

# JTAGjet-C2000™

## Emulator for the C2000 Family of MCU/DSPs from Texas Instruments



**JTAGjet-C2000** is a small, palm-sized In-Circuit Debugger for the TMS320C2000 family of MCU/DSPs from Texas Instruments. It is equipped with USB 2.0 interface that runs in the High-Speed mode at 480 Mb/sec.

### Support for the entire C2000 Family

JTAGjet-C2000 supports the following C2000 MCU/DSP devices:

- |                                       |  |
|---------------------------------------|--|
| <input type="checkbox"/> TMS320C24x   | <input type="checkbox"/> TMS320R28xx           |
| <input type="checkbox"/> TMS320F24x   | <input type="checkbox"/> TMS320F28xx           |
| <input type="checkbox"/> TMS320LC240x | <input type="checkbox"/> TMS320F2801x, 28044   |
| <input type="checkbox"/> TMS320LF240x | <input type="checkbox"/> TMS320F2802x Piccolo™ |
| <input type="checkbox"/> TMS320F2823x | <input type="checkbox"/> TMS320F2803x Piccolo™ |
| <input type="checkbox"/> TMS320F2833x | <input type="checkbox"/> TMS320F2833x Delfino™ |
| <input type="checkbox"/> TMS320C28xx  | <input type="checkbox"/> TMS320C2834x Delfino™ |

### Compatible with Code Composer Studio

JTAGjet-C2000 is fully compatible with Code Composer Studio 3.1 or newer. It installs directly into the Code Composer Studio directories and becomes visible as JTAGjet Emulator in the CCS Setup utility and preconfigured with many C2000 targets. Setting up to work with JTAGjet is just as easy as setting up a TI emulator – just drag and drop the preconfigured target and emulator configuration and start Code Composer Studio.

### JTAG Chain Device Detection

For custom made boards with more than one device on the JTAG chain, JTAGjet can detect all devices on the chain which is necessary in order to properly configure the CCS debugger.

### Variable JTAG Clock

JTAGjet-C2000 supports variable JTAG clock. It defaults to 10 MHz, but may be set from 1 kHz (for slow FPGA prototypes or power saving devices) to 30 MHz to provide faster application downloads and quicker Flash programming.

### Auto-sensing JTAG voltage

JTAGjet-C2000 comes with a detachable, active JTAG probe to better accommodate long scan chains and various JTAG pinout standards and low voltages. The standard probe comes with 14-pin XDS510 & XDS560 compatible JTAG header and supports targets from 3V to 5V. A low voltage probe is available as option for targets with 1.8V as well as fully **electrically isolated JTAG adapter** for noisy targets (ADA-ISO-TI14).



### Features

- ☐ Supports all Texas Instruments C2000 MCU/DSPs
- ☐ USB 2.0 high-speed port (480 Mbps) provides faster downloads
- ☐ Programmable JTAG clock from 1KHz to 30 MHz
- ☐ Powered by the USB port – no external power adapters needed
- ☐ 3 LEDs provide status of target power, JTAG and host activity
- ☐ Supports Code Composer Studio 3.3 and 4.x
- ☐ Optional Flash Programmer utility (does not need CCStudio)
- ☐ Change JTAG clock even when the CCStudio is running
- ☐ Detects and graphically shows all devices on the JTAG chain
- ☐ Graphically monitors all pins on the JTAG header
- ☐ Windows 7, XP and Vista compatible

### What's Included

- ☐ JTAGjet emulator with USB 2.0 cable
- ☐ JTAG cable with standard 14-pin JTAG probe or fully electrically isolated probe (-ISO models)
- ☐ CD-ROM with CCStudio drivers & documentation
- ☐ Flasher-C2000 programming utility (C2000F models only)

### Ordering Information

Part Number	Description	Price
JTAGjet-C2000	Emulator with CCS drivers	\$595
JTAGjet-C2000F	Emulator with CCS drivers and Flasher	\$795
JTAGjet-C2000-ISO	Emulator with CCS drivers and isolator	\$795
JTAGjet-C2000F-ISO	Emulator with CCS drivers, Flasher-C2000 and isolation adapter	\$995
TMDSCCS-MCUN01	Code Composer Studio for C2000	\$495
ADA-ISO-TI14E	JTAG isolation adapter	\$250

On-line store at [www.signum.com/C2000.htm](http://www.signum.com/C2000.htm)



**SIGNUM SYSTEMS CORP.**  
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**Phone:** (805) 383-3682  
**Web:** [www.signum.com](http://www.signum.com)

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# Flasher-C2000™

## Flash Programmer for the TI C2000 Family of MCU/DSPs



**Flasher-C2000** is a software utility that enables Signum JTAGjet emulators to program the on-chip Flash memory of the Texas Instruments F2000 DSP devices. This utility works stand-alone and does not require the Code Composer Studio.

