efalia ecm

**Version 4.5**

# Setup Guide Database



efalia
smart content suite on a human scale

Obere Kaiserswerther Straße 17, 47249 Duisburg, Germany
T: +49 203 60 888 0 / info.de@efalia.com

Disclaimer

Efalia GmbH makes no representation or warranties with respect to the contents or use of this document and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Efalia GmbH reserves the right to revise this publication and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes.

Further, Efalia GmbH makes no representations or warranties with respect to any Efalia ECM software, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Efalia GmbH reserves the right to make changes to any or all parts of Efalia ECM software, at any time, without obligation to notify any person or entity of such changes.

Copyright

© 2025 Efalia GmbH. All Rights Reserved.



No part of this document may be reproduced, transmitted or stored in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of Efalia GmbH.

Efalia ECM is a registered trademark of Efalia GmbH.

Windows is a registered trademark of Microsoft Corporation in the United States and other countries.

Other product and company names mentioned herein may be trademarks of their respective owners.

**Africa, Asia, Australia, Europe and USA**

Efalia GmbH
Obere Kaiserswerther Str. 17
D-47249 Duisburg
Germany

Email: info.de@efalia.com
Web: www.efalia.com

**UK and Eire**

Efalia Ltd
Becket House
1 Lambeth Palace Road
London, SE1 7EU
United Kingdom

Email: info.uk@efalia.com
Web: www.efalia.com

Software Licence Agreement

IMPORTANT: Read this agreement before installing Efalia ECM. By installing Efalia ECM you are deemed to agree to be bound by this agreement.

This licence agreement is a legal document between you and Efalia GmbH. If you do not agree to the terms of this agreement return the software CD and accompanying documentation (the "Documentation") and other items to the place from where you obtained them for a refund before they are marked or damaged in any way.

In consideration of the right to use the Software you agree to abide by the terms and conditions of this agreement.

GRANT OF LICENCE

The Software consists of the software modules by:

Efalia GmbH, a German public listed company having its place of business at Obere Kaiserswerther Str. 17, 47249 Duisburg, Germany ("Efalia");

Microsoft Corp., a Washington corporation having its place of business at 1 Microsoft Way, Redmond, WA 98052-6399, USA ("Microsoft");

Softland, a Romanian company having its place of business at str. Traian Grozavescu no. 2/1 Cluj-Napoca 400305, Romania ("Softland");

Tungsten Automation Corporation, a Florida company having its place of business at 333 Las Olas Way, Suite 212, Ft Lauderdale, FL 33301, USA ("Tungsten;");

Developer Express Inc., a Nevada company having its place of business at 6340 Mcleod Dr. Suite1, Las Vegas, NV 89120, USA ("DevExpress");

Oracle Corporation, a Californian company having its place of business at 500 Oracle Parkway, M/S 5op7, Redwood Shores, California 94065, USA ("Oracle");

Apryse, a British Columbia corporation, having offices at 838 West Hastings Street, Suite 500, Vancouver, British Columbia, V6C 0A6, Canada ("Apryse").

The software consists also of Open Source modules, listed below:

Software, which is based in part on the work of the Independent JPEG Group.

Cryptographic software written by Eric Young (eay@cryptsoft.com).

It uses the FreeImage open source image library. See http://freeimage.sourceforge.net for details.

FreeImage is used under the FreeImage Public License (FIPL) version 1.0.

LibTIFF Copyright (c) 1988-1997 Sam Leffler

LibTIFF Copyright (c) 1991-1997 Silicon Graphics, Inc.

LibTIFF: Permission to use, copy, modify, distribute, and sell this software and its documentation for any purpose is hereby granted without fee, provided that (i) the above copyright notices and this permission notice appear in all copies of the software and related documentation, and (ii) the names of Sam Leffler and Silicon Graphics may not be used in any advertising or publicity relating to the software without the specific, prior written permission of Sam Leffler and Silicon Graphics.

You understand and acknowledge that any software module included in the Software may have utility with or be able to be called by other software and/or hardware, which Efalia considers to be an unauthorised use of the Software. Accordingly, you agree that you will use such software modules only as part of the Software and not in conjunction with, or as part of, or as a component of other software and/or hardware which makes calls to such software modules.

Efalia grants you the personal non-exclusive rights:

For a single-user version of the Software, to install and use the Software for internal purposes only on a single computer (the Software is considered in use when it is installed in the temporary memory, i.e. RAM, or the permanent memory, i.e. Hard Disk Drive).

For a multi-user version of the Software, to install and use the Software for internal purposes only for the number of computers or simultaneous users identified in the Installation Configuration sheet of the Software package (for example, if you have purchased a 5-User licence you may install the Software for simultaneous use by up to 5 Users on a network).

