

## DG645 Tango Cpp Class

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### DG645 Class Identification :

Contact : at synchrotron-soleil.fr - sy-moran.trem  
Class Family : Miscellaneous  
Platform : All Platforms  
Bus : Data Socket  
Manufacturer : Stanford Research Systems

Manufacturer ref. : DG645

### DG645 Class Inheritance :

- [Tango::DeviceImpl](#)
  - DG645

## DG645 Class Description :

DG645 Tango Device.  
Digital Delay Generator.

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## DG645 Properties :

There is no class properties

Device Properties			
Name	Description	Type	Default Value
SocketDeviceName	Name of the SocketDevice	String	no/default/name

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DG645 Class Commands				
Name	Input type	Output type	Level	Description
<a href="#">State</a>	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.
<a href="#">Status</a>	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.
<a href="#">RecallConfig</a>	DEV_USHORT	DEV_VOID	OPERATOR	None.
<a href="#">ResetErrors</a>	DEV_VOID	DEV_VOID	OPERATOR	None.

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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	..

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### **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	..

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### **Command RecallConfig :**



<a href="#">freqDivAB</a>	false	false	Scalar	READ_WRITE	Tango::DEV_SHORT	OPERATOR	factor of AB output.
<a href="#">delayA</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Delay of A output in ns.
<a href="#">delayB</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Delay of B output in ns.
<a href="#">widthAB</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Width of AB output in ns.
<a href="#">freqDivCD</a>	false	false	Scalar	READ_WRITE	Tango::DEV_SHORT	OPERATOR	Prescale factor of CD output.
<a href="#">delayC</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Delay of C output in ns.
<a href="#">delayD</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Delay of D output in ns.
<a href="#">widthCD</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Width of CD output in ns.
<a href="#">freqDivEF</a>	false	false	Scalar	READ_WRITE	Tango::DEV_SHORT	OPERATOR	Prescale factor of CD output.
<a href="#">delayE</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Delay of E output in ns.
<a href="#">delayF</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Delay of F output in ns.
<a href="#">widthEF</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Width of EF output in ns.
<a href="#">freqDivGH</a>	false	false	Scalar	READ_WRITE	Tango::DEV_SHORT	OPERATOR	Prescale factor of CD output.
<a href="#">delayG</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Delay of G output in ns.
<a href="#">delayH</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Delay of H output in ns.
<a href="#">widthGH</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Width of GH output in ns.

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**There is no dynamic attribute defined.**

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**Attribute freqDiv :**

Prescale factor of AB output.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_SHORT
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read NOT allowed for	<ul style="list-style-type: none"> <li>• INIT</li> <li>• OFF</li> </ul>
Write allowed for	All states

Attribute Properties	
label	Freq Div
unit	
standard unit	
display unit	
format	%3d
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 freqDivAB :**

Prescale factor of AB output.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE

Attribute Properties	
label	Freq Div AB
unit	

Attribute Event Criteria	
Periodic	Not set
	Not

Data Type	Tango::DEV_SHORT
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read NOT allowed for	<ul style="list-style-type: none"> <li>INIT</li> <li>OFF</li> </ul>
Write allowed for	All states

standard unit	
display unit	
format	%3d
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 delayA :**

Delay of A output in ns.

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

Attribute Properties	
label	Delay A
unit	ns
standard unit	
display unit	%10.0f
format	
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

Read NOT allowed for	<ul style="list-style-type: none"> <li>INIT</li> <li>OFF</li> </ul>
Write allowed for	All states

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	Not set

### **Attribute delayB :**

Delay of B output in ns.

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 NOT allowed for	<ul style="list-style-type: none"> <li>INIT</li> <li>OFF</li> </ul>
Write allowed for	All states

Attribute Properties	
label	Delay B
unit	ns
standard unit	
display unit	
format	%10.0f
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



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**Attribute widthAB :**

Width of AB output in ns.

