

PTC ObjectAda Version 10.5 is now available for Windows and Linux!

New native Ada compiler releases provide upgraded Ada 2012 support

Boston, MA – July 28, 2023 -- PTC (NASDAQ: PTC) today announced the release of version 10.5 of the following popular PTC® ObjectAda development environment products for native application development on Windows and Linux using the Ada programming language:

- PTC ObjectAda for Windows
- PTC ObjectAda64 for Windows
- PTC ObjectAda for Linux
- PTC ObjectAda64 for Linux

This new release provides upgraded Ada 2012 language support compliant with the Ada Conformity Assessment Test Suite (ACATS) version 4.1EE. New in this release of ObjectAda are the following enhancements related to Ada 2012 features:

- Execution-time enforcement of preconditions and postconditions on:
 - Specific preconditions specified for protected entries and protected subprograms
 - Class-wide preconditions and postconditions for protected entries and protected subprograms.
 - Preconditions and postconditions specified for task entries
- Execution-time enforcement of type invariants related to task entries.

ObjectAda version 10.x products in general represent a major upgrade from previous versions incorporating these enhancements:

- Compiler, runtime, debugger, and IDE upgrades
- New Ada 2012 language support
- Ada 95, Ada 2005, and Ada 2012 compiler operation modes
- Windows 10 & Windows 11 compatibility
- Ada bindings to Windows APIs based on Windows 11 SDK
- Development using Visual C++ 2022 tools & Windows 11 SDK libraries
- Ada Development Toolkit (ADT) Eclipse interface (works with latest 64-bit Eclipse versions)
- Support for latest Windows and Linux operating system versions

“ObjectAda v10.5 is a quality-enhancement, / maintenance release which has the same overall characteristics as our prior release while at the same time incorporating extensive upgrades to the compiler to maintain conformance to the current test suite for Ada 2012.”, stated Shawn Fanning, Software Development Director at PTC. “On the Windows platform, ObjectAda supports usage of the latest Microsoft developer technologies. ObjectAda for Linux likewise supports the latest Linux operating system versions and is fully compatible with ObjectAda for Windows. ObjectAda’s Ada Development Toolkit (ADT) Eclipse interface supports the latest Eclipse 2023-06 (4.28) release. With our ObjectAda v10.5 product releases for Windows and Linux, PTC continues to support its mission to provide best-in-class compilers for development of mission-critical application code using the Ada language.”

About PTC’s ObjectAda Family of Products

PTC ObjectAda is an extensive family of native and cross development tools and runtime environments. PTC ObjectAda native products provide host development and execution support for the most popular environments including Windows, Linux and various UNIX operating systems. PTC ObjectAda Real-Time products provide cross development tools on Windows, Linux or UNIX systems which target PowerPC and Intel

target processors in support of “bare” hardware execution or in conjunction with popular RTOSs. PTC ObjectAda Raven products provide a hard-real-time Ada runtime to address those systems requiring small footprint, deterministic behavior, or certification to safety standards.

Shipping and Availability

The PTC ObjectAda v10.5 / PTC ObjectAda64 v10.5 products for Windows and Linux are immediately available.

Customers with active subscription licenses for ObjectAda v10.x can upgrade to the ObjectAda v10.5 release of their licensed products.

License pricing for new customers is available on request. Inquiries for new license purchases, adding licenses for additional platforms/editions, and upgrading licenses can be made via email to developer-tools-sales@ptc.com.

For more information about these or other PTC ObjectAda products, please visit <https://www.ptc.com/products/developer-tools/objectada>.

Product Download

Existing customers can download the latest version and product documentation from the PTC Developer Tools download portal. Product use will require an updated license key. Requests for updated license keys and credentials required to access the product downloads should be sent to developer-tools-support@ptc.com.

Product download locations:

1. For PTC ObjectAda for Windows v10.5 (32-bit product):
<https://developer-tools-us.ptc.com/Downloads/Products/ObjectAda/Releases/1000/10.5/>
2. For PTC ObjectAda64 for Windows v10.5 (64-bit product):
<https://developer-tools-us.ptc.com/Downloads/Products/ObjectAda/Releases/2000/10.5/>
3. For PTC ObjectAda for Linux v10.5 (32-bit product):
<https://developer-tools-us.ptc.com/Downloads/Products/ObjectAda/Releases/3000/10.5/>
4. For PTC ObjectAda64 for Linux v10.5 (64-bit product):
<https://developer-tools-us.ptc.com/Downloads/Products/ObjectAda/Releases/8000/10.5/>

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RB-20230728-ObjectAda 10.5

PTC ObjectAda® for Windows®

Combine blazing-fast compilation speed with efficient edit and debug tools

PTC ObjectAda for Windows is one of the most popular Ada environments of all time, providing a large array of specialty tools for serious engineers working on large-scale projects and the most demanding mission-critical applications.

