



IBM Rational Developer for System z V8.0.3 speeds development, improves application quality, and provides better compatibility with Interactive System Productivity Facility

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At a glance

With Rational® Developer for System z® V8.0.3, developers can accelerate the development of:

- Service-oriented architecture (SOA), including services deployable to CICS®, IMS™, WebSphere® Application Server, and DB2® Stored Procedure environments
- Dynamic web applications and front ends including HTML, EGL Web UI, EGL Rich UI, Java™ Server Faces (JSF), Java Server Pages (JSP), Java, and Java Enterprise Edition
- COBOL, PL/I, C++, assembler, and Java applications that can be deployed to z/OS®, AIX®, Linux™ for System z, Linux on Power®, CICS, IMS, batch, z/OS UNIX™, and DB2 Stored Procedure-based environments
- Mainframe applications with enhanced analysis via integration with IBM® Problem Determination tools, Rational Asset Analyzer, and software lifecycle tools such as source code management systems

The Rational Developer for System z Unit Test environment provides a personal, local test environment for mainframe developers to create and test their code changes in an isolated and controllable environment while reducing the consumption of mainframe MIPS for development activities.

Overview

The Rational Developer for System z V8.0.3 family of products enables companies to accelerate time to market with higher quality solutions while reducing the costs of maintenance over an application's lifetime. Rational Developer for System z positions businesses to design and construct traditional mainframe applications, web applications, and integrated service-oriented architecture (SOA)-based composites quickly and efficiently. It helps companies enhance existing and create new applications in a more productive manner, with a focus on COBOL, PL/I, C, C+, High-Level Assembler, JCL, REXX, and Java.

Rational Developer for System z uses industry standards to simplify the development of rich client interfaces, web user interfaces, traditional terminal interfaces, and back-end, business logic deployable to CICS, IMS, DB2, Batch, z/OS UNIX, AIX, Linux for System z, Linux on Power, and WebSphere transactional

environments. Rational Developer for System z integrates with existing System z development processes, including problem determination and System z source management systems.

When Rational Developer for System z is used with the IBM Software Development Platform, developers can extend the environment to meet a broad range of requirements, including change management and testing functions, usable directly from the Rational Developer for System z desktop.

The Rational Developer for System z development environment can also be combined with the Rational Developer for System z Unit Test feature, based on the IBM System z Personal Development Tool. The Rational Developer for System z Unit Test feature add-on creates a personal System z environment for a developer running a PC. The Unit Test environment is designed to enable a virtual System z architecture environment that allows mainframe operating systems, middleware, and software to run unaltered on Intel™ and Intel-compatible platforms such as a Lenovo laptop or IBM System x® server. No System z mainframe hardware is needed.

The Rational Developer for System z family also includes Rational Developer for zEnterprise™, providing a set of tools for exploiting traditional System z environments as well as developing for zBX blades running Power or x86 architectures, providing a complete development toolset for heterogeneous enterprise application.

The Rational Developer for System z V8.0.3 offerings are the follow-on replacement products for WebSphere Studio Enterprise Developer V5, WebSphere Developer for zSeries® V6, WebSphere Developer for System z V7.0, Rational Developer for System z V7.1, Rational Developer for System z V7.5, and Rational Developer for System z V7.6.

For ordering, contact your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: AE001).

Key prerequisites

For details, refer to the [Software requirements](#) and [Hardware requirements](#) sections.

Planned availability date

- **October 14, 2011** -- Rational Developer for System z V8.0.3: Electronic availability
- **October 21, 2011** -- Rational Developer for System z V8.0.3: Media availability
- **November 10, 2011** -- Rational Developer for System zUnit Test: Electronic availability
- **November 17, 2011** -- Rational Developer for System z V8.0.3 Unit Test -- Media availability

Description

When Rational Developer for System z is used with the IBM Software Development Platform, developers can extend processing to meet a broad range of requirements addressing SOA applications and integrated lifecycle management directly from Rational Developer for System z.

For the V8, Rational Developer for System z offers three product offerings for greater choice, consumability, and flexibility:

Rational Developer for System z with EGL

Rational Developer for System z with EGL provides a single development environment for modern System z application developers. Rational Developer for System z with EGL allows developers to create traditional System z CICS, IMS, DB2, and Batch applications and connect them to Web 2.0 front-end applications using EGL.

The development environment includes tools for creating and maintaining traditional System z applications and transactional processing, System z web services, as well as lightweight Web 2.0 UI development using EGL. Rational Developer for System z with EGL helps to increase developer productivity by delivering integrated, high-quality code while working within the organizations development processes, tools, and philosophy.

Rational Developer for System z with EGL also helps to make learning the mainframe environment easier for developers new to the platform by offering easily accessible tools and wizards to assist in difficult and complex operations.

Rational Developer for System z with Java

Rational Developer for System z with Java provides a single development environment for heterogeneous enterprise application development with workloads spanning System z runtimes such as CICS, IMS, DB2, and Batch, as well as WebSphere Application Server environments.

The development environment includes tools for creating and maintaining traditional System z applications and transactional processing, System z web services, Web 2.0 applications, and Java Enterprise Edition applications running in WebSphere Application Server. Rational Developer for System z with Java helps to increase developer productivity by delivering integrated, high-quality code while working within the organizations development processes, tools, and philosophy.

Rational Developer for System z with Java also helps to make learning the mainframe environment easier for developers new to the platform by offering easily accessible tools and wizards to assist in difficult and complex operations.

Rational Developer for zEnterprise

Rational Developer for zEnterprise provides a single development environment for heterogeneous enterprise application development with workloads spanning zEnterprise architectures and languages including z/OS, Linux for System z, x86, and Power; languages including Java, COBOL, PL/I, Assembler, EGL, C/C++, and JCL; and runtimes such as AIX, Linux for System z, Linux on Power, x86 Linux, CICS, IMS, DB2, Batch, WebSphere Application Server, as well as WebSphere Compute Grid (Modern/Java Batch) environments on many architectures.

The development environment includes tools for creating and maintaining traditional System z applications and transactional processing, cross-platform web services, Web 2.0 applications, lightweight Web 2.0 applications using EGL, as well as Java Enterprise Edition applications running in WebSphere Application Server. Rational Developer for zEnterprise helps to increase developer productivity by delivering integrated, high-quality code while working within the organizations development processes, tools, and philosophy.

Rational Developer for zEnterprise also helps to make learning the mainframe and zEnterprise environments easier for developers new to the platform by offering easily accessible tools and wizards to assist in difficult and complex operations.

Updated features

Each of the product choices described includes a base set of System z application development tools, but enhanced with additional new functionality as described in the following text. The core System z application development tools include key capabilities for improving the productivity of System z application developers, including CICS, IMS, DB2, Batch, AIX, Linux for System z, x86 Linux, and z/OS UNIX development.

- Development and maintenance tools for z/OS (COBOL, PL/I, C, C++, Java, High-Level Assembler) applications, as well as access to AIX file systems; z/OS Datasets; Linux for System z, Linux for Power, and Linux for x86 files; and z/OS UNIX file systems; submit z/OS jobs; monitoring z/OS Job execution queues; and debug artifacts after access. The Rational Developer for zEnterprise offering includes additional capabilities for AIX and Linux on Power, which are not found in Rational Developer for System z with Java or Rational Developer for System z with EGL, such as AIX and Linux on Power debuggers.
- Visually configurable editors and statement assisted creation, and verification of syntax for COBOL, PL/I, C, C++, High-Level Assembler, and Java languages.
- Tooling to develop, test, and deploy web services to CICS, IMS, and WebSphere environments.

Note: With the availability of the optionally purchasable Rational Developer for System z Unit Test extension, IBM has deprecated the Windows-based unit test capabilities in the Rational Developer for System z Integrated Development Environment products as of V8.0.1. The deprecated capabilities, based on the IBM Windows™ compilers for COBOL and PL/I, CICS TX for Windows, and DB2 for Windows, continues to be supported for defect fixes and support questions, but no new enhancements, feature updates, or additional platform support are planned. These features will be removed from the Rational Developer for System z package at a later date.

Customers using the Windows compilers or wishing to continue using a strategic and supported local test environment from IBM are encouraged to contact an IBM representative to evaluate the Rational Developer for System z Unit Test environment or explore replacement technology for the compilers.

