

Data Export for PostgreSQL User's Manual

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This manual documents EMS Data Export for PostgreSQL

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Part

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 https://www.sqlmanager.net/support

System:

Register online at: https://www.sqlmanager.net/products/postgresql/dataexport/buy

1.1 What's new

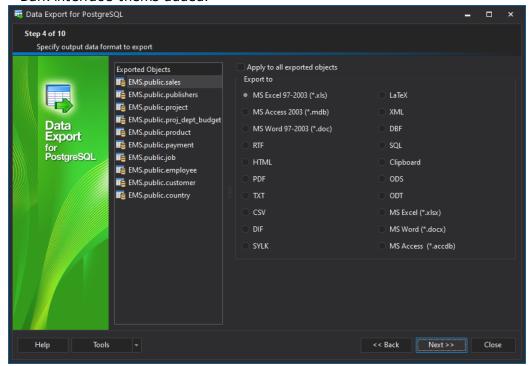
Version
Data Export for PostgreSQL 4.0

Release date

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 17.0

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</u> <u>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</u> <u>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

See also:

System requirements

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 <u>PayPro Global Shopper Support</u>, 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@sglmanager.net.

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

Product distribution	PayPro Global
EMS Data Export for PostgreSQL (Business license) + 1-Year Maintenance*	Buy Now!
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*	
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.

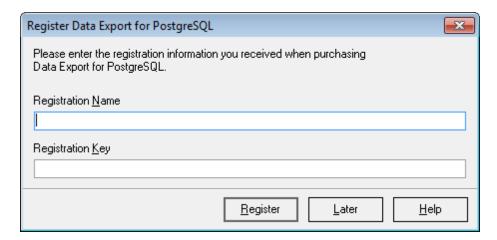
See also:

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 <u>startup page [28]</u>.



See also:

How to buy Data Export

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 841. 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 <u>template formats</u> | self refer to the standard Windows formats.
- Passive connection mode is implemented when uploading file to FTP-server.
- XLS 461. When adding the hyperlink to another *.xls file, at times the link turned out to be broken. Fixed now.
- <u>SQL</u> 75^h. When inserting the large number of records, "Out of memory" error occurred. Fixed now.
- <u>SQL</u> 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 731. The export to UTF-8 coded files did not work. Fixed now.
- XML 777. 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 <u>SQL scripts</u> 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 <u>export data [37]</u> 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 <u>SQL Query Editor</u> 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 <u>templateless</u> 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 $\frac{TXT}{72}$ (ANSI, OEM,

MAC, UTF8, UTF16, UTF32)

- Export to <u>SQL script</u> 5: 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 <u>SQL script</u> 751: 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 <u>template</u> 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

See also:

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1.7 EMS Data Export FAQ

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

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- What do I need to start working with EMS Data Export for PostgreSQL? [17]
- What is the difference between the Export feature of SQL Manager for PostgreSQL and the Data Export for PostgreSQL standalone utility? [17]
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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 by 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 of 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 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 <u>configuration [95]</u> (
 <u>template [95]</u>) 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.

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If you still have any questions, contact us at <u>Support Center</u>.

1.8 Other EMS Products

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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.

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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.



SOL Administrator for SOL 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.

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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.

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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.



SOL 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.

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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.

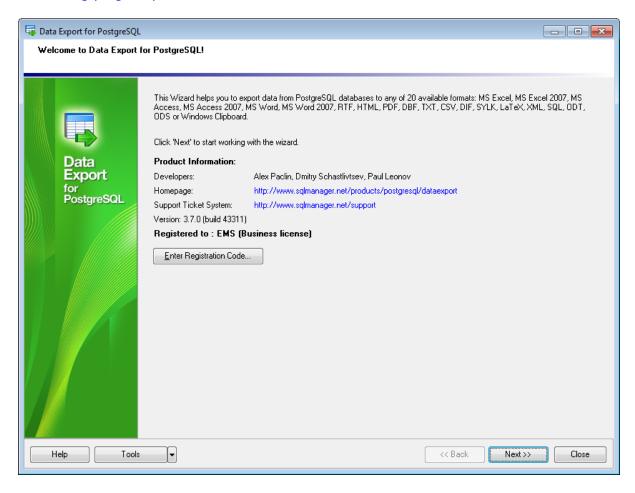
Scroll to top 19

Part III

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 27
- <u>Using configuration files</u> 95
- <u>Setting program preferences</u> 97



See also:

Console application 105

2.1 Working with wizard application

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

Getting started [28]

Step 1 - Setting connection properties [29]

Step 2 - Selecting databases and tables [32]

Step 3 - Specifying queries [34]

Step 4 - Selecting export data format [37]

Step 5 - Selecting fields to export [38]

Step 6 - Setting export options [40]

Step 7 - Setting base data formats [88]

Step 8 - Setting common options [90]

Step 9 - Defining scripts [92]

Step 10 - Start of data export process [94]

See also:

Working with console application

106

Setting program preferences 97

2.1.1 Getting started

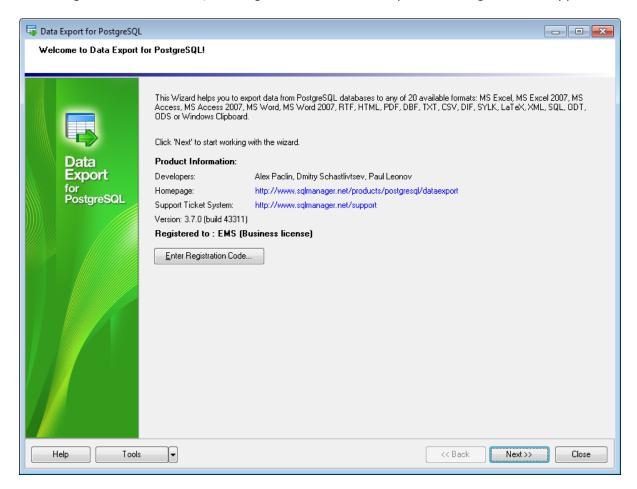
This is how Data Export for PostgreSQL wizard application looks when you start it.

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 information.

If the registration is correct, message with maintenance period ending date will appear.



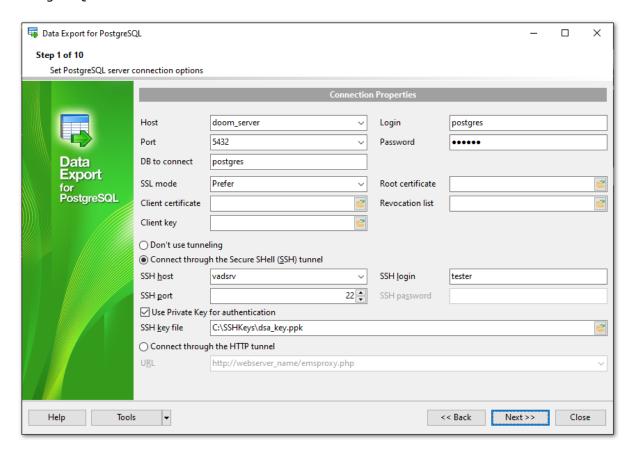
Press the **Next** button to proceed to the <u>next page</u> [29].

