



















# **TraitPointPlan Tango Cpp Class**

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#### **TraitPointPlan Class Identification:**

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Class Family : Motion

: All Platforms Platform Bus : Not Applicable

Manufacturer : none

Manufacturer ref. .

#### <u>TraitPointPlan Class Inheritance:</u>

• Tango::DeviceImpl

TraitPointPlan

## <u>TraitPointPlan Class Description:</u>

This class gives the implementation of the Trait Point Plan device.

This device will convert 3 vertical translations and 2 horizontally translations (in the case of a five motors device) into 2 rotations (Pitch(Rx) and Roll(Rs)) and 1 translation (Tz).

Moreover in the case of a five motors device, 1 rotation Yaw (Rz) and 1 translation (Tx).

## <u>TraitPointPlan Properties:</u>

## There is no class properties

Device Properties			
Name	Description	Туре	Default Value
BackExtElevationMotorName	This property gives the name of the back exterior (to the ring) motor use to move for up to down and up to down the back exterior leg.	String	none
BackIntElevationMotorName	This property gives the name of the back interior motor use to move from up and down and down to up the back interior leg	String	none
BackTranslationMotorName	This property gives the device name of the motor use to translate the two back legs from left to right and right to left.	String	none
CenterHorizontalToFront	The value of the horizontal center to front	double	none
CenterToHeight	Distance between the center of the table at the bottom and the elevation of the table and his thickness.	double	none
CenterVerticalToFront	Distance between the center of the table and the front leg. (The vertical one)	double	none
CommandStateName	The name of the command to check the state of the proxies.	String	state
CommandStopName	Name of the command to Stop all Axis (eg: AxisStop).	String	stop
DeviceType	The two available choices are :  - 3 : the device is composed of three motors.  - 5 : the device is composed of five motors.	String	none
FrontElevationMotorName	This property gives the name of the front motor use to move for up to down and up to down the front leg.	String	none
FrontTranslationMotorName	This property gives the device name of the motor use to translate the front leg from left to right and right to left.	String	none

NominalPitch	Nominal value for pitch.	double	none
NominalRoll	Nominal value for roll.	double	none
NominalXc	Nominal value for Xc.	double	none
NominalYaw	Nominal value for yaw.	double	none
NominalZc	Nominal value of the elevation Zc.	double	none
PitchDirection	Indicates the pitch sign to define if the pitch is positive or negative when the table roll toward up.  The convention is the table pitch toward down (we look behind the beam)  Convention = TRUE = 1.0  FALSE = -1.0	boolean	none
RollDirection	Indicates the roll sign to define if the roll is positive or negative when the table roll toward right.  The convention is the table roll toward right (we look behind the beam)  Convention = TRUE = 1.0  FALSE = -1.0	boolean	none
YawDirection	Indicates the Yaw sign to define if the yaw is positive or negative when the table yaw toward right.  The convention is the table yaw toward right (we look behind the beam)  Convention = TRUE = 1.0  FALSE = -1.0	boolean	none
TableLength	The length of the table.	double	none
TableWidth	Width of the table.	double	none
AngleUnit	Unit to be used to expressed the angualr attrrbutes (Pitch, Rooll Yaw) Value is either ``Deg`` or mRad``	String	none
PitchMechanicalLimits	Pitch mechanical array limits as follow:  0: min limit value  1: max limit value	double[]	none
RollMechanicalLimits	Roll mechanical array limits as follow:  0: min limit value  1: max limit value	double[]	none
YawMechanicalLimits	Yaw mechanical array limits as follow:  0 : min limit value  1 : max limit value	double[]	none

TraitPointPlan Class Commands					
Name	Name Input type Output type Level Description				
<u>State</u>	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.	
<u>Status</u>	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.	
<u>SaveAsNominal</u>	DEV_VOID	DEV_VOID	OPERATOR	Save the current values as the nominal ones (can be restored by the GoToNominal command). The current Zc, Xc, Sc, Roll, Pitch, Yaw values are stored like nominal values.	
<u>GoToNominal</u>	DEV_VOID	DEV_VOID	OPERATOR	Go to the nominal saved values (by the SaveAsNominal command). The nominal values are stored in NominalZc, nominal Xc, nominalSc, nominal Pitch, nominalYaw, nominal Roll.	
<u>Stop</u>	DEV_VOID	DEV_VOID	OPERATOR	Stop all the mouvments. Useful when an invalid value to avoid to go to this position.	
<u>Undo</u>	DEV_VOID	DEV_VOID	OPERATOR	Undo the last mouvement.	
<u>MotorsToZero</u>	DEV_VOID	DEV_VOID	OPERATOR	This command is used to make all the motors to the Zero position	
InitializeTraitPointPlan	DEV_VOID	DEV_VOID	OPERATOR	Method to allow the initialization of the traitpointplan to a reference state.	

