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Setup and Installation Guide

PowerDiffMerge Version 4.1

Issue 4.0.1

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1 Overview

This document describes how to install and register PowerDiffMerge.

PowerDiffMerge is a software tool to merge IBM® Rational® Statemate® files. Statemate® is a system specification tool that uses graphical elements and charts to model complex systems using structured analysis methods. PowerDiffMerge automatically analyses the logical and textual differences between a set of Statemate® charts. On this basis, the user may interactively merge changes into a result chart.

PowerDiffMerge is released in two versions – a comfortable version, which is installed using a Windows Setup and a portable version, which does not require administration privileges, but does not provide entries in the Windows start menu.

For installation and licensing of PowerDiffMerge please proceed with the following steps:

- Installation of PowerDiffMerge
- Licensing and Registration
- First Start of the newly installed version

2 Installation

2.1 System Requirements

In order to execute PowerDiffMerge, the computer hardware must provide at least:

- 2.6 GHz x86 processor or compatible
- 2 GB memory

2.2 Installation Requirements

PowerDiffMerge should be installed on Windows 7, but other operating systems are not supported.

Depending on the type of installation, administrator privileges are required on the target computer in order to execute the setup for PowerDiffMerge. The portable version may be started without explicit installation and therefore does not require administrator privileges.

Additionally, PowerDiffMerge requires the following software to be installed on the target computer. These are not delivered with the PowerDiffMerge setup, but can be downloaded under the following internet locations:

- Microsoft .NET Framework 4.0 (or later)
<http://www.microsoft.com/de-de/download/details.aspx?id=17718>
- Microsoft MSI-Installer Redistributables 4.5
<http://www.microsoft.com/de-de/download/details.aspx?id=8483>

If the portable version of PowerDiffMerge is used, the following software may additionally be required as it is otherwise automatically installed by the setup:

- Microsoft Visual Studio Redistributables for Visual Studio 2012
<http://www.microsoft.com/en-us/download/details.aspx?id=30679>

2.3 Installation Instructions

2.3.1 For the Setup Version

After the installation of the required software, the PowerDiffMerge Setup can be executed. It is contained in the file PowerDiffMergeSetup.msi.

Please follow the instructions of the installation wizard. The only configuration option you can provide for the setup is the target folder of the application (see Figure 1).

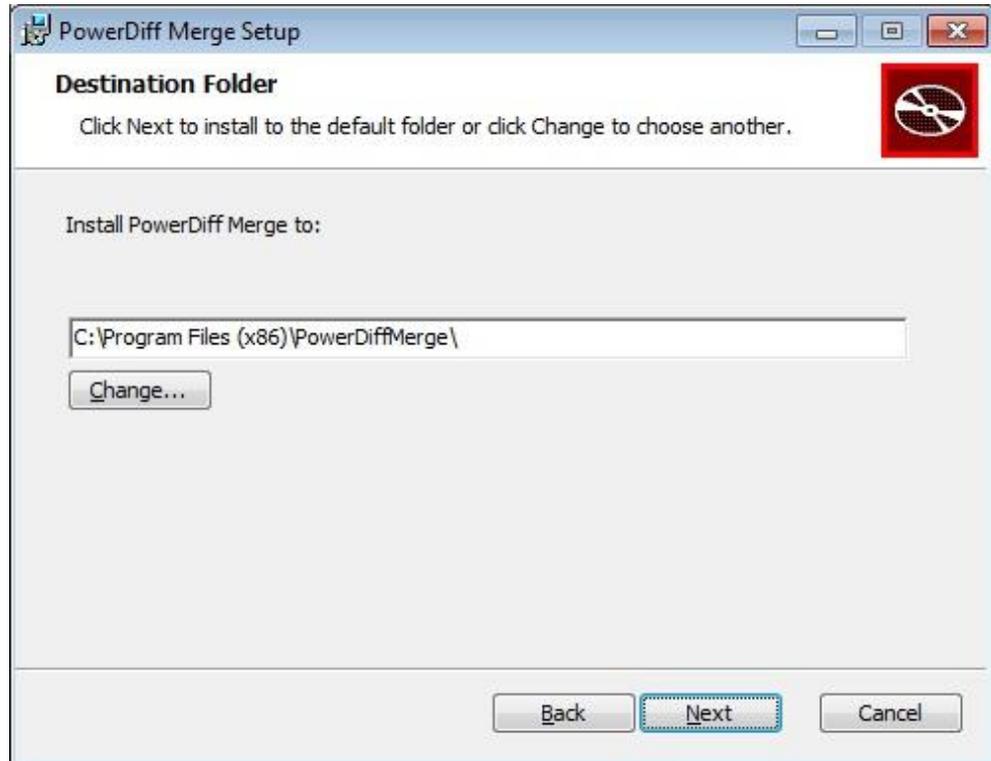


Figure 1: Providing an installation folder to the PowerDiffMerge setup

The installation always creates an entry in the start menu. This entry also contains a link to the “User Guide” as PDF.

