controlSUITE™ to C2000Ware Transition Guide

C2000Ware for C2000 microcontrollers is a cohesive set of development software and documentation designed to minimize software development time. C2000Ware is the successor to controlSUITE as the centralized, interactive, software repository for everything C2000. The following sections below highlight the differences between the packages to assist in getting started using C2000Ware when migrating from controlSUITE.

C2000Ware requires:

- CCS v6.2.0 or newer
- C2000 Compiler v16.9.0 or newer

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1 Package Contents

The following sections detail the directory content in controlSUITE and provide details on where to find these resources in the C2000Ware package.

	controlSUITE	C2000Ware	C2000Ware + SDK
Online & CCS Resource Explorer (GUI)		✓	✓
Device Support • Bit Field Source & Headers • Bit Field Examples • Linker Command Files	✓	✓	✓
Device Driver Library Support • Peripheral APIs • Driver Examples		✓	✓
DSP, Math, Communications, Calibration, & Flash Libraries	✓	✓	✓
Application Libraries	✓		✓
Application Development Kits • Documentation • Solutions • Examples	✓		✓
Design Documentation, Schematics & Files • LaunchPad • controlCARD • controlSTICK • Experimenter Kit • Peripheral Explorer Kit	✓	✓	✓
PowerSUITE	✓		✓
Boot ROM Source & Flash Programmers	✓	✓	✓

Figure 1. C2000Ware Controlsuite Comparision Chart

1.1 GUI (Resource Explorer)

C2000Ware provides a GUI for navigation of the software, libraries, and other content within the package similar to controlSUITE. The GUI will continue to be accessible within Code Composer Studio™ (CCS) v7.0 and newer. 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 2000Ware. 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/#/.

The standalone GUI application is still in development.

1.2 Development Kits

Within controlSUITE, the "development kits" directory included board application kits, system application solutions, hardware documentation and design files, and other board projects. In C2000Ware, the projects, documentation, and files related to development kits are not included. The C2000Ware "boards" directory only contains the hardware design schematics, BOM, gerber files, and other documentation for C2000 controlCARDs, controlSTICKs, Experimenter Kits and LaunchPads. These are now located in the new "boards" directory and LaunchPad demo examples are now located in the "device_support" directory. The development kits have been migrated into specific software development kits (SDKs) that are built on top of a particular revision of C2000Ware. To obtain a desired development application kit, locate the appropriate SDK package on www.ti.com, then download and install it to your computer. The SDK contains all the development kit files and other collateral relating to the desired development solution, as well as including a full version of the C2000Ware package.

The C2000Ware SDKs are currently in development.

1.3 Device Support

Within controlSUITE, the device support directory contained the specific device source and header files, as well as example projects and device development user guides. All these files are included in C2000Ware. The main difference in C2000Ware is that device content within the device_support directory in controlSUITE is now split between two directories: device_support and driverlib. The device_support directory contains the memory linker command files, device source files, the bit field based peripheral example projects, and the bit field header files. The driverlib directory contains the driver library (if available) and the driver-based peripheral examples (if available). The device development user guides and driver library API guides are available in both the device_support and driverlib directories.

1.4 Libraries

Within controlSUITE, the libs directory contained various libraries including application specific libraries (motor control, digital power, and so forth), math libraries, flash API, calibration libraries, and other core libraries. In C2000Ware, the libraries directory contains all libraries listed in controlSUITE with the exception of application specific libraries. These libraries have been migrated, along with the development kits, into specific software development kits (SDKs). See Section 1.2 for additional details regarding SDKs.

1.5 powerSUITE

The suite of digital power support design software tools, powerSUITE, was part of the controlSUITE installation. In C2000Ware, powerSUITE is not included and will be part of a specific software development kit (SDK). See Section 1.2 for additional details regarding SDKs.

2 Package Directories

Moving from controlSUITE to C2000Ware, there are several directory changes. This includes the root folders and its subfolders. Table 1 details where the content of the controlSUITE root directories has been relocated to within the C2000Ware package. Table 2 and Figure 2 highlight where specific device support files and examples have been moved to using Delfino part family F2837xD as an example.

