

Flex2SQL v17 Classic Edition Release Notes

Overview

The Classic Edition (CE) of Flex2SQL v17 is a 32-bit version of the driver that works with DataFlex versions 19.1 and earlier. The CE version is compatible with all prior releases of Flex2SQL and the term “Classic Edition” is to distinguish it from the 64-bit Unicode Edition of v17 drivers. Although Flex2SQL CE will work with DataFlex 2021 in a “compatibility” mode, it will not be officially supported.

Key Highlights

One area of significant changes and improvement is in the Mertech.inc file. The changes we have made to Mertech.inc make it more compatible with newer versions of DataFlex (v19 and later).

If you use Flex2SQL v17 CE with DF2021, there will be no support for Unicode or the ability to have custom OEM to ANSI translation. Default translation based on the code page appears to work just fine within the DF runtime. The runtime replaces any characters that don't fall within the code page with question marks.

If you are using Flex2SQL v17 CE with an older version of DataFlex, everything will work as before, including OEM to ANSI translation.

Additionally, all of the LOB commands now have an “_UC” version that is meant to be used with `uChar[]` datatypes instead of strings. The syntax of these commands is identical except that they take and return `uChar[]`'s instead of strings. This works in version of DataFlex ≥ 11.0 .

Note that in DF 2021, you **must** use the “_UC” version of LOB commands, whereas in prior versions of DataFlex the use of these new commands is optional. We advise using them and removing all “chunking” logic and use of `set_argument_size` related to LOBs. This reduces the risk of memory leaks/memory corruption and simplifies code.

New Features

- PostgreSQL v13 Support:** Flex2SQL v17 now fully supports PostgreSQL v13.2. A v17 license is required to use PostgreSQL v13.
- New “_UC” based LOB commands:** All of the LOB commands now have an “_UC” version that is meant to be used with `uChar[]` data types instead of strings. The syntax of these commands is identical except that they take and return `uChar[]`'s instead of strings. This works in version of DataFlex ≥ 11.0 . Note that in DF 2021, you **MUST** use the “_UC” version of LOB commands, whereas in prior versions of DataFlex the use of these new commands is optional. We advise using them and removing all “chunking” logic and use of `set_argument_size` related to LOBs. This reduces the risk of memory leaks/memory corruption and simplifies code.
- CLI Detection:** `Mertech.inc` will now detect if `CLI.pkg` has been included which can cause problems with our driver. If this is detected, a compiler error is thrown.
- Removed “legacy” syntax (no more compiler warnings!):** There is now very limited need for compiler warning logic as old coding techniques such as the use of EQ, NE, GT, GE, LE have been updated, and limited use of types is only there to support interfacing with versions of DataFlex that can't use structures.

Bugs Fixed

- FLEX-114: `DF_FIELD_TIME` Not updating first record.

- FLEX-113: cDbCJGrid shows double rows when using index with first segment of type Datetime
- FLEX-112: eSQL columns of type BIT don't return proper boolean value
- FLEX-111: "Invalid Object Name" error after reconnecting to SQL server if a sysadmin account is used that has a different default database
- FLEX-108: Installer not registering COM control properly after Windows update
- FLEX-100: For PostgreSQL driver, expressions are not supported for default values in inverse key columns or partial overlap columns (this is still limited, but works better now)
- FLEX-98: For Oracle driver, UPPER and DESC segments of primary key not used if primary key already used these segments in the inverse key
- FLEX-89: For MS-SQL driver, default dates of 1899-12-30 cause problems (this is the zero value for an OADate).
- FLEX-88: For PostgreSQL driver, static single row tables caused a crash due to an internal pointer allocation bug
- FLEX-85: For PostgreSQL driver, evaluation obfuscation could generate invalid data
- FLEX-82: Migration utility not resetting fractional column definition when changing data type from decimal to integer
- FLEX-77: For MySQL/MariaDB driver, SQL_GET_NUM_ROWS after update/insert crashes application
- FLEX-75: For MS-SQL driver, migration utility improperly calls "DROP TABLE" without passing a table name when a table is being replaced and there is no filelist entry beforehand for the original table.

Commands/Attributes Removed

All references to DB2 were removed along with all support for TD cache files. Old syntax that was replaced in prior versions that was marked as deprecated in version 16 was removed from version 17.