Integrated lifecycle development

- Tooling to collaborate and share both distributed and System z assets across the team using built-in Rational Team Concert™, Rational ClearCase® version control, IBM Software Configuration and Library Management (SCLM) Toolkit, CA Endevor Software Change Manager, or supplied frameworks for integrating with other source code management systems
- Access to customized JCL or TSO commands from the workstation to take advantage of existing System z tools in use on the mainframe
- Ability to adapt and extend the development environment with Eclipse-based plug-ins to match developer needs
- Drag-and-drop components to quickly build and deploy interactive reports
- Use Host Access Transformation functions that:
 - Support Host Access Transformation Services (HATS) development. (Note that customers must purchase independent HATS licenses for deployment for production usage.)
 - Provide integrated, rich client access for Rational Developer for System z licensed developers with TSO/ISPF access through a powerful GUI front-end..
- Integration with IBM Debug Tool for performing cross-platform and multi-language debugging of WAS and System z applications
- Ability to browse and update DB2 data using JDBC or DB2 connect from the included Rational Developer for System z Data Perspective
- Ability to browse and update VSAM dataset content via integration with the IBM File Manager plug-in
- Integration with IBM Fault Analyzer provides accesses to problem reports for diagnosing mainframe application faults

Note: For more information on the IBM Problem Determination Tools (Debug Tool, File Manager, Fault Analyzer, and Application Performance Analyzer) V11.1, refer to Software Announcement [210-308](#), dated October 5, 2010.

Note: The File Manager Integration feature included in the Rational Developer for System z install was deprecated as of V8.0.3. This integration is replaced with the IBM File Manager plug-in obtained as a part of the IBM File Manager prerequisite product. The File Manager Integration feature of Rational Developer for System z

will continue to be supported for defect fixes and support questions, but no new enhancements or feature updates are planned. The File Manager Integration feature will be removed from the Rational Developer for System z package at a later date. All new enhancement requests should be directed to the IBM File Manager product team directly.

Enterprise Service Tools

Enterprise Service Tools is an integrated perspective that assists a Web Service developer in the following tasks:

- Creating a CICS web service that uses a new or existing CICS application as its application component
- Creating a IMS Enterprise Suite SOAP Gateway web service that uses a new or existing IMS application as its application component
- Creating a web service that is not runtime-specific from a new or existing application
- Using the System z Database Application Generator to create a COBOL CICS application that accesses a z/OS DB2 database
- Developing a comprehensive web service that collects and processes data from multiple sources, including CICS non-terminal applications, CICS terminal applications, and web services

CICS Service Flow feature

CICS TS V4.2 includes support for business services through the service flow runtime capability. This integrated capability of the CICS TS V4.2 runtime is fully compatible with the CICS Service Flow feature V3.2. Customers upgrading to CICS TS V4.2 may use the integrated support for business services in this release as a direct replacement for the CICS Service Flow feature V3.2.

CICS TS V4.2 is shipped with CICS Service Flow runtime, which previously was available only as a separately orderable feature. The runtime allows the deployment of CICS business services (or service flows) created by the Service Flow Modeller component of Rational Developer for System z V7.1, or later.

The base capabilities provided by CICS TS to access CICS application interfaces extend to capabilities such as:

- Web services
- Link3270 Bridge
- Distributed Program Link (DPL)
- WebSphere MQ Adapter
- Front End Programming Interface (FEPI)

The CICS Service Flow Runtime exploits these capabilities when generating the CICS business service function to provide the implementation needed to reuse the existing CICS applications as components in the CICS business service flow.

For more information on the CICS Service Flow Feature, refer to Software announcement [205-303](#) , dated November 22, 2005, for Version 3.1.

For more information on the CICS Service Flow Feature, refer to Software announcement [209-135](#), dated April 28, 2009.

CICS Service Component Architecture (SCA)

To make it easier to publish and use CICS applications in a service oriented application, CICS TS V4.2 provides infrastructure and run-time support for deploying and managing application components. These components provide a common programming interface for service invocation, and a service description that is compliant with the SCA. Rational Developer for System z provides tooling to assist in

modeling, generating, configuring, and deploying the components to the CICS V4.2 environment.

The SCA capability provided by CICS TS gives customers investigating their own component architecture solutions the opportunity to exploit the CICS infrastructure instead, reducing their maintenance costs and potentially providing a richer more flexible solution. For customers that have not yet embarked on a SCA strategy, this capability provides both a low cost of entry option to doing so and a benefit from the CICS tooling enhancements built on top of the component architecture.

For more information on the CICS SCA, refer to Software announcement [209-135](#), dated April 28, 2009, for CICS TS V4.1.

New in Version 8.0.3

In addition to delivering over 45 customer requested enhancements, over 100 new and enhanced features and functions in Version 8.0.3 build on an already comprehensive set of features. They support the following themes:

- More productive application development and maintenance
- New tools to ensure application quality
- Improved compatibility with ISPF

More productive application development and maintenance

Expanded real-time syntax check and content assists capabilities including:

- Improved parsing algorithms which speed validation feedback by up to 50%.
- More robust language support for COBOL, PL/I, and C++.
- Better real-time validation of EXEC SQL statements including support for cursors.
- Support for EXEC DLI statements in both COBOL and PL/I, including content assist, refactor actions, and navigation assistance.
- Support for EXEC CICS at the CICS TS 4.2 level.
- Support for EXEC CICS and EXEC SQL validation and content assist in C/C++.
- Support for pre-processors in real-time syntax check. Can interpret pre-processor information such as PL/I macro execution or custom preprocessors and integrate the output into real-time syntax check results.
- Language Sensitive help is available for exec blocks, opening the reference manual for the exec statement when a user hits F1 for a quick view of coding options and standards.

New COBOL and PL/I Editor enhancements provide a more productive experience:

- New actions and preferences for formatting of source code
- Updated syntax highlighting options including Bold, Italic, and additional styles
- Markers in the editor as well as the right-hand trim indicate the occurrence of the variable currently highlighted throughout the program, for initial declaration, read, write with unique colors. PL/I does not display write occurrences in a different color at this time.
- Range indicators that highlight the beginning and end of the paragraph, section, procedure, or division currently being worked on.
- Selection filtering that allows the editor to focus on a single range of code as denoted by a range indicator, hiding all other aspects of the program.
- Task Tag support that provides integration into the Eclipse Task view. Allowing users to leave configurable and prioritized TODO markers in their code which will automatically be parsed out and populated in the task list when the editor is saved or opened.
- Customizable tab stops that provide more configuration options for code style preferences.

- A new HEX edit view that allows altering the underlying EBCDIC values of the source, useful for cases of working with embedded HEX characters in source literals.
- New quick fixes that are provided for repairing common configuration and coding errors automatically.
- New code folding options that allow users to collapse sections of code, such as paragraphs or procedures to hide code from view.

New PL/I capabilities are available in the PL/I editor and LPEX editor providing a more consistent experience with what is available for COBOL:

- Hyperlink and F3 support for opening of PL/I variable or procedure declarations in the containing program or referenced include files
- Hover help tooltips on variables and procedures show the declaration of the variable, even when defined in an include file

New Assembler language capabilities are available including:

- Remote Error feedback
- Improved content assist
- Support for assembler macros
- Support for opening of declarations via F3, similar to COBOL and PL/I
- New real-time validation of EXEC CICS and EXEC SQL statements in Assembler programs
- New real-time errors and warnings for invalid whitespace including quickfixes
- New validation of assembler branch instructions, issuing warnings when labels cannot be located, including quickfixes
- Join and paste operations that now respect defined margins

The COBOL perform hierarchy are updated to display new icons for conditional execution, fall-through conditions, loops, and exceptions. This enhances the information displayed to the user for understanding control flow of the application.

The Rollout framework initially provided in Version 8.0.1 is enhanced to also include Menu Manager scripts and configuration, DB2 Connections, Code review configurations and more.

The Rollout framework can now be defined for groups or teams of users in addition to globally available definitions. The groups can be defined using RACF® or another SAF framework such as ACF2 or Top Secret, or via LDAP.

