

OCTOBER 26, 2023

AVEVA™ Unified Engineering

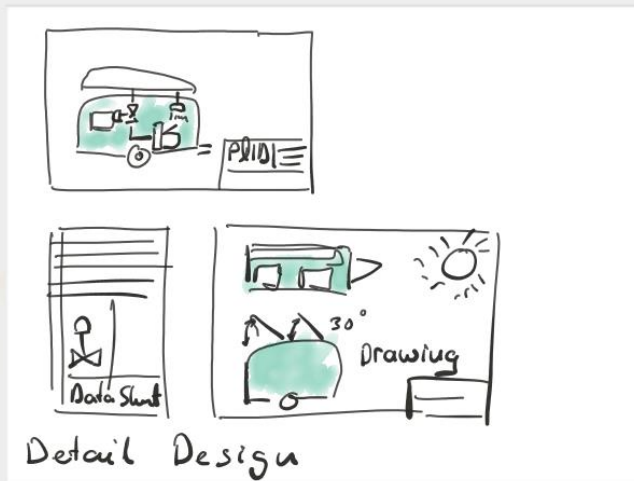
The caravan story continues...

Alexander Körber & Marcel Prösch (the Ö-Team)

AVEVA

JP PRODUCTIONS





Model Library Caravan2026

Shapes: WindFarm, SolarFarm, Battery, Electrolyze, ElectroRig, Cable, Busbar, Transformer, Converter, Inverter, Rectifier, Breaker, Resistor, Generator, Consumer, GreenH2, WFPower Example, Windtren dExample, SolarTrend Example, DeVolt, VoltPEM, VoltALK

Tools: WindFarm, SolarFarm, Battery, Electrolyze, ElectroRig, Cable, Busbar, Transformer, Converter, Inverter, Rectifier, Breaker, Resistor, Generator, Consumer, GreenH2, WFPower Example, Windtren dExample, SolarTrend Example, DeVolt, VoltPEM, VoltALK

Controls: WindFarm, SolarFarm, Battery, Electrolyze, ElectroRig, Cable, Busbar, Transformer, Converter, Inverter, Rectifier, Breaker, Resistor, Generator, Consumer, GreenH2, WFPower Example, Windtren dExample, SolarTrend Example, DeVolt, VoltPEM, VoltALK

CWLib: WindFarm, SolarFarm, Battery, Electrolyze, ElectroRig, Cable, Busbar, Transformer, Converter, Inverter, Rectifier, Breaker, Resistor, Generator, Consumer, GreenH2, WFPower Example, Windtren dExample, SolarTrend Example, DeVolt, VoltPEM, VoltALK

Economics: WindFarm, SolarFarm, Battery, Electrolyze, ElectroRig, Cable, Busbar, Transformer, Converter, Inverter, Rectifier, Breaker, Resistor, Generator, Consumer, GreenH2, WFPower Example, Windtren dExample, SolarTrend Example, DeVolt, VoltPEM, VoltALK

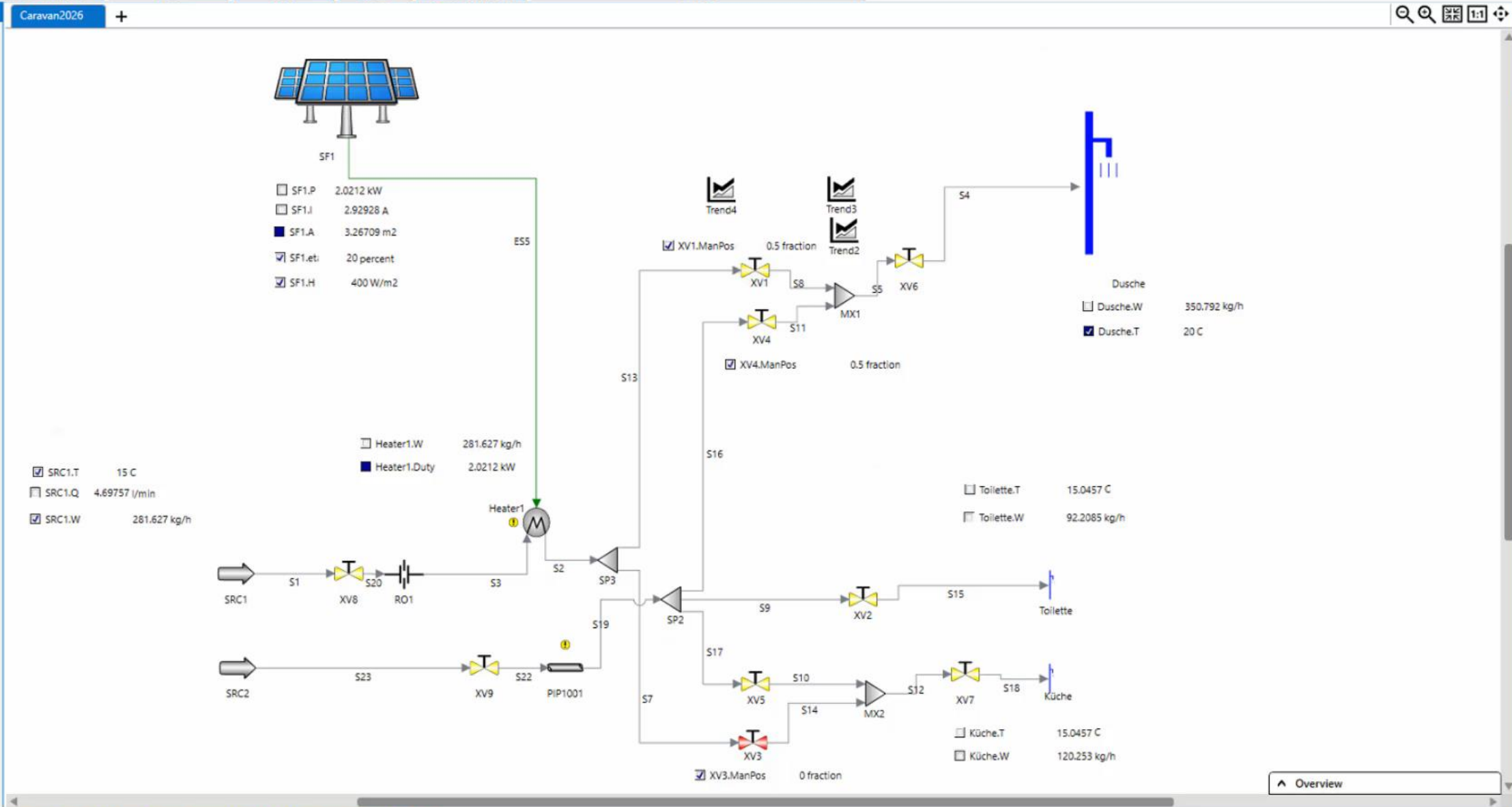
FlareLib: WindFarm, SolarFarm, Battery, Electrolyze, ElectroRig, Cable, Busbar, Transformer, Converter, Inverter, Rectifier, Breaker, Resistor, Generator, Consumer, GreenH2, WFPower Example, Windtren dExample, SolarTrend Example, DeVolt, VoltPEM, VoltALK

Fluids: WindFarm, SolarFarm, Battery, Electrolyze, ElectroRig, Cable, Busbar, Transformer, Converter, Inverter, Rectifier, Breaker, Resistor, Generator, Consumer, GreenH2, WFPower Example, Windtren dExample, SolarTrend Example, DeVolt, VoltPEM, VoltALK

