ptc apexada v5.2 Embedded Update for Wind River VxWorks 7 SR0650/SR0660 Intel 64-bit is now Available!

PTC releases major update providing VxWorks 7 SR0650 / SR0660 support for its Linux/Intel64-hosted embedded Ada compiler targeting VxWorks 7 on 64-bit Intel64 processors

Boston, MA – March 31, 2021 — PTC (NASDAQ: PTC) today announced the release of a major update to its ApexAda v5.2 Linux/Intel64-hosted embedded Ada compiler and runtime environment for the Wind River VxWorks 7 real-time operating system that provides support for the SR0650 and SR0660 Standard Releases of VxWorks 7. With the release of this major product update, PTC extends the capabilities of its extensive line of native and cross compilers for Ada application development with ApexAda v5.2 embedded with support for these latest VxWorks 7 releases on Intel64 targets and establishes the foundation for the introduction of follow-on new product releases for the Armv8 64-bit (aarch64) architecture. Included with the 64-bit embedded compiler is the PTC® ApexAda v5.2 64-bit compiler for Linux native application development. Also included is the integrated ApexAda 64-bit C/C++ compiler which facilitates seamless development of mixed-language applications written in Ada, C, and C++. ApexAda V5.2 Embedded compilers provide a complete cross-development toolchain hosted from Linux distributions including RedHat Enterprise Edition, CentOS, and SUSE.

PTC ApexAda Embedded v5.2 for 64-bit VxWorks 7 targets supports Ada 95 & Ada 2005 64-bit application development and execution on X86_64-based processors. New or updated features and functions include:

- Support for 64-bit cross compilation and embedded target execution
- Development toolchain hosted from Linux distributions including RedHat Enterprise Edition, CentOS, and SUSE
- ApexAda debugger using Wind River Target Communication Framework (TCF) for download and control of 64-bit Ada applications on embedded targets running VxWorks V7
- Incorporates compiler, runtime, and user-interface corrections
- Documentation updates to describe use of VxWorks 7 with ApexAda

“PTC is a Wind River ISV partner with multiple Ada compiler products targeting the VxWorks real-time operating system and PTC ApexAda Embedded v5.2 is our premier Ada embedded product line with support for VxWorks 7 64-bit embedded application development that we introduced in 2017.” stated Shawn Fanning, Software Development Director at PTC. “This major update to our PTC ApexAda v5.2 Embedded product targeting VxWorks 7 and X86_64 processors that we are announcing today provides support for the latest VxWorks 7 releases from Wind River and thereby allows our customers to leverage the enhancements contained in those releases (such as the latest Clang (LLVM) C/C++ compiler and runtime) and all of the upgrades to PTC ApexAda Embedded v5.2 compiler, runtime, and debugger contained in this product update also form the foundation for a new PTC ApexAda product release targeting for VxWorks 7 and 64-bit Armv8 processors in the near future.”

About the PTC Family of Ada Products

PTC ApexAda together with PTC ObjectAda product lines of native and cross development tools and runtime environments provide host development and execution support for the most popular environments including Windows, Linux and various UNIX operating systems. PTC cross development tools hosted on Windows, Linux or UNIX systems target PowerPC, Intel, and Armv8 target processors in support of “bare” hardware execution or in conjunction with popular RTOSs.

Availability

PTC ApexAda v5.2 for Linux hosts targeting VxWorks v7 on Intel x86_64 processors is immediately available. License pricing is available on request.

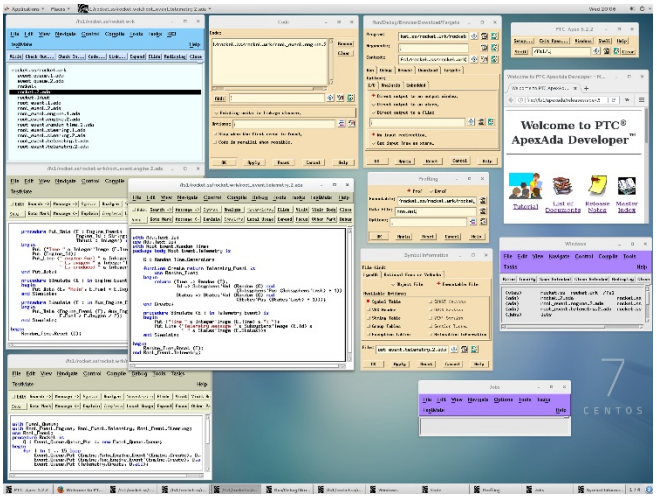
Full Product Details

PTC ApexAda®

PTC ApexAda provides a single, scalable host development environment that integrates design, implementation, testing, configuration management, and process management for native or cross development projects.

More than just a set of loosely integrated development tools, PTC ApexAda Developer products are designed specifically for large-scale team development of long lifecycle applications. Such applications can survive only when they are developed using sound software engineering best practices, and PTC ApexAda Developer is built on the fundamental principles that govern large-scale modern software engineering.

