



IBM DB2 and IBM IMS Tools enhanced to help better manage database environments

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At a glance

IBM® DB2® and IBM IMS™ tools deliver:

- Application management
 - IBM IMS Batch Terminal Simulator for z/OS®, V4.1 (5655-BT4)
 - IBM Tools Base for z/OS, V1.3 (5655-V93)
- Recovery management
 - IBM DB2 Log Analysis Tool for z/OS, V3.3 (5655-T56)
- Utilities
 - IBM DB2 Automation Tool for z/OS, V4.1 (5655-E37)
 - IBM DB2 Cloning Tool for z/OS, V3.1 (5655-N15)
 - IBM IMS Database Solution Pack for z/OS, V1.2 (5655-S77)
 - IBM IMS Enterprise Suite for z/OS, V2.1 (5655-T62)
 - IBM IMS Fast Path Solution Pack for z/OS, V1.2 (5655-W14)

Overview

Enhanced tools help you use and manage your IBM DB2 and IBM IMS environments:

- IBM DB2 Automation Tool for z/OS, V4.1 (5655-E37) helps database administrators (DBAs) optimize databases, automates maintenance tasks, and even enables users to schedule the utility jobs with DB2 Administrative Task Scheduler.
- IBM DB2 Cloning Tool for z/OS, V3.1 (5655-N15) automates the process to copy DB2 subsystems or tablespaces to provide usable DB2 clones, which frees up DBA time.
- IBM DB2 Log Analysis Tool for z/OS, V3.3 (5655-T56) enables organizations to monitor changes to a database by creating reports indicating what was changed and by whom. It can also help you reduce the time required to recover data by utilizing different approaches, enabling you to choose the most efficient solution.
- IBM IMS Batch Terminal Simulator for z/OS, V4.1 (5655-BT4) provides comprehensive services to test and debug IMS applications and database activity. A powerful test facility with debugging features helps you verify the operation of the IMS applications that access IMS databases, DB2, and WebSphere® MQ.
- IBM IMS Database Solution Pack for z/OS, V1.2 (5655-S77) provides the capabilities that let you confirm that databases are operational and tuned. It helps reduce the operational complexity and the impact of database reorganization on system resources.

- IBM IMS Enterprise Suite for z/OS, V2.1 (5655-T62) components are designed to enhance your use of IMS applications and data. In this release of the suite, components deliver innovative new capabilities for your IMS environment that enhance connectivity, expand application development, extend standards and tools for a service-oriented architecture (SOA), ease installation, and provide simplified interfaces.
- IBM IMS Fast Path Solution Pack for z/OS, V1.2 (5655-W14) provides comprehensive and easier to use utilities that include the functions database administrators need to analyze, maintain, and tune IMS Fast Path databases. It provides features that help boost system availability such as not having to take the IMS database offline.
- IBM Tools Base for z/OS, V1.3 (5655-V93) contains infrastructure used by IBM DB2 and IMS tools. Tools Base offers technologies and common services that are leveraged by IBM tools to provide more uniform post-installation configuration, customization, administration, policy management, access, and autonomies. Tools Base continues to be a no-charge product.

Key prerequisites

Refer to the [Hardware requirements](#) and [Software requirements](#) sections for key prerequisites.

Planned availability date

- October 28, 2011: IBM DB2 Automation Tool for z/OS, V4.1
- October 28, 2011: IBM DB2 Cloning Tool for z/OS, V3.1
- October 28, 2011: IBM DB2 Log Analysis Tool for z/OS, V3.3
- October 28, 2011: IBM IMS Enterprise Suite for z/OS, V2.1
- December 9, 2011: IBM IMS Batch Terminal Simulator for z/OS, V4.1
- December 9, 2011: IBM IMS Database Solution Pack for z/OS, V1.2
- December 9, 2011: IBM IMS Fast Path Solution Pack for z/OS, V1.2
- December 9, 2011: IBM Tools Base for z/OS, V1.3

Description

IBM DB2 Automation Tool for z/OS, V4.1 (5655-E37) allows database administrators (DBAs) to focus more on database optimization, automates maintenance tasks, and provides statistical history reports for trend analysis and forecasting.

DB2 Automation Tool V4.1 includes the following enhancements:

- DB2 Automation Tool V4.1 is now customized using IBM Tools Customizer, a common component that can manage most of the post SMP/E installation customization tasks for the IBM DB2 tools.
- DB2 Automation Tool V4.1 now supports the CHECK DATA utility. You can create utility profiles for CHECK DATA and include them in job profiles.
- DB2 Automation Tool V4.1 can create image copies from DB2 Recovery Expert system level backups. This image copy utility allows you to select a CURRENT or specific DB2 Recovery Expert system level backup. You can set DB2 Recovery Expert image copy options and use DB2 Automation Tool features such as exception processing, user skeletons, and image copy thresholds.
- DB2 Automation Tool V4.1 now provides the ability to add batch builds and utility execution jobs to the DB2 administrative task scheduler. The DB2 administrative task scheduler allows jobs to be scheduled for one or more executions based on a set of user-provided parameters. DB2 Automation Tool provides an interface that allows the following functionality:

- Create new tasks
- Update and view existing tasks
- Delete tasks
- View the status and output of executed tasks

Any of the following DB2 Automation Tool-generated jobs can be scheduled:

- Job profiles (online build and batch builds)
- Unload utility jobs
- Disaster recovery profiles
- DB2 Automation Tool can now invoke a DB2 stored procedure immediately before, during, and immediately after exceptions processing. This feature allows you to code any type of DB2 stored procedure that will either accept (trigger) or reject (not trigger) an object. The stored procedure can be a native SQL procedure, an external SQL procedure, or an external written in C, COBOL, or any programming language supported by DB2. The user exit will be called by exceptions processing during three processing phases and passed information about every object in the object profiles included in the job profile.
- DB2 Automation Tool V4.1 adds a real-time statistics exception condition that can trigger an object if a REORG, LOAD, or RUNSTATS was performed on an object since the last image copy.
- DB2 Automation Tool V4.1 changes the manner in which an exceptions profile user exit REXX™ EXEC is called, enabling the REXX EXEC to be stored into memory. Once the REXX EXEC is loaded, it can process all objects in an object profile without being repeatedly loaded and freed. This allows REXX EXECs that do DB2 CALLS to connect and disconnect only once for all objects.
- DB2 Automation Tool adds new exception conditions that enable you to:
 - Specify a partition number or a range of partition numbers, with a condition such as LE or GT. This allows you to exclude or include only partitioned or non-partitioned objects, in general JCL.
 - Specify to exclude or include only partition-by-growth table spaces.
 - Trigger an exception if the number of days since a table space (or its related tables or indexes) was last altered meets your criteria. You can also specify to trigger an exception if an object has never been altered.
 - Trigger an exception based on the percentage or the maximum allocated space the object has been allocated with or the percentage of the maximum amount of space that the object is using. These values also appear in the "Objects included in generated JCL" portion of the exceptions SYSOUT report.
- DB2 Automation Tool V4.1 adds SYSPUNCH and SYSREC template support for the REORG TABLESPACE utility.
- DB2 Automation Tool V4.1 enables user-designated unit types to be specified when allocating persistent data sets in utility profiles. If you need to specify a device type that is not in your site's eligible device table, you can provide a device name and type in a new panel.
- You can now create an image copy GDG base in a DB2 Recovery Expert image copy utility, with the limitation that date and time variables cannot be used in the GDG base.
- Load balancing support has been added to the Modify utility. This feature functions the same as current load balancing for COPY, COPYTOCOPY, and REORG jobs.
- You can now route informational, warning, and error messages that are generated by the DB2 Automation Tool batch build process to one, two, or three different DD names. If desired, you can override the DD names at the individual job level.
- The ISPF interface has been enhanced to support additional customization via the CUAATTR command. Additional interface enhancements were made to improve usability and uniformity with other IBM products.
- Disaster Recovery (DR) support is deprecated in DB2 Automation Tool for z/OS, V4.1 and may be dropped from future releases. A warning window has

been added to the ISPF interface to serve as a reminder of disaster recovery deprecation. Disaster recovery profiles are supported by IBM DB2 Recovery Expert for z/OS, V2.2 (5697-N92). Refer to Software Announcement [AP09-0210](#), dated August 04, 2009.

- DB2 Automation Tool now offers an interface to the DB2 10 autonomic statistics stored procedures. The stored procedures determine if statistics need to be collected and automate when RUNSTATs should be run. DB2 Automation Tool also provides an interface to manage maintenance windows for executing the RUNSTATS utility.

IBM DB2 Cloning Tool for z/OS, V3.1 (5655-N15) makes it easy to clone a DB2 subsystem or DB2 table spaces. DB2 Cloning Tool can also be used to clone non-DB2 volumes. Traditional cloning and refresh methods are time consuming, use large amounts of host processing resources, and, when copying DB2 systems, require a separate LPAR to house the copy. Today's storage-based fast replication technologies provide services to copy DB2 data instantaneously and without using host CPU or I/O resources. DB2 Cloning Tool leverages these technologies to make the cloning process faster and to help reduce the costs of cloning and refreshing data.

