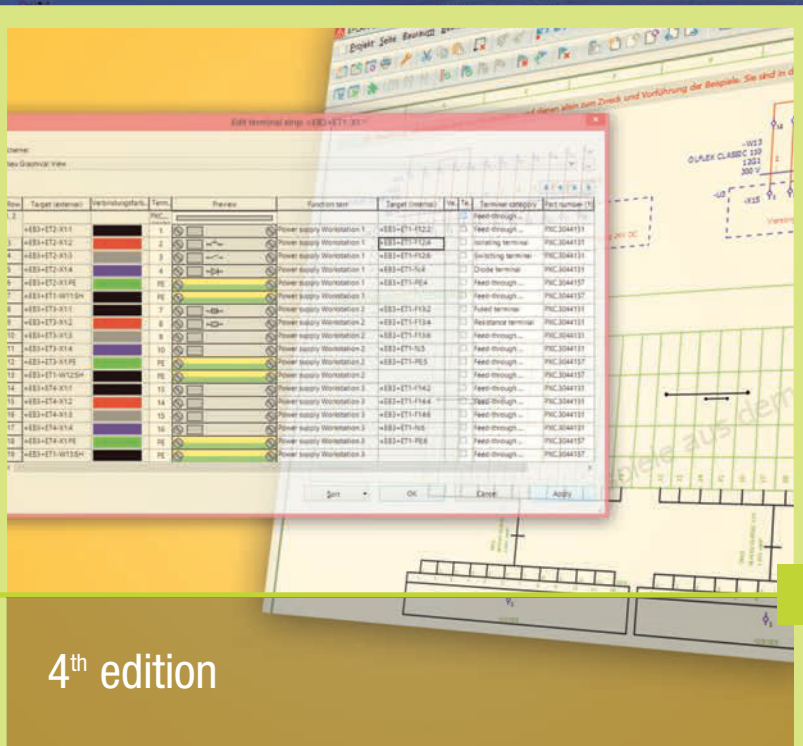


Bernd Gischel

# EPLAN Electric P8 Reference Handbook



4<sup>th</sup> edition

HANSER

Bernd Gischel

**EPLAN Electric P8 Reference Handbook**



Bernd Gischel

# EPLAN Electric P8 Reference Handbook

4<sup>th</sup> edition



Hanser Publishers, Munich  
Hanser Publications, Cincinnati

HANSER

The Author:  
Bernd Gischel, Lünen, Germany  
Translated by think global GmbH, Berlin, Germany

Distributed in North and South America by  
Hanser Publications  
6915 Valley Avenue, Cincinnati, Ohio 45244-3029, USA  
Fax: (513) 527-8801  
Phone: (513) 527-8977  
www.hanserpublications.com

Distributed in all other countries by  
Carl Hanser Verlag  
Postfach 86 04 20, 81631 Munich, Germany  
Fax: +49 (89) 98 48 09  
www.hanser-fachbuch.de

The use of general descriptive names, trademarks, etc., in this publication, even if the former are not especially identified, is not to be taken as a sign that such names, as understood by the Trade Marks and Merchandise Marks Act, may accordingly be used freely by anyone. While the advice and information in this book are believed to be true and accurate at the date of going to press, neither the authors nor the editors nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein. The final determination of the suitability of any information for the use contemplated for a given application remains the sole responsibility of the user.

Cataloging-in-Publication Data is on file with the Library of Congress.

Bibliografische Information der deutschen Bibliothek:

Die Deutsche Bibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über <<http://dnb.d-nb.de>> abrufbar.

All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying or by any information storage and retrieval system, without permission in writing from the publisher.

© Carl Hanser Verlag, Munich 2016  
Production Management: Denise Jäkel  
Coverconcept: Marc Müller-Bremer, [www.rebranding.de](http://www.rebranding.de), München, Germany  
Coverdesign: Stephan Rönigk  
Typesetted by Kösel Media GmbH, Krugzell, Germany  
Printed and bound by Firmengruppe Appl, aprinta druck, Wemding, Germany  
Printed in Germany  
ISBN 978-1-56990-498-5  
E-Book ISBN 978-1-56990-499-2

# Contents

<b>Preface</b> .....	XIII
<b>1 Installing EPLAN Electric P8</b> .....	1
1.1 Hardware .....	1
1.2 Installation .....	2
1.3 Note for users of previous versions .....	10
1.3.1 Parallel operation with previous versions .....	10
<b>2 The basics of the system</b> .....	11
2.1 Five principles for working with EPLAN Electric P8 .....	11
2.2 Directory structure, storage locations .....	13
2.3 Settings – General .....	17
2.3.1 Settings – Project .....	18
2.3.2 Settings – User .....	34
2.3.3 Settings – Station .....	41
2.3.4 Settings – Company .....	41
2.4 EPLAN and multiple starts? .....	43
2.5 Properties .....	43
2.5.1 Project properties .....	45
2.5.2 Page properties .....	47
2.5.3 User-defined properties .....	48
2.5.4 Symbol properties (components) .....	52
2.5.5 Form properties .....	53
2.5.6 Plot frame properties .....	53
2.6 Buttons and popup menus .....	53
2.6.1 Device dialog buttons .....	54
2.6.2 Buttons in dialogs (configuring) .....	54

2.6.3	Buttons in dialogs such as filter schemes .....	55
2.6.4	Restore default function .....	56
2.6.5	Property arrangements (components) .....	56
2.6.6	Format properties .....	58
2.6.7	Buttons (small black triangles) .....	59
2.6.8	Dialogs for schemes .....	59
<b>2.7</b>	<b>Master data</b> .....	60
<b>2.8</b>	<b>Operation</b> .....	61
2.8.1	Using the keyboard .....	61
2.8.2	Using the mouse .....	63
<b>2.9</b>	<b>User interface – more useful information</b> .....	63
2.9.1	Using workspaces .....	63
2.9.2	Dialog display .....	64
<b>3</b>	<b>Projects</b> .....	69
<b>3.1</b>	<b>Project types</b> .....	70
3.1.1	Project types in EPLAN .....	71
3.1.2	Project templates and basic projects .....	72
<b>3.2</b>	<b>Creating a new project</b> .....	74
3.2.1	New project (from a basic project) .....	74
<b>4</b>	<b>The graphical editor (GED)</b> .....	79
<b>4.1</b>	<b>Page navigator</b> .....	79
4.1.1	Page types .....	81
4.1.2	The popup menu in the page navigator .....	84
4.1.3	Page navigator filter .....	103
4.1.4	Edit in table .....	105
4.1.5	List with preselection .....	107
<b>4.2</b>	<b>General functions</b> .....	108
4.2.1	Title bar .....	108
4.2.2	Status bar .....	109
<b>4.3</b>	<b>Coordinate systems</b> .....	110
4.3.1	Graphical coordinate system .....	110
4.3.2	Logical coordinate system .....	111
4.3.3	Fluid power and process-engineering coordinate systems .....	111
4.3.4	3D coordinate systems .....	111
<b>4.4</b>	<b>Grid</b> .....	112
<b>4.5</b>	<b>Increments, coordinate input</b> .....	113
4.5.1	Increment .....	113
4.5.2	Coordinate input .....	114
4.5.3	Relative coordinate input .....	115
4.5.4	Move base point .....	115

