



Whitepaper LISmigrate

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1 Data migration under control

Levade ICT BV, a company that offers solutions for reporting and reporting database management, announces the release of LISmigrate that enables rapid migration from data gathered in a multitude of databases and spreadsheets to a SQLserver database.

2 From scattered (reporting) data to a structured database.

Migrating all reporting data to a SQLserver database is no easy job and often requires frequently repeated manual work. Any incorrect action during the process of database structure and data transfer can lead to a dramatic loss of time and money. Thus the main task of a reporting administrators (or DBA's) while dealing with this job is to get everything under tight control: generation of the database structure, correct transfer of the different data types, the referential integrity saving, the efficiency of the stored procedures and triggers.

Fortunately most reporting administrators (and DBA's) realize that head-on database migration, writing SQL scripts by hand cannot be successful. However most tools for automatic migration fail to offer the required level of control and transparency, and in this case database administrators face many challenges.

It goes without saying that not all the tasks listed above can be automated. The transfer of the stored procedures and triggers code in particular is not subjected to automation in most cases. But a good tool for automatic migration can help the reporting administrator (or DBA) to create a base for subsequent reporting database optimization and get rid of routine database tasks.

3 The right tool to move your (reporting) data to SQLserver

The right tool to transfer your 'scattered' reporting data to one structured SQLserver database should meet two main requirements.

1. To ensure transparency of the SQL script to generate a database structure and control over its execution.
2. To give all the necessary means for the correct data transfer (including binary BLOB data, any text data, including multi-lingual Unicode strings).

With LISmigrate, you gain the control you need. The generation of SQL script that creates the database structure is totally controlled by the reporting admin. The reporting administrator (or DBA) can change the structure of the objects visually and make changes by hand if necessary. If errors occur during the execution of the script, the admin can correct an expression that caused an error and continue running the script from the position where it stopped.

4 The tool for everyday data transfer and synchronization

Normally data migration for reporting purposes is not a one-time task. To synchronize data with the constantly updating data sources, one needs to run this operation on a regular frequency. This is also within the grasp of the automated transfer tool which enables data transfer into an already existing database with the ability to maintain data actuality afterwards.

LISmigrate offers powerful options for single-side database synchronization. Using it you can also create local backups of your (reporting) data by copying the structure of your (reporting) database onto the local PC, and keeping it up-to-date with regular updates of data.

5 LISmigrate lets you achieve more in less time!

Though no matter what tools the reporting administrator (or DBA) uses it is he or she who works out a database transfer strategy and tactics relying on his own experience, intuition and vocational training. But the right tool in reliable hands of a professional is half the battle.

Being a professional tool, LISmigrate achieves remarkable data transfer speed and provides advanced configuration settings that allow you to maximize efficiency of your personnel and to minimize database transfer time.

6 Product overview

6.1 LISmigrate: a set of power tools

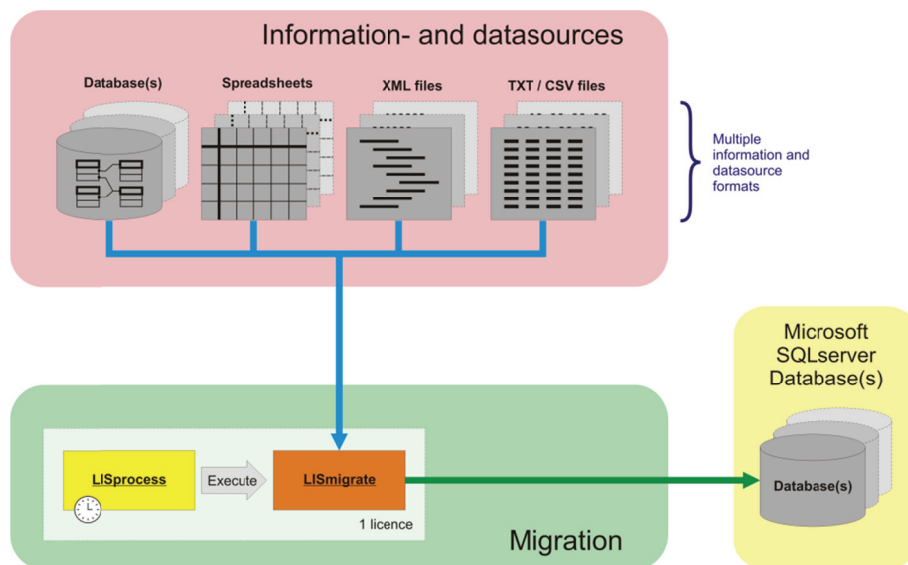
LISmigrate provides rapid data migration across varying reporting data sources and databases ensuring lossless data integrity. It allows modification of a database structure and data with ease. With LISmigrate, you gain the control you need during the migration process.