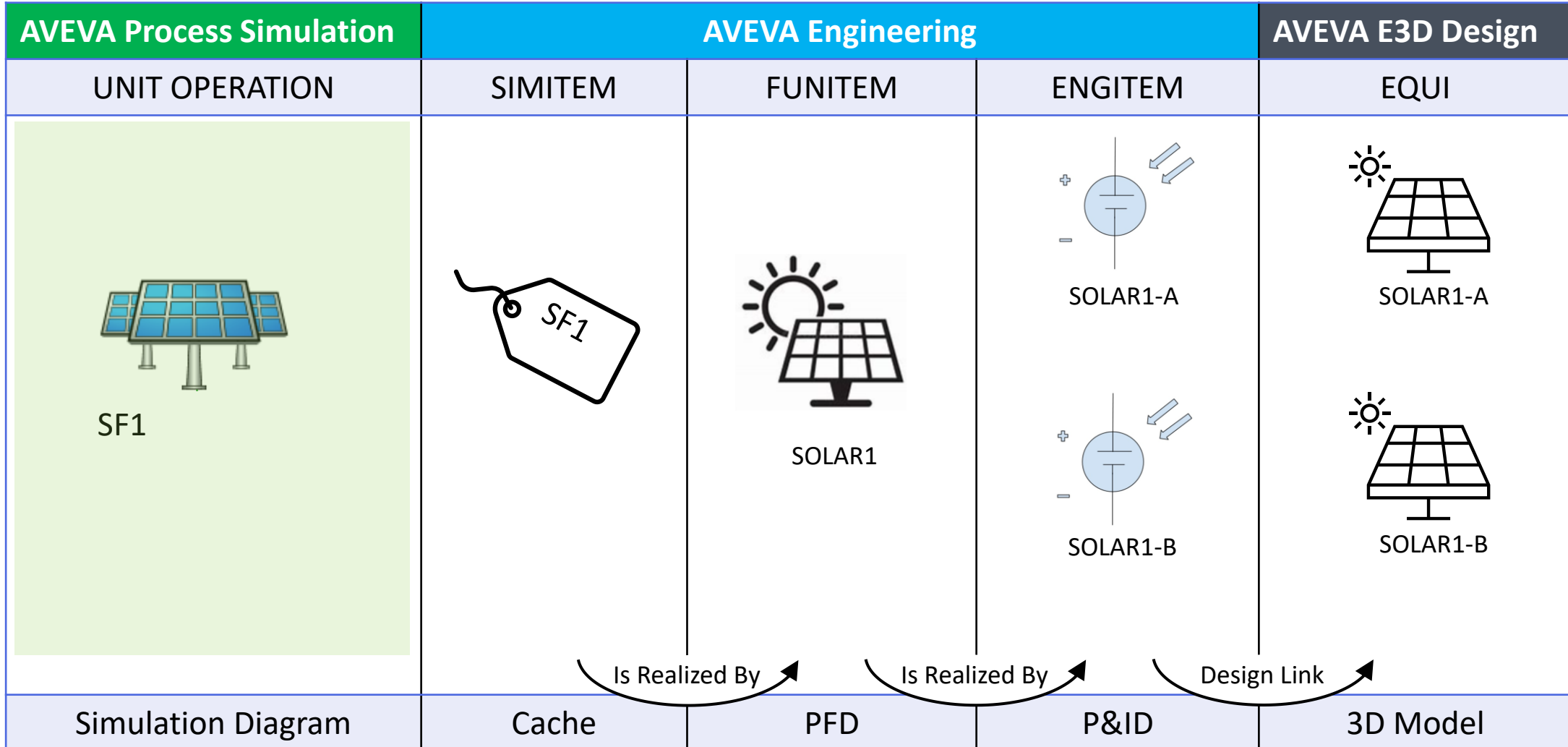
Process: WindFarm, SolarFarm, Battery, Electrolyze, ElectroRig, Cable, Busbar, Transformer, Converter, Inverter, Rectifier, Breaker, Resistor, Generator, Consumer, GreenH2, WFPower Example, Windtren dExample, SolarTrend Example, DeVolt, VoltPEM, VoltALK

Renewables: WindFarm, SolarFarm, Battery, Electrolyze, ElectroRig, Cable, Busbar, Transformer, Converter, Inverter, Rectifier, Breaker, Resistor, Generator, Consumer, GreenH2, WFPower Example, Windtren dExample, SolarTrend Example, DeVolt, VoltPEM, VoltALK

SteamLib: WindFarm, SolarFarm, Battery, Electrolyze, ElectroRig, Cable, Busbar, Transformer, Converter, Inverter, Rectifier, Breaker, Resistor, Generator, Consumer, GreenH2, WFPower Example, Windtren dExample, SolarTrend Example, DeVolt, VoltPEM, VoltALK