The software also provides architectural control features that are essential for developing and managing large-scale applications. These applications are already difficult to design, but when they are improperly architected they are even more difficult to maintain. PTC ApexAda Developer helps protect the architectural integrity of application design throughout the software development lifecycle.

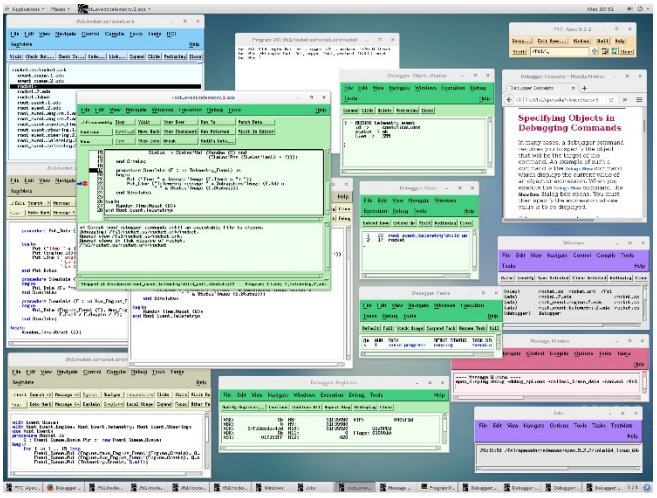


Large applications typically have special needs for configuration management. Managing change becomes extremely complex with the addition of more development staff. PTC ApexAda Developer includes technology for controlling versions and configurations in such an environment, leveraging architectural subsystems that reside above the programming language constructs.

Key Benefits

- Leverages best practices for large-scale application development
- Supports a controlled iterative development so that smaller increments of change can be edited, built, tested and deployed
  - Reduces risk and improves time-to-market
- Delivers encapsulation restricting access and manipulation to only meaningful operations
  - Simplifies communication about real-world constructs and improves the reliability of accessing and changing data
- Includes facilities for creating software architectures (subsystems) larger than that provided by the programming language itself
  - Fosters large-scale software reuse and creates software that is adaptable in response to changing operational conditions.
- Provides testing tools directly within the development environment to facilitate frequent developer-led testing
  - Allows bugs to be found sooner and corrected more cost-efficiently
- Manages parallel development simply and without high overhead due to configuration management commands and facilities being built into the development environment
  - CM is more transparent to developers and less intrusive to work activities

- Supports embedded cross-compilation as well as native compilation
  - Seamlessly extends the host-based development tools to allow software to work directly on the target execution platform
- Results in less redundancy in development tools, higher productivity, and less rework from modification



Capabilities and specifications

- Full development lifecycle in one common IDE with integrated coding and debugging tools
- Architectural control for developing and managing large-scale applications
- Version control and configuration management
- Automated tooling that goes beyond compilers and debuggers and supports all lifecycle of development needs, from conception to testing
- PTC ApexAda Developer Enterprise Edition contains:
  - PTC ApexAda (IDE for host-based Ada05, Ada95 and mixed Ada/C/C++ development)
  - Integrated coding and debugging tools (language-based editor, program browser, incremental compiler, and comprehensive, integrated debugging facility)
  - Configuration Management and Version Control (CMVC)
  - Test Mate (test management system for native and cross development including unit, integration, system test, and coverage analysis, including modified condition/decision coverage)
- PTC ApexAda Developer Base Edition contains:
  - PTC ApexAda (IDE for host-based Ada95, Ada83, and mixed Ada/C/C++ development)
  - Configuration Management and Version Control (CMVC)
- PTC ApexAda Embedded Developer Enterprise Edition further extends the PTC ApexAda Developer Enterprise Edition tool chain with Instruction Set Simulation (ISSIM), Ethernet Support (ENet), and Patching Linker. *(Features vary depending on the target architecture and RTOS.)*

Platforms and system requirements

- PTC ApexAda Developer Enterprise Edition runs on the following host platforms:
  - Solaris®/SPARC
  - Solaris/x86
  - Linux®/x86, Linux/x86_64
- PTC ApexAda Embedded Developer Enterprise Edition runs on the following host platforms:
  - Solaris/SPARC
  - Linux/x86, Linux/x86_64
- PTC ApexAda Embedded Developer Enterprise Edition targets PowerPC processors with the following real-time operating systems:
  - PTC ApexAda Exec
  - Wind River® VxWorks®
  - Lynx Software Technologies LynxOS®
- PTC ApexAda Embedded Developer Enterprise Edition targets x86 and x86_64 with the following real-time operating systems:
  - PTC ApexAda Exec
  - Wind River® VxWorks®
- PTC ApexAda Embedded Developer Enterprise Edition targets Armv8 64-bit (aarch64) with the following operating systems:
  - Linux
  - Wind River® VxWorks®

For more information, visit: PTC.com/Developer-Tools/ApexAda