LISmigrate is not a one-time utility but a set of power tools to automate your data movement and synchronization tasks. Saving all migration options to a file, you may easily repeat your task in a few mouse clicks. The Command-line tool and the Task Scheduler let you automate your data transfer completely.

LISmigrate Key Features:

- Complete or partial transfer of database schema and data.
- Restructure / Transform schema and data with ease during migration.
- Transfer data into existing tables within the destination database.
- Transfer new / updated / deleted records only (single-sided data synchronization).
- Generation of SQL Script (Dump) for future execution on the destination database server.
- Running data synchronization tasks in one click using the Command-line tool.
- Full automation of migration process with the Task Scheduler and COM Server Automation.
- Full monitoring and control over the database generation process.
- Full Unicode support.

Below you'll find a schematic overview of the LISmigrate (and LISprocess) functionality



Remark: A LISmigrate license is always delivered with a LISprocess license.

6.2 LISmigrate Command Line Tool: Running data transfer tasks in a few clicks

Ability to store all settings made on the current session of working with the tool is a necessary feature. And the next thing you need to automate your job is to run previously saved data transfer projects without reviewing all these settings prior to running the task. This is why the command-line tools are included in LISmigrate.

The Command-line tool allows you to run your export jobs simply by clicking on the shortcut on your desktop or by hitting a hot key. To use it you should pass the previously saved project file as the first command line parameter for the tool. This could be made in the "Run..." menu item from the Start menu. Or you may copy the Command-line tool shortcut to the Desktop and add the path to your project file by modifying shortcut's properties.

6.3 LISmigrate Task Scheduler: Automating your data transfer tasks made easy

LISmigrate Task Scheduler is an easy-to-use application that runs in background to start LISmigrate data transfer projects according to a schedule. It is able to work with LISmigrate at once, without need to run multiple schedulers for each transfer project. LISmigrate Task Scheduler works even if the standard Windows scheduler is switched off or not accessible due to the network policy restrictions.

Feature List:

- Works in the background, hiding into the system tray.
- Allows flexible scheduling of transfer project execution.
- Saving a detailed log file for each execution.

6.4 LISmigrate COM Server (OLE) Automation: Extra power in your hands

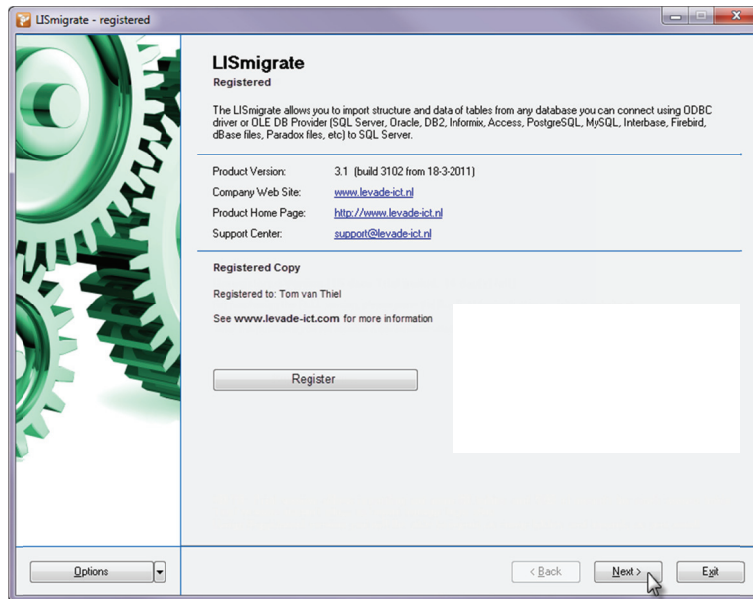
Sometimes you need more flexible means to automate your data flow. For example, you may wish to export data right after completion of some other programming task. Or you may need to export not all but specific data depending on user's demands. In this case, you may call your data transfer projects directly from your scripts and applications via OLE Automation technology. LISmigrate introduces COM server functionality so you may easily run your data transfer projects programmatically. Moreover running LISmigrate data export projects, you may pass parameters for your SQL queries varying the resulting output data.

7 The right solution for your database and data migration tasks

Being a professional tool, LISmigrate achieves remarkable data transfer speed, provides advanced configuration settings and has full Unicode support. It allows full control over the migration process, and features simple and convenient user interface. LISmigrate frees you up from routine database tasks for more profitable or enjoyable activities.