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 Select Host or Database [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> 1091.

© 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 <code>emsproxy.php</code> 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.

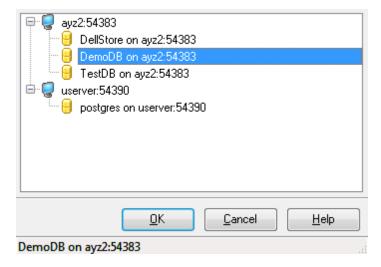
For details see HTTP tunneling options 110.

If you get any difficulties connecting to the database, it can be useful to look through FAOs 17.

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

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.

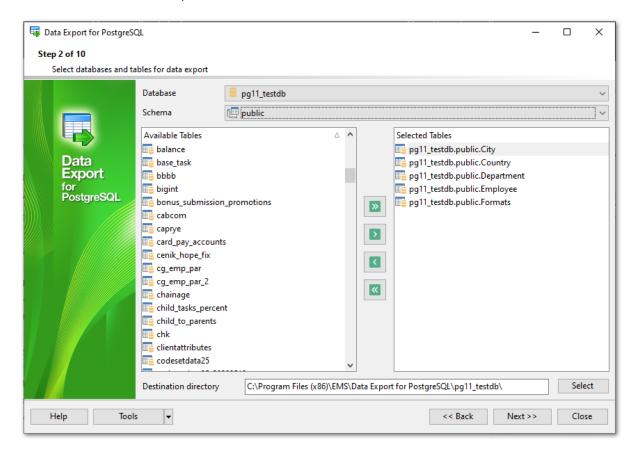
To select a table, you need to move it from the **Available Tables** list to the **Selected Tables** list. Use the buttons or drag-and-drop operations to move the tables from one list to another.

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 <u>next step 34</u>).

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.

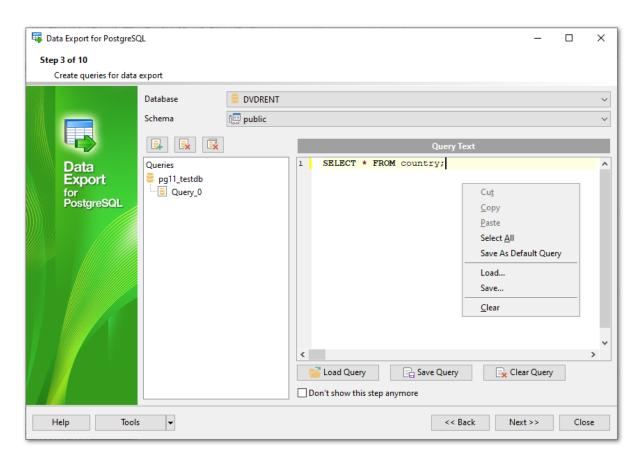
While inputting query text, it is also possible to save your queries by clicking the **Save Query** button or clear the content of the editor by clicking the **Clear Query** button.

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.

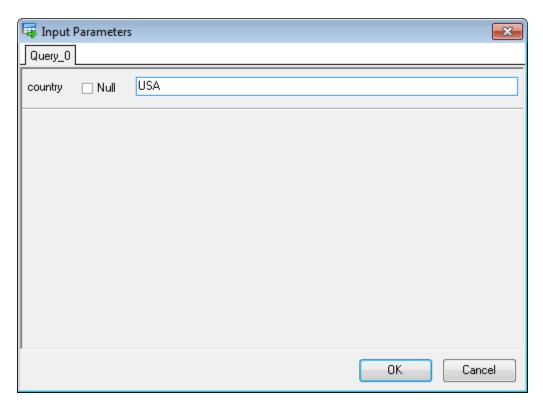
To delete all queries (i.e. empty the **Queries** list), click the **Queries** Clear All button, or right-click within the **Queries** list and select the **Remove All Queries** context menu item.

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 <u>default query editor</u> [102].

If you add a <u>query with parameters [118]</u>, the **Input Parameters** dialog will appear on pressing the **Export** button at the <u>last step [94]</u>. 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 197 dialog.

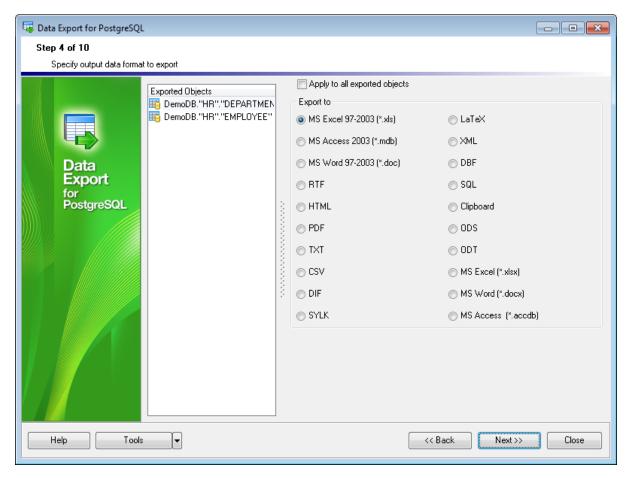
When you are done, press the **Next** button to proceed to the <u>next step [37]</u>.

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 381.

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

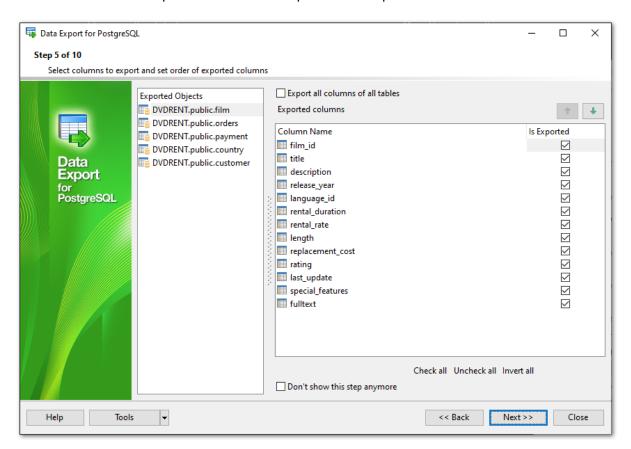
Click the link to exclude all columns of the table from export.

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 Selecting skipped steps 100 tab of the Preferences 197 dialog.

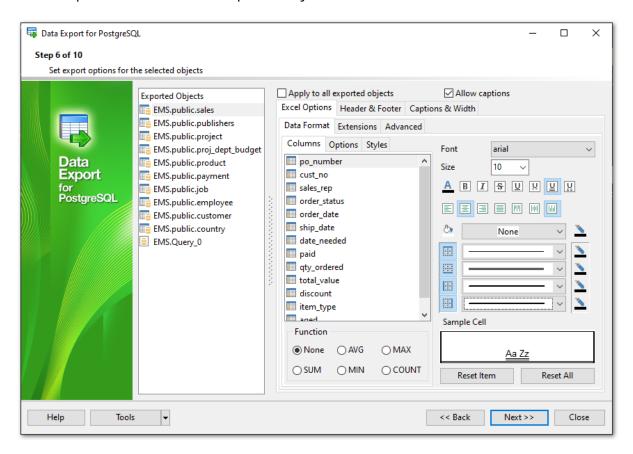
When you are done, press the **Next** button to proceed to the <u>next step</u> 40 .

