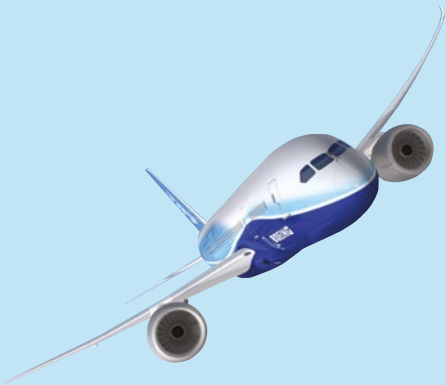




Jamaica VM

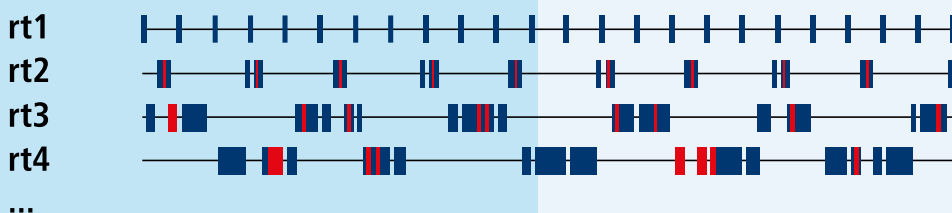
Technology for Critical and Embedded Java Applications

- Executes Java 8 Applications
- Deterministic Garbage Collection
- Full Implementation of the Real-Time Specification for Java (RTSJ)
- Small & Fast
- Certification on Request (for example DO-178B)
- Multicore Support
- Demanding 2D/3D Visualizations with OpenJFX



Realtime Garbage Collection

Thread:  time



Key Technologies

Hard Realtime

The JamaicaVM offers full Java functionality for hard realtime environments with throughput jitter of less than 500 nanoseconds on 1GHz+ CPUs.

Realtime Garbage Collection

JamaicaVM is the only VM with a fully deterministic, self-pacing Garbage Collector, achieving scheduling preemption latencies of only a few μ s.

Real-Time Specification for Java (RTSJ)

Using the RTSJ, portable interrupt handlers and device drivers can be written in Java.

Safety Critical Support

Certifiable for DO-178C, ISO 26262 and IEC 61508.

Small and Fast

The JamaicaVM is equipped with a highly optimizing static compiler and a profiler. The tradeoff between run-time performance and code size can be chosen freely.

Dynamic Loading

The Jamaica JAR Accelerator enables dynamic class loading of static compiled and interpreted code for upgrading applications at runtime.

Multicore Support

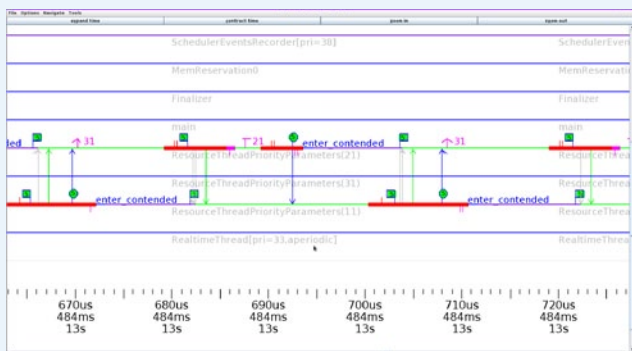
Automatic allocation of Java threads to CPU cores. Fully parallel memory management with non-blocking locks. Libraries for CPU affinity and parallel constructs.

Remote Debugging

Applications running on a target system can be debugged with standard IDEs such as Eclipse and NetBeans.

ROMable Code

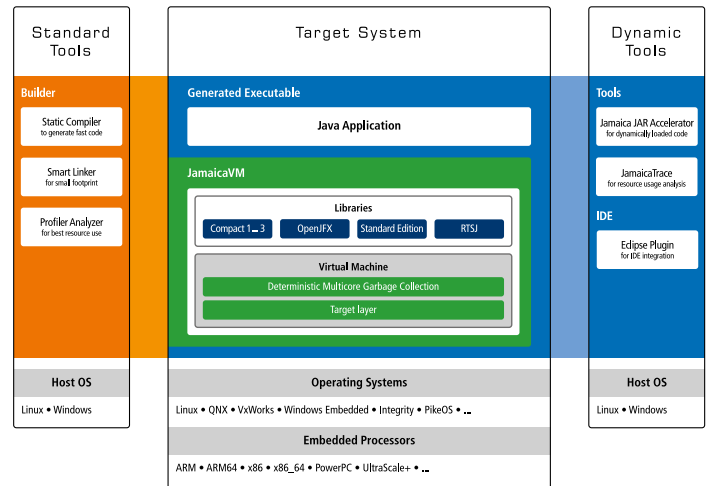
Java applications and resources can be stored in a single executable binary in ROM.



JamaicaTrace - Thread Monitor

Technology for your critical and embedded Java applications

JamaicaVM Toolset Overview



Jamaica VM Toolchain

Interoperability

Available for Many Operating Systems

The JamaicaVM is available for a variety of operating systems and is portable to any RTOS. Currently supported OSes include Linux, PikeOS, QNX, VxWorks, and Windows CE.

Available for Most 32 and 64 Bit Processors




For example, ARMv7, ARMv8, PowerPC, and x86 / x86_64 are supported.

Open Standards

Standards compliance is paramount at aicas. Whether using J2SE, JNI, RTSJ, or RMI most existing Java applications will run with the JamaicaVM. Many additional Java libraries are available, including implementations for XML, OSGi, Corba and web services, which increase productivity for embedded Java development. The aicas toolset seamlessly integrates into Eclipse and other development environments.

Although the information herein is provided with good faith, the supplier gives neither warranty nor guarantee that the information is correct or that the results described are obtainable under end-user conditions.



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