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

BMC Software is releasing version 11.1.00 of the SQL Performance for DB2 solution.

This solution includes the following components:

- APPTUNE for DB2
- SQL Explorer for DB2

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.

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.

SQL Performance for DB2 version 11.1.00

These topics describe the changes or new features in this release of the SQL Performance for DB2 solution.

DB2 Version 11 support

With the PTFs for each component applied, SQL Performance now supports the IBM DB2 Version 11 system.

End of support for DB2 Version 8

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

New DMDBMERG utility

The DMDBMERG utility allows you to maintain Performance Advisor tables that are based on APPTUNE data. DMDBMERG generates control statements for input into a LOAD utility and generates load records representing data for one or more Performance Advisor tables.

For input to DMDBMERG, data can be retrieved directly from a Data Collector by using the DATASORE(COLLECTOR(....)) control statement.

For some tables, you must update existing rows. In these cases, DMDBMERG also requires a LOADIN file. This file contains the load records that the previous DMDBMERG execution generated for the same table or tables. When LOADIN is present, the resulting LOAD control statements replace the specified tables with generated load records.
**NODATA control statement**

The NODATA control statement can now override return codes. In designated cases, the NODATA control statement generates alternate values for the DMDBMERG utility’s default return codes.

**WLC/IXA enhancements**

In this release BMC has made the following enhancements to Workload Access Path Compare (WLC) and Workload Index Advisor (IXA).

**WLC/IXA workload extraction enhancement**

You can use the following new object set types to extract SQL text from the archived APPTUNE trace data sets (log files):

- Database (DB)
- Tablespace (TS)
- Table (TB)

The following components support the new object types:

- Workload Access Path Compare
- Workload Index Advisor

**IXA imported DDL enhancement**

The Workload Index Advisor component now supports the import of CREATE INDEX DDL with the associated statistics, and DROP INDEX DDL. The Workload Index Advisor component can use that imported DDL in the Recommindex Analysis.

**FIND command in workload compare/index advisor**

This release adds the FIND command to the Workload Access Path Compare and Workload Index Advisor panels and reports. To locate a workload by searching for a text string, type `FIND string` on the Command line, and press `Enter`. Press `PF5` to advance to the next instance of the specified text.

**APPTUNE for DB2 version 11.1.00**

These topics describe the changes or new features in this release of APPTUNE for DB2.
DB2 Version 11 support

With PTFs BPU6127 and BPU6133 applied, APPTUNE now supports the IBM DB2 Version 11 system.

End of support for DB2 Version 8

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

Workload Focus

Workload Focus can dramatically improve the time it takes to view an online report in APPTUNE.

**NOTE**

Zoom filtering is now incorporated into Workload Focus as an option called **Limit reporting by qualifiers**.

Workload Focus provides faster access to APPTUNE data in the online environment in the following situations:

- You know you are interested in a particular subset of your workload as identified by qualifiers such as plan, program, or client application ID.

  When you enable **Limit reporting by qualifiers**, you are prompted to identify the workload subset of interest by specifying one or more qualifier values as you enter each applicable report. For example, as you enter the report for Workload Analysis by program, you will be prompted to enter one or more program names. This feature can also be invoked by entering the ZFILTER command on the command line on selective APPTUNE reports.

- You want to determine the heaviest consumers across your workload reports based on usage criteria such as CPU, elapsed time, getpages, or programs.

  Workload Focus allows you to specify that only the Top "N" elements be displayed per report based on resource usage. For example, assume that you set \( n \) to 100 and set your usage criteria to CPU usage; your activation of Workload Analysis by program will show the top 100 programs by CPU usage.

You access Workload Focus from option 7 on the SQL Workload Analysis Menu.
Server-side data reduction

To improve response time for online reporting, much of the data reduction now takes place on the server side. This approach reduces the number of records returned to the TSO client for APPTUNE workload reports.

The server-side reduction is eligible to offload processing to an IBM System z® Integrated Information Processor (zIIP). Reducing the amount of data to be processed earlier in the report viewing process reduces the overall response time.

New console commands

This release includes the following new console commands:

- **DOM,STOP** dynamically stops the DOM agent (BMC DB2 Online Monitor Common Infrastructure agent), which stops data collection. You can also use the alias DOMSTOP.

- **DOM,START** starts the DOM agent, which starts data collection based on values that are set in the associated DOMELEX option set. You can also use the alias DOMSTART.

- **DOM,REFRESH** issues a DOM,STOP followed by a DOM,START to refresh the DOM agent. You can also use the alias DOMREFRESH.

- **STATUS** provides status on output groups and, depending on the parameters used, list statistics for all or a particular output group.

The Next Generation Logger (NGL) agent defines the following NGL commands at initialization time:

- **NGL,STOP,piid** stops the NGL agent that is using the specified Product Instance Identification (PIID). The PIID must match a <PIID> value coded in the product definition for an NGL agent.

  **NOTE**

  BMC recommends that you stop the DOM agent before issuing this command.

- **NGL,START,piid** starts the NGL agent for the specified PIID.

