

How to install GNU tool for ARM7TDMI

1. Introduction

This document describes the procedures for installing GNU tool used to compile micro T-Kernel for ARM7TDMI. You can create micro T-Kernel that can run on micro Teaboard/ARM7-AT91, by building micro T-Kernel reference code distributed from T-Engine Forum with this tool.

2. Notes

We only assume that this GNU tool is used to create micro T-Kernel that can run on micro Teaboard/ARM7-AT91. The usage of this tool for other intended purposes is not assumed. T-Engine Forum does not support this tool.

3. Installation Procedures

3.1 Install Cygwin[™]

This GNU tool runs on Cygwin[™] which is UNIX emulator on Windows[®]. Please refer to Cygwin Web page (<http://www.cygwin.com/>) to install Cygwin. Select make (in Devel category) together, in addition to the package for installation which is selected by default. After installation, start Cygwin and create a symbolic link to /usr/bin/perl in /usr/local/bin as follows.

```
$ ln -s /usr/bin/perl /usr/local/bin/perl
```

3.2 Install GNU tool

Notes:

If files already exist under `/usr/local/arm7tdmi` directory, please take actions such as changing the directory name beforehand to prevent overwriting files by mistake due to the installation of this tool.

(1) Install GNU tool

Copy the archive file (`devenv_arm7tdmi.tgz`) downloaded from Web page to `/usr/local` directory, and then extract it as follows. As a result, GNU tool is installed under `/usr/local/arm7tdmi` directory.

```
$ cd /usr/local
$ tar xzf devenv_arm7tdmi.tgz
```

(2) Configure environment variables

Define the following environment variables in accordance with the environment to be used after installing GNU tool.

BD	Base directory of development environment Set the directory in which development environment was installed. Example) <code>/usr/local/te/utkernel_source</code>
GNUs	GNU-related tool Specify the directory in which GNU <code>make</code> exists. Specify <code>/usr</code> if <code>make</code> exists in <code>/usr/bin</code> .
GNU_BD	Base directory of GNU-related tool for cross development Example) <code>/usr/local/arm7tdmi</code>
GNUarm	Directory of GNU-related tool for ARM7 Example) <code>\$GNU_BD/arm-elf</code>
GCC_EXEC_PREFIX	gcc-related directory Set the directory of GNU-related tool for ARM7 included in development environment. Set <code>\$GNU_BD/lib/gcc-lib</code> normally.

As for the subsequent procedures, please refer to “micro T-Kernel Source Code Manual” (`utkernel_en.txt`) on micro T-Kernel source code download page.

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