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EMS® Software Development

Data Export for PostgreSQL User's Manual
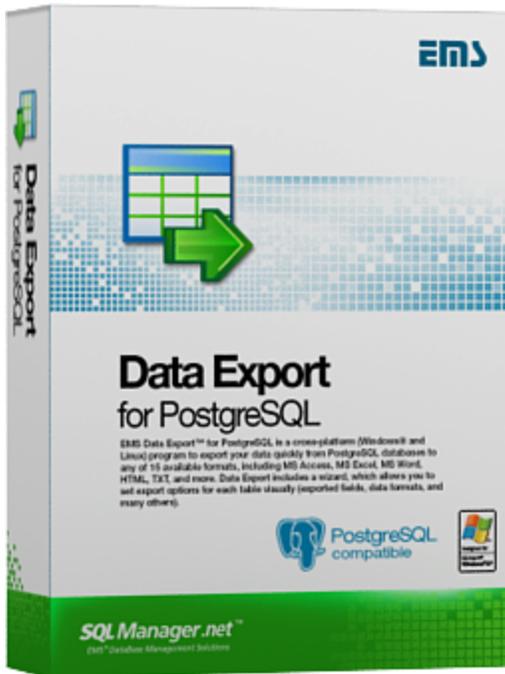
Data Export for PostgreSQL
User's Manual

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This manual documents EMS Data Export for PostgreSQL

Document generated on: 20.01.2025

Table of Contents

Part

I

1   Welcome to EMS Data Export!

EMS Data Export for PostgreSQL is a powerful program to export your data quickly from PostgreSQL databases to any of 20 available formats, including MS Access, MS Excel, MS Word (RTF), HTML, XML, PDF, TXT, CSV, DBF, ACCDB and more. Data Export for PostgreSQL includes a wizard which allows you to set export options for each table visually (destination file name, exported fields, data formats, and many others) and a command-line utility to export data from tables and queries in one-touch.

Visit our web-site: https://www.sqlmanager.net/ for details.

Key features
- Exporting data to most popular formats: MS Excel, MS Access, MS Word, RTF, HTML, PDF, XML, TXT, DBF, CSV, ODF, SYLK, DIF, LaTeX, SQL, ACCDB, Clipboard and others
- Unicode support
- Exporting data from several tables, views or queries at the same time
- Selecting fields to export and changing their order
- Adjustable parameters for each exported table and specific parameters for each output format
- Saving all export parameters set on current wizard session to the configuration file
- Command-line utility to automate your export jobs using the configuration file
- Latest PostgreSQL version support
- Connecting through the SSH and HTTP tunnel
- User-friendly localizable wizard interface

Product information

Homepage:	https://www.sqlmanager.net/products/postgresql/dataexport
Support Ticket System:	https://www.sqlmanager.net/support
Register online at:	https://www.sqlmanager.net/products/postgresql/dataexport/buy

1.1 What's new

Version	**Release date**
Data Export for PostgreSQL 4.0	April 25, 2023

What's new in EMS Data Export?

- Dark interface theme added.
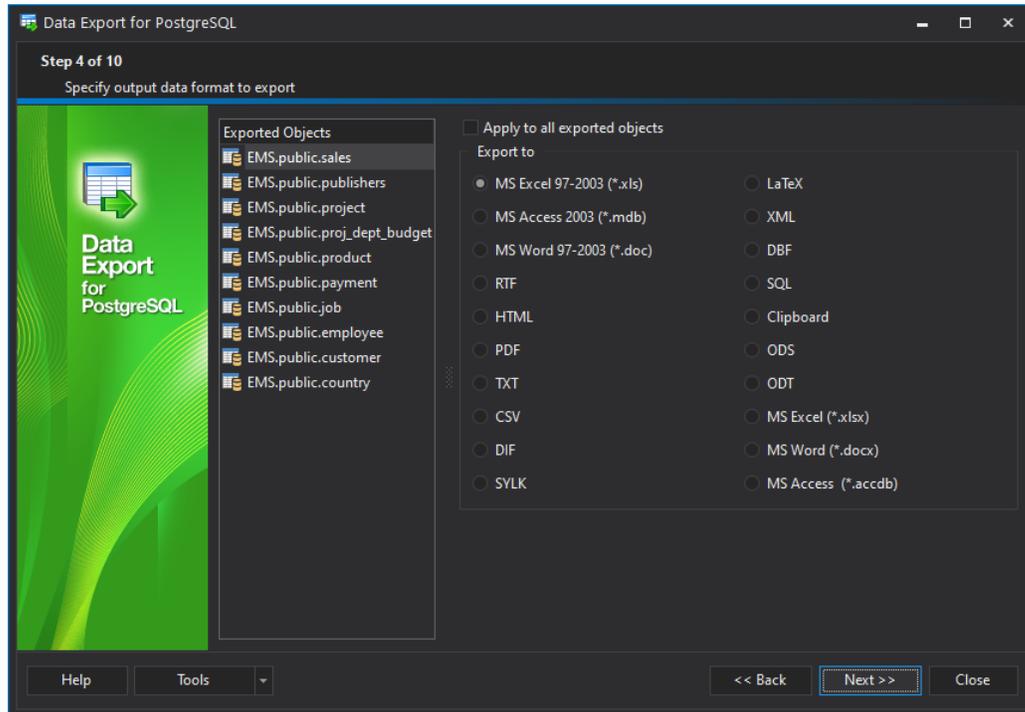
- SSL settings added for PostgreSQL.
- Support for Unicode object names implemented.
- Support for Windows 11 ARM implemented.
- Updated SSH library with support for CDSA, Ed25519 and Keyboard-interactive authentication method.
- Improve support for PostgreSQL 15 server version.
- SFTP implemented for uploading files.
- Temporary files are now removed from TEMP folder automatically.
- The issue of exporting images into DOCX files resolved.
- The error on connecting to cloud PostgreSQL databases fixed.
- Many other improvements and bug-fixes.

See also:

Version history 13

1.2   System requirements

- Microsoft® Windows XP, Microsoft® Windows 2003 Server, Windows® 2008 Server, Microsoft Windows Server 2008 R2, Microsoft Windows Server 2012, Microsoft Windows Server 2012 R2, Microsoft Windows Server 2016, Microsoft Windows Vista, Microsoft Windows 7, Microsoft Windows 8/8.1, Microsoft Windows 10, Microsoft Windows 11, Microsoft Windows 11 ARM
- 512 MB RAM or more
- 50 Mb of available HD space for program installation
- Possibility to connect to any local or remote PostgreSQL server
- Supported PostgreSQL server versions: from 7.3 up to 15.0

1.3   Installation

If you are **installing Data Export for PostgreSQL for the first time** on your PC:
- download the Data Export for PostgreSQL distribution package from the <u>download page</u> available at our site;
- unzip the downloaded file to any local directory, e.g. *C:\unzipped*;
- run *PgExportSetup.exe* from the local directory and follow the instructions of the installation wizard;
- after the installation process is completed, find the Data Export shortcut in the corresponding group of Windows Start menu.

If you want to **upgrade an installed copy of Data Export for PostgreSQL** to the latest version:
- download the Data Export for PostgreSQL distribution package from the <u>download page</u> available at our site;
- unzip the downloaded file to any local directory, e.g. *C:\unzipped*;
- close Data Export application if it is running;
- run *PgExportSetup.exe* from the local directory and follow the instructions of the installation wizard

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See also:

<u>System requirements</u>
8

1.4   How to buy Data Export

All purchases are provided by **PayPro Global** registration service. The **PayPro Global** order process is protected via a secure connection and makes on-line ordering by credit/ debit card quick and safe.

PayPro Global is a global e-commerce provider for software and shareware sales via the Internet. It accepts payments in US Dollars, Euros, Pounds Sterling, Japanese Yen, Australian Dollars, Canadian Dollars or Swiss Franks by Credit Card (Visa, MasterCard/ EuroCard, American Express, Diners Club), Bank/Wire Transfer.

If you want to review your order information, or you have questions about ordering or payments please visit our PayPro Global Shopper Support, provided by **PayPro Global.**

Please note that all of our products are delivered via ESD (Electronic Software Delivery) only. After purchase you will be able to immediately download the registration keys. Also you will receive a copy of registration keys by email. Please make sure to enter a valid email address in your order. If you have not received the keys within 2 hours, please, contact us at sales@sqlmanager.net.

To obtain more information on this product, visit us at https://sqlmanager.net/en/ products/postgresql/dataexport

Product distribution	PayPro Global
EMS Data Export for PostgreSQL (Business license) + 1-Year Maintenance*	
EMS Data Export for PostgreSQL (Business license) + 2-Year Maintenance*	
EMS Data Export for PostgreSQL (Business license) + 3-Year Maintenance*	
EMS Data Export for PostgreSQL (Non-commercial license) + 1-Year Maintenance*	Buy Now!
EMS Data Export for PostgreSQL (Non-commercial license) + 2-Year Maintenance*	
EMS Data Export for PostgreSQL (Non-commercial license) + 3-Year Maintenance*	
EMS Data Export for PostgreSQL (Trial version)	Download Now!

***EMS Maintenance Program** provides the following benefits:
- Free software bug fixes, enhancements, updates and upgrades during the maintenance period
- Free unlimited communications with technical staff for the purpose of reporting Software failures
- Free reasonable number of communications for the purpose of consultation on operational aspects of the software

After your maintenance expires, you will not be able to update your software or get technical support. To protect your investments and have your software up-to-date, you need to renew your maintenance.

You can easily reinitiate/renew your maintenance with our online, speed-through

Maintenance Reinstatement/Renewal Interface. After reinitiating/renewal you will receive a confirmation e-mail with all the necessary information.

See also:

How to register Data Import 12

1.5 How to register Data Export

To **register** your newly purchased copy of EMS Data Export for PostgreSQL, perform the following:

- receive the notification letter from **PayPro Global** with the registration info;
- enter the **Registration Name** and the **Registration Key** from this letter;
- make sure that the registration process has been completed successfully – check the registration information at the startup page 28.
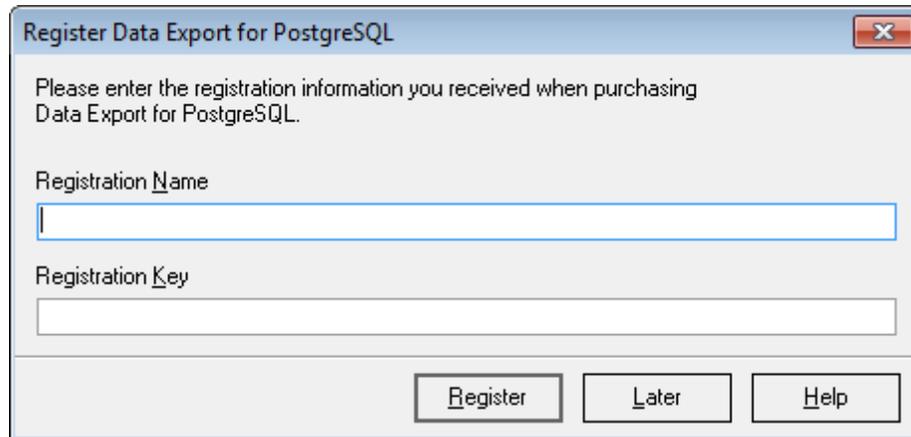
See also:

How to buy Data Export
10

1.6   Version history

Product name	Version	Release date
Data Export for PostgreSQL	**Version 3.7.4** [13]	July 23, 2021
Data Export for PostgreSQL	**Version 3.7.3** [13]	July 19, 2019
Data Export for PostgreSQL	**Version 3.7.2** [13]	August 9, 2017
Data Export for PostgreSQL	**Version 3.7.1** [13]	April 28, 2016
Data Export for PostgreSQL	**Version 3.7.0.1** [14]	June 9, 2014
Data Export for PostgreSQL	**Version 3.6.0.1** [14]	January 28, 2013
Data Export 2011 for PostgreSQL	**Version 3.3.0.1** [15]	February 17, 2010
Data Export 2007 for PostgreSQL	**Version 3.2.0.1** [15]	February 25, 2009
Data Export 2007 for PostgreSQL	**Version 3.1.0.1** [15]	May 22, 2008

Version 3.7.4

- Support for PostgreSQL 13 implemented.
- Added support for MySQL 8.
- Resolved error of connecting to SQL Server with TLS 1.2.
- Erroneous table name in SQL output fixed.
- Invalid call of procedures fixed.
- Other minor fixes.

Version 3.7.3

- SQL Server. Added support for Azure databases.
- BOM mark is now optional for SQL format.
- SQL Server. Connection to SQL Server 2017 with TLS is established correctly now.
- Fields order was saved incorrectly into templates. Fixed now.
- Automatic calculation of width for DOC fields has been improved.
- Some parameters for XLS format were not saved in template. Fixed now.
- PDF orientation was not applied correctly in the command line mode. Fixed now.
- Renamed fields were not saved in template for CSV. Fixed now.
- Queries were not loaded correctly in some cases. Fixed now.
- Schema names were not exported into SQL format with "Apply to all exported objects" option enabled. Fixed now.
- Other fixes and improvements.

Version 3.7.2

- BLOB fields can be exported to Base64 strings for text formats now.
- Adding of BOM is optional now.
- The errors in using Before export script have been fixed.
- The message about deleted tables was not added to the log. Fixed now.
- The error of exporting view data has been fixed.
- Dates were incorrectly exported to XLSX in some cases. Fixed now.
- Data was not exported correctly to TXT with "User-defined column width" option on. Fixed now.
- Many other improvements and bugfixes.

Version 3.7.1

- Support of the latest version of OpenSSH added.

- Memory usage has been improved.
- The template was loaded incorrectly with Studio. Fixed now.
- Data from views was incorrectly exported in console version. Fixed now.
- Now timestamp format in exported file name can be adjusted.
- User-defined field formats were not loaded from the template. Fixed now.
- Many other improvements and bug-fixes.
-

Version 3.7.0.1

- DOCX 84. The possibility to insert images from BLOB-fields to the table is implemented.
- XML 77. Export of binary data from BLOB-field with HEX and Base64 format is implemented.
- Numeric template and date and time template formats 88 refer to the standard Windows formats.
- Passive connection mode is implemented when uploading file to FTP-server.
- XLS 46. When adding the hyperlink to another *.xls file, at times the link turned out to be broken. Fixed now.
- SQL 75. When inserting the large number of records, "Out of memory" error occurred. Fixed now.
- SQL 75. When trying to export query result containing 'left' function of varchar data type field to ORACLE syntax, the function execution result was exported as BLOB data type. Fixed now.
- MDB 59, ACCDB 59. Integer type fields were exported as text. Fixed now.
- CSV 73. The export to UTF-8 coded files did not work. Fixed now.
- XML 77. When exporting data with spaces, ordinary spaces were replaced with nonbreaking spaces. Fixed now.
- Other improvements and bugfixes.

Version 3.6.0.1

- Added the possibility to upload the exported files to FTP server.
- Added the possibility to add date/time to the exported file name.
- Added the possibility to execute SQL scripts 92 before and after exporting the object.
- Now the program template 95 is created as a single file.
- Now the localization is also available in the console version.
- Now the binary data can be exported as HEX.
- Export to SQL 75. Added the possibility to create a single INSERT statement.
- Export to Excel (xls) 46. Now you can set the specified number of rows to split the exported data into the worksheets in Excel.
- Now you can save changes to a template without recalling the save dialog.
- Loading from a template caused SQL queries corruption. Fixed now.
- Exporting to Access caused the loss of the decimal number precision. Fixed now.
- Other minor improvements and bugfixes.

Version 3.5.0.1

- Added the possibility to export data 37 to MS Access 2007 (*.accdb Microsoft Access Database Engine 2010 Redistributable is required).
- Now the Help file is opened in the selected language of the program.
- Added the context menu for SQL Query Editor 34: Copy, Paste, Select All, Save as default query.

- Added the possibility to save and copy the Export Process log 94 to the clipboard.
- There was a memory leak when exporting to Excel 2007. Fixed now.
- When launching two or more instances of the export console simultaneously specifying an individual log file for each instance, the log file was created for the first instance only. Fixed now.
- When exporting more than 2 GB of data to MS Access, a user-friendly error message is generated.
- The Export Process log 94 did not support Unicode characters. Fixed now.
- Other improvements and bugfixes.

Version 3.4.0.7
The console version now displays the progress of the export process.
- The export into SQL format on Windows 7 resulted in the Access Violation error. Fixed now.
- When exporting into an existing table of MS Access, an error occurred. Fixed now.
- When exporting into the PDF format, the right and center alignment worked incorrectly. Fixed now.
- Now when exporting into PDF, lines with a large number of characters are split and placed correctly without overlapping the neighboring cells.
- The interface language chosen for the utility was not saved. Fixed now.
- Now the non-allowed characters in the automatically generated names are replaced by the underscore.
- Some other improvements and bugfixes.

Version 3.3
When exporting from a SQL query, the query text can be added both to *Header* and *Footer*
- Some visual changes are introduced; the sizes of forms/form parts are saved now
- Fixed the bug, connected with writing the rows number to the DBF file header
- It is now possible to define size and decimal for float fields when exporting to the DBF file
- An error occurred on exporting more than 65536 records to Excel 97-2003. Fixed now
- Some other improvements and bugfixes

Version 3.2

- The utility now supports PostgreSQL 8.3
- When exporting data to SQL Script, BLOB (MEMO, BLOB, CLOB, etc.) data is formatted according to the destination server syntax
- Added the possibility to set page orientation when exporting data to MS Word 2007 84
- Connecting to PostgreSQL resulted in error, if a user was lack of rights for 'template1' database. Fixed now
- When a template 95 was used for export, tables weren't displayed at Step 5. Fixed now
- Some other improvements and bugfixes

Version 3.1

- Added the possibility to select file encoding when exporting to TXT 72 (ANSI, OEM,

MAC, UTF8, UTF16, UTF32)
- Export to SQL script 75: if the source DBMS is selected as the destination server, the syntax of the CREATE TABLE statement completely complies with the source DBMS specifications
- Export to SQL script 75: added the possibility to generate the 'IDENTITY_INSERT' SQL statement for export to MS SQL script
- Now the 'Destination Directory' value is saved to the template 95 and is restored when the template is loaded
- The DBF files created by the utility were larger in size than required, as the size of all created char fields was set to 254. Fixed now
- Other minor improvements and bug-fixes

Older version history is available at http://www.sqlmanager.net/products/postgresql/dataexport/news

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See also:

What's new 7

1.7   EMS Data Export FAQ

Please read this page attentively if you have questions about Data Export for PostgreSQL.

Table of contents

Question/answer list

Q: What is EMS Data Export for PostgreSQL?
A: EMS Data Export for PostgreSQL is a powerful program to export your data quickly from PostgreSQL databases to any of 20 available formats, including MS Access, MS Excel, MS Word (RTF), HTML, XML, PDF, TXT, CSV, DBF and others. Data Export for PostgreSQL includes a wizard 26 which allows you to set export options for each table visually (destination file name, exported fields, data formats, and much more) and a command-line utility 105 to export data from tables and queries in one-touch.

Q: What do I need to start working with EMS Data Export for PostgreSQL?
A: First of all, you must have a possibility to connect to some local or remote PostgreSQL server to work with Data Export. You can download PostgreSQL database server from https://www.postgresql.org/download/. Besides, you need your workstation to satisfy the system requirements 8 for Data Export for PostgreSQL.

Q: What is the difference between the Export feature of SQL Manager for PostgreSQL and the Data Export for PostgreSQL standalone utility?
A: First of all, Data Export for PostgreSQL works faster as it is a considerably lighter application. Besides, it provides additional features for query building, namely:
- export data from several tables simultaneously;
- export data from tables 32 and queries 34 selected from different databases;
- the command-line version of the utility to export data using the configuration 95 (template 95) file with all export settings.

Q: Are there any limitations implied in the trial version as compared with the full one?
A: Actually the trial version of the utility only allows you to export 20% of records at a time. In spite of this limitation, you can test all the features implemented in Data Export for PostgreSQL within the 30-day trial period.

Q: What is the easiest way to configure the template files for the Data Export console application?
A: You can configure the template files for each table visually using the Data Export

Wizard application [26]. Set the required export options and select the Tools | Save Template menu item on Step 8 [90] or Step 9 [94] of the wizard. All the options will be saved to the template file which can be used by the console application [105].

Q: I work behind a firewall (router). Can EMS Data Export connect to a remote PostgreSQL server?

A: If due to the security policy accepted in your corporate network or by your host provider you cannot connect to your PostgreSQL server directly through TCP/IP (for example a firewall prevents this), you can use SSH or HTTP tunneling feature of SQL Manager to fulfill your task.

Q: Why cannot I connect to PostgreSQL Server?

A: 1. Make sure that there is a record for your client PC in pg_hba.conf file on PostgreSQL server. This file can be found in database cluster's data directory.
   2. If you connect to the remote server, then the TCP/IP connections should be allowed on the remote server. In this case you need to edit file postgresql.conf on the server: just add the name or TCP/IP of the client PC in the listen_addresses list. Or you can as well put * character; in this case the connection from any host will be allowed. You can get the same result if you run the server with -i option, which is the same as listen_addresses = '*'.
   3. Make sure that you enter the correct login/password.
   4. You use password authentication, but it is not supported in Data Export.

Scroll to top [17]

If you still have any questions, contact us at Support Center.

1.8   Other EMS Products

Quick navigation

MySQL

SQL Management Studio for MySQL
EMS SQL Management Studio for MySQL is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!

SQL Manager for MySQL
Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.

Data Export for MySQL
Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more.

Data Import for MySQL
Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.

Data Pump for MySQL
Migrate from most popular databases (MySQL, PostgreSQL, Oracle, DB2, InterBase/Firebird, etc.) to MySQL.

Data Generator for MySQL
Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.

DB Comparer for MySQL
Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.

DB Extract for MySQL
Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.

SQL Query for MySQL
Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.

Data Comparer for MySQL
Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

Microsoft SQL Server

SQL Management Studio for SQL Server
EMS SQL Management Studio for SQL Server is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!

EMS SQL Backup for SQL Server
Perform backup and restore, log shipping and many other regular maintenance tasks on the whole set of SQL Servers in your company.

SQL Administrator for SQL Server
Perform administrative tasks in the fastest, easiest and most efficient way. Manage maintenance tasks, monitor their performance schedule, frequency and the last execution result.

SQL Manager for SQL Server
Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.

Data Export for SQL Server
Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more

Data Import for SQL Server
Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.

Data Pump for SQL Server
Migrate from most popular databases (MySQL, PostgreSQL, Oracle, DB2, InterBase/Firebird, etc.) to Microsoft® SQL Server™.

Data Generator for SQL Server
Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.

DB Comparer for SQL Server
Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.

DB Extract for SQL Server
Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.

SQL Query for SQL Server
Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.

Data Comparer for SQL Server
Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

Scroll to top [19]

PostgreSQL

SQL Management Studio for PostgreSQL
EMS SQL Management Studio for PostgreSQL is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!

