The CMXTracker*

- Supports Intel 8051, 80151, 80251, 80196 Microcontrollers
- Enhances Debugging of Intel Microcontrollers
- Provides Insight of Application Flow
- Logging is Captured in Real-Time
- Chronological Display of Tasks Execution
- Displays CMX Functions Called and Results
- Single Stepping Per System Tick
- Task Flow Analysis

```
Task 1 EXECUTING
Task 1 CXTWATM,  TIME PERIOD = 2
Task 2 EXECUTING
>>> CMX Tick <<<
Task 2 CXMSWATM, MBOX #  0, TIME PERIOD = 3
Task 3 EXECUTING
Task 3, CXTCRE, Successful, Task 8
Task 3 CXEWATM,  TIME PERIOD = Indefinite
>>> CMX Tick <<<
Task 1 EXECUTING
Task 1 CXTWATM, Timed out
Task 1 CXMSSEND, Successful, MBOX # 0, Mesg ã "Hello1"
Task 2 EXECUTING
Task 2 CXMSWATM, Successful, MBOX # 0, Mesg ß "Hello1"
>>> CMX Tick <<<
--CYCLIC # 0 CXESIG, Successful, Mode 0, Task 3
Task 3 CXEWATM, Successful, Event bits match = 0x0040
Task 3 CXBFGET, ERROR-> none free, memory block address 0x102C
++INTERRUPT CXMSSEND, Successful, MBOX # 0 Mesg ã "Hello2"
Task 3 CXTWATM,  TIME PERIOD = 50
Task 2 EXECUTING
Task 2 CXMSGET
Task 2 CXMSGET, Successful, MBOX # 0, Mesg ß "Hello2"
>>> CMX Tick <<<
Task 2 CXTTRIG, Successful, Task 8
Task 8 EXECUTING
```

The CMX CMXTracker* provides the user the ability to log chronologically in real-time, the tasks' execution flow, capturing when a task is executing, the CMX functions called and their parameters, interrupts using CMX functions and the CMX system TICK within the CMX-RTX* real-time multitasking operating system environment, while the user's application code is running.

When the user enables the CMXTracker task, it will send a menu to the screen. The user may then select one of many prompts allowing the user to view the chronologically ordered log, reset the log, resume running of application code and possibly change some aspects of the log, such as "autowake" CMXTracker after a certain number of entries.

CMXTracker allows viewing the log at the beginning or end, paging down or up, viewing the exact execution of the tasks. In addition, viewing what CMX functions were called with their parameters and results returned (such as the message sent or received, event bits set, timed out, etc.,) and interrupts, with the CMX system TICK being a "timeline" stamp.

CMXTracker allows the user to "single step" one system TICK, thus allowing normal activity to occur for one system TICK, with CMXTracker resuming after this "single step". The user can also set the desired number of system TICKS that CMXTracker will wait, allowing normal

activity, before it again resumes. This is a very powerful and helpful feature.

MICROCONTROLLERS SUPPORTED:

8xC196Kx, 8xC196Mx, 8xC196Nx, 8x3x, 8xC5x, 80C51FA/RA/GB/BH/ SLAH/SLAL, 87C51FA/RA/RB/RC/GB/ SLAH/SLAL, 83L51Fx, 87L51Fx, 83C51Rx/Gx/KB/Fx/SLAH/SLAL, 8xC152Jx, 8xC151Sx, 81C51SLAH/ SLAL, 8xC251Sx, 82930A.

DEVELOPMENT PLATFORMS:

PC, SUN PC/Windows, HP Workstation, RS6000

AVAILABILITY:

Now

CONTACT:

CMX Company
5 Grant St., Suite C
Framingham, MA 01701
Phone: (508) 872-7675
FAX: (508) 620-6828
e-mail: cmx@cmx.com
WWW: http://www.cmx.com
For international contacts, see Appendix B.

CMX COMPANY

RTXC

- No Royalties
- Deterministic Context Switching With Low Latency
- Configurable With Sensible Pricing
- ROMable MicroKernel
- Runs on PC or Non-PC Hardware
- Source Code Included
- Multiple Methods of Inter-Task Communications
- TCP/IP Support
- Supports Real and Protected Mode

RTXC is a real-time, multitasking kernel for embedded applications, and provides supports for all versions of the Intel 80196, 8051 and 80251 controllers. RTXC was first released in 1978 in assembly language converted to C in 1985.

RTXC is a flexible, field-proven real-time kernel used in a wide variety of embedded applications. RTCX manages tasks and time, synchronizes with events and permits transferal of data between tasks. RTXC supports preemptive, round robin and time-slice task scheduling. RTXC is ROMable, supplied with source code and free of any runtime royalties. RTXC is simple, logical and easy to understand. The Nohau emulator supports interoperability with RTXC.

RTXC is delivered ready to use, ported to the specific processor and compiler you are using. The 650 page user manual is well organized and indexed, complete with application notes.

RTXC is supplied with one year free technical support including automatic software updates.

MICROCONTROLLERS SUPPORTED:
80196Kx, 80196Nx, 80196Mx, 8x3x, 8x5x, 8xC5x, 8xC5xFx, 8xC5XGx, 8xC51Rx, 8xC51SL, 8xC251Sx

DEVELOPMENT PLATFORMS:
PC (Windows & Non-Windows)

AVAILABILITY:
Now

CONTACT:
Embedded System Products, Inc.
10450 Stancliff Road, Suite 110
Houston, TX 77099-4383
Phone: (713) 561-9990 or
             (800) 525-4302
FAX: (713) 561-9980
e-mail: sales@esphou.com
For international contacts, see Appendix B.