

[PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2005-05/6722.html>

From: Hirokazu Takata (takata_at_linux-m32r.org)

Date: 05/31/05

Date: Tue, 31 May 2005 21:48:05 +0900 (JST)

To: Andrew Morton <akpm@osdl.org>

Hello,

This patchset is for supporting a new m32r platform,
M3A-2170(Mappi-III) evaluation board.

An M32R chip multiprocessor is equipped on the board.

<http://http://www.linux-m32r.org/eng/platform/platform.html>

- * arch/m32r/Kconfig: Support Mappi-III platform.
- * arch/m32r/kernel/Makefile: ditto.
- * arch/m32r/kernel/io_mappi3.c: ditto.
- * arch/m32r/kernel/setup.c: ditto.
- * arch/m32r/kernel/setup_mappi3.c: ditto.
- * include/asm-m32r/m32102.h: ditto.
- * include/asm-m32r/m32r.h: ditto.
- * include/asm-m32r/mappi3/mappi3_pld.h: ditto.

- * include/asm-m32r/ide.h: CF support for Mappi-III.
- * arch/m32r/kernel/setup_mappi3.c: ditto.

- * arch/m32r/mappi3/defconfig.smp: A default config file for Mappi-III.
- * arch/m32r/mappi3/dot.gdbinit: A default .gdbinit file for Mappi-III.

- * arch/m32r/boot/compressed/m32r_sio.c: Modified for Mappi-III
– At boot time, m32r-g00ff bootloader makes MMU off for Mappi-III,
on the contrary it makes MMU on for Mappi-II.

- * arch/m32r/kernel/io_mappi2.c: Update comments.
- * arch/m32r/kernel/setup_mappi2.c: ditto.

Please apply.

Thanks,

Signed-off-by: Mamoru Sakugawa <sakugawa@linux-m32r.org>

Signed-off-by: Hirokazu Takata <takata@linux-m32r.org>

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```

arch/m32r/Kconfig | 7
arch/m32r/boot/compressed/m32r_sio.c | 6
arch/m32r/kernel/Makefile | 2
arch/m32r/kernel/io_mappi2.c | 2
arch/m32r/kernel/io_mappi3.c | 454 +++++
arch/m32r/kernel/setup.c | 2
arch/m32r/kernel/setup_mappi2.c | 6
arch/m32r/kernel/setup_mappi3.c | 208 +++++
arch/m32r/mappi3/defconfig.smp | 751 +++++
arch/m32r/mappi3/dot.gdbinit | 224 +++++
include/asm-m32r/ide.h | 2
include/asm-m32r/m32102.h | 1
include/asm-m32r/m32r.h | 4
include/asm-m32r/mappi3/mappi3_pld.h | 143 +++++
14 files changed, 1799 insertions(+), 13 deletions(-)
diff -ruNp a/arch/m32r/kernel/setup.c b/arch/m32r/kernel/setup.c
diff -ruNp a/arch/m32r/Kconfig b/arch/m32r/Kconfig
--- a/arch/m32r/Kconfig 2005-03-07 14:10:21.000000000 +0900
+++ b/arch/m32r/Kconfig 2005-05-26 20:14:55.000000000 +0900
@@ -78,6 +78,9 @@ config PLAT_OAKS32R
    config PLAT_MAPPI2
        bool "Mappi-II(M3A-ZA36/M3A-ZA52)"

+config PLAT_MAPPI3
+    bool "Mappi-III(M3A-2170)"
+
endchoice

choice
@@ -134,6 +137,7 @@ config BUS_CLOCK
    int "Bus Clock [Hz] (integer)"
    default "70000000" if PLAT_MAPPI
    default "25000000" if PLAT_USRV
+    default "50000000" if PLAT_MAPPI3
    default "50000000" if PLAT_M32700UT
    default "50000000" if PLAT_OPSPUT
    default "33333333" if PLAT_OAKS32R
@@ -149,7 +153,7 @@ config CPU_LITTLE_ENDIAN

config MEMORY_START
    hex "Physical memory start address (hex)"
-    default "08000000" if PLAT_MAPPI || PLAT_MAPPI2
+    default "08000000" if PLAT_MAPPI || PLAT_MAPPI2 || PLAT_MAPPI3
    default "08000000" if PLAT_USRV
    default "08000000" if PLAT_M32700UT
    default "08000000" if PLAT_OPSPUT
@@ -157,6 +161,7 @@ config MEMORY_START

config MEMORY_SIZE
    hex "Physical memory size (hex)"
+    default "08000000" if PLAT_MAPPI3
    default "04000000" if PLAT_MAPPI || PLAT_MAPPI2
    default "02000000" if PLAT_USRV
    default "01000000" if PLAT_M32700UT
diff -ruNp a/arch/m32r/boot/compressed/m32r_sio.c b/arch/m32r/boot/compressed/m32r_sio.c
--- a/arch/m32r/boot/compressed/m32r_sio.c 2005-05-26 18:53:29.000000000 +0900
+++ b/arch/m32r/boot/compressed/m32r_sio.c 2005-05-31 17:16:34.000000000 +0900
@@ -38,7 +38,6 @@ static int puts(const char *s)

static void putc(char c)
{
-

```

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```

while ((*BOOT_SIO0STS & 0x3) != 0x3) ;
if (c == '\n') {
    *BOOT_SIO0TXB = '\r';
@@ -46,8 +45,8 @@ static void putc(char c)
}
*BOOT_SIO0TXB = c;
}
-#else /* defined(CONFIG_PLAT_M32700UT_Alpha) || defined(CONFIG_PLAT_M32700UT) */
-#ifndef CONFIG_MMU
+#else /* !(CONFIG_PLAT_M32700UT_Alpha) && !(CONFIG_PLAT_M32700UT) */
+#if defined(CONFIG_PLAT_MAPPI2)
#define SIO0STS (volatile unsigned short *) (0xa0efd000 + 14)
#define SIO0TXB (volatile unsigned short *) (0xa0efd000 + 30)
#else
@@ -57,7 +56,6 @@ static void putc(char c)

static void putc(char c)
{
-
while ((*SIO0STS & 0x1) == 0) ;
if (c == '\n') {
    *SIO0TXB = '\r';
diff -ruNp a/arch/m32r/kernel/Makefile b/arch/m32r/kernel/Makefile
--- a/arch/m32r/kernel/Makefile 2004-12-25 06:34:31.000000000 +0900
+++ b/arch/m32r/kernel/Makefile 2005-05-31 16:58:58.000000000 +0900
@@ -10,6 +10,7 @@ obj-y := process.o entry.o traps.o align
obj-$(CONFIG_SMP) += smp.o smpboot.o
obj-$(CONFIG_PLAT_MAPPI) += setup_mappi.o io_mappi.o
obj-$(CONFIG_PLAT_MAPPI2) += setup_mappi2.o io_mappi2.o
+obj-$(CONFIG_PLAT_MAPPI3) += setup_mappi3.o io_mappi3.o
obj-$(CONFIG_PLAT_USRV) += setup_usrv.o io_usrv.o
obj-$(CONFIG_PLAT_M32700UT) += setup_m32700ut.o io_m32700ut.o
obj-$(CONFIG_PLAT_OPSPUT) += setup_opspout.o io_opspout.o
@@ -17,4 +18,3 @@ obj-$(CONFIG_MODULES) += module.o
obj-$(CONFIG_PLAT_OAKS32R) += setup_oaks32r.o io_oaks32r.o

EXTRA_AFLAGS := -traditional
-
diff -ruNp a/arch/m32r/kernel/io_mappi2.c b/arch/m32r/kernel/io_mappi2.c
--- a/arch/m32r/kernel/io_mappi2.c 2004-12-25 06:35:39.000000000 +0900
+++ b/arch/m32r/kernel/io_mappi2.c 2005-05-26 20:14:55.000000000 +0900
@@ -25,7 +25,7 @@ extern void pcc_ioread_byte(int, unsigne
extern void pcc_ioread_word(int, unsigned long, void *, size_t, size_t, int);
extern void pcc_iowrite_byte(int, unsigned long, void *, size_t, size_t, int);
extern void pcc_iowrite_word(int, unsigned long, void *, size_t, size_t, int);
-#endif /* CONFIG_PCMCIA && CONFIG_MAPPI2_CFC */
+#endif /* CONFIG_PCMCIA && CONFIG_M32R_CFC */

#define PORT2ADDR(port) _port2addr(port)
#define PORT2ADDR_NE(port) _port2addr_ne(port)
diff -ruNp a/arch/m32r/kernel/io_mappi3.c b/arch/m32r/kernel/io_mappi3.c
--- a/arch/m32r/kernel/io_mappi3.c 1970-01-01 09:00:00.000000000 +0900
+++ b/arch/m32r/kernel/io_mappi3.c 2005-05-31 17:19:56.000000000 +0900
@@ -0,0 +1,454 @@
+/*
+ * linux/arch/m32r/kernel/io_mappi3.c
+ *
+ * Typical I/O routines for Mappi3 board.
+ *
+ * Copyright (c) 2001-2005 Hiroyuki Kondo, Hirokazu Takata,
+ * Hitoshi Yamamoto, Mamoru Sakugawa
+ */

```

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```
+
+#include <linux/config.h>
+#include <asm/m32r.h>
+#include <asm/page.h>
+#include <asm/io.h>
+#include <asm/byteorder.h>
+
+#if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+#include <linux/types.h>
+
+#define M32R_PCC_IOMAP_SIZE 0x1000
+
+#define M32R_PCC_IOSTART0 0x1000
+#define M32R_PCC_IOEND0 (M32R_PCC_IOSTART0 + M32R_PCC_IOMAP_SIZE - 1)
+
+extern void pcc_ioread_byte(int, unsigned long, void *, size_t, size_t, int);
+extern void pcc_ioread_word(int, unsigned long, void *, size_t, size_t, int);
+extern void pcc_iowrite_byte(int, unsigned long, void *, size_t, size_t, int);
+extern void pcc_iowrite_word(int, unsigned long, void *, size_t, size_t, int);
+#endif /* CONFIG_PCMCIA && CONFIG_M32R_CFC */
+
+#define PORT2ADDR(port) _port2addr(port)
+#define PORT2ADDR_NE(port) _port2addr_ne(port)
+#define PORT2ADDR_USB(port) _port2addr_usb(port)
+
+static inline void *_port2addr(unsigned long port)
+{
+    return (void *)(port + NONCACHE_OFFSET);
+}
+
+#define LAN_IOSTART 0x300
+#define LAN_IOEND 0x320
+
+#if defined(CONFIG_IDE) && !defined(CONFIG_M32R_CFC)
+static inline void *_port2addr_ata(unsigned long port)
+{
+    static int dummy_reg;
+
+    switch (port) {
+    case 0x1f0: return (void *)0xb4002000;
+    case 0x1f1: return (void *)0xb4012800;
+    case 0x1f2: return (void *)0xb4012002;
+    case 0x1f3: return (void *)0xb4012802;
+    case 0x1f4: return (void *)0xb4012004;
+    case 0x1f5: return (void *)0xb4012804;
+    case 0x1f6: return (void *)0xb4012006;
+    case 0x1f7: return (void *)0xb4012806;
+    case 0x3f6: return (void *)0xb401200e;
+    default: return (void *)&dummy_reg;
+    }
+}
+#endif
+
+static inline void *_port2addr_ne(unsigned long port)
+{
+    return (void *)(port + NONCACHE_OFFSET + 0x10000000);
+}
+
+static inline void *_port2addr_usb(unsigned long port)
+{
+    return (void *)(port + NONCACHE_OFFSET + 0x12000000);
+}
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```

