



Engineering Base 2025
CFIHOS Conformance 02/2025

Agenda

A1 - Store CFIHOS Standard

3 - 12

A2 – Define Project Standard from CFIHOS TemplateC

13 - 20

B1 – Implement Project Standard in Creation Tools

21 - 24

B3 – Implement Project Standard in Validation Tools

25

C2 – Support Information Collection and Aggregation

26 - 28

D1 – Create Information

29 - 32

F1 – Deliver to Business Systems

33 - 35

F2 – Track and Update

36

Engineering Bases project structure

(based on IEC 81346)

FEED

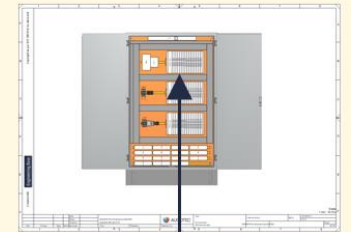
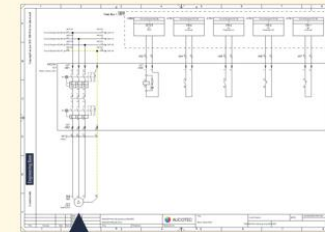
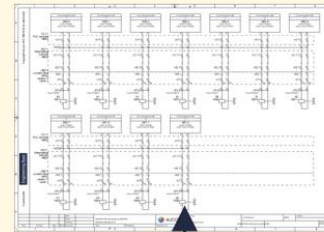
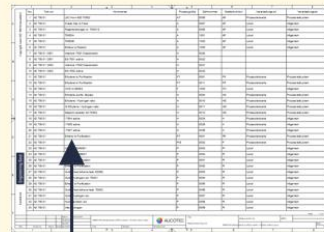
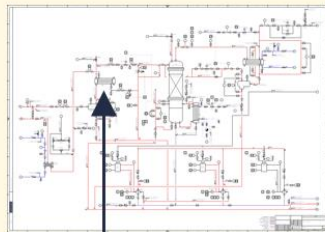
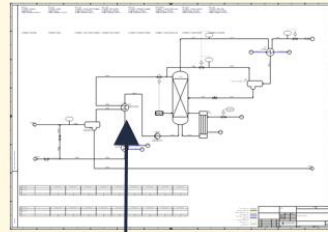
Process

Instrumentation & Control

Electrical

Automation

Documents



Engineering Base

- Processes
 - Design Case
 - Scenario 70% Purification
 - Start up
 - Operation
 - EOR
 - ESD
 - Scenario 90% Purification
 - Start up
 - Operation
 - EOR
 - ESD
 - Evaluation Case 1
 - Evaluation Case 2

- Systems
 - 42
 - 100
 - 01
 - E02
 - T01
 - Measurement Tag
 - Alarm
 - Actuator Tag
 - PCE Loop
 - PCE Control Function

Function structure
(TAG)

- Equipment
 - Tank
 - Nozzle 1
 - Nozzle 2
 - Sensor
 - Valve
 - Pump
 - Motor
 - Junction Box
 - Control Cabinet
 - Terminal 1
 - Terminal 2
 - Wire 1
 - Wire 2

Product structure
(Equipment)

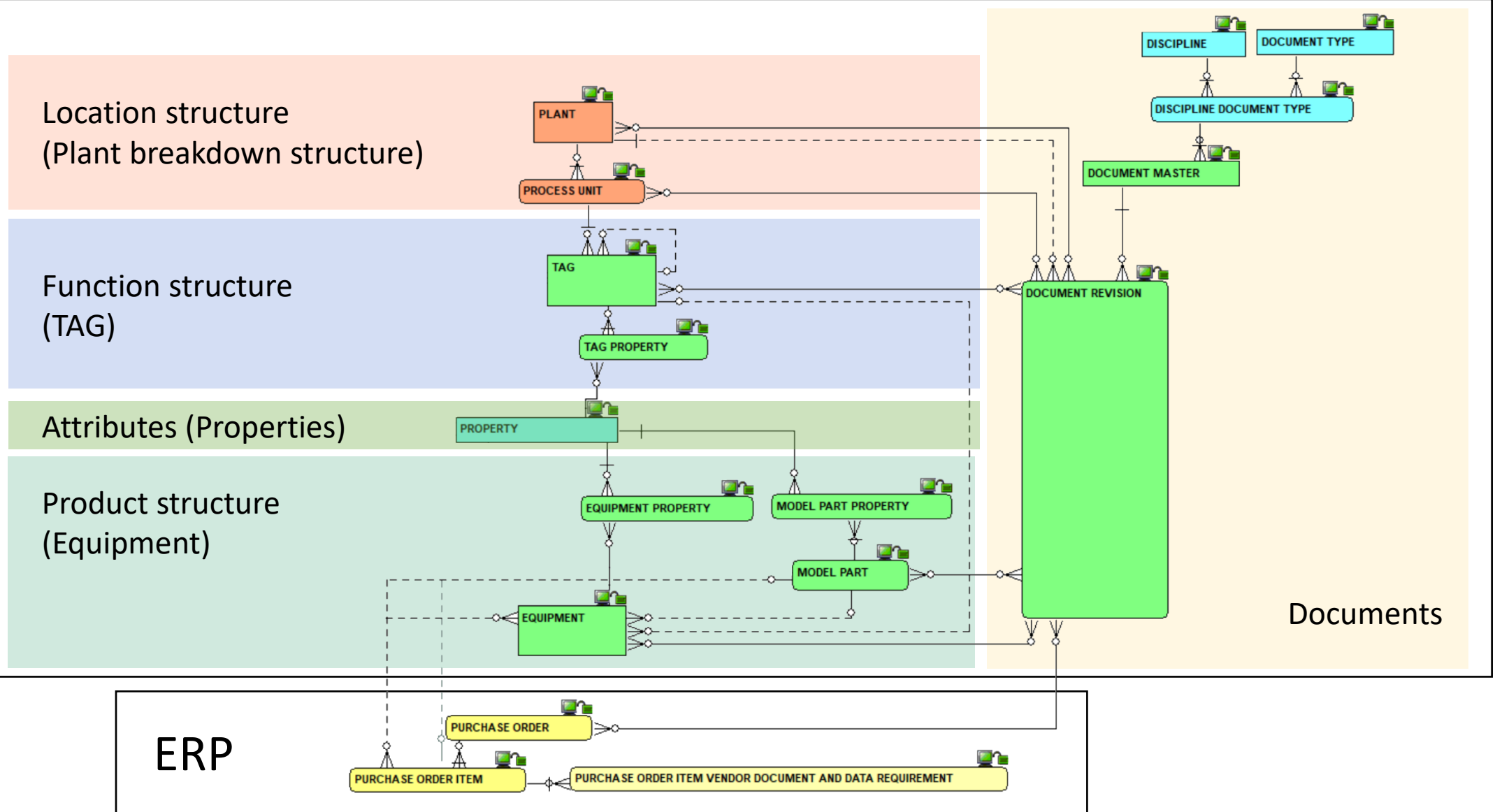
- Areas
 - 454
 - HP 01
 - Civil Engineering Unit 001
 - Polymerization Area EL +100.000
 - Polymerization Area EL +106.500
 - Polymerization Area EL +110.750

Location structure
(Plant breakdown structure)

Data model of CFIHOS and Engineering Base



Engineering Base



Taxonomy

Engineering Base comes with pre-defined classes and types out of the following the standards:

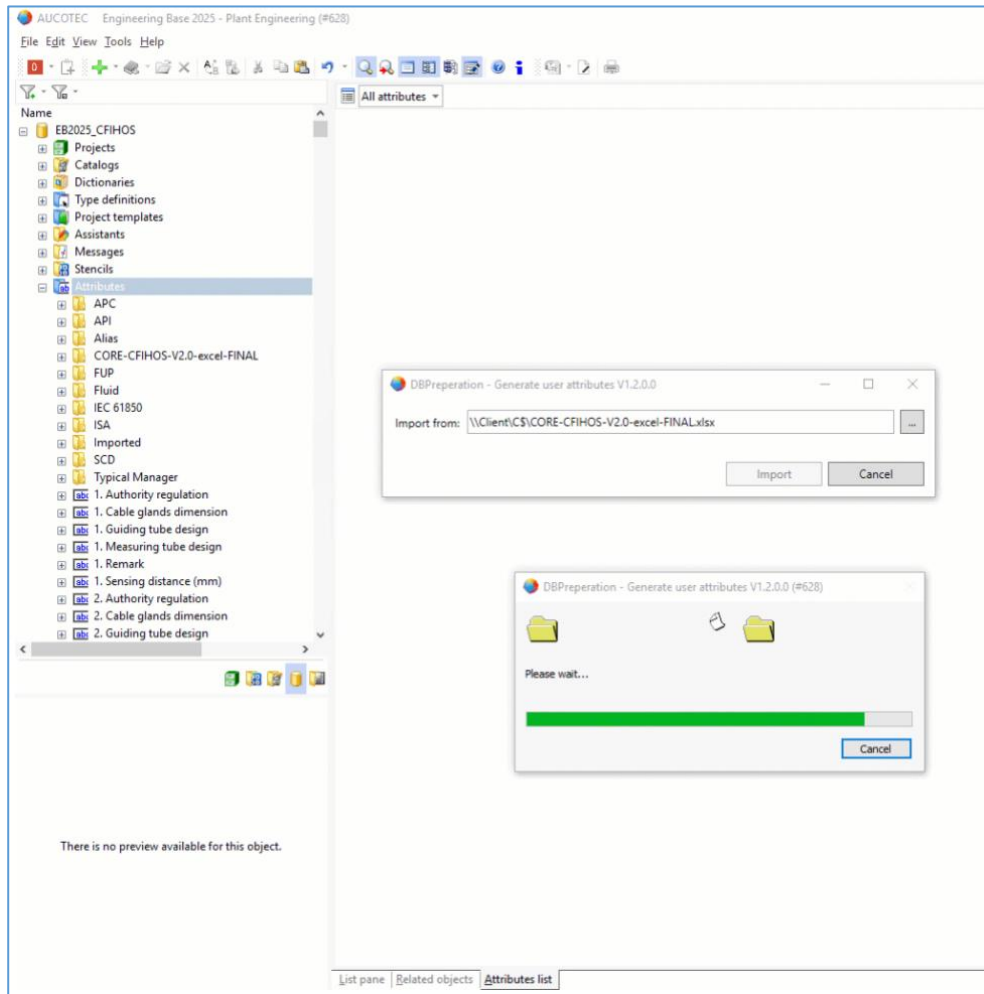
IEC 81346, ISO 10628, IEC 61360, IEC 62424, IEC 61131-3, IEC 62682, IEC 61850 among others...

Engineering Base gives the possibility to specified additional subtypes in so called Object template libraries (s. slide 6).

E.g. The class Pump has seven specified subtypes in CFIHOS.

Engineering Bases data model is constantly growing while we cover more plant aspects and engineering domains.

Video: RDL import assistant



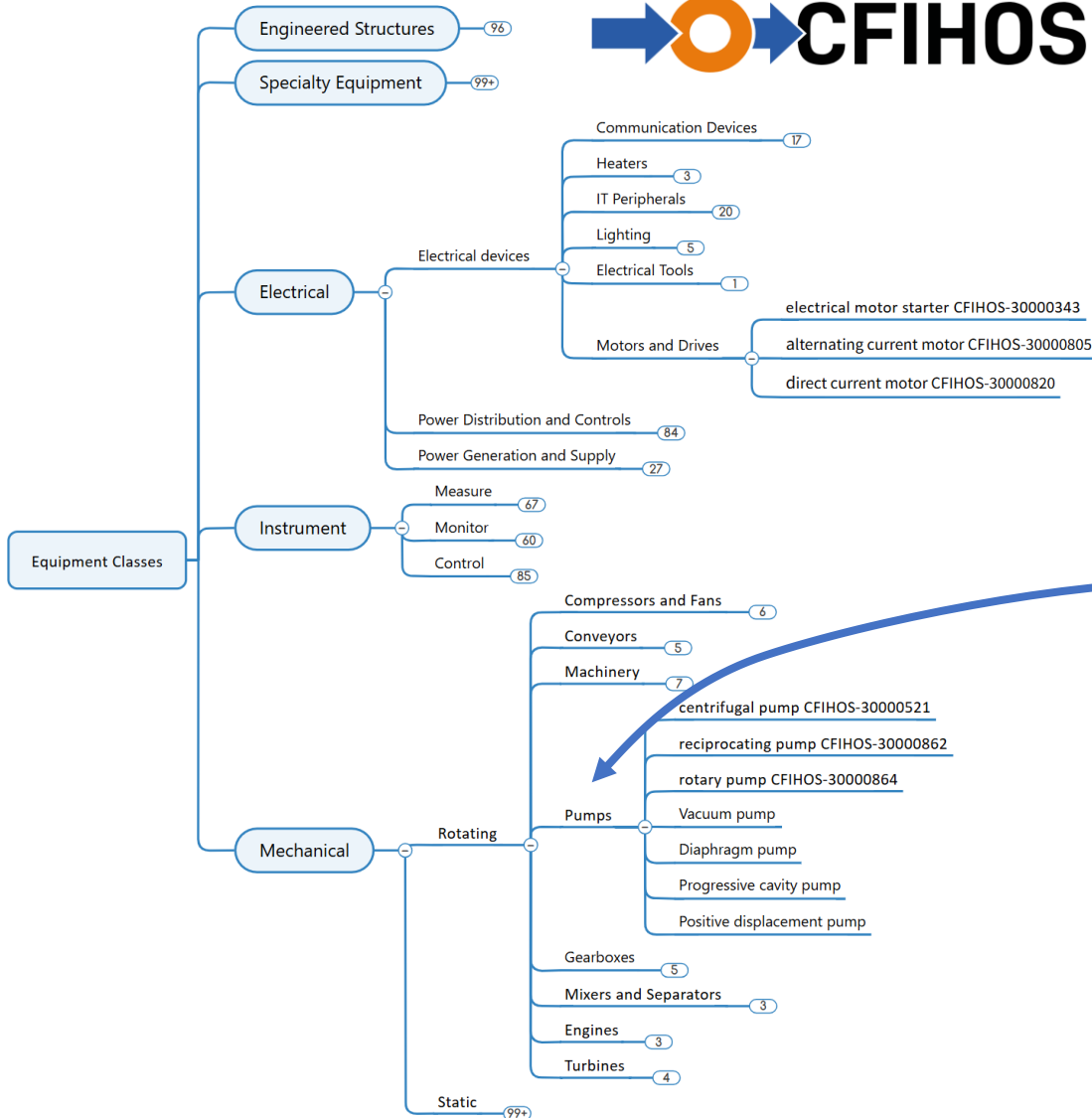
Engineering Base has an open and powerful .NET API, that allows the development of helpful tools like this...

[Video: CFIHOS RDL import assistant](#)

Basic classes



Engineering Base



- Device types
 - Automation Systems and Control
 - Civil structures
 - Electrical Equipment
 - Equipment module
 - Harness Equipment
 - Instrumentation
 - Miscellaneous
 - PTD Equipment
 - Piping
 - Process Equipment
 - Agitators, mixers, kneaders (Process / Fluid)
 - Centrifuges (Process / Fluid)
 - Chemical reactors (Process / Fluid)
 - Columns (Process / Fluid)
 - Compressors, vacuum pumps, blowers, fans (Process / Fluid)
 - Crushing machines, grinding machines (Process / Fluid)
 - Cylinder (Process / Fluid)
 - Driers (Process / Fluid)
 - Feeding, distribution facilities, special equipment (Process / Fluid)
 - Filters, screening machines, separators (Process / Fluid)
 - Gears (Process / Fluid)
 - Heat exchangers (Process / Fluid)
 - Lifting, conveying, transport (Process / Fluid)
 - Machine, Aggregate (Process / Fluid)
 - Pump (Process / Fluid)**
 - Steam generators, gas generators, furnaces (Process / Fluid)
 - Vessels, tanks, bins, silos (Process / Fluid)
 - Unspecified SCL Object
 - Unspecified device
- Document Types
- Drawing Types
- Flow Stream Types
- Flow stream state types
- Function Types
- Geometry Specification Types
- Local process types
- Location Types

Properties

Engineering Base support all CFIHOS property types

Engineering Base can flexibly define and manage units of measurement and different systems for its properties.

