BMC originally issued these release notes on June 25, 2013. They are being reissued to reflect new support for the IBM® DB2® Version 11 system. Revision bars denote differences from the previous edition.

BMC Software is releasing version 11.1.00 of the RECOVERY MANAGER for DB2 product.

RECOVERY MANAGER is also a component of the Recovery Management for DB2 solution.

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

For a short demo describing what’s new in this release, see https://webapps.bmc.com/infocenter/index.jsp. In the BMC Documentation Center, you can access the demo library via BMC Quick Course Demo Library in the Contents pane on the left.

DB2 Version 11 support

RECOVERY MANAGER now supports the IBM DB2 Version 11 system in all modes (CM, ENFM, and NFM) and includes support for extended RBAs and LRSNs in the following items:

- BSDSs
- Logs
- Table spaces
- Index spaces
End of support for DB2 Version 8

Starting with this release, RECOVERY MANAGER does not support IBM DB2 Version 8. Earlier releases will continue to support Version 8.

Extended RBA/LRSN support

RECOVERY MANAGER now supports 10-byte RBAs and LRSNs.

BMC DB2 Product Configuration technology

RECOVERY MANAGER now uses DB2 Product Configuration (LGC) technology to set default values for control information (now called configuration options) and for the control file (now called the option set). To accommodate LGC, this release:

- Adds an option to the RECOVERY MANAGER Main Menu (5. Product Option Sets - Set RECOVERY MANAGEMENT Product options)
- Adds an Option Set field where you can enter the option set name. The default option set is ARM$OPTS.
- Adds the default option set name ARM$OPTS to EXEC PARM for batch jobs
- Uses ARMOPTS DD to override configuration option values at runtime
- Adds a configuration option to get the option set name for the PACLOG product
- Removes the ssid.DB2V option from Appendix A, “Option sets and configuration options.” This release obtains the DB2 version when connecting to DB2 (or, if not connecting to DB2, from the DSNHDECP module in the STEPLIB).
- Removes the following options that dealt with product versions, which were formerly listed in Appendix A, “Control file and installation” in the RECOVERY MANAGER for DB2 User Guide (now Appendix A, “Option sets and configuration options”):
  — ssid.ACKVRSN
  — ssid.ACPVRSN
  — ssid.AFRVRSN
  — ssid.ALMVRSN
  — ssid.ALPVRSN
  — ssid.XBMVRSN
RECOVERY MANAGER now checks the `productCodeVRSN` load module in the `STEPLIB`. If the `productCodeVRSN` module is found but the specified product version is not supported, RECOVERY MANAGER generates an informational message.

- Removes `ARMBSDR`, `ssid.ACASTN`, `ssid.APTLOAD`, and `ssid.APTPLAN` from Appendix A, “Option sets and configuration options”

**Recovery Progress Report**

RECOVERY MANAGER now offers Recovery Progress Reports and a new batch program, ARMBRPR. They enable you to gauge the progress of recoveries by `DATABASE.TABLESPACE` pattern and the group level. For more information, see the following chapters in the *RECOVERY MANAGER for DB2 User Guide*:

- Chapter 10, “Accessing online Recovery Progress Reports”
- Chapter 23, “ARMBRPR — Recovery Progress Reports”

**Shared repository with DASD MANAGER PLUS**

RECOVERY MANAGER now shares the BMC Common DB2 repository (documented in Appendix B of the *RECOVERY MANAGER for DB2 User Guide*) with DASD MANAGER PLUS. You can use this repository to work with groups and object sets.

**BACKUP SYSTEM and RESTORE SYSTEM JCL generation**

RECOVERY MANAGER adds support for generating stand-alone JCL for the IBM BACKUP SYSTEM and RESTORE SYSTEM utilities.

**TIMESTAMP recovery JCL**

RECOVERY MANAGER can now generate TIMESTAMP recovery JCL (TOTIMESTAMP option) on a non-data-sharing system.
External security support

For opening and saving a group, RECOVERY MANAGER now supports use of external security packages such as IBM RACF® or CA Technologies CA-ACF2 or CA-Top Secret.

COPY NO indexes and TS STAT status

RECOVERY MANAGER now processes COPY NO indexes based on the status of the associated table space. If the table space has not changed, RECOVERY MANAGER shows the index status as TS STAT and bypasses recovery if the table space has not changed. TS STAT is shown on panel ARMOB001 (Object List).

New Group List panel options

The following new options on the Group List panel (ARMGP001) let you make changes without the overhead of opening the group:

- H to display group authorizations
- O to display group utility options
- G to generate ARMBGRP CREATE JCL based on the group definition of the selected group
- P to display the Recovery Progress Report panel

Deactivate/Destroy/Restore function

A new panel (ARMRBS—3.4.12 from the Main Menu) adds support for the Deactivate/Destroy/Restore function for data sharing members. This feature requires DB2 Version 10 new-function mode (NFM) or higher. (IBM APAR PM42528 introduced this function.)