+static inline void delay(void)
+{
+    __asm__ __volatile__ ("push r0; \n\t pop r0;" : : : "memory");
+}
+
+/*
+ * NIC I/O function
+ */
+
+static inline unsigned char _ne_inb(void *portp)
+{
+    return (unsigned char) *(volatile unsigned char *)portp;
+}
+
+static inline unsigned short _ne_inw(void *portp)
+{
+    return (unsigned short)le16_to_cpu(*(volatile unsigned short *)portp);
+}
+
+static inline void _ne_insb(void *portp, void * addr, unsigned long count)
+{
+    unsigned char *buf = addr;
+
+    while (count--)
+        *buf++ = *(volatile unsigned char *)portp;
+}
+
+static inline void _ne_outb(unsigned char b, void *portp)
+{
+    *(volatile unsigned char *)portp = (unsigned char)b;
+}
+
+static inline void _ne_outw(unsigned short w, void *portp)
+{
+    *(volatile unsigned short *)portp = cpu_to_le16(w);
+}
+
+unsigned char _inb(unsigned long port)
+{
+    if (port >= LAN_IOSTART && port < LAN_IOEND)
+        return _ne_inb(PORT2ADDR_NE(port));
+
+#if defined(CONFIG_IDE) && !defined(CONFIG_M32R_CFC)
+    else if ((port >= 0x1f0 && port <= 0x1f7) || port == 0x3f6) {
+        return *(volatile unsigned char *)__port2addr_ata(port);
+    }
+#endif
+
+#if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+    else if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+        unsigned char b;
+        pcc_ioread_byte(0, port, &b, sizeof(b), 1, 0);
+        return b;
+    } else
+#endif
+    return *(volatile unsigned char *)PORT2ADDR(port);
+}
+
+unsigned short _inw(unsigned long port)
+{
+    if (port >= LAN_IOSTART && port < LAN_IOEND)
+        return _ne_inw(PORT2ADDR_NE(port));
+
+#if defined(CONFIG_IDE) && !defined(CONFIG_M32R_CFC)
+    else if ((port >= 0x1f0 && port <= 0x1f7) || port == 0x3f6) {

```

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```

+         return *(volatile unsigned short *)__port2addr_ata(port);
+     }
+ #endif
+ #if defined(CONFIG_USB)
+     else if (port >= 0x340 && port < 0x3a0)
+         return *(volatile unsigned short *)PORT2ADDR_USB(port);
+ #endif
+
+ #if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+     else if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+         unsigned short w;
+         pcc_ioread_word(0, port, &w, sizeof(w), 1, 0);
+         return w;
+     } else
+ #endif
+     return *(volatile unsigned short *)PORT2ADDR(port);
+ }
+
+ unsigned long _inl(unsigned long port)
+ {
+ #if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+     if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+         unsigned long l;
+         pcc_ioread_word(0, port, &l, sizeof(l), 1, 0);
+         return l;
+     } else
+ #endif
+     return *(volatile unsigned long *)PORT2ADDR(port);
+ }
+
+ unsigned char _inb_p(unsigned long port)
+ {
+     unsigned char v;
+
+     if (port >= LAN_IOSTART && port < LAN_IOEND)
+         v = _ne_inb(PORT2ADDR_NE(port));
+     else
+ #if defined(CONFIG_IDE) && !defined(CONFIG_M32R_CFC)
+         if ((port >= 0x1f0 && port <= 0x1f7) || port == 0x3f6) {
+             return *(volatile unsigned char *)__port2addr_ata(port);
+         } else
+ #endif
+ #if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+         if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+             unsigned char b;
+             pcc_ioread_byte(0, port, &b, sizeof(b), 1, 0);
+             return b;
+         } else
+ #endif
+         v = *(volatile unsigned char *)PORT2ADDR(port);
+
+     delay();
+     return (v);
+ }
+
+ unsigned short _inw_p(unsigned long port)
+ {
+     unsigned short v;
+
+     if (port >= LAN_IOSTART && port < LAN_IOEND)
+         v = _ne_inw(PORT2ADDR_NE(port));
+     else

```

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```
+#if defined(CONFIG_IDE) && !defined(CONFIG_M32R_CFC)
+   if ((port >= 0x1f0 && port <=0x1f7) || port == 0x3f6) {
+       return *(volatile unsigned short *)__port2addr_ata(port);
+   } else
+}
+#endif
+#if defined(CONFIG_USB)
+   if (port >= 0x340 && port < 0x3a0)
+       v = *(volatile unsigned short *)PORT2ADDR_USB(port);
+   else
+}
+#endif
+#if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+   if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+       unsigned short w;
+       pcc_ioread_word(0, port, &w, sizeof(w), 1, 0);
+       return w;
+   } else
+}
+#endif
+       v = *(volatile unsigned short *)PORT2ADDR(port);
+
+   delay();
+   return (v);
+}
+
+unsigned long _inl_p(unsigned long port)
+{
+   unsigned long v;
+
+   v = *(volatile unsigned long *)PORT2ADDR(port);
+   delay();
+   return (v);
+}
+
+void _outb(unsigned char b, unsigned long port)
+{
+   if (port >= LAN_IOSTART && port < LAN_IOEND)
+       _ne_outb(b, PORT2ADDR_NE(port));
+   else
+}
+#if defined(CONFIG_IDE) && !defined(CONFIG_M32R_CFC)
+   if ((port >= 0x1f0 && port <=0x1f7) || port == 0x3f6) {
+       *(volatile unsigned char *)__port2addr_ata(port) = b;
+   } else
+}
+#endif
+#if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+   if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+       pcc_iowrite_byte(0, port, &b, sizeof(b), 1, 0);
+   } else
+}
+#endif
+       *(volatile unsigned char *)PORT2ADDR(port) = b;
+}
+
+void _outw(unsigned short w, unsigned long port)
+{
+   if (port >= LAN_IOSTART && port < LAN_IOEND)
+       _ne_outw(w, PORT2ADDR_NE(port));
+   else
+}
+#if defined(CONFIG_IDE) && !defined(CONFIG_M32R_CFC)
+   if ((port >= 0x1f0 && port <=0x1f7) || port == 0x3f6) {
+       *(volatile unsigned short *)__port2addr_ata(port) = w;
+   } else
+}
+#endif
+#if defined(CONFIG_USB)
+   if (port >= 0x340 && port < 0x3a0)
```

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```

+         *(volatile unsigned short *)PORT2ADDR_USB(port) = w;
+     else
+ #endif
+ #if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+     if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+         pcc_iowrite_word(0, port, &w, sizeof(w), 1, 0);
+     } else
+ #endif
+         *(volatile unsigned short *)PORT2ADDR(port) = w;
+ }
+
+ void _outl(unsigned long l, unsigned long port)
+ {
+ #if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+     if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+         pcc_iowrite_word(0, port, &l, sizeof(l), 1, 0);
+     } else
+ #endif
+         *(volatile unsigned long *)PORT2ADDR(port) = l;
+ }
+
+ void _outb_p(unsigned char b, unsigned long port)
+ {
+     if (port >= LAN_IOSTART && port < LAN_IOEND)
+         _ne_outb(b, PORT2ADDR_NE(port));
+     else
+ #if defined(CONFIG_IDE) && !defined(CONFIG_M32R_CFC)
+     if ((port >= 0x1f0 && port <= 0x1f7) || port == 0x3f6) {
+         *(volatile unsigned char *)__port2addr_ata(port) = b;
+     } else
+ #endif
+ #if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+     if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+         pcc_iowrite_byte(0, port, &b, sizeof(b), 1, 0);
+     } else
+ #endif
+         *(volatile unsigned char *)PORT2ADDR(port) = b;
+
+     delay();
+ }
+
+ void _outw_p(unsigned short w, unsigned long port)
+ {
+     if (port >= LAN_IOSTART && port < LAN_IOEND)
+         _ne_outw(w, PORT2ADDR_NE(port));
+     else
+ #if defined(CONFIG_IDE) && !defined(CONFIG_M32R_CFC)
+     if ((port >= 0x1f0 && port <= 0x1f7) || port == 0x3f6) {
+         *(volatile unsigned short *)__port2addr_ata(port) = w;
+     } else
+ #endif
+ #if defined(CONFIG_USB)
+     if (port >= 0x340 && port < 0x3a0)
+         *(volatile unsigned short *)PORT2ADDR_USB(port) = w;
+     else
+ #endif
+ #if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+     if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+         pcc_iowrite_word(0, port, &w, sizeof(w), 1, 0);
+     } else
+ #endif
+         *(volatile unsigned short *)PORT2ADDR(port) = w;

