Visual Importer Professional & Enterprise
User manual

www.dbsoftlab.com

Contents

1. Introduction

Visual Importer is a business intelligence tool that provides an integrated solution for designing and deploying data warehouses and data marts. It solves complex problem of integration between different data sources and targets. It combines components of both ETL and designs tools into one tool.

2. Requirements

Below is the list of Software that must be installed before installation of Visual Importer:

Software	**Version**		**Notes**
Microsoft Windows	98 or higher		
MDAC	2.6 or higher	Part of OS on W2K, XP	
SQL ODBC driver	2000.81.9041.40	Part of OS on W2K, XP	Only for import data into MS Sql Server
Microsoft Jet 4.0	Service pack 5 or higher		For MS Access repository
Oracle Client	7.3.4 or higher	Provided by Oracle	Only for import data into Oracle/connect to Oracle repository

Working with Oracle:

Oracle client 7.3.4 and MS Ole DB Driver for Oracle to use Oracle repository on Oracle 7 and load data into it

Or

Oracle client 8.1.7 and Oracle Ole DB Driver for Oracle to use Oracle repository on Oracle 7-9 and load data into it

Or

Oracle client 9 and Oracle Ole DB Driver for Oracle to use Oracle repository on Oracle 8-9 and load data into it

Oracle ODBC Driver to load data from Oracle

Note:

Depending on the Requirements you may or may not need to have all components installed

3. Key features

Data import

Data targets:

- Oracle 7-9i database (using OCI API)
- SQL server 7- 2000 (using BCP API)
- ODBC source (using ODBC API)

Data sources:

- Text files
- Any ODBC source

Repository:

- MS Access
- Oracle
- MS Sql Server
- Interbase
- MySQL
- PostgreSQL

This product features:
Great performance - hundreds of records per second
Comprehensive logging
Rejected records file
Integrated Expressions builder
Filtering Data

Allows the user to perform calculation during the loading process such as splitting fields, concatenations, data formatting, and loading cross/pivot tables.

Oracle

There are two ways of loading available:

- Oracle direct path loading
- Conventional path

MS SQL server

This software uses the same API as Microsoft DTS service.

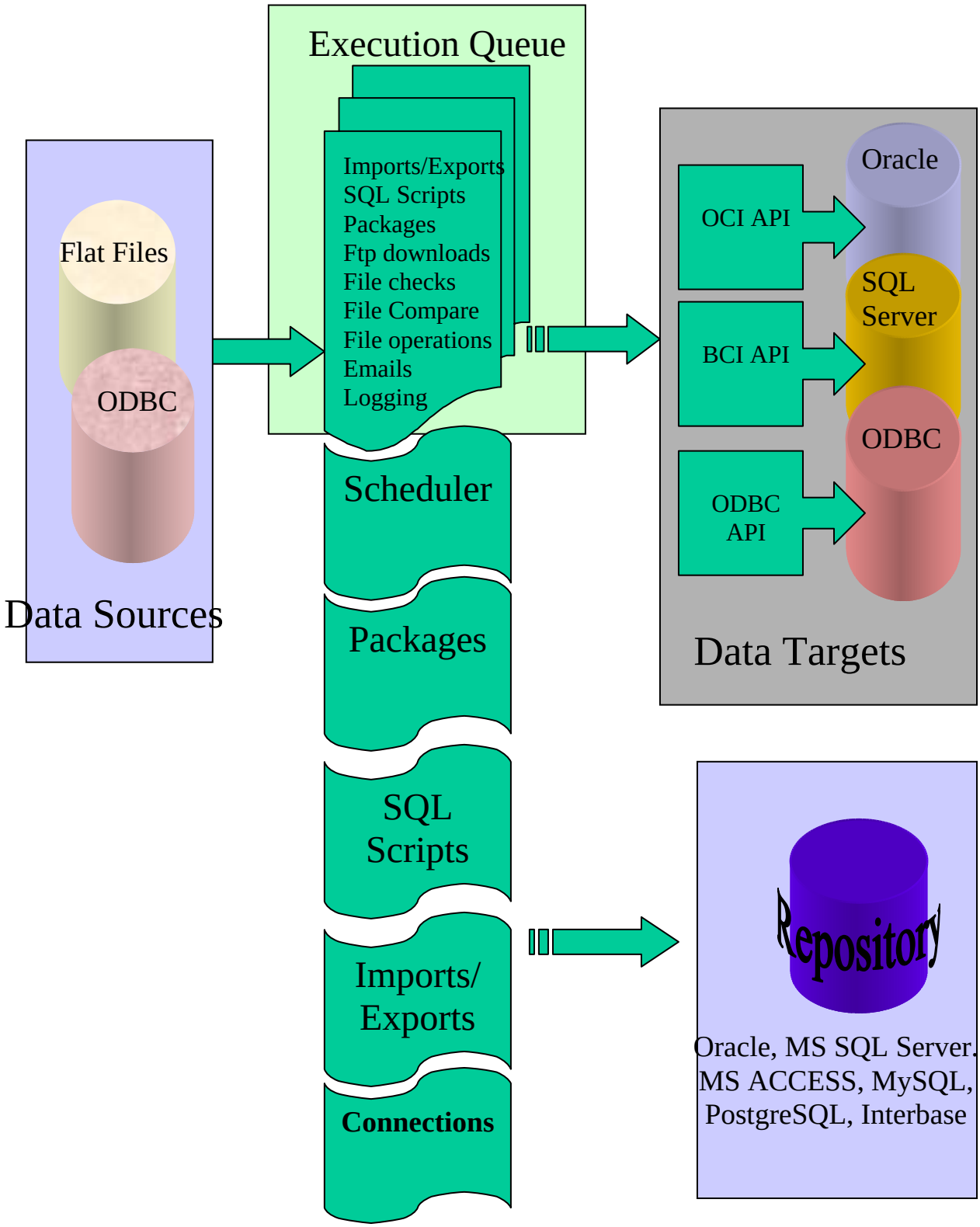
ODBC

Any ODBC compliant database.

Other features are:

- Easy Repository switching
- Data Preview
- Mapping editor
- Exports
- SQL scripts editor
- Packages editor
- Integrated Scheduler
- Logging
- Lookups
- Email Notifications
- File Operations
- Check Files
- Compare Files
- FTP Downloads/Uploads
- ZIP
- Applications
- PO3 Email Receiver

4. Visual Importer Architecture



5. Demo Data

Text files

Examples provided are using text files in
“C:\Program Files\DB Software Laboratory\Demo\Buffer” and
“C:\Program Files\DB Software Laboratory\Demo\Text Files”
If you want to use another location please amend Directories properties for ‘Text files’ and “Buffer”.

Demo tables

Use SQL Scripts provided to create demo tables for Oracle and MS SQL server.
Please adjust connection details before executing these scripts.

Most of the SQL Server Imports use DEMO database. You have to create demo tables within this database first before executing import scripts.

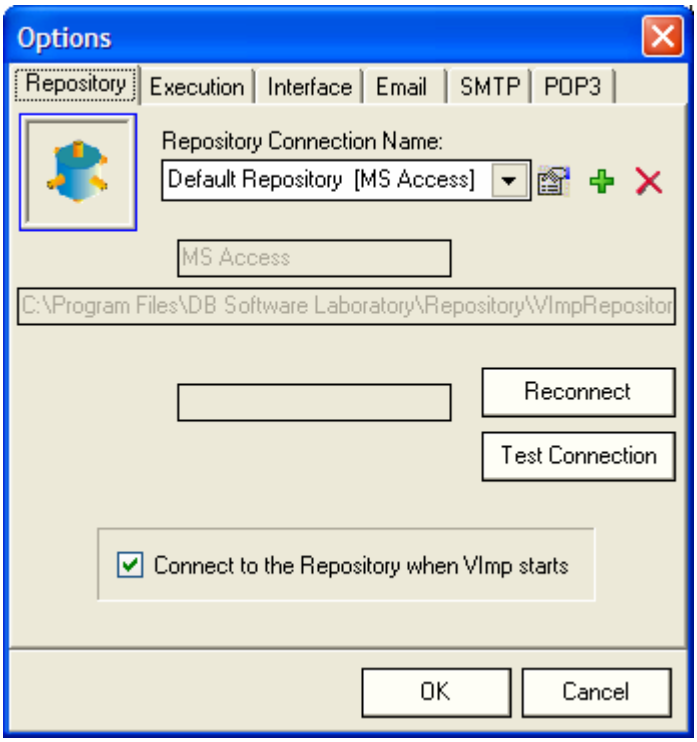
ODBC connections

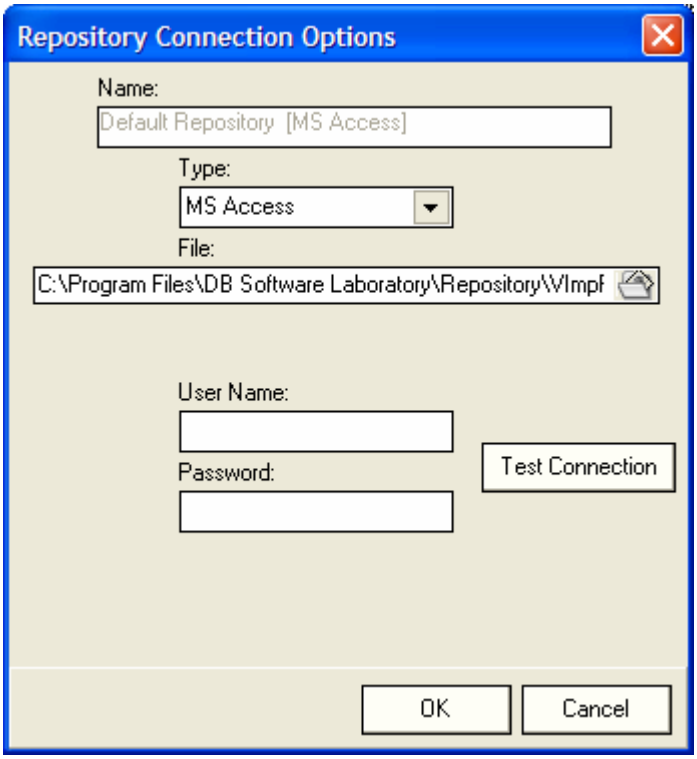
Setup program creates following ODBC DSN during the installation:

- ODBC_FOXPRO
- ODBC_ACCESS_SOURCE
- ODBC_ACCESS_TARGET
- ODBC_MS
- ODBC_ORACLE
- ODBC_EXCEL

6. Options

To change Visual Importer settings click System menu-> File-> Options.
Dialog box will appear.



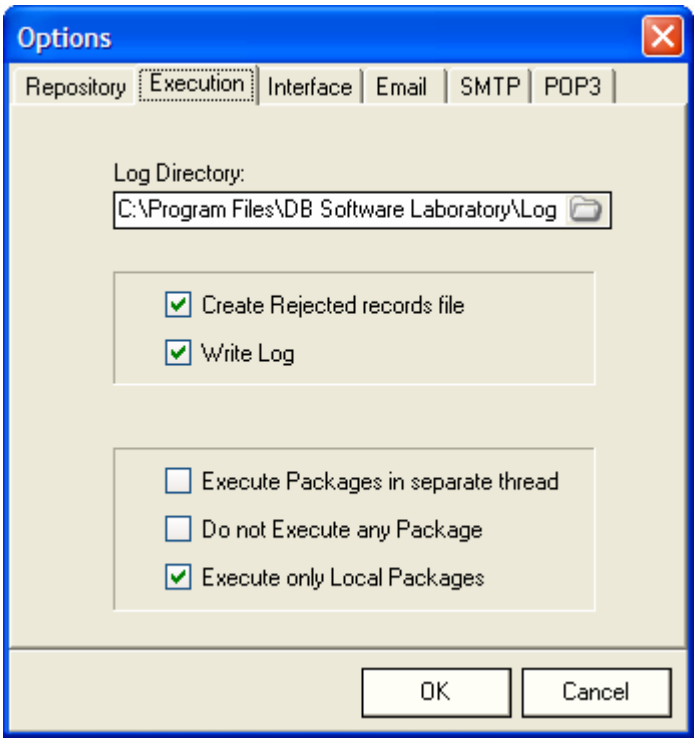


Repository tab defines repository connection.
Repository type can be:

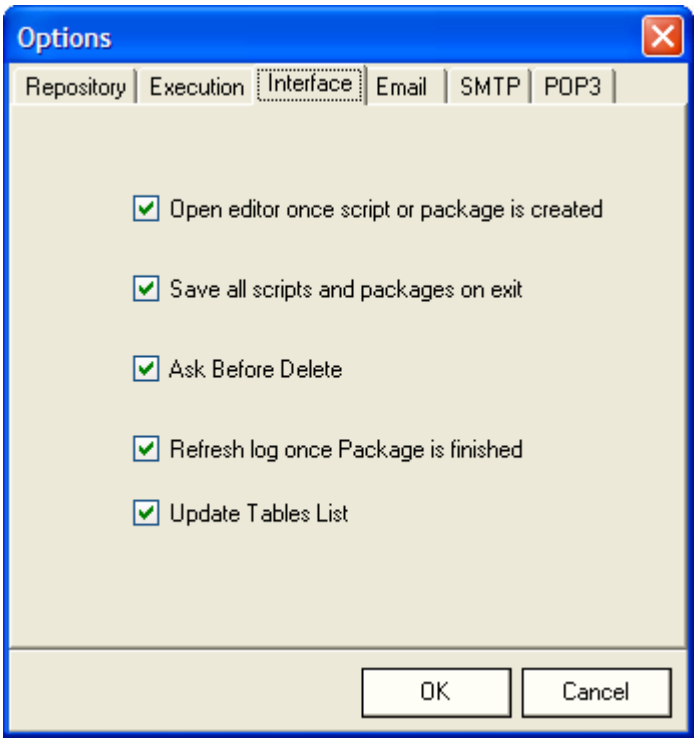
- MS Access
- MS SQL Server
- Oracle
- Interbase (Firebird)
- MySql
- PostgreSQL

Note:
Provided Default Repository [MS Access] contains all the SQL scripts required to create Oracle, MS SQL server, Interbase, MySql and PostgreSQL repositories.

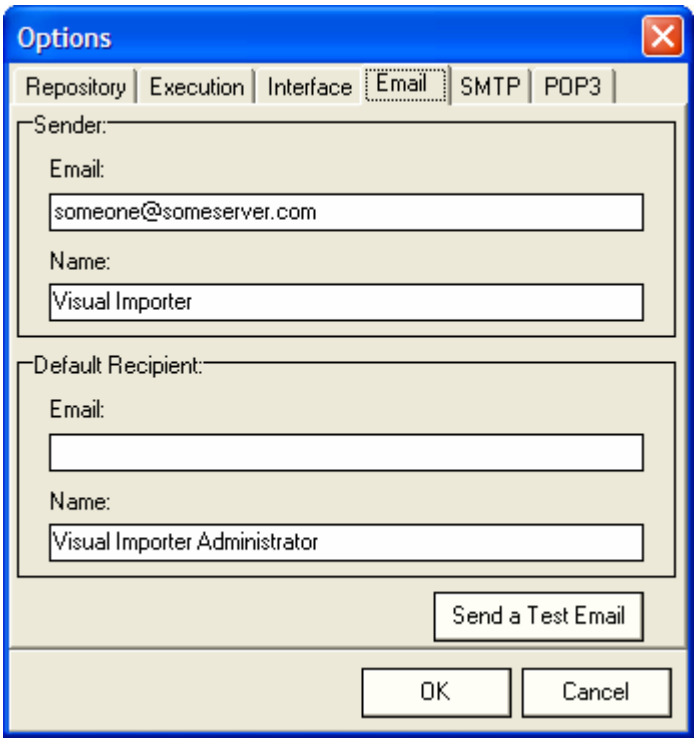
Import tab defines settings related to the logging and Packages execution.

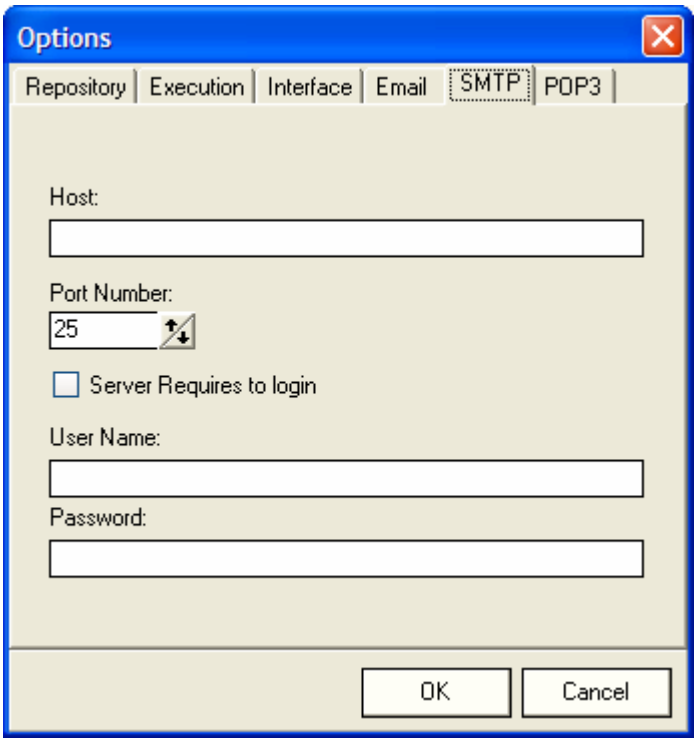


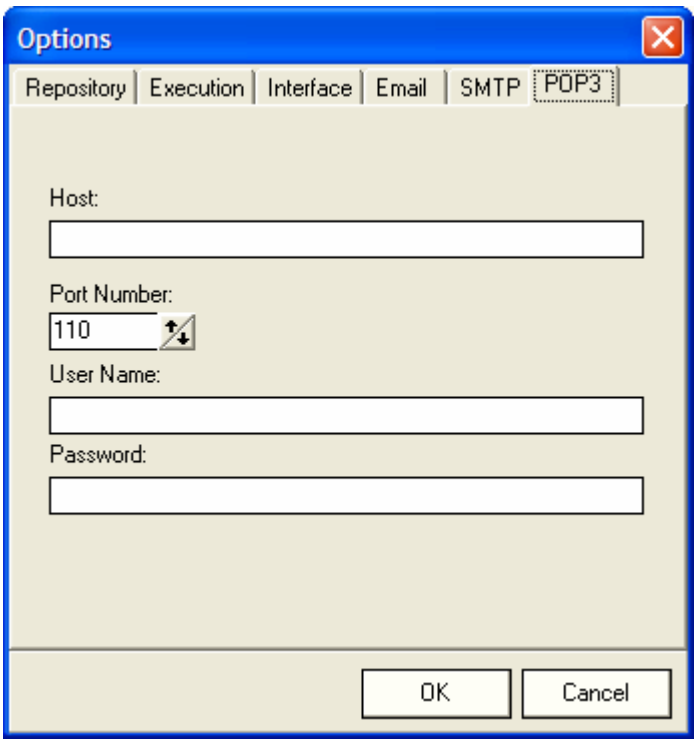
Interface tab defines settings for the log refreshing and records deletion, etc.



Email tab defines settings required to send Emails.

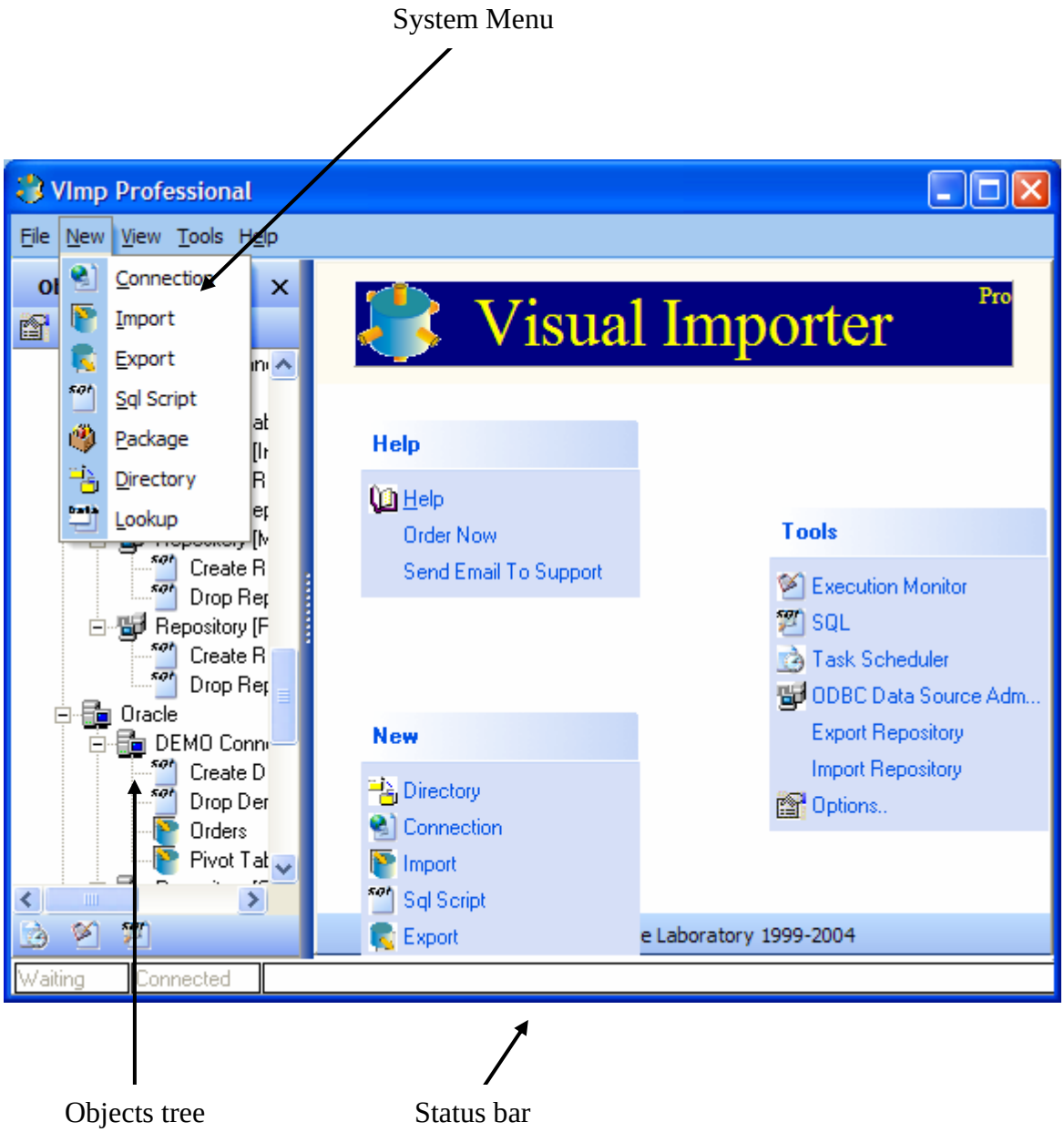



Options
Repository
Execution
Interface
Email
SMTP
POP3
Host:
Port Number:
25
Server Requires to login
User Name:
Password:
OK
Cancel


Options
Repository
Execution
Interface
Email
SMTP
POP3
Host:
Port Number:
110
User Name:
Password:
OK
Cancel

7. User Interface

Main window



Objects tree

Visual Importer uses Objects tree to provide the user with an easy access to the main objects.

Below is a list of possible objects with the short descriptions:

	Directories	Defines path to flat files for loading into the database
	SQL Server Connection	Defines connection to load data into
	ODBC Connection	Defines connection to load data into or from
	Oracle Connection	Defines connection to load data into
	Import	Defines mapping between Data source and Data target
	Export	Defines format of output server
	SQL Scripts	Defines SQL statements to perform against target Databases
	Lookups	Provides quick way to edit/view data.
	Packages	Combines complex Actions together like Ftp downloads File operations, emails, Check files, SQL scripts and Imports/Exports.

8. Connections and Directories

In order to load data from data source into the data target Visual Importer must be able to connect to the both of them.

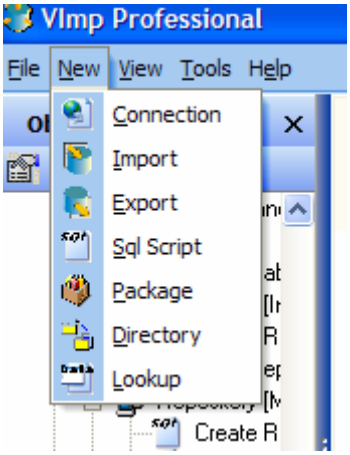
Possible Data sources are:

- Flat files (Directories)
- ODBC Connections

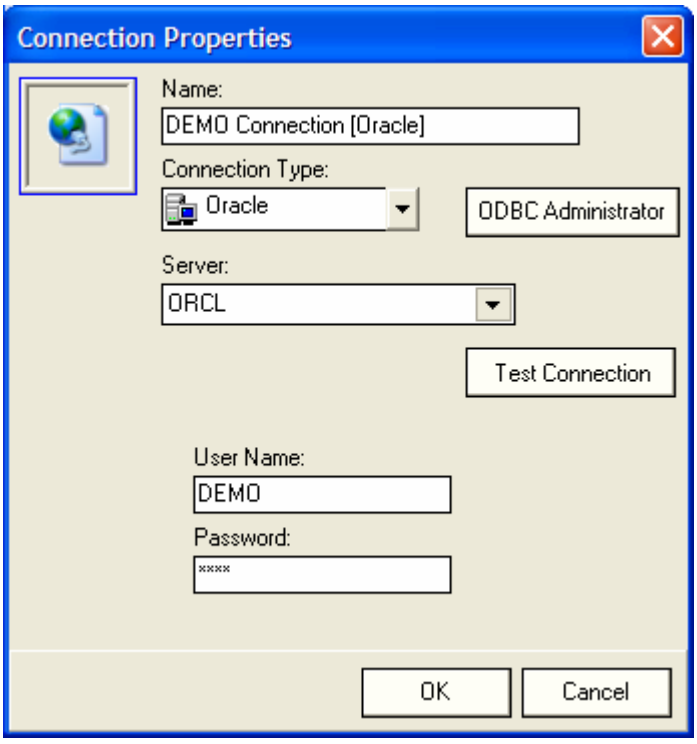
Data targets:

- Oracle
- MS SQL server
- ODBC Connections

To create a new connection Click System menu-> New-> Connection.



