



# IBM DB2 V9.1 for z/OS launches beta program: Realize the business value of your information with innovation that matters

## Overview

DB2® V9.1 for z/OS® (DB2 V9), which delivers exciting new innovations to help you realize the business value of your company's information, will be made available to clients in a closed beta program in early June. IBM Business Partners have been working with specifications of this release since March 2005 and with early code drivers since late 2005 to help validate product design and to ensure timely availability of partner products that interoperate with the new capabilities offered by DB2 V9.

DB2 V9.1 for z/OS delivers innovations in three key areas:

### Business insight innovations

IBM continues to invest in new features to allow you to gain great insight into your business, and DB2 V9 delivers great value in this area. Exciting capabilities like hybrid support for relational and pure XML data, enhanced support for key business partners to allow you to get more from your data in critical business disciplines like ERP, and a brand new user interface for IBM DB2 Query Management Facility (QMF) to let you see, view, and analyze data from either a workstation client or an ordinary Web browser.

### Cost savings through optimized innovations

As you drive to improve your bottom-line results, DB2 delivers new features that may help improve your price/performance. Technical innovations in areas like operational compliance (both regulatory and internal governance) help your teams work more efficiently and within guidelines. Synergy with IBM System z and z/OS drives improvements and new capabilities ranging from zIIP processors for freeing up capacity and reducing DB2 costs for distributed workloads, to encryption and MIDAW channel improvements, and Secure Socket

Layer (SSL). And our focus on performance continues in areas that include load and reorg CPU reductions and improved logging, insert, and varying length data performance.

### Business resiliency innovations

One of the core value propositions of the System z platform is business resiliency — the ability to keep your business running even when things go wrong or changes need to be made. DB2 V9 offers innovations that drive new value in resiliency through scalability functions, fewer planned and unplanned outages due to new features, and improvements to enhance performance, usability, and availability in data sharing environments.

Refer to the **Description** section of this announcement for further details on the exciting new capabilities DB2 V9 delivers. A limited number of additional customers may be accepted for the DB2 V9.1 for z/OS, 5635-DB2, beta program. For further information, contact your IBM representative or the general contact e-mail address under the Contact Us heading at

<https://www.ibm.com/software/productintro/>

### Key prerequisites

- z/OS V1.7 Base Services, (5694-A01) or later, executing in 64-bit addressing mode.
- Any processor that supports z/Architecture™ with some limitations. Refer to the **Technical information** section for details on required microcode levels and IBM @server® zSeries® emulation software.

## At a glance

DB2 V9.1 for z/OS expands the value delivered to your business by IBM's industry-leading mainframe data server through innovations in key areas:

- Business insight innovations
- Cost savings through optimized innovations
- Business resiliency innovations

Selected features that deliver these valuable benefits to your business include:

- Rich new hybrid data server support for both relational and pure XML storage, with the necessary services to support both data structures
- New data types (decimal float, BIGINT, and varbinary)
- Native SQL procedural language
- Improved security with roles, trusted context, and new encryption functions
- Extensions of the V8 capabilities to make changes to the data definitions without taking your data offline
- Enhancements to large object support and performance
- Volume-based copy and recover
- Refinements to the DB2 industry-leading optimization
- QMF interface redesigned to provide on demand access to data, reports, and interactive visual solutions with optional Web browser

#### For ordering, contact:

Your IBM representative, an IBM Business Partner, or the Americas Call Centers at

**800-IBM-CALL** Reference: LE001

### Planned availability date

Shipment to customers in the Quality Partnership Program (QPP) will begin on the first customer shipment date, June 9, 2006.

*This announcement is provided for your information only. For additional information, contact your IBM representative, call 800-IBM-4YOU, or visit the IBM home page at: <http://www.ibm.com>.*

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## Description

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DB2 V9 expands the value of IBM's industry-leading mainframe data server to your business innovation in three key areas:

- Business insight innovations
- Cost savings through optimized innovations
- Business resiliency innovations

### Business insight innovations

- Rich new hybrid data server support for both relational and pure XML storage, with the necessary services to support both data structures
- Database on demand capabilities to ensure that your information design can be changed dynamically, often without database outages
- Rich new SQL capabilities, including additional data types and built-in functions, expanded SQL commonality with DB2 family, and enriched text handling with functions like caseless comparisons, cultural sort, and index on expression
- Enhanced support to allow key business partners, especially with ERP offerings like SAP, to continue to push the envelope with capabilities that drive business value to their customers. Specific items include new autonomic features, optimization and availability enhancements, and support for new data types
- Completely redesigned, cross-platform workstation and Web-based QMF query solution, providing on demand access to data, reports, and interactive visual solutions using a rich desktop application or ordinary Web browser

### Cost savings through optimized innovations

- Increased security and regulatory compliance through implementation of roles, network-trusted contexts, and enhanced auditing
- Performance-boosting innovations such as load and reorg CPU reductions, improved performance for varying length data, and improved logging and insert performance
- Synergy with System z and z/OS in areas that include XML parsing, zIIP, MIDAW channel improvements, encryption, and SSL
- Query management enhancements to make accessing your data even faster and more accurate with indexing improvements that include index on expression, randomization, and larger index page sizes and optimization improvements that provide better data for the optimizer, improved optimization techniques, and better management with optimization services

### Business resiliency innovations

- Improvements to DB2 restart to enhance performance, usability, and availability in data sharing environments, including fast replacement of one table with another, ability to alter table space and index logging, and improved ability to rebuild an index online
- Scalability innovations like table space partitioning by growth, log latch contention reduction, and ability to create and alter STOGROUP SMS constructs
- Further improvements beyond V8 to help manage business-critical information with fewer planned or unplanned outages with features like online reorganization with no BUILD2 phase, rename column

and index, and ability to modify early code without requiring an IPL

Most functions described in this announcement will be available for beta testing from the start of the program, but a small number of functions will be phased in later. Beta program participants will receive full details and guidance on function testing from their beta adviser.

For a technical presentation on selected features of DB2 V9 and later releases, visit our Web site and select the link for what's coming at

<http://www.ibm.com/software/data/db2/zos/index.html>

### DB2 features overview

DB2 V9.1 for z/OS consists of the base DB2 product with a set of optional features that can be ordered, some of which are available at no additional charge and others that are billable.

### DB2 V9.1 chargeable features

**DB2 QMF Enterprise Edition:** DB2 QMF Enterprise Edition provides the entire DB2 QMF family of technologies, enabling enterprise-wide business information across end-user and database platforms. DB2 QMF Enterprise Edition consists of these components:

- DB2 QMF for TSO/CICS®
- DB2 QMF High Performance Option (HPO)
- DB2 QMF for Workstation
- DB2 QMF for WebSphere®

### DB2 QMF V9 delivers:

- Drag and drop querying, reporting, and analytics
- Executive dashboards and data visualization solutions
- Enhanced support for OLAP with DB2 Cube Views®
- Reengineered cross-platform development environment
- New security model for access control and personalization
- WebSphere Application Server enablement

**DB2 QMF Classic Edition:** DB2 QMF Classic Edition supports end users functioning entirely from traditional mainframe terminals and emulators (including IBM Host On Demand) to access DB2 databases. This edition consists of DB2 QMF for TSO/CICS.

### DB2 V9.1 Orderable no-charge features

**z/OS Application Connectivity to DB2 for z/OS** consists of a component known as the DB2 Universal Database® Driver for z/OS, Java™ Edition, a pure Java, Type 4 JDBC driver designed to deliver high performance and scalable remote connectivity for Java-based enterprise applications on z/OS to a remote DB2 for z/OS database server.

