

# QNX<sup>®</sup> Hypervisor 1.0 License Guide

## Version 1.0

(See [Publication History](#) for version details)

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## 1. Introduction

This License Guide describes the contents, license model for, and corresponding licensing attributes of the QNX Hypervisor product ("QNX Hypervisor"). This License Guide is also designed to present the third party licensing considerations that apply to the QNX Hypervisor. All capitalized terms used but not defined in this License Guide have the respective meanings ascribed to them in the QNX Developer Licenses (as defined below).

### QNX Developer Licenses

The QNX Hypervisor is licensed to you by QNX Software Systems Limited ("QSS") under one of three QNX developer licenses, copies of which are provided in the installation media for the QNX Hypervisor and which have also been published at the URL below (collectively the "QNX Developer Licenses" or the "QDLs"), which include the following:

- (1) the QNX Hypervisor Commercial Software License Agreement ("HCSLA"), for commercial developers;
- (2) the QNX Hypervisor Partner Software License Agreement ("HPSLA"), for members of the QNX eco-system; and
- (3) the QNX Hypervisor Evaluation, Non-Commercial & Academic End User License Agreement ("HNCEULA"), for non-commercial developers, including evaluators, students and academic faculty members.

Please refer to <http://licensing.qnx.com/document-archive/> for these QDLs.

### Third Party Software

Like other embedded technology providers, QSS includes a number of third party software contributions in its products. Before adopting Development Tools or Runtime Components, your developers should review this License Guide and the corresponding version of the Third Party License Terms List ("TPLTL"), a copy of which is included in the QNX Hypervisor installation media or is available at <http://licensing.qnx.com/document-archive/>, to determine the applicable open source license terms or special considerations that apply to the QNX Hypervisor product(s) they plan to use. The TPLTL contains the full text of all relevant open source licenses, along with tables listing those that apply to specific binary files that make up the Runtime Components.

Except for published source code files that are expressly identified by QSS as open source software, none of the QNX Hypervisor components are open source software. To the extent permitted by applicable open source license(s), any licenses identified in the License Guide/Third Party License Terms List or other references identifying applicable open source license terms only apply to the original open source code used by QSS or its licensors and not to any pre-existing code modified using, or combined with, such open source code, or any new interests in derivative works created from such open source code. These other software elements are licensed to you under the terms and conditions of your QNX Developer License.

### Relevant Open Source Licenses

To identify the open source license terms for a particular configuration of Runtime Components that you intend to use in your Target System, you start by (1) gathering the legal identification codes ("Legal ID Codes") and/or QNX technology categories from the "End User Licenses" column of this License Guide for the applicable technologies. From there, you can (2) look-up the specific open source license terms for the relevant Legal ID Codes (e.g., "BSD-4C:70" or "UL:61") in the main body of the TPLTL. For QNX technology categories (e.g. "Neutrino Core OS") you go to the File Mapping tables included in the TPLTL. These tables list

all of the Legal ID Codes that apply to the referenced QSS technology categories, which can then be cross-referenced to the specific open source license terms in the main body of the TPLTL as described above.

The File Mapping tables allow you to isolate the open source license terms that apply to the particular binary files that you intend to ship. The File Mapping tables are generated from a database tool ("File Mapping database") that QSS uses to map Legal ID Codes to binary files that have been built using the applicable source code files, libraries and header files. The File Mapping tables address all Runtime Component sections of this License Guide and applicable components (including static link libraries). Please contact [licensing@qnx.com](mailto:licensing@qnx.com) for any updates to the File Mapping tables, or if it would be helpful for you to have the File Mapping tables in a different format (e.g., in an Excel file).

If a Legal ID Code is referred to generically in the License Guide as one of the families of open source licenses listed in the TPLTL (for example, "BSD-3C" or "UL" without any specific notice numbers), then refer to the File Mapping table for the specific references, or contact [licensing@qnx.com](mailto:licensing@qnx.com) for further assistance.

If your developers have downloaded other code from Foundry27™ or the myQNX download center, or if you have included Priority Support Patch updates or custom engineering deliverables from QSS, to be complete, you must also check for additional restrictions or licensing considerations identified on Foundry27, or in the source code you were provided with, and/or you must request a custom report from QSS. Custom reports for these types of files are available from our File Mapping database. Contact [licensing@qnx.com](mailto:licensing@qnx.com) for more information.

Of course, any third party and open source license restrictions relating to code your developers have developed or that you have sourced from other licensors will need to be taken into account.

