



TANGO
Device
Server

SampleManager User's Guide

SampleManager Class

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Implemented in C++ - CVS repository: tango-ds

Introduction:

This device facilitates sample management allowing to defined a set of predefined sample positions corresponding to N motors positions. or example, it allows to define :

- samplePositionA which corresponds to (motor1_positionA1,motor2_positionA2,..., motorN_positionAN)
- samplePositionB which corresponds to (motor1_positionB1,motor2_positionB2,..., motorN_positionBN)

Class Inheritance:

- Tango::Device_4Impl
 - SampleManager

Class Description:

contrôle de n moteurs on envoie à la position nom_echantillon(1,2,..n)

Properties:

Device Properties		
Property name	Property type	Description
MotorList	Array of string	list of motors device names de la forme nom_device_moteur_1 nom_device_moteur_2 ... nom_device_moteur_n
PositionList	Array of string	list des positions, de la forme : nom_position1, position_moteur_1,position_moteur_2,...position_moteur_n nom_position2, position_moteur_1,position_moteur_2,...position_moteur_n
SubsidiaryPositionList	Array of string	liste des informations subsidiaires non traitées par le device de la forme nom_position_1,info1,info2,info3....

Device Properties Default Values:

Property Name	Default Values
MotorList	No default value
PositionList	No default value
SubsidiaryPositionList	No default value

There is no Class properties.

Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
position: Writing one of the predefined sample position on this attributes starts the movement of the N motors to their corresponding positions	DEV_STRING	READ_WRITE	No
subsidiaryInfos: Optional informations on the current position (used only for informational purposes)	DEV_STRING	READ_WRITE	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
AddThisPositionToList	DEVVAR_STRINGARRAY	DEV_VOID
RemovePositionFromList	DEV_STRING	DEV_VOID
SavePositionsList	DEV_VOID	DEV_VOID
Stop	DEV_VOID	DEV_VOID
ShowCurrentPositions	DEV_VOID	DEVVAR_STRINGARRAY
AddPosition	DEVVAR_DOUBLESTRINGARRAY	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 - AddThisPositionToList

- **Description:** Adds the current position to the list position_name in argin[0] (mandatory) SubsidiaryPositionList in argin[1] (optional) If position_name already exists, this commands replaces previous motors positions which where stored for this position_name value
- **Argin:**
DEVVAR_STRINGARRAY :
- **Argout:**
DEV_VOID :
- **Command allowed for:**

5 - RemovePositionFromList

- **Description:** removes the position (name in argin) from the list
- **Argin:**
DEV_STRING :

- **Argout:**
DEV_VOID :

- **Command allowed for:**

6 - SavePositionsList

- **Description:** saves the positions to properties PositionList and SubsidiaryPositionList
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**

7 - Stop

- **Description:** Stops all motors
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**

8 - ShowCurrentPositions

- **Description:** displays the positions in device memory
- **Argin:**
DEV_VOID :
- **Argout:**
DEVVAR_STRINGARRAY : the positions
- **Command allowed for:**

9 - AddPosition

- **Description:** adds a single position as specified in argin : string[0] the position name string[1] the subsidiary info if any double [0] ... double[n] the n motor positions
- **Argin:**
DEVVAR_DOUBLESTRINGARRAY : string[0] the position name string[1] the subsidiary info if any double [0] ... double[n] the n motor positions
- **Argout:**
DEV_STRING : the position added if succes or the error
- **Command allowed for:**

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