The **DB2 Management Clients** feature includes components to assist in the administration of DB2 for z/OS:

- DB2 Administration Server (z/OS installable component)
- z/OS Enablement (z/OS installable component)
- DB2 Connect® Personal Edition Kit (workstation CD), which includes:
  - Control Center
  - Development Center
  - Replication Center

## DB2 features QMF detail

This section provides more detailed information on the exciting enhancements provided by DB2 Query Management Facility Version 9.1 (QMF V9):

- Support for DB2 V9, including XML and enhancements to SQL
- Drag and drop development of OLAP analytics, SQL queries, tabular reports, graphical reports, pivot tables and data analysis views
- Drag and drop development of interactive visual solutions such as executive dashboards, capable of graphically rendering data simultaneously drawn from multiple data sources
- Rich security model that supports the personalization and dissemination of data and reports on a per-user/group basis
- New object repository that simplifies the storage, access control and distribution of QMF objects across the enterprise
- Reengineered Eclipse-based desktop application that extends QMF to numerous workstation operating systems, including Windows™, Linux™, Solaris, and AIX®
- Former QMF Visionary solution fully assimilated into core QMF product, extending the Visionary graphical objects to QMF reports and unifying the development of visual solutions within a single application
- Redesigned QMF for WebSphere that extends key QMF functionality to browser-based users across multiple platforms

With this release, DB2 QMF offers a completely redesigned, cross-platform workstation and Web-based solution, providing on demand access to data, reports, and interactive visual solutions using a rich desktop application or ordinary Web browser.

### ***Accessibility by people with disabilities***

A U.S. Section 508 Voluntary Product Accessibility Template (VPAT) containing details on the products accessibility compliance can be requested at

[http://www-3.ibm.com/able/product\\_accessibility/index.html](http://www-3.ibm.com/able/product_accessibility/index.html)

### ***Section 508 of the U.S. Rehabilitation Act***

DB2 V9.1 for z/OS is capable as of June 9, 2006, 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 VPAT can be requested at

[http://www-3.ibm.com/able/product\\_accessibility/index.html](http://www-3.ibm.com/able/product_accessibility/index.html)

### ***Hardware and software support services***

***SmoothStart™/installation services:*** IBM SmoothStart and Installation Services are not provided with this beta program but will be offered in conjunction with general availability of this product.

***Availability of national languages:*** June 9, 2006

## ***Business Partner information***

If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld ID and password are required (use IBM ID).

BP Attachment for Announcement Letter 206-098

<https://www.ibm.com/partnerworld/mem/sla.jsp?num=206-098>

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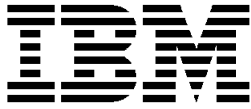
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# IBM United States Announcement Supplemental Information

May 2, 2006

## Technical information

### Specified operating environment

**Hardware requirements:** Note that the information on hardware and software requirements in the following sections is preliminary and applies to the beta version of DB2® V9 for z/OS®. Changes should be expected for the generally available product.

**Processors:** DB2 for z/OS operates on any processor that supports z/Architecture™, including zSeries® z800, z890, z900, z990, IBM System z9™ 109, or comparable processor. The system must have enough real storage to satisfy the combined requirements of:

- DB2
- z/OS
- Other customer-required applications

In addition, 64-bit virtual addressing support will probably require increased real storage for a workload compared to DB2 for z/OS and OS/390® V8.

Sufficient disk storage must be available to satisfy the user's information storage requirements and can consist of any direct-access facility supported by the system configuration and the programming system.

In addition to listing auxiliary storage and data communications devices, this section identifies function-dependent hardware requirements and virtual storage requirements.

**Auxiliary storage:** DB2 is independent of both disk and tape device type. You can use any magnetic, optical, or tape device that is supported by the data facilities component of z/OS for the DB2 data sets.

The following DB2 data sets are supported by the following device types:

- Active recovery log data sets: disk
- Archive recovery log data sets: disk, tape
- Image copy data sets: disk, tape
- Bootstrap data sets: disk
- User data sets: disk, tape (if migrated by HSM)
- DB2 catalog data sets: disk
- Work data sets (for utilities): disk, tape

If these data sets are on disk that is shared with other z/OS systems, you should use global resource serialization to prevent concurrent access by more than one z/OS system.

The minimum disk space requirement, based on installing DB2 using the panel default values, is approximately 1 GB. You need additional disk space for their data.

If you use dual logging and tape for the log archiving device, you need at least two tape drives.

**Data communications devices:** DB2 operations can be controlled from:

- The system console
- Authorized IMS™ Transaction Manager terminals
- Authorized CICS® terminals
- TSO terminals (by authorized users)

### Function-dependent hardware requirements

**DRDA® Data Stream Encryption:** DRDA Data Stream Encryption can optionally use cryptographic hardware in a Cryptographic Coprocessor, Cryptographic Accelerator, or Cryptographic instructions.

**Encryption and decryption functions:** Built-in functions for encryption and decryption require cryptographic hardware in a Cryptographic Coprocessor, Cryptographic Accelerator, or Cryptographic instructions.

### Query management functions

#### DB2 QMF™ components of DB2 V9 for z/OS

- DB2 QMF for TSO/CICS requires a display station supported by Graphical Data Display Manager (GDDM®).
- DB2 QMF High Performance Option (HPO) requires a display station that is supported by ISPF.
- DB2 QMF for WebSphere® requires 250 MB hard disk space (multilingual installation).
- DB2 QMF for Workstation: DB2 QMF for Windows™ requires a workstation that supports:
  - A 32-bit operating system
  - Network connectivity
  - Approximately 70 MB of disk space (single language installation)
  - Minimum of 256 MB of RAM

**Software requirements:** This section lists licensed programs or specific elements and features of licensed programs that are required in the DB2 V9 environment. You can use subsequent versions or releases of the programs, unless stated otherwise. This section also identifies the requirements that are associated with specific DB2 capabilities, as well as optional programs that you can use with DB2 V9. Refer to the following Web sites for the most current information

<http://www.ibm.com/software/data/db2/zos/support/plc/index.html>

[http://www.ibm.com/servers/eserver/zseries/zos/support/zos\\_eos\\_dates.html](http://www.ibm.com/servers/eserver/zseries/zos/support/zos_eos_dates.html)

<http://www.ibm.com/software/data/db2/zos/support.html>

(Click on Technotes, then enter V9 migration into the search terms and click go)

*This announcement is provided for your information only. For additional information, contact your IBM representative, call 800-IBM-4YOU, or visit the IBM home page at: <http://www.ibm.com>.*

**Operating system and support programs:** DB2 V9 requires the function that is provided by the following licensed programs or their equivalents; subsequent versions or releases of any product are acceptable.

- z/OS V1.7 Base Services (5694-A01) or z/OS.e (5655-G52) with the following base and optional elements:
  - DFSMS V1.7
  - Language Environment® Base Services
  - z/OS V1.7 Security Server (RACF®)
- IRLM V2.2 (delivered with DB2 V9.1). If DB2 for z/OS is installed with IRLM into the same SMP zone as any Version of IMS with IRLM V2.1, IRLM V2.1 will be deleted during the SMP/E installation of IRLM V2.2.

#### Notes

- z/OS Unicode Services and appropriate conversion definitions are required.
- Some of the basic operation of a DBMS is provided by utility functions, such as backup, recovery, reorganization, loading and unloading data, gathering statistics, and checking data, indexes, and large objects. You should ensure that these functions are provided either by ordering DB2 Utilities Suite for z/OS V9 (5655-N97) or by obtaining equivalent function elsewhere.

**Virtual storage requirements:** The amount of space needed for the common service area (CSA) below the 16 MB line is less than 40 KB for each DB2 subsystem and 24 KB for each IRLM. High concurrent activity, parallelism, or high contention can require more CSA.

Most of the DB2 common data resides in the extended common service area. Most modules, control blocks, and buffers reside in the extended private area.

**Function-dependent program requirements:** The following functions of DB2 require specific licensed programs or features of licensed programs before they can be used:

- Application execution: Applications written in high-level programming languages, such as applications or stored procedures written in the C language and using the ODBC or CLI interfaces to DB2, require Language Environment at runtime. Applications or stored procedures written in Java™, such as those using the JDBC or SQLJ interfaces to DB2, require IBM Developer Kit for OS/390, Java 2 Technology Edition (5655-I56) at run time.
- Extenders:
  - XML Extender: Use of the XML Extender requires Language Environment and the IBM XML Parser for z/OS, C++ Edition to be available at run time. The required parser is provided with Release 6 of the XML Toolkit for z/OS (5655-J51). Use of either the XMLFile type or the "Getting Started" material requires the z/OS UNIX® System Services element of z/OS. XML Extender is deprecated in DB2 V9 for z/OS and may be removed in the future.

**Optional program requirements:** The following functions are enabled in conjunction with the specified optional licensed programs when used together with DB2.

