BMC is releasing version 12.1.00 of the BMC Next Generation Technology Unload for DB2 for z/OS (NGT Unload) product.

NGT Unload is available as a stand-alone product and as a component of the following solutions:

- BMC High Speed Utilities for DB2
- BMC Object Administration for DB2
- BMC Next Generation Technology Utility Suite Accelerator for DB2
- BMC Next Generation Technology Database Administration for DB2

**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 data

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

The following topics are discussed:

What's new .................................................................2
   Installation of NGT products .........................................................2
   Installation System changes ..........................................................2
   Authorization ID .................................................................3
   Synonyms .................................................................3
   Component and library names ..................................................3
   Concurrent access control .......................................................3
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What's new

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

Installation of NGT products

You now use the BMC Installation System to install and configure the NGT products.

Use the following documentation to assist you in installing, configuring, and customizing the NGT products:

- Installation System Quick Start
- Installation System Reference Manual
- BMC Products and Solutions for DB2 Customization Guide

The BMC Next Generation Technology Installation Guide is now obsolete.

Installation System changes

Beginning with version 3.1.00 of the Installation System, new product releases necessitate a new Installation System FMID. Before installing any products, always ensure that you have the most recent version of the Installation System installed and that you have refreshed its runtime environment.
This change enables PTF maintenance for individual levels of the Installation System. The change also eliminates the requirement to provide the Installation Maintenance Value, which simplifies the installation process.

For more information, see the release notes for the most current version of the Installation System.

**Authorization ID**

The NGT products now enable you to use the DBM1 authorization ID.

**Synonyms**

The NGT products now use aliases instead of synonyms.

**Component and library names**

Many of the NGT product components and libraries with names beginning with `CDB` have been renamed to begin with `NGT`.

In most cases, the name change only substitutes `NGT` for `CDB` (for example, `CDBDISP` is now `NGTDISP`). `CDBEXEC` is the exception in that it has been renamed to `NGTAUTO`. These name changes are reflected in the NGT messages and in the documentation.

**Concurrent access control**

The following products now use the BMCUTIL and BMCSYNC common tables to control concurrent access to the objects on which they operate. Using these tables does not replace using the BMC Next Generation Technology (NGT) Matrix and the utility internal databases (IDBs).

- NGT Check
- NGT Load
- NGT Reorg
- NGT Stats
- NGT Unload
As part of this enhancement, you can use the NGTDISP utility to display entries from these two tables. For more information about the new options to specify with NGTDISP, see the *BMC Next Generation Technology General User Guide*. 

BMC provided this enhancement for version 11.2 via BMC PTFs BPU8370, BPU8384, and BPJ1316.

**New component requirement**

The NGT products now use the DB2 Solution Common Code (SCC) component. SCC is installed when you install the NGT products.

BMC introduced this requirement for version 11.2 via BMC PTFs BPU8370, BPU8384, and BPJ1316.

**Maintenance listing**

Each NGT product now reports the BMC maintenance that has been applied for that product. This information appears in your CDBPRINT.

**LOB data**

You can now unload a LOB auxiliary table and its base table at the same time without an NGT LOBMaster license.

NGT Unload enables this support by adding the SPANNED YES command option. This option tells NGT Unload to unload your data in spanned record format. For more information about this option, see the *BMC Next Generation Technology Unload for DB2 for z/OS Reference Manual*.

BMC provided this enhancement for version 11.2 via the BMC PTF BPU8352.

**Cabinet copies**

NGT Unload now enables you to unload from cabinet copies that have been created by the BMC Recovery Management for DB2 solution or the BMC Recovery for DB2 solution.
To unload from a cabinet copy, specify INFILE IMAGECOPY on the UNLOAD
command. For more information about this option, see the BMC Next Generation

Note
This release adds the UNLOAD command to NGT Unload. For more information,
see “UNLOAD command” on page 7.

Unloading from a table space

NGT Unload now enables you to unload all supported data from all tables of a table
space by using a single command.

To unload a table space, specify TABLESPACE on the UNLOAD command. For
more information about this option, see the BMC Next Generation Technology

Note
This release adds the UNLOAD command to NGT Unload. For more information,
see “UNLOAD command” on page 7.

Field specification for an output record

NGT Unload now enables you to define your output records by including a field
specification on your syntax statement.