```

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```

+
+     delay();
+}
+
+void _outl_p(unsigned long l, unsigned long port)
+{
+     *(volatile unsigned long *)PORT2ADDR(port) = l;
+     delay();
+}
+
+void _insb(unsigned int port, void * addr, unsigned long count)
+{
+     if (port >= LAN_IOSTART && port < LAN_IOEND)
+         _ne_insb(PORT2ADDR_NE(port), addr, count);
+     #if defined(CONFIG_IDE) && !defined(CONFIG_M32R_CFC)
+     else if ((port >= 0x1f0 && port <= 0x1f7) || port == 0x3f6) {
+         unsigned char *buf = addr;
+         unsigned char *portp = __port2addr_ata(port);
+         while (count--)
+             *buf++ = *(volatile unsigned char *)portp;
+     }
+     #endif
+     #if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+     else if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+         pcc_ioread_byte(0, port, (void *)addr, sizeof(unsigned char),
+             count, 1);
+     }
+     #endif
+     else {
+         unsigned char *buf = addr;
+         unsigned char *portp = PORT2ADDR(port);
+         while (count--)
+             *buf++ = *(volatile unsigned char *)portp;
+     }
+}
+
+void _insw(unsigned int port, void * addr, unsigned long count)
+{
+     unsigned short *buf = addr;
+     unsigned short *portp;
+
+     if (port >= LAN_IOSTART && port < LAN_IOEND) {
+         portp = PORT2ADDR_NE(port);
+         while (count--)
+             *buf++ = *(volatile unsigned short *)portp;
+     }
+     #if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+     } else if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+         pcc_ioread_word(9, port, (void *)addr, sizeof(unsigned short),
+             count, 1);
+     }
+     #endif
+     #if defined(CONFIG_IDE) && !defined(CONFIG_M32R_CFC)
+     } else if ((port >= 0x1f0 && port <= 0x1f7) || port == 0x3f6) {
+         portp = __port2addr_ata(port);
+         while (count--)
+             *buf++ = *(volatile unsigned short *)portp;
+     }
+     #endif
+     } else {
+         portp = PORT2ADDR(port);
+         while (count--)
+             *buf++ = *(volatile unsigned short *)portp;
+     }
+}

```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```

+
+void _insl(unsigned int port, void * addr, unsigned long count)
+{
+    unsigned long *buf = addr;
+    unsigned long *portp;
+
+    portp = PORT2ADDR(port);
+    while (count--)
+        *buf++ = *(volatile unsigned long *)portp;
+}
+
+void _outsb(unsigned int port, const void * addr, unsigned long count)
+{
+    const unsigned char *buf = addr;
+    unsigned char *portp;
+
+    if (port >= LAN_IOSTART && port < LAN_IOEND) {
+        portp = PORT2ADDR_NE(port);
+        while (count--)
+            _ne_outb(*buf++, portp);
+    }
+#if defined(CONFIG_IDE) && !defined(CONFIG_M32R_CFC)
+    } else if ((port >= 0x1f0 && port <= 0x1f7) || port == 0x3f6) {
+        portp = __port2addr_ata(port);
+        while (count--)
+            *(volatile unsigned char *)portp = *buf++;
+    }
+#endif
+#if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+    } else if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+        pcc_iowrite_byte(0, port, (void *)addr, sizeof(unsigned char),
+            count, 1);
+    }
+#endif
+    } else {
+        portp = PORT2ADDR(port);
+        while (count--)
+            *(volatile unsigned char *)portp = *buf++;
+    }
+}
+
+void _outsw(unsigned int port, const void * addr, unsigned long count)
+{
+    const unsigned short *buf = addr;
+    unsigned short *portp;
+
+    if (port >= LAN_IOSTART && port < LAN_IOEND) {
+        portp = PORT2ADDR_NE(port);
+        while (count--)
+            *(volatile unsigned short *)portp = *buf++;
+    }
+#if defined(CONFIG_IDE) && !defined(CONFIG_M32R_CFC)
+    } else if ((port >= 0x1f0 && port <= 0x1f7) || port == 0x3f6) {
+        portp = __port2addr_ata(port);
+        while (count--)
+            *(volatile unsigned short *)portp = *buf++;
+    }
+#endif
+#if defined(CONFIG_PCMCIA) && defined(CONFIG_M32R_CFC)
+    } else if (port >= M32R_PCC_IOSTART0 && port <= M32R_PCC_IOEND0) {
+        pcc_iowrite_word(9, port, (void *)addr, sizeof(unsigned short),
+            count, 1);
+    }
+#endif
+    } else {
+        portp = PORT2ADDR(port);
+        while (count--)
+            *(volatile unsigned short *)portp = *buf++;
+    }
+}

```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```

+     }
+}
+
+void _outsl(unsigned int port, const void * addr, unsigned long count)
+{
+    const unsigned long *buf = addr;
+    unsigned char *portp;
+
+    portp = PORT2ADDR(port);
+    while (count--)
+        *(volatile unsigned long *)portp = *buf++;
+}
diff -ruNp a/arch/m32r/kernel/setup.c b/arch/m32r/kernel/setup.c
--- a/arch/m32r/kernel/setup.c 2005-05-26 18:53:29.000000000 +0900
+++ b/arch/m32r/kernel/setup.c 2005-05-26 20:14:55.000000000 +0900
@@ -330,6 +330,8 @@ static int show_cpufreq(struct seq_file
     seq_printf(m, "Machine\t\t: Mappi Evaluation board\n");
     #elif CONFIG_PLAT_MAPPI2
         seq_printf(m, "Machine\t\t: Mappi-II Evaluation board\n");
+    #elif CONFIG_PLAT_MAPPI3
+        seq_printf(m, "Machine\t\t: Mappi-III Evaluation board\n");
     #elif CONFIG_PLAT_M32700UT
         seq_printf(m, "Machine\t\t: M32700UT Evaluation board\n");
     #elif CONFIG_PLAT_OPSPUT
diff -ruNp a/arch/m32r/kernel/setup_mappi2.c b/arch/m32r/kernel/setup_mappi2.c
--- a/arch/m32r/kernel/setup_mappi2.c 2004-12-25 06:35:50.000000000 +0900
+++ b/arch/m32r/kernel/setup_mappi2.c 2005-05-31 16:58:02.000000000 +0900
@@ -1,5 +1,5 @@
 /*
- * linux/arch/m32r/kernel/setup_mappi.c
+ * linux/arch/m32r/kernel/setup_mappi2.c
 *
 * Setup routines for Renesas MAPPI-II(M3A-ZA36) Board
 *
@@ -156,7 +156,6 @@ void __init init_IRQ(void)
     irq_desc[PLD_IRQ_CFIREQ].handler = &mappi2_irq_type;
     irq_desc[PLD_IRQ_CFIREQ].action = 0;
     irq_desc[PLD_IRQ_CFIREQ].depth = 1; /* disable nested irq */
-// icu_data[PLD_IRQ_CFIREQ].icucr = M32R_ICUCR_IEN|M32R_ICUCR_ISMOD00;
+    icu_data[PLD_IRQ_CFIREQ].icucr = M32R_ICUCR_IEN|M32R_ICUCR_ISMOD01;
     disable_mappi2_irq(PLD_IRQ_CFIREQ);

@@ -167,7 +166,6 @@ void __init init_IRQ(void)
     irq_desc[PLD_IRQ_CFC_INSERT].action = 0;
     irq_desc[PLD_IRQ_CFC_INSERT].depth = 1; /* disable nested irq */
     icu_data[PLD_IRQ_CFC_INSERT].icucr = M32R_ICUCR_IEN|M32R_ICUCR_ISMOD00;
-// icu_data[PLD_IRQ_CFC_INSERT].icucr = 0;
     disable_mappi2_irq(PLD_IRQ_CFC_INSERT);

     /* ICUCR42: CFC Eject */
@@ -176,9 +174,7 @@ void __init init_IRQ(void)
     irq_desc[PLD_IRQ_CFC_EJECT].action = 0;
     irq_desc[PLD_IRQ_CFC_EJECT].depth = 1; /* disable nested irq */
     icu_data[PLD_IRQ_CFC_EJECT].icucr = M32R_ICUCR_IEN|M32R_ICUCR_ISMOD10;
-// icu_data[PLD_IRQ_CFC_EJECT].icucr = 0;
     disable_mappi2_irq(PLD_IRQ_CFC_EJECT);
-
     #endif /* CONFIG_MAPPI2_CFC */
 }

