BMC Software is releasing version 10.2.00 of the REORG PLUS for DB2® product.

REORG PLUS is a component of the BMC Database Performance for DB2 solution.

NOTE
Before you begin installation, BMC recommends that you check the Support Central website at http://www.bmc.com/support for:

- Updated product documentation (for example, flashes and technical bulletins)
- Product downloads, patches, and fixes (PTFs)
- Product availability and compatibility (PAC) data

These release notes supplement and supersede the product documentation and discuss product enhancements:

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What’s new

These topics describe the changes or new features in this release.

Temporal objects

REORG PLUS now provides native support for reorganizing all temporal objects.

NOTE

You cannot specify SELECT, UPDATE, or DELETE when reorganizing a table space that contains a system-period temporal table that is enabled for versioning.

This change makes the TEMPRALDATA installation option obsolete. If your installation options module contains the TEMPRALDATA option, the module compiles successfully but completes with return code 4 and a message indicating that the option is obsolete.

XML objects

REORG PLUS now natively reorganizes the following XML objects:

- Table spaces that contain XML columns that support XML versions
- Associated XML table spaces
- Associated node ID indexes
Indexes that contain non-key columns

REORG PLUS now natively supports indexes that contain non-key columns.

This change makes the IXINCLCOL installation option obsolete. If your installation options module contains the IXINCLCOL option, the module compiles successfully but completes with return code 4 and a message indicating that the option is obsolete.

Timestamp columns defined with a precision other than 6

REORG PLUS now natively supports timestamp columns that are defined with a precision (number of microseconds) other than 6.

As part of this support, REORG PLUS enables you to specify a precision other than 6 when including a timestamp in the following specifications:

- WHERE clause on a SELECT, UPDATE, or DELETE statement
- SET clause on an UPDATE statement
- DEADLINE
- LOGFINAL
- ALTER statement in a DDLIN data set

This change makes the TSPREC installation option obsolete. If your installation options module contains the TSPREC option, the module compiles successfully but completes with return code 4 and a message indicating that the option is obsolete.

TIMESTAMP WITH TIME ZONE data

REORG PLUS now natively supports timestamp columns that are defined as TIMESTAMP WITH TIME ZONE.
In addition to supporting TIMESTAMP WITH TIME ZONE columns, this support includes the following functionality:

- You can specify a time zone when including a timestamp in the following specifications:
  - WHERE clause on a SELECT, UPDATE, or DELETE statement
  - SET clause on an UPDATE statement
  - DEADLINE
  - LOGFINAL
  - ALTER statement in a DDLIN data set

- You can now specify WITH TIME ZONE on CURRENT TIMESTAMP for the following specifications:
  - WHERE clause on a SELECT, UPDATE, or DELETE statement
  - SET clause on an UPDATE statement

- You can use the new IMPLICIT_TZ command option to specify a time zone to use in the following cases:
  - You specify CURRENT TIMESTAMP WITH TIME ZONE.
  - Your WHERE clause includes a TIMESTAMP WITH TIME ZONE column and is comparing column values to a constant that does not contain a time zone.

For more information, see the description of this new option in the *REORG PLUS for DB2 Reference Manual*.

This change makes the TSTZ installation option obsolete. If your installation options module contains the TSTZ option, the module compiles successfully but completes with return code 4 and a message indicating that the option is obsolete.

**Universal table spaces defined with MEMBER CLUSTER**

REORG PLUS now natively reorganizes universal table spaces that are defined with MEMBER CLUSTER.

This change makes the UTSMEM installation option obsolete. If your installation options module contains the UTSMEM option, the module compiles successfully but completes with return code 4 and a message indicating that the option is obsolete.
Indexes on an expression

REORG PLUS natively supports indexes that contain a key that is derived from certain expressions:

- REORG PLUS currently supports expressions that use the following functions:
  - UPPER
  - LOWER
  - SUBSTR
  - DATE
  - DAY
  - MONTH
  - YEAR

- REORG PLUS reorganizes indexes on these expressions and reorganizes table spaces that contain these indexes.