Usability updates:

- Quick link actions to job spool output from job submission confirmation dialogs.
- Ability to show/hide file extensions in the z/OS Remote Projects view
- Improved Project/Subproject creation dialog allows for defining new connections in the wizard instead of requiring to shut down the wizard.
- New zEnterprise perspective (for Rational Developer for zEnterprise) brings together z/OS and AIX projects into a single view.
- Session time out on Debug sessions saves MIPS for cases where the session was accidentally left open
- Debug Perspective now offers Single-pane HEX and character rendering in a compact display
- Smart Hover help tooltips in the Debug Perspective show variable declarations in addition to current contents
- Build and Link options panels for C++ have been combined

SOA, web services, and RESTful services

Several Enterprise Service Tools usability enhancements have been added to simplify and improve the web service development experience. The single-service wizards

include enhanced top-down support for IMS PL/I code generation, including new wizards and walkthroughs to help developers with all service development scenarios.

New enhancements include:

- Improved COBOL XML parsing MIPS /performance via generated code, up to 45% MIPS reduction, and up to 50% performance increases have been seen in lab tests
- Improved support for Occurs-Depending-on clauses for bottoms-up and meet-in-the-middle scenarios
- Web Services Description Language (WSDL) validation support
- Improved support for XML whitespace in PL/I converter generation
- Support for several IMS PL/I top-down use cases including
 - SOAP fault messages
 - Base64binary encoding of data
 - Variable length IMS message segment size
 - Empty complex types
 - Separation of business logic from protocol logic in generated artifacts

Integrated CICS Explorer™ and Application Deployment Manager tooling

Rational Developer for System z includes a newly upgraded and integrated copy of the CICS Explorer, based on the version made available in CICS TS V4.2 as described in Software Announcement [211-080](#), dated April 5, 2011. The CICS Explorer is enhanced with the Rational Developer for System z Application Deployment Manager (ADM). The CICS Explorer and ADM allow you to query, define, and install needed CICS resources, Services, SCA bundles, OSGi bundles, and ATOM feeds. The combination of CICS Explorer and Rational Developer for System z simplifies the CICS development process by removing or automating several manual steps in the service deployment and testing cycle.

The developer no longer has to return to the green screen, or work with CICS System Programmers via manual interaction, to define many of the CICS application resources they need for testing application changes. Rational Developer for System z also gives developers the ability, if permitted in the CICS environment, to define and manage their own CICS resource definitions to speed applications development. Combined with the Rational Developer for System z Manifest Process Tool tech preview, developers and systems programmers can collaborate in an easier manner to improve and speed CICS application development workflow. These tools also ease the maintenance and development of CICS application in the Rational Developer for System z Unit Test environment where developers may not have much CICS environment management experience.

The Rational Developer for System z Enterprise Service Tools and z/OS project structures have been integrated with ADM to define and manage CICS application resources that need to be defined for CICS Web Services and Service Flows and transactional applications to be deployed and tested. The resource definitions can be tied to the artifacts generated and maintained by Rational Developer for System z and managed as part of the software life cycle via a source code management system such as Rational Team Concert.

The integrated CICS Explorer also provides the foundation within Rational Developer for System z for integrating the suite of CICS Tools from IBM - Interdependency Analyzer, Performance Analyzer, and Configuration Manager. The eclipse interfaces for these tools are provided separately, but can be integrated into the Rational Developer for System z shell to provide a single workbench for all CICS development activities.

New tools to ensure application quality

Code review

A new "Code Review for COBOL" feature provides developers the capability to analyze COBOL code early in the development phase, to ensure they are following their company's internal guidelines, best practices, and coding standards.

The Software Analyzer Configuration dialog is used to create an analysis configuration that specifies the scope and rule set for the analysis, providing the ability to flexibly define multiple rule sets for various applications, teams, or standards compliance cases. Your COBOL rule set is defined by selecting from rules provided by Rational Developer for System z in a number of categories, together with rules that you create by customizing templates. These analysis configurations can be centrally administered using the Rational Developer for System z Rollout capability.

The COBOL code review can be run on all COBOL files in the workspace, within one or more local projects, or on a single source file. Code review can also be run on a remote COBOL file, if the file is open in an edit session.

The results from the COBOL code review are displayed in a Software Analyzer Results view. When selected, the source file is opened in the editor and the line in violation is highlighted. An HTML or PDF report can also be generated from these results.

Code coverage

Line-level code coverage is now available for compiled language applications, including applications written in C/C++, COBOL, PL/I, and HLASM in addition to the existing support for Java. Starting code coverage is as simple as compiling with debug information and launching your application under the debugger, with special options. Results are summarized, displayed, and compared using a graphical environment built right in to the client.

Users can now begin to measure code coverage of existing applications, or combine code coverage data from applications executing in multiple languages, runtimes, and environments to gather a complete perspective on application quality.

Improved compatibility with ISPF

Improved performance

- Member open and download improved by up to 5%.
- Member save and upload improved by up to 25%.
- Remote search execution improved by up to 30%.
- Endeavor display performance improved up to 90%.
- SCLM DT edit/checkout and copybook retrieve up to 20%.
- SCLM DT project population performance improved by up to 80% for large projects.

A new System z Data Editor allows users to browse and edit flat file (QSAM) data similar to capabilities provided by ISPF, without requiring IBM File Manager. This new editor allows browsing and editing of large data files with improved usability and performance over the existing LPEX editor, with specific features for displaying, navigating, and searching subsets of the large data files. The System z Data Editor provides a basic data editing experience, but still allows users to avoid returning to the green screen for daily data management activities. For an enhanced experience with such features as copybook templates and subsetting, integration with IBM File Manager is still required.

New VSAM allocation wizards allow users to create new VSAM datasets from the desktop instead of returning to the green screen or having to create and submit jobs.

New ability to browse load module contents allowing inspection of z/OS binaries.

New actions to View a member from the Remote System Explorer in addition to Open and Browse actions.

New job filter capabilities similar to SDSF allowing to only display jobs in held vs running versus queued status.

New right-click action allows users to change passwords on remote systems.

The remote search dialogs have been simplified to improve the search experience from the desktop including:

- Progressive result display to improve responsiveness while results are loading
- Simplified query criteria to narrow down searches
- Filtering of search results to subset queries easily in real time without resubmitting a search query

New extensions to the Retrieve Dataset wizards allow for drilling down to easily locate members in addition to datasets. Members can be directly opened or created without needing to define a filter in the Remote Systems Explorer or z/OS Project view.

All Rational Developer for System z editors now support editing of embedded HEX characters. Previously certain embedded HEX characters caused the editor to open in read-only mode and require returning to the green screen editor to repair. Now all members should be able to open for edit directly in the eclipse workbench.

Equivalent support for the ISPF UPPER command, helping developers who have coding conventions requiring use of uppercase to easily make code compliant.

Improved compatibility with SDF2 for BMS map editing including:

- Ability to import SDF2 metadata embedded in BMS map source using DGIDSBMS including:
 - Repeat blocks
 - Field level comments
 - Alternate symbolic map structure names and level numbers
- Support for non-contiguous arrays
- Support for alphanumeric only generation of symbolic maps

Improved compatibility with SCLM including:

- Showing SCLM account status in properties view
- Supporting multiple SCLM account files
- Retrieving all INCL ARCHDEF members on a populate request

Improved compatibility with CA Endeavor including:

- New support for managing packages via a new CA Endeavor Packages RAM. Allows creation, promotion, and viewing of existing and new packages directly from Endeavor
- New Endeavor Package editor. Allows creation or editing of new or existing package Source Control Language (SCL) under Endeavor management
- New actions to facilitate CASTing of packages in the IDE workflow
- New support for displaying Endeavor elements and packages in the CARMA Fields Table view, showing element properties and statuses next to element display listings including the ability to sort by property
- New support for running selected long-running operations, such as GENERATE and ADD/UPDATE, in batch instead of online

Rational Developer for System z Unit Test

Rational Developer for System z Unit Test is an add-on feature to either Rational Developer for System z with Java, Rational Developer for System z with EGL, or Rational Developer for zEnterprise. Rational Developer for System z Unit Test, based on the IBM z Personal Development Tool provides a small-scale, personal test environment for developers running z/OS and z/OS middleware from IBM, but on an Intel or Intel-compatible (x86) Personal Computer (PC), eliminating the cost differentials that exist between distributed and existing mainframe development environments. Running a personal System z development environment on a PC allows a more portable, flexible, and lower-cost environment for individual developers. Please note, Rational Developer for System z Unit Test may not be used for production workloads of any kind, nor robust development workloads including without limitation production module builds, preproduction testing, stress testing, or performance testing.

