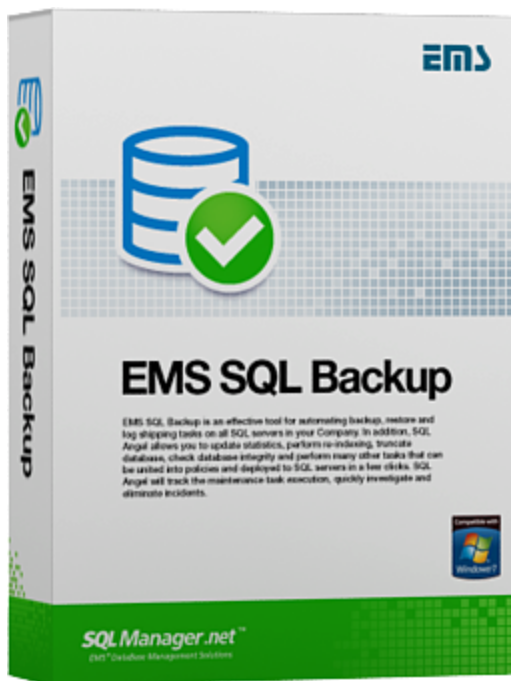


# SQL Manager.net™

EMS® Software Development



## EMS SQL Backup User's Manual

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# **EMS SQL Backup User's Manual**

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**Part**



# 1 Welcome to EMS SQL Backup!

**EMS SQL Backup** is an easy-to-use and powerful tool to perform backup and restore SQL Server databases that includes hot deployment mechanism and monitoring tasks progress.

Visit our web-site for details: <http://www.sqlmanager.net/>

## Features

- Compressing backup files (on any SQL Server version)
- Reducing backup time up to 4 times (on any SQL Server version)
- Backup encryption (on any SQL Server version)
- Support of Cloud Storages: FTP (SSL), SFTP (SSH), Windows network folders (CIFS), Dropbox
- Easy-to use wizard organizing the log shipping process
- Backup of files and filegroups
- Bulk Restore: emergency restore of multiple databases
- Ability to perform 11 types of maintenance tasks including backup, re-indexing, updating statistics, etc.
- Policy engine to quickly deploy maintenance tasks to multiple servers and to monitor their execution results
- Centralized monitoring of policies on multiple servers using the user-friendly GUI console
- Multi-threaded execution of backup operation to achieve maximum performance
- Support of SQL Server Failover Cluster
- Working with Enterprise and BI versions of SQL Server (PRO version only)

## 1.1 What's new

**Version****EMS SQL Backup 3.1****Release date**

January 12, 2022

**What's new in EMS SQL Backup?**

1. Added support for short-lived access tokens for Dropbox.
2. Support for converting MSSQL Server 2019 maintenance plans added.
3. Support for Windows 11 implemented.
4. The error of retrieving authorization token for Google Drive fixed.
5. The error occurred on creating a policy without DB selection. Fixed now.
6. Windows XP and Windows 7 support discontinued. Minimum requirements - Windows 7 SP1 with .NET Framework 4.8.

---

**See also:**[Version history](#)

## 1.2 System requirements

### **EMS SQL Backup Service**

- Microsoft® Windows 7 SP1, Microsoft® Windows 8, Microsoft® Windows 2012 Server, Microsoft® Windows 10, Microsoft® Windows 2016 Server;
- SQL Server 2000, SQL Server 2005, SQL Server 2008, SQL Server 2012, SQL Server 2014, SQL Server 2016, SQL Server 2017, SQL Server 2019, Windows 11;
- .Net Framework 4.8;
- 1024 MB RAM or more;
- 70MB of available HD space for program installation.

### **EMS SQL Backup Administration Console**

- Microsoft® Windows 7 SP1, Microsoft® Windows 8, Microsoft® Windows 2012 Server, Microsoft® Windows 10, Microsoft® Windows 2016 Server; Microsoft® Windows 2017 Server, SQL Server 2019, Windows 11.
- .Net Framework 4.8;
- 512 MB RAM or more;
- 120MB of available HD space for program installation;

## 1.3 Installation

If you are **installing EMS SQL Backup for the first time** on your PC:

- download the EMS SQL Backup installation package from the [download page](#) available at our site;
- unzip the downloaded file to any local directory, e.g. *C:\unzipped*;
- run *SQLBackupSetup-1.x.x.xxxx.msi* from the local directory and follow the instructions of the installation wizard.

There are two modes of the EMS SQL Backup Console installation: *Typical* и *Custom*. If you choose the *Custom* mode then you will be able to define the destination program folder and specify if the help-file should be copied there or not.

After the installation process is completed, find the EMS SQL Backup shortcut in the corresponding group of Windows Start menu.

If you want to **upgrade an installed copy of EMS SQL Backup** to the latest version:

- download the full installation package of EMS SQL Backup from the [download page](#) available at our site;
- close EMS SQL Backup application if it is running;
- repeat the steps you have made for the first-time installation;
- run EMS SQL Backup using its shortcut in the corresponding group of Windows Start menu.

### Note

There is an installation mode that allows installing server components on local servers without installing EMS SQL Backup Console.

This mode should be used when a remote installation of server components from EMS SQL Backup Console is impossible due to some reasons but at the same time the installation package can be copied to a server and run there.

To run the server-side components installation using the [Stand-alone remote components Installer](#) choose the *Server-side only* on the third step of the installation wizard.

---

### See also:

[EMS SQL Backup FAQ](#)

## 1.4 Purchasing

To make it easier for you to purchase our products, we have contracted with Digital River registration service. The Digital River 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.

**Digital River** 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 Digital River.

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).

**Note:** You need to purchase license for every SQL server instance and not for the EMS SQL Backup Console.

<b>Product distribution</b>	
EMS SQL Backup (Business Regular license) + 1-Year Maintenance*	<a href="#">Register Now!</a>
EMS SQL Backup (Business Regular license) + 2-Year Maintenance*	
EMS SQL Backup (Business Regular license) + 3-Year Maintenance*	
EMS SQL Backup (Business Pro license) + 1-Year Maintenance*	
EMS SQL Backup (Business Pro license) + 2-Year Maintenance*	
EMS SQL Backup (Business Pro license) + 3-Year Maintenance*	
EMS SQL Backup (Non-commercial Regular license) + 1-Year Maintenance*	
EMS SQL Backup (Non-commercial Regular license) + 2-Year Maintenance*	
EMS SQL Backup (Non-commercial Regular license) + 3-Year Maintenance*	
EMS SQL Backup (Non-commercial Pro license) + 1-Year Maintenance*	
EMS SQL Backup (Non-commercial Pro license) + 2-Year Maintenance*	
EMS SQL Backup (Non-commercial Pro license) + 3-Year Maintenance*	
EMS SQL Backup (Trial/Free 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 on-line, 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](#)



## 1.5 How to register SQL Backup

The EMS SQL Backup registration is not equal to immediate registration of the EMS SQL Backup Console. Registering EMS SQL Backup means purchasing and further activation of a received License Key for every instance you want to work with.

Note that for working with Enterprise and BI versions of SQL Server you need to activate the EMS SQL Backup PRO license.

Having installed the client- and server-side parts of EMS SQL Backup, you need to activate the server-side part of EMS SQL Backup.

To get an activation code, please do the following:

1. Run EMS SQL Backup.
2. Connect to SQL Server.
3. Right-click this server in the server list and select "Activate license".
4. Follow the steps in the [Wizard](#).

To remove a license from an instance use the [Deactivate License Wizard](#). After that you will be able to activate this license key on another SQL Server instance.

[License activation](#)

[License deactivation](#)

---

**See also:**

[Purchasing](#)

### 1.5.1 License activation

To start working with your servers you need to activate EMS SQL Backup License for each instance.

It is assumed that you have already purchased a product license and that you have the license information available. If you cannot find license information, please visit your Member Account <https://secure.sqlmanager.net/member/subscribe>.

The activation operation is performed by means of the **License Activation Wizard**.

To activate your newly purchased license, perform the following steps:

1. select the **Activate license** item of the [server popup menu](#) to run the [License Activation Wizard](#);
2. select the preferable license activation method and complete the set of wizard steps;
3. make sure that the activation process has been completed successfully – check the license information in the [overall status window](#) and license must become *Active* in the Members Area.

#### Steps

[Selecting license activation method](#)

[Entering license key](#)

[Performing online activation](#)

[Web-site activation](#)

[Entering license activation code](#)

[Completing operation](#)

---

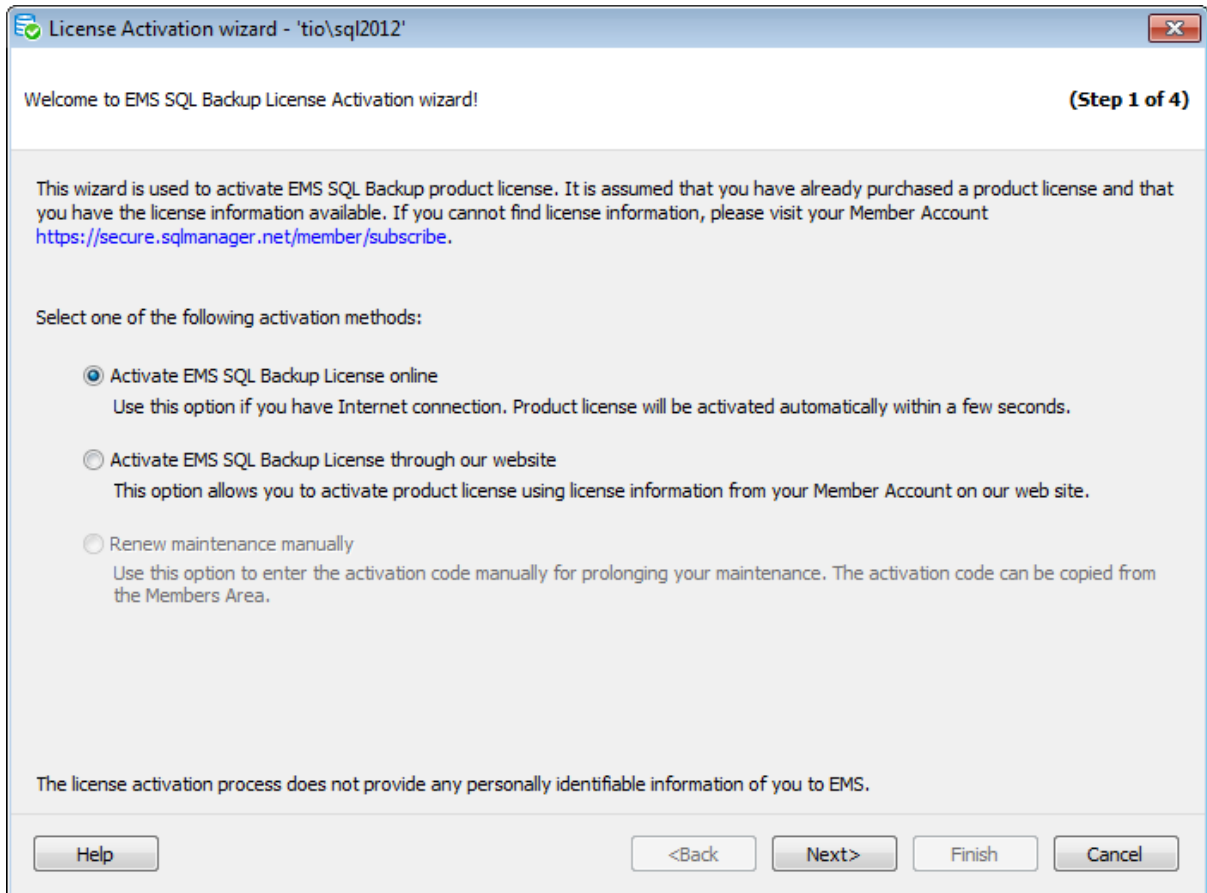
#### See also:

[Purchasing](#)

[License deactivation](#)

### 1.5.1.1 Selecting license activation method

Use this step to set license activation method.



#### **Activate EMS SQL Backup License online**

Use this option if you have Internet connection. Product license will be activated automatically within a few seconds.

**Note:** If you already have a license activated on your instance it will be deactivated on entering the new license key.

#### **Activate EMS SQL Backup License through our website**

This option allows you to activate product license using license information from your Member Account on our web-site.

Note that this option is disabled when you already have a license activated on your instance.

#### **Renew maintenance manually**

Using this option you can prolong maintenance period if you already have a valid activation code.

**Note:** The **Free** license can be activated using the online activation only.

[Next step](#) in case of **online activation**.

[Next step](#) in case of **website activation**.

[Next step](#) in case of **manual activation**.

### 1.5.1.2 Entering license key

This step appears if you have chosen online activation on the [first step](#).

License Activation wizard - 'tio\sql2014' (Step 2 of 4)

To begin the license activation process, you must provide the wizard with your license information

SQL Server Instance ID\* 8801E36400000000-1652

Activate license key DWE02-3U90W-21CBX-ASS5N-TKGIM-WSSH0I-6P7YD-0265G-1K2OQ

Activate Free license

\*The ID is generated automatically  
Complete the required license information and click the **Next** button.

Help <Back Next> Finish Cancel

#### SQL Server Instance ID

In this field you can see the registrable instance ID that was generated automatically.

#### Activate license key

Enter manually or paste your license key here.

The license key can be copied from the Members Area or from the e-mail that is received after license purchasing.

#### Activate Free license

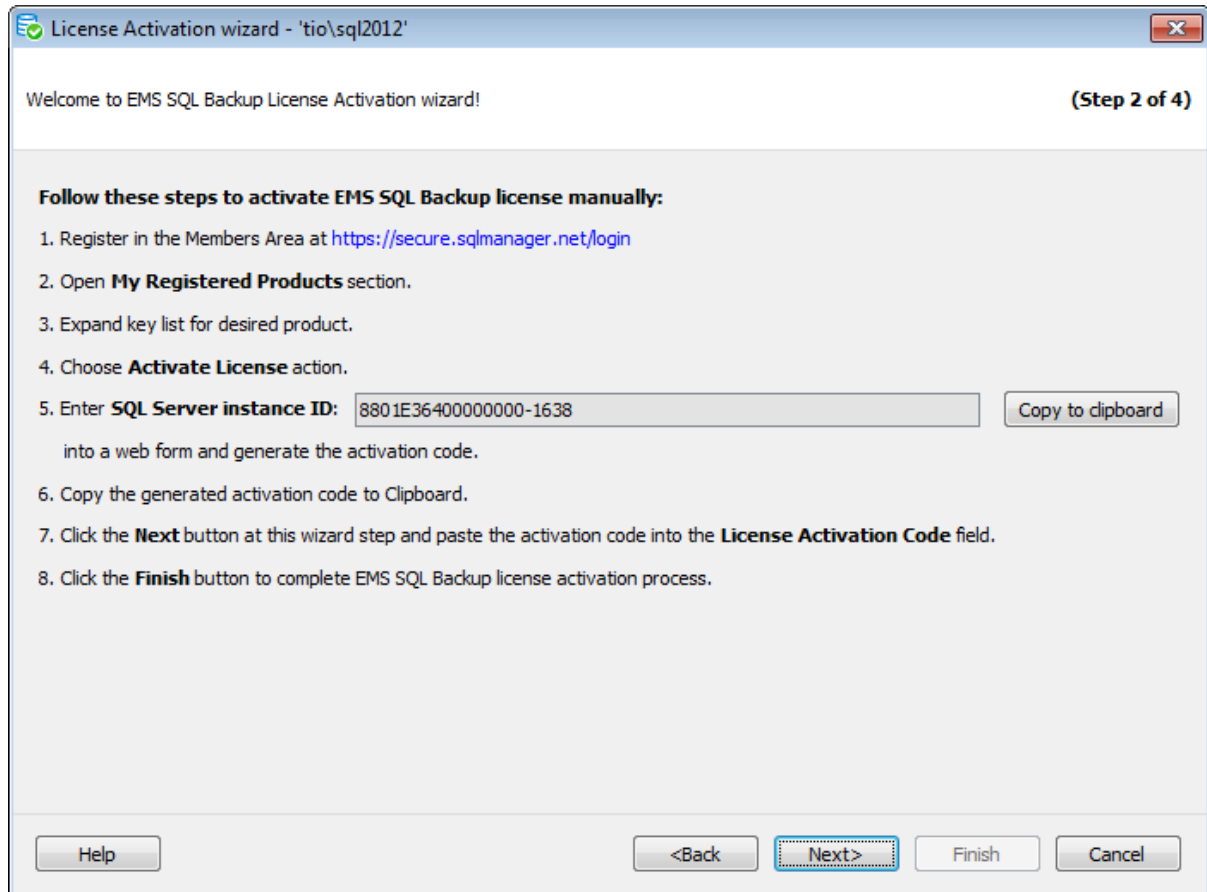
Select this option to activate the *SQL Backup Free license*.

You can view the list of all functional differences between EMS SQL Backup versions in the Feature Matrix.

[Next step](#) in case of **online activation**.

### 1.5.1.3 Web-site activation

This step appears only in case the  **Activate EMS SQL Backup License through our website** option was selected on the [first step](#).



To perform license activation via web-site follow these steps:

1. Register in the Members Area at <https://secure.sqlmanager.net/login>.
2. Open **My Registered Products** section.
3. Expand key list for desired product.
4. Choose **Activate License** action.
5. Enter automatically generated **SQL Server instance ID** into a web form and generate the activation code.
6. Copy the generated activation code to Clipboard.
7. Click the **Next** button at this Wizard step and paste the activation code into the License Activation Code field at the [next step](#).
8. Click the **Finish** button to complete EMS SQL Backup license process.

[Next step](#)

#### 1.5.1.4 Entering license activation code

Here you are to enter the license activation code that you have or that you have copied from the website.

License Activation wizard - 'tio\sql2012'

Enter the license activation code **(Step 3 of 4)**

SQL Server instance ID: 880 1E36400000000-1638

License Activation Code:

```
OVpJR 1ctQlpONVotUEQxU 1QtMjBHRFYtN 1BKSTktTENEM00tMFhGM 1ItMzJUSDUtWE42NEskQTUyRS03QUJFNy0 1NDEyNUJDMzAwMD
AwMDAwLTJJDNDYtMDAwMDE3LU 1BVFIZNy 1GQIRISzEtRjZNNUNGLTdfSFgxUC 1KtkFEQkMtSkdXRTdGLTVUNE5FQj 1ZWFQyM0EtUDRD
UTVNCIZhc2hIFB1cGtpbiBDb21wYW55
```

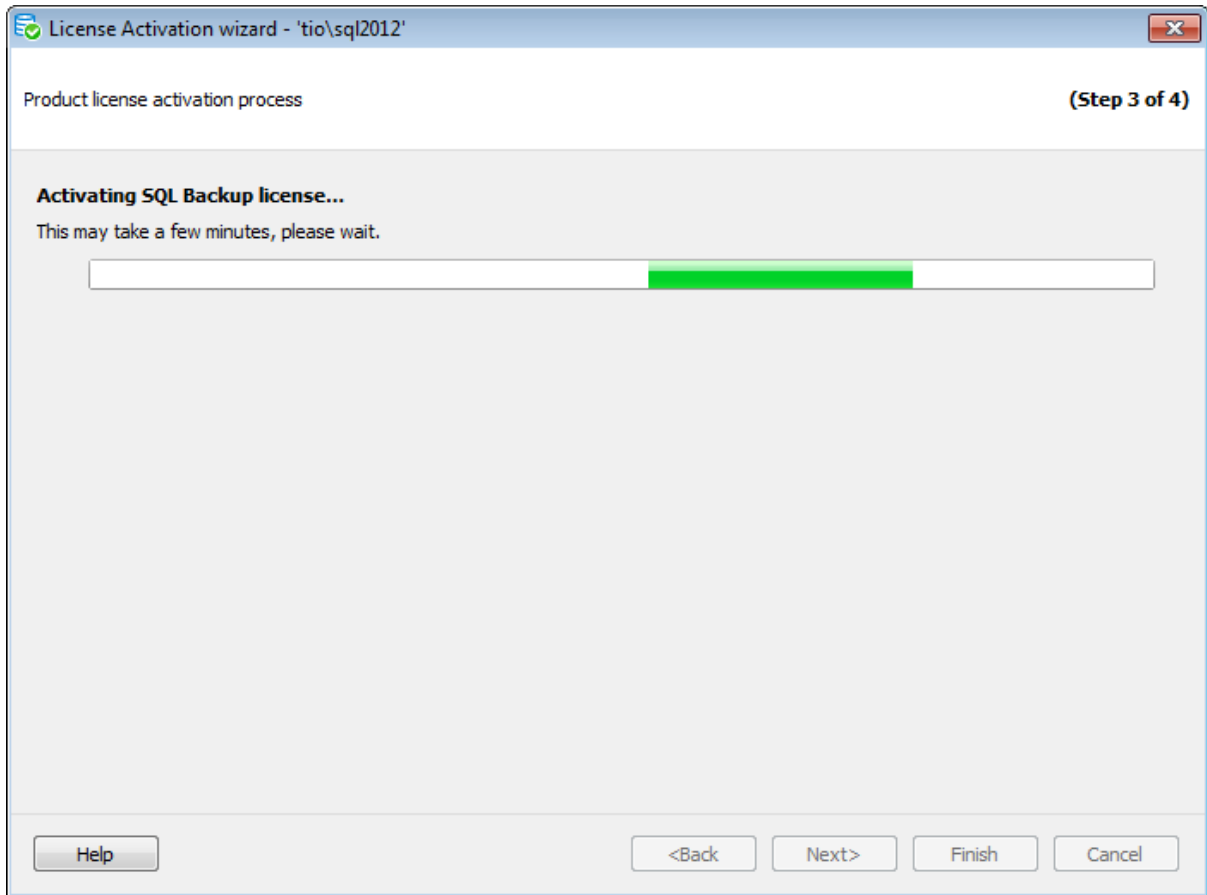
Press the **Next** button to activate EMS SQL Backup license.

Buttons: Help, <Back, Next>, Finish, Cancel

[Next step](#)

### 1.5.1.5 Performing online activation

This step appears only in case the  **Activate EMS SQL Backup License online** option was selected on the [first step](#).



On this step the deactivation of the previous license and the activation of the new license is performed.

To configure connection parameters for performing activation see the [Proxy](#) tab of the [Options](#) dialog.

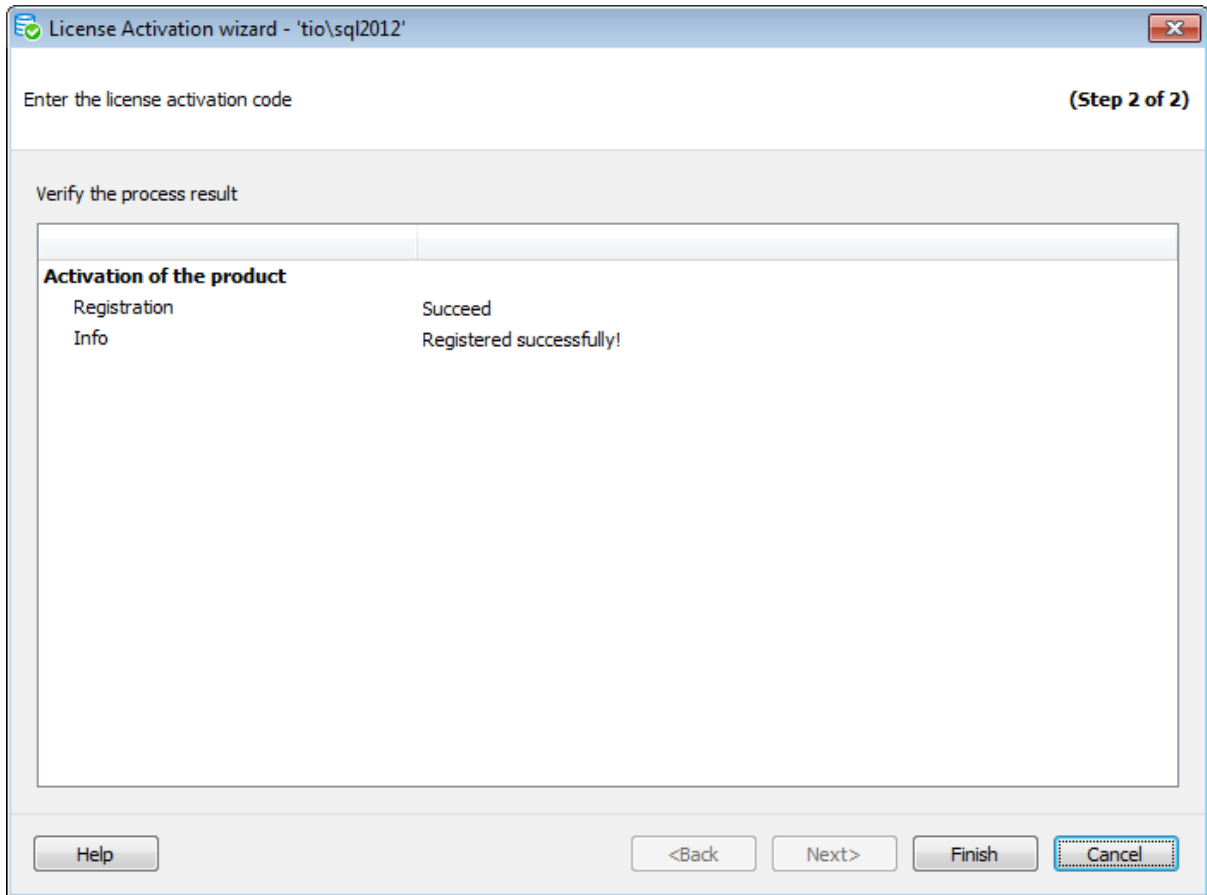
After the operation is complete you will be automatically redirected to the [final step](#).

If problems occurred on deactivating the previous license key on the EMS activation server you will be redirected to the [Web-site deactivation](#) step.



### 1.5.1.6 Completing operation

This step is intended to inform you about the product activation status.



Click the **Finish** button to complete the operation.

## 1.5.2 License deactivation

Suppose, you have decided to move a license from one instance to another. In this case, at first, you need to deactivate this license key and after that activate it on another instance.

The deactivation operation is performed by means of the [License Deactivation Wizard](#).

Your license key will be deactivated and EMS SQL Backup Service will not work with this SQL Server instance. After deactivation this Wizard informs EMS that this license key is deactivated and you will be able to activate it on another SQL Server instance.

To deactivate your license, perform the following steps:

1. select the **Deactivate license** item of the [server popup menu](#) to run the [License Deactivation Wizard](#);
2. select the preferable license deactivation method and complete the set of wizard steps;
3. make sure that the deactivation process has been completed successfully – the license information in the overall status window must disappear and license must become inactive in the Members Area.

### Steps

[Selecting deactivation method](#)

[Web-site deactivation](#)

[Performing online deactivation](#)

[Completing operation](#)

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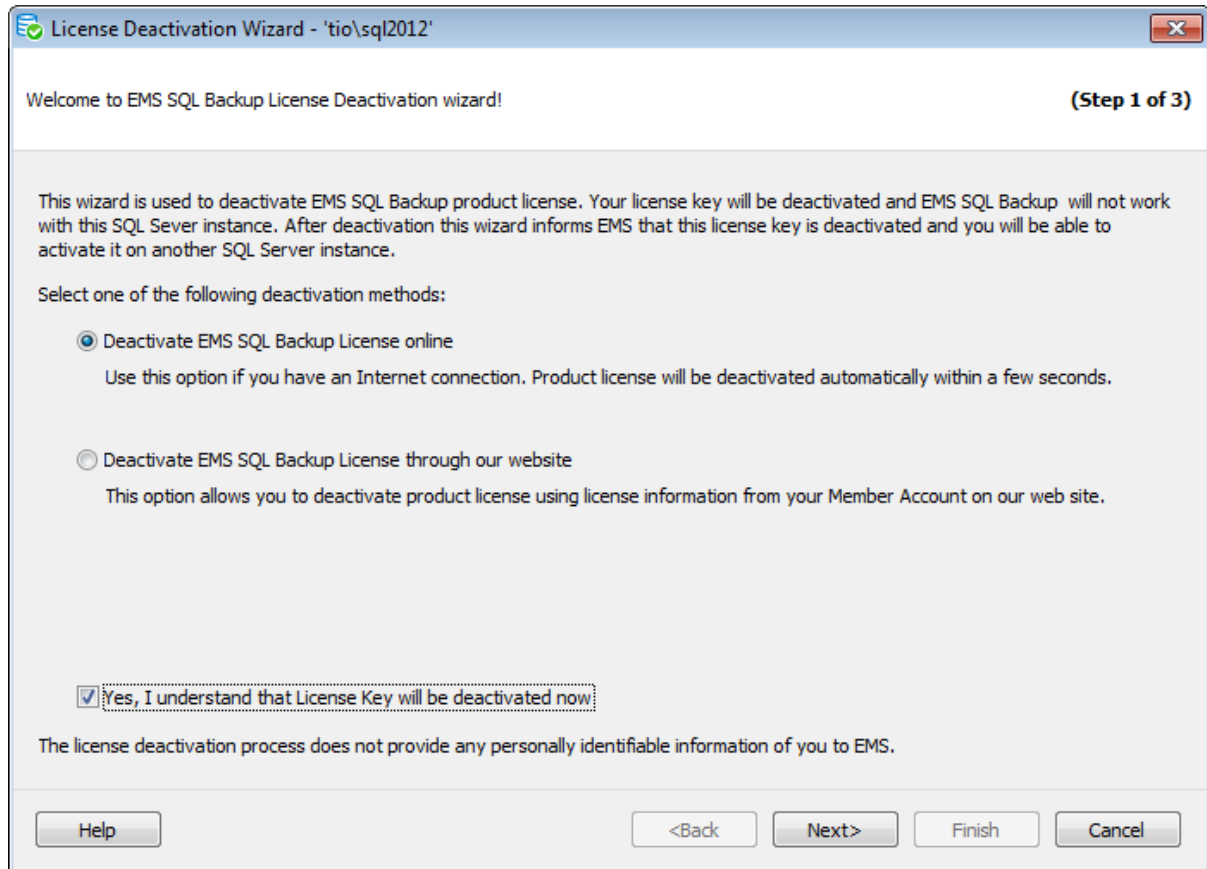
### See also:

[Purchasing](#)

[License activation](#)

### 1.5.2.1 Selecting deactivation method

Use this step to set license deactivation method.



**Deactivate EMS SQL Backup License online**

Use this option if you have Internet connection. Product license will be deactivated automatically within a few seconds.

**Deactivate EMS SQL Backup License through our website**

This option allows you to deactivate product license using license information from your Member Account on our web-site.

To proceed to the next step of the Wizard check the  **I understand that License Key will be deactivated now**. On clicking the **Next** button the license will be deactivated locally. This means that the license for an SQL Server instance will be deactivated in the EMS SQL Backup program but you won't be able to activate this license key on another instance.

**Note:** To complete the deactivation process you need to finish this Wizard.

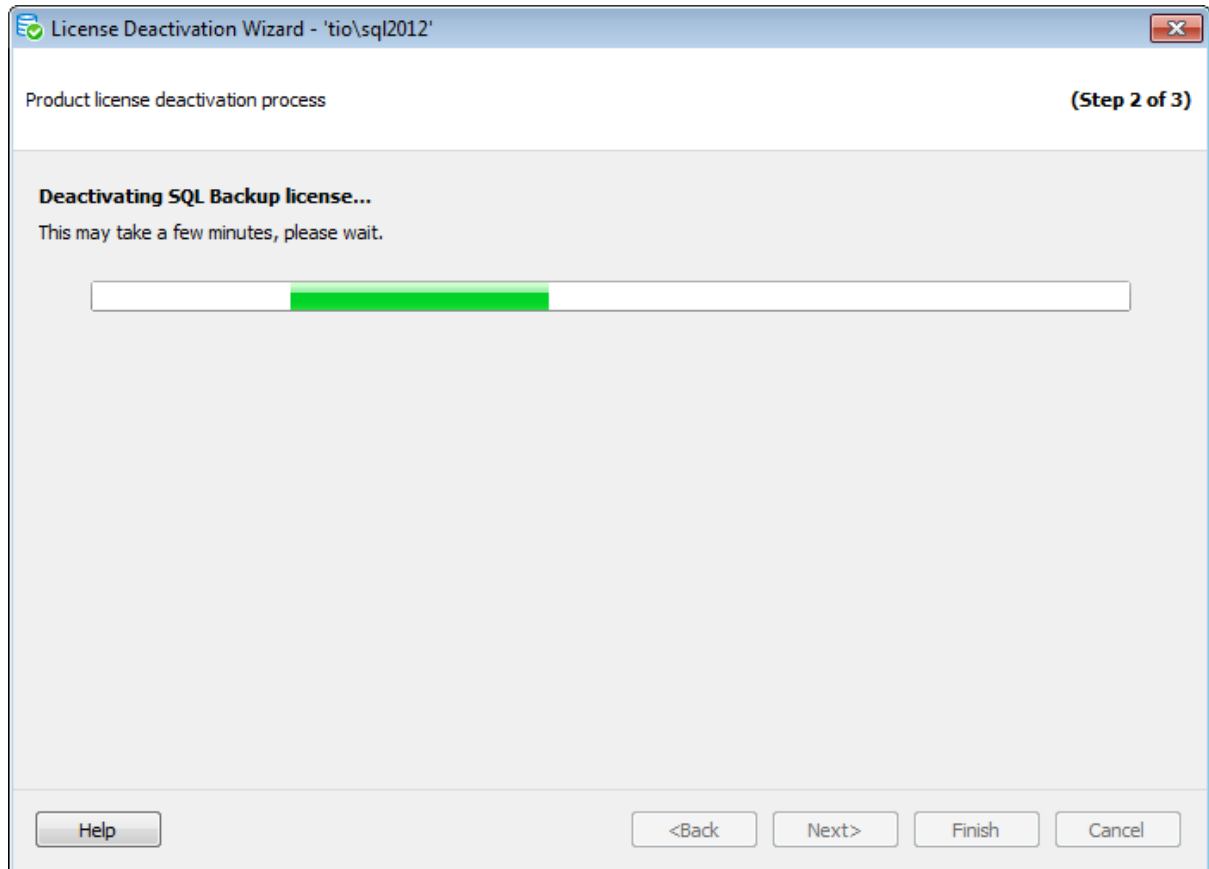
[Next step](#) in case of **online deactivation**.

[Next step](#) in case of **website deactivation**.



### 1.5.2.3 Performing online deactivation

This step appears only in case the  **Deactivate EMS SQL Backup License online** option was selected on the [first step](#).

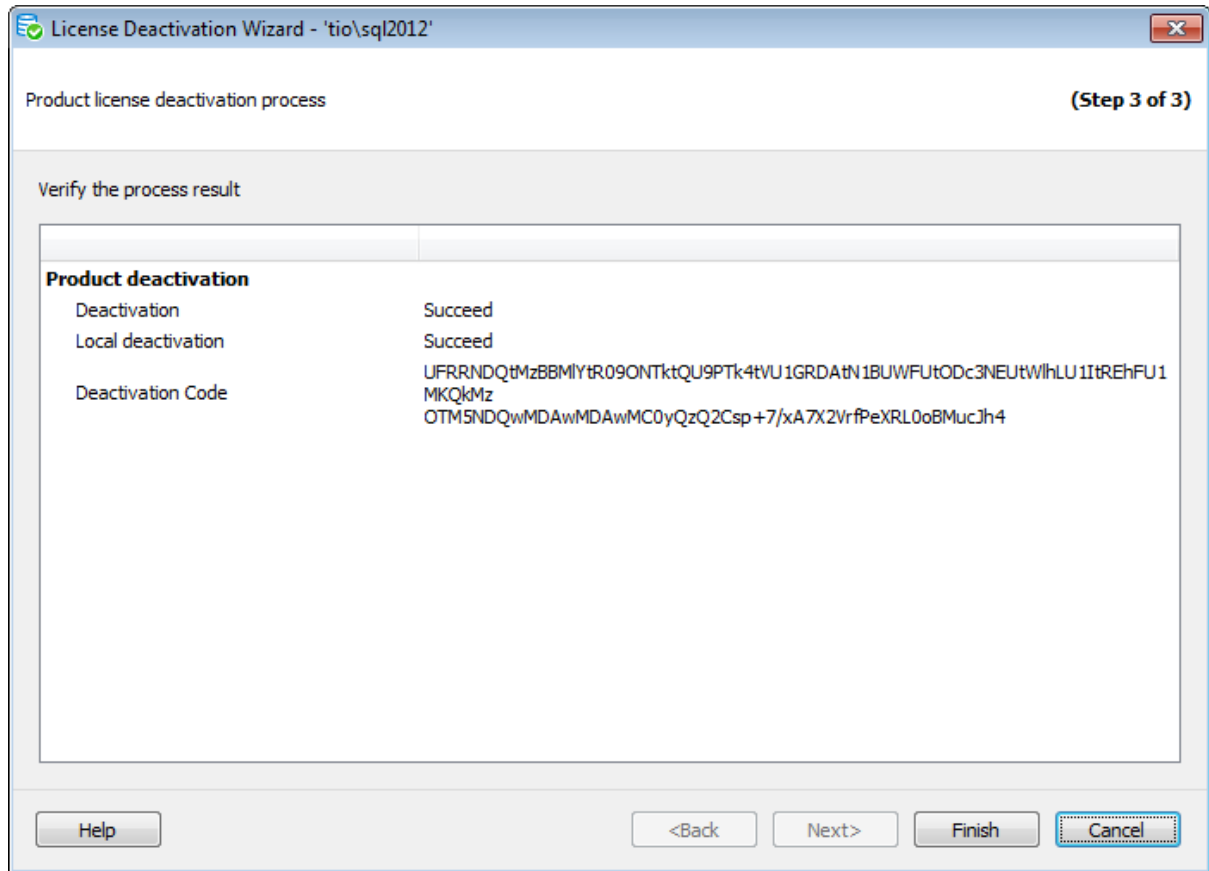


To configure connection parameters for performing deactivation see the [Proxy](#) tab of the [Options](#) dialog.

After the process of online deactivation you will automatically proceed to the [next step](#) of the wizard.

#### 1.5.2.4 Completing operation

This step is intended to inform you about the product deactivation status.

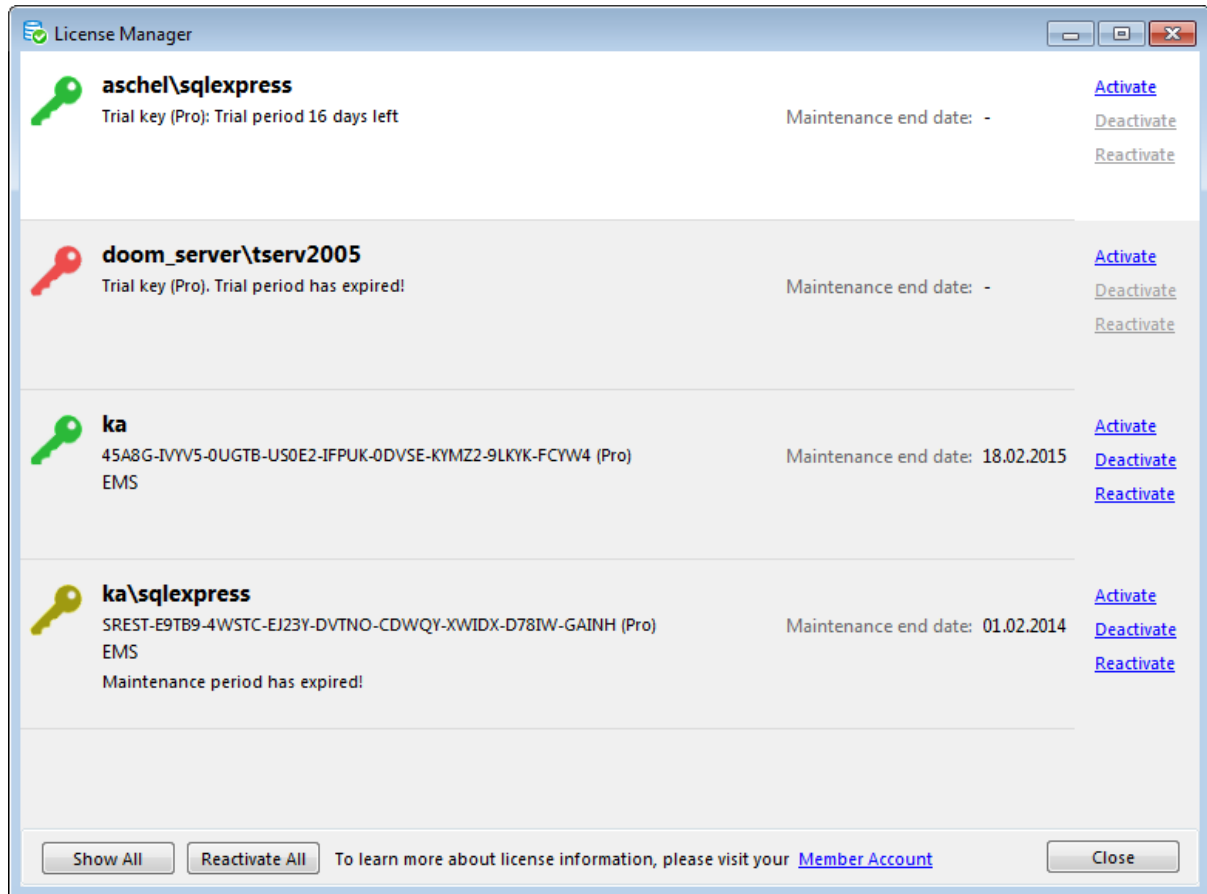


Click the **Finish** button to complete the operation.

## 1.6 License Manager

License Manager allows you to view license information of all servers in EMS SQL Backup which have EMS SQL Backup server components installed. Using this tool you can quickly reactivate license keys on all instances.

To launch License Manager select the **License Manager** item of the [Gears menu](#). The list contains all currently connected servers. To view license information of all servers registered in the Administration Console, click the **Show All** button.



License Manager includes the following registration information for every server:

- Instance name
- License key (License type)
- Customer name
- Maintenance end date

Before reactivating license information in the EMS SQL Backup Console you need to proceed to the [Members Area](#) and renew maintenance for this license key.

To reactivate automatically all licenses on all instances click the **Reactivate All** button. License reactivation is performed online. To set connection parameters proceed to the [Proxy](#) tab of the [Options](#) dialog.

To reactivate license key on a single instance click the **Reactivate** button located on the right side of the section key with a corresponding server information.

If the license key was successfully reactivated you will see a message informing you

about time it was reactivated. Otherwise, you will see an error message describing the occurred problem.

You can launch [License activation wizard](#) or [License deactivation wizard](#) for the particular server directly from the License Manager dialog by clicking the Activate/Deactivate button correspondingly.



## 1.7 Version history

Product name	Version	Release date
EMS SQL Backup	<a href="#">Version 3.0</a>	May 16, 2018
EMS SQL Backup	<a href="#">Version 2.2.1</a>	May 08, 2017
EMS SQL Backup	<a href="#">Version 2.2</a>	April 3, 2017
EMS SQL Backup	<a href="#">Version 2.1.1</a>	January 30, 2017
EMS SQL Backup	<a href="#">Version 2.1</a>	August 29, 2016
EMS SQL Backup	<a href="#">Version 2.0.1</a>	April 13, 2016
EMS SQL Backup	<a href="#">Version 2.0</a>	February 11, 2016
EMS SQL Backup	<a href="#">Version 1.8</a>	July 16, 2015
EMS SQL Backup	<a href="#">Version 1.7</a>	February 27, 2015
EMS SQL Backup	<a href="#">Version 1.6</a>	November 28, 2014
EMS SQL Backup	<a href="#">Version 1.5</a>	July 7, 2014
EMS SQL Backup	<a href="#">Version 1.4</a>	February 25, 2014
SQL Angel 1.3	<a href="#">Version 1.3</a>	November 12, 2013
SQL Angel 1.2	<a href="#">Version 1.2</a>	June 10, 2013
SQL Angel 1.1	<a href="#">Version 1.1</a>	April 1, 2013
SQL Angel 1.0	<a href="#">Version 1.0</a>	December 12, 2012

### Version 3.0

1. The [conditions](#) in maintenance tasks have been implemented.
2. Improved maintenance tasks editor.
3. Support for converting maintenance plans SSIS 2012-2017.
4. The error on selecting databases and objects has been fixed.
5. Some errors in the installer have been fixed.
6. Improved displaying of active tasks.
7. Many other minor fixes and improvements.

### Version 2.2.1

1. In case of simultaneous task execution the status was sometimes displayed incorrectly. Fixed now.
2. [Maintenance Cleanup](#). Removing of backup files from Google Drive was incorrect when folder contained more than 100 files. Fixed now.
3. [Restore](#). Not all files were displayed when browsing on Google Drive. Fixed now.
4. Sometimes the 'The conversion could not be completed because the supplied DateTime did not have the Kind property set correctly' error occurred on getting logs from the server. Fixed now.

### Version 2.2

1. Added support of [files/filegroups backup](#).
2. Possibility to [restore](#) separate files and filegroups from backup (partial restore).
3. [Bulk Restore](#): restoring several databases from specified backup folder with optional scheduling.
4. Added support of native backups split into multiple files.
5. Now it is possible to reduce [policy e-mail notification](#) text to execution status only.
6. Added the option to delete backup history on dropping the database.
7. Now it is possible to automatically delete backup files downloaded from [remote storages/clouds](#) after restoring.
8. Extended logging added on testing connection to SMTP-server.
9. Lots of other improvements and bugfixes.

**Version 2.1.1**

1. [Maintenance cleanup](#) operation has been significantly optimized.
2. The error of upgrading to version 2.1 using a [standalone installer](#) fixed.
3. Backup file names were cut off. Fixed now.
4. An error occurred on uploading backup files to the folders with high depth of [FTP](#). Fixed now.
5. The program was unable to get server status when hardware configuration had been changed. Fixed now.
6. The 'There is already an open DataReader associated with this Command which must be closed first' error occurred when differential backups were performed with splitting by databases. Fixed now.
7. The 'Specified argument was out of the range of valid values' error occurred when backups were uploaded to cloud storages. Fixed now.
8. Lots of other improvements and bugfixes.

**Version 2.1**

1. The backup speed has been significantly increased on uploading to [cloud storages](#) with "on the fly" approach.
2. Support of SQL Server Failover Cluster.
3. Proxy support for [Azure cloud storage](#).
4. The possibility to search for several backup files on cloud storages has been added.
5. Added possibility to set authorization parameters on a shared folder in [Log/Database Shipping tasks](#).
6. Added detection of possible restore sequence breaks to reveal unwanted third-party software backups which may affect restore process.
7. Lots of other improvements and bug-fixes.

**Version 2.0.1**

1. 'The time zone ID " was not found on the local computer' error occurred on updating from 1.7 version to 2.0 version. Fixed now.
2. If two machines were in the same workgroup, the privileges were applied incorrectly on [CIFS/NetBIOS connection](#). Fixed now.
3. The permission issue on [installation of local server-side components](#) has been fixed.
4. System bit depth was detected incorrectly in some cases on [local server-side components installation](#). Fixed now.
5. The 'The supplied DateTime represents an invalid time' error occurred on DST clock shift. Fixed now.
6. Lots of other improvements and bug-fixes.

**Version 2.0**

1. [Backup encryption](#) has been added in SQL Server backup for the editions, supporting this option.
2. Added TLS/SSL encryption options in [SMTP-server connection options](#) to support popular email services.
3. Support for [Dropbox](#) and [Google Drive](#) storages has been added.
4. [T-SQL statement](#) is now executed on the database which it has been run for from Quick Maintenance Actions.
5. [Uploading files from cloud storages](#) has been implemented in [Get backup files from server wizard](#).

6. The {database\_name} tag has been added for backup folders in [Backup database wizard](#) to automatically sort backup files to different folders.
7. Backup chains are now built using server LSN in [Restore database wizard](#), which allows guaranteed restoring to any point of a database backup.
8. When using shared [configuration](#), the console is now set to read-only mode, if the same configuration is already opened in another console instance.
9. The [Cloud connection wizard](#) has been implemented to manage connections to cloud storages.
10. Other improvements and bug-fixes.

### Version 1.8

1. Ability to [restore databases](#) from network/cloud storages.
2. Now it is possible not to store [backup files](#) locally and use only network/cloud storages for this purpose.
3. Ability to [delete old backup files](#) from network/cloud storages.
4. Ability to [create tail-log backup](#) before restoring a database.
5. The 'Cut', 'Copy', 'Paste' features are added to the [Policy Editor](#).
6. Some other improvements and bugfixes.

### Version 1.7

1. [Free version](#) of SQL Backup is available now. The number of maintainable databases per SQL Server instance is restricted to two databases.
2. Added the possibility to [copy backup files from SQL Server](#) to the machine where SQL Backup Administration Console is running ('Get Backup To Console' wizard).
3. Added the possibility to [upload backups to Microsoft Azure storage](#).
4. The ability to overwrite existing backup files [in network folders \(SMB/CIFS\)](#) is implemented.
5. Now it is possible to move/rename folder for backups specifying new path in [service settings](#). Moved backups are handled automatically.
6. There was a restriction which prevented adding some databases in the 'Database Shipping' wizard. Fixed now.
7. Lots of other improvements and fixes.

### Version 1.6

1. Added the possibility to change the [time zone](#) in the EMS SQL Backup Administration Console.
2. Daylight saving time using is improved in planning policies time execution.
3. Added the possibility to set HTTP proxy for uploading backup files using [FTP](#).
4. [License Activation](#) and [License Deactivation](#) wizards are improved.
5. Other improvements and bug-fixes.

### Version 1.5

1. The [Built-In Scheduler](#) is implemented to execute policies on servers without SQL Server Agent, for example, SQL Server Express. The ability to use SQL Server Agent remains.
2. The [remote](#) and [local installation](#) of Server-side components is improved and simplified:
  - Possibility to save the settings used for remote setup.
  - Numerous hints, messages and validations when setting parameters.
  - Remote install through custom network share in case of absence of ADMIN\$.
  - Possibility to specify the port for server instance.

3. [Database Shipping](#): the possibility to ship full database backup from one SQL Server instance to another on schedule.
4. More detailed log for Tasks and Steps. Now the log contains the source data.
5. Improved support of SQL Server 2014.
6. Trial period counter worked incorrectly in some cases. Fixed now.
7. The decompression file errors for some configurations were fixed.
8. At times the shrinking of log files of EMS SQL Backup failed. Fixed now.
9. Lots of other improvements and bug-fixes.

#### **Version 1.4**

1. The product is renamed into EMS SQL Backup.
2. [License Manager](#) is a very useful license key management.
3. [Server-side components updater](#): multiple update of server-side components.
4. To start Administration Console you do not need Administrator privileges.
5. Task scheduler errors are fixed.
6. Dates localization errors are fixed.
7. Memory leaks are fixed.
8. Other small improvements and bug-fixes.

#### **Version 1.3**

1. Support of [remote storages](#) to upload and store backups.
  - Network folders, network-attached storages (NAS).
  - Upload using [FTP](#) (ImplicitSSL / ExplicitSSL), [SFTP](#) (SSH) protocols.
  - Support of cloud storage [Amazon S3](#).
2. Possibility to add unlimited number of remote and local storages for each backup.
3. Support of 'Check orphaned users' option to [restore backups](#).
4. New macros for [backup folders](#): {backup\_root\_folder}, {server}.
5. Log efficiency and representation are improved.
6. Improved design.

#### **Version 1.2**

- Added the possibility to [verify the integrity](#) of the resulted files after the backup process (RESTORE VERIFYONLY & CHECKSUM).
- Displaying progress for long-running processes.
- [Monitoring the log size increase](#) (log size limit by date and size).
- Displaying the database size.
- Improved the main form design.
- Other improvements and bugfixes.

#### **Version 1.1**

- Added support of simultaneous backups on the same server.
- Added support of [copy-only backups](#) which do not affect the normal sequence of backups.
- Software update notifications.
- Improved the process of [converting a policy to a template](#).
- Added new features for managing [templates](#).
- Many interface improvements.
- Now server-side components have no memory leaks.
- More stable connections to the server-side and Console.

- The log management in the server side is improved.
- The server connection failure caused a configuration record error. Fixed now.
- Other improvements and bugfixes.

### **Version 1.0 (First public release)**

#### Basic features:

- Compressing backup files up to 5 times (on any server version).
  - Reducing backup time up to 4 times (on any server version).
  - Backup encryption (on any server version).
  - Easy-to use wizard organizing the log shipping process.
  - Ability to perform 8 types of service tasks including backup, log shipping, re-indexing, update statistics, etc.
  - Policy engine to quickly deploy maintenance tasks to multiple servers and to monitor their execution results.
  - Centralized monitoring of policies on multiple servers using the user-friendly GUI console.
  - A high-performance multi-threaded backup.
  - Working with Enterprise and BI versions of SQL Server.
- and more...

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#### **See also:**

[What's new](#)

## 1.8 EMS SQL Backup FAQ

Please read this page attentively if you have questions about **EMS SQL Backup**.

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- [Can different types of maintenance tasks go in the same policy?](#)
- [Can policy tasks have their own execution schedules?](#)
- [Can EMS SQL Backup perform a single maintenance task without creating policies?](#)
- [Can I execute multiple policies simultaneously on one server?](#)
- [I have setup SQL Server maintenance plans. Can I use them in EMS SQL Backup?](#)
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- [Whether the servers, EMS SQL Backup works with, must be located within one local network?](#)
- [Do I need to open any additional ports or to enable protocols for working with EMS SQL Backup?](#)
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- [I failed to install server components remotely from EMS SQL Backup Console due to insufficient privileges or errors on installation. Can I run the installation wizard on the server machine to install server components?](#)
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- [Policy execution failed with the error: "The task cannot be completed. The owner \(NT AUTHORITY\SYSTEM\) of SqlBackup\\_XXXXXXX Task does not have access to server". Why does it happen?](#)
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- [I get the "Access is denied" error on trying to install EMS SQL Backup server-side components via NetBIOS. How can I fix the problem?](#)

### Question/answer list

Q: *What versions of SQL Server does EMS SQL Backup support?*

A: EMS SQL Backup works with all SQL Server versions (except Compact Edition) from SQL

Server 2000 up to SQL Server 2019.

Q: *Must EMS SQL Backup be installed on each server which I want to work with?*

A: Yes, EMS SQL Backup server components must be installed on each instance of SQL Server.

Q: *I have 5 SQL Servers, 2 of which have two SQL Server instances running, how many licenses for EMS SQL Backup do I need to purchase?*

A: Totally you have 7 instances of SQL Server, it means that you need to purchase 7 licenses for EMS SQL Backup.

Q: *How to transfer a license from one SQL Server instance to another?*

In order to transfer a license from one server to another perform the following steps.

1. In the EMS SQL Backup Administration Console select the server which you wish to move the license from.
2. In the context menu of the server select the "Deactivate license on ..." item.
3. Follow the steps of the License Deactivation Wizard.
4. Select the server on which you want to activate the deactivated license key.
5. In the context menu of this server select the "Activate license on ..." item.
6. Follow the steps of the License Activation Wizard.

Q: *How does EMS SQL Backup reduce backup size?*

A: This is achieved by compressing data received from the server during the backup process.

Q: *Does the backup compression depend on SQL Server version or edition?*

A: EMS SQL Backup uses its own data compression function, which does not depend on a version and edition of SQL Server.

Q: *How much is a backup file size reduced and what does it depend on?*

A: It depends on data stored in the database and on a selected in EMS SQL Backup compression level. In case of text\numeric data when using compression a backup file size can be up to 80% less in comparison when compression is disabled. If a database mostly stores difficult to compress binary data, such as raster images in JPEG, the compression function cannot significantly reduce the backup file size.

Q: *Can I restore a backup file of EMS SQL Backup on SQL Server with no EMS SQL Backup components installed?*

A: No, you cannot. However, you can use the ConvertUtil.exe command line utility, which does not need to be installed and registered to convert backup files of EMS SQL Backup format to a standard SQL Server format. After being converted backup can be restored using standard SQL Server tools.

Q: *What are the reasons for reduction of time required for backup and recovery?*

A: The compression level selection allows you to find a compromise between the backup speed and file size. At the same time the backup time execution can be reduced up to 80% compared with a native tool due to a lower load on the disk subsystem.

Q: *Does EMS SQL Backup use undocumented features of SQL Server?*

A: EMS SQL Backup uses only documented features of SQL Server, which guarantee its correct working on all available versions of SQL Server, as well as on future version releases.

Q: *Can EMS SQL Backup perform a standard backup, suitable for recovery on SQL Server, without using EMS SQL Backup?*

A: Yes, EMS SQL Backup can do it. To do this you need to select SQL Server as a backup type in the Backup Wizard.

Q: *Does EMS SQL Backup support log shipping?*

A: EMS SQL Backup performs log shipping using its compression and encryption features, which make this process faster and more secure.

Q: *I have servers in different time-zones. At what time-zone will tasks be launched?*

A: When creating a policy, you can select whether a task on servers in different time-zones is launched at servers standard time or simultaneously against the console time. This option is called "Task Scheduling in different time zones" at Step 1 of the Policy Wizard.

Q: *What is the advantage of using the Policy Engine of EMS SQL Backup compared to standard maintenance plans of SQL Server?*

A: EMS SQL Backup Policy Engine provides the following features:

- ✓ Using EMS SQL Backup backup functionality
- ✓ Ability to deploy and monitor policies on multiple servers of different versions simultaneously
- ✓ Easy-to-use policy monitoring mechanism
- ✓ Ability to use templates

Q: *Can different types of maintenance tasks go in the same policy?*

A: A policy can contain both multiple tasks of different types and multiple tasks of the same type.

Q: *Can policy tasks have their own execution schedules?*

A: Yes, each task can have one or more schedules.

Q: *Can EMS SQL Backup perform a single maintenance task without creating policies?*

A: Yes, you can perform a maintenance task using the "Quick Maintenance Actions" context menu item of the Server tree.

Q: *Can I execute multiple policies simultaneously on one server?*

A: Several policies can be deployed to a single server, their runtime can be the same and the execution time can intersect. However, 2 tasks of backup/recovery/log shipping can not be executed simultaneously on a single SQL Server instance.

Q: *I have setup SQL Server maintenance plans. Can I use them in EMS SQL Backup?*

A: You can convert SQL Server maintenance plans into EMS SQL Backup policies using the Maintenance Plan Conversion Wizard ("Maintenance Policies | Convert from Maintenance Plan" context menu of the Server tree).

Q: *How does EMS SQL Backup notify about a policy execution failure?*

A: EMS SQL Backup has the e-mail notification mechanism informing of the policy execution results. Also EMS SQL Backup Console displays statuses and results of policies while connecting to a server.

Q: *Can I monitor/manage my set of servers using two (three) different (installed on different computers) consoles?*

A: Yes, you can. However, your EMS SQL Backup Console configuration must be



accessible to all your computers. The configuration can be stored both in a file and in a database on any SQL Server. In this case it is recommended to store the configuration on SQL Server. To change the configuration storage location, call "Options | Save Configuration", specify a new location and enable the "Switch to saved configuration" option to use a new location. In EMS SQL Backup Console, installed on other computers, you should switch to the new location using the "Options | Switch Configuration" dialogue.

Q: *Whether the servers, EMS SQL Backup works with, must be located within one local network?*

A: Servers can be located anywhere. If you are able to connect to your servers using SQL Server Management Studio, EMS SQL Backup is able to work with them too.

Q: *Do I need to open any additional ports or to enable protocols for working with EMS SQL Backup?*

A: It is neither necessary to open additional ports nor enable protocols beyond those already used by your SQL Server Management Studio.

Q: *Can I install EMS SQL Backup server components remotely?*

A: Yes, you can install EMS SQL Backup server components remotely from EMS SQL Backup Console. In the Server tree, select SQL Server, on which you want to install the components, and click "Install server-side EMS SQL Backup Components" in the context menu. Then follow the instructions of the wizard.

The following conditions must be met for remote installation:

✓ Installing via SQL Server:

- You must have an account with SQL Server System Administrator Privileges, such as sa.
- SQL Server service must be run under an account with Windows Local Administrator Privileges, such as LocalSystem.

✓ Installing via NETBIOS:

- You must have Windows System Administrator Privileges on remote computer.
- You must have an account with SQL Server System Administrator Privileges, such as sa.

Q: *I failed to install server components remotely from EMS SQL Backup Console due to insufficient privileges or errors on installation. Can I run the installation wizard on the server machine to install server components?*

A: Yes, you can use the special mode for EMS SQL Backup installation program:

1. Copy the installation package (SQLBackupSetup-1.x.x.xxx.msi) to the server machine.
2. Run the following command as Administrator: SQLBackupSetup.exe -var:"ServerInstall=1"
3. Follow the steps of the installation wizard. It will automatically find all local server instances for installing server components.

Q: *What kind of account should be used for running EMS SQL Backup service?*

A: To run EMS SQL Backup you can use any account with the following privileges:

- ✓ Access to SQL Server with Server Administrator Privileges.
- ✓ Write access to a directory which is used for creating backups.
- ✓ Ability of authorization on another computer on a network for read/record access to a general directory while log shipping process.

For example, a system domain user with all the mentioned above privileges can be used. If log shipping process is not planned, Local System embedded account can be used as a system user account.

Q: *Policy execution failed with the error: "The task cannot be completed. The owner (NT AUTHORITY\SYSTEM) of SqlBackup\_XXXXXXXX\_Task does not have access to server". Why does it happen?*

A: This error occurs when SQL Server Agent receives wrong information about the user privileges set of NT AUTHORITY\SYSTEM that is the owner of the executing task. The problem can be solved in one of the following ways:

- ✓ Change EMS SQL Backup service account to any other one that has all the task run privileges on the server. Recreate a policy.
- ✓ Change the owner of SqlBackup\_XXXXXXXX\_Task to another user having the permissions to run tasks.
- ✓ If BUILTIN\Administrators account was removed from the server, restore it using the administrator privileges.

Q: *What are the differences between different versions of EMS SQL Backup?*

A: You can view the list of all functional differences between EMS SQL Backup versions in the Feature Matrix.

Q: *May I not pay the program maintenance?*

A: The basic price of EMS SQL Backup includes 1 Year Maintenance. Once the Maintenance term expires, you will be able to continue using the software without any limitations; however, you won't have access to any product updates released after your maintenance expiration date.

Q: *I get the "Access is denied" error on trying to install EMS SQL Backup server-side components via Network Folder. How can I fix the problem?*

A: First of all, make sure that the specified account has local Administrator privileges on the machine where the SQL Server service is running.

If you still have this problem then one of the solutions is to disable Remote UAC on the target system. It prevents local administrative accounts from accessing ADMIN\$ shared folder and running installation process. To disable Remote UAC you need to add an entry in the registry of the target computer:

- open the registry,
- navigate to  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System,
- create a DWORD value called LocalAccountTokenFilterPolicy,
- assign this parameter a value of 1.

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

## 1.9 Other EMS Products

### Quick navigation

[MySQL](#)[Microsoft SQL Server](#)[PostgreSQL](#)[InterBase / FireBird](#)[Oracle](#)[IBM DB2](#)[Tools & components](#)

### 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.

[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!



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

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



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

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



### [Data Export for PostgreSQL](#)

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



### [Data Import for PostgreSQL](#)

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



### [Data Pump for PostgreSQL](#)

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



### [Data Generator for PostgreSQL](#)

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



### [DB Comparer for PostgreSQL](#)

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



### [DB Extract for PostgreSQL](#)

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



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

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



### [Data Comparer for PostgreSQL](#)

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

[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.

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## Tools & components



### [Advanced Data Export for RAD Studio VCL](#)

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



### [Advanced Data Export .NET](#)

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



### [Advanced Data Import for RAD Studio VCL](#)

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



### [Advanced PDF Generator for RAD Studio](#)

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



### [Advanced Query Builder for RAD Studio VCL](#)

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



### [Advanced Excel Report for RAD Studio](#)

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



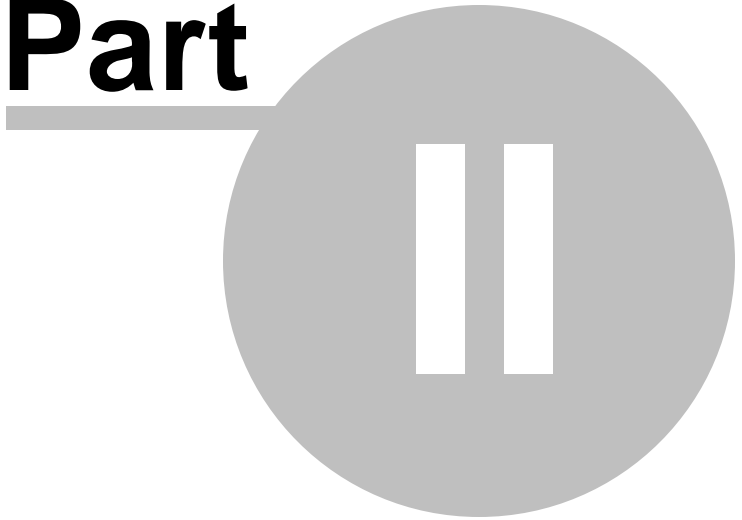
### [Advanced Localizer for RAD Studio VCL](#)

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

[Scroll to top](#)



**Part**



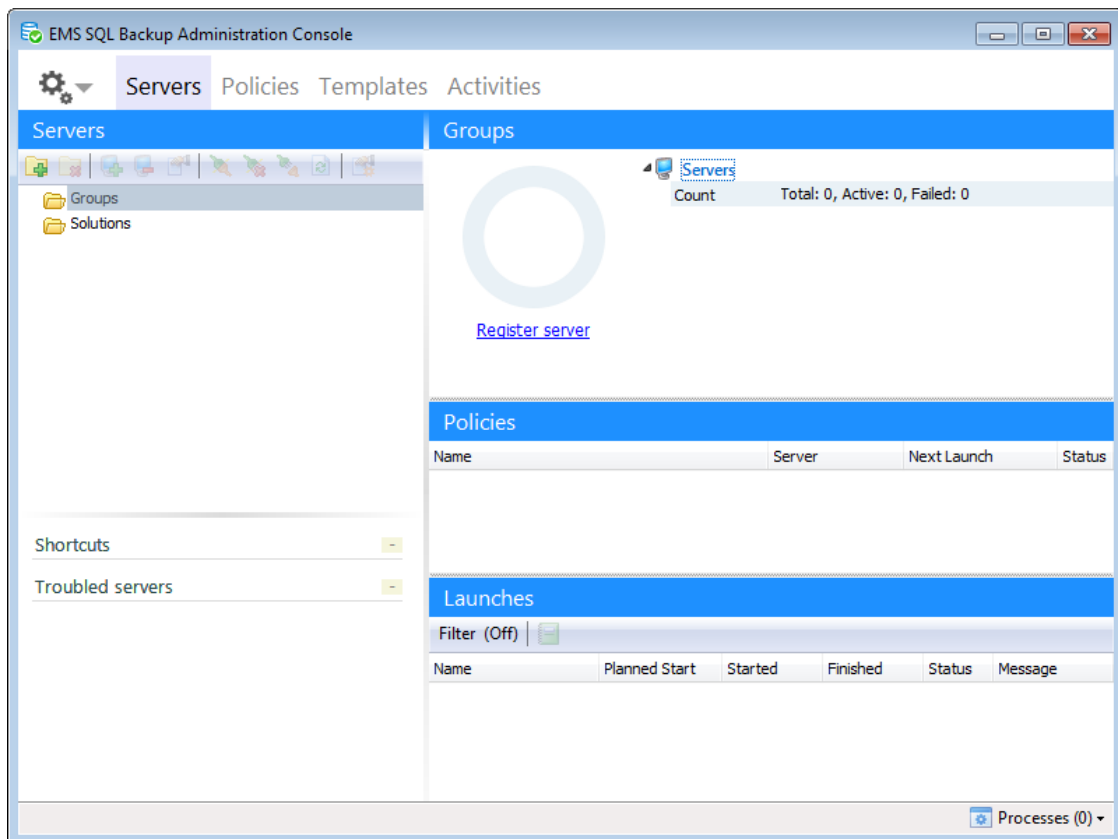
## 2 Getting started

EMS SQL Backup provides you with an ability to contribute to efficient SQL Server administration and development using a variety of available tools easily and quickly.

When the program is launched for the first time the [Configuration](#) dialog is prompted, where you need to set the destination for storing EMS SQL Backup settings.

To work with the program you need to [register the servers](#) first and [install server-side components](#) on each of them. Servers can be registered in **Groups** or **Solutions** folders. *Groups* are used to organize servers by some specific criteria (for example, location), whereas *Solutions* unite servers or databases to be included into one [Policy](#).

**Enjoy your work with EMS SQL Backup!**

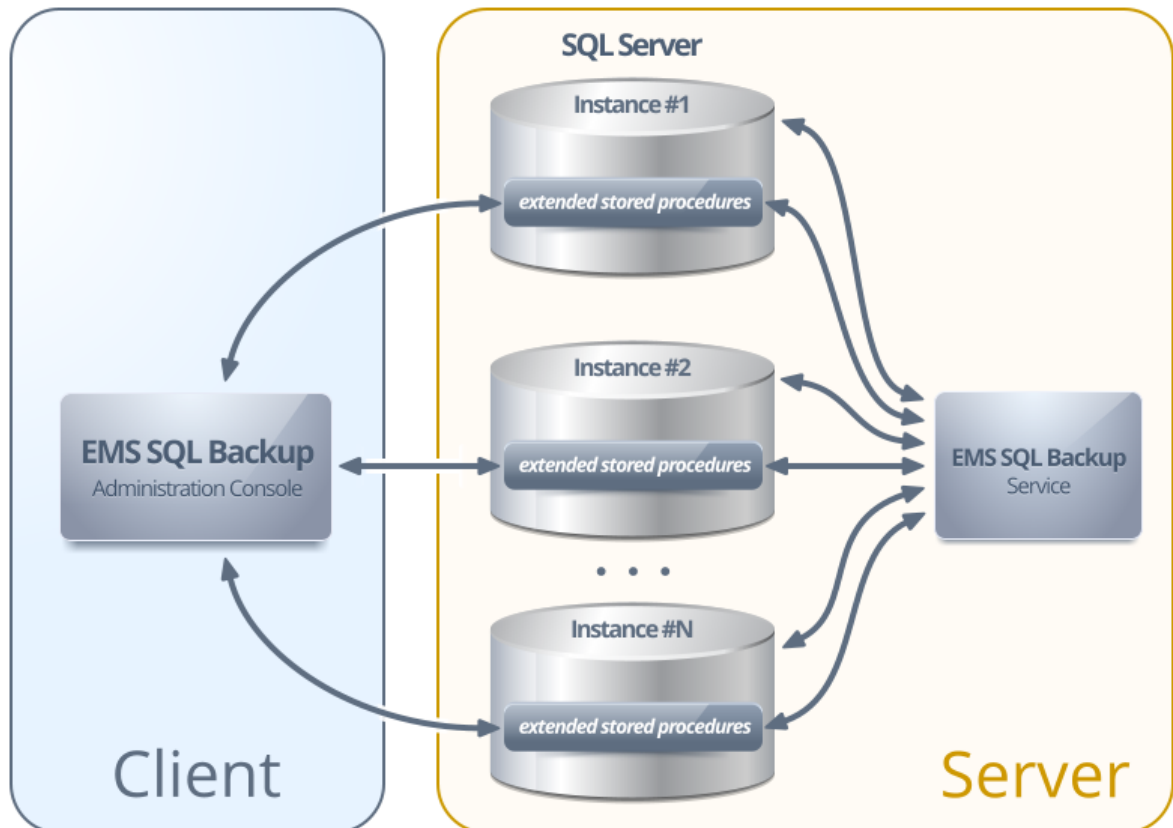


### See also:

[Servers](#)  
[Policies](#)  
[Templates](#)  
[Activities](#)  
[Maintenance Steps](#)  
[Options](#)

## 2.1 EMS SQL Backup overview

EMS SQL Backup consists of two core units: SQL Administration Console and Server-side components. SQL Administration Console is launched at the client machine, whereas Server-side components are installed on the server where SQL Server instance is launched (locally or remotely). Server-side components include the service installed on the server machine and extended stored procedures created in 'master' database for each SQL Server instance.



EMS SQL Backup Administration Console is the basic tool for administration of SQL Server instances and maintenance policies, maintaining status of instances and logs reviewing. Task and policy execution process is initiated by the service running on SQL Server. Interaction between EMS SQL Backup Administration Console and service on the server is implemented with extended stored procedures, that manages policy execution without extra connections to the server and opening of additional ports. Policy, which is the main element of EMS SQL Backup, is implemented as jobs in SQL Server and therefore its execution requires consistent work of SQL Agent.

### See also:

[Policy overview](#)  
[Navigating](#)

## 2.2 Policy overview

**Policy** in EMS SQL Backup is a set of scheduled tasks to be performed on the server(s) or database(s) each containing a number of steps.

Each Policy execution generates the [result status](#) that informs you about successful or failed policy executions. After reviewing the errors you can ignore them or re-execute the task.

For quicker creating of typical maintenance policies you can use [Templates](#).

Policy is implemented as a set of jobs in SQL Server and therefore its execution requires consistent work of SQL Agent.

---

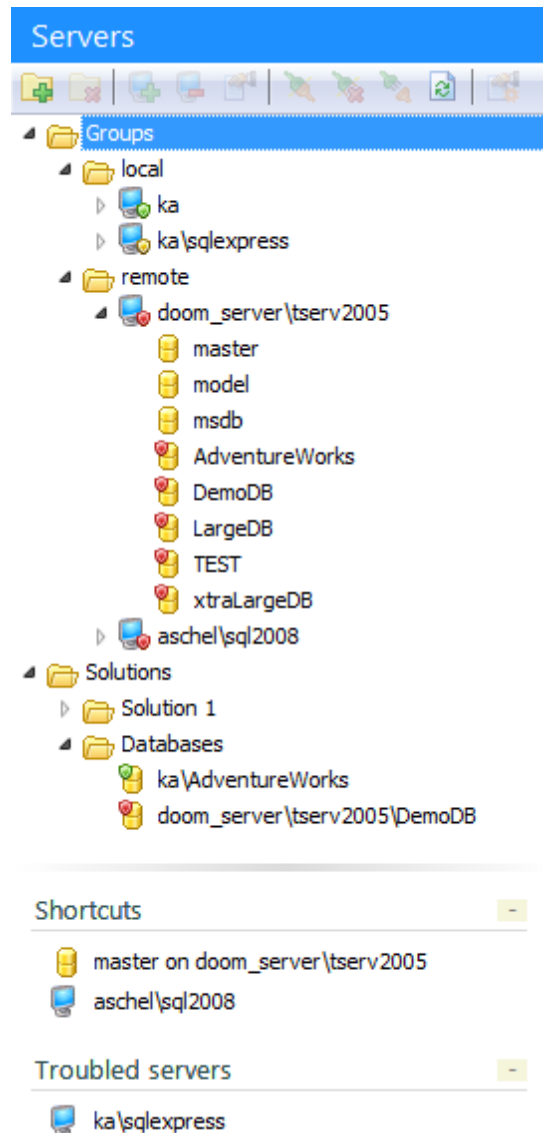
**See also:**

[EMS SQL Backup overview](#)

[Navigating](#)

## 2.3 Navigating

**Explorer** is the basic navigation window for managing servers and databases. It has a tree-like structure and it allows you to perform operations with any object in the Explorer window. Explorer is only available at the [Servers](#) tab of EMS SQL Backup. Also from this tab you can get all information about policy [status](#).



The following tabs are available on the top of the EMS SQL Backup window.



[Gears menu](#) - for configuring EMS SQL Backup Console settings;  
[Servers](#) - for managing servers, databases and policies execution;  
[Policies](#) - for managing policies;

[Templates](#) - for managing templates for policies, tasks, steps and schedules;  
[Activities](#) - for managing current active processes.

### Toolbars

A **toolbar** is a horizontal row of selectable image buttons that give the user a constantly visible reminder of and an easy way to select certain application functions.



Toolbars are available on [Servers](#) and [Policies](#) tabs.

---

### See also:

[EMS SQL Backup overview](#)

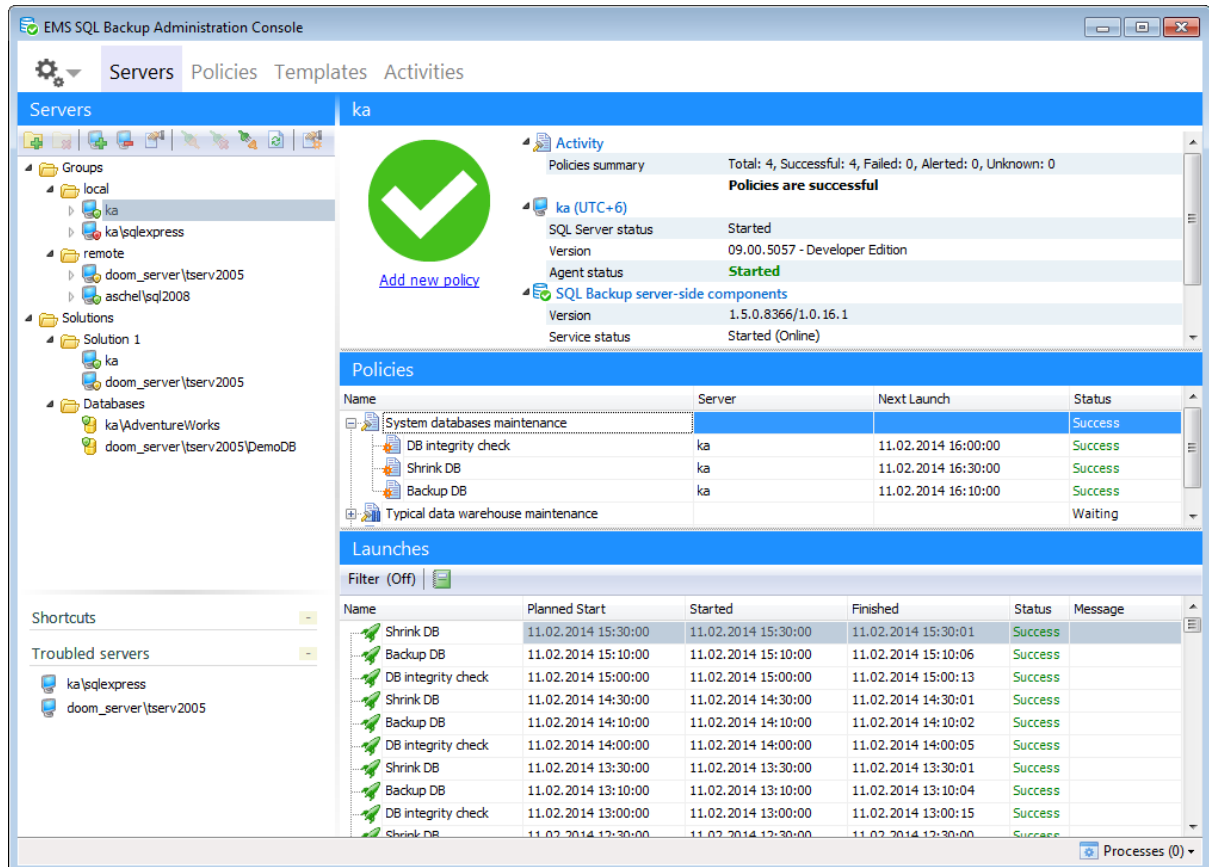
[Policy overview](#)

**Part**



## 3 Servers

This chapter contains sufficient information concerning server management and policy execution. Below you can see the overall information about basic working area sections.



### Servers

The Explorer area allows you to access servers and databases. Servers and databases can be included in Groups and Solutions.

*Groups* are used to organize servers by some specific criteria (for example, location).

*Solutions* unite servers to be included into one [Policy](#). The same server can be included into several solutions. To add server to a Solution simply drag-and-drop it from the group to a solution folder.

You can change objects order dragging them within the Explorer tree.

### Shortcuts

This panel is used for quick access to the groups\servers\databases. To add a object to the Shortcuts list use the corresponding menu item from the server\database popup menu (*Shift+Insert*) or drag the object to the Shortcuts.

### Troubled servers

This panel displays servers which have problem policies. You can review the servers and [resolve the problems](#).



### Overall status

It shows the status of the selected server, information about SQL Server and EMS SQL Backup Server-side components installed on the server and policies summary:



**Policies are successful** - there is a connection to the server and all policies have been executed successfully.

**There are no policies** - there is a connection to the server but no policies are created.



**Server isn't connected** - there is no connection to the server.



**Backup service isn't installed** - service components are not [installed](#) on the server.



**Policies have problems** - there have been some errors on policy execution. You can resolve the problems using the [Resolve the problem](#) option.













**Some of policies have unknown status** - status for some of the policies is unknown. It usually occurs when launch time has passed but policy was not started or if there is connection to the server to get actual policy status.



**Policies have warnings** - there have been some warnings on policy execution. Warnings include out-of-range parameters for [Database Parameters Logger](#) and some minor warnings on execution that do not affect the final result.

### Server status

-  - The server, which is not connected and has no EMS SQL Backup [server-side components installed](#).
-  - The connected server without EMS SQL Backup [server-side components installed](#).
-  - The server being refreshed.
-  - Connection to the server cannot be established. Check the [SQL Server connection info](#).
-  - The server with EMS SQL Backup [server-side components installed](#).
-  - The server with [EMS SQL Backup server-side components](#) installed. Connection to the server is not established.
-  - The server has some erroneous policies. You can fix them using [Resolve the Problem](#) dialog.
-  - The server has some [warnings](#) on policy execution.
-  - All policies on the server are successful.
-  - The server has policies with 'Unknown' status.

**Note:** Databases have states as well. To learn about them see the [Database states](#) topic.

### Policies


The grid displays all information about the policies deployed on the selected object. You can get information about policy result [status](#) and next launch time.

Double-click the policy or task to execute it.

If the policy or task is erroneous double-clicking will initiate [Resolve the problem](#) dialog.


The context menu of the selected policy allows you to:

[resolve the problem](#) (for erroneous policy)

 execute a policy









 pause policy execution

 view [policy history](#)

 edit policy in [Policy editor](#)

### Launches

Each policy consists of a set of tasks. This area displays information about task launches, launch date and time, task status and message. You can review tasks execution and *execute* the task manually or *ignore* the problems using the popup window. Set the limit of days for displaying in the dialog [Environment Options](#) at the [Refresh options](#) tab.

Name	Planned Start	Started	Finished	Status	Message
 Service task 1	2/28/2018 12:00:00 PM	2/28/2018 12:00:00 PM	2/28/2018 12:00:02 PM	Success	
 Service task 1	2/27/2018 12:00:00 PM	2/27/2018 12:00:00 PM	2/27/2018 12:00:02 PM	Success	
 Service task 1	2/26/2018 12:00:00 PM	2/26/2018 12:00:00 PM	2/26/2018 12:00:02 PM	Success	
 Service task 1	2/25/2018 12:00:00 PM	2/25/2018 12:00:00 PM	2/25/2018 12:00:02 PM	Success	
 Service task 1	2/24/2018 12:00:00 PM	2/24/2018 12:00:00 PM	2/24/2018 12:00:02 PM	Success	
 Service task 1	2/23/2018 12:00:00 PM	2/23/2018 12:00:00 PM	2/23/2018 12:00:03 PM	Success	
 Service task 1	2/22/2018 12:00:00 PM	2/22/2018 12:00:00 PM	2/22/2018 12:00:03 PM	Success	
 Service task 1	2/21/2018 12:00:00 PM	2/21/2018 12:00:00 PM	2/21/2018 12:00:03 PM	Success	

Launches can be filtered by status or execution date using the **Filter** button. To apply or discard filter use corresponding buttons.

**Status**

Fail       Warning       Missed  
 Success       Ignored  
 Running       Aborted

**Start date**

From date         
 To date

Use the **Show details** button in the Message column to view detailed information about the performed step or errors or warnings depending on the status.

You can generate [launches and policy reports](#) using the  **Show Report** button.

---

**See also:**

[Getting Started](#)

[Policies](#)

[Templates](#)

[Activities](#)

[Maintenance Steps](#)

[Options](#)

### 3.1 Popup menus

Popup menu of the object contains the list of actions that can be applied to the object. The following popup menus are available in the DB Explorer at **Servers** tab.

[Group popup menu](#)

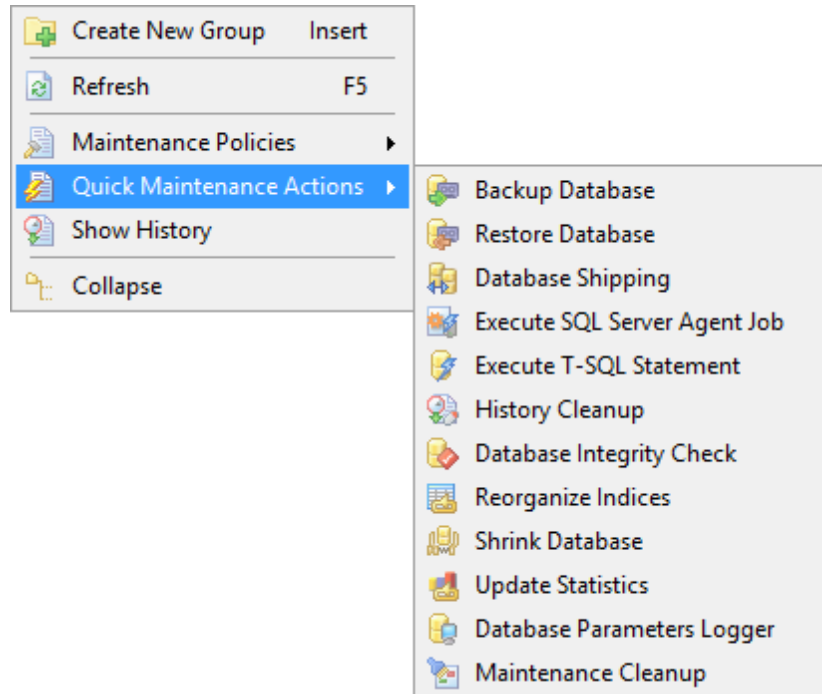
[Groups popup menu](#)

[Server popup menu](#)

[Database popup menu](#)

### 3.1.1 Groups popup menu

The popup menu is available for the top **Groups** node at DB Explorer.



**Create New Group** (or *Ins* key)

**Refresh** servers and policies (or *F5* key)

**Maintenance Policies**

**Create new Policy**

**Create from Templates** to create a policy based on the [created template](#).

**Convert from Maintenance Plan** runs the [Maintenance plan conversion](#) wizard.

**Quick Maintenance Actions** - open the list of [Maintenance Actions](#) for quick launch.

**Show history** opens the [Viewing Policy History](#) window.

**Collapse** all groups

**Expand** all groups

---

#### See also:

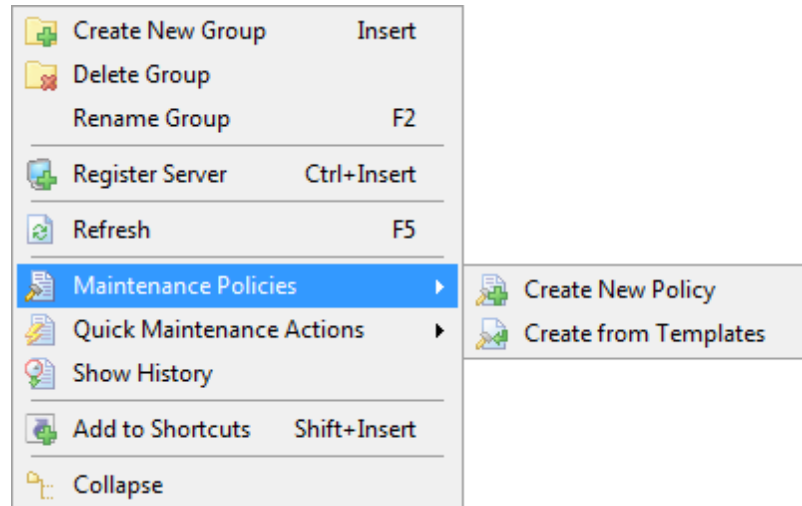
[Group popup menu](#)

[Server popup menu](#)

[Database popup menu](#)

### 3.1.2 Group popup menu

The popup menu is available at the **Group** node at DB Explorer.



**Create New Group** (or *Ins* key)

**Delete Group**

**Rename Group** (or *F2* key)

**Register server.** The [Register Server Wizard](#) is started.

**Refresh** group subobjects

**Maintenance Policies**

**Create New Policy**

**Copy from Templates** to create a policy based on the [created template](#).

**Quick Maintenance Actions** - open the list of [Maintenance Actions](#) for quick launch.

**Show history** opens the [Viewing Policy History](#) window.

**Add to [shortcuts](#)** the selected object (or *Shift+Ins*)

**Collapse** all groups

**Expand** all groups

---

#### See also:

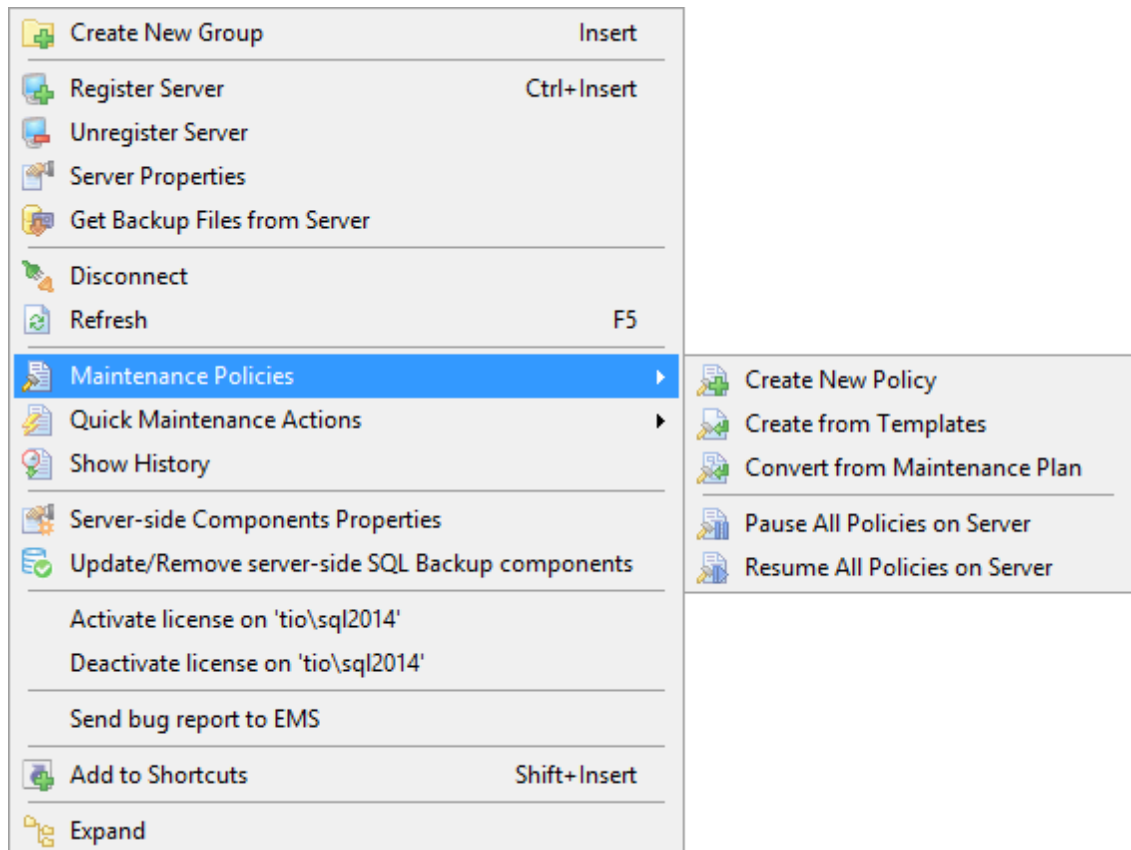
[Groups popup menu](#)

[Server popup menu](#)

[Database popup menu](#)

### 3.1.3 Server popup menu

This popup menu is available for the server at DB Explorer.



**Create New Group** (or *Ins* key)

**Register Server** launches the [Register Server Wizard](#).

**Unregister Server**

view [Server Properties](#)

[get backup file](#) from the server to the console side

**Refresh** server subobjects and policies (or *F5* key)

**Maintenance Policies**

**Create new Policy**

**Create from Templates** to create a policy based on the [created template](#).

**Convert from Maintenance Plan** runs the [Maintenance plan conversion](#) wizard.

**Pause All Policies on Server** stops policy scheduled execution until resuming

**Resume All Policies on Server** launches all stopped policies of the server


**Quick Maintenance Actions** opens the list of [Maintenance Actions](#) for quick immediate launch.

**Show History** opens the [Viewing Policy History](#) window.

view [Server-side components properties](#)

**Install/Update/Remove server-side EMS SQL Backup components** runs the corresponding wizard.

**Activate license on server**

**Deactivate license on server****[Send bug report to EMS](#)** **Add** the selected object to **[shortcuts](#)** **Collapse all** groups **Expand all** groups

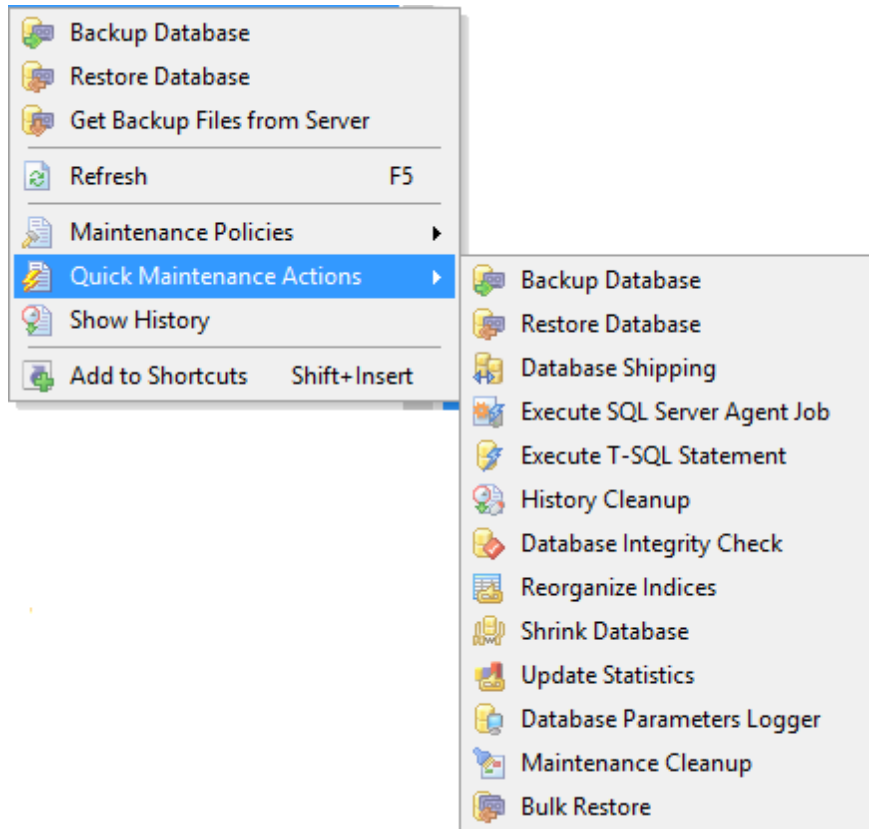
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**See also:**[Group popup menu](#)[Groups popup menu](#)[Database popup menu](#)



### 3.1.4 Database popup menu

This popup menu is available for the database at DB Explorer.



-  **Backup** the selected database
-  **Restore** the selected database
-  **Get Backup Files from Server**
-  **Refresh** databases and policies (or *F5* key)
-  **Maintenance Policies**
  -  **Create new Policy**
  -  **Create from Templates** to create a policy based on the [created template](#).
  -  **Convert from Maintenance Plan** runs the [Maintenance plan conversion](#) wizard.
  -  **Pause All Policies on Server** stops policy scheduled execution until resuming
  -  **Resume All Policies on Server** launches all stopped policies of the server
-  **Quick Maintenance Actions** - open the list of [Maintenance Actions](#) for quick launch.
-  **Show History** opens the [Viewing Policy History](#) window.
-  **Add to selected object to [shortcuts](#)**

---

#### See also:

- [Group popup menu](#)
- [Groups popup menu](#)
- [Server popup menu](#)

## 3.2 Register Server Wizard

This wizard guides you through the server registration. To launch the wizard select the **Register Server** popup menu item in the navigation panel or from the main menu.

**Steps:**

[Specifying connection parameters](#)

[Defining additional options](#)

[Performing operation](#)

---

**See also:**

[Install server-side EMS SQL Backup Components](#)

[Update/Remove server-side EMS SQL Backup components](#)

[Server-side components properties](#)

[Server properties](#)

### 3.2.1 Specifying connection parameters

This step of the wizard provides you with major set of options needed to register a server.

#### Server Name

Use this field to select server to register. You can select host from the drop-down list or type in a host name manually.

Please note that if Microsoft® SQL Server™ is installed as a named instance, you should enter the name of your machine and the instance name in the **Server name** field in the following format: *computer\_name\sqlserver\_instance\_name* (e.g. "MYCOMPUTER\SQLSERVER").

#### Alias

Define the server alias which is displayed in the DB Explorer tree and program tools. By default, a server alias generated by the application has the following format: <server\_name>.

#### Authentication

Specify the type of Microsoft® SQL Server™ authentication to be used for the connection:  *Windows authentication* or  *SQL Server authentication*.

**SQL Server authentication** requires *authorization* information: **User name** and **Password**.

**Timeout**

Use this option to restrict time for **EMS SQL Backup** to connect to server.

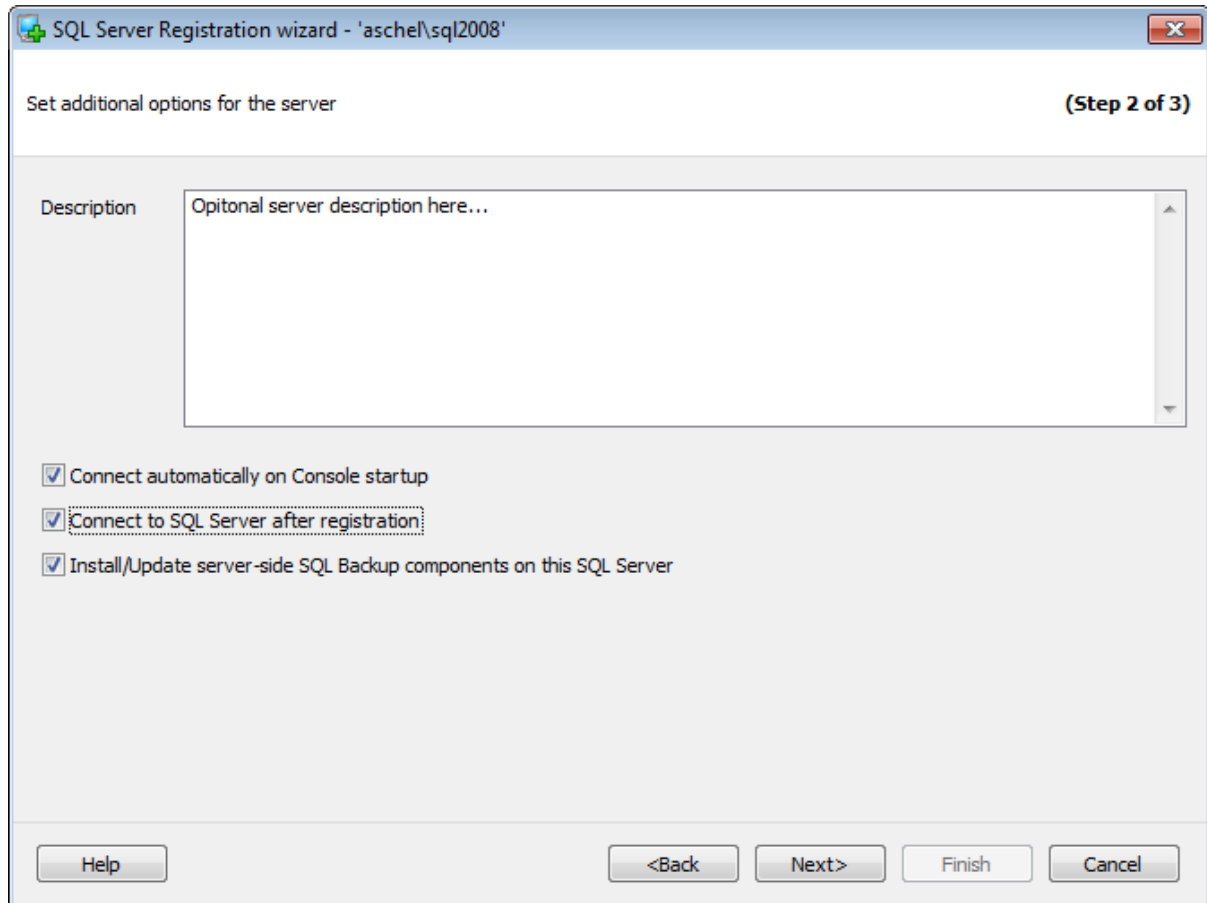
**Test connection**

You can test specified connection settings by pressing this button.

[Next step >>](#)

### 3.2.2 Defining additional options

At this step you can define the options for the registered servers and finish registering the server.



**Connect automatically on Console startup**

This option defines whether connection to the registered server should be performed on startup.

**Connect to SQL Server after registration**

Enable the option to connect to the server right after it has been registered.

**Install/Update server-side EMS SQL Backup components on this SQL Server**

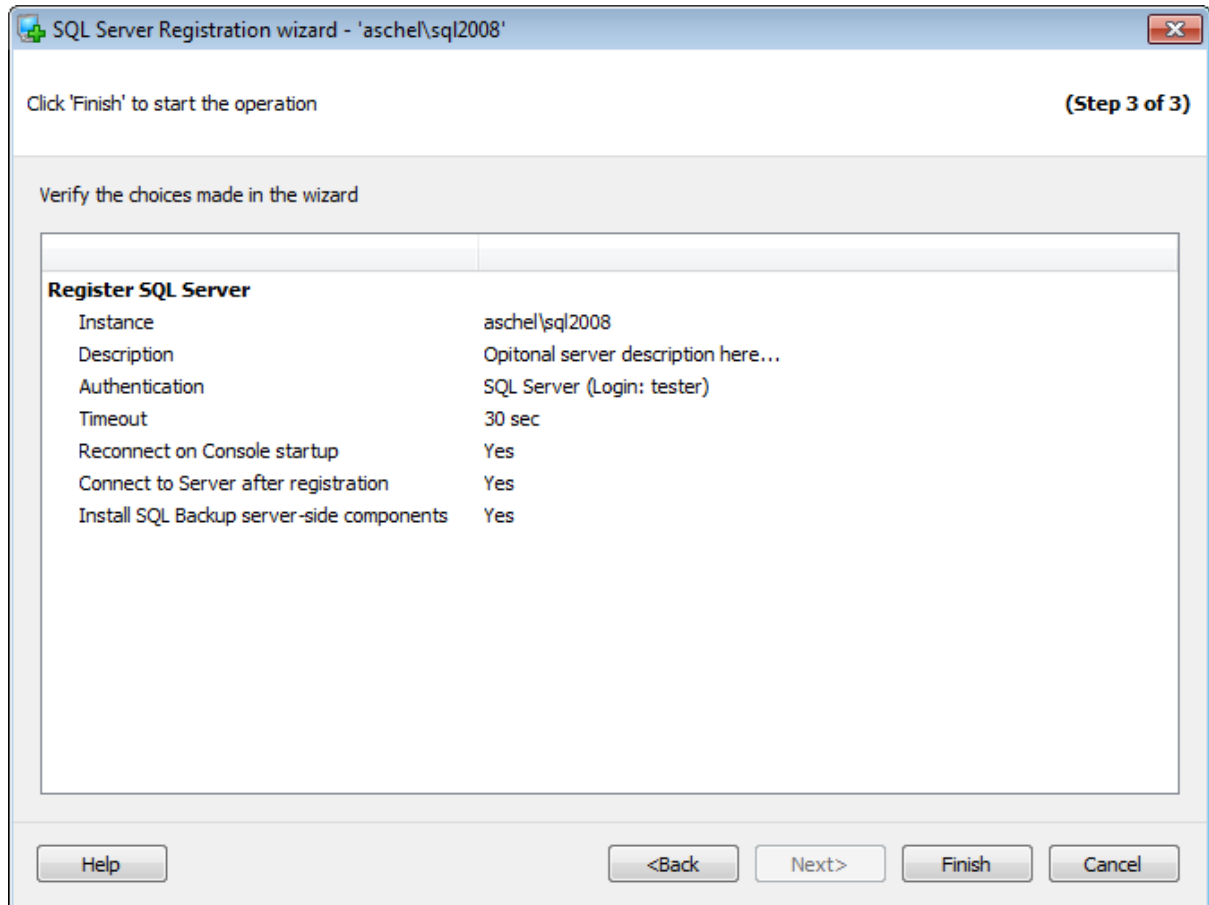
If this option is checked then the [Install Server-side Components](#) or the [Update/Remove Server-side components](#) wizard will be launched automatically after server is registered.

[<< Previous step](#)

[Next step >>](#)

### 3.2.3 Performing operation

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



Press the **Finish** button to register the server.

[<< Previous step](#)

### 3.3 Install server-side SQL Backup components

**EMS SQL Backup** utility [consists of two parts](#): server-side components and GUI administration console.

To start working with EMS SQL Backup you need to install server-side components. To run the installation wizard select the **Install server-side EMS SQL Backup Components** item in the server popup menu at [Servers](#) tab.

#### Server-side components

They are installed locally or remotely on all MS SQL server instances that will be managed within the utility. They include services and stored procedures (installed into *master* database) for server maintaining and reviewing.

#### EMS SQL Backup Administration Console

It is installed locally on the Administrator machine for easy administration of the servers. On installation the program installs the console program and configures the repository.

You need Local system or Local administration permissions to work with server and services.

#### Steps:

[Selecting installation type](#)

[Specifying service account settings](#)

[Performing operation](#)

---

#### See also:

[Register Server Wizard](#)

[Update/Remove server-side EMS SQL Backup components](#)

[Update server-side components](#)

[Stand-alone local server-side components installer](#)

[Server-side components properties](#)

[Server properties](#)

### 3.3.1 Selecting installation type

At this step of the wizard you need to specify EMS SQL Backup server-side components installation type.

If you are installing server-side components on the local server then on the first step the server name is displayed.

For a remote server choose the way the service will be installed.

#### **SQL Server**

Install server-side components via SQL Server connection.

It is recommended to use the *SQL Server* option if the SQL Server service is running under the account with Administrator privileges or *LocalSystem* account.

#### **Network Folder**

Install server-side components via Network shared folder.

#### **Remote resource**

Select the shared folder that will be used for copying files that are necessary for installing



EMS SQL Backup server-side components:  *ADMIN\$* or  *Custom*. Use the *Custom* share folder if the *ADMIN\$* share does not exist on the remote host.

For the Custom share you need to specify the following settings.

**Share path**

Specify the share folder name only without providing its full path (for example, '*Shared*').

**Share local path**

Specify the full local path to the shared folder on the remote host (for example, '*C:\Shared*').

Specify the authentication credentials to be used for connection to the shared folder

**Windows authentication** (use the current Windows user credentials) or  **This account** (provide authorization settings: **User** and **Password**).

Please make sure that the specified account has access to the shared folder and is a member of the Administrators group on the remote host.

After all settings are specified click the **Check folder** button to check the folder existence and access to it.

[Next step >>](#)

### 3.3.2 Specifying service account settings

At this step you should specify Windows account and SQL Server login for EMS SQL Backup Service.

#### Windows account for EMS SQL Backup Service Log On

##### Local System account (NT AUTHORITY\SYSTEM)

Select this option to use the *LocalSystem* Windows account as the *Service Log On* account.

##### This account

This option allows using specified system account to run the EMS SQL Backup Service. Note that the complete name (*<domain\_name\user\_name>*) of the **User** must be given.

#### SQL Server login for EMS SQL Backup Service

Specify the SQL Server login for EMS SQL Backup Service to connect to the server. Afterwards it can be edited using the [Server-side components Properties](#) dialog.

**Note:** The specified login must be a member of the system administrator role.

##### Windows authentication

Select this option to connect to the SQL Server through the Windows user account that is specified in the *Windows account for EMS SQL Backup Service Log On*.

**Note:** If the Windows login for the specified Windows user account does not exist on the SQL Server it will be created and added to the *sysadmin* server role.

**Note:** If you have selected the *Local System* Windows account as Service Log On and *Windows authentication* make sure that the *NT AUTHORITY\SYSTEM* login exists on the SQL Server and is a member of the *sysadmin* role.

**SQL Server authentication**

EMS SQL Backup identifies user by his server login and password. Login and password management is accomplished by Login Manager.

If  *Server authentication* is selected as the *authentication type*, you should provide *authorization* settings: **User** and **Password**. Analyzing them a system determines information and therefore object access permissions.

[<< Previous step](#)

[Next step >>](#)

### 3.3.3 Specifying clustered service parameters

If the target SQL Server is configured as a failover cluster the additional step is displayed. At this step you should specify the resources which can be used for EMS SQL Backup cluster service.

Installation wizard. Install server-side components on 'sqlserver'

EMS SQL Backup Service configuration for the cluster (Step 3 of 4)

Specify resources required for EMS SQL Backup Service

Storage settings

Available storage: Cluster Disk 4

Partition: H:

Network settings

Network: Cluster Network 1

IP address for service: 192.168.61.59

Buttons: Help, <Back, Next>, Install, Cancel

To ensure correct policies execution on SQL Server failover cluster, the EMS SQL Backup service should be configured as a clustered service. To install the clustered service an unused disk should be added to the server. This disk should have the unused partition which can be utilized by EMS SQL Backup service.

#### Storage settings

Choose the available unused disk in the **Available storage** drop-down list. This disk will be utilized by EMS SQL Backup clustered service. Choose its available partition in the **Partition** drop-down list.

#### Network settings

Set the network resources for the clustered service in this section.

