Critical embedded Java SE applications in realtime

**Embedded software** developers are more and more required to adopt Cloud software practices, with simple but **secure coding** for complex applications. Writing and running code on embedded systems requires programmers to access low **hardware resources** and to be compatible with particular Real-Time Operating Software (RTOS) which is key especially in critical applications when **realtime** and **security** are required. **aicas** delivers **embedded JVMs**. They are designed with realtime capabilities and **scarce resources** in mind. Coding in **Java** for embedded has never been easier, especially with access to the huge **Java libraries** and knowledge base available within the global Java Developer Community.

Move your code on any hardware

**Embedded** systems exist in many hardware formats and platforms and developers must see that their **Java** code runs on **any platforms**, whatever the OS and CPU in use. aicas’ embedded technology supports the largest set of (RTOS and CPU available in embedded. Our experience spans over 15 years of delivering Java-based frameworks that run the code **independently from the hardware**.

Reduce your cost

Keeping the Bill-Of-Material (BOM) low is a key requirement for **embedded** devices. All aicas embedded solutions run on light single-core **CPUs** at frequencies of fewer than 100MHz and with **RAM** memories down to a few Mbytes. This can translate into large BOM savings or in keeping an **existing hardware** instead of replacing it with a new expensive hardware device.
Realtime is required in applications dealing with processes with reaction times of less than a second, such as in manufacturing or when people's safety is at risk. aicas' embedded technology is fully preemptable with μs reaction time. Our unique Garbage Collector implementation is deterministic and compatible with Worst Case Execution Time (WCET) hard realtime specifications. Low jitters and fast response time can be achieved that comply to the most stringent safety certifications in the Industrial, Automotive or Aviation domains.

Realtime Java

Standard Java Code

Run your Java code on embedded with no changes required to focus on application specifics - not on platform specifics.

Safe, Secure and Realtime

Hard-realtime and deterministic technology by design, making even most stringent safety and security features possible.

Reduce Cost

Keep your embedded hardware compact and deploy software on resource stringent hardware.

Contact us!

Europe
aicas GmbH
Emmy-Noether-Str. 9
76131 Karlsruhe
Germany
sales-eu@aicas.com

America
aicas America Limited
4023 Kennett Pike, Suite 810
Wilmington, DE 19807
USA
sales-us@aicas.com

www.aicas.com/contact