



Database explained AutoCAD P&ID and Plant 3D

Optimize your workflow

auxalia

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.

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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

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Remarks

First publication. Based on AutoCAD® P&ID and AutoCAD® Plant 3D 2014

Updated to include changes introduced with AutoCAD Plant 3D 2017.1

Table of contents

1.	Introduction.....	6
2.	Database Files.....	7
2.1.	Database Types.....	7
2.2.	Database Names	7
2.3.	Database Structure Files (DCFX)	11
2.4.	SQLite Editor	12
3.	Common Tables & Views.....	14
3.1.	What are Tables and Views.....	14
3.2.	Common Tables	15
3.2.1.	System Tables.....	15
3.2.2.	Object Tables.....	22
3.2.3.	Relationship Tables.....	24
3.3.	Common Views	25
4.	P&ID Tables & Views	27
4.1.	P&ID Tables.....	27
4.1.1.	Object Tables.....	27
4.1.2.	Relationship Tables.....	27
4.2.	P&ID Views.....	33
5.	Plant 3D Tables & Views.....	34
5.1.	Plant 3D Tables	34
5.1.1.	Object Tables.....	34
5.1.2.	Relationship Tables.....	36
5.2.	Plant 3D Views	39
6.	Iso Tables & Views.....	40
6.1.	Iso Tables	40
6.1.1.	System Tables.....	40
6.2.	Iso Views	40
7.	Ortho Tables & Views.....	41
7.1.	Ortho Tables	41
7.1.1.	System Tables.....	41
7.1.2.	Relationship Tables.....	42
7.2.	Ortho Views	44
8.	Creating Views.....	44
8.1.	Simple Example between Actuator and ControlValve.....	45
8.2.	Data Exchange between Off-Page Connectors.....	63
8.3.	Dataflow between Equipment and related Equipment.....	75

8.4.	Dataflow between Instrumentation	86
8.5.	Tags and Sizes to GeneralInstrumentSymbol	99
8.6.	Instruments Loops connected on InlineAssets	115
9.	Use SQL Scripts	123
9.1.	Step 1: Export to a SQL script	123
9.2.	Step 2: Modify and Adapt you script	126
9.3.	Step 3: Import or Create sample drawing	129
9.4.	Step 4: Import and Execute SQL statements	129
9.5.	Step 5: Copy Link Configurations	130
9.6.	Step 6: Test you Links	131
10.	Differences between SQLite and Microsoft® SQL Server®	132
10.1.	Step 1: Removing Code	132
10.2.	Step 2: Find and Replace	133
10.3.	Step 3: Adapting DROP statement	134
10.4.	Step 4: Adapting CREATE VIEW statement	134
10.5.	Step 5: Other changes	135
10.6.	Step 6: Execute Script	136
11.	Tips & Tricks	138
11.1.	Moving classes under another class	138
11.2.	Changing data type of a property	143
11.3.	Checking and Editing Class Attributes	149
12.	Calculating Properties	152
13.	Using Data Manager	159
14.	Using PLANTXDBMANAGER	163
15.	Index	164