<b>4.6</b>	<b>Graphical editing functions</b> .....	116
4.6.1	Graphical objects: lines, circles, rectangles .....	117
4.6.2	Trim, chamfer, stretch and more .....	119
4.6.3	Group and ungroup .....	127
4.6.4	Copy, move, delete .....	128
4.6.5	Dimensioning .....	129
<b>4.7</b>	<b>Texts</b> .....	132
4.7.1	Normal (free) texts .....	133
4.7.2	Path function texts .....	134
4.7.3	Special texts .....	136
4.7.4	Properties – Text dialog .....	139
<b>4.8</b>	<b>Components (symbols)</b> .....	145
4.8.1	Insert components (symbols) .....	145
4.8.2	Properties (components) dialog – [device] tab .....	147
4.8.3	Display tab .....	148
4.8.4	Symbol/function data tab .....	150
4.8.5	Parts tab .....	153
<b>4.9</b>	<b>Cross-references</b> .....	154
4.9.1	Contact image on component .....	154
4.9.2	Contact image in path .....	157
4.9.3	Special feature: Pair cross-reference .....	159
4.9.4	Contact image distributed device list .....	162
<b>4.10</b>	<b>Device selection settings</b> .....	164
<b>5</b>	<b>Navigators</b> .....	165
<b>5.1</b>	<b>Overview of the most important navigators</b> .....	166
5.1.1	Additional navigators and modules .....	171
5.1.2	General navigator functions .....	174
<b>5.2</b>	<b>Device navigator</b> .....	174
5.2.1	Swap .....	176
5.2.2	Assign main function .....	176
5.2.3	Synchronize function texts .....	179
5.2.4	Numbering (Number DT) .....	180
5.2.5	Device protection .....	186
5.2.6	Import (device data) .....	187
5.2.7	New .....	190
5.2.8	New functions .....	192
5.2.9	New device .....	193
<b>5.3</b>	<b>Terminal strip navigator</b> .....	195
5.3.1	Edit (terminal editor) .....	195
5.3.2	Generate multi-level terminal .....	200
5.3.3	Number terminals .....	201



5.3.4	New .....	205
5.3.5	New functions .....	206
5.3.6	New terminals (devices) .....	207
5.3.7	View .....	210
<b>5.4</b>	<b>Plug (female pin) navigator</b> .....	<b>212</b>
5.4.1	Edit (plug/female pin editor) .....	212
5.4.2	Number pins .....	213
5.4.3	New .....	213
5.4.4	New functions .....	214
5.4.5	Generate plug definition (plug and/or female pin) .....	214
5.4.6	Generate pin (plug and/or female pin) .....	215
<b>5.5</b>	<b>Cable navigator</b> .....	<b>217</b>
5.5.1	Edit .....	217
5.5.2	Number (cable DT) .....	219
5.5.3	Automatic cable selection .....	221
5.5.4	Generate cables automatically .....	223
5.5.5	Assign cable connections .....	226
5.5.6	New .....	228
5.5.7	Number DT .....	229
<b>5.6</b>	<b>PLC navigator</b> .....	<b>231</b>
5.6.1	Write back connection point descriptions .....	233
5.6.2	Set data types .....	235
5.6.3	Export/Import data .....	235
5.6.4	Addresses/assignment lists .....	236
5.6.5	Address .....	239
5.6.6	New .....	241
5.6.7	New functions .....	242
5.6.8	New device .....	244
5.6.9	View .....	244
<b>5.7</b>	<b>Part navigator (Devices/Parts)</b> .....	<b>246</b>
5.7.1	Add project part .....	247
5.7.2	Add part .....	249
5.7.3	Insert device .....	249
5.7.4	Exchange part .....	250
5.7.5	Edit part .....	251
5.7.6	Device selection .....	251
5.7.7	Assign item number .....	252
5.7.8	Synchronize parts data .....	253
5.7.9	Export/Import .....	253
5.7.10	View .....	253
<b>5.8</b>	<b>Macro navigator</b> .....	<b>255</b>
5.8.1	Macros – a general description .....	255
5.8.2	Macro project .....	255

5.8.3	Macro box .....	256
5.8.4	Macro navigator/Generate automatically .....	264
5.8.5	Macros in general (without macro project) .....	268
5.8.6	Macros with value sets (without macro project) .....	272
<b>5.9</b>	<b>Navigators – general functions</b> .....	<b>281</b>
5.9.1	Place from navigators .....	281
5.9.2	Assign from navigators .....	284
5.9.3	Filters .....	285
<b>5.10</b>	<b>Correction functions</b> .....	<b>287</b>
<b>6</b>	<b>Reports</b> .....	<b>289</b>
<b>6.1</b>	<b>What are reports?</b> .....	<b>290</b>
<b>6.2</b>	<b>Report types</b> .....	<b>290</b>
<b>6.3</b>	<b>Types of graphical reports</b> .....	<b>291</b>
6.3.1	Report types (forms) .....	291
6.3.2	Special connection diagrams .....	310
6.3.3	Next forms .....	312
6.3.4	Conditional forms .....	315
<b>6.4</b>	<b>Settings (output options)</b> .....	<b>317</b>
6.4.1	The Display/output project setting .....	318
6.4.2	The Parts project setting .....	319
6.4.3	The Output to pages project setting .....	321
<b>6.5</b>	<b>Generate reports</b> .....	<b>333</b>
6.5.1	Reports dialog .....	333
6.5.2	Generate reports without templates .....	335
6.5.3	Popup menus in the Reports tab .....	345
6.5.4	Generate reports with templates .....	346
<b>6.6</b>	<b>Other functions</b> .....	<b>354</b>
6.6.1	Update .....	354
6.6.2	Generate project reports .....	355
6.6.3	Generate report project .....	355
6.6.4	Settings for automatic updates .....	355
<b>6.7</b>	<b>Labeling</b> .....	<b>356</b>
6.7.1	Settings .....	356
<b>6.8</b>	<b>Edit properties externally</b> .....	<b>365</b>
6.8.1	Export data .....	366
6.8.2	Import data .....	373