For viewing this document, please install the Adobe Reader (<http://get.adobe.com/reader/>) or other viewer for PDF files.

2.3.2 For the portable version

The portable version does not require a separate installation, but only access to the files contained in the release of PowerDiffMerge. The file PowerDiffMerge.exe can directly be started.

No start menu entries are created for this version.

2.4 Additional Software

PowerDiffMerge can call PowerDiff to generate reports of intermediary states of the merge. PowerDiff compares the current state to the version before the merge and creates a report for it. In order to use this feature, PowerDiff must be installed on the same computer. The current version of PowerDiffMerge supports PowerDiff 13.1. Other versions may be used, but are not tested.

Executing PowerDiff from PowerDiffMerge requires a separate licence for PowerDiff. Please refer to the Setup Guide of PowerDiff for instructions.

3 Licence Mechanism

PowerDiffMerge uses the FLEXlm™ licence mechanism. This mechanism supports two types of licences:

- **Floating licences:** A licence server is executed on a computer within the network. PowerDiffMerge can run on any other computer in the (same) network and retrieve the licence information from this particular server. The number of licences is limited, so only a limited number of PowerDiffMerge applications can run at the same time.
- **Node-locked licences:** The licence usage is limited to one computer. No other computer in the network can use this licence. No server is required.

The licence information is always stored in a licence file. In case of a node-locked licence, PowerDiffMerge has to be configured with the path to the licence file.

In case of floating licences, PowerDiffMerge has to be configured with the address of the licence server. The licence server itself has to be configured with the path to its licence file (please refer to section 3.2.1 “Running a Licence Server (for Floating Licences)”).

For licence configuration of PowerDiffMerge please refer to section 4 “First Start”.

3.1 Preconditions

In order to use some of the licensing tools mentioned in sections 3.2.1 and 3.2.2, the following software packages have to be installed:

- Visual C++ 2005 Redistributable Package (x86)
<http://www.microsoft.com/en-us/download/details.aspx?id=3387>
- Visual C++ 2008 Redistributable Package (x86)
<http://www.microsoft.com/en-us/download/details.aspx?id=29>
- Visual C++ 2012 Redistributable Package (x86)
<http://www.microsoft.com/en-us/download/details.aspx?id=30679>

3.2 Licensing and Registration

A valid licence is required to use PowerDiffMerge. This licence is provided in a licence file, which you may obtain at Assystem Germany GmbH (see Appendix A).

The licence file is bound to certain hardware. Therefore a file containing hardware information of the target machine has to be provided for the registration. In order to retrieve this information, the following files delivered with the PowerDiffMerge application have to be executed:

- Imchostid.exe
- Imchostid.exe.manifest
- Imhostinfo.cmd

For floating licences, these files have to be saved on the computer dedicated to be the licence server. For node-locked licences, these files have to be saved on the target computer, on which PowerDiffMerge shall be executed.

After saving these files to the target computer, the file Imhostinfo.cmd has to be executed. It generates a file named “<COMPUTERNAME>.info”, where <COMPUTERNAME> is the name of the computer for which the licence shall be registered. <COMPUTERNAME> can be determined by evaluating the value of the Windows system variable “COMPUTERNAME” (e.g. %COMPUTERNAME%).

For registering and licensing PowerDiffMerge use the form provided in Appendix A: “PowerDiffMerge Registration Form” or the file “PowerDiffMerge_Registration.txt”, which was delivered with the application. Copy the contained text to an E-Mail, fill in the required information, attach the file generated by Imhostinfo.cmd and send it to Support_PowerDiff@assystem.com.

In the section “Licence Information”, use the number of rows you need. Each row represents a single licence file. So you need a licence file for each node locked licence, whereas several floating licences can be contained in one licence file. If you want a licence for a triad system, you have to enter the ports and server names for each server. Please note that you require the file generated by Imhostinfo.cmd for each Desktop/Server name separately.

