# TouchGFX 4.13.0 Third Party Components

#### Framework:

The following third party components are used for the core framework code. That is the actual TouchGFX C++ code that is included in customer code.

3rd Party Component	Information	Version	Format	License terms / Link to license terms
	Robert Penner's easing equations are Open Source under the BSD License	N/A		http://robertpenner.co m/easing_terms_of_u se.html

## Designer:

The following third party components are used for by the TouchGFX Designer.

Please note that none of these components are present in the generated customer product code.

3rd Party Component	Information	Version	Format	License terms / Link to license terms
CompareNETObjects	Microsoft Public License (MS-PL)	3.05.0.0	Binary	https://opensource.or g/licenses/MS-PL
log4net	APACHE LICENSE, VERSION 2.0	2.0.5	Binary	http://www.apache.org /licenses/
MoreLinq	The MIT License (MIT)	1.4.0	Binary	https://opensource.or g/licenses/MIT
Newtonsoft.json	Copyright (c) 2007 James Newton-King The MIT License (MIT)	9.0.1	Binary	https://opensource.or g/licenses/MIT
NPOI	APACHE LICENSE, VERSION 2.0	2.1.3.1	Binary	http://www.apache.org /licenses/
Extended.Wpf.Toolkit	Microsoft Public License (Ms-PL)	2.9.0	Binary	https://opensource.or g/licenses/MS-PL
ManyConsole	The MIT License (MIT)	0.4.2.20	Binary	https://github.com/fsc hwiet/ManyConsole/bl ob/master/LICENSE.t xt
NUnit	Copyright © 2002-2012 Charlie Poole Copyright © 2002-2004 James W. Newkirk, Michael C. Two, Alexei A. Vorontsov Copyright © 2000-2002 Philip A. Craig	3.7.0	Binary	http://nunit.org/docs/2. 6.1/license.html
Sharp Zip Lib	Modified GPL	0.86.0	Binary	https://icsharpcode.githu b.io/SharpZipLib/

Ndesk Options	http://www.ndesk.org/Options	0.2.1	Binary	https://opensource.org/li
	The MIT License (MIT)			censes/mit-license.php

## **Hardware Abstraction Layer (HAL):**

The following third party components are used for HAL related source code. That is the ports that can be downloaded for demo boards from various vendors.

3rd Party Component	Information	Version	Format	License terms / Link to license terms
Code	In case of the various header files provided by silicon manufacturers and tool vendors that define processor specific memory addresses and utility macros, the users must ensure license conditions are adhered to for any use other than compilation of the TouchGFX demo and examples applications.		N/A	N/A

#### Tools:

The following third party components are used for the build environment and converter tools included in the TouchGFX package.

Please note that none of these components are present in the generated customer product code.

3rd Party Component	Information	Version	Format	License terms / Link to license terms
Libpng	libpng version 1.6.36 - December 1, 2018 Copyright (c) 2018 Cosmin Truta Copyright (c) 1998-2002,2004,2006-2018 Glenn Randers-Pehrson Copyright (c) 1996-1997 Andreas Dilger Copyright (c) 1995-1996 Guy Eric Schalnat, Group 42, Inc.  This code is released under the libpng license. (See LICENSE, below.)  Authors and maintainers: libpng versions 0.71, May 1995, through 0.88, January 1996: Guy Schalnat libpng versions 0.89, June 1996, through 0.96, May 1997: Andreas Dilger libpng versions 0.97, January 1998, through 1.6.35, July 2018: Glenn Randers- Pehrson. libpng version 1.6.36, December 1, 2018: Cosmin Truta	1.6.36	Binary	http://www.libpng.org/p ub/png/src/libpng-LI- CENSE.txt