Today's systems, even those deploying legacy applications, continue to evolve and improve with faster execution and more memory. Ada applications, by nature, are often intensive and complex code bases that are growing to consume the increased capacity of the systems that host them. And, they are being created, evolved, and maintained by teams of developers needing engineering-quality tools. As a result, the efficiency of development tools has become a very significant differentiator to cost and time to delivery. PTC ObjectAda for Windows is a complete Ada software development solution for deployment of Ada applications on the Microsoft® Windows platform. It combines blazing-fast compilation speed with efficient edit and debug tools that engineers require for development of mission-critical applications.

Key features

- ObjectAda for Windows: 32-bit support for x86-based Windows platforms
- ObjectAda64 for Windows: 64-bit support for x86_64-based Windows platforms
- Windows 10 & 11 compatibility
- Visual C++ 2022 tools & Windows 11 SDK libraries
- Ada Development Toolkit (ADT) Eclipse interface - Works with latest Eclipse versions

- Windows API Ada language bindings
- Compiler options to facilitate porting existing Ada source code to 64-bit
- Ada95, Ada 2005, and Ada 2012 modes
- Efficient, reliable, and optimizing compiler technology provides complete, well-rounded development environment
- Provides robust tools and comprehensive reference documentation to assist in development process
- Easy-to-use environment

Capabilities and specifications

PTC ObjectAda for Windows is one of the most popular Ada environments of all time, providing a large array of specialty tools to meet the expectations of serious engineers working on large-scale projects and the most demanding mission-critical applications.

ObjectAda for Windows is a complete software development solution for deployment of Ada applications on the Microsoft® Windows platform. It combines blazing-fast compilation speed with efficient edit and debug tools that engineers require for development of mission-critical applications.

- **Flexible integrated development environment:** PTC's Ada products allow your organization to choose between the traditional PTC IDE and the PTC ADT plug-in for Eclipse, enabling integration of all your organizational tool chains to operate

modeled after Microsoft's time-tested Visual C++ product, one of the most widely used IDEs on the market. This intuitive graphical environment ensures a short learning curve and extreme flexibility.

Lightning-fast optimizing compiler: State-of-the-art analytical engine optimizes compiler performance and object code generation

- **Fast, open library model:** Source files are mapped one-for-one with object files which can be intermixed with object files from any other language. Simple ASCII text files are used to maintain basic build information and dependency

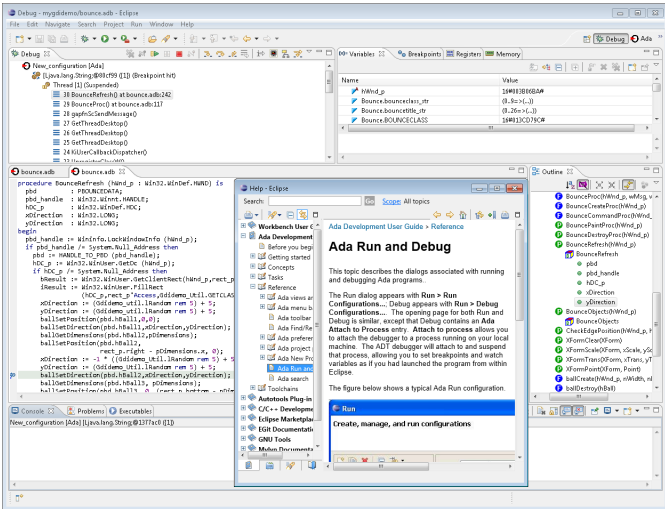
- **DLL import and export:** Easy-to-use mechanisms for creating Dynamic Link Libraries (DLLs) for use by other applications and existing DLLs

- **Visual Ada source browser:** An integrated source browser that supports navigation from an identifier to its declaration or references and visualization of relationships between objects is included

- **Integrated Ada reference manual:** Hypertext versions of the Ada Language Reference Manual (LRM) and Ada Rationale make it easy to browse the full scope and breadth of the Ada language and to understand the reasoning behind its design. Compile-time errors are cross-referenced into the LRM.