**DRDA Connectivity:** DB2 V9 supports the following IBM relational database products:

- Any of the following editions of DB2 UDB for Linux™, UNIX, or Microsoft™ Windows V8.2:

- DB2 Enterprise Server Edition (ESE) V8.2 (5765-F41)
- DB2 Workgroup Server Edition V8.2 (5765-F35)
- DB2 Workgroup Server Unlimited Edition V8.2 (5765-F43)
- DB2 Universal Database® Universal Developer's Edition V8.2 (5765-F34)
- IBM DB2 UDB for iSeries™ OS/400® V5.3 (5722-SS1) (Info APAR I113348) and the following optional components:
  - DB2 DataPropagator™ for iSeries V8.1 (5722-DP4)
  - DB2 Query Manager and SQL Development Kit for iSeries (5722-ST1)
- IBM DB2 Server for VSE and VM V7.4 (5697-F42)
- Any other DRDA-compliant client or relational DBMS server

**Web connectivity:** The following products provide connectivity to DB2 for z/OS, V9 from the Web:

- WebSphere Application Server for z/OS, V6.2 (5655-N01)
  - WebSphere Application Server (5724-J08)
  - WebSphere Application Server for Developers (5724-H89)
  - WebSphere Application Server Network Deployment (5724-H88)
  - WebSphere Application Server —Express (5724-I63)
- IBM DB2 Connect® V8.2
  - DB2 Connect Personal Edition V8.2 (5724-B56) (fixpack 10, or later)
  - DB2 Connect Personal Edition (CPE) V8.2

For DB2 Connect support services, visit

<http://www.ibm.com/cgi-bin/db2www/data/db2/udb/winos2unix/support/newsletter.d2w/report>

- DB2 Connect Enterprise Edition V8.2 (5765-F30)
- DB2 Connect Unlimited Edition V8.2 (5724-B62)
- DB2 Connect Application Server Edition V8.2 (5724-D54)

**Transaction management:** The following transaction management products work with DB2:

Information Management System (IMS)

- IMS V9 (5655-J38)
- IMS V8 (5655-C56)

Customer Information Control System (CICS)

- CICS Transaction Server for z/OS V3.1 (5655-M15)
- CICS Transaction Server for z/OS V2.3 (5697-E93)

WebSphere MQ for z/OS V6 (5655-L82)

- WebSphere MQ for z/OS, V5.3.1 (5655-F10)
- WebSphere MQ Extended Security Edition (5697-MQZ)
- WebSphere MQ Workflow for z/OS, V3.6 (5655-BPM)
- WebSphere MQ Workflow for Multiplatforms, V3.6 (5697-FM3)

Application environments that use DB2 Connect to access DB2 remotely can use the following transaction manager products:

- WebSphere Application Server
- CICS Transaction Server
- IBM TXSeries™ (CICS and Encina®)
- WebSphere MQ
- Microsoft Transaction Server (MTS)
- Java applications that support Java Transaction API (JTA) and Java 2 Platform, Enterprise Edition (J2EE)

- BEA (Tuxedo and WebLogic)

**Query support:** The following query programs work with DB2:

- The DB2 QMF family.
- DB2 XML Extenders extends the native DB2 for z/OS SQL capabilities.

**Data warehouse support:** The following products provide warehouse management for DB2:

- DB2 Warehouse Manager for z/OS V8.2 (5655-I61)
- IBM WebSphere Data Integration Suite V7.5
  - IBM WebSphere DataStage® MVS™ Edition
  - IBM WebSphere DataStage Service-Oriented Architecture (SOA) Edition
  - IBM WebSphere DataStage TX SOA Edition
  - IBM WebSphere Connectivity for Enterprise Applications
  - DataStage for DB2 Warehouse Manager (5620-FED, 5620-FEF)

**Development tools:** The following application development tools can be used to build applications for DB2 V9:

- DB2 Development Center, which is part of the Software Developer's Kit (SDK) on Windows, AIX®, and Solaris is delivered with all editions of DB2 UDB and DB2 Connect products. It enables DB2 for z/OS Stored Procedure development and deployment.
- WebSphere Studio Enterprise Developer V5.1.2 (5724-B67) program requirements:
  - IBM SDK for z/OS, Java 2 Technology Edition, V1.4.2 (5655-I56) with APAR PQ74985 (June 2003) (also known as V1.4.1, which is the recommended level)
  - IBM SDK for z/OS, Java 2 Technology Edition, V1.4.2

For more information on Java 2 for z/OS, including a link to software prerequisites, visit

<http://www.ibm.com/servers/eserver/zseries/software/java/>

- IBM Rational® Application Developer for WebSphere Software V6.0 (5724-J19)
- IBM Rational Web Developer for WebSphere Software Version 6.0 (5724-J18)
- IBM Rational Software Architect V6.0 (5724-I70)

For more information on IBM Rational products, visit

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

**Programming languages:** The following application development programming languages can be used to build applications for DB2 V9:

Building applications using DB2 precompiler:

- Assembler: High Level Assembler, part of the System Services element of z/OS.
- C/C++: C/C++ (with or without Debug Tool), optional features of z/OS
- COBOL: Enterprise COBOL for z/OS V3.3 (5655-G53)
- Fortran: VS Fortran V2.6 (5668-806)

**Note:** DB2 V9 new data type support is not allowed

- PL/I: IBM Enterprise PL/I for z/OS V3.3 (5655-H31)

Building applications using DB2 coprocessor:

- C/C++
  - C/C++ for z/OS V1R8 with z/OS V1.8
- COBOL
  - Enterprise COBOL for z/OS V3.3 (5655-G53) or later
- PL/I
  - IBM Enterprise PL/I for z/OS V3.3 or later

Building applications that are supported with processes other than the precompiler or coprocessor:

- Java: Applications or stored procedures written in Java, such as those using the JDBC or SQLJ interfaces to DB2, require IBM SDK for z/OS, Java 2 Technology Edition (5655-I56) V1.4.2 at run time.

**Note:** IBM 64-Bit SDK for z/OS, Java 2 Technology Edition, V1.4.2 (5655-M30) has the same functions as IBM SDK for z/OS, Java 2 Technology Edition (5655-I56), V1.4.2 with the exception of:

- Persistent reusable function.
  - Sharing class objects between Java virtual machine processes running in the same address space.
- Note:** 64-Bit SDK for z/OS, Java 2 Technology Edition, V1.4.2 (5655-M30) and SDK for z/OS, Java 2 Technology Edition, V1.4.2 (5655-I56) are independent products and can co-exist on the same z/OS system.

- REXX: IBM TSO Extensions for MVS REXX, which is part of z/OS.
- SQL Procedure Language
  - External SQL Procedure Language: A C language compiler is required on z/OS to develop stored procedures using the External SQL Procedure Language. Specific C compilers include:
    - C/C++ (with or without Debug Tool) and optional features of z/OS.
  - Native SQL Procedure Language does not require a C compiler.
- APL2®
  - Mainframe APL2 V2R2 (5688-228) (full APL2)
  - APL2 Application Environment (5688-229)

**Operational Support:** The following programs provide operational support for DB2:

- DFSMS features, part of the Systems Management optional feature of z/OS; specifically,
  - DFSMSShsm™ for archiving
  - DFSMSDss™ for concurrent copy in utilities
- IBM Softcopy Reader or Library Readers, which are included on the CD-ROMs for BookManager® books
- IBM Tools for Replication Management and Database Recovery

**IBM Tools for WebSphere Information Integration,** including the following tools:

- WebSphere Information Integrator Replication for z/OS, V8.2 (5655-L88)

- WebSphere Information Integrator Classic Event Publisher for CA-IDMS (5655-N56)
- WebSphere Information Integrator Classic Event Publisher for IMS for z/OS (5655-M38)
- WebSphere Information Integrator Classic Event Publisher for VSAM for z/OS (5655-M35)
- WebSphere Information Integrator Event Publisher for DB2 for z/OS (5655-M36)
- IBM WebSphere Information Integrator Classic Federation for z/OS, V8 (5697-I82)
- IBM WebSphere Information Integrator Classic Federation for Software AG Adabas V8 (5655-P12)
- IBM DB2 DataPropagator for z/OS, V8.2 (5655-I60)
- IBM IMS DataPropagator for z/OS, V3 (5655-E52)