EMS SQL Backup for PostgreSQL
Creates backups for multiple PostgreSQL servers from a single console. You can use automatic backup tasks with advanced schedules and store them in local or remote folders or cloud storages

SQL Manager for PostgreSQL
Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.

Data Export for PostgreSQL
Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more

Data Import for PostgreSQL
Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.

Data Pump for PostgreSQL
Migrate from most popular databases (MySQL, SQL Server, Oracle, DB2, InterBase/Firebird, etc.) to PostgreSQL.

Data Generator for PostgreSQL
Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.

DB Comparer for PostgreSQL
Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.

DB Extract for PostgreSQL
Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.

SQL Query for PostgreSQL
Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.

Data Comparer for PostgreSQL
Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

InterBase / Firebird

SQL Management Studio for InterBase/Firebird
EMS SQL Management Studio for InterBase and Firebird is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!

SQL Manager for InterBase/Firebird
Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.

Data Export for InterBase/Firebird
Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more

Data Import for InterBase/Firebird
Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.

Data Pump for InterBase/Firebird
Migrate from most popular databases (MySQL, SQL Server, Oracle, DB2, PostgreSQL, etc.) to InterBase/Firebird.

Data Generator for InterBase/Firebird
Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.

DB Comparer for InterBase/Firebird
Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.

DB Extract for InterBase/Firebird
Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.

SQL Query for InterBase/Firebird
Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.

Data Comparer for InterBase/Firebird
Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

Oracle

SQL Management Studio for Oracle
EMS SQL Management Studio for Oracle is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!

SQL Manager for Oracle
Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.

Data Export for Oracle
Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more.

Data Import for Oracle
Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.

Data Pump for Oracle
Migrate from most popular databases (MySQL, PostgreSQL, MySQL, DB2, InterBase/Firebird, etc.) to Oracle

Data Generator for Oracle
Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.

DB Comparer for Oracle
Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.

DB Extract for Oracle
Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.

SQL Query for Oracle
Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.

Data Comparer for Oracle
Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

IBM DB2

SQL Manager for DB2
Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.

Data Export for DB2
Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more.

Data Import for DB2
Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.

Data Pump for DB2
Migrate from most popular databases (MySQL, PostgreSQL, Oracle, MySQL, InterBase/Firebird, etc.) to DB2

Data Generator for DB2
Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.

DB Extract for DB2
Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.

SQL Query for DB2
Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.

Tools & components

Advanced Data Export for RAD Studio VCL
Advanced Data Export for RAD Studio VCL allows you to save your data in the most popular office programs formats.

Advanced Data Export .NET
Advanced Data Export .NET is a component for Microsoft Visual Studio .NET that will allow you to save your data in the most popular data formats for the future viewing, modification, printing or web publication. You can export data into MS Access, MS Excel, MS Word (RTF), PDF, TXT, DBF, CSV and more! There will be no need to waste your time on tiresome data conversion - Advanced Data Export will do the task quickly and will give the result in the desired format.

Advanced Data Import for RAD Studio VCL
Advanced Data Import for RAD Studio VCL will allow you to import your data to the database from files in the most popular data formats.

Advanced PDF Generator for RAD Studio
Advanced PDF Generator for RAD Studio gives you an opportunity to create PDF documents with your applications written on Delphi or C++ Builder.

Advanced Query Builder for RAD Studio VCL
Advanced Query Builder for RAD Studio VCL is a powerful component for Delphi and C++ Builder intended for visual building SQL statements for the SELECT, INSERT, UPDATE and DELETE clauses.

Advanced Excel Report for RAD Studio
Advanced Excel Report for RAD Studio is a powerful band-oriented generator of template-based reports in MS Excel.

Advanced Localizer for RAD Studio VCL
Advanced Localizer for RAD Studio VCL is an indispensable component for Delphi for adding multilingual support to your applications.
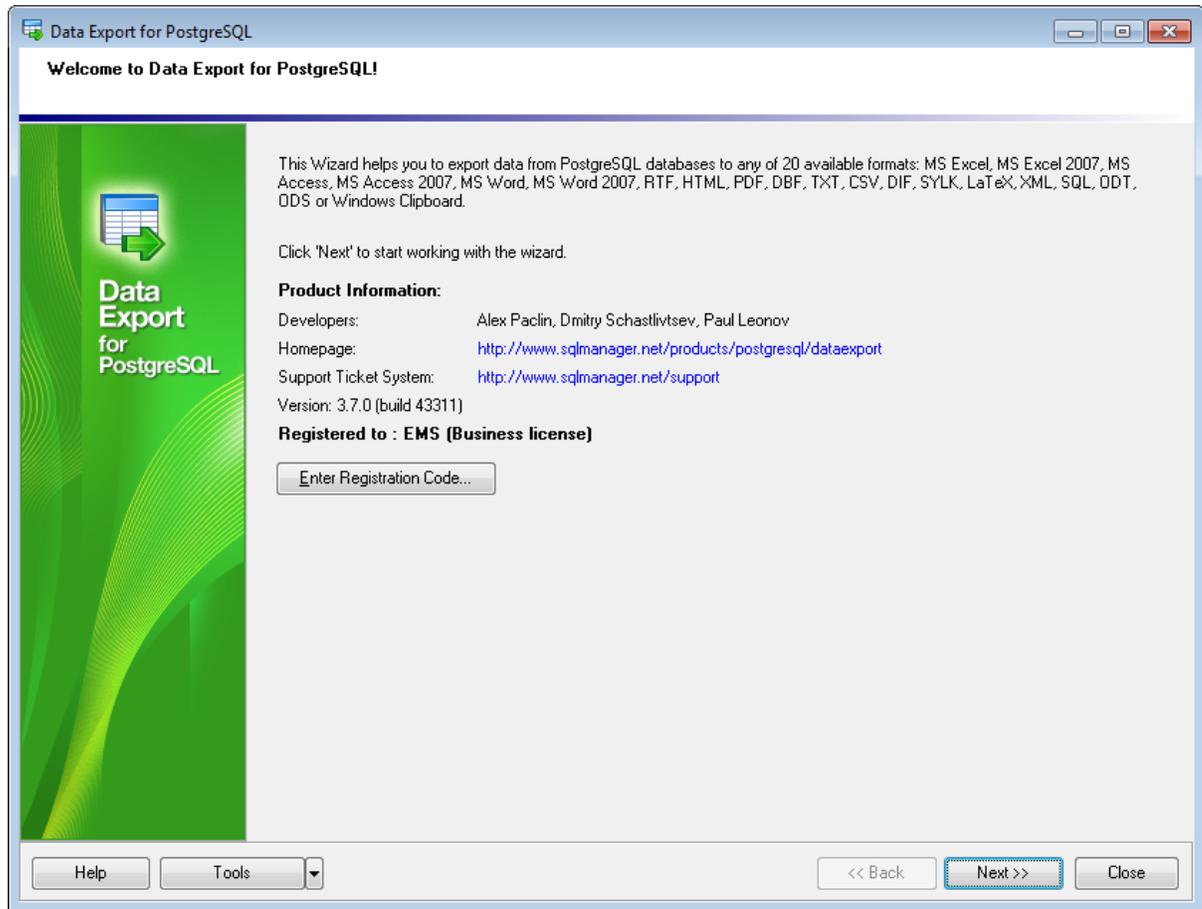
Part II

2   Wizard application

Data Export for PostgreSQL wizard application provides easy-to-use wizard interface to set all data export parameters visually.

- Working with wizard application
- Using configuration files
- Setting program preferences

See also:
Console application

2.1   Working with wizard application

Follow the steps of the wizard to export data from PostgreSQL tables for your needs.

See also:

2.1.1   Getting started

This is how Data Export for PostgreSQL wizard application looks when you start it.

This page allows you to view registration information and current program version.

Enter Registration Code...
If you have not registered Data Export for PostgreSQL yet, you can do it by pressing the button and entering your registration 12 information.
If the registration is correct, message with maintenance period ending date will appear.
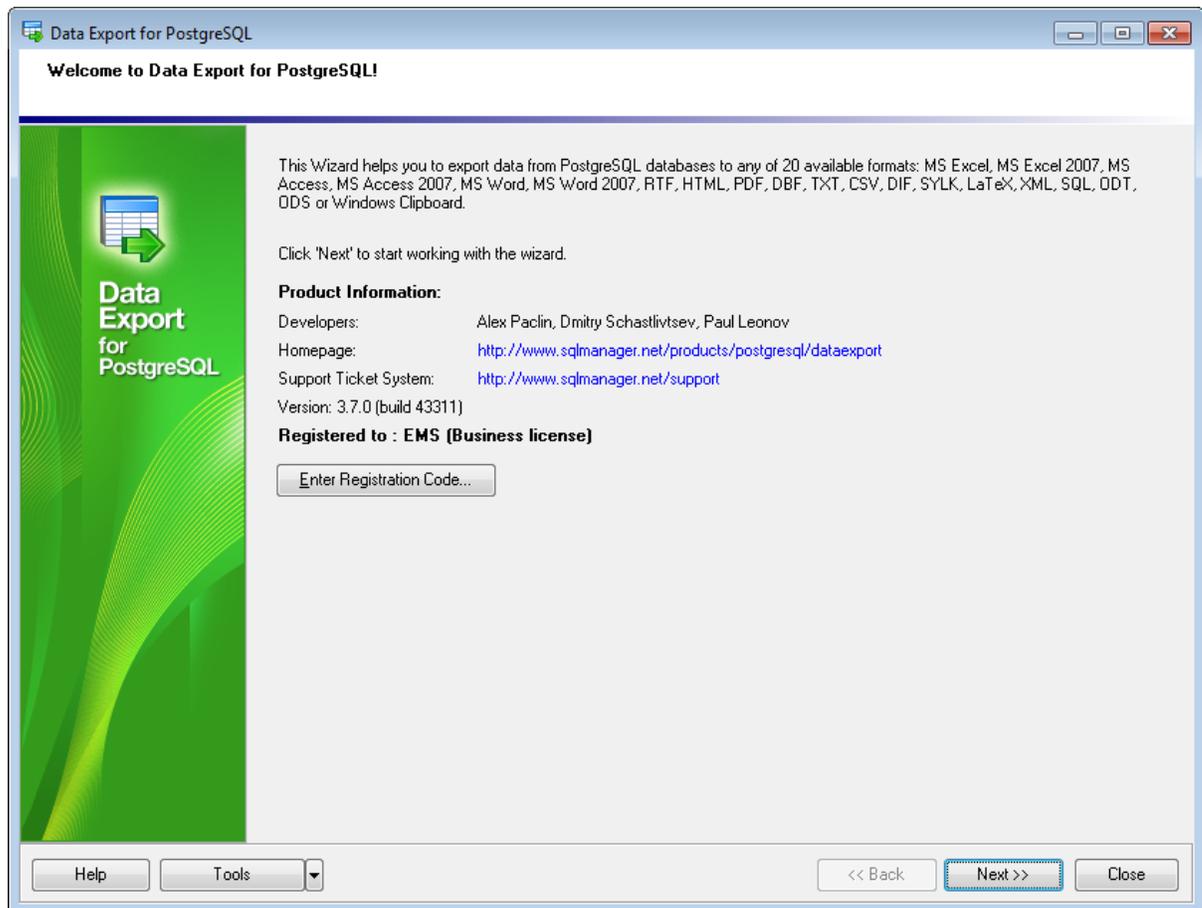
Press the **Next** button to proceed to the next page 29.

See also:
How to buy Data Export 10

2.1.2 Step 1 - Setting connection options

At this step you should specify necessary settings to establish **connection** to the source PostgreSQL database.

Connection settings

Enter PostgreSQL host name in the **Host** field. The **Host** drop-down list contains the list of already registered hosts. For both types you should enter PostgreSQL port to connect through in the **Port** field.

Afterwards you should specify *authentication* settings: **Login** and **Password**.
The default superuser name is 'postgres' with the password specified during PostgreSQL server installation.

If you are using the EMS SQL Management Studio for PostgreSQL version of Data Export for PostgreSQL then the **Select registered database** button is available. Click this button to pick a database already registered in the EMS SQL Management Studio in the <u>Select Host or Database</u> ³¹ dialog.

SSL preferences allows you to connect to the server via encrypted channel for increased security:
SSL mode
Select the required SSL mode from the dropdown menu: Disabled, Allow, Prefer, Require, Verify CA, Verify Full.
Root certificate

Select the path to the client root.crt file.
Client certificate
Select the path to the client certificate.
Client key
Select the path to the client private key.
Revocation list
Select the file for Certificate Revocation List.

⦿ **Connect through the Secure Shell (SSH) tunnel**
Select this option to establish connection to an intermediate SSH server and forward all
PostgreSQL commands through the secure tunnel.

To setup the connection via **SSH tunnel**, input the following values in the corresponding
fields:
SSH host is the name of the host where SSH server is running
SSH port indicates the port where SSH server is activated
SSH login stands for the user on the machine where SSH server is running (Note: it is a
Linux/Windows user, not a user of PostgreSQL server)
SSH password is the Linux/Windows user password

For details see <u>SSH tunneling options</u> 109.

⦿ **Connect through the HTTP tunnel**
Select this option to access PostgreSQL server through the HTTP protocol in case of
Internet access through HTTP proxy only, or if the server does not allow direct
connections to PostgreSQL, but allows HTTP connections.

In order to use HTTP tunneling for the connection, you need to upload the tunneling
emsproxy.php script to the webserver and specify the **URL** in the corresponding box in
the following format: http://webserver_address/emsproxy.php

Note that the *emsproxy.php* script file is included into the distribution package and can
be found in Data Export installation directory.

For details see <u>HTTP tunneling options</u> 110.

If you get any difficulties connecting to the database, it can be useful to look through
<u>FAQs</u> 17.

When you are done, press the **Next** button to proceed to the <u>next step</u> 32.

2.1.2.1   Selecting registered database

Use this dialog to select a database for exporting data. This dialog is available only in EMS SQL Management Studio version of Data Export for PostgreSQL.
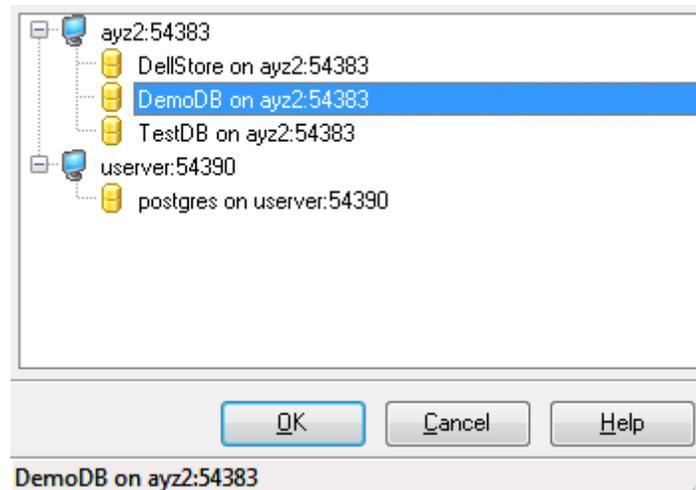
All databases registered in EMS SQL Management Studio for PostgreSQL are displayed in the list.

Select the necessary database and click the **OK** button.

Database registration information will be filled on the <u>first step</u> 29 automatically.

2.1.3 Step 2 - Selecting tables

This step of the wizard allows you to select tables of the specified database to be exported.

Database
Select the database from drop-down list.

Schema
Select the required schema to export tables.

To select a table, you need to move it from the **Available Tables** list to the **Selected Tables** list. Use the ⓘ ⓘ ⓘ ⓘ buttons or drag-and-drop operations to move the tables from one list to another.

Destination directory
Set the folder where the exported file(s) will be stored.

Hint: To select multiple tables, hold down the *Shift* or *Ctrl* key while selecting the table names.

Note: You can repeat the steps above with other databases to export data from multiple databases simultaneously.
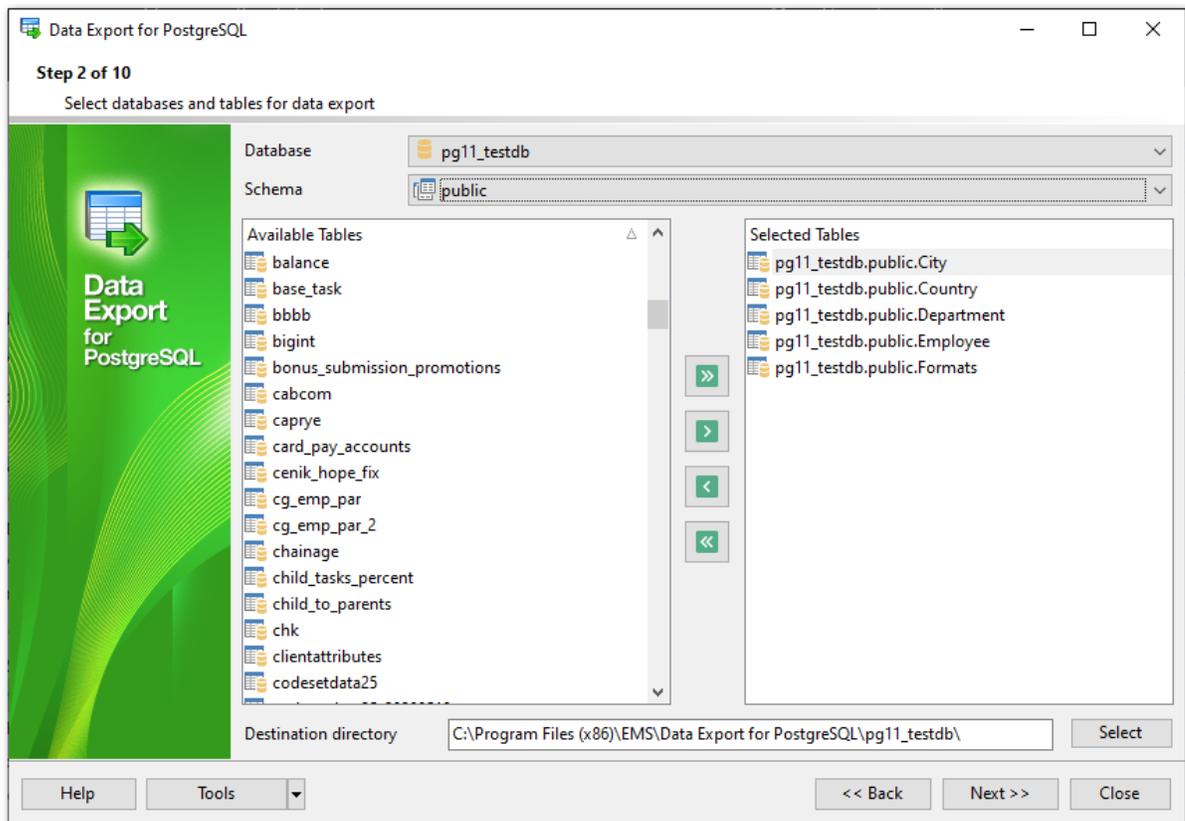
When you are done, press the **Next** button to proceed to the next step 34.

2.1.4   Step 3 - Specifying queries

Use this step to define queries to export their results.

Database
Select the database from drop-down list.

Schema
Select the required schema to create a query.

Add Query
Click the button to add a query. Either you can right-click within the **Queries** list and select the **Add Query** context menu item.

Query Text
You can enter SQL text for each query directly using the editor area or load an existing query from an external *.sql* file by pressing the **Load Query** button.

While inputting query text, it is also possible to save your queries by clicking the **Save Query** button or clear the content of the editor by clicking the **Clear Query** button.

To rename a query, right-click it in the **Queries** list and select the **Rename Query** context menu item.

To delete a query, select it in the **Queries** list and press the **Remove Query** button, or right-click the query and select the **Remove Query** context menu item.

To delete all queries (i.e. empty the **Queries** list), click the **Clear All** button, or right-click within the **Queries** list and select the **Remove All Queries** context menu item.

Note: If none of the tables was selected at the previous step, the **Next** button will be enabled only when the query is added.
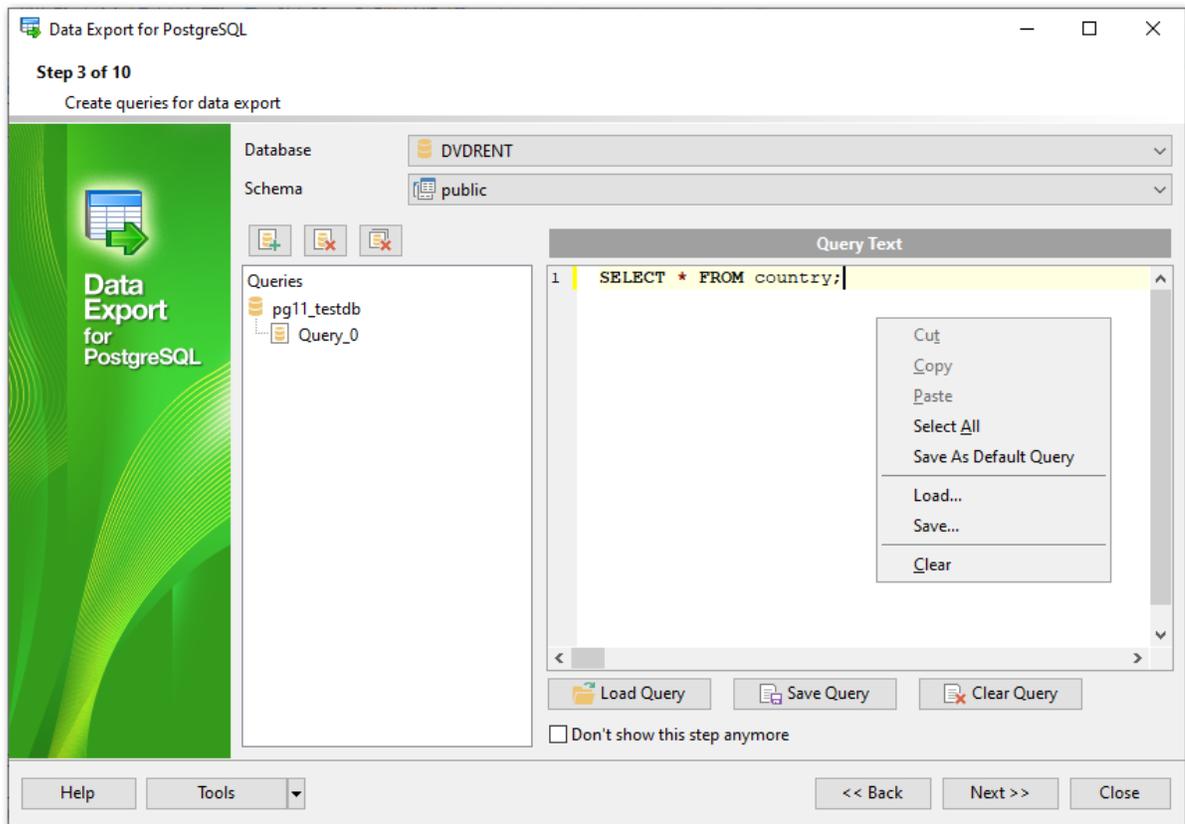
The **context menu** of query editor area contains most of the standard text-processing functions (*Copy*, *Paste*, *Select All*). You can also save your query as a default query by choosing the corresponding context menu item. It will be automatically copied to the default query editor 102.

