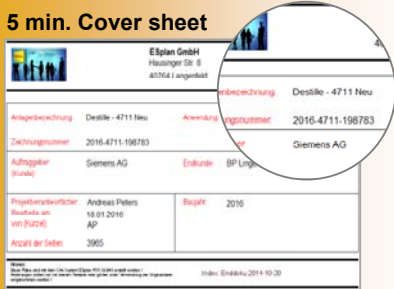


StartUp! - the easy way to change...

„The easy way to change your system“ is here, Based on important and comprehensible Facts that answer your questions.

- What added value do I have or the Company?
- When I am or is the Company again productive?

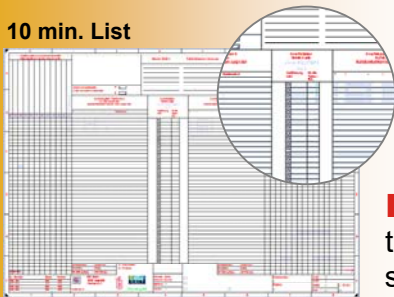
5 min. Cover sheet



The following points are important for successful automation in the field of electrical engineering.

- Resources
- Stock data
- Education
- Time requirement
- Costs

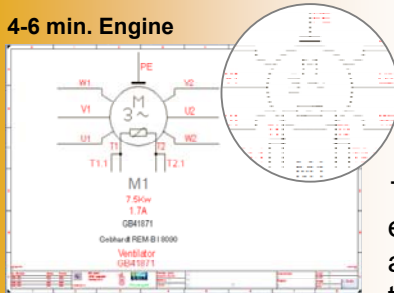
10 min. List



Resources:

The different CAE systems have very different ways to create and manage their resources. For optimal utilization of the capabilities of **ESplan**® and **Espace**® it is advisable to re-create the resources with **ESplan**®. This ensures that the full potential is used. In the case of a data transfer, the smallest commonality is generally assumed. Detailed queries such as grid, pin spacing, symbol size and content are decisive for the success or the greatest possible added value.

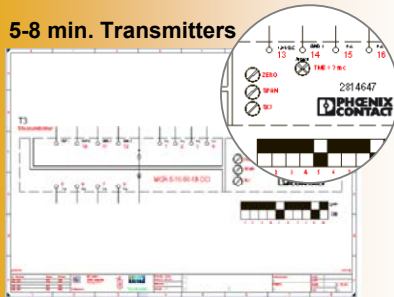
4-6 min. Engine



For the purpose of orientation, we have attached an extract of the more or less complex symbols and drawings in order to be able to assess the time required.

The following tables contain listings of the commonly used resources and expenses for system changeover. The data is based on a trained employee as well as on 500 symbols in the 2D / 3D area. This included employee training and the adaptation to the ERP-System.

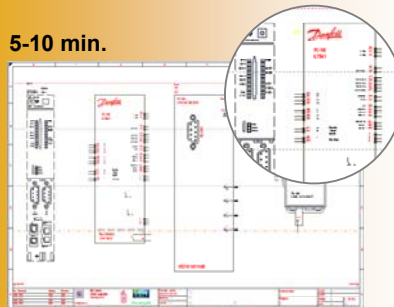
5-8 min. Transmitters



For an employee – 500 2D symbols and 500 3D symbols table 1:

Designation	Quantity		Minutes		60	8	Roundet up
	Sym.	Sheet	pro Sym.	Total			
Titel sheet, Hints generate		5	10	50			
Frame generate		5	10	50			
Normal Symbols	200		2	400			
Contacto-Symbol types generate	150		3	450			
FU-Symbol types generate	50		12	600			
PLC-Symbol types generate	100		10	1.000			
3D devices im STEP or Nativ	500		5	2.500			
Total sum	1000			5.050	84,2	10,5	11

5-10 min.



