



TANGO
Device
Server

Harmonic compensator control. User's Guide

SineWave Class

Revision: Release_1_0 - Author: peru
Implemented in C++ - CVS repository: ESRF

Introduction:

This device server controls the harmonic compensator hardware. The control is operated through a serial line using the JBUS binary protocol.

Class Inheritance:

- Tango::Device_4Impl
 - SineWave

Properties:

Class Properties		
Property name	Property type	Description
DigIn	Array of string	
RapidCheck	Array of string	
SlowCheck	Array of string	
MiscFaults	Array of string	
DSPFaults	Array of string	
DigIn2	Array of string	

Device Properties		
Property name	Property type	Description
Modbus_devname	Tango::DEV_STRING	Device name of the associated modbus device server.

Class Properties Default Values:

Property Name	Default Values
DigIn	Internal Fault Reserved Internal Fault Overheat Overheat Overheat Overheat Reserved Reserved Reserved Reserved MERY-1 One board fault Reserved Internal Fault Internal Fault Free
RapidCheck	Util. Power Ampl. Out of Tolerance Util. Power Ampl. Out of Tolerance Util. Power Ampl. Out of Tolerance Frequency Out of Tolerance Internal Fault Internal Fault
SlowCheck	MERY-1 One board fault MERY-1 One board fault I > In

MiscFaults	Internal Fault Internal Fault Internal Fault Internal Fault Internal Fault Internal Fault Internal Fault Internal Fault Reserved
DSPFaults	MERY-1 One board fault MERY-1 One board fault MERY-2 One board fault MERY-2 One board fault MERY-1 One board fault MERY-2 One board fault MERY-2 One board fault Reserved
DigIn2	Reserved Reserved Reserved Internal Fault Internal Fault

Device Properties Default Values:

Property Name	Default Values
Modbus_devname	No default value

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
ReadCurrent	DEV_VOID	DEVVAR_FLOATARRAY
On	DEV_VOID	DEV_VOID
Off	DEV_VOID	DEV_VOID
Indicator	DEV_VOID	DEV_STRING
ReadFrequency	DEV_VOID	DEVVAR_FLOATARRAY
DevReadSigValues	DEV_VOID	DEVVAR_FLOATARRAY
DevReadFrequency	DEV_VOID	DEVVAR_FLOATARRAY

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 - ReadCurrent

- **Description:** Reads the SineWave RMS value measurements.
- **Argin:**
DEV_VOID :
- **Argout:**
DEVVAR_FLOATARRAY : RMS value measurement for each phase
- **Command allowed for:**

5 - On

- **Description:** Sets the SineWave to the ON mode.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**

6 - Off

- **Description:** Sets the SineWave to the OFF mode.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**

7 - Indicator

- **Description:** Returns the list of defaults got from the SineWave.
- **Argin:**
DEV_VOID : Indicator
- **Argout:**
DEV_STRING : This string is a list of the defaults.
- **Command allowed for:**

8 - ReadFrequency

- **Description:** Gets the SineWave harmonic measurements.
- **Argin:**
DEV_VOID :
- **Argout:**
DEVVAR_FLOATARRAY :
- **Command allowed for:**

9 - DevReadSigValues

- **Description:** To make compatibility with old application.
- **Argin:**
DEV_VOID :
- **Argout:**
DEVVAR_FLOATARRAY :

- **Command allowed for:**

10 - DevReadFrequency

- **Description:** To make compatibility with old application.
- **Argin:**
DEV_VOID :
- **Argout:**
DEVVAR_FLOATARRAY :
- **Command allowed for:**

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Device Servers : CVS repository on tango-ds project