





















HdbConfigurationManager Tango Cpp Class

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HdbConfigurationManager Class Identification:

Contact : at elettra.eu - graziano.scalamera

Class Family : Miscellaneous Platform : Unix Like

HdbConfigurationManager Class Inheritance:

• Tango::DeviceImpl

HdbConfigurationManager

Bus : Not Applicable

Manufacturer : none
Manufacturer ref. :

<u>HdbConfigurationManager Class Description</u>:

$\underline{ HdbConfiguration Manager\ Properties:}$

Class Properties				
Name	Туре	Default Value		
DbHost		String	none	
DbUser		String	none	
DbPassword		String	none	
DbName		String	none	
DbPort		short	none	
MaxSearchSize		int	none	

Device Properties			
Name Description		Type	Default Value
ArchiverList		String[]	none
MaxSearchSize	Max size of search result	int	1000
DbHost		String	none
DbUser		String	none
DbPassword		String	none
DbName		String	none
DbPort		short	none

HdbConfigurationManager Class Commands				
Name	Input type	Output type	Level	Description
<u>State</u>	DEV_VOID	DEV_STATE		This command gets the device state (stored in its device_state data member) and returns it to the

				caller.
Status	DEV_VOID	CONST_DEV_STRING	OPERATOR	This command gets the device status (stored in its device_status data member) and returns it to the caller.
<u>AttributeAdd</u>	DEV_VOID	DEV_VOID	OPERATOR	Add a new attribute to archive in HDB.
<u>AttributeRemove</u>	DEV_STRING	DEV_VOID	OPERATOR	Remove attribute from configuration.
AttributeStart	DEV_STRING	DEV_VOID	OPERATOR	Start archiving single attribute
<u>AttributeStop</u>	DEV_STRING	DEV_VOID	OPERATOR	Stop archiving single attribute
ArchiverAdd	DEV_STRING	DEV_VOID	OPERATOR	Add a new archiver to archive in HDB.
<u>AttributeAssign</u>	DEVVAR_STRINGARRAY	DEV_VOID	OPERATOR	Assigne attribute to archiver
<u>AttributeStatus</u>	DEV_STRING	DEV_STRING	OPERATOR	Read an attribute status
AttributeGetArchiver	DEV_STRING	DEV_STRING	OPERATOR	Return archiver associated to attribute.
<u>AttributeSearch</u>	DEV_STRING	DEVVAR_STRINGARRAY	OPERATOR	Return list of attributes containing input argument
<u>ArchiverRemove</u>	DEV_STRING	DEV_VOID	OPERATOR	Remove archiver instance.
ResetStatistics	DEV_VOID	DEV_VOID	OPERATOR	Reset statistic counters

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	Device state
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	Device status
DisplayLevel	OPERATOR	
Inherited	true	
Abstract	true	
Polling Period	Not polled	
Command allowed for	All states	

Command AttributeAdd:

Add a new attribute to archive in HDB.

AttributeAdd 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 AttributeRemove:

Remove attribute from configuration.

AttributeRemove Definition		
Input Argument	Tango::DEV_STRING	Attribute name

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

Command AttributeStart:

Start archiving single attribute

AttributeStart Definition		
Input Argument	Tango::DEV_STRING	Attribute name
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	
Inherited	false	
Abstract	false	
Polling Period	Not polled	
Command allowed for	All states	

<u>Command AttributeStop</u>:

Stop archiving single attribute

AttributeStop Definition		
Input Argument	Tango::DEV_STRING	Attribute name
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	
Inherited	false	
Abstract	false	
Polling Period	Not polled	

- 1			
	Command allowed for	All states	

Command ArchiverAdd:

Add a new archiver to archive in HDB.

ArchiverAdd Definition		
Input Argument	Tango::DEV_STRING	Archiver name
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	
Inherited	false	
Abstract	false	
Polling Period	Not polled	
Command allowed for	All states	

Command AttributeAssign:

Assigne attribute to archiver

AttributeAssign Definition		
Input Argument	Tango::DEVVAR_STRINGARRAY	[0]: Attribute name [1]: Archiver name
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	
Inherited	false	
Abstract	false	
Polling Period	Not polled	
Command allowed for	All states	

Command AttributeStatus:

Read an attribute status

AttributeStatus Definition		
Input Argument	Tango::DEV_STRING	The attribute name
Output Argument	Tango::DEV_STRING	The attribute status. TODO: DevString OK?
DisplayLevel	OPERATOR	
Inherited	false	
Abstract	false	
Polling Period	Not polled	
Command allowed for	All states	

Command AttributeGetArchiver:

Return archiver associated to attribute.