diff -ruNp a/arch/m32r/kernel/setup_mappi3.c b/arch/m32r/kernel/setup_mappi3.c
--- a/arch/m32r/kernel/setup_mappi3.c 1970-01-01 09:00:00.000000000 +0900

```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+++ b/arch/m32r/kernel/setup_mappi3.c    2005-05-31 16:57:05.000000000 +0900
@@ -0,0 +1,208 @@
+/*
+ * linux/arch/m32r/kernel/setup_mappi3.c
+ *
+ * Setup routines for Renesas MAPPI-III(M3A-2170) Board
+ *
+ * Copyright (c) 2001-2005    Hiroyuki Kondo, Hirokazu Takata,
+ *                            Hitoshi Yamamoto, Mamoru Sakugawa
+ */
+
+#include <linux/config.h>
+#include <linux/irq.h>
+#include <linux/kernel.h>
+#include <linux/init.h>
+#include <linux/device.h>
+
+#include <asm/system.h>
+#include <asm/m32r.h>
+#include <asm/io.h>
+
+#define irq2port(x) (M32R_ICU_CR1_PORTL + ((x - 1) * sizeof(unsigned long)))
+
+#ifndef CONFIG_SMP
+typedef struct {
+    unsigned long icucr; /* ICU Control Register */
+} icu_data_t;
+#endif /* CONFIG_SMP */
+
+icu_data_t icu_data[NR_IRQS];
+
+static void disable_mappi3_irq(unsigned int irq)
+{
+    unsigned long port, data;
+
+    if ((irq == 0) || (irq >= NR_IRQS)) {
+        printk("bad irq 0x%08x\n", irq);
+        return;
+    }
+    port = irq2port(irq);
+    data = icu_data[irq].icucr|M32R_ICUCR_ILEVEL7;
+    outl(data, port);
+}
+
+static void enable_mappi3_irq(unsigned int irq)
+{
+    unsigned long port, data;
+
+    if ((irq == 0) || (irq >= NR_IRQS)) {
+        printk("bad irq 0x%08x\n", irq);
+        return;
+    }
+    port = irq2port(irq);
+    data = icu_data[irq].icucr|M32R_ICUCR_IEN|M32R_ICUCR_ILEVEL6;
+    outl(data, port);
+}
+
+static void mask_and_ack_mappi3(unsigned int irq)
+{
+    disable_mappi3_irq(irq);
+}
+
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+static void end_mappi3_irq(unsigned int irq)
+{
+    enable_mappi3_irq(irq);
+}
+
+static unsigned int startup_mappi3_irq(unsigned int irq)
+{
+    enable_mappi3_irq(irq);
+    return (0);
+}
+
+static void shutdown_mappi3_irq(unsigned int irq)
+{
+    unsigned long port;
+
+    port = irq2port(irq);
+    outl(M32R_ICUCR_ILEVEL7, port);
+}
+
+static struct hw_interrupt_type mappi3_irq_type =
+{
+    "MAPPI3-IRQ",
+    startup_mappi3_irq,
+    shutdown_mappi3_irq,
+    enable_mappi3_irq,
+    disable_mappi3_irq,
+    mask_and_ack_mappi3,
+    end_mappi3_irq
+};
+
+void __init init_IRQ(void)
+{
+    #if defined(CONFIG_SMC91X)
+    /* INT0 : LAN controller (SMC91111) */
+    irq_desc[M32R_IRQ_INT0].status = IRQ_DISABLED;
+    irq_desc[M32R_IRQ_INT0].handler = &mappi3_irq_type;
+    irq_desc[M32R_IRQ_INT0].action = 0;
+    irq_desc[M32R_IRQ_INT0].depth = 1;
+    icu_data[M32R_IRQ_INT0].icucr = M32R_ICUCR_IEN|M32R_ICUCR_ISMOD10;
+    disable_mappi3_irq(M32R_IRQ_INT0);
+    #endif /* CONFIG_SMC91X */
+
+    /* MFT2 : system timer */
+    irq_desc[M32R_IRQ_MFT2].status = IRQ_DISABLED;
+    irq_desc[M32R_IRQ_MFT2].handler = &mappi3_irq_type;
+    irq_desc[M32R_IRQ_MFT2].action = 0;
+    irq_desc[M32R_IRQ_MFT2].depth = 1;
+    icu_data[M32R_IRQ_MFT2].icucr = M32R_ICUCR_IEN;
+    disable_mappi3_irq(M32R_IRQ_MFT2);
+
+    #ifdef CONFIG_SERIAL_M32R_SIO
+    /* SIO0_R : uart receive data */
+    irq_desc[M32R_IRQ_SIO0_R].status = IRQ_DISABLED;
+    irq_desc[M32R_IRQ_SIO0_R].handler = &mappi3_irq_type;
+    irq_desc[M32R_IRQ_SIO0_R].action = 0;
+    irq_desc[M32R_IRQ_SIO0_R].depth = 1;
+    icu_data[M32R_IRQ_SIO0_R].icucr = 0;
+    disable_mappi3_irq(M32R_IRQ_SIO0_R);
+
+    /* SIO0_S : uart send data */
+    irq_desc[M32R_IRQ_SIO0_S].status = IRQ_DISABLED;
+    irq_desc[M32R_IRQ_SIO0_S].handler = &mappi3_irq_type;
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```

+     irq_desc[M32R_IRQ_SIO0_S].action = 0;
+     irq_desc[M32R_IRQ_SIO0_S].depth = 1;
+     icu_data[M32R_IRQ_SIO0_S].icucr = 0;
+     disable_mappi3_irq(M32R_IRQ_SIO0_S);
+     /* SIO1_R : uart receive data */
+     irq_desc[M32R_IRQ_SIO1_R].status = IRQ_DISABLED;
+     irq_desc[M32R_IRQ_SIO1_R].handler = &mappi3_irq_type;
+     irq_desc[M32R_IRQ_SIO1_R].action = 0;
+     irq_desc[M32R_IRQ_SIO1_R].depth = 1;
+     icu_data[M32R_IRQ_SIO1_R].icucr = 0;
+     disable_mappi3_irq(M32R_IRQ_SIO1_R);
+
+     /* SIO1_S : uart send data */
+     irq_desc[M32R_IRQ_SIO1_S].status = IRQ_DISABLED;
+     irq_desc[M32R_IRQ_SIO1_S].handler = &mappi3_irq_type;
+     irq_desc[M32R_IRQ_SIO1_S].action = 0;
+     irq_desc[M32R_IRQ_SIO1_S].depth = 1;
+     icu_data[M32R_IRQ_SIO1_S].icucr = 0;
+     disable_mappi3_irq(M32R_IRQ_SIO1_S);
+#endif /* CONFIG_M32R_USE_DBG_CONSOLE */
+
+#if defined(CONFIG_USB)
+     /* INT1 : USB Host controller interrupt */
+     irq_desc[M32R_IRQ_INT1].status = IRQ_DISABLED;
+     irq_desc[M32R_IRQ_INT1].handler = &mappi3_irq_type;
+     irq_desc[M32R_IRQ_INT1].action = 0;
+     irq_desc[M32R_IRQ_INT1].depth = 1;
+     icu_data[M32R_IRQ_INT1].icucr = M32R_ICUCR_ISMOD01;
+     disable_mappi3_irq(M32R_IRQ_INT1);
+#endif /* CONFIG_USB */
+
+     /* ICUCR40: CFC IREQ */
+     irq_desc[PLD_IRQ_CFIREQ].status = IRQ_DISABLED;
+     irq_desc[PLD_IRQ_CFIREQ].handler = &mappi3_irq_type;
+     irq_desc[PLD_IRQ_CFIREQ].action = 0;
+     irq_desc[PLD_IRQ_CFIREQ].depth = 1; /* disable nested irq */
+     icu_data[PLD_IRQ_CFIREQ].icucr = M32R_ICUCR_IEN|M32R_ICUCR_ISMOD01;
+     disable_mappi3_irq(PLD_IRQ_CFIREQ);
+
+#if defined(CONFIG_M32R_CFC)
+     /* ICUCR41: CFC Insert */
+     irq_desc[PLD_IRQ_CFC_INSERT].status = IRQ_DISABLED;
+     irq_desc[PLD_IRQ_CFC_INSERT].handler = &mappi3_irq_type;
+     irq_desc[PLD_IRQ_CFC_INSERT].action = 0;
+     irq_desc[PLD_IRQ_CFC_INSERT].depth = 1; /* disable nested irq */
+     icu_data[PLD_IRQ_CFC_INSERT].icucr = M32R_ICUCR_IEN|M32R_ICUCR_ISMOD00;
+     disable_mappi3_irq(PLD_IRQ_CFC_INSERT);
+
+     /* ICUCR42: CFC Eject */
+     irq_desc[PLD_IRQ_CFC_EJECT].status = IRQ_DISABLED;
+     irq_desc[PLD_IRQ_CFC_EJECT].handler = &mappi3_irq_type;
+     irq_desc[PLD_IRQ_CFC_EJECT].action = 0;
+     irq_desc[PLD_IRQ_CFC_EJECT].depth = 1; /* disable nested irq */
+     icu_data[PLD_IRQ_CFC_EJECT].icucr = M32R_ICUCR_IEN|M32R_ICUCR_ISMOD10;
+     disable_mappi3_irq(PLD_IRQ_CFC_EJECT);
+#endif /* CONFIG_M32R_CFC */
+}
+
+#define LAN_IOSTART    0x300
+#define LAN_IOEND      0x320
+static struct resource smc91x_resources[] = {
+    [0] = {

