SQL Manager.net™

EMS® Software Development

DB Extract for DB2 User's Manual

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DB Extract for DB2
User's Manual

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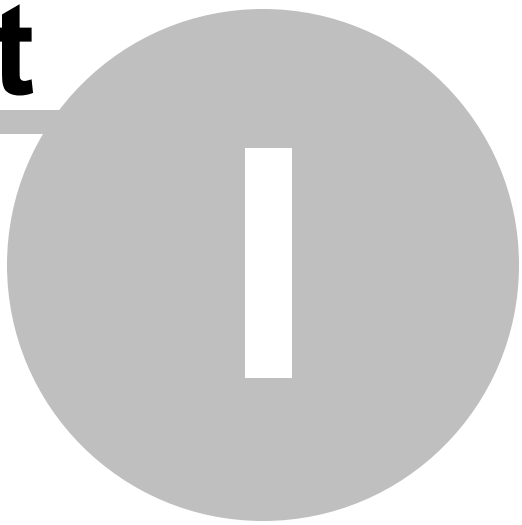
Part



1 Welcome to EMS DB Extract utility!

EMS DB Extract for DB2 is a powerful and easy-to-use utility for creating database backups in the form of SQL scripts. It allows you to save metadata of all database objects as well as table data. The ability of flexible customization of the entire extract process allows you to select database objects and data tables for extraction and to define a number of extraction options. The distribution package of DB Extract for DB2 includes a GUI wizard guiding you through the extraction process step by step, and a command-line service for creating backups quickly by using the console application which allows you to extract data in one-touch with script generation templates used.

Please visit our web-site available at http://www.sqlmanager.net/ for more information.

Key features

- User-friendly graphical wizard interface
- The ability to select database objects for extraction
- Extracting table data to SQL script as INSERT statements
- The ability to define constraints for extracted data tables
- The ability to insert statements for emptying tables before inserting extracted data
- Saving all the extraction parameters specified within the current wizard session
- The command-line utility to extract metadata and data with a previously created configuration file used
- Multi-language GUI support

Product information

Homepage:	http://www.sqlmanager.net/en/products/db2/extract
Support Ticket System:	http://www.sqlmanager.net/support
Register online at:	http://www.sqlmanager.net/en/products/db2/extract/buy

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1.1 What's new

Version	Release date
DB Extract for DB2 3.0.1.1	September 30, 2011

What's new in DB Extract?

Data extraction:
- Unicode support is implemented.
- Data extraction speed is considerably increased.

Metadata:
- Unicode support in object descriptions, procedures, triggers bodies etc. is implemented.
- Db2 server versions up to 9.5 are now supported.
- Object dependencies extraction algorithm has been improved.
- Metadata extraction speed is considerably increased.

File options:
- Different charsets are now available for the result file.
- Archives can now be split to volumes.
- Added the ability to append current time, date or datetime to a path, archive, script or blob file name.
- Templates with scheduled task options used to be saved incorrectly. Fixed now.

Interface:
- The wizard window is now resizable.

Other minor fixes and improvements were made.

See also:

Version history 13

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1.2 System Requirements

- 300-megahertz (MHz) processor; 600-megahertz (MHz) or faster processor recommended
- Microsoft® Windows NT4 with SP4 or later, Microsoft® Windows 2000, Microsoft® Windows 2000 Server, Microsoft® Windows XP, Microsoft® Windows 2003 Server, Microsoft® Windows 2008 Server, Microsoft® Windows Vista, Microsoft® Windows 7, Microsoft® Windows 8, Microsoft® Windows Server 2012
- 64MB RAM or more; 128MB or more recommended
- 20MB of available HD space for program installation
- Super VGA (800x600) or higher-resolution video adapter and monitor; Super VGA (1024x768) or higher-resolution video adapter and monitor recommended
- Microsoft® Mouse or compatible pointing device
- DB2 Run-Time/Administrative Client 8.0 or higher
- Supported DB2 UDB server versions: from 8.1 up to 9.7

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1.3 Installation

If you are **installing DB Extract for DB2 for the first time** on your PC:

- download the DB Extract for DB2 distribution package from the download page available at our site;
- unzip the downloaded file to any local directory, e.g. *C:\unzipped*;
- run *DB2ExtractSetup.exe* from the local directory and follow the instructions of the installation wizard;
- after the installation process is completed, find the DB Extract shortcut in the corresponding group of Windows Start menu.

If you want to **upgrade an installed copy of DB Extract for DB2** to the latest version:

- download the **DB Extract for DB2** distribution package from the download page available at our site;
- unzip the downloaded file to any local directory, e.g. *C:\unzipped*;
- close DB Extract application if it is running;
- run *DB2ExtractSetup.exe* from the local directory and follow the instructions of the installation wizard.

Also you can use the full distribution package to upgrade your current version of DB Extract for DB2. In this case, you should repeat the steps you have made for the first-time installation. Note that the full distribution package is larger than a single executable file.

See also:

System requirements
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1.4 Registration

To make it easier for you to purchase our products, we have contracted with share-it! registration service. The share-it! order process is protected via a secure connection and makes on-line ordering by credit/debit card quick and safe. The following information about share-it! is provided for your convenience.

Share-it! is a global e-commerce provider for software and shareware sales via the Internet. Share-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, Check or Cash.

If you have ordered EMS software online and would like to review your order information, or if you have questions about ordering, payments, or shipping procedures, please visit our Customer Care Center, provided by Share-it!

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 or passwords and download links for archives of full versions. Also you will receive a copy of registration keys or passwords by e-mail. Please make sure to enter a valid e-mail address in your order. If you have not received the keys within 2 hours, please, contact us at sales@sqlmanager.net

Product distribution	
EMS DB Extract for DB2 (Business license) + 1-Year Maintenance*	Buy Now!
EMS DB Extract for DB2 (Business license) + 2-Year Maintenance*	
EMS DB Extract for DB2 (Business license) + 3-Year Maintenance*	
EMS DB Extract for DB2 (Non-commercial license) + 1-Year Maintenance*	
EMS DB Extract for DB2 (Non-commercial license) + 2-Year Maintenance*	
EMS DB Extract for DB2 (Non-commercial license) + 3-Year Maintenance*	
EMS DB Extract for DB2 (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.

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See also:

How to register EMS DB Extract 12

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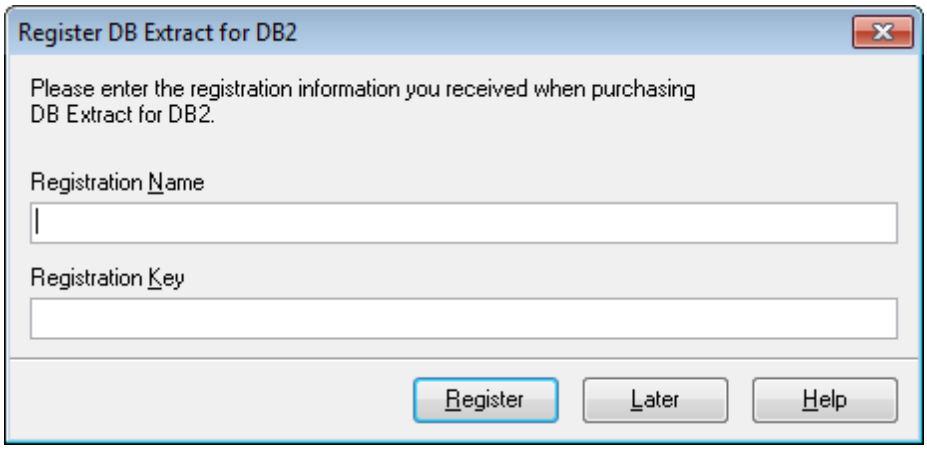
1.5 How to register EMS DB Extract

To **register** your newly purchased copy of EMS DB Extract for DB2, perform the following:

- receive the notification letter from **Share-it!** with the registration info;
- enter the **Registration Name** and the **Registration Key** from this letter;
- make sure that the registration process has been completed successfully – check the registration information at the startup page 24.



See also:

Registration 10

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1.6 Version history

Version	Release date
Version 2.2 13	March 7, 2007
Version 2.1 13	February 8, 2006

Full version history is available at http://www.sqlmanager.net/products/db2/extract/news

Version 2.2

- More user-friendly wizard interface 23
- Objects extraction algorithm considering object dependencies has been improved
- Additional extract options 35 implemented
- An ability to insert statements for emptying tables 35 before inserting extracted data
- Considerably increased data extraction speed

Version 2.1

- Added the ability to extract privileges
- Support of new object types implemented for the Specifying types of objects 27 step of the Wizard
- New saving template 44 options contributing to more flexible work with templates
- The ability to extract dependent objects added

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See also:

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1.7 EMS DB Extract FAQ

Please read this page attentively if you have questions about EMS DB Extract for DB2.

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- What is the easiest way to configure template files for the console application of the extract utility? 14
- Are there any limitations implied in the trial version as compared with the full one? 14
- When I try to connect to the database, I get the following error: "Cant load db2cli.dll". What is wrong here? 14

Question/answer list

Q: What is DB2 Extract utility?
A: EMS DB Extract for DB2 is a powerful and easy-to-use utility for creating database backups in the form of SQL scripts. It allows you to save metadata of all database objects as well as table data. DB Extract for DB2 includes a GUI wizard 23 guiding you through the extract process step by step, and a command-line service for creating backups in one-touch.

Q: What do I need to start working with EMS DB2 Extract?
A: First of all, you must have a possibility to connect to some local or remote DB2 server to work with DB2 DB Extract. You can download DB2 database server from http://www-306.ibm.com/software/data/db2/ (download is free). Besides, you need your computer to satisfy the system requirements 8 of DB Extract for DB2. The utility runs on Windows NT4/2000/XP, CPU Pentium 166, 32 Mb RAM or higher is recommended.

Q: What is the easiest way to configure the template files for the DB2 Extract console application?
A: You can configure the template files visually using the DB Extract wizard. Set the required extract options in all steps of the wizard and use the Tools | Save template 44 menu item. All the options will be saved to a *.ext template file which can be used afterwards in the console application 53.

Q: Are there any limitations implied in the trial version as compared with the full one?
A: Actually the trial version of the utility does not differ from the full version as far as the functionality is concerned. That is, you can test all the features implemented in DB Extract for DB2 within the 30-day trial period.

Q: When I try to connect to the database, I get the following error: "Cant load db2cli.dll". What is wrong here?
A: For working with a remote DB2 server you need to have DB2 Client installed on your workstation. Obviously file db2cli.dll is missing or corrupted. Please make sure that the DB2 Client software is properly installed on your PC.

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

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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.

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

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

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

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

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

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

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

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

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

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

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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!

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.

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

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

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

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

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

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

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

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

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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,

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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.

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Tools & components

Advanced Data Export
Advanced Data Export Component Suite for Borland Delphi and C++ Builder will allow you to save your data in the most popular office programs formats.

Advanced Data Export .NET
Advanced Data Export .NET is a component suite 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
Advanced Data Import™ Component Suite for Delphi and C++ Builder will allow you to import your data to the database from files in the most popular data formats.

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

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

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

Advanced Localizer
Advanced Localizer™ is an indispensable component suite for Delphi for adding multilingual support to your applications.

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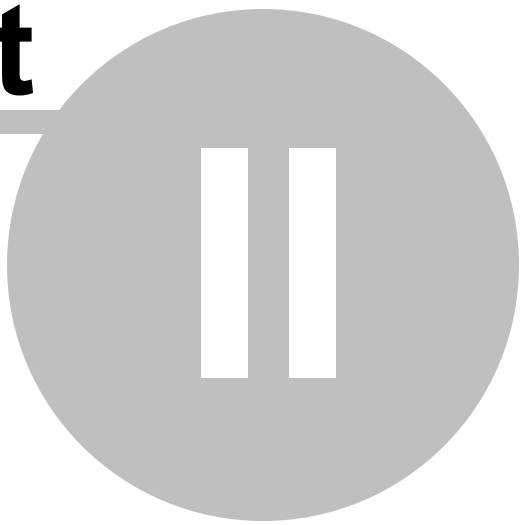
Part



2 Wizard application

The GUI application of **DB Extract for DB2** provides easy-to-use wizard interface to set all extraction parameters visually.