Oracle Connection

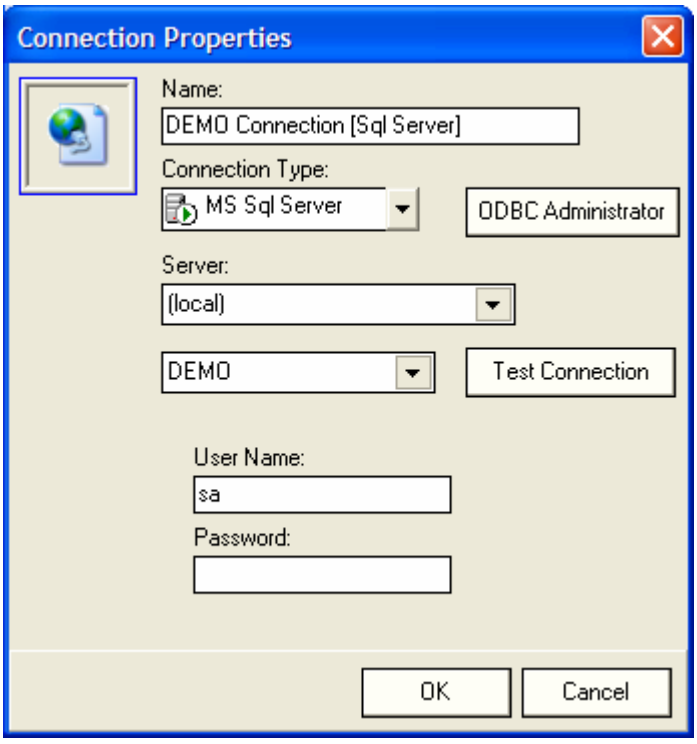


- In the Name Text Box type in a new name for the connection you are about to create
- Select Oracle from the Connection Type Drop Down List
- Select a TNS Name from the Server Drop Down List
- Fill in Username/Password for the database you wish to connect to

    a. If you are unsure of these parameters, please contact your Database Administrator for the correct settings.

- Click Test to ensure the details you have provided are correct
- Click OK to close the Connection Properties Window

Microsoft SQL Server Connection

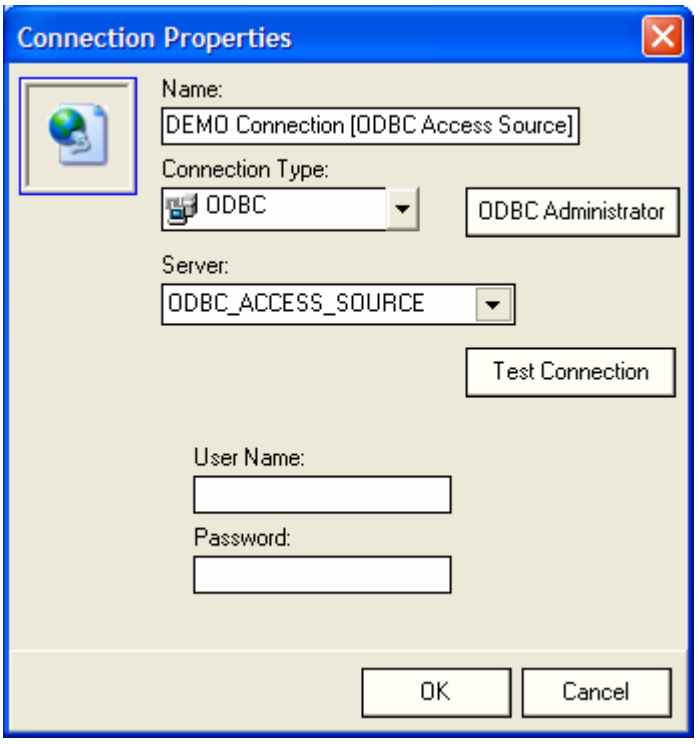


- In the Name Text Box type in a new name for the connection you are about to create
- Select MS SQL Server from the Connection Type Drop Down List
- Select a Server Name from Server Drop Down List
- Select a Database Name form the Drop Down List
- Fill in Username/Password for the database you wish to connect to

    a. If you are unsure of these parameters, please contact your Database Administrator for the correct settings.

- Click Test to ensure the details you have provided are correct
- Click OK to close the Connection Properties Window

ODBC Connection



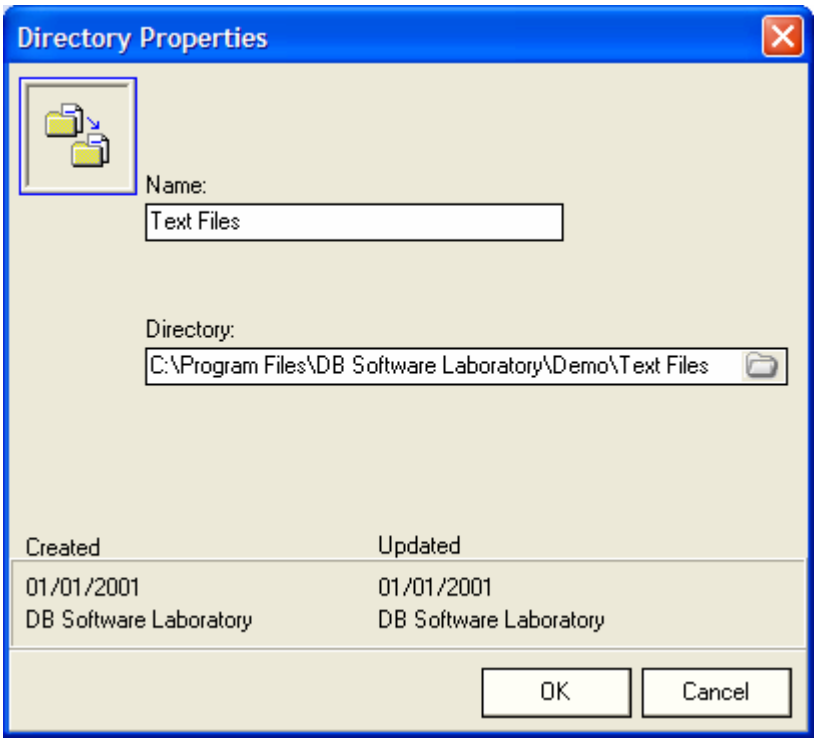
- In the Name Text Box type in a new name for the connection you are about to create
- Select ODBC from the Connection Type Drop Down List
- Select a ODBC DSN Name from Server Drop Down List
- Fill in Username/Password for the database you wish to connect to

    a. You may use ODBC admin to create/modify ODBC data sources.

- Click Test to ensure the details you have provided are correct
- Click OK to close the Connection Properties Window

Note:
It is possible to use ODBC connection as a Data Target and Data source.

Directories



- In the Name Text Box type in a new name for the directory you are about to create
- Fill in Directory path you wish to load data from
- Click OK to close the directory Properties Window

Note:
User may change connection or directory properties at any time by double clicking on it.

9. Import

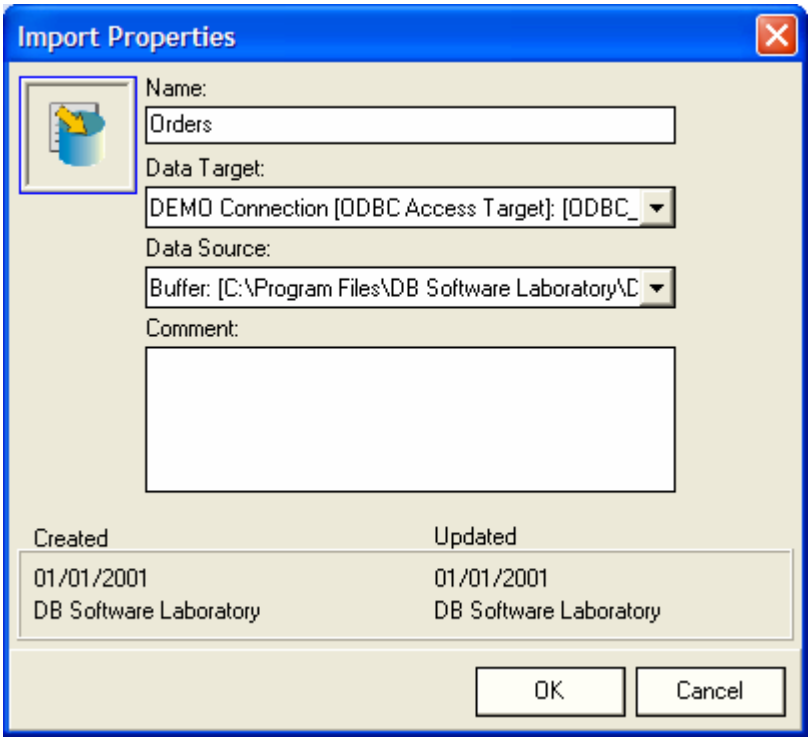
In order to load data from the data source into the data target user must define data mapping between target table and data source.

Possible data sources are:

- Flat files (delimited and non-delimited).
- ODBC sources.

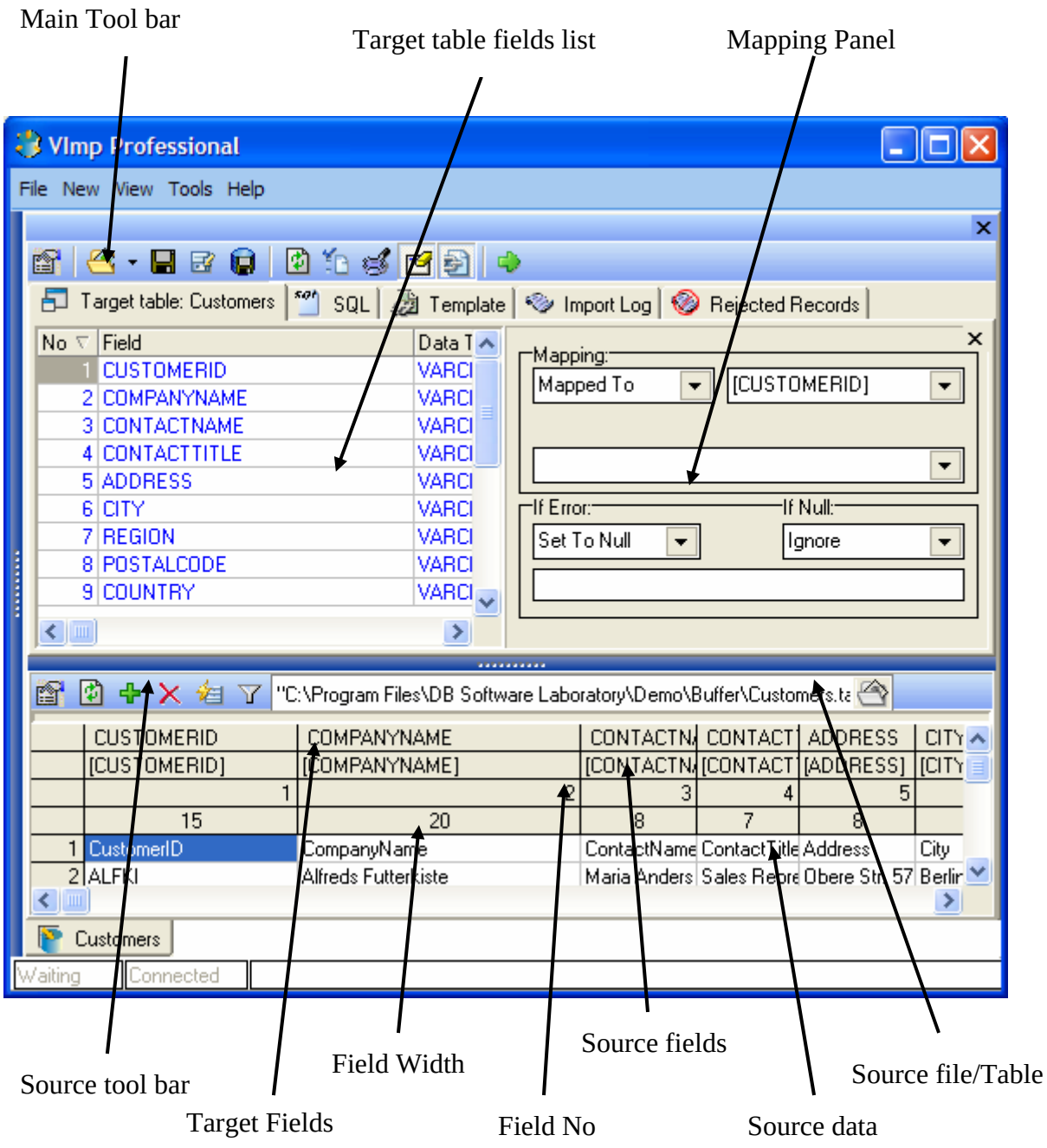
Import screen is designed to allow user to create, delete, modify, and test data mapping to the target databases.

- To create a new Import click System menu-> New-> Import.
- Fill in Description edit box with the name of an Import you are about to create.
- Select Data Target from the Drop Down List you want to load data into.
- Select Data Source from the Drop Down List you want to load data from.
- Fill in the comment if required.
- Click OK to finish creation of Import.

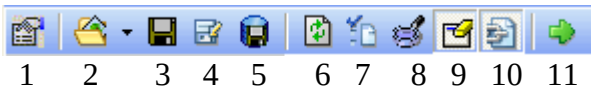


Mapping editor screen overview

Double click on any demo Import.
Import editor will appear.

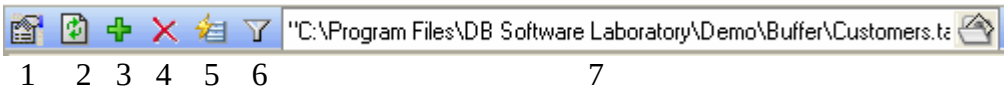


Main tool bar



1. Data Target options
2. Loads Import Script From the file
3. Saves Import Script to the file
4. Saves as
5. Saves Import to the Repository
6. Refreshes fields list fro the database
7. Checks Import for mapping errors
8. Data preview
9. Allows user to clear field mapping
10. Hides mapping panel
11. Data Import

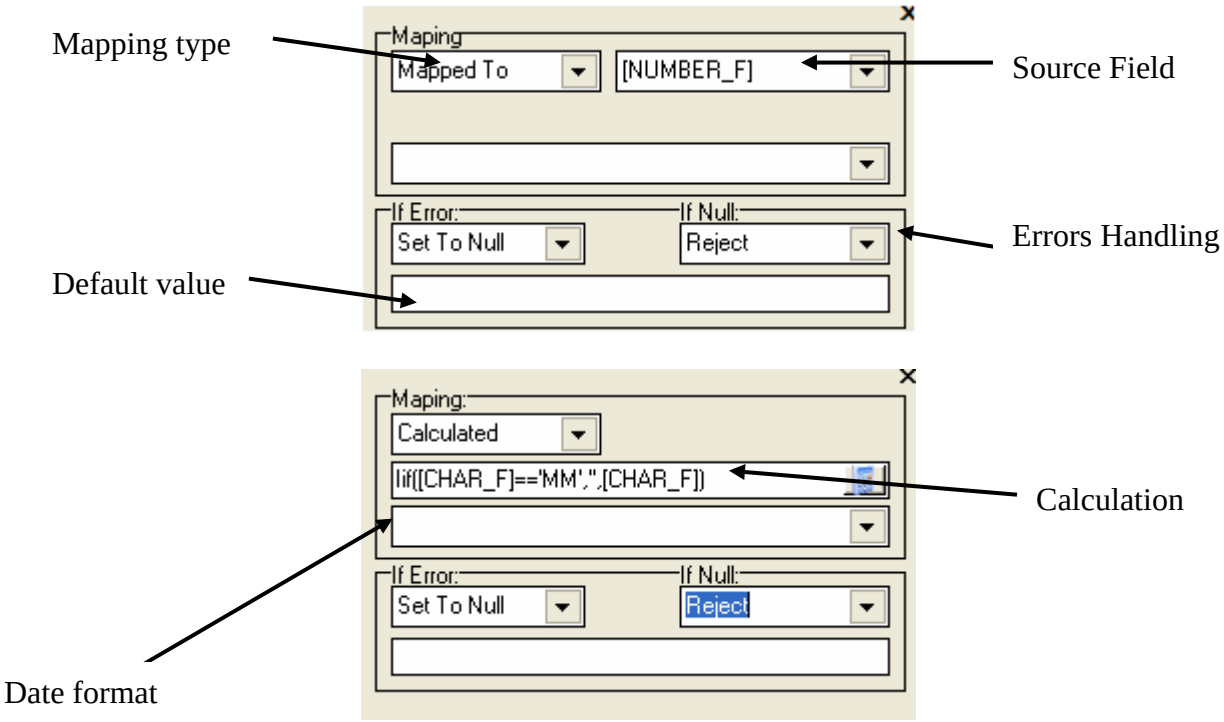
Source tool bar



1. Data source options
2. Refreshes Source data
3. Add new column
4. Delete last column
5. Auto map the source fields to the target fields
6. Filter
7. Source file name/ table name

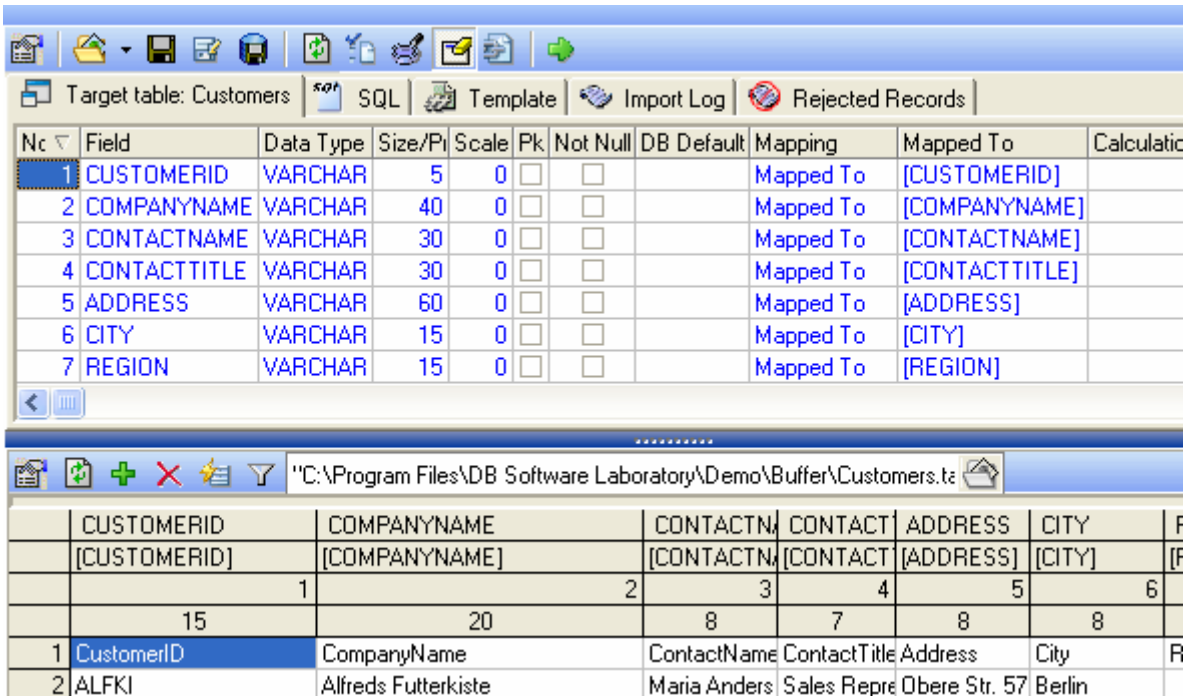
Mapping panel

Mapping panel is designed to provide user with all information related to the mapping of one particular field. There are two ways of mapping: direct and through calculations.



Alternately you may hide Mapping panel and use grid to perform mapping.

See the picture below:



Nc	Field	Data Type	Size/Pr	Scale	Pk	Not Null	DB Default	Mapping	Mapped To	Calculatic
1	CUSTOMERID	VARCHAR	5	0	☐	☐		Mapped To	[CUSTOMERID]	
2	COMPANYNAME	VARCHAR	40	0	☐	☐		Mapped To	[COMPANYNAME]	
3	CONTACTNAME	VARCHAR	30	0	☐	☐		Mapped To	[CONTACTNAME]	
4	CONTACTTITLE	VARCHAR	30	0	☐	☐		Mapped To	[CONTACTTITLE]	
5	ADDRESS	VARCHAR	60	0	☐	☐		Mapped To	[ADDRESS]	
6	CITY	VARCHAR	15	0	☐	☐		Mapped To	[CITY]	
7	REGION	VARCHAR	15	0	☐	☐		Mapped To	[REGION]	

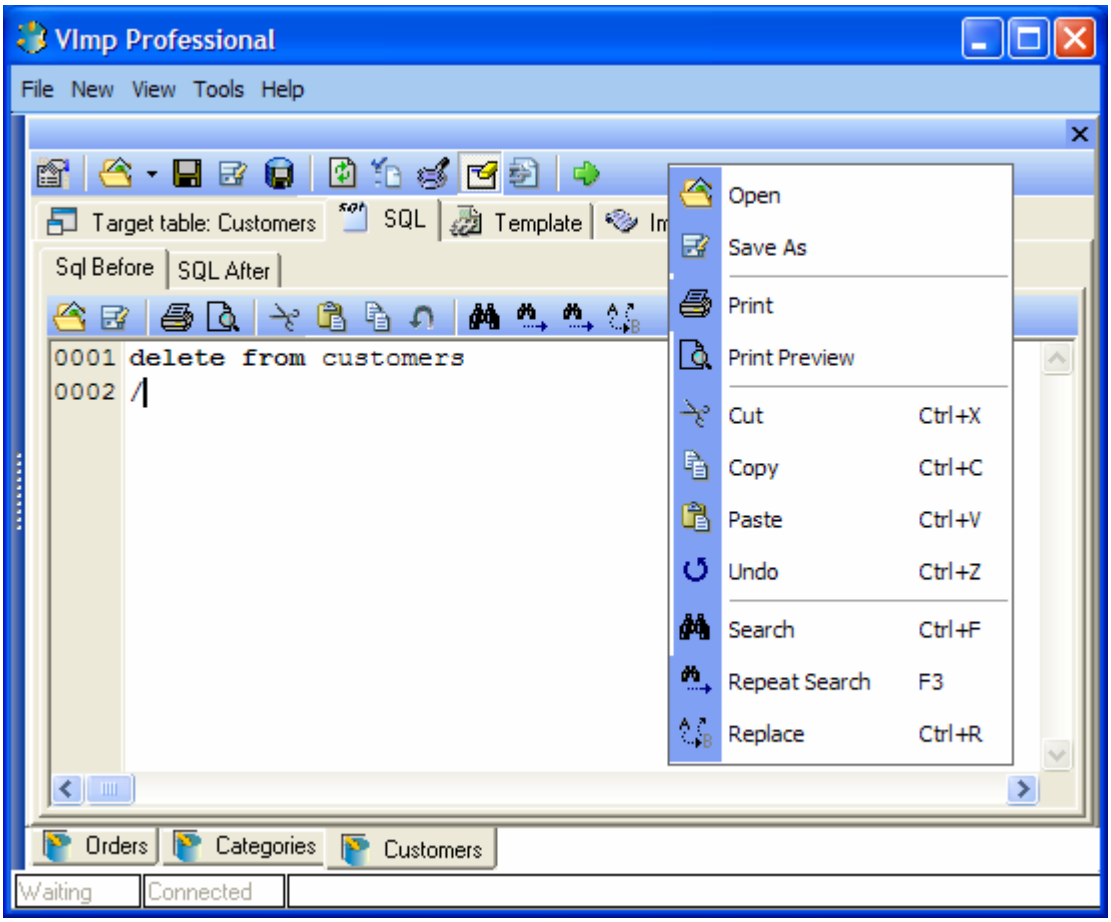
	CUSTOMERID	COMPANYNAME	CONTACTN	CONTACT	ADDRESS	CITY	F
	[CUSTOMERID]	[COMPANYNAME]	[CONTACTN	[CONTACT	[ADDRESS]	[CITY]	[F
	1	2	3	4	5	6	
	15	20	8	7	8	8	
1	CustomerID	CompanyName	ContactName	ContactTitle	Address	City	R
2	ALFKI	Alfreds Futterkiste	Maria Anders	Sales Repre	Obere Str. 57	Berlin	

SQL Statements

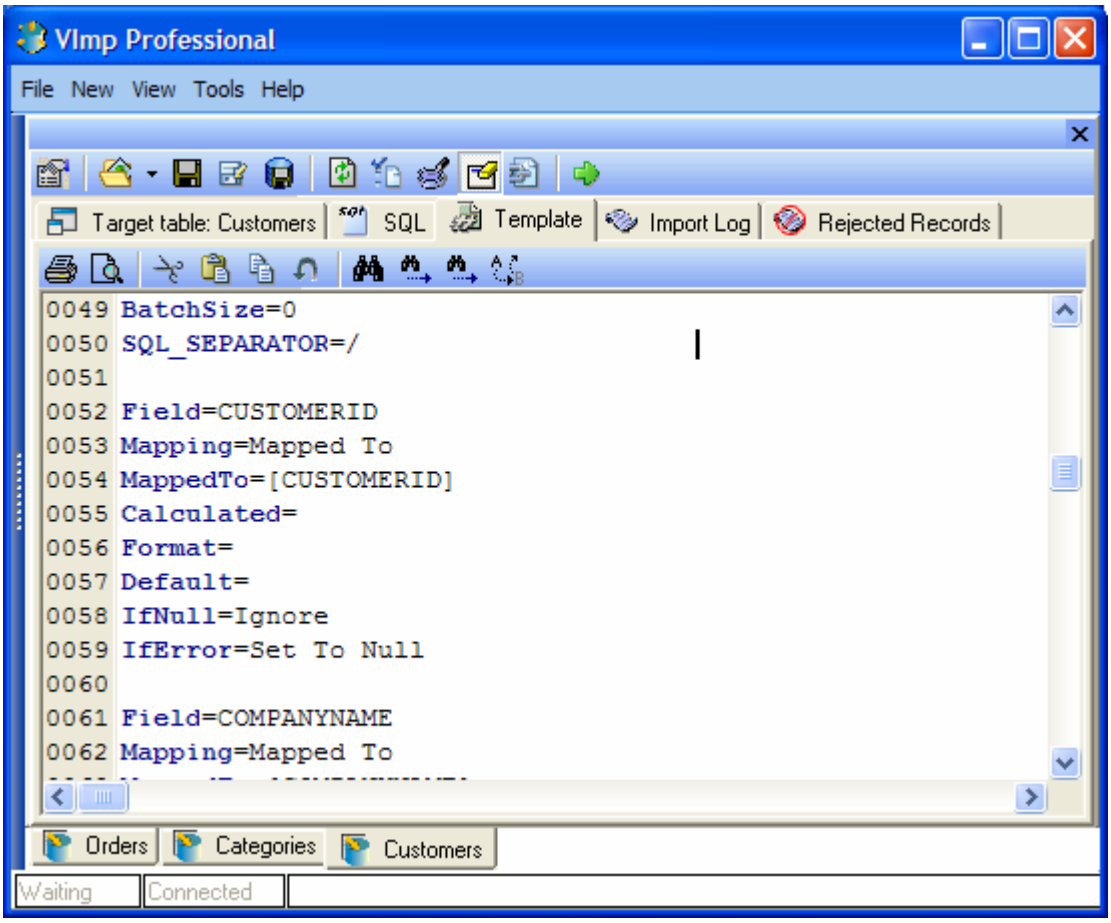
Visual Importer provides functionality to perform SQL statements before and after data import.

