



Firebird Data Wizard

User's guide

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1 Welcome to Firebird Data Wizard!

Firebird Data Wizard is a powerful Windows GUI utility for managing your Firebird 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

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

- Firebird from 1.0 to 5.0.

1.2 Installation

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

- download the Firebird 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 Firebird Data Wizard shortcut in the corresponding program group of the Windows Start menu after the installation is completed.

1.3 How can I purchase Firebird Data Wizard?

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

You can select licensing options and register Firebird 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.

Firebird 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.

1.4 License Agreement

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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.



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 Firebird 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 Firebird.

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.



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!

1.6 What's new

Please find out the latest Firebird Data Wizard news at <http://www.sqlmaestro.com/products/firebird/datawizard/news/>

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](#)

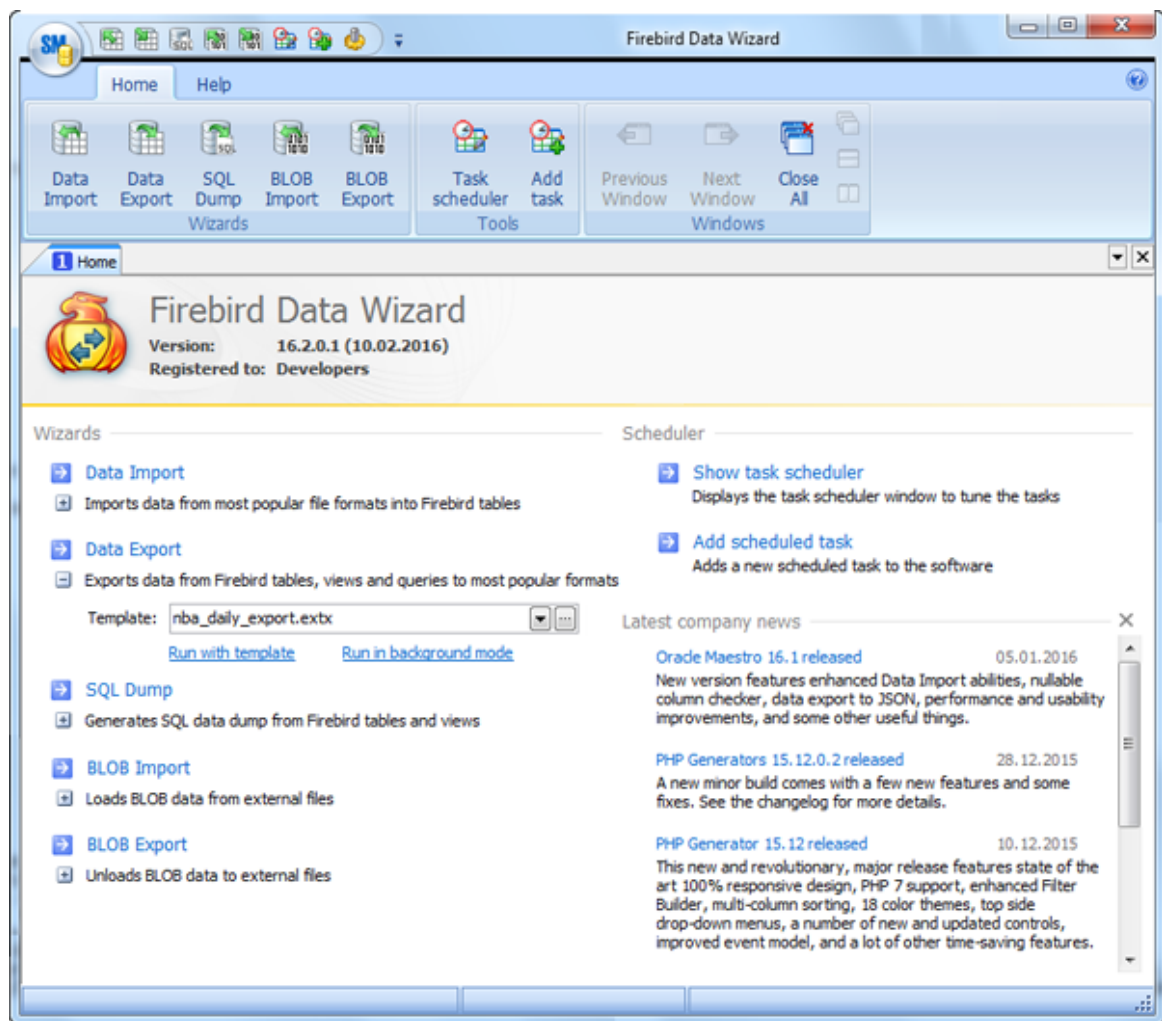
In this way you need to customize all the process parameters step by step. To invoke a wizard, use the wizard's link at the Home page or the wizard's button on the Ribbon toolbar.

2. [Run with template](#)

On running a wizard in this way, you'll get all the session parameters loaded from a [template](#)¹⁶ 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](#)¹⁶ 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](#)⁵⁴.



To learn more about the wizards, follow the links:

- [Data Export](#) ³¹
- [Data Import](#) ¹⁸
- [SQL Dump](#) ⁴²
- [Blob Import](#) ⁴⁶
- [Blob Export](#) ⁵⁰

2.1 How to connect to Firebird

Firebird Data Wizard allows you to connect to Firebird servers directly or via Secure SHell (SSH) tunnel.

- **Direct connection**

Direct connection is the most preferable connection mode.

- **SSH tunnel connection**

If your Firebird server does not allow direct connections from remote workstations, you can establish connection to intermediate SSH server and forward all Firebird commands through the [Secure SHell \(SSH\) tunnel](#).

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

Protocol

Select "Standard server" to connect to a local or remote standalone Firebird server or "Embedded server 2.5-" / "Embedded server 3.0+" to use the embedded Firebird servers that come with the software (2.5 and 3.0 accordingly).

Host

The name of machine the Firebird server and database file resides on. It is usually possible to specify TCP/IP address instead of name (like 192.168.12.34), however this functionality is not built into Firebird, instead, it is provided by underlying network layer (e.g. WinSock2), and for some implementations/configurations it can be much slower than using name. In case the server is not localhost, specify the TCP/IP port as [Port number](#).

Login information

Since Firebird 2.1, Windows authentication has been used for configuring the server authentication mode along with the traditional login info, requiring users to log in using a user name and password defined in the security database. To use [Windows authentication](#), check the corresponding box. Under the right conditions, this may be the most secure way to authenticate on Windows. Otherwise, set the following server security options:

User name The username used to connect to Firebird. User names are case insensitive on the server.

Password The password for the user account on server. The server checks the user name and password against the security database. Case sensitivity is retained for the comparison. Only first 8 characters of Password are verified.

Role Specify the role that the user adopts on connection to the database or leave it blank. Regardless of role memberships granted, the user has the privileges of a role at connect time only if a [Role](#) clause is specified in the connection. The user must have previously been granted membership in the role to gain the privileges of that role.

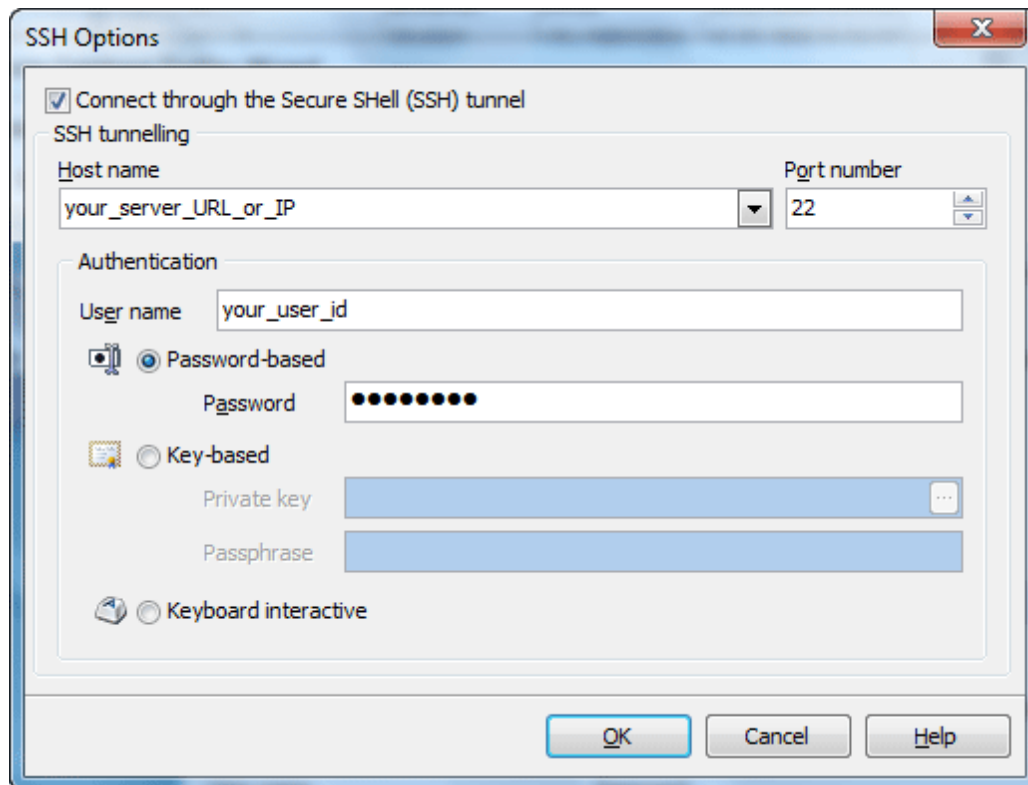
Database name

This is either a full name of the database file (as seen from the server), or an alias defined in the server's [aliases.conf](#) file.

More about SSH tunnel connection

To establish connection to intermediate SSH server and forward all Firebird 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.



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 Firebird host name always should be set relatively to the SSH server. For example, if both of Firebird 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. Firebird 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](#).

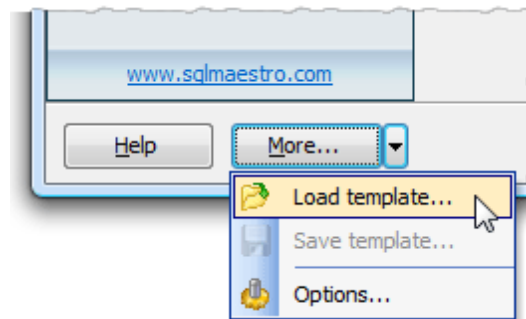
Keyboard interactive

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.

2.2 Templates

Firebird 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 Firebird 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

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

The Firebird Data Wizard command line syntax is as follows:

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

| | |
|----------------------|---|
| mydatawizard[.exe] | The Firebird Data Wizard program file. |
| <task> | An operation to execute. It can be one of the following: <i>import</i> (for Data Importing tasks); <i>export</i> (for Data Exporting tasks); <i>squidump</i> (for SQL Dump tasks); <i>blobimport</i> (for BLOB Import tasks); <i>blobexport</i> (for BLOB Export tasks). |
| <template_file_name> | The template ¹⁶ 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 Firebird 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 squidump "C:\Templates\SQLDump\MySQL\sakila.sdmpx" "C:\Logs\SQLDump\MySQL\sakila.log"`

3 Data Import

[Data Import](#) wizard provides you with a graphical user interface to import data from the most popular files formats into existing Firebird 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](#)^[19] to use for the input data;
- [Select the tables](#)^[21] where you want to import the data;
- [Set source file options](#)^[23];
- [Map source file columns and target table fields](#)^[25];
- [Specify other import options](#)^[26].

See also: [Templates](#)^[16]

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.

Source format

Select one of the available source formats.

- ☒ Microsoft Office Excel 97 - 2003
- ☐ Microsoft Office Excel 2007
- ☐ Microsoft Office Access
- ☐ Microsoft Office Access 2007
- ☐ Delimiter-separated values (CSV, DSV, TSV)
- ☐ Text file (Fixed-width columns)
- ☐ DBF
- ☐ XML
- ☐ ODBC data source

Defaults

Set default options that will be applied to all source files and target tables.

Default directory: D:\Data\Excel\

Encoding: ANSI

Connection string: Provider=SQLOLEDB.1;Password=admin;Persist Security Info=True;User ID=...

Identifier quote characters: Square brackets ([table])

XPath: /

Data location: Attributes

Delimiter: ;

Quote: "

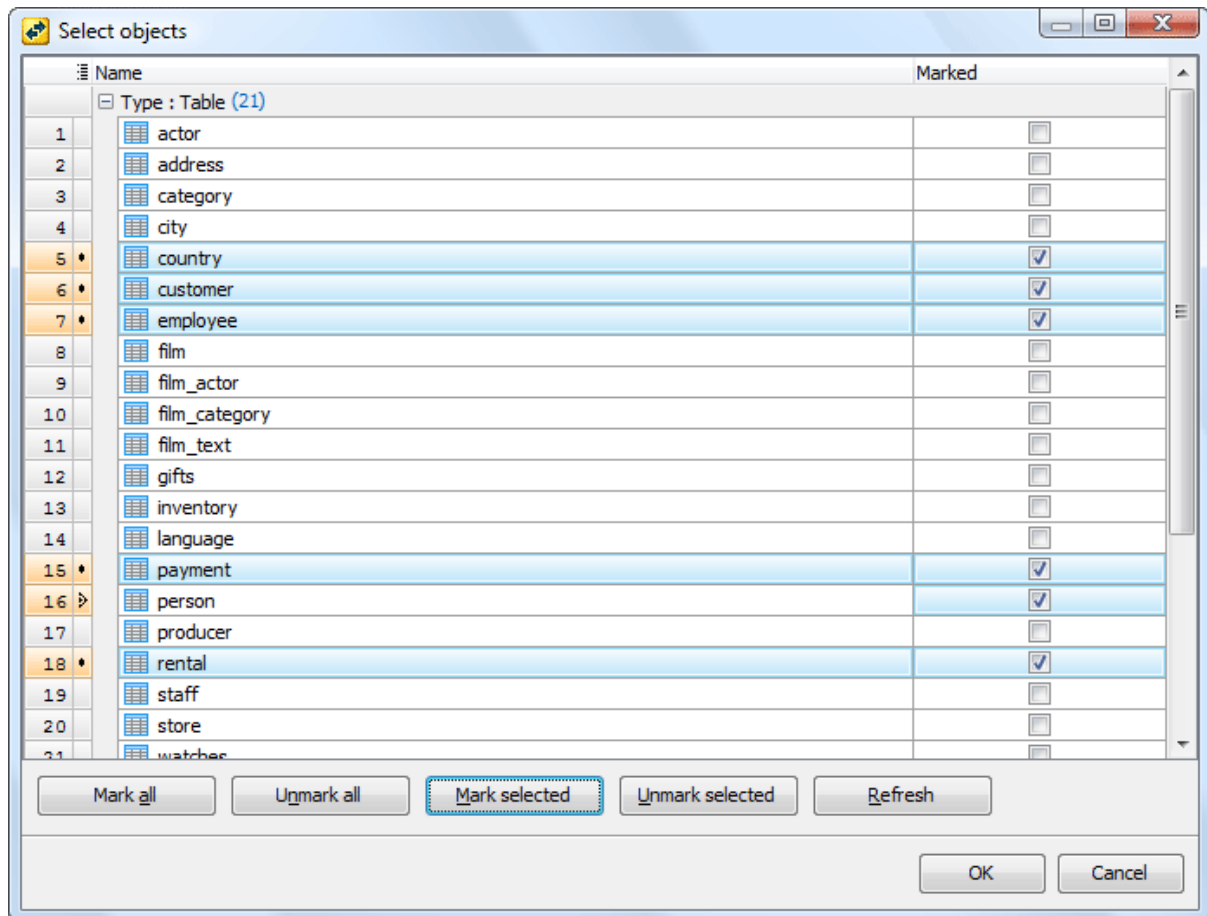
☒ Files contain column headers

☐ Empty targets before importing

Data formats... Replacements...

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](#).

