

**TMS320**

**series**

SIGNUM SYSTEMS

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JDSnet Drivers for Code Composer 4.1  
or Code Composer Studio 1.x

# Installation Instructions

JDSNET DRIVERS FOR CODE COMPOSER 4.1  
OR CODE COMPOSER STUDIO 1.X

# Installation Instructions

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SWII-JDSnet CCS Drivers 1x 4.22.03.10.22

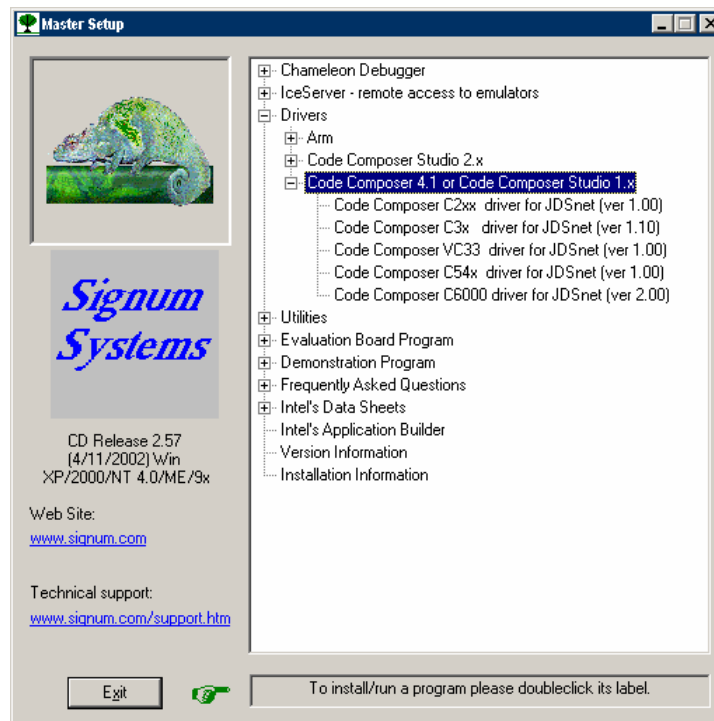


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**Purpose** *This document describes the Code Composer 4.1 and Code Composer Studio 1.x driver installation procedure for the Signum JDSnet emulator for Texas Instrument's TMS320 DSP processors. Please refer to the JDSnet Drivers for Code Composer Studio 2.x Installation Instructions for CCS 2.x specific information.*

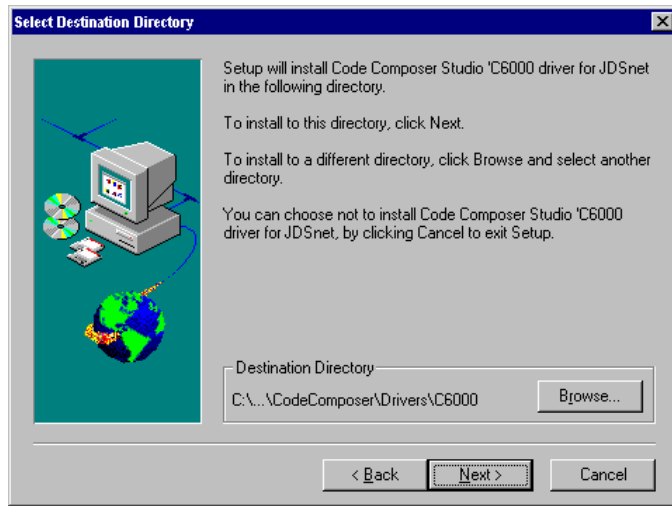
*These Installation Instructions cover Signum Systems drivers for CCS C6000, C5400, C3x, VC33 and C2000. Although the illustrations and examples in the text refer to CCS C6000, they can be extended straightforwardly to the other versions of Studio.*

1. Insert the *Development Tools for Microsoft Windows* disk into your computer's CD-ROM drive. In the Master Setup screen, select the driver for the desired version of Code Composer Studio.



