PostgreSQL Data Wizard

User's guide

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Table of Contents

Foreword 0

I Welcome to PostgreSQL Data Wizard! 1

1 System Requirements 2
2 Installation 3
3 How can I purchase PostgreSQL Data Wizard? 4
4 License Agreement 5
5 About SQL Maestro Group 7
6 What's new 10

II Getting Started 11

1 How to connect to PostgreSQL 13
2 Templates 17
3 Command line options 18

III Data Import 19

1 Selecting source format 20
2 Selecting objects to import to 22
3 Adding SQL queries 23
4 Setting files to import from 24
5 Setting the accordance between source and target columns 26
Map builder 27
Data formats 28
6 Customizing common options 30

IV Data Export 32

1 Selecting format of the result files 33
2 Adding objects to export data from 34
3 Customizing target columns properties 37
4 Setting general export options 38
Adjusting data formats 38
Setting format-specific options 39

V SQL Dump 43

1 Selecting source objects 44
2 Setting destination file names 45
3 Customizing common dump options 46

VI Blob Import 47

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1 Selecting tables for import 48
2 Setting files for import 49

VII Blob Export 51

1 Selecting tables with BLOB data 52
2 Setting file name templates 53

VIII Task Scheduler 55

1 Using PostgreSQL Data Wizard Agent 58

IX Options 59

1 Application 60
Preferences 60
2 Editors & Viewers 62
General 62
Display 63
SQL highlight 64
XML highlight 65
PHP highlight 66
Code Insight 67
Code Folding 68
3 Appearance 70
Bars and menus 70
Trees and lists 71
Edit controls 72
Check boxes 73
Buttons 74
Page controls 75
Group boxes 76
Splitters 77

Index 79

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1 Welcome to PostgreSQL Data Wizard!

PostgreSQL Data Wizard is a powerful Windows GUI utility for managing your PostgreSQL data. It provides you with a number of easy-to-use tools for performing the required data manipulation easily and quickly.

Key features:

- Data export to as many as 18 file formats
- Data import from Excel, CSV, text files and more
- Generating SQL dumps for selected tables
- Export BLOB data to files and load BLOB data from files
- Flexible Task Scheduler
- The Agent application to execute tasks in background mode
- Powerful command-line interface

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1.1 System Requirements

Client environment

- Pentium PC or higher;
- Windows NT4/2000/XP/Vista/Windows 7/Windows 8/Windows 10/Windows 11;
- 512 MB RAM (1 GB recommended);
- 25 MB of free hard disk space;
- SVGA-compatible video adapter.

Server environment

- PostgreSQL from 7.3 to 16.

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1.2 Installation

To install **PostgreSQL Data Wizard** on your PC:

- download the PostgreSQL Data Wizard distribution package from the download page at our site;
- run setup.exe from the local folder and follow the instructions of the installation wizard;
- find the PostgreSQL Data Wizard shortcut in the corresponding program group of the Windows Start menu after the installation is completed.

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1.3 How can I purchase PostgreSQL Data Wizard?

Thank you for your interest in purchasing **PostgreSQL Data Wizard**!

You can select licensing options and register PostgreSQL Data Wizard at its on-line order page. It is possible to purchase on-line, by fax, mail, toll-free phone call, or place a purchase order. We send the software activation key by email within 24 hours after completion of the order process. If you have not received the activation key within this period, please contact our sales department.

All our products and bundles are shipped with 12 months of free upgrades (minor and major ones) or with 36 months of free upgrades for a quite small additional fee. After this period you may renew your license for the next 12(36) months with a 50% discount.

PostgreSQL Data Wizard has a free 30-day trial. Upon purchasing the product you confirm that you have tested it and you are completely satisfied with its current version.

To obtain technical support, please visit the appropriate section on our website or contact us by email to support@sqlmaestro.com.

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1.5 About SQL Maestro Group

SQL Maestro Group is a privately-held company producing high-quality software for database administrators and developers. The united team of eminently qualified developers is pleased to create new software products for commercial, academic and government customers worldwide. We do our best to design and develop products that remove complexity, improve productivity, compress time frames, and increase database performance and availability. We are glad to realize that our products take usual chores upon themselves, so that our customers could have more time left for their creative work.

The company was founded in 2002 as an essential partner for every business that is trying to harness the explosive growth in corporate data. SQL Maestro Group employs an international team concentrating their efforts on cutting-edge DBA tools development.

The slogan of our company is **The Shortest Path to SQL**. It is aimed to denote that we set to create easy-to-use products meant for those who appreciate comfort, friendly program interface and support when working with SQL servers.

- We are pleased to facilitate your job.
- We aim at being of considerable assistance to our clients.
- We feel contented doing our beloved work.

At present, our company offers a series of Windows GUI admin tools for SQL management, control and development of the following servers: **MySQL, Microsoft SQL Server, PostgreSQL, Oracle, SQL Anywhere, DB2, SQLite, Firebird,** and **MaxDB**. We also produce universal tools to be used for administering any database engine accessible via ODBC driver or OLE DB provider. Such products may be the clear-cut decision for those who constantly work with several database servers.

SQL Maestro is the premier Windows GUI admin tool for database development, management, and control.

It provides you with the ability to perform all the necessary database operations such as creating, editing, copying, extracting and dropping database objects; moreover, you can build queries visually, execute queries and SQL scripts, view and edit data including BLOBs, represent data as diagrams, export and import data to/from most popular file formats, manage users and their privileges (if possible), and use a lot of other tools designed for making your work with your server comfortable and efficient.

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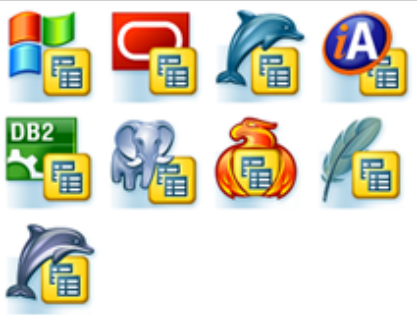
SQL PHP Generator is a powerful tool for creating database-driven web applications visually. It allows you to generate high-quality PHP scripts for working with tables, views and queries through the web. You needn't have any programming background to use it.	
SQL Data Wizard is a high-capacity Windows GUI utility for managing your data. It provides you with a number of easy-to-use wizards for performing the required data manipulation easily and quickly. The tool allows you to export data from PostgreSQL tables and queries to most popular formats, import data into the tables, generate SQL dump of selected tables, and export/import BLOB fields from/to files.	
SQL Code Factory is a premier GUI tool aimed at the SQL queries and scripts development. It allows you to manage SQL queries and scripts using such useful features as code folding, code completion and syntax highlighting, build query visually, execute several queries at a time, execute scripts from files, view and edit result data with filtering, sorting and grouping abilities, export data to as many as 14 file formats including Excel, RTF and HTML, import data from Excel, CSV, XML and text files, view and edit BLOBs in various way, build diagrams based on Oracle data, and much more.	
Database Converter is a user friendly tool to migrate any local or remote ADO-compatible database to PostgreSQL . Such tools transfer database schema and data and are equipped with native support for the most popular database servers.	
Data Sync is a powerful and easy-to-use tool for database contents comparison and synchronization. Such tools can be useful for database administrators, developers and testers that need a quick, easy and reliable way to compare and synchronize their data.	

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The software products are constantly optimized for the latest server versions support.

You can use the following contact information if necessary:

Our web-site	www.sqlmaestro.com
Postal address:	**SQL Maestro Group** 140 Broadway, Suite 706 New York City, New York 10005 United States

Thank you for your interest to our company!

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1.6 What's new

Please find out the latest PostgreSQL Data Wizard news at http://www.sqlmaestro.com/products/postgresql/datawizard/news/

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2 Getting Started

The Home page contains a set of links to run all the wizards included into the software. Each wizard may be run in 3 ways:

1. Run in a usual way

   In this way you need to customize all the process parameters step by step. To invoke a wizard, use the wizard's link at the Home page or the wizard's button on the Ribbon toolbar.

2. Run with template

   On running a wizard in this way, you'll get all the session parameters loaded from a template 17 file and ready for manual editing. To run a wizard with a template, specify a template to load and use the Run with template link at the Home page. The template file must be created during a previous wizard session.

3. Run in background mode

   This way is useful if you already have a template which does not require further customizing. To supply a wizard with all the session parameters from a template 17 file and execute it in background mode, specify a template file at the Home page and click Run in background mode. Besides, you can specify a time to execute the task within the Task Scheduler 55.

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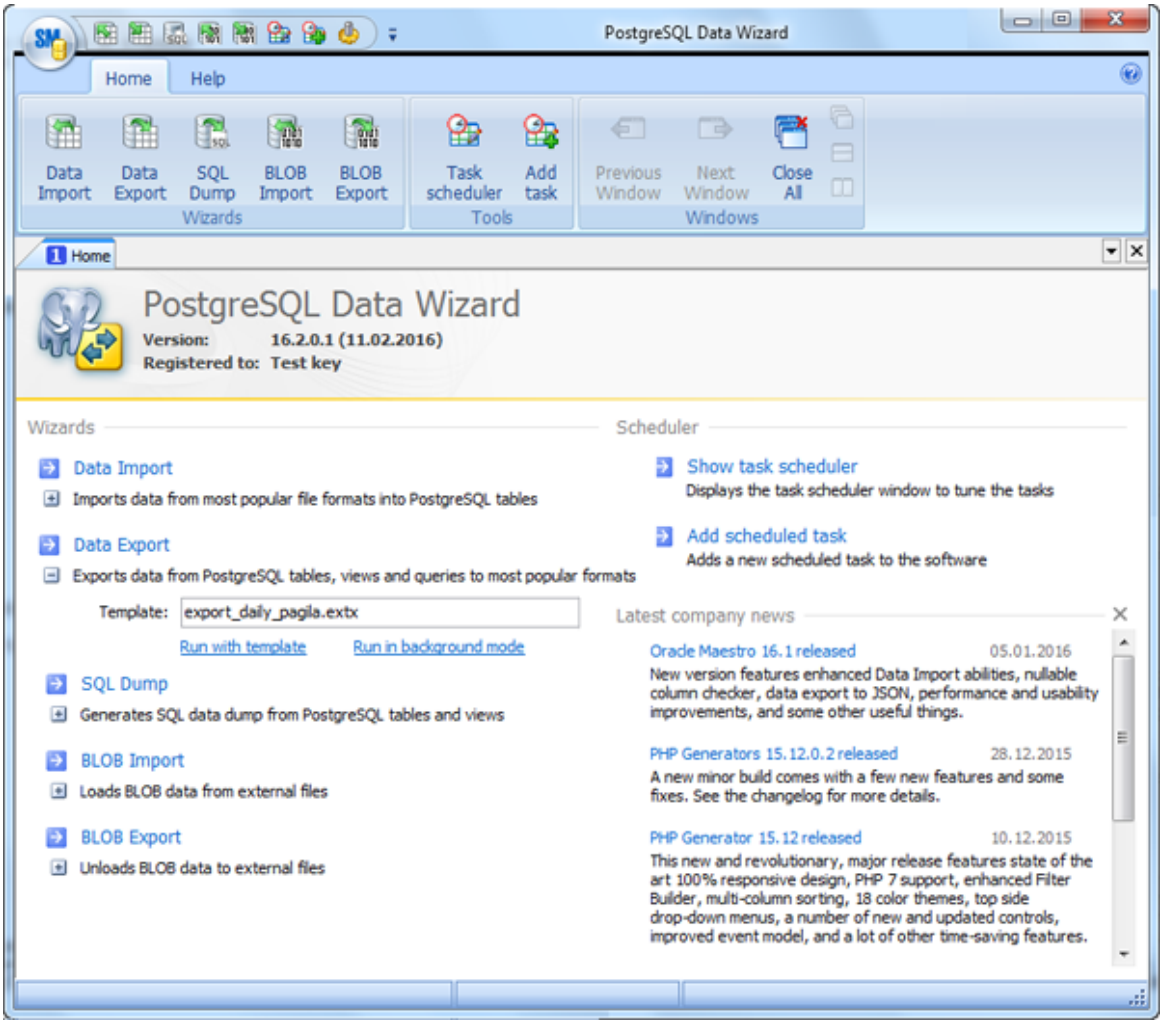

To learn more about the wizards, follow the links:

- **Data Export** 32
- **Data Import** 19
- **SQL Dump** 43
- **Blob Import** 47
- **Blob Export** 51

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2.1 How to connect to PostgreSQL

PostgreSQL Data Wizard allows you to connect to PostgreSQL directly, or via Secure SHell (SSH) tunnel, or HTTP tunnel.

- **Direct connection**
  It is the most natural and the most preferable connection mode. Use it each time it is possible.

- **SSH tunnel connection**
  If your PostgreSQL server does not allow direct connections from your remote workstations, you can establish connection to an allowed intermediate SSH server and forward all PostgreSQL commands through the Secure SHell (SSH) tunnel.

- **HTTP tunnel connection**
  HTTP tunneling is a technique used in conditions of restricted network connectivity including firewalled networks, networks behind proxy servers, and NATs. It is the slowest way and is recommended to use if the others are impossible.

Irrespectively of a connection mode you should specify common credentials as follows:

Host
The host name of the PostgreSQL server.

Port number
The TCP/IP port to use. Default PostgreSQL port is 5432.

User name
The username used to connect to PostgreSQL.

Password
The password for the user account on server.

More about SSH tunnel connection

To establish connection to intermediate SSH server and forward all PostgreSQL commands through the secure tunnel, you need to:

1. Check I can connect to the server directly or via SSH tunneling.

2. Follow the Configure SSH options link to open the SSH Options window.

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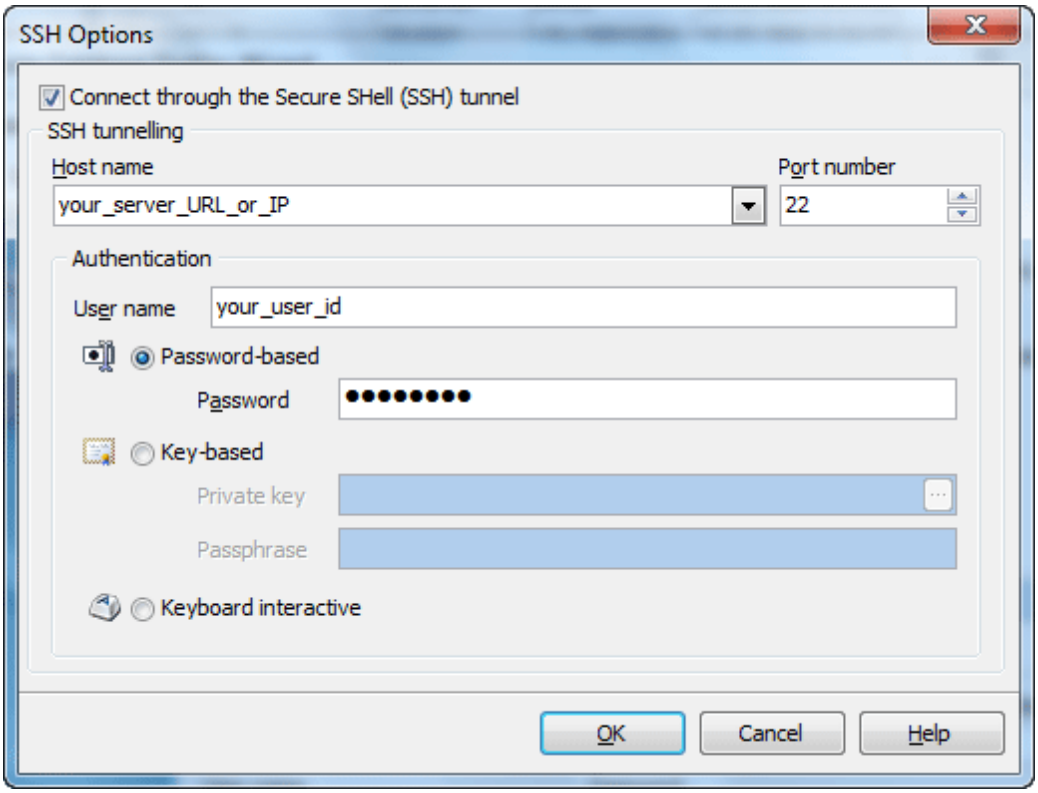

3. Check Connect through the Secure Shell (SSH) tunnel and complete the following fields:

Host name
Specify the host name or IP of your site. Note, that PostgreSQL host name always should be set relatively to the SSH server. For example, if both of PostgreSQL and SSH servers are located on the same computer, you should specify localhost as Host name instead of server's external host name or IP address.

Port number
Enter the port number for the SSH server.

4. Enter valid User name for the remote server and select the Authentication method and set corresponding credentials.

Password-based
Set the password corresponding to the specified user.

Key-based
Specify the path to the Private key file with the corresponding Passphrase to log in to the remote server. PostgreSQL Data Wizard accepts keys in **ssh.com** or **OpenSSH** formats. To convert a private key from PuTTY's format to one of the formats supported by our software, use the PuTTYgen utility that can be freely downloaded from the PuTTY website.

Keyboard interactive

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Keyboard authentication is the advanced form of password authentication, aimed specifically at the human operator as a client. During keyboard authentication zero or more prompts (questions) is presented to the user. The user should give the answer to each prompt (question). The number and contents of the questions are virtually not limited, so certain types of automated logins are also possible.

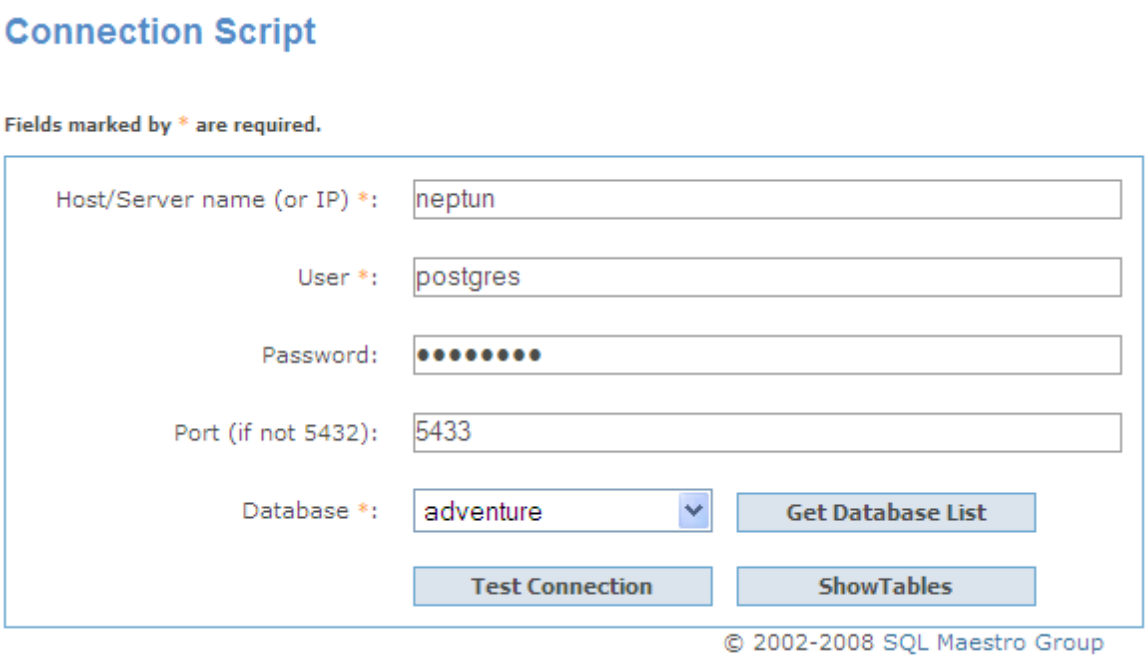
More about connection via HTTP tunnel

To connect to a remote server using an HTTP tunnel, you need to:

1. Upload the connection PHP script to your website. The script is named *pgsql_tunnel.php* and can be found under the installation folder, usually *C:\Program Files\SQL Maestro Group\PostgreSQL Data Wizard*.

2. Select the I have to use HTTP tunneling radio button.

3. Enter the connection PHP script URL, e.g. *www.yoursite.com/files/pgsql_tunnel.php*. You can test the connection before the profile is created. Just use Test script using default browser to open connection script in your browser, enter all the required connection parameters and click the Test connection button.



4. In case using of a proxy server use Configure tunnelling options to open the HTTP tunnelling options window and specify your proxy server connection parameters and HTTP authentication.

Note: You are actually connecting to your database through the PHP script on the server, so in most cases the host/server name is "localhost" unless the target database server is not installed on the same computer as the Web server.

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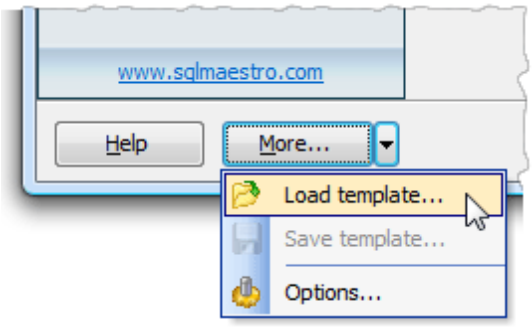
2.2 Templates

PostgreSQL Data Wizard allows you to save and restore all options set during a wizard session. You need not to specify all session parameters each time you work with a wizard anew; instead you can load all settings from a template and change them if necessary. To create a template, walk through the wizard and click More > Save Template at the last step. All the settings you have made will be saved to a file. To restore previously saved settings from a template, click More > Load Template at the first wizard step.

Templates are very useful when working with PostgreSQL Data Wizard. If you will close any wizard without saving a template, all carefully adjusted settings will be lost. To set the same options next time, you'll need to repeat the process step by step again while with a template all the session parameters can be restored in a few mouse clicks.



2.3 Command line options

PostgreSQL Data Wizard supports a number of command line options that make it possible to fully automate the data management operations.

The PostgreSQL Data Wizard command line syntax is as follows:

mydatawizard[.exe] <task> <template_file_name> [<log_file_name>]

mydatawizard[.exe]	The PostgreSQL Data Wizard program file.
<task>	An operation to execute. It can be one of the following: *import* (for Data Importing tasks); *export* (for Data Exporting tasks); *sqldump* (for SQL Dump tasks); *blobimport* (for BLOB Import tasks); *blobexport* (for BLOB Export tasks).
<template_file_name>	The template 17 with all the task's settings.
<log_file_name>	The name of text file to store log information (optionally).

Examples.
The examples below assume that you are entering the command lines in the PostgreSQL Data Wizard program directory. Don't forget to enclose all paths and filenames containing spaces in quotes.

- *mydatawizard export "C:\Templates\Export\MySQL\northwind.extx" "C:\Logs\Export_to_MySQL_NBA_db.log"*
- *pgdatawizard.exe import "D:\Templates\Import\PostgreSQL\northwind.imtx"*
- *mydatawizard.exe sqldump "C:\Templates\SQLDump\MySQL\sakila.sdmpx" "C:\Logs\SQLDump\MySQL\sakila.log"*

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3 Data Import

Data Import wizard provides you with a graphical user interface to import data from the most popular files formats into existing PostgreSQL tables. It allows you to adjust data formats, empty target tables, execute custom SQL scripts, etc. To run the wizard, use the Run Data Import Wizard link at Home page 11.

The following formats are supported:

- Microsoft Office Excel 95-2003
- Microsoft Office Excel 2007 and higher
- Microsoft Office Access 95-2003
- Microsoft Office Access 2007 and higher
- Delimiter-separated values (CSV, DSV, TSV);
- Text files (Fixed-width columns)
- DBF
- XML
- ODBC data source (any data source accessible via ODBC driver or OLE DB provider such as SQL Server, Oracle, MySQL, MS Access, Text files, MS Excel, etc).

To import data,

- Set connection properties 13 of the database to import data to;
- Select the format 20 to use for the input data;
- Select the tables 22 where you want to import the data;
- Set source file options 24;
- Map source file columns and target table fields 26;
- Specify other import options 26.

See also: Templates 17

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3.1 Selecting source format

Select the format of data to be imported and set the default options to be applied to all the source files and target tables during the import process. These options can be customized later for each file and table separately. It is useful to set here the options that correspond to the most of files and tables. For example, if the most of source files contain column headers, check the appropriate checkbox to skip the first row for all the files and uncheck this option only for files that do not contain headers.

Specify the Default directory for source files and complete the Encoding, XPath, Data location, Delimiter, and Quote fields if necessary. Turn ON the Empty targets before importing option to delete all the records from target tables before the import starts.

In case you are importing from an ODBC source specify the Connection string for the source database. The connection string must contain the information that the ODBC driver or OLE DB provider need to know to be able to establish a connection to the database or the data file. To learn more about ODBC drivers, OLE DB providers and other such stuff, read our brief guide to connection strings. Select the type of quotes used by the server as Quote characters identifiers to escape improper symbols and blanks in object names.