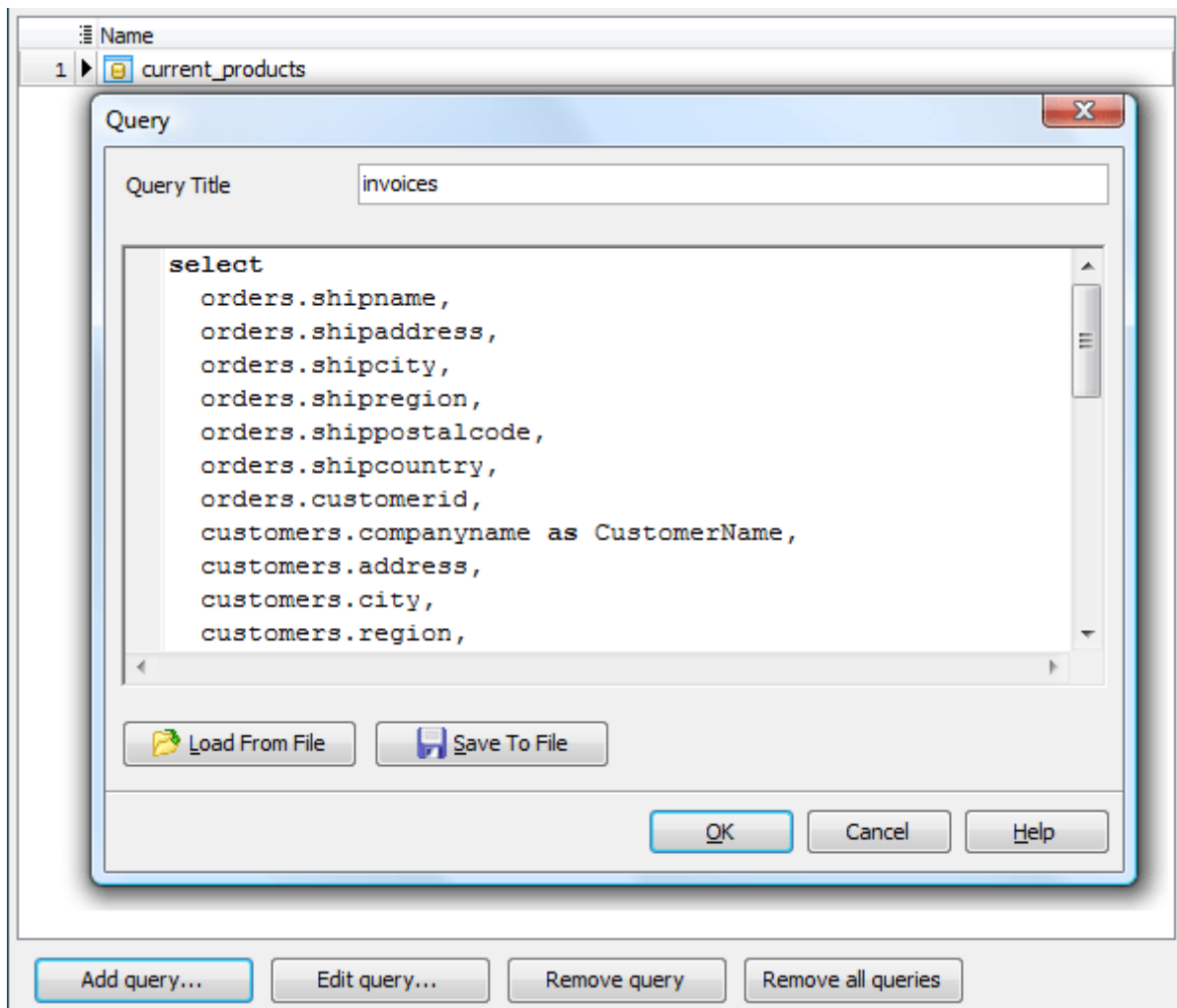


3.3 Adding SQL queries

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 Firebird 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.



3.4 Setting files to import from

For each [selected table](#)^[21] specify the input file (table, data source, [SQL query](#)^[22]) 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](#)^[19] are applied for all the files).

| Name | File Name | Sheet | Headers | Data formats |
|------------------|---------------|--------------|-------------------------------------|---|
| Type : Table (4) | | | | |
| employee | employee.xlsx | emp_list | <input checked="" type="checkbox"/> |  |
| language | language.xlsx | sheet3 | <input checked="" type="checkbox"/> |  |
| person | person.xlsx | person_info | <input checked="" type="checkbox"/> |  |
| producer | producer.xlsx | contact_info | <input checked="" type="checkbox"/> |  |

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:

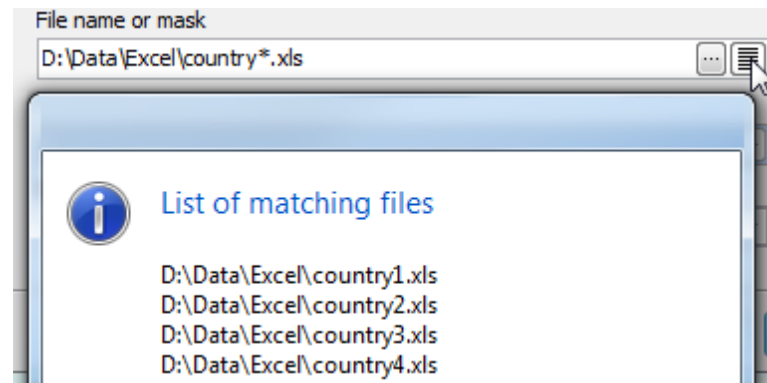
D:\Data\Excel\country1.xls

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 Firebird 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 Firebird 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.

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 Firebird 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>
```


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](#)  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](#)  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.

Auto fill all maps
Clear all maps

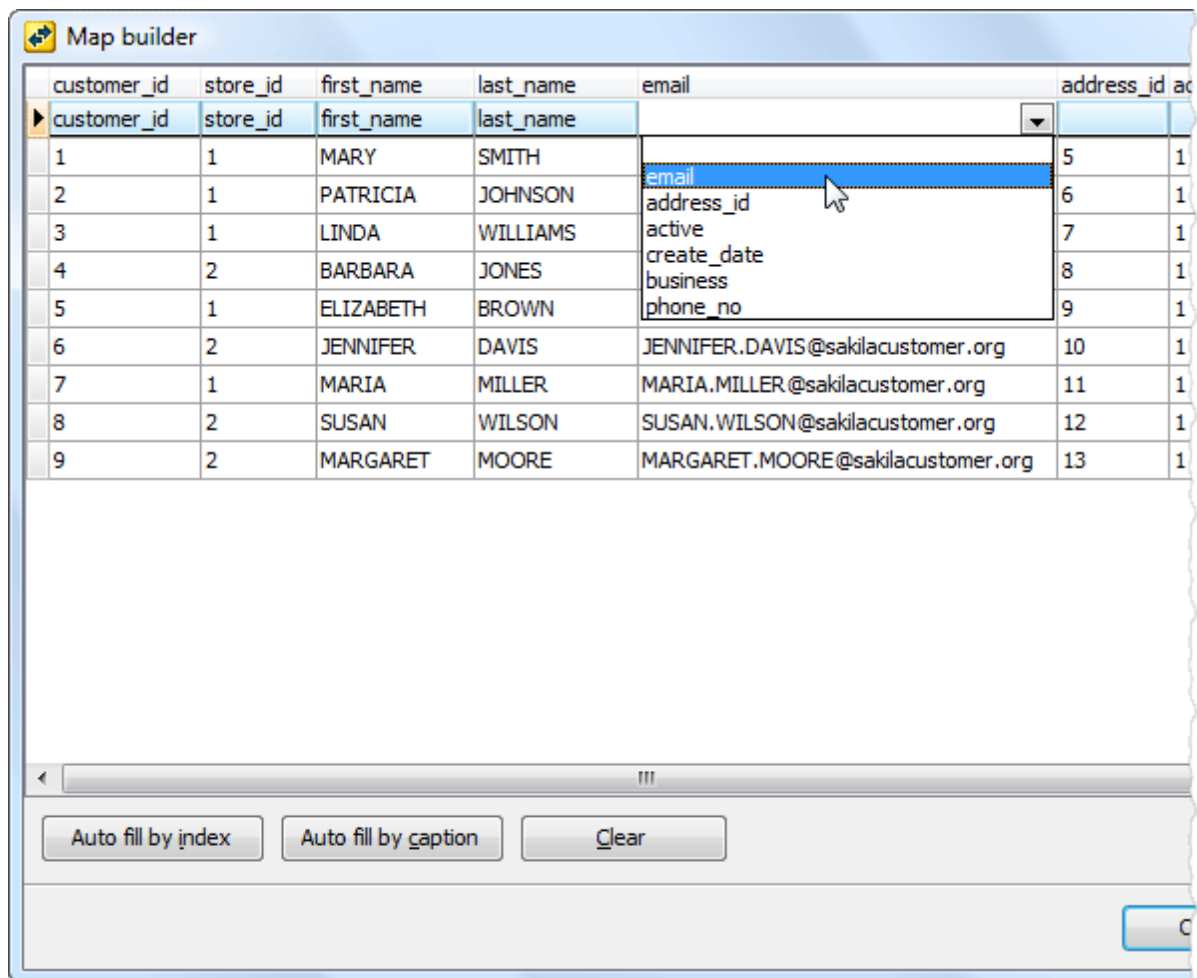
| Name | Empty target |
|------------------|-------------------------------------|
| Type : Table (4) | |
| employee | <input checked="" type="checkbox"/> |
| language | <input type="checkbox"/> |
| person | <input checked="" type="checkbox"/> |
| producer | <input type="checkbox"/> |

| | Target field | Source column | Replacements |
|---|---------------|---------------|----------------------|
| 1 | ID | ID | |
| 2 | name | name | |
| 3 | department_id | department_id | |
| 4 | photo | | |
| 5 | adress_id | adress_id | |
| 6 | email | email | sakila - sakilastaff |

Auto fill
Clear
Build map...
Data formats...
More...

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.



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.

| | Target field | Offset | Width | |
|---|--------------|--------|-------|--|
| 1 | customer_id | 0 | 5 | |
| 2 | store_id | 5 | 6 | |
| 3 | first_name | 11 | 46 | |
| 4 | last_name | 57 | 46 | |
| 5 | email | 103 | 52 | |
| 6 | address_id | 155 | 6 | |
| 7 | active | 161 | 6 | |
| 8 | create_date | 167 | 6 | |

| | 0 | 10 | 20 | |
|---|-------|-------|------------|--|
| | custo | store | first_name | |
| 1 | 1 | 1 | MARY | |
| 2 | 1 | 1 | PATRICIA | |
| 3 | 1 | 1 | LINDA | |
| 4 | 2 | 2 | BARBARA | |
| 5 | 1 | 1 | ELIZABETH | |
| 6 | 2 | 2 | JENNIFER | |
| 7 | 1 | 1 | MARIA | |

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

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 | mmmdd |
| 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.

| | | | | | | | | |
|---|-------|--------------|------|---------------|-------|-------------|-------|--|
| <div> <div>Formats</div> <table> <tr><td>Date</td><td></td></tr> <tr><td>Time</td><td></td></tr> <tr><td>Date time</td><td></td></tr> </table> </div> | | Date | | Time | | Date time | | <div>Date time formats</div> <div> dd the day as a number with a leading zero or space (01-31). ddd the day as an abbreviation (Sun-Sat) dddd the day as a full name (Sunday-Saturday) mm the month as a number with a leading zero or space (01-12). mmm the month as an abbreviation (Jan-Dec) mmmm the month as a full name (January-December) yy the year as a two-digit number (00-99). yyyy the year as a four-digit number (0000-9999). hh the hour with a leading zero or space (00-23) nn the minute with a leading zero or space (00-59). ss the second with a leading zero or space (00-59). zzz the millisecond with a leading zero (000-999). ampm Specifies am or pm flag hours (0..12) ap Specifies a or p flag hours (0..12) </div> |
| Date | | | | | | | | |
| Time | | | | | | | | |
| Date time | | | | | | | | |
| <div> <div>Separators</div> <table> <tr><td>Decimal</td><td>,</td></tr> <tr><td>Thousand</td><td>#160</td></tr> </table> </div> | | Decimal | , | Thousand | #160 | | | |
| Decimal | , | | | | | | | |
| Thousand | #160 | | | | | | | |
| <div> <div>Other (use semicolon to separate values)</div> <table> <tr><td>Boolean true</td><td>True</td></tr> <tr><td>Boolean false</td><td>False</td></tr> <tr><td>Null values</td><td>;NULL</td></tr> </table> </div> | | Boolean true | True | Boolean false | False | Null values | ;NULL | |
| Boolean true | True | | | | | | | |
| Boolean false | False | | | | | | | |
| Null values | ;NULL | | | | | | | |
| | | | | | | | | |

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 necessary to set the corresponding scripts:

```
SET IDENTITY_INSERT %table_name% ON
and
```

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.

Reorder

Firebird 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.

4 Data Export

[Data Export](#) wizard is a tool to save data from Firebird 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 Firebird database ;
- [Select the format](#)^[32] to use for the output;
- [Select objects](#)^[33] you want to export data from;
- [Select columns](#)^[36] you want to include into result files;
- [Specify other export options](#)^[37].


See also: [Templates](#)^[16]


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.


Destination format


 Select one of the available destination formats.


 ☐ Microsoft Office Excel 97 - 2003


 ☐ Microsoft Office Excel 2007

 ☒ Delimiter-separated values (CSV, DSV, TSV)

 ☐ Text file (Fixed-width columns)

 ☐ HTML


 ☐ XML

 ☐ Other

Microsoft Office Word 97 - 2003

▼

Output

 Select or enter the default directory for the result files and specify the default encoding if necessary.

Directory

D:\Exported_data\CSV\

...

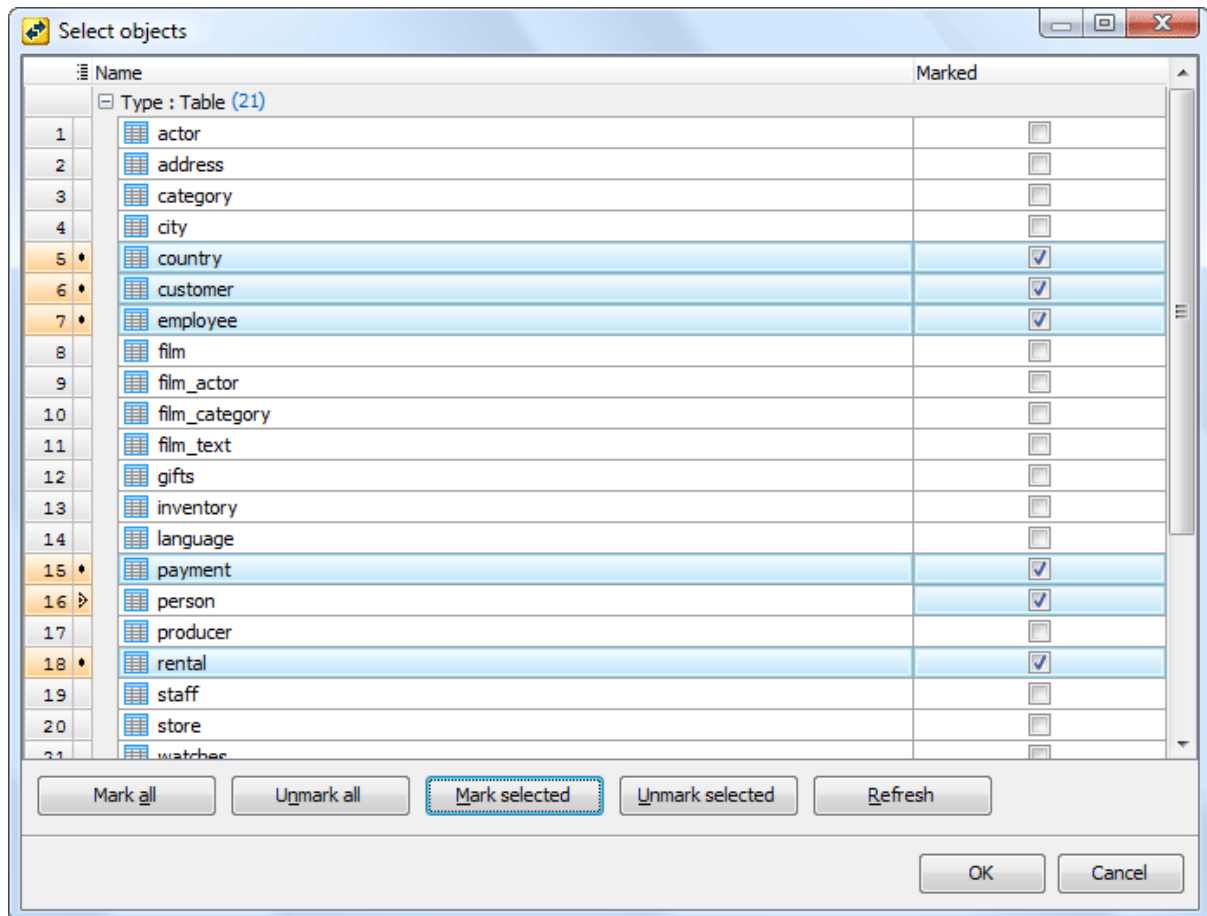
Default encoding

ANSI

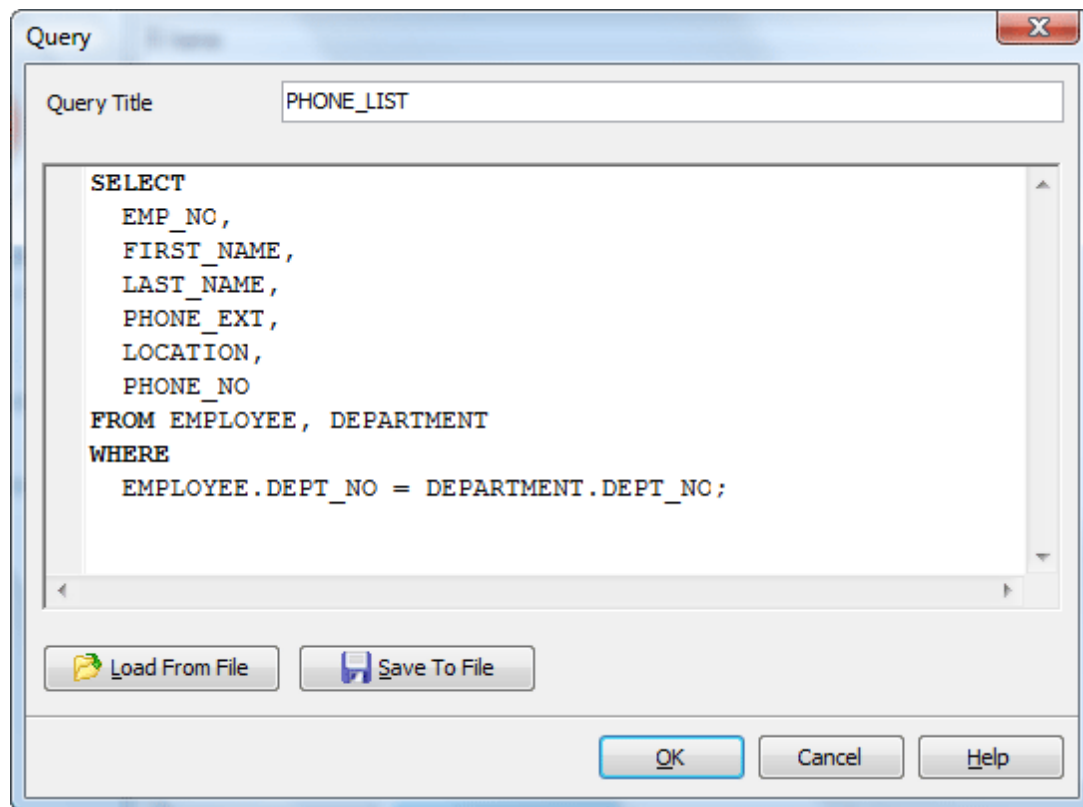
▼

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.



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
```

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

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.

