



**TANGO**  
Device  
Server

# **DigitalCTS User's Guide**

## **DigitalCTS Class**

**Revision: release\_1\_0\_5 - Author: coquet  
Implemented in C++**

### **Introduction:**

Retrieves the state of a CTS via its digital outputs

### **Class Inheritance:**

- Tango::Device\_3Impl
  - DigitalCTS

### **Properties:**

## Device Properties

Property name	Property type	Description
<b>Url</b>	Tango::DEV_STRING	Device name of the PLC Server
<b>DBNumber</b>	Tango::DEV_LONG	Device representative DataBlock number
<b>InputOffset</b>	Tango::DEV_LONG	Input offset of the beginning of the data in the DB
<b>InputLength</b>	Tango::DEV_SHORT	Input length of the data in the DB
<b>OutputOffset</b>	Tango::DEV_LONG	Output offset of the beginning of the data in the DB
<b>OutputLength</b>	Tango::DEV_SHORT	Output length of the data in the DB
<b>HardwarePollingTime</b>	Tango::DEV_LONG	variables will be refreshed by hardware reading every HardwarePollingTime. given in : 1/10 sec. example : 34 sec gives 3.4 sec between hardware reading accesses Default : 10 (1 second)

Device Properties Default Values:

Property Name	Default Values
Url	No default value
DBNumber	No default value
InputOffset	No default value
InputLength	No default value
OutputOffset	No default value
OutputLength	No default value
HardwarePollingTime	No default value

**There is no Class properties.**

**States:**

States	
Names	Descriptions
<b>UNKNOWN</b>	Communication is broken
<b>ALARM</b>	The CTS is in alarm if at least one of the following bits is true BSV_Alarme_ByPass BSV_Alarme_PompeCryo BSV_Alarme_PressionAzote BSV_Alarme_Temperature BSV_Alarme_Etat_Comp BSV_Alarme_Temp_Comp BSV_Alarme_Pression_Comp BSV_Alarme_Alim_CTS
<b>ON</b>	The CTS is ON if: BSV_Alarme= False

## Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
<b>isOutGoingSecurityEnabled</b> : Read from BSV_SecuriteSortante = true security ON	DEV_BOOLEAN	READ	No
<b>isIncomingSecurityEnabled</b> : Read from BSV_SecuriteEntrante = true security ON	DEV_BOOLEAN	READ	No

## Commands:

More Details on commands....

Device Commands for Operator Level		
Command name	Argument In	Argument Out
<b>Init</b>	DEV_VOID	DEV_VOID
<b>State</b>	DEV_VOID	DEV_STATE
<b>Status</b>	DEV_VOID	CONST_DEV_STRING
<b>Off</b>	DEV_VOID	DEV_VOID
<b>On</b>	DEV_VOID	DEV_VOID
<b>EnableOutGoingSecurity</b>	DEV_VOID	DEV_VOID
<b>DisableOutGoingSecurity</b>	DEV_VOID	DEV_VOID
<b>EnableIncomingSecurity</b>	DEV_VOID	DEV_VOID
<b>DisableIncomingSecurity</b>	DEV_VOID	DEV_VOID

### 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 *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::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 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::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 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::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 4 - Off

- **Description:** Disables electrical power to be delivered to the CTS. Acts on BSC\_Marche

- **Argin:**  
**DEV\_VOID** :

- **Argout:**  
**DEV\_VOID** :

- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 5 - On

- **Description:** Enables electrical power to be delivered to the CTS. Acts on BSC\_Marche
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 6 - EnableOutGoingSecurity

- **Description:** Declares the CTS as a security element Acts on BSC\_SeuriteSortante
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 7 - DisableOutGoingSecurity

- **Description:** Removes the CTS from the security elements list Acts on BSC\_SeuriteSortante
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 8 - EnableIncomingSecurity

- **Description:** CTS can be interlocked by vacuum conditions NORMAL MODE Acts on BSC\_SeuriteEntrante
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 9 - DisableIncomingSecurity

- **Description:** CTS is not protected -> Vacuum Expert only <- Acts on BSC\_SeuriteEntrante
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

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### Properties:

## Device Properties

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**There is no Class properties.**

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States	
Names	Descriptions
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<b>ON</b>	The CTS is ON if: BSV_Alarme= False



## Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
<b>isOutGoingSecurityEnabled</b> : Read from BSV_SecuriteSortante = true security ON	DEV_BOOLEAN	READ	No
<b>isIncomingSecurityEnabled</b> : Read from BSV_SecuriteEntrante = true security ON	DEV_BOOLEAN	READ	No

## Commands:

More Details on commands....

