	DEV_STRING	READ_WRITE	No
FlowControl: none hardware software	DEV_STRING	READ_WRITE	No
Timeout: timeout=None #wait forever timeout=0 #non-blocking mode (return immediately on read) timeout=x #set timeout to x miliseconds (float allowed)	DEV_SHORT	READ_WRITE	No
Parity: none odd even	DEV_STRING	READ_WRITE	No
InputBuffer	DEV_LONG	READ	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
Open	DEV_VOID	DEV_VOID
Close	DEV_VOID	DEV_VOID
FlushInput	DEV_VOID	DEV_VOID
FlushOutput	DEV_VOID	DEV_VOID
Write	DEVVAR_CHARARRAY	DEV_VOID
Read	DEV_USHORT	DEVVAR_CHARARRAY
ReadLine	DEV_VOID	DEVVAR_CHARARRAY

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::FAULT
 - Tango::OFF

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::FAULT
- Tango::OFF

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::FAULT
- Tango::OFF

4 - Open

- **Description:** Open serial port

- **Argin:**
DEV_VOID :

- **Argout:**
DEV_VOID :

- **Command allowed for:**

- Tango::OFF

5 - Close

- **Description:** Close serial line

- **Argin:**
DEV_VOID :

- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT

6 - FlushInput

- **Description:**
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON

7 - FlushOutput

- **Description:**
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON

8 - Write

- **Description:** Write the string to the serial line
- **Argin:**
DEVVAR_CHARARRAY :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON

9 - Read

- **Description:**
- **Argin:**
DEV_USHORT : Characters to read
- **Argout:**
DEVVAR_CHARARRAY : Characters readed
- **Command allowed for:**
 - Tango::ON

10 - ReadLine

- **Description:**
- **Argin:**
DEV_VOID :
- **Argout:**
DEVVAR_CHARARRAY : Characters readed
- **Command allowed for:**
 - Tango::ON

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