8 LISmigrate, a brief tour

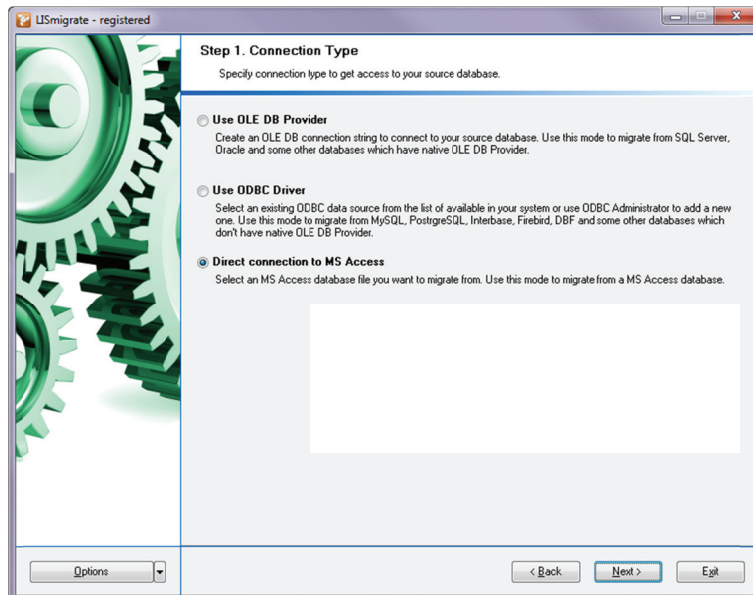
8.1 Welcome screen



LISmigrate has convenient wizard-like user interface that guides you through the process of database migration task.

The first screen provides useful information about the product and displays trial or registration data.

8.2 Migration from almost Any Database

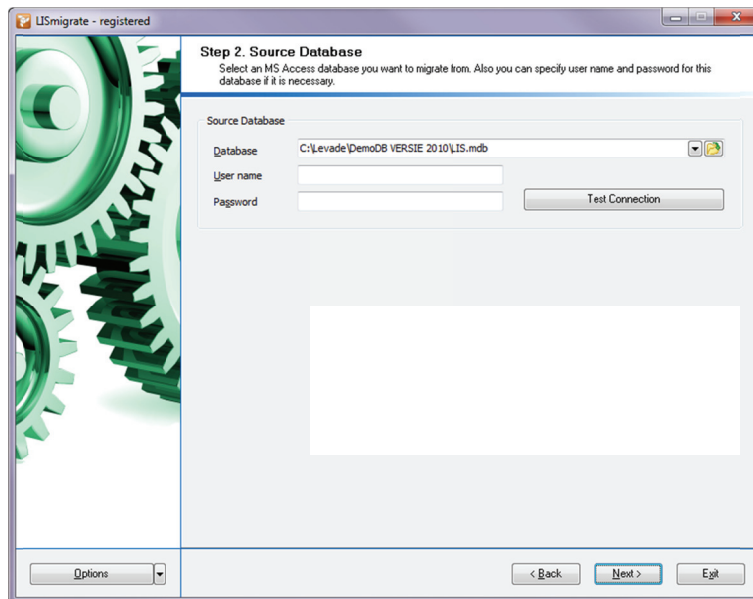


LISmigrate provides full set of database connectivity options to connect to almost any database server or desktop databases.

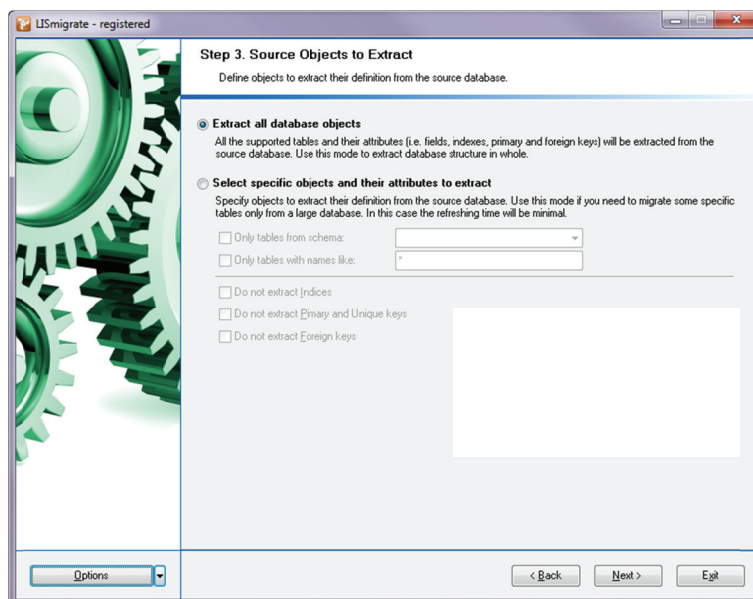
We recommend you to use the OLE DB Provider option to migrate from Microsoft SQL Server, Oracle, Sybase and some other databases which have native OLE DB Provider. For those databases that doesn't have native OLE DB provider we recommend to use the ODBC Driver option. Use the ODBC Driver to migrate from MySQL, PostgreSQL,