**IBM Tools for Database Recovery**, including the following tools:

- IBM Application Recovery Tool for IMS and DB2 Databases V1R2 (5697-F56)
- IBM DB2 Archive Log Accelerator V2.2 (5697-I73)
- IBM DB2 Change Accumulation Tool for z/OS, V1.4 (5655-F55)
- IBM DB2 Object Restore for z/OS, V2.1 (5697-I20)
- IBM Log Analysis Tool for z/OS, V2.3 (5655-E56)
- IBM DB2 Recovery Expert for Multiplatforms V2 (D512DLL)

**IBM Tools for Database Application Management**, including the following tools:

- IBM DB2 Bind Manager for z/OS, V2.3 (5655-E43)
- IBM DB2 Data Archive Expert for z/OS, V2 (5655-J22)
- IBM DB2 Data Archive Expert for Multiplatforms V2 (D54Y2LL)
- IBM DB2 Web Query Tool for z/OS, V1.3 (5655-E71)
- IBM DB2 Web Query Tool for Multiplatforms V1.3 (D50RLL and D52A9LL)
- IBM DB2 Test Database Generator for z/OS, V2.2 (5697-I02)
- IBM DB2 Test Database Generator for Multiplatforms (D53FYLL)
- IBM DB2 Path Checker for z/OS, V2.2 (5697-I23)
- IBM DB2 Table Editor for z/OS, V4.3 (5697-G65)
- IBM DB2 Table Editor for Multiplatforms V4.3 (D50R7LL)
- IBM DB2 Table Editor for Workgroups V4.3 (D52AHLL)

**IBM Tools for Database Administration and System Management Support:**

- The IBM Tools for Database Administration, including the following tools:
  - IBM DB2 Administration Tool for z/OS, V7.1 (5697-L90)
  - IBM DB2 Object Comparison Tool for z/OS, V7.1 (5697-L40)
  - IBM DB2 Administration Toolkit for z/OS the SAP Edition V1 (5697-J30)

- DB2 Thread Expert for z/OS, V1 (5697-H85)

**IBM Tools for Utilities Management:**

- IBM DB2 Automation Tool for z/OS, V2.2 (5697-I80)
- IBM DB2 Automation Toolkit for z/OS the SAP Edition V1 (5697-J31)
- IBM DB2 Utilities Suite for z/OS, V8 (5655-K61)
- IBM DB2 High Performance Unload for z/OS, V2.2 (5655-I19)
- IBM DB2 High Performance Unload for Multiplatforms V2.2 (D512ALL)
- IBM DB2 High Performance Unload for Workgroups V2.2 (D529XLL)

**IBM Tools for Database Performance Management**, including the following tools:

- IBM Tivoli® OMEGAMON® XE for DB2 Performance Expert on z/OS, V3 (5655-P07)
- IBM Tivoli OMEGAMON XE for DB2 Performance Monitor on z/OS, V3 (5655-P08)
- IBM DB2 Buffer Pool Analyzer for z/OS, V3 (5655-M26)
- IBM DB2 Performance Toolkit for z/OS the SAP Edition V1 (5697-J32)
- IBM DB2 SQL Performance Analyzer for z/OS, V2.2 (5655-I22)
- IBM DB2 Query Monitor for z/OS, V2.2 (5697-I03)
- DB2 Performance Expert for Multiplatforms V2.2 (D512GLL)
- DB2 Performance Expert for Workgroups V2.2 (D52A5LL)

Refer to the IBM Data Management Tools Web site for a current list of products

<http://www.ibm.com/software/data/db2imstools>

Refer to the Support page of the Tools Web site for recent news about DB2 Tools compatibility with DB2 for z/OS, at

<http://ibm.com/software/data/db2imstools/support.html>

**Database administration and systems management support:** The following tools support database administration and systems management and application development for DB2:

- The DB2 Management Clients Package, a feature of DB2 for z/OS, that includes:
- DB2 Administration Server (z/OS installable component)
- z/OS Enablement (z/OS installable component)
- DB2 Connect Personal Edition Kit (workstation CD), which includes:
  - Control Center
  - Development Center
  - Replication Center
  - Command Center

A restricted-use copy of DB2 Connect Personal Edition V8.2 (5724-B56) for Windows is provided in the DB2 Management Clients Package feature of DB2 for z/OS.

DB2 V9 includes the following features, some of which have requirements of their own, above and beyond what the base DB2 product requires. This section identifies the requirements for using these features, but does not repeat the requirements for DB2 V9.

**Recommendation:** Before using these features, refer to the installation information for these features to ensure you have all required and recommended products.

- z/OS V1.8
  - DFSMSHsm V1.8
    - DFSMSdss
    - FlashCopy® V2
    - Now in V9 of DB2 for z/OS, the system-level utilities and the RECOVER utility will be enhanced to take advantage of new features provided by the z/OS V1.8 DFSMSHsm services to further facilitate management of your backup and recovery needs.
  - Encryption and decryption functions: Built-in functions for encryption and decryption require z/OS Cryptographic Services Integrated Cryptographic Service Facility (ICSF).
  - Group Bufferpool Batching
    - Coupling Facility (CF) level 12
    - CF level 13 recommended for castout enhancement and lock table cleanup enhancement
    - CF level 14 recommended when using System Managed Duplexing for lock or SCA structures
  - MERGE and SELECT from MERGE: DB2 Connect V9.1 for CLI support of MERGE
- Note:** There is no support for embedded static SQL support.

- DRDA Data Stream Encryption can optionally use z/OS Cryptographic Services ICSF.
- msys for Setup DB2 Customization Center is enabled for the IBM Managed System Infrastructure (msys). The DB2 Customization Center simplifies the task of installing or migrating DB2 for z/OS. DB2 Customization Center is available as a plug-in for msys for Setup and therefore requires msys for Setup. msys for Setup is a base element of z/OS.

In addition, msys for Setup has three components

- msys workplace code, which runs on the workstation and provides the user with a Windows Explorer-style GUI to manage z/OS products. The workplace code has to be downloaded from the z/OS host.
- msys host program, which runs on a driving system that manages all installation/customization tasks.
- msys management directory, which uses an LDAP server to store the configuration data for all msys-enabled products.

For information about installing and using msys for Setup, refer to Managed System Infrastructure for Setup Installation (SC33-7997).

- DB2 QMF for TSO/CICS, DB2 QMF High Performance Option (HPO), DB2 QMF for WebSphere, DB2 QMF for Workstation, all of which are components of the DB2 QMF family.

Note that QMF is a separately priced feature of DB2 for z/OS and although QMF V9 can be used with earlier versions of DB2, you must have a license for DB2 V9 to use QMF V9 with any supported version of DB2.

## DB2 QMF components of DB2 V9 for z/OS

- DB2 QMF for TSO/CICS software requirements are those required to run:
  - DB2 for z/OS
  - DB2 UDB for z/OS, V8
  - DB2 UDB for OS/390, V7
  - GDDM V3R2

### DB2 QMF for WebSphere

- IBM WebSphere Application Server 6.0, or later, on any platform supported by WebSphere Application Server
- DB2 QMF for WebSphere requires one of the following Web browsers (with JavaScript support enabled) on each user machine:
  - Microsoft Internet Explorer V5.5, or later
  - Netscape Navigator V6.2, or later
  - Firefox V1.0, or later

DB2 QMF for WebSphere supports the following DB2 servers:

**Table 1.**

Platform and DB2 client	Version
DB2 for z/OS	9
DB2 UDB for z/OS	8
DB2 UDB for z/OS and OS/390	7
DB2 Server for VSE and VM	7.3, 7.2, 7.1
DB2 UDB for iSeries	5.3, 5.2, 5.1
DB2 UDB for Linux, UNIX, and Windows	9.1, 8.1, 7.2

Database connectivity requires an appropriate JDBC driver for each type of RDBMS accessed.

