

# SQL Manager.net™

EMS® Software Development



## DB Extract for Interbase/Firebird User's Manual

© 1999-2019 EMS Software Development

# **DB Extract for Interbase/Firebird - User's Manual**

© 1999-2019 EMS Software Development

All rights reserved.

This manual documents EMS DB Extract for Interbase/Firebird

No parts of this work may be reproduced in any form or by any means - graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems - without the written permission of the publisher.

Products that are referred to in this document may be either trademarks and/or registered trademarks of the respective owners. The publisher and the author make no claim to these trademarks.

While every precaution has been taken in the preparation of this document, the publisher and the author assume no responsibility for errors or omissions, or for damages resulting from the use of information contained in this document or from the use of programs and source code that may accompany it. In no event shall the publisher and the author be liable for any loss of profit or any other commercial damage caused or alleged to have been caused directly or indirectly by this document.

Use of this documentation is subject to the following terms: you may create a printed copy of this documentation solely for your own personal use. Conversion to other formats is allowed as long as the actual content is not altered or edited in any way.

Document generated on: 01/08/2019

# Table of Contents

<b>Part I Welcome to EMS DB Extract utility!</b>	<b>6</b>
What's new .....	7
System Requirements .....	8
Installation .....	9
Registration .....	10
How to register EMS DB Extract .....	12
Version history .....	13
EMS DB Extract FAQ .....	15
Other EMS Products .....	17
<b>Part II Wizard application</b>	<b>24</b>
Using wizard application .....	25
Getting started .....	25
Step 1 - Setting connection properties .....	26
Selecting registered database.....	28
Step 2 - Selecting databases .....	29
Step 3 - Specifying types of objects .....	30
Step 4 - Selecting objects for metadata extraction .....	32
Step 5 - Selecting tables for data extraction .....	34
Step 6 - Setting up extraction options .....	36
Step 7 - Specifying file names and directories .....	39
Step 8 - Scheduling options .....	42
Step 9 - Start of extraction process .....	44
Using configuration files .....	47
Saving configuration file .....	47
Loading configuration file .....	48
Setting program preferences .....	49
Setting general options .....	49
Setting program language .....	50
Defining interface style .....	52
<b>Part III Console application</b>	<b>56</b>
Using console application .....	57
Configuration file format .....	58
General and Connection sections .....	58
Common Options section .....	59
Extract Options section .....	60
File Options section .....	62
Scheduled Task sections .....	63
Data Query sections .....	64
Databases section .....	65

**Part IV Appendix****68**

SSH tunneling options .....68

**Part**



# 1 Welcome to EMS DB Extract utility!

**EMS DB Extract for Interbase/Firebird** 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 Interbase/Firebird 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
- Extracting data from several tables of different databases located at one host within one session
- 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/ibfb/extract>

Support Ticket <http://www.sqlmanager.net/support>

System:

Register online at: <http://www.sqlmanager.net/en/products/ibfb/extract/buy>

## 1.1 What's new

**Version****DB Extract for Interbase/Firebird** 3.0.1.1**Release date**

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.
- Firebird server versions up to 2.1 and InterBase server version 2007 are now supported.
- Support of DB Triggers (Firebird ver. 2.1) and Journals (InterBase 2007) is implemented.
- 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](#)<sup>[13]</sup>

## 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
- Interbase/Firebird client
- Possibility to connect to any local or remote Interbase/Firebird server
- Supported InterBase and Firebird server versions: InterBase - up to XE; Firebird - up to 2.5



## 1.3 Installation

If you are **installing DB Extract for Interbase/Firebird for the first time** on your PC:

- download the DB Extract for Interbase/Firebird distribution package from the [download page](#) available at our site;
- unzip the downloaded file to any local directory, e.g. *C:\unzipped*;
- run *IbExtractSetup.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 Interbase/Firebird** to the latest version:

- download the **DB Extract for Interbase/Firebird** 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 *IbExtractSetup.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 Interbase/Firebird. 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](#)

| 8 |

## 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](mailto:sales@sqlmanager.net)

<b>Product distribution</b>	
<b>EMS DB Extract for Interbase/Firebird</b> (Business license) + 1-Year Maintenance*	<a href="#">Buy Now!</a>
<b>EMS DB Extract for Interbase/Firebird</b> (Business license) + 2-Year Maintenance*	
<b>EMS DB Extract for Interbase/Firebird</b> (Business license) + 3-Year Maintenance*	
<b>EMS DB Extract for Interbase/Firebird</b> (Non-commercial license) + 1-Year Maintenance*	
<b>EMS DB Extract for Interbase/Firebird</b> (Non-commercial license) + 2-Year Maintenance*	
<b>EMS DB Extract for Interbase/Firebird</b> (Non-commercial license) + 3-Year Maintenance*	
<b>EMS DB Extract for Interbase/Firebird</b> (Trial version)	<a href="#">Download Now!</a>

\* **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.

---

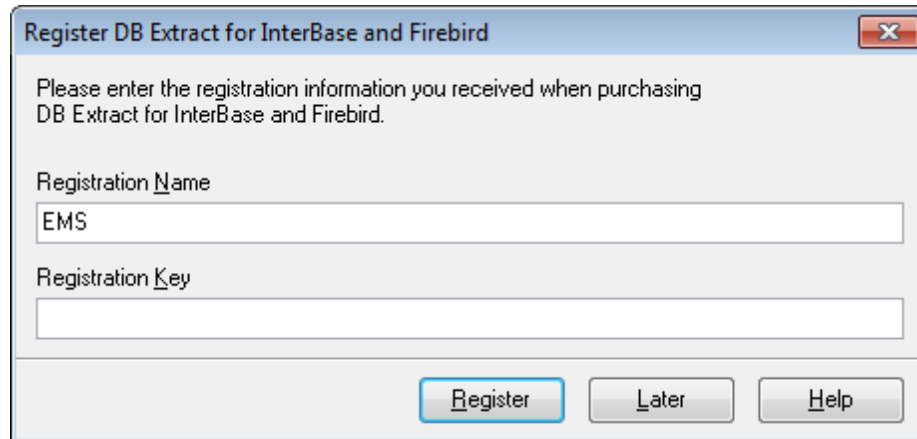
**See also:**

[How to register EMS DB Extract](#) <sup>[12]</sup>

## 1.5 How to register EMS DB Extract

To **register** your newly purchased copy of EMS DB Extract for Interbase/Firebird, 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](#)<sup>[25]</sup>.



Register DB Extract for InterBase and Firebird

Please enter the registration information you received when purchasing DB Extract for InterBase and Firebird.

Registration Name  
EMS

Registration Key

Register Later Help

---

**See also:**

[Registration](#)<sup>[10]</sup>

## 1.6 Version history

Version	Release date
<a href="#">Version 2.2</a> <sup>[13]</sup>	March 7, 2007
<a href="#">Version 2.1</a> <sup>[13]</sup>	February 8, 2006
<a href="#">Version 2.0</a> <sup>[13]</sup>	July 28, 2005
<a href="#">Version 1.2</a> <sup>[13]</sup>	March 5, 2005
<a href="#">Version 1.1</a> <sup>[14]</sup>	November 26, 2003
<a href="#">Version 1.0</a> <sup>[14]</sup>	April 3, 2003

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

### Version 2.2

- Objects extraction algorithm considering object dependencies has been improved
- SSH tunneling support is improved: implemented Private Key support for [SSH authentication](#)<sup>[26]</sup>
- Extraction of [BLOBs](#)<sup>[36]</sup> and [Arrays](#)<sup>[36]</sup> is now possible
- Considerably increased data extraction speed
- A number of minor visual improvements

### Version 2.1

- Added the ability to extract privileges
- Support of new object types implemented for the [Specifying types of objects](#)<sup>[30]</sup> step of the Wizard
- New [saving template](#)<sup>[47]</sup> options contributing to more flexible work with templates
- Added the opportunity [to connect through SSH tunnel](#)<sup>[26]</sup>
- The ability to extract dependent objects added

[Scroll to top](#)<sup>[13]</sup>

### Version 2.0

- Completely rewritten source code
- More user-friendly [wizard interface](#)<sup>[24]</sup>
- It has now become much more convenient to select objects for extraction: implemented an ability for multi-level grouping of objects by owners, schemas, databases, etc.; now you can select groups and separate records using drag-and-drop operations
- Additional [extract options](#)<sup>[36]</sup> implemented
- Added an ability to define constraints on extracted table data
- An ability [to insert statements for emptying tables](#)<sup>[36]</sup> before inserting extracted data
- Now it is possible to add current date to file and archive names; added an ability [to save the files/archives to a folder with current date](#)<sup>[39]</sup>
- Implemented an ability [to add tasks to Windows Scheduled Task Manager](#)<sup>[42]</sup> (for Windows NT/2000/XP)
- Added [multi-language support](#)<sup>[50]</sup> and [visual settings](#)<sup>[52]</sup>

[Scroll to top](#)<sup>[13]</sup>

### Version 1.2

- Fixed a bug with [loading the template](#)<sup>[48]</sup> when multiple databases were selected: in some cases the information about the database objects of the second used database was not loaded
- Added the [Client charset](#)<sup>[26]</sup> property for Interbase/Firebird databases
- Some minor visual improvements and bug-fixes

[Scroll to top](#)<sup>[13]</sup>

### Version 1.1

- Added the [Extract data from all tables](#)<sup>[30]</sup> option which can help you if you continuously change your database structure: you do not need to add new tables to your extraction template to extract data from them if this option is on
- Added the [Extract all objects](#)<sup>[30]</sup> option: use it to extract the entire database structure without adding each object to the extraction template
- Now all objects of the selected type can be extracted: you can select the object types in [Step 3](#)<sup>[30]</sup> of the application Wizard
- Implemented an ability [to add extracted SQL scripts to a ZIP file](#)<sup>[39]</sup>
- Wizard navigation has been significantly improved
- Increased metadata extraction speed

[Scroll to top](#)<sup>[13]</sup>

### Version 1.0

#### Basic features:

- Friendly user interface
- [Connecting to the server](#)<sup>[26]</sup> and selecting databases easily
- Extracting metadata either from a single or from multiple databases at a time
- Possibility of [selecting](#)<sup>[32]</sup> the extracted database objects
- Extracting table data to SQL script as INSERT statements with an opportunity [to select data tables](#)<sup>[34]</sup>
- [Saving/loading templates](#)<sup>[47]</sup> with all the extract parameters and options
- The [console application](#)<sup>[56]</sup> for extracting metadata and data using the template file and more...

[Scroll to top](#)<sup>[13]</sup>

---

#### See also:

[What's new](#)<sup>[7]</sup>

## 1.7 EMS DB Extract FAQ

Please read this page attentively if you have questions about EMS DB Extract for Interbase/Firebird.

### Table of contents

- [What is InterBase & Firebird Extract utility?](#)<sup>[15]</sup>
- [What do I need to start working with InterBase Extract?](#)<sup>[15]</sup>
- [What is the easiest way to configure template files for the console application of the extract utility?](#)<sup>[15]</sup>
- [What is the difference between the Extract Database function available in SQL Manager and the standalone Extract utility?](#)<sup>[15]</sup>
- [Are there any limitations implied in the trial version as compared with the full one?](#)<sup>[16]</sup>

### Question/answer list

*Q: What is Interbase/Firebird Extract utility?*

A: EMS DB Extract for Interbase/Firebird 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 Interbase/Firebird includes a [GUI wizard](#)<sup>[24]</sup> 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 Interbase/Firebird Extract?*

A: First of all, you must have a possibility to connect to some local or remote Interbase/Firebird server to work with Interbase/Firebird DB Extract. You can download Interbase/Firebird database server from <http://www.codegear.com/interbase> (the latest commercial version of InterBase server) or Firebird client and server from <http://www.firebirdsql.org> (download is free). Besides, you need your computer to satisfy the [system requirements](#)<sup>[8]</sup> of DB Extract for Interbase/Firebird. 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 Interbase/Firebird 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](#)<sup>[47]</sup> menu item. All the options will be saved to a \*.ext template file which can be used afterwards in the [console application](#)<sup>[56]</sup>.

*Q: What is the difference between the Extract Database function available in SQL Manager for Interbase/Firebird and the standalone Extract utility for Interbase/Firebird?*

A: DB Extract for Interbase/Firebird includes some additional features which are not available in SQL Manager for Interbase/Firebird, such as:

- console application allowing one to perform the extract operation in one-touch;
- extracting metadata from several databases at one host;
- faster execution speed.

*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 Interbase/Firebird within the 30-day trial period.

[Scroll to top](#) 

If you still have any questions, contact us at our [Support Center](#).