Running a personal System z development environment on a PC allows a more portable, flexible, and lower-cost environment for individual developers, equivalent to what Rational Developer for System z offered with the WebSphere Application Server Unit Test Environment in past versions.

The Rational Developer for System z Unit Test environment provides a more modern, agile developer workbench to accelerate delivery of new workloads spanning multiple runtimes. The Rational Developer for System z Unit Test environment can be assigned to a single developer in a small system configuration, or can support small-scale team environment on a server platform. These environments can be tailored to a single developer or a team's runtime needs without altering existing mainframe testing environments. The Rational Developer for System z Unit Test environment can provide a greater level of control for developers to implement quick environment changes, such as defining new transactions and resource definitions using the CICS Explorer tools in Rational Developer for System z, without having to involve production operations staff to setup these configurations on the mainframe.

Developers also have easier access to modern versions of the IBM middleware, in the Unit Test environment without having to wait for system upgrades on the mainframe. Developers can explore new CICS or IMS features, investigate new architectural models, and perform their first series of tests as well as regression testing, without worrying about changes coming from other developers causing unexpected errors. Using the Unit Test environment developers can build and test System z applications anywhere and anytime, without impacting the production operations of an organization.

The Rational Developer for System z Unit Test environment comes packaged with a preconfigured set of IBM software entitled for development usage specifically in the Rational Developer for System z Unit Test environment including:

- z/OS V1.11, including subfeatures
- WebSphere Application Server for z/OS V7.0
- CICS Transaction Server (CICS TS) V3.2 and V4.1
- IMS V10.1 and V11.1
- DB2 for z/OS V9.1 and V10.1
- WebSphere MQ for z/OS V7.0
- IBM Java SDK for z/OS V5.0 and V6.0
- Enterprise COBOL V4.2
- Enterprise PL/I V3.9
- XL C++ V1.11
- IBM Rational COBOL Runtime V6.0 (EGL)
- IBM Debug Tool V10.1

The included IBM software products are provided for development purposes only on an as-is basis. No support is provided for the included software.

Running the Rational Developer for System z Unit Test environment

The Rational Developer for System z Unit Test environment requires a license of either Rational Developer for System z with EGL, Rational Developer for System z with Java, or Rational Developer for zEnterprise to install and operate for each user. The Unit Test environment is licensed and activated via a USB Hardware key, which is provided in the Unit Test media pack. Each developer machine running the Unit Test environment is required to procure and activate a USB Hardware Key from IBM. If the USB Hardware Key is not present in the developer machine or accessible using the newly available License Key server, and activated via the IBM activation process, then the Unit Test environment software will be non-functional. Ensure that you order and activate the appropriate number of USB Hardware Keys when making your purchase.

New in Version 8.0.3

The Rational Developer for System z Unit Test feature parts have been renamed for additional clarity:

- Rational Developer for System z Unit Test Extension - Desktop User enables a single virtual unit test engine environment. A single test engine environment is appropriate for small machines, such as a developer laptop. One engine will facilitate most types of traditional System z application testing such as Batch, CICS, IMS, DB2, COBOL, PL/I, and assembler. This offering is targeted at an individual user on a small system.
- Rational Developer for System z Unit Test Extension - Server User enables a three virtual unit test engine environment. A three test engine environment is appropriate for server machines supporting a team of developers or specialty workload. The three engines can be configured to test applicability of application code to zAAP or zIIP processors in addition to normal development and unit testing. Three engines will allow a wider range of testing options including all the options of the Rational Developer for System z Unit Test Standard configuration, but also facilitating testing of Java, WebSphere, and more data processing options in DB2.

Note that in a multiuser configuration all users must be licensed to the same Rational Developer for System z Unit Test level.

The Rational Developer for Systemz Unit Test Extension - Server User is now licensed using a Single Install metric where users are assigned and managed per machine. Please take this into consideration at time of purchase.

When purchasing the Server User option, the package also includes the use of a License Server option. The License Server allows for the USB Hardware key to be plugged into a centralized location for management and allocation of licenses out to various servers without the need to plug an individual USB Hardware Key into every machine. The License Server allows servers to be provisioned more easily and flexibly into a networked or BladeCenter® environment where USB access may be restricted.

The License Server can be used with a new model of USB Hardware Key made available with the Rational Developer for System z Unit Test Extension- Server User media pack which will allow for multiple servers to be licensed from a single high-capacity USB Hardware Key. This will allow enterprises to lower the number of USB Hardware Keys required for hosting multiple machines, ease management and maintenance tasks, and ease rollout across the enterprise. The new USB Hardware key is only available for Unit Test - Server Users v8.0.3 and above.

The Rational Developer for System z Unit Test feature is also updated to include:

- Scripts and additional documentation for TCP/IP configuration
- DB2 for z/OS V10.1

Rational Developer for System z online resources

Rational Developer for System z has a variety of resources online to collaborate with the development organization and the community of Rational Developer for System z developers at large:

Demos on the IBM Education Assistant for learning the features of Rational Developer for System z:

Rational Developer for System z

http://publib.boulder.ibm.com/infocenter/ieduasst/rtnv1r0/index.jsp?topic=/com.ibm.iea.rdz/plugin_coverpage.html

CICS Transaction Server

<http://publib.boulder.ibm.com/infocenter/ieduasst/stgv1r0/index.jsp>

The User Forum for Q&A, best practices, news, and discussions around IBM Rational Developer for System z

http://www.ibm.com/developerworks/forums/dw_forum.jsp?forum=1131

The IBM COBOL Cafe for latest technical information, business news, conference, seminar, Web-cast and event information about COBOL related products and systems, as well as Rational Developer for System z news, discussions, blogs, and resource libraries

<http://www.ibm.com/rational/cafe/community/cobol>

Rational Developer for System z RFE community for creating/managing your own Requests For Enhancement for IBM Rational products

http://www.ibm.com/developerworks/support/rational/rfe/?PROD_ID=23

Additional information

Summary of Rational Developer for System z

Rational Developer for System z consists of a common workbench and an integrated set of tools that support end-to-end, model-based application development, run-time testing, and rapid deployment of on demand applications. It offers integrated development environments (IDE) with advanced, easy-to-use tools and features to help WebSphere, CICS, and IMS developers rapidly design, code, and deploy complex applications.

Web, Java Enterprise Edition, and Java development

Web development

- Helps develop creative and data-rich web-based applications
- Provides visual layout tools to help you write Java Server Faces (JSF), JavaServer Pages (JSP), EGL Web UI, EGL Rich UI, and HTM
- Includes a wizard to develop servlet and page handler code
- Lets you create web applications from database queries and beans
- Includes graphic-design software for producing static and animated output
- Supports Java Enterprise Edition coding and deployment

Java development

- Helps create Java code
- Helps enable incremental compilation and provides a common local and remote debugger benefit
- Includes Java source file tools to search, compare, and merge code and refactoring tools to help reorganize Java applications

Java Enterprise Edition platform support

- Features full Enterprise JavaBeans™ (EJB) support, Web Archive (WAR) and Enterprise Application Archive (EAR) deployment support
- Includes an updated EJB test client and an enhanced unit-test environment to create multiple projects with different unit-test configurations

Analysis and performance profiling

- Collects and presents Java run-time data in graphical and non-graphical views
- Helps detect application performance issues early in the development cycle and improves overall system efficiency

z/OS and z/OS UNIX development

- Provides an interactive, workstation-based environment with quick access to IBM z/OS datasets and z/OS UNIX Hierarchical File System (HFS)/System z File System (zFS) files
- Creates Assembler, COBOL, PL/I, C, C++, and Java code
- Creates, maintains, and debugs CICS and IMS system-based code, IMS and Structured Query Language (SQL) statements

Composite development

Web services and XML development

- Offers the ability to create, view, edit and validate WSDL, document-type definitions (DTD) and XML schemas, transforms XML documents into text, HTML, or other XML document types
- Integrates relational databases and XML
- Generates COBOL or PL/I adapters and CICS TS V3 WSBind for converting between Web Service Description Language (WSDL), XML, and CICS program data in a web services environment
- Generates COBOL or PL/I adapters, WSDL, and configuration files for enabling IMS Enterprise Suite SOAP Gateway to accept web service calls to IMS transactions

Testing and deployment

Allows cross-platform interactive testing, debugging, and deployment of JSP, EGL programs, servlets, page handlers, Rich UI applications, EJB, and HTML files on local and remote web application servers as well as z/OS CICS, IMS, batch, DB2, and z/OS UNIX debugging of COBOL, PL/I, C, C++ and assembler applications.