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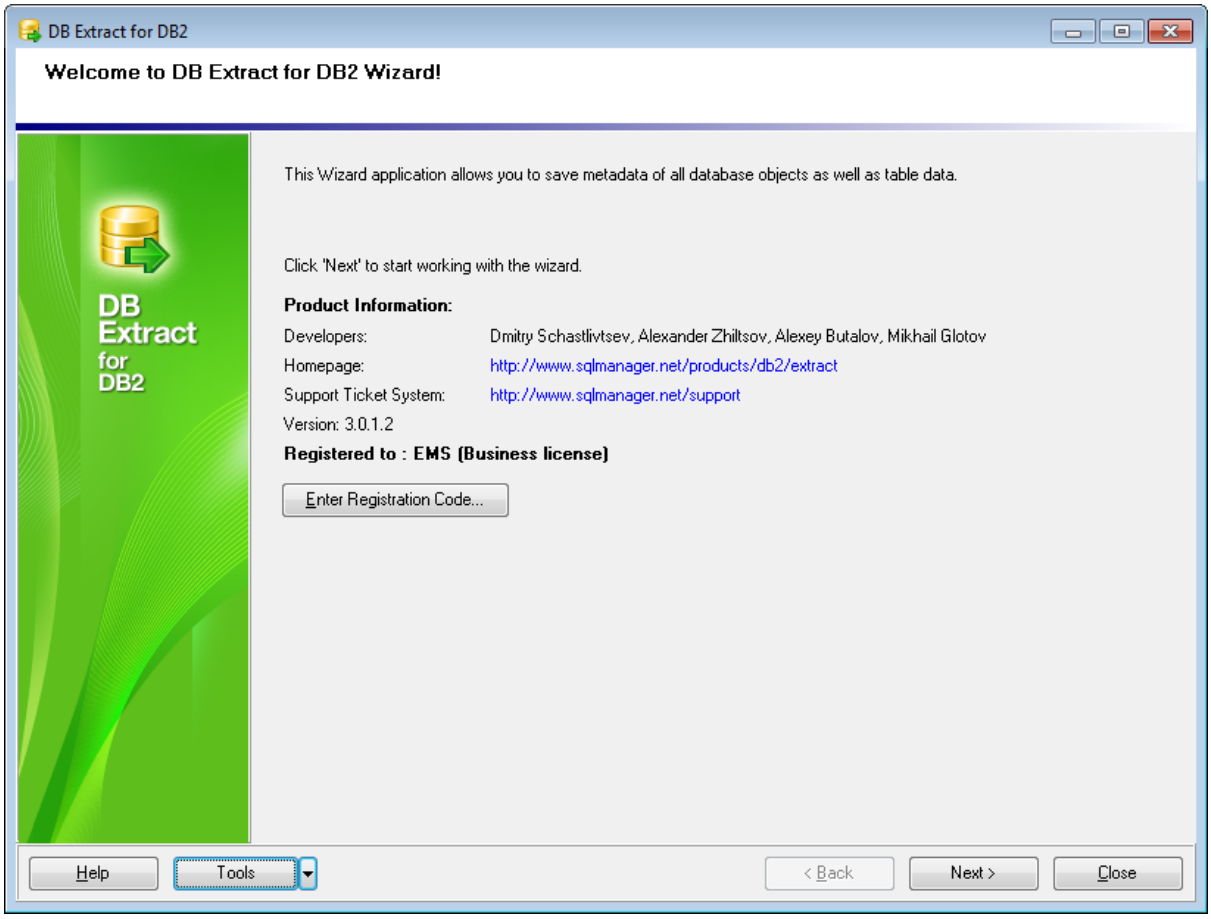

See also:

Console Application 53

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2.1 Using wizard application

Follow the steps of the wizard to extract metadata and data of your DB2 database easily and quickly:

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Step 2 - Selecting schemas for extraction 26
Step 3 - Specifying types of objects 27
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Step 7 - Setting up extraction options 35
Step 8 - Specifying file names and directories 37
Step 9 - Scheduling options 39
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See also:

Using console application 54

2.1.1 Getting started

This is how DB Extract for DB2 wizard application looks when you first start it.

This page allows you to view general information about the software product: **Homepage** address, the link to the online **Support Ticket System**, the **version** of the utility, **registration information**.

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Press the **Next** button to proceed to Step 1 25 of the wizard.

See also:

Registration 10

2.1.2 Step 1 - Setting connection properties

At this step you should enter the necessary settings to establish connection to DB2 server.

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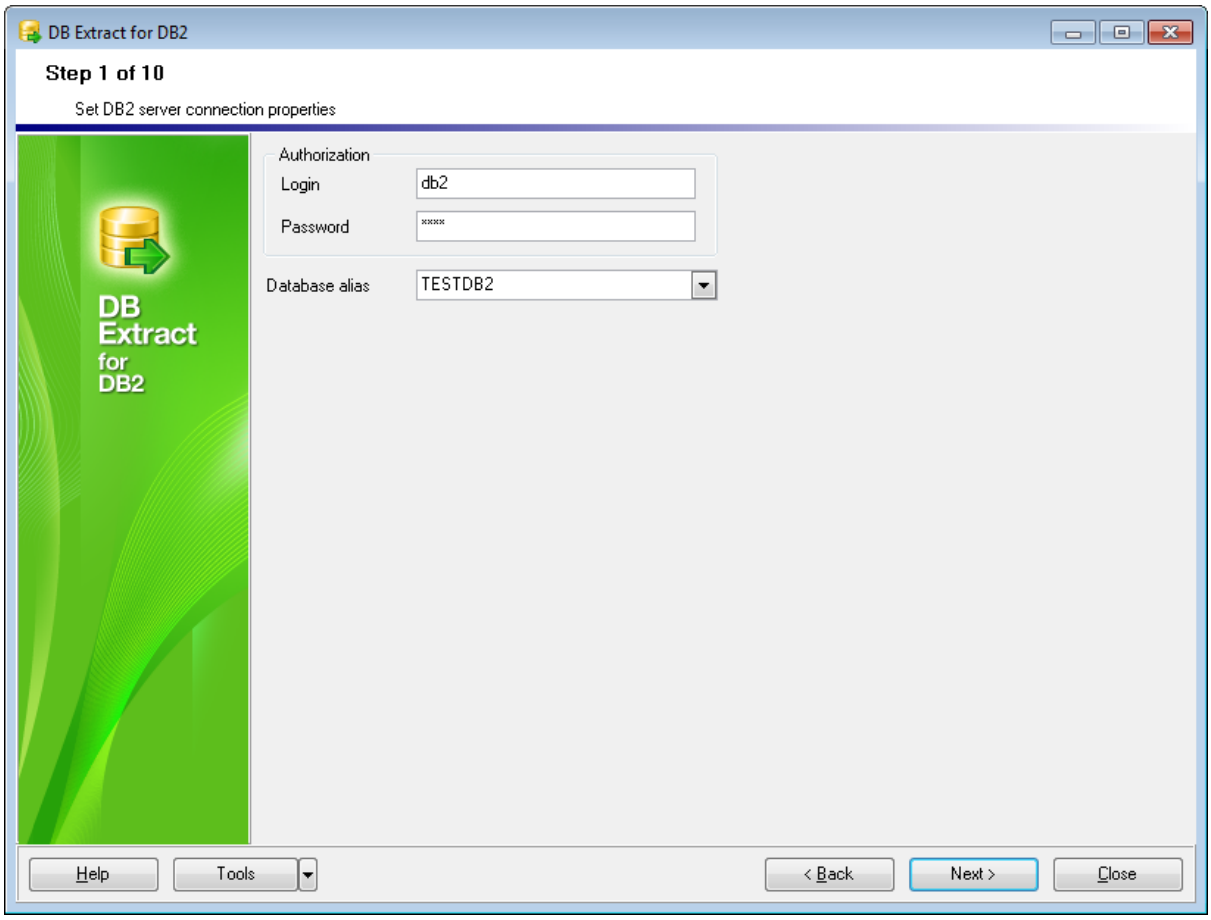

Please set the **database connection properties**:

- provide **authorization** information: the *login* and the *password* for accessing the source DB2 database;
- type in or use the **Database alias** drop-down menu to select the *database* to extract metadata and/or data from.

Note: The database alias drop-down list contains only aliases catalogued in the DB2 client.

When you are done, press the **Next** button to proceed to the next step 26 of the wizard.

2.1.3 Step 2 - Selecting schemas

At this step you should select the **schema(s)** from which **metadata and/or data** are to be extracted.

In the **Available schemas** list you can see all the schemas of the database which are available for the DB2 server login being currently used. To select schemas, move them to the **Selected schemas** list. To cancel a schema selection, just remove it from the **Selected schemas** list. Use the > < >> << buttons or drag-and-drop operations to move the schemas from one list to another.

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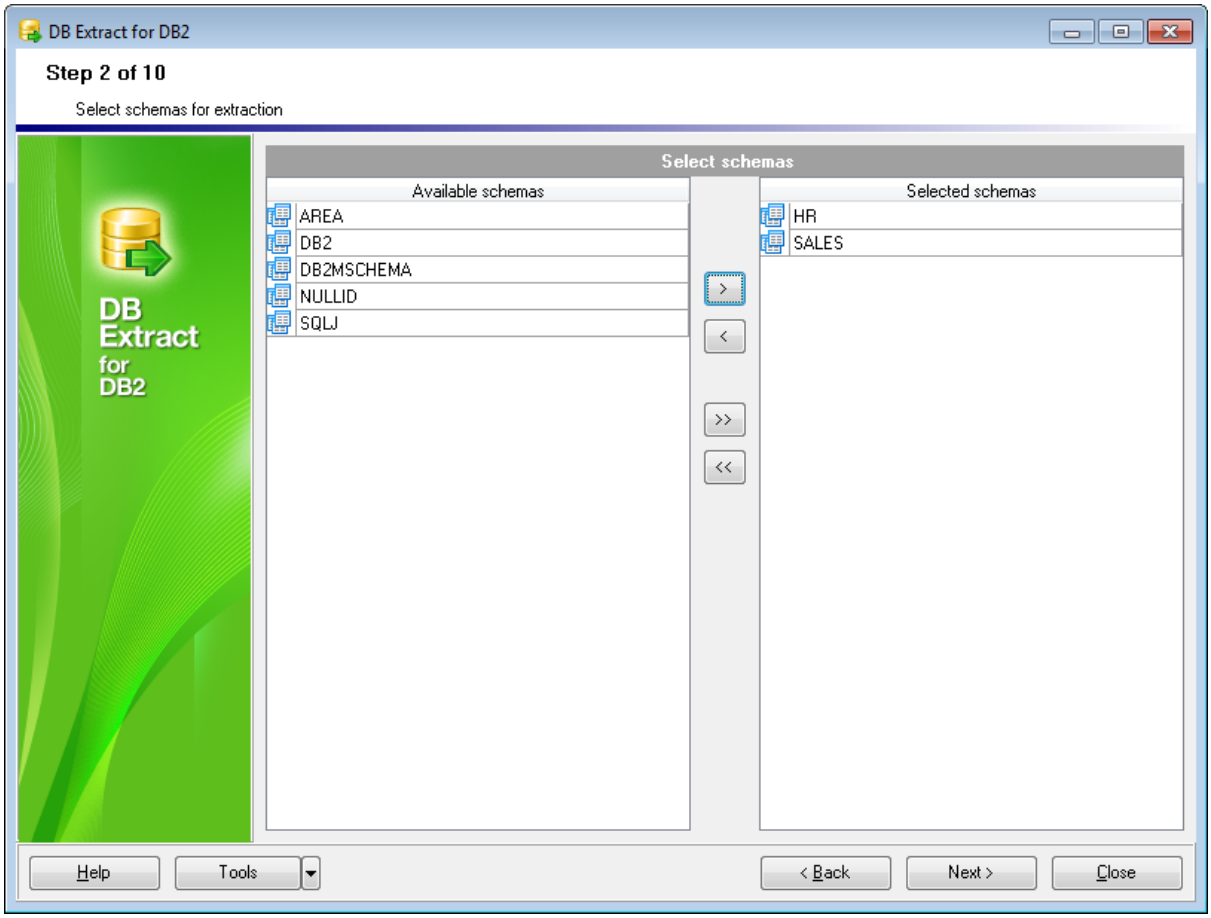
Hint: To select multiple schemas, hold down the *Shift* or *Ctrl* key while selecting the schema names.



When you are done, press the **Next** button to proceed to the next step 27 of the wizard.

2.1.4 Step 3 - Specifying types of objects

At this step you can define **types of objects** for metadata and data extraction.

Extract options
This group allows you to choose whether *metadata only*, *data only* or *both* are to be extracted.