DB2 subsystem cloning: DB2 Cloning Tool integrates storage system volume fast-replication and automation to clone entire DB2 subsystems within the same or shared LPAR. DB2 Cloning Tool renames the data sets, updates the volume identifiers, and manages the DB2 metadata to allow the data to be used by a cloned DB2 subsystem quickly.

DB2 table space refresh: DB2 Cloning Tool integrates storage system data set fast-replication and automation to refresh table and index spaces with the same or to a different DB2. DB2 Cloning Tool copies the data quickly, and automatically translates the object IDs that differ between source and target subsystems.

Storage blades: The fast replication copy services outlined below can be used to create the volume copies used for DB2 system clones, or to create the data set copies used for table space and index space refreshes. A storage blade represents fast replication copy services invoked directly by DB2 Cloning Tool. DB2 Cloning Tool executes the DFSMSdss™ blade to issue IBM FlashCopy® or STK SnapShot copy commands either by volume or by data set. When cloning DB2 systems or table spaces that reside on EMC DASD, DB2 Cloning Tool uses the EMC API to invoke TimeFinder/Clone to copy the data either by volume or by data set. When cloning DB2 subsystems that reside on EMC DASD and use TimeFinder/Mirror or that reside on Hitachi Storage Systems, an appropriate process is performed before DB2 Cloning Tool cloning automation is invoked and a list of copied storage volumes are passed to DB2 Cloning Tool for use in later processing steps.

The following storage blades are invoked by DB2 Cloning Tool:

- IBM Storage blades: IBM DFSMSdss Blade
- ADRDSSU utility invoked
- Fast replication (preferred)
- By volume or data set
 - FlashCopy V2 (IBM, EMC, HDS)
 - SnapShot (SDK, Ramac)
- EMC Storage blades: EMC TimeFinder
- TimeFinder/Clone
- EMC Consistency Technology
- TimeFinder Data set Snap facility

DB2 Cloning Tool:

- Provides cloning and refresh solutions that automate and integrate sophisticated storage processor capabilities to:

- Copy DB2 subsystems instantaneously to a consistent copy of production data without sacrificing availability
- Reduce CPU and I/O costs by using the storage processor to copy the data instead of z/OS
- Execute fast replication in a safer and more transparent manner on behalf of the DBA
- Can be used to:
 - Offload business processes from production to other environments. The offloaded processes can be run in parallel without affecting production DB2 systems and applications, helping to ensure high availability.
 - Stage data warehouse loads.
 - Facilitate integration to a new version of DB2 in a short time.
 - Create or refresh test or quality assurance environments.
 - Direct users to read-only clones to reduce production performance impact.
 - Troubleshoot production problems from the clone.
 - Clone from a DB2 Recovery Expert or DB2 BACKUP SYSTEM system level backup.

DB2 Cloning Tool V3.1 includes the following enhancements:

- Integrates product customization with IBM Tools Customizer for z/OS
- IBM Remote Pair FlashCopy (also known as Preserve Mirror) support has been added to both subsystem and table space cloning. Preserve Mirror mirrors the FlashCopy command that is issued at the local site to the remote site. This allows FlashCopy operations to occur to PPRC primary volumes without affecting the PPRC duplex state.
- Several ISPF enhancements for subsystem and table space cloning have been added to improve ease of use of the product.
- DB2 system cloning enhancements:
 - Improves versatility of the product by providing a Stored Procedure API that facilitates DB2 subsystems cloning from any platform that can invoke a stored procedure. The stored procedure API integrates with DB2 Admin Scheduler to facilitate ease of use.
 - Adds updating of the GROUP_MEMBER column in the DB2 catalog table SYSIBM.SYSDATABASE. This removes the need to drop and create the work data bases as part of the cloning process for a data sharing environment.
- DB2 table space refresh enhancements:
 - Applies DB2 logs written since the table space cloning source job was run, to the target objects when the target job is run. This feature provides a consistent copy of the source data without having to start and stop source objects, thereby maximizing availability.
 - Optionally generates or executes Data Definition Language (DDL) for creating non-existent target objects. This feature can also generate source object DDL and save it to a data set.
 - Adds STOGROUP support to LISTDEF object specification. This simplifies object selection within a DB2 storage group to a single LISTDEF statement.
 - A new target job report and repository tracks target jobs and data sets, enabling failed jobs to be restarted.
 - Adds LONGVAR column compatibility support to prevent mismatch of source and target objects.
 - Improves data masking features by adding support for masking DECFLOAT column data to STATIC, SCRAMBLE, and USEREXIT rules.
 - Up to 99 subtasks may now be specified for table space cloning. Increasing the number of subtasks may improve the elapsed time of target job.

IBM DB2 Log Analysis Tool for z/OS, V3.3 (5655-T56) is a powerful tool used to support efforts to maintain high data availability and complete control over data integrity. It allows you to monitor data changes by automatically building

reports of changes that are made to database tables. V3.3 includes the following enhancements:

- **Log Analysis Profiles:** You can now save job options using the new Profile panel. Profiles allow you to use the saved options to accomplish tasks such as generating JCL from the profile's options or generating a mode file to allow the execution of saved JCL.
- **Commit Frequency Report:** A Commit Frequency Report can be requested from the General Report panel. This report will show some statistics about the frequency of commits and rollbacks performed by plan. The statistics are broken down by activity and object. Refer to the tutorial "Report description (commit frequency)" for more information. The tutorial is available from the DB2 Log Analysis Tool Selection menu.
- **DB2SORT:** DB2SORT can now be requested from the "User settings" panel as the preferred sort utility, if you have it installed. DB2SORT is a separate chargeable product and may yield better performance.
- **LOB/XML activity in one phase mode:** Log Analysis Tool can now process LOB and XML type columns in one phase mode using work files. This allows you to get the performance enhancement of using work file mode, while processing potentially resource intensive LOB and XML column types. You still cannot process LOB and XML type columns in one phase mode using 64-bit operations due to the likelihood of storage shortages or exhaustion given the size of LOB and XML data.
- **Multiple Unit of Recovery IDs (URIDs):** Multiple URIDs can now be specified in the general report. Prior to this release, only a single URID could be filtered upon in the general report. Should the need arise to filter on multiple URIDs in a single run, the generated JCL for a single URID specification can be edited to allow for up to 682 URIDs in a single run. Refer to the help on the general report panel for details on how to accomplish this using START/END RBA values.
- **Multi-volume inline image copy support:** If an inline image copy was on multiple volumes, then the product now dynamically allocates multiple volumes for the temporary data set used while sorting such an inline image copy. Prior to this change, B37s might occur in such a scenario. No user interaction is required for this process; the product determines it automatically for you.
- **Retention period specification for Log Analysis Tool archived files:** A retention period can be specified for this product's archive data sets. If you specify that output is to be archived, you can set the retention period for a newly created archive data set.
- **ARCHLOG1 and ARCHLOG2 priority specification:** You can specify that ARCHLOG2 will have priority over ARCHLOG1, if your DB2 subsystem creates secondary archive logs. This means you can request that the product access ARCHLOG2 copies of your archive logs, and will only process ARCHLOG1 if there is a failure reading an ARCHLOG2 data set. This can minimize access to your primary copies of archive logs.
- **Relative End Date and End Time:** A relative End Date and End Time can be requested by entering a plus sign or a minus sign and three digits in the End Date field and blanking out the End Time field. The three digit amount field represents the number of minutes to be used in the relative End Date/Time calculation. If the plus sign is used, then the amount will be added to the Start Date/Time to obtain the End Date/Time. If the minus sign is used then, the amount will be subtracted from the current date and time to obtain the End Date/Time. The three digit amount must be greater than or equal to 000 and less than or equal to 999. This new feature can be used in continuous mode as well.
- **SMS class specifications:** The User settings panel now accepts SMS management, storage, and data class specifications for product files. Any such specifications apply to all data sets used during product job execution that are hardcoded in your JCL or dynamically allocated by the product.
- **SET CURRENT SQLID to predetermined value:** A new field has been added that allows an optional SET CURRENT SQLID statement to be added to the SQLOUT file. The field can be found on the same panel as the UNDO / REDO SQL generation parameters. If a value is entered into this field, the SET CURRENT SQLID statement will be added to the SQLOUT file when UNDO/REDO SQL is being generated. If this statement is not wanted then leave the field blank and the statement will not be generated.

- **Split LOAD file into multiple files by table:** The LOAD file can be split into separate LOAD files for each table. When split, each LOAD file contains the data for the table that the LOAD file is representing. The LOAD card information and any requested DDL information will still be stored in single files. Refer to the help on the LOAD data panel for more information.
- **Reformat LOAD files:** The columns in a LOAD file can get rearranged or excluded as needed by the user. The reordering is done on a table by table basis. It is possible to only reorder certain tables in the LOAD while leaving others in their default order. Refer to the "Load column ordering" tutorial topic for more information.
- **Report on the contents of a continuous mode file:** When working in continuous mode, it is now possible to view a report of the continuous mode file contents. This report covers any activity that occurred within a job's time frame but did not get reported because the unit of work had not yet been committed. A continuous mode file report is requested on the general report panel.
- **Timestamp header for DB2 load:** When loading data into DB2, a new timestamp header is available. This field shows the timestamp of the log activity for each record in the LOAD. This header is also available when using audit mode.
- **Advanced Filters applied to ROWDATA:** Performance improvements have been made when using Advanced Filters. No user interaction is required for the improvements. The column level filtering is now being applied earlier in the process to cut down on the size of the intermediate files. This improvement also bypasses the format step under some circumstances, which further improves product performance.