2.1.7 Step 6 - Setting export options

At this step you should set specific options according to selected output file format at $\frac{37}{100}$.

- 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].

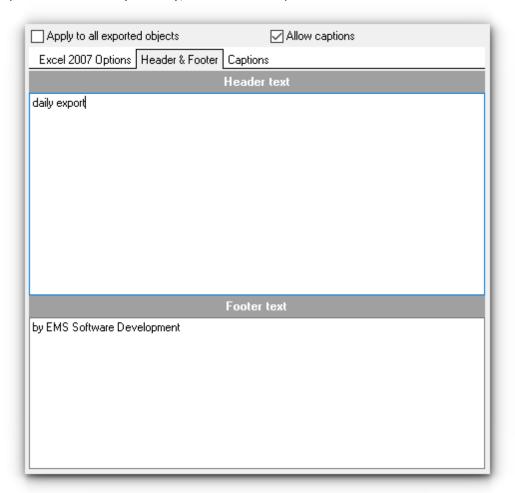
2.1.7.1 Header & Footer options

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

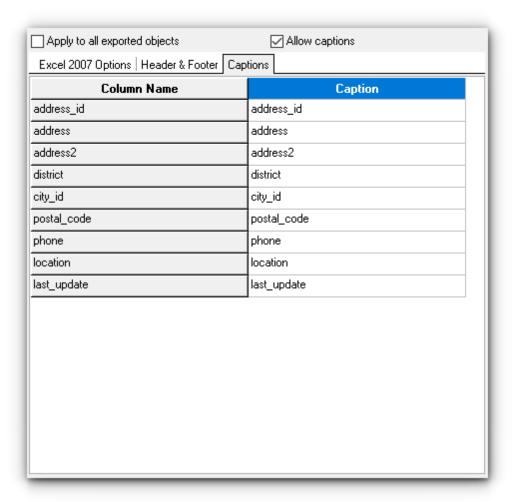
This tab allows you to customize fields of the result file: specify column *captions*, *width* and/or *align*.

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



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 page.

See also:

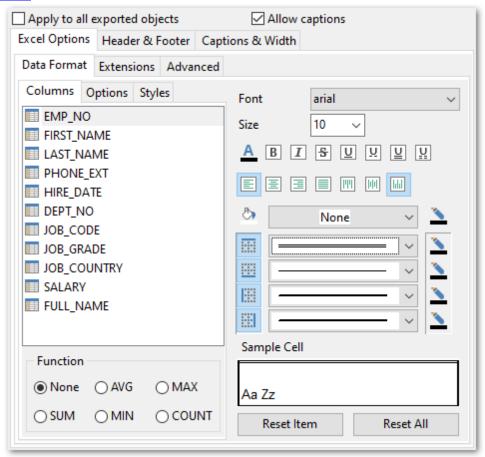
Header & Footer options 41 Caption, width and align options 43

2.1.7.3.1 Excel 97-2003 options

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

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

- Data format 47
- Extensions 51
- Advanced 57



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:

Access options [59]
Word 97-2003 / 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]

Word / ODT options [84]

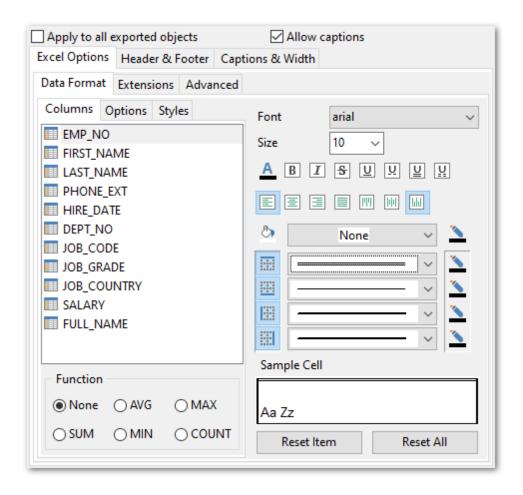
2.1.7.3.1.1 Data format

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 <u>w</u> 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 M button on the left to set the background color for the fill pattern.

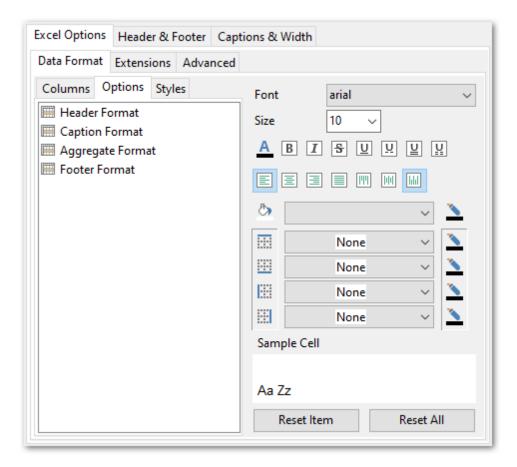
Press the $\stackrel{ extbf{M}}{=}$ button on the right to set the foreground color for the fill pattern.

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 <u>w</u> 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 $\stackrel{\text{def}}{=}$ button on the right to set the foreground color for the fill pattern.

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

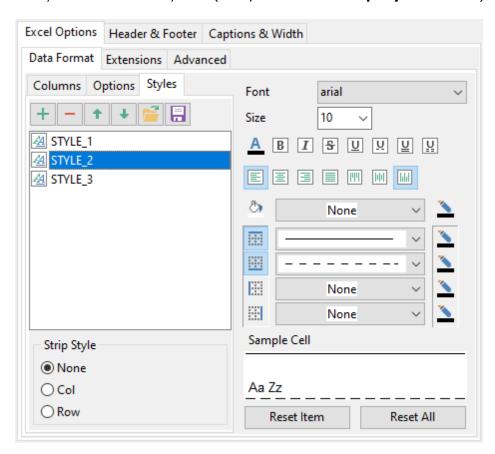
Using the **Styles** tab you can make a style template: set *font* options, *border* and *fill* options and save them.

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 $\mathit{line}\ \mathit{type}$ and the $^{\c type}$ 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 Market button on the left to set the background color for the fill pattern.

Press the <u>w</u> 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.

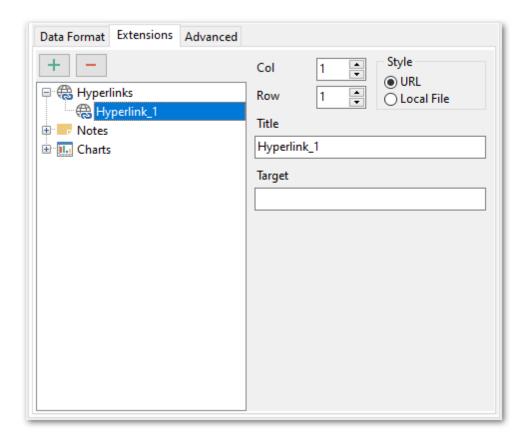
Click the Plus button to add an element.

