



# **i.MX31 PDK 1.3 to PDK 1.4 Revision Changes Linux**

This document explains the application changes for the Linux i.MX31 PDK 1.3 to PDK 1.4 revisions.

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## 1 New Features

The following table identifies the new features that are supported in PDK 1.4.

Feature	Comments
Kernel	The Linux Kernel remains the same (2.6.24) but now the kernel is included in the package and it does not need to be downloaded from an external web site.
FSL GUI	In addition to the Qtopia 2.2 and 4.3 versions, a new GUI is provided in binary format.
BT, WiFi	The package provides support for BT and Wi-Fi (in binary form).

## 2 PDK 1.4 New Enhancements

The following table identifies the new enhancements for the PDK 1.4 since the PDK 1.3 release.

	Identifier	Description	Area Affected
1	ENGR00064483	Integrate USB static IRAM patch into Linux2.6 mainline	USB-HOST
2	ENGR00072964	Update PMIC power management FM doc	PMIC-POWER
3	ENGR00076057	Move chip pin definitions to mach directories	MSL-IOMUX
4	ENGR00076587	Add driver for WVGA display adapter board	IPU
5	ENGR00077901	Include Linux kernel in release package	ALL/GENERAL
6	ENGR00079126	MX31 3stack: Upgrade PTP code to unit test git repo	USB-HOST
7	ENGR00082480	i.MX31 Broadcom GPS ioctl support	UNKNOWN
8	ENGR00083330	Integrate Devtech's USB code into MAD's kernel codeline	USB-GADGET USB-HOST
9	ENGR00083912	Create kernel module to power on/off Bluetooth module	UNKNOWN
10	ENGR00084762	Port Unifi to new sdio framework in 2.6.24	UNKNOWN
11	ENGR00084893	add audio loopback control	ALSA

	Identifier	Description	Area Affected
12	ENGR00084929	Continuous Noise and channel switch caused by System underrun	ALSA
13	ENGR00085136	fix system can't wake up from SR mode	ALL/GENERAL
14	ENGR00086183	mc13783 audio alsa mixer driver	ALSA
15	ENGR00086352	Clean-up PMIC driver init, build files and printks	PMIC-PROTOCOL
16	ENGR00088556	Unifi driver 4.2 needs CONFIG_NET_SCHED to be set.	WIFI
17	ENGR00064483	Integrate USB static IRAM patch into Linux2.6 mainline	USB-HOST

### 3 PDK 1.4 New Fixes

The following table identifies the issues that have been resolved since the PDK 1.3 release.

	Identifier	Description	Area Affected
1	ENGR00072211	[LPDK_BSP]PM: System fail to resume from suspend when insmod SD or HDD. Possibility:100%	ALL/GENERAL
2	ENGR00073989	Fixed the issue of the gpio line interrupt not working for wakeup interrupt	ALL/GENERAL
3	ENGR00074248	Fixed compile error	ALL/GENERAL
4	ENGR00074464	Fixed system crash when system enters suspend mode, if SD module is loaded	MMC-SD-SDIO
5	ENGR00066434	IPU PF driver fails to compile as loadable module	IPU-DEBLOCK
6	ENGR00066738	SD driver polls instead of using WRITE_OP_DONE IRQ	MMC-SD-SDIO
7	ENGR00067360	Documentation of DPTC/DVFS does not reflect the latest changes	DOCUMENTATION
8	ENGR00068577	The BSP reference manual refers to mxc_i2c functions that have been removed	DOCUMENTATION

Identifier	Description	Area Affected
ENGR00069395	gui compiling error by true false definition in kernel pmic_external.h	PMIC-AUDIO
ENGR00069620	System can't go into low power mode due to error returned from spi driver	CSPI
ENGR00073438	[LSDK1.3_CODEC]AVI(H264+MP3)/M4V:Some green and blue stripe display at the first seconds playing .P...	IPU IPU-DEBLOCK
ENGR00074683	MX31 does not enter SRM	PM-LOW-PWR-MODE
ENGR00075818	[LSDK_BSP] Performance issue on MBX driver	MBX
ENGR00076828	Fix mxc_rtc compile error	RTC
ENGR00077175	register PMCR1 is not set up correctly	PM-LOW-PWR-MODE
ENGR00077431	Fix Gadget USB driver to support USBHSET test	USB-GADGET
ENGR00079124	MX31 3stack boot: error to mount /dev/shm	UNKNOWN
ENGR00079125	[LINUX SDK 1.4] Error in Default Qtopia 2 script	UNKNOWN
ENGR00079801	ATA timing issue after linux kernel updates	ATA
ENGR00080177	Fix MX31-ADS USB IRAM build	USB-HOST
ENGR00080251	[MX32ADS_BSP]1-WIRE:Can't open eeprom and permission denied for reading-only eeprom, Possibility 100...	1-WIRE
ENGR00082223	MX31 state retention mode is not implemented in kernel 2.6.24	PM-LOW-PWR-MODE
ENGR00083066	[MX31_BSP]SD: initializing SD card failed when inserting SD card. Possibility:80%	MMC-SD-SDIO
ENGR00083348	keypad debug messages are enabled by default	KEYPAD
ENGR00083357	Stop/restart of audio stream causes audio noise	ALSA

	Identifier	Description	Area Affected
	ENGR00084735	Fix bug of regulator pointer check on WVGA LCD	IPU
	ENGR00084954	Fix compiling error for imx-pcm	ALSA
	ENGR00085139	Mx31-3ds: when use the default configuration compile, can't pass to USB test	USB-GADGET USB-HOST
	ENGR00085493	SD_APP_SEND_SCR not defined.	MMC-SD-SDIO
	ENGR00085834	[MX31_BSP]MBX:no displaying when enable TVout after resuming from power suspend. 100%	MBX TVOUT
	ENGR00086177	IPU must be enabled for MX31 DVFS clock change	MSL-CLOCKS
	ENGR00086719	[MX31_BSP]PMIC: compile error when enable pmic module. Possibility 100%	ALL/GENERAL
	ENGR00086793	[MX31_BSP] DAC: The voice is not mute when setting volume to 0 and not the biggest when setting volume	PMIC-AUDIO
	ENGR00087863	SD can't be recognized after resuming the system	SD
	ENGR00088556	Select CONFIG_NET_SCHED in imx31_3stack_defconfig	Wi-Fi
	ENGR00088039	unifi not stable	Wi-Fi

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