Source code for all copyleft-licensed software is available by contacting [licensing@qnx.com](mailto:licensing@qnx.com). QSS does not sub-license open source software to you. Instead, you have your own direct license from the original licensor. Any terms of your QDL that extend to such software, and that differ from the terms of the applicable open source license(s), are offered to you by QSS alone.

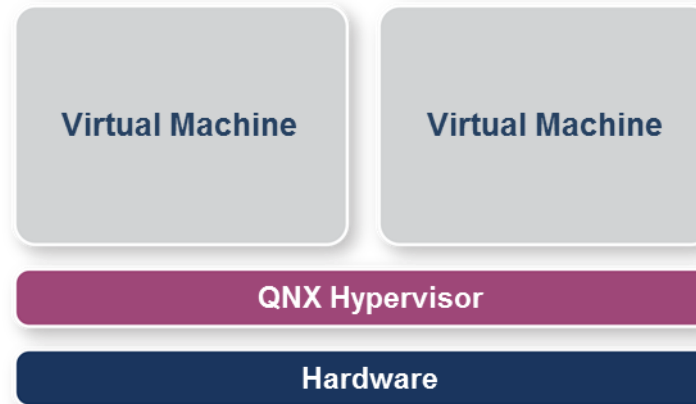
### Distribution

A license to distribute Runtime Components is available from QSS as part of the QNX Commercial Software License Agreement (See Schedule C). Custom OEM License Agreements are also available from QSS. For more information see <http://licensing.qnx.com/oem-distribution/> or contact [licensing@qnx.com](mailto:licensing@qnx.com).

## 2. QNX Hypervisor Overview

QNX Hypervisor is a Type 1 virtualization platform that creates multiple virtual environments in which operating systems can execute, isolated from one another, on a single hardware platform. QNX Hypervisor runs on the Texas Instruments Jacinto6 SoC and supports QNX, Android, and Linux operating systems as guests.

QNX Hypervisor is illustrated below as a runtime instance on hardware hosting virtual machines.



QNX Hypervisor provides the ability to isolate specific hardware devices and assign them directly to a particular virtual machine and guest operating system while other hardware devices can be explicitly assigned to another virtual machine. This is done in such a manner that devices can be accessed using the native OS drivers as opposed to specialized drivers that may be needed as a result of the virtualization platform.

### 3. Licensing Overview

QNX Hypervisor is a real-time virtualization platform. Its architecture provides an extensible framework which allows additional operating systems to be hosted. These are implemented by specifying the operating system(s) image locations on storage media in the system configuration file(s). Those operating systems and modules are licensed by you as part of the licensing agreements for those individual runtime components.

Your QNX Developer License allows you to develop Target Systems using the QNX Hypervisor components you have licensed from QSS, as described in your Development License Certificate(s). In addition, a license is available from QSS to create and distribute copies of your Runtime Configuration in or for your Target System (see Schedule C of your QDL, if applicable), provided that Runtime License Certificates are available for all Runtime Components in your Runtime Configuration. You can invoke these optional distribution terms and conditions by purchasing the appropriate Runtime License Certificates from QSS, or from an authorized QNX distributor. Schedule C does not apply unless and until you purchase Runtime License Certificates from QSS, or an authorized QNX distributor. Each Runtime License Certificate expressly authorizes the distribution of a specified number of copies of a specified Runtime Configuration in or for Target Systems in accordance with the terms of your license. Additional Runtime License Certificates can be purchased as required. Contact an authorized QNX sales representative for more information (see <http://www.qnx.com/company/contact/>).

The next section provides important information to ensure you have obtained all license rights for the technologies you want to use in your Target System. Please contact [licensing@qnx.com](mailto:licensing@qnx.com) if you have any questions or require any assistance.

#### 3.1 Engagement Models & Licensing Considerations

The QNX Hypervisor integrates a variety of QSS proprietary, open source and third party technologies in order to deliver a broad range of capabilities to embedded developers. In order to develop and ship devices that offer such functionality, it is necessary to understand the various technology and content stakeholders and how to obtain the requisite intellectual property license rights. This can be a complicated picture. It will depend on a number of factors, including the hardware platform to be used, the device's desired capabilities, its intended use(s) and the markets in which the device is to be manufactured, distributed and sold.

This License Guide provides an explanation of the license rights being offered by QSS, as well as other third party licensing considerations that QSS is aware of that may impact the development of QNX Hypervisor-based products. **None of this information should be construed as legal advice. You must consult your own legal advisor to determine and satisfy your own licensing obligations.** Please note that no attempt has been made to identify any content licensing considerations that may need to be taken into account.