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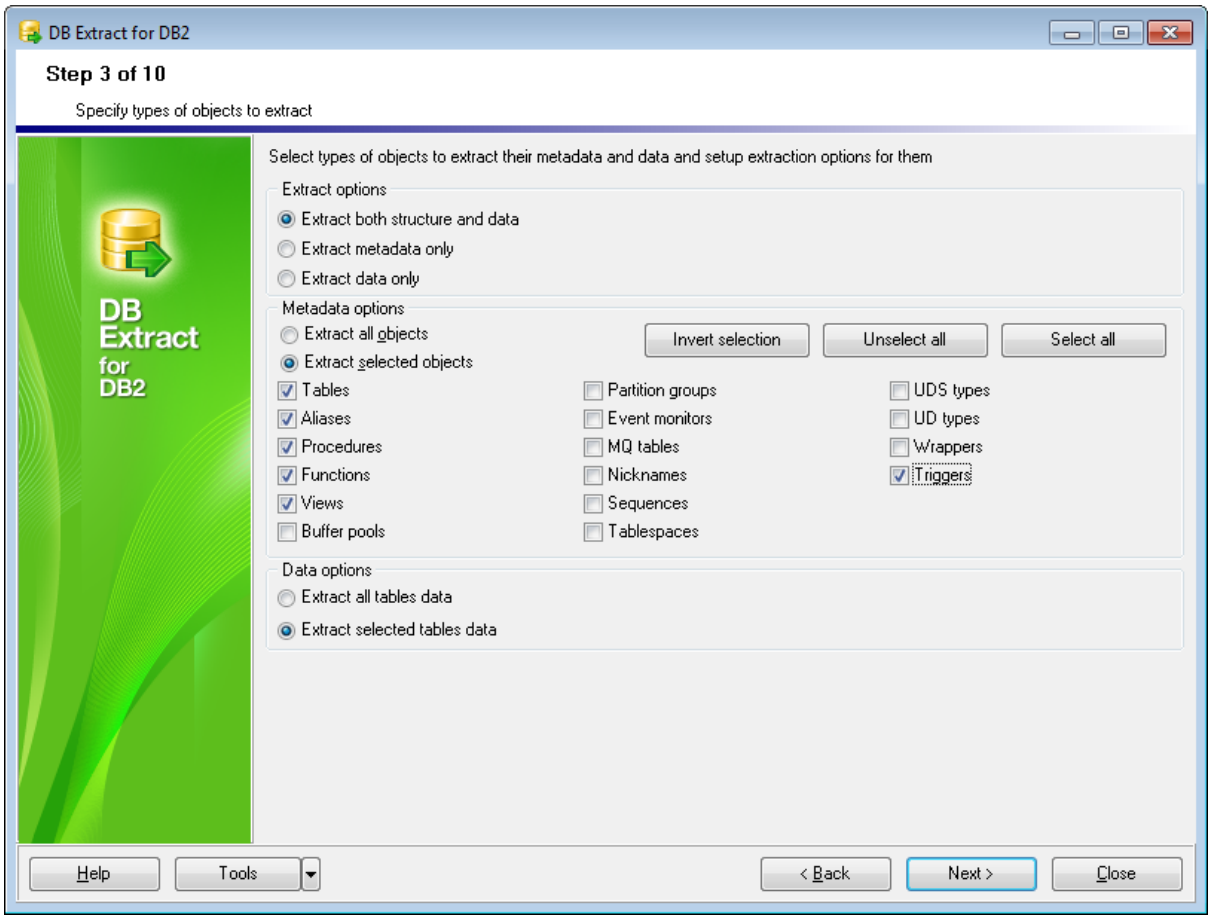
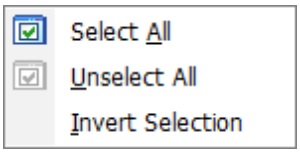


Metadata options

This group of options is only enabled for the *Extract metadata only* and the *Extract both structure and data* previously selected **Extract options**. Using options of this group you can either specify **all objects** or define **particular types of objects** to extract metadata from. For your convenience the *Invert selection*, *Unselect all* and *Select all* functions are implemented as the corresponding buttons. These functions are also available from the context menu of the objects list area.



Data options

This group of options is only enabled for the *Extract data only* and the *Extract both structure and data* previously selected **Extract options**.
Here you should specify whether data are to be extracted **from all tables** or **from the selected ones** only.

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

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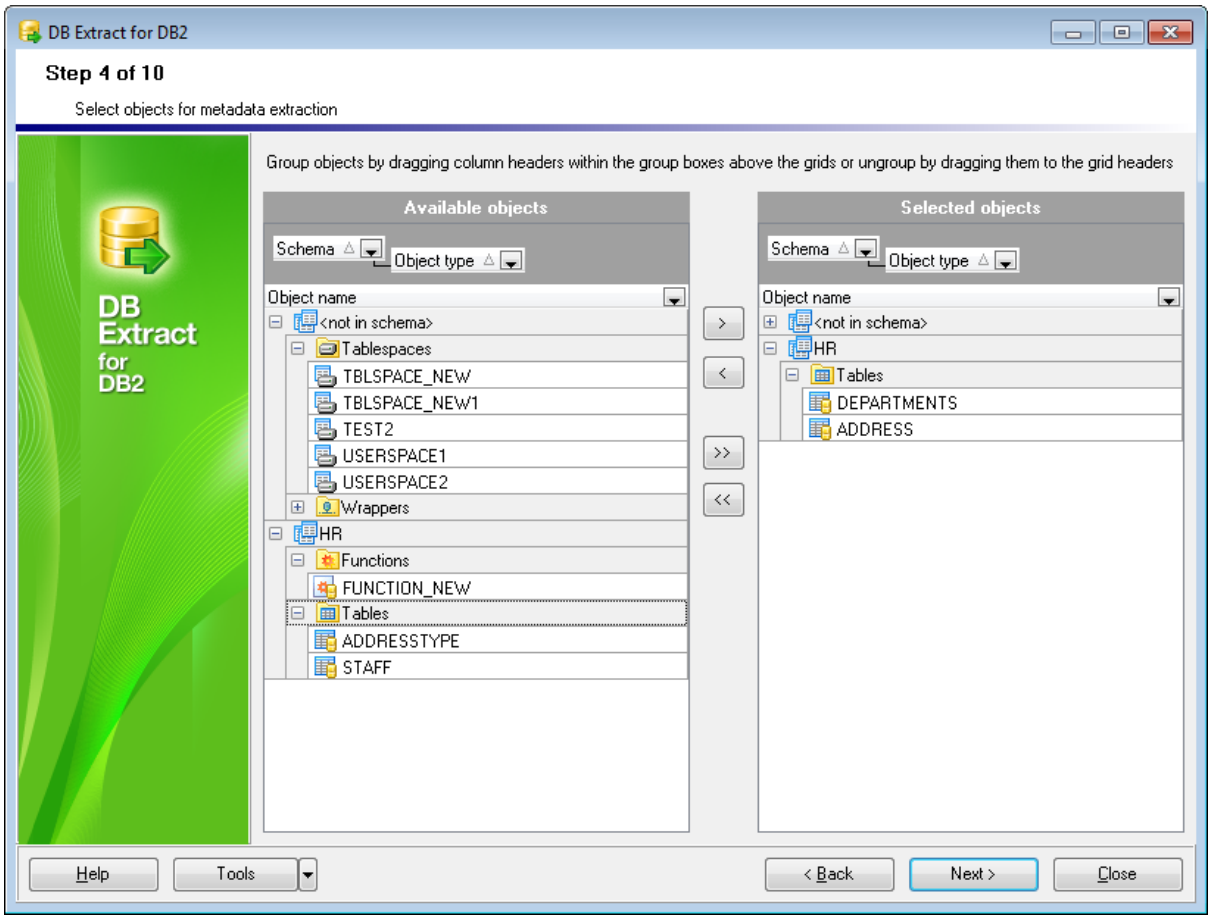
Depending on whether you have specified *Extract all objects / Extract all data tables* in the **Metadata Options** and the **Data Options** groups correspondingly, you will either proceed to the next step of the wizard 29, or you will be immediately forwarded to the Selecting tables for data extraction 32 or the Setting up extraction options 35 wizard steps.

2.1.5 Step 4 - Selecting objects for metadata extraction

At this step you should select the **objects** from which **metadata** is to be extracted.



In the **Available objects** tree you can see the objects which have been selected for metadata extraction at the Specifying object types 27 step. Initially the objects are grouped by schema names and object types. You can change grouping by dragging column headers to the grey upper area or cancel grouping by dragging them back. Additionally, you can use the **Custom Filter** dialog allowing you to set conditions for filtering objects in the trees.

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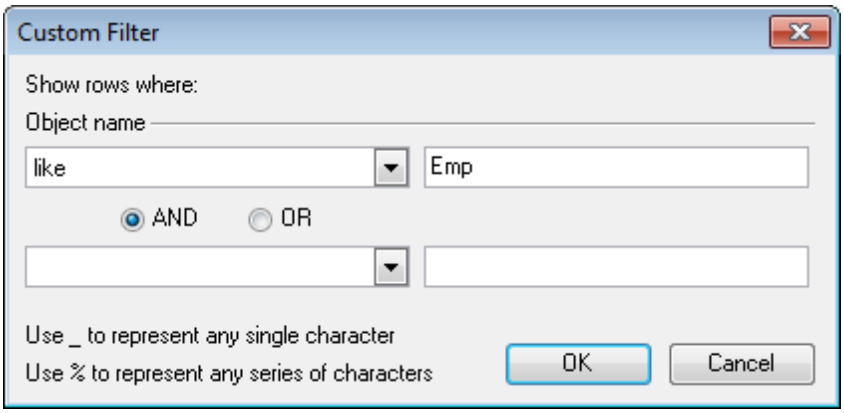

To select objects, move the items from the **Available objects** tree to the **Selected objects** tree. To cancel object selection, just remove it from the **Selected objects** tree. Use the > < >> << buttons or drag-and-drop operations to move the objects from one list to another.

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

The context menus of the **Available objects** and the **Selected objects** areas allow you to browse the objects in the tree more effectively: you can expand/collapse objects viewed in the tree or specify filter conditions within the **Filter builder** dialog.

The **Filter builder** dialog allows you to facilitate creating and applying filter criteria for the objects viewed in the trees. It is also possible to save filter criteria to an external **.flt* file and load them from that file any time afterwards by using the **Save as...** and the **Open...** buttons.

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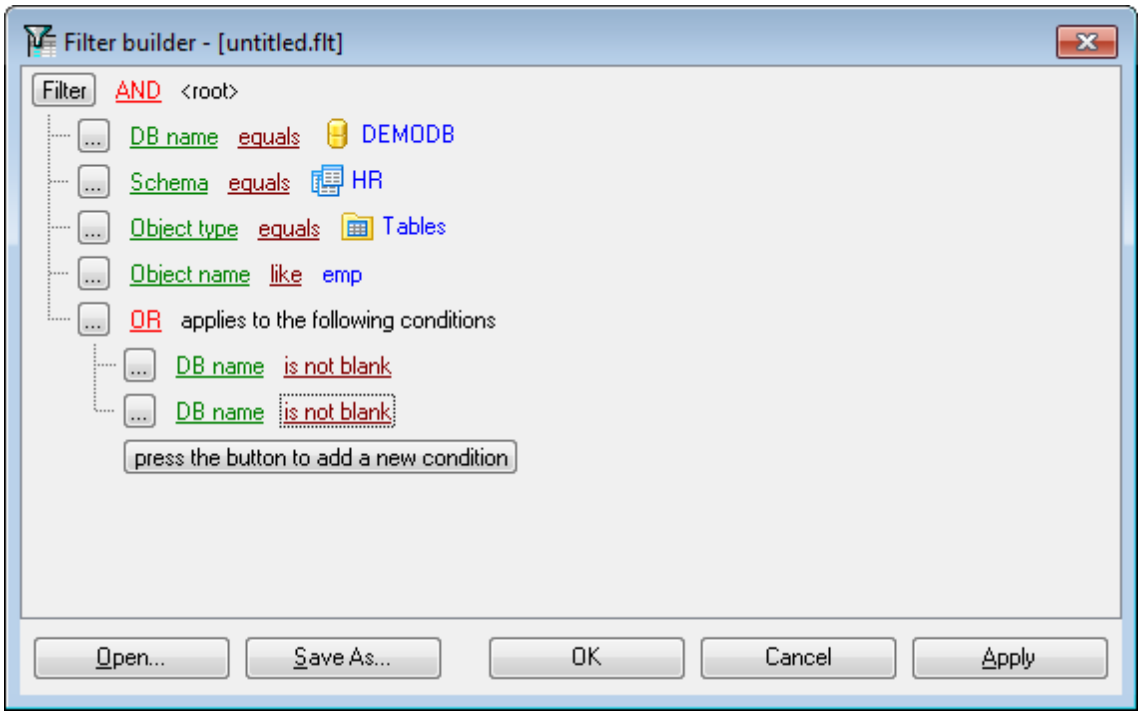

When you are done, press the **Next** button to proceed to the next step of the wizard.