Choose the cluster network name in the **Network** drop-down list and specify the IP address in the **IP address for service** field. The specified IP address will be used by EMS

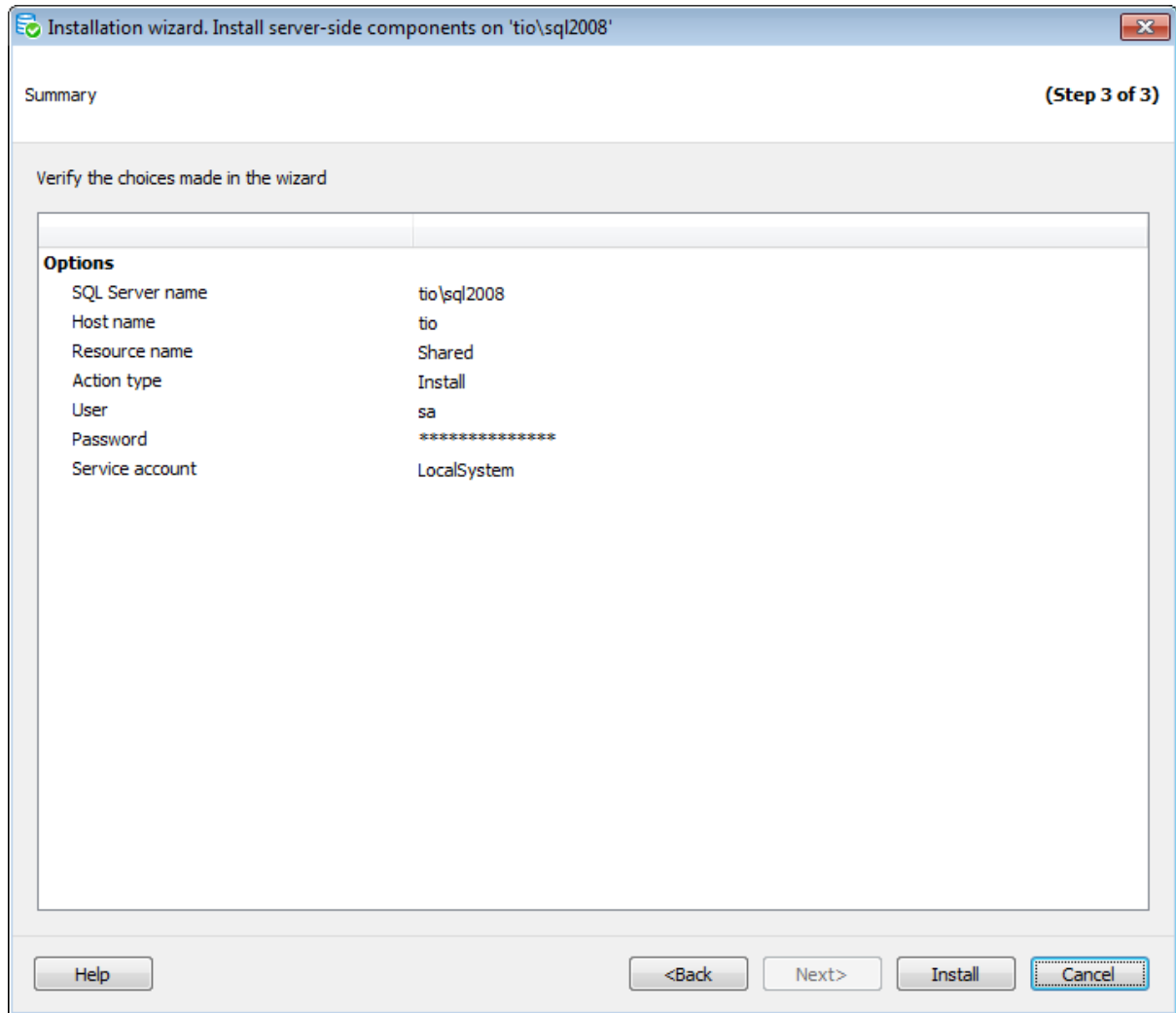
SQL Backup clustered service, so it should be free and should belong to the selected cluster network.

[<< Previous step](#)

[Next step >>](#)

### 3.3.4 Performing operation

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



You can **Verify the choices made in wizard** in the corresponding area and click the **Install** button to complete the operation.

[<< Previous step](#)

## 3.4 Update/Remove server-side SQL Backup components

Use this wizard to delete or update EMS SQL Backup server-side components at the server. After uninstalling all jobs linked with policies will be deleted.

**Note:** In *Update* mode all instances of the selected server are updated.

Select **Update/Remove server-side EMS SQL Backup components** item from the server's [popup menu](#) at the [Servers](#) tab.

### Steps:

[Selecting updating/removing type](#)

[Selecting operation type](#)

[Specifying service account settings](#)

[Performing operation](#)

---

### See also:

[Register Server Wizard](#)

[Install server-side EMS SQL Backup Components](#)

[Update server-side components](#)

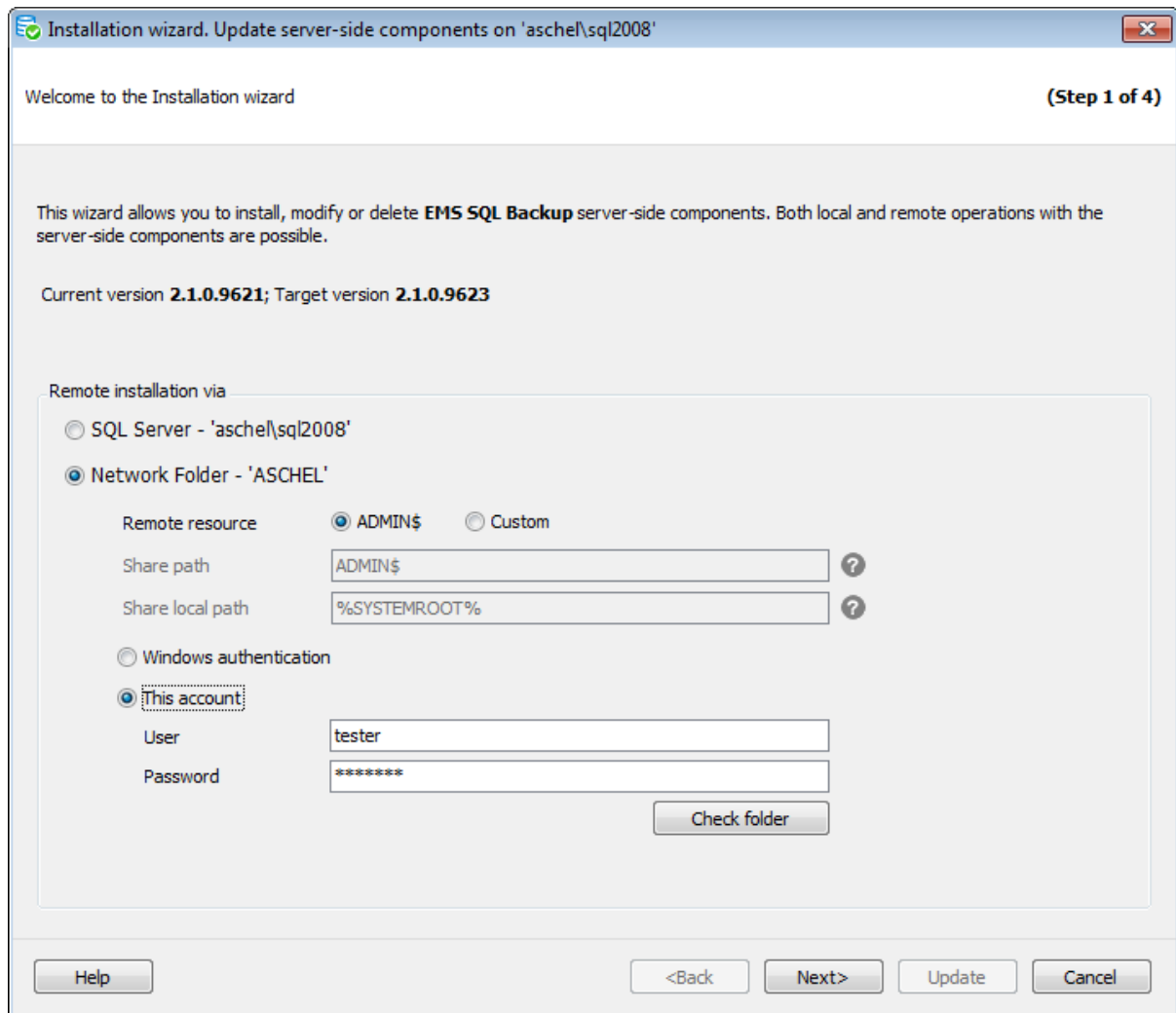
[Stand-alone local server-side components installer](#)

[Server-side components properties](#)

[Server properties](#)

### 3.4.1 Selecting updating/removing type

Select EMS SQL Backup server-side components updating/removing type.



If you are updating/uninstalling server-side components on the local server then on the first step the server name is displayed.

For a remote server choose the way the service will be updated/uninstalled.

#### **SQL Server**

Update/uninstall server-side components via SQL Server connection.

It is recommended to use the *SQL Server* option if the SQL Server service is running under the account with Administrator privileges or *LocalSystem* account.

#### **Network Folder**

Update/uninstall server-side components via Network shared folder.

#### **Remote resource**

Select the shared folder that will be used for copying files that are necessary for updating/removing EMS SQL Backup server-side components:  *ADMIN\$* or  *Custom*.



Use the *Custom* share folder if the *ADMIN\$* share does not exist on the remote host.

For the Custom share you need to specify the following settings.

**Share path**

Specify the share folder name only without providing its full path (for example, '*Shared*').

**Share local path**

Specify the full local path to the shared folder on the remote host (for example, '*C:\Shared*').

Specify the authentication credentials to be used for connection to the shared folder

**Windows authentication** (use the current Windows user credentials) or  **This account** (provide authorization settings: **User** and **Password**).

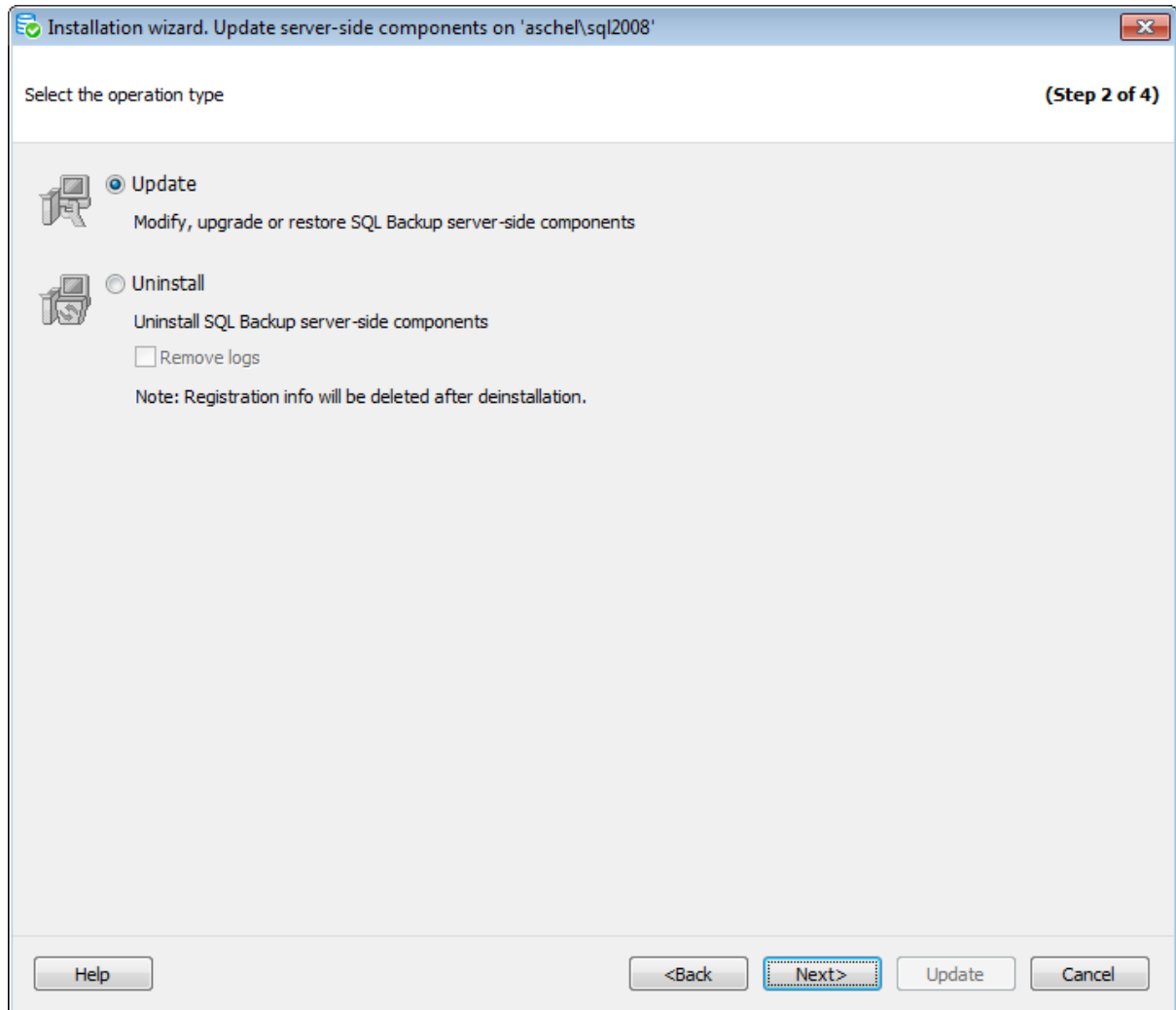
Please make sure that the specified account has access to the shared folder and is a member of the Administrators group on the remote host.

After all settings are specified click the **Check folder** button to check the folder existence and access to it.

[Next step >>](#)

### 3.4.2 Selecting operation type

Use this step of the wizard to select the required operation.



#### **Update**

Select this option to upgrade or restore EMS SQL Backup server-side components. You can use this option to keep the service up-to-date.

#### **Uninstall**

Select this option to remove SQL Backup server-side components. Jobs created by the EMS SQL Backup will be uninstalled from the selected server.

#### **Remove logs**

Check this option to clear the information about server policies and task execution history.

[<< Previous step](#)

[Next step >>](#)

### 3.4.3 Specifying service account settings

At this step you should specify Windows account and SQL Server login for EMS SQL Backup Service.

Installation wizard. Update server-side components on 'tio\sql2014'

Specify Windows and SQL Server accounts for EMS SQL Backup Service (Step 3 of 4)

Windows account for EMS SQL Backup Service Log On

Local System account (NT AUTHORITY\SYSTEM)

This account:

User

Password

SQL Server login for EMS SQL Backup Service

Windows authentication

SQL Server authentication

User

Password

Note that the specified account must be of a system administrator role. These credentials will be used as SQL Server connection parameters for server-side components.

Help <Back Next> Update Cancel

#### Windows account for EMS SQL Backup Service Log On

##### Local System account (NT AUTHORITY\SYSTEM)

Select this option to use the *LocalSystem* Windows account as the *Service Log On* account.

##### This account

This option allows using specified system account to run the EMS SQL Backup Service. Note that the complete name (*<domain\_name\user\_name>*) of the **User** must be given.

**Note:** EMS SQL Backup Service is common for all instances on the server. Therefore changes of Windows account on one instance will be applied on all other instances.

#### SQL Server login for EMS SQL Backup Service

Specify the SQL Server login for EMS SQL Backup Service to connect to the server. Afterwards it can be edited using the [Server-side components Properties](#) dialog.

**Note:** The specified login must be a member of the system administrator role.

**Windows authentication**

Select this option to connect to the SQL Server through the Windows user account that is specified in the *Windows account for EMS SQL Backup Service Log On*.

**Note:** If the Windows login for the specified Windows user account does not exist on the SQL Server it will be created and added to the *sysadmin* server role.

**Note:** If you have selected the *Local System* Windows account as Service Log On and *Windows authentication* make sure that the *NT AUTHORITY\SYSTEM* login exists on the SQL Server and is a member of the *sysadmin* role.

**SQL Server authentication**

EMS SQL Backup identifies user by his server login and password. Login and password management is accomplished by Login Manager.

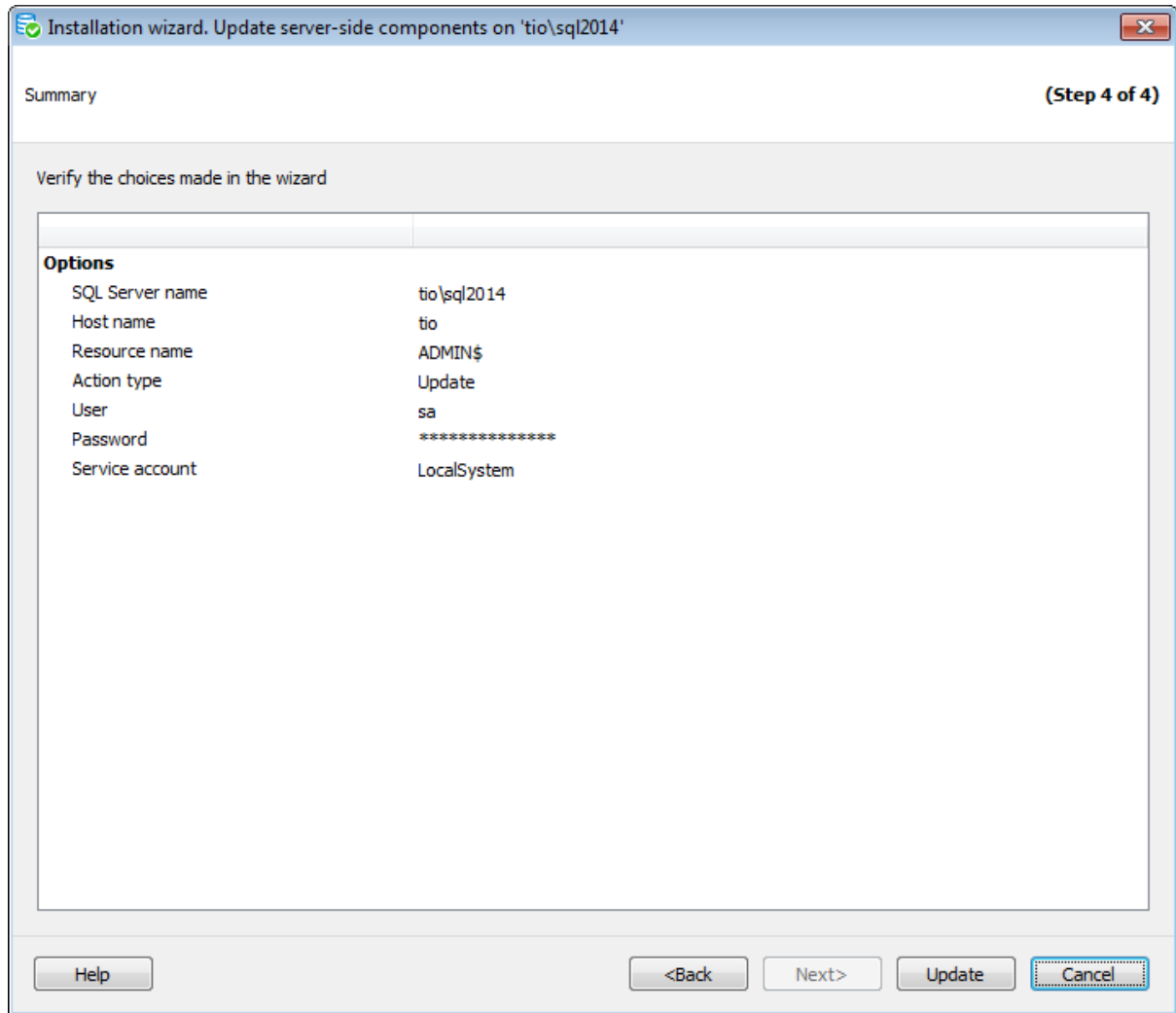
If  *Server authentication* is selected as the *authentication type*, you should provide *authorization* settings: **User** and **Password**. Analyzing them a system determines information and therefore object access permissions.

[<< Previous step](#)

[Next step >>](#)

### 3.4.4 Performing operation

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



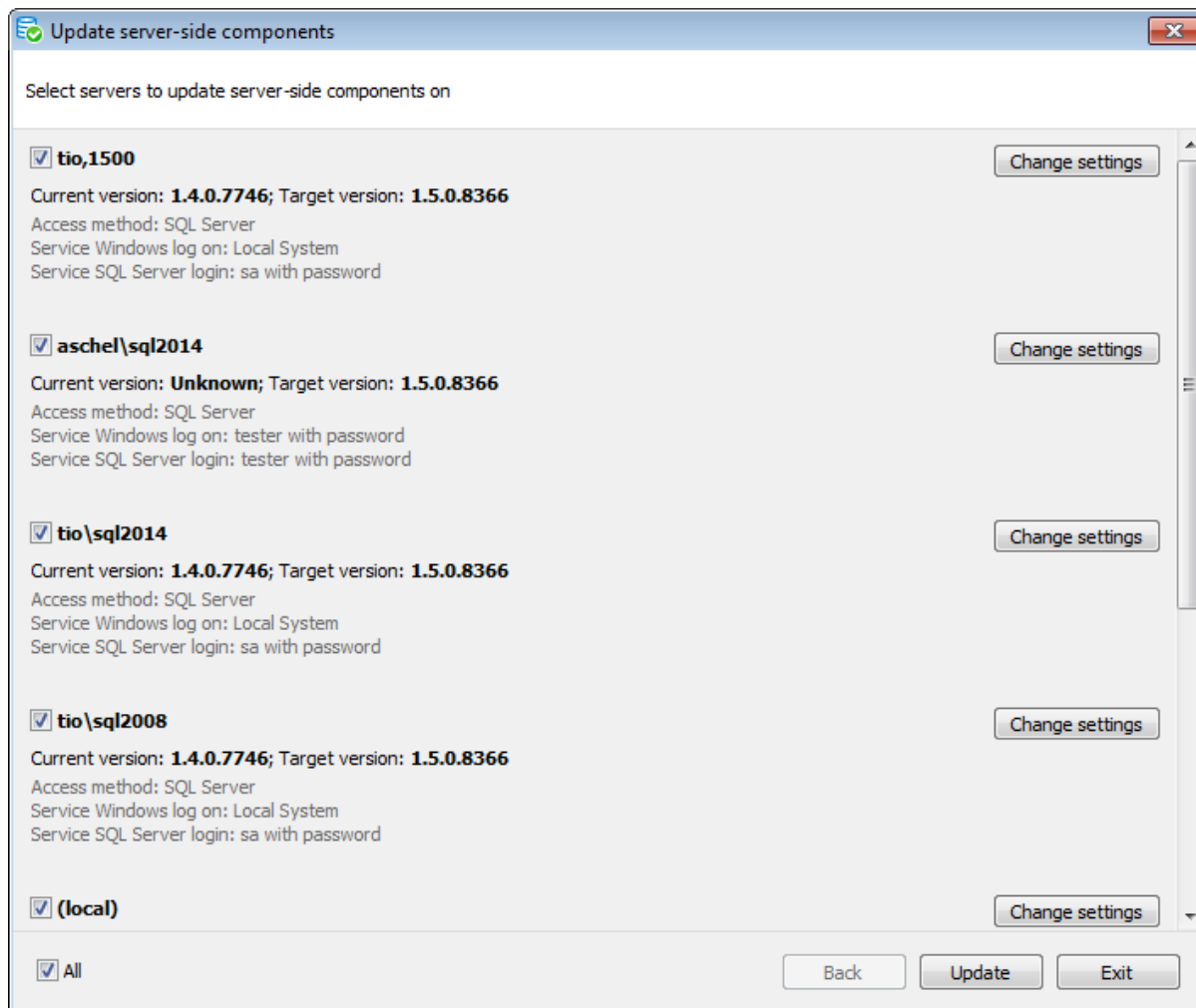
You can **Verify the choices made in wizard** in the corresponding area and click the **Update\Remove** button to complete the operation.

[<< Previous step](#)

### 3.5 Update server-side components

The **Update server-side components** tool allows you to update server-side components on multiple instances at once.

To launch this tool select the **Update Server-side Components** item of the [Gears menu](#). The list contains all currently connected servers with server-side components version lower than EMS SQL Backup Console version.



Check the servers in the list which server-side components should be updated. Check the  **All** checkbox to select all servers in the list.

Under the server name you can see parameters that will be used for updating: *Access method*, *Service Windows log on*, *Service SQL Server login* and *Network Folder authentication*. After selecting necessary instances and specifying all parameters click the **Update** button to start the process.

Click the **Change settings** button to configure authentication type and service account settings used for update server-side components operation in the [Service account settings](#) dialog.

### 3.5.1 Service account settings

In the **Service account settings** dialog you need to specify Windows account and SQL Server login for EMS SQL Backup Service.

In case of remote update you also need to specify the type of update.

Service account settings on aschel\sql2008

Remote installation via

SQL Server

Network Folder

Remote resource  ADMIN\$  Custom

Share path  ?

Share local path  ?

Windows authentication

This account

User

Password

Check folder

Windows account for EMS SQL Backup Service Log On

Local System account (NT AUTHORITY\SYSTEM)

This account:

User

Password

SQL Server login for EMS SQL Backup Service

Windows authentication

SQL Server authentication

User

Password

Note that the specified account must be of a system administrator role. These credentials will be used as SQL Server connection parameters for server-side components.

Help OK Cancel

For a remote server choose the way the service will be updated:  SQL Server or  Network Folder. It is recommended to use the SQL Server option if the SQL Server service is running under the account with Administrator privileges or LocalSystem account.

### Network Folder settings

This section appears if you have selected the Network folder as a type of remote update.

#### Remote resource

Select the shared folder that will be used for copying files that are necessary for updating EMS SQL Backup server-side components:  *ADMIN\$* or  *Custom*. Use the *Custom* share folder if the *ADMIN\$* share does not exist on the remote host.

For the Custom share you need to specify the following settings.

#### Share path

Specify the share folder name only without providing its full path (for example, '*Shared*').

#### Share local path

Specify the full local path to the shared folder on the remote host (for example, 'C:\*Shared*').

Specify the authentication credentials to be used for connection to the shared folder

**Windows authentication** (use the current Windows user credentials) or  **This account** (provide authorization settings: **User** and **Password**).

Please make sure that the specified account has access to the shared folder and is a member of the Administrators group on the remote host.

After all settings are specified click the **Check folder** button to check the folder existence and access to it.

### Windows account for EMS SQL Backup Service Log On

#### Local System account (NT AUTHORITY\SYSTEM)

Select this option to use the *LocalSystem* Windows account as the *Service Log On* account.

#### This account

This option allows using specified system account to run the EMS SQL Backup Service. Note that the complete name (<*domain\_name*\*user\_name*>) of the **User** must be given.

**Note:** EMS SQL Backup Service is common for all instances on the server. Therefore in [Stand-alone local server-side components installer](#) changes of Windows account on one instance will be applied on all other instances.

### SQL Server login for EMS SQL Backup Service

Specify the SQL Server login for EMS SQL Backup Service to connect to the server. Afterwards it can be edited using the [Server-side components Properties](#) dialog.

**Note:** The specified login must be a member of the system administrator role.

#### Windows authentication

Select this option to connect to the SQL Server through the Windows user account that is specified in the *Windows account for EMS SQL Backup Service Log On*.

**Note:** If the Windows login for the specified Windows user account does not exist on the SQL Server it will be created and added to the *sysadmin* server role.

#### SQL Server authentication

EMS SQL Backup identifies user by his server login and password. Login and password management is accomplished by Login Manager.



If  *Server authentication* is selected as the *authentication type*, you should provide *authorization* settings: **User** and **Password**. Analyzing them a system determines information and therefore object access permissions.

## 3.6 Standalone local server-side components installer

**Stand-alone local server-side components installer** is a tool for local installation of server-side components on every SQL Server instance.

This installer is distributed with EMS SQL Backup for local installation on the server.

If you cannot install, modify or delete EMS SQL Backup components from the EMS SQL Backup Administration Console (using the [Install server-side EMS SQL Backup components](#) or [Update/Remove server-side EMS SQL Backup components](#) wizards) due to some reasons you can launch the installer directly on the server machine.

In order to do this copy the EMS SQL Backup setup file to the server machine and then launch it. On the third step of this wizard choose the *Server-side only* mode. After the EMS SQL Backup Setup wizard is finished the Installation Wizard for installing server-side components is launched.

This wizard allows you to install, modify, or delete components of the EMS SQL Backup service.

### Steps:

[Choosing action](#)

[Configuring installation settings](#)

[Installer connection properties](#)

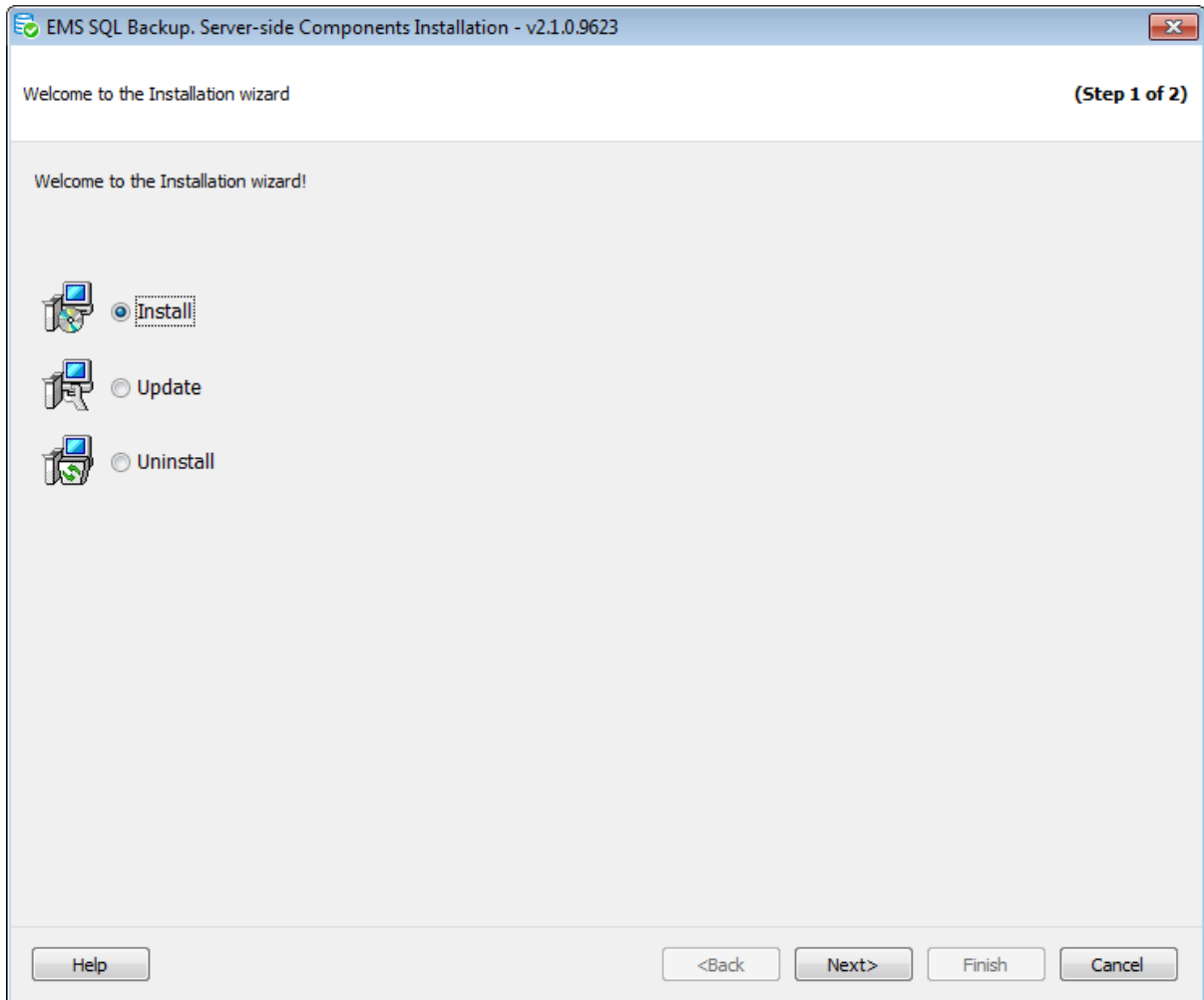
[Service account properties](#)

[Specifying clustered service parameters](#)

[Performing operation](#)

### 3.6.1 Choosing action

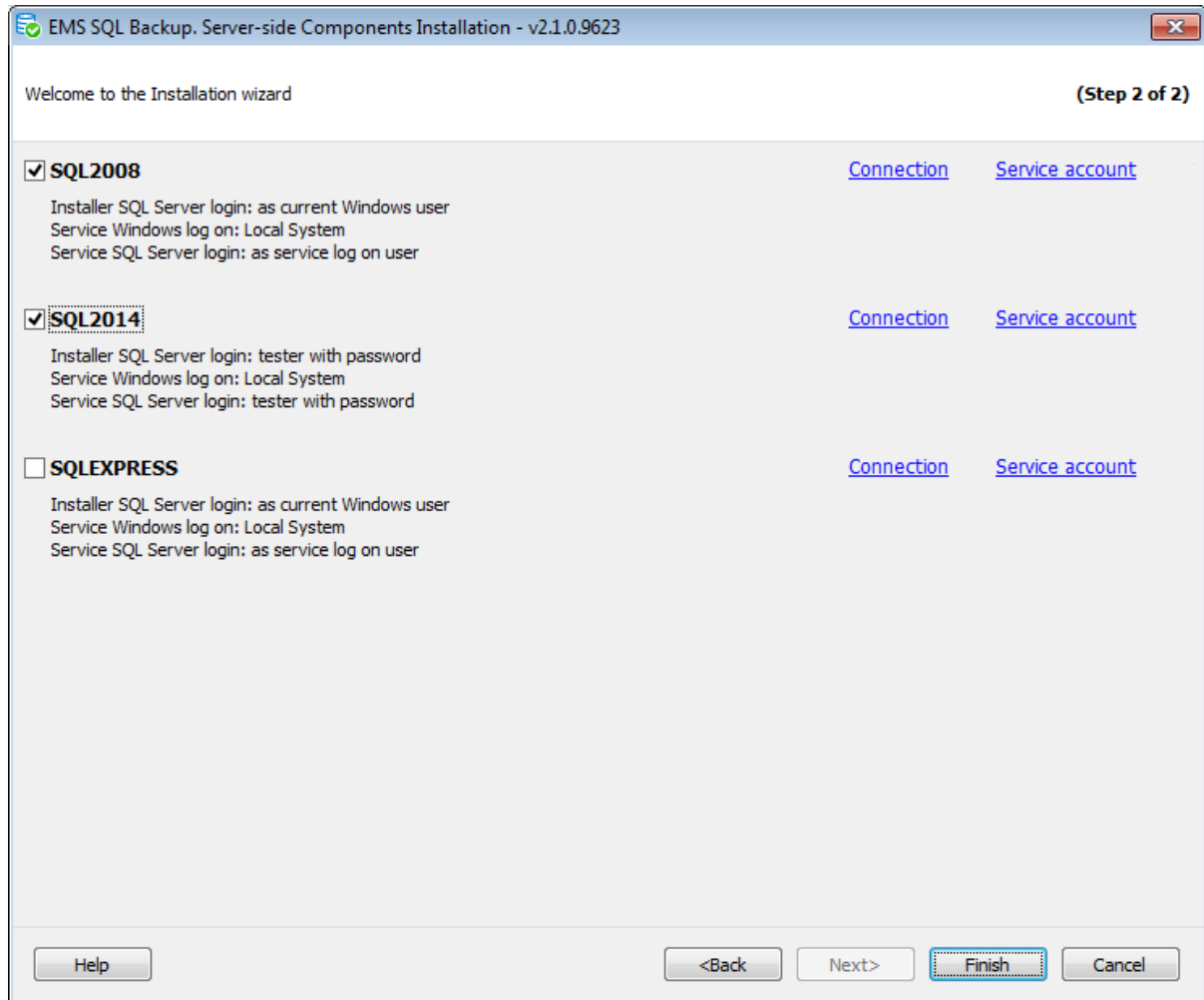
Choose the action at this wizard step to install/update/uninstall EMS SQL Backup server-side components.



[Next step >>](#)

### 3.6.2 Configuring installation settings

On this step you need to configure all settings necessary for server-side components install/update/uninstall process.



Check instances on which you want to install/update/delete server-side components. All instances available for the selected operation are listed on the left.

Click the **Connection** button to configure [Installer connection properties](#).

Click the **Service account** button to configure [EMS SQL Backup Service account settings](#).

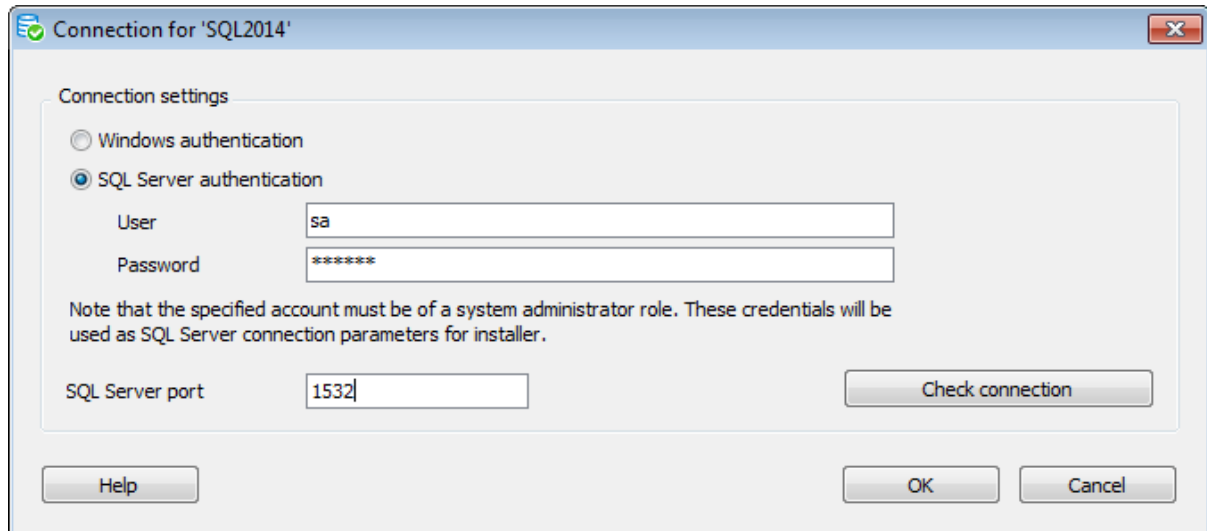
Configured parameters are displayed under the SQL Server instance name.

[<< Previous step](#)

[Next step >>](#)

### 3.6.2.1 Installer connection properties

In the **Connection for [instance\_name]** dialog you need to configure SQL Server login that will be used by Installer and SQL Server port.



#### Connection settings

Specify the type of Microsoft® SQL Server™ authentication to be used for the connection:  *Windows authentication* or  *SQL Server authentication*.

#### **Windows Authentication**

EMS SQL Backup identifies the current user by his domain name and password which are defined automatically according to his Windows domain user account.

#### **SQL Server authentication**

EMS SQL Backup identifies user by his server login and password. Login and password management is accomplished by Login Manager.

If  *Server authentication* is selected as the *authentication type*, you should provide *authorization* settings: **User** and **Password**. Analyzing them a system determines information and therefore object access permissions.

**Note:** The specified login must be a member of the system administrator role.

#### **SQL Server port**

Identify the TCP/IP port used by the SQL Server Instance.

After connection settings are specified, click the **Check connection** button to check is the specified login is valid for running the Installer, i.e. the specified login exists, the password is correct and the login is a member of the sysadmin role.

### 3.6.3 Specifying clustered service parameters

If the target SQL Server is configured as a failover cluster the additional step is displayed. At this step you should specify the resources which can be used for EMS SQL Backup cluster service.

EMS SQL Backup. Server-side Components Installation - v2.1.0.9623

Welcome to the Installation wizard (Step 3 of 3)

Specify resources required for EMS SQL Backup Service

**Storage settings**

Available storage: Cluster Disk 4

Partition: H:

**Network settings**

Network: Cluster Network 1

IP address for service: 192.168.61.159

Buttons: Help, <Back, Next>, Finish, Cancel

To ensure correct policies execution on SQL Server failover cluster, the EMS SQL Backup service should be configured as a clustered service. To install the clustered service an unused disk should be added to the server. This disk should have the unused partition which can be used by EMS SQL Backup service.

#### Storage settings

Choose the available unused disk in the **Available storage** drop-down list. This disk will be used by EMS SQL Backup clustered service. Choose its available partition in the **Partition** drop-down list.

#### Network settings

Set the network resources for the clustered service in this section.

Choose the cluster network name in the **Network** drop-down list and specify the IP address in the **IP address for service** field. The specified IP address will be used by EMS SQL Backup clustered service, so it should be free and should belong to the selected

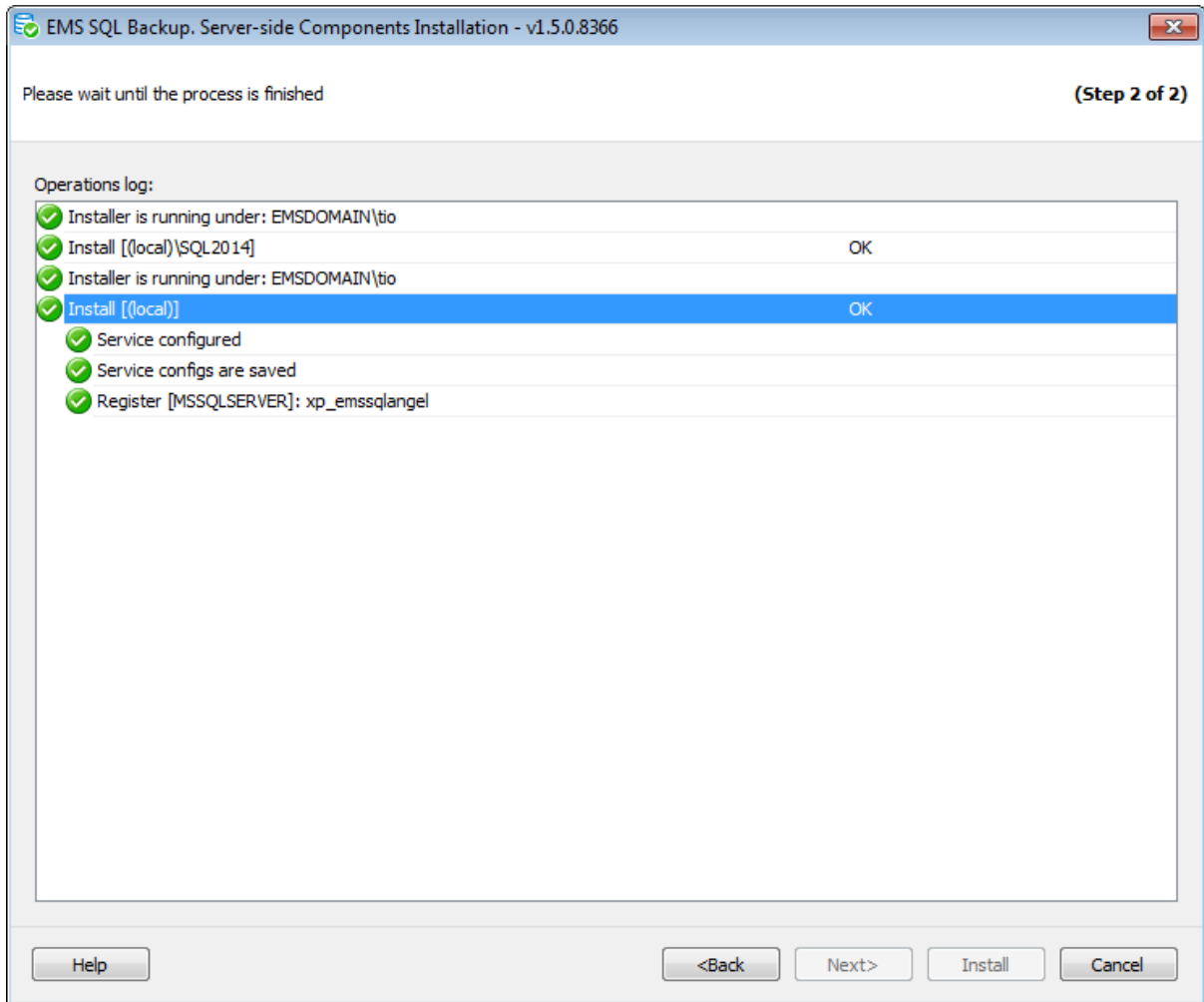
cluster network.

[<< Previous step](#)

[Next step >>](#)

### 3.6.4 Performing operation

On this step of the wizard you can view the operation log.




After the operation is completed you can **Copy** the operation log using the context menu.

[<< Previous step](#)



## 3.7 Server properties

**Server properties** window displays settings that have been defined on [server registration](#) . To open it use  **Server properties** context menu item in Server Explorer. Use this dialog to view and edit the registration properties of the server.

[Server connection info](#)

[Server options](#)

---

**See also:**

[Register Server Wizard](#)

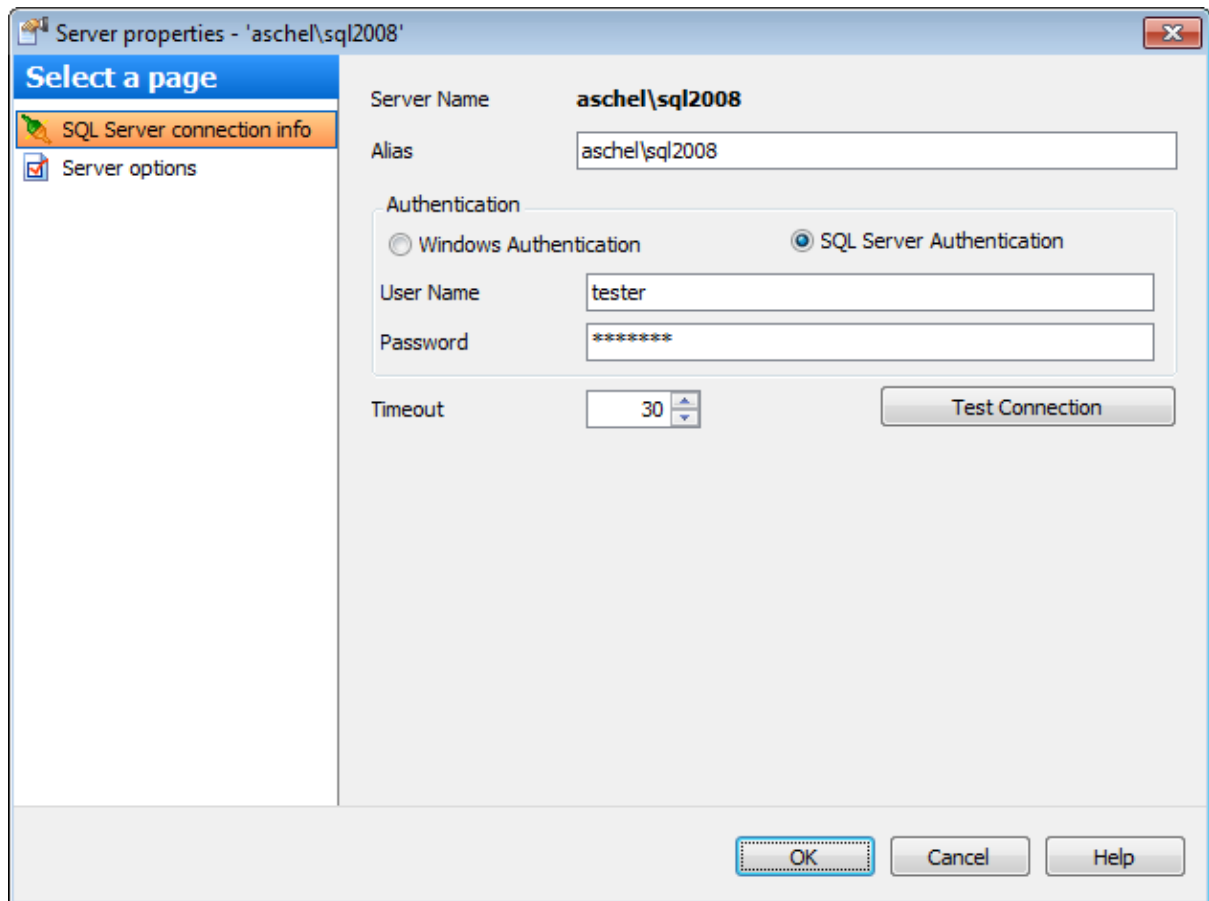
[Install server-side EMS SQL Backup Components](#)

[Update/Remove server-side EMS SQL Backup components](#)

[Server-side components properties](#)

### 3.7.1 Server connection info

This dialog allows you to view and edit connection properties in the corresponding boxes.



The screenshot shows a dialog box titled "Server properties - 'aschel\sql2008'". On the left, there is a "Select a page" sidebar with two options: "SQL Server connection info" (selected) and "Server options". The main area of the dialog contains the following fields and controls:

- Server Name:** aschel\sql2008
- Alias:** aschel\sql2008
- Authentication:** Radio buttons for "Windows Authentication" and "SQL Server Authentication" (selected).
- User Name:** tester
- Password:** masked with asterisks (\*\*\*\*\*)
- Timeout:** 30 (with up/down arrows)
- Test Connection:** A button to test the connection settings.
- Buttons:** OK, Cancel, and Help buttons at the bottom right.

#### Server Name

Displays SQL Server instance name.

#### Alias

Stores the server alias which is displayed in the DB Explorer tree and program tools. It is set on [server registration](#) in the program.

#### Authentication

Specify the type of authentication to be used for the connection:  *Windows authentication* or  *SQL Server authentication*.

**SQL Server authentication** requires *authorization* information: **User Name** and **Password**.

#### Timeout

Use this option to restrict time (in seconds) for **EMS SQL Backup** to connect to server.

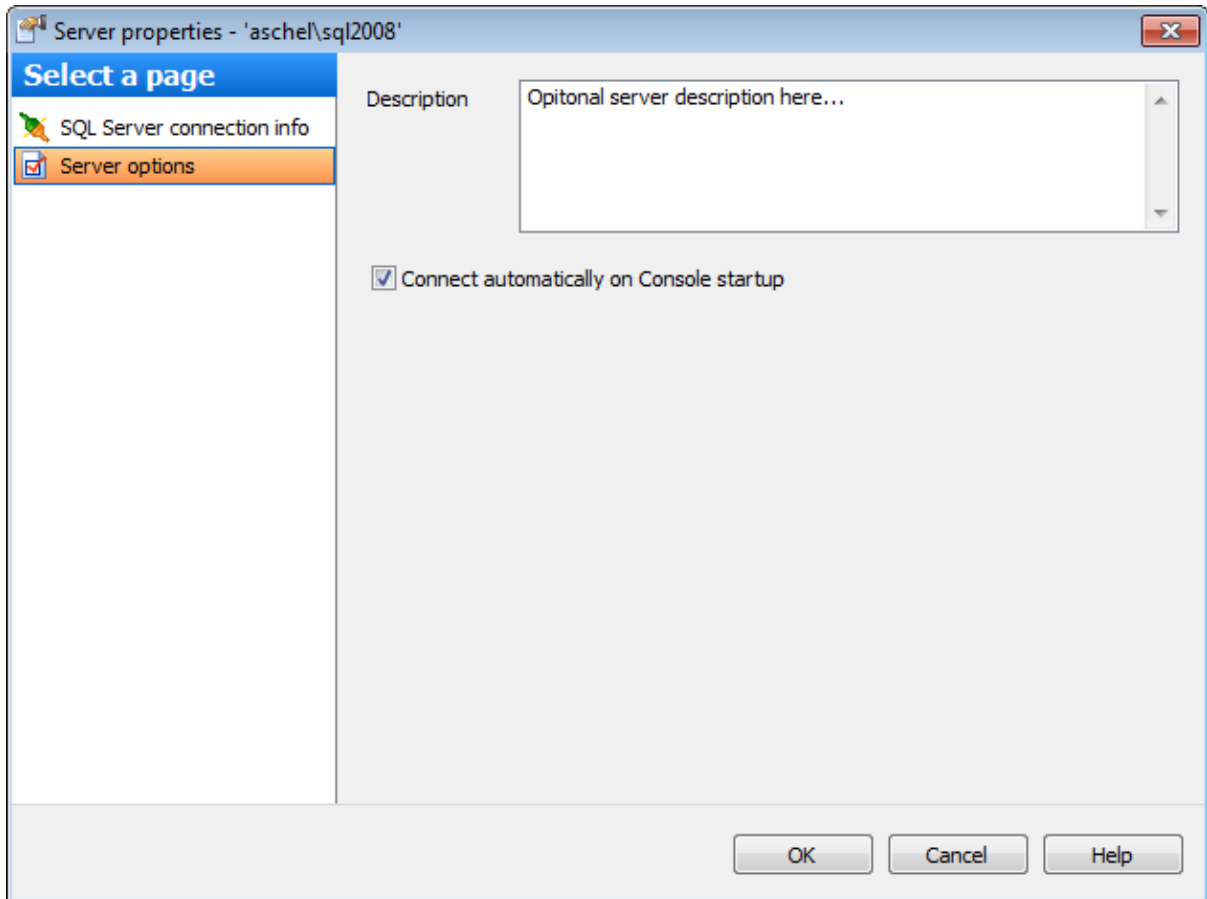
#### Test connection

You can test specified connection settings by pressing this button.

[Server options](#)

### 3.7.2 Server options

The **Server options** section allows you to set additional options for the database.




**Description** field is used for comment on the server.

**Connect automatically on Console startup**

This option defines whether connection to the registered server should be performed on startup.

[Server connection info](#)

## 3.8 Server-side components properties

**Server-side components properties** window displays settings that have been defined on [server-side components installation](#) and email settings for correct sending of policy [notifications](#). To open it use server's  **Server-side components properties** context menu item.

[Server options](#)

[Email settings](#)

[Log storage settings](#)

[Backup settings](#)

---

### See also:

[Register Server Wizard](#)

[Install server-side EMS SQL Backup Components](#)

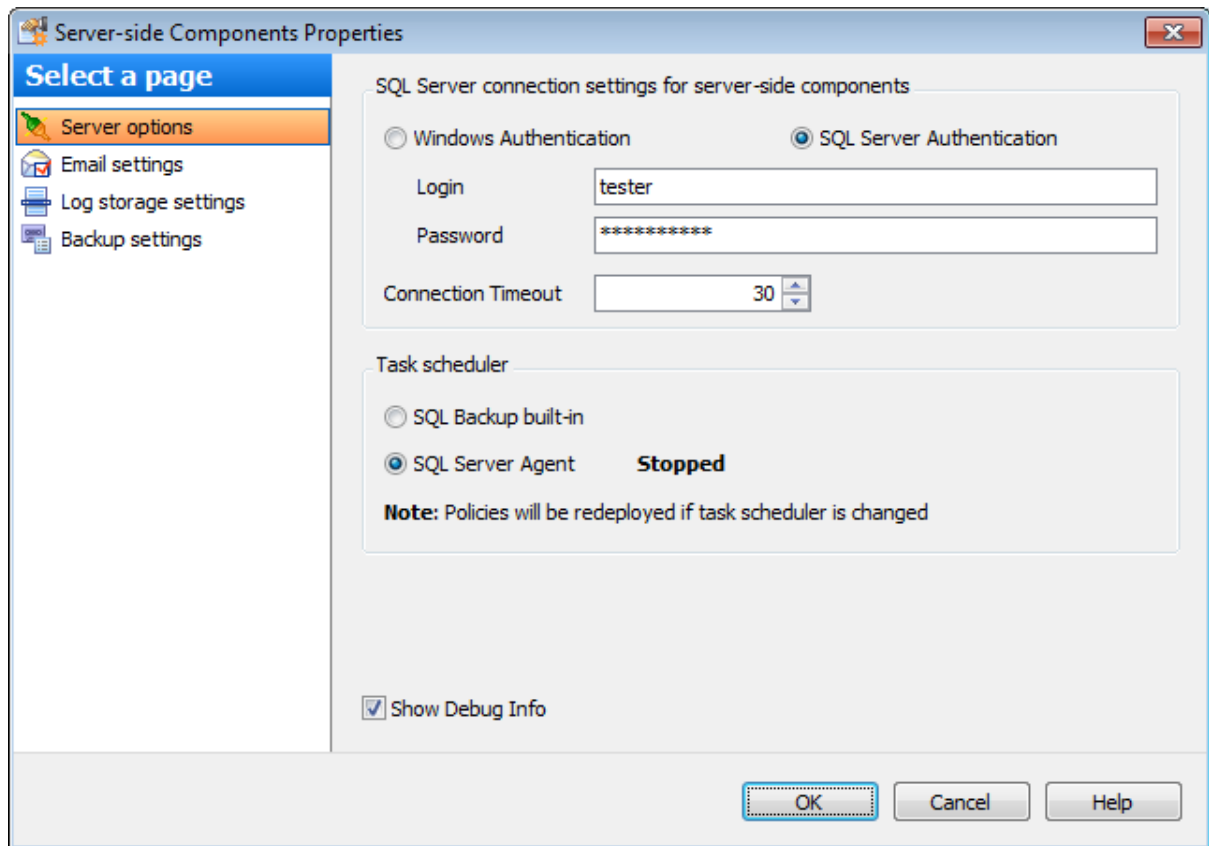
[Update/Remove server-side EMS SQL Backup components](#)

[Server properties](#)

### 3.8.1 Server options

At the **SQL Server connection info** tab you can view/change authentication to be used for user authorization on the server. The settings you provide will be used by the service installed on the server.

Unlike the [Server Properties](#) dialog this one is used to set *SQL Server* authentication parameters for an account that will be used for connection by a service installed on a server.



Specify the type of Microsoft® SQL Server™ authentication to be used for the connection:  *Windows* authentication or  *SQL Server* authentication.

**SQL Server authentication** requires authorization information: **Login** and **Password**.

#### Connection Timeout

Use this option to restrict time (in seconds) for **EMS SQL Backup** to connect to server.

#### SQL Backup built-in

Select this option to launch policies according to the EMS SQL Backup built-in scheduler.

#### SQL Server Agent

On selecting this option all policies are transformed to SQL Server Agent jobs. The current state of SQL Server Agent is displayed on the right.

#### Show Debug Info

Check this option to display debug information in server logs.

[Email settings](#)

### 3.8.2 Email settings

At this tab you can set email setting that are used for sending policies [notifications](#) by email. If the following settings are not set email notifications cannot be sent.

The screenshot shows the 'Server-side Components Properties' dialog box with the 'Email settings' tab selected. The 'Send notifications by Email' checkbox is checked. The 'Email service settings' section includes the following fields: SMTP server (mail), Port (25), Login (tio), Password (masked with asterisks), and Send from (tio@ems.ru). A 'Test address' field contains employees@ems.ru and a 'Test' button is next to it. The dialog has 'OK', 'Cancel', and 'Help' buttons at the bottom.

**Send notifications by Email**

Check this option to enable email sending for the service.

#### Email service settings

##### SMTP server

Type the name of SMTP server to be used for sending emails.

##### Port

Specify SMTP port for the mail agent.

**Use SSL/TLS**

Use this option to enable SSL/TLS encryption to connect to mail server.

##### Login

Input the login for access to the mail agent.

##### Password

Input the password for access to the mail agent.

##### Send from

Specify the email address that will be displayed as a Sender address in the notification



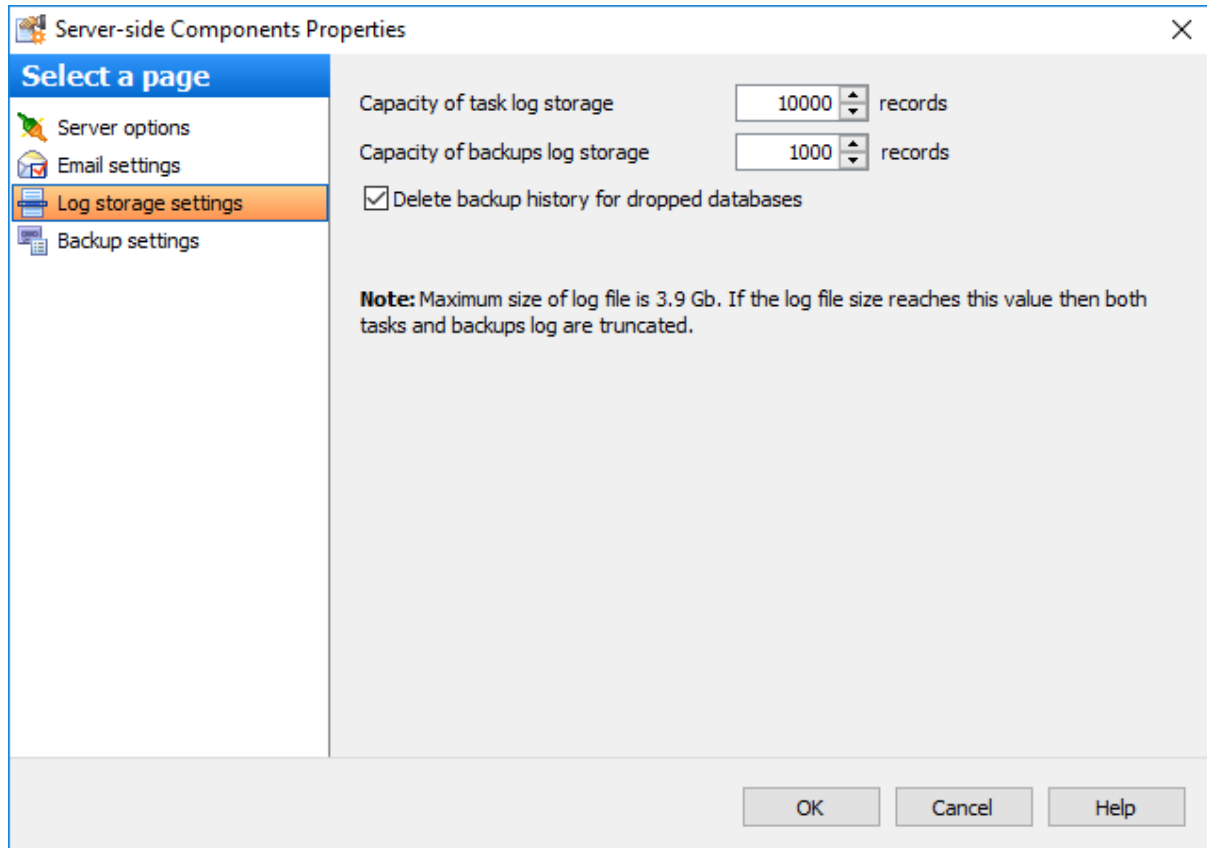
email.

**Test address**

Click the button to send a test email to the recipient to ensure your settings have been correct correctly.

### 3.8.3 Log storage settings

At this tab you need to configure settings of EMS SQL Backup log storage for the server. Log file stores information about user tasks and policies [launches](#).



#### Capacity of task log storage

Set the maximum task log records count. When the task log records count reaches the maximum set value the program will truncate old records automatically.

#### Capacity of backups log storage

Set the maximum backup history records count. When the history records count reaches the maximum the program will truncate old backup history records automatically.

#### Delete backup history for dropped databases

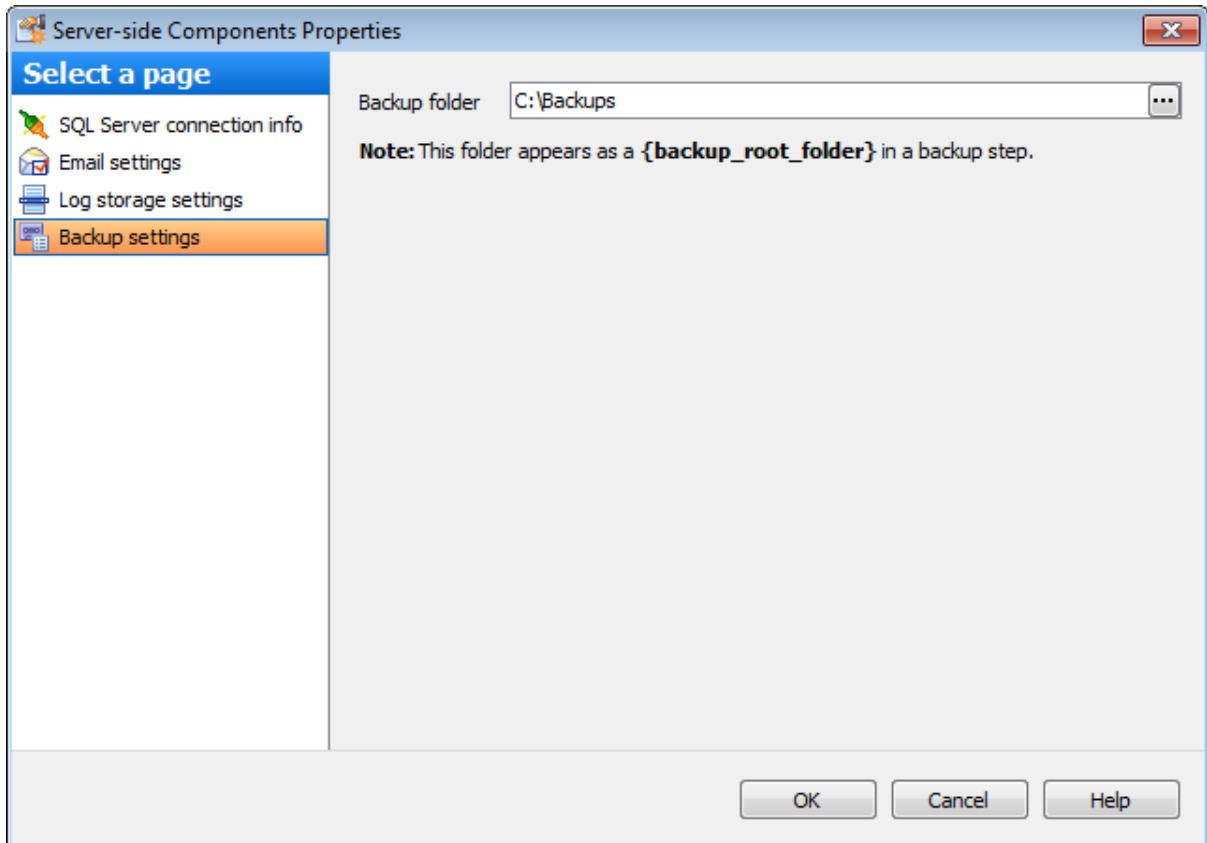
Check this option to ensure that all backup history is removed from SQL Backup storage on deleting a database. History cleanup is provided by firing the DDL trigger, so it does not matter how the database is actually dropped.

Depending on the configured values you may receive warning notification message that 'Log size is exceeded' appearing on server refresh, notifying that you need to decrease the capacity values. Also this message will be displayed in the [server overview information](#) until you perform [history cleanup](#) operation or the file is truncated automatically.


Note, that log file truncation is not performed immediately on reaching the specified boundary values.

### 3.8.4 Backup settings

At the **Backup settings** tab you need to set folder which will be used as a default folder for storing backup files.



#### Backup folder

Define the folder for storing backups created by [Backup Database](#) wizard. Click the  button to open the [Server folder dialog](#) to pick up the needed server folder.

**Note:** This folder is tagged as a `{backup_root_folder}` in a backup step.

## 3.9 Get backup files from server

The **Get Backup Files from Server** wizard guides you through the process of transferring backup files from the selected server to the local disk of the machine where EMS SQL Backup Administration Console is running. Getting backup files requires server connection only.

To run this wizard select the  **Get Backup Files from Server** item in the server popup menu at [Servers](#) tab.

### Steps:

[Specifying backup source](#)

[Selecting backup files](#)

[Viewing summary information](#)

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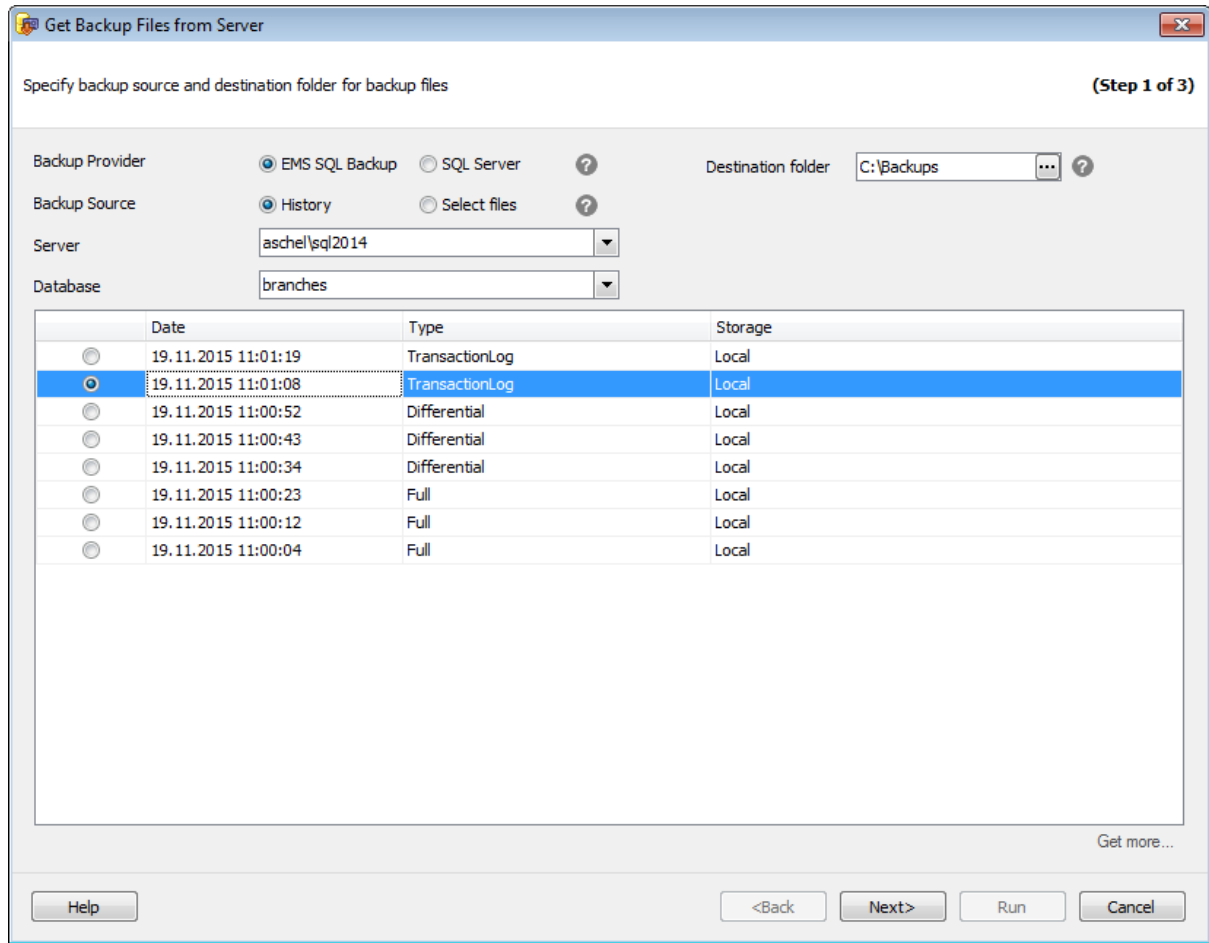
### See also:

[Backup Database Wizard](#)

[Restore Database Wizard](#)

### 3.9.1 Specifying backup source

On the first step of the wizard you need to specify the backup source and the destination folder on the local machine.



#### Destination Folder

Specify the destination server folder where backups will be transferred to. This folder is set relatively to the local machine.

#### Backup provider

You need to select the provider that had been used for [creating the backup](#).

#### Backup source

*History* - shows the list of the available database backups for the specified server and database. Only backups of corresponding provider types are displayed.

*Select Files* - allows selecting individual backup files from the server.

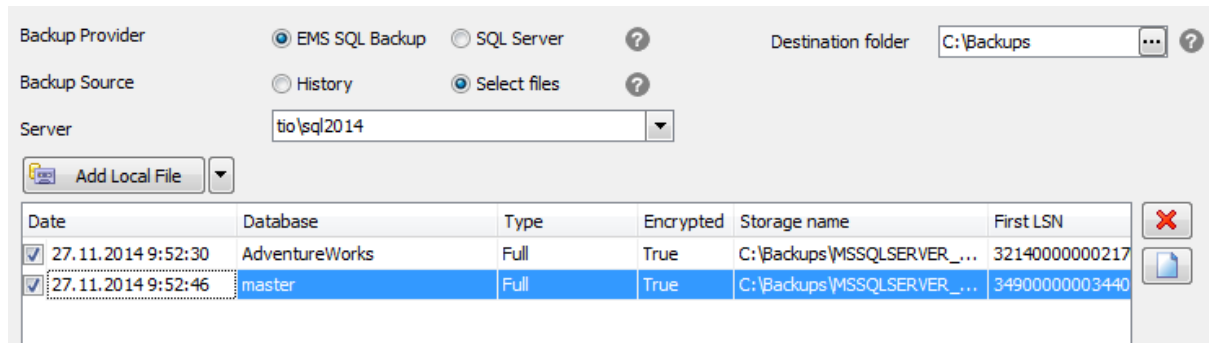
#### Server

Select the server to get database backup from.

#### Database

Select the database to get backups for. If *History* backup source is selected, the list of 20 latest backups is displayed. Use **Get more...** button to access older backups. If *Select*

Files source is selected, you need to add the files manually.



### Add Local File

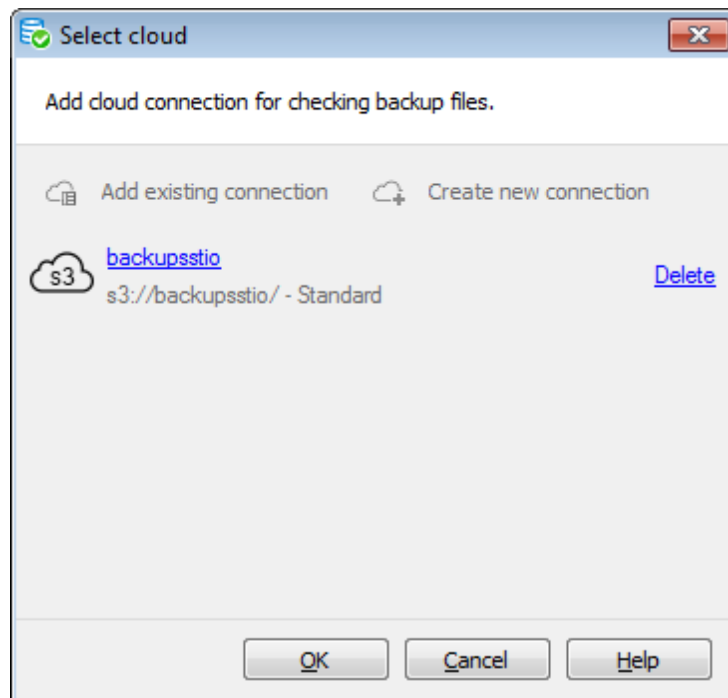
Click this button to search for the backup files on the selected server. If backup consists of multiple files (this option is only available for [EMS SQL Backup](#) type) you need to specify the first file from the chain. For other file options use the down-arrow button.

### Add Network File

Use this option to select the file from the network.

### Add Cloud File

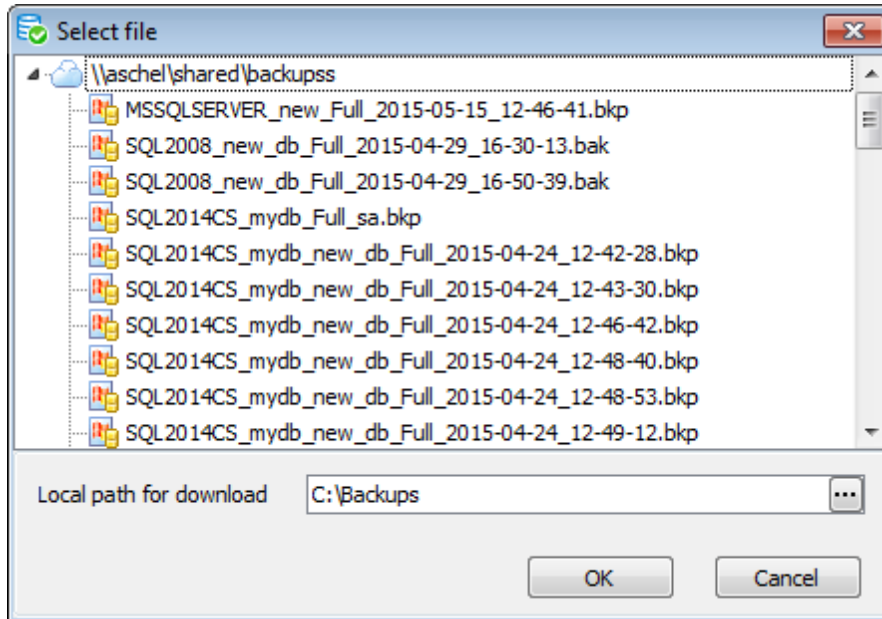
The **Select cloud** dialog is opened. You need to select the cloud to get a backup file from.



You can create a new connection using **Create new connection** link. To add the existing connection set in [Cloud Connections](#) dialog at [Options](#) use **Add existing connection** item.

If you create a new connection, you can save it after all options have been set. If you

need to edit an added connection click its name to open the corresponding dialog. After all options have been set, click the **OK** button to get the files from the cloud. If the connections is set successfully and the user has appropriate permissions, the **Select file** dialog opens with the list of available files.



Select the backup file and set the local folder for upload at **Local path for download**. Click the OK button to upload the selected file to the server. If the file has been uploaded successfully, you can proceed to the [next step](#).

**Remove**

Use it to remove the selected file from the list.

**Clear**

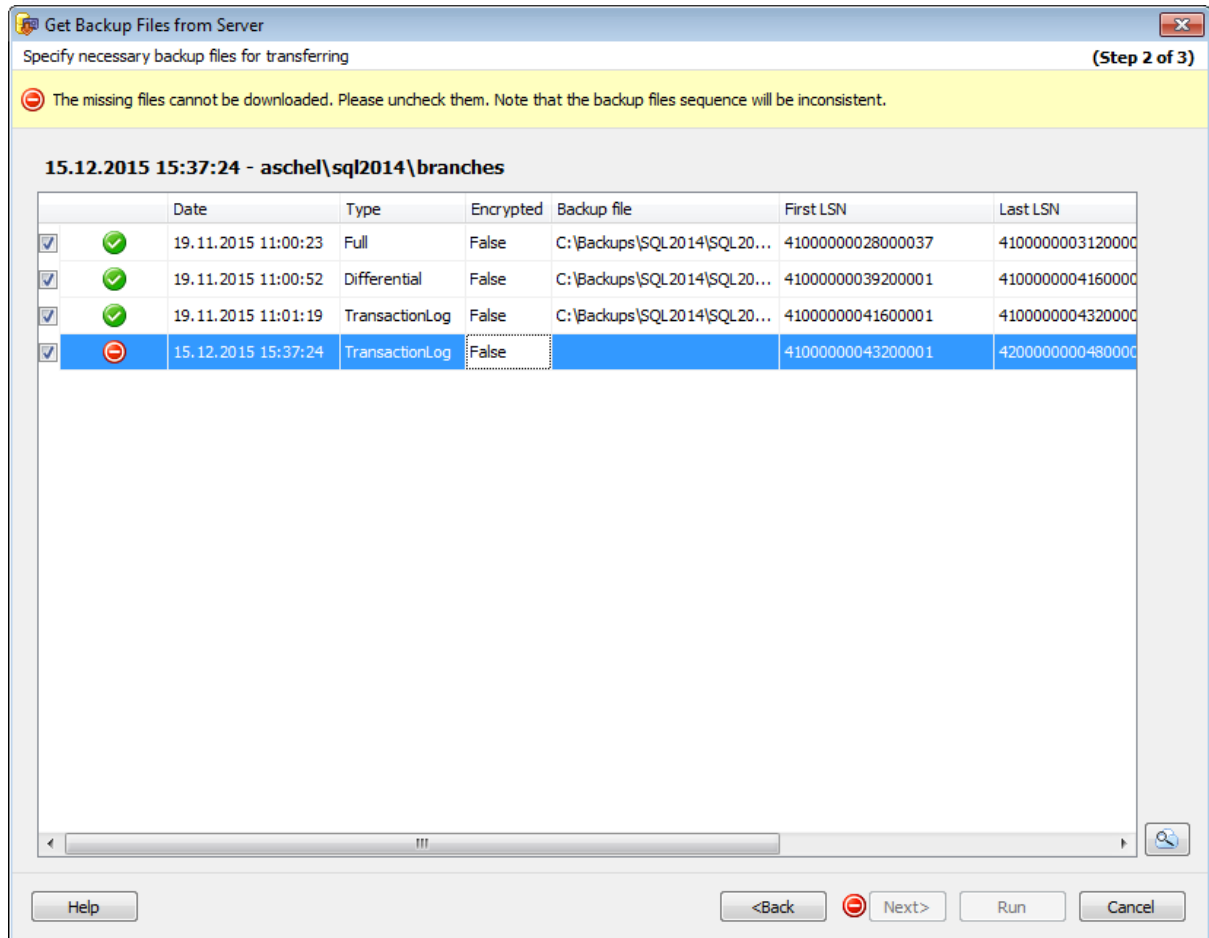
Use it to remove all files from the list.

If you have selected the files from **History**, proceed to the [Selecting backup files](#) step. If you have used **Select files** option, proceed to the [Viewing summary information](#) step.

[Next step >>](#)

### 3.9.2 Selecting backup files

This step allows you to select files to transfer to the local disk. This step is not available if *Files* has been selected as backup source at the [previous step](#). The order is generated automatically.



If the file is not found on the server, the corresponding icon appears. You can use the **Find in cloud** button to choose clouds for file search. If the file is found on any cloud, the status is set to , and the file(s) upload starts on clicking the **Next** button.

After you have selected the necessary files click the **Next** button to proceed to the [Viewing summary information](#) step.

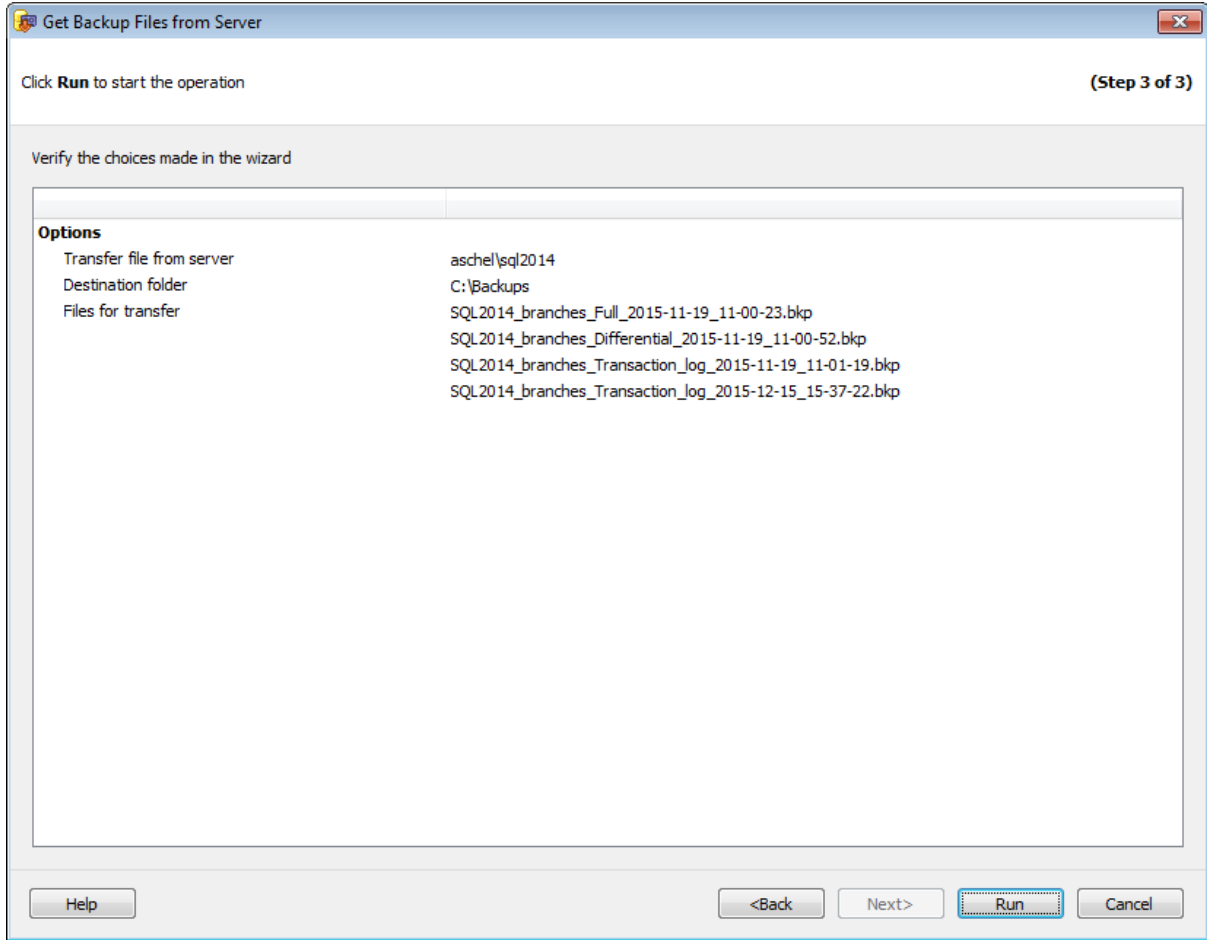
[<< Previous step](#)

[Next step >>](#)



### 3.9.3 Viewing summary information

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





After verifying the choices made in the wizard click the **Run** button to complete the operation.

[<< Previous step](#)

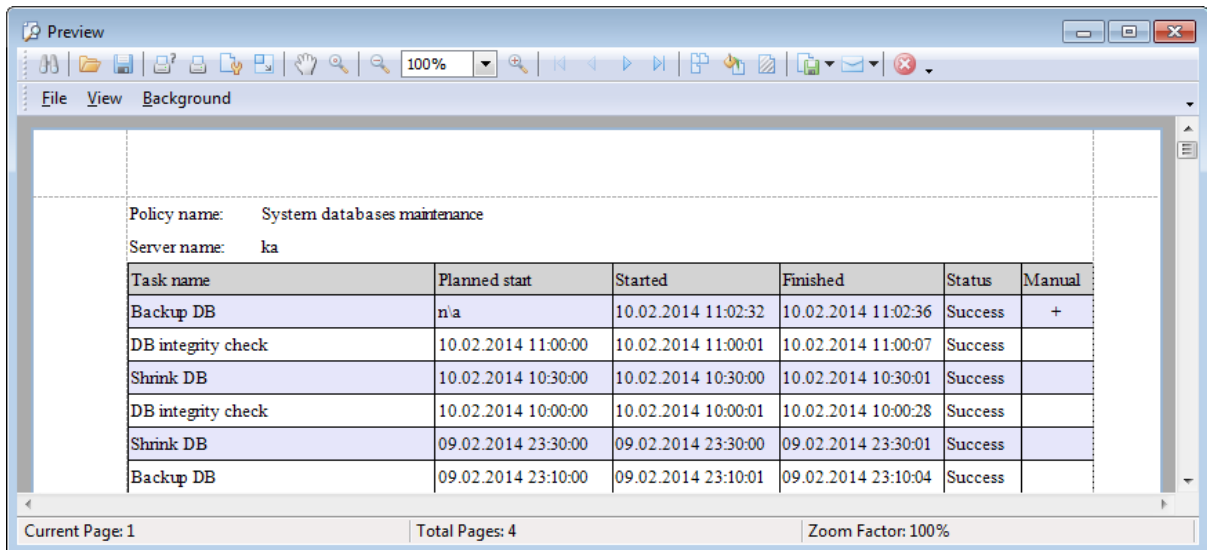
## 3.10 Reports

Using reports you can view and save information to any available format about task execution that is displayed in the grid of a [Launches](#) area.

To open a report on a policy/task execution the **Preview** window use the  **Show Report** button on the [Launches](#) area toolbar or select the  **Show Report** popup menu item.

There are three types of reports:

- **Single-server report**



Task name	Planned start	Started	Finished	Status	Manual
Backup DB	n/a	10.02.2014 11:02:32	10.02.2014 11:02:36	Success	+
DB integrity check	10.02.2014 11:00:00	10.02.2014 11:00:01	10.02.2014 11:00:07	Success	
Shrink DB	10.02.2014 10:30:00	10.02.2014 10:30:00	10.02.2014 10:30:01	Success	
DB integrity check	10.02.2014 10:00:00	10.02.2014 10:00:01	10.02.2014 10:00:28	Success	
Shrink DB	09.02.2014 23:30:00	09.02.2014 23:30:00	09.02.2014 23:30:01	Success	
Backup DB	09.02.2014 23:10:00	09.02.2014 23:10:01	09.02.2014 23:10:04	Success	

Current Page: 1 | Total Pages: 4 | Zoom Factor: 100%

This report can be viewed when a single server is selected in the [explorer](#) and a policy deployed on this server is selected in the [Policies](#) area. If a policy deployed on several servers is selected in [Policies](#) area a report will include information on launches of this policy only on the selected server. The report displays brief information on tasks of the selected policy including *task name*, *planned start*, *time started*, *time finished* and *task status*.

- **Multi-server report**

Task name	Server name	Planned start	Started	Finished	Status	Manual
Shrink DB		11.02.2014 15:30:00	11.02.2014 15:30:00	11.02.2014 15:30:01	Success	
	ka	11.02.2014 15:30:00	11.02.2014 15:30:00	11.02.2014 15:30:01	Success	
Backup DB		11.02.2014 15:10:00	11.02.2014 15:10:00	11.02.2014 15:10:06	Success	
	ka	11.02.2014 15:10:00	11.02.2014 15:10:00	11.02.2014 15:10:06	Success	
	doom_server\tserv2005	11.02.2014 15:10:00	11.02.2014 15:10:00	11.02.2014 15:10:02	Success	
DB integrity check		11.02.2014 15:00:00	11.02.2014 15:00:00	11.02.2014 15:00:13	Success	
	ka	11.02.2014 15:00:00	11.02.2014 15:00:00	11.02.2014 15:00:13	Success	
	doom_server\tserv2005	11.02.2014 15:00:00	11.02.2014 15:00:00	11.02.2014 15:00:03	Success	

Multi-server report is available when a policy deployed on multiple servers is selected in the [Policies](#) area. Besides, a group or a solution must be selected in the [Servers](#) area. The report displays brief information on tasks of the selected policy including *task name*, *server name*, *planned start*, *time started*, *time finished* and *task status*.

- **Detailed task report**

Task name	Planned start	Started	Finished	Status	Manual
DB integrity check	10.02.2014 11:00:00	10.02.2014 11:00:01	10.02.2014 11:00:07	Success	
System DB integrity check	Success	10.02.2014 11:00:03	10.02.2014 11:00:07	Success	
10.02.2014 11:00:05 INF: Integrity check for 'master' on '(local)\MSSQLSERVER'...OK					
10.02.2014 11:00:05 INF: Integrity check for 'model' on '(local)\MSSQLSERVER'...OK					
10.02.2014 11:00:07 INF: Integrity check for 'msdb' on '(local)\MSSQLSERVER'...OK					
DB integrity check	10.02.2014 10:00:00	10.02.2014 10:00:01	10.02.2014 10:00:28	Success	
System DB integrity check	Success	10.02.2014 10:00:01	10.02.2014 10:00:28	Success	
10.02.2014 10:00:25 INF: Integrity check for 'master' on '(local)\MSSQLSERVER'...OK					
10.02.2014 10:00:26 INF: Integrity check for 'model' on '(local)\MSSQLSERVER'...OK					
10.02.2014 10:00:28 INF: Integrity check for 'msdb' on '(local)\MSSQLSERVER'...OK					

Task report is available when a particular task is selected in the [Policies](#) area. This report displays a detailed information on a task and its steps of the selected policy including *task name*, *planned start*, *time started*, *time finished*, *task/step status* and *execution message (information, warning or error)*.

The **Preview** window allows you to change the report appearance, i.e. change a

document background and add watermarks.

The main menu of the **Preview** window allows you to:

- open page setup dialog;
- start printing the report;
- export the content to any of the available formats: *PDF file, HTML file, MHT file, RTF file, Excel file, CSV file, Text file, Image file* and then send it via E-mail;
- close the **Preview** window;
- change page layout: Facing or Continuous;
- enable/disable toolbar;
- enable/disable status bar;
- customize toolbar;
- set report background and watermark.

The toolbar of the **Preview** window allows you to:

- search for text within the document;
- open a previously saved report;
- save the current report to an external *\*.prnx* file;
- start printing the report;
- open page setup dialog;
- set scaling options;
- enable/disable hand tool;
- adjust zoom options;
- navigate within the printing report pages;
- set the number of pages displayed in the window;
- set report background and watermark;
- export the content to any of the available formats: *PDF file, HTML file, MHT file, RTF file, Excel file, CSV file, Text file, Image file* and then send it via E-mail;
- close the **Preview** window.

**Part**



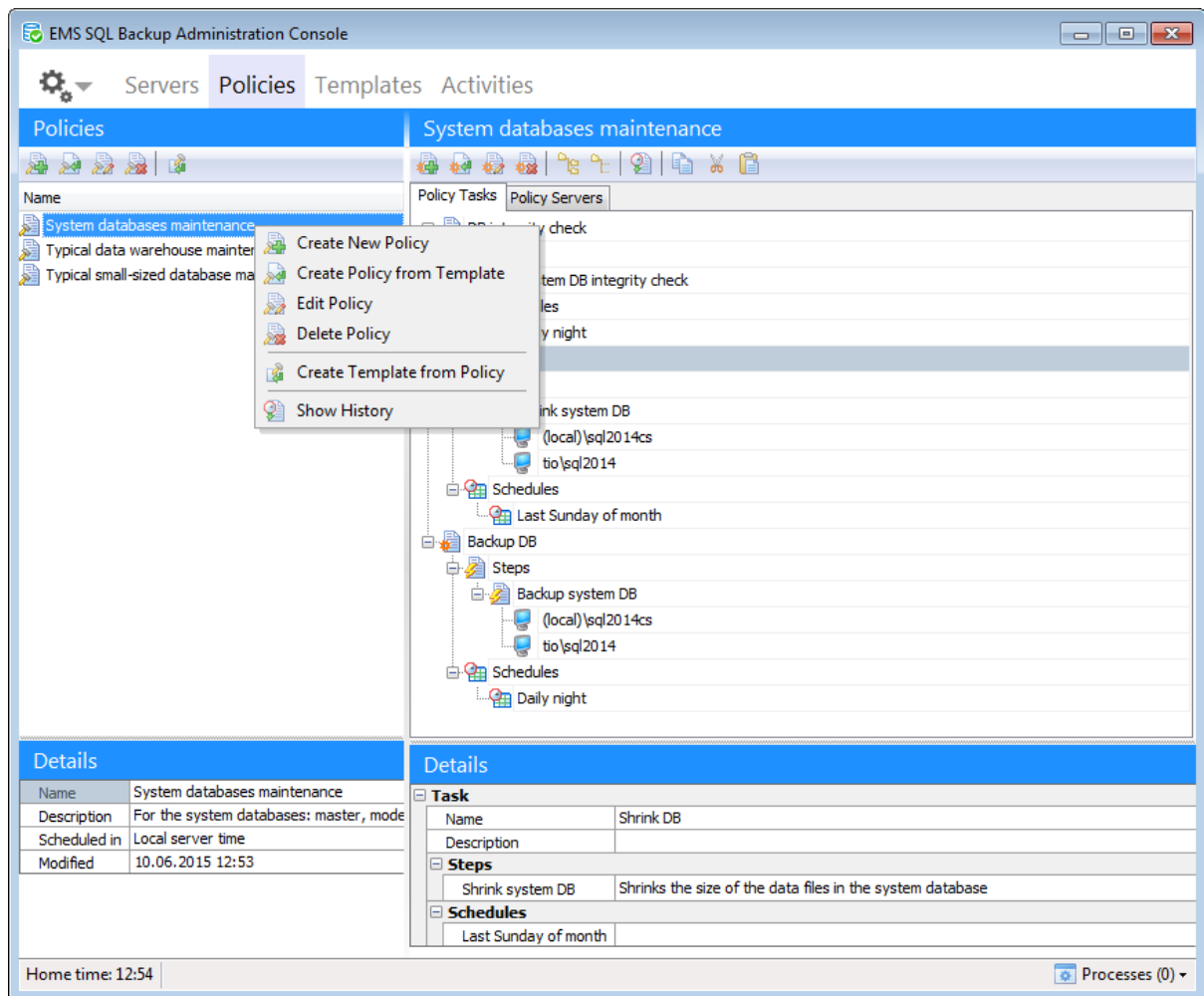
## 4 Policies

This chapter provides you with necessary information concerning SQL Server maintenance policies.



**Policy** in EMS SQL Backup is a set of scheduled [tasks](#) to be performed on the servers or databases each containing a number of steps. Policy is implemented as a set of jobs in SQL Server and therefore its execution requires consistent work of SQL Agent. You can schedule one or more tasks to be executed according to the preset schedules. The policy can perform operations on a set of databases on different servers. It can be created for a server as well as for a *Group* of servers or *Solution*. To assign it automatically on policy creation you should run [Policy wizard](#) using the context menu of the corresponding elements (server, group or solution).


Each Policy execution generates the [result status](#) that informs you about successful or failed policy executions. After reviewing the errors you can ignore them or [re-execute](#) the task.

To manage policy status and process of execution go to [Servers](#) and [Activities](#) tabs.



To start working with policy you need to create it at first.

**Policies** page provides all necessary tools to manage policies. Move to the page and use the  [Create New Policy](#) or  **Create Policy from Template** popup menu item.

You can easily create a template from the existing policy using  [Create Template from Policy](#) menu item. The template based on the selected policy will be automatically added to the [Policy Templates](#) list.

**Note:** The databases selected in the policy can be saved in template as well.

Policies at this tab can be *viewed in two modes*: **Policy Tasks** and **Policy Servers**. Select the Policy on the left and switch between two corresponding modes to see policy's tasks or servers on the top-level. For each object of the tree you can see more **Detailed** info at the bottom panel.

---

**See also:**

[Getting Started](#)

[Servers](#)

[Templates](#)

[Activities](#)

[Maintenance Steps](#)

[Options](#)

## 4.1 Popup menus

Popup menu of the object contains the list of actions that can be applied to the object. The following popup menu is available in the policy list at the **Policies** tab.

[Policy popup menu](#)

[Task popup menu](#)

[Step context menu](#)

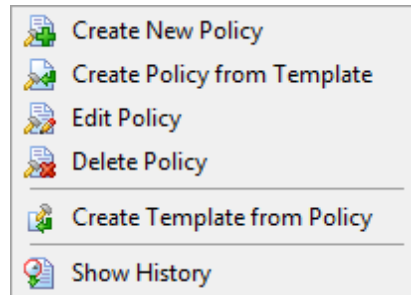
[Schedule context menu](#)

[Server context menu](#)




### 4.1.1 Policy popup menu

The following actions can be applied to the policy





 **Create New Policy;**

 **Create Policy from Template** - create a policy based on the existing [policy template](#);

 **Edit policy;**

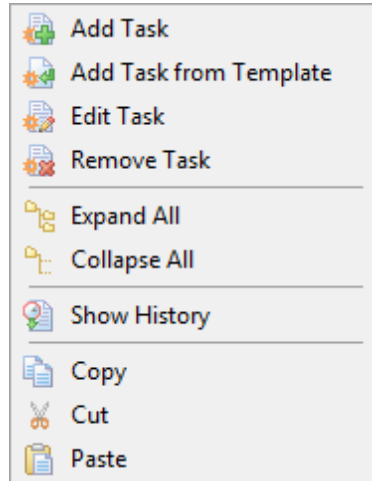
 **Delete policy;**











 **Create Template from Policy** - create a template with the same tasks and settings as the selected one;

 **Show History** - open [Policy history viewer](#).

### 4.1.2 Task popup menu

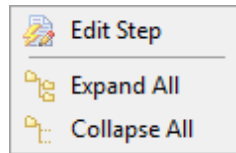
The following actions can be applied to the task





-  **Add New Task** to the policy;
-  **Add Task from Template** - create a task based on the existing [task template](#);
-  **Edit Task** using the [Task editor](#);
-  **Remove Task** from the policy;
-  **Expand** all tasks;
-  **Collapse** all tasks;
-  **Show History** - open task history in [Policy history viewer](#);
-  **Copy** the selected task;
-  **Cut** the selected task;
-  **Paste** the copied/cut task.


### 4.1.3 Step context menu

The following actions can be applied to the step.



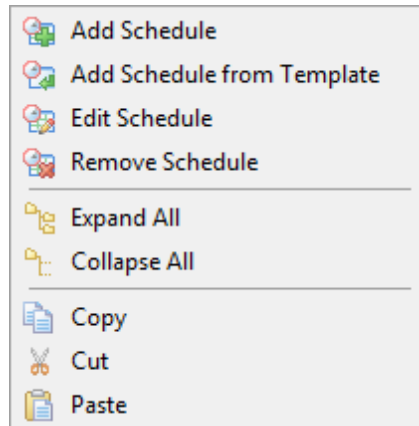
 **Edit Step** using the [Step editor](#);










 **Expand** all tasks;

 **Collapse** all tasks.

#### 4.1.4 Schedule context menu

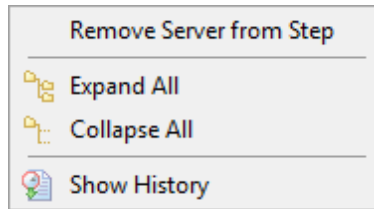
The following actions can be applied to the schedule.



-  **Add New Schedule** to the task;
-  **Add Schedule from Template** - create a schedule based on the existing [step template](#);
-  **Edit Schedule** using the [Step editor](#);
-  **Remove Schedule** from the task;
-  **Expand** all tasks;
-  **Collapse** all tasks;
-  **Copy** the selected schedule;
-  **Cut** the selected schedule;
-  **Paste** the copied/cut schedule.

### 4.1.5 Server context menu


The following actions can be applied to the server on which the policy is deployed:



**Exclude server from Task** removes the selected server from **task**;

 **Expand** all tasks;

 **Collapse** all tasks;

 **Show History** - open [Policy history viewer](#).

**Note:** The single server cannot be removed from the step. Instead, you can remove the whole step.

## 4.2 Policy creation wizard




This chapter explains how to create a new [policy](#) in EMS SQL Backup.

There is a special wizard that guides you through the policy creation process. You can launch this wizard in one of the following ways:

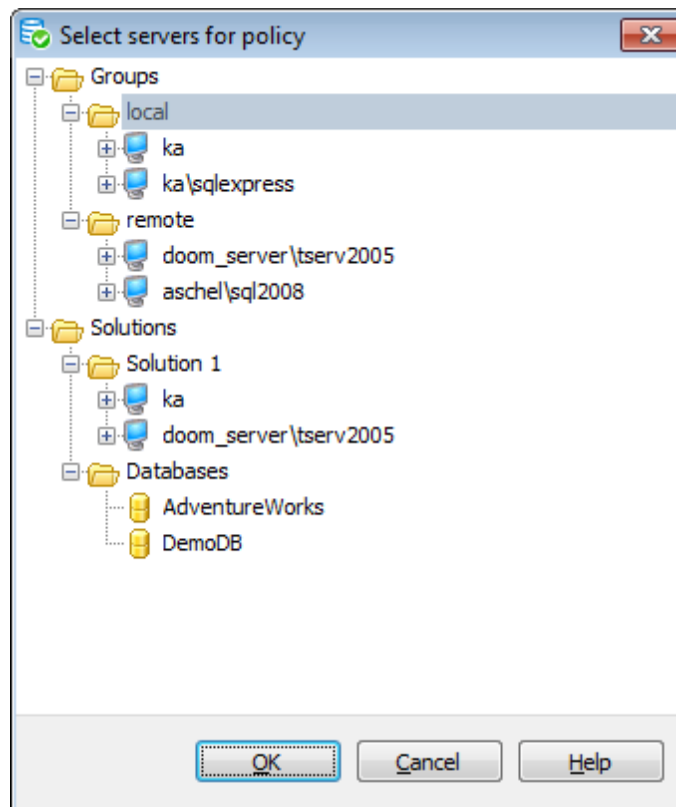
At the [Policies](#) tab:

Use the  **Create New Policy** or  **Create Policy from Template** popup menu item.

At the [Servers](#) tab:

Right-click database/server/server group and use the  **Maintenance Policies |**  **Create new policy** or  **Create from templates** item.

If you call the wizard from the **Policies** page you will be asked to pick a server, group or solution which policy will be created for. You can create a policy for all servers within Group or Solution.



**Note:** Creating a Policy for a database means creating policy for the server on which database is stored. This database will be marked by default in steps that require database selection.

**Note:** When you create a policy from a template it will be applied to all databases of the server irrespective of the database selected.

Proceed to the starting step of [Policy wizard](#).

**Steps:**[Setting policy name and description](#)[Defining set of tasks](#)[Defining notification options](#)[Creating policy](#)

---

**See also:**[Policy editor](#)[Maintenance plan conversion](#)[Execute Policy](#)[Resolve problem](#)[Viewing Policy History](#)

## 4.2.1 Setting policy name and description

Use the first step of the wizard to set policy name, description and time preference.

Policy wizard - 'Policy 2'

Welcome to the EMS SQL Backup Policy Creation wizard! (Step 1 of 4)

This wizard will guide you through the step-by-step process of creating a new **SQL Backup** policy. The policy is a logical set of maintenance tasks that need to be performed on databases or SQL server instances at the corresponding time schedules. Each of the tasks in turn consists of one or more discrete maintenance steps, such as **Database Backup** step or **Database Integrity Check** step. The policy has an overall status that indicates the global result of executing all the policy tasks. **SQL Backup** allows you to constantly monitor policy applying status in real time and has various notification and report options. Created policy can be edited later in **SQL Backup Administration Console**: you can add new tasks, target existing tasks to new servers/databases, or modify task content.

Please set policy name and optional description

Name: Policy 2

Description:

In different time zones schedule tasks on basis of

Local server time zone

Home time zone (UTC+05:00) Ekaterinburg (RTZ 4)

Help <Back Next> Finish Cancel

### Name

Specify policy name in this field.

### Description

Define brief info for the created policy.

### In different time zones schedule tasks on basis of

These options specify what time zone is used for policy task launch if its servers are located in different time zones. If tasks are to start at specific server time (for example, when server is idle) we recommend to select local server time, otherwise select local console time.

#### Local server time zone

Use this option to launch policy tasks according to the local time on each server.

#### Home time zone

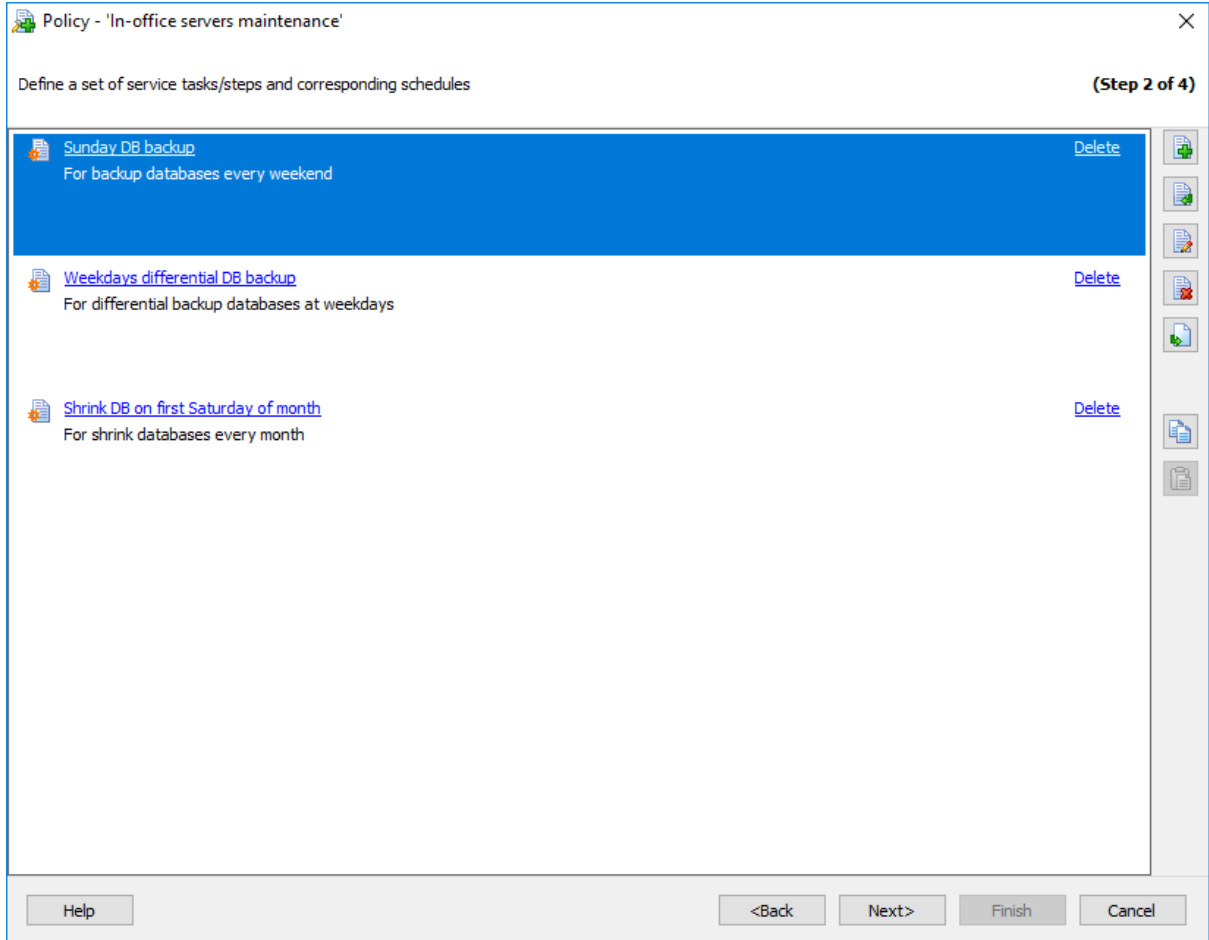
Use this option to launch policy tasks at the time corresponding to the time zone set in the [General options](#). It allows easy control over policy status. It is recommended to use this option to synchronize the operations for the [Transaction Log Shipping](#) task.



[Next step >>](#)

## 4.2.2 Defining set of tasks

At this step you need to define the tasks for the policy being created in the execution order.



### Create New Task

Use this button to create a new task. The *Ins* key can be used as well.



### Create Task from Template

If you create a task from a pre-saved [template](#) you need to pick a template for this object in the opened dialog.



### Edit Task

You can use this button or double-click the task to change its settings.



### Delete Task

Click this button to remove the task from the list. The *Delete* key can be used as well.



### Copy to Templates

Press this button to create a [template](#) with the same options as the selected object.

Use the following buttons for quick copying and moving tasks within the policy:



- copy the selected object,



- paste the copied/cut object.

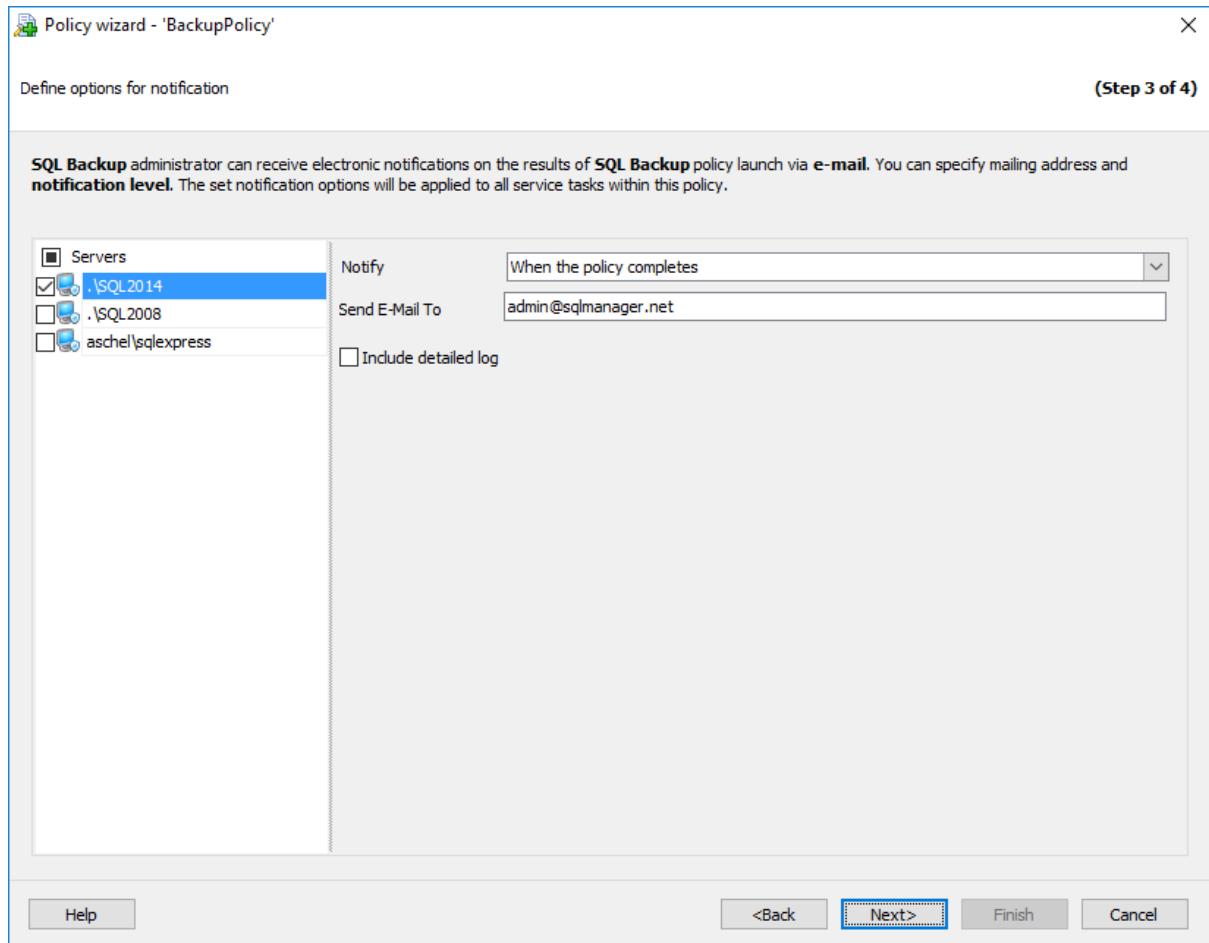
[<< Previous step](#)

[Next step >>](#)

### 4.2.3 Defining notification options

EMS SQL Backup administrator can receive electronic notifications on the results of EMS SQL Backup policy launch via e-mail.