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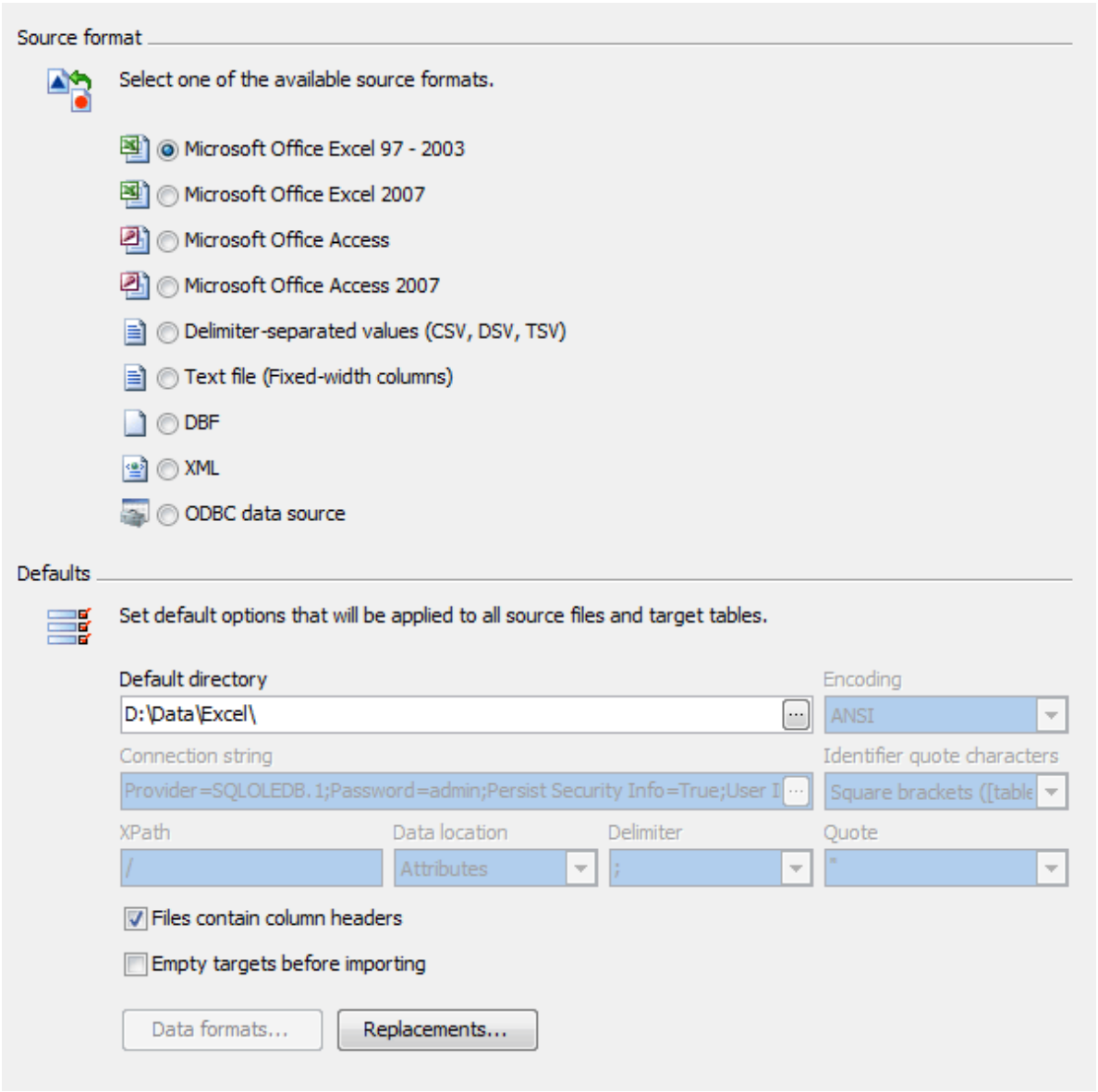

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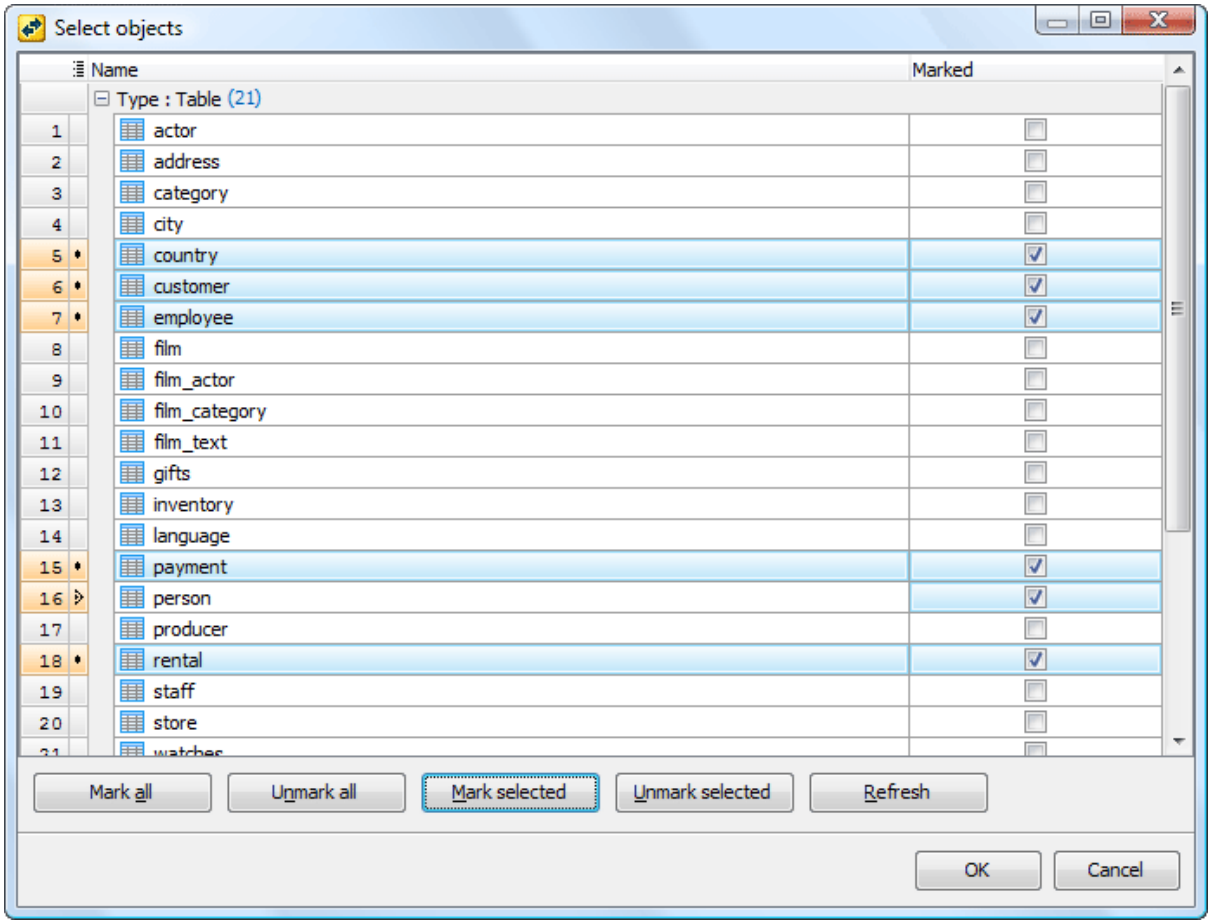
3.2 Selecting objects to import to

To specify tables where you want to import data, click the Add... button and pick the tables in the Select objects dialog. To choose several tables at a time, select them using **Ctrl** and **Shift** keys, then click Mark selected.



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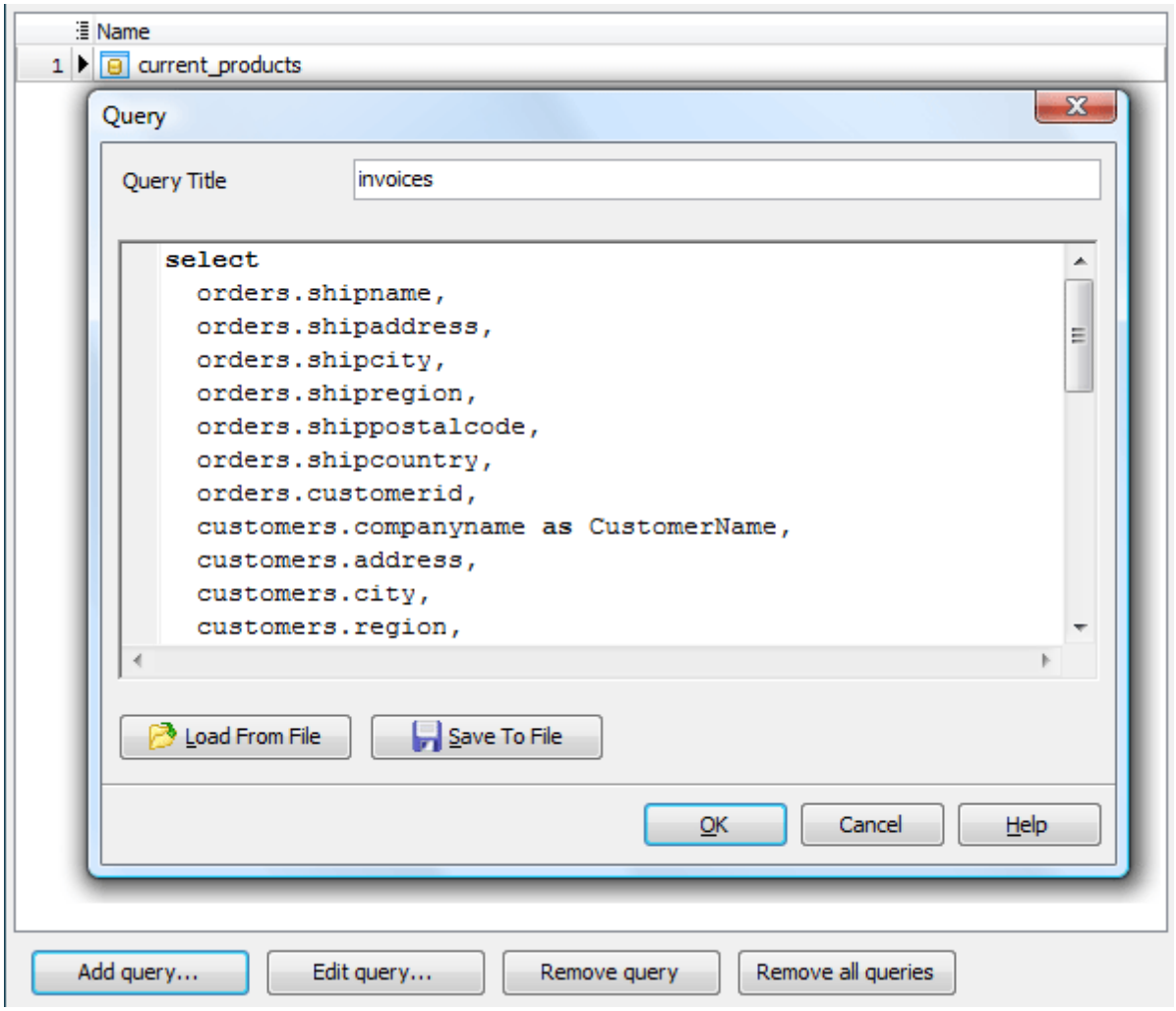
3.3 Adding SQL queries

This step is available if ODBC data source has been selected as the source format. To import data from SQL queries:

- add necessary SQL queries;
- specify them as data sources for the PostgreSQL tables on the next step.

Add an SQL query using the corresponding button and specify a file to load the query from or place the query text in the corresponding window.



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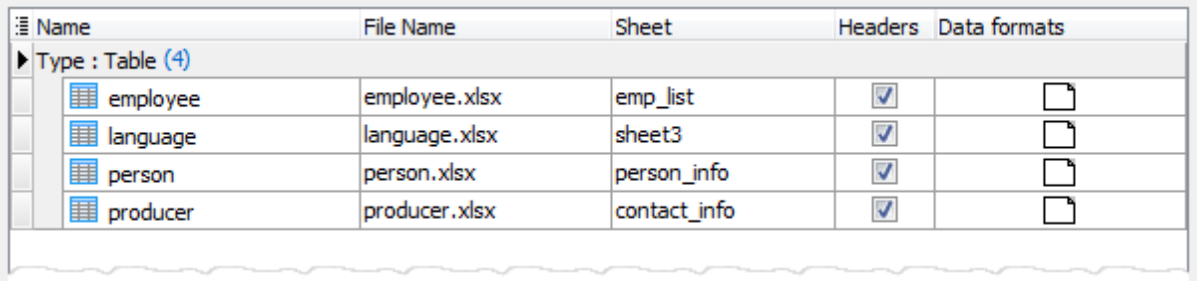
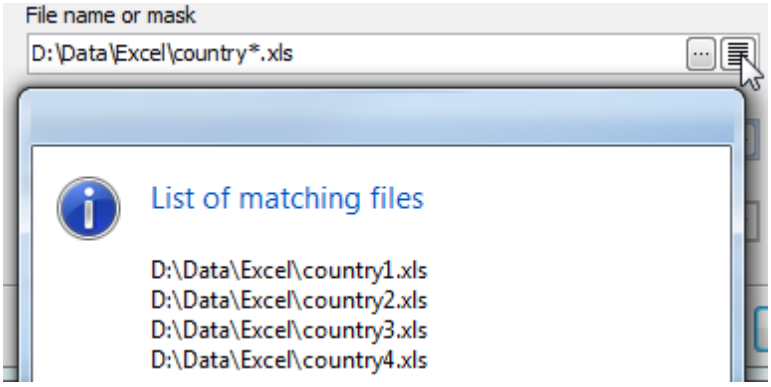
3.4 Setting files to import from

For each selected table[22] specify the input file (table, data source, SQL query[23]) containing the data to be imported in the table and adjust such import options as the Encoding, Data location, Delimiter, etc. for each file separately if necessary (by default, the options specified earlier[20] are applied for all the files).



Import data from several files at a time
To import data from multiple files with the same structure, set the mask of the file names to the corresponding field. To see the list of matching files, use with the button on the right.

Example: To import data from the following tables:
D:\Data\Excel\country1.xls
D:\Data\Excel\country2.xls
D:\Data\Excel\country3.xls
D:\Data\Excel\country4.xls
use the mask *D:\Data\Excel\country*.xls*.



Additional import options due to source format
For **MS Excel** files, specify a data sheet containing the data to be imported to the selected PostgreSQL table. Check the Header box to skip the first row of the file and uncheck it otherwise.

For **MS Access** files, specify a data table containing the data to be imported to the selected PostgreSQL table. Set the password for the source database if necessary.

For **CSV**, **DSV**, and **TSV** files, select the file encoding, the delimiter, and the quote. Check the Header box to skip the first row of the file and uncheck otherwise.

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For **TXT** and **DBF** files, select the source file encoding. For text files, check the Header box to skip the first row of the file or uncheck it otherwise.

For .**XML** files, define the XPath to the data to be imported to the selected PostgreSQL table and select whether data are stored in Attributes or Subnodes.

Example 2: To import data from the following .xml file, use
XPath=*/Employees/Employee* and
Data location=*Subnodes*

```
<?xml  version="1.0"  encoding="utf-8"?>
<Employees>
    <Employee>
       <ID>1</ID>
        <FirstName>Klaus</FirstName>
        <LastName>Salchner</LastName>
         <PhoneNumber>410-727-5112</PhoneNumber>
    </Employee>
    <Employee>
        <ID>2</ID>
        <FirstName>Peter</FirstName>
        <LastName>Pan</LastName>
         <PhoneNumber>604-111-1111</PhoneNumber>
    </Employee>
</Employees>
```

Example 3: To import data from the .xml file below, use
XPath=*DATAPACKET/Data/Item* and
Data location=*Attributes*

```
<?xml  version="1.0"?>
<DATAPACKET  Version="2.0">
<Data>
    <Item ID="1" FirstName="Klaus"  LastName="Salchner"  PhoneNumber="410-727-5112" />
    <Item ID="2" FirstName="Peter"  LastName="Pan"  PhoneNumber="604-111-1111" />
</Data>
</DATAPACKET>
```

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3.5 Setting the accordance between source and target columns

The wizard provides you with several ways to map input data to the target tables columns.

- You can map columns automatically by order with the Auto Fill and Auto fill all maps buttons.
- You can do it manually for each table using the drop-down list of Source column fields. To set the accordance in this way, select a target object in the list first. The object columns appear in the Target field tab. Now select data to be imported to the columns.
- To map columns visually, open Map builder 27 with the Build map link.

It's useful to save a specified map to a file for further using it in the next wizard sessions. To save a map, use the More... button and follow the Save map link.

To see the 100 first rows of input file or output table, use the More... button and follow the View source data or Preview results links respectively.

You can also specify Replacements to be applied to the selected column before the import and data format masks 28 used for the input file.

To empty tables where you want to import data before the importation, check the Empty target box. The default value of the boxes has been set earlier.

To exclude the first file row, use the File contains column header checkbox.

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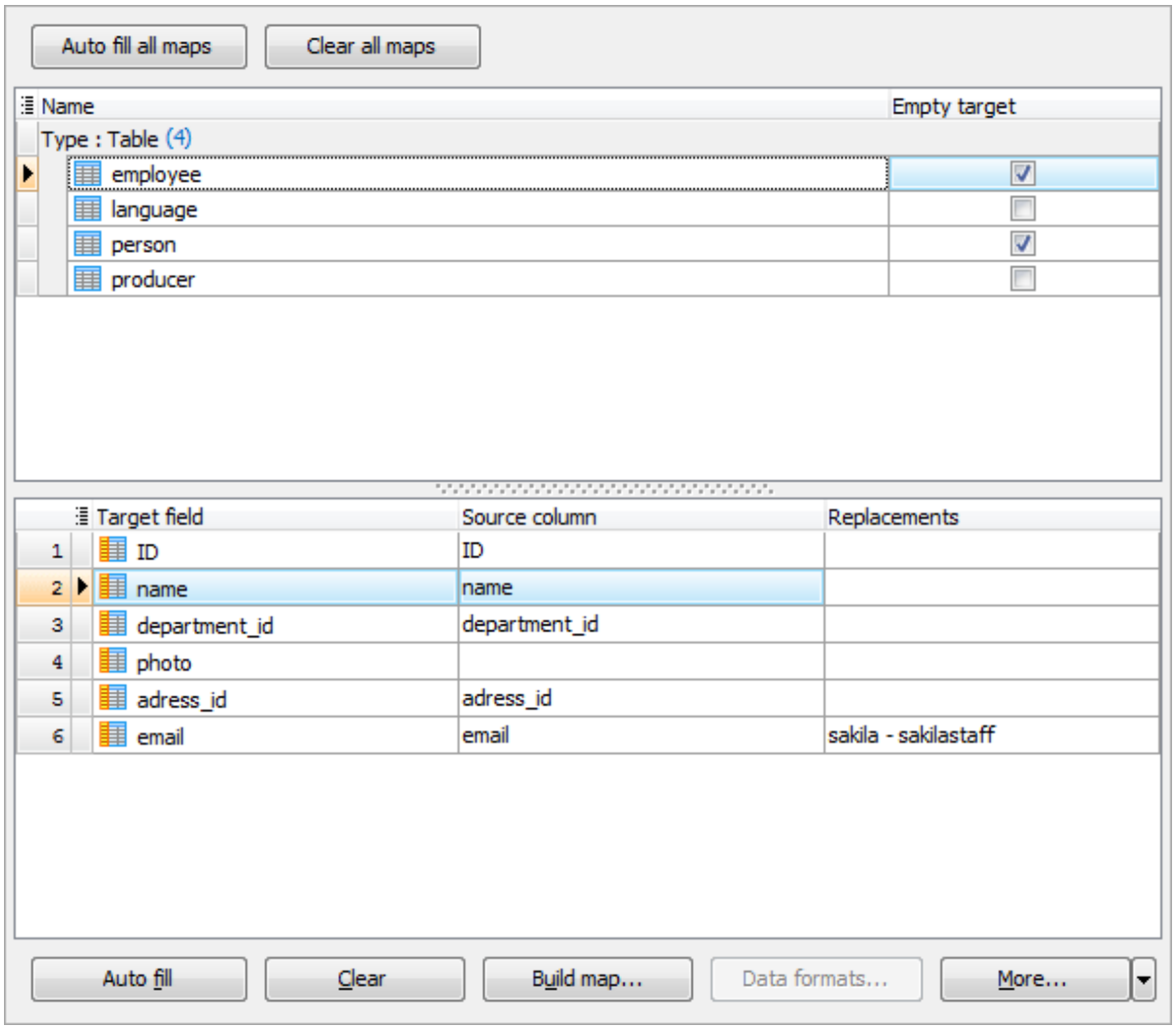

3.5.1 Map builder

To specify the accordance between source and target columns visually, use popup menu of the upper row to map source file columns to target table fields.

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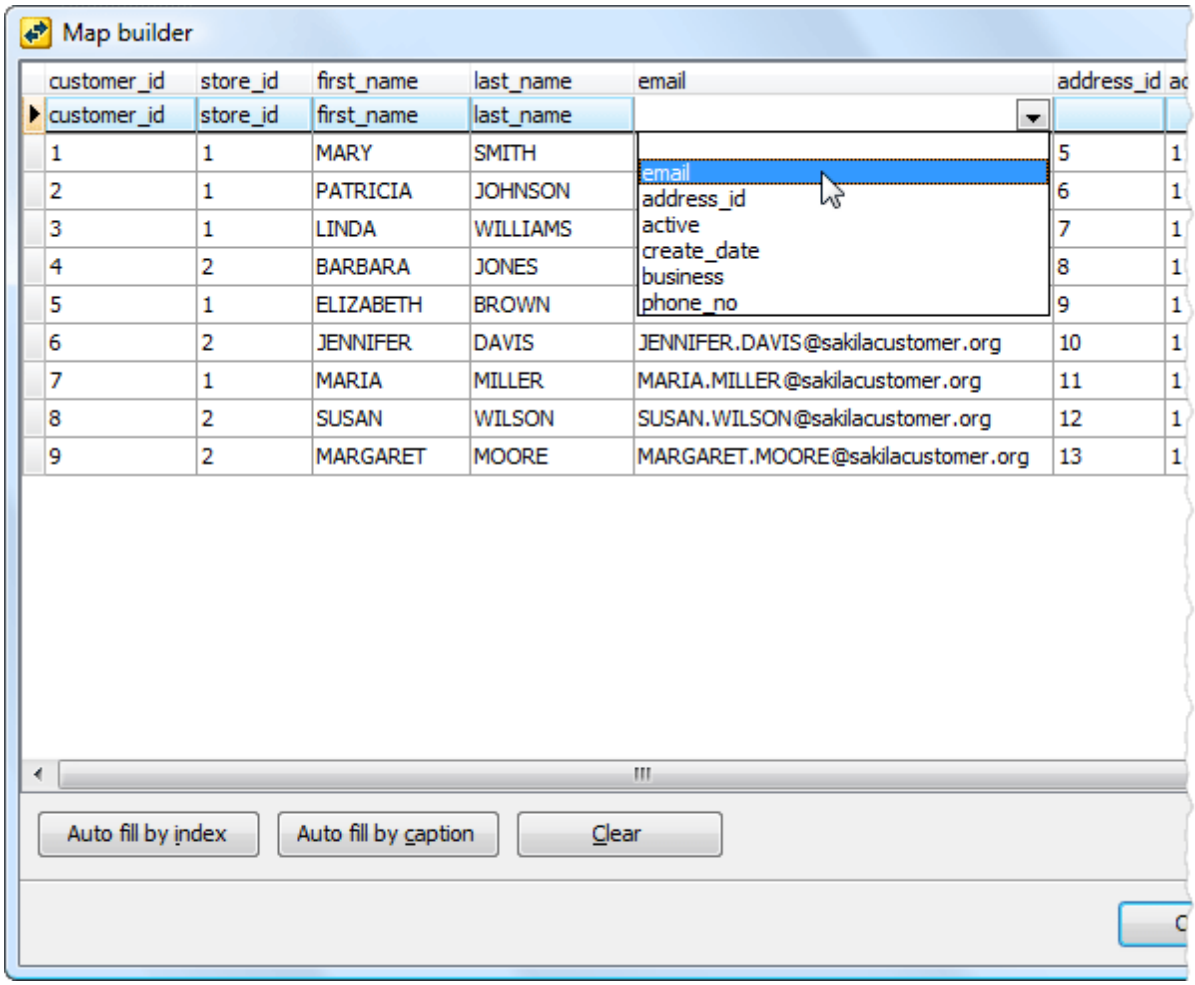
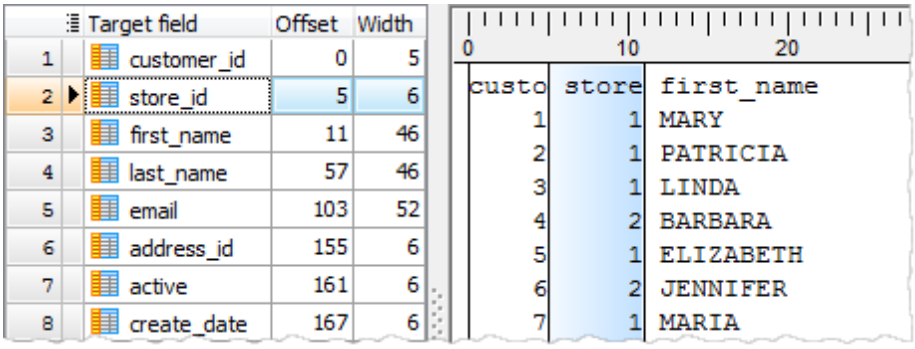


For text files define columns bounds first. To add a bound, double-click near the column data in the builder area. To map a column to a target table field, select the field in the Target field list and then click between the bounds.