Web services deployment

- Helps build and deploy Web services-enabled applications across a broad range of platforms
- Offers tools to help ensure conformance to standards such as UDDI for Java, Simple Object Access Protocol (SOAP), and web services Description Language (WSDL)

Relational database

- Helps create and manipulate project data design as relational database (RDB) schemas
- Writes queries against local and remote data.

Globalization support

A multilingual version of this product is available in English, French, German, Japanese, Korean, Portuguese, Spanish, Simplified Chinese, and Traditional Chinese.

Bundled offerings

The Rational Developer for System z V8.0.3 media package contains complimentary bundled offerings. Usage of and service support for these bundled offerings is subject to restrictions. These restrictions are described in the License Information documents. In order to use any of the bundled offerings outside of the usage restrictions and to receive full service support, you must obtain a separate license for the offering.

The bundled offerings in Rational Developer for System z with EGL include:

- Rational Business Developer V8.0.1 -- Helps developers quickly design, develop, analyze, test, profile, and deploy high-quality Web, SOA, and Web 2.0 applications. Optimized for WebSphere software, this tool provides capabilities for deploying to other runtime platforms, helping customers increase productivity, minimize the learning curve, and shorten development and test cycles.
- TXSeries for Developers V7.1 -- This is a special edition of TXSeries for Multiplatforms V7.1 made for Rational Developer for System z V8.0.3
- DB2 Workgroup Edition V9.7
- DB2 Connect™ V9.7

The bundled offerings in Rational Developer for System z with Java include:

- Rational Application Developer for WebSphere Software V8.0.3 -- Helps developers quickly design, develop, analyze, test, profile, and deploy high-quality web, SOA, Java, J2EE, and portal applications. Optimized for WebSphere software, this tool provides capabilities for deploying to other runtime platforms, helping customers increase productivity, minimize the learning curve, and shorten development and test cycles.
- WebSphere Application Server for Developers V7.0 and V8.0
- WebSphere Portal Enable for Multiplatforms V6.1
- CICS Transaction Gateway for Multiplatforms V7.1
- TXSeries for Developers V7.1 -- This is a special edition of TXSeries for Multiplatforms V7.1 made for Rational Developer for System z V8.0.3
- DB2 Workgroup Edition V9.7
- DB2 Connect V9.7

The bundled offerings in Rational Developer for System zEnterprise include:

- Rational Application Developer for WebSphere Software V8.0.3
- Rational Business Developer V8.0.1
- WebSphere Application Server for Developers V7.0 and V8.0
- WebSphere Portal Enable for Multiplatforms V6.1
- CICS Transaction Gateway for Multiplatforms V7.1
- TXSeries for Developers V7.1 -- This is a special edition of TXSeries for Multiplatforms V7.1 made for Rational Developer for System z V8.0.3
- DB2 Workgroup Edition V9.7
- DB2 Connect V9.7

Section 508 of the US Rehabilitation Act

IBM Rational Developer for System z is capable as of October 14, 2011, when used in accordance with IBM's associated documentation, of satisfying the applicable requirements of Section 508 of the Rehabilitation Act, provided that any assistive technology used with the product properly interoperates with it. A U.S. Section 508 Voluntary Product Accessibility Template (VPAT), containing details on the products accessibility compliance, can be requested on the following website

http://www.ibm.com/able/product_accessibility/index.html

Program number

Program number	VRM	Program name
5724-T07	8.0.3	IBM Rational Developer for System z

Education support

The following educational offerings are available:

Course code	Course title	Course type
SW913	Advanced web-to-Host Application Integration using IBM webSphere HATS	Classroom
SW337	CICS AD support for SOAP and XML	Classroom
CI172	CICS Application Programming I	Classroom
CI181	CICS Application Programming II	Classroom
CI19	CICS Application Programming with Java	Classroom
SW336	CICS Web Enablement	Classroom
XC242	COBOL Programming workshop	Classroom
RN110	COBOL with IBM Rational Developer for System z v8.0.3	Classroom
CI71	Connecting CICS to webSphere Application server via CICS Transaction Gateway	Classroom
SW737	Connecting the Enterprise	Self-study
SW758	EGL Generation of COBOL using webSphere Developer for System z	Self-study
SW757	EGL and JSF Development using webSphere Developer for System z	Self-study
SW509	EGL for z/OS Environments using webSphere Developer for System z	Classroom
SW728	Enterprise Development with IBM webSphere Developer for System z	Self-study
SW745	Fault Analyzer	Self-study
SW744	File Manager	Self-study
SW912	IBM webSphere Host Access Transformation Services Introduction	Classroom
SW501	Intro to Web Services Development with IBM Rational Application Developer	Classroom
JA321	Introduction to Developing OO Applications with Java for Procedural Developers	Classroom
SW700	Introduction to EDI	Self-study

SW244	Concepts and Standards Introduction to Java using IBM Rational Application Developer	Classroom
WF311	Servlet and JSP Development with IBM Rational Application Developer	Classroom
SW502	Web Services Development with IBM Rational Application Developer	Classroom

IBM training provides education to support many IBM offerings. Descriptions of courses for IT professionals and managers are on the IBM training website

<http://www.ibm.com/services/learning/>

Call IBM training at 800-IBM-TEACH (426-8322) for catalogs, schedules, and enrollments.

Offering Information

Product information is available via the Offering Information website

<http://www.ibm.com/common/ssi>

Also, visit the Passport Advantage® website

<http://www.ibm.com/software/passportadvantage>

Publications

No publications are shipped with this product.

The IBM Publications Center

<http://www.ibm.com/shop/publications/order>

The Publications Center is a worldwide central repository for IBM product publications and marketing material with a catalog of 70,000 items. Extensive search facilities are provided. Payment options for orders are via credit card (in the U.S.) or customer number for 20 countries. A large number of publications are available online in various file formats, and they can all be downloaded by all countries.

Technical information

Specified operating environment

Hardware requirements

For the most current list of Hardware prerequisites, visit

<http://www.ibm.com/software/rational/products/developer/systemz/>

Software requirements

For the most current list of Software prerequisites, visit

<http://www.ibm.com/software/rational/products/developer/systemz/>

The program's specifications and specified operating environment information may be found in documentation accompanying the program, if available, such as

a README file, or other information published by IBM, such as an announcement letter. Documentation and other program content may be supplied only in the English language.

Planning information

Customer responsibilities

Software Subscription and Support (also referred to as Software Maintenance) is included with licenses purchased through Passport Advantage and Passport Advantage Express®. Product upgrades and technical support are provided by the Software Subscription and Support (also referred to as Software Maintenance) offering as described in the Agreements. Product upgrades provide the latest versions and releases to entitled software, and technical support provides voice and electronic access to IBM support organizations, worldwide.

IBM includes one year of Software Subscription and Support (also referred to as Software Maintenance) with each program license acquired. The initial period of Software Subscription and Support (also referred to as Software Maintenance) can be extended by the purchase of a renewal option, if available.

Packaging

IBM Rational Developer for System z

Security, auditability, and control

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Ordering information

This product is only available via Passport Advantage. It is not available as shrinkwrap.

