

EPLAN
EFFICIENCY DAYS 2023

USER TRACK

EPLAN Preplanning – Externe data importeren



EPLAN
EFFICIENCY DAYS 2023



Dieter van Lierde

Senior consultant

Lee Nysten

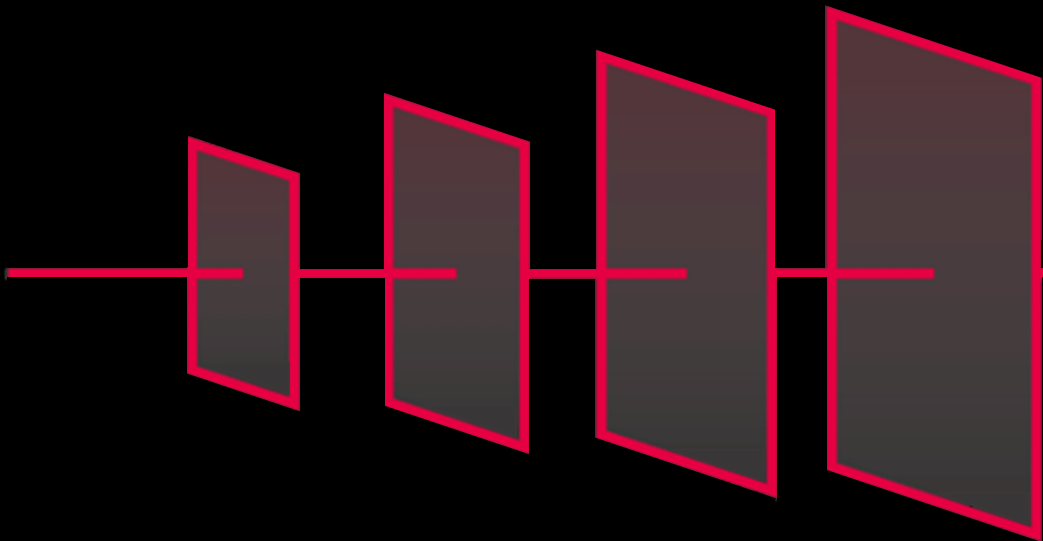
Technical business manager

PROCESS CONSULTING

ENGINEERING SOFTWARE

IMPLEMENTATION

GLOBAL SUPPORT



EFFICIENCY DAYS 2023

breakthrough 4 tomorrow



▼ USER-LEVEL

LEVEL 1
BASIC

LEVEL 2
ADVANCED

PRODUCT LEADERSHIP
FUNCTIONAL EFFICIENCY

4 LEVELS OF Digital Transformation Strategy

CUSTOMER INTIMACY
FULLY INTEGRATED



LEVEL 3
EXPERT

LEVEL 4
EXECUTIVE

▲ **MANAGEMENT-LEVEL**

▼ **USER-LEVEL**

LEVEL 1
BASIC

LEVEL 2
ADVANCED

PRODUCT LEADERSHIP
FUNCTIONAL EFFICIENCY

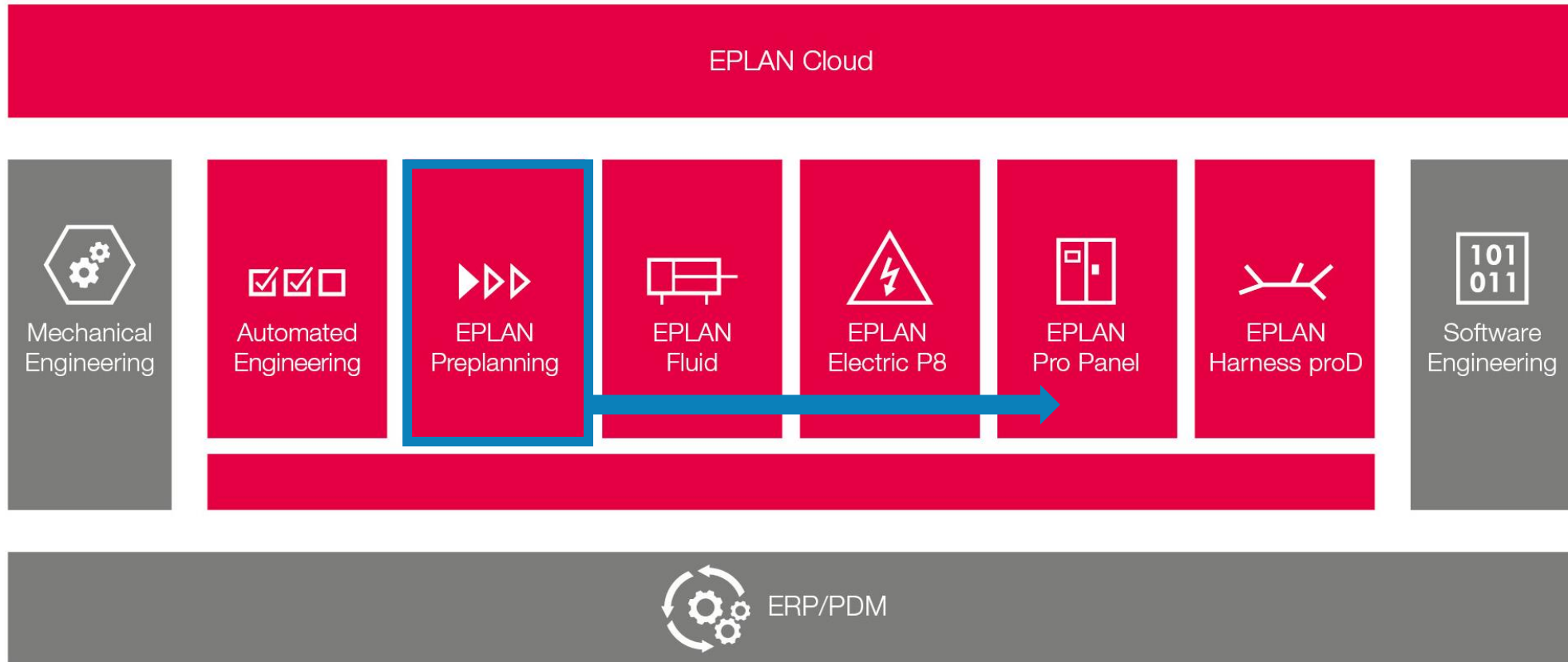


Agenda

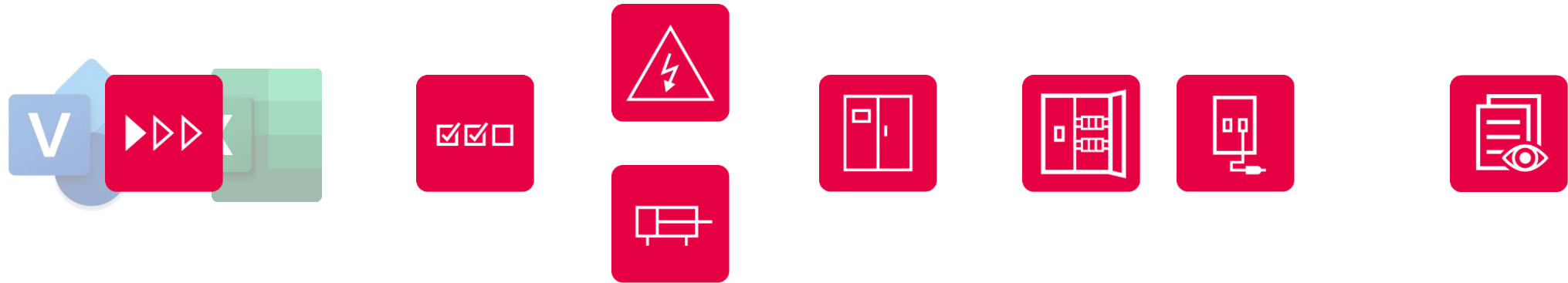
- 1** **Introductie**
- 2 EPLAN Preplanning