Required workday table 2:

Activities	Quantity				
Symbols + Pauses + Disturbances	1000	additional markon days	3	14	Tag
ERP Connection / BOM	1			1	Tag
Basic Training 2D	1			3	Tag
Basic Training 3D	1			2	Tag
Total sum				20	Tag

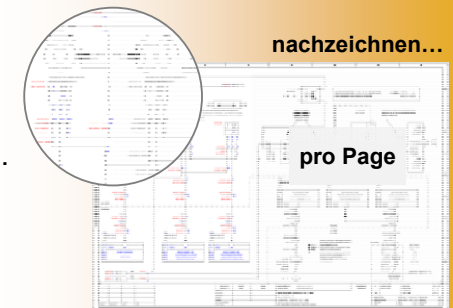
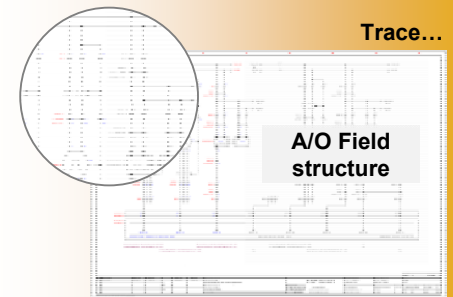
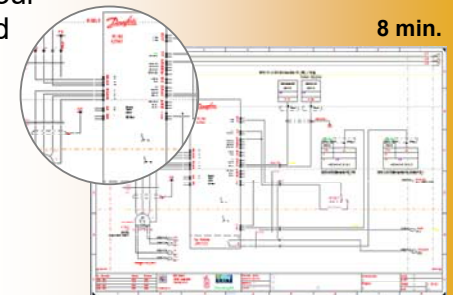
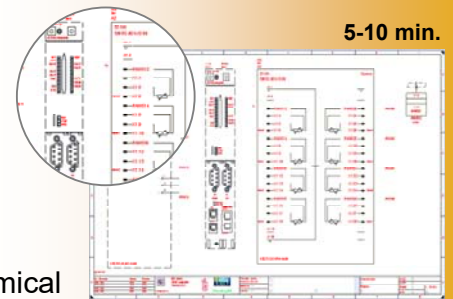
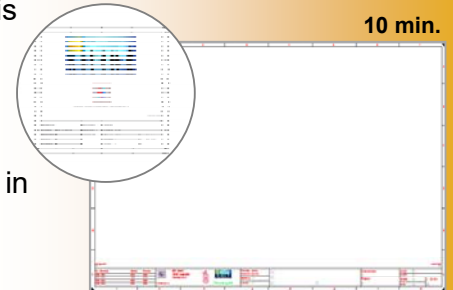
Stock Data:

The CAE-Systems offer as is generally known no uniform and neutral interface. Thus intelligent data exchange with „living“ projects is not possible. The integrated 2D CAD core in the **ESplan**® and the 3D CAD core in **Espace**® makes it possible to transfer the 2D drawings in DWG-Format and the 3D data for the commercially available 3D systems in the native format. This allows quick small changes in the 2D drawing.

For larger changes, tracing with CAE intelligence would be a good idea. Intelligent repeat parts such as Symbols and Macros are used during tracing. The average values for a 1.000 page project included in the table below are derived from empirical values.

Rebuild the project with 1000 pages Table 3:

Designation	Quantity		Minutes		Hours	Days	Roundet up
	Sym.	Sheet	pro Sym.	Total			
Titel sheet, Hints generate		5	10	50			
Frame generate		5	10	50			
Symbols on the average	100		4	400			
Project Drawing on the average		1000	5	5.000			
Total sum				5.500	91,7	11,5	12



Education:

By participating in our training, you get the fastest and most economical benefits with our products **ESplan**® & **Espace**®. On the basis of our experience in training, you can work out your knowledge efficiently and quickly through us. As already listed in the first table two basic training courses are provided for the quick introduction.

ESplan® Basic Training (2D) - 3 Days:

Contents:

- ▣ 2D CAD-Core: Dealing with 2D functionalities in **ESplan**®
- ▣ Icon Creation: Types and functions
- ▣ Macro Creation: logistical usability
- ▣ Forms: Frame, Cover sheet, Terminal plan, Part list
- ▣ Free Drawing: Dealing with geometry
- ▣ Circuit Planning: Structure, Evaluation, Data export, Part list, Cables, etc.