3.5.2 Data formats

Use the window fields to indicate format masks of the source data imported to the selected table. It allows the application to import data correctly.

The components of the date time format mask are represented at the window. Compose

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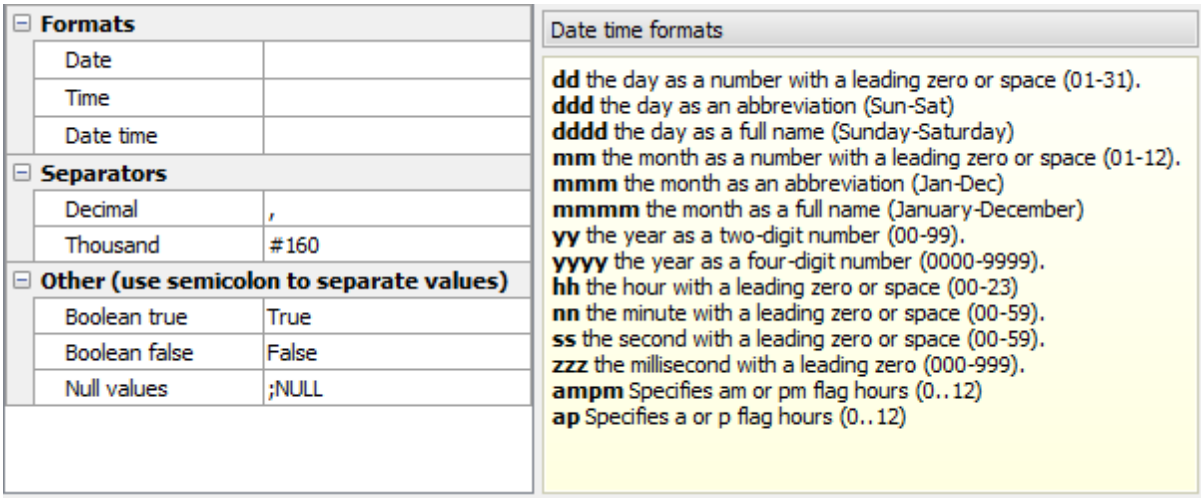
your date, time, and date time format mask of this components and separators. The following table contains some types of input fields and suggests masks to import them.

To import these input data correctly	Use these format masks
June 29	mmm dd
Jun 29, 2009	mmmm dd, yyyy
Tue Jun 14 16:50:49	ddd mmm dd hh:nn:ss
01/15/09 08:26 AM	mm/dd/yy h:nn ampm

You can also set decimal and thousand separators, and custom NULL,TRUE and FALSE values. If you have several values to be imported to NULL(TRUE, FALSE) value, use semicolons to separate them.



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3.6 Customizing common options

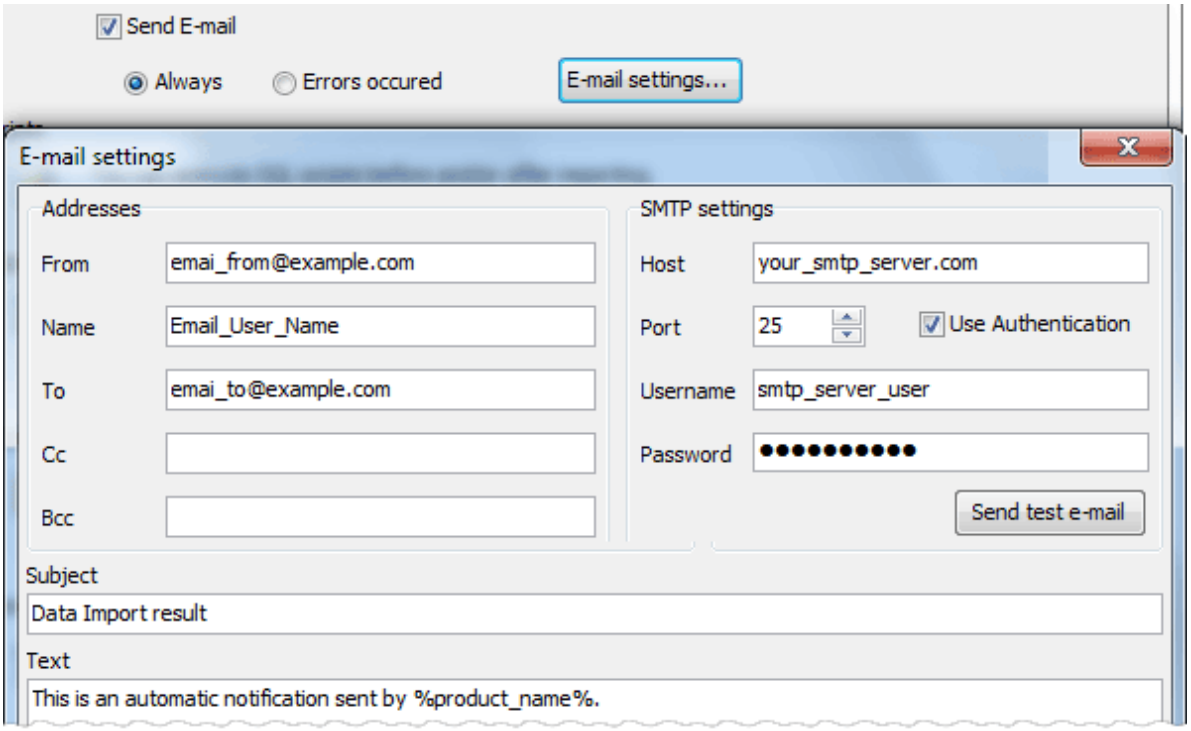
All data sources and target tables are specified on previous steps, it's time to define the import process.

Logging

Use this option to be informed about all the actions occurred during the import. The log file name may contain current timestamp with the *%ts:TIMESTAMP_FORMAT%* string. Examples of valid log file names:
dbname_import_%ts:yyyy_mm_dd%.log
import_%ts:yyyy_mm_dd_hh_mm%_mysql.log
%ts:yyyy_mm_dd_hh_mm_ss%.log

Email notification

To send a log file as an email attachment after each import process or in case of an occurred error, specify settings of email(s) to be sent: parameters of your SMTP server, email addresses, subject and body text.



Scripts

There are many cases where the import process is necessary to correct with additional scripts. So to disable table indexes before the importing, specify the corresponding scripts to be executed before and after the process.

The typical example of usage of the Before each table and After each table scripts is the import data to autoincrement columns of several tables. In this case it's neseccary to set the corresponding scripts:
SET IDENTITY_INSERT %table_name% ON
and

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SET IDENTITY_INSERT %table_name% OFF
to be executed before and after import data to each table correspondingly.

Import mode

If the Update existing records option is turned ON, the records will be either updated or inserted: an UPDATE will be performed when a target row exists in the table and an INSERT is performed when the target row does not exist.

Import Data Wizard supports the COPY FROM command to insert data to the table. This feature can speed up the import process up to 10 times so it is recommended to use it always if possible. Uncheck this option to use INSERT statements instead.

Reorder

PostgreSQL Data Wizard arranges target tables on import by dependencies to inserted records in the correct order. To reorder target tables manually, follow the corresponding button.

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4 Data Export

Data Export wizard is a tool to save data from PostgreSQL tables, views, and queries to the most popular formats. It allows you to fully customize output files including header and footer, fonts, colors, and data formats. To run the wizard, use the Run Data Export Wizard link at Home page 11.

The following formats are available:

- Microsoft Office Excel 97-2003
- Microsoft Office Excel 2007
- CSV, TSV, and DSV
- HTML
- XML
- Text files (fixed-width columns)
- Microsoft Office Word 97-2003
- Microsoft Office Word 2007
- Microsoft Office Access;
- OpenDocument Spreadsheet
- OpenDocument Text
- DBF
- PDF
- RTF
- DIF
- SYLK
- LaTeX
- JSON.

To export your data,

- Set connection properties 13 for the source PostgreSQL database;
- Select the format 33 to use for the output;
- Select objects 34 you want to export data from;
- Select columns 37 you want to include into result files;
- Specify other export options 38.

See also: Templates 17

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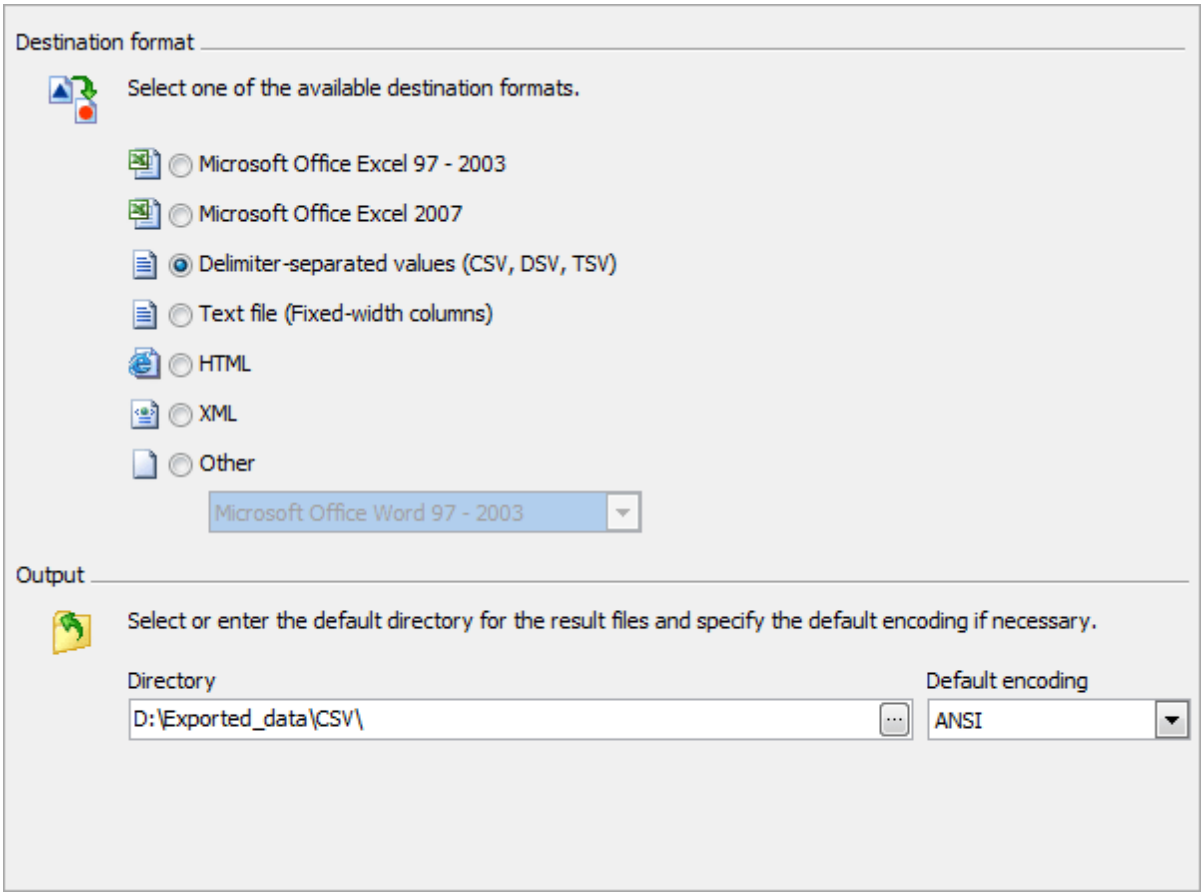
4.1 Selecting format of the result files

Select the output file format, the default directory for the result files and the default encoding if necessary.



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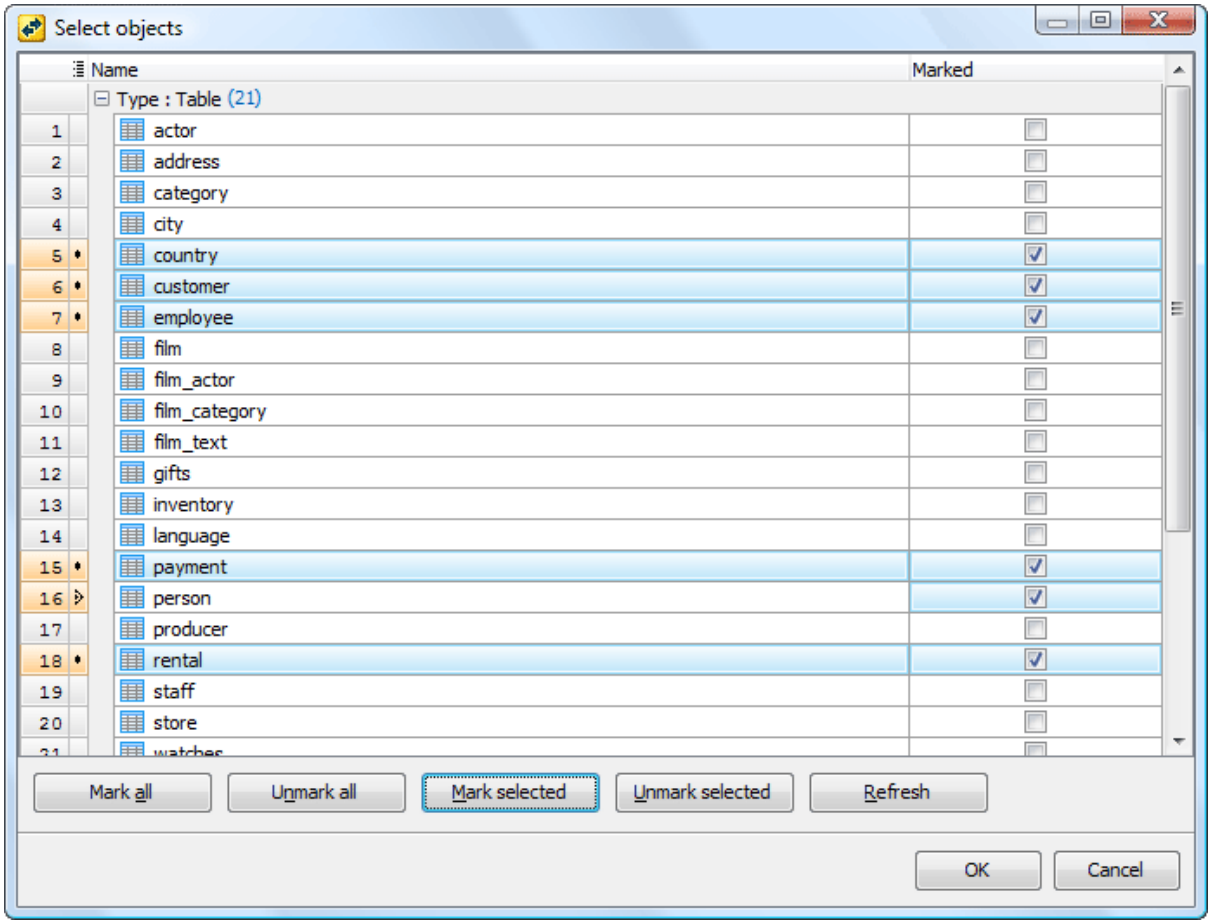
4.2 Adding objects to export data from

To specify source database objects you want to export data from, click the Add... button and pick the objects in the Select objects dialog. To choose several objects at a time, select them using **Ctrl** and **Shift** keys, then click Mark selected.



To use a custom SQL query as a data source, use the Create query button and enter the query name and a SELECT statement. It is also possible to load a query from an *.sql* file.

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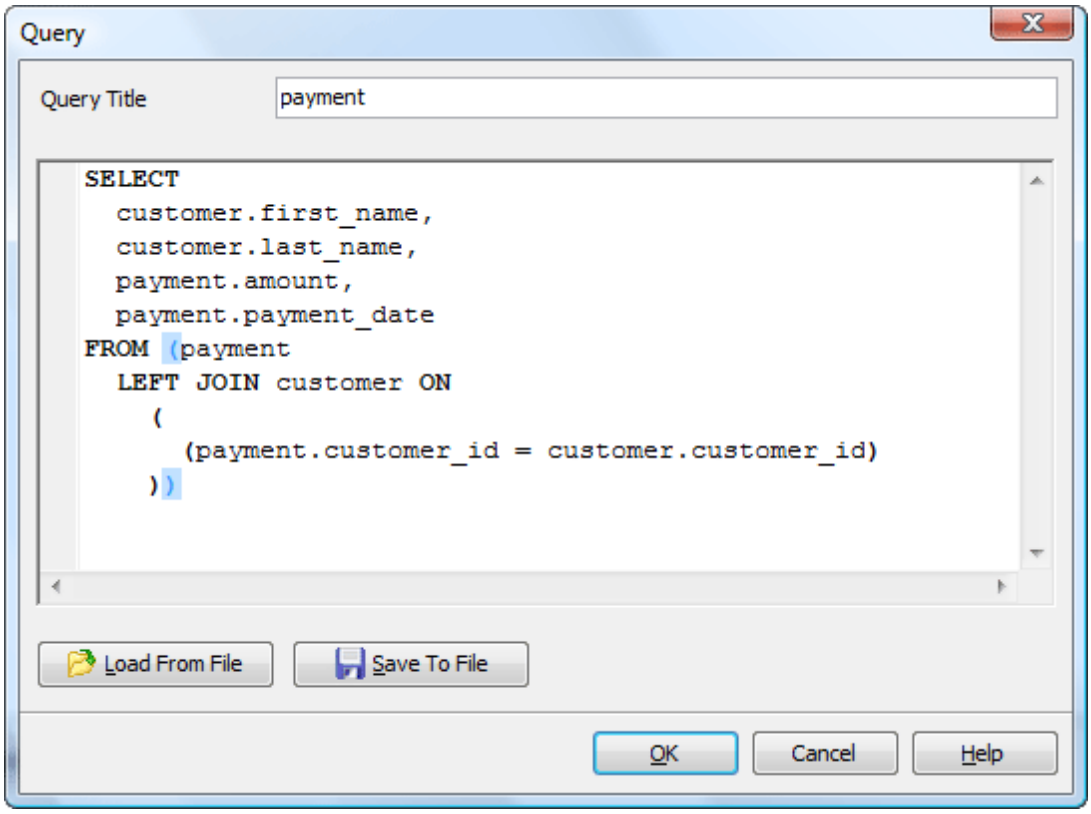

Rules for creating queries used by Data Export
All queries must satisfy the simple requirement: the following query must be correct.

```
select * from
(
    QUERY_TEXT_YOU_ENTERED
) an_alias
```

This happens because the software uses similar queries for internal needs. In case such SQL expression is not valid, the wizard marks the query as invalid and displays its name in red.

To meet this requirement, make sure that **all the columns** in the result dataset have **unique aliases**. For example, the following query works fine itself, but returns a dataset with two columns named *id:*

```
SELECT
          table1.*,
          table2.*
FROM table1, table2
WHERE table1.id = table2.id;
```

This is the reason the wizard marks this query as invalid. To solve the problem, provide these columns with unique aliases:

```
SELECT
          table1.id as table1_id,
          table2.id as table2_id
FROM table1, table2
```