If you add a query with parameters 118, the **Input Parameters** dialog will appear on pressing the **Export** button at the last step 94. You need to define parameters type and value at the corresponding fields.
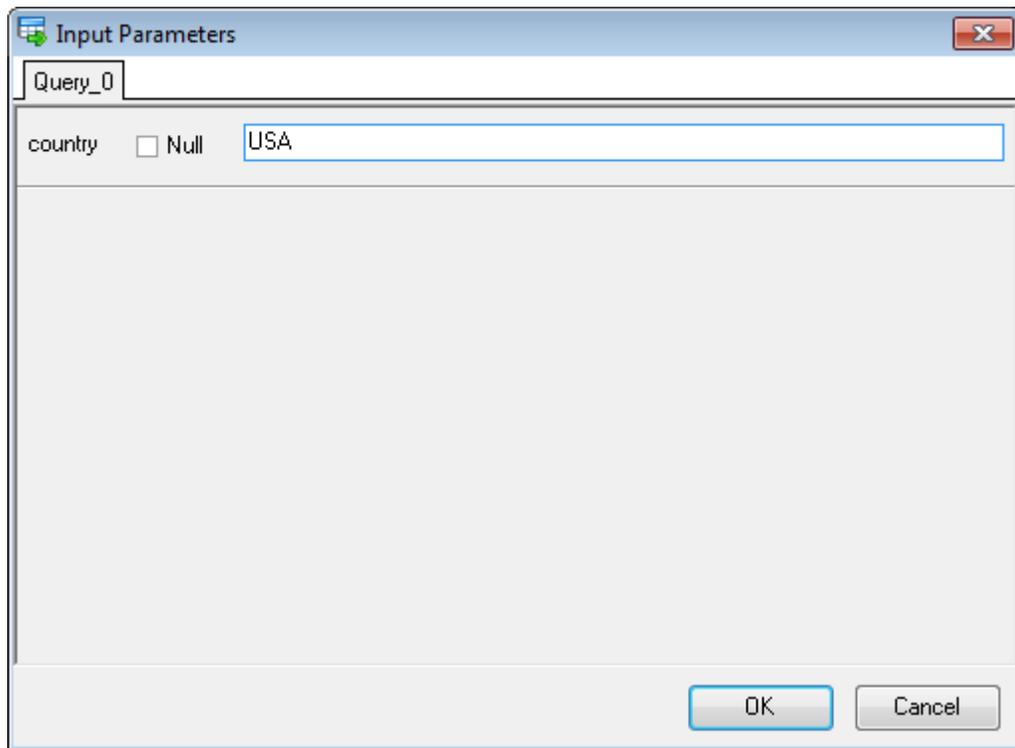
☑ **Don't show this step anymore**
Use the option to disable this step. To enable the step use the appropriate option at the
Selecting skipped steps 100 tab of the Preferences 97 dialog.

When you are done, press the **Next** button to proceed to the next step 37.

2.1.5   Step 4 - Selecting export data format

At this step you should select the destination format for exporting data.

Select a table 32 or query 34 in the **Exported Objects** list and set the appropriate option to select one of available output data formats: *MS Excel 97-2003*, *MS Access 97-2003*, *MS Word 97-2003*, *RTF*, *HTML*, *PDF*, *TXT*, *CSV*, *DIF*, *SYLK*, *LaTeX*, *XML*, *DBF*, *SQL*, *Clipboard*, *ODS*, *ODT*, *MS Excel*, *MS Word*, *MS Access*. For details refer to Supported file formats 114.

Hint: If more convenient, you can check the ☑ **Apply to all exported objects** box to set the specified destination format for all exported objects.
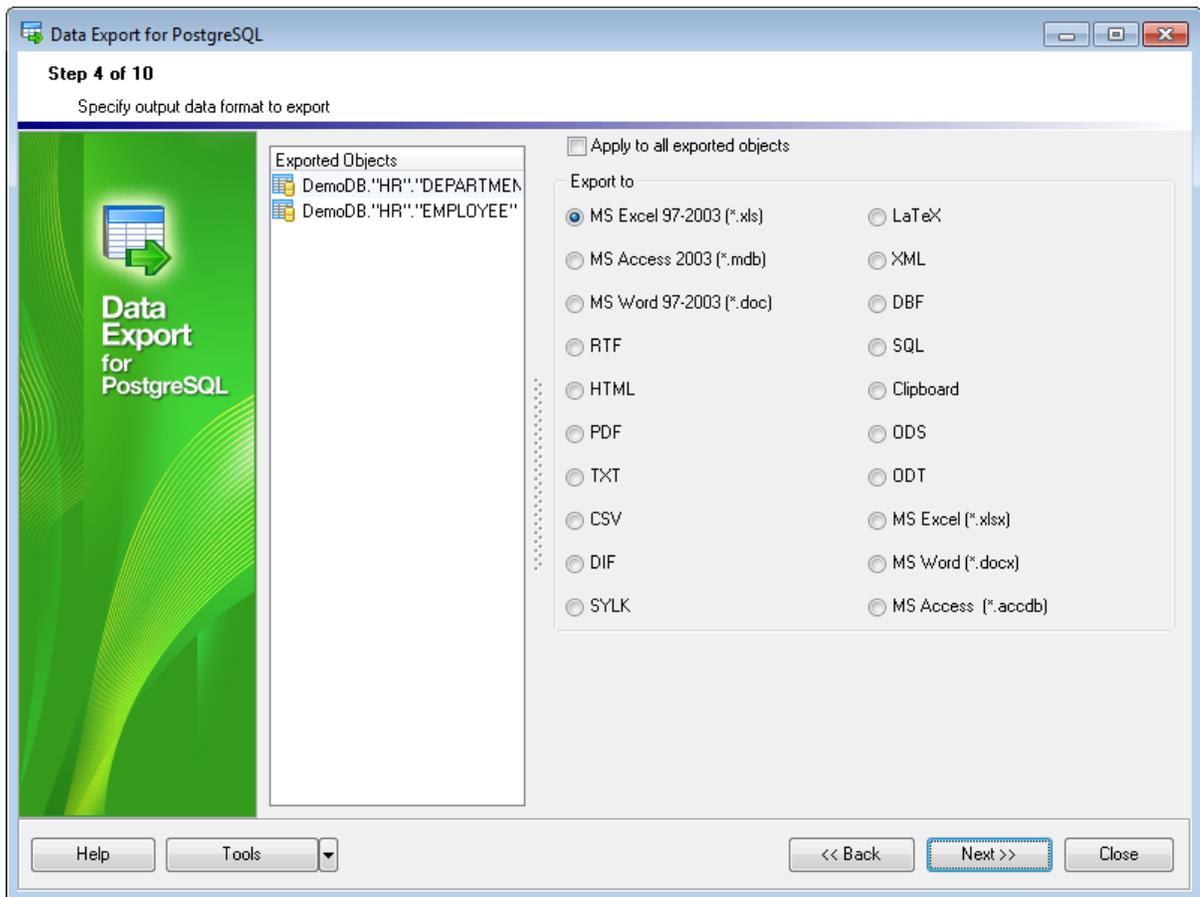
When you are done, press the **Next** button to proceed to the next step 38.

2.1.6 Step 5 - Selecting fields to export

At this step you can select columns to export and reorder them, if necessary.

By default all table fields are exported. Look through the list of exported objects and mark/unmark the columns that should be / should not be exported: check the corresponding box in the **Is Exported** column.

Check all
Click the link to export all columns of the table

Uncheck all
Click the link to exclude all columns of the table from export.

Invert all
Click the link to change each columns **Is Exported** state to opposite.

Use ⬆ **Move Up** or ⬇ **Move Down** buttons or context menu items to change the order of exported columns.

Hint: If more convenient, you can check the ☑ **Export all columns of all tables** box to select all fields of all specified tables and queries for export.
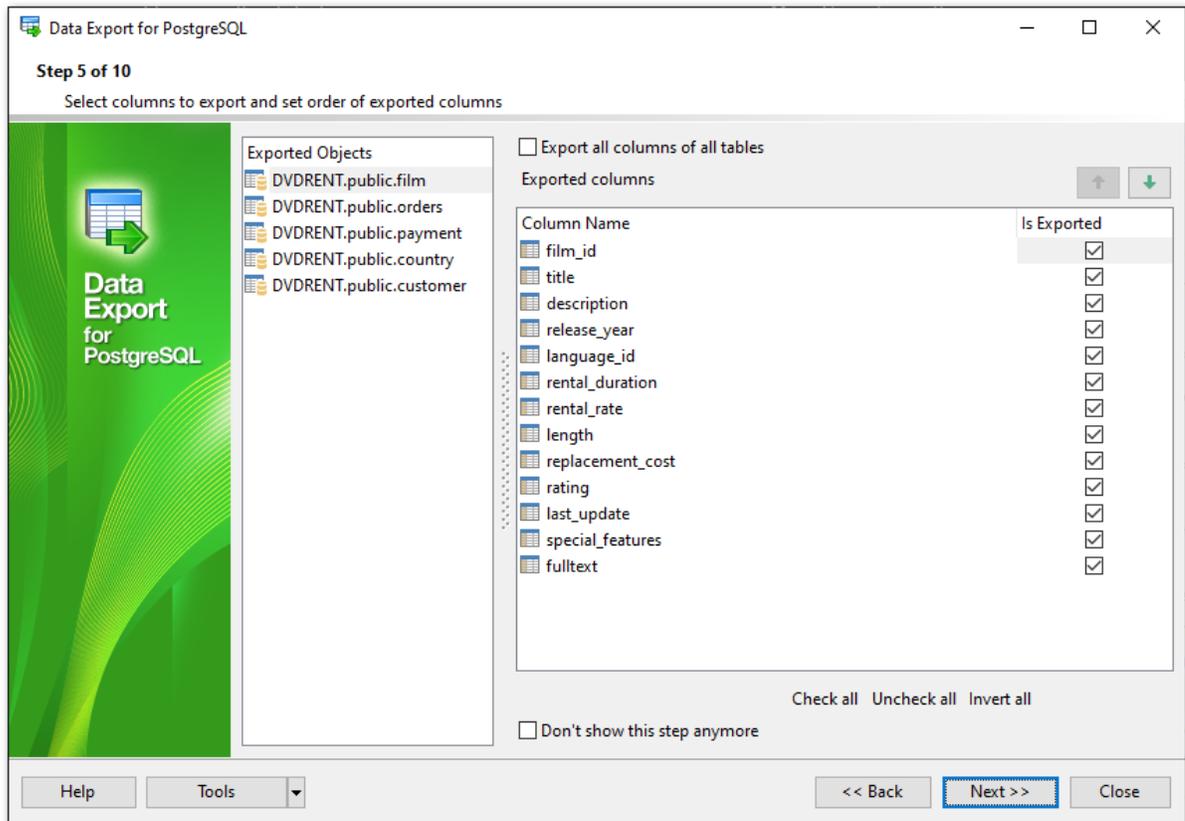
☑ Don't show this step anymore
Use the option to disable this step. To enable the step use the appropriate option at the
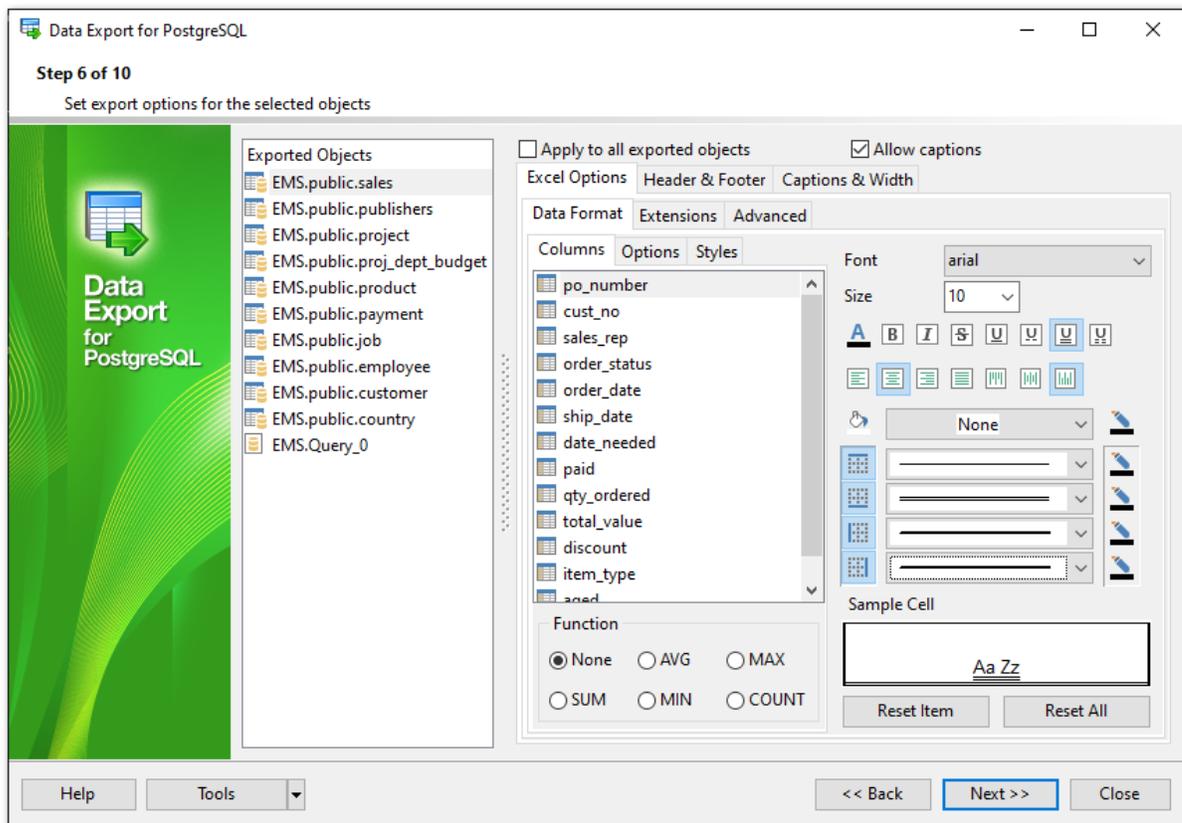
When you are done, press the **Next** button to proceed to the .

2.1.7   Step 6 - Setting export options

At this step you should set specific options according to selected output file format at
Step 4 [37].
- Header & Footer Options [41]
- Caption Options [43]
- Setting format-specific options [45]

Hint: If more convenient, you can check the ☑ **Apply to all exported objects** box to
set the specified format for all exported objects.

When you are done, press the **Next** button to proceed to the <u>next step</u> [88].

2.1.7.1 Header & Footer options

The **Header & Footer** tab allows you to customize the header and footer areas of the result file.

Set **Header text** and **Footer text** for the result file. This text will appear at the beginning and at the end of the result file respectively.

☑ **Allow captions**
If this option is checked (default), the column captions are included into the result file.

Add Query Text
When exporting from query you can optionally add query text to the file header or footer. Use the corresponding buttons **Add Query Text** to add the specified query text or **Add Query Template** to add the query used in export.

Note: You can add the following macros: &N for total page count, &P for the current page number.

Hint: If more convenient, you can check the ☑ **Apply to all exported objects** box to set the specified captions for all exported objects.

See also:

Caption, width and align options
43

Setting format-specific options
45

2.1.7.2 **Caption, width and align options**

This tab allows you to customize fields of the result file: specify column *captions*, *width* and/or *align*.

☑ **Allow captions**
If this option is checked (default), the column captions are included into the result file.

Use the grid to set the captions of the result table columns. Default column captions correspond to the database field names.

For some of the export types columns **Width** and/or **Align** are also available. In the **Align** column you can select the text alignment for a certain column (*Left*, *Right* or *Center*). In the **Width** column you can set a numeric value defining the width of the result column.

Hint: If more convenient, you can check the ☑ **Apply to all exported objects** box to set the specified captions for all exported objects.

See also:
Header & Footer options [41]
Setting format-specific options

45

2.1.7.3   Format-specific options

This tab allows you to customize **format-specific options**:
- Excel 97-2003 Options 46
- Access Options 59
- Word / RTF Options 61
- HTML Options 65
- PDF Options 70
- TXT Options 72
- CSV Options 73
- SQL Options 75
- XML Options 77
- DBF options 79
- Excel / ODS options 80
- ODT options 84

To get more information about the file formats, see the Supported file formats 114 page.
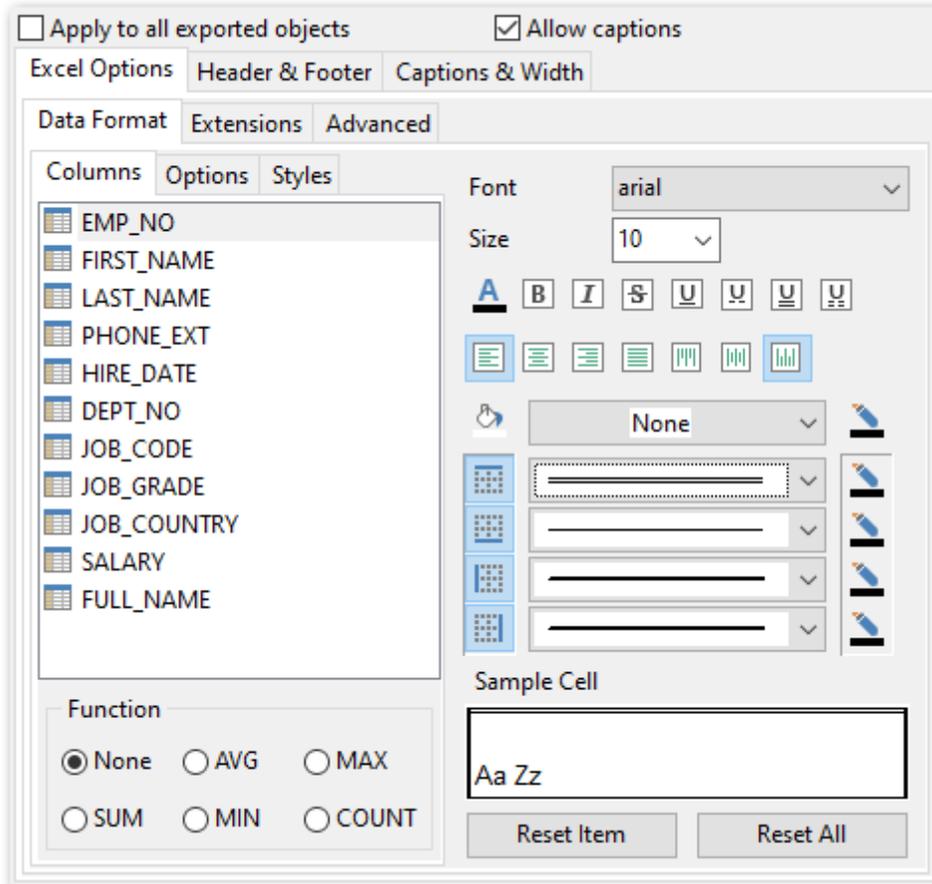

See also:

Header & Footer options 41

Caption, width and align options
43

2.1.7.3.1 Excel 97-2003 options

This tab allows you to set options for the target **MS Excel 97-2003** (*.xls*) file.

You can customize **Data format**, **Extensions** and set **Advanced** options available within the corresponding sub-tabs:

Note: For your convenience the previews illustrating the changes are displayed in the **Sample Cell** area.

Hint: You can reset the changes any time using the **Reset Item** and the **Reset All** buttons.
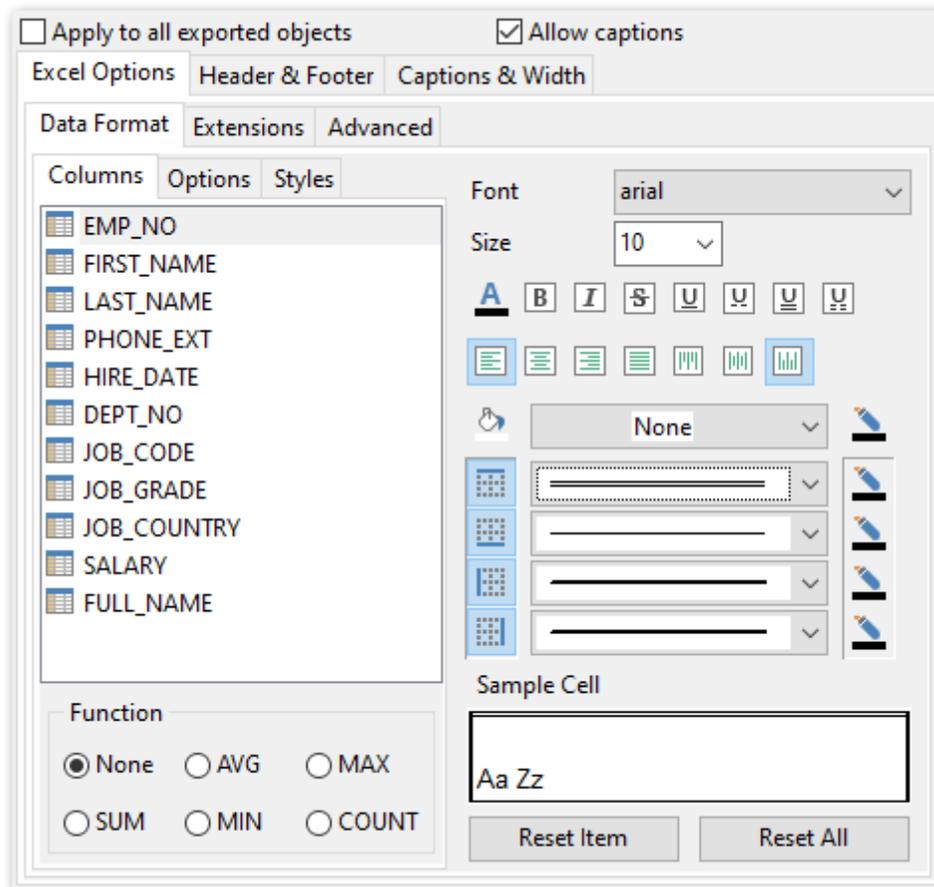
See also:

2.1.7.3.1.1 Data format

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 the target Excel file striped by columns or rows.

- Columns 47
- Options 49
- Styles 50

Note: For your convenience the previews illustrating the changes are displayed in the **Sample Cell** area on each sub-tab of the **Data Format** tab.

Using the **Columns** tab you can set *font* options, *border* and *fill* options and select and *aggregate functions* for all **columns** you want to export.