## **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 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 SaveAsNominal:**

Save the current values as the nominal ones (can be restored by the GoToNominal command). The current Zc, Xc, Sc, Roll, Pitch, Yaw values are stored like nominal values.

SaveAsNominal 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 GoToNominal:**

Go to the nominal saved values (by the SaveAsNominal command). The nominal values are stored in NominalZc, nominal Xc, nominalSc, nominal Pitch, nominalYaw, nominal Roll.

GoToNominal 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 Stop:**

Stop all the mouvments. Useful when an invalid value to avoid to go to this position.

Stop 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 Undo:**

Undo the last mouvement.

Undo 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 MotorsToZero:**

This command is used to make all the motors to the Zero position

MotorsToZero 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	

## <u>Command InitializeTraitPointPlan:</u>

Method to allow the initialization of the traitpointplan to a reference state.

InitializeTraitPointPlan Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	

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

	TraitPointPlan Class Attributes								
Name	Inherited	Abstract	Attr. type	R/W type	Data type	Level	Description		
pitch	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Value of the pitch (Rx).		
<u>roll</u>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Value of the roll (Rs).		
<u>yaw</u>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Value of the Yaw (Rz).		
<u>zC</u>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Altitude of the center of the table (Tz).		
<u>xC</u>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	The X position of the center of the table (Tx).		
<u>t1z</u>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	EXPERT	Value of the front elevation. This value is used in expert mode\nif the user want to directly enter the elevation of the front leg\nwithout passing by the roll, pitch , yaw upperlevel methods.		
							Value of the back left elevation. This value is used in expert		

<u>t2z</u>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	EXPERT	mode\nif the user want to directly enter the elevation of the back left \nleg without passing by the roll, pitch , yaw upperlevel
<u>t3z</u>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	EXPERT	methods. Value of the back right elevation. This value is used in expert mode\nif the user want to directly enter the elevation of the back right \nleg without passing by the roll, pitch , yaw upperlevel methods.
t4x	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	EXPERT	Value of the front translation. This value is used in expert mode\nif the user want to directly enter the translation of the front\nleg without passing by the roll, pitch, yaw upperlevel methods.
							Value of the back translation. This value is used in expert mode\nif the user want to directly enter

<u>t5x</u>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	EXPERT	the translation of the back\nleg without passing by the roll, pitch , yaw upper- level methods.
pitchSoftLimitMin	false	false	Scalar	READ	Tango::DEV_DOUBLE	EXPERT	Computed picth soft limit min value (according to min of\nt1z, t2z, t3z and tableLength).
pitchSoftLimitMax	false	false	Scalar	READ	Tango::DEV_DOUBLE	EXPERT	Computed picth soft limit max value (according to max of\nt1z, t2z, t3z and tableLength).
<u>rollSoftLimitMin</u>	false	false	Scalar	READ	Tango::DEV_DOUBLE	EXPERT	Computed roll soft limit min value (according to min of\nt1z, t2z, t3z and tableLength).
<u>rollSoftLimitMax</u>	false	false	Scalar	READ	Tango::DEV_DOUBLE	EXPERT	Computed roll soft limit max value (according to max of\nt1z, t2z, t3z and tableLength).
yawSoftLimitMin	false	false	Scalar	READ	Tango::DEV_DOUBLE	EXPERT	Computed yaw soft limit min value (according to min of\nt4x, t5x and tableLength).
<u>yawSoftLimitMax</u>	false	false	Scalar	READ	Tango::DEV_DOUBLE	EXPERT	Computed yaw soft limit max value (according to max of\nt4x, t5x and tableLength).

## There is no dynamic attribute defined.

# Attribute pitch:

Value of the pitch (Rx).

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	true
Write hardware at init.	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	Pitch
unit	mrad
standard unit	
display unit	
format	%7.3f
max_value	15
min_value	-15
max_alarm	12
min_alarm	-12
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 roll:**

Value of the roll (Rs).

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	true
Write hardware at init.	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	Roll
unit	mrad
standard unit	
display unit	
format	%7.3f
max_value	20
min_value	-20
max_alarm	15
min_alarm	-15
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 yaw:

Value of the Yaw (Rz).