Command/Attribute	Replaced by	Notes
DF_FILE_GET_SERVERNAME_FROM_LOGIN	DF_FILE_SUPPRESS_SERVERNAME_OUTPUT	replaced many versions ago
DF_FILE_GET_DATABASENAME_FROM_LOGIN	DF_FILE_SUPPRESS_DATABASENAME_OUTPUT	replaced many versions ago
DF_FILE_GET_SCHEMANAME_FROM_LOGIN	DF_FILE_SUPPRESS_SCHEMANAME_OUTPUT	replaced many versions ago
DF_PRIMARY_KEY	DF_INDEX_PRIMARY_KEY	
SQL_FOR_ONEROW	DF_FILE_SET_MODE and/or DF_FILE_MAX_ROWS	No longer supported.
SQL_SET	SQL_SET_STMT	
SQL_APPEND	SQL_APPEND_STMT	
SQL_EXECUTE	SQL_EXECUTE_STMT	
LOCK_TABLE	Removed	This command was mostly for DB2. There is no direct replacement.
CREATE_TD_FILE	Removed	
SQL_APPEND_UPDCOL_STMT	Removed	This feature is no longer supported. There is no direct replacement.
GET_RESULT_SET	SQL_FETCH_NEXT_ROW	
SQL_GET_DATA_CHUNK	SQL_GET_DATA_CHUNK_EX	
GET_RESULT_SET_NUM_COLS	SQL_GET_NUM_COLS	
GET_RESULT_SET_COL_NAME	SQL_GET_COL_NAME	
SQL_GET_OUTPUT_VALUE	SQL_GET_PROCEDURE_PARAMETER	Replaced by the newer procedure calling mechanism. Can use SQL_FETCH_NEXT_ROW if it's a resultset
CALL_ORACLE_STORED_PROCEDURE	CALL_STORED_PROCEDURE	
REEXEC_ORACLE_STORED_PROCEDURE	Removed	Now deprecated. Call was rarely used and has some issues with cursors associated with it.
SQLFlex_Revision	GET_DRIVER_REVISION	

SQLFlex_Major_Revision	GET_DRIVER_MAJOR_REVISION	
SET_FORCE_DATE_FORMAT_INIT	Removed	Use datetimes instead which don't have string formatting issues
SET_STATIC_TABLE_OPTIMIZATION	Removed	No longer supported
CALL_SQLSERVER_PROCEDURE	CALL_STORED_PROCEDURE	
ORAFlex_Revision	GET_DRIVER_REVISION	
KEEP_FILES_OPEN	Removed	There are newer ways of handling this that are supported (such as the run as command) that should be used in place of this.
ACTIVATE_TIME_STAMP	Removed	This can be done via an "ALTER SESSION SET nls_timestamp_format" call instead.
CALL_DB2_PROCEDURE	Removed	All DB2 references removed
CREATE_DB2_DATABASE	Removed	All DB2 references removed
SQL_SET_MAX_CURSORS_STMT	SET_MAX_OPEN_CURSORS	
SQL_GET_MAX_CURSORS_STMT	GET_MAX_OPEN_CURSORS	
SQL_SET_LOCAL_TD_PATH	Removed	TD Support has been removed
SQL_GET_LOCAL_TD_PATH	Removed	TD Support has been removed
LOB_APPEND	Removed	Older LOB interface removed. Use SQL_ADD_LOB_CHUNK_UC
LOB_LENGTH	Removed	Older LOB interface removed. Use SQL_GET_LOB_LENGTH_UC
LOB_READ	Removed	Older LOB interface removed. Use SQL_GET_LOB_UC
LOB_WRITE	Removed	Older LOB interface removed. Use SQL_SET_LOB_UC
LOB_LOADFROMFILE	Removed	Older LOB interface removed. No replacement for this command.
LOB_ERASE	Removed	Older LOB interface removed. Use SQL_SET_LOB_NULL_UC
LOB_TRUNCATE	Removed	Older LOB interface removed. No replacement for this command.
FLUSH_LOB_BUFFER	Removed	Older LOB interface removed. No replacement for this command.
SQL_ENABLE_RECONNECT	Removed	Reconnect is handled by the driver internally.
CALL_MYSQL_STORED_PROCEDURE	CALL_STORED_PROCEDURE	
CALL_MYSQL_STORED_FUNCTION	CALL_STORED_FUNCTION	
SET_USE_ROWCOUNT_IN_TRANSACTION	Removed	No replacement for this command.
GET_USE_ROWCOUNT_IN_TRANSACTION	Removed	No replacement for this command.
STRUCTURE_START_DYNAMIC	Removed	Use ENABLE_SCRIPTING and built in Structure_Start command.
STRUCTURE_END_DYNAMIC	Removed	Use DISABLE_SCRIPTING and built in Structure_End command.

To take advantage of these new Flex2SQL features and bug fixes, download Flex2SQL v17 Classic Edition and then install the application using your typical upgrade process. If you need help upgrading or implementing a feature, refer to the product documentation or contact us at support@mertechdata.com.