New and enhanced IBM DB2 tools help manage your DB2 environments

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At a glance

Enhanced DB2® Tools deliver:

- Administration management:
  - IBM® DB2 Administration Tool for z/OS®, V10.2 (5655-W34)
  - IBM DB2 Object Comparison Tool for z/OS, V10.2 (5655-W36)
- Application management:
  - IBM DB2 Sort for z/OS, V1.3 (5655-W42)
  - IBM DB2 Table Editor for z/OS, V4.4 (5697-G65)
- Performance management:
  - IBM DB2 Performance Toolkit for z/OS the SAP Edition, V2.3 (5697-M32)
- Recovery management:
  - IBM DB2 Change Accumulation Tool for z/OS, V3.1 (5697-P45)
- Utilities management:
  - IBM DB2 High Performance Unload for z/OS, V4.2 (5655-AA1)
  - IBM DB2 Utilities Solution Pack for z/OS, V1.1 (5697-DUM)

Overview

IBM DB2 Administration Tool for z/OS, V10.2 (5655-W34) enables the day-to-day tasks that are associated with managing DB2 subsystems, databases, and schema objects. It simplifies the complex tasks associated with safely managing DB2 objects and schema throughout the application lifecycle, while limiting impacts to availability.

IBM DB2 Object Comparison Tool for z/OS, V10.2 (5655-W36) makes it easier to compare and synchronize objects from different sources. It helps you compare and synchronize different DB2 objects while maintaining system availability and object integrity.

IBM DB2 Change Accumulation Tool for z/OS, V3.1 (5697-P45) introduces index processing and improves the following:

- Customization process
- Performance
- Application intelligence
IBM DB2 High Performance Unload for z/OS, V4.2 (5655-AA1) reads table spaces sequentially and provides quick access to DB2 data. DB2 High Performance Unload is designed to be a flexible, easy-to-use tool for unloading and extracting data for movement across enterprise systems or for in-place reorganizations.

IBM DB2 Performance Toolkit for z/OS the SAP Edition, V2.3 (5697-M32) delivers performance management capabilities for DB2 for z/OS in support of SAP ERP applications. It consists of two performance management tools:

- IBM Tivoli® OMEGAMON® XE for DB2 Performance Expert on z/OS
- IBM DB2 Query Monitor for z/OS

IBM DB2 Sort for z/OS, V1.3 (5655-W42) also referred to as DB2 Sort, is a DB2 tool that enables high-speed utility sort processing for data stored in DB2 for z/OS databases. It improves the sort performance of many of the DB2 utilities delivered in the DB2 Utilities Suite and of several other DB2 management tools. DB2 Sort improves sort performance through enhanced sort technology and by communicating with DB2 utilities and tools to adjust system resources for optimal sorting. This approach to sorting can result in reduced sort CPU time. The following DB2 utilities and tools can benefit from improved sorting performance by using DB2 Sort:

- DB2 utilities
  - CHECK DATA
  - CHECK INDEX
  - CHECK LOB
  - LOAD
  - REBUILD INDEX
  - REORG TABLESPACE
  - RUNSTATS

  **Note:** DB2 Sort is designed to support all of the utilities in the DB2 Utilities Suite for z/OS V9.1 and V10.1.

- DB2 Tools
  - DB2 Utilities Enhancement Tool for z/OS V2.2, or later releases, using the PRESORT option with the DB2 LOAD utility
  - DB2 Log Analysis Tool for z/OS V3.3, or later
  - DB2 Recovery Expert for z/OS V3.1, or later
  - DB2 Change Accumulation Tool for z/OS V3.1, or later
  - DB2 High Performance Unload for z/OS V4.2, or later

DB2 Sort can help to improve the performance of utility sort processing, especially in environments with large volumes of data, large table spaces, or large indexes. These environments require a more sophisticated sorting approach than that used by tools used for general sorting purposes. Sort processing in these environments often involves intensive CPU usage and heavy I/O activity, which in turn requires large amounts of memory and disk space. DB2 Sort is designed to meet these demands by optimizing the use of memory, utilizing IBM System z Integrated Information Processor (zIIP) technology, and optimizing the management of sort work disk space. Workloads that would most benefit from DB2 Sort include:

- Highly transactional workloads that perform many insert, update, and delete operations that require REORG.
- Applications such as Data Warehousing applications that use LOAD and REBUILD INDEX with large volumes of data.
- Situations where data volume or inaccurate statistics have resulted in Sort Capacity Exceeded errors.
DB2 Sort is not intended to be a replacement for general-purpose sorting products that are invoked through the standard z/OS system sort interface.

**IBM DB2 Table Editor for z/OS, V4.4 (5697-G65)** is designed to access, update, and delete data quickly and easily on DB2 for z/OS from multiple interfaces.

DB2 Table Editor for z/OS, V4.4 enables a customization method for easier configuration. This method invokes the Tools Customizer for z/OS to customize DB2 Table Editor with the same look and feel as other DB2 tools.

The Tools Customizer for z/OS is a standard interface that assists in the post-SMP/E configuration, tailoring, and customization of IBM z/OS tools. With a common data store, Tools Customizer for z/OS provides a more consistent, usable, and simple solution for the configuration of multiple z/OS tools. The result is faster time to tool usage, easier customization of multiple tools simultaneously, faster propagation of customization across multiple LPARs, and easier upgrades. Tools Customizer for z/OS is a feature of IBM Tools Base (5655-V93).

**IBM DB2 Utilities Solution Pack for z/OS, V1.1 (5697-DUM)** delivers integrated utilities management for DB2 for z/OS by combining the functions from the following:

- IBM DB2 Automation Tool for z/OS, V4.1
- IBM DB2 High Performance Unload for z/OS, V4.2
- IBM DB2 Sort for z/OS, V1.3
- IBM DB2 Utilities Enhancement Tool for z/OS, V2.2

Trade-up options for DB2 Utilities Solution Pack for z/OS, V1.1 are available. The following list includes the eligible products, or eligible combinations of products, for each trade-up option.

- DB2 High Performance Unload for z/OS, V4.2 (5655-AA1)
- DB2 High Performance Unload for z/OS, V4.2 (5655-AA1); and DB2 Sort for z/OS, V1.3 (5655-W42)
- DB2 Automation Tool for z/OS, V4.1 (5655-E37)
- DB2 Automation Tool for z/OS, V4.1 (5655-E37); and DB2 High Performance Unload for z/OS, V4.2 (5655-AA1)
- DB2 Automation Tool for z/OS, V4.1 (5655-E37); and DB2 High Performance Unload for z/OS, V4.2 (5655-AA1); and DB2 Utilities Enhancement Tool for z/OS, V2.2 (5655-T58)
- DB2 Automation Tool for z/OS, V4.1 (5655-E37); and DB2 High Performance Unload for z/OS, V4.2 (5655-AA1); and DB2 Sort for z/OS, V1.3 (5655-W42)
- DB2 Automation Tool for z/OS, V4.1 (5655-E37); and DB2 Utilities Enhancement Tool for z/OS, V2.2 (5655-T58)
- DB2 Automation Tool for z/OS, V4.1 (5655-E37); and DB2 Sort for z/OS, V1.3 (5655-W42); and DB2 Utilities Enhancement Tool for z/OS, V2.2 (5655-T58)

**Note:** The Technical information section of Software Announcement 210-345 may have suggested that DB2 Utilities Suite for z/OS, V10.1 (5655-V41) is designed to operate with either DB2 UDB for z/OS, V8.1 (5625-DB2); DB2 UDB for z/OS Value Unit Edition, V8.1 (5697-N29); DB2 9 for z/OS (5635-DB2); or DB2 9 for z/OS Value Unit Edition (5697-P12). However, DB2 Utilities Suite for z/OS V10.1 has a mandatory prerequisite of DB2 10 for z/OS (5605-DB2) or DB2 10 for z/OS Value Unit Edition (5697-P31) and is not designed to operate with any other version of DB2.