The Object Lifecycle Explained



Project Home Manage View **Simulation** AVEVA NET E & I Drawings P&ID Admin

Manage Notifications Refresh Send To Process Simulation Notifications

Flowsheets **Set Active Case** Update & Link interconnected items

Split Upstream Split Downstream Modify

Link and Update PFD Functional Tags Update PFD

Create Update Engineering Items

Stream Data View

Insert Edit HMB Table

Assign to Components

Manage Groups

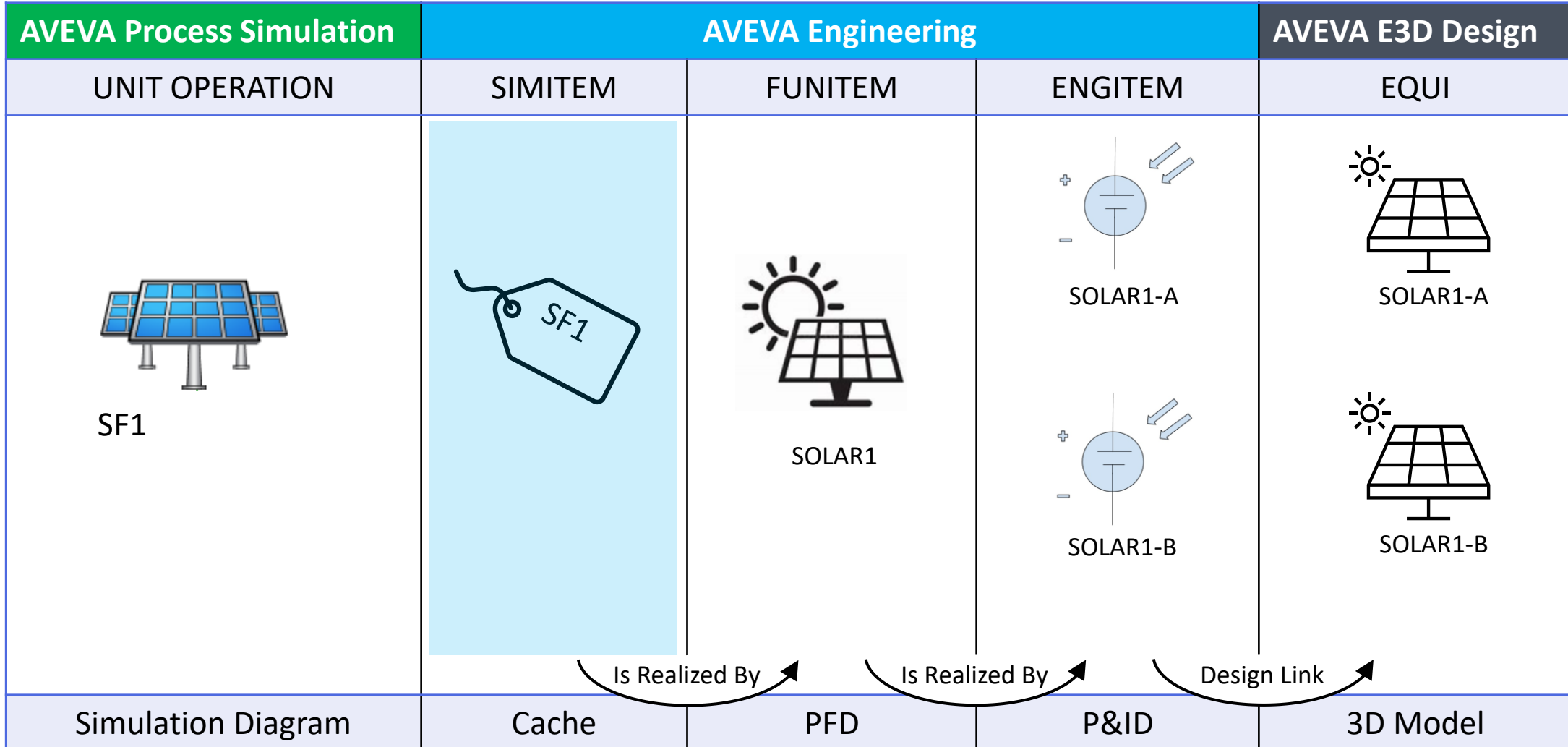
Class & Attribute Mappings

Grids Explorer

- Grids
 - Admin Grids
 - H2O
 - CampingGear**
 - CampingGearFunctional
 - CampingGearSim
 - Unified Engineering
 - User Grids



The Object Lifecycle Explained



Manage Notifications
Refresh
Send To Process Simulation

Flowsheets Set Active Case
Update & Link interconnected items

Split Upstream Split Downstream
Modify

Link and Update PFD Update PFD
Functional Tags

Create Update
Engineering Items

Stream Data View
HMB Table

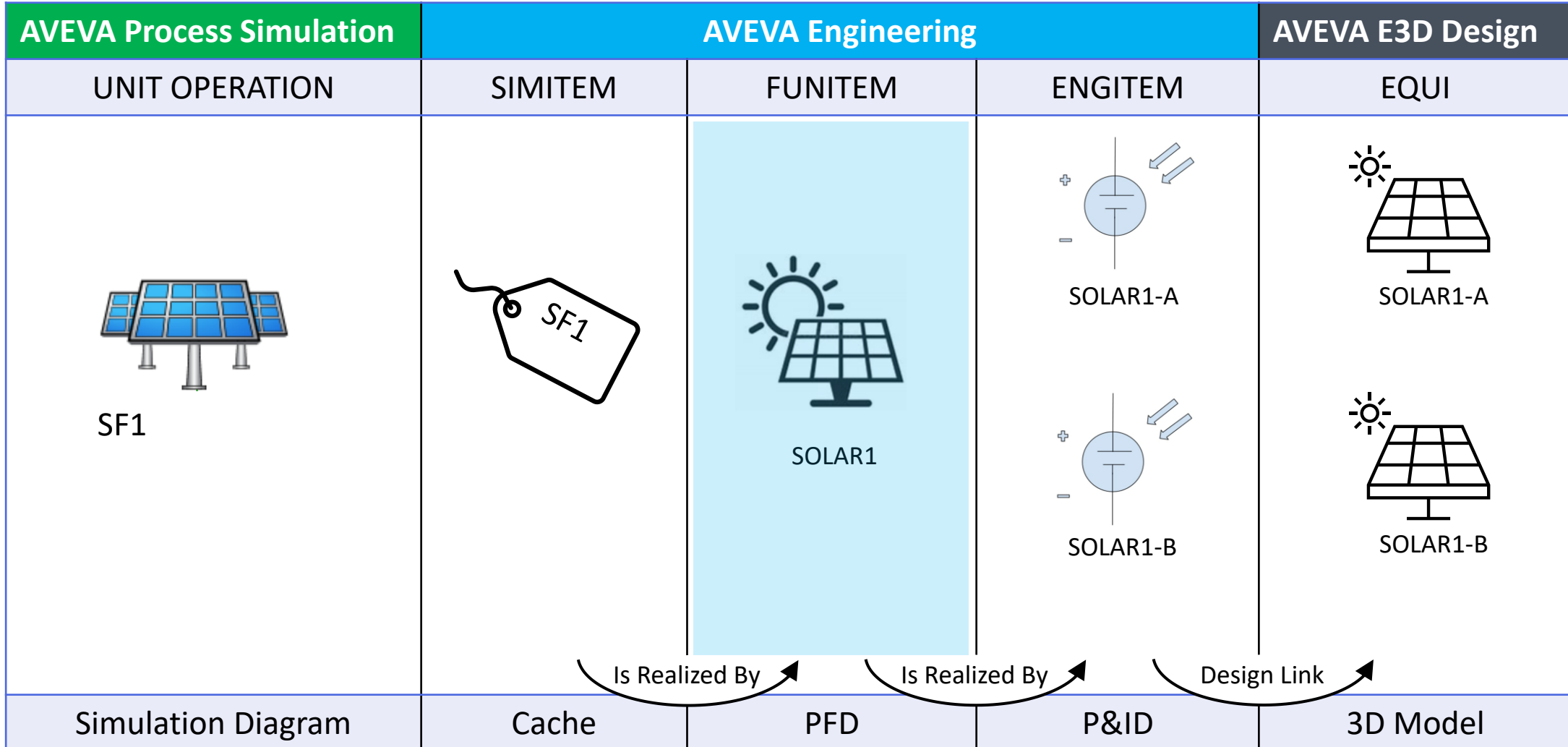
Assign to Components
Manage Groups
Class & Attribute Mappings

Grids Explorer
Grids
Admin Grids
H2O
CampingGear
CampingGearFunctional
CampingGearSim
Unified Engineering
User Grids

Drag a column header here to group by that column.

Identification		Data			
Name	Display Name	Linked Functional	areaFunctiona...	areaHeatTransfe...	Actual type
:SIMUOProcessStream 1 of SI...	=1946175882/571				:SIMUOProcessStream
:SIMUOProcessStream 2 of SI...	=1946175882/851				:SIMUOProcessStream
:SIMUOProcessStream 3 of SI...	=1946175882/864				:SIMUOProcessStream
:SIMUOProcessStream 4 of SI...	=1946175882/865				:SIMUOProcessStream
:SIMUOProcessStream 5 of SI...	=1946175882/866				:SIMUOProcessStream
:SIMUOProcessStream 6 of SI...	=1946175882/867				:SIMUOProcessStream
:SIMUOProcessStream 7 of SI...	=1946175882/868				:SIMUOProcessStream
:SIMUOProcessStream 8 of SI...	=1946175882/869				:SIMUOProcessStream
:SIMUOProcessStream 9 of SI...	=1946175882/870				:SIMUOProcessStream
:SIMUOProcessStream 10 of SI...	=1946175882/871				:SIMUOProcessStream
:SIMUOProcessStream 11 of SI...	=1946175882/872				:SIMUOProcessStream
:SIMUOProcessStream 12 of SI...	=1946175882/873				:SIMUOProcessStream
:SIMUOHeatExchanger 2 of SI...	=1946175882/599				:SIMUOHeatExchanger
:SIMUOHeatExchanger 1 of SI...	=1946184074/4			40	:SIMUOHeatExchanger
:SIMUOInverter 1 of SIMGRP 1...	=1946184074/7				:SIMUOInverter
:SIMUOHeader 1 of SIMGRP 1...	=1946184074/6				:SIMUOHeader
:SIMUOTank 1 of SIMGRP 1 of...	=1946184074/5				:SIMUOTank
/SF1	SF1				:SIMUOPVPanel
:SIMUOTransformer 1 of SIMG...	=1946184074/8				:SIMUOTransformer

