



Green Hills Solutions for Java™ Developers

The PERC Product Family

Product Line Overview

WHY JAVA MAKES SENSE FOR EMBEDDED SYSTEMS

- ◆ **Abstraction** - say more with fewer words, dividing concepts into reusable components
- ◆ **Reliability** - reduce programming errors and improve system reliability
- ◆ **Separation of Concerns** - separate the contributions of diverse components
- ◆ **Ease of Maintenance** - make it easier to maintain systems across multiple architectures
- ◆ **Scalability** - promote reuse and simplify the composition of complex systems

Atego solutions address the challenges of real-time and soft real-time systems.

- ◆ **Embedded / Soft Real-Time** - Actions performed on time have greater value than on time. Empirical measurement and enforcement of resource usage is commonly used.
- ◆ **Hard Real-Time** - Actions performed on time have a negative value. Compliance with timing requirements is proven with theoretical analysis techniques prior to code execution.
- ◆ **Safety Critical** - Actions performed on time have catastrophic consequences. Typically, certification to DO-178B or equivalent guidelines is required.

Today's embedded systems are more demanding and varied than ever. With application areas as diverse as fleet telematics, industrial automation, civil avionics, and military field equipment and network infrastructure,

ATEGO REAL-TIME VM SOLUTIONS

Beginning with the PERC virtual machine, which has fueled tens of thousands of successful application deployments, Atego has developed patented technologies and incorporated them into products

to build critical systems with higher reliability than is possible with legacy technologies even when using legacy language code.

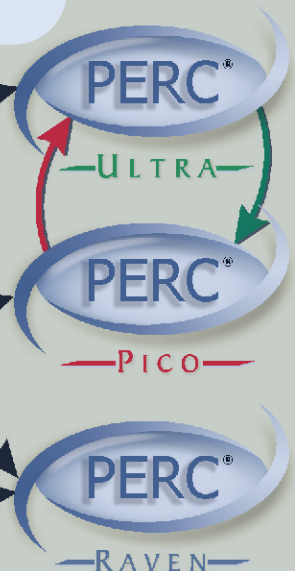
for large scale systems. The rich features of PERC coupled with predictable performance and proven product, offered by competitors - it offers more applications than any other system.

PERC is specifically designed to meet requirements for small footprint, low level device access. PERC applications can run as C/C++ programs, while maintaining memory efficiency.

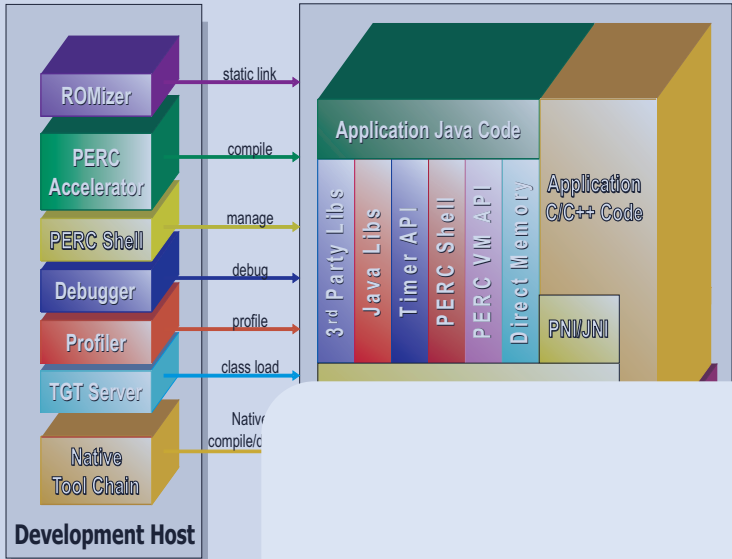
Along Atego tradition of reliability, PERC are in use in many of the most demanding applications operating today, including defense, space, and transportation line. PERC Raven applies the same principles as the basis for fulfilling the most demanding requirements.

What Do You Need?

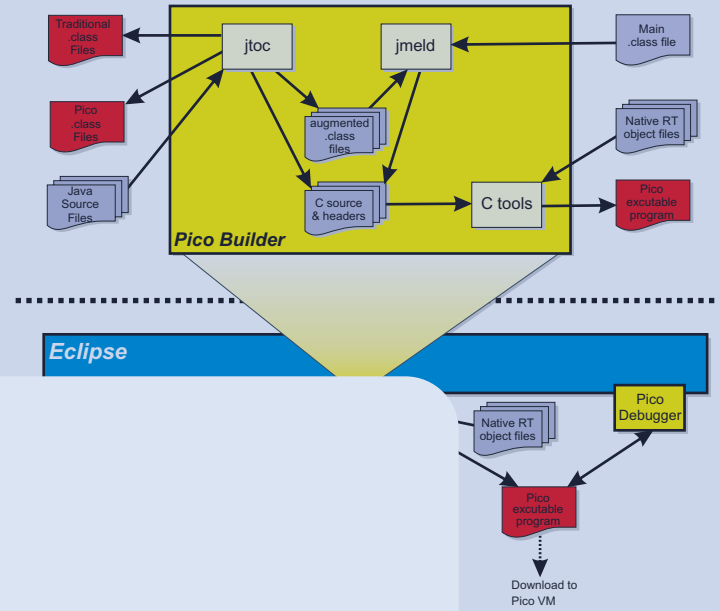
- Predictable Garbage Collection
- Comprehensive J2SE Functionality
- Hard Real-Time Response
- Low-Level Device Control
- High Throughput Requirements
- Severe Memory Constraints
- Safety Certification Requirements



PERC Ultra Toolchain



PERC Pico Toolchain



C Pico Benchmarks

| Benchmark | | | |
|-----------------------|-----|-----|-----|
| Sieve (standalone) | | | |
| Sieve (CaffeineMark) | | | |
| Loop (CaffeineMark) | | | |
| Logic (CaffeineMark) | | | |
| Method (CaffeineMark) | 141 | 100 | 152 |

Pico benchmark pot.

Figures denote relative execution times, therefore lower numbers reflect faster performance.

To obtain more information, please contact Atego at www.atego.com or call one of our sales offices

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