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| *dotConnect for MySQL* | *support@devart.com* |

**Licensing**

This topic provides technical details on embedding license information into your applications. This is a special resource that must be present in every application that uses dotConnect for MySQL.

**Note**   License information discussed in this topic is not same thing as license for using dotConnect for MySQL. License purchased on our site allows you, your team, or your company to use dotConnect for MySQL. For information on how to purchase license for using dotConnect for MySQL please refer to topic [Ordering](https://www.devart.com/dotconnect/mysql/docs/Ordering.html).

The article consists of following sections:

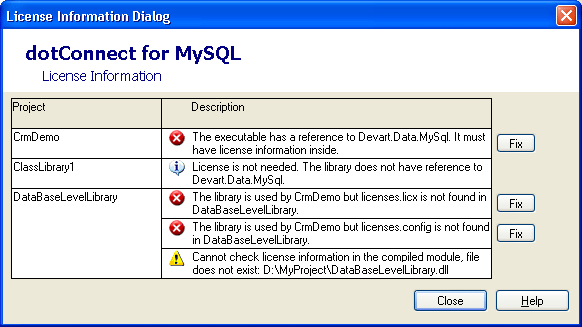
* [General Information](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#general)
* [Adding License Automatically](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#auto)
* [Adding License Manually](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#manual)
* [Class Libraries Support](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#lib)
* [Licensing ASP.NET Applications](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#asp)
* [Licensing Compact Framework Projects](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#cf)
* [DbProviderFactory Notes](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#dbprov)
* [Compiling License Manually](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#compile)
* [Licensing Mono Projects](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#mono)
* [Troubleshooting](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#troubleshoot)

**General Information**

dotConnect for MySQL uses .NET component licensing. To build an application dotConnect for MySQL requires valid license. If no license is available, dotConnect for MySQL does not work.

License information is a specially formed embedded resource. Usually you do not have to care about embedding license in your application. When you install dotConnect for MySQL, the system is configured so that licensing is done transparently. End-users of your software do not require any additional license.

dotConnect for MySQL includes **License Wizard** that helps you configure license information. The wizard analyzes the current project, informs you about problems found, and performs some actions needed to fix the problems.



To invoke the wizard choose **MySQL | License Information** from the Visual Studio **Tools** menu. Then click the **Fix** buttons in the dialog and follow the wizard's instructions. In most cases this is enough to configure .NET component licensing.

The following table helps get started quickly with dotConnect for MySQL licensing. Find your type of application and follow links to corresponding sections of the article.

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| **Diagram** | **Explanation** |
| licensing scheme - direct | This is **general case** of licensed .NET Framework application. Whatever the type of application you develop, read carefully sections[Adding License Automatically](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#auto) and [Adding License Manually](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#manual). |
| licensing scheme - class libraries | These two diagrams show how you can use dotConnect for MySQL through a **class library**. In addition to [Adding License Automatically](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#auto) and[Adding License Manually](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#manual) please read section[Class Libraries Support](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#lib). |
| licensing scheme - class libraries with license |
| licensing scheme - ASP.NET direct | These are two modes of accessing dotConnect for MySQL within **ASP.NET** application. In addition to [Adding License Automatically](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#auto) and[Adding License Manually](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#manual) please read section[Licensing ASP.NET Applications](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#asp). |
| licensing scheme - ASP.NET with separate file |
| licensing scheme - provider installed | Some applications that have no licensing information embedded, and use DbProviderFactory to operate dotConnect for MySQL, require the product installed on the computer. Refer to section [DbProviderFactory Notes](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#dbprov) for more information. |

**Adding License Automatically**

License is automatically added to project when you drop a MySqlConnection component from Toolbox onto a form designer.

Under .NET Compact Framework, in the moment of compilation license information is automatically added if the dotConnect for MySQL addin for Visual Studio is running.

