



ENABLE SAFETY COMPLIANT DEVELOPMENT PERFORMING MULTI-CORE REAL-TIME ANALYSIS

Multi-core Microcontrollers are popular for developing Safety-critical embedded systems thanks to their high performance and efficiency. Universal Debug Engine (UDE), the trace-enabled debugger with a powerful user interface is the essential tool to help developers identify and solve issues quickly and efficiently.



MULTI-CORE DEBUGGING

Debugging a multi-core application is challenging, as developers need to track the behavior of each core independently.

A Synchronization Analysis, executed on trace data captured from multiple cores simultaneously, enables developers to identify issues, trace their roots and solve them in a faster and a more efficient manner.

REAL-TIME ANALYSIS

Hard real-time and multi-core applications, often based on a Real-Time Operating System, need to be analyzed to perform a comprehensive testing and validation of the software, and to ensure that it meets the required Safety standards.

High-resolution timing data provided through trace capability, can be used to identify potential issues and optimize the system's behavior.









SYNCHRONIZATION ANALYSIS

Synchronized debugging of a multi-core application helps developers to capture and identify synchronization issues between the cores, such as race conditions, deadlocks, or priority inversions, which can be difficult to diagnose through other means.

TIMING ANALYSIS

A debugging unit equipped with trace capability can offer highresolution timing data, which enables developers to scrutinize the timing behavior of the system and guarantee that it satisfies the necessary performance specifications. Visual representation of the program flow and its timing is the perfect tool to find bottlenecks or synchronization problems.

BLUEWIND VALUE

- Bluewind is an official distributor of the Universal Debug Engine UDE from PLS Development Tools, the solution for debugging and tracing in multicore Safety-oriented architectures.
- Bluewind provides qualified technical support and training to better use a debugging and tracing system.





