



TANGO
Device
Server

Hazemeyer CIT User's Guide

Hazemeyer_CIT Class

Revision: Hazemeyer_CIT-Release_1_3_1 - Author: bourtemb
Implemented in C++ - CVS repository: ESRF

Introduction:

This class allows to control Hazemeyer CIT 8.4 APT power meter.

Class Inheritance:

- Tango::Device_4Impl
 - Hazemeyer_CIT

Properties:

Device Properties		
Property name	Property type	Description
Serial_name	Tango::DEV_STRING	Name of the serial line device
HazemeyerTrafo	Tango::DEV_DOUBLE	
HT20kvTrafo	Tango::DEV_DOUBLE	
VoltFullScale	Tango::DEV_DOUBLE	
CurrentFactor	Tango::DEV_DOUBLE	
DataMaxi	Tango::DEV_DOUBLE	
Refreshing_period	Tango::DEV_SHORT	Sleep time between 2 series of readings in milliseconds

Device Properties Default Values:

Property Name	Default Values
Serial_name	No default value
HazemeyerTrafo	9.23
HT20kvTrafo	20.0
VoltFullScale	10.0
CurrentFactor	520.0
DataMaxi	1000.0
Refreshing_period	250

There is no Class properties.

States:

States	
Names	Descriptions
ON	The Power Meter is connected and ON
FAULT	The Power Meter is not connected or OFF

Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
R_Voltage: R Voltage (relative to neutral)	DEV_DOUBLE	READ	No
S_Voltage: S Voltage (relative to neutral)	DEV_DOUBLE	READ	No
T_Voltage: T Voltage (relative to neutral)	DEV_DOUBLE	READ	No
R_Current	DEV_DOUBLE	READ	No
S_Current	DEV_DOUBLE	READ	No
T_Current	DEV_DOUBLE	READ	No
R_Power: R Active Power in kW	DEV_DOUBLE	READ	No
S_Power: S Active Power in kW	DEV_DOUBLE	READ	No
T_Power: T Active Power in kW	DEV_DOUBLE	READ	No
ActivePower	DEV_DOUBLE	READ	No
ApparentPower	DEV_DOUBLE	READ	No
CosPhi: $\text{CosPhi} = \text{ActivePower} / \text{ApparentPower}$	DEV_DOUBLE	READ	No
ReactivePower: Reactive Power (in kiloVoltAmpereReactive)	DEV_DOUBLE	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
DevReadValue	DEV_VOID	DEV_SHORT
DevReadValues	DEV_VOID	DEVVAR_SHORTARRAY

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

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

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

4 - DevReadValue

- **Description:** Returns the active power. This command was implemented to be compatible with the Taco DevReadValue command.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_SHORT : Active Power
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT

5 - DevReadValues

- **Description:** Return active power, apparent power and cos phi
- **Argin:**
DEV_VOID :
- **Argout:**
DEVVAR_SHORTARRAY : argout[0] = active power, argout[1] = apparent power, argout[2] = cos phi
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT

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