

Comment configurer l'ORM ?

Sur cette page

Configuration files

Depending on the application type you develop, you'll deal with an *app.config* or *web.config* file.

You have to edit this file to add configuration for your application to use the ORM.



MacOs/Linux user

If you are Linux or MacOS user, don't forget to adapt paths format in your configuration files.

Externalization of *AppSettings* and *ConnectionStrings* sections

Our choice was to put *AppSettings* and *ConnectionStrings* sections in two distinct files, but of course you can put them in the main configuration file.

If you want to externalize them like us, please add this to tell your app how to find them:

```
<!-- All connection strings defined in this file.-->
<connectionStrings configSource=".\\Config\\OsamesOrmDbConnexions.config" />
<!-- All app settings defined in this file. -->
<appSettings configSource=".\\Config\\OsamesOrmSqlite.config" />
```

ORM logging configuration using *System.Diagnostics*

Two logging "sources" are defined in this section.

- *osamesOrmTraceSource* (simple log)
- *osamesOrmDetailedTraceSource* (log with *stack trace*).



Note

When logging sources are missing, logging will occur to default logger of *System.Diagnostics*.

```

<system.diagnostics>
  <trace autoflush="true" indentsize="2" />
  <sources>
    <source name="osamesOrmTraceSource" switchName="mySwitch" switchType="System.Diagnostics.SourceSwitch">
      <listeners>
        <clear/>
        <add name="textwriterListener" type="System.Diagnostics.TextWriterTraceListener" initializeData="
OsamesOrm.log" traceOutputOptions="DateTime">
          <!-- le filtre laisse passer les message de niveau personnalisé -->
          <filter type="System.Diagnostics.EventTypeFilter" initializeData="Verbose"/>
        </add>
      </listeners>
    </source>
    <source name="osamesOrmDetailedTraceSource" switchName="mySwitch" switchType="System.Diagnostics.
SourceSwitch">
      <listeners>
        <clear/>
        <add name="textwriterListener" type="System.Diagnostics.TextWriterTraceListener" initializeData="
OsamesOrm_err_detail.log" traceOutputOptions="DateTime, Callstack">
          <!-- le filtre laisse passer les message de niveau erreur seulement -->
          <filter type="System.Diagnostics.EventTypeFilter" initializeData="Error"/>
        </add>
      </listeners>
    </source>
  </sources>
  <switches>
    <!-- un seul switch qui permet à tous les listeners d'écouter -->
    <add name="mySwitch" value="All" />
  </switches>
</system.diagnostics>

```

Definition of ADO.NET providers available to application

Providers should be defined in `system.data` section, like in sample code below. Else ORM will not be able to detect them on the machine.



Attention

A single provider can be active at time at ORM level. Several ones can be declared as usable on the machine.

```


<system.data>
  <DbProviderFactories>
    <add name="SQLite Data Provider" invariant="System.Data.SQLite" description=".Net Framework Data
Provider for SQLite" type="System.Data.SQLite.SQLiteFactory, System.Data.SQLite, Version=1.0.94.0,
Culture=neutral, PublicKeyToken=db937bc2d444ff139" />
    <!--<add name="SqlClient Data Provider" invariant="System.Data.SqlClient" description=".Net Framework
Data Provider for SqlServer" type="System.Data.SqlClient.SqlClientFactory, System.Data, Version=2.0.0.0,
Culture=neutral, PublicKeyToken=b77a5c561934e089"/>-->
    <!--<add name="MySQL Data Provider" invariant="MySql.Data.MySqlClient" description=".Net Framework
Data Provider for MySQL" type="MySql.Data.MySqlClient.MySqlClientFactory, MySql.Data, Version=6.3.5.0,
Culture=neutral, PublicKeyToken=c5687fc88969c44d" />-->
    <!--<add name="Npgsql Data Provider" invariant="Npgsql" support="FF" description=".Net Framework Data
Provider for Postgresql Server" type="Npgsql.NpgsqlFactory, Npgsql, Version=2.0.1.0, Culture=neutral,
PublicKeyToken=5d8b90d52f46fda7" />-->
  </DbProviderFactories>
</system.data>

```

AppSettings and ConnectionString sections description

AppSettings section

Following keys are required :

Key	Value	Description	Sample value	Notes
configurationFolder	Relative path	Application root relative path of folder containing XML configuration files : templates and mapping	\\Config\	
xmlSchemasFolder	Relative path	Application root relative path of folder containing XSD files to validate configuration XML files	Config\xml_schemas	
sqlTemplatesSchemaFileName	File name	XSD file to validate XML templates file	sqlTemplates.sxsd	
mappingSchemaFileName	File name	XSD file to validate XML mapping file	omo-mapping.xsd	
sqlTemplatesFileName	File name	XML templates file	sqltemplates.xml	
mappingFileName	File name	XML mapping file	omo-mapping.xml	
activeDbConnection	String	Name of active connection. Identical to one of name attribute value in connectionStrings file.	OsamesMicroORM.Sqlite	
context	Number from 0 to 2	Contextual error handling mode before throwing the exception: <ul style="list-style-type: none"> 0 : simple : log 1 : console : log, standard output 2 : wpf/winforms : log, pop-up display. 	0	Option removed in version 0.3, cf <div style="border: 1px solid orange; padding: 10px; margin-top: 10px;">  ORM-173 - Data cannot be retrieved due to an unexpected error. </div>

ConnectionStrings section

Definition of every usable connection string, as triplets:

- name : connection name as defined in AppSettings
- connectionString : connection string value, see example: [Connexion String](#)
- providerName : invariant name of ADO.NET provider (cf DbProviderFactories, invariant attribute)

Exemple:

```
<add name="OsamesMicroORM.PostgreSQL" connectionString="Server=;Port=;Database=;Uid=;Pwd=;" providerName="Npgsql" />
<add name="OsamesMicroORM.Sqlite" connectionString="Data Source=|DataDirectory|\DB\Chinook_Sqlite.sqlite;Version=3;UTF8Encoding=True;Pooling=False;Max Pool Size=100;Read Only=False;" providerName="System.Data.SQLite" />
```

External links

<https://www.connectionstrings.com>