Product information

Licensed function title	Product group	Product category
IBM Rational Developer for System z Unit Test Desktop User	Rational Other	Rational Other
IBM Rational Developer for System z Unit Test Server User	Rational Other	Rational Other
IBM Rational Developer for System z with EGL	Rational Other	Rational Other
IBM Rational Developer for System z with Java	Rational Other	Rational Other
IBM Rational Developer for zEnterprise Program name	Rational Other	Rational Other
	PID number	Charge unit description
IBM Rational Developer for System z Unit Test Desktop User	5724-T07	Per Authorized User Single Session
IBM Rational Developer for System z Unit Test Desktop User	5724-T07	Per Authorized User Single Session for System z
IBM Rational Developer for System z Unit Test Server User	5724-T07	Per Authorized User Single Install for System z
IBM Rational Developer for System z Unit Test Server User	5724-T07	Per Authorized User Single Install
IBM Rational Developer for System z with EGL	5724-T07	Per Floating User
IBM Rational Developer for System z	5724-T07	Per Authorized User

with EGL				for System z
IBM Rational Developer for System z	5724-T07			Per Authorized User
with EGL				
IBM Rational Developer for System z	5724-T07			Per Floating User for System z
with EGL				
IBM Rational Developer for System z	5724-T07			Per Floating User
with Java				
IBM Rational Developer for System z	5724-T07			Per Floating User for System z
with Java				
IBM Rational Developer for System z	5724-T07			Per Authorized User
with Java				
IBM Rational Developer for zEnterprise	5724-T07			Per Floating User for System z
IBM Rational Developer for zEnterprise	5724-T07			Per Authorized User
IBM Rational Developer for zEnterprise	5724-T07			Per Authorized User for System z
IBM Rational Developer for zEnterprise	5724-T07			Per Floating User

Charge metrics definitions

Authorized User

Authorized User is the unit of measure by which this program is licensed. An Authorized User is an individual (named or unnamed) within or outside of your enterprise. The program may be installed on one or more computers or servers and accessed by the number of users authorized by the Proof of Entitlement (PoE). You must have an entitlement for each Authorized User accessing the program or any program component in any manner directly or indirectly (for example, via a multiplexing program, device, or application server) through any means.

Floating User

Floating User is a unit of measure by which the Program can be licensed. A Floating User is a person who is accessing the Program at any particular point in time. An Install is an installed copy of the Program on a physical or virtual disk made available to be executed on a computer. The Program may be installed on any number of computers or servers, but if the Floating User simultaneously accesses more than one Install of the Program, the Floating User requires a separate entitlement for each such Install. Licensee must obtain separate entitlements for each Floating User simultaneously accessing the Program on each Install in any manner directly or indirectly (for example: via a multiplexing program, device, or application server) through any means.

Note:Some programs may be licensed where devices are considered users. In that case the following applies: Any computing device that requests the execution of or receives for execution a set of commands, procedures, or applications from the Program or that is otherwise managed by the Program is considered a separate User of the Program and requires an entitlement as if that device were a person.

Passport Advantage program licenses

Rational Developer for System z

Part description	Part number
Rational Developer for System z Unit Test Desktop User	
RDz Unit Test Ext-DesktopUser Auth User Sgl Session	E08TWLL
Annual SW S&S Rnw1	
RDz Unit Test Ext-DesktopUser Auth User Sgl Session	D0D40LL
Initl FT Lic+S&S 12 Mo	
RDz Unit Test Ext-DesktopUser Auth User Sgl Session Lic	D0D3DLL
+ SW S&S 12 Mo	
RDz Unit Test Ext-DesktopUser Auth User Sgl Session SW	D0D3ELL
S&S Reinstate 12 Mo	
RDz Unit Test Ext-DesktopUser Auth User Sgl Session	E08UALL
Subsq FT Lic+S&S 12 Mo	

IBM Rational Developer for System z with EGL RDZ EGL Authorized User License & Software Subscription/Support 12 Month	D053NLL
RDZ EGL Authorized User SW Subscription/Support Reinstatement 12 Months	D053PLL
RDZ EGL Authorized User Software Subscription and Support Annual Renewal	E05DLLL
RDZ EGL Flt User Sgl Inst Initl FT Lic+S&S 12 Mo	D0BLTLL
RDZ EGL Flt User Sgl Inst Lic & Software Subscription and Support 12Months	D055QLL
RDZ EGL Flt User Sgl Inst SW Subscription/Support Reinstatement 12Months	D055ZLL
RDZ EGL Flt User Sgl Inst Software Subscription and Support Annual Renewal	E05EFLL
RDZ EGL Flt User Sgl Inst Subsq FT Lic+S&S 12 Mo	E084QLL
Ratl Developer For Sys Z Egl Auth User Initl FT Lic+S&S 12 Mo	D0BLRLL
Ratl Developer For Sys Z Egl Auth User Subsq FT Lic+S&S 12 Mo	E084NLL
IBM Rational Developer for System z with Java RDz Java Authorized User License & Software Subscription/Support 12 Month	D057XLL
RDz Java Authorized User SW Subscription/Support Reinstatement 12 Months	D057YLL
RDz Java Authorized User Software Subscription and Support Annual Renewal	E05FBLL
RDz Java Flt User Sgl Inst Initl FT Lic+S&S 12 Mo	D0BLXLL
RDz Java Flt User Sgl Inst Lic & Software Subscription and Support 12 Month	D0576LL
RDz Java Flt User Sgl Inst SW Subscription/Support Reinstatement 12 Month	D0577LL
RDz Java Flt User Sgl Inst Software Subscription and Support Annual Renewal	E05EZLL
RDz Java Flt User Sgl Inst Subsq FT Lic+S&S 12 Mo	E084ULL
Ratl Developer For Sys Z Java Auth User Initl FT Lic+S&S 12 Mo	D0BLVLL
Ratl Developer For Sys Z Java Auth User Subsq FT Lic+S&S 12 Mo	E084SLL
IBM Rational Developer for zEnterprise RDzEnterprise Per Authorized User Annual SW S&S RnwI	E0ARJLL
RDzEnterprise Per Authorized User Initl FT Lic+S&S 12 Mo	D0GU9LL
RDzEnterprise Per Authorized User Lic + SW S&S 12 Mo	D0GRMLL
RDzEnterprise Per Authorized User SW S&S Reinstate 12 Mo	D0GRNLL
RDzEnterprise Per Authorized User Subsq FT Lic+S&S 12 Mo	E0ASTLL
Rat Dev zEn Flt User Sgl Inst Annual SW S&S RnwI	E0ASRLL
Rat Dev zEn Flt User Sgl Inst Initl FT Lic+S&S 12 Mo	D0GUBLL
Rat Dev zEn Flt User Sgl Inst Lic + SW S&S 12 Mo	D0GU3LL
Rat Dev zEn Flt User Sgl Inst SW S&S Reinstate 12 Mo	D0GU4LL
Rat Dev zEn Flt User Sgl Inst Subsq FT Lic+S&S 12 Mo	E0ASVLL
IBM Rational Developer for System z Unit Test Server User RDZ Unit Test Ext-ServerUser Auth User Single Install ANNUAL SW S&S RNWL	E0D6BLL
RDZ Unit Test Ext-ServerUser Auth User Single Install INITL FT LIC+S&S 12 M	D0M1YLL
RDZ Unit Test Ext-ServerUser Auth User Single Install LIC + SW S&S 12 MO	D0M1TLL
RDZ Unit Test Ext-ServerUser Auth User Single Install SUBSQ FT LIC+S&S 12 M	E0D6ELL
RDZ Unit Test Ext-ServerUser Auth User Single Install SW S&S REINSTATE 12 Mo	D0M1ULL

Passport Advantage trade-up licenses

IBM Rational Developer for System z

Precursor product	Trade-up product	Trade-up part number
IBM Rational Developer for System z Enterprise Auth User	zEnterprise RDzEnterprise Float User from RDzEnterprise AU Trade Up Lic + SW S&S 12 Mo	D0GU5LL
IBM Rational Developer for System z Debugger for System z	System z with Java RDz Java Auth User Tradeup from WDDz Lic& SW Subscription/Support 12 Mnth	D05A4LL
IBM Rational Application Developer for webSphere Software	RDz Java AuthUser Tradeup from RAD Lic&SW Subscription/Supt 12 Mnth	D05A6LL
Competitor	RDz Java Authorized User from Competitor Trade Up Lic + SW S&S 12 Mo	D0GR8LL
IBM webSphere Developer Debugger for System z	RDz Java Floating User Tradeup from WDDz Lic& SW Subscription/Supt. 12 Mnth	D05AULL
IBM Rational Developer for System z with Java Auth User	RDz Java Floating User from RDz Java Auth User Trade Up Lic + SW S&S 12 Mov	D0AYLLL
IBM Rational Application Developer for webSphere Software	RDz Java FloatingUser Tradeup from RAD Lic&SW Subscript/Supt. 12Months	D05AWLL
IBM Rational Developer for System z Debugger for System z	System z with EGL RDz EGL Auth User Tradeup from WDDz Lic& SW Subscription/Support 12 Mnth	D059TLL
IBM VisualAge® Generator	RDz EGL AuthUser Tradeup from VisAgeGen Lic&SW Subscription/Supt 12 Mnth	D059ULL
Competitor	RDz EGL Authorized User from Competitor Trade Up Lic + SW S&S 12 Mo	D0GPZLL
IBM webSphere Developer Debugger for System z	RDz EGL Floating User Tradeup from WDDz Lic& SW Subscription/Supt. 12Mnths	D05A0LL
IBM Rational Developer for System z with EGL Auth User	RDz EGL Floating User from RDz EGL Auth User Trade Up Lic + SW S&S 12 Mo	D0AYDLL
IBM VisualAge Generator	RDz EGL FloatingUser Tradeup from VisAgeGen Lic&SW Subscript/Supt. 12Mnths	D05A1LL