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.



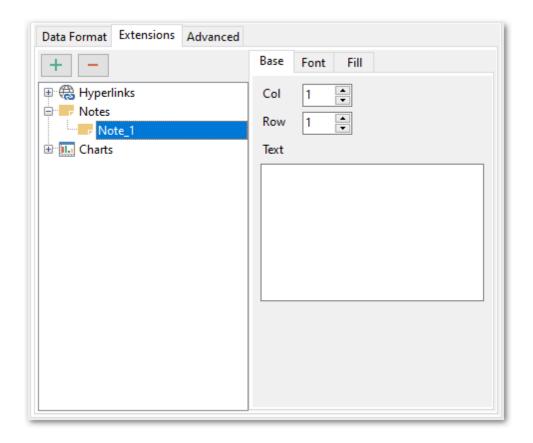
Note: Hyperlink title replaces the specified cell's data.

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;

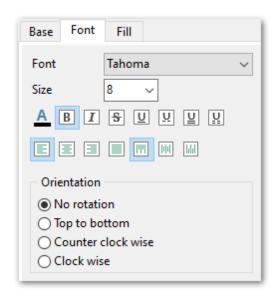


Font

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.

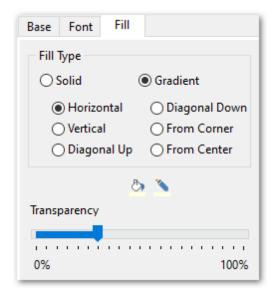
Use the buttons below to set font color, make text bold, italicized, strikethrough text, set underline effects, specify text horizontal and vertical align.



You also can select preferable text **Orientation**.

Fill

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



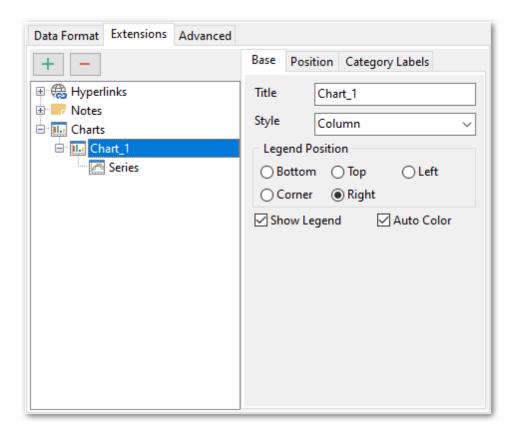
Select the fill type first: Solid or Gradient. The direction needs to be specified for gradient fill: horizontal, vertical, diagonal (down, down), from corner or from center.

Press the $\stackrel{\triangle}{=}$ button on the left to set the background color for the fill pattern. Press the $\stackrel{\triangle}{=}$ button on the right to set the foreground color for the fill pattern.

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

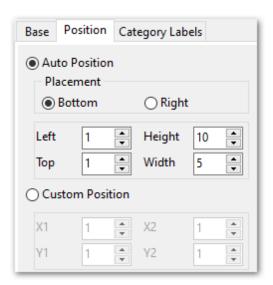
If you need to create a **chart**:

- 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.

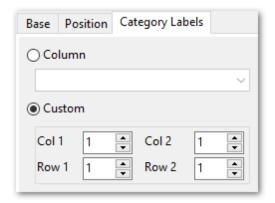
You also need to specify the distance between the chart and the data at the **Left** and the **Top** fields, and chart size at the **Height** and the **Width**.

Custom Position

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

Category labels

Use this tab to define Category labels.



Column

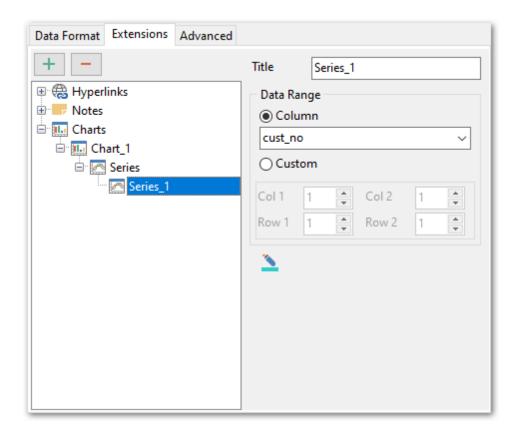
Use column values as chart category labels.

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.

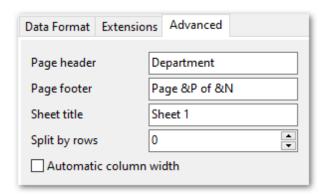
If you need to add series for the chart:

- 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:

Excel options 46

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 2007/ODS options 80

Word 2007/ODT options 84

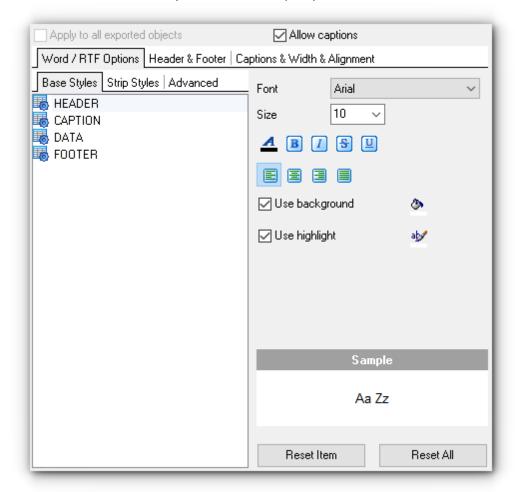
2.1.7.3.3 Word / RTF options

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:

Excel 97-2003 options 461
Access options 591
HTML options 651

PDF options 70

TXT options 72

CSV options 73

SQL options 75

XML options 77

DBF options 79

Excel/ODS options 80

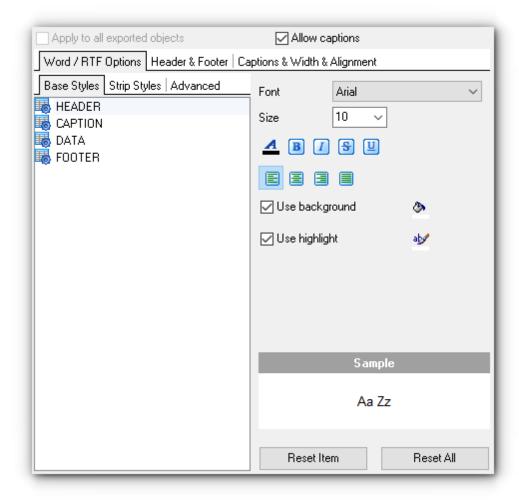
Word/ODT options 84

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

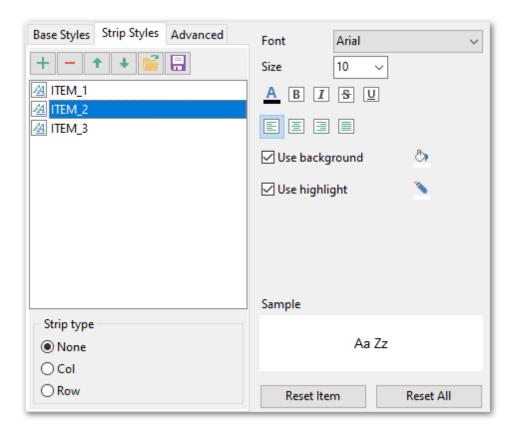
Using the **Strip Styles** tab you can create a style template: set *font*, *size*, *background* and *foreground colors*, *text alignment*, *highlight* and save them.

