SDP 6.4.X BSP Information#

This page contains important information required to compile and package BSPs with the QNX Software Development Platform 6.4.0 and 6.4.1 . The release number (e.g. 6.4.1) will be referred to explicitly if instructions are applicable only to the stated release; otherwise 6.4.x will be used.

BSP Source Guide (for QNX 6.3.x and 6.4.x BSPs)#

http://community.qnx.com/sf/wiki/do/viewPage/projects.bsp/wiki/Bsp_source_guide

What's New

6.4.1#

- QNX SDP 6.4.1 (with IDE 4.6) has just been released. Both 6.4.0 and 6.4.1 BSPs can be built with SDP 6.4.1, either at the command line or in the IDE. See the "Building 6.4.x BSPs" section for how to build the BSPs, and see the "6.4.0 and 6.4.1 Interoperability" section for potential hazards.
- PPC-SPE variant was added to support SPE floating point operations on Freescale boards using an e500 core.
- MIPS BE and LE variants were added.
- ARM Cortex-A8 support was added.
- `module.tmpl` files are no longer required to import a BSP into the IDE (4.6.1 and above). Instead, a *startup* (and optionally an *IPL*) entry must be added to the `source.xml` file which can be found at the root of BSPs. See the *Packaging a Board Support Packag* for more information.

6.4.0#

- 6.4.x BSPs are packaged differently than their predecessors:
  - It is no longer necessary to run the setupbsp script; see *Installing the BSP* below.
  - Documentation is now provided in Wiki format on Foundry27.

6.4.0 and 6.4.1 Interoperability

Building 6.4.0 BSPs with QNX SDP 6.4.1

6.4.0 BSPs should compile and work with QNX SDP 6.4.1.

NOTE: 6.4.0 BSPs for e500-based boards cannot be used with SPE turned ON; you must use 6.4.1 versions of these BSPs instead

Building 6.4.1 BSPs with QNX SDP 6.4.0#

This is **not supported**, and upgrading to SDP 6.4.1 is required. **NOTE**: New BSPs will be delivered under 6.4.0 unless 6.4.1 is strictly required e.g. PPC-SPE.

Available BSPs#

Here is a list of available BSPs:

6.4.1 BSPs#

6.4.0 BSPs#

- AMCC PPC405EX EVK
- AMCC PPC440 EP/GR EVK
- AMCC PPC460EX EVK
- AMD Geode LXDB800
- Atmel AT91SAM9263-EK EVB
- Centrality Atlas II EVB
- Centrality Titan EVB
- Freescale i.MX21 ADS
- Freescale i.MX27 ADS
- Freescale i.MX31 ADS
- Freescale i.MX31 PDK
- Freescale Lite5200B and Media5200
- Freescale MPC5121E ADS
- Freescale MPC8313E RDB
- Freescale MPC8323E RDB
- Freescale MPC8349E MDS
- Freescale MPC85x0 ADS
- Freescale MPC8536 DS (Development System a.k.a Calamari)
- Freescale MPC8548 CDS
- Freescale MPC8572 DS
- Freescale MPC8641D HPCN
- Freescale MPC8360E MDS
- Fujitsu Jade EVB
- IBM PPC970FX EVB
- Renesas SH7774 GoldAle
- Renesas SH7780 EDOSK
- Renesas SH7785 SDK
- Texas Instruments DM644x EVM
- Texas Instruments DRA446 EVM
- Texas Instruments DM355 EVM
- Texas Instruments OMAP 2420 SDP
- Texas Instruments OMAP 5912 OSK
- Texas Instruments OMAP 3530 EVM and Beagle
- x86 BIOS
- x86 LiPPERT CoreExpress-ECO

A complete list of BSPs can be found here.

Building 6.4.x BSPs#

Importing and Building a BSP live from Foundry 27 (using IDE 4.6)#

1. Select **File > Import**, pick **QNX > QNX Source Package and BSP**, and then click **Next**.
2. Select **Import from Foundry27 SVN repository**, and then click **Next**.
3. Select a board support package from the **Known Foundry27 Source Packages**, and then click **Finish**. (**Note**: The first time you do this, you will have to enter your Foundry 27 credentials.)

Importing and Building a BSP archive with the IDE (using IDE 4.6)#

1. Download the BSP archive to your host development system.

2. In the IDE, do the following:
    a. Select **File > Import**, pick **QNX > QNX Source Package and BSP**, and then click **Next**.
3. Select **Import from local archive file**.
    a. Select **Browse...**, browse to the location of the BSP archive, and then click **Finish**.

NOTE: BSPs downloaded from Foundry27 are sometimes double zipped (when downloading by pressing the download button as opposed to using your browser "download" functionality over links). When this happens, make sure to unzip the first level of archive before importing into the IDE. This will be resolved in future release of the IDE (Ref# 68666).

Importing and Building a BSP archive with the IDE (using IDE 4.5)#

1. Download the BSP archive to your host development system.
2. In the IDE, do the following:
    a. Select **File > Import**, pick **QNX > QNX Board Support Package**, and then click **Next**.
    b. Select **Select Package...**, browse to the location of the BSP archive, and then click **Finish**.

NOTE: BSPs downloaded from Foundry27 are sometimes double zipped (when downloading by pressing the download button as opposed to using your browser "download" functionality over links). When this happens, make sure to unzip the first level of archive before importing into the IDE. This will be resolved in future release of the IDE (Ref# 68666).

How to use the 6.4.0 tool chain within IDE 4.6 (which is shipped with SDP 6.4.1) #

Newer QNX Neutrino 6.4.0 BSPs will require the use of IDE 4.6. Test

Prerequisite: Both QNX SDP 6.4.0 and QNX SDP 6.4.1 **must** be installed.

1. Start IDE 4.6 (part of QNX SDP 6.4.1)
2. Select **Windows->Preferences->QNX**.
3. Select the 6.4.0 installation, which changes the **$QNX_HOST** and **$QNX_TARGET** environment variables.
4. Import the BSP as per the above instructions.

Building BSPs at the command line#

1. Download the BSP archive to your host development system.
2. Extract the BSP archive in your workspace.
3. Type **make**.

Resources#

- Migration Guide for pre-6.4.0 BSP
- Packaging a Board Support Package