Device Commands for Operator Level		
Command name	Argument In	Argument Out
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<b>State</b>	DEV_VOID	DEV_STATE
<b>Status</b>	DEV_VOID	CONST_DEV_STRING
<b>Off</b>	DEV_VOID	DEV_VOID
<b>On</b>	DEV_VOID	DEV_VOID
<b>EnableOutGoingSecurity</b>	DEV_VOID	DEV_VOID
<b>DisableOutGoingSecurity</b>	DEV_VOID	DEV_VOID
<b>EnableIncomingSecurity</b>	DEV_VOID	DEV_VOID
<b>DisableIncomingSecurity</b>	DEV_VOID	DEV_VOID

### 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 *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::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 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::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 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::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 4 - Off

- **Description:** Disables electrical power to be delivered to the CTS. Acts on BSC\_Marche

- **Argin:**  
**DEV\_VOID** :

- **Argout:**  
**DEV\_VOID** :

- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 5 - On

- **Description:** Enables electrical power to be delivered to the CTS. Acts on BSC\_Marche
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 6 - EnableOutGoingSecurity

- **Description:** Declares the CTS as a security element Acts on BSC\_SeuriteSortante
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 7 - DisableOutGoingSecurity

- **Description:** Removes the CTS from the security elements list Acts on BSC\_SeuriteSortante
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 8 - EnableIncomingSecurity

- **Description:** CTS can be interlocked by vacuum conditions NORMAL MODE Acts on BSC\_SeuriteEntrante
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 9 - DisableIncomingSecurity

- **Description:** CTS is not protected -> Vacuum Expert only <- Acts on BSC\_SeuriteEntrante
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

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TANGO  
Device  
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# DigitalCTS

## Device Commands Description

### DigitalCTS Class

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## 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 *init\_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::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 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::UNKNOWN
- Tango::ALARM
- Tango::ON

### 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::UNKNOWN
- Tango::ALARM
- Tango::ON

### 4 - Off

- **Description:** Disables electrical power to be delivered to the CTS. Acts on BSC\_Marche

- **Argin:**

**DEV\_VOID** :

- **Argout:**

**DEV\_VOID** :

- **Command allowed for:**

- Tango::UNKNOWN
- Tango::ALARM
- Tango::ON

### 5 - On

- **Description:** Enables electrical power to be delivered to the CTS. Acts on BSC\_Marche

- **Argin:**

**DEV\_VOID** :

- **Argout:**

**DEV\_VOID :**

- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
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- **Description:** Declares the CTS as a security element Acts on BSC\_SeuriteSortante
- **Argin:**  
**DEV\_VOID :**
- **Argout:**  
**DEV\_VOID :**
- **Command allowed for:**
  - Tango::UNKNOWN
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## **7 - DisableOutGoingSecurity**

- **Description:** Removes the CTS from the security elements list Acts on BSC\_SeuriteSortante
- **Argin:**  
**DEV\_VOID :**
- **Argout:**  
**DEV\_VOID :**
- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## **8 - EnableIncomingSecurity**

- **Description:** CTS can be interlocked by vacuum conditions NORMAL MODE Acts on BSC\_SeuriteEntrante
- **Argin:**  
**DEV\_VOID :**



- **Argout:**  
**DEV\_VOID :**

- **Command allowed for:**
  - Tango::UNKNOWN
  - Tango::ALARM
  - Tango::ON

## 9 - DisableIncomingSecurity

- **Description:** CTS is not protected -> Vacuum Expert only <- Acts on BSC\_SeuriteEntrante
  - **Argin:**  
**DEV\_VOID :**
  - **Argout:**  
**DEV\_VOID :**
  - **Command allowed for:**
    - Tango::UNKNOWN
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    - Tango::ON
- 

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