- 3 Import kabelberekeningsdata in EPLAN platform
- 4 Toegevoegde waarde kabelcalculatie integratie
- 5 Vragen?

Introductie

EPLAN Platform



Introductie



Agenda

1 Introductie

2 EPLAN Preplanning

3 Import kabelberekeningsdata in EPLAN platform

4 Toegevoegde waarde kabelcalculatie integratie

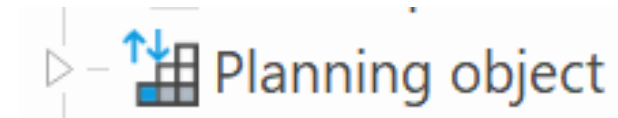
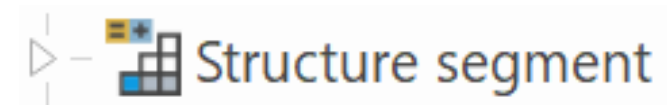
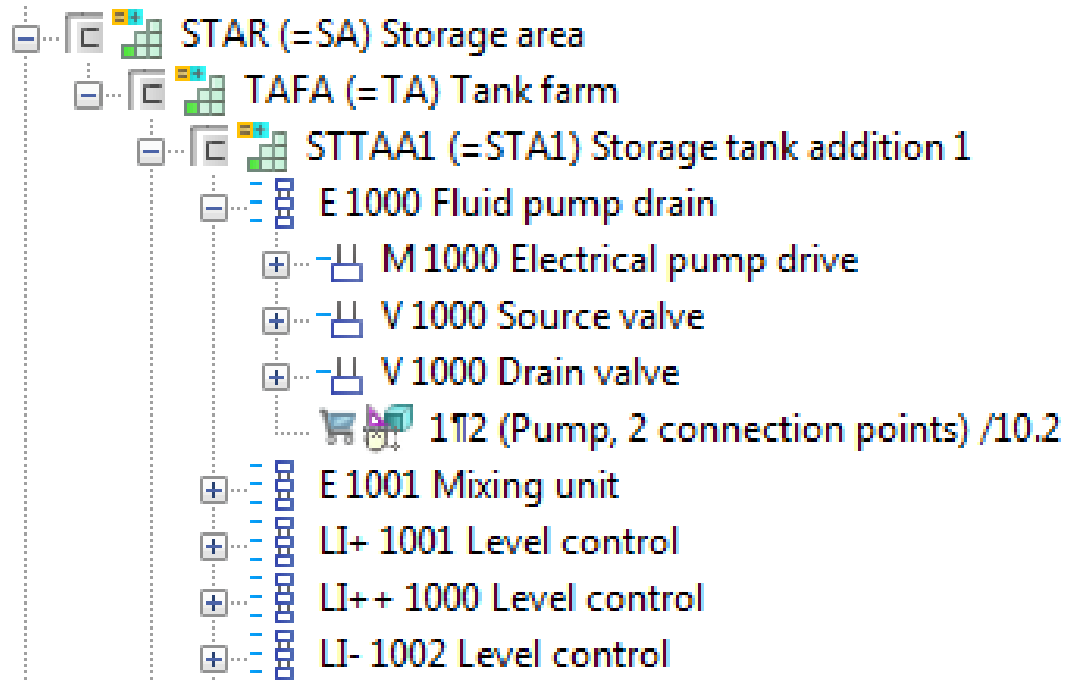
5 Vragen?

EPLAN Preplanning

Visualiseren van planningsinformatie



Preplanning navigator



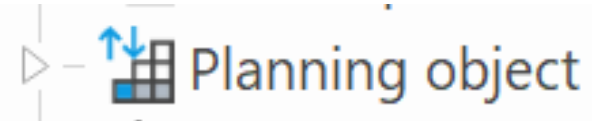


Structure segment

Structuursegment

Definitie van de projectstructuur

- Structuur (functie/locatie)
- Documenten en pagina's



Planning object

Planningsobject

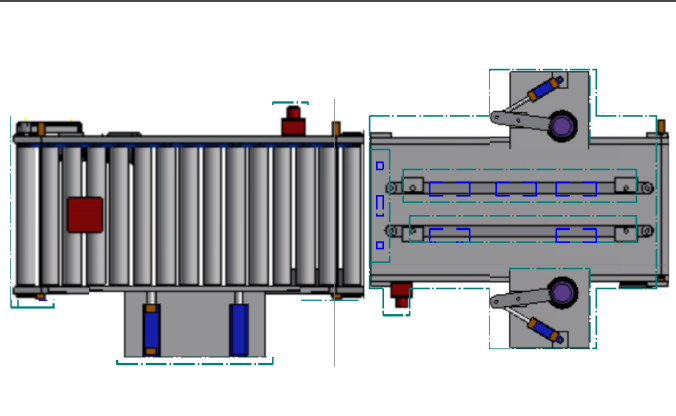
Definitie van een installatiedeel (tastbaar)