3.2.1 Running a Licence Server (for Floating Licences)

For the use of a licence server, the following files are needed:

- Imgrd.exe
- BMSIND.exe
- BMSIND.exe.manifest
- Licence file (e.g. licenceFile.lic)

These files have to be saved in a directory on the server and the following command has to be executed on the command-shell:

```
Imgrd.exe -c licenceFile.lic
```

After that the licence server will start and can be used.

3.2.2 FLEXlm™ Tools and Documentation

You are able to take advantage of the features which are provided by the FLEXlm™ Licence mechanism of Flexera Software. The supported tools can be downloaded with the PowerDiffMerge software.

3.3 Borrowing a licence from the licence server

The FLEXlm™ licence mechanism supports borrowing. The following steps illustrate the borrowing of a licence.

Note: Our licences have a restricted borrowing time of one week. This means that they are returned to the licence pool at the latest after this time interval.

1. First download the FLEXlm™ tools for your operating system (LicenceTools_*) from the PowerDiffMerge download.
2. Create an empty directory for the FLEXlm™ tools (e.g. “C:\FLEXtools”) and copy the file “lmtools.exe” from the downloaded zip-archive into the newly created directory.
3. Create a new file “borrow.cmd” and open it with an editor of choice. Using the editor, copy the following lines into the file:

```
set LM_LICENSE_FILE=<FLEXLM SERVER PATH>
lmtools.exe
```

4. Substitute the string <FLEXLM SERVER PATH> with the licence server information displayed at the start of PowerDiffMerge. (in Figure 4 in the licence server text box – e.g. 2345@server)
5. A double click on “borrow.cmd” opens the application “lmtools.exe” with the correct path to the licence server.
6. Open the Tab “Service/License File” and ensure that the Option “Configuration using License File” is activated. The Text box below should contain the entry BMSIND_LICENSE_FILE. Figure 2 shows the correct settings.



Figure 2: Tab Service/License File of ImTools.exe

- 7. Open the Tab “Borrowing” and enter the vendor name “BMSIND” in the appropriate text field. Also enter a return date (e.g. “10-Nov-2009”). The return time is optional. This setup is displayed in Figure 3.

Note: The return date must be at maximum one week from the current date to allow for borrowing the licence. A return date that would borrow the licence for a longer time period leads to the inavailability of PowerDiffMerge. This can be undone by changing the borrowing time to an allowed period of time.