Depending on whether you have specified *Extract all data tables* in the **Data Options** group at the Specifying object types 27 step, you will either proceed to the next step of the wizard 31 and then to the Selecting tables for data extraction 32 step, or you will be immediately forwarded to the Setting up extraction options 35 wizard step.

2.1.6 Step 5 - Managing wrappers and servers

This step of the wizard allows you to view DB2 **Wrappers** specified for extraction on the Specifying types of objects 27 step, and to set preferences for the corresponding **Servers**.

The upper drop-down menu allows you to select the **Server** you wish to view/edit.

The main area of the window lists all the **Wrappers** selected on the previous step with their **Servers** in the form of a tree.

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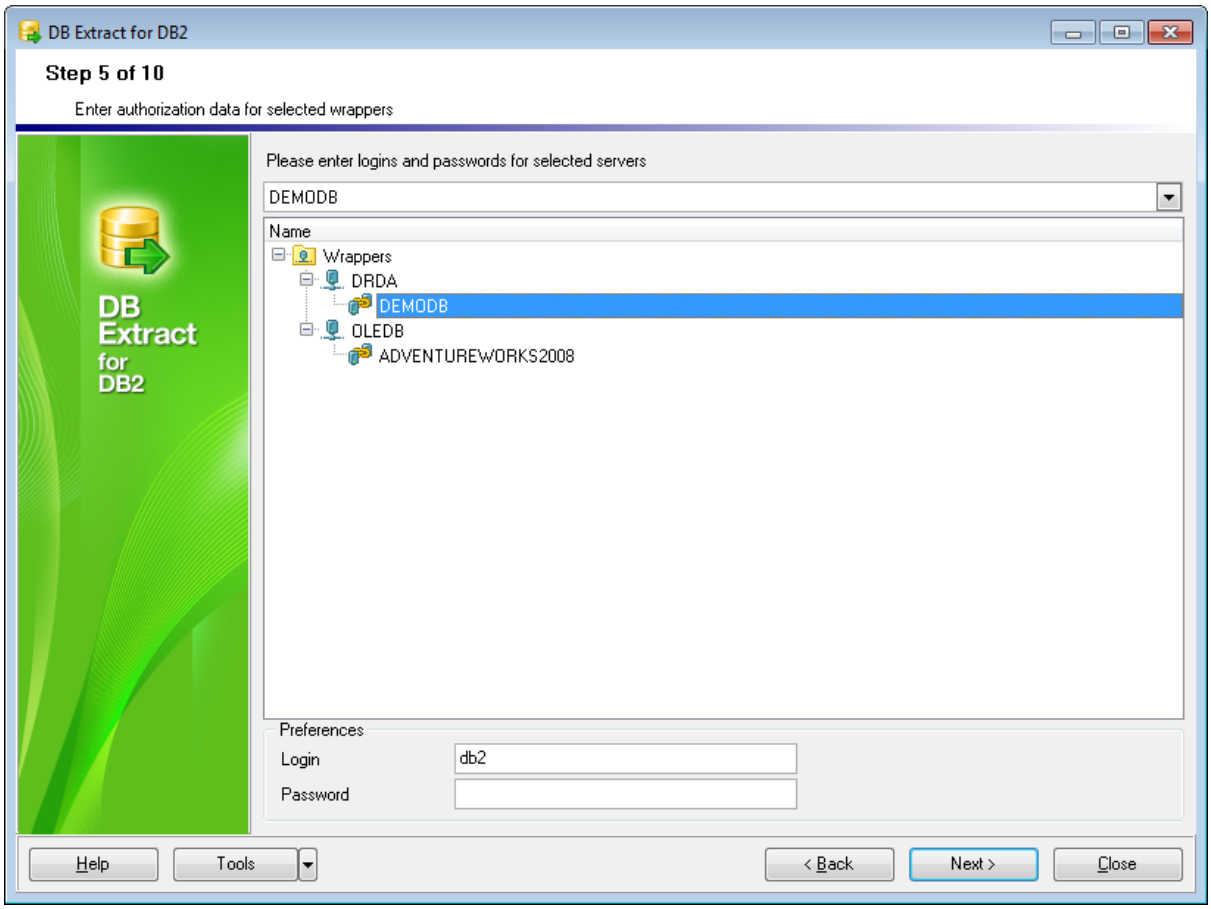

The **Preferences** group of options which can be found in the lower area of the window allows you to view/edit the following attributes for each of the selected *Servers*:

- **Login** (the login used by the Server);
- **Password**.

When you are done, press the **Next** button to proceed to the next step 32 of the wizard.

2.1.7 Step 6 - Selecting tables for data extraction

At this step you should select the **tables** from which **data** is to be extracted.

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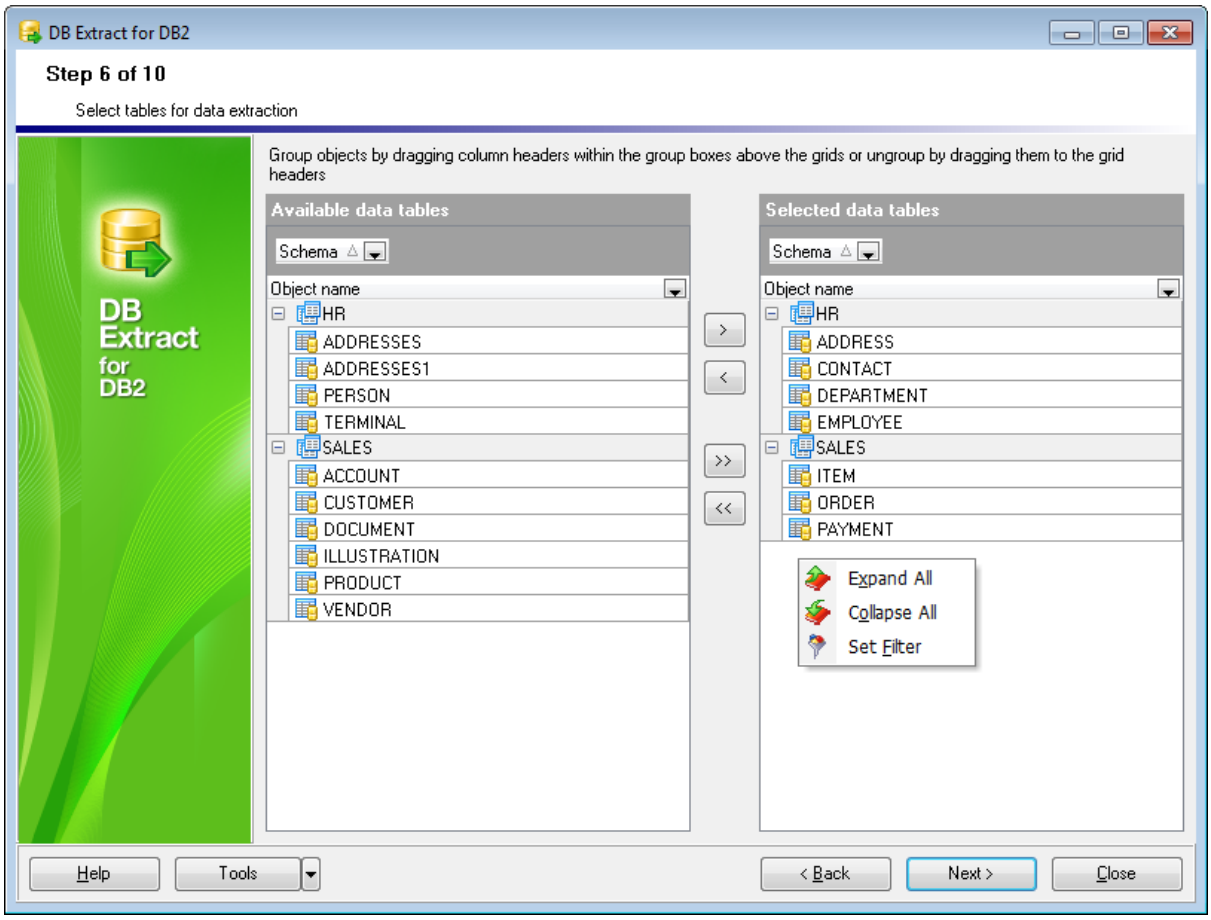
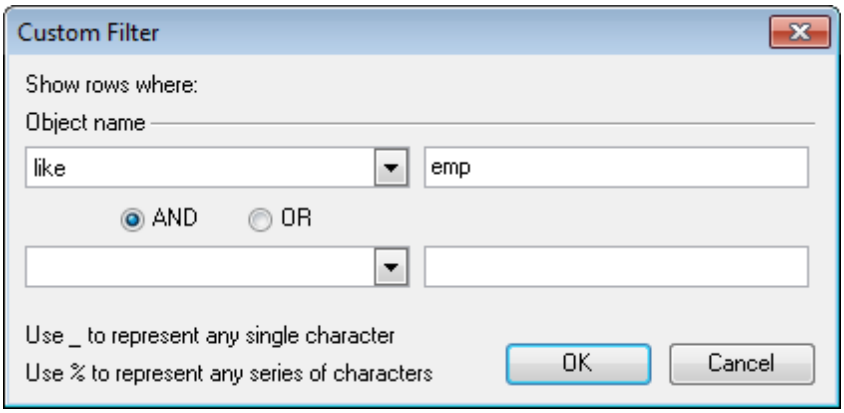


In the **Available data tables** tree you can see the tables belonging to the schemas specified at the Selecting objects for metadata extraction 29 step. Initially the tables are grouped schemas. You can change grouping by dragging column headers to the grey group boxes above the grids or cancel grouping by dragging them back to the grid headers. Additionally, you can use the **Custom Filter** dialog allowing you to set conditions for filtering data tables in the trees.



To select tables, move the items from the **Available data tables** tree to the **Selected**

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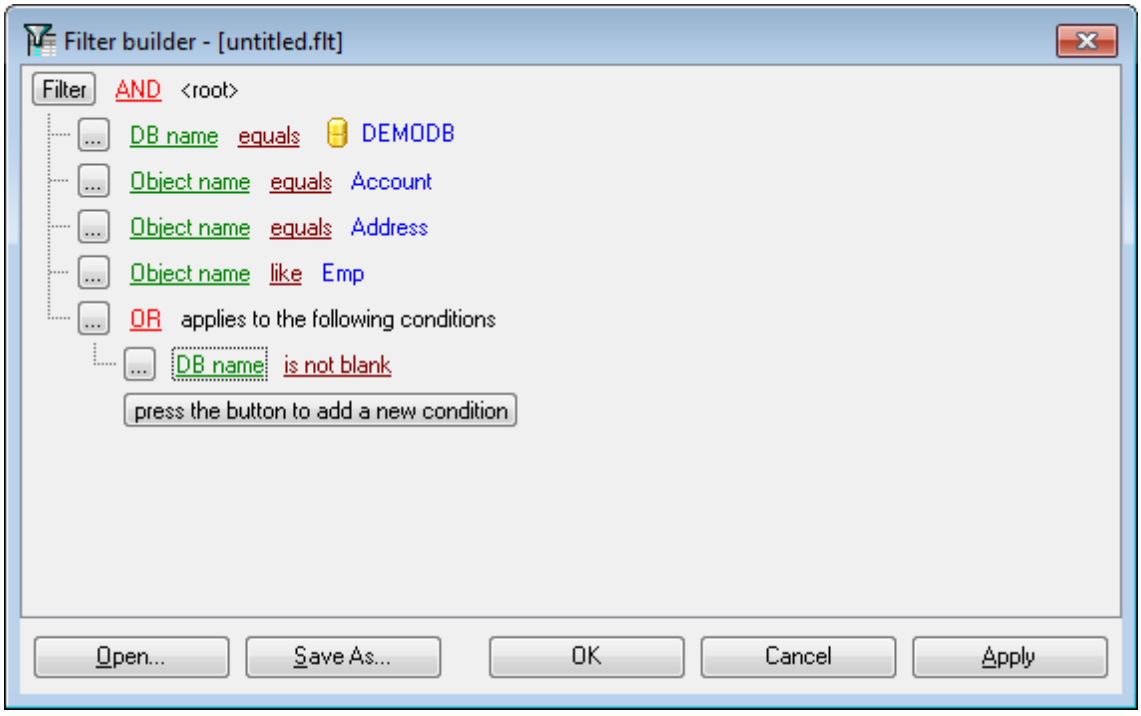
data tables tree. To cancel table selection, just remove it from the **Selected data tables** tree. Use the buttons or drag-and-drop operations to move the tables from one list to another.

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

The context menus of the **Available data tables** and the **Selected data tables** areas allow you to browse the tables in the tree more effectively: you can expand/collapse the tables viewed in the tree or specify filter conditions within the **Filter Builder** dialog.

