Rational software

IBM® Rational® PurifyPlus

Highlights

- **Pinpoints hard-to-find bugs**

- **Highlights performance bottlenecks**

- **Identifies untested code**

- **Instruments entire application or only selective modules**

- **Integrated directly into IBM WebSphere Studio, Eclipse, and Microsoft Visual Studio .NET.**

- **Supports Java, Visual C# .NET, Visual Basic .NET, Visual C/C++ 6, Visual Basic 6, and ANSI C/C++**

- **Supports Windows, UNIX and Linux environments**

- **Works with or without source code**

IBM® Rational® PurifyPlus is a complete set of runtime analysis tools designed for improving application reliability and performance. PurifyPlus combines memory error and leak detection, application performance profiling, and code coverage analysis into a single, complete package. Together, these functions help developers ensure the highest reliability and performance of their software from its very first release.

Do more in your IDE

Developers using IBM® WebSphere™ Studio, Eclipse, or Microsoft® Visual Studio™ .NET can do more in their IDE with Rational PurifyPlus. PurifyPlus has its own menu in these environments, and analysis results appear in the IDE user interface. This allows you to easily analyze your code as it is being created—no more switching back and forth between different tools.

If you're practicing model-driven development with IBM Rational XDE® Developer, you can do even more in your IDE. PurifyPlus is integrated directly into XDE Developer Plus, which also runs directly inside the same IDEs. In addition to the standard PurifyPlus features, Rational XDE Developer Plus includes a visual trace feature that allows you to visually analyze and debug the execution of your applications.

Only IBM Rational makes visual modeling and runtime analysis an integral part of your IDE, allowing you to do more work right inside your development environment.

For developers using Microsoft Visual Studio 6 or other IDEs, Rational PurifyPlus can be invoked from those environments for stand-alone operation.

Develop solid code faster

Rational PurifyPlus allows you to instrument your entire application or only select portions of it. Selective instrumentation analyzes only the modules that you want to be under consideration. This provides greater flexibility for creating the test environment and makes the data collection part of runtime analysis much easier and more productive.
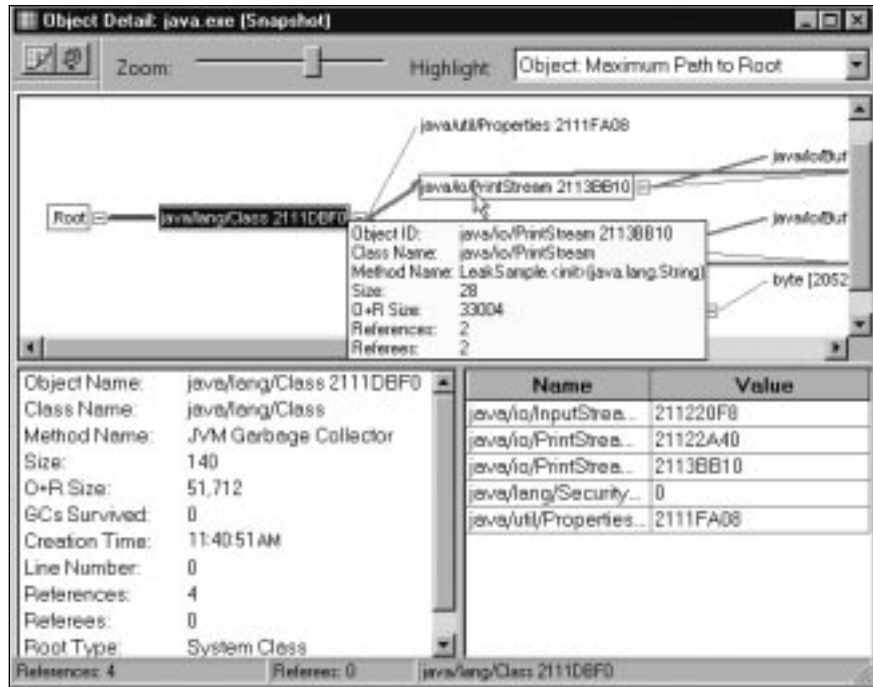
Many developers value runtime analysis but are concerned that the effort will slow down their development. Rational PurifyPlus doesn't get in your way. Special instrumentation technology allows you to analyze your executables directly—no recompilation is necessary. And we do all this for all of the major programming languages, eliminating any need to use multiple tools from different vendors (see Product Feature Matrix on page 3 for details).

Only Rational provides runtime analysis solutions across such a wide range of development platforms and languages. Rational PurifyPlus is your single solution for developing solid quality code faster.

Make developing on a team easier
Rational PurifyPlus integrates with IBM Rational® ClearQuest® so that you can instantly create defect reports upon finding bugs in your code. These products are conveniently packaged with other lifecycle support tools in several editions of IBM Rational Suite®, giving you a single, integrated solution for all of your team development needs.

And so you'll never have to go it alone, the Rational Developer Network℠ (RDN) serves as your online extended development community. The RDN provides white papers, discussion forums, and a wealth other technical resources made accessible through a special online customer website. It also provides convenient web-based training so that you need not leave your work environment. With the RDN, you'll never have to start a project from a blank slate.