BACKUP COPY

You may make whatever copies you deem appropriate from the Efalia ECM "delivery" Compact Disc, the Programs, Example Files and any other promotional material that may be included thereon. The Application Manual, or any part thereof, may be reproduced in sufficient quantity to support only the number of users licenced to you and no more. You must reproduce and include on the backup copy the copyright notice and other ownership or proprietary legends that are on the original copy of the Software.

You may NOT make or attempt to make any copy whatsoever of the Efalia ECM Licence. ANY ATTEMPT TO COPY, TRANSFER OR RESTORE THE LICENCE MAY CORRUPT THE ENABLING LICENCE. The Licence, once enabled, represents the full purchase value of the licence to use the Efalia ECM Software. The enabled Licence can be manipulated ONLY by the commands within the Efalia ECM application.

RESTRICTIONS

You may not market, distribute or transfer the Software or the Documentation to others, or electronically transfer the Software from one computer to another over a network except as expressly provided herein.

You may not de-compile, reverse engineer, disassemble or otherwise reduce the code of the Software to a human perceivable form.

You may not modify, adapt, translate, rent, lease or loan the Software or the Documentation or create derivative works based on the Software or the Documentation.

OWNERSHIP AND COPYRIGHT

Efalia, Microsoft, Stellent, Tungsten, DevExpress, Apryse and Pixel reserve all rights to their respective software modules of the Software and the Documentation. The Software and the Documentation is copyrighted. Unauthorised copying of the Software, including portions thereof, or the Documentation is expressly forbidden.

EXPORT CONTROL

You agree that the Software and Documentation will not be shipped, transferred or exported into any country or used in any manner prohibited by the United States Export Administration Act or any other applicable export control laws, restrictions or regulations of the countries involved.

SUPPORT AND UPDATES

Efalia, Efalia's subsidiaries or affiliates, their distributors and dealers are not responsible for maintaining or helping you to use the Software and the Documentation, excepting where agreements have been entered into between specific parties, i.e. Efalia: Distributor, Distributor: Dealer, Dealer: End User.

No updates, fixes or support will be made available for the Software and Documentation other than by publishing such revisions on the Efalia web site: https://www.spielberg.de or https://www.efalia.com

Any updates, fixes or support will be made available on the said web site solely at the discretion of Efalia, who is under no obligation whatsoever so to do.

LIMITED WARRANTY AND DISCLAIMER OF INDEMNITY

Limited Warranty. The Software and documentation is provided "as is" without warranty of any kind, either express or implied, including, but not limited to implied warranties of merchantability and fitness for a particular purpose. The entire risk as to quality and performance of the Software and documentations is with you. Should the Software prove defective you (and not Efalia, Efalia's affiliates, their distributors or dealers) assume the entire cost of all necessary servicing, repair or correction. Some states or jurisdictions no not allow the exclusion of implied warranties, so the above exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary according to state or jurisdiction.

Efalia, Efalia's affiliates, their distributors and dealers do not warrant that the functions contained in the Software will meet your requirements or that the operation of the Software will meet your requirements or that the operation of the Software will be uninterrupted or error free.

However, Efalia or Efalia’s affiliates warrants a compact disc or diskette on which the Software is stored to be free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date you purchased the same, as evidenced by a receipt or otherwise. Some states or jurisdictions do not allow limitations on duration of an implied warranty, so the above limitation may not apply to you.

CUSTOMER REMEDIES

Efalia's entire liability and your exclusive remedy shall be the replacement of the Compact Disc and/or Diskette not meeting the LIMITED WARRANTY and which is returned to Efalia or Efalia's marketing affiliate, Efalia Ltd, with a copy of your receipt or otherwise. The LIMITED WARRANTY is void if failure of the Compact Disc has resulted from accident, abuse or misapplication of the software.

No liability for consequential damages. In no event shall Efalia, or Efalia's affiliates, their distributors or dealers be liable for any damages whatsoever (including without limitation, direct or indirect damages for personal injury, loss of business profits, business interruption, loss of business information, or other consequential or incidental damages) arising out of the software, the use thereof or inability to use the software even if Efalia, Efalia's affiliates, their distributors or dealers has been advised of the possibility of such damages. Some states or jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damages, so the above limitation may not apply to you.

Disclaimer of indemnity. Efalia, Efalia's affiliates, their distributors and dealers shall have no obligation to indemnify you against any claim or suit brought to you by a third party alleging that the Software or the use thereof infringes any intellectual property of such third party.