- **Windows API Ada Language bindings:** Windows programmers can choose between the de-facto standard Win32 Ada bindings (Win32Ada), and the WinAPI evolvable binding set designed to keep up with the latest Microsoft API releases

- **Codeview debugger support:** Codeview-compatible debuggers (e.g., Microsoft Visual C++®) are supported, enabling the debug Ada and multiling applications

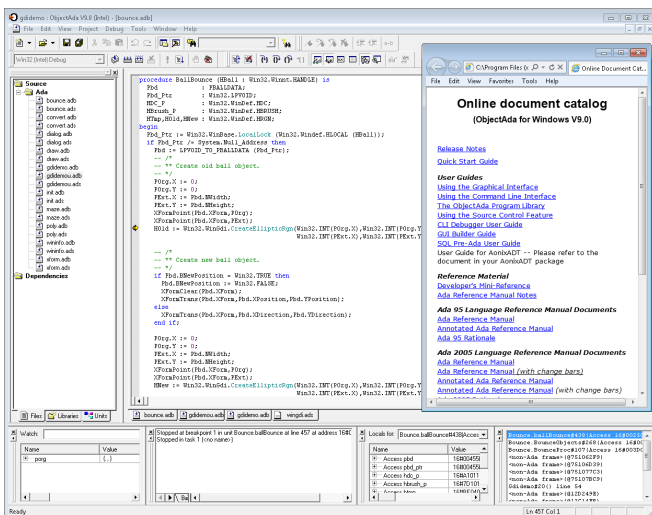


PTC ObjectAda Eclipse-based development environment.

in a common Eclipse-based environment.

PTC ADT incorporates Ada project awareness and Ada language-sensitive editor, Ada language compile and build capabilities, and a complete Ada debugger interface, all in an environment geared to maximize developer ease and efficiency.

Optionally, developers may choose to use the PTC Windows-based IDE



PTC ObjectAda Windows-based IDE.

- **Ada 2012 Annex G Numerics support:**
Complete implementation of Ada 2012 Numerics annex provides features for complex arithmetic, including complex I/O, features for the manipulation of real and complex vectors and matrices.
- **AdaNav analysis toolset:** Provides complete system HTML source-navigation capabilities, as well as call tree and unit tree graphical reporting and automatic data dictionary generation. The AdaNav profiler provides run-time performance reporting to help identify application hot spots and improve program performance.
- **ASIS support:** The Ada Semantic Interface Specification (ASIS) support in PTC ObjectAda provides a standard way for tools to extract semantic data that is best collected by an Ada compiler

For more information, visit:

<https://www.ptc.com/products/developer-tools/objectada>

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DS-20230728-ObjectAda for Windows 10.5

PTC ObjectAda® for Linux

LEVERAGE THE ADVANTAGES OF THE LINUX-BASED OPEN-SOURCE DEVELOPMENT PLATFORM

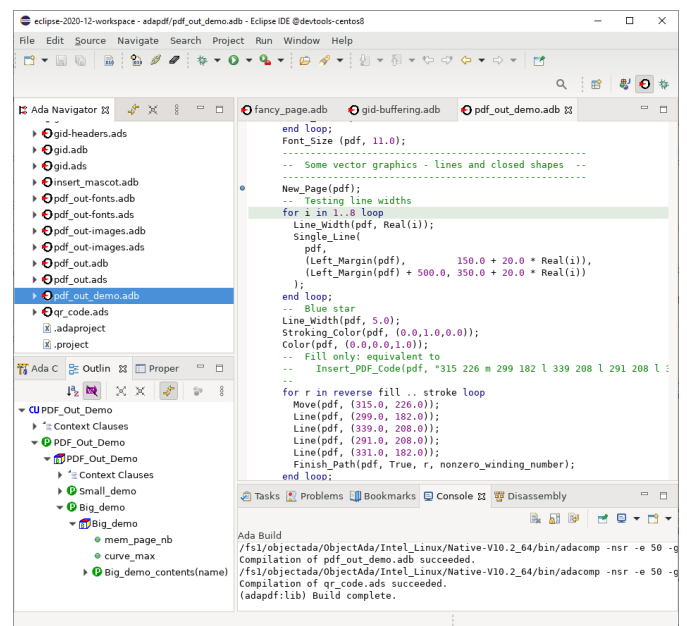
PTC ObjectAda for Linux® is a complete enterprise-class Ada software development solution for the deployment of Ada applications on popular Linux-based platforms. It combines blazing-fast compilation speed with efficient edit and debug tools that engineers require for development of mission-critical applications.

Today's systems, even those deploying legacy applications, continue to evolve and improve with faster execution and more memory. Increasingly mission-critical applications are deployed on Linux-based platforms to leverage the advantages of open-source components, as well as the lower cost and higher performance of Linux/Intel platforms. PTC ObjectAda for Linux is a complete Ada software development solution for deployment of Ada applications on the Linux/Intel platforms. It combines blazing-fast compilation speed with efficient edit and debug tools that engineers require for development of mission-critical applications.

