IBM tools expanded and enhanced to help better manage DB2 and IMS environments

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At a glance

Enhanced DB2® and IMS™ tools deliver:

- Administration: IMS Parameter Manager for z/OS®, V1.2
- Performance: IMS Buffer Pool Analyzer for z/OS, V1.3
- Recovery: DB2 Change Accumulation Tool for z/OS, V2.1

Overview

Enhanced DB2 and IMS tools help use and management of database environments.

DB2 products:

IBM® DB2 Change Accumulation Tool for z/OS, V2.1 (5697-P32) quickly restores database objects in a precise and nondisruptive manner using offline resources, reducing outage time and cost.

Clarification:

- Optimization Service Centre is available as a component in the IBM DB2 Accessories Suite for z/OS, V1.3 (5655-R14), a separately licensed no-fee product.
- DB2 Accessories Suite V1.3 is designed to operate with:
  - DB2 for z/OS, V8.1 (5625-DB2)
  - DB2 Value Unit Edition V8.1 (5697-N29)
  - DB2 for z/OS, V9.1 (5635-DB2)
  - DB2 Value Unit Edition V9.1 (5697-P12)
- Use of DB2 Accessories Suite requires that you have a valid license to DB2 for z/OS, V8.1; DB2 Value Unit Edition V8.1; DB2 for z/OS, V9.1; or DB2 Value Unit Edition V9.1.
- For more information on the Optimization Service Centre, refer to Software Announcement A07-0260, dated March 06, 2007.

IMS products:

IBM IMS Buffer Pool Analyzer for z/OS, V1.3 (5697-H77) provides the information required to determine whether changes to the buffer pool configuration would benefit your current IMS performance.
IBM IMS Database Recovery Facility for z/OS, V3.1 (5655-N47): See the Statement of direction section regarding on-line recovery services.

IBM IMS Parameter Manager for z/OS, V1.2 (5655-L69) enables IMS system programmers to control the specification and maintenance of IMS parameter library members by simplifying parameter management and by providing increased levels of parameter control.

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

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

Key prerequisites

Prerequisites are listed in the Hardware requirements and Software requirements sections.

Planned availability date

December 12, 2008

Description

DB2 Change Accumulation Tool for z/OS, V2.1 (5697-P32) helps DB2 administrators minimize data recovery time by efficiently keeping current and consistent data images more readily available. DB2 Change Accumulation Tool enables you to set the scope and specificity of image copy creation, create mini logs that hold backup information about objects of interest, and quickly restore specific database objects with precision and minimal disruption.

The following new features are provided:

• Ability to recover to a different table space: DB2 Change Accumulation Tool now enables you to recover (via WRITE_TO_VSAM) the tables within an image copy to a different VSAM/table space than the one indicated in the generated logs. This provides an easy way of keeping table images in sync.
• Ability to change the SPACE parameter for mini logs: DB2 Change Accumulation Tool now enables you to change the SPACE parameter for mini logs via the Setup panel.
• Dynamic allocation request procedure now includes Wait for UNIT flag: This feature modifies DB2 Change Accumulation Tool's dynamic allocation request procedure to include the Wait for UNIT flag. When the Wait for UNIT flag is set, it indicates to the operating system that DB2 Change Accumulation Tool will wait for an allocation unit to become available.
• Ability to continue with mini log generation, image copy creation, or recovery operations (WRITE_TO_VSAM): This feature provides the ability for DB2 Change Accumulation Tool to report on and skip objects that are not suitable to be processed when generating mini logs, image copies, or recovery operations for more than one object. After the unsuitable object has been skipped, DB2 Change Accumulation Tool continues processing the rest of the objects on the SYSINGGC and the job ends with a return code of 04.
• Ability to display the data set name of the archive or active log data set being processed: This feature updates the information displayed in association with message GGC1900I to include a second message, GGC1518I, which displays the data set name of the archive or active log data set being processed. The current message GGC1900I only includes the log range, and you must go to the DB2 BSDS to match the log range to an actual data set. The information now displayed in GGC1518I simplifies the process.
• Ability to use the SSID from IBM Launchpad: This feature enables you to launch Change Accumulation Tool from the IBM Launchpad application using a specified DB2 SSID. Refer to the IBM Launchpad documentation for information on how to add DB2 Change Accumulation Tool to the Launchpad.
• Large object (LOB) and XML support: This feature enables DB2 Change Accumulation Tool to run against LOBs and XML objects. LOBs and XML objects are now valid for inclusion in DB2 Change Accumulation Tool object profiles.
IMS Buffer Pool Analyzer for z/OS, V1.3 (5697-H77) provides statistical analysis that helps you analyze your current IMS on-line and batch job database buffer pools. Additionally, it provides the information required to determine whether changes to the buffer pool configuration would benefit IMS performance.

