# QlikView Connector

## User manual

**www.etl-tools.com**

## Contents

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This document refers to **ETL-Tools QlikView Connector** version 2.0.0.1

# 1. Introduction

  "QlikView connector" is a type of software designed for loading data into QlikView dashboards. There are several connectors available to the QlikView users today. All they do is bring the data into QlikView. But they do not do anything with the data

  The **ETL-Tools QlikView Connector** is the only QlikView connector which can perform complex data transformation and validation while loading data into QlikView.

  The technology behind **ETL-Tools QlikView Connector** is based on **Advanced ETL Processor.** Any user who worked **Advanced ETL Processor** will feel very comfortable using **ETL-Tools QlikView Connector.**

  The beauty of the system is that it saves the drudgery and manual tasks normally required for tasks of this type, such as the writing of code, and all the transformations, validations and general checks normally performed. Using traditional methods, operations of this type can only be performed in stages, and not as one smooth operation!

  For example, the traditional method of importing data into QlikView is to write import script to extract data from the source database, e.g. an Oracle database or some text files. However, the operation does not end there. Any data imported has to be sorted, duplicated, validated transformed and loaded into QlikView. This is only possible by creating code designed to achieve this process.

  As you can see, the process is not straightforward. The **ETL-Tools QlikView Connector** automates all these processes in a simple and transparent fashion, and all without writing any code whatsoever.

  As stated, the tool to handle any kind of database, including Oracle, Microsoft Access, SQL Server, DB2, MySQL, Excel spread sheets, and a wide range of others. It is an excellent tool for those organisations who work with data warehouses, and where this involves working with a number of disparate databases.

**Performance**
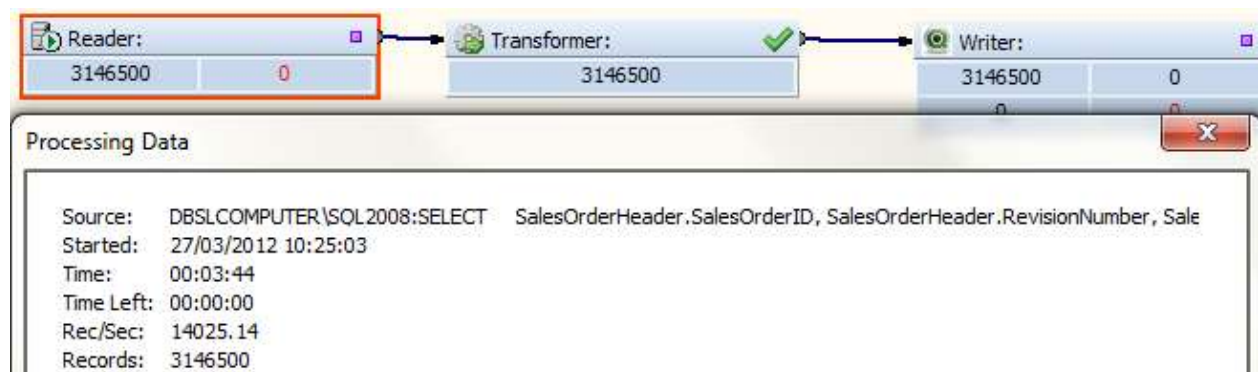


      It took little less than four minutes to generate 3 million records

---

## Complex data

QlikView can load data from almost anything; all the user need to do is to write some code.

### But what is your data look like this?

```
1   H,123456,ID,CUST123,All Interactive,4,FALSE,654321,1,TRUE
2   D,James Camelon,,12 B. Gates St,,,,St'francisco,QLD,4000,US,,,,,,,,,
3   I,XCV1,5
4   I,CVD2,2
5   I,DCP1,1
6   I,HJTHM,3
```

