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**Dynamic Trace
for ES 1800 Emulators:
User's Manual Addendum**



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SECTION 1

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DYNAMIC TRACE

Overview

The Dynamic Trace feature of the ES 1800 allows you to read trace while the target system is running. It is useful in three types of target systems:

- real time target systems
- target systems requiring constant activity on one or more signal lines
- target systems using multiple microprocessors

For real-time target systems, dynamic trace lets you keep your target running throughout the debug session, so that you don't have to worry about stopping your target. You can trace in target systems which require one or more signal lines to stay active, such as targets using dynamic RAM. With targets using multiple multiprocessors, dynamic trace lets you examine trace from one microprocessor without shutting down all the processors.

System Requirements

You must have a new Trace and Break board in order to use Dynamic Trace. To identify whether you have a Trace and Break board capable of dynamic trace, check the part number on the board. The Trace and Break board is typically the third board from the top in the ES 1800 chassis. The part number must be either 700-11550-0X or 700-11565-0X to support dynamic trace.

Using Dynamic Trace

There are three steps to using this feature: stopping the acquisition of trace so that you can look at it, looking at the trace, and restarting the acquisition of trace information.

1. Use the new ON/OFF switch TCE (Trace Capture Enable):

ON TCE	Trace buffer accepts trace information (default)
OFF TCE	Trace buffer stops accepting information so that it can be read by the user

In order to read trace while the target system is running, the buffer must be frozen, so that you can read the trace, so use the command:

OFF TCE

2. Use one of the four display trace commands to display raw or disassembled trace while the target system is running.

DRT	display raw trace bus cycles
DT	disassemble trace memory
DTB	disassemble previous page of trace memory (backward)
DTF	disassemble next page of trace memory (forward)

These commands work as documented in your ES 1800 manual, but now work in both pause and run mode.

3. Once you have looked at the trace, use the command:

ON TCE

to start capturing trace information in the trace buffer. With ON TCE in effect, you can only use DT, DRT, DTF and DTB in pause mode.

While the OFF TCE command is in effect, the entire Event Monitor System is disabled:

- if an Event Monitor System condition is reached, the system will not recognize it or do the appropriate action
- the Event Monitor System counters will not count

You can toggle the TCE switch while in run mode, so that you can alternate between using the Event Monitor System and reading trace while running.



Applied Microsystems Corporation

5020 148th Ave. N.E.
P.O. Box 97002
Redmond, WA 98073-9702

(206) 882-2000
1-800-426-3925
TRT TELEX 185196
FAX (206) 883-3049

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