Using Oracle Express Edition with MapInfo Professional

In this document you will find a short description on how to store spatial data in an Oracle Database 10g Express Edition with EasyLoader.

Once stored in the database you will be able to display and analyze the data with MapInfo Professional.

Oracle Database 10g Express Edition

Oracle Database 10g Express Edition (Oracle Database XE) is an entry-level, small-footprint database based on the Oracle Database 10g Release 2 code base that's free to develop, deploy, and distribute; fast to download; and simple to administer.

Oracle Database XE can be installed on any size host machine with any number of CPUs (one database per machine), but XE will store up to 4GB of user data, use up to 1GB of memory, and use one CPU on the host machine.

You can download Oracle XE from the following location:
http://www.oracle.com/technology/products/database/xe/index.html

In this document we use the Oracle Database 10g Release 2 (10.2.0.1) Express Edition for Microsoft Windows. We have chosen the Universal version of Oracle XE (Multi-byte Unicode database for all language deployment, with the Database Homepage user interface available in the following languages: Brazilian Portuguese, Chinese (Simplified and Traditional), English, French, German, Italian, Japanese, Korean and Spanish.)

The installer to download – OracleXEUniv.exe – is 207 MB in size.

Step 1: Install Oracle XE

The installation of Oracle XE is quite straightforward; you can just accept all the default settings to configure a database you can use immediately.

During the installation process you will be asked to enter and confirm passwords for the database. This password will be used for both the SYS and the SYSTEM database accounts.

You should use the SYSTEM user along with the password you enter here to log in to the Database Home Page after the install is complete.