Key features

- ObjectAda for Linux: 32-bit support for x86-based Linux native applications
- ObjectAda64 for Linux: 64-bit support for x86_64-based Linux native applications
- Ada95, Ada 2005, and Ada 2012 language edition support
- Features which facilitate porting existing Ada source code to 64-bit
- Efficient, reliable, and optimizing compiler technology provides complete, well-rounded development environment
- Comprehensive reference documentation to assist in development process

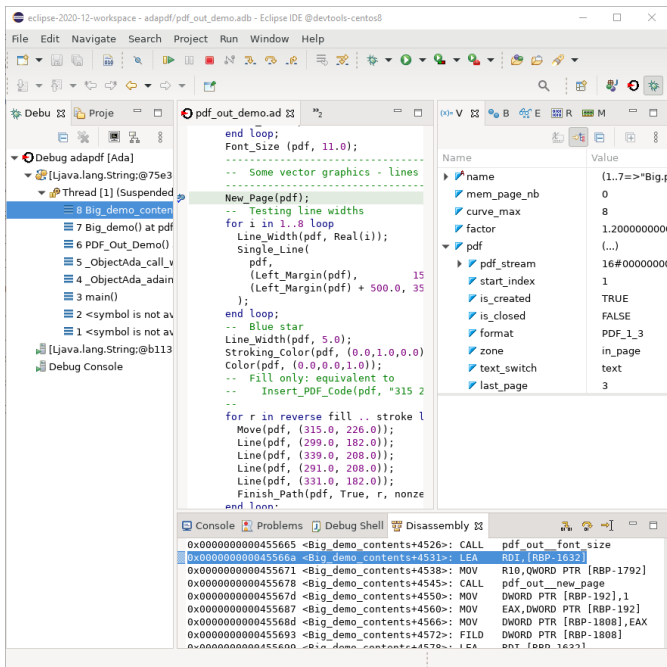
- Includes an optimizing compiler, library manager, runtime, debugger, and configuration management integrations
- Eclipse-based graphical user interface for building projects with the ObjectAda tools provides a productivity toolset that include an editor, a browser, and graphical interface to the ObjectAda debugger.
- Easy-to-use environment



PTC ObjectAda Eclipse-based development environment.

Capabilities and specifications

- **Powerful Eclipse-based IDE:** ObjectAda plug-ins for Eclipse incorporate Ada-project awareness, an Ada-language sensitive editor, Ada-language compile and build capabilities, and a complete Ada debugger interface, enabling Ada developers to enjoy state-of-the-art interface capabilities geared to maximize developer ease and efficiency. Allows for leveraging built-in support within Eclipse to integrate with configuration management systems such as Git.



Using PTC ObjectAda Eclipse IDE Ada debugger

- **Lightning-fast optimizing compiler:** State-of-the-art analytical engine optimizes compiler performance and object code generation.
- **Fast, open library model:** Source files are mapped one-for-one with object files which can be intermixed with object files from any other language. Simple ASCII text files are used to maintain basic build information and dependency information.

- **Visual Ada source browser:** An integrated source browser that supports navigation from an identifier to its declaration or references and visualization of relationships between objects is included.
- **Integrated Ada reference manual:** Hypertext versions of the Ada Language Reference Manual (LRM) and Ada Rationale make it easy to browse the full scope and breadth of the Ada language and to understand the reasoning behind its design. Compile-time errors are cross-referenced into the LRM.
- **AdaPOSIX:** Ada binding to standard POSIX APIs compliant with IEE POSIX 1003.5 specification.
- **AdaNav analysis toolset:** Provides HTML source-navigation capabilities, as well as call tree and unit tree graphical reporting and automatic data dictionary generation. The AdaNav profiler provides run-time performance reporting to help identify application hot spots and improve program performance.
- **ASIS support:** The Ada Semantic Interface Specification (ASIS) support in PTC ObjectAda provides a standard way for tools to extract semantic data that is best collected by an Ada compiler

- **Ada 2012 Annex G Numerics support:** Complete implementation of Ada 2012 Numerics annex provides features for complex arithmetic, including complex I/O, features for the manipulation of real and complex vectors and matrices.

Platform support and system requirements

- Support for Red Hat Enterprise Linux V7.6 and later (and equivalent Linux distributions)
- Eclipse SDK 2020-09 (4.17) or greater (64-bit, requires Java 11 / OpenJDK 11 64-bit support)

For more information, visit:

<https://www.ptc.com/products/developer-tools/objectada>

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