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 <u>la buttons to add/remove a style.</u>

Use buttons to reorder the style's list.

You can also save styles and load saved ones.



Press the <u>button</u> on the left to set the background color.

Press the $\stackrel{ ext{def}}{=}$ 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.

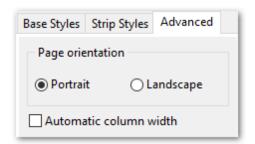
Hint: You can reset the changes any time using the **Reset Item** and the **Reset All** buttons.

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:

Excel 97-2003 options 46

Access options 59

Word 97-2003/RTF options 61

PDF options 70

TXT options 72

CSV options 73

SQL options 75

XML options 77

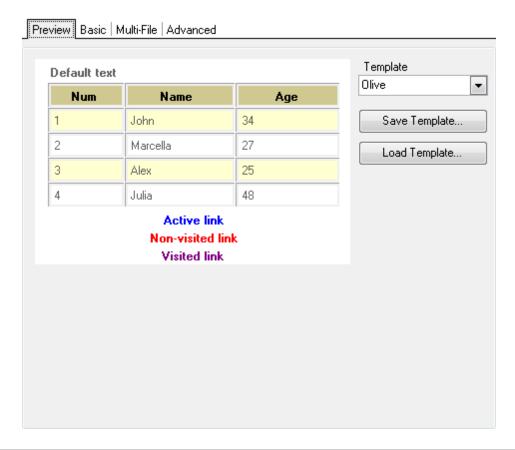
DBF options 79

Excel/ODS options 80

Word/ODT options 84

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:

Basic 66 Multi-file 67 Advanced 68 Market

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

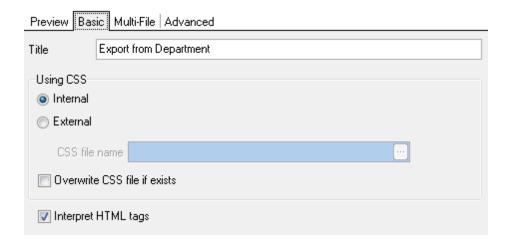
Click the ellipsis button to define the location of the *.css file.

V 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:

Preview 661
Multi-file 671
Advanced 681

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

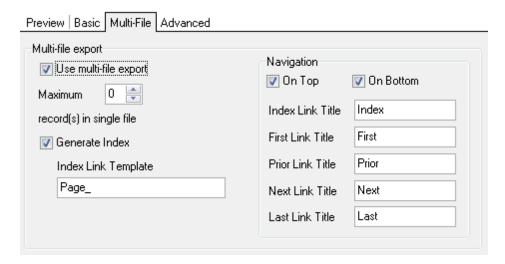
Use this section to define navigation link titles.

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:

Preview 661
Basic 661

Advanced 68

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.

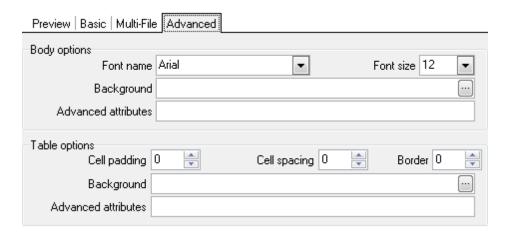


Table options

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:

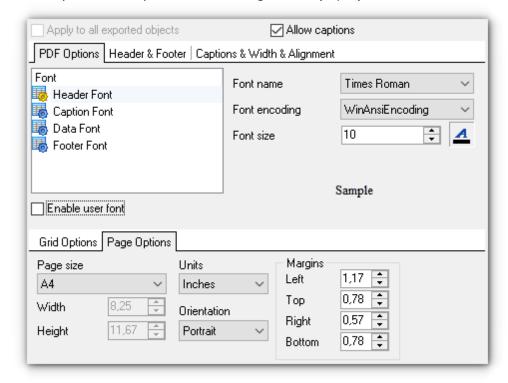
Preview 66

Basic 66

Multi-file 67

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 <a> 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:

Excel 97-2003 options 46

Access options 59

Word 97-2003/RTF options 61

HTML options 65

TXT options 72

CSV options 73

SQL options 75

XML options 77

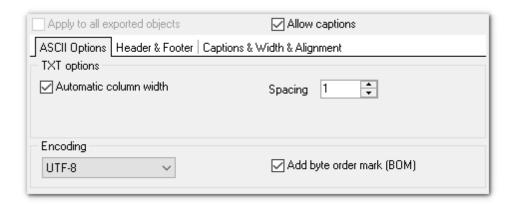
DBF options 79

Excel/ODS options 80

Word/ODT options 84

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:

Excel 97-2003 options 46

Access options 59

Word 97-2003 / RTF options 61

HTML options 65

PDF options 70

CSV options 73

SOL options 75

XML options 77

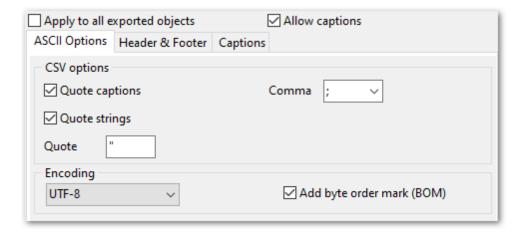
DBF options 79

Excel/ODS options 80

Word/ODT options 84

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:

Excel 97-2003 options 46

Access options 59

Word 97-2003/RTF options 61

HTML options 65

PDF options 70

TXT options 72

SOL options 75

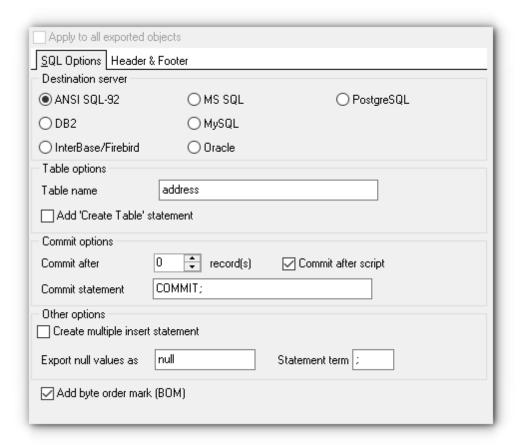
XML options 77

DBF options 79 Excel/ODS options 80 Word/ODT options 84

2.1.7.3.8 SQL options

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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:

Excel options 46

Access options 59

Word / RTF options 61

HTML options 65

PDF options 70

TXT options 72

CSV options 73

XML options 77

DBF options 79

Excel 2007/ODS options 80

Word 2007/ODT options 84

2.1.7.3.9 XML options

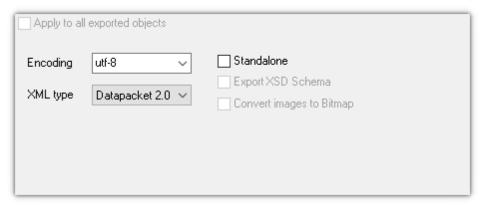
This tab allows you to set options for the target **XML** (*.xml) file.

