4 CCStudio Setup

CCStudio v3.3 Service Pack 12 and later

1. Run CCStudio Setup and select, `bh-usb510W emulator,` from the "platform" pull down menu located at the top of the middle CCSetup window. (this will list on only the `USB510W` controller imports).

2. In the emulator properties, select USB for the host interface.

3. You can narrow down the import options between all supported DSP families by using the "device" pull down (i.e. select "C67xx" to list all TMS320C67xx 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 CCStudiov3.3.

CCStudio v4 and later

1. In the CCS v4 or v5 bring up the `New Target Configuration` Window from the File Menu option. (see figure 2 below)
2. From the connection drop down list select the **Blackhawk USB510W Emulator**
3. Select your board or device that is connected to the emulator.
4. Switch to the advanced view and select USB as the host interface for the connection.
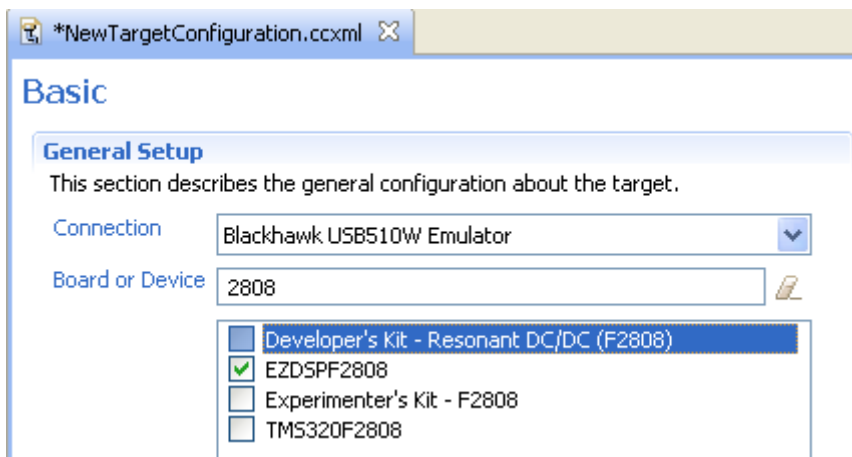5. Save this setting and launch the TI Debugger.

FIGURE 2 - USB510W Target Setup and Selection

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

Blackhawk is a registered trademark of EWA Technologies, Inc.
USB510W-QSu-01

Blackhawk™ USB510W JTAG Emulator (USB510W)

▶▶ USB DEBUG INSTALLATION ◀◀

USB Installation Requirements

- PC or Notebook computer with at least one free USB v1.1 or v2.0 port[†].
- Windows® XP/7 or Linux Operating Systems (32 or 64-bit versions).
- Texas Instruments Code Composer Studio Version 3.3 SR12 or later.
- CD/DVD ROM Drive.

Inventory of Items Included

1. Blackhawk `USB510W` Emulator POD

2. USB 2.0 Compliant Cable.

3. 5V USB Power Supply + World plug adapter set[†].

4. BH-ADP-20e_cTI-14t_TI Pin Converter.

5. BH-ADP-20e_cTI-20t_ARM Pin Converter.

6. Installation CD ROM.

7. Warranty Card.

8. Quick Start Guide.

Other Items Required

1. Target Board System .

2. Copy of Code Composer Studio Version 3.3 SR12 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-static Discharge) which can damage electronic components. Use in a controlled environment where ESD materials and practices are employed is highly recommended.

† For USB510W wireless setup and power supply connections, please refer to the Ethernet Debug Install Quick Start, or the USB510W Installation guide.

If you are using Code Composer Studio v4 or later, use the built-in eclipse up-date manager (i.e. check for updates) to download USB510W files.

The **USB510W** Emulator shipped with its emulation drivers on CD ROM media that are needed by Windows and Code Composer Studio v3.3 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 and Pin Converters feature "keyed" connectors 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 **USB510W** Emulator (see Figure 1).
3. The USB bi-color LED should now illuminate **RED**, indicating that the controller is powered.
4. Follow the Plug and Play installation for the Windows/Linux device driver (see step 3 on USB PnP Installation for more information).
5. After the Windows hardware driver installation completes, the USB LED will turn **GREEN** indicating that the drivers loaded properly.
6. You can now attach the emulator's JTAG cable assembly (the 20-pin, 2x10 JTAG connector shown in figure 1) to the pin converter with corresponding header on the target board. Make sure the target board is **not powered** when connecting!
7. Setup and start Code Composer Studio (see step 4 on CCStudio Setup).

Windows 2000/XP/Vista/7

1. If not already connected, connect the USB cable to the computer and to the **USB510W** emulator.

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. *The typical location for these files is folder:*

    `C:\Program Files\Blackhawk\Emulation\drivers`

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.

Linux

1. Install CCSv5.1 or later or your system, then connect the **USB510W** emulator. You can verify the emulator driver installed properly by running the "`lsusb`" command in a terminal window.

Emulator Pod
(3.5 x 2.0 x 0.6 inches)

20-pin keyed JTAG Connector

USB mini-B Connector

USB Status LED

WiFi Status LED

FIGURE 1—USB510W JTAG Emulator (top & side views)