

## LOAD CLPPlus command by using external tables

The LOAD CLPPlus command that uses external tables is supported for loading a file to a target DB2® server.

### Invocation

You must run the LOAD command from the CLPPlus interface.

### Authorization

None

### Required connection

You must be connected to a database.

### Command syntax

```
>>-LOAD--EXTERNAL--FROM--+filename+----->
                               '-pipename-'
>-----+-----+----->
        '-NOT LOGGED INITIALLY-'
>--+-----+----->
        '-OPTIONS--(--options-string--)-'
>--INTO--table-name--+-----+-----><
                               '-(--insert-column-names--)-'
```

### Command parameters

#### EXTERNAL

Specifies that the LOAD command uses external table operations.

#### FROM *filename* or *pipename*

Specifies the file or pipe that contains the data that is being loaded.

#### NOT LOGGED INITIALLY

Data that is loaded into the table by a LOAD operation that is in the same unit of work is not logged.

#### OPTIONS(*options-string*)

Specifies the external table options that control the processing of the LOAD operation. Refer to the target server's external table options for details.

#### INTO *table-name*

Specifies the database table into which the data is to be loaded.

#### *insert-column-names*

Specifies the comma-separated table columns into which the data is to be loaded.

### Usage notes

LOG and BAD files contain information about records that are successfully loaded, rejected, or skipped. The location of these files depends on the location of the server:

#### Remote server (REMOTESOURCE 'LOCAL' is not specified)

LOGDIR specifies the directory to which `~.log` and `~.bad` files are generated. If `log` and `bad` files are generated, the server returns the full path to store them by including the specified LOGDIR in the `log`

and `bad` file path that is returned to the driver.

If the `LOGDIR` option is not defined, the JDBC driver's output directory is used to store the `log` and `bad` files. This default output directory is the operating system default temp directory or the configured `db2.jcc.outputDirectory` directory.

### Local server (REMOTESOURCE 'LOCAL' is specified)

`LOGDIR` specifies the directory to which `~.log` and `~.bad` files are generated. When used with `SWIFT` or `S3`, the files are located in the object store where the paths of the `log` and `bad` files are relative to the top of the bucket or container.

`ERROR_LOG` can be used as a synonym for the `LOGDIR` option. If the `LOGDIR` option is not defined, then the default location is the location of the data files.

## Output of LOAD CLPPlus command by using external tables

- If all rows of data are loaded successfully, the result of `LOAD` command returns information similar to the following output:

```
Total number of rows loaded: 10
DB250000I: The command completed successfully.
```

- If all rows of data are not loaded successfully, the result of `LOAD` command returns information similar to the following output:

```
SQL5108W Loading of data to a Hadoop table or processing of data in an externaltable completed.
Number of rows processed: "2". Number of source records: "3".
If the source was a file, number of skipped lines: "0".
Number of rejected source records: "1". Job or file identifier:
"SAMPLE.REGRES1.SYSTET46273.019412".
```

```
DB250000I: The command completed successfully.
```

- If the server or JCC driver returns an error message, then the result of `LOAD` command displays the same error message in the `CLP`.

## Examples

### Example 1

In this example, the data file is on a client that is connected to the database. The data file is loaded remotely.

The target table is `DB2TBL1`, whose columns are `ID` [type `INTEGER`] and `NAME` [type `varchar(50)`].

The path and name of the data file is `c:\data\et.txt` and has the following content:

```
1, 'Name0 '
2, 'Name1 '
3, 'Name2 '
```

1. Start `CLPPlus`.
2. Connect to the target database.
3. Run the `LOAD` command:

```
LOAD EXTERNAL FROM C:\data\et.txt
  OPTIONS (DELIMITER ' ,' SOCKETBUFSIZE 30000 LOGDIR 'C:\data\' MAXERRORS 20 REMOTESOURCE 'JDBC')
  INTO DB2TBL1;
```

**Note:** `REMOTESOURCE 'JDBC'` is a mandatory option for a remote load.

4. Data is successfully loaded in target table with following output message:

```
Total number of rows loaded: 3
```

```
DB250000I: The command completed successfully.
```

## Example 2

In this example, the data file exists on the target server and is loaded locally.