<b>7</b>	<b>Management tasks in EPLAN</b>	375
7.1	<b>Structure identifier management</b>	375
7.1.1	List of identifiers in structure identifier management	379
7.1.2	Graphical buttons	381
7.1.3	Sort menu	383
7.1.4	Extras menu	384
7.1.5	Configure protection (protect identifiers from changes)	386
7.2	<b>Message management</b>	388
7.2.1	The visual appearance of message management	389
7.2.2	Project checks	390
7.2.3	Message classes and message categories	391
7.2.4	Filters in message management	399
7.2.5	Various message edition options	401
7.3	<b>Layer management</b>	404
7.3.1	Standard layers	405
7.3.2	Export and import of layers	405
7.3.3	Create and delete your own layers	406
7.3.4	Uses of layers	408
7.4	<b>Parts management</b>	411
7.4.1	Structure of parts management	413
7.4.2	Tabs in parts management	413
7.5	<b>Revision control</b>	423
7.5.1	General	423
7.5.2	Generate new revision	424
7.5.3	Execute changes	425
7.5.4	Complete page(s)	429
7.5.5	Generate reports	431
7.5.6	Complete a project	432
7.6	<b>Project management</b>	434
7.6.1	Project management dialog	434
7.6.2	Project management buttons	436
7.6.3	Project management filters	441
7.6.4	Create projects (project management)	442
<b>8</b>	<b>Export, import, print</b>	445
8.1	<b>Export and import of DXF/DWG files</b>	446
8.1.1	Exporting DXF and DWG files	446
8.1.2	Import of DXF and DWG files	451
8.2	<b>Image files</b>	456
8.2.1	Exporting image files	456
8.2.2	Insert image files (import)	459

<b>8.3</b>	<b>Print</b> .....	463
8.3.1	The Print dialog and its options .....	463
8.3.2	Important export/print setting .....	466
<b>8.4</b>	<b>Export and import of projects</b> .....	466
8.4.1	Exporting projects .....	467
8.4.2	Importing projects .....	467
<b>8.5</b>	<b>Print attached documents</b> .....	468
<b>8.6</b>	<b>Import PDF comments</b> .....	469
8.6.1	Importing commented PDF documents .....	470
8.6.2	Deleting PDF comments .....	473
<b>8.7</b>	<b>Generate PDF documents</b> .....	475
8.7.1	Export of PDF files .....	476
<b>9</b>	<b>Data backup</b> .....	485
<b>9.1</b>	<b>Zippping and unzipping of projects</b> .....	486
9.1.1	Zip projects .....	486
9.1.2	Unzip projects .....	488
<b>9.2</b>	<b>Backing up and restoring projects</b> .....	489
9.2.1	Back up projects .....	489
9.2.2	Restore projects .....	495
<b>9.3</b>	<b>Other important settings</b> .....	498
9.3.1	Default settings for project backup (global user setting) .....	498
9.3.2	Compress project (remove unnecessary data) .....	499
9.3.3	Automated processing of a project .....	501
<b>9.4</b>	<b>Backing up and restoring master data</b> .....	505
9.4.1	Backing up master data .....	505
9.4.2	Restoring master data .....	507
<b>9.5</b>	<b>Send project by e-mail directly</b> .....	509
<b>10</b>	<b>Master data editors</b> .....	511
<b>10.1</b>	<b>Preparatory measures</b> .....	514
<b>10.2</b>	<b>Clear overview of forms</b> .....	514
10.2.1	First option – manual overview .....	514
10.2.2	Second option – automatic overview .....	517
<b>10.3</b>	<b>Forms</b> .....	519
10.3.1	Create new form (from copy) .....	522
10.3.2	Edit existing form .....	529
10.3.3	Create new form .....	529
<b>10.4</b>	<b>Plot frames</b> .....	531
10.4.1	Create new plot frame (from copy) .....	531
10.4.2	Edit existing plot frame .....	534
10.4.3	Create new plot frame .....	535

<b>11</b>	<b>Old EPLAN data (EPLAN 5)</b> .....	537
11.1	Import options .....	538
<b>12</b>	<b>Extensions</b> .....	541
12.1	<b>EPLAN Data Portal</b> .....	541
12.1.1	What are the advantages of the EPLAN Data Portal? .....	541
12.1.2	Before the first start .....	542
12.1.3	How the EPLAN Data Portal works .....	545
12.2	<b>Project options</b> .....	553
12.2.1	What are project options? .....	553
12.2.2	Terminology in the Project options module .....	553
12.2.3	Creating options and sections .....	554
12.2.4	Generate options overview report .....	563
<b>13</b>	<b>FAQs</b> .....	565
13.1	<b>General</b> .....	566
13.2	<b>Parts</b> .....	599
13.3	<b>Terminals, plugs</b> .....	606
13.4	<b>Cables</b> .....	610
13.5	<b>Properties, layers</b> .....	611
13.5.1	Master data .....	615
13.6	<b>Data exchange</b> .....	622
13.7	<b>Reports</b> .....	624
<b>14</b>	<b>Creating a schematic project – step by step</b> .....	627
14.1	<b>Create a project</b> .....	627
14.2	<b>Generate pages</b> .....	630
14.3	<b>Create a schematic</b> .....	634
14.3.1	Insert symbols .....	635
14.3.2	Insert cables .....	640
14.3.3	Add texts .....	643
14.4	<b>Generate reports</b> .....	645
14.4.1	Generating other report pages .....	648
	<b>Index</b> .....	649

# Preface

Dear Users,

EPLAN Electric P8 is CAE software that is constantly being further developed. It offers innumerable project editing options and provides new innovations with each new version.

Version 2.5 is the result of continual development of previous versions. This version once again incorporates a wide range of user requirements and requests that have arisen during the practical use of EPLAN.

This fourth edition of this book has been revised and expanded based on Version 2.5 to demonstrate the wide range of functions in EPLAN Electric P8. The book is meant to make it easier to start using the software and to smoothly guide you around initial hiccups when working with EPLAN Electric P8. Numerous practical examples show you what is possible with Version 2.5.