## 1.8 Other EMS Products

### Quick navigation



### MySQL

- 
[SQL Management Studio for MySQL](#)  
 EMS SQL Management Studio for MySQL is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!
- 
[SQL Manager for MySQL](#)  
 Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.
- 
[Data Export for MySQL](#)  
 Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more.
- 
[Data Import for MySQL](#)  
 Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.
- 
[Data Pump for MySQL](#)  
 Migrate from most popular databases (MySQL, PostgreSQL, Oracle, DB2, InterBase/Firebird, etc.) to MySQL.
- 
[Data Generator for MySQL](#)  
 Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.
- 
[DB Comparer for MySQL](#)  
 Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.
- 
[DB Extract for MySQL](#)  
 Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.
- 
[SQL Query for MySQL](#)  
 Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.
- 
[Data Comparer for MySQL](#)  
 Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

[Scroll to top](#) <sup>[17]</sup>

## Microsoft SQL Server



### [SQL Management Studio for SQL Server](#)

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



### [EMS SQL Backup for SQL Server](#)

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



### [SQL Administrator for SQL Server](#)

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



### [SQL Manager for SQL Server](#)

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



### [Data Export for SQL Server](#)

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



### [Data Import for SQL Server](#)

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



### [Data Pump for SQL Server](#)

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



### [Data Generator for SQL Server](#)

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



### [DB Comparer for SQL Server](#)

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



### [DB Extract for SQL Server](#)

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



### [SQL Query for SQL Server](#)

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



### [Data Comparer for SQL Server](#)

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

[Scroll to top](#)

## 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.

[Scroll to top](#)

## InterBase / Firebird



### [SQL Management Studio for InterBase/Firebird](#)

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



### [SQL Manager for InterBase/Firebird](#)

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



#### [Data Export for InterBase/Firebird](#)

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



#### [Data Import for InterBase/Firebird](#)

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



#### [Data Pump for InterBase/Firebird](#)

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



#### [Data Generator for InterBase/Firebird](#)

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



#### [DB Comparer for InterBase/Firebird](#)

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



#### [DB Extract for InterBase/Firebird](#)

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



#### [SQL Query for InterBase/Firebird](#)

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



#### [Data Comparer for InterBase/Firebird](#)

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

[Scroll to top](#)

## 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.

[Scroll to top](#)

## 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.

[Scroll to top](#)

## 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.

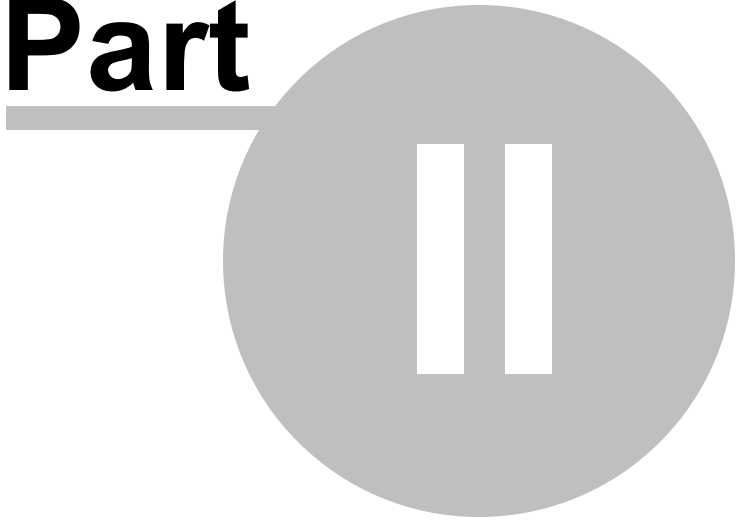


### [Advanced Localizer](#)

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

[Scroll to top](#)<sup>17</sup>

**Part**



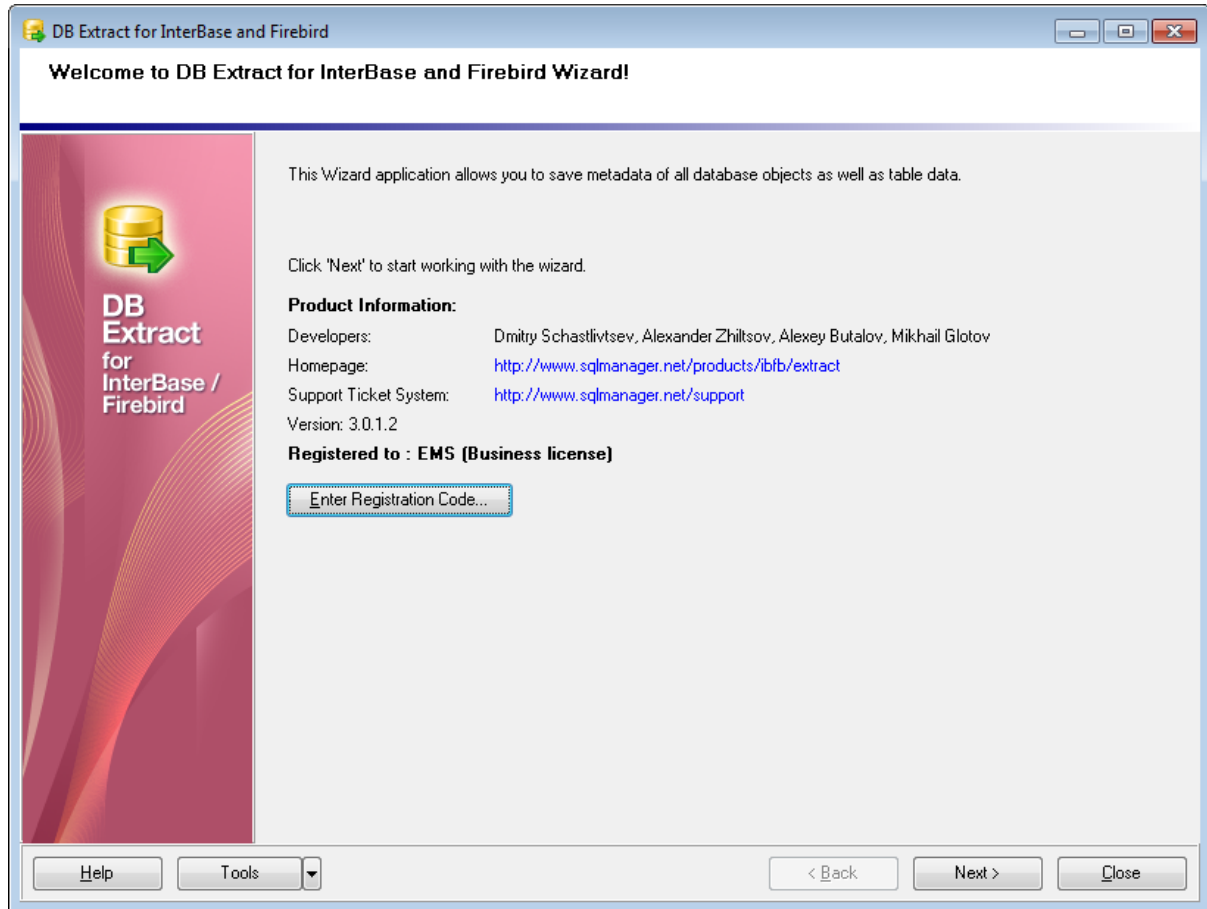
## 2 Wizard application

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

[Using wizard application](#)<sup>[25]</sup>

[Using configuration files](#)<sup>[47]</sup>

[Setting program preferences](#)<sup>[49]</sup>



### See also:

[Console Application](#)<sup>[56]</sup>



## 2.1 Using wizard application

Follow the steps of the wizard to extract metadata and data of your Interbase/Firebird database easily and quickly:

[Getting started](#)<sup>[25]</sup>

[Step 1 - Setting connection properties](#)<sup>[26]</sup>

[Step 2 - Selecting databases for extraction](#)<sup>[29]</sup>

[Step 3 - Specifying types of objects](#)<sup>[30]</sup>

[Step 4 - Selecting objects for metadata extraction](#)<sup>[32]</sup>

[Step 5 - Selecting tables for data extraction](#)<sup>[34]</sup>

[Step 6 - Setting up extraction options](#)<sup>[36]</sup>

[Step 7 - Specifying file names and directories](#)<sup>[39]</sup>

[Step 8 - Scheduling options](#)<sup>[42]</sup>

[Step 9 - Start of extraction process](#)<sup>[44]</sup>

---

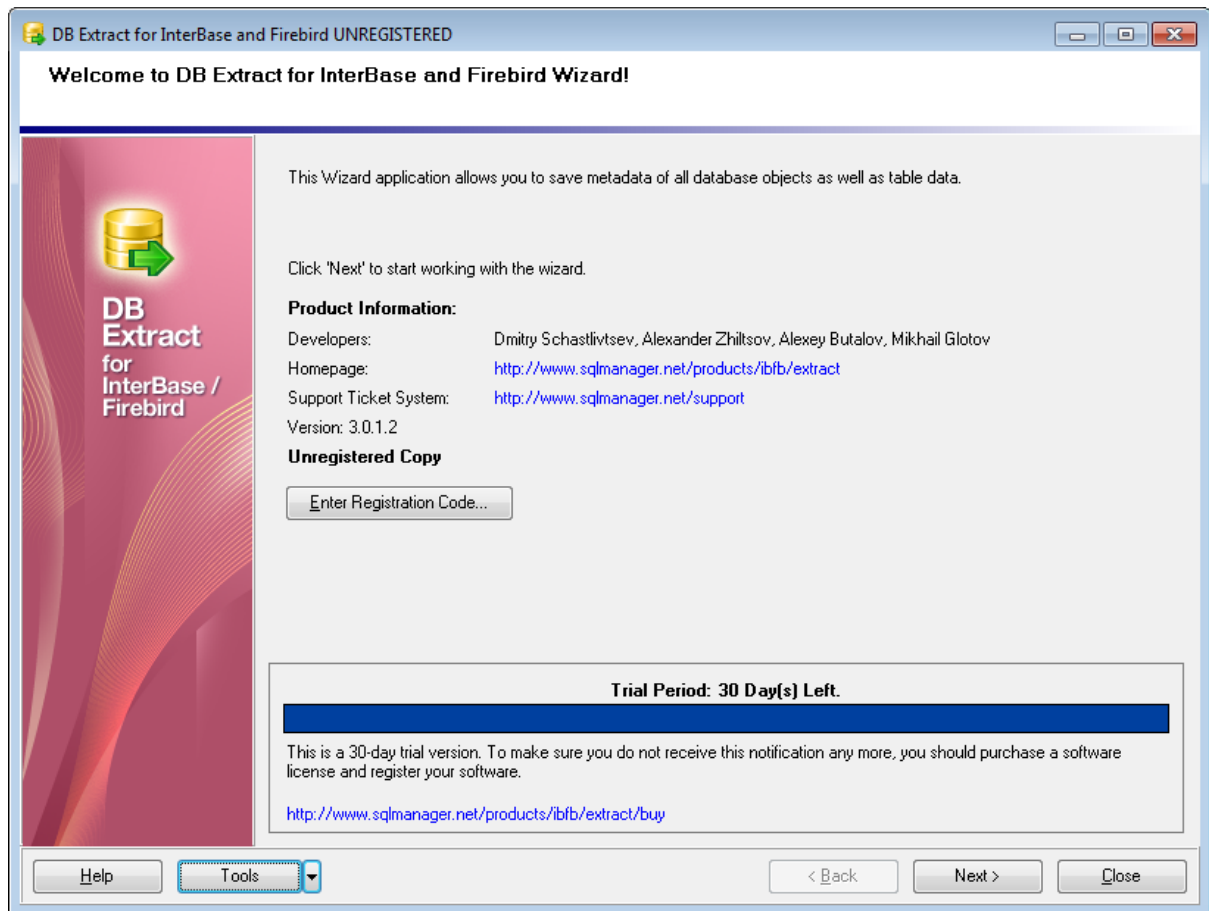
### See also:

[Using console application](#)<sup>[57]</sup>

### 2.1.1 Getting started

This is how DB Extract for Interbase/Firebird 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**.