```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+         .start = (LAN_IOSTART),
+         .end   = (LAN_IOEND),
+         .flags = IORESOURCE_MEM,
+     },
+     [1] = {
+         .start = M32R_IRQ_INT0,
+         .end   = M32R_IRQ_INT0,
+         .flags = IORESOURCE_IRQ,
+     }
+};
+
+static struct platform_device smc91x_device = {
+    .name      = "smc91x",
+    .id        = 0,
+    .num_resources = ARRAY_SIZE(smc91x_resources),
+    .resource  = smc91x_resources,
+};
+
+static int __init platform_init(void)
+{
+    platform_device_register(&smc91x_device);
+    return 0;
+}
+
+arch_initcall(platform_init);
diff -ruNp a/arch/m32r/mappi3/defconfig.smp b/arch/m32r/mappi3/defconfig.smp
--- a/arch/m32r/mappi3/defconfig.smp      1970-01-01 09:00:00.000000000 +0900
+++ b/arch/m32r/mappi3/defconfig.smp      2005-05-31 18:05:49.000000000 +0900
@@ -0,0 +1,751 @@
+#
+# Automatically generated make config: don't edit
+# Linux kernel version: 2.6.12-rc5
+# Tue May 31 17:55:34 2005
+#
+CONFIG_M32R=y
+# CONFIG_UID16 is not set
+CONFIG_GENERIC_ISA_DMA=y
+CONFIG_GENERIC_HARDIRQS=y
+CONFIG_GENERIC_IRQ_PROBE=y
+
+#
+# Code maturity level options
+#
+CONFIG_EXPERIMENTAL=y
+# CONFIG_CLEAN_COMPILE is not set
+CONFIG_BROKEN=y
+CONFIG_BROKEN_ON_SMP=y
+CONFIG_LOCK_KERNEL=y
+CONFIG_INIT_ENV_ARG_LIMIT=32
+
+#
+# General setup
+#
+CONFIG_LOCALVERSION=""
+CONFIG_SWAP=y
+CONFIG_SYSVIPC=y
+# CONFIG_POSIX_QUEUE is not set
+# CONFIG_BSD_PROCESS_ACCT is not set
+CONFIG_SYSCTL=y
+# CONFIG_AUDIT is not set
+CONFIG_HOTPLUG=y
+CONFIG_KOBJECT_UEVENT=y
+CONFIG_IKCONFIG=y
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+CONFIG_IKCONFIG_PROC=y
+# CONFIG_CPUSETS is not set
+CONFIG_EMBEDDED=y
+# CONFIG_KALLSYMS is not set
+CONFIG_PRINTK=y
+CONFIG_BUG=y
+CONFIG_BASE_FULL=y
+# CONFIG_FUTEX is not set
+# CONFIG_EPOLL is not set
+# CONFIG_CC_OPTIMIZE_FOR_SIZE is not set
+CONFIG_SHMEM=y
+CONFIG_CC_ALIGN_FUNCTIONS=0
+CONFIG_CC_ALIGN_LABELS=0
+CONFIG_CC_ALIGN_LOOPS=0
+CONFIG_CC_ALIGN_JUMPS=0
+# CONFIG_TINY_SHMEM is not set
+CONFIG_BASE_SMALL=0
+
+#
+# Loadable module support
+#
+CONFIG_MODULES=y
+CONFIG_MODULE_UNLOAD=y
+# CONFIG_MODULE_FORCE_UNLOAD is not set
+CONFIG_OBSOLETE_MODPARM=y
+# CONFIG_MODVERSIONS is not set
+# CONFIG_MODULE_SRCVERSION_ALL is not set
+CONFIG_KMOD=y
+CONFIG_STOP_MACHINE=y
+
+#
+# Processor type and features
+#
+# CONFIG_PLAT_MAPPI is not set
+# CONFIG_PLAT_USRV is not set
+# CONFIG_PLAT_M32700UT is not set
+# CONFIG_PLAT_OPSPUT is not set
+# CONFIG_PLAT_OAKS32R is not set
+# CONFIG_PLAT_MAPPI2 is not set
+CONFIG_PLAT_MAPPI3=y
+CONFIG_CHIP_M32700=y
+# CONFIG_CHIP_M32102 is not set
+# CONFIG_CHIP_VDEC2 is not set
+# CONFIG_CHIP_OPSP is not set
+CONFIG_MMU=y
+CONFIG_TLB_ENTRIES=32
+CONFIG_ISA_M32R2=y
+CONFIG_ISA_DSP_LEVEL2=y
+CONFIG_ISA_DUAL_ISSUE=y
+CONFIG_BUS_CLOCK=10000000
+CONFIG_TIMER_DIVIDE=128
+# CONFIG_CPU_LITTLE_ENDIAN is not set
+CONFIG_MEMORY_START=0x08000000
+CONFIG_MEMORY_SIZE=0x08000000
+CONFIG_NOHIGHMEM=y
+CONFIG_DISCONTIGMEM=y
+CONFIG_IRAM_START=0x00f00000
+CONFIG_IRAM_SIZE=0x00080000
+CONFIG_RWSEM_GENERIC_SPINLOCK=y
+# CONFIG_RWSEM_XCHGADD_ALGORITHM is not set
+CONFIG_GENERIC_CALIBRATE_DELAY=y
+CONFIG_PREEMPT=y
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+# CONFIG_HAVE_DEC_LOCK is not set
+CONFIG_SMP=y
+# CONFIG_CHIP_M32700_TS1 is not set
+CONFIG_NR_CPUS=2
+# CONFIG_NUMA is not set
+
+#
+# Bus options (PCI, PCMCIA, EISA, MCA, ISA)
+#
+# CONFIG_PCI is not set
+# CONFIG_ISA is not set
+
+#
+# PCCARD (PCMCIA/CardBus) support
+#
+CONFIG_PCCARD=y
+# CONFIG_PCPCIA_DEBUG is not set
+CONFIG_PCPCIA=y
+
+#
+# PC-card bridges
+#
+# CONFIG_TCIC is not set
+# CONFIG_M32R_PCC is not set
+# CONFIG_M32R_CFC is not set
+
+#
+# PCI Hotplug Support
+#
+
+#
+# Executable file formats
+#
+CONFIG_BINFORMAT_ELF=y
+# CONFIG_BINFORMAT_MISC is not set
+
+#
+# Device Drivers
+#
+
+#
+# Generic Driver Options
+#
+CONFIG_STANDALONE=y
+CONFIG_PREVENT_FIRMWARE_BUILD=y
+CONFIG_FW_LOADER=y
+
+#
+# Memory Technology Devices (MTD)
+#
+CONFIG_MTD=y
+# CONFIG_MTD_DEBUG is not set
+# CONFIG_MTD_CONCAT is not set
+CONFIG_MTD_PARTITIONS=y
+CONFIG_MTD_REDBOOT_PARTS=y
+CONFIG_MTD_REDBOOT_DIRECTORY_BLOCK=-1
+# CONFIG_MTD_REDBOOT_PARTS_UNALLOCATED is not set
+# CONFIG_MTD_REDBOOT_PARTS_READONLY is not set
+# CONFIG_MTD_CMDLINE_PARTS is not set
+
+#
+# User Modules And Translation Layers
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+#
+CONFIG_MTD_CHAR=y
+CONFIG_MTD_BLOCK=y
+# CONFIG_FTL is not set
+# CONFIG_NFTL is not set
+# CONFIG_INFRTL is not set
+
+#
+# RAM/ROM/Flash chip drivers
+#
+# CONFIG_MTD_CFI is not set
+# CONFIG_MTD_JEDECPROBE is not set
+CONFIG_MTD_MAP_BANK_WIDTH_1=y
+CONFIG_MTD_MAP_BANK_WIDTH_2=y
+CONFIG_MTD_MAP_BANK_WIDTH_4=y
+# CONFIG_MTD_MAP_BANK_WIDTH_8 is not set
+# CONFIG_MTD_MAP_BANK_WIDTH_16 is not set
+# CONFIG_MTD_MAP_BANK_WIDTH_32 is not set
+CONFIG_MTD_CFI_I1=y
+CONFIG_MTD_CFI_I2=y
+# CONFIG_MTD_CFI_I4 is not set
+# CONFIG_MTD_CFI_I8 is not set
+# CONFIG_MTD_RAM is not set
+# CONFIG_MTD_ROM is not set
+# CONFIG_MTD_ABSENT is not set
+# CONFIG_MTD_OBSOLETE_CHIPS is not set
+
+#
+# Mapping drivers for chip access
+#
+# CONFIG_MTD_COMPLEX_MAPPINGS is not set
+
+#
+# Self-contained MTD device drivers
+#
+# CONFIG_MTD_SLRAM is not set
+# CONFIG_MTD_PHRAM is not set
+# CONFIG_MTD_MTDRAW is not set
+# CONFIG_MTD_BLKMTD is not set
+# CONFIG_MTD_BLOCK2MTD is not set
+
+#
+# Disk-On-Chip Device Drivers
+#
+# CONFIG_MTD_DOC2000 is not set
+# CONFIG_MTD_DOC2001 is not set
+# CONFIG_MTD_DOC2001PLUS is not set
+
+#
+# NAND Flash Device Drivers
+#
+# CONFIG_MTD_NAND is not set
+
+#
+# Parallel port support
+#
+# CONFIG_PARPORT is not set
+
+#
+# Plug and Play support
+#
+
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+#
+# Block devices
+#
+# CONFIG_BLK_DEV_FD is not set
+# CONFIG_BLK_DEV_COW_COMMON is not set
+CONFIG_BLK_DEV_LOOP=y
+# CONFIG_BLK_DEV_CRYPTOLOOP is not set
+CONFIG_BLK_DEV_NBD=m
+CONFIG_BLK_DEV_RAM=y
+CONFIG_BLK_DEV_RAM_COUNT=16
+CONFIG_BLK_DEV_RAM_SIZE=4096
+CONFIG_BLK_DEV_INITRD=y
+CONFIG_INITRAMFS_SOURCE=""
+# CONFIG_CDROM_PKTCDVD is not set
+
+#
+# IO Schedulers
+#
+CONFIG_IOSCHED_NOOP=y
+# CONFIG_IOSCHED_AS is not set
+CONFIG_IOSCHED_DEADLINE=y
+CONFIG_IOSCHED_CFQ=y
+# CONFIG_ATA_OVER_ETH is not set
+
+#
+# ATA/ATAPI/MFM/RLL support
+#
+CONFIG_IDE=y
+CONFIG_BLK_DEV_IDE=y
+
+#
+# Please see Documentation/ide.txt for help/info on IDE drives
+#
+# CONFIG_BLK_DEV_IDE_SATA is not set
+CONFIG_BLK_DEV_IDEDISK=y
+# CONFIG_IDEDISK_MULTI_MODE is not set
+CONFIG_BLK_DEV_IDECS=y
+CONFIG_BLK_DEV_IDECD=m
+# CONFIG_BLK_DEV_IDETAPE is not set
+# CONFIG_BLK_DEV_IDEFLOPPY is not set
+# CONFIG_IDE_TASK_IOCTL is not set
+
+#
+# IDE chipset support/bugfixes
+#
+CONFIG_IDE_GENERIC=y
+# CONFIG_IDE_ARM is not set
+# CONFIG_BLK_DEV_IDEDMA is not set
+# CONFIG_IDEDMA_AUTO is not set
+# CONFIG_BLK_DEV_HD is not set
+
+#
+# SCSI device support
+#
+# CONFIG_SCSI is not set
+
+#
+# Multi-device support (RAID and LVM)
+#
+# CONFIG_MD is not set
+
+#
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+# Fusion MPT device support
+#
+
+#
+# IEEE 1394 (FireWire) support
+#
+# CONFIG_IEEE1394 is not set
+
+#
+# I2O device support
+#
+
+#
+# Networking support
+#
+CONFIG_NET=y
+
+#
+# Networking options
+#
+# CONFIG_PACKET is not set
+CONFIG_UNIX=y
+# CONFIG_NET_KEY is not set
+CONFIG_INET=y
+# CONFIG_IP_MULTICAST is not set
+# CONFIG_IP_ADVANCED_ROUTER is not set
+CONFIG_IP_PNP=y
+CONFIG_IP_PNP_DHCP=y
+# CONFIG_IP_PNP_BOOTP is not set
+# CONFIG_IP_PNP_RARP is not set
+# CONFIG_NET_IPIP is not set
+# CONFIG_NET_IPGRE is not set
+# CONFIG_ARPD is not set
+# CONFIG_SYN_COOKIES is not set
+# CONFIG_INET_AH is not set
+# CONFIG_INET_ESP is not set
+# CONFIG_INET_IPCOMP is not set
+# CONFIG_INET_TUNNEL is not set
+CONFIG_IP_TCPDIAG=y
+# CONFIG_IP_TCPDIAG_IPV6 is not set
+# CONFIG_IPV6 is not set
+# CONFIG_NETFILTER is not set
+
+#
+# Sctp Configuration (EXPERIMENTAL)
+#
+# CONFIG_IP_SCTP is not set
+# CONFIG_ATM is not set
+# CONFIG_BRIDGE is not set
+# CONFIG_VLAN_8021Q is not set
+# CONFIG_DECNET is not set
+# CONFIG_LLC2 is not set
+# CONFIG_IPX is not set
+# CONFIG_ATALK is not set
+# CONFIG_X25 is not set
+# CONFIG_LAPB is not set
+# CONFIG_NET_DIVERT is not set
+# CONFIG_ECONET is not set
+# CONFIG_WAN_ROUTER is not set
+
+#
+# QoS and/or fair queueing
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+#
+# CONFIG_NET_SCHED is not set
+# CONFIG_NET_CLS_ROUTE is not set
+
+#
+# Network testing
+#
+# CONFIG_NET_PKTGEN is not set
+# CONFIG_NETPOLL is not set
+# CONFIG_NET_POLL_CONTROLLER is not set
+# CONFIG_HAMRADIO is not set
+# CONFIG_IRDA is not set
+# CONFIG_BT is not set
+CONFIG_NETDEVICES=y
+# CONFIG_DUMMY is not set
+# CONFIG_BONDING is not set
+# CONFIG_EQUALIZER is not set
+# CONFIG_TUN is not set
+
+#
+# Ethernet (10 or 100Mbit)
+#
+CONFIG_NET_ETHERNET=y
+CONFIG_MII=y
+CONFIG_SMC91X=y
+# CONFIG_NE2000 is not set
+
+#
+# Ethernet (1000 Mbit)
+#
+
+#
+# Ethernet (10000 Mbit)
+#
+
+#
+# Token Ring devices
+#
+
+#
+# Wireless LAN (non-hamradio)
+#
+# CONFIG_NET_RADIO is not set
+
+#
+# PCMCIA network device support
+#
+# CONFIG_NET_PCMCIA is not set
+
+#
+# Wan interfaces
+#
+# CONFIG_WAN is not set
+# CONFIG_PPP is not set
+# CONFIG_SLIP is not set
+# CONFIG_SHAPER is not set
+# CONFIG_NETCONSOLE is not set
+
+#
+# ISDN subsystem
+#
+# CONFIG_ISDN is not set
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+
+#
+# Telephony Support
+#
+# CONFIG_PHONE is not set
+
+#
+# Input device support
+#
+CONFIG_INPUT=y
+
+#
+# Userland interfaces
+#
+CONFIG_INPUT_MOUSEDEV=y
+CONFIG_INPUT_MOUSEDEV_PSAUX=y
+CONFIG_INPUT_MOUSEDEV_SCREEN_X=1024
+CONFIG_INPUT_MOUSEDEV_SCREEN_Y=768
+# CONFIG_INPUT_JOYDEV is not set
+# CONFIG_INPUT_TSDEV is not set
+# CONFIG_INPUT_EVDEV is not set
+# CONFIG_INPUT_EVBUG is not set
+
+#
+# Input Device Drivers
+#
+# CONFIG_INPUT_KEYBOARD is not set
+# CONFIG_INPUT_MOUSE is not set
+# CONFIG_INPUT_JOYSTICK is not set
+# CONFIG_INPUT_TOUCHSCREEN is not set
+# CONFIG_INPUT_MISC is not set
+
+#
+# Hardware I/O ports
+#
+CONFIG_SERIO=y
+# CONFIG_SERIO_I8042 is not set
+# CONFIG_SERIO_SERPORT is not set
+# CONFIG_SERIO_LIBPS2 is not set
+# CONFIG_SERIO_RAW is not set
+# CONFIG_GAMEPORT is not set
+CONFIG_SOUND_GAMEPORT=y
+
+#
+# Character devices
+#
+# CONFIG_VT is not set
+# CONFIG_SERIAL_NONSTANDARD is not set
+
+#
+# Serial drivers
+#
+# CONFIG_SERIAL_8250 is not set
+
+#
+# Non-8250 serial port support
+#
+CONFIG_SERIAL_CORE=y
+CONFIG_SERIAL_CORE_CONSOLE=y
+CONFIG_SERIAL_M32R_SIO=y
+CONFIG_SERIAL_M32R_SIO_CONSOLE=y
+# CONFIG_SERIAL_M32R_PLDSIO is not set
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+CONFIG_UNIX98_PTYS=y
+CONFIG_LEGACY_PTYS=y
+CONFIG_LEGACY_PTY_COUNT=256
+
+#
+# IPMI
+#
+# CONFIG_IPMI_HANDLER is not set
+
+#
+# Watchdog Cards
+#
+# CONFIG_WATCHDOG is not set
+# CONFIG_RTC is not set
+# CONFIG_GEN_RTC is not set
+# CONFIG_DTLK is not set
+# CONFIG_R3964 is not set
+
+#
+# Ftape, the floppy tape device driver
+#
+# CONFIG_DRM is not set
+
+#
+# PCMCIA character devices
+#
+# CONFIG_SYNCLINK_CS is not set
+# CONFIG_RAW_DRIVER is not set
+
+#
+# TPM devices
+#
+
+#
+# I2C support
+#
+# CONFIG_I2C is not set
+
+#
+# Dallas's 1-wire bus
+#
+# CONFIG_W1 is not set
+
+#
+# Misc devices
+#
+
+#
+# Multimedia devices
+#
+# CONFIG_VIDEO_DEV is not set
+
+#
+# Digital Video Broadcasting Devices
+#
+# CONFIG_DVB is not set
+
+#
+# Graphics support
+#
+# CONFIG_FB is not set
+
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+#
+# Sound
+#
+# CONFIG_SOUND is not set
+
+#
+# USB support
+#
+# CONFIG_USB_ARCH_HAS_HCD is not set
+# CONFIG_USB_ARCH_HAS_OHCI is not set
+
+#
+# USB Gadget Support
+#
+# CONFIG_USB_GADGET is not set
+
+#
+# MMC/SD Card support
+#
+# CONFIG_MMC is not set
+
+#
+# InfiniBand support
+#
+# CONFIG_INFINIBAND is not set
+
+#
+# File systems
+#
+CONFIG_EXT2_FS=y
+# CONFIG_EXT2_FS_XATTR is not set
+CONFIG_EXT3_FS=y
+CONFIG_EXT3_FS_XATTR=y
+# CONFIG_EXT3_FS_POSIX_ACL is not set
+# CONFIG_EXT3_FS_SECURITY is not set
+CONFIG_JBD=y
+# CONFIG_JBD_DEBUG is not set
+CONFIG_FS_MBCACHE=y
+# CONFIG_REISERFS_FS is not set
+# CONFIG_JFS_FS is not set
+
+#
+# XFS support
+#
+# CONFIG_XFS_FS is not set
+# CONFIG_MINIX_FS is not set
+CONFIG_ROMFS_FS=y
+# CONFIG_QUOTA is not set
+CONFIG_DNOTIFY=y
+# CONFIG_AUTOFS_FS is not set
+# CONFIG_AUTOFS4_FS is not set
+
+#
+# CD-ROM/DVD Filesystems
+#
+CONFIG_ISO9660_FS=y
+# CONFIG_JOLIET is not set
+# CONFIG_ZISOFS is not set
+# CONFIG_UDF_FS is not set
+
+#
+# DOS/FAT/NT Filesystems
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+#
+CONFIG_FAT_FS=m
+CONFIG_MSDOS_FS=m
+CONFIG_VFAT_FS=m
+CONFIG_FAT_DEFAULT_CODEPAGE=437
+CONFIG_FAT_DEFAULT_IOCHARSET="iso8859-1"
+# CONFIG_NTFS_FS is not set
+
+#
+# Pseudo filesystems
+#
+CONFIG_PROC_FS=y
+CONFIG_PROC_KCORE=y
+CONFIG_SYSFS=y
+CONFIG_DEVFS_FS=y
+CONFIG_DEVFS_MOUNT=y
+# CONFIG_DEVFS_DEBUG is not set
+# CONFIG_DEVPTS_FS_XATTR is not set
+CONFIG_TMPFS=y
+# CONFIG_TMPFS_XATTR is not set
+# CONFIG_HUGETLBFS is not set
+# CONFIG_HUGETLB_PAGE is not set
+CONFIG_RAMFS=y
+
+#
+# Miscellaneous filesystems
+#
+# CONFIG_ADFS_FS is not set
+# CONFIG_AFFS_FS is not set
+# CONFIG_HFS_FS is not set
+# CONFIG_HFSPLUS_FS is not set
+# CONFIG_BEFS_FS is not set
+# CONFIG_BFS_FS is not set
+# CONFIG_EFS_FS is not set
+CONFIG_JFFS_FS=y
+CONFIG_JFFS_FS_VERBOSE=0
+CONFIG_JFFS_PROC_FS=y
+CONFIG_JFFS2_FS=y
+CONFIG_JFFS2_FS_DEBUG=0
+# CONFIG_JFFS2_FS_NAND is not set
+# CONFIG_JFFS2_FS_NOR_ECC is not set
+# CONFIG_JFFS2_COMPRESSION_OPTIONS is not set
+CONFIG_JFFS2_ZLIB=y
+CONFIG_JFFS2_RUNTIME=y
+# CONFIG_JFFS2_RUBIN is not set
+# CONFIG_CRAMFS is not set
+# CONFIG_VXFS_FS is not set
+# CONFIG_HPFS_FS is not set
+# CONFIG_QNX4FS_FS is not set
+# CONFIG_SYSV_FS is not set
+# CONFIG_UFS_FS is not set
+
+#
+# Network File Systems
+#
+CONFIG_NFS_FS=y
+CONFIG_NFS_V3=y
+# CONFIG_NFS_V4 is not set
+# CONFIG_NFS_DIRECTIO is not set
+# CONFIG_NFSD is not set
+CONFIG_ROOT_NFS=y
+CONFIG_LOCKD=y
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+CONFIG_LOCKD_V4=y
+CONFIG_SUNRPC=y
+# CONFIG_RPCSEC_GSS_KRB5 is not set
+# CONFIG_RPCSEC_GSS_SPKM3 is not set
+# CONFIG_SMB_FS is not set
+# CONFIG_CIFS is not set
+# CONFIG_NCP_FS is not set
+# CONFIG_CODA_FS is not set
+# CONFIG_AFS_FS is not set
+
+#
+# Partition Types
+#
+# CONFIG_PARTITION_ADVANCED is not set
+CONFIG_MSDOS_PARTITION=y
+
+#
+# Native Language Support
+#
+CONFIG_NLS=y
+CONFIG_NLS_DEFAULT="iso8859-1"
+# CONFIG_NLS_CODEPAGE_437 is not set
+# CONFIG_NLS_CODEPAGE_737 is not set
+# CONFIG_NLS_CODEPAGE_775 is not set
+# CONFIG_NLS_CODEPAGE_850 is not set
+# CONFIG_NLS_CODEPAGE_852 is not set
+# CONFIG_NLS_CODEPAGE_855 is not set
+# CONFIG_NLS_CODEPAGE_857 is not set
+# CONFIG_NLS_CODEPAGE_860 is not set
+# CONFIG_NLS_CODEPAGE_861 is not set
+# CONFIG_NLS_CODEPAGE_862 is not set
+# CONFIG_NLS_CODEPAGE_863 is not set
+# CONFIG_NLS_CODEPAGE_864 is not set
+# CONFIG_NLS_CODEPAGE_865 is not set
+# CONFIG_NLS_CODEPAGE_866 is not set
+# CONFIG_NLS_CODEPAGE_869 is not set
+# CONFIG_NLS_CODEPAGE_936 is not set
+# CONFIG_NLS_CODEPAGE_950 is not set
+# CONFIG_NLS_CODEPAGE_932 is not set
+# CONFIG_NLS_CODEPAGE_949 is not set
+# CONFIG_NLS_CODEPAGE_874 is not set
+# CONFIG_NLS_ISO8859_8 is not set
+# CONFIG_NLS_CODEPAGE_1250 is not set
+# CONFIG_NLS_CODEPAGE_1251 is not set
+# CONFIG_NLS_ASCII is not set
+# CONFIG_NLS_ISO8859_1 is not set
+# CONFIG_NLS_ISO8859_2 is not set
+# CONFIG_NLS_ISO8859_3 is not set
+# CONFIG_NLS_ISO8859_4 is not set
+# CONFIG_NLS_ISO8859_5 is not set
+# CONFIG_NLS_ISO8859_6 is not set
+# CONFIG_NLS_ISO8859_7 is not set
+# CONFIG_NLS_ISO8859_9 is not set
+# CONFIG_NLS_ISO8859_13 is not set
+# CONFIG_NLS_ISO8859_14 is not set
+# CONFIG_NLS_ISO8859_15 is not set
+# CONFIG_NLS_KOI8_R is not set
+# CONFIG_NLS_KOI8_U is not set
+# CONFIG_NLS_UTF8 is not set
+
+#
+# Profiling support
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+#
+# CONFIG_PROFILING is not set
+
+#
+# Kernel hacking
+#
+# CONFIG_PRINTK_TIME is not set
+# CONFIG_DEBUG_KERNEL is not set
+CONFIG_LOG_BUF_SHIFT=15
+# CONFIG_DEBUG_BUGVERBOSE is not set
+# CONFIG_FRAME_POINTER is not set
+
+#
+# Security options
+#
+# CONFIG_KEYS is not set
+# CONFIG_SECURITY is not set
+
+#
+# Cryptographic options
+#
+# CONFIG_CRYPTO is not set
+
+#
+# Hardware crypto devices
+#
+
+#
+# Library routines
+#
+# CONFIG_CRC_CCITT is not set
+CONFIG_CRC32=y
+# CONFIG_LIBCRC32C is not set
+CONFIG_ZLIB_INFLATE=y
+CONFIG_ZLIB_DEFLATE=y
diff -ruNp a/arch/m32r/mappi3/dot.gdbinit b/arch/m32r/mappi3/dot.gdbinit
--- a/arch/m32r/mappi3/dot.gdbinit      1970-01-01 09:00:00.000000000 +0900
+++ b/arch/m32r/mappi3/dot.gdbinit      2005-05-31 17:25:00.000000000 +0900
@@ -0,0 +1,224 @@
+# .gdbinit file
+# $Id: dot.gdbinit,v 1.1 2005/04/11 02:21:08 sakugawa Exp $
+
+# setting
+set width 0d70
+set radix 0d16
+use_debug_dma
+
+# Initialize SDRAM controller for Mappi
+define sdram_init
+ # SDIR0
+ set *(unsigned long *)0x00ef6008 = 0x00000182
+ # SDIR1
+ set *(unsigned long *)0x00ef600c = 0x00000001
+ # Initialize wait
+ shell sleep 0.1
+ # MOD
+ set *(unsigned long *)0x00ef602c = 0x00000020
+ set *(unsigned long *)0x00ef604c = 0x00000020
+ # TR
+ set *(unsigned long *)0x00ef6028 = 0x00051502
+ set *(unsigned long *)0x00ef6048 = 0x00051502
+ # ADR
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+ set *(unsigned long *)0x00ef6020 = 0x08000004
+ set *(unsigned long *)0x00ef6040 = 0x0c000004
+ # AutoRef On
+ set *(unsigned long *)0x00ef6004 = 0x00010517
+ # Access enable
+ set *(unsigned long *)0x00ef6024 = 0x00000001
+ set *(unsigned long *)0x00ef6044 = 0x00000001
+end
+
+# Initialize LAN controller for Mappi
+define lanc_init
+ # Set BSEL4
+ #set *(unsigned long *)0x00ef5004 = 0x0fff330f
+ #set *(unsigned long *)0x00ef5004 = 0x01113301
+
+# set *(unsigned long *)0x00ef5004 = 0x02011101
+# set *(unsigned long *)0x00ef5004 = 0x04441104
+end
+
+define clock_init
+ set *(unsigned long *)0x00ef4010 = 2
+ set *(unsigned long *)0x00ef4014 = 2
+ set *(unsigned long *)0x00ef4020 = 3
+ set *(unsigned long *)0x00ef4024 = 3
+ set *(unsigned long *)0x00ef4004 = 0x7
+# shell sleep 0.1
+# set *(unsigned long *)0x00ef4004 = 0x5
+ shell sleep 0.1
+ set *(unsigned long *)0x00ef4008 = 0x0200
+end
+
+define port_init
+ set $sfrbase = 0x00ef0000
+ set *(unsigned short *)0x00ef1060 = 0x5555
+ set *(unsigned short *)0x00ef1062 = 0x5555
+ set *(unsigned short *)0x00ef1064 = 0x5555
+ set *(unsigned short *)0x00ef1066 = 0x5555
+ set *(unsigned short *)0x00ef1068 = 0x5555
+ set *(unsigned short *)0x00ef106a = 0x0000
+ set *(unsigned short *)0x00ef106e = 0x5555
+ set *(unsigned short *)0x00ef1070 = 0x5555
+end
+
+# MMU enable
+define mmu_enable
+ set $evb=0x88000000
+ set *(unsigned long *)0xffff0024=1
+end
+
+# MMU disable
+define mmu_disable
+ set $evb=0
+ set *(unsigned long *)0xffff0024=0
+end
+
+# Show TLB entries
+define show_tlb_entries
+ set $i = 0
+ set $addr = $arg0
+ while ($i < 0d16 )
+   set $tlb_tag = *(unsigned long*)$addr
+   set $tlb_data = *(unsigned long*)($addr + 4)
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```