- **NGL,DUMP,piid** produces a dump for the NGL agent for the specified PIID.

- **NGL, REFRESH,piid** issues an NGL, STOP followed by an NGL, START for the specified PIID.

For more information, see the BMC Global Infrastructure Components Administration Guide.
Improvements in trace logging

SQL Performance for DB2 uses the Next Generation Logger (NGL), which includes the following enhancements.

Support for IBM MVS System symbolics

In your DOMPLEX option set, you can now use IBM MVS system symbolics when specifying data set names or prefixes for log files or archives. For example, you can specify MVS system symbolics such as &SYSNAME or &HHMMSS to represent the environment at the time the file is created.

The following fields of NGL LOGSET parameters now support MVS system symbolics:

- LDS DSN prefix
- Alternate full Archive DSN
- Archive DSN prefix

Support for logger compression options

Logger compression is now performed at the buffer level, which is more effective in general than the previous implementation at the record level. In your DOMPLEX option set, when specifying NGL options, you can use a new setting to control this compression. The default setting of LOW compression offers an optimal mix of space savings and CPU usage; you can also specify HIGH for more space savings at a higher CPU cost, or NO to disable compression.

Support for zIIP processing

The NGL server now supports using the IBM System z® Integrated Information Processor (zIIP). You can now use the compression option to offload work to a zIIP.

Support for archive wait time

The DOMPLEX option set now includes a new field called Archive wait time. This field lets you specify the maximum number of seconds to wait for an archive to finish before marking the log file eligible for reuse.

NGL maintenance

BMCMSGLG DD is now dynamically allocated to the DBC started task and contains a complete list of maintenance for the NGL and NGR agents. NGL and NGR maintenance now also appears in the Maintenance option on the Administration menu in BMC performance products.
Updated DB2 Product Configuration (LGC) technology

This release includes version 10.1 of the DB2 Product Configuration technology (also called LGC), which now lets you:

- Browse (via line command B) option sets in the ISPF client
- Rename option sets online and in batch
- Set default section values in your DOMPLEX option sets (Data Collector List, DB2 Monitor List, and Output Groups) and in APPTUNE filter definitions

  The defaults are automatically populated for each section that you create.

- Migrate option sets to a new version, and update the values (or a subset of values) in the option set
- Use new commands for explicitly registering and deregistering the default DBC

Support for LGC section defaults

You can now set default section values in your DOMPLEX option sets and APPTUNE filter definitions. The default values are used to initialize option values in each section that is created. Also, if you subsequently update the default values, you can apply the updates to existing instances, at your discretion.

You can set default section values for:

- Data Collector List
- DB2 Monitor List
- Output Groups
- APPTUNE filter definitions

New allocation options for log files and archive files

SQL Performance for DB2 now supports Generation Data Groups (GDGs) in the archive process. Using the Archive GDG setting in the NGL Logset Parameters section of your DOMPLEX option set, you can specify using a GDG for your archive files.
The DOMPLEX option set includes the following new fields:

- **LDS Allocation Type** lets you set the allocation type for the Output group log files. Valid values are:
  - SMS to use SMS values specified on other fields
  - VOL to use a VOLSER specified on another field
  - NONE to use system defaults instead of sending allocation parameters

- **Archive file Allocation type** lets you set the allocation type for archive data sets but also includes a setting for UNIT to allocate the archive data set.

### New values for the Qualifier parameter

For the Qualifier parameter of the DOMBRPT1 utility, this release adds the following new values:

- CALLTYPE indicates the type of SQL statement that was executed (static or dynamic).
- TEXTHASH can consist of 20 hexadecimal characters.
- DSGROUP indicates a data sharing group name up to 8 characters long.
- STMSTYPE indicates statement types that are reported in APPTUNE (such as FETCH, OPEN, CLOSE), with underscores instead of blanks (for example, CALL_STATEMENT). The type can be up to 22 characters long.

### New BMC IFCID

The following reports use a new BMC IFCID, 311 SQL statement summary (subsystem, program):

- SQMCACCTR Program Analysis (DATA) report
- SQMCAGTR Program Analysis (GRAPH) report

### SQL Explorer for DB2 version 11.1.00

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

### DB2 Version 11 support

With PTF BPU6184 applied, SQL Explorer now supports the IBM DB2 Version 11 system.
End of support for DB2 Version 8

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

Migrating access path statistics for a remote DB2

The Migrate Access Path Statistics feature now enables you to migrate access path statistics from one DB2 subsystem to another subsystem from a remote LPAR. You can specify the subsystems (SSIDs) and distributed data facility (DDF) locations for the migrate operation.

Common Explain enhancements

These topics describe the changes or new features in Common Explain.

Explain package

SQL Performance for DB2 now includes an Explain package feature. An Explain package reports on the current access path for a static SQL statement even if a BIND with EXPLAIN(YES) was not previously performed. The Explain package retrieves all other static binds for comparison.

Expert rules

The following new features have been added to Expert rules:

- Common Explain users can now define their own expert rule variables. Common Explain now calls a REXX exec (capable of adding new facts to the rules engine knowledge base) before firing rules.