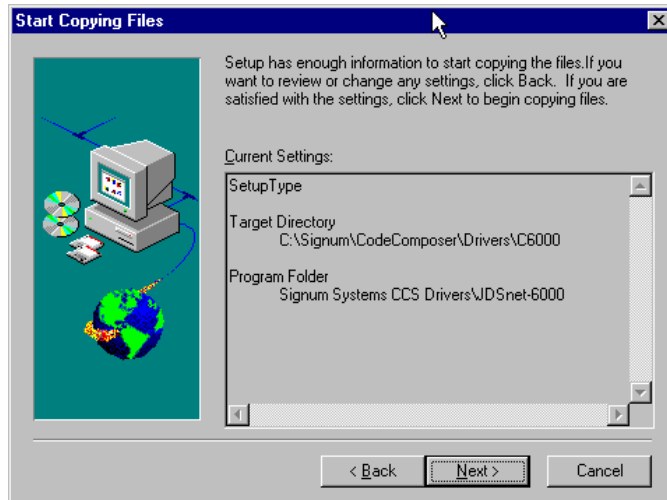
**FIGURE 1** Master Setup dialog box.

2. Choose the folder in which you want the driver to be installed.



**FIGURE 2** Selecting the installation folder.

In the confirmation dialog box, press the Next button to copy the driver files to your hard drive.



**FIGURE 3** Copying the driver files.

3. Add the new driver to the Code Composer setup program by clicking the Install button (Figure 4).

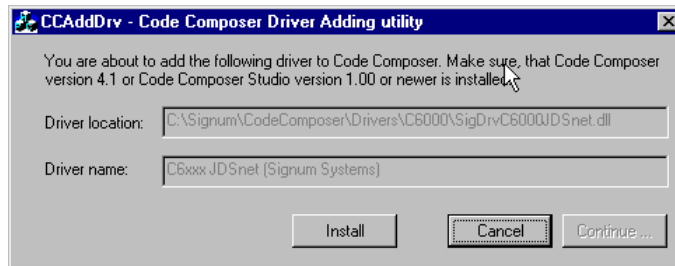


FIGURE 4 Registering the driver in Code Composer Setup.

Click the Continue button to proceed.

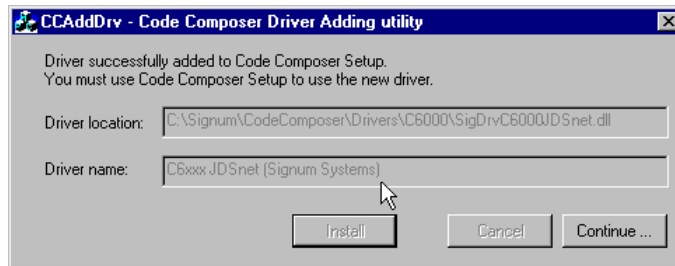


FIGURE 5 Driver registration completion dialog box.

4. If you are running Windows NT 4.0, the parallel port driver (ParalUSP.sys) necessary to communicate with the JDSnet emulator is installed. You may be prompted to reboot the system.

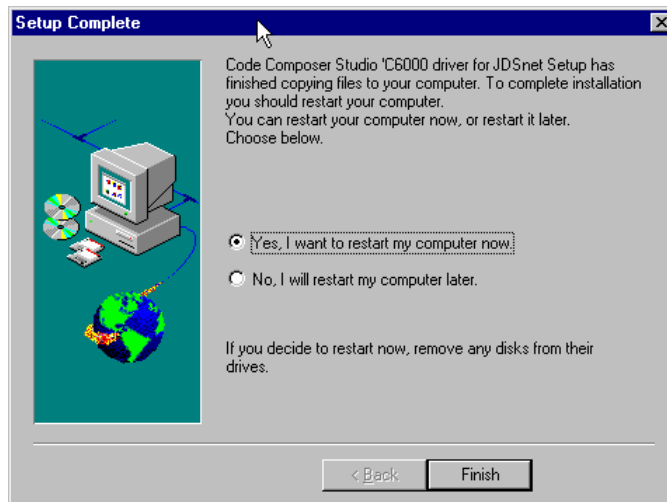


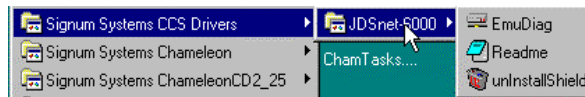
FIGURE 6 Installing the parallel port driver for Windows NT may require you to restart the system.

**Note:** If a parallel port driver has been installed on your system earlier and a message similar to that in the illustration below is displayed, no system restart is required.