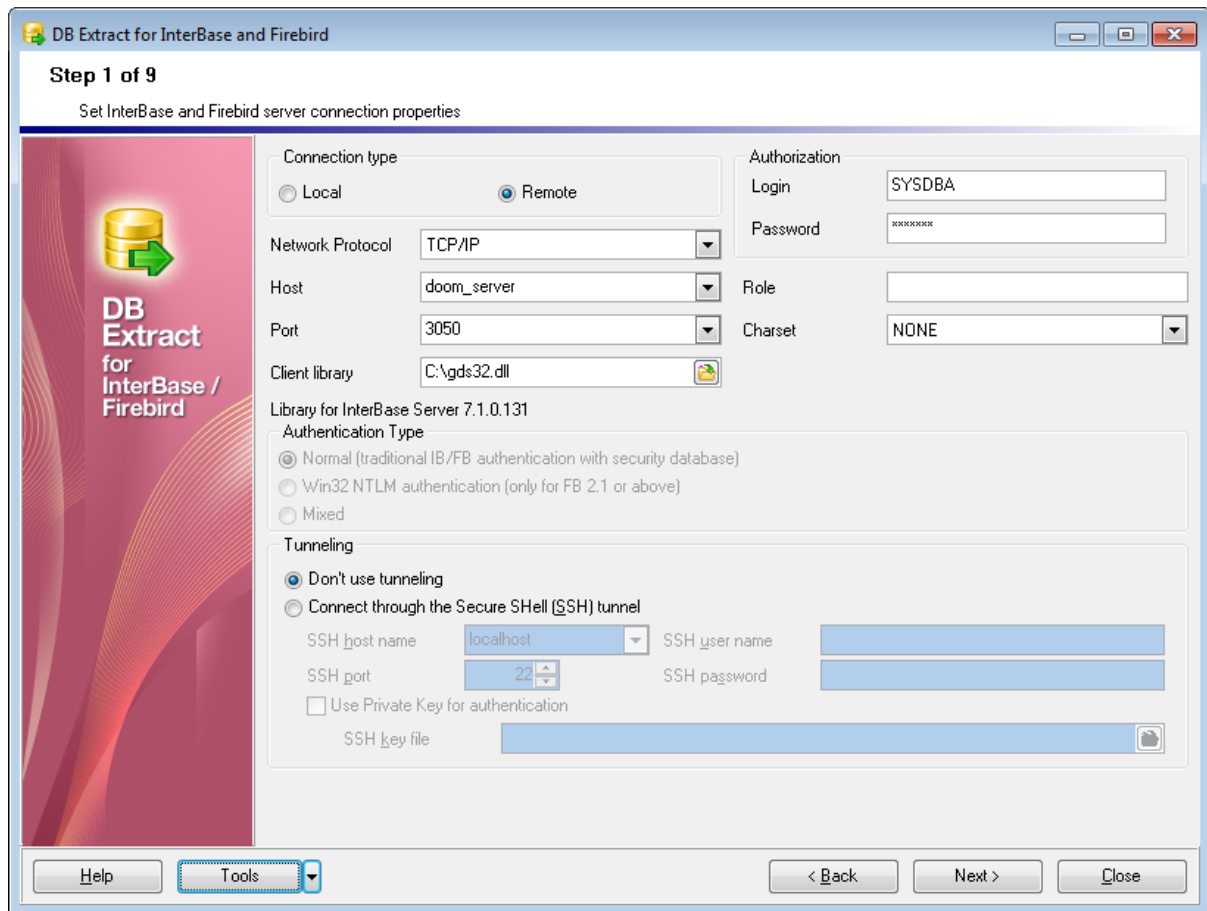
Press the **Next** button to proceed to [Step 1](#)<sup>[26]</sup> of the wizard.

**See also:**

[Registration](#)<sup>[10]</sup>

## 2.1.2 Step 1 - Setting connection properties

At this step you should enter the necessary settings to establish connection to Interbase/Firebird server.



First select the **connection type**: *local* or *remote*.

**Local** connection is used to connect to Interbase/Firebird server launched on the same machine where DB Extract for Interbase/Firebird is running.

The **Remote** mode allows you to connect to Interbase/Firebird server launched on another computer in the network.

By default the program uses local connection. It is indicated by switch **Local** selected. If you wish to establish remote connection, you should select the **Remote** switch. For remote connection you should also enter Interbase/Firebird host name in the **Host** field and specify the preferable **Network protocol** (*TCP/IP*, *NetBEUI*, *Novel SPX*). For both types you should enter Interbase/Firebird port to connect through in the **Port** field.

Specify the **Role** that you adopt on connection to the database. You must have previously been granted membership in the role to gain the privileges of that role.

Afterwards you should specify *authorization* settings: **Login** and **Password**. The default superuser name is 'SYSDBA' and the default password is 'masterkey'.

You also need to specify the path to the **Client library** and the path to the **Database** file (*\*.gdb* for InterBase or *\*.fdb* for Firebird) in the corresponding fields. For successful

connection to the server it is crucial to use the appropriate client library - the one that is compatible with the server you are using: *gds32.dll* for Interbase and *fbclient.dll* for Firebird. Please note that the client library file must be located on your local machine (e.g. in the directory where the utility is installed). Bear in mind that the path to the database file should be set relatively to the Interbase/Firebird server file system.

### Authentication type

Select the preferable type of server authentication to be used for the connection:

- *Normal (traditional IB/FB authentication with security database)*
- *Win32 NTLM authentication (only FB 2.1 or above)*
- *Mixed*

If you are using the EMS SQL Management Studio for Interbase/Firebird version of DB Extract for Interbase/Firebird 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](#) <sup>[28]</sup> dialog.

### Tunneling settings

To setup the connection via **SSH tunnel**, input the following values in the corresponding fields:

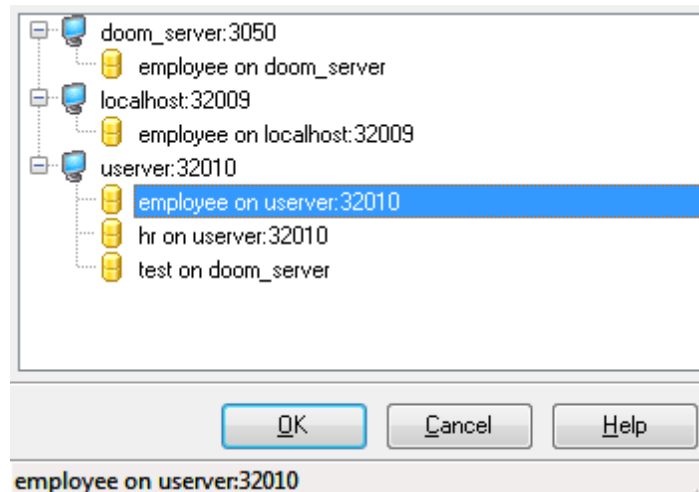
- **SSH host name** is the name of the host where SSH server is running
- **SSH port** indicates the port where SSH server is activated
- **SSH user name** stands for the user on the machine where SSH server is running (Note: it is a Linux/Windows user, not a user of Interbase/Firebird server)
- **SSH password** is the Linux/Windows user password

For details see [SSH tunneling options](#) <sup>[68]</sup>.

When you are done, press the **Next** button to proceed to the [next step](#) <sup>[29]</sup> of the wizard.

#### 2.1.2.1 Selecting registered database

Use this dialog to select a database for extract. This dialog is available only in EMS SQL Management Studio version of DB Extract for Interbase/Firebird.






All databases registered in EMS SQL Management Studio for Interbase/Firebird are displayed in the list.





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

Database registration information will be filled on the [first step](#) automatically.

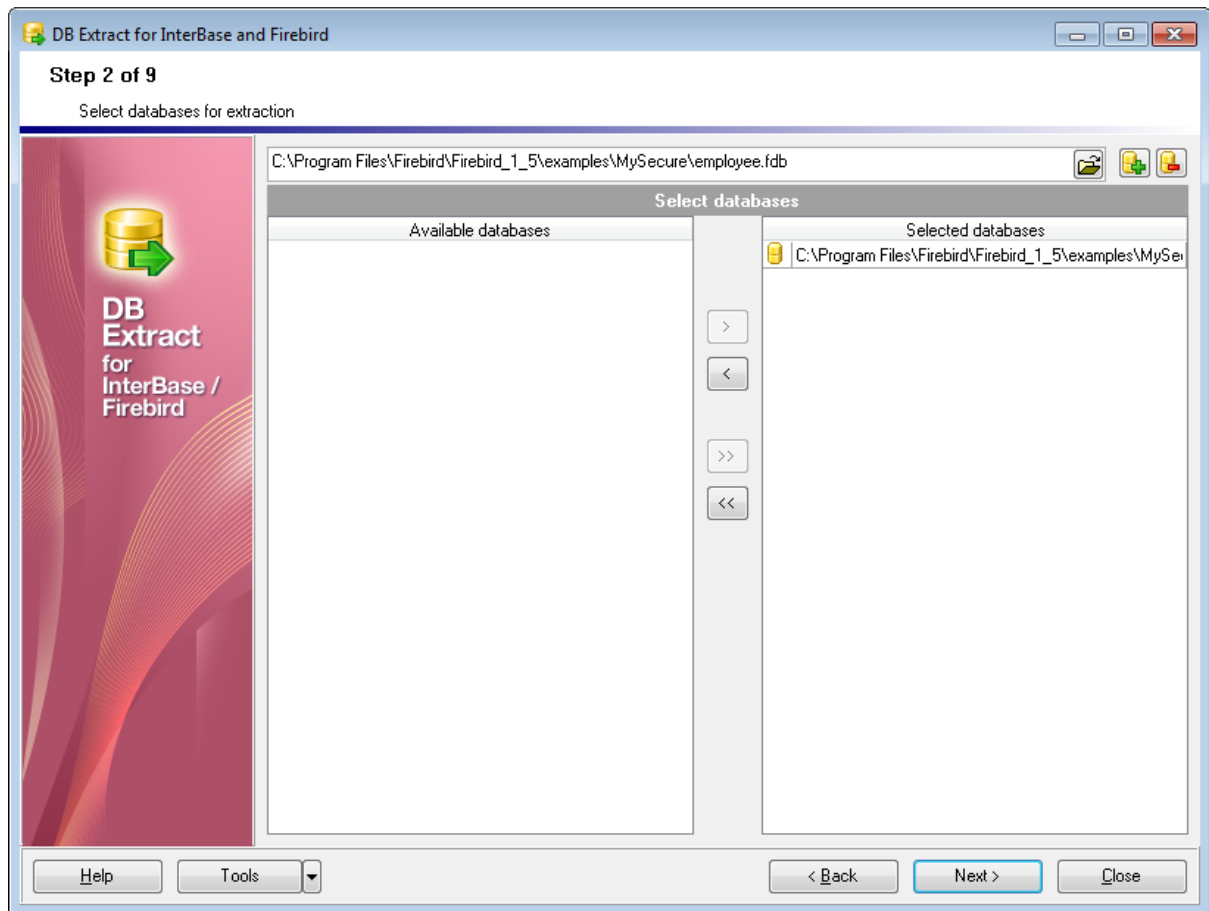
### 2.1.3 Step 2 - Selecting databases

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

First of all you have to add your Interbase/Firebird databases to the **Available Databases** list: type in or specify the path to the database file using the  button, then click the  button to add the database to the list. If you wish to remove a database from the **Available Databases** list, select the database and click the  button.

In the **Available Databases** list you can see the databases you have just specified. To select databases for extraction, move them to the **Selected Databases** list. To cancel a database selection, just remove it from the **Selected Databases** list. Use the     buttons or drag-and-drop operations to move the databases from one list to another.