Interim enhancements

- Row level Impact Report filtering: Log Analysis Tool now provides an impact report enhancement, which allows you to request that the extended time period (beyond the requested end date/time) filter only on those rows in the result set of the original General Report output. The net effect of this is that row level filtering is done during the extended time period, and all those rows returned from the normal time period of the General Report run become the row level filters.
- DB2 V10 support: Log Analysis Tool provides several enhancements to support the features of DB2 V10.
 - FlashCopy image copy support: Log Analysis Tool supports image copies made using FlashCopy.
 - Updates to XML columns support: Log Analysis Tool supports the new functions for updating XML columns.
 - Hashing table support: Log Analysis Tool supports tables stored as hashing tables.
 - XML versioning support: Log Analysis Tools supports XML columns with versioning.
 - In-line LOB support: Log Analysis Tool supports LOBs with in-line components.
 - Non-key column in index: Log Analysis Tool supports addition of a non-key column to a unique index.
 - Catalog restructure: Log Analysis Tool supports the restructure of the DB2 catalog.
 - Greater timestamp precision: Log Analysis Tool supports greater precision with the Timestamp data types.
 - Timestamp with time zone: Log Analysis Tool supports Timestamp with Time Zone data type.

IBM IMS Batch Terminal Simulator for z/OS, V4.1 (5655-BT4) is a comprehensive testing and debugging tool that helps you verify the operation of IMS applications that access IMS Database, DB2, and WebSphere MQ. It simulates the behavior of applications and generates reports containing detailed information of processed transactions. With these powerful features, IMS Batch Terminal Simulator assists you in improving your application programming and testing productivity and efficiency in a cost and time saving manner.

IMS Batch Terminal Simulator for z/OS:

- Enhances application programmer productivity by providing a comprehensive way to test and debug IMS application and database activity.
- Enables you to test your IMS application logic, your IMS application interfaces, teleprocessing activities, 3270 format control blocks, and database activities.
- Helps to reduce cost and MIPS consumption by providing a lightweight testing environment compared to testing with full IMS resources.
- Simulates operation of IMS applications in time sharing option (TSO) and batch environments without having to modify your applications.
- Interacts with an application during testing and produces information that is not available from an online execution.
- Provides a stable online system in both test and production environments where you can test your applications before they are put online.
- Operates transparently to the applications, requiring no changes to IMS code, control blocks, libraries, or application load modules.
- Provides a comprehensive report showing all activities such as IMS DLI call trace, DB2 call trace, WebSphere MQ call trace, LU6.2 (APPC), ETO Status code and more during program execution.
- Offers flexible application test periods for easier scheduling and operation.
- Supports regression testing modifications to applications as well as modifications to the system, including new releases.
- Works as a tool for training personnel in the internal and external operation of an application.
- Simulates transaction processing in batch mode and generates listings containing screen images of transactions including data, user identification information, and timestamp through an audit report program.

IMS Batch Terminal Simulator for z/OS, V4.1 provides the following new features and functions further extending the product's capabilities and usability:

- Distributed application development support: More and more customers are writing distributed web-based front ends to IMS applications with messages coming in through IMS Connect. IMS Batch Terminal Simulator now provides the ability to accept and process the Connect input further extending the capabilities of IMS Batch Terminal Simulator and providing a truly comprehensive way to test and debug IMS applications. You can now develop and test the client applications with low cost host simulation.
- Eclipse based graphical interface for improved usability delivered with IBM Tools Base for z/OS, V1.3 (5655-V93): IMS Batch Terminal Simulator can now be used with IBM Rational® Developer for z and IBM Debug Tools for z/OS, V11.1 (5655-W45) for simplified and seamless development, test, and debugging of applications. The front end can operate standalone or as a plugin to the Rational development platform. This drastically reduces the amount of z/OS specific knowledge an IMS application developer needs in order to develop and test IMS applications.
- New reporting features for improved analysis and prediction of performance behavior:
 - Improved and expanded display of application results for fast checking
 - Performance projections included to provide the elapsed time of the database, DB2, and WebSphere MQ call issued by the application program helping programmers better predict performance impacts before moving into production
 - Summary results to better facilitate IMS Batch Terminal Simulator use as a regression test analysis tool
- Variable and variable-block formats as IMS Batch Terminal Simulator input for simulating messages coming in through IMS Connect are now supported.

IBM IMS Database Solution Pack for z/OS, V1.2 (5655-S77) offers features, functions, and processes that DBAs can use to more effectively analyze, maintain, and tune IMS full-function databases, including High Availability Large Databases

(HALDBs). IMS Database Solution Pack provides a comprehensive set of high performance utilities to unload, load, index build, reorganize, backup, verify, and report on full-function databases and can help reduce the operational complexity and the impact of database reorganization on system resources.

IMS Database Solution Pack is enhanced to complement and exploit the Autonomics Director and the Administration Console, both components of IBM Tools Base for z/OS, V1.3 (5655-V93).

With Autonomics Director, IMS Database Solution Pack implements the automation of tools execution using detailed understanding of the current state of the IMS databases. Autonomics Director provides much needed automation in the area of ongoing IMS database monitoring and maintenance tasks.

Once an IMS database has been designed, implemented, and is in use, the IMS Database Solution Pack uses the Autonomics Director to assist the DBA in identifying and performing the normal functions associated with maintaining the health, performance, and recoverability of the database.

In particular, IMS Database Solution Pack offers the following features:

- Ease in installation and customization through automatic discovery of database and existing database groups in the environment.
- Automatic and consistent collection of sensory data related to the database state.
- Automatic and consistent analysis of database state against user defined threshold criteria.
- Generation of user-recommended actions for subject databases and database groups.
- Automated standalone and integrated database sensor execution to produce both augmented and by-product sensor data. Sensor data can be derived as a by-product of normal procedures such as Image Copy and Pointer Checker.
- High availability environment for autonomics such as user controlled redundancy to maximize availability and use of available resources within a sysplex.

Additionally, IMS Database Solution Pack extends the capabilities of Administration Console by providing detailed insight into the health and availability of full-function IMS databases through its web interface.

Extensions to the Administration Console:

- A comprehensive dashboard providing information specific to selected databases or database group.
- Simplified web access to reports stored within IMS Tools Knowledge Base for z/OS (IMS Tools KB), a function provided by Tools Base.
- Graphical visualization and charting of database sensor data gathered by:
 - IMS Database Reorganization Expert for z/OS, V4.1
 - IMS Database Solution Pack for z/OS, V1.1 or V1.2
 - Automation Director sensor collection
- Listings of exceptions generated by the evaluation of policies and their corresponding recommendations offered by Autonomics Director.
- Ability to more easily examine database free space, database fragmentation, and index optimization, as well as show trends in database growth, rate of fragmentation, and much more.

IMS Database Solution Pack for z/OS is composed of the following tools:

- IMS Database Reorganization Expert
 - Provides an integrated database reorganization infrastructure for operating the process in a fast and efficient manner by running unload, load, index building, and image copy tasks concurrently

- Provides advanced functionality for reorganizing databases on an as-needed basis. It includes the following new features for the conditional reorganization of databases:
 - Definition and configuration of reorganization policy for a database
 - Policy-based detection and notification of database exceptions
 - Policy-based conditional reorganization
 - Database exception tracking
- With V1.2:
 - Supports Type-A image copy even when OADSPR=YES and HPIO=YES
 - Provides an option to set READONLY flags back to what they were at the start of the Load process
- IMS High Performance Unload
 - Provides high-speed database unloading while providing additional capabilities not found in the IMS base utilities
 - Provides an API allowing certain customer applications to take advantage of the high-speed read engine
- IMS High Performance Load
 - Provides high-speed database loading while providing additional capabilities not found in the IMS base utilities
 - Provides an API allowing certain customer applications to take advantage of the high-speed initial load capability
- IMS High Performance Prefix Resolution
 - Simplifies the management of IMS database environments by concurrently performing, in a single job step, the resolution and updating of pointers for logically related databases
- IMS Index Builder
 - Offers an easier-to-use, one-step procedure for building all IMS indexes, avoiding the need to Image Copy
 - With V1.2:
 - Supports "MAXTASKS" and "SORTFSZ" to be defined in the IIUPRMS default module
 - Provides ability to override STRIPE dataset names without re-linking IIUPRMS default module
 - Provides support of IMS Tools K
- IMS High Performance Image Copy
 - Provides fast backup and recovery of database data sets using advanced copy technology
 - With V1.2:
 - Creates more than two output image copies during the image copy function
 - Enhances IMS command processing for VIC=Y
 - Extends the number of lines in ICEIN IC statement to more than 255
- IMS High Performance Pointer Checker
 - Provides utilities to help verify that databases are operational, tuned, repaired, and ready for use
- IMS Library Integrity Utilities
 - Provides utilities to validate, compare, map, and report IMS databases
 - With V1.2:
 - Integrity Checker supports the name of the global option module other than the code-page dependent name

IBM IMS Enterprise Suite for z/OS, V2.1 (5655-T62): In this release of the suite, components deliver innovative new capabilities for your IMS environment.

