



# Software Content Register

---

NXP public

Last modification date: 2022-01-12

## Software Content Register

### Software License

#### Exceptions in the firmware

- Cortex M0/M0+ header files
- Heatshrink
- Chaskey

#### Exceptions in the host tooling

- dfu-util

#### Exceptions in the host code, targeting multiple platforms using XF

- FusionCharts
- Microsoft NuGets - part 1
- Microsoft NuGets - part 2
- Microsoft NuGets - part 3
- Microsoft NuGets - part 4
- Microsoft NuGets - part 5
- Microsoft NuGets - part 6
- NdefLibrary
- Newtonsoft.Json
- PCSC
- Plugin.CurrentActivity
- Prism.Forms
- Refractored.MvvmHelpers
- Rg.Plugins.Popup
- SharpCompress
- SkiaSharp
- SQLite-net
- SQLiteNetExtensions
- SQLitePCLRaw
- Timestamp
- Xam.Plugin.Screenshot
- Xamarin.Forms.BehaviorsPack
- Xamarin.Forms.InputKit
- Xamarin.Forms.PancakeView

# Software License

---

Save for the exceptions listed below, all SW and documentation provided in the SDK is owned by NXP and full copyright is held by NXP. It is licensed under the [LA OPT NXP SW](#) license; the additional distribution license is granted, Section 2.3 *Additional Distribution License* applies.

A local copy of this license is available in the SDK.

Copyright 2015-2022 NXP.

This software is owned or controlled by NXP and may only be used strictly in accordance with the applicable license terms. By expressly accepting such terms or by downloading, installing, activating and/or otherwise using the software, you are agreeing that you have read, and that you agree to comply with and are bound by, such license terms. If you do not agree to be bound by the applicable license terms, then you may not retain, install, activate or otherwise use the software.

SW and tools such as, but not limited to, the *MCUXpresso IDE*, *Flash Magic* and *nfcpy*, which are not present but are linked to, are licensed differently. When using these SW, the customer must check and adhere to their respective conditions of use.

# Exceptions in the firmware

---

## Cortex M0/M0+ header files

---

Located under

- `sw/nss/lib_chip_nss/inc/core_cm0plus.h`
- `sw/nss/lib_chip_nss/inc/core_cmFunc.h`
- `sw/nss/lib_chip_nss/inc/core_cmInstr.h`

Origin: [https://arm-software.github.io/CMSIS\\_5/Core/html/index.html](https://arm-software.github.io/CMSIS_5/Core/html/index.html)

License: These files can be freely distributed within development tools that are supporting ARM Cortex-M processor based microcontrollers.

Copyright (C) 2009-2012 ARM Limited. All rights reserved.

## Heatshrink

---

Heatshrink is an open-source library, allowing lossless compression and decompression on an embedded system with limited resources.

Located under `sw/nss/mods/compress/heatshrink`

Origin: <https://github.com/atomicobject/heatshrink>

SPDX-License-Identifier: ISC

Copyright (c) 2013-2015, Scott Vokes [vokes.s@gmail.com](mailto:vokes.s@gmail.com)

## Chaskey

---

Chaskey is an efficient MAC algorithm for microcontrollers, standardized in [ISO/IEC 29192-6](https://www.iso.org/standard/64591.html). It is intended for applications that require 128-bit security but have stringent requirements on speed, energy consumption or code size.

Located under `sw/nss/mods/mac/chaskey/chaskey-speed.c`

Origin: <https://github.com/atomicobject/heatshrink>

SPDX-License-Identifier: CC0-1.0

Written in 2014 by Nicky Mouha, based on SipHash

Located under `sw/nss/mods/mac/chaskey/chaskey.h`

Origin: <https://github.com/hutory/chaskey>

SPDX-License-Identifier: MIT

Copyright (c) 2017 Eugene Hutory

# Exceptions in the host tooling

---

## dfu-util

---

dfu-util is a host side implementation of the DFU 1.0 and DFU 1.1 specifications of the USB forum. DFU is intended to download and upload firmware to/from devices connected over USB.

Located under `tools/flashmagic/gangprogramming`

Origin: <http://sourceforge.net/p/dfu-util/>

SPDX-License-Identifier: GPL-2.0

Copyright 2005-2009 Weston Schmidt, Harald Welte and OpenMoko Inc.

Copyright 2010-2016 Tormod Volden and Stefan Schmidt

Mass mode added by ESAcademy, Inc. 2017

# Exceptions in the host code, targeting multiple platforms using XF

---

## FusionCharts

---

FusionCharts is a commercial Javascript library from FusionCharts, providing charts for mobile and web applications.

Located under `sw/XF/shared/Js`

Origin: <https://www.fusioncharts.com/>

License: NXP has been granted the right to use the evaluation version of the library in the iOS and macOS demo applications present in this SDK. This right is non-transferable: you must check and adhere to their license for each and every use. The license for the evaluation version that is included, is located at

`sw/XF/shared/Js/FusionChart/FusionCharts Suite License Agreement - Evaluation.rtf`

Copyright FusionCharts - An Idera, Inc. Company. All Rights Reserved.