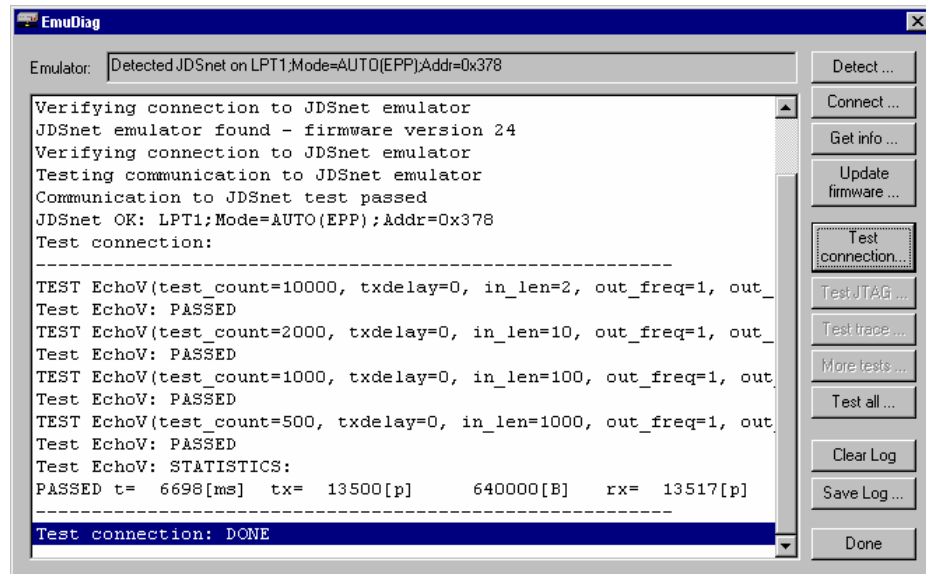
**FIGURE 7** Message indicating the presence of a parallel port driver on your system.

5. Complete the installation process, including the system re-boot on NT systems. Connect the JDSnet emulator to a parallel port of your machine. For best performance, make sure that the port is configured for the EPP mode — the standard mode is slower. Currently, the JDSnet does not support the ECP mode. Turn the emulator on and run the diagnostic program EmuDiag, as shown in Figure 8 .



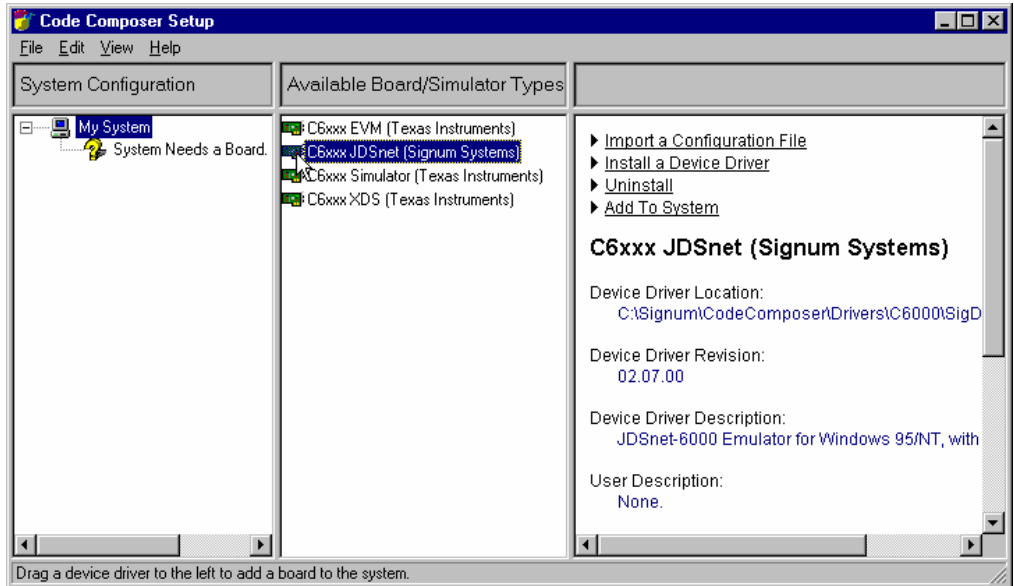
**FIGURE 8** Running the emulator diagnostic program EmuDiag.

In the dialog box that appears, click the Detect button and follow the on-screen instructions. EmuDiag will scan the parallel ports on your computer and test the connection between the PC and the emulator. For a more extensive test, press the Test Connection button. The correct response from the emulator should look like Figure 9.



