

# TCx Display Configuration Utility for Linux User's Guide

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This edition applies to TCx Display Configuration Utility for Linux and to all subsequent releases and modifications until otherwise indicated in new editions.

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## Document Revision History

<i>Version</i>	<i>Date</i>	<i>Change Description</i>
<b>1.00</b>	17/09/2015	Added 6149 (Model 5Nx, 5Sx) into supported display list.
<b>1.01</b>	28/10/2015	Change default value of RmtPwrCtrl to 00 and default value of OSDEBLEn to 01.
<b>1.02</b>	25/11/2015	Updated Configuration Defintion.

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## **About this guide**

This guide describes how to install and use the Toshiba TCx Display Configuration Utility.

## **Who should read this guide**

This guide is intended for the personnel who will install and use Toshiba TCx Display Configuration Utility.

## 1 Introduction

TCx Display Configuration Utility is a command-line tool used to download, update settings and configure a TCx Display 6149 (Model 5Cx, 5Nx, 5Sx) hardware settings.

Customers will be able to download the current settings of the device, update and load it accordingly. Examples of these configurable settings are the General Volume, Beep-on-Touch, POS Tone and On-Screen Display (OSD).

## 2 Supported Operating Systems

Various Linux operating systems are supported by the tool:

- SLED 11 SP3 32-Bit
- SLES 11 SP3 32-Bit
- SLEPOS 11 SP3 32-Bit
- SLED 12 64-Bit
- SLES 12 64-Bit

## 3 Installing the TCxDisplayCfgUtil

The installer of the utility is in the form of a RPM file. An elevated user rights is needed to install the software.

### 3.1 32-Bit Version installation

```
rpm -ivh tcxdisplaycfgutil-x.x.x-1.i586.rpm
```

### 3.2 64-Bit Version installation

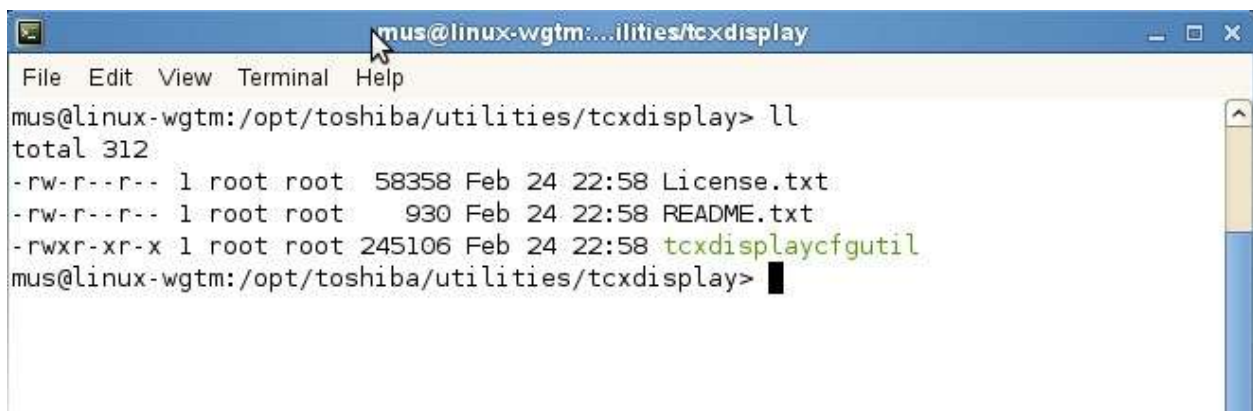
```
rpm -ivh tcxdisplaycfgutil-x.x.x-1.x86_64.rpm
```

#### NOTE:

1. After the tool is installed, it should be located in `/opt/toshiba/utilities/tcxdisplay/`.
2. x.x.x is the version of TCxDisplayCfgUtil.

## 4 Running the utility

To use the `tcxdisplaycfgutil` tool, the command prompt should have elevated/Administrator right. (see screenshot below)



The screenshot shows a terminal window titled "mus@linux-wgtm:...ilities/tcxdisplay". The terminal output shows the result of the `ll` command, listing the files in the directory:

```
mus@linux-wgtm:/opt/toshiba/utilities/tcxdisplay> ll
total 312
-rw-r--r-- 1 root root 58358 Feb 24 22:58 License.txt
-rw-r--r-- 1 root root 930 Feb 24 22:58 README.txt
-rwxr-xr-x 1 root root 245106 Feb 24 22:58 tcxdisplaycfgutil
mus@linux-wgtm:/opt/toshiba/utilities/tcxdisplay>
```

## 5 Tool Options

Use the following options in configuring the settings of a TCx Display 6149 (Model 5Cx, 5Nx, 5Sx):

```
tcxdisplaycfgutil Version 1.0.2 - TCxDisplay Configuration utility
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---

USAGE: tcxdisplaycfgutil [options]

WHERE OPTIONS are:

  -o <filename> Retrieve the current device's configuration.
                  Specify the name of the INI file in <filename>.

  -g <filename> Generate a pre-defined INI file. Specify the
                  name of the INI file in <filename>.

  -i <filename> Update devices using only INI file specified in
                  <filename>.

  -L              List attached devices *1

  -s <serial#>   Update device's configuration specified by the
                  USB Serial Number: <serial#>

  -v              Verbose logging to the console during execution

  -l <log file>   Specify the log file

  -?              Usage (this message) and additional help information
```

### 5.1 Current Setting [-o <filename>.ini]

This is the option to use when downloading the current settings of the display.

```
tcxdisplaycfgutil -o TGCSMonCfg.ini
```