Refer to Software Announcement A10-0845, dated October 19, 2010.

To view a complete list of the DB2 and IMS tools, visit

Key prerequisites

Refer to the Hardware requirements and Software requirements sections for key prerequisites.

Planned availability date

- August 17, 2012:
  - DB2 High Performance Unload for z/OS, V4.2
  - DB2 Sort for z/OS, V1.3
- September 7, 2012:
  - DB2 Administration Tool for z/OS, V10.2
  - DB2 Object Comparison Tool for z/OS, V10.2
  - DB2 Change Accumulation Tool for z/OS, V3.1
  - DB2 Performance Toolkit for z/OS the SAP Edition, V2.3
  - DB2 Table Editor for z/OS, V4.4
  - DB2 Utilities Solution Pack for z/OS, V1.1

Description

DB2 Administration Tool for z/OS, V10.2 (5655-W34) and DB2 Object Comparison Tool for z/OS, V10.2 (5655-W36), when used together, provide a function-rich object management solution. Both tools are designed with an easy-to-use Interactive System Productivity Facility (ISPF) interface that lets you manage and process DB2 objects and organize DB2 objects for better system throughput.

DB2 Administration Tool for z/OS, V10.2 enables you to manage the tasks that keep DB2 performing at peak levels. It includes a comprehensive set of functions that help your DB2 personnel manage their DB2 environments efficiently and effectively, including:

- In-depth catalog navigation by:
  - Displaying and interpreting objects in the DB2 catalog
  - Executing dynamic SQL statements
- Integration with other DB2 tools to simplify the task process flow:
  - Table editing
  - SQL cost analysis
- Adding summary reports to provide overview on complex data changes and migrations

DB2 Object Comparison Tool for z/OS, V10.2 helps maximize system availability by keeping production and testing database environments running in parallel. It:

- Simplifies the process of comparing objects and their dependents from different sources
- Synchronizes sources
- Consistently keeps production databases in step with those for testing and development

The new releases of DB2 Administration Tool and DB2 Object Comparison Tool include the following features:

- Integrated product customization with IBM Tools Customizer for z/OS.
- Ignoring changes to specific objects or certain object types.
• Excluding objects from a particular process or output.
• Limiting the use of a particular mask to a specific object.
• Saving the results of a compare analysis to fine-tune future runs.
• Using Change Management Batch interface enhancements to facilitate DDL recovery.
• Displaying detailed information for one or more tables, along with their related objects.

**IBM DB2 Change Accumulation Tool for z/OS, V3.1 (5697-P45) enhancements:**

- **Improve the customization process:**
  - Enables a new customization method for easier configuration. This method invokes the Tools Customizer for z/OS to customize DB2 Change Accumulation Tool with the same look and feel as other DB2 tools.

- **Improve performance:**
  - Can restore critical data up to 30 to 50 percent faster for DB2 Change Accumulation Tool processes requiring a sort. In some cases, the elapsed time improvement comes at the cost of increased CPU.
  - Leverages DB2 Sort to improve elapsed time.
  - Offers additional elapsed time improvements due to additional parallel processing in the log write process of DB2 Change Accumulation Tool. The log write process is used when applying log records to create more current image copies and when using the WRITE-TO-VSAM option to recover table spaces and index spaces.
  - Creates image copies more efficiently for LOB table objects.

- **Introduce index processing:**
  - Avoids production object contention on indexes by creating more current image copies by applying log records to a previous image copy. This capability was previously only available on table spaces. These index image copies can be created to a point in time or to the current time and optionally consistent.
  - Further improves recovery time by creating mini logs for indexes in addition to table spaces.
  - Significantly reduces elapsed time avoiding a subsequent index rebuild following a table space update.

- **Improve application intelligence:**
  - Optionally offers a point of consistency for groups of objects.
  - Designed to easily and automatically create a consistent image copy from a fuzzy image copy.

- **Improve usability:**
  - Leverages fast replication image copies as a starting point for processing, in addition to legacy image copies.
  - Streamlines object ID (OBID) translation process that eliminates the need to enter object IDs.
  - Provides user the flexibility of choosing whether to reuse the existing VSAM data sets or delete and define them before performing the recovery.
  - Reduces potential space outages by enabling you to specify larger primary and secondary quantities for sortwork data sets.
  - Eliminates manual process to manage the contents of the Log table and the corresponding data sets, with user validation to confirm the action before it is executed.
  - Includes ISPF panels and messages that are consistent with other IBM database tools for ease of use.

**DB2 High Performance Unload for z/OS, V4.2 (5655-AA1)** is a high-speed utility for unloading DB2 tables. It is customized using IBM Tools Customizer for z/OS, a common component that can manage most of the post SMP/E installation customization tasks for the IBM DB2 tools.
Enhancements delivered in this release include:

- Configuration through Tools Customizer for z/OS
- Improved CCSID conversion performance

**DB2 Performance Toolkit for z/OS the SAP Edition, V2.3 (5697-M32)**

All the functions of Tivoli OMEGAMON XE for DB2 Performance Expert on z/OS, V5.1.1, and DB2 Query Monitor for z/OS, V3.1.0, are licensed for use with your SAP ERP solution systems running on DB2 for z/OS.

Tivoli OMEGAMON XE for DB2 Performance Expert on z/OS (OM PE) gives you a single, comprehensive tool to help assess the efficiency and optimize the performance of your DB2 on z/OS environment. It includes sophisticated reporting, monitoring, and buffer pool analysis features in addition to expert database analysis functions to help you maximize performance and enhance productivity. Version 5.1.1 includes the functions of the prior release and continues collector and user interface consolidation along with improvements for usability, scalability, reliability, and serviceability. New functions in this release include:

- Significant update for key System z environments. OM PE V5.1.1 is built on ITM 6.2.3, which includes:
  - Infrastructure support for the new enhanced 3270 end user interface shipped with this version, providing a flexible and customizable user interface with a common user interface for command and control conditions. It also gives users the ability to effectively move between different z/OS components even in a Sysplex.
  - Self-describing agents that ease the installation and management of service updates to Tivoli Enterprise Portal applications.
  - Complete Parmgen support, which is the alternative to the Installation and Customization Assistance Tool (ICAT).
- Support for IBM DB2 Analytics Accelerator V2 performance metrics.
- Support of the new IBM Optim™ Performance Manager V5.1.1 repository server used for the end-to-end SQL monitoring (Extended Insight).
- ATF (Application Trace Facility) functions that now show host variables.
- Further extensions to the Classic data-sharing group support showing the DB2 System parameters in a side-by-side table.
- MIN/AVG/MAX DBAT (distributed access thread) data reported by Statistics Interval.
- Continuing support for the latest DB2 10.1 DCRs, such as enhanced virtual storage IFCID 225 with real storage information.