15. Index

- 3D Tables, 40, 44
 - Object Tables, 40
 - Relationship Tables, 40, 44
- 3D Views, 40, 47
- Actuator, 55, 56
 - AnnotationStyleName, 173
 - AttributeName, 173
 - AnnotationStyleName, 173
 - BitwiseFlagValue, 173
 - DisplayName, 173
 - TagFormatName, 173
 - Auto-generated Tag, 163
 - BitwiseFlagValue, 173, 175, 177
 - DIN, 175
 - HasFlowDirection, 175, 177
 - ISA, 175
 - ISO, 175
 - JIS, 175
 - PIP, 175
 - Changing Data Type, 164
 - Checking Class Attributes, 173
 - Classes, 55, 56, 74, 86, 88, 90, 93, 96, 99, 104, 106, 108, 112, 115, 117, 118, 120, 125, 131, 133, 137, 158, 161, 164
 - Actuator, 55, 56
 - Connectors, 74
 - ControlValve, 55, 56, 131
 - EngineeringItems, 56, 118
 - Equipment, 164
 - Gear, 86
 - GeneralInstrumentSymbols, 115, 117, 118, 120, 125, 131
 - HandValves, 158, 161
 - InlineAssets, 115, 117, 120, 131, 133, 137
 - Instrumentation, 99, 106, 112, 133
 - Leader, 117
 - LineEndAsset, 104, 108, 117
 - LineNozzle, 115
 - LineStartAsset, 90, 104, 108
 - MechanicalDrivers, 96
 - MixingEquipment, 93
 - Motor, 86
 - Moving, 158
 - NonEngineeringItems, 56
 - Nozzles (Equipment), 115, 117, 120
 - PipeLines, 86, 88, 115, 117, 120
 - PipingFittings, 158, 161
 - SightGlass, 158, 161
 - SignalLines, 86, 88, 117
 - Stirrer, 86
 - Connect Symbols, 88
 - ConnectorRelationship, 76
 - Connectors, 74
 - ControlValve, 55, 56, 131
 - Creating Property, 66, 75, 115
 - Creating Views, 54, 55, 56, 74, 76, 86, 90, 99, 100, 115, 117, 131, 133
 - Between Equipment, 86
 - Between Instrumentation, 99
 - Intro, 54
 - Link Actuator and ControlValve, 55
 - Link Off-Page Connectors, 74
 - Link OPCs, 74
 - Loops for ControlValve, 131
 - Related Equipment, 86
 - Tag & Size for Instrument, 115
 - Data Manager, 187
 - Import View's data, 187
 - Data Types, 164, 168, 169, 170
 - Boolean, 168
 - Numeric, 168
 - Picklist, 168
 - PnPBooleanType, 168
 - PnPNumberUnitType, 168
 - PnPPickListType, 168, 170
 - PnPStringType, 168, 170
 - Selection List, 169
 - String, 168
 - String Type, 164
 - Symbol List, 168
 - Database, 8, 12
 - DCFX, 12
 - Files, 8
 - Iso.dcf, 8
 - Misc.dcf, 8
 - Names, 8
 - Ortho.dcf, 8
 - Piping.dcf, 8
 - ProcessPower.dcf, 8
 - Structure Files, 12
 - Types, 8
 - DisplayName, 173
 - EngineeringItems, 56, 118
 - Equipment, 164
 - Gear, 86
 - GeneralInstrumentSymbols, 115, 117, 118, 120, 125, 131
 - GraohicalStyleName, 177
 - HandValves, 158, 161

