

Höhenkirchen-Siegertsbrunn
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TRACE32 provides JTAG Debug Support for VxWorks 653

Lauterbach is proud to announce full JTAG debug support for VxWorks 653 Multi-core Edition, an ARINC 653-conformant platform from Wind River, including the latest release, VxWorks 653 Multi-core Edition 4.0, supporting Arm, Intel, and Power multi-core processors.

As a Gold Partner of Wind River, Lauterbach has committed itself to support Wind River's operating systems as soon as they become generally available. To this end, working in close cooperation with Wind River, Lauterbach extended its product TRACE32 to include a comprehensive debug environment tailored to VxWorks 653 systems.

VxWorks 653 is a virtualization platform that supports multiple guest operating systems, including ARINC 653, VxWorks, and Wind River Linux, to independently execute at different safety and security criticalities. Debugging a multi-OS, multi-partition system with a hardware debugger is a complex undertaking. The debugger (and the developer) needs to know which partition is active and how to access a currently inactive partition in order to be able to access variables or set breakpoints anywhere in the system.

TRACE32 for VxWorks 653 is able to detect all partitions and their memory configuration - the debugger can access not only the virtualization layer but also all created partitions and guest OS environments, whether they are currently active in a core or not. TRACE32 has extended its virtual addressing scheme allowing it to uniquely identify any address within any partition. Symbols of functions or variables are bound to this unique address enabling developers to access everything in the system at the same time simply by accessing the debug symbols.

Each of the VxWorks 653 partitions contain a guest OS, like VxWorks or Linux. TRACE32 supports the viewing of multiple task lists and other OS objects in each partition, providing simultaneous visibility to all partitions even if they are running multiple instances of the same guest operating system. These TRACE32 JTAG debug capabilities are ideal for safety- and security-certified critical systems that need to limit access to I/O ports, and to test actual production hardware platform, not test hardware, for certification credit.

Using Lauterbach's TRACE32 together with Wind River's VxWorks 653 platform allows the developer debug any code in the system at any time giving full access to all parts including the hypervisor and all partitions. This feature is immediately available and is provided with the standard software delivery of TRACE32.

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