Hint: You can reset the changes any time using the **Reset Item** and the **Reset All** buttons.

Use the **Font** and **Size** drop-down lists to select the *font* and *size* to be applied to the output text.
Use the buttons below to set *font color*, make text *bold*, *italicized*, *strikethrough* text, set *underline* effects, specify text *horizontal* and *vertical align*.

Press the buttons on the left to show/hide the borders they indicate.

Use the drop-down list for each border to select the *line type* and the button on the right to select the *line color* for each border.

Use the drop-down list to select the preferable fill pattern type.

Press the button on the left to set the background color for the fill pattern.
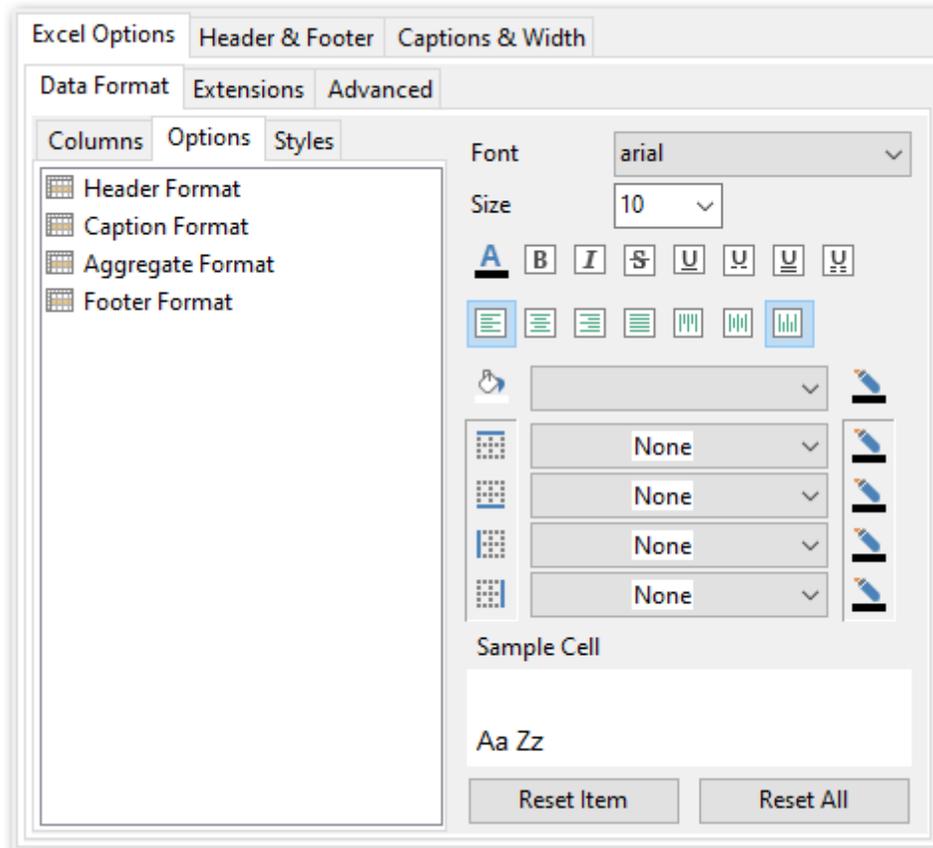
Press the button on the right to set the foreground color for the fill pattern.

The aggregate functions from the Functions group allows you to count *Average* (AVG), *Maximum* (MAX), *Minimum* (MIN), or *Sum* (SUM) of the field values.

Selected aggregate function will be applied to the field and the result will be added to the additional row in the exported file.

At the **Sample Cell** section you can preview options changes.

Using the **Options** tab you can set *font* options, *border* and *fill* options for all **elements** of the Excel sheet (*header*, *caption*, *footer*, *aggregates*).

Hint: You can reset the changes any time using the **Reset Item** and the **Reset All** buttons.

Use the **Font** and **Size** drop-down lists to select the *font* and *size* to be applied to the output text.
Use the buttons below to set *font color*, make text *bold*, *italicized*, *strikethrough* text, set *underline* effects, specify text *horizontal* and *vertical align*.

Press the ▦ ▦ ▦ ▦ buttons on the left to show/hide the borders they indicate.

Use the drop-down list for each border to select the *line type* and the ✎ button on the right to select the *line color* for each border.

Use the drop-down list to select the preferable fill pattern type.

Press the ✎ button on the left to set the background color for the fill pattern.

Press the ✎ button on the right to set the foreground color for the fill pattern.

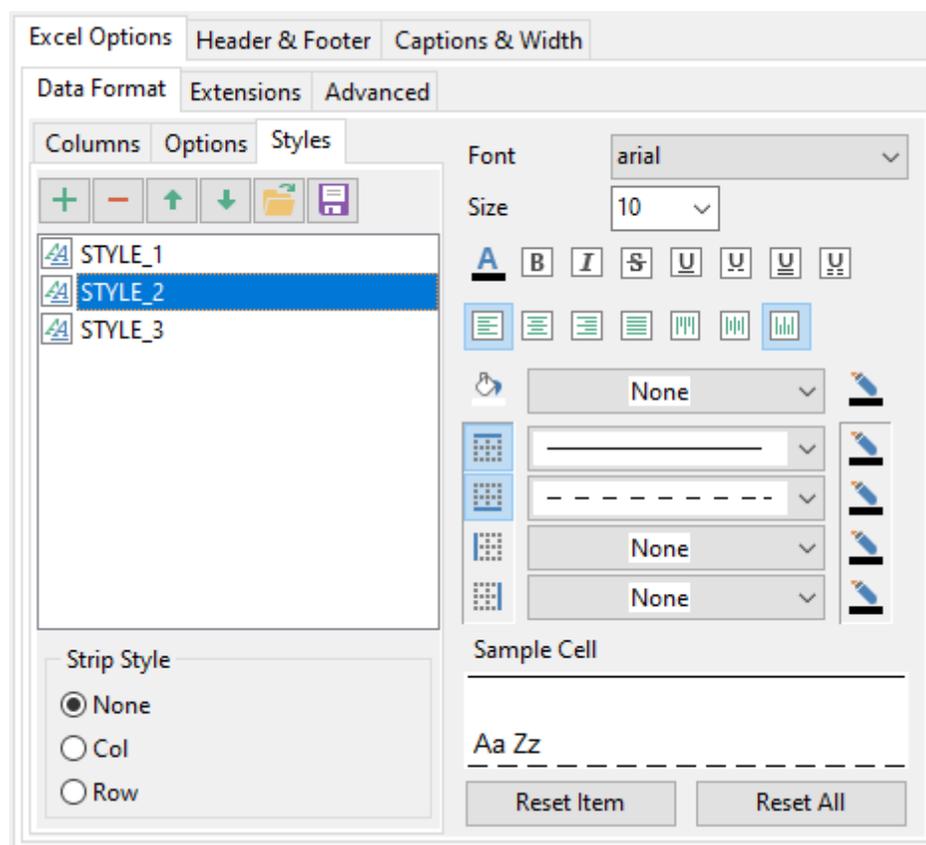At the **Sample Cell** section you can preview options changes.

Using the **Styles** tab you can make a style template: set *font* options, *border* and *fill* options and save them.

Use ⊞ ⊟ buttons to add/remove a style.
Use ⬆ ⬇ buttons to reorder the style's list.
You can also save styles and load saved ones.

If you have created or loaded more than one style template, they can be ignored, or used *column-by-column* or *row-by-row* (it depends on the **Strip style** selection).

Hint: You can reset the changes any time using the **Reset Item** and the **Reset All** buttons.

Use the **Font** and **Size** drop-down lists to select the *font* and *size* to be applied to the output text.
Use the buttons below to set *font color*, make text *bold*, *italicized*, *strikethrough* text, set *underline* effects, specify text *horizontal* and *vertical align*.

Press the ▦ ▦ ▦ ▦ buttons on the left to show/hide the borders they indicate.

Use the drop-down list for each border to select the *line type* and the ✎ button on the

right to select the *line color* for each border.

Use the drop-down list to select the preferable fill pattern type.

Press the ⬥ button on the left to set the background color for the fill pattern.

Press the ⬥ button on the right to set the foreground color for the fill pattern.

At the **Sample Cell** section you can preview options changes.

2.1.7.3.1.2 Extensions

The **Extensions** tab provides an ability to add hyperlinks and notes and to any cell of target file, to specify a value of a cell and to create a chart.

Click the ✚ **Plus** button to add an element.
Click the ▬ **Minus** button to delete an element.

- [Hyperlinks](#) 51
- [Notes](#) 52
- [Charts](#) 54

If you need to create a **hyperlink**:
- set the cell coordinates (*Col* and *Row*);
- specify whether this is a *local* link or *URL*;
- enter the *title* of the hyperlink;
- specify the *target* file location or address.
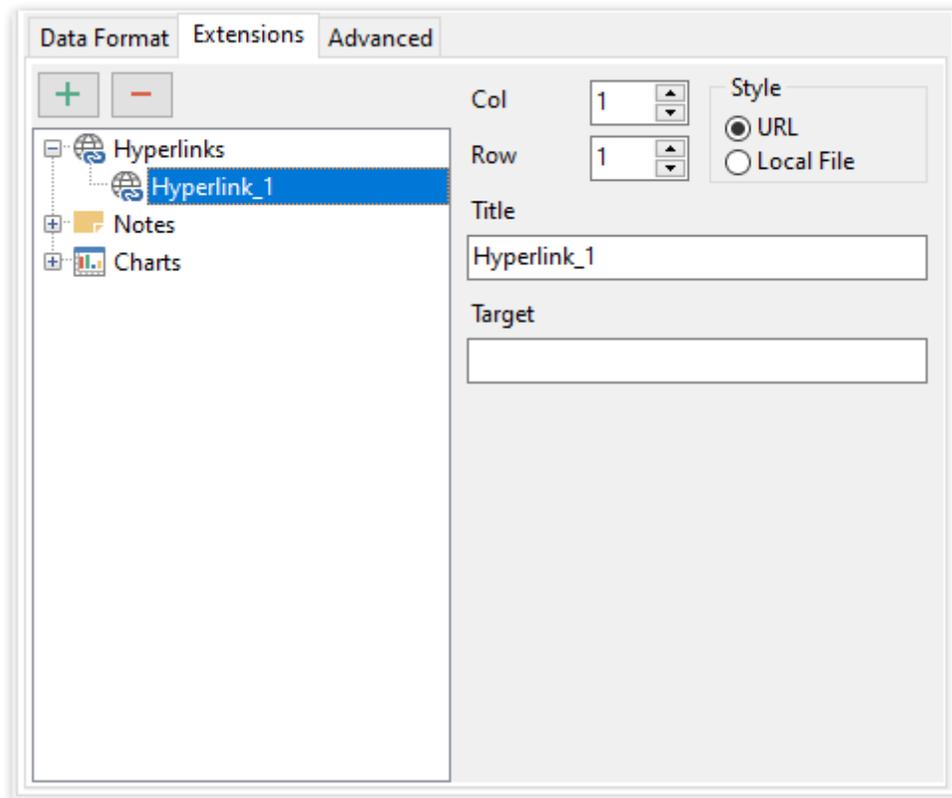
Note: Hyperlink title replaces the specified cell's data.

Notes are used to keep remarks or comments for a cell. Note's data are stored separately from ones of the cell. They are displayed as a triangle in the cell's upper right corner. Note appears as a hint when you point at the cell containing a note with a mouse.

Base
The tab allows you to set basic options for the note.

- set the cell coordinates (*Col* and *Row*);
- enter *text* of a note for the cell;
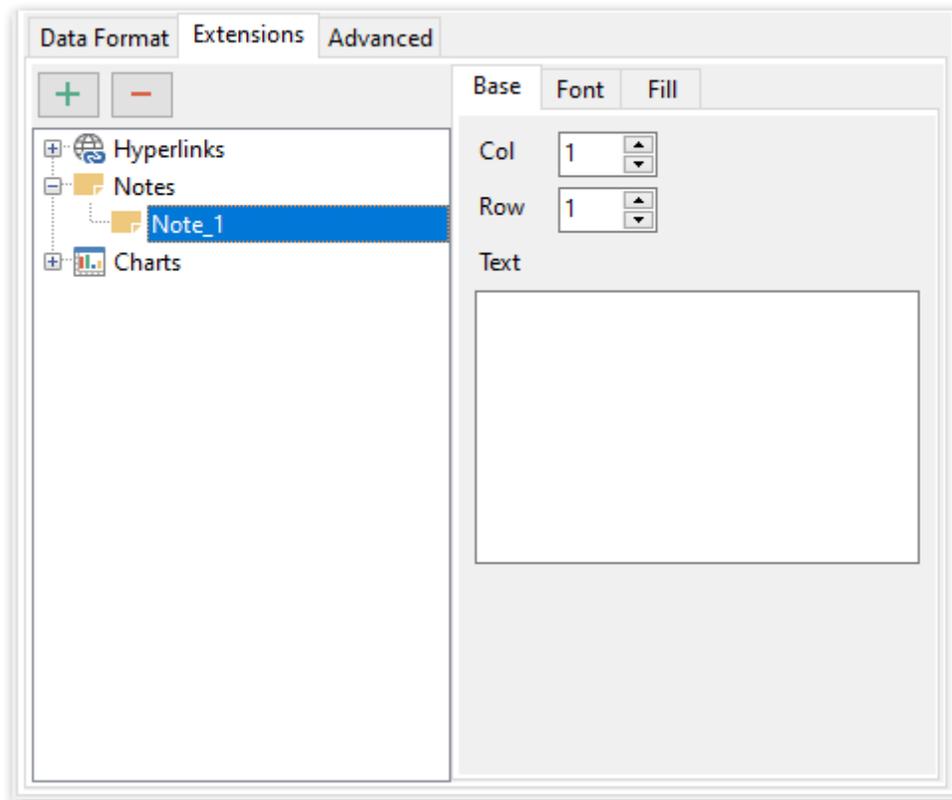
Font

The **Font** tab allows you to specify properties of the font that will be used in the output Excel file notes.

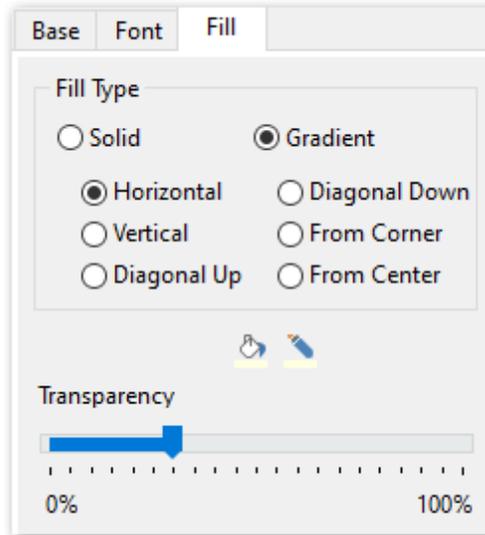Use the **Font** and **Size** drop-down lists to select the *font* and *size* to be applied to the output text.
Use the buttons below to set *font color*, make text *bold*, *italicized*, *strikethrough* text, set *underline* effects, specify text *horizontal* and *vertical align*.
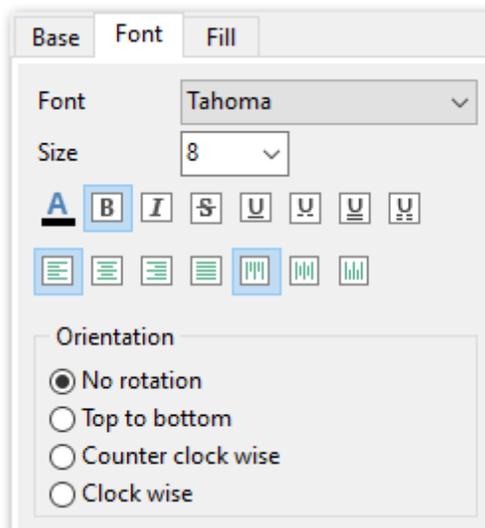
You also can select preferable text **Orientation**.

Fill

Use the **Fill** tab to set the note fill type and color.

Select the fill type first: *Solid or Gradient*. The direction needs to be specified for gradient fill: *horizontal, vertical, diagonal (down, down), from corner or from center.*

Press the 🖌 button on the left to set the background color for the fill pattern.

Press the 🖌 button on the right to set the foreground color for the fill pattern.

Use **Transparency** slider to define visibility level of the note.

If you need to create a **chart**:
- enter the chart *title*;
- select the chart style (*Column*, *Column 3D*, *Bar*, *Bar 3D*, *Line*, *Line Mark*, *Line 3D*, etc.);
- set the legend position: *Bottom*, *Top*, *Left*, *Corner* or *Right*;
- specify if you want to show the legend;
- specify if you want to set the chart color automatically;
- define the chart *position* and *category labels* using the corresponding tabs.
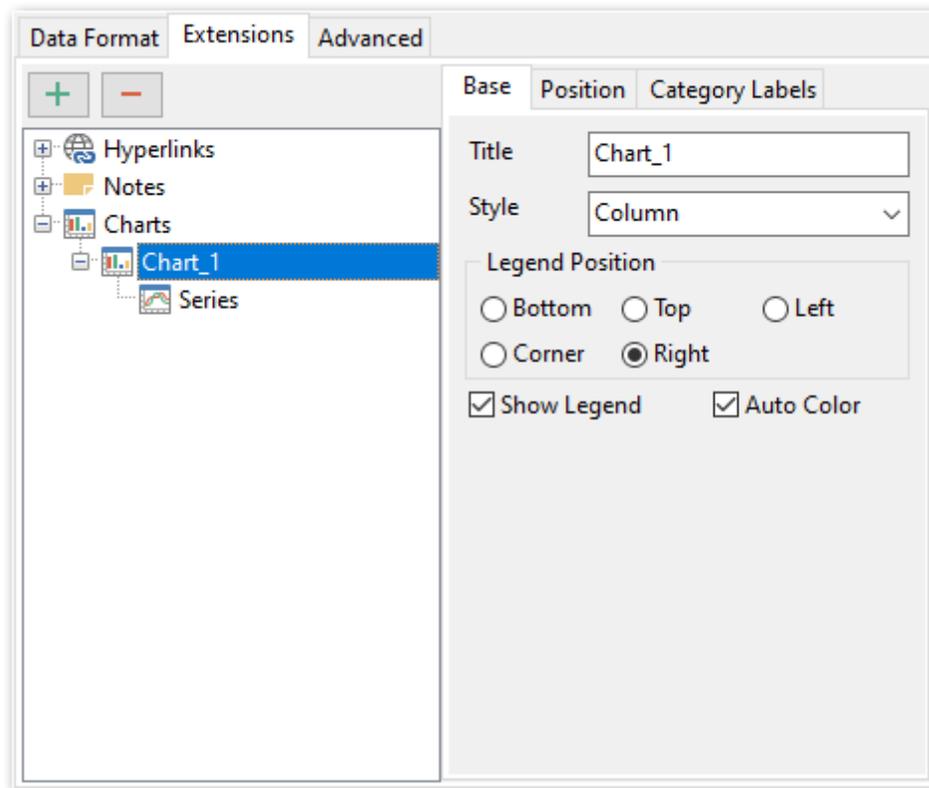
Position

Position tab allows you to define chart placement and its size.
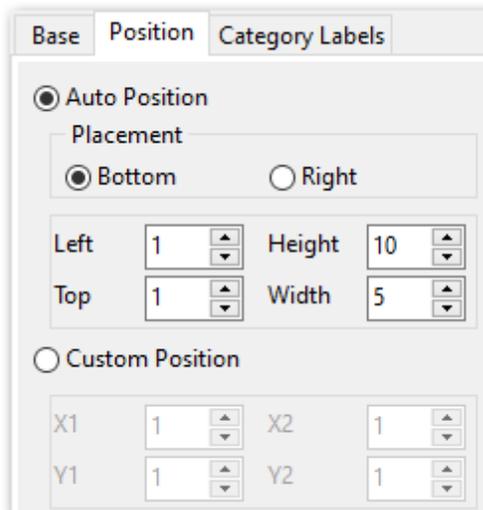
Auto Position
◉ **Bottom**
The chart will be placed under the data.

◉ **Right**
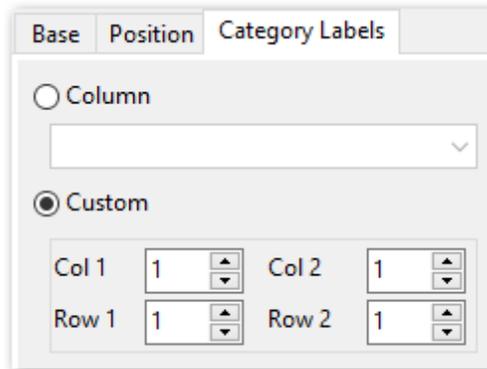The chart will be placed to the right from the data.

You also need to specify the distance between the chart and the data at the **Left** and the **Top** fields, and chart size at the **Height** and the **Width**.

Custom Position
Specify absolute position by setting chart coordinates: *X1, Y1, X2, Y2.*

Category labels
Use this tab to define **Category labels**.

◉ **Column**
Use column values as chart category labels.