InterBase, Firebird, DBF and many other databases. MS Access database is carried out to the separate option to achieve maximum compatibility and data transfer speed.

8.3 Data Source



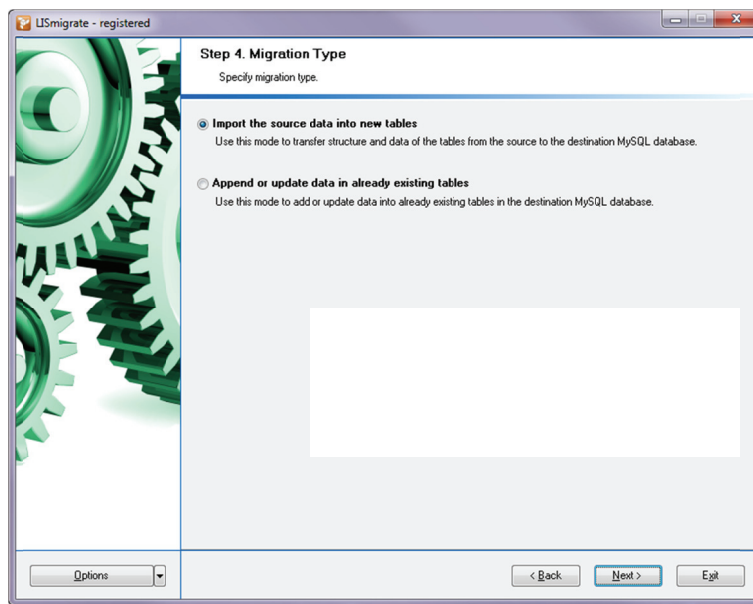
8.4 Easy Selection of Objects to Extract



LISmigrate allows flexible selection of objects to extract from the source database.

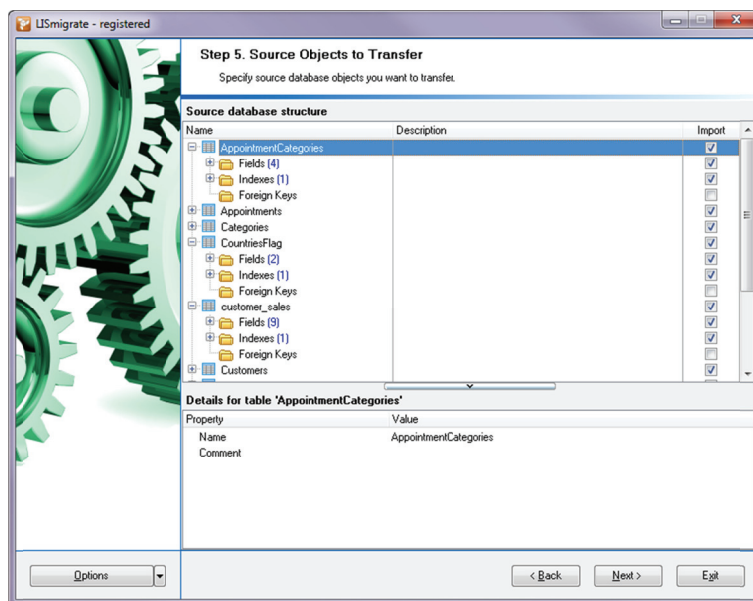
The first option is useful for complete migration of database structure and data. The second option allows you to save time to analyze the source database by constraining the set of objects to analyze. This is not the final selection of database objects to be transferred to the target database, but just a quick way to speed up the process.