The SOAP Gateway, Connect API for Java™, Java Message Services (JMS) API, and Base Services components for running in the z/OS environments are orderable, whereas the Explorer, DLIModel Utility, Connect API for C, SOAP Gateway, Connect API for Java components for running in Windows® or Linux® environments can be downloaded from

<http://www.ibm.com/ims>

- SOAP Gateway maximizes reuse of your IMS assets, using standard interfaces with HTTP and SOAP transport to IBM and non-IBM components and utilizing Rational tooling for XML conversion. New SOAP Gateway enhancements use industry standards and enhanced tooling to further extend the reach and participation of your IMS assets in an SOA, with:
 - WS-Security Enhancements for Security Assertion Markup Language (SAML) 1.1 Signed Assertion support, which further protects the message integrity by enabling the recipient of the token to validate authenticity of the token and assert SAML token identity and attributes based on the trust relationship with the token issuer, and for SAML 2.0 support, which enables web services to take advantage of the new standard.
 - Java Separation lets you reduce the installation footprint of SOAP Gateway, especially where there are multiple instances of SOAP Gateway running, by removing the installed Java packaged with SOAP Gateway and pointing to one instance of the Java Development Kit (JDK).
 - Additional enhancements include top-down support for IMS PL/I provider scenarios with Rational Developer for System z®, improved performance by storing web service information in a runtime cache instead of reading the information from a file system, eased management flexibility and support for automation of administrative tasks with the new command-line based SOAP Gateway management utility, and extended web service security with support for client authentication, custom authentication modules, SAML 1.1 sender-vouches token, and the Application Transparent Transport Layer Security (AT-TLS) feature in IBM z/OS Communications Server on the z/OS platform. These new enhancements are also provided through the IMS Enterprise Suite V1.1 service process.
- Connect APIs for Java and Connect APIs for C extend connectivity of distributed platforms to IMS and simplify application development for stand-alone, user-written IMS Connect clients.
 - Connect API for Java enhancements provide support for Synchronous Callout, Type-2 Commands, as well as for RACF® Return Code, Commit Mode 0 (CM0) AckNoWait, and Return DFS2082 message after CM0 SendRecv with no response.
 - Connect API for C enhancements provide for enhanced memory management with fine grain control over the API memory, thus enabling the API for long running high stress and volume environments. This support is also provided through the IMS Enterprise Suite V1.1 service process found at <http://www.ibm.com/ims>
- DLIModel utility plug-in provides a simplified interface for transforming IMS database information into metadata for use with application development.
- IMS Explorer support enables IMS application developers and database architects and developers to easily perform common and essential tasks in an end-to-end application development life cycle, through an Eclipse based user interface that seamlessly integrates with other Eclipse based solutions. Graphical editors simplify the development and visualization of Database Description (DBD) and Program Specification Block (PSB) resources definitions. Also provided are the ability to import COBOL and PL/I data structure metadata into an IMS Database. The metadata can be used to generate PSB source and export DBD and PSB source for or to a z/OS system. This capability can also be combined with IBM Rational Developer for System z to leverage additional tools to further develop COBOL and PL/I applications. By leveraging the IMS universal JDBC drivers, the IMS Explorer support offers a relational view of IMS data and offers new function, such as graphical assistance to build SQL statements. This support could reduce IMS application development and deployment costs, and provide a foundation

upon which additional internal and vendor-provided tools can extend and enrich the provided functionality.

- JMS API expands Java application development in Java dependent regions to offer synchronous callout support via the ICAL DL/I call.
- Base Services to ease installation include the Java Development Kit and sample jobs for installation of z/OS based components.

IBM IMS Fast Path Solution Pack for z/OS, V1.2 (5655-W14) offers comprehensive utilities and functions that DBAs can use to analyze, maintain, and tune IMS Fast Path databases (DEDBs), and build and analyze Fast Path Secondary Index (FPSI) databases that are supported in IMS V12. Additionally, IMS Fast Path Solution Pack provides features that can help boost system availability by enabling the operation of a variety of key functions without taking the IMS databases offline.

IMS Fast Path Solution Pack is enhanced to complement and exploit the Autonomics Director, a component of IBM Tools Base for z/OS, V1.3 (5655-V93).

With Autonomics Director, IMS Fast Path Solution Pack implements the automation of tools execution using detailed understanding of the current state of DEDBs. Autonomics Director provides much needed automation of ongoing IMS database monitoring and maintenance tasks.

Once an IMS DEDB has been designed, implemented, and is in use, the IMS Fast Path Solution Pack uses the Autonomics Director to assist the DBA in identifying and performing the normal functions associated with maintaining the health, performance, and recoverability of the database.

In particular, the IMS Fast Path Solution Pack offers the following features:

- Ease of installation and customization through automatic discovery of databases in the environment.
- Automatic and consistent collection of sensory data related to DEDB area state.
- Automatic and consistent analysis of DEDB area state against user defined threshold criteria.
- Generation of user recommended actions for subject database.
- Automated standalone and integrated DEDB sensor execution to produce both augmented and by-product sensor data. Sensor data can be derived as a by-product of normal procedures such as Image Copy and Pointer Checker.
- High availability environment for autonomics as well as user controlled redundancy to maximize availability and use of available resources within a sysplex.

IMS Fast Path Solution Pack provides a "Diagnosis for DEDB areas health" function for DEDB area reorganization using Autonomics Director and offers the following new features:

- Definition and configuration of reorganization policy for a database
- Policy-based detection and notification of database exceptions
- Database exception tracking

These new features answer the following common questions asked by IMS DBAs regarding database space management.

Policy definition and configuration

- How should the space of this DEDB area be managed?
- Which DEDB area statistics can I and should I observe?

Exception detection and notification

- What exception state is observed for the DEDB area?
- Could I be warned of the DEDB area state before it becomes severe or critical?

- Is the DEDB area so critical that I need to take immediate action?

Process tracking

- When was this database last reorganized?
- Were the past database reorganizations effective?

With IMS Fast Path Solution Pack, DBAs are now able to have central control of policies on conditions for exception detection and reorganization of DEDBs. The ISPF based Policy Dialog helps DBAs create, customize, and manage policies. This feature can help save time and resources when performing the tasks of database exception detection and reorganization.

The centralized IBM Tools Base IMS Tools Knowledge Base (IMS Tools KB) for z/OS report repository allows you to track database exceptions and the results of database reorganizations. The history of diagnostic reports can be analyzed to provide accurate information for future analysis, problem solving, and research. All information including policy definitions, collected database statistics, and database diagnostic reports are stored in the repositories managed by the IMS Tools KB server.

IMS Fast Path Solution Pack for z/OS is composed of the following tools:

- IMS Fast Path Advanced Tool
 - Integrates tool functions, improving processing efficiency and greatly reducing the time and resources needed for operation
 - Provides for the concurrent unload, reload, reorganization, restructure, analysis, DEDB area control list (DMAC) print, and extract multiple DEDB areas without impacting all areas of a database in a single job step
 - Provides Build and Analyze capabilities for the Fast Path Secondary Index databases that are supported in IMS V12
 - Build function builds the specific secondary index databases in case of system failures, rebuilds secondary index databases faster than initially loading data to a DEDB, and can help reduce the amount of time it takes to build multiple secondary index databases using both parallel sorting and parallel loading.
 - Analyze function provides the capability to verify the integrity of the pointer segments in secondary index databases.
 - With V1.2:
 - Provides a "Diagnosis for DEDB areas health" function that helps DBAs perform database reorganization tasks using Autonomics Director. This function enables DBAs to be alerted to the exception state of the Fast Path databases via ISPF or email/text notification. The DBAs can now determine how and when the database reorganization tasks should be performed. Database reorganization costs can be reduced based on the diagnosis reports.
- IMS Fast Path Basic Tools
 - Provide high performance utilities for more efficient loading, unloading, and tuning of Fast Path databases.
- IMS Fast Path Online Tools
 - Consist of an Online Pointer Checker, Online Data Extract, Online Area Extender, Online Expert Reorganization, and Online DMAC print utilities
 - Provide for operations without having to take the IMS database offline
 - With V1.2:
 - Provides a "Diagnosis for DEDB areas health" function that helps DBAs perform database reorganization tasks using Autonomics Director. This function enables DBAs to be alerted to the exception state of the Fast Path databases via ISPF or email/text notification. The DBAs can now determine how and when the database reorganization tasks should be performed.

Database reorganization costs can be reduced based on the diagnosis reports.

