GroupManager Tango Cpp Class

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GroupManager Class Identification :

Contact	: at esrf.fr - tango
Class Family	: Miscellaneous
Platform	: All Platforms
Bus	: Not Applicable
Manufacturer	: none
Manufacturer ref.	:

GroupManager Class Inheritance :

- Tango::DeviceImpl
  - GroupManager

GroupManager Class Description :

The GroupManager monitores the (scalar) attributes specified by a dedicated property on any device belonging to the managed group.

For each attribute `attr-name`, the following dynamic attributes are created:
`attr-name` : a spectrum contaning the individual attribute values (on entry per device in the group)
`attr-name`Mean: a double scalar providing the mean value of the spectrum
`attr-name`Rms: a double scalar providing the standard deviation of the spectrum.
The devices list and the devices states are also provides as spectrum attributes (in group insertion order).

The GroupManager state is a composite state. The StatePriorityList property allows to specify a `weight` for each Tango::State.
Those weights are then used for the computation of the GroupManager state. The heaviest state obtained on the group is assigned to the GroupManager.

GroupManager Properties :

There is no class properties

Device Properties			
Name	**Description**	**Type**	**Default Value**
ManagedDevices	The list of managed devices (i.e. the devices to be inserted into the group). Wilcard are accepted (e.g. ANS/DG/BPM.*). No default value.	String[]	none
MonitoredAttributes	The list of monitored attributes. The current implementation only supports SCALAR attributes. No default value.	String[]	none
ExcludedDevices	The list of devices to be remove from the group. Provides a way to remove specific devices when wilcards are used in the ManagedDevices list. No default value.	String[]	none
StatePriorityList	Definition of state priorities. Expected syntax is: : Defaults to: ON:0 OFF:0 CLOSE:0 OPEN:0 INSERT:0 EXTRACT:0 STANDBY:0 MOVING:5 RUNNING:5 DISABLE:7 INIT:10 ALARM:11 FAULT:12 UNKNOWN:13	String[]	ON:0, OFF:0, CLOSE:0, OPEN:0, INSERT:0, EXTRACT:0, STANDBY:0, MOVING:5, RUNNING:5, DISABLE:7, INIT:10, ALARM:11, FAULT:12, UNKNOWN:13
MonitoringPeriod	The monitoring (i.e. polling) period in milliseconds. Defaults to 1000.	int	1000

GroupManager Class Commands				
Name	**Input type**	**Output type**	**Level**	**Description**
State	DEV_VOID	DEV_STATE	OPERATOR	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.
ExecuteCmdSynchronously	DEV_STRING	DEV_VOID	OPERATOR	Execute - synchronously - the specified Void/Void cmd on the group
ExecuteCmdAsynchronously	DEV_STRING	DEV_VOID	OPERATOR	Execute - asynchronously - the specified Void/Void cmd on the group

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

Command ExecuteCmdSynchronously :

Execute - synchronously - the specified Void/Void cmd on the group

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

Command ExecuteCmdAsynchronously :

Execute - asynchronously - the specified Void/Void cmd on the group

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

Command allowed for	All states	..

GroupManager Class Attributes							
Name	**Inherited**	**Abstract**	**Attr. type**	**R/W type**	**Data type**	**Level**	**Description**
managedDevices	false	false	Spectrum	READ	Tango::DEV_STRING	OPERATOR	The list of managed devices (in group insertion order)
managedDevicesStates	false	false	Spectrum	READ	Tango::DEV_STATE	OPERATOR	The list of managed devices states (in group insertion order)
managedDevicesStatesStr	false	false	Spectrum	READ	Tango::DEV_STRING	OPERATOR	The list of managed devices states (as strings - in group insertion order)

There is no dynamic attribute defined.

Attribute managedDevices :

The list of managed devices (in group insertion order)

Attribute Definition	
Attribute Type	Spectrum (

Attribute Properties	
label	

Attribute Event Criteria	
Periodic	Not set

	2147483647)
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

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	Not set

Attribute managedDevicesStates :

The list of managed devices states (in group insertion order)

Attribute Definition	
Attribute Type	Spectrum (2147483647)
R/W Type	READ
Data Type	Tango::DEV_STATE
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	Not set

Attribute managedDevicesStatesStr :

The list of managed devices states (as strings - in group insertion order)

Attribute Definition	
Attribute Type	Spectrum (2147483647)
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
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