Db2 Tools New Features Summary – Level Set PTF 20.0.08

Level Set PTF 20.0.08 (LU10313) for the Database Management Solutions for Db2 for z/OS is now available. *No features require activation of this Level Set.*

Db2 DevOps Capabilities Extended

Embrace Open	**Enhanced DEVOPS REST APIs.** The DEVOPS REST API endpoints were enhanced as follows: ● The DDL scripts that are returned by the devops/migrate endpoint now include headers and trailers by default. The enhancement lets you see strategy and analysis options and the impact analysis in the generated output. ● All dbm-db2 commands now accept --response-format-json option to produce JSON-formatted data. With this enhancement, you can leverage the structured JSON output for further processing and integration with other systems. ● A new noSqlId parameter was added to templateSettings.yaml to suppress generation of SET CURRENT SQLID statements. This change is the new default behavior and lets you control execution of the scripts. ● The RMATMDxx JCL templates in CDBAMDL were updated to use REGION=0M in the STEP statement to help prevent resource errors during execution. ● The compare and deploy REST API endpoints were enhanced to let you apply global changes (change-sets) to new and existing Db2 objects in the DDL. Previous behavior applied global changes to new Db2 objects only, which could be confusing. With this enhancement, the DBM Data Service was updated to include new JCL templates to apply global changes to all objects. Database administrators can apply automated changes to DDL for all objects during compare and deploy processing. The DBM Data Service also now supports secure JDBC connections for the DEVOPS endpoints by default.

Features Applied with Level Set PTF 20.0.08

This list summarizes the features that are delivered by applying Level Set PTF 20.0.08 (LU10313):

Note: For more information about these features, see [New Features](#) in the Release Notes in the Database Management Solutions for Db2 for z/OS documentation.

- **Post-Install Processing Enhancements**

  - **UTS Conversion of Deprecated PTDB Tablespaces**

    The post-install tailoring process was enhanced to convert deprecated single table non-UTS tablespaces into partition-by-growth (PBG) UTS with MAXPARTITIONS=1 and DSSIZE=64G. All tables in multi-table tablespaces were also moved into individual UTS tablespaces. UTS tablespaces enable you to use new features and functions in Db2 that are not supported for non-UTS tablespaces.

    When the Db2 subsystem is M508 or higher, the conversion of multi-table segmented tablespaces occurs using an ALTER MOVE TABLE and online REORG. For Db2 subsystems below M508, the conversion occurs using an UNLOAD, DROP, CREATE, and LOAD.

  - **Cleanup of Obsolete PTDB Objects**

    The post-install tailoring process was enhanced with new customization tasks to remove deprecated PTDB objects from the Db2 catalog. The following tasks were introduced:

    - Report on Obsolete PTDB Objects
      Generates a list of obsolete Db2 objects.
    - Stop Obsolete PTDB Objects
      Prevents obsolete PTDB objects from being used.
    - Drop Obsolete PTDB Objects
      Drops obsolete PTDB objects from the Db2 catalog.

    Removal of obsolete objects from PTDB improves maintenance and saves system resources. This feature reduces the time and effort required for maintenance as you no longer need to backup or maintain unused objects.

  - **Deprecated Parameter Load Module (PTLLPARM)**

    The post-install tailoring process no longer supports creation of the parameter load module (PTLLPARM). The Create Parameter Load Module (not recommended) option was removed from the Edit Parmlib Members panel. This feature simplifies the maintenance of product parmlib members.

- **IBM Function Registry Support.** The DBM Data Service (REST API component) can now use the Common Components and Services (CCS) Feature Registration Service (FRS), through CAIRIM, to register the following products with the IBM Function Registry for z/OS:

  - Detector

  - RC/Migrator

  - RC/Query

  - SYSVIEW for Db2

You can now use FRS to track use of the REST APIs for these products.

The following products now use FRS to log feature usage as indicated:

- ○ Fast Recover PREVIEW SIMULATE feature
- ○ Recovery Analyzer Recovery Estimator feature

The IBM Function Registry for z/OS provides a simple way for users to gather information about their product installations. Registry information includes the product release and maintenance level, available features, status, use count, and LMP key for each feature. Reviewing the available features helps you determine whether you are getting the most value out of your products. Broadcom can also use this information to determine whether we are building features that are useful for you.

- **Removal of Db2 Function and Catalog Level Checks.** Fast Index, Fast Load, Fast Unload, and Rapid Reorg removed the need to apply a PTF to unblock new Db2 function and catalog levels. This feature makes it easier to upgrade to new Db2 function and catalog levels beginning with V13R1M503.