+   printf " [%2d] 0x%08lx : 0x%08lx - 0x%08lx\n", $i, $addr, $tlb_tag, $tlb_data
+   set $i = $i + 1
+   set $addr = $addr + 8
+ end
+end
+define itlb
+ set $itlb=0xfe000000
+ show_tlb_entries $itlb
+end
+define dtlb
+ set $dtlb=0xfe000800
+ show_tlb_entries $dtlb
+end
+
+# Cache ON
+define set_cache_type
+ set $mctype = (void*)0xffffffff8
+# chaos
+# set *(unsigned long *)($mctype) = 0x0000c000
+# m32102 i-cache only
+ set *(unsigned long *)($mctype) = 0x00008000
+# m32102 d-cache only
+# set *(unsigned long *)($mctype) = 0x00004000
+end
+define cache_on
+ set $param = (void*)0x08001000
+ set *(unsigned long *)($param) = 0x60ff6102
+end
+
+
+# Show current task structure
+define show_current
+ set $current = $spi & 0xfffffe000
+ printf "$current=0x%08lx\n", $current
+ print *(struct task_struct *)$current
+end
+
+# Show user assigned task structure
+define show_task
+ set $task = $arg0 & 0xfffffe000
+ printf "$task=0x%08lx\n", $task
+ print *(struct task_struct *)$task
+end
+document show_task
+ Show user assigned task structure
+ arg0 : task structure address
+end
+
+# Show M32R registers
+define show_regs
+ printf " R0[0x%08lx]   R1[0x%08lx]   R2[0x%08lx]   R3[0x%08lx]\n", $r0, $r1, $r2, $r3
+ printf " R4[0x%08lx]   R5[0x%08lx]   R6[0x%08lx]   R7[0x%08lx]\n", $r4, $r5, $r6, $r7
+ printf " R8[0x%08lx]   R9[0x%08lx]  R10[0x%08lx]  R11[0x%08lx]\n", $r8, $r9, $r10, $r11
+ printf "R12[0x%08lx]  FP[0x%08lx]   LR[0x%08lx]   SP[0x%08lx]\n", $r12, $fp, $lr, $sp
+ printf "PSW[0x%08lx]  CBR[0x%08lx]  SPI[0x%08lx]  SPU[0x%08lx]\n", $psw, $cbr, $spi, $spu
+ printf "BPC[0x%08lx]  PC[0x%08lx]  ACCL[0x%08lx] ACCH[0x%08lx]\n", $bpc, $pc, $accl, $acch
+ printf "EVb[0x%08lx]\n", $evb
+
+ set $mests = *(unsigned long *)0xffff000c
+ set $mdeva = *(unsigned long *)0xffff0010
+ printf "MESTS[0x%08lx] MDEVA[0x%08lx]\n", $mests, $mdeva
+end

```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+
+
+# Setup all
+define setup
+ clock_init
+ shell sleep 0.1
+ port_init
+ sdram_init
+# lanc_init
+# dispc_init
+# set $evb=0x08000000
+end
+
+# Load modules
+define load_modules
+ use_debug_dma
+ load
+# load busybox.mot
+end
+
+# Set kernel parameters
+define set_kernel_parameters
+ set $param = (void*)0x08001000
+
+ ## MOUNT_ROOT_RDONLY
+ set {long}($param+0x00)=0
+ ## RAMDISK_FLAGS
+ #set {long}($param+0x04)=0
+ ## ORIG_ROOT_DEV
+ #set {long}($param+0x08)=0x00000100
+ ## LOADER_TYPE
+ #set {long}($param+0x0C)=0
+ ## INITRD_START
+ set {long}($param+0x10)=0x082a0000
+ ## INITRD_SIZE
+ set {long}($param+0x14)=0d620000
+
+ # M32R_CPUCLK
+ set *(unsigned long *)($param + 0x0018) = 0d10000000
+ # M32R_BUSCLK
+ set *(unsigned long *)($param + 0x001c) = 0d50000000
+ # M32R_TIMER_DIVIDE
+ set *(unsigned long *)($param + 0x0020) = 0d128
+
+
+ set {char[0x200]}($param + 0x100) = "console=ttyS0,115200n8x root=/dev/nfsroot nfsroot=192.168.
+
+
+end
+
+# Boot
+define boot
+ set_kernel_parameters
+ debug_chaos
+ set *(unsigned long *)0x00f00000=0x08002000
+ set $pc=0x08002000
+ set $fp=0
+ del b
+ si
+end
+
+# Restart
```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```

