» Linux BSP D0801 for AM4140 «

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» Embedded root file system

» Drivers, libraries, example applications for board specific devices

» Supports Kontron Soft-Config base configuration (SCONF_BASE_X)

» All sources included

Based on Freescale DPAA SDK V1.0 (also known as Mentor Embedded Linux)
It can be downloaded from the Freescale website

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This Kontron BSPs is designed to get customers started immediately with application development instead of first getting involved with BSP integration or hardware bring-up issues. Support of board specific devices and interfaces has been added to the BSP to achieve the full benefit of the functions provided by the hardware.

Board hardware configuration is typically carried out by setting jumpers or DIP switches on the board. Due to the high flexibility in the offered fabric configuration of the FreeScale QorIQ processors and the routing possibilities of the board(s) the Kontron Soft-Config has been introduced. The Kontron Soft-Config carries out board configuration using software provided settings that can be selected in U-Boot in the form of SCONF_BASE settings. These settings are applied by the hardware logic to the reset configuration word (RCW) to define the SerDes lane assignments and multiplexing (SRDS_PRTCL) during early board startup.

Monitoring of assorted onboard temperature conditions, board voltages and the power supply status is provided via IPMI.

A rich set of Linux applications is provided. A convenient menu interface is provided to configure the root file system features as well as boot strategies and other parameters of the target system.

The package contains a guideline, describing Kontron specific add-ons to the Mentor Embedded Linux, and a complete API description for whose, who want to use Kontron specific HW features within their applications.

Technical Information

Linux Kernel	Kernel version 2.6.34.6
Cross compiler tool chain	gcc version 4.5.2 (Sourcery G++ Lite 2011.03-38)
Cross Development Platform	DPAA SDK 1.0 (available at Freescale website)
Embedded Linux root file system	Built with Mentor Embedded Linux (DPAA SDK)
Multi processing	Symmetric Multi Processing (SMP)
Ethernet	10/100/1000 BASE-T DPAA TSECs 10 Gigabit Ethernet / XAUI
PCI Express	Root Complex
IPMI	Sensor Reading System Monitoring Graceful Shutdown
Boot Devices	Network NAND flash SDHC flash card
Miscellaneous Devices	Real Time Clock Hardware Watchdog (RESET, IRQ, Timer, Dual-Stage) EEPROM for user data storage
Status Indication	General Purpose LED block

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