### Supported Devices

Flasher-C2000 supports all 2000 MCU/DSP devices with on-chip flash:

- |   |  |
|---|--|
| <input type="checkbox"/> TMS320F240     | <input type="checkbox"/> TMS320F2809       |
| <input type="checkbox"/> TMS320F241     | <input type="checkbox"/> TMS320F2810/11/12 |
| <input type="checkbox"/> TMS320F243     | <input type="checkbox"/> TMS320F28015/16   |
| <input type="checkbox"/> TMS320LF2401A  | <input type="checkbox"/> TMS320F2802x      |
| <input type="checkbox"/> TMS320LF2402A  | <input type="checkbox"/> TMS320F2803x      |
| <input type="checkbox"/> TMS320LF2403A  | <input type="checkbox"/> TMS320F28044      |
| <input type="checkbox"/> TMS320LF2406A  | <input type="checkbox"/> TMS320F2823x      |
| <input type="checkbox"/> TMS320LF2407A  | <input type="checkbox"/> TMS320F2833x      |
| <input type="checkbox"/> TMS320F2801/02 | <input type="checkbox"/> Piccolo™          |
| <input type="checkbox"/> TMS320F2806    | <input type="checkbox"/> Delfino™          |
| <input type="checkbox"/> TMS320F2808    | <input type="checkbox"/>                   |

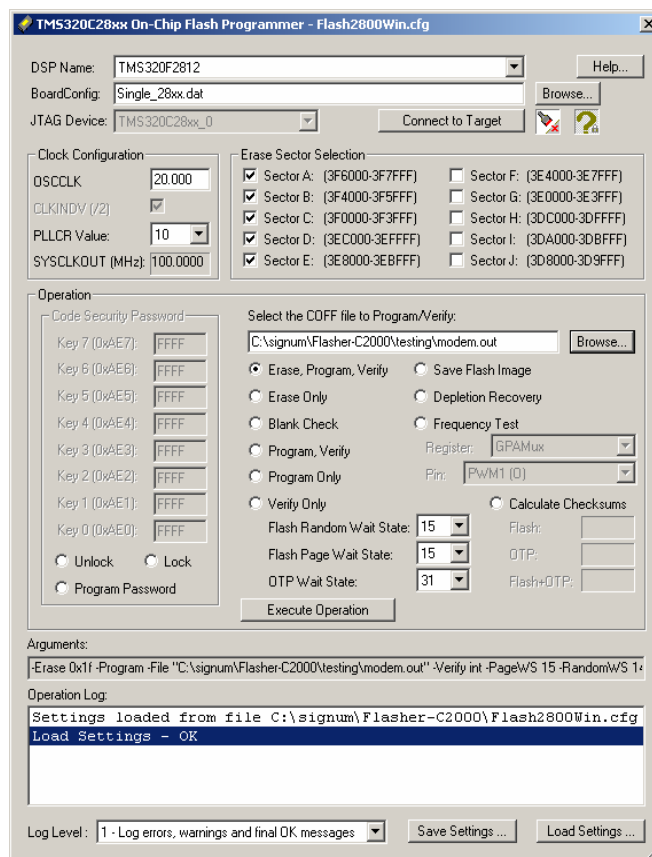
### GUI Interface Mode

This mode displays a dialog box (pictured at right) that enables the user to select the DSP to be programmed and set all the programming parameters in a well designed and easy to understand format. This graphical interface is very similar to the one in CCStudio Flash Programmer plug-in, which practically eliminates any learning curve for the users who are already familiar with the Flash plug-in.

### Command Line Mode

This mode of operation is ideal for any small or large production environment in which the operator uses a batch flash task to minimize human errors. The flash operation may be started by clicking on a shortcut or called from an automated test system. The creation of the batch file is very simple. Once a Flash operation is created and tested using the GUI all the necessary commands and arguments can be cut-and-pasted into a DOS batch file. No learning of command syntax is needed and any command errors are totally eliminated.

With the command mode, a F/W or algorithm vendor is able to distribute flash images and algorithm updates to his customers safely and economically. The flash image and the unlock security passwords may be safely hidden in encrypted files and decrypted only while programming by the Flasher software.



### Flasher-C2000 Features

- ☐ Programs on-chip Flash in all F24x, F240x and F28xxx devices using the JTAGjet emulator
- ☐ GUI and command driven interfaces
- ☐ No CCStudio installation required
- ☐ Fast programming & erase algorithms
- ☐ Flash depletion recovery, blank check & save flash to file
- ☐ Flash locking, unlocking & password programming
- ☐ Support for encrypted passwords and COFF files

### Ordering Information

Part Number	Description	Price
Flasher-C2000	Flash programming utility S/W	\$ 250
JTAGjet-C2000F-ISO	JTAG emulator w/ Flasher-C2000	\$995

On-line store at [www.signum.com/C2000.htm](http://www.signum.com/C2000.htm)



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