The Object Lifecycle Explained



Project Home Manage View Simulation AVEVA NET E & I Drawings P&ID Admin

Drawings Explorer Attributes Properties Drawing Bulk Creation Sheet Repeat Connector Quick Label Line Text Shapes Change Symbol OPC Area Shape Copy Paste Reclassify Move Array Lengthen Remove from Drawing Distance Change Standard Image Zoom Extents Zoom Highlight Drawing Drawings Import Drawing Print

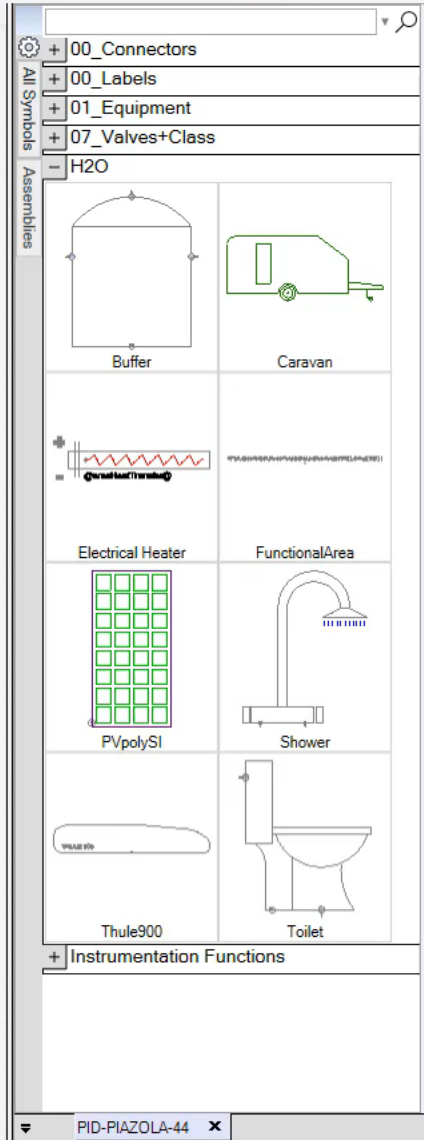
Tools

Grids Explorer

- Grids
 - Admin Grids
 - H2O
 - CampingGear
 - CampingGearFunctional
 - CampingGearSim
 - Unified Engineering
 - User Grids

All Symbols Assemblies

- + 00_Connectors
- + 00_Labels
- + 01_Equipment
- + 07_Valves+Class
- H2O
 - Buffer
 - Caravan
 - Electrical Heater
 - FunctionalArea
 - PVpolySI
 - Shower
 - Thule900
 - Toilet
- + Instrumentation Functions

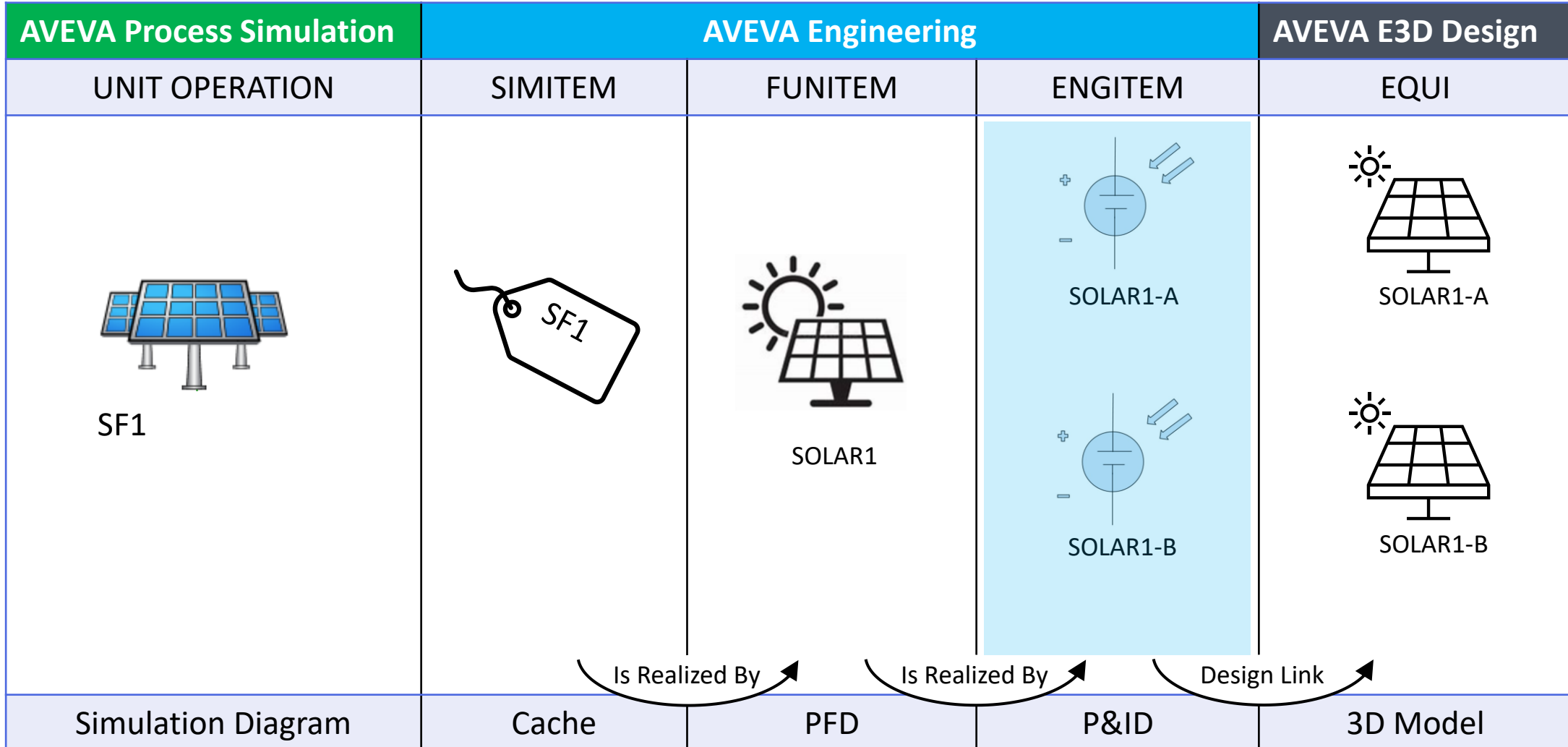


Item No.:	E-01-A		E-01-B		B-01-A		B-01-A	
Name:	Dec: Plate HeatExchanger		Dec: Plate HeatExchanger		Dec: Tank / Vessel		Dec: Tank / Vessel	
Technical Data:								
Material: 1 2	RVS	RVS	RVS	RVS	Epoxy		Epoxy	
Design Press (PS) 1 2 min max:								
Design Temp (TS) 1 2 min max:	10degC	14degC	30degC	35degC	10degC	14degC	10degC	14degC
Inv. No.:								