The **Filter Builder** dialog allows you to facilitate creating and applying filter criteria for the tables viewed in the trees. It is also possible to save filter criteria to an external **.flt* file and load them from that file any time afterwards by using the **Save as...** and the **Open...** buttons.



When you are done, press the **Next** button to proceed to the next step 35 of the wizard.

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2.1.8 Step 7 - Setting up extraction options

At this step you can set the advanced extraction parameters and define query options for data extraction.

Metadata options

Generate "DROP" statements
Check the option to add the DROP statements for the extracted objects in the result script.

Extract privileges
Tick off the option if you want the privileges (permissions on the objects) to be extracted.

Extract dependent objects
This option determines objects' dependencies usage in the extraction process. Please keep in mind that some of dependent objects may be dropped from the result script in this case.

Select tablespace name
If you have selected tablespaces for extraction at the Specifying types of objects 27 step, you can now define a tablespace as the container for the extracted objects. If necessary, you can also specify the **Tablespace size** (for FILE type containers) and the **Container path** using the ellipsis button.

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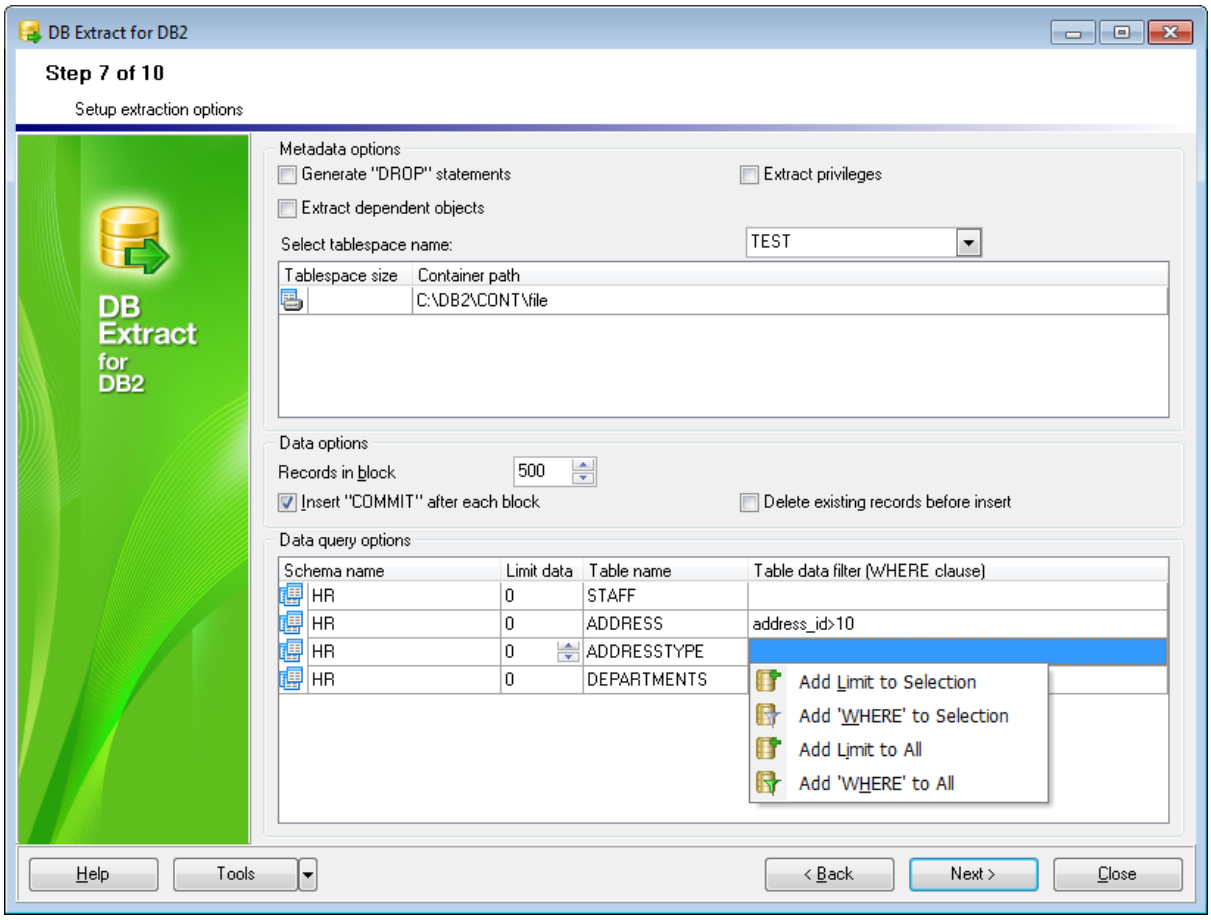

Data options

Records in block / ☑ **Insert "COMMIT" after each block**
These controls allow you to define whether the COMMIT statement is inserted into the script or not, and to specify the number of records in each block to be supplemented with this statement.

☑ **Delete existing records before insert**
Generates the DELETE FROM statements before the INSERT INTO statements.

Data query options

This grid allows you to specify additional options for the SELECT statements used for data extraction.
Schema name
This column represents the schemas containing the tables selected for data extraction.

Limit data
By setting non-zero values in this column you can limit the number of records extracted from each table. The zero ("0") value indicates that all records of the table will be extracted.

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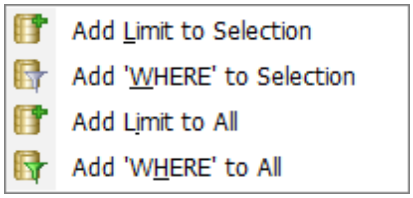
Table name
This column contains the names of the tables.

Table data filter
Here you can specify the WHERE clauses for data extraction from each of the tables.

Note that you can define data query options not only for a single table, but also for multiple tables at a time by using the corresponding items of the context menu of the **Data query options** grid.



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

2.1.9 Step 8 - Specifying file names and directories

At this step you should specify the file name and the directory where the result script will be saved.

Directory options

Default Directory
Type in the path or use the button to specify the default directory for the result files to be placed in.

Add to name
Check this option to add the current **Date**, **Time** or both to the specified name.

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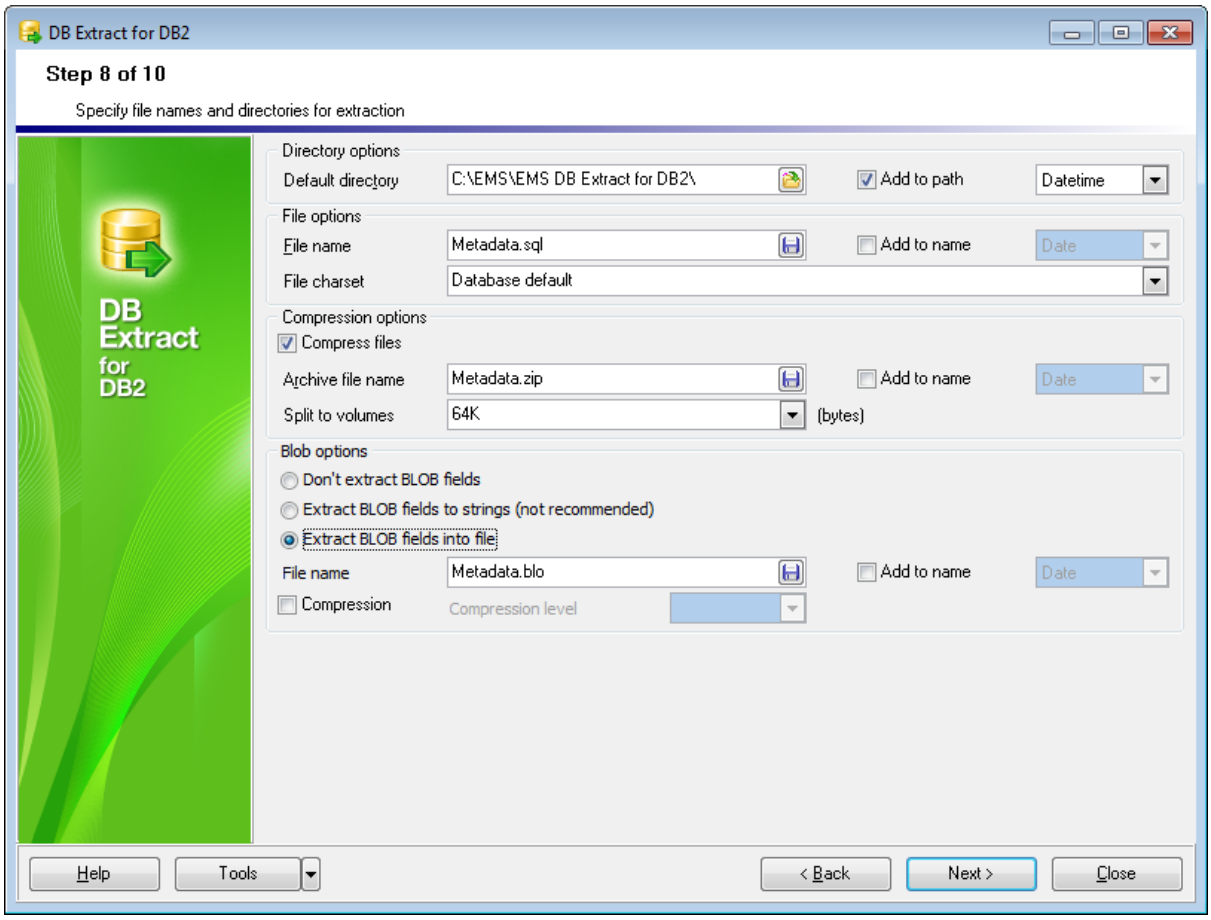

File options

File Name

Set a name for the result **.sql* file and type in or use the button to specify the path to this file on your local machine or on a machine in the LAN.

File charset

Choose the necessary charset for the file.

Add to name

Check this option to add the current **Date**, **Time** or both to the specified name.

Compression options

Compress files

Check this option if you wish to add the result SQL script to a ZIP file.

Archive file name

Set a name for the compressed **.zip* file and type in or use the button to specify the path to this archive file on your local machine or on a machine in the LAN.

Add to name

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Check this option to add the current **Date**, **Time** or both to the specified name.

☑ **Split to volumes**
Check this option to split your archive to volumes. The size of the volume can be selected from the corresponding drop-down list or typed at the field.

BLOB options

In this group of options you can determine whether BLOB fields are not to be extracted, extracted as strings, or extracted into a separate file. If the latter is selected, you also need to specify the **File name** (the **.blo* file where the BLOB data is to be stored) and the location of the file on your local machine using the 💾 button.

Note: The *SET BLOBFILE* statement will be added to the result script when extracting the BLOB fields into a file. This statement is correctly executed only in **EMS** products.

☑ **Compression**
Check this option if you wish to compress the file containing BLOB data.

Compression level
Define the desired compression level to be applied for the file: *None* (selected by default), *Normal*, *Fastest*, *Best*.

☑ **Add to name**
Check this option to add the current **Date**, **Time** or both to the specified name.

When you are done, press the **Next** button to proceed to the next step 39 of the wizard.

2.1.10 Step 9 - Scheduling options

At this step you can setup scheduled execution of the extraction task with DB Extract command-line service used.

Scheduled execution options
Here you are to choose if the extraction task is to be run within the current session of the GUI wizard, or whether the task is to be scheduled for running later, or both.

Recurrence rule
Set the **Run once** option to execute the extraction task one time, or select a ◉ **daily**, a ◉ **weekly** or a ◉ **monthly** Recurrence Rule to repeat the extraction task periodically.