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



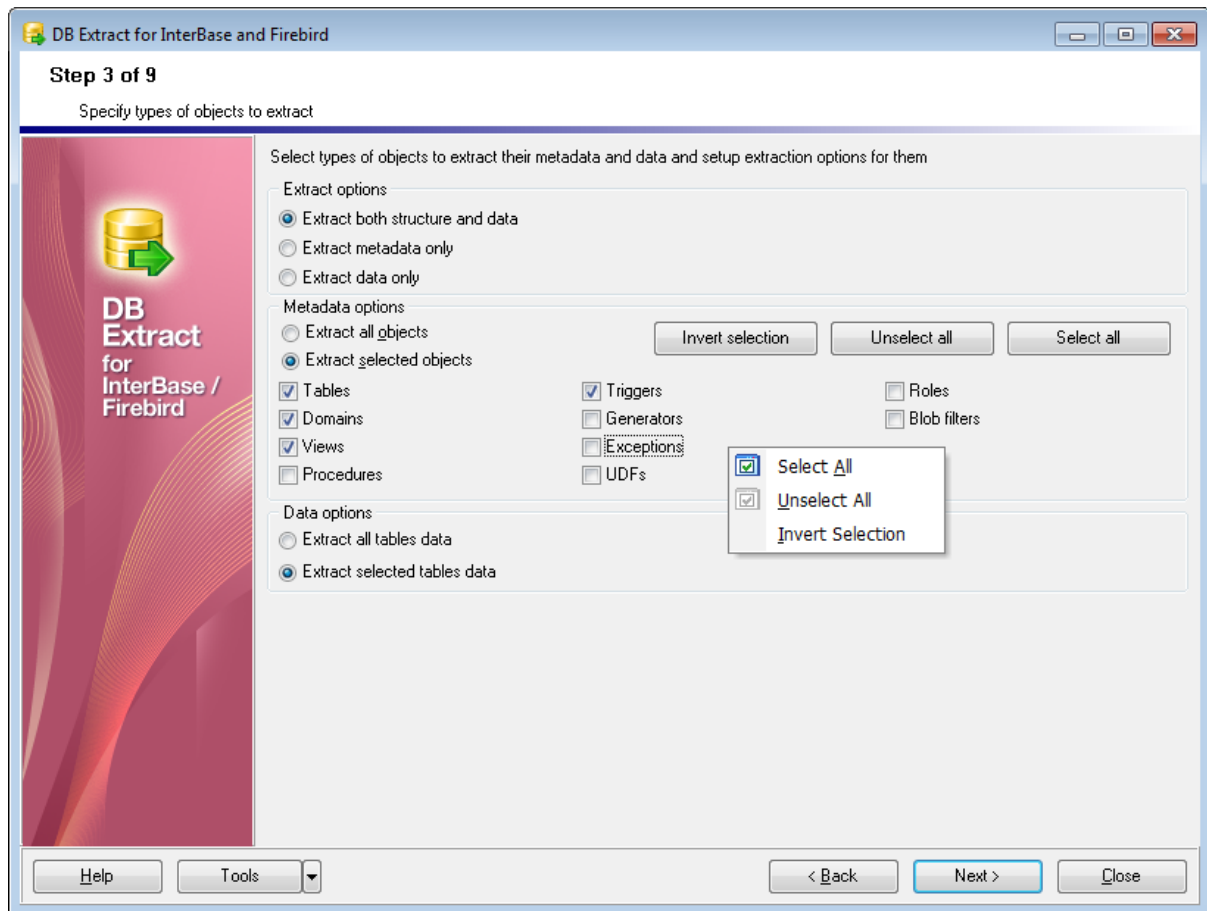
When you are done, press the **Next** button to proceed to the [next step](#)<sup>[30]</sup> of the wizard.

### 2.1.4 Step 3 - Specifying types of objects

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

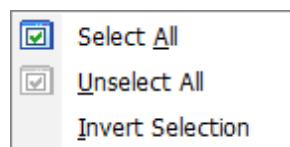
#### Extract options

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



### 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

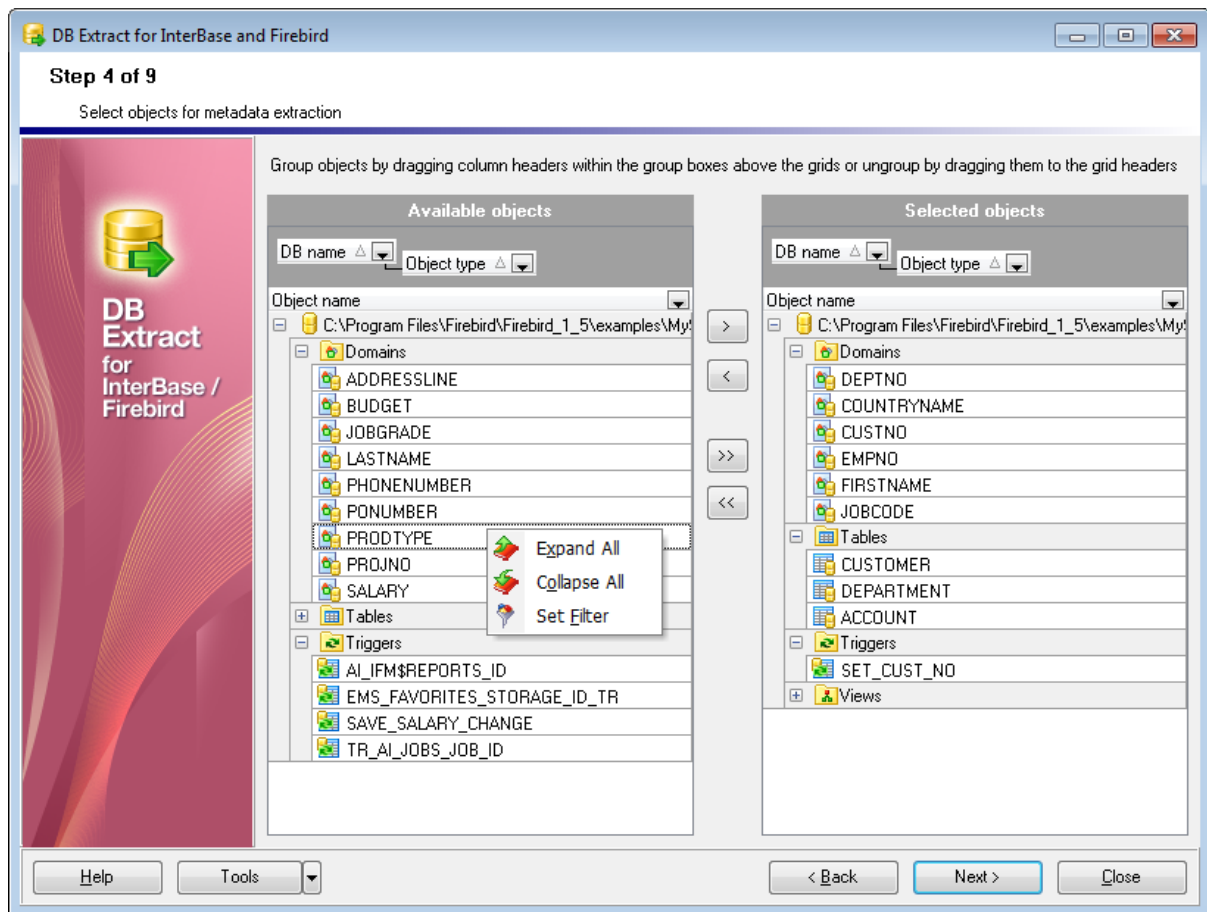
This group of options is only enabled for the  *Extract data only* and the  *Extract both structure and data* previously selected **Extract options**. Here you should specify whether data are to be extracted **from all tables** or **from the selected ones** only.

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

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](#)<sup>[32]</sup>, or you will be immediately forwarded to the [Selecting tables for data extraction](#)<sup>[34]</sup> or the [Setting up extraction options](#)<sup>[36]</sup> wizard steps.

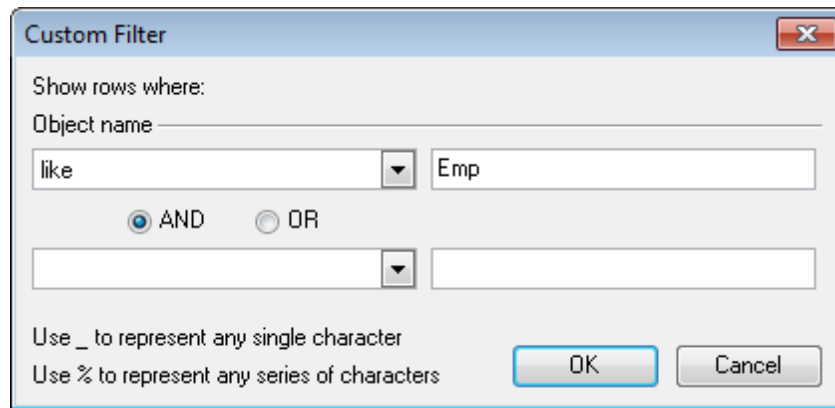
## 2.1.5 Step 4 - Selecting objects for metadata extraction





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](#)<sup>[30]</sup> step. Initially the objects are grouped by database 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.

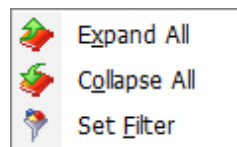




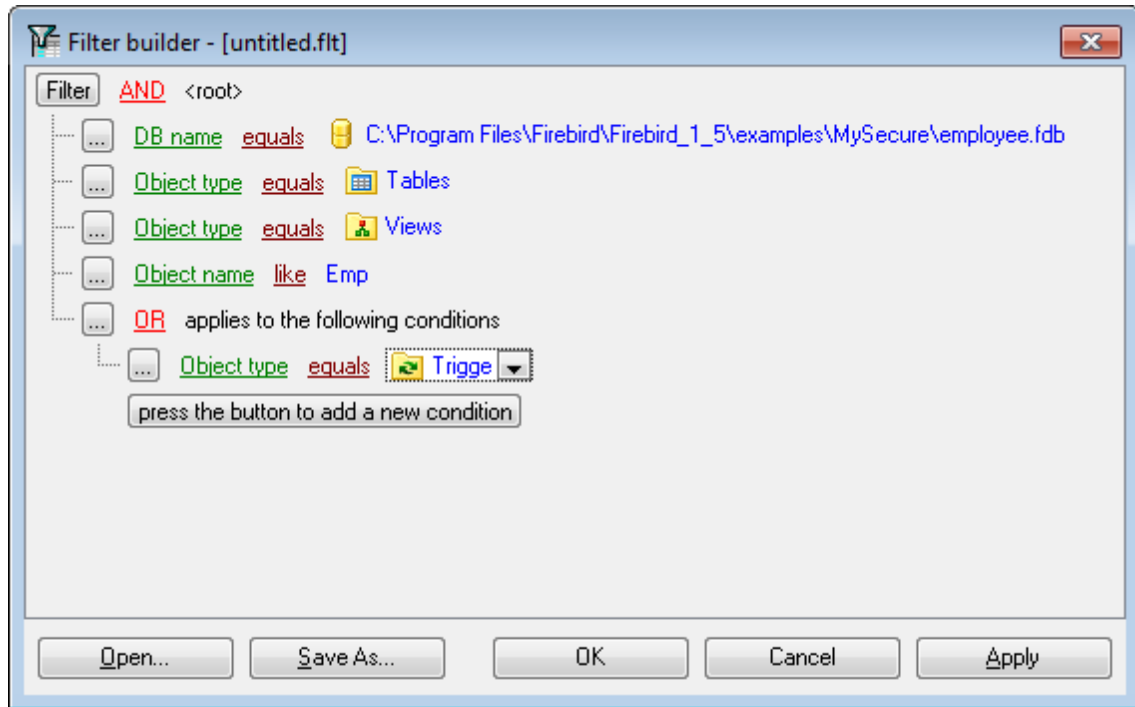
To select objects, move the items from the **Available objects** tree to the **Selected objects** tree. To cancel object selection, just remove it from the **Selected objects** tree. Use the     buttons or drag-and-drop operations to move the objects from one list to another.

**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.

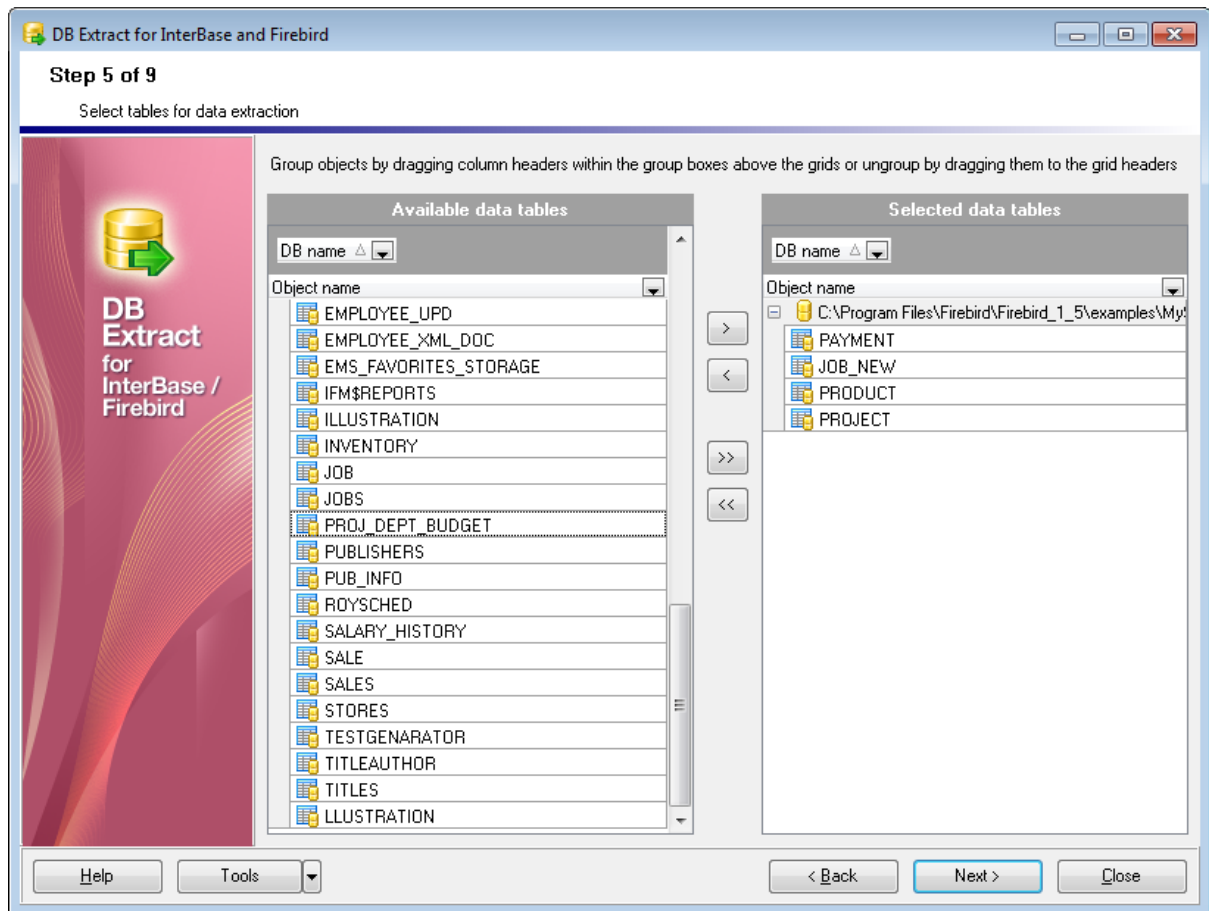


When you are done, press the **Next** button to proceed to the next step of the wizard.