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```
WHERE table1.id = table2.id;
```

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4.3 Customizing target columns properties

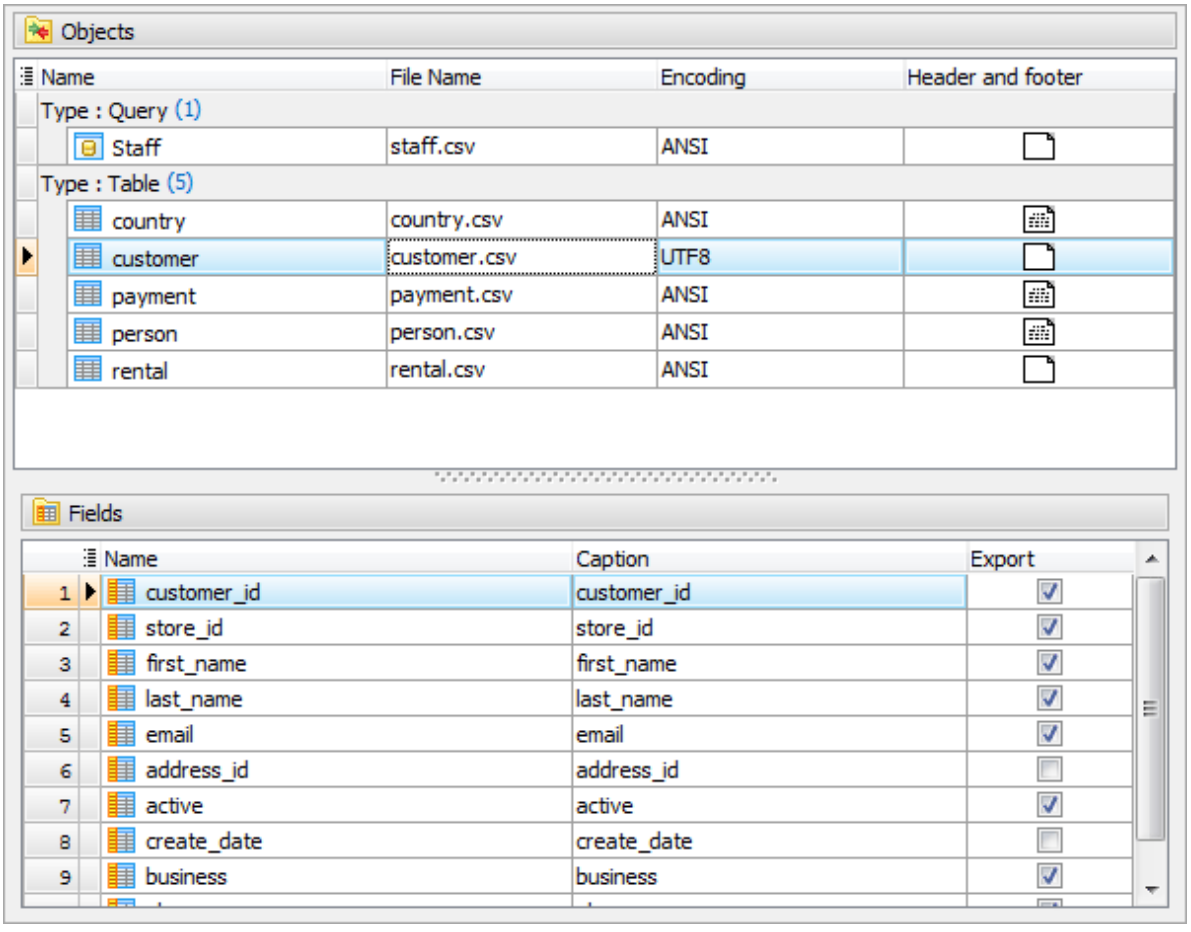
Set the options of output files. The Objects tab allows you to edit names of result files (tables in case of exporting to MS Access) and their headers and footers. By default, the names of output files are set according to the tables/views names and queries titles. To change a file name, select the corresponding item at the Objects tab, press F2 and enter the new name.

To specify the result file's header and footer, double click the corresponding button and complete fields of the Header and Footer window.

To exclude a column from the exported data:

- Select the object for which you want to exclude the column;
- Clear the checkbox beside the column.

To rename a target file column, double click the corresponding caption or select the caption and use **F2**, and edit it manually.



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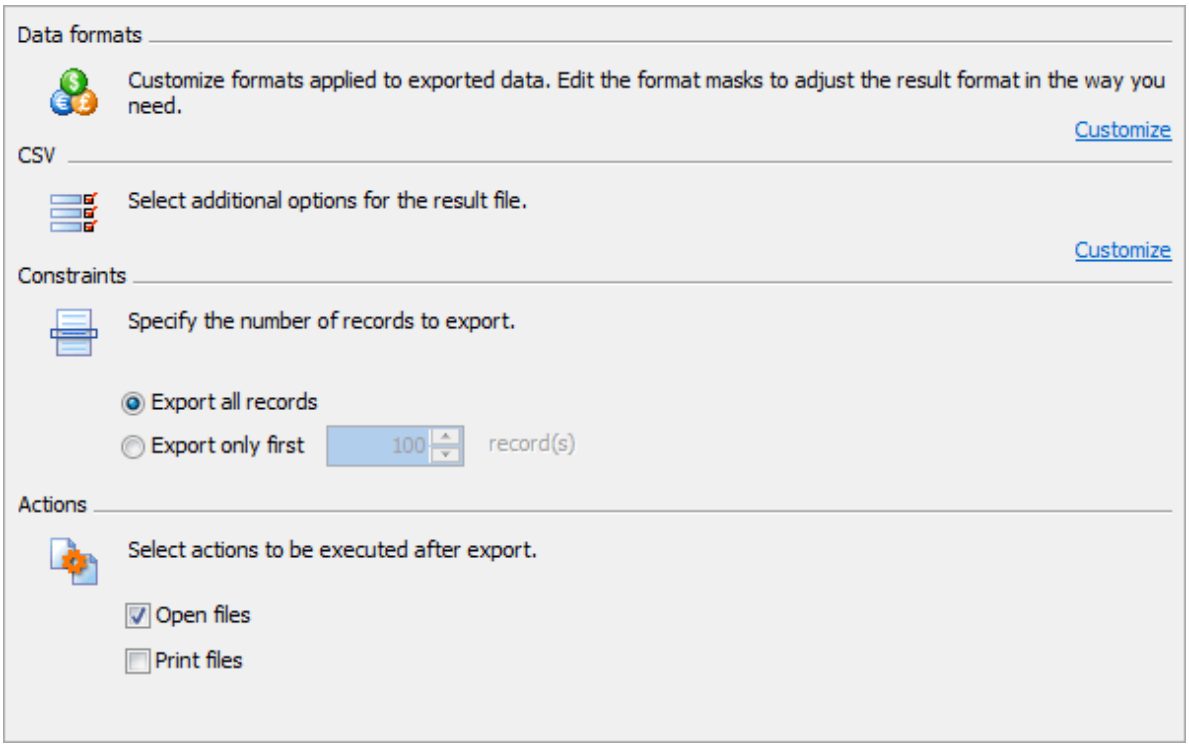
4.4 Setting general export options

Use this step to specify options to be applied to all exported data:

- Set format masks to be applied to the data.
- Customize format specific options of the selected file format.
- Select the number of records to be exported from each table: a fixed number or all records.
- Specify actions to be executed after the export. To open the result files in the associated program (MS Excel, Notepad, default browser, etc), check the Open files box. To send the result files to the default printer, use the Print files checkbox.



4.4.1 Adjusting data formats

This step allows you to customize formats applied to exported data. Edit the format masks to adjust the result format in the way you need.

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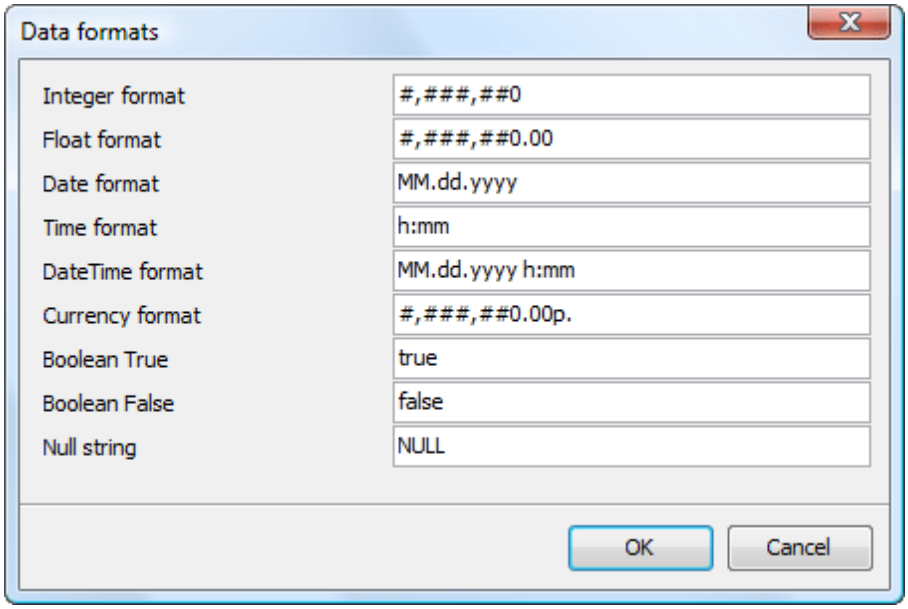

4.4.2 Setting format-specific options

Each format supposes corresponding additional export options. Use the wizard option to adjust export properties depending on the target file format you have selected earlier. The following formats are at your disposal: Microsoft Excel 39, Microsoft Excel 2007, CSV 41, Text 41, HTML 40, XML 41, Microsoft Word, Microsoft Word 2007, Microsoft Access, OpenDocument Spreadsheet, OpenDocument Text, DBF, PDF, RTF, DIF, SYLK, and LaTeX.

Microsoft Excel

The Data Format tab contains general options, which allow you to adjust the format for each kind of Excel cells. This means that you can specify such parameters as font, borders, filling color and method, etc. for each entity (such as data field, header, footer, caption, data, hyperlink and so on) separately. Also it is possible to create styles to make target Excel file be striped by columns or rows (the Styles tab).

The Extensions tab provides a possibility to add hyperlinks and notes to any cell of target file. Click the Plus button to add a new hyperlink or note to target Excel sheet and adjust its parameters. Click the Minus button to delete added hyperlink or note.

The Advanced tab allows you to define page header, page footer and title for target Excel sheet.

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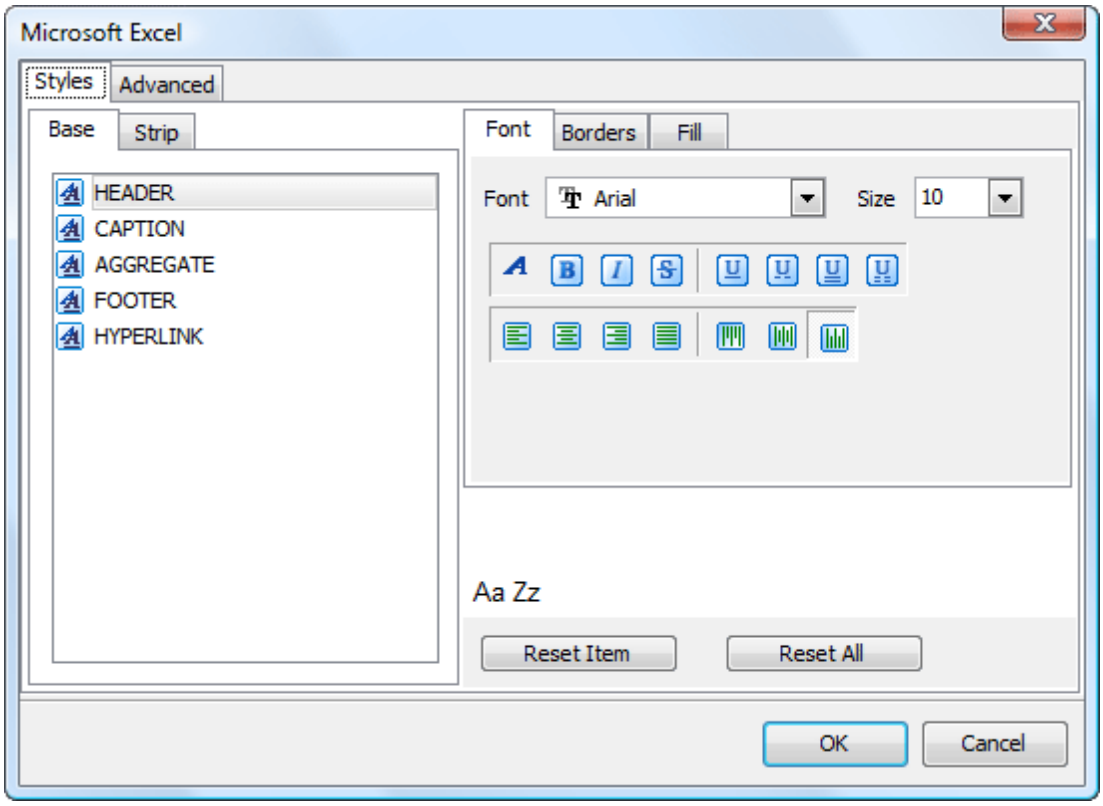

HTML

The Preview tab allows you to select the style of HTML file from a number of built-in templates provided by the Templates combo box. You can choose any of these templates, customize it by clicking on objects in the preview panel, and save it as a custom template using the Save template button. Use the Load template button to load previously saved custom templates from hard disk.

The Basic tab allows you to specify basic parameters of target HTML file, such as its title, cascade style sheet options, etc.

The Multi-file tab provides you with a possibility to split target HTML file into several separated files. This tab allows you to specify the record count for a single file, set an option to generate an index HTML file, and add an ability of navigation between each other to each of exported files.

The Advanced tab contains such HTML options as default font, background, cell padding and spacing, etc.

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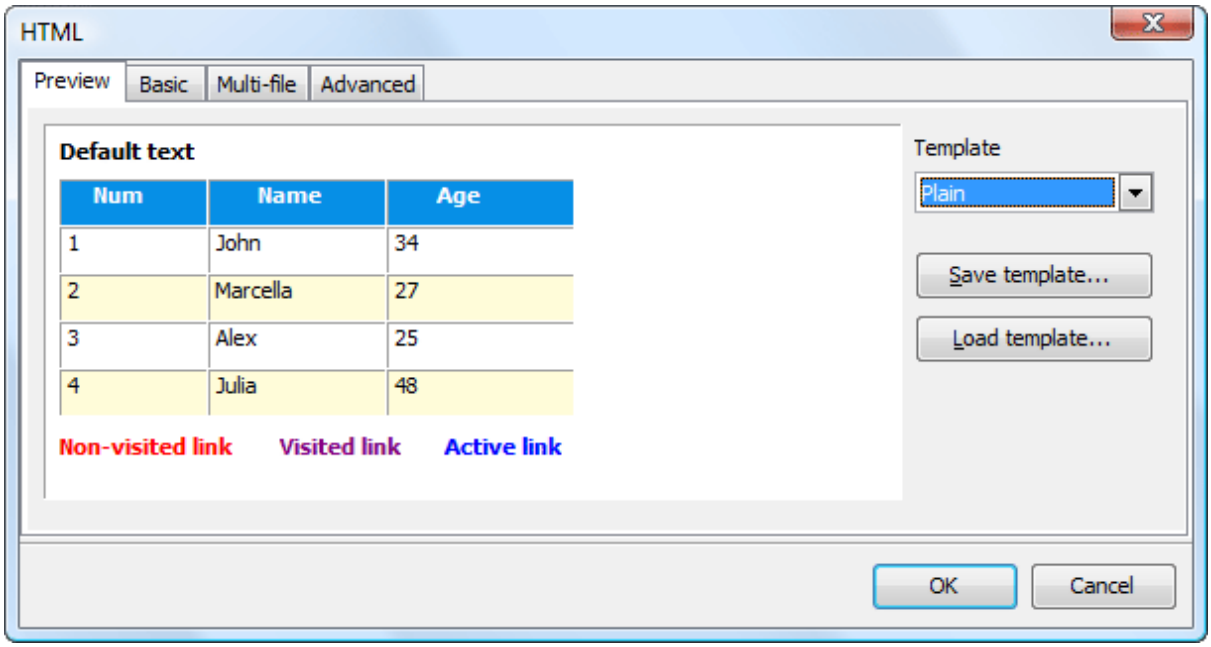
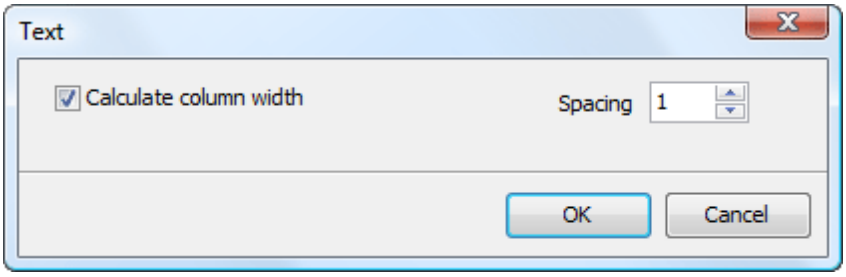


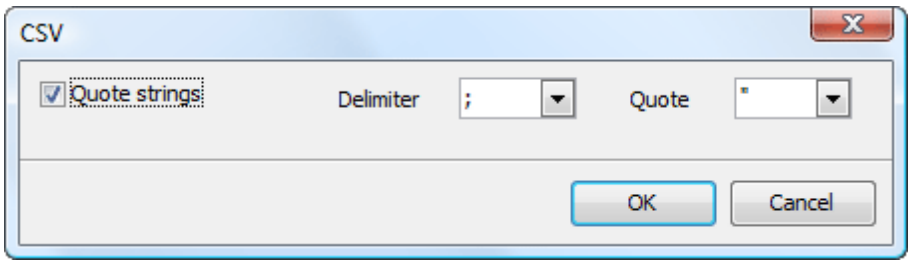
Text files

Set the Calculate column width options on if you want each column of target file to be adjusted to the maximum number of characters in it. The Spacing option specifies the number of spaces between columns in the target file.



CSV files

You can specify column separator and optional values quote character for the target file on this step.



XML documents