Step 2: Log in to the SYSTEM account

After the installation, go to **Start > Programs > Oracle Database 10g Express Edition > Go To Database Home Page** to launch the database home page in your web browser.
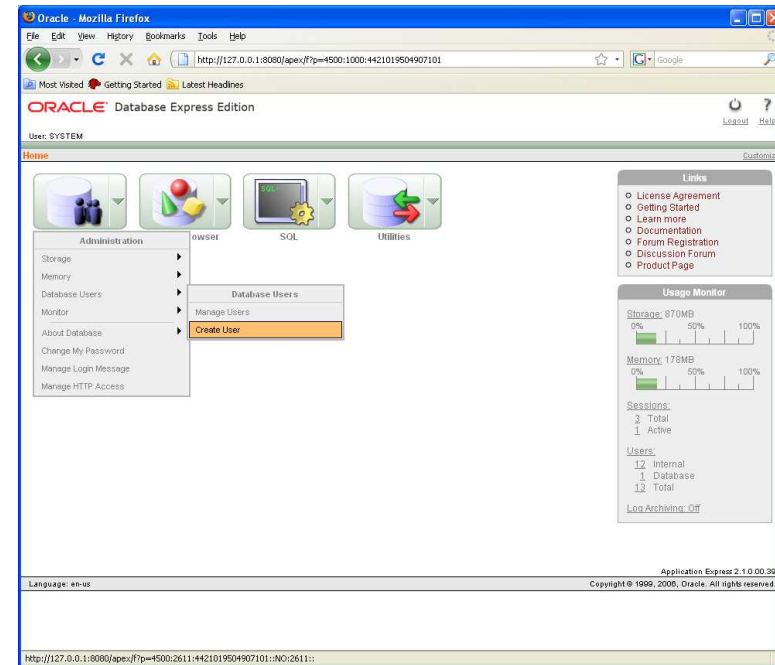
Log in to the SYSTEM account (with the password entered during the installation.)
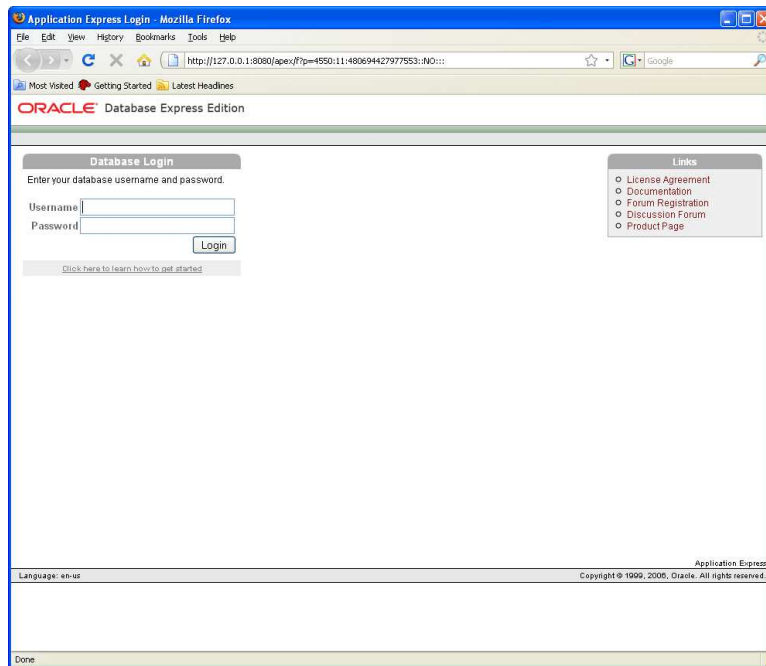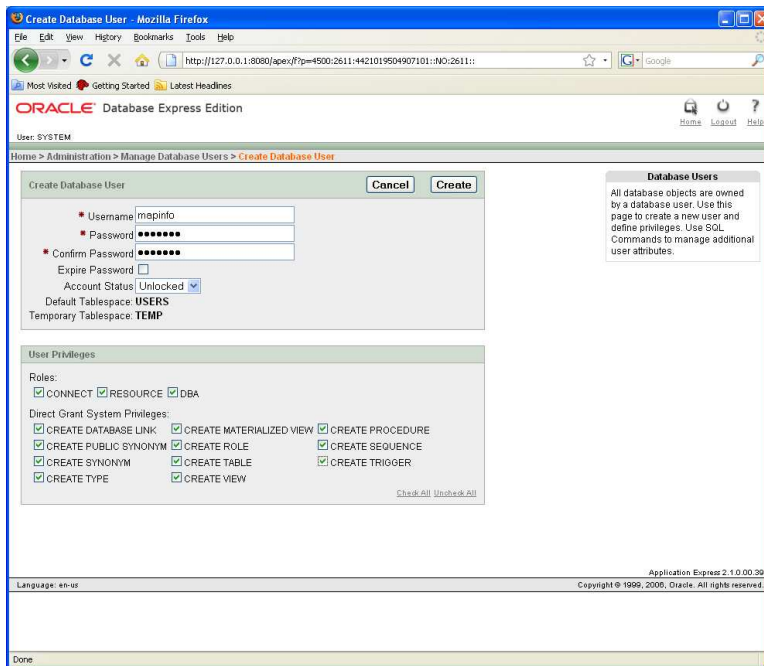

Step 3: Create a new user

Next, you will create a new user account – MAPINFO – to store your tables.

Browse to **Administration > Database Users > Create User**

Enter the new username MAPINFO and a password. Give this user as much privileges as possible.

Click **Create**. A new user is created. Log out from the SYSTEM account.


Step 4: Log in to the MAPINFO account

After you logged in to the MAPINFO account, browse to **Object Browser > Browse > Tables**.

