Embedix Linux Installation Addendum

Notes

Supplemental Information

This addendum supersedes some of the information presented in the document "Embedix Linux IDT MIPS Installation & Configuration Guide".

Revision History

November 14, 2000: Initial publication.

Addendum Items

Item #1 - Board Frequency

Issue: The current distribution of Lineo Embedix CD-ROM assumes that the IDT evaluation board runs at 50 MHz system clock. In reality, IDT evaluation board may be running at a different frequency. For example, the IDT 79S334A evaluation boards typically ship at 75 MHz, and the IDT 79S332 evaluation boards typically ship at 66.5 MHz.

Work-around:

1. Open the file "linux/include/asm-mips/serial.h". Change the definition of "IDT_BASE_BAUD" to reflect the actual frequency value. For example, to use a 75MHz system:

```
# define IDT_BASE_BAUD ( 75 * 1000 * 1000 /16 )
```

2. Open the file "linux/arch/mips/idt_timer.c". Change the value of "r4k_offset" in the "idt_timer_init" function to match system clock frequency. For example, to use a 75MHz system:

```
r4k_offset= 75 * le6/100
```

3. Open the file "linux/arch/mips/serial_gdb.c". Change the value of "DIVISOR" to match the system clock frequency. For example, to use a 75MHz system:

```
#define DIVISOR ( 75 * 1000 * 1000 / 16 / GDB_BAUD ).
```

Fix: This will be fixed in the next version.

Item #2 - Load Address

Issue: The current distribution of Lineo Embedix CD-ROM assumes that the IDT evaluation board ships with EPROM labeled IDT/sim version 9.0. In reality, boards shipped after November 8, 2000, ship with IDT/sim version 9.1. Version 9.1 is larger in size. The default address at which Embedix loads is, therefore, not valid for IDT/sim version 9.1

Work-around:

Change the load address to a higher address. In order to change the load address of the Embedix image, make the following modification:

Open the file "linux/arch/mips/Makefile".

Change the value of "LOADADDR".

For example, here is a safe value:

LOADADDR += 0x80200000.

Fix: This will be fixed in the next version.