## Microsoft NuGets - part 1

---

- Xamarin.Android.Support.Compat
- Xamarin.Android.Support.CustomTabs
- Xamarin.Android.Support.Design
- Xamarin.Android.Support.v7.AppCompat
- Xamarin.Android.Support.v7.CardView
- Xamarin.Android.Support.v7.MediaRouter
- Xamarin.AndroidX.MediaRouter
- Xamarin.Forms
- Xamarin.Essentials

Located under `sw/XF` as part of the binary offering, included during the building process.

Origin: Delivered by Microsoft as part of Microsoft Visual Studio

SPDX-License-Identifier: MIT

Copyright (c) .NET Foundation Contributors

## Microsoft NuGets - part 2

---

- Xamarin.Android.Support.v4
- Xamarin.AndroidX.Palette

Located under `sw/XF/NHS31xxDownloader` as part of the binary offering, included during the building process.

Origin: Delivered by Microsoft as part of Microsoft Visual Studio

SPDX-License-Identifier: MIT

Copyright (c) .NET Foundation Contributors

## Microsoft NuGets - part 3

---

- System Buffers
- System.Runtime.CompilerServices.Unsafe

Located under `sw/XF/Monitor` and `sw/XF/TLogger` as part of the binary offering, included during the building process.

Origin: Delivered by Microsoft as part of Microsoft Visual Studio  
SPDX-License-Identifier: MIT  
Copyright (c) .NET Foundation Contributors

## Microsoft NuGets - part 4

---

- Microsoft.Extensions.Hosting

Located under `sw/XF/SignedUrl` as part of the binary offering, included during the building process.

Origin: Delivered by Microsoft as part of Microsoft Visual Studio  
SPDX-License-Identifier: MIT  
Copyright (c) .NET Foundation Contributors

## Microsoft NuGets - part 5

---

- Microsoft.NETCore.UniversalWindowsPlatform

Located under `sw/XF` as part of the binary offering, included during the building process.

Origin: Delivered by Microsoft as part of Microsoft Visual Studio  
License: [MICROSOFT SOFTWARE LICENSE](#)  
Copyright Microsoft Corporation.

## Microsoft NuGets - part 6

---

- Win2D.uwp

Located under `sw/XF/Monitor` and `sw/XF/TLogger` as part of the binary offering, included during the building process.

Origin: Delivered by Microsoft as part of Microsoft Visual Studio  
License: [MICROSOFT SOFTWARE LICENSE](#)  
Copyright Microsoft Corporation.

## NdefLibrary

---

NdefLibrary provides a set of classes that enable you to easily work with NDEF records on top of the Windows Proximity APIs, from Andreas Jakl.

Located under `sw/XF` as part of the binary offering, included during the building process.

Origin: <https://andijakl.github.io/ndef-nfc/>  
SPDX-License-Identifier: LGPL-3.0  
Copyright (C) 2007 Free Software Foundation, Inc. <http://fsf.org/>

## Newtonsoft.Json

---

Newtonsoft.Json is a high-performance JSON framework for .NET, from James Newton-King.

Located under `sw/XF` as part of the binary offering, included during the building process.

Origin: <https://www.newtonsoft.com/json>

SPDX-License-Identifier: MIT

Copyright (c) \_

## PCSC

---

PCSC implements partial ISO7816 support (APDU etc.) and contains classes to access the Personal Computer/Smart Card Resource Manager using the system's native PC/SC API, from Daniel Mueller.

Located under `sw/XF` as part of the binary offering, included during the building process.

Origin: <https://github.com/danm-de/pcsc-sharp>

SPDX-License-Identifier: BSD-2-Clause

Copyright (c) 2007-2019 Daniel Mueller [daniel@danm.de](mailto:daniel@danm.de)

## Plugin.CurrentActivity

---

Plugin.CurrentActivity is a solution for getting access to the current Activity of the application, from James Montemagno.

Located under `sw/XF/Monitor` and `sw/XF/TLogger` as part of the binary offering, included during the building process.

Origin: <https://github.com/jamesmontemagno/CurrentActivityPlugin>

SPDX-License-Identifier: MIT

Copyright (c) 2016 James Montemagno

## Prism.Forms

---

Prism provides an implementation of a collection of design patterns that are helpful in writing XAML applications. Prism for Xamarin.Forms helps you design and build Xamarin.Forms applications.

Located under `sw/XF/NHS31xxDownloader` as part of the binary offering, included during the building process.

Origin: <https://github.com/jamesmontemagno/CurrentActivityPlugin>

SPDX-License-Identifier: MIT

Copyright (c) .NET Foundation

## Refractored.MvvmHelpers

---

Refractored.MvvmHelpers is a collection of MVVM Helpers such as ObservableRangeCollection, BaseViewModel, Grouping, and others, from James Montemagno.

Located under `sw/XF` as part of the binary offering, included during the building process.