The PurifyPlus Object Reference Graph shows the objects that reference, and are referenced by, the current object.

Only Rational combines runtime analysis tools with integrated lifecycle support and an extended developer community. Rational makes working on a development team easier, helping you develop fast, reliable code.

For more information, please go to http://www.rational.com/products/pqc

to learn more, view online demonstrations, and download/order a Solution CD that includes an evaluation version of PurifyPlus.

Product Feature Matrix

	PurifyPlus for Windows	PurifyPlus for UNIX	PurifyPlus Enterprise Edition*
Memory corruption detection	C/C++	C/C++	C/C++
Memory leak detection	Java, C/C++, .NET	Java, C/C++	Java, C/C++ .NET
Performace profiling*	Java, C/C++ .NET, VB6	Java**, C/C++	Java, C/C++ .NET, VB6
Code coverage analysis*	Java, C/C++ .NET, VB6	Java**, C/C++	Java, C/C++ .NET, VB6

*PurifyPlus Enterprise Edition is a bundling of PurifyPlus for Windows and PurifyPlus for UNIX.

** UNIX support for Java on Sun Solaris only

*** These features not supported on Linux

IBM Rational PurifyPlus for Windows features and benefits

Feature	Description	Benefit
Memory corruption & leak detection	Automatically pinpoints hard-to-find bugs	• Improved execution reliability
Application performance profiling	Highlights application performance bottlenecks	• Identifies portions of code subject to performance optimization
Code coverage analysis	Identifies untested code	• Avoid users being the first to exercise functionality
Unique instrumentation techniques	Instruments code at the byte or object level	• No recompilation or re-linking is needed to analyze your code
Server-side Java support	Install PurifyPlus on your web server to analyze Java Server Pages (JSP) and Java servlets	• Improve reliability and performance of server code as well as client applications
Runs directly inside leading IDEs, stand-alone	PurifyPlus installs and operates directly within WebSphere Studio, Eclipse, Visual Studio .NET, and Visual Studio 6	• No switching back and forth between different tools with different user interfaces • Provides for a more cohesive, more productive development experience • Test and analyze your code as it is being created • Extends your development experience with these IDEs to include runtime analysis • Stand-alone operation offers flexibility in how to perform runtime analysis
Comprehensive programming language support	Supports Microsoft's managed languages (VB.NET and C#) as well as the unmanaged languages (Visual C/C++ and VB)	• PurifyPlus provides the only runtime analysis tool you need for all of your Windows-based application development
Selective instrumentation	Allows you select which modules of an application to analyze	• Test only the modules you want without having to instrument the whole application • Choose only the components for which you are responsible • Provides greater flexibility for creating the test environment • Makes the data collection part of runtime analysis much easier

IBM Rational PurifyPlus for UNIX features and benefits

Feature	Description	Benefit
Memory corruption & leak detection	Automatically pinpoints hard-to-find bugs	Improves execution reliability
Application performance profiling	Highlights application performance bottlenecks	Identifies portions of code subject to performance optimization
Code coverage analysis	Identifies untested code	Avoid users being the first to exercise functionality
Unique instrumentation techniques	Instruments code at the byte or object level	No recompilation is needed to analyze your code

System Requirements

Operating System	Software
Windows platforms • Windows 2000 • Windows XP Professional • Windows NT 4.0 or above (including Japanese Windows NT 4.0)	• Visual Studio .NET • Visual Studio 6 • Sun JDK 1.2.2, 1.3, 1.4, or MSJVM 2828 (or higher) • IBM WebSphere • BEA WebLogic Server • Apache Jakarta Tomcat

UNIX platforms
• Sun Solaris 2.6, 7, 8, 9
• Sun SPARC and Ultra SPARC systems
	• Languages and compilers:
	  • C/C++ (all features) via Sun ONE Studio 7 (Forte CC 5.4)
	  • C/C++ (all features) via GCC through v3.1 (32-bit only)
	  • Java (performance profiling & code coverage analysis only) via Java SDK 1.3.1 and above
	Full 64 bit "wide-mode" support for memory error and leak detection and performance profiling on Solaris 7 and above; 32 bit support for code coverage analysis

• HP-UX 10.2, 11.xx
• HP 9000 Series 700 and Series 800 work stations
	• Languages and compilers:
	  • C/C++ via HP aCC 3.31, 3.33 and 3.34
	  • C/C++ via GCC through v3.1
	  • C/C++ via GNUPro 98r2
	  • Full 64 bit "wide-mode" support on HP-UX 11.0 and 11i (11.11)
	  • Support for ld/dld version 11.30

• SGI IRIX 6.5q	• Memory corruption and leak detection only • MIPS systems • Languages and compilers: • C/C++ via SGI CC 7.3 • Full 64 bit "wide-mode" support on IRIX 6.5 • Support for ld/dld version 11.30
• Linux (memory corruption and leak detection only)	• gcc 2.96, 3.2, 3.2.2 • Red Hat Linux 7.2, 7.3, 8.0, and Enterprise Linux AS 2.1

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