### Or like that?

```
Report: ZMRZR125                                                        CUSTOMER NAM
Page:    1                                                  Stock Status - [
Plant: 0211                                                 Sorted by Material Number
Vendor:      06876

Material                                        Valu  ---UOM---  Min/Max     Consumption  S
  Bin Loc.     Description                       Class Base  Ord  Stk Level    --Usage---   I

1007357        REDUCER, SPEED FALK 1060FCB3A20.50-1   6714 EA      EA          1          -1-L/12  0
               RATIO 20.50:1 RIGHT ANGLE 90DEG TRIPLE                          1           0-P/12
               Item CC:  C5

1026229        PLUG, TUBING STL P-H 8PNTX-S           6760 EA      EA         16          2-L/12  0
  HOSE CAGE    1/2 X 13/16 TUBE 37DEG FLARE                                    16         12-P/12
```

The **ETL-Tools QlikView Connector** is the only connector which can handle this kind of data.

## 2. Key features

The ability of the **ETL-Tools QlikView Connector** to work with a number of disparate systems means that it is provided with a rich set of tools and functionality.

*It is in effect, an "engineering" environment for the movement of data into QlikView.*

We will now explain and define the variety of features which are provided as part of the toolset. Let us first have a look at the data extraction process.

### 2.1 Extraction Process

### 2.1.1 Multiple Data Formats

The extraction process can handle a variety of data formats, including multiple delimited or fixed width text files. The power of this system however, is in its ability to find files to load using mask.

### 2.1.2 Multiple Databases and Table Processing

It can easily interpret and manipulate Microsoft Access data, from a number of different databases. Again the end user can use a mask to find the tables to load the data from. It does also apply to Excel and DBF/FoxPro files.

### 2.1.3 Other Database Features

The **ETL-Tools QlikView Connector** also has other useful database features, such as the ability to connect to any Object Database Connectivity (ODBC) database. ODBC was intended to enable developers' access to any data through any application, regardless of the DBMS used for managing that data. ODBC boasts platform independence since it has been purposefully designed in a way that makes it distinct from database systems, programming languages and operating systems. The **ETL-Tools QlikView Connector** utilises this technology to great effect.

### 2.2 Summary of the Extraction Process:
- Multiple Delimited or Fixed width Text files
- Multiple Excel files + Multiple Excel Spreadsheets
- Multiple MS Access Databases + Multiple Tables
- Multiple DBF Files
- Any ODBC compliant database
- Full support for OLE DB
- Direct connection to Oracle, SQL Server, MySql, PostgreSQL, SQLite, SQL Server Compact and Interbase/Firebird
- Multiple Tables
- File System
- POP3 Servers
- XML File
- QQVX files

## 2.3 Validation Process

The **ETL-Tools QlikView Connector** has a robust validation process built in. The types and nature of the validations taking place can be tweaked and configured by the user. A full range of validation functions are included. Validations can be performed on the basis of data type, lists of values, and regular expressions, which can be individually changed according to requirements.

## 2.4 Summary of Validation Processes:

**Validation:**

- 190 Validation Functions
- String Validation
- Number Validation
- Date Validation
- Time Validation
- Validation Against list of values
- Regular Expressions: Post codes, Phone Numbers, VAT Numbers ETC

## 2.5 Transformation Process

The process of "transformation" involves the manipulation of data so that it can be converted from one format or data type to another. The **ETL-Tools QlikView Connector** provides a useful set of "built in" transformation functions. Transformations can be performed on strings, numbers, dates, coded values and whole chunks of data. The transformation functionality allows for the sorting and grouping of data according to requirements. Data can also be duplicated as required.

## 2.6 Powerful Data Transformation

In addition to the standard data transformation abilities, the processor can also perform complex translation functions. An example would be if an integer variable = "1", then set a text variable to "yes". Once data is translated, it is possible to join data into a completely new format or present it in a new way. The **ETL-Tools QlikView Connector** provides many flexible alternatives for data manipulation, and these are not difficult to take advantage of.

The **ETL-Tools QlikView Connector** also provides the ability to derive calculated values, join data together from multiple fields, summarise multiple rows at once, or can split or merge columns at will.

The flexibility and power of the processor means that you can customize data transformation and conversion functions according to your requirements with a click of the mouse. This saves hours and hours of coding.