Origin: <https://github.com/jamesmontemagno/mvvm-helpers>

SPDX-License-Identifier: MIT

Copyright (c) 2017 James Montemagno

## Rg.Plugins.Popup

---

Rg.Plugins.Popup is a plugin for Xamarin forms and allows you to open any page as a popup, from rotorgames.

Located under `sw/XF` as part of the binary offering, included during the building process.

Origin: <https://github.com/rotorgames/Rg.Plugins.Popup>

SPDX-License-Identifier: MIT

## SharpCompress

---

SharpCompress is a compression library for NET that can compress and decompress various formats.

Located under `sw/XF/NHS31xxDownloader` as part of the binary offering, included during the building process.

Origin: <https://github.com/mono/SkiaSharp>

SPDX-License-Identifier: MIT

Copyright (c) 2015-2016 Xamarin, Inc.

Copyright (c) 2017-2018 Microsoft Corporation.

## SkiaSharp

---

SkiaSharp provides a 2D API that can be used across mobile, server and desktop models to render images, from Microsoft.

Located under `sw/XF` as part of the binary offering, included during the building process.

Origin: <https://github.com/mono/SkiaSharp>

SPDX-License-Identifier: MIT

Copyright (c) 2015-2016 Xamarin, Inc.

Copyright (c) 2017-2018 Microsoft Corporation.

## SQLite-net

---

SQLite-net is a light weight library providing easy SQLite database storage for .NET, Mono, and Xamarin applications, from Frank A. Krueger.

Located under `sw/XF/Monitor` and `sw/XF/TLogger` as part of the binary offering, included during the building process.

Origin: <https://github.com/praeclarum/sqlite-net>

SPDX-License-Identifier: MIT License

Copyright (c) Krueger Systems, Inc.

## SQLiteNetExtensions

---

SQLiteNetExtensions is an ORM that provides operations and relationships on top of the sqlite-net library, from TwinCoders.

Located under `sw/XF/Monitor` and `sw/XF/TLogger` as part of the binary offering, included during the building process.

Origin: <https://bitbucket.org/twincoders/sqlite-net-extensions>

SPDX-License-Identifier: MIT

Copyright (C) 2013 TwinCoders S.L.

## SQLitePCLRaw

---



SQLitePCLRaw is a set of Portable Class Libraries (PCL) for low-level (raw) access to SQLite, from Eric Sink, D. Richard Hipp, et al.

Located under `sw/XF/Monitor` and `sw/XF/TLogger` as part of the binary offering, included during the building process.

Origin: <https://github.com/ericsink/SQLitePCL.raw>

SPDX-License-Identifier: Apache-2.0

Copyright 2014-2021 SourceGear, LLC

## Timestamp

---

Timestamp stamps an assembly with a timestamp.

Located under:

- `sw/XF/Monitor` as part of the binary offering, included during the building process.

Origin: <https://github.com/wilsonvargas/ScreenshotPlugin>

SPDX-License-Identifier: MIT

Copyright (c) 2013 NServiceBus Ltd

## Xam.Plugin.Screenshot

---

Xam.Plugin.Screenshot is a plugin for Xamarin forms and allows you to take screenshots from any platform, from Wilson Vargas. *It is modified by NXP to add support for macOS.*

Located under:

- `sw/XF/nuget/src/Screenshot`
- `sw/XF/nuget/Xam.Plugin.Screenshot.NTAG.1.0.3.nupkg`
- `sw/XF/Monitor` as part of the binary offering, included during the building process.

Origin: <https://github.com/wilsonvargas/ScreenshotPlugin>

SPDX-License-Identifier: MIT

Copyright (c) 2017 Wilson Vargas

Copyright NXP 2019

## Xamarin.Forms.BehaviorsPack

---

Xamarin.Forms.BehaviorsPack is a Behavior class library for Xamarin.Forms and facilitates the implementation of interaction between the View and the ViewModel when using an MVVM pattern, from Atsushi Nakamura.

Located under `sw/XF/SignedUrl` as part of the binary offering, included during the building process.

Origin: <https://github.com/enisn/Xamarin.Forms.InputKit>

SPDX-License-Identifier: MIT

Copyright (c) 2017 Atsushi Nakamura

## Xamarin.Forms.InputKit

---

Xamarin.Forms.InputKit includes controls to get inputs easily from users and make validation easier, from enisn.

Located under `sw/XF` as part of the binary offering, included during the building process.

Origin: <https://github.com/enisn/Xamarin.Forms.InputKit>

SPDX-License-Identifier: MIT

Copyright (c) 2018 Enis Necipoglu

## Xamarin.Forms.PancakeView

---

Xamarin.Forms.PancakeView is an extended ContentView for Xamarin.Forms with rounded corners, borders, and shadows.

Located under `sw/XF/NHS31xxDownloader` as part of the binary offering, included during the building process.

Origin: <https://github.com/sthewissen/Xamarin.Forms.PancakeView>

SPDX-License-Identifier: MIT

Copyright (c) 2019 Steven Thewissen