**Software Design Documentation**

For

**Project: (DTSC) Database Table Script Creator**

**Windows Application**

Date created: 6/14/2017

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# Audience

The audience of this document is intended to contain only Anthony Charles Nicholls, (hereinafter, “**The Author**”), and those interested in engaging **The Author** in the testing, financing, and marketing (hereinafter “**Assisting Party**”) of a project entitled the **Database Table Script Creator** (hereinafter “**The Program**.”)

# Disclosure

In order to obtain such assistance it is necessary for the author to share confidential proprietary information with the undersigned relating to **The Program**. The purpose of this Agreement is to set forth the terms and conditions under which **The Author** will disclose to **Assisting Party** such Information.

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2. **Assisting Party** agrees to hold in strict confidence and not to disclose to third parties and not to use commercially, without the prior written consent of **The Author**, any and all Information received from or revealed as a result of disclosure by **The Author**.

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5. **The Author** shall be entitled to equitable relief, including injunction and specific performance, in the event of a breach of the Agreement, in addition to all other remedies available to **The Author** in law or equity.

Dated at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ this \_\_\_day of \_\_\_\_\_\_\_\_\_\_\_ 20\_\_\_.

Name of Assisting Party:

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Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Author Signature:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Anthony Charles Nicholls

# Document Versions

| **Version** | **Changes** | **Author** |
| --- | --- | --- |
| 1.3.0.0 | Initial Document | Anthony Nicholls |

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# Background and Overview

This program was designed to create a script for a single MSSQL Database Table and its values. Later it was enhanced to connect to XML files and write MSSQL Scripts to mimic the Data Structure inside the file in a database. This was to allow the program that used the XML file to store data, to send its data to a SOAP webservice, which would in turn, insert that data into a database.

# Audience

This application is aimed at the Developer with a home or small shop.

# Licensing

There is no real licensing. The program uses a text file to store the “key” which is ready by the program. It is not generated in anyway, the program expects the file to exist and contain a certain value. The file is not included in the installer, it is hoped that anyone wanting to use the application will contact the owner for a licence file. A pop-up message asks the user to do so if the file does not exist.

## Payment

None.

## Server Side

No licence server

### Receipt of payment

Not handled

### Activations

Not recorded

### Uninstall

Not recorded

## Client Side

### Install

The application expects a file in the same location as the executable to contain a specified value.

### Registration

None

### Uninstall

Uninstalling the application will leave the licence file.

# Data Requirements

The program has no data of its own, except a connection string to the last used database, which is stored in a registry key.

HIVE : HKEY\Current User

LOCATION: SOFTWARE\acnicholls(.com)\Database Table Script Creator

KEY(S): ConnectionString, Provider, AdapterString

# Data Flow

## Application Flow Chart

## Application Run Flow Chart

# Application Requirements

## Licensing Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **Number** | **Requirement Name** | **Requirement Criteria** | **Requirement Data** |
|  | Run application | The application will not run if a specific sequence of alphanumeric characters does not exist in a file called “Licence.txt”.  The characters will have several breaks where a hyphen is used (-). |  |

## Main Application Requirements:

|  |  |  |  |
| --- | --- | --- | --- |
| **Number** | **Requirement Name** | **Requirement Criteria** | **Requirement Data** |
|  | Connect to a MSSQL Database | The application uses OLEDB Data Links form to connect to any database that conforms to ODBC standards. |  |
|  | Connect to an XML File | The application is able to connect to an XML file and treat the contained dataset as a database, from which it can gather information to create scripts for tables and the contained data. | Some XML files do not specify the contained datatypes. This causes all columns to be created as nvarchar (MAX) |
|  | Allow user to select a single Table and view it’s data | The application will list the tables in the connected database in a user selectable manner. Once the user selects a table, its data rows will show in the central grid. | Under the “Tables” Menu option |
|  | Allow user to select the type of script they want output. | The user can choose what parts of the database to create scripts for. | Selections are   1. Table Only 2. Table and Values 3. Values Only 4. All Tables Only 5. All Tables and Values |
|  | Table Only | This option creates a “CREATE TABLE” script for the currently selected table. Primary Keys are included, datatypes are copied and size/nullness are also taken into account. | Only creates scripts for PRIMARY fileset. |
|  | Table and Values | This option creates a “CREATE TABLE” script for the selected table with all attributes copied as in “Table Only” selection. It then includes INSERT INTO scripts for each row of data. | Only creates scripts for PRIMARY fileset. |
|  | Values Only | This option creates INSERT INTO scripts for each row of data in the currently selected table (data on screen). |  |
|  | All Tables Only | This option creates “CREATE TABLE” scripts for each table in the database. | Only creates scripts for PRIMARY fileset |
|  | All Tables and Values | This option creates a “CREATE TABLE” script for every user table in the database, and then creates INSERT INTO scripts for each table’s datarows. | Only creates scripts for PRIMARY fileset |
|  | About Form | The application has a form that displays a copyright statement and describes the application’s use and it’s creator and creation dates. |  |
|  | Error Reporting | The application writes all errors to a file in the same folder as the executable. That file is named “debug.txt. |  |

## Command Line Requirements:

The following commandline options are available

|  |  |  |  |
| --- | --- | --- | --- |
| **Number** | **Requirement Name** | **Requirement Criteria** | **Requirement Data** |
|  | DEBUG | Written as : /debug  Causes: main process to allow execution message to write to a file in the same folder as the executable.  Conflicts with: n/a  Requires: n/a |  |