The following enhancements were added via the OM PE Version 5.1.0 service stream and are included in Version 5.1.1:

- Support for the latest DCRs from IBM DB2 for z/OS, V10.1 (5605-DB2) and IBM DB2 for z/OS Value Unit Edition, V10.1 (5697-P31).
- zIIP off-load for Near-Term History workloads (that is, the Near-term History (NTH) component's data manager subcomponent processing, which is executed in enclave SRB mode, when the NTH component is activated for the DB2 subsystems that OMEGAMON is monitoring).
- New Stored Procedure Accounting Report.
- End-to-end SQL monitoring (the Extended Insight feature) will leverage an imbedded web server, resulting in a smaller footprint.
- Report on and save into performance database the evicted DB2 SQL statement cache entries.
- Further extensions to data-sharing group support, including Sysplex wide locking conflict displaying Holder and Waiter details.
DB2 Query Monitor provides current and historical views of query activity throughout DB2 subsystems and includes the following new features:

- ISPF View of Data Sharing Group
- Batch reports
- Full-feature CAE Web Client
- Microsoft® Windows™ 7 support
- DDL changes
- Migration of offload tables
- zIIP metrics
- Documentation of fields in Query Monitor DB2 repository
- ISPF guideline updates
- IPv6 support
- CAE Server deployment on read-only file system under USS

Refer to Software Announcement A12-0292, dated May 08, 2012

DB2 Sort for z/OS, V1.3 (5655-W42) is a DB2 tool that provides high-speed utility sort processing for data that is stored in DB2 for z/OS databases. DB2 Sort for z/OS, V1.3:

- May help to reduce sort CPU time used by DB2 utilities and tools.
- Utilizes zIIP for additional CPU savings. Portions of the DB2 Sort component, when invoked by certain DB2 utilities and tools, can be executed on a zIIP if one is available.
- Optimizes memory and sort workspace usage.
- Improves intra-region parallelism and performance of parallel sorts.
- Coordinates inter-region resource allocation.

DB2 Sort can help improve sorting performance while optimizing overall system efficiency and memory management. DB2 Sort exploits the advanced facilities of the IBM z/OS operating system and IBM System z server.

DB2 Sort includes the following features:

- Improves performance: DB2 Sort may help to reduce sort CPU time used by DB2 utilities and tools, particularly LOAD, REORG, and REBUILD INDEX.
- Utilizes zIIP: Portions of the DB2 Sort component, used to sort fixed or variable length records, when invoked by DB2 utilities (LOAD, REORG, REBUILD, INDEX, CHECK INDEX, and RUNSTATS), and specified tools (i.e., DB2 Utilities Enhancement Tool for z/OS V2.2 using the PRESORT option with the DB2 LOAD utility, DB2 Log Analysis Tool for z/OS V3.3, DB2 Recovery Expert for z/OS V3.1, DB2 Change Accumulation Tool for z/OS V3.1 and, DB2 High Performance Unload for z/OS V4.2), when executing in enclave SRB mode, can be executed on a zIIP if one is available. Usage of zIIP can lower the billable CPU usage associated with sorting.
- Optimizes memory usage: DB2 Sort determines the availability of central storage resources and chooses the appropriate amount of storage to allocate. It employs memory objects and data space to avoid DASD access when possible.
- Optimizes sort work space usage: DB2 Sort allocates sort workspace dynamically only as needed, potentially reducing the amount of disk space required. DB2 Sort also continues to allocate space when necessary, including additional sort work data sets. This capability reduces the likelihood of sort capacity exceeded errors that are caused by insufficient amounts of workspace.
- Improves intra-region parallelism: When multiple sorts are run in parallel, the effective allocation of resources by DB2 Sort for each sort can potentially...
increase the number of sorts that can be run simultaneously and reduce the total amount of sort processing.

- **Improves performance of parallel sorts:** DB2 Sort synchronizes the processing of simultaneous sorts, reducing the wait times associated with the transfer of records between the utilities and DB2 Sort. This synchronization improves the CPU time and elapsed time of the sort processing.

- **Coordinates inter-region resource allocation:** DB2 Sort also monitors the use of central storage by DB2 Sort applications across an LPAR. This global view of resource usage enables optimal resource allocation while accommodating the needs of other work that is being performed on the system.

**Note:** The information herein provide only general descriptions of the types and portions of workloads that are eligible for execution on a zIIP. IBM authorizes customers to use IBM zIIPs and other Specialty Engines only to execute the processing of Eligible Workloads of specific programs expressly authorized by IBM as specified in the "Authorized Use Table for IBM Machines" provided at


No other workload processing is authorized for execution on a Specialty Engine. IBM offers Specialty Engines (SEs) such as, zIIPs, zAAPs, and IFLs, at a lower price than full authorization General Processors/Central Processors (CPs) because customers are authorized to use SEs only to process certain types and/or amounts of workloads as specified by IBM in the AUT.

**What's new in DB2 Sort for z/OS , V1.3:**

- **Communication enhancements between DB2 tools and utilities that invoke DB2 Sort:**
  - Reduce CPU and elapsed time
  - Provide more zIIP offload

- **Efficiency improvements for internal reading and writing of data:** Reduce CPU and elapsed time by reducing data movement

Users of DB2 High Performance Unload for z/OS , V4.2 (5655-AA1) have an option to choose DB2 Sort for z/OS for sorts that occur outside of DB2 . To use this capability, users should apply all current maintenance.

To use DB2 Sort with the DB2 High Performance Unload, you must:

- **Install DB2 Sort for z/OS , which is an SMP/E-installable product.**

- **Configure each DB2 subsystem on which DB2 Sort will be used to enable DB2 Sort as the primary sort utility.** The ZPARM DB2SORT must be set to ENABLE on each DB2 subsystem where DB2 Sort is to be used. In addition, access to the SCNKLP and SCNKLNK libraries must be set up. The SCNKLP library can be in the LPA or the LNKLST; the SCNKLNK library can be in the LNKLST. Both libraries can be accessible through a STEPLIB or JOBLIB DD statement but the libraries must be APF-authorized.

**Note:** DB2 Sort for z/OS is not compatible with third-party utilities. Therefore, only certain tools and utilities within the DB2 Utilities Suite for z/OS can be used to invoke the DB2 Sort utility.

**IBM DB2 Table Editor for z/OS , V4.4 (5697-G65)** is a multipurpose table editing environment that offers database administrators, developers, and the entire enterprise direct update and data creation operations on DB2 for z/OS databases from a Java™, ISPF, or Windows-based user interfaces.

**Quick and easy manipulation of data**

DB2 Table Editor helps you make the best use of your time. It can reduce staff training time, enhance database administrator (DBA) productivity, increase the ability to respond to your workforce's need for high-performance business applications, and enable the IT team to institute proactive database maintenance.
DB2 Table Editor is designed to make quick and easy work of navigating DB2 databases, tables, and views, finding related data, and updating, deleting, or creating data with full support for your existing DB2 security and logon IDs. It provides drag-and-drop functionality and wizards to help rapidly create versatile, task-specific Java or Windows-based table editing forms that contain built-in data validation and business rules.

**Easier access to data**

You can choose from a variety of user entry points to edit DB2 tables: Java-enabled Web browsers, GUIs that run on Microsoft Windows, or an ISPF interface. This variety of user interfaces allows users with varying skill levels to interact with your database.

Administrators can browse database tables and views (even with no prior understanding of the database structure), search-and-replace, filter data, and open tables that are related to selected data. Users at the front lines of your business, such as customer service personnel, can access your database through forms that contain business rules and command buttons that are designed to make it easy to call up data and quickly perform specific, important tasks with limited training. DB2 Table Editor is designed to offer all of your users an environment that meets their needs. Employees who do not know SQL can perform inserts, updates, and deletes, so that your SQL experts can spend their time on more demanding tasks.