- IMS Library Integrity Utilities
 - Provide utilities to validate, compare, map, and report on IMS libraries
 - With V1.2:
 - Integrity Checker supports the name of the global option module other than the code-page dependent name
- IMS High Performance Image Copy
 - Provides fast backup and recovery of database data sets using advanced copy technology
 - With V1.2:
 - Supports a new user group option in the ICEIN IC statement to specify user-defined database groups
 - Supports the DFSPRINT report that can be stored in IMS Tools KB, a function provided by Tools Base
 - Enhances IMS command processing for VIC=Y
 - Extends the number of lines in the ICEIN IC statement to more than 255
- IMS Database Repair Facility
 - Provides the capability to locate and fix problem pointers

IBM Tools Base for z/OS, V1.3 (5655-V93) contains common infrastructure used by IBM DB2 and IMS Tools. Tools Base offers technologies and services that are leveraged by IBM tools to provide key strategic architectures including IBM Tools Customizer for z/OS, Autonomics, Rule Based Programming, and Graphical User Interfaces (GUI). With V1.3, Tools Base for z/OS is enhanced to add additional components. These include the Autonomics Director and Administrative Console. Tools Base continues to be a no-charge product.

Tools Base offers:

- IMS Tools Knowledge Base (IMS Tools KB) is enhanced with a new repository engine and additional autonomic support.
- Policy Services is enhanced with new autonomic support and support of Fast Path policies.
- Autonomics Director is a new component offering much needed automation in the area of ongoing IMS database monitoring and maintenance. With Autonomics Director, IBM IMS Database Solution Pack for z/OS, V1.2 and IBM IMS Fast Path Solution Pack for z/OS, V1.2 implement automation of tools execution using a detailed understanding of the current state of the IMS databases.
- Administration Console is a new component providing you with an extended insight into the health and availability of IMS databases through its web interface.

IMS Tools KB: IMS Tools KB allows DBAs to store, manage, and access data, policies, and reports generated from any IMS tool that has been enabled for the IMS Tools KB Information Management environment. IMS Tools KB's repository has been updated. A migration utility is provided for migrating existing repository entries to the new repository engine.

Policy Services: The Policy Services component is enhanced to support the Autonomics Director component and the conditional reorganization for Fast Path databases and full-function databases. Policy Services is the infrastructure code that supports our Rule Based Programming. A policy is a generalized service that provides you with the ability to influence the behavior of IMS tools by using simple or complex expressions. Policies are either distributed by products or created and maintained by the user.

Autonomics Director: With Autonomics Director, IMS Database Solution Pack for z/OS, V1.2 and IMS Fast Path Solution Pack for z/OS, V1.2 implement automation

of tools execution using detailed understanding of the current state of the IMS databases.

This new component offers much needed automation in the area of ongoing IMS database monitoring and maintenance. Once an IMS database has been designed, implemented, and is in use, the IMS Database and IMS Fast Path Solution Packs use the Autonomics Director to assist you in identifying and performing the normal functions associated with maintaining the health, performance, and recoverability of the database in a fashion which is complementary to IBM IMS Database Reorganization Expert for z/OS, V4.1.

The new release of IMS Database Solution Pack and of IMS Fast Path Solution Pack offer:

- Ease in installation and customization through automatic discovery of database and existing database groups in the environment.
- Automatic and consistent collection of sensory data related to the database state.
- Automatic and consistent analysis of database state against user defined threshold criteria.
- Generation of user-recommended actions for subject databases and database groups.
- Automated standalone and integrated database sensor execution to produce both augmented and by-product sensor data. Sensor data can be derived as a by-product of normal procedures such as Image Copy and Pointer Checker.
- High availability environment for autonomics such as user controlled redundancy to maximize availability and use of available resources within a sysplex.

Administration Console: Administration Console provides extended insight into the health and availability of IMS databases through its web interface.

The extensions provided by IMS Database Solution Pack for z/OS, V1.2 and IMS Fast Path Solution Pack for z/OS, V1.2 to exploit Administration Console include:

- A comprehensive dashboard providing information specific to selected databases or database group.
- Simplified web access to reports stored within IMS Tools KB, for example, those generated by the tools in the IMS Database Solution Pack and IMS Fast Path Solution Pack.
- Graphical visualization and charting of database sensor data gathered during the execution of the Conditional Reorganization function of the IMS Database Solution Pack for z/OS or IMS Fast Path Solution Pack or by the Autonomics Director Sensor Collection.
- Listings of exceptions generated by the evaluation of policies and their corresponding recommendations offered by Autonomics Director.
- Ability to more easily examine database free space, database fragmentation, and index optimization, as well as show trends in database growth, rate of fragmentation, and much more.

IBM Tools Customizer for z/OS, which is leveraged by various DB2 and IMS tools to assist in post-installation customization by providing an enhanced, streamlined customization process that includes:

- A new standard for post-SMP/E customization of DB2 and IMS Tools products
- A more consistent, usable, and simpler solution for the configuration of multiple products
- An ISPF user interface that guides you through the customization process with generated ISPF product panels, assisting you in the following tasks:
 - Customizing and re-customizing of products and product maintenance
 - Discovering previous customizations of a product
 - Customizing with dynamically generated ISPF product panels
 - Entering parameter values required by the products that are being customized

- Reusing and sharing configuration settings across products via a common XML repository
- Customizing product templates
- Displaying the job execution sequence

Accessibility by people with disabilities

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

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

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

Program number	VRM	Program name
5655-E37	4.1	IBM DB2 Automation Tool for z/OS
5655-N15	3.1	IBM DB2 Cloning Tool for z/OS
5655-T56	3.3	IBM DB2 Log Analysis Tool for z/OS
5655-BT4	4.1	IBM IMS Batch Terminal Simulator for z/OS
5655-S77	1.2	IBM IMS Database Solution Pack for z/OS
5655-T62	2.1	IBM IMS Enterprise Suite for z/OS
5655-W14	1.2	IBM IMS Fast Path Solution Pack for z/OS
5655-V93	1.3	IBM Tools Base for z/OS

Product identification number

Program PID number	Subscription and Support PID number
5655-E37	5655-E38
5655-N15	5655-N11
5655-T56	5655-E86
5655-BT4	5655-J58
5655-S77	5655-S78
5655-T62	5655-T61
5655-W14	5655-W15
5655-V93	5655-V94

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.

Title	Order number
IBM DB2 Automation Tool for z/OS, v4.1 (5655-E37)	
License Information	GC19-3411
Program Directory	GI10-8911
IBM IPLA Booklet	Z125-3301
Int'l Agmt for Acq of SW Mtc	Z125-6011
IBM DB2 Cloning Tool for z/OS, v3.1 (5655-N15)	
License Information	GC19-3490
Program Directory (English)	GI10-8910
IBM IPLA Booklet	Z125-3301
Int'l Agmt for Acq of SW Mtc	Z125-6011
IBM DB2 Log Analysis Tool for z/OS, v3.3 (565-T56)	

License Information	GC19-1301
Program Directory (English)	GI10-8772
IBM IPLA Booklet	Z125-3301
Int'l Agmt for Acq of SW Mtc	Z125-6011
IBM IMS Batch Terminal Simulator for z/OS, V4.1 (5655-BT4)	
License Information	GC19-3231
Program Directory (English)	GI10-8869
IBM IPLA Booklet	Z125-3301
Int'l Agmt for Acq of SW Mtc	Z125-6011
IBM IMS Database Solution Pack for z/OS, V1.2 (5655-S77)	
License Information	GC19-2912
Program Directory (English)	GI10-8822
IBM IPLA Booklet	Z125-3301
Int'l Agmt for Acq of SW Mtc	Z125-6011
IBM IMS Enterprise Suite for z/OS, V2.1 (5655-T62)	
License Information	GC19-3416
Program Directory (English)	GI10-8905
IBM IPLA Booklet	Z125-3301
Int'l Agmt for Acq of SW Mtc	Z125-6011
IBM IMS Fast Path Solution Pack for z/OS, V1.2 (5655-W14)	
License Information	GC19-2915
Program Directory (English)	GI10-8823
IBM IPLA Booklet	Z125-3301
Int'l Agmt for Acq of SW Mtc	Z125-6011
IBM Tools Base for z/OS, V1.3 (5655-V93)	
License Information	GC19-2899
Program Directory (English)	GI10-8819
IBM IPLA Booklet	Z125-3301
Int'l Agmt for Acq of SW Mtc	Z125-6011

The following 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 and 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.