Note:

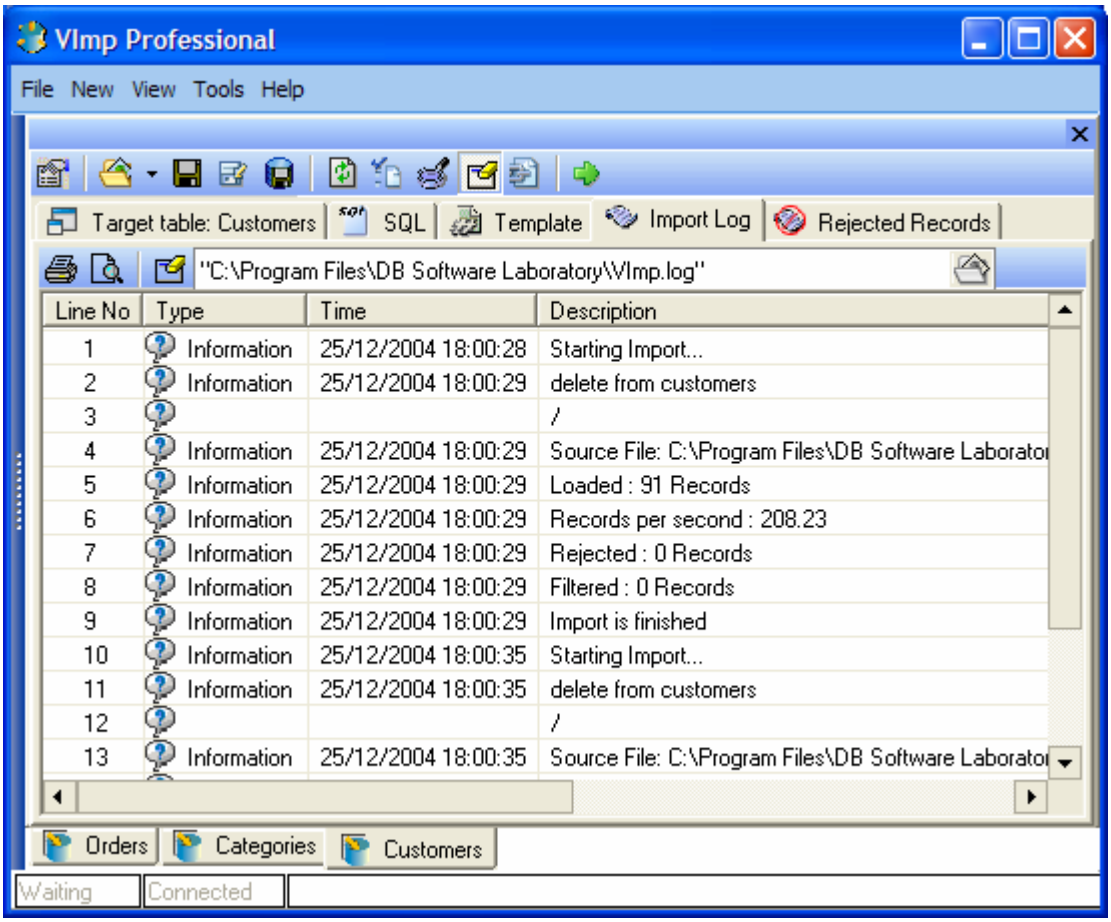
- In order to Execute several SQL statements user must specify SQL delimiter.
- No select statements allowed.



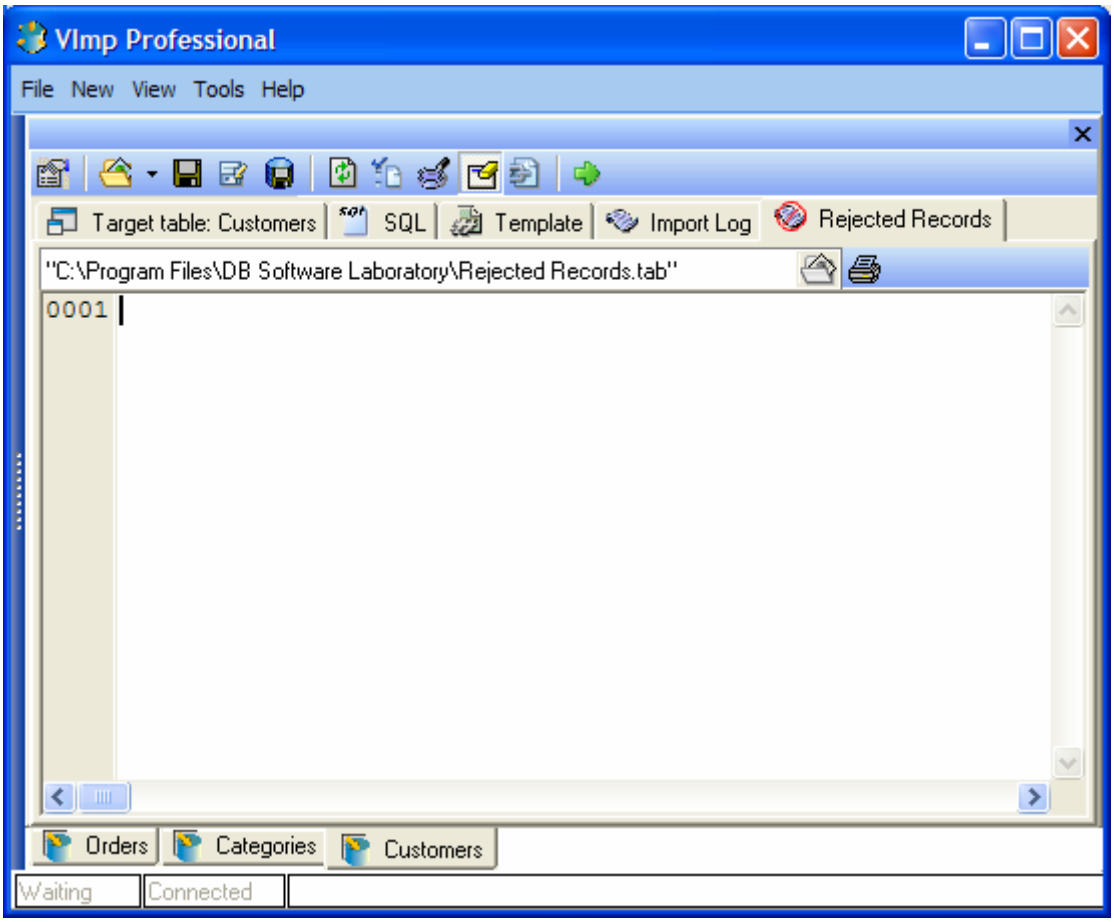
Template tab



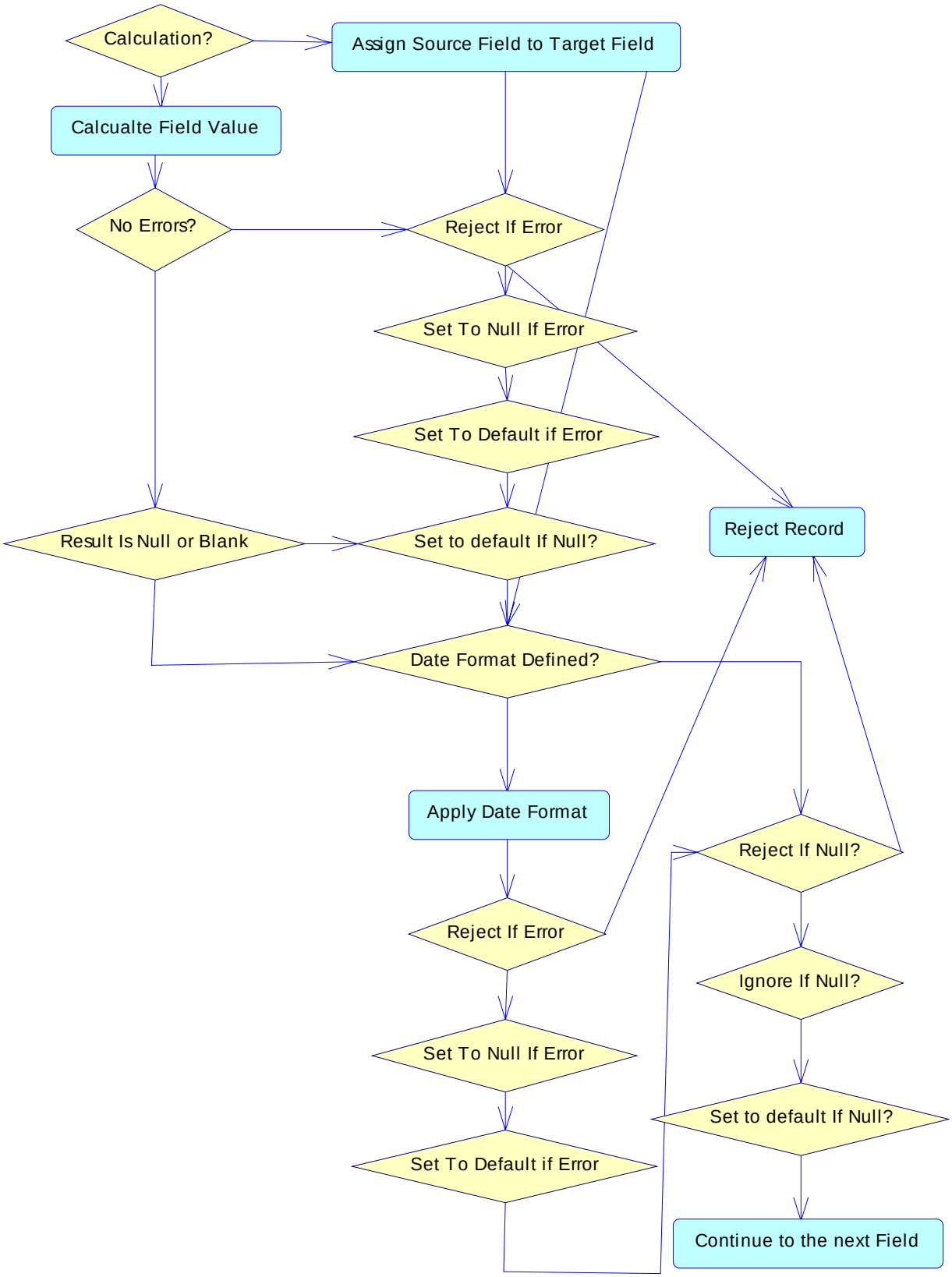
Log File tab


VImp Professional
File New View Tools Help
Target table: Customers
SQL
Template
Import Log
Rejected Records
"C:\Program Files\DB Software Laboratory\VImp.log"
Line No Type Time Description
1 Information 25/12/2004 18:00:28 Starting Import...
2 Information 25/12/2004 18:00:29 delete from customers
3 /
4 Information 25/12/2004 18:00:29 Source File: C:\Program Files\DB Software Laborator
5 Information 25/12/2004 18:00:29 Loaded : 91 Records
6 Information 25/12/2004 18:00:29 Records per second : 208.23
7 Information 25/12/2004 18:00:29 Rejected : 0 Records
8 Information 25/12/2004 18:00:29 Filtered : 0 Records
9 Information 25/12/2004 18:00:29 Import is finished
10 Information 25/12/2004 18:00:35 Starting Import...
11 Information 25/12/2004 18:00:35 delete from customers
12 /
13 Information 25/12/2004 18:00:35 Source File: C:\Program Files\DB Software Laborator
Orders
Categories
Customers
Waiting
Connected

Rejected Records Tab



Import Process

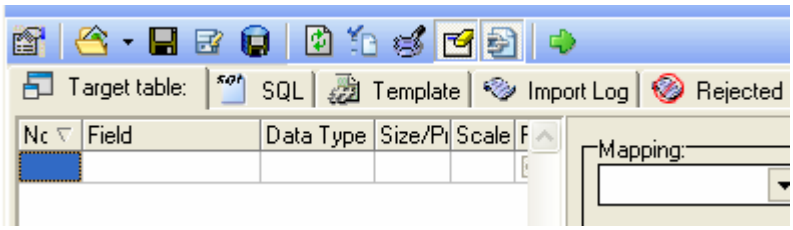


Note:
Records can be also rejected by the Server.

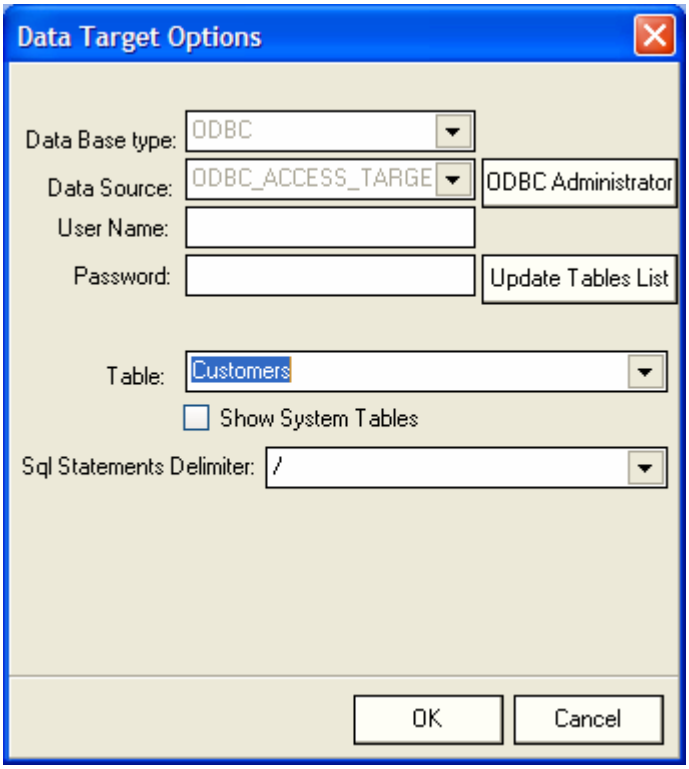
Data Mapping for a Flat File Data Source

To perform data mapping:

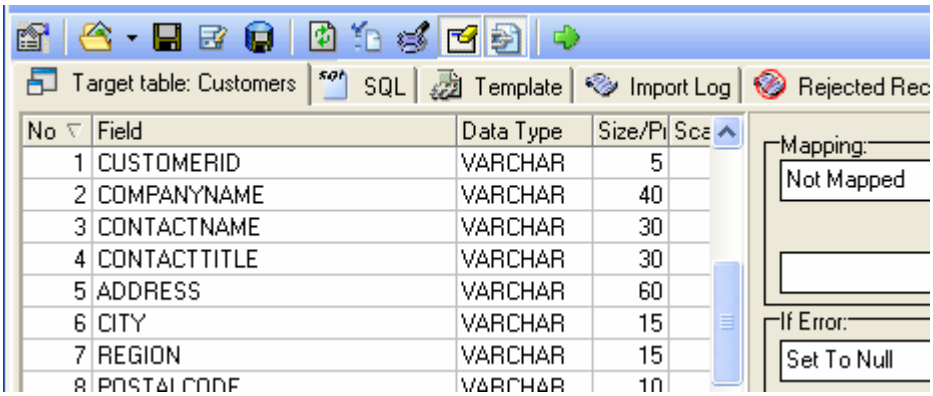
- Click Data Target Options button.



- Dialog box will appear.
- Click Get tables list.
- Select Table you would like to import data into from Drop Down List.
- Click OK.

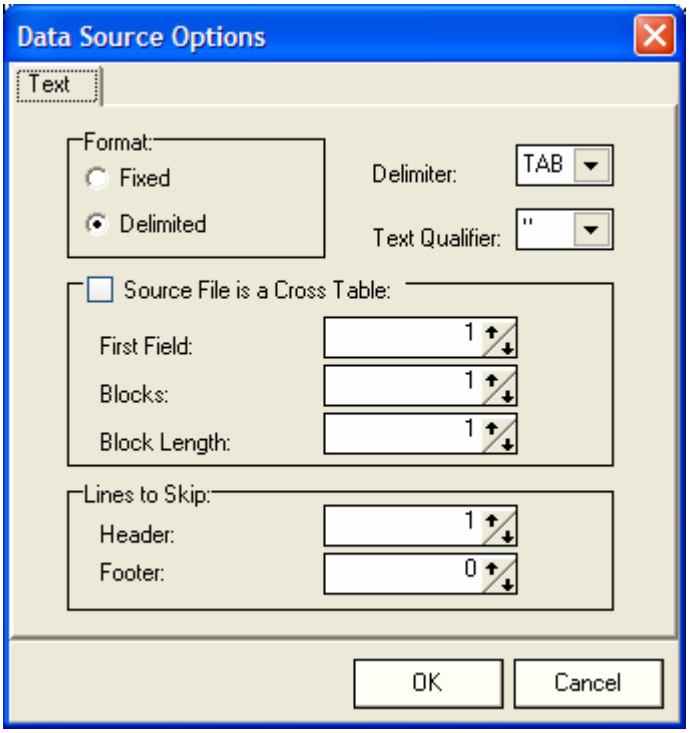


The following list of fields should appear:



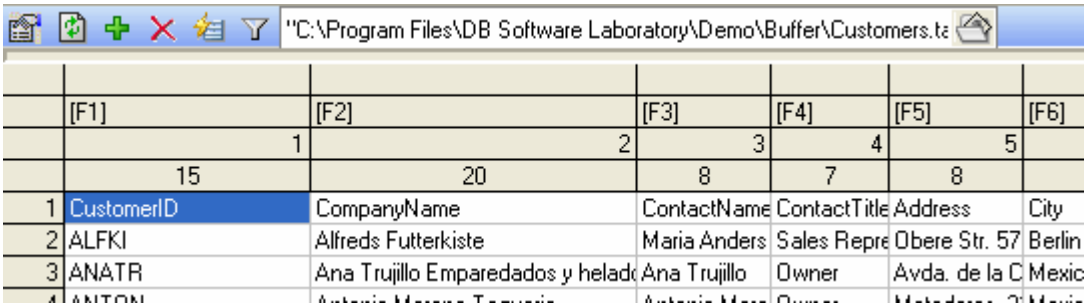
Click Data Source Option Button.

Dialog box will Appear.
Set Delimiter and Quota to appropriate values.

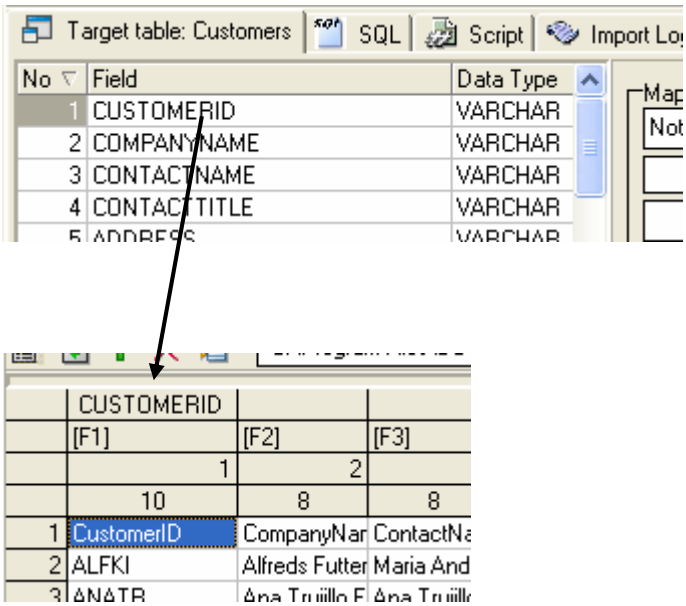


Click OK.

Click  and select the file you want to import.



Select First field in the Data Target fields list and drag and drop it above [F1] field.

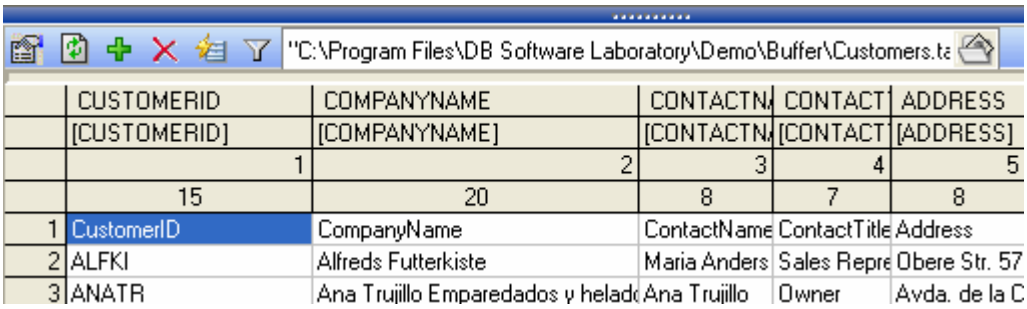


You may change field mapping by using mapping panel at any time.

Auto mapping

If the Data Source and Data Target have got the same fields' names you may use Auto map feature.

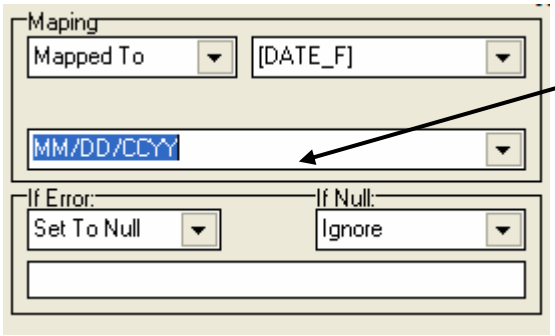
Click  , Click yes.



Now we are ready to import data.
Let's check script first.

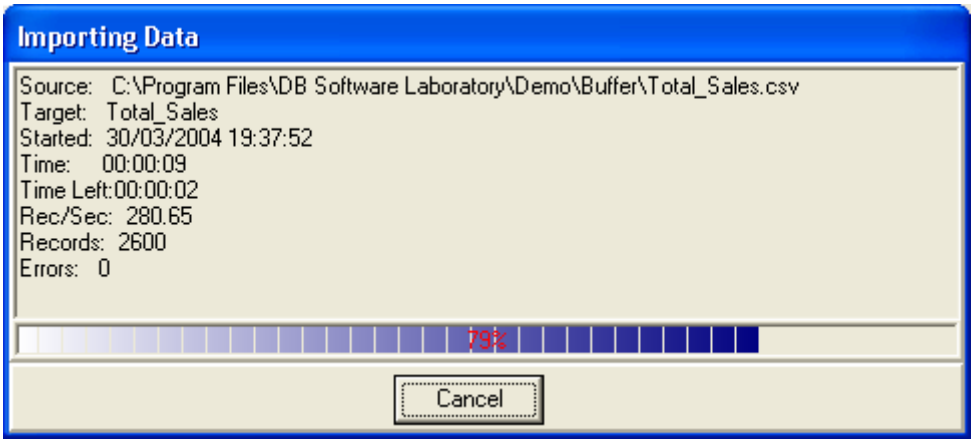
Click  to check script.

We have to correct the error first.



Date format is missing

Click  to load data into the database



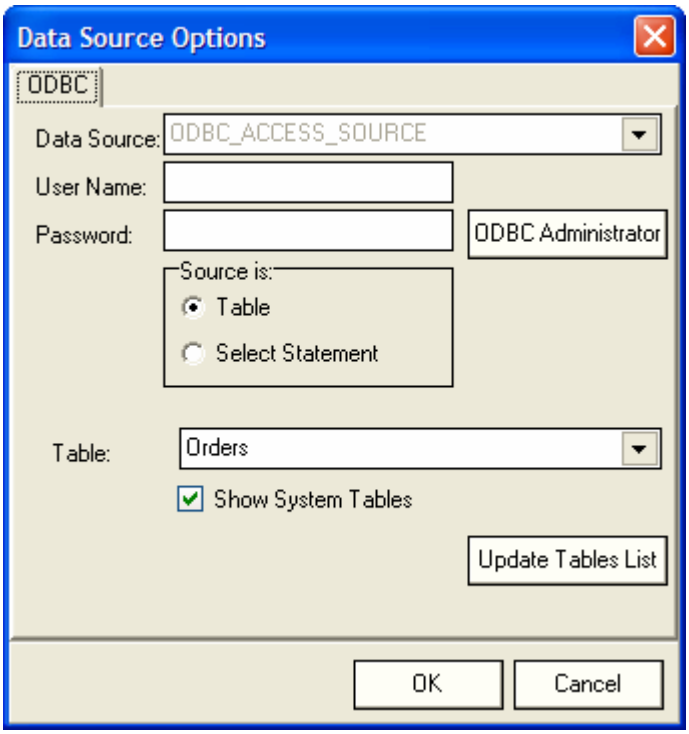
Once loading is finished you may check Log file or Rejected records file.

