October 25, 2023

AVEVA - ETAP integration

A great step towards Power & Process Engineering Efficiency

Jacques Philippe
1. Schneider Electric
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3. Zoom in Context & Challenges
4. Zoom in Solutions: ETAP + Use-case (video)
5. Benefits & Conclusion
6. Q&A
Schneider Electric

€34bn
135k+
Group FY 2022 revenues
Employees in over 100 countries

Two Businesses

Electrification SUSTAINABILITY + Digitization EFFICIENCY

Energy Management
Energy Transition
SOFTWARE & SERVICES
SOFTWARE

Industrial Automation
SUSTAINABILITY
EFFICIENCY

Revenues (by Group)

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<tr>
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End Markets

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Jacques PHILIPPE
Head of Global Expertise and Engineering for Customer Projects Business

Two Businesses

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Industrial Automation

Energy Transition

Industry 4.0

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DATA CENTERS BUILDINGS INDUSTRY INFRASTRUCTURE WESTERN EUROPE NORTH AMERICA ASIA PACIFIC REST OF WORLD

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Internal
Enhance our Project Engineering Quality, Efficiency, Reactivity

Challenge

• Lack of robust technical data management especially during large and complex deals: many disciplines, many teams, many locations involved
• No Electrical Systems Advanced Engineering capabilities in AVEVA™ Electrical and Instrumentation
• Lack of internal Efficiency to react to changes: technical feasibility, time, cost impacts

Solution

• Helped develop then tested the integration of ETAP® Design, AVEVA™ Engineering (E&I), AVEVA™ E3D Design solutions

Results

• Improved our data management & administration process
• Tested smooth and configurable data exchange capabilities between ETAP® Design and AVEVA™ Engineering
• Increased our effectiveness (time and accuracy) to react to change requests
Context and Challenges

Multi-System integration Engineering

• Electrical Design Engineer
• Mechanical Design Engineer
• Electrical Management & Control System Engineer
• Power System Engineer
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Data & Change Management
Unicity, Access, Ownership, Rework
Context and Challenges

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Data & Change Management
Uniformity, Access, Ownership, Rework

calculation results can impact the Electrical & Physical integration Design
Solution: AVEVA - ETAP integration

ETAP Solutions

Market-leading Electrical Systems Model-driven Software Solutions, from Design & Engineering to Operations and Maintenance
Solution: AVEVA - ETAP integration

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ETAP Design: Data & Outcomes

- Short-circuit currents
- Protection Coordination
- Power Flows
- Motor starting
- Arc-Flash Hazards
- Power Quality (Harmonics, Flickers)
- Network stability
- Grid Code compliance (PQ diagrams, LVRT)
Solution: AVEVA - ETAP integration
ETAP Design: Data & Outcomes

Power System Calculations (iterative process) can impact the design of Electrical Assets: sizing, ratings, characteristics, etc.
Solution: AVEVA - ETAP integration
Implementation – Use-case demo
from early design stages (FEED) to the end of project delivery

• **Step 1** SLD is being modeled in ETAP, then Power System Calculations are done (can be iterative) to reach the expected performance. When it looks sound and safe, an “AVEVA Engineering-compatible-data-export” file is generated

• **Step 2**

• **Step 3**

• **Step 4**

• **Step 5**
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• **Step 5** Modification of equipment may be required: generation of a new data file, transferred back to AVEVA for further impact analysis

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Benefits and Conclusion

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- Heaviness to react in front of change requests in a qualitative and quantitative manner

### New Situation
- Engineering staff works on separate software but share and synchronize their data bases
- Very limited duplication since AVEVA-ETAP can share the same data (compare/update)
- Risk of mistakes or wrong data usage is significantly reduced, and cross-team collaboration increased
- More agility and efficiency to react to change requests, both Electrical & Mechanical impacts can be quickly and better evaluated
Jacques Philippe

Head of Global Expertise and Engineering for Customer Projects Business

- Schneider Electric
- jacques.philippe@se.com
“Engineering is moving from being document-centric to become data-centric: more qualitative, more efficient and more collaborative”

Yannick NICOLAS, Engineering Manager at Schneider Electric
Questions?
Please wait for the microphone.
State your name and company.

Please remember to...
Navigate to this session in the mobile app to complete the survey.

Thank you!
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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

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