- ODC
- PLC (in- en uitgangen)
- Artikelen
- Macro
- Functiedefinities
- Documenten en pagina's



EPLAN Preplanning

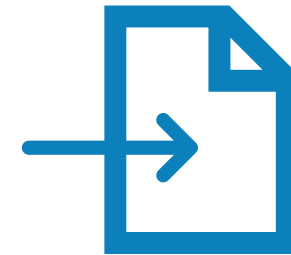
Grafische
Machine Layout



PFD
P&ID

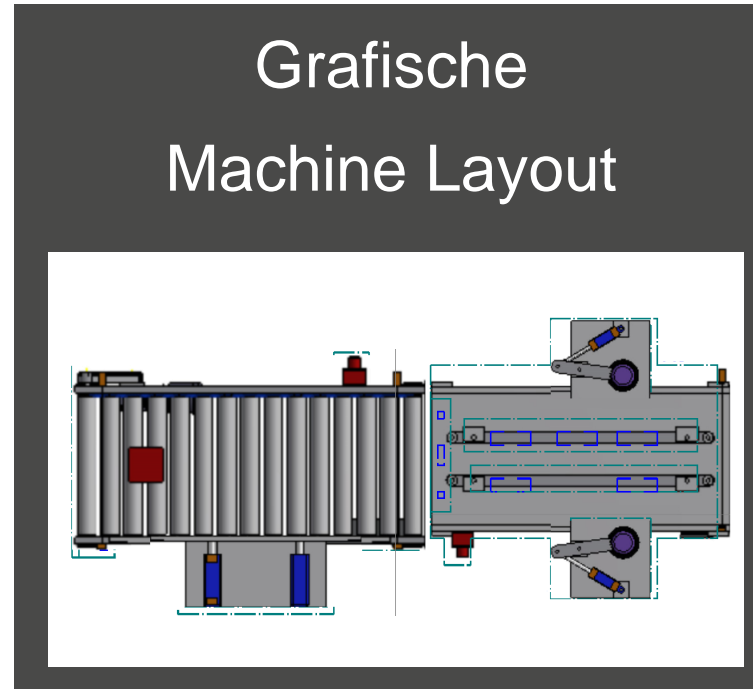


Data Import



EPLAN Preplanning

Grafische machine layout



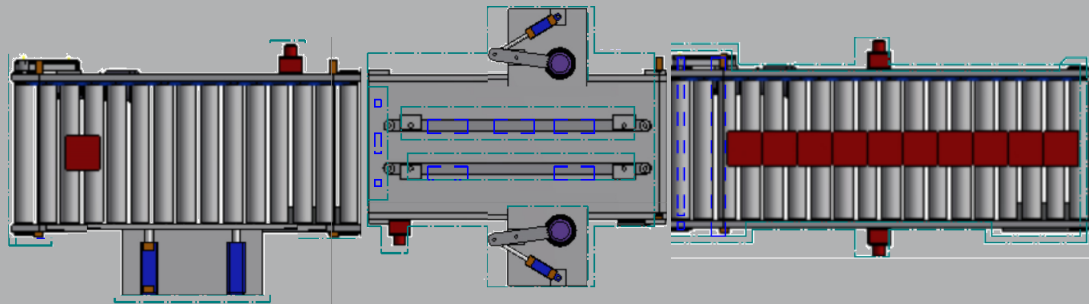
EPLAN Preplanning

Grafische machine layout



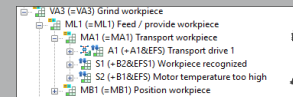
Preplanning pagina

- Grafische machine bouwstenen met achterliggende functies



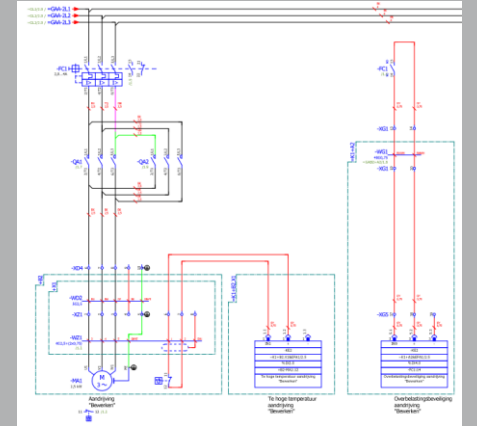
Preplanning Navigator

- Machine boomstructuur



EPLAN Platform

- Drag & drop detail planning



EPLAN Preplanning

PFD - P&ID



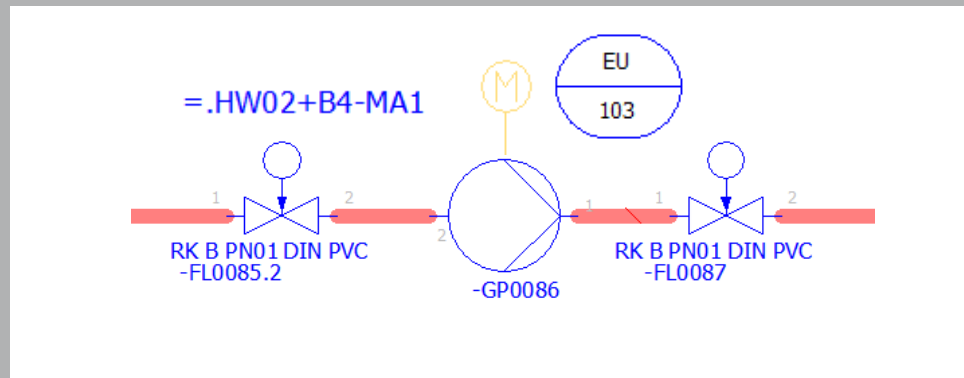
EPLAN Preplanning

PFD - P&ID



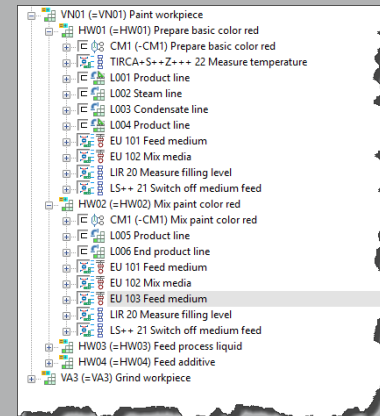
Externe Graphic Editor

- P&ID schema



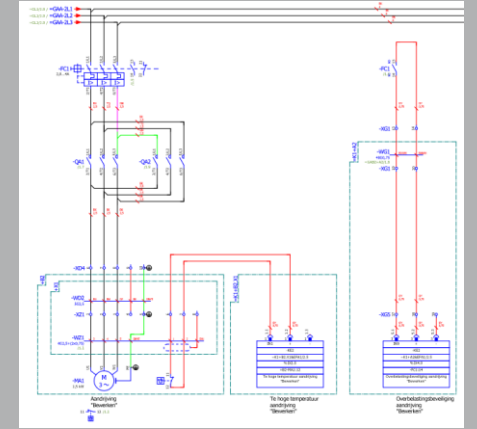
Preplanning Navigator

- System boomstructuur



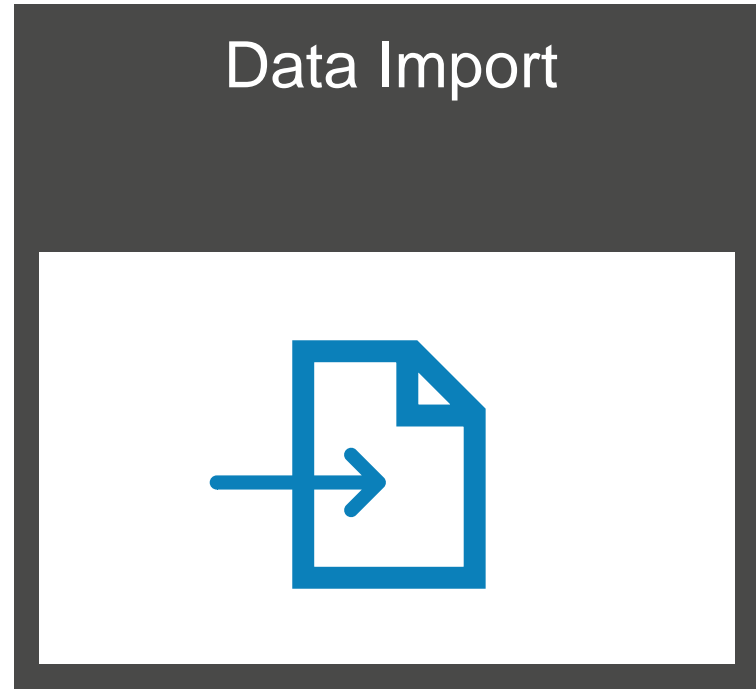
EPLAN Platform

- Drag & drop detail planning



EPLAN Preplanning

Data import



EPLAN Preplanning

Data import



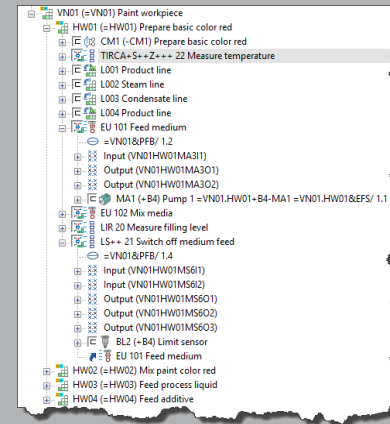
Externe data bronnen

- Elektrische, pneumatische onderdelenlijst
- Sensor / actuator lijsten
- Motorlijst