As you can see, there are no tables there yet. But that will change in a minute…

Step 5: Upload your table to Oracle XE with EasyLoader

Next, you will have to start MapInfo EasyLoader (either through the **Tool Manager** in the **Tools** menu, or by clicking the EasyLoader.exe directly).
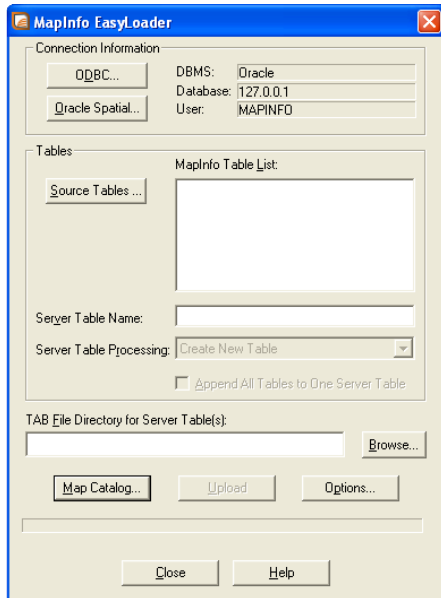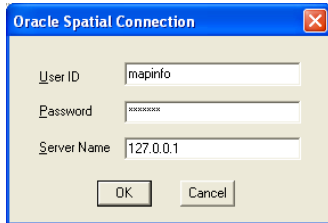
In this document we use **Easy Loader 9.5.1**
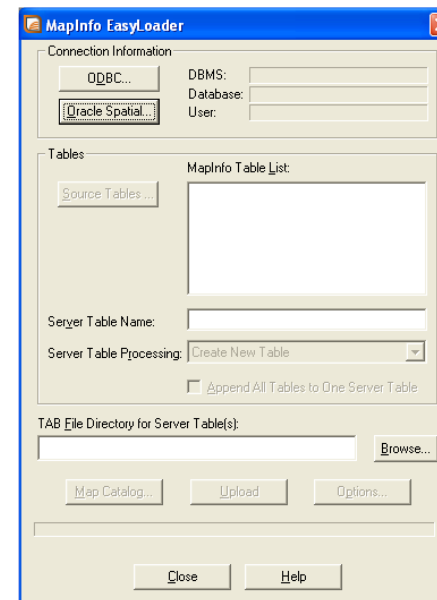
Under **Connection Information**, click **Oracle Spatial…**

In the **Oracle Spatial Connection** dialog, enter User ID, Password and Server Name.

(Here we are running EasyLoader on the same system as the database – so we are using 127.0.0.1, which is the address of localhost.)


Step 6: Create a Map Catalog

Once connected, you have to create a Map Catalog, i.e. the MAPINFO_MAPCATALOG table.

The MAPINFO_MAPCATALOG is a registry table for databases that stores metadata about geometry tables in the database. Using the tablename and ownername as the key, the MAPINFO_MAPCATALOG identifies the geometry column, geometry type, projection, projection bounds, and table and feature level rendition information. The MAPINFO_MAPCATALOG is used by a number of MapInfo products, including MapInfo Professional, that access map data from databases.

Click **Map Catalog…** The table MAPINFO_MAPCATALOG will be created.
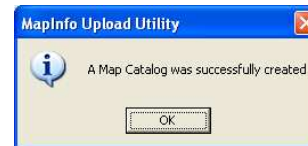
Return to your web browser with the database. Reload to see the table MAPINFO_MAPCATALOG there. Please have a look at the table structure. Note that the table is still empty. But that will change in a minute…
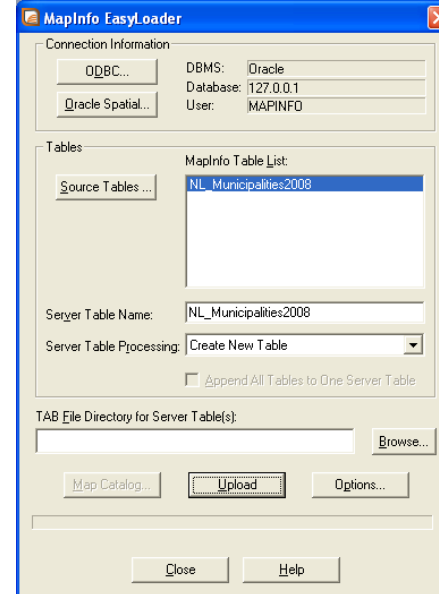
Step 7: Upload the table

Now you are ready to load your first table.

