CrossCore®
Development Tools
by Analog Devices

Installation Guide for CrossCore Embedded Studio

http://www.analog.com

Contents

1 Introduction

This document describes the installation procedures for CrossCore Embedded Studio under both Windows and Linux as well as minimum hardware requirements and supported versions of each operating system.

2 System Hardware Requirements

Verify that your PC has these minimum requirements for the CCES installation:

- 2 GHz single core processor; 3.3GHz dual core or better recommended
- 4 GB RAM; 8GB or more recommended
- 3 GB available disk space
- One open USB port

ⓘ **Note**

A faster disk drive or SSD decreases the build time, especially for a large amount of source files. 8GB of RAM or more will substantially increase the performance of the IDE.

3 Supported Operating Systems

3.1 Microsoft Windows

- Windows 7 Professional, Enterprise, or Ultimate (32 and 64-bit, SP1 or later)
- Windows 8.1 Pro or Enterprise (32 and 64-bit)
- Windows 10 Pro or Enterprise (32 and 64-bit)

ⓘ **Note**

> From 14 January 2020, Microsoft will no longer be providing security updates or PC support for Windows 7. Consequently, Windows 7 will cease to be supported in a future version of CrossCore Embedded Studio.

3.2 Linux

- Ubuntu 16.04 32-bit

4 Installing CrossCore Embedded Studio on Windows

⚠ **Caution**

- Windows users may experience User Access Control (UAC) related errors if the software is installed into a protected location, such as `Program Files` or `Program Files (x86)`. We recommend installing the software in a non-UAC-protected location.
- *Prior to installation:* Ensure your machine is up-to-date with relevant Windows updates from Microsoft. CrossCore Embedded Studio relies upon the Microsoft Universal C Runtime from VisualStudio 2015, and this can silently fail to install if your machine is out of date. For more details, refer to Update for Universal C Runtime in Windows on Microsoft's web site.

To install CrossCore Embedded Studio on Windows run the installer by double-clicking `ADI_CrossCoreEmbeddedStudio-Relx.y.z.exe` (substituting `x.y.z` for the version of CCES that you have downloaded).

To uninstall CrossCore Embedded Studio, open the Control Panel / Programs and Features applet, and select to uninstall CrossCore Embedded Studio. You may need to delete the installation directory to clean up any leftover files.

5 Installing CrossCore Embedded Studio on Linux

🐧 Notes for Linux Users

This release of CrossCore Embedded Studio for Linux has been provided to support the Linux Add-In for CrossCore Embedded Studio and support bare-metal development on Cortex-M processors such as the ADuCM36x, ADuCM302x and ADuCM4x50 family of MCUs.

The following features are available and supported:

- Compilation using the GNU toolchain for the ARM Cortex-A core on ADSP-SC57x and ADSP-SC58x processors.
- Compilation using the GNU ARM toolchain for the ADuCM36x, ADuCM302x and ADuCM4x50 ARM Cortex-M cores.
- Debugging ADSP-SC5xx, ADuCM360, ADuCM302x and ADuCM4x50 via the IDE with GDB/OpenOCD.
- Development and debugging of Applications running under Linux on the ARM Cortex-A core on ADSP-SC57x and ADSP-SC58x processors.
- Development and debugging of bare-metal applications on the ADuCM360, ADuCM302x and ADuCM4x50 ARM Cortex-M cores.

The following features are *not* supported under Windows:

- Development, simulation and debug of Blackfin processors
- Development, simulation and debug of SHARC processors (excluding the ARM Cortex-A core on ADSP-SC57x and ADSP-SC58x processors)
- Use of CrossCore Embedded Studio Add-Ins other than the Linux Add-In
- Debugging an Application using the native CrossCore Debugger

⚠ Caution

It is strongly recommended to use the command prompt to install CrossCore Embedded Studio. The installation may not work properly when using Ubuntu Software and/or Ubuntu Software Center.

To install CrossCore Embedded Studio run the following command from the command prompt (substituting `x.y.z` for the version of CCES that you have downloaded):

```
sudo apt-get install ./adi-CrossCoreEmbeddedStudio-linux-x86-x.y.z.
deb
```

To uninstall CrossCore Embedded Studio run the following commands from the command prompt (substituting `x.y.z` for the version of CCES that you have downloaded):

```
sudo apt-get remove adi-cces-x.y.z
sudo dpkg -P adi-cces-x.y.z
sudo rm -rf /opt/analog/cces/x.y.z (to clean up any leftover files)
```

5.1 Ubuntu 18.04 64-bit

CrossCore Embedded Studio (CCES) can be installed and used on Ubuntu 18.04 64-bit. To install and use CCES on Ubuntu 64-bit, the following 32-bit compatibility libraries need to be installed:

```
sudo dpkg --add-architecture i386 && sudo apt-get update && sudo apt-
get install -y \
  libc6:i386 libncurses5:i386 libstdc++6:i386 libgtk2.0-0:i386
libxtst6:i386 \
  gtk2-engines-murrine:i386 libcanberra-gtk-module:i386 gtk2-engines:
i386
```

5.2 Different users sharing the same CCES license on Linux

Many users can share a single valid `license.dat` file on a system by creating a symbol link to the valid license.dat in their own home directory (`~/.analog/cces`).
The user who installed license should ensure that the appropriate directory and file permissions are set-up to allow other users to access the valid license.dat.

5.3 OpenOCD needs to be run as sudo on Linux

In order to debug an Application with GDB and OpenOCD (Emulator) on Linux, OpenOCD needs to have permissions to access your USB device. You can set-up the necessary permissions when installing CCES on Linux by selecting 'Configure OpenOCD permissions' option on the installation dialog or afterwards by running `sudo sh /opt/analog/cces/{version}/Setup/setup_openocd_permissions.sh`.

If you debug an Application with GDB and OpenOCD (Emulator) using the IDE and OpenOCD fails because it cannot access your USB device, a dialog will appear with a message telling you that you can run the `setup_openocd_permissions.sh` script.

If you start CCES with sudo permission, then there should be no problems with OpenOCD accessing your USB device.

6 Obtaining Technical Support

You can reach Analog Devices software and tools technical support in the following ways:

- Post your questions in the software and development tools support community at EngineerZone®
- E-mail your questions about software and development tools directly from CrossCore Embedded Studio by choosing Help > Email Support or directly to processor.tools.support@analog.com
- E-mail your questions about processors and processor applications to processor.support@analog.com
- Submit your questions to technical support directly via http://www.analog.com/support
- Contact your Analog Devices sales office or authorized distributor