At this step you can set notifications for the policy.



The screenshot shows a dialog box titled "Policy wizard - 'BackupPolicy'" with a close button (X) in the top right corner. The subtitle is "Define options for notification" and it is labeled "(Step 3 of 4)".

The main content area contains the following text: "SQL Backup administrator can receive electronic notifications on the results of SQL Backup policy launch via e-mail. You can specify mailing address and notification level. The set notification options will be applied to all service tasks within this policy."

On the left, there is a "Servers" list with a tree view:

- Servers
- .\SQL2014
- .\SQL2008
- aschel\sqlexpress

On the right, there are fields for notification settings:

- Notify:** A dropdown menu with "When the policy completes" selected.
- Send E-Mail To:** A text box containing "admin@sqlmanager.net".
- Include detailed log

At the bottom, there are buttons: "Help", "<Back", "Next>" (highlighted with a dashed border), "Finish", and "Cancel".

Check the necessary servers in the **Servers** list to send notifications about policy launch results.

In the **Notify** field specify the trigger action:

*When the policy succeeds* - send the message when policy tasks have been successfully completed.

*When the policy fails* - send the message when policy has failed.

*When the policy completes* - send the message when policy has been launched.

Input the recipient email address in the **Send E-mail To** field. You can define several e-mail addresses separating them with commas.

**Include detailed log**

If this option is checked the full execution log will be included in the notification e-mail. There will be only execution status in e-mail body if the option is switched off.

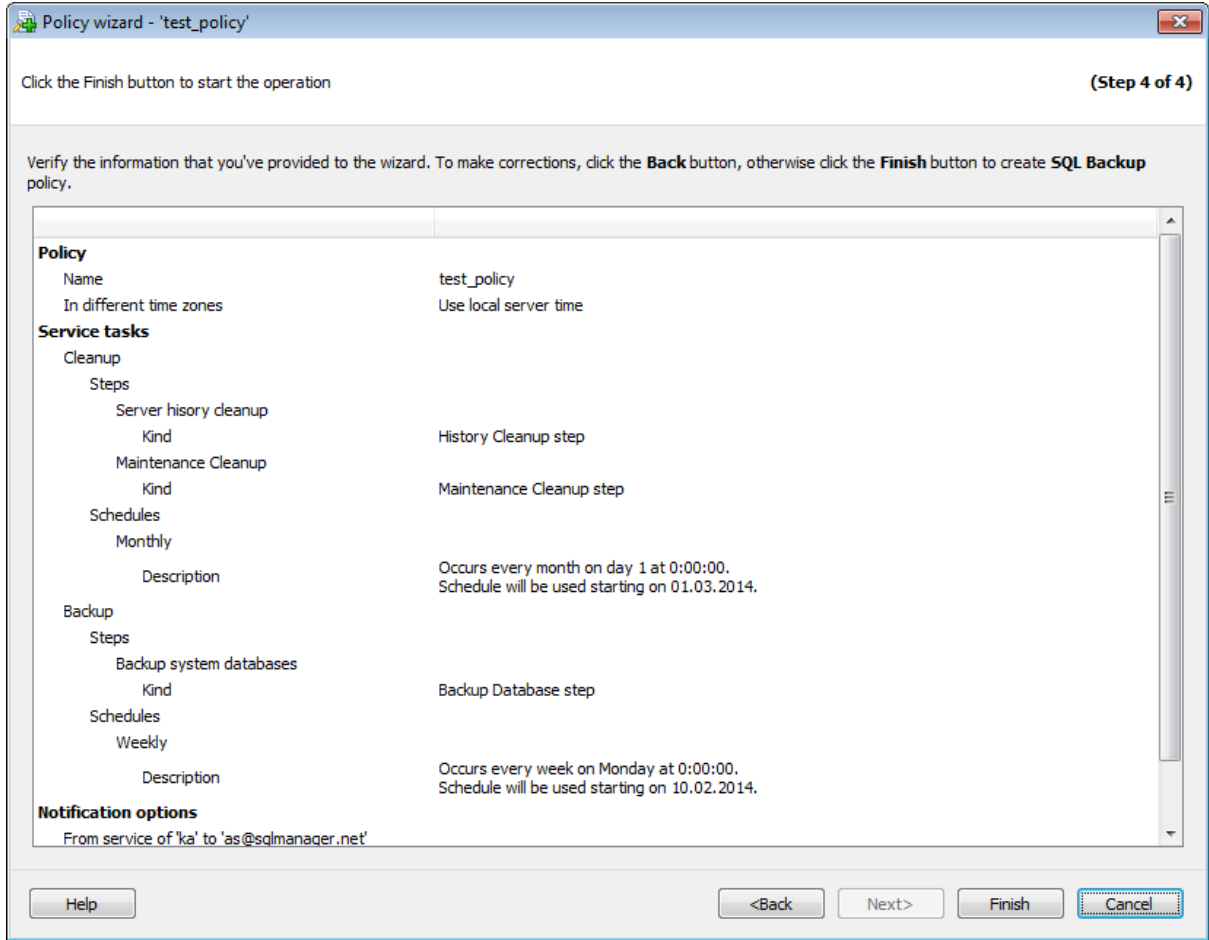
**Note:** Email agent options should be set for the service at [Server-side components properties](#).

[<< Previous step](#)

[Next step >>](#)

## 4.2.4 Creating policy

At this step of the wizard you can see the summary of all options set at the previous steps.




You can **Verify the choices made in the wizard** in the corresponding area and click the **Finish** button to create the policy.

[<< Previous step](#)

## 4.3 Policy editor

The policy is the logical set of maintenance tasks that need to be performed on a database or SQL Server instances at the corresponding time schedules. Each task in turn consists of one or more discrete [maintenance actions](#).

To *edit* the policy you need to double click the policy at the [Policies](#) tab or select the  **Edit Policy** item on the toolbar of the [Policies](#) tab or from the [popup menu](#).

### Editor tabs:

[Name and description](#)

[General](#)

[Notification](#)

---

### See also:

[Policy wizard](#)

[Maintenance plan conversion](#)

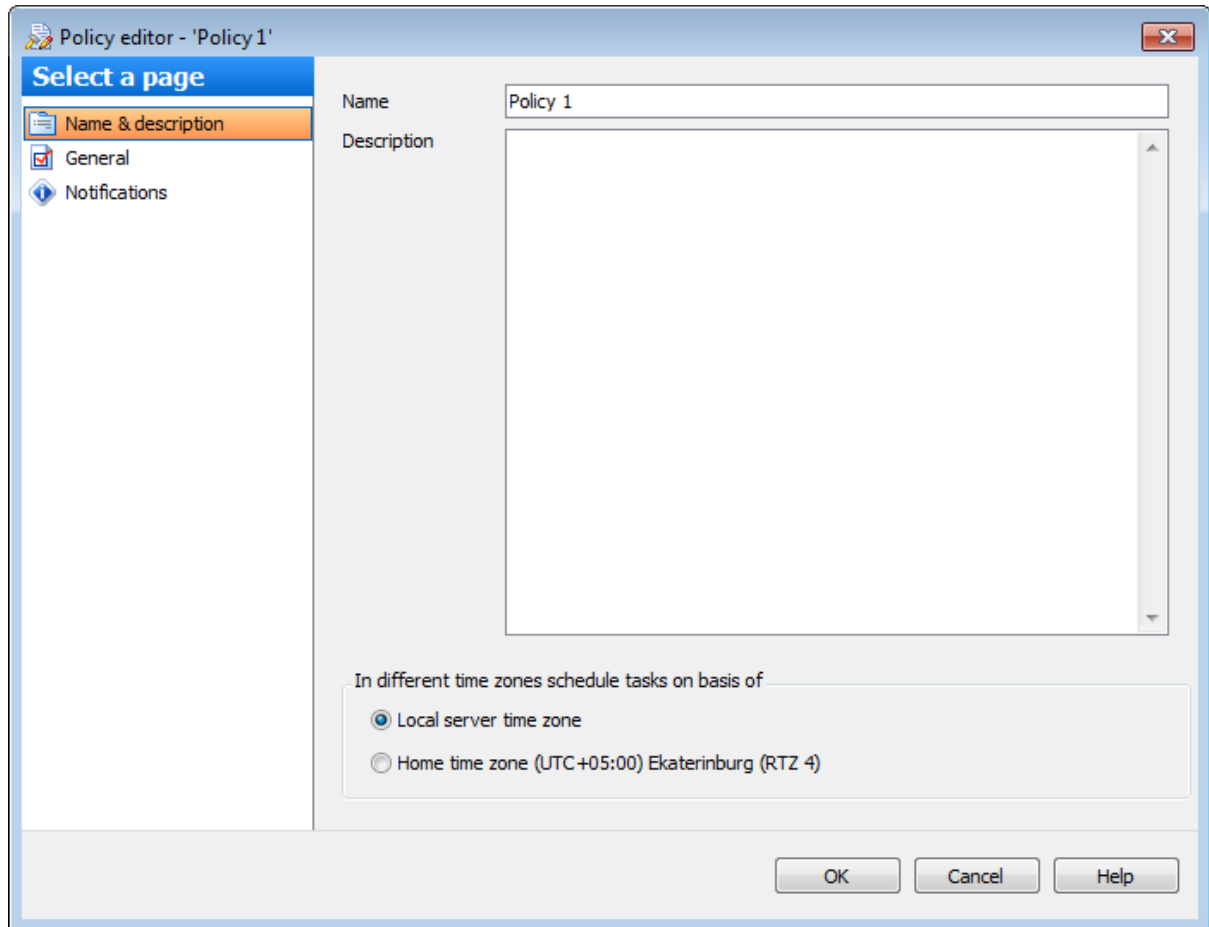
[Execute Policy](#)

[Resolve problem](#)

[Viewing Policy History](#)

### 4.3.1 Name and description

At this section you can view and edit policy name, description and time preference.



#### **Name**

Edit policy name in this field.

#### **Description**

Edit brief info for the created policy.

#### **In different time zones schedule tasks on basis of**

These options specify what time zone is used for policy task launch if its servers are located in different time zones. If tasks are to start at specific server time (for example, when server is idle) we recommend to select local server time, otherwise select local console time.

##### **Local server time zone**

Use this option to launch policy tasks according to the local time on each server.

##### **Home time zone**

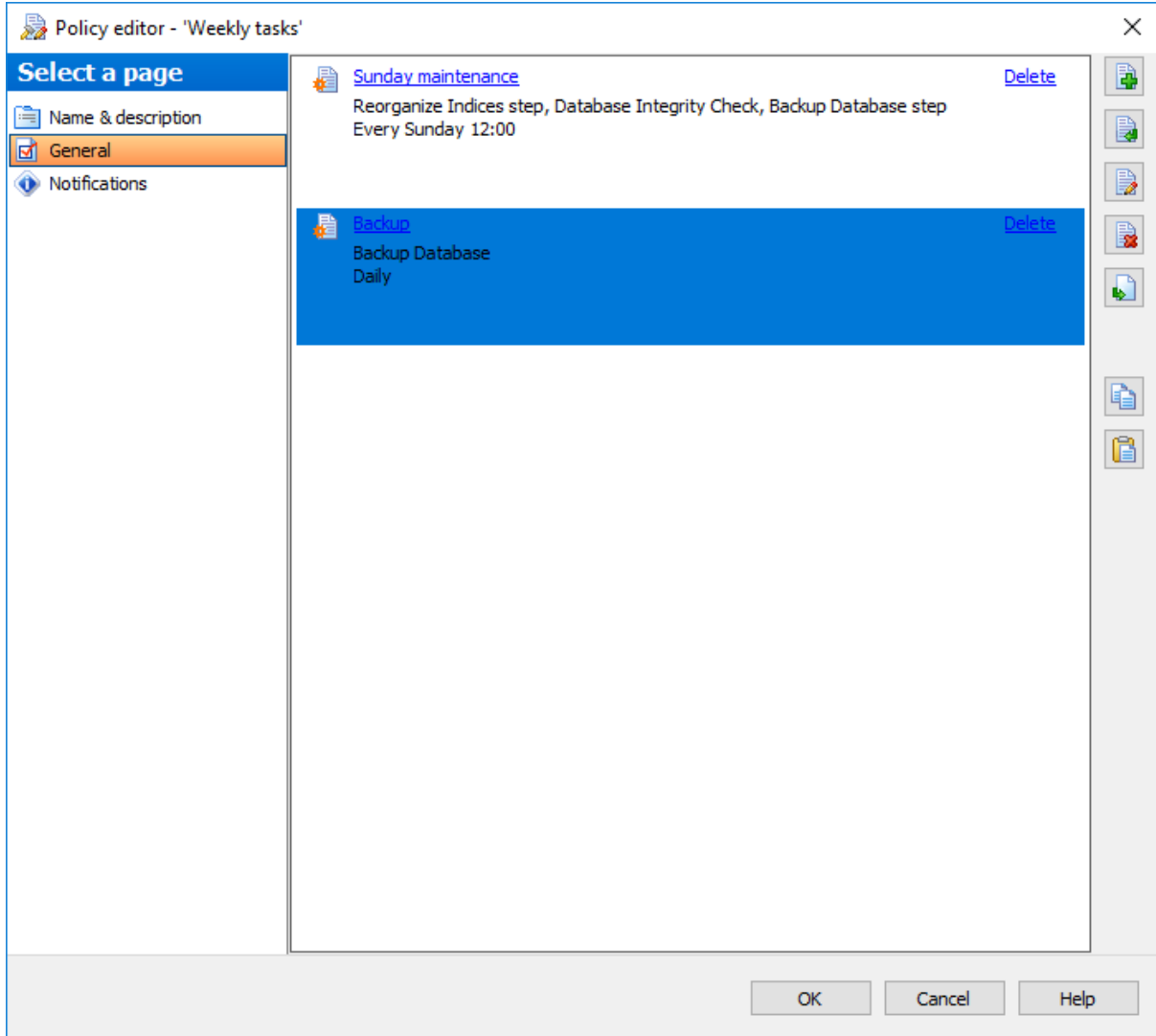
Use this option to launch policy tasks at the time corresponding to the time zone set in the [General options](#). It allows easy control over policy status. It is recommended to use this option to synchronize the operations for the [Transaction Log Shipping](#) task.



The bottom panel shows errors and warnings for all sections of the policy, if any.

### 4.3.2 General

The **General** section allows you to view and edit the set of tasks with corresponding schedules.



#### **Create New Task**

Use this button to create a new task. The *Ins* key can be used as well.



#### **Create Task from Template**

If you create a task from a pre-saved [template](#) you need to pick a template for this object in the opened dialog.



#### **Edit Task**

You can use this button or double-click the task to change its settings.

**Delete Task**

Click this button to remove the task from the list. The *Delete* key can be used as well.

**Copy to Templates**

Press this button to create a [template](#) with the same options as the selected object.

Use the following buttons for quick copying and moving tasks within the policy:



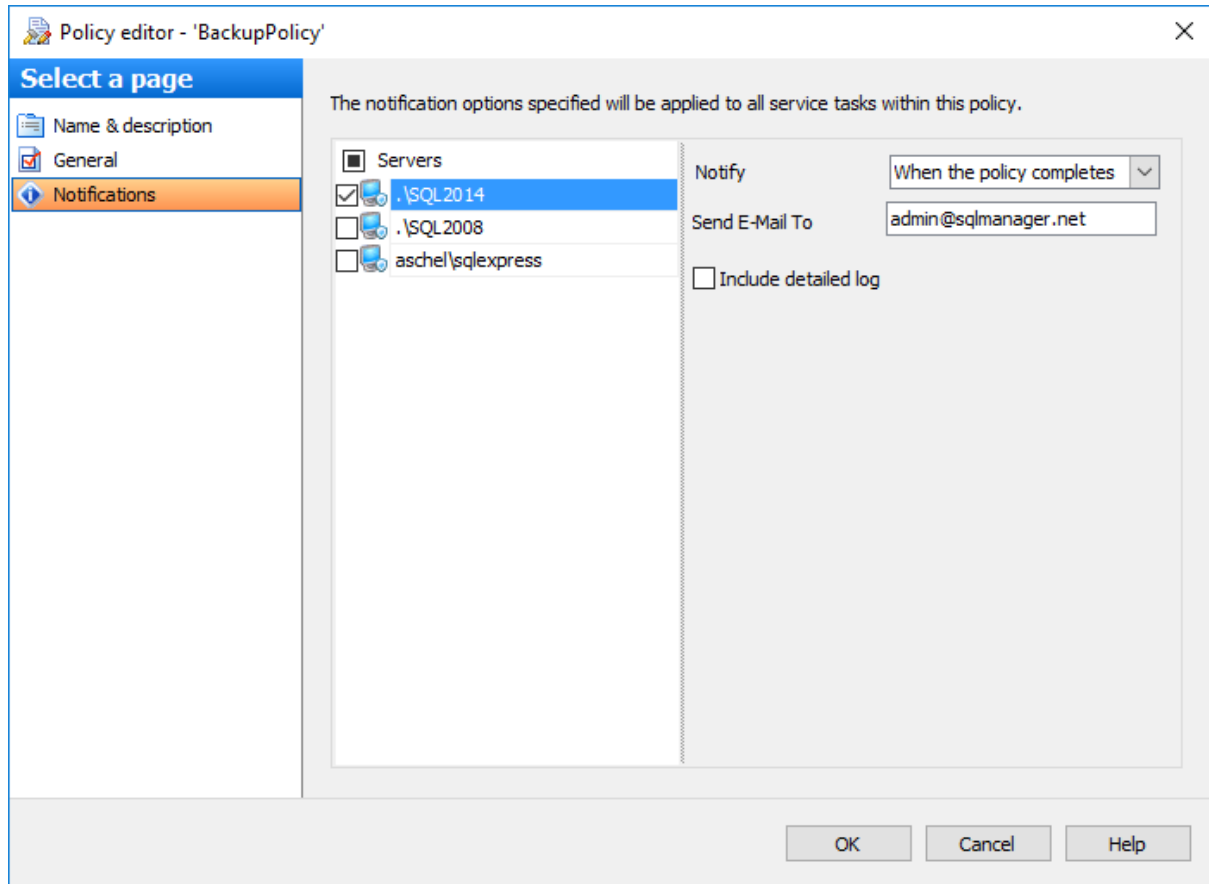
- copy the selected object,



- paste the copied/cut object.

### 4.3.3 Notification

The **Notifications** section allows you to view and edit notification parameters.



Check the necessary servers in the **Servers** list to send notifications about policy launch results.

In the **Send email** field specify the trigger action:

*When the policy succeeds* - send the message when policy has been successfully launched.

*When the policy fails* - send the message when policy launch has failed.

*When the policy complete* - send the message when policy tasks have been completed.

Input the recipient email address in the **Send to** field.

**Include detailed log**

If this option is checked the full execution log will be included in the notification e-mail. There will be only execution status in e-mail body if the option is switched off.

**Note:** Email agent options should be set for the service at [Server-side components properties](#).

## 4.4 Maintenance plan conversion

This wizard is intended for converting linear *Maintenance Plans* created in SQL Server Management Studio to *Policies* of EMS SQL Backup.

**NB:** You need to have *SQL Server Integration Services* installed on the server to perform this conversion.

**Note:** We recommend to disable Maintenance Plans in SQL Server Management Studio after conversion to avoid adverse effects.

To start conversion select the  **Maintenance Policies** |  **Convert from Maintenance plan** context menu item for the server at the [Servers](#) tab.

**Note:** If there are no maintenance plans available on the server this context menu item is not displayed.

### Steps:

[Welcome](#)

[Selecting Maintenance plan to convert to policy](#)

[Performing conversion](#)

[Operation execution](#)

---

### See also:

[Policy wizard](#)

[Policy editor](#)

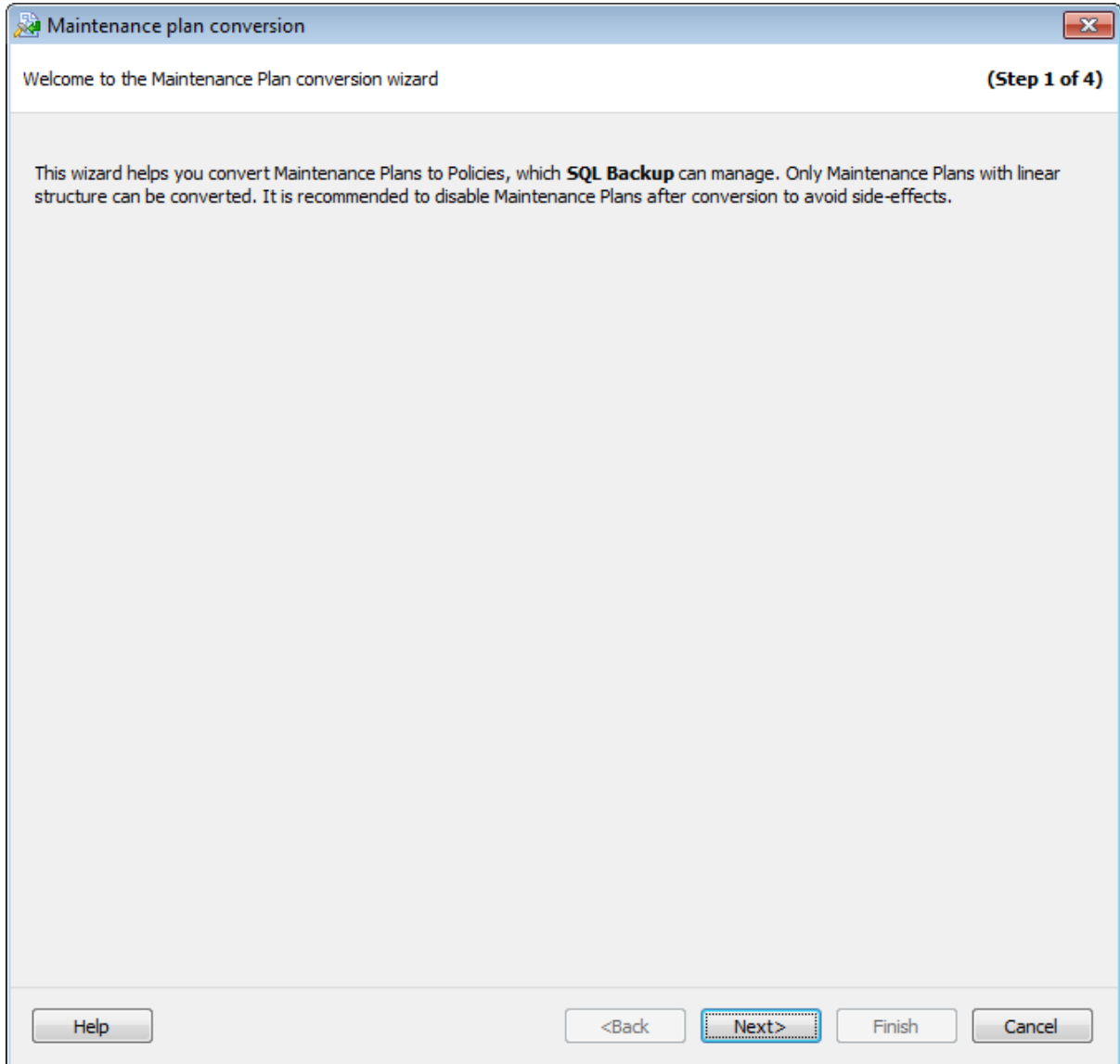
[Execute policy](#)

[Resolve problem](#)

[Viewing Policy History](#)

#### 4.4.1 Welcome

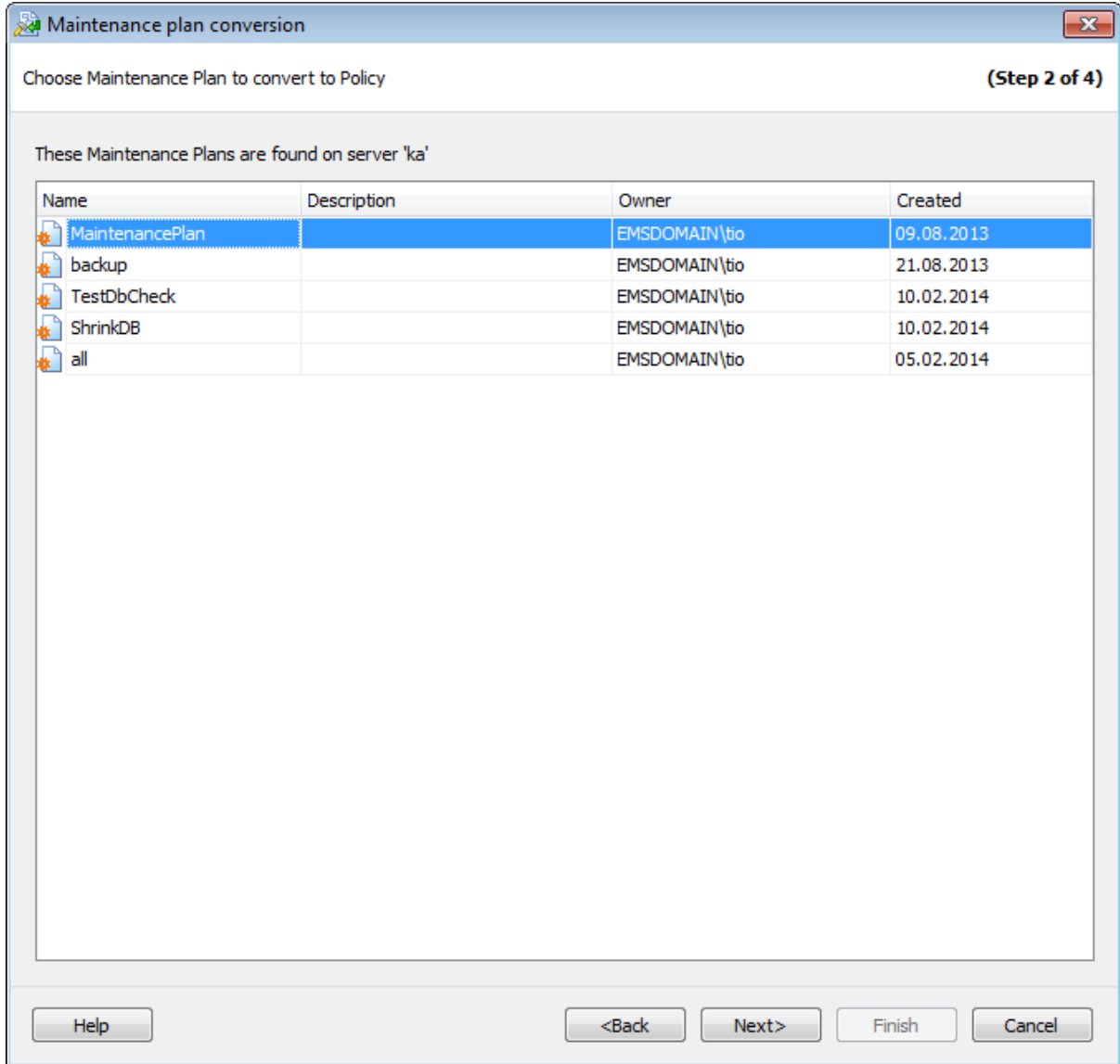
This wizard helps you to convert Maintenance Plans created by Management Studio for SQL Server to [policies](#), which EMS SQL Backup can manage. You need to have *SQL Server Integration Services* installed on the server to perform this conversion.



[Next step >>](#)

#### 4.4.2 Selecting Maintenance plan to convert to policy

At this step you can see the list of Maintenance Plans created by SQL Server Management Studio.



You need to select one of the Maintenance Plans to be converted into Policy. The conversion will be performed at the next step.

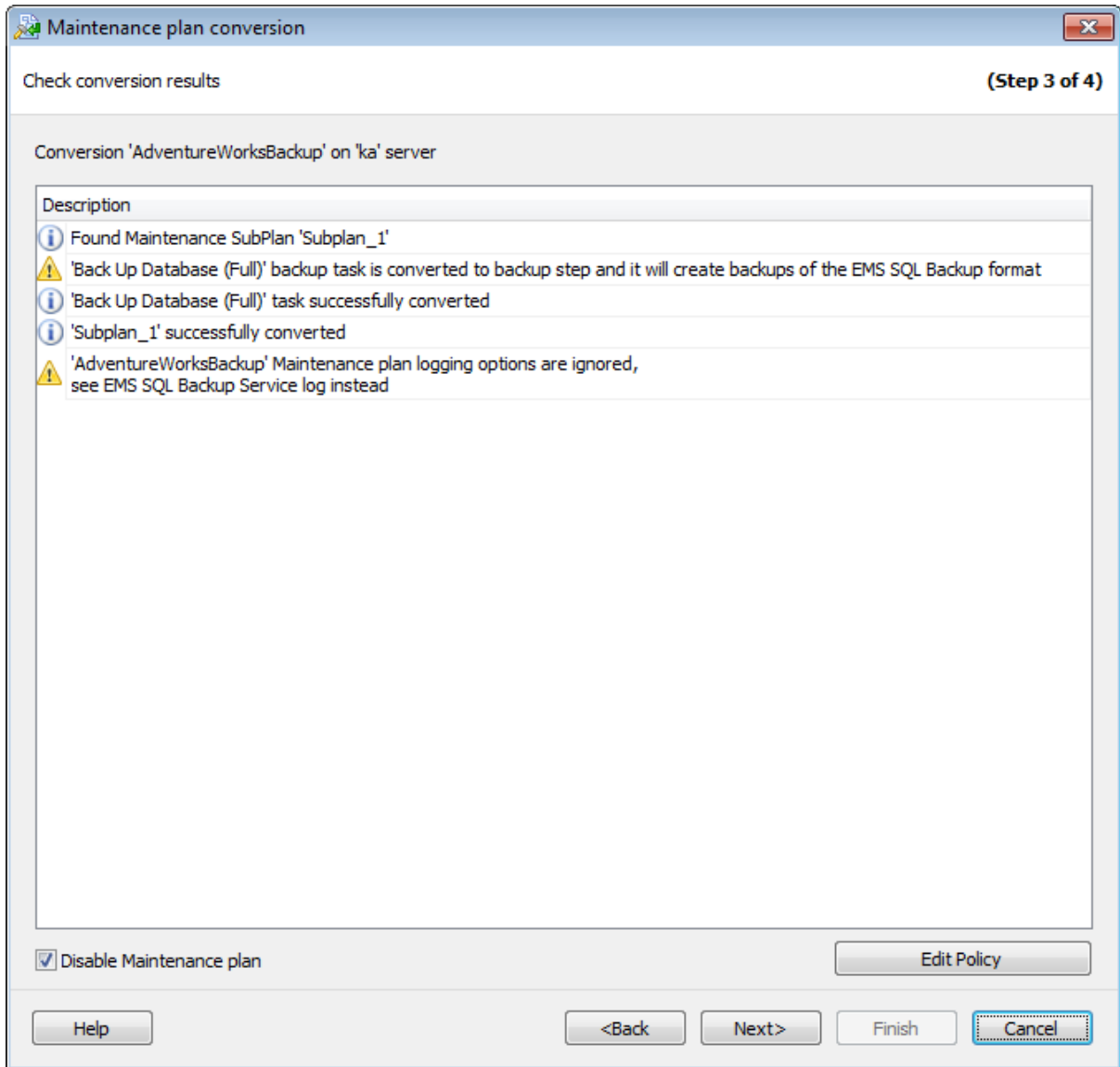
Note that this function is only available if SQL Server Integration Services are installed on the server.

[<< Previous step](#)

[Next step >>](#)

### 4.4.3 Performing conversion

At this step the selected Maintenance Plan is being converted to Policy.



If there are any errors on conversion you can [open the Policy](#) with **Edit Policy** button to view and correct them.

Set the **Disable Maintenance plan** option ON to disable Maintenance Plan in SQL Server Management Studio.

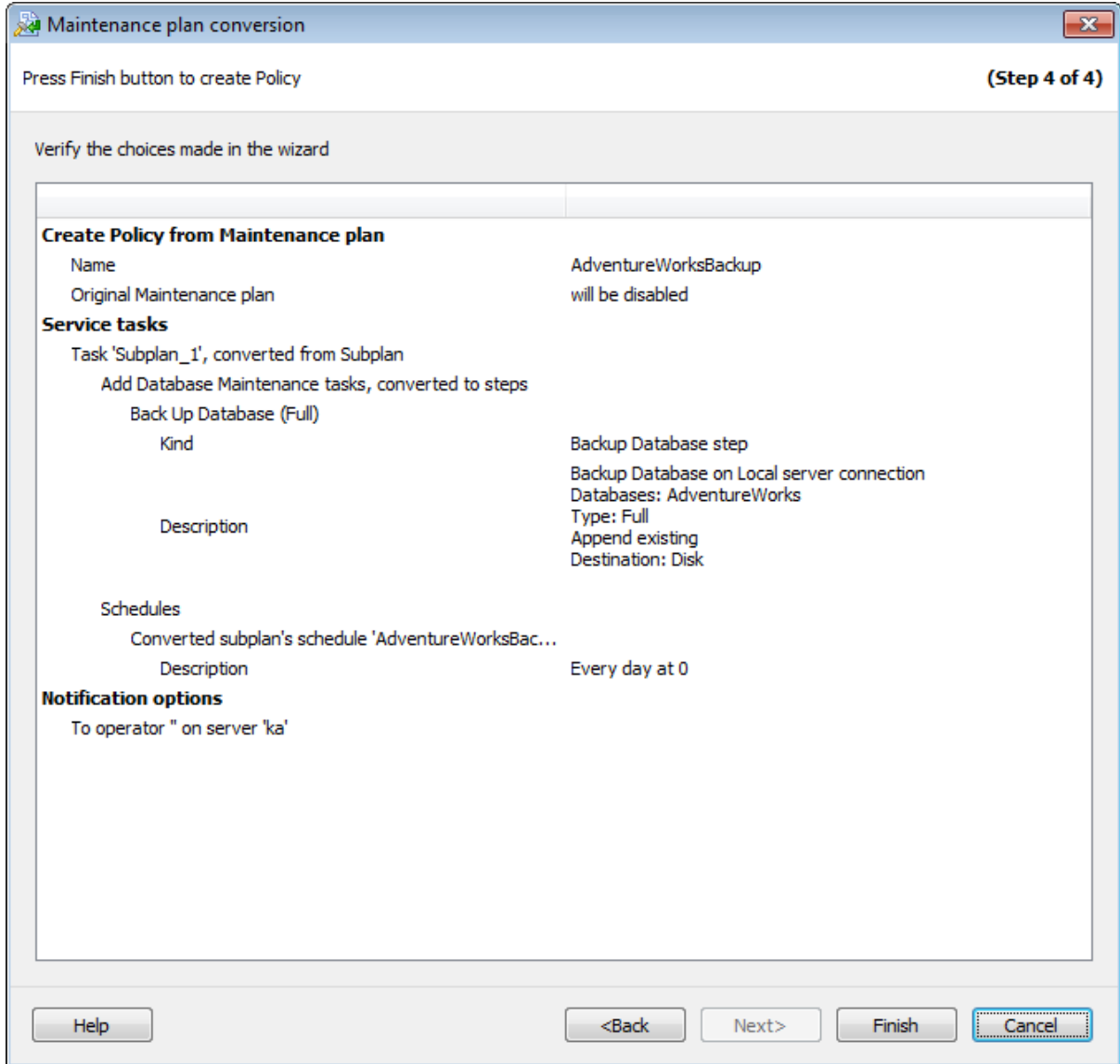
[<< Previous step](#)

[Next step >>](#)



#### 4.4.4 Operation execution


At this step you can view parameters specified on previous steps. To complete the operation execution and set the policy on the server click the *Finish* button.



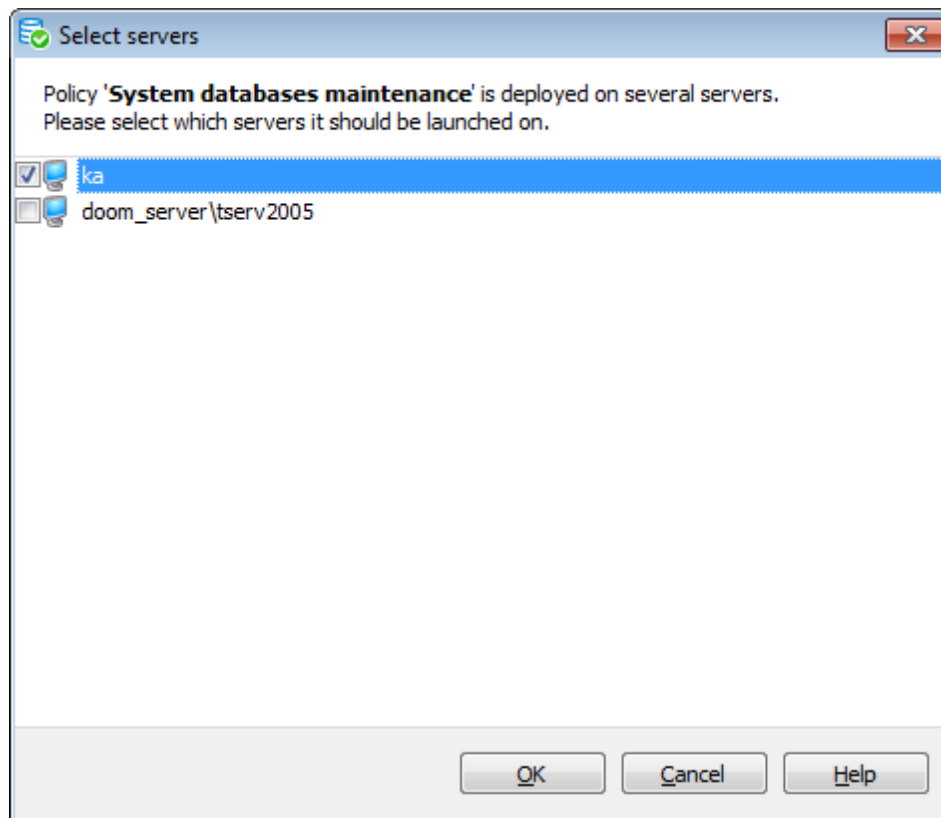
[<< Previous step](#)

## 4.5 Execute policy

The policies are executed automatically in accordance with the schedule(s) specified for it. If needed you can launch the policy manually at the [Servers](#) tab.

At the Servers tab select the policy to be executed in the Policies section and use the  **Execute Policy** item from the popup menu or double-click the policy.

If the policy is deployed on several servers you will be prompted to select the servers for policy execution.



The information about current execution is available at [Activities](#) page and about all launches at the [Policy History](#) viewer.

---

### See also:

[Policy wizard](#)

[Policy editor](#)

[Maintenance plan conversion](#)

[Resolve problem](#)

[Viewing Policy History](#)

## 4.6 Policy status

**Waiting** - the task has not been performed yet and it is waiting for its launch time.

**Success** – the task has been successfully completed.

**Warning** - the task has been completed with some minor errors. Warnings include out-of-range parameters for Database Parameters Logger and some warnings on execution that do not affect the final result.

**Fail** – the task execution has failed.

**Executing** – the task is being executed at the moment.

**Aborted** – the execution of the task has been cancelled and it is in process of stopping it.

**Missed** – the expected time of task execution has passed but no launch of the task was detected

**Unknown** – information about task execution cannot be retrieved unless connection the server is set.

**Ignored** (task status) – the task was marked as ignored as a result of Problem resolving.

The overall server status is formed on the basis of policies statuses deployed there. If all policies on a server have *Success* status then the server status is **Policies are successful**.

If at least one policy on a server has *Warning* status then the server status is **Policies have warnings**.

If at least one policy on a server has *Failed* status then the server status is **Policies have problems**.

The overall group or solution status is formed on the basis of all policies statuses of servers included into group or solution.

If all policies of all servers in a group/solution have *Success* status then the group/solution status is **Policies are successful**.

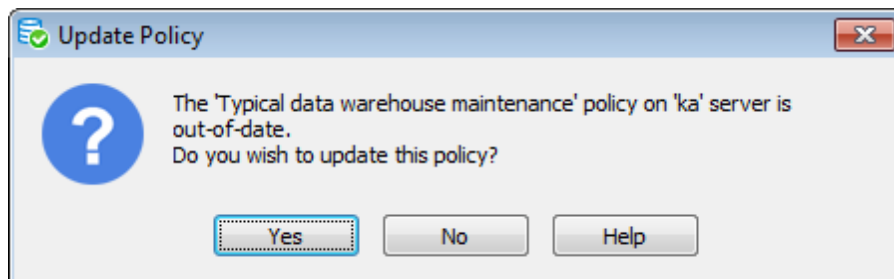
If at least one policy on at least one server has *Warning* status then the group/solution status is **Policies have warnings**.

If at least one policy on at least one server has *Failed* status then the group/solution status is **Policies have problems**.

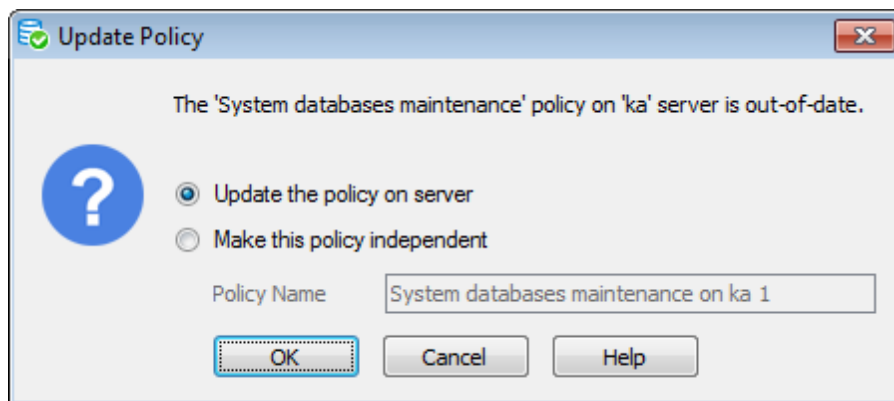
## 4.7 Policy synchronization

When you are connecting to a server policies configurations stored on a server and in EMS SQL Backup Console are compared. If they do not match notifications that describe problems appear.

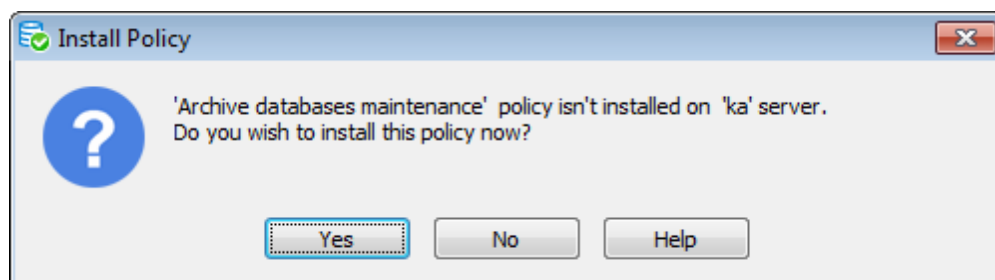
**Update Policy** - if a policy was changed when a server was not connected. If a policy was deployed on this single server you are offered to update server working copy of this policy on the basis of EMS SQL Backup Console configuration.



If a policy was deployed on several servers you are offered to update this policy on a server or make it independent that is to create a new policy on the basis of EMS SQL Backup Console configuration on this server.











**Install Policy** - if a policy was created when a server was not connected. You are offered to install a server working copy of this policy.

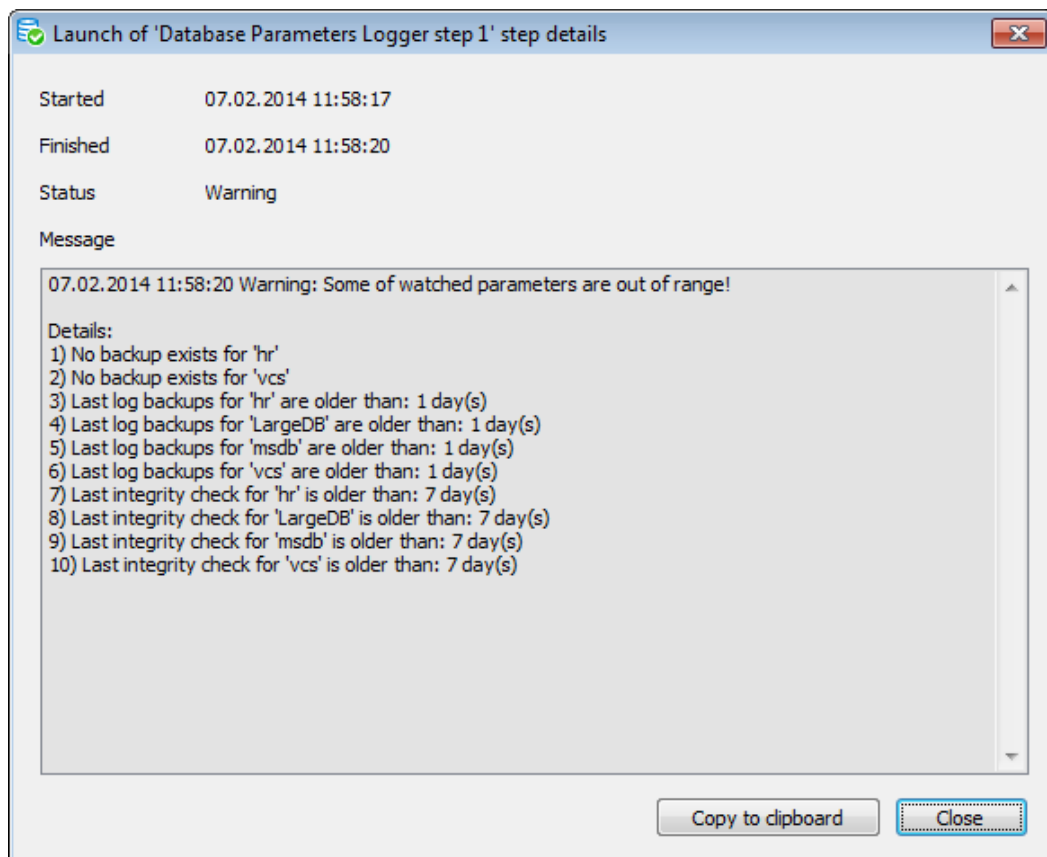


## 4.8 Launches

All policy tasks launches are listed in the **Launches** area on the [Servers](#) tab. The following information about launches is provided: *policy/task/step name, planned start time, actual start time, finish time, execution status and message.*

Name	Planned Start	Started	Finished	Status	Message
 Service task 1	2/28/2018 12:00:00 PM	2/28/2018 12:00:00 PM	2/28/2018 12:00:02 PM	Success	
 Service task 1	2/27/2018 12:00:00 PM	2/27/2018 12:00:00 PM	2/27/2018 12:00:02 PM	Success	
 Service task 1	2/26/2018 12:00:00 PM	2/26/2018 12:00:00 PM	2/26/2018 12:00:02 PM	Success	
 Service task 1	2/25/2018 12:00:00 PM	2/25/2018 12:00:00 PM	2/25/2018 12:00:02 PM	Success	
 Service task 1	2/24/2018 12:00:00 PM	2/24/2018 12:00:00 PM	2/24/2018 12:00:02 PM	Success	
 Service task 1	2/23/2018 12:00:00 PM	2/23/2018 12:00:00 PM	2/23/2018 12:00:03 PM	Success	
 Service task 1	2/22/2018 12:00:00 PM	2/22/2018 12:00:00 PM	2/22/2018 12:00:03 PM	Success	
 Service task 1	2/21/2018 12:00:00 PM	2/21/2018 12:00:00 PM	2/21/2018 12:00:03 PM	Success	

You can view a detailed information on every step execution by clicking the **Show details** button in the *Message* column for the selected step.

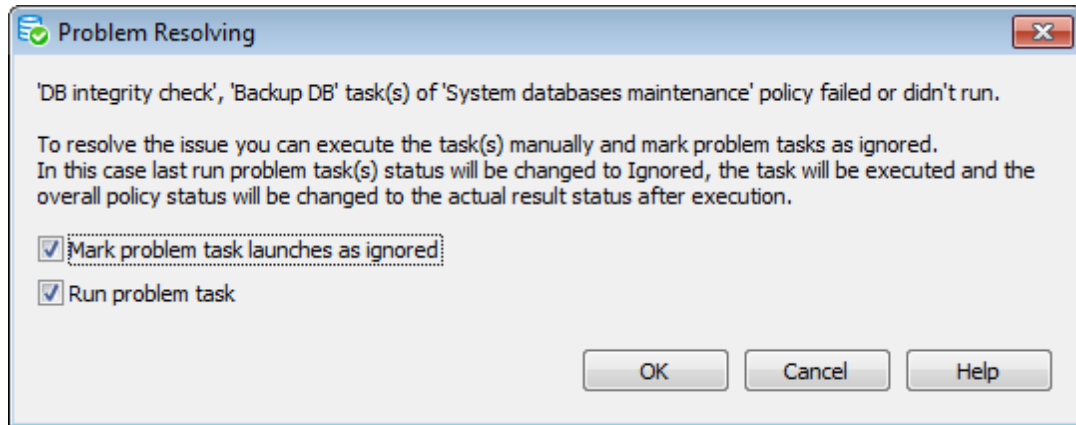


The dialog appeared displays information about step execution start and finish time, result execution status and detailed information about maintenance actions results. If a step has a failed status the reason of failed execution will be displayed in the **Message** field.

## 4.9 Resolve problem

The policy can result in *Warning*, *Error* or *Missed status*. You can manage policy status overview at the [Servers page](#). After detecting that some of your policies tasks have failed you can resolve the problem tasks by *marking the problem as ignored* and, if needed, execute the task once again.

To run the **Resolve task** dialog double-click the erroneous policy at the Policies list at [Servers page](#) or use the corresponding menu item for task or policy.



There are two options that can be applied to the policy to correct the errors:  
**Mark problem task launches as ignored** - ignore status of erroneous task(s)  
**Run problem task(s)** - execute the erroneous task(s) immediately

---

### See also:

[Policy wizard](#)

[Policy editor](#)


[Maintenance plan conversion](#)

[Execute Policy](#)

[Viewing Policy History](#)

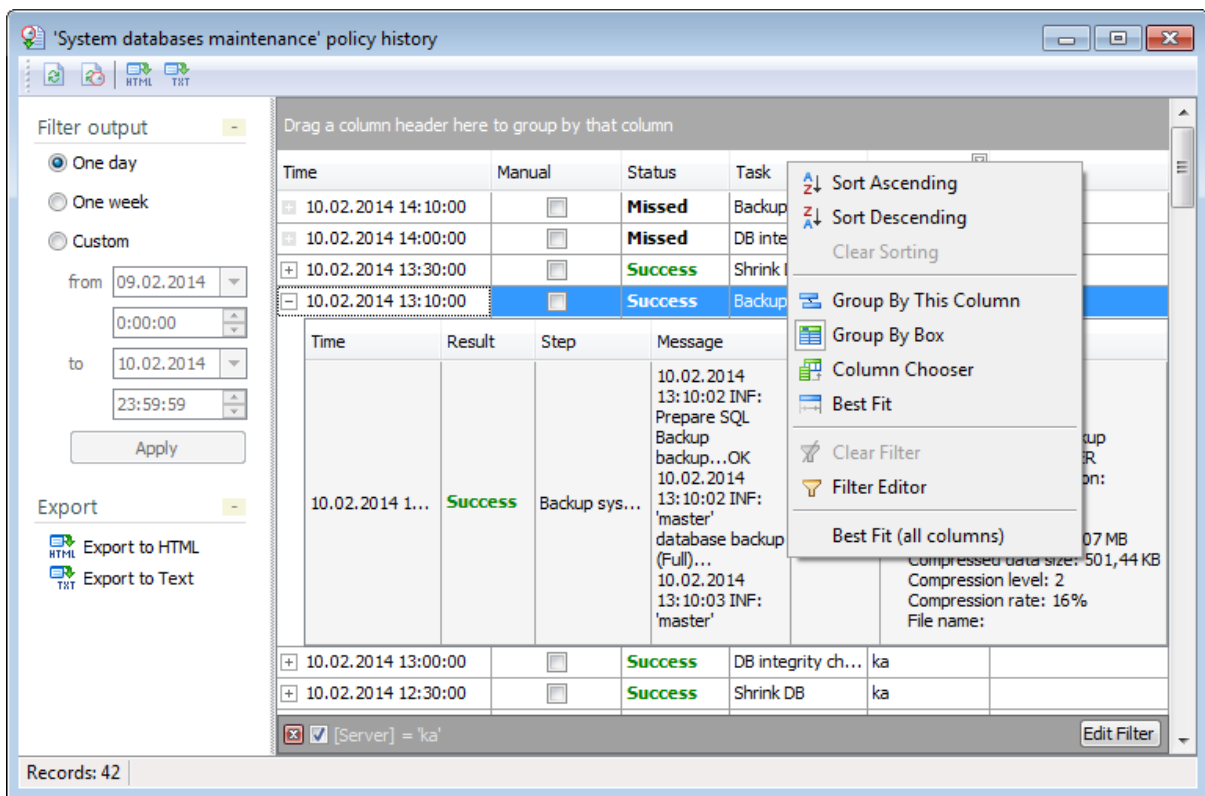
## 4.10 Viewing Policy History

This chapter describes the way you can view history of policy launches.

To view the history use the  **Show history...** item from the object popup menu. You can call this viewer for the group of servers, server, specific launch or policy.


The main frame of this dialog contains a table with complete information about policy launches: *launch date*, *status*, *task name*, *policy server*, *policy status*, *result message*.

This table is customizable: you can change columns set, swap columns, set [filtering](#) and [grouping](#).



The screenshot displays the 'System databases maintenance' policy history window. The window title is "'System databases maintenance' policy history". On the left, there is a 'Filter output' section with radio buttons for 'One day', 'One week', and 'Custom'. Below these are date and time pickers for 'from' and 'to', and an 'Apply' button. There is also an 'Export' section with 'Export to HTML' and 'Export to Text' options. The main area contains a table with columns: Time, Manual, Status, Task, and Message. A context menu is open over the table, showing options: Sort Ascending, Sort Descending, Clear Sorting, Group By This Column, Group By Box, Column Chooser, Best Fit, Clear Filter, Filter Editor, and Best Fit (all columns). The table shows several entries, including a 'Success' entry for a backup task on 10.02.2014 at 13:10:00. The status bar at the bottom shows 'Records: 42' and a filter expression '[Server] = 'ka''.

Time	Manual	Status	Task	Message
10.02.2014 14:10:00	<input type="checkbox"/>	Missed	Backup	
10.02.2014 14:00:00	<input type="checkbox"/>	Missed	DB inte	
10.02.2014 13:30:00	<input type="checkbox"/>	Success	Shrink	
10.02.2014 13:10:00	<input type="checkbox"/>	Success	Backup	10.02.2014 13:10:02 INF: Prepare SQL Backup backup...OK 10.02.2014 13:10:02 INF: 'master' database backup (Full)... 10.02.2014 13:10:03 INF: 'master'
10.02.2014 13:00:00	<input type="checkbox"/>	Success	DB integrity ch...	ka
10.02.2014 12:30:00	<input type="checkbox"/>	Success	Shrink DB	ka

The  **Refresh** function (*F5*) updates the list of launches.

The **Auto refresh** mode sets automatic refreshing on. The window is refreshed when the new event is added to the log.

### Filter output

#### One day

Information concerning policy launches performed not later than one day ago from the current date and time will be displayed.

#### One week

Information concerned policy launches performed not later than one week ago from the current date and time will be displayed.

**Custom**

Enables setting date and time criteria. Information concerning policy launches performed **from** the specified date **to** the specified date will be displayed.

Click the **Apply** button to set the filter.

**Export**

**Export to HTML.** Use this option to export history data to HTML file. By default the report is saved in the program's folder.



**Export to Text.** Use this option to export history data to TXT file. By default the report is saved in the program's folder.

---

**See also:**

[Policy wizard](#)

[Policy editor](#)

[Maintenance plan conversion](#)

[Execute Policy](#)

[Resolve problem](#)

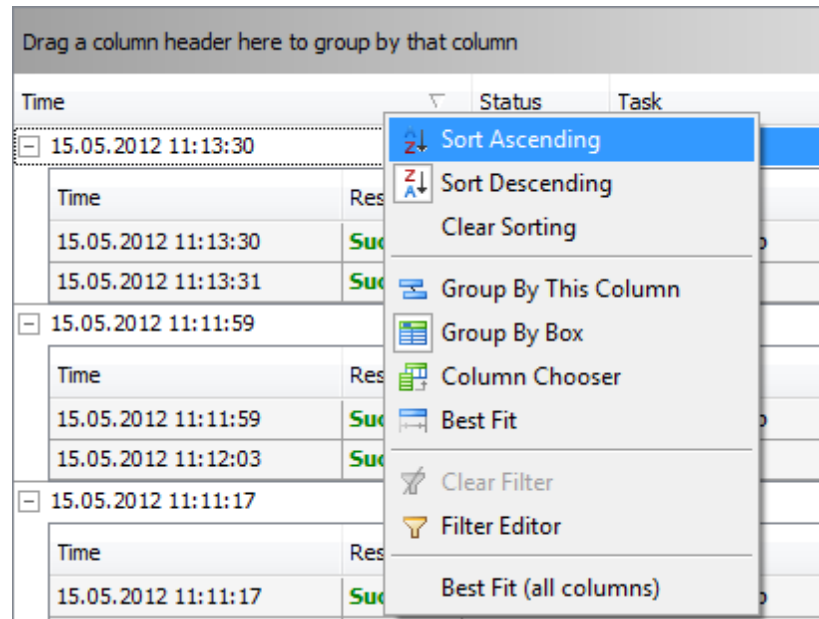


### 4.10.1 Sorting

You can perform data sorting in any table of **EMS SQL Backup**.

#### To perform sorting

- click the column header to perform ascending or descending sorting of this column values. When sorting is applied for a column, an arrow icon appears to the right of its title;
- use the column header popup menu items for this purpose: **Sort Ascending** or **Sort Descending**.





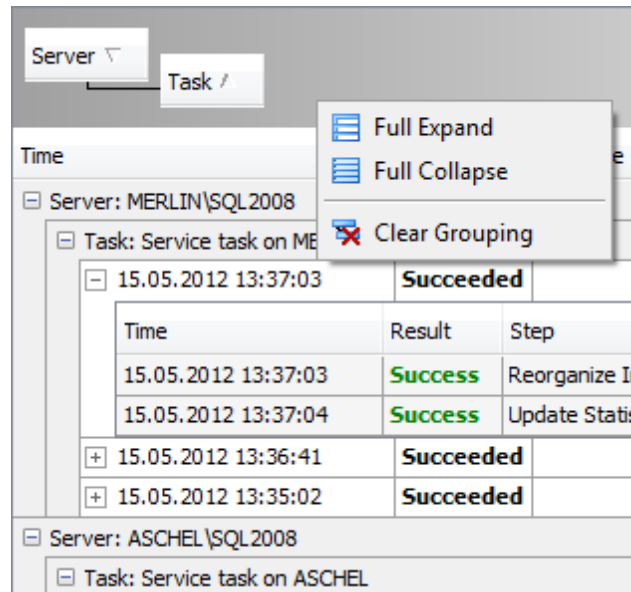
To cancel sorting use the **Clear Sorting** item of the column header popup menu.

## 4.10.2 Grouping



When grouping by a column is applied, all records are displayed as subnodes to the grouping row value as displayed on the screenshot below. If necessary, you can group data by two or more columns. In this case column headers are displayed hierarchically.

### To apply grouping




- enable the  **Group By Box** area in the column header popup menu;
- drag the column header to the gray area at the top or use the  **Group by this column** popup menu item of the column header.



### To reverse grouping

- drag the column header back;
- use the  **Ungroup** item of the grouped column to clear a specific grouping;
- use the  **Clear grouping** item of the Group by area popup menu to remove all grouping.

If necessary, you can group data by two or more columns. In this case column headers are displayed hierarchically, and data are grouped by these columns in the order the column headers appear in the **Group by** area.

The **Group by** area popup menu allows you to perform:  **Full Expand**,  **Full Collapse** and  **Clear Grouping**.

You can disable or enable any column. Open the **Column Chooser** and drag any column header to disable this column from table. To add any disabled column drag the header back from the **Column Chooser** panel to the table.

Drag a column header here to group by that column

Time	Manual	Status	Task		
+ 10.02.2014 14:00:00	<input type="checkbox"/>	Success	DB integrity check		
+ 10.02.2014 13:30:00	<input type="checkbox"/>	Success	Shrink DB		
- 10.02.2014 13:10:00	<input type="checkbox"/>	Success	Backup DB		
Time	Result	Step	Message	Durat...	Details
10.02.2014 13:10:00	Success	Backup sys...	10.02.2014 13:10:02 INF: Prepare SQL Backup backup...OK 10.02.2014 13:10:02 INF: 'master' database backup (Full)... 10.02.2014 13:10:03 INF: 'master'	00:00	Position: 1
+ 10.02.2014 13:10:00					
+ 10.02.2014 13:00:00					
+ 10.02.2014 13:00:00					
+ 10.02.2014 12:30:00					Shrink DB
+ 10.02.2014 12:30:00					Backup DB

Customization

Message

Server

### 4.10.3 Filtering

It is possible to make quick filtering by a specific value, or by *blank/non blank* field criteria. To activate quick filter press the button in the upper-right corner of the column header like at the screenshot below.

Drag a column header here to group by that column

Time	Planned	Status	Message	Server	Message
+ 25.10.2013 18:00:00	<input checked="" type="checkbox"/>	Success	check	ka	
+ 25.10.2013 17:58:01	<input type="checkbox"/>	Fail		ka	
+ 25.10.2013 17:57:41	<input type="checkbox"/>	Ignored		ka	
+ 25.10.2013 17:30:00	<input checked="" type="checkbox"/>	Missed		ka	
+ 25.10.2013 17:10:00	<input checked="" type="checkbox"/>	Success		ka	
+ 25.10.2013 17:00:00	<input checked="" type="checkbox"/>	Success	check	ka	
+ 25.10.2013 16:30:00	<input checked="" type="checkbox"/>	Success	Shrink DB	ka	
+ 25.10.2013 16:10:00	<input checked="" type="checkbox"/>	Success	Backup DB	ka	
+ 25.10.2013 16:00:00	<input checked="" type="checkbox"/>	Success	DB integrity check	ka	
+ 25.10.2013 15:30:00	<input checked="" type="checkbox"/>	Success	Shrink DB	ka	
+ 25.10.2013 15:10:00	<input checked="" type="checkbox"/>	Success	Backup DB	ka	
+ 25.10.2013 15:00:00	<input checked="" type="checkbox"/>	Success	DB integrity check	ka	
+ 25.10.2013 14:30:00	<input checked="" type="checkbox"/>	Success	Shrink DB	ka	
+ 25.10.2013 14:10:00	<input checked="" type="checkbox"/>	Success	Backup DB	ka	
+ 25.10.2013 14:00:00	<input checked="" type="checkbox"/>	Success	DB integrity check	ka	
+ 25.10.2013 13:30:00	<input checked="" type="checkbox"/>	Success	Shrink DB	ka	
+ 25.10.2013 13:10:00	<input checked="" type="checkbox"/>	Success	Backup DB	ka	

To apply manually defined conditions use the *Custom* item of the drop-down list.

**Custom AutoFilter** ✖

Show rows where:

Time

is greater than

And  Or

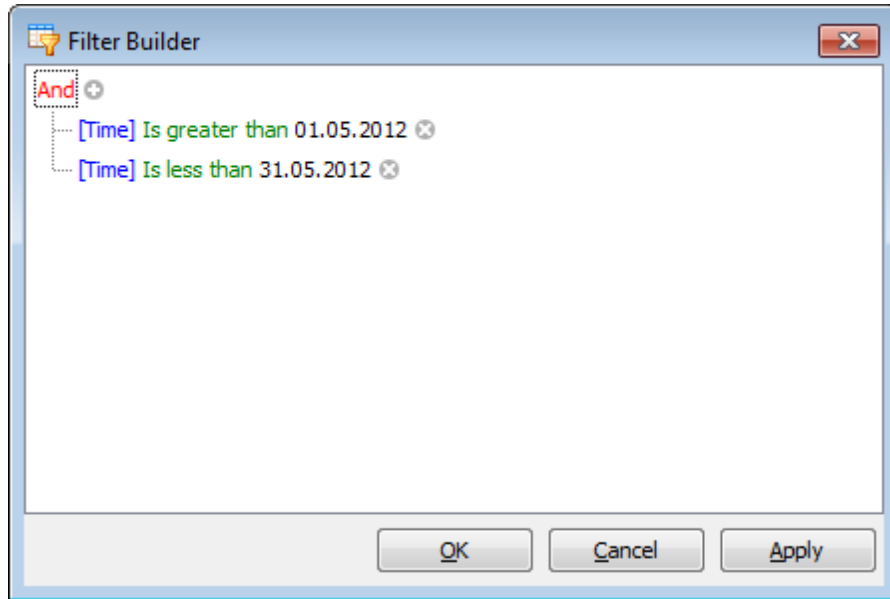
is less than

Pick the logical expression from the lists on the left and define values in the fields on the right. Use the '\_' character to represent any single symbol, and use the '%' character to represent any series of symbols in the condition string. Relation between these conditions is defined with  *And*/ *Or* options.

For more complex filtering use the **Filter Builder**. In this dialog you can set as much

conditions as you need.

To launch the builder use the **Filter Editor** item of the column header popup menu.



Condition consists of Column, Logical operator and Value. Press any of this elements to change its value.

Two or more conditions form Condition group. Its popup menu allows you to change relations between child conditions (**And**, **Or**, **Not And**, **Not Or**), to **Add Condition** or **Condition Group** or to **Remove Group**. For root condition group the **Clear All** operation is also available.

**Note:** You can use the *Insert* keyboard button to add a condition to the selected group and the *Delete* button to clear filter.

When any filter is applied the grey panel appears in the bottom of the grid.

Drag a column header here to group by that column

Time	Manual	Status	Task	Server	Message
+ 08.02.2014 23:30:00	<input type="checkbox"/>	Success	Shrink DB	ka	
+ 08.02.2014 23:10:00	<input type="checkbox"/>	Success	Backup DB	ka	
+ 08.02.2014 23:00:00	<input type="checkbox"/>	Success	DB integrity ...	ka	
+ 08.02.2014 22:30:00	<input type="checkbox"/>	Success	Shrink DB	ka	
+ 08.02.2014 22:10:00	<input type="checkbox"/>	Success	Backup DB	ka	
+ 08.02.2014 22:00:01	<input type="checkbox"/>	Success	DB integrity ...	ka	
+ 08.02.2014 21:30:00	<input type="checkbox"/>	Success	Shrink DB	ka	
+ 08.02.2014 21:10:00	<input type="checkbox"/>	Success	Backup DB	ka	
+ 08.02.2014 21:00:00	<input type="checkbox"/>	Success	DB integrity ...	ka	
+ 08.02.2014 20:30:00	<input type="checkbox"/>	Success	Shrink DB	ka	
+ 08.02.2014 20:10:00	<input type="checkbox"/>	Success	Backup DB	ka	
+ 08.02.2014 20:00:00	<input type="checkbox"/>	Success	DB integrity ...	ka	
+ 08.02.2014 19:30:00	<input type="checkbox"/>	Ignored	Shrink DB	ka	
+ 08.02.2014 19:10:00	<input type="checkbox"/>	Success	Backup DB	ka	
+ 08.02.2014 19:00:00	<input type="checkbox"/>	Success	DB integrity ...	ka	
+ 08.02.2014 18:30:00	<input type="checkbox"/>	Success	Shrink DB	ka	

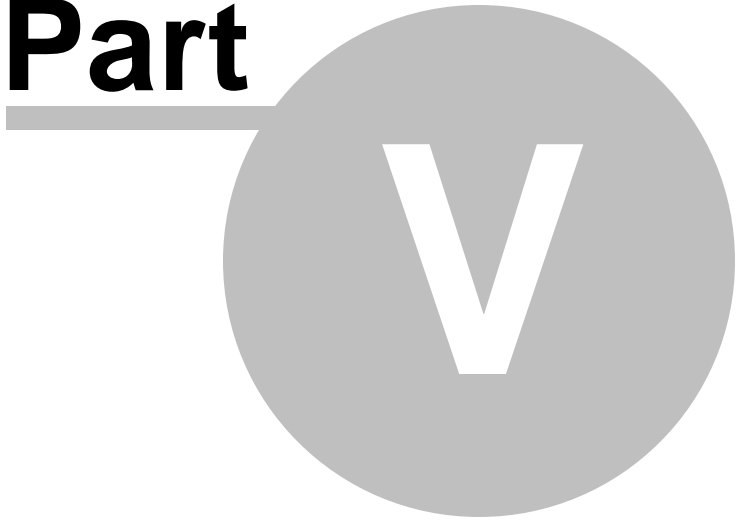
[Time] < '09.02.2014 0:00:00' And [Server] = 'ka'

Flag control enables/disables filtering. The arrow-down button opens the list containing recently applied filters.

To open current filter expression in the **Filter Builder** press the **Edit Filter** button.

The  **Close** button disables panel and cancels filtering.

**Part**



## 5 Templates

This chapter describes the way you can manage policy, service task and schedule templates.

EMS SQL Backup has a set of standard *preset templates* for easy creation of policies and their elements. You can create your own policy templates or widen the template library on the basis of already created objects.

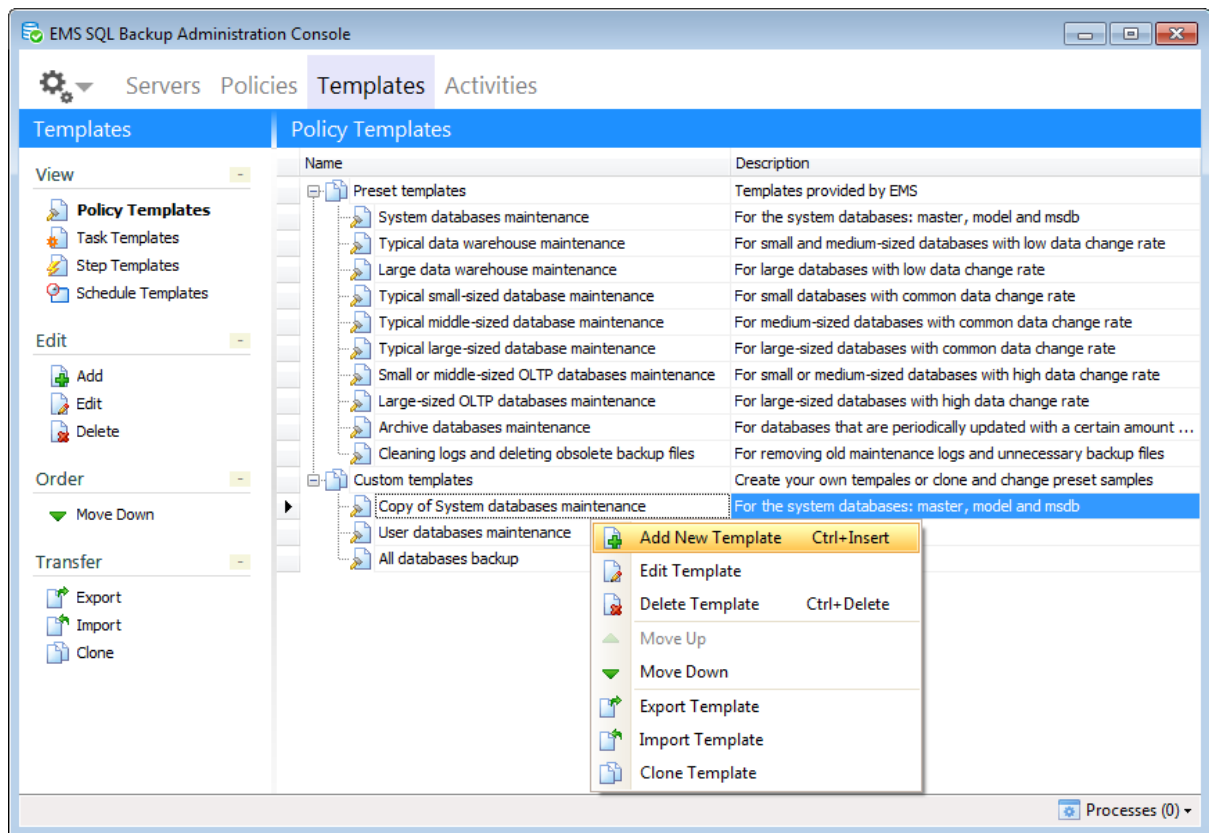
To activate the template management section switch to the **Templates** tab:

[Policy templates](#)

[Task templates](#)

[Step templates](#)

[Schedule template](#)



### How to create a new template:





Proceed to the **Templates** tab and **add new template** in the appropriate section.


### How to create a template from the existing policy:

Proceed to the **Policies** tab and select **Create template from policy** from policy's popup menu.



The program provides a set of standard templates.

To  **Import** and  **Export** templates to an external \*.xml file, use the  **Import Template** and  **Export Template** context items correspondingly.

To create a template copy select it in the list of templates and use the  **Clone Template** context menu item.

---

**See also:**

[Getting Started](#)

[Servers](#)

[Policies](#)

[Activities](#)

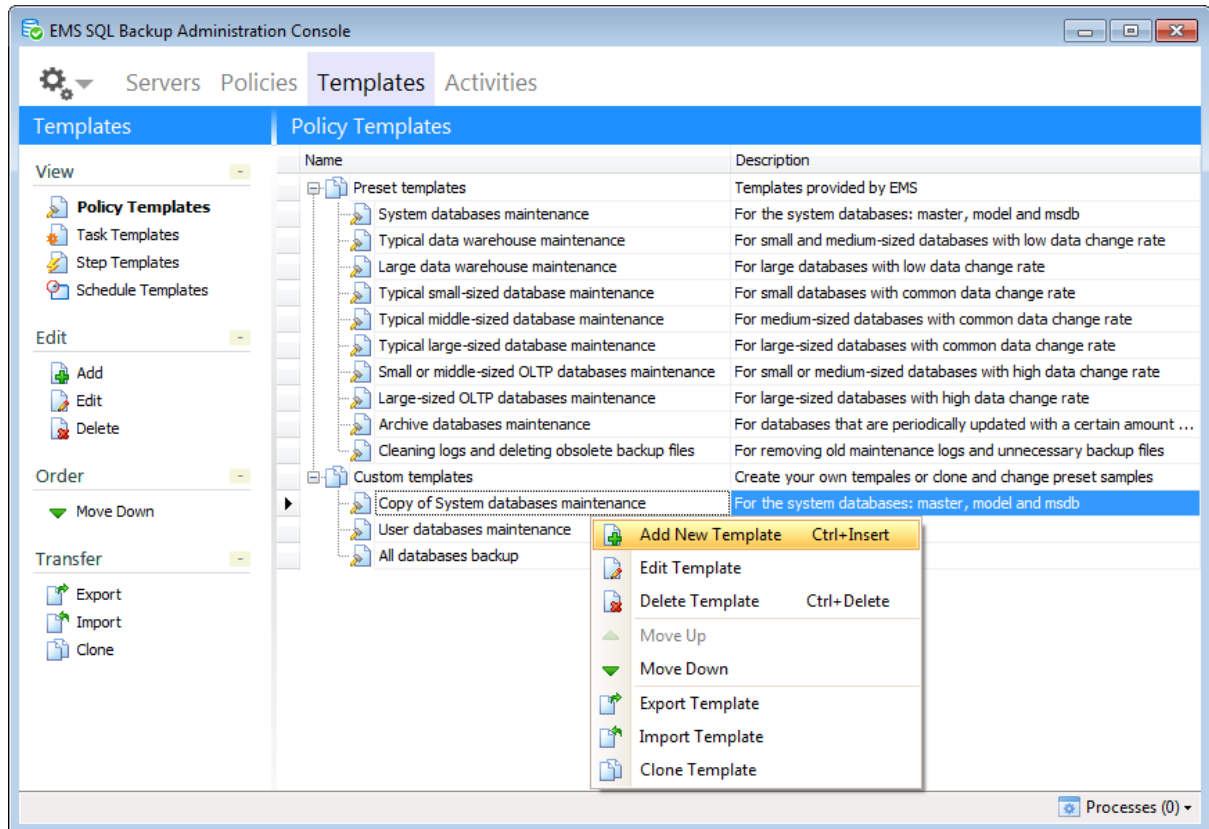
[Maintenance Steps](#)

[Options](#)

## 5.1 Policy templates

The **Policy Templates** page allows you to manage policy templates.

*Policy template* is a preset policy that can be used for creating new policies on its basis. You can add or edit its settings in the process of policy creation afterwards.



You can manage policy templates using the buttons on the Toolbars or popup menu.

**Add New Template** (*Ctrl+Insert*) - launches the [wizard for creating a new policy template](#)

**Edit Template** - opens the policy template editor

**Delete Template** (*Ctrl+Delete*) - removes the template

**Export Template.**

**Import Template**

**Clone Template** - create a copy of the selected template

### How to create a policy based on the template:

Use the **Maintenance Policies** | **Create Policy from Template** item from the popup menu at the [Policies page](#).

or

use the **Create from templates** item from the popup menu at the [Servers page](#).

### How to create a template from the existing policy:

Proceed to the [Policies](#) page and select **Create template from policy** from policy's

popup menu.

---

**See also:**


[Task templates](#)

[Step templates](#)

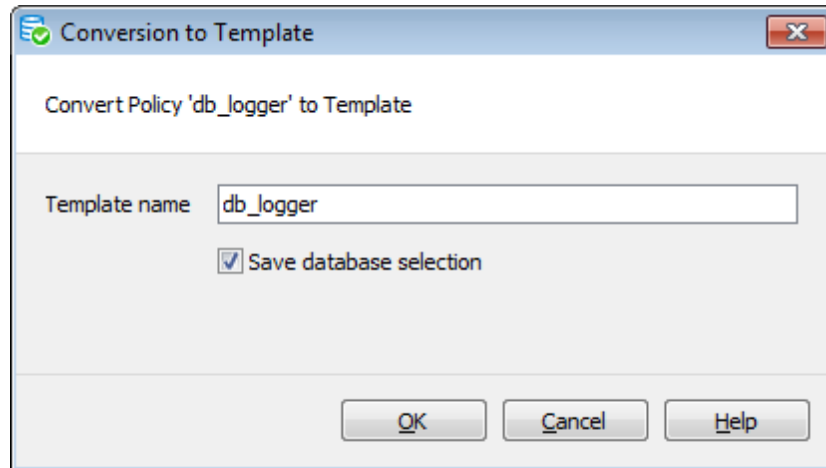
[Schedule template](#)

### 5.1.1 Creating template from policy

If you already have a configured policy you can create a template on its basis which can be later used for creating a new policy. It will contain all tasks, steps and schedules of this policy with their defined parameters.

In order to create a template based on a policy select the necessary policy in the list on the **Policies** tab and then choose the  **Create Template from Policy** context menu item.

In the dialog appeared enter a **Template name** and define whether databases selected in the policy should be saved in the template being created.

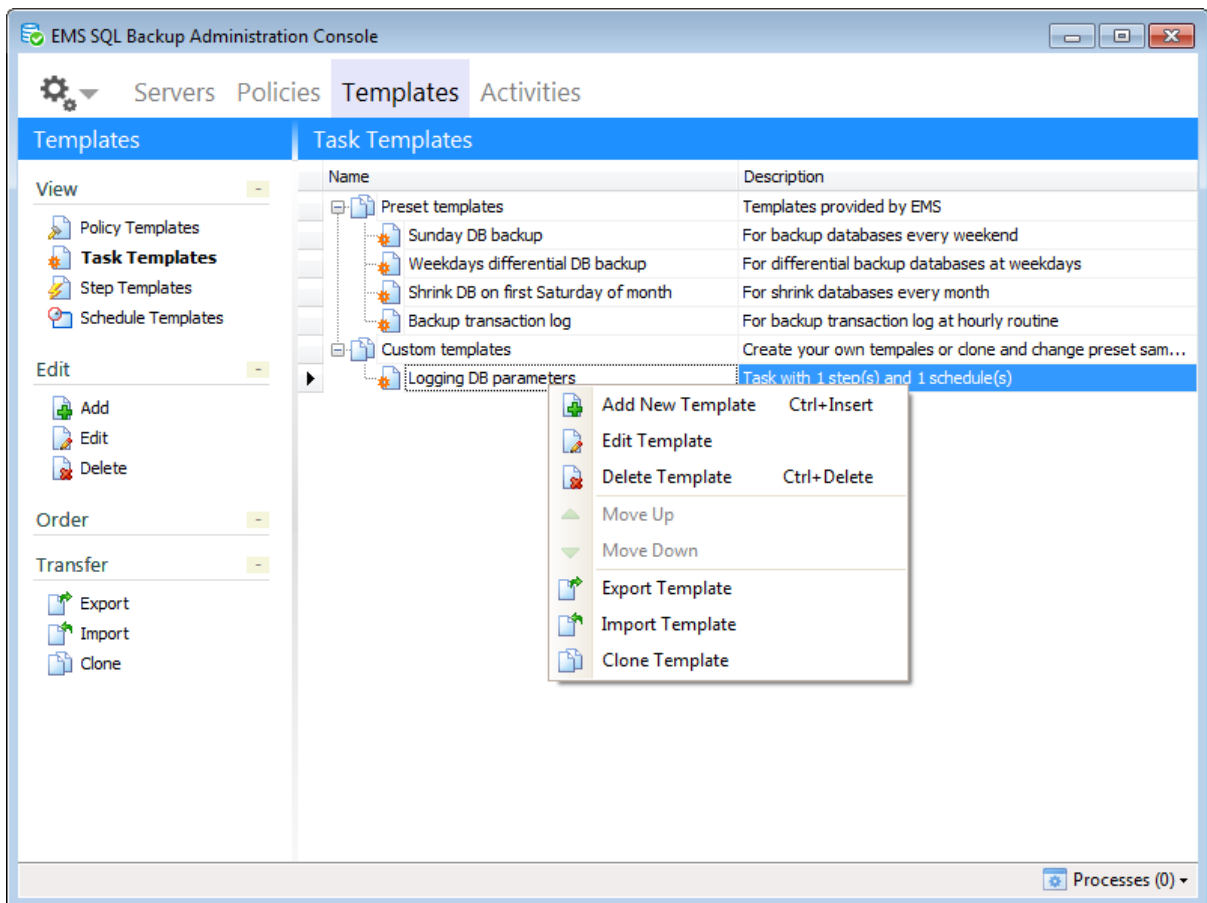


This template will be automatically added to the [Policy templates](#) list.

## 5.2 Task templates

The **Task Templates** page allows you to manage task templates.

**Task template** is a preset template, containing steps and schedules, that can be used for creating new tasks on its basis. You can add or edit its settings in the process of task creation.



You can manage task templates using the buttons on the Toolbars or popup menu.

**Add New Template** (*Ctrl+Insert*) - launches the [wizard for creating a new task template](#)

**Edit Template** - opens the [task template editor](#)

**Delete Template** (*Ctrl+Delete*) - removes the template

**Export Template**

**Import Template**

**Clone Template** - create a copy of the selected template

### How to create a task based on the template:

When you are prompted to create a task on [policy creation](#) click the **Create New from Template** button and select the template or several templates at once from the list.

**See also:**[Policy templates](#)[Step templates](#)[Step templates](#)

## 5.2.1 Create task wizard

This wizard will guide you through creating a task template that EMS SQL Backup can run on a regular basis.

**Task** in EMS SQL Backup is a set of scheduled steps to be performed on the server(s) or database(s).

You can schedule routine database administration steps.

[Backup Database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Reorganize Indices](#)

[Shrink Database](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

### **Wizard steps:**

[Set service task name and description](#)

[Select servers](#)

[Define a set of steps for service task](#)

[Define a schedule for service task](#)

[Task creating](#)

### 5.2.1.1 Set service task name and description

At this step you need to specify **Name** and **Description** for the task being created.

Service task - 'Service task 1'

Set service task name and description **(Step 1 of 5)**

This wizard will guide you through creating a task that **SQL Backup** can run on a regular basis. You can schedule such routine database administration steps as: checking integrity, maintaining indices, backing up databases, updating database statistics, shrinking databases etc.

The created task can be edited in **SQL Backup Administration console**: you can add new steps, redefine schedules and manage task execution.

Name: Service task 1

Description:

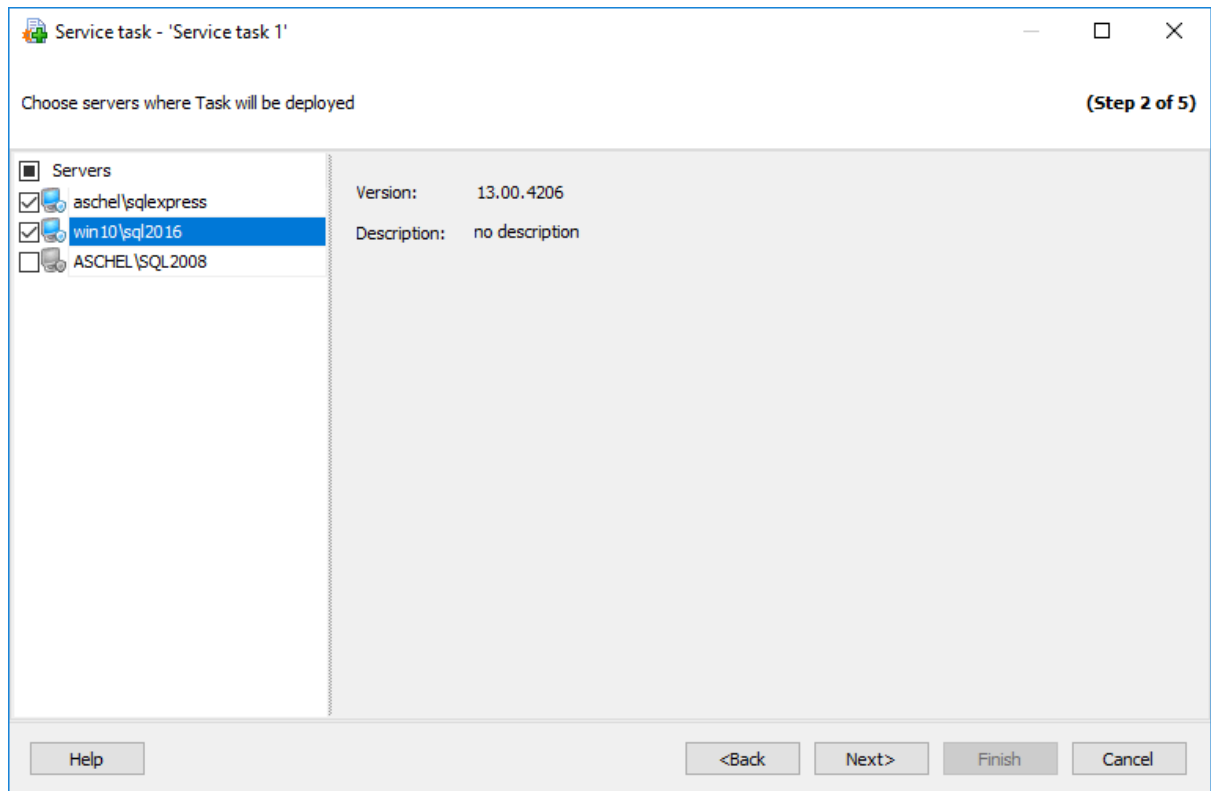
Help <Back Next> Finish Cancel

[Next step >>](#)



### 5.2.1.2 Select servers

At this step select the servers to apply the task for.

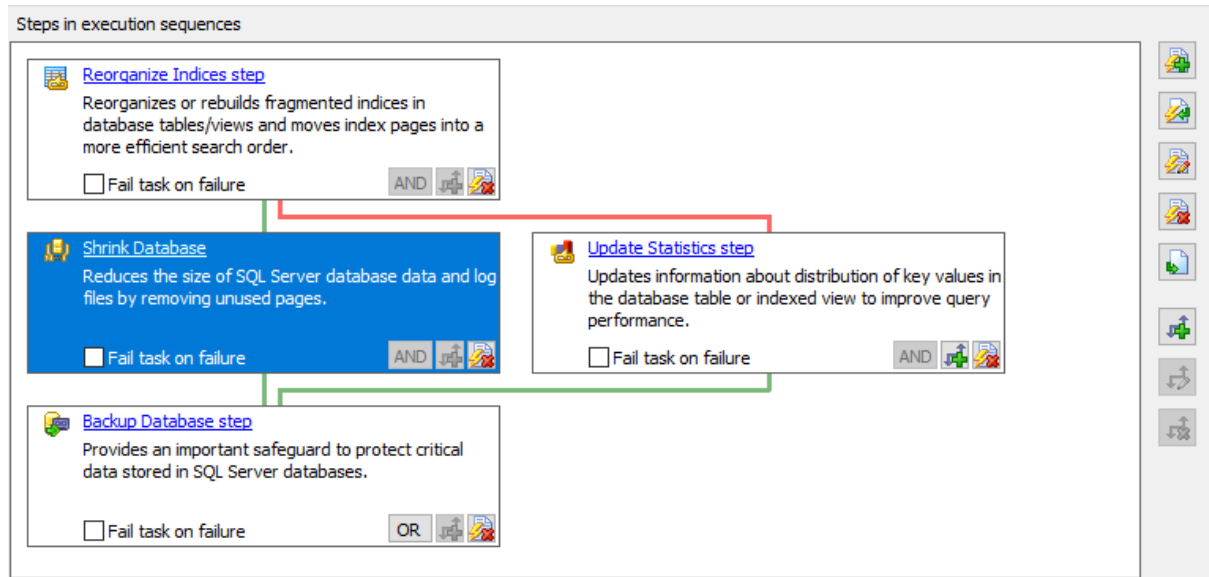


[<< Previous step](#)

[Next step >>](#)

### 5.2.1.3 Define a set of steps for service task

Use this step of the wizard to build a list of [steps](#) in the execution order. Note that you need to set the sequence of steps with constraints schema that sets conditions for proceeding to each next step.



#### Create New Step

Select the step which you create the dependent step on and use this button to add the new task. The *Ins* key or the popup menu item can be used as well.



#### Create Step from Template

If you create a task from a pre-saved [template](#) you need to pick a template for this object in the opened dialog.

Name	Description
<input type="checkbox"/> DB integrity check	Checks the allocation, structural, and logical integrity of all the objects in the database
<input type="checkbox"/> Reorganize DB indices	Reorganizes one or more indices for a table in the databases
<input type="checkbox"/> Shrink DB	Shrinks the size of the data files in the databases
<input type="checkbox"/> Update DB statistics	Updates information about the distribution of key values in the database tables
<input type="checkbox"/> Backup transaction log	Backs up transaction log
<input checked="" type="checkbox"/> Bulk restore step 1	



#### Edit Step

You can use this button or double-click the step to change the settings.

If the step has two in-constraints, switch between **AND** **OR** buttons to set the rule for the step execution.

**Fail task on failure**

If this option is checked then the execution of a whole task is aborted as a result of this step fail.

**Delete Step**

Click this button to remove the step from the list. The *Delete* key can be used as well.

**Copy to Templates**

Press this button to create a [template](#) with the same options as the selected object.

**Managing constraints for creating execution conditions****Create New Constraint**

Select the step you need to create the constraint from, click the button and select the dependent step. You can use drag-and-drop as well.

**Edit Constraint**

Select the constraint link and click the button to [set the value](#) for proceeding to the next step.

**Delete Constraint**

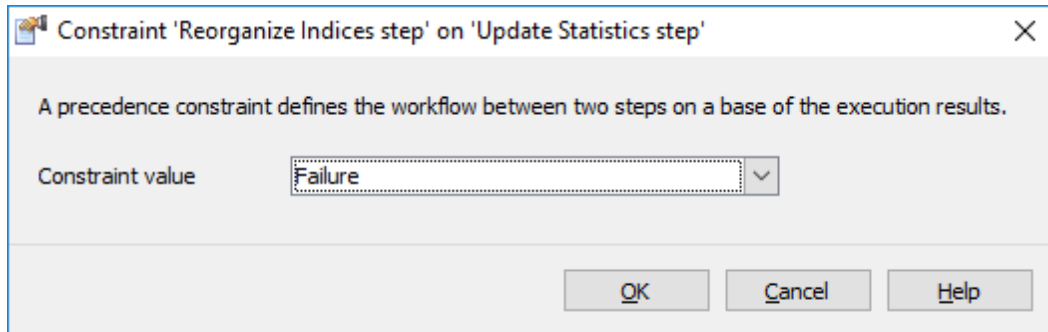
Select the link and click the button to remove the constraint.

[<< Previous step](#)

[Next step >>](#)

## 5.2.1.3.1 Constraint editor

Use this editor to set conditions for steps proceeding.

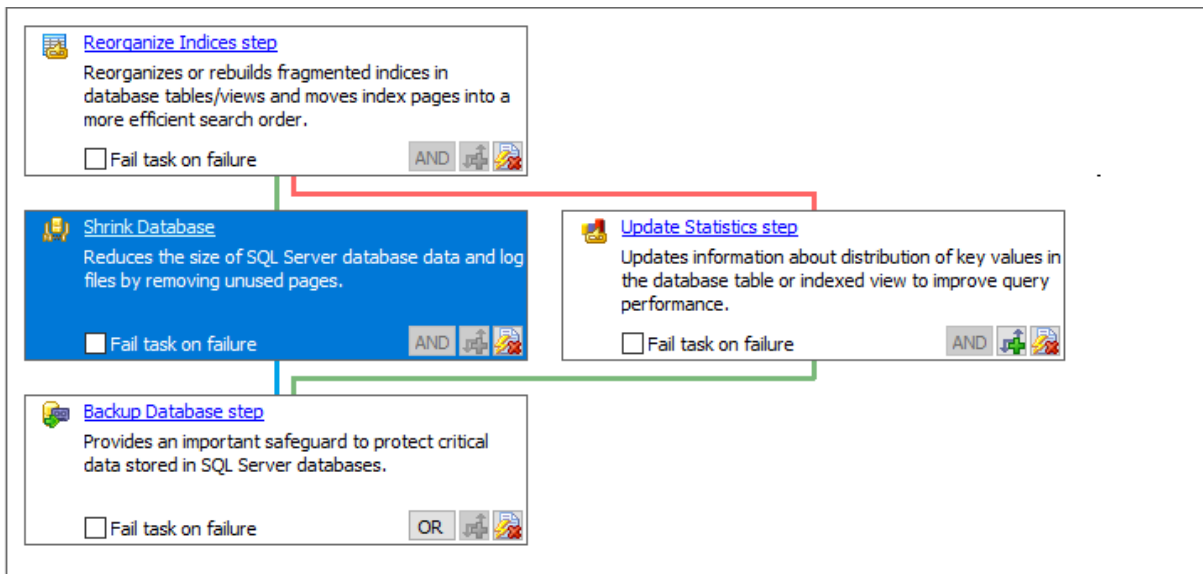


Depending on the constraint value the next step will be executed if:

Failure - the step failed (**Red link**),

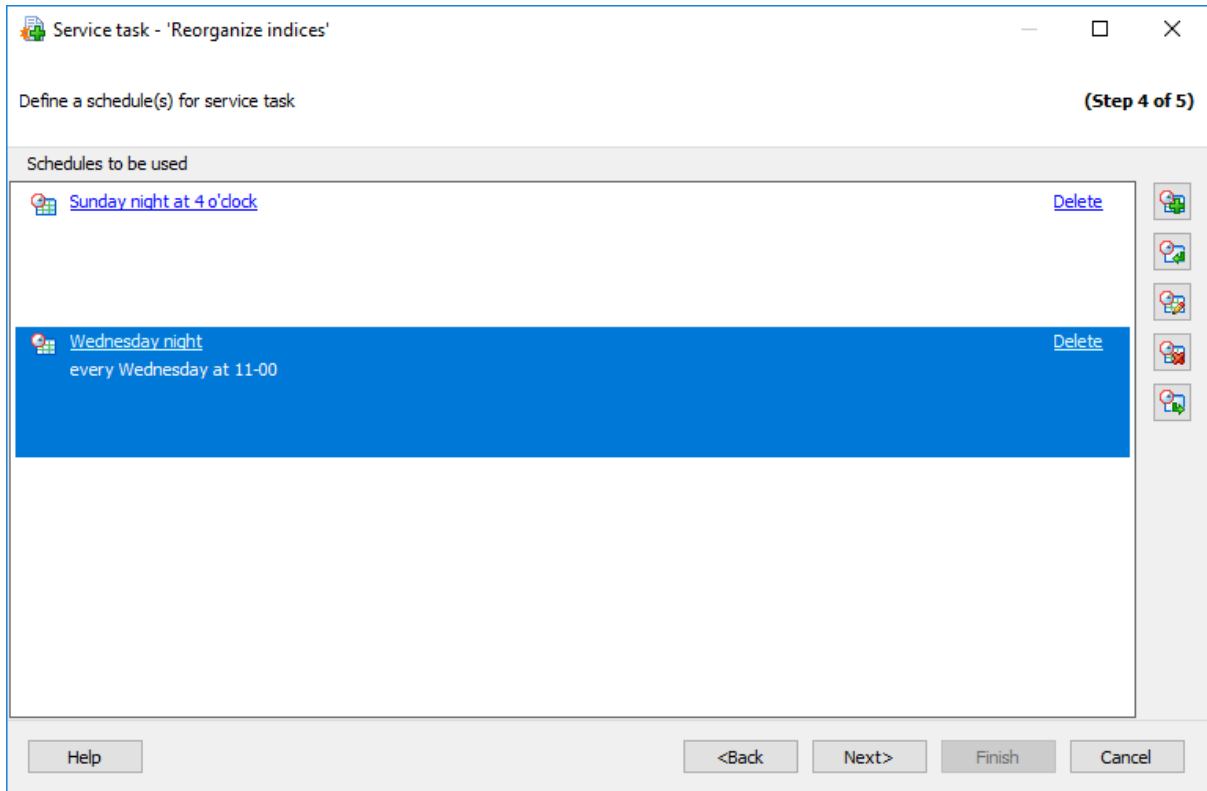
Success - the step was executed successfully (**Green link**),

Completion - the step completed (**Blue link**).



#### 5.2.1.4 Define schedule for service task

At this step you need to set schedule(s) to be used for task launch.



#### Create new schedule

Clicking this button opens the [Schedule Editor](#) allowing you to create a schedule.



#### Create New Schedule from Template

Use this button to create schedule from template. On pressing this button the **Item selection** dialog is opened allowing you to select any of the available templates and create a schedule based on its settings. If you select several schedule templates the corresponding number of schedules will be created.



#### Edit Schedule

Click the button or double-click the step to open the selected schedule for [editing](#).



#### Delete Schedule

Click this button to remove selected schedule from the list.



#### Copy step to templates

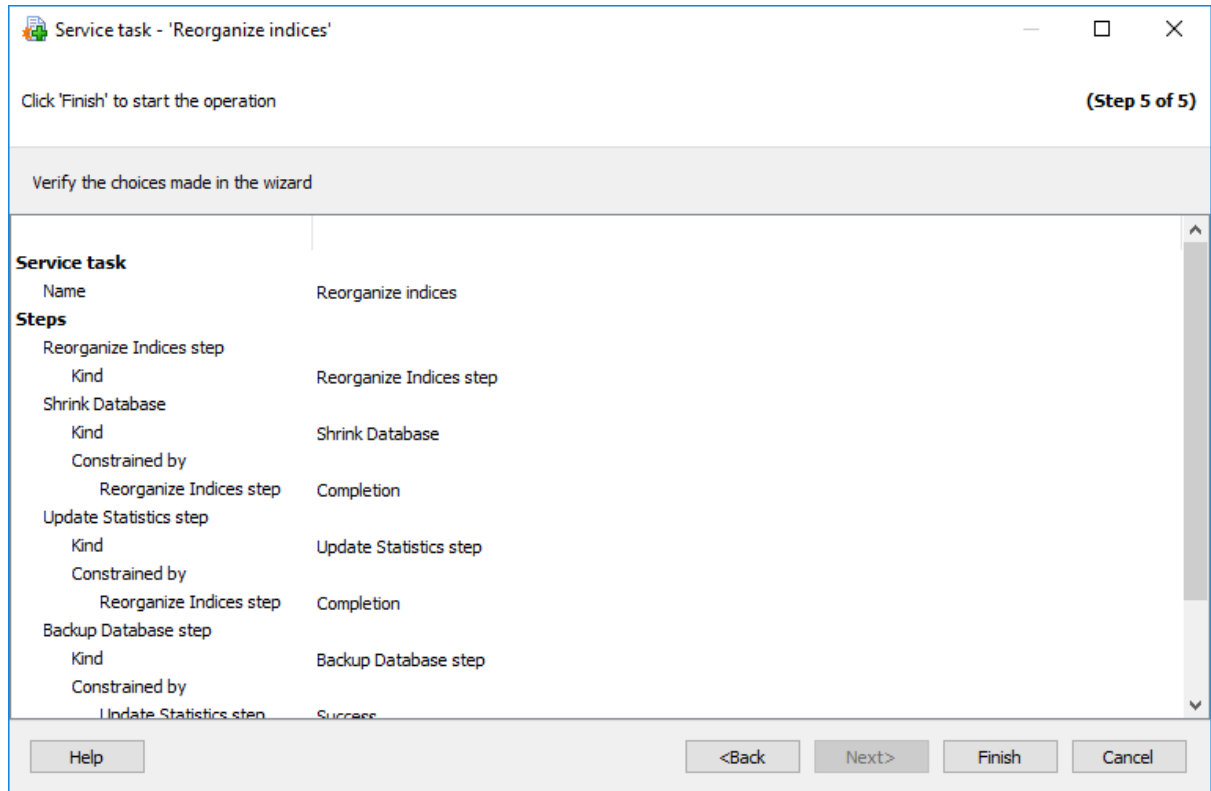
Use this button to create a template based on the selected schedule.

[<< Previous step](#)

[Next step >>](#)

### 5.2.1.5 Creating task

At this step of the wizard you can see the summary of all options set at the previous steps.



You can **Verify the choices made in the wizard** in the corresponding area and click the **Finish** button to create the task.

[<< Previous step](#)

## 5.2.2 Task editor

The **Task editor** allows you to view and edit task parameters. It provides the same set of options as [Service task wizard](#).

### **Task editor tabs:**

[Name and description](#)

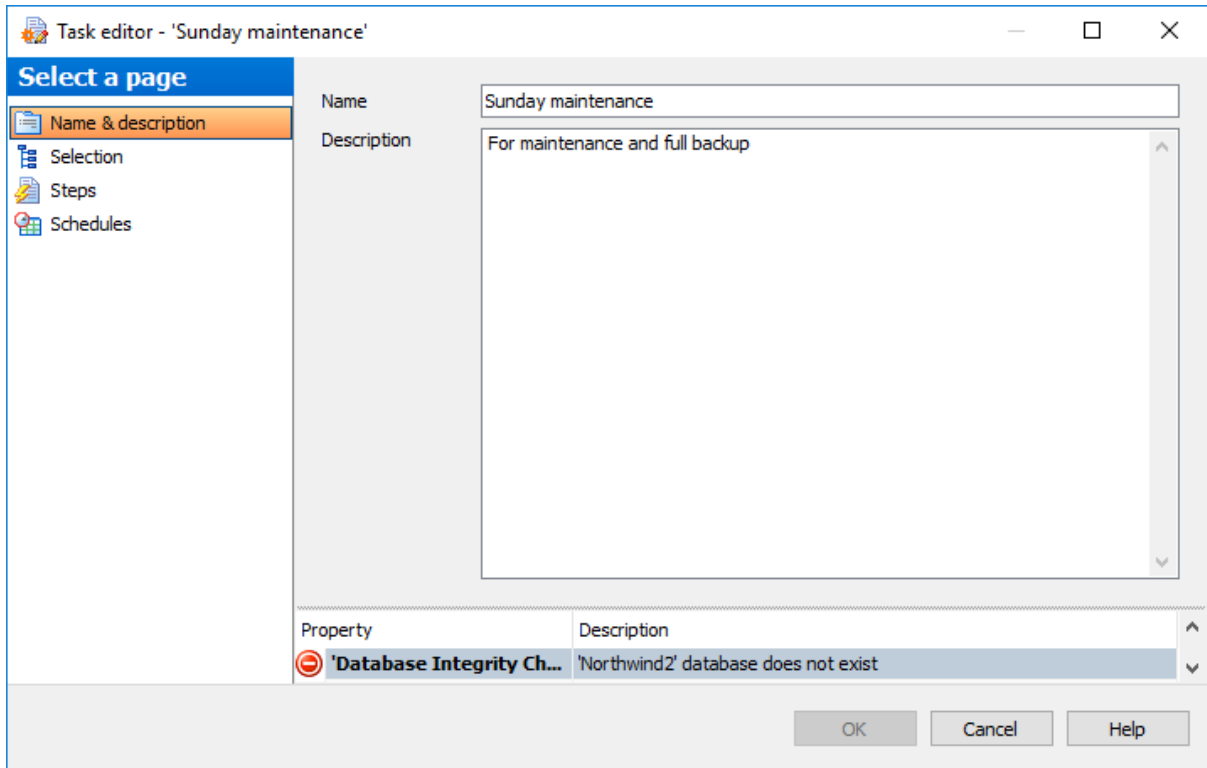
[Selection](#)

[Steps](#)

[Schedules](#)

### 5.2.2.1 Name and description

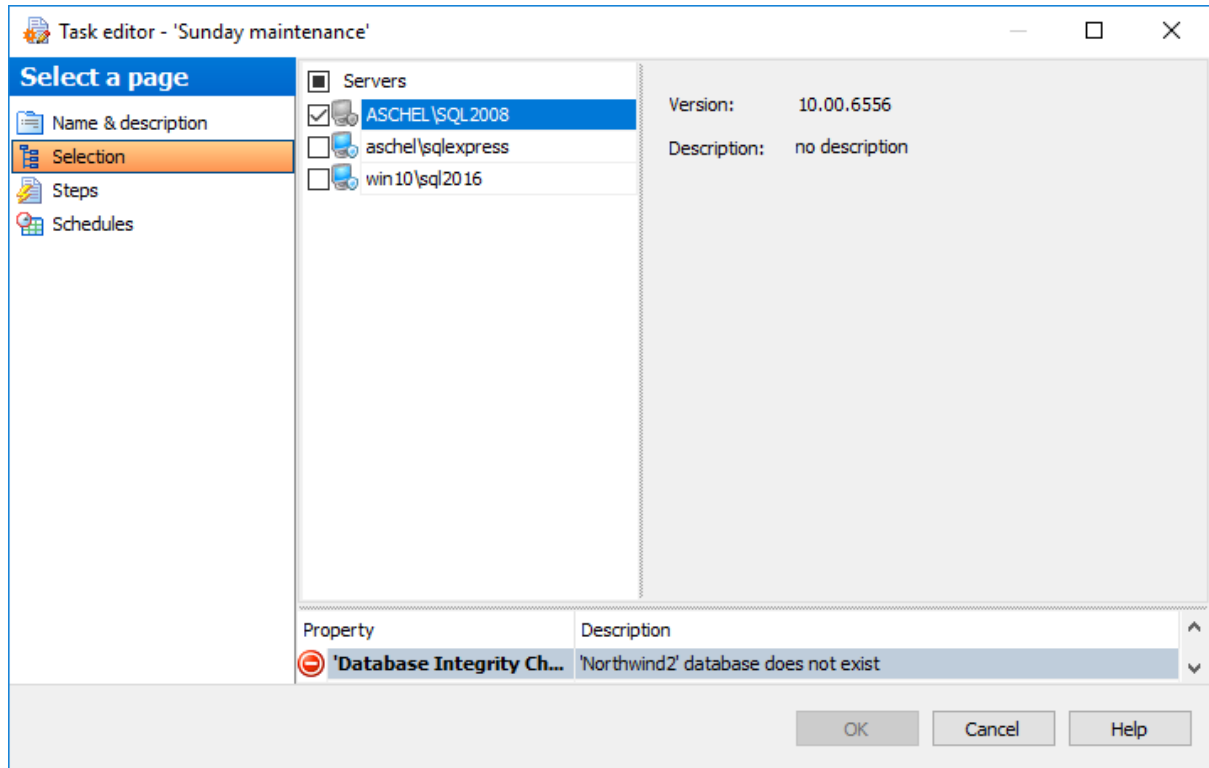
At this section you can view\edit task *Name* and *Description*.





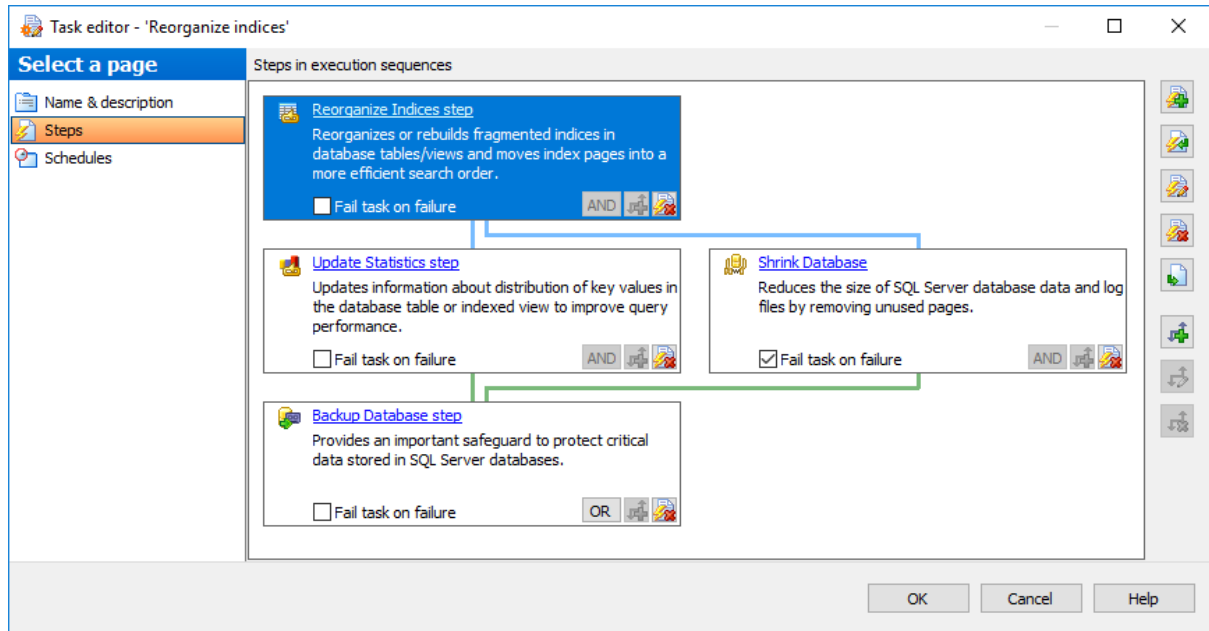
### 5.2.2.2 Selection

At this tab you can manage the servers list for the task.