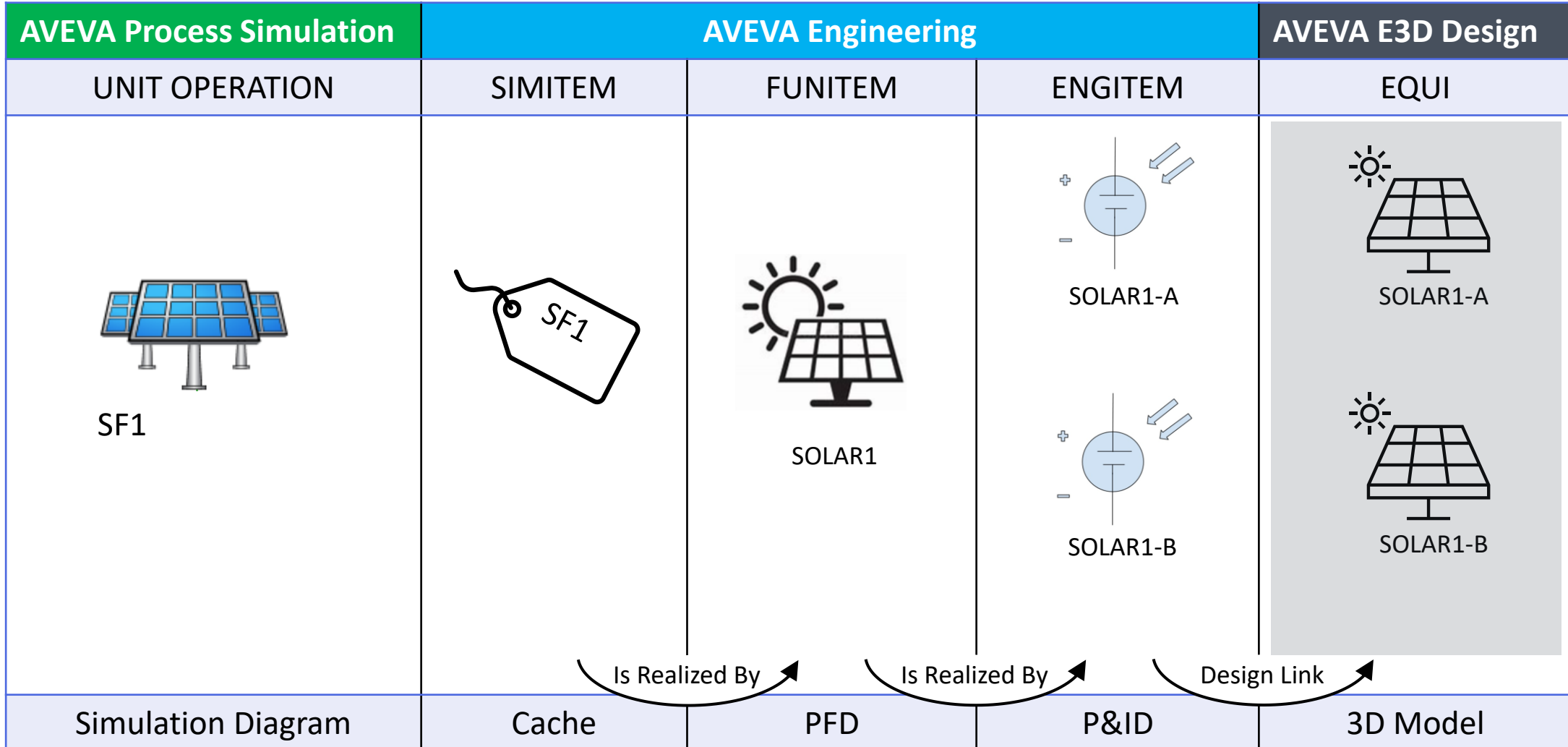
Sheet 01

PID-PIAZOLA-44

The Object Lifecycle Explained



The Object Lifecycle Explained

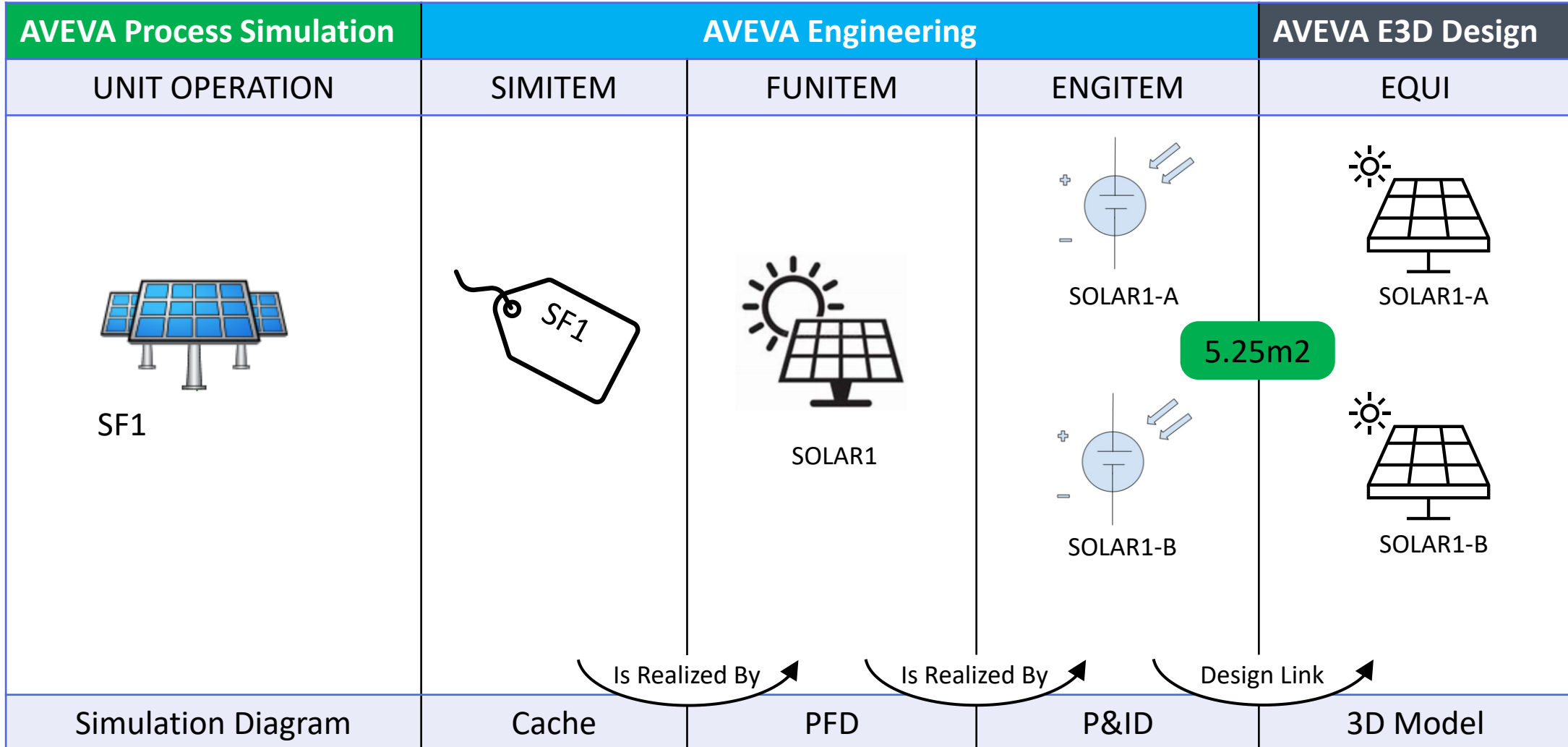


- Grids Explorer
- Grids
 - Admin Grids
 - H2O
 - CampingGear
 - CampingGearFunctional**
 - CampingGearSim
 - Unified Engineering
 - User Grids

Drag a column header here to group by that column.