- Signaallijsten (I/O)



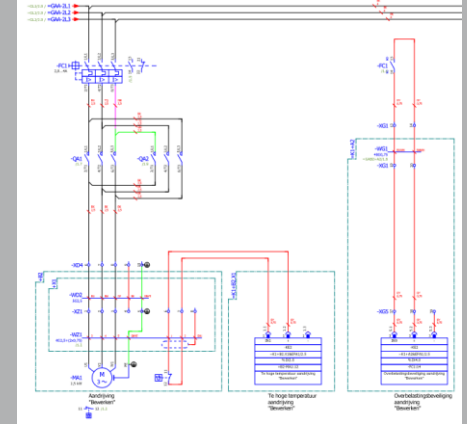
Preplanning Navigator

- System boomstructuur



EPLAN Platform

- Drag & drop detail planning



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1 Introductie

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3 Import kabelberekenningsdata in EPLAN platform

3.1 Tracesoftware

3.2 Praktisch voorbeeld - kabelberekening import

4 Toegevoegde waarde kabelcalculatie integratie

5 Vragen?

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EPLAN Partner Network

Partner Overview



PARTNER NETWORK
STRATEGIC PARTNER

RITTAL
PHOENIX CONTACT
INSPIRING INNOVATIONS
RA Rockwell Automation
SIEMENS

PARTNER NETWORK
TECHNOLOGY PARTNER

Product Configuration	CPQ	PLM/ERP	PLC	Simulation	Other
Lenze rexroth A Bosch Company FESTO Endress+Hauser WAGO PILZ Weidmüller EH	SAE Configit encoway standard for variety	prakom CONTACT Software ISAP keytech wissen statt suchen PRO.FILE BLUESTAR PLM FEE APPIUS PLM FERTIGUNG CASSINI PROCADgroup by Revolve	ABB MITSUBISHI ELECTRIC OMRON Corporation SIGMATEK Jetter automation UDMTEK United Digital Manufacturing Technology	ING machineering THE TIME SAVER COMPANY trace software	Quanos Service Solutions EHRT GOSSEN METRAWATT AUVESY-MDT

