

**Optimization of MS SQL Server  
database  
(when working with many files)**



*Microinvest*

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**WARNING! When performing this procedure, there might be unexpected complications. Microinvest recommends before starting work to make a backup of the database!**

This guide describes the technology, in which the optimization of a MS SQL Server database and software products of *Microinvest* is done.

The next steps describe the sequence and the necessary software to carry out the whole process.

1. MS SQL Server, Server 2005 SP4, MS SQL Server 2008 R2.
2. Required full version SQL Management Studio 2008.
3. The procedure is performed on the server itself. For example, to transfer 1,5GB sized database, it will take you about 10 minutes.

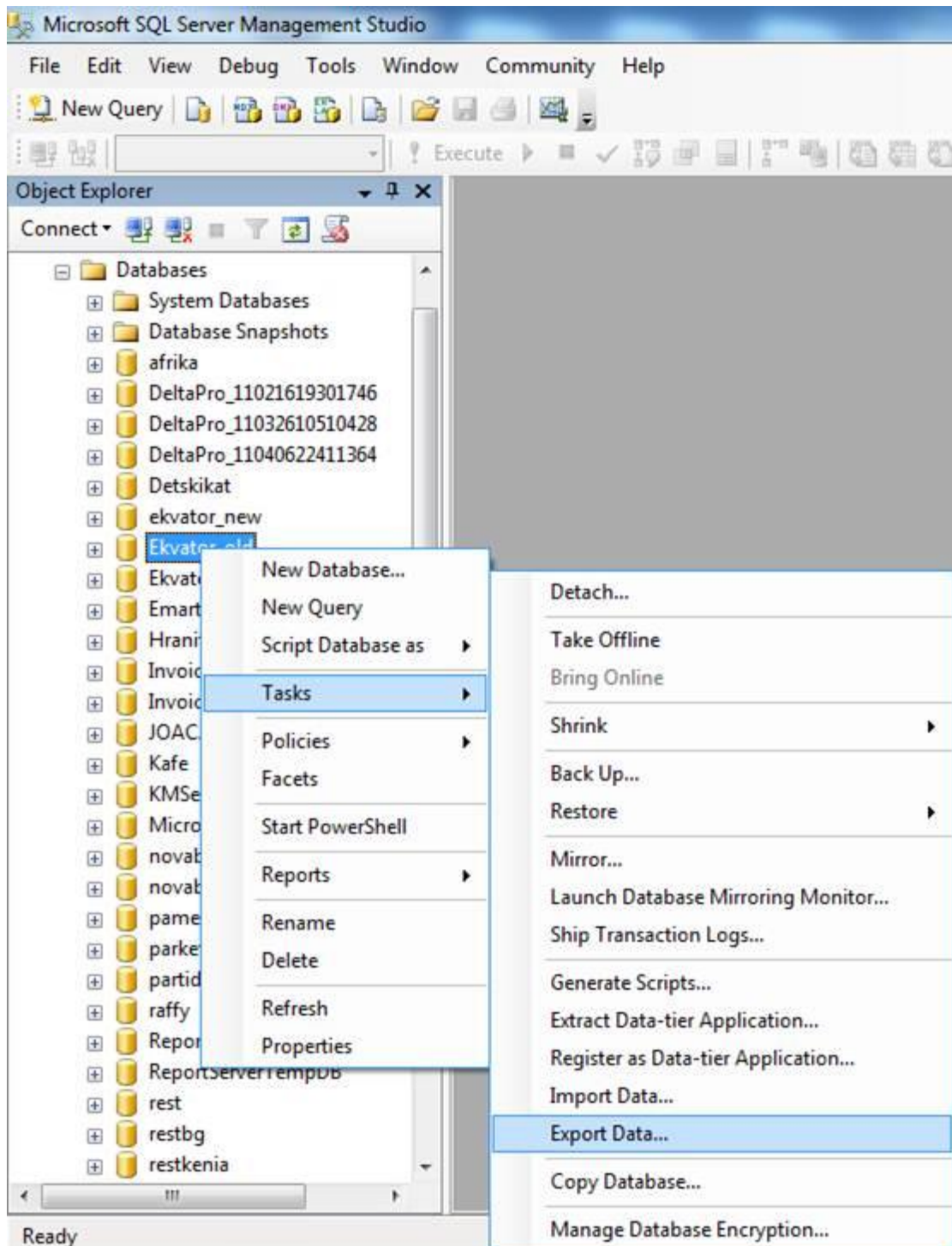
**WARNING! While the whole procedure is done, no one can work with the database, which is modified or transferred.**

4. Creating a script to generate a new database with many files. Open the script and set the command to execute a new database, which is created with the name we selected - Ekvator\_new. If such a database already exists, the previous one should be renamed.

