Performance Description

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Introduction

Eplan offers Engineering software and service in the fields of electrical engineering, fluid power, automatization and mechatronics. The company develops one of the world's leading software solutions for engineering, plant engineering and enclosure design. Eplan is also the ideal partner for simplifying challenging engineering processes.

Standardized and individual ERP and PLM/PDM interfaces ensure consistent data along the entire value chain. Whether small or large companies, customers can thus use their expertise more efficiently. Eplan aims to keep growing with its customers and partners and furthers integration and automation in engineering. "Efficient Engineering" is our motto.

Eplan was founded in 1984 and is part of the Friedhelm Loh Group.

All from one provider: Eplan Solutions

Eplan supports the user in setting up engineering across multiple disciplines and independent of location. This means increases in efficiency when working on the Eplan project, because digital data flows seamlessly from solution to solution and is enriched accordingly in the project. Eplan Platform offers added value for collaboration in a team, especially when it comes to tasks shared between different locations.

Eplan allows bidirectional exchange with ERP and PLM / PDM systems via interfaces. Through neutral interfaces the Eplan project data can be exchanged with other software environments and further processed.

Extensions for all cases

No matter which requirements have to be fulfilled in the future or to what extent work with Eplan solutions is already taking place: Extensions in all directions can be implemented easily thanks to the Eplan concept – flexibly and individually for individual tasks.

A comprehensive overview of the current extension options is listed in the licensing overview. Should you have any further questions on this topic, please do not hesitate to ask your Eplan contact person.

Eplan API Extension

The optional Eplan API Extension extension module allows you to control Eplan externally through a programming interface or to extend and customize it customer-specifically. The program functions available in Eplan are structured in modules. They can be addressed directly from other programs through the programming interface. It is also possible to integrate customer-specific extensions into the Eplan user interface.

In principle only a text editor and a ".NET" compiler are required for this functionality. For development support, we recommend an integrated development environment such as "Visual Studio".

Languages supported by .NET can be used as programming languages. The code can be directly loaded, compiled, and executed in the system as a script.

Overview of functions

The following function overview provides an overview of the possibilities offered by the Eplan API.

Eplan API object model

Object model with real derivation hierarchy	✓
Opening, closing, copying, deleting, etc. of projects	✓
Editing project data	✓
Typified querying and setting of properties	✓
Determining of property attributes: Type, designation and access mode	✓
Creating user-defined properties	✓
Importing and exporting of user-defined properties	✓
Definition of own Undo steps	✓
Integration into the Undo management of the user interface	✓
Editing of project settings	✓
Filtered access to pages	✓
Generating and editing of projects	✓
Generating and editing of pages	✓
Generating and editing electrical engineering and fluid power functions	✓
Powerful search functions for data model objects	✓
Filtered access to the objects placed on pages	✓
Reading out of special macro properties such as the insertion point or placeholder before the macro placement	✓
Placing of symbols	✓
Access to stored symbols and symbol variants	✓
Access to stored parts	✓
Assignment of parts to functions	✓

Generating and editing of black boxes	✓
Generating and editing of structure boxes	✓
Generating and editing of macro boxes	✓
Generating and editing of cable definitions and shields	✓
Generating and editing of PLC boxes	✓
Generating and editing of plugs and pins	✓
Generating and editing of terminal strips, terminals and terminal accessories	✓
Generating and editing of groups of placements	✓
Generating and editing of groups	✓
Generating and editing of graphical objects	✓
Access to logic through function templates	✓
Editing of connection properties	✓
Editing of dynamic connection lines	✓
Editing of connection properties via connection definition points	✓
Generating and editing of interruption points	✓
Generating and editing of bundle connection points and bundle connectors	✓
Generating and editing of potential definitions	✓
Generating and editing of connection points of functions	✓
Generating and editing of placeholder texts	✓
Access to the layer management and all graphics layers	✓
Generating and editing of hyperlinks and images	✓
Generating and editing of path function texts	✓
Generating and editing of placed properties	✓
Generating and editing of placeholder objects, variables and value sets	✓
Editing of project options	✓
Generating and editing of all elements of 3D panel layouts	✓
Generating and editing of topology routing tracks	✓
Generating and editing of all pre-planning segments	✓