Data Mapping for an ODBC Data Source

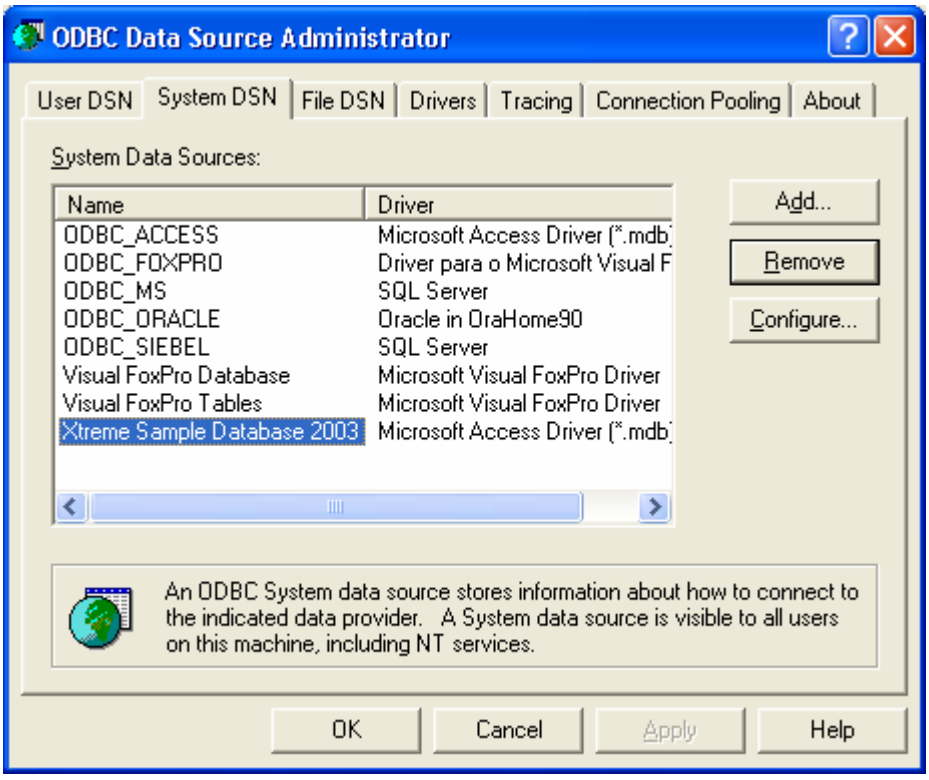
Data mapping for ODBC is very similar to the flat file mapping.

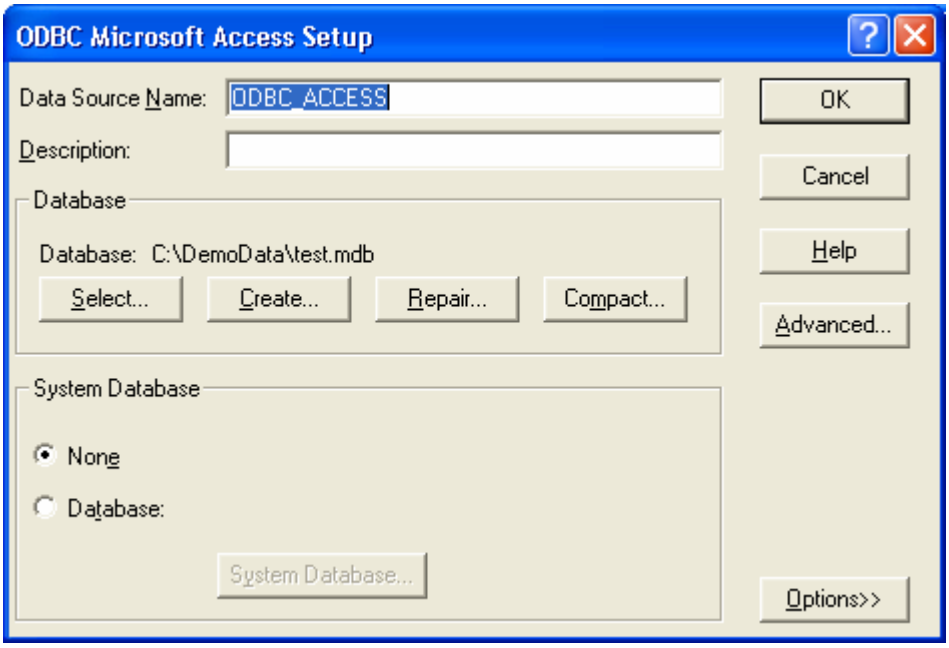
Click Data Source Option Button.

Dialog box will appear.
Select ODBC DSN from the Drop Down List or alternatively create a new ODBC DSN or modify the old one by using ODBC administrator.
Fill in User name and Password if required.
Click Get Tables List.
Select table name to load data from the Drop Down List.
Click OK.



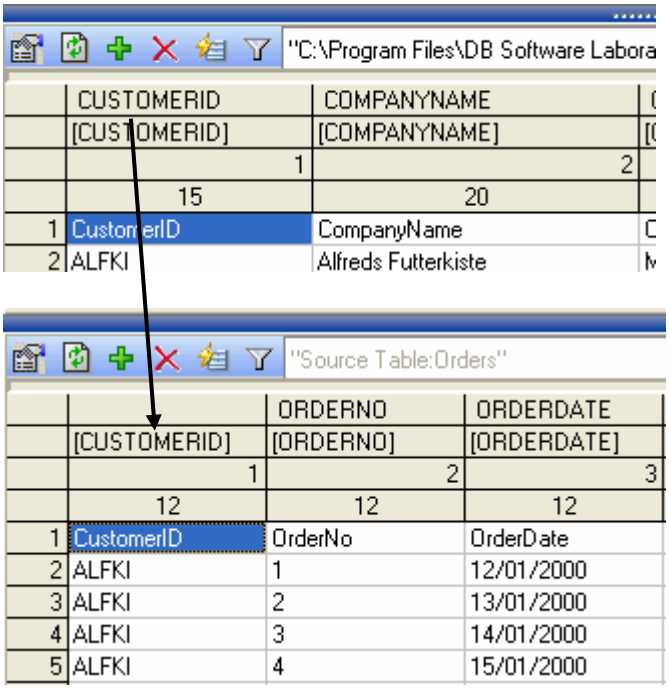
ODBC Manager





How to clear mapping

Click  .
Click on field you would like to clear.



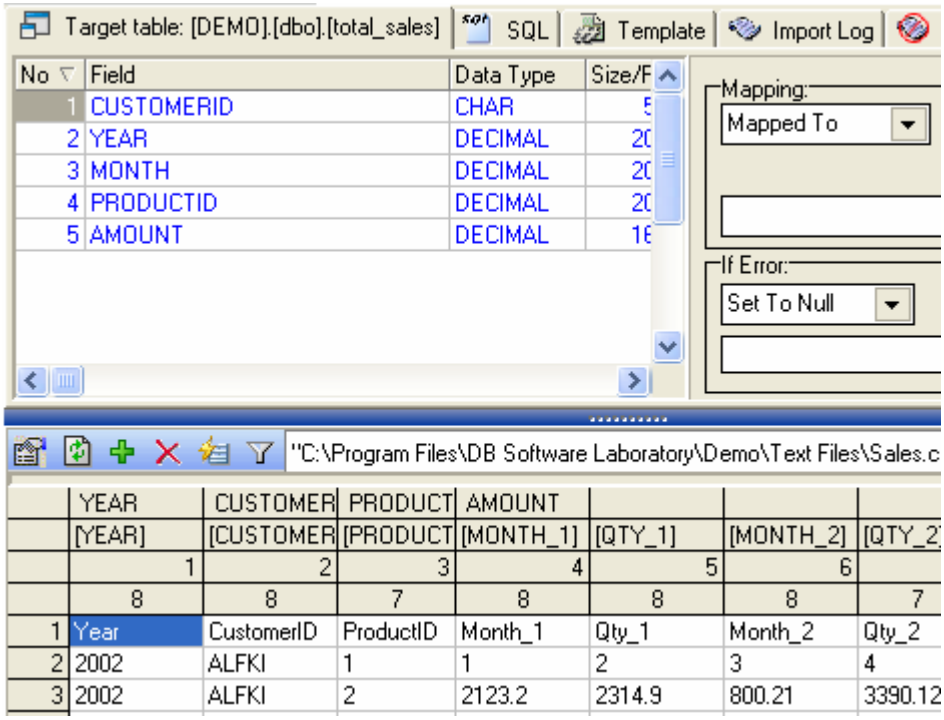
Loading data from the Cross tables

Let us say we have table like the following in the database:

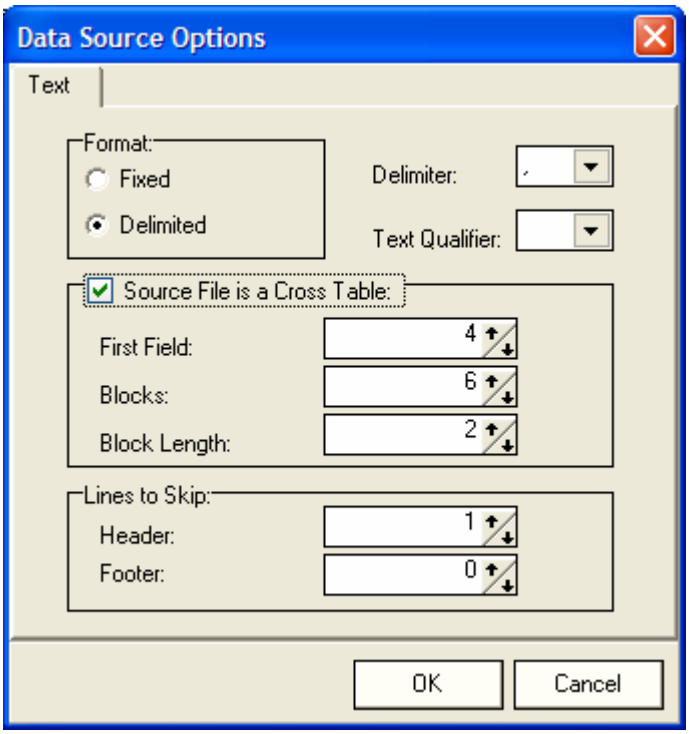
No	Field	Data Type
1	CUSTOMERID	CHAR
2	YEAR	DECIMAL
3	MONTH	DECIMAL
4	PRODUCTID	DECIMAL
5	AMOUNT	DECIMAL

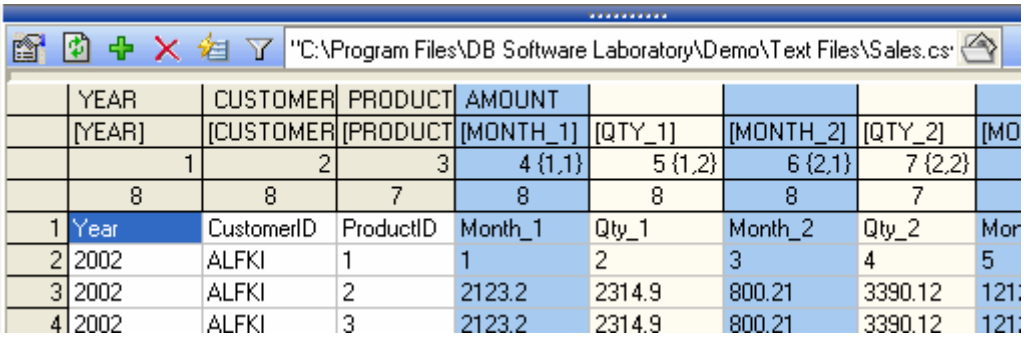
And a text file like the one below:

Year
CustomerID
ProductID
Month_1
Qty_1
…
Month_12
Qty_12



Click Data Source Button and check ‘Source file is a Cross table’ check box and set First Field to 4, Blocks to 12 and Block length to 2





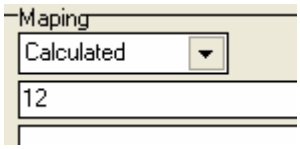
Finally we are ready to import data

Click  to load data into the database

Performing Calculations

Visual Importer is capable of performing calculations during the import.

To perform a simple calculation set mapping type to calculation and type constant or formula into calculation edit box.



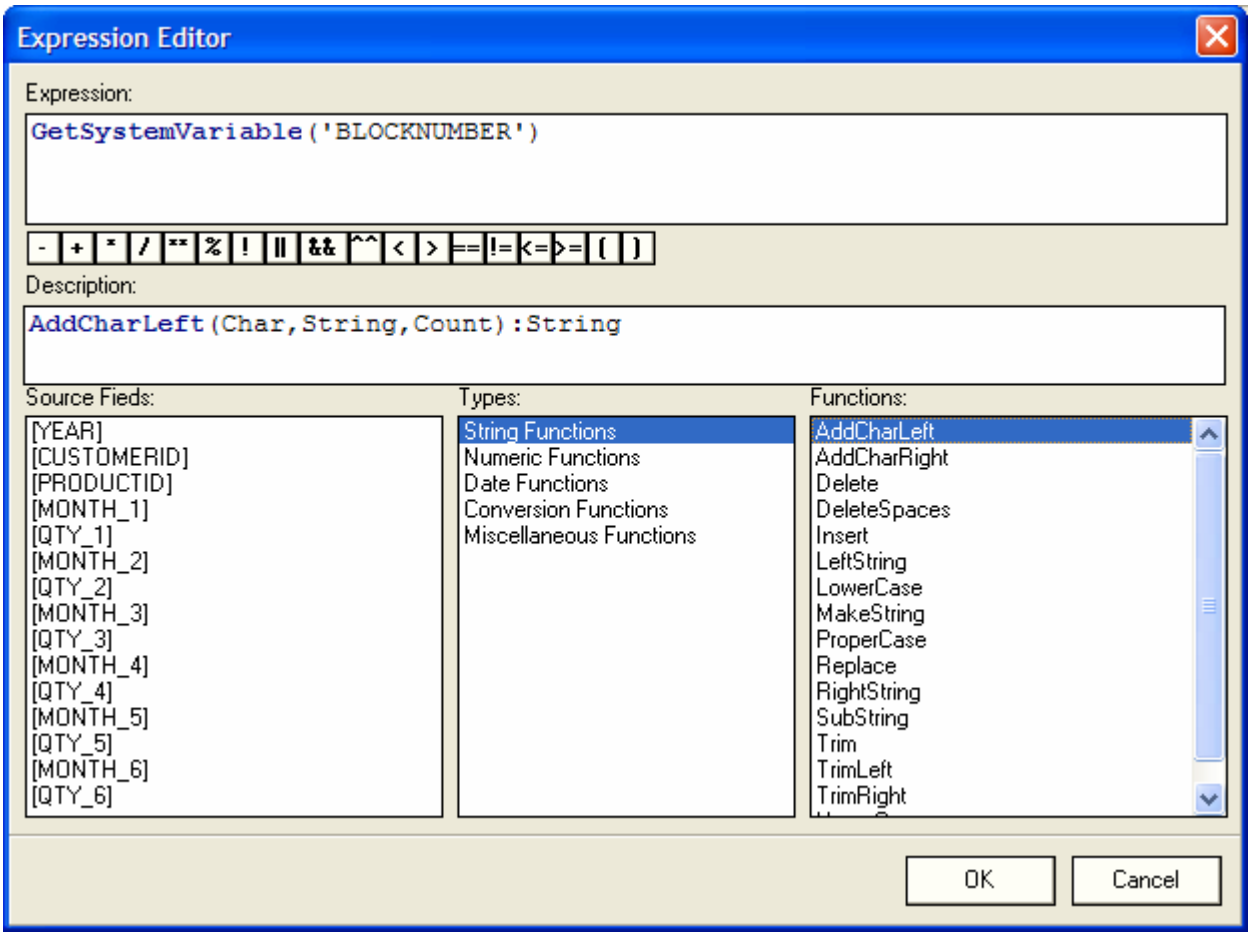
For character type fields' type '12' or "12"

Multiplying fields
[INTEGER_F]*[FLOAT_F]

Concatenation
"[INTEGER_F]"+ " kilos"

More complicated examples
Iif([FLOAT_F]>[INTEGER_F],1,2)
Trim('[CHAR_F]')

You may also use Expression Editor

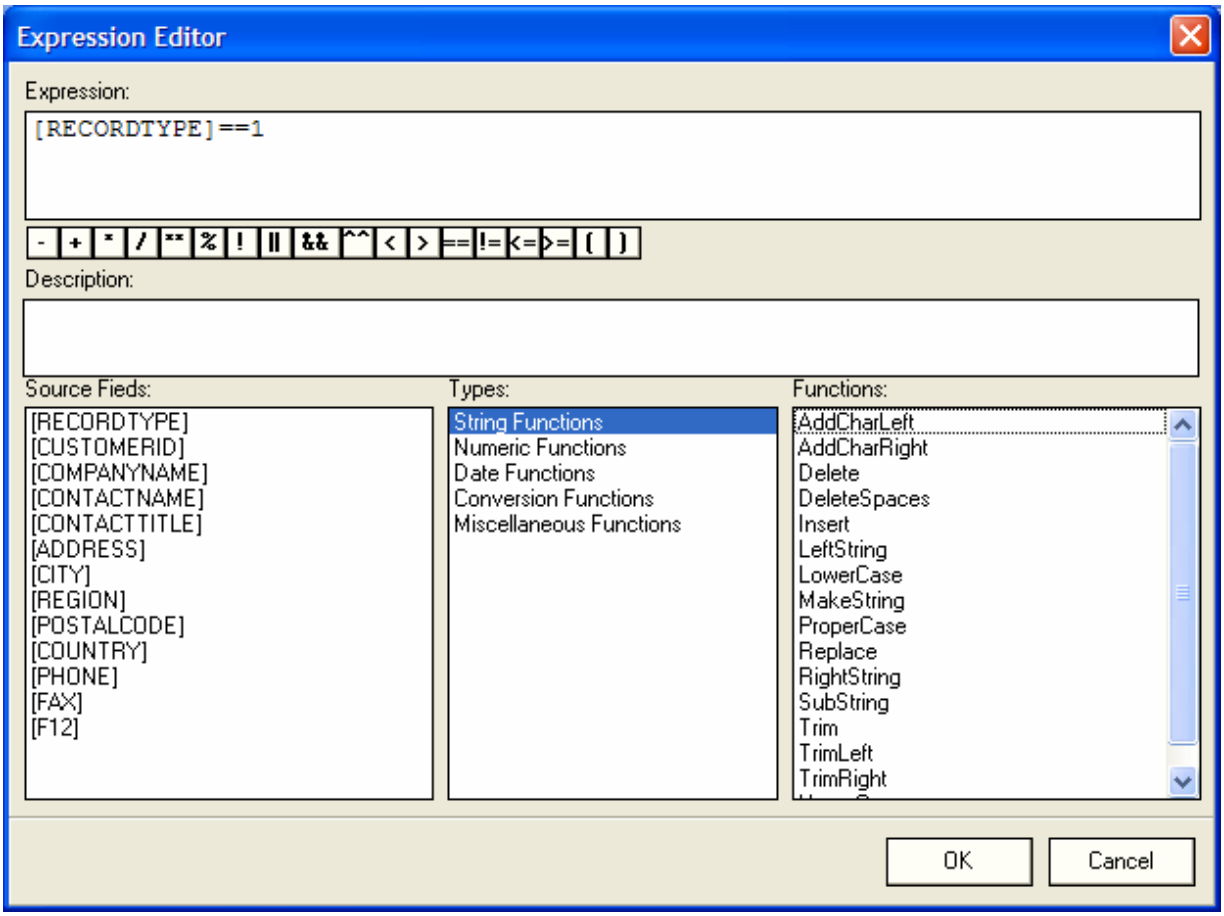


.

Filtering Records

User may filter records using the following example:
RECORDTYPE=1 Customer information
RECORDTYPE=2 Invoices

Press  and type



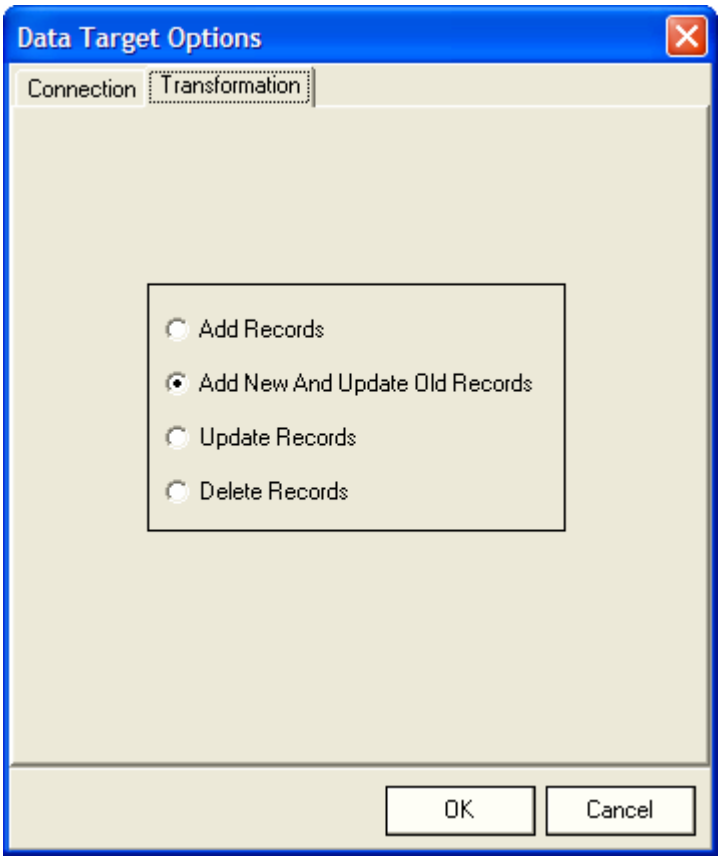
If you want to use multiple criteria use following example

([RECORDTYPE]==1) || ([RECORDTYPE]==56)

Where
|| - OR
&& - AND
! - NOT

How to Update/Delete Records

In order to Update/Delete records you must specify update key.



For the example provided below, Visual Import will execute the following SQL (Update key is CustomerId,OrderNo)

Add New And Update Old Records

```
Select count(*)
from [DEMO].[dbo].[orders]
where CustomerId=? And OrderNo=?
```

If any records found Visual Importer will update them by executing

```
Update [DEMO].[dbo].[orders]
set orderdate=?,
    amount=?
where customerid=? And OrderNo=?
```

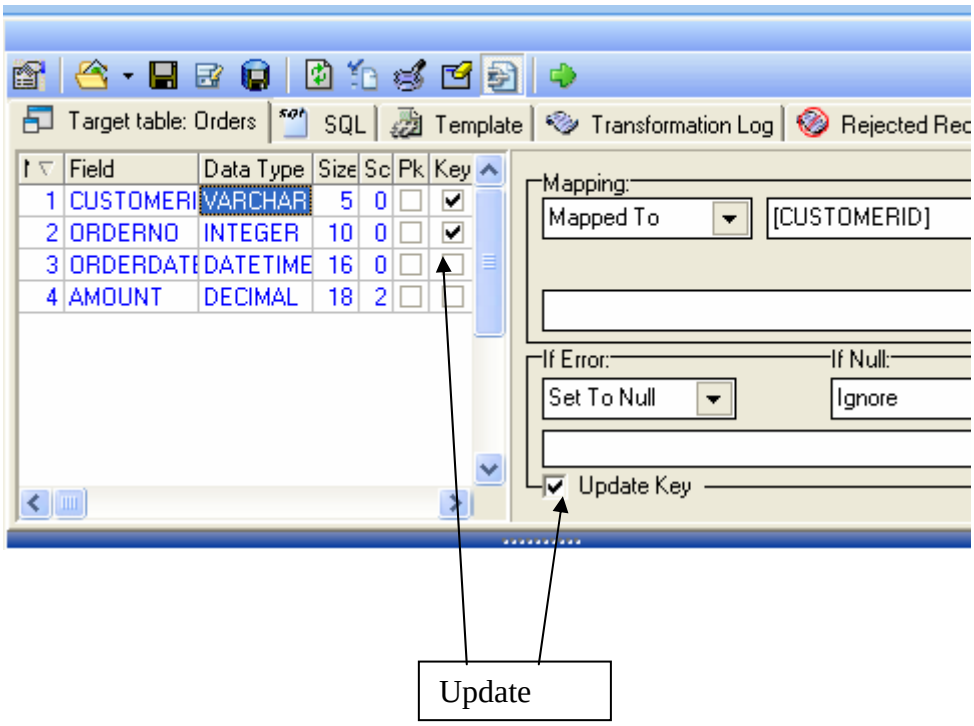
If no records found Visual Importer will add new records

Update Records

```
Update [DEMO].[dbo].[orders]
set OrderDate=?,
    Amount=?
where CustomerId=? And OrderNo=?
```

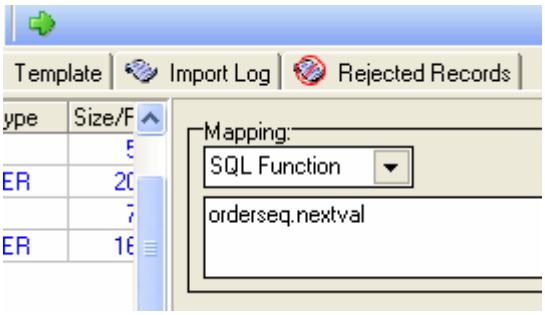
Delete Records

```
Delete from [DEMO].[dbo].[orders]
Where CustomerId=? And OrderNo=?
```



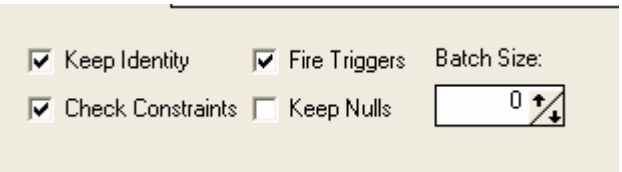
Using Database Specific functions.

Mapping type SQL function allows using Database specific functions like sequences during import.



Note:
This option works only for ODBC connection or Oracle conventional path loading

MS SQL Server specific parameters



Check constraints

Ensure that any constraints on the destination table are checked during the bulk copy operation. By default, constraints are ignored.

Keep identity

Specify that there are values in the data file for an identity column.

Keep NULLS

Specify that any columns containing a null value should be retained as null values, even if a default value was specified for that column in the destination table.

Batch size

Specify the number of rows in a batch. The default is the entire data file.

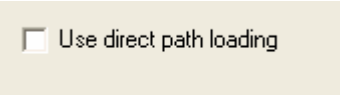
The following values for the **Batch size** property have these effects:

If you set **Batch size** to zero, the data is loaded in a single batch. The first row that fails will cause the entire load to be cancelled, and the step fails.