To simplify the explanation, QSS has broken the licensing of the QNX Hypervisor technologies down into the following 2 types of engagement models.

**A. QSS Licensed or Sublicensed Code** – QSS licenses all of its intellectual property rights embodied in QSS Licensed Code and QSS Sublicensed Code under QSS's standard development and distribution license agreements described at the beginning of this

License Guide. Most of QNX Hypervisor is made up of QSS-authored software and is licensed to you as "QSS Licensed Code". Certain components of QNX Hypervisor contain primarily proprietary 3<sup>rd</sup> party code that has been modified or supplemented by QSS and is sublicensed to you as "QSS Sublicensed Code" (together with QSS Licensed Code, the "QSS Licensed or Sublicensed Code"). QSS Licensed or Sublicensed Code may also include elements of open source software, may embody confidential 3<sup>rd</sup> party specifications, and may embody or enable patented functionality or proprietary off-board services.

As a result, there may be other licensing considerations to be taken into account related to guest operating systems installed into your product which are hosted by QNX Hypervisor. Deviations from QSS standard license terms that relate to QSS Licensed or Sublicensed Code are identified in the tables below or in the applicable License Guide Details section of this document. Other 3<sup>rd</sup> party licensing considerations known to QSS are further described in the Licensing Considerations matrices below, but these matrices should not be assumed to be a comprehensive list or to constitute legal advice. You must consult your own legal advisor to determine and satisfy your own licensing obligations.

**B. 3<sup>rd</sup> Party Licensed Code** - These are other components of QNX Hypervisor that may contain primarily 3<sup>rd</sup> party code delivered by QSS, which may have been modified or supplemented by QSS. They fall into two main categories, namely:

- (i) 3<sup>rd</sup> party proprietary components - 3<sup>rd</sup> party proprietary components are generally provided as elements of board support packages, or as part of optional hardware-specific packages. See Section 6.2 for more details.
- (ii) 3<sup>rd</sup> party open source components - 3<sup>rd</sup> party open source components are provided either as part of the QNX commercially released products you have licensed (e.g., Development Tools) or as an element of a separately downloadable package. They are licensed as 3<sup>rd</sup> Party Licensed Code because these components are primarily based on unmodified open source software code bases that QSS ports and builds for use with QNX Hypervisor.

Any QSS IP rights, or sub-licensable rights, in 3<sup>rd</sup> Party Licensed Code are licensed/sublicensed by QSS under the standard QSS license agreements. However, unlike QSS Sublicensed Code, 3<sup>rd</sup> Party Licensed Code must be licensed for commercial development and distribution directly from another technology supplier. Any QSS intellectual property rights in 3<sup>rd</sup> Party Licensed Code (if any) are licensed under the standard QSS license agreement terms and conditions.

#### 4. License Guide Details - Interpretation of Column References

**Important Note:** The information provided in any row of a product or component description applies to all of its constituent sub-components, unless otherwise expressly stated in the rows for specific sub-components.

Column	Content Description
Version	Indicates the version number of the referenced product.
Part Number(s)	Indicates the QSS part number for the referenced product.
Code Provided	Indicates the form of software code provided. <b>"Source"</b> indicates that "source code is included", rather than "comprehensive source code for every element of the product is included". <b>"Object"</b> means code in binary form.
Support Provided	Indicates the level of support available for the referenced components. <b>"Full"</b> means support by QSS under its Standard, Priority and Custom Support Plans or other QSS enhanced support agreements. <b>"Custom"</b> means QSS will provide support, but only under the terms of its Custom Support Plan or other QSS enhanced support agreements. <b>"Limited"</b> means there are additional limits to the support provided by QSS under any Custom Support Plan or other QSS enhanced support agreements, indicated as follows: <b>"Limited (Source)"</b> means QSS will only provide support for the unmodified version of the source code, <b>"Limited (3<sup>rd</sup> Party)"</b> means QSS relies on third parties for support and therefore our ability to provide support will be limited to what those third parties have committed to provide, and <b>"Limited (Integration)"</b> means QSS will support issues relating to integration of a third party component with QNX but does not provide support for the integrated component itself. <b>"Unsupported"</b> means QSS does not provide support for the referenced component(s).
Type of Software	These terms are used in the QDLs and other QSS license agreements in risk allocation provisions relating to the associated technologies. <b>"Type I Software"</b> (also known as "Core Software") indicates Commercially Released Software, other than Type II or Type III Software (see your QDL for definitions of "Commercially Released Software"). It typically includes QSS proprietary code and may include some third party proprietary and open source code elements. <b>"Type II Software"</b> (also known as "Collateral Software") indicates Commercially Released Runtime Components identified as "Type II". It may include third party proprietary and some open source code elements. <b>"Type III Software"</b> or <b>"As Is Code"</b> (also known as "As Is Software") indicates Software that is licensed, or sublicensed by QSS strictly on an "as is" basis. It typically includes primarily Experimental, third party proprietary and/or open source code elements.
Engagement Model	See Section 3.1 for a detailed explanation of Engagement Models.



