



TANGO
Device
Server

Hqps Alarm Manager User's Guide

HqpsAlarm Class

Revision: tata - Author: goudard
Implemented in C++ - CVS repository: ESRF

Introduction:

HqpsAlarm is a polled device server who access different TACO device servers to display HQPS Alarms in the Control Room.

Class Inheritance:

- Tango::Device_4Impl
 - HqpsAlarm

Class Description:

Properties:

Device Properties		
Property name	Property type	Description
TemperatureThreshold	Tango::DEV_FLOAT	Temperature Alarm Threshold
Storage_vibThreshold	Tango::DEV_FLOAT	StorageVibration Alarm Threshold
PressureThreshold	Tango::DEV_DOUBLE	Pressure Alarm Threshold.
Voice_state	Tango::DEV_SHORT	Tell if messages must be sent to the speaker (0 or 1
Voice_fault_message	Tango::DEV_STRING	Message sent to the speaker when the global state is FAULT
Voice_warning_message	Tango::DEV_STRING	Message sent to the speaker when the global state is ALARM
Inhibited	Tango::DEV_SHORT	Return true if there are some inhibited devices in the list.
PressureThershold_KS_running	Tango::DEV_SHORT	Pressure Thershold while KS is running is different from Pressure Thershold while KS is on.

Device Properties Default Values:

Property Name	Default Values
TemperatureThreshold	No default value
Storage_vibThreshold	No default value
PressureThreshold	No default value
Voice_state	No default value
Voice_fault_message	No default value
Voice_warning_message	No default value
Inhibited	No default value
PressureThershold_KS_running	No default value

There is no Class properties.

States:

States	
Names	Descriptions
ON	No alarm detected in HQPS.
ALARM	Alarm detected in HQPS.
FAULT	Fault detected in HQPS.

Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
VoiceState	DEV_SHORT	READ	No
Inhibited	DEV_SHORT	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
ControlAlarm	DEV_VOID	DEV_VOID
DevDisableVoice	DEV_VOID	DEV_VOID
DevEnableVoice	DEV_VOID	DEV_VOID
DevInhibit	DEV_STRING	DEV_VOID
DevSetFaultMessage	DEV_STRING	DEV_VOID
DevSetAlarmMessage	DEV_STRING	DEV_VOID
DevUninhibit	DEV_STRING	DEV_VOID
DevUninhibitAll	DEV_VOID	DEV_VOID
DevHistory	DEV_VOID	DEV_STRING
DevVoiceState	DEV_VOID	DEV_SHORT
ReadTemp	DEV_VOID	DEV_VOID
ReadVibration	DEV_VOID	DEV_VOID
ReadEngineVibrations	DEV_VOID	DEV_VOID
ReadPressure	DEV_VOID	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::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::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::ALARM
 - Tango::FAULT

4 - ControlAlarm

- **Description:** Retrieves data from TACO devices and compute data to check if they are correct every 5 minuts.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID : Argout returns HQPS State.
- **Command allowed for:**

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

- Polled every 60000 ms

5 - DevDisableVoice

- **Description:** Command to disable message send to CTRM (not implmented).
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::ALARM
 - Tango::FAULT

6 - DevEnableVoice

- **Description:** Command to enable message send to CTRM (not implmented).
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::ALARM
 - Tango::FAULT

7 - DevInhibit

- **Description:** Command to inhibit this device.
- **Argin:**
DEV_STRING : Device name to inhibit for the global state calculation
- **Argout:**
DEV_VOID :

- **Command allowed for:**

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

8 - DevSetFaultMessage

- **Description:** Command to set Fault message. (not implemented)

- **Argin:**

DEV_STRING : Message send to the speaker when the device is fault.

- **Argout:**

DEV_VOID :

- **Command allowed for:**

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

9 - DevSetAlarmMessage

- **Description:** Command to set alarm message. (not implemented)

- **Argin:**

DEV_STRING :

- **Argout:**

DEV_VOID :

- **Command allowed for:**

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

10 - DevUninhibit

- **Description:**

- **Argin:**

DEV_STRING : Device name to activate for the global state calculation

- **Argout:**

DEV_VOID :

- **Command allowed for:**

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

11 - DevUninhibitAll

- **Description:**

- **Argin:**

DEV_VOID :

- **Argout:**

DEV_VOID :

- **Command allowed for:**

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

12 - DevHistory

- **Description:**

- **Argin:**

DEV_VOID :

- **Argout:**

DEV_STRING :

- **Command allowed for:**

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

13 - DevVoiceState

- **Description:** Return the state of the speaker

- **Argin:**

DEV_VOID :

- **Argout:**

DEV_SHORT :

- **Command allowed for:**

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

14 - ReadTemp

- **Description:** Polled command to read clutch temperatures.

- **Argin:**

DEV_VOID :

- **Argout:**

DEV_VOID :

- **Command allowed for:**

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

- **Polled every 10000 ms**

15 - ReadVibration

- **Description:** Read vibrations in TACO device server.

- **Argin:**

DEV_VOID :

- **Argout:**

DEV_VOID :

- **Command allowed for:**

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

- **Polled every 10000 ms**

16 - ReadEngineVibrations

- **Description:** REad and save engine vibrations if DEVRUN

- **Argin:**

DEV_VOID :

- **Argout:**

DEV_VOID :

- **Command allowed for:**
 - Tango::ON
 - Tango::ALARM
 - Tango::FAULT
- **Polled every 240000 ms**

17 - ReadPressure

- **Description:** Import and read pressure taco device.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::ALARM
 - Tango::FAULT
- **Polled every 60000 ms**

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Device Servers : CVS repository on tango-ds project