Title	Order number
IBM DB2 Automation Tool for z/OS, V4.1 (5655-E37) User's Guide	SC19-2752
IBM DB2 Cloning Tool for z/OS, V3.1 (5655-N15) User's Guide	SC19-3493
IBM DB2 Log Analysis Tool for z/OS, V3.3 (5655-T56) User's Guide	SC19-3492
IBM IMS Database Solution Pack for z/OS, V1.2 (5655-S77)	
IBM IMS Database Solution Pack for z/OS: Overview and Customization	SC19-3284
IBM IMS Database Reorganization Expert for z/OS User's Guide	SC19-1137
IBM IMS Database Repair Facility for IMS Solution Packs User's Guide	SC19-2916
IBM IMS Index Builder for z/OS User's Guide	SC18-9101
IBM IMS High Performance Load for z/OS User's Guide	SC18-9222
IBM IMS High Performance Image Copy for z/OS User's Guide	SC19-2756
IBM IMS High Performance Unload for z/OS User's Guide	SC27-0936
IBM IMS High Performance Pointer Checker for z/OS	SC19-2401

User's Guide	
IBM IMS High Performance Prefix Resolution for z/OS User's Guide	SC18-9230
IBM IMS Library Integrity Utilities for z/OS User's Guide	SC19-2479
IBM IMS Solution Packs Database Sensor User's Guide	SC19-3283
IBM IMS Solution Packs IMS Database Space Tuning Guide	SC19-3395
IBM IMS Fast Path Solution Pack for z/OS, V1.2 (5655-w14)	
IBM IMS Fast Path Solution Pack for z/OS: Overview and Customization	SC19-3286
IBM IMS Fast Path Solution Pack for z/OS: IMS High Performance Fast Path Utilities User's Guide	SC19-3287
IBM IMS Database Repair Facility for IMS Solution Packs User's Guide	SC19-2916
IBM IMS High Performance Image Copy for z/OS User's Guide	SC19-2756
IBM IMS Library Integrity Utilities for z/OS User's Guide	SC19-2479
IBM IMS Solution Packs Database Sensor User's Guide	SC19-3283
IBM IMS Solution Packs IMS Database Space Tuning Guide	SC19-3395
IBM Tools Base for z/OS, V1.3 (5655-V93)	
IBM Tools Base Administration Console for z/OS User's Guide	SC19-3264
IBM Tools Base Autonomics Director for z/OS User's Guide	SC19-3265
IBM Tools Base Connection Server for z/OS User's Guide	SC19-3489
IBM Tools Base IMS Tools Common Services for z/OS User's Guide	SC19-3396
IBM Tools Base IMS Tools Knowledge Base for z/OS User's Guide	SC19-3397
IBM Tools Base IMS Hardware Data Compression Extended for z/OS User's Guide	SC19-3398
IBM Tools Base Policy Services for z/OS User's Guide	SC19-3399
IBM Tools Base Distributed Access Infrastructure for z/OS User's Guide	SC19-3400

The following material is available at

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

- Overview brochure: IBM DB2 and IMS Tools Overview (IMD11760-USEN)

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 or IMS.

IBM Tools Base Administration Console for z/OS, V1.3 (a component of Tools Base) requires:

- Client: Any hardware that is capable of running Windows XP Professional, Service Pack 3 (32 bit) with a minimum of:
 - 512 MB of memory (Windows XP Professional)
 - 150 MB free disk space

- Server: Any hardware that is capable of running WebSphere Application Server CE (included) with a minimum of:
 - 512 MB of memory
 - 150 MB free disk space to hold the server's installation files, initial configuration, and log files

Software requirements

Program number	VRM	Program name
5655-E37	4.1	IBM DB2 Automation Tool for z/OS
5655-N15	3.1	IBM DB2 Cloning Tool for z/OS
5655-T56	3.3	IBM DB2 Log Analysis Tool for z/OS
5655-BT4	4.1	IBM IMS Batch Terminal Simulator for z/OS
5655-S77	1.2	IBM IMS Database Solution Pack for z/OS
5655-T62	2.1	IBM IMS Enterprise Suite for z/OS
5655-W14	1.2	IBM IMS Fast Path Solution Pack for z/OS
5655-V93	1.3	IBM Tools Base for z/OS

Mandatory installation requirements

IBM DB2 Automation Tool for z/OS, V4.1 (5655-E37), IBM DB2 Cloning Tool for z/OS, V3.1 (5655-N15), IBM DB2 Log Analysis Tool for z/OS, V3.3 (5655-T56), IBM IMS Batch Terminal Simulator for z/OS, V4.1 (5655-BT4), IBM IMS Database Solution Pack for z/OS, V1.2 (5655-S77), IBM IMS Fast Path Solution Pack for z/OS, V1.2 (5655-W14), and IBM Tools Base for z/OS, V1.3 (5655-V93) require:

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

IBM DB2 Automation Tool for z/OS, V4.1 (5655-E37) requires:

- One of the following:
 - 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, V9.1 (5635-DB2)
 - DB2 9 for z/OS Value Unit Edition V9.1 (5697-P12)
 - DB2 10 for z/OS, V10.1 (5605-DB2)
 - DB2 10 for z/OS Value Unit Edition V10.1 (5697-P31)
- and:
 - FEC 1.3 (FMID H25F132) with maintenance applied up to and including PM44757

IBM IMS Database Solution Pack for z/OS, V1.2 (5655-S77) and IBM IMS Fast Path Solution Pack for z/OS, V1.2 (5655-W14) require:

- IBM Tools Base for z/OS, V1.3 (5655-V93)

IBM Tools Base for z/OS, V1.3 requires:

- Server:
 - APAR PM42294/PTF UK69930 for IBM Tools Customizer for z/OS (FMID HTCZ110)

IBM IMS Enterprise Suite for z/OS, V2.1 (5655-T62) component function operates with IMS V11 (5635-A02) or IMS V12 (5635-A03) and has the following software requirements:

- z/OS V1.11 (5694-A01), or later is required for those functions running on System z servers.

- IMS Enterprise Suite SOAP Gateway runs on z/OS, Linux on System z, and Windows.
- IMS Enterprise Suite JMS API open source runs on z/OS.
- IMS Enterprise Suite Connect API for Java runs on z/OS and Windows XP.
- IMS Enterprise Suite Connect API for C runs on Windows XP.
- IMS Enterprise Suite DLIModel utility runs on Windows XP and Red Hat Linux.
- IMS Enterprise Suite Explorer runs on Windows XP or Windows 7.
- Additional line-item requirement information is provided in the IMS Enterprise Suite Program Directory.

Mandatory operational requirements

DB2 Tools

For the post-SMP/E product customization, IBM DB2 Automation Tool for z/OS, V4.1 (5655-E37), IBM DB2 Cloning Tool for z/OS, V3.1 (5655-N15), and IBM DB2 Log Analysis Tool for z/OS, V3.3 (5655-T56) require IBM Tools Base, V1.2 (FMID HTCZ110) (5655-V93) or later, a no-charge product at the latest maintenance level.

The DB2 tools are designed to operate with:

- 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, V9.1 (5635-DB2)
- DB2 9 for z/OS Value Unit Edition V9.1 (5697-P12)
- DB2 10 for z/OS, V10.1 (5605-DB2)
- DB2 10 for z/OS Value Unit Edition V10.1 (5697-P31)

IBM DB2 Automation Tool for z/OS, V4.1 (5655-E37) requires one of the following:

- IBM DB2 Utilities Suite for z/OS, V8.1 (5655-K61)
- IBM DB2 Utilities Suite for z/OS, V9.1 (5655-N97)
- IBM DB2 Utilities Suite for z/OS, V10.1 (5655-V41)

IMS Tools

IBM IMS Batch Terminal Simulator for z/OS, V4.1 (5655-BT4), IBM IMS Database Solution Pack for z/OS, V1.2 (5655-S77), and IBM IMS Fast Path Solution Pack for z/OS, V1,2 (5655-W14) are designed to operate with:

- IMS V10 (5635-A01)
- IMS V11 (5635-A02)
- IMS V12 (5635-A03)

IBM IMS Enterprise Suite for z/OS, V2.1 (5655-T62) is designed to operate with:

- IMS V11 (5635-A02)
- IMS V12 (5635-A03)

Conditional operational requirements

IBM DB2 Automation Tool for z/OS, V4.1 (5655-E37): In order to use the DB2 administrative task scheduler functionality, DB2 Automation Tool requires:

- DB2 subsystems that must be configured to enable DB2 administrative task scheduler capabilities.
- RACF that must be configured to allow PassTickets for the DB2 admin schedule task.
- RACF that must be configured to allow PassTickets for "OMVSAPPL" application ID.

IBM DB2 Log Analysis Tool for z/OS, V3.3 (5655-T56): IBM DB2 Sort for z/OS must be installed on the DB2 subsystems that you plan to use with Log Analysis Tool if you want to use DB2SORT for sort processing.

IBM IMS Database Solution Pack for z/OS, V1.2 requires:

- Language Environment® (LE) (provided with z/OS, V1.11 or later) for IMS High Performance Load using the LE interface for an user exit routine in either COBOL or PL/I
- DFSORT™ (provided with z/OS, V1.11 or later) or a functionality equivalent sort program for functions HD Pointer Checker, HD Tuning Aid, Space Monitor, Integrity Checker, IMS Index Builder, IMS HP Load, and for the ACBLIB Analyzer Utility
- ISPF and GDDM® (provided with z/OS, V1.11 or later) for the display of DB Historical Analyzer charts on TSO terminals
- ISPF for DB Repair on TSO terminals and batch
- IBM IMS Fast Path Solution Pack for z/OS, V1.1 or later (5655-W14) for DEDB Hash Pointer Checker for the IMS HP Image Copy Hash Check option of DEDB

IBM IMS Fast Path Solution Pack for z/OS, V1.2 requires:

- DFSORT (provided with z/OS, V1.11 or later) or a functionality equivalent sort program for functions Pointer Checker and Restructure/Reorganization and FP Secondary Index building, for Integrity Checker, and for the ACBLIB Analyzer Utility.
- ISPF for DB Repair on TSO terminals and batch.
- IMS V11.1 (5635-A01) or later is required if the DB Quiesce command is used to suspend online applications is IBM IMS High Performance Image Copy for z/OS.

