



# IBM Rational Development and Test Environment for System z, V9.1 delivers improved mainframe compatibility

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## At a glance

IBM® Rational® Development and Test Environment for System z® provides an emulated, System z architecture environment for development teams to implement and test their code changes in an isolated and controllable setting. Rational Development and Test Environment for System z runs on x86-processor-compatible hardware, which potentially reduce the consumption of mainframe MIPS for development activities.

Rational Development and Test Environment for System z, V9.1 delivers:

- Improved mainframe compatibility
- Newer z/OS® software levels, which includes the addition of z/OS V2.1
- Expanded virtualization support
- Automated license generation through the Rational License Key Center

For ordering, contact your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: AE002).

## Overview

The Rational Development and Test Environment for System z creates a team-focused, System z development and test platform that runs on an x86 desktop or server.

Rational Development and Test Environment for System z allows mainframe operating systems, middleware, and other software to run on Intel™ and Intel-compatible platforms so that no System z hardware is needed for the initial phases of development activities. Rational Development and Test Environment for System z may be used for development and test of new application function as well as application maintenance. Additionally, Rational Development and Test Environment for System z can be used for the investigation and verification of new middleware levels (version-to-version upgrades), prototyping new application architectures, demonstration of application function, and internal employee education.

Rational Development and Test Environment V9.1 offers the latest mainframe compatibility. This enables you to build applications to exploit the zEnterprise® EC12 platform, z/OS V2.1, and other updated z/OS software.

For improved hardware utilization and simplified management, this release also delivers support for virtualization through Kernel-based Virtual Machine (KVM).

Additionally, to help ensure license generation consistency with other Rational offerings, all types of Rational Development and Test Environment for System z licenses are now generated through the Rational License Key Center. Note that the generated license files must still be applied to the USB hardware device for Rational Development and Test Environment for System z operation.

Rational Development and Test Environment for System z can only be used for development, testing, employee education, or demonstration of applications that run on z/OS. It 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.

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## Key prerequisites

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Supports Red Hat Enterprise Linux™ and SUSE Linux Enterprise Server.

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

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## Planned availability date

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- October 9, 2014: Electronic availability
- October 16, 2014: Media availability

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## Description

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Rational Development and Test Environment for System z provides a small-scale, team-centric development and test platform for developers, testers, and operations personnel that are responsible for applications that run on z/OS and z/OS middleware. However, Rational Development and Test Environment runs on an Intel or Intel-compatible (x86) PC or server. This helps eliminate the cost differentials that exist between distributed and existing mainframe development environments.

Running a small-scale, System z development environment on a PC allows a more portable, flexible, and potentially lower cost environment for development teams.

Rational Development and Test Environment for System z may be used for development and test of new application function as well as maintenance changes. Additionally, Rational Development and Test Environment for System z can be used for the investigation and verification of new middleware levels (version-to-version upgrades), prototyping new application architectures, demonstration of application function, and internal employee education and training. Rational Development and Test Environment for System z may be used with IBM or third-party, Independent Software Vendor (ISV) tools to support development and test activities that include:

- Source code or binary editors
- Integrated development environments (IDE)
- Development-level source code compile and build systems
- Analysis and problem determination tools
- Data import, export, inspection, and alteration utilities
- Middleware or application setup and configuration tools

Rational Development and Test Environment for System z is not licensed for use with production management tools or performance testing tools that include, but are not limited to:

- Production-level, source code management (SCM) repositories or libraries
- Production-level, build-and-deploy systems
- Performance tuning tools

Any usage of third-party ISV tools must be arranged through the ISV directly, not through IBM. Usage must comply with the license terms as provided by the ISV and IBM at all times. For clarification on licensing or use cases, contact your IBM representative.

The Rational Development and Test Environment for System z provides a more modern, agile developer platform to help accelerate delivery of new workloads spanning multiple runtimes. Rational Development and Test Environment for System z 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 Development and Test Environment for System z 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. This can be achieved without having to involve production operations staff to setup these configurations on the mainframe.

Developers also have easier access to recent versions of the IBM middleware that comes with Rational Development and Test Environment for System z, 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 component regression testing. Developers can build and test System z applications anytime on their PC, without impacting the production operations of an organization.