End User Licenses

Indicates the end user license terms or where to find such terms, including any flow-through terms referenced in the corresponding Third Party License Terms List ("TPLTL") which is published at <http://licensing.qnx.com/document-archive/>.

## 5. License Guide Details – Development Components

QNX Hypervisor is made available to licensees through a variety of delivery methods. The following table describes the development components associated with QNX Hypervisor.

Version Number	Part Number(s)	Description	Code Provided	Support Provided	Type of Software	Engagement Model	End User Licenses
1.0	910678	QNX Hypervisor provides a virtualization layer via a set of binaries and libraries on which guest operating systems may execute in an isolated manner on a single hardware platform.	Object	Full, except as noted below	Type I, except as noted below	A, except as noted below	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the TPLTL.
		<b>A. Development Tools</b>	Source and Object	Limited	Type III	B	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the TPLTL.

## 6. License Guide Details – Runtime Components

The following tables identify QNX Hypervisor Runtime Component technologies that are delivered as part of QNX Hypervisor.

All Runtime Components are royalty bearing when distributed. Separate distribution licenses are required, as explained in Section 3. Contact an authorized QSS sales representative for more information on Runtime Components.

### 6.1 QNX Hypervisor

Version Number	Part Number(s)	Description	Code Provided	Support Provided	Type of Software	Engagement Model	End User Licenses
1.0	010524	<b>QNX Hypervisor Runtime</b> Provides stand-alone virtualization platform for hosting multiple virtual machines or environments. This does not include any licensing rights for guest operating systems. In the case of hardware-specific components, third party code is provided to you only for use in association with the hardware the component was intended to target, as indicated in associated Documentation.	Object	Full	Type I	A	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the TPLTL.

## 6.2 QNX Board Support Packages

### 6.2.1 General BSP Information

These details are applicable to all BSPs and drivers supplied by QSS for all of the boards listed in Section 6.2.2:

Description	Code Provided	Support Provided	Type of Software	Engagement Model	End User Licenses
Each Board Support Package ("BSP") described below includes an optional IPL, startup program and device drivers (typically including block, Ethernet, I2C, I2S, USB, graphics (WFD display controller), sound and WiFi driver integration components) for many of the peripherals on the chip and/or the board which need to be supported.	<b>Source and Object</b>	<b>Full</b>	<b>Type I</b>	<b>A</b>	<b>QSS QDL</b> Please contact <a href="mailto:licensing@qnx.com">licensing@qnx.com</a> for open source license details.

## 6.2.2 License Considerations for BSPs and related 3rd Party Licensed Code

BSPs for the following boards are considered "Reference Platforms" for the purpose of the QDLs for the Runtime Components indicated.

Board Description	Licensing Considerations for Additional Hardware-specific 3 <sup>rd</sup> Party Licensed Code						
	QNX SDP v6.6.0	QNX SDK for Apps and Media v1.1	Description of 3 <sup>rd</sup> Party Component	Support Provided	Type of Software	Engagement Model (see Section 3.2 above)	Product Delivered By
Texas Instruments Jacinto 6 (J6) DRA74x EVM			Imagination graphics GPU software, including PVR2D Blitter support	Limited (3 <sup>rd</sup> Party)	Type III	<b>A</b>	QSS, as an integral part of Development Tools
			TI wireless driver core	Limited (3 <sup>rd</sup> Party)	Type III	<b>A</b>	QSS, in separate TI package available at myQNX

## **7. Export/Import Information**

QNX Hypervisor may not be exported, imported, used, transferred or re-exported except in compliance with the applicable laws and regulations of the relevant government authorities. Without limitation to the foregoing, QNX Hypervisor may not be used in the development, production, handling, maintenance, storage, detection, identification or dissemination of chemical, biological or nuclear weapons or their missile delivery systems, or materials or equipment that could be used in such weapons or their missile delivery systems, or resold or exported to anyone or any entity involved in such activity.

For additional information, please contact [licensing@qnx.com](mailto:licensing@qnx.com).

## 8. Publication History

1.00	Nov 12, 2015	QNX Hypervisor 1.0
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