Access to subprojects	✓
Generating and editing of wire harness objects	✓
Generating and editing of piping definitions points	✓

Eplan API basic functionalities

Providing and executing of parameterized actions	✓
Executing of command line calls in the Eplan API	✓
Inclusion of extension modules	✓
Creating and editing of user-defined ribbon entries	✓
Reacting to system events	✓
Providing of own system events	✓
Reading out of system message lists	✓
Reading out of the message management	✓
Depending on the use of the rights management: Checking of the rights for actions	✓
Multiuser functionality	✓
Determining of the current user	✓
Adding of own user rights for own extension modules	✓
Editing of multilingual properties	✓
Reading, writing and creating of settings	✓
Access to schemes for advanced functions	✓
Controlling of the progress display	✓
Inclusion of a progress display in independent programs	✓
Seamless integration of new export and import formats	✓
Writing of external programs on the basis of the application object	✓

Advanced Eplan API functionalities

Archiving and packing of projects	✓
Archiving and packing of master data	✓
Restoring of projects from archives	✓
Restoring of master data from archives	✓
Automatic cable selection	✓
Cable numbering	✓
Executing of check runs	✓
Editing of connection definition points	✓
Generating of devices	✓
Exporting and importing of device lists	✓
Displaying of graphics in own dialogs	✓
Opening of project pages and marking of placements or positions	✓
Importing and exporting the property arrangements of a project	✓
Exporting into different image file formats, DXF / DWG, PXF, PDF	✓
Importing of DXF / DWG	✓
Reporting projects	✓
Updating reports	✓
Inserting embedded reports	✓
Inserting of model views	✓
Automatic reporting of model views	✓
Automatic reporting of drilling patterns	✓
Automatic reporting of copper unfolds	✓
Preparation of macros	
Inserting of macros	✓
Controlling of the labeling module, generating of lists	✓
Storing, updating, filing off of master data	✓
Mounting panel services, e.g. reorganizing of legend numbers	✓

Access to the parts management	✓
Storing of parts into a project	✓
Deleting stored part properties	✓
Exporting and importing of bills of materials	✓
Adding of objects to placeholders, assigning of value sets	✓
Importing and exporting of PLC assignment lists	✓
Printing of projects and pages	✓
Access to print settings	✓
Publishing projects	✓
Importing PDF comments into a project	✓
Compressing and reorganization of projects	✓
Correcting projects	✓
Reading in of project header data	✓
Numbering of devices	✓
Numbering of bill of materials items	✓
Numbering of devices with PLC data	✓
Updating connections	✓
Tracking potentials and signals	✓
Revision control	✓
Generating of comparison projects	✓
Comparing of projects	✓
Reading out of the project comparison results	✓
Completing of pages and projects	✓
Creating revisions of projects	✓
Reading and adding of entries in search lists	✓
Determining of selected objects	✓
Translating projects	✓
Exporting of missing-word lists	✓

Editing of the translation database	✓
Adding of messages to message management	✓
Integrating of own check runs and messages	✓
Adding to symbol libraries	✓
Importing and exporting of pre-planning data	✓
PCT loop numbering	✓
Update detailed planning	✓
Automatic routing of topology connections	✓
Exporting of layout spaces to STEP or VRML	✓
Interpreting device logic	✓
Exporting of drilling pattern data for NC machines	✓
Export of wire fabrication data	✓
Export of manufacturing data to Eplan Smart Production	
Calling up Eplan Cloud interfaces with the credentials of the logged-in cloud user	

(Errors and changes reserved.)