For more information, see Chapter 2 of the REORG PLUS for DB2 Reference Manual.

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**NOTE**

PTFs BPU3652, BPJ0470, and BPJ0507 provided this functionality for version 10.1.00. For more information, see the technical bulletin dated December 23, 2011.

Clone objects

REORG PLUS natively reorganizes clone objects and base objects that participate (or have participated) in a clone relationship. Base table spaces are now supported regardless of instance number.

This change makes the CLONE installation option obsolete. If your installation options module contains the CLONE option, the module compiles successfully but completes with return code 4 and a message indicating that the option is obsolete. (The CLONE command option remains valid.)

DB2 catalog reorganization

You can now reorganize IBM® DB2 catalog (database DSNDB06) table spaces and indexes when running in a DB2 Version 10 new-function mode environment or later. For more information, see Chapter 2 of the REORG PLUS for DB2 Reference Manual.
Archive file format

You can now have REORG PLUS write discards to your archive file (SYSARC) in a format that is compatible with the FORMAT UNLOAD option of the IBM DB2 LOAD utility. New ARCHFORMAT command and installation options enable this functionality. For more information, see the description of these options in the REORG PLUS for DB2 Reference Manual.

Ability to cancel threads

You can now tell REORG PLUS to cancel threads in DB2 that might prevent a successful drain. You must have the following authorizations to use this functionality. (These additional authorizations might be implicit in the authority that you have.)

- DISPLAY privileges
- One of the following authorities:
  -- SYSADM
  -- SYSOPR
  -- SYSCTRL

A new command option, FORCE, enables this functionality; corresponding installation options FORCE, FORCE_AT, and FORCE_RPT provide default values for this option.

You can also specify a new DD statement, BMCFORCE DD, to contain the thread cancelation report.

For more information, see the descriptions of the FORCE options and the BMCFORCE DD statement in the REORG PLUS for DB2 Reference Manual.

NOTE

PTFs BPU3948 and BPJ0472 provided some of this functionality for version 10.1.00. For more information, see the technical bulletin dated May 30, 2012.
Staging data sets

The following new features provide you with additional control over how REORG PLUS handles your staging data sets:

- You can now have REORG PLUS use rename processing if FASTSWITCH processing fails. The new FSFALLBACK installation and command options tell REORG PLUS whether to enable this capability.

- You can now set a threshold number of staging data sets beyond which REORG PLUS performs FASTSWITCH processing. For data sets under this threshold, REORG PLUS performs rename processing. The new FSTHRESHOLD installation and command options let you set the threshold.

For more information, see the descriptions of these options in the REORG PLUS for DB2 Reference Manual.

Additional output messages data set

You can now send REORG PLUS output messages to a second output data set by specifying a SYSPRIN2 DD statement in your JCL. The content of this optional data set is identical to the content of the SYSPRINT data set.

SYSPRIN2 is not a substitute for SYSPRINT. If you include a SYSPRIN2 DD statement in your JCL, you must still include a SYSPRINT DD statement.

In a worklist environment, you can specify SYSPRIN2 DD SYSOUT=* to view output in real time from any of the BMC Utility products that run in that worklist.

NOTE

PTF BPU3886 provided this functionality for version 10.1.00.

Compressed versioned indexes

REORG PLUS now fully supports compressed indexes that have been versioned.

NOTE

PTFs BPU3853 and BPJ0506 provided this functionality for version 10.1.00. For more information, see the technical bulletin dated December 23, 2011.
REBALANCE option

You can now specify the number of columns to use in the limit key when specifying the REBALANCE option. For more information, see the description of the REBALANCE option in the REORG PLUS for DB2 Reference Manual.

DSNUTILB reorganizations

REORG PLUS has enhanced DSNUTILB reorganization functionality with the following updates:

- When you specify the &JDATE variable with the DSNPAT option and you are running a DSNUTILB job, REORG PLUS now translates this variable to the IBM &JDATE(3,5) variable.
- When running under a version of the IBM DB2 REORG utility that allows it, you can now specify noncontiguous partitions for a REORG PLUS table space reorganization that invokes the DSNUTILB.