**Control of data integrity**

In today's competitive environment data integrity is more important than ever. Whether your concern is as basic as accurate customer records or as complex as running applications that depend on hundreds of interdependent tables, DB2 Table Editor is designed to make preserving data integrity easy to accomplish, no matter the level of experience of your employees. With DB2 Table Editor, your knowledge workers, both novice and expert, can use this single, powerful tool to manipulate your data while maintaining tight control over data editing privileges.

**DB2 Utilities Solution Pack for z/OS, V1.1 (5697-DUM)** offers features, functions, and processes that DBAs can use to more effectively analyze, maintain, and tune DB2 full-function databases. DB2 Utilities Solution Pack gives you a comprehensive set of high-performance utilities to unload, load, index build, reorganize, back up, verify, and report on full-function databases.

DB2 Utilities Solution Pack for z/OS is composed of the following tools:

- **DB2 Automation Tool for z/OS** enables users to set up recurring utility jobs for conditional and routine maintenance tasks. It helps consume fewer system and staff resources by automating utility maintenance for objects based on your business needs. With profiles that are designed to be easy to use, you can set up utility job specifications that can be managed across subsystems and environments without requiring JCL skills. Additional features include:
  - Ability to automate the execution of DB2 utilities such as COPY, REORG, and MODIFY with space reallocation based on user-specified thresholds.
  - Historical statistics repository for trend analysis and capacity.
  - Support for DB2 data page browsing and editing.
  - Data Set Manager that can move, change, and resize data sets.

New in Version 4.1:

- DB2 Automation Tool V4.1 is now customized using IBM Tools Customizer, a common component that simplifies the post SMP/E installation customization tasks for many of the DB2 tools.
- Can schedule Automation Tool batch builds and utility jobs in the DB2 administrative task scheduler. The Automation Tool interface enables you to create, delete, update, and view existing tasks and view the status and output of executed tasks.
– Integration with DB2 10 for z/OS autonomic statistics feature. A real-time statistic exception condition can trigger an object if a REORG, LOAD, or RUNSTATS was performed on the object since the last image copy.
– Support for the CHECK DATA utility has been added.
– Usability and integration are improved with the ability to create image copies from DB2 Recovery Expert system-level backups.
– You can call a DB2 stored procedure immediately before, after, and during exceptions processing. The stored procedure can be a native SQL, external SQL, or any programming language such as C or COBOL that is supported by DB2 for z/OS.

**DB2 Utilities Enhancement Tool for z/OS** extends the value of DB2 Utilities to make it easier for you to customize DB2 utility tasks to meet your business needs. DB2 Utilities Enhancement Tool helps you to control your DB2 environment with the ability to:
– Transparently cancel active threads and block new threads on DB2 objects.
– Create batch job steps that block and cancel threads on DB2 objects for applications that run during the batch window.
– Automatic size and create mapping tables and mapping-table indexes for REORG TABLESPACE utility when the SHRLEVEL CHANGE option is specified. You can automatically drop these objects when the reorganization completes to help preserve space. You have the option to override any existing MAPPINGTABLE specification.

New in Version 2.2:
– Extended support for additional DB2 utilities via the utility syntax monitor to establish company-wide procedures and assist with auditing.
– Ability to invoke DB2 Sort for z/OS to provide additional zIIP offload, reduced CPU usage and elapsed time during DB2 utility sort processing.
– Increased performance with reduced CPU and elapsed time for hash tables using LOAD PRESORT.
– Message monitor, allowing customization of DB2 utility return codes to meet DB2 application needs.
– Integrated customization process with the Tools Customizer for z/OS.

**DB2 High Performance Unload for z/OS** reads spaces sequentially and provides quick access to DB2 data. DB2 High Performance Unload is a flexible, easy-to-use product that provides a fast and efficient tool to unload and extract data for movement across enterprise systems or for in-place reorganizations. Functions include:
– Creating multiple output files during a single unload at minimal cost.
– Running outside of DB2, so it does not consume competing resources.
– Support for efficient migration from non-IBM tools.
– Launch from IBM DB2 Administration Tool for z/OS.

**DB2 Sort for z/OS** provides high-speed sort processing for data stored in DB2 for z/OS. DB2 Sort leverages the strengths of the System z platform, DB2 for z/OS and the DB2 Utilities Suite to drive:
– Significant savings in elapsed time and CPU during utility sort processing, especially LOAD, REORG, and REBUILD INDEX.
– Relief from application constraints of large volumes of data in highly transactional workload performing numerous insert, update, and delete operations.
– Increased application availability by reducing the batch window for utility maintenance.
– Performance benefits extended to other DB2 tools and utilities such as DB2 High Performance Unload for z/OS and DB2 Utilities Enhancement Tool for z/OS.
– Sophisticated disk allocation capabilities to reduce sort capacity exceeded errors caused by large data volumes and inaccurate statistics.
Continued commitment from IBM to deliver DB2 solutions to reduce total cost of ownership (TCO).

**Trade-up options** are available for DB2 Utilities Solution Pack for z/OS, V1.1. Refer to the Ordering information section.

**Accessibility by people with disabilities**

A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at


**Value Unit-based pricing**

Value Unit pricing for eligible IBM System z IBM International Program License Agreement (IPLA) programs enables a lower cost of incremental growth and enterprise aggregation. Each System z IPLA product with Value Unit pricing has a single price per Value Unit and a conversion matrix, called Value Unit Exhibit, for converting from some designated measurement to Value Units. Most commonly, Millions of Service Units (MSUs) is the measurement designated by IBM to be converted to Value Units. Some other measurements are engines or messages. Since MSUs are the most common measurement, that measurement will be used for the remainder of this description.

Value Unit pricing offers price benefits for you. For each System z IPLA program with Value Unit pricing, the quantity of that program needed to satisfy applicable IBM terms and conditions is referred to as the **required license capacity**. Each of the various Value Unit Exhibits stipulate that the larger your required license capacity, the fewer Value Units per MSU you will need. Value Unit Exhibits are uniquely identified by a three digit code and referred to using the nomenclature VUExxx, where xxx is the three digit code.

Subsequent acquisitions of Value Unit priced programs offer additional price benefits. The quantity of each System z IPLA program that you have acquired is referred to as **entitled license capacity**. If you wish to grow your entitled license capacity for a System z IPLA program, the calculation to determine additional needed Value Units is based upon the number of Value Units already acquired.

For each System z IPLA program with Value Unit pricing, you should:

- Determine the required license capacity, in MSUs
- Aggregate the MSUs across the enterprise
- Convert the total MSUs to Value Units, using the applicable Value Unit Exhibit
- Multiply the price per Value Unit by the total number of Value Units to determine the total cost

To simplify conversion from the designated measurement to Value Units or vice-versa, use the Value Unit Converter Tool. For additional information or to obtain a copy of the Value Unit Converter Tool, visit the Value Unit Converter Tool website

http://ibm.com/zseries/swprice/vuctool

Note that Value Units of a given product cannot be exchanged, interchanged, or aggregated with Value Units of another product.

To determine the required license capacity for the System z IPLA program you selected, refer to the Terms and conditions section.
Program number

<table>
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<td>4.2.0</td>
<td>IBM DB2 High Performance Unload for z/OS</td>
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<td>2.3.0</td>
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Product identification number

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Offering Information

Product information is available via the Offering Information website

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

Publications

The IBM Publications Center portal is at

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

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

One copy of each of the following publications is supplied automatically with the material.