Under **Tables**, click **Source Tables…**

Browse to the table you want to upload. In this example we use the table **NL_Municipalities2008.TAB**. If you want to use the same table, you can download it from here: http://twiav.nl/php/geodata.php
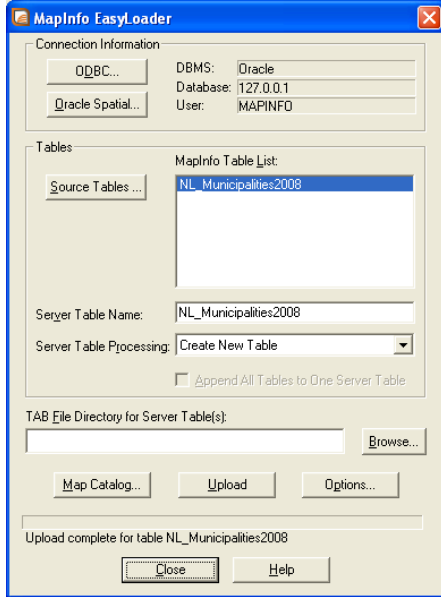

Click **Open**
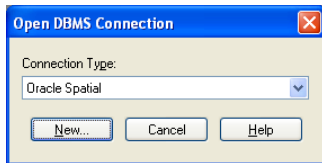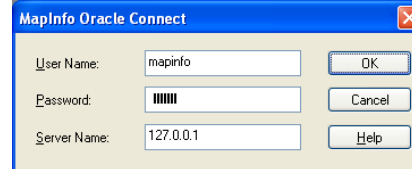

Click **Upload**

Click **OK**

You can now click **Close**

Step 8: Open the table in MapInfo Professional through a DBMS Connection

In **MapInfo Professional** go to **File > Open DBMS Connection…**
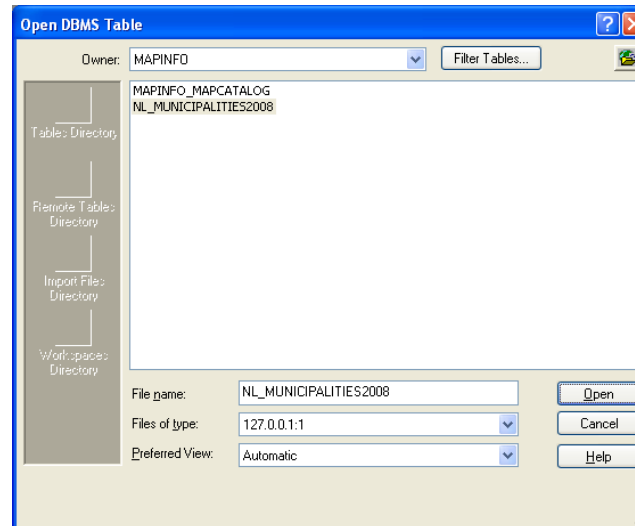

Choose **Connection Type** *Oracle Spatial* and click **New…**

Log in to the database and click **OK**

Now that you have established a DBMS connection, you can open your table. In the **DBMS** toolbar, click the first button: **Open DBMS Table**


Select your table and click **Open**

In the **Open DBMS Table Options** dialog you can choose to download only a subset of the table, either by using a column and a row filter or by entering a SQL statement. In this case we will download the full table.

You can choose between **Download Data (Linked Table)** and **Live Access**:

A linked table is a MapInfo Professional table that is downloaded from a remote database and retains links to its remote database table. When MapInfo Professional downloads a table, it copies the entire contents of the table to the local machine. Any changes you make to the copy can be committed to the server table at any time. We often recommend that you use linked tables rather than live tables to improve performance.
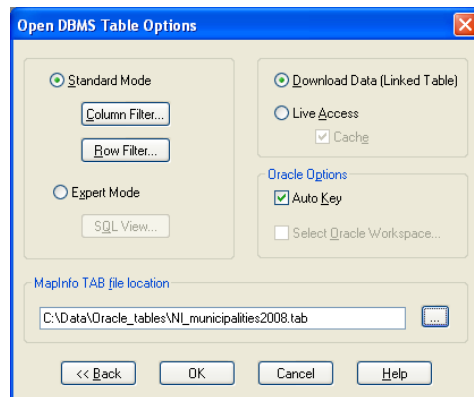
Browse to the location where you want to save your TAB file and click **OK**

You can now see the table in MapInfo Professional.

(And you can have a look in the browser with your database; there will be two new tables.)

If you have a look at the content of your TAB file – e.g. with Notepad – you will see that it contains metadata about the DBMS connection to Oracle XE.