Of course, like its predecessors, this edition cannot and will not describe all of the software's functions or provide examples for every conceivable function. EPLAN Electric P8 becomes increasingly comprehensive with every new version, as it does with this one, and it offers a variety of functions that cannot be completely covered in a single book. A book that describes all the functions would have thousands of pages and be impractical for the reader.

In Version 2.5, there are also many ways to reach the same goal. I will present and discuss some solutions. Others you will discover yourself and ask yourself why no one has ever tried it this or that way before.

This book will recommend solution approaches and demonstrate solutions that will help simplify your everyday work. It will help you make necessary decisions.

The book is addressed to everyone who uses EPLAN Electric P8 for electrical engineering designs – both daily and sporadic EPLAN Electric P8 users as well as engineers, electrical engineers, pupils and students.



I would like to express my thanks to Julia Stepp and her team at the Carl Hanser Verlag for the opportunity to write and publish this book. I would also like to sincerely thank my family, especially my wife Susanne. They have always been, and continue to be, very patient with me.

I would also like to thank all of the readers who have made this book a success. All feedback, whether criticism or praise, has always been a strong motivator for me to revise this book.

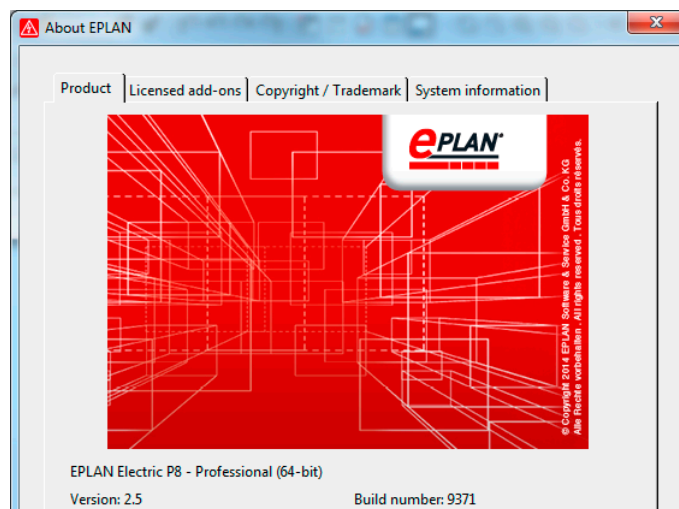
And finally, I would again like to thank EPLAN Software & Service GmbH & Co. KG for their consistent and very friendly support and collaboration in compiling some of the information for this edition of the EPLAN Electric P8 Reference Handbook.

### Important notes

All of the examples and explanations assume local installation and local operation of EPLAN. Furthermore, the book assumes that the user has all of the user rights in EPLAN and is logged in as the local administrator.

It is possible that, depending on the user's license and module package, certain functionality or a certain function described in the book will not be available or executable in the way in which it is explained and illustrated. Therefore, you should always check to see which licensed add-ons you have (via **HELP / ABOUT / LICENSED ADD-ONS TAB**).

For this book, EPLAN Electric P8 Professional Edition 2.5 was used.



Help / Info / Product tab



**NOTE** for users of previous versions: Certain parts of the functions described here may exist in EPLAN Electric P8 Versions 1.7 to 1.9 and 2.0 to 2.4, but their use, settings and range of functionality may differ from the current Version 2.5.



The examples used in the book are available as an EPLAN Electric P8 project at [www.eplan-efficient-engineering.com/handbook](http://www.eplan-efficient-engineering.com/handbook).

Some of the settings used in this book, such as those for filters or schemes, differ from the standard EPLAN installation. All of this additional data is available in the sample data. In addition, some custom, non-standard shortcut keys were also used.

The following text boxes are used to visually highlight notes, tips, etc.



**NOTE:** This box contains important notes that should be observed when using EPLAN Electric P8.



**TIP:** This box contains helpful tips for everyday working with EPLAN Electric P8.



This box provides additional information and tips.

Whenever this symbol appears in the book's margin, you will find questions and answers to problems that occurred during actual use of EPLAN Electric P8.







# 1

## Installing EPLAN Electric P8

Since installation requires few steps and can only be performed by the system administrator, this chapter provides only a basic description of this process. EPLAN is usually already installed on the workstation.

Installation of EPLAN generally requires administrator rights. The system administrator also designates at least one EPLAN administrator who will later manage the EPLAN users (also known as rights management). If rights management is not used, then EPLAN can be started by all users without requiring passwords, etc.

User management (an add-on that must be purchased separately and is not always included with every license) is not described in this book. Brief general information is provided as necessary at the appropriate points.



**NOTE:** Starting with EPLAN Electric P8 Version 2.5, only the 64-bit variant will be available. The use of Microsoft Office 64-bit is required to use Access databases. Microsoft Office 32-bit can still be used though, but the parts/translation/project database will have switched to SQL or SQL Express.

### ■ 1.1 Hardware

EPLAN has no special requirements for the graphics card or other hardware components. A standard computer as used for Office applications, for example, is sufficient. Even for the graphic card, the more available memory, the smoother EPLAN runs. Certain add-ons, such as EPLAN Pro Panel and its extensions, have other hardware requirements that affect the graphics card and its drivers.

I feel that a single-screen solution can no longer be recommended for EPLAN due to the many additional modular dialogs that can be displayed, such as the various navigators. A two-screen solution is clearly preferable, and a three-screen solution with each screen having a resolution of at least  $1680 \times 1050$  pixels is ideal.

Of course, EPLAN still functions with just one screen. But this screen should have a resolution of at least  $1280 \times 1024$  pixels.

## ■ 1.2 Installation

As far as installation is concerned, EPLAN is a normal Windows program. Apart from a few entries during the installation, the new EPLAN Setup Manager (available since Version 2.1) performs most of the work. There are only a few entries in the Windows registry, which is commendable and not always the case today.

Installation is usually started using the installation CD. The *Setup.exe* file in the root directory of the CD is run to begin installation. Installation after downloading the installation package from the EPLAN homepage works the same way (the downloaded ZIP file unpacks the installation data into the same directories that would be on the installation DVD).

