



TANGO
Device
Server

Pss zone device server User's Guide

PssZone Class

Revision: - Author: michel_peru
Implemented in C++ - CVS repository: tango-ds

Introduction:

This is the device server dedicated to the control of the PSS zones of the machine.

Class Inheritance:

- Tango::Device_4Impl
 - PssZone

Properties:

Device Properties		
Property name	Property type	Description
Daresbury_device_name	Tango::DEV_STRING	Device name of the associated Daresbury device server.
Ctrl_access_relay_devname_1	Tango::DEV_STRING	Device name of the first "controlled access" relay.
Ctrl_access_relay_devname_2	Tango::DEV_STRING	Device name of the second "controlled access" relay.
Init_search_relay_devname_1	Tango::DEV_STRING	Device name of the first "init search" relay.
Init_search_relay_devname_2	Tango::DEV_STRING	Device name of the second "init search" relay.
Search_in_progress_module	Tango::DEV_SHORT	Module number of the "search in progress" relay.
Search_in_progress_bit	Tango::DEV_SHORT	Bit number of the "search in progress" relay.
Search_complete_module	Tango::DEV_SHORT	Module number of the "search complete" relay.
Search_complete_bit	Tango::DEV_SHORT	Bit number of the "search complete" relay.
Ctrl_access_module	Tango::DEV_SHORT	Module number of the "controlled access" relay.
Ctrl_access_bit	Tango::DEV_SHORT	Bit number of the "controlled access" relay.
Itlk_net_dir_name	Tango::DEV_STRING	Name of the directory where is located the interlock network file.
Itlk_net_file_name	Tango::DEV_STRING	Name of the interlock network file.
Partition_daresbury_devname_1	Tango::DEV_STRING	Device name of the first associated Daresbury equipment.
Partition_daresbury_devname_2	Tango::DEV_STRING	Device name of the second associated Daresbury equipment.
Partition_module_1	Tango::DEV_SHORT	Module number of the first relay associated with the partition.
Partition_module_2	Tango::DEV_SHORT	Module number of the second relay associated with the partition.
Partition_bit_1	Tango::DEV_SHORT	Bit number of the first relay associated with the partition.
Partition_bit_2	Tango::DEV_SHORT	Bit number of the second relay associated with the partition.
Door_daresbury_devname_1	Tango::DEV_STRING	Name of the first associated Daresbury device.
Door_daresbury_devname_2	Tango::DEV_STRING	Name of the second associated Daresbury device.
Door_module_1	Tango::DEV_SHORT	Module number of the relay associated to the first door.
Door_module_2	Tango::DEV_SHORT	Module number of the relay associated to the second door.
Door_bit_1	Tango::DEV_SHORT	Bit number of the relay associated to the first door.
Door_bit_2	Tango::DEV_SHORT	Bit number of the relay associated to the second door.

Device Properties Default Values:

Property Name	Default Values
Daresbury_device_name	No default value
Ctrl_access_relay_devname_1	No default value
Ctrl_access_relay_devname_2	No default value
Init_search_relay_devname_1	No default value
Init_search_relay_devname_2	No default value
Search_in_progress_module	No default value
Search_in_progress_bit	No default value
Search_complete_module	No default value
Search_complete_bit	No default value
Ctrl_access_module	No default value
Ctrl_access_bit	No default value
Itlk_net_dir_name	No default value
Itlk_net_file_name	No default value
Partition_daresbury_devname_1	No default value
Partition_daresbury_devname_2	No default value
Partition_module_1	No default value
Partition_module_2	No default value
Partition_bit_1	No default value
Partition_bit_2	No default value
Door_daresbury_devname_1	No default value
Door_daresbury_devname_2	No default value
Door_module_1	No default value
Door_module_2	No default value
Door_bit_1	No default value
Door_bit_2	No default value

There is no Class properties.

States:

States	
Names	Descriptions
ON	Normal state when everything is OK.
FAULT	This state is set in case of a problem with the Daresbury system.
ALARM	This state is set in case of a problem with one of the command relays.

Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
Pss_access_state	DEV_SHORT	READ	No
Partition_state	DEV_SHORT	READ	No
Door1_state	DEV_SHORT	READ	No
Door2_state	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
Init_search	DEV_VOID	DEV_VOID
Enter_ctrl_access	DEV_VOID	DEV_VOID
Leave_ctrl_access	DEV_VOID	DEV_VOID
Get_itlk_net_dir_name	DEV_VOID	DEV_STRING
Get_itlk_net_file_name	DEV_VOID	DEV_STRING
Reset	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 destructor automatically calls the *delete_device()* method.
- **Argin:**
DEV_VOID : none.
- **Argout:**
DEV_VOID : none.
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT
 - Tango::ALARM

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
- Tango::ALARM

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
- Tango::ALARM

4 - Init_search

- **Description:** This command sets the PSS to the "search" mode.

- **Argin:**

DEV_VOID :

- **Argout:**

DEV_VOID :

- **Command allowed for:**

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

5 - Enter_ctrl_access

- **Description:** Enter the "controlled access" mode of the PSS.

- **Argin:**

DEV_VOID :

- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT
 - Tango::ALARM

6 - Leave_ctrl_access

- **Description:** Leave the "controlled access" mode of the PSS.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT
 - Tango::ALARM

7 - Get_itlk_net_dir_name

- **Description:** This command returns the name of the directory where is located the interlock network file.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_STRING : Name of the directory where is located the interlock network file.
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT
 - Tango::ALARM

8 - Get_itlk_net_file_name

- **Description:** This command returns the file name of the interlock network file.
- **Argin:**
DEV_VOID :

- **Argout:**
DEV_STRING : Name of the interlock network file.
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT
 - Tango::ALARM

9 - Reset

- **Description:** Resets the Daresbury.
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT
 - Tango::ALARM

TANGO is an open source project hosted by :


Core and Tools : CVS repository on tango-cs project
 Device Servers : CVS repository on tango-ds project