Engineering Base can handle the CFIHOS unique code so attributes can be identified independently of the name

Engineering Base can define the CFIHOS defined data type length

Engineering Base has the capability to use of dictionary texts in name and comment

New Attribute

Designation

Comment

Attribute type

☒ Text ☐ Boolean ☐ Number

☐ Date ☐ Time ☐ Date and Time

☐ Float Digits 2

☐ Formula

Unit group

Advanced Attribute Settings

Assistant

Data Service

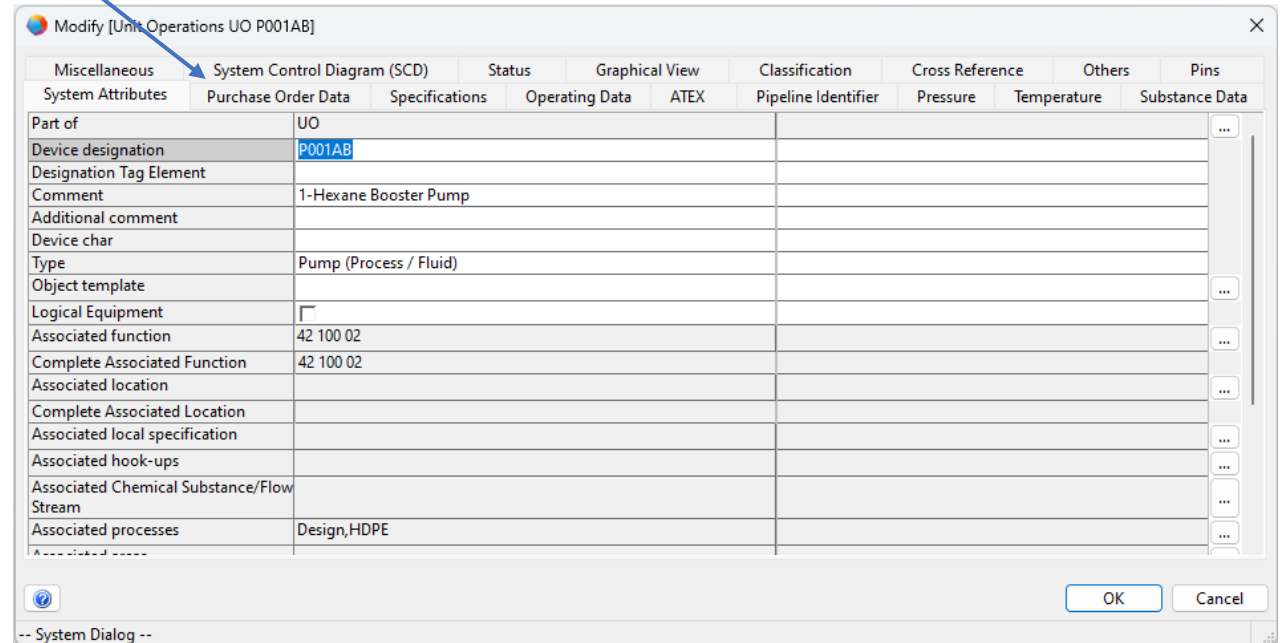
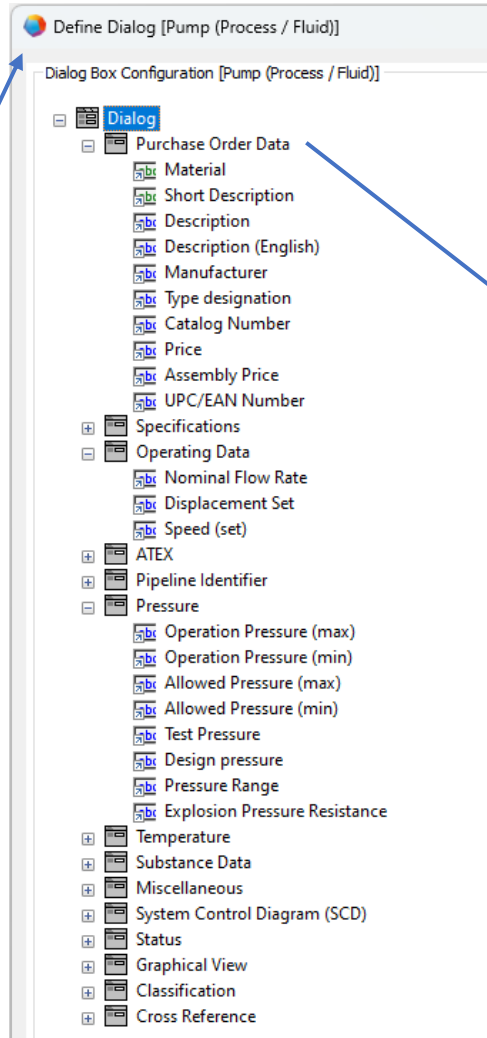
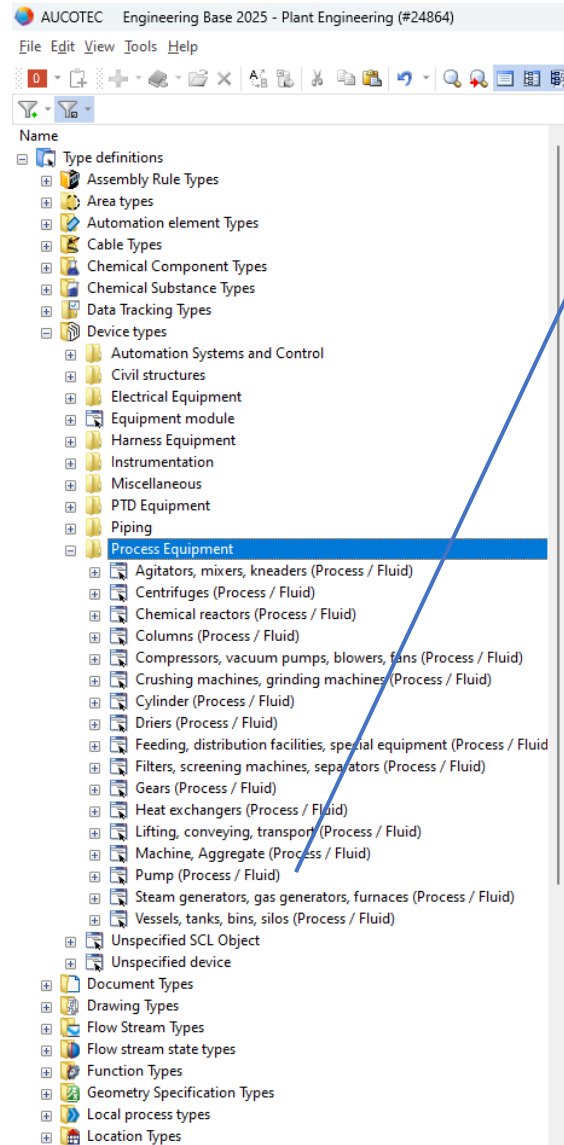
Length 0 Length of 0 means no limitation!

☒ Favorite Attribute ☒ Inherits value as default

OK Cancel

Object Type definition

- All object types in Engineering Base can be customized
- Properties can be added and grouped
- This settings are database wide



Subtypes based on basic classes

The screenshot displays the CFIHOS Object template library. On the left, a tree view shows the hierarchy: Catalogs > CFIHOS Object template library > Materials > Pumps > Centrifugal pump. The 'Centrifugal pump' is selected. On the right, the properties table for the selected object is shown. A red box highlights the 'Type' and 'Object template' rows, which are 'Pump (Process / Fluid)' and 'Centrifugal pump' respectively. Below this, the 'Specifications' section is visible, listing various properties like 'Volume per Revolution', 'Displacement Range', 'Speed (Range)', 'Diameter (Inlet)', 'Diameter (Outlet)', 'Empty Weight', and 'Total Weight'.

System Attributes	
Part of	
Device designation	
Comment	Centrifugal pump
Additional comment	
Type	Pump (Process / Fluid)
Object template	Centrifugal pump
Associated function	
Complete Associated Function	
Associated Chemical Substance/Flow Stream	
Lock Structure	<input type="checkbox"/>
Separate potential	<input checked="" type="checkbox"/>
Piping state	Pipe destination
Separate Flow Stream	<input checked="" type="checkbox"/>
Protected	<input type="checkbox"/>
Frozen by P&ID	<input type="checkbox"/>
Purchase Order Data	
Specifications	
Specification	
Class	
Standard	
Publicly Available Specification(PAS)	
Pump Type	
Type of Actuation	
Type of Connection	
Type of Construction	
Insulation Type	
Material Group	
Material number	
Material Standard	
Diameter (Inlet)	
Diameter (Outlet)	
Volume per Revolution	... m ³
Displacement Range	... m ³
Speed (Range)	... m/s
Laying	
Wall Thickness	
Empty Weight	... kg
Total Weight	... kg

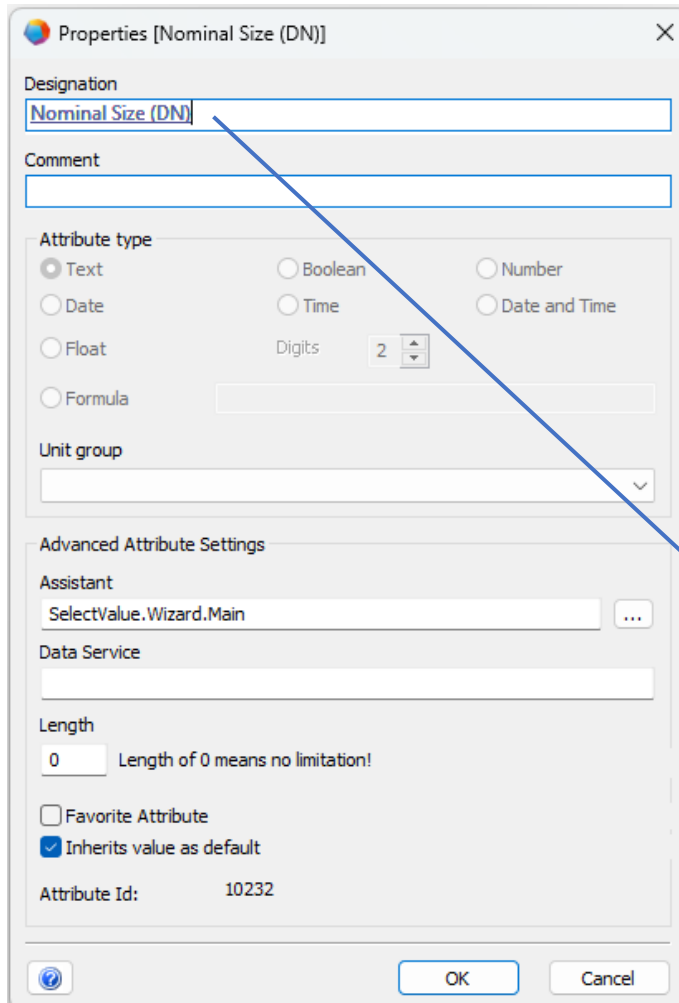
Subtypes (Object templates) can be defined the same way as the type definition and organized in libraries. This libraries are assigned to a all projects that work after this specific standard.

Subtypes...

- have a designated set of properties
- can include default values
- may contain other subelements like nozzles
- can have specific document templates

Picklists

1. Define picklists for each property in combination with the object class and type
2. Define the offered values with explanatory comments
3. Define what values and additional properties will be written



Properties [Nominal Size (DN)]

Designation
Nominal Size (DN)

Comment

Attribute type

☒ Text ☐ Boolean ☐ Number

☐ Date ☐ Time ☐ Date and Time

☐ Float Digits 2

☐ Formula

Unit group

Advanced Attribute Settings

Assistant
SelectValue.Wizard.Main

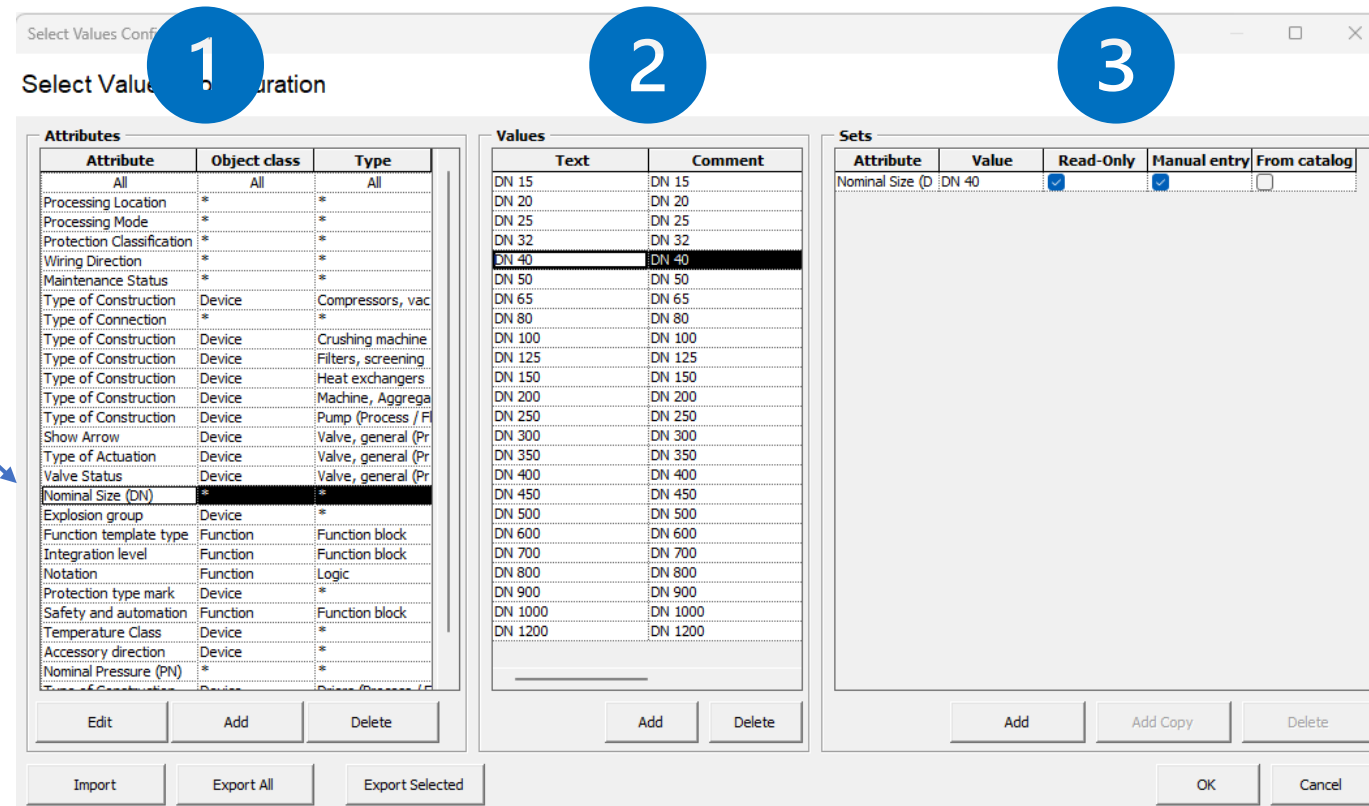
Data Service

Length
0 Length of 0 means no limitation!