8.5 Migration to a New database or Update



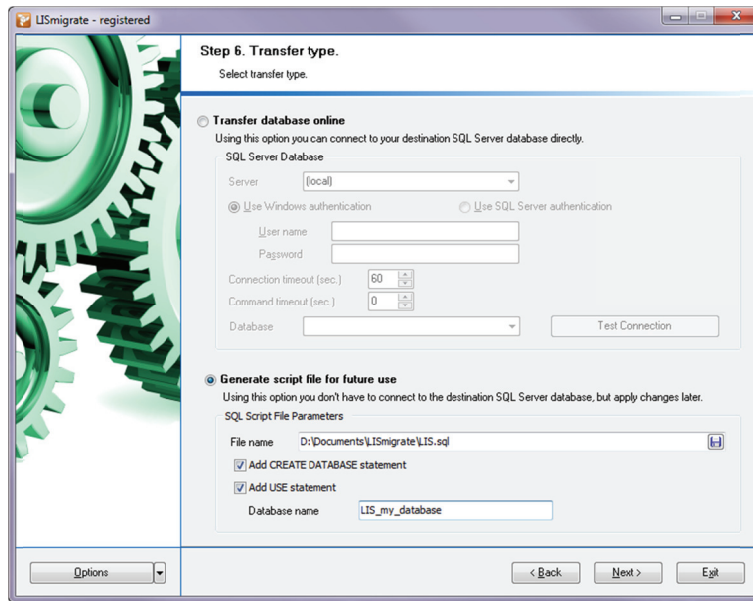
LISmigrate has two main operational modes. The first mode allows you to reproduce the source database structure in the target database and copy data to the newly created database structure afterwards. The second mode is useful in case you already have created the target database structure and you want to transfer data into it.

8.6 Fine Selection of Objects to Transfer



LISmigrate gives you the ability to select each table, field, index and foreign key you want to transfer to the target database. This allows you to get full control over the database migration process.

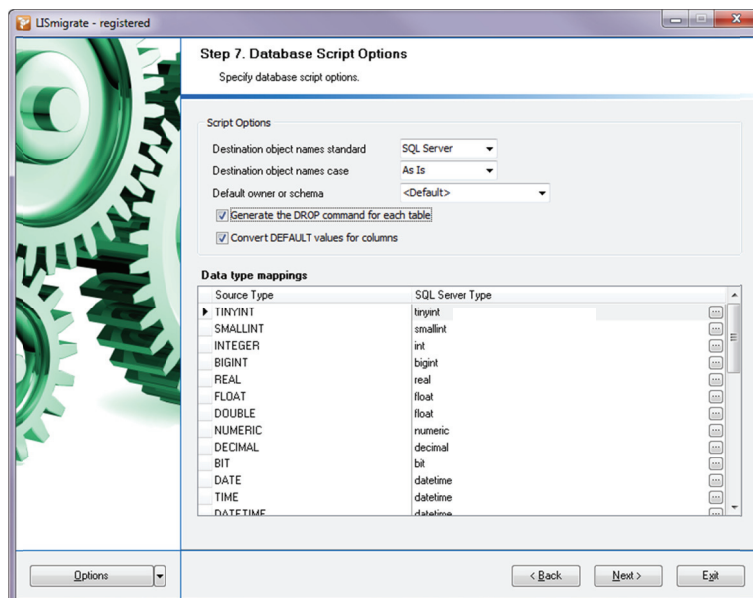
8.7 Working without Live Connection to the Destination Server



LISmigrate lets you to pass all the steps of migration process even if you don't have live connection to the target database server by generating the SQL Script you can run on the target database server later. You may define all required SQL Script settings to be able to complete your database migration later without any problems.

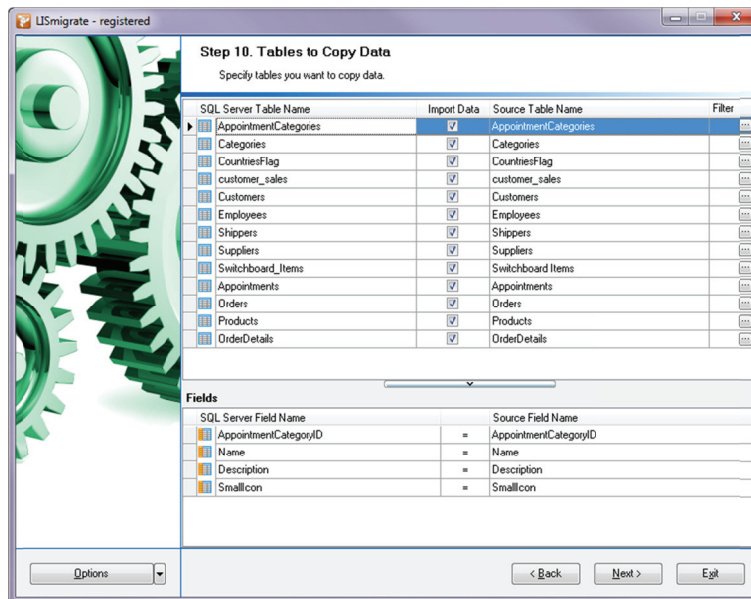
Migrating to online database server, you may connect to already existing database or create the new database by clicking the appropriate button on this step.

