



Automated and Customizable Database and Application Migration and Modernization

Ispirer Systems

Migrating to Microsoft Technology Stack

COMPANY OVERVIEW

Ispirer Systems specializes in two main fields since 1999:



**DATABASE
MIGRATION**



**APPLICATION
CONVERSION**

We help organizations all over the world to keep up with the best practices of **Software Development** and **Data Storage**.

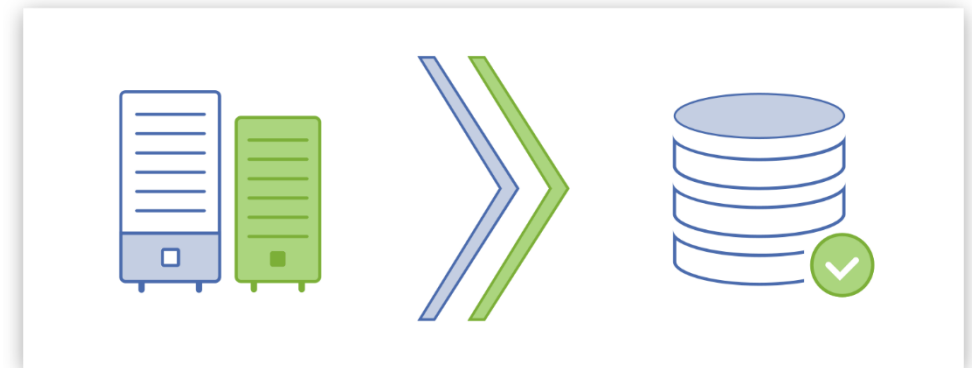
ISPIRER COMPANY STRUCTURE



DATABASE MIGRATION

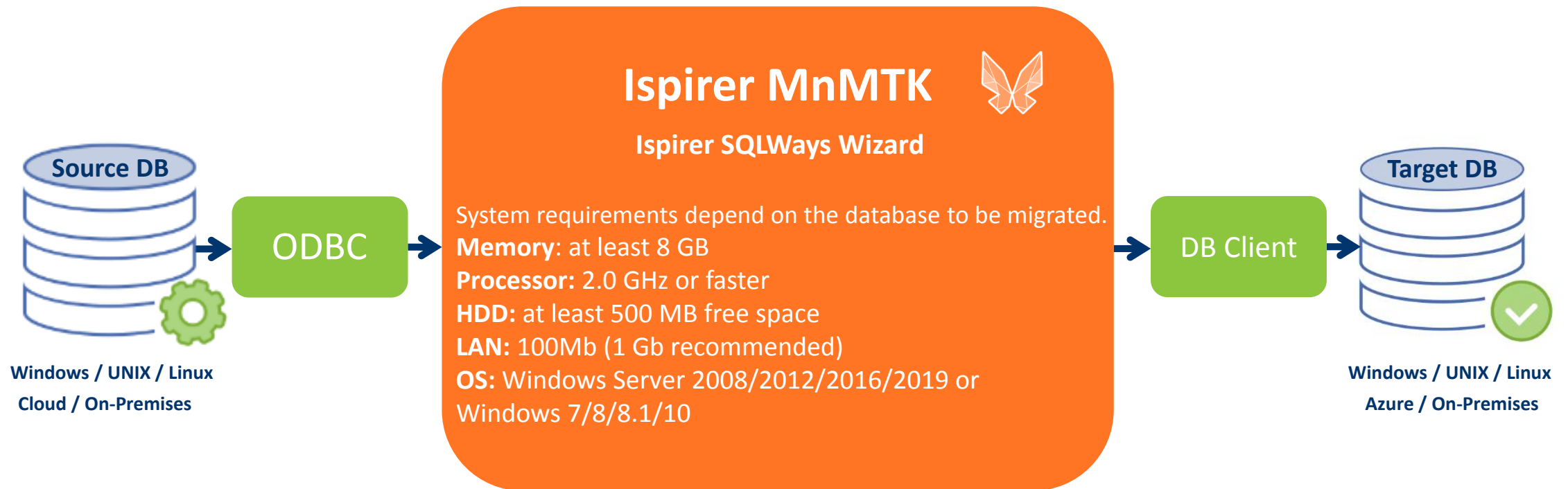
Ispirer MnMTK and Ispirer Services provide easy migration of database components:

- ▶ **Tables**
- ▶ **Data**
- ▶ **Views**
- ▶ **Stored Procedures**



- ▶ **Triggers**
- ▶ **Packages**
- ▶ **Functions**

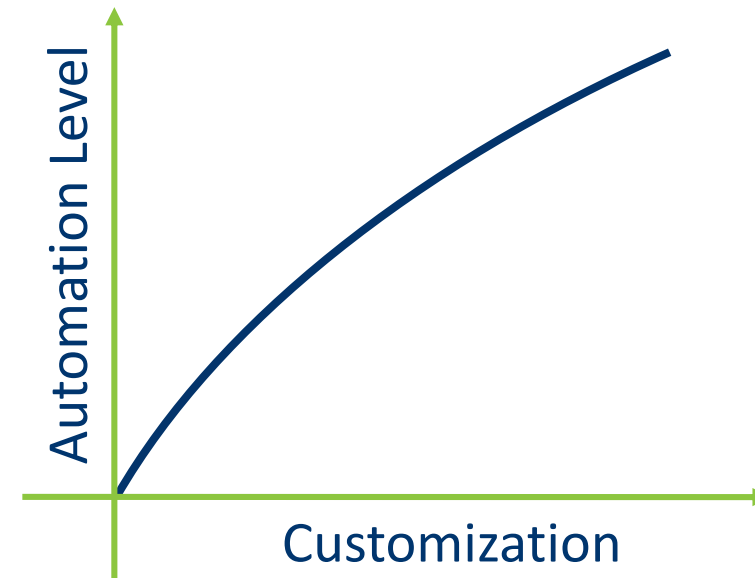
DATABASE MIGRATION USING ISPIRER SQLWAYS WIZARD



These elements may be located on the same or different computers.

ISPIRER MNMTK CUSTOMIZATION

Each project has its own specifics. It may seem impossible to bring migration automation to a high level. With Ispirer it will be a smooth transition. The main advantage of Ispirer MnMTK is the personalization for each customer's migration project. We will add all conversion rules to achieve **up to 100%** automated migration from your source technology to **Microsoft solution** through Customization.



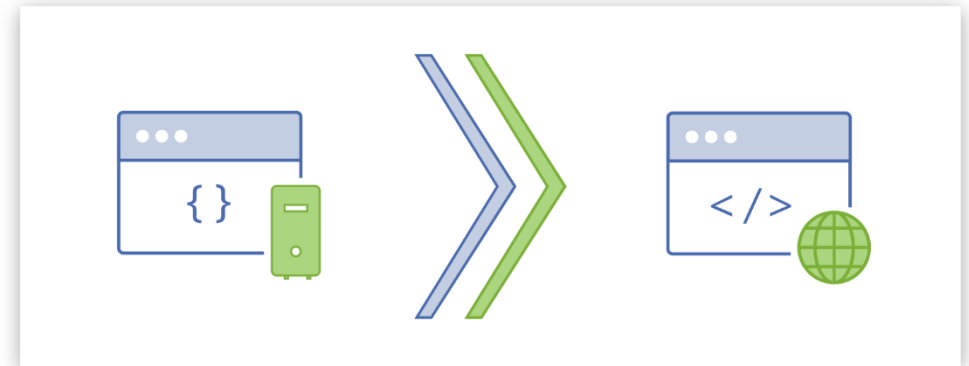
Ispirer MnMTK supports main databases and programming technologies.

 ORACLE® Amazon
Aurora Microsoft®
SQL Server® Azure IBM
DB2 MySQL® amazon
REDSHIFT PostgreSQL EDB®
ENTERPRISEDB VERTICA MariaDB
Foundation Progress® Informix® TERADATA SYBASE®
An SAP Company

APPLICATION CONVERSION

Ispirer MnMTK and Ispirer Services provide easy conversion of your application:

- ▶ **Syntax**
- ▶ **User Interface**
- ▶ **Embedded SQL**



- ▶ **System Functions**
- ▶ **Reports**
- ▶ **Database API**

APPLICATION CONVERSION OVERVIEW



Ispirer Systems offers **entire conversion** of your source technology. You will replace the old technology with all its downsides. Outcome will be a new application without any middleware used afterwards.



We are taking into account your **specific coding, architecture** and **framework requirements**. We will develop **customized, reliable, and efficient solution** delivered to your **unique conversion project**.

