

C2000Ware Quick Start Guide

C2000Ware for C2000™ microcontrollers is a cohesive set of development software and documentation designed to minimize software development time. From device-specific drivers and libraries to device peripheral examples, C2000Ware provides a solid foundation to begin development and evaluation of your product.

C2000Ware requires:

- Code Composer Studio™ IDE (CCS) v9.2.0 or newer
- C2000 Compiler v18.12.1 LTS or newer
- ARM® Compiler v18.12.1 LTS or newer

Contents

1	Package Structure	2
2	C2000Ware GUI	2
3	Updating C2000Ware	3
4	Code Composer Studio	3
5	Support	3
6	Software Tools for F2838X	3

Trademarks

C2000, Code Composer Studio are trademarks of Texas Instruments.
 ARM is a registered trademark of Arm Limited (or its subsidiaries) in the US and/or elsewhere.
 All other trademarks are the property of their respective owners.

1 Package Structure

The C2000Ware software package is organized into the following directory structure shown in [Table 1](#).

Table 1. C2000Ware Root Directories

Directory Name	Description
.metadata	Contains the C2000Ware resource explorer standalone GUI files. Do not modify.
boards	Contains the hardware design schematics, BOM, gerber files, and documentation for C2000 controlCARDS,
device_support	Contains all device-specific support files, bit field headers and device development user's guides.
docs	Contains the C2000Ware package user's guides and the HTML index page of all package documentation.
driverlib	Contains the device-specific driver library and driver-based peripheral examples.
examples	Contains the examples involving multiple devices/peripherals to showcase different applications.
libraries	Contains the device-specific and core libraries.
uninstallers	Contains the C2000Ware uninstaller.
utilities	Contains development utility applications such as flash programmers, windows drivers, and third party software.

1.1 Documentation

Within C2000Ware, there is an extensive amount of development documentation ranging from board design documentation, to library user's guides, to driver API documentation. The "boards" directory contains all the hardware design, BOM, gerber files, and controlCARDS. To assist with locating the necessary documentation, an HTML page is provided that contains a full list of all the documents in the C2000Ware package. Locate this page in the "docs" directory.

1.2 Devices

C2000Ware contains the necessary software and documentation to jumpstart development for C2000 microcontrollers. Each device includes device-specific common source files, peripheral example projects, bit field headers, and if available, a device peripheral driver library. Additionally, documentation is provided for each device on how to set up a CCS project, as well as give an overview of all the included example projects and assist with troubleshooting. For devices with a driver library, documentation is also included that details all the peripheral APIs available.

To learn more about C2000 microcontrollers, visit www.ti.com/c2000.

1.3 Libraries

The libraries included in C2000Ware range from fixed point and floating point math libraries, to specialized DSP libraries, as well as calibration libraries. Each library includes documentation and examples, where applicable. The communications folder has the relevant stack, examples of the communication peripherals. Additionally, the flash API files and boot ROM source code are located in the "libraries" directory.

2 C2000Ware GUI

C2000Ware provides a graphical user interface (GUI) for intuitive navigation of software, libraries, user's guides, and other package content. Within Code Composer Studio (CCS) v9.0 and newer, go to "View->Resource Explorer" to locate the C2000Ware GUI explorer.

C2000Ware uses the new online Resource Explorer, which includes many updated features. This includes full package navigation on the web or in CCS without requiring installation of C2000Ware. Additionally, on the web there is the ability to import to CCS Cloud and download individual files or examples.

View C2000Ware Resource Explorer on the web: - dev.ti.com/tirex/#/

3 Updating C2000Ware

Within the C2000Ware installation directory there is an update checking application, "C2000WareUpdater.exe," which checks for a newer version of C2000Ware. The updater (currently Windows only) periodically automatically checks in the background for any newly available C2000Ware packages. A notification will appear detailing any updates found. When the updater is run manually, a window opens to display either that the current version installed is the latest version or that a newer version is available for download. If a new version is available, the option is given to download and install the new version. The application will then proceed to download the latest C2000Ware installer to the specified download directory. Upon completing the download, the installer will automatically run and continue with the standard installer steps.

4 Code Composer Studio

Code Composer Studio is an integrated development environment (IDE) that supports TI's microcontroller and embedded processors portfolio. Code Composer Studio comprises a suite of tools used to develop and debug embedded applications. The latest version of Code Composer Studio can be obtained at the following link: <http://www.ti.com/ccstudio>.

All projects and examples in C2000Ware are built for and tested with TI's Code Composer Studio. Although Code Composer Studio is not included with the C2000Ware installer, it is easily obtainable in a variety of versions.

5 Support

Use the C2000 E2E Forum to post any support questions: [C2000 Microcontrollers E2E Forum](#).

6 Software Tools for F2838X

For the F2838X device, [Table 2](#) provides the link for various TI Software Tools/Packages that are available outside of C2000Ware.

Table 2. F2838X Device Software Tools

Software Tools/Package	Download link for latest version
SYSBIOS	Link
XDC Tools	Link
Network Development Kit (NDK)	Link
Network Services (NS)	Link

Revision History

NOTE: Page numbers for previous revisions may differ from page numbers in the current version.

Changes from C Revision (September 2019) to D Revision	Page
• Changed the minimum CCS version to 9.2.0.....	1

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale (www.ti.com/legal/termsofsale.html) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
Copyright © 2019, Texas Instruments Incorporated