<table>
<thead>
<tr>
<th>Title</th>
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<td>IBM DB2 Administration Tool for z/OS, V10.2 (5655-W34)</td>
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Edition V5.1.1, Plugin for Tivoli Enterprise Portal DVD
Tivoli OMEGAMON XE Language Packs for z/OS LCD7-3583

IBM DB2 Sort for z/OS, V1.3 (5655-W42)
License Information GC19-2962
Program Directory GI10-8827
IBM International Program License Agreement Z125-3301
IPLA-Warranted)
IBM International Agreement for Acquisition of Z125-6011
Software Maintenance

IBM DB2 Table Editor for z/OS, V4.4 (5697-G65)
License Information GC27-1200
Program Directory GI10-8401
IBM International Program License Agreement Z125-3301
IPLA-Warranted)
IBM International Agreement for Acquisition of Z125-6011
Software Maintenance

IBM DB2 Utilities Solution Pack for z/OS, V1.1 (5697-DUM)
License Information GC19-3782
Program Directory GI10-8932
IBM International Program License Agreement Z125-3301
IPLA-Warranted)
IBM International Agreement for Acquisition of Z125-6011
Software Maintenance

The publications for products in this announcement cannot be ordered in hardcopy. All the publications in this announcement are available at

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

Publications are available in PDF or BookManager® formats on the next release of the software product libraries, z/OS and Software Products DVD Collection (SK3T-4271), which requires a DVD drive in DVD-9 (single-sided, dual-layer) format.

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<td>IBM DB2 Change Accumulation Tool for z/OS, V3.1 (5697-P45) User's Guide</td>
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<td>GH12-6965</td>
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<td>Monitoring Performance from ISPF</td>
<td>SH12-6968</td>
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<tr>
<td>Monitoring Performance from the OMEGAMON Classic</td>
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<td>Parameter Reference</td>
<td>GH12-6977</td>
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<td>Reporting User's Guide</td>
<td>SH12-6969</td>
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<tr>
<td>Quick Start Guide for the end-to-end SQL monitoring</td>
<td>GH12-6973</td>
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Buffer Pool Analyzer User's Guide  SH12-6975
Buffer Pool Analyzer Configuration Guide  SH12-6976
IBM InfoSphere Optim Performance Manager Installation Guide  GC19-2934
IBM Tivoli OMEGAMON XE and Tivoli Management Services on z/OS: Upgrade Guide  G111-8918
Quick Start Guide
IBM Tivoli OMEGAMON Enhanced 3270 Interface Guide  SC22-5426
IBM Tivoli OMEGAMON XE and Tivoli Management Services on z/OS: Common Planning and Configuration Guide  SC23-9734
IBM Tivoli OMEGAMON XE and Tivoli Management Services on z/OS: Common Parameter Reference  SC14-7280
IBM Tivoli OMEGAMON XE and Tivoli Management Services on z/OS: PARMGEN Reference  SC22-5435
IBM Tivoli OMEGAMON XE and Tivoli Management Services on z/OS: Reports for Tivoli Common Reporting  SC27-2304
IBM DB2 Table Editor for z/OS, V4.4 (5697-G65) User's Guide  SC19-3781
IBM DB2 Utilities Solution Pack for z/OS, V1.1 (5697-DUM) Overview and Customization Guide  SC19-3783
Overview brochure: IBM DB2 and IMS Tools Overview, IMD11760-USEN, is available at
http://www.ibm.com/software/data/db2imstools

Specification sheets, user's guides, and white papers are also available on CD. This CD-ROM can be ordered from the IBM Publications Center Portal at
http://www.ibm.com/shop/publications/order

Technical information

Specified operating environment

Hardware requirements
The products in this announcement will operate on any System z hardware configuration that supports the required versions of DB2.

For DB2 for z/OS, V10.1, refer to the DB2 for z/OS, V10.1 minimum requirement (z890, z990, z9® , z10™, and later, processor supported by z/OS V1R10, or later) of DB2.

Hardware requirements for DB2 Table Editor Console, Developer, User, and Java player components needed to run the DB2 Table Editor in a Windows environment are:

- Approximately 16 MB of free disk space
- A minimum of 32 MB memory

Software requirements

Mandatory installation requirements:

- z/OS V1.11 (5694-A01), or later
- IBM SMP/E for z/OS V3.5 (5655-G44), or later

DB2 Object Comparison Tool V10.2 requires DB2 Administration Tool for z/OS, V10.2 (5655-W34).
DB2 Performance Toolkit for z/OS the SAP Edition, V2.3, DB2 OMEGAMON XE for DB2 PE feature requires:

- Tivoli OMEGAMON XE for DB2 Performance Expert on z/OS, V5.1.1 requires Tivoli Monitoring V6.2.3 (5698-A79), an installation function prerequisite.

**Mandatory operational requirements:**

DB2 Change Accumulation Tool for z/OS, V3.1 (5697-P45); DB2 High Performance Unload for z/OS, V4.2 (5655-AA1); DB2 Performance Toolkit for z/OS the SAP Edition, V2.3 (5697-M32); DB2 Table Editor for z/OS, V4.4 (5697-G65); and DB2 Utilities Solution Pack for z/OS, V1.1 (5697-DUM) are designed to operate with:

- DB2 for z/OS, V9.1 (5635-DB2)
- DB2 for z/OS Value Unit Edition, V9.1 (5697-P12)
- DB2 for z/OS, V10.1 (5605-DB2)
- DB2 for z/OS Value Unit Edition, V10.1 (5697-P31)

DB2 Administration Tool for z/OS, V10.2 (5655-W34) and DB2 Object Comparison Tool for z/OS, V10.2 (5655-W36) are designed to operate with:

- DB2 for z/OS, V9.1 (5635-DB2) in new function mode
- DB2 for z/OS Value Unit Edition, V9.1 (5697-P12) in new function mode
- DB2 for z/OS, V10.1 (5605-DB2)
- DB2 for z/OS Value Unit Edition, V10.1 (5697-P31)

IBM DB2 Sort for z/OS, V1.3 (5655-W42) is designed to operate with:

- DB2 for z/OS, V9.1 (5635-DB2)
- DB2 for z/OS Value Unit Edition, V9.1 (5697-P12)
- DB2 Utilities Suite for z/OS, V9.1 (5655-N97) with APARs PM13963 and PM32705 applied if using DB2 Sort
- DB2 for z/OS, V10.1 (5605-DB2)
- DB2 for z/OS Value Unit Edition, V10.1 (5697-P31)
- DB2 Utilities Suite for z/OS, V10.1 (5655-V41) with APAR PM32705 applied if using DB2 Sort

DB2 Object Comparison Tool, V10.2 requires DB2 Administration Tool for z/OS, V10.2 (5655-W34)

DB2 Administration Tool, V10.2 (5655-W34); DB2 Object Comparison Tool for z/OS, V10.2 (5655-W36); DB2 Change Accumulation Tool for z/OS, V3.1 (5697-P45); DB2 High Performance Unload for z/OS, V4.2 (5655-AA1); DB2 Sort for z/OS, V1.3 (5655-W42); DB2 Table Editor for z/OS, V4.4 (5697-G65) and DB2 Utilities Solution Pack for z/OS, V1.1 (5697-DUM) require:

- IBM Tools Base, V1.3 (5655-V93), a no-charge product at the latest maintenance level, in order to utilize the function delivered by IBM Tools Customizer for z/OS.
- IBM Tools Customizer for z/OS (FMID HTCZ110) maintenance at current level before starting customization.

Tivoli OMEGAMON XE for DB2 Performance Expert on z/OS, V5.1.1 has an additional mandatory operational requirement for DFSMSTM, which is included in z/OS.