☐ Favorite Attribute
☒ Inherits value as default

Attribute Id: 10232

OK Cancel



Select Values Configuration

1 2 3

Attributes

Attribute	Object class	Type
All	All	All
Processing Location	*	*
Processing Mode	*	*
Protection Classification	*	*
Wiring Direction	*	*
Maintenance Status	*	*
Type of Connection	Device	Compressors, vac
Type of Construction	Device	Crushing machine
Type of Construction	Device	Filters, screening
Type of Construction	Device	Heat exchangers
Type of Construction	Device	Machine, Aggrega
Type of Construction	Device	Pump (Process / F
Show Arrow	Device	Valve, general (Pr
Type of Actuation	Device	Valve, general (Pr
Valve Status	Device	Valve, general (Pr
Nominal Size (DN)	*	*
Explosion group	Device	*
Function template type	Function	Function block
Integration level	Function	Function block
Notation	Function	Logic
Protection type mark	Device	*
Safety and automation	Function	Function block
Temperature Class	Device	*
Accessory direction	Device	*
Nominal Pressure (PN)	*	*

Values

Text	Comment
DN 15	DN 15
DN 20	DN 20
DN 25	DN 25
DN 32	DN 32
DN 40	DN 40
DN 50	DN 50
DN 65	DN 65
DN 80	DN 80
DN 100	DN 100
DN 125	DN 125
DN 150	DN 150
DN 200	DN 200
DN 250	DN 250
DN 300	DN 300
DN 350	DN 350
DN 400	DN 400
DN 450	DN 450
DN 500	DN 500
DN 600	DN 600
DN 700	DN 700
DN 800	DN 800
DN 900	DN 900
DN 1000	DN 1000
DN 1200	DN 1200

Sets

Attribute	Value	Read-Only	Manual entry	From catalog
Nominal Size (DN)	DN 40	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Edit Add Delete

Import Export All Export Selected

Add Add Copy Delete

OK Cancel

Units of measurement

Set the unit group on the property

Define unit systems and configure the individual units

Properties [Operating Pressure]

Designation
Operating Pressure

Comment

Attribute type
☒ Text ☐ Boolean ☐ Number
☐ Date ☐ Time ☐ Date and Time
☐ Float Digits 2
☐ Formula
☐ Formula

Unit group
Pressure

Advanced Attribute Settings

Assistant

Data Service

Length
0 Length of 0 means no limitation!

☐ Favorite Attribute
☒ Inherits value as default

Attribute Id: 10233

OK Cancel

Unit View Definition (2.1.0.0)

Unit View Definition

Current configuration APC_Unit_System

Unit group System definition Alias definition

Unit group	Name	Default unit	Display unit	Decimal places	Suppress trailing zeros
Imperial	Mass Transfer Coefficient	lbmol/(ft ² ·hr)	lbmol/(ft ² ·hr)		
MET	Measurement Range				
APC	Molality	lbmol/lb	lbmol/lb	0	
MYS	Mole Concentration	lbmol/ft ³	lbmol/ft ³	2	
SI	Mole Density	lbmol/ft ³	lbmol/ft ³	2	
	Mole Enthalpy	Btu(th)/lbmol	Btu(th)/lbmol		
	Mole Entropy	J/(kmol·K)	J/(kmol·K)	2	
	Mole Flow	lbmol/hr	lbmol/hr		
	Mole Flux	lbmol/(ft ² ·hr)	lbmol/(ft ² ·hr)		
	Mole Price	USD/lbmol	USD/lbmol		
	Mole Weight	kg/mol	kg/mol	2	
	Moles	lbmol	lbmol	2	
	Moment of Inertia	lb·ft ²	lb·ft ²		
	Particle Concentration	lb/lbmol	lb/lbmol		
	Particle Flow	particles/hr	particles/hr	0	
	Parts	%	%	2	
	Power	kW	kW	2	
	Pressure	psi	psi		
	Pressure Sensitivity	1/psi	1/psi	2	
	Reaction Rate	lbmol/(hr·lb)	lbmol/(hr·lb)		
	Reactive Power	var	var	2	
	Rotational speed	rpm	rpm	2	
	Sound	dBA	dBA	2	
	Space Time Yield	lb/(lb cat·s)	lb/(lb cat·s)		
	Space Velocity	Sft ³ /(ft ³ ·hr)	Sft ³ /(ft ³ ·hr)	0	
	Specific Capacitance (L...	F/m	F/m	2	
	Specific Conductivity	S/cm	S/cm	2	

Name	Show Unit	Decimal...	Suppress...	Alias name (for use in a pro...
(0°C) cmHg	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
(0°C) cmHg (G)	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	(0°C) cmHg (G)
(0°C) mmHg	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
(0°C) mmHg (G)	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	(0°C) mmHg (G)
(32°F) inHg	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
(4°C) cmH2O	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
(4°C) cmH2O (G)	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	(4°C) cmH2O (G)
(4°C) inchH2O	<input checked="" type="checkbox"/>	0	<input type="checkbox"/>	
(4°C) mmH2O	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
(4°C) mmH2O (G)	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	(4°C) mmH2O (G)
(60°F) inchH2O	<input checked="" type="checkbox"/>	0	<input type="checkbox"/>	
(60°F) inHg	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
atm	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
atm (G)	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	atm (G)
bar	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
bar (G)	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	bar (G)
dyn/cm ²	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
gf/cm ²	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
hPa	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
hPa (G)	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	hPa (G)
kg/(m·hr ²)	<input checked="" type="checkbox"/>	0	<input type="checkbox"/>	
kg/(m·s ²)	<input checked="" type="checkbox"/>	0	<input type="checkbox"/>	
kgf/cm ²	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
kgf/cm ² (G)	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	kgf/cm ² (G)
kgf/m ²	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
kgf/mm ²	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
kJ/m ³	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	
Gauge suffix (G)	<input type="checkbox"/>		<input type="checkbox"/>	

Open configuration Save configuration

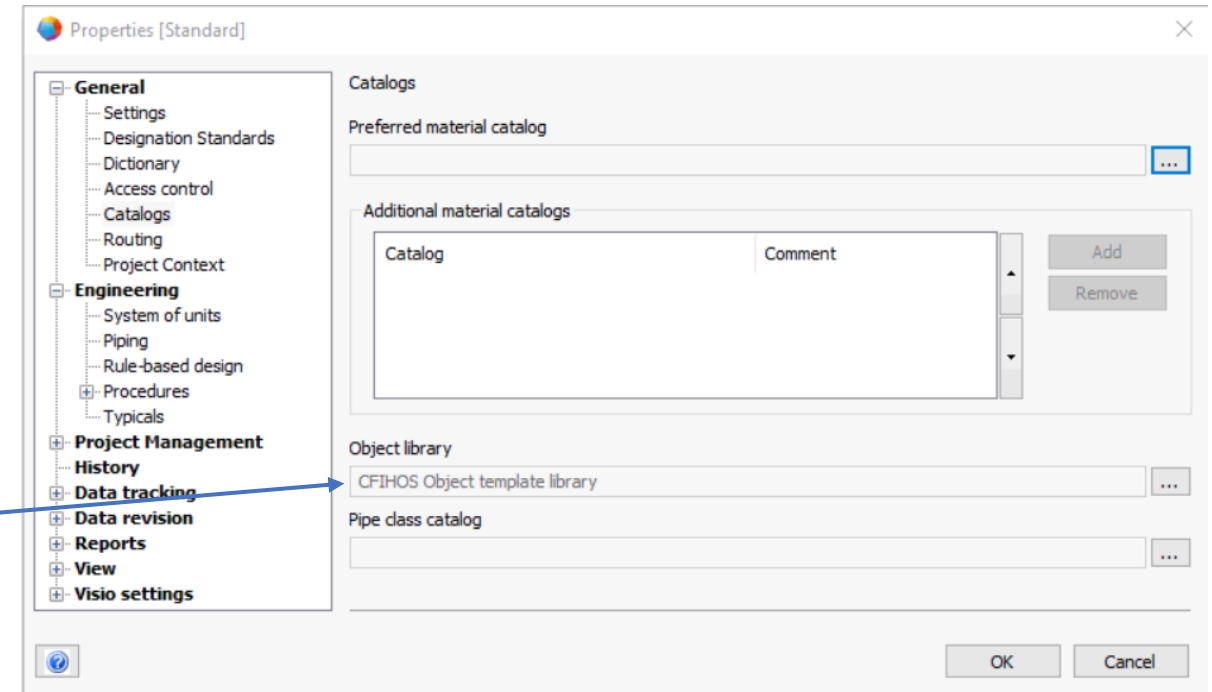
OK Apply Cancel

Project context

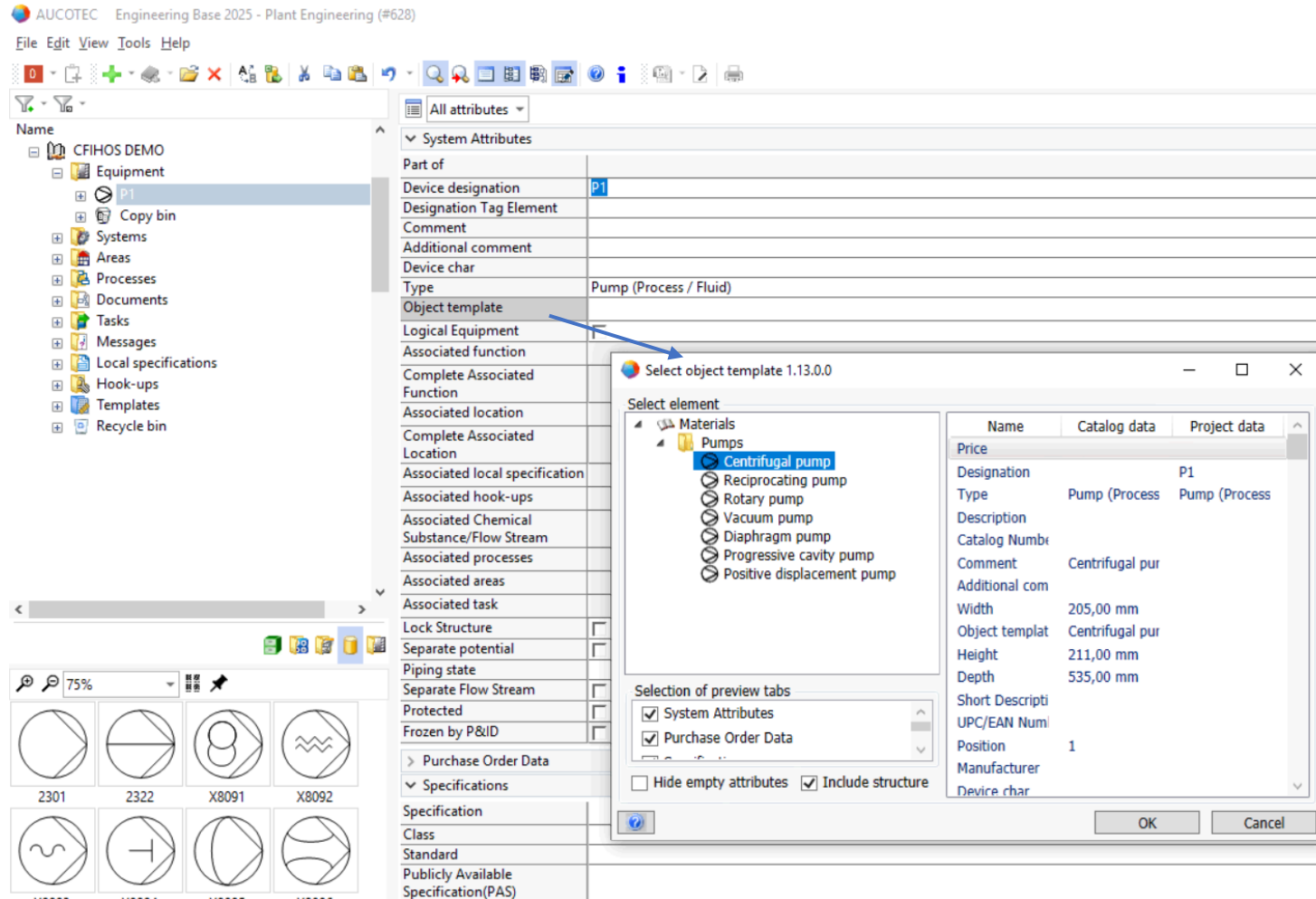
Each project can be customized to the specific context and project needs. This can be done in the project properties.

Project can have individual...

- Tagging / Designation standards
- Dictionaries
- Access permissions
- Object templates /Subtypes
- Vendor catalogs (Hardware)
- Units of measurement systems and display options
- Symbols sets
- Document templates