Letter	Identifier	Description	PbsReference	itemMedium	areaHeatTrans	areaFunctio	areaActual	Actual type	Name	Name(2)	manufacturer	ShortName
A	01-A		44					:Battery	A-01-A	ITA/RIVA/ROV/SUD/...		A-01-A
A	01-B		44					:Battery	A-01-B	ITA/RIVA/ROV/SUD/...		A-01-B
A	01-C		44					:Battery	A-01-C	ITA/RIVA/ROV/SUD/...		A-01-C
S	01-A		44				1750000 mm2	:PVpolySI	S-01-A	ITA/RIVA/ROV/SUD/...	Siemens	S-01-A
S	01-B		44				1750000 mm2	:PVpolySI	S-01-B	ITA/RIVA/ROV/SUD/...	Siemens	S-01-B
S	01-C		44				1750000 mm2	:PVpolySI	S-01-C	ITA/RIVA/ROV/SUD/...	Siemens	S-01-C
T	01-A							:Toilet	T-01-A	T-01-A		T-01-A
								:Cable	CBL-001	CBL-001		
								:Cable	CBL-002	CBL-002		
								:Cable	CBL-003	CBL-003		
								:Cable	CBL-010	CBL-010		
								:Cable	CBL-011	CBL-011		
S	01-A							:Shower	S-01-A	S-01-A		S-01-A
B	01-A		44					:SkiBox	B-01-A	ITA/RIVA/ROV/SUD/...		B-01-A
JB								:JunctionBox	JB-001	JB-001		JB-001
C	01-A							:Caravan	C-01-A	C-01-A		C-01-A
E	01-A		44				0 acre	:ElectricalHeatE	E-01-A	ITA/RIVA/ROV/SUD/...		E-01-A
E	01-B		44				0 acre	:ElectricalHeatE	E-01-B	ITA/RIVA/ROV/SUD/...		E-01-B

The Object Lifecycle Explained



Rating Simulation

Check the Process with Sized Equipment

AVEVA

Plant Area: 44

SF1
SF1

Evening

Connection Export Cases Updates From AVEVA Engineering Simulation Data

Model Library

Caravan2026

Shapes

- WindFarm
- SolarFarm
- Battery
- Electrolyze
- ElectroRig
- Cable
- Busbar
- Transformer
- Converter
- Inverter
- Rectifier
- Breaker
- Resistor
- Generator
- Consumer
- GreenH2
- WPower Example
- Windtren dExample
- SolarTrend Example
- DeVolt
- voltPEM
- voltALK

Tools

Controls

CW/Lib

Economics

FlareLib

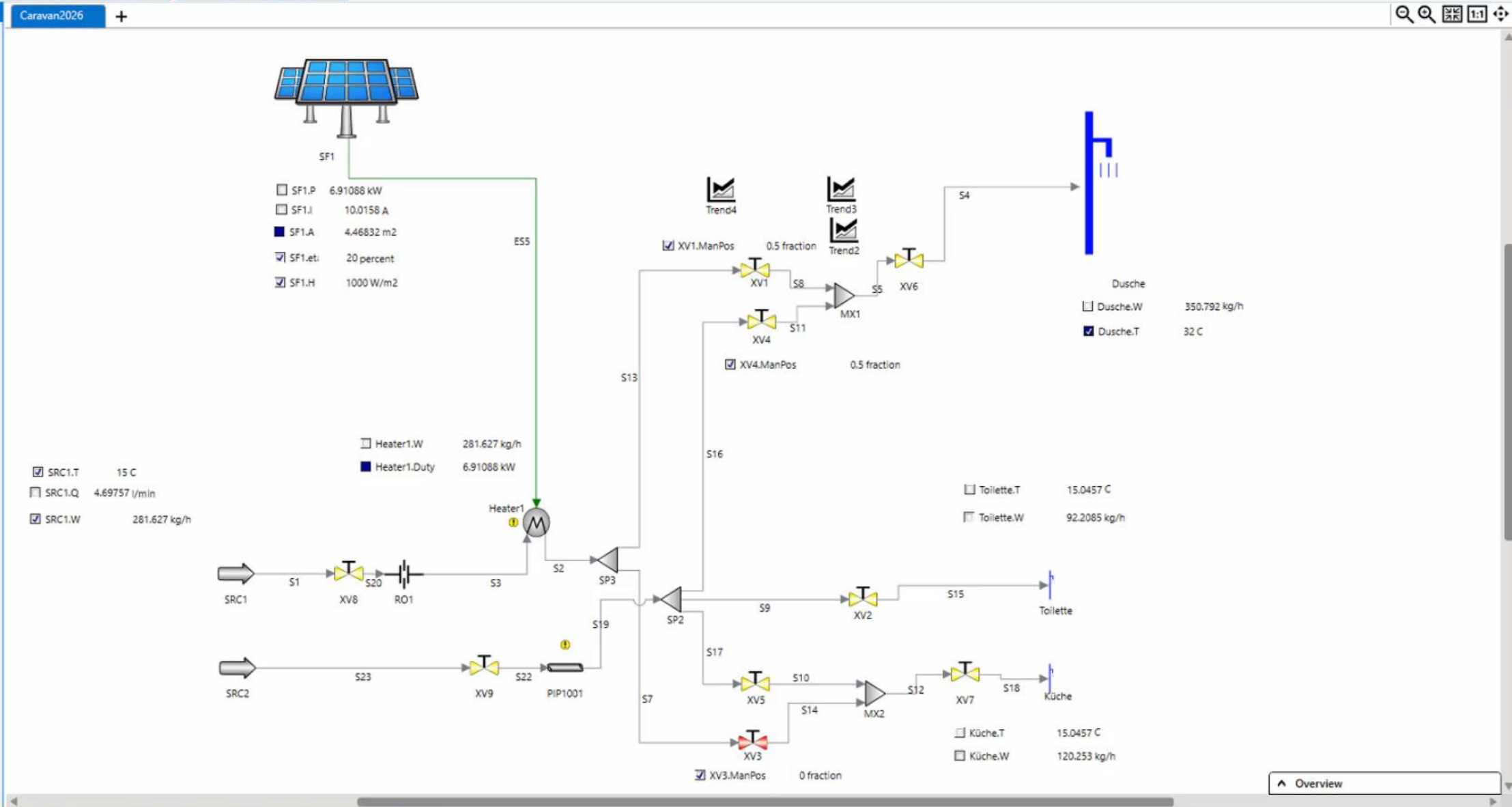
Fluids

Process

Renewables

SteamLib

Caravan2026



Dynamic Simulation

Check the Behavior of the Process

AVEVA

Model Library Caravan2026

Shapes

- WindFarm
- SolarFarm
- Battery
- Electrolyzer
- ElectroRig
- Cable
- Busbar
- Transformer
- Converter
- Inverter
- Rectifier
- Breaker
- Resistor
- Generator
- Consumer
- GreenH2
- WFPower Example
- Windtrend Example
- SolarTrend Example
- DeVolt
- VoltPEM
- VoltALK