## 2.7 Summary of Transformation Processes:

**Transformation:**

- 86  Transformation Functions
- String Transformation
- Number Transformation
- Date Transformation
- Sorting
- Grouping
- Deduplication
- Field Selector
- Union All
- Translating coded values (e.g., if the source system stores 1 for male and 2 for female, but the warehouse stores M for male and F for female)
- Deriving a new calculated value (e.g., sale amount = qty * unit price)
- Joining together data from multiple fields
- Summarizing multiple rows of data (e.g., total sales for each store, and for each region)
- Generating surrogate key values
- Transposing or pivoting (turning multiple columns into multiple rows or vice versa)
- Splitting a column into multiple columns (e.g., putting a comma-separated list specified as a string in one column as individual values in different columns)
- Customised Transformation
- Data generation
- Running Totals
- Powerful scripting language
- System variables

## 2.8 Loading Process

 The data is loaded directly into QlikView or it can be saved for later use as QVX files. Since it is using QlikView native format the loading is extremely fast

## 3. Requirements

Below is the list of Software that must be installed before installation of **ETL-Tools QlikView Connector**:

| Software | Version | | Notes |
|---|---|---|---|
| Microsoft Windows | 98 or higher | | |
| MDAC | 2.6 or higher | Part of OS on W2K, XP, Vista. | |
| MS Access ODBC driver | 4.00.6364.00 or higher | Part of OS on W2K, XP, Vista. | Only to work with MS Access 95-2003 Databases |
| MS Access 2007 ODBC driver | 12.00.4518.1014 or higher | Separate download | Only to work with MS Access 2007 Databases |
| FoxPro ODBC driver | 6.1.8629.1 or higher | Separate download | Only to work with DBF/FoxPro Files |
| SQL ODBC driver | 2000.81.9041.40 | Part of OS on W2K, XP, Vista. | Only to work with MS SQL Server 7/2008 |
| Oracle Client | 7.3.4 or higher | Provided by Oracle | Only to work with Oracle Databases |
| Interbase client | | GDS32.DLL | Only to work with Interbase or Firebird Databases |

**Separate Downloads:**

FoxPro ODBC driver
http://msdn.microsoft.com/en-us/vfoxpro/bb190233.aspx

Office 2007 Data Access Components
http://www.microsoft.com/downloads/details.aspx?FamilyID=7554F536-8C28-4598-9B72-EF94E038C891&displaylang=en

**QlikView version:**

10 and above

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**Working with Oracle:**

Oracle client 8.1.7 to load data into/from Oracle
  Or
Oracle client 9 to load data into/from Oracle
  Or
Oracle client 10 to load data into/from Oracle
  Or
Oracle client 11 to load data into/from Oracle

**Note:**
  *Depending on the Requirements you may or may not need to have all components installed*
  *There is no need to install clients for MySql and PostgreSQL they are integrated into the*
*software itself.*

