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**Purpose**
This document describes the Chameleon Debugger software installation process for use with the Signum Systems JTAGjet emulator for the C166 processor. If your JTAGjet has USB interface, you must install a USB driver before proceeding; please refer to the “USB 2.0 Driver for JTAGjet Installation Instructions” booklet for step-by-step instructions.

**Installation**

1. Insert the Development Tools for Microsoft Windows CD into your CD-ROM drive. Select Chameleon Debugger and double-click Infineon C166 for JTAGjet in the Master Setup window.

![Chameleon Master Setup window](image)
2. If you are running Windows NT 4.0, 2000 or XP, the necessary parallel port driver will be installed, and your system will need to be restarted to complete the driver installation, as shown in Figure 2.

FIGURE 2 Newly installed drivers require a computer restart.

If the driver has already been installed on your system—by an older version of the debugger, for instance—the following message will notify you that the system does not need to be rebooted (Figure 3).

FIGURE 3 This computer does not need to be restarted.

Note: As on NT/2000/XP systems ordinary users are not allowed to install new device drivers, you will need to have administrator privileges on these systems. Windows 95/98 does not require any special drivers, and therefore it is not necessary to restart the computer.
3. Complete the installation process, start Chameleon and click the **Add target** button in the **System Configuration** window. See Figure 4.

![Figure 4](image)

**FIGURE 4** Dialog box for defining a new target CPU in Chameleon.

4. **Click** the **Add target** button to display the **Target selection** window (Figure 6). Click the **Enter a key** button and type the license key from the Product User License Certificate.

![Figure 5](image)

**FIGURE 5** Entering the software activation/upgrade key. The key is supplied with the emulator package.

5. Select **C166 (Infineon)** and the appropriate **Emulator/API** in the **Target selection** dialog box.
Click **OK**. In the dialog box that appears, select the communication port used by the JTAGjet emulator.

The automatic method attempts to find the fastest connection available and is hassle-free. If you need greater control over the connection, choose the **Specify Connection Port and Parameters** option and select the proper connection.
6. In the CPU selection dialog box, choose the CPU model you are using and click **OK** (Figure 11).

![CPU selection window](figure8.png)

**FIGURE 8** Narrowing the definition of the target CPU.

To set up a startup configuration, in the System Configuration dialog box, press the **Configure startup** button and select one of the configuration options from the dialog box that appears:

![Startup configuration options](figure9.png)

**FIGURE 9** Choosing the emulator-PC communication port.
Do not use any configuration or macro file when starting debugger. The target system and the debugger's user interface are not configured when the debugger starts running. In other words, the two options below are explicitly disabled.

Use the following macro when starting debugger. This option allows you to specify the name of and the path to your start-up macro command file .mac. Enter the filename by typing it in the text box or use the “…” file navigation button.

Use the following configuration when starting debugger. Upon startup, the debugger enforces the preset state of the target processor and displays the pre-selected Chameleon windows. As this option allows you to select, view, modify, save configurations as .cfg files, and execute macros, it offers more control than the start-up macro option. Press the Advanced button to manage the details of your configuration.

FIGURE 10 Configuring Chameleon’s startup.
To create your own .cfg files based on the files distributed with Chameleon, use the Save as button rather than overwrite the original files which may be needed for further reference.

To specify which Chameleon windows are to be opened when the debugger starts running, press the Windows button.

7. Make sure that the JTAGjet emulator is powered and connected to the selected communication port. The JTAG cable should be connected to the JTAG connector on the target board. Click OK to connect Chameleon debugger to the emulator. The initial screen should look like this.

![Screenshot of Chameleon debugger](image)

FIGURE 11 Typical system startup log.

It is recommended that before continuing with the project, you familiarize yourself with the documents available through the C166 documentation menu option. See the Note below.
If you encounter difficulties when installing or starting the debugger, please contact Signum Technical Support and e-mail all the .log and .ini files found in the Chameleon folder to: support@signum.com

**Note:** Chameleon documentation files, including this one, may be viewed directly from the Help menu.

**FIGURE 12** Finding Chameleon documentation.

**Troubleshooting Driver Installation**

Typically, the difficulties with installing parallel port driver stem from insufficient system user privileges. On NT/2000/XP systems, ordinary users are not allowed to install new device drivers. You will need to have administrative privileges on these systems. Windows 95/98 does not require any special drivers, and therefore it is not necessary to restart the computer.

**Windows NT 4.0**

On Windows NT 4.0 machines, the easiest way to check if you have administrator privileges is to select Devices from Control Panel, and then click the Startup button for one of the devices. If you do not have administrator privileges, the operating system does not allow you to access the device:
FIGURE 13  Windows NT: users without administrator privileges cannot access devices in Control Panel.

You can verify the installation of the ParalUSP driver from Control Panel. Choose Devices and scroll down to the ParalUSP entry. The Status and Startup properties of the driver should be Started and Automatic, respectively. See Figure 14.

FIGURE 14  Windows NT: ParalUSP driver properties.
Windows 2000/XP

The 2000/XP system will warn users without administrative privileges before it attempts to install the software:

FIGURE 15  Windows XP: non-administrators will see this dialog box.

Obtain administrative privileges before proceeding any further.
Appendix

Connecting the JTAG Probe to Selected Target Boards

Infineon XC16x

FIGURE 16 JTAGjet—Infineon XC16x Board development system. Jumper JP501 (OCSD_EN) on the Board must be in position 2-3, “Wiggler disabled”.
Phycore XC161

FIGURE 17  JTAGjet—phyCORE-XC161 Board development system.