+define restart
+ sdireset
+ sdireset
+ setup
+ load_modules
+ boot
+end
+
+sdireset
+sdireset
+file vmlinux
+target m32rsdi
+
+restart
+boot
diff -ruNp a/include/asm-m32r/ide.h b/include/asm-m32r/ide.h
--- a/include/asm-m32r/ide.h      2004-12-25 06:34:57.000000000 +0900
+++ b/include/asm-m32r/ide.h      2005-05-26 20:14:55.000000000 +0900
@@ -35,7 +35,7 @@
 static __inline__ int ide_default_irq(unsigned long base)
 {
     switch (base) {
-#if defined(CONFIG_PLAT_M32700UT) || defined(CONFIG_PLAT_MAPPI2)
+#if defined(CONFIG_PLAT_M32700UT) || defined(CONFIG_PLAT_MAPPI2) || defined(CONFIG_PLAT_MAPPI3)
         case 0x1f0: return PLD_IRQ_CFIREQ;
         default:
             return 0;
diff -ruNp a/include/asm-m32r/m32102.h b/include/asm-m32r/m32102.h
--- a/include/asm-m32r/m32102.h  2004-12-25 06:35:00.000000000 +0900
+++ b/include/asm-m32r/m32102.h  2005-05-26 20:22:50.000000000 +0900
@@ -175,6 +175,7 @@
 #define M32R_ICU_CR5_PORTL      (0x210+M32R_ICU_OFFSET) /* INT4 */
 #define M32R_ICU_CR6_PORTL      (0x214+M32R_ICU_OFFSET) /* INT5 */
 #define M32R_ICU_CR7_PORTL      (0x218+M32R_ICU_OFFSET) /* INT6 */
+#define M32R_ICU_CR8_PORTL      (0x219+M32R_ICU_OFFSET) /* INT7 */
 #define M32R_ICU_CR16_PORTL     (0x23C+M32R_ICU_OFFSET) /* MFT0 */
 #define M32R_ICU_CR17_PORTL     (0x240+M32R_ICU_OFFSET) /* MFT1 */
 #define M32R_ICU_CR18_PORTL     (0x244+M32R_ICU_OFFSET) /* MFT2 */
diff -ruNp a/include/asm-m32r/m32r.h b/include/asm-m32r/m32r.h
--- a/include/asm-m32r/m32r.h    2004-12-25 06:35:23.000000000 +0900
+++ b/include/asm-m32r/m32r.h    2005-05-31 16:55:05.000000000 +0900
@@ -36,6 +36,10 @@
 #include <asm/mappi2/mappi2_pld.h>
 #endif /* CONFIG_PLAT_MAPPI2 */