Every database buffer pool has different characteristics, so it is hard to know how changes might affect each one. Often, you have to resort to guesswork, hoping that your tuning activities will not impede I/O rates.

IMS Buffer Pool Analyzer for z/OS is able to:

- Review your buffer pool environment and recommend changes to the number of buffers in each subpool to improve performance. IMS Buffer Pool Analyzer makes specific recommendations for the number of buffers for each subpool, and the resulting change in storage usage and reduction in number of database reads.
- Provide information on the efficiency of OSAM cached buffers in a coupling facility and show the effect of changing the amount of storage allocated to OSAM buffers in the CF.
- Review the databases allocated to each subpool and document subpools that include databases with hit ratios that are inconsistent, providing the information you can use to change your subpool configuration.
- Identify storage that is wasted because the most efficient buffer sizes are not available for database data sets.
- Determine if adding or subtracting buffers will improve the performance of a selected buffer pool.
- Model buffer pool usage to determine I/O rates for various numbers of buffers in each pool.
- Identify which databases most heavily use each database subpool.
- Perform "what if" scenario analysis, including the impact of creating new buffer pools or changing the block size of a database.
- Visualize the impact of change before it is too late.

For both the actual buffer pool configuration and a model configuration (with different buffer pool or database data set assignments), IMS Buffer Pool Analyzer provides a report for each subpool that shows:

- Subpool information, including the pool configuration, buffer request rate, and actual performance information.
- Database information, including a list of all the database data sets with activity in that subpool, along with the hit ratio, buffer request rate, and I/O rate for each data set.
- Projections for various buffer pool sizes that show subpool hit ratio, I/O rate, and buffer life.
- In addition, for each buffer pool size projection, IMS Buffer Pool Analyzer calculates a number that can be used to compare subpools. The marginal reduction shows which subpools would reduce I/O the most, per 1 KB of storage added to the pool.

IMS Buffer Pool Analyzer for z/OS, V1.3 offers the following enhancements:

- OSAM coupling facility caching information is included to allow analysis of the benefit of caching OSAM buffers in a coupling facility.
- Support is provided for IMS Tools Knowledge Base for z/OS, V1.1 (5655-R34) to store and retrieve IMS Buffer Pool Analyzer reports.

IMS Parameter Manager for z/OS, V1.2 (5655-L69) provides a set of management tools and associated data to help control and manage the specification and maintenance of the 400+ parameters stored within 20 IMS start-up PROCLIB members.

IMS Parameter Manager for z/OS:

- Enables you to manage and maintain IMS parameters with ease
- Validates new settings, giving you confidence that changes are correct
- Provides a history of previous changes, enabling you to reverse or repeat a setting
- Upgrades parameters automatically, enabling automatic migration from one IMS version to the next
• Provides information on buffer sizes, syntax, security, and storage values, and a wealth of other information for all IMS parameters

• Offers:
  – An easy-to-use editing tool for changing individual parameters
  – An IMS environment view of IMS systems, IMS versions, PROCLIBs, and associated members
  – Automated assistance for migrating to new versions of IMS

• Supplies an ISPF dialogue to manage the specification of parameter settings and offers extensive contextual on-line help

• Supports all current versions of IMS

IMS Parameter Manager for z/OS, V1.2 contains all of the features and functions of the previous release and provides the following significant enhancements, improving functionality and usability of the product:

• A new parameter search function enables you to search for a parameter or keyword within a group of PROCLIB members or within a single PROCLIB member.

• Support is provided for the CQS range of PROCLIB members.

• The IMS management functions within IMS Parameter Manager have been enhanced to provide an IMS group management function, which can be used for managing the start-up parameters associated with an IMS sysplex system. You can now view and edit all the PROCLIB members associated with a group of IMS systems.

• "Special edit" has been enhanced to provide assistance in correcting errors found in existing PROCLIB members using the parameter syntax rules contained in IMS Parameter Manager. This function is particularly useful when correcting problems found when using the migration and validation functions.

• A Delete History function has been added to enhance the management of data stored in the repository.

Accessibility by people with disabilities

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


Value Unit-based pricing

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

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

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

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

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

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

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.