# 4. Working with **ETL-Tools QlikView Connector**

**ETL-Tools QlikView Connector** provides the user interface for designing data transformations.
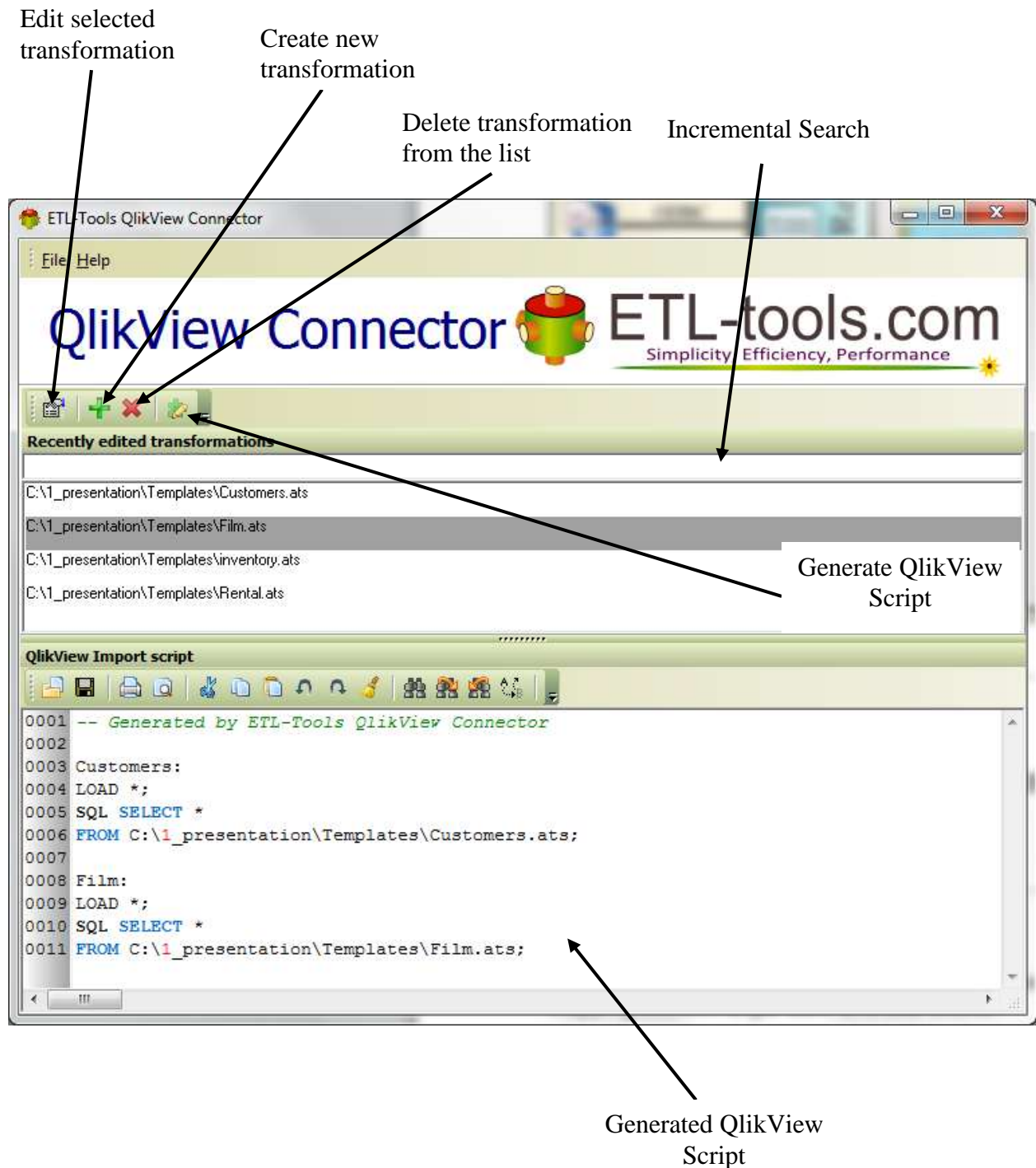
1. To open existing transformation double click on the name