InlineAsset, 115
InlineAssets, 117, 120, 131, 137
Instrumentation, 99, 106, 112
Iso Tables, 48
 System Tables, 48
Iso Views, 48
Leader, 117
LineEndAsset, 104, 108, 117
LineNozzle, 115
LineStartAsset, 90, 104, 108
LoopNumber, 99, 106, 108
MechanicalDrivers, 96
Microsoft® SQL Server®, 54, 150, 154, 156
MixingEquipment, 93
Motor, 86
Moving classes, 158
NonEngineeringItems, 56
Nozzles (Equipment), 115, 117, 120
Object Tables, 25, 40, 41, 42, 43
 ColorSettings, 40
 EngineeringItems, 25, 41
 Equipment, 25
 GeneralPump, 25
 LayerColorGlobalSettings, 41
 LayerColorSchemeAssignment, 41
 Lines, 25
 P3dConnector, 42
 PipeLineGroup, 25
 PipeLineSegment, 25
 Port, 42
 Pumps, 25
 SteelStructure, 43
 StructureAnchor, 43
 StructureGrating, 43
 StructureLadder, 43
 StructureMember, 43
 StructurePlate, 43
 StructureRailing, 43
 StructureStair, 43
Ortho Tables, 49, 50
 Relationship Tables, 50
 System Tables, 49
Ortho Views, 49, 53
P&ID Tables, 31
 Object Tables, 31
 Relationship Tables, 31
P&ID Views, 31, 39
PICKLISTTYPE, 167, 170
 AttributeValue, 170
 Regular, 167, 170
 SymbolSelect, 167
PipeLines, 86, 88, 115, 117, 120
PipingFittings, 158, 161
PLANDXDBMANAGER, 192
PLANTDEFINECALCPROPERTIES, 179, 192
 (), 179
 *, 179
 /, 179
 ||, 179
 +, 179
 Calculate Property, 179
 Create second Tag, 179
 Pipe Sign (||), 179
PlantLink, 66, 68, 69, 70, 72, 73, 80, 85, 92, 95, 96, 98, 99, 102, 106, 112, 114, 125, 128, 137, 139, 148, 149
ACPlantTools, 148
Active, 149
Allow update loops, 92
Clear Value, 95
Copy, 148
Data Source, 149
Depending Instrumentation, 106
Independent Instrumentation, 102, 106
Link Configurations, 66, 80, 148
Linked fields/columns, 70
Loop Counter, 99
Loop update, 98
Loops, 92, 98
Mapped Columns/Properties, 72
Maximum number of loops, 92
New, 66
OLE DB Provider, 66
OnDrawingSave, 72
ProcessPower.dcf, 68, 80
Project Path, 68
Settings, 92
Sync Mode, 72
Testing, 73, 85, 98, 114, 128, 139, 149
UDL File, 66
Update AutoCAD Properties, 69
Update Properties, 69
Views, 70
Wizard, 66
PlantSpecDriven, 148
PnPColumnAttributes, 166, 167, 168, 170, 186
 DESCRIPTION, 166
 DISPLAYNAME, 166
 ISHIDDEN, 166
 ISNEWCREATION, 166
 ISREADONLY, 167
 ISREMOVABLE, 167

PICKLISTNAME, 167
PICKLISTTYPE, 167, 170
TYPE, 168
VALUE, 168
PnPID, 54
PnPProperties, 170, 171, 185
 Expression, 185
 IsExpression, 185
 PropertyTypes, 171
 System.Boolean, 171
 System.Double, 171
 System.GUID, 171
 System.Int16, 171
 System.Int32, 171
 System.Int64, 171
 System.String, 171
PnPTableAttributes, 173, 186
 AttributeName, 173
Properties, 99, 106, 108, 120, 131, 134, 160, 164
 BaseTable, 160
 Changing Data Tyoe, 164
 LoopNumber, 99, 106, 108
 Size, 120
 Tag, 120
 Type, 131, 134
PropertyTypes, 171
 System.Boolean, 171
 System.Double, 171
 System.GUID, 171
 System.Int16, 171
 System.Int32, 171
 System.Int64, 171
 System.String, 171
Relationship Tables, 25, 28, 31, 32, 33, 34, 35, 36, 37, 39, 44, 46, 47, 51, 52, 56, 76
AnnotationRelationship, 31, 33
AssetNonEngineeringRelationship, 31, 34, 56
AssetOwnership, 28, 31, 34, 44
ConnectorRelationship, 32, 34, 76
LineEndAsset, 32, 35
LineEndLine, 32, 35
LineFlowArrow, 32, 35
LineInlineAsset, 32, 36
LineLineRelationship, 32, 36
LineNozzle, 32, 37
LineOffPageConnector, 33, 37
LineStartAsset, 32, 35
LineStartLine, 32, 35
P3dDrawingLineGroupRelationship, 44, 46
P3dLineGroupPartRelationship, 44, 46
P3dPartConnection, 44, 47
PartPort, 44, 47
PipeLineGroupRelationship, 25, 33, 37
PnPdwg2d_QueryTo3dDrawing, 51, 52
PnPdwg2d_SheetDefToViewDefs, 51, 52
PnPdwg2d_ViewDefToQuery, 51, 52
SegmentBreak, 33, 39
SignalLineGroupRelationShip, 33, 37
SignalLineNozzle, 32, 37
Selection List, 169
SightGlass, 158, 161
SignalLines, 86, 88, 117
Size, 120
SQL Builder, 60, 77
 Build and Execute, 77
SQL Scripts, 78, 140, 143, 145, 147, 149, 150
 Adapt, 143
 Change order, 143
 Create, 140
 Create View from Script, 78
 Execute, 147
 Export, 140
 Import, 147
 Modify, 143
 Order, 145
 Sample Drawings, 147
 Testing, 149
SQL Statements, 54, 63, 100, 106, 110, 115, 122, 133, 135, 143, 152, 154
 ||, 122, 154
 +, 154
 Aggregated Functions, 133, 135
 Alias, 63
 Comments /* */, 106
 CONCAT, 122
 CREATE VIEW, 143, 152
 DROP VIEW, 143, 152
 EXCEPT, 100, 106, 110, 115
 Expression, 122
 GO, 152
 GROUP_CONCAT, 133, 135, 154
 Pipe Sign (||), 122, 154
 SELECT, 143
 SQL Dialects, 133
 UNION, 100, 110, 115
SQLite Editor, 13, 14
 SQLite Administrator, 13
 SQLite Expert, 14
SQLite Expert, 28, 56, 140
 Data Transfer Wizard, 140
 Import/Export, 140