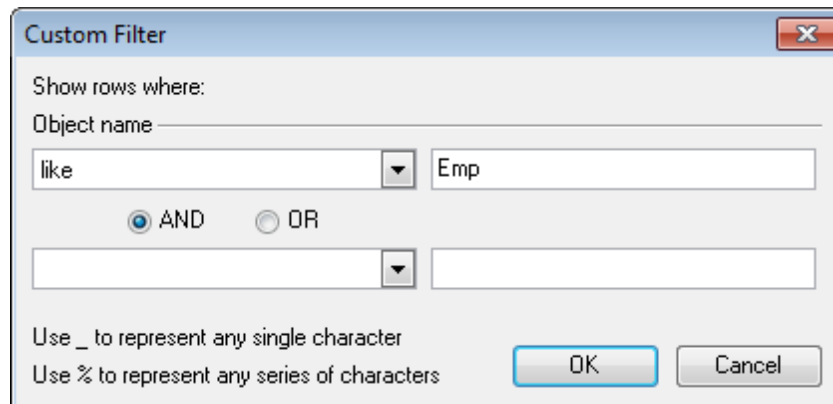
Depending on whether you have specified *Extract all data tables* in the **Data Options** group at the [Specifying object types](#)<sup>[30]</sup> step, you will either proceed to the [next step of the wizard](#)<sup>[34]</sup>, or you will be immediately forwarded to the [Setting up extraction options](#)<sup>[36]</sup> wizard step.

### 2.1.6 Step 5 - Selecting tables for data extraction


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



In the **Available data tables** tree you can see the tables belonging to the databases specified at the [Selecting objects for metadata extraction](#)<sup>[32]</sup> step. Initially the tables are grouped by DB names. You can change grouping by dragging column headers to the grey group boxes above the grids or ungroup them by dragging to the grid headers. Additionally, you can use the **Custom Filter** dialog allowing you to set conditions for filtering data tables in the trees.

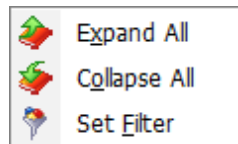


To select tables, move the items from the **Available data tables** tree to the **Selected**

**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](#)<sup>36</sup> of the wizard.

## 2.1.7 Step 6 - Setting up extraction options

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

### Metadata options

**Generate "CREATE DATABASE" statements**

Check this option to add the *CREATE DATABASE* statement(s) to the extraction script.

**Generate "DROP" statements**

Check the option to add the DROP statements for the extracted objects.

**Generate "CONNECT DATABASE" statement**

Check this option to add the *CONNECT DATABASE* statement to the result script.

**Password in "CREATE" and "CONNECT" statements**

Enable the option to include password in these statements to the result script.

**Set generators**

Enable the option to add the statement that sets current generator values.k

Check the appropriate options to  **Include object descriptions** or **trigger messages** to the result script.

**Extract privileges**

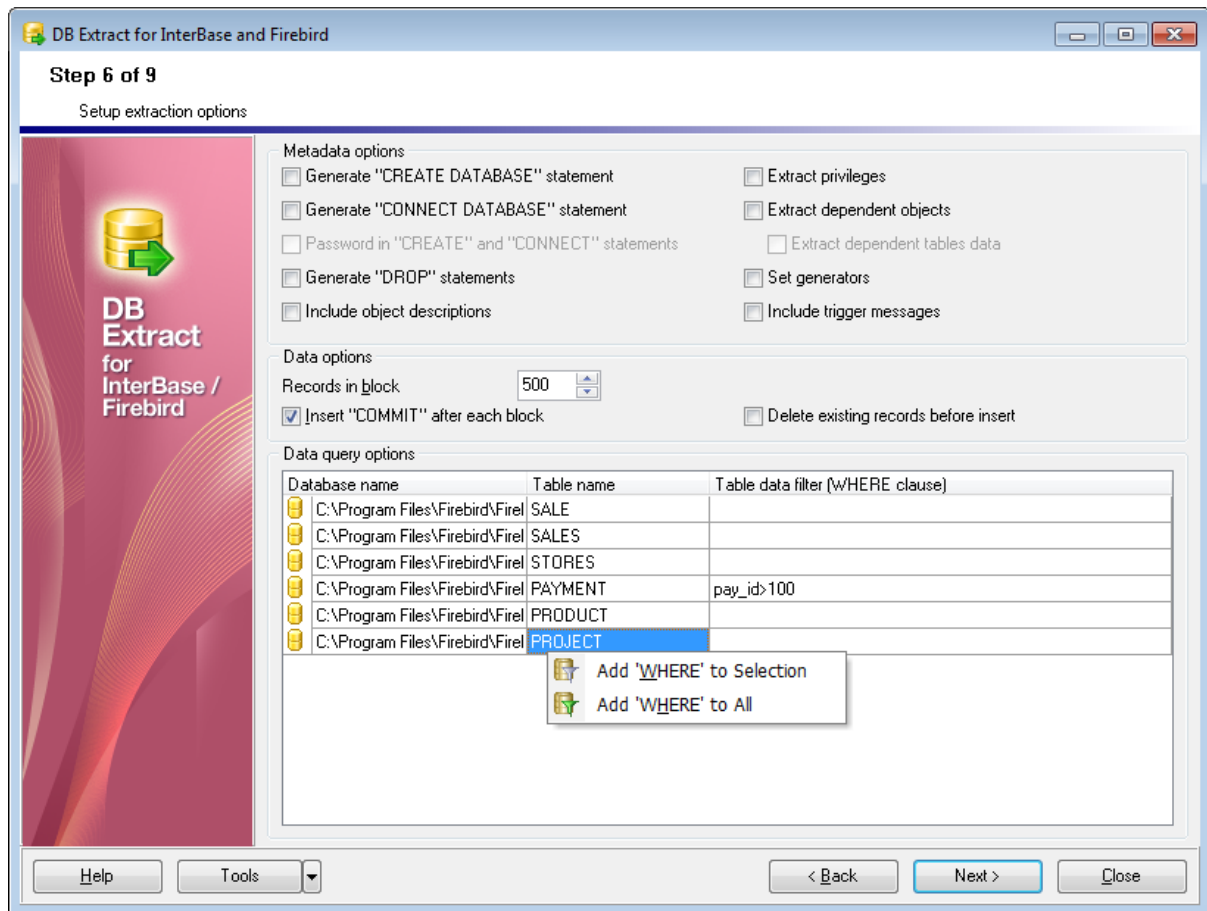
Tick off the option if you want the privileges (permissions on the objects) to be extracted.

**Extract dependent objects**

This option determines the usage of dependencies between objects in the extraction process.

**Extract dependent tables data**

Enable this option to extract the data of the dependent tables to the result script.



## 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 define 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.

### Database name

This column represents the list of the databases containing the tables selected for data extraction.

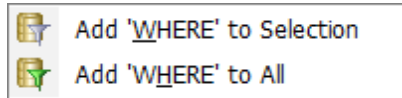
### Table name

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 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](#)<sup>[39]</sup> of the wizard.

## 2.1.8 Step 7 - Specifying file names and directories

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

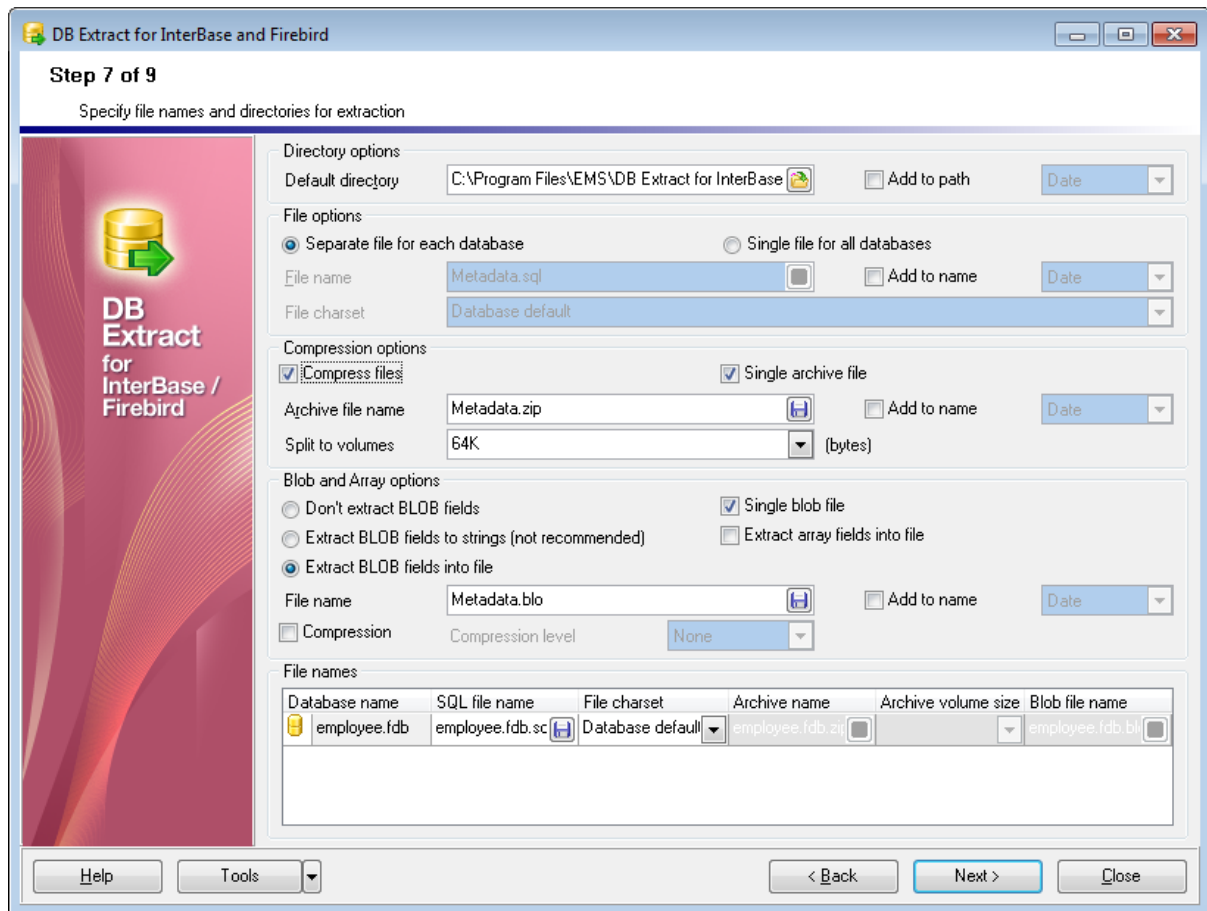
### Directory options

#### 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 path


Check this option to add current date, time or datetime (can be specified at the corresponding drop-down list) to the folder name.



## File options

This group of options allows you to specify whether the source databases are to be placed into a single SQL script file or divided into several files of smaller size, each for a separate extracted database. This option is only available if objects from several databases have been specified for extraction.

### 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 current date, time or datetime (can be specified at the corresponding drop-down list) to the filename.