The screenshot shows two windows from a data export application. The top window is titled 'Objects' and contains a table with columns: Name, File Name, Encoding, and Header and footer. It lists objects under two types: 'Query (1)' and 'Table (5)'. The 'customer' table is selected. The bottom window is titled 'Fields' and contains a table with columns: Name, Caption, and Export. It lists fields for the selected 'customer' table, with checkboxes in the 'Export' column to include or exclude each field.

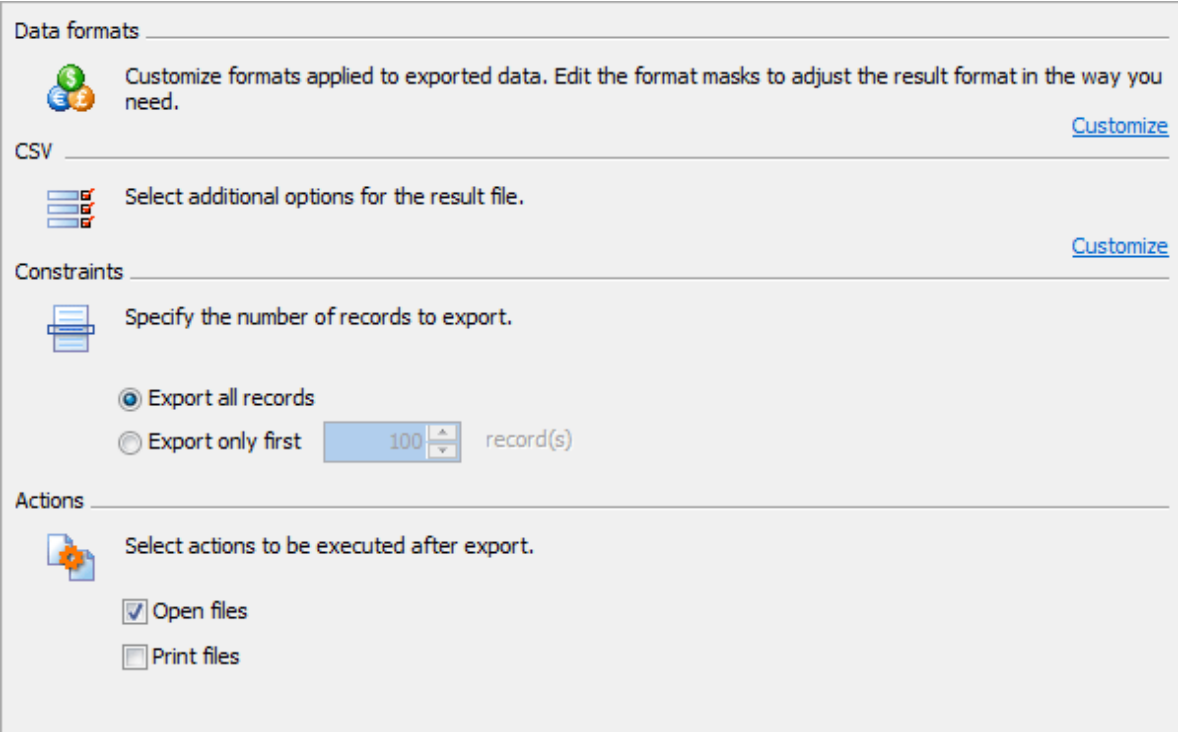
| Objects | | | |
|------------------|--------------|----------|-------------------|
| Name | File Name | Encoding | Header and footer |
| Type : Query (1) | | | |
| Staff | staff.csv | ANSI | [Icon] |
| Type : Table (5) | | | |
| country | country.csv | ANSI | [Icon] |
| customer | customer.csv | UTF8 | [Icon] |
| payment | payment.csv | ANSI | [Icon] |
| person | person.csv | ANSI | [Icon] |
| rental | rental.csv | ANSI | [Icon] |

| Fields | | |
|---------------|-------------|-------------------------------------|
| Name | Caption | Export |
| 1 customer_id | customer_id | <input checked="" type="checkbox"/> |
| 2 store_id | store_id | <input checked="" type="checkbox"/> |
| 3 first_name | first_name | <input checked="" type="checkbox"/> |
| 4 last_name | last_name | <input checked="" type="checkbox"/> |
| 5 email | email | <input checked="" type="checkbox"/> |
| 6 address_id | address_id | <input type="checkbox"/> |
| 7 active | active | <input checked="" type="checkbox"/> |
| 8 create_date | create_date | <input type="checkbox"/> |
| 9 business | business | <input checked="" type="checkbox"/> |


4.4 Setting general export options

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


- Set [format masks](#) ^[37] to be applied to the data.
- Customize [format specific options](#) ^[38] 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.




Data formats

 Customize formats applied to exported data. Edit the format masks to adjust the result format in the way you need. [Customize](#)

CSV

 Select additional options for the result file. [Customize](#)


Constraints

 Specify the number of records to export.

☒ Export all records

☐ Export only first record(s)

Actions

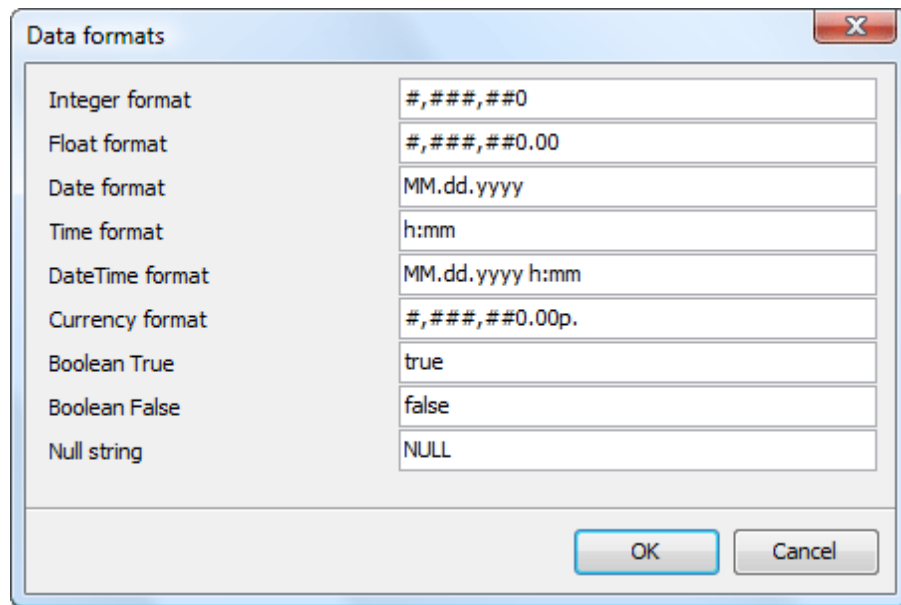
 Select actions to be executed after export.

☒ Open files

☐ Print files

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.



4.4.2 Setting format-specific options

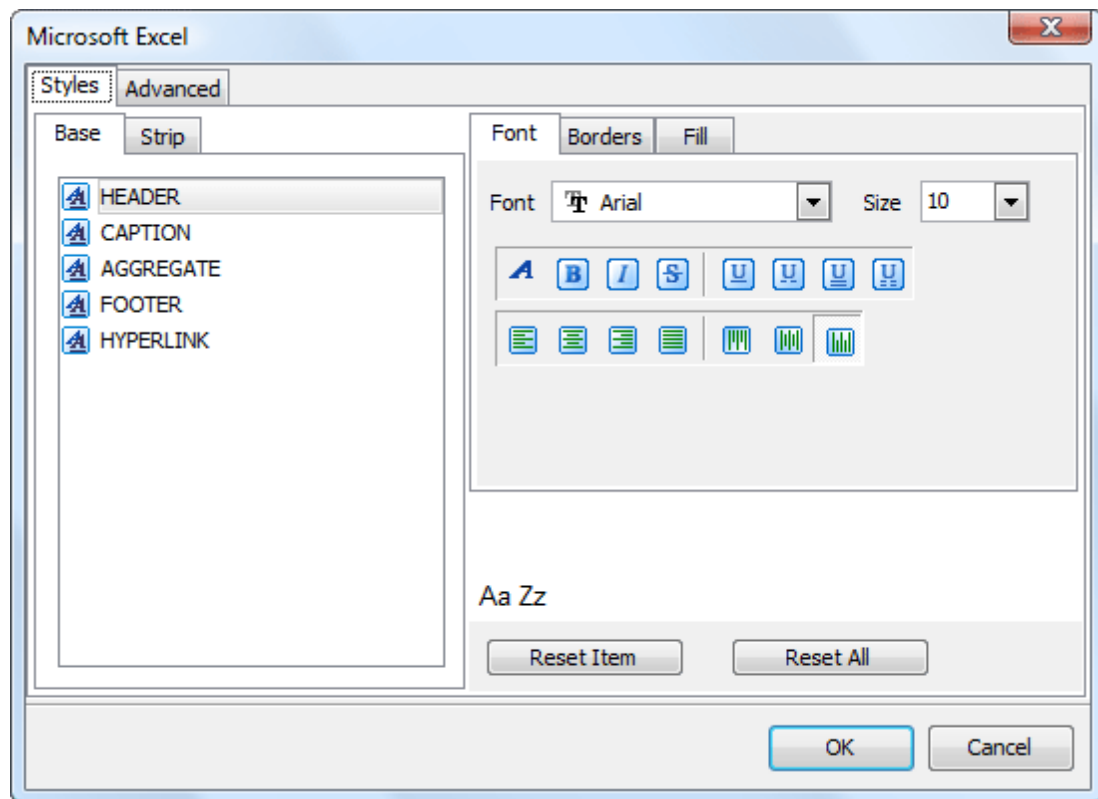
Each format supposes corresponding additional export options. Use the wizard option to adjust export properties depending on the target file format you have selected earlier. The following formats are at your disposal: [Microsoft Excel](#)^[38], Microsoft Excel 2007, [CSV](#)^[40], [Text](#)^[40], [HTML](#)^[39], [XML](#)^[40], 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.



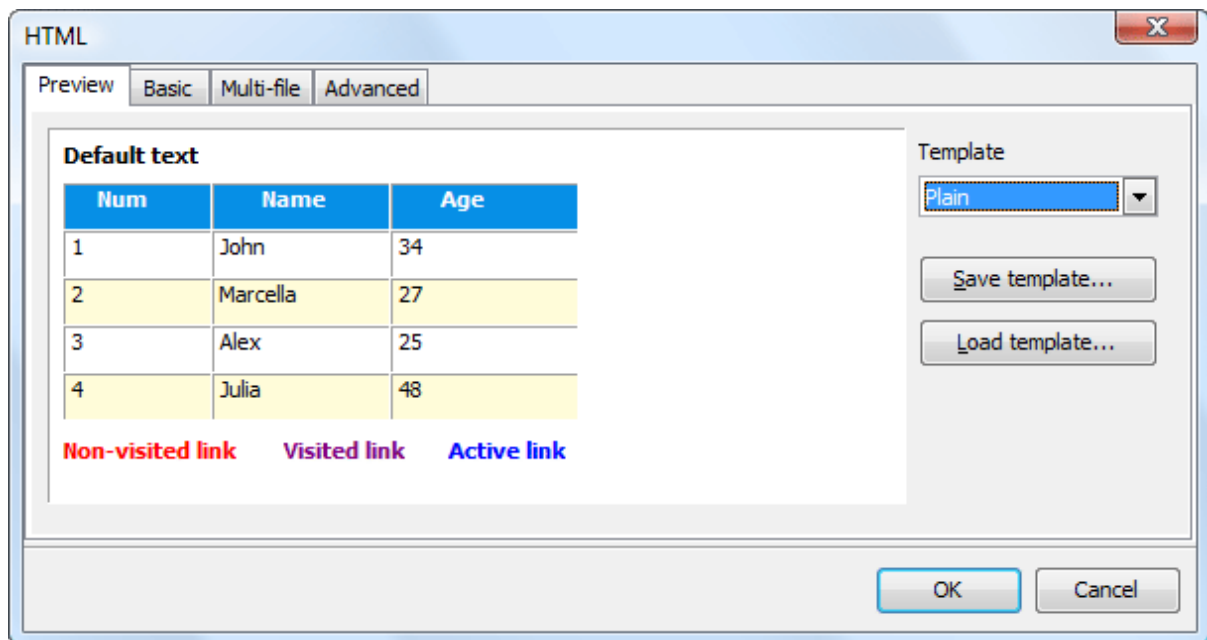
HTML

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.

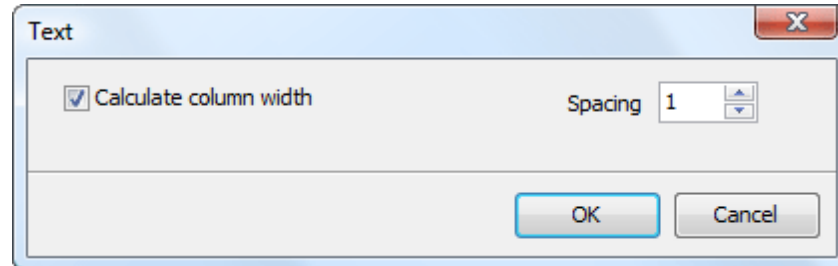
The [Multi-file](#) tab provides you with a possibility to split target HTML file into several separated files. This tab allows you to specify the record count for a single file, set an option to generate an index HTML file, and add an ability of navigation between each other to each of exported files.

The [Advanced](#) tab contains such HTML options as default font, background, cell padding and spacing, etc.



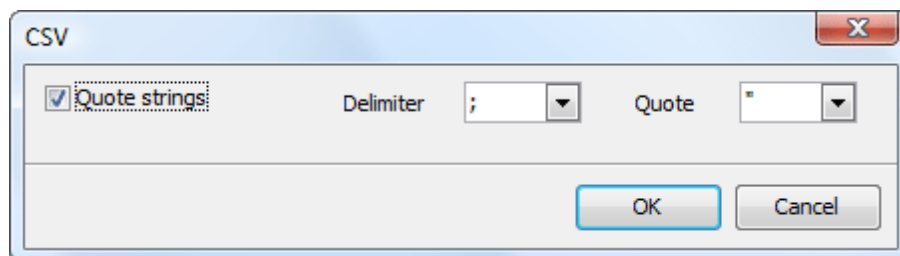
Text files

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.



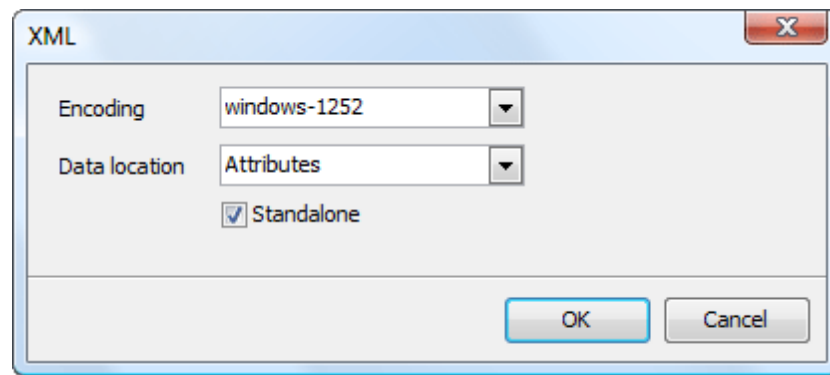
CSV files

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.



5 SQL Dump

Along with such data management abilities as data import and export, Firebird Data Wizard allows you to dump data stored in Firebird tables and views. As the result of the [SQLDump](#) 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].

