



TANGO
Device
Server

Matlab device server User's Guide

Matlab Class

Revision: keyword substitution - Author: andy_gotz
Implemented in C++ - CVS repository: tango-ds

Introduction:

Class Inheritance:

- Tango::DeviceImpl
 - Sequencer
 - Matlab

Properties:

Device Properties		
Property name	Property type	Description
StartOptions	Tango::DEV_STRING	start options for matlab engine

Device Properties Default Values:

Property Name	Default Values
StartOptions	No default value

There is no Class properties.

States:

States	
Names	Descriptions
INIT	Sequencer is busy initialising
ON	Sequencer is idle, ready to execute commands
RUNNING	Sequencer is busy executing a command
FAULT	Sequencer is in disabled due to an error

Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
CommandOutput	DEV_STRING	READ	No

Spectrum Attributes			
Attribute name	Data Type	X Data Length	Expert
DoubleData	DEV_DOUBLE	1000000	No
StringData	DEV_STRING	1000000	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
Execute	DEV_STRING	DEV_STRING
ExecuteAsync	DEV_STRING	DEV_VOID
CreateData	DEVVAR_STRINGARRAY	DEV_VOID
DeleteData	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::INIT
 - Tango::ON
 - Tango::RUNNING
 - Tango::FAULT

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::INIT
 - Tango::ON
 - Tango::RUNNING
 - Tango::FAULT

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::INIT
 - Tango::ON
 - Tango::RUNNING
 - Tango::FAULT

4 - Execute

- **Description:**
- **Argin:**
DEV_STRING :
- **Argout:**
DEV_STRING :

- **Command allowed for:**

- Tango::ON

5 - ExecuteAsync

- **Description:**

- **Argin:**

DEV_STRING :

- **Argout:**

DEV_VOID :

- **Command allowed for:**

- Tango::ON

6 - CreateData

- **Description:**

- **Argin:**

DEVVAR_STRINGARRAY : create a new data specify name and type

- **Argout:**

DEV_VOID :

- **Command allowed for:**

- Tango::INIT
- Tango::ON
- Tango::RUNNING
- Tango::FAULT

7 - DeleteData

- **Description:**

- **Argin:**

DEV_STRING : name of attribute to delete

- **Argout:**

DEV_VOID :

○ **Command allowed for:**

- Tango::INIT

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Device Servers : CVS repository on tango-ds project