◉ **Custom**
Define category label values range manually. Use *Col 1* and *Row 1* fields to specify upper left cell, and *Col 2* and *Row 2* fields to define the right bottom one. These cells form a square array of values that will be used as category labels.
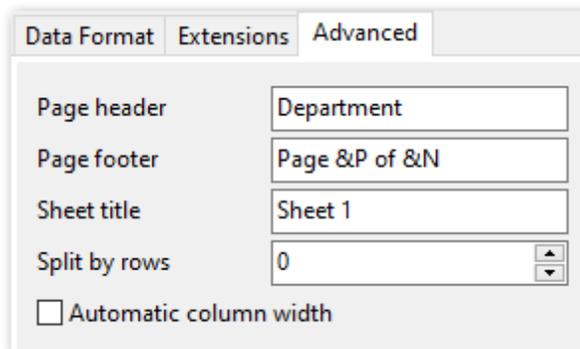
If you need to add series for the chart:
- add one or more series using the ✚ button;
- enter the *titles*;
- set data ranges (select a column from the drop-down list or set the custom range);
- define colors for all the graphs.
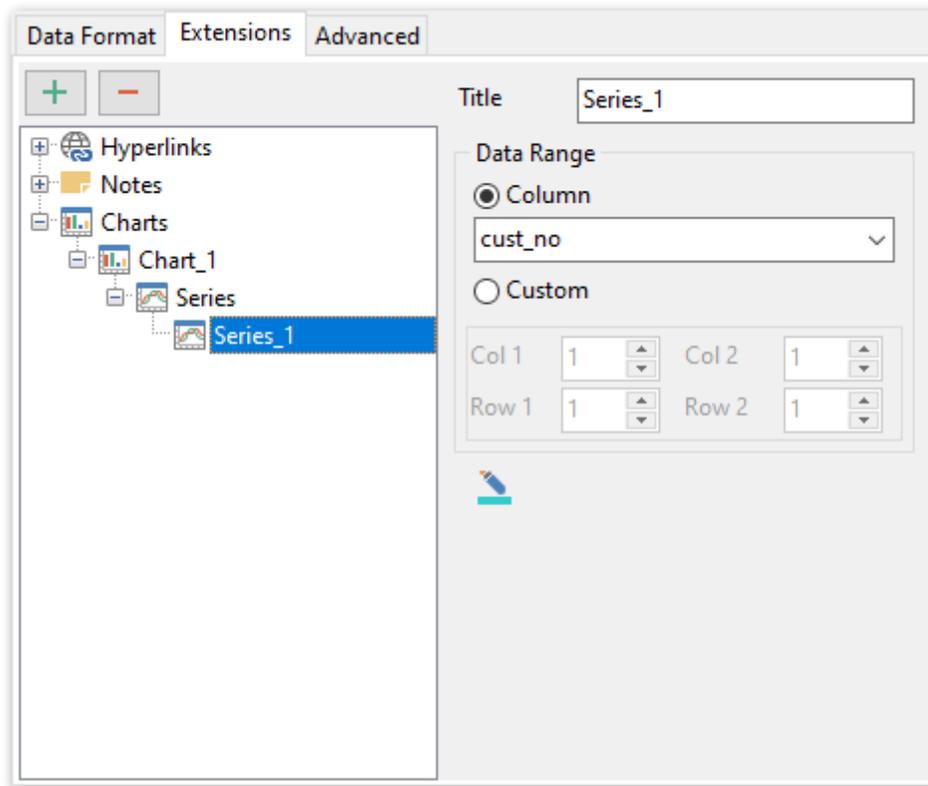
2.1.7.3.1.3 Advanced

The **Advanced** tab allows you to set a number of advanced options to be applied to the result MS Excel file.

Page header
If necessary, enter some text for the page header.

Page footer
If necessary, enter some text for the page footer.

Hint: It is also possible to set macros in the **Page header** and **Page footer** fields:
&N stands for the quantity of pages;
&P - the number of the current page.

Sheet title
Specify the sheet title for the target file.

Split by rows
Use this field to define the number of rows on each sheet.

☑ **Automatic column width**
Enable this option if you want each column of the target file to be adjusted to the maximum number of characters in it.

2.1.7.3.2 Access options

This tab allows you to set options for the target **MS Access** (*.*mdb*) and **MS Access** (*.*accdb*)file.

Set the name for the target table and specify whether the wizard should create a new table in the MS Access database if it does not exist yet, or use the existing table to export data into.

Password
Specify the database password if you are exporting data to an existing MS Access database which is protected by a password.

Table Name
The name of the table within the target MS Access database.

Create table if it does not exist
Automatically creates the target table if it does not exist in the target database yet.

Export Date/Time fields as nvarchar
Enable the option to convert Date/Time data to nvarchar when exporting.

☑ **Apply to all exported objects**
Enable this option to make settings common for all objects.
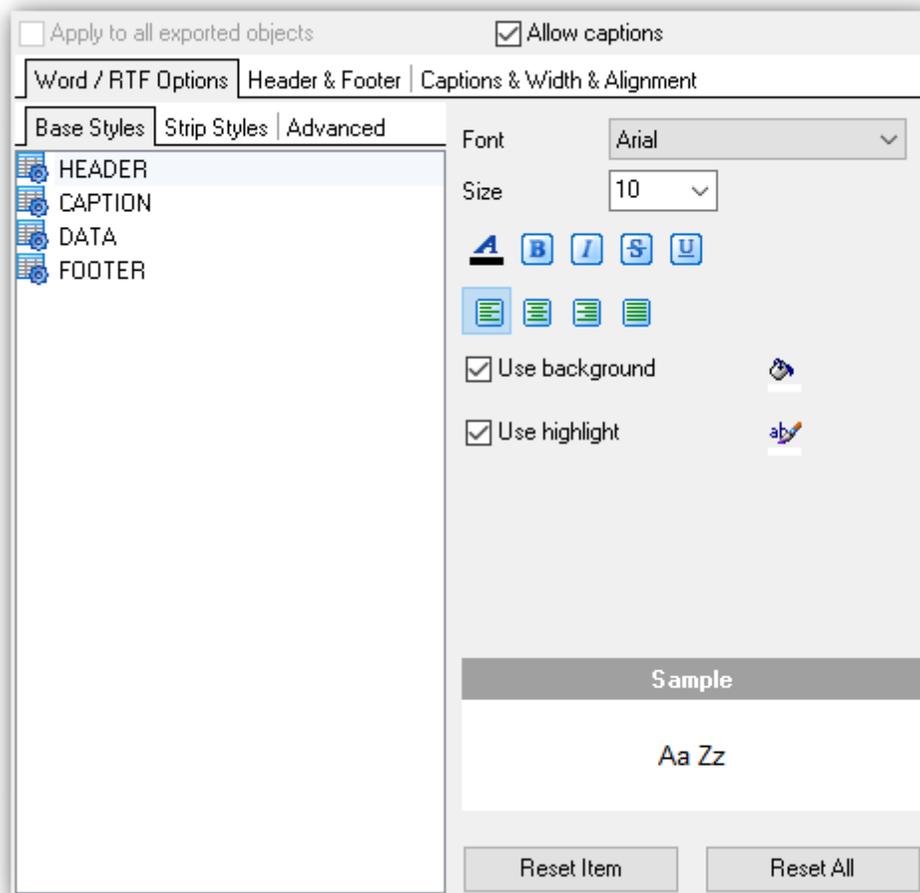
___

See also:

2.1.7.3.3 Word / RTF options

This tab allows you to set options for the target **MS Word** (**.doc*, **.docx*) and **Rich Text Format** (**.rtf*) files.

You can customize **Base data styles**, **Strip data styles** and set **Advanced** options available within the corresponding sub-tabs:
- Base Styles 62
- Strip Styles 63
- Advanced 64

Note: For your convenience the previews illustrating the changes are displayed in the **Sample** area within the *Base Styles* and the *Strip Styles* tabs.

Hint: You can reset the changes any time using the **Reset Item** and the **Reset All** buttons.

See also:

2.1.7.3.3.1 Base data styles

The **Base Styles** tab contains the list of target file entities: *HEADER*, *CAPTION*, *DATA*, *FOOTER*.

Use the **Font** and the **Size** drop-down lists to select the *font* and *size* to be applied to the output text.
Use the buttons below to set *font color*, make text *bold*, *italicized*, *strikethrough* text, set *underline* effects, specify text *horizontal and vertical align*.

Press the 🖌 button on the left to set the background color.

Press the 🖍 button on the right to set the highlight color.

☑ **Allow highlight**
Enable this option to use the specified color in the result file as text highlight.

☑ **Allow background**
Enable this option to use the specified color in the result file as background.

Hint: You can reset the changes any time using the **Reset Item** and the **Reset All** buttons.

At the **Sample** section you can preview options changes.

2.1.7.3.3.2 Strip data styles

Using the **Strip Styles** tab you can create a style template: set *font*, *size*, *background* and *foreground colors*, *text alignment*, *highlight* and save them.

If you have created or loaded more than one style template, they can be ignored, or used *column-by-column* or *row-by-row* (it depends on the **Strip Type** selection).

Use 🟢 🔴 buttons to add/remove a style.
Use 🔼 🔽 buttons to reorder the style's list.
You can also save styles and load saved ones.

Press the 🎨 button on the left to set the background color.

Press the ✒ button on the right to set the highlight color.

☑ **Allow highlight**
Enable this option to use the specified color in the result file as text highlight.

☑ **Allow background**
Enable this option to use the specified color in the result file as background.

Hint: You can reset the changes any time using the **Reset Item** and the **Reset All** buttons.

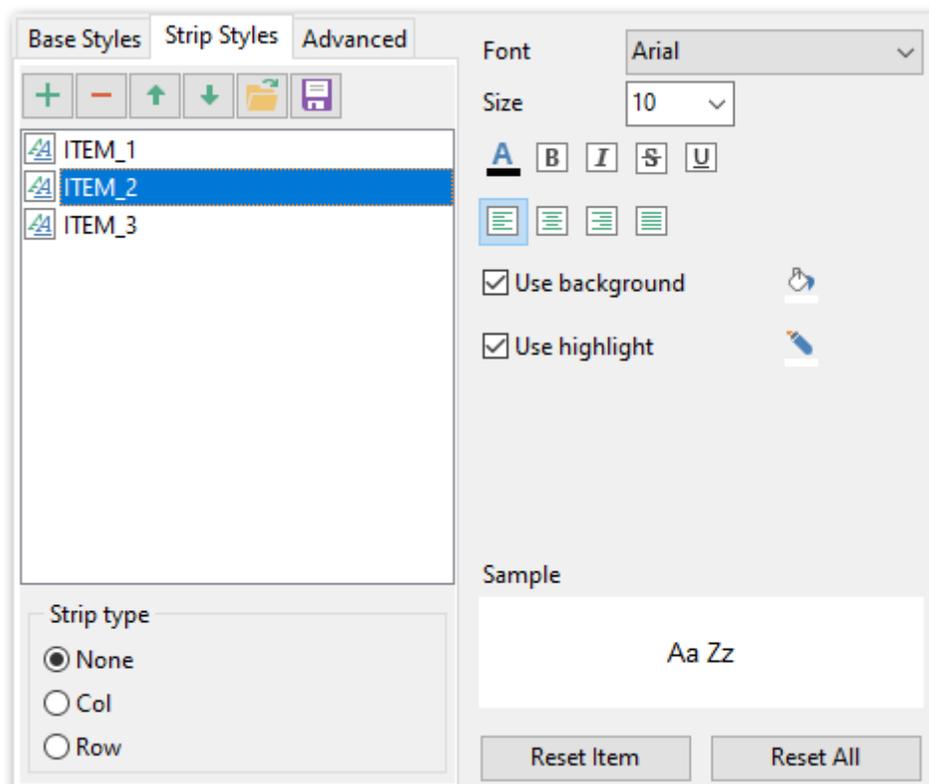At the **Sample** section you can preview options changes.

2.1.7.3.3.3 Advanced

The **Advanced** tab allows you to switch **page orientation** for the target Word/RTF file:
◉ *Portrait*
◉ *Landscape*
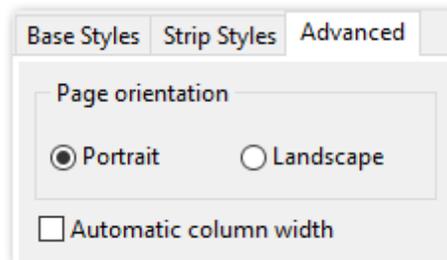
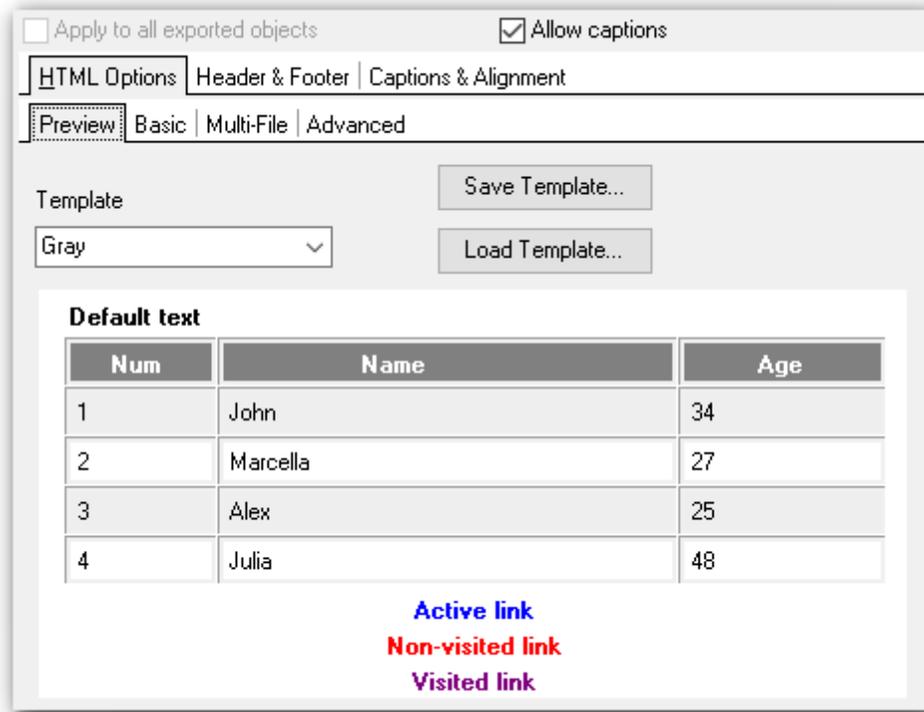☑ **Automatic column width**
Enable this option if you want each column of the target file to be adjusted to the maximum number of characters in it.

2.1.7.3.4 HTML options

This tab allows you to set options for the target **HTML** (*.html*) file.

You can customize the output HTML file using the following sub-tabs:
- Preview [66]
- Basic [66]
- Multi-file [67]
- Advanced [68]

See also:

2.1.7.3.4.1 Preview

The **Preview** tab allows you to customize the style that will be applied to the target HTML file using a number of built-in templates provided in the **Templates** combo-box. You can select any of these templates and customize it by clicking objects in the preview panel, and save the settings as a custom template using the **Save as template...** button. Use the **Load template...** button to load a previously saved custom template from your hard disk. Click on an element of the table to select its color.

See also:

2.1.7.3.4.2 Basic

The **Basic** tab allows you to specify the basic parameters of target HTML file.

Title
Specify the title of the result file.

Using CSS
Select whether the cascade style sheet (CSS) should be ⦿ **Internal** (CSS is stored in the result file) or ⦿ **External** (CSS is be stored in a separate file).
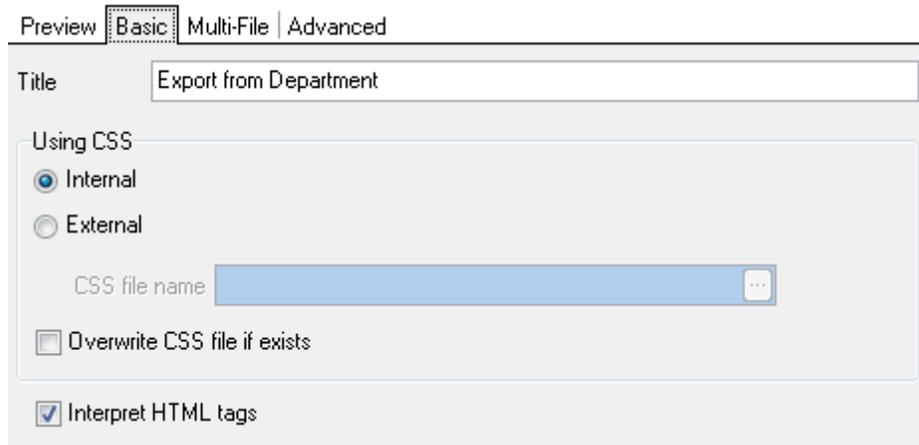
CSS file name
Click the ellipsis ⊡ button to define the location of the *.css* file.

☑ **Overwrite CSS file if exists**
Use this option to define whether the CSS file must be replaced if it already exists.

☑ **Interpret HTML tags**
Define whether HTML tags should be interpreted as styles.

See also:

2.1.7.3.4.3 Multi-file

The **Multi-file** tab provides you with an ability to split the target HTML file into several separated files.

Multi-file export
☑ **Use multi-file export**
Enable this option to split target file into several files.

Set **Maximum record(s) in single file** value.

☑ **Generate index**
Enable this option to create the content page.

Index link template
Specify the template name for the link on the content page next to the page number.

Navigation
Use this section to define navigation link titles.

☑ **On top**
Set this option to add navigation links to the top of the page.

☑ **On bottom**
Set this option to add navigation links to the bottom of the page.

See also:

2.1.7.3.4.4   Advanced

The **Advanced** tab allows you to set a number of advanced options to be applied to the result HTML file.

Body options
Font name
Use the drop-down menu to select the font that will be used in the result file by default.

Font size
Use the drop-down menu to select the font size that will be used in the result file by default.

Background
If necessary, use the ellipsis ⬚ button to browse for a graphical file to be applied as the page background.

Advanced attributes
Define advanced attributes for HTML body.

Table options
Cell padding
Set the space size between the outer edges of the table cell and the content of the cell.

Cell spacing
Set the space size between table cells.

Border
Set the border size for tables.

Background
If necessary, use the ellipsis ⊡ button to browse for a graphical file to be applied as the table background.

Advanced attributes
Define advanced attributes for tables.

See also:

2.1.7.3.5 PDF options

This tab allows you to set options for the target **PDF** (*.pdf*) file.
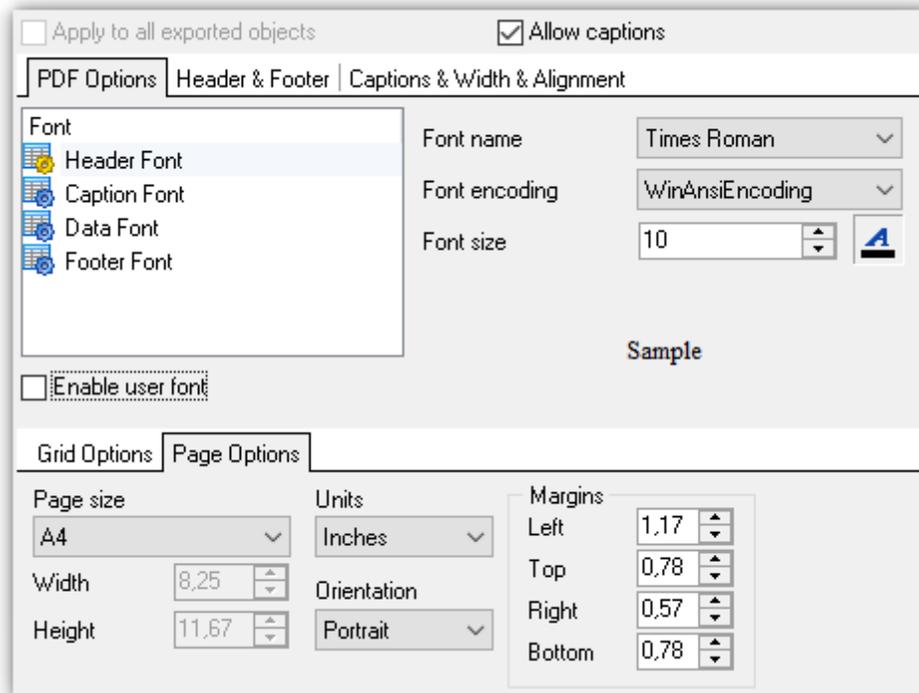
Fonts section allows you to define the selected item's font.
Specify the needed **Font Name** and **Font Encoding** from the appropriate drop-down lists.
You can also define the **Font Size**.

You can change the font color by pressing the **Font Color** button.

Page Options
Page Size
Define the page size by choosing one of the standard page sizes from the drop-down list,
or set the custom size by changing **Width** and **Height**.
By default standard "A4" page size is set.

Units
Use this drop-down list to set the units of measurement for the page size and margins.
Inches, *millimeters* and *dots* are available.

Orientation
Select needed page orientation from this drop-down list.

Margins
Use this section to define page margins for the exported file.

Grid Options
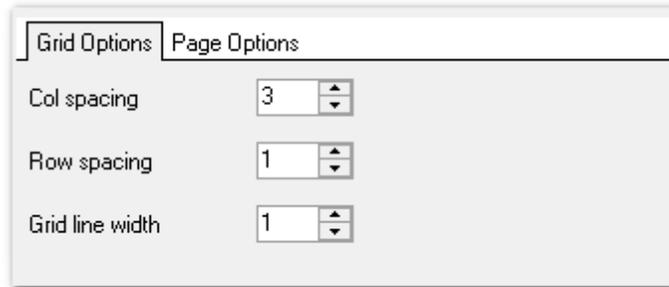
At this tab you can define *Col spacing*, *Row Spacing* and *Grid Line Width*.

Note: For your convenience the previews illustrating the changes are displayed in the **Sample** area.

___

See also:

2.1.7.3.6 TXT options

This tab allows you to set options for the target **text** (*.txt*) file.

☑ **Automatic column width**
Enable this option if you want each column of the target file to be adjusted to the maximum number of characters in it.

Spacing
Specify the number of spaces between columns in the target file.

Encoding
Use the drop-down list to specify the preferable output file encoding. Possible values are: *ANSI*, *OEM*, *MAC*, *UTF-8*, *UTF-16*, *UTF-32*.

☑ **Add byte order mark (BOM)**
With this option enabled the byte order mark is added to each TXT file.

See also:

2.1.7.3.7 CSV options

This tab allows you to set options for the target **CSV** (*.csv*) file.

☑ **Quote captions**
Check this option to apply quoting for column captions in the target file.

☑ **Quote strings**
Check this option to apply quoting for string values in the target file.

Specify the column separator using the **Comma** drop-down list and the preferable quote character using the **Quote** edit-box.

Any of the following symbols can be used as a column separator:
- , (comma)
- ; (semicolon)
- ' (apostrophe)
- TAB (Tab symbol)
- SPACE (Space symbol)

Encoding
Use the drop-down list to specify the preferable output file encoding. Possible values are: *ANSI*, *OEM*, *MAC*, *UTF-8*, *UTF-16*, *UTF-32*.

☑ **Add byte order mark (BOM)**
With this option enabled the byte order mark is added to each TXT file.

See also:

2.1.7.3.8 SQL options
™

The **SQL Options** tab allows you to set options for SQL as the output format (as a set of INSERT statements).

Destination server
Select the ◉ *ANSI SQL-92* standard or define the type of DBMS you need to export data for (to achieve maximum compatibility). The result script will be generated in compliance with the specifications of the selected server type:
◉ *DB2*
◉ *InterBase/Firebird*
◉ *Microsoft® SQL Server*
◉ *MySQL*
◉ *Oracle*
◉ *PostgreSQL*

Table options
This group allows you to add the *CREATE TABLE* statement to the result script, define the name for the table being exported and select SQL dialect.

☑ **Add 'IDENTITY_INSERT' statement** (for export to MS SQL)
Allow explicit values to be inserted into the identity column of a table.

Commit options
This group allows you to add the *COMMIT* statement after a defined number of records or at the end of the script. You can also define the commit statement (*COMMIT;* by default)

in the corresponding edit-box.

Other options
☑ Create multiple insert statement
Check this option to perform insert operation using multiple insert statements.

Export null values as
Specify the representation of NULL values in the result script.

Statement term
Define the character denoting the end of each SQL statement (semicolon by default).

☑ Add byte order mark (BOM)
With this option enabled the byte order mark is added to each TXT file.

See also:

2.1.7.3.9 XML options

This tab allows you to set options for the target **XML** (*.xml*) file.