Tools

Controls

CWLib

Economics

FlareLib

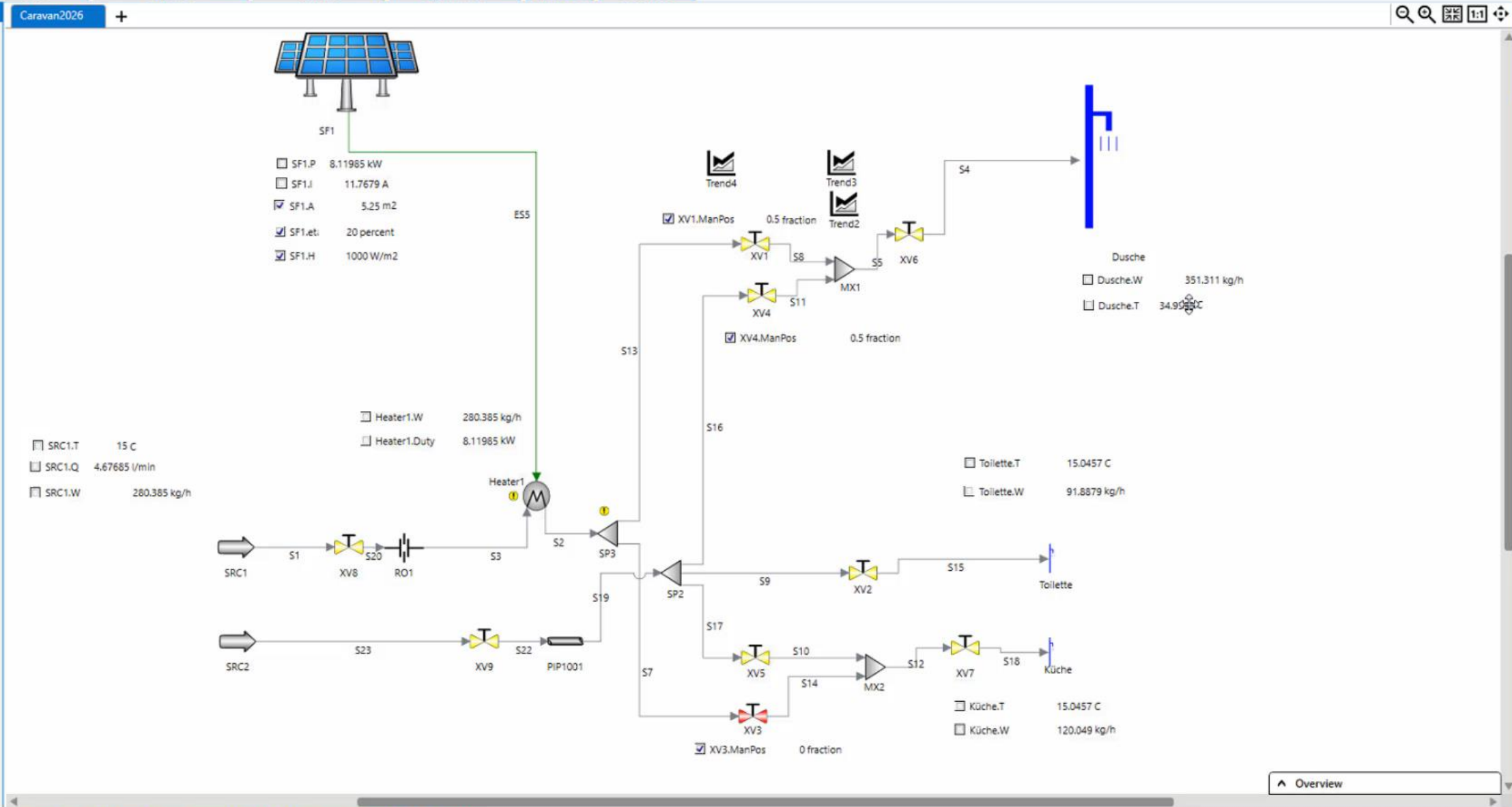
Fluids

Process

Renewables

SteamLib

Caravan2026



SF1.P 8.11985 kW
 SF1.I 11.7679 A
 SF1.A 5.25 m2
 SF1.et. 20 percent
 SF1.H 1000 W/m2

SRC1.T 15 C
 SRC1.Q 4.67685 l/min
 SRC1.W 280.385 kg/h

Heater1.W 280.385 kg/h
 Heater1.Duty 8.11985 kW

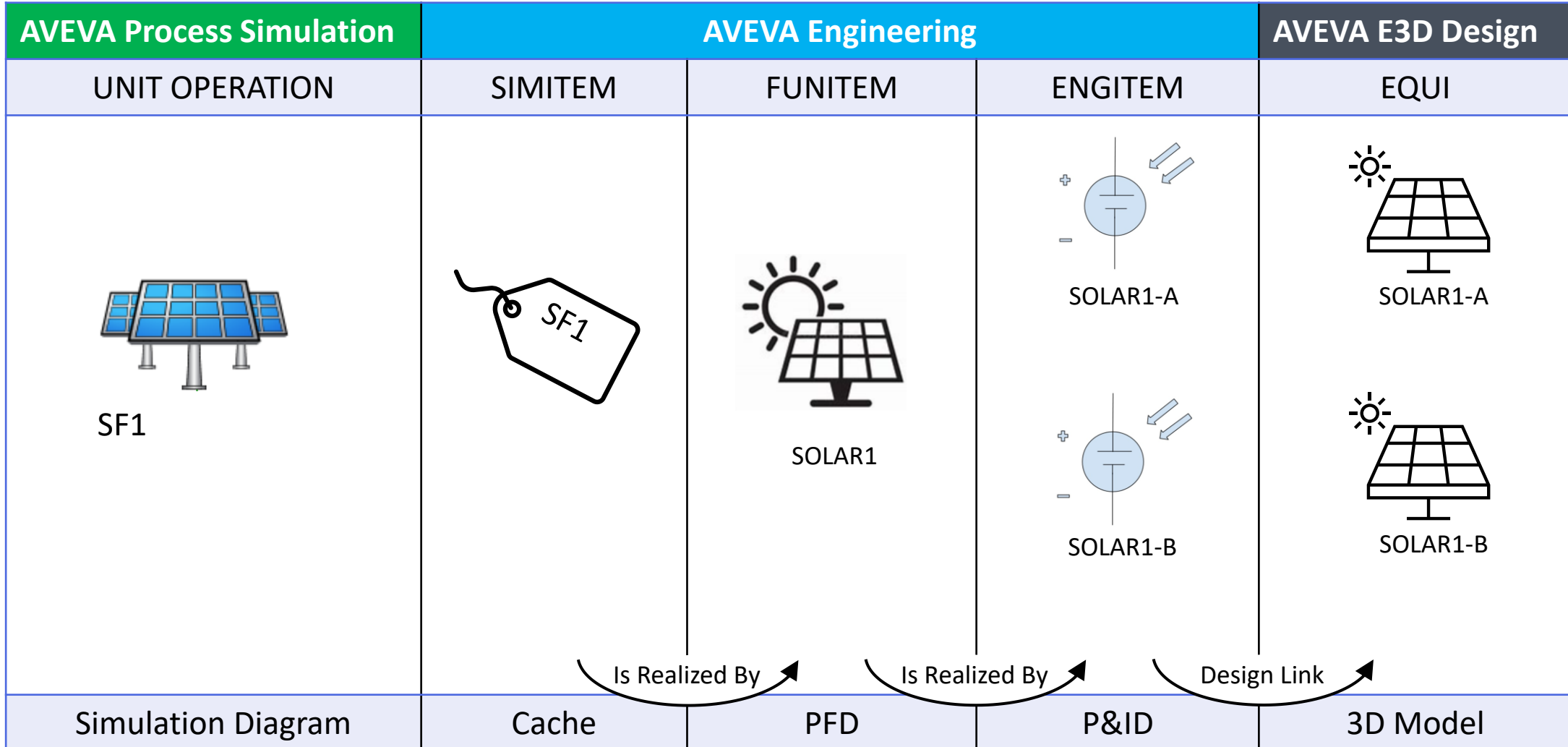
Dusche
 Dusche.W 351.311 kg/h
 Dusche.T 34.958 C

