



TANGO
Device
Server

GalilV2 User's Guide

ControlBox Class

Revision: release_2_3_10 - Author: coquet
Implemented in C++

Introduction:

contrôle au bas niveau la communication avec la carte d'axes Galil DMC2182 le contrôle d'axe proprement dit est réalisé par la classe GalilAxis

Class Inheritance:

- Tango::Device_3Impl
 - ControlBox

Properties:

Device Properties		
Property name	Property type	Description
IPAddress	Tango::DEV_STRING	IP Address of the controller
Port	Tango::DEV_LONG	TCP/IP port for communication (optional)
TCPTimeOut	Tango::DEV_LONG	valeur de timeout en secondes
DataRecordPollingPeriod	Tango::DEV_LONG	polling period pour la commande GetDataRecord en ms

Device Properties Default Values:

Property Name	Default Values
IPAddress	No default value
Port	5001
TCPTimeOut	3
DataRecordPollingPeriod	100

There is no Class properties.

States:

States	
Names	Descriptions
OPEN	TCP/IP communication opened with controller
CLOSE	TCP/IP communication closed with controller
ALARM	a completer
FAULT	microcode not running...

Attributes:

Scalar Attributes

Attribute name	Data Type	R/W Type	Expert
okCommandCounter : compteur des commandes acceptées	DEV_LONG	READ	No
badCommandCounter : compteur des commandes en erreur	DEV_LONG	READ	No

Commands:

More Details on commands...

Device Commands for Operator Level

Command name	Argument In	Argument Out
Init	DEV_VOID	DEV_VOID
State	DEV_VOID	DEV_STATE
Status	DEV_VOID	CONST_DEV_STRING
Reset	DEV_VOID	DEV_VOID
StartMicrocode	DEV_VOID	DEV_VOID
GetMicrocodeRevision	DEV_VOID	DEV_STRING
GetFirmwareRevision	DEV_VOID	DEV_STRING

Device Commands for Expert Level Only

Command name	Argument In	Argument Out
ExecLowLevelCmd	DEV_STRING	DEV_STRING

1 - Init

- **Description:** This commands re-initialise a device keeping the same network connection. After an Init command executed on a device, it is not necessary for client to re-connect to the device. This command first calls the device *delete_device()* method and then execute its *init_device()* method. For C++ device server, all the memory allocated in the *nit_device()* method must be freed in the *delete_device()* method. The language device desctructor automatically calls the *delete_device()* method.
- **Argin:**
DEV_VOID : none.
- **Argout:**
DEV_VOID : none.
- **Command allowed for:**
 - Tango::OPEN

- Tango::CLOSE
- Tango::ALARM
- Tango::FAULT

2 - State

- **Description:** This command gets the device state (stored in its *device_state* data member) and returns it to the caller.
- **Argin:**
DEV_VOID : none.
- **Argout:**
DEV_STATE : State Code
- **Command allowed for:**
 - Tango::OPEN
 - Tango::CLOSE
 - Tango::ALARM
 - Tango::FAULT

3 - Status

- **Description:** This command gets the device status (stored in its *device_status* data member) and returns it to the caller.
- **Argin:**
DEV_VOID : none.
- **Argout:**
CONST_DEV_STRING : Status description
- **Command allowed for:**
 - Tango::OPEN
 - Tango::CLOSE
 - Tango::ALARM
 - Tango::FAULT

4 - Reset

- **Description:** resets the controlbox : Galil cmd RS
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::OPEN
 - Tango::CLOSE
 - Tango::ALARM
 - Tango::FAULT

5 - StartMicrocode

- **Description:** starts the micocode in the controlbox
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::OPEN
 - Tango::CLOSE
 - Tango::ALARM
 - Tango::FAULT

6 - GetMicrocodeRevision

- **Description:** returns the micro-code revision as string, generic micro-code revision + specific micro-code revision if any
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_STRING : the microcode revision
- **Command allowed for:**
 - Tango::OPEN
 - Tango::CLOSE
 - Tango::ALARM
 - Tango::FAULT

7 - GetFirmwareRevision

- **Description:** returns the firmware revision as a string
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_STRING : the firmware revision
- **Command allowed for:**
 - Tango::OPEN
 - Tango::CLOSE
 - Tango::ALARM
 - Tango::FAULT

8 - ExecLowLevelCmd (for expert only)

- **Description:** Executes a low level (or expert command) on the controller then returns the reply.
 - **Argin:**
DEV_STRING : the cmd to execute
 - **Argout:**
DEV_STRING : the cmd reply
 - **Command allowed for:**
 - Tango::OPEN
 - Tango::CLOSE
 - Tango::ALARM
 - Tango::FAULT
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Device Commands Description

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 - Tango::OPEN
 - Tango::CLOSE
 - Tango::ALARM
 - Tango::FAULT

2 - State

- **Description:** This command gets the device state (stored in its *device_state* data member) and returns it to the caller.
- **Argin:**
DEV_VOID : none.
- **Argout:**

DEV_STATE : State Code

- **Command allowed for:**

- Tango::OPEN
- Tango::CLOSE
- Tango::ALARM
- Tango::FAULT

3 - Status

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

- **Argin:**

DEV_VOID : none.

- **Argout:**

CONST_DEV_STRING : Status description

- **Command allowed for:**

- Tango::OPEN
- Tango::CLOSE
- Tango::ALARM
- Tango::FAULT

4 - Reset

- **Description:** resets the controlbox : Galil cmd RS

- **Argin:**

DEV_VOID :

- **Argout:**

DEV_VOID :

- **Command allowed for:**

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- **Description:** returns the micro-code revision as string, generic micro-code revision + specific micro-code revision if any
- **Argin:**
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- **Argout:**
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 - Tango::OPEN
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- **Description:** returns the firmware revision as a string
- **Argin:**
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DEV_STRING : the firmware revision
- **Command allowed for:**
 - Tango::OPEN
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