- DB2 QMF for Workstation runs on any of the following operating systems:
  - Microsoft Windows 2000, XP, or 2003, or later
  - Red Hat Enterprise Linux WS 3, or later
  - SUSE Linux 8.2, or later
  - Sun Solaris 9 SPARC, or later
  - HP HP-UX 11i, or later
  - AIX 5L™ V5.2, or later

DB2 QMF for Workstation supports the following DB2 servers:

**Table 2.**

Product	Version
DB2 Server for z/OS	9
DB2 UDB Server for z/OS	8
DB2 UDB Server for z/OS and OS/390	7
DB2 Server for VSE and VM	7.3, 7.2, 7.1
DB2 UDB for iSeries	5.3, 5.2, 5.1
DB2 UDB for Linux, UNIX, and Windows	9.1, 8.1, 7.2

- The following DB2 QMF for Workstation functions have software dependencies:
  - Database connectivity requires an appropriate JDBC driver for each type of RDBMS accessed.
  - DB2 QMF for Workstation OLAP support requires DB2 Cube Views® V8.1, or later, on the DB2 server that is accessed.
  - Use of charting in spreadsheet applications with DB2 QMF for Workstation requires Microsoft Excel 97, or later.

**Limited-use license for z/OS Application Connectivity to V9 of DB2 for z/OS:** The no-charge z/OS Application

Connectivity to DB2 feature, a Type 4 JDBC driver, is licensed for installation and use solely on z/OS. Its sole authorized use is limited to connecting an application that runs on z/OS to V7, V8, or V9 of DB2 UDB for z/OS running in a separate partition on the same server as the application or on a different z/OS server. You can also connect applications to a subsequent supported version of DB2 UDB for z/OS. Authorized use does not extend to applications that run on Linux or any other platform or operating system.

**Limited-use license for DB2 Connect:** A restricted-use copy of V8.2 of DB2 Connect Personal Edition for Windows (5724-B56) is provided in the DB2 Management Clients Package feature of V9 of DB2 UDB for z/OS. You are authorized to use this copy of DB2 Connect to enable access to DB2 UDB for z/OS data by the following workstation tools only:

- DB2 Control Center
- DB2 Replication Center
- DB2 Development Center
- DB2 Command Center
- DB2 for z/OS Optimization Service Center

For all other remote connections to DB2 for z/OS that are provided through DB2 Connect, you must obtain a separate license for DB2 Connect from IBM.

**Compatibility:** DB2 V9.1 for z/OS: This product is upwardly compatible with earlier releases of DB2 for z/OS and OS/390. Migration with full fallback protection is available for customers running on DB2 UDB for z/OS, V8. Thus, existing customers should ensure they are successfully running on DB2 UDB for z/OS, V8 before migrating to DB2 V9.1 for z/OS.

**User group requirements:** This announcement satisfies or partially satisfies more than 135 requirements from one or more of the worldwide user group communities. Groups include Australasian SHARE/GUIDE, COMMON, COMMON Europe, GUIDE International, G.U.I.D.E. Europe, Japan GUIDE/SHARE, Guide Latin American, SHARE EUROPE, and SHARE Incorporated. In addition, this release satisfies many requirements submitted directly to IBM by customers or Business Partners that are not included in this list. User group requirements satisfied include:

MR0308016524 Permanent Tables that do no logging  
MR0722042859 SSI: Allow special procedures indicated by the customer to disable logging.  
MR00039195 Allow logging to be switched on and off as needed on an installation specified table space  
MR00042792 NOLOG Option for DB2 Maintenance  
MR00072150 A New option for Log Output/Non-Output Specification for DB2  
MR00072990 Batchjob without Logging  
MR0326034317 SQL procedure create/drop security  
MR0625013758 BIND ERROR MESSAGES REFER TO #C# code not Stored Procedure Builder  
MR0920047225 Remove the Requirement for a C Compiler When Using SQL Language Stored Procedure  
MR010603172 Improve Performance of Case Insensitive Search  
MR00075680 User LIMIT to amount of SORTWORK space to be USED by applications  
MR0917011951 DB2 temp work space management offers no solution to prevent one or two users from monopolizing the available space resulting in numerous tresource 4k unavailable! abends  
MR091701378 Limits to use of bufferpool  
MR1109017419 Controlling the work file usage (WORKFILE DATABASE) by thread  
MR1115013230 Controlling DTT usage (declared temp table, TEMP

database) by thread  
 MR00067671 Measuring Unused Data Spaces of DB2 Temporary Data Space  
 MR00074416 Improvement of DB2 subquery performance  
 MR00032508 Concurrent Processing of UNION and UNION ALL queries.  
 MR0816044012 Improve availability during Rebuild Index  
 MR120302549 CREATE INDEX DEFER YES  
 MR0518043722 Non-Partitioned Table space Limit  
 MR0518044358 Provide partitioning less dependant on the choice of keys and key ranges  
 MR0722042513 †APPEND ON† tablespace clause  
 MR0403027411 Timestamp Locking  
 MR051804325 Full support for automated volume backups in DB2  
 MR0611046353 Allocation of new index pages for sequential inserts  
 MR060804670 Issue a searched UPDATE from a multiple-row  
 00076325 MERGE operation  
 MR0827022116 DB2 SQL support of BIG INTEGER (8 byte) for compatibility with Java BIGINT SQL type  
 MR0411003452 BIGINT support on DB2/MVS  
 MR0518043320 BIGINT and VARBINARY  
 MR1009034637 Recover of a tablespace into a clone copy  
 MR1118031821 ONLINE LOAD REPLACE for table and or group of tables  
 MR00030196 Concurrent LOAD REPLACE Against Segmented Tables in Same Database  
 MR00074535 RETAIN ACCESS OF ORIGINAL DATA DURING LOAD REPLACE  
 MR0517014857 Shplevel change for LOAD REPLACE  
 MR121802461 On line LOAD replace utility  
 MR0215056540 High Availability Load Resume No Replace for DB2 z/OS  
 MR031605659 DB2 Online Load utility with Replace functionality  
 MR0517045139 DB2 LOAD utility-Loading into shadow table  
 MR070303705 Allow DISPLAY THREAD and CANCEL THREAD on DB2 internal tasks  
 MR12180337 Provide the start time to the utility job output messages  
 MR1104034935 No progress indication during Stop or restart of a DB2 member  
 MR0908035527 Missing start time in utility output  
 MR0518045946 Decimal Floating point data type  
 MR00023862 SQL: UPDATE on Join-VIEW  
 MR00023864 SQL: INSERT on Join-VIEW  
 MR1028044357 DB2 for z/OS — INSTEAD OF trigger capability  
 MR0324043945 More granularity for the Recovery Postponed on DB2 Restart  
 MR0221052050 Management of POSTPONED UR in DB2 restart light  
 MR0325042821 Automatic GRECP recovery after DB2 Group Restart  
 MR0715035220 Automate GRECP and LPL recovery at DB2 restart  
 MR0425051613 Automatic DB2 START DATABASE Issued for LPL/GRECP Objects Found in Startup  
 MR0121032140 REORG TABLESPACE — unload/reload in parallel  
 MR0413044047 Eliminate BUILD2 phase in Online REORG  
 MR0413045330 Run Unload, Reload, and Log phases in parallel for REORG  
 MR0425033337 Provide the ability to downsize LOB table spaces using standard IBM utilities  
 MR0218027050 Provide the ability to REORG LOB table spaces with LOG NO option  
 MR1227001811 Provide the ability to resize LOB table spaces during REORG  
 MR0322021925 Enhance REORG of LOB table spaces to reclaim physical space  
 MR0315043727 Reducing log latch contentions  
 MR0518043722 Non-Partitioned Table Space Limit  
 MR0518044358 Provide partitioning less dependant on the choice of keys and key ranges  
 MR0315045524 Add thread identifiers to messages that involve thread  
 MR0507041657 Amend DB2 trace to allow greater trace granularity and allow exclusion of some trace record  
 MR0514046245 Allow EXCLUDE qualification in DSNDWQAL for READS  
 MR1113024124 DB2 Package Level Tracing  
 MR1125041646 Improve the operationally of Audit Trace function  
 MR0702043313 IFCID 316: Filtering by transaction name, workstation

