



EVENTANALYZER™ FOR THREADX®

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The EventAnalyzer™ for ThreadX® is a powerful tool that enables programmers to understand the complex real-time interactions of their system. Some problems simply cannot be detected with standard debugging techniques. All desired system and user-defined application events can be logged and graphically displayed for easy analysis in the EventAnalyzer GUI.

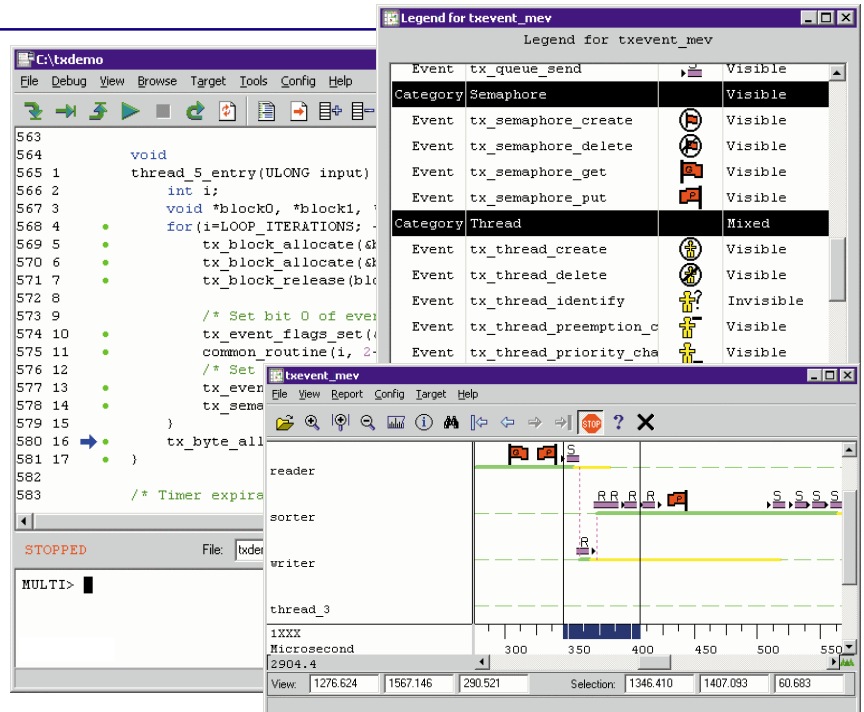
POWERFUL ANALYSIS

The EventAnalyzer GUI operates like a high-level logic analyzer. All context switching, thread state changes, ThreadX API calls, and interrupts are logged on the target in real-time. This data is transferred to the host where it is displayed graphically. Enabling and disabling event logging, selecting which events to track, and determining the size of target event buffers is fully controllable by the user.

The EventAnalyzer also provides various navigation capabilities that allow the user to zoom into certain areas for greater detail, or alternatively, zoom out to see the big picture, search, hide or display various events, and change the look and feel of task status lines and event icons.

LOW INTRUSIVENESS

The real-time event information is captured by the high-performance ThreadX kernel in the least intrusive manner possible. When event logging is enabled, small macros are inserted directly into the core ThreadX services that are responsible for entering the associated event in the event log. This approach leads to the absolute least intrusiveness possible.



USER DEFINED EVENTS

Users can insert code into their applications to generate logged events. This can be very useful since the user can locate important points in their code and log events that help understand the system better. Also, extra data can be logged such as the values of particular variables. This kind of data tracking in real-time can be invaluable. When the data is later analyzed, the user can search for these user defined events specifically.

```
_tx_el-user_event_insert
```

FILTER

Event logging can be controlled by the application software during run-time. The application can start and stop event logging and specify a fine-grained filter for which events are logged.

```
_tx_el_event_log_on  
_tx_el_event_log_off  
_tx_el_event_filter_set
```

EASY EVENT POOL
CONFIGURATION

ThreadX stores the real-time event information in a circular buffer whose starting address and size are defined inside the user's link control file. Changing the location or size of the event log is easy - a simple one line change in the link control file!

THE TOOL OF CHOICE!

Because of its power, low intrusiveness, and ease of use, the EventAnalyzer for ThreadX is simply the best tool for debugging complex system events in deeply embedded, high performance applications!