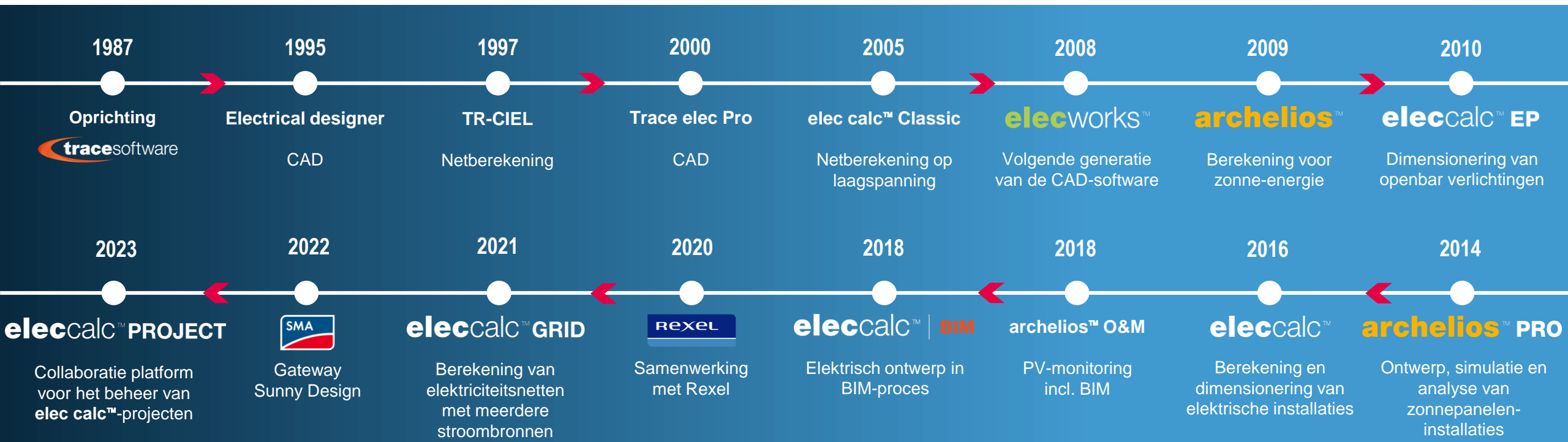
PARTNER NETWORK
SOLUTION PARTNER

Solution Configuration	PLM/ERP	PLC	Machines	Other
Alexander Bürkle zähnen TECHNIK	Data Solid SolidLine Ein Unternehmen der Bechtle Gruppe ELMO Solutions PLM CAD UTILITIES AS CIDEON CAD TALK Integrate. Intelligently.™	GROLLMUS	WUSTEC The next wire generation	semodia SECUDE KEEP IT CONFIDENTIAL D&TS Dataservices & IT-Solutions

PARTNER NETWORK
RESEARCH PARTNER

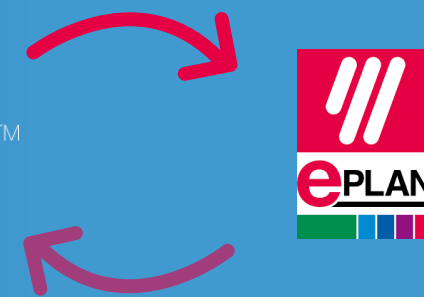
Fraunhofer
IAO
EUROPEAN 4.0 TRANSFORMATION CENTER
Universität Stuttgart
Institut für Steuerungstechnik der Werkzeugmaschinen und Fertigungseinrichtungen **ISW**





2023: Samenwerking met EPLAN

eleccalc™

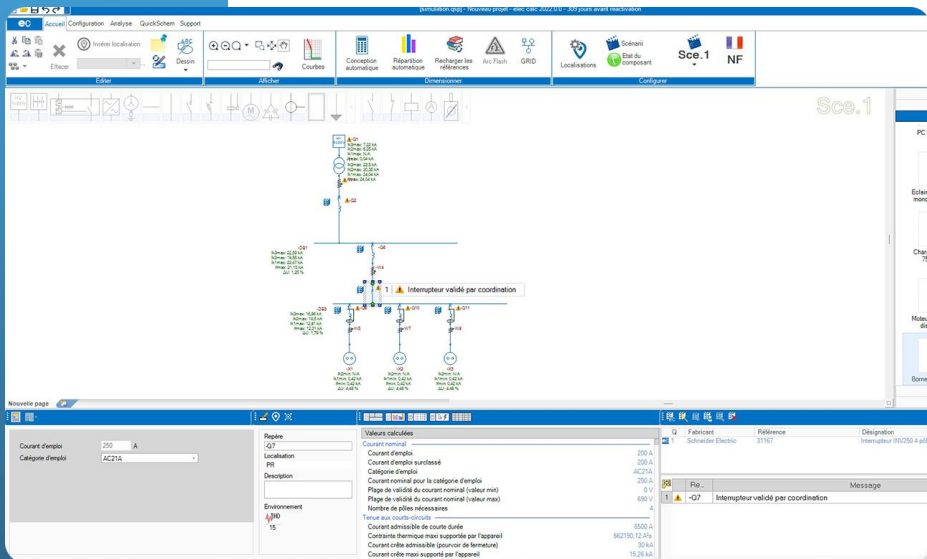




Collaboratie platform

eleccalc™

Elektrisch ontwerp en netberekening – Tekenen is berekenen!



L'installation électrique bien calculée

FUNCTIES



Berekening van vermogensbalansen en kortsluitstromen in real-time

Multimerk componentcatalogus

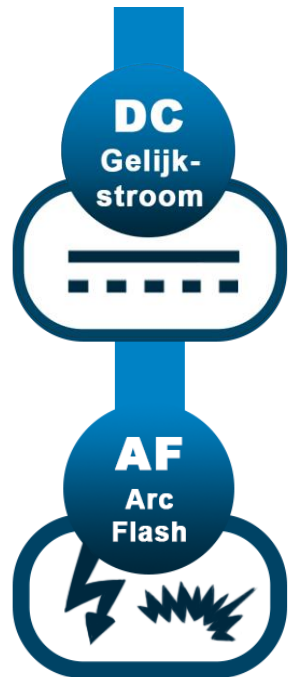


Hoog- en laagspanning in hetzelfde project

Meerdere normen beschikbaar (AREI/RGIE, NEN, NF, IEC, VDE, NIBT/NIN, REBT, BS)