### 5.2.2.3 Steps

The **Steps** section allows you to view and edit the set of steps in the execution order.



#### Create New Step

Select the step which you create the dependent step on and use this button to add the new task. The *Ins* key or the popup menu item can be used as well.



#### Create Step from Template

If you create a task from a pre-saved [template](#) you need to pick a template for this object in the opened dialog.

Name	Description
<input type="checkbox"/> DB integrity check	Checks the allocation, structural, and logical integrity of all the objects in the database
<input type="checkbox"/> Reorganize DB indices	Reorganizes one or more indices for a table in the databases
<input type="checkbox"/> Shrink DB	Shrinks the size of the data files in the databases
<input type="checkbox"/> Update DB statistics	Updates information about the distribution of key values in the database tables
<input type="checkbox"/> Backup transaction log	Backs up transaction log
<input type="checkbox"/> Bulk restore step 1	



#### Edit Step

You can use this button or double-click the step to change the settings.

If the step has two in-constraints, switch between **AND** **OR** buttons to set the rule for the step execution.

#### Fail task on failure

If this option is checked then the execution of a whole task is aborted as a result of this

step fail.



#### **Delete Step**

Click this button to remove the step from the list. The *Delete* key can be used as well.



#### **Copy to Templates**

Press this button to create a [template](#) with the same options as the selected object.

### **Managing constraints for creating execution conditions**



#### **Create New Constraint**

Select the step you need to create the constraint from, click the button and select the dependent step. You can use drag-and-drop as well.



#### **Edit Constraint**

Select the constraint link and click the button to [set the value](#) for proceeding to the next step.

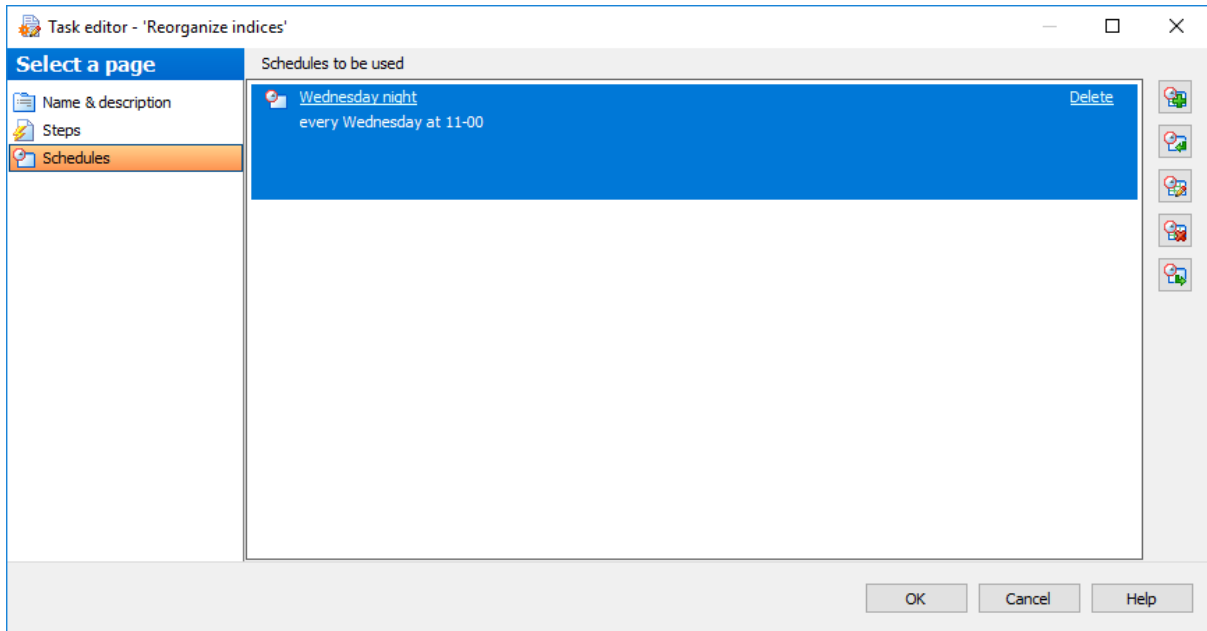


#### **Delete Constraint**

Select the link and click the button to remove the constraint.

#### 5.2.2.4 Schedules

The **Schedules** section allows you to view and edit schedule(s) for task execution.



#### Create new schedule

Clicking this button opens the [Schedule Editor](#) allowing you to create a schedule.



#### Create New Schedule from Template

Use this button to create schedule from template. On pressing this button the **Item selection** dialog is opened allowing you to select any of the available templates and create a schedule based on its settings. If you select several schedule templates the corresponding number of schedules will be created.



#### Edit Schedule

Click the button or double-click the step to open the selected schedule for [editing](#).



#### Delete Schedule

Click this button to remove selected schedule from the list.




#### Copy schedule to templates

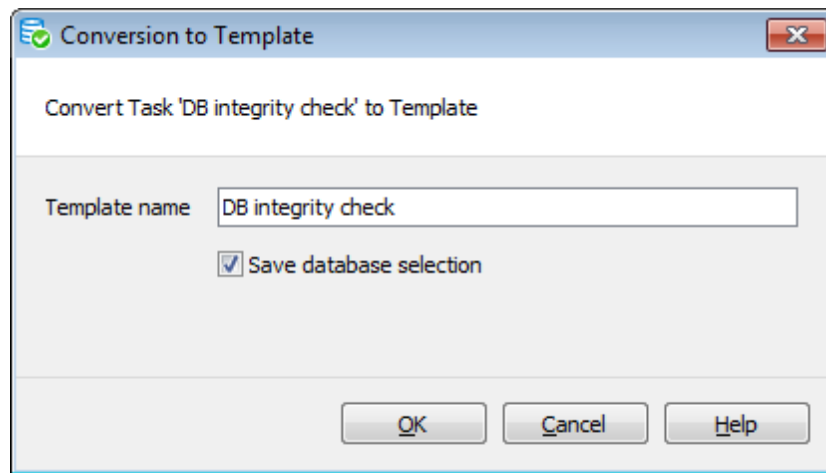
Use this button to create a template based on the selected schedule.

### 5.2.3 Creating template from task

If you already have a service task with defined configuration you can create a template on its basis which can be later used for creating a new service task. It will contain all steps and schedules of this task with their defined parameters.

In order to create a template based on a service task open the policy it is included in and select the  **Copy to Templates** task context menu item or use the corresponding button.

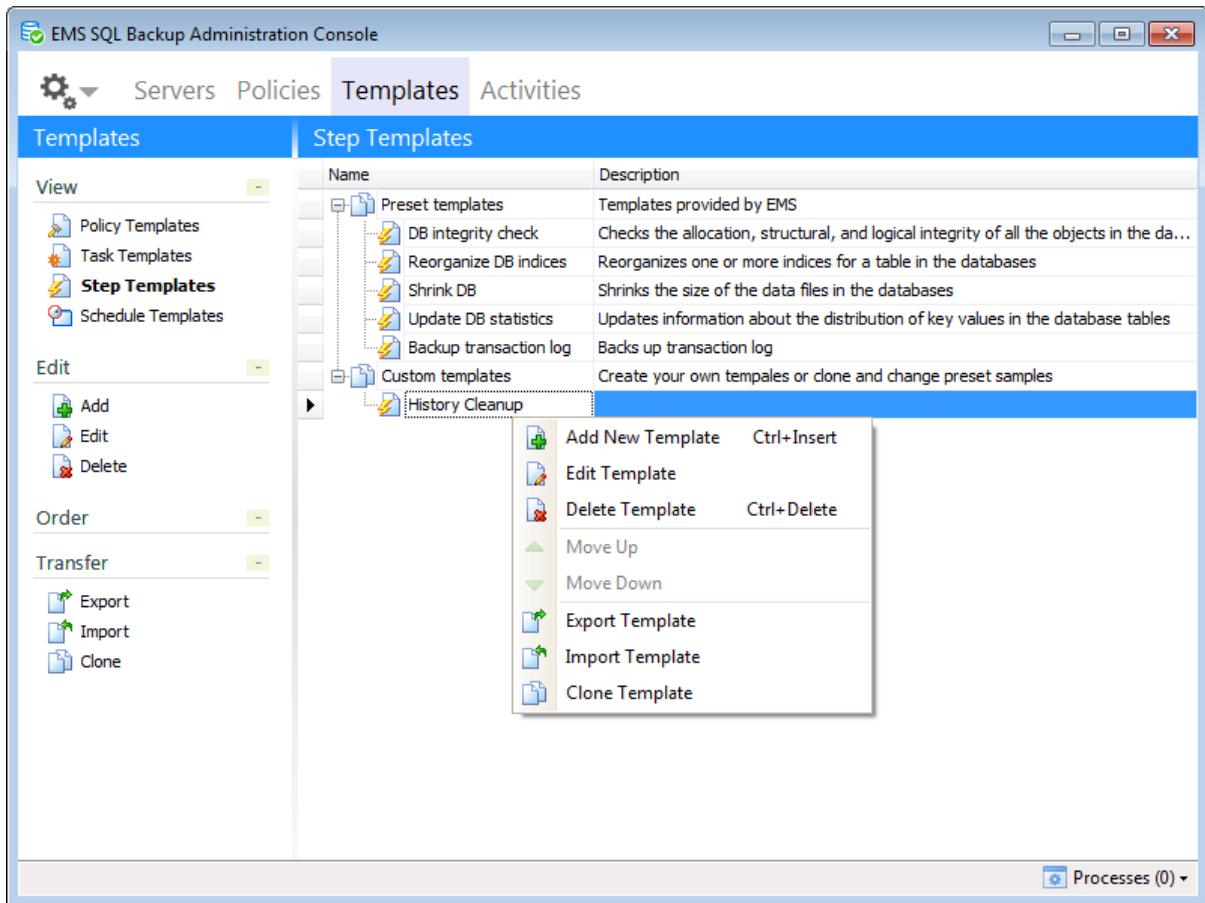
In the dialog appeared enter a **Template name** and define whether databases selected in the task should be saved in the template being created.



This template will be automatically added to the [Task templates](#) list.

## 5.3 Step templates

The **Step Templates** section allows you to manage [Step](#) Templates.



You can manage step templates using the buttons on the Toolbars or popup menu.

**Add New Template** (*Ctrl+Insert*) - launches the [wizard for creating a new step template](#)

**Edit Template** - opens the [step template editor](#)

**Delete Template** (*Ctrl+Delete*) - removes the template

**Export Template**

**Import Template**

**Clone Template** - create a copy of the selected template


### How to create a step based on the template:

When you are prompted to create a step on [policy creation](#) or [task creation](#) click the **Create Step from Template** button and select the template or several templates at once from the list.

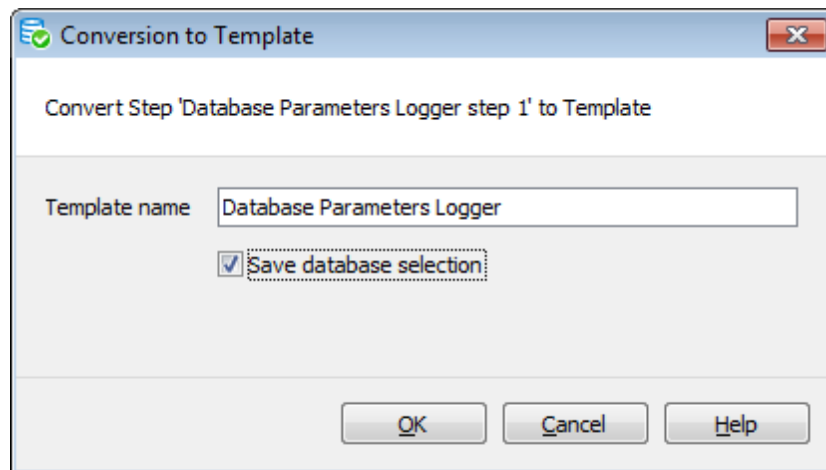
**See also:**[Policy templates](#)[Task templates](#)[Schedule template](#)

### 5.3.1 Creating template from step

If you already have a configured [maintenance action](#) included in a policy you can create a template on its basis which can be later used for creating a new step. All parameters that have been defined during the step creation will be saved in this template.

In order to create a template based on a step open the policy it is included in and select the  **Copy to Templates** step context menu item or use the corresponding button.

In the dialog appeared enter a **Template name** and define whether databases selected in the step should be saved in the template being created.

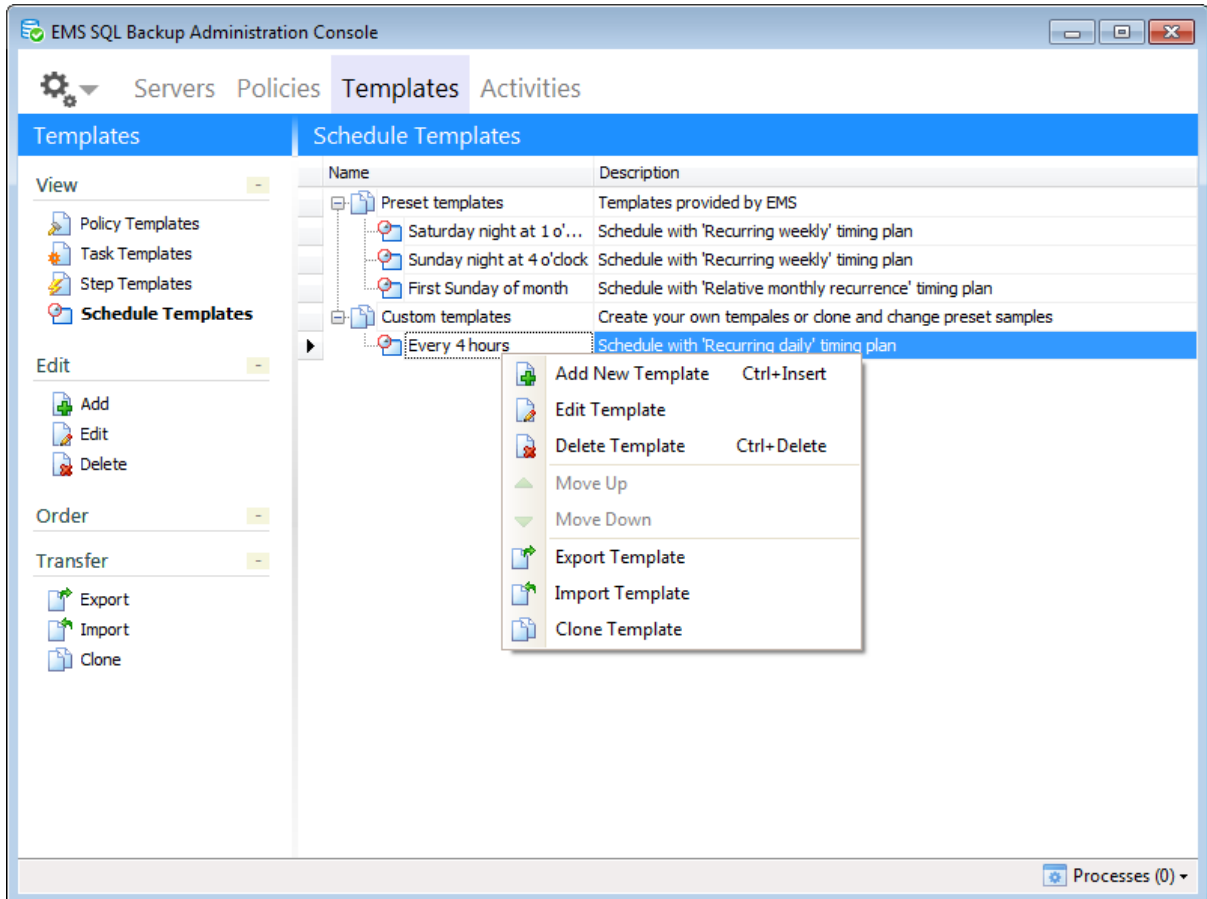


This template will be automatically added to the [Step templates](#) list.




## 5.4 Schedule template

The **Schedule Templates** section allows you to manage Schedule Templates. To launch policy you can use the local time on each server or the local console time.



You can manage step templates using the buttons on the Toolbars or popup menu.


 **Add New Template** (*Ctrl+Insert*) - opens the dialog for [schedule creation](#)

 **Edit Template** - opens the [schedule editor](#)

 **Delete Template** (*Ctrl+Delete*) - removes the template

 **Export Template**

 **Import Template**

 **Clone Template** - create a copy of the selected template

### How to create a step based on the template:

When you are prompted to create a schedule on [policy creation](#) or [task creation](#) click the

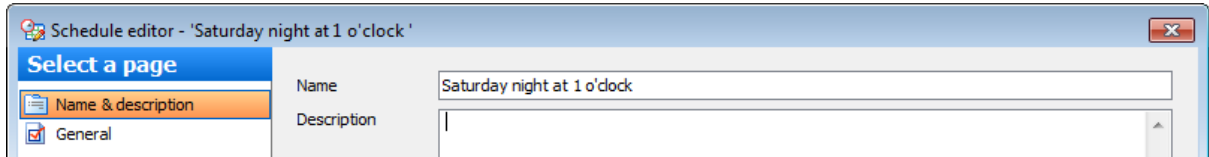
 **Create Schedule from Template** button and select the template or several templates at once from the list.

**See also:**[Policy templates](#)[Task templates](#)[Step templates](#)

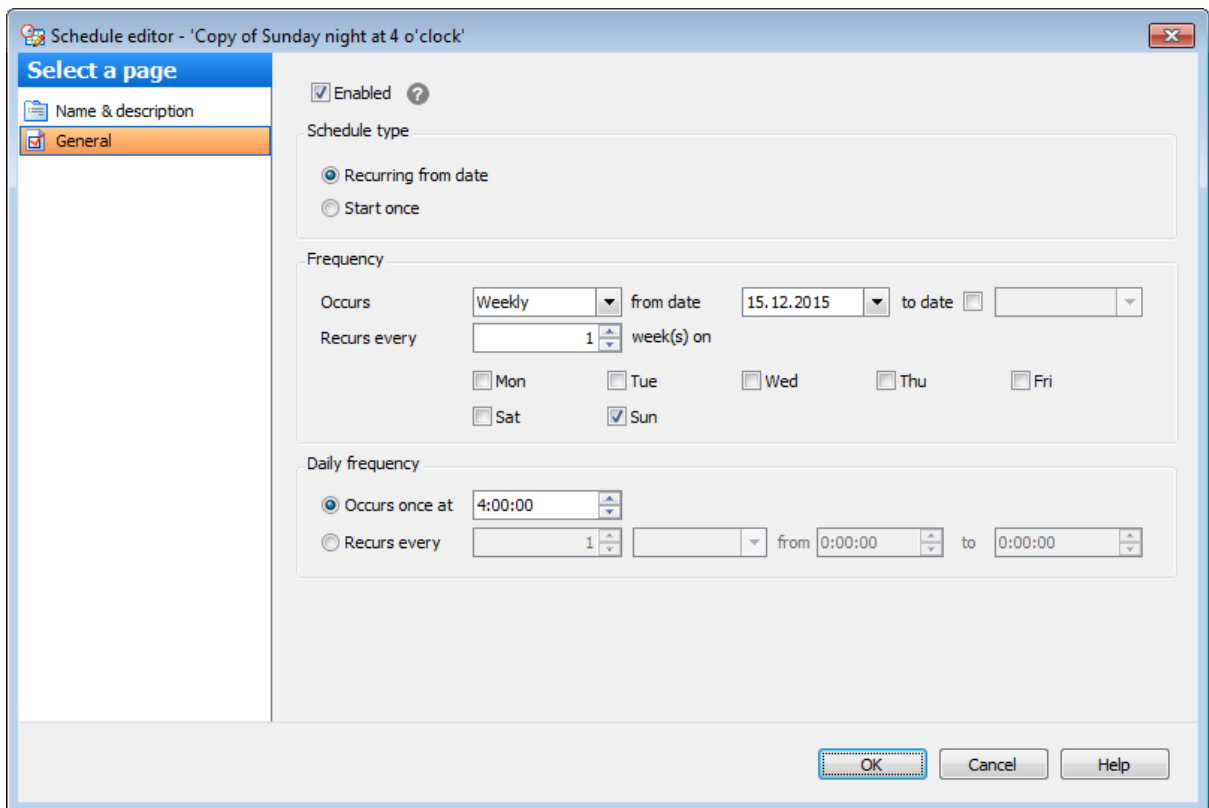
### 5.4.1 Schedule editor

This dialog allows you to create/edit schedule(s).

At the **Name and Description** tab set the name of the schedule and its description.



At the **General** tab of the editor set parameters for the schedule.



#### Enabled

This option indicates whether schedule is active or not.

#### Schedule type

This section allows you to define schedule type.

#### Start automatically when SQL Server Agent starts

This option indicates that tasks associated with this schedule will be launched when SQL Server Agent is started. Select this option to launch tasks associated with this schedule when SQL Server Agent is started.

#### Start whenever the CPUs become idle

Use this option to start tasks associated with this schedule whenever CPUs become idle.

This option indicates that tasks associated with the schedule will be launched whenever CPUs become idle.

**Start once**

This option can be used when a single task performance should be scheduled.

**Recurring from date**

Select this option if recurring task performance needed.

**Frequency**

Restrict task execution start and finish date in **Occurs** (*Daily, Weekly, Monthly*) **from date to date** fields and set its interval of recurrence at **Recurs every N days**.


**Daily frequency**

Set exact time at **Occurs once** or interval at **Recurs every ... from ... to ...** for the schedule.

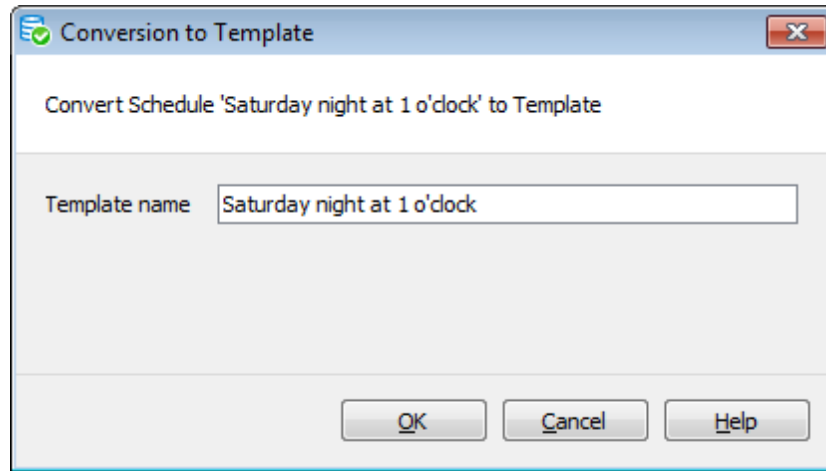
**NB:** When creating the policy you can specify whether local Console or server time will be used for execution.

## 5.4.2 Creating schedule from template

If you already have a configured schedule included in a policy you can create a template on its basis which can be later used for creating a new schedule. All parameters that have been defined during the schedule creation will be saved in this template.

In order to create a template based on a schedule open the policy this schedule is included in and select the  **Copy to Templates** schedule context menu item or use the corresponding button.

In the dialog appeared enter a **Template name** for the template being created.




This template will be automatically added to the [Schedule templates](#) list.

**Part**



## 6 Activities

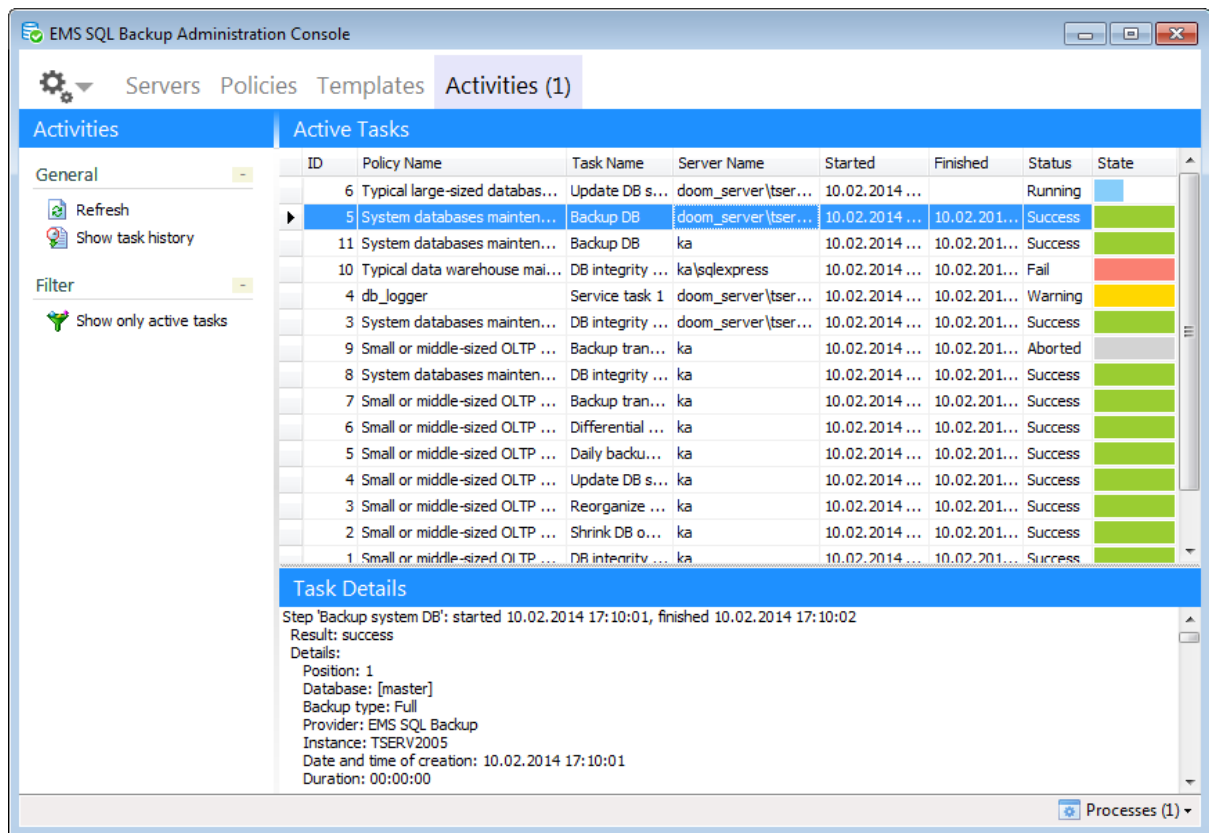
At this tab you can view all processes initiated by EMS SQL Backup: [Policies](#) and  [Quick Maintenance Actions](#).

The result [status](#) of the task execution is displayed in the **Status** column.

The same information concerning tasks execution can be retrieved from the [Server History](#) viewer.

To see more detailed log refer to the **Task Details** section below. You can create a detailed bugreport by using the **Copy As Bugreport** context menu item. After the bugreport is generated you can paste it to any text editor.

The launch of policies created from other instances of the program is also displayed at this tab; such policies are displayed as *Unregistered* in *Policy Name* column.



The screenshot shows the EMS SQL Backup Administration Console interface. The 'Activities' tab is active, displaying a table of tasks. The table has columns for ID, Policy Name, Task Name, Server Name, Started, Finished, Status, and State. Below the table, the 'Task Details' section provides information for a selected task, including the step name, result, and various details like position, database, backup type, provider, instance, creation date, and duration.

ID	Policy Name	Task Name	Server Name	Started	Finished	Status	State
6	Typical large-sized databas...	Update DB s...	doom_server\tser...	10.02.2014 ...		Running	
5	System databases mainten...	Backup DB	doom_server\tser...	10.02.2014 ...	10.02.201...	Success	
11	System databases mainten...	Backup DB	ka	10.02.2014 ...	10.02.201...	Success	
10	Typical data warehouse mai...	DB integrity ...	ka\sqlcxpress	10.02.2014 ...	10.02.201...	Fail	
4	db_logger	Service task 1	doom_server\tser...	10.02.2014 ...	10.02.201...	Warning	
3	System databases mainten...	DB integrity ...	doom_server\tser...	10.02.2014 ...	10.02.201...	Success	
9	Small or middle-sized OLTP ...	Backup tran...	ka	10.02.2014 ...	10.02.201...	Aborted	
8	System databases mainten...	DB integrity ...	ka	10.02.2014 ...	10.02.201...	Success	
7	Small or middle-sized OLTP ...	Backup tran...	ka	10.02.2014 ...	10.02.201...	Success	
6	Small or middle-sized OLTP ...	Differential ...	ka	10.02.2014 ...	10.02.201...	Success	
5	Small or middle-sized OLTP ...	Daily backu...	ka	10.02.2014 ...	10.02.201...	Success	
4	Small or middle-sized OLTP ...	Update DB s...	ka	10.02.2014 ...	10.02.201...	Success	
3	Small or middle-sized OLTP ...	Reorganize ...	ka	10.02.2014 ...	10.02.201...	Success	
2	Small or middle-sized OLTP ...	Shrink DB o...	ka	10.02.2014 ...	10.02.201...	Success	
1	Small or middle-sized OLTP ...	DB integrity ...	ka	10.02.2014 ...	10.02.201...	Success	

**Task Details**

Step 'Backup system DB': started 10.02.2014 17:10:01, finished 10.02.2014 17:10:02  
 Result: success  
 Details:  
 Position: 1  
 Database: [master]  
 Backup type: Full  
 Provider: EMS SQL Backup  
 Instance: TSERV2005  
 Date and time of creation: 10.02.2014 17:10:01  
 Duration: 00:00:00

### Refresh

Refreshes the Activities tab. You can also use *F5* key for this action.

### Stop task

Interrupts task execution.

### Show task history

Opens the [Server History](#) viewer for the selected instance.

**Show all tasks \ Show only active tasks**

Toggles between displaying all tasks performed within 24 hours and tasks that are being executed at the moment.

---

**See also:**

[Getting Started](#)

[Servers](#)

[Policies](#)

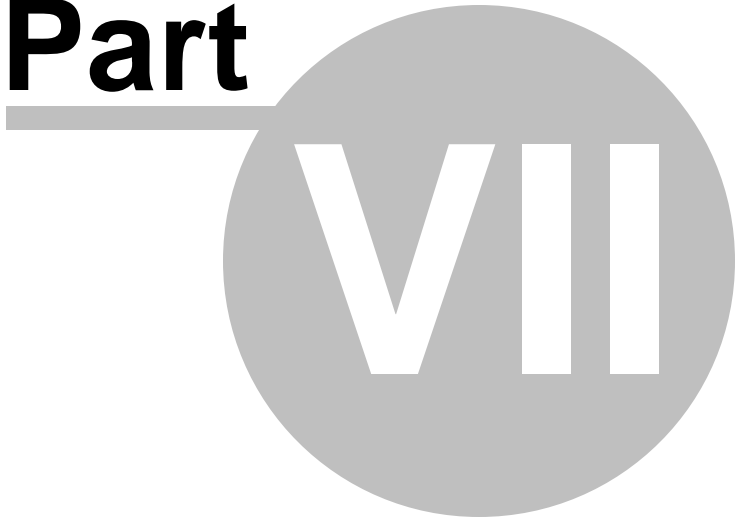
[Templates](#)

[Maintenance Steps](#)

[Options](#)



**Part**



**VII**


## 7 Maintenance steps

Step in EMS SQL Backup is a basic component of server maintenance. It sets the maintenance action to be performed over the database(s) and is used in [Tasks](#) and [Policies](#).

Steps can be run separately for a single database\server for performing immediate maintenance operation. Steps can be included into [Policies](#) for scheduled performing.

[Creating Steps](#)

[Editing Existing Steps](#)

**Note:** To run the immediate maintenance action use the  **Quick Maintenance Action** item from the database\server popup menu.

[Backup Database](#)

[Restore Database](#)

[Execute SQL Server Agent job](#)

[Executing T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Reorganize Indices](#)

[Shrink Database](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Bulk Restore](#)

---

### See also:

[Getting Started](#)

[Servers](#)

[Policies](#)

[Templates](#)

[Activities](#)

[Options](#)

## 7.1 Creating Steps

**Step** in EMS SQL Backup is a basic component of server maintenance:

[Backup Database](#)

[Restore Database](#)

[Execute SQL Server Agent job](#)

[Executing T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Reorganize Indices](#)

[Shrink Database](#)

[Update Statistics](#)


[Database Parameters Logger](#)

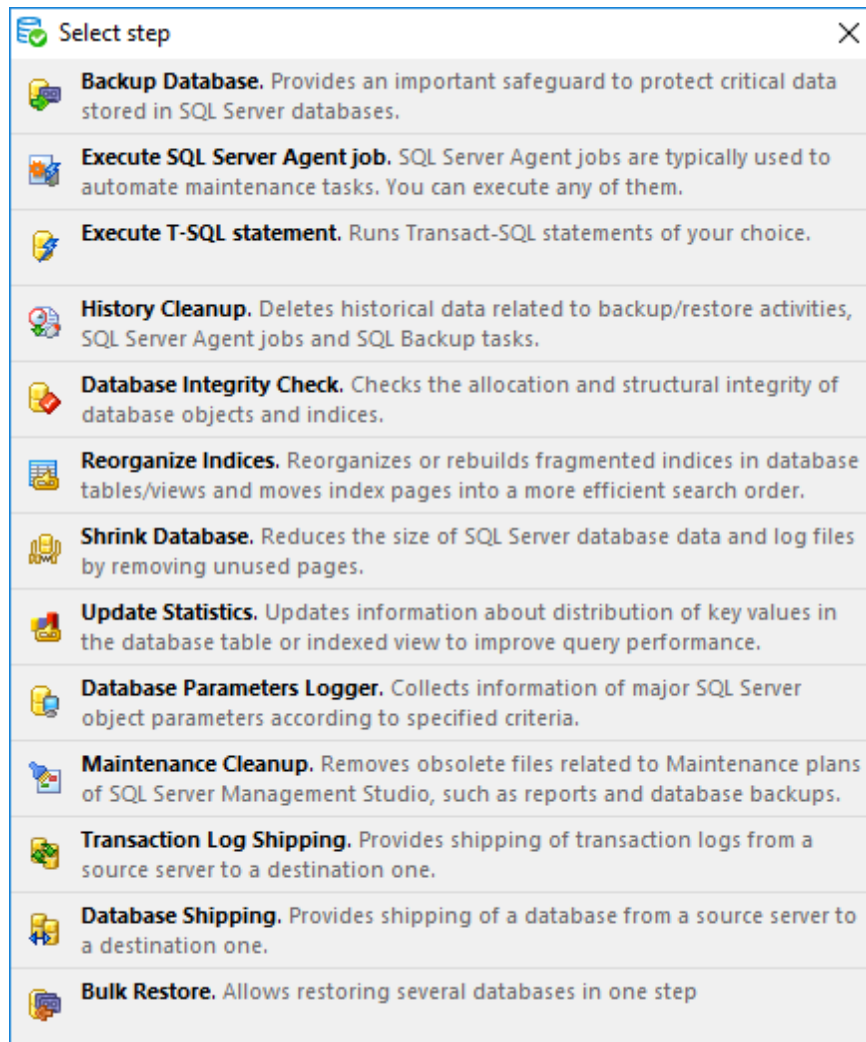
[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

To perform *immediate* Step execution use  **Quick Maintenance Actions | <Step name>** popup menu item in the [Servers](#) tab.



Step should be included into [Policy](#) for scheduled execution. To add a Step to Policy you need to specify the Step at [Step 2](#) of the [Policy creation wizard](#) at the [Policies](#) tab.



To create a [Step Template](#) or add a Step to the Policy or Task template go to the [Templates](#) tab.

---

**See also:**  
[Editing Steps](#)

## 7.1.1 Backup Database

**Backup Database step** allows you to make a backup copy of one or several databases and transaction log.

To launch the backup job *immediately* select  **Quick Maintenance Actions** |  **Backup Database** popup menu item at the [Servers tab](#).

To perform *scheduled backup* on a regular basis you need to include this task into [Policy](#):

1. At the [Step 2](#) of the [Create Policy wizard](#) click **Create new step** button and select **Backup Database step** type.
2. Also, you can create a new Step Template for further use selecting **Backup Database step** type at the [Templates](#) tab.

**Note:** To restore a database from backup use [Restore Database](#) wizard.

### Steps of the Backup Database wizard:

[Naming step](#)

[Selecting database provider](#)

[Selecting database](#)

[Defining EMS SQL Backup settings](#)

[Setting backup options](#)

[Setting file options](#)

[Specifying cloud connections](#)

[Specifying backup verifying options](#)

[Performing operation](#)

---

### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.1.1.1 Naming step

You can name the step using the **Name** field. The **Description** field can be used to define brief info for the created step.

Backup Database step wizard - 'Backup Database step 1'

Set step name and description (Step 1 of 8)

The **Backup Database step** allows you to perform full, differential backup or backup transaction log operation on selected databases to given destination files or devices, with specified options for a backup.

Name: Backup Database step 1

Description:

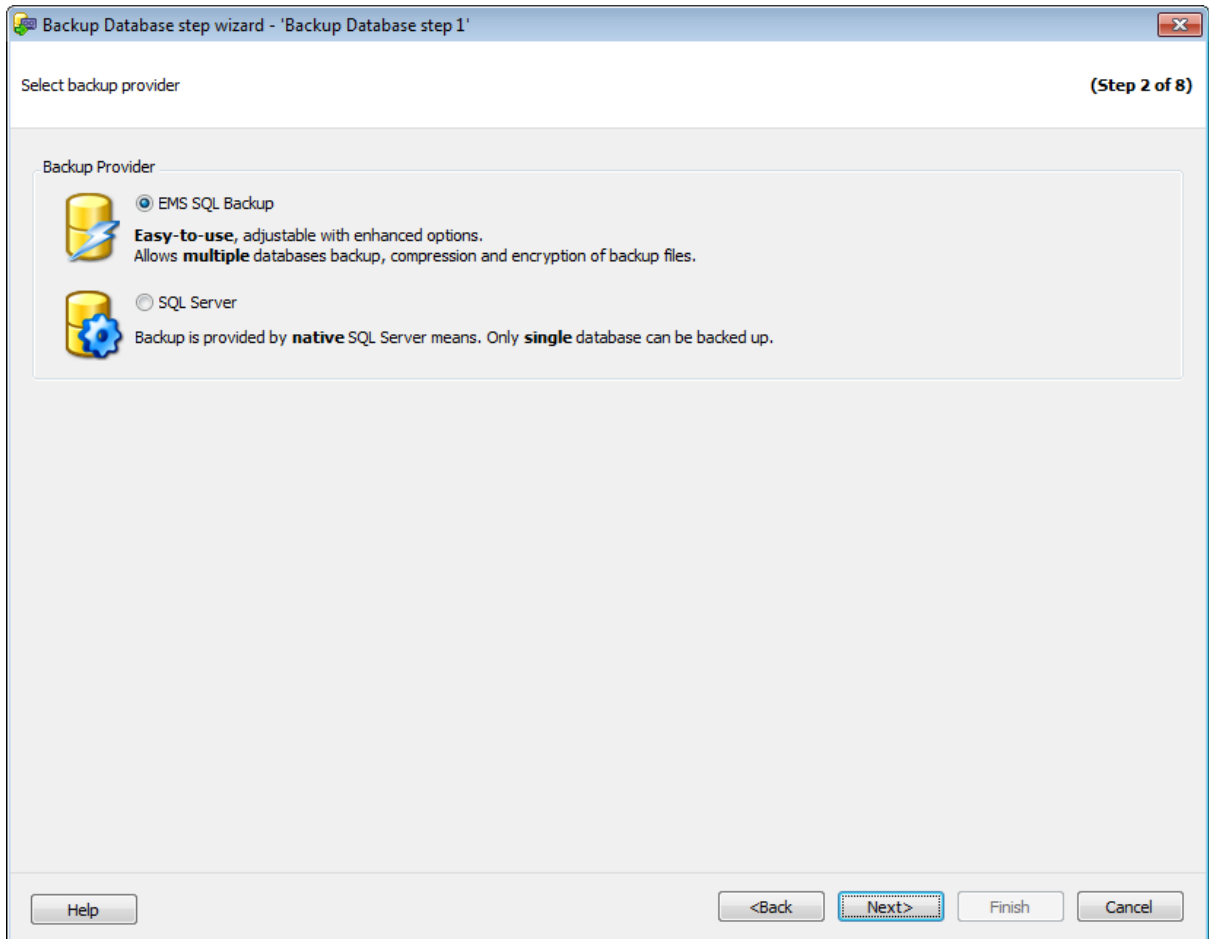
Buttons: Help, <Back, Next>, Finish, Cancel

This step is skipped for Quick Maintenance Actions.

[Next step >>](#)

### 7.1.1.2 Selecting database provider

Select the backup provider at this step.



Use  **EMS SQL Backup** provider if you need to backup multiple databases with advanced options. This kind of backup is quicker and creates compressed backup files. The files created with EMS SQL Backup provider cannot be restored using standard server tools; you need either use EMS SQL Backup restore or [convert](#) the backup file to SQL Server type.

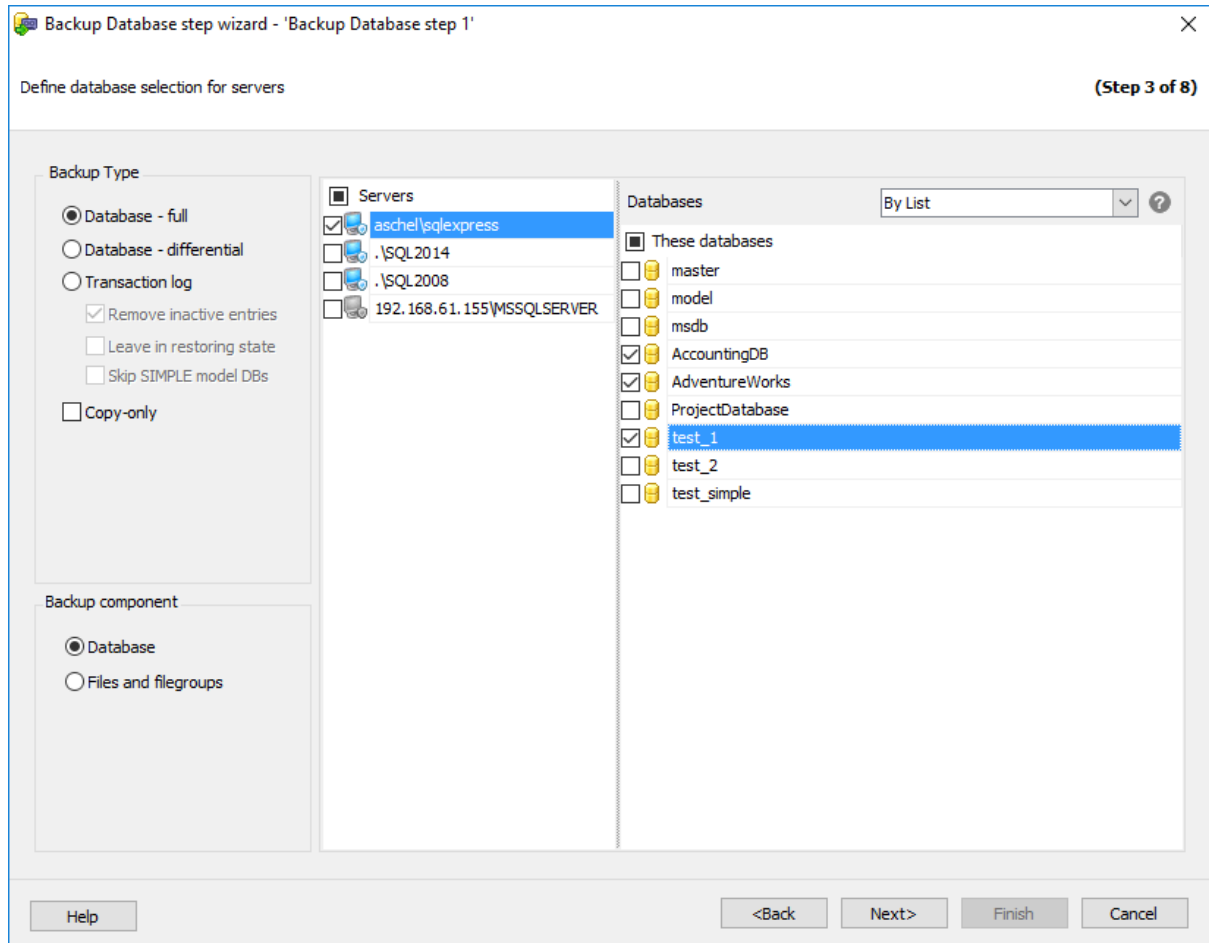
Use  **SQL Server** provider to perform backup of a single database using native SQL Server tools.

[<< Previous step](#)

[Next step >>](#)

### 7.1.1.3 Selecting database

Use this step of the wizard to select database(s) for backup operation.



#### Backup Type

Use this parameter to define the backup type:

- Database - full* (a full database backup which backs up the entire database including the transaction log)
- Database - differential* (a differential backup which only records the changes made to the data in the database after the last full database backup)
- Transaction log* (a sequence of log backups provided for a continuous chain of transaction information to support recovery forward from database, differential, or file backups)

Set  **Remove inactive entries** option on to truncate the live transaction log when you create a backup.

Set  **Leave in restoring state** on to leave the database in restoring state to be unavailable to users until it is completely restored.

Set  **Copy-only** option to create a copy-only backup which is a SQL Server backup that is independent of the sequence of conventional SQL Server backups.

Set  **Skip SIMPLE model DBs** option to skip the databases which use the 'SIMPLE' recovery model. If this option is switched off and the databases using the 'SIMPLE'



recovery model are included in the list/filter, the error will be returned by the server and the process will be aborted. Switch on the option to avoid such errors.

### Backup Component

This group allows choosing the object of backup.

- Database** - database backup.
- Files and filegroups** - backup of selected files and filegroups.

### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in [Template](#) mode.

### Databases

If EMS SQL Backup [provider](#) is used, you can select multiple databases, in case of SQL Server backup only one database can be specified.

### All

Use this option to select both: system and user databases.

### All system

This option indicates that only system databases should be backed up.

### All user

Select this option to back up user databases only.

### By mask

This option allows defining database selection by mask. Use \* for a set of any characters and ? for any single character in the database name.

### Including

This option allows manual selecting of the databases.

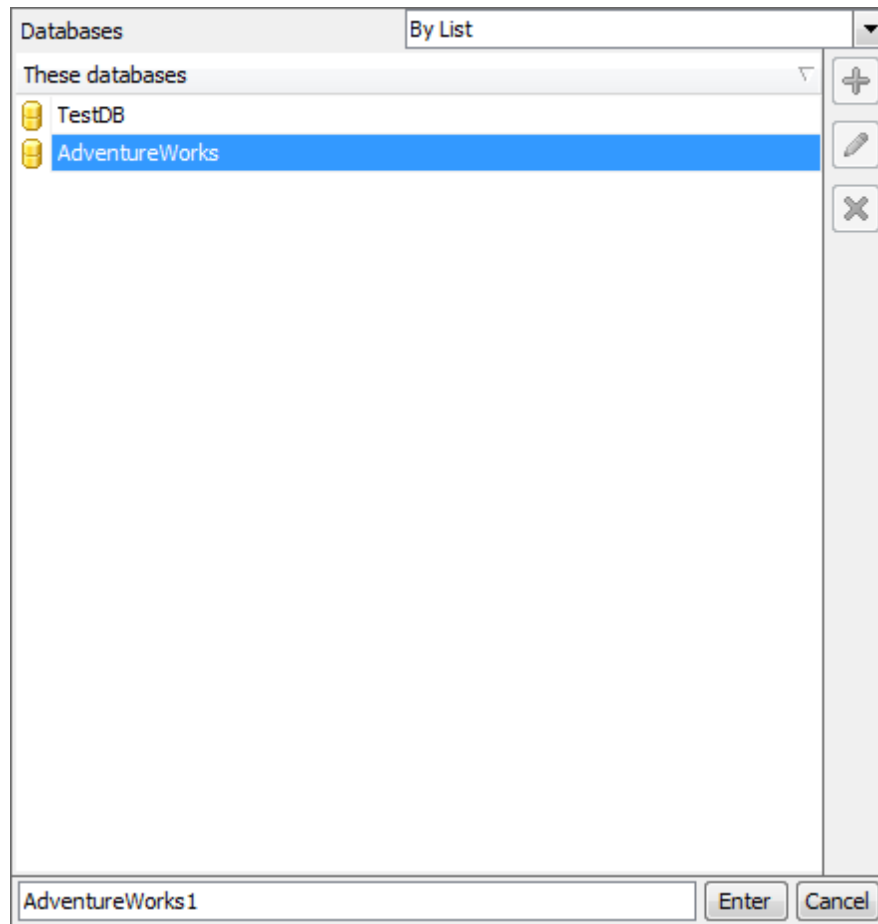
### Excluding


Select the databases which will be excluded from the backup. All databases, not selected in the list, will be included.



### Online only

Select only the databases in the online state.

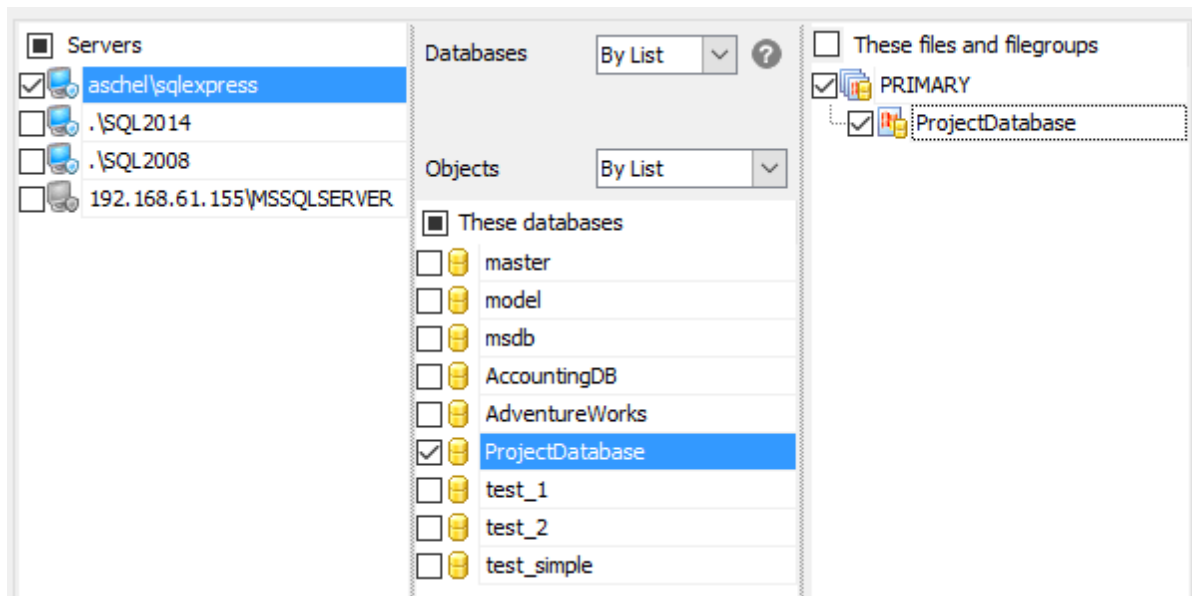
If you are creating a step in a policy template then you are able to enter databases manually.



Use the  button or *Ins* key to define database name. After you click the *Enter* button the database will be added to the list.

Any database from the list can be  edited or  deleted.

If the **Files and filegroups** option is chosen the selection list of file and filegroups is available.



### Objects

For each selected database at least one file or filegroup should be chosen.

- **All** - all existing database filegroups with all their files.
- **By list** - manually selected files and filegroups.

#### 7.1.1.4 Defining SQL Backup settings

Use this step of the wizard to define EMS SQL Backup backup settings. This step is available only on creating back up [by means of EMS SQL Backup](#).

Backup Database step wizard - 'Backup Database step 1' (Step 4 of 8)

Specify SQL Backup settings

Max Thread Count: 2

Compression  
Compression Level: 2

Encryption  
Encryption Password: \*\*\*\*\*  
Confirm Password: \*\*\*\*\*  
Encryption Type: rijndael (dropdown menu shows rijndael, blowfish, des)

Buttons: Help, <Back, Next>, Finish, Cancel

#### Max Thread Count

Indicates the number of threads to be used for backup operation. Increase the number of threads for faster speed. If you are using a multi-processor system, increasing this value can fasten backup speed. You are recommended to set one thread fewer than the number of processors.

#### Compression

Enable the option to compress backup.

#### Compression Level

Defines backup file compression level. Use '1' for best speed and '4' for best compression.

#### Encryption

Enable the option to encrypt backup.

#### Encryption Password

Set password that is used for backup encryption.

**Confirm password**

Confirm the password specified as an encryption password above.

**Encryption Type**

Select the encryption algorithm.

[<< Previous step](#)

[Next step >>](#)

### 7.1.1.5 Setting SQL Server backup options

At this step you can define backup options. This step is available only on creating back up [by means of SQL Server](#). The following dialog is displayed for SQL Server 2008 and older versions.

#### Block size

Define the size of a data block in bytes. The supported sizes are 512, 1024, 2048, 4096, 8192, 16384, 32768, and 65536 (64 KB) bytes. Possible values are:  *Default*,  *To restore from CD (2 KB)*,  *Other* (i.e. you can specify an arbitrary value).

If necessary, you can set a **Password** for the backup: enter the password twice in the respective edit fields.

#### Write type

**Append** /  **Overwrite**

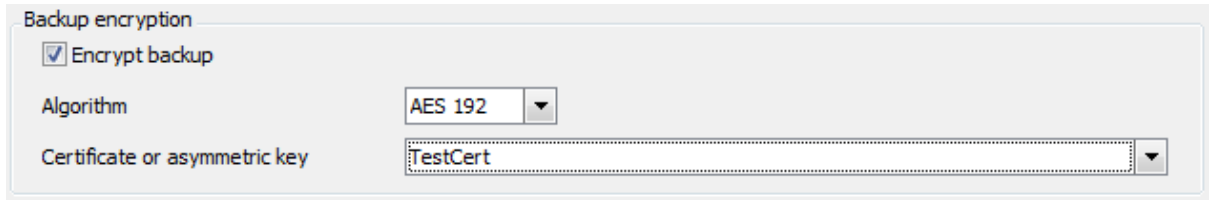
Select whether the media should be appended or overwritten during the backup operation. By appending another backup set to existing media, the previous contents of the media remain intact, and the new backup is written after the end of the last backup on the media.

**Backup compression**

This option enables backup compression overriding the server-level default (for SQL

Server 2008 Enterprise and later versions).

For servers that support backup encryption the following options are available:



Backup encryption

Encrypt backup

Algorithm

Certificate or asymmetric key

### Backup encryption

You can set SQL Server encryption options for backups.

**Encrypt backup** - enables backup encryption.

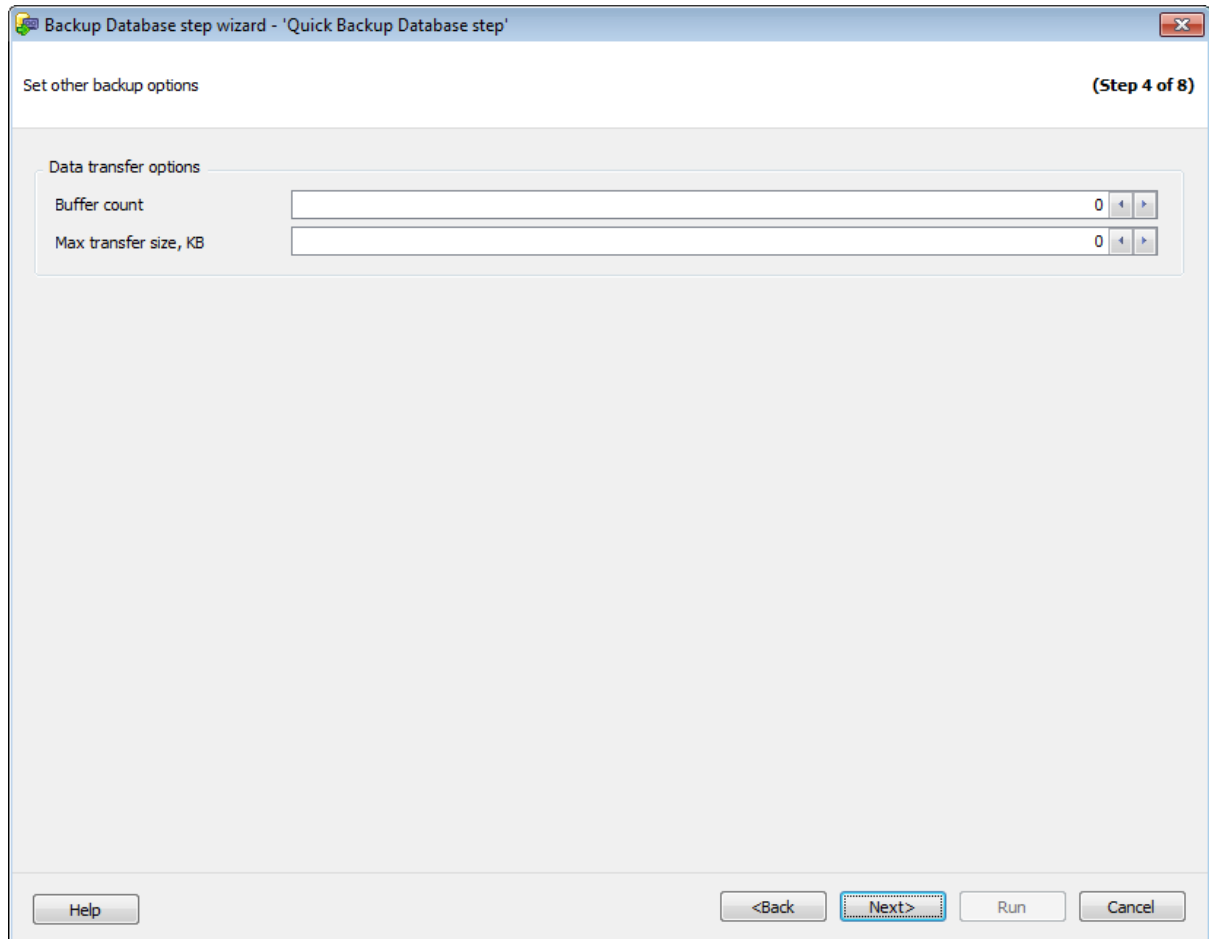
Select the encryption algorithm in **Algorithm** and the certificate or asymmetric key in **Certificate or asymmetric key** field. Please note that you can only use certificates protected by master key or EKM asymmetric keys from master database.

[<< Previous step](#)

[Next step >>](#)

### 7.1.1.6 Setting SQL Server data transfer options

For SQL Server backups the additional step of the wizard becomes available:



#### **Buffer count**

Specifies the total number of I/O buffers to be used for the backup operation.

#### **Max transfer size, KB**

Specifies the largest unit of transfer in bytes to be used between SQL Server and the backup media.

**Note:** If specified value is 0 then the default value is used.



### 7.1.1.7 Setting file options

Use this step to define backup file options.

#### Backup folder

Specify backup destination directory. For your convenience *{backup\_root\_folder}* and *{server}* tags are provided. The directory which the *{backup\_root\_folder}* tag stands for is configured in the [Server-side components Properties](#) dialog.

You can check availability of the defined folder by clicking the corresponding button.

**Note:** The **Check** button is available only if backup is configured on a single server.

#### Backup file name

Define backup file name. Type backup file name manually or form it using variables. For your convenience *{server}*, *{database}*, *{backup\_type}*, *{date}* and *{login}* tags are provided. If you want to upload backup file to an [external storage](#) it is recommended to use the *{date}* tag for the backup file to have a unique name.

**Note:** To insert a tag in the field simply click it in the list of **Available tags**.

#### Backup to a single file

Select this option to backup all selected databases to a single file.

**Backup to several files**

This option indicates that backup should be split into several files. Splitting the backup can in some cases speed up the backup process.

**Split by size**

Indicates that backup file will be split to volumes of the specified size.

**Split by database**

Indicates that each database will be backed up into a separate file.

[<< Previous step](#)

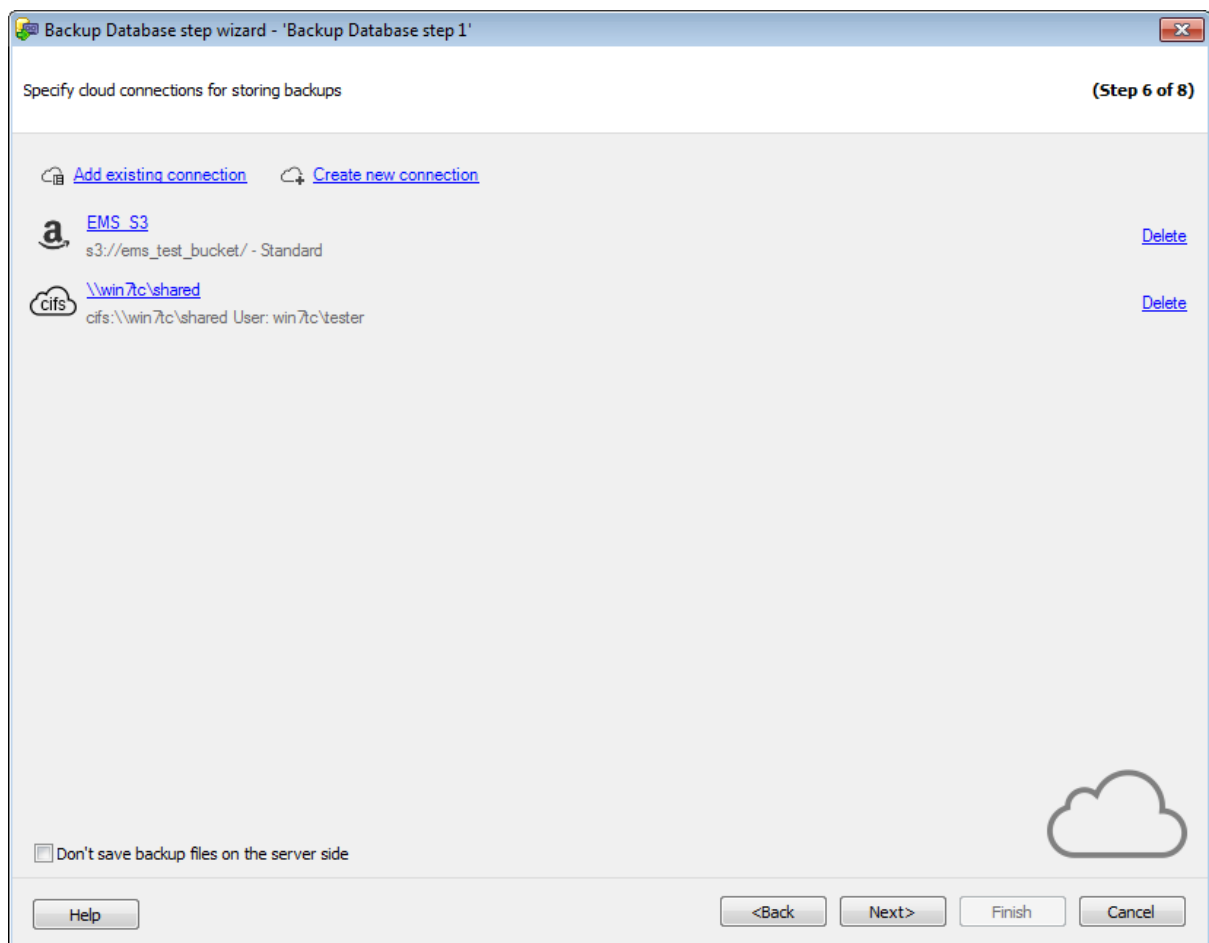
[Next step >>](#)

### 7.1.1.8 Specifying cloud connections

Use this step to set cloud connections for storing backups. You can add unlimited number of remote and local storage engines. Copies of backup files will be uploaded to all of the specified storages.

The connections to the following storages are supported:

- [SMB/CIFS](#)
- [FTP](#)
- [Secure FTP](#)
- [Amazon S3 Cloud](#)
- [Microsoft Azure](#)
- [Dropbox](#)
- [Google Drive](#)



You can create a new connection or add an existing one. On adding an existing connection you will be offered to choose among connections specified in [Cloud Connections](#) tab of the Options dialog.

If you create a new connection then after specifying its properties you will be offered to save it, so this connection will be available in [Cloud Connections](#).

To change connection parameters click on its name. Depending on connection type the relevant dialog for configuring connection settings will be opened.

**Note:** If the backup file with the specified name already exists in the storage then it will not be replaced and the upload will be failed.

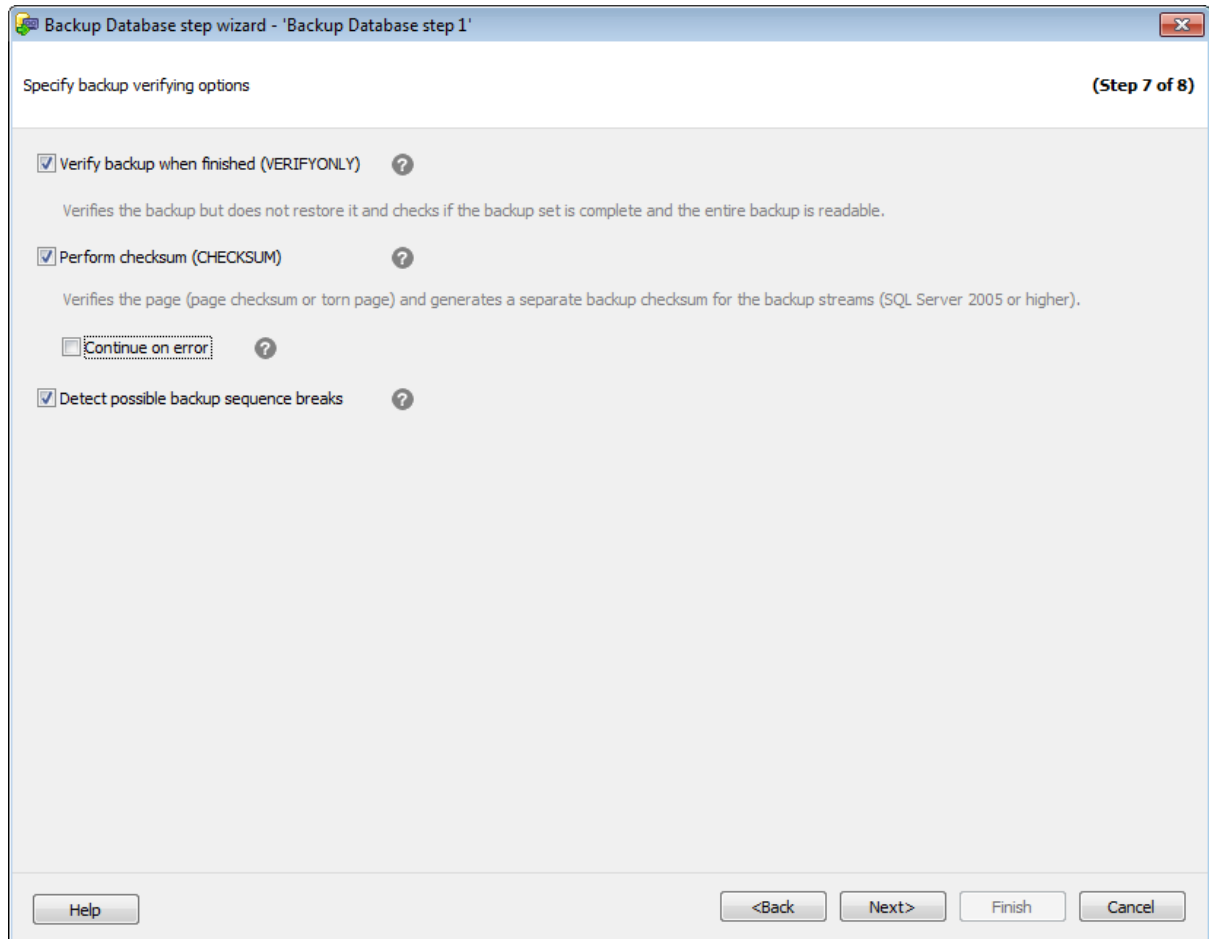
**Don't save backup files on the server side**

When the backup operation is performed EMS SQL Backup uploads the backup data to cloud storages "on the fly" at the same time when receiving stream from SQL Server. If this option is switched on the data is not written to the local server disk. This allows saving free storage space, but if errors occur when uploading to all of the selected cloud locations there will be no valid backup file(s) available.

[<< Previous step](#)[Next step >>](#)

### 7.1.1.9 Specifying backup verifying options

Use this step to configure backup verifying options.



**Verify backup when finished (VERIFYONLY)**

Check this option to enable backup verification. Verifying a backup checks that the backup is intact physically, to ensure that all the files in the backup are readable and can be restored, and that you can restore your backup in the event you need to use it.

**Perform checksum before writing to media (CHECKSUM)**

This option enables/disables checksum verification before writing to the backup media. Before writing a page to the backup media, BACKUP verifies the page, if this information is presented on the page. BACKUP generates a separate backup checksum for the backup streams. Restore operations can optionally use the backup checksum to validate that the backup is not corrupted. The backup checksum can optionally be used at restore time. Using backup checksums may affect workload and backup throughput.

**Continue on error**

This option determines whether the backup operation will be stopped or forced to continue despite encountering errors such as invalid checksums or torn pages.

**Detect possible backup sequence breaks**

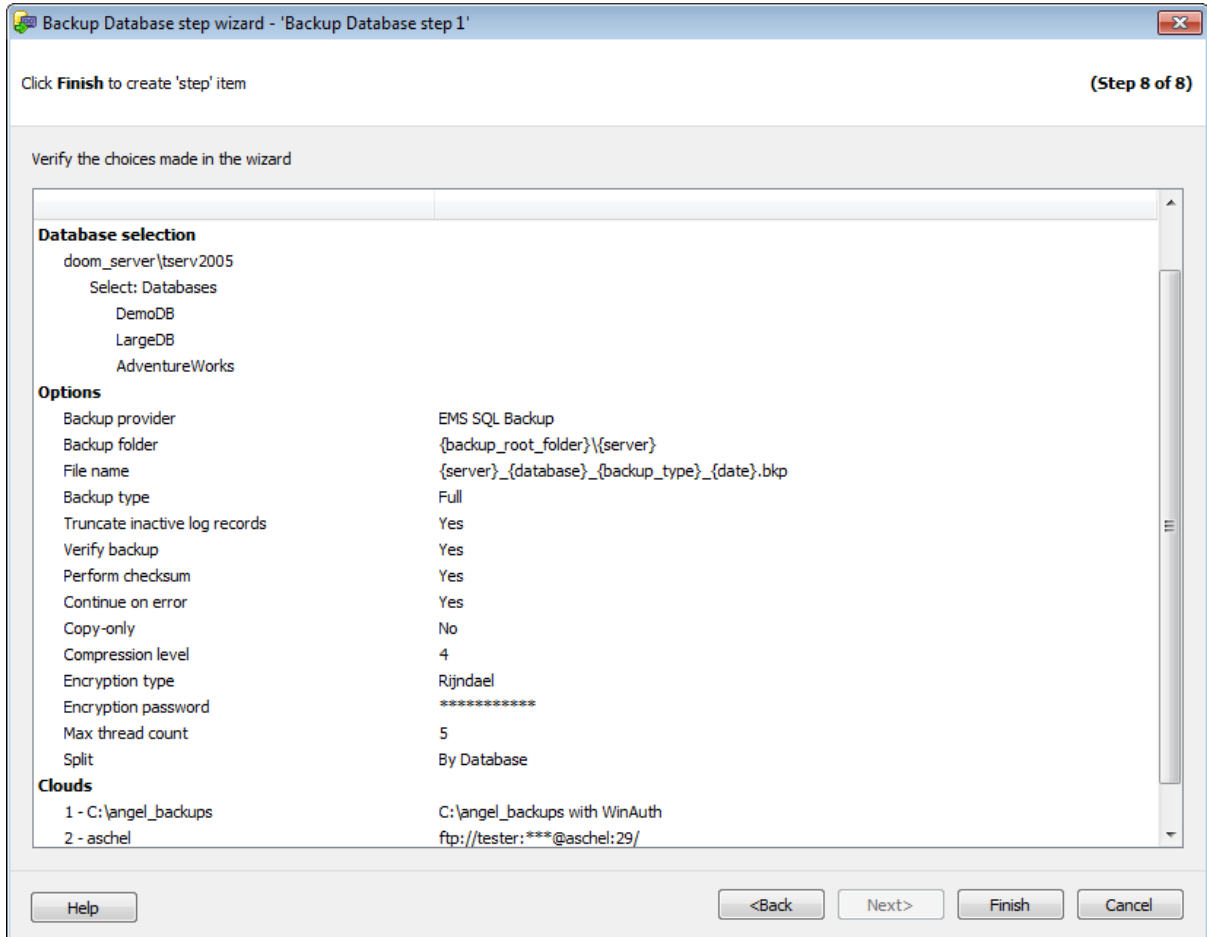
This option is available if Differential or Transaction log backup was selected. If the option is switched on the program analyzes SQL Server backup history to check if additional backups were made by some third-party software between the backups required to restore the current backup and generates the warning if such backups are found. Use this option to reveal the cases when backups are performed explicitly using VSS interface, by maintenance plans working on the server or by another third-party software. The restoring procedure may require backup files created by different software in those cases.

[<< Previous step](#)

[Next step >>](#)

### 7.1.1.10 Performing operation

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






After verifying the choices made in the wizard click the **Finish** button to complete the operation.

[<< Previous step](#)

## 7.1.2 Restore Database

**Restore Database Wizard** allows you to perform the database restore operation on your SQL Server system. The wizard provides flexible customization and is easy-to-use. Using this wizard you can restore backup files stored locally on the server as long as the backups stored on the remote [cloud storage](#).

Restore operation is used to rebuild a damaged or corrupted database that has been backed up using [Backup Database Wizard](#). You can restore the entire database, part of a database, transaction logs.

To start the operation use the  **Quick Maintenance Action** |  **Restore Database** item of the server\database popup menu or the  **Restore Database** item of the database context menu.

This wizard will guide you through the restore database process step by step.

**Note:** This step cannot be included into [Policies](#). It can be only launched manually from  **Quick Maintenance Actions**.

### Steps of the Restore Database wizard:

- [Selecting available backup](#)
- [Specifying the elements of backup](#)
- [Defining target database parameters](#)
- [Specifying restore options](#)
- [Performing operation](#)

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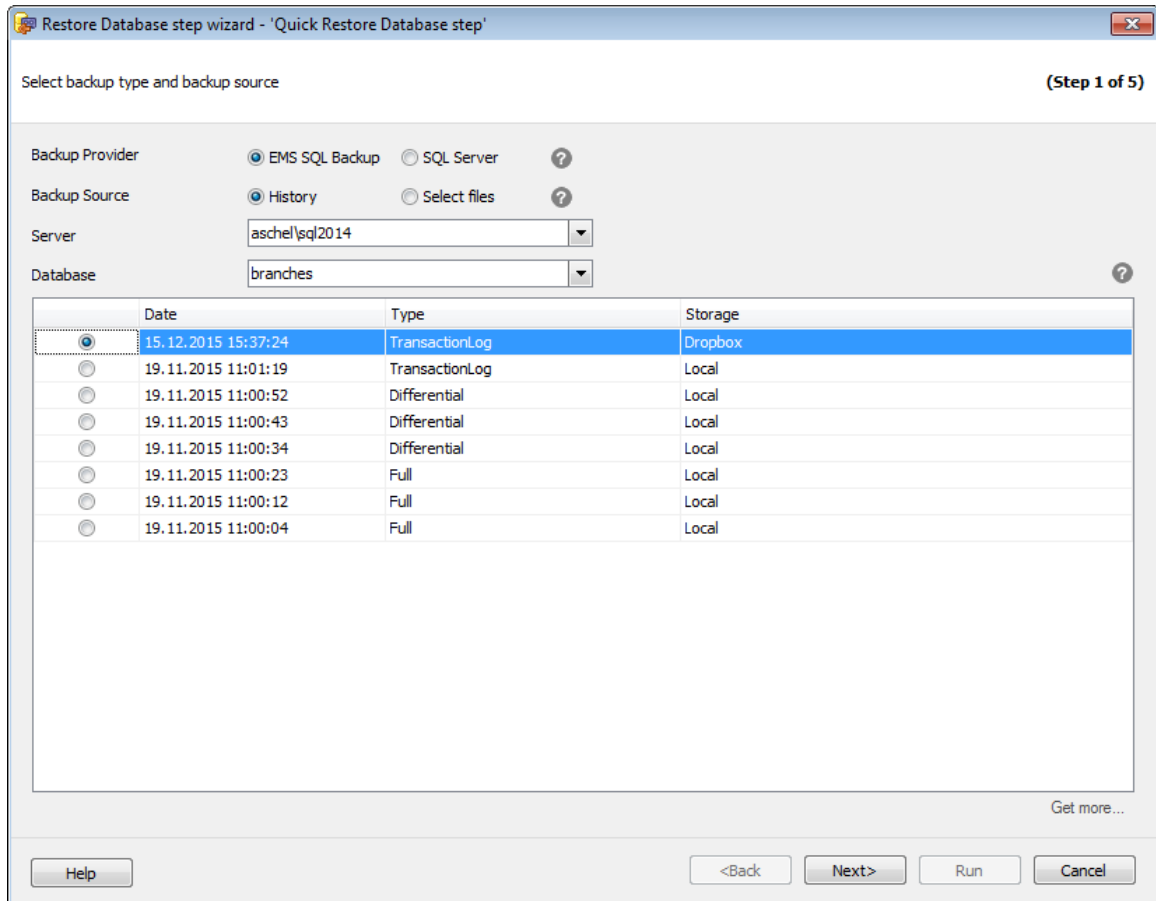
### See also:

- [Backup database](#)
- [Execute SQL Server Agent job](#)
- [Execute T-SQL statement](#)
- [History Cleanup](#)
- [Database Integrity Check](#)
- [Shrink Database](#)
- [Reorganize Indices](#)
- [Update Statistics](#)
- [Database Parameters Logger](#)
- [Maintenance Cleanup](#)
- [Transaction Log Shipping](#)
- [Database Shipping](#)
- [Bulk Restore](#)



### 7.1.2.1 Selecting available backup

At this step you need to select the backup for database restore.



#### Backup provider

You need to select the provider that had been used for [creating the backup](#). Depending on the selection the restore procedure will be performed by EMS SQL Backup or SQL Server means.

#### Backup Source

*History* - shows the list of the available database backups for the specified server and database. Only backups of corresponding provider types are displayed.

*Files* - allows selecting individual backup files from the server.

#### Server

Select the server to restore database from.

#### Database

This option is available for *History backup source* and contains databases available for the selected server. Choose the database you need to restore and the list of the backups available for the selected database will be displayed. Note that only 20 latest backups are displayed. To access older entries click the **Get more...** button. You need to select the backup to restore and proceed to the [next step of the wizard](#).

In the *Storage* column you can view [cloud storages](#) where the backup has been uploaded. If it is not found locally you will be able to search for it in the cloud storage and then download it.

When restoring on the chosen date using the history the search of the needed for restoring full and differential backups is performed. For example, if you are restoring a transaction log then all backups will be found: starting from the full to all transaction log backups. All detected backups will be restored sequentially by LSN log numbers to ensure a full restoring.

**Note:** If the file hasn't been uploaded to the cloud and it's not found locally, the corresponding history point will not be displayed. You can select the required file manually.

You can add backup files [manually](#) from the local or network folder or cloud by choosing the **Select files** option.

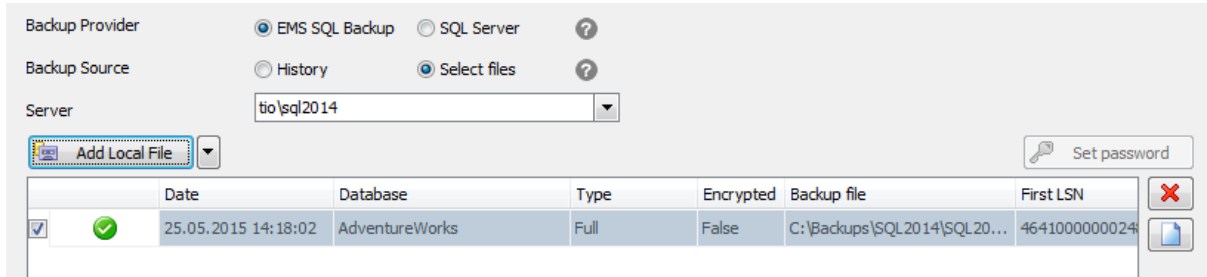
**Note:** If you have selected the backup that is not found on the local drive it will be searched in the cloud automatically on proceeding to the next step. The search is performed in the clouds that were specified during the backup and in the similar cloud storages from the [Cloud Connections](#) list.

Press the **Next** button to proceed to the [Specifying the elements of backup](#) (for *History* backup source) or [Defining the target database parameters](#) (for *Files* backup source).

[Next step >>](#)

## 7.1.2.1.1 Selecting files manually

Using the **Select files** option you can manually add backup file stored on the local/network drive or [cloud](#).



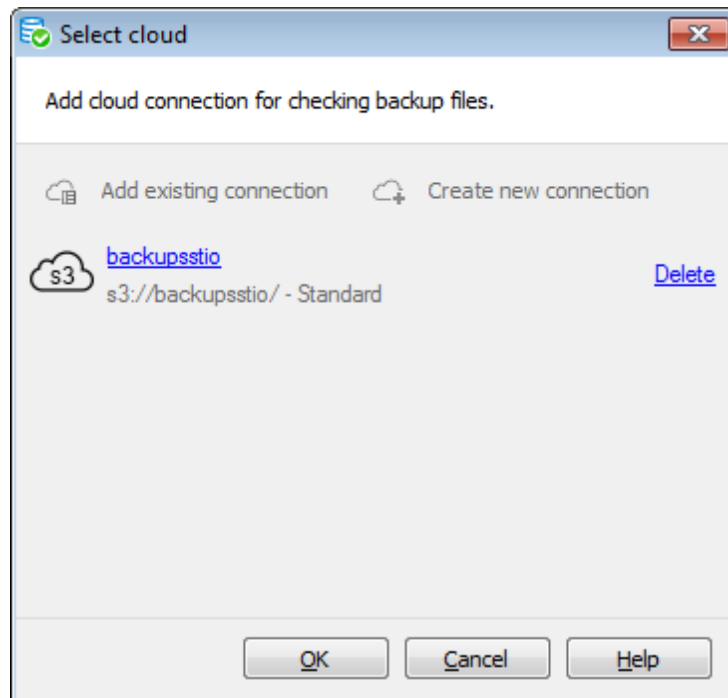
For every selected file displays additional information: *Date, Database, Type, Encrypted, First LSN, Storage name, Last LSN, Check Point LSN, Differential Base LSN.*

#### Add Local File/Add Network File

Click this button to search for the backup files on the local (server) or network machine. If backup consists of multiple files (this option is only available for [EMS SQL Backup type](#)) you need to specify the first file from the chain. If the backup file includes several databases you are only allowed to select one database at a time.

#### Add Cloud File

When you select the **Add Cloud File** option the **Select cloud** dialog appears. Here you need to specify the cloud which contains the necessary backup file.



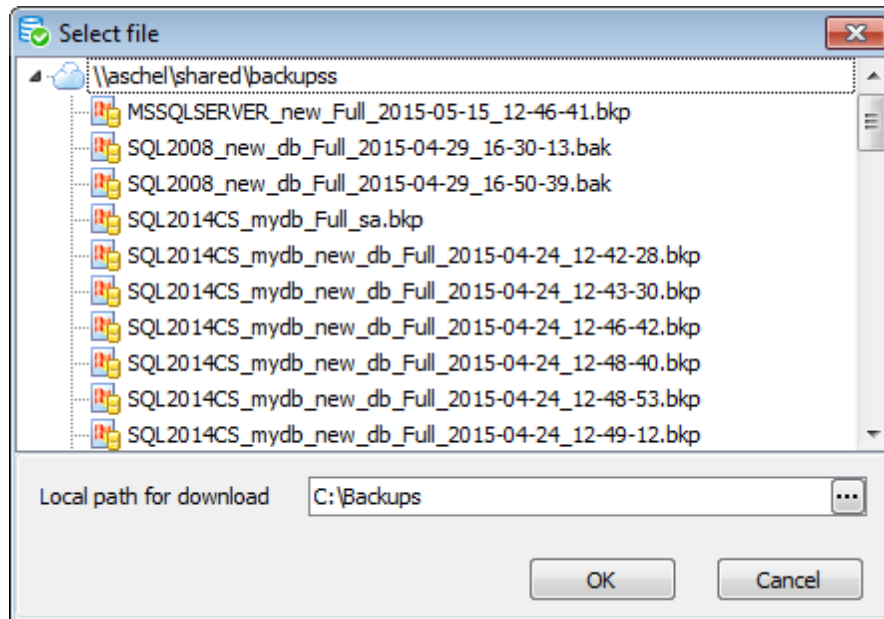
You can create a new connection or add an existing one. On adding an existing connection you will be offered to choose among connections specified in [Cloud](#)

[Connections](#) tab of the Options dialog.

If you create a new connection then after specifying its properties you will be offered to save it, so this connection will be available in [Cloud Connections](#).

To change connection parameters click on its name. Depending on connection type the relevant dialog for configuring connection settings will be opened.

After the cloud is added, click the **Ok** button to start the process of retrieving files from the cloud. If the connection to the cloud is established and the user has sufficient privileges for getting the list of files, the **Select file** dialog appears. It contains the list of files located on the cloud.



Select the necessary backup file and specify the **Local path for download** - the path on your local drive where the backup files will be saved after download.

**Note:** The file for restoring will be added after it is downloaded from the cloud.

#### **Clear**

Removes the selected file from the list.

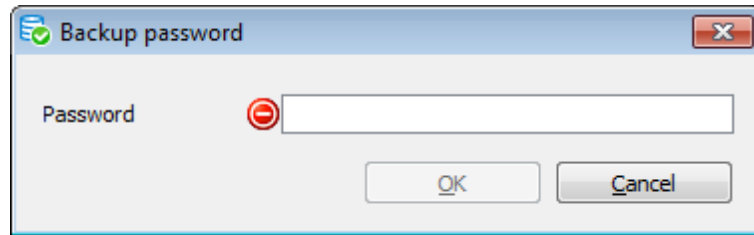
#### **Clear All**

Removes all files from the list.



Use  and  buttons to reorder selected files.

#### **Set Password**

If the chosen backup is encrypted then click the button to input the password for the backup in the opened dialog:

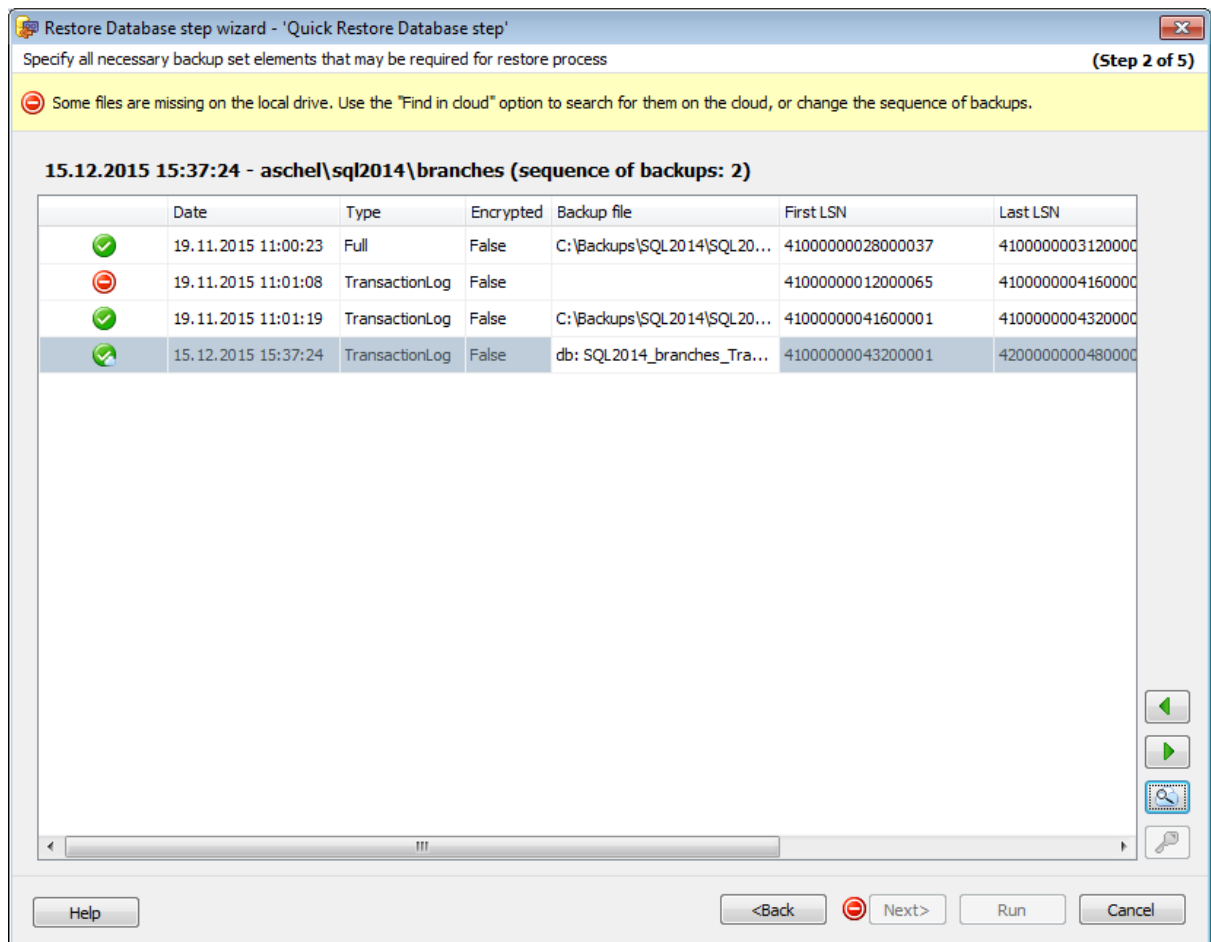


### 7.1.2.2 Specifying the elements of backup

This step allows you to select history that will be used to restore the database. This step is not available if *Files* has been selected as backup source at the [previous step](#). The order is generated automatically by SQL Server based on Log Sequence Numbers. If several sequences are available, the program selects the shortest one, consisting of local files. You can select the required sequence manually using  and  buttons.

Backup set parts necessary for successful database restore process should be selected carefully. Please check that all backups required for full restore are selected.

To work with encrypted backups, enter the password by pressing the **Set password** button or double-clicking the required backup.




The first column indicates whether the file from the set is available for restoring or not:

- ✓ - backup file is found on the local drive;
- ✓ - backup file is found in the cloud storage;
- ⊖ - backup file is not found.

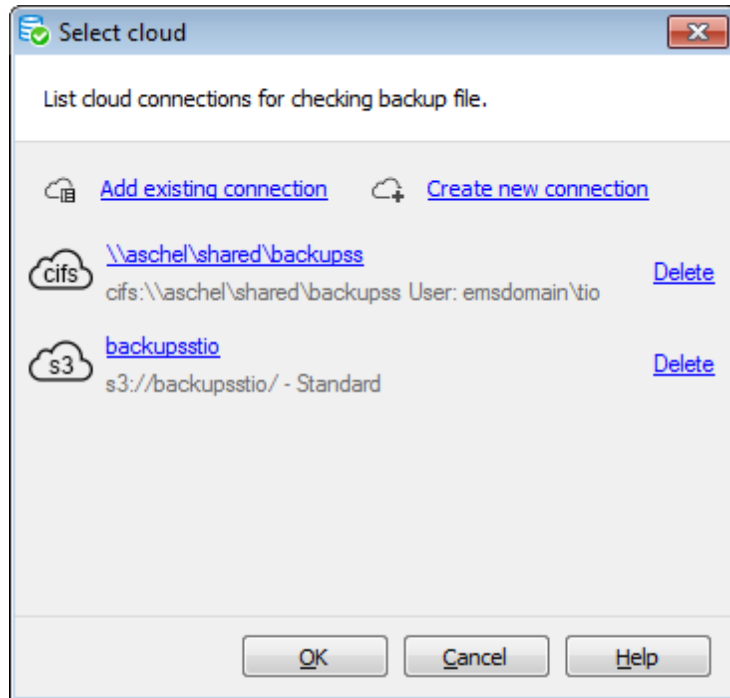
In the **Backup file** column you can see where the file is located - the local path or the cloud storage.

If the file is not stored locally or was not found automatically in the cloud, you can select

this file in the list and click the  **Find in cloud** button.

In the opened **Select cloud** dialog you need to add clouds where the backup file will be searched.

By default, this dialog lists the clouds where the backup file can be probably situated - clouds that were specified during the backup and in the similar cloud storages from the [Cloud Connections](#) list.



You can create a new connection or add an existing one. On adding an existing connection you will be offered to choose among connections specified in [Cloud Connections](#) tab of the Options dialog.

If you create a new connection then after specifying its properties you will be offered to save it, so this connection will be available in [Cloud Connections](#).

To change connection parameters click on its name. Depending on connection type the relevant dialog for configuring connection settings will be opened.

After you have specified clouds, click the **Ok** button to start searching. The search is performed in the clouds one after another; when the file is found on one of the clouds you are offered to use this cloud and stop searching. You can continue searching as well.

After all backup files are found click the **Next** button to proceed to the [Defining target database parameters](#) step of the wizard.

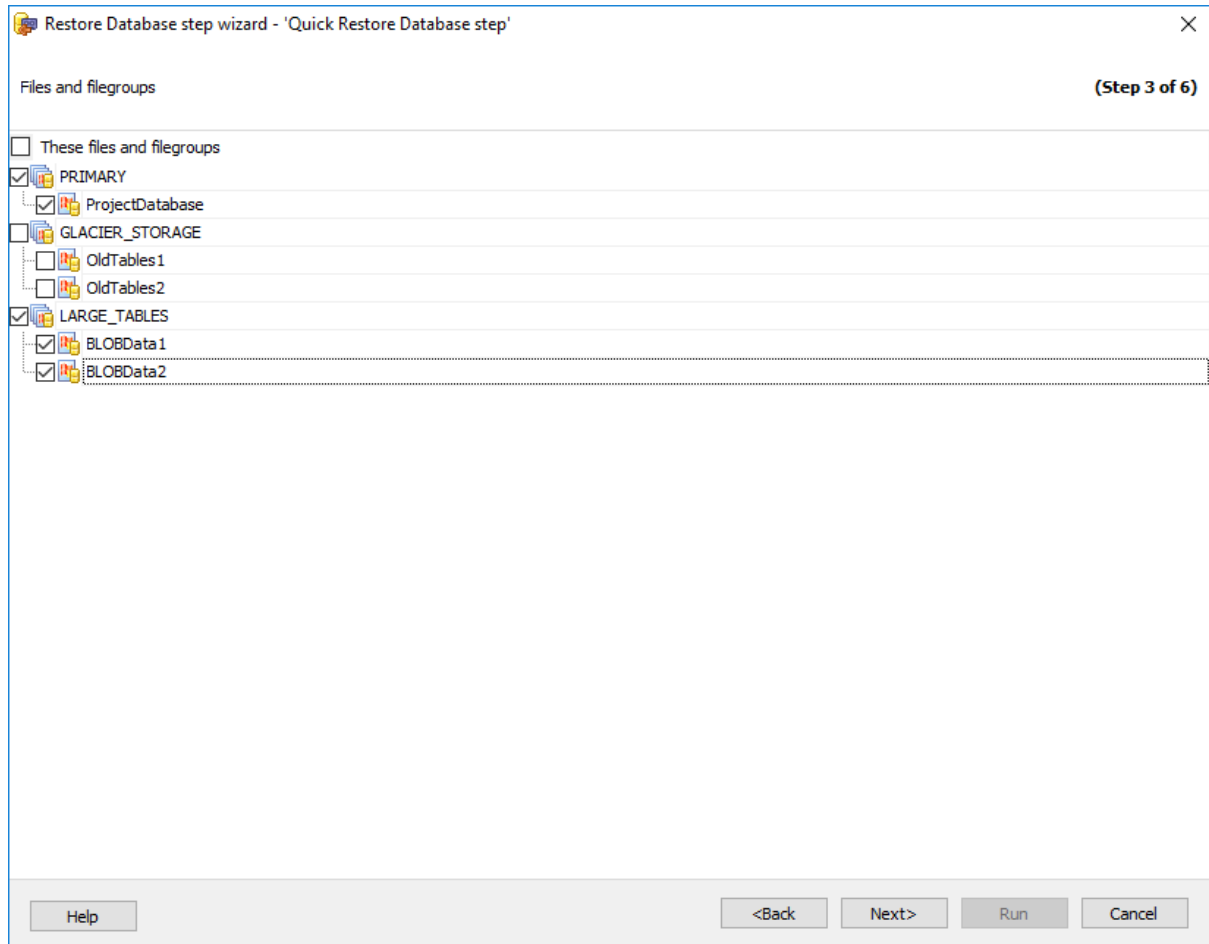
**Note:** If you have files found in clouds you will be offered to download them before proceeding to the next step. It is necessary action for the database restoring. Files are downloaded to the folder that was specified in the backup settings.

[<< Previous step](#)

[Next step >>](#)

### 7.1.2.3 Choosing file and filegroups

This step is visible if the **Files and filegroups** backup was selected at the [previous step](#). Use this step to select the necessary files and filegroups for restore operation which is performed with the 'WITH PARTIAL' clause.



Use **These files and filegroups** to select all tree items.

[<< Previous step](#)

[Next step >>](#)



#### 7.1.2.4 Defining target database parameters

Use this step of the wizard to define the target database parameters.

##### Restore as

Select  *Existing database* to restore to an existing database, or  *New database* if you want to create a new database.

##### Database name

Select the database to perform restoring on from the list of all available databases on the specified host.

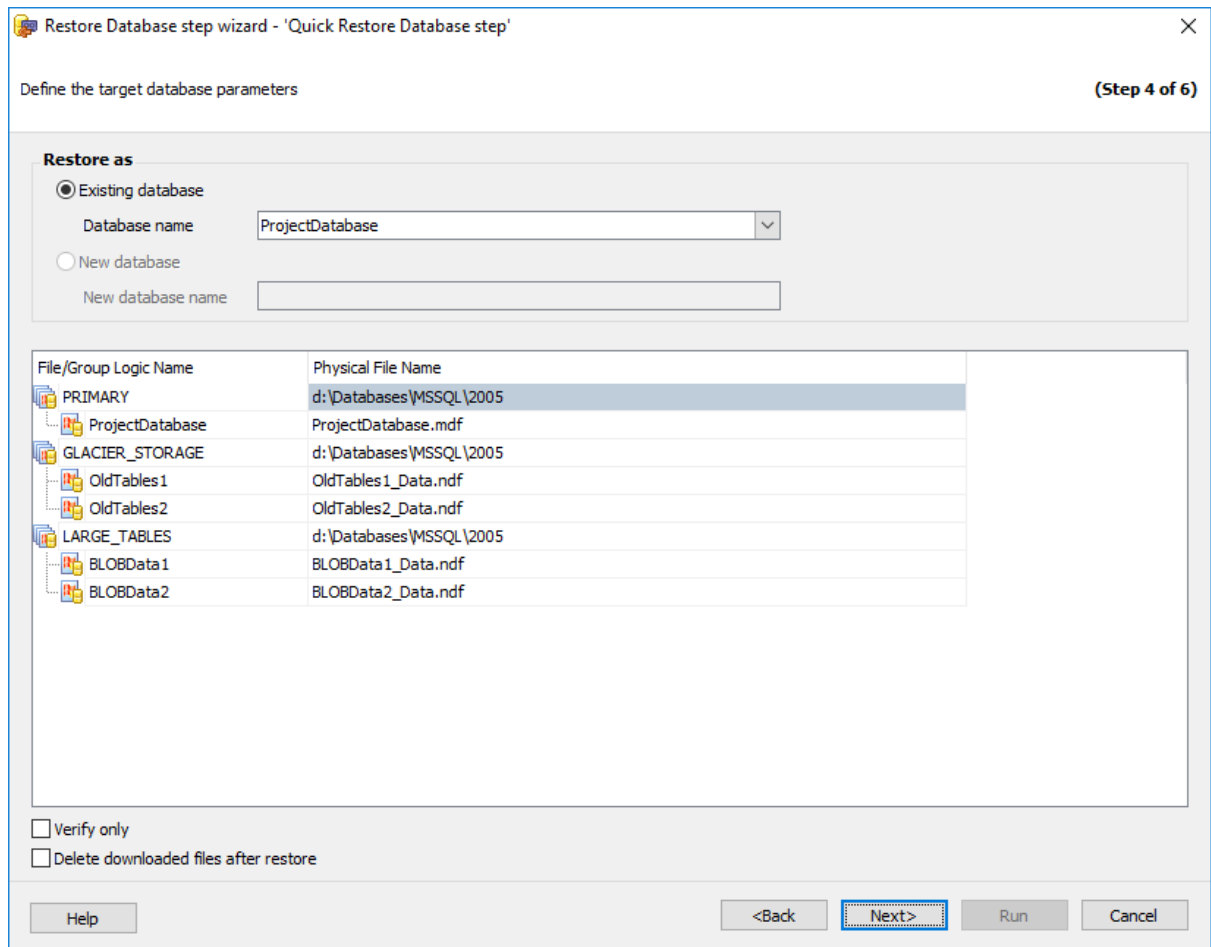
##### **Verify only (RESTORE VERIFYONLY)**

Check this option to enable selected backup set verification. Verifying a backup checks that the backup is intact physically, to ensure that all the files in the backup are readable and can be restored, and that you can restore your backup in the event you need to use it.


##### **Delete downloaded files after restore**

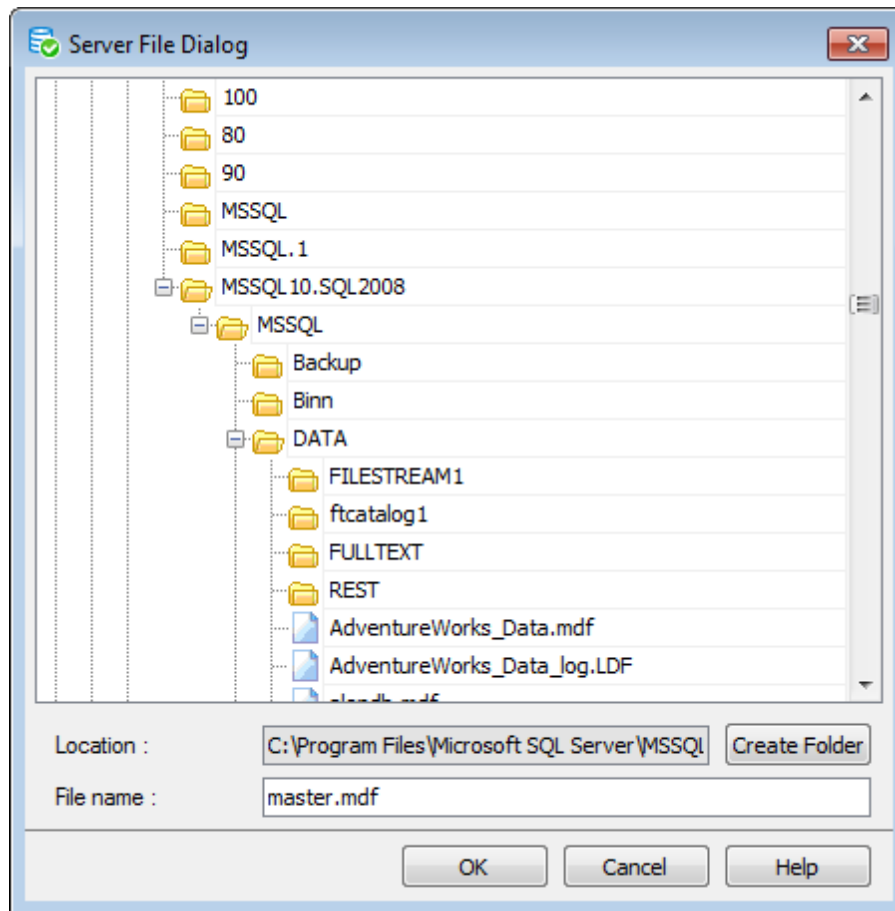
If this option is checked the files downloaded from remote/cloud storages will be automatically deleted after restore process ends. This option is enabled when at least one backup file has been downloaded from remote storage at previous step.

If the **New database** option is selected, then database name should be specified in the corresponding field. If you are restoring a database from the *differential copy* the *New database* option is unavailable.



The grid displays logical and physical names of the files. You can rename the files and groups in the grid or change file folder in the appropriate dialog, clicking the ellipsis button.

Use the  ellipsis button to set files for the database that is being restored.



Click the **Next** button to proceed to the [Specifying restoring options](#) step of the wizard.

[<< Previous step](#)

[Next step >>](#)

### 7.1.2.5 Specifying restore options

At this step you need to set recovery options and options for transaction log restore.

#### Recovery options

This group of options allows you to specify the recovery options to be applied to the restore operation.

**Recovery (rollbacks all uncommitted transactions)**

This option specifies that the restore operation rolls back any uncommitted transactions. After the recovery process the database is ready for use.

**No recovery (leaves the database in the restoring state)**

This option specifies that the restore operation does not roll back any uncommitted transactions.

**NB:** When this option is selected, the database is not usable in this intermediate, non-recovered state.

When used with a file or filegroup restore operation, this option forces the database to remain in the restoring state after the restore operation. This is useful in either of the following situations:

- a restore script is being run and the log is always being applied;
- a sequence of file restores is used and the database is not intended to be usable between two of the restore operations.

**Standby (leaves database in read-only and standby mode)**

This option allows the database to be brought up for read-only access between transaction log restores and can be used with either warm standby server situations or special recovery situations in which it is useful to inspect the database between log restores.

#### Undo file name

Specify the undo file name, so that the recovery effects can be undone. The same undo file can be used for consecutive restores of the same database.

**NB:** If free disk space is exhausted on the drive containing the specified undo file name, the restore operation stops.

**Backup the transaction log before proceeding with the restore is checked**

Check this option to perform the tail-log backup before the restore. Note that the 'WITH NORECOVERY' option will be used in the backup operation so that the database state will be changed to Recovery. This guarantees that the database does not change after the tail-log backup.

**Note:** The tail-log backup process starts automatically on proceeding to the next step.

**Restore tail of log automatically**

If you check this option the tail-log backup file will be added to the backup set for restoring.

**Replace (WITH REPLACE)**

This option specifies that SQL Server database will be overwritten if it exists.

**Continue on error**

This option determines whether the restore operation will be stopped or forced to continue if an error occurs.

### Transaction log options

This section is available only if the **Transaction log** restore type was selected at the [Specifying the elements of backup](#) step.

**Restore all records of transaction log**

Select this option to make a complete restore from transaction log backup.

**Restore all records of transaction log before**

This option indicates that database restore is based on the transaction log records added before specified date. Pick date and specify time in the fields below.

**Restore all records of transaction log up to marked transaction**

Use this option to restore database to the state when marked transaction was committed.

**Mark name**

Specify the needed mark in the field.

**Look for marks at or after**

You need to define the start date time point to search for the marked transaction from.

**Include marked transaction**

Enable this option to restore database to the state right after the transaction committing. If the option is disabled then database will be restored to the state right before the transaction committing.

**Kill connections**

Set this option to kill all existing connections to the database before starting the restore process otherwise restore will fail if any connections exist.

**Note:** If this option is checked when the **Backup the transaction log before proceeding with the restore is checked**, then connections will be killed before the backup tail-log process starts.

**Check orphaned users**

Check this option to detect orphaned users on restore process.

**Drop orphaned users**

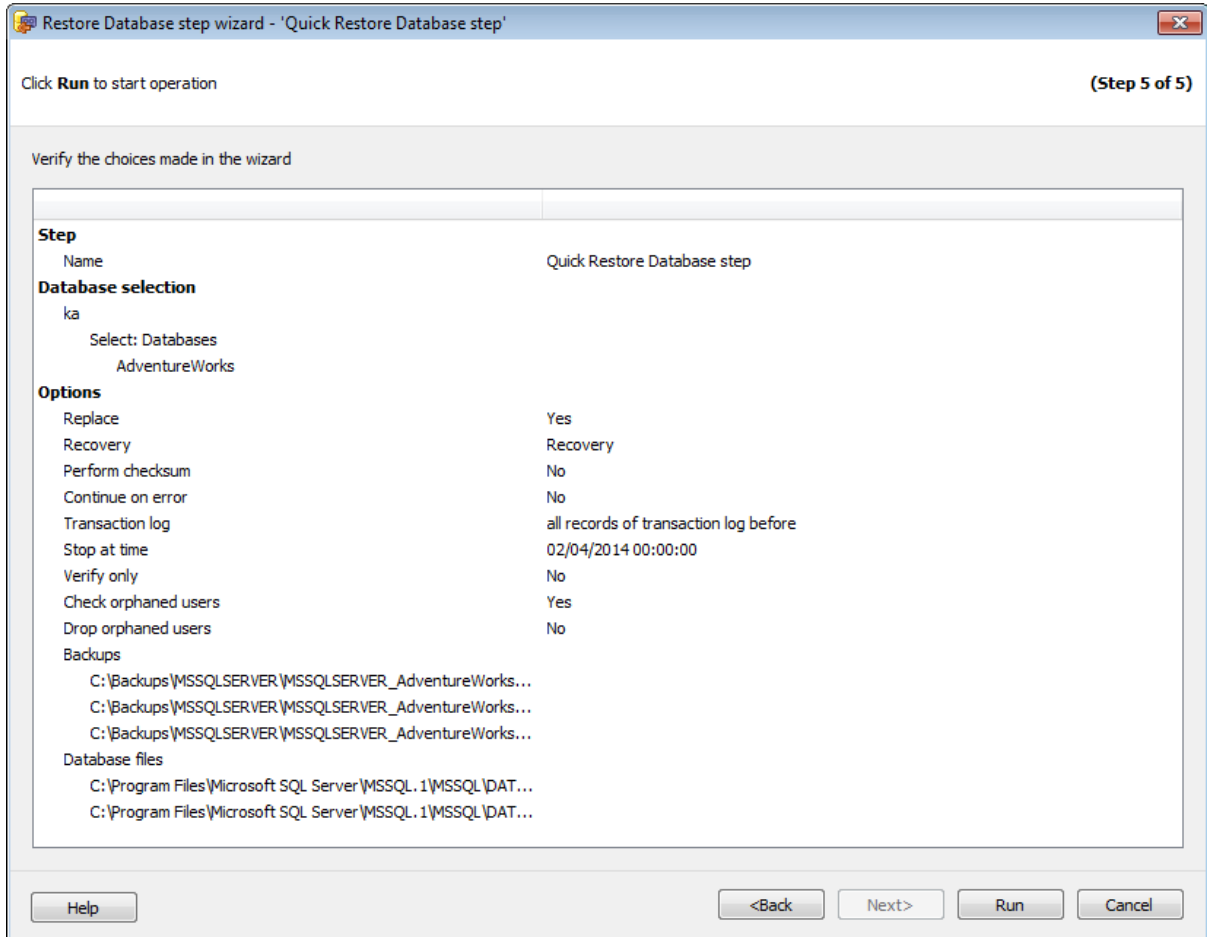
If this option is checked then found orphaned users will be dropped on the restore process.

[<< Previous step](#)

[Next step >>](#)

### 7.1.2.6 Performing operation

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





After verifying the choices made in the wizard click the **Run** button to complete the operation.

[<< Previous step](#)

### 7.1.3 Database Shipping

**Database Shipping step** allows you to create full backups on the source server, ship them to the destination server via a shared folder and restore on the destination server.