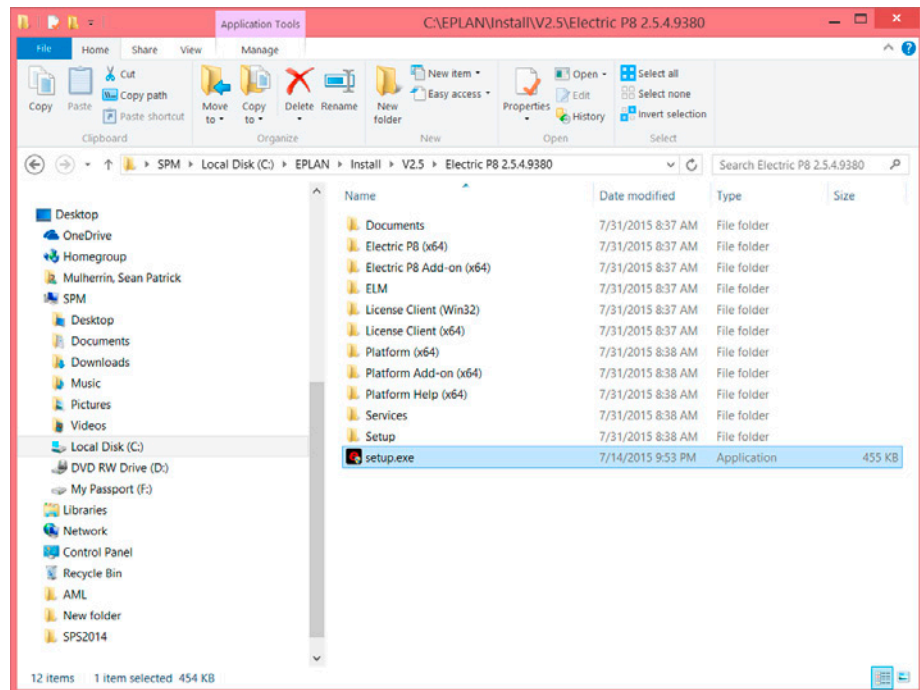


Fig. 1.1 Installation directory



**NOTE:** Running EPLAN Electric P8 requires a specific version of .NET Framework. If .NET Framework is not installed, or is not installed in the required version, it must be installed before you can proceed with the installation of EPLAN. But EPLAN will display a message if necessary.

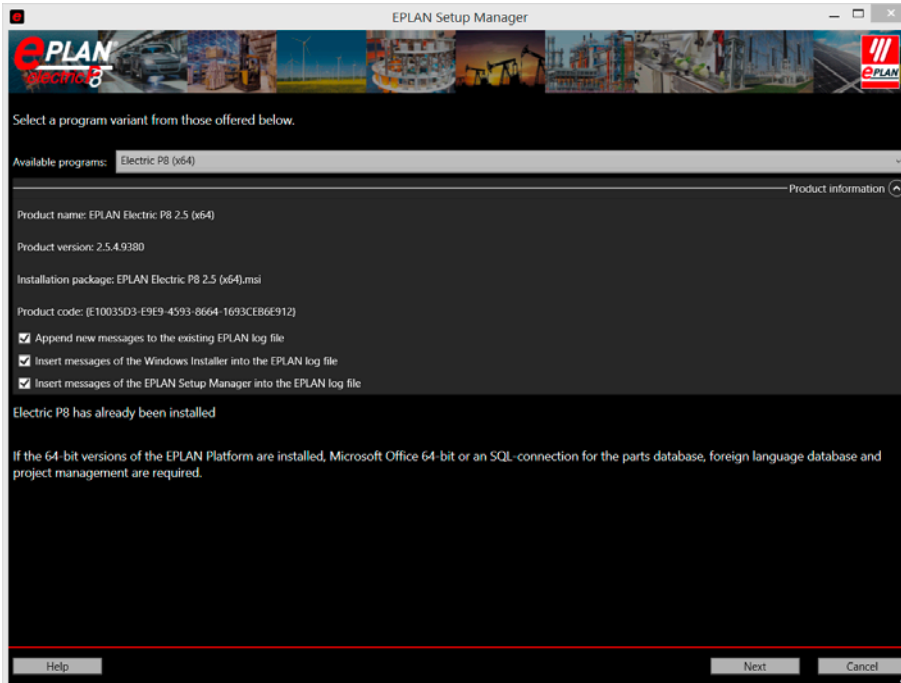


Fig. 1.2 The EPLAN Setup Manager's basic settings

When the **NEXT** button is clicked, the license agreement dialog is displayed. This must be accepted in order to use the EPLAN Setup Manager.

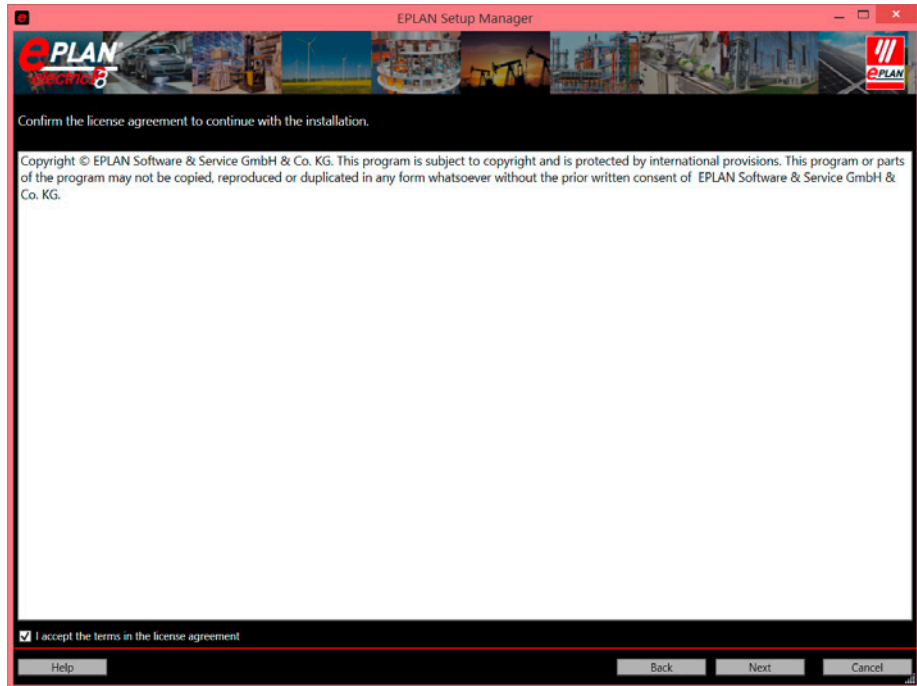


Fig. 1.3 Licensing agreement dialog

After the dialogs showing the EPLAN Setup Manager's basic settings and the available programs, the first installation dialog appears.