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:

Excel 97-2003 options 46

Access options 59

Word 97-2003 / RTF options 61

HTML options 65

PDF options 70

TXT options 72

CSV options 73

SQL options 75

DBF options 79

Excel/ODS options 80 Word/ODT options 84

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:

Excel 97-2003 options 46

Access options 59

Word 97-2003 / RTF options 61

HTML options 65

PDF options 70

TXT options 72

CSV options 73

SQL options 75

XML options 77

Excel/ODS options 80

Word/ODT options 84

2.1.7.3.11 Excel/ODS options

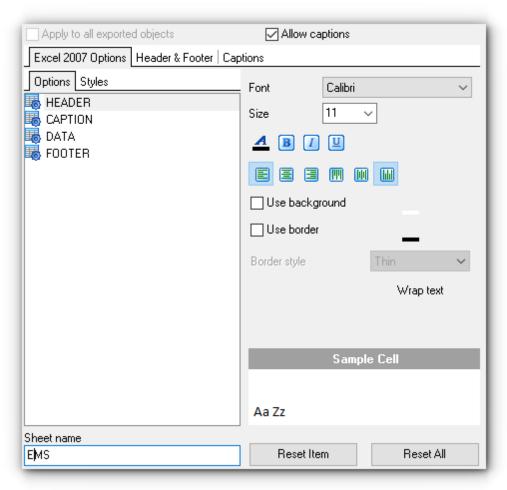
The Excel (ODS) options tab allows you to set options for the target MS Excel (ODF Spreadsheets) (*.x/sx, *.a/s) file.

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:

Excel 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
Word 2007/ODT options 84

2.1.7.3.11.1 Options

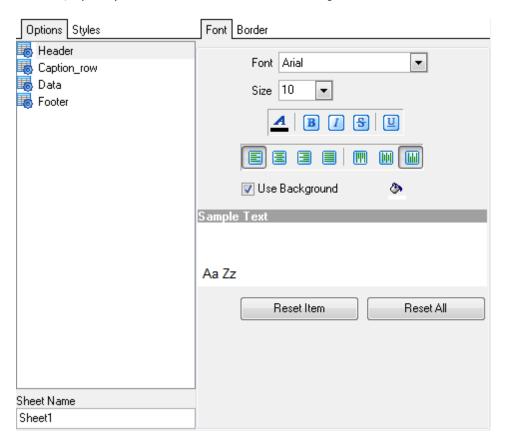
Using the **Options** tab you can set *font* and *border* options for all **elements** of the Excel / ODF sheet (*HEADER*, *CAPTION*, *DATA*, *FOOTER*).

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 **W** Use Border option at the Border tab if it is needed.

Then define its **color** $\stackrel{\text{def}}{=}$ and **style**.



2.1.7.3.11.2 Styles

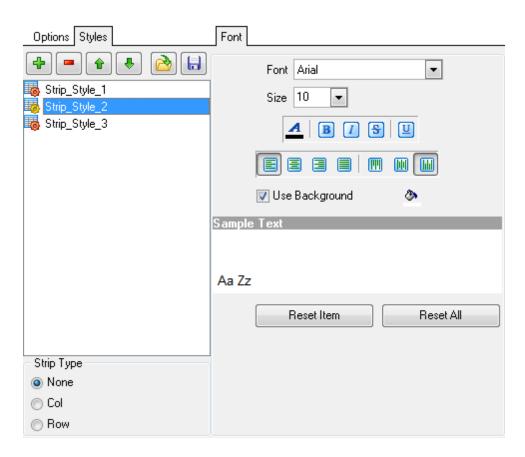
Using the **Styles** tab you can create and save a style template: set *font*, *size*, *background color*, *text alignment*, *wrap text* options.

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.

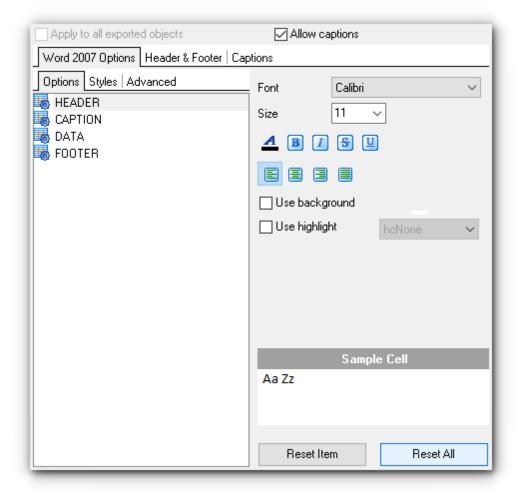
Note: For your convenience the previews illustrating the changes are displayed in the **Sample Text** area.

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 461

Access options 591

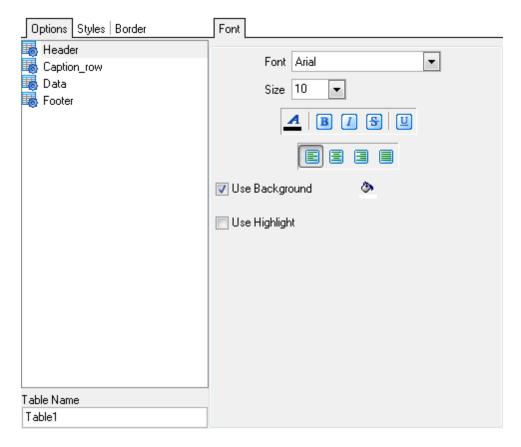
Word / RTF options 611

HTML options 651

PDF options [70]
TXT options [72]
CSV options [73]
SQL options [75]
XML options [77]
DBF options [79]
Excel 2007/ODS options [80]

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.



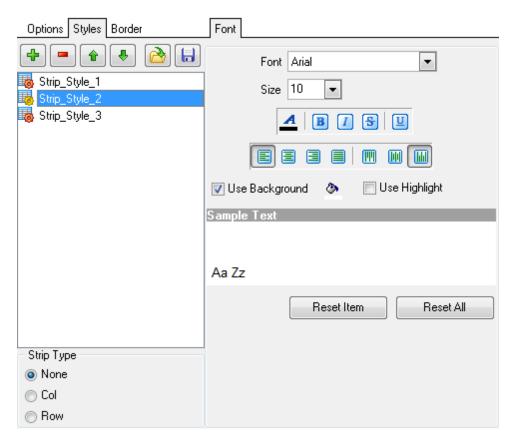
2.1.7.3.12.2 Styles

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.