This release of the Rational Development and Test Environment for System z offers new System z compatibility that includes:

- zEC12 GA2 CPU Architecture
- The relevant instruction set for the System zEC12 GA2 CPU Architecture that is now included
- zEC12 Crypto Emulation Enhancements
- Emulated Crypto Express® 4S support for Export TDES key under AES transport key
- Diversified Key Generation CBC support
- IPEK support
- RXX Key wrapping method support
- zEC12 GA2 Coupling
- Enhanced Coupling Support (zEC12 CF19) with improved resilience
- 3590/3592 Tape Support
- Emulated 3590/3592 tape that is now supported

Rational Development and Test Environment for System z, 9.1 comes packaged with a newly updated and preconfigured set of IBM z/OS software for development usage. This software includes:

- z/OS V2.1 and V1.13, which includes subfeatures
- WebSphere® Application Server for z/OS V8.0, and V8.5
- CICS Transaction Server (CICS TS) V4.1, V4.2, V5.1, and V5.2
- IMS V12.1 and V13.1

- DB2® for z/OS, V10 and V11
- WebSphere MQ for z/OS, V7.1
- IBM Java™ SDK for z/OS, V6.0, V6.0.1, V7.0, and V7.1
- Enterprise COBOL V5.1
- Enterprise PL/I V4.4
- Rational COBOL Runtime V6.0.1 (EGL)
- IBM Debug Tool V13.1

The included IBM software products are provided for development purposes only on an as-is basis. No technical support or APAR/PTF deliverables are provided for the included software as listed in the Supporting Programs section of the product license with your purchase of the Rational Development and Test Environment for System z.

Other Rational Development and Test Environment for System z enhancements include:

- Rational Developer for System z, V9.1 z/OS components for easy integration of Rational Development and Test Environment for System z with Rational Developer for System z to enable off host edit, compile, debug. Note that use of these components requires purchase of licenses of Rational Developer for System z or Rational Developer for the Enterprise
- Rational Team Concert™ V5.0 z/OS components, for easy integration of Rational Development and Test Environment for System z with Rational Team Concert to enable off host pre-production builds. Note that use of these components requires purchase of appropriate Rational Team Concert licenses.
- Rational Integration Tester V8.6 components that are required to enable virtualization of CICS, IMS, and DB/2 invocations on Rational Development and Test Environment for System z. Note that use of these components requires purchase of appropriate Rational Integration Tester licenses.
- Support for virtualization through Kernel-based Virtual Machine (KVM), for improved hardware utilization and simplified management.
- Generation of all types of Rational Development and Test Environment for System z licenses through the Rational License Key Center. Note that the generated license files must still be applied to the USB hardware device for Rational Development and Test Environment for System z operation.
- Documentation improvements, including:
  - Restructuring of the "Installation and Sample Configuration Guide"
  - A new "Activation Guide" that describes obtaining, renewing, and installing license activations
  - Consolidation and revision of four zPDT® volumes into a single volume

### **Increased application quality**

Rational Development and Test Environment for System z provides an environment that is functionally comparable to what is available on the mainframe. By using the actual z/OS operating system and middleware, less retesting and rework may be required when moving applications from Rational Development and Test Environment for System z to the quality assurance or pre-production environment on the mainframe. Developers can have an isolated test environment to test application changes that can then be easily merged into the next level of testing.

It should be noted that Rational Development and Test Environment for System z is not intended as a replacement for a mainframe. IBM recommends that the final testing of software be done in an environment as close as possible to what would be run in production. This requires a stress test environment that can only be satisfied with the capabilities delivered by a System z mainframe.

### **Potentially decreased cost**

The Rational Development and Test Environment executes on an x86 PC, which reduces development MIPS on the production mainframe for functional application

testing. The development MIPS can be reallocated to other production or testing needs, thus freeing additional capacity for new workload while reducing line-of-business, development costs, and chargeback.

## **Purchasing options**

Rational Development and Test Environment for System z, V9.1 includes two offerings:

- Rational Development and Test Environment for System z: The base environment, for development, test, employee education, or demonstration of applications that run on z/OS. Purchase Authorized User Single Install licenses or Resource Value Unit (RVU) licenses, depending on intended usage.
- Rational Development and Test Environment for System z with Parallel Sysplex®. It includes the base environment for development, test, employee education, or demonstration of applications that run on z/OS, plus IBM z Personal Development Tool support for virtual Coupling Facility and the z/VM® software distribution to enable virtual coupling of z/OS guests under z/VM. This offering is targeted for enterprise teams, and thus only RVU licenses are offered.