To perform database shipping step you must have at least two SQL Server instances; version of destination server cannot be lower than the source server version; both servers must have access to the shared folder.

To launch the database shipping *immediately* select  **Quick Maintenance Actions** |  **Database shipping** popup menu item in the [Servers tab](#).

To perform *scheduled database shipping* on a regular basis you need to include this task into [Policy](#):

1. At [Step 2](#) of the [Create Policy wizard](#) click **Create new step** button and select **Database Shipping step** type.
2. Also, you can create a new Step Template for further use selecting **Database Shipping step** at the [Templates](#) tab.

#### Steps of the Database Shipping wizard:

[Naming step](#)

[Specify database pairs](#)

[Specify backup options](#)

[Specify folders and recovery options](#)

[Viewing summary information](#)

---

#### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)



### 7.1.3.1 Naming step

You can name the step using the **Name** field. The **Description** field can be used to define brief info for the created step.

Database Shipping step wizard - 'Database Shipping step 1' (Step 1 of 5)

Set step name and description

The **Database Shipping step** manages creating of **full database backups** on the source server and their restoring on destination server via shipping to the network share folder. The wizard will guide you through the process of selecting databases and setting up shipping options.

Name: Database Shipping step 1

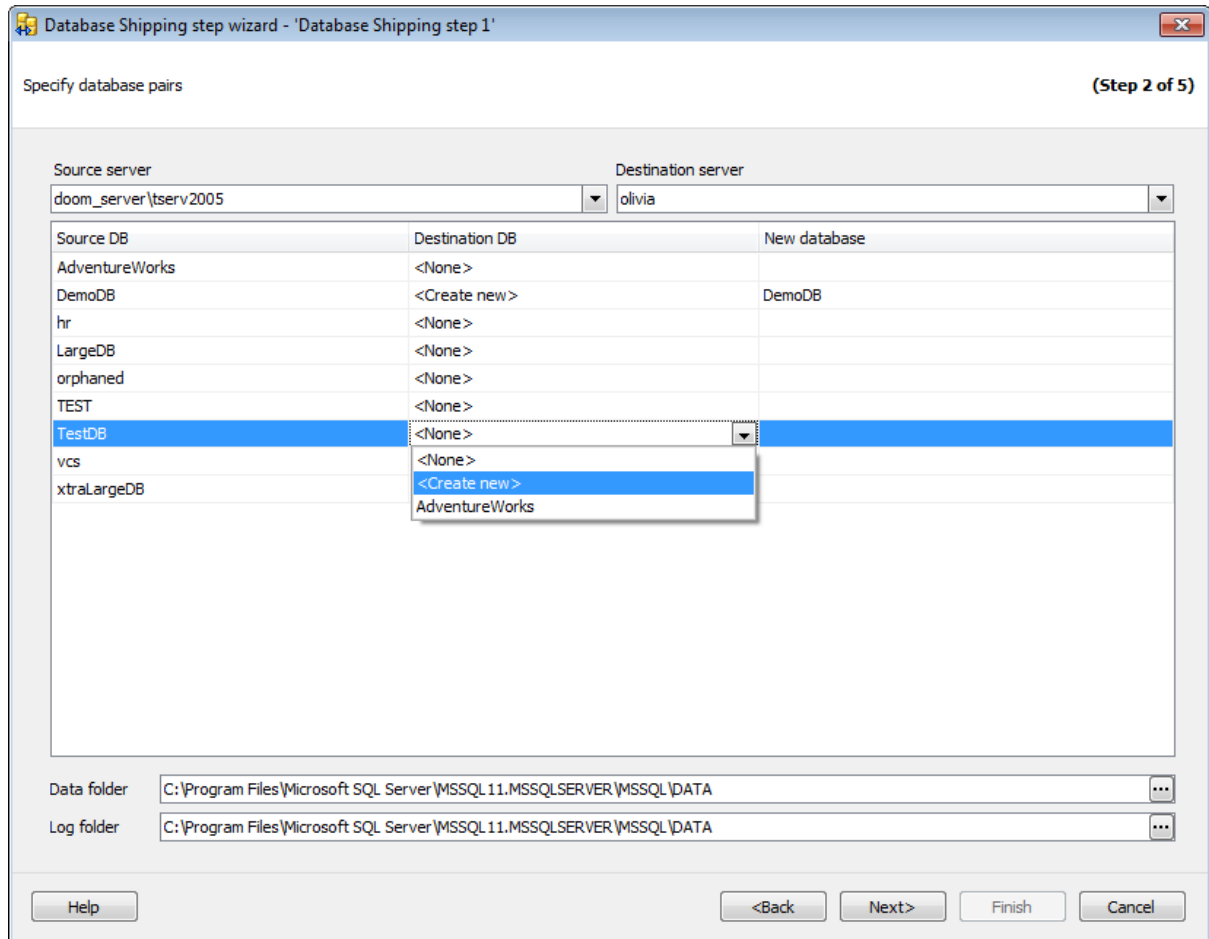
Description:

Help <Back Next> Finish Cancel

[Next step >>](#)

### 7.1.3.2 Specifying database pairs

At this step you need to set database pairs for database shipping.



#### Source server

Select the server where the database that you want to back up to another server is located.

#### Destination server

Select the server where backup files are shipped to from the drop-down list.

Set the database pairs in the grid. The full database backups are performed on the source server and restored on the destination server.

If the destination database does not exist, you can select *<Create new>* item in the **Destination DB** column and specify its name in the **New database** column. Creating the databases is performed by creating a full backup of the source database and its further restoring.

#### Data folder

Specify the path for data MDF files for the newly created database.

#### Log folder

Specify the path for data LDF files for the newly created database.

**Note:** When creating a template no databases can be selected at this step. Please proceed to the next steps to set default template options. Databases can be selected on applying the template to the policy.

[<< Previous step](#)

[Next step >>](#)

### 7.1.3.3 Specifying backup options

At this step you can define backup options for source database(s).

#### Backup folder

Specify the directory for backup. It is set relatively the source server. You can check availability of this folder by clicking the corresponding button.

#### Max Thread Count

Indicates the number of threads to be used for backup operation. Increase the number of threads for faster speed. If you are using a multi-processor system, increasing this value can fasten backup speed. You are recommended to set one thread fewer than the number of processors.

#### Compression

Enable the option to compress backup.

#### Compression Level

Defines backup file compression level. Use '1' for the best speed and '4' for the best compression.

#### Encryption

Enable the option to encrypt backup.

**Encryption Password**

Set password that is used for backup encryption.

**Confirm password**

Confirm the password specified as an encryption password above.

**Encryption Type**

Select the encryption algorithm.

 **Keep backups on the source server**

Enable this option if you want to store backup files on the source server in the folder which is specified in the **Backup folder** field.

[<< Previous step](#)

[Next step >>](#)

### 7.1.3.4 Specifying folders and recovery options

At this step you need to set shared and destination folder, and recovery options for database restore.

#### Network shared folder

Specify the backup shared folder for copying full database backups of the source database. Both source and destination servers should have access to this folder, otherwise database shipping cannot be performed. Specify the authorization parameters for the shared folder in the **Authorization** section. Click the **Check** button to make sure that the folder is accessible by both servers.

#### Destination folder

Specify the destination server folder which the backups will be shipped to. This folder must be set relatively to the destination server.

#### Recovery options

This group of options allows you to specify the recovery options for restore operation.

##### **No recovery (leaves the database in the restoring state)**

This option specifies that the restore operation does not roll back any uncommitted transactions.

**NB:** When this option is selected, the database is not usable in this intermediate, non-recovered state.

When used with a file or filegroup restore operation, this option forces the database to remain in the restoring state after the restore operation. This is useful in either of the following situations:

- a restore script is being run and the log is always being applied;
- a sequence of file restores is used and the database is not intended to be usable between two of the restore operations.

**Standby (leaves database in read-only and standby mode)**

This option allows the database to be brought up for read-only access between transaction log restores and can be used with either warm standby server situations or special recovery situations in which it is useful to inspect the database between log restores.

**Recovery (rollbacks all uncommitted transactions)**

This option specifies that the restore operation rolls back any uncommitted transactions. After the recovery process the database is ready for use.

**Undo file name**

Specify the undo file name, so that the recovery effects can be undone. The same undo file can be used for consecutive restores of the same database.

**NB:** If free disk space is exhausted on the drive containing the specified undo file name, the restore operation stops.

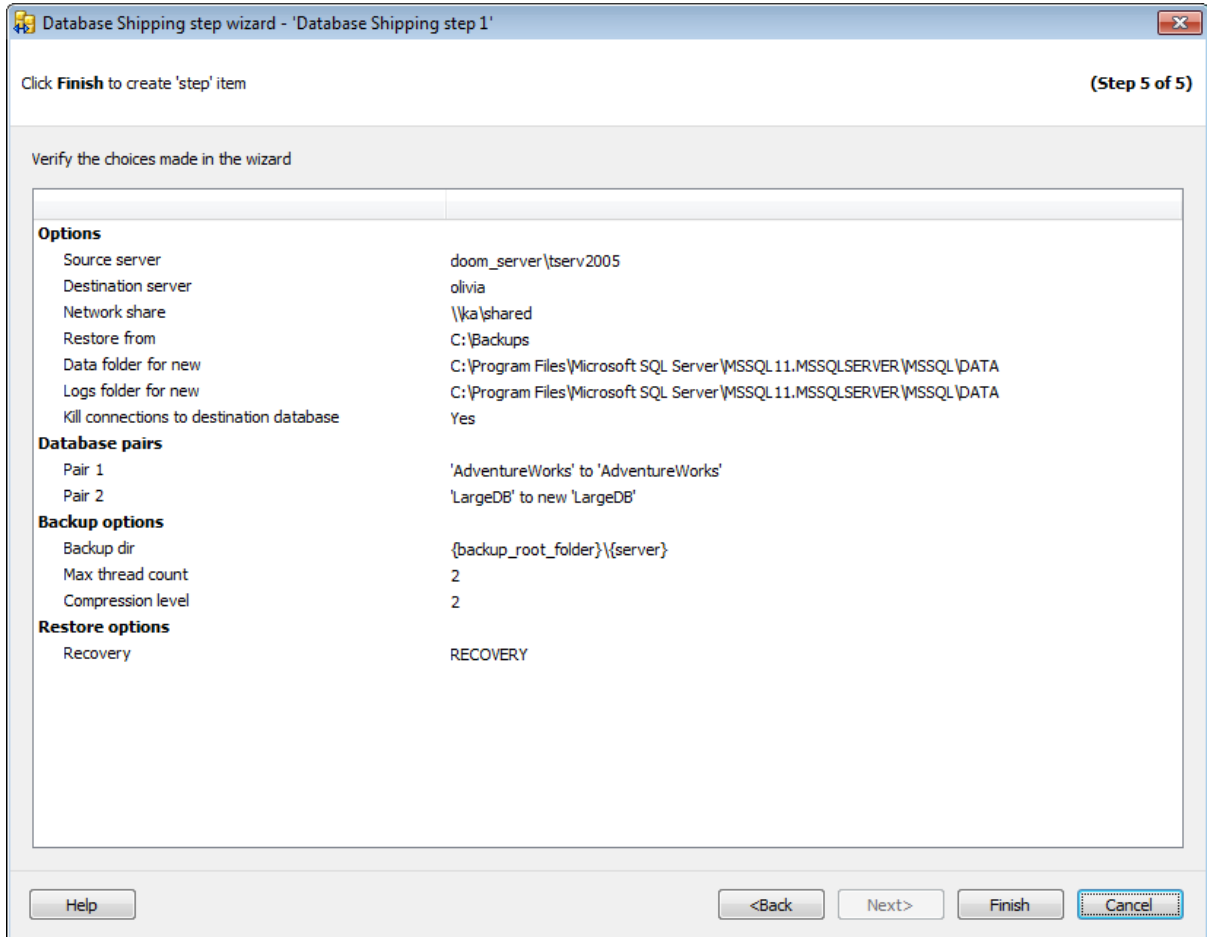
Set  **Kill connections to destination database** option ON for forced disconnection of all processes to the database.

[<< Previous step](#)

[Next step >>](#)

### 7.1.3.5 Viewing summary information

This step of the wizard is intended to inform you that all necessary options have been set, and you can perform database shipping.



After verifying the choices made in the wizard click the **Finish** button to complete the operation.

[<< Previous step](#)





## 7.1.4 Execute SQL Server Agent job

**Execute SQL Server Agent job step** allows you to execute an SQL Server Agent job on the server.

A **job** is a specified set of operations performed sequentially by SQL Server Agent. A job can perform a wide range of activities, including running Transact-SQL scripts, command-line applications, Microsoft ActiveX scripts, Integration Services packages, Analysis Services commands and queries, or Replication tasks. Jobs can run repetitive or scheduled tasks, and they can automatically notify operators of job status by generating alerts. Before using SQL Server jobs, make sure that the **SQL Server Agent** service is running.

**Note:** The [status](#) of this step execution shows whether a job has been launched or failed to launch, and not the result of job execution.

To launch the job *immediately* select  **Quick Maintenance Actions** |  **Execute SQL Server Agent job** popup menu item in the [Servers tab](#).

To perform *scheduled execution* of SQL Server Agent job on regular basis you need to include this task into [Policy](#):

1. At [Step 2](#) of the [Create Policy wizard](#) click **Create new step** button and select **Execute SQL Server Agent job** type.
2. Also, you can create a new Step Template for further use selecting **Execute SQL Server Agent job step** at the [Templates](#) tab.

### Steps of the Execute SQL Server Agent job wizard:

[Naming step](#)

[Selecting job](#)

[Performing operation](#)

---

### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

#### 7.1.4.1 Naming step

You can name the step using the **Name** field. The **Description** field can be used to define brief info for the created step.

Execute SQL Server Agent job step wizard - 'Execute SQL Server Agent job step 1' (Step 1 of 3)

Set step name and description

The **Execute SQL Server Agent Job step** allows you to run selected **SQL Server Agent** jobs as a part of the policy.

Name: Execute SQL Server Agent job step 1

Description:

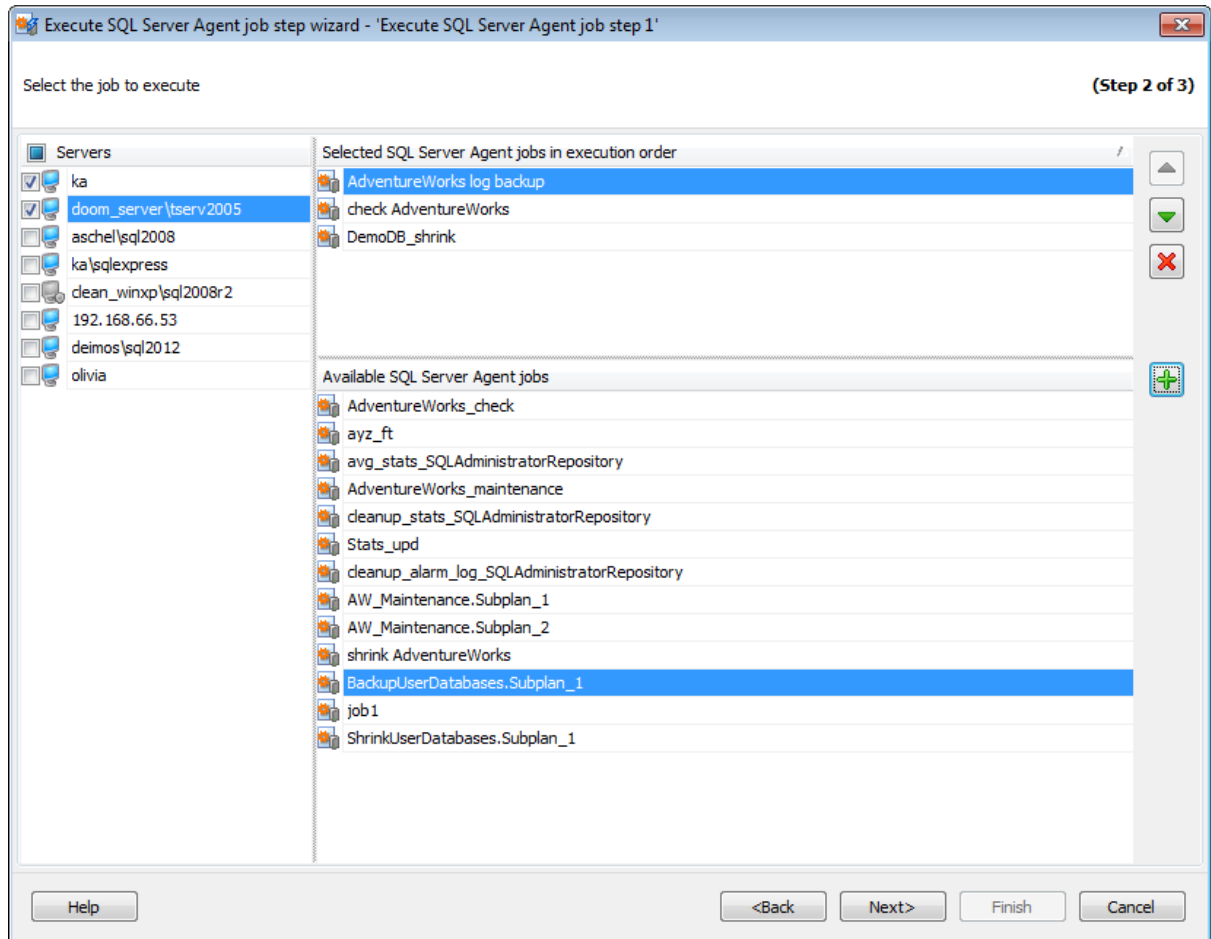
Buttons: Help, <Back, Next>, Finish, Cancel


This step does not appear for Quick Maintenance Actions.

[Next step >>](#)




### 7.1.4.2 Selecting job

Use this step to set the correspondence between instances and jobs to be executed.



Select the server(s) in the **Servers** list and add the job from the **Available SQL Server Agent jobs** list to **Selected SQL Server Agent jobs in execution order** list using  button or double-clicking.

**Note:** Selecting servers is not available in Template mode. If the server name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

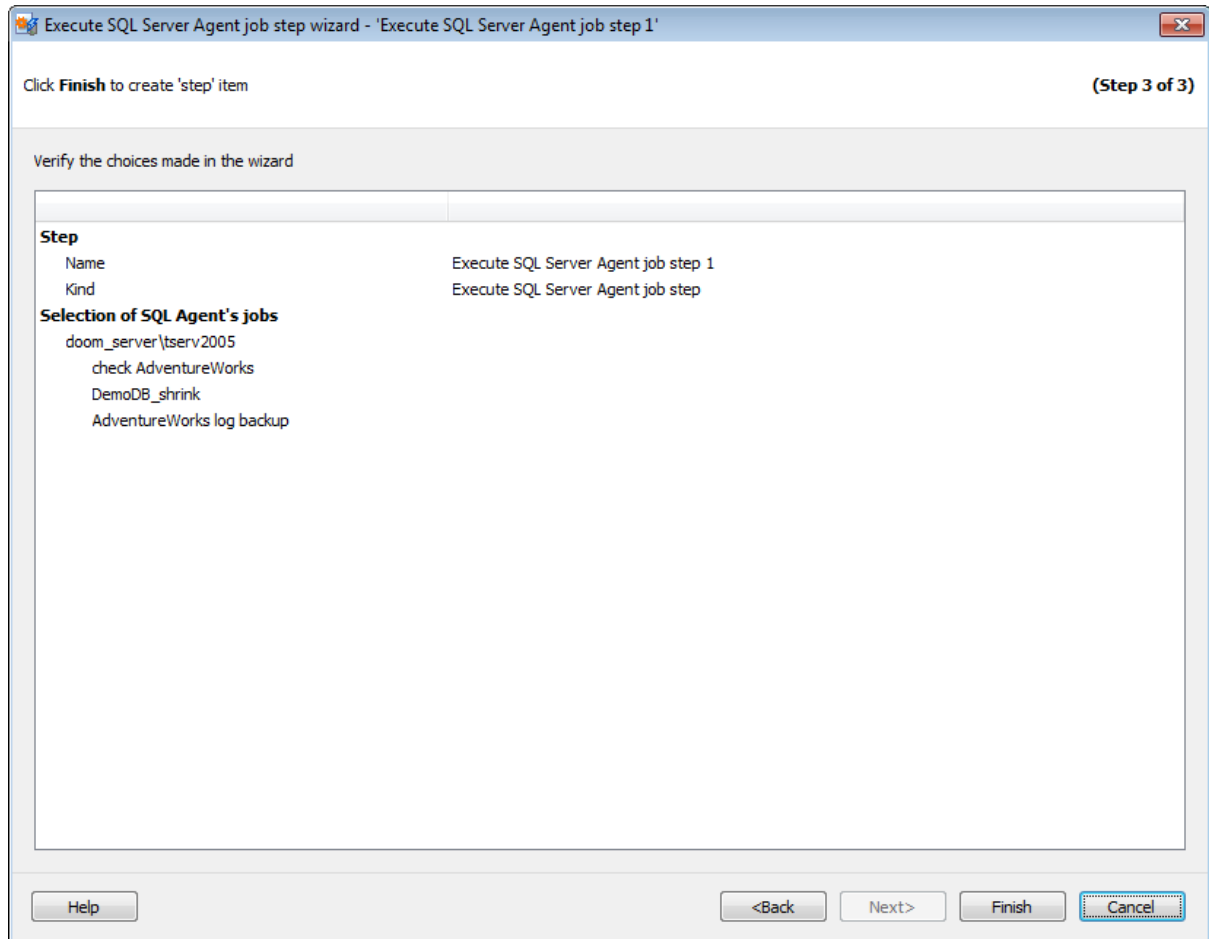
You can re-arrange jobs order for execution using arrow buttons on the right  . Use  Delete button or *Delete* key to remove job from the list.

[<< Previous step](#)

[Next step >>](#)

### 7.1.4.3 Performing operation

This step of the wizard is intended to inform you that all necessary options have been set, and you can start job(s) execution.





After verifying the choices made in the wizard click the **Finish** button to complete the operation.

[<< Previous step](#)

### 7.1.5 Execute T-SQL statement

**Execute T-SQL statement step** allows you to execute any T-SQL statement.

To launch the T-SQL statement *immediately* select  **Quick Maintenance Actions** |  **Execute T-SQL statement** popup menu item in the [Servers tab](#).

To perform *scheduled T-SQL statement execution* on regular basis you need to include this task into [Policy](#):

1. At [Step 2](#) of the [Create Policy wizard](#) click **Create new step** button and select **Execute T-SQL statement step** type.
2. Also, you can create a new Step Template for further use selecting **Execute T-SQL statement step** at the [Templates](#) tab.

#### Steps of the Execute T-SQL statement wizard:

[Naming step](#)

[Selecting server](#)

[Defining T-SQL statement](#)

[Performing operation](#)

---

#### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.1.5.1 Naming step

You can name the step using the **Name** field. The **Description** field can be used to define brief info for the created step.

Execute T-SQL Statement step wizard - 'Execute T-SQL Statement step 1' (Step 1 of 4)

Set step name and description

The **Execute T-SQL Statement step** allows you to run any custom statement as a part of a service task. It provides most common way to perform maintenance operations.

Name: Execute T-SQL Statement step 1

Description:

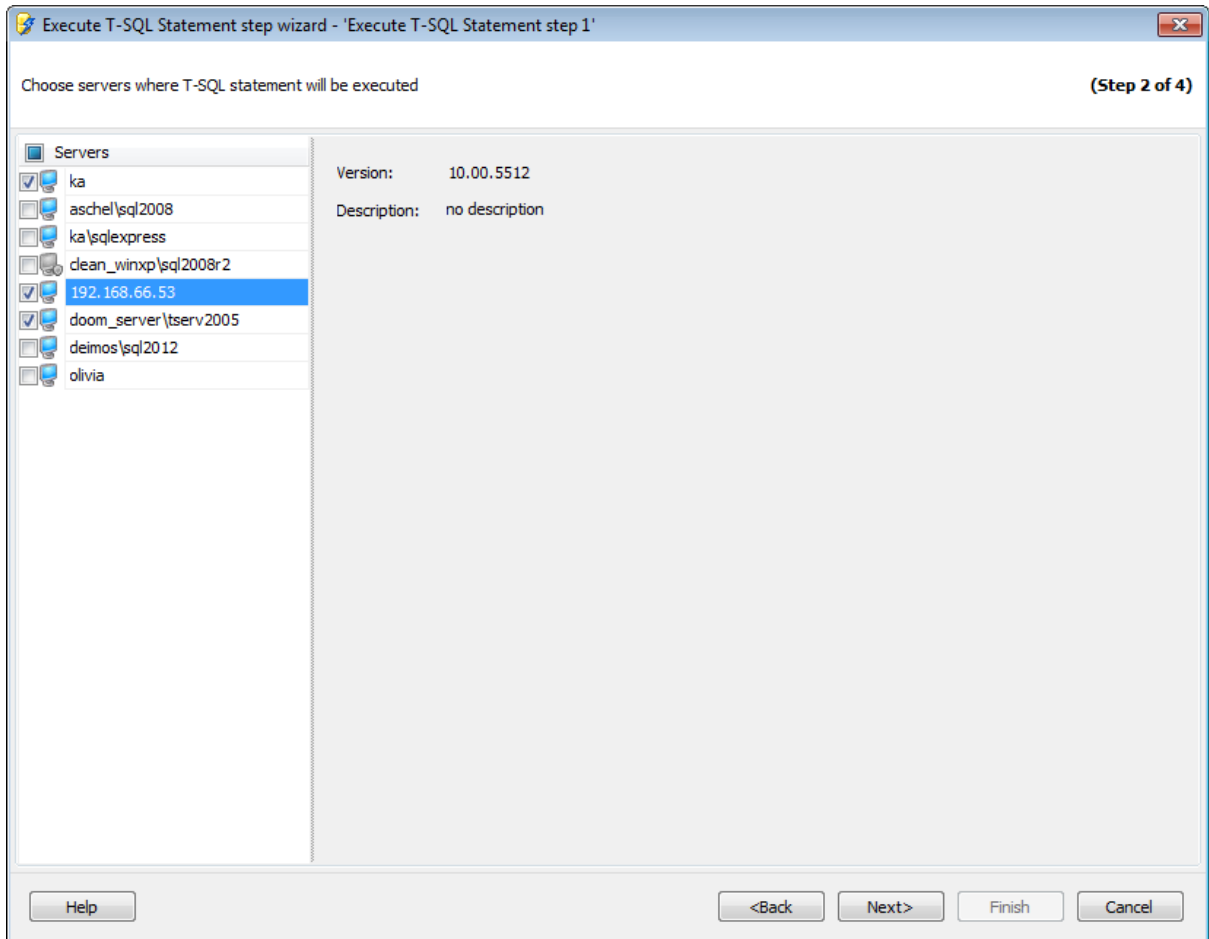
Buttons: Help, <Back, Next>, Finish, Cancel

This step does not appear for Quick Maintenance Actions.

[Next step >>](#)

### 7.1.5.2 Selecting server

Use this step of the wizard to select server(s) for T-SQL statement execution.



#### Servers

Select the **servers** to execute the T-SQL statement on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode.

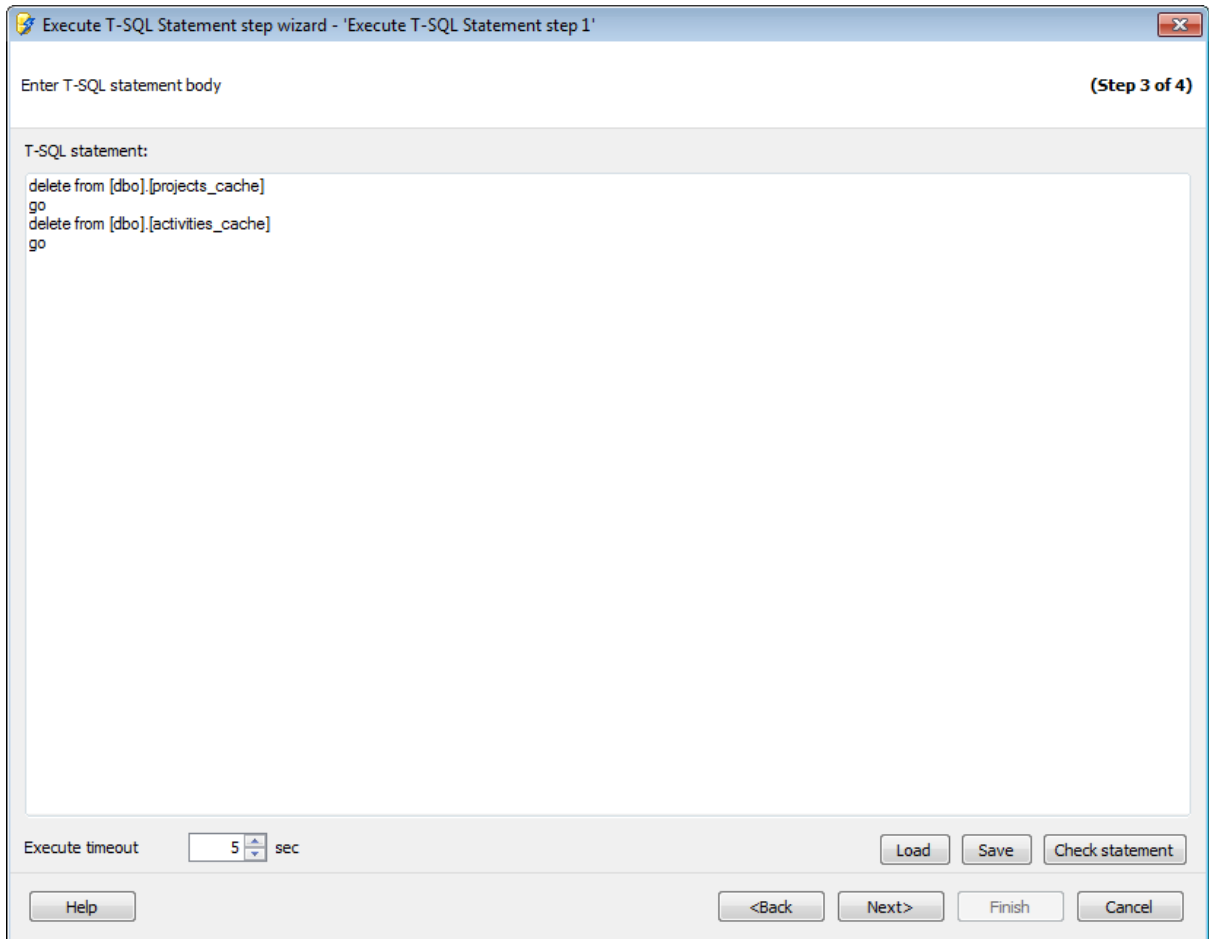
Server **description** and **version** are displayed on the right panel.

[<< Previous step](#)

[Next step >>](#)

### 7.1.5.3 Defining T-SQL statement

Use this step to define a T-SQL statement to be executed.



Type the T-SQL statement in the **Query text** tab.

Use the **Execute timeout** field to define time restriction for checking the statement procedure.

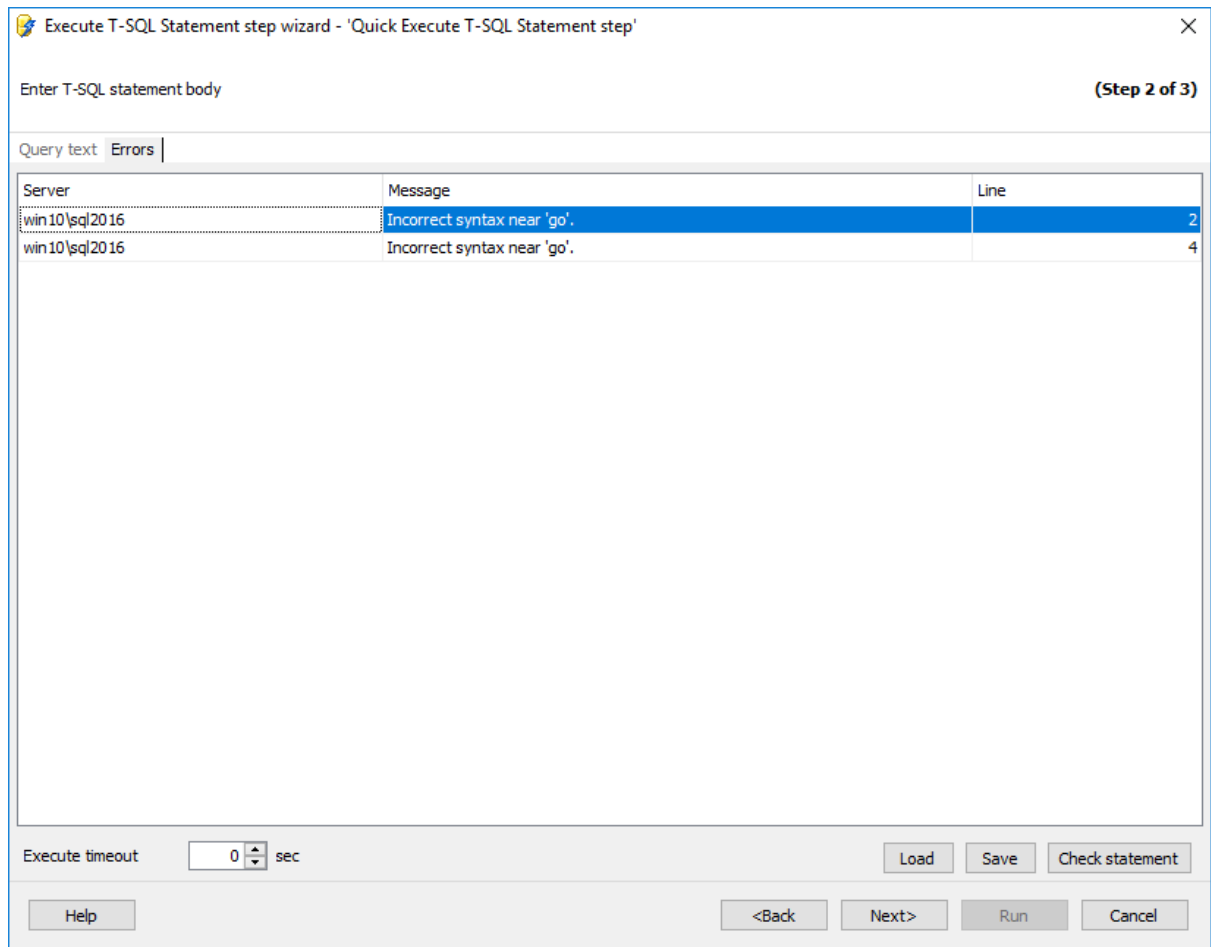
Use the **Check statement** button to run the statement on the server in PARSEONLY mode to ensure that T-SQL statement is correct. The detailed log of errors is displayed at the **Errors** tab.

**Note:** The **Check statement** button is not available in **Template** mode.

Use **Load\Save** buttons for loading or saving the script from\to an internal file.

All errors are displayed on the **Errors** tab.



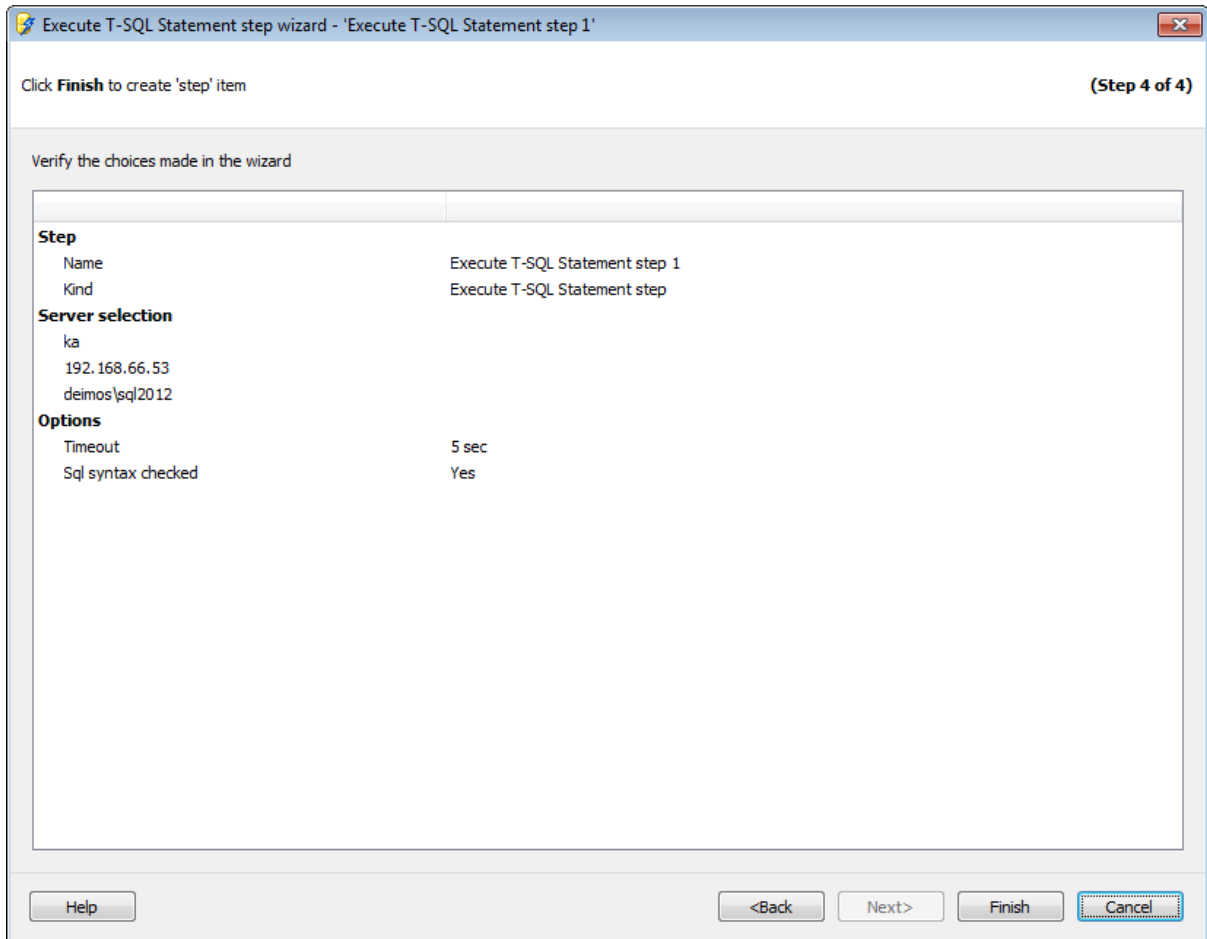


[<< Previous step](#)

[Next step >>](#)

#### 7.1.5.4 Performing operation

This step of the wizard is intended to inform you that all necessary options have been set, and you can start T-SQL statement execution.



After verifying the choices made in the wizard click the **Finish** button to complete the operation.

[<< Previous step](#)

## 7.1.6 History Cleanup

**History Cleanup step** allows you to clean the selected instance history (backup history and SQL Agent jobs).

To launch history cleanup *immediately* select  **Quick Maintenance Action** | 

**History Cleanup** popup menu item in the [Servers tab](#) .

To perform *scheduled history cleaning* on regular basis you need to include this task into [Policy](#):

1. At [Step 2](#) of the [Create Policy wizard](#) click **Create new step** button and select **History Cleanup step** type.
2. Also, you can create a new Step Template for further use selecting **History Cleanup step** at the [Templates](#) tab.

### Steps of the History Cleanup wizard:

[Naming step](#)

[Selecting server](#)

[Selecting historical data](#)

[Performing operation](#)

---

### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.1.6.1 Naming step

You can name the step using the **Name** field. The **Description** field can be used to define brief info for the created step.

History Cleanup step wizard - 'History Cleanup step 1' (Step 1 of 4)

Set step name and description

The **History Cleanup step** deletes all kinds of historical data:

- **MS SQL Server** backup and restore info, **MS SQL Server Agent** log records;
- **EMS SQL Backup** backups and service operation log records.

This wizard allows you to specify type and age of data to be deleted.

Name: History Cleanup step 1

Description:

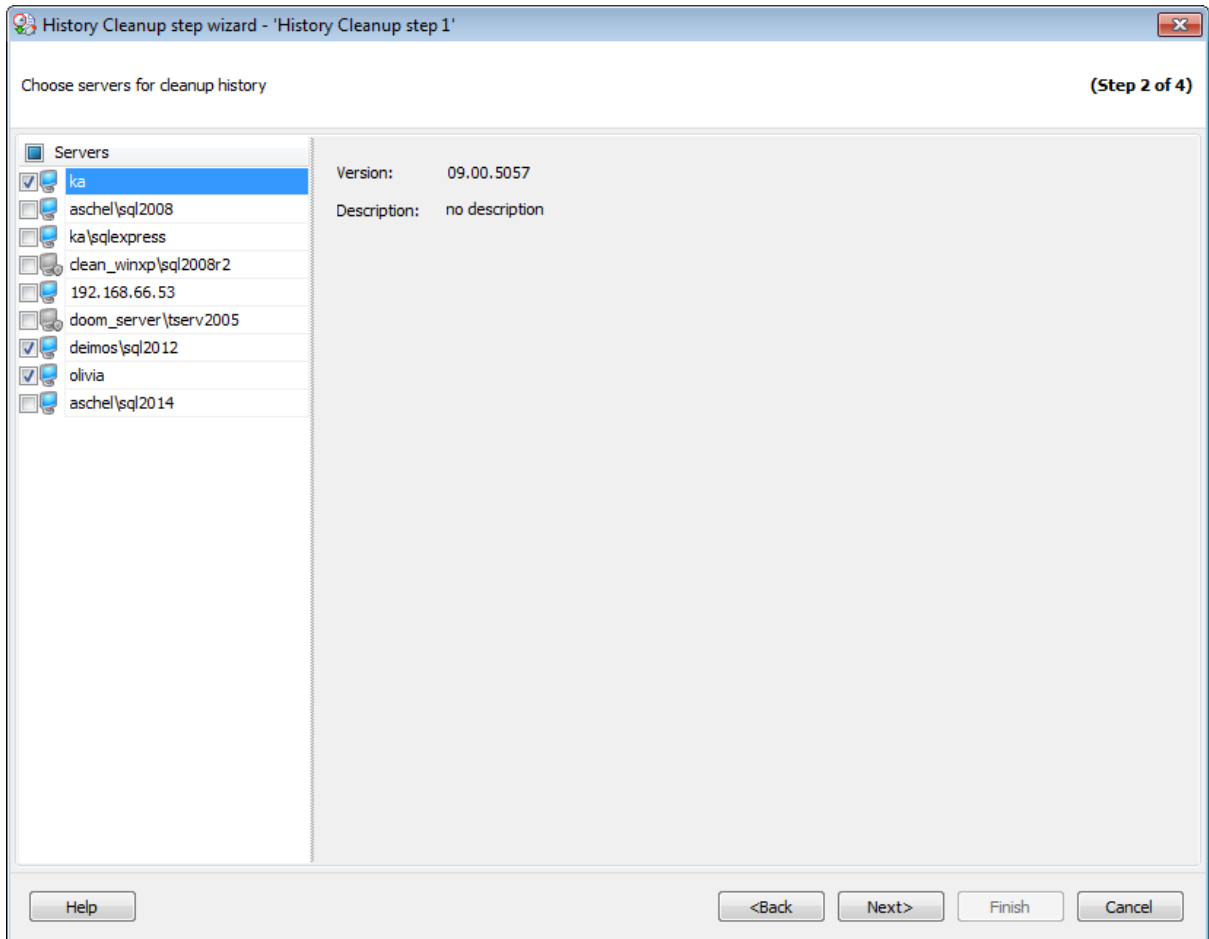
Help <Back Next> Finish Cancel

This step does not appear for Quick Maintenance Actions.

[Next step >>](#)

### 7.1.6.2 Selecting server

Use this step of the wizard to select servers for history cleanup.



#### Servers

Select the **Server(s)** to clean history. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode.

Server **description** and **version** are displayed on the right panel.

[<< Previous step](#)

[Next step >>](#)

### 7.1.6.3 Selecting historical data

At this step of the wizard you need to define the history that should be deleted.

#### MS SQL Server

The following options are intended to delete MS SQL [backup history](#) and some log info concerning specific jobs performed by MS SQL Server means.

**Backup and restore history data older than**

Enable the option to clean the history of the MS SQL Server backup and restore operations that are older than specified period of time. After cleanup the information about SQL Server type backups performed by EMS SQL Backup or by SQL Server itself will be removed from the server.

**History data of Server Agent job older than**

Enable the option to clean the history of the SQL Server Agent job(s) that are older than specified period of time. After this cleanup all information about SQL Server Agent job execution will be removed from the server.

#### EMS SQL Backup

The following options are intended to delete some log info concerning tasks performed by EMS SQL Backup.

**Backup and restore history data older than**

Enable the option to clean the history of the backup and restore operations that are older than specified period of time. After cleanup the information about EMS SQL Backup type backups will be removed from EMS SQL Backup.

 **Log records of EMS SQL Backup older than**

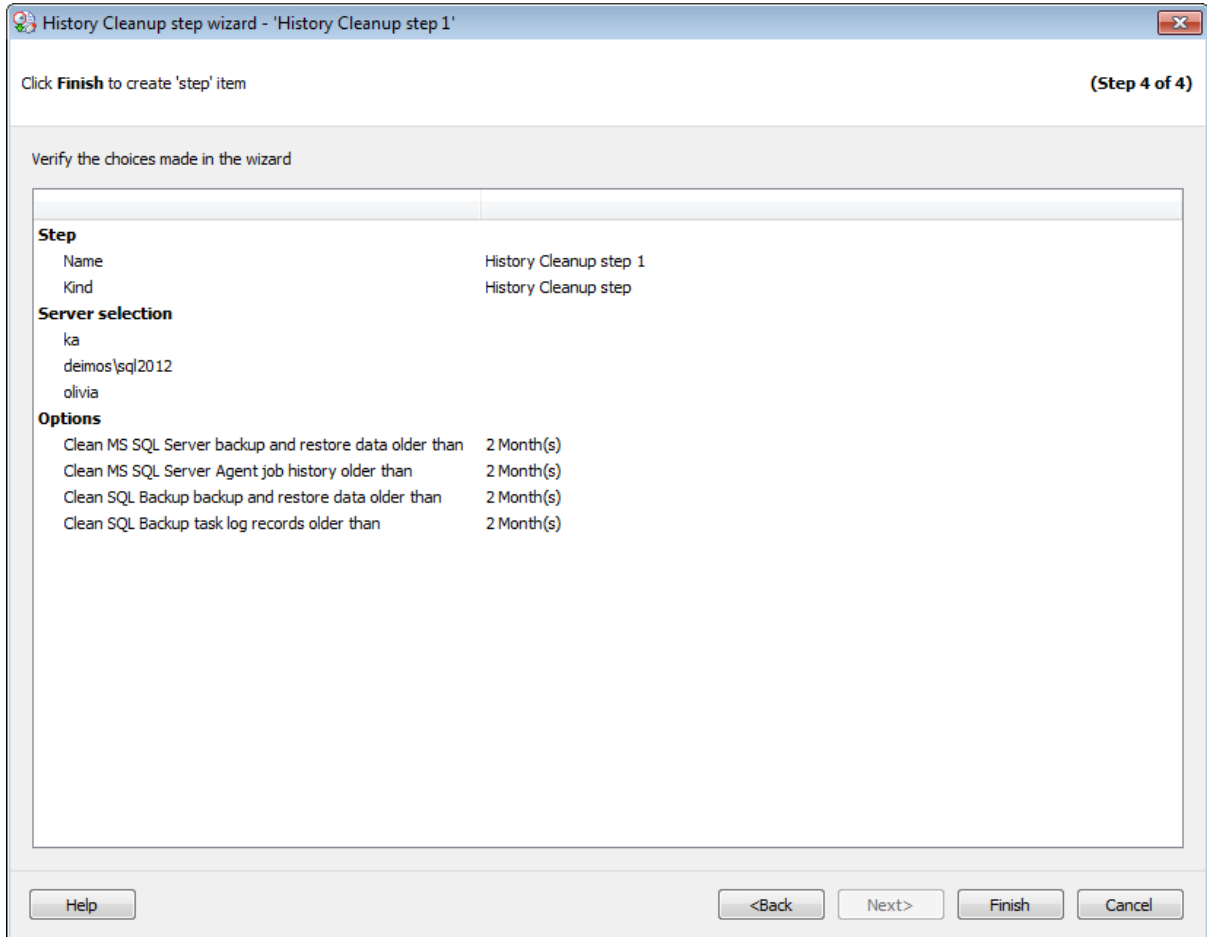
Enable the option to clean the history of the EMS SQL Backup task(s) execution that are older than specified period of time. After cleanup the information about executed tasks will be removed from [History Viewer](#).

[<< Previous step](#)

[Next step >>](#)

#### 7.1.6.4 Performing operation

This step of the wizard is intended to inform you that all necessary options have been set, and you can start cleaning the history data.





After verifying the choices made in the wizard click the **Finish** button to complete the operation.

[<< Previous step](#)



## 7.1.7 Database Integrity Check

**Database Integrity Check step** allows you to perform the check database operation on the server (the DBCC CHECKDB Transact-SQL statement is issued). This operation is used to check the allocation, structural, and logical integrity of all the objects in the specified database.

To launch the database check *immediately* select  **Quick Maintenance Actions** |  **Database Integrity Check** popup menu item in the [Servers tab](#).

To perform *scheduled database integrity check* on regular basis you need to include this task into [Policy](#):

1. At [Step 2](#) of the [Create Policy wizard](#) click **Create new step** button and select **Database Integrity Check step** type.
2. Also, you can create a new Step Template for further use selecting **Database Integrity Check step** at the [Templates](#) tab.

### Steps of the Database Integrity Check wizard:

[Naming step](#)

[Selecting databases](#)

[Setting options](#)

[Performing operation](#)

---

### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

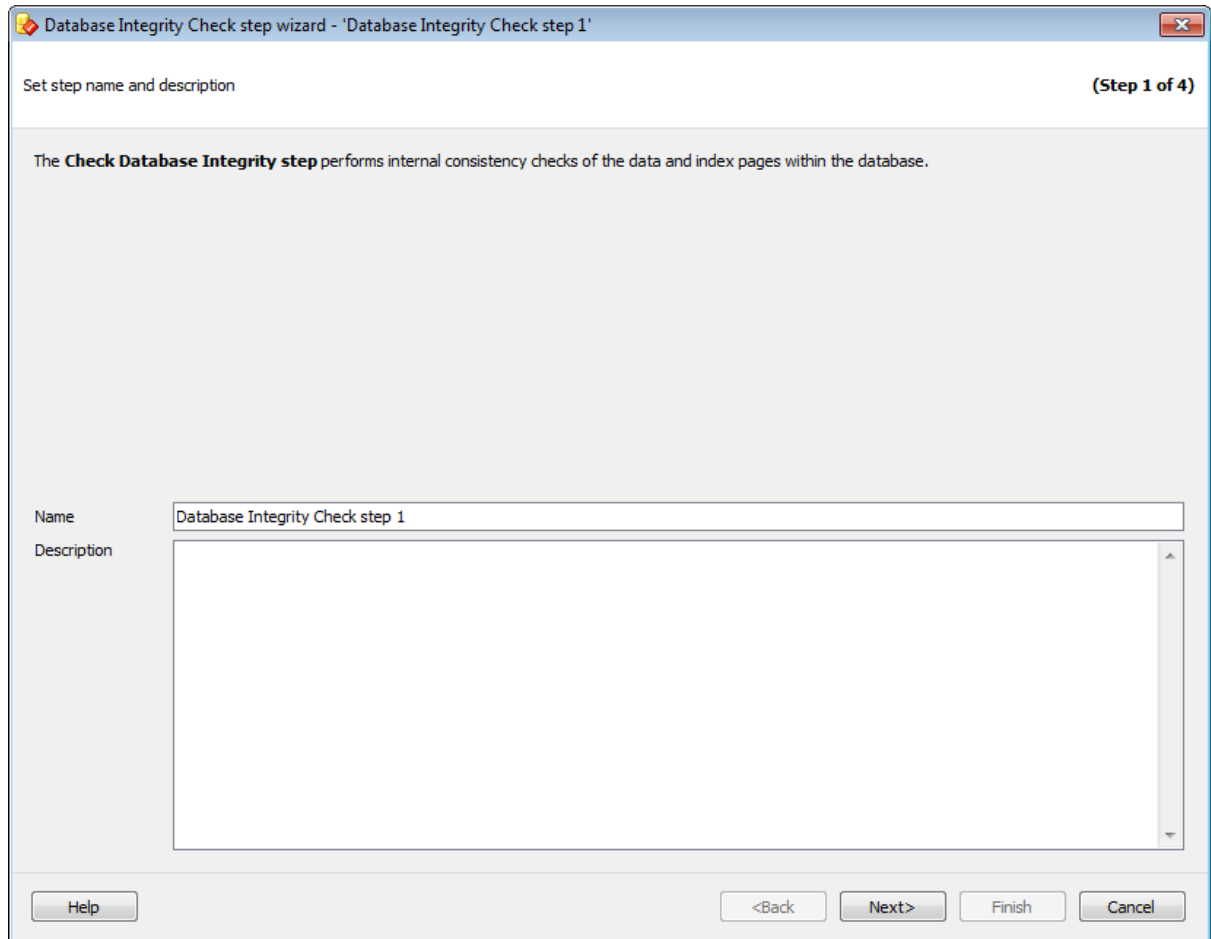
[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.1.7.1 Naming step

You can name the step using the **Name** field. The **Description** field can be used to define brief info for the created step.



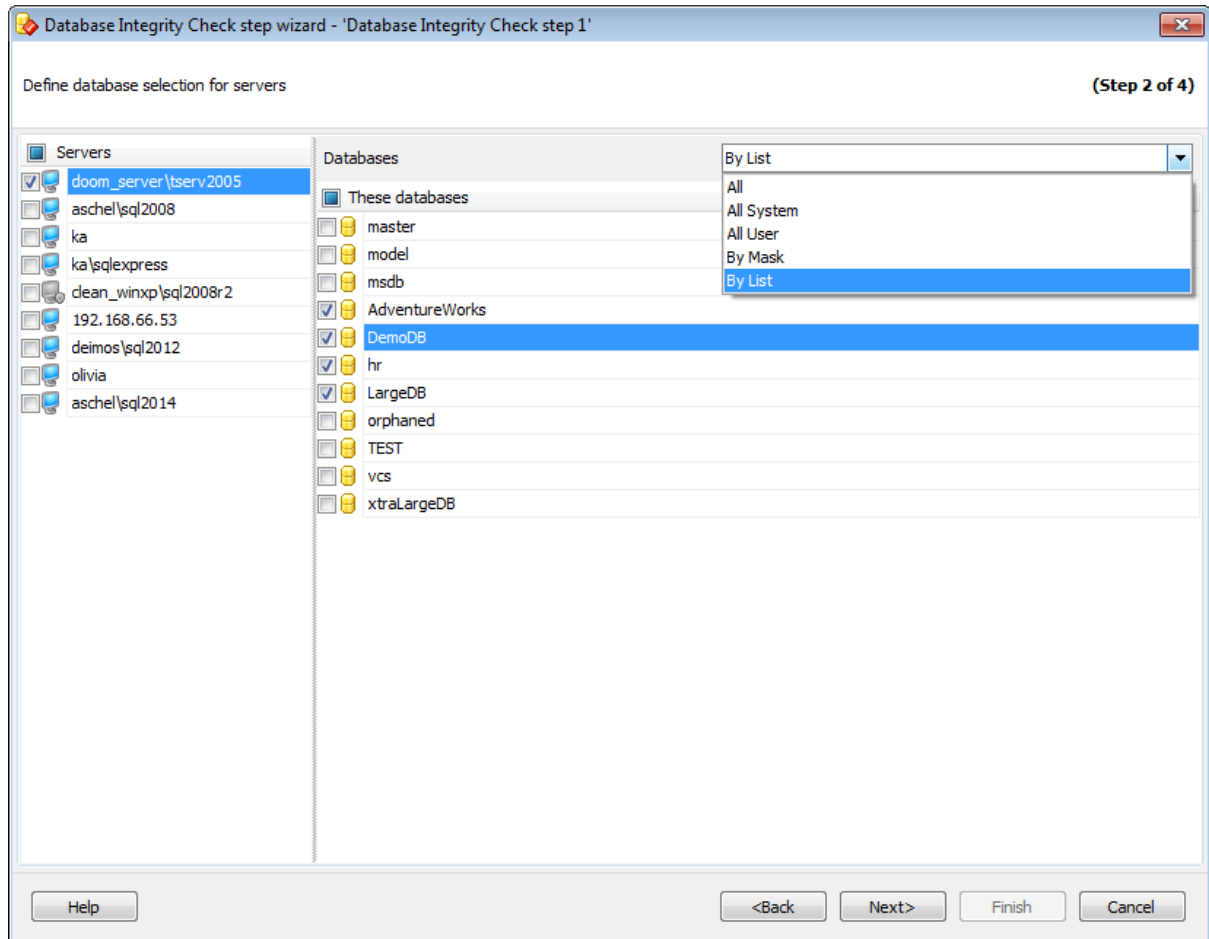
The screenshot shows a dialog box titled "Database Integrity Check step wizard - 'Database Integrity Check step 1'". The dialog is at "Step 1 of 4" and is titled "Set step name and description". It contains a text box for "Name" with the value "Database Integrity Check step 1" and a larger text area for "Description". A paragraph of text explains that the "Check Database Integrity step" performs internal consistency checks. At the bottom, there are buttons for "Help", "<Back", "Next>", "Finish", and "Cancel".

This step does not appear for Quick Maintenance Actions.

[Next step >>](#)

### 7.1.7.2 Selecting databases

Use this step of the wizard to select databases for integrity check.



#### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode.

#### Databases

##### All

Use this option to select both: system and user databases.

##### All system

This option indicates that only system databases should be checked.

##### All user

Select this option to check user databases only.

##### By mask

This option allows defining database selection by mask. Use \* for a set of any characters and ? for any single character in the database name.

### Including

This option allows manual selecting of the databases.

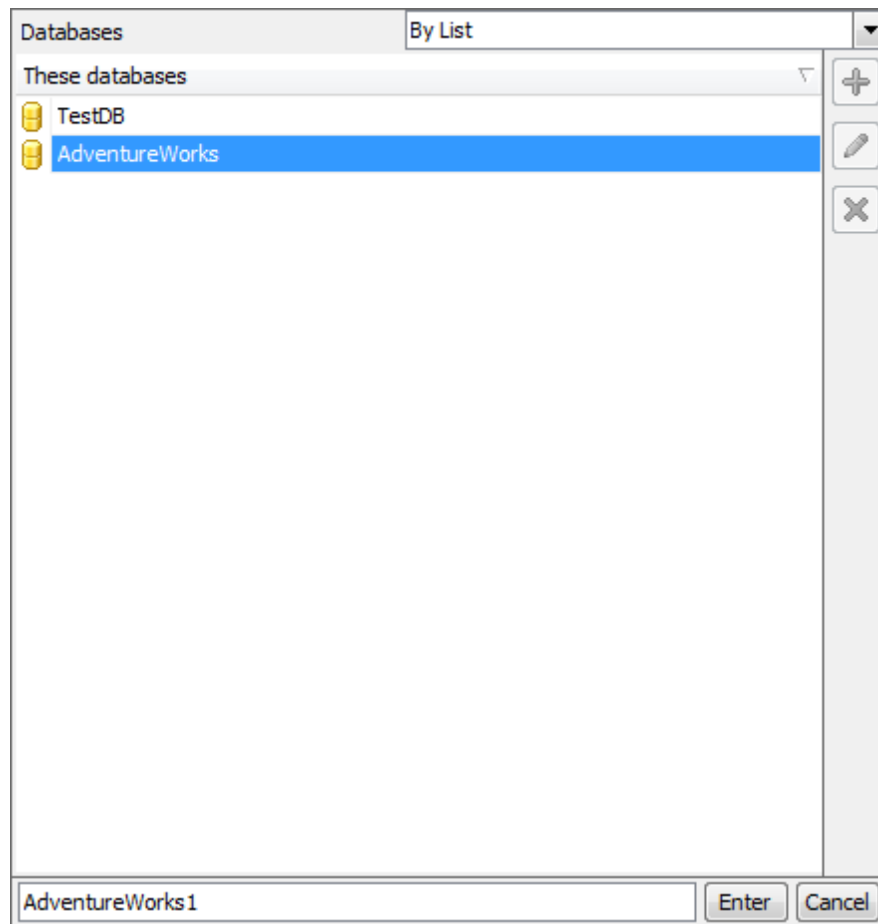
### Excluding


Select the databases which will be excluded from the backup. All databases, not selected in the list, will be included.



### Online only

Select only the databases in the online state.

If you are creating a step in a policy template then you are able to enter databases manually.



Use the  button or *Ins* key to define database name. After you click the *Enter* button the database will be added to the list.

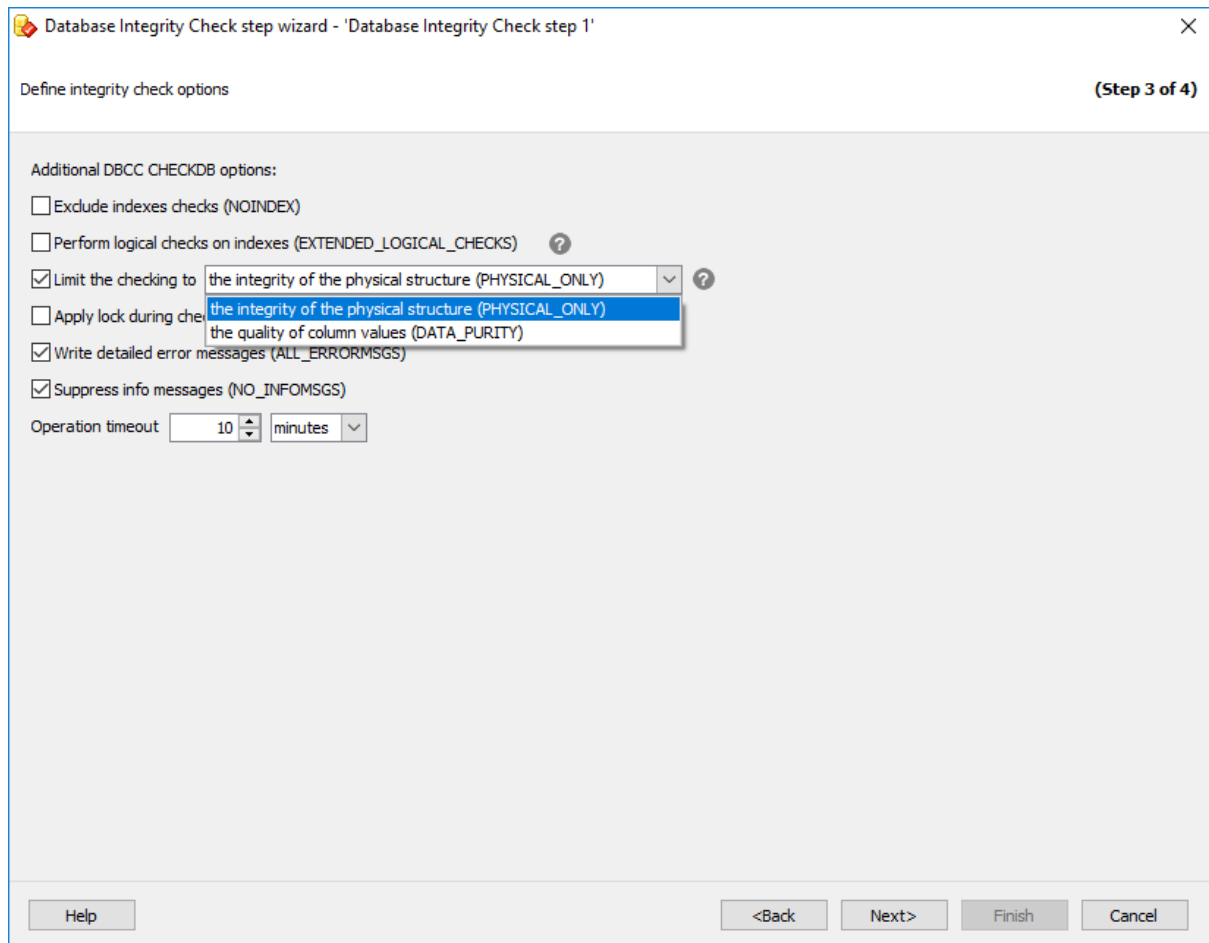
Any database from the list can be  edited or  deleted.

[<< Previous step](#)

[Next step >>](#)

### 7.1.7.3 Setting options

This step of the wizard allows you to customize database integrity check.



**Exclude indexes checks (NOINDEX)**

The option indicates that indices are excluded on database integrity check.

**Perform logical checks on indexes (EXTENDED\_LOGICAL\_CHECKS)**

If the compatibility level is 100 (SQL Server 2008) or higher, enable this option to perform logical consistency checks on indexed views, XML indexes, and spatial indexes.

**Limit the checking to**

Use this option if you need to restrict database integrity check:

*Physical Only (PHYSICAL\_ONLY)* value limits the checking operation to the integrity of the physical structure of the page and record headers, the physical structure of B-trees and the allocation consistency of the database. Designed to provide a small overhead check of the physical consistency of the database, this check can also detect torn pages, checksum failures, and common hardware failures that can compromise a user's data.

*Data Purity (DATA\_PURITY)* value checks the database for column values that are not valid or out-of-range.

**Apply lock during check (TABLOCK)**

If this option is used, the *DBCC CHECKDB* statement obtains locks instead of using an internal database snapshot. This includes a short-term database exclusive lock.

 **Write detailed error messages (ALL\_ERRORMSG)**

This option displays an unlimited number of all errors per object.

 **Suppress info messages (NO\_INFOMSGS)**

This option suppresses all informational messages.

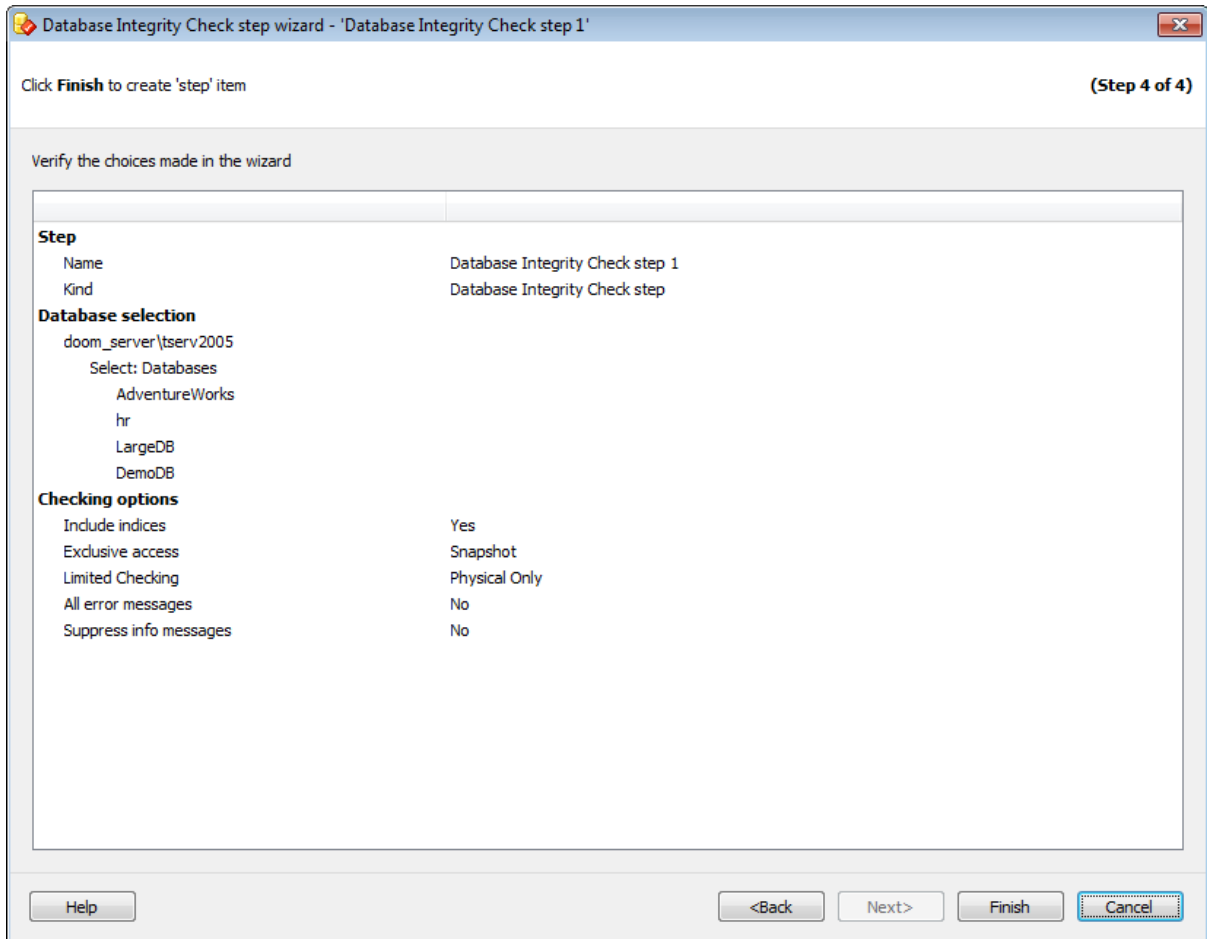
Use the **Operation timeout** option to specify how long a remote operation can take before the program times out and the error is returned.

[<< Previous step](#)

[Next step >>](#)

#### 7.1.7.4 Performing operation

This step of the wizard is intended to inform you that all necessary options have been set, and you can start checking database integrity.





After verifying the choices made in the wizard click the **Finish** button to complete the operation.

[<< Previous step](#)

## 7.1.8 Reorganize Indices

**Reorganize Indices step** allows you to perform index management operations in your databases: *reorganizing, rebuilding, disabling* (the `ALTER INDEX REORGANIZE ... REBUILD ... DISABLE` Transact-SQL statements are issued).

When indexes have pages in which the logical ordering based on the key value does not match the physical ordering inside the data file, these indexes are called fragmented. Highly fragmented indexes may considerably decrease query performance. Index fragmentation is remedied by either reorganizing or by rebuilding an index.

To launch the reorganization of indexes *immediately* select  **Quick Maintenance Actions** |  **Reorganize Indices** popup menu item in the [Servers tab](#).

To perform *scheduled backup* on regular basis you need to include this task into [Policy](#):

1. At [Step 2](#) of the [Create Policy wizard](#) click **Create new step** button and select **Reorganize Indices step** type.
2. Also, you can create a new Step Template for further use selecting **Reorganize Indices step** at the [Templates](#) tab.

### Steps of the Reorganize Indices wizard:

[Naming step](#)

[Selecting objects](#)

[Defining rules](#)

[Advanced options](#)

[Performing operation](#)

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### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)



### 7.1.8.1 Naming step

You can name the step using the **Name** field. The **Description** field can be used to define brief info for the created step.

Reorganize Indices step wizard - 'Reorganize Indices step 1' (Step 1 of 5)

Set step name and description

The **Reorganize Indices step** defragments and compacts clustered and non-clustered indices on tables and views. This will improve index-scanning performance. In case of rebuild action is activated, step reorganizes data on the data and index pages by rebuilding indices.

Name: Reorganize Indices step 1

Description:

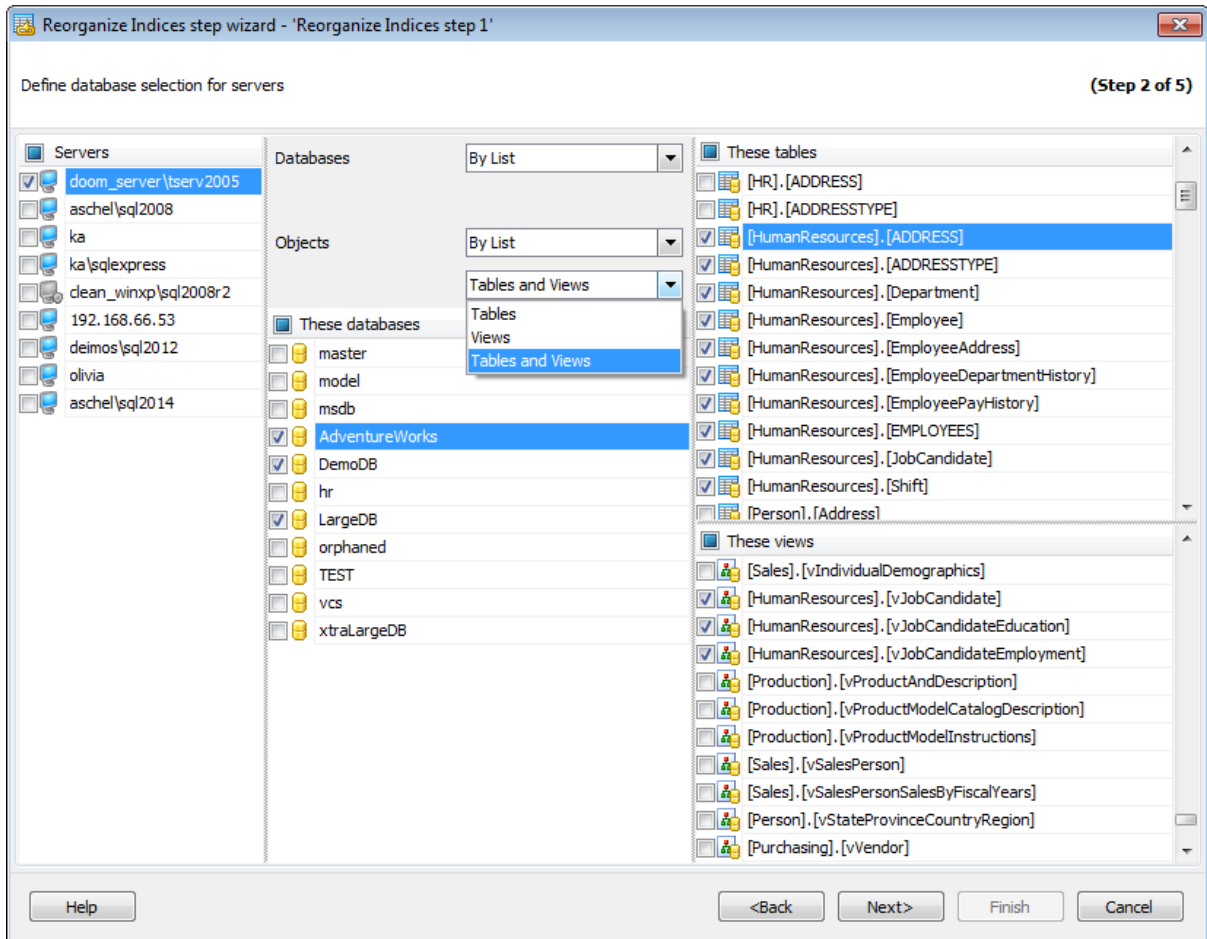
Buttons: Help, <Back, Next>, Finish, Cancel

This step does not appear for Quick Maintenance Actions.

[Next step >>](#)

### 7.1.8.2 Selecting objects

Use this step of the wizard to select objects for index reorganization.



#### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode.

#### Databases and objects

Select objects to reorganize indexes.

#### All

Use this option to select both: system and user objects.

#### All system

This option indicates that only system objects should be selected.

#### All user

Select this option to select user objects only.

#### By mask

This option allows defining objects selection by mask. Use \* for a set of any characters and ? for any single character in the object name.

### Including

This option allows manual selecting of the databases.

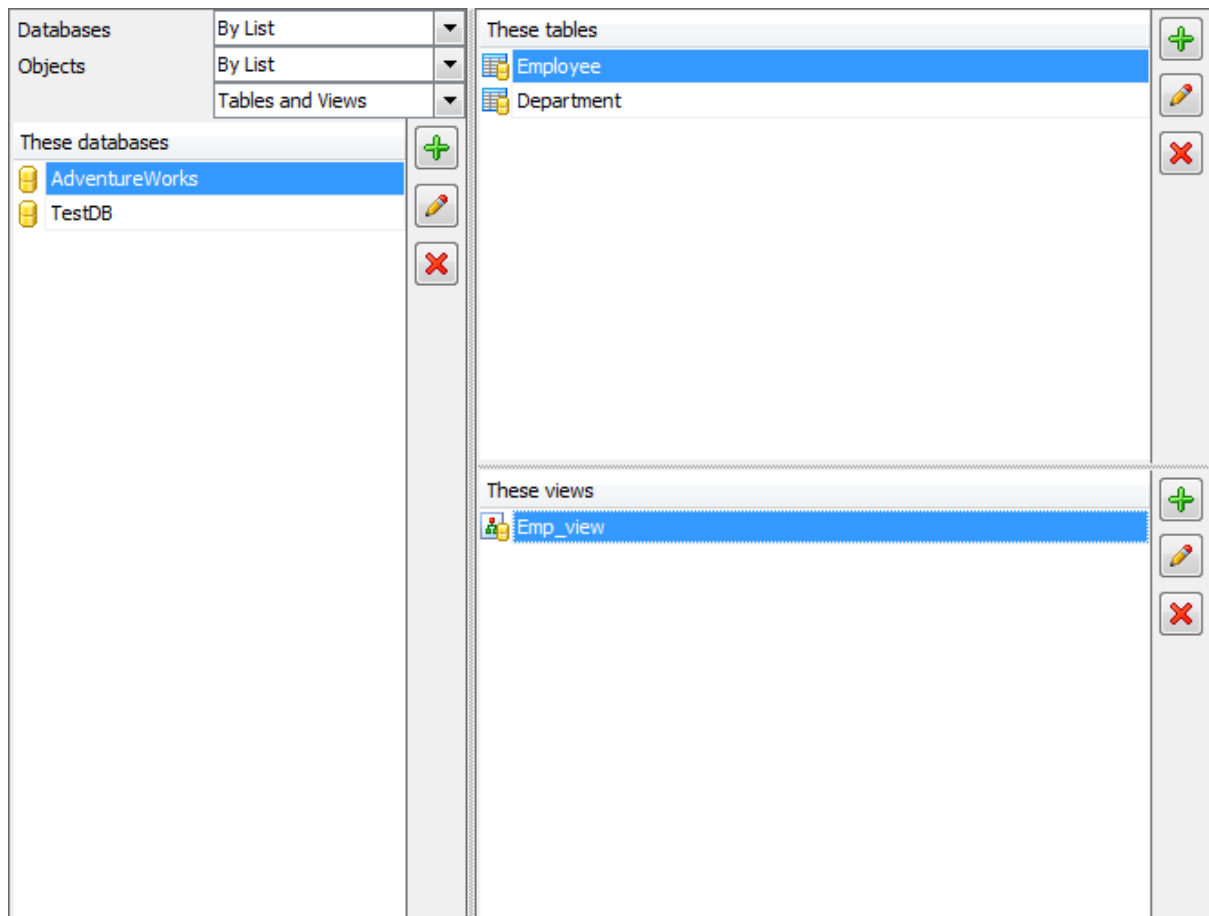
### Excluding


Select the databases which will be excluded from the backup. All databases, not selected in the list, will be included.

### Online only

Select only the databases in the online state.

If you are creating a step in a policy template then you are able to enter databases, tables and views manually.



Use the  button or *Ins* key to define database/table/view name. After you click the *Enter* button the database/table/view will be added to the list.

Any database/table/view from the list can be  edited or  deleted.

[<< Previous step](#)

[Next step >>](#)



### 7.1.8.3 Defining rules

At this step of the wizard you can set index reorganization rules.

Reorganize Indices step wizard - 'Reorganize Indices step 1' (Step 3 of 5)

Define reorganize index rules

Reorganize indices if fragmentation level is above 20 %

Rebuild indices if fragmentation level is above 35 %

Compact large objects

Help <Back Next> Finish Cancel

#### **Reorganize indices if fragmentation level is above**

Define the fragmentation limits. Exceeding this limits considers the indices to be reorganized.

#### **Rebuild indices if fragmentation level is above**

Define the fragmentation limits. Exceeding this limits considers the indices to be rebuilt.

#### **Compact large objects**

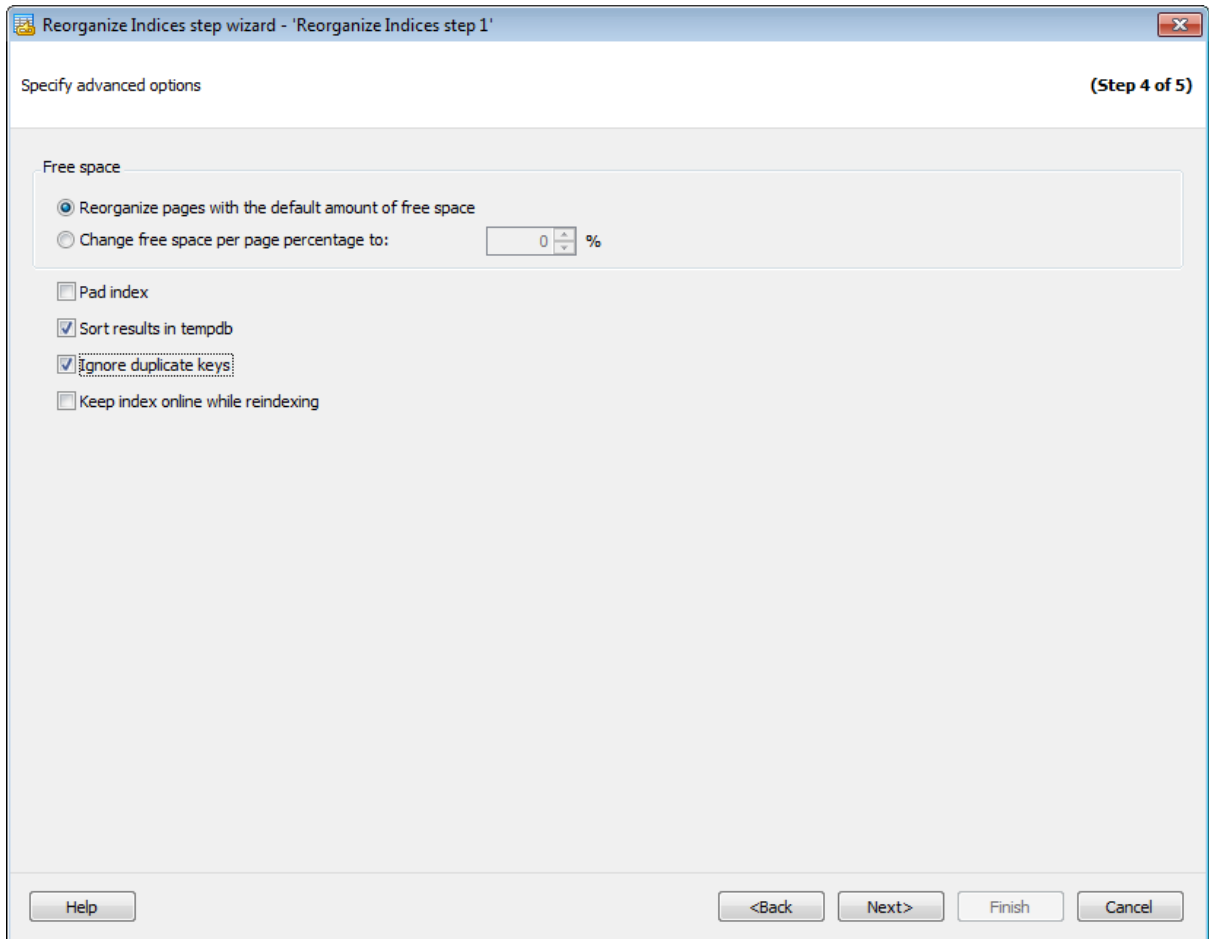
Enable this option to compact *image*, *text*, *ntext*, *varchar(max)*, *nvarchar(max)*, *varbinary(max)* and *xml* data.

[<< Previous step](#)

[Next step >>](#)

#### 7.1.8.4 Advanced options

This step of the wizard provides a number of advanced options for index reorganizing.



#### Free space

Define which pages should be reorganized: ones with the  **default** or  **specified** amount of **free space per page**.

#### Pad index

Enable this option to leave the space open on each page in the intermediate levels of index.

#### Sort results in tempdb

This option indicates that intermediate sort results used to rebuild indices will be stored in the tempdb database.

#### Ignore duplicate keys

If the option is enabled then duplicate keys will be ignored.

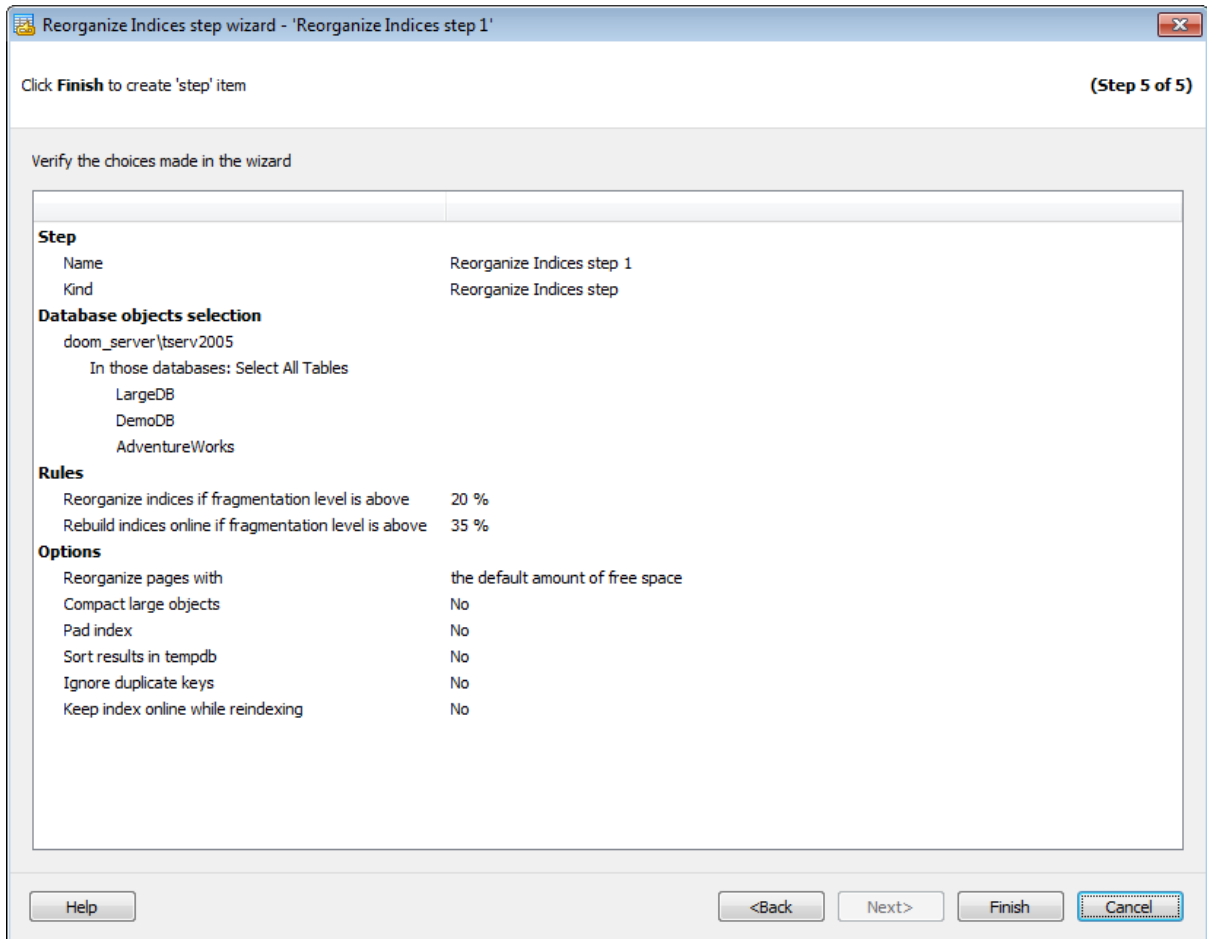
#### Keep index online while reindexing

This option determines whether concurrent user access to the underlying table or clustered index data and any associated non-clustered indexes is allowed while reindexing.

[<< Previous step](#)[Next step >>](#)

### 7.1.8.5 Performing operation

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




After verifying the choices made in the wizard click the **Finish** button to complete the operation.

[<< Previous step](#)



### 7.1.9 Shrink Database

**Shrink Database step** allows you to perform database shrinking (the *DBCC SHRINKDATABASE* and *SHRINKFILE* Transact-SQL statements are issued). This operation is used to reduce any file within the database to remove unused pages. Both data and transaction log files can be reduced, or shrunk.

To launch the shrinking operation *immediately* select  **Quick Maintenance Actions | Shrink Database** popup menu item in the [Servers tab](#).

To perform *scheduled shrinking* on regular basis you need to include this task into [Policy](#):

1. At [Step 2](#) of the [Create Policy wizard](#) click **Create new step** button and select **Shrink Database step** type.
2. Also, you can create a new Step Template for further use selecting **Shrink Database step** at the [Templates](#) tab.

#### Steps of the Shrink Database wizard:

[Naming step](#)

[Selecting database](#)

[Setting options](#)

[Performing operation](#)

---

#### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.1.9.1 Naming step

You can name the step using the **Name** field. The **Description** field can be used to define brief info for the created step.

Shrink Database wizard - 'Shrink Database 1' (Step 1 of 4)

Set step name and description

The **Shrink Database step** reduces the disk space used by the database and log files by removing empty data and log pages.

Name: Shrink Database 1

Description:

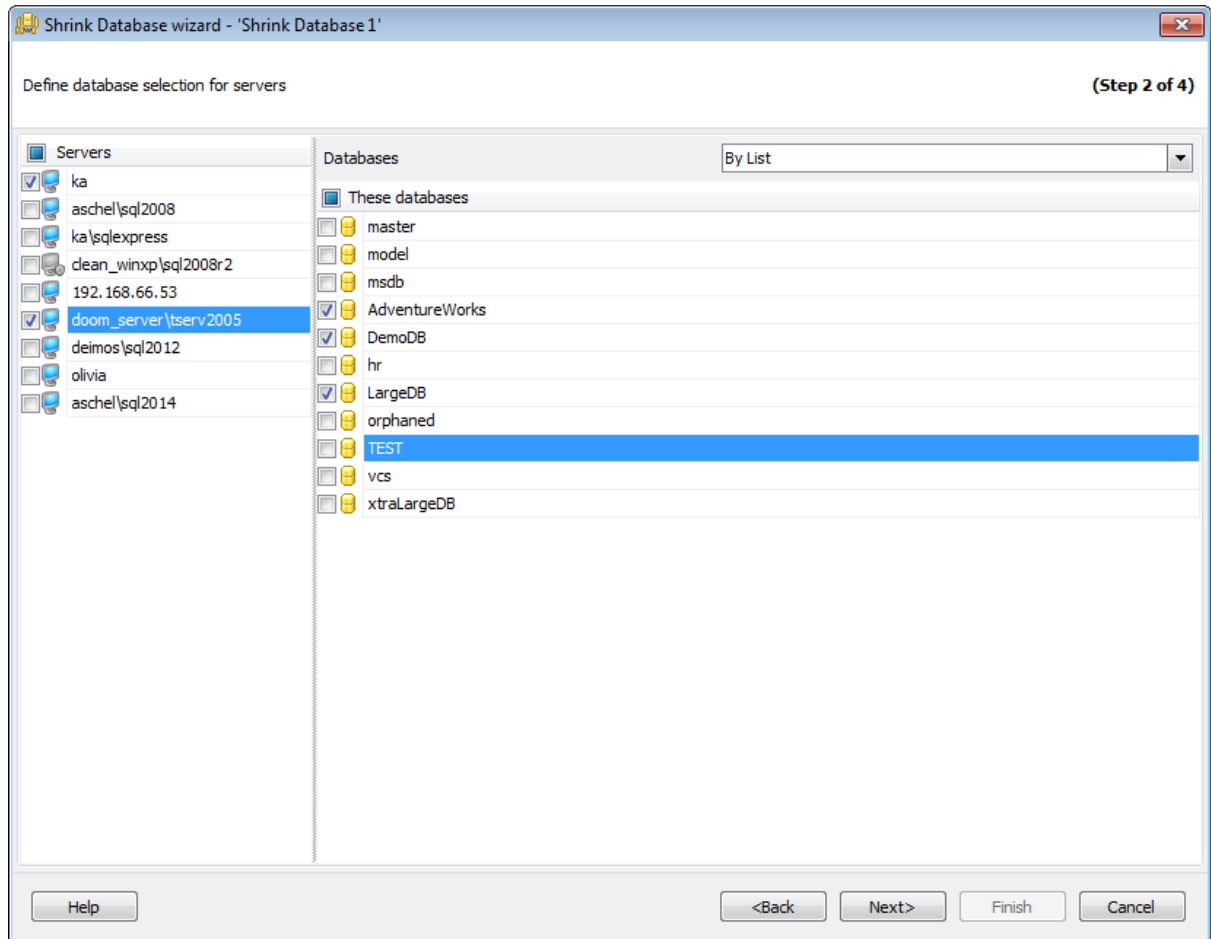
Buttons: Help, <Back, Next>, Finish, Cancel

This step does not appear for Quick Maintenance Actions.

[Next step >>](#)

### 7.1.9.2 Selecting database

Use this step of the wizard to select databases to shrink.



#### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode.

#### Databases

##### All

Use this option to select both: system and user databases.

##### All system

This option indicates that only system databases should be shrunk.

##### All user

Select this option to shrink user databases only.

##### By mask

This option allows defining database selection by mask. Use \* for a set of any characters and ? for any single character in the database name.

### Including

This option allows manual selecting of the databases.

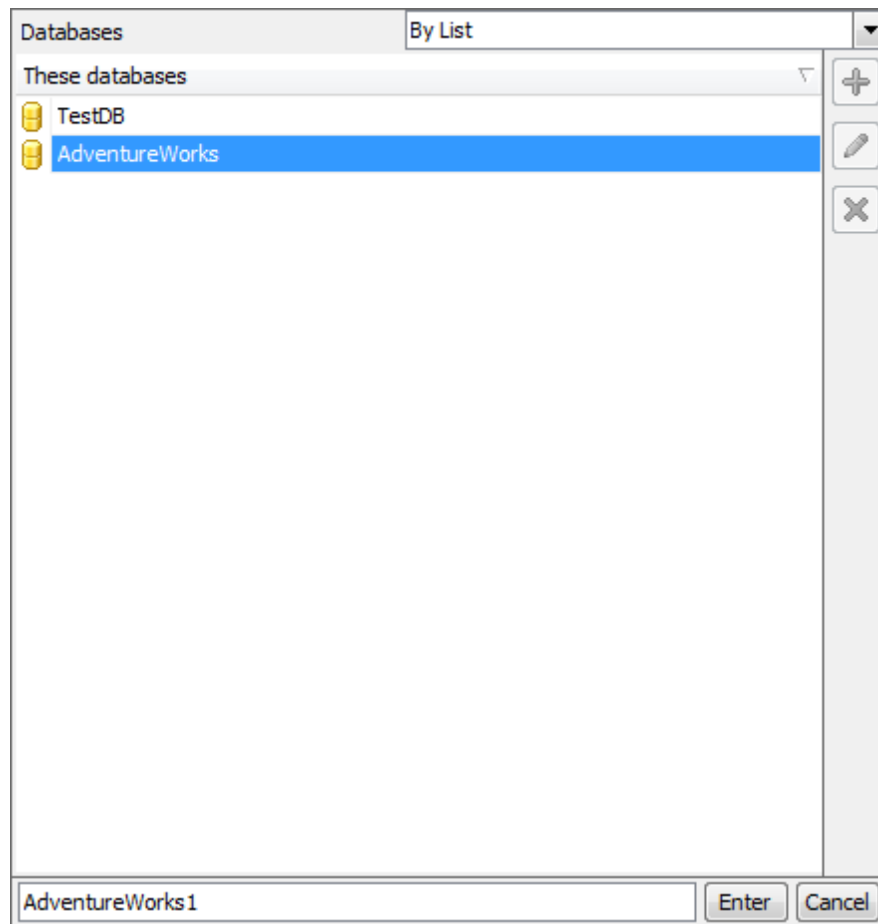
### Excluding


Select the databases which will be excluded from the backup. All databases, not selected in the list, will be included.



### Online only

Select only the databases in the online state.

If you are creating a step in a policy template then you are able to enter databases manually.



Use the  button or *Ins* key to define database name. After you click the *Enter* button the database will be added to the list.

Any database from the list can be  edited or  deleted.

[<< Previous step](#)

[Next step >>](#)

### 7.1.9.3 Setting options

At this step you can set shrinking options.

Shrink Database wizard - 'Shrink Database 1' (Step 3 of 4)

Set shrink database options

Shrink database when it exceeds 50 MB

Freed space

Amount of free space to remain after shrink 10 %

Retain freed space in database files

Return freed space to operating system

Suppress informational messages

Help <Back Next> Finish Cancel

#### Shrink database when it exceeds

Set database size limit. Database will be shrunk when its size goes over this limit.

#### Freed space

##### Amount of free space to remain after shrink

Use this field to define percentage of free space that will be left in database file after it is shrunk.

You need to decide whether freed space should be  **retained in database files** or  **returned to operating system**.

##### Suppress informational messages

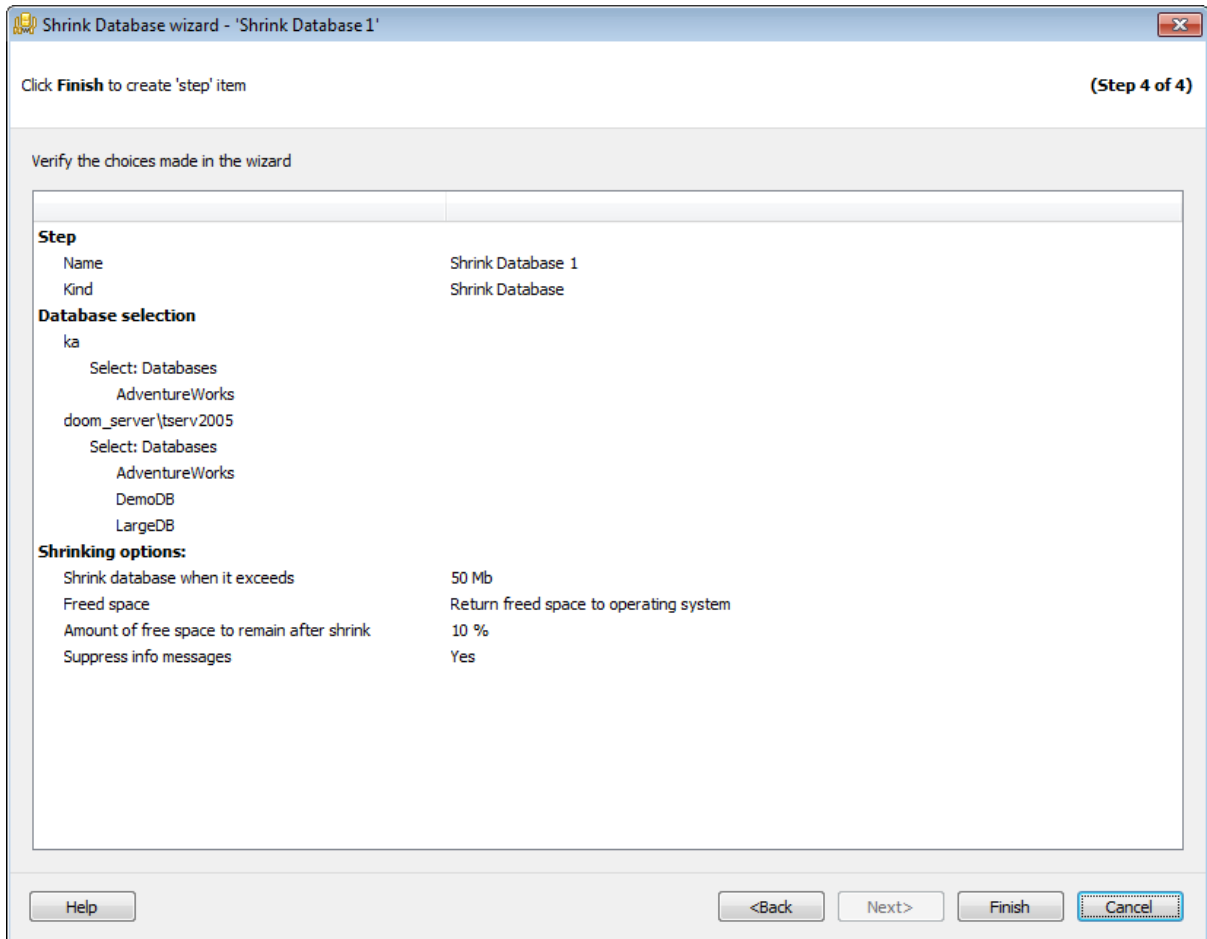
Enable the option to disable informational messages.

[<< Previous step](#)

[Next step >>](#)

#### 7.1.9.4 Performing operation

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





After verifying the choices made in the wizard click the **Finish** button to complete the operation.

[<< Previous step](#)

### 7.1.10 Update Statistics

**Update Statistics step** allows you to perform the update statistics operation in your database (the `UPDATE STATISTICS` statement is issued). This operation is used to updates the statistics for the specified tables and views.

To launch the updating operation *immediately* select  **Quick Maintenance Action |  Update Statistics step** popup menu item in the [Servers tab](#).

To perform *scheduled update of statistics* on regular basis you need to include this task into [Policy](#):

1. At [Step 2](#) of the [Create Policy wizard](#) click **Create new step** button and select **Update Statistics step** type.
2. Also, you can create a new Step Template for further use selecting **Update Statistics step** at the [Templates](#) tab.

#### Steps of the Update Statistics wizard:

[Naming step](#)

[Selecting objects](#)

[Setting options](#)

[Performing operation](#)

---

#### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

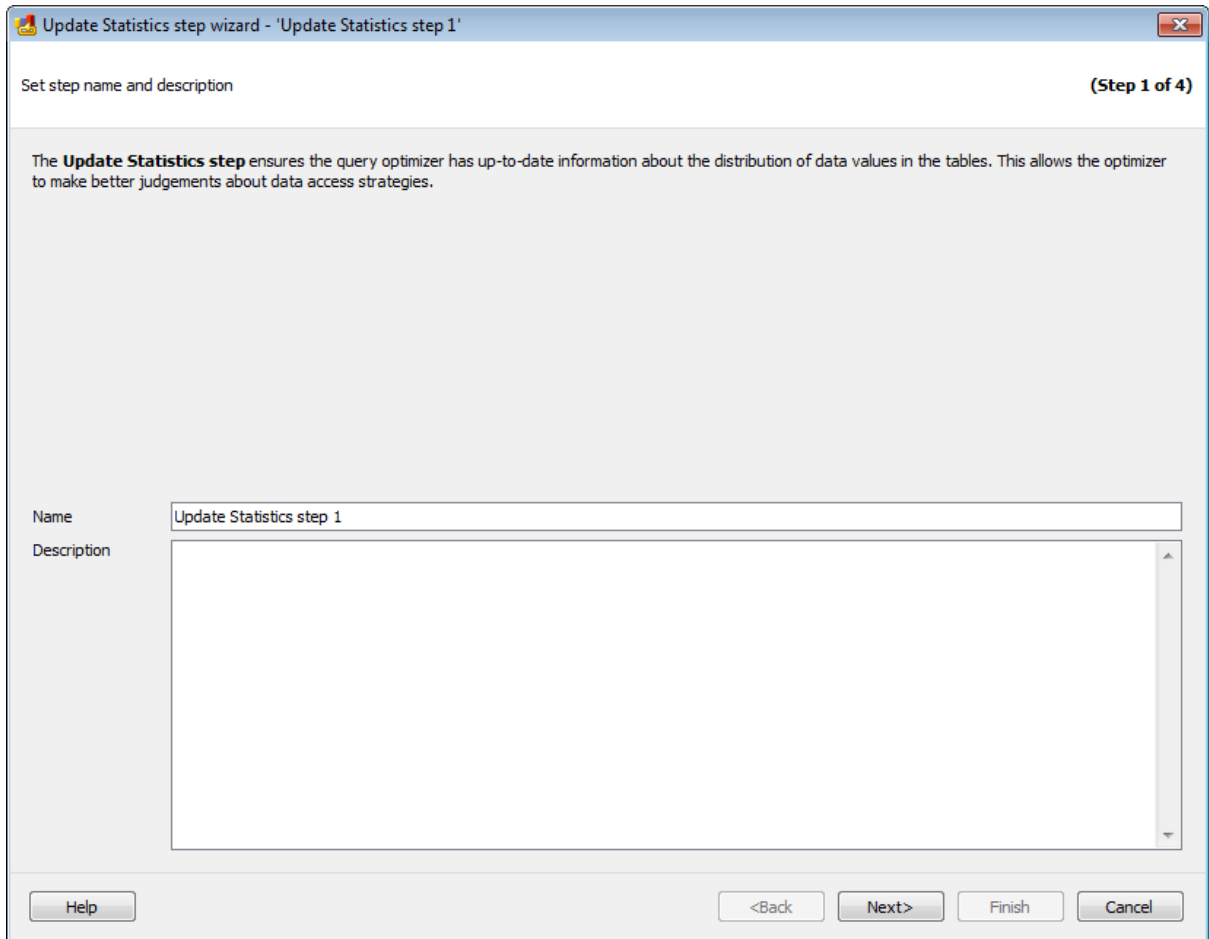
[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.1.10.1 Naming step

You can name the step using the **Name** field. The **Description** field can be used to define brief info for the created step.



Update Statistics step wizard - 'Update Statistics step 1'

Set step name and description (Step 1 of 4)

The **Update Statistics step** ensures the query optimizer has up-to-date information about the distribution of data values in the tables. This allows the optimizer to make better judgements about data access strategies.

Name: Update Statistics step 1

Description:

Buttons: Help, <Back, Next>, Finish, Cancel

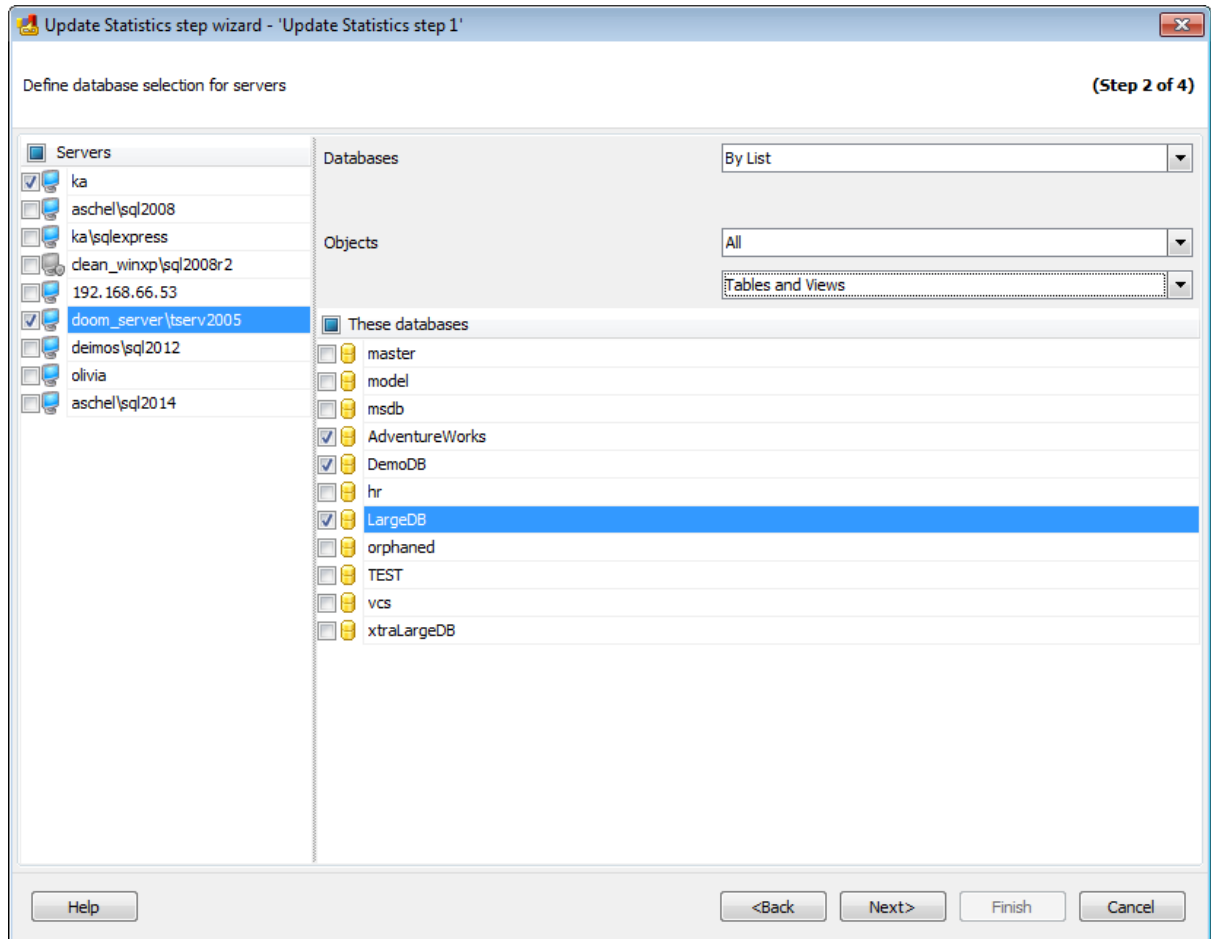
This step does not appear for Quick Maintenance Actions.

[Next step >>](#)



### 7.1.10.2 Selecting objects

Use this step of the wizard to select objects to update statistics.



#### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode.

#### Databases and objects

##### All

Use this option to select both: system and user objects.

##### All system

This option indicates that only system objects should be selected.

##### All user

Select this option to select user objects only.

##### By mask

This option allows defining objects selection by mask. Use \* for a set of any characters

and ? for any single character in the object name.

### Including

This option allows manual selecting of the databases.

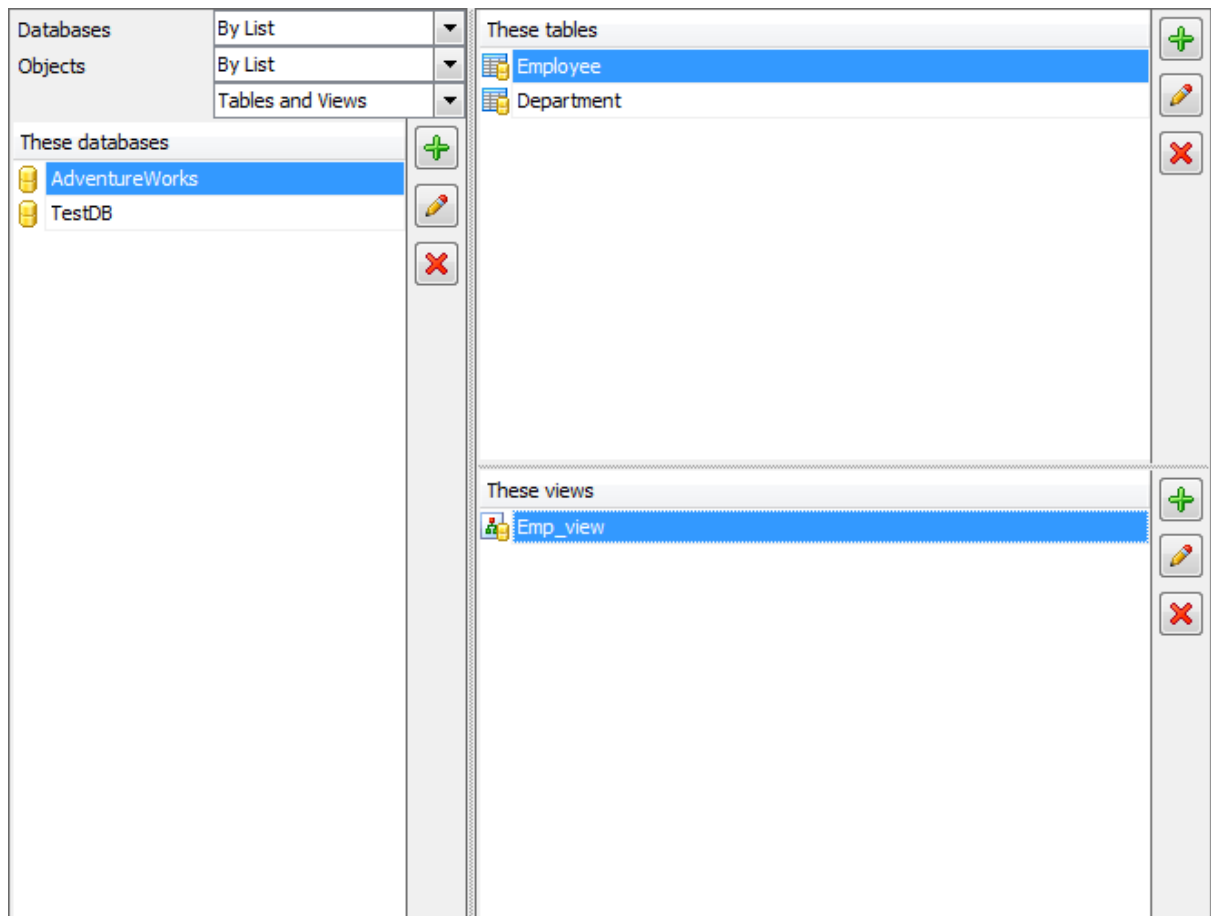
### Excluding


Select the databases which will be excluded from the backup. All databases, not selected in the list, will be included.



