

MuntsOS Embedded Linux

Application Note #1: Development Environment Setup for Debian GNU/Linux

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Introduction

This application note describes how to install the application software development environment for **MuntsOS Embedded Linux** onto a computer running 64-bit Debian GNU/Linux or equivalent (e.g. Ubuntu) **apt** based operating system.

This procedure (including the **Easy Setup Script** below) even works with [Debian GNU/Linux on Windows](#) and [Ubuntu on Windows](#) using [Windows Subsystem for Linux](#) on Windows 10. It is also known to work on certain x86-64 Chromebooks in the [Crostini](#) Linux virtual machine environment.

This procedure also works on 32-Bit Raspberry Pi OS. It is recommended to use a Raspberry Pi Model 4 with 4 or 8 GB of RAM.

Installation Procedure

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

```
sudo apt-get install openssh-client build-essential git gprbuild
```

Step 2: Add **repo.munts.com** as a Debian package repository for your computer, with the following commands:

```
wget http://repo.munts.com/debian10/PublicKey.txt  
sudo apt-key add PublicKey.txt && rm PublicKey.txt
```

For 64-Bit Debian 10 (amd64):

```
wget http://repo.munts.com/debian10/amd64/munts-repo.deb
```

For 32-Bit Raspberry Pi OS 10 (armhf):

```
wget http://repo.munts.com/debian10/raspberrypi/munts-repo.deb
```

```
sudo dpkg -i munts-repo.deb && rm munts-repo.deb  
sudo apt-get update
```

Step 3: Install **MuntsOS** cross-toolchain packages, with one or more of the following commands:

```
sudo apt-get install muntsos-crosstool-aarch64  
sudo apt-get install muntsos-crosstool-beaglebone  
sudo apt-get install muntsos-crosstool-raspberrypi1  
sudo apt-get install muntsos-crosstool-raspberrypi2
```

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

```
sudo apt-get install muntsos-crosstool
```

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

Step 4: Clone the **MuntsOS Embedded Linux** source code tree with **git**:

```
git clone https://github.com/pmunts/muntsos.git
```

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
```