AttributeGetArchiver Definition		
Input Argument	Tango::DEV_STRING	Attribute name
Output Argument	Tango::DEV_STRING	Archiver name
DisplayLevel	OPERATOR	
Inherited	false	
Abstract	false	
Polling Period	Not polled	
Command allowed for	All states	

Command AttributeSearch:

Return list of attributes containing input argument

AttributeSearch Definition		
Input Argument	Tango::DEV_STRING	Attribute name or part of it
Output Argument	Tango::DEVVAR_STRINGARRAY	Attribute list
DisplayLevel	OPERATOR	
Inherited	false	
Abstract	false	
Polling Period	Not polled	
Command allowed for	All states	

Command ArchiverRemove:

Remove archiver instance.

ArchiverRemove Definition		
Input Argument	Tango::DEV_STRING	Archiver name
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	
Inherited	false	
Abstract	false	
Polling Period	Not polled	
Command allowed for	All states	

Command ResetStatistics:

Reset statistic counters

ResetStatistics 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	

HdbConfigurationManager Class Attributes								
Name	Inherited	Abstract	Attr. type	R/W type	Data type	Level	Description	
AttributeOKNumber	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Number of archived attributes not in error	
AttributeNokNumber	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Number of archived attributes in error	
AttributePendingNumber	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Number of attributes waiting to be archived	
AttributeNumber	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Number of configured attributes	
<u>SetAttributeName</u>	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR		
<u>SetPollingPeriod</u>	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR		
<u>SetAbsoluteEvent</u>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR		
<u>SetRelativeEvent</u>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR		
SetPeriodEvent	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR		
<u>SetCodePushedEvent</u>	false	false	Scalar	READ_WRITE	Tango::DEV_BOOLEAN	OPERATOR		
<u>SetArchiver</u>	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR		
<u>AttributeMaxStoreTime</u>	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	Maximum storing time	
<u>AttributeMinStoreTime</u>	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	Minimum storing time	
<u>AttributeMaxProcessingTime</u>	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	Maximum processing (from event reception to storage) time	
<u>AttributeMinProcessingTime</u>	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	Minimum processing (from event reception to storage) time	

ArchiverList	false	false	Spectrum	READ	Tango::DEV_STRING	OPERATOR	
<u>ArchiverStatus</u>	false	false	Spectrum	READ	Tango::DEV_STRING	OPERATOR	

There is no dynamic attribute defined.

Attribute AttributeOKNumber:

Number of archived attributes not in error

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG
Display Level	OPERATOR
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	Ī
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	false

<u>Attribute AttributeNokNumber:</u>

Number of archived attributes in error

Attribute Defi	nition
Attribute Type	Scalar

Attribute Properties	
label	

Ī	Attribute Event Criteria	
	Periodic	Not set

R/W Type	READ
Data Type	Tango::DEV_LONG
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

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

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	false

<u>Attribute AttributePendingNumber :</u>

Number of attributes waiting to be archived

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG
Display Level	OPERATOR
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	false

<u>Attribute AttributeNumber :</u>

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG
Display Level	OPERATOR
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	Γ

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	false

Attribute SetAttributeName:

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_STRING
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write 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

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	false

Attribute SetPollingPeriod:

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_LONG
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write 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	Γ

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	false

Attribute SetAbsoluteEvent:

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false

Attribute Properties	
label	
unit	
standard unit	
display unit	
format	
max_value	
min_value	

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

Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	false

Attribute SetRelativeEvent:

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write 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	ſ

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	false

Attribute SetPeriodEvent:

Attribute Definition	
Attribute Type	Scalar

Attribute Properties	
label	
unit	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set

R/W Type	READ_WRITE
Data Type	Tango::DEV_LONG
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

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

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	false

Attribute SetCodePushedEvent:

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_BOOLEAN
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

Attribute	
Properties	L
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	false

Attribute SetArchiver:

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_STRING
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

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

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	false

<u>Attribute AttributeMaxStoreTime</u>:

Maximum storing time

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
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	L

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

min_warning	
delta_time	
delta_val	Π

Push DataReady event by user	false
code	laise

Attribute AttributeMinStoreTime:

Minimum storing time

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
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	false

$\underline{Attribute\ Attribute\ MaxProcessing\ Time:}$

Maximum processing (from event reception to storage) time

Attribute Definition	
Attribute Type	Scalar

	Attribute Properties	
label		
		Г

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set

R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
	-
Read allowed for	All states

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

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	false

$\underline{Attribute\ Attribute\ Min\ Processing\ Time:}$

Minimum processing (from event reception to storage) time

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
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	false

Attribute ArchiverList:

Attribute Definition	
Attribute Type	Spectrum (1000)
R/W Type	READ
Data Type	Tango::DEV_STRING
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	
unit	
standard unit	П
display unit	
format	П
max_value	П
min_value	П
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	false

Attribute ArchiverStatus:

Attribute Definition	
Attribute Type	Spectrum (1000)
R/W Type	READ
Data Type	Tango::DEV_STRING
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

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

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	false

HdbConfigurationManager Class States		
Name	Description	
ON		
ALARM	At least one archiver is in ALARM	