Note that the Rational Development and Test Environment for System z with Parallel Sysplex offering is intended for customers who already have Parallel Sysplex applications deployed. In addition, usage of z/VM is restricted to operations required to facilitate use of the IBM z Personal Development Tool support for virtual Coupling Facility. The Parallel Sysplex offering is sold through the IBM special bid process. For ordering, contact your IBM representative, or an IBM Business Partner.

## **Running the Rational Development and Test Environment for System z**

The Rational Development and Test Environment for System z is purchased as a stand-alone product. The Development and Test Environment is licensed and activated through a USB hardware device and License Server, which are provided in the development and test environment package. The USB hardware device is orderable through a physical media pack. Each organization that purchases the development and test environment will need to procure and activate at least one USB hardware device from IBM. If the USB hardware device is not present in the License Key server, and activated through the IBM activation process, then the development and test environment software will be non-functional. Ensure that you order and activate the appropriate USB hardware device. You can order the USB hardware device as soon as you become entitled to Rational Development and Test Environment for System z, or you can ask your representative to add the appropriate media part number to your Rational Development and Test Environment for System z order.

## **Rational Development and Test Environment for System z, V9.1 license information**

The following text is taken from the Rational Development and Test Environment for System z license agreement document that is included with your purchase. It is included here for your convenience and understanding of the terms and conditions around the use of the program. This text is not inclusive.

### *Program-unique terms*

Licensee may use the program only for development, testing, employee education, or demonstration of Licensee's applications that run on z/OS. Licensee may not use the program for production workloads of any kind, nor robust development workloads, including without limitation, production module builds, pre-production testing, stress testing, or performance testing.

When determining the number of entitlements required for Licensee's installation or use of the program, Licensee is allowed to define up to two log-in identifiers for use by system programmers (for example, system administrators or database administrators) to support Licensee development and test activities, which are not used to determine the number of entitlements required for the program.

### ***Additional programs***

For the convenience of licensee, the program includes the following additional programs:

- CICS Interdependency Analyzer for z/OS, V5.1
- Fault Analyzer for z/OS, V13.1
- File Manager for z/OS, V13.1

Licensee must obtain separate entitlements to the additional programs before use. The additional programs are not supported when used with or as part of the program.

### ***All supporting programs***

Support: Nonsupported

"Nonsupported" means the Supporting Programs are provided without obligation of support and "AS IS", WITH NO WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE WARRANTY OF TITLE, NON-INFRINGEMENT OR NON-INTERFERENCE AND THE IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The program is accompanied by a hardware device containing a license key that controls Licensee's access to all or portions of the program. Licensee is not authorized to use the program or any component of the program except when that key is made available to the program. Licensee agrees not to tamper with the hardware device or license key or otherwise attempt to circumvent the access controls implemented by the key.

Notwithstanding any other provision in the Agreement, in the event Licensee uses the Program for a non-authorized use, IBM may terminate the Agreement at any time. Upon any such termination, and in addition to any other remedies IBM may pursue, Licensee must discontinue use of the Program and return the associated Program hardware device to IBM.

### ***Restrictions on Use for the Benefit of a Third Party***

Licensee may not use the Program or any component thereof to provide service bureau, hosting services, or any sort of commercial information technology services to third parties, or transfer the Program to a third party, unless otherwise agreed to in writing by IBM.

### ***Authorized User Single Install***

Authorized User Single Install is a unit of measure by which the Program can be licensed. An Authorized User is a unique person who is given access to the Program. 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 Authorized User has accessed or has access to more than one Install of the Program, the Authorized User requires a separate entitlement for each such Install. Licensee must obtain separate, dedicated entitlements for each Authorized User given access to the Program on each Install in any manner directly or indirectly (for example: via a multiplexing program, device, or application server) through any means. An entitlement for an Authorized User is unique to that Authorized User and may not be shared, nor may it be reassigned other than for the permanent transfer of the Authorized User entitlement to another person.