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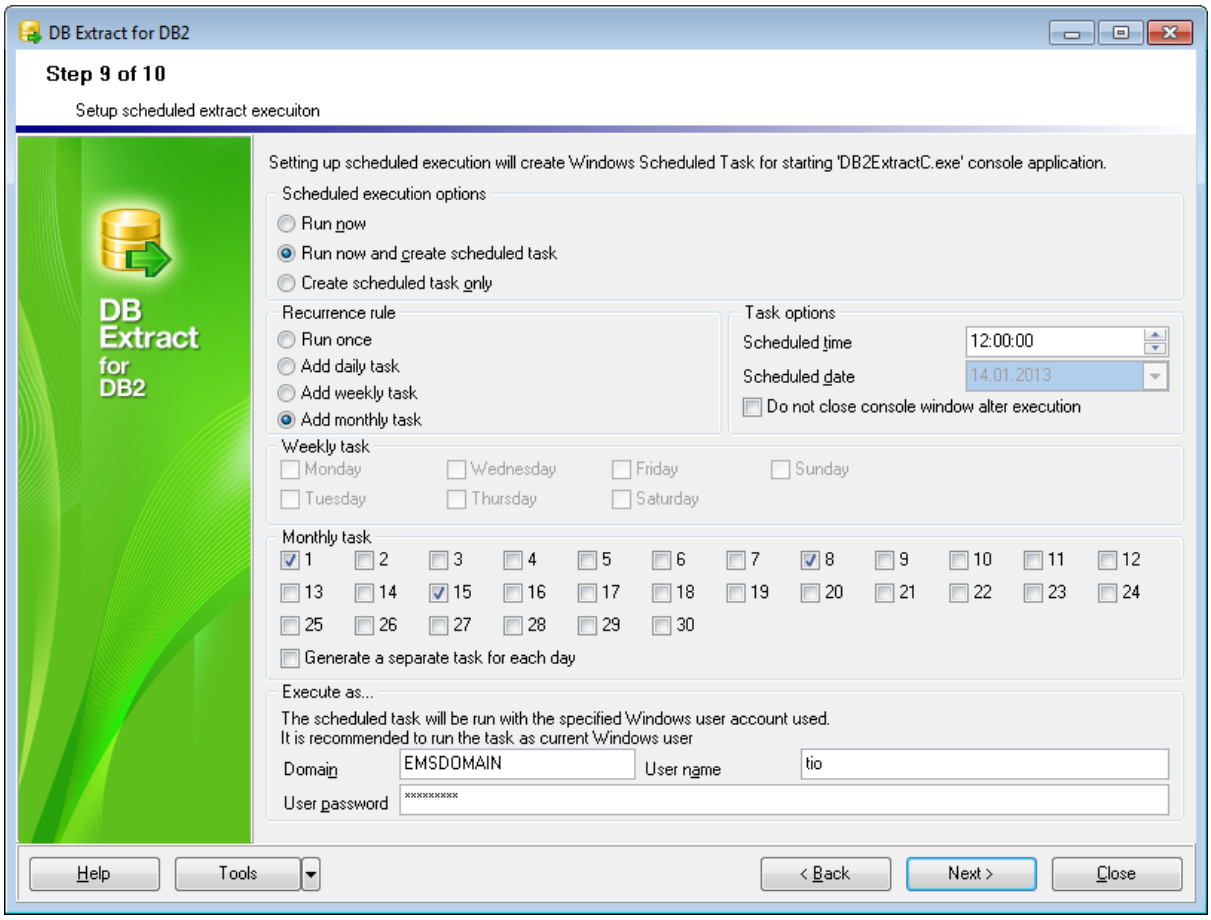

Task options

Scheduled time
This box allows you to set the time of the task execution.

Scheduled date
This box allows you to set the date of the extraction task execution if the **Recurrence rule** is set to **Run once**.
Please note that this value cannot be greater than one month forward.

☑ **Do not close console window after execution**
This option is used to disable/enable closing the console window after the scheduled extraction is complete.

Note: you must have the **Task Scheduler** service running to be able to use these settings. Please open **Windows Control Panel | Administrative Tools | Services** (or open the **Start | Run...** dialog and use the *services.msc* command) to start the **Task Scheduler** service.

Weekly task / Monthly task

These groups contain the lists of days of the week/month that can be set for the

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extraction task to be executed (applied when the **Recurrence Rule** is set to **weekly** or **monthly**)

☑ **Generate a separate task for each day**
Check this option if you want several tasks (each corresponding to the specified day) to be created for Windows Task Scheduler.

Execute as...
In these fields you must specify Windows **Domain** (if a domain login is being used), **User name** and **User password** for the task execution. It is recommended to run the task as current Windows user.

When you are done, press the **Next** button to proceed to the last step 41 of the wizard.

2.1.11 Step 10 - Start of extraction process

This step is aimed at informing you that all the extraction parameters are set, and you can now start the extraction process.

Script options

☑ **Abort extraction on error**
This option determines whether the extraction process should be stopped or forced to continue if an error occurs.

☑ **Show comments in script**
Set this option to allow adding comments on the extraction process to the result SQL script.

If all necessary DB Extract settings are specified correctly, press the **Extract** button to start the process. If you want to change something, you can return to any of the wizard steps using the **Back** button.

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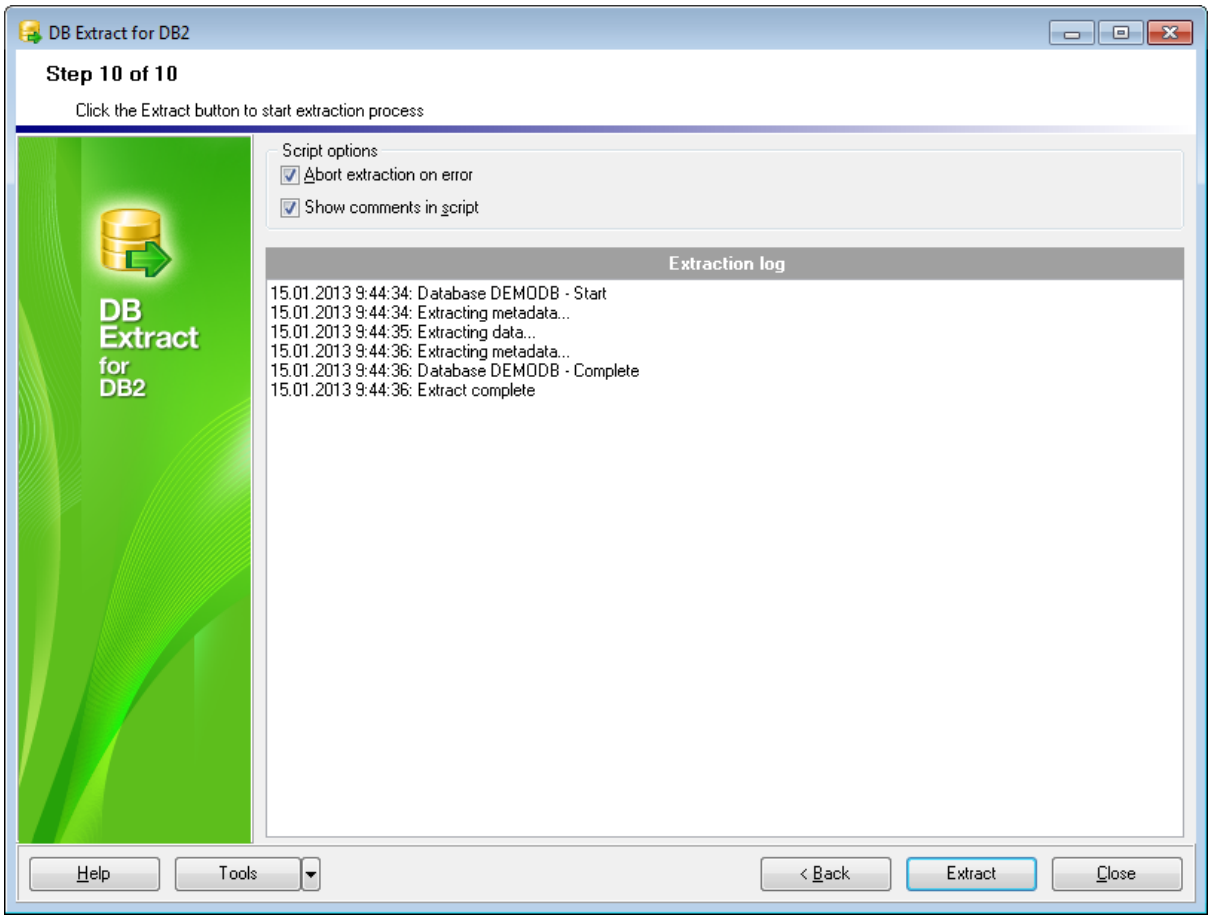
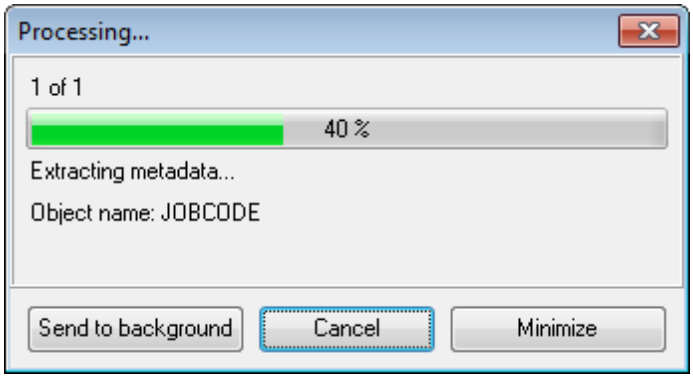


Please do not forget to save the extraction options 44 if you intend to repeat the extraction process with the same or similar settings later.

While the extraction process you can use the **Send to background** button to reduce the priority of the extraction operation, the **Cancel** button to interrupt the process and the **Minimize** button to to minimize the utility window.



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See also:

Using configuration files 44
Setting program preferences 46

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2.2 Using configuration files

DB Extract for DB2 allows you to store its configuration in external **.ext* files if you need to repeat the extraction process many times.

You can load the previously saved configuration to the wizard application if you need to make some changes before extraction, or you can run it with the console application 53 for quicker extraction.

- Saving configuration file 44
- Loading configuration file 45

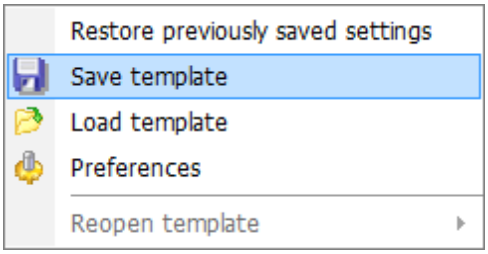
See also:

Using wizard application 24

Setting program preferences 46

2.2.1 Saving configuration file

The **Save template** item allows you to save current configuration for future use. Please note that a configuration file (template) can be saved only on Step 8 37 and the succeeding steps of the wizard.



Save template options:

File name
Specify the template file name and select its location using the button to open the **Save As...** dialog.

Comment
If necessary, set a comment for your template file in this field.

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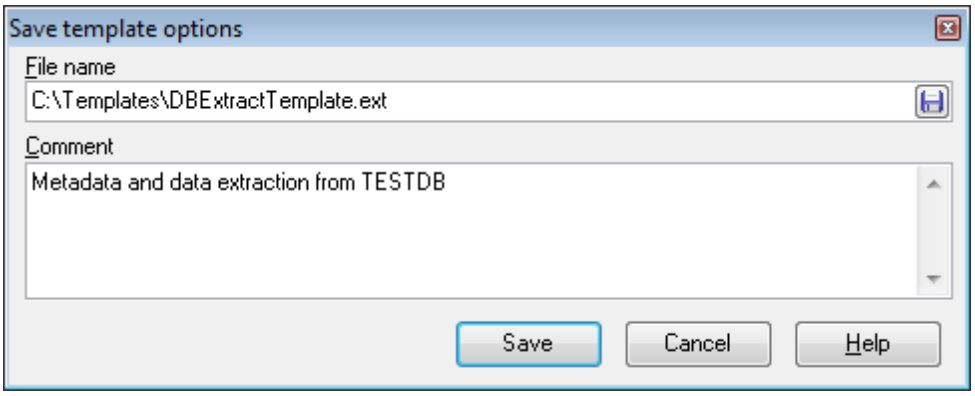
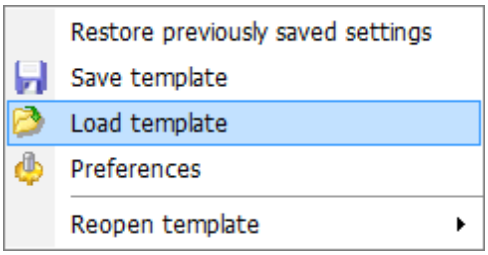


See also:

Loading configuration file 45

2.2.2 Loading configuration file

Previously saved DB Extract templates are loaded within the **Open template** dialog. To call this dialog, press the **Tools** button and select the **Load template** popup menu item.



Please note that you can **reopen a template** at any step of the wizard using the corresponding popup menu item of the **Tools** menu.

See also:

Saving configuration file 44

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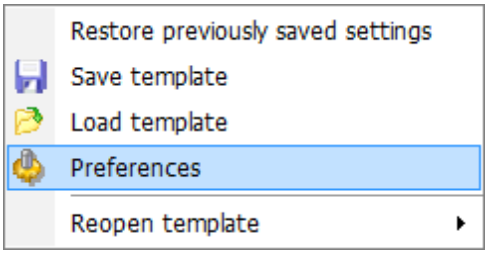
2.3 Setting program preferences

DB Extract for DB2 provides full customization of the program interface by setting various options within the **Preferences** dialog. This chapter is intended to inform you how to use these options.

General options 46
These options define general behavior of DB Extract for DB2

Localization 47
This page allows you to select a language to be applied for your copy of DB Extract for DB2.