8.8 Database Script Options



8.11 Specification of Objects to Import Data

LISmigrate gives you the ability to set correspondence between source and target tables and fields to perform data transfer to the newly created tables.



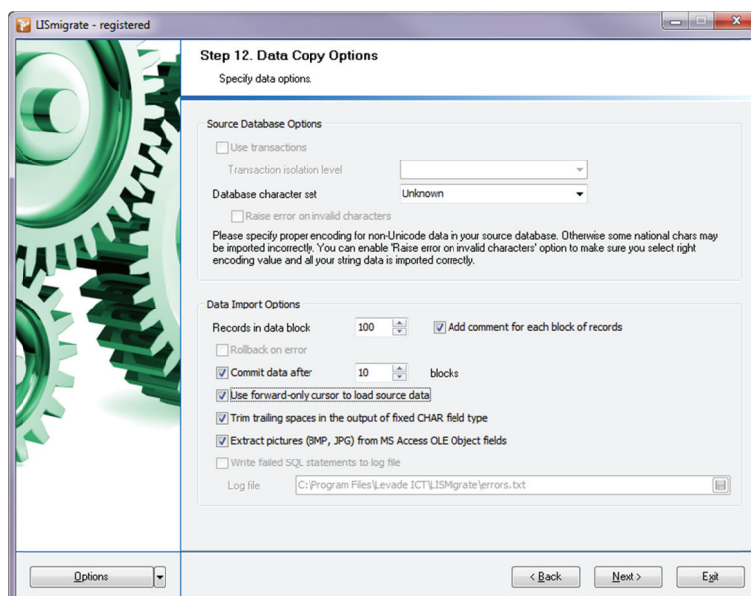
LISmigrate allows you to copy data to already existing tables, no matter if they already contain data or not. For each target table you should define the source table to copy data from, determine required import mode:

- Insert new records only
- Insert new records and update existing
- Insert all records from source to destination
- Update existing records only

Records are matched by key fields. Fields correspondence may be altered for each table at the Fields grid.

You may use LISmigrate as a single-side synchronization tool by setting appropriate options on this step.

8.12 Setting SQL Script Generation Options

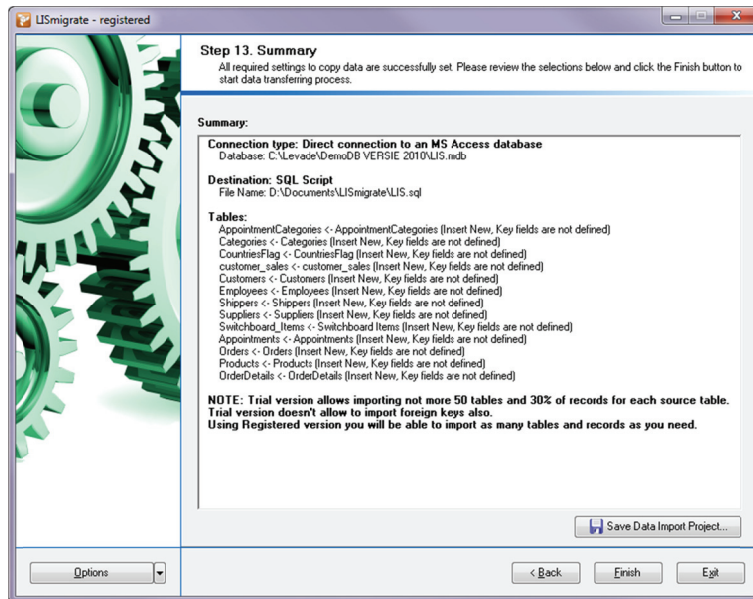


LISmigrate has wide range of settings to setup data transfer the way you need.