To include this specification, use the INTO option on the UNLOAD command. For
more information about this option, see the BMC Next Generation Technology

Note
This release adds the UNLOAD command to NGT Unload. For more information,
see “UNLOAD command” on page 7.

Dynamic allocation of data sets

The NGT Load, NGT Unload, and NGT Reorg products now enable you to use the
NGT OUTPUT command to dynamically allocate certain data sets.
In addition to this new command, you can use the new utility parameter +OVERRIDEOUTPUT. This parameter enables you to specify whether to dynamically allocate data sets by using the OUTPUT command or by using the appropriate automation control point.

For syntax information about the OUTPUT command and the +OVERRIDEOUTPUT parameter, see the *BMC Next Generation Technology General User Guide*. For information about which data sets you can allocate with the OUTPUT command, see the reference manuals for the individual products.

## SQL functionality

The following products now enable you to use an SQL-like language known as NGT SQL:

- NGT Check
- NGT Load
- NGT Reorg
- NGT Unload
- NGT Utility Manager

The NGT utility products use NGT SQL for such specifications as WHERE or WHEN clauses, SELECT lists, and indexes on expression. For more information, see the *BMC Next Generation Technology General User Guide*.

## Utility parameters

This release adds the following new NGT utility parameters (UTLPARMS):

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ALLError</td>
<td>Enables you to set the behavior of SYSERROR</td>
</tr>
<tr>
<td>+DSNUTILB</td>
<td>Specifies whether to enable NGT Reorg to invoke DSNUTILB when needed</td>
</tr>
<tr>
<td>+IGNOREJSETPARTS</td>
<td>Specifies whether to disregard partition numbers defined in object sets</td>
</tr>
<tr>
<td>+LOGPDS</td>
<td>Overrides the default log data set name</td>
</tr>
<tr>
<td>+NGTAUTO1</td>
<td>Overrides the default NGT automation data set name</td>
</tr>
<tr>
<td>+NGTAUTO2</td>
<td>Enables you to configure a second NGT automation data set</td>
</tr>
<tr>
<td>+NGTCHKPT</td>
<td>Overrides the default NGT checkpoint data set name</td>
</tr>
<tr>
<td>+NGTTSVR</td>
<td>Overrides the default name of the NGT server JCL data set</td>
</tr>
<tr>
<td>+OBJSETSTOGROUP</td>
<td>Defines the storage group that NGT utilities use to store temporary objects</td>
</tr>
</tbody>
</table>
### Parameter |
### Description
+OVERRIDEOUTPUT | Specifies whether NGT automation control points override OUTPUT command values
+USER1 and +USER2 | Define user-defined variables that you can use with certain configuration parameters
+XBMID | Specifies which XBM subsystem to use when NGT Load invokes NGT Copy

For more information about these parameters, see the *BMC Next Generation Technology General User Guide*.

### UNLOAD command

This release adds the UNLOAD command to NGT Unload. This command provides the following options that were available with the BMC UNLOAD PLUS for DB2 product:

<table>
<thead>
<tr>
<th>Option</th>
<th>Brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTOTAG</td>
<td>Adds a four-byte character constant value at the beginning of each output record</td>
</tr>
<tr>
<td>CNTLCARDS</td>
<td>Indicates the type of control statements to write to the SYSCNTL data set</td>
</tr>
<tr>
<td>CNTLDDN</td>
<td>Overrides the default DD name or default DD name prefix of the data set that contains generated control statements</td>
</tr>
<tr>
<td>DELETETFILES</td>
<td>Specifies whether to delete SYSREC and SORTWK files when the unload is unsuccessful</td>
</tr>
<tr>
<td>DISCARDS</td>
<td>Defines a limit on the number of records to discard</td>
</tr>
<tr>
<td>DRAIN_WAIT</td>
<td>Specifies the drain timeout value to use</td>
</tr>
<tr>
<td>ESTROWS</td>
<td>Indicates the number of rows that you expect to unload based on the SELECT statement</td>
</tr>
<tr>
<td>FILL</td>
<td>Specifies whether to fill numeric external fields with zeros when converting numeric columns to their external representations</td>
</tr>
<tr>
<td>FILTERPART</td>
<td>Specifies whether to filter out partitions that do not meet the WHERE clause criteria when you use the first column of the partitioning key in your WHERE clause</td>
</tr>
<tr>
<td>FIXEDVARCHAR</td>
<td>Specifies whether to unload variable column values as variable-length or fixed-length fields when you do not explicitly specify a field type</td>
</tr>
<tr>
<td>INFILE</td>
<td>Unloads from copy data sets, including cabinet copies that have been created by the BMC Recovery for DB2 solution</td>
</tr>
<tr>
<td>INTO</td>
<td>Defines your output records by including a field specification</td>
</tr>
<tr>
<td>LIMIT</td>
<td>Defines a limit on the number of records selected from each table or partition of the table space</td>
</tr>
</tbody>
</table>