### 5.2 Generate default settings [-g <filename>.ini]

This option generates the default values. The utility can be run in any machine when using this option. Then the generated INI file can be updated accordingly and loaded to a POS machine with TCx Display.

```
tcxdisplaycfgutil -g default.ini
```

### 5.3 Update display [-i <filename>.ini]

Use this option to update the display settings. If there is no serial number specified, the utility will change the settings of all devices attached.

```
tcxdisplaycfgutil -i TGCSMonCfg.ini
```

#### 5.4 List attached device(s) [-L]

Use this option to display the available TCx Display.

```
tcxdisplaycfgutil -L
```

#### 5.5 Using device's serial number [-s <serial\_number>]

Use this option to specify which device will be manipulated. It can be used to generate the current settings and update a device.

```
tcxdisplaycfgutil -s 12345 -o current.ini  
tcxdisplaycfgutil -s 12345 -i current.ini
```

#### 5.6 Show utility logging to console [-v]

This option will come in handy to external utilities having to capture console logs. This can be used with any other available options.

```
tcxdisplaycfgutil -o default.ini -v  
tcxdisplaycfgutil -s 12345 -i current.ini -v
```

#### 5.7 Save utility logging to a file [-l <filename>.log]

This option will save important execution logs of the utility. Normally, the log file generated will be used for debugging purposes. This can be used with any other available options.

```
tcxdisplaycfgutil -o default.ini -l test.log  
tcxdisplaycfgutil -s 12345 -i current.ini -l test.log
```

#### 5.8 Show the help message [-?]

This option will show the help message and the configuration definition in section 6 of this document.

## 6 TCx Display 6149 (Model 5Cx, 5Nx, 5Sx) Configuration Definition

Key	Item Name	Data Type	Range (Hex)	Default Value (Hex)	Description
	[General]				
Volume	Master Volume	Hex	00-28	20	
Brightness	Backlight Brightness	Hex	00-20	1D	Set monitor backlight brightness
RmtPwrCtrl	Remote Power Control	Hex	00-01	00	Set remote power control option 00h - Disabled 01h - Enabled
ExtBLEn	Extended Backlight Life	Hex	00-01	01	Set extended backlight life option 00h - Disabled 01h - Enabled
	[BeepOnTouch]				
BOTFreq	Frequency	Hex	00-03	02	Allow to set which the frequency, in Hertz, of touch beep when play. -- 01h - 2000 02h - 1300 03h - 875
BOTDur	Duration	Hex	01-0A	02	Allow to set what time period we play the touch beep. Time period should be given in N * 100ms.
BOTVol	Volume	Hex	00-28	18	Allow to set sound volume



					levels. The maximum value of sound volume cannot exceed the current value of OSD volume level.
BOTEvent	Touch Event Trigger Point	Hex	00-03	01	Allow to set what kind of user behavior to issue the touch beep. -- 00h - Disable 01h - Finger Touch Down 02h - Finger Touch Up 03h - Both (i.e. Finger Touch Up and Down)
	[POSTone]				
Tone1Vol	Sound Volume Level for SOFT tone	Hex	00-28	18	Allow to control the sound volume in SOFT volume state. The maximum value of sound volume cannot exceed the current value of OSD volume level.
Tone2Vol	Sound Volume Level for LOUD tone	Hex	00-28	26	Allow to control the sound volume in LOUD volume state. The maximum value of sound volume cannot exceed the current value of OSD volume level.
	[OpPannel]				
IconBright	Icon Brightness	Hex	00-20	1B	The setting will apply to all buttons (up, down, right, left) except power button in the monitor. Allow to set the buttons' backlight brightness.
	[OSD]				
OSDEn	OSD Control Enable/Disable	Hex	00-01	01	Allow to use OSD menu if the setting is enabled. This is a global setting so you should enable this option and then enable other settings in Scalar configuration. -- 00h - Disabled 01h - Enabled
OSDRPCEn	OSD "Remote Power Control" Enable/Disable	Hex	00-01	01	Allow to use "Remote Power Control" option in OSD menu if the setting is enabled and OSD Control is enabled. -- 00h - Disabled 01h - Enabled
OSDEBLEn	OSD "Extended Backlight Life" Enable/Disable	Hex	00-01	01	Allow to use "Extended Backlight Life" option in OSD menu if the setting is enabled

					and OSD Control is enabled.  -- 00h - Disabled 01h - Enabled
OSDIBCEn	OSD "Buttons LED Brightness" Enable/Disable	Hex	00-01	01	Allow to use "Button LED Brightness" option in OSD menu if the setting is enabled and OSD Control is enabled.  -- 00h - Disabled 01h - Enabled
OSDVCEn	OSD "Volume" Enable/Disable	Hex	00-01	01	Allow to use "Volume" option in OSD menu if the setting is enabled and OSD Control is enabled.  -- 00h - Disabled 01h - Enabled
OSDBCEn	OSD "Brightness" Enable/Disable	Hex	00-01	01	Allow to use "Brightness" option in OSD menu if the setting is enabled and OSD Control is enabled.  -- 00h - Disabled 01h - Enabled

## **7 Known limitations and workarounds**

1. The utility does not support updating more than 1 display when using serial number. The command below is not supported:

```
tcxdisplaycfgutil -s 12345 -s 01234 -i TGCSMonCfg.ini
```

The above example will only update the device with serial number "01234". In order to update all devices, do not specify any serial number.

2. The utility does not support unplugging of power USB cable from the attached TCx Display 6149 (Model 5Cx, 5Nx, 5Sx) monitor while a firmware update is ongoing. Doing so will cause undesirable damage to the firmware and perhaps to the monitor itself.