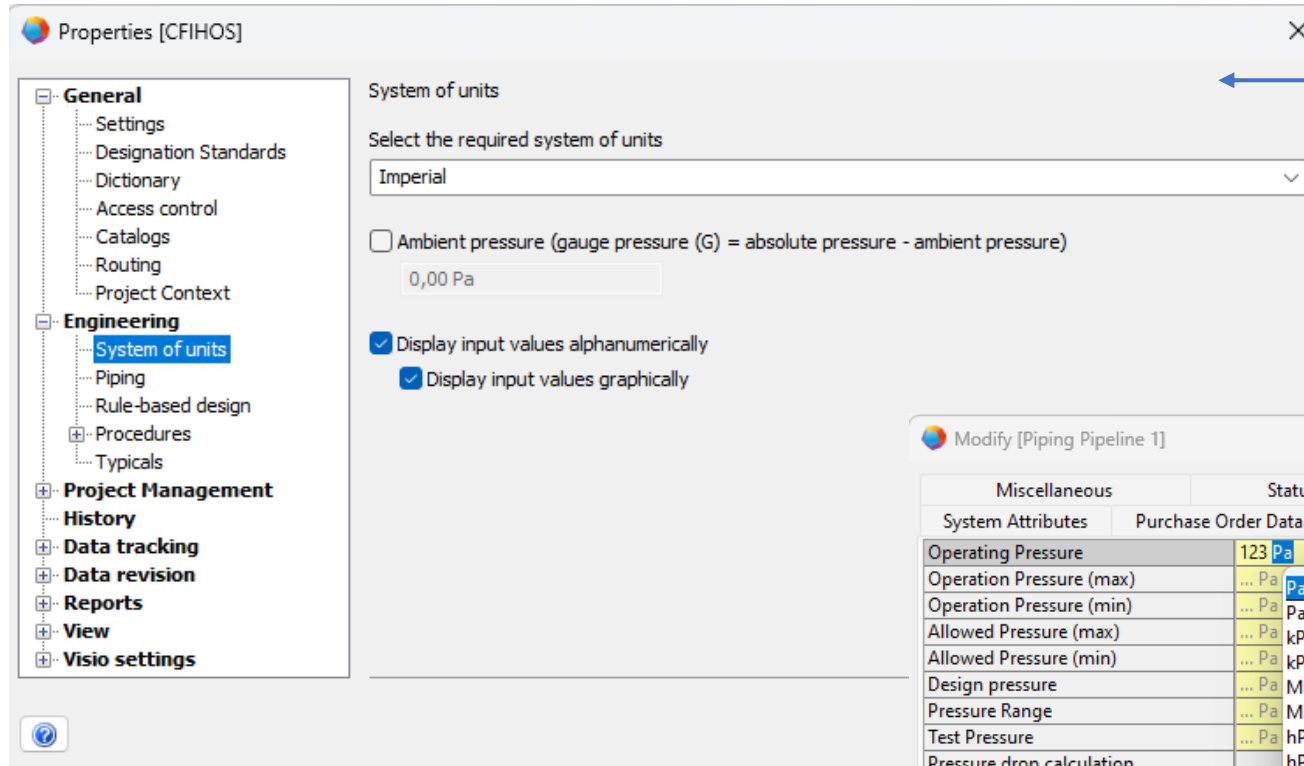


Subtypes/ Object templates

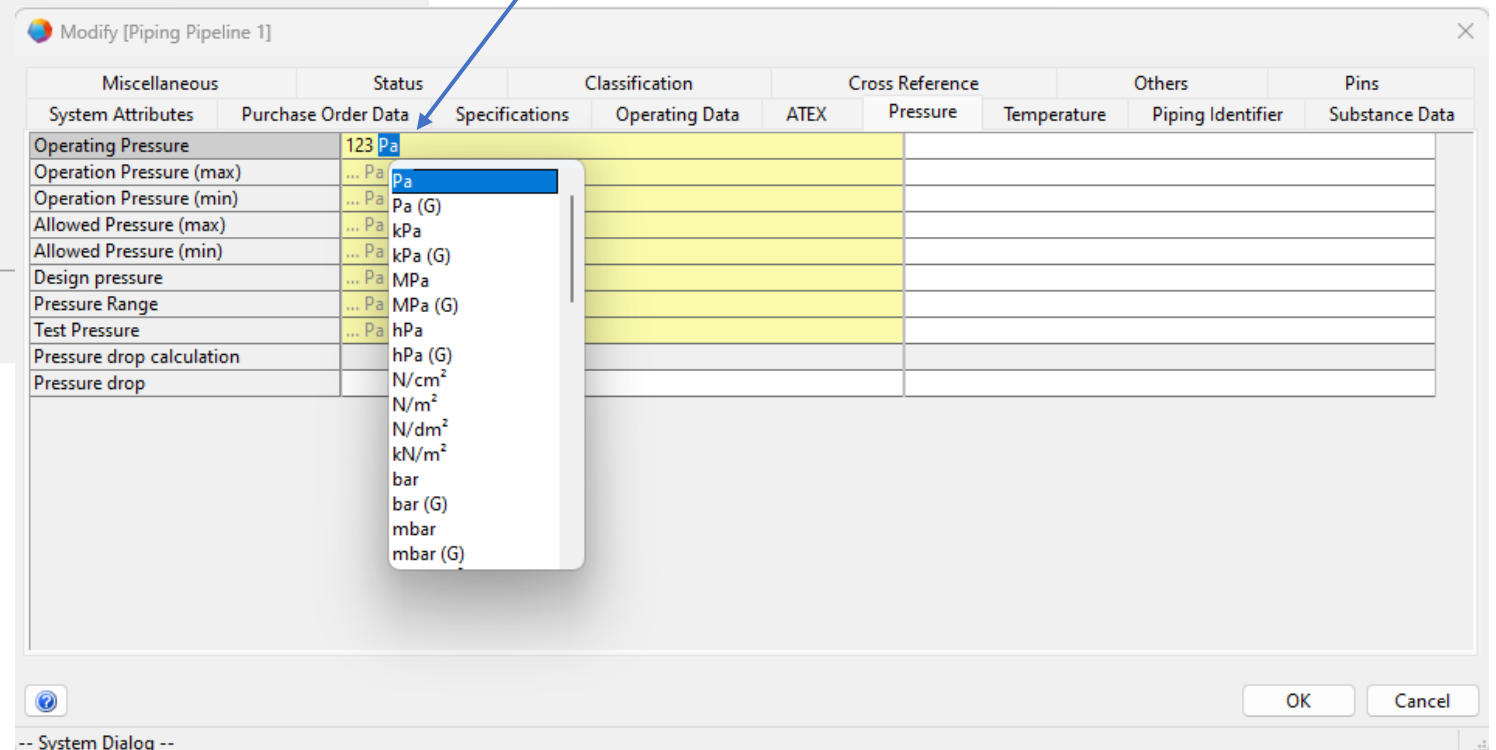


The on project level defined object template library can be used inside of the project to select the fitting subtypes.

Units of measurement



The on project level defined unit system can be used inside the project on an object property. Conversion of values on unit change is supported.



Picklists

On project level defined picklist can be used inside the project on the specified object property.

The screenshot displays the 'Modify [Piping Pipeline 1]' dialog box, which is used for configuring piping pipeline properties. The dialog is divided into several tabs: Miscellaneous, Status, Classification, Cross Reference, Others, and Pins. The 'Miscellaneous' tab is active, showing a list of properties including Specification, Publicly Available Specification(PAS), Class, Standard, Basic Material, Material Group, Material number, Material Standard, Nominal Pressure (PN), Nominal Size (DN), Pipe material, Roughness, Outside Diameter, Wall Thickness, Corrosion margin, Insulation Type, Insulation material, Insulation thickness, and Remarks.

A 'Select Value' dialog box is open, titled 'Select attribute value'. It prompts the user to 'Select a value, then click OK or double-click to select a value'. This dialog is used to select a value from a picklist for the 'Nominal Size (DN)' property.

The picklist for 'Nominal Size (DN)' is shown, listing various nominal sizes (DN) from 15 to 1200. The value 'DN 40' is selected, and a blue arrow points from this selection to the 'Nominal Size (DN)' field in the main dialog box, where the value 'DN 40' is displayed.

The main dialog box also shows other properties like 'Outside Diameter' (set to '... mm'), 'Wall Thickness' (set to '... mm'), 'Corrosion margin' (set to '... mm'), and 'Insulation thickness' (set to '0,00 mm'). The 'OK' and 'Cancel' buttons are visible at the bottom right.

Dictionaries

The on project level defined dictionaries and can be used inside the project on an object property show the configured languages.

Modify [Piping Pipeline 1]

Miscellaneous	Status	Classification	Cross Reference	Others	Pins			
System Attributes	Purchase Order Data	Specifications	Operating Data	ATEX	Pressure	Temperature	Piping Identifier	Substance Data
Part of								...
Designation	1							
Designation Tag Element								
Comment	4" -IN01 -700 50 01 -AKRS2 -N 0							
Additional comment	pip							
Device char								
Type	Pipe (Process / Fluid)							
Object template	Pipe Designation							...
Logical Equipment	Pipe Marker							
Associated function	Pipe tee							
Complete Associated Function	Pipe, air							
Associated location	Pipe, capillary							
Complete Associated Location	Pipe, chemicals							
Associated processes	Pipe, fixed							
Associated areas	Pipe, flamm							
Associated local specification	Pipe, flamm, waste							
Associated task	Pipe, general							
Pipe Destinations	Pipe, hydraulic							
	Pipe, non flammable gases							
	Pipe, oil-bearing steam (primary)							
	Pipe, oil-bearing steam (secondary)							
	Pipe, oil-bearing water							

-- System Dialog --

Modify [Piping Pipeline 1]

Miscellaneous	Status	Classification	Cross Reference	Others	Pins			
System Attributes	Purchase Order Data	Specifications	Operating Data	ATEX	Pressure	Temperature	Piping Identifier	Substance Data
Part of								...
Designation	1							
Designation Tag Element								
Comment	4" -IN01 -700 50 01 -AKRS2 -N 0							
Additional comment	Pipe, general							
Device char								
Type	Unspecified pipelin							
Object template								
Logical Equipment								
Associated function	42 100 04							
Complete Associated Function	42 100 04							
Associated location								
Complete Associated Location								
Associated processes								
Associated areas								
Associated local specification								
Associated task								
Pipe Destinations	E04							

-- System Dialog --

Edit Dictionary Text

Dictionary

AUCOTEC [Additional dictionaries]

Edit Language

EN

Pipe, general

Comment

Process connection

Languages

DE

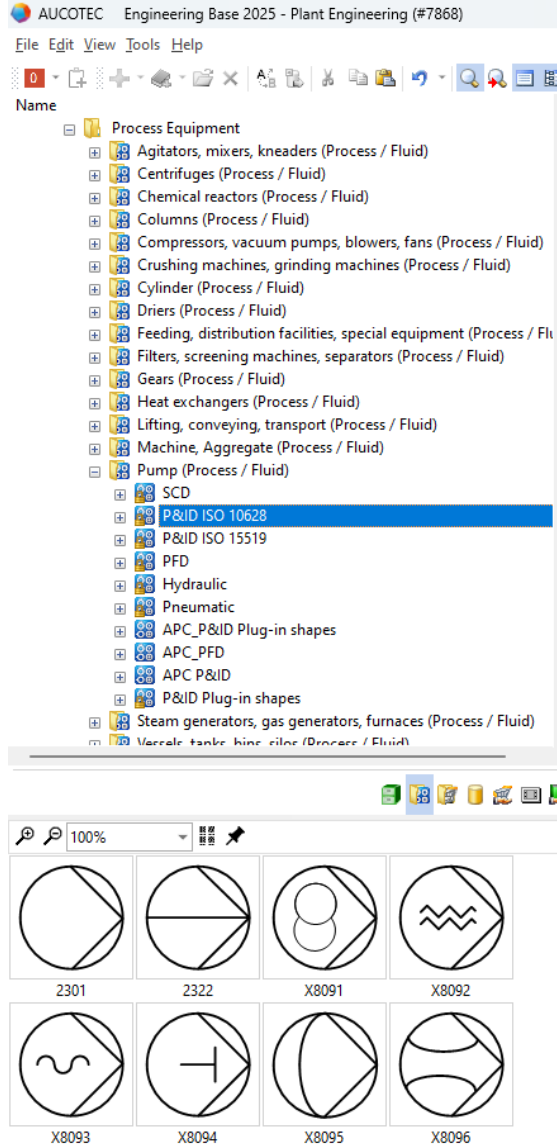
Rohrleitung, allgemein

CN

管道, 通用

OK Cancel

Symbol library



Symbols for all kinds of types are centrally managed in the database.

Commonly used standards like ISO 10628 for example are included in the delivered content.

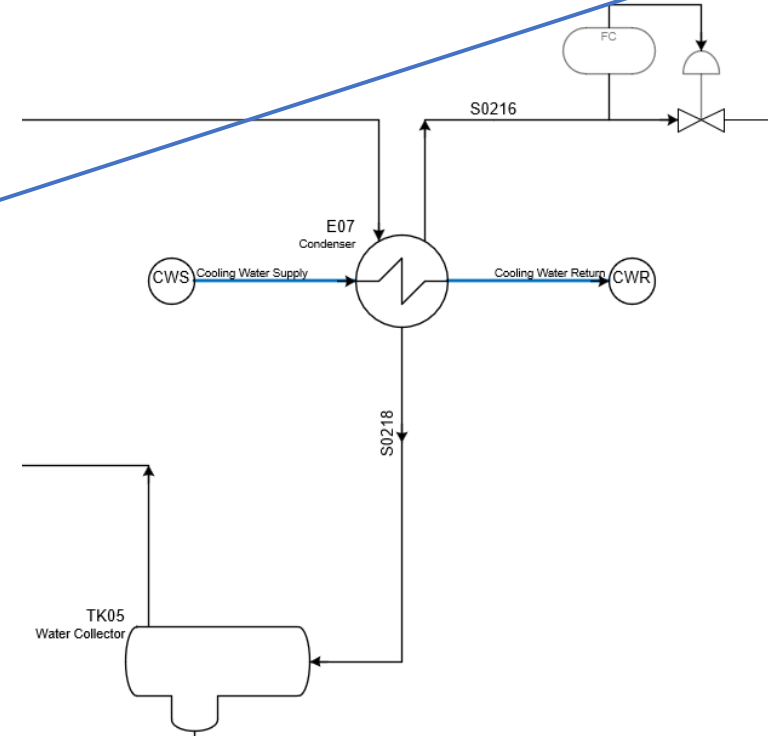
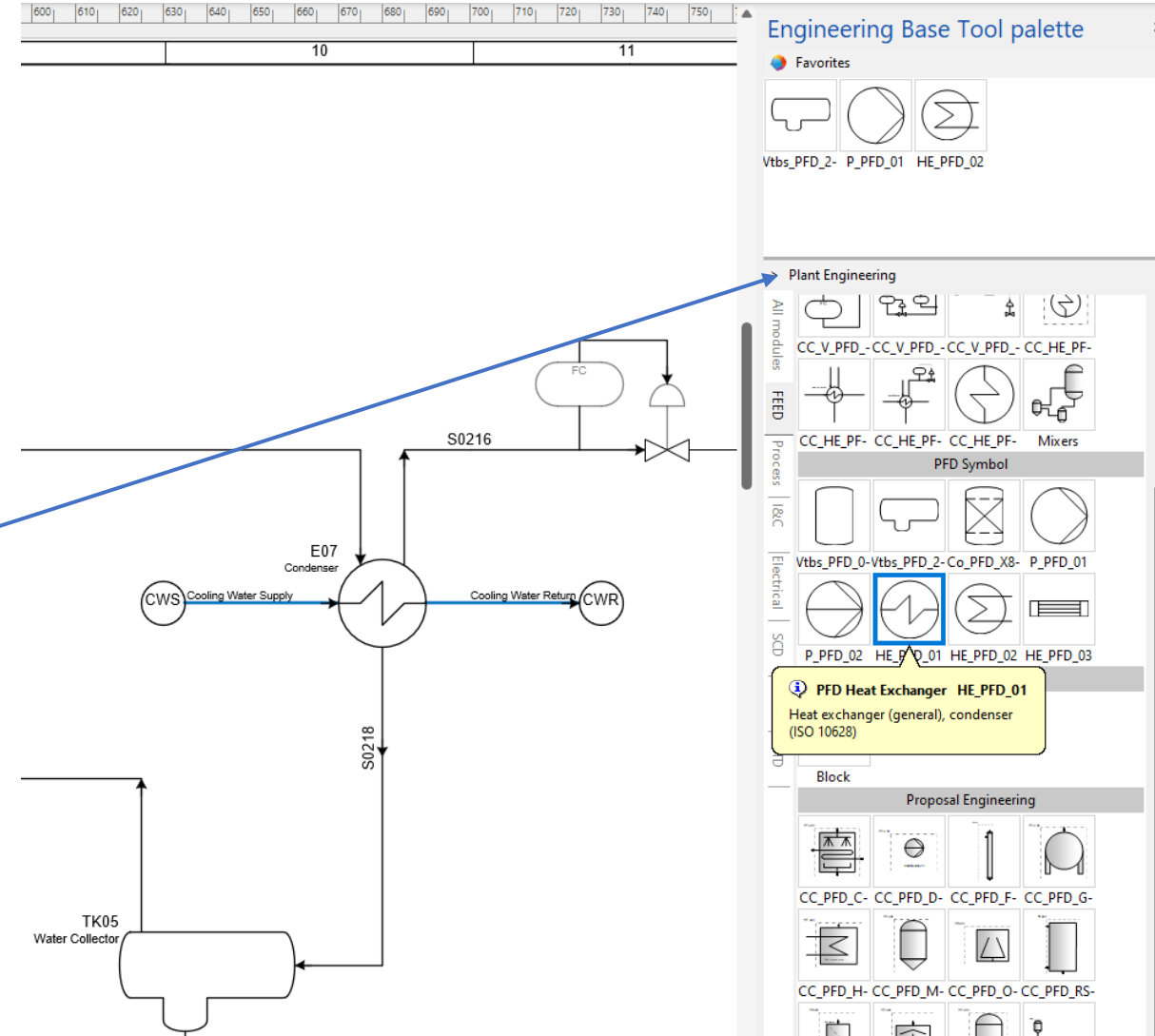
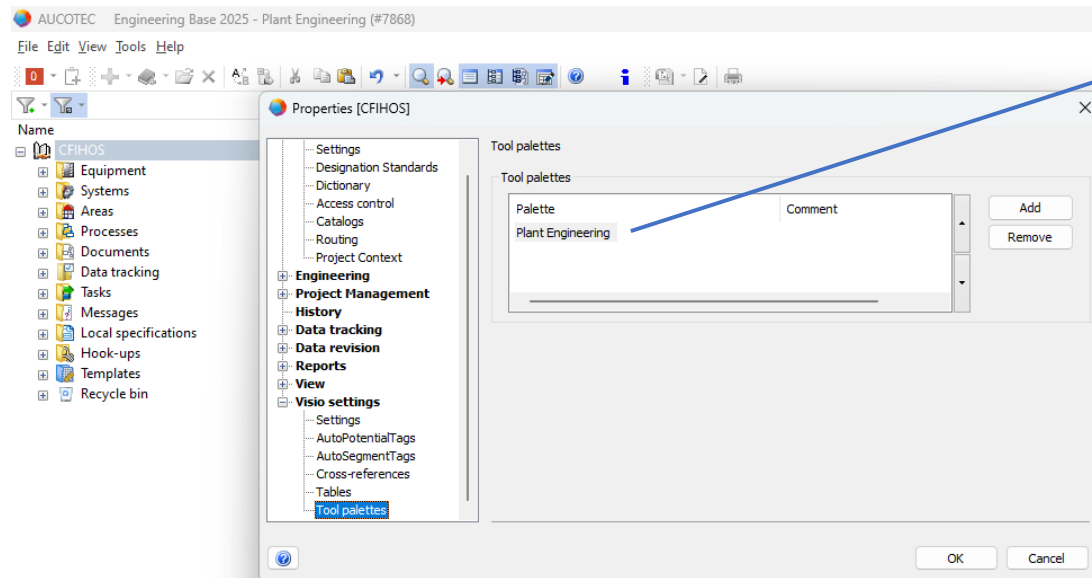
New symbols can easily be created or existing changed in the provided symbol editor.

