

**SECO i.MX6**  
**Linux BSP**  
**version 4.0 release notes**

**Revision History**

Revision	Date	Author	Changes
1.0	20 <sup>th</sup> May 2013	AM	First release
2.0	18 <sup>th</sup> October 2013	AM	New release
2,1	3 <sup>th</sup> January 2014	DC	Information update
3.0	15 <sup>th</sup> May 2014	DC	Information update for BSP 4.0 release



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# 1. Introduction

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This document provides release notes of Linux BSP for i.MX6 family based products from SECO; it's aim is to track BSP evolution and development process.

## 2. BSP scope

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Linux BSP version 3.3 is applicable to the following products from SECO:

Product	Description	Notes
Quadmo747-X/i.MX6	Qseven module based on Freescale i.MX6	
μQ7-i.MX6	μQseven module based on Freescale i.MX6	
Seco μSBC-i.MX6	Single Board based on Freescale i.MX6	

**Note:** Running this BSP on Qseven modules assumes that one of the Cross-Platform Development Kit from Seco is used. Using different carrier-boards may require BSP's adaptations.

**Note:** Although SECO's BSP is derived from LTIB distributed by Freescale, user are not allowed to run LTIB on SECO's hardware, since it is meant to run only on Freescale reference platforms.

## 3. Packages included in the BSP

This section points out the up to date packages which are included in the current BSP release

Package	Description
iMX6_U-BOOT_u-boot-2013_v4.1326.tar.gz	U-boot 2013
iMX6_KERNEL_linux-3.0.35_v4.1328.tar.gz	Kernel Linux 3.0.35
iMX6_FS_ubuntu-11.10-desktop_v4.0.4.tar.gz	File System Linaro 11.10 (Gnome desktop version)
iMX6_FS_ubuntu-11.10-minimal_v4.0.4.tar.gz	Ubuntu 11.10 filesystem (minimal version)
iMX6_BIN_v.4.0.1.tar.gz	Binary File
iMX6_arm-fsl-linaro-gnueabi.tar.gz	ARM Cross Compiler, Freescale customised version
iMX6_DevelopmentSupport_src_v4.0.tar.gz	Code example for some features provided with the current BSP
iMX6_FS_addon_seco_v4.0.tar.gz	Some packages to install into a custom FileSystem to use some provided features at FileSystem layer.

## 4. Changelog

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This section tracks modifications on each BSP's component. Please contact your SECO representative if further information is required.

### 4.1. U-boot source code and binaries

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- **iMX6\_U-BOOT\_u-boot-2013\_v4.1326.tar.gz:**
  - new U-Boot version;
  - tftp available;
- **iMX6\_U-BOOT\_u-boot-2009.08\_v3.1214.tar.gz:**
  - Added basic function for UARTS
  - Fixed bug about RTC
  - Added a support for  $\mu$ Q7-i.MX6 and  $\mu$ SBC i.MX6 boards
- **iMX6\_U-BOOT\_u-boot-2009.08\_v3.1184.tar.gz:**
  - Unification of the kernel for QUAD/DUAL and SOLO/DUAL LITE CPUs
  - Compatibility with the Rev. D of the Q7 module
  - Retro-compatibility with the Rev. B of the Q7 module
- **iMX6qd\_UBOOT\_2009.08\_v2.1022.tar.gz:**
  - Added graphical interface for the boot compilation
- **iMX6qd\_UBOOT\_2009.08\_v2.1020.tar.gz:**
  - Added tool for the boot environment settings
  - Improved stability
- **iMX6qd\_UBOOT\_2009.08\_v1.347.tar.gz:**
  - first release

### 4.2. Linux kernel source code and binaries

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- **iMX6\_KERNEL\_linux-3.0.35\_v4.1328.tar.gz:**
  - Improved boot speed time;
  - Added power management support;
  - Added CAM support;
  - Improved other SECO features;

- **iMX6\_KERNEL\_linux-3.0.35\_v3.1222.tar.gz:**
  - Added support for  $\mu$ Q7 i.MX6 board;
  - Added support for i.MX6 board;
  - Improved support for RTC;
  - Added feature for Ethernet phy;
  - Added support for GPIO expanded x 8 I/O under CPLD ;
  - Added support for superIO via LPC under CPLD (UART x 2 and GPIO I/O x 8).
- **iMX6\_KERNEL\_linux-3.0.35\_v3.1179.tar.gz:**
  - Unification of the kernel for QUAD/DUAL and SOLO/DUAL LITE CPUs;
  - Compatibility with the Rev. D of the Q7 module;
  - Retro-compatibility with the Rev. B of the Q7 module;
  - Support for PowerOff/Reboot;
  - Support for USB OTG;
  - Support for an option external RTC (only for Rev D).
- **iMX6qd\_KERNEL\_linux-3.0.35\_v2.495.tar.gz:**
  - Shift to newer kernel 3.0.35;
  - Kernel faster at booting time;
  - Support for AC'97 and HDMI audio interfaces;
  - Support for CPU frequency switching;
  - Support for GPU, IPU and VPU.
- **iMX6qd\_KERNEL\_linux-3.0.35\_v1.371.tar.gz:**
  - first release.

### 4.3. Ubuntu and Yocto filesystems

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- **iMX6\_FS\_ubuntu-11.10-desktop\_v4.0.4.tar.gz:**
  - Kernel and modules update
  - OpenBox used as Window Manager.
- **iMX6\_FS\_ubuntu-11.10-minimal\_v4.0.4.tar.gz:**
  - Kernel and modules update
- **iMX6\_FS\_ubuntu-11.10-desktop\_v3.3.tar.gz:**
  - Kernel and modules update

- **iMX6\_FS\_ubuntu-11.10-minimal\_v3.3.tar.gz:**
  - Kernel and modules update
- **iMX6\_FS\_ubuntu-11.10-desktop\_v3.0.tar.gz:**
  - Support for OpenGL 2.0 for X;
  - Support for OpenGL ES for X;
  - Support for Graphic library Wayland;
  - Support for gstreamer-gl.
- **iMX6\_FS\_ubuntu-11.10-minimal\_v3.0.tar.gz:**
  - First release.
- **iMX6qd\_FS\_ubuntu-desktop-11.10\_v2.0.tar.gz:**
  - Improved file system stability;
  - File system faster at loading time;
  - Default CPU frequency settable through bootargs;
  - GPU support for VDK applications;
  - IPU and VPU support for video and image application.
  - When a video is in play, there is the possibility to set the transparency of it with a command line;
- **iMX6qd\_FS\_ubuntu-desktop-11.10\_v1.0.tar.gz:**
  - First release
- **iMX6qd\_FS\_yocto-desktop-Poky\_8.0\_v2.2.tar.gz:**
  - First release

## 4.4. Tools

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- **iMX6\_arm-fsl-linaro-gnueabi.tar.gz:**
  - Cross-compiler gcc version 4.6.2
- **iMX6\_arm-fsl-linux-gnueabi.tar.gz:**
  - Cross-compiler