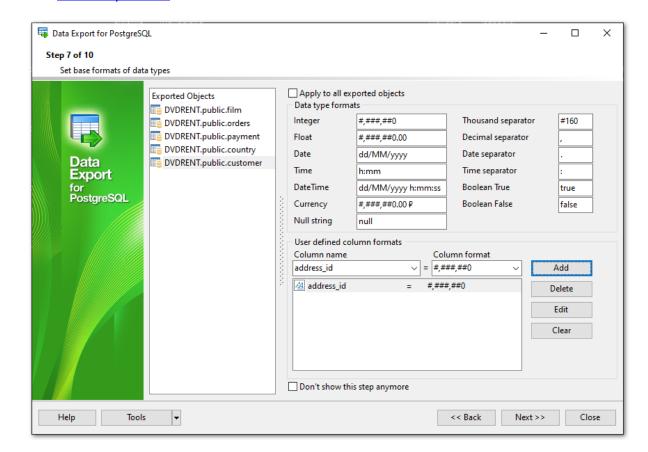
2.1.8 Step 7 - Setting base data formats

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 [11] for more details.



User-defined column formats

Using this group you can also define your own formats for <code>numeric</code> and <code>Date/Time</code> column. These fields (if there are any in your source table) are available in the drop-down list at the top of the <code>User</code> group. Select a column from the <code>Column Name</code> drop-down list, then select its format from the <code>Column Format</code> drop-down list and click the <code>Add</code> 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 <code>Edit</code> button. To delete a format, click the <code>Delete</code> button. To clear the list box, click the <code>Clear</code> 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 <u>Selecting skipped steps</u> to the <u>Preferences</u> of dialog.

When you are done, press the **Next** button to proceed to the next stepl ๑๐ ใ

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

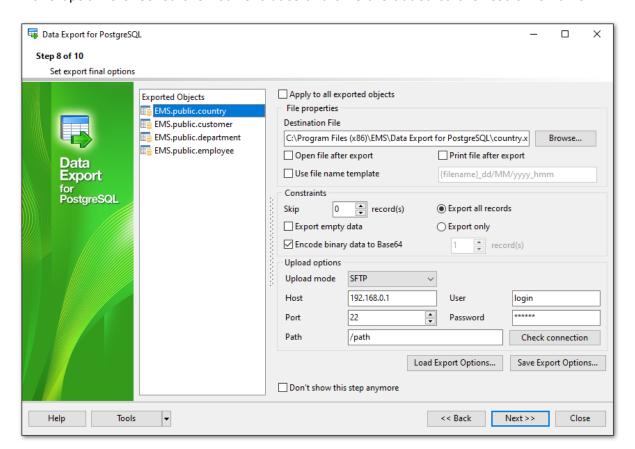
If this option is checked, the result file will be opened with the currently associated program after the export operation is completed.

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 Configuration file format [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 Selecting skipped steps [100] tab of the Preferences [177] dialog.

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

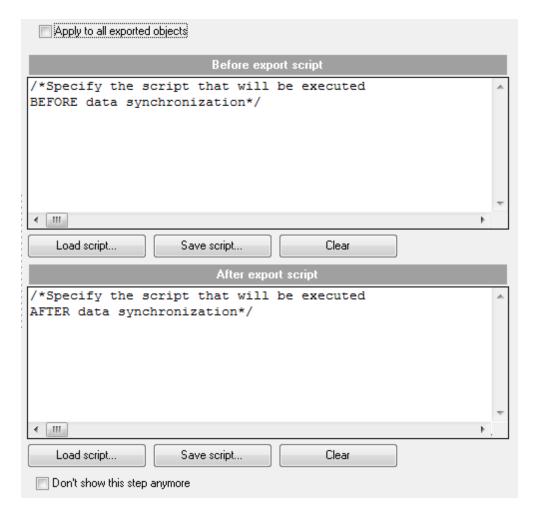
2.1.10 Step 9 - Defining scripts

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 <u>Selecting skipped steps</u> tab of the <u>Preferences</u> of dialog.

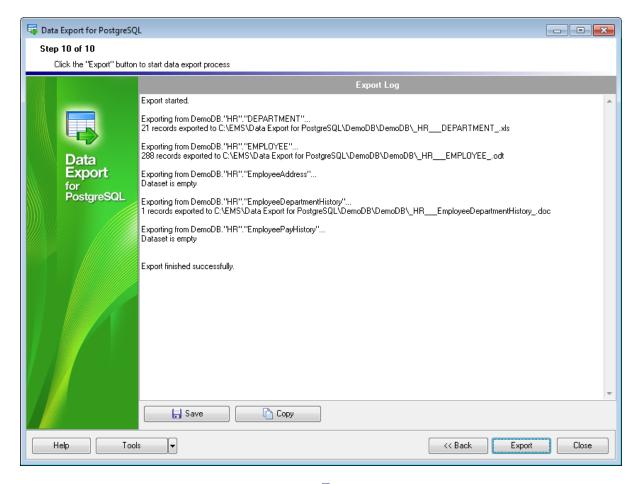
Hint: If more convenient, you can check the **Apply to all exported objects** box to set the specified options for all exported objects.

When you are done, press the **Next** button to proceed to the <u>last step [94]</u> 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 \blacksquare save process log into *.log file or \blacksquare copy it to a clipboard using the corresponding buttons.

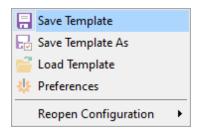
Please, do not forget to <u>save export templates [95]</u> if you need to repeat the export process with the same or similar settings later.

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 wizard [27] if you need to make some changes before data export, or you can run it with the console application [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.

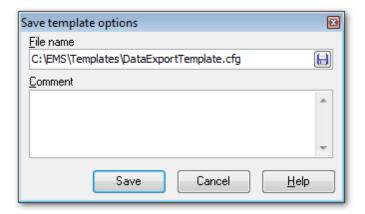


File name

Specify the template file name and select its location using the \blacksquare button which calls the **Save As...** dialog.

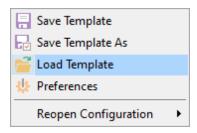
Comment

Specify custom comment for the template file if need.



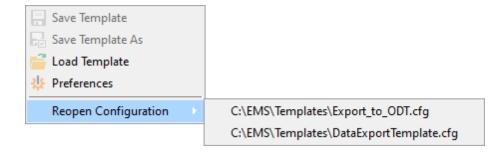
If you need to repeat data exporting process with the same or similar settings later, it is reasonable to save all the settings you entered on the <u>Start of data export process</u> 94 step of the Wizard.

Data Export templates are loaded within the **Open template** dialog. To open this dialog, press the **Tools** button and select the **button** button and select the button and select the button and select the button and select the button.



Please note that loading a template is only available at the <u>Getting started [28]</u> and the <u>Setting connection properties [29]</u> 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

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

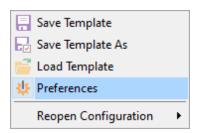
This page allows you to set default data formats.

Default query 102

This page allows you to input a template for a new query that will appear at <u>Step 3 34</u> of <u>Wizard Application 26</u>.

