

Date of change: July 2017

Topic: Multiple

Change description: Documentation changes made in support of PTF UI48725 APAR PI82046 – Using HALOAD to load only tables or partitions that have changed since the last load

- Topic “What’s new” in chapter “Overview”
- Topic “Restrictions and considerations for loading table data to multiple accelerators” in chapter “Loading DB2 table data to multiple accelerators”
- Topic “Example JCL: Loading DB2 table data to multiple accelerators (HALOAD)” in chapter “Syntax”
- Topic “Syntax diagram: Loading multiple accelerators” in chapter “Syntax”
- Topic “Syntax definitions: Loading multiple accelerators” in chapter “Syntax”
- Topic “Accelerator Loader messages” in chapter “Troubleshooting”
- Topic “Load Accelerators from DB2 Tables panel” in chapter “Reference”

Topic: “What’s new”

Add the following description:

Using the HALOAD utility, you can now load only those tables or partitions that have been updated in DB2 for z/OS since the accelerator-shadow tables were last loaded. This feature is controlled through a new keyword on the HALOAD command, `DETECT_DATA_CHANGES`.

Topic: “Restrictions and considerations for loading table data to multiple accelerators”

Add the following section:

Loading only tables or partitions that have changed since the last load

Using the HALOAD utility, you can load only those tables or partitions that have been updated in DB2 for z/OS since the accelerator-shadow tables were last loaded. This feature is controlled through the keyword `DETECT_DATA_CHANGES` on the HALOAD command. When this control card is included, only those tables listed in the FROM TABLE clause that have been changed in DB2 since the last time they were loaded into the accelerator will be loaded. In the case of partitioned tables, any partition lists specified on the command are ignored; HALOAD will determine which partitions need to be reloaded.

HALOAD relies on the same change detection mechanism as the `ACCEL_LOAD_TABLES` stored procedure. HALOAD calls the `ACCEL_GET_TABLES_DETAILS` stored procedure to retrieve the changeInformation category for the accelerator table. Tables and partitions with a changeInformation category of `NONE` are not loaded.

When using HALOAD to load multiple accelerators, a table or partition will be reloaded on all accelerators whenever modified data is detected on any one of the accelerators.

Note: When External load is used to load both DB2 and the accelerator, the accelerator table will be left with a changeInformation category other than `NONE`. This means that the HALOAD utility when run with `DETECT_DATA_CHANGES` will load the accelerator table even though there is no changed data.

Topic: “Example JCL: Loading DB2 table data to multiple accelerators (HALOAD)”

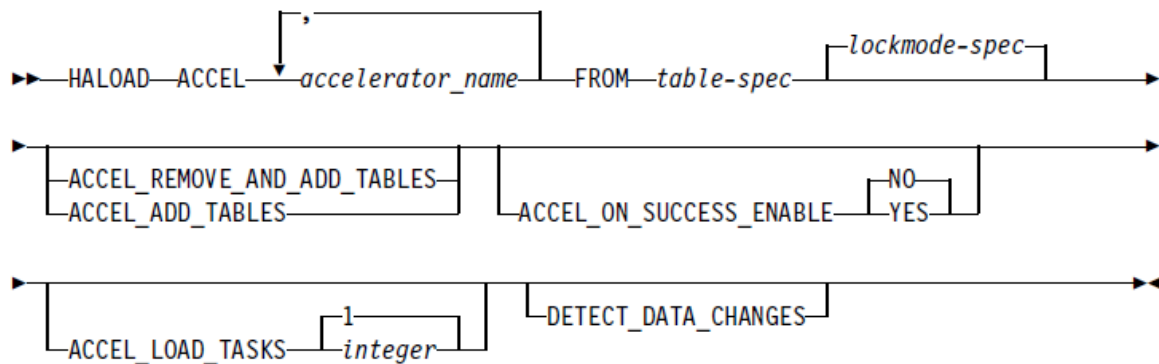
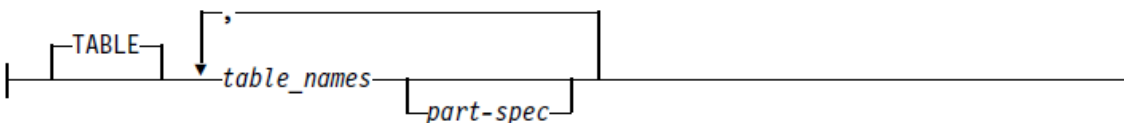
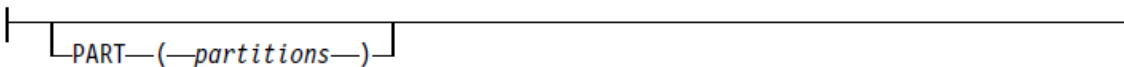
Add the following example:

The following sample syntax includes the DETECT_DATA_CHANGES keyword. Accelerator Loader will load to the accelerator only those tables in the FROM TABLE clause that have changed in DB2 since the last load.

```
HALOAD ACCEL (QB1AACC1)
  FROM TABLE
    USER1.ACT
    ,USER1.DEPT
    ,USER1.EMP
    ,USER1.EMPPROJACT
    ,USER1.PROJ
    ,USER1.PROJACT
  ACCEL_ON_SUCCESS_ENABLE NO
  ACCEL_LOAD_TASKS 1
  ACCEL_LOCKMODE NONE
  DETECT_DATA_CHANGES
```

Topic: “Syntax diagram: Loading multiple accelerators”

Replace the diagram with the following updated diagram:

**Table spec:****Part spec:****Lockmode spec:**

Topic: “Syntax definitions: Loading multiple accelerators”

Add the following keyword:

DETECT_DATA_CHANGES

Controls whether to load only those tables and partitions that have changed in DB2 since the last load into the accelerator. When this option is specified, load only the tables listed in the FROM TABLE clause that have changed in DB2 since the last load. In the case of partitioned tables, any partition lists specified on the command are ignored; HALOAD determines which partitions to reload. When this option is omitted, load all specified tables and partitions.

This control card can be chosen in the ISPF interface by using the **Detect data changes** field on the Load Accelerator(s) from DB2 Tables(s) panel.

Topic: “Accelerator Loader messages”

Add the following messages:

HLOU4098I Only tables or partitions changed since the last load will be loaded.

Explanation: DETECT_DATA_CHANGES is specified in the HALOAD command. HALOAD will automatically detect modified data and then load only those tables or partitions that have been changed in DB2 since the last load was performed. Explicit partition lists are ignored when DETECT_DATA_CHANGES is specified. The HALOAD program will determine which partitions need to be loaded.

User response: No action is required.

HLOUU4099I No data was transferred to the accelerator. No changed tables or partitions detected.

Explanation: DETECT_DATA_CHANGES was specified, and no tables or partitions with modified data were found. As a result, no data was transferred to the accelerator.

User response: No action is required.

HLOU4100I Partition lists will be ignored because DETECT_DATA_CHANGES was specified.

Explanation: DETECT_DATA_CHANGES was specified; as a result, any partition lists specified will be ignored. HALOAD will determine which partitions need to be loaded. Only those partitions that have changed since the last load will be loaded.

User response: No action is required.

Topic: “Load Accelerators from DB2 Tables panel”

Add the following field:

Detect data changes

Indicates whether to load only those tables and partitions that have changed in DB2 since the last load.

Yes Load only the tables listed in the FROM TABLE clause that have changed in DB2 since the last load. For partitioned tables, any partition lists specified on the command are ignored; HALOAD will determine which partitions to reload. The control card DETECT_DATA_CHANGES is generated into the JCL.

No Load all specified tables and partitions.