Statement of direction

IBM intends to stabilize the on-line recovery services functions and continue to enhance only the batch mode functions of IBM IMS Database Recovery Facility for z/OS (5655-N47) beginning with Version 3.1. The on-line recovery services of IMS Database Recovery Facility for z/OS V3.1 will not be enhanced for new functions and will not be offered as part of or supported in future releases and versions of IMS Database Recovery Facility. Customers currently using on-line recovery services may wish to consider moving to the batch mode functions of IMS Database Recovery Facility for z/OS, V3.1.

All statements regarding IBM's plans, directions, and intent are subject to change or withdrawal without notice.

Product identification number

<table>
<thead>
<tr>
<th>Program PID number</th>
<th>Subscription &amp; Support (S&amp;S) PID number</th>
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<tbody>
<tr>
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<td>5697-H77</td>
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<td>5655-L69</td>
<td>5655-L70</td>
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Program number

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<tr>
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<tr>
<td>5697-P32</td>
<td>210</td>
<td>DB2 Change Accumulation Tool for z/OS</td>
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<tr>
<td>5697-H77</td>
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<td>IMS Buffer Pool Analyzer for z/OS</td>
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<td>5655-L69</td>
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<td>IMS Parameter Manager for z/OS</td>
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</tbody>
</table>

Offering Information

Product information is available via the Offering Information Web site

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

Publications

The IBM Publications Centre portal is at

http://www.ibm.com/shop/publications/order
The Publications Centre is a worldwide central repository for IBM product publications and marketing material with a catalogue 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 on-line in various file formats. They can all be downloaded free of charge.

One copy of the following publications is supplied automatically with the basic machine-readable material.

<table>
<thead>
<tr>
<th>Title</th>
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<tr>
<td>License Information</td>
<td>GC19-2547</td>
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<td>Program Directory</td>
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<td>IMS Buffer Pool Analyzer for z/OS, V1.3 (5697-H77)</td>
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</tr>
<tr>
<td>License Information</td>
<td>GC18-7067</td>
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<tr>
<td>Program Directory</td>
<td>GI10-8486</td>
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<td>IMS Parameter Manager for z/OS, V1.2 (5655-L69)</td>
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<td>License Information</td>
<td>GC18-9098</td>
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<td>Program Directory</td>
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The publications for the InfoSphere products in this announcement are available for hardcopy ordering from the IBM Publications Centre. The publications for the other 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

Except for the InfoSphere products, publications are available in PDF and BookManager® formats on CD-ROM and on DVD on the next release of the software product libraries:

- z/OS Software Products CD Collection Kit (SK3T-4270)
- z/OS and Software Products DVD Collection (SK3T-4271) -- requires a DVD drive in DVD-9 (single-sided, dual-layer) format

<table>
<thead>
<tr>
<th>Title</th>
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<tr>
<td>DB2 Change Accumulation Tool for z/OS, V2.1 (5697-P32)</td>
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<tr>
<td>User's Guide</td>
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<td>IMS Buffer Pool Analyzer for z/OS, V1.3 (5697-H77)</td>
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<td>User's Guide</td>
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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-ROM (GK3T-7099). This CD-ROM can be ordered from the IBM Publications Centre 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 hardware configuration that supports the required versions of DB2 and IMS.

**Software requirements**

**DB2 Change Accumulation Tool for z/OS, V2.1:**

- Requires one of these:
  - z/OS V1.8 (5694-A01), or later
  - z/OS.e V1.8 (5655-G52)
- Is designed to operate with:
  - DB2 V8.1 (5625-DB2)
  - DB2 Value Unit Edition V8.1 (5697-N29)
  - DB2 V9.1 (5635-DB2)
  - DB2 Value Unit Edition V9.1 (5697-P12)

**The IMS products** in this announcement are designed to operate with IMS V9.1 (5655-J38), or later.

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.

**Customer requirements**

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

DB2 Change Accumulation Tool for z/OS, V2.1 (5697-P32) satisfies the following requirements:

MR0108085416  MR011108553  MR0218035133  MR0316053431
MR031606588  MR0926053742  MR1001073321

IMS Buffer Pool Analyzer for z/OS, V1.3 (5697-H77) satisfies MR1126025853.

IMS Parameter Manager for z/OS, V1.2 (5655-L69) satisfies MR0612083424 and MR0612084141.