- **Bind Analyzer and Plan Analyzer Support for Db2 13 OWNERTYPE Bind option.** OWNERTYPE specifies the type of authorization ID that owns an object. This parameter lets you control object ownership when using role-based security for administrative tasks.

- **Fast Load Enhancements**

    - **New Utility Sort Service.** Fast Load is now integrated with the new Utility Sort service to improve elapsed time and reduce CPU consumption when a sort is performed. Utility sort execution can be customized in the new UTLS product parmlib member. Sample JCL is provided to compare the performance of Utility Sort with your existing sort service. In our testing, we observed an improvement of up to **50% less CPU time** and up to **30% less elapsed time**.

    - **Parallel Processing for PBR Tablespaces.** Fast Load was enhanced to improve the elapsed time to process partition-by-range (PBR) tablespaces when you specify RECLUSTER SORT-ALL. In our testing, we observed an improvement of up to **60% less elapsed time** to process PBR tablespaces and up to **10% less elapsed time** for other types of tablespaces.

- **Log Analyzer LRSN to Timestamp or Timestamp to LRSN Conversion**. Log Analyzer lets you convert an LRSN value to a (UTC or local) timestamp or convert a (UTC or local) timestamp to an LRSN value. This feature can reduce the time that it takes to analyze your log data. The service displays the most recent seven results, which can be removed with the new CLEAR line command.

- **RC/Migrator Support for Migration of PBR2 Objects**. You can now migrate partition-by-range relative page number (PBR RPN or PBR2) objects using an RC/Merger move analysis. The RC/Merger move processing eliminates the manual, time intensive migration process that is experienced when using UNLOAD and LOAD statements. RC/Merger move processing uses less CPU and results in CPU cost savings. PBR2 tablespaces help you manage large amounts of data efficiently.

- **SYSVIEW for Db2 Enhancements**

  - **Support for Enhanced Plan Authorization Cache and RDS Statistics Block Fields.** Support was added for new fields in (002) SATS2, (1002) CURR-STATS2, (003) ACCT, and (148) THREAD-STATS trace records to provide service controller (plan authorization cache) and RDS statistics. Database administrators can use this new information to monitor plan authorization cache performance and provide counts for the SET CURRENT LOCK TIMEOUT statement.

  - **Support for Disconnected Database Access Threads.** Support was added for new Db2 13 fields in the QDST section of IFCID 1. The new fields are included in the related reports and exceptions. Database administrators can use this new information to tune or troubleshoot disconnected database access threads (DBATs) that are related to Db2 functionality and issues.

Day 1 Task Checklists

The Day 1 Task Checklist summarizes the key tasks to complete to start using the product. This checklist applies to any new user. However, even experienced users can benefit from reviewing this content. The checklist includes a brief description of the tasks, with links to appropriate content. The checklist also identifies the roles that are typically required to complete the task. You can download them as an Excel spreadsheet.

The following products also provide a Day 1 Task Checklist:

- Database Analyzer
- Detector
- Fast Load
- Fast Recover
- Fast Unload
- Log Analyzer
- Merge/Modify
- Plan Analyzer
- Quick Copy
- RC/Extract
- RC/Migrator (RC/Compare)
- RC/Query
- Recovery Analyzer
- SQL-Ease
- Subsystem Analyzer
- SYSVIEW for Db2

Chorus Software Manager (CSM) End of Life

CSM end of life (EOL) is effective June 30, 2023. CSM will no longer function as of this date. For full details, see the [End of Life Announcement](). To prepare for this change, we recommend that you install z/OSMF to manage your software. For installation and usage details, see the IBM documentation and review the z/OSMF training videos listed in the [installation best practices]().

We are available to help with the transition to z/OSMF. Check out the following links:

- [z/OSMF Migration]()
- [Migrate SMP/E Environments into z/OSMF]()

A z/OSMF Portable Software Instance (PSWI) is available to install the Database Management Solutions for Db2.

Db2 Tools 20.0 Validation Project

What's cooking in the lab?
Join the **Db2 Tools 20.0 Validation Project**, where the Broadcom product teams reveal upcoming features and seek feedback. See what we are developing, as we develop it. Validation meetings are your best opportunity to influence the development of the Database Management Solutions for Db2 for z/OS products. Register today at [https://validate.broadcom.com/key/db2tools200]().