When the **Next** button is clicked, the **Target directories, settings** dialog is displayed. This is where you set the *program directory*, the *system master data directory*, the *company code*, and the directories for *user, workstation and company settings*. You must also define the *measuring unit* for the system, the implementation type of the *help system* (online or local), as well as also the directory for the *EPLAN original master data*. This ensures that your own master data is always synchronized with the original EPLAN master data.

EPLAN always suggests default directories for the installation.

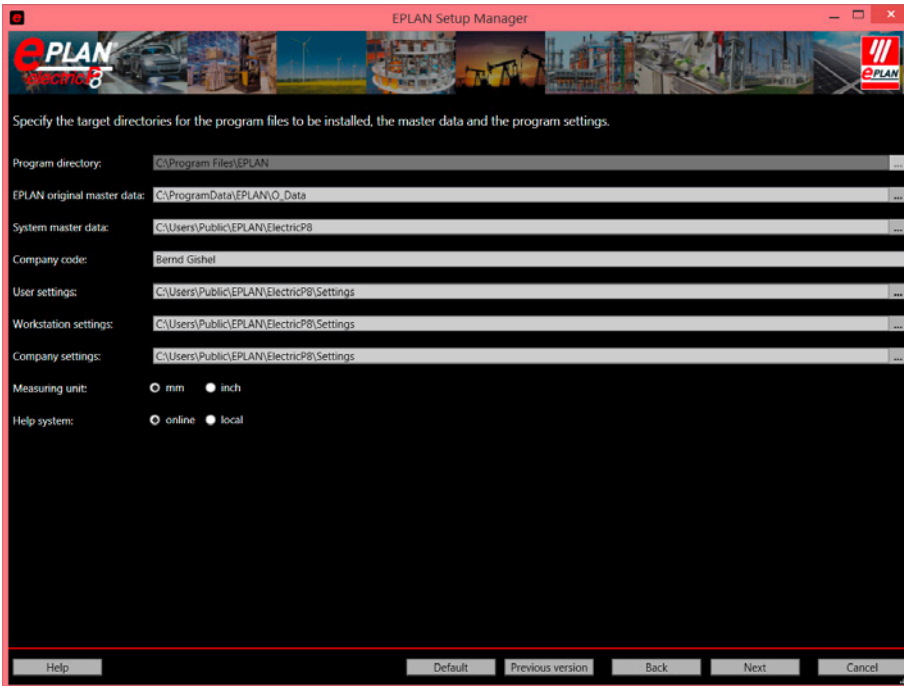
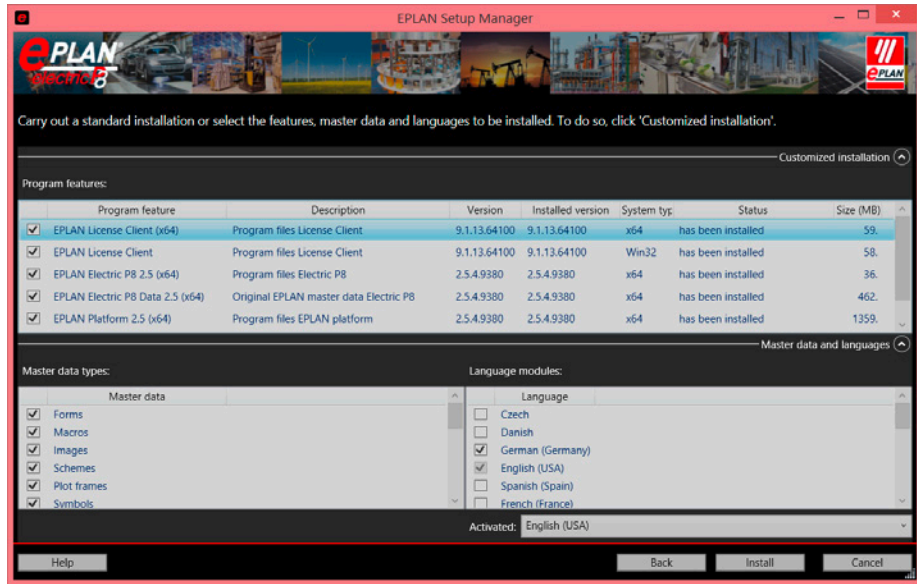


Fig. 1.4 Definition of target directories

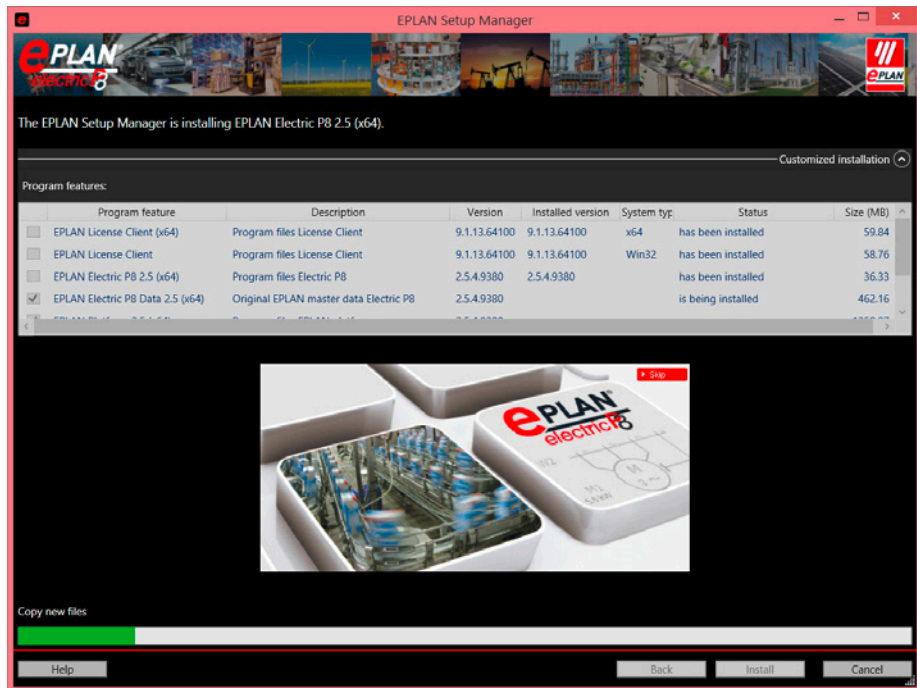
These suggested directories can be kept or changed to the previous version (to do so, click the **PREVIOUS VERSION** button). I always change these directories (and of course the company code) to my own target directories.