### Online only

Select only the databases in the online state.

If you are creating a step in a policy template then you are able to enter databases, tables and views manually.



Use the  button or *Ins* key to define database/table/view name. After you click the *Enter* button the database/table/view will be added to the list.

Any database/table/view from the list can be  edited or  deleted.

[<< Previous step](#)

[Next step >>](#)

### 7.1.10.3 Setting options

Use this step to define basic update statistics options.

Update Statistics step wizard - 'Update Statistics step 1'

Set task options (Step 3 of 4)

**Update**

- All existing statistics
- Column statistics only
- Index statistics only

**Options**

- Full scan
- Sample 10 Percent
- Resample
- No recompute

Help <Back Next> Finish Cancel

#### Update

**All existing statistics**

Select this option if you need to update all statistics.

**Column statistics only**

Use this option to update column statistics only.

**Index statistics only**

This option indicates that only index statistics will be updated.

#### Options

**Full scan**

Specifies that all rows in table or view should be read to gather the statistics. This option provides the same behavior as **Sample 100 Percent**.

**Sample**

Specifies the percentage of the table or indexed view, or the number of rows to sample when collecting statistics for larger tables or views.

**Resample**

Option specifies that statistics will be gathered using an inherited sampling ratio for all existing statistics including indexes. If the sampling ratio results in too few rows being sampled, SQL Server automatically corrects the sampling based on the number of existing rows in the table or view.

 **No recompute**

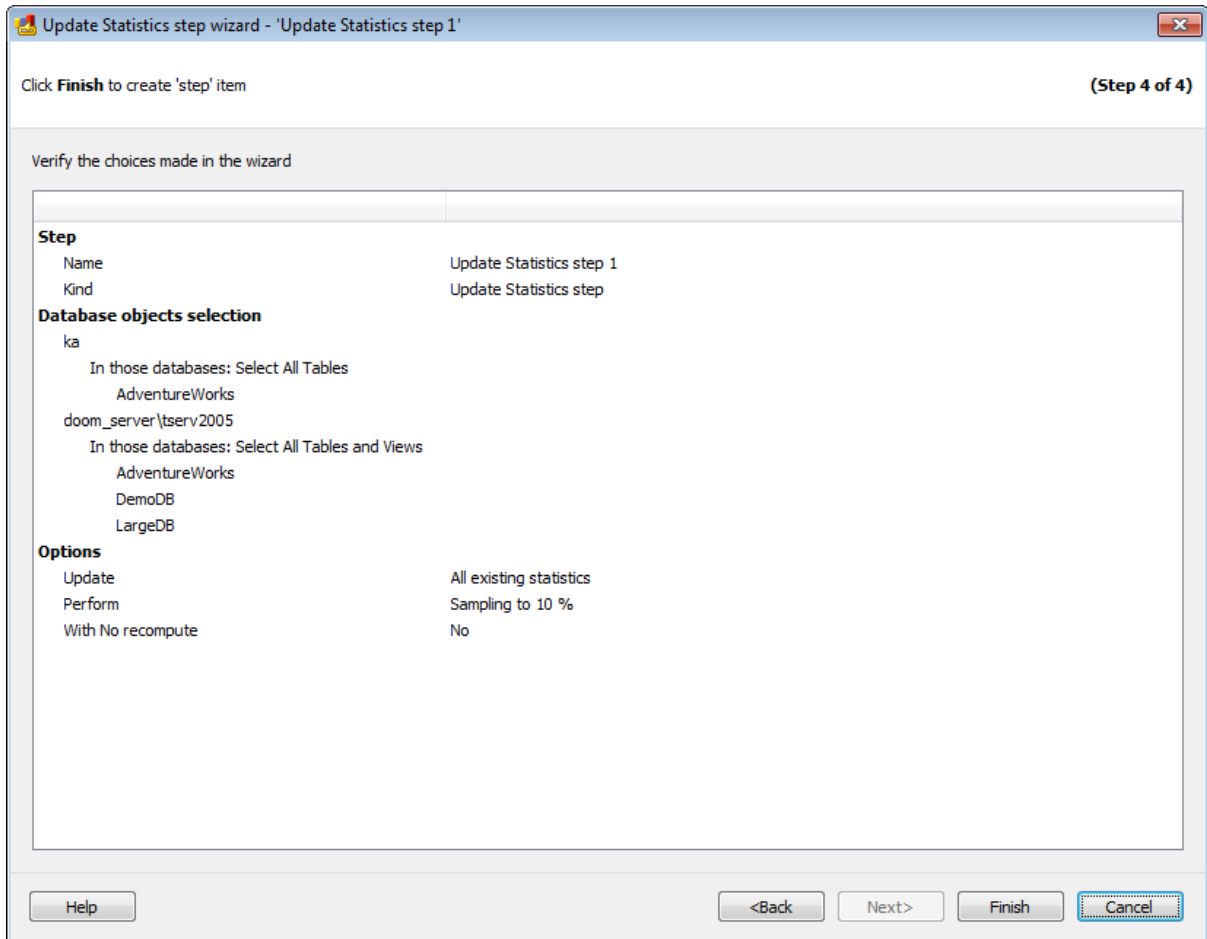
Disable the option to recompute statistics that become out of date automatically.

[<< Previous step](#)

[Next step >>](#)

#### 7.1.10.4 Performing operation

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





After verifying the choices made in the wizard click the **Finish** button to complete the operation.

[<< Previous step](#)

### 7.1.11 Database Parameters Logger

**Database Parameters Logger step** allows you to check database parameters (such as information about backups, index fragmentation, transaction logs, data files, integrity check operations and more) and log [warnings](#) if parameters do not satisfy given conditions for efficient database maintenance.

To launch the database parameters logger operation *immediately* select  **Quick Maintenance Actions** |  **Database Parameters Logger** popup menu item in the [Servers tab](#).

To perform *scheduled database parameters logging* on regular basis you need to include this task into [Policy](#):

1. At [Step 2](#) of the [Create Policy wizard](#) click **Create new step** button and select **Database Parameters Logger step** type.
2. Also, you can create a new Step Template for further use selecting **Database Parameters Logger step** at the [Templates](#) tab.

#### Steps of the Database Parameters Logger wizard:

[Naming step](#)

[Selecting database](#)

[Setting conditions](#)

[Performing operation](#)

---

#### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.1.11.1 Naming step

You can name the step using the **Name** field. The **Description** field can be used to define brief info for the created step.

Database Parameters Logger step wizard - 'Database Parameters Logger step 1' (Step 1 of 4)

Set step name and description

The **Database Parameters Logger step** allows you to keep track of major server parameters (last backup date, last integrity check, transaction log and data file free space, etc).

Name: Database Parameters Logger step 1

Description:

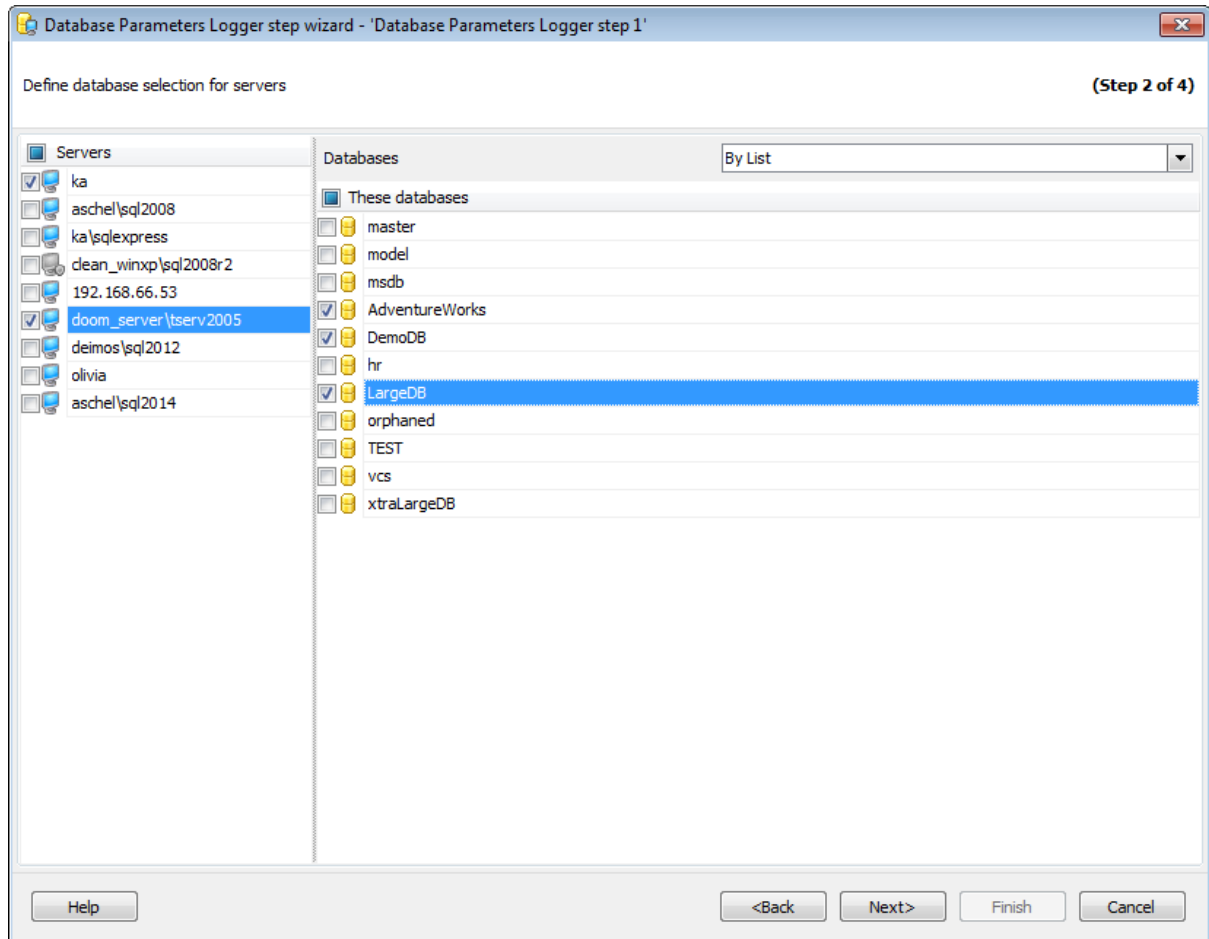
Buttons: Help, <Back, Next>, Finish, Cancel

This step does not appear for Quick Maintenance Actions.

[Next step >>](#)

### 7.1.11.2 Selecting database

Use this step of the wizard to select databases to update statistics.



#### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode.

#### Databases and objects

##### All

Use this option to select both: system and user objects.

##### All system

This option indicates that only system objects should be selected.

##### All user

Select this option to select user objects only.

##### By mask



This option allows defining objects selection by mask. Use \* for a set of any characters and ? for any single character in the object name.

### Including

This option allows manual selecting of the databases.

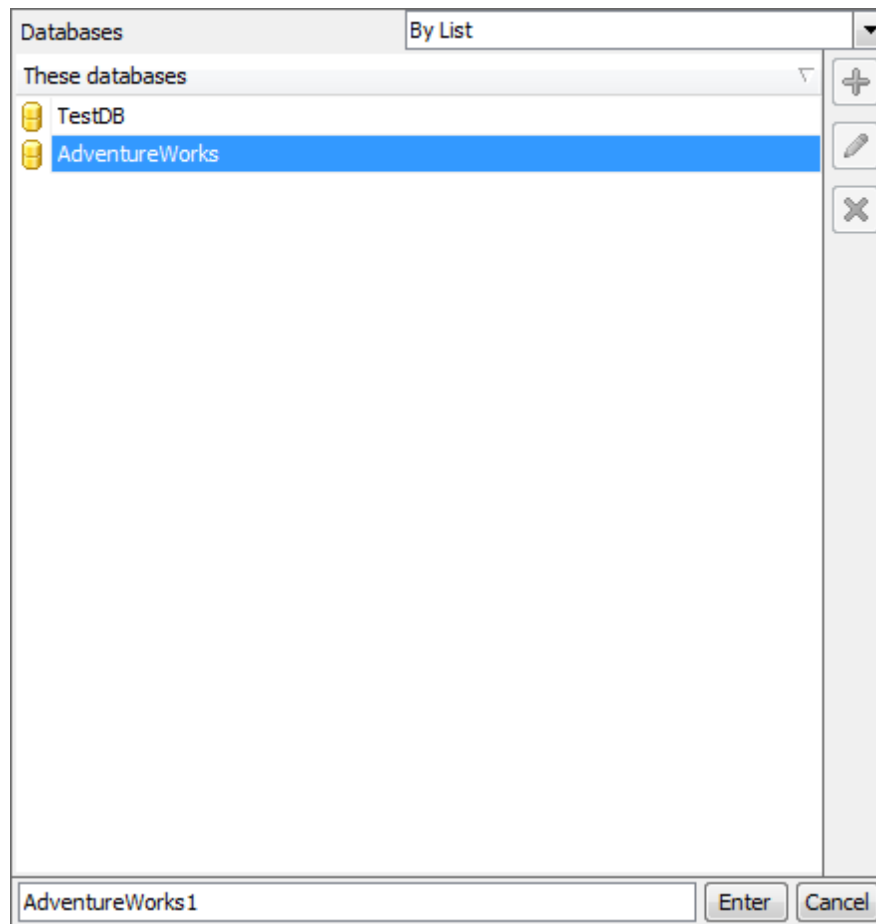
### Excluding


Select the databases which will be excluded from the backup. All databases, not selected in the list, will be included.



### Online only

Select only the databases in the online state.

If you are creating a step in a policy template then you are able to enter databases manually.



Use the  button or *Ins* key to define database name. After you click the *Enter* button the database will be added to the list.

Any database from the list can be  edited or  deleted.

[<< Previous step](#)

[Next step >>](#)

### 7.1.11.3 Setting conditions

This step allows you to define events to be logged.

Database Parameters Logger step wizard - 'Database Parameters Logger step 1'

Select required parameters and define options (Step 3 of 4)

Name

- No backup
- Last full backup
- Last log backup
- Index fragmentation
- Integrity check
- Transaction log
- Data file

Logging conditions

Free space is less than: 25 %

Log file is larger than: 100 MB

Help <Back Next> Finish Cancel

The options below allow you to define conditions which EMS SQL Backup should perform logging by.

**No backup**

Enable this option to log the list of databases with no backup.

**Last full backup**

The option should be used to log the list of databases with old full backups.

**Last full backup older than**

Defines the time point relatively to current date. The list of databases with full backup made before this point will be logged.

**Last log backup**

Use this option to log the list of databases with old log backups.

**Last log backup older than**

Define the time point relatively to current date. The list of databases with log backup made before this point will be logged.

**Index fragmentation**

Enable this option to log the list of databases with high fragmentation.

**Index fragmentation more than**

Define the level of index fragmentation. Databases list with index fragmentation level above specified will be added to log.

**Only check indices with more than**

This option indicates that only indices with page amount above specified will be checked.

 **Integrity check (SQL Server 2005 or higher)**

Enable this option to log the list of databases with out-of-date integrity check.

**Last integrity check older than**

Define the time point relatively to current date. The list of databases with integrity check made before this point will be added to log.

 **Transaction log**

Enable this option to log the list of databases with transaction log free space below the specified limit.

**Free space is less than**

This option defines transaction log free space limit. Log includes list of databases with amount of free space less than this limit.

**Log file is larger than**

This option adds log file size condition. List of databases which transaction log file is larger than the specified limit will be included to log.

 **Data file**

This option indicates that log should include databases with data file free space below the specified limit.

**Free space is less than**

Use this option to define the data file free space limit.

**Data file is larger than**

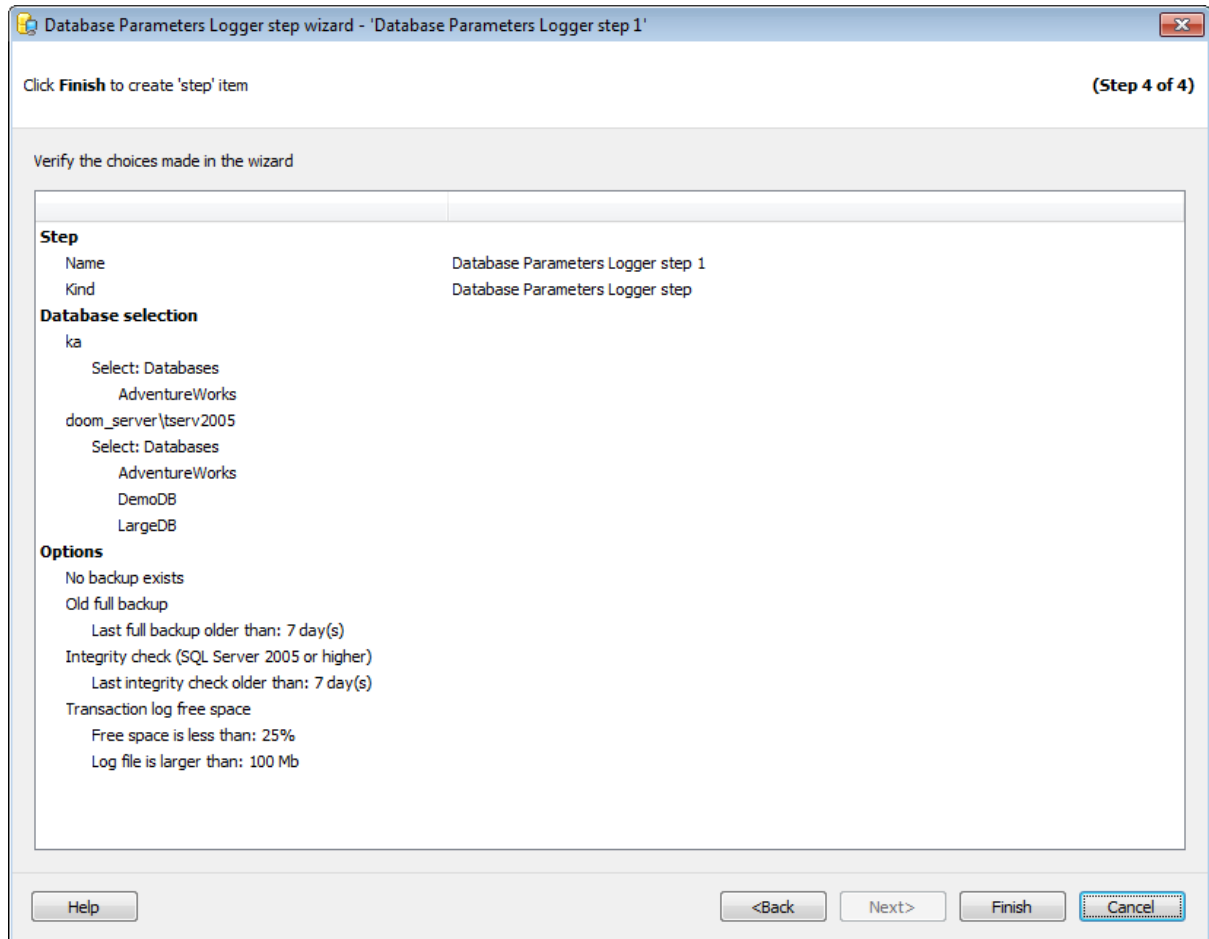
Use this option to define data file size condition. Databases which data file is above this limit will be added to log.

[<< Previous step](#)

[Next step >>](#)

#### 7.1.11.4 Performing operation

This step of the wizard is intended to inform you that all necessary options have been set, and you can start logging database parameters.




After verifying the choices made in the wizard click the **Finish** button to complete the operation.

[<< Previous step](#)

## 7.1.12 Maintenance Cleanup

**Maintenance Cleanup step** allows you to cleanup EMS SQL Backup and SQL Server backups and Maintenance plan reports, created by MS SQL Server, stored locally on the server or on a remote cloud storage. Cleaning MS SQL Server backups is not available for MS SQL Server 2000.

To launch the updating operation *immediately* select  **Quick Maintenance Actions | Maintenance Cleanup** popup menu item in the [Servers tab](#).

To perform *scheduled maintenance cleanup* on regular basis you need to include this task into [Policy](#):

1. At [Step 2](#) of the [Create Policy wizard](#) click **Create new step** button and select **Maintenance Cleanup step** type.
2. Also, you can create a new Step Template for further use selecting **Maintenance Cleanup step** at the [Templates](#) tab.

### Steps of the Maintenance Cleanup wizard:

[Naming step](#)

[Selecting files/folders for cleanup](#)

[Defining cleanup criteria](#)

[Performing operation](#)

---

### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.1.12.1 Naming step

You can name the step using the **Name** field. The **Description** field can be used to define brief info for the created step.

Maintenance Cleanup step wizard - 'Maintenance Cleanup step 1' (Step 1 of 4)

Set step name and description

The **Maintenance Cleanup step** allows you to remove a backup or report file or a group of files in a folder that remain in the system after Maintenance plan execution. The Step includes an option to remove old files by task schedule, or remove files that have reached a specified age (days, weeks, months, or years).

Name: Maintenance Cleanup step 1

Description:

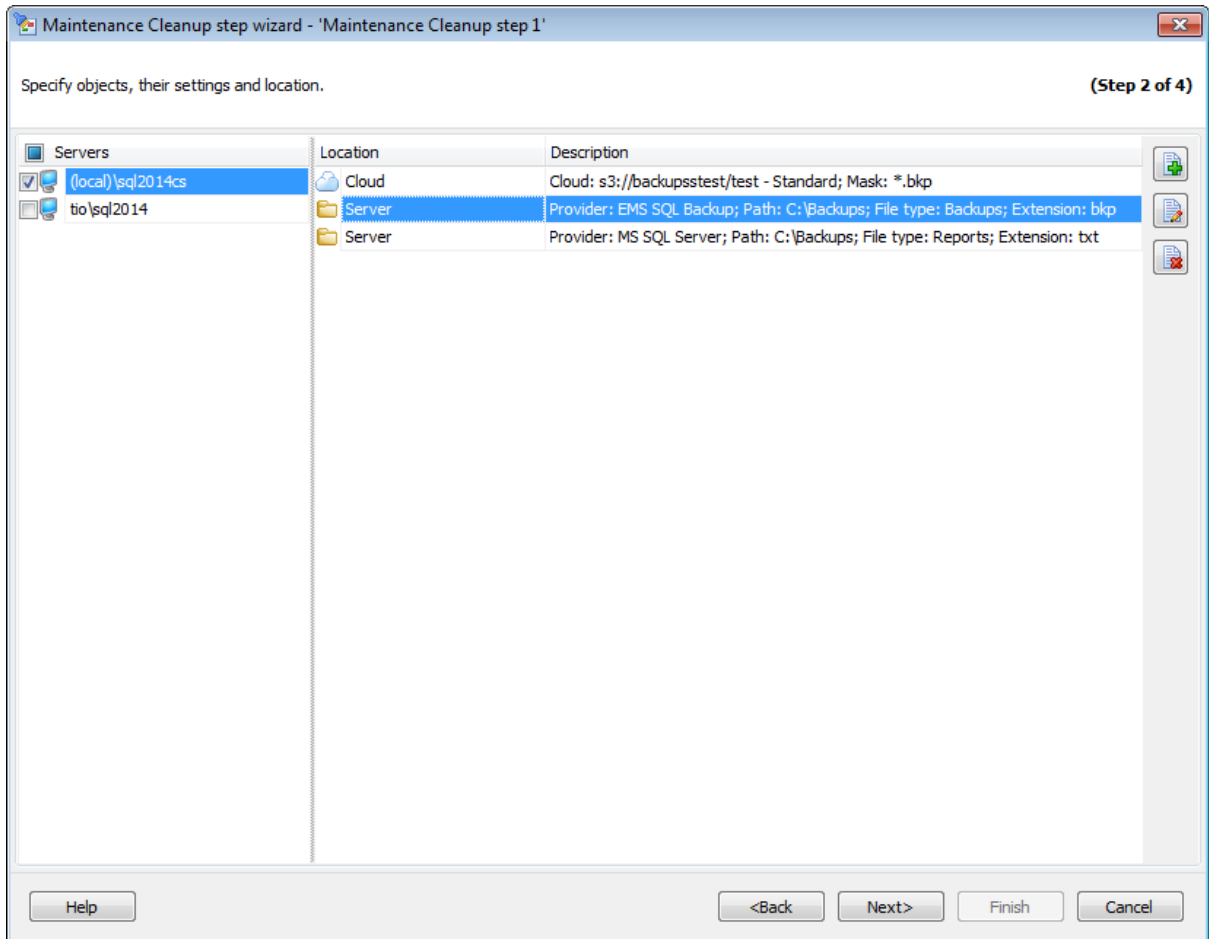
Buttons: Help, <Back, Next>, Finish, Cancel

This step does not appear for Quick Maintenance Actions.

[Next step >>](#)

### 7.1.12.2 Selecting files/folders for cleanup




At this step you need to define server(s) and locations for cleanup.



#### Servers

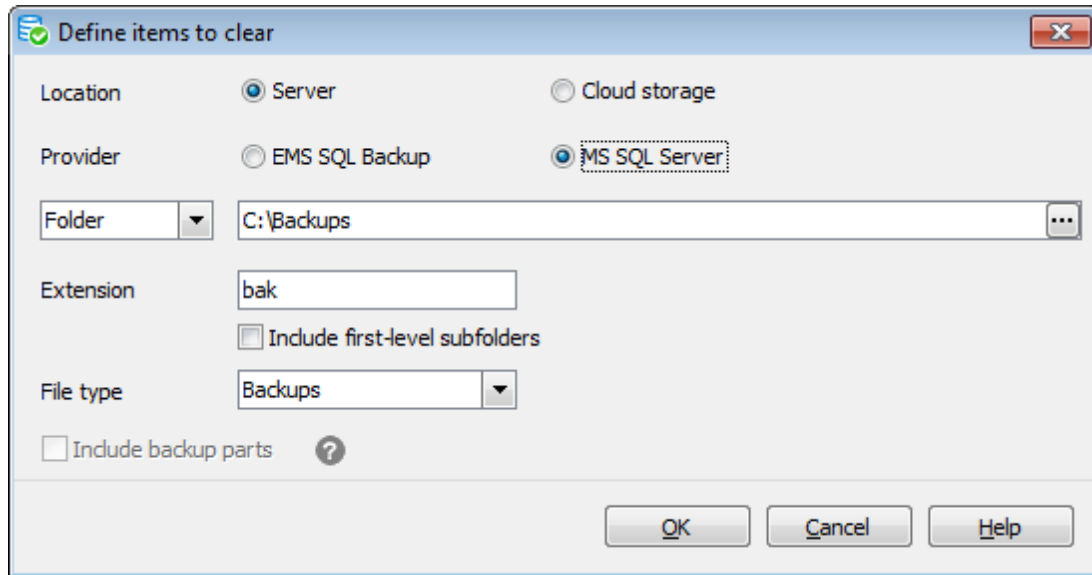
Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode.

Use  **Add file or folder specification** to add a cleanup destination and  **Edit specification**,  **Remove selected** specification for appropriate actions.

#### Cleanup specification

In this dialog you can define locations or files to be cleared on the server or cloud storage.



### Location

Select *Server* if you want to clear folders/files stored on your server locally. Select *Cloud storage* if you want to delete files located on the [cloud](#).

### Server

#### Provider

Select whether the files created by *EMS SQL Backup* or *SQL Server* will be cleaned.

### Folder

Set the search folder for the files. The path is set relatively to the server which you selected in the Server list.

If the *MS SQL Server* has been selected as a **Backup provider** then you can define the path and name of the specific backup **File** to be deleted.

### Extension

Specify the custom extension for backup or report files if it differs from the default.

Enable  **Include subfolders** /  **Include first-level subfolders** option if you need to clean up all sub-folders of the specified folder.

### File type

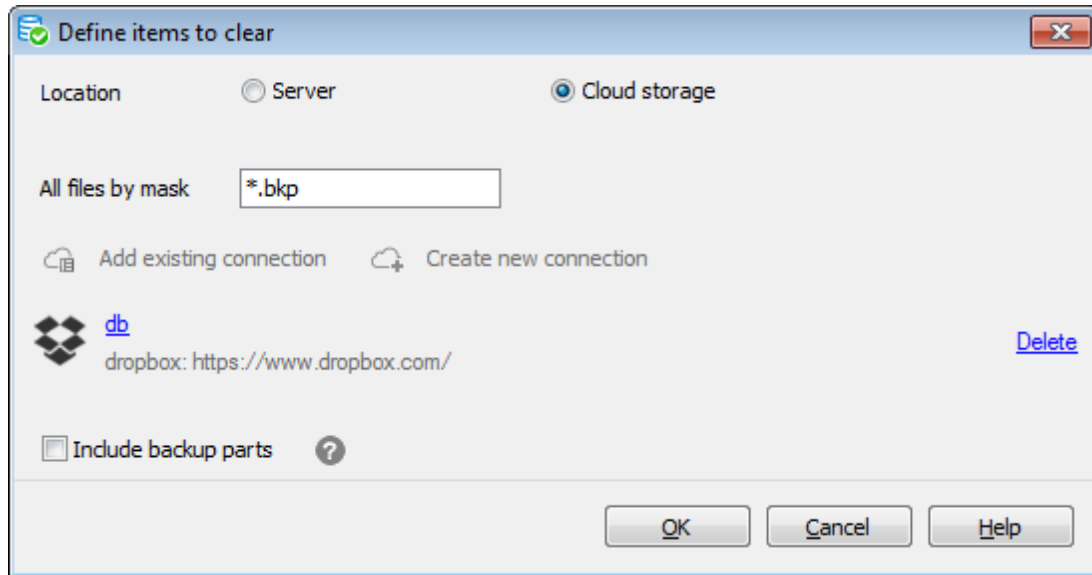
Use this drop-down list to specify the the type of files to be deleted:

- *Backups* - backup files;
- *Reports* - text reports of previously run maintenance plans.

**Note:** This drop-down list is available if the *MS SQL Server* has been selected as a **Provider**.

### Cloud storage





Here you need to specify the cloud storage where you want to delete backup files. You can create a new connection or add an existing one. On adding an existing connection you will be offered to choose among connections specified in [Cloud Connections](#) tab of the Options dialog.

If you create a new connection then after specifying its properties you will be offered to save it, so this connection will be available in [Cloud Connections](#).

To change connection parameters click on its name. Depending on connection type the relevant dialog for configuring connection settings will be opened.

### All files by mask

In this field you can specify the mask for the file names to be deleted.

### Include backup parts

If this option is ON the program searches for linked parts for the backups matching the specified extension or mask. The found files will be deleted.

**Note:** This option is only available for *EMS SQL Backup* provider type. It's not applied for clouds if \*.\* mask is set.

[<< Previous step](#)

[Next step >>](#)

### 7.1.12.3 Defining cleanup criteria

This step allows you to define cleanup criteria.

Maintenance Cleanup step wizard - 'Maintenance Cleanup step 1' (Step 3 of 4)

Define criteria for cleanup

SQL Backup and Clouds criteria

All files older than 7 Days

All files except for the latest 7

SQL Server criteria

Apply file age criteria on maintenance cleanup

Delete files older than 1 Month(s)

Help <Back Next> Finish Cancel

#### SQL Backup and Clouds criteria

Set the conditions for EMS SQL Backup backup files and files on clouds to be deleted. Use *All files older than* for time limiting or *All files except for the latest* criteria to specify the number of the latest backups to keep.

#### SQL Server criteria

**Apply file age criteria on maintenance cleanup**

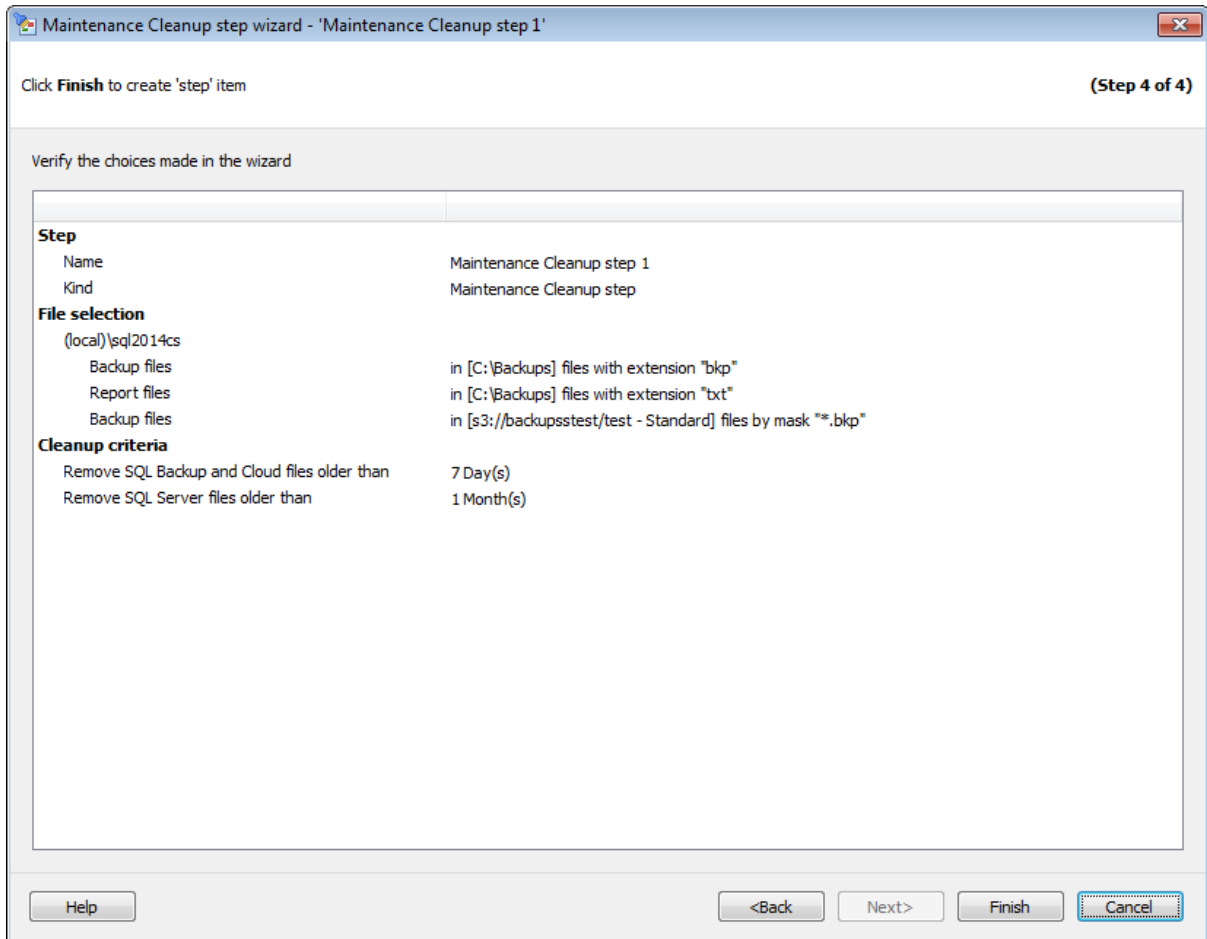
Use this option to delete files above the age specified below.

[<< Previous step](#)

[Next step >>](#)

#### 7.1.12.4 Performing operation

This step of the wizard is intended to inform you that all necessary options have been set, and you can perform maintenance cleanup.



After verifying the choices made in the wizard click the **Finish** button to complete the operation.

[<< Previous step](#)

### 7.1.13 Transaction Log Shipping

**Transaction Log Shipping step** allows you to create transaction log backups, ship them to the destination server via a shared folder and restore on the destination server.

To perform log shipping step you must have at least two SQL Server instances; version of destination server cannot be earlier than the source server version; the source database must use the full or bulk-logged recovery model, both servers have access to the shared folder. The databases restored on the destination server stay in Restoring or Standby mode.

**Note:** This step is not included into  **Quick Maintenance Action** list. It can be only executed within the [Policy](#).

To perform *scheduled log shipping* on a regular basis you need to include this task into [Policy](#):

1. At [Step 2](#) of the [Create Policy wizard](#) click **Create new step** button and select **Transaction Log Shipping step** type.
2. Also, you can create a new Step Template for further use selecting **Transaction Log Shipping step** at the [Templates](#) tab.

#### Steps of the Transaction Log Shipping wizard:

[Naming step](#)

[Specify database pairs](#)

[Specify backup options](#)

[Specify folders and recovery options](#)

[Performing operation](#)

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#### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

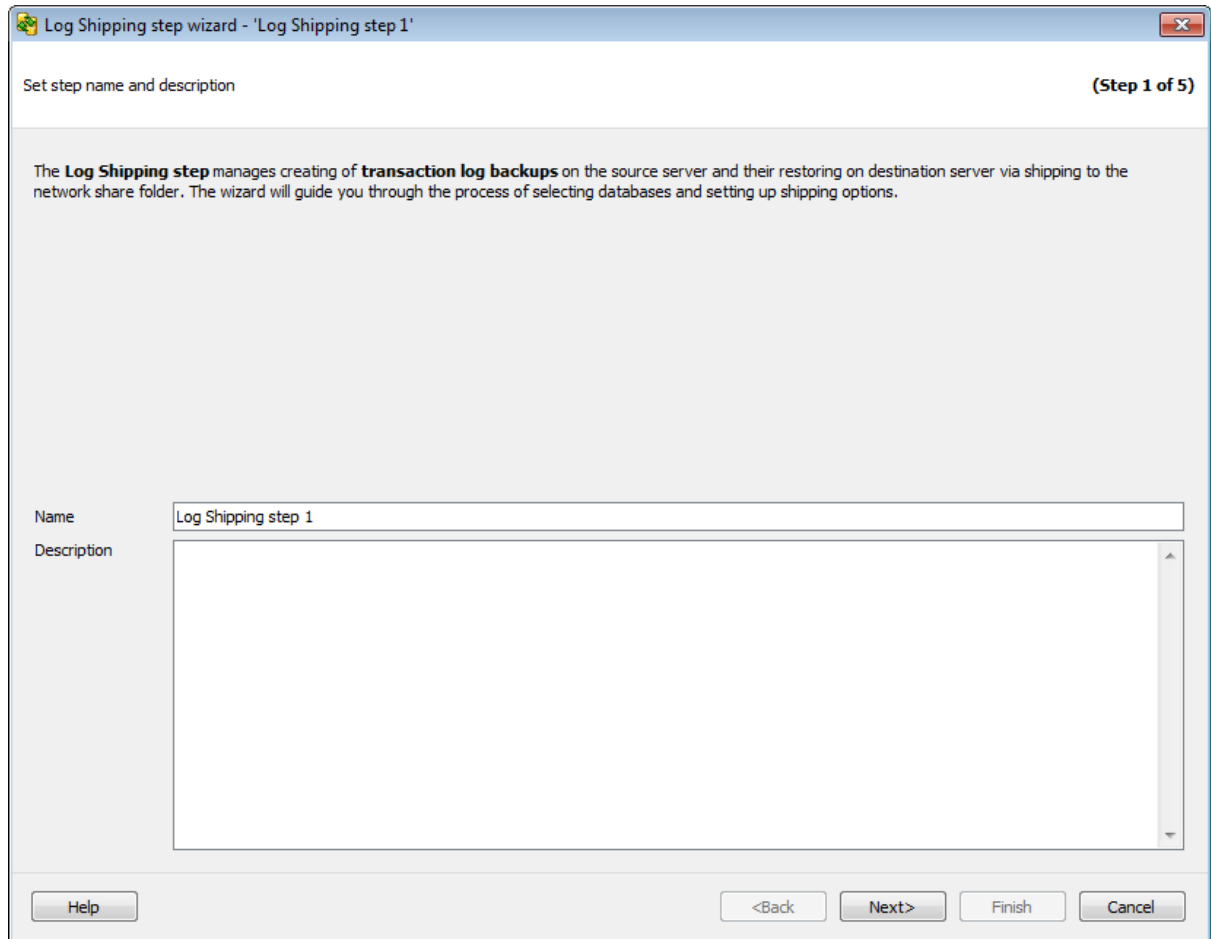
[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.1.13.1 Naming step

You can name the step using the **Name** field. The **Description** field can be used to define brief info for the created step.

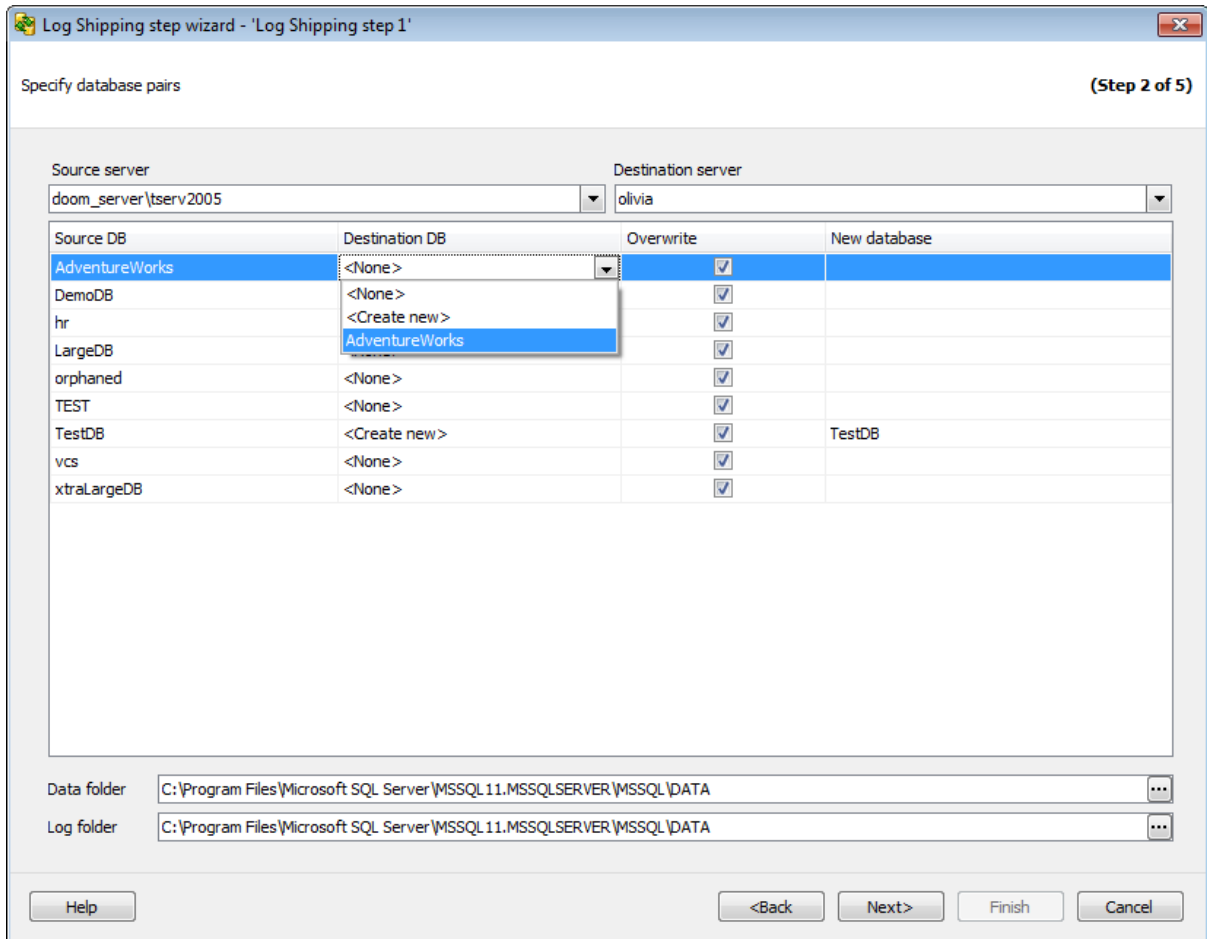


The screenshot shows a dialog box titled "Log Shipping step wizard - 'Log Shipping step 1'". The dialog is titled "Set step name and description" and is labeled "(Step 1 of 5)". The main text reads: "The **Log Shipping step** manages creating of **transaction log backups** on the source server and their restoring on destination server via shipping to the network share folder. The wizard will guide you through the process of selecting databases and setting up shipping options." Below this text, there are two input fields: "Name" with the value "Log Shipping step 1" and "Description" with an empty text area. At the bottom, there are four buttons: "Help", "<Back", "Next>", "Finish", and "Cancel".

[Next step >>](#)

### 7.1.13.2 Specifying database pairs

At this step you need to set database pair for transaction log shipping.



#### Source server

Select the server where the database that you want to back up to another server is located.

#### Destination server

Select the server where transaction logs are shipped to from the drop-down list.

Set the database pairs in the grid. The backups of transaction logs are performed on the source server and restored on the destination server. The destination database must be the restored copy of the source database and be in Restoring state.

If the destination database does not exist, you can select *<Create new>* item in the **Destination DB** column and specify its name in the **New database** column. If the destination database needs rewriting, set the corresponding flag in the **Overwrite** column. Creating and overwriting of the databases is performed by creating a full backup of the source database and its further restoring. Even in case of scheduled execution, creating of a database is executed once immediately on wizard finish and the *<Create new>* item will be replaced with the created database name afterwards.

**Data folder**

Specify the path for data MDF files for the newly created database.

**Log folder**

Specify the path for data LDF files for the newly created database.

**Note:** When creating a template no databases can be selected at this step. Please proceed to the next steps to set default template options. Databases can be selected on applying the template to the policy.

[<< Previous step](#)

[Next step >>](#)

### 7.1.13.3 Specifying backup options

At this step you can define backup options for source database(s).

#### Backup folder

Specify the directory for backup. It is set relatively the source server. You can check availability of this folder by clicking the corresponding button.

#### Max Thread Count

Indicates the number of threads to be used for backup operation. Increase the number of threads for faster speed. If you are using a multi-processor system, increasing this value can fasten backup speed. You are recommended to set one thread fewer than the number of processors.

#### Compression

Enable the option to compress backup.

#### Compression Level

Defines backup file compression level. Use '1' for the best speed and '4' for the best compression.

#### Encryption



Enable the option to encrypt backup.

**Encryption Password**

Set password that is used for backup encryption.

**Confirm password**

Confirm the password specified as an encryption password above.

**Encryption Type**

Select the encryption algorithm.

 **Keep backups on the source server**

Enable this option if you want to store transaction log backup files on the source server in the folder which is specified in the **Backup folder** field.

[<< Previous step](#)

[Next step >>](#)

#### 7.1.13.4 Specifying folders and recovery options

At this step you need to set shared and destination folder, and recovery options for the transaction log restore.

##### Network shared folder

Specify the backup shared folder for copying transaction log backups of the source database. Both source and destination servers should have access to this folder otherwise log shipping cannot be performed. Specify the authorization parameters for the shared folder in the **Authorization** section. Click the **Check** button to make sure that the folder is accessible by both servers.

##### Destination folder

Specify the destination server folder where backups will be shipped to. This folder is set relatively to the destination server.

##### Recovery options

This group of options allows you to specify the recovery options to be applied to the restore operation. The destination database may be in either the recovering or standby state, which leaves the database available for limited read-only access.

- No recovery (leaves the database in the restoring state)**

This option specifies that the restore operation does not roll back any uncommitted transactions.

**NB:** When this option is selected, the database is not usable in this intermediate, non-recovered state.

When used with a file or filegroup restore operation, this option forces the database to remain in the restoring state after the restore operation. This is useful in either of the following situations:

- a restore script is being run and the log is always being applied;
- a sequence of file restores is used and the database is not intended to be usable between two of the restore operations.

**Standby (leaves database in read-only and standby mode)**

This option allows the database to be brought up for read-only access between transaction log restores and can be used with either warm standby server situations or special recovery situations in which it is useful to inspect the database between log restores.

**Undo file name**

Specify the undo file name, so that the recovery effects can be undone. The same undo file can be used for consecutive restores of the same database.

**NB:** If free disk space is exhausted on the drive containing the specified undo file name, the restore operation stops.

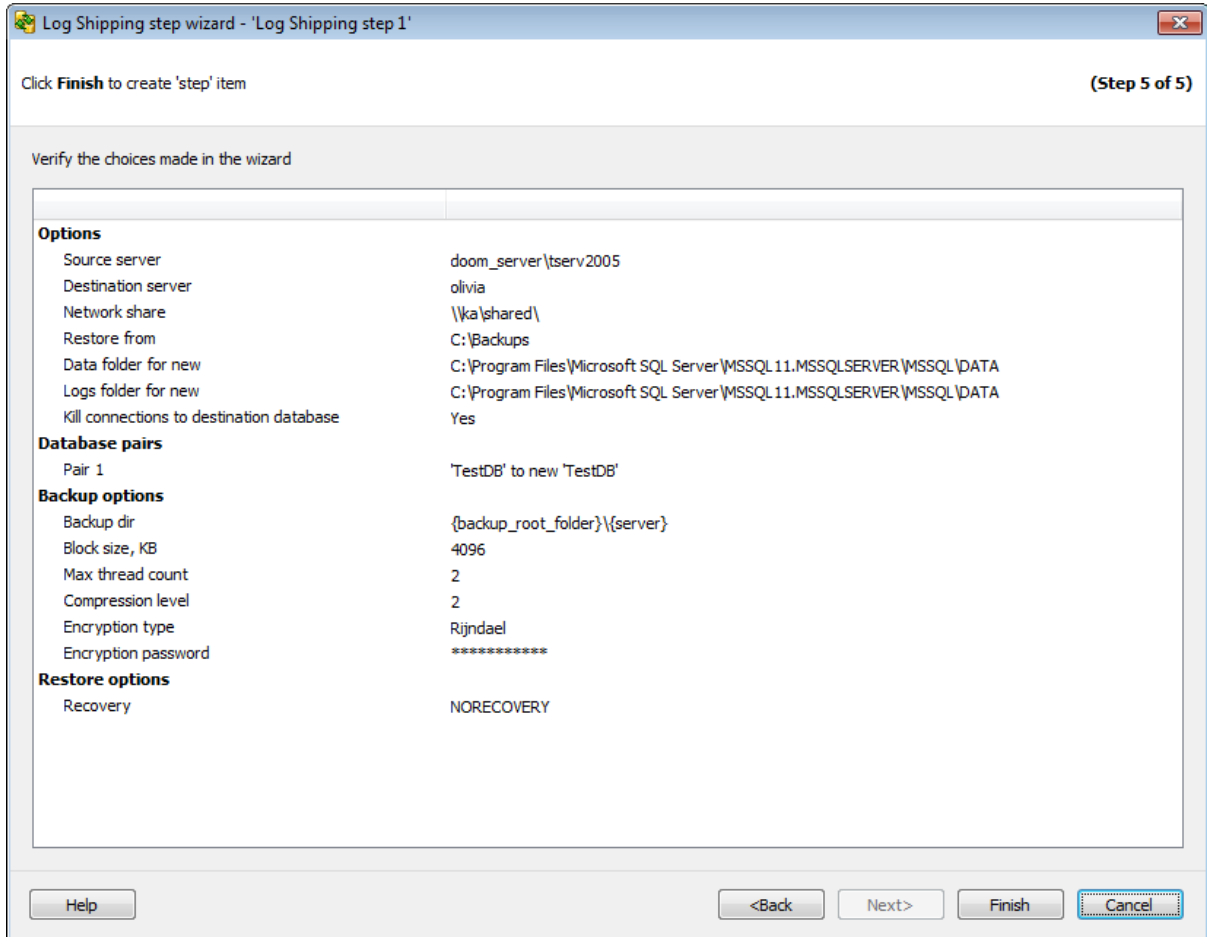
Set  **Kill connections to destination database** option ON for forced disconnection of all processes the database. We recommend to check it, if Overwrite option has been set at [Step 2](#).

[<< Previous step](#)

[Next step >>](#)

### 7.1.13.5 Performing operation

This step of the wizard is intended to inform you that all necessary options have been set, and you can perform transaction log shipping.



After verifying the choices made in the wizard click the **Finish** button to complete the operation.



If the *New database* or *Overwrite* option has been selected as a Destination database at [Step 2](#) performing of the operation consists of 2 steps:

1. Transferring of the full backup. It is executed once on wizard finish.
2. Transferring of transaction log.

[<< Previous step](#)

### 7.1.14 Bulk Restore

**Bulk Restore step** allows you to restore several databases at once specifying only the folder to search for backup files.

To launch the restore operation *immediately* select  **Quick Maintenance Actions** |  **Bulk Restore** popup menu item in the [Servers tab](#).

To perform *scheduled bulk restore* on regular basis you need to include this task into [Policy](#):

1. At [Step 2](#) of the [Create Policy wizard](#) click **Create new step** button and select **Bulk Restore step** type.
2. Also, you can create a new Step Template for further use selecting **Bulk Restore step** at the [Templates](#) tab.

#### Steps of the Bulk Restore:

[Naming step](#)

[Selecting servers](#)

[Restore options](#)

[Performing operation](#)

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#### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Database Shipping](#)

### 7.1.14.1 Naming step

You can name the step using the **Name** field. The **Description** field can be used to define brief info for the created step.

Bulk restore step wizard - 'Bulk restore step 2' ×

Set step name and description (Step 1 of 4)

Welcome to the **Bulk Restore** step.  
This wizard allows restoring several databases in one step

Name

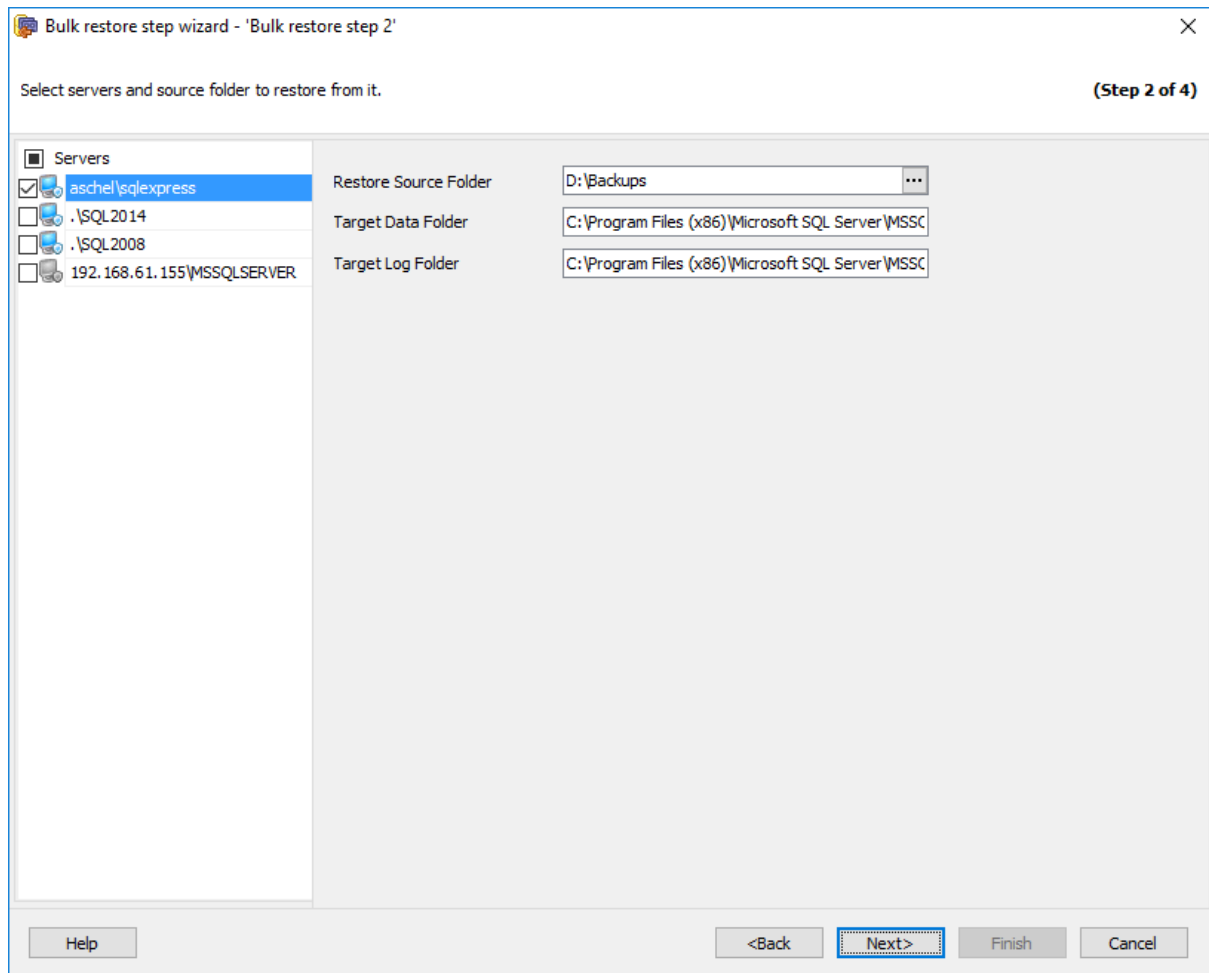
Description

Help <Back Next> Finish Cancel

[Next step >>](#)

### 7.1.14.2 Selecting servers

Use this step of the wizard to select servers and specify folders for restoring.



#### Restore Source Folder

Specify the folder to search files in. The program scans all files and fetches all database names from the backups. The latest backup is chosen for each database found. If the latest file is a differential or transaction log backup EMS SQL Backup searches for all the previous backups required for successful restoring and applies all files automatically.

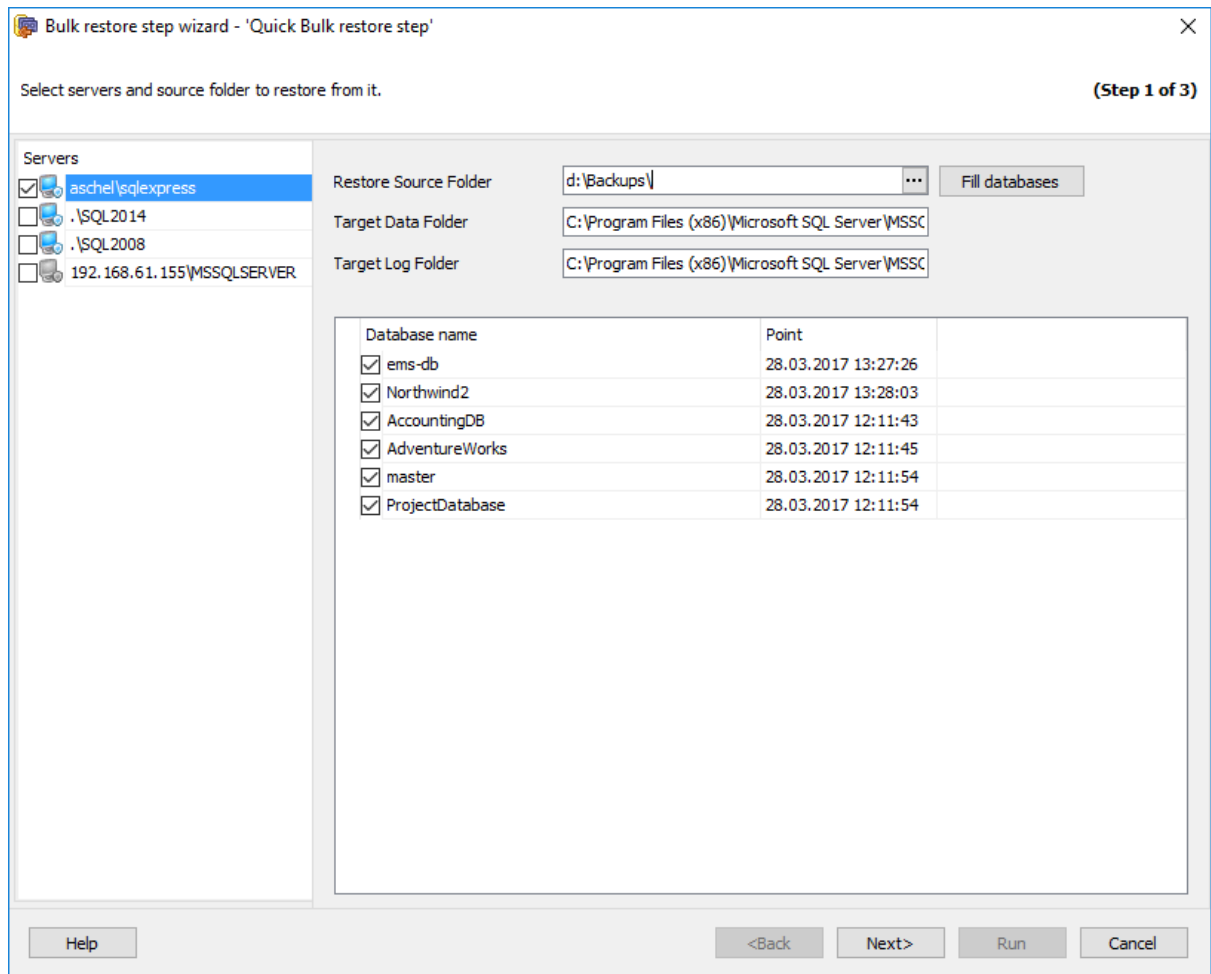
#### Target Data Folder

Specify the folder which database data files will be moved to.

#### Target Log Folder

Specify the folder which database transaction log files will be moved to.

If the operation is used without policy (Quick Maintenance Action) this step looks as follows.



Click the **Fill databases** button to fill the list of found databases. After scanning the specified folder the database names and backup points are displayed in the corresponding columns. Use the check boxes to select databases for restoring.

[<< Previous step](#)

[Next step >>](#)



### 7.1.14.3 Restore options

Use this step to set options which will be applied to all restoring databases which are found at the [previous step](#).

Bulk restore step wizard - 'Bulk restore step 2'

Specify the options for restore (Step 3 of 4)

Verify only

WITH REPLACE (will be applied for all databases in the list)

Help <Back Next> Finish Cancel

**Verify only**

Check this option to enable selected backup set verification. It checks that the backup is intact physically to ensure that all files in the backup are readable and can be restored.

**WITH REPLACE (will be applied for all databases in the list)**

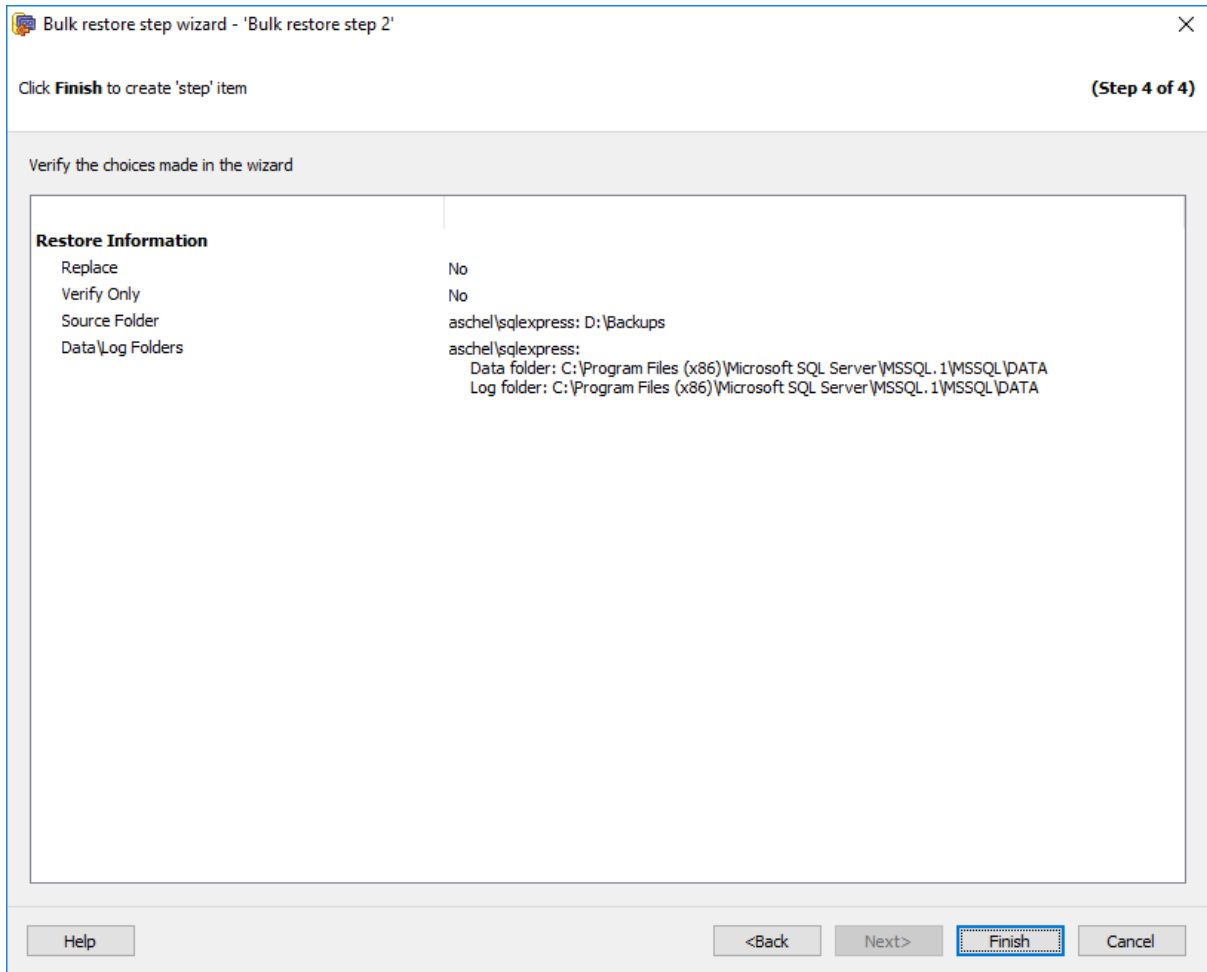
This option specifies that SQL Server databases will be overwritten if they already exist.

[<< Previous step](#)

[Next step >>](#)

#### 7.1.14.4 Performing operation

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




After verifying the choices made in the wizard click the **Finish** button to complete the operation.

[<< Previous step](#)

## 7.2 Editing Steps

This chapter describes the way steps can be viewed/edited.

After the step has been already created it can be opened and edited in the editor at Policies tab (if it's already a part of a policy) or Templates tab (if it's been created as a [template](#)). To open a step editor use double-clicking, popup menu or the  **Edit** button.

Topics listed below provide sufficient information about step editing:

[Backup database](#)

[Database Shipping](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Bulk Restore](#)

---

**See also:**

[Creating Steps](#)

## 7.2.1 Backup database

**Backup Database** step editor provides the same set of options as [Backup Database wizard](#).

The following pages are available in this dialog:

[Name and description](#)

[General](#)

[Selection](#)

[EMS SQL Backup settings](#)

[Backup file options](#)

[Backup options](#)

Additional options

[Verify options](#)

[Clouds](#)

---

### See also:

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

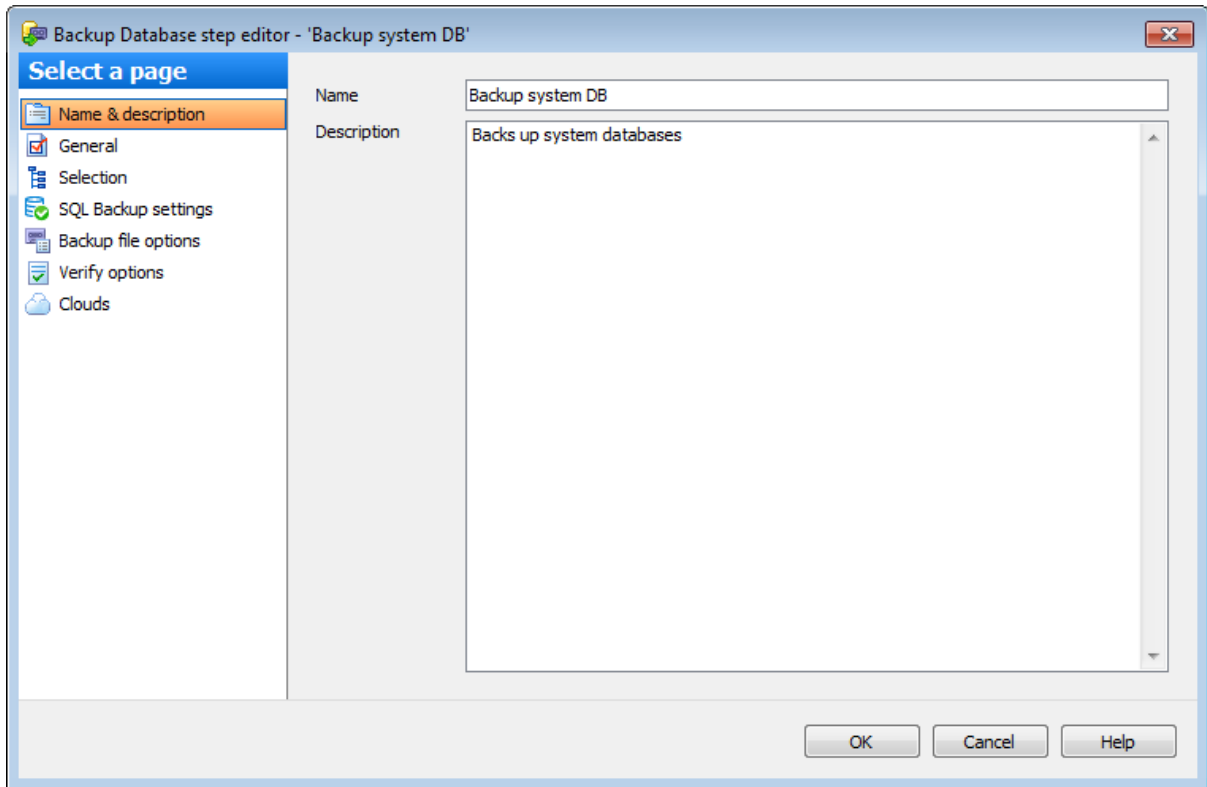
[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.2.1.1 Name and description

This page allows you to view\edit Backup database step name and description.



#### **Name**

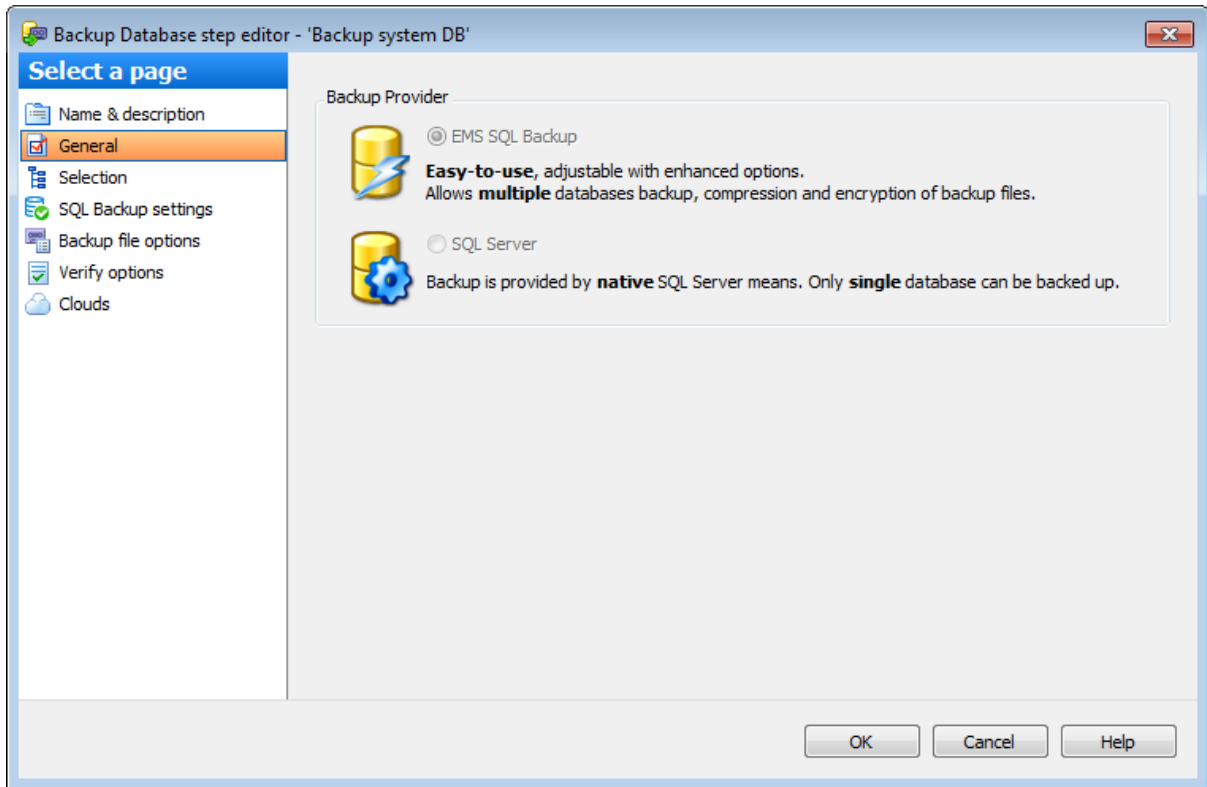
Use this field to name the step.

#### **Description**

This field allows you to define step description.

### 7.2.1.2 General

This page allows you to view a backup provider selected.



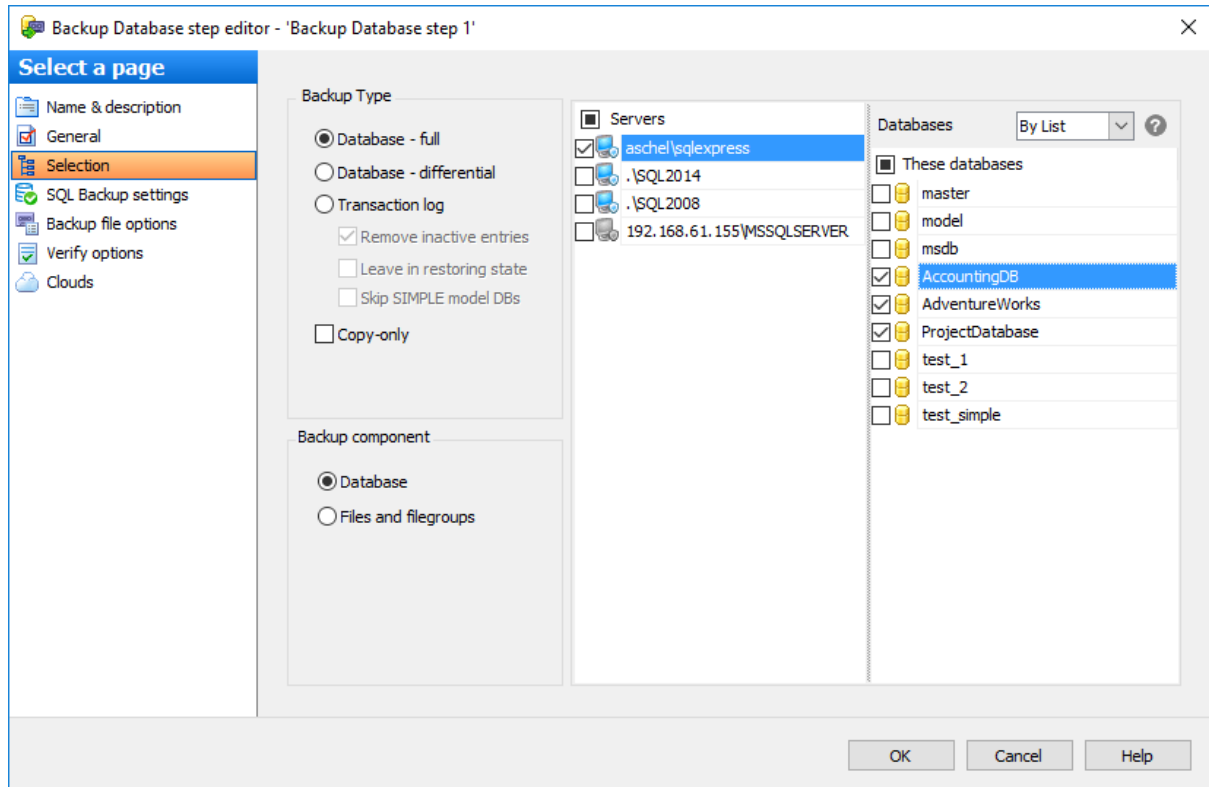
#### Backup provider

Backup provider set in the [Backup database wizard](#). This option cannot be changed in editing mode.

The files created with **EMS SQL Backup** provider cannot be restored using standard server tools; you need either use EMS SQL Backup restore or [convert](#) the backup file to **SQL Server** type.

### 7.2.1.3 Selection

This page allows you to edit database selection for backup operation.



#### Backup type

Use this parameter to define the backup type:

- Database - full* (a full database backup which backs up the entire database including the transaction log)
- Database - differential* (a differential backup which records only the changes made to the data in the database after the last full database backup)
- Transaction log* (a sequence of log backups provided for a continuous chain of transaction information to support recovery forward from database, differential, or file backups)

Set  **Remove inactive entries** option on to truncate the live transaction log when you create a backup

Set  **Leave in restoring state** on to leave the database in restoring state to be unavailable to users until it is completely restored.

Set  **Copy-only** option to create a copy-only backup which is a SQL Server backup that is independent of the sequence of conventional SQL Server backups.

Set  **Skip SIMPLE model DBs** option to skip the databases which use the 'SIMPLE' recovery model. If this option is switched off and the databases using the 'SIMPLE' recovery model are included in the list/filter, the error will be returned by the server and the process will be aborted. Switch on the option to avoid such errors.

#### Backup Component

This group allows choosing the object of backup.

- **Database** - database backup.
- **Files and filegroups** - backup of selected files and filegroups.

### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode. It is selected on applying the Step Template in Policy.

### Databases

If [EMS SQL Backup provider](#) is used, you can select multiple databases, in case of SQL Server backup only one database can be specified.

### All

Use this option to select both: system and user databases.

### All system

This option indicates that only system databases should be backed up.

### All user

Select this option to back up user databases only.

### By mask

This option allows defining database selection by mask. Use \* for a set of any characters and ? for any single character in the database name.

### Including

This option allows manual selecting of the databases.

### Excluding

Select the databases which will be excluded from the backup. All databases, not selected in the list, will be included.

### Online only

Select only the databases in the online state.

If you are creating a step template then you can add a database to the list by using the

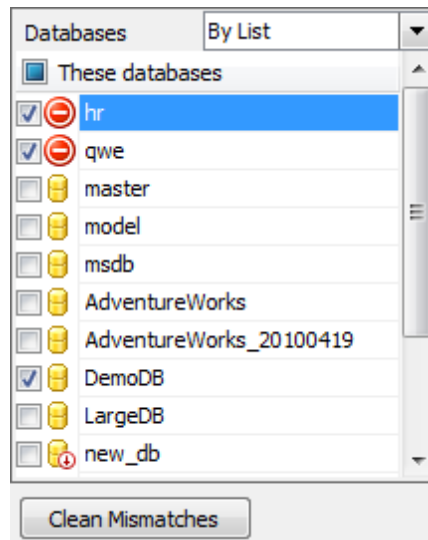


button or *Ins* key.

**Note:** The server is selected on applying the Step Template in Policy.

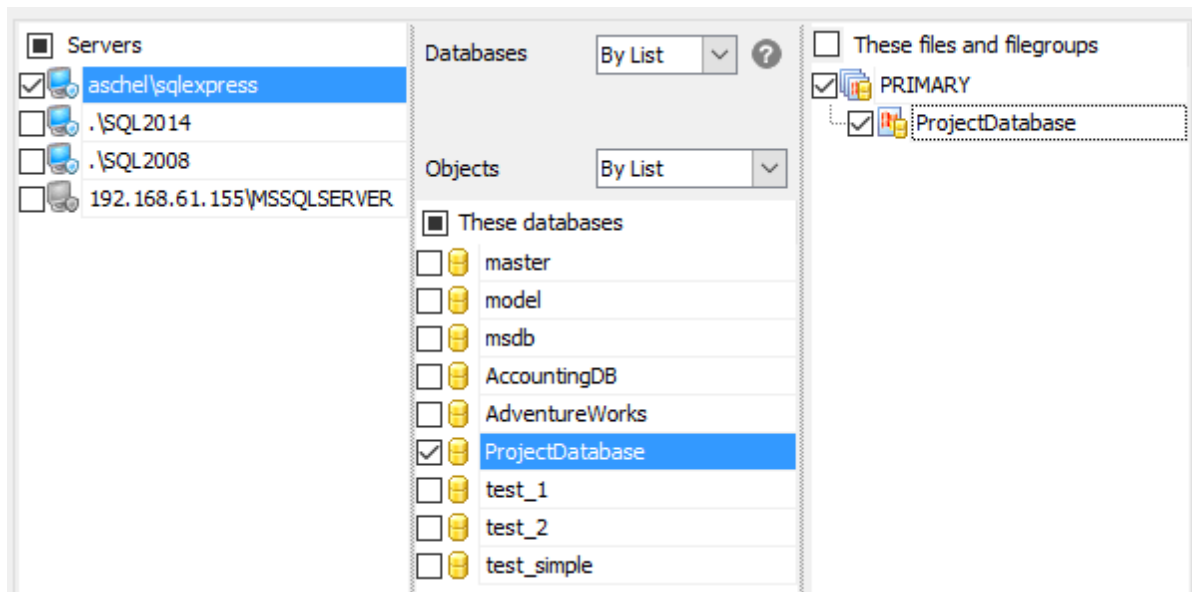
When you are editing a step on creating a policy from [template](#) then if the database(s) defined on the [Selecting database](#) step are missed on the selected server the list of databases will be the following.





Click the **Clean Mismatches** button to delete the missed databases from the list for the policy cannot be executed for them.

If the **Files and filegroups** option is chosen the selection list of file and filegroups is available.



### Objects

For each selected database at least one file or filegroup should be chosen.

- **All** - all existing database filegroups with all their files.
- **By list** - manually selected files and filegroups.

### 7.2.1.4 SQL Backup settings

This page contains set of specific backup options. You can make changes if needed.

The screenshot shows a window titled "Backup Database step editor - 'Backup system DB'". On the left is a sidebar with a "Select a page" menu. The menu items are: "Name & description", "General", "Selection", "SQL Backup settings" (which is highlighted in orange), "Backup file options", "Verify options", and "Clouds". The main content area displays the following settings:

- Max Thread Count: 2
- Compression
- Compression Level: 2
- Encryption
- Encryption Password: (empty text box)
- Confirm Password: (empty text box)
- Encryption Type: rijndael

At the bottom right of the window are three buttons: "OK", "Cancel", and "Help".

#### **Max Thread Count**

Indicates the number of threads to be used for backup operation. Increase the number of threads for faster speed. If you are using a multi-processor system, increasing this value can fasten backup speed. You are recommended to set one thread fewer than the number of processors.

#### **Compression**

Enable the option to compress backup.

#### **Compression Level**

Defines backup file compression level. Use '1' for best speed and '9' for best compression.

#### **Encryption**

Enable the option to encrypt backup.

#### **Encryption Password**

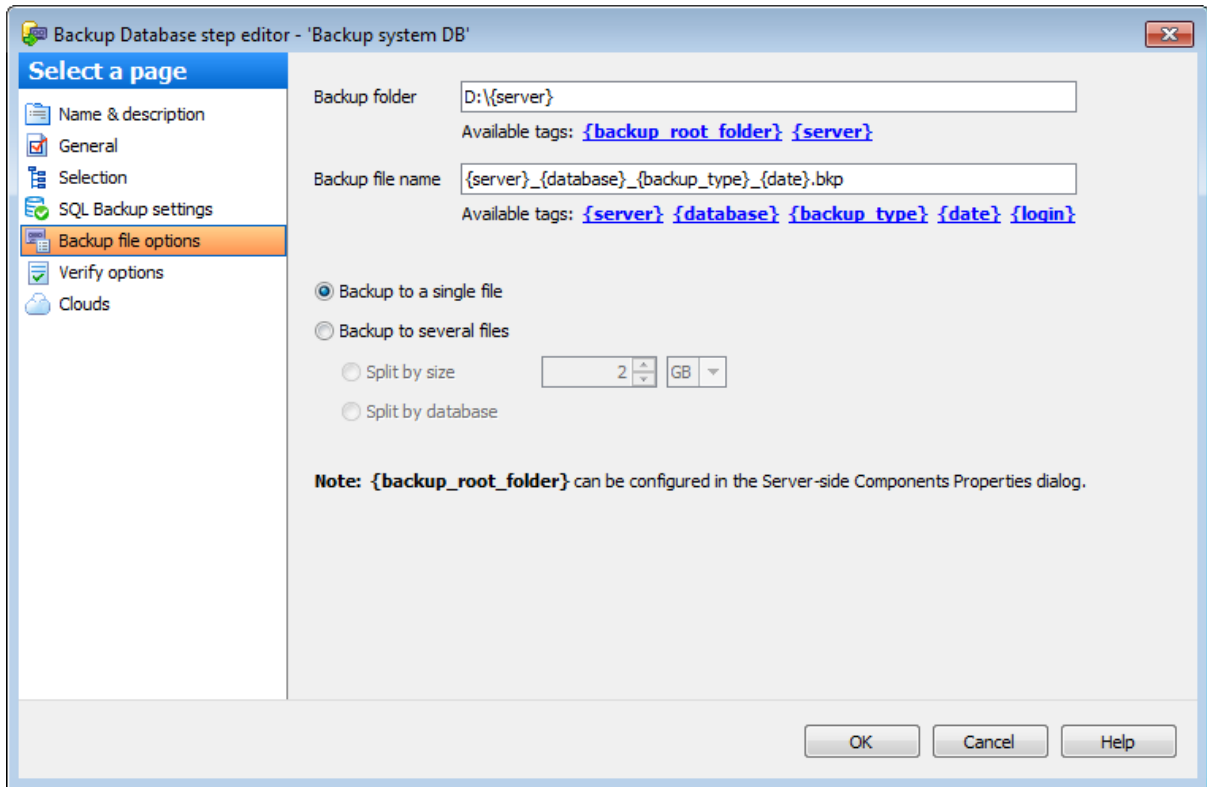
Set and confirm password that is used for backup decryption.

#### **Encryption Type**

Select the encryption algorithm.

### 7.2.1.5 Backup file options

At this page you can find backup file options.



#### Backup folder

Specify backup destination directory. For your convenience *{backup\_root\_folder}* and *{server}* tags are provided. The directory which the *{backup\_root\_folder}* tag stands for is configured in the Server-side components Properties dialog.

You can check availability of the defined folder by clicking the corresponding button.

**Note:** The **Check** button is available only if backup is configured on a single server.

#### Backup file name

Define backup file name. Type backup file name manually or form it using variables. For your convenience *{server}*, *{database}*, *{backup\_type}*, *{date}* and *{login}* tags are provided.

**Note:** To insert a tag in the field simply click it in the list of **Available tags**.

#### Backup to a single file

Select this option to backup all selected databases to a single file.

#### Backup to several files

This option indicates that backup should be split to several files. Splitting the backup can in some cases speed up the backup process.

#### Split by size

Indicates that backup file will be split to volumes of the specified size.

**Split by database**

Indicates that each database will be backed up into a separate file.

**Note:** **Backup to several files** option is disabled for SQL Server backup provider.

### 7.2.1.6 Backup options

At this page you can define backup options. This tab is only available for SQL Server provider selected. The following form is displayed for SQL Server 2008 and older versions.

#### Write type

**Append** /  **Overwrite**

Select whether the media should be appended or overwritten during the backup operation. By appending another backup set to existing media, the previous contents of the media remain intact, and the new backup is written after the end of the last backup on the media.

The screenshot shows a dialog box titled "Backup Database step editor - 'Backup Database step'". On the left is a "Select a page" sidebar with options: Name & description, General, Selection, Backup file options, Backup options (highlighted), Verify options, and Clouds. The main area contains three sections:
 

- Write type:** Radio buttons for "Append" (selected) and "Overwrite".
- Block size:** Radio buttons for "Default" (selected), "To restore from CD (2KB)", and "Other". The "Other" option has a spin box set to "4" and "KB".
- Backup password:** Two text input fields labeled "Password" and "Confirm password".

 At the bottom right are "OK", "Cancel", and "Help" buttons.

#### Block size

Define the size of a data block. Possible values are:  *Default*,  *To restore from CD (2 KB)*,  *Other* (i.e. you can specify an arbitrary value). The supported sizes are 512, 1024, 2048, 4096, 8192, 16384, 32768, and 65536 (64 KB) bytes. Possible values are: *Default*, *To restore from CD (2 KB)*, *Other* (i.e. you can specify an arbitrary value).

#### Backup password

If necessary, you can set a **Password** for the backup: enter the password twice in the respective edit fields.

#### Backup encryption

You can set SQL Server encryption options for backups.

**Encrypt backup** - enables backup encryption.

Select the encryption algorithm in **Algorithm** and the certificate or asymmetric key in **Certificate or asymmetric key** field. Please note that you can only use certificates

protected by master key or EKM asymmetric keys from master database.  
For servers that support backup encryption the following options are available:



Backup encryption

Encrypt backup

Algorithm

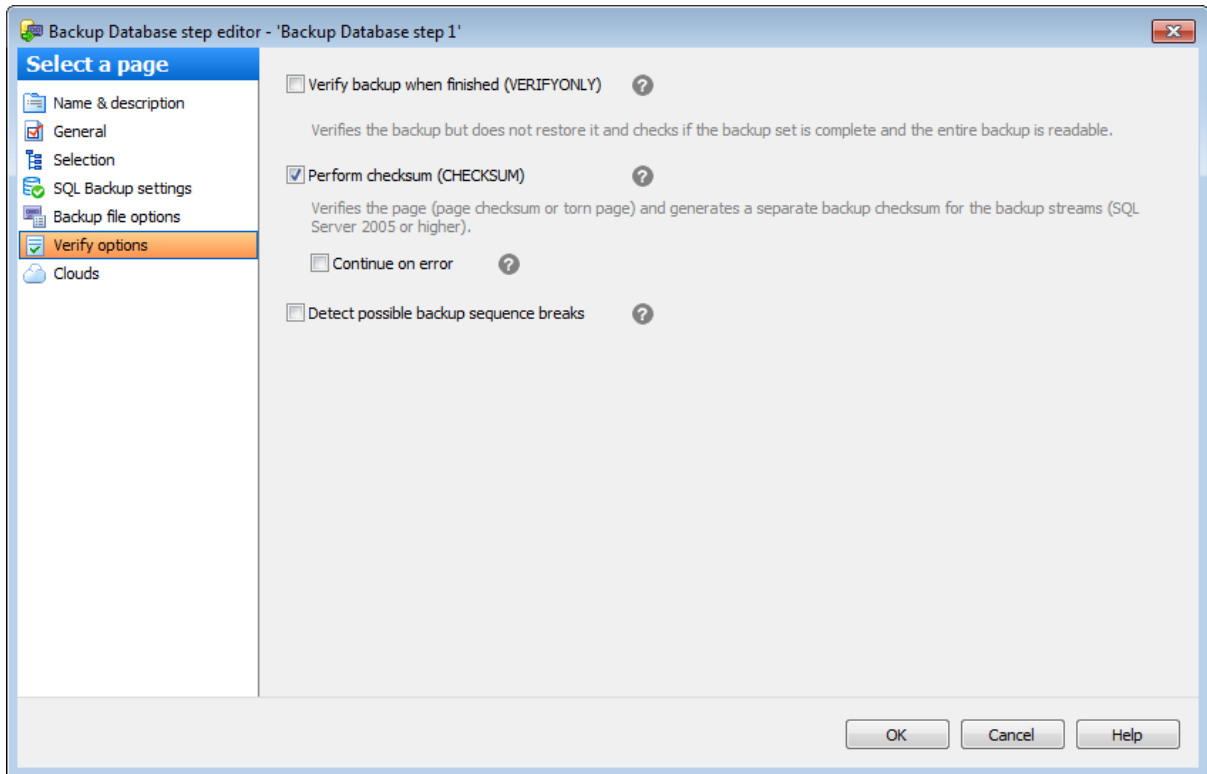
Certificate or asymmetric key

**Backup compression**

This option enables backup compression overriding the server-level default (for SQL Server 2008 Enterprise and later versions).

### 7.2.1.7 Verify options

At this page you can define backup verifying options.



#### **Verify backup when finished (VERIFYONLY)**

Check this option to enable backup verification. Verifying a backup checks that the backup is intact physically, to ensure that all the files in the backup are readable and can be restored, and that you can restore your backup in the event you need to use it.

#### **Perform checksum before writing to media (CHECKSUM)**

This option enables/disables checksum verification before writing to the backup media. Before writing a page to the backup media, BACKUP verifies the page, if this information is presented on the page. BACKUP generates a separate backup checksum for the backup streams. Restore operations can optionally use the backup checksum to validate that the backup is not corrupted. The backup checksum can optionally be used at restore time. Using backup checksums may affect workload and backup throughput.

#### **Continue on error**

This option determines whether the backup operation will be stopped or forced to continue despite encountering errors such as invalid checksums or torn pages.

#### **Detect possible backup sequence breaks**

If the option is switched on the program analyzes SQL Server backup history to check if additional backups were made by third-party software between the backups required to restore the current backup. The program generates warning if such backups are found. Use this option to reveal the cases when backups are performed explicitly using VSS interface, by maintenance plans working on server or by another third-party software at

same time with EMS SQL Backup. The restoring procedure may require backup files created by different software in those cases. This option is only supported in the EMS SQL Backup provider [selected](#).

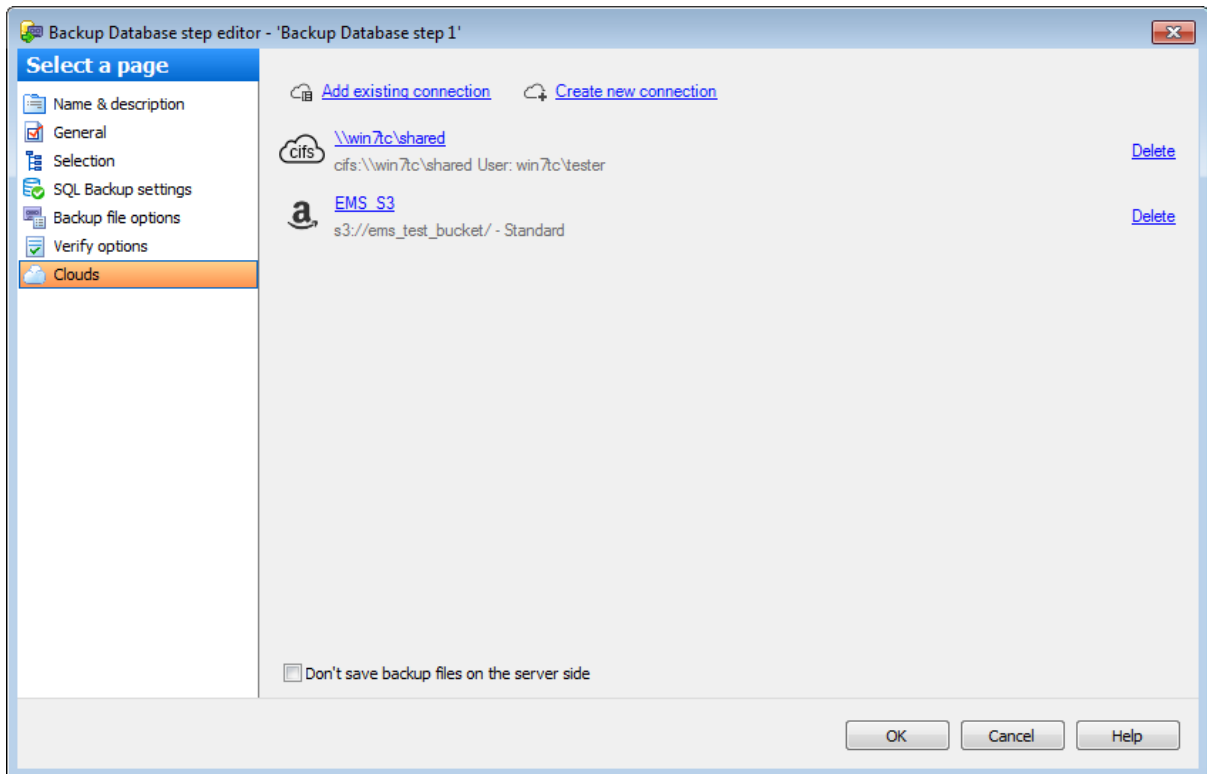


### 7.2.1.8 Clouds

Use this tab to set cloud connections for storing backups. Copies of backup files will be uploaded to the specified storages.

The connections to the following storages are supported:

- [SMB/CIFS](#)
- [FTP](#)
- [Secure FTP](#)
- [Amazon S3 Cloud](#)
- [Microsoft Azure](#)
- [Dropbox](#)
- [Google Drive](#)



You can create a new connection or add an existing one. On adding an existing connection you will be offered to choose among connections specified in [Cloud Connections](#) tab of the Options dialog.

To change connection parameters click on its name. Depending on connection type the relevant dialog for configuring connection settings will be opened.

**Don't save backup files on the server side**

When the backup operation is performed EMS SQL Backup uploads the backup data to cloud storages "on the fly" at the same time when the stream is received from SQL Server. If this option is switched on the data is not written to the local server disk. This allows saving free storage space but if errors occur when uploading to all the selected cloud locations there will be no valid backup file(s) available.

## 7.2.2 Database Shipping

**Database Shipping** step editor provides the same set of options as [Database shipping wizard](#).

The following pages are available in this dialog:

[Name and description](#)

[Backup options](#)

[Restore options](#)

[Selection](#)

---

**See also:**

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

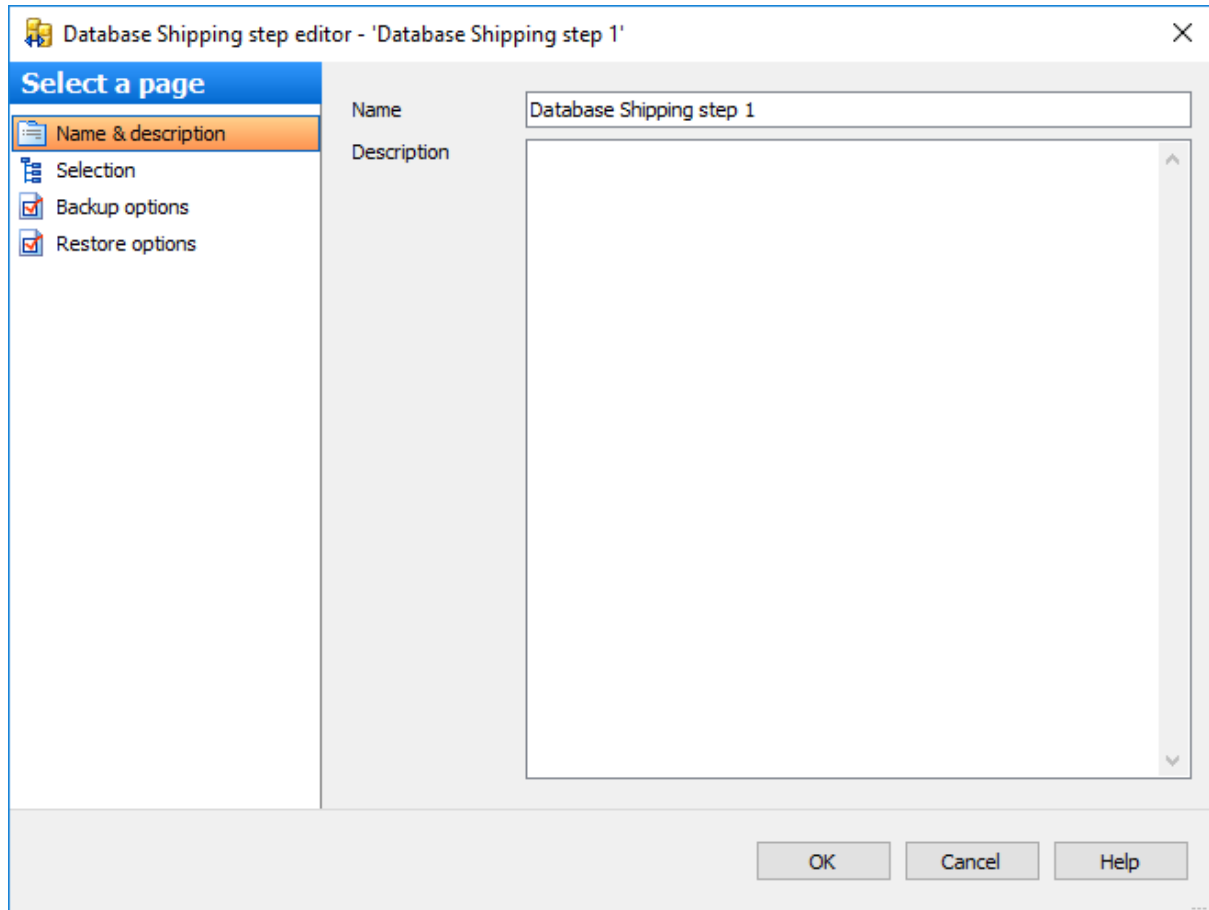
[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.2.2.1 Name and description

This page allows you to view\edit the step name and description.

**Name**

Use this field to name the step.

**Description**

This field allows you to define step description.

### 7.2.2.2 Backup options

This page is used to define backup options for database shipping step.

The screenshot shows a dialog box titled "Database Shipping step editor - 'Database Shipping step 1'". On the left, there is a "Select a page" sidebar with options: "Name & description", "Selection", "Backup options" (selected), and "Restore options". The main area contains the following settings:

- Backup folder:** A text field containing the placeholder `{backup_root_folder}\{server}` and a "Check" button.
- Max Thread Count:** A spinner box set to the value 2.
- Compression:** A checked checkbox.
- Compression Level:** A dropdown menu set to 2.
- Encryption:** An unchecked checkbox.
- Encryption Password:** An empty text field.
- Confirm Password:** An empty text field.
- Encryption Type:** A dropdown menu set to rijndael.
- Keep backups on the source server:** An unchecked checkbox.

At the bottom of the dialog, there is a note: "Note: {backup\_root\_folder} can be configured in the Server-side Components Properties dialog." and three buttons: "OK", "Cancel", and "Help".

#### Backup folder

Specify the directory for backup. It must be set relatively the source server. You can check availability of this folder by clicking the corresponding button.

#### Max Thread Count

Indicates the number of threads to be used for backup operation. Increase the number of threads for faster speed. If you are using a multi-processor system, increasing of this value can fasten backup speed. You are recommended to set one thread fewer than the number of processors.

#### Compression

Enable the option to compress backup.

#### Compression Level

Defines backup file compression level. Use '1' for best speed and '4' for best compression.

#### Encryption

Enable the option to encrypt backup.

**Encryption Password**

Set password that is used for backup encryption.

**Confirm password**

Confirm the password specified as an encryption password above.

**Encryption Type**

Select the encryption algorithm.

 **Keep backups on the source server**

Enable this option if you want to store backup files on the source server in the folder specified in the **Backup folder** field.

### 7.2.2.3 Restore options

This page is used to define restore options for database shipping operation.

#### Network shared folder

Specify the backup shared folder for copying full backups of the source database. Both source and destination servers should have access to this folder otherwise database shipping cannot be performed. Specify the authorization parameters for the shared folder in the **Authorization** section. Click the **Check** button to make sure that the folder is accessible by both servers.

#### Authorization

This section is used to set authorization parameters to access network shared folder.  
**NB:** When you set **Windows Authentication** please note that the credentials of the account which EMS SQL Backup Service is running under will be used. Make sure that accounts from source and target servers can be authorized.

#### Destination folder

Specify the destination server folder which the backups will be shipped to. This folder must be set relatively to the destination server.

#### Recovery options

This group of options allows you to specify the recovery options to be applied to the restore operation.

**No recovery (leaves the database in the restoring state)**

This option specifies that the restore operation does not roll back any uncommitted transactions.

**NB:** When this option is selected, the database is not usable in this intermediate, non-recovered state.

When used with a file or filegroup restore operation, this option forces the database to remain in the restoring state after the restore operation. This is useful in either of the following situations:

- a restore script is being run and the log is always being applied;
- a sequence of file restores is used and the database is not intended to be usable between two of the restore operations.

**Standby (leaves database in read-only and standby mode)**

This option allows the database to be brought up for read-only access between transaction log restores and can be used with either warm standby server situations or special recovery situations in which it is useful to inspect the database between log restores.

**Undo file name**

Specify the undo file name, so that the recovery effects can be undone. The same undo file can be used for consecutive restores of the same database.

**NB:** If free disk space is exhausted on the drive containing the specified undo file name, the restore operation stops.

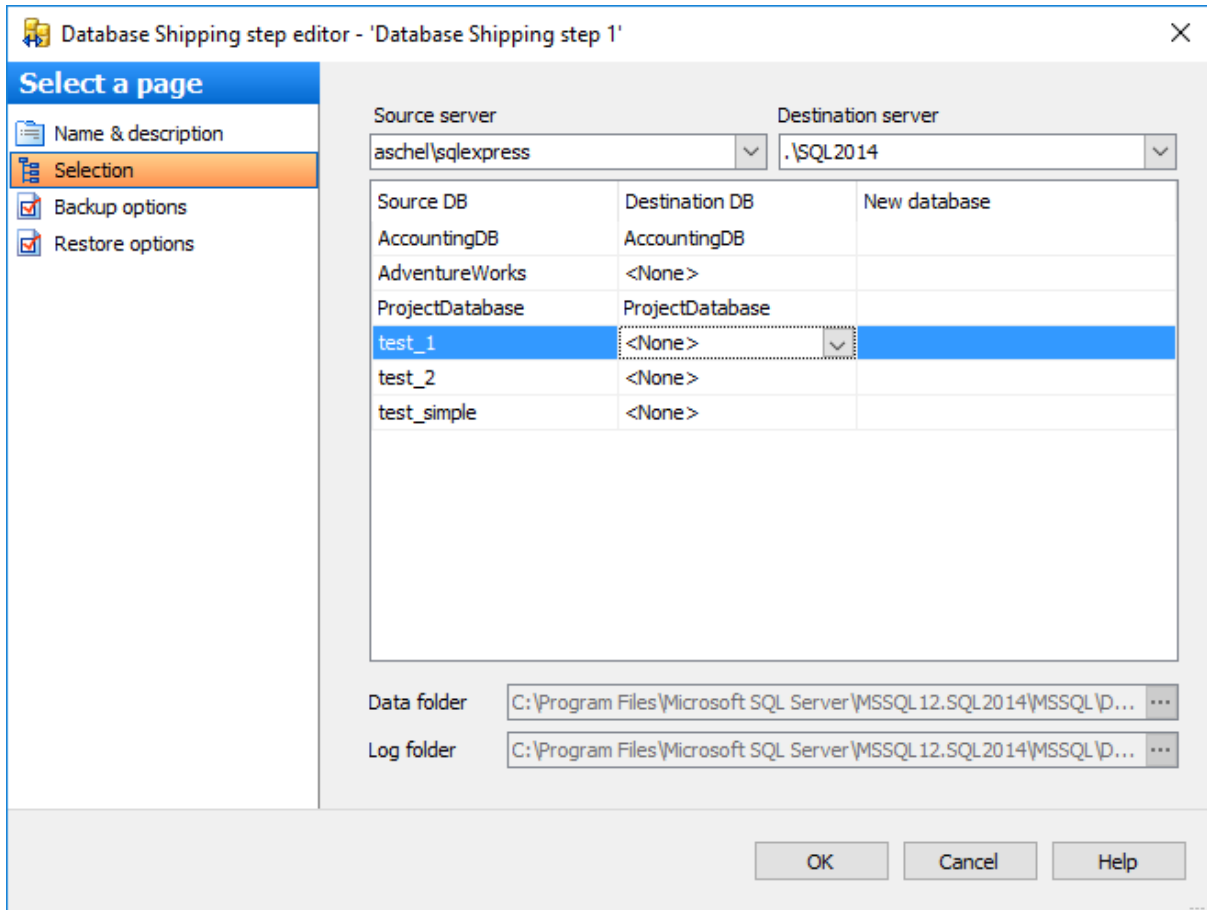
**Recovery (rollbacks all uncommitted transactions)**

This option specifies that the restore operation rolls back any uncommitted transactions. After the recovery process the database is ready for use.

Set  **Kill connections to destination database** option ON to forced disconnection of all processes.

### 7.2.2.4 Selection

This page allows you to edit database selection to ship full database backups.



#### Source server

Select the server where the database that you want to back up to another server is located.

#### Destination server

Select the server where database backups are shipped to from the **Destination server** list.

Set the database pairs in the grid. The full database backups are performed on the source server and restored on the destination server.

If the destination database does not exist, you can select *<Create new>* item in the **Destination DB** column and specify its name in the **New database** column. Creating the databases is performed by creating a full backup of the source database and its further restoring.

#### Data folder

Specify the path for data MDF files for the newly created database.

#### Log folder



Specify the path for data LDF files for the newly created database.

**Note:** When creating a template no databases can be selected.

### 7.2.3 Execute SQL Server Agent job

**Execute SQL Server Agent job** step editor provides the same set of options as [Execute SQL Server Agent Job wizard](#).