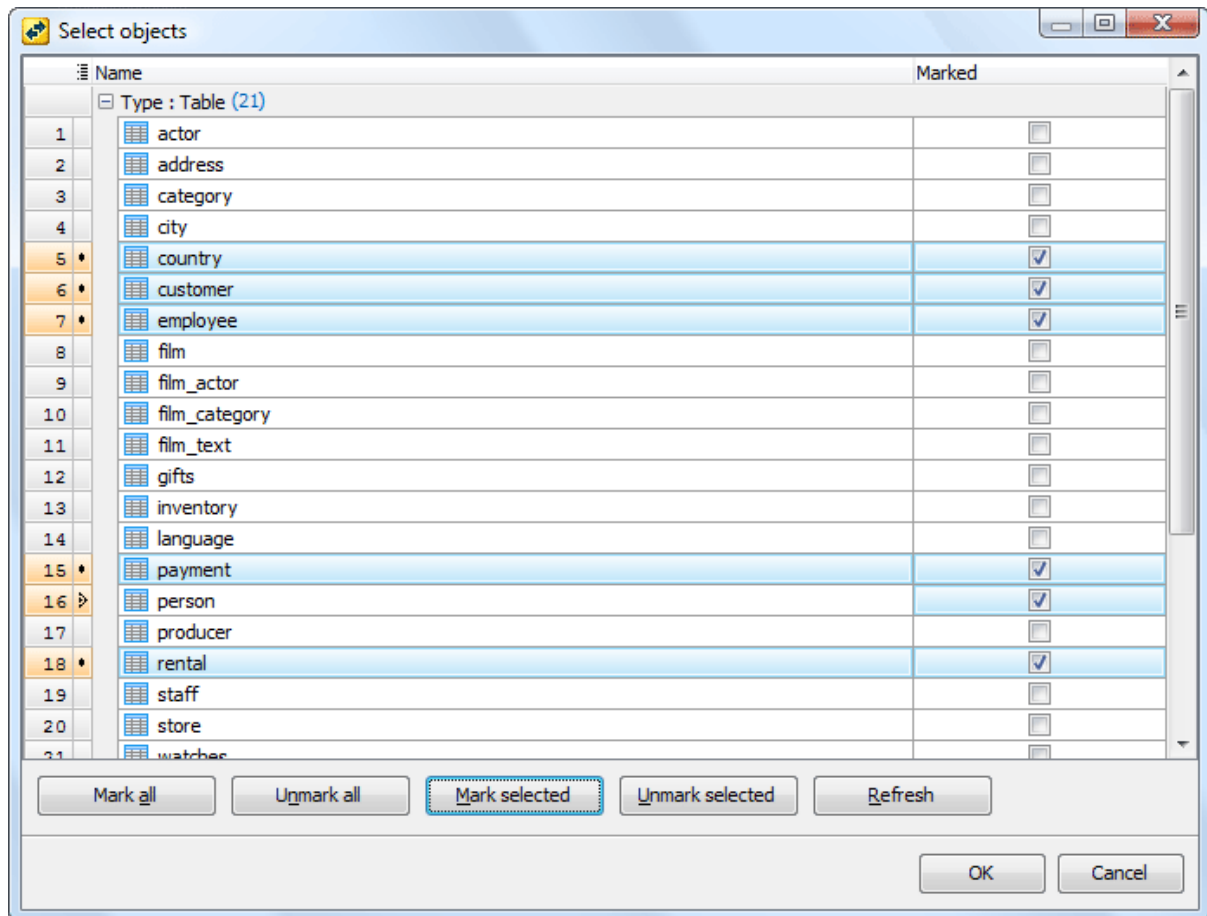
To get SQL dump, complete the following steps:

- [Set connection properties](#)^[13] of the database with tables to be dumped;
- [Select objects to dump](#)^[43];
- [Set destination files](#)^[44];
- [Specify common SQL dump options](#)^[45].

See also: [Templates](#)^[16]

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](#).



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.

Output options

| | Data source | Target filename | Target name |
|---|--------------|------------------|--------------|
| 1 | game | game.sql | game |
| 2 | game_quarter | game_quarter.sql | game_quarter |

Output fields

| | Source | Target | Include |
|---|--------------|--------------|-------------------------------------|
| 1 | id | id | <input checked="" type="checkbox"/> |
| 2 | game_date | game_date | <input checked="" type="checkbox"/> |
| 3 | home_team_id | home_team_id | <input checked="" type="checkbox"/> |
| 4 | away_team_id | away_team_id | <input checked="" type="checkbox"/> |
| 5 | channel_id | channel_id | <input checked="" type="checkbox"/> |
| 6 | round_id | round_id | <input checked="" type="checkbox"/> |
| 7 | game_number | game_number | <input checked="" type="checkbox"/> |
| 8 | season_id | season_id | <input checked="" type="checkbox"/> |

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](#)

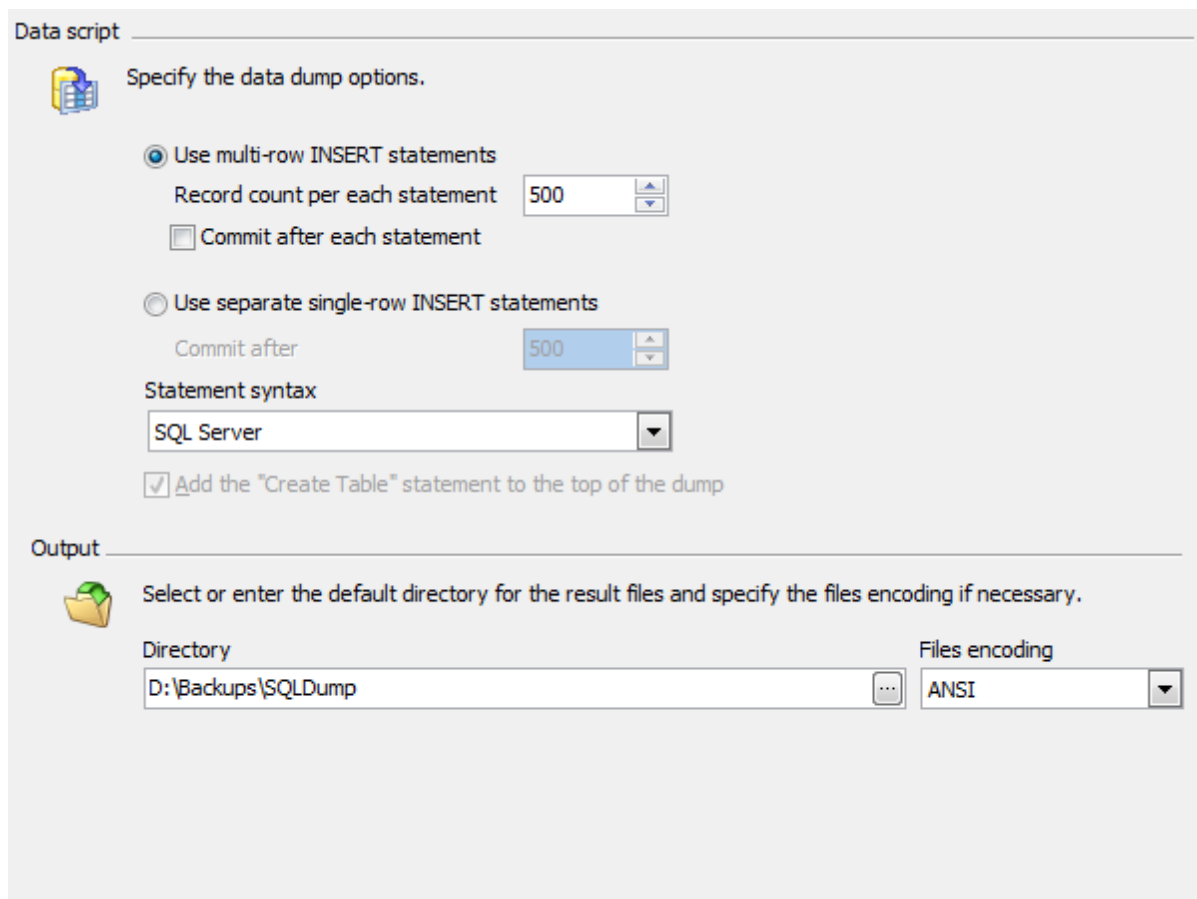
This allows you to specify the SQL syntax the result script to be written on. This feature allows you to restore the dump contents to a table in a different database server such as MySQL, PostgreSQL, SQL Server, Oracle, Firebird, or SQLite.

[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.



The screenshot shows the 'Data script' and 'Output' tabs of the Firebird Data Wizard. The 'Data script' tab is active, showing options for specifying data dump options. The 'Output' tab is also visible, showing options for selecting the default directory and files encoding.

Data script

Specify the data dump options.

☒ Use multi-row INSERT statements

Record count per each statement: 500

☐ Commit after each statement

☐ Use separate single-row INSERT statements

Commit after: 500

Statement syntax: SQL Server

☒ Add the "Create Table" statement to the top of the dump

Output

Select or enter the default directory for the result files and specify the files encoding if necessary.

Directory: D:\Backups\SQLDump

Files encoding: ANSI

6 Blob Import

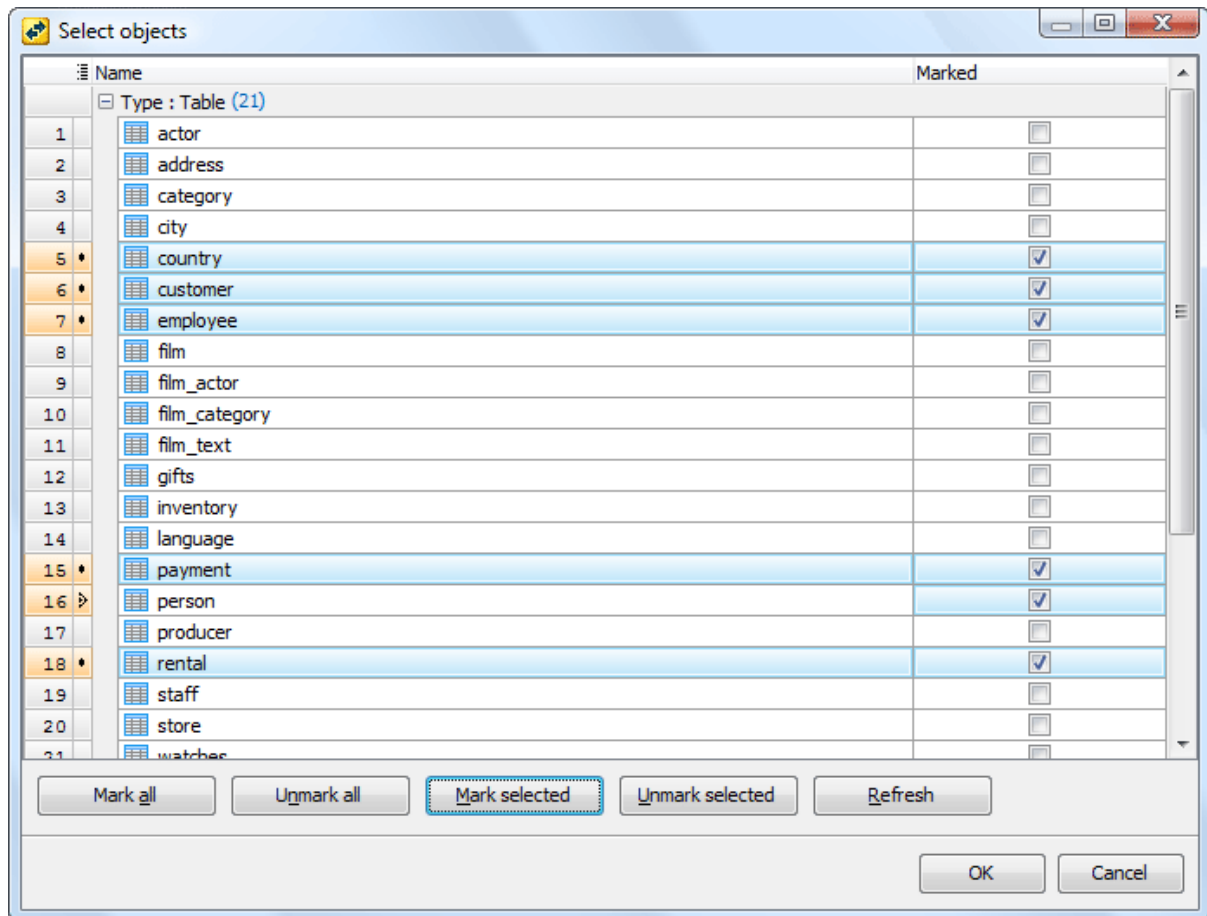
The wizard allows you to load BLOB data from external files to Firebird tables. For this purpose the file names must contain the information on the record they need to be placed to: the files need to be named in the same manner and include content of one or several table columns that can uniquely identify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

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

- [Set connection properties](#)^[13] of the database you want to import BLOBs;
- [Select the tables](#)^[21] where you want to import data;
- [Specify BLOB files](#)^[48] to be imported.

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](#).



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:

| | |
|-----------|-------------|
| <i>Id</i> | <i>User</i> |
| 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.

BLOB Import Wizard

Set directories and file name templates for included blob fields and click Ready to start import

Target tables

| Name |
|------------|
| 1 player |

Import settings

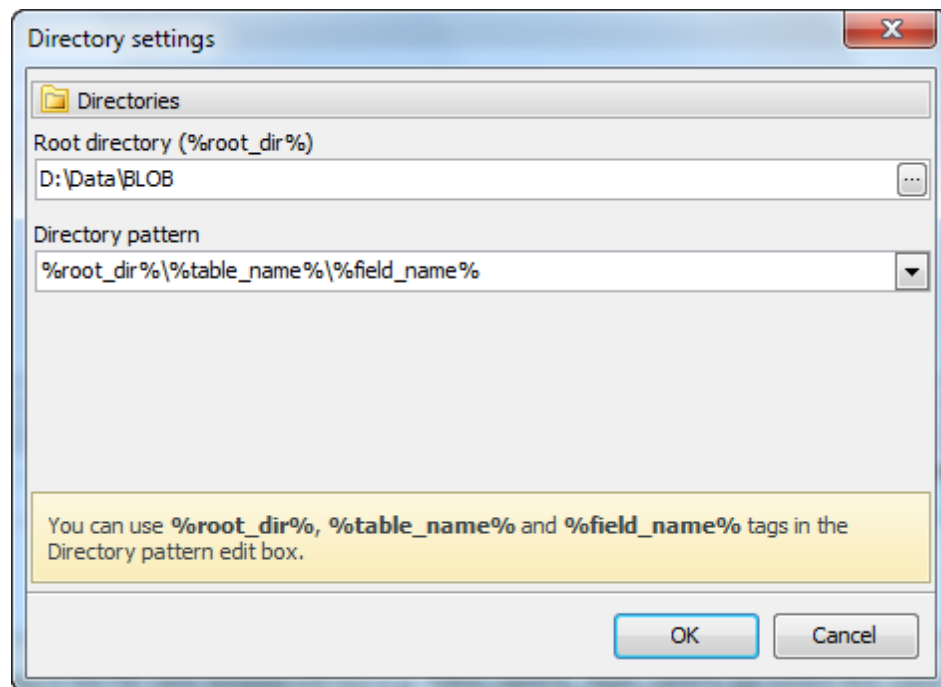
| Field name | Directory name | File name template | Include |
|------------|--------------------------------------|------------------------------|-------------------------------------|
| 1 photo | %root_dir%\%table_name%\%field_name% | %last_name%_%first_name%.png | <input checked="" type="checkbox"/> |

You can use field name tags in the File name template edit box e.g. %first_name%_%last_name%.jpg (where first_name and last_name are fields from the source dataset). You can use %root_dir%, %table_name% and %field_name% tags in the Directory name edit box to customize directory.

[Define the root directory and a directory pattern for all fields at once...](#)

Help More... < Back Next > Ready Cancel

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



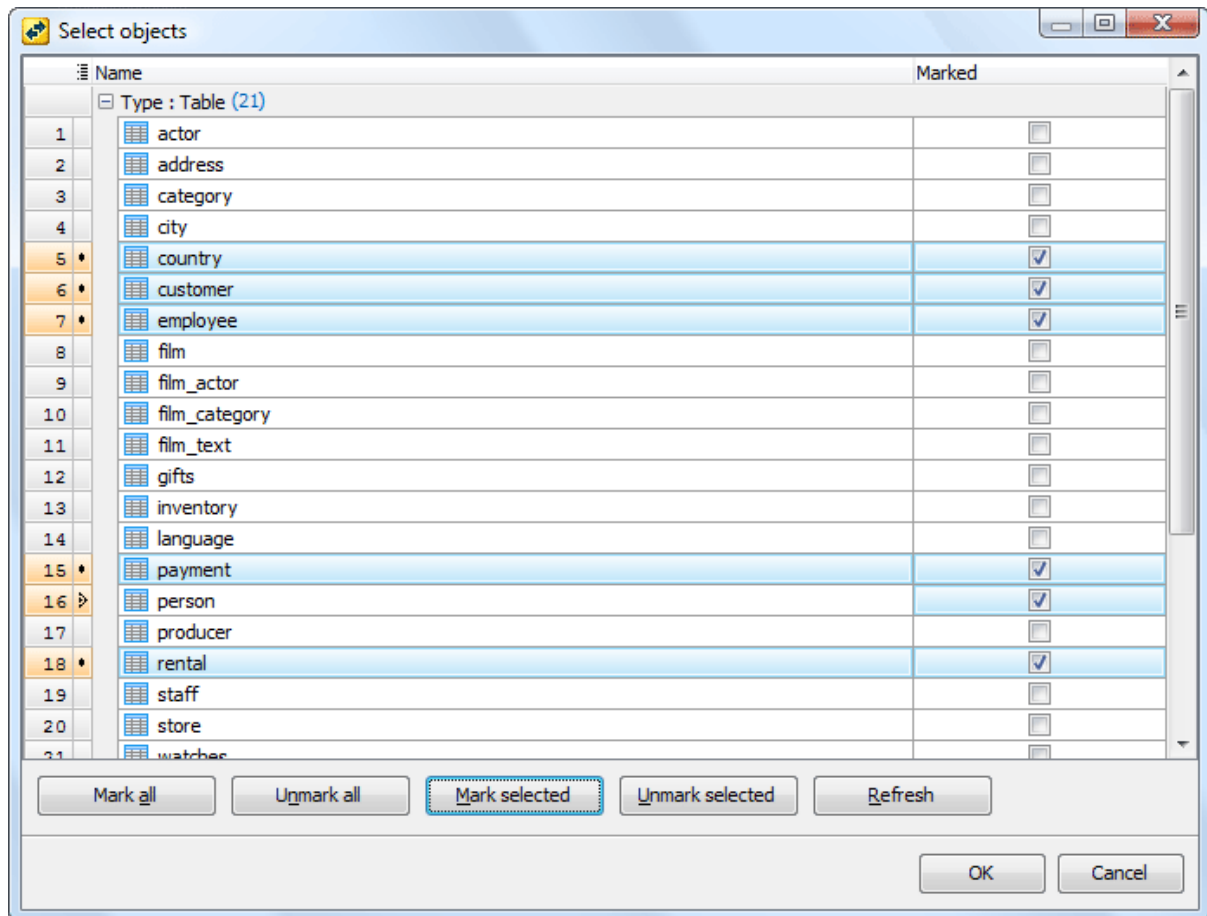
7 Blob Export

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

- [Set connection properties](#)^[13] of the database you want to export BLOB data from;
- [Select tables](#)^[51] storing BLOB data to be exported;
- [Specify file name templates](#)^[52] the BLOB data will be unloaded to.