Specify XML document encoding in the Encoding edit box and set the Standalone option on if you wish the target document to be standalone.

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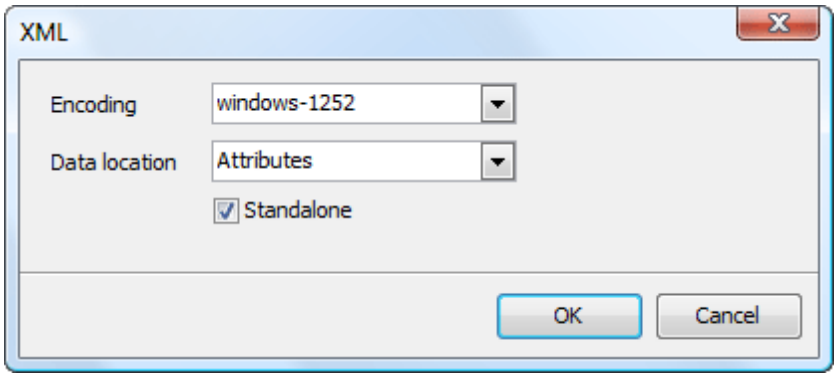

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5 SQL Dump

Along with such data management abilities as data import and export, PostgreSQL Data Wizard allows you to dump data stored in PostgreSQL tables and views. As the result of the SQL Dump wizard activity you'll get a bunch of .sql files (each table or view is dumped to a separate file) containing SQL statements to create a table and populate it. To run the wizard, use the corresponding link at the Home page 11.

To get SQL dump, complete the following steps:

- Set connection properties 13 of the database with tables to be dumped;
- Select objects to dump 44;
- Set destination files 45;
- Specify common SQL dump options 46.

See also: Templates 17

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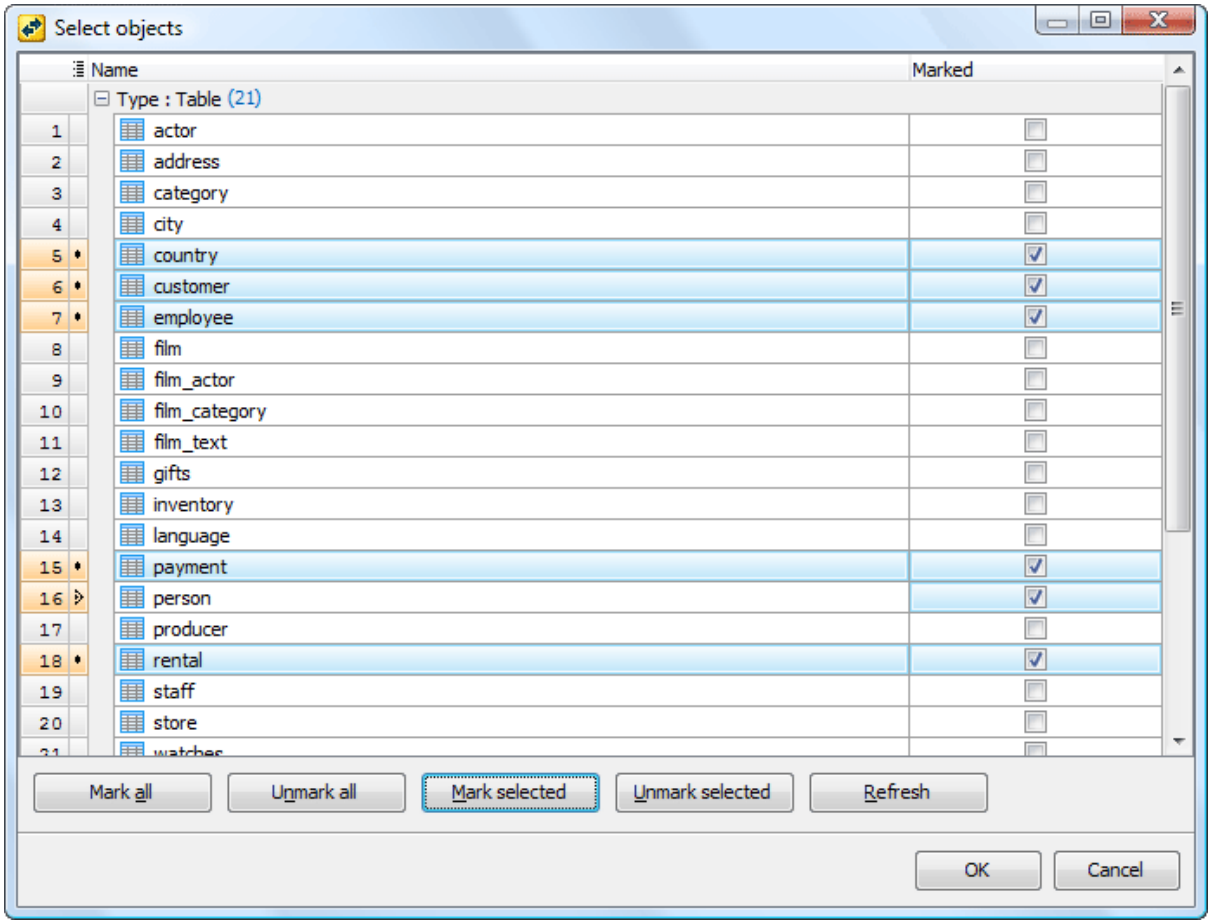
5.1 Selecting source objects

To specify tables and views you want to dump, click the Add... button and pick the tables in the Select objects dialog. To choose several tables at a time, select them using **Ctrl** and **Shift** keys, then click Mark selected.



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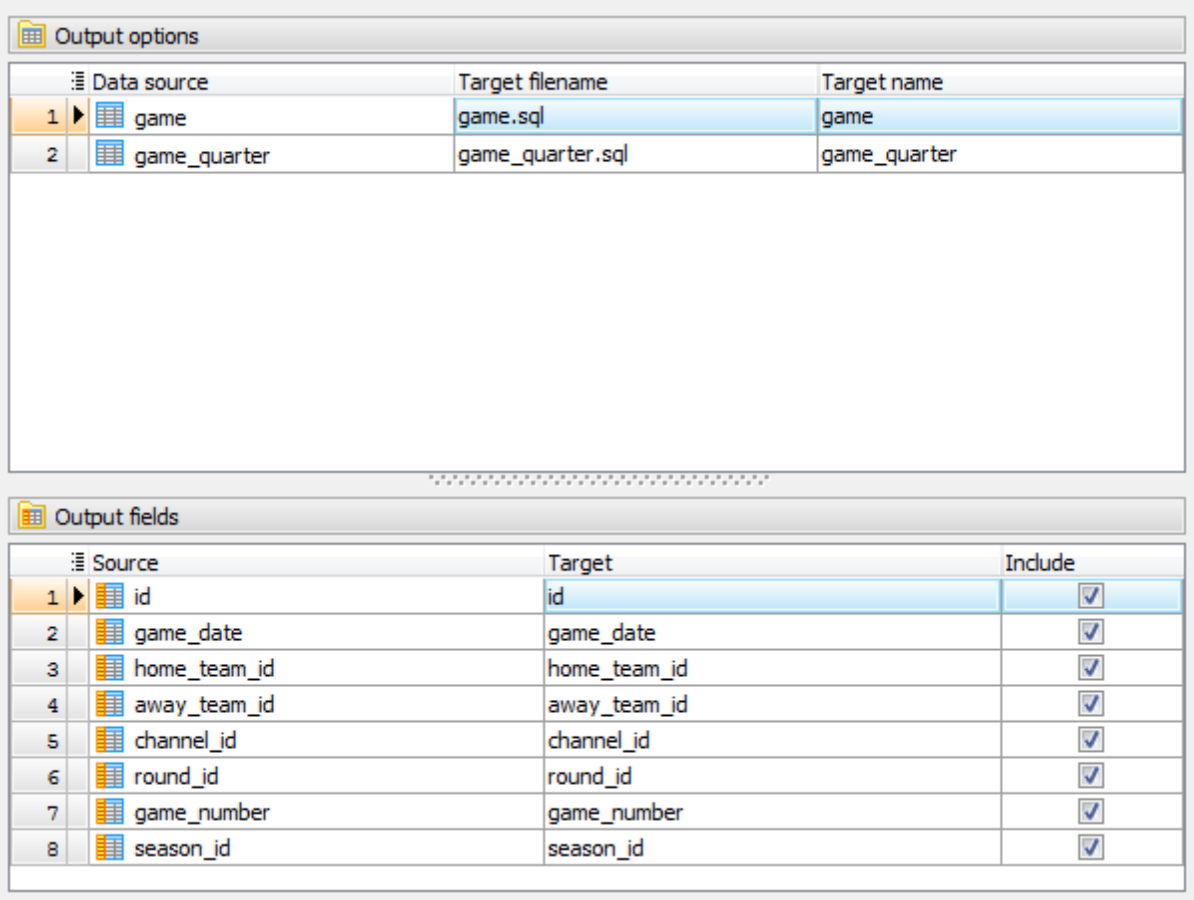
5.2 Setting destination file names

The wizard creates a separate dump file for each selected table. By default, the file names are %source_table_name%.sql, but you can modify names of files to be created as well as include dumped tables in SQL scripts with another names, and also exclude some fields or rename them.



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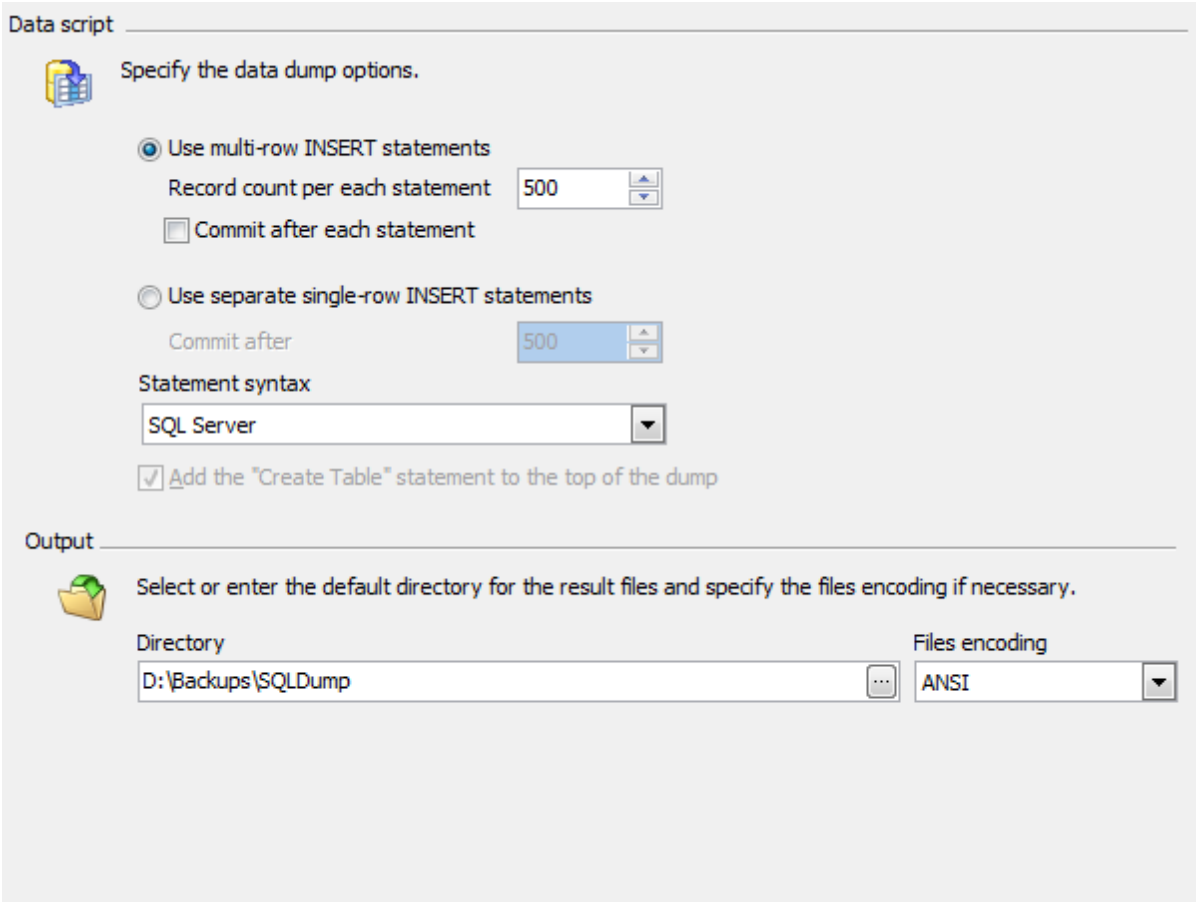
5.3 Customizing common dump options

Use multi-row INSERT statements/Use separate single-row statements
Use these options to define type of INSERT statements to be generated. To create a smaller dump file and speed up inserts when the file is reloaded, select the multi-row inserts and specify the commits' frequency.

Statement syntax
This allows you to specify the SQL syntax the result script to be written on. This feature allows you to restore the dump contents to a table in a different database server such as MySQL, PostgreSQL, SQL Server, Oracle, Firebird, or SQLite.

Add the "Create table" statement to the top of the dump
By default the dump file contains only INSERT statements. To include the SQL definition of the source table, check the corresponding box.

Output
Specify the output directory for the result files and the files encoding.



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6 Blob Import

The wizard allows you to load BLOB data from external files to PostgreSQL tables. For this purpose the file names must contain the information on the record they need to be placed to: the files need to be named in the same manner and include content of one or several table columns that can uniquely identify each row.

To import BLOB files into PostgreSQL tables, complete the following steps:

- Set connection properties 13 of the database you want to import BLOBs;
- Select the tables 22 where you want to import data;
- Specify BLOB files 49 to be imported.

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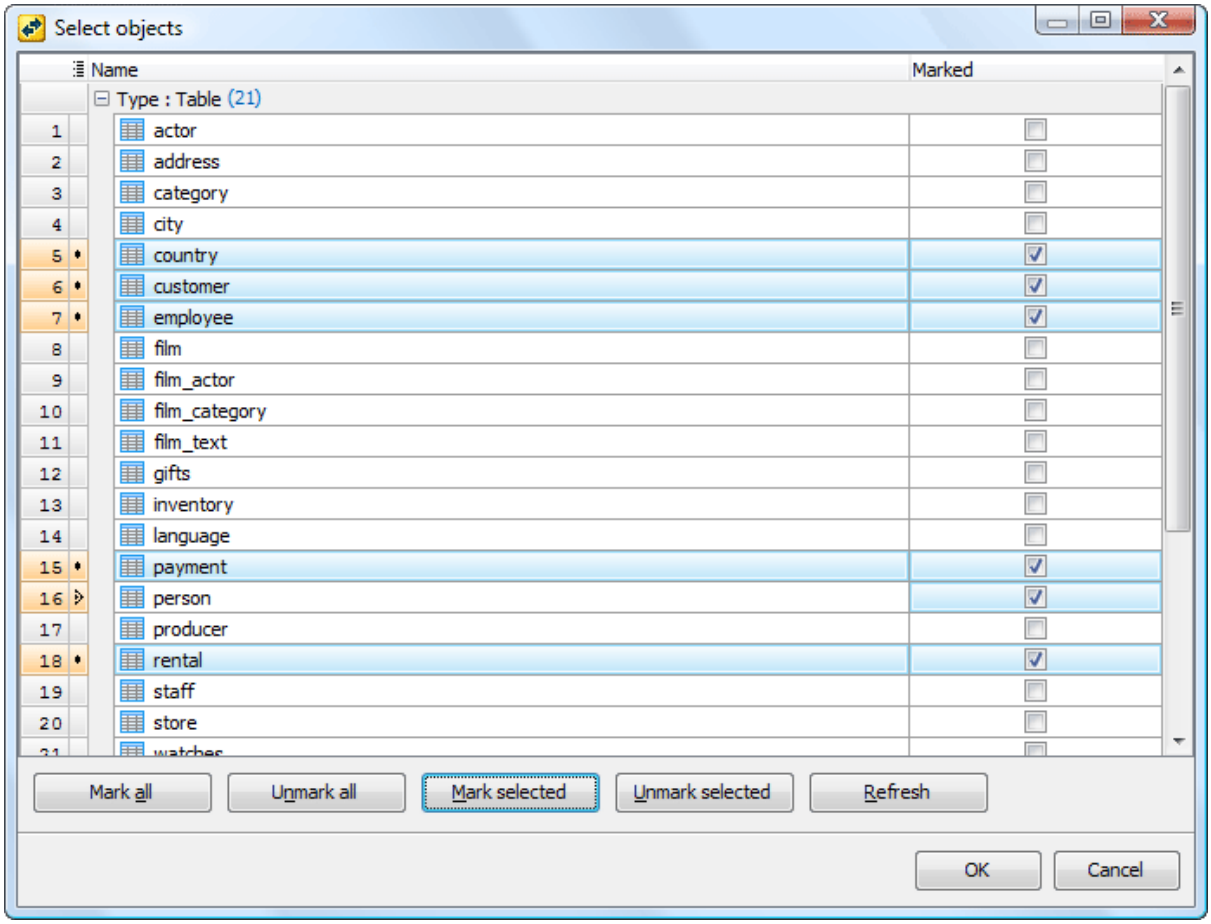
6.1 Selecting tables for import

To specify tables where you want to import data, click the Add... button and pick the tables in the Select objects dialog. To choose several tables at a time, select them using **Ctrl** and **Shift** keys, then click Mark selected.



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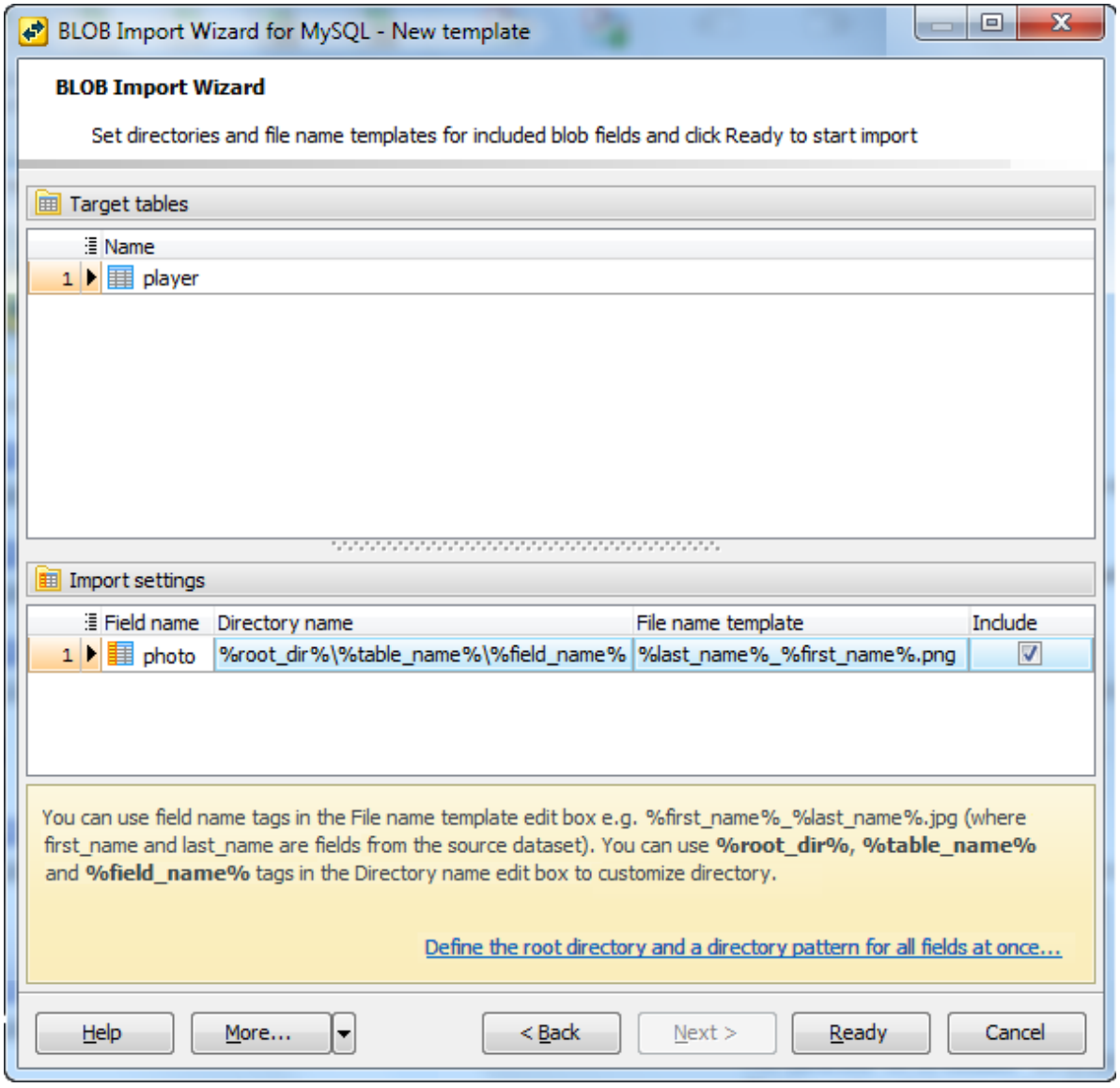
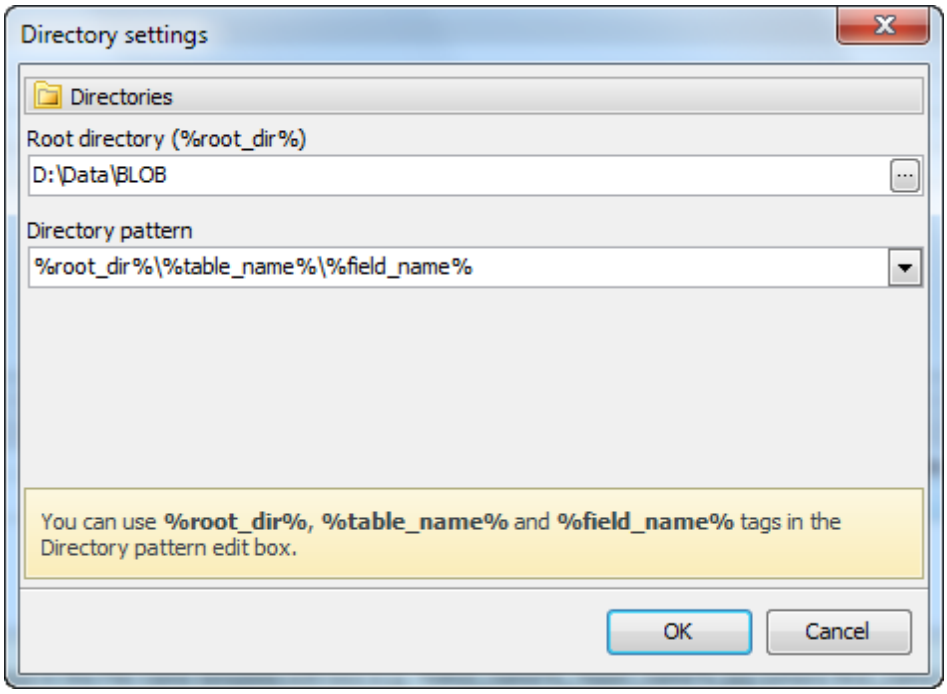
6.2 Setting files for import

To load BLOB files, specify the file name template using filed name tags (i.e. %id%, % user%, where 'id' and 'user' are the fact table columns).

Example:
Suppose we have a table 'employee' with Non-Blob data as follows:
Id *User*
1 *Max*
2 *July*
To import *D:\Data\1.jpg* and *D:\Data\2.jpg* to a BLOB column of the table, specify *D:\Data* as directory name and *%Id%.jpg* as file name template.



You can define the default root directory with %root_dir%, %table_name%, and % field_name% tags.



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7 Blob Export

To export BLOB data stored in PostgreSQL tables to external files, complete the following steps:

- Set connection properties 13 of the database you want to export BLOB data from;
- Select tables 52 storing BLOB data to be exported;
- Specify file name templates 53 the BLOB data will be unloaded to.

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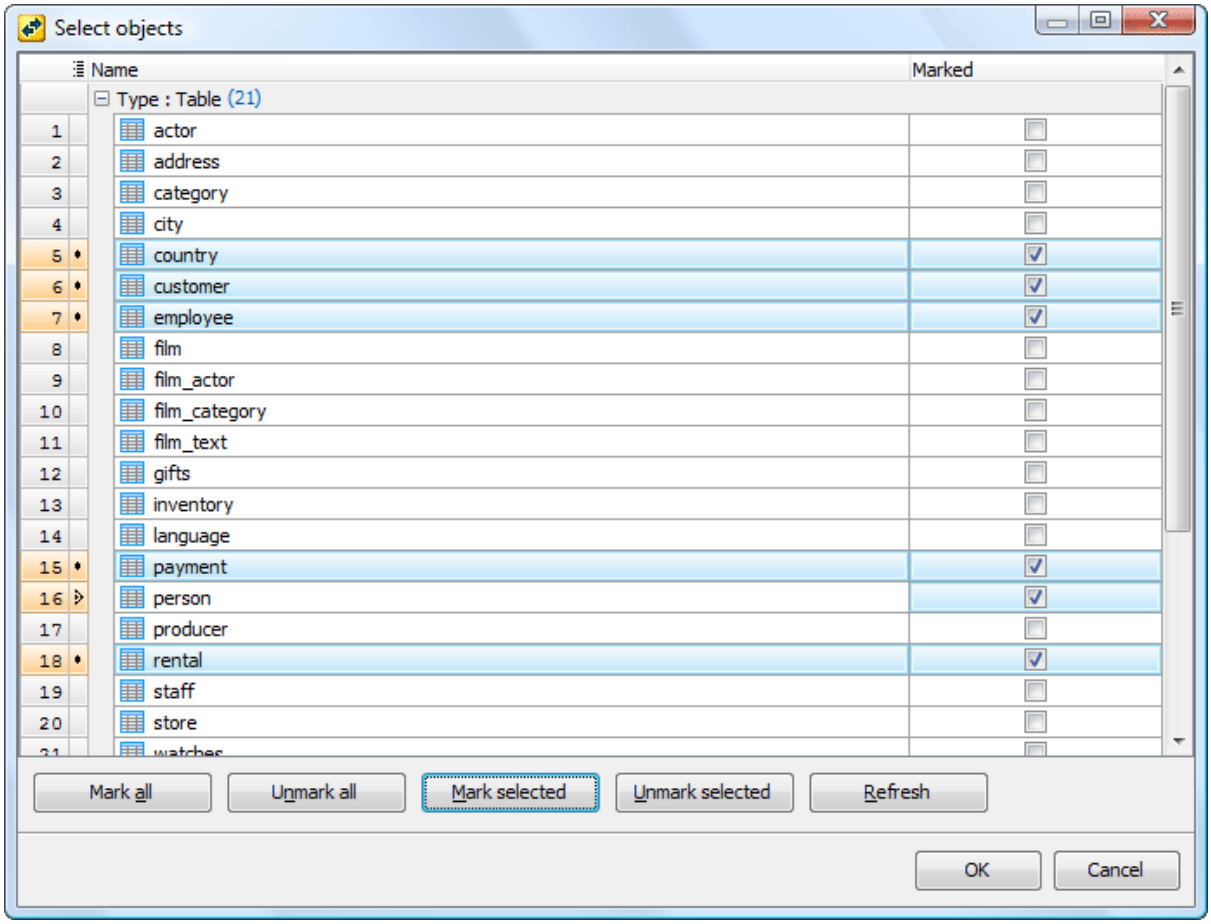
7.1 Selecting tables with BLOB data