Table 1. controlSUITE to C2000Ware Root Directories

controlSUITE	C2000Ware	Description
~cs_desktop ~cs_destop_CN eclipse	.metadata	Resource explorer GUI content has been combined into a single directory. This supports the standalone GUI application.
development_kits	boards	The hardware design schematics and documentation for LaunchPads, Peripheral Explorer Kits, Experimenter Kits, controlSTICKs, and controlCARDs has been moved into boards. LaunchPad demo examples are now located within the device_support directory.
device_support	device_support driverlib utilities	The device specific source/headers and examples are split between two directories, device_support and driverlib. The utilities directory contains the flash programmers and any other third party content.
libs	libraries	With the exception of application libraries/drivers, all the libraries from controlSUITE are in this directory.
powerSUITE	-	powerSUITE is not included in C2000Ware
-	docs	Contains the C2000Ware package user guides and an HTML document that details all the documentation in the whole package.
-	uninstallers	Contains the C2000Ware uninstaller.

Table 2. controlSUITE to C2000Ware Device Directories

controlSUITE	C2000Ware	C2000Ware Path
doc	docs	~/driverlib/f2837xD/docs
F2837xD_common	common driverlib	~/device_support/f2837xD/common ~/driverlib/f2837xD/driverlib
F2837xD_examples_Cpu1	examples	~/device_support/f2837xD/examples/cpu1 ~/driverlib/f2837xD/examples/cpu1
F2837xD_examples_Dual	examples	~/device_support/f2837xD/examples/dual ~/driverlib/f2837xD/examples/dual
F2837xD_headers	headers	~/device_support/f2837xD/headers

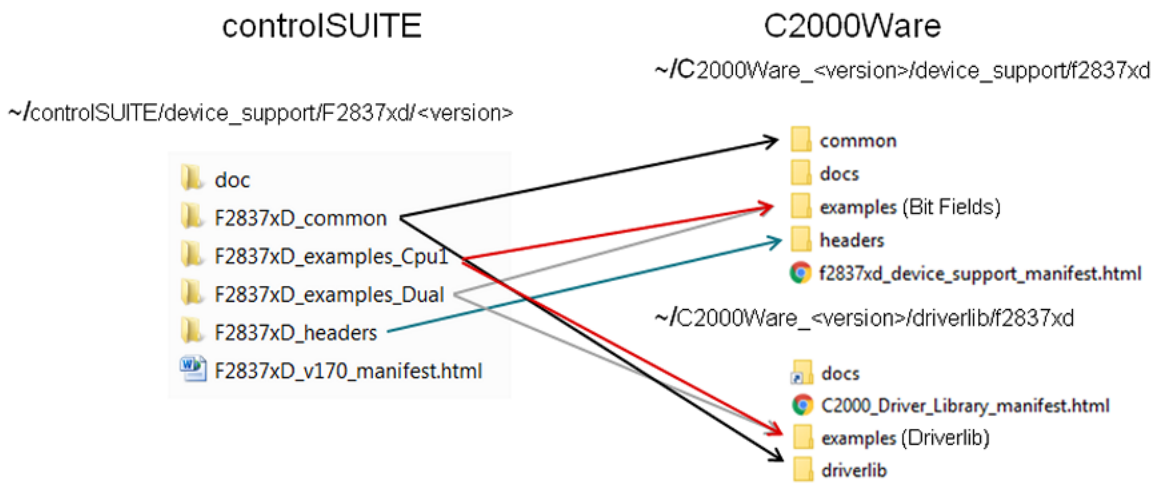

Figure 2. Directory Comparison

3 Installation and Updating

The C2000Ware package installation location and updating procedure differs from how controlSUITE handled these actions. Starting with installation, controlSUITE always installed, by default, in the same location. An example installation path for controlSUITE is as follows:

C:\ti\controlSUITE

C2000Ware, unlike controlSUITE, is versioned at the package level and thus results in a separate directory installation for each revision. For example, installing version 1.00.00.00 will, by default, install at the following path:

C:\ti\c2000\C2000Ware_1_00_00_00

With another C2000Ware version is released and installed, the package will be installed in its own folder. This allows multiple versions of C2000Ware to be installed at the same time. For example, a 2.00.00.00 package will be installed, by default, at the following path:

C:\ti\c2000\C2000Ware_2_00_00_00

Another difference will be seen when updating the C2000Ware package. With controlSUITE, performing an update, appended the new contents and changes to the existing controlSUITE installation using a custom update installer. For C2000Ware, when an update is performed, the newest C2000Ware revision installer is downloaded and executed. Upon completion, a new directory for the latest installation is created as detailed earlier in this section. The C2000Ware package version that performed the update check remains untouched and unchanged throughout the update process.

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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265