MODULES



Een complete reeks



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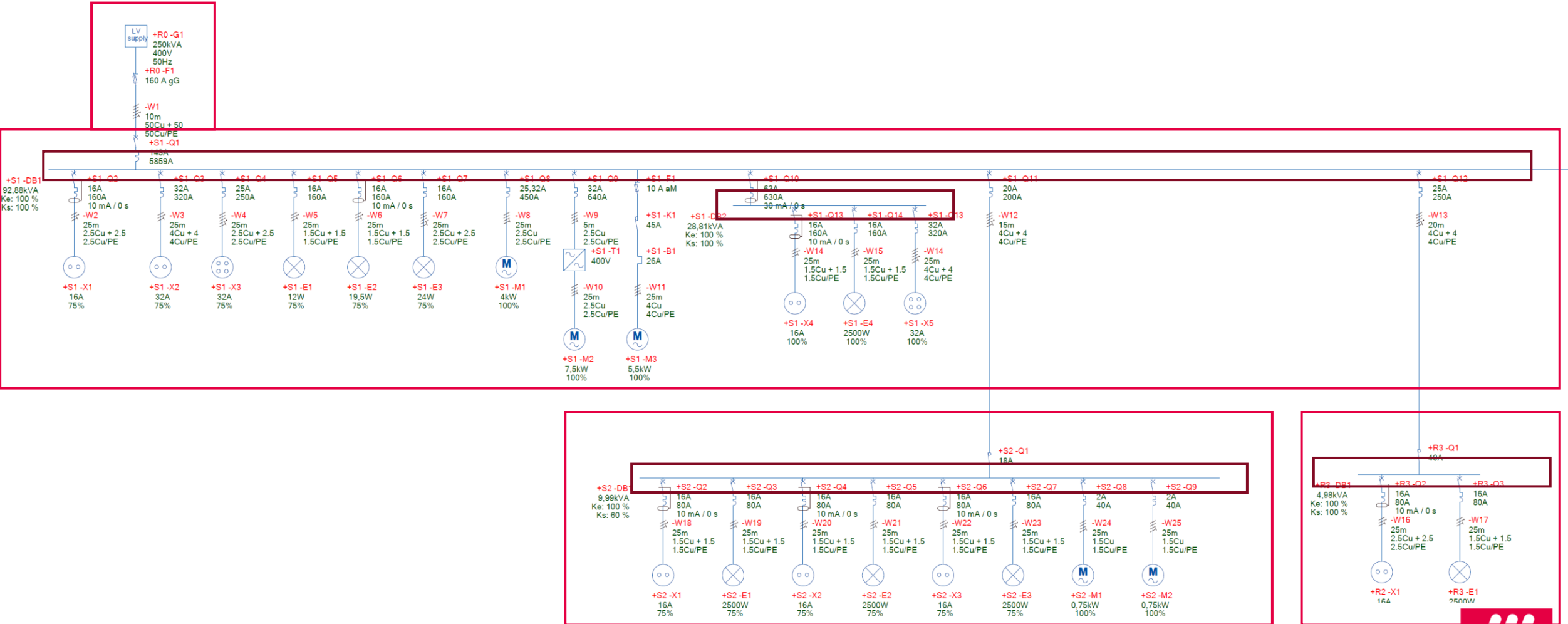
5 Vragen?

Praktisch voorbeeld - kabelberekening import



Praktisch voorbeeld - kabelberekening import

Kabelberekening met structuur



ePLAN



Praktisch voorbeeld - kabelberekening import

Export to EPLAN Platform



The screenshot shows the EPLAN software interface with the 'Export' dialog box open. The dialog is titled 'Export' and is divided into two main sections: 'Export' and 'Preview'. The 'Export' section contains several options for exporting data to different formats and platforms. A red arrow points to the 'Export Eplan™' option, which is the target of the 'Export to EPLAN Platform' action.

Export

Excel™ Export

Export templates

- ArcFlash
- Bill of materials by mark
- Bill of materials by reference
- Cable schedule per mark
- Cable schedule per reference
- Cables
- Cables HV
- Capacitors
- Distributors
- Label_Excel_VFD_TEST
- Label_Excel_VFD_TEST?

Generate the export

Export Excel...