To specify tables with BLOB data to be exported, click the Add... button and pick the tables in the Select objects dialog. To choose several tables at a time, select them using **Ctrl** and **Shift** keys, then click Mark selected.



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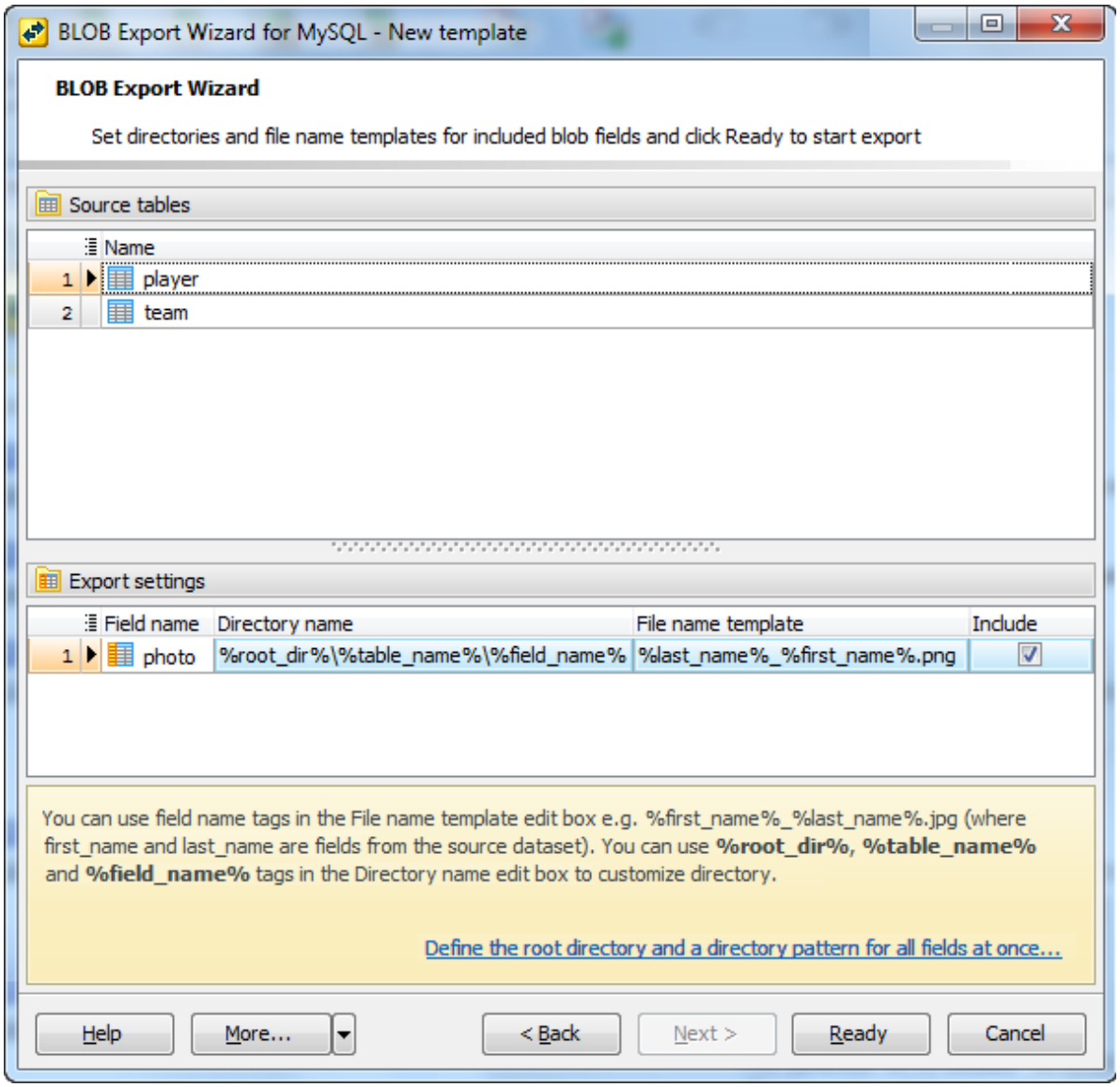
7.2 Setting file name templates

BLOB data from PostgreSQL tables will be unloaded to external files with names generated according to the specified template in a specified directory. The template can contain values of table columns, e.g. *%first_name%_%last_name%.png, Image_%id%.jpg*, etc.



You can define the default root directory with %root_dir%, %table_name%, and %field_name% tags.

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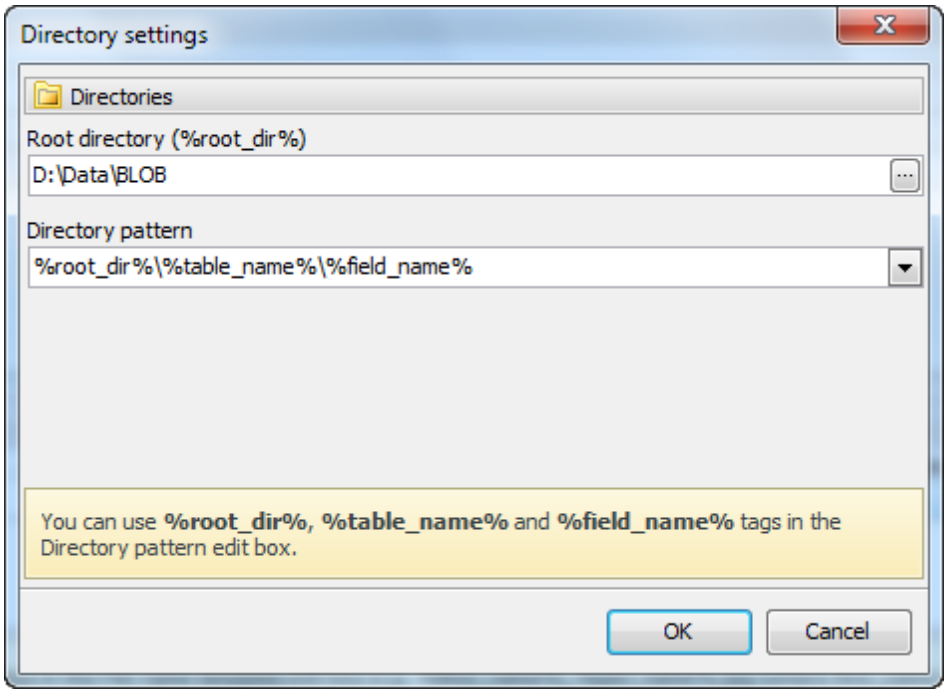

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8 Task Scheduler

PostgreSQL Data Wizard allows you to schedule data manipulation tasks. To import/ export data, generate ASP.NET scripts, or convert PostgreSQL data and structure in background mode at a preset time, you need to:

- Create a template 17 with a scenario of the process;
- Add a new task to the Task Scheduler.

Task Scheduler contains the list of scheduled tasks with the time and the result of the last task execution, and the time of the next one. To open the page, use Task Scheduler button at the Ribbon toolbar or the Show Task Scheduler link at the Home 11 page.

Adding a task

To add a task to the scheduler, use the Add Task button at the Ribbon toolbar or open the Task Scheduler page and click Add Task at the Navigation bar or at the area's popup menu. The Add Scheduled Task window will appear. Fill the window fields and click OK.

Scheduled tool
Select the wizard for the task execution from the drop-down list.

Specify the names of template and log files.

Set the time for the task to be executed. To execute the task minutely, hourly, daily, weekly or monthly, use the Each box and its drop-down list. To cease the task executing at a specified date or after a certain number of the process repetitions, use the Until and the For drop-down lists.

Select the Task type. Three options are available: Application schedule, System schedule and Both types schedule. An application scheduled task is executed by the PostgreSQL Data Wizard Agent itself i.e. it requires a user logon while system tasks can be executed by the Windows scheduler service even without user logon.

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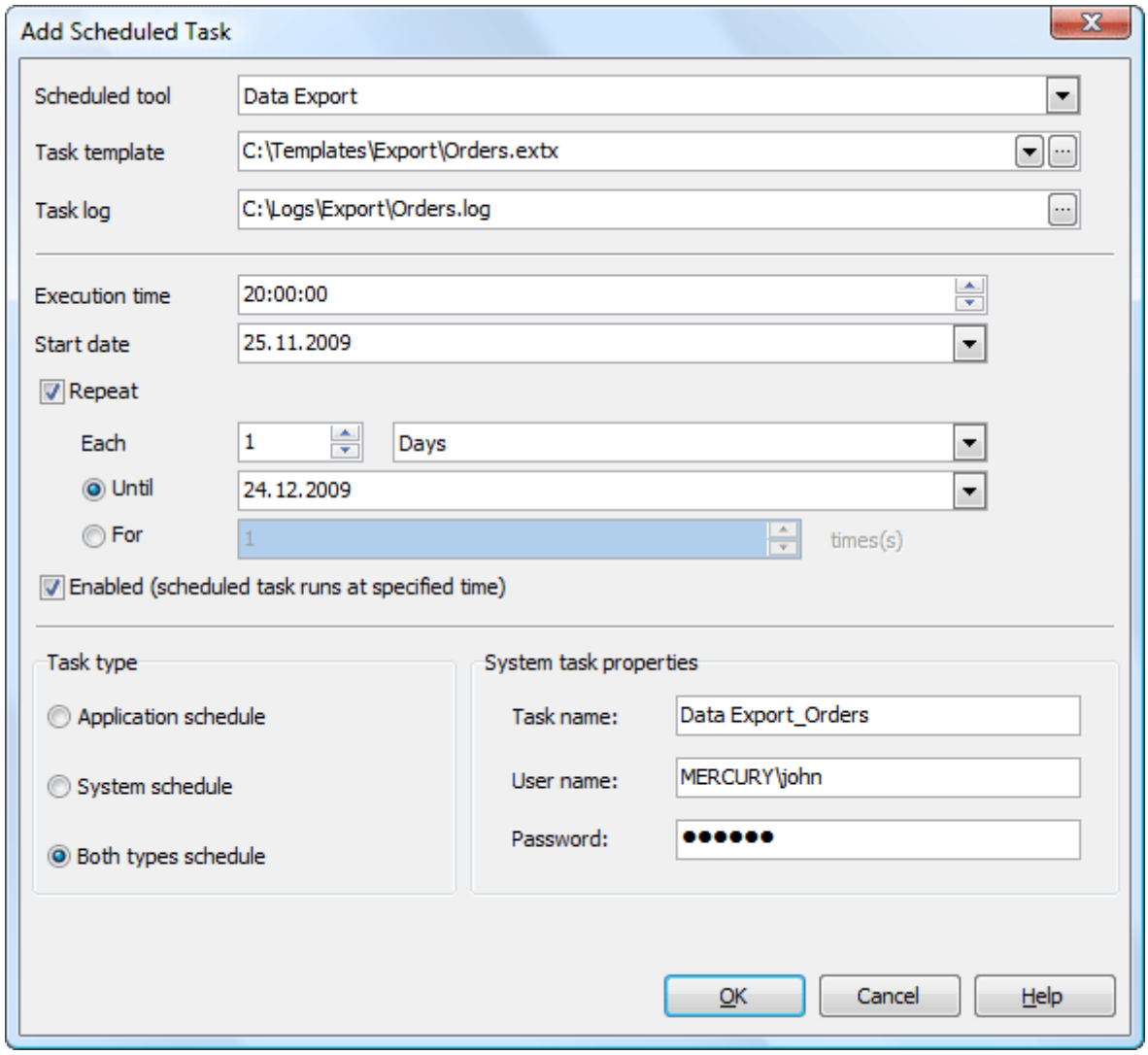

Editing an existing task

To edit the selected task, use the Edit Task item of the Navigation bar or double click the task. The Edit Scheduled Task window will appear. The window parameters are similar as the parameters of the Add Scheduled Task window.

Disabling/Enabling a scheduled task

To enable/disable scheduled tasks without deleting them, use corresponding links at the Navigation bar.

Executing an existing scheduled task

If necessary, you can run the configured task any time, irrespective of the specified time. To execute the selected task, use the Execute task item of the

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popup menu or the Execute Task link of the Navigation bar

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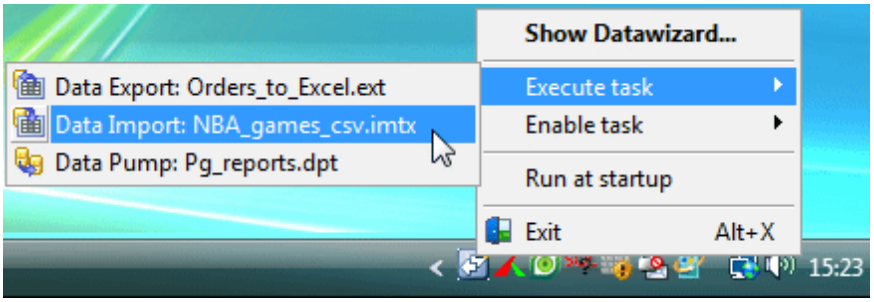
8.1 Using PostgreSQL Data Wizard Agent

PostgreSQL Data Wizard Agent allows you to execute application scheduled tasks in background mode. To execute such a task, the Agent application must be run, in other words, it is necessary to have a user to be logged on (system scheduled tasks do not have such a limitation). See Task Scheduler 55 to learn more on PostgreSQL Data Wizard tasks.

To enable the agent at each Windows startup, open Options 59 > Preferences and check Run agent at startup.



9 Options

PostgreSQL Data Wizard allows you to customize the way it works within the Options dialog. To open the dialog, use the More button and select Options at the drop-down list.

The window allows you to customize the options grouped by the following sections:

- **Application** 60
  General PostgreSQL Data Wizard options: environment style, confirmations, window restrictions.
- **Editors & Viewers** 62
  Customizing of all the SQL editors.
- **Appearance** 70
  Customizing program interface - bars, trees, menus, etc.

It is a good idea to check through these settings before you start working with PostgreSQL Data Wizard. You may be surprised at all the things you can adjust and configure!

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9.1 Application

The Application section allows you to customize common rules of PostgreSQL Data Wizard behavior. The section consists of several tab; follow the links to find out more about each of them.