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	true
Write hardware at	Not set

Attribute Properties	
label	Yaw
unit	mrad
standard unit	
display unit	
format	%7.3f
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	

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

init.	
Read allowed for	All states
Write allowed for	All states

min_warning	$\perp$
delta_time	
delta_val	

Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

## Attribute zC:

Altitude of the center of the table (Tz).

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	true	
Write hardware at init.	Not set	
Read allowed for	All states	
Write allowed for	All states	

Attribute Properties	
label	Center Altitude
unit	mm
standard unit	
display unit	
format	%6.3f
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 xC:**

The X position of the center of the table (Tx).

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	true
Write hardware at init.	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	Center Position X
unit	mm
standard unit	
display unit	
format	%6.3f
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 t1z:

Value of the front elevation. This value is used in expert mode\nif the user want to directly enter the elevation of the front leg\nwithout passing by the roll, pitch , yaw upper-level methods.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE

Attribute Properties	
label	Front Elevation
unit	mm

Attribute Event Criteria	
Periodic	Not set
	Not

Data Type	Tango::DEV_DOUBLE
Display Level	EXPERT
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	true
Write hardware at init.	Not set
Read allowed for	All states
Write allowed for	All states

standard unit	
display unit	
format	%7.4f
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Relative Change	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 t2z :

Value of the back left elevation. This value is used in expert mode\nif the user want to directly enter the elevation of the back left \nleg without passing by the roll, pitch, yaw upper-level methods.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	EXPERT
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	true
Write hardware at init.	Not set

Attribute Properties	
label	Exterior Leg Elevation
unit	mm
standard unit	
display unit	
format	%7.4f
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	false

Read allowed for	All states
Write allowed for	All states

user code	
Push Archive event by user code	false
	Not set

### Attribute t3z:

Value of the back right elevation. This value is used in expert mode\nif the user want to directly enter the elevation of the back right \nleg without passing by the roll, pitch, yaw upper-level methods.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	EXPERT
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	true
Write hardware at init.	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	Interior Leg Elevation
unit	mm
standard unit	
display unit	
format	%7.4f
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 t4x:**

Value of the front translation. This value is used in expert mode\nif the user want to directly enter the translation of the front\nleg without passing by the roll, pitch, yaw upper-level methods.

Attribute	
Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	EXPERT
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	true
Write hardware at init.	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	Front Translation
unit	mm
standard unit	
display unit	
format	%7.4f
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 t5x:

Value of the back translation. This value is used in expert mode\nif the user want to directly enter the translation of the back\nleg without passing by the roll, pitch, yaw upper-level methods.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE

Attribute Properties	
label	Back Translation
unit	mm
standard unit	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set

Display Level	EXPERT
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	true
Write hardware at init.	Not set
Read allowed for	All states
Write allowed for	All states

display unit	
format	%7.4f
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	Not
user code	set

## $\underline{\textbf{Attribute pitchSoftLimitMin:}}$

Computed picth soft limit min value (according to min of\nt1z, t2z, t3z and tableLength).

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

Attribute Properties	
label	pitchSoftLimitMin
unit	mrad
standard unit	mrad
display unit	mrad
format	%6.2f
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 pitchSoftLimitMax :

Computed picth soft limit max value (according to max of\nt1z, t2z, t3z and tableLength).

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

Attribute Properties	
label	pitch soft limit max
unit	mrad
standard unit	mrad
display unit	mrad
format	%6.2f
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

## <u>Attribute rollSoftLimitMin:</u>

Computed roll soft limit min value (according to min of\nt1z, t2z, t3z and tableLength).

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

Attribute Properties	
label	rollSoftLimitMin
unit	mrad
standard unit	mrad
display unit	mrad
format	%6.2f
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 rollSoftLimitMax:

Computed roll soft limit max value (according to max of\nt1z, t2z, t3z and tableLength).

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

Attribute Properties	
label	rollSoftLimitMax
unit	mrad
standard unit	mrad
display unit	mrad
format	%6.2f
max_value	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
,	

Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

min_value max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Archive Periodic	Not
Archive Relative Change	set 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	Not
user code	set

# $\underline{\textbf{Attribute yawSoftLimitMin:}}$

Computed yaw soft limit min value (according to min of\nt4x, t5x and tableLength).

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

Attribute Properties	
label	yawSoftLimitMin
unit	mrad
standard unit	mrad
display unit	mrad
format	%6.2f
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 yawSoftLimitMax :

Computed yaw soft limit max value (according to max of\nt4x, t5x and tableLength).

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

Attribute Properties	
label	yawSoftLimitMax
unit	mrad
standard unit	mrad
display unit	mrad
format	%6.2f
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