



TANGO
Device
Server

store server **User's Guide**

StoreServer Class

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Implemented in C++ - CVS repository: ESRF

Introduction:

Store attribute and state values to HDB. Values can be surveyed on TANGO device servers, TACO device servers and SPEC versions (only SPEC server mode).

Class Inheritance:

- Tango::Device_4Impl
 - StoreServer

Class Description:

Store attribute and state values to HDB. Values can be surveyed on TANGO device servers, TACO device servers and SPEC versions (only SPEC server mode).

Properties:

Device Properties		
Property name	Property type	Description
AttributeList	Array of string	The property is a list of attributes. For those attributes the values will be stored in HDB. An precision can be given for every attribute. If the values changes more than the precision value, the attribute value is stored. The data format is: ID23/motor/1/Position:0.01, ID23/motor/1/Accelaration:50%, ID23/motor/2/Position:0.1
StateList	Array of string	The property is a list of device names. For those devices the state will be stored in HDB
HDB_config_device	Tango::DEV_STRING	HDB configuration device to create new entries in HDB
HDB_store_device	Tango::DEV_STRING	Device to send data to be stored into HDB.
Update_rate	Tango::DEV_LONG	The time in seconds when the actual values are witten to HDB. The values updated without checking for changes. The default value is 3600 seconds.

Device Properties Default Values:

Property Name	Default Values
AttributeList	No default value
StateList	No default value
HDB_config_device	No default value
HDB_store_device	No default value
Update_rate	No default value

There is no Class properties.

States:

States	
Names	Descriptions
ON	The storage is on. Attributes and states are surveyed and stored if the conditions are true.
OFF	The storage is off. The data is no longer surveyed and no data will be stored.
ALARM	Attribute or state readings failed on one or several devices.
FAULT	HDB storage failed

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
StoreAttributes	DEV_VOID	DEV_VOID
StoreStates	DEV_VOID	DEV_VOID
On	DEV_VOID	DEV_VOID
Off	DEV_VOID	DEV_VOID
SetPollingRate	DEV_FLOAT	DEV_VOID
SetAttributeList	DEVVAR_STRINGARRAY	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::ON
- Tango::OFF
- Tango::ALARM
- 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::ON
- Tango::OFF
- Tango::ALARM
- 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::ON
- Tango::OFF
- Tango::ALARM
- Tango::FAULT

4 - StoreAttributes

- **Description:** Survey the attribute values of all attributes specified in the AttributeList property. If the value changes more than the given precision value, store the value in HDB.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::ALARM
 - Tango::FAULT
- **Polled every 10000 ms**

5 - StoreStates

- **Description:** Survey the states of the devices specified in the StateList. If the state changes, store the values in HDB.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::ALARM
 - Tango::FAULT
- **Polled every 10000 ms**

6 - On

- **Description:** Switch on the data surveyence and data storage.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON

- Tango::OFF
- Tango::ALARM
- Tango::FAULT

7 - Off

- **Description:** Switch off the data surveyence and data storage. No more traffic should be created on the surveyed devices.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::OFF
 - Tango::ALARM
 - Tango::FAULT

8 - SetPollingRate

- **Description:** Sets the polling rate for the attribute and state updates.
- **Argin:**
DEV_FLOAT :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::OFF
 - Tango::ALARM
 - Tango::FAULT

9 - SetAttributeList

- **Description:** Change the list of polled attributes
- **Argin:**
DEVVAR_STRINGARRAY : List of attributes
- **Argout:**

DEV_VOID :

● **Command allowed for:**

- Tango::ON
- Tango::OFF
- Tango::ALARM
- Tango::FAULT

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