## Compression options

### Compress files


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



**Single archive file**

Check this option to indicate whether the result SQL script is to be placed into a single ZIP archive file or divided into several archive files of smaller size, each for a separate extracted database. This option is only available if objects from several databases have been specified for extraction.

**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**

Check this option to add current date, time or datetime (can be specified at the corresponding drop-down list) to the archive filename.

**Split to volumes**

If compression in a single archive is enabled you can split the archive to volumes of defined size. The size of an archive volume is in bytes by default, kilobyte if the value is followed by 'K' and megabyte if the value is followed by 'M'.

**BLOB and Array 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 are 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.

 **Extract array fields into file**

Here you can determine whether the ARRAY fields are to be extracted into a file or not extracted at all.

**File names**

This grid allows you to view the summary of the result \*.sql and \*.zip files selection.

**Database name**

This column represents the databases corresponding to the specified \*.sql (\*.zip) files (if

the  **Separate file for each database** option has been selected).

**SQL file name**

This column represents the list of \*.sql files, each for a separate extracted database.

**Archive name**

This column represents the list of \*.zip archive files, each for a separate extracted database.

When you are done, press the **Next** button to proceed to the [next step](#)<sup>[42]</sup> of the wizard.

## 2.1.9 Step 8 - Scheduling options

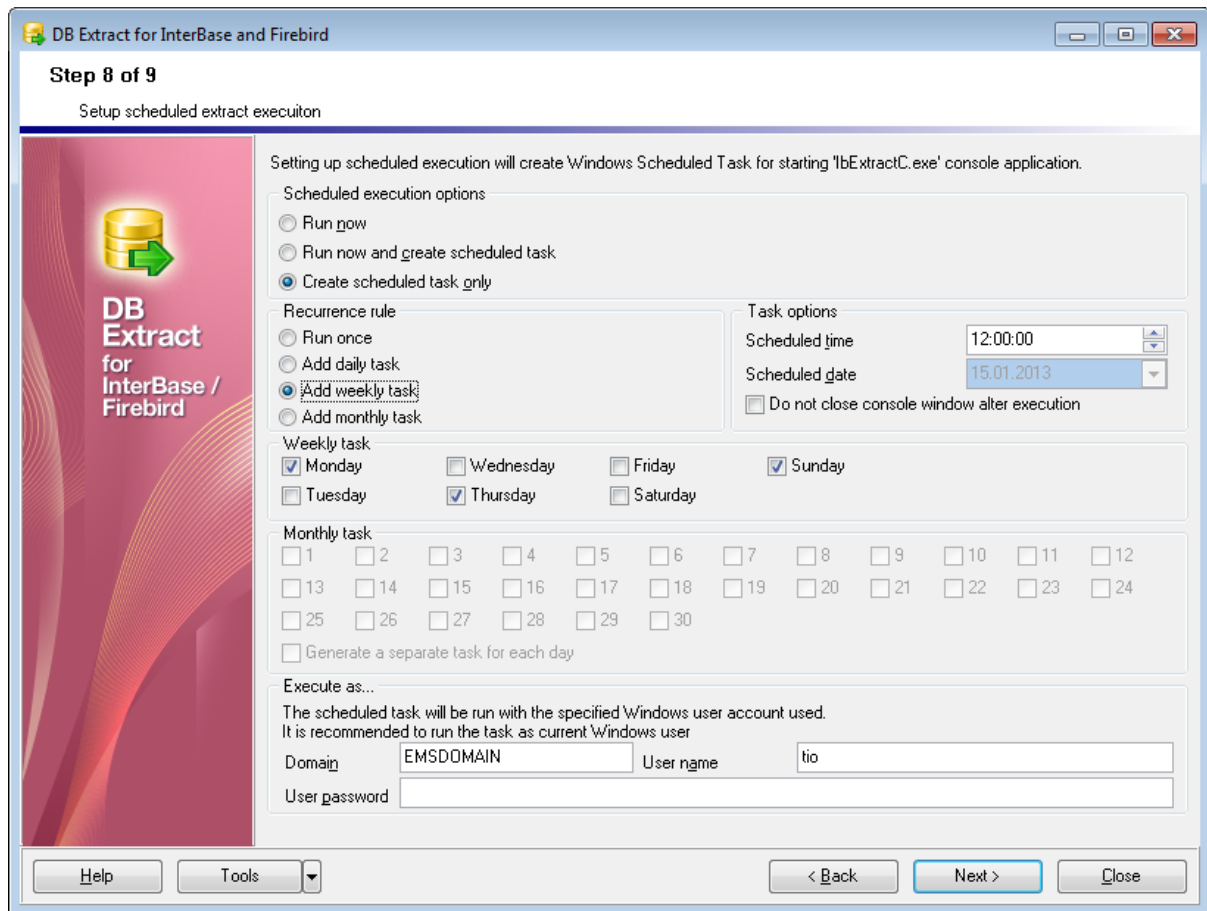
At this step you can setup scheduled execution of the extraction task with DB Extract command-line service used.

**Scheduled execution options**

Choose here 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.



## 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

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](#)<sup>[44]</sup> of the wizard.

### 2.1.10 Step 9 - 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**

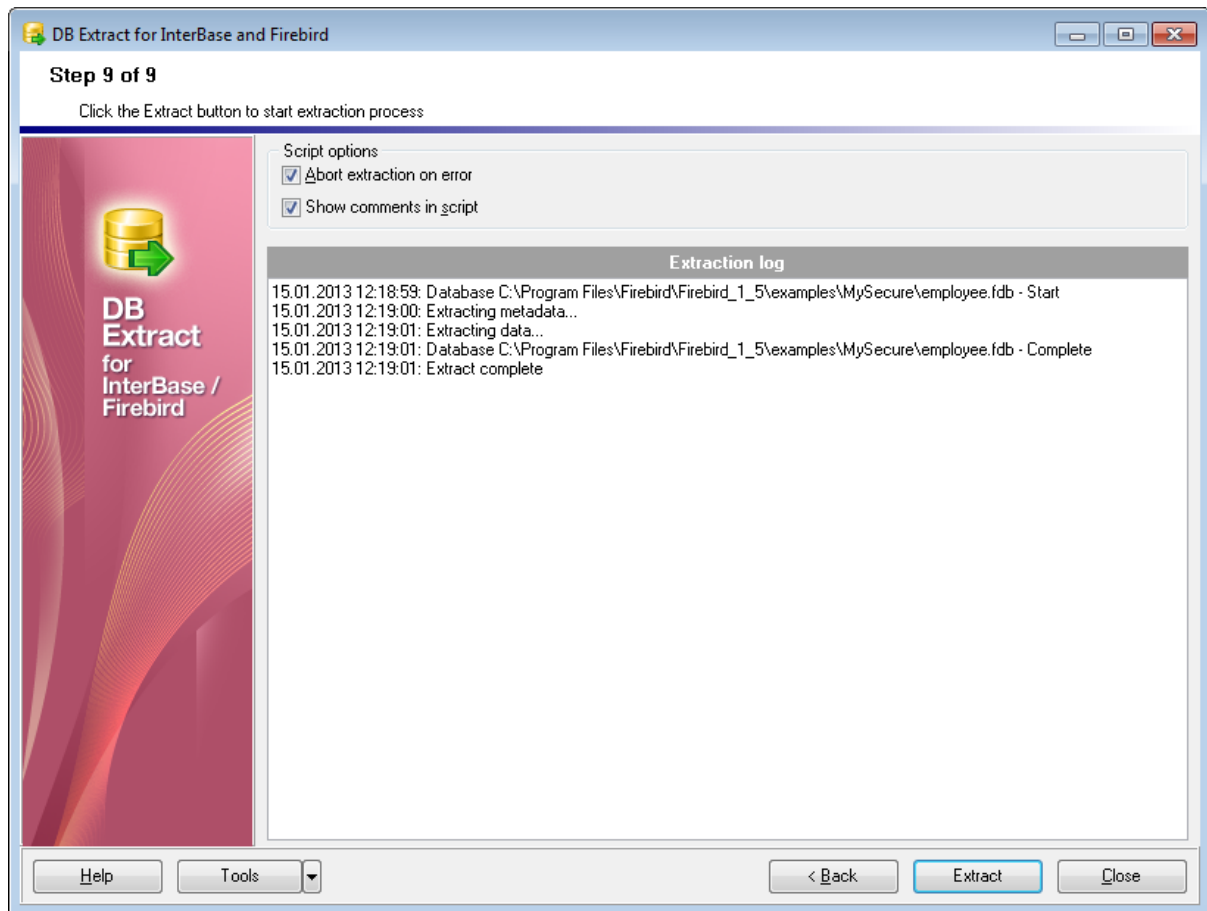
**Abort extraction on error**

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

**Show comments in script**

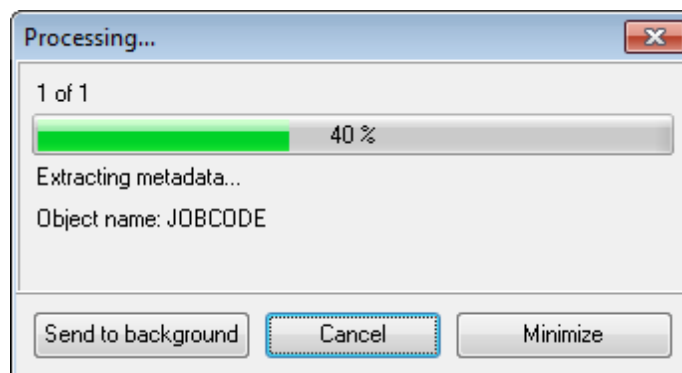
Set this option to allow adding comments on the extraction process to the result SQL script.

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.



Please do not forget to [save the extraction options](#)<sup>[47]</sup> 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.



**See also:**[Using configuration files](#)  <sup>47</sup>[Setting program preferences](#)  <sup>49</sup>

## 2.2 Using configuration files

DB Extract for Interbase/Firebird 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](#)<sup>[56]</sup> for quicker extraction.

- [Saving configuration file](#)<sup>[47]</sup>
- [Loading configuration file](#)<sup>[48]</sup>

---

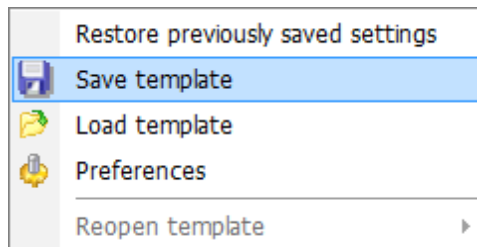
### See also:

[Using wizard application](#)<sup>[25]</sup>

[Setting program preferences](#)<sup>[49]</sup>


### 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 7](#)<sup>[39]</sup> and the succeeding steps of the wizard.



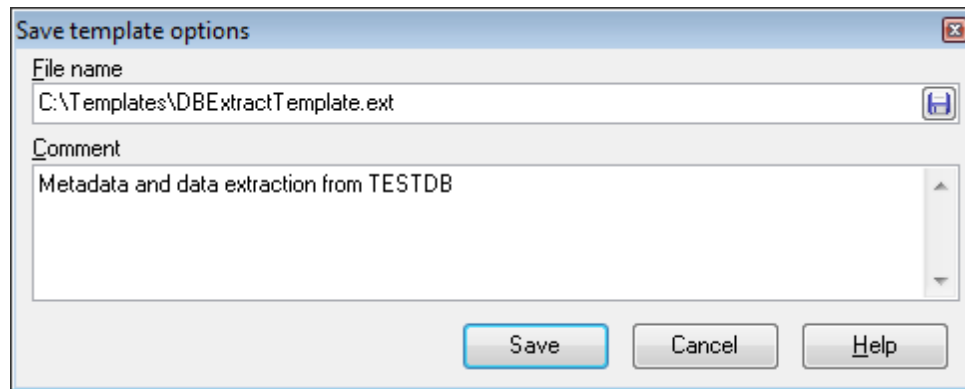
**Save template** options:

#### 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.



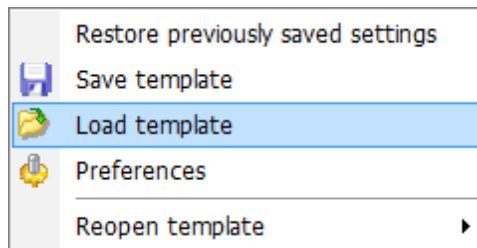
---

**See also:**

[Loading configuration file](#)<sup>[48]</sup>

## 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](#)<sup>[47]</sup>



## 2.3 Setting program preferences

DB Extract for Interbase/Firebird 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](#)<sup>[49]</sup>

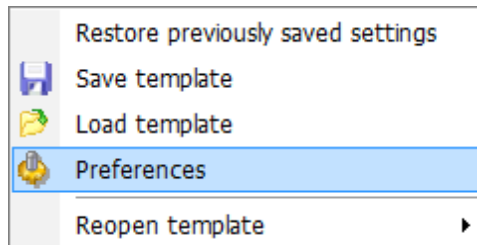
These options define general behavior of DB Extract for Interbase/Firebird

### [Localization](#)<sup>[50]</sup>

This page allows you to select a language to be applied for your copy of DB Extract for Interbase/Firebird.