SQL Builder, 28
SQLite vs SQL Server, 150, 151, 152, 154, 156
Adapting CREATE VIEW, 152
Adapting DROP, 152
Execute Script, 156
Find & Replace, 151
Other Changes, 154
Remove Code, 150
Stirrer, 86
System Tables, 16, 17, 18, 19, 20, 21, 22, 23, 48, 49, 50, 159, 164, 173, 185, 186
PnP2DwgOrtho, 49
PnPAutoGenProperties, 16
PnPBase, 16
PnPColumnAttributes, 16, 164, 186
PnPDatabase, 17
PnPDataLinks, 17
PnPDrawingCategories, 18
PnPDrawingCustomProperties, 48
PnPDrawings, 17
PnPDwg2d_Moniker, 49
PnPDwg2d_QueryByBox, 50
PnPDwg2d_ViewDef, 50
PnPIndexColumns, 18
PnPIndexes, 18
PnPPicklists, 18
PnPPicklistValues, 19
PnPProject, 19
PnPProjectCategories, 19
PnPProjectVariables, 20
PnPProperties, 20, 185
PnPRelationshipProperties, 21
PnPRelationshipTypes, 21
PnPTableAttributes, 21, 173, 186
PnPTables, 22, 159
PnPTagEnlistedColumns, 22
PnPTagRegistries, 23
PnPTagRegistry, 23
PnP Tombstone, 23
PnPWorkHistory, 23
System.Boolean, 171
System.Double, 171
System.GUID, 171
System.Int16, 171
System.Int32, 171
System.Int64, 171
System.String, 171
Tables, 15, 16, 25, 28, 31, 40, 44, 48, 49, 50
3D Tables, 40
Common, 15, 16
Iso Tables, 48
Object Tables, 16, 25, 31, 40
Ortho Tables, 49
P&ID Tables, 31
Relationship Tables, 16, 28, 31, 44, 50
System Tables, 16, 48, 49
Tag, 120
TagFormatName, 173
Tagging prompt, 163
Tips & Tricks, 158, 164, 173
Changing Data Type, 164
Checking Class Attributes, 173
Moving classes, 158
Type, 131, 134
Views, 15, 28, 31, 39, 40, 47, 48, 49, 53
3D Views, 40, 47
Common, 15, 28
Iso Views, 48
Naming, 28
Ortho Views, 49, 53
P&ID Views, 31, 39



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