Encoding
Specify XML document encoding from the list.

☑ **Standalone**
Set this option to create a standalone document. Disable the option if any markup declarations, that can affect the content of the document, as passed from XML processor to the application are present or can appear.
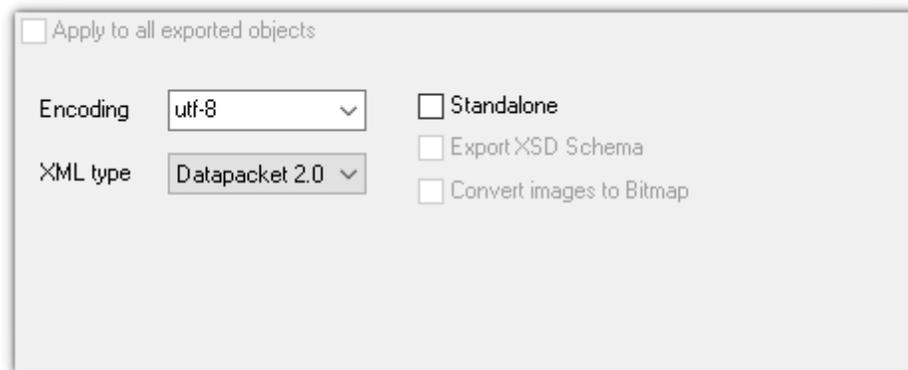
XML type
Select the type of the result XML document: *Datapacket 2.0* or *Access*.

☑ **Export XSD schema**
For the Access type you can optionally select to export XSD schema, which defines the way the elements and attributes will be represented in an XML document. It also advocates that the given XML document should be of a specific format and specific data type.

☑ **Convert images to Bitmap**
Check this option to convert images stored in the source table to the *.png* file format to ensure compatibility with MS Access database.

Note: Conversion between generic XML documents and documents of the *XML-Datapacket (CDS)* format can be performed with the help of XML Mapper by Borland®.

See also:

2.1.7.3.10 DBF options

This tab allows you to set options for the target **DBF** (**.dbf*) file.
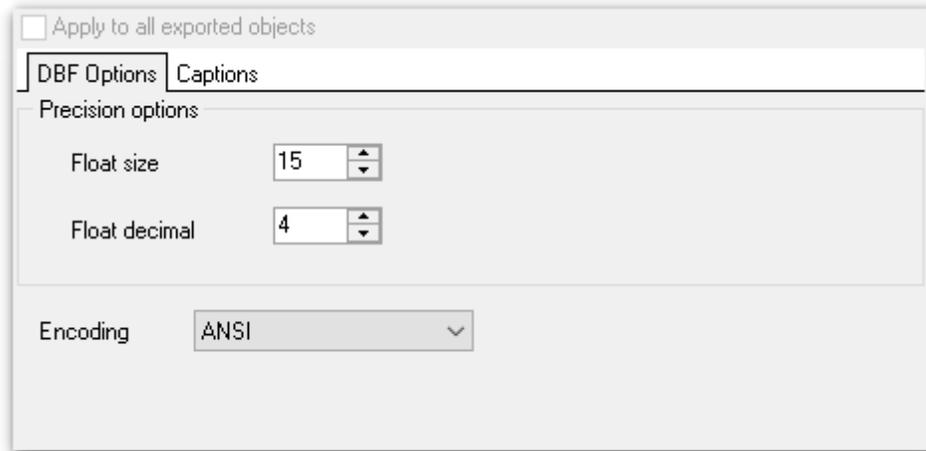
At the **DBF Options** tab you can define the precision for float fields. Use the **Float size** and **Float decimal** fields for this purpose.

Encoding
Use the drop-down list to specify the preferable output file encoding. Possible values are: *ANSI, OEM, MAC, UTF-8, UTF-16, UTF-32*.

Hint: If more convenient, you can check the ☑ **Apply to all exported objects** box to apply changes made at this tab for all exported objects.

See also:

2.1.7.3.11 Excel/ODS options

The **Excel (ODS) options** tab allows you to set options for the target **MS Excel (ODF Spreadsheets)** (*.xlsx*, *.ods*) file.

Sheet name
Input custom name for the sheet in the result file.

You can customize **options** and **strip styles** using the corresponding sub-tabs:
- Options 81
- Styles 82

Note: For your convenience the previews illustrating the changes are displayed in the **Sample Text** area.

Hint: You can reset the changes any time using the **Reset Item** and the **Reset All** buttons.

See also:

2.1.7.3.11.1 Options

Using the **Options** tab you can set *font* and *border* options for all **elements** of the Excel / ODF sheet (*HEADER, CAPTION, DATA, FOOTER*).

Sheet name
If necessary, you can specify the sheet name for the target Excel / ODF Spreadsheet file.

Use the **Font** and the **Size** drop-down lists to select the *font* and *size* to be applied to the output text.
Use the buttons below to set *font color*, make text *bold*, *italic*, *strikethrough* text, set *underline* effects, specify text *horizontal and vertical align*.
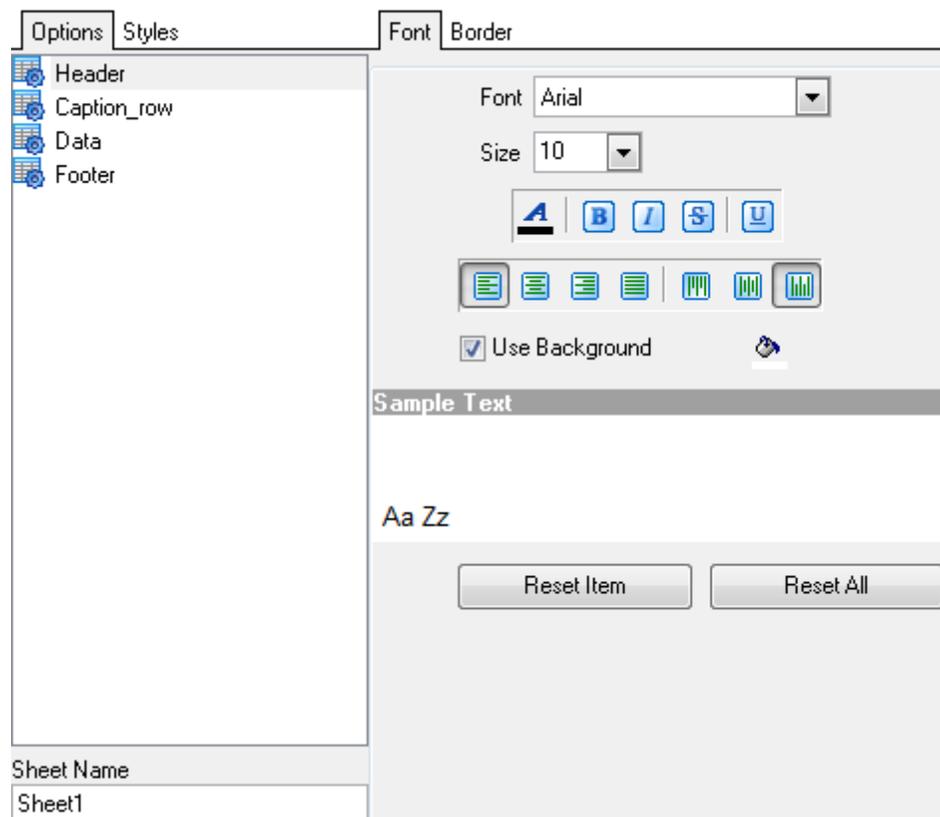
☑ **Use background**
Enable this option to be able to change result file background color.

Press the 🖌 button on the left to set the background color.

You can reset the changes any time using the **Reset Item** and the **Reset All** buttons.

Note: For your convenience the previews illustrating the changes are displayed in the **Sample Text** area.

Enable the ☑ **Use Border** option at the **Border** tab if it is needed.
Then define its **color** and **style**.

☑ Use Border

Border Color   Border Width [1]

2.1.7.3.11.2 Styles

Using the **Styles** tab you can create and save a style template: set *font*, *size*, *background color*, *text alignment*, *wrap text* options.

Use 🟩 🟥 buttons to add/remove a style.
Use 🔼 🔽 buttons to reorder the style's list.
You can also save styles and load saved ones.

If you have created or loaded more than one style template, they can be ignored, or used *column-by-column* or *row-by-row* (it depends on the **Strip Type** selection).
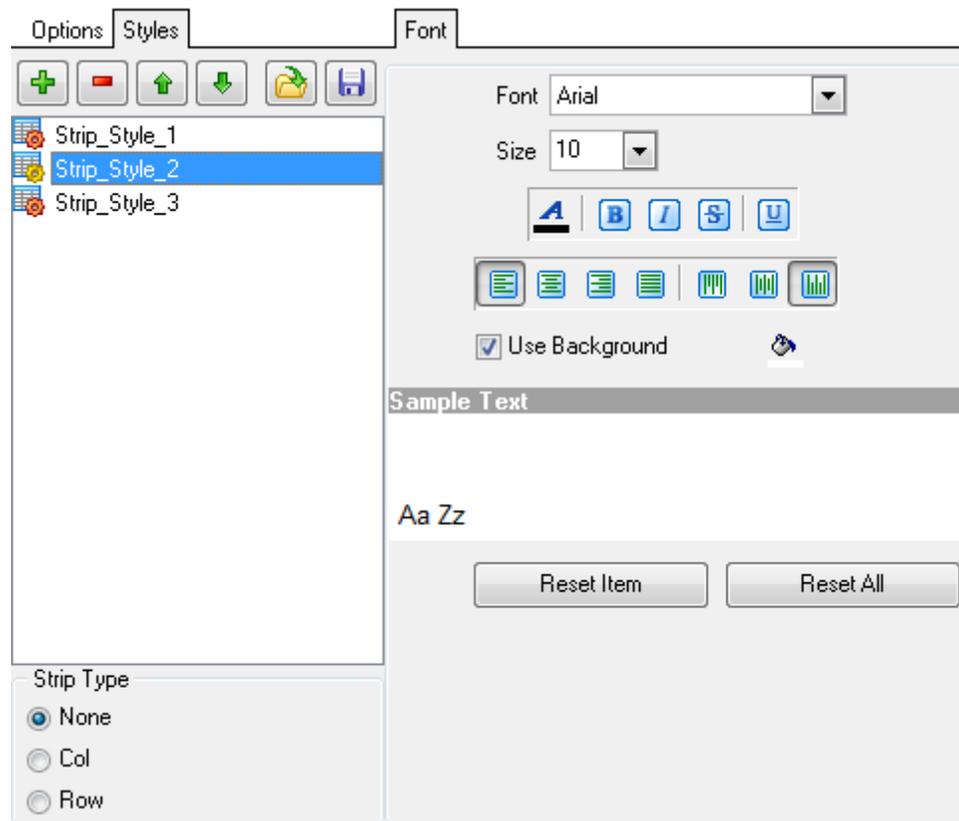
☑ **Use background**

Enable this option to be able to change result file background color.

Press the 🖌 button on the left to set the background color.

You can reset the changes any time using the **Reset Item** and the **Reset All** buttons.

Note: For your convenience the previews illustrating the changes are displayed in the **Sample Text** area.

2.1.7.3.12 WORD/ODT options

The **Word (ODT) Options** tab allows you to set options for the target **MS Word (ODF text)** (*.docx*, *.odt*) file.

You can customize **options**, **strip styles** and **border** using the corresponding sub-tabs:
- Options 85
- Styles 85
- Advanced 86

Note: For your convenience the previews illustrating the changes are displayed in the **Sample Cell** area.

Hint: You can reset the changes any time using the **Reset Item** and the **Reset All** buttons.

See also:
Excel options 46
Access options 59
Word / RTF options 61
HTML options 65

2.1.7.3.12.1 Options

The **Options** sub-tab contains the list of target file entities, such as table header, data, etc. Using the **Options** tab you can set *font* options for all **elements** of the Word / ODF text document (*HEADER*, *CAPTION*, *DATA*, *FOOTER*). You can customize style options, such as *font* and *size*, *background* and *foreground colors*, *text alignment*, text *highlight*, etc. for each of them by clicking the corresponding item in the list and setting the options in the right-side panel.
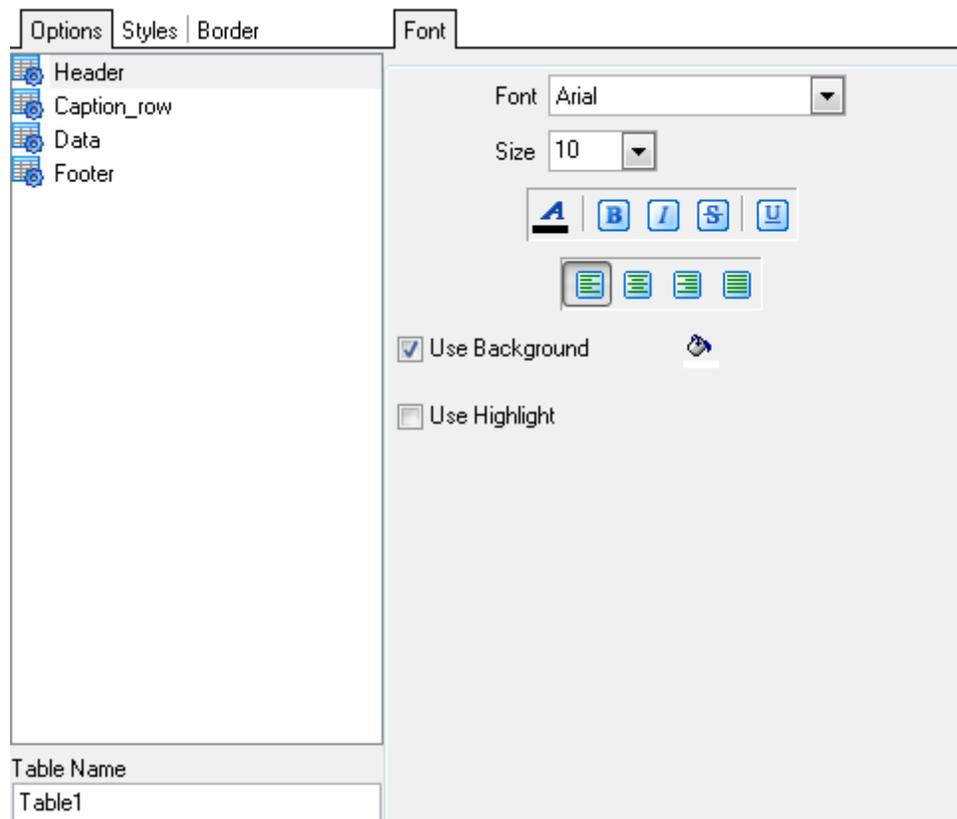

2.1.7.3.12.2 Styles

Using the **Styles** tab you can create and save a style template: set *font*, *size*, *background color*, *text alignment*, *highlight* options.

Use ➕ ➖ buttons to add/remove a style.

Use ⬆ ⬇ buttons to reorder the style's list.
You can also save styles and load saved ones.

If you have created or loaded more than one style template, they can be ignored, or used *column-by-column* or *row-by-row* (it depends on the **Strip Type** selection).
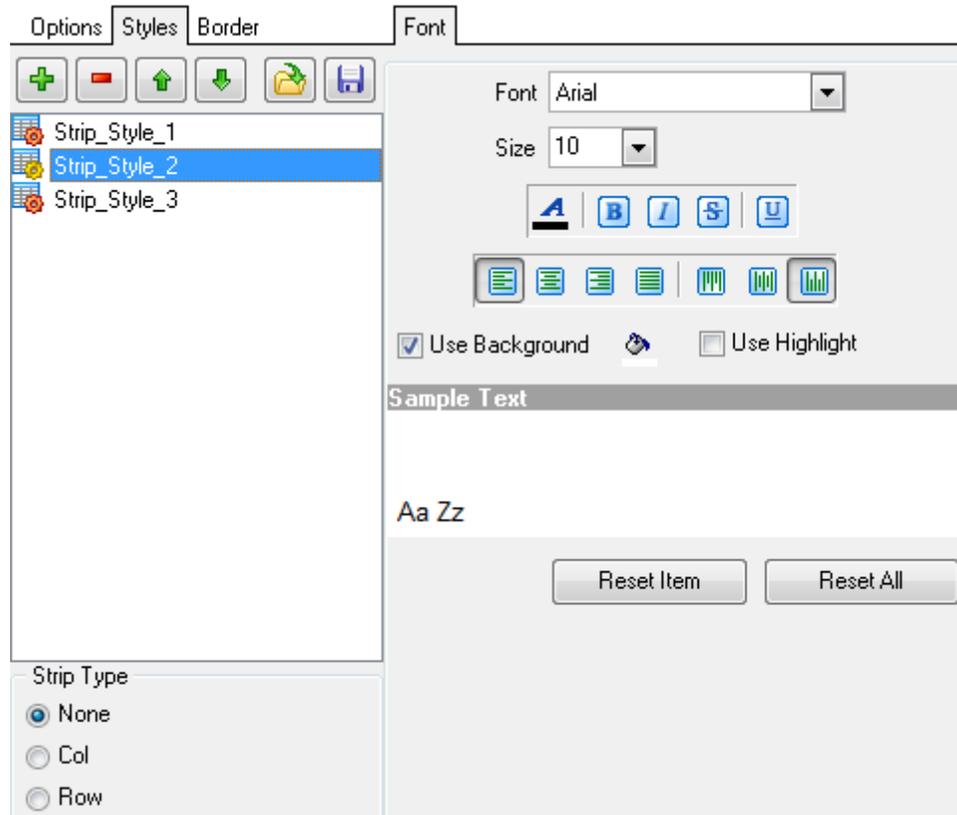
Press the 🪣 button on the left to set the background color.
Press the ✏ button on the right to set the highlight color.

☑ **Use highlight**
Enable this option to be able to select highlight color from the drop-down list.

☑ **Use background**
Enable this option to use the specified color in the result file as background.

Note: For your convenience the previews illustrating the changes are displayed in the **Sample Text** area.

2.1.7.3.12.3 Border

Using the **Border** tab you can enable borders in the result Word / ODF text document and customize them.

Click the **Border Color** icon to select a color using the **Color** dialog where you can specify the required color from the palette.

Border Width
Type in the preferable border width.

2.1.8   Step 7 - Setting base data formats

At this step you should define data formats of the exported fields.

Data type formats
Use this group to define formats for the exported columns. You can keep the default format values or edit some of them, if necessary.
See Format specifiers[111] for more details.
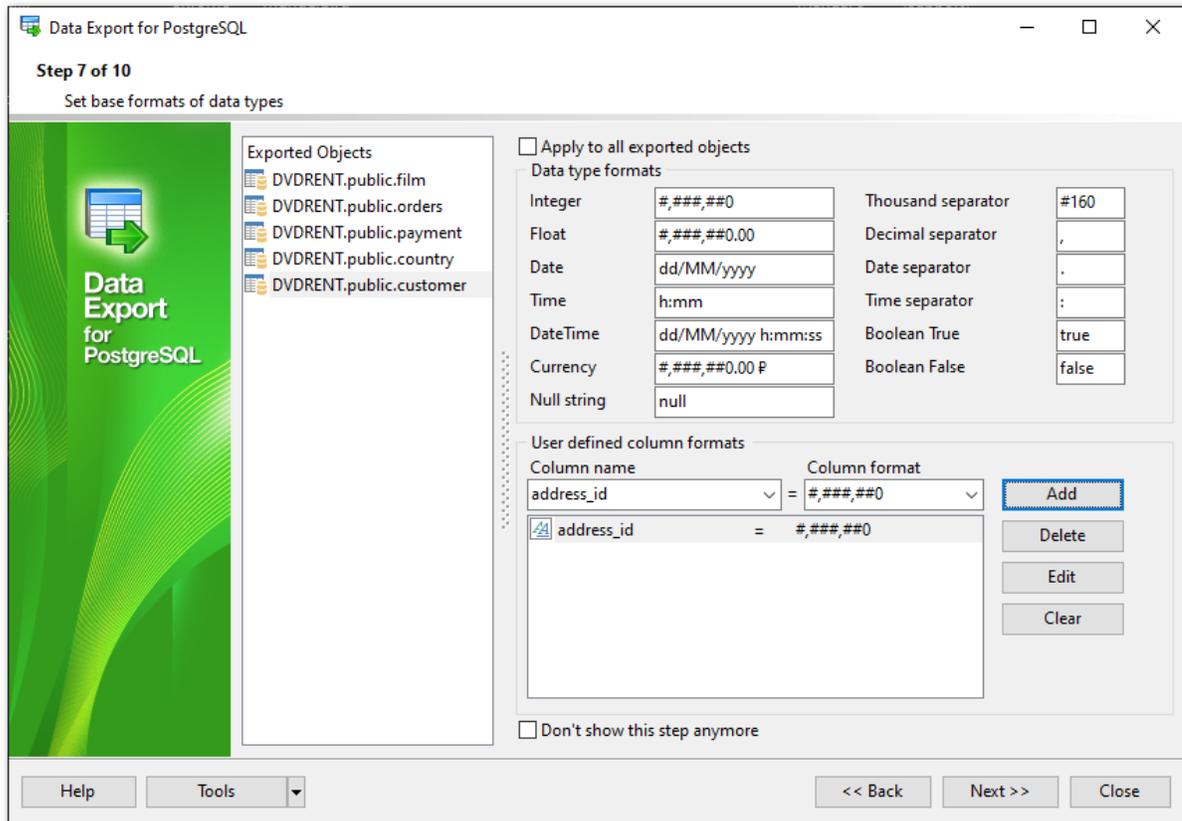
User-defined column formats
Using this group you can also define your own formats for *numeric* and *Date/Time* column. These fields (if there are any in your source table) are available in the drop-down list at the top of the **User** group. Select a column from the **Column Name** drop-down list, then select its format from the **Column Format** drop-down list and click the **Add** button. The column and its format will be added to the list box below. To edit a column format, select the column in the list box and click the **Edit** button. To delete a format, click the **Delete** button. To clear the list box, click the **Clear** button.

Hint: If more convenient, you can check the ☑ **Apply to all exported objects** box to set the specified format for all exported objects.

☑ Don't show this step anymore
Use the option to disable this step. To enable the step use the appropriate option at the Selecting skipped steps[100] tab of the Preferences[97] dialog.

When you are done, press the **Next** button to proceed to the next step[90].

2.1.9   Step 8 - Setting common options

Use this step of the wizard to set common export options. The detailed description of these options is given below.

File properties
Destination file
Use this edit field to set the name of the output file. You can click the **Browse...** button to define it using the **Save As** dialog.

☑ **Open file after export**
If this option is checked, the result file will be opened with the currently associated program after the export operation is completed.

☑ **Print file after export**
If this option is checked, the result file will be sent to the default printer after the export operation is completed.

