
ZeosDBO SQL Specific Parameters

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1. Generic Parameters

1.1. Connection parameters

- defaults=[yes,no] - Calculate default values for NULL fields.

1.2. Statement parameters

- defaults=[yes,no] - Calculate default values for NULL fields.

2. MySQL Driver Parameters

2.1. Connection parameters

- compress=[yes,no] - Turn on/off compression protocol
- dbless=[yes,no] - Connect to the real database or not (dbless mode)
- userresult=[yes,no] - Fetching rows using UseResult instead StoreResult.
- timeout=<seconds> - Connection timeout in seconds.
- codepage=<client codepage> - Sets a client codepage. It executes a SET CHARACTER SET <client codepage> statement right after connect. Refer your MySQL server manual for details.
- all mysql_real_connect clientflags are now supported using the names from the enum type below. (Eg. CLIENT_MULTI_STATEMENTS=TRUE) :

```
TMYSQL_CLIENT_OPTIONS =
( CLIENT_LONG_PASSWORD, { = 1;    { new more secure passwords }
  CLIENT_FOUND_ROWS   , { = 2;    { Found instead of affected rows }
  CLIENT_LONG_FLAG    , { = 4;    { Get all column flags }
  CLIENT_CONNECT_WITH_DB, { = 8;    { One can specify db on connect }
  CLIENT_NO_SCHEMA    , { = 16;   { Don't allow database.table.column }
  CLIENT_COMPRESS     , { = 32;   { Can use compression protocol }
```

```
CLIENT_ODBC , { = 64; { Odbc client }
CLIENT_LOCAL_FILES , { = 128; { Can use LOAD DATA LOCAL }
CLIENT_IGNORE_SPACE , { = 256; { Ignore spaces before '(' }
CLIENT_CHANGE_USER , { = 512; { Support the mysql_change_user() }
CLIENT_INTERACTIVE , { = 1024; { This is an interactive client }
CLIENT_SSL , { = 2048; { Switch to SSL after handshake }
CLIENT_IGNORE_SIGPIPE , { = 4096; { IGNORE sigpipes }
CLIENT_TRANSACTIONS , { = 8196; { Client knows about transactions }
CLIENT_RESERVED , { = 16384; { Old flag for 4.1 protocol }
CLIENT_SECURE_CONNECTION , { = 32768; { New 4.1 authentication }
CLIENT_MULTI_STATEMENTS , { = 65536; { Enable/disable multi-stmt support }
CLIENT_MULTI_RESULTS , { = 131072; { Enable/disable multi-results }
CLIENT_OPT_18, { 2^18 = 262144 }
CLIENT_OPT_19, { 2^19 = 524288 }
CLIENT_OPT_20, { 2^20 = 1048576 }
CLIENT_OPT_21, { 2^21 = 2097152 }
CLIENT_OPT_22, { 2^22 = 4194304 }
CLIENT_OPT_23, { 2^23 = 8388608 }
CLIENT_OPT_24, { 2^24 = 16777216 }
CLIENT_OPT_25, { 2^25 = 33554432 }
CLIENT_OPT_26, { 2^26 = 67108864 }
CLIENT_OPT_27, { 2^27 = 134217728 }
CLIENT_OPT_28, { 2^28 = 268435456 }
CLIENT_OPT_29, { 2^29 = 536870912 }
CLIENT_OPT_30, { 2^30 = 1073741824 }
CLIENT_REMEMBER_OPTIONS { = 2147483648; {Enable/disable multi-results }));
```

- all mysql_options are now supported using the names from the enum type below. (Eg. MYSQL_READ_DEFAULT_FILE=<filename>):

```
TMySqlOption = (
    MYSQL_OPT_CONNECT_TIMEOUT,
    MYSQL_OPT_COMPRESS,
    MYSQL_OPT_NAMED_PIPE,
    MYSQL_INIT_COMMAND,
    MYSQL_READ_DEFAULT_FILE,
    MYSQL_READ_DEFAULT_GROUP,
    MYSQL_SET_CHARSET_DIR,
    MYSQL_SET_CHARSET_NAME,
    MYSQL_OPT_LOCAL_INFILE,
    MYSQL_OPT_PROTOCOL,
    MYSQL_SHARED_MEMORY_BASE_NAME,
    MYSQL_OPT_READ_TIMEOUT,
    MYSQL_OPT_WRITE_TIMEOUT,
    MYSQL_OPT_USE_RESULT,
    MYSQL_OPT_USE_REMOTE_CONNECTION,
    MYSQL_OPT_USE_EMBEDDED_CONNECTION,
    MYSQL_OPT_GUESS_CONNECTION,
    MYSQL_SET_CLIENT_IP,
    MYSQL_SECURE_AUTH
);
```

