

Updates that apply to IBM® DB2® Analytics Accelerator Loader for z/OS® V2R1 User's Guide (SC27-6777-00)

Date of change: June 2017

Topic: Multiple

Change description: Documentation changes made in support of PTF UI47560 APAR PI79574 – Rollback support for Dual type loads

- Topic “What’s new” in chapter “Overview”
- Topic “Worksheets: Gathering parameter values for Tools Customizer” in chapter “Preparing to customize”
- Topic “Restrictions and considerations for loading from an external file” in chapter “Loading from an external file”
- Topic “Accelerator Loader messages” in chapter “Troubleshooting”

Topic: “What’s new”

Add the following description:

When loading the accelerator and DB2 from an external file, you can now control the action that Accelerator Loader takes when the DB2 LOAD utility discards records that have already been loaded to the accelerator. Using the Accelerator Loader started task options module parameter, **Action when DB2 LOAD discards records loaded to the accelerator**, you can configure Accelerator Loader to leave the records in the accelerator and disable acceleration on the loaded table or to roll back the data loaded to the accelerator and leave the query acceleration status unchanged.

Topic: “Worksheets: Gathering parameter values for Tools Customizer”

In section “Task: Create the server and the server components (required)”, add the following new parameter:

Step or parameter	Required?	Discovered?	Default value	Your value
Action when DB2 LOAD discards records loaded to the accelerator Controls how dual load responds when DB2 LOAD discards records that have already been loaded to the accelerator. This situation can occur, for example, when DB2 detects a unique index violation during the INDEX BUILD phase, after all data has been loaded to both the DB2 table and accelerator table. Valid values are: <ul style="list-style-type: none">• DISABLE_ACCELERATION: Commit all data that was loaded to the accelerator (including the rows discarded from the DB2 table) and disable query acceleration for the table.• ROLLBACK: Roll back all data loaded to the accelerator table, leaving the accelerator with the original data intact and the query acceleration status for the table unchanged.	No	Yes	DISABLE_ ACCELERATION	

Topic: “Restrictions and considerations for loading from an external file”

In section “Discard data set restrictions and considerations”, remove the following obsolete content and replace with updated content.

Remove the following items from the list:

- If DB2 discards leave the accelerator and the DB2 table out of sync after rows have been added to the accelerated table, Accelerator Loader detects this out-of-sync condition and disables acceleration. This condition occurs when DB2 detects violations such as referential integrity (RI) validation errors, when unique index violations are detected, even when no RI is defined on the table, and other violations.
- Query acceleration is disabled for the loaded table in the following situations:
 - The DB2 LOAD utility discards records after they were sent to the accelerator. This type of discard processing might occur if DB2 detects a unique index key violation during the INDEX BUILD phase of the DB2 LOAD utility.
 - The DB2 LOAD utility fails because it is possible that the accelerator was only partially loaded.

Add the following new content:

- When the DB2 LOAD utility discards records that have already been loaded to the accelerator, you can configure Accelerator Loader to either leave the data in the accelerator or to roll back the loaded data. This type of discard situation can occur, for example, when DB2 detects unique index or referential integrity (RI) violations after the data has been loaded to both the DB2 table and the accelerator. In these situations, DB2 deletes the offending records from the table space during the discard phase of the LOAD utility.

You can use the Accelerator Loader started task options module parameter, **Action when DB2 LOAD discards records loaded to the accelerator**, to configure Accelerator Loader to perform one of the following actions when this situation occurs:

- **DISABLE_ACCELERATION**: Leave the records in the accelerator (including the rows discarded from the DB2 table) and disable acceleration for the table. (default)
- **ROLLBACK**: Roll back all data loaded to the accelerator, leaving the accelerator with the original data intact and the query acceleration status for the table unchanged.

The selected action also impacts how Accelerator Loader responds when the DB2 LOAD utility fails.

- Query acceleration is disabled for the loaded table in the following situations.

Note: Query acceleration is only disabled when options module parameter **Action when DB2 LOAD discards records loaded to the accelerator** is set to **DISABLE_ACCELERATION**.

- The DB2 LOAD utility discards records after they were sent to the accelerator, leaving the accelerator-shadow table and the DB2 table out of sync. This type of discard processing might occur if DB2 detects a unique index key violation during the INDEX BUILD phase of the DB2 LOAD utility.
- The DB2 LOAD utility fails because it is possible that the accelerator was only partially loaded.
- DB2 LOAD utility discards can result in a situation where the DB2 table and the accelerator-shadow table have different data after rows have been added to the accelerated table or rolled back. This condition can occur when DB2 detects violations such as RI validation errors, when unique index violations are detected, even when no RI is defined on the table, and other violations. To get the tables back in sync, you can run the **ACCEL_LOAD_TABLES** stored procedure or the Accelerator Loader **HALOAD** utility. If multiple accelerators must be loaded, using **HALOAD** may be more efficient.

Topic: “Accelerator Loader messages”

Add the following messages:

HLOU4095W No data was loaded to the Accelerator due to rollback processing

Explanation: This message indicates that no data has been loaded to the accelerator. This is because the ACCEL_WHEN_DB2_DISCARDS option is set to ROLLBACK. With this option setting, data loaded to the accelerator is rolled back anytime DB2 discards records already loaded to the accelerator, or if the DB2 LOAD fails. The discard condition can occur when DB2 detects unique index or RI violations. These conditions are detected by DB2 LOAD only after all data has been loaded to the accelerator.

User response: No action is required.