

Datasheet Designer Comos 10.2

29.09.2016 | Comos-Team
thyssenkrupp Industrial Solutions AG, Business Unit Process Technologies
IS/ITM-EA-PT

engineering.tomorrow.together.



thyssenkrupp

Agenda

Datasheet Designer

1. Preconditions

- Reasons
- Datasheet Definition
- Datasheet Standard Solution

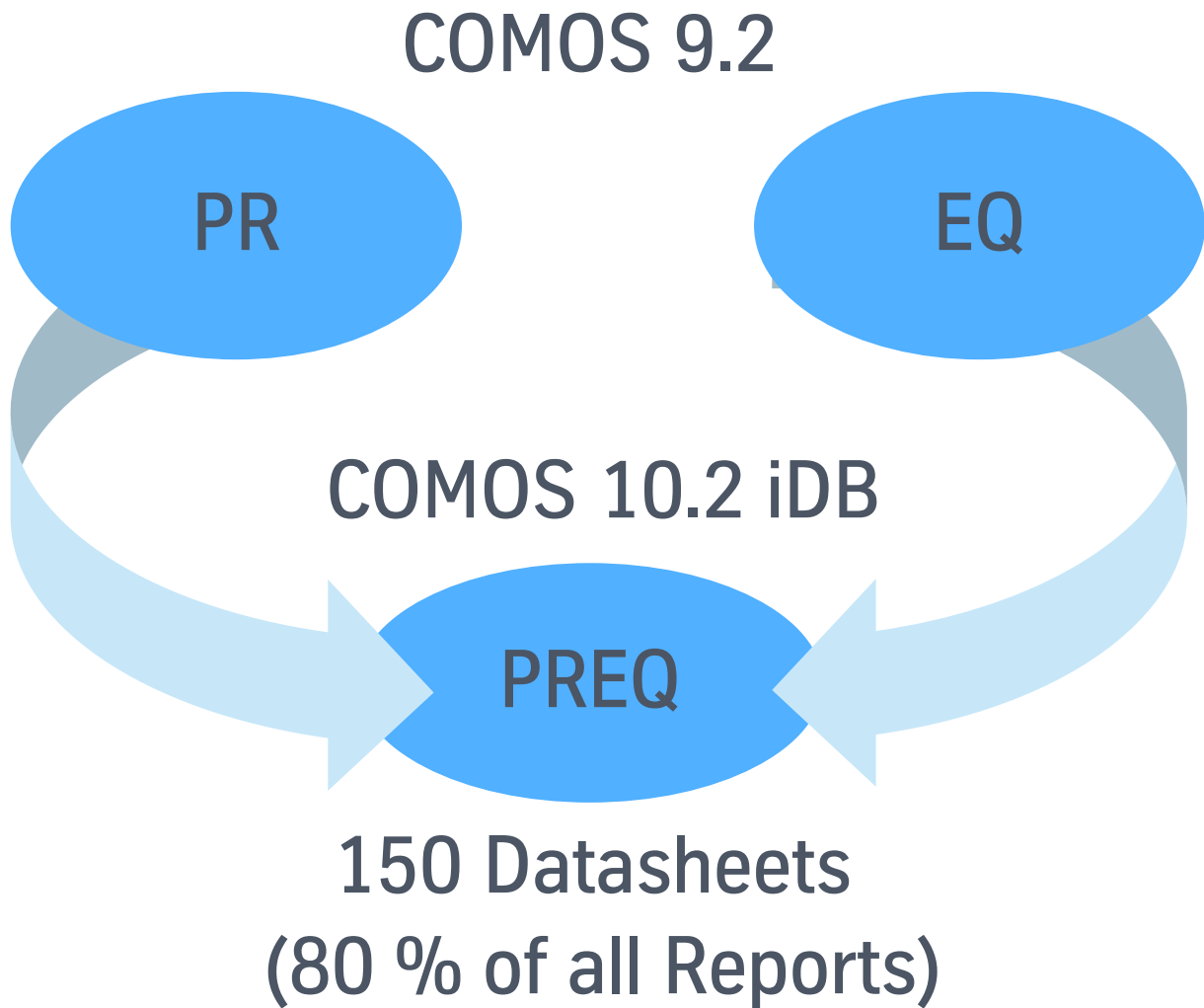
2. Datasheet Designer

- Concept
- Realisation

3. Questions



Preconditions / Reasons



Preconditions / Datasheet Definition

ThyssenKrupp Uhde	Plant	Customer	Code Prod-Version	UAN	00-Test-P04	Page 4
PROCESS DESIGN CONDITION				TON	99B001	
APL Feed Heater (ADLE60)				Item		
PURCHASER/OWNER :				ITEM NO. :		
SERVICE :				LOCATION :		
1	UNIT :			* NUMBER REQUIRED :		
2	MANUFACTURER :			REFERENCE :		
3	TYPE OF HEATER :					
4	* TOTAL HEAT ABSORBED DUTY :				kW	
17	MAX. RAD. BEGT. FLUX DENSITY	kW/m ²				
18	CONV. BEGT. FLUX DENSITY (BARE TUBE)	kW/m ²				
19	* VELOCITY LIMITATION	m/s				
20	* PROCESS FLUID MASS VELOCITY	kg/h m ²				
21	* MAX. ALLOW. CALC. IN-SIDE FILM TEMP	°C	/	/	/	/
22	* FOULING FACTOR	mf KW				
23	* CORROSION ALLOWANCE	mm				
24	INLET CONDITIONS:					
25	* TEMPERATURE	°C				
26	* PRESSURE	bar g				
27	* LIQUID FLOW	kg/h				
28	* VAPOUR FLOW	kg/h				
29	* LIQUID GRAVITY					
30	* VAPOUR MOLECULAR WEIGHT					
31	* VISCOSITY, (LIQUID/VAPOUR)	mPa s	/	/	/	/
32	* SPECIFIC HEAT, (LIQUID/VAPOUR)	kJ/kg K	/	/	/	/
33	* THERMAL CONDUCTIVITY, (LIQUID/VAPOUR)	W/m K	/	/	/	/
34	OUTLET CONDITIONS:					
35	* TEMPERATURE	°C				
36	* PRESSURE	bar g				
37	* LIQUID FLOW	kg/h				
38	* VAPOUR FLOW	kg/h				