When you have checked or changed all directories, you exit the dialog by clicking **NEXT**. EPLAN continues with the installation and asks what program components, master data and languages should be installed.



**Fig. 1.5**  
Scope of components  
to be installed

After you set all the required information and click **INSTALL**, the Windows Installer prepares the required components and the actual installation begins.



**Fig. 1.6**  
EPLAN being installed



**NOTE:** EPLAN does not replace your system master data. If you would like to work with EPLAN's new system master data at a later date, then you must synchronize this data.

By design, EPLAN does not overwrite user-related master data because the user may have modified the original system master data and saved this under the original name assigned by EPLAN. During installation, EPLAN does not recognize whether this data has been changed on purpose and would therefore simply replace it. Usually the user does not want this to happen.

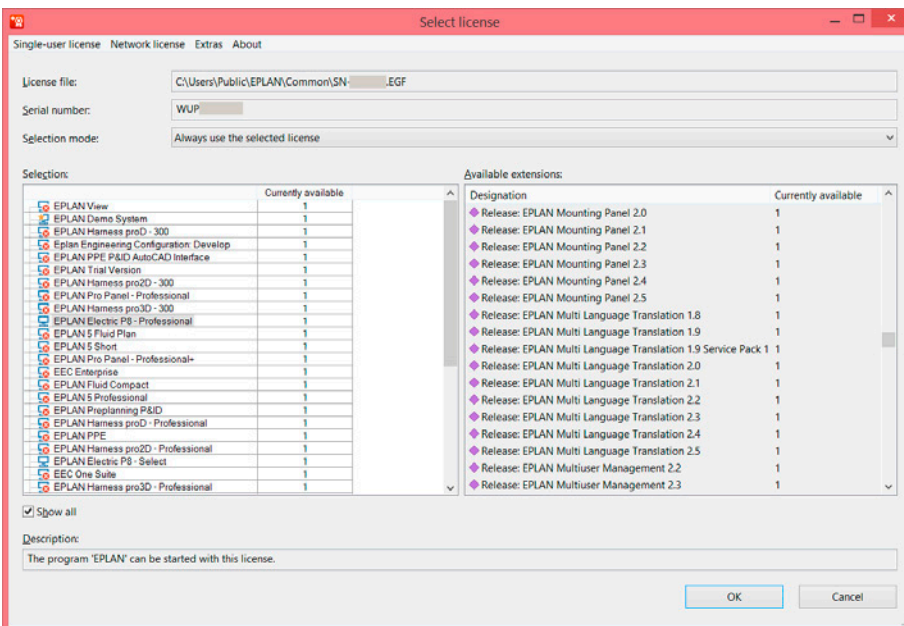
Once installation is complete, EPLAN displays the completion dialog. Here, you have to click **FINISH**. Installation of EPLAN Electric P8 is now complete.



**Fig. 1.7**  
Finishing the installation

EPLAN Electric P8 can now be started from the Start menu or the desktop icon.

If a license has not yet been installed, a dialog prompting or requesting a selection of the appropriate license is displayed before the program starts.



**Fig. 1.8**  
Select License dialog



Once a selection has been made (here: EPLAN Electric P8), confirmed with OK, and if there is no validation, a one-time dialog requesting the validation code (license number) of the corresponding dongle (hardware protection) is displayed. This may be done via an online query or by entering the validation code received manually.

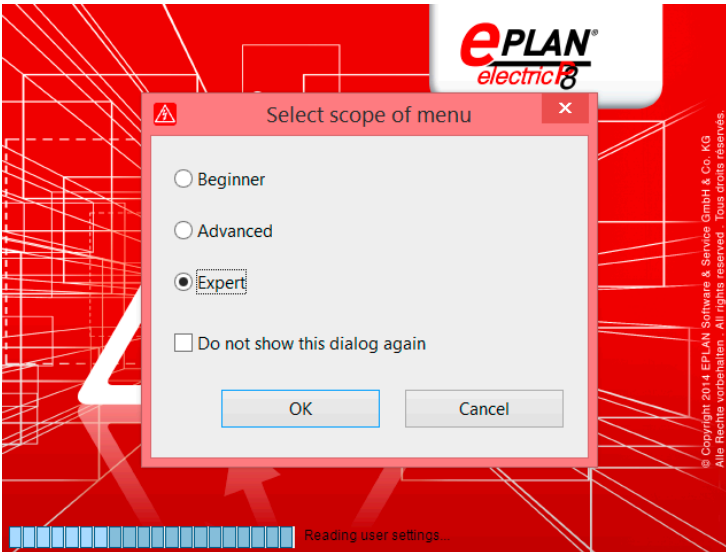
Fig. 1.9 Entering validation code and activating EPLAN

Fig. 1.10 License validated successfully

EPLAN starts with the **Select scope of menu** dialog. Here you can choose between the options *Beginner* (only the basic menus allowing graphical drawing of a project and/or working with macros), *Advanced* (more extensive display options, such as minimum text size or empty text boxes, can be displayed and used), or *Expert* (all menus and functions available), and then confirm your selection by clicking OK. The *Beginners*, *Advanced*, and *Expert* options are hard-coded into EPLAN and cannot be changed or extended.



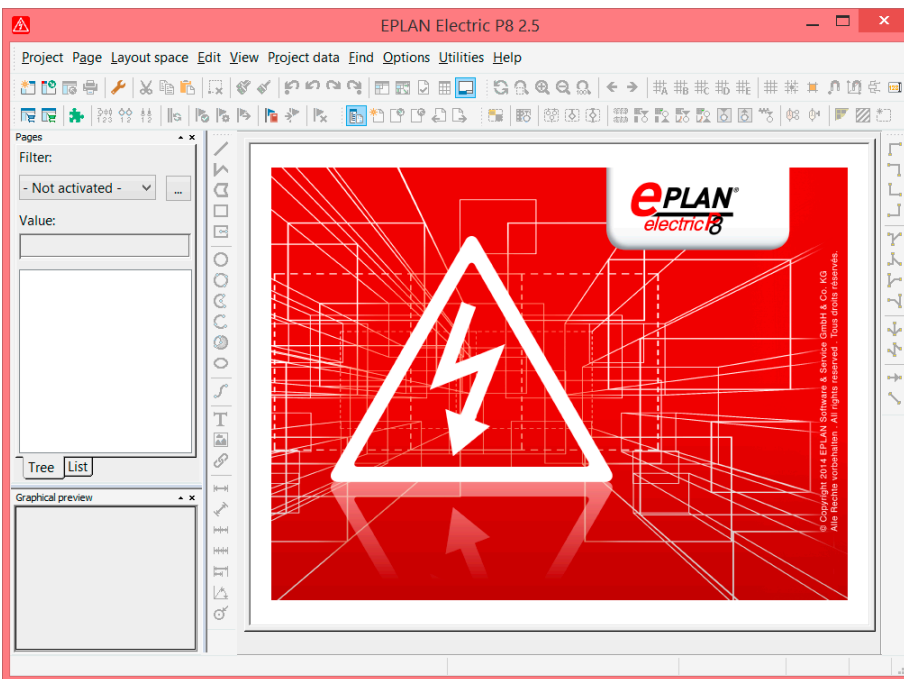
**NOTE:** The Select scope of menu dialog is only displayed when EPLAN is used without rights management.