DB2 Table Editor Console, Developer, User, and Java player components support the following operating systems:

- Microsoft Windows XP
- Windows Vista
- Windows 7
In order to run the DB2 Table Editor Java player in a browser, you must ensure that you are running the latest version of Java. DB2 Table Editor works with JRE V1.4, and later. When working with DB2 Table Editor Java player ensure that you are using a browser that is enabled for Java 1.4 and higher. DB2 Table Editor has been tested with Microsoft Internet Explorer V6.0, and later.

**Conditional operational requirements:**

DB2 Administration Tool, V10.2 requires DB2 Object Comparison Tool for z/OS, V10.2 (5655-W36) for use of the Change Management function.

DB2 Performance Toolkit for z/OS the SAP Edition, V2.3, Query Monitor feature requires, if you want to run the CAE Server under USS, the most current maintenance of (31-bit) Java 1.6 (including all prerequisites) must be installed on your mainframe.

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.

**Limitations**

For additional information, to the license information document that is available on the IBM Software License Agreement website


**User group requirements**

This announcement satisfies or partially satisfies requirements from one or more of the worldwide user group communities. Groups include COMMON, COMMON Europe, Guide Share Europe (GSE), InterAction (Australia/New Zealand), Japan Guide Share (JGS), and SHARE Inc.

DB2 Administration Tool for z/OS, V10.2 (5655-W34) satisfies the following requirements:

- MR0201081658
- MR0324116127
- MR0426054825
- MR0618107230
- MR0628041754
- MR0722021943
- MR0912032510
- MR0912032958
- MR0201081658
- MR0324116127
- MR0426054825
- MR0618107230
- MR0628041754
- MR0722021943
- MR0912032510
- MR1120022256
- MR0912032958
- MR0201081658
- MR0324116127
- MR0426054825
- MR0618107230
- MR0628041754
- MR0722021943
- MR0912032510
- MR1120022256
- MR0912032958
- MR1217072940
- MR0316044433
- MR0408085049
- MR0408086548
- MR0929114551
- MR0819105316

DB2 Object Comparison Tool for z/OS, V10.2 (5655-W36) satisfies the following requirements:

IBM DB2 Change Accumulation Tool for z/OS, V3.1 satisfies the following requirements:

IBM DB2 High Performance Unload for z/OS, V4.2 satisfies the following requirement:
Planning information

Packaging
The programs in this announcement are distributed with the following content:

- Basic machine-readable material
- Program Directory
- IBM International Program License Agreement (IPLA)

Security, auditability, and control
The announced programs use the security and auditability features of the host operating system software. The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Software Services
IBM Software Services has the breadth, depth, and reach to manage your services needs. You can leverage the deep technical skills of our lab-based, software services team and the business consulting, project management, and infrastructure expertise of our IBM Global Services team. Also, we extend our IBM Software Services reach through IBM Business Partners to provide an extensive portfolio of capabilities. Together, we provide the global reach, intellectual capital, industry insight, and technology leadership to support a wide range of critical business needs.

To learn more about IBM Software Services or to contact a Software Services sales specialist, visit

http://www.ibm.com/software/sw-services/

Ordering information

Charge metric

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<td>DB2 Object Comparison Tool for z/OS, V10.2</td>
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<td>DB2 Change Accumulation Tool for z/OS, V3.1</td>
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<tr>
<td>5655-AA1</td>
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<tr>
<td>5697-M32</td>
<td>DB2 Performance Toolkit for z/OS the SAP Edition, V2.3</td>
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<td>Value Unit</td>
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<tr>
<td>5655-W42</td>
<td>DB2 Sort for z/OS, V1.3</td>
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<td>DB2 Table Editor for z/OS, V4.4</td>
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The following programs have Value Unit-Based pricing.

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<td>5697-P45</td>
<td>DB2 Change Accumulation Tool for z/OS, V3.1</td>
<td>VUE007</td>
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</table>
For each System z IPLA program with Value Unit pricing, the quantity of that program needed to satisfy applicable IBM terms and conditions is referred to as the **required license capacity**. Your required license capacity is based upon the following factors:

- The System z IPLA program you select
- The applicable Value Unit Exhibit
- The applicable terms
- Whether your current mainframes are full capacity or sub-capacity

**Value Unit exhibit VUE007**

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<th>MSUs</th>
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<td>Tier B</td>
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<td>Tier C</td>
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<td>Tier D</td>
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</table>

Value Units for mainframes without MSU ratings:

- Hardware: Value Units/machine
  - MP3000 H30: 6
  - MP3000 H50: 8
  - MP3000 H70: 12
  - ESL models: 2

**Ordering example**

The total number of Value Units is calculated according to the following example.

If your required license capacity is 1,500 MSUs for your selected System z IPLA product, the applicable Value Units would be:

**Translation from MSUs to Value Units**

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<th>MSUs</th>
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<tr>
<td>Base</td>
<td>3 * 1.00 = 3.00</td>
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<tr>
<td>Tier A</td>
<td>42 * .45 = 18.90</td>
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<td>Tier B</td>
<td>130 * .36 = 46.80</td>
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<tr>
<td>Tier C</td>
<td>140 * .27 = 37.80</td>
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<tr>
<td>Tier D</td>
<td>1,185 * .20 = 237.00</td>
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<td>Total</td>
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</table>

When calculating the total number of Value Units, the sum is to be rounded up to the next integer.

Example: In the above ordering example, for the product running on a machine with 1,500 MSUs requiring 344 Value Units, order feature number G4FG, quantity 94, and feature number G4FH, quantity 1.
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 US 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 website at http://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp

Basic license

On/Off CoD

The products in this announcement are eligible for On/Off Capacity on Demand (CoD) with a temporary use charge calculated based on MSUs per-day usage.

Translation from MSUs to Value Units

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<th>MSUs</th>
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<td>Tier D</td>
<td>316+</td>
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</table>

To order, specify the program product number and the appropriate license or charge option. Also, specify the desired distribution medium. To suppress shipment of media, select the license-only option in CFSW.

Program Name: IBM DB2 Administration Tool for z/OS, V10.2
Program PID: 5655-W34

Entitlement identifier Description License option / Pricing metric
S016GL1 DB2 Administration Tool V10 Basic OTC, Value Units Basic OTC, Per MSU-day TUC

Orderable supply ID Language Distribution medium
S016GKZ US English 3590 Tape Cartridge

Program Name: IBM DB2 Object Comparison for z/OS, V10.2
Program PID: 5655-W36

Entitlement identifier Description License option / Pricing metric
S016GLG DB2 Obj Comparison Tool V10 Basic OTC, Value Units Basic OTC, Per MSU-day TUC

Orderable supply ID Language Distribution medium
S016K6B US English 3590 Tape Cartridge

Program Name: IBM DB2 Change Accumulation Tool for z/OS, V3.1
Program PID: 5697-P45

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<td>S016ZNS</td>
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**Program Name:** IBM DB2 High Performance Unload for z/OS, V4.2  
**Program PID:** 5655-AA1

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Two orderable supplies are included with this product.

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**Program Name:** IBM DB2 Table Editor for z/OS, V4.4  
**Program PID:** 5697-G65

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**Program Name:** IBM DB2 Utilities Solution Pack for z/OS, V1.1  
**Program PID:** 5697-DUM

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</tr>
<tr>
<td></td>
<td></td>
<td>Per MSU SW S&amp;S registration</td>
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**Subscription and Support**

To receive voice technical support via telephone and future releases and versions at no additional charge, Subscription and Support must be ordered. The capacity of Subscription and Support (Value Units) must be the same as the capacity ordered for the product licenses.

To order, specify the Subscription and Support program number (PID) referenced above and the appropriate license or charge option.