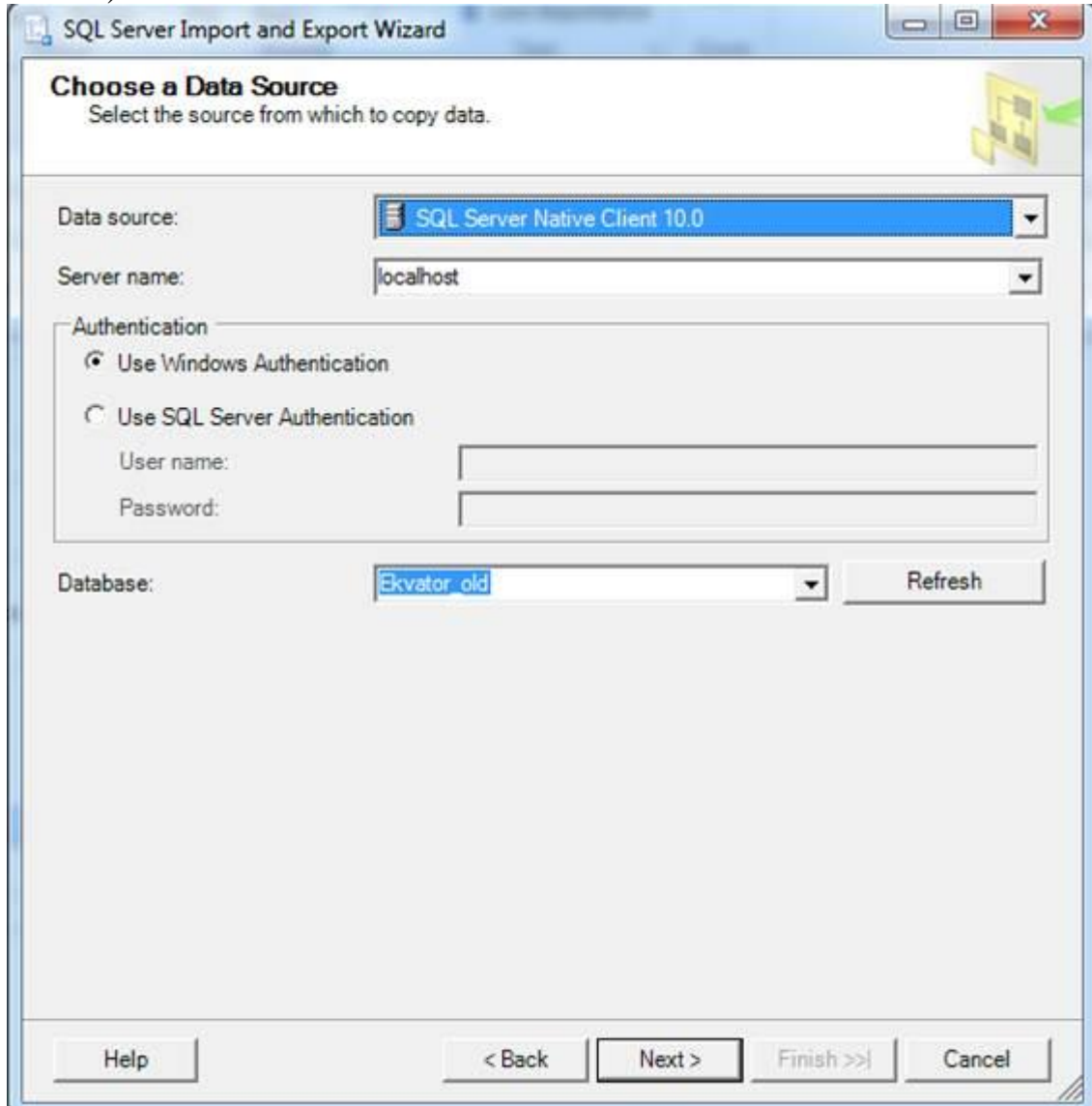
**Important:** Tool for generating SQL Script is available [here](#).

5. Open the **Properties** of database - if we know that the base will continue to grow, it is advisable to set a larger file size, so that they will be saved on the disk and your data will be in one place, the disk won't need to read the information from several places. This is also a factor that will contribute to increasing the speed as you can see below (**Autogrowth**). The Automatic increase of the file is made to be 20MB for the same reason - to minimize the fragmentation of the data around the disk.