Symbol palettes

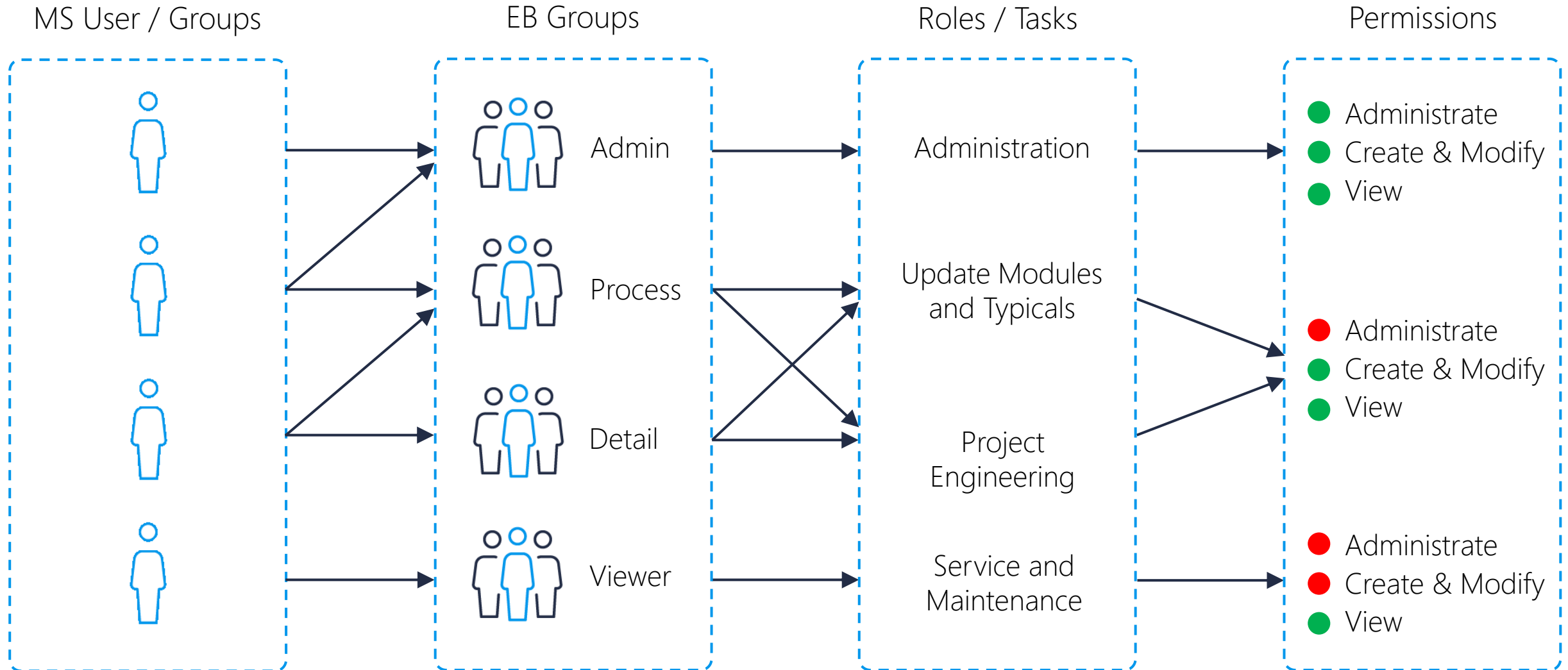
Symbols can be grouped and organized in in palettes.

These palettes can be assign to individual projects to ensure consistency

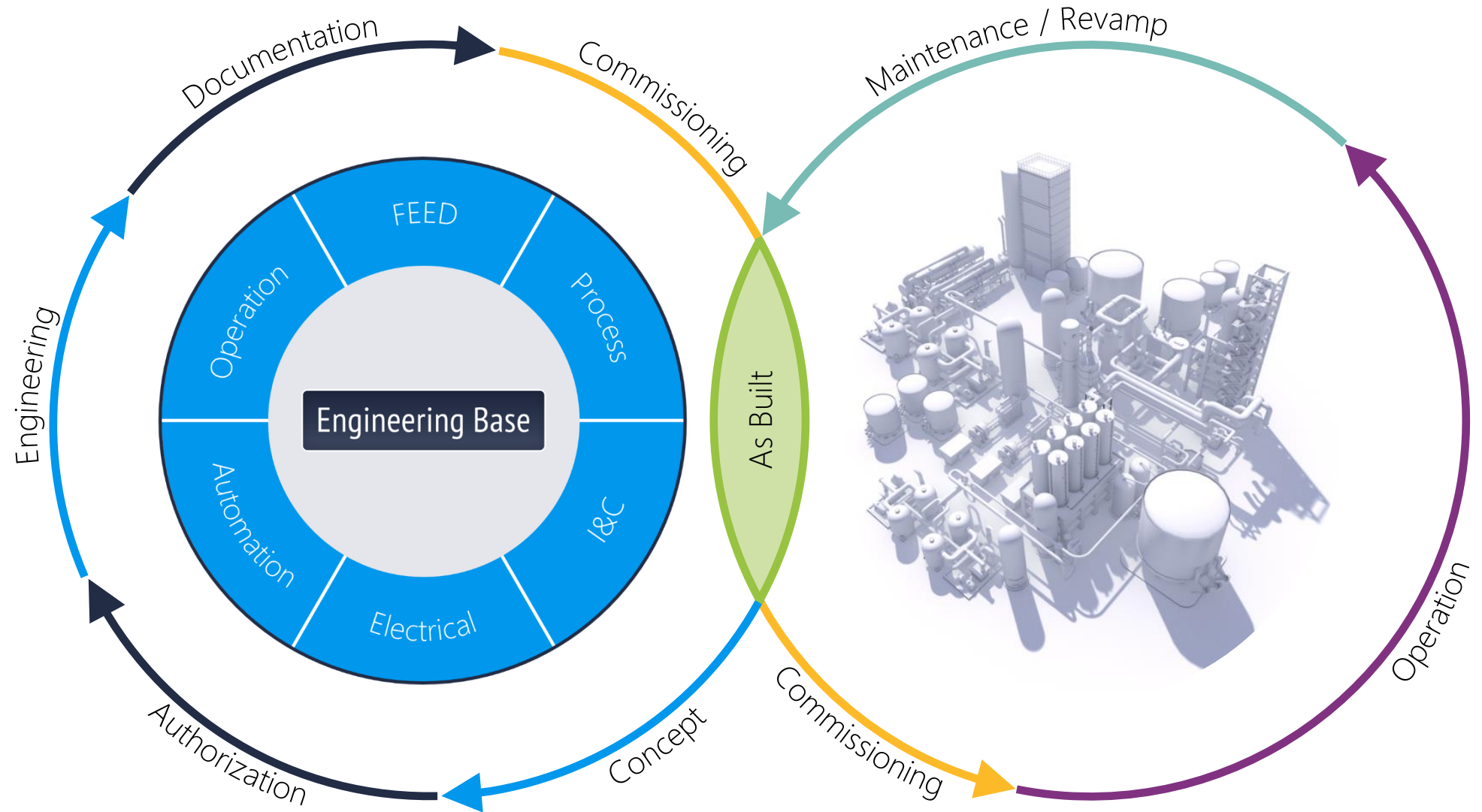
This way different engineering domains have always the correct symbols at hand on the corresponding document types.