APPLICATION CONVERSION USING ISPIRER MNMTK

We offer **two scenarios** depending on the specifics of the customer's project.

- 1** If the customer is satisfied with the **current level of Ispirer MnMTK automation**, we will grant him a license for the toolkit. At the same time, the automation level can be increased. We will recommend the optimal number of the **Extension Requests** considering the complexity and requirements of the conversion project.
- 2** Alternatively, the Ispirer technical team will **customize Ispirer MnMTK** by adding all the necessary migration rules. Through this process we will achieve the **highest possible level of automation**.

USING ISPIRER MNMTK WHILE CONVERTING LARGE APPLICATIONS

- 1 Proof of Concept.**

The PoC stage allows Ispirer to migrate a small but representative scope of code to find the right migration solution. While exploring complex cases we will estimate required manual efforts and determine efficiency in mutual cooperation with the customer. We will finally conclude on the **possible level of migration automation**.
- 2 Ispirer MnMTK Extension Stage.**

We will implement new conversion rules into the tool. The customer will get **customized and updated tool according to his specific project needs**.
- 3 Use of Ispirer MnMTK.**

Finally the customer might choose to **purchase the license and get his application automatically migrated** with the help of the Ispirer tool.

Ispirer team performs automated conversion from various legacy application technologies, e.g. **Delphi**, **PowerBuilder**, **Progress 4GL**, **Informix 4GL**, **COBOL** to **.NET**.



MIGRATION AND MODERNIZATION TOOLKIT & SERVICES

Ispirer Systems offers **two options to migrate your technology:**



**Ispirer Migration and Modernization Toolkit
(Ispirer MnMTK)**



**Ispirer Migration and Modernization
Services**

We provide a full range of professional solutions such as **assessment, conversion and testing.**

ISPIRER MNMTK STRUCTURE

Ispirer Migration and Modernization Toolkit provides automated database and application migration on basis of the following **tools**:



SQLWays Wizard



nGLFly Wizard



Migration Studio

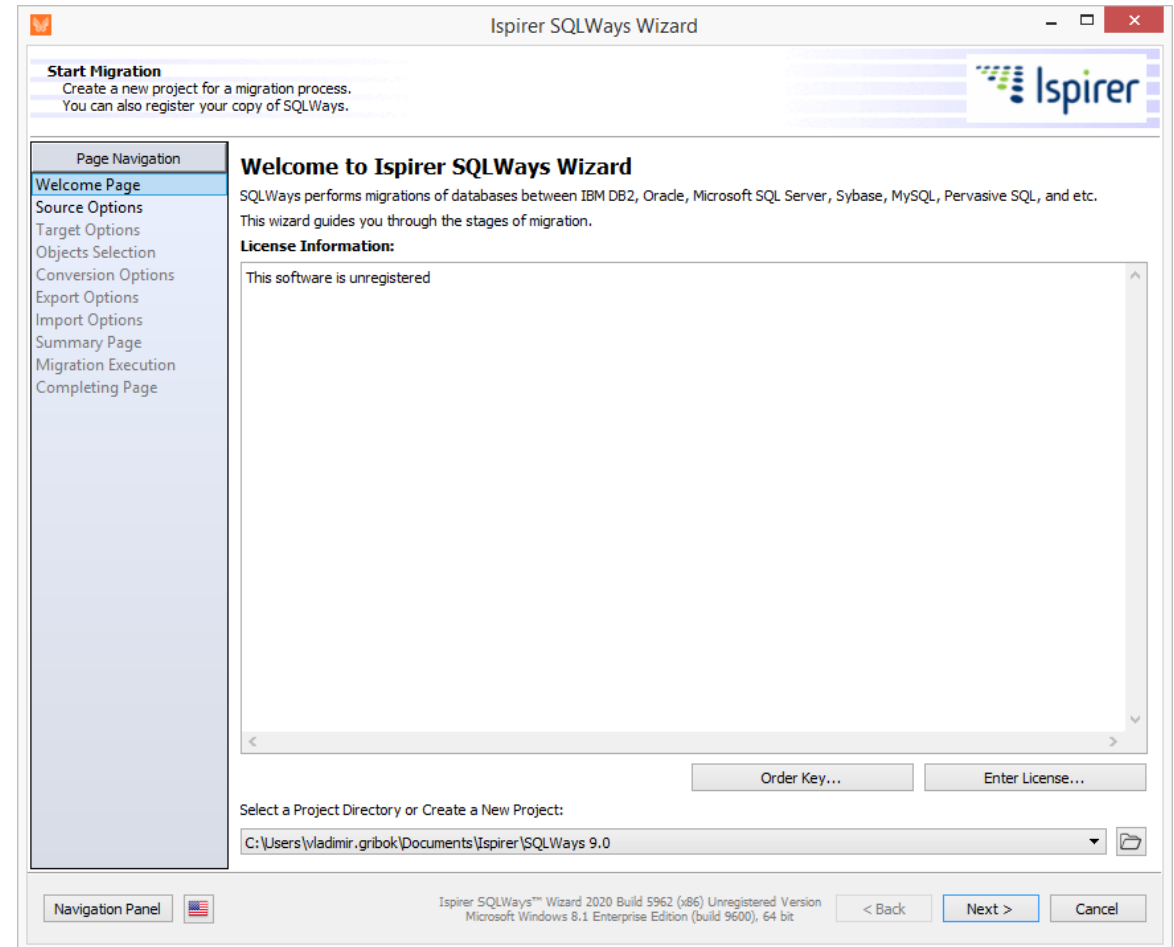


Command Line Mode



Ispirer SQLWays Wizard

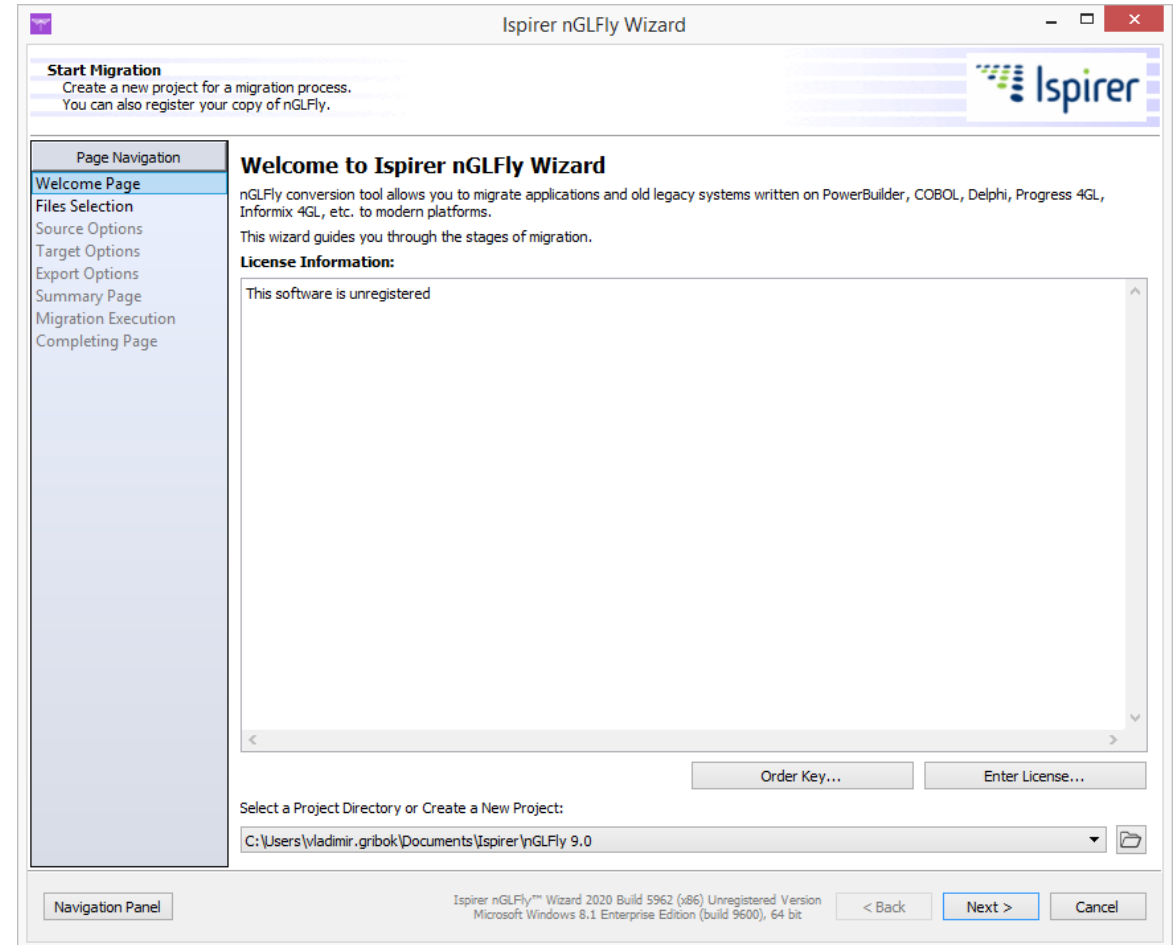
GUI tool designed to simplify the tuning of **database migration** process.