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.

## Resource Value Unit (RVU)

Resource Value Unit (RVU) is a unit of measure by which the Program can be licensed. RVU Proofs of Entitlement are based on the number of units of a specific resource used or managed by the Program. Licensee must obtain sufficient entitlements for the number of RVUs required for Licensee's environment for the specific resources as specified in the table below. RVU entitlements are specific to the Program and the type of resource and may not be exchanged, interchanged, or aggregated with RVU entitlements of another program or resource.

### General Charge Terms

The Resource for the purpose of RVU calculation is an Activated Emulated Central Processor. An Emulated Central Processor is a functional unit within an emulated System z architecture environment that interprets and processes program instructions. Licensee must obtain sufficient entitlements to cover the highest number of Emulated Central Processors activated and made available for use by the Program.

From 1,000 to 2500 Resources, 1.0 RVU per Resource

From 2,501 to 10,000 Resources, 2,500 RVUs plus 0.9 RVUs per Resource above 2,500

From 10,001 to 25,000 Resources, 9,250 RVUs plus 0.8 RVUs per Resource above 10,000

From 25,001 to 50,000 Resources, 21,250 RVUs plus 0.7 RVUs per Resource above 25,000

For more than 50,001 Resources, 38,750 RVUs plus 0.5 RVUs per Resource above 50,000

Program-unique Terms specific to Rational Development and Test Environment for System z with Parallel Sysplex

The Program includes a virtual coupling facility. Licensee may use this capability for virtual coupling only, with z/OS guests under z/VM. The Program is not capable of and may not be used for physical coupling links.

Notwithstanding any provision in the Agreement, Licensee is not authorized to use the z/VM 6.2 Distribution except to support Licensee's use of the virtual coupling facility.

Translation information for IBM software can be found at

<http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity/index.jsp>

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## Availability of national languages

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| Product description                              | Language  | General availability date |
|--|---|---------------------------|
| Rational Development and Test Environment v9.1.0 | Multilingual (French, Korean, Chinese-Simplified, Spanish, German, Japanese, Portuguese-Brazilian, Chinese-Traditional, English, Italian) | October 16, 2014          |

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## Program number

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| Program number | VRM     | Program name   |
|----------------|---------|--|
| 5725-G39       | 9.1.1.0 | IBM Rational Development and Test Environment for System z |

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## Offering Information

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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>

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## Publications

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The IBM Publications Center

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

Resource Value Unit (RVU) Extensive search facilities are provided. A large number of publications are available online in various file formats, and they can all be downloaded by all countries.

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## Technical information

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### **Specified operating environment**

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#### ***Hardware requirements***

#### **Rational Development and Test Environment for System z Server hardware requirements**

##### *Hardware platforms supported*

- 64-bit x86 Intel or compatible servers
- zEnterprise BladeCenter® Extension Model 003 hardware (zBX version 3)

For information on zBX systems, which includes the Unified Resource Manager (URM), Intel HX5 Linux blades, and the specific hardware specifications of Model 003, visit

<http://www-03.ibm.com/systems/z/hardware/zenterprise/zbx.html>

*Minimum processor rating:* Generation 3 Intel i7 2.6 GHz Quad-core or equivalent



### *Processor core requirements*

- At least one Linux core is required for each set of three z/OS cores implemented.
- For standard installations, a 4-core system with one core devoted to Linux and three cores devoted to z/OS is recommended.
- For Parallel Sysplex installations, an 11-core system with three cores devoted to Linux and eight cores devoted to z/VM and its guests is recommended

### *Memory requirements*

- 2 GB to 4 GB of RAM that is required per emulated Central Processor (CP) for z/OS.
- 1 GB per processor core that is allocated to Linux.
- For those who use the Parallel Sysplex capability, at least 1 GB per coupling facility. More may be needed to support additional coupling facility data structures.

### *Removable media requirements*

- If a license server is not being used, a suitable USB port must be available for the 1091 hardware key. Do not use an unpowered USB port expander. In particular, do not install the USB Hardware Device in an unpowered USB port expander.
- A CD/DVD reader is required for loading software if electronic images of the DVDs are not used.

### *Hard disk requirements*

Disk space of 50 GB to 100 GB is required for z/OS. There should also be twice as much disk space available as the total required memory defined for the Rational Development and Test Environment for System z instance.

