

## 5 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 [LAN560 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-lan560\_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 [LAN560](#) 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 LAN560 Emulator 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 LAN560 - C5509 Emulator").
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 CCStudio.

### C.) Changing an XDS560 PCI import for CCStudio v2.2-v3.0

1. Run CCStudio Setup and import a setup for the TI XDS560 PCI card that matches your target (refer to section (A.) above for importing).
2. Highlight the board you added under My System, right click with the mouse and choose properties.
3. Locate the Emulator Name field under board properties tab and change the name from "XDS560 0" to "BH560ETH 0". If you need to change other properties (GEL, DSP, etc.), you can do that too.
4. Save CCSetup and start CCStudio.

## 6 Quick Diagnostic

The [LAN560](#) is a network device, so when it is powered and connected to your network, you can use the standard Windows PING command to test if the emulator is accessible from your PC. Just enter the command shown below, which uses the default address. Your [LAN560](#) may be configured with a different address, so check with your network administrator if you did not originally configure the device.

```
C:\>ping 10.0.9.1
```

## QUICK START GUIDE

## Blackhawk™ LAN560 JTAG Emulator ([LAN560](#))

### ▶▶ ETHERNET DEBUG INSTALL ◀◀

This ETHERNET debug installation portion of the [LAN560 Quick Start Guide series](#) is intended to show how to configure the [LAN560 Emulator](#) for operation with Code Composer Studio using its LAN port.

For emulator network administration or debugging via the USB interface, please refer to those specific Quick Start Guides also included with the [LAN560 JTAG Emulator](#).

#### Inventory of Items Included

1. Blackhawk LAN560 JTAG Emulator POD ([LAN560](#)) and 12 inch JTAG cable.
2. High-Speed USB 2.0 Compliant Cable
3. Ethernet RJ45 Patch Cable
4. 5 Volt DC power supply
5. AC power cord (s)
6. 20-pin cTI JTAG cable.
7. 20e\_cTI-14t\_TI Pin Converter
8. 20e\_cTI-20t\_ARM Pin Converter
9. Installation CD
10. Warranty and Product Registration Cards.
11. 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 2.2<sup>†</sup> or later.

#### Installation Requirements

- PC or Notebook computer with one free USB v1.1 or v2.0 port for USB debug or [LAN560](#) administration and/or free Ethernet port for LAN debug<sup>†</sup>.
- Windows® 2000 or XP/Vista Operating System
- Texas Instruments Code Composer Studio Version 2.2 or later.
- CD-ROM Drive.

<sup>†</sup> Ethernet connections to a local area network from the [LAN560](#)'s Ethernet port is made using a standard RJ45 patch cable (supplied). For direct connection (PC to [LAN560](#)) an RJ45 cross-over cable is required (not supplied). [LAN560](#) administration of TCP/IP address and subnet mask is done via USB port on the emulator.

#### 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.

# 1 Emulation Driver Installation

The **LAN560** 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 can 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

If the **LAN560** is already installed on your network and connected to a target board, you can skip this section and move to section 3.

### 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.  
Make sure the target is not powered when connecting!

1. Place the **LAN560** module in desired location and connect the 5v DC power plug of the power supply to the 5-volt DC input on the **LAN560** (see figure 1).
2. Attach a CAT5 patch cable to an available port on your network hub or router and to the LAN port on the **LAN560** (see figure 1).
3. If not already connected, attach the JTAG cable assembly to the corresponding "D" connector of the **LAN560** (see figure 2).
5. Connect the power supply A/C wall cord to A/C power, which will power the **LAN560** and initiate connection to the network.
6. You can validate the network connection by "pinging" the unit's IP address from any PC on the same network (see section 6).



FIGURE 1—LAN,USB & Power Endplate



FIGURE 2—JTAG End Plate



FIGURE 3—Install Option

# 3 Network File Install

This section describes how to install the network files for your PC to access the emulator across your local area network, WAN, etc..

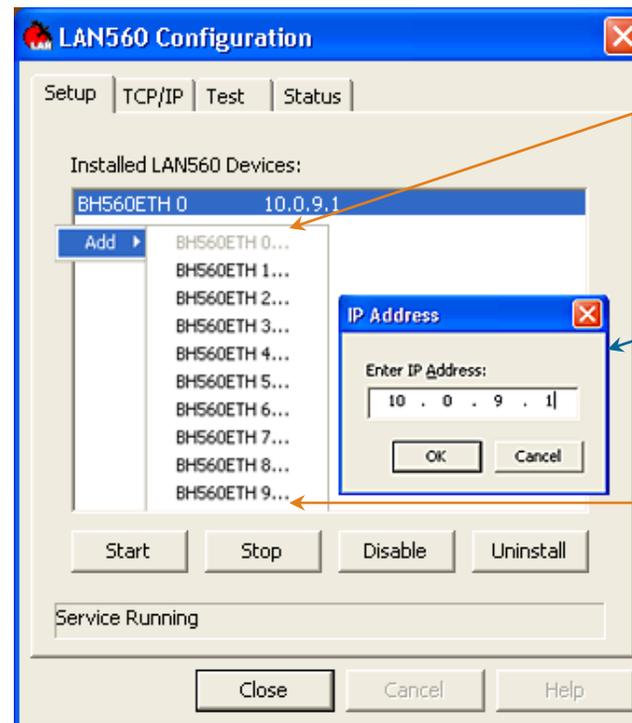
1. Locate the file, `bheth.inf`. This file was copied to your system during section 1. Typical location for this file is folder: `C:\CCStudio_v3.3\blackhawk\drivers.1\LAN`.
2. Highlight the file, right-click your mouse, and choose "install" from the menu (figure 3). Windows will copy and install the necessary files to communicate with the **LAN560**.

# Network Configuration 4

This section describes how to configure the network files on your PC to access the **LAN560** across your network when you run CCStudio.

The utility to configure access to the **LAN560**, `bhethcfg.exe`, was installed on your system in section 1. The typical location for this file is in: `C:\CCStudio_v3.3\blackhawk\drivers.1\LAN`.

- Launch the utility from windows, and verify that you are on the *Setup Tab*.
- In order to add a new emulator, right click on the white space within the main dialog window.
- Now Choose Add → **BH560ETH #...** for the emulator you wish to add.
- An **IP Address dialog box** will pop up where you need to enter your emulator IP address that matches what you have set using the Network Administration Quick Start Guide.
- Now click on the **Start** button to enable and run the service on your machine. (you can remove, disable or stop the service using the other three buttons).
- If your **LAN560** is powered and connected to a target board, you can switch to the *Test* or *Status* tabs to verify that you had successfully installed the **LAN560** service.



Matches Port # used in CCSetup.

IP Address of LAN560 to access.

If you need more than nine LAN560 devices, please refer to the installation guide for using the command line utility, `BH560Eth.exe`.

If you have a large BH-LAN560 pool. It is recommended you use scripting to set the services for each user's development PC, to restrict or permit access to specific LAN units.

Please refer to the Installation Guide for details.

FIGURE 4—LAN560 Configuration Utility