Toilette.T 15.0457 C
 Toilette.W 91.8879 kg/h

Küche.T 15.0457 C
 Küche.W 120.049 kg/h

Overview

The Object Lifecycle Explained



Project Home Manage View Simulation AVEVA NET E & I Drawings P&ID Admin Actions Cables Equipment

Rotate Pan Zoom Show whole box Center on Selected Auto Center

Equipment Cabling Piping Hangers Structure Others

Display imported elements

Parallel Perspective Axes Clip Planes

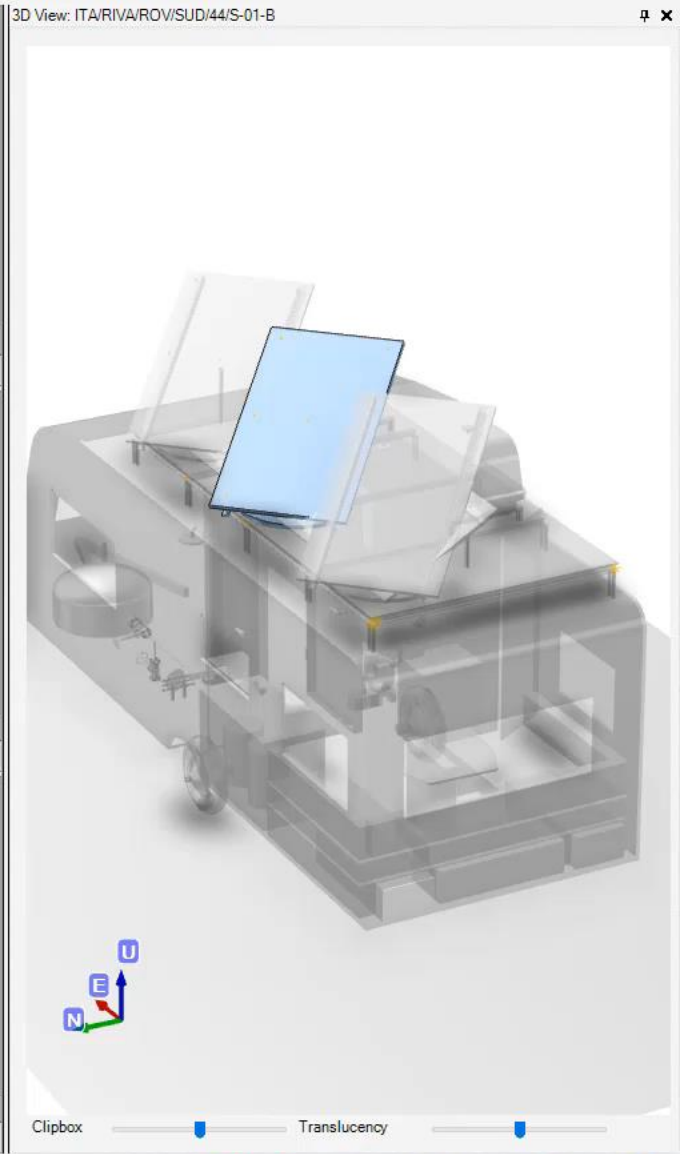
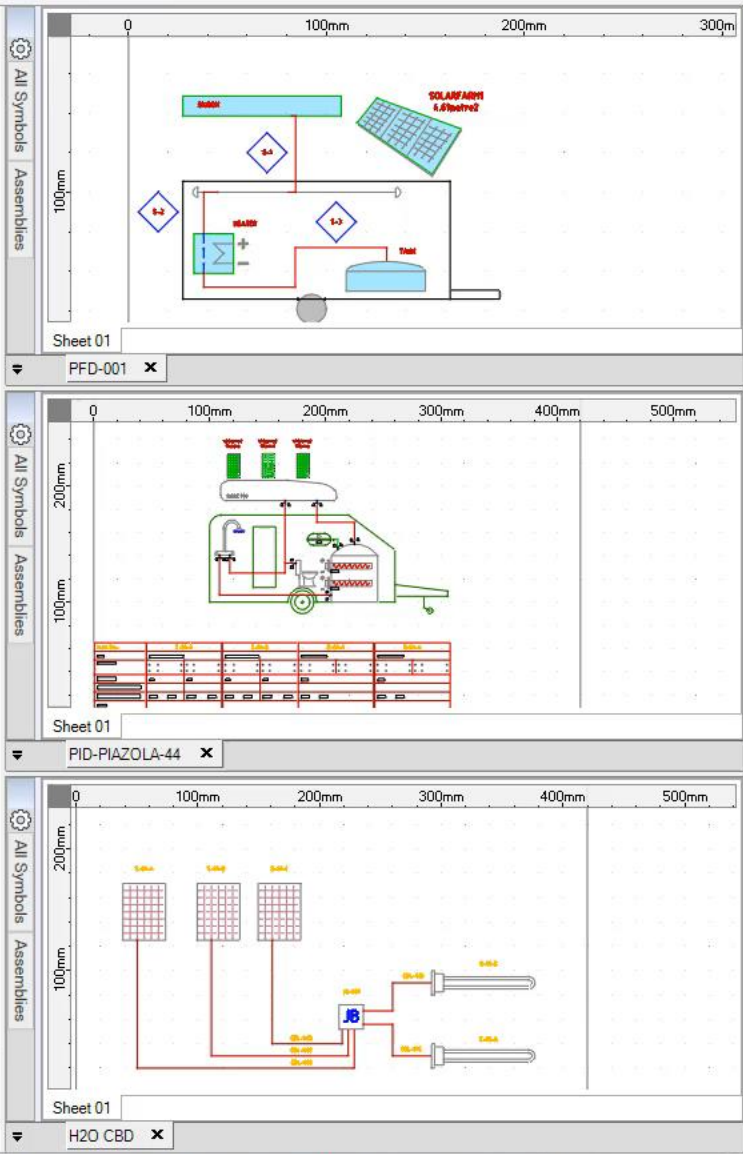
Navigation Object Types View Options

Grids Explorer

- Grids
 - Admin Grids
 - H2O
 - CampingGear
 - CampingGearFunctional
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 - User Grids

Drag a column header here to group by that column.

Letter	Identifier	Description	PbsReference	itemMedium
<input checked="" type="checkbox"/>				
A	01-A		44	
A	01-B		44	
A	01-C		44	
S	01-A		44	
S	01-B		44	
S	01-C		44	
T	01-A		44	
S	01-A			
B	01-A		44	
JB				
C	01-A			
E	01-A		44	
E	01-B		44	



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The Company shall not be obliged to disclose any revision to these forward-looking statements to reflect events or circumstances occurring after the date on which they are made or to reflect the occurrence of future events.

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ABOUT AVEVA

AVEVA is a world leader in industrial software, providing engineering and operational solutions across multiple industries, including oil and gas, chemical, pharmaceutical, power and utilities, marine, renewables, and food and beverage. Our agnostic and open architecture helps organizations design, build, operate, maintain and optimize the complete lifecycle of complex industrial assets, from production plants and offshore platforms to manufactured consumer goods.

Over 20,000 enterprises in over 100 countries rely on AVEVA to help them deliver life's essentials: safe and reliable energy, food, medicines, infrastructure and more. By connecting people with trusted information and AI-enriched insights, AVEVA enables teams to engineer efficiently and optimize operations, driving growth and sustainability.

Named as one of the world's most innovative companies, AVEVA supports customers with open solutions and the expertise of more than 6,400 employees, 5,000 partners and 5,700 certified developers. The company is headquartered in Cambridge, UK.

Learn more at www.aveva.com