For those customers wishing to implement Parallel Sysplex capability, an additional 25 GB of disk space is required to hold the z/VM 6.2 software distribution. Depending on how much software is loaded into each z/OS system running in a Parallel Sysplex configuration hosted by z/VM, it may need up to an additional 220 GB per z/OS system.

USB hardware device requirements: Operation of Rational Development and Test Environment for System z requires a USB hardware device containing a license key that controls access to all or portions of the program.

### **Rational Development and Test Environment for System z License Key Server hardware requirements**

Hardware platforms supported: 64-bit x86 Intel or compatible servers

Minimum processor rating: 2.0 GHz or higher Intel Core 2 Duo, Generation 1 Intel i3, or equivalent processor required

Memory requirement: 2 GB of RAM is required

Hard disk requirements: 10 GB of disk space is required. Removable media requirements:

- A suitable USB port must be available for the 1091 hardware key. Do not use an unpowered USB port expander. In particular, do not install the USB Hardware Device in an unpowered USB port expander.
- A CD/DVD reader is required for loading software if electronic images of the DVDs are not used.

### **Software requirements**

You can install the product directly on the operating system used by the supported hardware platform selected (native installations) or you can use a supported

virtualization technology to install virtual instances of the product on supported hardware platforms (virtual installations).

## **Rational Development and Test Environment for System z Server software requirements**

Operating system requirements for native installations:

- Red Hat Enterprise Linux (RHEL) 6.4
- SUSE Linux Enterprise Server (SLES) 11 SP3
- OpenSUSE 12.3

*Operating system platforms supported for virtual installations*

- Red Hat Enterprise Linux (RHEL) 6.4
- SUSE Linux Enterprise Server (SLES) 11 SP3
- The zBX Model 003 integrated software and hardware system

*Virtualization Technologies supported*

- VMWare vSphere 5.1
- zBX version 3
- Support for KVM kernel modules (packaged with supported levels of SLES and RHEL)

VMWare vSphere 5.1 must be run on 64-bit Intel compatible hardware.

Directly attached SCSI tape drives are not supported by Rational Development and Test Environment for System z within any virtualized environment.

When running Rational Development and Test Environment for System z in a virtual environment, you must have sufficient physical memory and processor cores to completely provision each instance of Rational Development and Test Environment for System z.

- For each instance of Rational Development and Test Environment for System z, the machine that is running your virtualization software must have one physical core for each CP in the instance, plus one physical core for Linux.
- Physical memory on the machine that is running the virtualization software must be sufficient to contain the total memory of all Rational Development and Test Environment for System z instances.
- Processors and memory used for virtual machines that are running Rational Development and Test Environment for System z should be considered dedicated to Rational Development and Test Environment for System z. Careful planning must be done if other virtual machines are to run on the same hardware.
- Failure to provide sufficient physical processors and memory, or the over-commitment of memory or processor cores, might lead to severe performance problems and might cause unpredictable errors, or errors that are difficult to diagnose.

### **USB hardware device**

A unique license file must be applied to each USB Hardware Device used to authenticate an instance of the product License Key Server.

## **Rational Development and Test Environment for System z License Key Server software requirements**

*Operating system requirements*

- Red Hat Enterprise Linux (RHEL) 6.4
- SUSE Linux Enterprise Server (SLES) 11 SP3

- OpenSUSE 12.3

#### *Virtualization Technologies supported*

- VMWare vSphere 5.1
- Support for KVM kernel modules (packaged with supported levels of SLES and RHEL)

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**

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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**

- Rational Development and Test Environment for System z
- Rational Development and Test Environment for System z USB hardware device

### **Security, auditability, and control**

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

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## **Ordering information**

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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 Development and Test Environment for System z | Rational for System z Tools | Rational for System z Tools          |
| Program name   | PID number                  | Charge unit description              |
| IBM Rational Development and Test Environment for System z | 5725-G39                    | Per Resource Value Unit for System z |
| IBM Rational Development and Test Environment for System z | 5725-G39                    | Per Authorized User Single Install   |

## Charge metrics definitions

### Authorized User Single Install

Authorized User Single Install is a unit of measure by which the Program can be licensed. An Authorized User is a unique person who is given access to the Program. 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 Authorized User has accessed or has access to more than one Install of the Program, the Authorized User requires a separate entitlement for each such Install. Licensee must obtain separate, dedicated entitlements for each Authorized User given access to the Program on each Install in any manner directly or indirectly (for example: via a multiplexing program, device, or application server) through any means. An entitlement for an Authorized User is unique to that Authorized User and may not be shared, nor may it be reassigned other than for the permanent transfer of the Authorized User entitlement to another person.