6. Select the old database, click with the right button of the mouse on it

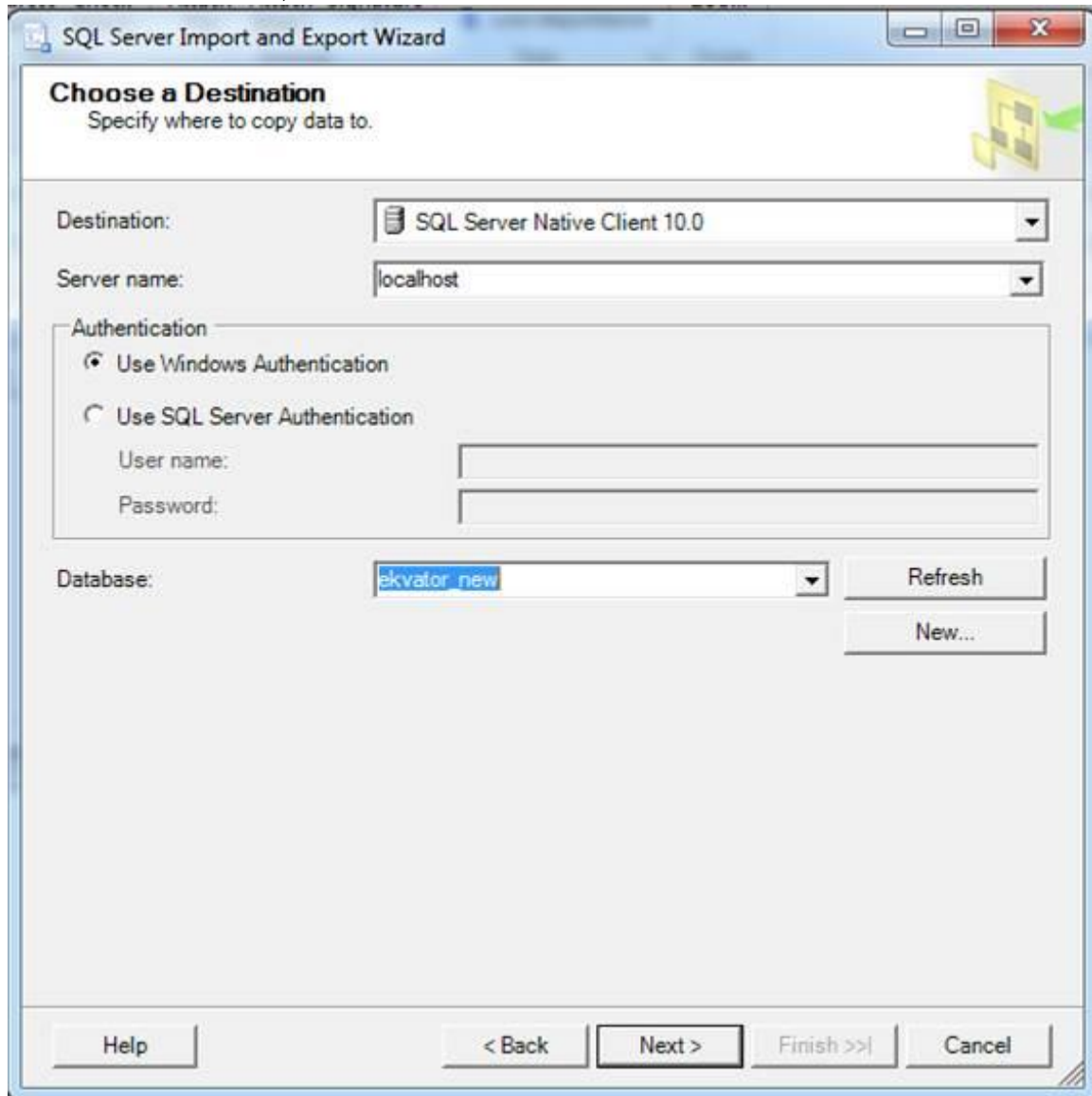


7. On the next window, click **Next**, then select the data source (in our case the "old" database).



The screenshot shows the 'SQL Server Import and Export Wizard' window, specifically the 'Choose a Data Source' step. The window title is 'SQL Server Import and Export Wizard'. The main heading is 'Choose a Data Source' with the instruction 'Select the source from which to copy data.' Below this, there are several input fields: 'Data source:' is set to 'SQL Server Native Client 10.0'; 'Server name:' is set to 'localhost'; 'Authentication' has two radio buttons, 'Use Windows Authentication' is selected, and 'Use SQL Server Authentication' is unselected; 'User name:' and 'Password:' are empty text boxes; 'Database:' is set to 'Ekvator\_old' and there is a 'Refresh' button next to it. At the bottom, there are five buttons: 'Help', '< Back', 'Next >', 'Finish >>', and 'Cancel'.