If you set **Batch size** to one, the data is loaded a row at a time. Each row that fails is counted as one row failure. Previously loaded rows are committed.

If you set **Batch size** to a value greater than one, the data is loaded one batch at a time. Any row that fails in a batch fails that entire batch; loading stops and the step fails. Rows in previously loaded batches are either committed or, if the step has joined the package transaction, provisionally retained in the transaction, subject to later commitment or rollback.

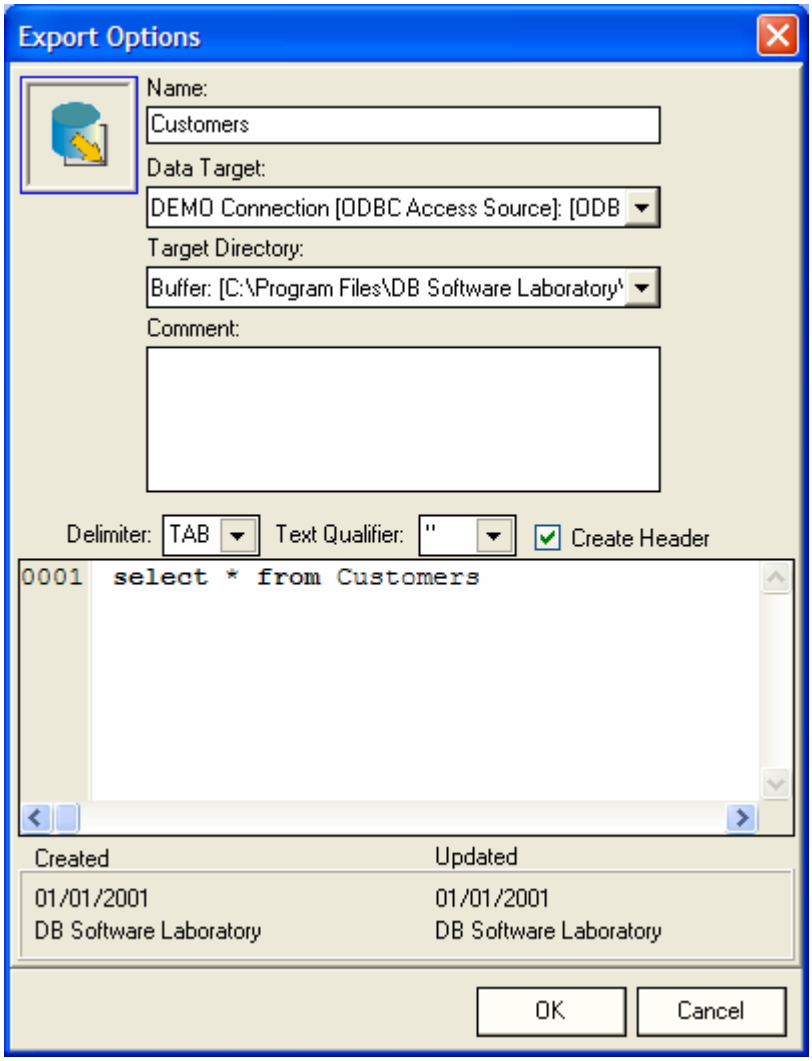
Oracle specific parameters



Checking the box above allows user to specify Conventional and Direct path loading.

10. Export

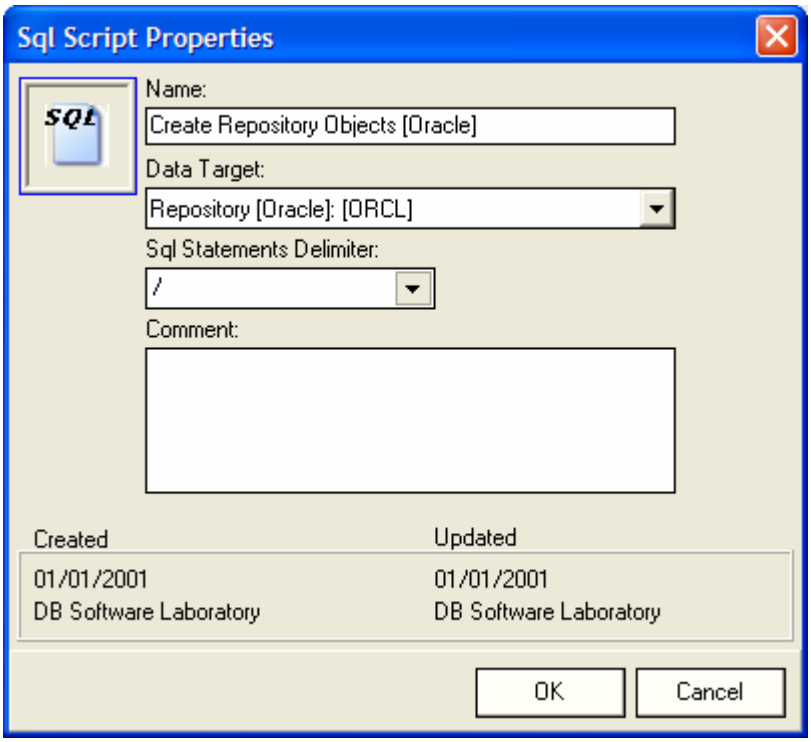
- To create a new Export Click System menu-> New-> Export.
- Dialog box will appear
- Fill in Name edit box with the name of Export you are about to create
- Select Connection from the Drop Down List you want to export data from.
- Select a Target Directory you want to export data into.
- Fill in comment if required
- Type SQL
- Specify delimiter
- Specify Text Qualifier
- Click OK to finish creation of Export Script.



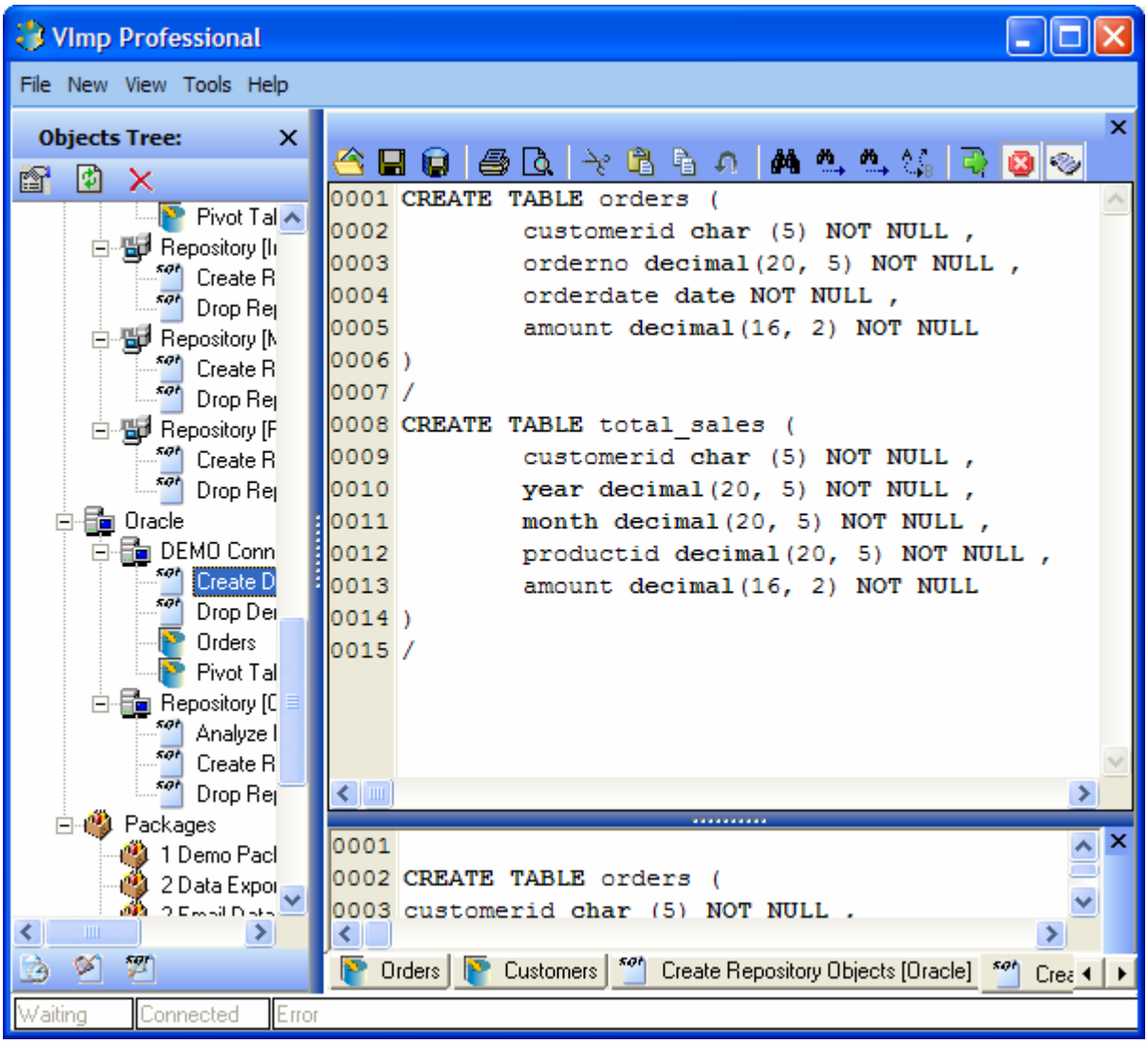
11. SQL Scripts

Once data is loaded into the database user has to perform various tasks like transformations, validations or calculations. User may perform any SQL command allowed by the target database. SQL commands must be separated by a separator. SQL Scripts Screen is designed to provide such functionality for a user.

- To create a new SQL Script Click System menu-> New-> SQL Script
- Dialog box will appear
- Fill in Description edit box with the name of SQL Script you are about to create
- Select Connection from the Drop Down List you want to run the script against.
- Select a Separator from the Drop Down List or fill it in.
- Fill in comment if required
- Click OK to finish creation of SQL Script



To edit script double click on any previously created SQL Scripts.


VImp Professional
File New View Tools Help
Objects Tree:
Oracle
DEMO Conn
Orders
Packages
0001 CREATE TABLE orders (
0002 customerid char (5) NOT NULL ,
0003 orderno decimal(20, 5) NOT NULL ,
0004 orderdate date NOT NULL ,
0005 amount decimal(16, 2) NOT NULL
0006)
0007 /
0008 CREATE TABLE total_sales (
0009 customerid char (5) NOT NULL ,
0010 year decimal(20, 5) NOT NULL ,
0011 month decimal(20, 5) NOT NULL ,
0012 productid decimal(20, 5) NOT NULL ,
0013 amount decimal(16, 2) NOT NULL
0014)
0015 /
0001
0002 CREATE TABLE orders (
0003 customerid char (5) NOT NULL ,
Orders
Customers
Create Repository Objects [Oracle]
Waiting
Connected
Error

SQL Scripts Tool Bar

1. Open the SQL script from the disk
2. Save the SQL script to the disk
3. Save the SQL Script to the repository
4. Print the SQL script
5. Preview
6. Cut
7. Copy
8. Paste
9. Undo
10. Search
11. Repeat Search
12. Find Previous
13. Replace
14. Execute SQL Script
15. Stop execution when any error happens
16. Show/hide log

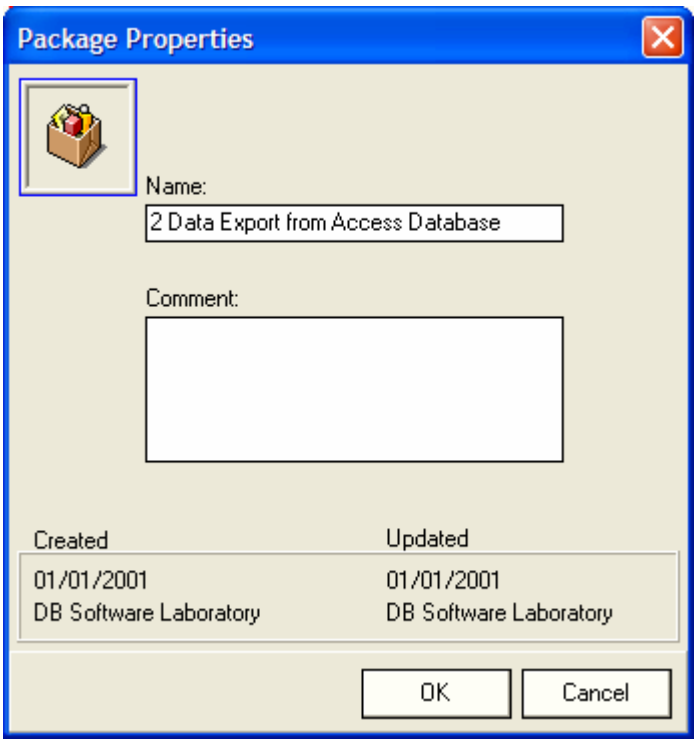
12. Packages

Packages Screen provides functionality to combine different Actions together.

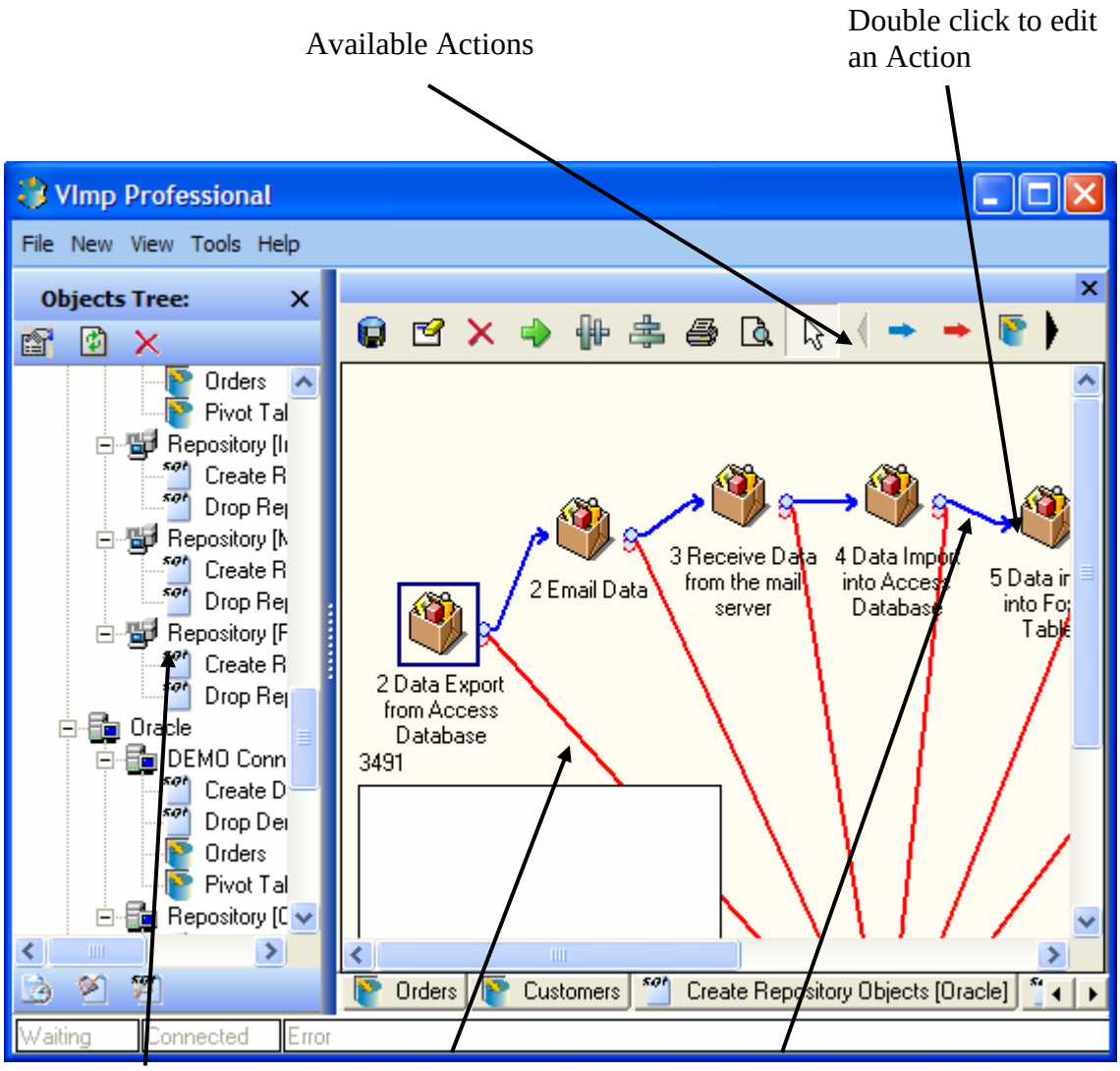
Possible Actions are:

- Imports
- Exports
- SQL Scripts
- Packages
- File Checks
- File operations
- Ftp Downloads/Uploads
- Emails
- Applications
- ZIPs
- POP3 Email Receivers

- To create a new Package Click System menu-> New-> Package.
- Dialog box will appear.
- Fill in Description edit box with the name of the Package you are about to create.
- Fill in comment if required.
- Click OK to finish creation of the Package.



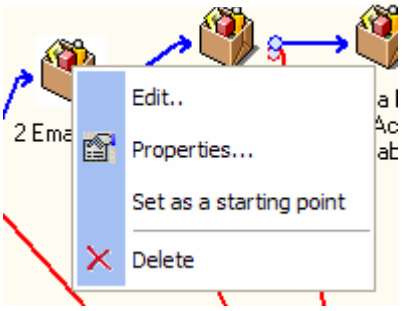
Package screen overview



Objects Tree
Drag and Drop Actions from the left to the right

What to do if error happened

What to do next after success



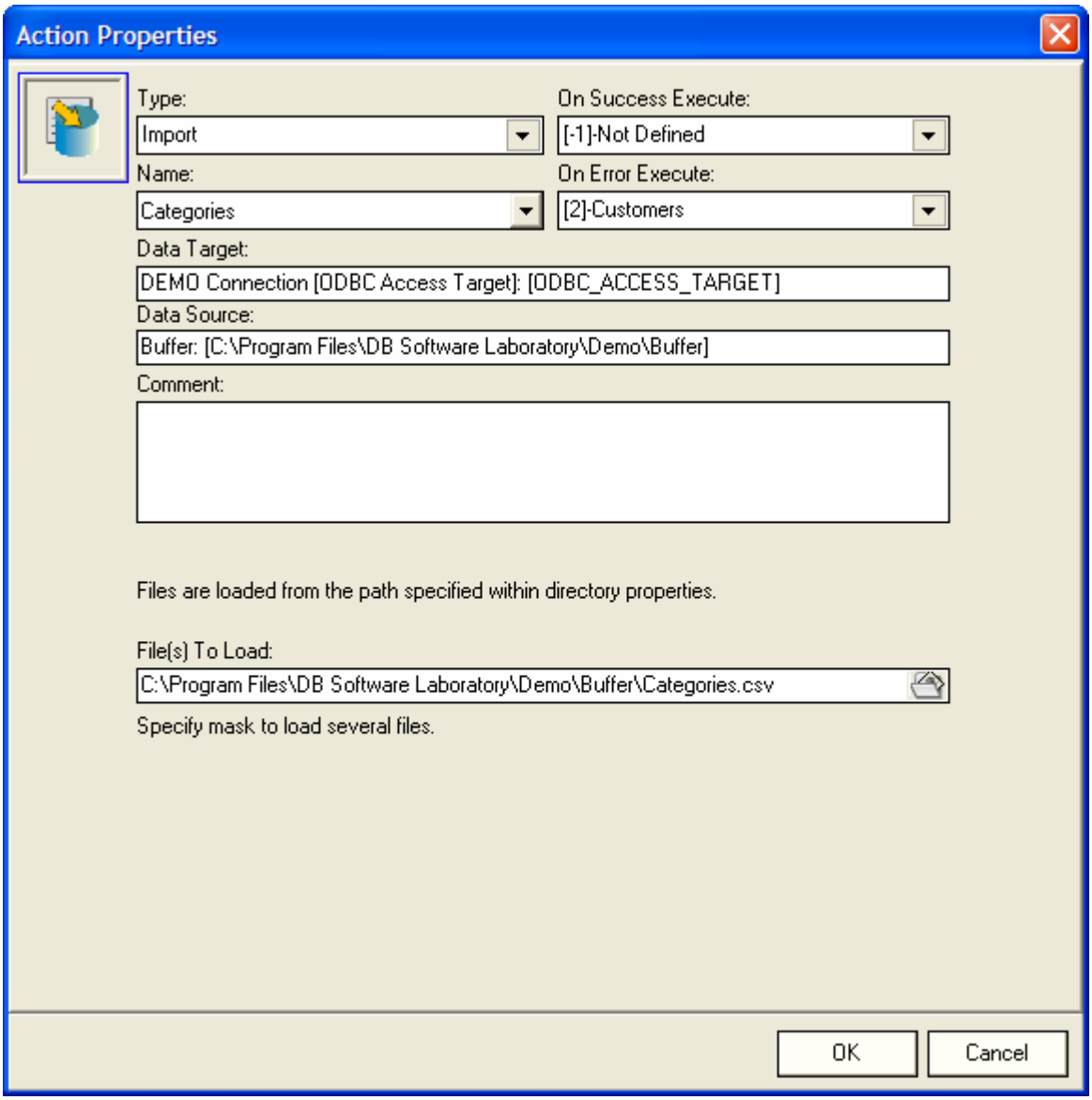
Note:
It is impossible to execute package without starting point (Action in blue box on the picture).

Package Tool bar

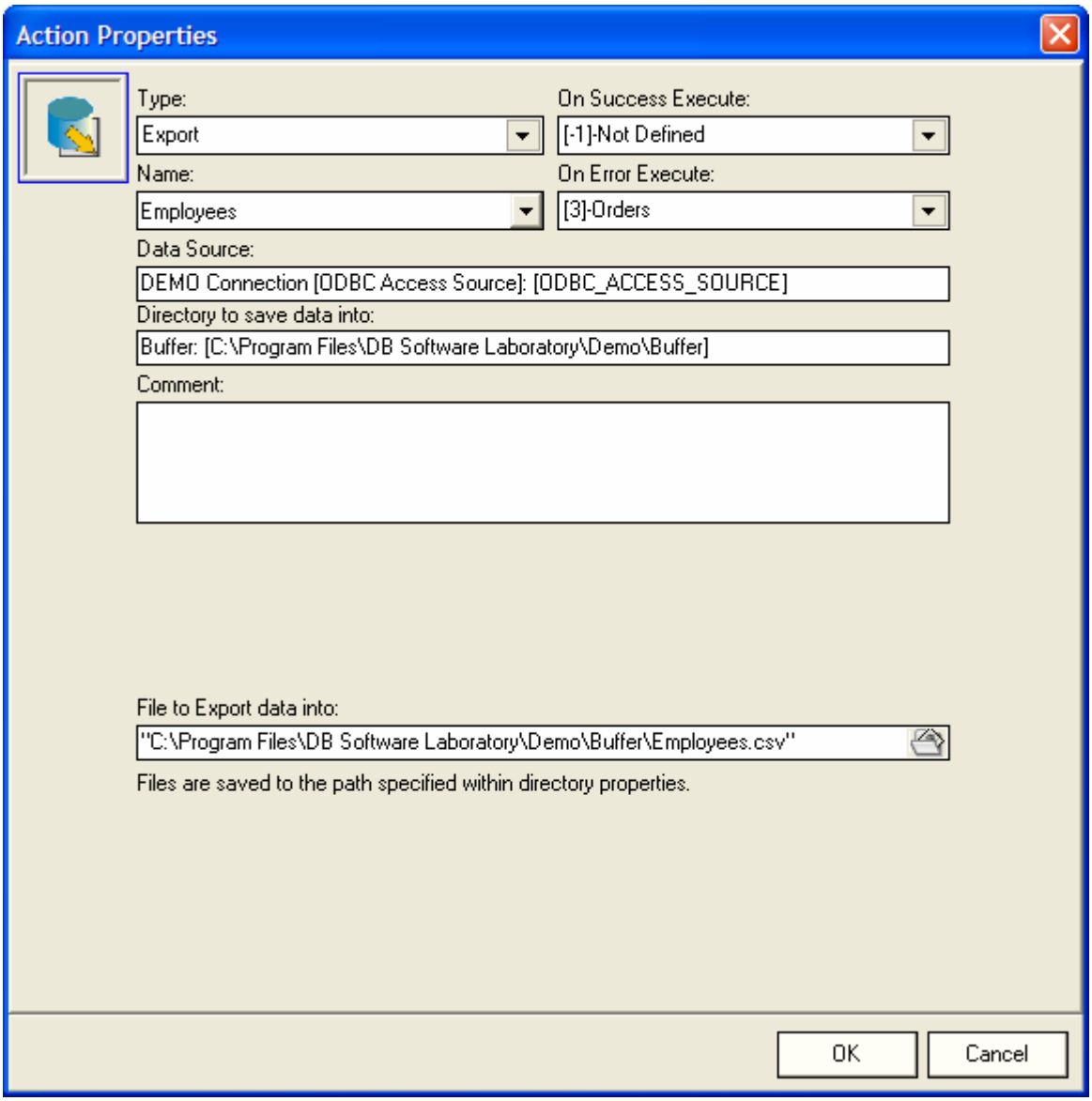
1. Save to the Repository
2. Clear all
3. Delete selected Action(s)
4. Execute
5. Align Vertical
6. Align Horizontal
7. Print
8. Print Preview
9. Select
10. On Success
11. On Error
12. Add Import
13. Add Export
14. Add SQL script
15. Add Package
16. Add File check
17. Add File compare
18. Add File operation
19. Add Application
20. Add Email
21. Add Ftp Download
22. Add ZIP operation
23. Add POP3 Email Receiver

Import Action

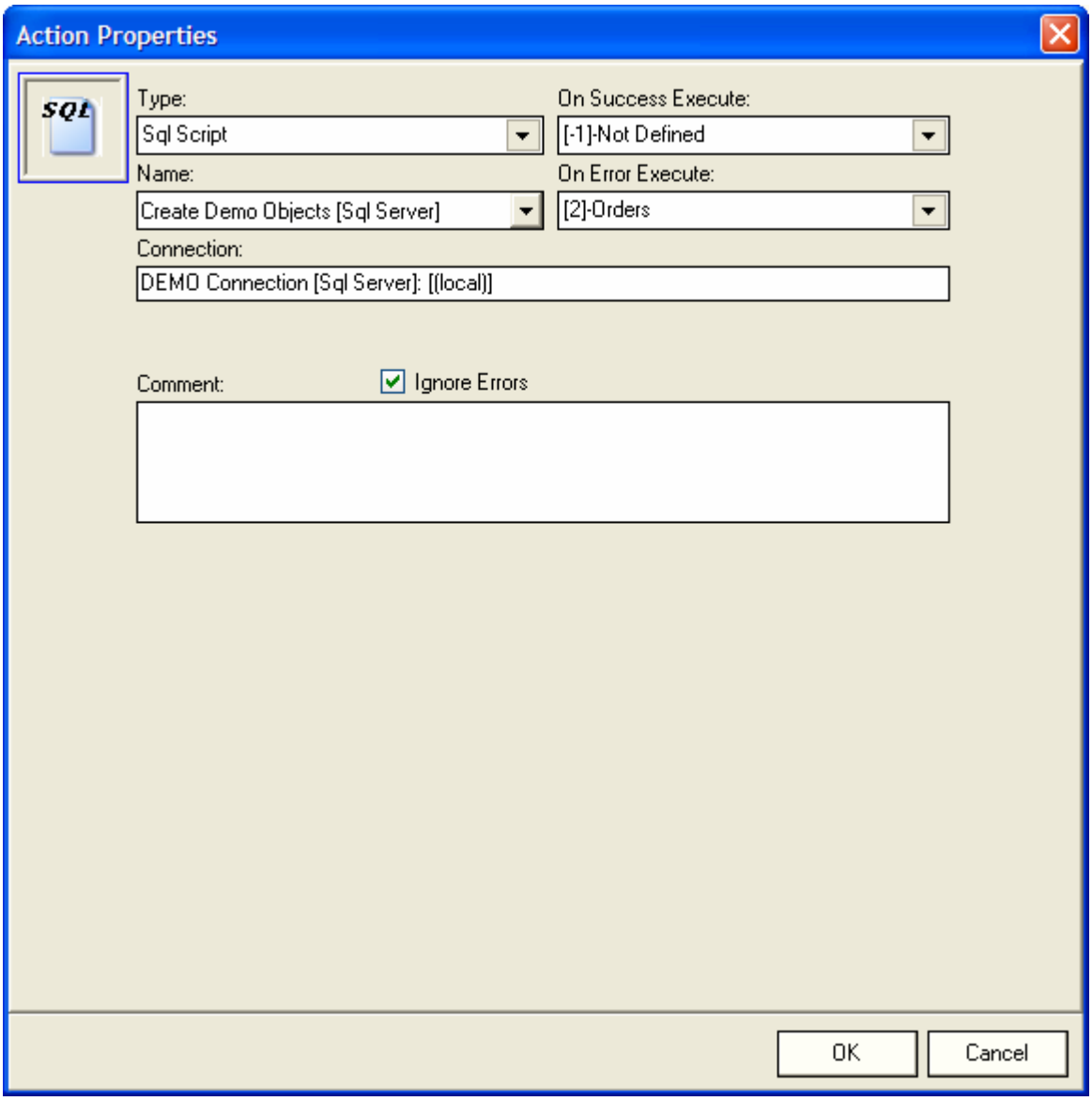
To create a new Import Action Drag and Drop it from the Object tree. You may change type of an Action at any time.