IBM is also providing Subscription and Support for these products via a separately purchased offering under the terms of the IBM International Agreement for Acquisition of Software Maintenance (IAASM). This offering:

- Includes and extends the support services provided in the base support to include technical support via telephone.
- Entitles you to future releases and versions, at no additional charge. Note that you are not entitled to new products.

When Subscription and Support is ordered, the charges will automatically renew annually unless cancelled by you.

The combined effect of the IPLA license and the Agreement for Acquisition of Software Maintenance gives you rights and support services comparable to those under the traditional ICA S/390® and System z license or its equivalent. To ensure that you continue to enjoy the level of support you are used to in the ICA business model, you must order both the license for the program and the support for the selected programs at the same Value Unit quantities.

**Withdrawal from Marketing (WFM) Information**

A new product release within a version supersedes the release level that precedes it. Accordingly, the following product releases will be withdrawn from marketing, effective on the date the new release becomes available.

**Releases to be withdrawn from marketing effective August 17, 2012**

<table>
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<th>Name of product being withdrawn</th>
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<td>5655-AA1</td>
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<tr>
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<td>2</td>
<td>0</td>
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**Releases to be withdrawn from marketing effective September 7, 2012**

<table>
<thead>
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<td>4</td>
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**Replacement information :**

- 5655-W34, IBM DB2 Administration Tool for z/OS V10.1.0 is replaced by 5655-W34, IBM DB2 Administration Tool for z/OS V10.2.0
- 5655-W36, IBM DB2 Object Comparison Tool for z/OS V10.1.0 is replaced by 5655-W36, IBM DB2 Object Comparison Tool for z/OS V10.2.0
- 5655-AA1, IBM DB2 High Performance Unload for z/OS V4.1.0 is replaced by 5655-AA1 IBM DB2 High Performance Unload for z/OS V4.2.0
• 5697-M32, IBM DB2 Performance Toolkit for z/OS the SAP Edition V2.2.0 is replaced by 5697-M32 IBM DB2 Performance Toolkit for z/OS the SAP Edition V2.3.0
• 5655-W42, IBM DB2 Sort for z/OS V1.2.0 is replaced by 5655-W42 IBM DB2 Sort for z/OS V1.3.0
• 5697-G65, IBM DB2 Table Editor for z/OS V4.3.0 is replaced by 5697-G65 IBM DB2 Table Editor for z/OS V4.4.0 as announced in Software Announcement A12-0557, dated August 07, 2012

**Single version charging**

To elect single version charging, you must notify and identify to IBM the prior program and replacement program, and the machine the programs are operating on.

**Customized Offerings**

Product deliverables are shipped only via CBPDO, ServerPac, SystemPac®.

CBPDO and ServerPac are offered for Internet delivery in countries where ShopzSeries product ordering is available. Internet delivery reduces software delivery time and allows you to install software without the need to handle tapes. For more details on Internet delivery, refer to the ShopzSeries help information at [http://www.software.ibm.com/ShopzSeries](http://www.software.ibm.com/ShopzSeries)

You choose the delivery method when you order the software. IBM recommends Internet delivery. In addition to Internet and DVD, the supported tape delivery options for CBPDO, ServerPac, and SystemPac, include:

• 3590
• 3592

Most products can be ordered in ServerPac and SystemPac the month following their availability on CBPDO. z/OS can be ordered via all three offerings at general availability. Production of software product orders will begin on the planned general availability date.

• CBPDO shipments will begin one week after general availability.
• ServerPac shipments will begin two weeks after general availability
• SystemPac shipments will begin four weeks after general availability due to additional customization, and data input verification.

**Terms and conditions**

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.

**Agreement for Acquisition of Software Maintenance**

The following agreement applies for Software Subscription and Support (Software Maintenance) and does not require customer signatures:

• IBM Agreement for Acquisition of Software Maintenance (Z125-6011)
These programs are licensed under the IBM Program License Agreement (IPLA) and the associated Agreement for Acquisition of Software Maintenance, which provide for support with ongoing access to releases and versions of the program. These programs have a one-time license charge for use of the program and an annual renewable charge for the enhanced support that includes telephone assistance (voice support for defects during normal business hours), as well as access to updates, releases, and versions of the program as long as support is in effect.

**License Information form number**

<table>
<thead>
<tr>
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<tr>
<td>DB2 Administration Tool for z/OS V10.2</td>
<td>5655-W34</td>
<td>GC19-3034</td>
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<td>5655-W36</td>
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<td>DB2 Change Accumulation Tool for z/OS V3.1</td>
<td>5697-P45</td>
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<td>DB2 High Performance Unload for z/OS V4.2</td>
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<td>DB2 Performance Toolkit for z/OS the SAP Edition, V2.3</td>
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<td>GC18-9965</td>
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<td>GC19-3782</td>
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</table>

The programs’ License Information will be available for review on the IBM Software License Agreement Web site


**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 support**

Enhanced support, called Subscription and Support, includes telephone assistance, as well as access to updates, releases, and versions of the program as long as support is in effect. You will be notified of discontinuance of support with 12 months’ notice.

**Money-back guarantee**

If for any reason you are dissatisfied with the program and you are the original licensee, you may obtain a refund of the amount you paid for it, if within 30 days of
your invoice date you return the program and its PoE to the party from whom you obtained it. If you downloaded the program, you may contact the party from whom you acquired it for instructions on how to obtain the refund.

For clarification, note that for programs acquired under any of IBM's On/Off Capacity on Demand (On/Off CoD) software offerings, this term does not apply since these offerings apply to programs already acquired and in use by you.

**Volume orders (IVO)**
No

**Passport Advantage applies**
No

**Software Subscription and Support applies**
No. For operating system software, the revised IBM Operational Support Services - SupportLine offering will provide support for those operating systems and associated products that are not available with the Software Subscription and Support (Software Maintenance) offering.

This will ensure total support coverage for your enterprise needs, including IBM and selected non-IBM products. For complete lists of products supported under both the current and revised offering, visit

http://www.ibm.com/services/sl/products

**IBM Operational Support Services - SupportLine**
Yes

**System i Software Maintenance applies**
No

**Variable charges apply**
No

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

**Academic use allowance:** Yes

**Sub-capacity terms and conditions**
For each System z IPLA program with Value Unit pricing, the quantity of that program needed to satisfy applicable IBM terms and conditions is referred to as the required license capacity. Your required license capacity is based upon the following factors:

- The System z IPLA program you select
- The applicable Value Unit Exhibit
- The applicable terms
- Whether your current mainframes are full capacity or sub-capacity