Interface 49
This branch contains several pages with a number of options allowing you to customize the application interface style according to your liking.



See also:
Using wizard application 24
Using configuration files 44

2.3.1 Setting general options

Remember password
Setting this option allows you to save passwords used for access to the database server automatically upon closing the application. Please note that checking this option saves the latest password used for connection to the database

Confirm exit
Enables/disables confirmation upon exiting the program.

Save current options on exit
Setting this option allows you to save all the extraction options automatically upon exiting the application.

Save password and user name for Scheduled Task creation
Set this option to remember Windows login information provided for the scheduled task execution.

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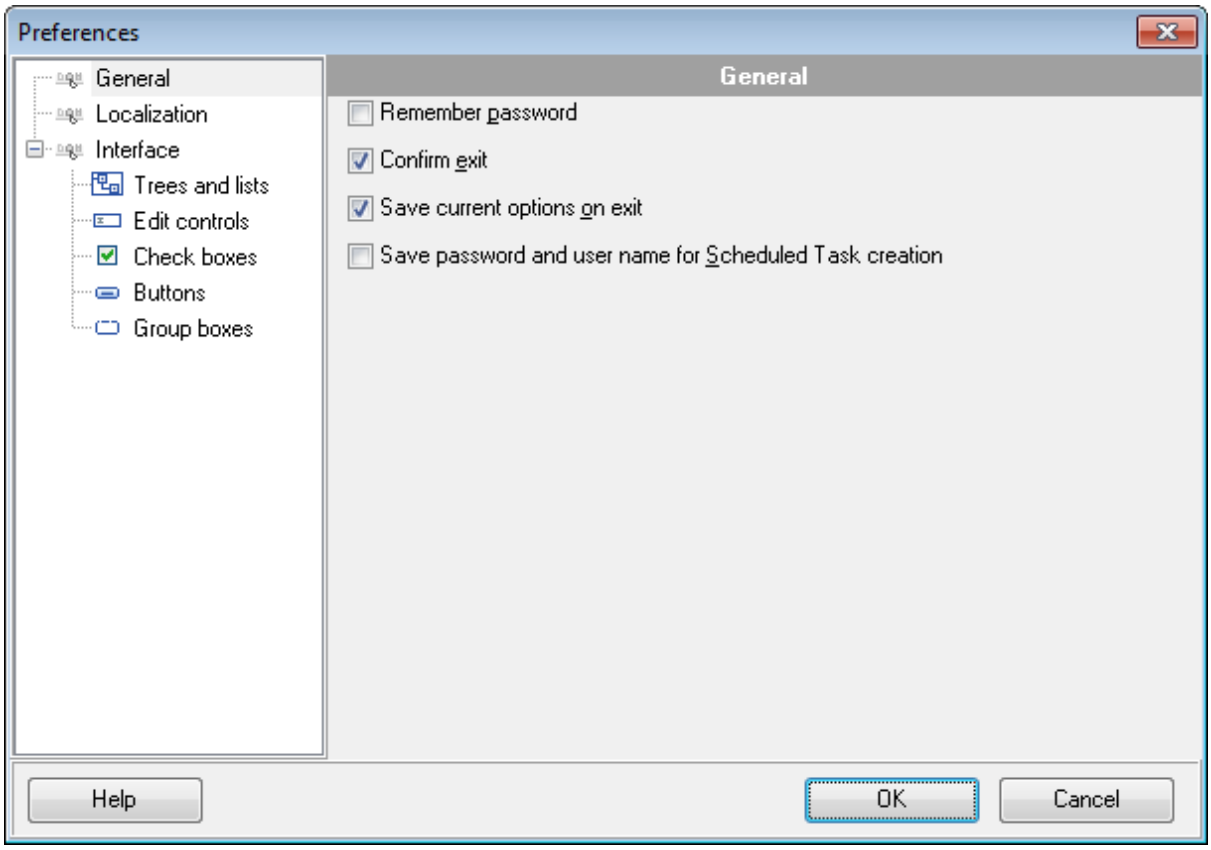

See also:

Setting program language 47

Defining interface style 49

2.3.2 Setting program language

The **Localization** page is provided for DB Extract for DB2 interface localization files management.

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

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

Choose program language
Select the language you wish to be applied to the GUI application from the drop-down list of available languages.

In the **Available Languages** area the list of available languages and the names of the

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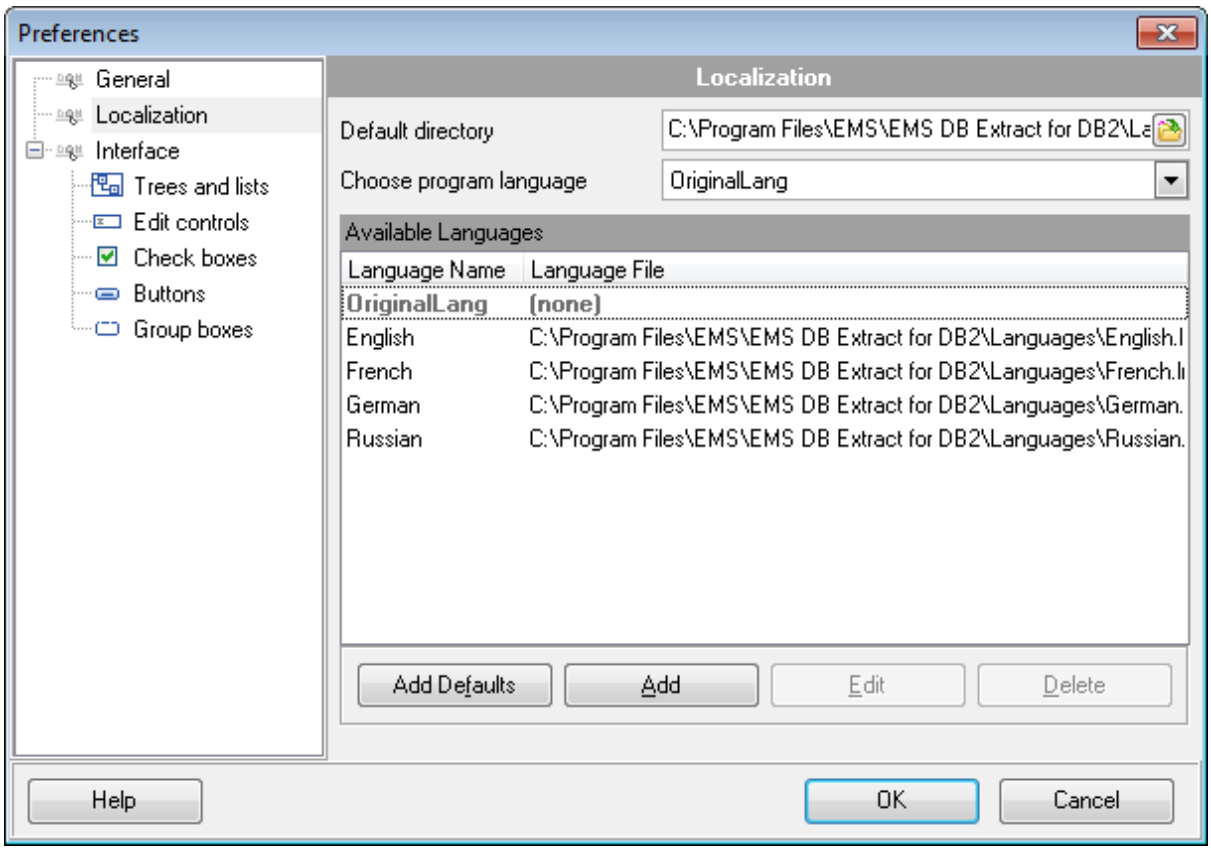
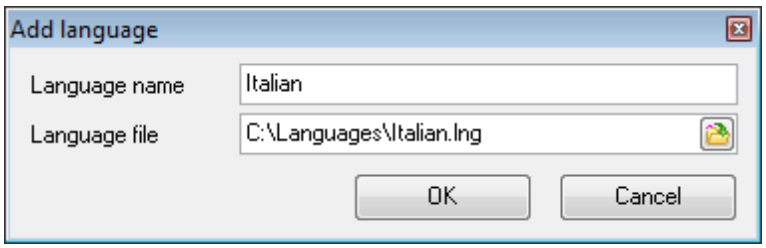
corresponding localization (*.lng) files are displayed. You can manage the list of the languages using the buttons below.



Add defaults
Adds languages from the default directory to the list of available languages.

Add
Opens the *Add language* dialog where you can specify your own localization file and set the language name.



Edit
Opens the *Edit language* dialog where you can change the language name or select another localization file for the specified language.

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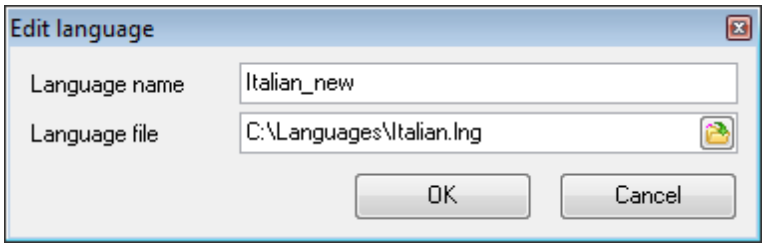

Delete
Removes the selected language from the **Available languages** list (without confirmation).

See also:
Setting general options 46
Defining interface style 49

2.3.3 Defining interface style

This page allows you to customize the application interface style according to your liking.

Use the **Scheme name** drop-down list to select an interface scheme according to your liking: *Classic*, *Office XP style*, *Windows XP* native style, etc.

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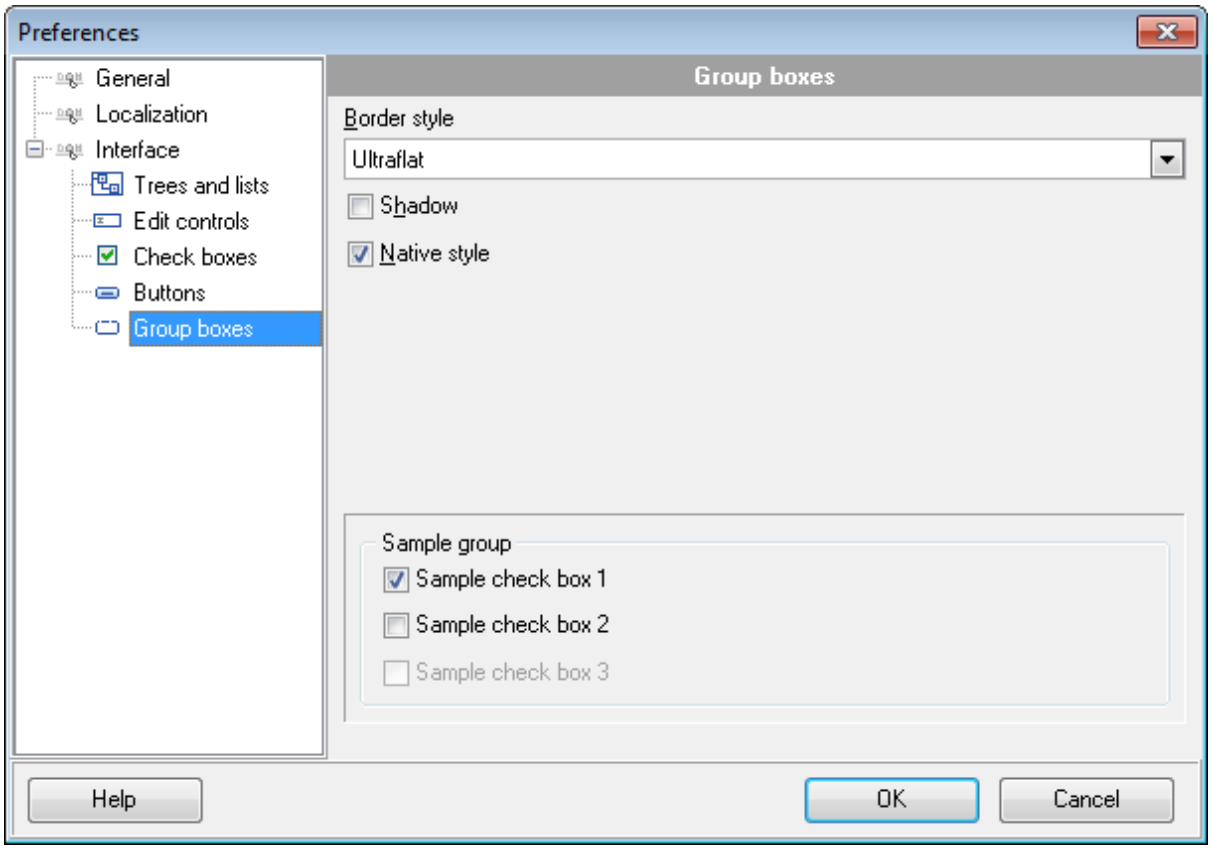
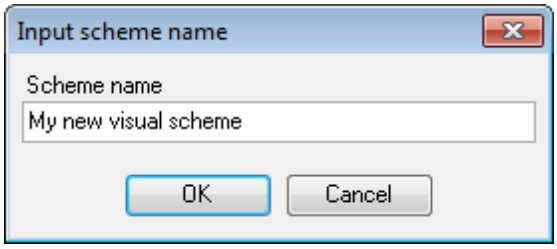


It is also possible to create one's own interface scheme, if necessary:

- set your preferences within the available branches of the **Interface** node (*Trees and Lists*, *Edit Controls*, *Check Boxes*, *Buttons*, *Group Boxes*);
- return to the **Interface** page and click the **Save As** button;
- specify the scheme name in the **Input scheme name** dialog.