**Adding License Manually**

In some cases you have to manually add license. It is necessary for console applications, class libraries, and existing projects initially built with dotConnect for MySQL version that did not use component licensing, that is, 3.20 and older. In this case perform the following steps:

* Create a file named **licenses.licx**, if this file does not exist yet.
* Open the file with a text editor and place this line inside:  
  *Devart.Data.MySql.MySqlConnection, Devart.Data.MySql*
* Save the file and add it to your project.
* Make sure it is embedded as a resource.

If IDE fails to compile the license automatically, you can do it yourself as described in section [Compiling License Manually](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#compile).

**Class Libraries Support**

In case where it is impossible to put the license information straight to executable file, dotConnect for MySQL allows you to create class libraries that can be used with certain executable files. To do this perform the following steps:

1. Create and setup file named licenses.licx as described above.
2. Create a text file named *licenses.config* and place it next to licenses.licx.
3. In this file enumerate names of executable files that will work with the library, every file name on separate line, for example:  
     
   MyApplication.exe  
   MyAnotherApp.exe  
   ExtraTool.exe

You do not have to add the file licenses.config to project.

Licensing a library without specifying the executables that will use it is possible by agreement with Devart. For details on this, please mail to [support@devart.com](mailto:support@devart.com) or [sales@devart.com](mailto:sales@devart.com).

**Licensing Web Projects**

There are two types of web projects depending on the type of licensing.

1. First, Web Application Project (Web Forms, MVC, Web API, etc.) are compiled entirely, so that web server does not perform any compilation on demand. In this case licensing web applications is same as licensing common Class Library applications.
2. Second, there are Web Site Projects, when source files are uploaded to server, where they are compiled on user request. In this case you should deploy a special assembly App\_Licenses.dll to the Bin directory of your site for the Web Site projects. To create this assembly, right-click the licenses.licx file in the Solution Explorer view and then click **Build Runtime Licenses**. The required assembly will be created automatically. Note that the corresponding shortcut menu command is available when the licenses.licx file is located in the root folder of the site.

**Licensing Compact Framework Projects**

For .NET Compact Framework the Visual Studio add-in automatically embeds all required information into every assembly that uses Devart.Data.MySql.dll library. Class libraries are supported automatically.

If the license fails to be added to a project, you can [add](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#manual) and [compile](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#compile) it manually. Note that there is no license compiler from Microsoft for .NET Compact Framework. You can [request](mailto:support@devart.com?subject=.NET%20Compact%20Framework%20License%20Compiler%20Request&body=Please%20describe%20here%20the%20reason%20for%20your%20request) the compiler from Devart support team.

There is a known problem with the .NET Compact Framework. A "License not found" exception can be thrown by MySqlDataAdapter.Fill method in case when MySqlConnection had never been opened. To avoid the problem just open (or open and close) any connection before calling the MySqlDataAdapter.Fill method.

**DbProviderFactory Notes**

Applications that call dotConnect for MySQL through DbProviderFactory require registration in DbProviderFactory. This registration can be performed either by launching installer of dotConnect for MySQL with the**Minimal** install type (the licenses.licx file is not required in this case), or manually as it is described in the Deployment topic. DbProviderFactory support allows using dotConnect for MySQL in SQL Server 2008/2012 Business Intelligence Solutions.

**Compiling License Manually**

The license resource cannot be compiled automatically when your project does not have reference to Devart.Data.MySql.dll or dotConnect for MySQL is not installed on your build server. This section describes how to compile the required resource manually.

Generate licensing resource file using following command line:  
*"%Compiler Path%\lc.exe" /target:MyApplication.exe /complist:licenses.licx /i:"%Assembly Path%\Devart.Data.MySql.dll"*  
Where

* *%Compiler Path%* is a path to appropriate lc.exe file (for example, *C:\Program Files\Microsoft.NET\SDK\v2.0\Bin*);
* *MyApplication.exe* is name of your target executable file;
* *licenses.licx* is a text file described earlier in this topic;
* *%Assembly Path%* is location of Devart.Data.MySql.dll assembly

Substitute these arguments with actual values. If the license compiler fails with an error, try adding full assembly specification to licenses.licx file, for example:  
*Devart.Data.MySql.MySqlConnection, Devart.Data.MySql, Version=8.3.215.0, Culture=neutral, PublicKeyToken=09af7300eec23701*

License compiler will generate 'MyApplication.exe.licenses' resource file. You should add this file to your project as an embedded resource. Note that you should not add licenses.licx to the project because the \*.licenses file already includes all the necessary license information.