Espace® Basic Training (3D) - 2 Days:

Contents:

- ▣ 3D CAD-Core: Dealing with the 3D functionalities in **Espace**®
- ▣ Device Creation: Assignment of Connection-Pins, Device tag and Article data
- ▣ Assembly: Cabinet fitting based on current flow planning
- ▣ Wiring: controlled wire generation
- ▣ Routes: Cable routing in the Control-Cabinet and Plant / Machine
- ▣ Production Data: Data export of drill data, Piece / Cable lists, etc.

Costs:

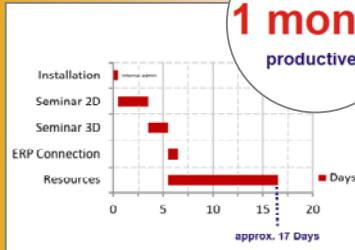
In the upper part, we have illuminated the technology and the training. The assessment also includes on ROI analysis.

ROI Consideration:

The following points are relevant for an ROI-View.

- Start of productivity
- Investment for an **ESplan**® & **Espace**® Workstation*
- Savings & Revenues
- Added Value

Required Workdays



Start of Productivity:

When I am or is the Company again productive?

As already seen in Table 2 or from the diagram "required workdays", the introduction phase incl. Seminars, ERP-Connection and Creation of 500 2D/3D symbols, based on one employee takes just 17 working days. In other words, you are max. In a month after purchasing our Software again productive. The information may change if you have more than 500 symbols or have to consider the day's business.

Invest CAE-Solutions

Product	Quantity	Days
ESplan® 2D	1	
Espace® 3D	1	
Maintenance for software	1	
ESplan® Basic seminar	3 Days	
Espace® Basic seminar	2 Days	
ERP connection	1	
Total price		30.000 €

Investment:

The investment for an **ESplan**® & **Espace**® workplace incl. Maintenance, Seminars and ERP-Connection amounts to approx. 30.000,- €. *We grant special conditions from the second job. Furthermore, the ERP-Connections is calculated once only.

Customer Statement



On the Ø **twice** as fast!

Savings & Revenues:

The potential for savings and sales is based on the performance of our Products **ESplan**® & **Espace**®. Based on customer statements, you are twice as fast with our products as before. Employee costs and sales figures are used to determine possible potentials. For the following assumptions, wage costs of 55,- € and the previous year's turnover of 110.000,- €, the total potential of 114.400,- € in the first year (see also the chart Employees / Sales).

Employees / Sales

Construction costs per year:	1	2	3
Employees electronic engineering	1	1	1
Working hours per day	240	240	240
Working days (24 Holidays)	24	24	24
Excluding non wage labor costs per hour	55,- €	55,- €	55,- €
Construction costs =	105.600 €		

Increase in potential turnover by increasing projects per year:	1. Year	2. Year	3. Year	Total
Sales in the previous year	110.000 €	110.000 €	110.000 €	330.000 €
Production increase factor in %	300%	300%	300%	
Sales volume at previous year	110.000 €	440.000 €	1.100.000 €	1.650.000 €
Total potential =	114.400 €			

Added Value:

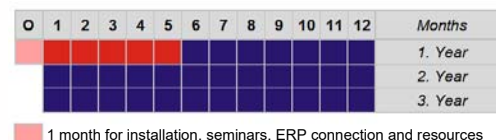
What added value do I have or the Company?

The Company has the opportunity to achieve higher project throughput through the use of **ESplan**® & **Espace**® as well as to reduce or completely eliminate cost-intensive media breaks (potential sources of error). Based on an average productivity in the first year of about 60%, the "ROI" occurs after 6 month. The investment costs and / or the "ROI" including the above described resource creation are achieved after 6 month.

ROI



The „Return on Invest“ follows:



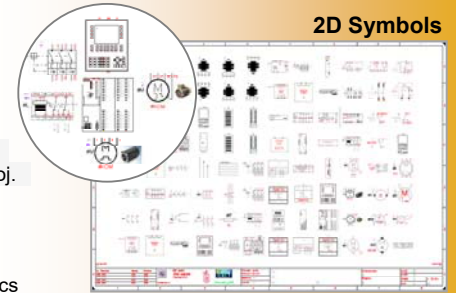
Also consider the annual added value (€) versuse the "Status Quo" !