name, end user ID  
 MR0730044435 rc00C900A3 when executing a CHECK LOB utility on a  
 lob tablespace that is initially not in CHKP status  
 MR0517045338 Skip locked rows  
 MR0325022845 skip read uncommitted row  
 MR051804494 Skip uncommitted qualifying rows that are being  
 inserted or deleted  
 MR0616042254 Skip locked records  
 MR0625036817 DB2 locking mechanism  
 MR0107056133 Improving Performance of VARCHAR  
 MR0718041914 Schema Evolution Allow additional changes to tables  
 via ALTER/MODIFY  
 MR1205002826 Change column name online  
 MR00025435 Capability to change a column name  
 MR00068654 CHANGE COLUMN NAMES in DB2 TABLES  
 MR111501521 Speed Up Archive Processing  
 MR0926035233 Permanent Tables that do no logging  
 MR1027047043 Support ORDER BY in subselect  
 MR0518045413 Reduce Parameter Marker Impact on Access Path Selection  
 for Dynamic SQL  
 MR0518046544 Small LOB Performance  
 MR0722042547 CLOB Performance  
 MR0224042849 Debug Tool — Capability for multiple users to  
 debug a single DB2 stored procedure in WLM  
 environment  
 MR122203381 Timely Release of LOB Locks  
 MR1029022123 Ability for DBADM authority to perform GRANTs on  
 aliases and views created for other  
 MR1022035431 DBADM privilege to GRANT/DROP views created for  
 another user  
 MR127033159 DBADM privilege to GRANT/DROP views created for  
 another user  
 MR0127063245 DBADM cannot grant access to views owner by other ID  
 MR0603025554 DBACRVW parameter flexibility  
 MR0110033725 DBADM privilege to GRANT/DROP views grants for  
 another user  
 MR00039156 DB2 -- Enhance DBADM authority  
 MR1010034749 Allow delete of aliases created for another AUTHID  
 when zparm DBACRVW=YES  
 MR0918024614 DBACRVW parameter to extend to views, not just tables  
 MR0812021206 Parameter DBACRVW=YES should get grant possibilities  
 MR0429033022 Parameter DBACRVW=YES should get grant possibilities  
 MR0414033650 DBACRVW=YES should allow delete and grant  
 MR00073924 Add CREATE VIEW(on user tables) privilege  
 MR0506041729 DBADM can create view/alias for other id but has not  
 DROP/Alter privilege  
 MR0311052534 SYSADM authority needs individual accountability  
 and must be able to be revoked without a  
 cascading effect  
 MR0518042939 SAP FR334: Implicit objects creation for DDL  
 MR032504342 Support of parallel DDL/DML statements on the same  
 database/tablespace  
 MR00076423 Truncate table feature  
 MR0719041338 Provide a Fast Truncate for Partitioned Tablespaces  
 MR1004041553 \$Smart\$ fast mass delete of partitions  
 MR00071858 DB2 Spufi Isolation level UR  
 MR0306036336 Bind SPUFI with ISO(UR)  
 MR0601044342 DSNWZP output format consistent with DSNTIJUZ  
 MR0902035851 SPUFI isolation levels  
 MR0518046544 Small LOB Performance  
 MR0408044648 Ease of migrating to DRDA from Private Protocol  
 MR0110032143 Possibility to implement DASD MAX and TAPE MIN in the  
 DB2 Utility  
 MR0405012936 COPY  
 MR050404675 Possibility to implement DASD MAX and TAPE MIN in the  
 DB2 Utility  
 MR0611023923 Possibility to implement DASD MAX and TAPE MIN in the  
 DB2 Utility  
 MR1024024831 Ability to direct DB2 image copy to tape or disk  
 MR1120034124 TEMPLATE enhancement  
 MR0221033737 Add a function in MODIFY RECOVERY in order to allow  
 specification of copies to delete to be more

granular than DATE and AGE  
 MR060700357 Reduce restriction of X-Lock on DBD by MODIFY Utility  
 MR101602417 Repair  
 MR112202257 MODIFY RECOVERY  
 MR0330015327 Point of Consistency recovery to any point in time  
 MR0512041756 Provide output of the SQL as structured SQL, aligning  
 the predicates, indenting the various clauses  
 consistently  
 MR0614047606 Enhance DSN\_STATEMNT\_TABLE by total costs  
 MR00064613\_1 DB2 STOGROUP use of SMS storage classes  
 MR00064613\_2 DB2 STOGROUP use of SMS storage classes  
 MR0119044331 Need Ability to Pass SMS Classes on CREATE/ALTER  
 STOGROUP Statement  
 MR012105536 Requirement for DataClass and StorageClass  
 definitions DB2  
 MR0809024840 DB2 for z/OS Data Set Open Command  
 MR022403199 Utilities Panel does not provide for a LIB statement  
 MR0330057319 The limit of 100 user indexes on the catalog needs  
 to be readdressed  
 MR110204263 RTS enhancements

### Planning information

**Migration considerations:** Review the sections in this announcement that describe the hardware and software dependencies for DB2 V9.1 for z/OS. Note that DB2 V9.1 for z/OS supports migration only from V8. Customers not yet running V8 should plan to migrate to DB2 UDB for z/OS, V8 as preparation for migration to V9.1.

IBM added many data server capabilities in DB2 V9.1 for z/OS and reduced or removed support for some functions. As you prepare to migrate your subsystems to V9.1, you should be aware of the following changes:

- AIV Extender is removed.
- Text Extender is removed.
- Net Search Extender is removed.
- Net.data, which was stabilized at the V7 level, is removed. WebSphere is the strategic IBM solution for delivering DB2 data to Web applications.
- DB2 Estimator, available via Web download for DB2 V8, will not be provided for DB2 V9.1 for z/OS.
- DB2-managed stored procedure support is removed. Workload Manager (WLM) managed stored procedure address spaces is the strategic solution for stored procedure support, and migration to WLM-managed stored procedure spaces is required for use of stored procedures in DB2 V9.1 for z/OS.
- Simple table space creation support is removed. DB2 V9.1 for z/OS no longer implicitly creates simple table spaces nor allows customers to create simple table spaces. However, DB2 V9.1 for z/OS continues to support simple table spaces created in previous versions.
- The Online help facility is replaced. Prior help support has been replaced by the Information Management Software for z/OS Solutions Information Center (Information Center). The Web-based Information Center is updated periodically during the life of each DB2 version, thus ensuring reader access to the most up-to-date information.
- JDBC/SQLJ Driver for OS/390 and z/OS support is removed. All Java application programs and Java routines that are currently written to work with the JDBC/SQLJ Driver for OS/390 and z/OS need to be modified to work with the IBM DB2 Driver for JDBC and

SQLJ (formerly known as the DB2 Universal JDBC Driver). The steps for migrating JDBC and SQLJ applications from the legacy JDBC/SQLJ Driver for OS/390 and z/OS to the IBM DB2 Driver for JDBC and SQLJ can be found in the Application Programming Guide and Reference for Java. In addition, all WLM-managed stored procedures address spaces that are set up to execute Java routines must be modified to reference the IBM DB2 Driver for JDBC and SQLJ.

- Plans and packages should be rebound on current releases to benefit from optimizer enhancements. For the V9.1 beta release, packages from DB2 V4, or earlier, will be automatically rebound when accessed by DB2 V9.

For more detailed information on migrating to V9.1, refer to the DB2 V9.1 for z/OS Installation Guide (GC26-9636).

As part of ongoing efforts to deliver the most current technology and to remove those features that no longer provide our customers with strategic benefits, the following features are deprecated in DB2 V9.1 for z/OS and may be dropped from future versions:

- XML Extender.
- DRDA is the strategic solution for network computing support in DB2 V9.1 for z/OS. DRDA replaces the private protocol access, and IBM has no plans for additional private protocol enhancements. Private protocol does not support stored procedures or TCP/IP, both of which are available with DB2 for OS/390, V5 and above. Private protocol also does not support network computing enhancements in Versions 6, 7, 8, and 9. Conversion of private protocol applications to DRDA is highly recommended to obtain the full network computing capability of DB2 V9.1 for z/OS.

**Installability:** Clients should refer to the Program Directory shipped with the product. DB2 V9.1 for z/OS, except as noted, will be shipped on 3480 cartridges. Also included will be a Program Directory for each orderable feature as follows:

- GIS0-0013-00 DB2 for z/OS Program Directory
- GIS0-0014-00 DB2 Management Clients Package Program Directory
- GIS0-0017-00 DB2 Utilities Suite Program Directory
- GIS0-0015-00 QMF Classic Edition Program Directory
- GIS0-0016-00 QMF Enterprise Edition Program Directory

- GIS0-0019-00 z/OS Application Connectivity to DB2 for z/OS

In addition, the DB2 Management's Client Package feature is delivering the DB2 Connect Personal Edition CD-ROM.

