4 CCStudio Setup

A.) Importing a Pre-defined Setup or Factory Board

These instructions apply to CCStudio v3.1 and v3.3, but the import dialog varies slightly between versions. Refer to the USB2000 Installation Guide if more information is needed.

1. Run CCStudio Setup.

2. Find and select, **bh-usb2000 controller,** from the "platform" pull down menu located at the top of the middle CCSetup window. (this will list on only the USB2000 controller imports).

3. You can narrow down the import options between C24x and C28x by using the "device" pull down (i.e. select "C28x" to list all TMS320C28x device imports).

4. When you find your target, or an import that closely matches your target, highlight the entry and choose the option to "add it to your system".

5. If this import setup does not completely match your target, you can edit the properties manually, such as to add a GEL file specific to you H/W.

6. When finished, save the setup and start CCStudio.

B.) Using Create Board for CCStudio v3.1 and later

1. Run CCStudio Setup.

2. Select the "Create Board" tab and drag the **BH USB2000 Connection** to My System on the left. This will prompt you for a connection name. You can enter any string you want, but at a minimum, it typically includes the emulator name and target DSP or board name.

3. Now, highlight the new connection name you added under My System and add the available processor(s) shown in the middle window to match your hardware.

4. Save your setup and start CCS.

Blackhawk
123 Gaither Drive, Mt. Laurel, NJ 08054-1701
www.blackhawk-dsp.com

Blackhawk is a registered trademark of EWA Technologies, Inc.
USB2000-QS-01

QUICK START GUIDE

Blackhawk™ USB2000 Controller (USB2000)

Installation Requirements

- PC or Notebook computer with at least one free USB v1.1 or v2.0 port.
- Windows® 2000/XP/Vista Operating Systems (32 or 64-bit versions).
- Texas Instruments Code Composer Studio Version 3.3 SR2[†] or later.
- CD ROM Drive.

Inventory of Items Included

1. Blackhawk USB2000 Controller POD

2. USB 2.0 Compliant Cable.

3. Installation CD ROM.

4. Warranty and Product Registration Cards.

5. Quick Start Guide.

Other Items Required

1. Target Board System — a self-powered board with a TI DSP and compatible JTAG header connection conforming to IEEE 1149.1 Standard.

2. Copy of Code Composer Studio Version 3.3 SR2[†] or later.

IMPORTANT ENVIRONMENTAL CONSIDERATIONS

This equipment is designed to be operated under the following environmental conditions:

Temperature between 0°C – 55°C. Relative Humidity of 20% - 70% non-condensing.

Operation of the unit outside of the above range may affect structual and mechanical integrity and cause permanent damage.

Caution is necessasry to minimize ESD (Electro-stactic Discharge) which can damage electronic components. Use in a controlled environment where ESD materials and practices are employed is highly recommended.

[†] For CCStudio v3.1 you will need the TI USCIF v35.24.0.3 update to be applied first. This is part of our USB2000 installer for CCS v3.1. CCS v3.3 requires SR2 or later to be installed, which is available for download from the TI web site via CCS update advisor. CCS v3.2 not supported.

1 Emulation Driver Installation

The **USB2000** Controller shipped with its emulation drivers on CD ROM media that are needed by Windows and Code Composer Studio for operation.

1. Insert the Emulation Driver CDROM into your PC's CDROM drive.
2. Follow the installation wizard, and when done, you are ready to install the emulator hardware.

If the installation executable fails to start automatically, run X:\Setup\Setup.exe, where [X] is the drive letter for your CD ROM drive.

2 Hardware Installation

W A R N I N G

Be careful to connect interface cables with the correct orientation. Pin 1 on the interface cable should match Pin 1 on the DSP system connector. The JTAG cable assembly features a "keyed" connector to minimize the chance of error.

Do not force cables into position. Forcing them may damage the cables or the interconnected boards and systems.

1. Attach the USB cable to an available USB port on the PC.
2. Then attach the other end of the USB cable (mini-B connector) to the USB connector of the **USB2000** Controller (see Figure 1).
3. The bi-color LED should now illuminate **RED**, indicating that the controller is powered.
4. Follow the Plug and Play installation for the Windows device driver (see step 3 on USB PnP Installation for more information).
5. After the Windows hardware driver installation completes, the LED will turn **GREEN** indicating that the drivers loaded properly.
6. You can now attach the controller's JTAG cable assembly (the 14-pin, 2x7 JTAG connector shown in figure 1) to the corresponding header on the target board. Make sure the target is **not powered** when connecting!
7. Setup and start Code Composer Studio (see step 4 on Code Composer Studio Setup).

USB PnP Installation 3

Windows 2000/XP/Vista

1. If not already connected, connect the USB cable to the computer and to the **USB2000** controller.
2. Follow the Windows "Found New Hardware" wizard prompts.
3. You can select the "automatic" option for locating drivers.
4. If the automatic option did not locate them, you can manually specify the location. *These files were installed to your system during the Emulation Driver Installation—step 1. The typical location for these files is folder: C:\CCStudio_v3.3\blackhawk\drivers.1 , where <C:\CCStudio_v3.3> is the location selected in step 1.*
5. When completed, the Blackhawk Control Panel and Windows Device Manager will show the device. The Blackhawk Control Panel can be activated from its icon, located in the Windows Control Panel Dialog Box.
6. Now follow the Code Composer Studio Setup—Step 4

Emulator Pod
(3.5 x 2.0 x 0.6 inches)

USB2000 CONTROLLER
www.blackhawk-dsp.com

Blackhawk
Powering DSP Development™

Part #: BH-USB-2000

© 2007 EWA Technologies, Inc.   Made in U.S.A.
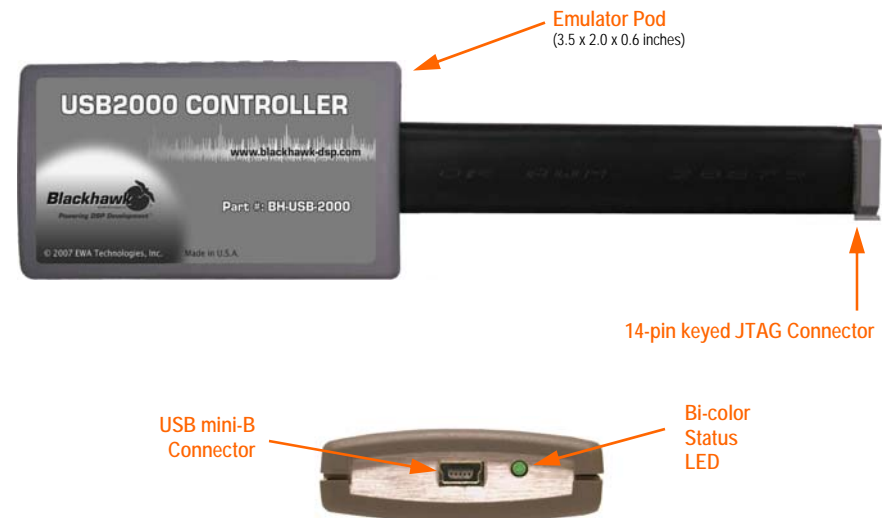
14-pin keyed JTAG Connector

USB mini-B Connector

Bi-color Status LED

FIGURE 1—USB2000 JTAG Emulator (top & side views)