MinGW	Minimalist GNU for Windows – 7.3.0	7.3.0	Binary	http://www.mingw.org/li
	Collection of tools for compiling, linking, etc.			cense https://source- forge.net/p/mingw/min gw-org- wsl/ci/21762bb4a1bd0 c88c38eead03f59e8d9 94349e83/tree/LI- CENSE
MSYS	Minimal SYStem	1.0	Binary	Online version not available.
	A collection of tools for MinGW			Added in appendix below.
Ruby	Interpreter for the Ruby programming language	1.9.3p484	Binary	https://www.ruby- lang.org/en/about/li-
	Used by the text conversion process			cense.txt
FreeType	Library for interacting with fonts	2.9.1	Binary	http://git.savan- nah.gnu.org/cgit/free-
	Used by the text conversion process			type/free- type2.git/tree/docs/FTL .TXT
zlib	Library for extracting zip files	1.2.11	Binary	https://www.zlib.net/zli b license.html
	Used by the image and font conversion process			<u>b license.mim</u>
SDL	Library for drawing windows on Windows	2.0.4.0	Binary	http://www.zlib.net/zlib
	and Linux			license.html
	Used for the PC Simulator.			
bundler	Ruby Gem - Various tools for interacting with Excel files, and supporting tasks	1.12.5	Source	https://opensource.org/ licenses/MIT
mini-portile	Ruby Gem - Various tools for interacting with Excel files, and supporting tasks	0.5.2	Source	https://opensource.org/ licenses/MIT
nokogiri	Ruby Gem - Various tools for interacting with Excel files, and supporting tasks	1.6.1-x86- mingw32	Source	https://opensource.org/ licenses/MIT
parallel	Ruby Gem - Various tools for interacting with Excel files, and supporting tasks	1.9.0	Source	https://opensource.org/ licenses/MIT
rake	Ruby Gem - Various tools for interacting with Excel files, and supporting tasks	0.9.2.2	Source	https://opensource.org/ licenses/MIT

roo	Ruby Gem - Various tools for interacting with Excel files, and supporting tasks	2.7.1	Source	https://opensource.org/ licenses/MIT
ruby-ole	Ruby Gem - Various tools for interacting with Excel files, and supporting tasks	1.2.11.7	Source	https://opensource.org/ licenses/MIT
thor	Ruby Gem - Various tools for interacting with Excel files, and supporting tasks	0.19.1	Source	https://opensource.org/ licenses/MIT
rdoc	Ruby Gem - Various tools for interacting with Excel files, and supporting tasks	3.9.5	Source	https://github.com/ruby /rdoc/blob/master/LICE NSE.rdoc
rubyzip	Ruby Gem - Various tools for interacting with Excel files, and supporting tasks	1.1.0	Source	https://www.ruby- lang.org/en/about/licen se.txt
nlohmann_json	JSON for Modern C++ Copyright (c) 2013-2019 Niels Lohmann The MIT License (MIT) Used by the image conversion process	3.6.1	Source	https://github.com/nloh mann/json/releases

# **Demos and Examples:**

The following third party components are used for by various TouchGFX demos and examples that can be downloaded by the TouchGFX Designer.

3rd Party Com-	Information	Version	Format	License terms /
ponent				Link to license terms
	FreeRTOS is used in TouchGFX demo applications only.  Note: not included in TouchGFX Framework. If the Licensee will use and embed FreeRTOS or other RTOS into final products, it is the Licensee's full responsibility to ensure compliance with the relevant license terms for the selected software.	N/A		The FreeRTOS source code is licensed under the modified GNU General Public License (GPL)  http://www.fre-ertos.org/license.txt

MSYS License:
Minimal SYStem
http://www.mingw.org/wiki/msys/
License, Use and Redistribution
MSYS contains several different other packages. Most of those packages are licensed by the GNU Public License (GPL).
You may use MSYS on any number of systems. There is no restriction to your use. You may use MSYS commercially as well as privately. You the user assume the responsibility for the use of the files, binary or text, and there is no guarantee or warranty, expressed or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. You assume all responsibility and agree to hold no entity, copyright holder or distributors liable for any loss of data or inaccurate representations of data as a result of using MSYS.
You may redistribute MSYS in part or in whole as long as you follow the guidelines of redistribution of each license contained within. To be certain that you are being legally compliant, always distribute the source. Distribution of source is your responsibility should you decide to redistribute MSYS. If you distribute MSYS via a web site then you must put a copy of the source for that version of MSYS on your web site as well. If you distribute MSYS via removable media then you must distribute that version of MSYS source with that same type of removable media.
Binaries created from the use of MSYS and of MinGW are not bound by any license found within this package unless you use a library that is itself covered by the GPL license. If you wish to create proprietary software then don't use libiberty.a or any other GPL licensed library. A library licensed with LGPL (Lesser GPL) may be used by proprietary software without GPL infection as special permission within the LGPL has given you this right.

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