What’s new
<table>
<thead>
<tr>
<th>Option</th>
<th>Brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOSUBS</td>
<td>Tells NGT Unload to not accept substitution characters during CCSID translation</td>
</tr>
<tr>
<td>NULLTYPE</td>
<td>Specifies the location and length of the null indicator field in the output record</td>
</tr>
<tr>
<td>ON FAILURE</td>
<td>Specifies how to handle an abnormal termination</td>
</tr>
<tr>
<td>ORDER</td>
<td>Specifies whether to sort the output records</td>
</tr>
<tr>
<td>RECORDID</td>
<td>Specifies a record identifier for each output record of a SELECT statement</td>
</tr>
<tr>
<td>RETRY</td>
<td>Specifies the maximum number of times to attempt to obtain a drain before terminating</td>
</tr>
<tr>
<td>RETRY_DELAY</td>
<td>Specifies the minimum number of seconds to wait after a drain timeout before trying again</td>
</tr>
<tr>
<td>TABLESPACE</td>
<td>Unloads all supported data from a table space with a single command</td>
</tr>
<tr>
<td>UNLOADDNN</td>
<td>Specifies the default DD name, DD name prefix, or output descriptor for unload output data sets</td>
</tr>
<tr>
<td>ZONEDDECOVP</td>
<td>Assigns overpunch values to decimal-zoned numeric values</td>
</tr>
</tbody>
</table>

For more information, see the *BMC Next Generation Technology Unload for DB2 for z/OS Reference Manual*. This reference manual includes syntax diagrams and descriptions for both the UNLOAD and UNLD commands.

**Note**

UNLOAD is the preferred command for NGT Unload. BMC will make no more enhancements to the UNLD command and plans to deprecate it in a future release.

**FORMAT option**

The NGT Unload UNLD command no longer supports FORMAT ARCHIVE and FORMAT REPORT.

**Support for IBM DB2 Version 12**

This release adds support for DB2 Version 12.

This release supports:

- DB2 Version 12
- DB2 Version 11
- DB2 Version 10 in new-function mode (NFM) only
Installation and maintenance

You install NGT Unload by using the Installation System.

Installing the Installation System or a product

The Installation System is installed and maintained by using SMP/E. Installing the Installation System creates the required SMP/E environment. Use the following procedures to install the Installation System or products.

Before you begin

If you need more information, see these sources:

- For software, hardware, and other requirements, see the Installation System documentation.
- For information about installation changes, see the Installation System release notes.

If you prefer physical installation media instead of downloaded images, request physical media from your BMC sales representative. Contact information is available on the BMC website.

To install the Installation System

1. Review the most recent Installation System release notes on any product page from the A-Z Supported Product List on Support Central.


3. Click Installation System.

4. Click the method you want to use to obtain the Installation System, and follow the provided procedures.

**WARNING**

The Installation System must be installed into its own SMP/E zone. You should not install anything else into this zone.
To install a product

1 Ensure that you have the most recent version of the Installation System installed and that it has any required PTFs applied.

To determine the most recent version number, see the most recent Installation System release notes on any product page from the A-Z Supported Product List on Support Central. To determine the version number of your current Installation System, see the title line on the Installation System Main Menu. Required PTFs are announced in technical bulletins.

2 Start the Installation System.

3 Follow the on-screen prompts.
   For more information, see the Installation System documentation.

Maintaining the Installation System or a product

Use the following procedures to maintain the Installation System or products.

To maintain the Installation System

1 Perform one of the following actions:
   - If you have the most recent version of the Installation System installed, apply any required PTFs.
   - Install the most recent version of the Installation System, and apply any required PTFs.