+#if defined(CONFIG_PLAT_MAPPI3)
+#include <asm/mappi3/mappi3_pld.h>
+#endif /* CONFIG_PLAT_MAPPI3 */
+
+ #if defined(CONFIG_PLAT_USRV)
+ #include <asm/m32700ut/m32700ut_pld.h>
+ #endif
diff -ruNp a/include/asm-m32r/mappi3/mappi3_pld.h b/include/asm-m32r/mappi3/mappi3_pld.h
--- a/include/asm-m32r/mappi3/mappi3_pld.h      1970-01-01 09:00:00.000000000 +0900
+++ b/include/asm-m32r/mappi3/mappi3_pld.h      2005-05-26 20:22:50.000000000 +0900
@@ -0,0 +1,143 @@
+/*
+ * include/asm/mappi3/mappi3_pld.h
+ *
+ * Definitions for Extended IO Logic on MAPPI3 board.
+ * based on m32700ut_pld.h
+ *

```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```

+ * This file is subject to the terms and conditions of the GNU General
+ * Public License. See the file "COPYING" in the main directory of
+ * this archive for more details.
+ *
+ */
+
+#ifndef _MAPPI3_PLD_H
+#define _MAPPI3_PLD_H
+
+#ifndef __ASSEMBLY__
+/* FIXME:
+ * Some C functions use non-cache address, so can't define non-cache address.
+ */
+#define PLD_BASE (0x1c000000 /* + NONCACHE_OFFSET */)
+#define __reg8 (volatile unsigned char *)
+#define __reg16 (volatile unsigned short *)
+#define __reg32 (volatile unsigned int *)
+#else
+#define PLD_BASE (0x1c000000 + NONCACHE_OFFSET)
+#define __reg8
+#define __reg16
+#define __reg32
+#endif /* __ASSEMBLY__ */
+
+/* CFC */
+#define PLD_CFRSTCR __reg16(PLD_BASE + 0x0000)
+#define PLD_CFSTS __reg16(PLD_BASE + 0x0002)
+#define PLD_CFIMASK __reg16(PLD_BASE + 0x0004)
+#define PLD_CFBUFCR __reg16(PLD_BASE + 0x0006)
+#define PLD_CFCR0 __reg16(PLD_BASE + 0x000a)
+#define PLD_CFCR1 __reg16(PLD_BASE + 0x000c)
+
+/* MMC */
+#define PLD_MMCCR __reg16(PLD_BASE + 0x4000)
+#define PLD_MMCMOD __reg16(PLD_BASE + 0x4002)
+#define PLD_MMCSSTS __reg16(PLD_BASE + 0x4006)
+#define PLD_MMCSBAUR __reg16(PLD_BASE + 0x400a)
+#define PLD_MMCCMDBCUT __reg16(PLD_BASE + 0x400c)
+#define PLD_MMCCDTBCUT __reg16(PLD_BASE + 0x400e)
+#define PLD_MMCDDET __reg16(PLD_BASE + 0x4010)
+#define PLD_MMCCWP __reg16(PLD_BASE + 0x4012)
+#define PLD_MMCCWDATA __reg16(PLD_BASE + 0x5000)
+#define PLD_MMCCRDATA __reg16(PLD_BASE + 0x6000)
+#define PLD_MMCCMDDATA __reg16(PLD_BASE + 0x7000)
+#define PLD_MMCCRSPDATA __reg16(PLD_BASE + 0x7006)
+
+/* Power Control of MMC and CF */
+#define PLD_CPCR __reg16(PLD_BASE + 0x14000)
+
+
+/*==== ICU ====*/
+#define M32R_IRQ_PC104 (5) /* INT4(PC/104) */
+#define M32R_IRQ_I2C (28) /* I2C-BUS */
+#define PLD_IRQ_CFIREQ (6) /* INT5 CFC Card Interrupt */
+#define PLD_IRQ_CFC_INSERT (7) /* INT6 CFC Card Insert */
+#define PLD_IRQ_CFC_EJECT (8) /* INT7 CFC Card Eject */
+#define PLD_IRQ_MMCCARD (43) /* MMC Card Insert */
+#define PLD_IRQ_MMCIQ (44) /* MMC Transfer Done */
+
+
+#if 0
+/* LED Control

```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```

+ *
+ * 1: DIP swich side
+ * 2: Reset switch side
+ */
+#define PLD_IOLEDCR          __reg16(PLD_BASE + 0x14002)
+#define PLD_IOLED_1_ON      0x001
+#define PLD_IOLED_1_OFF      0x000
+#define PLD_IOLED_2_ON      0x002
+#define PLD_IOLED_2_OFF      0x000
+
+/* DIP Switch
+ * 0: Write-protect of Flash Memory (0:protected, 1:non-protected)
+ * 1: -
+ * 2: -
+ * 3: -
+ */
+#define PLD_IOSWSTS          __reg16(PLD_BASE + 0x14004)
+#define PLD_IOSWSTS_IOSW2    0x0200
+#define PLD_IOSWSTS_IOSW1    0x0100
+#define PLD_IOSWSTS_IOWP0    0x0001
+
+#endif
+
+/* CRC */
+#define PLD_CRC7DATA         __reg16(PLD_BASE + 0x18000)
+#define PLD_CRC7INDATA       __reg16(PLD_BASE + 0x18002)
+#define PLD_CRC16DATA        __reg16(PLD_BASE + 0x18004)
+#define PLD_CRC16INDATA      __reg16(PLD_BASE + 0x18006)
+#define PLD_CRC16ADATA       __reg16(PLD_BASE + 0x18008)
+#define PLD_CRC16AINDATA     __reg16(PLD_BASE + 0x1800a)
+
+
+#if 0
+/* RTC */
+#define PLD_RTCCR            __reg16(PLD_BASE + 0x1c000)
+#define PLD_RTCBAUR          __reg16(PLD_BASE + 0x1c002)
+#define PLD_RTCWRDATA        __reg16(PLD_BASE + 0x1c004)
+#define PLD_RTCRDDATA        __reg16(PLD_BASE + 0x1c006)
+#define PLD_RTCRSTODT        __reg16(PLD_BASE + 0x1c008)
+
+
+/* SIO0 */
+#define PLD_ESIO0CR          __reg16(PLD_BASE + 0x20000)
+#define PLD_ESIO0CR_TXEN     0x0001
+#define PLD_ESIO0CR_RXEN     0x0002
+#define PLD_ESIO0MOD0        __reg16(PLD_BASE + 0x20002)
+#define PLD_ESIO0MOD0_CTSS   0x0040
+#define PLD_ESIO0MOD0_RTSS   0x0080
+#define PLD_ESIO0MOD1        __reg16(PLD_BASE + 0x20004)
+#define PLD_ESIO0MOD1_LMFS    0x0010
+#define PLD_ESIO0STS         __reg16(PLD_BASE + 0x20006)
+#define PLD_ESIO0STS_TEMP    0x0001
+#define PLD_ESIO0STS_TXCP    0x0002
+#define PLD_ESIO0STS_RXCP    0x0004
+#define PLD_ESIO0STS_TXSC    0x0100
+#define PLD_ESIO0STS_RXSC    0x0200
+#define PLD_ESIO0STS_TXREADY (PLD_ESIO0STS_TXCP | PLD_ESIO0STS_TEMP)
+#define PLD_ESIO0INTCR       __reg16(PLD_BASE + 0x20008)
+#define PLD_ESIO0INTCR_TXIEN 0x0002
+#define PLD_ESIO0INTCR_RXCEN 0x0004
+#define PLD_ESIO0BAUR        __reg16(PLD_BASE + 0x2000a)
+#define PLD_ESIO0TXB         __reg16(PLD_BASE + 0x2000c)
+#define PLD_ESIO0RXB         __reg16(PLD_BASE + 0x2000e)

```

Linux-Kernel: [PATCH 2.6.12-rc5] m32r: Support M3A-2170(Mappi-III) platform

```
+
+/* SIM Card */
+#define PLD_SCCR          __reg16(PLD_BASE + 0x38000)
+#define PLD_SCMOD        __reg16(PLD_BASE + 0x38004)
+#define PLD_SCSTS        __reg16(PLD_BASE + 0x38006)
+#define PLD_SCINTCR      __reg16(PLD_BASE + 0x38008)
+#define PLD_SCBAUR       __reg16(PLD_BASE + 0x3800a)
+#define PLD_SCTXB        __reg16(PLD_BASE + 0x3800c)
+#define PLD_SCRXB        __reg16(PLD_BASE + 0x3800e)
+
+#endif
+
+#endif /* _MAPPI3_PLD.H */
--
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-
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```