Database explained AutoCAD P&ID and Plant 3D

Optimize your workflow

au:xalia

About the Book

The idea for writing a book about the databases of AutoCAD® P&ID and AutoCAD® Plant 3D came when I wrote the online documentation for PlantLink. It appeared to me that a deeper understanding of the databases and its structure, tables and views is imperative to improve the way you can handle your drawing data.

AutoCAD® P&ID and AutoCAD® Plant 3D creates a lot of data during your drawing and design work. Usually what you see in the properties palette or Data Manager is just the tip of the iceberg of the data available.

Stored in the databases are also relationships between your drawing objects which you can use to propagate data between your objects.

I show several examples to get you started and give you an idea of what you can accomplish. Furthermore, I hope it inspires you get creative to come up with more solutions to your needs. This book explains in detail what the various tables are for, but more important it shows you practical examples rather than theoretical possibilities of what you can do with the data.

The basis of the book is AutoCAD® P&ID 2014, AutoCAD® P&ID 2015, AutoCAD® Plant 3D 2014 and AutoCAD® Plant 3D 2015, but it applies to earlier versions as well. Only for Off-Page Connectors there is a slight difference in comparison to earlier versions.

The book was revised in March 2020 and includes the latest changes introduced with AutoCAD Plant 3D 2017.1.

About PlantLink

AutoCAD® P&ID and AutoCAD® Plant 3D provides a flexible and convenient project database out of the box. PlantLink significantly extends the use of data with your plant project data by enabling linking to external and internal data sources with flexible and configurable unidirectional and/or bidirectional live links. PlantLink can modify AutoCAD-Properties like layer or color as well.

Trademarks

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About the Author

Carsten Beinecke was born 1967 in Germany and finished school as a type of mechanical engineer. His first job was drawing P&IDs for an engineering company. That was in the year 1988 and AutoCAD® Release 9. A few month later he started developing AutoLISP routines to improve drawing P&IDs. With AutoCAD® Release 10 and the possibility to work in a 3D environment, routines for speed up 3D piping were developed.
After working for an AutoCAD® reseller where he did customer training and development in the plant industry, he got self-employed in 1993.

Since then he helped customers to get trained and setup in the AutoCAD® based application ACPlant Designer developed by ACPlant Consult in Austria. This included again development in the ship industry to create data for bending machine, reporting tools and spec creation among others. Also, he worked on various projects where he drew P&ID drawings as well as 3D piping.
When Autodesk acquired the IP rights of ACPlant Designer in October 2007, Carsten was asked if he wanted to buy ACPlant Consult and be the first one in Central Europe to help customers setup AutoCAD® P&ID.

From the very beginning it was clear to him that European customers expect more from a P&ID software than just drawing effectively. This was the start of the successful development of PlantTools, a series of additional tools for AutoCAD® P&ID and AutoCAD® Plant 3D.
The first PlantTools was PlantReporter which was licensed by Autodesk® in 2010 and is known as Autodesk® Plant Report Creator.

Besides working as a product manager for PlantTools he trained numerous customers and setup AutoCAD® P&ID and AutoCAD® Plant 3D. It became clear a lot of requirements were related one way or another with data handling and management. This led to the development of PlantLink.
In May 2012 ACPlant Consult and its team became part of CAD STUDIO ABCOM.

Carsten Beinecke was invited by Autodesk to be a key speaker at Autodesk University in Las Vegas. Since then he gave lectures to different topic on configuration of AutoCAD® P&ID and AutoCAD® Plant 3D.

History

Release Date	**Remarks**
June 2014	First publication. Based on AutoCAD® P&ID and AutoCAD® Plant 3D 2014
March 2020	Updated to include changes introduced with AutoCAD Plant 3D 2017.1

Table of contents

15. Index

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