

PTC Perc Version 8.7 is now Shipping!

Faster Performance, Improved Memory Management, New System Requirements

Boston, MA – July 24, 2024 -- PTC (NASDAQ: PTC) today announced the general availability of new releases of two PTC Perc products, Perc Ultra SMP 8.7 (for 32-bit platforms) and Perc 64 8.7 (for 64-bit platforms).

New features and enhancements:

- The Ahead-of-Time and Just-in-Time compilers intrinsify calls to PVM internal ArrayCopy methods for faster execution of block memory transfers in core Java classes.
- Runtime.exec() performance is enhanced by using Linux clone() rather than fork().
- Data cache line size is now determined at PVM startup time and new thread local variables improve performance when accessing per-cpu data structures for threads, GC workers, monitors, etc.
- PVM no longer forces calls to malloc() to use mmap() for memory allocations below 128 Kbytes. This improves performance of the JIT compiler and JNI code. Allocations larger than 128 Kbytes use mmap() for more efficient memory management. PVM Heap Regions continue to use mmap(). To assure adequate C heap space for JNI, a new pvm "--c-heap-reserve=<size>" command line option has been added. The default reserved space is 128 Mbytes.
- The latest OpenJDK 8u412-b08 bug fixes and security patches have been merged from the OpenJDK 8u project. See <https://mail.openjdk.org/pipermail/jdk8u-dev/2024-April/018329.html> for details.
- The minimum system requirements for Perc 64 8.7 and Perc Ultra SMP 8.7 have been updated as follows:

Target OS	CPU	Versions
Linux	x86_64, ARMv8-A	kernel 4.18.0+ glibc 2.28+ gcc 8.5.0+
Linux	x86, ARMv7-A (armhf)	kernel 5.10.0+ glibc 2.25+ gcc 7.5.0+

These versions are supported by RHEL/CentOS/Rocky Linux 8.x, 9.x+, Debian 12+ (bookworm), and Ubuntu 22.04 LTS+. Other Linux distributions should work if they meet the above version requirements.

About PTC's Perc Family of Products

PTC Perc is one of the most deployed real-time Virtual Machines in the industry. PTC Perc is a virtual machine and tool set expressly created for demanding embedded and real-time systems requiring Java Standard Edition support. PTC Perc delivers the ease and efficiency of Java SE without sacrificing compatibility or deterministic real-time behavior. The product line offers Ahead-of-Time (AOT) and Just-in-Time (JIT) compilation, remote debug support, and preemptible garbage collection.

Shipping and Availability

PTC Perc 64 v8.7 is immediately available from PTC with development tools on Linux platforms and supports Linux execution on 64-bit multi-core x86_64 and ARMv8-A target architectures. Perc Ultra SMP 8.7 is immediately available with development tools on Linux platforms and supports Linux execution on 32-bit multi-core x86 and ARMv7-A (armhf) targets. Target execution and deployment license pricing is available on request. For more information about these products, please visit <https://www.ptc.com/products/developer-tools/perc>.

Product Download

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