SMART DATA

Agenda

1. About WAGO
2. Workflow from planning to real project with „digital twin“
Development of smartDESIGNER
Development of printer systems
Coordination CAE-interface and CAE-data
Coordination CAD customer data
Workshops on eCl@ss

Dip. Ing. Simone Brinkmann-Tewes
Management Smart Data Engineering
ABOUT WAGO

Die erste Idee 1951: Federklemmanschlussstechnik

ELECTRICAL INTERCONNECTIONS

1974 1977

AUTOMATION

1983 1995

Weltmarktführer für Komponenten mit Federklemmanschlussstechnik

Gebäudeinstallation und Gebäudeautomation

Industrielle Elektronik und Automatisierungstechnik
ELECTRICAL INTERCONNECTIONS

TOPJOB® S

TOPJOB® S IEK

POWER CAGE CLAMP
ELECTRICAL INTERCONNECTIONS
ELECTRICAL INTERCONNECTIONS

Leuchtenklemmen
Dosenklemmen
COMPACT-Verbindungs-
dosenklemmen
Serie 2273
MICRO-Dosenklemmen
Verbindungsklemmen
COMPACT-
Verbindungsklemmen
Serie 221
ELECTRICAL INTERCONNECTIONS
AUTOMATION

Controller PFC

WAGO-I/O-SYSTEM 750 XTR

HMI

Integrated Engineering
SMART DATA

From planning to the real product – actually everything is simple…

Your know-how about applications

+ 

Our know-how about products
From planning to the real product – *actually* everything is simple…

- Mechanical
- Electrical
- Logistics
- …
SMART DATA

In the past?

„Collecting“ all necessary data from catalogs, website or directly from the product.
Manual and redundant filling of planning tools
Leads to more time, cost and errors
SMART DATA

Planning overview – actually with WAGO everything is simple!!!
SMART DATA

Today: we make it simple for you!

Digital twin:
• Standardized and complete
• Compatible to IT systems and machines
• Base for all processes (development, construction, production, sales, logistics)
SMART DATA

CAE – electrical planning

- WAGO PDM-system provides all technical data for a product
- Direct interface into database for CAE macros
- Additional data within CAE system for macro logic
SMART DATA

CAE – electrical planning

WAGO provides macros for EPLAN and WSCAD. In the future WAGO will provide eCl@ss Advanced data for all CAE systems.

Advantage:
- Save time
- High quality of data directly from PDM
- Different views

Current diagramm

2-D

3-D
SMART DATA

CAE to configuration: smartDESIGNER

From CAE system to smartDESIGNER
SMART DATA

smartDESIGNER

Check project with WAGO expert know-how

Configuration of project  Plausibility check  Correct configuration
SMART DATA

smartDESIGNER

Advantage:

• Save time and increase quality by planning only once
• 3-D view for all products
• Complete documentation as pdf
SMART DATA ENGINEERING

CAD – mechanical planning

3-D data
- Available in all neutral and native 2D-/3D-CAD-Formats
- Low data volume
- Complete projects from **smart**DESIGNER for 3D-construction
- smartPARTS from wago.PARTcommunity portal
SMART DATA ENGINEERING

CAD – mechanical planning

**Advantage:**

- Save time and increase quality by planning only once
- Flexibility in CAD-Formats
SMART DATA ENGINEERING

CAD – mechanical planning

3D-Model of article 2020-2201
1:1 identical with real product

Not available for customers

3D-Model detail HIGH:
High quality
High data volume
Format: STEP
File size: **890kB**

3D-Model detail LOW:
Lower quality
Low data volume
Format: STEP
File size: **290kB**
SMART DATA ENGINEERING

CAD – mechanical planning

history:
since 2003 16,500 products from WAGO

Available via
- WAGO Online catalog
- Supplier Portal PARTcommunity
- B2B Portals

Since summer 2005:
Interface to smartDESIGNER

since 2014:
Interface to online Konfigurator
SMART DATA ENGINEERING

CAD – mechanical planning

Downloads pro Jahr

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SMART DATA ENGINEERING

CAD – mechanical planning

Orders per country | 01.01.2016 - 31.12.2016 | wage

- Germany (28315 - 36.2%)
- United States (19044 - 24.4%)
- Japan (9937 - 12.7%)
- China (7378 - 9.7%)
- France (7099 - 9.1%)
- Russia (6167 - 7.9%)

Orders per server type | 01.01.2016 - 31.12.2016 | wage

- WAGO-Online-Configurator - Supplier (6103 - 4.8%)
- PCOM - b2b - OEM (13165 - 10.4%)
- PCOM - wago - Supplier (107166 - 84.8%)
SMART DATA ENGINEERING

CAD – mechanical planning

Downloads PARTcommunity_B2B / PARTcommunity_WAGO / smartDesigner Online

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SMART DATA ENGINEERING

And WAGO?

Direct use of data from smartDESIGNER:
- in PDM / ERP system
- in production
- in logistics

Advantage:
- Customer data is used directly for production
  - no transfer errors
  - no communication problems
- Digital twin available for complete product
WE INNOVATE!