Passport Advantage supply

Program name/description	Part number
RDz EGL V8.0.3	
IBM RATIONAL DEVELOPER FOR SYSTEM Z WITH EGL V8.0.3 MEDIA PACK	BT0G0ML
RDz Java V8.0.3	
IBM RATIONAL DEVELOPER FOR SYSTEM Z WITH JAVA V8.0.3 MEDIA PACK	BT0G1ML
RDz UT Desktop User V8.0.3	
IBM RATIONAL DEVELOPER FOR Z UT V8.0.3-ONE HARDWARE KEY MEDIA PACK	BT0G3ML
IBM RATIONAL DEVELOPER FOR Z UT V8.0.3-FIVE HARDWARE KEY MEDIA PACK	BT0G4ML

IBM RATIONAL DEVELOPER FOR Z UT V8.0.3-TEN HARDWARE KEY MEDIA PACK	BT0G5ML
IBM RATIONAL DEVELOPER FOR Z UT V8.0.3-TWENTY-FIVE HARDWARE KEY MEDIA PACK	BT0G6ML
IBM RATIONAL DEVELOPER FOR Z UT DSK V8.0.3 SOFTWARE DISTRIBUTION MEDIA PACK	BT0G7ML
RDz UT Server User V8.0.3	
IBM RATIONAL DEVELOPER FOR Z UT SVR V8.0.3 SOFTWARE DISTRIBUTION MEDIA PACK	BT0G8ML
IBM RATIONAL DEVELOPER FOR Z UT SVR HCU V8.0.3-ONE HARDWARE KEY MEDIA PACK	BT0GAML
RDzEnterprise V8.0.3	
IBM RATIONAL DEVELOPER FOR ZENTERPRISE V8.0.3 MEDIA PACK	BT0G2ML

Passport Advantage customer: Media pack entitlement details

Customers with active maintenance or subscription for the products listed are entitled to receive the corresponding media pack.

Rational Developer for System z Unit Test Server User V8.0.3

Entitled maintenance offerings description	Media packs description	Part number
IBM Rational Developer for System z Unit Test Server User per Authorized User Single INSTALL	IBM RATIONAL DEVELOPER FOR Z UT SVR V8.0.3 SOFTWARE DISTRIBUTION MEDIA PACK	BT0G8ML
IBM Rational Developer for System z Unit Test Server User per Authorized User Single INSTALL	IBM RATIONAL DEVELOPER FOR Z UT SVR HCU V8.0.3-ONE HARDWARE KEY MEDIA PACK	BT0GAML
IBM Rational Developer for System z Unit Test Server User per Authorized User Single INSTALL for System z	IBM RATIONAL DEVELOPER FOR Z UT SVR HCU V8.0.3-ONE HARDWARE KEY MEDIA PACK	BT0GAML
IBM Rational Developer for System z Unit Test Server User per Authorized User Single INSTALL for System z	IBM RATIONAL DEVELOPER FOR Z UT SVR V8.0.3 SOFTWARE DISTRIBUTION MEDIA PACK	BT0G8ML

Rational Developer for zEnterprise V8.0.3

IBM Rational Developer for zEnterprise per Authorized User	IBM RATIONAL DEVELOPER FOR ZENTERPRISE V8.0.3 MEDIA PACK	BT0G2ML
IBM Rational Developer for zEnterprise per Authorized User for System z	IBM RATIONAL DEVELOPER FOR ZENTERPRISE V8.0.3 MEDIA PACK	BT0G2ML
IBM Rational Developer for zEnterprise per Floating User SINGLE INSTALL	IBM RATIONAL DEVELOPER FOR ZENTERPRISE V8.0.3 MEDIA PACK	BT0G2ML
IBM Rational Developer for zEnterprise per Floating User SINGLE INSTALL for System z	IBM RATIONAL DEVELOPER FOR ZENTERPRISE V8.0.3 MEDIA PACK	BT0G2ML

Rational Developer for System z Unit Test Desktop User V8.0.3

IBM Rational Developer for System z Unit Test Desktop User per Authorized User Single Session	IBM RATIONAL DEVELOPER FOR Z UT V8.0.3-FIVE HARDWARE KEY MEDIA PACK	BT0G4ML
IBM Rational Developer for System z Unit Test Desktop User per Authorized User Single Session	IBM RATIONAL DEVELOPER FOR Z UT DSK V8.0.3 SOFTWARE DISTRIBUTION MEDIA PACK	BT0G7ML
IBM Rational Developer for System z Unit Test Desktop User per Authorized User Single Session	IBM RATIONAL DEVELOPER FOR Z UT V8.0.3-ONE HARDWARE KEY MEDIA PACK	BT0G3ML
IBM Rational Developer for	IBM RATIONAL DEVELOPER FOR	BT0G5ML

System z Unit Test Desktop User per Authorized User Single Session	Z UT V8.0.3-TEN HARDWARE KEY MEDIA PACK	
IBM Rational Developer for System z Unit Test Desktop User per Authorized User Single Session	IBM RATIONAL DEVELOPER FOR Z UT V8.0.3-TWENTY-FIVE HARDWARE KEY MEDIA PACK	BT0G6ML
IBM Rational Developer for System z Unit Test Desktop User per Authorized User Single Session for System z	IBM RATIONAL DEVELOPER FOR Z UT V8.0.3-TEN HARDWARE KEY MEDIA PACK	BT0G5ML
IBM Rational Developer for System z Unit Test Desktop User per Authorized User Single Session for System z	IBM RATIONAL DEVELOPER FOR Z UT V8.0.3-TWENTY-FIVE HARDWARE KEY MEDIA PACK	BT0G6ML
IBM Rational Developer for System z Unit Test Desktop User per Authorized User Single Session for System z	IBM RATIONAL DEVELOPER FOR Z UT V8.0.3-ONE HARDWARE KEY MEDIA PACK	BT0G3ML
IBM Rational Developer for System z Unit Test Desktop User per Authorized User Single Session for System z	IBM RATIONAL DEVELOPER FOR Z UT V8.0.3-FIVE HARDWARE KEY MEDIA PACK	BT0G4ML
IBM Rational Developer for System z Unit Test Desktop User per Authorized User Single Session for System z	IBM RATIONAL DEVELOPER FOR Z UT DSK V8.0.3 SOFTWARE DISTRIBUTION MEDIA PACK	BT0G7ML

Rational Developer for System z with EGL V8.0.3

IBM Rational Developer for System z with EGL per Authorized User	IBM RATIONAL DEVELOPER FOR SYSTEM Z WITH EGL V8.0.3 MEDIA PACK	BT0G0ML
IBM Rational Developer for System z with EGL per Authorized User for System z	IBM RATIONAL DEVELOPER FOR SYSTEM Z WITH EGL V8.0.3 MEDIA PACK	BT0G0ML
IBM Rational Developer for System z with EGL per Floating User SINGLE INSTALL	IBM RATIONAL DEVELOPER FOR SYSTEM Z WITH EGL V8.0.3 MEDIA PACK	BT0G0ML
IBM Rational Developer for System z with EGL per Floating User SINGLE INSTALL for System z	IBM RATIONAL DEVELOPER FOR SYSTEM Z WITH EGL V8.0.3 MEDIA PACK	BT0G0ML