Data set type specification

You can use the new DSNTYPE installation or command option to specify the type of data set that you want REORG PLUS to create during dynamic allocation. For more information, see the description of this option in the REORG PLUS for DB2 Reference Manual.

DDLIN data set

If you specify an ENDING AT or VALUES clause on an ALTER statement in your DDLIN data set, you can now use the MAXVALUE and MINVALUE keywords.
Statistics

REORG PLUS has enhanced statistics collection:

- For UPDATEDB2STATS YES, BMCSTATS YES, and BMCSTATS REPORT, REORG PLUS now collects statistics for the following objects:
  - LOB table spaces
  - Partition-by-growth table space partitions that are added during the reorganization

- For UPDATEDB2STATS YES, REORG PLUS now updates additional DB2 catalog statistics by passing the following options to the Common Statistics component:
  - UPDATEDB2 ALL (instead of UPDATEDB2 ACCESSPATH)
  - HISTORY ALL (instead of HISTORY ACCESSPATH)
  - KEYCARD Y (instead of KEYCARD N)

For information about how these options affect which statistics are updated in the DB2 catalog, see the DASD MANAGER PLUS documentation.

NOTE

You cannot change these statistics options.

Partition specification

You can now specify noncontiguous partitions when all of the following conditions exist:

- You are reorganizing a table space whose partition limit keys were altered before the reorganization.
- You are not rebalancing partitions during the reorganization.
- Your version of DB2 supports the ability to specify noncontiguous partitions.

REORG PLUS invokes DSNUTILB to enable this capability.
ACFORTSS removal

This release removes the ACFORTSS option. Now, if the following conditions exist, you must ensure that the DB2 external security exit (DSNX@XAC) from Computer Technologies is implemented:

- You use the Computer Technologies CA-ACF2 or CA-Top Secret security product for DB2.
- You previously used ACFORTSS=Y.

System and software requirements

This version of REORG PLUS has the following changes to minimum requirements:

- BMCSORT version 2.4.01
- DB2 Solution Common Code (SCC) version 11.1.00
- DB2 Utilities Common Code (D2U) version 10.2.00
- BMC Common Statistics component version 11.1.00 (to update DB2 catalog statistics or the DASD MANAGER PLUS database statistics)

End of support for DB2 8, DB2 9 CM, and DB2 10 CM8

Starting with this release, REORG PLUS does not support DB2 Version 8. Earlier releases will continue to support Version 8.

Future releases of REORG PLUS will not support the following modes:

- DB2 Version 9 CM
- DB2 Version 10 CM8

Documentation changes

This release includes the following documentation changes:

- All messages are now available in the BMC Documentation Center, which is accessible from the BMC Support Central site (http://www.bmc.com/support). A separate messages manual is no longer available.
Installation and configuration information is located in the following books:

— Installation System User Guide
— BMC Products and Solutions for DB2 Configuration Guide

Installation

Download the latest version of the REORP PLUS for DB2 product by using the Electronic Product Distribution (EPD) facility. You can navigate to the EPD page from the Support Central website at http://www.bmc.com/support.

NOTE
To request physical shipments, contact your BMC sales representative. Contact information is available on the BMC website.

REORP PLUS is installed by using the BMC Installation System. This section contains installation information that supplements or supersedes the information in the Installation System User Guide and BMC Products and Solutions for DB2 Configuration Guide.

Requirements

For software, hardware, and other requirements, see the Installation System User Guide.

Installation changes

For information about installation changes, see the Installation System release notes.
This release of REORG PLUS uses version 2.3.60 or later of the Installation System and installation media.

**NOTE**

If you have a later version of the Installation System or the installation media, use that version to install the solution, product, or component.