Export Action

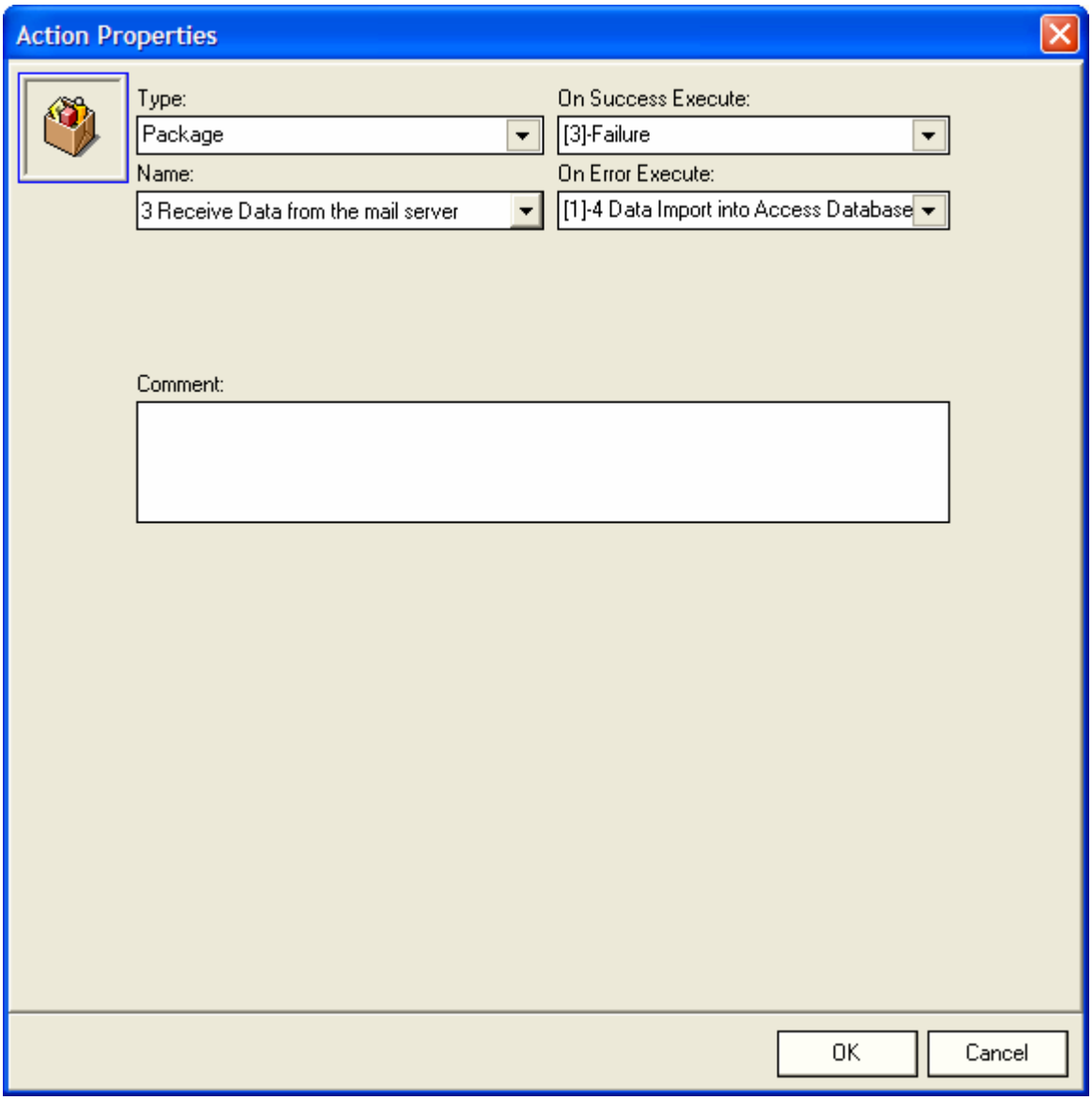


SQL Script Action



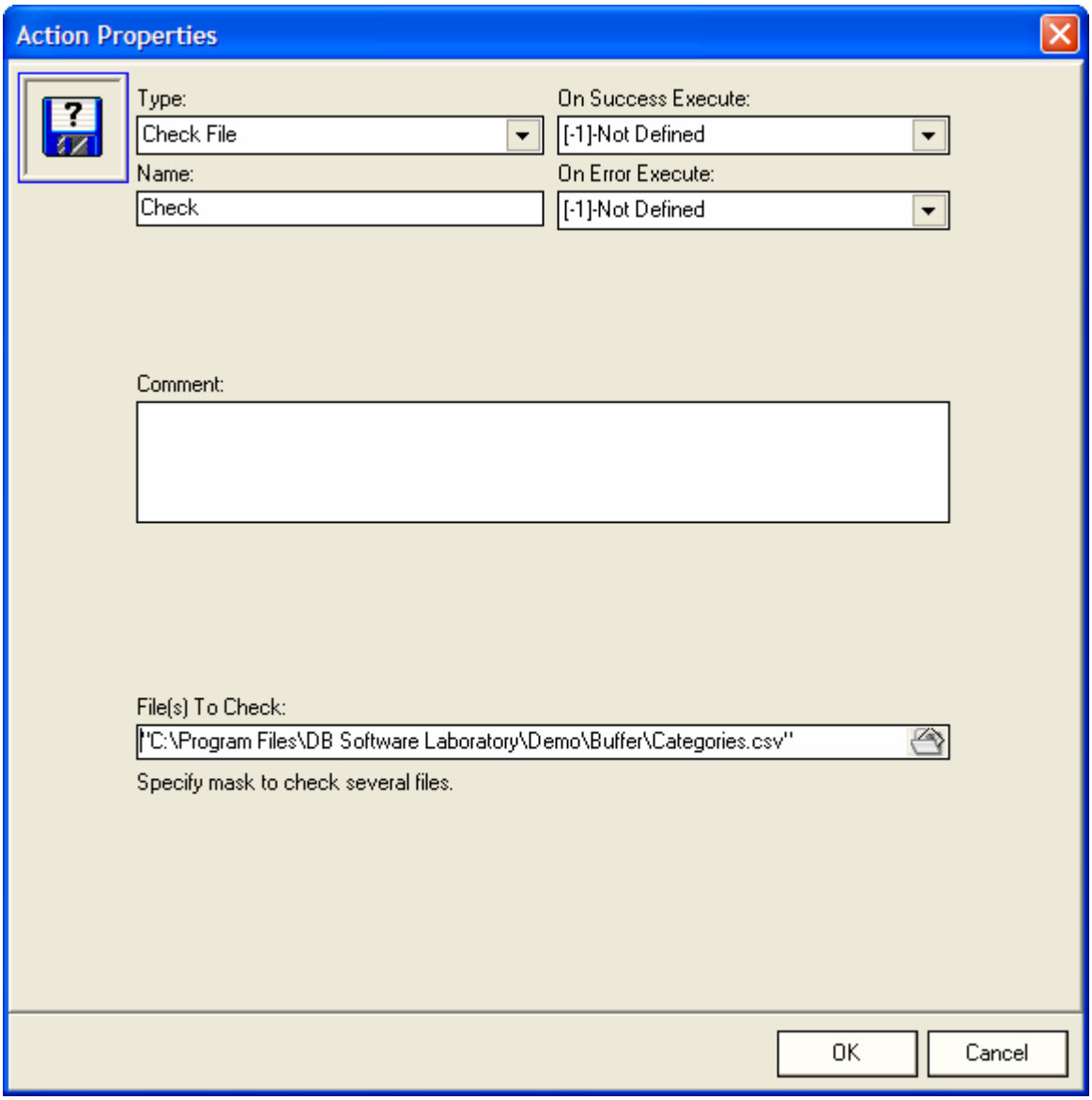
Package Action

Note:
Recursion is not allowed

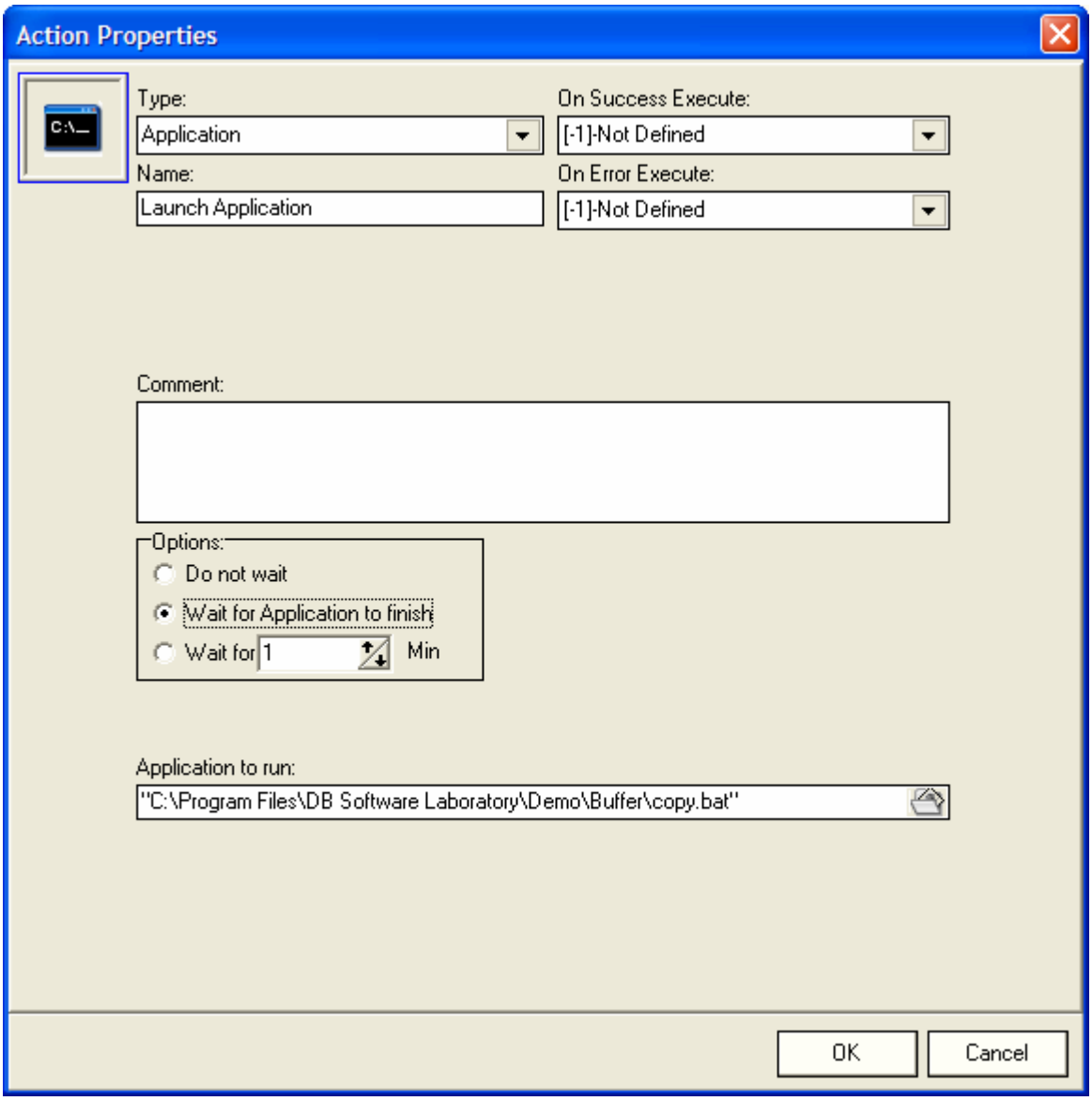


Check file Action

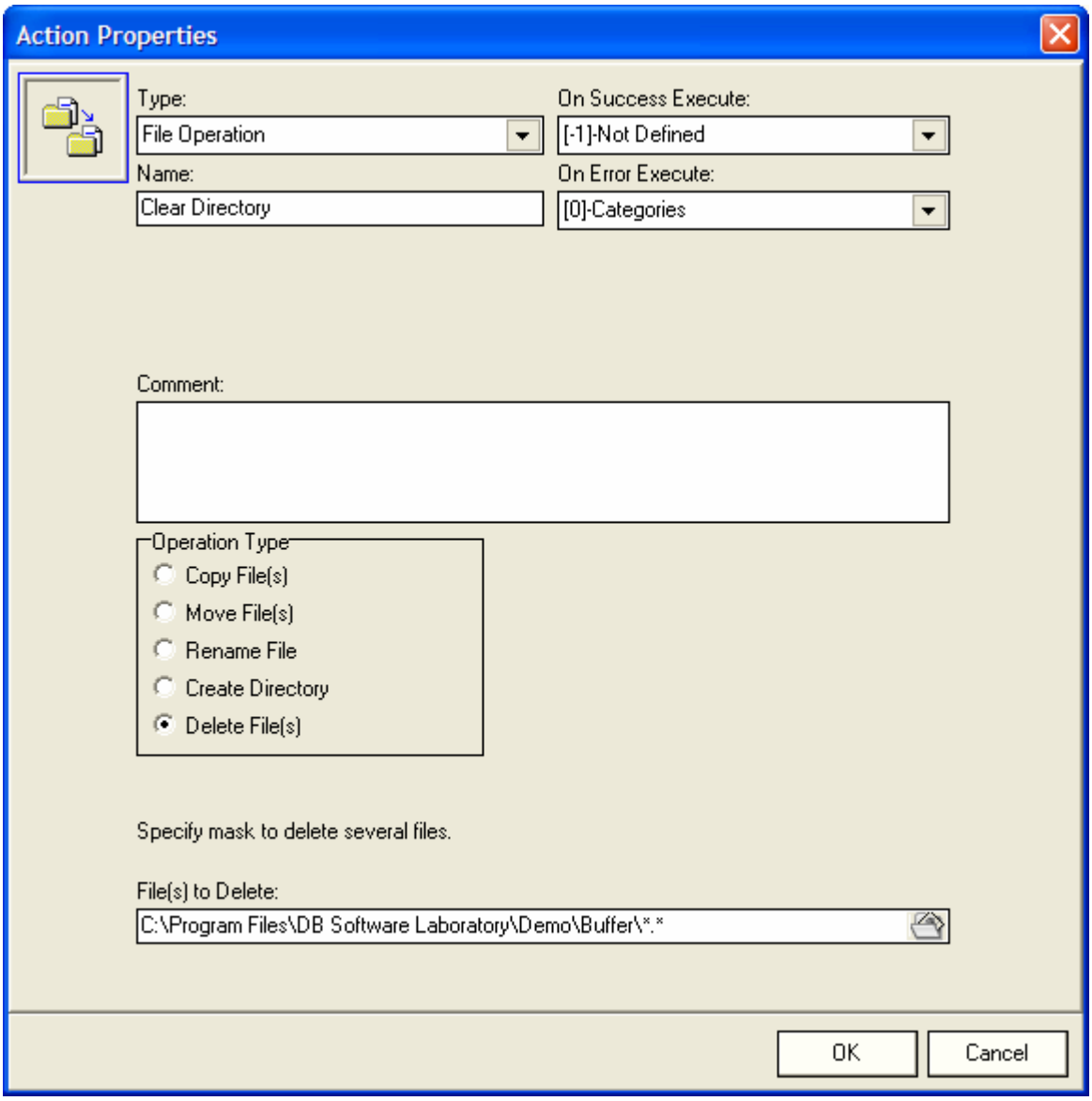
Checks if a file/files exists on the disk.


Action Properties
Type:
Check File
Name:
Check
On Success Execute:
[-1]-Not Defined
On Error Execute:
[-1]-Not Defined
Comment:
File(s) To Check:
"C:\Program Files\DB Software Laboratory\Demo\Buffer\Categories.csv"
Specify mask to check several files.
OK
Cancel