DSSNAP option

RECOVERY MANAGER adds DSSNAP, which is used to specify making a hardware-based Instant Snapshot copy of DB2 data, to the Output Options panel (ARMRO03D).
Work prefix addition

On the Update/Browse Work File Options panel (ARMRO002), the new Work prefix field lets you specify a work prefix in the group options.

RECOVERY MANAGER now reports the work prefix in REPORT GROUP output under WORK FILE OPTION DESCRIPTIONS. Also, this release includes WORKFILE_WORKPREFIX as a new option for ARMBGRP.

ARMBSRR and ARMBTSI support of quiesced and deactivated data-sharing members

ARMBSRR and ARMBTSI now handle quiesced and deactivated data-sharing members. This support includes the following additions:

- The ability to exclude data sharing members, bypass quiesced members, or bypass deactivated members (on panels ARMDR01A, ARMDR06A, and ARMUFS4)
- New supported syntax—EXCLUDE MEMBERS, BYPASS QUIESCED, and BYPASS DEACT—for ARMBSRR and ARMBTSI

**NOTE**

For ARMBSRR, EXCLUDE MEMBERS replaces QUIESCED MEMBERS and works the way QUIESCED MEMBERS worked.

ARMBGRP changes

This release includes the following changes for ARMBGRP:

- You can use multiple VIA statements when creating a group. Multiple VIA statements are allowed in CREATE GROUP syntax with the exception of VIA EXCEPTION and VIA VOLUMES, which are static groups.
- You can now use EXCLUDE and EXCLUDEIX for groups that are created with VIA VOLUMES.
■ You can now specify the following options when creating a group:
  — VIA GROUP
  — VIA INDEXSPACE
  — VIA PACKAGE
  — VIA PLAN

**NOTE**
For groups built by plan name on DB2 Version 9, RECOVERY MANAGER includes objects with plan and package dependencies. In contrast, on DB2 Version 10 or later, RECOVERY MANAGER includes objects with package dependencies.

— VIA STOGROUP

■ You can now enter dynamic SQL inline in VIA SQL syntax by using #BEGINSQL and #ENDSQL for multiple SQL statements per group.

■ You can now enter subselects in the SQL that you use to create groups.

■ You can use ‘SG’ (meaning storage group) in dynamic SQL when creating groups.

■ You can use the new QUERY OBJECTS report to provide the table spaces or indexes, based on object names.

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**ARMBGPS changes**

When populating new groups, you can now include or exclude groups by specifying group name patterns:

■ Panel ARMUFS1A includes the following new entry fields:
  — GROUP OWNER.NAME Include names or patterns
  — GROUP OWNER.NAME Exclude names or patterns (optional)

**NOTE**
You access panel ARMUFS1A via 2.10 on the RECOVERY MANAGER Main Menu and panel ARMUFSD.

■ This release adds INCLUDE_GROUP and EXCLUDE_GROUP syntax to ARMBGPS.
ARMBSET changes

This release includes the following changes for ARMBSET:

- Adds the SET CURRENT SQLID command
- Adds the RESET_GRECP_LPL command for subsystems

**NOTE**

RECOVERY MANAGER issues the START command for each object that has LPL or GRECP status. This action affects the entire subsystem (not only the object set).

- Adds the following new commands for object sets:
  - QUIESCE WRITE
  - RUNSTATS
- Allows you to specify an alphabetic value associated with the numeric values for all ARMBSET options that previously accepted only numeric values

**NOTE**

A future release of RECOVERY MANAGER will accept only alphabetic values for these options.

ARMBGPV changes

ARMBGPV now writes SAMS RESTORE commands to the new ARMRSTOR DD. You can use the SAMS RESTORE commands as input to restore migrated data sets. You do not set an option to have RECOVERY MANAGER create the ARMRSTOR DD.

New ARMCOMM DD statement

A new DD statement, ARMCOMM, accommodates a new method of communication between the ARMBSDR and ARMBCOR batch programs:

```plaintext
//ARMCOMM DD DISP=SHR,
//       DSN=PRODUCT.CNTL.LIBS(ARMBSDR)
```
Previously, ARMBSDR and ARMBCOR used the ARMBSDR option in ARMSOPTS to communicate during Phase 1 execution of disaster recovery JCL for data sharing. With the conversion of ARMSOPTS to use DB2 Product Configuration (LGC), this method of communication is no longer valid. This release adds ARMCOMM to ARMBSDR and ARMBCOR JCL.

As shown in the ARMCOMM DD statement, the communication now involves the ARMBSDR member in the CNTL data set.

**NOTE**
This change does not affect the way in which ARMBSDR or ARMBCOR works; only their communication method has changed.

### RACF authorization

The RACF security administrator must define an Open Multiple Virtual Storage (OMVS) segment for each RECOVERY MANAGER user. The user ID assigned to the DBC started task must also have an OMVS segment defined.