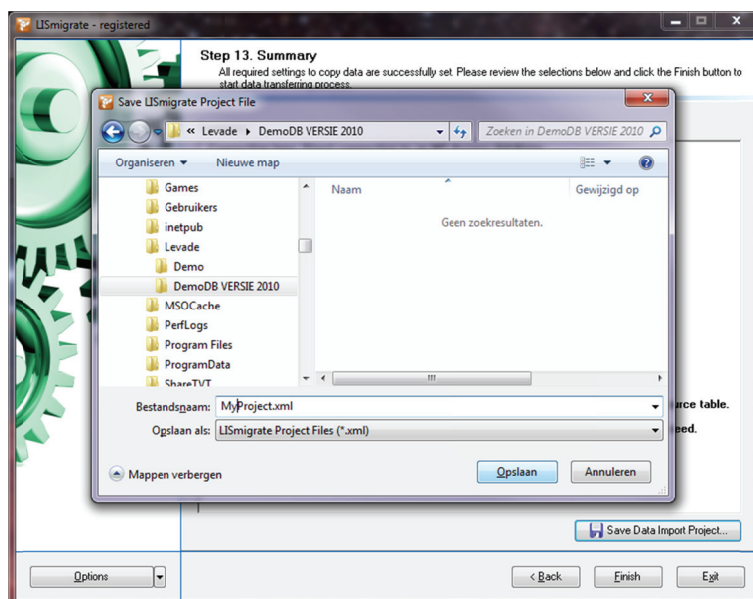
Transferring data with LISmigrate you will never face the problem of improper setting of character set. Our tool allows you to define correct character sets of the source and destination database data, so your data will be imported correctly in any case. Even if you were mistaken on setting character set options for your data, you will be prompted about invalid string conversion, so you won't run into a surprise about this problem after a while.

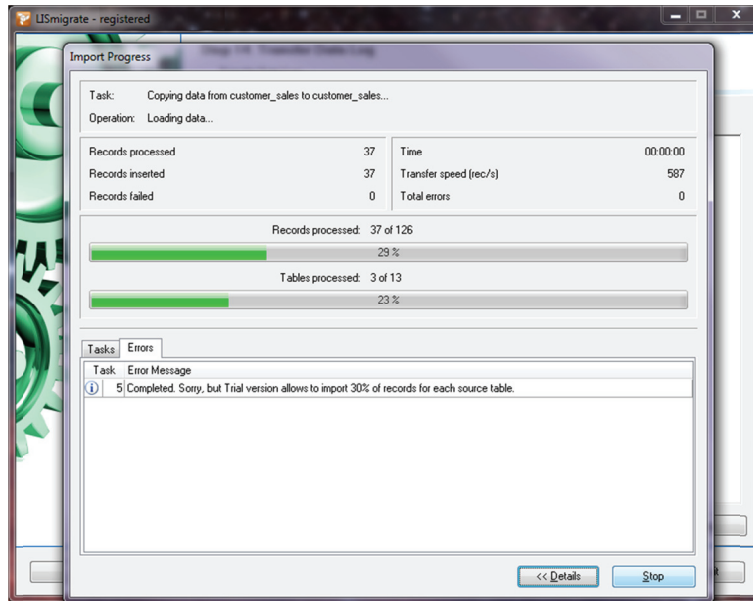
One of the unique features of LISmigrate is ability to extract images from MS Access OLE BLOB fields. Simply check the appropriate option to activate this feature.