During installation, the following versions and SMP/E FMIDs are installed:

<table>
<thead>
<tr>
<th>FMID</th>
<th>Product or component</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASAR71C</td>
<td>SAS_C and SAS_C++</td>
<td>7.1.00</td>
</tr>
<tr>
<td>BBAPW32</td>
<td>BMC Password Security System</td>
<td>3.2.00</td>
</tr>
<tr>
<td>BBASC70</td>
<td>SAS_C</td>
<td>7.0.00</td>
</tr>
<tr>
<td>ZAIN031</td>
<td>Install Execution Code</td>
<td>3.1.00</td>
</tr>
<tr>
<td>ZARUA20</td>
<td>REORG PLUS for DB2</td>
<td>10.2.00</td>
</tr>
<tr>
<td>ZATSBI0</td>
<td>BMCMSTATS API</td>
<td>11.1.00</td>
</tr>
<tr>
<td>ZAUP241</td>
<td>BMCSORT</td>
<td>2.4.01</td>
</tr>
<tr>
<td>ZBMRI5E</td>
<td>ISR External Routines</td>
<td>1.5.00</td>
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<td>ZDIG190</td>
<td>Dignus C Runtime and C++ objects</td>
<td>1.9.01</td>
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<td>DB2 Solution Common Code</td>
<td>11.1.00</td>
</tr>
<tr>
<td>ZSIO160</td>
<td>DB2 Option Carryover</td>
<td>1.6.00</td>
</tr>
</tbody>
</table>

The preceding table contains the FMIDs for REORG PLUS only. You can also obtain product, solution, and component information (FMIDs, codes, and versions) in the following ways:

- View the $B76APLF JCL member.

  To search the file, search on the word *FORFMID*.
View one of the following reports:

- `bxx_ozi_tape_product_list.txt` lists products and components for the B-series installation (shared and infrastructure products).
- `cxx_ozi_tape_product_list.txt` lists products and components for the C-series installation (BMC products for DB2).
- `ixx_ozi_tape_product_list.txt` lists products and components for the I-series installation (BMC products for IBM IMS™).
- `mxx_ozi_tape_product_list.txt` lists products and components for the M-series installation (MainView products).

To access the reports on the BMC electronic software distribution (ESD) site, take the following steps:


2. Click **Electronic Downloads**.

3. Click **readme**.

4. In the “Before you begin” section, click a product media listing.

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**Maintenance**

After you install REORG PLUS, BMC strongly recommends that you apply all available maintenance for the product and for the components and associated products that you installed with it. You can download any additional SMP/E maintenance by using either BMC Internet Service Retrieval (ISR) or eFix PTF Distribution Services [http://apps.bmc.com/support/efix.cgi](http://apps.bmc.com/support/efix.cgi). BMC ISR is available for all products that you install by using the Installation System. For more information, see the *Installation System User Guide*.

**NOTE**

Before applying maintenance, ensure that you have completed the $B76APLF job to set up your maintenance environment.
Support status

You can find the support status for specific product versions on the Support Central website. Selecting a product from the “A – Z Supported Product List” shows:

- All versions of the product and their current support levels (full or limited)
- Dates on which support ends

For more information about the latest support policies, see the Support Central website at http://www.bmc.com/support.

Product documentation

From the Support Central website (http://www.bmc.com/support), you can:

- Link to the BMC Documentation Center (https://webapps.bmc.com/infocenter/index.jsp) to browse documentation sets
- View BMC Quick Course Demos (short overviews of selected product concepts, tasks, or features), which are included in the BMC Documentation Center
- View individual product documents (books and notices) within the “A – Z Supported Product List”

You can order hardcopy documentation from your BMC sales representative or from the support site. You can also subscribe to proactive alerts to receive e-mail messages when notices are issued.

Customer support

If you have problems with or questions about a BMC product, see the support website at http://www.bmc.com/support. You can view or download product documents, find answers to frequently asked questions, and download products and maintenance. If you do not have access to the web and you are in the United States or Canada, contact Customer Support at 1 800 537 1813. Outside the United States or Canada, contact your local BMC office or agent.