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](#).



7.2 Setting file name templates

BLOB data from Firebird 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.

BLOB Export Wizard

Set directories and file name templates for included blob fields and click Ready to start export

Source tables

| | Name |
|---|--------|
| 1 | player |
| 2 | team |

Export settings

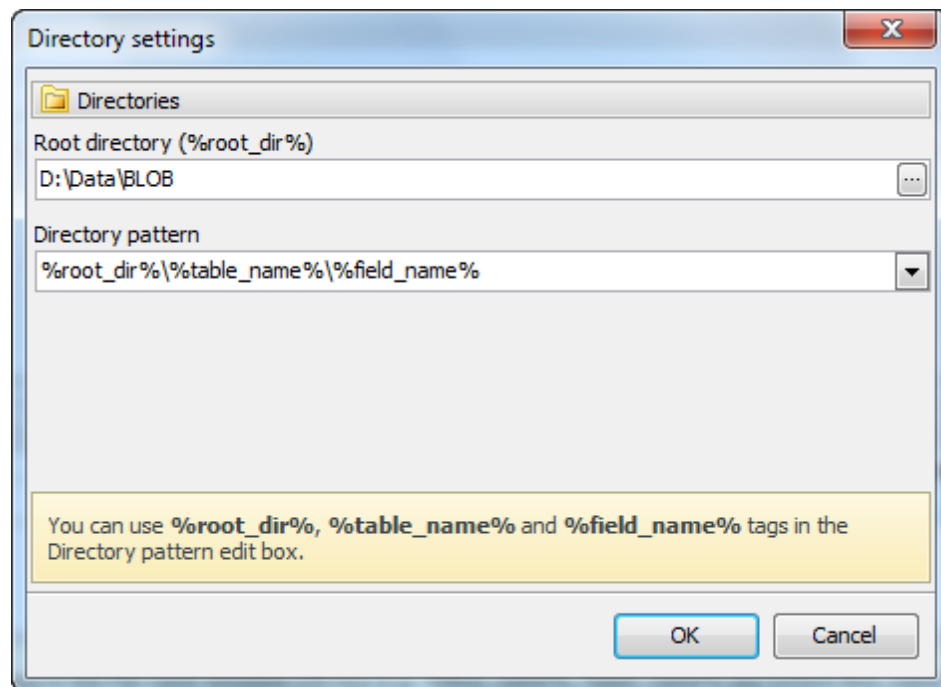
| | Field name | Directory name | File name template | Include |
|---|------------|--|-----------------------------|-------------------------------------|
| 1 | photo | %root_dir%\\%table_name%\\%field_name% | %last_name%_first_name%.png | <input checked="" type="checkbox"/> |

You can use field name tags in the File name template edit box e.g. `%first_name%_%last_name%.jpg` (where first_name and last_name are fields from the source dataset). You can use `%root_dir%`, `%table_name%` and `%field_name%` tags in the Directory name edit box to customize directory.

[Define the root directory and a directory pattern for all fields at once...](#)

Buttons: Help, More..., < Back, Next >, Ready, Cancel

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



8 Task Scheduler

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

- Create a [template](#)¹⁶⁾ 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 Firebird 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.

Add Scheduled Task

Scheduled tool: Data Export

Task template: C:\Templates\Export\Orders.extx

Task log: C:\Logs\Export\Orders.log

Execution time: 20:00:00

Start date: 25.11.2009

☒ Repeat

Each: 1 Days

☒ Until: 24.12.2009

☐ For: 1 times(s)

☒ Enabled (scheduled task runs at specified time)

Task type

☐ Application schedule

☐ System schedule

☒ Both types schedule

System task properties

Task name: Data Export_Orders

User name: MERCURY\john

Password: ●●●●●●

OK Cancel Help

■ 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

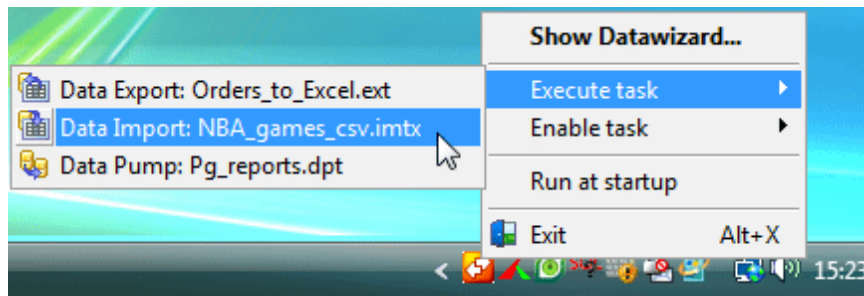
If necessary, you can run the configured task any time, irrespective of the specified time. To execute the selected task, use the [Execute task](#) item of the

popup menu or the [Execute Task](#) link of the Navigation bar

8.1 Using Firebird Data Wizard Agent

[Firebird 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](#)⁵⁴ to learn more on Firebird Data Wizard tasks.




To enable the agent at each Windows startup, open [Options](#)⁵⁸ > Preferences and check [Run agent at startup](#).



9 Options

Firebird 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](#)  General Firebird Data Wizard options: environment style, confirmations, window restrictions.
- [Editors & Viewers](#)  Customizing of all the SQL editors.
- [Appearance](#)  Customizing program interface - bars, trees, menus, etc.

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

9.1 Application

The [Application](#) section allows you to customize common rules of Firebird Data Wizard behavior. The section consists of several tab; follow the links to find out more about each of them.

- [Preferences](#)⁵⁹

9.1.1 Preferences

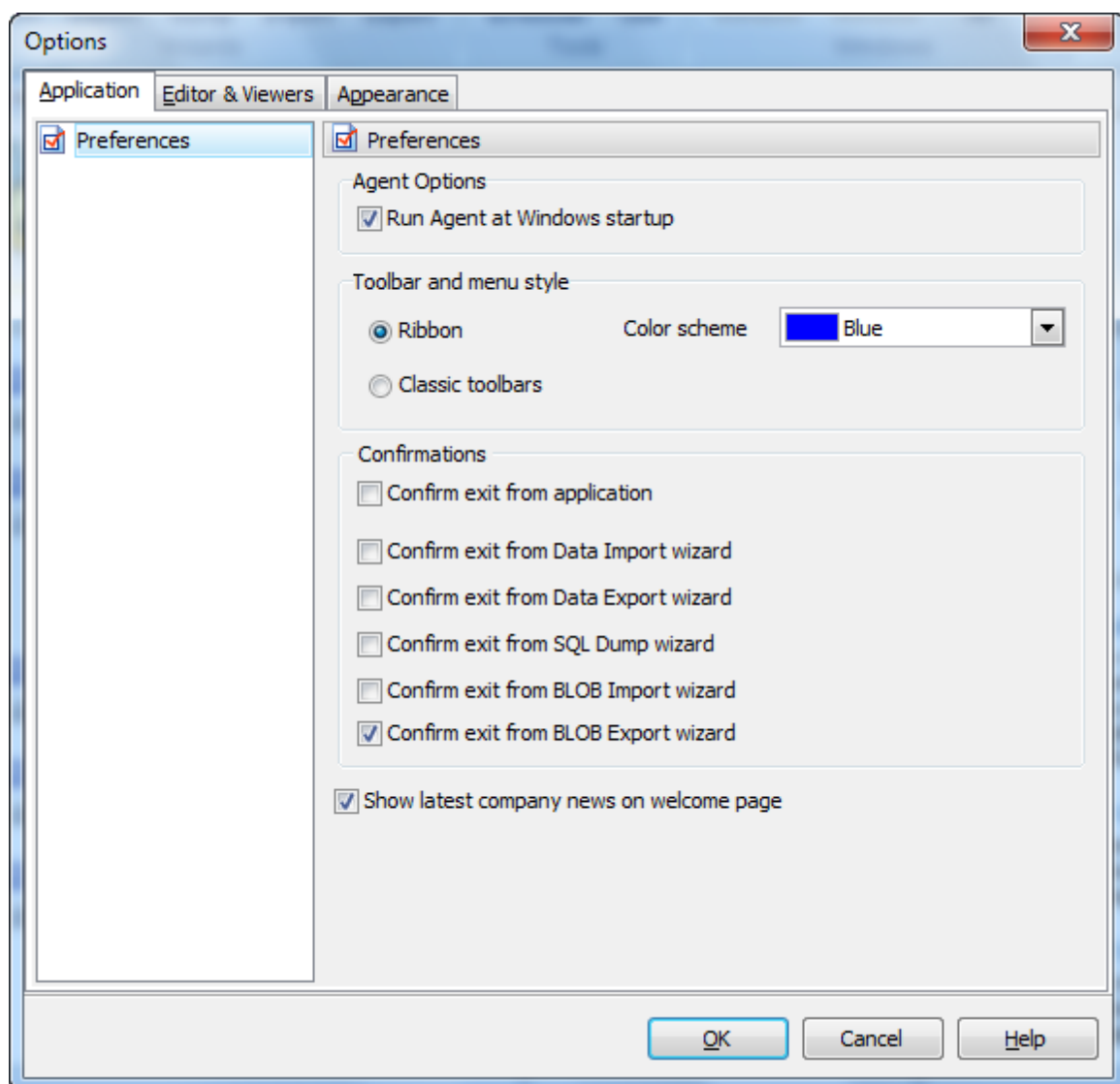
[Agent options](#)

The option allows you to launch Firebird Data Wizard Agent at each Windows startup for executing tasks configured in [Task Scheduler](#)⁵⁴, in background mode.

[Tool bar and menu style](#)

Firebird 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.



9.2 Editors & Viewers

The [Editors & Viewers](#) section allows you to set the parameters of viewing and editing the SQL statements within Firebird Data Wizard.

- [General](#) 
- [Display](#) 
- [SQL highlight](#) 
- [PHP highlight](#) 
- [XML highlight](#) 
- [Code Insight](#) 
- [Code Folding](#) 

9.2.1 General

If the [Auto indent](#) option is checked, each new indentation 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](#)

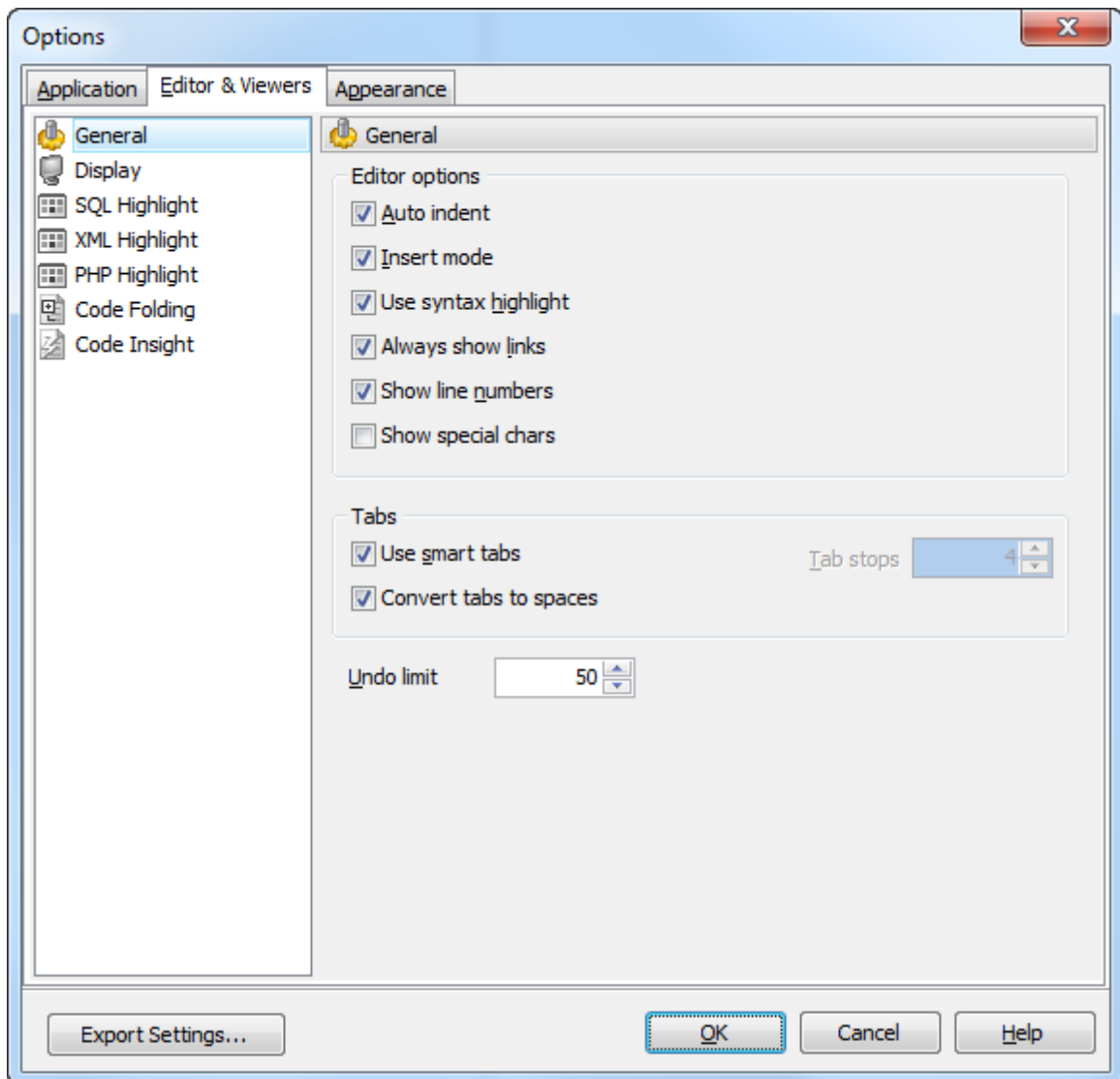
If this option is checked, each time you press the Tab key, the appropriate number of spaces will be added to the edited text.

[Tab Stops](#)

Defines the tab length, used when editing text.

[Undo Limit](#)

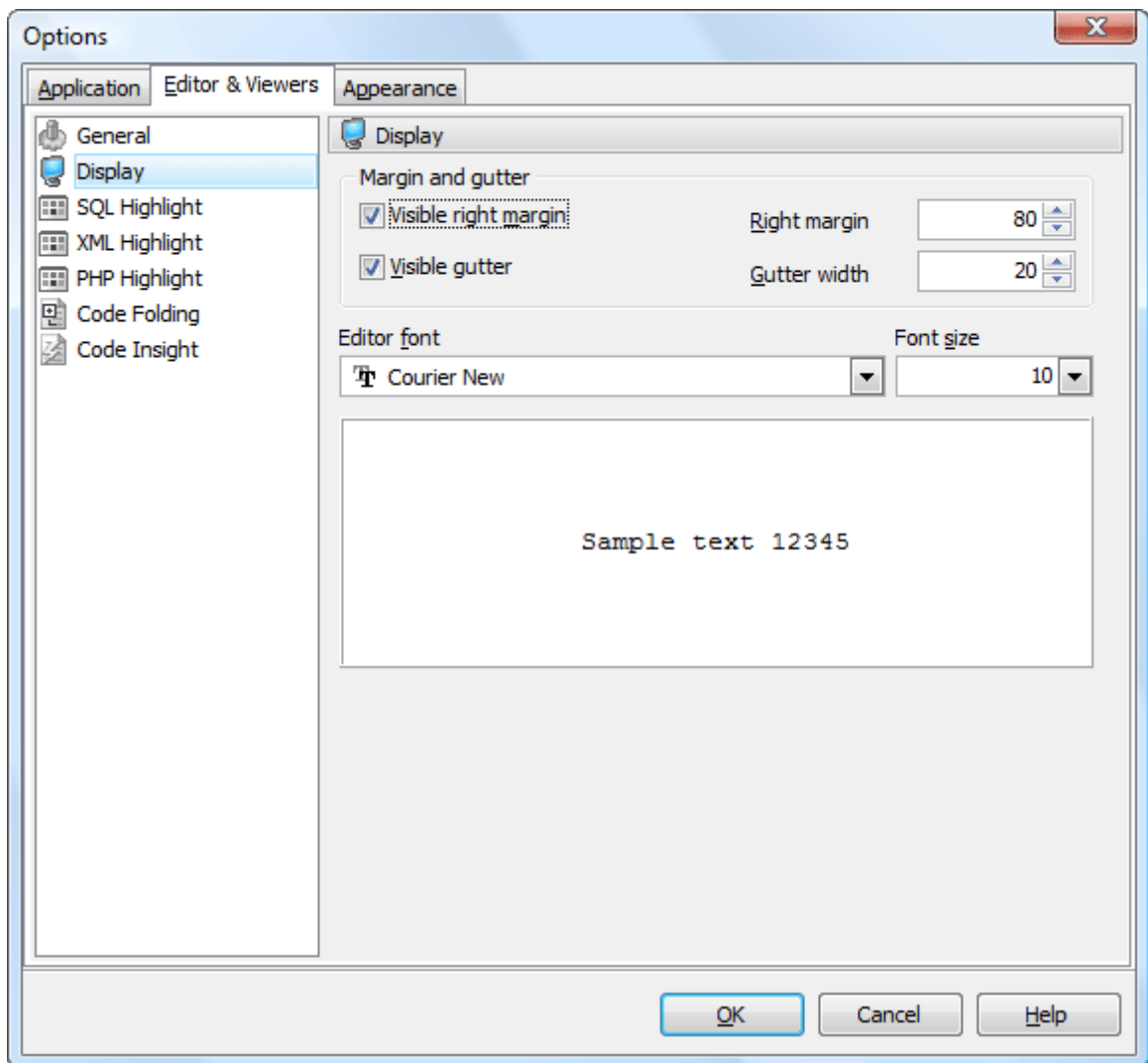
Defines the maximum number of changes possible to be undone.