**Fig. 1.11**  
Starting up EPLAN  
for the first time

If a previous version is being used, then there is a **one-time** option to import the settings (user, workstation and company) from this version in the subsequent dialog. If you click the **CANCEL** button, none of the previous version's settings will be imported.

EPLAN now opens the default workspace.



**Fig. 1.12**  
Starting up EPLAN  
for the first time

## ■ 1.3 Note for users of previous versions

You should use the export function to export the schemes, filters, etc. that you have created in a previous version so that you will be able to import them later into Version 2.5 as necessary.

### 1.3.1 Parallel operation with previous versions

Because EPLAN has again in Version 2.5 made some changes to the databases, which are no longer compatible with the previous versions (Version 2.3 and down), we recommend that you install Version 2.5 and its master data in a separate directory.

This especially applies to changes in the parts database. If you open the parts database with Version 2.5 and reformat it for Version 2.5, you will no longer be able to write to the file when you open it with previous versions. However you will still be able to read it with the previous versions.

# 2

## The basics of the system

This chapter provides a brief explanation of some important EPLAN principles, functions, and working methods, and uses a number of examples to illustrate selected facts and system settings. Important points in this chapter are the directory structure, data storage, user, workstation and project settings, notes on project and page properties, notes on particular dialog properties, handling of schemes, forms, plot frames, symbol libraries and an overview of my personal shortcut keys, optimized over the years.

### ■ 2.1 Five principles for working with EPLAN Electric P8



**1<sup>st</sup> principle:** Errors during project editing are allowed in EPLAN Electric P8.

In general, mistakes are allowed when working with EPLAN Electric P8. This basic principle of allowing mistakes is illustrated in the following example. A contactor may have two auxiliary contacts in the schematic, with both of them initially having the same connection point designation. Things that are not physically possible are initially “allowed” by EPLAN while working on a project. The user is not slowed down by “irritating” errors or messages during editing. This type of error naturally appears in message management, but only as a message entry, depending on the setting within the check run selected. This entry initially has no further consequences. When project editing has progressed far enough, or is finished, EPLAN can perform certain project checks. Erroneous entries such as those described above will be listed in the project, if they do not already exist in message management.

Of course this error must be fixed in order to have a correct practical reference. However, this is not **compulsory**. EPLAN allows the user to decide whether a project is error free (no message) or not and which priority a message (error, warning, or note) should have. It is also possible to prevent such errors. With the **Prevent errors** check option, the above approach would not be possible. But this is a user-settable setting.



**2<sup>nd</sup> principle:** In EPLAN Electric P8, what is selected is what is edited.

The following example clarifies this principle. If I select three texts on a page and start the translation function, then exactly these three texts will be translated. If I select this page in the page navigator, then the translation function will translate all texts on the entire page based on their settings.



**3<sup>rd</sup> principle:** EPLAN Electric P8 stores data and any references online.

EPLAN is an online system. All references and device data are constantly (i.e. online) updated. For performance reasons, these are only updated on request via a few specific actions. EPLAN performs the rest completely independently.

A typical example of this is the editing of a page followed by a page change. Here you need to manually start any required updating of the connections. There is of course a setting that allows EPLAN to do this type of connection updating automatically. However, this can negatively affect project performance.

In my opinion, constant (online) updating of connections is not really necessary because relevant actions such as graphical project reports or automated procedures such as device numbering automatically update the connections before the actual action is performed.



**4<sup>th</sup> principle:** EPLAN Electric P8 can be operated using a graphical approach.

This means that the devices (symbols) can first be placed in the schematic and subsequently be assigned the parts, including the associated function definitions. This is not compulsory, and you have a completely free hand when editing a project.



**5<sup>th</sup> principle:** EPLAN Electric P8 can also be operated using an object-oriented approach.

This means that external motor lists or other component lists can be read into the system as device lists, and the project can be started from this end.



**NOTE:** Principles 4 and 5 can be combined with each other. There are absolutely no limitations when working with EPLAN Electric P8.

## 2.2 Directory structure, storage locations

EPLAN can use any desired directory structure. EPLAN allows the user a free choice here. Data, such as project or master data, can therefore be easily integrated into an existing company data storage structure.

EPLAN recommends installing/running the program files locally, and only storing the data on the network. I agree with this recommendation. Any further structuring or organization of the remaining master data is the responsibility of the user.

By default, EPLAN creates the program directory with the following sub-directories:

- **BIN:** contains the program modules and, in additional subdirectories, the language files (e.g. en-US for U.S. English).
- **CFG:** contains configuration files for the users, company, workstation and projects.
- **P\_ID:** is only of interest to PPE users.

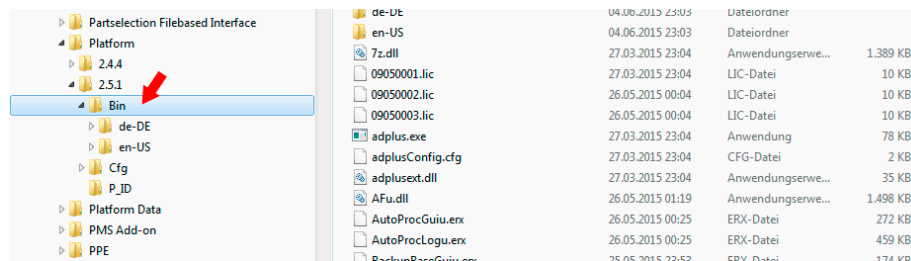


Fig. 2.1 Program directory with subdirectory

Similarly, during installation EPLAN also creates certain default directories for particular system data and other data.