Ispirer nGLFly Wizard

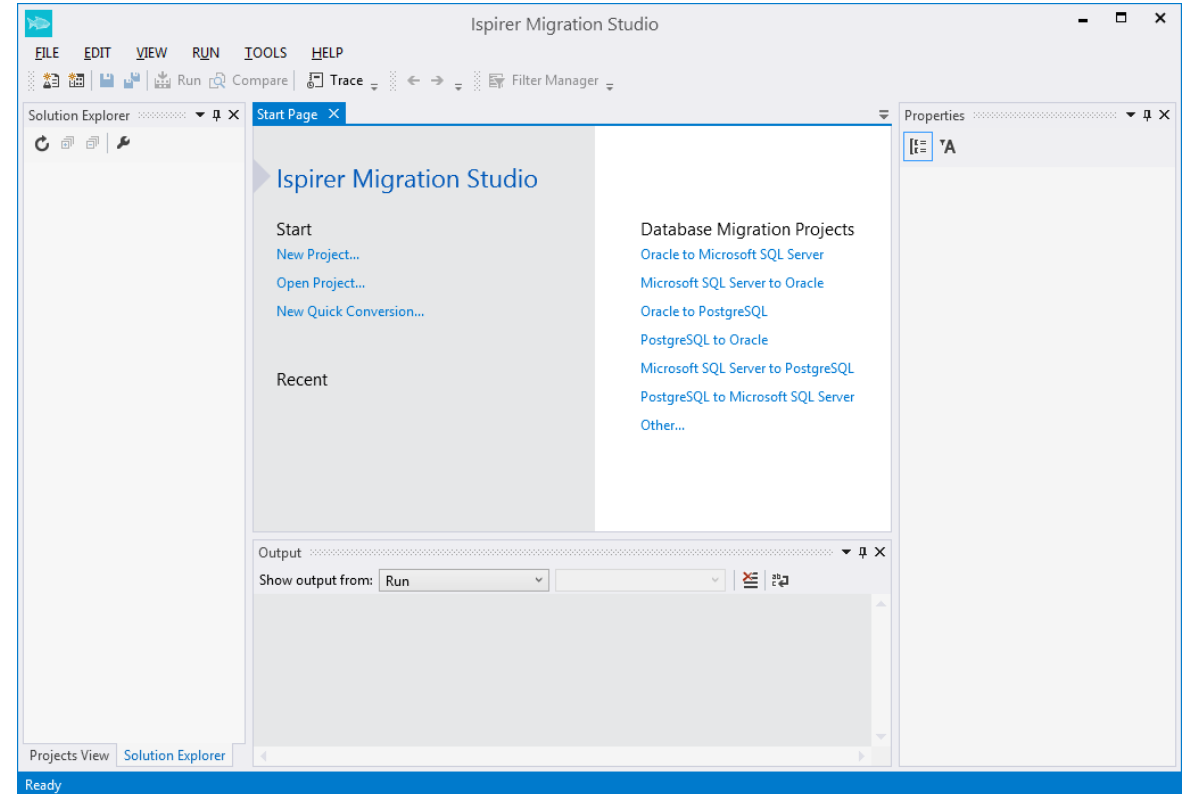
GUI tool designed to simplify the tuning of **application conversion** process.