- SQL Performance for DB2 has an updated list of available variables for expert rules. The following variables and descriptions have been added or updated:

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLLID</td>
<td>Column from the SYSIBM.SYSPACKAGE table</td>
</tr>
<tr>
<td>DBRM</td>
<td>Column from the SYSIBM.SYSDBRM table</td>
</tr>
<tr>
<td>HIGH2KEY</td>
<td>Column from the SYSIBM.SYSCOLUMNS table</td>
</tr>
<tr>
<td>IXCOLCNT</td>
<td>Number of index keys from the SYSIBM.SYSKEYS table The number of key columns in the index</td>
</tr>
<tr>
<td>IXMATCOLS</td>
<td>String containing the names of the matching index keys from the SYSIBM.SYSKEYS table Names of the matching key columns</td>
</tr>
</tbody>
</table>

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

SQL Performance for DB2 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.

Requirements

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

If both of the following conditions exist at your site, contact BMC Customer Support before attempting to use the Installation System to customize your BMC products:

- Your subsystem is using DB2 Version 10.
- The DSNZPARM SEPARATE_SECURITY subsystem parameter is set to YES.

Installation changes

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

Upgrade considerations

A known issue causes historical data from version 10.1 to be inaccessible after you install version 11.1. BMC plans to issue a notice when the fix is available.

If you migrate from version 6.x of the Data Collector during installation, the following changes apply:

- The STATUS VSAM data set is converted to an XML document.
- The DOMDMDSN DOPTS module is no longer used.
- The CUSTOM VSAM data set is now a PDS and is maintained with SMP/E, which simplifies applying maintenance to the Data Collector reports.
- Some data set allocations have changed in several product CLISTs, such as DOMCLIST, PSSCLIST, and SPDCLIST.

If you migrate from Data Collector version 10.1 during installation, the following considerations apply:

- BMC recommends selecting the option to reuse global infrastructure components (DBC, LGC, NGL, and RTCS).
- Migrated option sets should require little or no editing. Because the migration preserves the earlier configuration, you do not need to reenter information or create new instances of components.
This release of SQL Performance for DB2 uses the following versions of the Installation System and installation media:

- Version 2.3.60 or later of the installation system
- Version 2.3.60 or later of the 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.

<table>
<thead>
<tr>
<th>FMID</th>
<th>Product or component</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASAR71C</td>
<td>SAS/C Resident Library</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>Runtime Component System (RTCS) C Library</td>
<td>1.2.00</td>
</tr>
<tr>
<td>ZAIN030</td>
<td>Install Execution Code (AIN)</td>
<td>3.0.00</td>
</tr>
<tr>
<td>ZBMR15E</td>
<td>ISR External Routines</td>
<td>1.5.00</td>
</tr>
<tr>
<td>ZDASB10</td>
<td>DB2 Assist Services (DAS)</td>
<td>11.1.00</td>
</tr>
<tr>
<td>ZDBC10</td>
<td>DB2 Component Services (DBC)</td>
<td>11.1.00</td>
</tr>
<tr>
<td>ZDIG190</td>
<td>Dignus C runtimes and C++ objects</td>
<td>1.9.00</td>
</tr>
<tr>
<td>ZDOMB10</td>
<td>Common Infrastructure (DAA)</td>
<td>11.1.00</td>
</tr>
<tr>
<td>ZIODB10</td>
<td>APPTUNE for DB2</td>
<td>11.1.00</td>
</tr>
<tr>
<td>ZLGCA10</td>
<td>DB2 Product Configuration</td>
<td>10.1.00</td>
</tr>
<tr>
<td>ZMRE110</td>
<td>Rules Engine</td>
<td>1.1.00</td>
</tr>
<tr>
<td>ZNGLA20</td>
<td>Next Generation Logger (NGL)</td>
<td>10.2.00</td>
</tr>
<tr>
<td>ZOSZ120</td>
<td>RTCS kernel</td>
<td>1.2.00</td>
</tr>
<tr>
<td>ZPSEB10</td>
<td>SQL Explorer for DB2</td>
<td>11.1.00</td>
</tr>
<tr>
<td>ZPSBB10</td>
<td>Common Explain (PSS)</td>
<td>11.1.00</td>
</tr>
<tr>
<td>ZSCCB10</td>
<td>DB2 Solution Common Code (SCC)</td>
<td>11.1.00</td>
</tr>
<tr>
<td>ZUSC540</td>
<td>User Interface Middleware Common Services (USC)</td>
<td>5.4.00</td>
</tr>
</tbody>
</table>

The preceding table contains the FMIDs for SQL Performance for DB2 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 IBM 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.

**Maintenance**

After you install SQL Performance for DB2, 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 by using 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.
BMC provides fixes for SQL Performance for DB2 at the component level. To apply fixes for this solution, you must apply fixes for each component of the solution.

**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](http://www.bmc.com/support).

**Product documentation**

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

- Link to the BMC Documentation Center ([https://webapps.bmc.com/infocenter/index.jsp](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](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 800 537 1813. Outside the United States or Canada, contact your local BMC office or agent.