If the default namespace of your project is not an empty string, it must be the same as the target assembly name (in this case - 'MyApplication'). IDE adds the default namespace to the resource name when building application, so you have to rename 'MyApplication.exe.licenses' to 'exe.licenses' before adding it to project. If the default namespace of your project is not set (is an empty string) you do not have to rename the resource file before adding it to project.

You can also generate the license resource manually for the class library assembly (\*.dll) in the same way. Just place licenses.config in the folder with your licenses.licx (and change /target:MyApplication.exe to /target:YourClassLibraryName.dll).

**Licensing Mono Projects**

Since automatic license generation and embedding is not possible with Mono you have to [add](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#manual) and [compile](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#compile) license manually as described above.

**Troubleshooting**

When something's wrong with license information you get one of the following exceptions on connecting to server:

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| **Exception text** | **Possible reasons and what to do** |
| License not found... | This generally indicates that license information could not be found, or you try to apply it in some way that does not suit the kind of application. For example:   * File *licenses.licx*, required for dotConnect for MySQL to function properly, could not be found. * File *licenses.licx* is not added as embedded resource. * File *App\_Licenses.dll* not found in ASP.NET 2.0 applications.   To fix the problem [determine](https://www.devart.com/dotconnect/mysql/docs/Licensing.html#general) type of your application and read corresponding section in this topic.  This exception can be thrown by MySqlDataAdapter.Fill method under .NET Compact Framework, in case when MySqlConnection had never been opened. To avoid the problem just open (or open and close) any connection before calling the MySqlDataAdapter.Fill method. |
| License not valid... | This means that license information was found but it is incorrect. It usually happens in the following cases:   1. The project was earlier compiled with old or trial version of dotConnect for MySQL. 2. File *licenses.config* used by a class library does not refer to launched executable. 3. The *App\_Licenses.dll* belongs to other application or needs to be recompiled. 4. Something's wrong with the operating system or installation of dotConnect for MySQL. 5. You are building your project on a computer with no dotConnect for MySQL installed (for example, it is not installed on your build server), and thecompiled license resource is not added to the project.   If you encounter one of these problems, do the following (the numbers of actions correspond to the numbers of the problems in the above list):   1. Delete all files from the bin and obj folders and rebuild the project. 2. Specify the executable in the licenses.config file. 3. Rebuild App\_Licenses.dll for the current application. 4. Perform the following steps:    1. uninstall dotConnect for MySQL;    2. remove all Devart.\* and policy.\*.Devart.\* files from the GAC;    3. clear the *Program Files\Devart\dotConnect* and *Program Files\Common Files\Devart\dotConnect* folders;    4. re-install dotConnect for MySQL. 5. There are two ways to solve the problem:    1. Install dotConnect for MySQL on the computer where you build your project.    2. Compile the license resource (\*.licx file) on a computer, where dotConnect for MySQL is installed, and then add the result file (\*.licenses) to your project as an embedded resource. After this you can build your project on a computer with no dotConnect for MySQL installed.   If this does not help, send a small compiled binary with sources to our support address, so we can investigate the problem in more details. |
| Sorry, your trial period has expired... | This exception indicates that you used trial version of dotConnect for MySQL, and the 30 days trial period is expired. To continue using dotConnect for MySQL[register](https://www.devart.com/dotconnect/mysql/docs/Ordering.html) it or uninstall from your machine.  You can also see this message if the application was compiled with registered version of dotConnect for MySQL, but deployed with trial assembly Devart.Data.MySql.dll. If this is the case, replace old files with latest assemblies. |

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