MuntsOS Embedded Linux

Application Note #1: Development Environment Setup for Debian Linux

Revision 15 7 December 2023

by Philip Munts
President, Munts Technologies
http://tech.munts.com

Introduction

This application note describes how to install the application software development environment for **MuntsOS Embedded Linux** onto a computer running x86-64 Debian Linux apt based operating system.

The program files within the cross-toolchain packages are statically linked, so they should work on any variant or version of x86-64 Debian Linux (*e.g.* Ubuntu).

This procedure also works with the following environments:

- Debian Linux on Windows using Windows Subsystem for Linux.
- Debian Linux on ChromeOS using <u>Linux on Chrome OS</u>.

Installation Procedure

Step 1: Prepare the system for application software development with the following commands:

```
sudo apt -y install build-essential git gprbuild tar wget
```

Step 2: Add the **Munts Technologies Debian Package Repository** to your system, with the following commands:

```
wget http://repo.munts.com/Debian12/amd64/munts-repo.deb
sudo dpkg -i munts-repo.deb && rm munts-repo.deb
sudo apt update
```

Step 3: Install **MuntsOS** cross-toolchain packages, with one or more of the following commands, depending on which boards you need to target:

```
sudo apt -y install muntsos-dev-ctng-aarch64
sudo apt -y install muntsos-dev-ctng-beaglebone
sudo apt -y install muntsos-dev-ctng-raspberrypi1
sudo apt -y install muntsos-dev-ctng-raspberrypi2
```

Each *MuntsOS* cross-toolchain package contains cross-compilers for the Ada, C, C++, Fortran, Free Pascal, Go, and Modula-2 programming languages.

You can also install **all** of the **MuntsOS** cross-toolchain packages at one time with a single command:

```
sudo apt -y install muntsos-dev-ctng
```

Easy Setup Script

The script available at http://git.munts.com/muntsos/scripts/setup-debian makes the setup procedure even easier:

wget http://git.munts.com/muntsos/scripts/setup-debian
chmod 755 setup-debian && ./setup-debian && rm setup-debian