39	* LIQUID GRAVITY					
40	* VAPOUR MOLECULAR WEIGHT					
41	* VISCOSITY, (LIQUID/VAPOUR)	mPa s	/	/	/	/
42	* SPECIFIC HEAT, (LIQUID/VAPOUR)	kJ/kg K	/	/	/	/
43	* THERMAL CONDUCTIVITY, (LIQUID/VAPOUR)	W/m K	/	/	/	/
44	REMARKS AND SPECIAL REQUIREMENTS :					
1) * Distillation data OR Feed composition.						

➤ Layout (How to display)

➤ Attributes (What to display)



Preconditions / Datasheet Standard Solution

	E: OSpec ("AFRHCP1", "L000_1").Description	I: OSpec ("AFRHCP1", "L000_1") P: DisplayValue	
	E: OSpec ("AFRHCP1", "L000_3").Description	I: OSpec ("AFRHCP1", "L000_3") P: DisplayValue	
1	E: OSpec ("AFRHCP1", "L001").Description	I: OSpec ("AFRHCP1", "L001") P: DisplayValue	
2	E: OSpec ("AFRHCP1", "L002").Description	I: OSpec ("AFRHCP1", "L002") P: DisplayValue	
3	E: OSpec ("AFRHCP1", "L003").Description	I: OSpec ("AFRHCP1", "L003") P: DisplayValue	
4	E: OSpec ("AFRHCP1", "L004").Description	I: OSpec ("AFRHCP1", "L004") P: DisplayValue	dim speo set speo = OSpeo ("AFRHCP1", "L004") text=speo.getphysunit(speo.unit,label)

- Easy to Create
- Good Performance
- **Difficult to Maintain**



Datasheet Designer / Concept

Line	Name of Element ▲	Type of Line Report	Attribute # 01	Attribute # 02	Attribute # 03
Page ▲ : 01					
01	P01_L01	LNR 02 03-02	A0285	A0286	
02	P01_L02	LNR 02 03-02	A0287	A0204	
03	P01_L03	LNR 02 04-05	A0220	A0228	
04	P01_L04	LNR 02 04-05	A0277	A0289	
05	P01_L05	LNR 01 04-05	A0262		
06	P01_L06	LNR 01 04-05	A0604		
07	P01_L07	LNR 00 03-02	A1100		

E: Scriptobject.AValue(1).Description : I: Scriptobject.AValue(1)
P: DisplayValue