☑ **Use file name template**
If this option is checked then current date and time are added to the result file name.
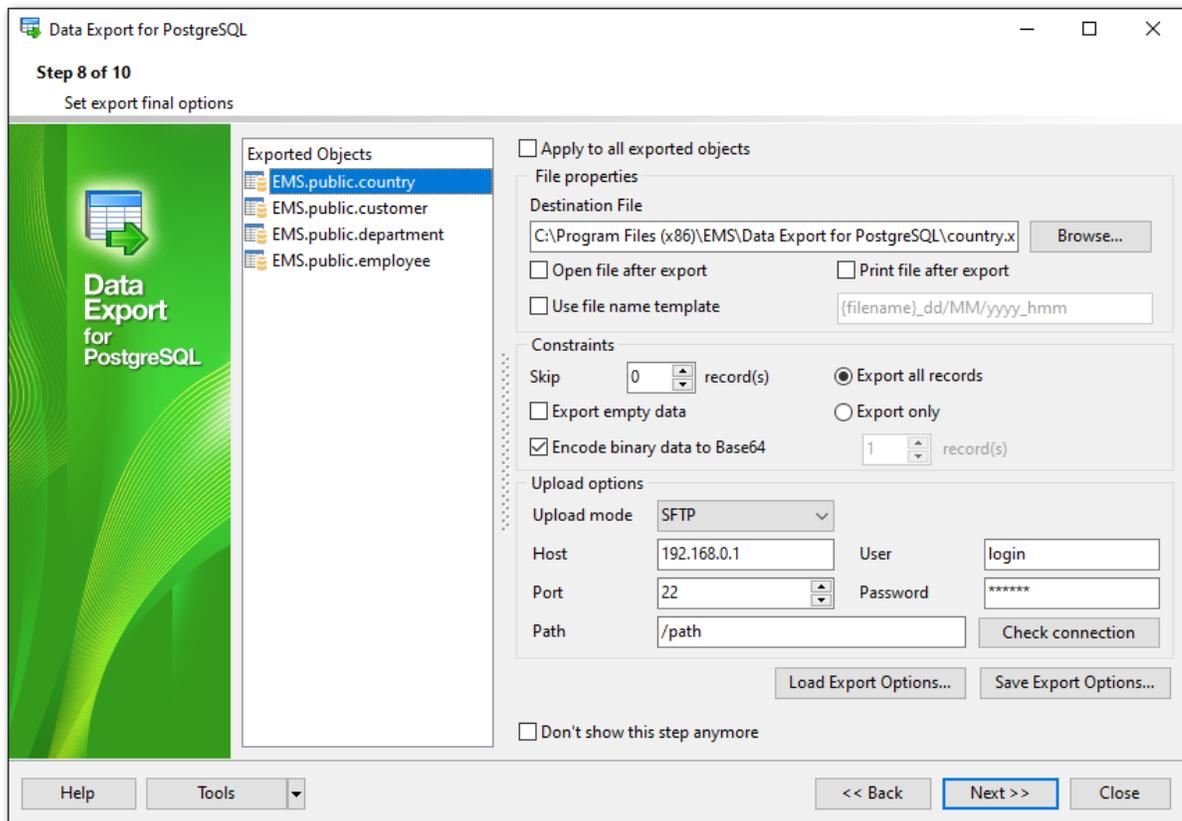
Constraints
Skip ... record(s)
Specifies the number of records to be skipped before export starts.

☑ **Export empty data**

The option indicates whether empty records should be exported.

☑ **Export binary data to Base64**
Check this option to encode binary data in the exported file as Base64.

◉ **Export all records**
Specifies that all records of the selected table will be exported.

◉ **Export only ... record(s)**
Specifies the number of records to be exported.

Save Export Options... / **Load Export Options...**
Use these buttons to save / load all export settings to/from an external configuration file.
For details refer to <u>Configuration file format</u>|116|.

Upload options
Select the protocol in the **Upload mode** field to enable uploading of exported files to FTP
server. After that define connection settings:

- **Host** is the name of the FTP server.
- **Port** indicates the port of the FTP server.
- **Path** is the the directory on the FTP server where you want to upload exported files.
- **User** stands for the user name on the machine with FTP server.
- **Password** is the user password.

Click the **Check connection** button to check connection to the FTP server with the
settings defined above.

Hint: If more convenient, you can check the ☑ **Apply to all exported objects** box to
set the specified options for all exported objects.

☑ **Don't show this step anymore**
Use the option to disable this step. To enable the step use the appropriate option at the
<u>Selecting skipped steps</u>|100| tab of the <u>Preferences</u>|97| dialog.

When you are done, press the **Next** button to proceed to the <u>next step</u>|92| of the wizard.

2.1.10 Step 9 - Defining scripts

This step of the wizard allows you to define scripts to be **executed before and after export process** for each table.

Select a table to define the script for. Type the text of the script to be executed before the export operation in the **Before export script** area, the script to be executed after the export operation in the **After export script** area.
Select another table and add scripts for it, if necessary.

You can also save and load *Before export* and *After export* scripts using the corresponding **Save script...** and **Load script...** buttons. The **Clear** button erases the text and clears the current editor window.
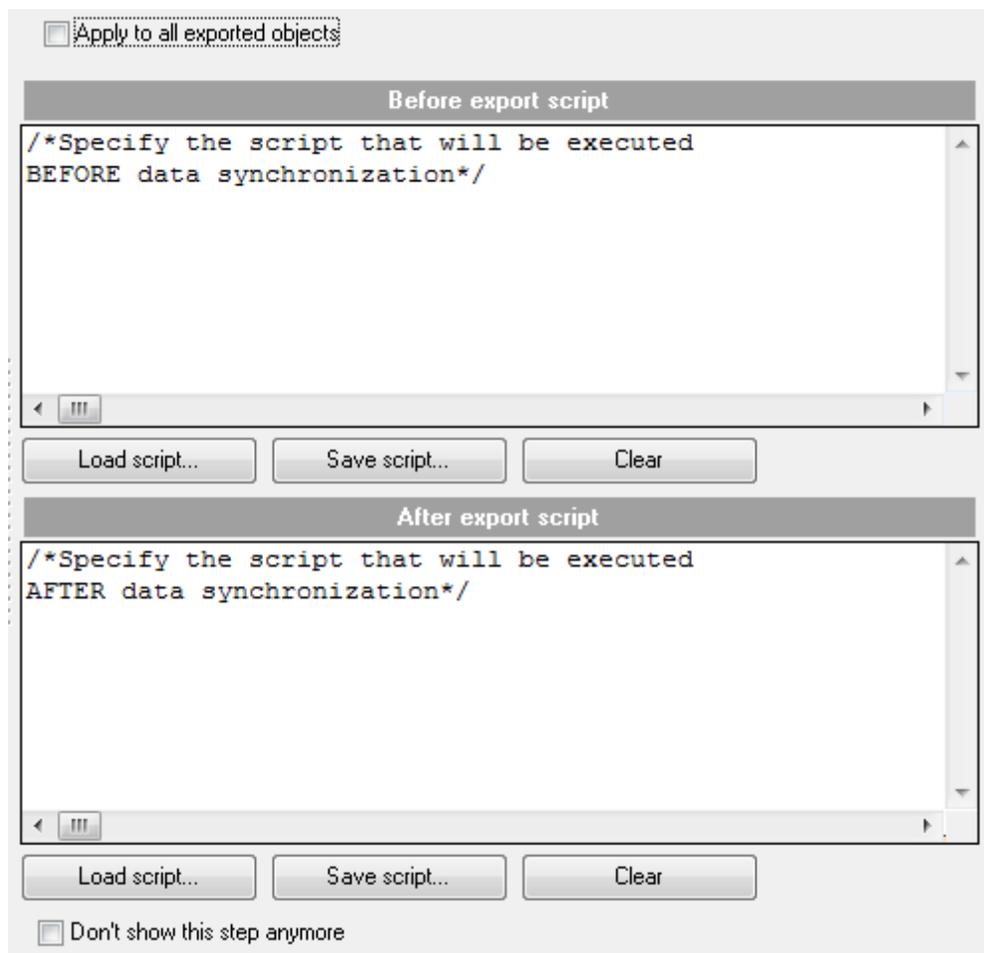
☑ **Don't show this step anymore**
Use the option to disable this step. To enable the step use the appropriate option at the Selecting skipped steps 100 tab of the Preferences 97 dialog.

Hint: If more convenient, you can check the ☑ **Apply to all exported objects** box to set the specified options for all exported objects.

When you are done, press the **Next** button to proceed to the last step 94 of the wizard.

2.1.11 Step 10 - Start of data export process

This step of the wizard is intended to inform you that all export options have been set, and you can start the export process.

If everything is correct, press the **Export** button to start the process. If you want to change something, you can return to any of the wizard steps using the **Back** button.
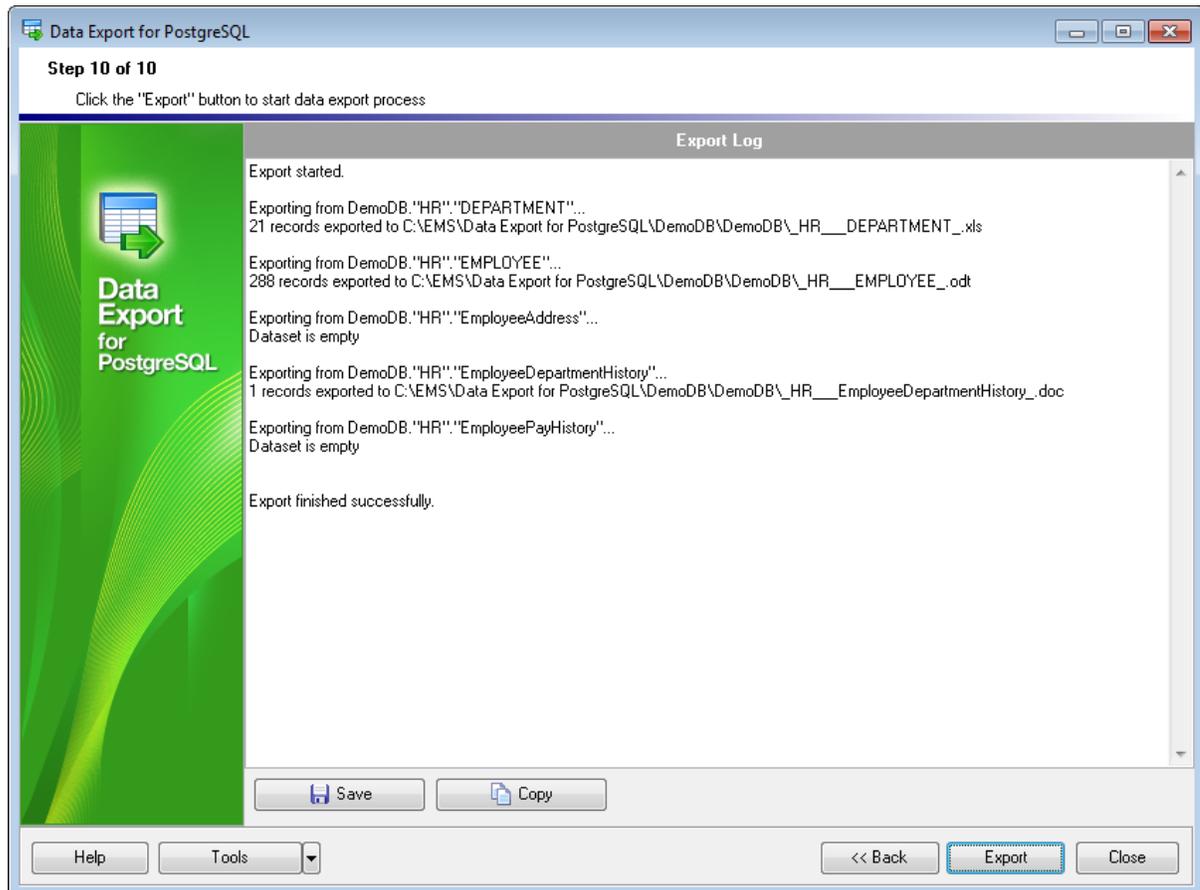
You can 💾 save process log into **.log* file or 📋 copy it to a clipboard using the corresponding buttons.

Please, do not forget to save export templates 95 if you need to repeat the export process with the same or similar settings later.

2.2   Using configuration files (templates)

Data Export for PostgreSQL allows you to store its configuration settings in external *.cfg* files if you need to perform the data export process repeatedly.

You can load previously saved configuration settings to the application <u>wizard</u> [27] if you need to make some changes before data export, or you can run it with the <u>console application</u> [105] for quicker export.

Data Export templates are saved within the **Save template options** dialog. To open this dialog, press the **Tools** button and select the 🖫 **Save Template** popup menu item.
Note: You can save changes to a template without recalling the save dialog using the 🖫 **Save Template As** popup menu item.
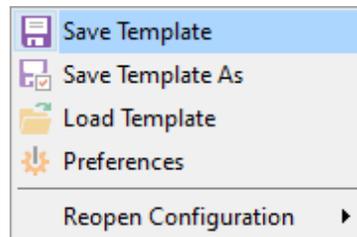
File name
Specify the template file name and select its location using the 🖫 button which calls the **Save As...** dialog.

Comment
Specify custom comment for the template file if need.
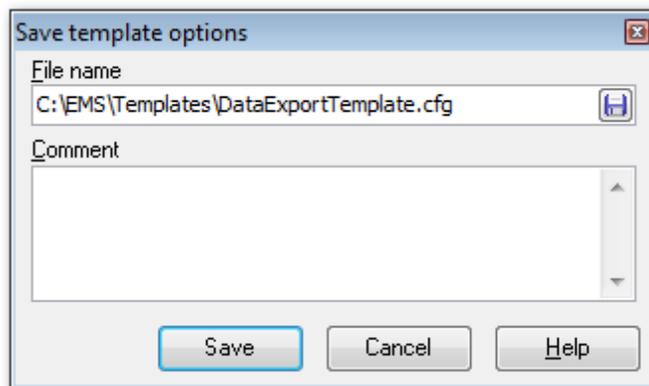
If you need to repeat data exporting process with the same or similar settings later, it is reasonable to save all the settings you entered on the <u>Start of data export process</u> [94] step of the Wizard.

Data Export templates are loaded within the **Open template** dialog. To open this dialog, press the **Tools** button and select the 📂 **Load template** popup menu item.
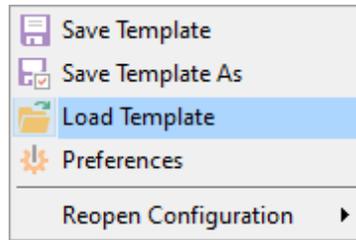
Please note that loading a template is only available at the Getting started[28] and the Setting connection properties[29] steps of the Wizard.

If necessary, you can **reload a template** using the **Reopen configuration** popup menu item of the **Tools** menu.
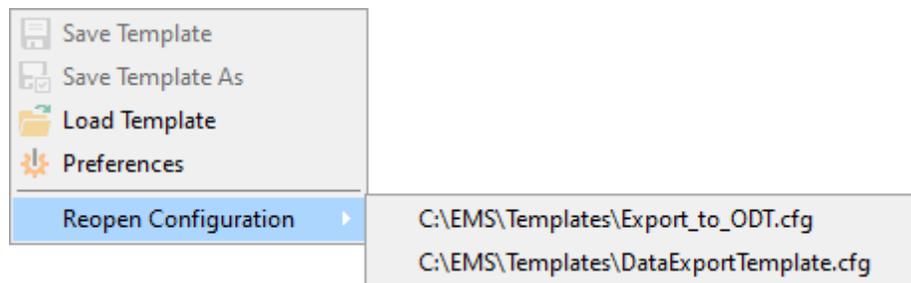
When the configuration file is loaded, you can browse (or change the settings, if necessary) in all steps of the wizard.

See also:

Working with wizard application [27]

Setting program preferences[97]

2.3 Setting program preferences

Data Export for PostgreSQL provides full customization of the program by setting various options within the ⚒ **Preferences** dialog. This chapter is intended to inform you how to use all these options.

General options [98]
These options define general behavior of Data Export for PostgreSQL.

Selecting skipped steps [100]
Manage steps that are visible or hidden in the wizard.

Default data formats [101]
This page allows you to set default data formats.

Default query [102]
This page allows you to input a template for a new query that will appear at Step 3 [34] of Wizard Application [26].

Localization [103]
This page allows you to select a language to be applied for your copy of Data Export for PostgreSQL.

💾	Save Template
🔲	Save Template As
📂	Load Template
⚒	Preferences
	Reopen Configuration ▶
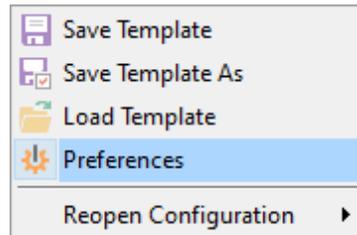
See also:

Working with wizard application [27]

Using configuration files [95]

2.3.1   Setting general options

General
Theme
Select the main color theme for the application: Light or Dark.

☑ **Confirmation on exit**
Enables/disables confirmation upon exiting the program.

☑ **Save password**
Setting this option allows you to save passwords used for access to the databases automatically upon closing the application. Please note that checking this option saves the latest password used for connection to the database (including the SSH server password).

☑ **Format SQL values**
The option determines whether SQL values (e.g. integer, float, currency, datetime, etc.) should be formatted according to the settings specified on the <u>Default formats</u>|101| page.

☑ **Show views**
By setting this option on you can export data from views - they will appear in the list of available tables at <u>Step 2</u>|32| of the <u>Wizard application</u>|26|.

☑ **Show system tables**
Enable this options if you need system tables to be added to the list at <u>Step 2</u>|32|.
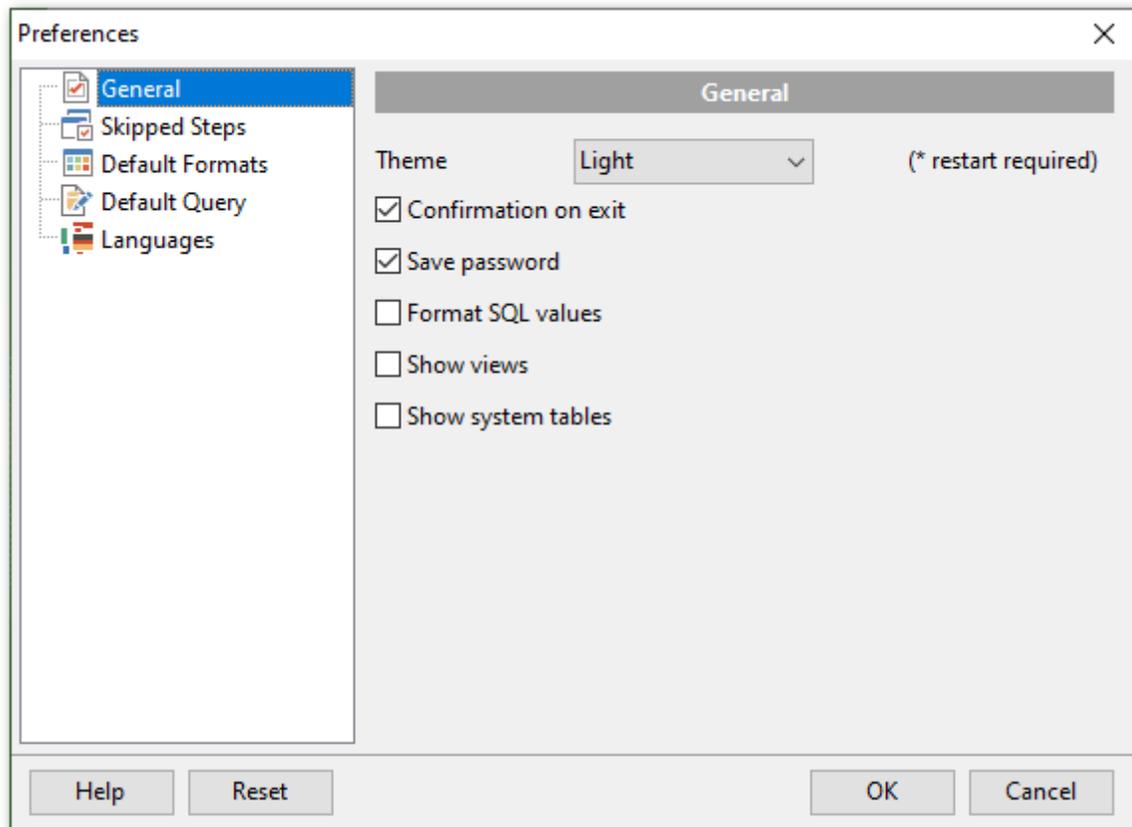
See also:

[Setting default formats](#) 101

[Selecting skipped steps](#) 100

[Setting default query template](#) 102

[Selecting program language](#) 103

2.3.2   Selecting skipped steps

Skipped steps

Use this option group to define the <u>Wizard application</u>⌐26⌐ steps to be skipped. The steps presented in the list contain the ☑ **Don't show this step anymore** that indicates whether this step should be skipped. Enabling steps marked as skipped is possible only in current dialog.

☑ **Skip steps**

This option determines the behavior of the *Next* and *Back* buttons. When this option is disabled, clicking the *Next* button leads to sequential passing through the list of exported objects. When this option is enabled, the steps checked on the page will be skipped.

See also:

2.3.3 Setting default formats

This page allows you to customize formats applied to exported data. Edit the format masks to adjust the result format in the way you need, or click the **Reset** button if you wish to apply default data formats.

The current format settings will be used if the **Format SQL values** option is enabled (Preferences | General 98).

