

Manual Update Sheet

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Document Being Updated: CDT370 Addendum to the TMS370 Family C Source Debugger's User's Guide

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This Manual Update Sheet (SPNZ093) ships with the *TMS370 Compact Development Tool EDSCDT370*

Documentation Errata

Page: Change or Add:

1-2, 2-3, 2-5 Hardware requirements: replace IBM PC XT/AT with IBM PC/AT

8-3, 8-6 Target cables: replace EDSTRG2XDIL with EDSTRG40DILX
and
replace EDSTRG2XPLCC with EDSTRG-44PLCCX

Installation

- The debugger's default option -a 1 corresponds to the CDT370 configuration: Add-on PC link/Address 318h,IRQ4 (CONF jumper set to ADD-ON, COM PORT jumper set to COM1).
- Memory map files defining memory maps for standard '370 devices can be found inside the MAPS directory on the product disk, but are not copied by the installation process. Note that these files are different from the ones found on the XDS or ABD product disks. If you are using both kinds of systems, and if you plan to copy these files, make sure that you use separate subdirectories.

Autotest

- The autotest should be performed after a power-on of the card, to avoid memory mapping and peripheral file configuration problems leftover from a previous usage.
- The duration of the "autotest in progress" should not exceed 15 seconds. Beyond this, hit the Esc key to return to the debugger and quit. If pushing the reset button on the CDT370 does not solve the problem, switch the CDT370 off, then on, and restart the debugger.

Trace and Timing

- TI_TRACE.TMP is a reserved filename in the debugger's startup current directory; the debugger creates this file to dump the contents of the CDT370 trace buffer, and deletes it automatically at the end of the session.
- The TSAVE command overwrites any existing file.
- Trace buffer contents. The Step and Next commands append to the contents of the trace buffer, except when they are executed over C code while in C mode (in this case they clear the contents first). The other code-executing commands clear the contents of the trace buffer before execution.
- The debugger minimizes the amount of the data transfer between the CDT370 and the PC. When the INSPECT window is not opened, the contents of the trace buffer are not transferred each time a command is executed.

If you intend to analyze the trace of a specific portion of code, keep the INSPECT window opened during this part of the debugging session.

- The CDT370 on-board counter overflows and stops counting at 16711680 (instead of 16777216 as indicated in the CDT370 Addendum).

Documentation

- The D_DIR environment variable also identifies the directory containing the auto.obj and prog3.obj object files. The debugger needs these files to perform the autotest and programming functions; it searches the current directory first, then the directories pointed to by D_DIR.
- The SYSTEM command has no operation in the Windows version of the debugger. Use an MS-DOS prompt icon from the Windows Program Manager instead.
- The PAUSE command is available for use in batch files.

Profiler

- Profile data is subject to the on-board counter limit of 16711680. When an overflow occurs during a profiling session, a warning message “number of cycles overflow” is displayed.

Limitations

- While the emulated TMS370 is in halt mode, a user-break (escape key) must not be used. To exit the halt mode, refer to the *TMS370 Data Manual* “low-power and idle modes”.
- When the CDT370 is free-running (runf, rrunf, wrunf commands), only a limited set of commands should be used (halt, quit, and all those which do not access the CDT370).
- The debugger stops when the executing program performs a memory access (read or write) to a location where a breakpoint has been set. The following error message is displayed:
“—Unexpected breakpoint at 'address'.”
(The code at 'address' or 'address – 1' performs an access to a memory location where a breakpoint is set).
- The functionality of the DOS version is not guaranteed when it is used under Windows. Use the Windows version instead.

C Source Debugger User's Guide (Tutorials)

- A tutorial on the use of the CDT 370 can be found in Chapter 2 of the *TMS370 C Source Debugger User's Guide*. Although page 2–16 explicitly states that it only applies to the XDS/22 emulator, it also applies to the CDT370.
- Chapter 3 of the *TMS370 Family C Source Debugger User's Guide* cannot be used as a tutorial on the trace capabilities of the CDT370.