

Daresbury Tango Cpp Class

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Daresbury Class Identification :

Contact : at null - null
Class Family :
Platform :
Bus :
Manufacturer :
Manufacturer ref. :

Daresbury Class Inheritance :

- o [Tango::DeviceImpl](#)
 - Interlock
 - Daresbury

Daresbury Class Description :

A class to handle the Daresbury PSS interlock system
(Initially , the hardware design has been done first by Daresbury Laboratory and redid by the ESRF later

Daresbury Properties :

There is no class properties

Device Properties			
Name	Description	Type	Default Value
Serial_line	Name of the serial line	String	none
Init_pscom	Flag to force reinitialisation (This is needed on certain old daresbury board) Default is 0 => no initialisation	short	none

Daresbury Class Commands				
Name	Input type	Output type	Level	Description
State	DEV_VOID	DEV_STATE	OPERATOR	This command gets the device state (stored in its <i>device_state</i> data member) and returns it to the caller.
Status	DEV_VOID	CONST_DEV_STRING	OPERATOR	This command gets the device status (stored in its <i>device_status</i> data member) and returns it to the caller.
GetHistoryInfo	DEV_VOID	DEVVAR_LONGARRAY	OPERATOR	Returns a list of known logs.
ReadInterlockHistory	DEV_LONG	DEVVAR_SHORTARRAY	OPERATOR	Returns the states of the interlock set of the specified log
DevRead	DEV_VOID	DEV_STRING	OPERATOR	Returns the response of the PSS hardware.
				Reset the interlock

Reset	DEV_VOID	DEV_VOID	OPERATOR	system. Must be implemented by the subclass.
GetInterlockDescription	DEVVAR_LONGARRAY	DEVVAR_STRINGARRAY	OPERATOR	None.
SetInterlockDescription	DEVVAR_STRINGARRAY	DEV_VOID	OPERATOR	Sets the description of the specified interlock. Note: The InterlockDefault class offers an implementation of this method and can be called directly from the subclass.
GetAllDescription	DEV_VOID	DEVVAR_STRINGARRAY	OPERATOR	None.
GetInterlockState	DEVVAR_LONGARRAY	DEVVAR_CHARARRAY	OPERATOR	None.

Command State :

This command gets the device state (stored in its *device_state* data member) and returns it to the caller.

State Definition		
Input Argument	Tango::DEV_VOID	none.
Output Argument	Tango::DEV_STATE	State Code
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	true	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command Status :

This command gets the device status (stored in its *device_status* data member) and returns it to the caller.

Status Definition		
Input Argument	Tango::DEV_VOID	none.
Output Argument	Tango::CONST_DEV_STRING	Status description
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	true	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command GetHistoryInfo :

Returns a list of known logs.

GetHistoryInfo Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEVVAR_LONGARRAY	Return a list of interlock logs ,by date)
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command ReadInterlockHistory :

Returns the states of the interlock set of the specified log

ReadInterlockHistory Definition		
Input Argument	Tango::DEV_LONG	Log time , see GetHistoryInfo

Output Argument	Tango::DEVVAR_SHORTARRAY	Array of interlock
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command DevRead :

Returns the response of the PSS hardware.

DevRead Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_STRING	Serial line reponse
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command Reset :

Reset the interlock system.
Must be implemented by the subclass.

Reset Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	true	..

Abstract	false	..
Polling Period	Not polled	..
		..
Command allowed for	All states	..

Command GetInterlockDescription :

GetInterlockDescription Definition		
Input Argument	Tango::DEVVAR_LONGARRAY	List of Interlock addresses : [Word address, Bit address]*
Output Argument	Tango::DEVVAR_STRINGARRAY	Interlock description string array
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	false	..
Polling Period	Not polled	..
		..
Command allowed for	All states	..

Command SetInterlockDescription :

Sets the description of the specified interlock.

Note: The InterlockDefault class offers an implementation of this method and can be called directly from the subclass.

SetInterlockDescription Definition		
Input Argument	Tango::DEVVAR_STRINGARRAY	argin[0]=Word address argin[1]=Bit address argin[2]=Interlock description
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	false	..

Polling Period	Not polled	..
Command allowed for	All states	..

Command GetAllDescription :

GetAllDescription Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEVVAR_STRINGARRAY	List of interlock description
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command GetInterlockState :

GetInterlockState Definition		
Input Argument	Tango::DEVVAR_LONGARRAY	List of Interlock addresses : [Word address, Bit address]*
Output Argument	Tango::DEVVAR_CHARARRAY	List of interlock state
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Daresbury Class Attributes							
Name	Inherited	Abstract	Attr. type	R/W type	Data type	Level	Description
Interlocks	true	false	Spectrum	READ	Tango::DEV_SHORT	OPERATOR	Array of interlocks (16 interlock / short)

There is no dynamic attribute defined.

Attribute Interlocks :

Array of interlocks (16 interlock / short)

Attribute Definition	
Attribute Type	Spectrum (1024)
R/W Type	READ
Data Type	Tango::DEV_SHORT
Display Level	OPERATOR
Inherited	true
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

There is no state defined