Note: For your convenience the previews illustrating the changes are displayed in the **Sample group** area of each branch of the **Interface** node.

See also:

Setting general options 46
Setting program language 47

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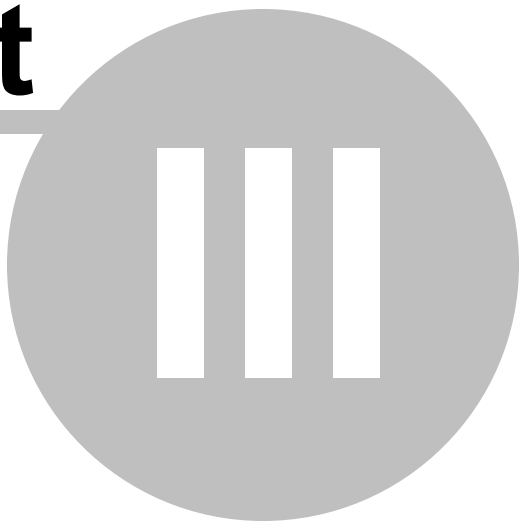
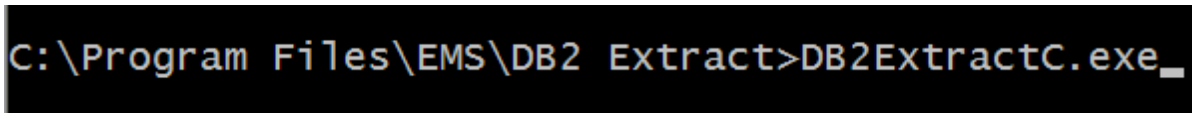
Part



3 Console application

Additionally to **the GUI version** which is implemented in the form of a wizard application, the installation package of DB Extract for DB2 includes **the console version** which is intended for being run from Windows command line with a template file name used as the execution parameter.



DB Extract for DB2 command line utility is intended for quick and powerful metadata and data extraction from DB2 databases.

- Using console application 54
- Configuration file format 55

See also:

Wizard application 23

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3.1 Using console application

All the extraction options are set in **template** (**.ext*) files. A template can be also used in the **Console version** of DB Extract for DB2

To create a template file, follow the instructions below:
- start DB Extract for DB2 Wizard application 23;
- set all the required options in all steps of the wizard;
- test the extraction process at the last step;
- save all generation options in the template file 44.

The easiest way to start DB Extract for DB2 console application is to double-click the generated **.ext* configuration file. The other way is to enter the command line and type the appropriate command.

Usage:

<path to DB Extract for DB2 console application>\Db2ExtractC.exe TemplateFile [-L] [-B]

TemplateFile
Stands for the **.ext* template file to be used as the console version execution parameter

[-L]
Selects current localization 47 set in Wizard application 23 (GUI)

[-B]
Use this parameter in the command line to run the console version of DB Extract for DB2 in background mode

Example:

"C:\Program Files\EMS\DB2 Extract\Db2ExtractC.exe" "C:\Program Files\EMS\DB2 Extract\DBExtract1.ext" -L

Note: The following exit codes can be returned by DB Extract for DB2 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:

Using wizard application 24
Configuration file format 55

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3.2 Configuration file format

DB Extract configuration file is divided into several sections, each corresponding to a particular group of settings specified on different steps of the GUI application 23.

- General and Connection sections 55
- Common options section 55
- Extract options section 56
- File options section 58
- Scheduled task sections 59
- Data query sections 60
- Databases section

See also:

Using console application 54

3.2.1 General and Connection sections

The very first section of DB Extract configuration file is **[#General#]** - the product name and its major version are indicated in this section.

The **[#Connection#]** section corresponds to the values entered on Step 1 25 of Wizard application 24.

The configuration parameters are listed below.

The section contains database connection parameters: **DBAlias**, **Login** and **Password**. These parameters are obligatory.

See also:

Common Options section 55
Extract Options section 56
File Options section 58
Scheduled Task sections 59
Data Query sections 60
Databases section

3.2.2 Common Options section

Section **[#Options#]** represents the options corresponding to those specified on Step 3 27 of Wizard application 24.

The configuration parameters are listed below.

ExtractOptionsIndex
0 = Extract both structure and data

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1 = Extract metadata only
2 = Extract data only

ExtractAllMetaObjects
0 = Extract selected types of objects only
1 = Extract all objects

ExtractMetadataFrom (applicable if **ExtractAllMetaObjects** = *0*)
The value of this option is a list of zero ("0") and one ("1") values
Each value corresponds to a certain object type in the order they are listed on Step 3 27: Tables, Aliases, Procedures, Functions, Views, Buffer pools, Partition groups, Event monitors, MQ tables, Nicknames, Schemas, Sequences, Tablespaces, UDS types, UD types, Wrappers, Audit policies, Roles, SQL variables, Triggers, Trusted context, Security label components, Security policies, Security labels

ExtractAllData
0 = Extract selected data tables
1 = Extract all data tables

The following two options correspond to the last step 41 of the GUI application 24.

AbortOnError
0 = Do not abort script execution if an error occurs during execution
1 = Abort script execution on error

InsertComments
0 = Do not add comments to the result script
1 = Allow adding comments to the result script

See also:
General and Connection sections 55
Extract Options section 56
File Options section 58
Scheduled Task sections 59
Data Query sections 60
Databases section

3.2.3 Extract Options section

Section **[#ExtractOptions#]** stores values set on Step 7 35 of Wizard application 24.

The configuration parameters are listed below.

DropTableStmt

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0 = Do not add DROP statements for the extracted objects
1 = Add DROP statements for the extracted objects to the result script

RecordsInBlock
The number of INSERT statements in a block after which the COMMIT statement is to be added

InsertCommit
0 = Do not insert COMMIT statement after each block
1 = Insert COMMIT statement after each block

DeleteAllRecords
0 = Do not delete any records from the tables before the INSERT statements
1 = Delete all records from the tables before the INSERT statements

Tablespaces
0 = Do not include definition of tablespaces into the extraction script
1 = Include definition of tablespaces into the extraction script

Privileges
0 = Do not include access privileges for the extracted objects
1 = Include access privileges for the extracted objects

ExtractDependentObjects
0 = Extract dependent objects
1 = Do not extract dependent objects

BlobExtractType
0 = Do not extract BLOB fields
1 = Extract BLOB fields to strings
2 = Extract BLOB fields into file

AddDateTimeToBlob
0 = Do not add the current date and time to BLOB filename
1 = Add the current date and time to BLOB filename

AddDateTimeTypeBlob
0 = Date will be added to BLOB filename
1 = Time will be added to BLOB filename
2 = Datetime will be added to BLOB filename

See also:
General and Connection sections 55

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Common Options section 55
File Options section 58
Scheduled Task sections 59
Data Query sections 60
Databases section

3.2.4 File Options section

Section **[#FileOptions#]** stores values set on Step 8 37 of Wizard application 24.

The configuration parameters are listed below.

SingleFileName
Stores the file name

AddDateTimeToFile
0 = Do not add the current date and time to the file name
1 = Add the current date and time to the file name

AddDateTimeTypeFile
0 = Date will be added to the filename
1 = Time will be added to the filename
2 = Datetime will be added to the filename

CompressFiles
0 = Do not compress files
1 = Compress files

SingleArchiveFileName
File name

SingleArchiveVolumeSize
Sets the size of an archive volume in bytes by default, kilobyte if the value is followed by 'K' and megabyte if the value is followed by 'M'.
AddDateTimeToArc
0 = Do not add the current date and time to the archive name
1 = Add the current date and time to the archive name

AddDateTimeTypeArc
0 = Date will be added to the archive name
1 = Time will be added to the archive name
2 = Datetime will be added to the archive name

InitialDir
The path to the directory where the script files are to be saved by default

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AddFolderWithDate
0 = Do not create a folder with the current date and time as the name inside the default directory (which is specified in the **InitialDir** parameter)
1 = Create a folder with the current date and time as the name inside the default directory (which is specified in the **InitialDir** parameter)

AddDateTimeTypeFolder
0 = Date will be added to the folder name
1 = Time will be added to the folder name
2 = Datetime will be added to the folder name

See also:

General and Connection sections 55
Common Options section 55
Extract Options section 56
Scheduled Task sections 59
Data Query sections 60
Databases section

3.2.5 Scheduled Task sections

Section **[#ScheduledTask#]** stores values set on Step 9 39 of Wizard application 24.

The configuration parameters are listed below.

TaskType
0 = Run the scheduled task once
1 = Run the scheduled task daily
2 = Run the scheduled task weekly
3 = Run the scheduled task monthly

ScheduledPrefIndex
0 = Run extraction now
1 = Run extraction now and create Windows scheduled task
2 = Create Windows scheduled task only

SchellTime
Stores the scheduled task execution time

ScheduledDate
Stores the scheduled task execution date (applicable only for **TaskType** = *0*)

WeeklyList
The days of the week when the task is scheduled to run (applicable only for **TaskType** = *2*)
The value of this option is a list of zero ("0") and one ("1") values
Each value corresponds to a certain day of the week in the following order:
Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday

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e.g. *WeeklyList=1,0,0,0,1,0,0* indicates running scheduled task weekly on Mondays and Fridays

DaysList
The days of the month when the task is scheduled to run (applicable only for **TaskType** = *3*)
The value of this option is a list of zero ("0") and one ("1") values
Each value corresponds to a certain day of the month in the calendar order

SeparateTask (applicable only for **TaskType** = *3*)
0 = Create a single scheduled task for all selected days of the month
1 = Create a separate scheduled task for each selected day of the month

TaskDomain
Windows domain of the user specified to run the scheduled task

TaskUserName
Windows user name specified to run the scheduled task

TaskPassword
Windows user password specified to run the scheduled task

NotCloseConsole
0 = Close the console window after execution of the scheduled task
1 = Do not close the console window after execution of the scheduled task

Section **[#Comment#]** stores your comment for the template file

e.g. *Line0 = Template1 for metadata and data extraction*

See also:
General and Connection sections 55
Common Options section 55
Extract Options section 56
File Options section 58
Data Query sections 60
Databases section

3.2.6 Data Query sections

The following two sections of the template store data query options set on Step 7 35 of Wizard application 24.

The configuration parameters are listed below.

[#Limits#]
Stores parameters in the following format: <database name>.<schema name>.<table

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name> = <records limit>

[#WhereClauses#]
Stores parameters in the following format: <database name>.<schema name>.<table name> = <WHERE clause>

See also:
General and Connection sections 55
Common Options section 55
Extract Options section 56
File Options section 58
Scheduled Task sections 59
Databases section

3.2.7 Schemas section

This section of DB Extract template contains the list of the database objects specified for extraction, and particular extraction parameters.

The configuration parameters are listed below.

OutputFileName
The name of the result **.sql* script file

ArchiveFileName
The name of the result **.zip* archive file

The list of the objects specified for extraction is represented in the following format:

<ObjectType>Count
Stores the number of selected objects of this type, or equals to the **'ALL'** string value (which means that all objects of this type are to be extracted)

TablesXX
Each parameter of this type stores the name of the table specified for metadata extraction (**XX** stands for the table unique identifier, e.g. *Tables0 = HR.Countries*)

The list of objects that are included into the databases section is taken from the **ExtractMetadataFrom** parameter value (see Common Options section 55 and Step 3 27 of the GUI application)

Next is list of tables to extract their data in the following format.

DataTablesCount
Stores the number of tables specified for data extraction, or equals to the **'ALL'** string value (which means that data from all tables of the database are to be extracted)

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DataTablesXX
Each parameter of this type stores the name of the table specified for data extraction (**XX** stands for the table unique identifier, e.g. *DataTables0 = HR.Employees*)

See also:

General and Connection sections 55
Common Options section 55
Extract Options section 56
File Options section 58
Scheduled Task sections 59
Data Query sections 60

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