For more information on the Value Unit Exhibit for the System z IPLA program you selected, refer to the Ordering information section.
<table>
<thead>
<tr>
<th>Number</th>
<th>Program Name</th>
<th>Terms</th>
<th>any of the following</th>
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| 5655-W34 | DB2 Administration Tool for z/OS, V10.2 | Reference-based | DB2 V9 (5635-DB2)  
DB2 V9 VUE (5697-P12)  
DB2 V10 (5605-DB2)  
DB2 V10 VUE (5697-P31) |
| 5655-W36 | DB2 Object Comparison Tool for z/OS, V10.2 | Reference-based | DB2 V9 (5635-DB2)  
DB2 V9 VUE (5697-P12)  
DB2 V10 (5605-DB2)  
DB2 V10 VUE (5697-P31) |
| 5697-P45 | DB2 Change Accumulation Tool for z/OS, V3.1 | Reference-based | DB2 V9 (5635-DB2)  
DB2 V9 VUE (5697-P12)  
DB2 V10 (5605-DB2)  
DB2 V10 VUE (5697-P31) |
| 5655-AA1 | DB2 High Performance Unload for z/OS V4.2 | Reference-based | DB2 V9 (5635-DB2)  
DB2 V9 VUE (5697-P12)  
DB2 V10 (5605-DB2)  
DB2 V10 VUE (5697-P31) |
| 5697-M32 | DB2 Performance Toolkit for z/OS the SAP Machine Edition, V2.3 | Full | n/a (no parent program) |
| 5655-W42 | DB2 Sort for z/OS, V1.3 | Reference-based | DB2 V9 (5635-DB2)  
DB2 V9 VUE (5697-P12)  
DB2 V10 (5605-DB2)  
DB2 V10 VUE (5697-P31) |
| 5697-G65 | DB2 Table Editor for z/OS, V4.4 | Reference-based | DB2 V9 (5635-DB2)  
DB2 V9 VUE (5697-P12)  
DB2 V10 (5605-DB2)  
DB2 V10 VUE (5697-P31) |
| 5697-DUM | DB2 Utilities Solution Pack for z/OS, V1.1 | Reference-based | DB2 V9 (5635-DB2)  
DB2 V9 VUE (5697-P12)  
DB2 V10 (5605-DB2)  
DB2 V10 VUE (5697-P31) |

In cases where full capacity is applicable, the following terms apply.

Execution based, z/OS based, full machine based: The required capacity of a System z IPLA program with these terms equals the MSU-rated capacity of the machines where the System z IPLA program executes.

For more information on mainframe MSU-rated capacities, visit


Reference based: The required license capacity of a System z IPLA program with these terms equals the license capacity of the applicable monthly license charge (MLC) program. This MLC program is called the parent program.

**Sub-capacity mainframes**

In cases where sub-capacity is applicable, the following terms apply.

Execution based: The required capacity of a System z IPLA sub-capacity program with these terms equals the capacity of the LPARs where the System z IPLA program executes.

z/OS based: The required license capacity of a System z IPLA program with these terms equals the license capacity of z/OS on the machines where the System z IPLA program executes.
Reference based: The required license capacity of a System z IPLA program with these terms equals the license capacity of the applicable monthly license charge (MLC) program. This MLC program is called the parent program.

Full machine based: The required license capacity of a System z IPLA program with full machine based terms equals the MSU-rated capacity of the machines where the System z IPLA program executes.

For more information on mainframe MSU-rated capacities, refer to IBM System z Machines Exhibit, Z125-3901, or visit the mainframes section of the System z Exhibits website

http://ibm.com/zseries/library/swpriceinfo/

For additional information for products with reference-based terms, System z IPLA sub-capacity programs with reference-based terms adds value to the parent program across the environment, regardless of where in the environment the System z IPLA program executes.

An environment is defined as either a single or stand-alone machine or a qualified Parallel Sysplex®. You may have one or more different environments across the enterprise. To determine the required license capacity for each System z IPLA program with referenced-based terms, each environment should be assessed separately.

When a System z IPLA sub-capacity program with reference-based terms is used in a qualified Parallel Sysplex environment, the required license capacity of the System z IPLA program must equal with the license capacity of the parent program across the Parallel Sysplex. Qualified Parallel Sysplex refers to one:

• Where MLC pricing is aggregated across the sysplex

Sub-capacity eligibility
To be eligible for sub-capacity charging on select System z IPLA programs, you must first implement and comply with all terms of either sub-capacity Workload License Charges (WLC) or sub-capacity Entry Workload License Charges (EWLC). To implement sub-capacity WLC or EWLC, a machine must be System z (or equivalent). On that machine:

• All instances of the OS/390® operating system must be migrated to the z/OS operating systems.
• Any licenses for the OS/390 operating system must be discontinued.
• All instances of the z/OS operating systems must be running in z/Architecture® (64-bit) mode.

For that machine, you must create and submit a Sub-Capacity Report to IBM each month. Sub-Capacity Reports must be generated using the Sub-Capacity Reporting Tool (SCRT). For additional information or to obtain a copy of SCRT, visit the System z Software Pricing website

http://ibm.com/zseries/swprice

You must comply with all of the terms of the WLC or EWLC offering, whichever is applicable:

• The complete terms and conditions of sub-capacity WLC are defined in the IBM Customer Agreement - Attachment for System z Workload License Charges (Z125-6516).
• The complete terms and conditions for sub-capacity EWLC are defined in the IBM Customer Agreement - Attachment for IBM System z 890 and 800 License Charges (Z125-6587).

Additionally, you must sign and comply with the terms and conditions specified in the amendment to the IPLA contract - Amendment for IBM System z9® and System
z Program Sub-Capacity Pricing (Z125-6929). Once the amendment is signed, the terms in the amendment replace any and all previous System z IPLA sub-capacity terms and conditions.

**Sub-capacity utilization determination**

Sub-capacity utilization is determined based on the utilization of a sub-capacity eligible reference product and machine.

**On/Off Capacity on Demand (CoD)**

To be eligible for On/Off CoD pricing, you must be enabled for temporary capacity on the corresponding hardware, and the required contract, Attachment for IBM System z On/Off Capacity on Demand (Z125-7883) must be signed prior to use.

**Statement of good security practices**

IT system security involves protecting systems and information through prevention, detection, and response to improper access from within and outside your enterprise. Improper access can result in information being altered destroyed or misappropriated or can result in misuse of your systems to attack others. Without a comprehensive approach to security, no IT system or product should be considered completely secure and no single product or security measure can be completely effective in preventing improper access. IBM systems and products are designed to be part of a comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products, or services to be most effective. IBM does not warrant that systems and products are immune from the malicious or illegal conduct of any party.

**Prices**

Prices are subject to change without notice.

GST, QST, and sales taxes, where applicable, are extra.

For additional information and current prices, contact your local IBM representative.

**Translation from MSUs to Value Units**

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To order, specify the program product number and the appropriate license or charge option. Also, specify the desired distribution medium. To suppress shipment of media, select the license-only option in CFSW.

Program Name: IBM DB2 Administration Tool for z/OS, V10.2
Program PID: 5655-W34

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Program Name: IBM DB2 Object Comparison for z/OS, V10.2  
Program PID: 5655-W36

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Orderable supply ID Language Distribution medium
S016K6B US English 3590 Tape Cartridge

Program Name: IBM DB2 Change Accumulation Tool for z/OS, V3.1  
Program PID: 5697-P45

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Orderable supply ID Language Distribution medium
S016ZNS US English 3590 Tape Cartridge

Program Name: IBM DB2 High Performance Unload for z/OS, V4.2  
Program PID: 5655-AA1

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Orderable supply ID Language Distribution medium
S016GLB US English 3590 Tape Cartridge

Program Name: IBM DB2 Performance Toolkit for z/OS the SAP Edition, V2.3  
Program PID: 5697-M32

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Two orderable supplies are included with this product:

Orderable supply ID Language Distribution medium
S0168RH US English 3590 Tape Cartridge
S0168RJ US English 3590 Tape Cartridge

Program Name: IBM DB2 Sort for z/OS, V1.3  
Program PID: 5655-W42

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Program Name: IBM DB2 Table Editor for z/OS, V4.4  
Program PID: S697-G65

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Program Name: IBM DB2 Utilities Solution Pack for z/OS, V1.1  
Program PID: S697-DUM

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Corrections

(Calendar corrected on November 9, 2012)
In the Publications section corrected form numbers for the following user's guides: DB2 Change Accumulation Tool for z/OS, V3.1 (5697-P45); DB2 High Performance Unload for z/OS, V4.2 (5655-AA1); and DB2 Table Editor for z/OS, V4.4 (5697-G65).