To determine the most recent version number, see the most recent Installation System release notes on any product page from the A-Z Supported Product List on Support Central. To determine the version number of your current Installation System, see the title line on the Installation System Main Menu. Required PTFs are announced in technical bulletins.

2 Refresh the Installation System runtime data sets by running the $205RTEC and $206RTEC jobs (in order).

3 Restart the Installation System.

To maintain a product

1 Check Support Central for product notices, such as technical bulletins about fixes and Recommended Service Level (RSL) availability.
2. Use **BMC ISR** (recommended) to obtain product PTFs and RSLs.

3. Run the $S176APLF installation job to ensure that all required FMIDs are applied.

4. Apply the product maintenance to the product’s SMP/E environment.
   
   For more information, see *Installation System Reference Manual*.

### FMID and version information

NGT Unload uses version 3.1.00 (or more recent) of the Installation System.

*Note*

Always use the most recent version of the Installation System and ensure that it has any required PTFs applied.

To determine the most recent version number, see the most recent Installation System release notes on any product page from the A-Z Supported Product List on Support Central. To determine the version number of your current Installation System, see the title line on the Installation System Main Menu. Required PTFs are announced in technical bulletins.

Installation installs the following versions and SMP/E FMIDs:

<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++ V71</td>
<td>7.1.00</td>
</tr>
<tr>
<td>BBASC70</td>
<td>SAS_C V70B</td>
<td>7.0.00</td>
</tr>
<tr>
<td>ZACPC10</td>
<td>BMC NGT COPY for DB2</td>
<td>12.1.00</td>
</tr>
<tr>
<td>ZAFRC10</td>
<td>BMC NGT RECOVER for DB2</td>
<td>12.1.00</td>
</tr>
<tr>
<td>ZAIN031</td>
<td>Install Execution Code</td>
<td>3.1.00</td>
</tr>
<tr>
<td>ZATSC10</td>
<td>BMCSSTATS API</td>
<td>12.1.00</td>
</tr>
<tr>
<td>ZAUP241</td>
<td>BMCSORT</td>
<td>2.4.01</td>
</tr>
<tr>
<td>ZBMR15E</td>
<td>ISR External Routines</td>
<td>1.5.00</td>
</tr>
<tr>
<td>ZBST100</td>
<td>BMC Support Tool</td>
<td>1.0.00</td>
</tr>
<tr>
<td>ZDIG1A0</td>
<td>DIGNUS C runtimes and C++ objects</td>
<td>1.10.00</td>
</tr>
<tr>
<td>ZDIG190</td>
<td>DIGNUS C runtimes and C++ objects</td>
<td>1.9.00</td>
</tr>
<tr>
<td>ZNGTC10</td>
<td>NEXT GENERATION TECHNOLOGY</td>
<td>12.1.00</td>
</tr>
<tr>
<td>ZPWD330</td>
<td>BMC Password Security System</td>
<td>3.3.00</td>
</tr>
<tr>
<td>ZSCCC10</td>
<td>Solution Common Code</td>
<td>12.1.00</td>
</tr>
<tr>
<td>ZZIOC10</td>
<td>DB2 Options Carryover</td>
<td>12.1.00</td>
</tr>
</tbody>
</table>
The preceding table contains the FMIDs for NGT Unload only. You can also obtain product, solution, and component information (FMIDs, codes, and versions) in the following ways:

- View the generated installation JCL member $176APLF.
  To search the file, search on the word FORFMID.

- View one of the following reports:
  — Optimization products, common products, and common components
  — BMC products for IBM DB2
  — BMC products for IBM IMS
  — MainView products
  To access the reports on Support Central, take the following steps:


  2. Click Product codes and FMIDs.

  3. Click one of the listed reports.

**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 to browse documentation sets (http://www.bmc.com/available/documentation-center.html or, for secured documentation sets, http://www.bmc.com/available/documentation-center-secure.html)
View Quick Course videos (short overviews of selected product concepts, tasks, or features), which are available from the following locations:

— Documentation Center (primary center and secured center)

— Support Central (at http://www.bmc.com/support/mainframe-demonstrations)

— BMC Mainframe YouTube channel (https://www.youtube.com/user/BMCSoftwareMainframe)

View individual product documents (books and notices) within the “A – Z Supported Product List” (https://webapps.bmc.com/support/faces/az/supportlisting.jsp)

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.

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