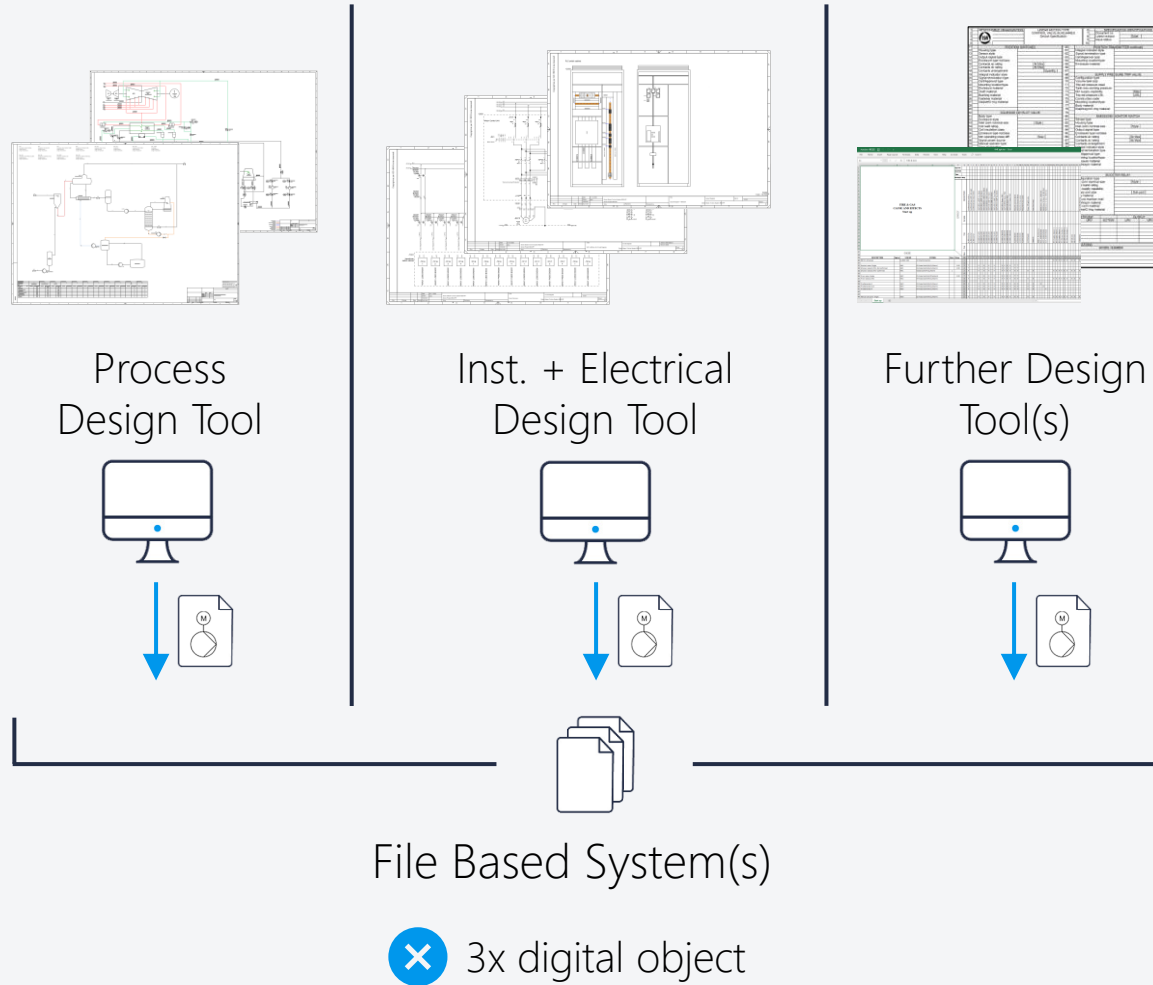
User & Access Permission



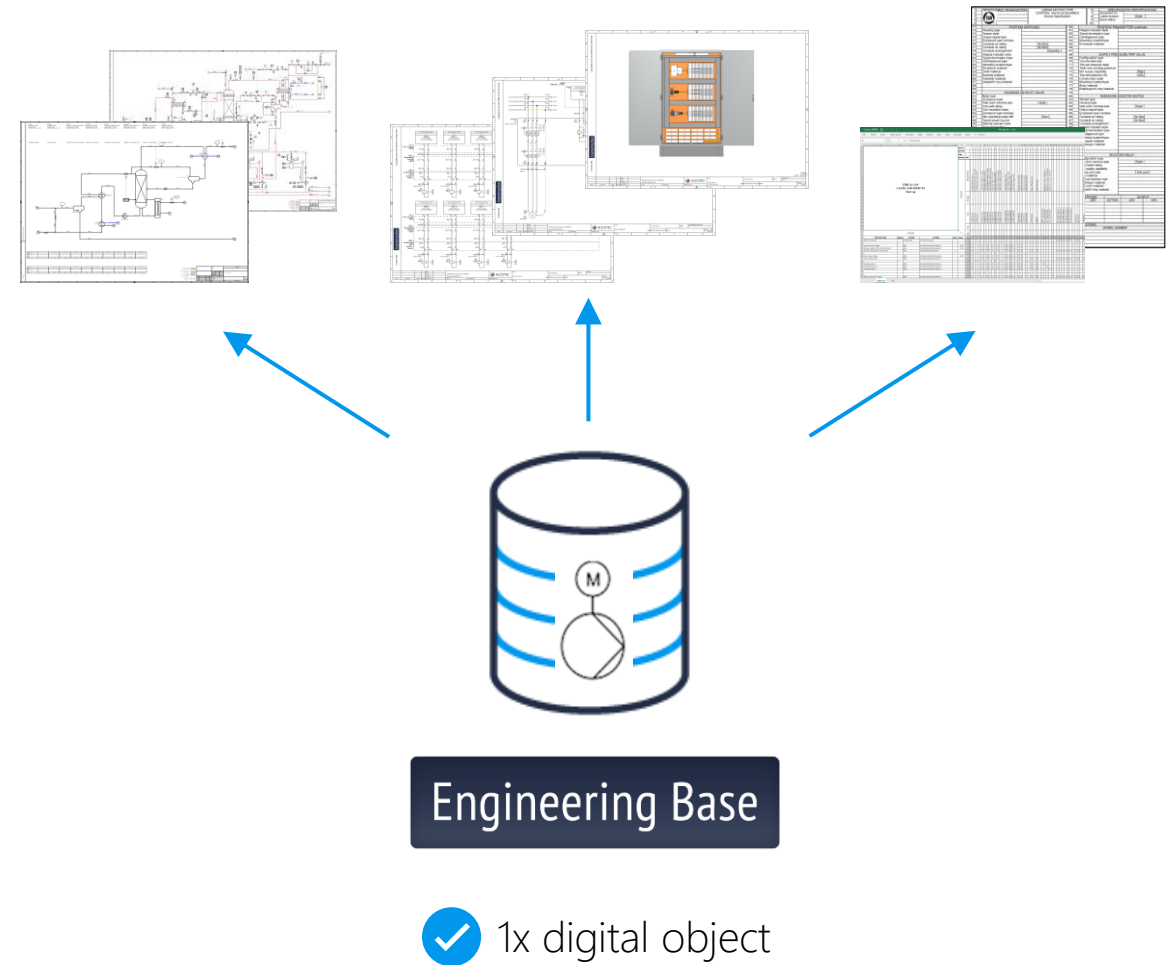
Digital Twin



CAD

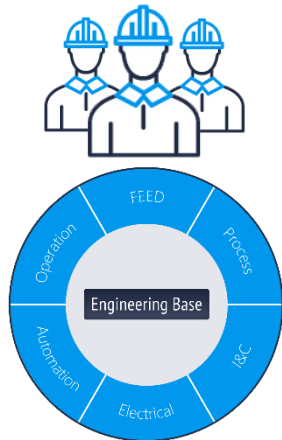


Engineering Base



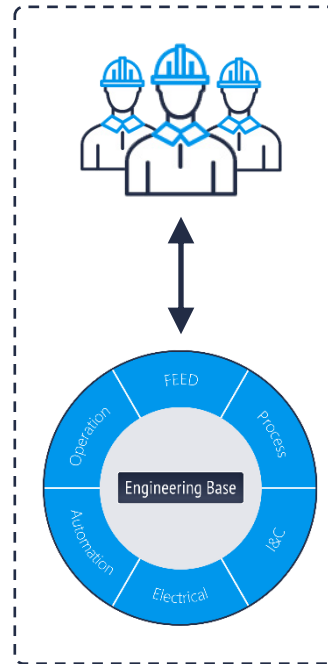
External Collaboration

Collaboration with contractors
with EB



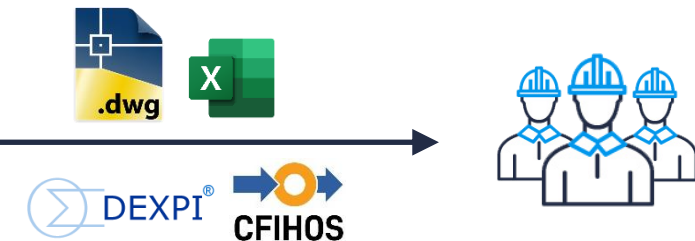
working in own EB environment

Integration of contractors
in EB environment



working in one environment

Collaboration with contractors
without EB



working with other tools

Synchronizing database customizing

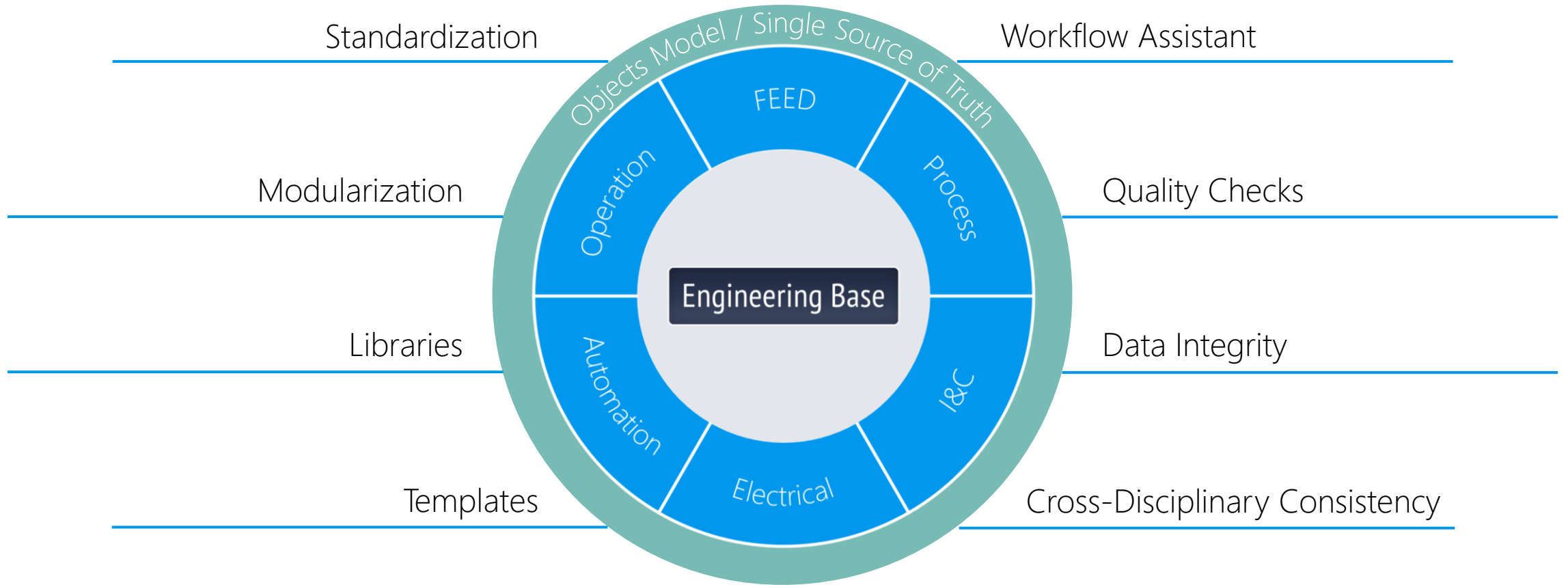
Items for export			Copy	Overwrite	Clear status attributes
<input type="checkbox"/> Projects			<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Catalogs			<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Dictionaries			<input type="radio"/>	<input type="radio"/>	
<input checked="" type="checkbox"/> Type definitions				<input checked="" type="radio"/>	
<input type="checkbox"/> Project templates			<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Assistants				<input type="radio"/>	
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<input checked="" type="checkbox"/> Tool palette configurations			<input checked="" type="radio"/>	<input type="radio"/>	
<input checked="" type="checkbox"/> Electrical Engineering			<input checked="" type="radio"/>	<input type="radio"/>	
<input type="checkbox"/> Plant Engineering			<input type="radio"/>	<input type="radio"/>	
<input type="checkbox"/> Plant Engineering org			<input type="radio"/>	<input type="radio"/>	

Export file location

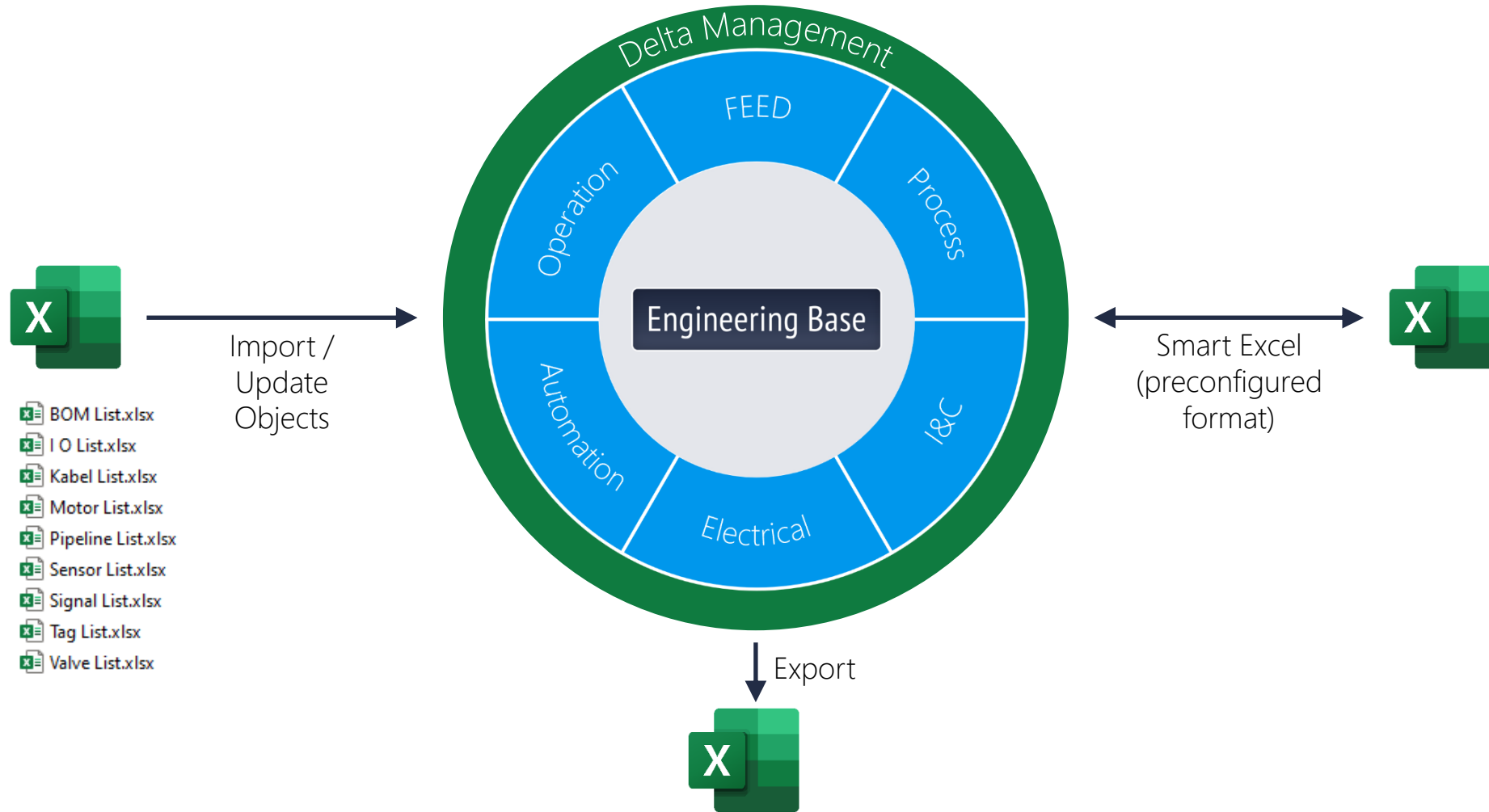
Help Presets Export Cancel

The feature Update of Customizing allows to synchronize the important parts of an Engineering Base database

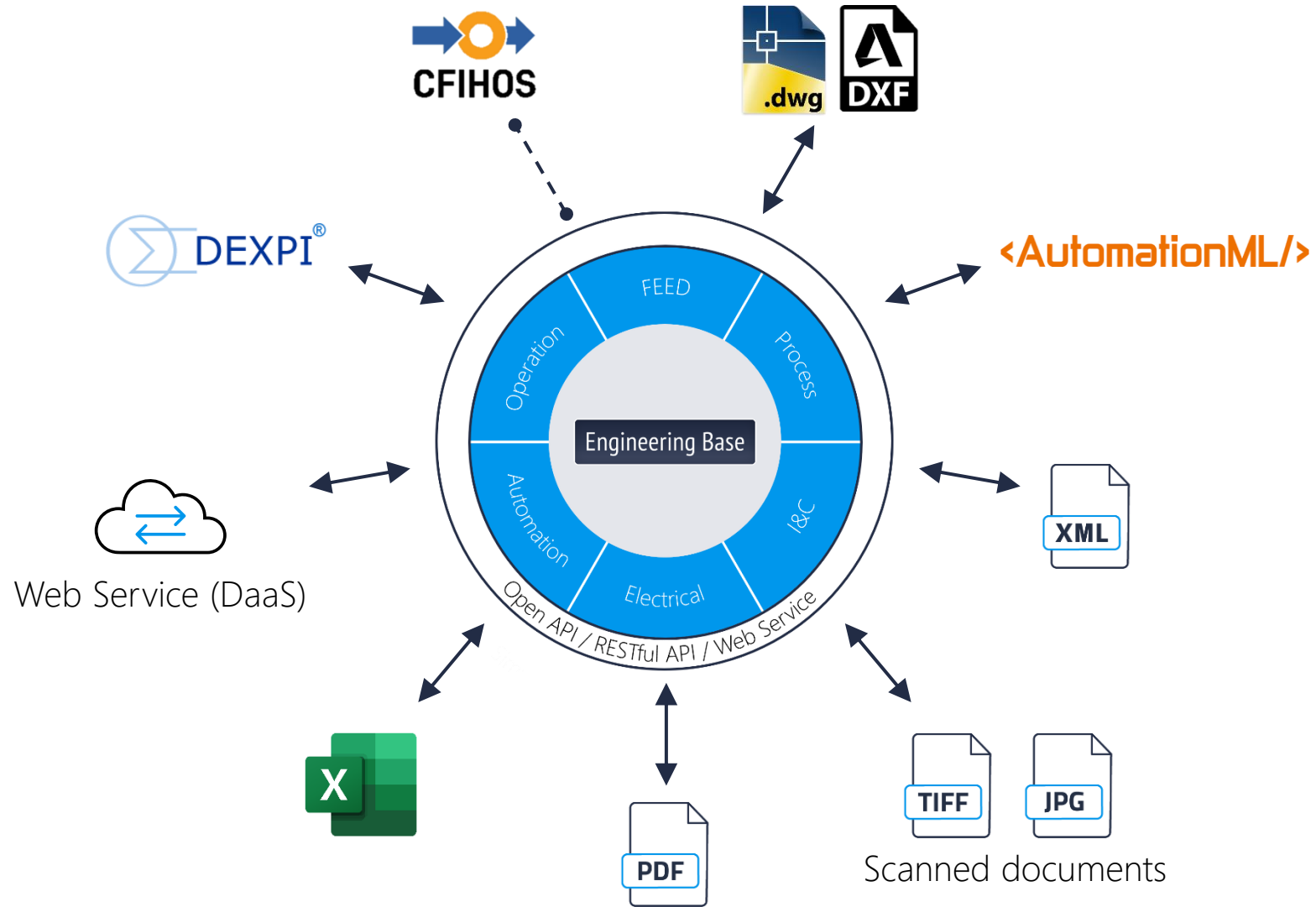
Data Quality



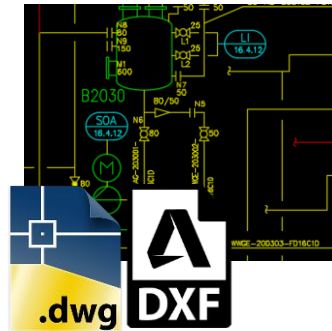
Im- & Export of Excel



Data Migration



Migration of DWG



Analysis and
addition of
block
information



Mapping objects
and block
information in EB
structure

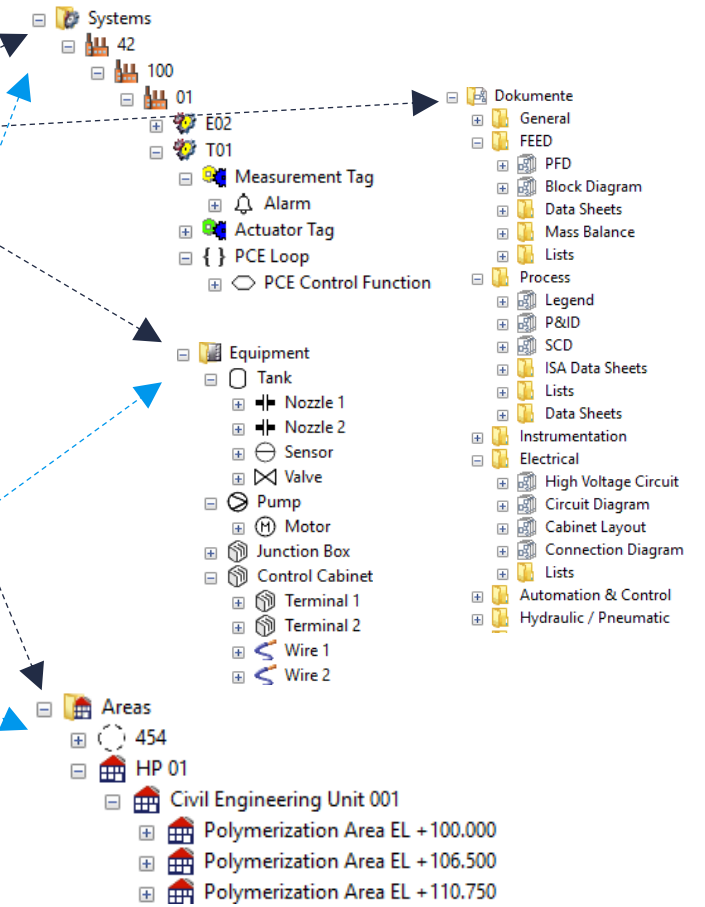


- BOM List.xlsx
- I O List.xlsx
- Kabel List.xlsx
- Motor List.xlsx
- Pipeline List.xlsx
- Sensor List.xlsx
- Signal List.xlsx
- Tag List.xlsx
- Valve List.xlsx



Mapping objects
and merging into
EB structure

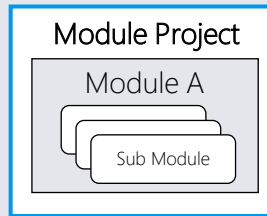
Engineering Base



Modularization

(Modular Design Concept)