9.2.2 Display

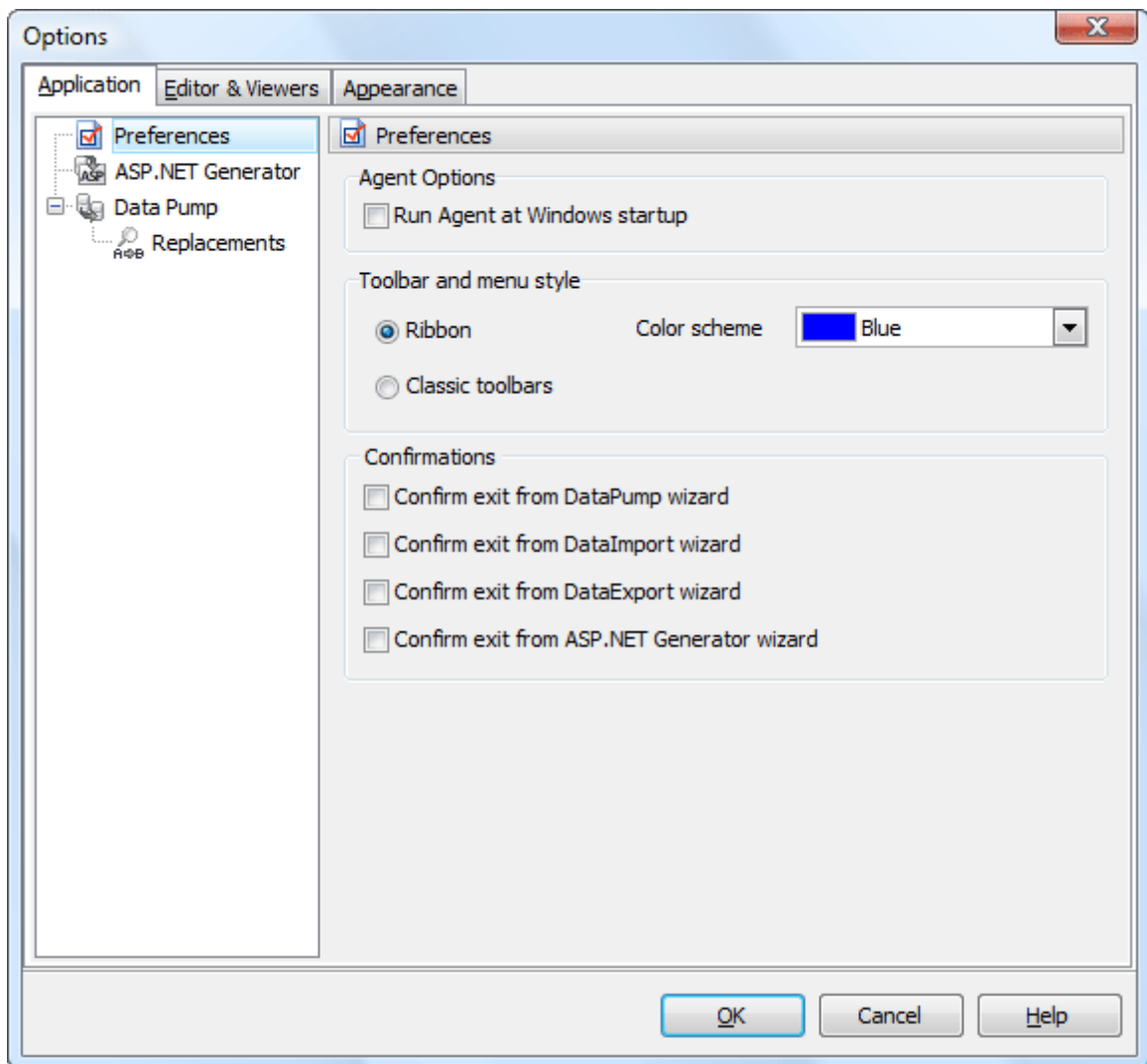
You can disable/enable the right text margin and the gutter of the editor area, set the position of the right text margin as [Right margin](#), and [the Gutter width](#).

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.



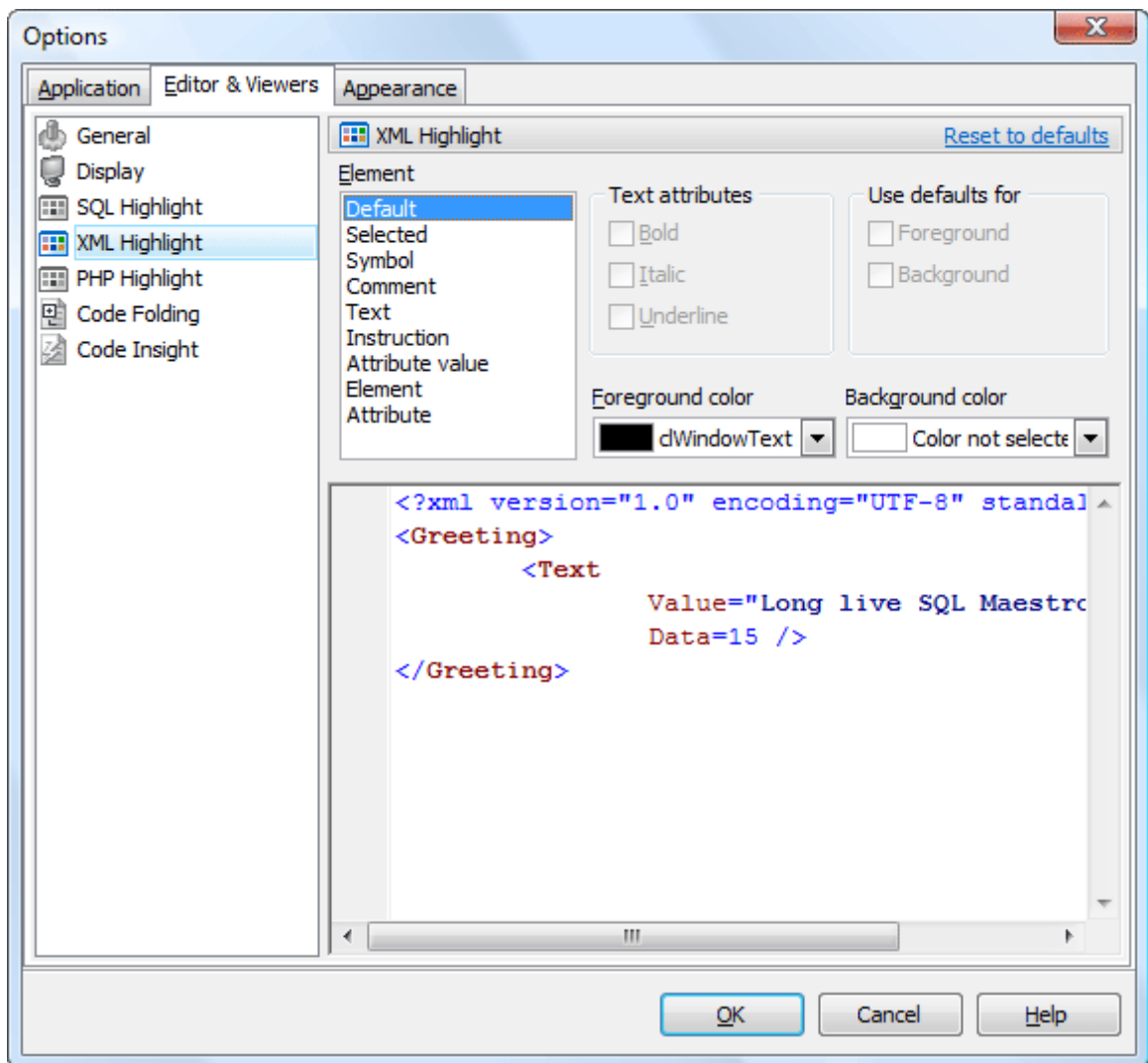
9.2.3 SQL highlight

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.



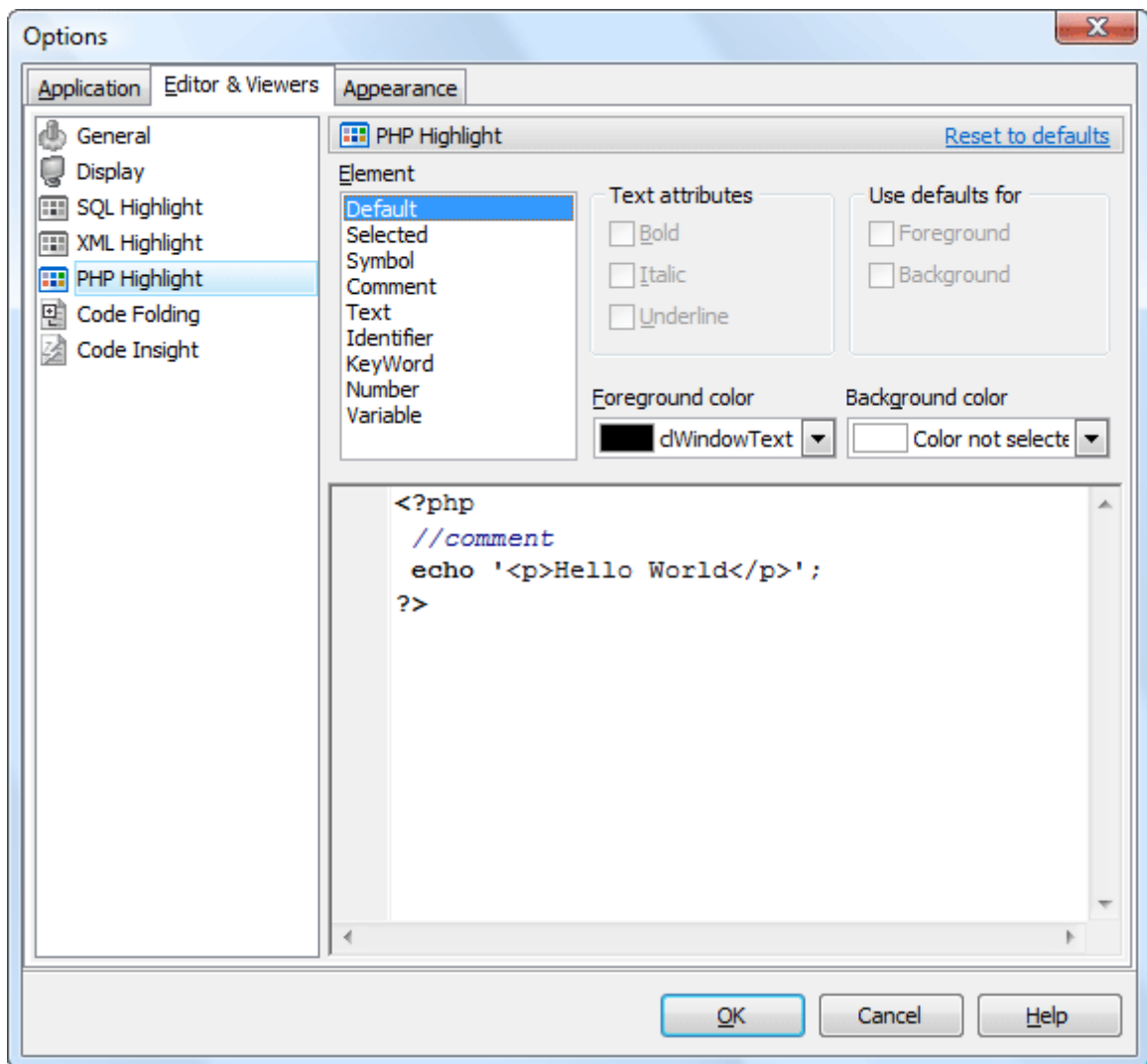
9.2.4 XML highlight

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.



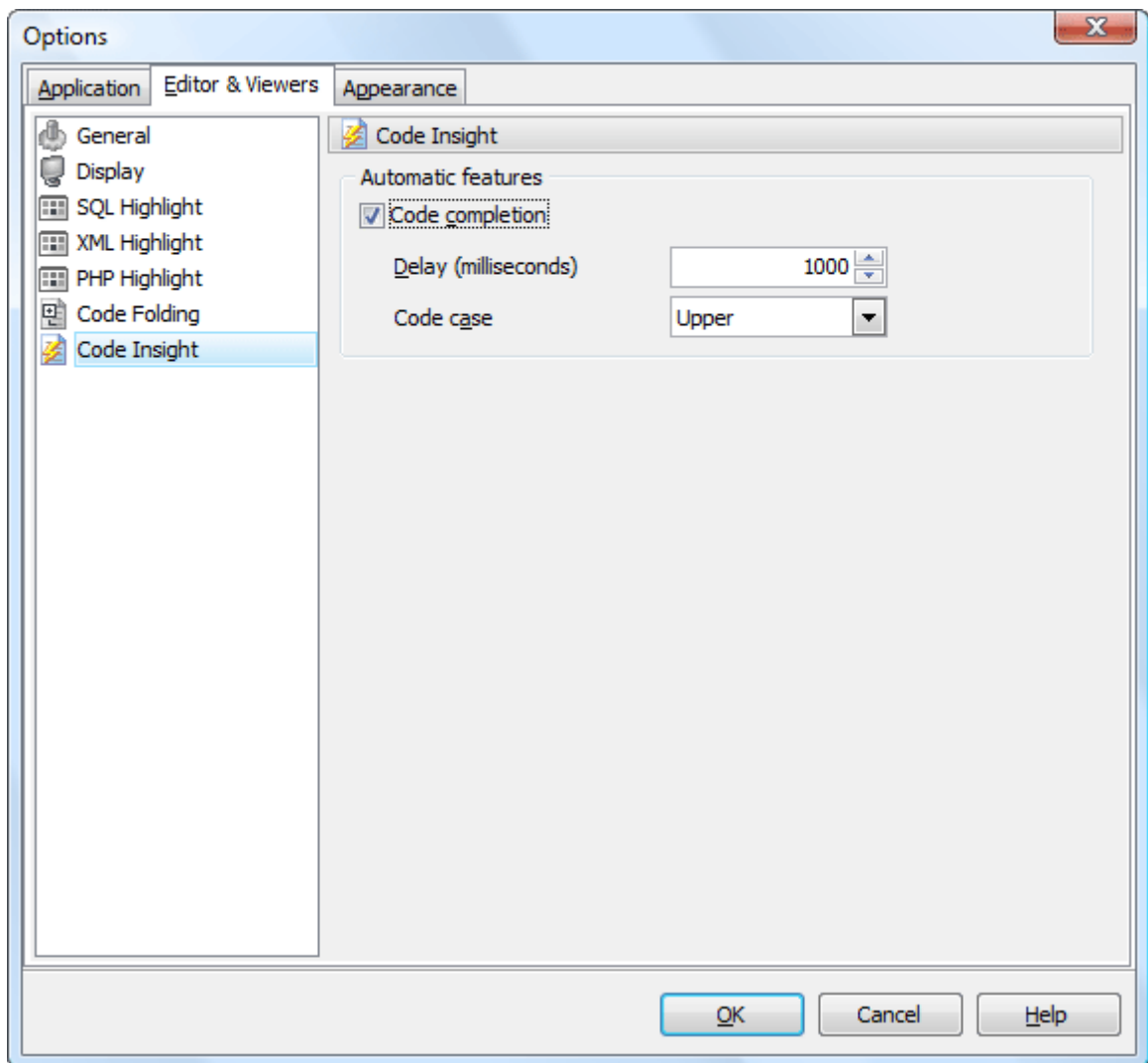
9.2.5 PHP highlight

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.