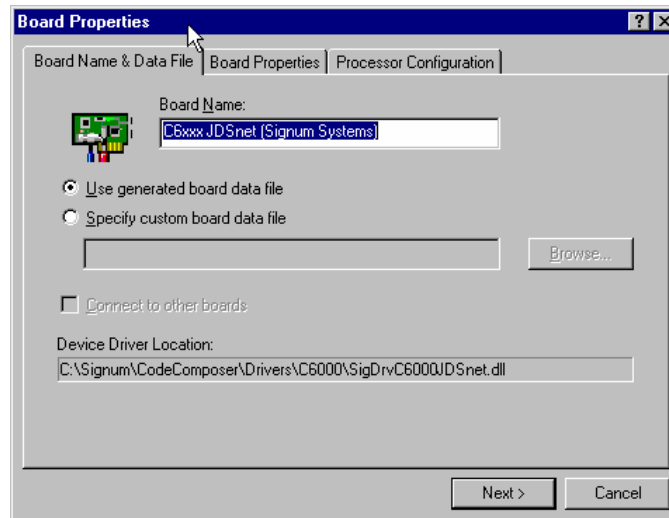
**FIGURE 9** Output from a successful connection test.

6. If the connection passes the test, turn the emulator off and connect the JTAG cable to the JTAG connector on your TMS320 system or evaluation board. Turn the emulator on first, then turn on your target board. Afterward, run the Code Composer Setup program. The newly installed driver should now be displayed as “[processor designator] JDSnet (Signum Systems),” as shown in Figure 10.



**FIGURE 10** The new driver shown in the Code Composer Studio window.

Use Code Composer Setup’s standard way to define the new board using the new driver. You can adjust the default board properties and add the CPU in the dialog boxes in Figure 11 through Figure 13.



**FIGURE 11** Modifying the target board properties in the Composer Setup program.

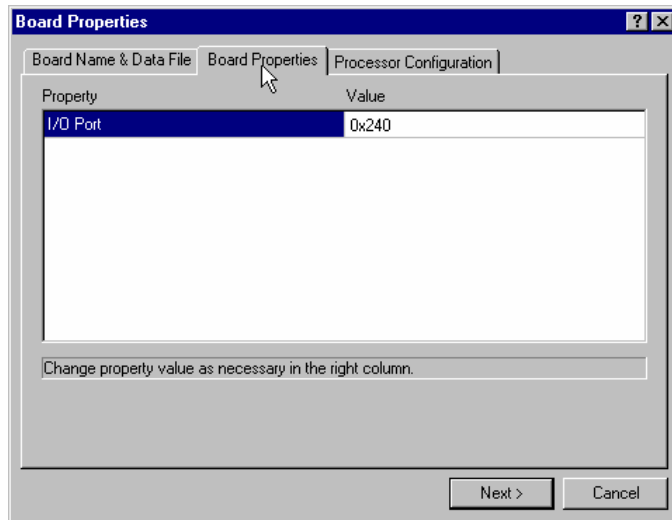


FIGURE 12 Modifying the target board properties in the Composer Setup program.

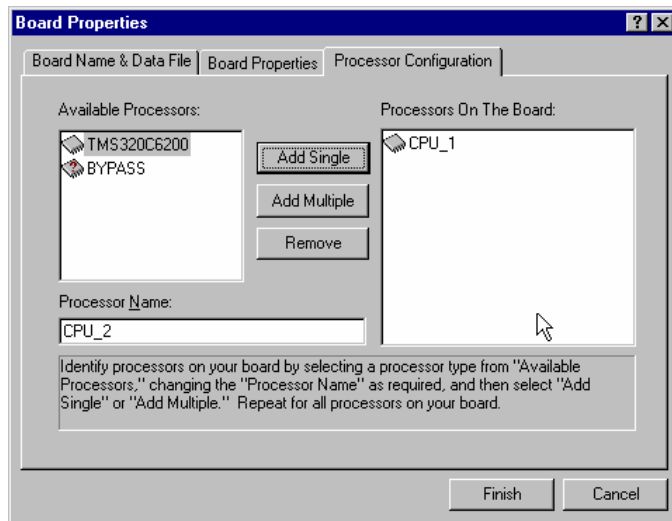
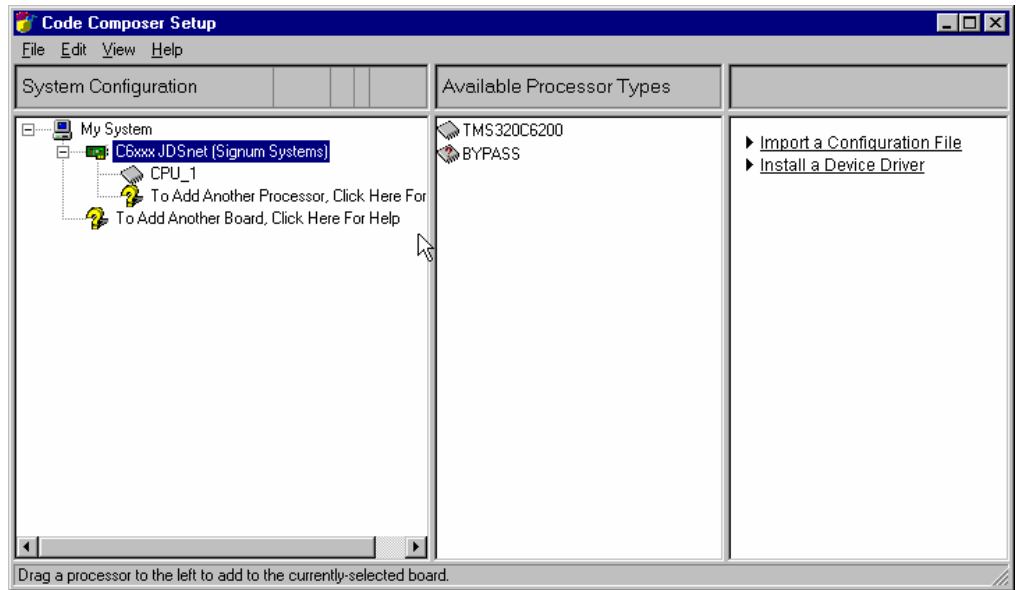