See Format specifiers 111 for details.
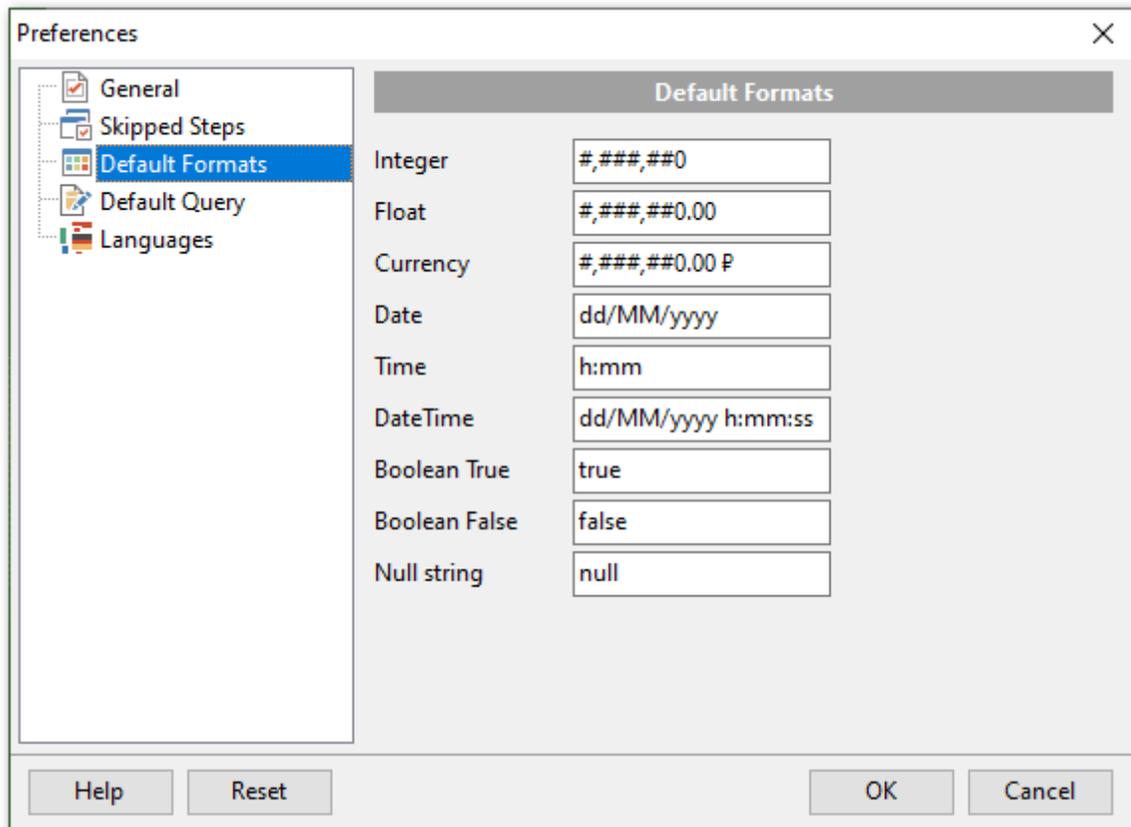
See also:
Setting general options 98
Selecting skipped steps 100
Setting default query template 102
Selecting program language 103

2.3.4 Setting default query template

This page allows you to define the **default query** text that is used on adding a new query at Step 3 34 of the Wizard application 26.

See also:

2.3.5   Selecting program language

The **Languages** page is provided for managing Data Export localization files.

You can create your own *.lng* files similar to those available in the %program_directory% \Languages folder, add them to the list of available languages and set the new language as the program interface language.

The table lists all the languages available for localization and the corresponding *.lng* files.
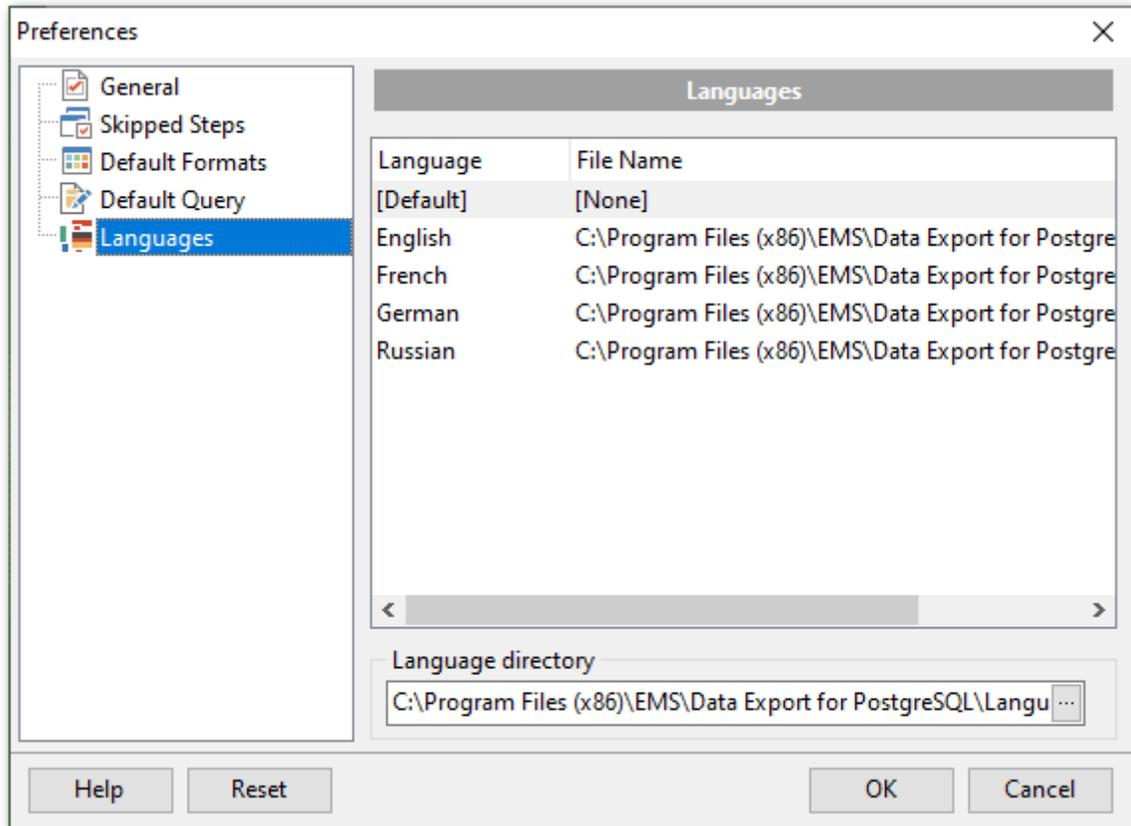
Language Directory

Use the ellipsis ⬚ button to specify the directory where the *.lng* files are stored by default.

See also:

Setting general options 98
Selecting skipped steps 100
Setting default formats 101
Setting default query template 102

Part

III

3   Console application

Additionally to **the GUI version** which is implemented in the form of a <u>wizard application</u>
[26], the installation package of Data Export for PostgreSQL includes **the console version**
which is intended for running from Windows command line with a <u>template</u> [95] file name
used as the execution parameter. You can schedule exporting using *Scheduled Tasks* tool
implemented in Windows.

```
C:\Program Files\EMS\Data Export for PostgreSQL>PgExportC.exe_
```

Data Export for PostgreSQL command line utility is intended for quick and powerful data
export from PostgreSQL tables.

- <u>Working with console application</u>[106]
- <u>How to schedule console run</u>[107]
- <u>Configuration file format</u>[116]

See also:

<u>Wizard application</u> [26]

3.1 Working with console application

All the export options are set in **configuration** (*.cfg*) files. A configuration (template) file can be also used in the **Console version** of Data Export for PostgreSQL.

To create a configuration (template) file, follow the instructions below:
- start Data Export <u>Application wizard</u> 26;
- set all the required options in all steps of the wizard;
- test the export process at the last step;
- save all export options in the <u>template</u> 95.

The easiest way to start Data Export for PostgreSQL console application is to double-click the generated *.cfg* template. The other way is to enter the command line and type the appropriate command.

<u>Usage:</u>

<path to Data Export for PostgreSQL console application>\PgExportC.exe *TemplateFile [-B]*

TemplateFile
Stands for the path and the name of *.cfg* template file to be used as the console version execution parameter

[-B]
Use this parameter in the command line to run the console version of Data Export for PostgreSQL in the background mode

<u>Example:</u>

"C:\Program Files\EMS\Data Export for PostgreSQL\PgExportC.exe" "C:\EMS\DataExport\Example.cfg" -B

Using parameters in queries

PgExportC.exe [Template file] -[Query name]:[Parameter name]=[Value] -[Query name]:[Parameter name]=[Value] etc.
(see <u>Using query parameters</u> 118)

Note: The following exit codes can be returned by Data Export for PostgreSQL to the operating system after performing the latest task:
0 - successful completion;
1 - error(s) occurred during task performing;
2 - fatal error occurred. The task was not performed.

See also:

<u>Working with wizard application</u> 27

<u>How to schedule console run</u> 107

3.2 How to schedule console run

Here are the steps to schedule program run with standard Windows scheduler:

1. Set all options in the program and click Tools --> Save template on the last step..
2. Open the command line in Windows (type CMD in the Run... dialog).
3. Use the following command to run the console version with the saved template:
<path to Data Export for PostgreSQL console application>\PgExportC.exe *TemplateFile [-B]*
For example:
"C:\Program Files\EMS\Data Export for PostgreSQL\PgExportC.exe" "C:\EMS\DataExport\Example.cfg" -B
4. Launch the standard Task Scheduler tool in Windows OS.
5. Set the command for exporting data as described above.
6. Set the schedule for the command execution.
7. Save the scheduled task.

See also:

Working with console application
106

Configuration file format 116
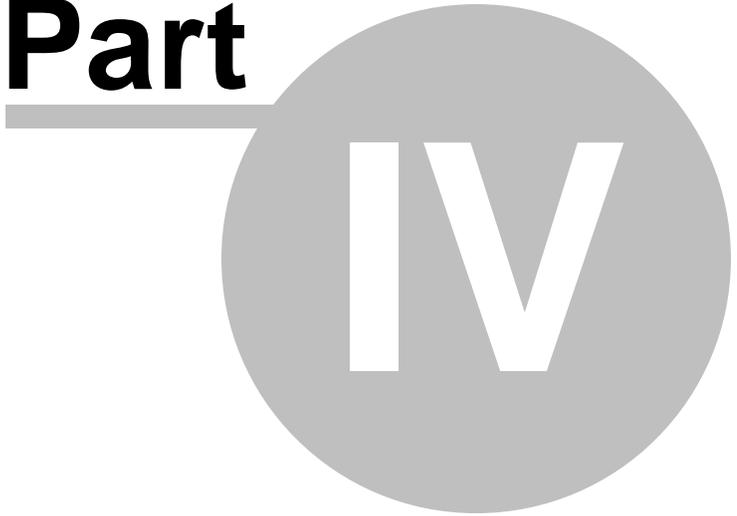
Part IV

4   Appendix

4.1   SSH tunneling options

To setup the connection via **SSH tunnel**, input the following values in the corresponding fields:
- **SSH host name** is the name of the host where SSH server is running
- **SSH port** indicates the port where SSH server is activated
- **SSH user name** stands for the user on the machine where SSH server is running (
  Note: it is a Linux/Windows user, not a user of PostgreSQL server)
- **SSH password** is the Linux/Windows user password

Please note that PostgreSQL **host name** should be set relatively to the SSH server in this case. For example, if both PostgreSQL and SSH servers are located on the same computer, you should specify *localhost* as **host name** instead of the server external host name or IP address.

☑ **Use Private Key for authentication**
If the SSH encryption is enabled on the SSH server, a user can generate a pair of cryptographic keys (the **Private key** and the **Public key**). The **Public key** is placed on the SSH server, and the **Private key** is the part you keep secret inside a secure box that can only be opened with the correct passphrase (or an empty string as the passphrase). When you wish to access the remote system, you open the secure box with your passphrase (if any), and use the private key to authenticate yourself with the Public key on the remote Linux computer.

SSH Key file
Specify the location (the secure box) of the **Private key** file on your local machine. Supported Private Key file formats are:
OpenSSH
Putty
SSH.com
Note that you need to trust your local machine not to scrape your passphrase or a copy of your Private key file while it is out of its secure box.

4.2 HTTP tunneling options

HTTP tunneling is a method that allows one to connect to a database and transmit data between the program and a PostgreSQL server through the HTTP/HTTPS protocols using port 80 which is used by a regular Internet browser. This method is used to connect to the remote PostgreSQL server of a hosting company when direct connection is not available (e.g. for security reasons).

The HTTP tunnel works in the following way.
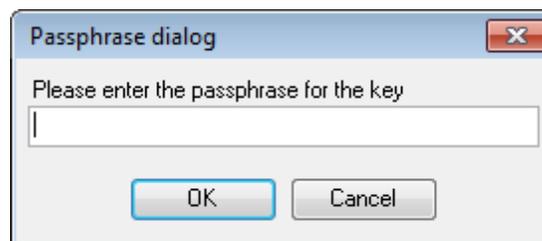All outgoing queries and commands sent by the client's software are encoded and transmitted through the HTTP/HTTPS protocol using port 80 to the special script that decodes the received data, sends it to PostgreSQL server for processing and then sends the result back. This method requires the HTTP server (Apache) and PHP with PostgreSQL to be installed on the remote server. Normally this software is provided by a hosting company that offers Linux hosting solutions.

To use **HTTP tunneling**, just upload the tunneling script to the webserver where PostgreSQL server is located (e.g. to the location where other PHP scripts are stored), or to any other webserver from which direct connections to your PostgreSQL server are allowed. This script exposes the PostgreSQL API as a set of web-services used by Data Export for PostgreSQL.

If your webserver complies with the requirements and the script is installed correctly, you will see the message "EmsProxy v 1.31" (version can be different) in your browser when opening the http://<your_webserver>/emsproxy.php page.

In case of using this connection method the response will be slower as compared to the direct connection or the SSH Tunneling method, since the data are XML encoded and HTTP is stateless by nature. However, all the features of Data Export for PostgreSQL are available.

Note that the *emsproxy.php* script file is included into the distribution package and can be found in Data Export installation directory.
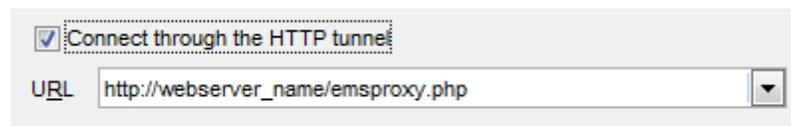
4.3 Format specifiers

The following format specifiers are supported in the format string:

Float/Integer format

0

Digit place holder. If the value being formatted has a digit in the position where the '0' appears in the format string, then that digit is copied to the output string. Otherwise, a '0' is stored in that position in the output string.

#

Digit placeholder. If the value being formatted has a digit in the position where the '#' appears in the format string, then that digit is copied to the output string. Otherwise, nothing is stored in that position in the output string.

.

Decimal point. The first '.' character in the format string determines the location of the decimal separator in the formatted value; any additional '.' characters are ignored.

,

Thousand separator. If the format string contains one or more ',' characters, the output will have thousand separators inserted between each group of three digits to the left of the decimal point. The placement and number of ',' characters in the format string does not affect the output, except to indicate that thousand separators are wanted.

E+

Scientific notation. If any of the strings 'E+', 'E-', 'e+', or 'e-' are contained in the format string, the number is formatted using scientific notation. A group of up to four '0' characters can immediately follow the 'E+', 'E-', 'e+', or 'e-' to determine the minimum number of digits in the exponent. The 'E+' and 'e+' formats cause a plus sign to be output for positive exponents and a minus sign to be output for negative exponents. The 'E-' and 'e-' formats output a sign character only for negative exponents.

Date/Time format

c

Displays the date using the format using the Short Date Format, followed by the time using the Long Time Format. The time is not displayed if the date-time value indicates midnight precisely.

d

Displays the day as a number without a leading zero (1-31).

dd

Displays the day as a number with a leading zero (01-31).

ddd

Displays the day as an abbreviation (Sun-Sat) using the strings of the Short Day Names.

dddd

Displays the day as a full name (Sunday-Saturday) using the strings of the Long Day Names.

ddddd

Displays the date using the Short Date Format.

dddddd
Displays the date using the Long Date Format.

e
Displays the year in the current period/era as a number without a leading zero (Japanese, Korean and Taiwanese locales only).

ee
Displays the year in the current period/era as a number with a leading zero (Japanese, Korean and Taiwanese locales only).

g
Displays the period/era as an abbreviation (Japanese and Taiwanese locales only).

gg
Displays the period/era as a full name. (Japanese and Taiwanese locales only).

M
Displays the month as a number without a leading zero (1-12). If the m specifier immediately follows an h or hh specifier, the minute rather than the month is displayed.

MM
Displays the month as a number with a leading zero (01-12). If the mm specifier immediately follows an h or hh specifier, the minute rather than the month is displayed.

MMM
Displays the month as an abbreviation (Jan-Dec) using the strings given of the Short Month Names.

MMMM
Displays the month as a full name (January-December) using the strings of the Long Month Names.

yy
Displays the year as a two-digit number (00-99).

yyyy
Displays the year as a four-digit number (0000-9999).

h
Displays the hour without a leading zero (0-23).

hh
Displays the hour with a leading zero (00-23).

m
Displays the minute without a leading zero (0-59).

mm
Displays the minute with a leading zero (00-59).

s
Displays the second without a leading zero (0-59).

ss
Displays the second with a leading zero (00-59).

z
Displays the millisecond without a leading zero (0-999).

zzz
Displays the millisecond with a leading zero (000-999).

t
Displays the time using the Short Time Format.

tt
Displays the time using the Long Time Format.

am/pm
Uses the 12-hour clock for the preceding h or hh specifier, and displays 'am' for any hour before noon, and 'pm' for any hour after noon. The am/pm specifier can use lower, upper, or mixed case, and the result is displayed accordingly.

a/p
Uses the 12-hour clock for the preceding h or hh specifier, and displays 'a' for any hour before noon, and 'p' for any hour after noon. The a/p specifier can use lower, upper, or mixed case, and the result is displayed accordingly.

ampm
Uses the 12-hour clock for the preceding h or hh specifier, and displays the contents of the TimeAMString global variable for any hour before noon, and the contents of the TimePMString global variable for any hour after noon.

/
Displays the date separator character using the Date Separator.

:
Displays the time separator character using the Time Separator.

'xx'/"xx"
Characters enclosed in single or double quotes are displayed as-is, and do not affect formatting.

4.4 Supported file formats

⦿ **MS Excel 97-2003**
The most popular e-table format used by Microsoft® Excel (*.xls*). The result files are
fully compatible with Microsoft® Excel versions 97-2000, 2003 and XP.

⦿ **MS Access 97-2003**
File of Microsoft® Access format (*.mdb*) with an ADO connection used.

⦿ **MS Word 97-2003**
One of the most popular text processing formats used by Microsoft® Word (*.doc*). The
result files are fully compatible with Microsoft® Word versions 97-2000, 2003 and XP.

⦿ **RTF**
Rich Text Format (*.rtf*) supported by many text processing programs (e.g. WordPad).

⦿ **HTML**
Hyper Text Markup Language file format (*.html*, *.htm*), complete compatibility with
HTML 4.0 specification.

⦿ **PDF**
A standard format in electronic publishing (*.pdf*).

⦿ **Text file**
Plain text file format (*.txt*).

⦿ **CSV file**
Comma-Separated Value file format (*.csv*).

⦿ **DIF file**
Data Interchange File (*.dif*) format.

⦿ **SYLK**
Symbolic Links (*.slk*) file format.

Note: all the text formats including *Text file*, *CSV*, *DIF*, *SYLK* are usually used as working
or interchange formats.

⦿ **LaTeX**
A specific file format (*.tex*) which is a popular (especially among mathematicians and
physicists) macroextension of *TeX* pack developed by D. Knut.

⦿ **XML**
A markup language for documents containing structured information (*.xml*).

⦿ **DBF**
Database file format (*.dbf*) used by dBASE and a number of xBASE applications.

⦿ **MS Excel**
The e-table format used by Microsoft® Excel (*.xlsx*).

⦿ **MS Word**
The text processing format used by Microsoft® Word (*.docx*).

◉ MS Access
The database file format used by Microsoft® Word (*.accdb*).

◉ ODF Spreadsheets
OASIS Open Document Format for Office Applications - open document file format for spreadsheets (*.ods*) used by a number of applications including OpenOffice.org and KOffice.

◉ ODF text
OASIS Open Document Format for Office Applications - open document file format for word processing (*.odt*) documents used by a number of applications including OpenOffice.org and KOffice.

4.5   Configuration file format

The **configuration** (**template**) **file** used by Data Export for PostgreSQL is divided into several sections, each corresponding to a particular group of settings specified at different steps of the GUI application 27 wizard.

[#General#]
This section stores information about the product name and its major version 13.
[#General#]
This section stores general information about the utility:

[Connection]
This section contains parameters for connecting 29 to the server: *Host*, *Port*, *Charset*, *tunneling settings*, *Login*, *Password* (encrypted). These parameters are obligatory.

Note that parameter *DBName* used in previous versions is no more obligatory. You can set databases for each table and query separately in the *[Databases]* section.

[Tables]
This section contains the list of database tables 32 to export in the following format:
<table key>=<table name>
e.g.
table1=Country
table2=Employee

This section may be empty.

[Queries]
This section contains the list of queries 34 and their identifiers (used while loading queries into the wizard application) in the following format:
<query key>=<query identifier>
e.g.
query1=CountryQ

[SQL_<query key>]
Sections of this type contain query text for each query. The lines must be specified in the following format:
Item_0=<query line 1>
Item_1=<query line2>
etc.

See the example below:
[Queries]
query0=Query_0
[SQL_query0]
Item_0=select name, capital
Item_1=from countries
Item_2=where continent = 'South America'

This section may also be empty, but remember that if you do not specify any table or query, no data are exported.

[Files]

This section lists files for data export in the following format:
<table key>=<filename>
<query key>=<filename>
etc.

You can specify either full paths or relative paths, e.g.
table1=table1.xls
or
query1=C:\Exported data\query1.docx

Note that you must specify the file extension properly to receive data in the required format. Otherwise, extension *.xls* is taken by default.

[Databases]
This section allows you to specify a database for each table and query in the following format:
<table key>=<database name>
<query key>=<database name>

If you do not specify a database for a table or a query, the database name for this table or query is taken from the *DBName* parameter value of the *[Connection]* section.

[Templates]
This section specifies template files for each table or query. This template (**.exp*) file is generated by the utility with the configuration (**.cfg*) file and contains various export settings: export type, result filename, fields for export, number of records to export, specific Excel, RTF, HTML, or other options and more.

The section has the following format:
<table key>=<template filename>
<query key>=<template filename>
etc.

You can specify either full or relative file paths, e.g.
table1=template1_xls.exp
or
query_clients=D:\Templates\template2_rtf.exp

If you do not specify any file name in the *[Files]* section, it is taken from the template. If you specify neither file name, nor
template for table or query, then the *<table name>.xls* filename is taken by default for tables, or *<query key>.xls* for queries.

You can set arbitrary table or query keys in the **[Tables]**, **[Queries]**, **[Files]**, **[Databases]** and **[Templates]** sections, but they MUST NOT contain spaces and they MUST be identical in different sections.

4.6 Using query parameters

Both the GUI Wizard 26 and the console version 105 of Data Export for PostgreSQL support parameters in a query.

For example, you export data from a table named *table1* and at Step 3 34 of the GUI 26 version of the utility you specify the following query, e.g. *Query_0*:

*SELECT * FROM table1 WHERE field1 > :param0*

Then you need to save the template 95 file which will be used in the console version 105 of the utility. To set the parameter value when using the console version 105, you need to specify the following command in the command line (if you run the console version from the program installation directory and the template 95 file is also located in this directory):

PgExportC.exe TemplateFile -Query_0:param0=5
where *5* is the query parameter value

If you export data from multiple queries, you need to specify the following command in the command line:

PgExportC.exe TemplateFile -Query_0:param0=5 -Query_1:param1=10 -Query_2: param2=15
where *5*, *10*, *15* are the query parameter values

See also:

Working with console application
106

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