TERM

This agreement is effective upon the installation of Efalia ECM Server and Client and remains in effect until terminated. You may terminate this agreement by destroying the Software and any copy thereof. This agreement will also terminate if you fail to comply with any of the terms of this agreement. In addition to Efalia enforcing its legal rights, you must then promptly destroy the Software and any copy thereof.

ACKNOWLEDGEMENT

By selecting the 'Yes, I accept the agreement' option during the software installation process, you acknowledge that you have read this agreement, understand it and agree to be bound by its terms and conditions. You further agree that this agreement is the complete and exclusive statement of agreement between you and Efalia concerning the subject matter hereof, which supersedes any proposals or prior agreements, oral or written, and any other communication between you and Efalia relating to the subject matter hereof. No amendment to this agreement shall be effective unless signed by a duly authorised representative of Efalia.

Should you have any questions concerning this agreement, or if you desire to contact Efalia for any reason, please write to your authorised supplier requesting that they pass your correspondence to Efalia GmbH.

# Table of Content

**Database Setup** ..... **7**

*Overview* ..... *7*

*Database* ..... *7*

Microsoft ..... 8

Oracle ..... 8

**Installing Microsoft SQL Server** ..... **9**

Authentication of Efalia ECM ..... 10

**Installing Oracle Database** ..... **11**

Database Installation ..... 11

Configuring a Tablespace in EM Database Express ..... 12

Installing ODAC on the Efalia ECM Server ..... 12

Testing the connection to Oracle Database ..... 13

# Database Setup

## Overview

Efalia ECM stores all metadata in either a Microsoft SQL or Oracle Database. Therefore the database installation and maintenance is an important part of Efalia ECM.

Efalia ECM stores its configuration data and the cabinet data in separate databases. After installing Efalia ECM you will have an FDConfig database and a FD_XXXXXXXX database for each cabinet you create.

The way you check and maintain these databases has an essential effect to the performance of your Efalia ECM system.

## Database

Efalia ECM requires either a Microsoft SQL or Oracle database server.

The following database systems are supported: Where appropriate the latest service packs have to be installed.

The Efalia ECM Cloud solution uses a Microsoft Azure SQL database.

### Note

Dedicated database servers will normally result in improved performance.

Before the installation of Efalia ECM you must have all database components such as the Oracle database with full text installed, as it is required to configure the databases.

### Microsoft

All current Microsoft SQL database servers for on premise systems are supported.

Please check Microsoft product lifecycle information for additional information on Microsoft support for Microsoft SQL.

https://docs.microsoft.com/en-us/lifecycle/products/

**Note**

Microsoft SQL Server Express Editions are not recommended for production systems.

### Oracle

All current Oracle database servers for on premise systems are supported.

Please check Oracle product lifecycle information for additional information on Oracle support for databases.

http://www.oracle.com/us/support/lifetime-support/index.html

# Installing Microsoft SQL Server

Microsoft provides an installation wizard for the Microsoft SQL Servers. The installation wizard guides you step by through the installation of your Microsoft database server.

After running the setup file you are asked what type of installation you want to do. The following manual helps you installing a new SQL Server stand-alone installation.

First you have to enter a valid product key for your database server edition.

**Note**

When installing an Evaluation edition it might be necessary to uninstall all SQL patches before entering a valid product key after the test period. As soon as you entered a valid product key for your SQL database edition, we strongly recommend to re-install the latest Microsoft SQL service packs and patches.

After accepting the licence terms and the setup rules passed the identification of potential problems that might occur while running setup you can proceed to the *SQL Server Feature Installation*.

In this step you select the features you want to install for your new SQL Server instance.

The feature *Database Engine Service* is mandatory as it is the Microsoft SQL Server instance itself. For using the full text ability of Efalia ECM the feature *Full-Text and Semantic Extractions for Search* must be selected also. For maintaining and administering Microsoft SQL Servers you have to install the *Management Tools – Basic* and *Management Tools – Complete*.

All other options are optional and depend on your business requirements.

Further you define in this step the path for the *Instance root directory*, the *Shared feature directory* and *the Shared feature directory (x86)*. The default path would be:

*C:\Program Files\Microsoft SQL Server*

*C:\Program Files (x86)\Microsoft SQL Server*

In *Instance Configuration* you define an instance name or use the default instance. The name of an instance must be unique.

For creating named instances check the following information online:

https://msdn.microsoft.com/en-us/library/ms143531(v=sql.120).aspx

Now the service accounts must be specified and the *SQL Server Agent* should be set to *Automatic*.

**Note**

The SQL Server Agent controls maintenance plans that can be set up in SQL Management Tools.