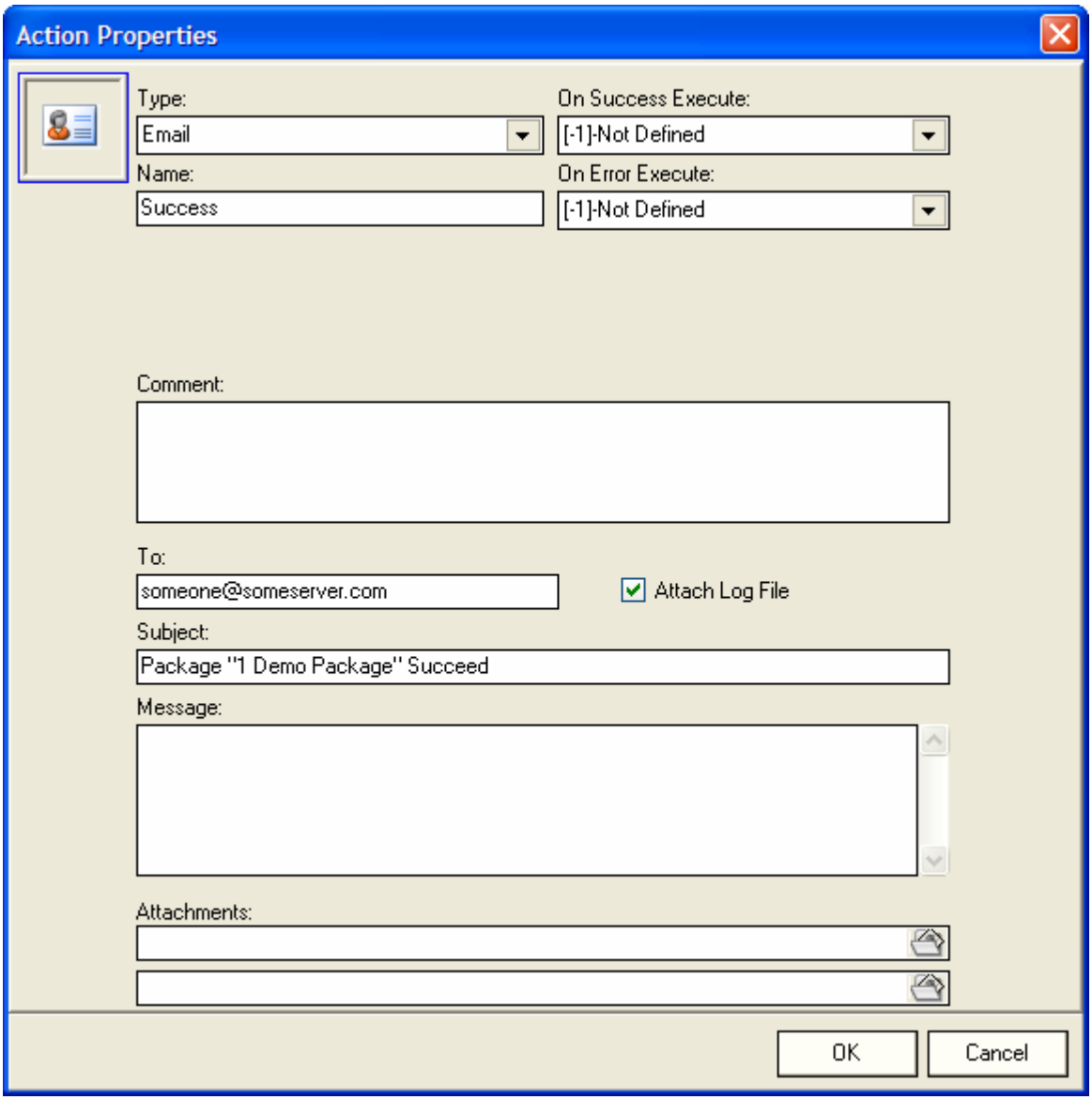
Application Action



File Operation Action

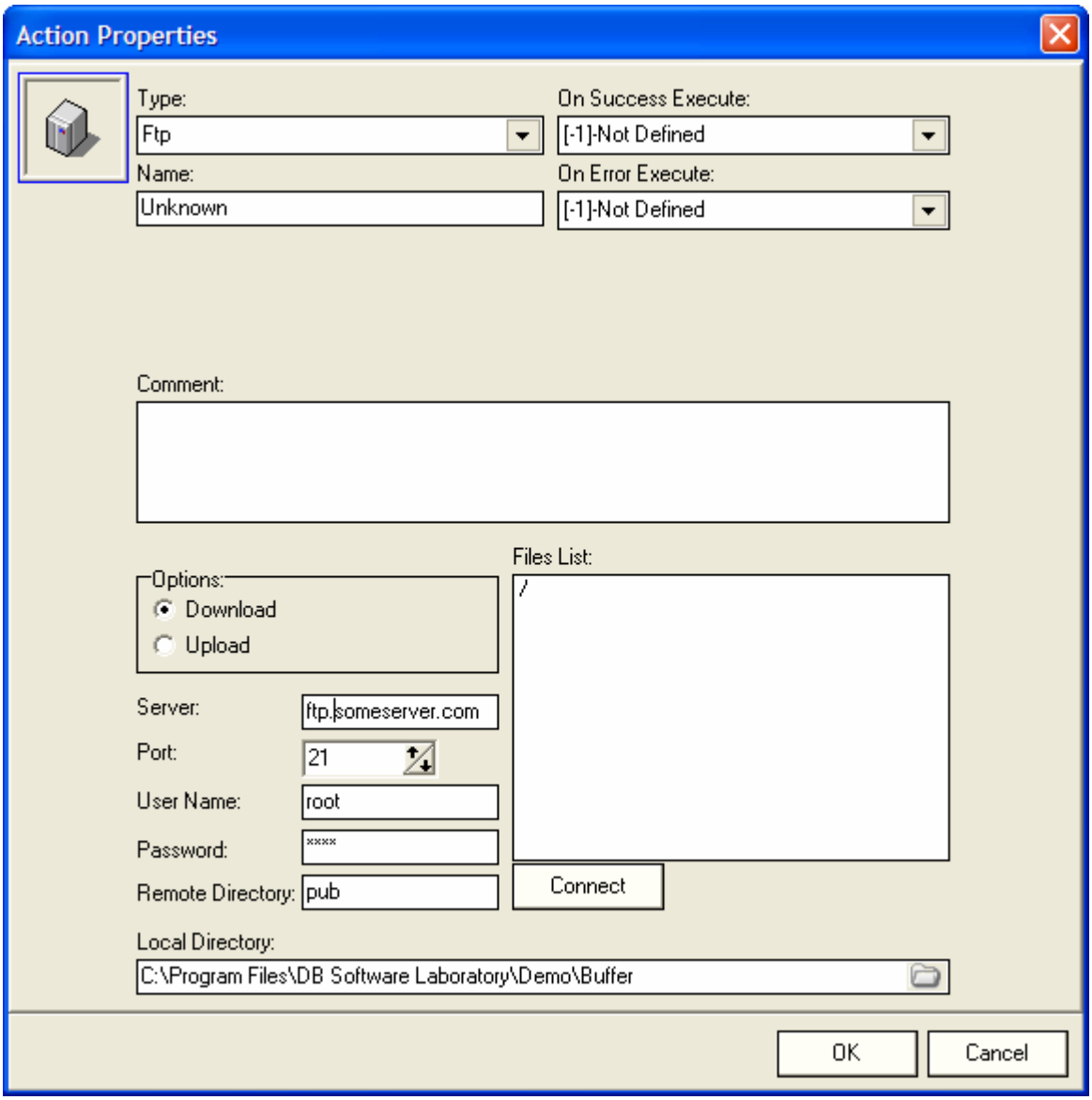


Email Action

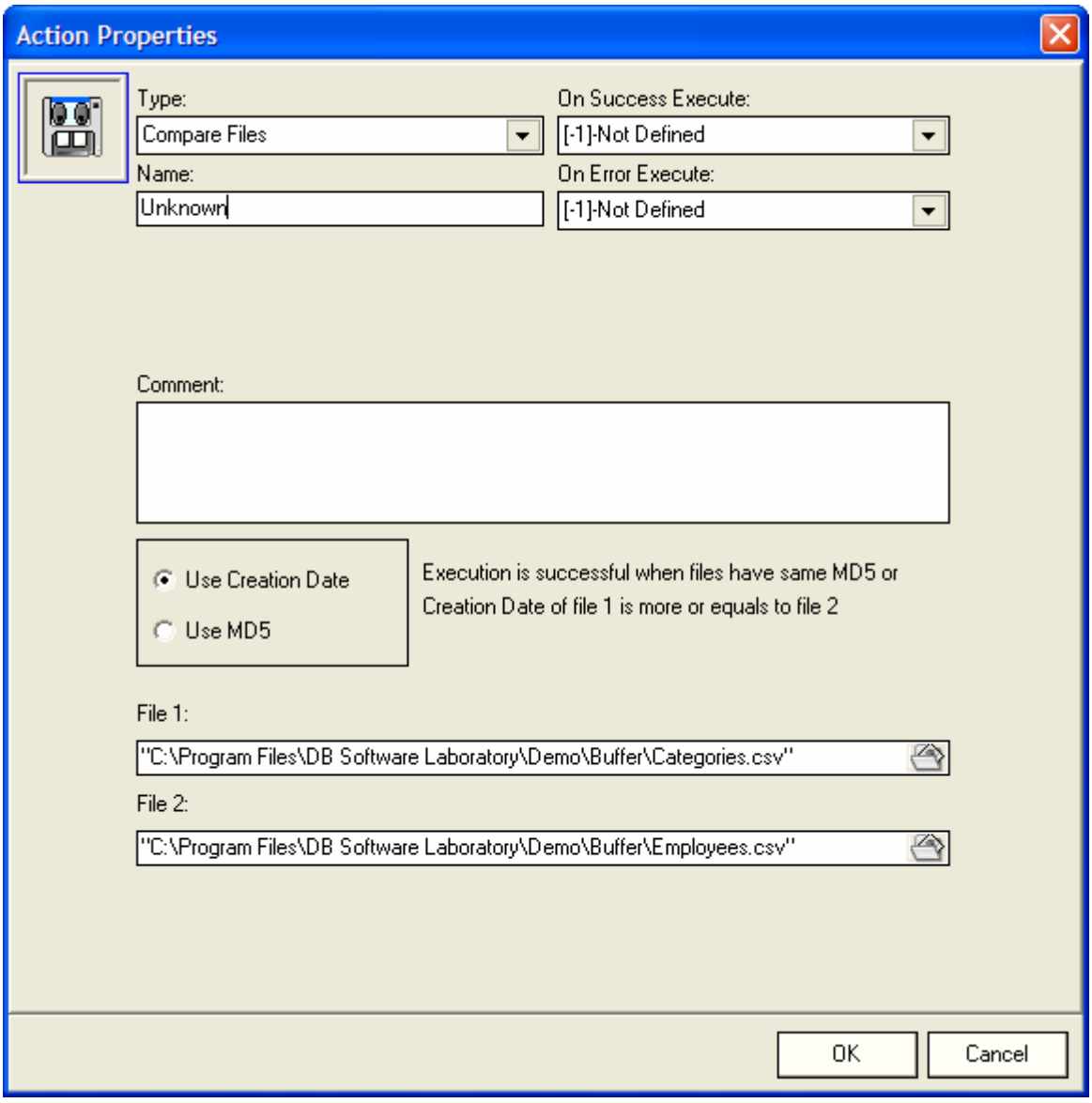

Action Properties
Type:
Email
On Success Execute:
[-1]-Not Defined
Name:
Success
On Error Execute:
[-1]-Not Defined
Comment:
To:
someone@someserver.com
Attach Log File
Subject:
Package "1 Demo Package" Succeed
Message:
Attachments:
OK
Cancel

Ftp Action

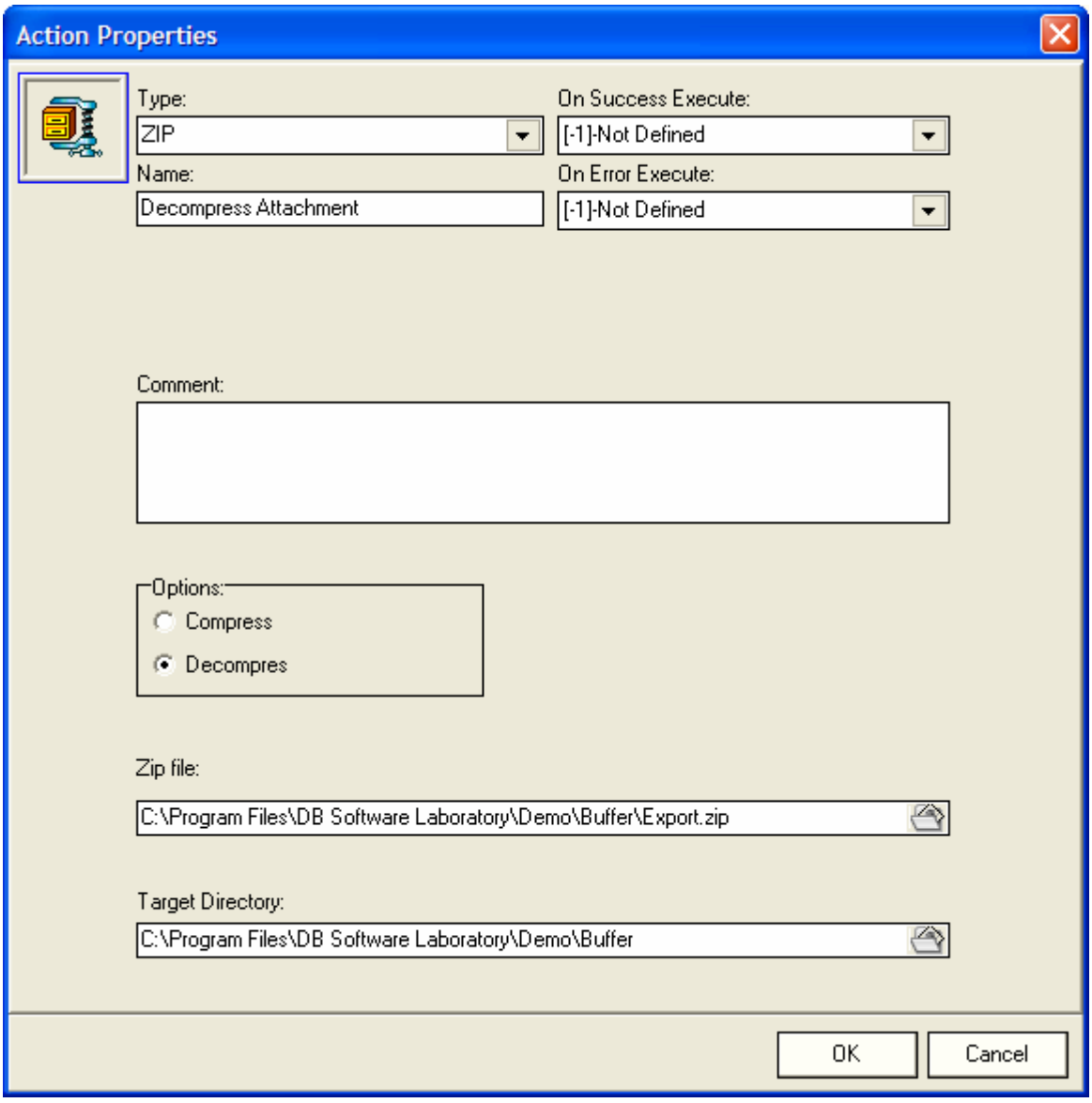
Ftp Action downloads all files from a specified directory on the ftp server



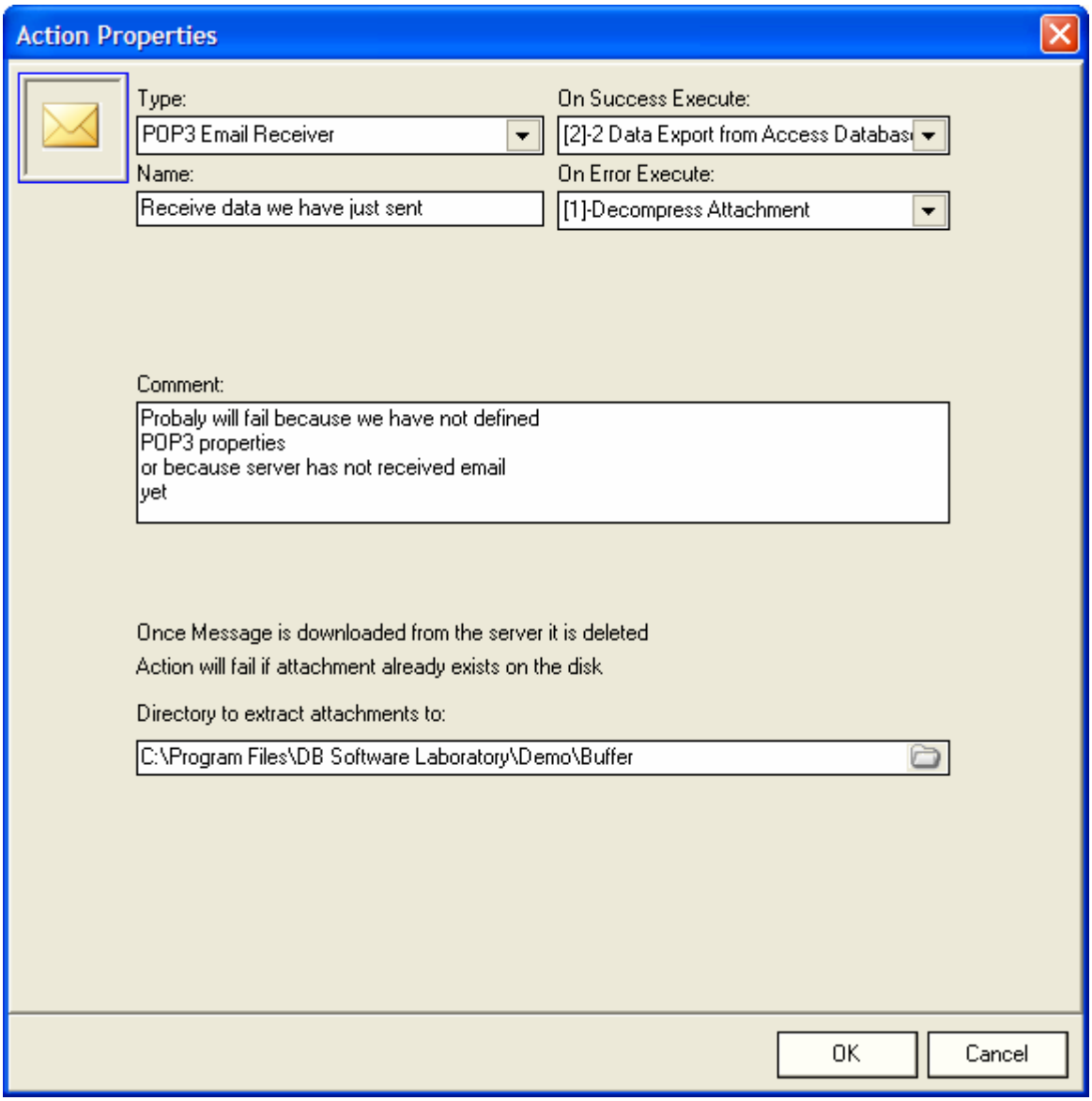
Compare files



ZIP


Action Properties
Type:
ZIP
On Success Execute:
[-1]-Not Defined
Name:
Decompress Attachment
On Error Execute:
[-1]-Not Defined
Comment:
Options:
Compress
Decompres
Zip file:
C:\Program Files\DB Software Laboratory\Demo\Buffer\Export.zip
Target Directory:
C:\Program Files\DB Software Laboratory\Demo\Buffer
OK
Cancel

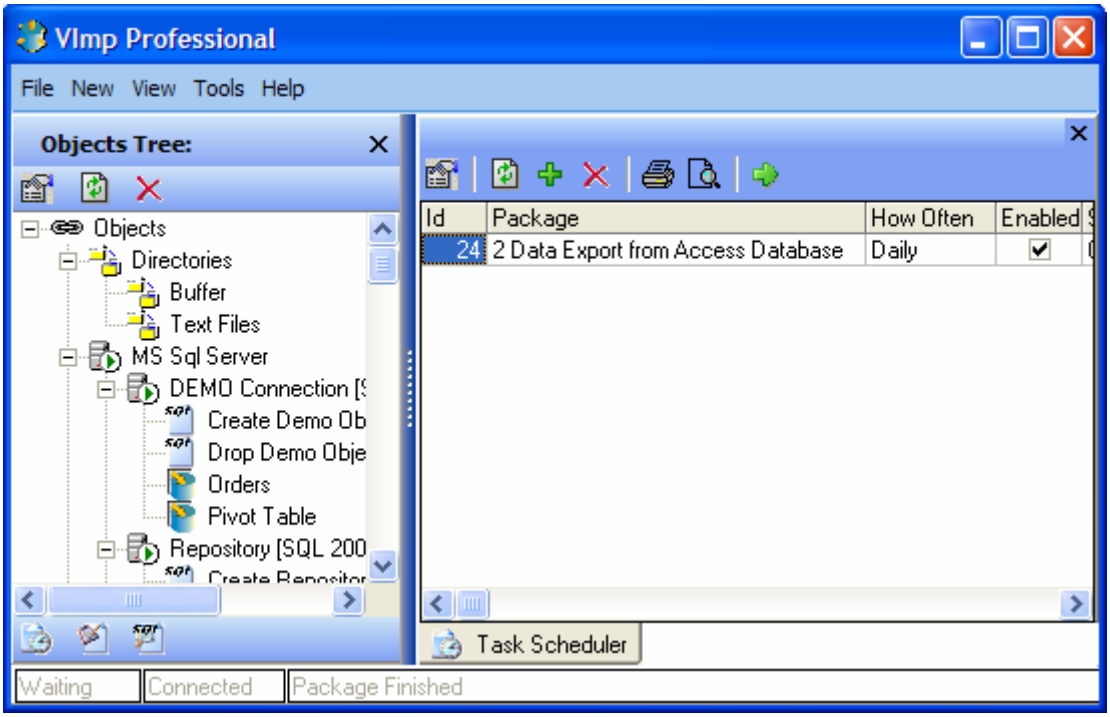
POP3 Email Receiver

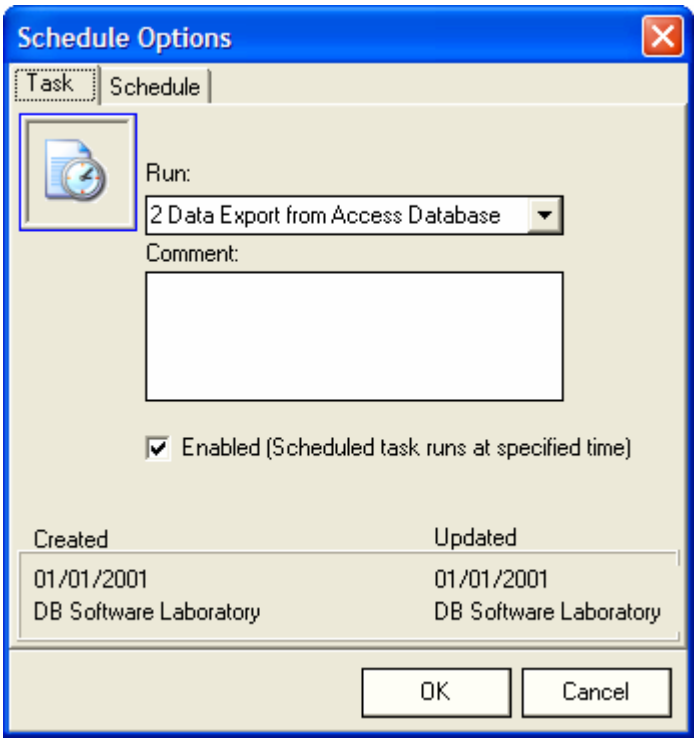


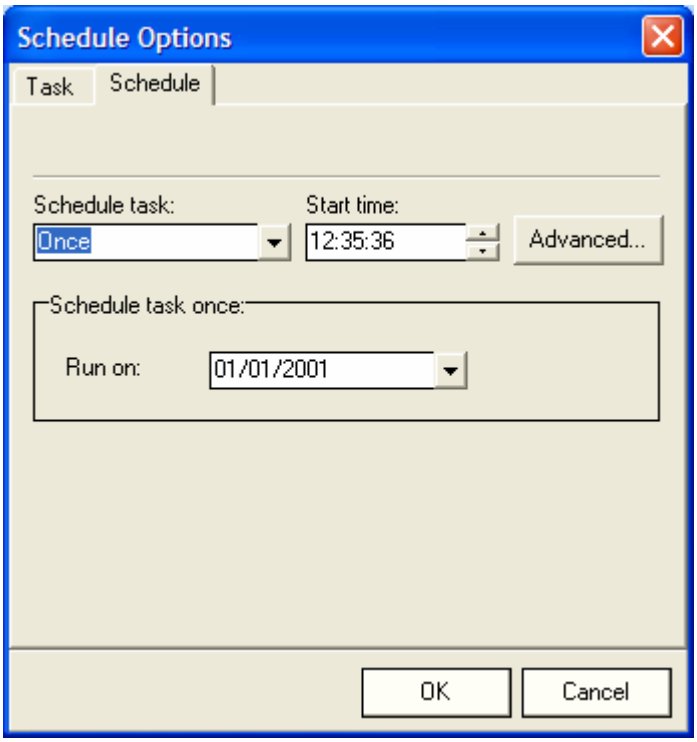
13. Scheduler

Once Package is created Scheduler allows user to execute it on a regular basis. Package may be executed once, daily, weekly, or monthly. User may also specify day of the week or month when to execute the Package.

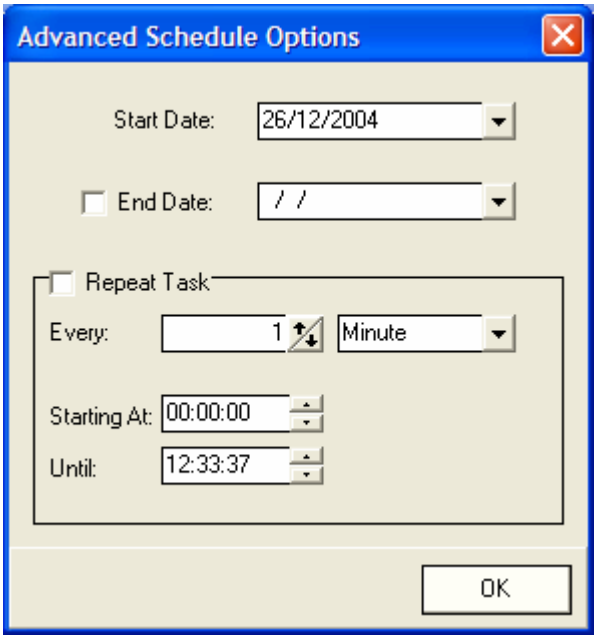
.

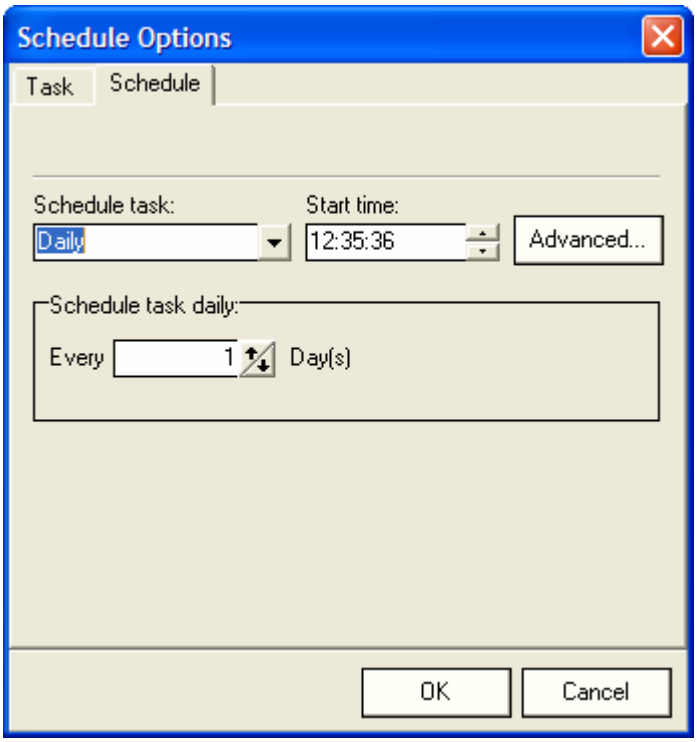




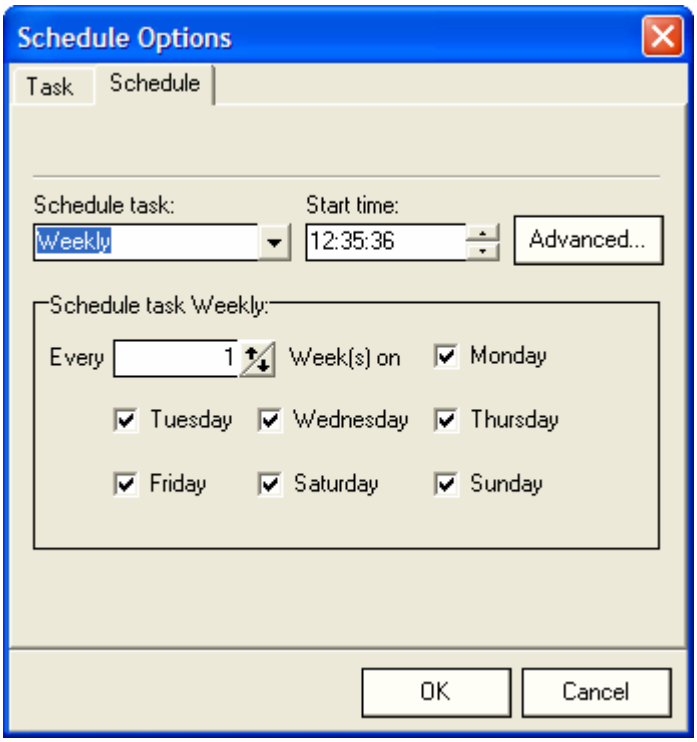


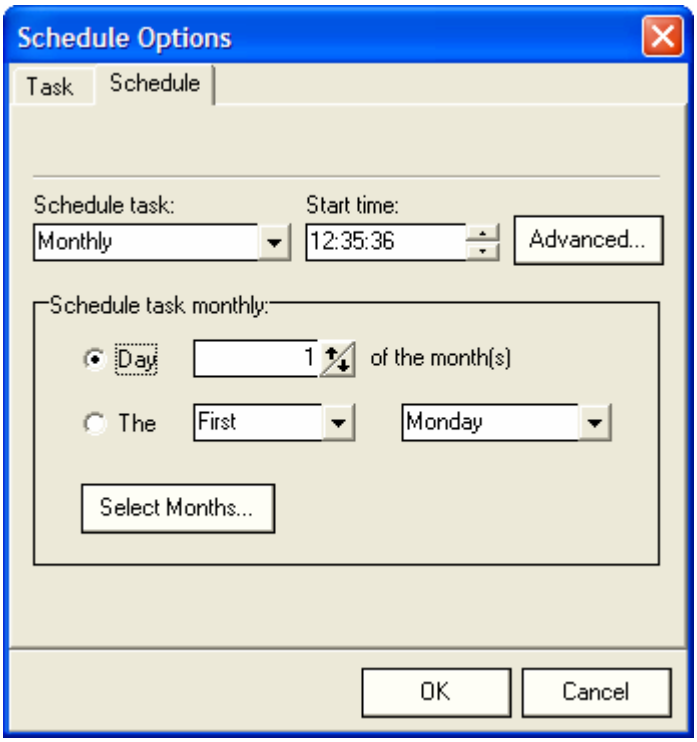
Advanced Schedule Options allows you to define execution boundaries.



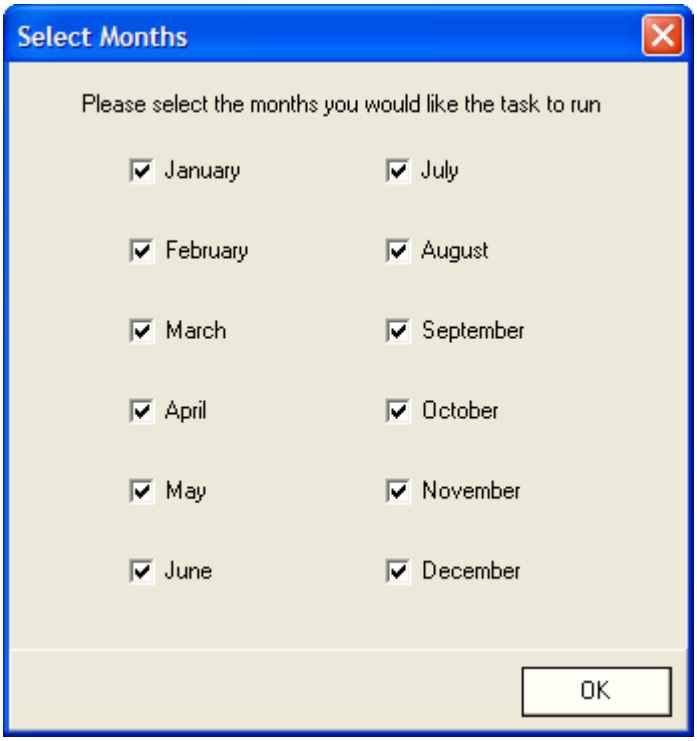


User may specify day of the week when to execute the batch. User must specify at least one day of the week.