IBM IMS Batch Terminal Simulator for z/OS, V4.1 (5655-BT4) requires IBM Tools Base for z/OS, V1.3 (5655-V93) for providing common services and for an Eclipse based front-end offering improved usability.

IBM Tools Base for z/OS, V1.3:

- The components of IBM Tools Base for z/OS, namely, Tools Base IMS Hardware Data Compression Extended for z/OS, Tools Base IMS Tools Generic Exits for z/OS, and Tools Base IMS Tools Online System Interface for z/OS, require IMS V10.1, or later.
- The IMS Batch Terminal Simulator plug-in for Eclipse requires:
 - IBM Rational Developer for System z 8.0.1 and its prerequisites or the Eclipse 3.6.2 environment or greater with the WTP plug-in available from <http://www.eclipse.org>
 - IBM IMS Database Solution Pack for z/OS, V1.2 (5655-S77) is required for graphical visualization and charting of database sensor data.
- The Tools Base Administrative Console for z/OS component requires:
 - Windows XP Professional, Service Pack 3 (32 bit)
 - Any one of the following browsers may be used for the web interface:
 - Mozilla Firefox 3.6, or later
 - Google Chrome 12 and 13
 - Safari 5
 - Opera 11
 - IBM Java SDK 6.0 SR9 FP2

IBM IMS Enterprise Suite for z/OS, V2.1 (5655-T62) compatibility:

- IMS Enterprise Suite V2.1 is upwardly compatible from IMS Enterprise Suite V1.1, IMS SOAP Gateway V10.x, and the IMS V10 DLIModel Utility plug-in, allowing existing applications and data to be used without change. Migration and

coexistence support is provided. Review the Preventative Service Planning (PSP) information for the latest details.

- IMS Enterprise Suite V1.1 SOAP Gateway is the last release to run in an AIX® environment. Customers using it should migrate to Linux on System z, Windows, or z/OS.
- IMS SOAP Gateway V10 was the last release of that separate product. Customers using it should migrate to IMS Enterprise Suite.
- The IMS Enterprise Suite Explorer provides enhanced support over that provided in the Explorer in the IMS Enterprise Suite DLIModel Utility plug-in. Not currently provided in the Explorer is the DLIModel Utility support for IMS XML DB and IMS Database Web Services. Customers can continue to use the DLIModel Utility support for IMS XML DB while taking advantage of other functions in the IMS Explorer. Customers using IMS Database Web Services, however, should migrate to the more current IMS 11 Universal Drivers and take advantage of the IMS Explorer support for these drivers.

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.

User group requirements

Customer requirements are used extensively to determine how database tools evolve.

IBM DB2 Automation Tool for z/OS, V4.1 (5655-E37) satisfies the following user group requirements:

- MR110507479
- MR0930081423
- MR0107101731
- MR0115102616
- MR021110220

IBM DB2 Cloning Tool for z/OS, V3.1 (5655-N15) satisfies the following user group requirement:

- MR0417092254

IBM DB2 Log Analysis Tool for z/OS, V3.3 (5655-T56) satisfies the following user group requirements:

- MR0606085816
- MR082905264
- MR0801086423
- MR0312071946
- MR1023067321
- MR1221066955
- MR0731085418
- MR0805081553
- MR0214066919

IBM IMS Batch Terminal Simulator for z/OS, V 4.1 (5655-BT4) satisfies the following user group requirement:

- MR0906092358

IBM IMS Database Solution Pack for z/OS, V1.2 (5655-S77) satisfies the following user group requirements:

- MR061010367
- MR0806103858
- MR1102096951
- MR0310102150
- MR071510470
- MR1103092054
- MR0209114513
- MR0422104355
- MR0727096831
- MR0928094842
- MR0209116648
- MR1004072114
- MR0330106646
- MR021511445
- MR022610537

IBM IMS Enterprise Suite for z/OS, V2.1 (5655-T62) satisfies the following user group requirement:

- MR1208052022

IBM IMS Fast Path Solution Pack for z/OS, V1.2 (5655-W14) satisfies the following user group requirements:

- MR0061110170
- MR0611105723
- MR061110920
- MR1007081647
- MR0618023343
- MR0727096831
- MR0928094842
- MR0126063131
- MR0827093929
- MR022610537

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.

Ordering information

Charge metric

Program name	PID number	Charge metric
IBM DB2 Automation Tool for z/OS	5655-E37	Value Unit
IBM DB2 Cloning Tool for z/OS	5655-N15	Value Unit
IBM DB2 Log Analysis Tool for z/OS	5655-T56	Value Unit
IBM IMS Batch Terminal Simulator for z/OS	5655-BT4	Value Unit
IBM IMS Database Solution Pack for z/OS	5655-S77	Value Unit
IBM IMS Enterprise Suite for z/OS	5655-T62	Unlimited Installs
IBM IMS Fast Path Solution Pack for z/OS	5655-W14	Value Unit
IBM Tools Base for z/OS, v1.3	5655-V93	Unlimited Installs

The programs in this announcement have Value Unit-Based pricing.

Program number	Program name	Value Unit exhibit
5655-E37	DB2 Automation Tool for z/OS v4	VUE007
5655-N15	DB2 Cloning Tool for z/OS v3	VUE007
5655-T56	DB2 Log Analysis Tools for z/OS v3	VUE007
5655-BT4	IMS Batch Terminal Simulator for z/OS v4	VUE007
5655-S77	IMS Database Solution Pack for z/OS	VUE007
5655-W14	IMS Fast Path Solution Pack for z/OS	VUE007

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

	MSUS minimum	MSUS maximum	Value Units/MSU
Base	1	3	1
Tier A	4	45	0.45
Tier B	46	175	0.36
Tier C	176	315	0.27
Tier D	316	+	0.2

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

	MSUs	*	Value Units/MSU	=	Value Units
Base	3	*	1.00	=	3.00
Tier A	42	*	.45	=	18.90
Tier B	130	*	.36	=	46.80
Tier C	140	*	.27	=	37.80
Tier D	1,185	*	.20	=	237.00
Total	1,500				343.50

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.

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

	MSUs	Value Units/MSU
Base	1-3	1.00
Tier A	4-45	.45
Tier B	46-175	.36
Tier C	176-315	.27
Tier D	316+	.20

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 Automation Tool for z/OS, V4.1
Program PID: 5655-E37

Entitlement identifier	Description	License option/ Pricing metric
S016WC2	DB2 Automation Tool V4	Basic OTC, Value Units Basic OTC, Per MSU-day TUC

Orderable supply ID	Language	Distribution medium
S016WC1	US English	3590 Tape Cartridge

Program name: IBM DB2 Cloning Tool for z/OS, V3.1
Program PID: 5655-N15

Entitlement identifier	Description	License option/ Pricing metric
S016VGS	DB2 Cloning Tool V3	Basic OTC, Value Units Basic OTC, Per MSU-day TUC

Orderable supply ID	Language	Distribution medium
S016WC4	US English	3590 Tape Cartridge

Program name: IBM DB2 Log Analysis Tool for z/OS, V3.3
Program PID: 5655-T56

Entitlement identifier	Description	License option/ Pricing metric
S014J6K	DB2 Log Analysis Tool V3	Basic OTC, Value Units Basic OTC, Per MSU-day TUC
Orderable supply ID	Language	Distribution medium
S0166C9	US English	3590 Tape Cartridge

Program name: IBM IMS Batch Terminal Simulator for z/OS, V4.1
Program PID: 5655-BT4

Entitlement identifier	Description	License option/ Pricing metric
S016NLB	IMS Batch Terminal Sim V4	Basic OTC, Value Units Basic OTC, Per MSU-day TUC
Orderable supply ID	Language	Distribution medium
S016NL9	US English	3590 Tape Cartridge

Program name: IBM IMS Database Solution Pack for z/OS, V1.2
Program PID: 5655-S77

Entitlement identifier	Description	License option/ Pricing metric
S015TZ5	IMS DB Solution Pack	Basic OTC, Value Units Basic OTC, Per MSU-day TUC
Orderable supply ID	Language	Distribution medium
S015TZ4	US English	3590 Tape Cartridge

Program name: IBM IMS Enterprise Suite for z/OS, V2.1
Program PID: 5655-T62

Entitlement identifier	Description	License option/ Pricing metric
S016SNK	IMS Enterprise Suite z/OS	No Charge, Unlimited Installs
Orderable supply ID	Language	Distribution medium
S016SNJ	US English	3590 Tape Cartridge

Program name: IBM IMS Fast Path Solution Pack for z/OS, V1.2
Program PID: 5655-W14

Entitlement identifier	Description	License option/ Pricing metric
S015TZC	IMS FP Solution Pack	Basic OTC, Value Units Basic OTC, Per MSU-day TUC
Orderable supply ID	Language	Distribution medium
S015TZB	US English	3590 Tape Cartridge