Export Rexel™

Export Hagercad™

Export Autofill™

Export Eplan™

Selection of components

All

Praktisch voorbeeld - kabelberekening import

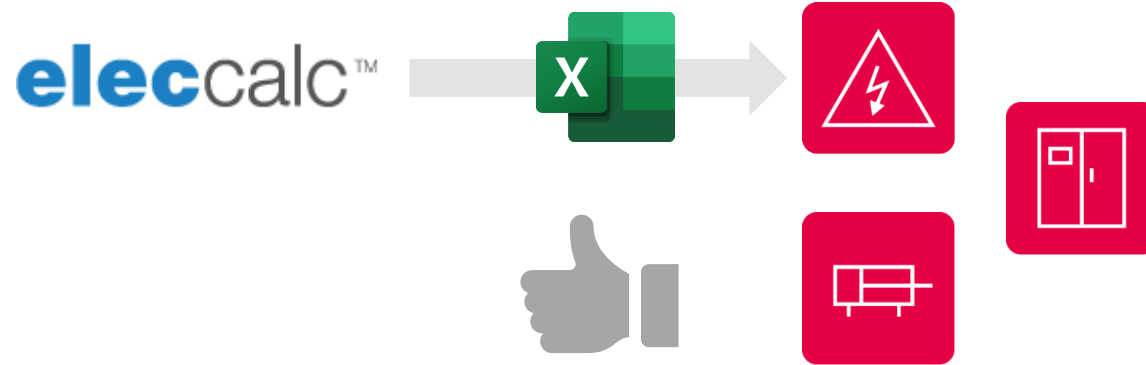
Export ElecCalc



Id	Mark	Description	Type	Polarity	Brand	Ref	Ib	NeutralSystem	Un	CosPhi	Length	AmeCable
22	249 +U1 -QAB7	Light 3 protection	7	2	ABB	2CDS253103R0164		TT	400			
23	252 -WDB7	Cable 7	11	2	Lapp	H07 RN-F 5G2.5		TT	400		25	
24	255 +U1 -EAA3	Light 3	22	2			0,052	TT	400	0,5		
25	263 +U1 -QAB8	Motor fan protection	7	1	ABB	1SDA066802R1		TT	400			
26	258 -WDB8	Cable 8	11	1	Lapp	H07 RN-F 4G4		TT	400		25	
27	261 +U1 -MAA1	Motor Fan	17	1			7,534	TT	400	0,89		
28	272 +U1 -QAB9	Motor pump protection	7	1	ABB	2CCS883001R0321		TT	400			
29	275 -WDB9	Cable 9	11	1	Lapp	H07 RN-F 4G4		TT	400		5	
30	278 +U1 -TAC1	Motor pump drive	29	1	Phoenix Contact	CSS 1.5-3/3-EMC		TT	400	0		
31	267 -WDB10	Cable 10	11	1	Lapp	H07 RN-F 4G4		TT	400		25	
32	270 +U1 -MAA2	Motor Pump	17	1			13,791	TT	400	0,89		
33	282 +U1 -FCA1	Motor elevator protection	18	1	ABB	1SCA115207R1001		TT	400			
34	285 +U1 -QAA1	Motor elevator contactor	13	1	ABB	1SBL237001R1300		TT	400			
35	288 +U1 -BCB1	Motor elevator thermal	26	1	ABB	1SAZ721201R1049		TT	400			
36	291 -WDB11	Cable 11	11	1	Lapp	H07 RN-F 4G4		TT	400		25	
37	294 +U1 -MAA3	Motor Elevator	17	1			10,526	TT	400	0,86		
38	298 +U1 -QAB10	Sub busbar protection	8	2	ABB	2CCS884001R0634		TT	400			
39	303 +U1 -WBA2	Sub busbar	15	2			48	TT	400	0,85		
40	337 +U1 -QAB11	Feeder ground floor	7	2	ABB	2CDS253103R0204		TT	400			
41	342 -WDB12	Cable 12	11	2	Lapp	H07 RN-F 5G4		TT	400		15	
42	543 +U2 -QBA1	Main switch groundfloor	19	2	ABB	1SCA105413R1001		TT	400			
43	448 +U2 -WBA1	Main busbar	15	2			14,41	TT	400	0,86		
44	576 +U1 -QAB12	Feeder floor 1	7	2	ABB	2CDS253103R0254		TT	400			
45	581 -WDB13	Cable 13	11	2	Lapp	H07 RN-F 5G4		TT	400		20	
46	589 +U3 -QBA1	Main switch floor 1	19	2	ABB	1SCA105413R1001		TT	400			
47	552 +U3 -WBA1	Main busbar	15	2			21,55	TT	400	0,85		

Praktisch voorbeeld - kabelberekening import

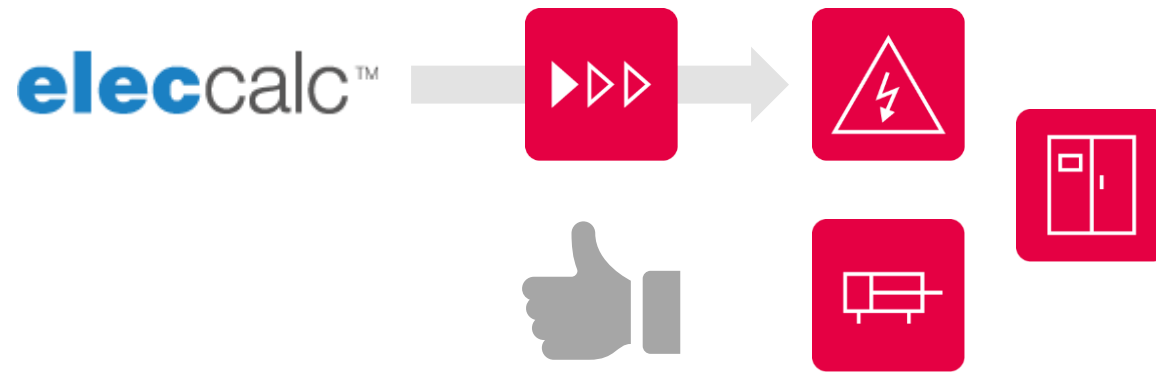
Apparaat import vanuit ElecCalc



**Gebaseerd op Onderdelen import
-> Element Routing & Production*

Praktisch voorbeeld - kabelberekening import

Preplanning import vanuit ElecCalc



**Gebaseerd op preplanning import
-> EPLAN Preplanning*

Praktisch voorbeeld - kabelberekening import

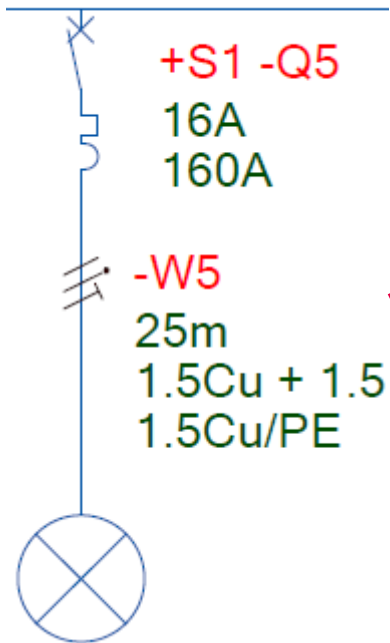
Artikel mapping



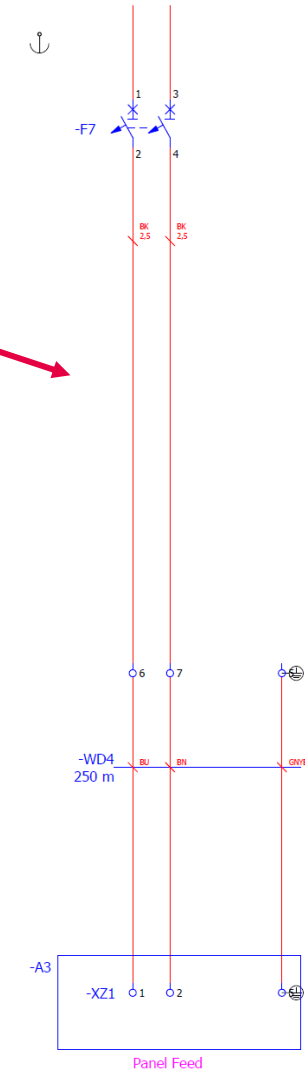
Trace Part	EPLAN Part
ABB-1SDA068156R1	ABB.1SDA068156R1
Lapp-H07 RN-F 5G16	LAPP.16001113
RIT-9343300	RIT.9343300
ABB-2CDS252001R0164	ABB.2CDS252001R0164
Lapp-H07 RN-F 3G2.5	LAPP.1600118
ABB-2CCS812001R0324	ABB.2CCS812001R0324
Lapp-H07 RN-F 3G4	LAPP.1600119
ABB-2CDS253103R0164	ABB.2CDS253103R0164
Lapp-H07 RN-F 5G2.5	LAPP.16001293
ABB-2CDS251103R0164	ABB.2CDS251103R0164
Lapp-H07 RN-F 3G1.5	LAPP.1600103
ABB-1SDA066802R1	ABB.1SDA066802R1
Lapp-H07 RN-F 4G4	LAPP.16001063
ABB-2CCS883001R0321	ABB.2CCS883001R0321
PHX-CSS 1.5-3/3-EMC	PXC.1201696
RIT-9343000	RIT.9343000