User may specify month when to execute the batch. User must specify at least one month.



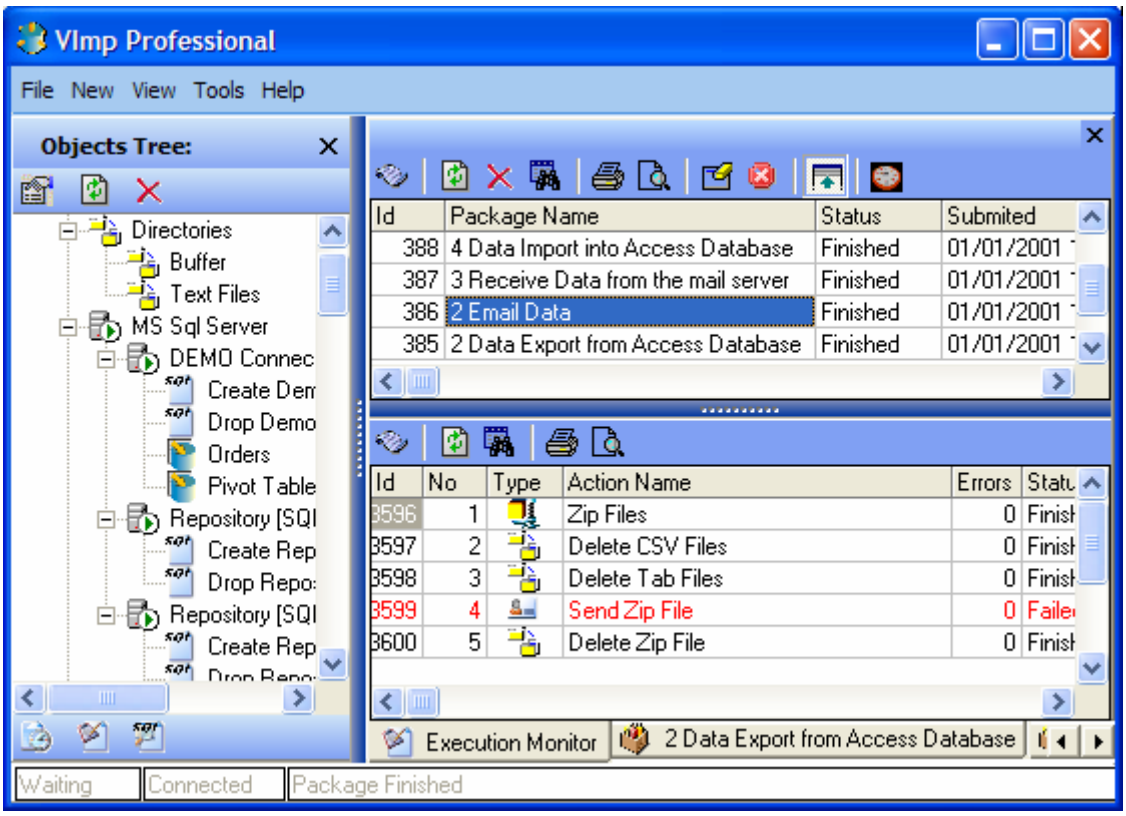
14. Execution Monitor

Once Package is running or complete Execution Monitor screen allows checking status or troubleshooting if any error happens.

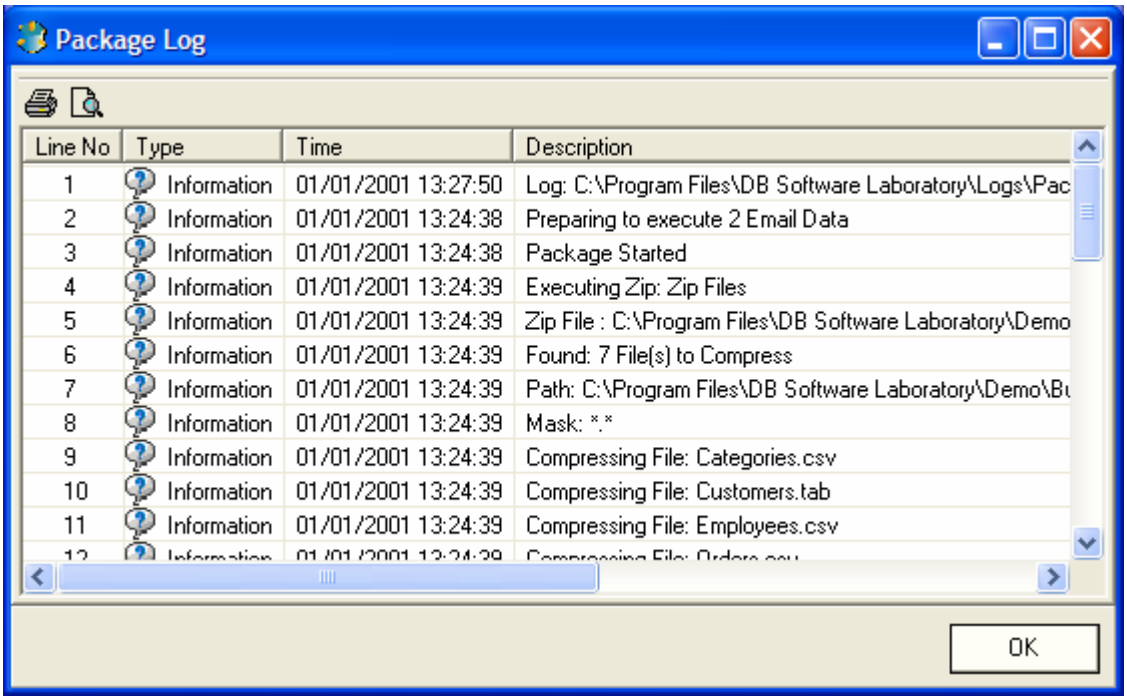
Package may have four different statuses:

- Executing
- Submitted
- Failed
- Finished

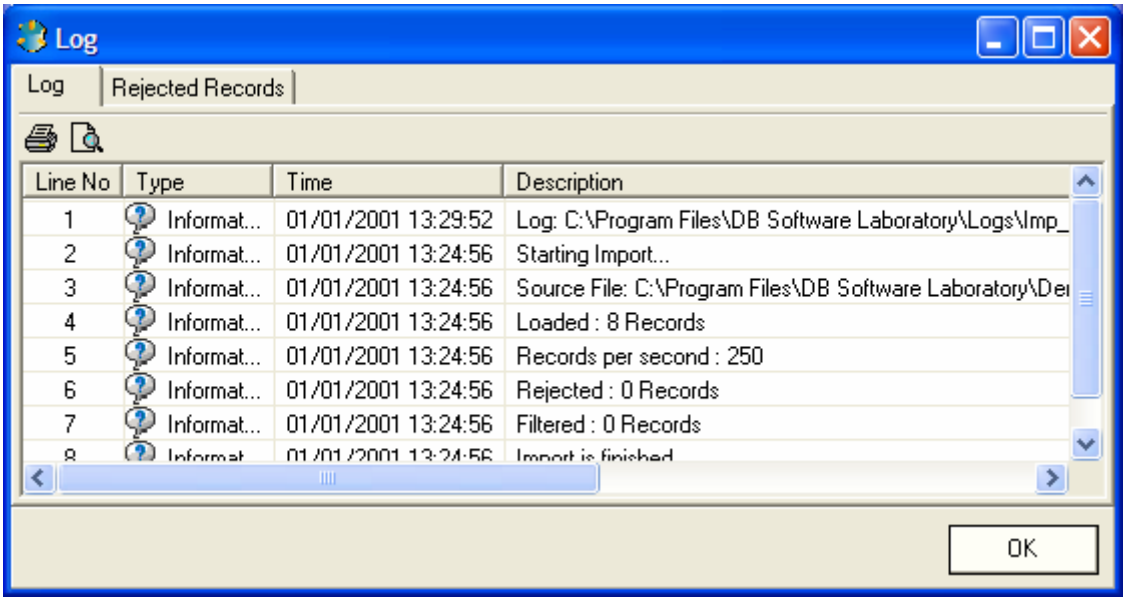
Log screen consists of two panels.
Top panel shows overall status of the Package.



Double click on the top panel to see the Package log.


Package Log
Line No
Type
Time
Description
1 Information 01/01/2001 13:27:50 Log: C:\Program Files\DB Software Laboratory\Logs\Pac
2 Information 01/01/2001 13:24:38 Preparing to execute 2 Email Data
3 Information 01/01/2001 13:24:38 Package Started
4 Information 01/01/2001 13:24:39 Executing Zip: Zip Files
5 Information 01/01/2001 13:24:39 Zip File : C:\Program Files\DB Software Laboratory\Demo
6 Information 01/01/2001 13:24:39 Found: 7 File(s) to Compress
7 Information 01/01/2001 13:24:39 Path: C:\Program Files\DB Software Laboratory\Demo\Bu
8 Information 01/01/2001 13:24:39 Mask: *.*
9 Information 01/01/2001 13:24:39 Compressing File: Categories.csv
10 Information 01/01/2001 13:24:39 Compressing File: Customers.tab
11 Information 01/01/2001 13:24:39 Compressing File: Employees.csv
OK

Bottom panel shows status of individual items within the Package.
Double click on Bottom panel to check item log.



Tool bar

1. Shows Log dialog
2. Refreshes the screen
3. Deletes the record
4. Find Record
5. Prints
6. Previews Grid
7. Delete all records from the log
8. Show/Hides bottom panel
9. Stops Execution
10. Refresh log every minute

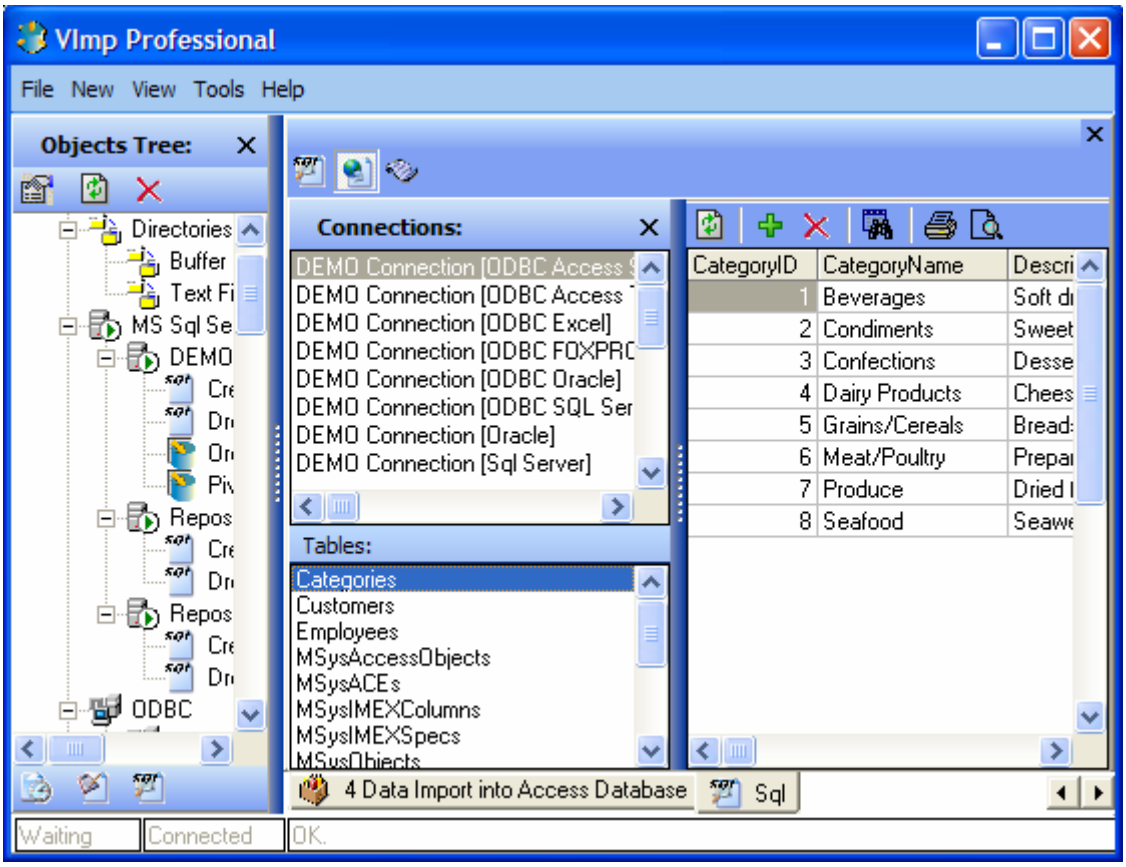
Stopping execution

User can stop execution at any time by pressing .

Note for stopping SQL scripts
SQL script stops once execution of current SQL statement is finished. It could take some time to do.

15. SQL

SQL Screen is a tool to run a free hand SQL or SQL scripts against the target databases.



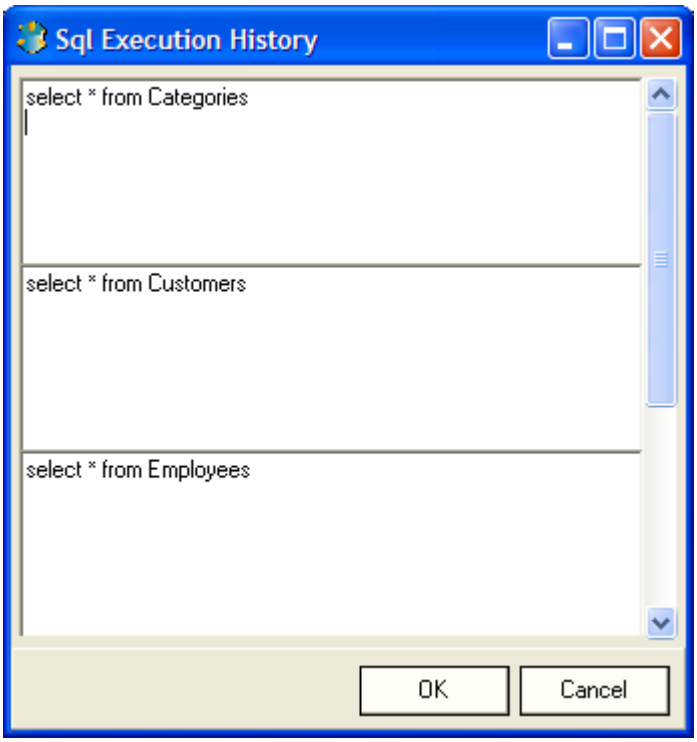
SQL Toolbar

1 2 3

1. Show/hide SQL Statement
2. Show/hide connection panel
3. Show/hide log panel

Side toolbar

1. Previous SQL Statement
2. Next SQL Statement
3. Select SQL Statement to execute



16. Import Functions

String Functions

Trim
Trim(String):string

Trims leading and trailing spaces from a string.

TrimLeft
TrimLeft(String):string

Trims leading spaces from a string.

TrimRight
TrimRight(String):string

Trims trailing spaces from a string.

UpperCase
UpperCase(String):string

UpperCase returns a string with the same text as the string passed in, but with all letters converted to Uppercase

LowerCase
LowerCase(String):string

LowerCase returns a string with the same text as the string passed in, but with all letters converted to LowerCase

Replace
Replace(String,OldPattern,NewPattern):string

Replace replaces all occurrences of the OldPattern by NewPattern within the String

SubString
SubString(String,Index,Count):string

SubString returns a substring containing Count characters or elements starting from Index.

RightString
RightString(String,Count):string

RightString returns the trailing characters of String up to a length of Count characters

LeftString
LeftString(String,Count):string

LeftString returns the leading characters of String up to a length of Count characters

AddCharLeft
AddCharLeft(Char,String,Count):string

AddCharLeft returns a string left-padded to Length with characters Char

AddCharRight
AddCharRight(Char,String,Count):string

AddCharRight returns a string right-padded to Length with characters Char

MakeString
MakeString(Char,Count):string

MakeString returns a string of Count filled with character Char.

DelSpaces
DelSpaces(String):string

DelSpaces returns string with all spaces deleted except one.
"two spaces"->"two spaces

Delete
Delete(String,Index,Count):String

DelSpaces returns string with count characters deleted starting from index.

Insert
Insert(Source,S,Index):String

Insert returns string with s string inserted in index.

ProperCase
ProperCase(String):string

ProperCase returns string, with the first letter of each word in uppercase and all other letters in lowercase
"proper case"->"Proper Case"

Numeric Functions

Abs
Abs(Integer):Integer

Abs returns the absolute value of the argument

Round
Round(Float,Integer):Float

Use Round to round Value to a specified power of ten.

The following examples illustrate the use of Round:

Expression Value

Round(1234567, 3) 1234000
Round(1.234, -2) 1.23
Round(1.235, -2) 1.24
Round(1.245, -2) 1.24

Sign
Sign(Integer):Integer

Use Sign to test the sign of a numeric value.
Sign returns
0 if AValue is zero.
1 if AValue is greater than zero.
-1 if AValue is less than zero.

Date Functions

Day
Day(Date,Format):Integer.

Use Day to get the day part of a date value.

Day('01012003','DDMMYYYY')

Hour
Hour(Date,Format):Integer.

Use Hour to get the hour part of a date value.

Hour('01012003','DDMMYYYY')

Minute
Minute(Date,Format):Integer.

Use Minute to get the minute part of a date value.

Minute('01012003','DDMMYYYY')

Month
Month(Date,Format):Integer.

Use Month to get the month part of a date value.

Month('01012003','DDMMYYYY')

Second
Second(Date,Format):Integer.

Use Second to get the second part of a date value.

Second('01012003','DDMMYYYY')

Year
Year(Date,Format):Integer.

Use Year to get the year part of a date value.

Year('01012003','DDMMYYYY')

Conversion Functions

IntegerToString
IntegerToString(Integer):String

IntegerToString converts integer value to string value.

NumberToString
NumberToString(Float):String

NumberToString converts float value to string value.

StringToInteger
StringToInteger(String):Integer

StringToInteger converts string value to integer value.

StringToNumber
StringToNumber(String):Float

StringToNumber converts string value to float value.

Miscellaneous Functions

Iif

Iif(expr1==expr2;expr3;expr4)

Iif function returns expr3 or expr4 depending on expr1==expr2

GetSystemVariable

GetSystemVariable('VARIABLENAME'):string

GetSystemVariable returns value of 'VARIABLENAME'.

Possible values for 'VARIABLENAME' are:
COMPUTERNAME,
OSUSERNAME,
DBUSERNAME,
BLOCKNUMBER,
LINENUMBER,
RECORDNUMBER,
SYSTEM_DATE

Pos

Pos(Substr,String): Integer

Pos searches for Substr within String and returns an integer value that is the index of the first character of Substr within String. Pos is case-sensitive. If Substr is not found, Pos returns zero.

GetFileHeaderLine

GetFileHeaderLine(LineNumber): String

GetFileHeaderLine function returns header line LineNumber from the source text file

17. Date formats

Date/Time format strings control the conversion of strings into date time type.

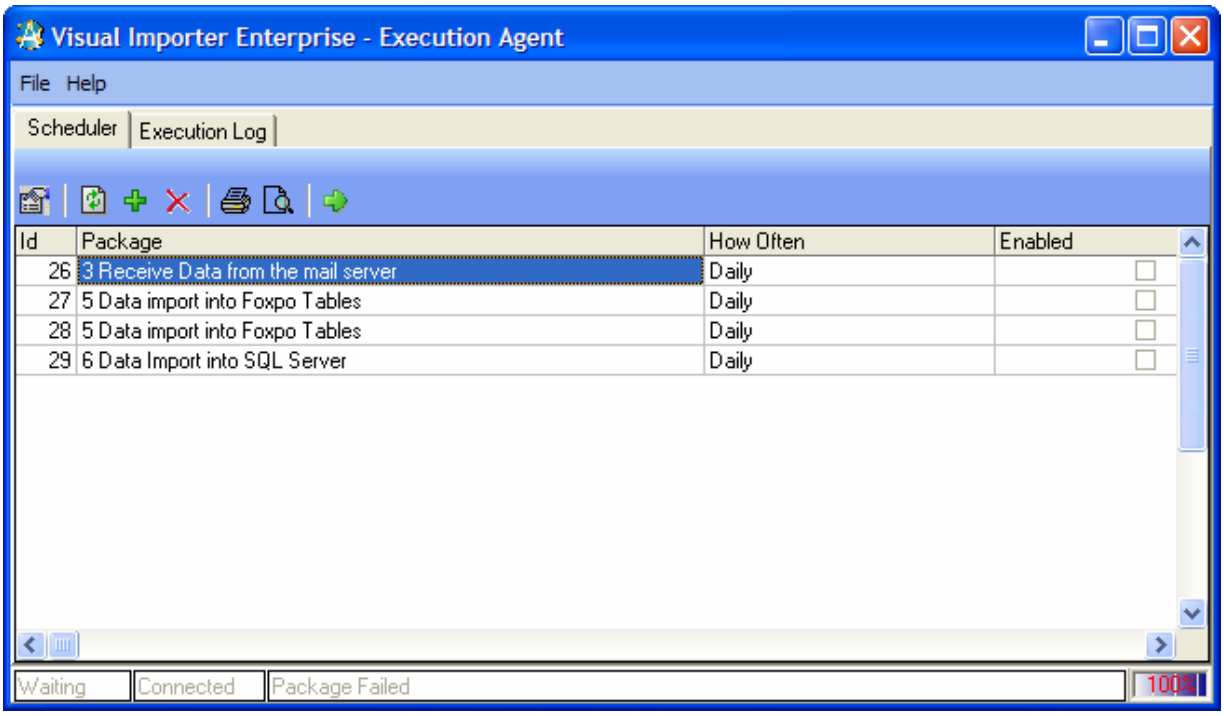
Date Time Format Strings are composed from specifiers that describe values to be converted into the date time value.

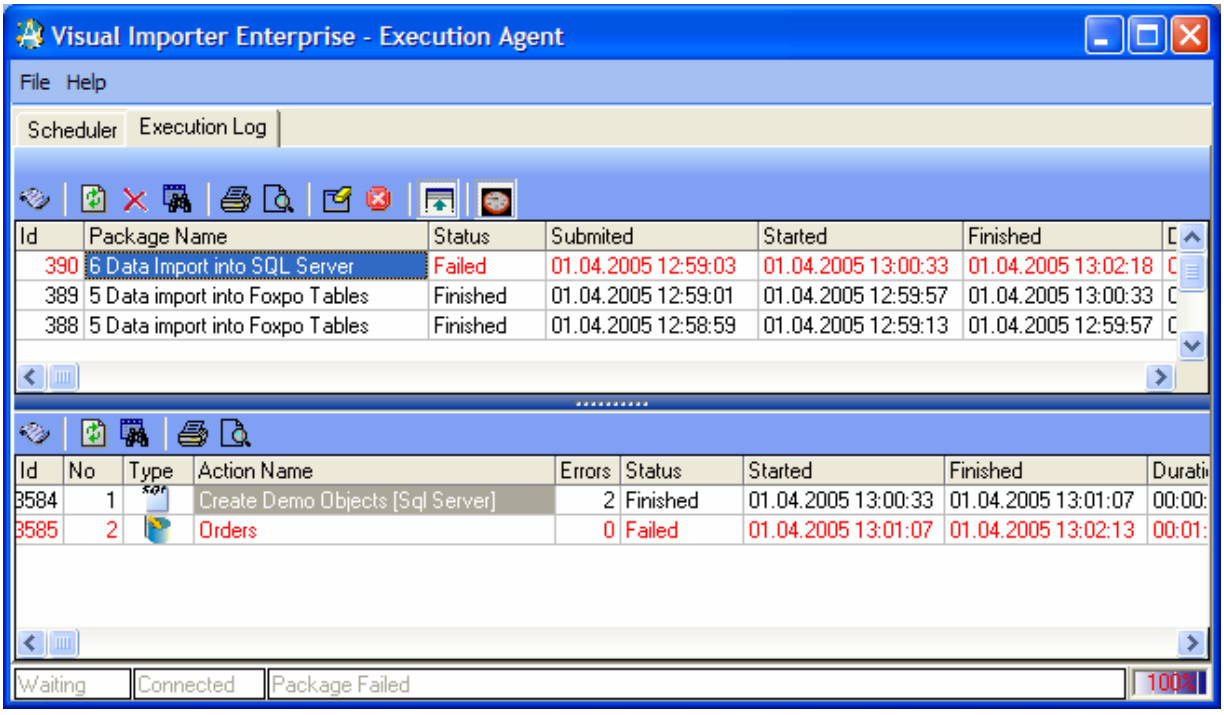
In the following table, specifiers are given in lower case. Case is ignored in formats, except for the "am/pm" and "a/p" specifiers.

Specifier	Description
d	Day as a number without a leading zero (1-31).
dd	Day as a number with a leading zero (01-31).
m	Month as a number without a leading zero (1-12).
mm	Month as a number with a leading zero (01-12).
mmm	Month as an abbreviation (Jan-Dec).
mmmm	Month as a full name (January-December).
yy	Year as a two-digit number (00-99).
yyyy	Year as a four-digit number (0000-9999).
h	Hour without a leading zero (0-23).
hh	Hour with a leading zero (00-23).
n	Minute without a leading zero (0-59).
nn	Minute with a leading zero (00-59).
s	Second without a leading zero (0-59).
ss	Second with a leading zero (00-59).
tt	Uses the 12-hour clock for the preceding h or hh specifier, 'am' for any hour before noon, and 'pm' for any hour after noon.

18. Execution Agent.

Execution Agent is Windows NT service which allows user to schedule and execute Visual Importer packages.





Note:
See 13 how to schedule packages for execution and 14 how to use execution monitor.

To install the Visual Importer Enterprise Execution Agent as a service run following command

VImpAgent.EXE /INSTALL

To uninstall the Visual Importer Enterprise Execution Agent as a Windows NT/2000 service you
must run the Visual Importer Enterprise Execution Agent with the /UNINSTALL switch as follows

VImpAgent.EXE /UNINSTALL

19. Support Procedure

Should you require any support please send the following information to support@dbsoftlab.com

1. Version number
2. Example of data you are trying to load
3. Script to create table
4. Database version
5. Operation system version
6. Repository
7. Log files
8. Description of the problem

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info@dbsoftlab.com

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