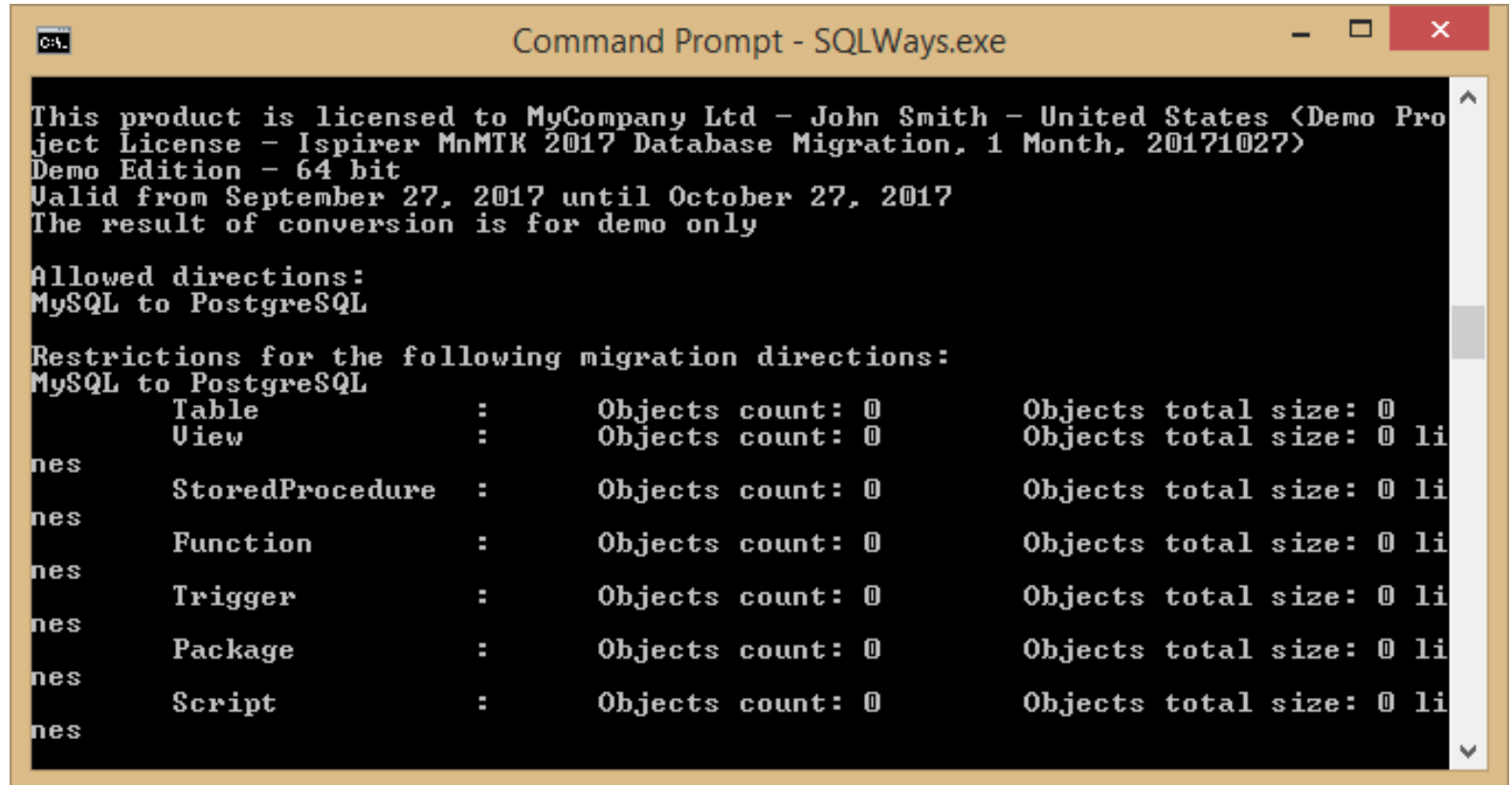


Ispirer Migration Studio

Ispirer Studio integrates work for both **database** and **application migration**.



Ispirer MnMTK
allows to perform all
migration tasks in a
command line mode
or in a shell script.



```
Command Prompt - SQLWays.exe

This product is licensed to MyCompany Ltd - John Smith - United States (Demo Pro
ject License - Ispirer MnMTK 2017 Database Migration, 1 Month, 20171027)
Demo Edition - 64 bit
Valid from September 27, 2017 until October 27, 2017
The result of conversion is for demo only

Allowed directions:
MySQL to PostgreSQL

Restrictions for the following migration directions:
MySQL to PostgreSQL
Table           : Objects count: 0      Objects total size: 0
View            : Objects count: 0      Objects total size: 0 li
nes
StoredProcedure : Objects count: 0      Objects total size: 0 li
nes
Function        : Objects count: 0      Objects total size: 0 li
nes
Trigger        : Objects count: 0      Objects total size: 0 li
nes
Package        : Objects count: 0      Objects total size: 0 li
nes
Script         : Objects count: 0      Objects total size: 0 li
nes
```

ISPIRER MIGRATION TOOLKIT ADVANTAGES



Faster and more efficient migration process due to flexibility and power.