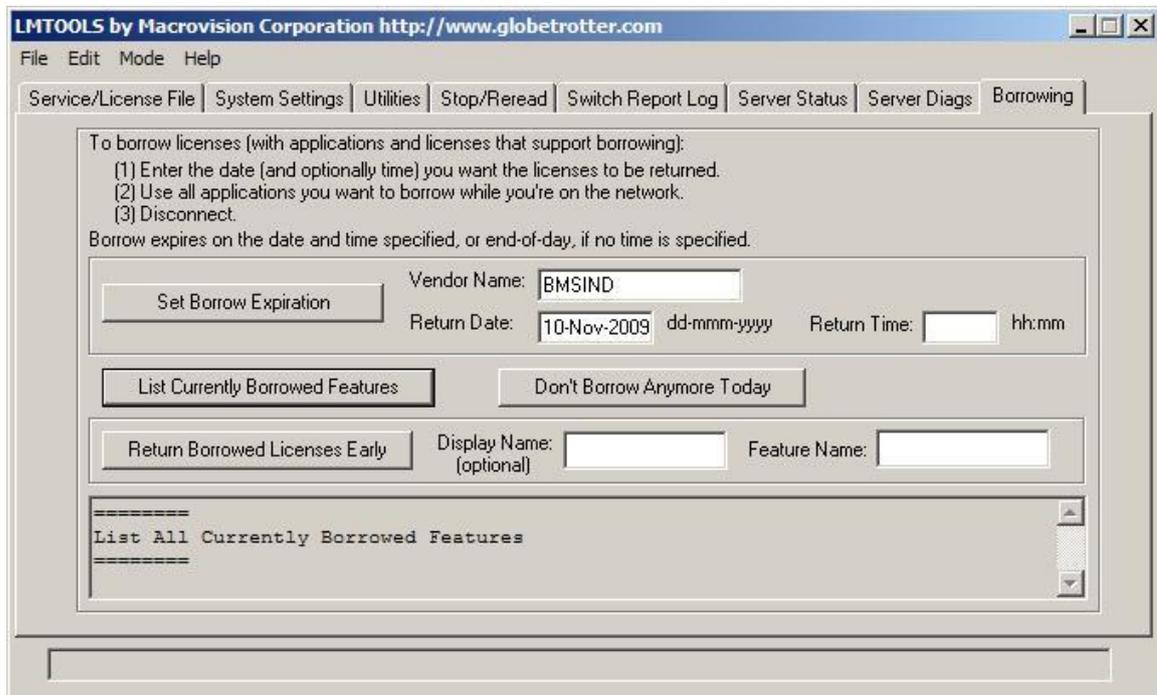


Figure 3: Tab Borrowing of ImTools.exe

- Press the button “Set Borrow Expiration” to activate the borrowing of licences for all products by the vendor “BMSIND” until 11/10/2009.

Note: Borrowing a licence file for a different period of time, when the licence is still borrowed requires a return of the currently borrowed licence (see Step 12) before the licence can be borrowed until the new return date.

- Start PowerDiffMerge. No Statemate files are required.
- Assert that the licences have been borrowed by pressing the button “List Currently Borrowed Features” in the Tab “Borrowing” of the application “lmstools.exe”. The frame at the bottom should provide an output similar to the following lines.

```

=====
List All Currently Borrowed Features
=====
Vendor                               Feature                               Expiration
-----                               -
BMSIND                               PowerDiffConvert                     10-Nov-14
23:59
BMSIND                               PowerDiffMerge                       10-Nov-14
23:59
    
```

- Clicking the button “Don’t Borrow Anymore Today” deactivates the borrowing of additional licences, but does not return any already borrowed licences.
- Borrowed licences can be returned by entering the name of a listed feature (in the example: “PowerDiffConvert” and “PowerDiffMerge”) in the text field “Feature Name” and then pressing “Return Borrowed Licences Early”. Returning all borrowed licences requires returning all feature names one after another.

3.4 Working offline with a borrowed licence

In addition to the steps listed for borrowing a licence file from the licence server, working offline with a borrowed licence requires additional changes to locally store the mapping from server name to IP-address. The following enumeration lists the required steps that have to be executed once.

- Open a console and type the command “nslookup <LICENCE SERVER NAME>” (in the example from above: server). This should get an output similar to the following lines.

```

Server: xxxx.yyyy.zzzz
Address: 10.18.22.33
Name: <LICENCE SERVER NAME>
Address: 10.18.33.44
    
```

2. Open the file “C:\WINDOWS\system32\drivers\etc\hosts”. You’ll see assignments of IP-addresses to computer names, which exist locally on the computer.
3. Copy the last entry twice and enter the IP-number that has been returned by nslookup in step 1 (the address of the second block) into both new lines. Replace the name in one of the two lines with the short name of the licence server (i.e. <LICENCE SERVER NAME>) and the other with the full name (including the appropriate domain).
4. Remove the network cable after saving the changes and start a new console. Enter “ping <LICENCE SERVER NAME>” to see, whether the computer acknowledges the server name (no data should be transferred).

4 First Start

4.1 First start without registry licence entries

When PowerDiffMerge is started for the first time, a licence dialog opens and you are asked to specify a licence server or a licence file (please refer to section 3.2 for more information regarding licensing). Depending on the type of licence you are using, choose the right option and either

- select a valid licence server by entering the port number followed by “@” and the server name (e.g. 2837@server) or
- select a valid licence file in your file system by clicking the “...” button to the right of the Licence file entry.

The licence settings provided in this dialog apply only for the current user.

A licence server triad may also be specified. In this case, you have to enter the server names and ports for all three servers separated with a comma (e.g. “2937@server1, 2937@server2, 2938@server3”).



Figure 4: PowerDiffMerge licence Dialog with licence file

PowerDiffMerge starts, when the ok button is clicked and the provided licence is valid. Once a valid licence has been selected, it is stored for the next use of PowerDiffMerge and does not need to be set again.

Appendix A PowerDiffMerge Registration Form (Html and Text)

User Information	
Company:	
Division:	
Name, First Name:	
Telephone:	
Mobile:	
E-Mail:	
E-Mail:	

Licence Information			
PowerDiffMerge Version:			
Licence Type (floating or node locked)	port number (only for floating licence)	Desktop/Server Name	Valid for (select one) evaluation unlimited

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