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.

### Resource Value Unit (RVU)

RVU is the unit of measure by which this program is licensed. RVU entitlements are based on the quantity of a specific designated measurement for the given program. A Proof of Entitlement (PoE) must be obtained for the appropriate number of RVUs required for your environment as defined by the specific program terms. The RVU entitlements are specific to the program and may include, but are not limited to the following: Client Devices, data source records, messages, and servers, and may not be exchanged, interchanged, or aggregated with RVU entitlements of another program. To understand these benefits of RVU licensing, and to determine how many RVUs to obtain for the program, contact your IBM representative.

### Passport Advantage supply

| Program name/description  | Part number |
|---|-------------|
| Rational Development and Test Environment V9.1.0<br>IBM Rational Dev & Test Envit for Sys z Hardware Key<br>V9.1 ML MP Media Pack | BTOMIML     |
| IBM Rational Dev & Test Environment for System z V9.1<br>ML MP Media Pack   | BTOMJML     |

### Passport Advantage customer: Media pack entitlement details

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

| Entitled maintenance offerings description   | Media packs description  | Part number |
|--|--|-------------|
| IBM Rational Development and Test Environment for System z per Authorized User Single INSTALL for System z | IBM Rational Dev & Test Envit for Sys z Hardware Key V9.1 ML MP Media Pack | BTOMIML     |

|  |   |         |
|--|---|---------|
| IBM Rational<br>Development and Test<br>Environment for<br>System z per<br>Authorized User<br>Single INSTALL for<br>System z | IBM Rational Dev &<br>Test Environment for<br>System z V9.1 ML MP<br>Media Pack     | BT0MJML |
| IBM Rational<br>Development and Test<br>Environment for<br>System z per RVU for<br>System z                                  | IBM Rational Dev &<br>Test Envit for Sys z<br>Hardware Key V9.1 ML<br>MP Media Pack | BT0MIML |
| IBM Rational<br>Development and Test<br>Environment for<br>System z per RVU for<br>System z                                  | IBM Rational Dev &<br>Test Environment for<br>System z V9.1 ML MP<br>Media Pack     | BT0MJML |

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## Terms and conditions

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The information provided in this announcement letter is for reference and convenience purposes only. The terms and conditions that govern any transaction with IBM are contained in the applicable contract documents such as the IBM International Program License Agreement, IBM International Passport Advantage Agreement, and the IBM Agreement for Acquisition of Software Maintenance.

### **Licensing**

IBM International Program License Agreement including the License Information document and Proof of Entitlement (PoE) govern your use of the program. PoEs are required for all authorized use.

Part number products only, offered outside of Passport Advantage, where applicable, are license only and do not include Software Maintenance.

This software license includes Software Subscription and Support (also referred to as Software Maintenance).

### **License Information number**

| Program name   | Program number | LI number     |
|--|----------------|---------------|
| IBM Rational Development and Test Environment for System z | 5725-G39       | L-DCWN-9MRMJS |

The program's License Information will be available for review on the IBM Software License Agreement website

<http://www.ibm.com/software/sla/sladb.nsf>

### **Limited warranty applies**

Yes

### **Limited warranty**

IBM warrants that when the program is used in the specified operating environment, it will conform to its specifications. The warranty applies only to the unmodified portion of the program. IBM does not warrant uninterrupted or error-free operation of the program or that IBM will correct all program defects. You are responsible for the results obtained from the use of the program.

IBM provides you with access to IBM databases containing information on known program defects, defect corrections, restrictions, and bypasses at no additional

charge. For further information, consult the *IBM Software Support Handbook* found at

<http://www.ibm.com/support/handbook>

IBM will maintain this information for at least one year after the original licensee acquires the program (warranty period).

### ***Program technical support***

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