Easily extended by adding **new conversion rules** into the tool according to customer specific requirements within **2-3 business days. Up to 100% automation!**



Project-based licensing: prices depend on the project scope and duration.

ISPIRER MIGRATION SERVICES

-  We provide accurate and flexible **database and application Migration Services**. We will assist you from the very beginning to the very end of the project.
-  Ispirer experts will perform the migration **in full compliance with your requirements**. We can offer the implementation of solutions developed by our team. Also we can work in collaboration with yours.
-  Ispirer Migration Services may include the **code refactoring, changing functionality and adding extra functionality**.
-  We provide Migration Services **remotely** on our side. We can perform migration **on the customer site** as well.

ISPIRER MIGRATION SERVICES ADVANTAGES



Customer-oriented approach: we offer a wide range of Services, from Compilable-only result to a Turnkey Service.



Considerable time saving: our automation technology will significantly speed up migration process. We will guarantee completion of the project within the shortest time possible.



Dedicated experienced team: our technical team has a tremendous experience in providing customers with database and application conversion Services of different levels of complexity.

ISPIRER EXPERIENCE

For **20 years** we have been developing our own software product Ispirer MnMTK, formerly known as SQLWays, that helps companies migrate from legacy to the latest technologies.



We have worked on migration projects with over **1,000 customers**, including companies from **Fortune 500** and **Global 2000**.



About **50,000,000 lines of hand-written code** were automatically converted with the help of the Ispirer Systems software.



Our customers from various industries such as **energy, information technology, banking, insurance, medicine** etc. were highly satisfied with our services and toolkit.

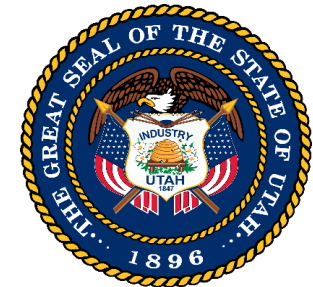
ISPIRER CUSTOMERS

NTT DATA
Global IT Innovator

EPICOR

splice
MACHINE

ciber[®]



Customer:

Provider of engineering software

Country:

The Netherlands

Source Technology:

Oracle

Target Technology:

Microsoft SQL Server

Project Scope:

150,000 LOCs

Project Duration:

2014 – 2015

Product Used:

Ispirer Turn-Key Service

Conversion Project Features

- During the **Analysis Stage**, Ispirer team found out the appropriate solution to migrate **Oracle** to **SQL Server**.
- The Ispirer team performed **additional works**: peculiarity of the source code were Oracle **geometrical objects**, namely packages (SDO_UTIL, MDSYS, SDO_GEOM) and xml. As a result, specific migration rules were **successfully developed** and **added** to **Ispirer MnMTK**.
- The conversion project has been completed within **5 months**, and the customer got a **fully functional result**.
- The customer returned to Ispirer with the **application conversion project**.

Customer:

Provider of business software

Country:

United States

Source Technology:

Progress 4GL

Target Technology:

C# WinForms

Project Scope:

5,000,000 LOCs

Project Duration:

2009 – 2012

Product Used:

Ispirer MnMTK License

Conversion Project Features

- The customer collaborated with **Ispirer Systems** on the recommendation of the **Microsoft Corporation**. Under the project, **Microsoft** has **expanded** the **.NET framework** for this particular customer.
- During the **Analysis Stage**, the Ispirer team discussed the requirements and offered the appropriate approach to migrate **Progress 4GL** business logic to **C#**.
- During the **Extension Stage**, the Ispirer team **extended** and **customized** **Ispirer MnMTK** to ensure best migration results.
- With the **MnMTK License** valid for **36 months**, the customer successfully migrated **5,000,000** lines of **Progress 4GL** code to **C#**.
- The customer was **highly satisfied** with migration results and mentioned that **Ispirer MnMTK** was **flexible** enough to be **easily adapted** to their coding conventions.

Thank You!
Q&As

www.ispirer.com