- Preferences 60

9.1.1 Preferences

Agent options
The option allows you to launch PostgreSQL Data Wizard Agent at each Windows startup for executing tasks configured in Task Scheduler 55, in background mode.

Tool bar and menu style
PostgreSQL Data Wizard allows you to select between Ribbon and Classic toolbars for your convenience. A possibility to select color scheme is implemented for Ribbon toolbar.

You can also cancel/allow the confirmation dialogs with the Confirmations options.

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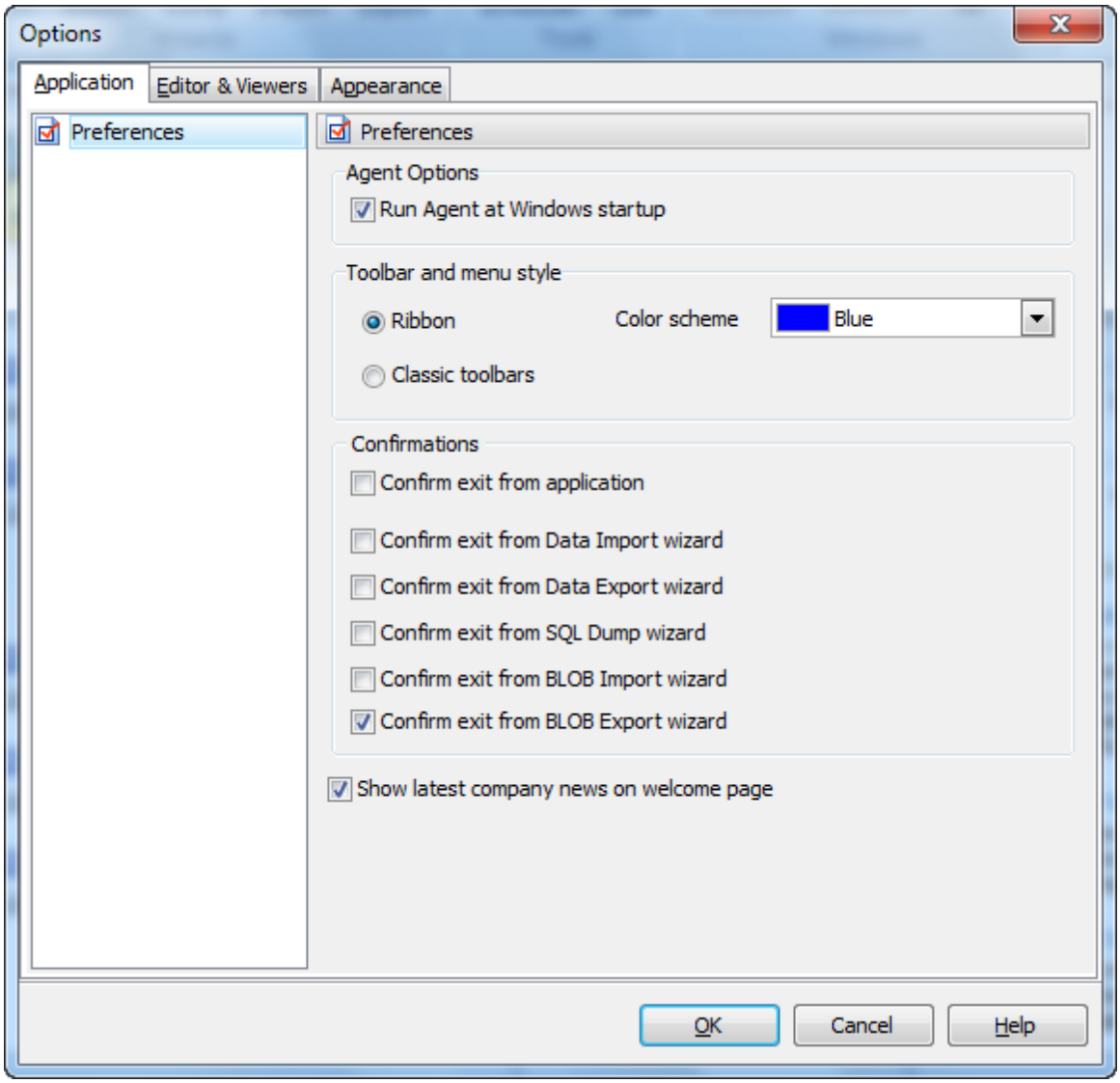

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9.2 Editors & Viewers

The Editors & Viewers section allows you to set the parameters of viewing and editing the SQL statements within PostgreSQL Data Wizard.

- General 62
- Display 63
- SQL highlight 64
- PHP highlight 66
- XML highlight 65
- Code Insight 67
- Code Folding 68

9.2.1 General

If the Auto indent option is checked, each new indention is the same as the previous when editing SQL text.

☑ Insert mode
If this option is checked, insert symbols mode is default on.

☑ Use syntax highlight
Enables syntax highlight in the object editor window.

☑ Always show links
If this option is checked, hyperlinks are displayed in the editor window. To open a link click it with the **Ctrl** button pressed.

☑ Show line numbers
If this option is checked, line numbers are displayed in the editor window.

☑ Show special chars
If this option is checked, special chars (like line breaks) are displayed in the editor window.

☑ Use smart tabs
With this option on the number of tab stops is calculated automatically, depending on the previous line tab.

☑ Convert tabs to spaces
If this option is checked, each time you press the Tab key, the appropriate number of spaces will be added to the edited text.

Tab Stops
Defines the tab length, used when editing text.

Undo Limit

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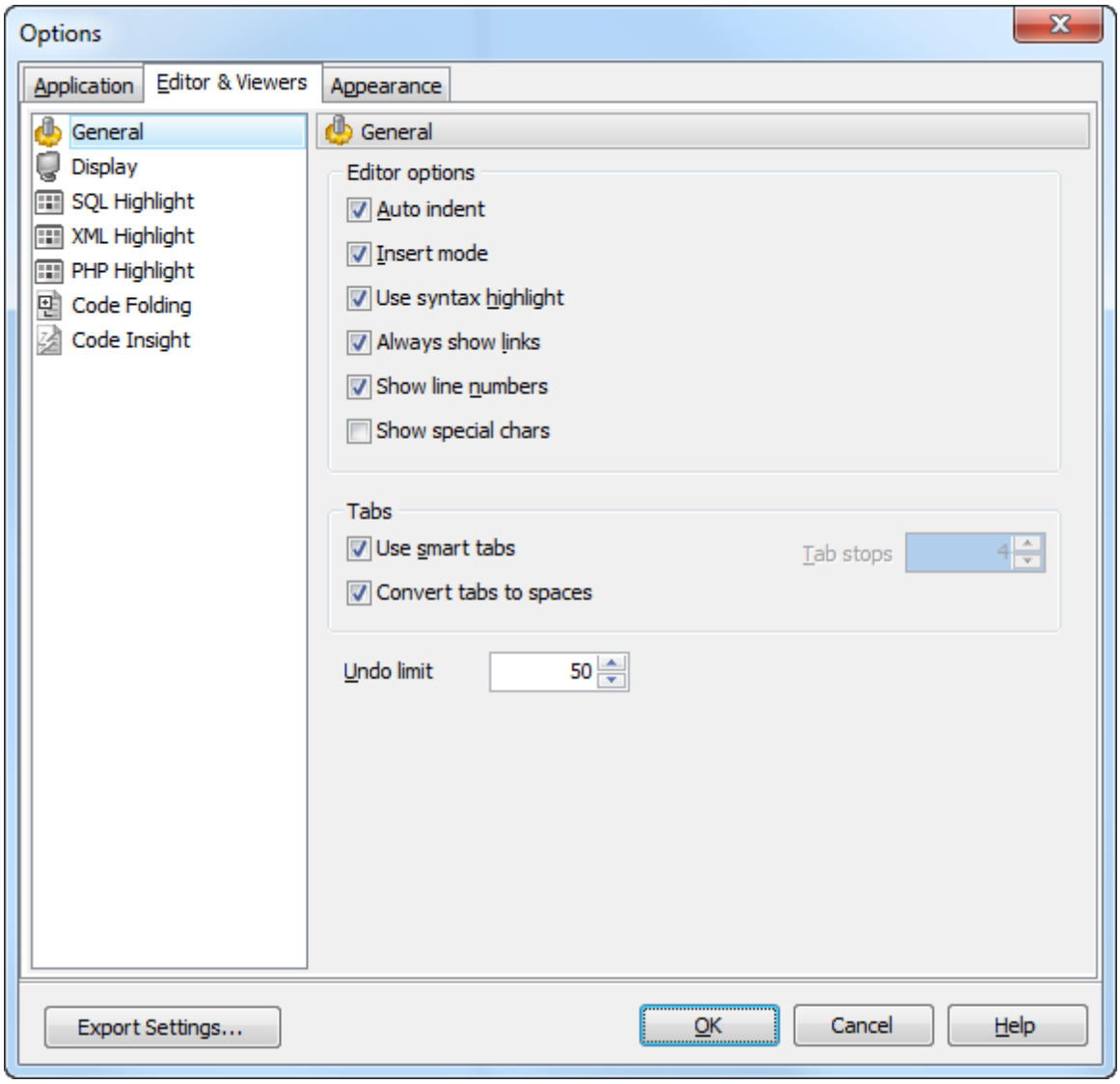
Defines the maximum number of changes possible to be undone.



9.2.2 Display

You can disable/enable the right text margin and the gutter of the editor area, set the position of the right text margin as Right margin, and the Gutter width.

Use the Editor font and Font size to define the font used in all program editors and viewers. The panel below displays the sample of the selected font.

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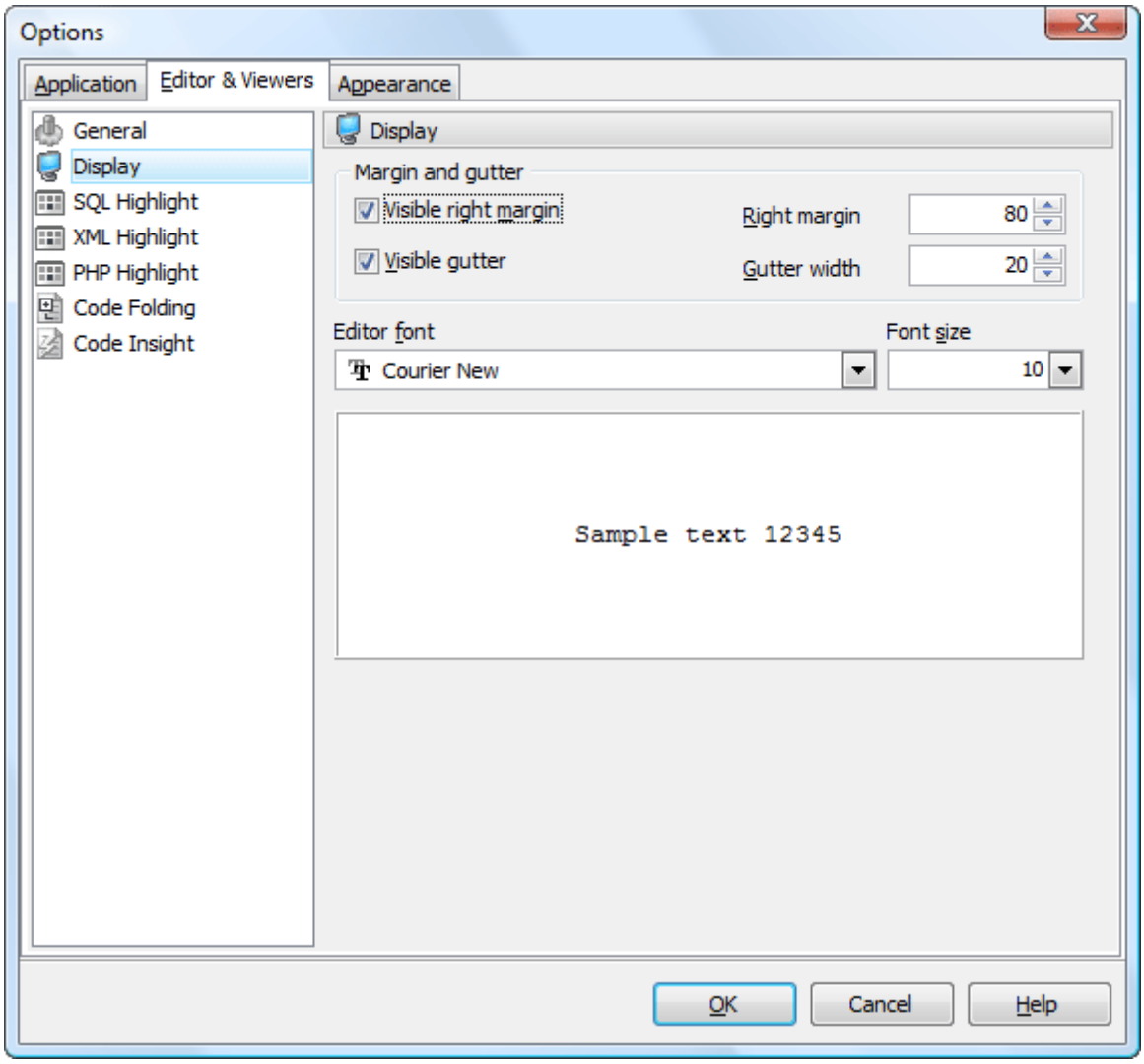

9.2.3 SQL highlight

Use the SQL highlight item to customize syntax highlight in all SQL editors and viewers. Select the text element from the list, e.g. *comment* or *SQL keyword* and adjust its foreground color, background color and text attributes according to your preferences.

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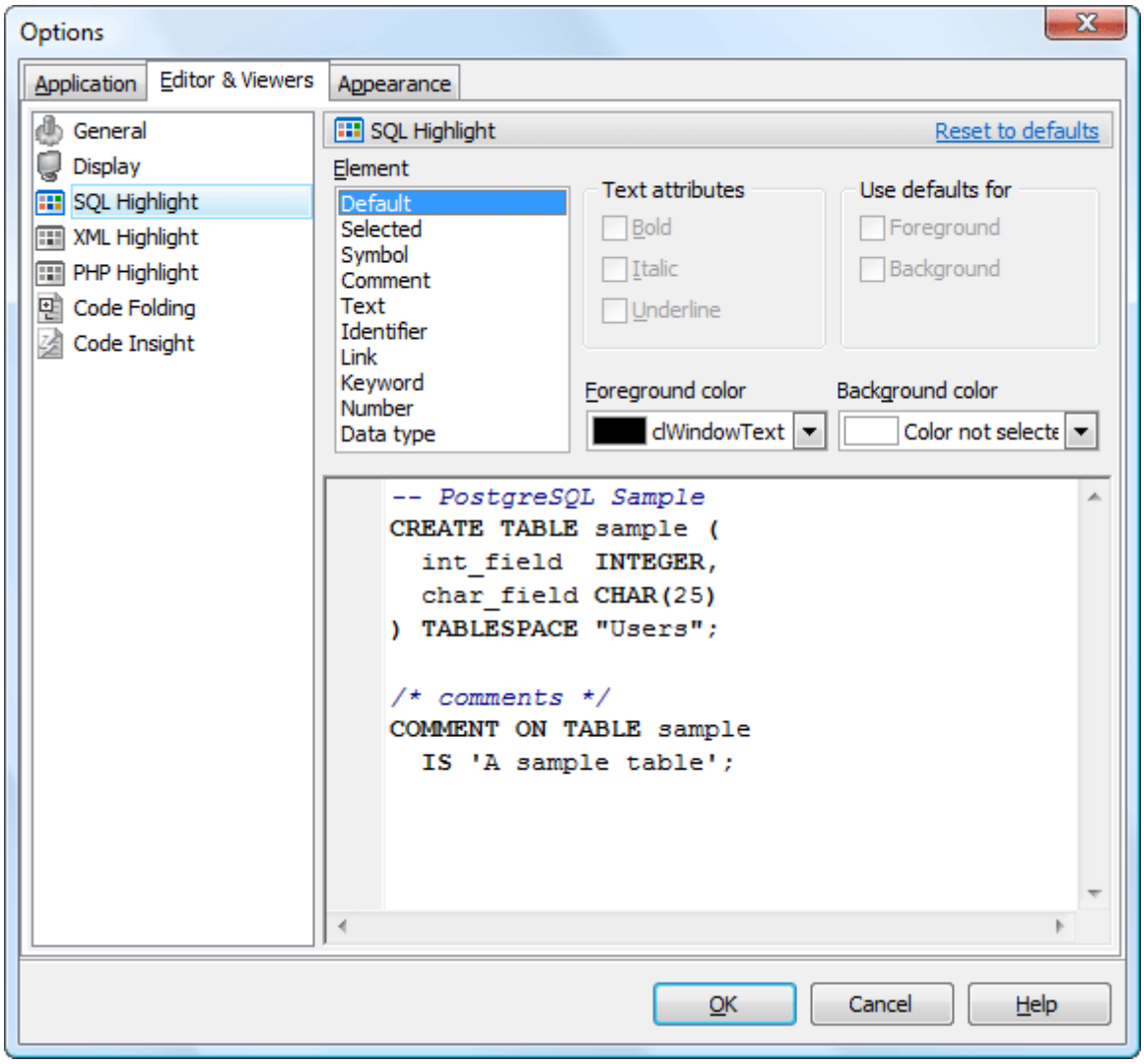

9.2.4 XML highlight

Use the XML highlight item to customize XML syntax highlight for the text representation of BLOBs. Select the text element from the list, e.g. attribute or attribute value and adjust its foreground color, background color and text attributes according to your wishes.

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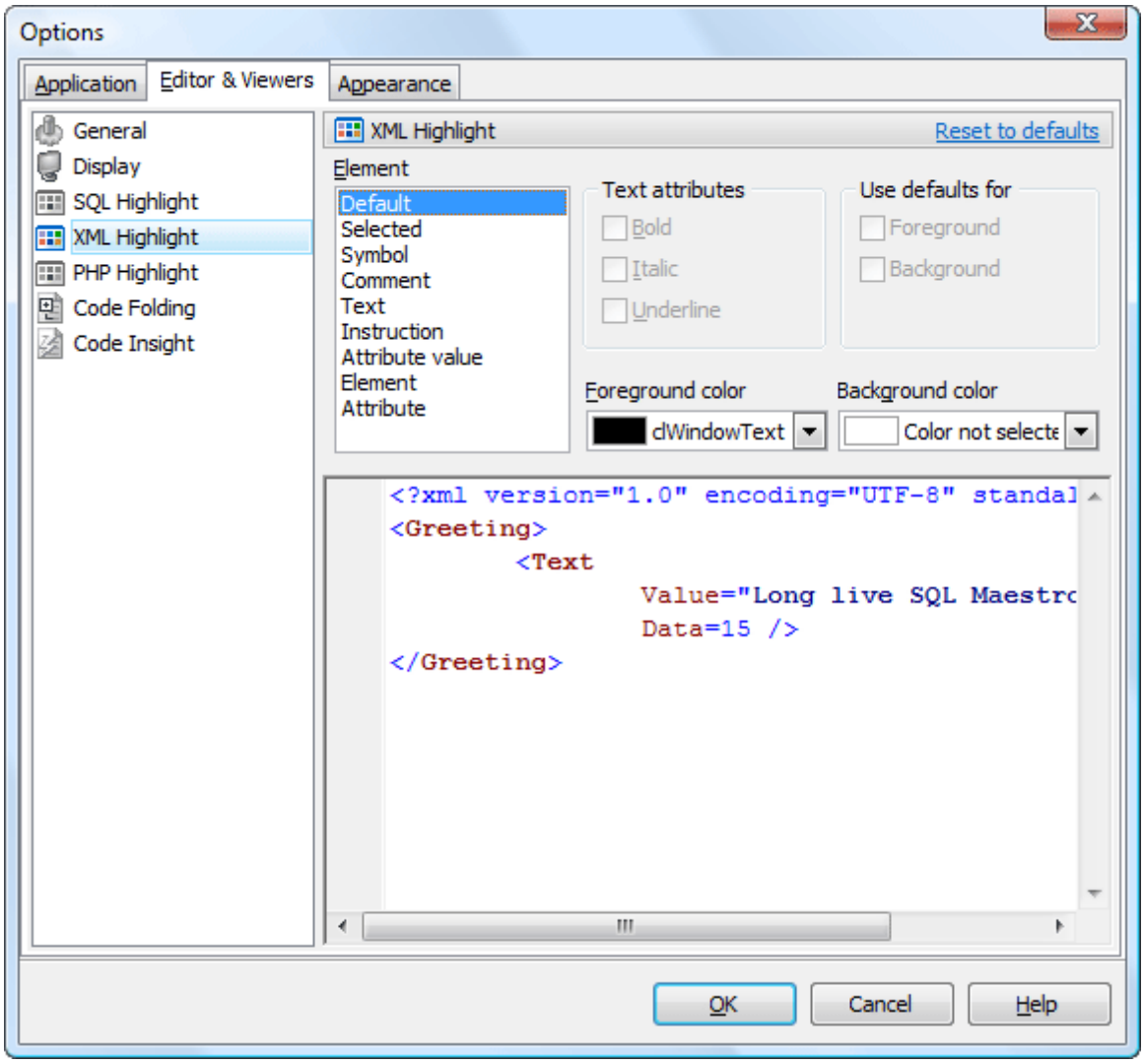

9.2.5 PHP highlight

Select the text element from the list (e.g. Keyword, Comment, Identifier), and adjust its foreground color, background color and text attributes according to your wishes.

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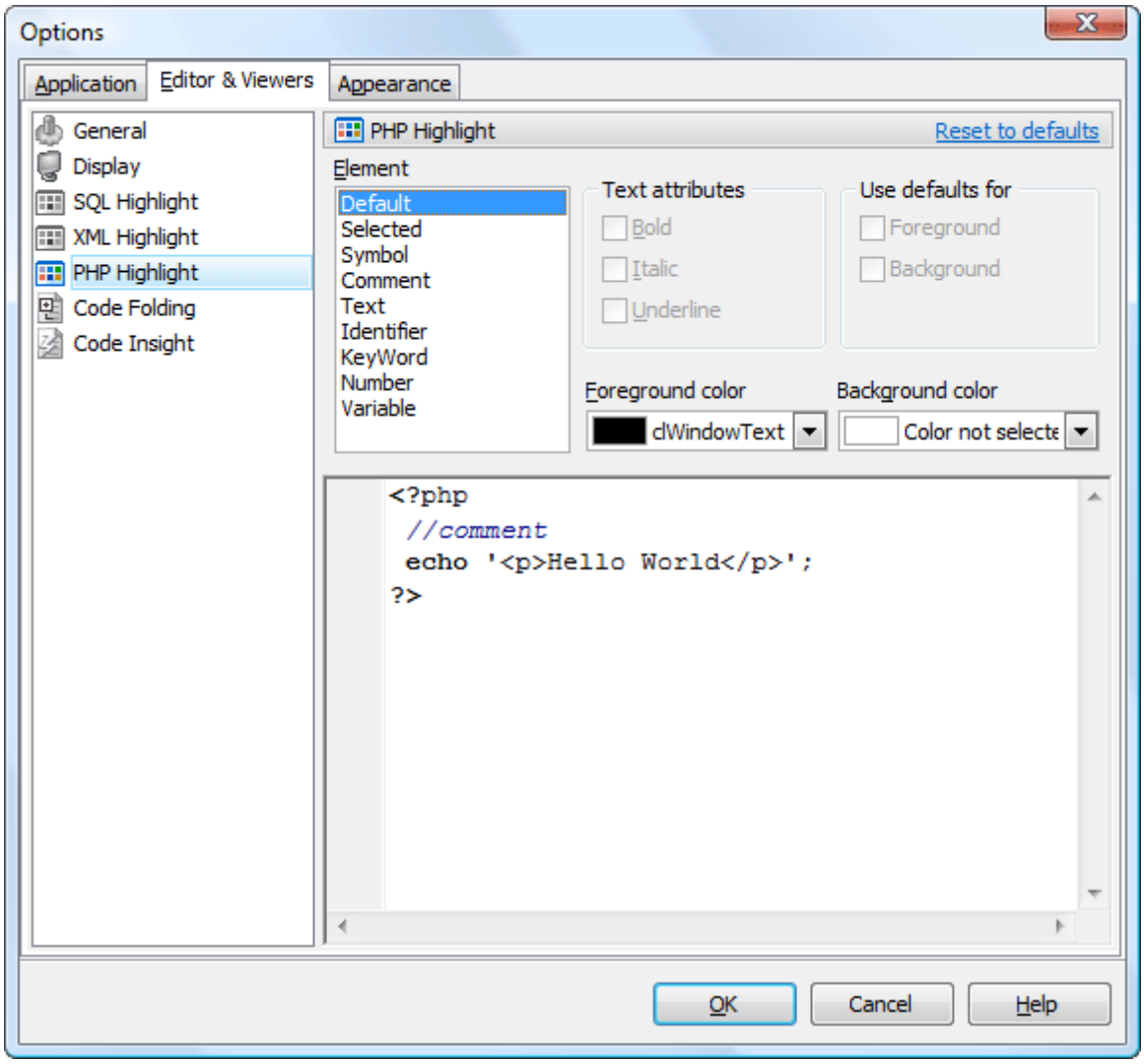

9.2.6 Code Insight

You can disable/enable the code completion with the corresponding option and also set the time is appears as Delay, and case of words inserted automatically.

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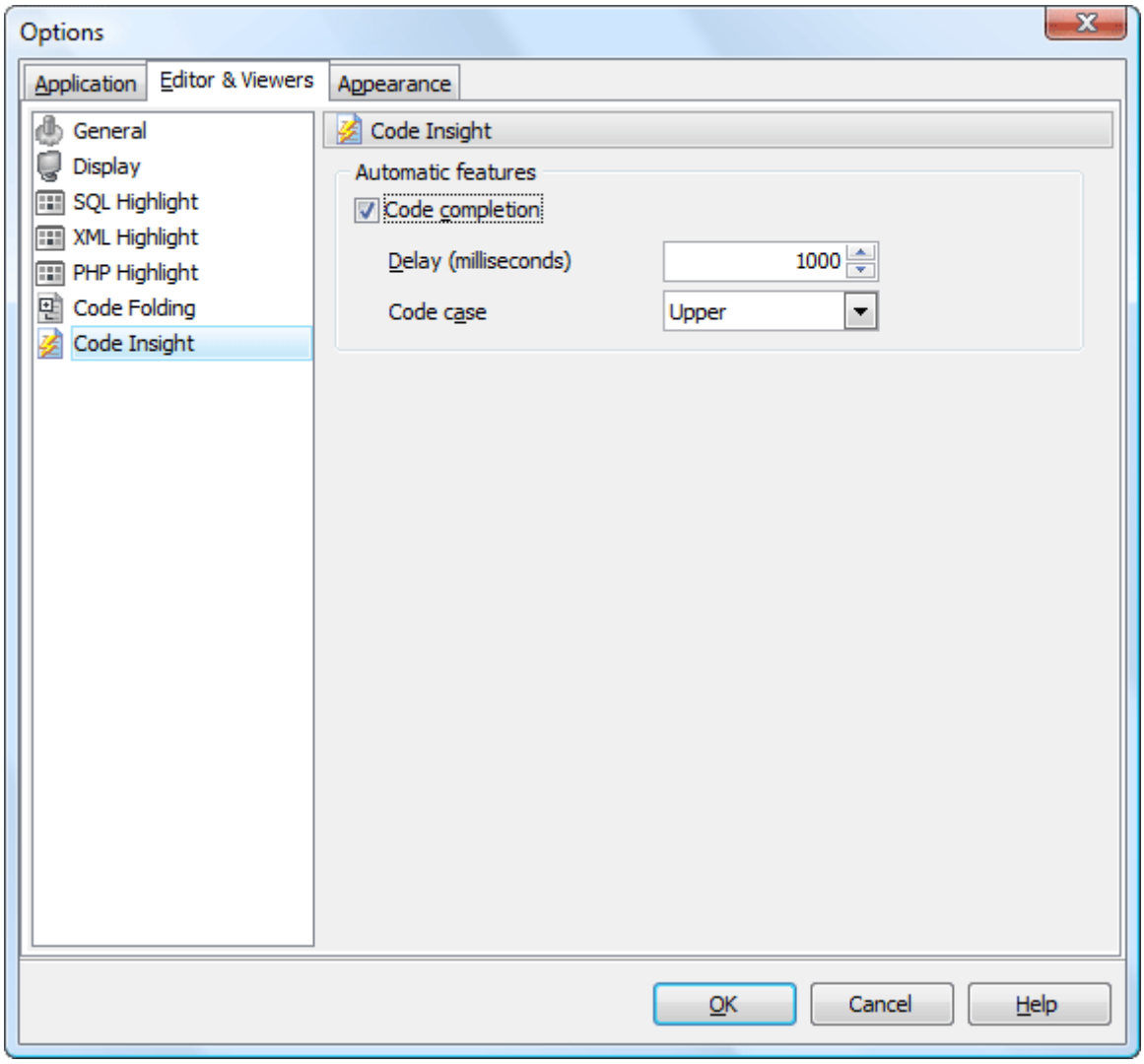

9.2.7 Code Folding

The Code Folding item group makes it possible both to view the whole text and to divide it into logical parts (regions). Each part can be collapsed and extended. In extended mode the whole text is displayed (set by default), in collapsed mode the text is hidden behind one text line denoting the first line of the collapsed region.

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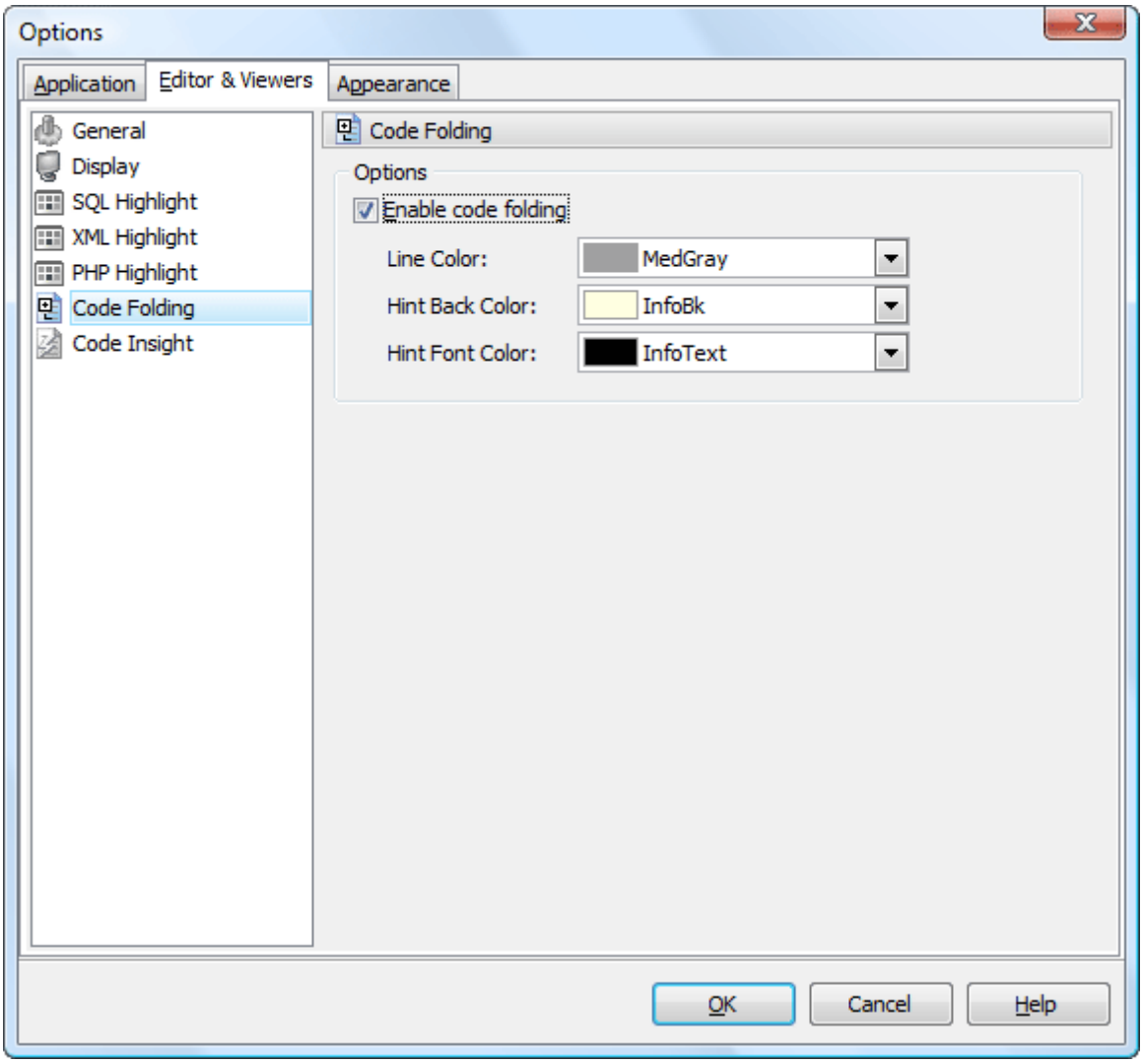

You can enable/disable code folding in SQL editors and viewers and customize the colors of its items.

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9.3 Appearance

The Appearance section allows you to customize the application interface style to your preferences.

Use the Scheme name box to select the interface scheme you prefer: *Office XP style*, *Windows XP native style*, etc. You can create your own interface schemes by customizing any visual options (Bars and menus, Trees and lists, Edit controls, Check boxes, Buttons, etc.) and clicking the Save As button. All the customized options are displayed on the sample panel.