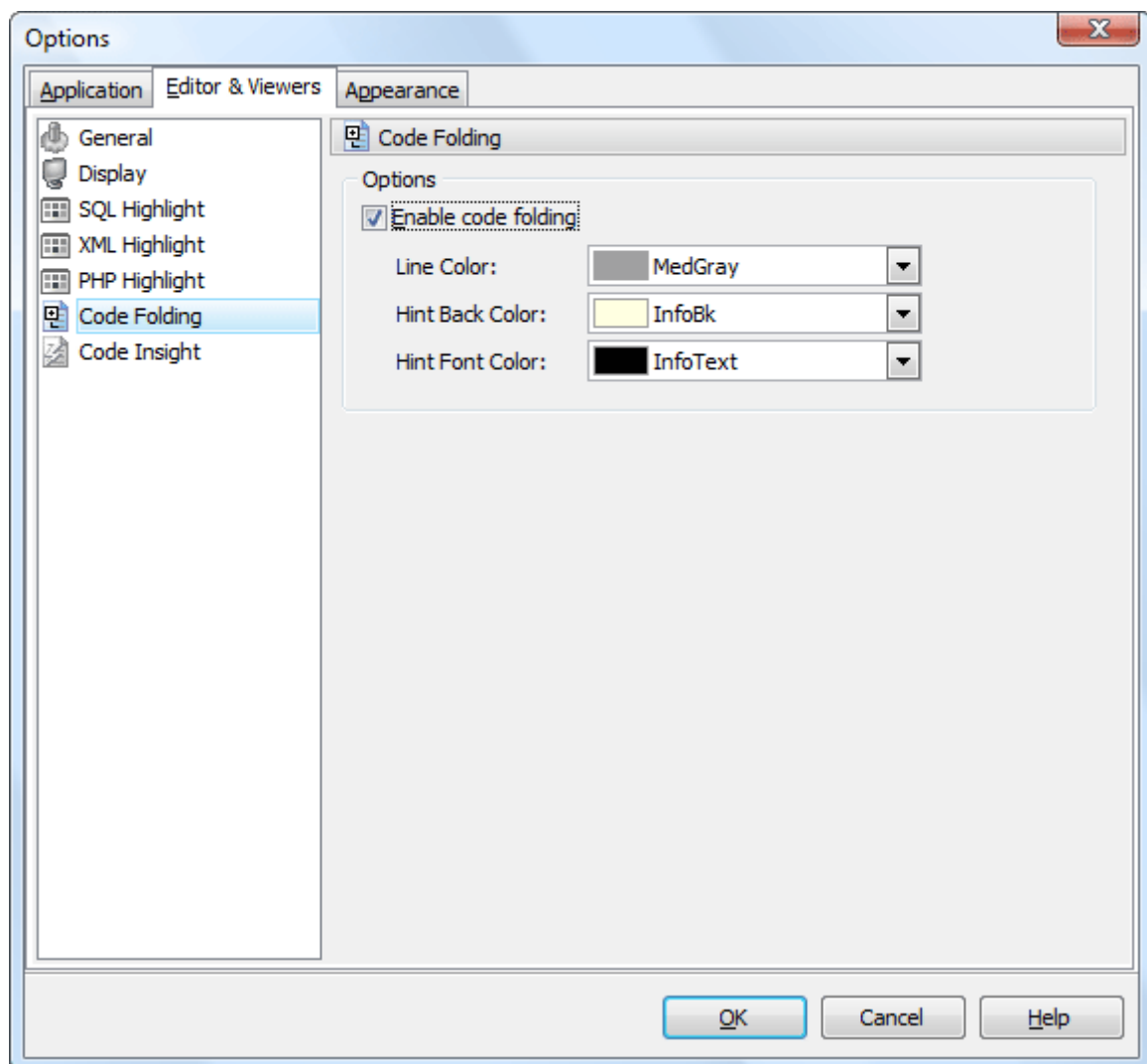
9.2.6 Code Insight

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



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.



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

9.3 Appearance

The [Appearance](#) section allows you to customize the application interface style to your preferences.

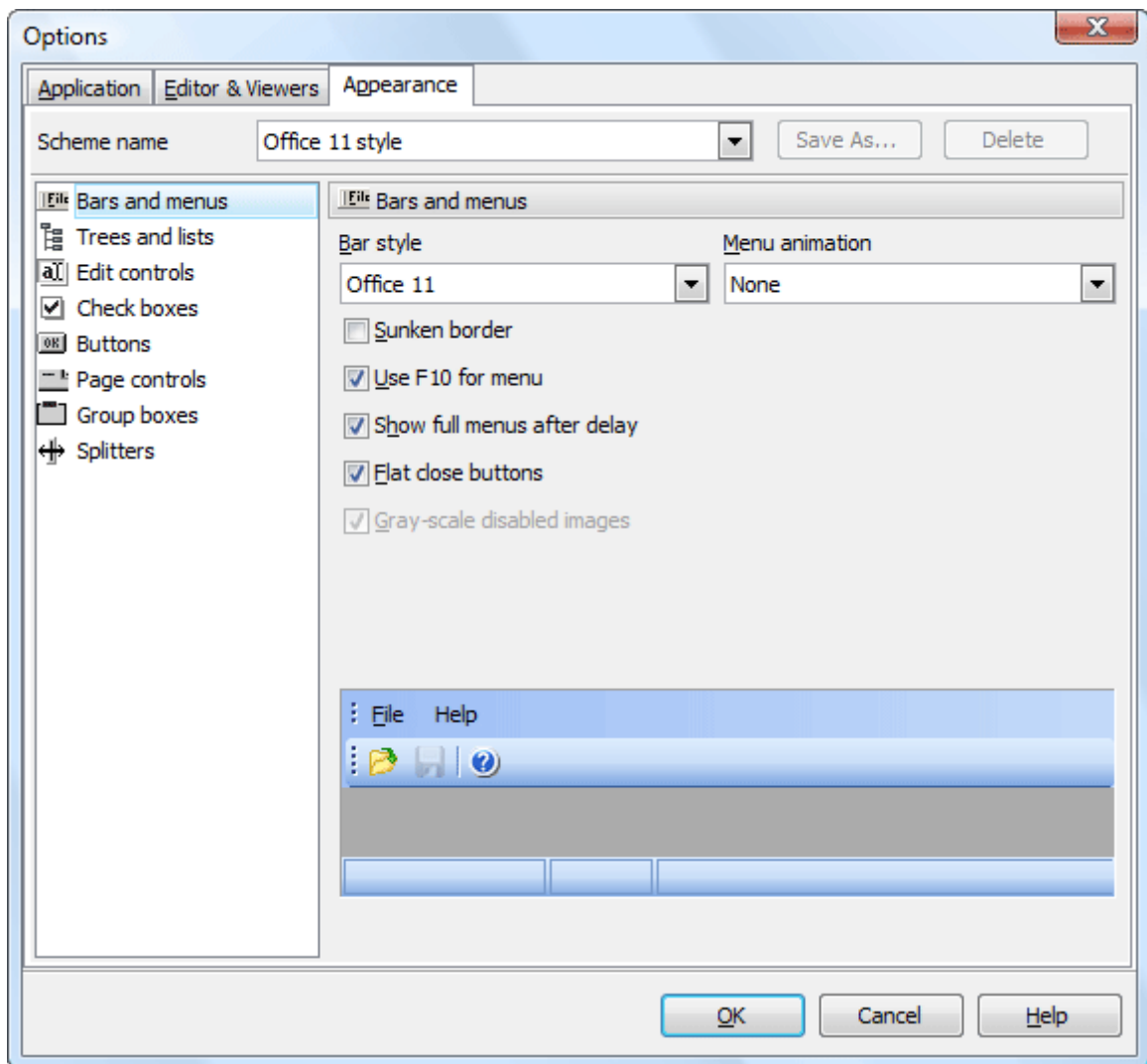
Use the [Scheme name](#) box to select the interface scheme you prefer: *Office XP style*, *Windows XP native style*, etc. You can create your own interface schemes by customizing any visual options ([Bars and menus](#), [Trees and lists](#), [Edit controls](#), [Check boxes](#), [Buttons](#), etc.)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

- [Bars and menus](#) 
- [Trees and lists](#) 
- [Edit controls](#) 
- [Check boxes](#) 
- [Buttons](#) 
- [Page controls](#) 
- [Group boxes](#) 
- [Splitters](#) 

9.3.1 Bars and menus

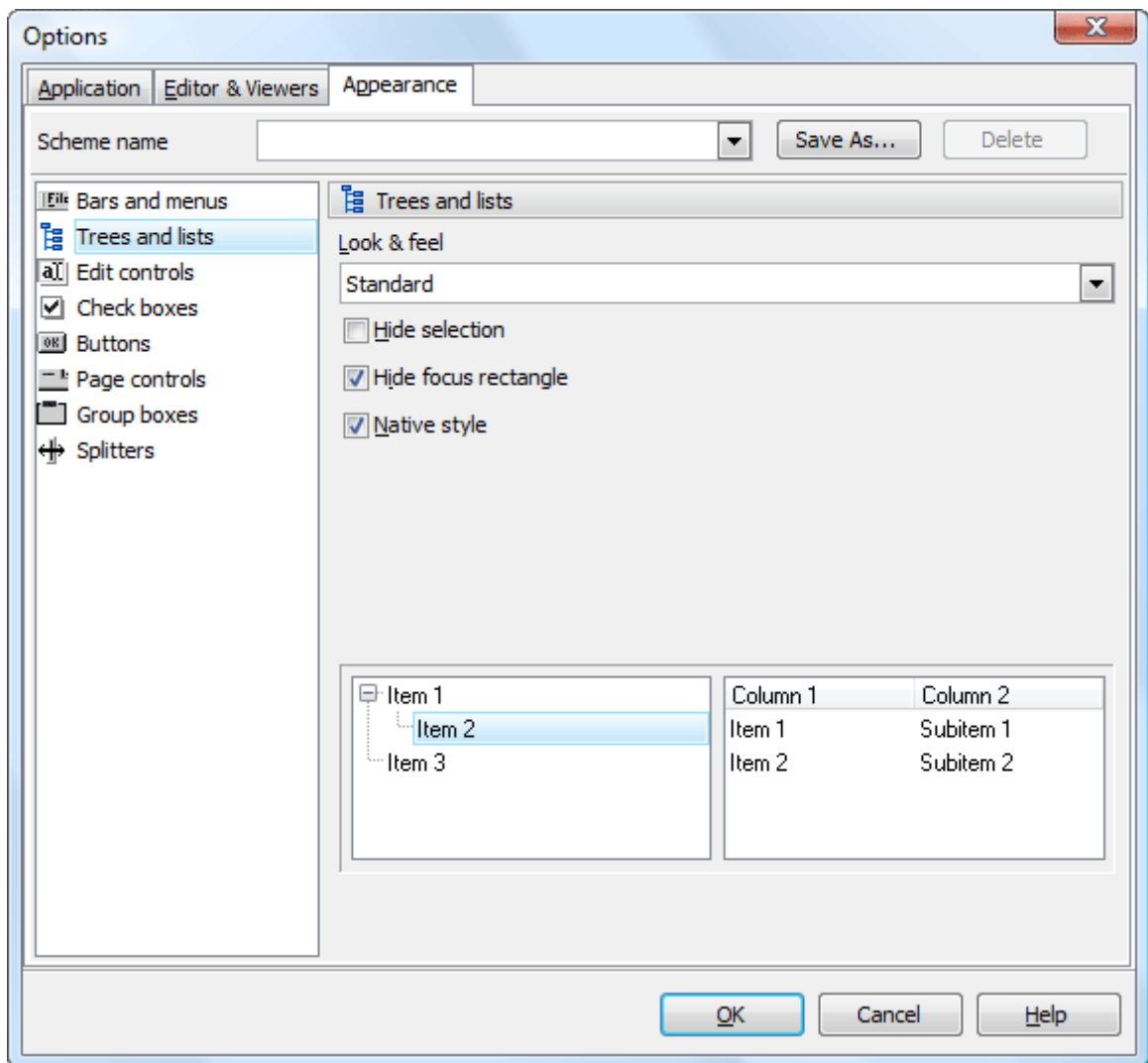
Use the [Bars and menus](#) item to customize Firebird Data Wizard toolbars style and menus animation.

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.



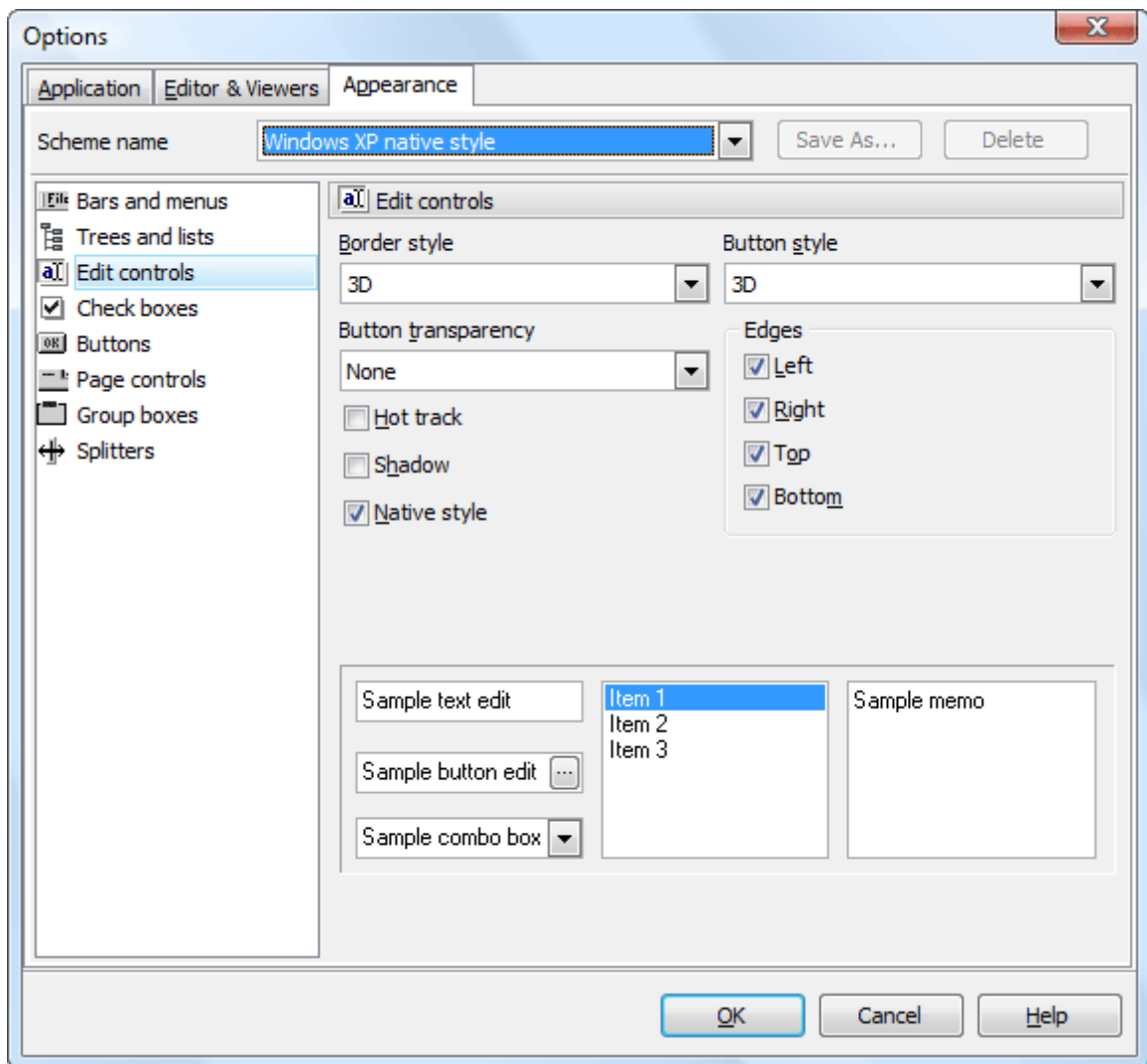
9.3.2 Trees and lists

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.



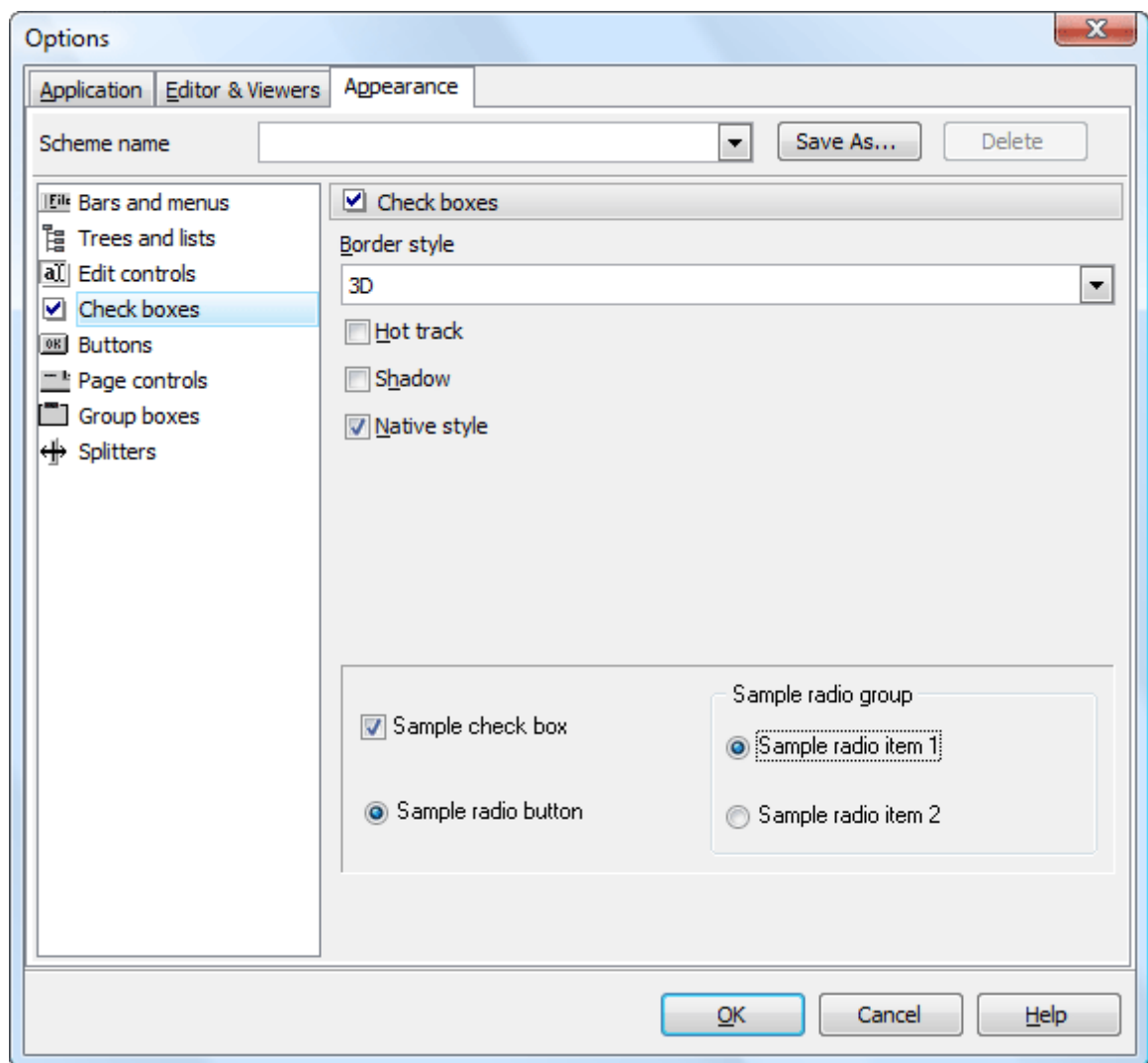
9.3.3 Edit controls

Use the [Edit controls](#) item to customize the appearance of different Firebird 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.