FIGURE 13 Adding a CPU in the Code Composer Setup program.

**Note:** The I/O Port property in the second dialog box on the Board Properties tab is ignored for the JDSnet emulator, because the unit communicates through a parallel port. This dialog box appears as an integral part of the Code Composer Setup process.

Click Next to continue. The resulting Code Composer Setup screen should look as shown in Figure 14.



**FIGURE 14** The Code Composer Setup window at the end of the Signum Systems driver setup process.

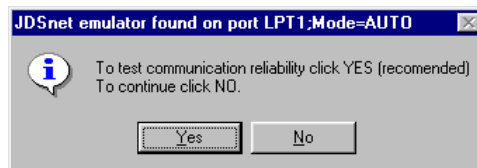
Close Code Composer Setup, saving the new configuration, and start Code Composer Studio.

**Note:** Using the C3x JDSnet (Signum Systems) — i.e., sigDrvC3xJDSnet.dll — driver with a TMS320C3x device clocked with a CPU clock slower than 30 MHz requires specifying that speed in the SigDrvC3xJDSnet.sig file as the JTAGspeed parameter. For example, for a 14 MHz CPU clock, say

```
JTAGspeed = 14000 ; 14MHz
```

By default, the SigDrvC3xJDSnet.sig file is located in the C:\Signum\CodeComposer\Drivers\C3x folder.

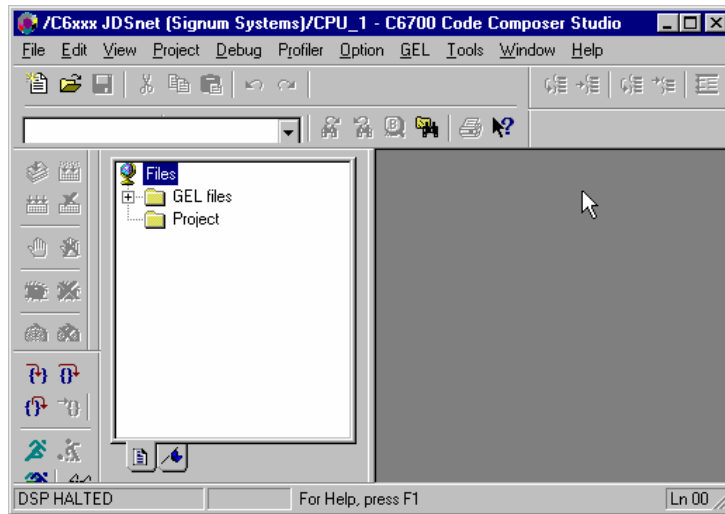
7. When starting Code Composer Studio for the first time, the JDSnet driver will look for the JDSnet emulator by scanning the parallel ports. You will be prompted to test the reliability of the connection:



**FIGURE 15** Verifying the connection between the emulator and the computer.

8. Respond to the prompt. When Code Composer Studio starts, the initial screen should be similar to the one in Figure 16.

**JDSNET DRIVERS FOR CODE COMPOSER 4.1 OR CC STUDIO 1.X**



**FIGURE 16** The initial Code Composer Studio window.

To verify that the installation has been successful, please run one of the Code Composer Studio examples.

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