Program name: IBM Tools Base for z/OS, V1.3
Program PID: 5655-V93

Entitlement identifier	Description	License option/ Pricing metric
S015TXP	Tools Base	No Charge, Unlimited Installs

Orderable supply ID	Language	Distribution medium
S015TXN	US English	3590 Tape Cartridge

Subscription and Support PID: 5655-E38

Entitlement identifier	Description	License options/Pricing metrics
S00V1HW	DB2 Automation Tools S&S	Basic ASC, per Value Unit SW S&S No charge, decline SW S&S Per MSU SW S&S registration

Orderable supply ID	Language	Distribution medium
S00V3B5	English	Hardcopy publication

Subscription and Support PID: 5655-N11

Entitlement identifier	Description	License options/Pricing metrics
S012JPH	DB2 Cloning Tool S&S	Basic ASC, per Value Unit SW S&S No charge, decline SW S&S Per MSU SW S&S registration

Orderable supply ID	Language	Distribution medium
S012JPJ	English	Hardcopy publication

Subscription and Support PID: 5655-E86

Entitlement identifier	Description	License options/Pricing metrics
S00V748	DB2 Log Analysis Tool S&S	Basic ASC, per Value Unit SW S&S No charge, decline SW S&S Per MSU SW S&S registration

Orderable supply ID	Language	Distribution medium
S00TH8N	English	Hardcopy publication

Subscription and Support PID: 5655-J58

Entitlement identifier	Description	License options/Pricing metrics
S00X5SX	IMS Batch Terminal Sim. S&S	Basic ASC, per Value Unit SW S&S No charge, decline SW S&S Per MSU SW S&S registration

Orderable supply ID	Language	Distribution medium
S00X5SZ	English	Hardcopy publication

Subscription and Support PID: 5655-S78

Entitlement identifier	Description	License options/Pricing metrics
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S015W6T	IMS DB Solution Pack S&S	Basic ASC, per Value Unit SW S&S No charge, decline SW S&S Per MSU SW S&S registration
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Orderable supply ID	Language	Distribution medium
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S015TZ7	English	Hardcopy publication
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Subscription and Support PID: 5655-T61

Entitlement identifier	Description	License options/Pricing metrics
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S015NCC	IMS Enterprise Suite S&S	Unlimited Installs SW S&S
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Orderable supply ID	Language	Distribution medium
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S015NC9	English	Hardcopy publication
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Subscription and Support PID: 5655-W15

Entitlement identifier	Description	License options/Pricing metrics
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S015TZG	IMS FP Solution Pack S&S	Basic ASC, per Value Unit SW S&S No charge, decline SW S&S Per MSU SW S&S registration
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Orderable supply ID	Language	Distribution medium
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S015TZF	English	Hardcopy publication
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Subscription and Support PID: 5655-V94

Entitlement identifier	Description	License options/Pricing metrics
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S015TXR	Tools Base S&S	Unlimited Installs SW S&S
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Orderable supply ID	Language	Distribution medium
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S015TXT	English	Hardcopy publication
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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.

Subscription and Support for IMS Tools Solution Packs

Customers who license IMS Solution Packs, and who have previously separately licensed one or more of the component products included in a Solution Pack, should discontinue subscription and support for the previously licensed component products. For additional information about IMS Solution Packs and their component products, refer to Software Announcement [AP10-0029](#), dated February 09, 2010

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>

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 four 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.

IBM System z Operational Support Services - SoftwareXcel is an option if you desire added services.

License Information form number

Program name	Program number	License Information
DB2 Automation Tool for z/OS, V4.1	5655-E37	GC19-3411
DB2 Cloning Tool for z/OS, V3.1	5655-N15	GC19-3490
DB2 Log Analysis Tool for z/OS, V3.3	5655-T56	GC19-1301
IMS Batch Terminal Simulator for z/OS, V4.1	5655-BT4	GC19-3231
IMS Database Solution Pack for z/OS, V1.2	5655-S77	GC19-2912
IMS Enterprise Suite for z/OS, V2.1	5655-T62	GC19-3416
IMS Fast Path Solution Pack for z/OS, V1.2	5655-W14	GC19-2915
IBM Tools Base for z/OS, V1.3	5655-V93	GC19-2899

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

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

Limited warranty applies

Yes

Limited warranty

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

IBM provides you with access to IBM databases containing information on known program defects, defect corrections, restrictions, and bypasses at no additional charge. For further information, consult the IBM Software Support Handbook found at

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

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

Program 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.

Other terms

Volume orders (IVO)

No

IBM International Passport Advantage Agreement

Passport Advantage applies

No

Software Subscription and Support applies

No. For operating system software, the revised IBM Operational Support Services - SoftwareXcel 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>

System i Software Maintenance applies

No

Variable charges apply

No

Educational allowance available

15% to qualified educational institution customers.

Products eligible for single version charging

Replaced program Program number	Program Program name	Replacement Program number	program Program name
5655-A14	IMS/ESA® Batch Terminal Simulator, V2	5655-BT4	IMS Batch Terminal Simulator for z/OS, V4
5668-948	IMS/VS Batch Terminal Simulator, V1	5655-BT4	IMS Batch Terminal Simulator for z/OS, V4
5697-C33	IMS Index Builder V1	5655-S77	IMS Database Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (Fast Reorganization Reload Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.2

5668-856	DBT, V1 (High Speed Sequential Retrieval Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (High Speed Sequential Retrieval Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (Image Copy Extensions Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.2
5668-856	DBT, V1 (Space Management Utilities Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (Space Management Utilities Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.2
5668-856	DBT, V1 (VSAM Zapper Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (VSAM Zapper Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (Fast Prefix Resolution Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (Fast ACBGEN Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (DBD/PSB/ACB Library Management Utilities Feature)	5655-S77	IMS Database Solution Pack for z/OS, V1.2
5697-D13	Parallel Reorganization for IMS/ESA, V1	5655-S77	IMS Database Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (Image Copy Extensions Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.2
5668-856	DBT, V1 (VSAM Zapper Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (VSAM Zapper Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.2
5668-856	DBT, V1 (DEDB Unload/Reload Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (DEDB Unload/Reload Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.2
5668-856	DBT, V1 (DEDB Pointer Checker Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (DEDB Pointer Checker Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.2
5668-856	DBT, V1 (DEDB Tuning Aid Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (DEDB Tuning Aid Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (Fast ACBGEN Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.2
5685-093	DBT, V2 (DBD/PSB/ACB Library Management Utilities Feature)	5655-W14	IMS Fast Path Solution Pack for z/OS, V1.2
5655-085	IMS Hardware Data Compression	5655-V93	IBM Tools Base for z/OS, V1.2

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.

Program number	Program name	Terms	Parents - any of the following
5655-E37	DB2 Automation Tool for z/OS, v4.1	Reference-based	DB2 V8 (5625-DB2) DB2 V8 VUE (5697-N29) DB2 V9 (5635-DB2) DB2 V9 VUE (5697-P12) DB2 V10 (5605-DB2) DB2 V10 VUE (5697-P31)
5655-N11	DB2 Cloning Tool for z/OS, v4.1	Reference-based	DB2 V8 (5625-DB2) DB2 V8 VUE (5697-N29) DB2 V9 (5635-DB2) DB2 V9 VUE (5697-P12) DB2 V10 (5605-DB2) DB2 V10 VUE (5697-P31)
5655-T56	DB2 Log Analysis Tool for z/OS, v4.1	Reference-based	DB2 V8 (5625-DB2) DB2 V8 VUE (5697-N29) DB2 V9 (5635-DB2) DB2 V9 VUE (5697-P12) DB2 V10 (5605-DB2) DB2 V10 VUE (5697-P31)
5655-BT4	IMS Batch Terminal Simulator for z/OS, v4.1	Reference-based	IMS V10 (5635-A01) IMS V11 (5635-A02) IMS V12 (5635-A03)
5655-S77	IMS Database Solution Pack for z/OS, v1.2	Reference-based	IMS V10 (5635-A01) IMS V11 (5635-A02) IMS V12 (5635-A03)
5655-W14	IMS Fast Path Solution Pack for z/OS, v1.2	Reference-based	IMS V10 (5635-A01) IMS V11 (5635-A02) IMS V12 (5635-A03)

Full capacity mainframes

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

<http://www-1.ibm.com/servers/eserver/zseries/library/swpriceinfo/>

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 *The System/370™, System/390®, and System z Machine Exhibit (Z125-3901)*, or visit the Mainframes section of the System z Exhibits website

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

For more information on sub-capacity System z IPLA terms and conditions, refer to Software Announcement [AA04-3059](#), dated August 10, 2004.

For additional information for products with reference-based terms, System z IPLA sub-capacity programs with reference-based terms add 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 might 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 the license capacity of the parent program across the Parallel Sysplex. Qualified Parallel Sysplex refers to one:

1. That meets the criteria defined in Hardware Announcement [AA98-3002](#), dated January 13, 1998
2. 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 eServer™ 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 eServer zSeries® Programs 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.

Prices

For all local charges, contact your IBM representative.

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AP distribution

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Macao S.A.R of the PRC	Yes
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Korea	Yes
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Japan	Yes

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