

4 CCStudio Setup

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

These instructions apply to CCStudio v2.2 - v3.3, but the import dialog varies slightly between versions. Refer to the [USB510 Installation Guide](#) if more information is needed.

1. Run CCStudio Setup. And for CCStudio v3.0 and earlier, start the "Import a Configuration" dialog.
2. Find and select "bh-usb510 emulator" from the "Platform" pull down menu located at the top of the middle CCSetup window or in the center of the import dialog box (this will list the [USB510](#) imports).
3. You can narrow down the import options further by using the "Family" pull down (i.e. select "C55xx" to list all TMS320C55x device imports).
4. When you find your target, or an import close to it, 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 (i.e. to add or change a GEL file).
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 USB510 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 (i.e. "Blackhawk USB510 - C5509").
3. Now, highlight the new connection name you added under My System and add the available processor(s) from the middle window to match your hardware.
4. Save your setup and start CCS.

C.) Using Code Composer v4.1x with SP2 (VC33)

1. Start Code Composer Setup and select the option to "import a configuration file".
2. Then select the [USB510](#) import for the VC33. It should be listed in the import dialog as "VC33 USB510 Emulator - (Blackhawk)".
3. Save and exit Code Composer Setup, but do not start Code Composer.
4. **To start Code Composer**, use the BH-USB510-VC33.BAT batch file provided in the folder, \tic3x4x\cc\bin, where \tic3x4x is the directory Code Composer was installed.
5. This will set the specific environment variables for the [USB510](#) that are needed by Code Composer, and then it will start the Code Composer IDE. *You can alternately set these variables permanently in the environment and use the desktop icon to start Code Composer.*

QUICK START GUIDE

Blackhawk™ USB510 JTAG Emulator ([USB510](#))

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 or Code Composer Studio.†
- CD ROM Drive.

Inventory of Items Included

1. Blackhawk [USB510](#) JTAG Emulator POD.
2. USB 2.0 Compliant Cable.
3. Installation CD ROM.
4. Warranty and Product Registration Card.
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 or Code Composer Studio†.

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 structural and mechanical integrity and cause permanent damage.

Caution is necessary 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.

† The Blackhawk USB510 JAG Emulator is an XDS510-class device compatible with Code Composer v4.1x with SP2, Code Composer Studio v1.2, v2.x, v3.0, 3.1, 3.2, 3.3 and later.

1 Emulation Driver Installation

The **USB510** JTAG Emulator shipped with its emulation drivers on CD ROM media that are needed by Windows and CCStudio 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

WARNING

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. Place the **USB510** JTAG Emulator module in desired location (most likely near the target hardware).
2. Attach the supplied USB cable to an available USB port on the PC and to the USB connector on the **USB510** JTAG Emulator (see Figure 1).
3. Follow the Plug and Play installation for the Windows device driver (see section 3 on USB PnP Installation).
4. After installation, attach the emulator pod's JTAG cable assembly (the keyed 2x7 header connector in figure 2) to the corresponding male header on the target board.
5. Setup and start Code Composer Studio (see section 4).



FIGURE 1 - **USB510** JTAG Emulator (side view)

USB PnP Installation 3

Windows 2000/XP/Vista

1. If not already connected, connect the USB cable to the **USB510** and to the computer.
2. Follow the Windows "Found New Hardware" wizard prompts.
3. When prompted, you can select the "automatic" option for locating drivers. These were already installed during the emulation driver installation.
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 - section 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 section 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 in section 4.



FIGURE 2 - **USB510** JTAG Emulator (top view)