Praktisch voorbeeld - kabelberekening import

ElecCalc kring mappen met EPLAN macro

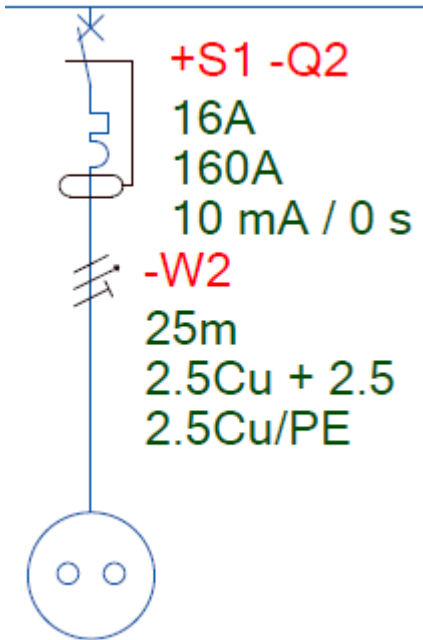


Trace ID	EPLAN Macro
3-1-18-11	
1-7-1-11-22	Circuit_2P1D_MCB_NoDiff_General
2-7-1-11-22	Circuit_2P2D_MCB_NoDiff_General
2-7-1-11-23	Circuit_2P2D_MCB_NoDiff_General
2-8-4-11-22	Circuit_2P2D_MCB_Diff_General
2-8-4-11-23	Circuit_2P2D_MCB_Diff_General
3-7-1-11-17	Circuit_3P3D_MCB_NoDiff_Motor
3-7-1-11-29-11-17	Circuit_3P3D_MCB_NoDiff_Drive_Motor
4-7-1-11-22	Circuit_4P4D_MCB_NoDiff_General
4-8-3-15	Circuit_4P4D_MCB_Diff_SubBusbar
5-7-1-11	Circuit_4P3D_MCB_NoDiff_Panel
19-15	Circuit_4P_Switch_NoDiff_Busbar
5-7-1-11-22	Circuit_4P3D_MCB_NoDiff_General
5-7-1-11-23	Circuit_4P3D_MCB_NoDiff_General
5-7-1-15	Circuit_4P3D_MCB_Diff_Busbar
9-18-1-13-26-11-17	Circuit_3P_Fuss_Contactor_Overload_Motor

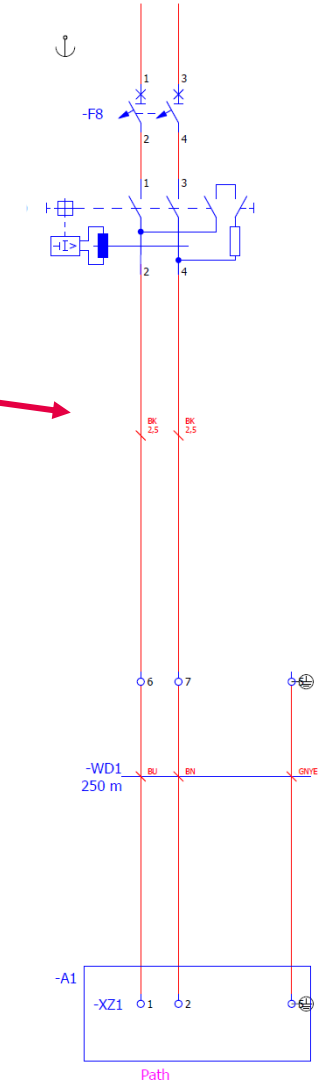


Praktisch voorbeeld - kabelberekening import

ElecCalc kring mappen met EPLAN macro



Trace ID	EPLAN Macro
3-1-18-11	
1-7-1-11-22	Circuit_2P1D_MCB_NoDiff_General
2-7-1-11-22	Circuit_2P2D_MCB_NoDiff_General
2-7-1-11-23	Circuit_2P2D_MCB_NoDiff_General
2-8-4-11-22	Circuit_2P2D_MCB_Diff_General
2-8-4-11-23	Circuit_2P2D_MCB_Diff_General
3-7-1-11-17	Circuit_3P3D_MCB_NoDiff_Motor
3-7-1-11-29-11-17	Circuit_3P3D_MCB_NoDiff_Drive_Motor
4-7-1-11-22	Circuit_4P4D_MCB_NoDiff_General
4-8-3-15	Circuit_4P4D_MCB_Diff_SubBusbar
5-7-1-11	Circuit_4P3D_MCB_NoDiff_Panel
19-15	Circuit_4P_Switch_NoDiff_Busbar
5-7-1-11-22	Circuit_4P3D_MCB_NoDiff_General
5-7-1-11-23	Circuit_4P3D_MCB_NoDiff_General
5-7-1-15	Circuit_4P3D_MCB_Diff_Busbar
9-18-1-13-26-11-17	Circuit_3P_Fuss_Contactor_Overload_Motor



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EPLAN Preplanning

Voordelen



1 Reduceren van de ontwerptijd

2 Gestructureerde overdracht van gegevens

3 Verhogen van de kwaliteit

4 EPLAN Schema bevat belangrijke info uit berekening

5 Optimalisatie door gebruik standaard toepassingen

6 Flexibiliteit: eenvoudig starten en dan stap voor stap verfijnen



EPLAN

efficient engineering.