**Planning information**

**Packaging**

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

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

This program, when downloaded from a Web site, contains the applicable IBM license agreement and License Information, if appropriate, and will be presented for acceptance at the time of installation of the program. For future reference, the license and License Information will be stored in a directory such as LICENSE.TXT.
Security, auditability, and control

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

Software Services

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

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

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

Ordering information

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<th>Charge metric</th>
<th>PID</th>
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<td>number</td>
<td>metric</td>
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<tr>
<td>DB2 Change Accumulation Tool for z/OS, V2.1</td>
<td>5697-P32</td>
<td>Value Unit</td>
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<tr>
<td>IMS Buffer Pool Analyzer for z/OS, V1.3</td>
<td>5697-H77</td>
<td>Value Unit</td>
</tr>
<tr>
<td>IMS Parameter Manager for z/OS, V1.2</td>
<td>5655-L69</td>
<td>Value Unit</td>
</tr>
</tbody>
</table>

VU Value Unit

VU Value Unit is the unit of measure by which this program is licensed. VU Value Unit entitlements are based on the quantity of a specific designated measurement, either users or resources, for the given program. A Proof of Entitlement (PoE) must be obtained for the appropriate number of VU Value Units required for your environment as defined by the specific program terms. The VU Value Unit entitlements are specific to the program and may not be exchanged, interchanged, or aggregated with VU Value Unit entitlements of another program. To understand these benefits of VU Value Unit licensing and to determine how many VU Value Units to obtain for the program, contact your IBM representative.

The programs in this announcement all have Value Unit-based pricing.

<table>
<thead>
<tr>
<th>Program number</th>
<th>Program name</th>
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<tbody>
<tr>
<td>5697-P32</td>
<td>DB2 Change Accumulation Tool for z/OS, V2.1</td>
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<td>5697-H77</td>
<td>IMS Buffer Pool Analyzer for z/OS, V1.3</td>
<td>VUE007</td>
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<tr>
<td>5655-L69</td>
<td>IMS Parameter Manager for z/OS, V1.2</td>
<td>VUE007</td>
</tr>
</tbody>
</table>

For each IBM eServer™ zSeries® 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 zSeries 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**

<table>
<thead>
<tr>
<th></th>
<th>MSUs minimum</th>
<th>MSUs maximum</th>
<th>Value Units/MSU</th>
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<tbody>
<tr>
<td>Base</td>
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<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Tier A</td>
<td>4</td>
<td>45</td>
<td>0.45</td>
</tr>
<tr>
<td>Tier B</td>
<td>46</td>
<td>175</td>
<td>0.36</td>
</tr>
<tr>
<td>Tier C</td>
<td>176</td>
<td>315</td>
<td>0.27</td>
</tr>
<tr>
<td>Tier D</td>
<td>316</td>
<td>+</td>
<td>0.2</td>
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Value Units for mainframes without MSU ratings:

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<td>MP3000 H30</td>
<td>6</td>
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<td>MP3000 H50</td>
<td>8</td>
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<td>MP3000 H70</td>
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<tr>
<td>ESL models</td>
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</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>MSUs</th>
<th>Value Units/MSU</th>
<th>Value Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>3 * 1.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Tier A</td>
<td>42 * 0.45</td>
<td>18.90</td>
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<tr>
<td>Tier B</td>
<td>130 * 0.36</td>
<td>46.80</td>
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<tr>
<td>Tier C</td>
<td>140 * 0.27</td>
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<tr>
<td>Tier D</td>
<td>1,185 * 0.20</td>
<td>237.00</td>
</tr>
<tr>
<td>Total</td>
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<td>343.50</td>
</tr>
</tbody>
</table>

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

Example: In the above ordering example, for the product running on a machine with 1,500 MSUs requiring 344 Value Units, order feature number G4FG, quantity 94, and feature number G4FH, quantity 1.

**Ordering z/OS through the Internet**

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


**Basic license**

**On/Off CoD**

DB2 Change Accumulation Tool for z/OS, V2.1 (5697-P32) is eligible for On/Off CoD with a temporary use charge calculated based on MSUs per-day usage.

Information regarding the On/Off CoD with a temporary use charge for IMS Buffer Pool Analyzer for z/OS, V1.3 (5697-H77) and IMS Parameter Manager for z/OS, V1.2 (5655-L69) has not changed and, therefore, is not included in this announcement.
Program name: DB2 Change Accumulation Tool for z/OS, V2.1
Program PID: 5697-P32

Entitlement
Identifier   Description                      Pricing Metric
S01597B      DB2 Change Accumulation Tool     Basic OTC, Per MSU-day TUC

The following table is for Caribbean North only.