- SSL connections are supported using this connection properties (using mysql_ssl_set library call) :

```
Properties.Strings = (
    'MYSQL_SSL=TRUE'
    'MYSQL_SSL_CA=D:/mysql/certs/ca-cert.pem'
    'MYSQL_SSL_CERT=D:/mysql/certs/client-cert.pem'
    'MYSQL_SSL_KEY=D:/mysql/certs/client-key.pem')
```

2.2. Statement parameters

- `userresult=[yes,no]` - Fetching rows using `UseResult` instead `StoreResult`.

3. PostgreSQL Driver Parameters

3.1. Connection parameters

- `beginreq=[yes,no]` - Is `BEGIN` required at the transaction start or not.
- `oidasblob=[yes,no]` - Is `Oid` type treated as Large Object handle (blob) or as a regular integer.
- `timeout=<seconds>` - Connection timeout in seconds.
- `codepage=<client codepage>` - Sets a client codepage. It executes a `SET CLIENT_ENCODING '<client codepage>'` statement right after connect.
- `sslmode=[disable, allow, prefer, require]` - (From PostgreSQL docs:) This option determines whether or with what priority an SSL connection will be negotiated with the server. There are four modes: `disable` will attempt only an unencrypted SSL connection; `allow` will negotiate, trying first a non-SSL connection, then if that fails, trying an SSL connection; `prefer` (the default) will negotiate, trying first an SSL connection, then if that fails, trying a regular non-SSL connection; `require` will try only an SSL connection. If PostgreSQL is compiled without SSL support, using option `require` will cause an error, while options `allow` and `prefer` will be accepted but `libpq` will not in fact attempt an SSL connection.
- `requiressl=[0,1]` - This option is deprecated in favor of the `sslmode` setting.

3.2. Statement parameters

- `oidasblob=[yes,no]` - Is `Oid` type treated as Large Object handle (blob) or as a regular integer.

4. MS SQL Driver Parameters

4.1. Connection parameters

- `appname=<application name>` - The given application name is sent to `sqlserver`.
- `workstation=<workstation name>` - The given workstation name is sent to `sqlserver`
- `secure=[yes,no]` - This means that SQL Server will use Windows Authentication security.
- `trusted=[yes,no]` - This means that SQL Server will use Windows Authentication security.
- `language=<national language name>` - The given language is sent to `sqlserver`. If language support is installed in the server, error messages are returned in the designated national language.
- `fallback=[yes,no]` - Enables or disables failover support
- `timeout=<seconds>` - Is the time-out value, or the number of seconds that DB-Library waits for a login response before timing out. A time-out value of 0 represents an infinite time-out period. The default time-out value is 60 seconds.

5. Interbase Driver Parameters

5.1. Connection parameters

- `codepage=<national language name>` - The given language is sent to sqlserver. If language support is installed in the server, error messages are returned in the designated national language.
- `createNewDatabase=<sql command database creation>` - Created new database before open database defined in `TZConnection`.
- `dialect`=it is parameter of Interbase/Firebird sql dialect. dialect parameter is sinonim of `isc_dpb_sql_dialect` parameter.
- `RoleName`=it is sinonim for `isc_dpb_sql_role_name` parameter Interbase/Firebird. It allow set user role name to work with database and to gain the privileges of that role.
- `hard_commit=[yes,no]` - Use hard commits instead of soft commits.

5.2. Statement parameters

- `cursor=<cursor name>` - The given cusor name is sent to sql server.
- `cachedblob=[yes,no]` - This means that blob data fetch immediate if [yes] or used interbase blob if [no].