Rational Developer for System z V8.0.3

IBM Rational Developer for System z with Java per Authorized User	IBM RATIONAL DEVELOPER FOR SYSTEM Z WITH JAVA V8.0.3 MEDIA PACK	BT0G1ML
IBM Rational Developer for System z with Java per Authorized User for System z	IBM RATIONAL DEVELOPER FOR SYSTEM Z WITH JAVA V8.0.3 MEDIA PACK	BT0G1ML
IBM Rational Developer for System z with Java per Floating User SINGLE INSTALL	IBM RATIONAL DEVELOPER FOR SYSTEM Z WITH JAVA V8.0.3 MEDIA PACK	BT0G1ML
IBM Rational Developer for System z with Java per Floating User SINGLE INSTALL for System z	IBM RATIONAL DEVELOPER FOR SYSTEM Z WITH JAVA V8.0.3 MEDIA PACK	BT0G1ML

Cross-platform products

Cross-platform products for use on System z

Order the part numbers that follow when the product is used for either the development of code that will be deployed on System z servers or when the

product will be communicating or transferring data between a distributed server and a System z server. Otherwise order from the other set of part numbers in this announcement. This set of part numbers provides the identical supply and authorization as the other set in this announcement

Rational Developer for System z

Part description	Part number
IBM Rational Developer for System z Unit Test Desktop User	
RDz Unit Test Ext-DesktopUser Auth User Sgl Ses Sysz Initl FT Lic+S&S 12 Mo	D0D41LL
RDz Unit Test Ext-DesktopUser Auth User Sgl Ses Sysz SW S&S Reinstate 12 Mo	D0D3KLL
RDz Unit Test Ext-DesktopUser Auth User Sgl Ses Sysz Subsq FT Lic+S&S 12 Mo	E08UBLL
RDz Unit Test Ext-DesktopUser Auth User Sgl Sess Sysz Annual SW S&S Rnw1	E08U1LL
RDz Unit Test Ext-DesktopUser Auth User Sgl Sess Sysz Lic + SW S&S 12 Mo	D0D3JLL
IBM Rational Developer for System z with EGL	
RDz EGL Auth User Sys z License & Software Subscription/Support 12 Month	D054WLL
RDz EGL Auth User Sys z Software Subscription and Support Annual Renewal	E05DZLL
RDz EGL Auth User Sys z Software Subscription/Support Reinstatemnt 12Mnth	D054XLL
RDz EGL Flt User Sgl Inst Sys z Initl FT Lic+S&S 12 Mo	D0BLULL
RDz EGL Flt User Sgl Inst Sys z Lic&Software Subscription/Support 12Months	D0572LL
RDz EGL Flt User Sgl Inst Sys z SW Subscription/Support Annual Renewal	E05EXLL
RDz EGL Flt User Sgl Inst Sys z SW Subscription/Supt Reinstatement 12Mnt	D0573LL
RDz EGL Flt User Sgl Inst Sys z Subsq FT Lic+S&S 12 Mo	E084RLL
Ratl Developer For Sys Z Egl Auth User Sys Z Initl FT Lic+S&S 12 Mo	D0BLSLL
Ratl Developer For Sys Z Egl Auth User Sys Z Subsq FT Lic+S&S 12 Mo	E084PLL
IBM Rational Developer for System z with Java	
RDz Java Authorized User Sys z License&Software Subscription/Support 12Mnth	D0587LL
RDz Java Authorized User Sys z SW Subscription/Supt. Reinstatement 12Months	D0588LL
RDz Java Authorized User Sys z Software Subscription/Support Annual Renewal	E05FGLL
RDz Java Flt User Sgl Inst Sys z Initl FT Lic+S&S 12 Mo	D0BLYLL
RDz Java Flt User Sgl Inst Sys z Lic&Software Subscription/Support 12 Month	D0570LL
RDz Java Flt User Sgl Inst Sys z SW Subscription/Support Annual Renewal	E05EWLL
RDz Java Flt User Sgl Inst Sys z SW Subscription/Supt Reinstatement 12Mnt	D0571LL
RDz Java Flt User Sgl Inst Sys z Subsq FT Lic+S&S 12 Mo	E084VLL
Ratl Developer For Sys Z Java Auth User Sys Z Initl FT Lic+S&S 12 Mo	D0BLWLL
Ratl Developer For Sys Z Java Auth User Sys Z Subsq FT Lic+S&S 12 Mo	E084TLL
IBM Rational Developer for zEnterprise	
RDzEnterprise Per Auth.User for System z Annual SW S&S Rnw1	E0ARLLL
RDzEnterprise Per Auth.User for System z Initl FT Lic+S&S 12 Mo	D0GUALL
RDzEnterprise Per Auth.User for System z Lic + SW S&S 12 Mo	D0GRPLL
RDzEnterprise Per Auth.User for System z SW S&S Reinstate 12 Mo	D0GRSLL
RDzEnterprise Per Auth.User for System z Subsq FT Lic+S&S 12 Mo	E0ASULL
Rat Dev zEn Flt User Sgl Inst Sys z Annual SW S&S Rnw1	E0ASSLL
Rat Dev zEn Flt User Sgl Inst Sys z Initl FT Lic+S&S 12 Mo	D0GUCLL

Rat Dev zEn Flt User Sg| Inst Sys z Lic + SW S&S 12 Mo D0GU6LL
Rat Dev zEn Flt User Sg| Inst Sys z SW S&S Reinstate 12 D0GU7LL
Mo
Rat Dev zEn Flt User Sg| Inst Sys z Subsq FT Lic+S&S 12 E0ASWLL
Mo
IBM Rational Developer for System z Unit Test Server User
RDZ Unit Test Ext-ServerUser Auth User Sg| Inst Sys z D0M21LL
Initl FT LIC+S&S
RDZ Unit Test Ext-ServerUser Auth User Sg| Inst Sysz E0D6CLL
ANNUAL SW S&S RNWL
RDZ Unit Test Ext-ServerUser Auth User Sg| Inst Sysz D0M1VLL
LIC + SW S&S 12 MO
RDZ Unit Test Ext-ServerUser Auth User Sg| Inst Sysz E0D6GLL
SUBSQ FT LIC+S&S 12 MO
RDZ Unit Test Ext-ServerUser Auth User Sg| Inst Sysz SW D0M1WLL
S&S REINSTATE 12 MO

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IBM Rational Developer for System z

Precursor product	Trade-up product	Part number
IBM Rational Developer for zEnterprise	RDzEnterprise FUZ from	D0GU8LL
IBM Rational Developer for zEnterprise Auth User for Sys z	RDzEnterprise AUZ Trade Up Lic + SW S&S 12 Mo	
IBM Rational Developer for System z with Java	RDZ Java Auth User Sys z	D05A8LL
IBM WebSphere Developer Debugger for System z	Tradeup from WDDz Lic& SW Subscription/Supt 12Mnth	
Competitor	RDZ Java Auth.User for Sys z from Competitor Trade Up Lic + SW S&S 12 Mo	D0GR9LL
IBM Rational Application Developer for WebSphere Software	RDZ Java AuthUser Sys z Tradeup from RAD Lic&SW Subscription/Supt 12 Mnth	D05AALL
IBM Rational Developer for System z with Java Auth User for Sys z	RDz Java Float User z from RDZ Java Auth User z Trade Up Lic + SW S&S 12 Mo	D0AYMLL
IBM Rational Application Developer for WebSphere Software	RDz Java FloatingUser Sys z Tradeup from RAD Lic&SW Subsc/Supt 12Mnth	D05B2LL
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IBM Rational Developer for System z with EGL	RDZ EGL Auth.User for Sys z from Competitor Trade Up Lic + SW S&S 12 Mo	D0GQ0LL
Competitor	RDZ EGL AuthUser Sys z Tradeup from VisAgeGen Lic&SW Subscript/Supt 12Mnth	D059YLL
IBM VisualAge Generator	RDZ EGL AuthUser Sys z Tradeup from WDDz Lic&SW Subscription/Supt 12Mnth	D059XLL
IBM WebSphere Developer Debugger for System z	RDZ EGL Float User z from RDZ EGL Auth User z Trade Up Lic + SW S&S 12 Mo	D0AYELL
IBM Rational Developer for System z with EGL Auth User for Sys z	RDZ EGL FloatingUser Sys z Tradeup from VisAgeGen Lic&SW Subsc/Supt 12Mnth	D05A3LL
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IBM WebSphere Developer		

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