Localization 103

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



See also:

Working with wizard application

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

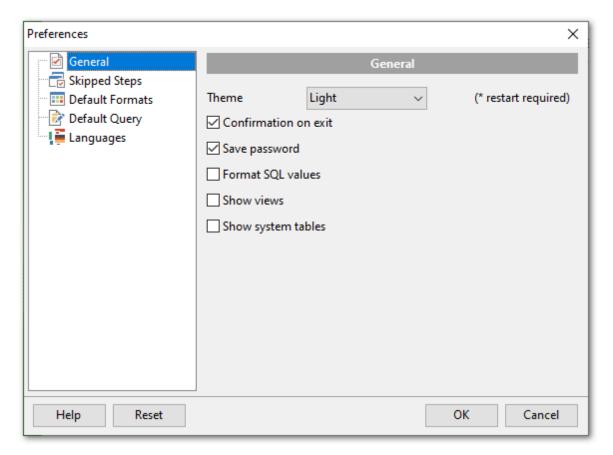
The option determines whether SQL values (e.g. integer, float, currency, datetime, etc.) should be formatted according to the settings specified on the <u>Default formats</u> page.

Show views

By setting this option on you can export data from views - they will appear in the list of available tables at $\frac{\text{Step 2}}{2}$ of the Wizard application [26].

Show system tables

Enable this options if you need system tables to be added to the list at <a>Step 2 <a>Step 2



See also:

Setting default formats 1011
Selecting skipped steps 1001
Setting default query template 1021
Selecting program language 1031

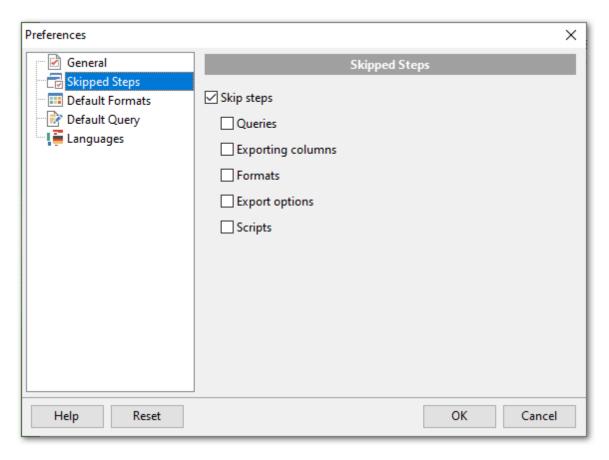
2.3.2 Selecting skipped steps

Skipped steps

Use this option group to define the <u>Wizard application [26]</u> 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:

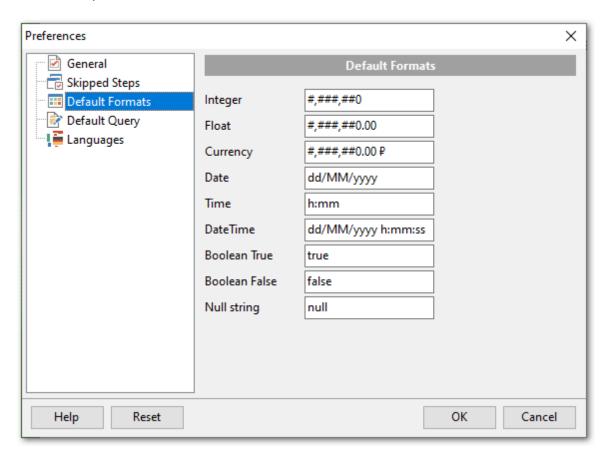
Setting general options [98]
Setting default formats [101]
Setting default query template [102]
Selecting program language [103]

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 (<u>Preferences | General [98]</u>).

See Format specifiers 111 for details.

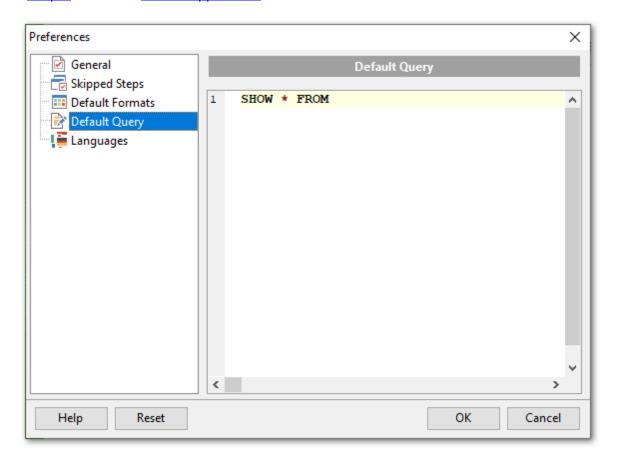


See also:

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 <u>Step 3 [34]</u> of the <u>Wizard application [26]</u>.



See also:

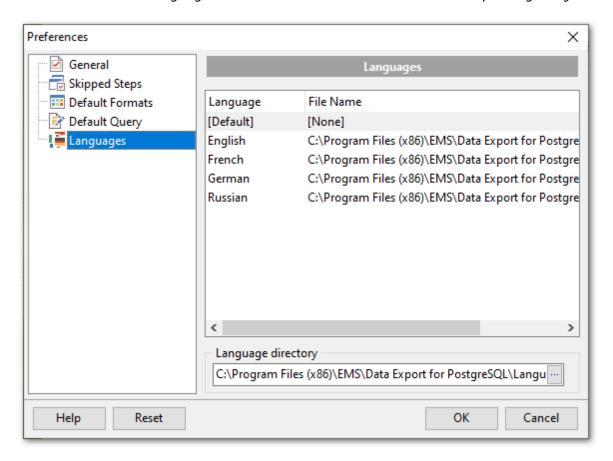
Setting general options [98]
Selecting skipped steps [100]
Setting default formats [101]
Selecting program language [103]

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 IIII

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.

- Working with console application 106
- How to schedule console run 107
- Configuration file format 116

See also:

Wizard application 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 Application wizard 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 template 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

Example:

"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:

Working with wizard application

How to schedule console run 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

Configuration file format 116

Part

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.

е

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).

М

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.

мммм

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

ΥУ

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

УУУУ

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).

777

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).

ODIF 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 <u>GUI application</u> vizard.

[#General#]

This section stores information about the product name and its major <u>version 13</u>. **[#General#]**

This section stores general information about the utility:

[Connection]

This section contains parameters for <u>connecting</u> [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: =
e.g.
table1=Country
table2=Employee
```

This section may be empty.

[Queries]

This section contains the list of <u>queries</u> 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: =<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:

```
=<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: =<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 <u>GUI Wizard [26]</u> and the <u>console version [105]</u> of Data Export for PostgreSQL support parameters in a query.

For example, you export data from a table named table1 and at Step 3 of the GUI 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 <u>template[95]</u> file which will be used in the <u>console version[105]</u> of the utility. To set the parameter value when using the <u>console version[105]</u>, you need to specify the following command in the command line (if you run the console version from the program installation directory and the <u>template[95]</u> 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

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