The OMVS segment is required because DBC utilizes IBM z/OS UNIX System Services (USS) sockets for cross-address-space communication within an LPAR.

### Changes for COPY PLUS

RECOVERY MANAGER now supports the following items for COPY PLUS:

- **COPY PLUS SNAP option**, which enables COPY PLUS to make VSAM copies, even if the data set is not on a snappable disk

- **A second value**, the maximum total tasks (MAX_TASK2), for MAXTASKS. MAXTASKS is now valued as MAXTASKS (maximumTapeTasks, maximumTotalTasks). In the RECOVERY MANAGER online interface, this value is accessible via the ARMCO023 panel.

- **&UNIQ (or &UQ) symbolic variable** to generate unique image copy data set names. If you use &UNIQ, COPY PLUS generates a 1- to 8-character value that is based on the system clock. The first character is always an uppercase letter. Each remaining character is either an uppercase letter or a numeral from 0 through 9.
Changes for RECOVER PLUS

RECOVERY MANAGER now supports the following items for RECOVER PLUS:

- RECOVER PLUS SNAP option, which enables RECOVER PLUS to make VSAM copies, even if the data set is not on a snappable disk
- &UNIQ (or &UQ) symbolic variable to generate unique image copy data set names. If you use &UNIQ, RECOVER PLUS generates a 1- to 8-character value that is based on the system clock. The first character is always an uppercase letter. Each remaining character is either an uppercase letter or a numeral from 0 through 9.
- TOTIMESTAMP recovery for non-data-sharing environments
- TOLOGMARK recovery with Resolve Inflights No

Changes for Recovery Management

The following changes in RECOVERY MANAGER affect the Recovery Management solution:

- TOTIMESTAMP recovery for non-data-sharing environments. Previously, TOTIMESTAMP recovery was allowed only for data sharing subsystems.
- TOLOGMARK recovery with Resolve Inflights No. Previously, in-flight resolution was required. For more information, see the Recovery Management for DB2 User Guide.

Documentation changes

This release includes several significant changes to the documentation:

- The RECOVERY MANAGER for DB2 User Guide no longer includes Appendix H, "BMC DB2 Component Services," which described the DBC component. For information about DBC, see the BMC Global Infrastructure Components Administration Guide.
- 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 now located in the following books:

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

### Installation


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

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RECOVERY MANAGER 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 the *BMC Products and Solutions for DB2 Configuration Guide*.

### Requirements

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

### Installation changes

The Installation System includes the following changes:

- Configuration of RTCS was moved out of Mainview Customization and into the Global Infrastructure Component customization.
- An option was added to allow deselection of RTCS to prevent it from being downloaded.
- Additional $G jobs are generated for customizing Global Infrastructure Components
- A new path was added to reuse existing Global Infrastructure Components and to upgrade them in place.
FMID and version information

- Additional $U jobs are generated for customizing products that use the DBC repository and option sets.
- The install dialog flow was changed to generate the $C and $M customization jobs after $U jobs for products that use the Global Infrastructure Components.

For more information about installation changes, see the Installation System release notes.

**FMID and version information**

This release of RECOVERY MANAGER uses version 2.3.60 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>LOSZ120</td>
<td>RTCS C Library</td>
<td>2.0</td>
</tr>
<tr>
<td>ZAIN031</td>
<td>Install Execution Code</td>
<td>3.1.00</td>
</tr>
<tr>
<td>ZARMB10</td>
<td>RECOVERY MANAGER for DB2</td>
<td>11.1.00</td>
</tr>
<tr>
<td>ZBMR15E</td>
<td>ISR External Routines</td>
<td>1.5.00</td>
</tr>
<tr>
<td>ZDBC10</td>
<td>DB2 Component Services</td>
<td>10.1.00</td>
</tr>
<tr>
<td>ZDIG190</td>
<td>Dignus C runtimes and C++ objects</td>
<td>1.9</td>
</tr>
<tr>
<td>ZLGCA10</td>
<td>DB2 Product Configuration</td>
<td>10.1.00</td>
</tr>
<tr>
<td>ZOSZ120</td>
<td>RTCS Kernel</td>
<td>2.0</td>
</tr>
<tr>
<td>ZSCCB10</td>
<td>DB2 Solution Common Code (SCC)</td>
<td>11.1.00</td>
</tr>
<tr>
<td>ZUSC540</td>
<td>UIM Common Services</td>
<td>5.4.00</td>
</tr>
<tr>
<td>ZZIO160</td>
<td>DB2 Option Carryover</td>
<td>1.6.00</td>
</tr>
</tbody>
</table>

The preceding table contains the FMIDs for RECOVERY MANAGER 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 RECOVERY MANAGER, 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). BMC ISR is available for all products that you install via the Installation System. For more information, see the *Installation System User Guide*.

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**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.