**Direct customer support:** Direct customer support is provided by IBM Operational Support Services — SoftwareXcel Enterprise Edition or SoftwareXcel Basic Edition. These fee services can enhance your productivity by providing voice and electronic access into the IBM support organization. IBM Operational Support Services — SoftwareXcel Enterprise Edition or SoftwareXcel Basic Edition will help answer questions pertaining to usage, how-to, and suspected software defects for eligible products.

Installation and technical support is provided by IBM Global Services. For more information on services, call 888-426-4343.

Eligible customers can obtain installation and usage assistance from the Industry Support Center through a telephone response line.

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

DB2 V9.1 for z/OS uses the security and auditability features of the host z/OS systems. It also provides facilities for the protection and control of its resources. These facilities include controls for:

- System access
- Data access and control
- Concurrent access
- Data recovery
- Accounting and auditing

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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During the beta program, drafts of the following information units will be available in a secure, Web-based information center.

Title	Order number
Administration Guide	SES1-2935
Application Programming Guide and Reference for Java	SES1-2936
Application Programming and SQL Guide	SES1-2937
Codes	SES1-2938
Command Reference	SES1-2939
Data Sharing: Planning and Administration	SES1-2940
Diagnosis Guide and Reference	SES1-2941
Installation Guide	SES1-2942
Messages	SES1-2943
ODBC Guide and Reference	SES1-2944
Reference for Remote DRDA Requesters and Servers	SES1-2946
Performance Guide	SES1-2947
SQL Reference	SES1-2949
Utility Guide and Reference	SES1-2950
XML Guide	SES1-2951

Additional publications on QMF V9 will also be available via the information center:

Title	Order number
DB2 QMF High Performance Option Users Guide for TSO and CICS	SES1-2886
Installing and Managing DB2 QMF for Workstation and DB2 QMF for WebSphere	SES1-2887
Getting Started with DB2 QMF for Workstation and DB2 QMF for WebSphere	SES1-2888
Developing DB2 QMF Applications	SES1-2889
Installing and Managing DB2 QMF for TSO and CICS	SES1-2890
Introducing DB2 QMF	SES1-2891
DB2 QMF Messages and Codes	SES1-2892
DB2 QMF Reference	SES1-2893
Using DB2 QMF	SES1-2894

## Ordering z/OS through the Internet

ShopzSeries provides an easy way to plan and order your z/OS ServerPac or CBPDO. It will analyze your current installation, determine the correct product migration, and present your new configuration based on z/OS. Additional products can also be added to your order (including determination of whether all product requisites are satisfied). ShopzSeries is available in the U.S., Canada, and several countries in Europe. In countries where ShopzSeries is not available yet, contact your IBM representative (or IBM Business Partner) to handle your order via the traditional IBM ordering process. For more details and availability, visit the ShopzSeries Web site at

<http://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp>

### New licensees

Orders for new licenses can be placed now.

Registered customers can access IBMLink™ for ordering information and charges.

Shipment will not occur before the availability date.

Unless a later date is specified, orders entered before the planned availability date will be assigned a schedule date of one week following availability.

Shipment will begin on the planned availability date.

New users of DB2 V9.1 for z/OS should specify:

Type: 5635      Model: DB2

**Basic license:** To order a basic license, specify the program number and feature number 9001 for asset registration. Specify the feature number of the desired distribution medium shown as follows.

**Parallel Sysplex® License Charge (PSLC) Basic License:** To order a basic license, specify the program number and feature 9001 for asset registration. Specify the PSLC Base feature. If applicable, specify the PSLC Level A and PSLC Level B, and PSLC Level C, and PSLC Level D features and quantity.

**PSLC basic license:** To order a basic license, specify the program number and quantity of MSU.

If there is more than one program copy in a Parallel Sysplex, the charge for all copies is associated to one license by specifying the applicable PSLC license options and quantity represented by the sum of the Service Units in Millions (MSUs) in your Parallel Sysplex. For all other program copies, specify the System Usage Registration No-Charge (SYSUSGREG NC) Identifier on the licenses.

Product: DB2 for z/OS

Entitlement identifier	Description	License option / pricing metric
		Basic MLC, PSLC below 3 MSU
		Basic MLC, PSLC AD
		SYSUSGREG NC, PSLC AD
S011XS0	DB2 for z/OS	
S012J7R	QMF Classic Edition	
S012J7P	QMF Enterprise Edition	

No-charge features:

S912J7T	z/OS Application Connectivity for DB2 for z/OS
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**Workload License Charge (WLC) Basic License:** If there is more than one program copy in a Parallel Sysplex, the charge for all copies is associated to one license by specifying the applicable WLC license options and quantity represented by the sum of the MSUs in your Parallel Sysplex. For all other program copies, specify the Workload Registration Variable WLC Identifier on the licenses.

Entitlement identifier	Description	License option / pricing metric
		Basic MLC, Variable WLC
		Workload Registration, Variable WLC
S011XS0	DB2 for z/OS	
S012J7R	QMF Classic Edition	
S012J7P	QMF Enterprise Edition	

**Entry Workload License Charge (EWLC) Basic License:** To order a basic license, specify the program number and the quantity of MSUs.

Entitlement identifier	Description	License option / pricing metric
		Basic MLC, Entry WLC
S011XS0	DB2 for z/OS	
S012J7R	QMF Classic Edition	
S012J7P	QMF Enterprise Edition	

**S/390® and zSeries Usage License Charge, basic license:** Specify the applicable S/390 and zSeries Usage License Charge option.

Charges will be based upon the peak MSUs. Usage reported between thresholds of features 1, 2, or 3, will be rounded up to the next MSU level. Above 1.0 MSU, usage will be rounded to the nearest whole MSU. For example, 2.4 MSUs would round to 2.0 MSUs for pricing, and 2.5 MSUs would round to 3.0 MSUs for pricing.

The customer pricing will be determined by selecting either:

Entitlement identifier	Description	License option / price metric
		Basic MLC, ULC
S011XS0	DB2 for z/OS	

Examples for ordering:

- A customer with a measured usage (from the IBM Measured Usage report) of 0.3 MSU would order quantity 1 of the 0.26 to 0.5 MSU base feature.
- A customer with 6.6 MSUs (from the IBM Usage report) would:
  - Be rounded up to 7.0 MSUs
  - Order quantity 1 of the “0.51 to 1.0 MSU” base feature
  - Order quantity 6 of the Level A 1 MSU feature
- A customer with 15 MSUs (from the IBM Usage report) would:
  - Order quantity 1 of the “0.51 to 1.0 MSU” base feature
  - Order quantity 10 of the Level A 1 MSU feature
  - Order quantity 4 of the Level B 1 MSU feature
- A customer with 50 MSUs (from the IBM Usage report) would:

- Order quantity 1 of the "0.51 to 1.0 MSU" base feature
- Order quantity 10 of the Level A 1 MSU feature
- Order quantity 33 of the Level B 1 MSU feature
- Order quantity 6 of the Level C 1 MSU feature
- A customer with 85 MSUs (from the IBM Usage report) would:
  - Order quantity 1 of the "0.51 to 1.0 MSU" base feature
  - Order quantity 10 of the Level A 1 MSU feature
  - Order quantity 33 of the Level B 1 MSU feature
  - Order quantity 34 of the Level C 1 MSU feature
  - Order quantity 7 of the Level D 1 MSU feature

**zSeries entry license charge (zELC):** To order zELC software, specify the program number and z800 model.

Specify the zELC monthly license option.

Entitlement identifier	Description	License option / pricing metric
S011XS0	DB2 for z/OS	Basic MLC, zELC
S012J7R	QMF Classic Edition	
S012J7P	QMF Enterprise Edition	

**Single version charging:** To elect single version charging, the customer must notify and identify to IBM the prior program and replacement program and the designated machine the programs are operating on.