The target table is DB2TBL1, whose columns are ID [type INTEGER] and NAME [type VARCHAR(50)].

The path and name of the data file is /home/regres1/et/et1.txt and has the following content:

```
1, 'Name0'
2, 'Name1'
"3", 'Name2'
```

1. Start CLPPlus.
2. Connect to the target database.
3. Run the LOAD command:

```
LOAD EXTERNAL FROM /home/regres1/et/et1.txt
  OPTIONS (DELIMITER ' ,' SOCKETBUFSIZE 30000 LOGDIR /home/regres1/et/' MAXERRORS 20)
  INTO DB2TBL1;
```

**Note:** The keyword REMOTESOURCE cannot be used for a local load.

4. Partial data is successfully loaded in target table with following output message:

```
SQL5108W Loading of data to a Hadoop table or processing of data in an external table completed.
Number of rows processed: "2". Number of source records: "3".
If the source was a file, number of skipped lines: "0".
Number of rejectedsource records: "1".
Job or file identifier:
"SAMPLE.REGRES1.SYSTET46273.019412".
```

```
DB250000I: The command completed successfully.
```

## Example 3

In this example, the data file that is in the AWS S3 object store.

The target table is DB2TBL1, whose columns are ID [type INTEGER] and NAME [type VARCHAR(50)].

The path and name of the data file is c:\data\et.txt and has the following content:

```
1, 'Name0'
2, 'Name1'
3, 'Name2'
```

1. Start CLPPlus.
2. Connect to the target database.
3. Run the LOAD command:

```
LOAD EXTERNAL FROM /home/regres1/et/et1.txt
  OPTIONS (S3 (ENDPOINT, AUTHKEY1, AUTHKEY2, BUCKET),
    DELIMITER ' ,' SOCKETBUFSIZE 30000 LOGDIR /home/regres1/et/' MAXERRORS 20)
  INTO DB2TBL1;
```

**Note:** The keyword REMOTESOURCE cannot be used with AWS S3 object store.

4. Data is successfully loaded in target table with following output message:

```
Total number of rows loaded: 3
```

```
DB250000I: The command completed successfully.
```

## Example 4

In this example, the data file is in the Swift Object Store.

The target table is DB2TBL1, whose columns are ID [type INTEGER] and NAME [type VARCHAR(50)].

The path and name of the data file is c:\data\et.txt and has the following content:

```
1, 'Name0'
2, 'Name1'
3, 'Name2'
```

1. Start CLPPlus.
2. Connect to the target database.
3. Run the LOAD command:

```
LOAD EXTERNAL FROM /home/regres1/et/et1.txt
  OPTIONS (SWIFT (ENDPOINT, AUTHKEY1, AUTHKEY2, CONTAINER),
    DELIMITER ',' SOCKETBUFSIZE 30000 LOGDIR /home/regres1/et/' MAXERRORS 20)
  INTO DB2TBL1;
```

**Note:** The keyword REMOTESOURCE cannot be used with Swift Object Storage.

4. Data is successfully loaded in target table with following output message:

```
Total number of rows loaded: 3
```

```
DB250000I: The command completed successfully.
```

## Example 5

This example demonstrates the use of the NOT LOGGED INITIALLY option.

The target table is DB2TBL1, whose columns are ID [type INTEGER] and NAME [type VARCHAR(50)].

The path and name of the data file is c:\data\et.txt and has the following content:

```
1, 'Name0'
2, 'Name1'
3, 'Name2'
```

1. Start CLPPlus.
2. Connect to the target database.
3. Run the LOAD command:

```
LOAD EXTERNAL FROM 'C:\data\et1.txt' NOT LOGGED INITIALLY
  OPTIONS (DELIMITER ',' LOGDIR 'C:\data\' MAXERRORS 20 SOCKETBUFSIZE 30000 REMOTESOURCE 'JDBC')
  INTO DB2TBL1(ID, NAME);
```

4. Data is successfully loaded in target table with following output message:

```
Total number of rows loaded: 3
```

```
DB250000I: The command completed successfully.
```

## Reference topic