### [Interface](#)<sup>[52]</sup>

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](#)<sup>[25]</sup>

[Using configuration files](#)<sup>[47]</sup>

### 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 (including the SSH server password)

#### **Confirm exit**

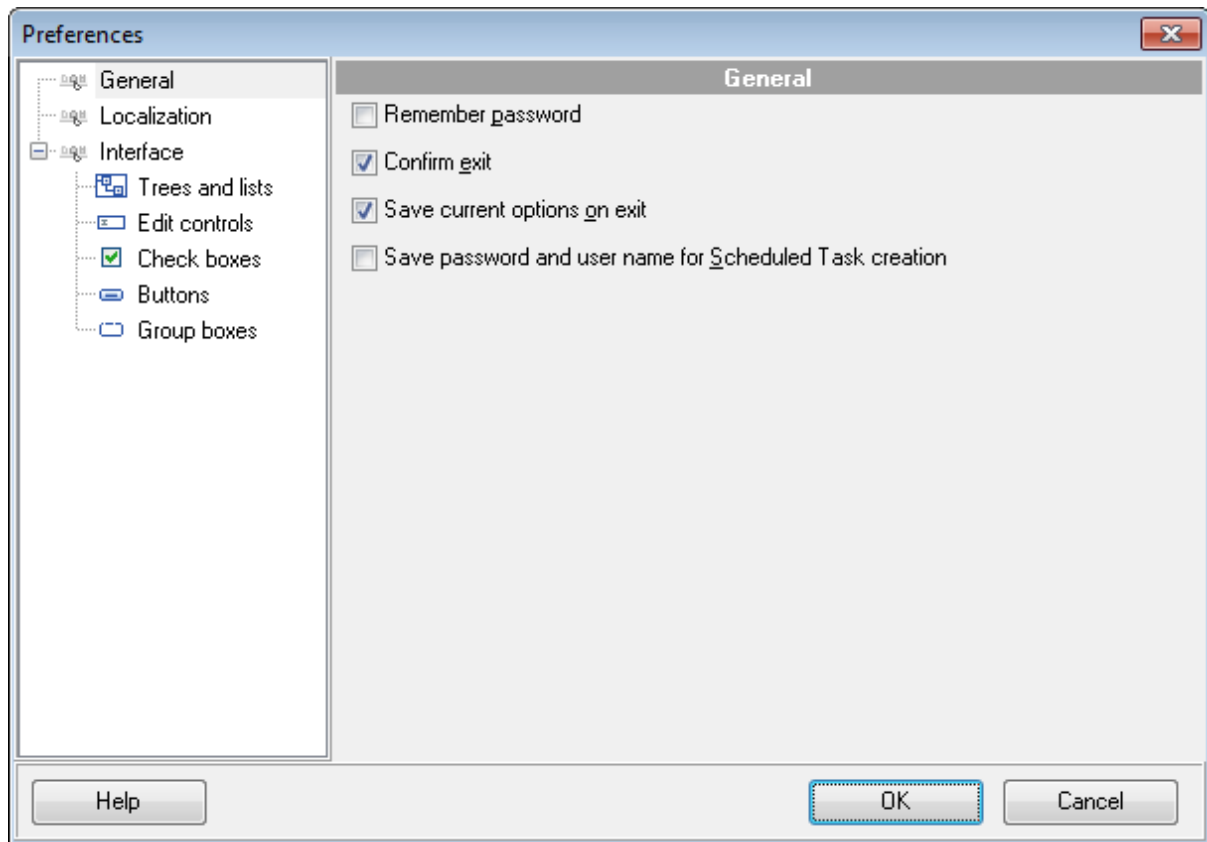
Enables/disables confirmation upon exiting the program.

#### **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.



**See also:**

[Setting program language](#)

[50]

[Defining interface style](#) [52]

### 2.3.2 Setting program language

The **Localization** page is provided for DB Extract for Interbase/Firebird 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

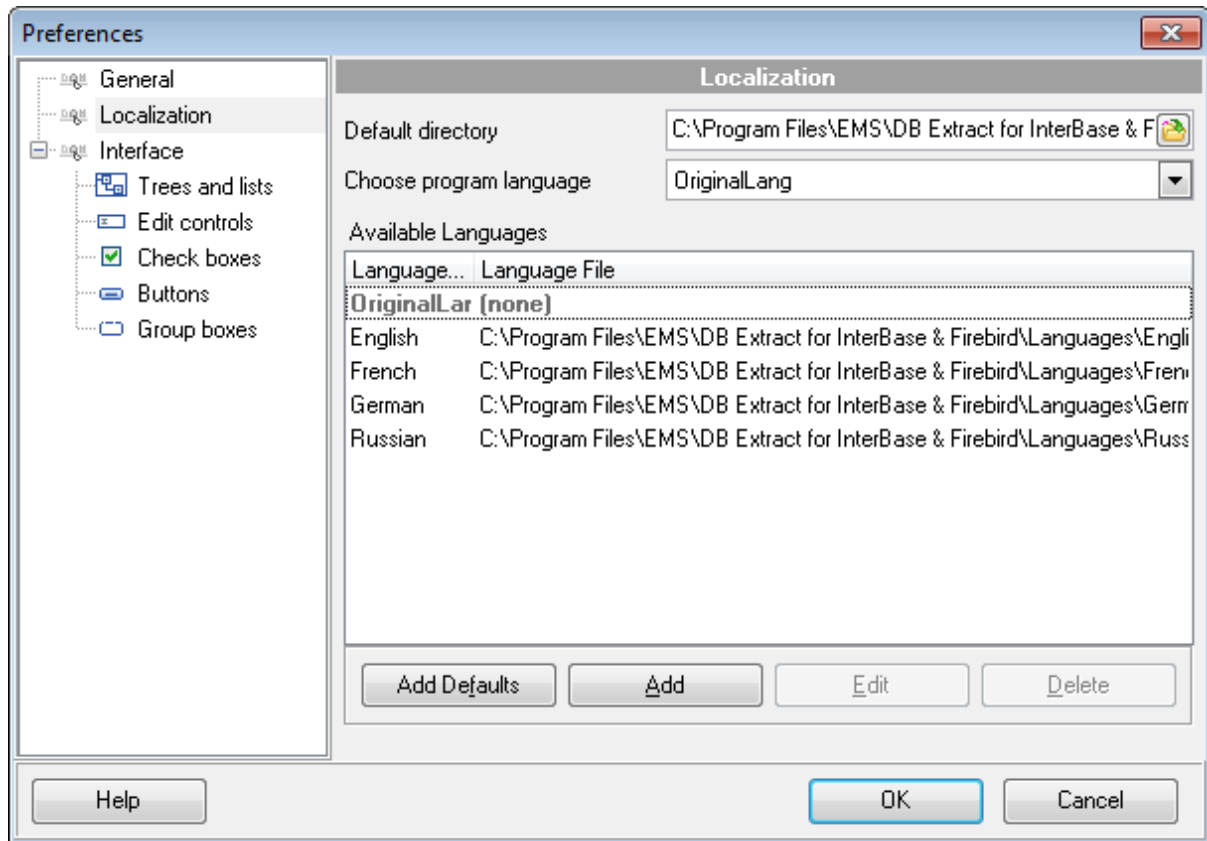
Use the  button to specify the directory where the \*.lng files are stored by default.

#### 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

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

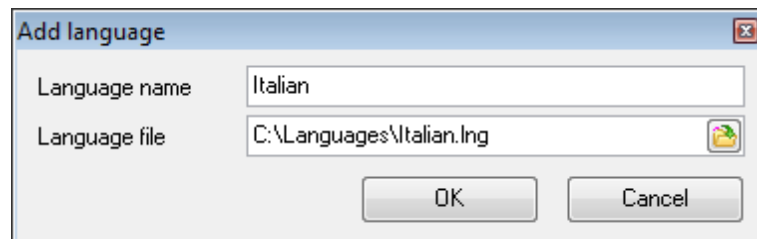


### Add defaults

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

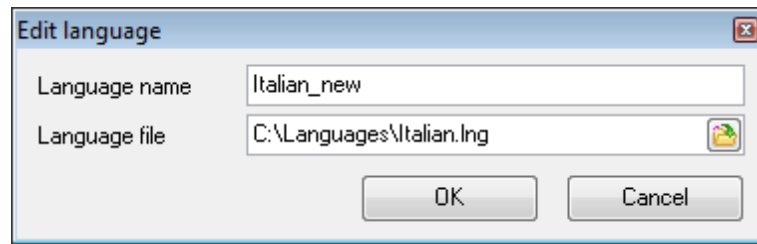
### Add

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.

**Delete**

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

---

**See also:**

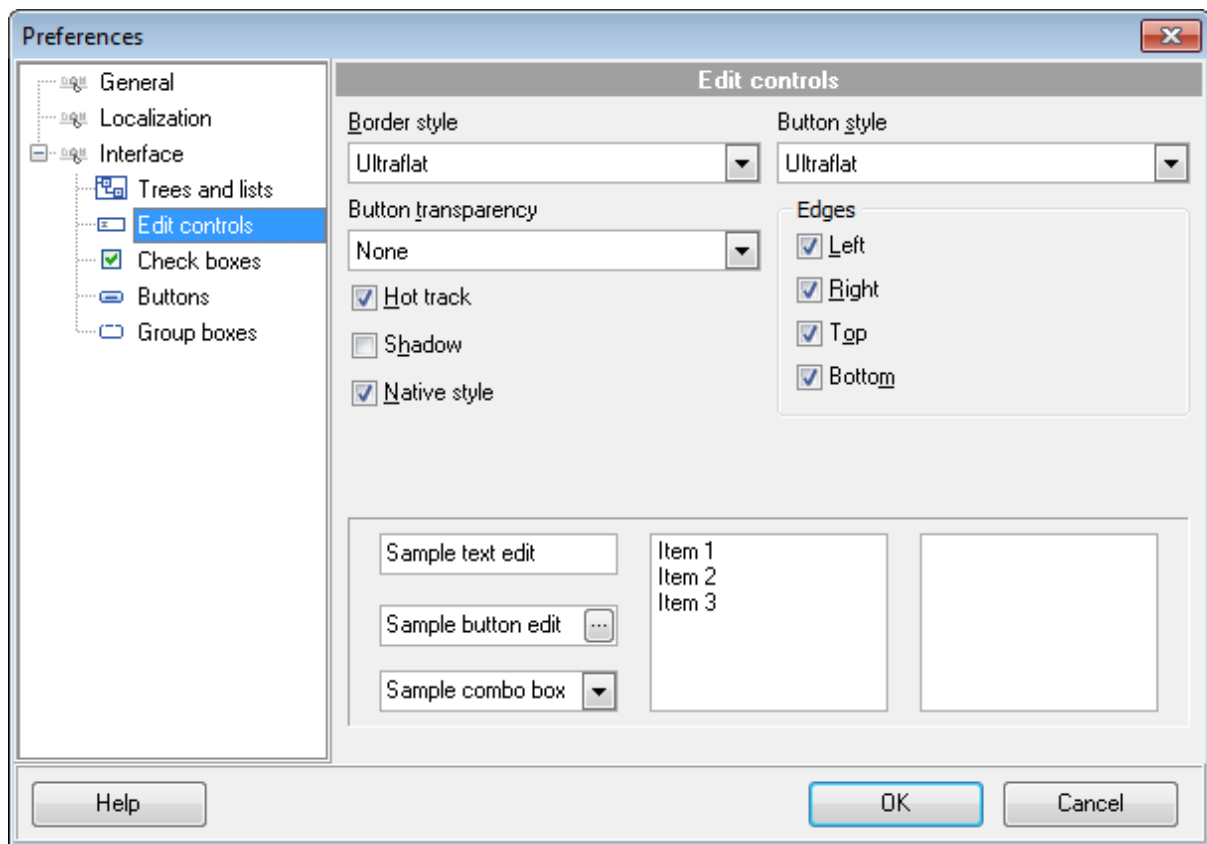
[Setting general options](#)<sup>[49]</sup>

[Defining interface style](#)<sup>[52]</sup>

### 2.3.3 Defining interface style

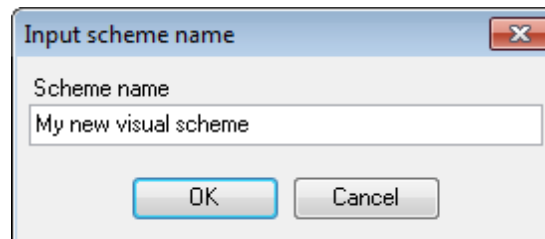
This page allows you to customize the application interface style according to your liking.