Afterwards you specify the authentication mode of Microsoft SQL Server. Default value is Windows authentication mode. The mixed mode installs the SQL Server system administrator (sa) account. Further you can define SQL Server administrators by either adding the current user or select different user accounts from your Windows or Active Directory accounts.

In the same section in the tab *Data Directories* you define the directories (e.g. for user databases or user database logs).

Now your Microsoft SQL Server is ready to install.

## Authentication of Efalia ECM

Whether using the fd-server account or a SQL account to authenticate to SQL, you must ensure that the account has, as a minimum, ***DBCreator*** permissions in SQL Server.

# Installing Oracle Database

Oracle requires a Windows Server environment with IIS and Microsoft .NET Framework 3.5 installed.

## Database Installation

Run the Oracle setup as administrator and the *Oracle Database Installer* opens.

**Note**

The following description is based on an Oracle 12 installation routine.

You might be asked to provide an email address to be informed of security issues. In case you did not provide an email address you must confirm this.

In the next step of the installer you select the install option *Create and configure a database* and proceed to *System Class* and select *Server class*.

In *Grid Installation Options* you select the type of database installation you want to perform. This manual describes a *Single instance database installation* with *Install type Typical install*.

The next step is to define an *Oracle Home User*.

**Note**

Oracle recommends that you specify a Windows User Account with limited privileges to install and configure a secure Oracle Home.

Now the installation (e.g. software location, database file location and administrative password) must be specified and the checkbox *Create as Container database* must be unticked.

After that, the installer checks whether all prerequisites are met and starts the installation process.

When the configuration is completed, write down or copy the EM Database Express URL and proceed with Password Management.

Here you enter passwords for the user SYS and SYSTEM and finish the installation.

## Configuring a Tablespace in EM Database Express

Open a browser and enter the URL of the EM Database Express given during the installation process and enter your credentials for SYSTEM user.

Now select Tablespaces and press create.

Name the Tablespace (e.g. FILEDIRECTOR) and proceed. In the next step name the datafile. It must be the same name you used for Tablespace and set the file size to 1000 and the auto extend to 100. Now you are asked for the *Block Size*. Leave it at default and do the same when asked for *Logging* and *Segment Space Management* and *Compression*.

Now your created Tablespace should be shown in the list of Tablespaces.

## Installing ODAC on the Efalia ECM Server

Run the ODAC setup on the Efalia ECM Server as administrator. After the selecting the preferred language you are asked for the *Oracle Home User* and to specify the installation location. Within the next step you select the product components, *Oracle Data Provider for .NET, Oracle Providers for ASP.NET, Oracle Provider for OLE DB Oracle Services For Microsoft Transaction Server* and *Oracle Data Access Components Documentation for Visual Studio*.

*ODP.NET (Oracle Data Provider)* should be configured at the maschine-wide level. Therefore ensure the checkbox is ticked.

In *DB Connection Configuration* enter the connection specifications as connection name, port (default is ***1521***), the database host name (it is the machine name of the Windows Server Oracle is installed on) and the database service name.

After checking the summary, you could install the software.

## Testing the connection to Oracle Database

Make sure that the Firewall on the Oracle Database Server is properly configured or disabled, otherwise the connection attempt will be blocked by the Firewall. You may have to also configure or disable the Firewall on the Efalia ECM server.

Open the ODBC Data Source Administrator and select the tab *System DSN* and add a new data source. Select an appropriate driver for your Oracle data source.

Now enter the connection data. *Data Source Name* and *TNS Service Name* (ORACLE-SERVER-NAME:1521/INSTANCENAME.DOMAIN). When testing the connection you are asked to enter the credentials for the user *system*. The result should be a popup window that says *connection successful*. If this is the case, copy the TNS Service Name and paste it into the Efalia ECM Config Utility (Server) database tab as Server name.

Name and password are the credentials for the user *system* you entered in ODBC system DSN before.

Now your Efalia ECM should be connected to the Oracle database.

### Note (Oracle only)

For the configuration of an Oracle-Database a Tablespace must be set up manually in the Oracle-Database for Efalia ECM.

In Oracle Enterprise Manager select Storage ⇨ Tablespaces and create a Tablespace called **FileDirector**. Set an appropriate tablespace size, as the size of the standard tablespace is only 5MB.

The name of the connection setting must be the same as the service name of the Oracle-Servers.

The full-text-option for the database is installed automatically during the standard installation of Oracle. If the installation of the Oracle component is done after the installation of Efalia ECM, an update of the cabinets via the Enterprise Manager must be performed in order for an index in the FD-images table for the full text to be set.