

DataSocket Tango Cpp Class

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DataSocket Class Identification :

Contact : at synchrotron-soleil.fr - bureau
Class Family : Communication
Platform : All Platforms
Bus : Not Applicable
Manufacturer :
Manufacturer ref. :

DataSocket Class Inheritance :

- [Tango::DeviceImpl](#)
 - DataSocket

DataSocket Class Description :

The purpose of this Tango DataSocket DeviceServer is to exchange Data between TANGO and a LabView application.

It acts as a gateway whose only purpose is to get and set values which are available in a Labview Application from the TANGO world.

It also permits to read/write values from an OPC server.

DataSocket Properties :

There is no class properties

There is no device properties

DataSocket 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.
ReadLong	DEV_STRING	DEV_LONG	OPERATOR	Used to get a long value from DS
ReadDouble	DEV_STRING	DEV_DOUBLE	OPERATOR	None.
ReadString	DEV_STRING	DEV_STRING	OPERATOR	None.
ReadLongArray	DEV_STRING	DEVVAR_LONGARRAY	OPERATOR	None.
ReadDoubleArray	DEV_STRING	DEVVAR_DOUBLEARRAY	OPERATOR	None.

ReadStringArray	DEV_STRING	DEVVAR_STRINGARRAY	OPERATOR	None.
WriteLong	DEVVAR_LONGSTRINGARRAY	DEV_VOID	OPERATOR	None.
WriteDouble	DEVVAR_DOUBLESTRINGARRAY	DEV_VOID	OPERATOR	None.
WriteString	DEVVAR_STRINGARRAY	DEV_VOID	OPERATOR	Write a string on the DataSocket
WriteLongArray	DEVVAR_LONGSTRINGARRAY	DEV_VOID	OPERATOR	None.
WriteDoubleArray	DEVVAR_DOUBLESTRINGARRAY	DEV_VOID	OPERATOR	None.
WriteStringArray	DEVVAR_STRINGARRAY	DEV_VOID	OPERATOR	None.
GetOpenedURL	DEV_VOID	DEVVAR_STRINGARRAY	EXPERT	Command to get the list of URL which are currently opened
ReadBool	DEV_STRING	DEV_BOOLEAN	OPERATOR	Read the boolean value associated to the URL given in parameter.
WriteBool	DEVVAR_LONGSTRINGARRAY	DEV_VOID	OPERATOR	Sets the data value of the DataSocket object associated to the URL given in parameter.
CloseAllHandles	DEV_VOID	DEV_VOID	OPERATOR	Forces the closure of all handles
ReadShort	DEV_STRING	DEV_SHORT	OPERATOR	return a short value
WriteShort	DEVVAR_LONGSTRINGARRAY	DEV_VOID	OPERATOR	Value to write + URL to write
ReadShortArray	DEV_STRING	DEVVAR_SHORTARRAY	OPERATOR	None.
WriteShortArray	DEVVAR_LONGSTRINGARRAY	DEV_VOID	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	false	..
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 ReadLong :

Used to get a long value from DS

ReadLong Definition		
Input Argument	Tango::DEV_STRING	URL to read
Output Argument	Tango::DEV_LONG	long read on the datasocket
DisplayLevel	OPERATOR	..
Inherited	false	..

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

Command ReadDouble :

ReadDouble Definition		
Input Argument	Tango::DEV_STRING	URL to read
Output Argument	Tango::DEV_DOUBLE	value read on the DataSocket
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command ReadString :

ReadString Definition		
Input Argument	Tango::DEV_STRING	URL to read
Output Argument	Tango::DEV_STRING	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command ReadLongArray :

ReadLongArray Definition		
Input Argument	Tango::DEV_STRING	URL to read
Output Argument	Tango::DEVVAR_LONGARRAY	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command ReadDoubleArray :

ReadDoubleArray Definition		
Input Argument	Tango::DEV_STRING	URL to read
Output Argument	Tango::DEVVAR_DOUBLEARRAY	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command ReadStringArray :

ReadStringArray Definition		
Input Argument	Tango::DEV_STRING	URL to read
Output Argument	Tango::DEVVAR_STRINGARRAY	
DisplayLevel	OPERATOR	..

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

Command WriteLong :

WriteLong Definition		
Input Argument	Tango::DEVVAR_LONGSTRINGARRAY	Value to write + URL to write
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command WriteDouble :

WriteDouble Definition		
Input Argument	Tango::DEVVAR_DOUBLESTRINGARRAY	Value to write + URL to write
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command WriteString :

Write a string on the DataSocket

WriteString Definition		
Input Argument	Tango::DEVVAR_STRINGARRAY	
Output Argument	Tango::DEV_VOID	Value to write + URL to write on
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command WriteLongArray :

WriteLongArray Definition		
Input Argument	Tango::DEVVAR_LONGSTRINGARRAY	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command WriteDoubleArray :

WriteDoubleArray Definition		

Input Argument	Tango::DEVVAR_DOUBLESTRINGARRAY	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command WriteStringArray :

WriteStringArray Definition		
Input Argument	Tango::DEVVAR_STRINGARRAY	URL , , array of strings to be written
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command GetOpenedURL :

Command to get the list of URL which are currently opened

GetOpenedURL Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEVVAR_STRINGARRAY	
DisplayLevel	EXPERT	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..

Command allowed for All states

Command ReadBool :

Read the boolean value associated to the URL given in parameter.

ReadBool Definition		
Input Argument	Tango::DEV_STRING	URL to read
Output Argument	Tango::DEV_BOOLEAN	Boolean value read on the datasocket
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command WriteBool :

Sets the data value of the DataSocket object associated to the URL given in parameter.

WriteBool Definition		
Input Argument	Tango::DEVVAR_LONGSTRINGARRAY	Value to write ,0<=> false , !0 <=> true) + URL
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command CloseAllHandles :

Forces the closure of all handles

CloseAllHandles Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command ReadShort :

return a short value

ReadShort Definition		
Input Argument	Tango::DEV_STRING	URL to read
Output Argument	Tango::DEV_SHORT	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command WriteShort :

Value to write + URL to write

WriteShort Definition		
Input Argument	Tango::DEVVAR_LONGSTRINGARRAY	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
		..
Command allowed for	All states	..

Command ReadShortArray :

ReadShortArray Definition		
Input Argument	Tango::DEV_STRING	
Output Argument	Tango::DEVVAR_SHORTARRAY	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
		..
Command allowed for	All states	..

Command WriteShortArray :

WriteShortArray Definition		
Input Argument	Tango::DEVVAR_LONGSTRINGARRAY	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
		..

Command allowed for	All states	..
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DataSocket Class Attributes							
Name	Inherited	Abstract	Attr. type	R/W type	Data type	Level	Description
transfert_number	false	false	Scalar	READ	Tango::DEV_LONG	EXPERT	Number of transferts occurred with the remote DataSocket Server\n

There is no dynamic attribute defined.

Attribute transfert_number :

Number of transferts occurred with the remote DataSocket Server\n

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG
Display Level	EXPERT
Inherited	false
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
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There is no state defined