Resource Provisioning – The efficient Entry:

We provide the following resources at not charge for the quick introduction or changeover when purchasing an **ESplan®** & **Espace®** CAX solution.

The **ESplan®** Deployment includes:

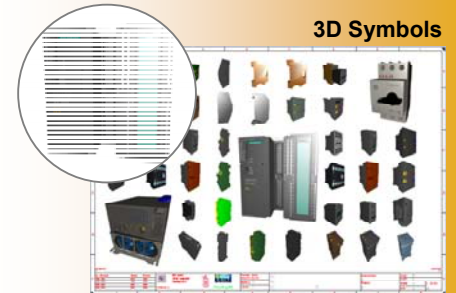
☒ Symbols	= approx. 1000	approx. 100 sym. resources with on average about 100 sym.
☒ Form Macros	= approx. 150	Drawing frame, Terminal plan, Cable plan, Part list...
☒ Functional Macros	= approx. 180	Drive-, PLC-, Feed-, Function macros
☒ Contactor Types	= approx. 190	Main-, Auxiliary protection, Motor protection
☒ Seminar Project	= 1	Feeding-, Clamping-, Drive-, PLC-Technology
☒ Sample Project	= 4	Basic-, Control cabinet assembly / Routing-, Interdisciplinary Proj.
☒ US Sample Project	= 1	Project according to USA standard



2D Symbols

The **Espace®** Deployment includes:

☒ 3D Symbols	= approx. 300	BMK area K, S, H, F, R, L, C, M, I, T, Q, G, P, N, PLC, Hydraulics
☒ 3D Macros	= approx. 200	Macro range – various Siemens SPS modules etc.
☒ 3DS Models	= approx. 450	Switchgear, Support rails, Cable ducts, Accessories, etc.

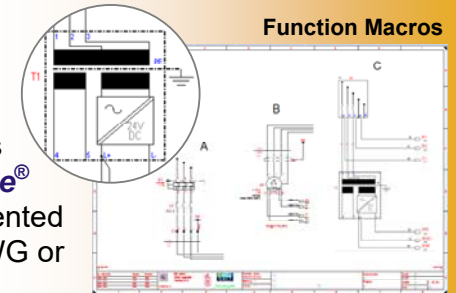


3D Symbols

Resource Partserver – Finding the efficient!

Provide resources for our customers on a Part Server.

- ☒ 2D Symbols
- ☒ 2D Macros
- ☒ 3D Symbols
- ☒ 3D Macros



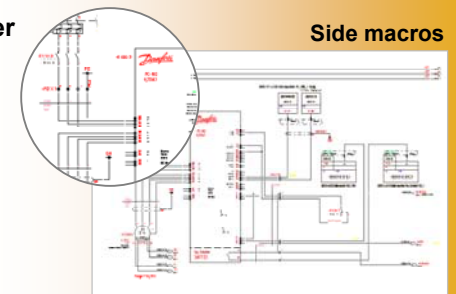
Function Macros

Resource Service – The efficient changeover! *

Prepare your resources for a smooth transition. In detail, this means that we can transfer this preparation to our **ESplan®** & **Espace®** compliant formats in a certain scope and according to documented customer specifications or customer templates in the form of DXF, DWG or PDF.

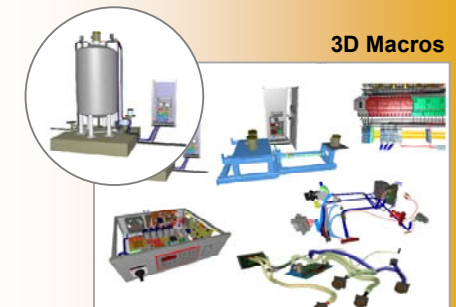
Preparation of the following CAE data from your existing CAE tool and transfer to our **ESplan®** & **Espace®**:

☒ Up to	500	Symbols
☒ Up to	500	E-Function Macros
☒ Up to	500	Contactor Types
☒ Up to	500	Cable Types
☒	1	Material Database Connection
☒	1	Title page, table of contents, drawing frame, Cable overview, Cable plan



Side macros

* If you are interested, we will gladly prepare an individual offer for your data.



3D Macros

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