Program name: DB2 Change Accumulation Tool for z/OS, V2.1
Program PID: 5697-P32

One-time charge
feature number

DB2 Change Accumulation Tool V2
MSU-DAY(s)               E8PF
MSU-DAY Qty 250          E8PG

Translation from MSUs to Value Units

<table>
<thead>
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<th>MSUs</th>
<th>Value Units/MSU</th>
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<tr>
<td>Base</td>
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<tr>
<td>Tier B</td>
<td>46-175</td>
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<td>Tier C</td>
<td>176-315</td>
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<tr>
<td>Tier D</td>
<td>316+</td>
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</tbody>
</table>

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

Ordering information provided for DB2 Change Accumulation Tool for z/OS, V2.1 (5697-P32), the only product in this announcement that has a new program identification number (PID).

The ordering information for the other products in this announcement have not changed and, therefore, is not included. They are:

- DB2 Change Accumulation Tool Subscription and Support (5655-E48)
- IMS Buffer Pool Analyzer for z/OS, V1.3 (5697-H77)
- IMS Buffer Pool Analyzer Subscription and Support (5697-H78)
- IMS Parameter Manager for z/OS, V1.2 (5655-L69)
- IMS Parameter Manager Subscription and Support (5655-L70)

Program name: DB2 Change Accumulation Tool for z/OS, V2.1
Program PID: 5697-P32

Entitlement
Identifier   Description                      License Option / Pricing Metric
S01597B      DB2 Change Accumulation Tool     Basic OTC, Value Units

Orderable Supply ID   Language   Distribution Medium
S015979            US English   3480 Tape Cartridge

The following table is for Caribbean North countries only.

Program name: DB2 Change Accumulation Tool for z/OS, V2.1
Program PID: 5697-P32

One-time charge
feature number

Product Description feature number

DB2 Change Accumulation Tool 3480 Tape Cartridge 5802 US English
Tool V2
One Value Unit E8PD
250 Value Units E8PE

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.

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 Customized Offerings (for example, CBPDO, ServerPac, SystemPac).

CBPDO and ServerPac are offered for Internet delivery, where ShopzSeries product ordering is available. Internet delivery of ServerPac may help improve automation and software delivery time. For more details on Internet delivery, refer to the ShopzSeries help information at

http://www.software.ibm.com/ShopzSeries

Media type for this software product is chosen during the Customized Offerings ordering process. Based on your customer environment, it is recommended that the highest possible density tape media is selected. Currently offered media types are:

- CBPDOS: 3480, 3480 Compressed, 3490E, 3590, 3592*
- ServerPacs: 3480, 3480 Compressed, 3490E, 3590, 3592*
- SystemPacs: 3480, 3480 Compressed, 3490E, 3590, 3592*

*3592 is highest density media. Selecting 3592 will ship the fewest number of media.

Once a product becomes generally available, it will be included in the next ServerPac and SystemPac® monthly update.

Production of software product orders will begin on the planned general availability date.

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

**Terms and conditions**

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

**Licensing**

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

**Agreement for Acquisition of Software Maintenance**

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

- IBM Agreement for Acquisition of Software Maintenance (Z125-6011)

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

**License Information form number**

<table>
<thead>
<tr>
<th>Program name</th>
<th>Program number</th>
<th>License Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB2 Change Accumulation Tool for z/OS, V2.1</td>
<td>5697-P32</td>
<td>GC19-2547</td>
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<tr>
<td>IMS Buffer Pool Analyzer for z/OS, V1.3</td>
<td>5697-H77</td>
<td>GC18-7067</td>
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<tr>
<td>IMS Parameter Manager for z/OS, V1.2</td>
<td>5655-L69</td>
<td>GC18-9098</td>
</tr>
</tbody>
</table>

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


**Limited warranty applies**

Yes

**Limited warranty**

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

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

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

IBM will maintain this information for at least one year after the original licensee acquires the program (warranty period).
Program support
Enhanced support, called Subscription and Support, includes telephone assistance, as well as access to updates, releases, and versions of the program as long as support is in effect. You will be notified of discontinuance of support with 12 months' notice.

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

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

Authorization for use on home/portable computer
You may not copy and use this program on another computer without paying additional license fees.