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.



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:**

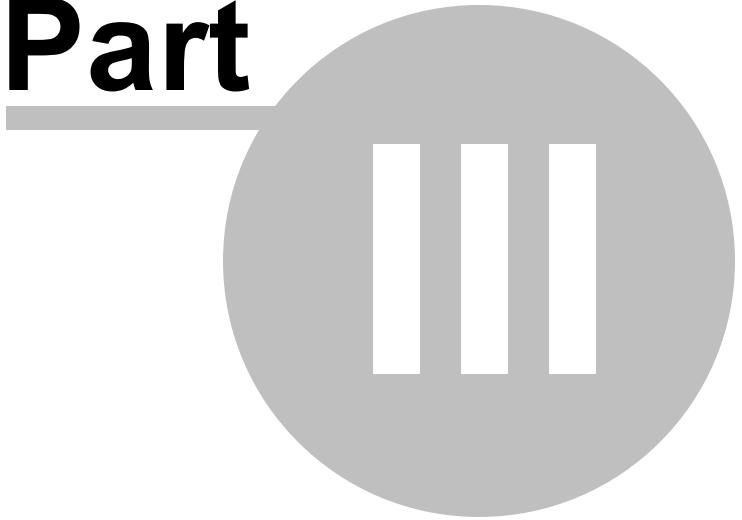
[Setting general options](#) <sup>[49]</sup>

[Setting program language](#)

[50]



**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 Interbase/Firebird includes **the console version** which is intended for being run from Windows command line with a template file name used as the execution parameter.

```
C:\Program Files\EMS\IB Extract>IbExtractC.exe_
```

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

- [Using console application](#)<sup>[57]</sup>
- [Configuration file format](#)<sup>[58]</sup>

---

**See also:**

[Wizard application](#)<sup>[24]</sup>



## 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 Interbase/Firebird

To create a template file, follow the instructions below:

- start DB Extract for Interbase/Firebird [Wizard application](#)<sup>[24]</sup>;
- 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](#)<sup>[47]</sup>.

The easiest way to start DB Extract for Interbase/Firebird 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 Interbase/Firebird console application>\IbExtractC.exe  
TemplateFile [-L] [-B]
```

### TemplateFile

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

### [-L]

Selects current [localization](#)<sup>[50]</sup> set in [Wizard application](#)<sup>[24]</sup> (GUI)

### [-B]

Use this parameter in the command line to run the console version of DB Extract for Interbase/Firebird in background mode

Example:

```
"C:\Program Files\EMS\IB Extract\IbExtractC.exe" "C:\Program Files\EMS\IB  
Extract\DBExtract1.ext" -L
```

**Note:** The following exit codes can be returned by DB Extract for Interbase/Firebird 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](#)<sup>[25]</sup>

[Configuration file format](#)<sup>[58]</sup>

## 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](#)<sup>[24]</sup>.

- [General and Connection sections](#)<sup>[58]</sup>
- [Common options section](#)<sup>[59]</sup>
- [Extract options section](#)<sup>[60]</sup>
- [File options section](#)<sup>[62]</sup>
- [Scheduled task sections](#)<sup>[63]</sup>
- [Data query sections](#)<sup>[64]</sup>
- [Databases section](#)<sup>[65]</sup>

---

### See also:

[Using console application](#)<sup>[57]</sup>

### 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](#)<sup>[26]</sup> of [Wizard application](#)<sup>[25]</sup>.

The configuration parameters are listed below.

The section contains database connection parameters: **Host**, **Port**, **Client Library**, **DBFile**, **Login** and **Password**. These parameters are obligatory.

#### Remote

0 = local connection

1 = remote connection

**SSHHostName**, **SSHPort**, **SSHUserName**, **SSHPassword** values correspond to the settings for connection via SSH Tunnel (if used)

#### SSHKeyFile

The path to the Private Key used for the SSH connection (if **SSHUseKeyFile** = True)

#### PassPhrase

This parameter has a value only if a SSH Private Key is used for the SSH connection

#### TunnelType

Indicates whether SSH tunneling is being used for connection or not (**TunnelType** = ttNotUse)

#### CharSet

Stores the client character set specified for the connection

**See also:**[Common Options section](#)<sup>[59]</sup>[Extract Options section](#)<sup>[60]</sup>[File Options section](#)<sup>[62]</sup>[Scheduled Task sections](#)<sup>[63]</sup>[Data Query sections](#)<sup>[64]</sup>[Databases section](#)<sup>[65]</sup>

### 3.2.2 Common Options section

Section **[#Options#]** represents the options corresponding to those specified on [Step 3](#)<sup>[30]</sup> of [Wizard application](#)<sup>[25]</sup>.

The configuration parameters are listed below.

**ExtractOptionsIndex**

0 = Extract both structure and data

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](#)<sup>[30]</sup>: Tables, Domains, Views, Procedures, Triggers, Generators, Exceptions, UDFs, Roles, BLOB filters

**ExtractAllData**

0 = Extract selected data tables

1 = Extract all data tables

The following two options correspond to the [last step](#)<sup>[44]</sup> of the [GUI application](#)<sup>[25]</sup>.

**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](#)<sup>[58]</sup>

[Extract Options section](#)<sup>[60]</sup>

[File Options section](#)<sup>[62]</sup>

[Scheduled Task sections](#)<sup>[63]</sup>

[Data Query sections](#)<sup>[64]</sup>

[Databases section](#)<sup>[65]</sup>

### 3.2.3 Extract Options section

Section **[#ExtractOptions#]** stores values set on [Step 6](#)<sup>[36]</sup> of [Wizard application](#)<sup>[25]</sup>.

The configuration parameters are listed below.

#### **CreateDatabaseStmt**

0 = Do not add CREATE DATABASE statement to the extraction script.

1 = Add CREATE DATABASE statement to the extraction script.

#### **DropTableStmt**

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

#### **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

#### **IncludeObjectDescriptions**

0 = Do not include object description to the result script

1 = Include object description to the result script

#### **IncludeTriggerMessages**

0 = Do not include trigger messages into the result script

1 = Include trigger messages into the result script

**IncludePassword**

0 = Do not include password into "CONNECT" and "CREATE DATABASE" statements in the result script

1 = Include password into "CONNECT" and "CREATE DATABASE" statements in the result script

**SetGenerators**

0 = Add the statement that sets current generator values

1 = Do not add the statement that sets current generator values

**BlobExtractType**

0 = Do not extract BLOB fields

1 = Extract BLOB fields to strings

2 = Extract BLOB fields into file

**BlobSingleFile**

0 = BLOB fields will be extracted into a number of files

1 = BLOB fields will be extracted into a single file

**BlobCompressionLevel**

0 = None

1 = Fastest

2 = Normal

3 = Best

**AddDateTimeToBlob**

0 = Do not add the current date and time to BLOB filename(s)

1 = Add the current date and time to BLOB filename(s)

**AddDateTimeTypeBlob**

0 = Date will be added to BLOB filename(s)

1 = Time will be added to BLOB filename(s)

2 = Datetime will be added to BLOB filename(s)

**ArrayExtractType**

0 = Do not extract array fields

1 = Extract array fields into a file

---

**See also:**

[General and Connection sections](#)<sup>[58]</sup>

[Common Options section](#)<sup>[59]</sup>

[File Options section](#)<sup>[62]</sup>

[Scheduled Task sections](#)<sup>[63]</sup>

[Data Query sections](#)<sup>[64]</sup>

[Databases section](#)<sup>[65]</sup>

### 3.2.4 File Options section

Section [#FileOptions#] stores values set on [Step 7](#)<sup>[39]</sup> of [Wizard application](#)<sup>[25]</sup>.

The configuration parameters are listed below.

#### **SingleFile**

0 = Create a separate file for each of the databases (see [Databases section](#)<sup>[65]</sup>)

1 = All metadata and data are extracted into one file

#### **SingleFileName**

Stores the file name (if **SingleFile** = 1)

#### **AddDateTimeToFile**

0 = Do not add the current date and time to the file name(s)

1 = Add the current date and time to the file name(s)

#### **AddDateTimeToFile**

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

#### **SingleArchiveFile**

0 = Create separate archive file for each of the databases (see [Databases section](#)<sup>[65]</sup>)

1 = Compress all the script files into a single archive file

#### **SingleArchiveFileName**

File name (if **SingleArchiveFile** = 1)

#### **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(s)

1 = Add the current date and time to the archive name(s)

#### **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

**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](#)<sup>[58]</sup>

[Common Options section](#)<sup>[59]</sup>

[Extract Options section](#)<sup>[60]</sup>

[Scheduled Task sections](#)<sup>[63]</sup>

[Data Query sections](#)<sup>[64]</sup>

[Databases section](#)<sup>[65]</sup>

### 3.2.5 Scheduled Task sections

Section **[#ScheduledTask#]** stores values set on [Step 8](#)<sup>[42]</sup> of [Wizard application](#)<sup>[25]</sup>.

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

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](#)<sup>[58]</sup>

[Common Options section](#)<sup>[59]</sup>

[Extract Options section](#)<sup>[60]</sup>

[File Options section](#)<sup>[62]</sup>

[Data Query sections](#)<sup>[64]</sup>

[Databases section](#)<sup>[65]</sup>

### 3.2.6 Data Query sections

The following two sections of the template store data query options set on [Step 6](#)<sup>[36]</sup> of [Wizard application](#)<sup>[25]</sup>.

The configuration parameters are listed below.

**[#Limits#]**

Stores parameters in the following format: <database name>.<table name> = <records



limit>

### **[#WhereClauses#]**

Stores parameters in the following format: <database name>.<table name> = <WHERE clause>

---

#### **See also:**

[General and Connection sections](#)<sup>[58]</sup>

[Common Options section](#)<sup>[59]</sup>

[Extract Options section](#)<sup>[60]</sup>

[File Options section](#)<sup>[62]</sup>

[Scheduled Task sections](#)<sup>[63]</sup>

[Databases section](#)<sup>[65]</sup>

## **3.2.7 Databases 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 (if **SingleFile** = 0, see [File Options section](#)<sup>[62]</sup>)

### **ArchiveFileName**

The name of the result \*.zip archive file (if **SingleArchiveFile** = 0, see [File Options section](#)<sup>[62]</sup>)

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 = TESTDB.Account*)

The list of objects that are included into the databases section is taken from the **ExtractMetadataFrom** parameter value (see [Common Options section](#)<sup>[59]</sup> and [Step 3](#)<sup>[30]</sup> 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)

**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 = TESTDB.Address*)

---

**See also:**

[General and Connection sections](#)<sup>[58]</sup>

[Common Options section](#)<sup>[59]</sup>

[Extract Options section](#)<sup>[60]</sup>

[File Options section](#)<sup>[62]</sup>

[Scheduled Task sections](#)<sup>[63]</sup>

[Data Query sections](#)<sup>[64]</sup>

**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 Interbase/Firebird server)
- **SSH password** is the Linux/Windows user password

Please note that Interbase/Firebird **host name** should be set relatively to the SSH server in this case. For example, if both Interbase/Firebird 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

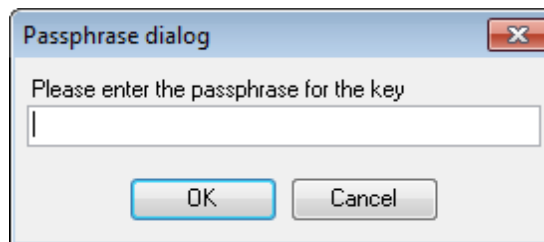
Specify the location (the secure box) of the **Private key** file on your local machine. Supported Private Key file formats are:

*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.



# Credits

**Software Developers:**

*Alex Karpovich*

*Dmitry Schastlivtsev*

*Alexey Butalov*

*Alexander Zhiltsov*

**Technical Writers:**

*Semyon Slobodenyuk*

*Dmitry Doni*

*Olga Ryabova*

**Cover Designer:**

*Tatyana Makurova*

**Translators:**

*Anna Shulkina*

*Serge Fominikh*

**Team Coordinators:**

*Dmitry Schastlivtsev*

*Alexander Chelyadin*

*Roman Tkachenko*