8.13 Summary



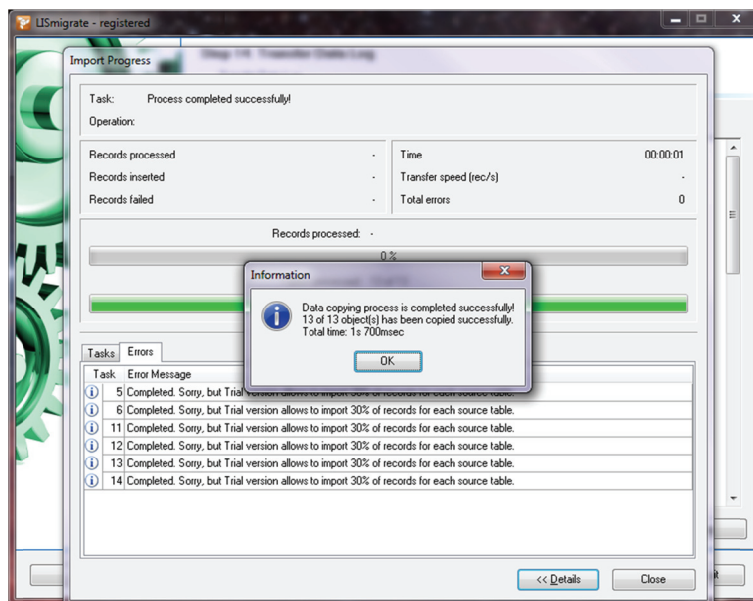
8.14 Data Transfer Process



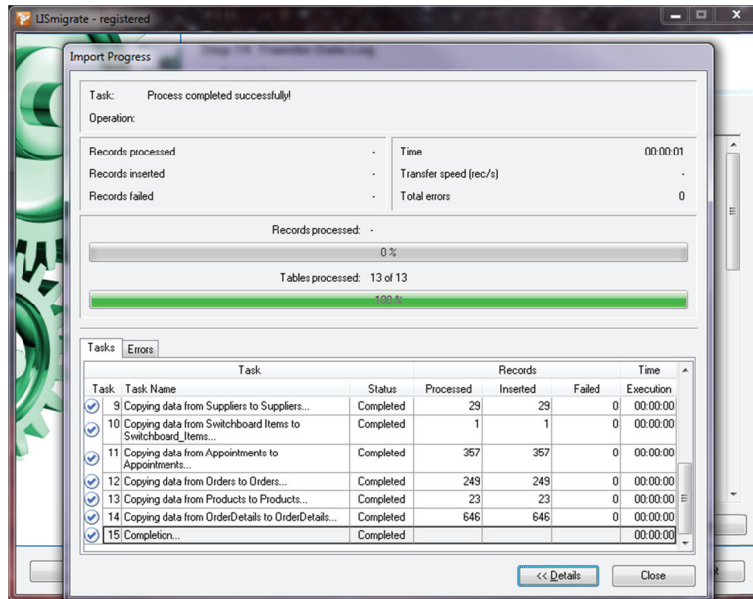


LISmigrate is aimed to achieve the highest possible data transfer speed by using direct access to the destination database server, and providing various optimizations of the data transfer process.

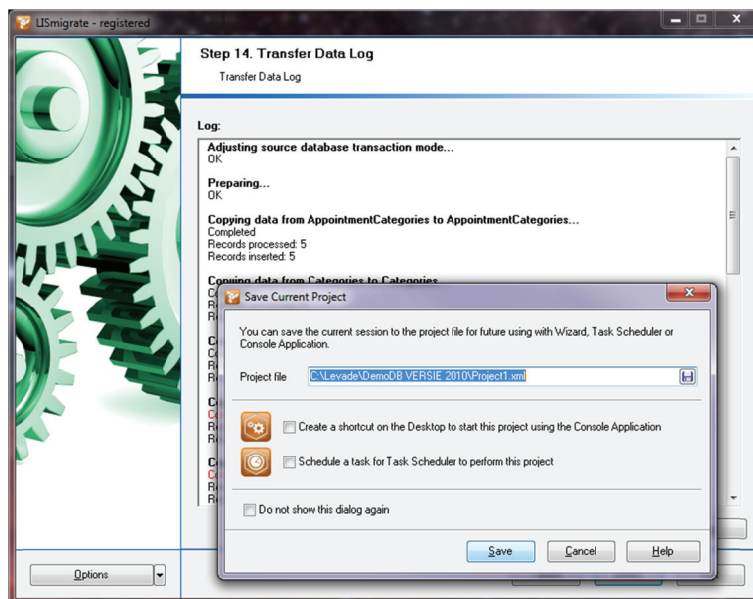
Our tool allows you to choose the right way to connect to your source database (OLE DB, ODBC or direct access to MS Access) that is also may have positive effect on the data transfer speed.



After import progress and completion an information summary is displayed.



After completion of the test run you save the project file. Besides saving the project file you can either place a shortcut on the desktop and/or schedule a task for the LISprocess task scheduler.



9 Pricing and availability

Please contact your local dealer for licensing and maintenance pricing information. The Levade maintenance program will allow you to receive two business day email support, software updates, upgrades and bugfixes at no additional cost.

Currently the software allows you to migrate to Microsoft SQL Server from any data source you can connect using ADO, ODBC or OLE-DB. Other versions to migrate to Oracle and other database servers will be available next year. You may learn more about LISmigrate and other powerful database tools at www.levade-ict.com

About us

Levade ICT BV is a privately owned software development company headquartered in Bodegraven in The Netherlands. Established in 2005, Levade ICT BV offers solutions for reporting and database management.

10 More information

For more information, please visit our websites at:

- www.levade-ict.com
- www.levade-ict.nl

Or send an email to

- info@levade-ict.com
- info@levade-ict.nl

Or contact your local dealer

- Go to one of the websites and select “Partners and Dealers” under “Contact”