The following pages are available in this dialog:

[Name and description Selection](#)

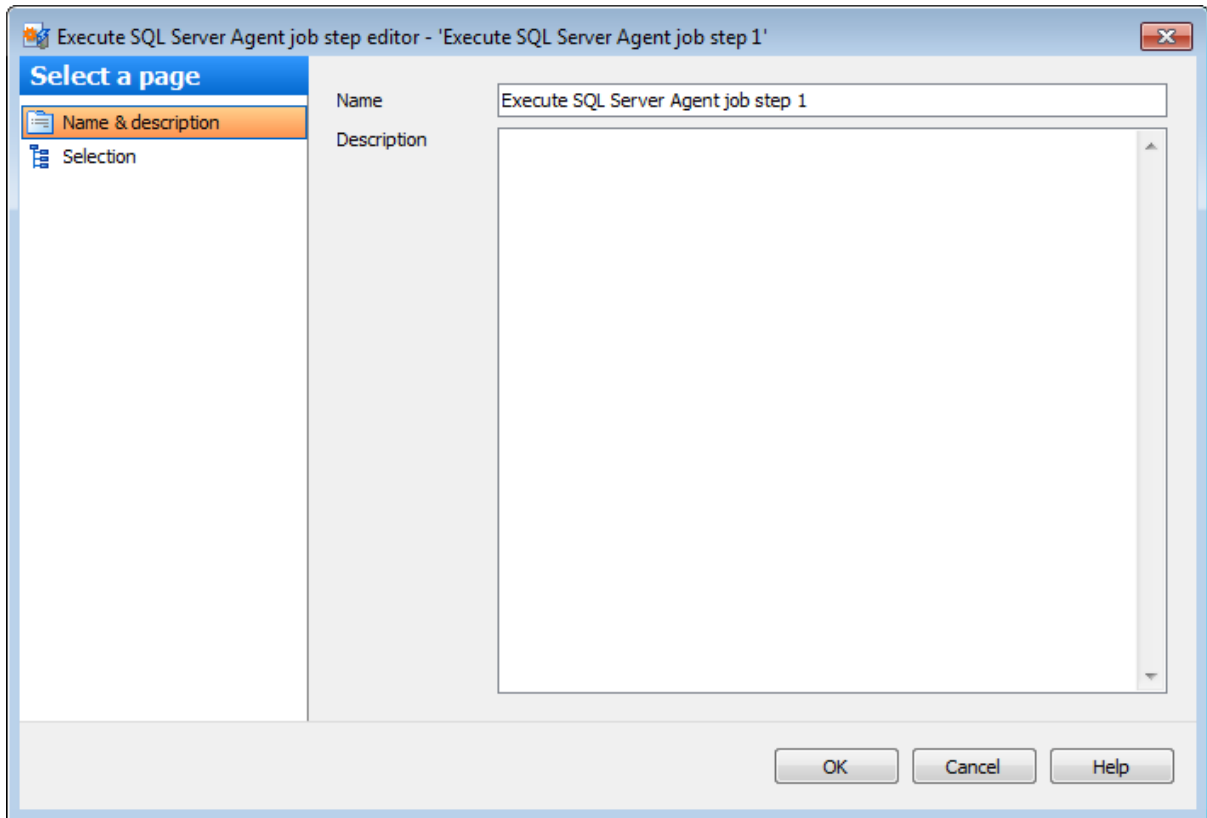
---

**See also:**

[Backup database](#)  
[Execute SQL Server Agent job](#)  
[Execute T-SQL statement](#)  
[History Cleanup](#)  
[Database Integrity Check](#)  
[Shrink Database](#)  
[Reorganize Indices](#)  
[Update Statistics](#)  
[Database Parameters Logger](#)  
[Maintenance Cleanup](#)  
[Transaction Log Shipping](#)  
[Database Shipping](#)  
[Bulk Restore](#)

### 7.2.3.1 Name and description

This page allows you to view\edit the step name and description.

**Task name**

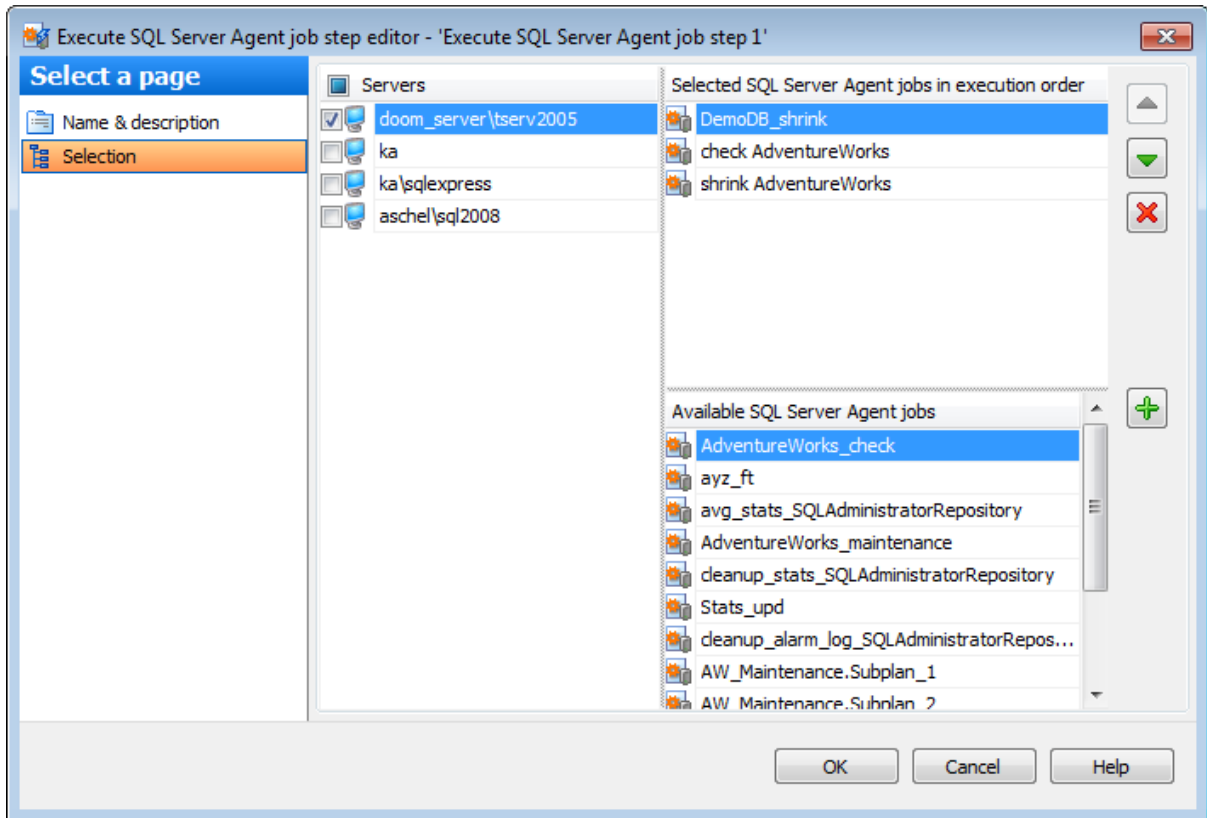
Use this field to name the step.

**Description**

This field allows you to define step description.

### 7.2.3.2 Selection

Use this page to edit job name.




#### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode. It is selected on applying the Step Template in Policy.

#### SQL Server Agent's job

This field indicates which SQL Server Agent job should be executed.

You can re-arrange jobs order for execution using arrow buttons on the right. Use  button or Delete key to remove job from the list.

**Note:** The server is selected on applying the Step Template in Policy.

## 7.2.4 Execute T-SQL statement

**Execute T-SQL Statement** step editor provides the same set of options as [Execute T-SQL Statement wizard](#).

The following pages are available in this dialog:

[Name and description](#)

[General](#)

[Selection](#)

---

**See also:**

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

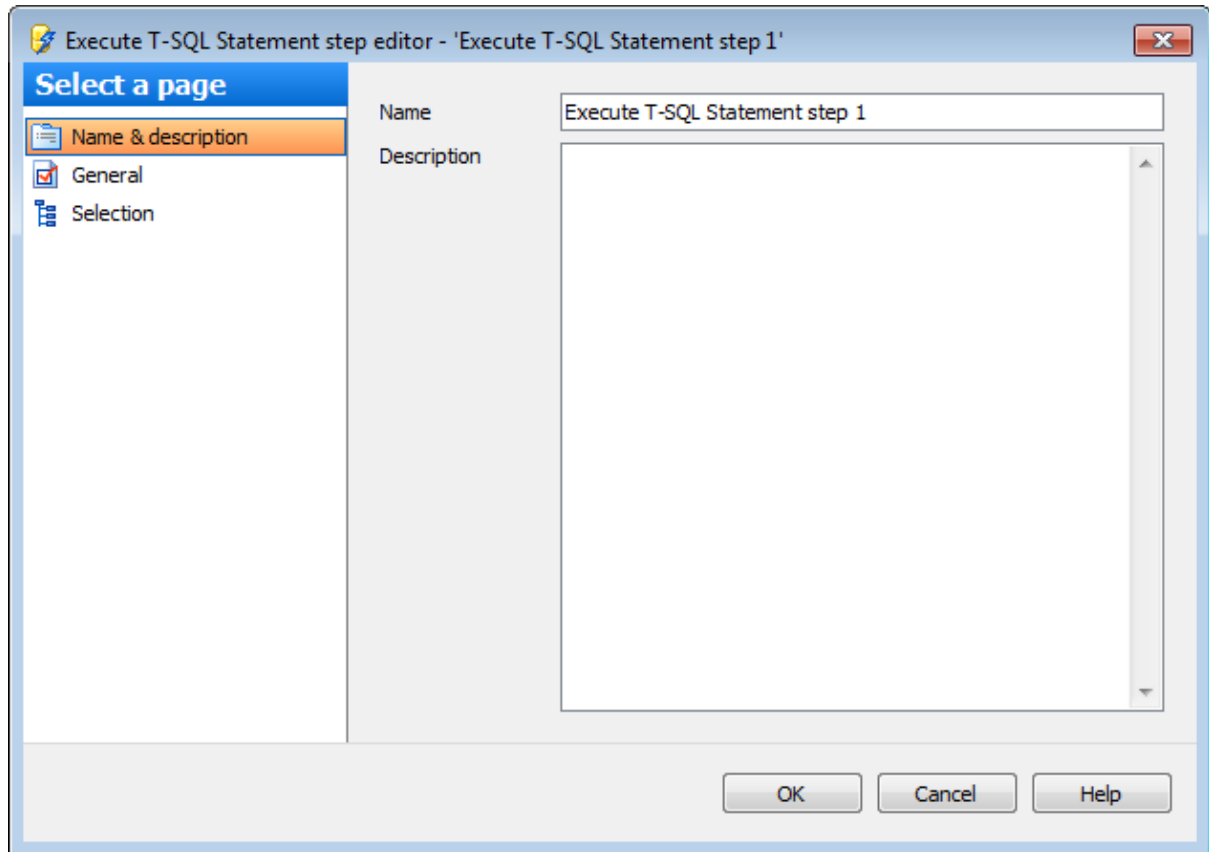
[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

#### 7.2.4.1 Name and description

This page allows you to view\edit the step name and description.

**Task name**

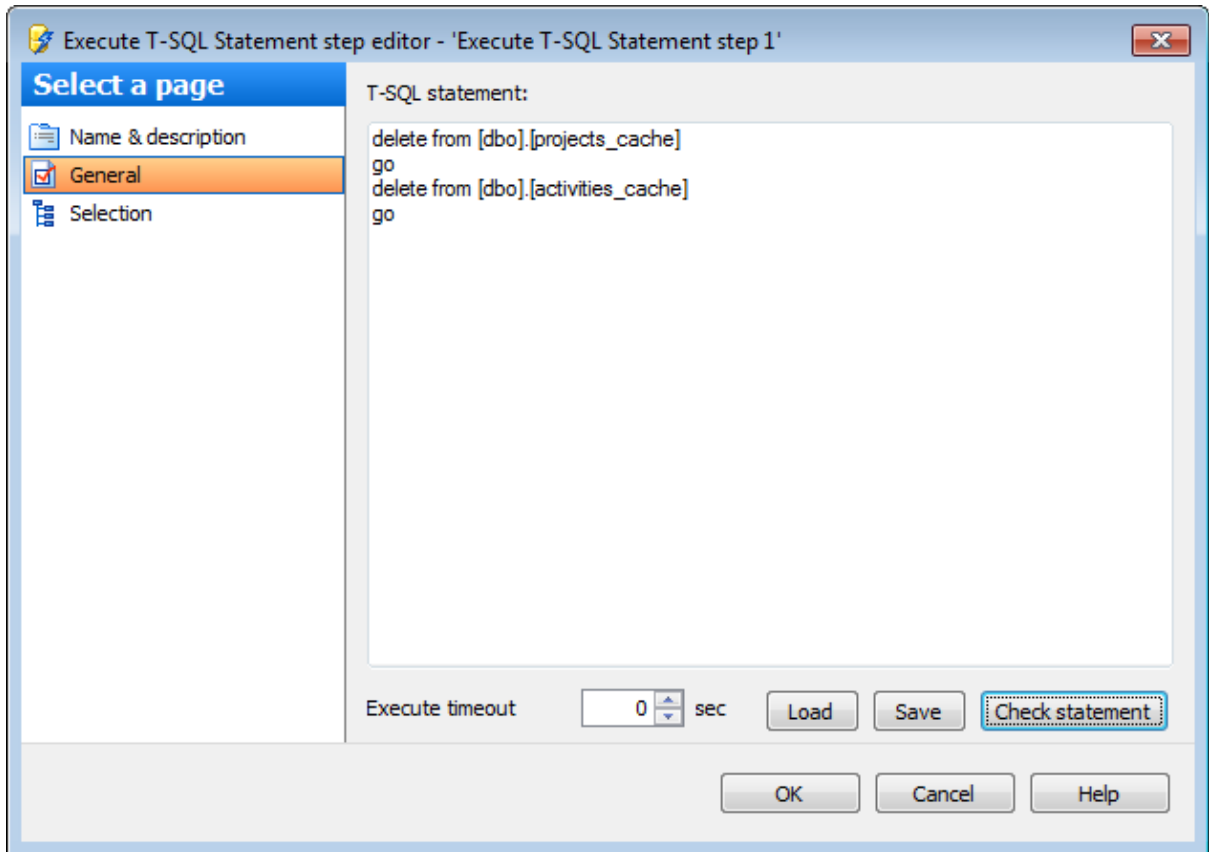
Use this field to name the step.

**Description**

This field allows you to define step description.

### 7.2.4.2 General

At this page you can view\edit T-SQL statement.



#### **T-SQL statement**

This area contains T-SQL statement text to be performed.

#### **Execute timeout**

This field indicates time limit for syntax check.

Use **Load\Save** buttons to work with text loading and saving.

Use the **Check statement** button to run the statement on the server in PARSEONLY mode to ensure that T-SQL statement is correct. The detailed log of errors is displayed at the **Errors** tab.

All errors are displayed on the **Errors** tab.

Query text | Errors |

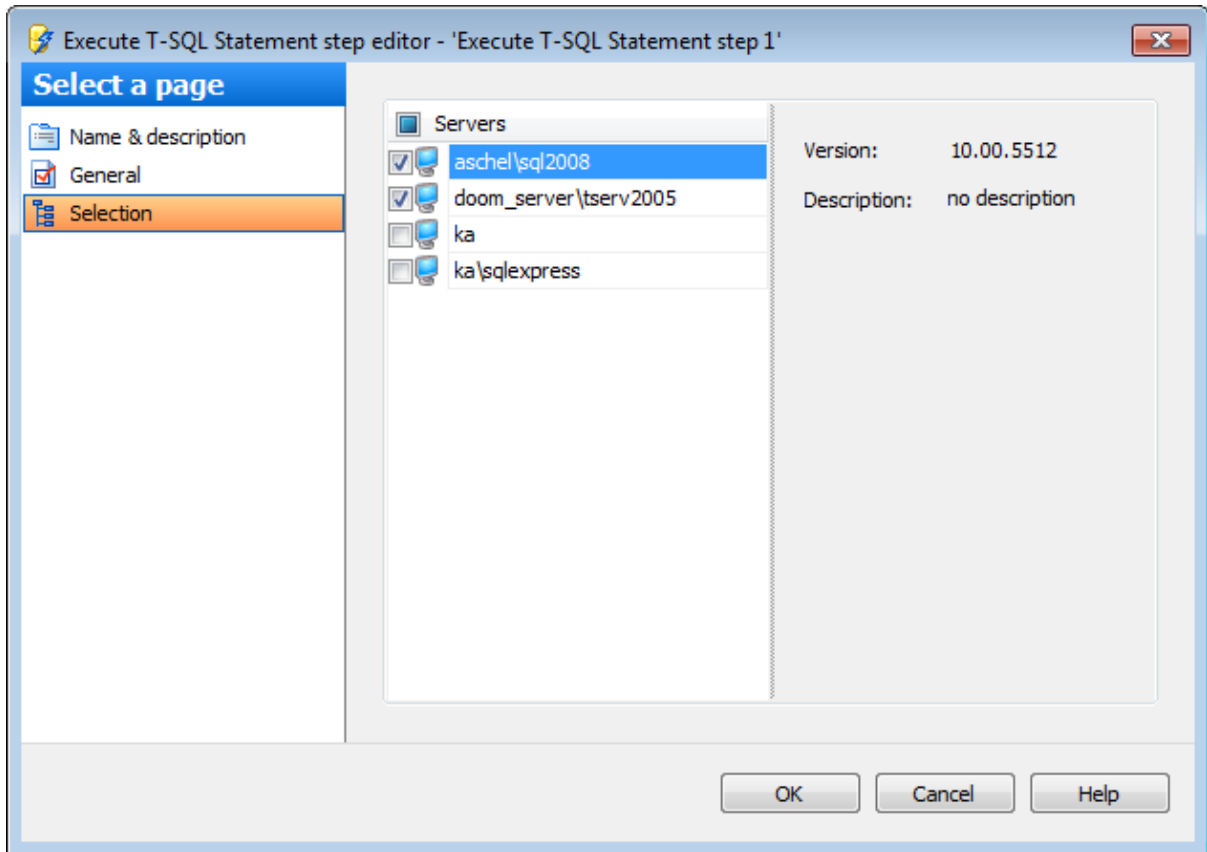
Server	Message	Line
ASCHEL\SQL2008	Incorrect syntax near ';'.	8

Execute timeout  sec



### 7.2.4.3 Selection

This page allows you to edit servers selection for the operation.



#### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode. It is selected on applying the Step Template in Policy.

## 7.2.5 History Cleanup

**History Cleanup** step editor provides the same set of options as [History Cleanup wizard](#).

The following pages are available in this dialog:

[Name and description](#)

[General](#)

[Selection](#)

---

**See also:**

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

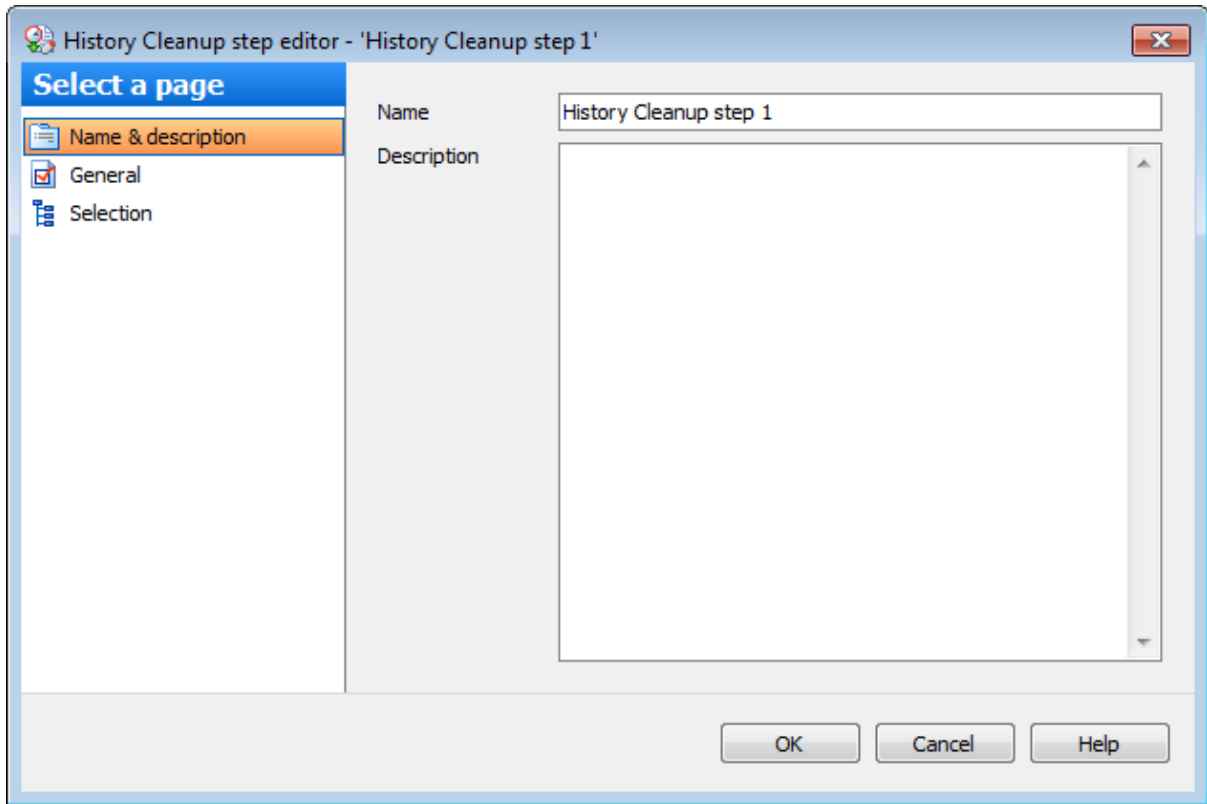
[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.2.5.1 Name and description

This page allows you to view\edit the step name and description.



#### **Task name**

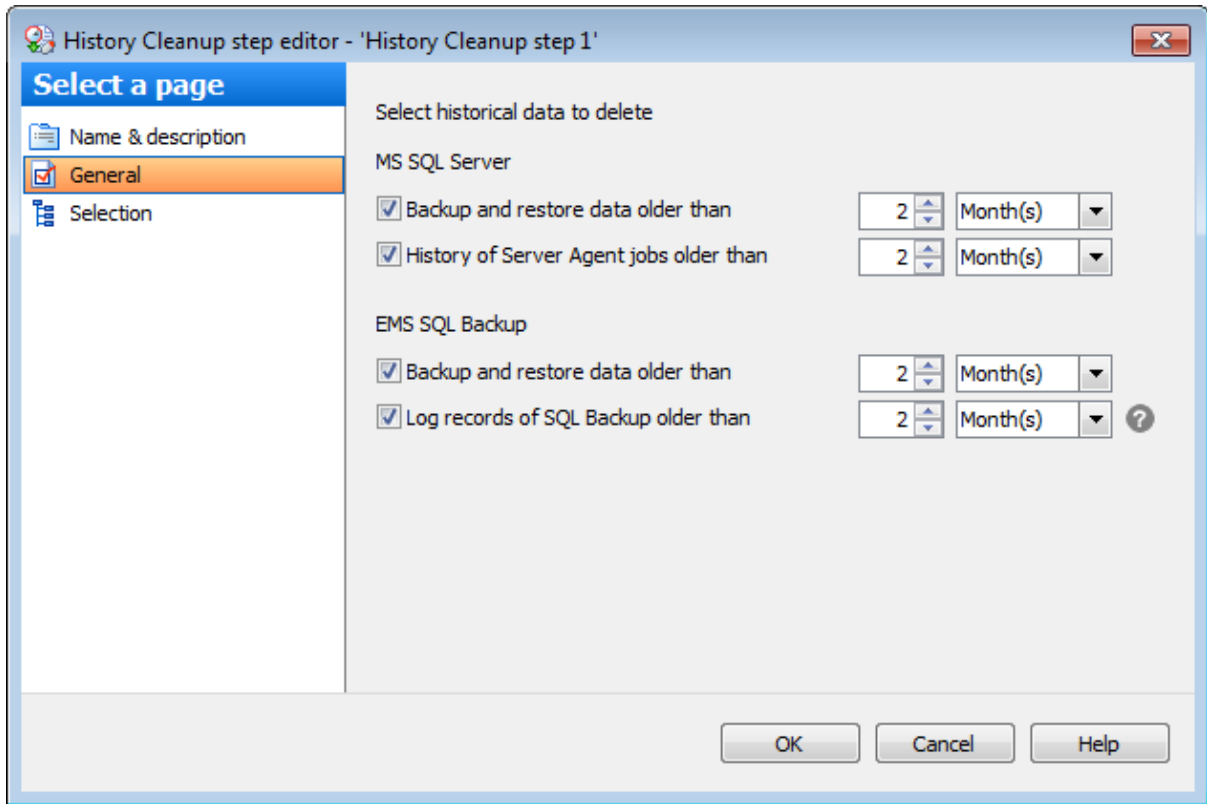
Use this field to name the step.

#### **Description**

This field allows you to define step description.

### 7.2.5.2 General

This page is used to define general options of history cleanup step.



#### MS SQL Server

The following options are intended to delete MS SQL [backup history](#) and some log info concerning specific jobs performed by MS SQL Server means.

##### Backup and restore history data older than

Enable the option to clean the history of the MS SQL Server backup and restore operations that are older than specified period of time. After cleanup the information about SQL Server type backups performed by EMS SQL Backup or by SQL Server itself will be removed from the server.

##### History data of Server Agent job older than

Enable the option to clean the history of the SQL Server Agent job(s) that are older than specified period of time. After this cleanup all information about SQL Server Agent job execution will be removed from the server.

#### EMS SQL Backup

The following options are intended to delete some log info concerning tasks performed by EMS SQL Backup.

##### Backup and restore history data older than

Enable the option to clean the history of the backup and restore operations that are older than specified period of time. After cleanup the information about EMS SQL Backup type

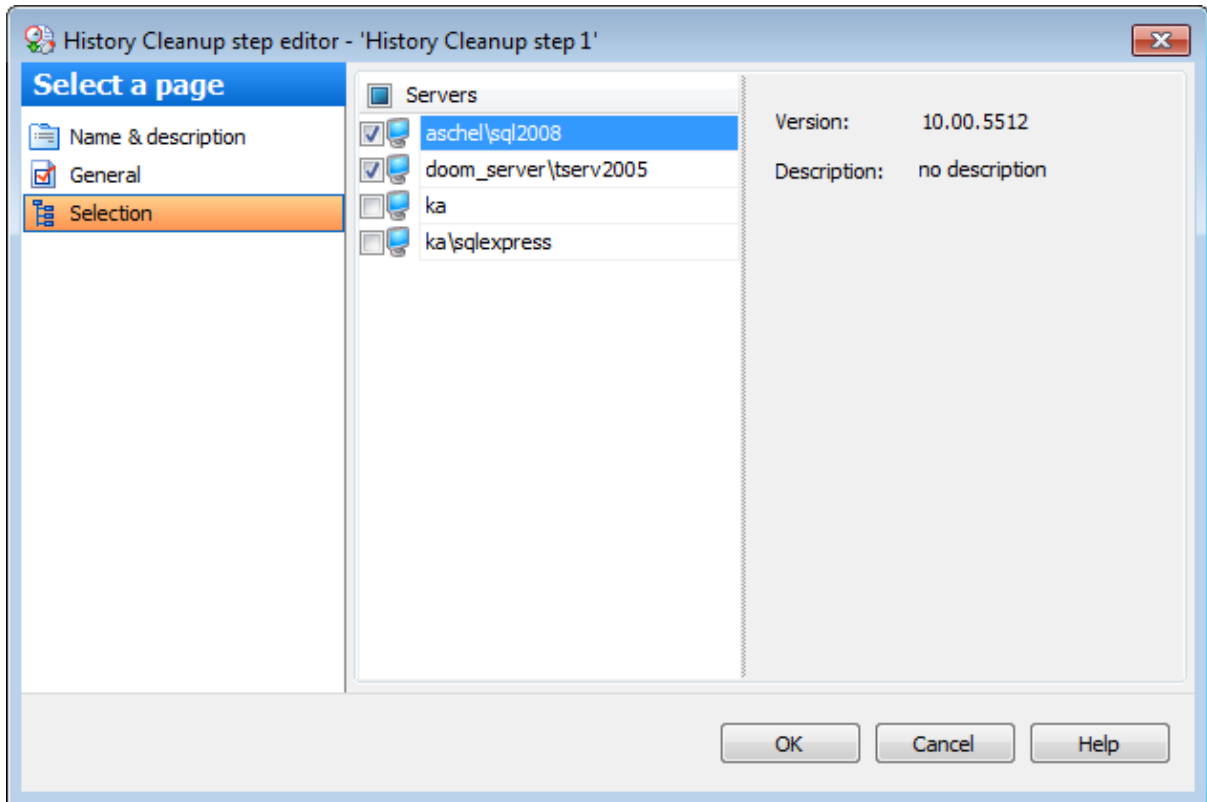
backups will be removed from EMS SQL Backup.

**Log records of Backup older than**

Enable the option to clean the history of the EMS SQL Backup task(s) execution that are older than specified period of time. After cleanup the information about executed tasks will be removed from [History Viewer](#).

### 7.2.5.3 Selection

This page allows you to edit servers selection for the operation.



#### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode. It is selected on applying the Step Template in Policy.

## 7.2.6 Database Integrity Check

**Database Integrity Check** step editor provides the same set of options as [Database Integrity Check wizard](#).

The following pages are available in this dialog:

[Name and description](#)

[General](#)

[Selection](#)

---

**See also:**

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

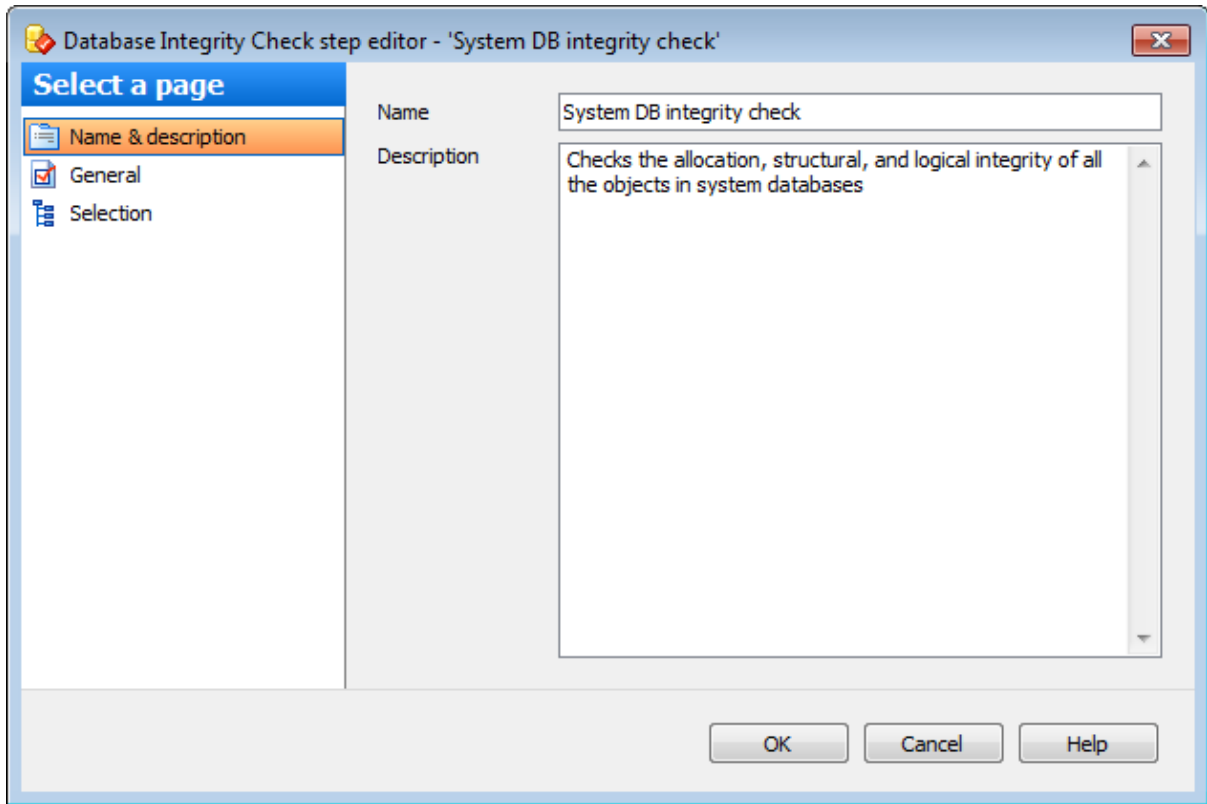
[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.2.6.1 Name and description

This page allows you to view\edit the step name and description.



#### **Task name**

Use this field to name the step.

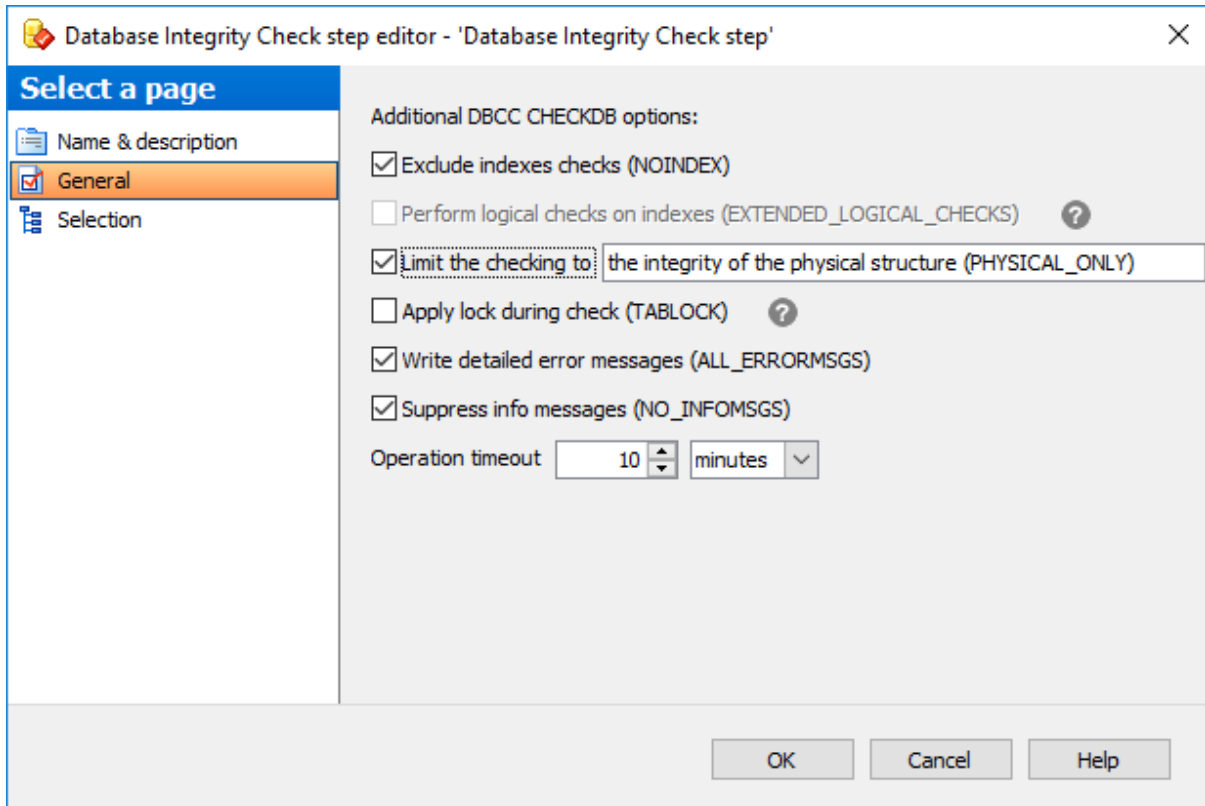
#### **Description**

This field allows you to define step description.



### 7.2.6.2 General

At this page you can edit general options of the step.



**Exclude indexes checks (NOINDEX)**

The option indicates that indices are excluded on database integrity check.

**Perform logical checks on indexes (EXTENDED\_LOGICAL\_CHECKS)**

If the compatibility level is 100 (SQL Server 2008) or higher, enable this option to perform logical consistency checks on indexed views, XML indexes, and spatial indexes.

**Limit the checking to**

Use this option if you need to restrict database integrity check:

*Physical Only (PHYSICAL\_ONLY)* value limits the checking operation to the integrity of the physical structure of the page and record headers, the physical structure of B-trees and the allocation consistency of the database. Designed to provide a small overhead check of the physical consistency of the database, this check can also detect torn pages, checksum failures, and common hardware failures that can compromise a user's data.

*Data Purity (DATA\_PURITY)* value checks the database for column values that are not valid or out-of-range.

**Apply lock during check (TABLOCK)**

If this option is used, the *DBCC CHECKDB* statement obtains locks instead of using an internal database snapshot. This includes a short-term database exclusive lock.

**Write detailed error messages (ALL\_ERRORMSGs)**

This option displays an unlimited number of all errors per object.

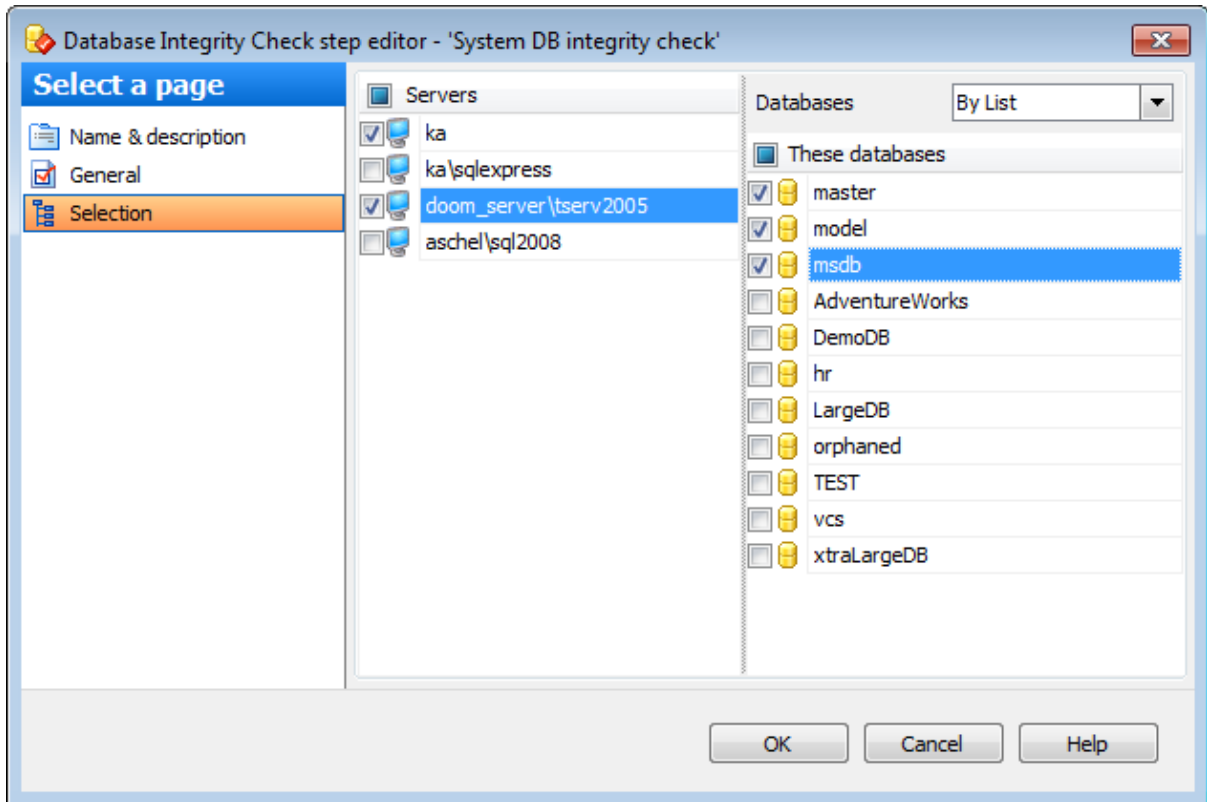
 **Suppress info messages (NO\_INFOMSGs)**

This option suppresses all informational messages.

Use the **Operation timeout** option to specify how long a remote operation can take before the program times out and the error is returned.

### 7.2.6.3 Selection

This page allows you to edit objects selection for integrity check.



#### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode. It is selected on applying the Step Template in Policy.

#### Databases

##### All

Use this option to select both: system and user databases.

##### All system

This option indicates that only system databases should be backed up.

##### All user

Select this option to back up user databases only.

##### By mask

This option allows defining database selection by mask. Use \* for a set of any characters and ? for any single character in the database name.

##### Including

This option allows manual selecting of the databases.

**Excluding**

Select the databases which will be excluded from the backup. All databases, not selected in the list, will be included.

**Online only**

Select only the databases in the online state.

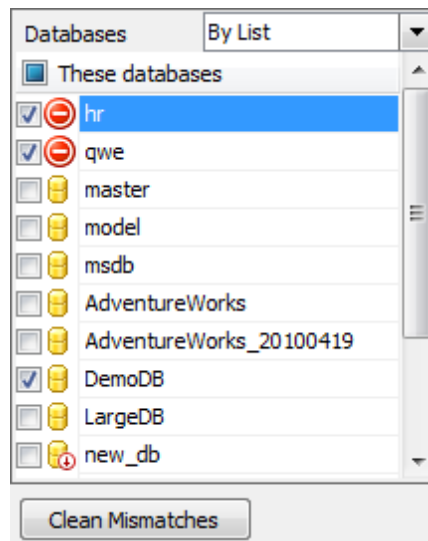
If you are creating a step template then you can add a database to the list by using the



button or *Ins* key.

**Note:** The server is selected on applying the Step Template in Policy.

When you are editing a step on creating a policy from [template](#) then if the database(s) defined on the [Selecting database](#) step are missed on the selected server the list of databases will be the following.



Click the **Clean Mismatches** button to delete the missed databases from the list for the policy cannot be executed for them.

## 7.2.7 Shrink Database

**Shrink Database** step editor provides the same set of options as [Shrink Database wizard](#).

The following pages are available in this dialog:

[Name and description](#)

[General](#)

[Selection](#)

---

**See also:**

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

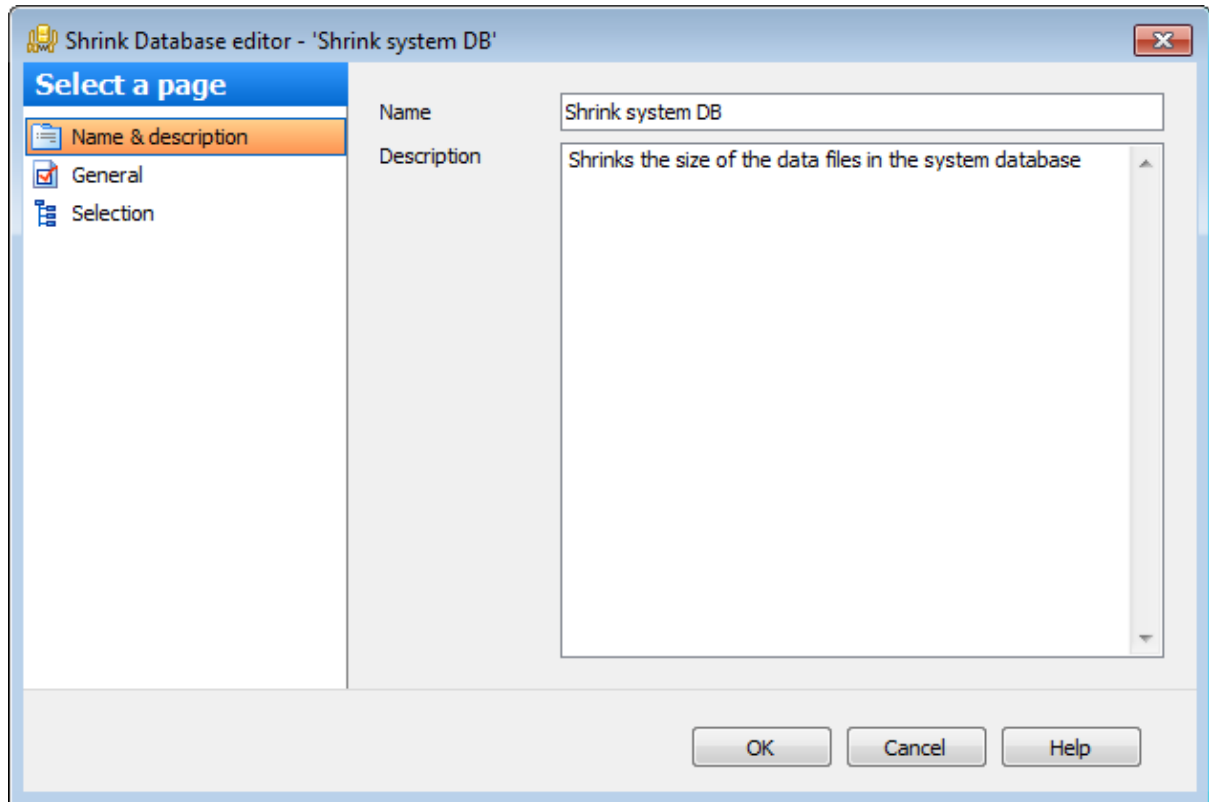
[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.2.7.1 Name and description

This page allows you to view\edit the step name and description.



#### **Task name**

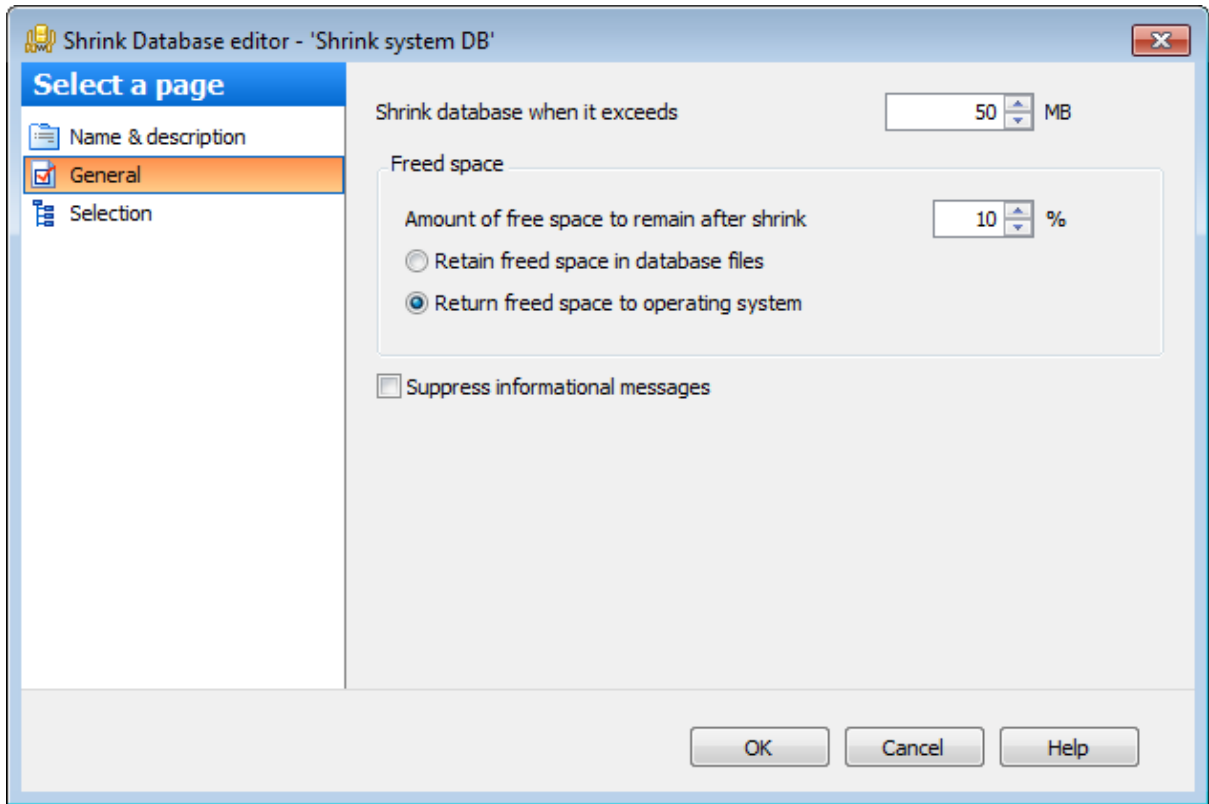
Use this field to name the step.

#### **Description**

This field allows you to define step description.

### 7.2.7.2 General

At this page you can edit general options for **Shrink Database** step.



#### **Shrink database when it exceeds**

Set database size limit. Database will be shrunk when its size goes over this limit.

#### **Amount of free space to remain after shrink**

Use this field to define percentage of free space that will be left in database file after it is shrunk.

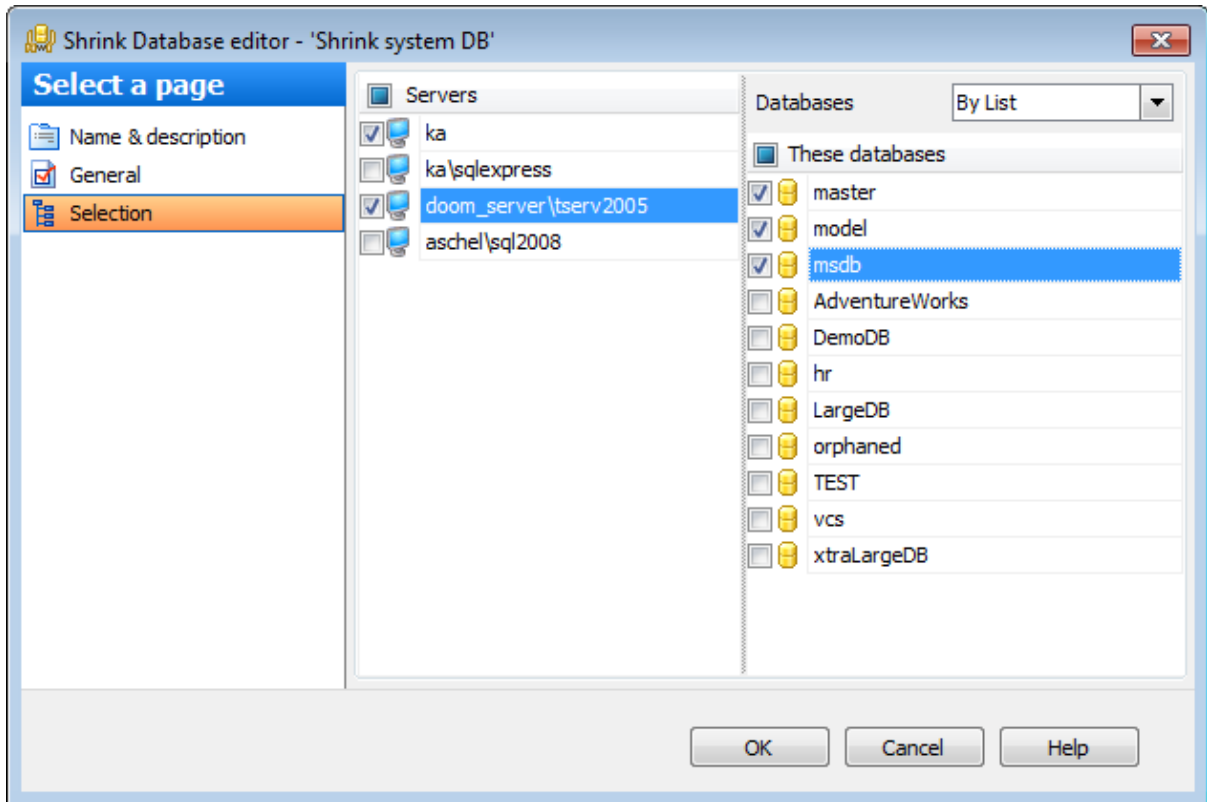
You need to decide whether freed space should be  **retained in database files** or  **returned to operating system**.

#### **Suppress informational messages**

Enable the option to disable informational messages.

### 7.2.7.3 Selection

This page allows you to edit database selection to shrink.



#### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode. It is selected on applying the Step Template in Policy.

#### Databases

##### All

Use this option to select both: system and user databases.

##### All system

This option indicates that only system databases should be shrunk.

##### All user

Select this option to shrink user databases only.

##### By mask

This option allows defining database selection by mask. Use \* for a set of any characters and ? for any single character in the database name.

##### Including



This option allows manual selecting of the databases.


### Excluding

Select the databases which will be excluded from the backup. All databases, not selected in the list, will be included.

### Online only

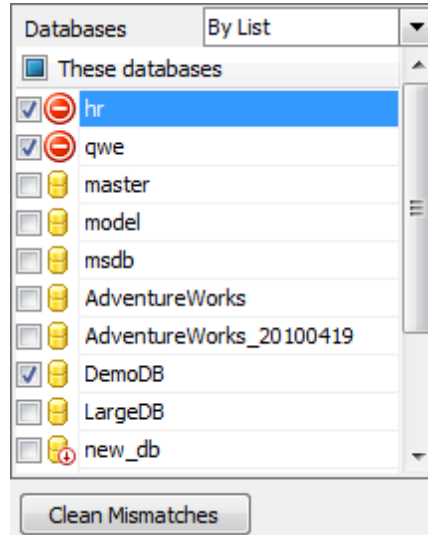
Select only the databases in the online state.

If you are creating a step template then you can add a database to the list by using the

 button or *Ins* key.

**Note:** The server is selected on applying the Step Template in Policy.

When you are editing a step on creating a policy from [template](#) then if the database(s) defined on the [Selecting database](#) step are missed on the selected server the list of databases will be the following.



Click the **Clean Mismatches** button to delete the missed databases from the list for the policy cannot be executed for them.

## 7.2.8 Reorganize Indices

**Reorganize Indices** step editor provides the same set of options as [Reorganize Indices wizard](#).

The following pages are available in this dialog:

[Name and description](#)

[General](#)

[Selection](#)

[Rebuild options](#)

---

**See also:**

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

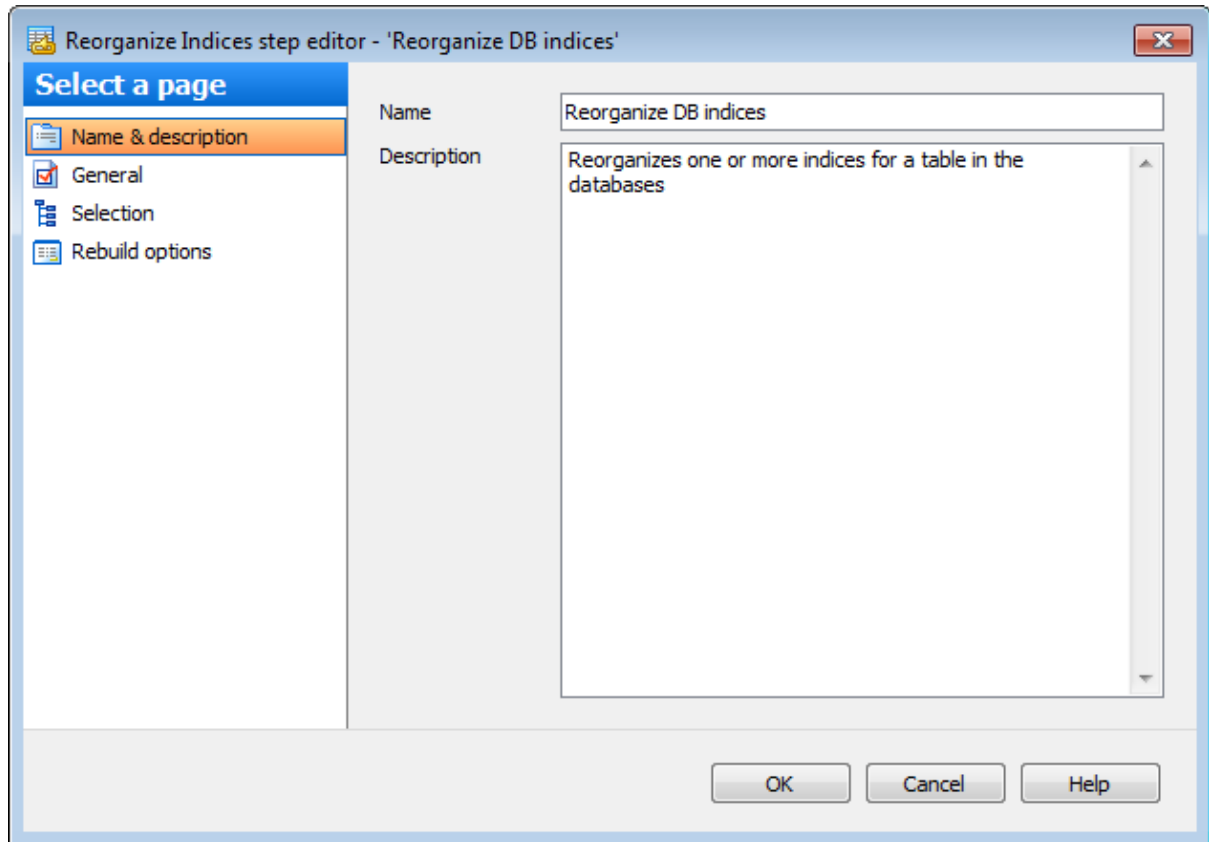
[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.2.8.1 Name and description

This page allows you to view\edit the step name and description.



#### **Task name**

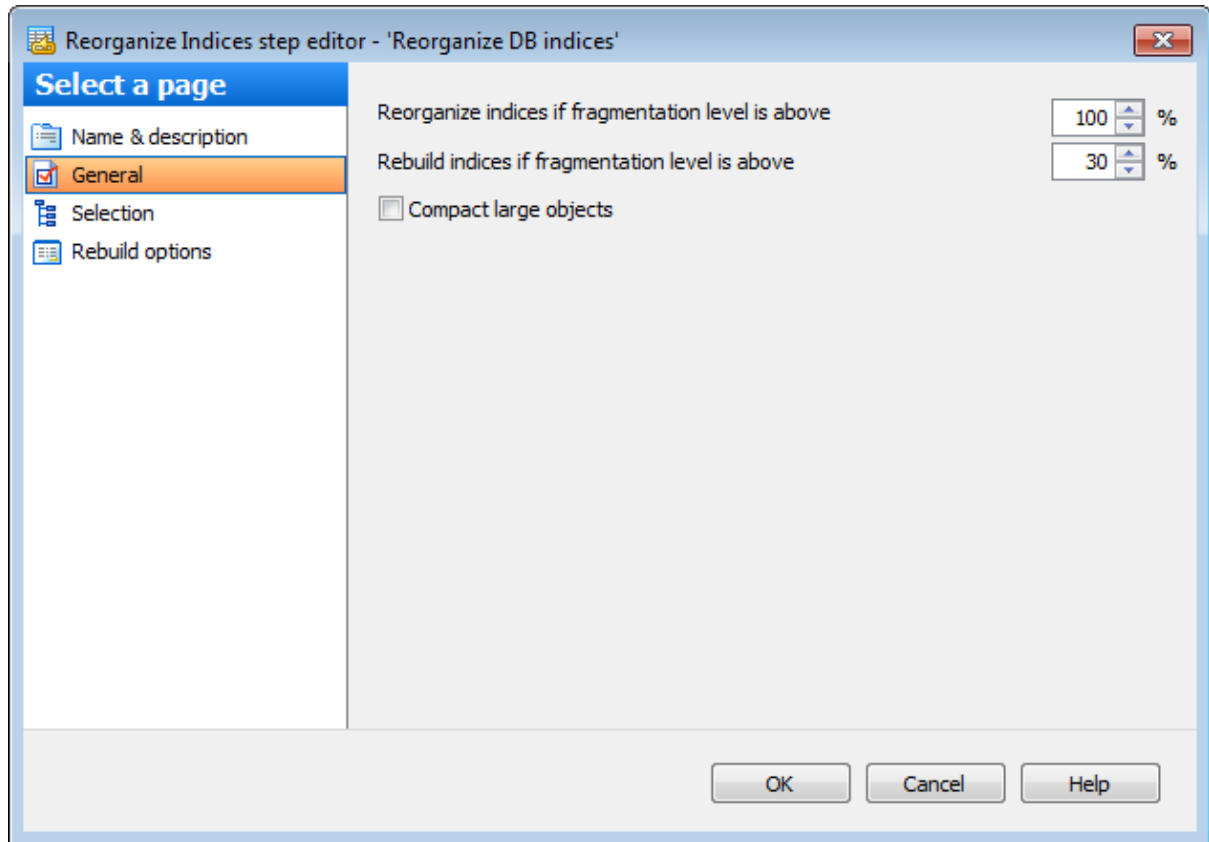
Use this field to name the step.

#### **Description**

This field allows you to define step description.

### 7.2.8.2 General

At this page you can edit general options of the step.



#### **Reorganize indices if fragmentation level is above**

Define the fragmentation limits. Exceeding this limits considers the indices to be reorganized.

#### **Rebuild indices if fragmentation level is above**

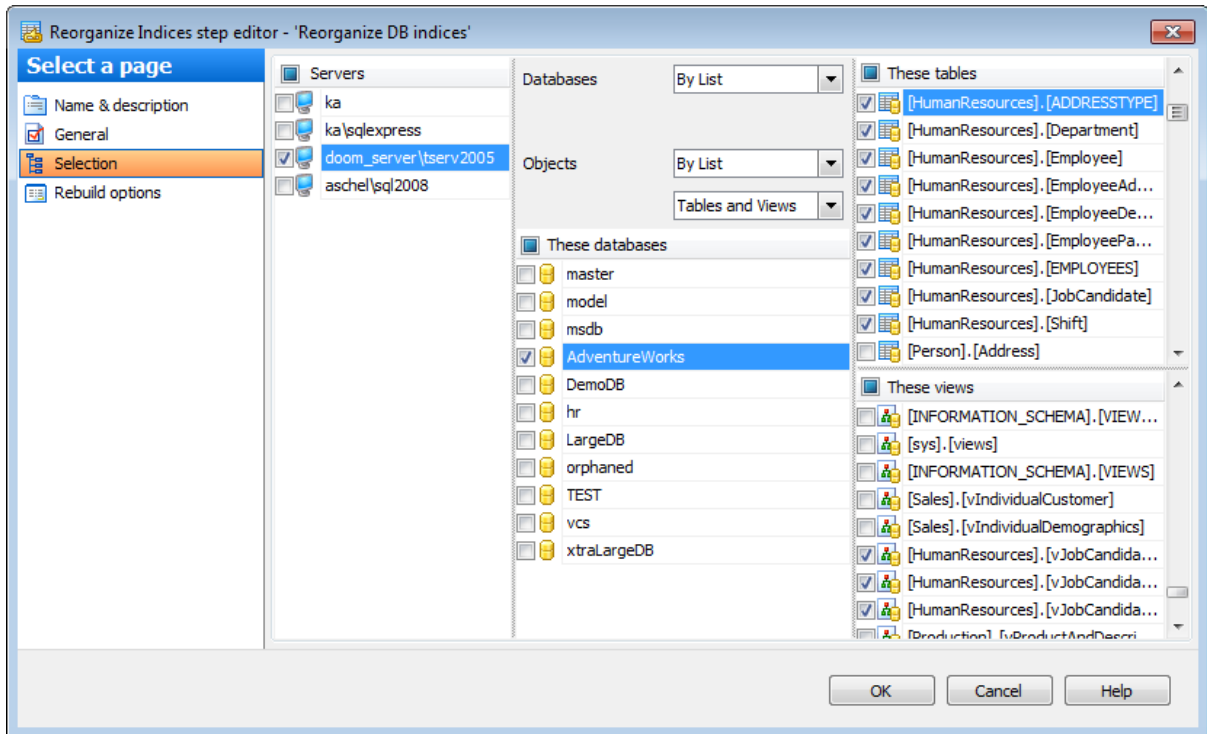
Define the fragmentation limits. Exceeding this limits considers the indices to be rebuilt.

#### **Compact large objects**

Enable this option to compact *image*, *text*, *ntext*, *varchar(max)*, *nvarchar(max)*, *varbinary(max)* and *xml* data.

### 7.2.8.3 Selection

This page allows you to edit object selection for indices reorganization.



#### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode. It is selected on applying the Step Template in Policy.

#### Databases and objects

##### All

Use this option to select both: system and user objects.

##### All system

This option indicates that only system objects should be selected.

##### All user

Select this option to select user objects only.

##### By mask

This option allows defining objects selection by mask. Use **\*** for a set of any characters and **?** for any single character in the object name.

##### Including

This option allows manual selecting of the databases.


**Excluding**

Select the databases which will be excluded from the backup. All databases, not selected in the list, will be included.

**Online only**

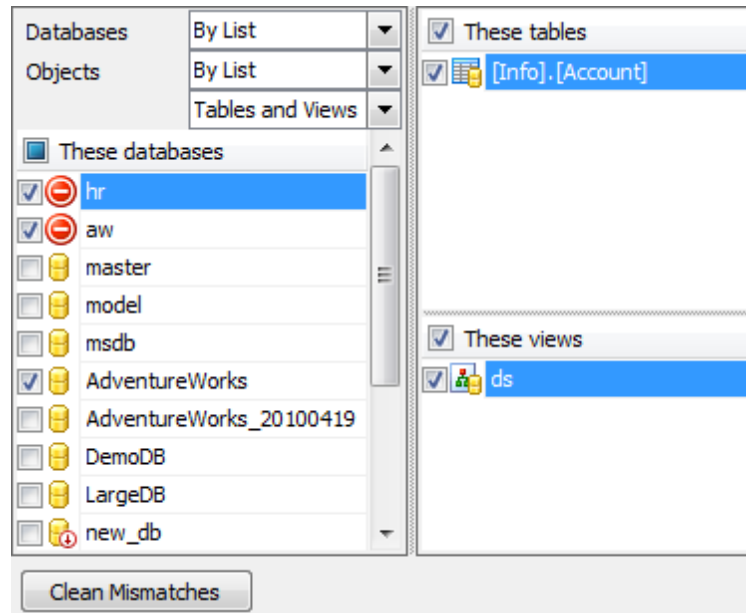
Select only the databases in the online state.

If you are creating a step template then you can add a database to the list by using the

 button or *Ins* key.

**Note:** The server is selected on applying the Step Template in Policy.

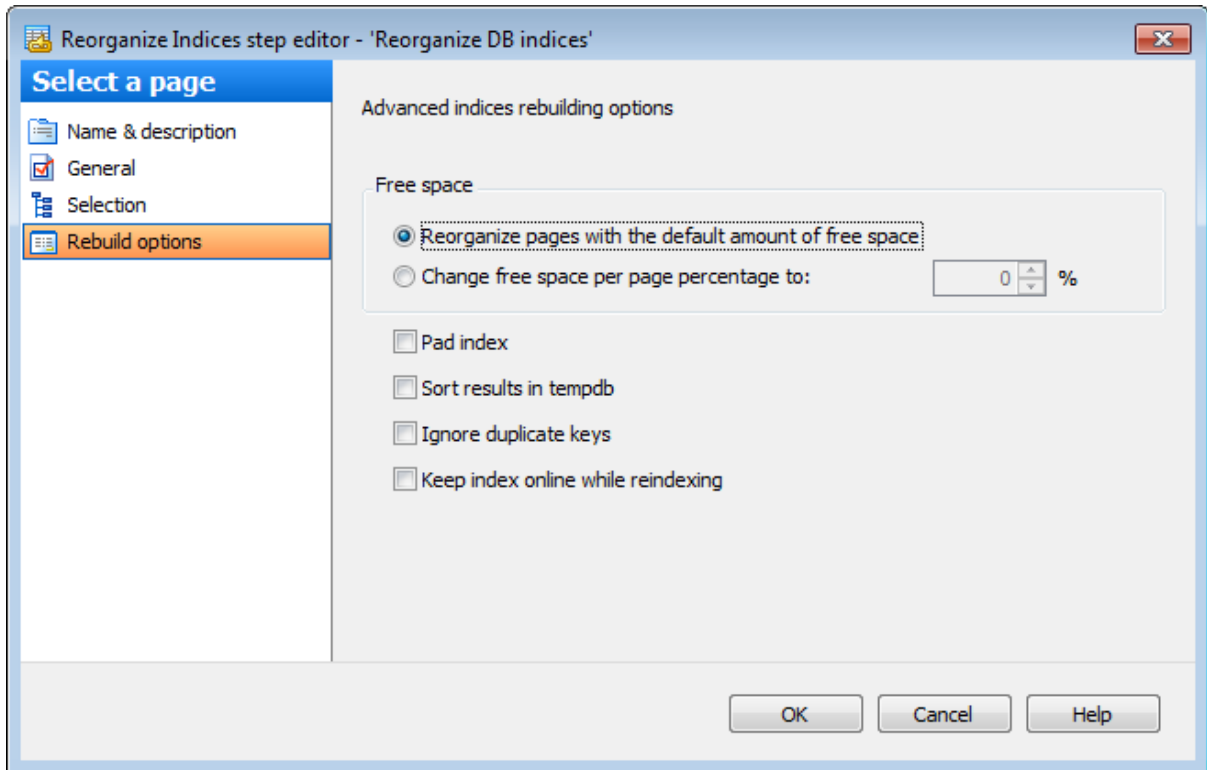
When you are editing a step on creating a policy from [template](#) then if the database(s)/table(s)/view(s) defined on the [Selecting objects](#) step are missed on the selected server the list of database(s)/table(s)/view(s) will be the following.



Click the **Clean Mismatches** button to delete the missed database(s)/table(s)/view(s) from the list for the policy cannot be executed for them.

#### 7.2.8.4 Rebuild options

This tab provides a number of advanced options for index reorganizing.



##### Free space

Define which pages should be reorganized: ones with the  **default** or  **specified** amount of **free space per page**.

##### Pad index

Enable this option to leave the space open on each page in the intermediate levels of index.

##### Sort results in tempdb

This option indicates that intermediate sort results used to rebuild indices will be stored in the tempdb database.

##### Ignore duplicate keys

If the option is enabled then duplicate keys will be ignored.

##### Keep index online while reindexing

This option determines whether concurrent user access to the underlying table or clustered index data and any associated non-clustered indexes is allowed while reindexing.

## 7.2.9 Update Statistics

**Update Statistics** step editor provides the same set of options as [Update Statistics wizard](#).

The following pages are available in this dialog:

[Name and description](#)

[General](#)

[Selection](#)

---

**See also:**

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

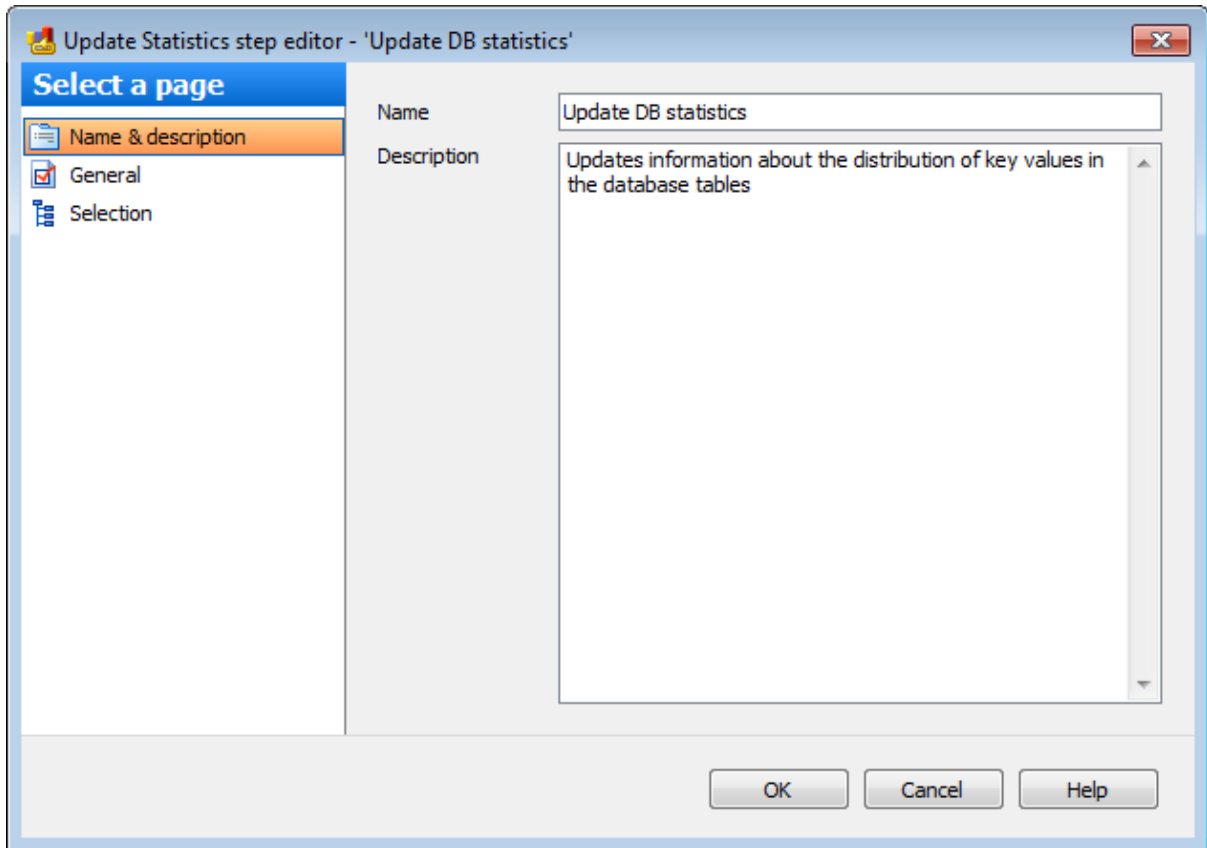
[Database Shipping](#)

[Bulk Restore](#)



### 7.2.9.1 Name and description

This page allows you to view\edit the step name and description.

**Task name**

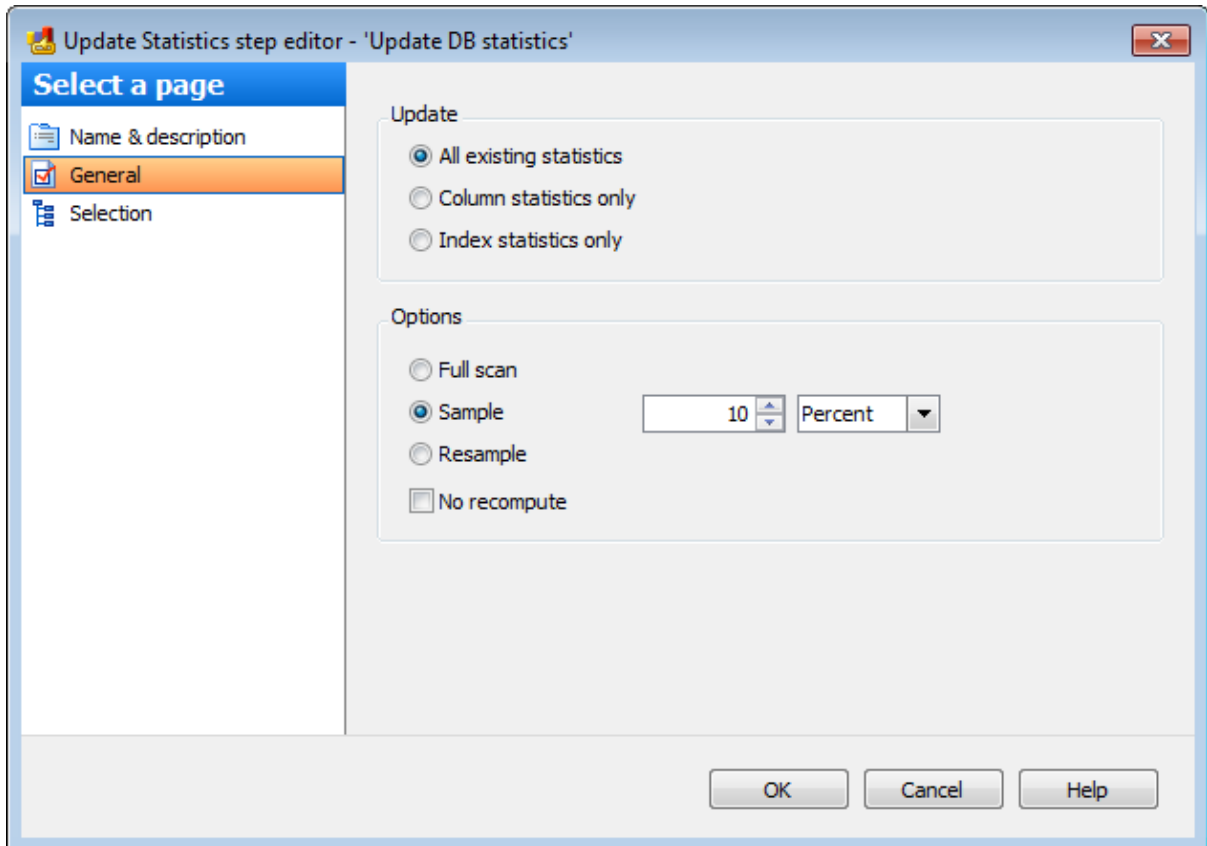
Use this field to name the step.

**Description**

This field allows you to define step description.

### 7.2.9.2 General

At this page you can edit general options of **Update Statistics** step.



#### Update

**All existing statistics**

Select this option if you need to update all statistics.

**Column statistics only**

Use this option to update column statistics only.

**Index statistics only**

This option indicates that only index statistics will be updated.

#### Options

**Full scan**

Specifies that all rows in table or view should be read to gather the statistics. This option provides the same behavior as **Sample 100 Percent**.

**Sample**

Specifies the percentage of the table or indexed view, or the number of rows to sample when collecting statistics for larger tables or views.

**Resample**

Option specifies that statistics will be gathered using an inherited sampling ratio for all existing statistics including indexes. If the sampling ratio results in too few rows being

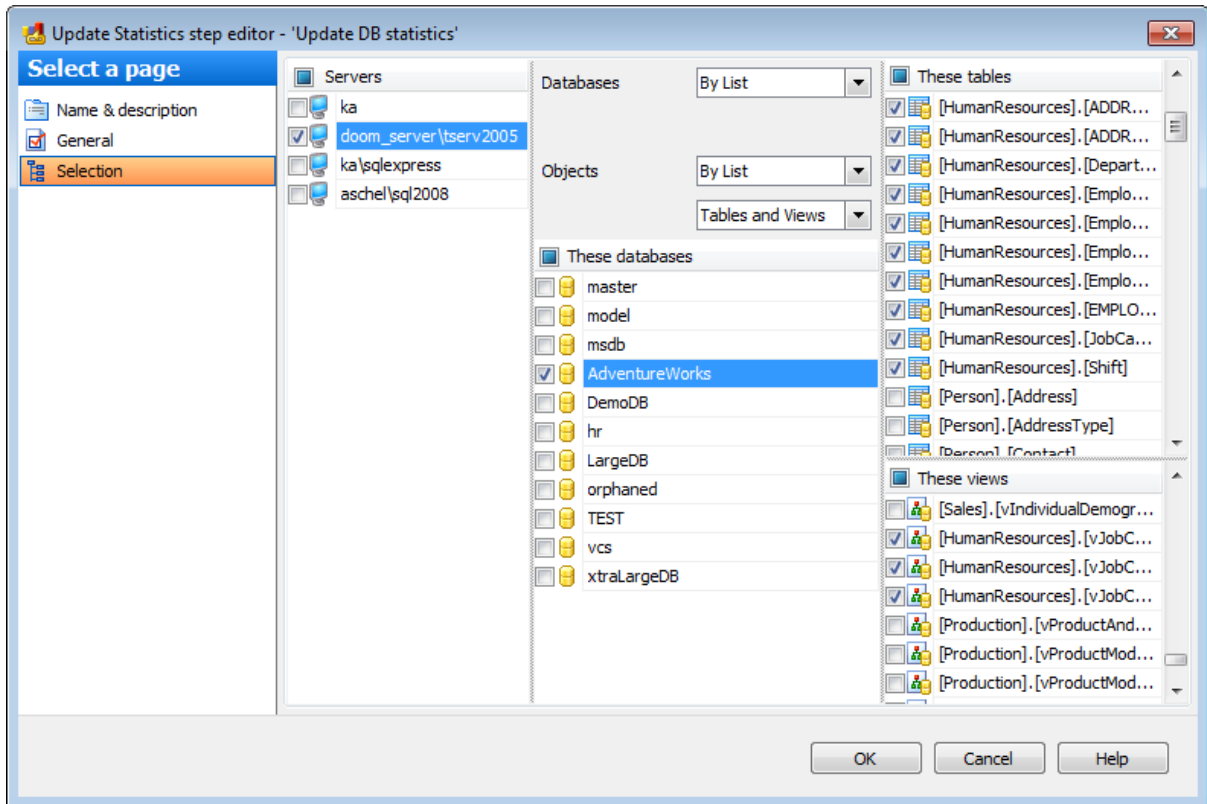
sampled, SQL Server automatically corrects the sampling based on the number of existing rows in the table or view.

**No recompute**

Disable the option to recompute statistics that become out of date automatically.

### 7.2.9.3 Selection

This page allows you to edit object selection to update statistics.



#### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode. It is selected on applying the Step Template in Policy.

#### Databases and objects

##### All

Use this option to select both: system and user objects.

##### All system

This option indicates that only system objects should be selected.

##### All user

Select this option to select user objects only.

##### By mask

This option allows defining objects selection by mask. Use **\*** for a set of any characters and **?** for any single character in the object name.

##### Including

This option allows manual selecting of the databases.


### Excluding

Select the databases which will be excluded from the backup. All databases, not selected in the list, will be included.

### Online only

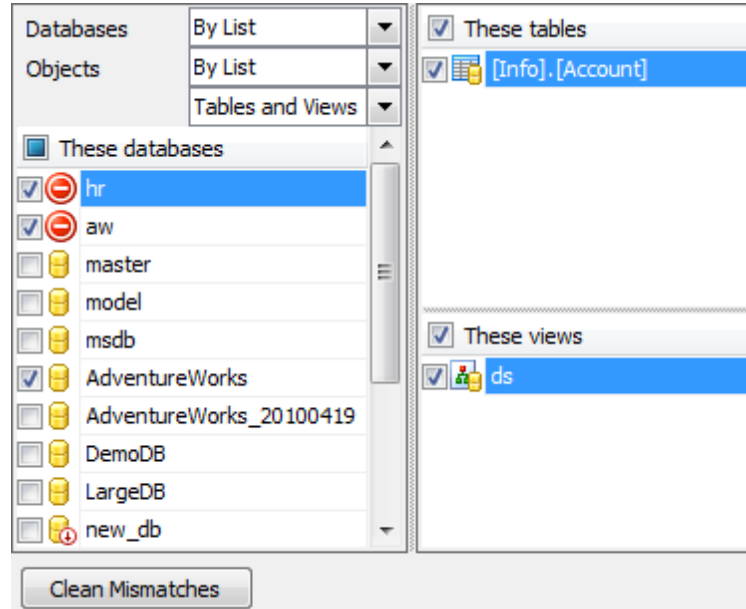
Select only the databases in the online state.

If you are creating a step template then you can add a database to the list by using the

 button or *Ins* key.

**Note:** The server is selected on applying the Step Template in Policy.

When you are editing a step on creating a policy from [template](#) then if the database(s)/table(s)/view(s) defined on the [Selecting objects](#) step are missed on the selected server the list of database(s)/table(s)/view(s) will be the following.



Click the **Clean Mismatches** button to delete the missed database(s)/table(s)/view(s) from the list for the policy cannot be executed for them.

## 7.2.10 Database Parameters Logger

**Database Parameters Logger** step editor provides the same set of options as [Database Parameters Logger wizard](#).

The following pages are available in this dialog:

[Name and description](#)

[General](#)

[Selection](#)

---

**See also:**

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

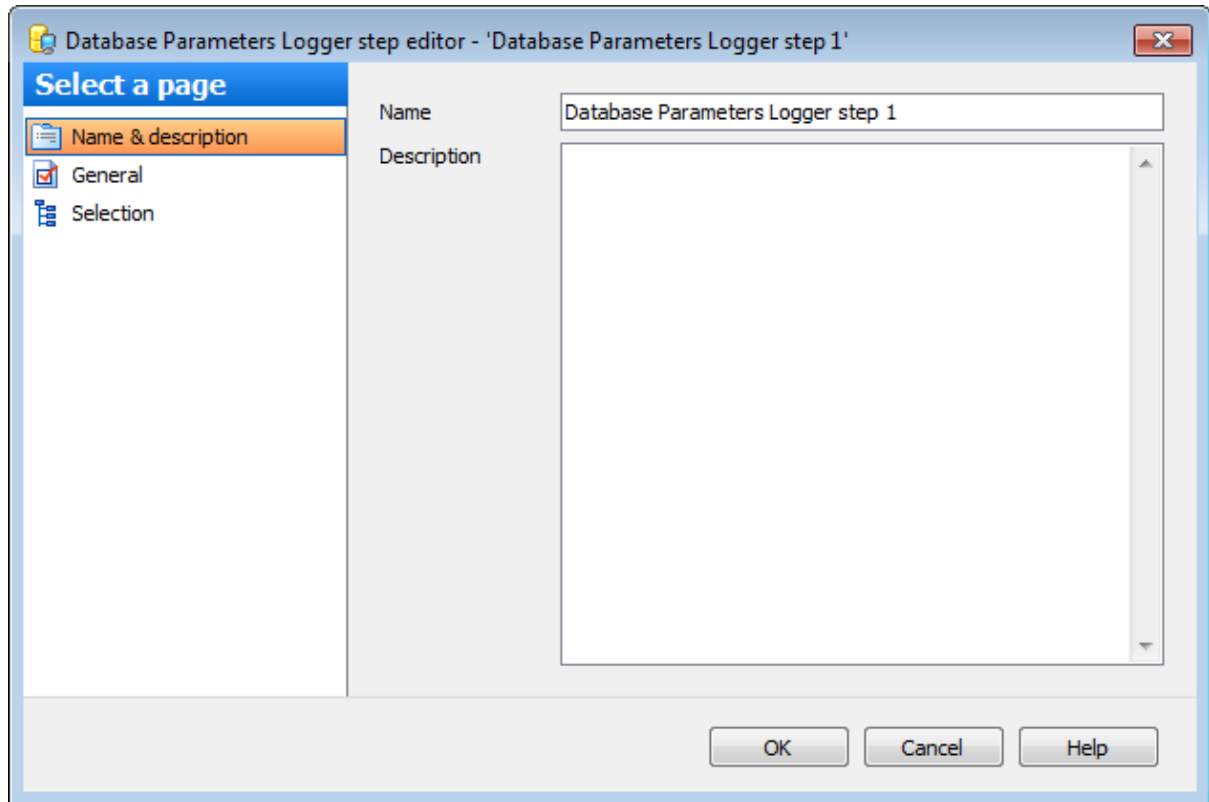
[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.2.10.1 Name and description

This page allows you to view\edit the step name and description.



#### **Task name**

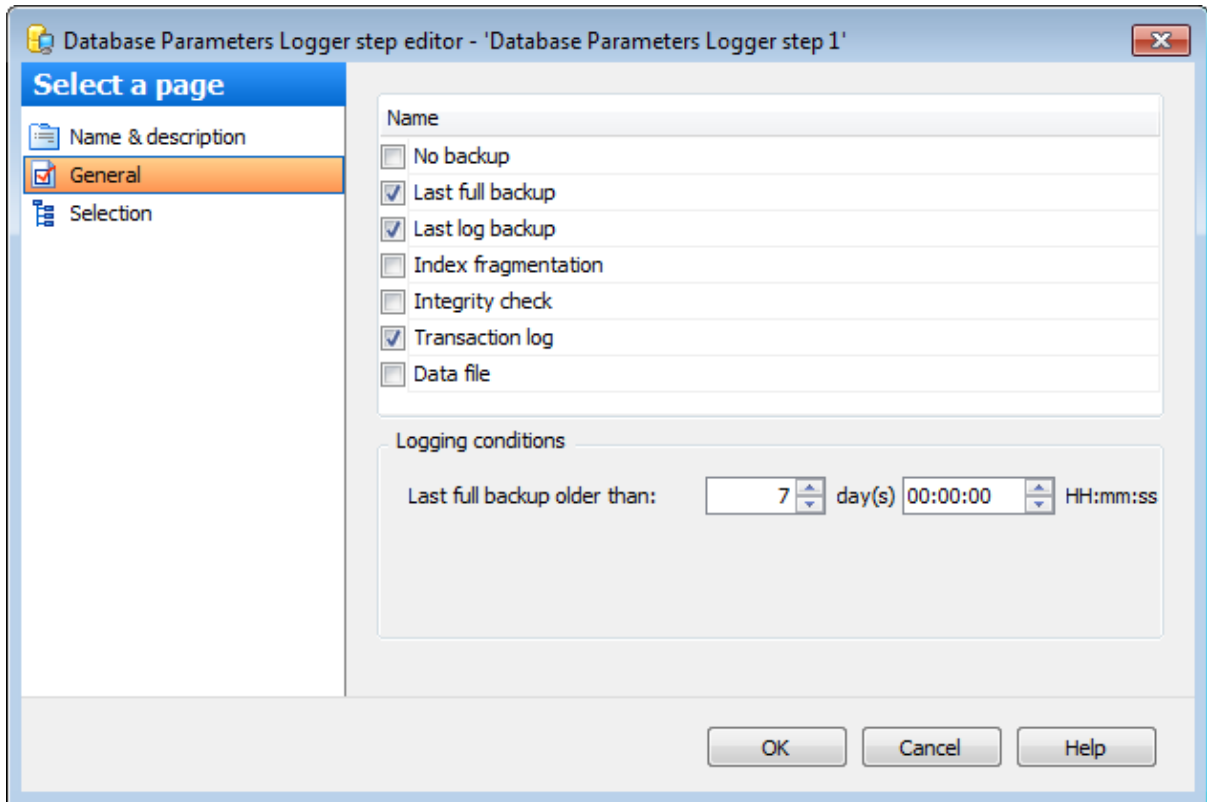
Use this field to name the step.

#### **Description**

This field allows you to define step description.

### 7.2.10.2 General

At this page you can edit general options of **Database Parameters Logger** step.



The options below allow you to define conditions which EMS SQL Backup should perform logging by.

**No backup**

Enable this option to log the list of databases with no backup.

**Last full backup**

The option should be used to log the list of databases with old full backups.

**Last full backup older than**

Defines the time point relatively to current date. The list of databases with full backup made before this point will be logged.

**Last log backup**

Use this option to log the list of databases with old log backups.

**Last log backup older than**

Define the time point relatively to current date. The list of databases with log backup made before this point will be logged.

**Index fragmentation**

Enable this option to log the list of databases with high fragmentation.



**Index fragmentation more than**

Define the level of index fragmentation. Databases list with index fragmentation level above specified will be added to log.

**Only check indices with more than**

This option indicates that only indices with page amount above specified will be checked.

 **Integrity check (SQL Server 2005 or higher)**

Enable this option to log the list of databases with out-of-date integrity check.

**Last integrity check older than**

Define the time point relatively to current date. The list of databases with integrity check made before this point will be added to log.

 **Transaction log**

Enable this option to log the list of databases with transaction log free space below the specified limit.

**Free space is less than**

This option defines transaction log free space limit. Log includes list of databases with amount of free space less than this limit.

**Log file is larger than**

This option adds log file size condition. List of databases which transaction log file is larger than the specified limit will be included to log.

 **Data file**

This option indicates that log should include databases with data file free space below the specified limit.

**Free space is less than**

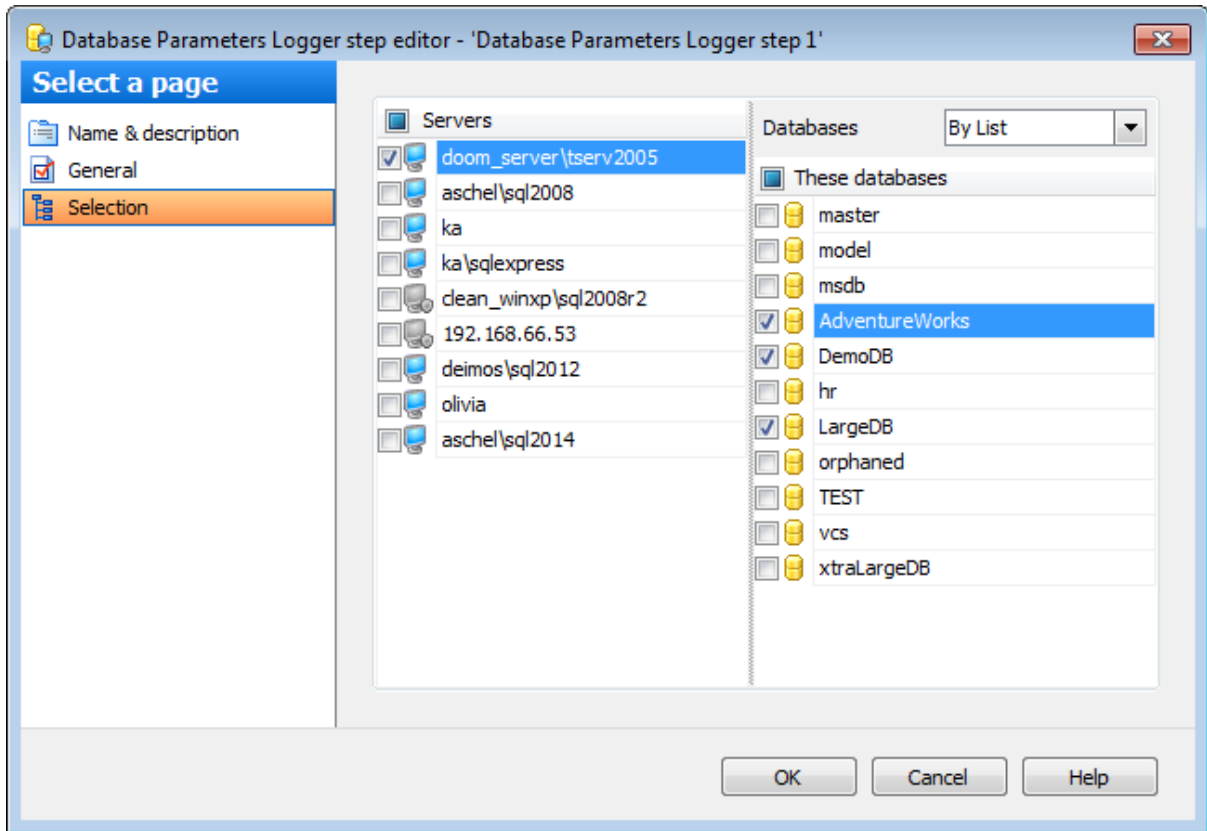
Use this option to define the data file free space limit.

**Data file is larger than**

Use this option to define data file size condition. Databases which data file is above this limit will be added to log.

### 7.2.10.3 Selection

This page allows you to edit database selection to log database parameters.



#### Servers

Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode. It is selected on applying the Step Template in Policy.

#### Databases and objects

##### All

Use this option to select both: system and user objects.

##### All system

This option indicates that only system objects should be selected.

##### All user

Select this option to select user objects only.

##### By mask

This option allows defining objects selection by mask. Use **\*** for a set of any characters and **?** for any single character in the object name.

**Including**

This option allows manual selecting of the databases.

**Excluding**

Select the databases which will be excluded from the backup. All databases, not selected in the list, will be included.

**Online only**

Select only the databases in the online state.

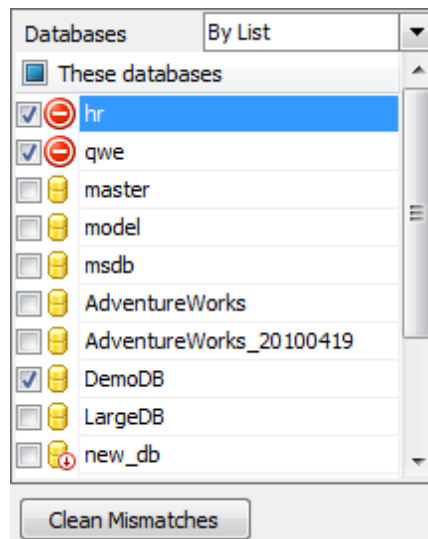
If you are creating a step template then you can add a database to the list by using the



button or *Ins* key.

**Note:** The server is selected on applying the Step Template in Policy.

When you are editing a step on creating a policy from [template](#) then if the database(s) defined on the [Selecting database](#) step are missed on the selected server the list of databases will be the following.



Click the **Clean Mismatches** button to delete the missed databases from the list for the policy cannot be executed for them.

## 7.2.11 Maintenance Cleanup

**Maintenance Cleanup** step editor provides the same set of options as [Maintenance Cleanup wizard](#).

The following pages are available in this dialog:

[Name and description](#)

[General](#)

[Selection](#)

---

**See also:**

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

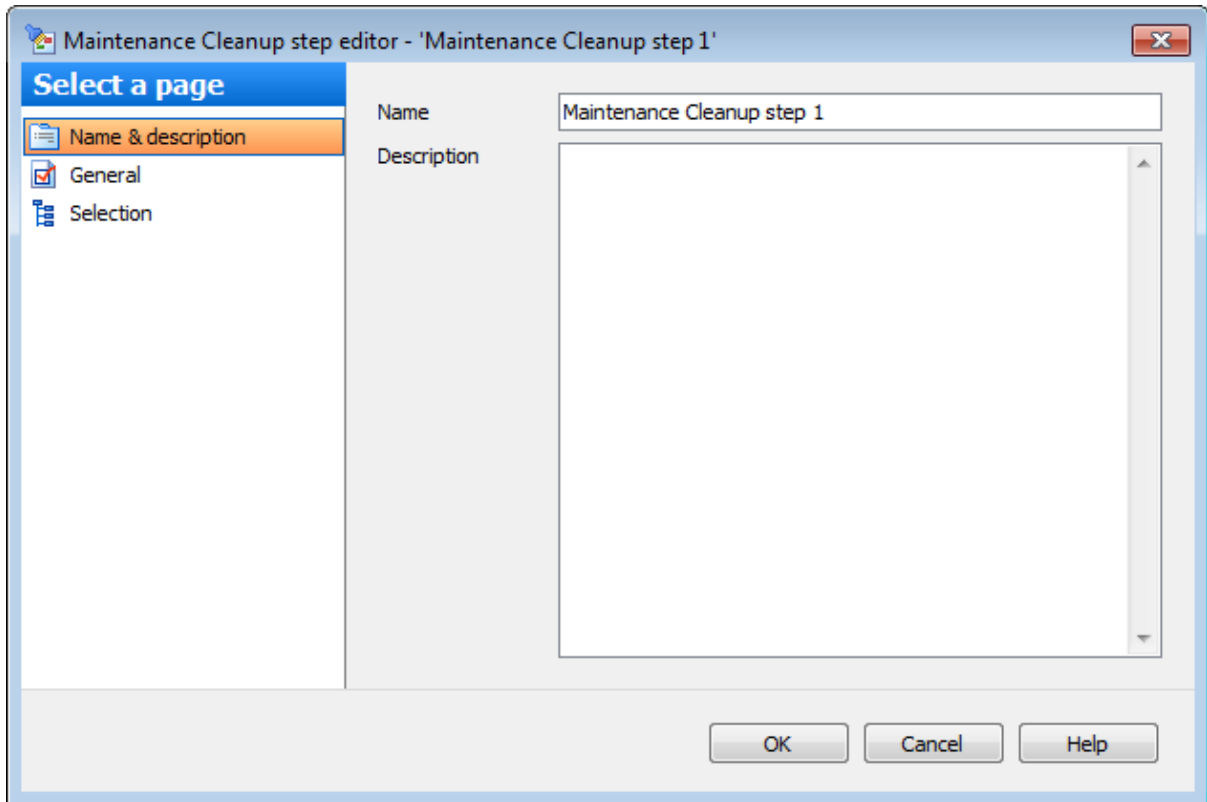
[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.2.11.1 Name and description

This page allows you to view\edit the step name and description.



#### **Task name**

Use this field to name the step.

#### **Description**

This field allows you to define step description.

### 7.2.11.2 General

At this page you can edit general options of **Maintenance Cleanup** step.

Maintenance Cleanup step editor - 'Maintenance Cleanup step 1'

Select a page

- Name & description
- General**
- Selection

SQL Backup and Clouds criteria

All files older than  Days

All files except for the latest

SQL Server criteria

Apply file age criteria on maintenance cleanup

Delete files older than  Month(s)

OK Cancel Help

#### SQL Backup and Clouds criteria

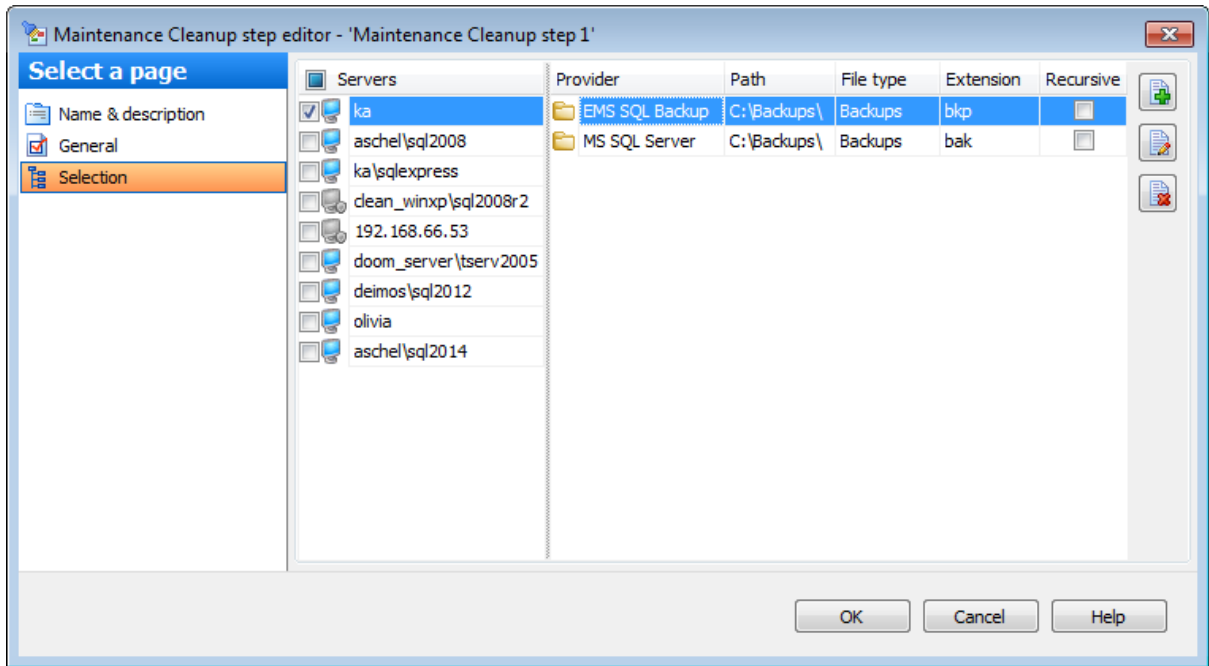
Set the conditions for EMS SQL Backup backup files and files on clouds to be deleted. Use *All files older than* for time limiting or *All files except for the latest* criteria to specify the number of the latest backups to keep.

#### SQL Server criteria

**Apply file age criteria on maintenance cleanup**  
Use this option to delete files above the age specified below.

### 7.2.11.3 Selection




This page allows you to edit server and folder/files selection for maintenance cleanup.



#### Servers

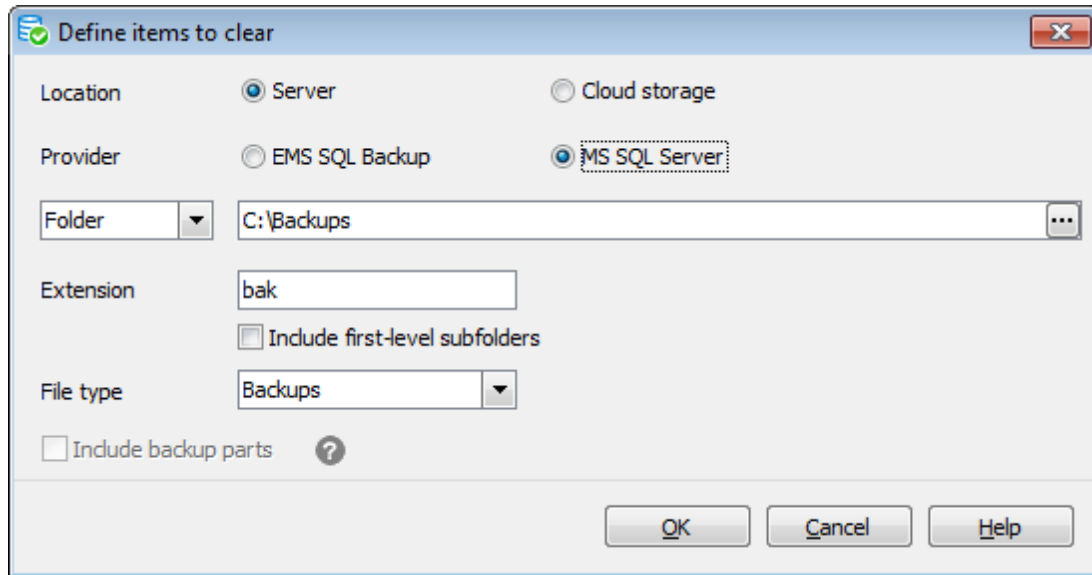
Select the **servers** to run the operation on. If the servers name icon is grayed out the Backup service is not run (installed) or there is no connection to the server.

**Note:** Selecting servers is not available in Template mode. It is selected on applying the Step Template in Policy.

Use  **Add file or folder specification** to add a cleanup destination and  **Edit specification**,  **Remove selected** specification for appropriate actions.

#### Cleanup specification

In this dialog you can define locations or files to be cleared on the server or cloud storage.



### Location

Select *Server* if you want to clear folders/files stored on your server locally. Select *Cloud storage* if you want to delete files located on the [cloud](#).

### Server

#### Provider

Select whether the files created by *EMS SQL Backup* or *SQL Server* will be cleaned.

### Folder

Set the search folder for the files. The path is set relatively to the server which you selected in the Server list.

If the *MS SQL Server* has been selected as a **Backup provider** then you can define the path and name of the specific backup **File** to be deleted.

### Extension

Specify the custom extension for backup or report files if it differs from the default.

Enable  **Include subfolders** /  **Include first-level subfolders** option if you need to clean up all sub-folders of the specified folder.

### File type

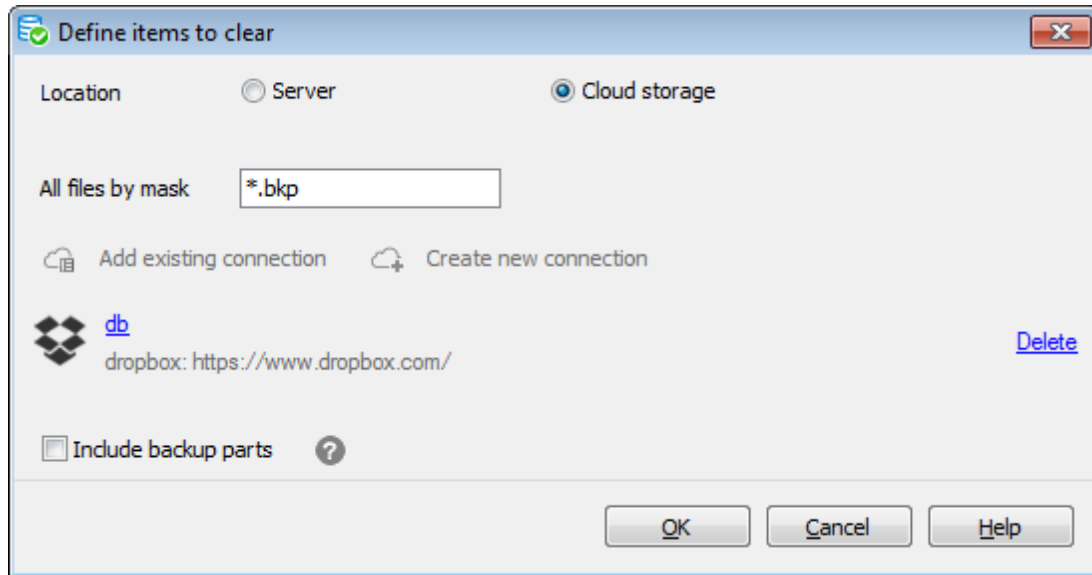
Use this drop-down list to specify the the type of files to be deleted:

- *Backups* - backup files;
- *Reports* - text reports of previously run maintenance plans.

**Note:** This drop-down list is available if the *MS SQL Server* has been selected as a **Provider**.

### Cloud storage





Here you need to specify the cloud storage where you want to delete backup files. You can create a new connection or add an existing one. On adding an existing connection you will be offered to choose among connections specified in [Cloud Connections](#) tab of the Options dialog.

If you create a new connection then after specifying its properties you will be offered to save it, so this connection will be available in [Cloud Connections](#).

To change connection parameters click on its name. Depending on connection type the relevant dialog for configuring connection settings will be opened.

#### **All files by mask**

In this field you can specify the mask for the file names to be deleted.

#### **Include backup parts**

If this option is ON the program searches for linked parts for the backups matching the specified extension or mask. The found files will be deleted.

**Note:** This option is only available for *EMS SQL Backup* provider type. It's not applied for clouds if \*.\* mask is set.

## 7.2.12 Transaction Log Shipping

**Transaction Log Shipping** step editor provides the same set of options as [Transaction Log Shipping wizard](#).

The following pages are available in this dialog:

[Name and description](#)

[Backup options](#)

[Restore options](#)

[Selection](#)

---

**See also:**

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

[Maintenance Cleanup](#)

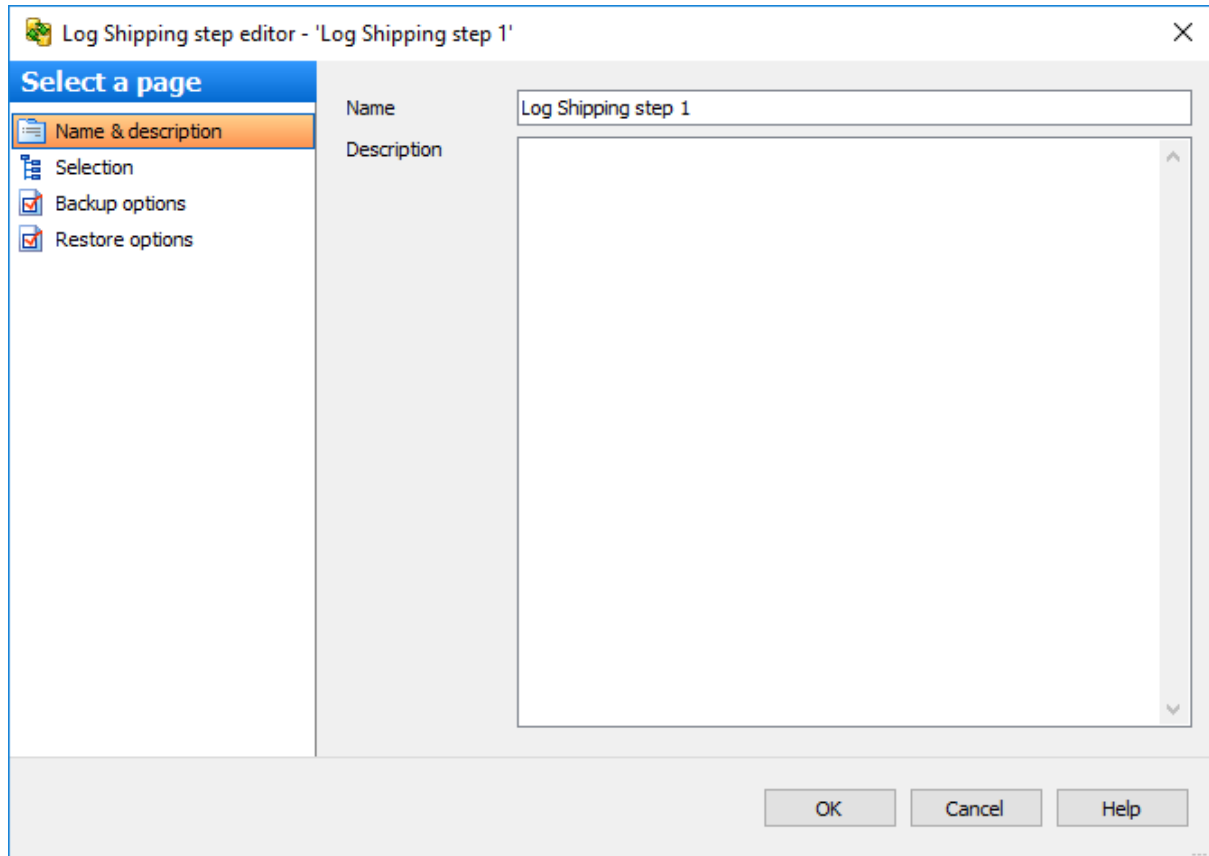
[Transaction Log Shipping](#)

[Database Shipping](#)

[Bulk Restore](#)

### 7.2.12.1 Name and description

This page allows you to view\edit the step name and description.



#### **Name**

Use this field to name the step.

#### **Description**

This field allows you to define step description.

### 7.2.12.2 Backup options

This page is used to define backup options for log shipping operation.