**Basic machine-readable material**

Orderable Supply ID	Language	Distribution	Medium	Description
S011XRG	US English	3480	Tape Cartridge	DB2 V9.1 for z/OS
S011XRJ	US English	3480	Tape Cartridge	DB2 Mgmt Client PKG
S011XRR	US English	3480	Tape Cartridge	DB2 Utilities Suite
S011XRZ	US English	3480	Tape Cartridge	QMF Classic Edition
S011XRW	US English	3480	Tape Cartridge	QMF Enterprise Edition
S011XRL	US English	3480	Tape Cartridge	z/OS App Connect to DB2

**Customization options:** Select the appropriate feature numbers to customize your order to specify the delivery options desired. These features can be specified on the initial or MES orders.

**Example:** If publications are not wanted for the initial order, specify feature number 3470 to ship media only. For future updates, specify feature number 3480 to ship media updates only. If, in the future, publication updates are required, order an MES to remove feature number 3480, then the publications will ship with the next release of the program.

Feature description	Feature number
Delivery w/o Publications (for this specific order only)	
Delivery w/o Machine Readable Material	
Delivery w/o Publications for this product (including follow-ons)	

- Delivery options feature description
- Internet Electronic Delivery
- Other option types used in ESW:
  - Capacity Mode Options
  - Certificate Options
  - License Management Options
  - Maintenance Options
  - Partition Options
  - Package Options
  - Preload Options
  - Subcapacity Options

Feature description	Feature number
Delivery w/o Publications (for this specific order only)	
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- Delivery options feature description
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  - Capacity Mode Options
  - Certificate Options
  - License Management Options
  - Maintenance Options
  - Partition Options
  - Package Options
  - Preload Options
  - Subcapacity Options

Expedite shipments will be processed to receive 72-hour delivery from the time IBM Software Delivery and Fulfillment (SDF) receives the order. SDF will then ship the order via overnight air transportation.

**Unlicensed documentation:** During the beta program, hardcopy documents are provided only for program directories, which are available for each orderable feature. Order numbers for these documents are:

Title	Order number
DB2 for z/OS Program Directory	GIS0-0013
Management Clients Package Program Directory	GIS0-0014
DB2 Utilities Suite Program Directory	GIS0-0017
QMF Classic Edition Program Directory	GIS0-0015
QMF Enterprise Edition Program Directory	GIS0-0016
Application Connectivity to DB2 for z/OS	GIS0-0019

The DB2 Management's Client Package feature includes the DB2 Connect Personal Edition CD: LK3T-9267-00 (same CD as is currently being delivered in DB2 for z/OS V8)).

The QMF Enterprise Edition feature is delivering the following Golden Master CD:

- SES1-2885-00 QMF for WebSphere CD
- SES1-2884-00 QMF for Workstation CD

During the beta program, the following information units will be available in a secure, Web-based information center:

Title	Order number
Administration Guide	SES1-2935
Application Programming Guide and Reference for Java	SES1-2936
Application Programming and SQL Guide Codes	SES1-2937
Command Reference	SES1-2938
Data Sharing: Planning and Administration	SES1-2939
Diagnosis Guide and Reference	SES1-2940
Installation Guide	SES1-2941
Messages	SES1-2942
ODBC Guide and Reference	SES1-2943
Reference for Remote DRDA Requesters and Servers	SES1-2944
Performance Guide	SES1-2945
SQL Reference	SES1-2949
Utility Guide and Reference	SES1-2950
XML Guide	SES1-2951

**Volume orders:** Not applicable

Replaced programs		Replacement programs	
Program number	Program name	Program number	Program name
5740-XYR	DB2 V1_	5635-DB2	DB2 V9
5665-DB2	DB2 V2_	5635-DB2	DB2 V9
5685-DB2	DB2 V3_	5635-DB2	DB2 V9
5695-DB2	DB2 V4_	5635-DB2	DB2 V9
5655-DB2	DB2 V5_	5635-DB2	DB2 V9
5645-DB2	DB2 V6_	5635-DB2	DB2 V9
5675-DB2	DB2 V7_	5635-DB2	DB2 V9
5625-DB2	DB2 V8_	5635-DB2	DB2 V9
5635-DB2	DB2 V9_	To a follow-on program, if any.	

Additional publications on QMF V9 will also be available via the information center:

Title	Order number
DB2 QMF High Performance Option Users Guide for TSO and CICS	SES1-2886
Installing and Managing DB2 QMF for Workstation and DB2 QMF for WebSphere	SES1-2887
Getting Started with DB2 QMF for Workstation and DB2 QMF for WebSphere	SES1-2888
Developing DB2 QMF Applications	SES1-2889
Installing and Managing DB2 QMF for TSO and CICS	SES1-2890
Introducing DB2 QMF	SES1-2891
DB2 QMF Messages and Codes	SES1-2892
DB2 QMF Reference	SES1-2893
Using DB2 QMF	SES1-2894

These beta publications cannot be ordered. For information about ordering publications for the product after general availability, refer to the IBM Publications Center Web site

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

Subsequent updates (technical newsletters or revisions between releases) to the publications shipped with the product will be distributed to the user of record for as long as a license for this software remains in effect. A separate publication order or subscription is not needed.

### Customized offerings

Most product media is shipped only via customized offerings (that is, CBPDO, ServerPac, SystemPac®). Non-customized items (CDs, diskettes, source media, and media kits) will continue to be shipped via the stand-alone product.

## Terms and conditions

**Agreement:** IBM Customer Agreement

**Variable charges apply:** No

**Indexed monthly license charge (IMLC) applies:** No

**Location license applies:** No

**Use limitation applies:** No

**Educational allowance available:** Yes, 15% education allowance applies to qualified education institution customers.

**Limited-use license for DB2 Connect:** The DB2 Management Clients feature provides a restricted-use copy of DB2 Connect Personal Edition V8.

Authorization to use this copy of DB2 Connect is to enable access to DB2 V9.1 for z/OS data by the following workstation tools only:

- DB2 Administration Server
- DB2 Control Center
- DB2 Development Center
- Optimization Service Center

For all remote connections to DB2 V9.1 for z/OS provided through DB2 Connect, or for any use of DB2 Connect not specifically described here, you must obtain a separate license for DB2 Connect from IBM.

**Warranty applies:** Yes

**Licensed program materials availability:**

- Restricted Materials of IBM: Some
- Non-Restricted Source Materials: Some
- Object Code Only (OCO): None

**Satisfaction guarantee:** Two months for basic licenses

**Starts:** 10 days after IBM ships, or on the day a non-DSLO additional licence authorized

**Program services**

Support Center applies: Yes

Access available through the IBM Support Center

Available until: General availability of DB2 V9.1 for z/OS

APAR Mailing Address: IBM Corporation  
APAR Processing  
555 Bailey Avenue  
San Jose, CA 95141

**Program currency:** IBM DB2 V9.1 for z/OS QPP will be available until general availability of IBM DB2 V9.1 for z/OS.

**IBM operational support services — SupportLine:** Yes

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## IBM Electronic Services

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IBM Global Services has transformed its delivery of hardware and software support services to put you on the road to higher systems availability. IBM Electronic Services is a Web-enabled solution that provides you with an exclusive, no-additional-charge enhancement to the service and support available on the IBM eServer platform. These services provide the opportunity for greater system availability due to faster problem resolution and preemptive monitoring. IBM Electronic Services is comprised of two separate, but complementary, elements: IBM Electronic Services news page and IBM Electronic Service Agent™.

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The IBM Electronic Service Agent is no-additional-charge software that resides on your IBM eServer system. It is designed to proactively monitor events and transmit system inventory information to IBM on a periodic, customer-defined timetable. The IBM Electronic Service Agent tracks system inventory, hardware error logs, and performance information. If the server is under a current IBM maintenance service agreement or within the IBM warranty period, the Service Agent automatically reports hardware problems to IBM. Early knowledge about potential problems enables IBM to provide proactive service that may result in higher system availability and performance. In addition, information collected through the Service Agent will be made available to IBM service support representatives when they are helping answer your questions or diagnosing problems.

To learn how IBM Electronic Services can work for you, visit

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## Prices

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DB2 V9 for z/OS billing features and prices will be provided as part of a later announcement of general availability for this product.

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## Order now

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**Note:** Shipments will begin after the planned availability date.

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