

Firebird Embedded C# Code Example

5-Dec-2019

```
//-----
static private bool boCreateDatabaseTables(string stPathFilename,
                                           string stUserID,
                                           string stPassword,
                                           List<string> liststTableNames,
                                           List<string> liststFieldNamesCommaDelimited)
{
    bool boErrorFlag = false;
    int iTablesCount = liststTableNames.Count();
    string stConn = new FbConnectionStringBuilder {
        Database = stPathFilename,
        UserID = stUserID,
        Password = stPassword,
        ServerType = FbServerType.Embedded,
        ClientLibrary = @"(path)\fbclient.dll"
    }.ToString();
    try {
        using (FbConnection fbConn = new FbConnection(stConn)) {
            fbConn.Open();
            FbTransaction fbTransaction = fbConn.BeginTransaction();
            //Create tables using field names for each table. The field names could be different for each table.
            //The last field (in these code examples) must be the Key ID which is defined as:
            //  INTEGER GENERATED BY DEFAULT AS IDENTITY PRIMARY KEY
            //An example (the field names can be different names):
            //  For one Table --- liststFieldNamesCommaDelimited[0] =
            //      "fstFixed CHAR(3), fstVar VARCHAR(8191) CHARACTER SET UTF8, fiKeyID INTEGER GENERATED BY
DEFAULT AS IDENTITY PRIMARY KEY ;
            //  For a second Table --- liststFieldNamesCommaDelimited[1] =
            //      "fstUnits VARCHAR(8191) CHARACTER SET UTF8, fiKeyID INTEGER GENERATED BY DEFAULT AS
IDENTITY PRIMARY KEY ;
            //The max number of VARCHAR chars is 8191
            //Commonly:
            //  CHAR works well for fixed width data
            //  For variable width data, VARCHAR has advantages
            //  VARCHAR is limited to a max of 32765 (when VARCHAR is set to UTF8 the max is 8191)
            //The max Field name size is 31 chars (will be 63 for Firebird 4)
            for (int iii = 0; iii < iTablesCount; iii++) {
                string stSql = "CREATE TABLE " +
                    liststTableNames[iii] +
                    " ( " + liststFieldNamesCommaDelimited[iii] + " )";
                FbCommand fbCmd = new FbCommand(stSql, fbConn, fbTransaction);
                fbCmd.ExecuteNonQuery();
            }
            fbTransaction.Commit();
            fbConn.Close();
        } //using
    } //try
    catch (Exception ex) {
        boErrorFlag = true;
    }
}
```

```
        MessageBox.Show(ex.Message);  
    }  
    return boErrorFlag;  
} //boCreateDatabaseTables  
//-----
```