AS LINK ATTRIBUTE

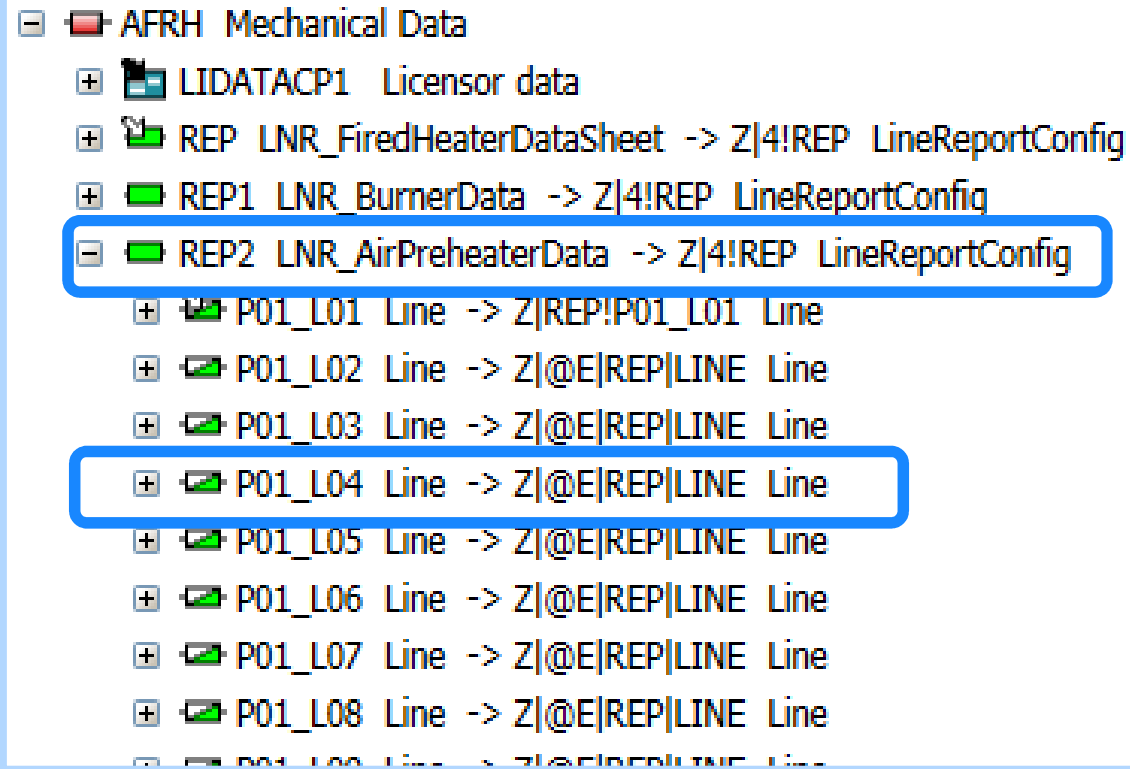
AS LINK ATTRIBUTE

➤ Layout (How to display)

➤ Attributes (What to display)



Datasheet Designer / Realisation



➤ Root Object of Datasheet

AS ELEMENT

➤ Line Object

AS ELEMENT



Questions?



Datasheet Designer / Full Version

1	Quantity operat./stand-by			12			
2	TEMA type			13	Number of tubes	AREA 1	
3	Position (H)orizontal/(V)ertical			14	Tube length mm		
4	Arrangement	Parallel	serial	stand-by	15		Tube O.D. x wall thk. mm
5	Exchg Surf. per Exchg/Total	m ²			16		Pitch mm
6					17	Tube layout deg	
7					18	Number of baffles/supports /	
8					19	Baffles type	
9					20	Baffles cut pct or dia./orientation	
10					21	Shell diameter outside/insidemm	
11					22	Leakage class	

COLUMN 1

COLUMN 2

						AREA 2
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COLUMN 1

AREA 2

Name of Element	Type of Line Report
Page ▲: PAGE_01	
[-] Area ▼: AREA_01	
[+] Column ▼: COLUMN_01	
[+] Column ▼: COLUMN_02	
[-] Area ▼: AREA_02	
[+] Column ▼: COLUMN_01	


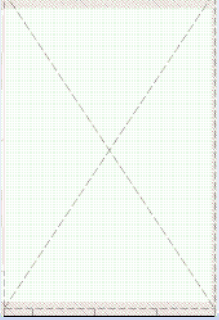
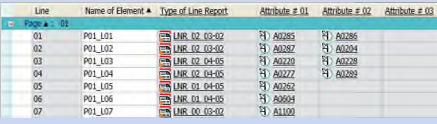
➤ Every area can have own evaluation rules

Select Sub Report

SR_R01_C02-01	...	X	👉
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Performance

	Type of Report		1 Run	2 Run	3 Run
	Standard Workflow X 2.2	Rep 1 Rep 2 Rep 3	1.42 0.58 0.79	0.48 0.38 0.54	0.50 0.36 0.54
	Sub Reports Workflow X 1.76	Rep 1 Rep 2 Rep 3	1.78 0.79 0.71	0.61 0.55 0.54	0.66 0.57 0.54
	Datasheet Designer (engineering side)	Rep 1 Rep 2 Rep 3	3.14 (3.63) 2.13 (2.58) 2.34 (2.48)	1.46 (1.58) 1.23 (1.30) 1.38 (1.46)	1.49 (1.60) 1.39 (1.28) 1.48 (1.46)



Datasheet Designer / Example Video