Log Shipping step editor - 'Log Shipping step 1'

**Select a page**

- Name & description
- Selection
- Backup options**
- Restore options

Backup folder:  ...

Max Thread Count:

Compression

Compression Level:

Encryption

Encryption Password:

Confirm Password:

Encryption Type:

Keep backups on the source server

**Note:** {backup\_root\_folder} can be configured in the Server-side Components Properties dialog.

#### Backup folder

Specify the directory for backup. It is set relatively the source server. You can check availability of this folder by clicking the corresponding button.

#### Max Thread Count

Indicates the number of threads to be used for backup operation. Increase the number of threads for faster speed. If you are using a multi-processor system, increasing this value can fasten backup speed. You are recommended to set one thread fewer than the number of processors.

#### Compression

Enable the option to compress backup.

#### Compression Level

Defines backup file compression level. Use '1' for best speed and '4' for best compression.

#### Encryption

Enable the option to encrypt backup.

#### Encryption Password

Set password that is used for backup encryption.

**Confirm password**

Confirm the password specified as an encryption password above.

**Encryption Type**

Select the encryption algorithm.

 **Keep backups on the source server**

Enable this option if you want to store transaction log backup files on the source server in the folder which is specified in the **Backup folder** field.

### 7.2.12.3 Restore options

This page is used to define restore options for log shipping operation.

The screenshot shows the 'Log Shipping step editor' window with the 'Restore options' tab selected. The 'Network shared folder' is set to '\\nas\shared'. Under 'Authorization', 'Windows Authentication' is checked, and 'User name' and 'Password' fields are empty. The 'Destination folder' is 'D:\Backups'. In the 'Recovery options' section, 'No recovery (leaves database in the restoring state)' is selected, and 'Standby (leaves database in read-only and standby mode)' is unselected. The 'Undo file name' field is empty. The 'Kill connections to destination database' checkbox is unchecked. At the bottom, there are 'OK', 'Cancel', and 'Help' buttons.

#### Network shared folder

Specify the backup shared folder for copying transaction log backups of the source database. Both source and destination servers should have access to this folder otherwise log shipping cannot be performed. Specify the authorization parameters for the shared folder in the **Authorization** section. Click the **Check** button to make sure that the folder is accessible by both servers.

#### Authorization

This section is used to set authorization parameters which are used to access network shared folder.

**NB:** When you set **Windows Authentication** please note that the credentials of the account which EMS SQL Backup Service is running under will be used. Make sure that accounts from source and target servers can be authorized.

#### Destination folder

Specify the destination server folder which the backups will be shipped to. This folder must be set relatively to the destination server.

#### Recovery options

This group of options allows you to specify the recovery options to be applied to the restore operation. The destination database may be in either the recovering or standby

state, which leaves the database available for limited read-only access.

**No recovery (leaves database in the restoring state)**

This option specifies that the restore operation does not roll back any uncommitted transactions.

**NB:** When this option is selected, the database is not usable in this intermediate, non-recovered state.

When used with a file or filegroup restore operation, this option forces the database to remain in the restoring state after the restore operation. This is useful in either of the following situations:

- a restore script is being run and the log is always being applied;
- a sequence of file restores is used and the database is not intended to be usable between two of the restore operations.

**Standby (leaves database in read-only and standby mode)**

This option allows the database to be brought up for read-only access between transaction log restores and can be used with either warm standby server situations or special recovery situations in which it is useful to inspect the database between log restores.

**Undo file name**

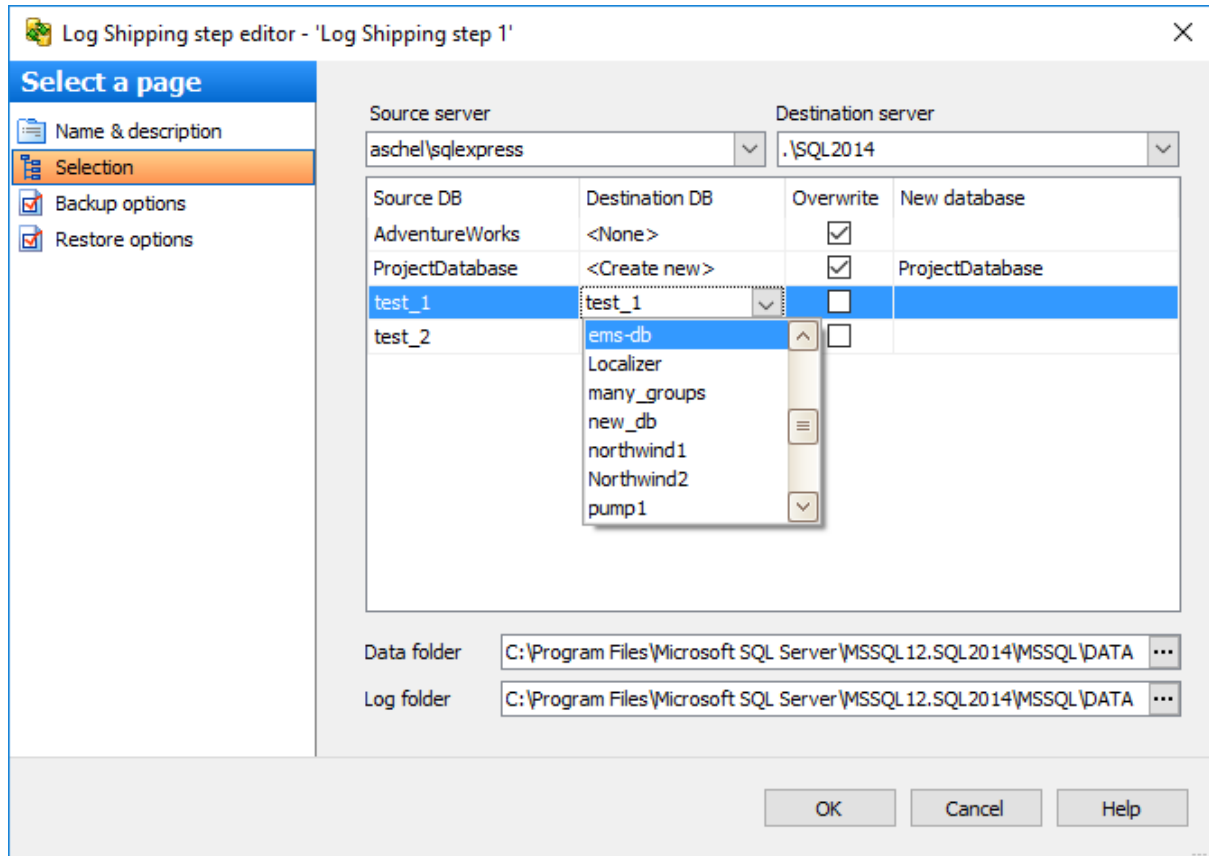
Specify the undo file name, so that the recovery effects can be undone. The same undo file can be used for consecutive restores of the same database.

**NB:** If free disk space is exhausted on the drive containing the specified undo file name, the restore operation stops.

Set  **Kill connections to destination database** option ON to forced disconnection of all processes. We recommend to check it, if Overwrite option has been set at [Step 2](#).

### 7.2.12.4 Selection

This page allows you to edit database selection to ship transaction logs.



#### Source server

Select the server where the database that you want to back up to another server is located.

#### Destination server

Select the server where transaction logs are shipped to from the **Destination server** list.

Set the database pairs in the grid. The backups of transaction logs are performed on the source server and restored on the destination server. If the destination database does not exist, you can select *New database* item in the **Destination DB** column and specify its name in the **New database** column. If the destination database needs rewriting, set the corresponding flag in the **Overwrite** column. Creating and overwriting of the databases is performed by creating a full backup of the source database and its further restoring. Even in case of scheduled execution, creating of a database is executed immediately on wizard finish.

#### Data folder

Specify the path for data MDF files for the newly created database.

#### Log folder



Specify the path for data LDF files for the newly created database.

**Note:** When creating a template no databases can be selected.

If the **Overwrite** option was selected or you have chosen to create a new database then the first stage of the operation is performed immediately on applying settings (pressing the OK button). On the next step editing the **Overwrite** option will be reset and the *<Create new>* item will be replaced with the created database name.

### 7.2.13 Bulk Restore

**Bulk Restore** step editor provides the same set of options as [Bulk restore wizard](#).

The following pages are available in this dialog:

[Name and description](#)

[Selection](#)

[Options](#)

---

**See also:**

[Backup database](#)

[Execute SQL Server Agent job](#)

[Execute T-SQL statement](#)

[History Cleanup](#)

[Database Integrity Check](#)

[Shrink Database](#)

[Reorganize Indices](#)

[Update Statistics](#)

[Database Parameters Logger](#)

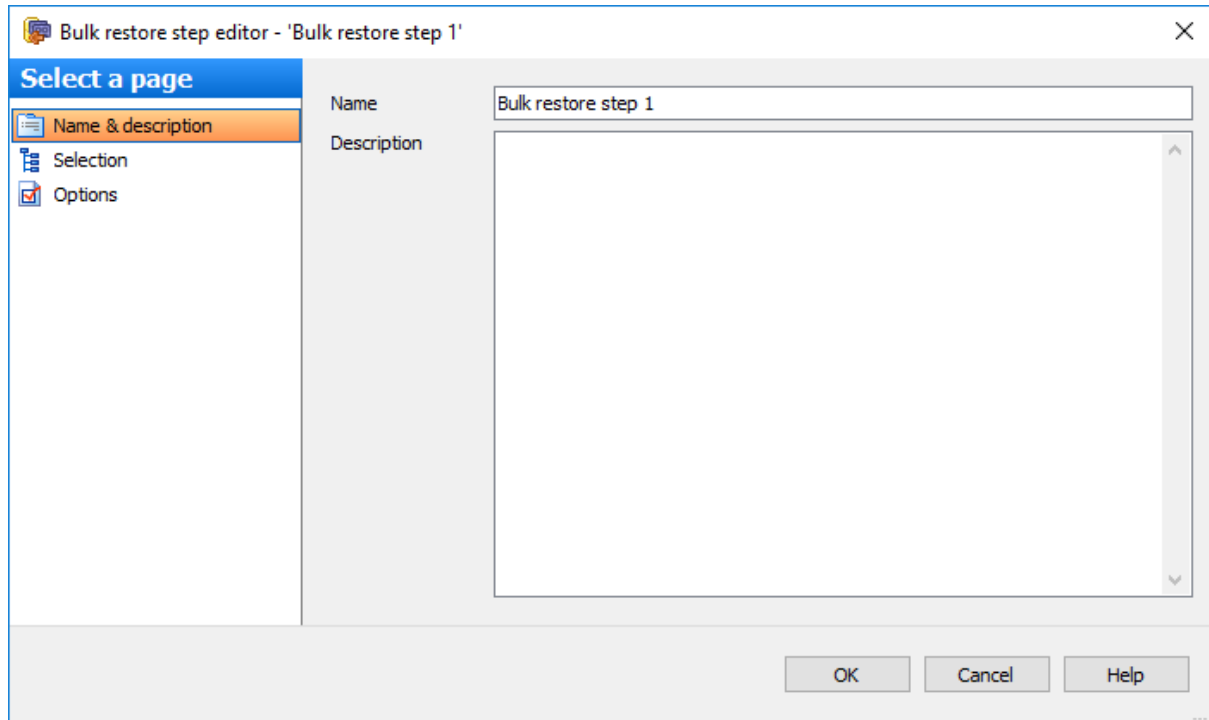
[Maintenance Cleanup](#)

[Transaction Log Shipping](#)

[Database Shipping](#)

### 7.2.13.1 Name and description

This page allows you to view\edit the step name and description.

**Name**

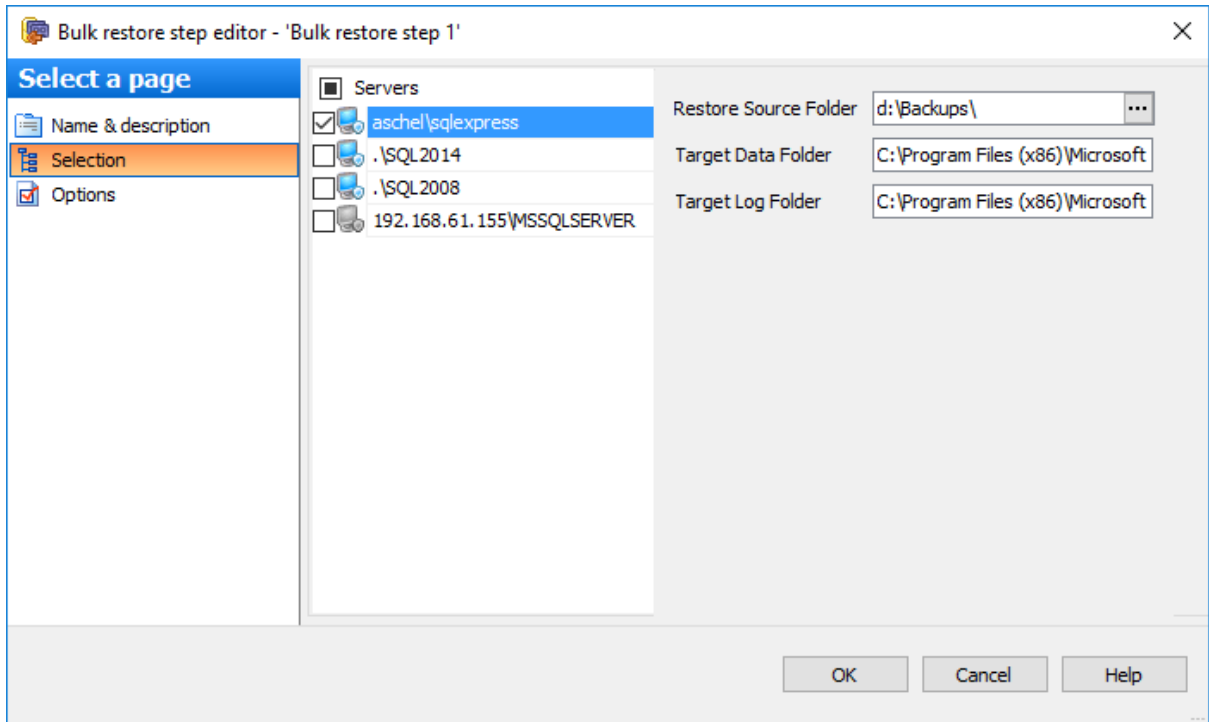
Use this field to name the step.

**Description**

This field allows you to define step description.

### 7.2.13.2 Selection

Use this tab to select servers and edit folders for restoring.



#### Restore Source Folder

Specify the folder for files search. Backups are retrieved in the following way. The program scans all files and fetches all database names from backups. The latest backup is chosen for each found database. If the latest file is a differential or transaction log backup EMS SQL Backup searches for all the previous backups required for successful restoring and applies all files automatically.

#### Target Data Folder

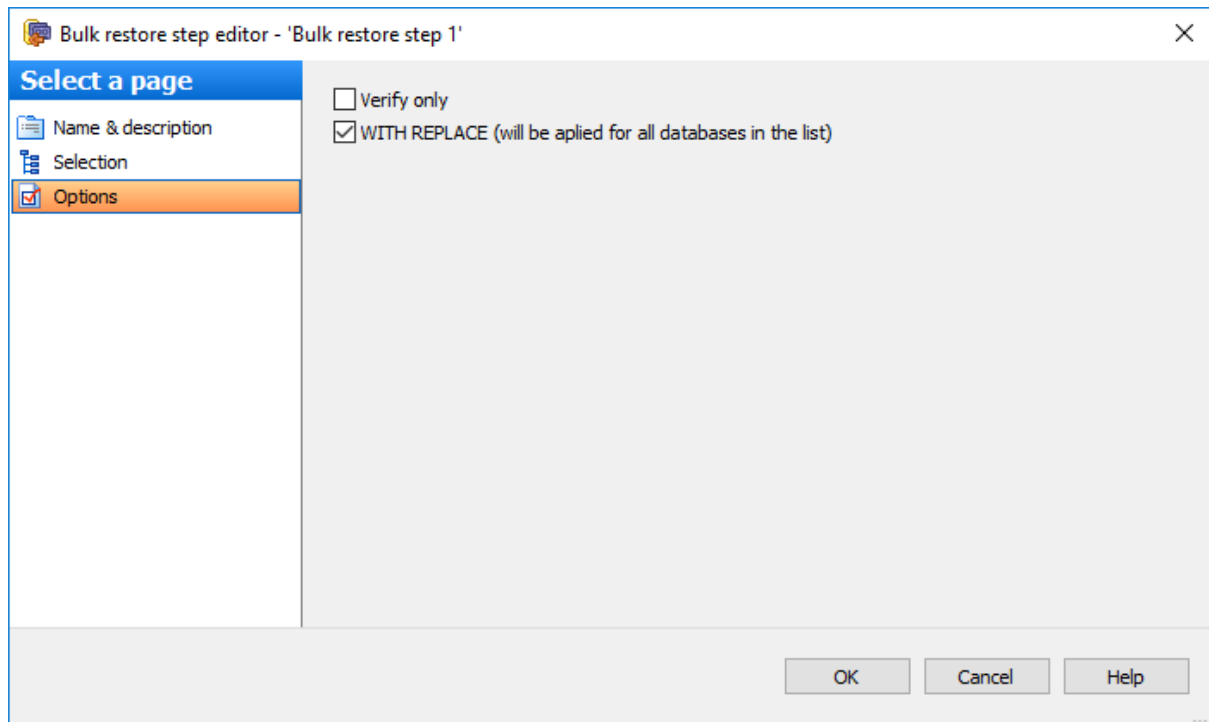
Specify the folder where database data files will be moved to.

#### Target Log Folder

Specify the folder where database transaction log files will be moved to.

### 7.2.13.3 Options

Use this tab to edit options which will be applied to all restoring databases.



**Verify only**

Check this option to enable selected backup set verification. It checks that the backup is intact physically to ensure that all files in the backup are readable and can be restored.

**WITH REPLACE (will be applied for all databases in the list)**

This option specifies that SQL Server databases will be overwritten if they already exist.

**Part**



## 8 Gears menu

This chapter contains information concerning personalization of the application. These tools are accessible via pressing the ⚙️ Gears button located in the left-top corner of the EMS SQL Backup window.

[Switch Configuration](#)

[Save Configuration](#)

This group sets options for storing program settings.

[Options](#)

This group includes general options: data security, server refresh, log depth and cloud storages.

---

**See also:**

[Getting Started](#)

[Servers](#)

[Policies](#)

[Templates](#)

[Activities](#)

[Maintenance Steps](#)

## 8.1 Switch/Save configuration

Program settings are stored in XML format. You can save them either in a separate XML file or in database table. The settings include info concerning server registration, policies, groups and solutions, templates, environment options.

**Note:** We recommend you to make backups of the table with EMS SQL Backup settings. XML file is backed up automatically on program launch (see .bak file in the current settings folder).

### Switch Configuration

You can load different or backed up program configuration using **Switch configuration** EMS SQL Backup Console menu item. The current options, if not saved, will be lost.

### Save Configuration

You can save existing configuration using **Save configuration** EMS SQL Backup Console menu item.

Please specify where the Application configuration will be stored.

Store in a configuration file on your local computer

File Name

Store in SQL Server database

Server Name

Authentication

Windows Authentication  SQL Server Authentication

User Name

Password

Connection Timeout

Database Name

Schema

Options table

Switch to the saved configuration

- Store in a configuration file on your local computer



Set the path to the settings file and its name in the **File Name** field.

**Store in an SQL Server database**

**Server Name**

Select the host from the drop-down list to connect to. The list contains servers found automatically in the local network.

This list is formed using SQL-DMO components function - "ListAvailableSQLServers". If SQL-DMO components are not installed the "NetServerEnum" function from netapi32.dll is used. If neither SQL-DMO components, nor netapi32.dll are installed, the Server name drop-down list will be empty when the program is launched for the first time, and filled with host names already registered in the program, during further launches.

Please note that if Microsoft® SQL Server™ is installed as a named instance, you should input instance name in the 'Server name' field in the following format:

computer\_name\sqlserver\_instance\_name or ip\_address\sqlserver\_instance\_name (e.g. "MYCOMPUTER\SQLEXPRESS", "127.0.0.1\SQLEXPRESS" ).

**Note:** If a server name cannot be found automatically, type in its name in the field.

Select **Authentication** type to be used for the connection:  **Windows Authentication** or  **SQL Server authentication**

and set user name and password correspondingly.

**Connection timeout**

Set timeout limit (in seconds) for establishing connection to the server.

**Database Name**

Select the database name for loading\saving the configuration from the drop-down menu.

**Test Connection**

Check whether the connection is established successfully.

**Schema** is a database schema for configuration table that will store logs and policy table names.

**Options Table Name**

EMS SQL Backup policies will be stored in this table.

**Switch to Saved Configuration**

Enable this option to move current configuration to another location and apply it, otherwise configuration will be saved (exported) to the specified location.

## 8.2 Options

This tool allows you to customize general options of EMS SQL Backup. To open the tool use **Environment options** EMS SQL Backup Console menu item.

[General](#)

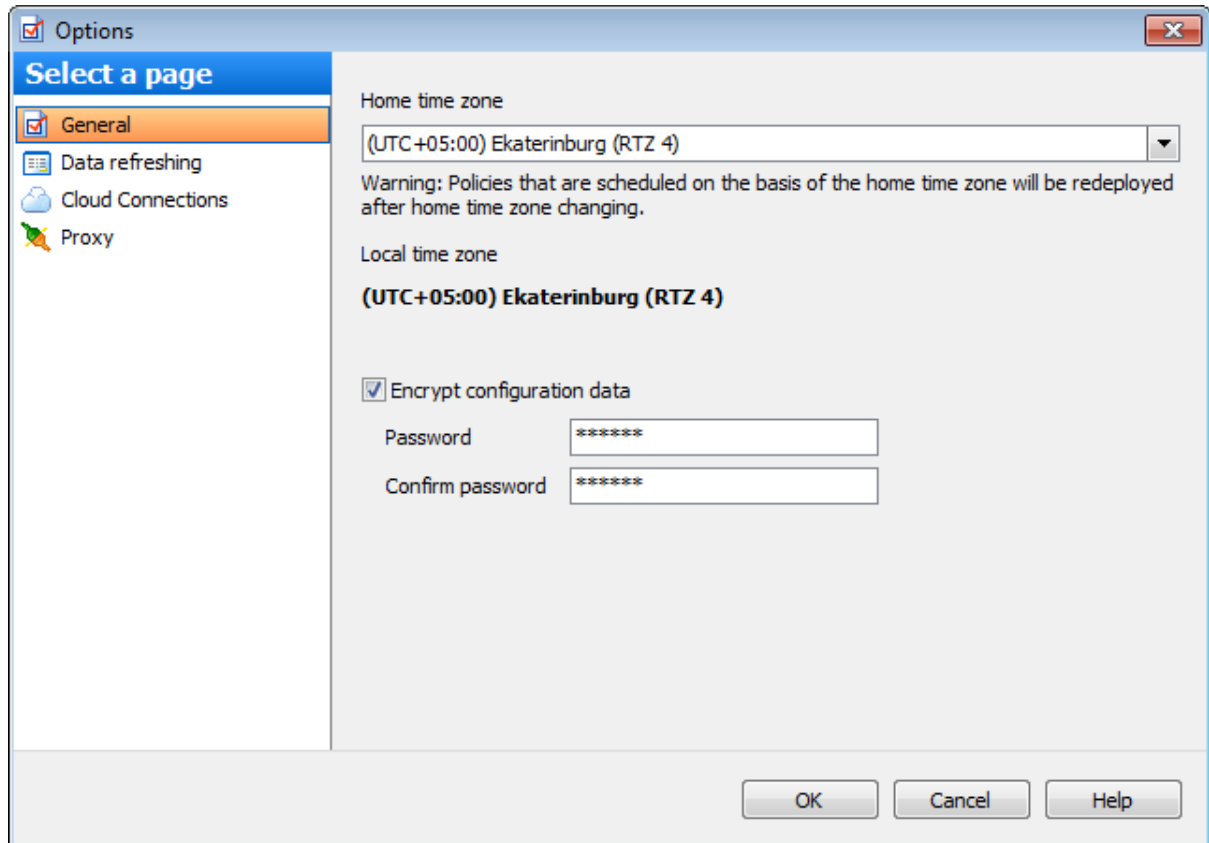
[Data refreshing](#)

[Cloud Connections](#)

[Proxy](#)

## 8.2.1 General

**General** options tab allows you to set the security parameters for configuration data and select the EMS SQL Backup Console time zone.



The **Home time zone** option is used for planning tasks in [policies](#).

When you first launch the EMS SQL Backup Administration Console its Home time zone equals the time zone set on the machine it was started on. If your machine is moved to another time zone the Console time zone is not change automatically. You need to switch it using the **Home time zone** combobox. All time zones available in the operation system are listed here.

Under the combobox the time zone set on the machine with the running Administration Console is displayed.

**Note:** After changing the Home time zone value all policies scheduled on the basis of the home time zone will be redeployed according to the newly set time zone.

### Encrypt configuration data

If this option is ON the [configuration data](#) is encrypted. The password is prompted on program launch when configuration information is loaded.

### Password

Set password that is used for configuration encryption.

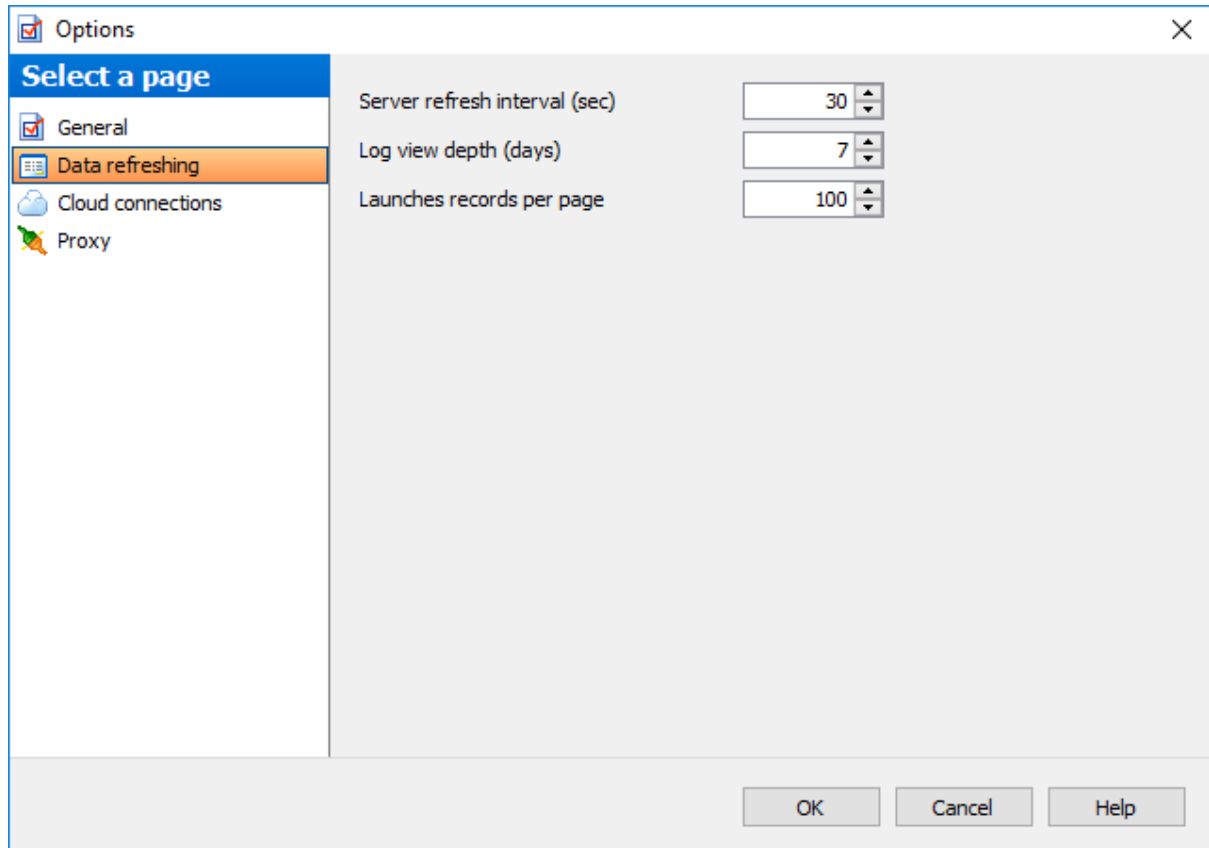
### Confirm password

Confirm the password specified as an encryption password above.



## 8.2.2 Data refreshing

**Data refreshing** tab allows customizing some program settings.



### **Server refresh interval (sec)**

Set the interval (in seconds) for refresh of servers at the [Servers](#) tab.

### **Log view depth (days)**

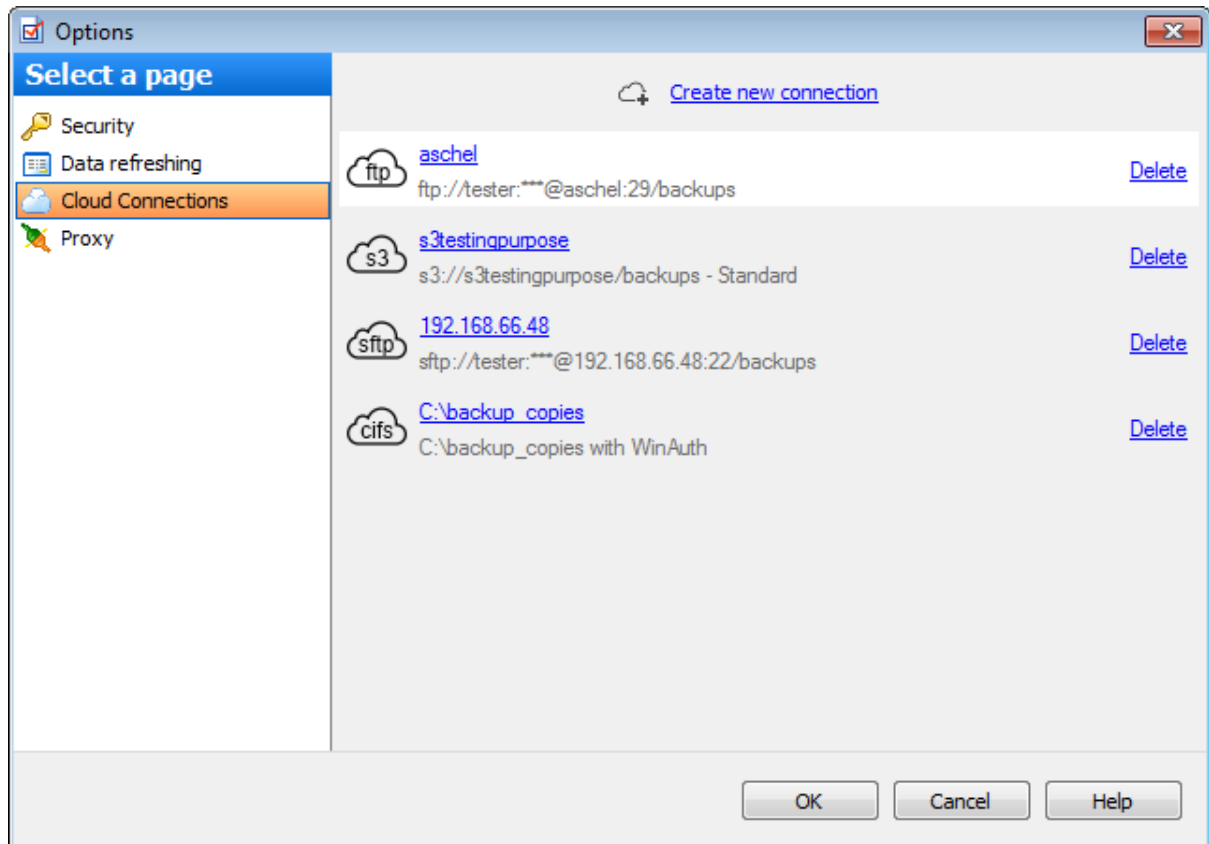
Set the limit of days for displaying [server history](#) and [Launches](#).

### **Launches records per page**

Specify the number of records that is loaded at once in the [Launches](#) section.

### 8.2.3 Cloud Connection Settings

**Cloud Connections** tab allows you to set connections parameters to external storages for your backups. When configuring backup operation you will be offered to select storage for backup files copies among those which are defined here. The selection is performed on the [Specifying cloud connections](#) step of the Backup wizard.



To add a storage to the list click the **Create new connection** button. Set the required options in the [Cloud Connection Settings Wizard](#).

For editing options of the existing connection click its name in the list to open [Cloud Connection Settings Editor](#).

Use **Delete** button to remove the connection.

### 8.2.3.1 Cloud Connection Settings Wizard

**Cloud Connection Settings Wizard** allows setting parameters for connecting to cloud storage.

To launch the wizard:

- Click **Create new connection link** on the Cloud connections dialog at [Options](#).
- Click **Create new connection** at the [Specifying cloud connections](#) steps in [Backup Database](#) wizard.

**The steps of the Cloud Connection Wizard:**

[Selecting connection type](#)

[SMB/CIFS connection](#)

[FTP connection](#)

[SFTP connection](#)

[Amazon S3 connection](#)

[Microsoft Azure connection](#)

[Dropbox connection](#)

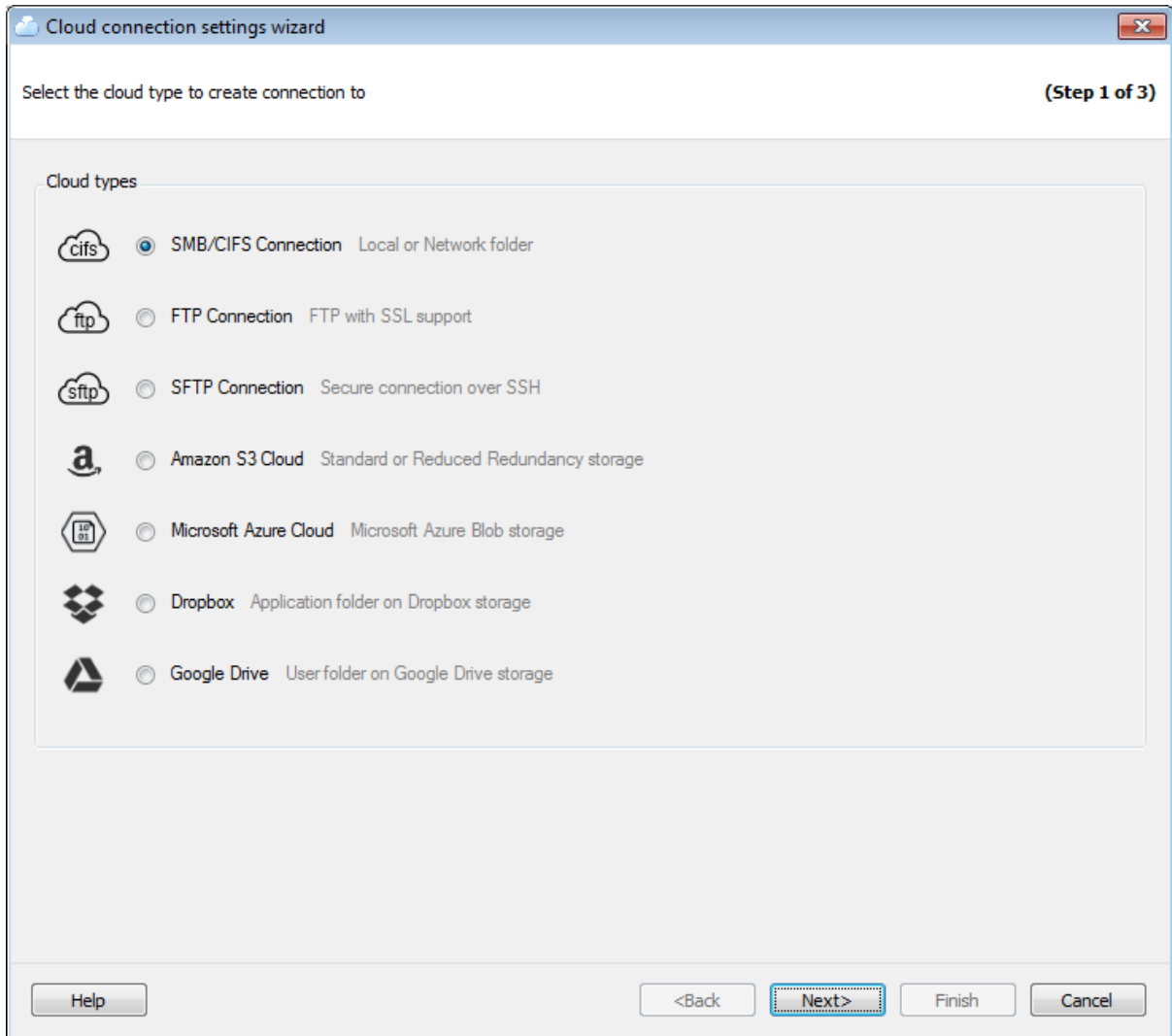
[Google Drive connection](#)

[Authorization settings](#)

[Connection creation](#)

## 8.2.3.1.1 Selecting connection type

Select the type of the cloud storage to create connection to.



The next step depends on the selected connection type.

**NB:** There are some restrictions for the cloud connections used:

- You can use **FTP, SFTP, SMB/CIFS, Dropbox** for all license types, including Free license.
- **Google Drive** can be only used with EMS SQL Backup for SQL Server or EMS SQL Backup PRO for SQL Server licenses.
- S3 and Azure can be only used with EMS SQL Backup PRO for SQL Server license type.



## 8.2.3.1.2 SMB/CIFS connection

The **SMB/CIFS Connection Settings** dialog is provided for configuring local or remote network folders.

Cloud connection settings wizard

Cifs cloud connection settings (Step 2 of 3)

Name: StorageShared

Folder: //StorageServer/Shared/Backups/

Windows Authentication

User name: [ ]



Password: [ ]

Buttons: Help, <Back, Next>, Finish, Cancel

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

**Folder**

Specify the local or network folder for storing backup copies. Use the ellipsis  button to browse for directory. By clicking the  button you can open the specified directory. Note that a path to a network folder must be specified in the UNC format.

Set the authentication parameters for uploading backup files to the specified directory. Note that the specified user should have sufficient rights to write to the target folder. You can choose  **Windows Authentication** or provide **User name** and **Password** in

the corresponding fields.

## 8.2.3.1.3 FTP connection

The **FTP Connection Settings** dialog is provided for configuring FTP Server connection.

The screenshot shows a dialog box titled "Cloud connection settings wizard" with a close button in the top right corner. The main title bar of the dialog is "Ftp cloud connection settings" and it is labeled "(Step 2 of 3)".

The dialog contains the following fields and controls:

- Name:** Text box containing "MyFTP".
- Host address:** Text box containing "192.168.66.48".
- Remote folder:** Text box containing "Backups".
- Anonymous logon:** A checkbox that is currently unchecked.
- User name:** Text box containing "StorageKeeper".
- Password:** Text box containing "\*\*\*\*\*".
- Protocol:** A dropdown menu set to "FTP (Standard)".
- Port:** A spin box set to "21".
- Mode:** A dropdown menu set to "Passive (PASV)".
- HTTP proxy:** A checkbox that is currently unchecked.
- Server:** Text box (empty).
- Port:** A spin box set to "8080".
- User name:** Text box (empty).
- Password:** Text box (empty).
- Timeout:** A spin box set to "60" with the unit "sec".

At the bottom of the dialog, there are four buttons: "Help", "<Back", "Next>", "Finish", and "Cancel".

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

**Host address**

Define the FTP host address. Here you can enter server name or its IP address (without specifying protocol).

**Remote folder**

Define the directory on the FTP server where backup files will be uploaded. If the specified directory does not exist on the server it will be created on the first upload process.

Set the authentication parameters for uploading backup files to the specified FTP server.

Note that the specified user should have sufficient rights to write to the target folder. You can choose  **Anonymous logon** or provide **User name** and **Password** in the corresponding fields.

**Protocol**

Select the protocol that should be used for backup files transferring. The possible values are:

- *FTP (Standard)*
- *FTPS (Implicit SSL/TLS)*
- *FTPS (Explicit SSL/TLS)*

**Port**

Specify the port the FTP connection should be executed through.

**Mode**

Select the mode of the FTP connection. The possible values are:

- *Passive (PASV)*
- *Active (PORT)*

If you have checked the  **Use proxy** option to connect to FTP you need to configure the following proxy settings: *Server, Port, User name and Password*.

**Timeout**

Specify the timeout in seconds when a connection will be timed out because of inactivity on the data channel.

## 8.2.3.1.4 SFTP connection

The **Secure FTP Connection Settings** dialog is provided for configuring SFTP (Secure File Transfer Protocol) server connection for uploading backup files.

The screenshot shows a dialog box titled "Cloud connection settings wizard" with a close button in the top right corner. The main title is "Sftp cloud connection settings" and it is labeled as "(Step 2 of 3)". The dialog contains several input fields and controls:

- Name:** A text box containing "StorageServer".
- Host address:** A text box containing "192.168.66.48".
- Port:** A spin box containing "22".
- Remote folder:** A text box containing "Backups".
- User name:** A text box containing "StorageAdmin".
- Password:** A text box containing "\*\*\*\*\*".
- Proxy:** A dropdown menu set to "None".
- Server:** An empty text box.
- Port:** A spin box containing "0".
- User name:** An empty text box.
- Password:** An empty text box.
- Timeout:** A spin box containing "60" followed by "sec".

At the bottom of the dialog, there are four buttons: "Help", "<Back", "Next>", "Finish", and "Cancel".

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

**Host address**

Define the SSH host address. Here you can enter server name or its IP address (without specifying protocol).

**Port**

Specify the port the SFTP connection should be executed through.

**Remote folder**

Define the directory on the SFTP server where backup files will be uploaded. If the

specified directory does not exist on the server it will be created on the first upload process.

Set the authentication parameters for uploading backup files to the specified SFTP server. Note that the specified user should have sufficient rights to write to the target folder. Provide **User name** and **Password** in the corresponding fields.

#### **Proxy**

Select the proxy through which the connection to the SFTP server will be established.

The possible values are:

- *Socks 4*
- *Socks 5*
- *HTTP*

If you have selected to connect through proxy to SFTP you need to configure the following proxy settings: *Server, Port, User name and Password*.

#### **Timeout**

Specify the timeout in seconds when a connection will be timed out because of inactivity on the data channel.

## 8.2.3.1.5 Amazon S3 connection

The **Amazon S3 Connection Settings** dialog is provided for configuring connection to Amazon bucket.

The screenshot shows a dialog box titled "Cloud connection settings wizard" with a sub-header "S3 cloud connection settings" and "(Step 2 of 3)". The dialog contains the following fields and controls:

- Name:** Text box containing "AmazonEntAccount".
- Bucket:** Text box containing "backups" with a help icon (?) to its right.
- Path:** Text box containing "SQLServer".
- Access key:** Text box containing "AJIAJJIFE3MLTAQQ3IQN".
- Secret key:** Text box containing "\*\*\*\*\*".
- Storage class:** Dropdown menu set to "Standard".
- Protocol:** Dropdown menu set to "HTTP".
- HTTP proxy:** Checked checkbox.
- Server:** Text box containing "proxy".
- Port:** Spin box set to "8080".
- User name:** Text box containing "aschel".
- Password:** Text box containing "\*\*\*\*\*".
- Timeout:** Spin box set to "60" with "sec" next to it.

At the bottom of the dialog are four buttons: "Help", "<Back", "Next>", "Finish", and "Cancel".

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

**Bucket**

Define the bucket that will be used for storing backups. You can create a bucket on the [Amazon](#) website. If the specified bucket does not exist it will be created automatically in US Standard region. Note that the bucket name must be unique among all Amazon S3 buckets.

**Path**

If you want backup files to be stored in a folder then set the path to the folder within the specified bucket. The folder will be created automatically on file upload. Use the '/' as a

directory separator. For example, *'backups/Adventure Works'*.

The **Access key** and the **Secret key** are used to get access to your bucket and are found on the [Security Credentials](#) page of your Amazon Web Services account.

Set **Access key** and **Secret key** for your bucket in the corresponding fields. You can get the values on the [Security Credentials](#) page in your Amazon Web Services account.

#### **Storage class**

Select the storage class for uploaded backup files. The possible values are:

- *Standard*
- *Reduced Redundancy*

#### **Protocol**

Select the protocol that will be used for uploading backups to Amazon S3. The possible values are:

- *HTTP*
- *HTTPS*

If you have checked the  **Use proxy** option to connect to Amazon S3 you need to configure the following proxy settings: *Server, Port, User name and Password*.

#### **Timeout**

Specify the timeout in seconds when a connection will be timed out because of inactivity on the data channel.



## 8.2.3.1.6 Microsoft Azure connection

Use this step to configure connection to Microsoft Azure BLOB storage container.

The screenshot shows the 'Cloud Connection Settings Wizard' dialog box, titled 'Azure cloud connection settings' and labeled '(Step 2 of 3)'. The dialog contains the following fields and controls:

- Name:** A text input field containing 'EntAzure'.
- Account name:** A text input field containing 'EMSAzure'.
- Account key:** A text input field containing a masked string of asterisks.
- Container:** A dropdown menu showing '\$root' with a help icon to its right.
- Use proxy:** A checked checkbox.
- Server:** A text input field containing 'proxy.sqlmanager.net'.
- Port:** A spin box containing '8080'.
- User:** A text input field containing 'testproxy'.
- Password:** A text input field containing a masked string of asterisks.
- Timeout, sec:** A text input field containing '90'.

At the bottom of the dialog, there are four buttons: 'Help', '<Back', 'Next>', 'Finish', and 'Cancel'.

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

**Account name**


Enter a name of the Microsoft Azure storage account. The storage account name forms the subdomain of the BLOB object URL address.

**Account key**

Enter the storage access key. Either primary or secondary key can be used.

**Container**

Every blob in Azure storage resides in a container. Use the drop-down list to select the container among existing ones. You can enter any new valid container name as well. To

view container naming rules hover the  icon.

**Use proxy**

If you do not have a direct Internet connection and you need to use proxy server enable this option and configure the following proxy settings: *Server, Port, User name and Password*.

**Timeout, sec**

Specify the timeout in seconds when a connection will be timed out because of inactivity on the data channel. If the server timeout interval elapses before the service has finished processing the request, the service returns an error.

## 8.2.3.1.7 Dropbox connection

Use this step to configure connection to Dropbox account.

The screenshot shows a window titled "Cloud connection settings wizard" with a sub-header "Dropbox cloud connection settings" and "(Step 2 of 4)". The form contains the following fields and controls:

- Name:** Text box containing "EMSDropbox".
- Folder:** Text box containing "Backups" with a help icon (?) to its right.
- Use proxy:** A checkbox that is currently unchecked.
- Server:** Text box.
- Port:** Spin box with "8080" selected.
- User:** Text box.
- Password:** Text box.

At the bottom of the dialog, there are four buttons: "Help", "<Back", "Next>", and "Cancel".

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

**Folder**

EMS SQL Backup uploads files to the 'Apps/EMS SQL Backup' folder in Dropbox by default. If you need to store backup files in its subfolder, set the relative path in this field. If the specified folder doesn't exist, it will be created automatically on uploading the files. Use '/' as a path separator. For example, if you set '*backups/Adventure Works*' in this field the files will be uploaded to '*Apps/EMS SQL Backup/backups/Adventure Works*'.

If you have checked the  **Use proxy** option to connect to Dropbox you need to configure the following proxy settings: *Server*, *Port*, *User name* and *Password*.

## 8.2.3.1.8 Google Drive connection

Use this step to configure connection to Google Drive account.

Cloud connection settings wizard

Google Drive cloud connection settings (Step 2 of 4)

Name: EMSDrive

Folder: Backups

Use proxy

Server: [ ]

Port: 8080

User: [ ]

Password: [ ]

Buttons: Help, <Back, Next>, Finish, Cancel

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

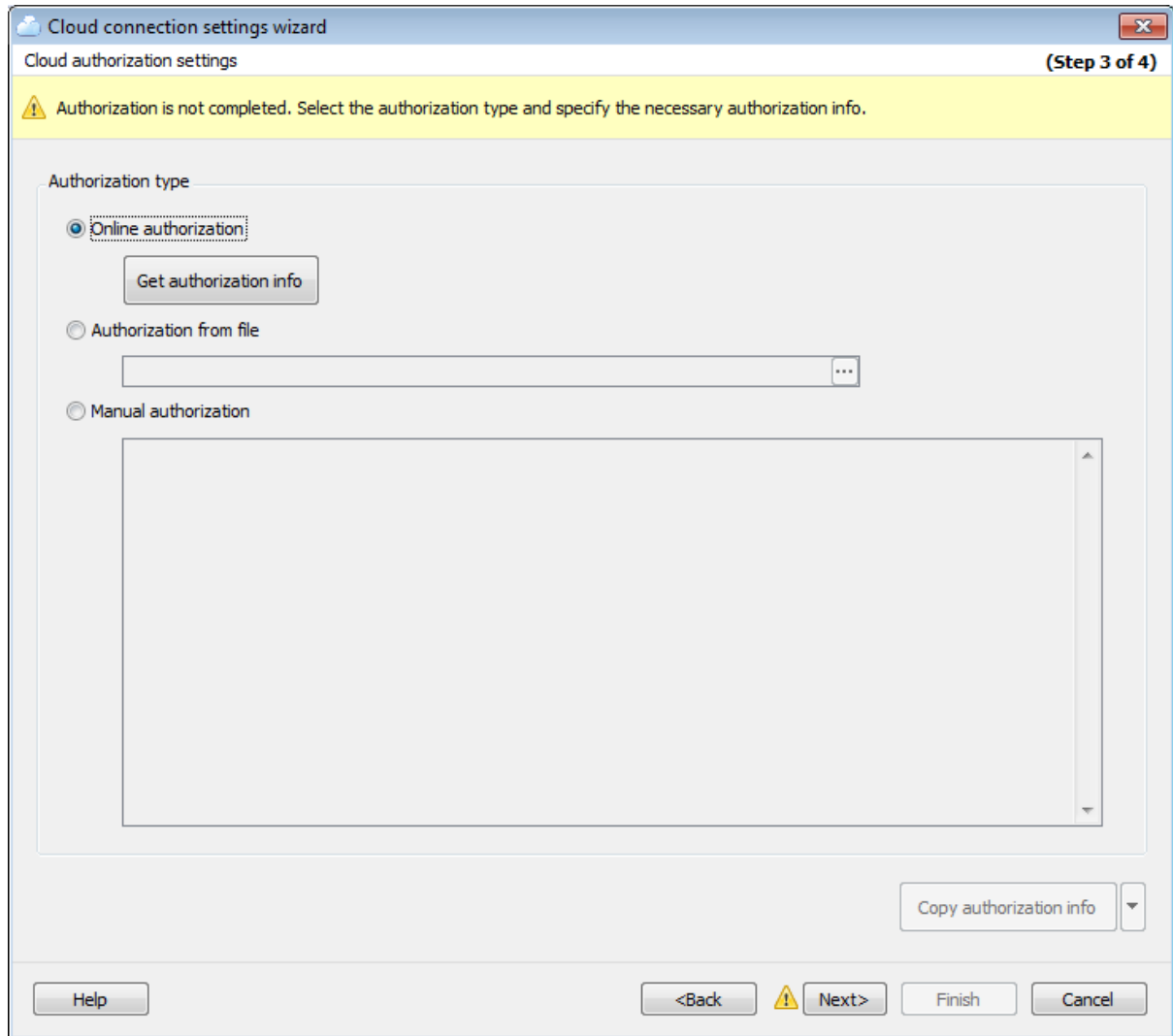
**Folder**

EMS SQL Backup uploads files to the root folder in Google Drive by default. If you need to store backup files in subfolder, set the path in this field. If the specified folder doesn't exist, it will be created automatically on uploading the files. Use '/' as a path separator (for example, 'backups/Adventure Works').

If you have checked the  **Use proxy** option to connect to Google Drive you need to configure the following proxy settings: *Server*, *Port*, *User name* and *Password*.

## 8.2.3.1.9 Authorization settings


Some cloud services, such as [Google Drive](#) and [Dropbox](#) require Web authorization. Use this step to set authorization parameters.



The screenshot shows a window titled "Cloud connection settings wizard" with a subtitle "Cloud authorization settings" and a progress indicator "(Step 3 of 4)". A yellow warning banner at the top states: "Authorization is not completed. Select the authorization type and specify the necessary authorization info." Below this, the "Authorization type" section has three radio button options: "Online authorization" (selected), "Authorization from file", and "Manual authorization". Under "Online authorization" is a "Get authorization info" button. Under "Authorization from file" is a text input field with an ellipsis button. Under "Manual authorization" is a large empty text area. At the bottom right is a "Copy authorization info" button with a dropdown arrow. The bottom of the window contains a "Help" button, a "<Back" button, a warning icon, a "Next>" button, a "Finish" button, and a "Cancel" button.

### Authorization type

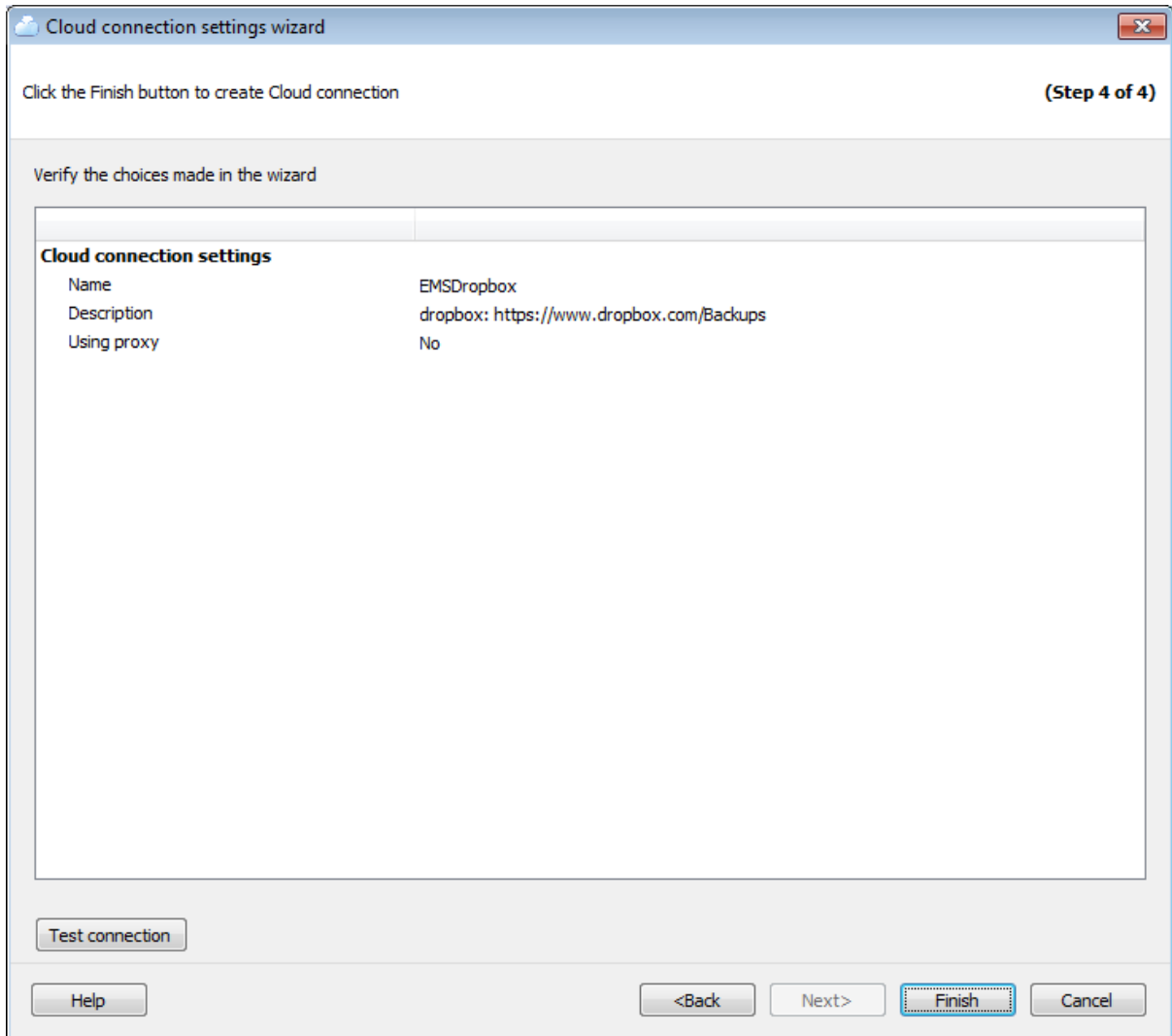
Select the type of authorization to access the cloud account.

- **Online authorization** is used to get authorization information by Web. Click the **Get authorization info** button to log in to the cloud account and confirm the access for EMS SQL Backup application in the opened browser window. If the operation has been successful, the corresponding message will be displayed. Access code will be saved in the program and alert next to **Next** button will disappear. Use this type of authorization if access to the selected cloud account hasn't been set up with EMS SQL Backup before.
- **Authorization from file** is used when file authorization type was selected. Please set the path to the file in the field or use the  ellipsis button to select it.
- **Manual authorization** is used if you have required info for manual authorization. Copy the access code to the field.

**Copy authorization info** is used to copy authorization code if **Online authorization** type was used. You can choose either **To clipboard** dropdown item to save it to Clipboard, or **To file** item to save it to a file.

## 8.2.3.1.10 Connection creation

Use this step to verify all settings and check the connection to the cloud.



Click the **Test connection** button to check connection to the selected cloud storage. Select the servers for checking connection in the opened dialog.

### 8.2.3.2 Cloud Connection Settings Editor

**Cloud Connection Settings Editor** allows editing parameters for connecting to cloud storage.

To open the tab:

- Click the existing Cloud connection item at [Options](#).
- Click the existing Cloud connection item at the [Specifying cloud connections](#) steps in [Backup Database](#) wizard.

**The tabs of the Cloud Connection editor:**

[SMB/CIFS connection settings](#)

[FTP connection settings](#)

[SFTP connection settings](#)

[Amazon S3 connection settings](#)

[Microsoft Azure connection settings](#)

[Dropbox connection settings](#)

[Google Drive connection settings](#)

[Authorization type settings](#)



## 8.2.3.2.1 SMB/CIFS connection settings

Use this tab to edit SMB/CIFS connection parameters.

The screenshot shows a window titled "Cloud connection settings editor" with a close button in the top right corner. On the left side, there is a sidebar labeled "Select a page" with a sub-tab "Cifs connection settings" highlighted. The main content area contains the following fields and controls:



- Name:** A text input field containing "StorageShared".
- Folder:** A text input field containing "//StorageServer/Shared/Backups" with an ellipsis button to its right.
- Windows Authentication:** A checked checkbox.
- User name:** An empty text input field.
- Password:** An empty text input field.

At the bottom of the window, there are four buttons: "Test connection", "OK", "Cancel", and "Help".

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

**Folder**

Specify the local or network folder for storing backup copies. Use the ellipsis  button to browse for directory. By clicking the  button you can open the specified directory. Note that a path to a network folder must be specified in the UNC format.

Set the authentication parameters for uploading backup files to the specified directory. Note that the specified user should have sufficient rights to write to the target folder. You can choose  **Windows Authentication** or provide **User name** and **Password** in the corresponding fields.

Click the **Test connection** button to check connection to the selected cloud storage. Select the servers for checking connection in the opened dialog.

## 8.2.3.2.2 FTP connection settings

Use this tab to edit FTP connection parameters.

The screenshot shows the 'Cloud connection settings editor' window with the 'Ftp connection settings' tab selected. The fields are as follows:

- Name: MyFTP
- Host address: 192.168.66.48
- Remote folder: Backups
- Anonymous logon
- User name: StorageKeeper
- Password: \*\*\*\*\*
- Protocol: FTP (Standard) (dropdown)
- Port: 21 (spin box)
- Mode: Passive (PASV) (dropdown)
- HTTP proxy
- Server: (empty)
- Port: 8080 (spin box)
- User name: (empty)
- Password: (empty)
- Timeout: 60 (spin box) sec

Buttons at the bottom: Test connection, OK, Cancel, Help.

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

**Host address**

Define the FTP host address. Here you can enter server name or its IP address (without specifying protocol).

**Remote folder**

Define the directory on the FTP server where backup files will be uploaded. If the specified directory does not exist on the server it will be created on the first upload process.

Set the authentication parameters for uploading backup files to the specified FTP server. Note that the specified user should have sufficient rights to write to the target folder. You can choose  **Anonymous logon** or provide **User name** and **Password** in the

corresponding fields.

**Protocol**

Select the protocol that should be used for backup files transferring. The possible values are:

- *FTP (Standard)*
- *FTPS (Implicit SSL/TLS)*
- *FTPS (Explicit SSL/TLS)*

**Port**

Specify the port the FTP connection should be executed through.

**Mode**

Select the mode of the FTP connection. The possible values are:

- *Passive (PASV)*
- *Active (PORT)*

If you have checked the  **Use proxy** option to connect to FTP you need to configure the following proxy settings: *Server, Port, User name and Password*.

**Timeout**

Specify the timeout in seconds when a connection will be timed out because of inactivity on the data channel.

Click the **Test connection** button to check connection to the selected cloud storage. Select the servers for checking connection in the opened dialog.

## 8.2.3.2.3 SFTP connection settings

Use this tab to edit FTP connection parameters.

The screenshot shows a dialog box titled "Cloud connection settings editor" with a close button in the top right corner. On the left side, there is a sidebar labeled "Select a page" with a sub-tab "Sftp connection settings" highlighted. The main area of the dialog contains the following fields and controls:

- Name:** A text box containing "StorageServer".
- Host address:** A text box containing "192.168.66.48".
- Port:** A spin box containing "22".
- Remote folder:** A text box containing "Backups".
- User name:** A text box containing "StorageAdmin".
- Password:** A text box containing "\*\*\*\*\*".
- Proxy:** A dropdown menu set to "None".
- Server:** A text box.
- Port:** A spin box containing "0".
- User name:** A text box.
- Password:** A text box.
- Timeout:** A spin box containing "60" followed by the text "sec".

At the bottom of the dialog, there are four buttons: "Test connection", "OK", "Cancel", and "Help".

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

**Host address**

Define the SSH host address. Here you can enter server name or its IP address (without specifying protocol).

**Port**

Specify the port the SFTP connection should be executed through.

**Remote folder**

Define the directory on the SFTP server where backup files will be uploaded. If the specified directory does not exist on the server it will be created on the first upload process.

Set the authentication parameters for uploading backup files to the specified SFTP server. Note that the specified user should have sufficient rights to write to the target folder. Provide **User name** and **Password** in the corresponding fields.

**Proxy**

Select the proxy through which the connection to the SFTP server will be established. The possible values are:

- *Socks 4*
- *Socks 5*
- *HTTP*

If you have selected to connect through proxy to SFTP you need to configure the following proxy settings: *Server, Port, User name and Password*.

**Timeout**

Specify the timeout in seconds when a connection will be timed out because of inactivity on the data channel.

Click the **Test connection** button to check connection to the selected cloud storage. Select the servers for checking connection in the opened dialog.

## 8.2.3.2.4 Amazon S3 connection settings

Use this tab to edit Amazon bucket connection parameters.

The screenshot shows a window titled "Cloud connection settings editor" with a sidebar on the left containing a "Select a page" menu with "S3 connection settings" selected. The main area contains the following fields:

- Name: AmazonEntAccount
- Bucket: backups
- Path: SQLServer
- Access key: AJIAKS2SA4KLL3RRJEDI
- Secret key: \*\*\*\*\*
- Storage class: Standard (dropdown)
- Protocol: HTTP (dropdown)
- HTTP proxy:
- Server:
- User name:
- Password:
- Port: 8080 (spin box)
- Timeout: 60 (spin box) sec

Buttons at the bottom: "Test connection", "OK", "Cancel", "Help".

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

**Bucket**

Define the bucket that will be used for storing backups. You can create a bucket on the [Amazon](https://aws.amazon.com/s3/) website. If the specified bucket does not exist it will be created automatically in US Standard region. Note that the bucket name must be unique among all Amazon S3 buckets.

**Path**

If you want backup files to be stored in a folder then set the path to the folder within the specified bucket. The folder will be created automatically on file upload. Use the '/' as a directory separator. For example, 'backups/Adventure Works'.

The **Access key** and the **Secret key** are used to get access to your bucket and are

found on the [Security Credentials](#) page of your Amazon Web Services account.

Set **Access key** and **Secret key** for your bucket in the corresponding fields. You can get the values on the [Security Credentials](#) page in your Amazon Web Services account.

### **Storage class**

Select the storage class for uploaded backup files. The possible values are:

- *Standard*
- *Reduced Redundancy*

### **Protocol**

Select the protocol that will be used for uploading backups to Amazon S3. The possible values are:

- *HTTP*
- *HTTPS*

If you have checked the  **Use proxy** option to connect to Amazon S3 you need to configure the following proxy settings: *Server, Port, User name and Password*.

### **Timeout**

Specify the timeout in seconds when a connection will be timed out because of inactivity on the data channel.

Click the **Test connection** button to check connection to the selected cloud storage. Select the servers for checking connection in the opened dialog.



## 8.2.3.2.5 Microsoft Azure connection settings

Use this tab to edit connection parameters to Microsoft Azure BLOB storage container.

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

**Account name**

Enter a name of the Microsoft Azure storage account. The storage account name forms the subdomain of the BLOB object URL address.

**Account key**

Enter the storage access key. Either primary or secondary key can be used.

**Container**

Every blob in Azure storage resides in a container. Use the drop-down list to select the container among existing ones. You can enter any new valid container name as well. To view container naming rules hover the ? icon.

 **Use proxy**

If you do not have a direct Internet connection and you need to use proxy server enable this option and configure the following proxy settings: *Server, Port, User name and Password*.

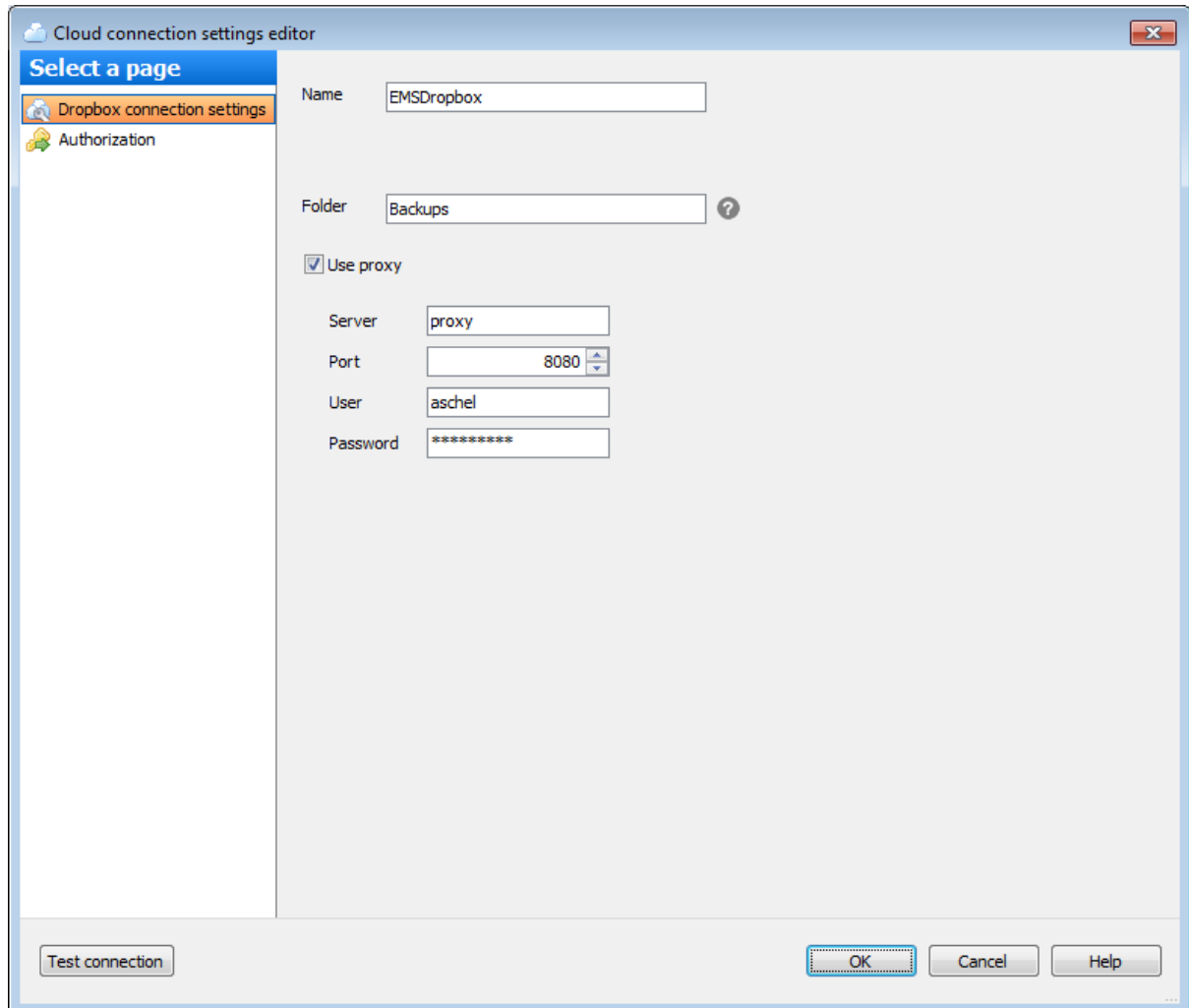
**Timeout, sec**

Specify the timeout in seconds when a connection will be timed out because of inactivity on the data channel. If the server timeout interval elapses before the service has finished processing the request, the service returns an error.

Click the **Test connection** button to check connection to the selected cloud storage. Select the servers for checking connection in the opened dialog.

## 8.2.3.2.6 Dropbox connection settings

Use this tab to edit connection parameters to Dropbox storage.



The screenshot shows a window titled "Cloud connection settings editor" with a sidebar on the left containing "Select a page" and two options: "Dropbox connection settings" (selected) and "Authorization". The main area contains the following fields and controls:

- Name:** A text box containing "EMSDropbox".
- Folder:** A text box containing "Backups" with a help icon (?) to its right.
- Use proxy:** A checked checkbox.
- Server:** A text box containing "proxy".
- Port:** A spin box containing "8080".
- User:** A text box containing "aschel".
- Password:** A text box containing "\*\*\*\*\*".

At the bottom of the window, there are four buttons: "Test connection", "OK", "Cancel", and "Help".

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

**Folder**

EMS SQL Backup uploads files to the 'Apps/EMS SQL Backup' folder in Dropbox by default. If you need to store backup files in its subfolder, set the relative path in this field. If the specified folder doesn't exist, it will be created automatically on uploading the files. Use '/' as a path separator. For example, if you set '*backups/Adventure Works*' in this field the files will be uploaded to '*Apps/EMS SQL Backup/backups/Adventure Works*'.

If you have checked the  **Use proxy** option to connect to Dropbox you need to configure the following proxy settings: *Server, Port, User name and Password*.

Click the **Test connection** button to check connection to the selected cloud storage.

Select the servers for checking connection in the opened dialog.

## 8.2.3.2.7 Google Drive connection settings

Use this tab to edit connection parameters to Google Drive storage.

Cloud connection settings editor

Select a page

- Google Drive connection s...
- Authorization

Name: EMSDrive

Folder: /Backups

Use proxy

Server: proxy

Port: 8080

User: aschel

Password: \*\*\*\*\*

Test connection OK Cancel Help

**Name**

Specify the name for the connection. The connection name must be unique among all that were already created.

**Folder**

EMS SQL Backup uploads files to the root folder in Google Drive by default. If you need to store backup files in subfolder, set the path in this field. If the specified folder doesn't exist, it will be created automatically on uploading the files. Use '/' as a path separator (for example, 'backups/Adventure Works').

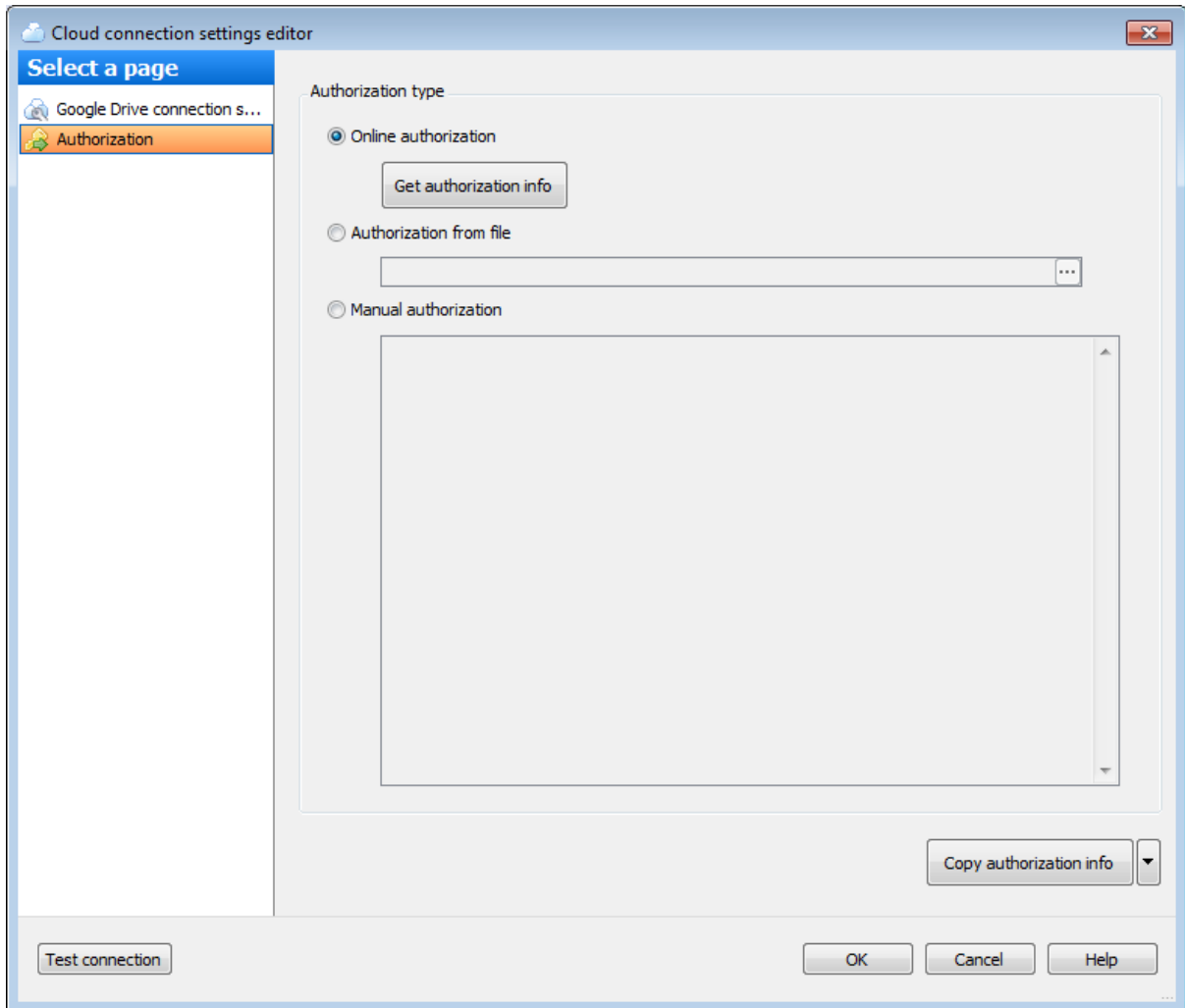
If you have checked the  **Use proxy** option to connect to Google Drive you need to configure the following proxy settings: *Server, Port, User name and Password*.

Click the **Test connection** button to check connection to the selected cloud storage. Select the servers for checking connection in the opened dialog.




## 8.2.3.2.8 Authorization type settings

Use this step to change, set or get new authorization parameters for [Google Drive](#) and [Dropbox](#).



### Authorization type

Select the type of authorization to access the cloud account.

- **Online authorization** is used to get authorization information by Web. Click the **Get authorization info** button to log in to the cloud account and confirm the access for EMS SQL Backup application in the opened browser window. If the operation has been successful, the corresponding message will be displayed. Use this type of authorization if access to the selected cloud account hasn't been set up with EMS SQL Backup before.
- **Authorization from file** is used when file authorization type was selected. Please set the path to the file in the field or use the  ellipsis button to select it.
- **Manual authorization** is used if you have required info for manual authorization. Copy the access code to the field.

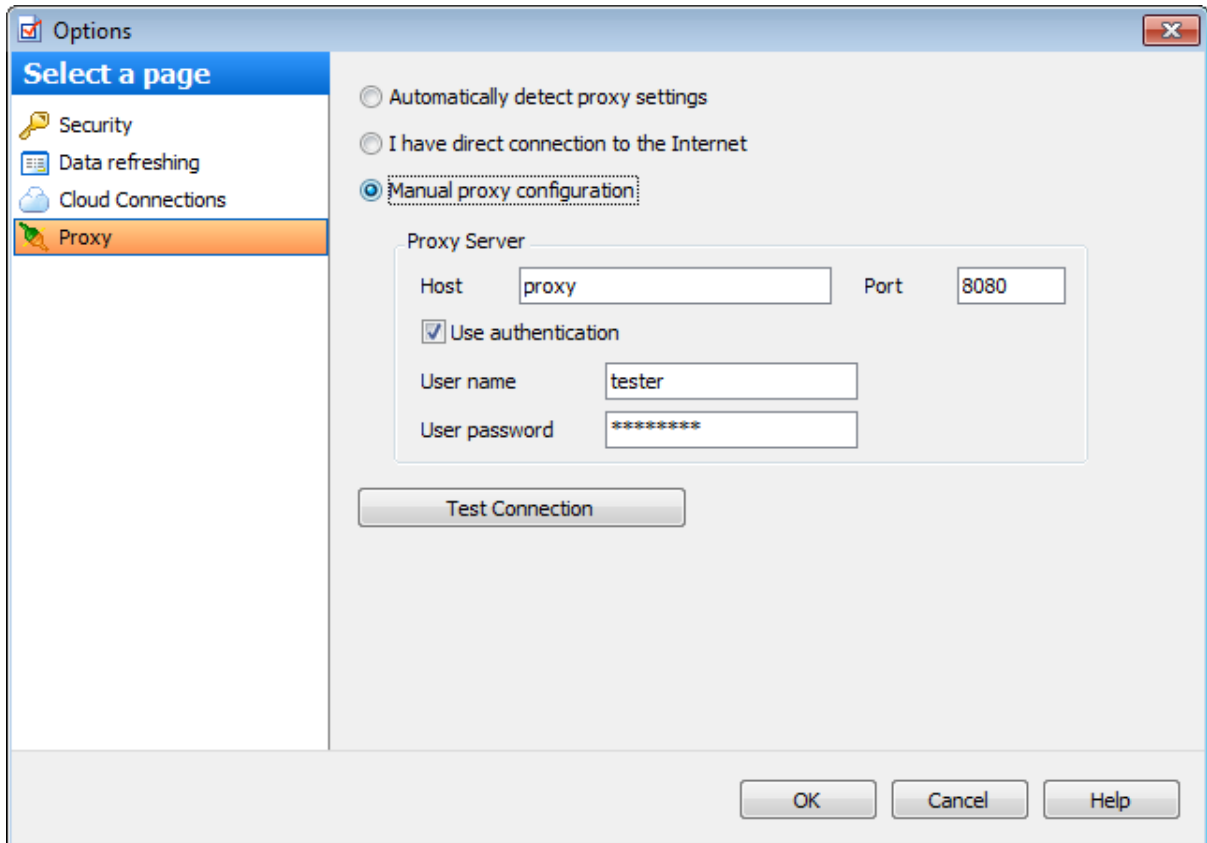
**Copy authorization info** is used to copy authorization code if **Online authorization** type was used. You can choose either **To clipboard** dropdown item to save it to Clipboard, or **To file** item to save it to a file.

Click the **Test connection** button to check connection to the selected cloud storage.  
Select the servers for checking connection in the opened dialog.



## 8.2.4 Proxy server parameters

Use the **Proxy** tab to define connection settings. These parameters will be used for to perform on-line [activation](#) or [deactivation](#) of a license key.



Choose one of three options:

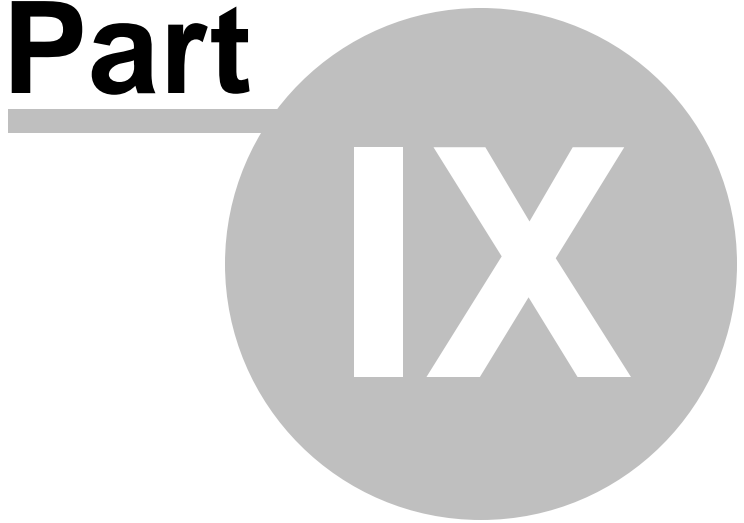
- Automatically detect proxy settings*
- I have direct connection to the Internet*
- Manual proxy configuration*

### Proxy Server

If you have chosen to configure proxy manually then use this group of options to set the following proxy server parameters: host, port, user name and user password (if the  **Use authentication** option is checked).

Click the **Test connection** button to check connection to the proxy server with the settings defined above.

**Part**



## 9 How to...

The succeeding pages of this chapter are intended to provide you with brief instructions on how to perform this or that operation correctly using EMS SQL Backup.

[Install EMS SQL Backup](#)

[Install server-side components without having permissions for remote installation](#)

[Activate SQL Server instance](#)

[Schedule backup database task daily](#)

[Configure transaction log shipping](#)

[Monitor server productivity counters](#)

[Create a policy based on predefined templates](#)

[Add database/server to an existing policy](#)

[Create a policy rapidly on several servers/databases](#)

[Transfer policy tasks to another set of databases/servers](#)

[Reveal a reason of a failed policy execution](#)

[Restore successful policy status](#)

[Convert SQL Server maintenance plan to EMS SQL Backup policy](#)

[Manage templates effectively](#)

[Configure policy notifications](#)

[Create a report on policy execution](#)

[Ensure simultaneous policy execution on servers from different time zones](#)

[Update EMS SQL Backup](#)

[Remove EMS SQL Backup](#)

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### See also:

[Getting Started](#)

[Servers](#)

[Policies](#)



[Templates](#)

[Activities](#)

[Maintenance Actions](#)

## 9.1 Install EMS SQL Backup

EMS SQL Backup consists of two core units: SQL Administration Console and Server-side components. So to perform a full installation and start working with SQL Server in EMS SQL Backup Console you need:

1. [Install](#) EMS SQL Backup Administration Console.
2. Register server using the [Register Server Wizard](#). To launch it use the  **Register Server** context menu item of the Server Explorer.
3. Connect to the server using the  **Connect** item of its context menu.
4. After server registration you need to install server-side components. To launch the [Install server-side EMS SQL Backup components](#) use the **Install server-side EMS SQL Backup Components** server context menu item.

## 9.2 Install server-side components without having permissions for remote installation

If you do not have permissions for a remote installation of server-side components using [Install server-side EMS SQL Backup components](#) you can install them locally on the server using the [Stand-alone remote components Installer](#).

In order to perform server-side components installation locally on the server do the following:

1. copy EMS SQL Backup setup file to the server machine.
2. launch the EMS SQL Backup setup wizard and choose the Server-side only mode on the third step.
3. after the EMS SQL Backup Setup wizard is finished the [Stand-alone remote components Installer](#) is launched automatically.
4. follow the steps of the wizard in compliance with [Stand-alone remote components Installer](#) topic.

**Note:** The EMS SQL Backup setup wizard installs EMS SQL Backup Service Installer application (*InstallWizard.exe*) which allows installing, updating and removing server-side components locally on a server.

## 9.3 Activate license on SQL Server instance

License activation for SQL Server instance is performed by means of [License activation wizard](#). Use the **Activate license** server context menu item to launch this wizard.

There are four methods of activating license on SQL Server instance:

- online activation;
- web-site activation;
- manual re-activation.

### Online activation

1. On the [first step](#) of the wizard select the  **Activate EMS SQL Backup License online** option.
2. On the [second step](#) of the wizard enter **License Key**. It can be copied from the Members Area or from the e-mail that is received after license purchasing.
3. On the [last step](#) click the **Finish** button to complete the activation.

### Web-site activation

1. On the first step of the wizard select the  **Activate EMS SQL Backup License through our website** option.
2. Register in the Members Area at <https://secure.sqlmanager.net/login> and open **My Registered Products** section.
3. Expand key list for desired product and choose the **Activate License** action.
4. Enter automatically generated **SQL Server instance ID** on the [second step](#) into a web form and generate the activation code.
5. Copy the generated activation code in the **License Activation Code** field on the [third step](#).
6. On the [last step](#) click the **Finish** button to complete the activation.

### Renew maintenance manually





This option is available if the license key is already activated for prolonging maintenance.

1. On the [first step](#) of the wizard select the  **Enter existing license activation code manually** option.
2. On the [second step](#) enter **License Activation Code**.
3. On the [last step](#) click the **Finish** button to complete the activation.

## 9.4 Schedule backup database task daily

If you want a backup database task to be executed daily you need to create a [policy](#) with a [Backup Database](#) step and a schedule with appropriate parameters.

In order to do this perform the following operations:

1. choose the database in the server explorer and select the  **Maintenance Policies** |  **Create New Policy** item of its context menu;
2. on the second step of [policy wizard](#) select the **Steps** section and click the  **Add** button;
3. in the **Select Step** dialog select the  **Backup Database** item;
4. in the [Backup Database step wizard](#) opened configure backup settings; after all wizard steps completion the *Backup Database* step appears in the **Steps** list;
5. select the **Schedules** section and click the  **Add** button;
6. in the opened [Schedule editor](#) set the following parameters:
  - **Schedule type** -  *Recurring from date,*
  - **Occurs** - *Daily,*
  - **Recurs every** - *1 day,*
  - **Daily frequency** -  *Occurs once at,*
  - **Occurs once at** - launch time for backup database task execution;then press the OK button
7. complete all steps of the policy wizard.

## 9.5 Setup uploading backup files to different storage locations (Network folders/FTP/SFTP/Clouds)

EMS SQL Backup provides the possibility to save backup files not only in the standard [backup folder](#) but also upload their copies to different external storages.

If you want to configure uploading of backup files to different storages perform the following actions.


1. Open the [Options](#) dialog and proceed to the [Cloud Connections](#) tab.
2. Click the **Create new connection** button and select the connection type in the opened dialog: [SMB/CIFS](#), [FTP](#), [Amazon S3 Cloud](#), [Secure FTP](#), [Microsoft Azure](#).
3. Depending on the type selected the relevant dialog for configuring connection properties appears.
4. After all connection properties are set click the **OK** button. The specified connection appears in the list of Cloud connections.
5. After that on configuring [backup operation](#) proceed to the [Specifying cloud connections](#) step of the wizard and click the **Add existing connection** button.
6. Select the connection from the list. You can add as many connections as you need.





## 9.6 Create a policy based on predefined templates

There is a set of predefined policies, tasks, steps and schedules in EMS SQL Backup that can be used for rapid maintenance policy creation.

All predefined templates with descriptions can be found on the [Templates](#) tab.

In order to add a predefined task to a policy you need to proceed to the [second step](#) of the [Policy wizard](#), select the **Tasks** section, click the  **Create New from Template** button and select the needed [task template](#).

In order to add a predefined step to a task in a policy you need to proceed to the [second step](#) of the [Policy wizard](#), select the **Steps** section, click the  **Create New from Template** button and select the needed [step template](#).

In order to add a predefined schedule to a task in a policy you need to proceed to the [second step](#) of the [Policy wizard](#), select the **Schedules** section, click the  **Create New from Template** button and select the needed [schedule template](#).

## 9.7 Configure transaction log shipping

To configure transaction log shipping from one server to another you need to create a policy with a [Transaction Log Shipping](#) step.

On the [second step](#) of the [Transaction Log Shipping wizard](#) you need to set pairs of databases for transaction log shipping. The destination database must be the restored copy of the source database and be in *Restoring* state. Otherwise use the **Overwrite** (to rewrite database) or **Create new** options.

On the [third step](#) of the wizard specify the directory on the source server for storing transaction log backups of the source database. Also, set backup parameters.



On the fourth step you need to set the backup shared folder (**Network shared folder**) for copying transaction log backups of the source database. Backup files will be transferred to the directory set in the **Destination folder** field. Both source and destination servers should have access to this folder otherwise log shipping cannot be performed.

If you are creating or overwriting a database then after [Transaction Log Shipping wizard](#) completion the full source database backup copy is created on a destination server. The destination database is in the restoring state. Transaction log shipping will be performed according to the schedule set in the service task.

**Note:** On the [first step](#) of the policy with Transaction Log Shipping step you need to set  **Use local Console time as absolute time** option.

## 9.8 Monitor server productivity counters

Using the [Database Parameters Logger](#) maintenance operation you can monitor database parameters and receive notifications when their values do not match specified conditions.




To receive warnings about possible faults you need to include [Database Parameters Logger](#) step in a policy. Also you can execute this maintenance action by selecting  **Quick Maintenance Actions** |  **Database Parameters Logger** context menu item of a server or a database.

In case a status of a policy including **Database Parameters Logger** step changed to *Warning* after policy execution that means some databases parameters values do not match conditions set on the third step of [Database Parameters Logger wizard](#). To view these parameters and their values select this step in the [Launches](#) list and click the **Show details** button. The information in the dialog appeared will contain a detailed report on step execution result.




## 9.9 Add database/server to an existing policy

There are several ways to add databases or servers to a policy. The way chosen depends on whether the policy was created on a solution or not and on tasks and steps count in a policy.

### A policy was created on a solution with databases/servers

1. If a policy includes a big number of tasks (steps) then do the following:
  - create a template based on this policy (without saving selected databases) by choosing the  **Create Template from Policy** its context menu item;
  - add needed databases/servers to the existing solution;
  - create policy on a renewed solution based on the created template by choosing the  **Maintenance Policies** |  **Create from Templates** of the solution context menu item.
2. If a policy includes several tasks (steps) then it is recommended to open every step editor and check needed databases/servers on a **Selection** tab.




### A policy was created on separate databases/servers

1. If a policy includes a big number of tasks (steps) then it is recommended to do the following:
  - unite databases/servers from this policy into a solution and then add needed databases/servers to it;
  - create a template based on this policy (without saving selected databases) by choosing the  **Create Template from Policy** its context menu item;
  - create a policy based on this template on the created solution by using the  **Maintenance Policies** |  **Create from Templates** solution context menu item.
2. If a policy includes several tasks (steps) then it is recommended to open every step editor and check needed databases/servers on a **Selection** tab.

## 9.10 Create a policy rapidly on several servers/databases

The most efficient way to create a policy rapidly on several servers/databases is to create it on a solution that unites these servers/databases.




In order to create a policy rapidly on several servers or databases perform the following operations:

1. create a solution by selecting  **Create Solution** context menu item of **Solutions** section;
2. move needed databases/servers to this solution;  
**Note:** One solution cannot include both databases and servers.
3. Select the  **Maintenance Policies** |  **Create New Policy** solution context menu item to create a new policy. All databases/servers will be checked automatically in creating steps in this policy.




## 9.11 Transfer policy tasks to another set of databases/servers

There are several ways to transfer policy tasks from one set of databases/servers to another. The way chosen depends on whether the policy was created on a solution or not and on tasks and steps count in a policy.

### A policy was created on a solution with databases/servers

1. If a policy includes a big number of tasks (steps) then do the following:
  - create a template based on this policy (without saving selected databases) by choosing the  **Create Template from Policy** its context menu item;
  - create a new solution and add needed databases/servers to it;
  - create policy on this solution based on the created template by choosing the  **Maintenance Policies** |  **Create from Templates** of the solution context menu item.
2. If a policy includes several tasks (steps) then it is recommended to open every step editor and check needed databases/servers on a **Selection** tab.

### A policy was created on separate databases/servers

1. If a policy includes a big number of tasks (steps) then it is recommended to do the following:
  - unite databases/servers on which you want to transfer policy into a solution;
  - create a template based on this policy (without saving selected databases) by choosing the  **Create Template from Policy** its context menu item;
  - create a policy based on this template on the created solution by using the  **Maintenance Policies** |  **Create from Templates** solution context menu item.
2. If a policy includes several tasks (steps) then it is recommended to open every step editor and check needed databases/servers on a **Selection** tab.

## 9.12 Reveal a reason of a failed policy execution

If a server has at least one policy with status *Failed* then the server status contains **Policies have problems** message.

To reveal a policy with erroneous execution you need to find a policy with a *Failed* status in the [Policies](#) list. This status means that at least one policy task execution was erroneous.

When you select this policy task in the [Policies](#) list the [Launches](#) list shows information on all task launches. Select a task with a *Failed* status and click the **Show details** button in the *Message* column. In the dialog appeared the reason of failed execution will be displayed in the **Message** field

If the problem occurred on policy execution has been resolved you can [restore succeeding policy status](#).

## 9.13 Restore successful policy status

If you have revealed a reason of why a policy did not run or failed after execution you can repair its overall status that means to change erroneous policy statuses (*Failed*, *Missed*, *Aborted* and *Warning*) to *Ignored* and repeat erroneous tasks if needed. This can be done on several ways.

- Click the **Resolve** button located under the server [status](#). In the dialog appeared all problem tasks of all policies will be listed. You can change erroneous status to *Ignored* and/or execute all problem tasks of all policies. In this case overall status of every policy will be changed based on last launches of erroneous tasks.
- Select the erroneous policy in the [Policies](#) list and then choose the **Resolve the Problem** item of its context menu. In the opened dialog you will be proposed to change statuses of all erroneous policy tasks to *Ignored* and/or execute all problem tasks of this policy. In this case overall status of this policy will be changed based on last launches of its erroneous tasks.
- Select the erroneous policy task in the [Policies](#) list and then choose the **Resolve the Problem** item of its context menu. In the opened dialog you will be proposed to change status of this erroneous policy task to *Ignored* and/or repeat its execution. In this case overall status of this policy will be changed based on a last launch of this erroneous task.



Using a context menu of an erroneous task in the [Launches](#) list you can change to *Ignored* (**Ignore Errors for Selected Launches**) its status or statuses of all erroneous tasks (**Ignore Errors for All Problem Launches**).



## 9.14 Convert SQL Server maintenance plan to SQL Backup policy

Configured SQL Server maintenance plans can be used in EMS SQL Backup after their conversion to EMS SQL Backup policies.


To convert SQL Server maintenance plan to EMS SQL Backup policy perform the following operations:

1. Select the  **Maintenance Policies** |  **Convert from Maintenance Plan** server context menu item to launch [Maintenance plan conversion wizard](#).
2. On the [second step](#) of the wizard select the maintenance plan for conversion.
3. On the [third step](#) of the wizard you can view conversion results. Maintenance plan subplans are converted to policy service tasks. In case some mistakes occurred on maintenance plan conversion you can correct them in the [policy editor](#) that is launched by clicking the **Edit Policy** button.
4. It is recommended to check the  **Disable Maintenance plan** option to disable tasks execution in maintenance plan being converted.
5. On the last step view conversion settings and click the **Finish** button. Created policy appears in the list on the **Policies** tab.


## 9.15 Manage templates effectively

Using the [templates](#) tool of EMS SQL Backup you can create saved into EMS SQL Backup configuration policies, tasks, steps and schedules settings.


In order to create a template proceed to the **Templates** tab and choose an object type (policy, task, step or schedule) which template you want to create. Then click the **Add** button located on the toolbar or in the context menu.


If you already have a configured policy on a group of databases or servers you can create its template. In order to do this proceed to the **Policies** tab and select the  **Create Template from Policy** its context menu item.



Also you can create templates of existing tasks, steps and schedules. To do this you need to:

- open the policy including these objects in the [policy editor](#);
- select the  **Copy to Templates** context menu item of the object which template you want to create.

All saved templates can be later used for creating policies.

In order to create a policy based on a template you need to select the  **Create Policy from Template** context menu item of a policies list on the **Policies** tab. In the **Item Selection** dialog choose the needed template (or several templates). The policy editor will be opened. All tasks included in the template will be automatically added to the policy being created.

In order to create a [task/step/schedule](#) based on a template in a policy use the  **Add New from Template** context menu item or the toolbar corresponding button on the second step of the [policy wizard](#). The added object can be opened in its editor afterwards to change some parameters if needed.

**Templates** tab contains a list of all predefined templates as well as templates created by user. You can save a template into \*.xml file by selecting the  **Export** its context menu item. Also you can load saved templates using the  **Import** button. This ability allows copying templates from one EMS SQL Backup configuration to another.

### See also:

[Create a policy based on predefined templates](#)

## 9.16 Configure policy notifications

You can configure notifications that will inform you about policy execution result via e-mail.

Notification parameters are set on the [third step](#) of the [policy wizard](#).

You need to set an action on which notifications should be sent:

- **When the policy succeeds** - send the message when policy tasks have been successfully completed;
- **When the policy fails** - send the message when policy has failed;
- **When the policy completes** - send the message when policy has been launched.



In the **Send E-mail To** field enter the e-mail address of the administrator that should receive messages generated on policy execution.

SQL Server Agent must be configured to use Database Mail for sending e-mail.

**Note:** Email agent options should be set for the service at [Server-side components Properties](#).

## 9.17 Create a report on policy execution

Using the reports tool you can view information on policy tasks execution that is displayed in the [Launches](#) section as well as save reports to files of different formats and send them via email.

To generate a report on task execution you need to click the  **Report** button on the toolbar of the [Launches](#) section or select the  **Show Report** context menu item of a task.

There are three types of reports:

- Single-server report
- Multi-server report
- Detailed task report

### Single-server report

This report can be viewed when a single server is selected in the [explorer](#) and a policy deployed on this server is selected in the [Policies](#) area. If a policy deployed on several servers is selected in [Policies](#) area a report will include information on launches of this policy only on the selected server. The report displays brief information on tasks of the selected policy including *task name*, *planned start*, *time started*, *time finished* and *task status*.

### Multi-server report

Multi-server report is available when a policy deployed on multiple servers is selected in the [Policies](#) area. Besides, a group or a solution must be selected in the [Servers](#) area. The report displays brief information on tasks of the selected policy including *task name*, *server name*, *planned start*, *time started*, *time finished* and *task status*.

### Detailed task report

Task report is available when a particular task is selected in the [Policies](#) area. This report displays a detailed information on a task and its steps of the selected policy including *task name*, *planned start*, *time started*, *time finished*, *task/step status* and *execution message (information, warning or error)*.

## 9.18 Ensure simultaneous policy execution on servers from different time zones

To ensure simultaneous policy tasks launches on servers located in different time zones you need to select the  **Use local Console time as absolute time** option on the [first step](#) of the [policy wizard](#).

In this case a policy will be executed on all servers at the time corresponding to the local EMS SQL Backup Console taking into consideration time zones where servers are located.

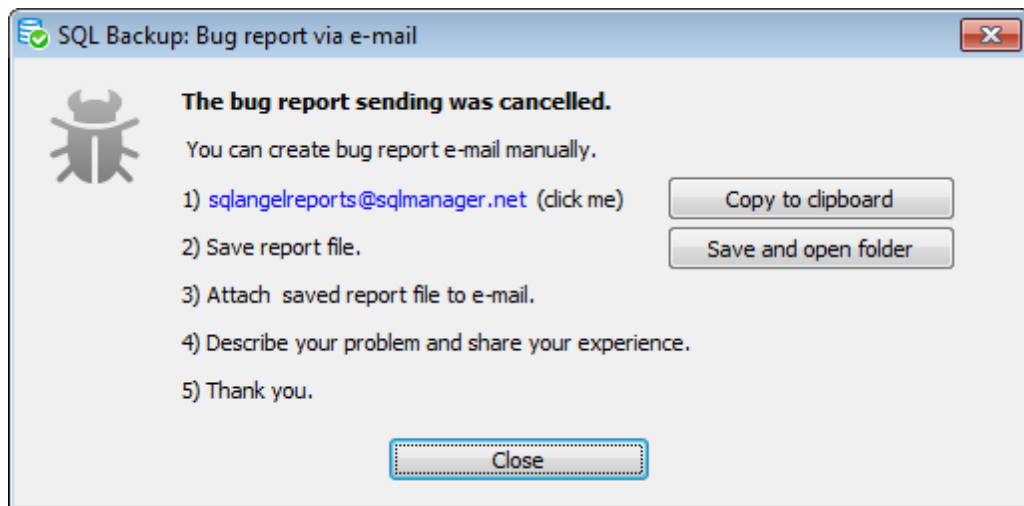
## 9.19 Report bugs and suggestions

If you want to report a bug occurred in the application or just provide some feedback you can do it directly from the EMS SQL Backup. Before reporting bugs and suggestions make sure you are using the latest version of the EMS SQL Backup.

To create an e-mail with attached bug report files automatically do the following:

1. Select the server on which the problem occurred in the [Servers](#) tree;
2. Choose the **Send bug report to EMS** its context menu item;
3. After a while the default mail client installed on your computer will be opened with newly created email having bug report files attached to it;
4. In the generated e-mail describe the steps to reproduce the occurred bug and send the letter.

If due to some reasons the e-mail creation failed or the report sending was canceled the following dialog appears.



Follow the given instructions to create bug report e-mail manually:

1. Click the "mailto:" link [support@sqlmanager.net](mailto:support@sqlmanager.net) to open mail client, or in case no client has been opened copy the address by clicking the **Copy to clipboard** button and create e-mail in a preferable client;
2. Click the **Save and open folder** button and define the directory where the bug report file should be saved; after the file is saved the defined directory will be opened automatically;
3. Attach the saved file to the created e-mail;
4. Describe the steps to reproduce the occurred bug and send the email.

## 9.20 Update EMS SQL Backup

EMS SQL Backup update process consists of EMS SQL Backup Administration Console and Server-side components update.

In order to update EMS SQL Backup Administration Console, please, do the following:

- download the full installation package of EMS SQL Backup from the [download page](#) available at our site;
- close EMS SQL Backup application if it is running;
- repeat the steps you have made for the first-time installation;
- run EMS SQL Backup using its shortcut in the corresponding group of Windows Start menu.

After EMS SQL Backup Administration Console is launched you will be warned that server-side components version is out-of-date. You will be offered to update server-side components. This is done by means of [Update/Remove server-side EMS SQL Backup components](#).

If you do not have permissions for remote update of server-side components via EMS SQL Backup Administration Console you can copy EMS SQL Backup setup file to the server machine and run installation there. Server-side components update process locally on a server is similar to their installation process and is performed by means of [Stand-alone remote components Installer](#). To update server components you need to select the  **Update** option and then select instances on which you want to update components.

## 9.21 Remove EMS SQL Backup

In order to remove EMS SQL Backup perform the following operations:

1. Remove server-side components from all servers they were installed. This is done by means of [Update/Remove server-side EMS SQL Backup components](#) that is launched by selecting the **Update/Remove server-side EMS SQL Backup components** server context menu item.
2. Remove EMS SQL Backup Administration Console from your computer via Control Panel - > Programs and Features.

**Note:** If you do not have permissions for remote of server-side components uninstall via EMS SQL Backup Administration Console you can copy EMS SQL Backup setup file to the server machine and run installation there. Server-side components remove process locally on a server is similar to their installation process and is performed by means of [Stand-alone remote components Installer](#). To remove server components you need to select the  **Uninstall** option on the [Selecting operation type](#) step.



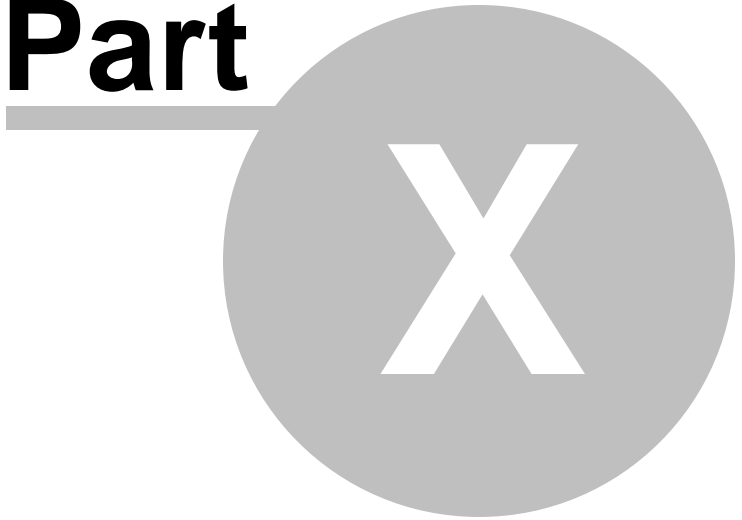
## 9.22 Use Free version of EMS SQL Backup

In order to use EMS SQL Backup Free version you need to activate the Free license key. Note that for activating Free license you need Internet connection.

1. Open the [License activation wizard](#) from the SQL Server instance context menu.
2. On the [first step](#) of the wizard select the  **Activate EMS SQL Backup License online** option.
3. On the [second step](#) of the wizard select the  **Free** option as a **License type**.
4. Complete the wizard steps.

The list of all functional differences between EMS SQL Backup versions can be found in the Feature Matrix.



**Part**



## 10 Appendix

### 10.1 Database states

The general database status includes SQL Server database state (the database icon color or right-bottom corner icon) and [policy status](#) (the color of a shield in the left-top corner).

-  - database is in an emergency state and does not have policies
-  - database is in an emergency state and all policies have "succeeded" status
-  - database is in an emergency state and has failed policies
-  - database is in an emergency state and has some warnings on policy execution
  
-  - database is offline and does not have policies
-  - database is offline and all policies have "succeeded" status
-  - database is offline and has failed policies
-  - database is offline and has some warnings on policy execution
  
-  - database is online and does not have policies
-  - database is online and all policies have "succeeded" status
-  - database is online and has failed policies
-  - database is online and has some warnings on policy execution
  
-  - database is in a single user mode and does not have policies
-  - database is in a single user mode and all policies have "succeeded" status
-  - database is in a single user mode and has failed policies
-  - database is in a single user mode and has some warnings on policy execution
  
-  - database is in a recovering state and does not have policies
-  - database is in a recovering state and all policies have "succeeded" status
-  - database is in a recovering state and has failed policies
-  - database is in a recovering state and has some warnings on policy execution
  
-  - database is in a restoring state and does not have policies
-  - database is in a restoring state and all policies have "succeeded" status
-  - database is in a restoring state and has failed policies
-  - database is in a restoring state and has some warnings on policy execution
  
-  - database is suspect and does not have policies
-  - database is suspect and all policies have "succeeded" status
-  - database is suspect and has failed policies
-  - database is suspect and has some warnings on policy execution
  
-  - database is inactive

## 10.2 Backup Converter Utility

"

This utility is used for converting EMS SQL Backup backup files to standard MS SQL Server backup files. It is run in console mode only.

### Usage:

```
<path to ConvertUtil.exe tool>\ConvertUtil.exe -I[inputFile]:file_name -O[outputFile]:  
file_name -D[atabases]:name[,...n] [-H[elp]]Help|-?] [-P[assword]:password]
```

The path to this utility is "C:\Program Files\EMS\SQL Backup\Distrib\Service\", on the machine where EMS SQL Backup Console is installed; on the server - "C:\Program Files\EMS\SQL Backup\Service\".

Where

- I[inputFile]** stands for the EMS SQL Backup file to be converted
- O[outputFile]** sets the result name of SQL Server backup file
- D[atabases]** sets database name(s), which data should be extracted

Optional parameters:

- H[elp]] Help|-?** outputs reference information
- P[assword]** sets the password to convert encrypted backups

### Example:

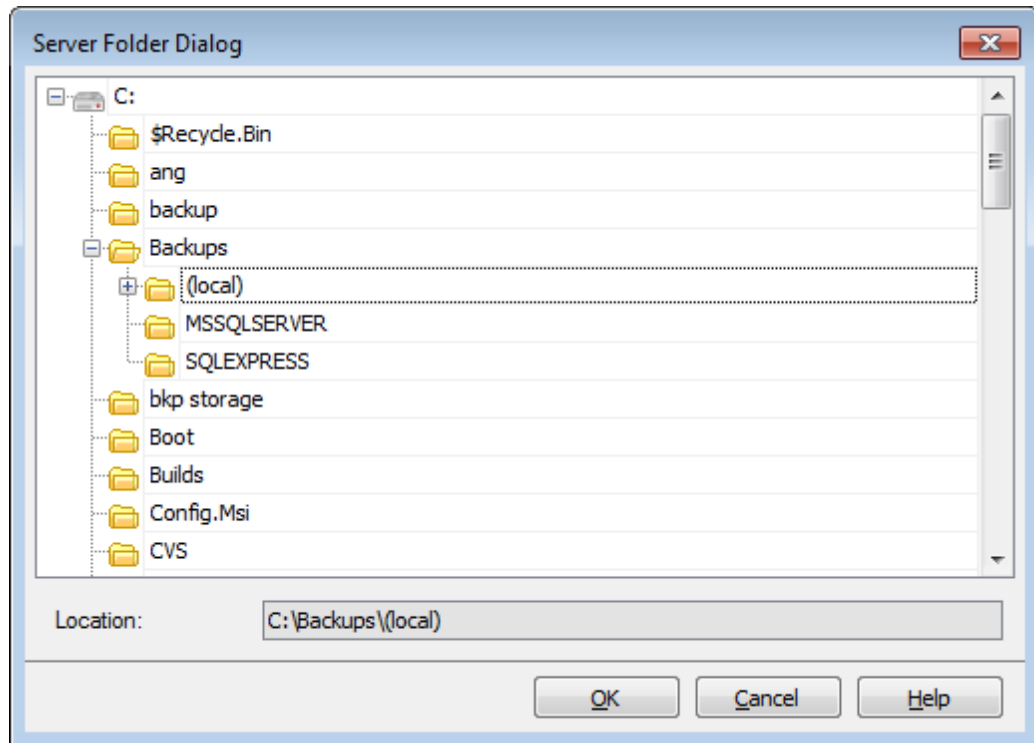
```
"C:\Program Files\EMS\SQL Backup\Service\ConvertUtil.exe" -I: C:\Data\TEST.bkp O: TESTms.bak  
D:Employee,Departments P:8p5Zh79
```

**Note:** If EMS SQL Backup backup is split into several files you only need to specify the first file from the chain, all subsequent files are processed automatically.

**Note:** If on backup you specified more than one threads at [Defining EMS SQL Backup settings](#), you will get *n* MS SQL Server files as a result of conversion. You will need to select all of those *n* files on restore by MS SQL Server means.

## 10.3 Server folder dialog

SQL Server Folders dialog allows you to browse directories on the server.



This dialog is opened on selecting server backups folder in:

- [Backup settings](#) tab of the [Server-side components properties dialog](#);
- [Setting file options](#) step of the [Backup Database wizard](#) and [Backup file options](#) tab of the [Backup database step editor](#);
- [Selecting available backup](#) step of the [Restore Database wizard](#);
- [Specifying backup source](#) step of the [Get backup to console wizard](#);
- [Selecting files/folders for cleanup](#) step of the [Maintenance Cleanup wizard](#) and [Selection](#) tab of the [Maintenance Cleanup step editor](#);
- [Specifying backup options](#) and [Specifying folders and recovery options](#) steps of the [Transaction Log Shipping wizard](#) and [General](#) tab of the [Transaction Log Shipping step editor](#).

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