



TANGO
Device
Server

SrpsEarthLeak User's Guide

SrpsEarthLeak Class

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

Introduction:

This Class is a server to get and convert data received from icv150 in vme026.

Class Description:

Properties:

Class Properties		
Property name	Property type	Description
EarthFault	Tango::DEV_DOUBLE	Leak current level to switch the server in fault state.
LeakCurrents	Array of double	Values of the different leak currents.

Device Properties

Property name	Property type	Description
DipAlarm	Tango::DEV_DOUBLE	Dipole Alarm Level
QD1Alarm	Tango::DEV_DOUBLE	QD1 Alarm Level
QF2Alarm	Tango::DEV_DOUBLE	QF2 Alarm Level
QD3Alarm	Tango::DEV_DOUBLE	QD3 Alarm Level
QD4Alarm	Tango::DEV_DOUBLE	QD4 Alarm Level
QF5Alarm	Tango::DEV_DOUBLE	QF5 Alarm Level
QD6Alarm	Tango::DEV_DOUBLE	QD6 Alarm Level
QF7Alarm	Tango::DEV_DOUBLE	QF7 Alarm Level
QD8Alarm	Tango::DEV_DOUBLE	QD8 Alarm Level
S4Alarm	Tango::DEV_DOUBLE	S4 Alarm Level
S6Alarm	Tango::DEV_DOUBLE	S6 Alarm Level
S13Alarm	Tango::DEV_DOUBLE	S13 Alarm Level
S19Alarm	Tango::DEV_DOUBLE	S19 Alarm Level
S22Alarm	Tango::DEV_DOUBLE	S22 Alarm Level
S24Alarm	Tango::DEV_DOUBLE	S24 Alarm Level
HdbValueChanged	Tango::DEV_DOUBLE	The HDB data storage will be done if data changed more than this value.
HdbDevice	Tango::DEV_STRING	The HDB device name used to store data
HdbPeriod	Tango::DEV_SHORT	HDB storage value will be done periodically (in seconds).

Class Properties Default Values:

Property Name	Default Values
EarthFault	No default value
LeakCurrents	No default value

Device Properties Default Values:

Property Name	Default Values
DipAlarm	No default value
QD1Alarm	No default value
QF2Alarm	No default value
QD3Alarm	No default value
QD4Alarm	No default value
QF5Alarm	No default value
QD6Alarm	No default value
QF7Alarm	No default value
QD8Alarm	No default value
S4Alarm	No default value
S6Alarm	No default value
S13Alarm	No default value
S19Alarm	No default value
S22Alarm	No default value
S24Alarm	No default value
HdbValueChanged	No default value
HdbDevice	No default value
HdbPeriod	No default value

States:

States	
Names	Descriptions
ON	Server sr/ps-leak/1 imported. Polled command is running.
UNKNOWN	Server sr/ps-leak/1 not imported.
OFF	Server sr/ps-leak/1 imported. Polled command is stopped.
ALARM	Server sr/ps-leak/1 imported. Polled command is running. Ileak > Ialarm, sending an email to
FAULT	Ileak > Ifault.

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
ReadLeakCurrent	DEV_VOID	DEVVAR_DOUBLEARRAY
TreatData	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::UNKNOWN
 - 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::UNKNOWN
 - 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::UNKNOWN
 - Tango::OFF
 - Tango::ALARM
 - Tango::FAULT

4 - ReadLeakCurrent

- **Description:** Reads the SR power supply leak current to earth via icv150 on vme026 in SRDC.

- **Argin:**
DEV_VOID :

- **Argout:**
DEVVAR_DOUBLEARRAY :

- **Command allowed for:**
 - Tango::ON
 - Tango::UNKNOWN
 - Tango::OFF
 - Tango::ALARM
 - Tango::FAULT

- Polled every 10000 ms

5 - TreatData

- **Description:** Imports this server and retrieve history of reak_leak_current polled command.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::UNKNOWN
 - Tango::OFF
 - Tango::ALARM
 - Tango::FAULT
- Polled every 60000 ms

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