Main Tool bar

Available Objects
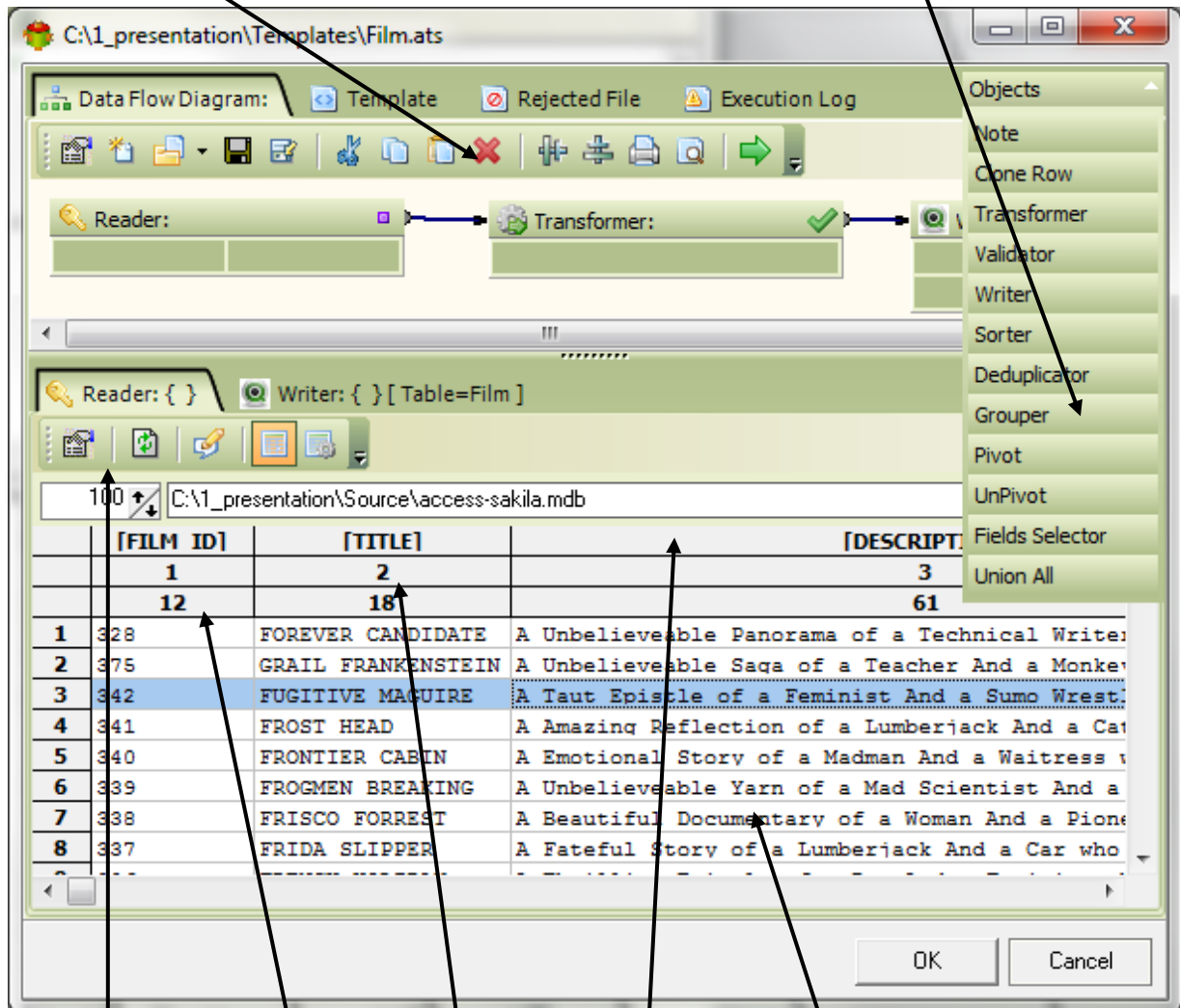


Reader Toolbar    Field Width    Field No    Reader Fields    Reader data

2. To design new click plus

**Note:**

> When saving transformation we recommend using filenames without spaces.

**Designing transformations**

For more information on how to design data transformations please read **Advanced ETL Processor** user manual

## 5. Running QlikView load scripts

To run load script copy generated script into QlikView.

```
CUSTOM CONNECT TO "Provider=AETLP_QlikView_Connector.exe;XUserId=FXPZaHB;XPassword=POLVJLA;";

Customers:
LOAD *;
SQL SELECT *
FROM C:\1_presentation\templates\customers.ats;

Film:
LOAD *;
SQL SELECT *
FROM C:\1_presentation\templates\film.ats;
```

### Connector location

C:\Program Files (x86)\Common Files\QlikTech\Custom Data\

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We welcome your suggestions and comments to make our software better.
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Email To: support@etl-tools.com

**Online Contact Form:** http://www.dbsoftlab.com/index.php/Contact-Us/

While submitting a bug or problem please include the following to make it easier to solve the problem as soon as possible:

- All the symptoms of a Problem
- Exact steps required to reproduce it
- Version number
- Operation system version
- Database version
- Log files
- Script
- Sql script to create tables
- Screenshots

We intend to resolve 90 per cent of the reported problems within 48 hours.
Most difficult issues or functionality extension are resolved within one week

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