- Bars and menus 70
- Trees and lists 71
- Edit controls 72
- Check boxes 73
- Buttons 74
- Page controls 75
- Group boxes 76
- Splitters 77

9.3.1 Bars and menus

Use the Bars and menus item to customize PostgreSQL Data Wizard toolbars style and menus animation.

The item allows you to select Bar style and menu animation from the corresponding drop-down lists and to enable or disable such options as sunken border, F10 key for opening menu, viewing full menus after delay, flat close buttons, gray-scale images.

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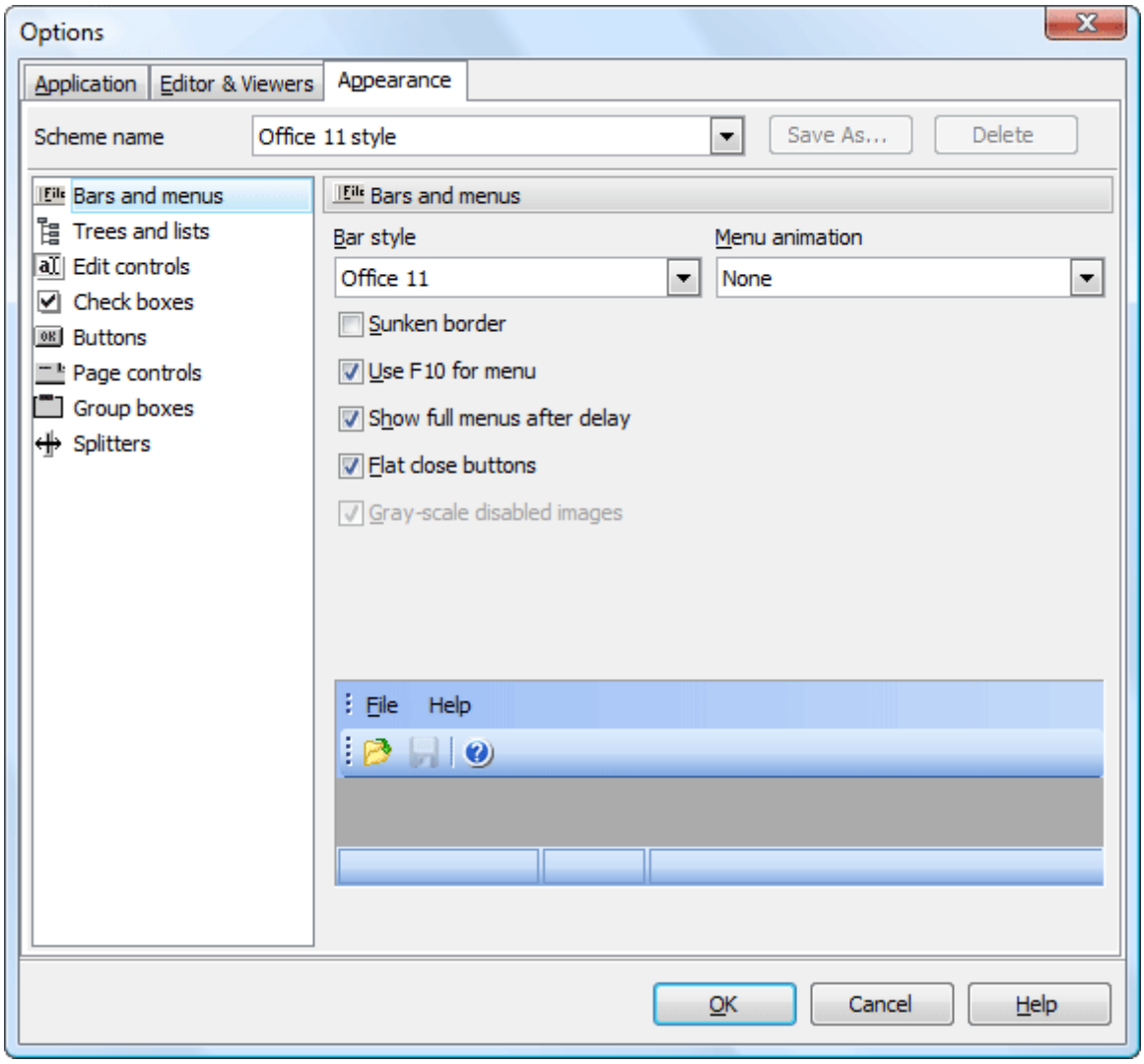
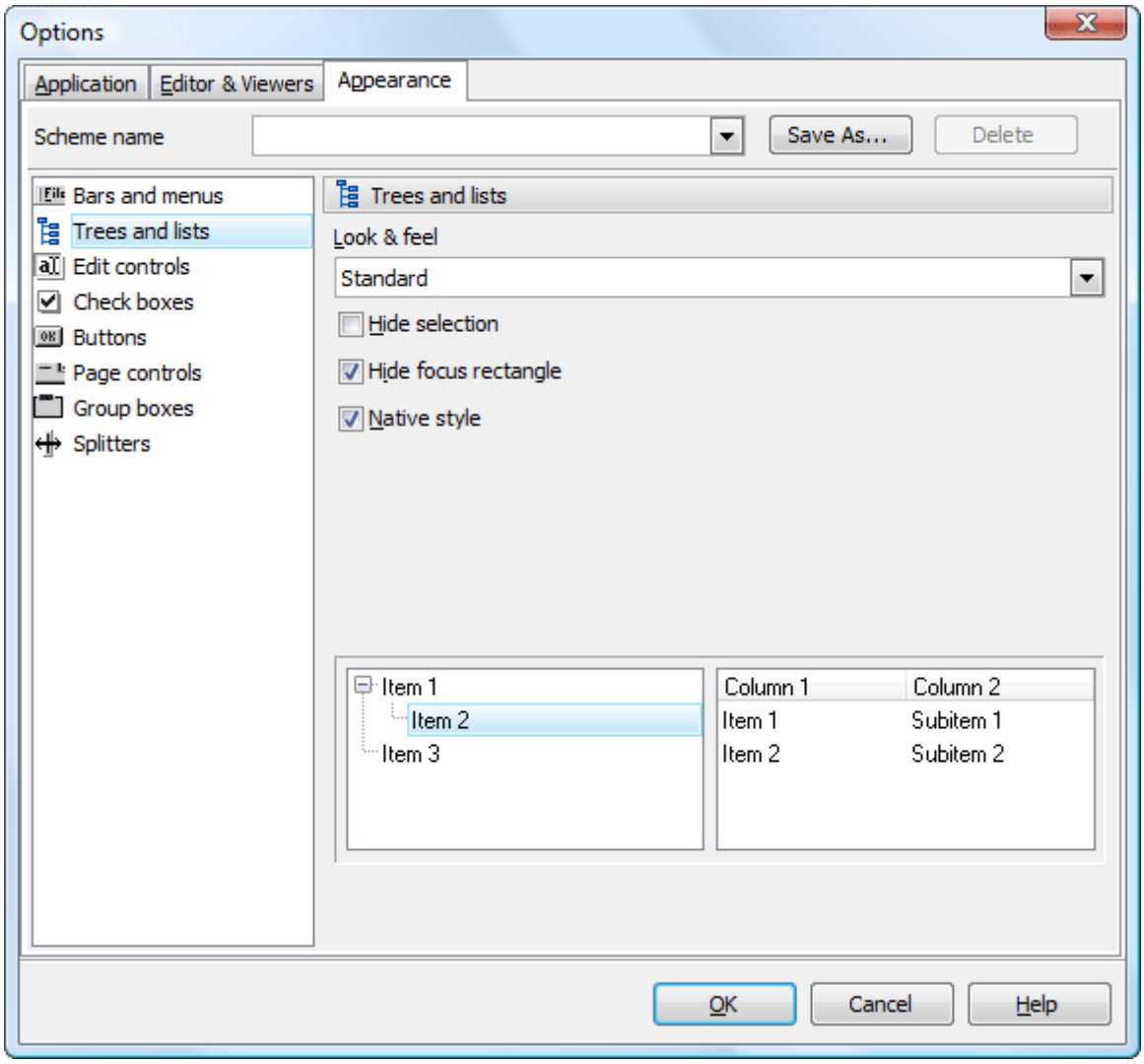


9.3.2 Trees and lists

Use the Trees and lists item to select various tree view options. Use the item to select *standard*, *flat* or *ultraflat* styles, check or uncheck the *hide selection*, *hide focus rectangle* and *native style* options.



9.3.3 Edit controls

Use the Edit controls item to customize the appearance of different PostgreSQL Data Wizard edit controls. The tab allows you to select the edit controls border style, button style and transparency, enable/disable hot tracks, shadows, native style and customize edges. It is also possible to define samples for the text edit, button edit and combo box controls.

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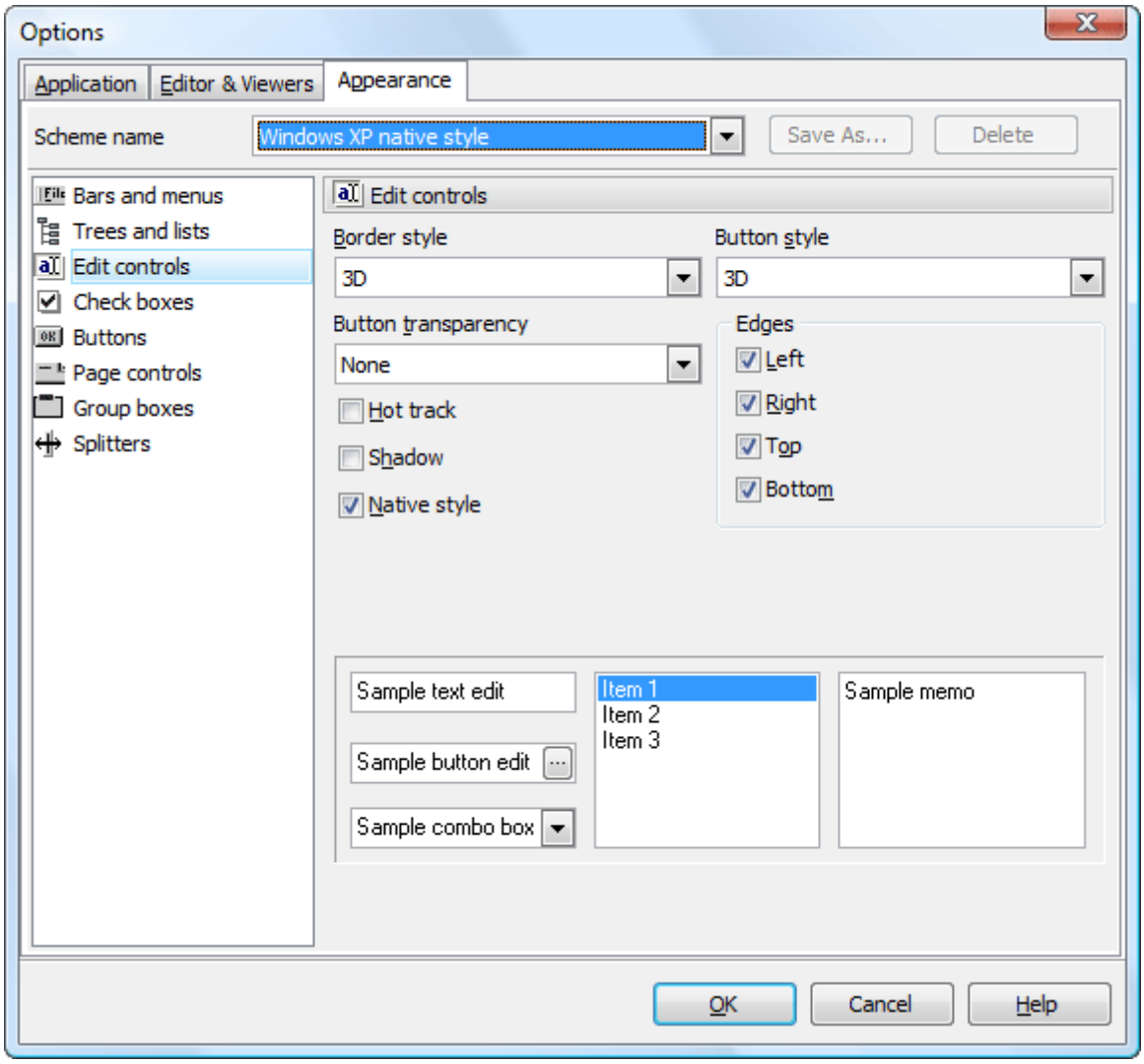

9.3.4 Check boxes

The Check boxes item allows you to customize the appearance of check boxes and radio buttons. The tab allows you to customize the appearance of check boxes: set border style, enable/disable hot tracks, shadows, native style. It is also possible to define samples for check boxes and radio buttons.

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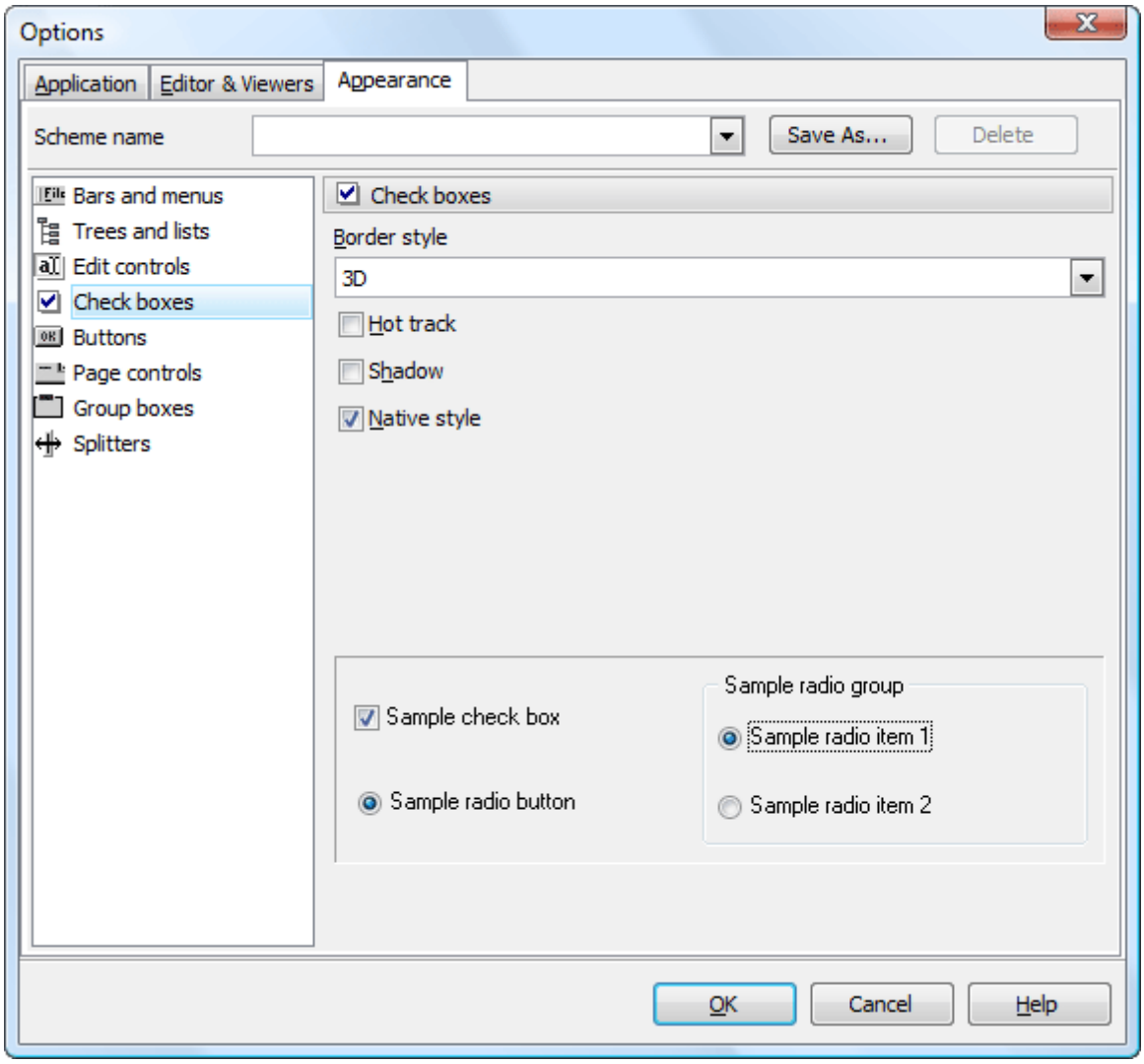

9.3.5 Buttons

Use the Buttons item to customize PostgreSQL Data Wizard buttons. The tab allows you to adjust the appearance of buttons and define sample buttons as well.

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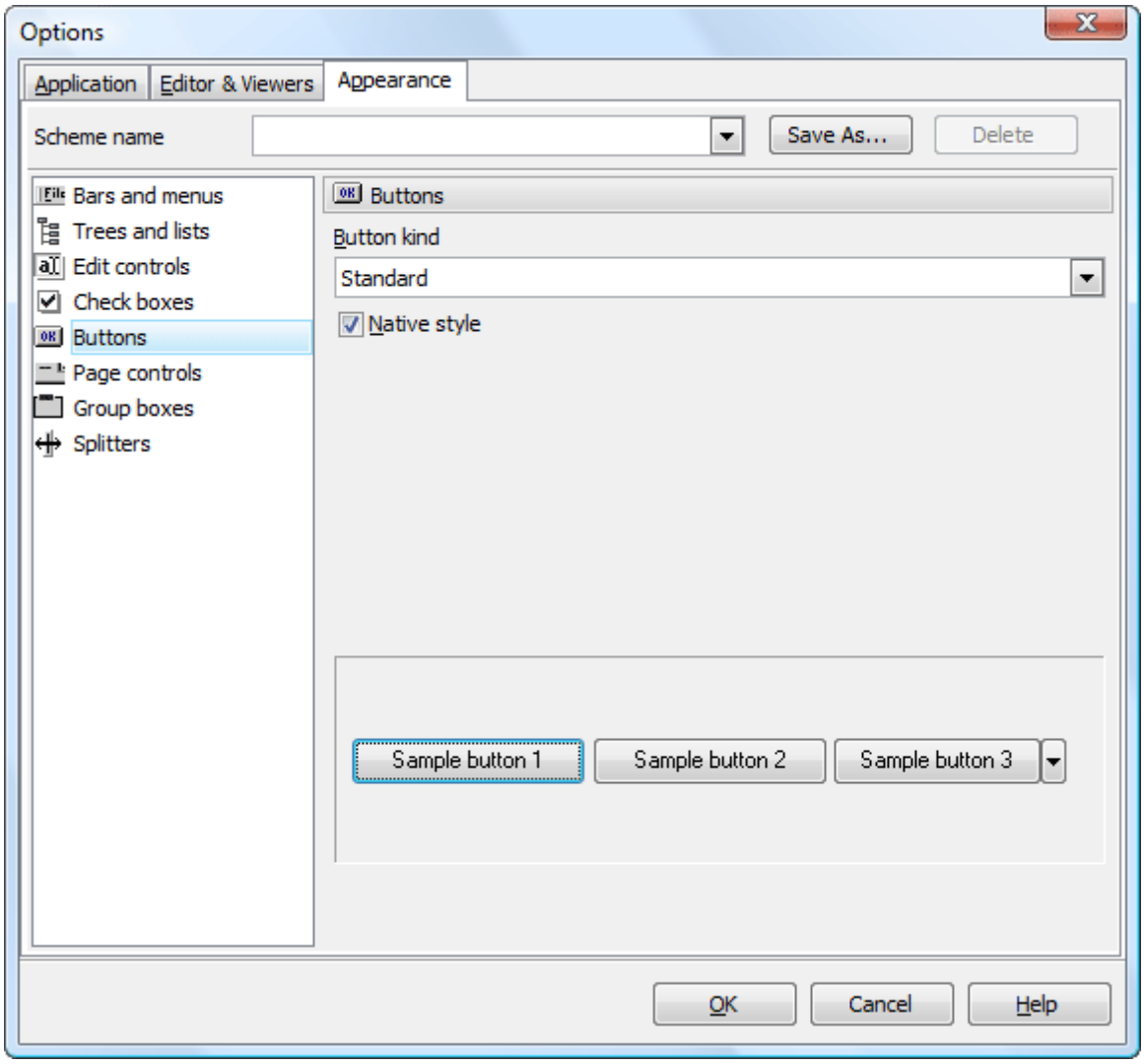

9.3.6 Page controls

The Page controls item allows you to customize the style of all PostgreSQL Data Wizard page controls. The tab allows you to select tab styles, enable/disable hot track, multi-line pages and native style.

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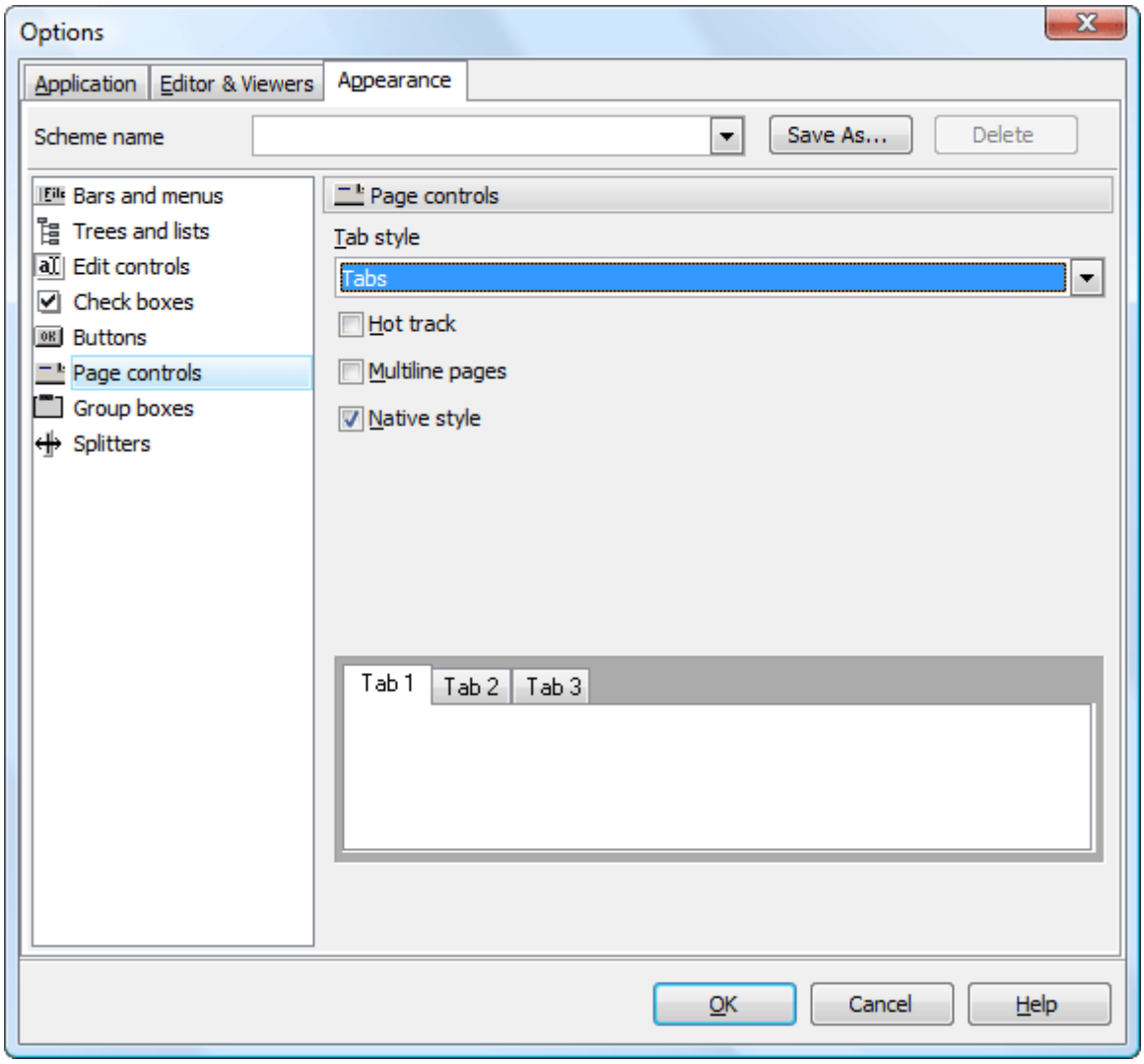

9.3.7 Group boxes

Use the Group boxes item to customize all PostgreSQL Data Wizard group boxes according to your preferences. Use tab to apply styles for group boxes, enable/disable native style and define samples.

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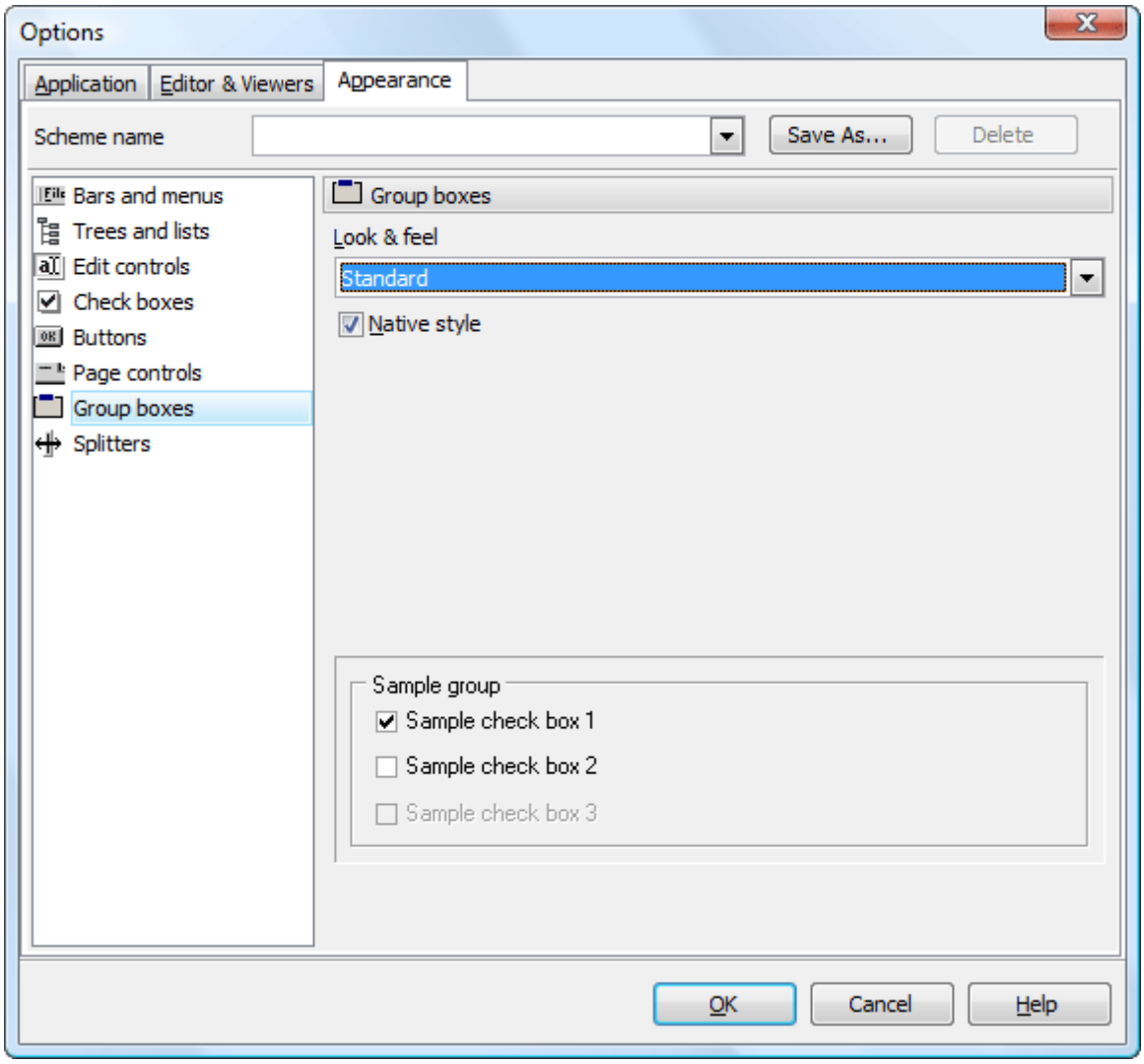

9.3.8 Splitters

Use the Splitters item to customize all PostgreSQL Data Wizard splitters according to your preferences. Use the tab to select hot zone style (*Windows XP task bar*, *Media Player 8*, *Media Player 9*, *Simple* or *none*) and specify the Hot zone drags a splitter option.

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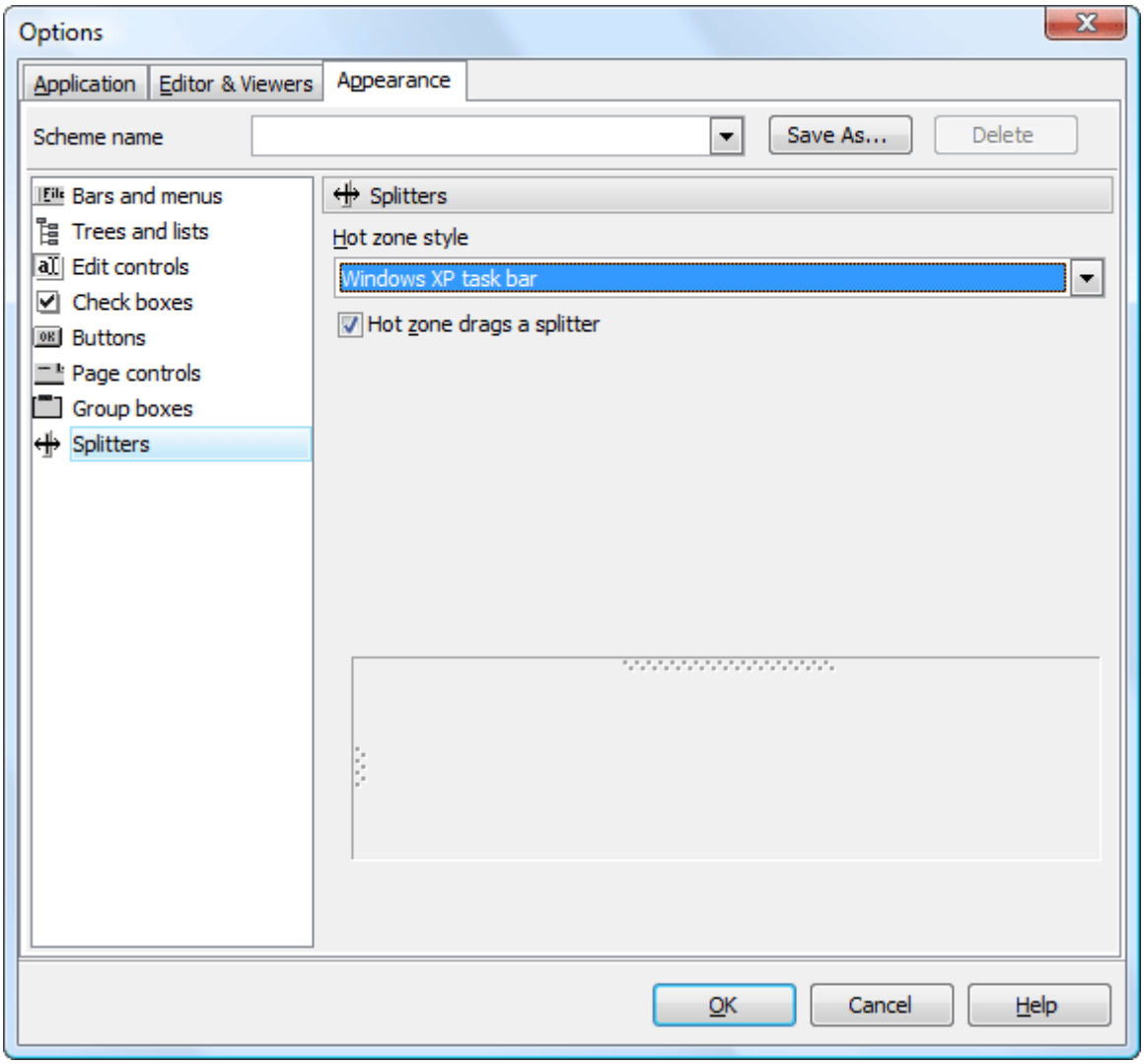

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Index

- A -

Appearance Options
Bar and menus 70
Buttons 74
Check boxes 73
Edit controls 72
Group boxes 76
Page controls 75
Splitters 77
Trees and lists 71

- B -

BLOB Export Wizard 51
Selecting tables for export 52
Setting file name templates 53
BLOB Import Wizard 47
Selecting tables for import 48
Setting files for import 49

- E -

Editor & Viewer Options
Code Folding 68
Code Insight 67
Display 63
General 62
PHP highlight 66
SQL highlight 64
XML highlight 65
EULA 5
Export Data Wizard
Adjusting data formats 38
Overview 32
Selecting fields 37
Selecting file format 33
Selecting objects to export data from 34
Setting format-specific options 39

- I -

Import Data Wizard
Adding SQL queries 23
Customizing common options 30
Data Format 28
Map builder 27
Overview 19
Selecting files to import from 24
Selecting objects to import to 22
Selecting source format 20
Setting fields correspondence 26
Installation instructions 3

- L -

License Agreement 5

- O -

Options 59
Appearance 70
Application 60
Application preferences 60
Editor & Viewers 62

- P -

PostgreSQL Data Wizard
Agent 58
Command line options 18
Connection options 13
Getting Started 11
Installation 3
License agreement 5
Overview 1
Registration 4
System requirements 2
Task scheduler 55
Templates 17
Purchase PostgreSQL Data Wizard 4

- R -

Registration 4

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- S -

SQL Dump Wizard
Customizing common options 46
Overview 43
Source objects 44
Target files 45
System requirements 2

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