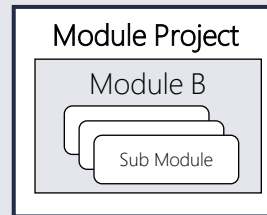
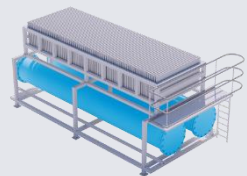
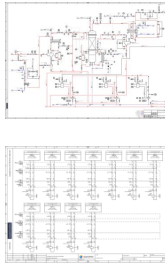
Module Engineering <> Plant Engineering



Object model

- Equipment
 - Tank
 - Nozzle 1
 - Nozzle 2
 - Sensor
 - Valve
 - Pump
 - Motor
 - Junction Box
 - Control Cabinet
 - Terminal 1
 - Terminal 2
 - Wire 1
 - Wire 2

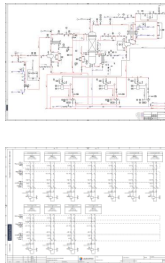
Diagrams



Object model

- Equipment
 - Tank
 - Nozzle 1
 - Nozzle 2
 - Sensor
 - Valve
 - Pump
 - Motor
 - Junction Box
 - Control Cabinet
 - Terminal 1
 - Terminal 2
 - Wire 1
 - Wire 2

Diagrams



Final Project

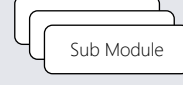
Individual



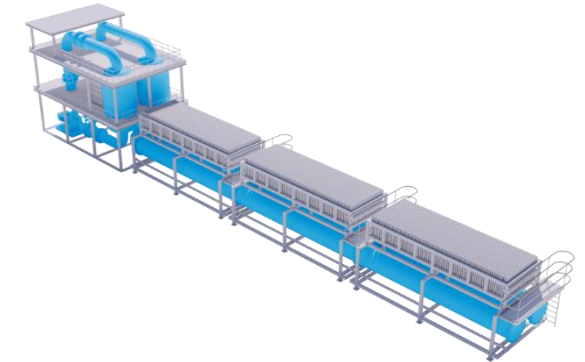
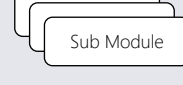
Module A



Module B



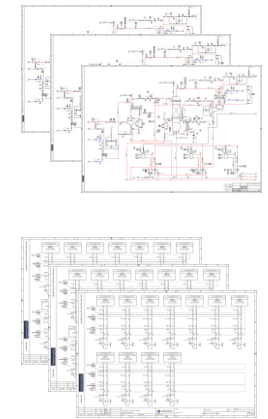
Module B



Plant model

Diagrams

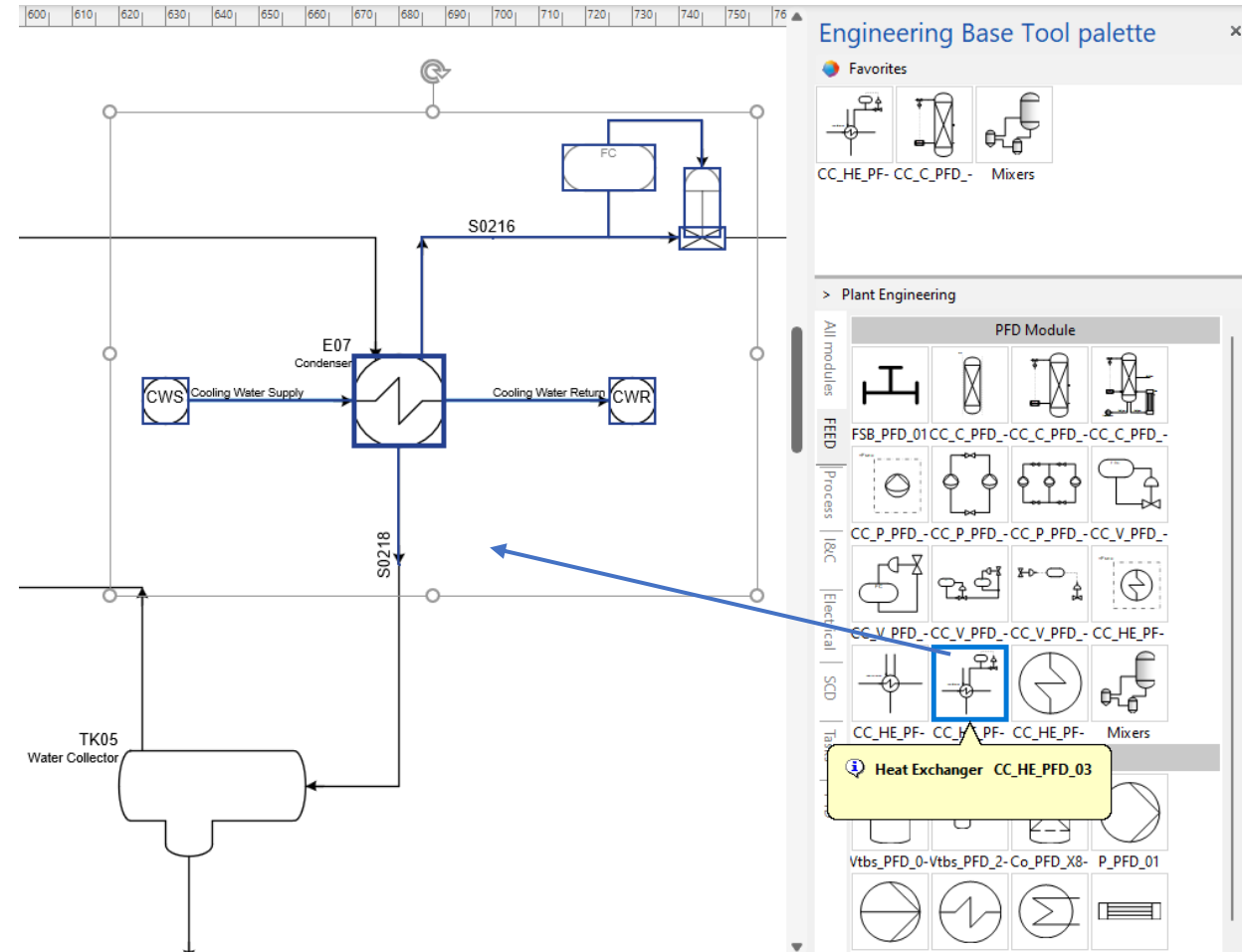
- Equipment
 - Tank
 - Nozzle 1
 - Nozzle 2
 - Sensor
 - Valve
 - Pump
 - Motor
 - Junction Box
 - Control Cabinet
 - Terminal 1
 - Terminal 2
 - Wire 1
 - Wire 2
 - Tank
 - Nozzle 1
 - Nozzle 2
 - Sensor
 - Valve
 - Pump
 - Motor
 - Junction Box
 - Control Cabinet
 - Terminal 1
 - Terminal 2
 - Wire 1
 - Wire 2



Modules I (Grafical)

Grafical modules (symbol assemblies) can be defined with just a few clicks. These modules not only contain the symbols, they also create the corresponding objects in the database.

These modules can again be added to the symbol palette. In this way, they can easily be reused via drag'n'drop on diagrams.

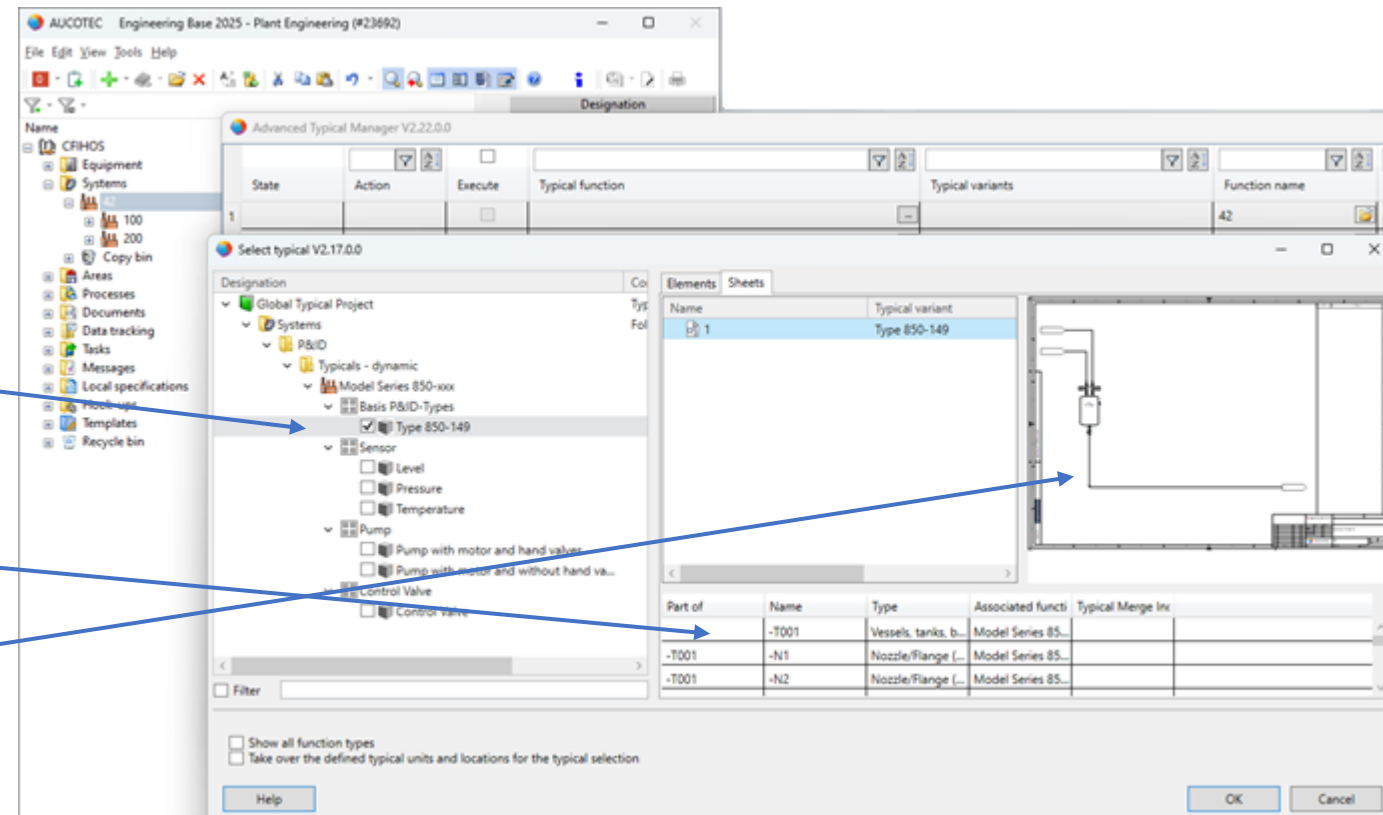


Modules II (Typicals)

Typicals and typical libraries are a powerful tool to design and copy complete sub-systems.

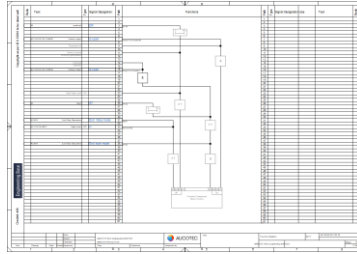
Typicals can contain different options bundled in valid variants.

They can contain the functional aspect as well as the product- and location aspect of a system. Documents are copied and can even be merged and separated as required.

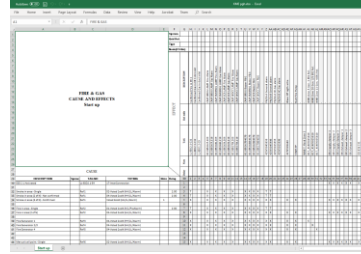


Document templates

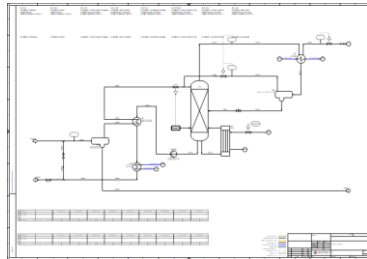
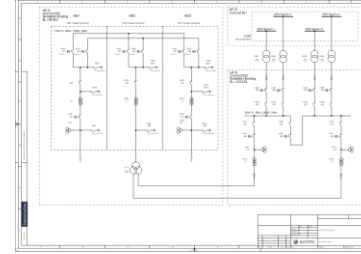
Automation



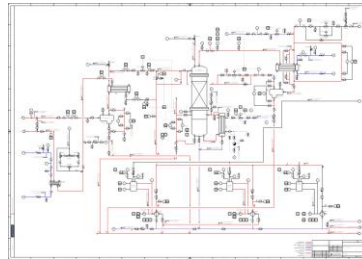
Cause & Effect



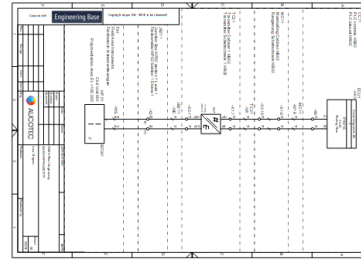
SLD Design



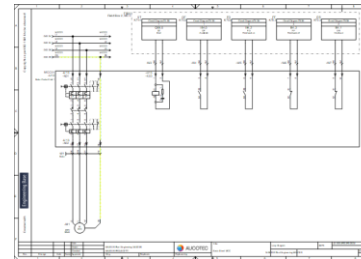
Flow Sheet Design



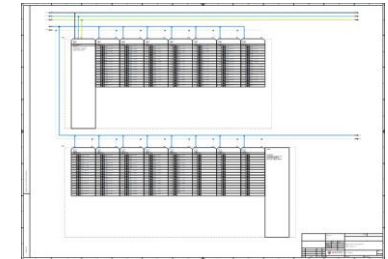
P&ID Design



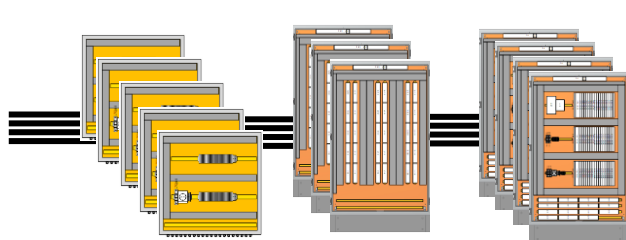
Instrument Loops



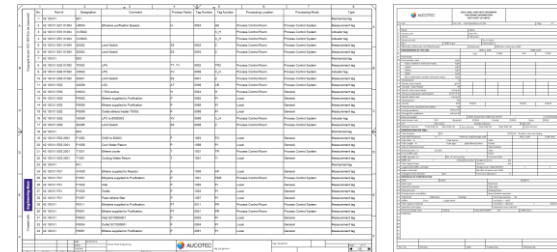
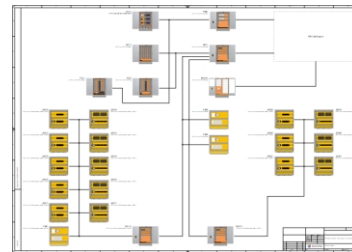
Circuit Diagrams