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 NOT allowed for	<ul style="list-style-type: none"><li>INIT</li><li>OFF</li></ul>
Write allowed for	All states

Attribute Properties	
label	Width AB
unit	ns
standard unit	
display unit	
format	%10.0f
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

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**Attribute freqDivCD :**

Prescale factor of CD output.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_SHORT
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read NOT allowed for	<ul style="list-style-type: none"> <li>INIT</li> <li>OFF</li> </ul>
Write allowed for	All states

Attribute Properties	
label	Freq Div CD
unit	
standard unit	
display unit	
format	%3d
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 delayC :**

Delay of C output in ns.

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

Attribute Properties	
label	Delay C
unit	ns
standard unit	
display unit	

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

Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read NOT allowed for	<ul style="list-style-type: none"> <li>• INIT</li> <li>• OFF</li> </ul>
Write allowed for	All states

format	%10.0f
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

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 delayD :**

Delay of D output in ns.

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 NOT allowed for	<ul style="list-style-type: none"> <li>• INIT</li> <li>• OFF</li> </ul>
Write allowed for	All states

Attribute Properties	
label	Delay D
unit	ns
standard unit	
display unit	
format	%10.0f
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 widthCD :**

Width of CD output in ns.

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 NOT allowed for	<ul style="list-style-type: none"> <li>• INIT</li> <li>• OFF</li> </ul>
Write allowed for	All states

Attribute Properties	
label	Width CD
unit	ns
standard unit	
display unit	
format	%10.0f
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 freqDivEF :**

Prescale factor of CD output.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_SHORT
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read NOT allowed for	<ul style="list-style-type: none"><li>• INIT</li><li>• OFF</li></ul>
Write allowed for	All states

Attribute Properties	
label	Freq Div EF
unit	
standard unit	
display unit	
format	%3d
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

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## **Attribute delayE :**

Delay of E output in ns.

Attribute Definition	

Attribute Properties	

Attribute Event Criteria	

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 NOT allowed for	<ul style="list-style-type: none"> <li>INIT</li> <li>OFF</li> </ul>
Write allowed for	All states

label	Delay E
unit	ns
standard unit	
display unit	
format	%10.0f
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

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 delayF :**

Delay of F output in ns.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling	Not polled

Attribute Properties	
label	Delay F
unit	ns
standard unit	
display unit	
format	%10.0f
max_value	
min_value	
max_alarm	

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

Period Memorized	Not set
Read NOT allowed for	<ul style="list-style-type: none"> <li>INIT</li> <li>OFF</li> </ul>
Write allowed for	All states

min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Archive Relative Change	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 widthEF :**

Width of EF output in ns.

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 NOT allowed for	<ul style="list-style-type: none"> <li>INIT</li> <li>OFF</li> </ul>
Write allowed for	All states

Attribute Properties	
label	Width EF
unit	ns
standard unit	
display unit	
format	%10.0f
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	Not

**Attribute freqDivGH :**

Prescale factor of CD output.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_SHORT
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read NOT allowed for	<ul style="list-style-type: none"> <li>• INIT</li> <li>• OFF</li> </ul>
Write allowed for	All states

Attribute Properties	
label	Freq Div GH
unit	
standard unit	
display unit	
format	%3d
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 delayG :**

Delay of G output in ns.



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 NOT allowed for	<ul style="list-style-type: none"> <li>• INIT</li> <li>• OFF</li> </ul>
Write allowed for	All states

Attribute Properties	
label	Delay G
unit	ns
standard unit	
display unit	
format	%10.0f
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 delayH :

Delay of H output in ns.

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

Attribute Properties	
label	Delay H
unit	ns
standard unit	
display unit	

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

Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read NOT allowed for	<ul style="list-style-type: none"> <li>INIT</li> <li>OFF</li> </ul>
Write allowed for	All states

format	%10.0f
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

	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 widthGH :**

Width of GH output in ns.

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 NOT allowed for	<ul style="list-style-type: none"> <li>INIT</li> <li>OFF</li> </ul>

Attribute Properties	
label	Width GH
unit	ns
standard unit	
display unit	
format	%10.0f
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

allowed for Write	All states
allowed for	

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

DG645 Class States	
Name	Description
INIT	Device is in INIT.
FAULT	Device is in FAULT.
STANDBY	Device is in RUN.
OFF	Device Socket is OFF