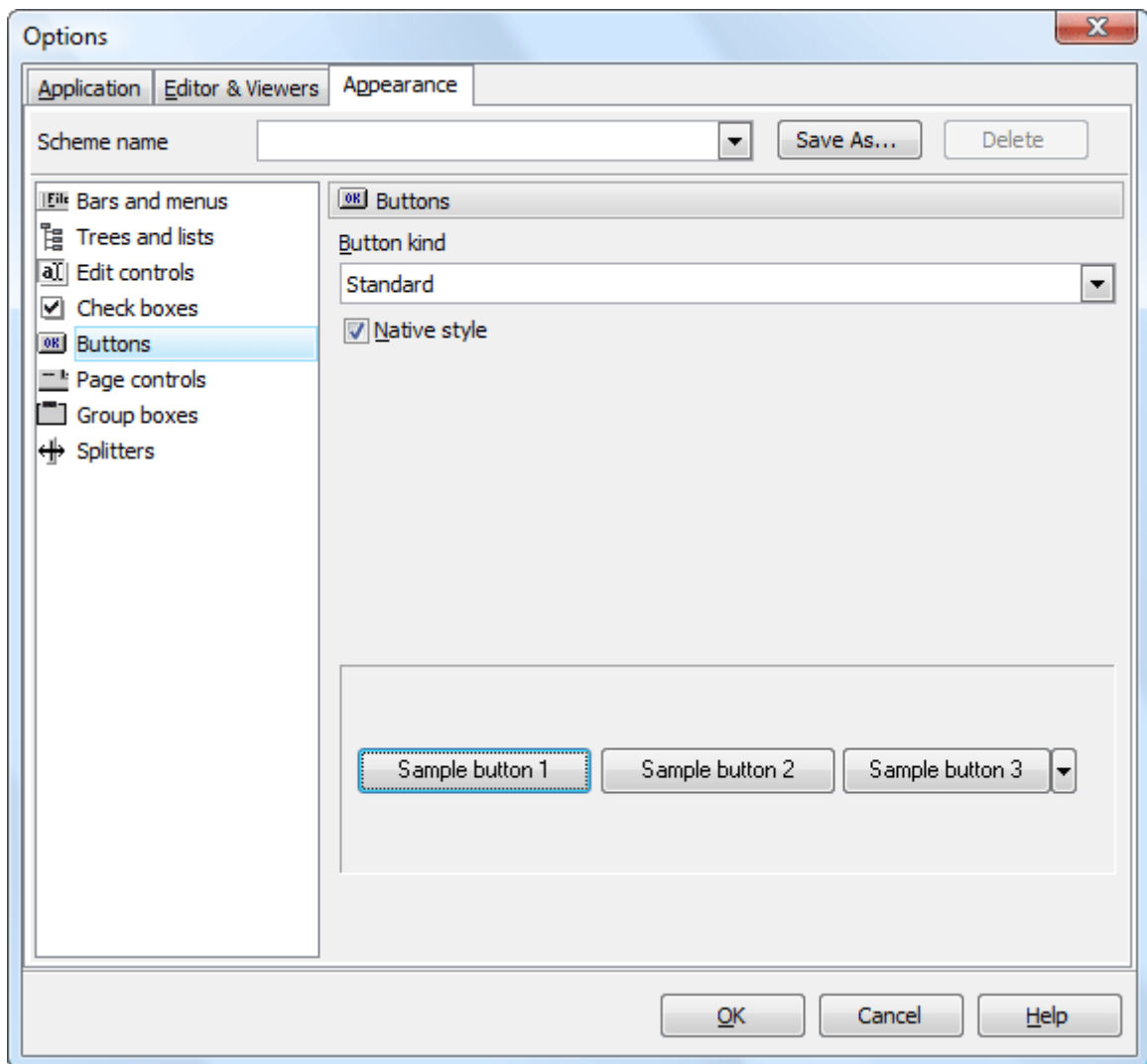
9.3.4 Check boxes

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.



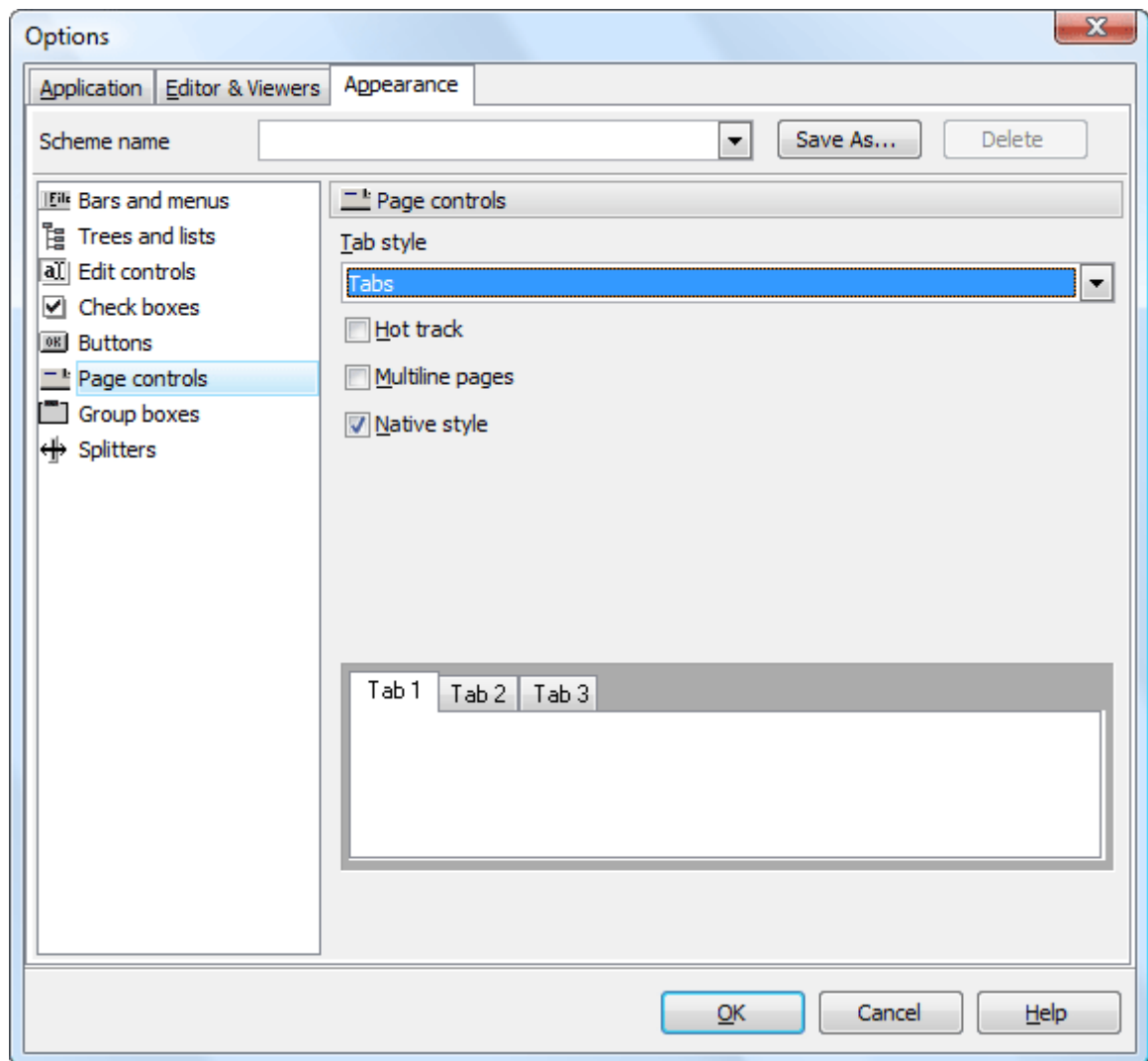
9.3.5 Buttons

Use the [Buttons](#) item to customize Firebird Data Wizard buttons. The tab allows you to adjust the appearance of buttons and define sample buttons as well.



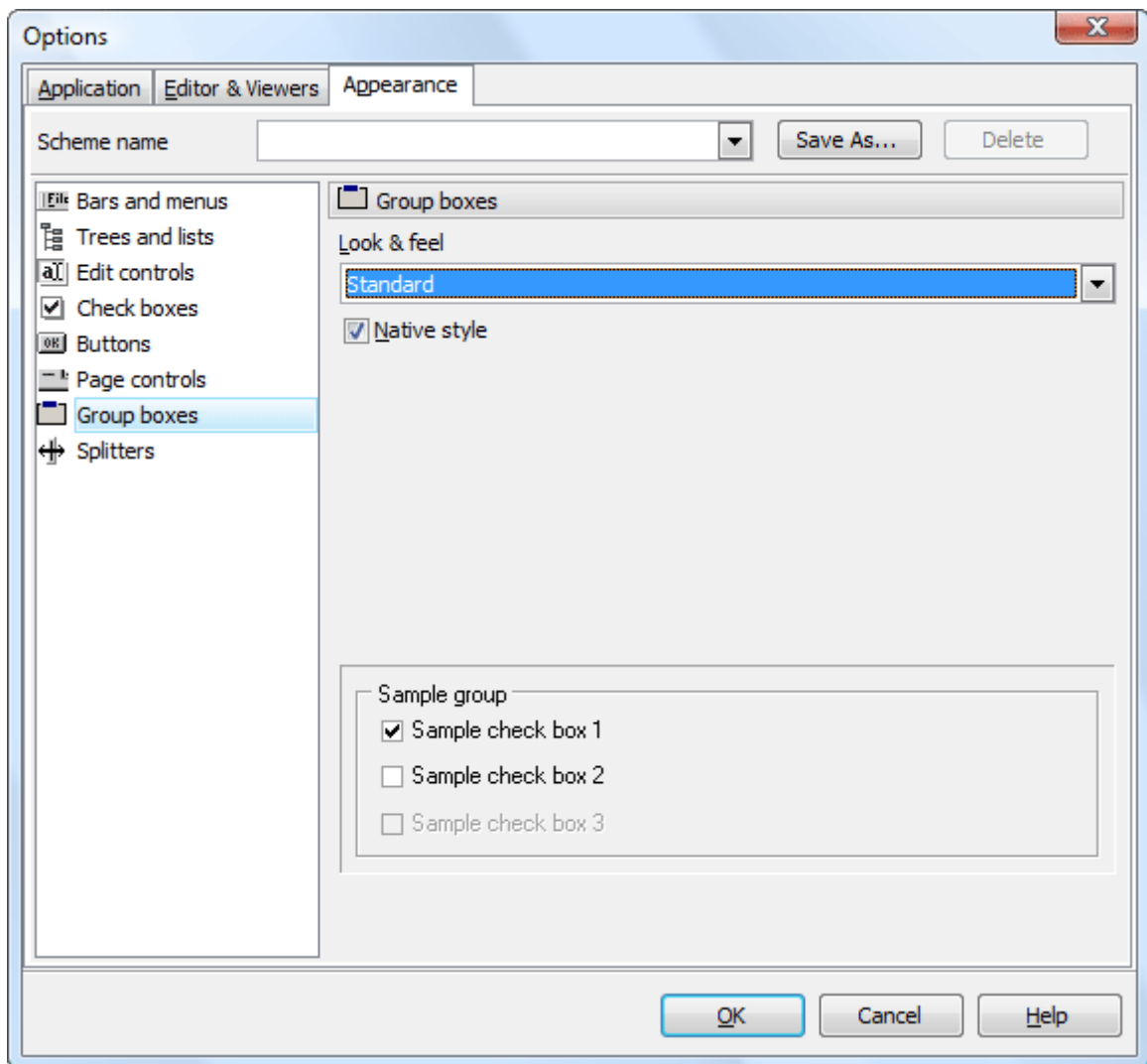
9.3.6 Page controls

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



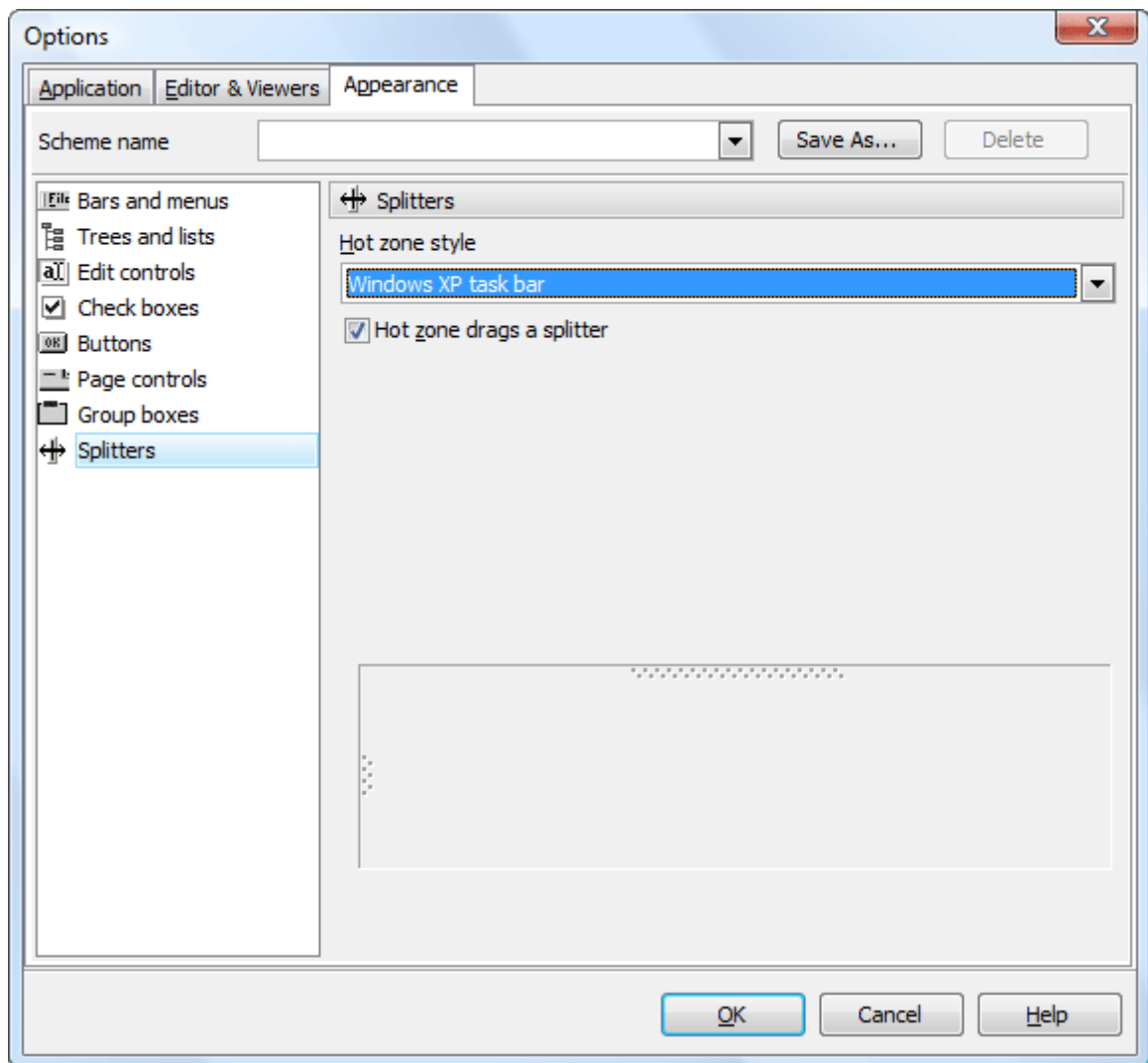
9.3.7 Group boxes

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



9.3.8 Splitters

Use the [Splitters](#) item to customize all Firebird 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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