I/O Allocation



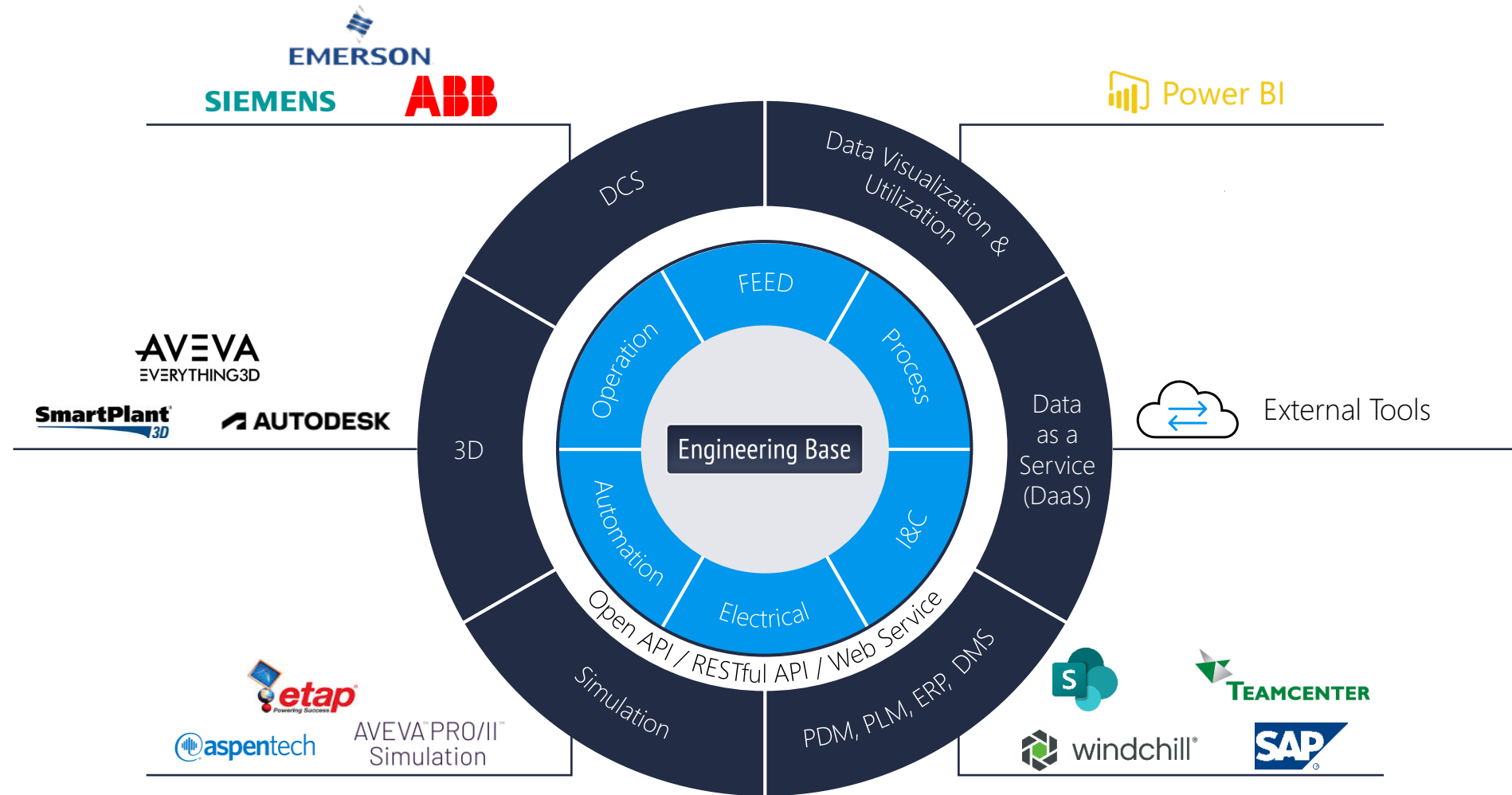
Automation Infrastructure



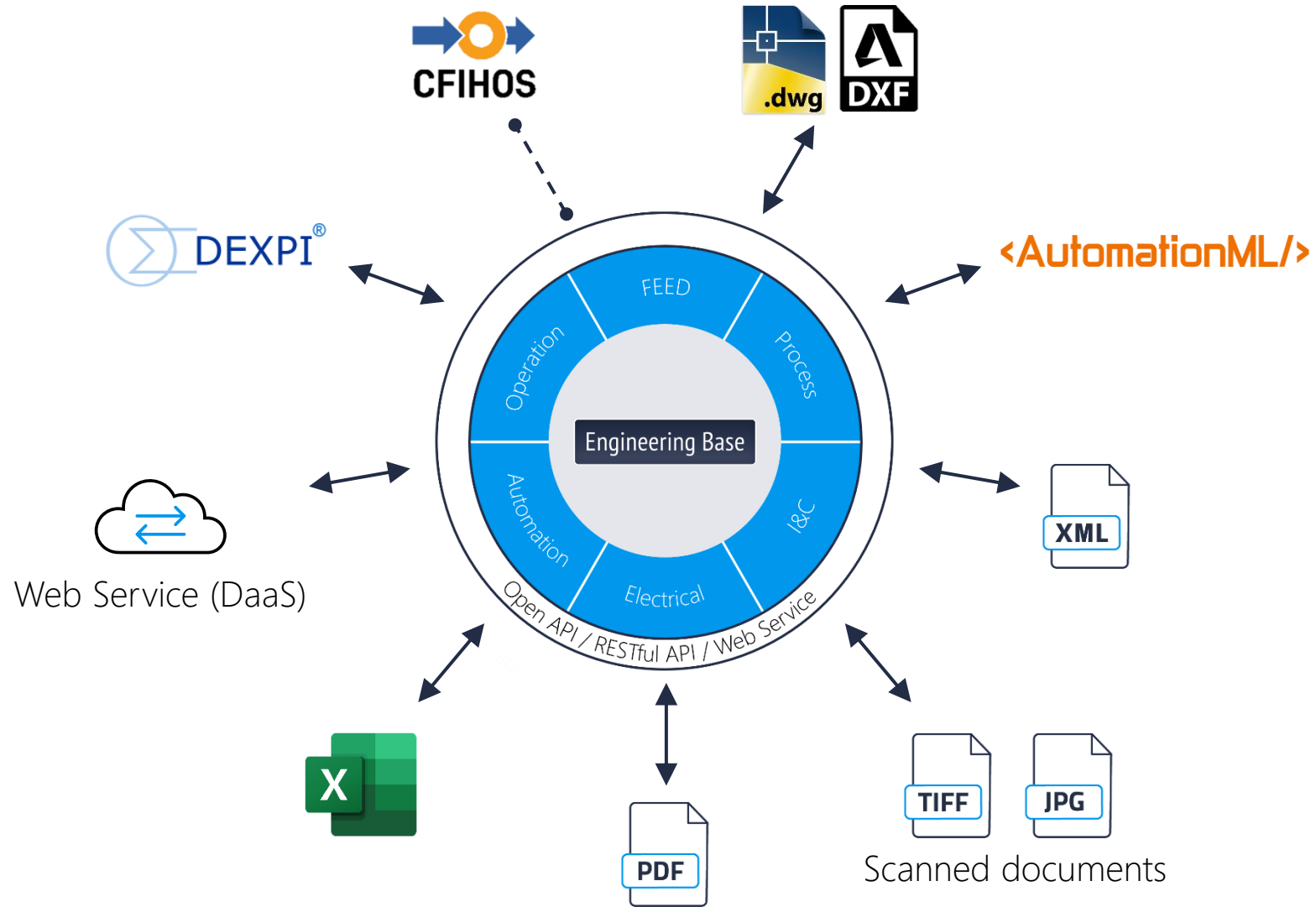
Data Sheets & Lists

Integrations

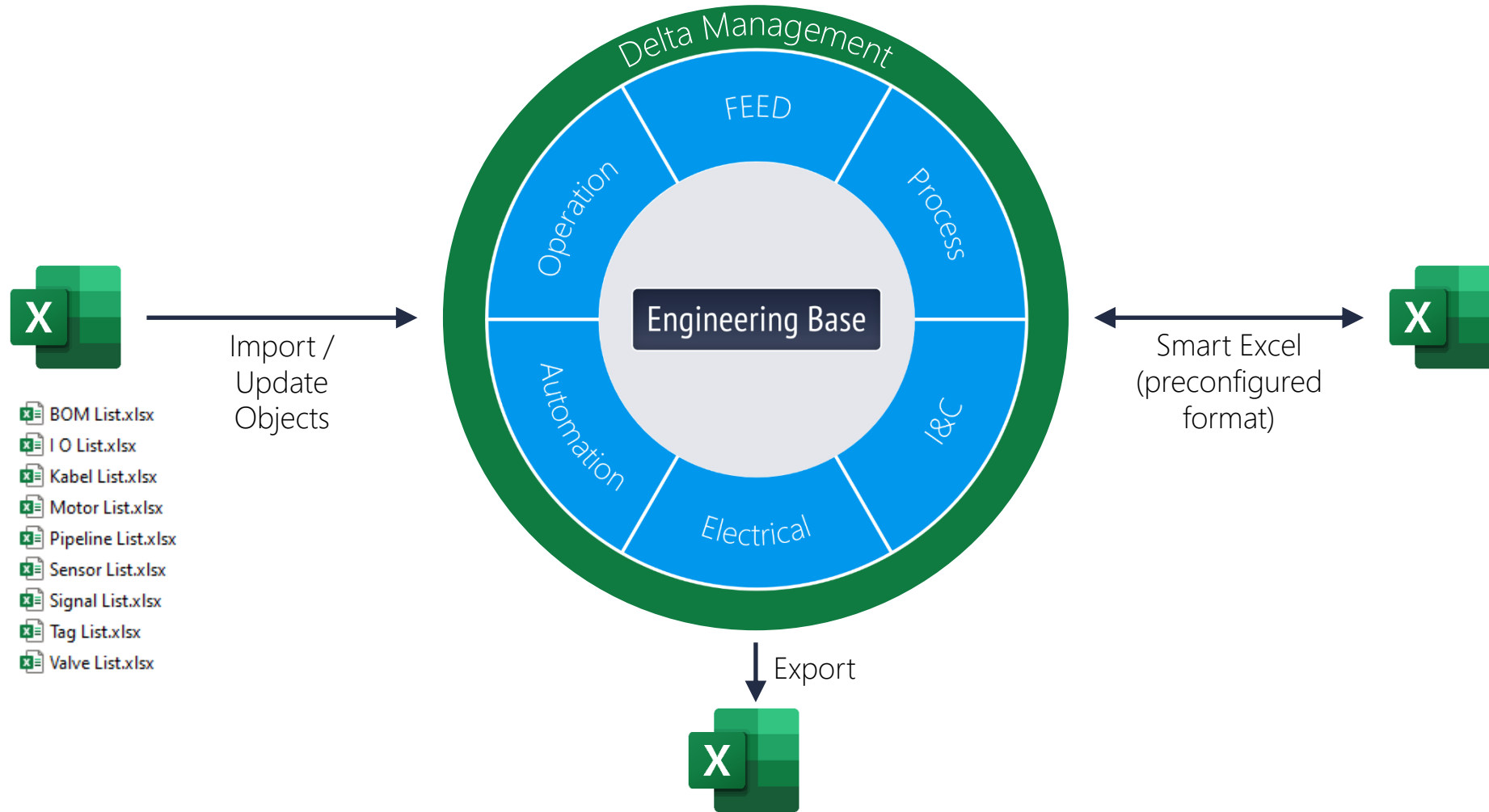
Engineering Base has a broad set of capabilities but also allows CFIHOS data to be shared with other applications so that all plant software is aligned and mappings and transformations can be minimized.



Data Exchange

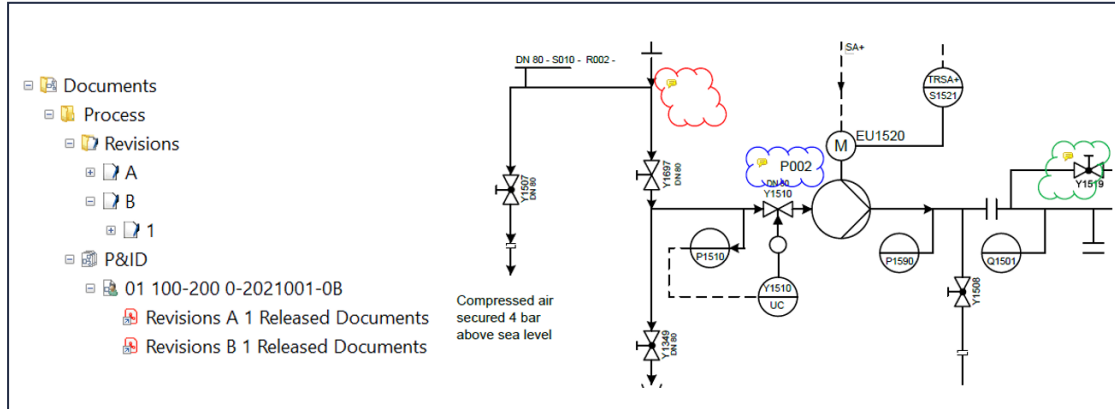


Im- & Export of Excel



Change Management

Version & Revision Management (with clouds on PDF)



Data Tracking

Record(s)	Modified	Part of	Designation	Comment	Material
1	New		Y1600		
2	Deleted		Y1519		
3	Deleted		Y1507		
4	Modified		Y1349		BOS_0810-001
5	Modified		P002A P002		

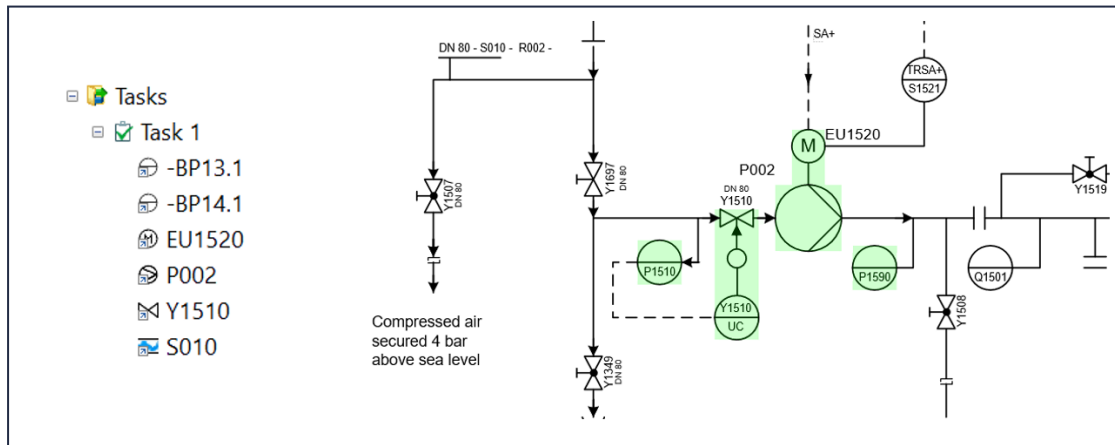
Status attributes

ID	Designation	Color
1	New	Yellow
2	Review	Blue
3	Alternative	Red
4	Release	Green
5	Fixed	Grey

Buttons: Add, Delete, Up, Down

☐ Export attribute status indicators with Excel export

Tasks Management for objects



Object's History – Who, what, when, why?

Filter	User info	Modification date	Operation	Category	Attribute/Role ID	Value OLD	Value NEW
1	Hans-Werner Meyer	08.05.2024 13:20:19	Attribute property modified		Nominal Size (DN)		'Read-only' enabled
2	Hans-Werner Meyer	08.05.2024 13:20:19	Attribute property modified		Nominal Size (DN)		'Manual entry' enabled
3	Hans-Werner Meyer	08.05.2024 13:20:19	Attribute content modified		Nominal Size (DN)		DN 80
4	Dirk Grief	18.04.2024 15:40:43	Attribute content modified		Designation	Y291	-29.1
5	Dirk Grief	18.04.2024 15:35:38	Attribute content modified		Designation	Y271	Y291
6	Dirk Grief	18.04.2024 14:40:14	Attribute content modified		Designation		Y271
7	Dirk Grief	18.04.2024 14:40:14	Object moved			<Object not accessible>	Valves
8	Dirk Grief	18.04.2024 14:38:07	Target of association added		Shape (various)		Instrumentation Loop Diagram 29.2E
9	Dirk Grief	18.04.2024 14:38:07	Source of association added		Function		2001 HAL Y1351
10	Dirk Grief	18.04.2024 14:38:06	Sub-object created				
11	Dirk Grief	18.04.2024 14:38:06	Sub-object created				
12	Dirk Grief	18.04.2024 14:38:06	Sub-object created				
13	Dirk Grief	18.04.2024 14:38:06	Sub-object created				
14	Dirk Grief	18.04.2024 14:38:06	Object created				-Wv.\$function





AUCOTEC