Volume orders (IVO)
No

Passport Advantage applies
No

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

This will ensure total support coverage for your enterprise needs, including IBM and selected non-IBM products. For complete lists of products supported under both the current and revised offering, visit http://www.ibm.com/services/sl/products

IBM Operational Support Services - SupportLine
Yes

System i Software Maintenance applies
No

Variable charges apply
No

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

Academic use allowance: Yes
Sub-capacity terms and conditions

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

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

For more information on the Value Unit Exhibit for the System z IPLA program you selected, refer to the Ordering information section.

<table>
<thead>
<tr>
<th>Program number</th>
<th>Program name</th>
<th>Terms</th>
<th>Parents - any of the following</th>
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<tr>
<td>5697-P32</td>
<td>DB2 Change Accumulation Reference-</td>
<td>Reference-based</td>
<td>DB2 V8 (5625-DB2)</td>
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<td>for z/OS, V2.1</td>
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<td>DB2 V9 (5635-DB2)</td>
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<td>DB2 VUE V8 (5697-N29)</td>
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<td>IMS Buffer Pooler Analyzer for</td>
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<td>z/OS, V1.3</td>
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<td>IMS V10 (5635-A01)</td>
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<td>IMS V11 (5635-A02)</td>
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<tr>
<td>5655-L69</td>
<td>IMS Parameter Manager for z/OS,</td>
<td>Reference-based</td>
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<td>V1.2</td>
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<td></td>
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<td></td>
<td>IMS V11 (5635-A02)</td>
</tr>
</tbody>
</table>

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


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 (and z/OS.e) 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<sup>™</sup>, System/390®, and System z Machine Exhibit (Z125-3901), or visit the Mainframes section of the System z Exhibits Web site http://ibm.com/zseries/library/swpriceinfo/

For more information on sub-capacity System z IPLA terms and conditions, refer to Software Announcement A04-1077, dated August 10, 2004.

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

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

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

- That meets the criteria defined in Hardware Announcement A98-0009, dated January 13, 1998
- 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 (or z/OS.e) operating systems
- Any licenses for the OS/390 operating system must be discontinued
- All instances of the z/OS operating (or z/OS.e) 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 Web site 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 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 Customer Initiated Upgrade and IBM eServer On/Off Capacity on Demand - Software (Z125-6611) must be signed prior to use.

Prices

Prices are subject to change without notice.

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

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

Charge information is provided for the only product in this announcement that has a new program identification number (PID). It is DB2 Change Accumulation Tool for z/OS, V2.1 (5697-P32).

The charge information for the other products in this announcement have not changed and, therefore, is not included. They are:

• DB2 Change Accumulation Tool Subscription and Support (5655-E48)
• IMS Buffer Pool Analyzer for z/OS, V1.3 (5697-H77)
• IMS Buffer Pool Analyzer Subscription and Support (5697-H78)
• IMS Parameter Manager for z/OS, V1.2 (5655-L69)
• IMS Parameter Manager Subscription and Support (5655-L70)

Program Name: DB2 Change Accumulation Tool for z/OS, V2.1
Program PID: 5697-P32

<table>
<thead>
<tr>
<th>Entitlement Identifier</th>
<th>Description</th>
<th>License Option / Pricing Metric</th>
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<td>S01597B</td>
<td>DB2 Change Accumulation Tool V2</td>
<td>Basic OTC, Value Units</td>
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<td>Basic OTC, per MSU-day TUC</td>
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</table>

Orderable Supply ID Language Distribution Medium
S015979                US English 3480 Tape Cartridge

The following table is for Caribbean North only.

Program Name: DB2 Change Accumulation Tool for z/OS, V2.1
Program PID: 5697-P32

<table>
<thead>
<tr>
<th>Product description</th>
<th>Feature number</th>
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<td>One-time Charge</td>
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<td>DB2 Change Accumulation Tool V2</td>
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</tr>
<tr>
<td>One Value Unit</td>
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</tr>
<tr>
<td>250 Value Units</td>
<td>E8PE</td>
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<tr>
<td>MSU-DAY(s)</td>
<td>E8PF</td>
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<td>MSU-DAY Qty 250</td>
<td>E8PG</td>
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</table>

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Order now

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Fax: 800-2IBM-FAX (242-6329)
Internet: callserv@ca.ibm.com
Mail: IBM Teleweb Customer Support
IBM.com Sales Execution Centre, Americas North
3500 Steeles Ave. East, Tower 3/4
Markham, Ontario
Canada
L3R 2Z1

Reference: LE001

The Americas Call Centers, our national direct marketing organization, can add your name to the mailing list for catalogues of IBM products.

Note: Shipments will begin after the planned availability date.

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