8. In the next window, select the new database:

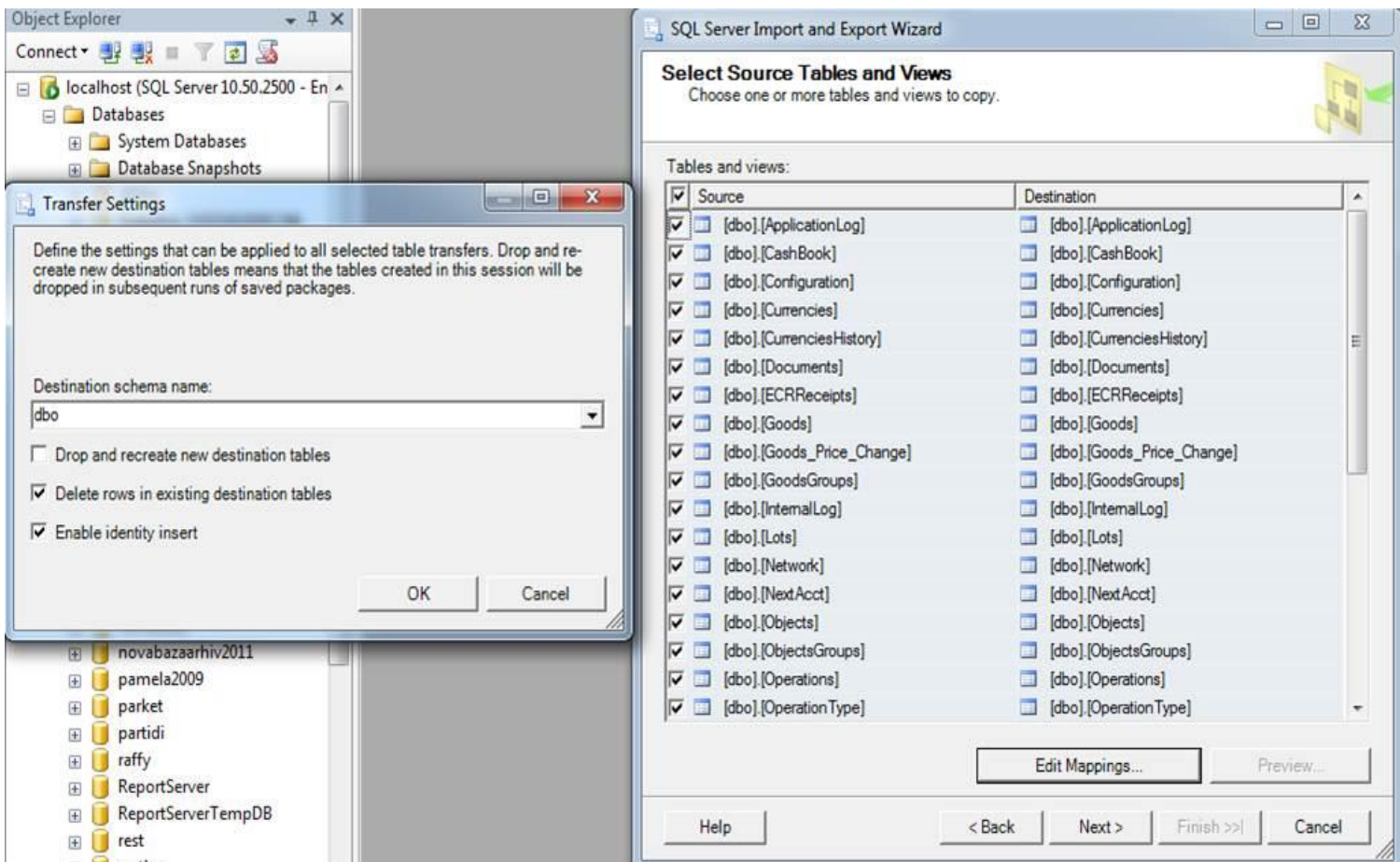


The screenshot shows the 'SQL Server Import and Export Wizard' window, specifically the 'Choose a Destination' step. The window title is 'SQL Server Import and Export Wizard'. The main heading is 'Choose a Destination' with the instruction 'Specify where to copy data to.' The 'Destination' dropdown is set to 'SQL Server Native Client 10.0'. The 'Server name' dropdown is set to 'localhost'. Under the 'Authentication' section, 'Use Windows Authentication' is selected. Below this, there are empty text boxes for 'User name:' and 'Password:'. The 'Database' dropdown is set to 'ekvator\_new'. To the right of the 'Database' dropdown are 'Refresh' and 'New...' buttons. At the bottom of the window are 'Help', '< Back', 'Next >', 'Finish >>', and 'Cancel' buttons.



9. In the next window choose: “Copy data from one or more tables or views”

10. **A very important point:** here we choose the mark that is on the top. It marks all tables, and then we choose Edit Mappings, and then select the ticks that are shown on the screen below. All the data will be transferred and the IDs will be saved as well. In this way the two databases will become identical.



11. Click **OK** and then **Next**

12. Select **Run immediately** check and then click **Next**

13. On the next screen, click **Finish**. The transfer will start. Everywhere should be pop-up a message **Success**, to make sure that the process is successful.

