Ensuring Competitive Advantage: From Separated Sites to an Integrated Design and Production Network

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Consulting Project Manager
Autodesk

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Head of IT
GEA Air Treatment

Franziska Fleischer
Support Account Manager
Autodesk
Who is Driss?

- Industrial Engineer
- Consulting Project Manager at Autodesk
- + 10 years of consulting experience
  - Data Management, ERP Integration
  - Visualization
- Project Management
- Implementation, Coaching, Training
- Acting on a global basis
- Based in Munich, Germany – Married, 1 Daughter
- E-MAIL: Driss.Yammouri@Autodesk.com
Who is Thomas?

- Mechanical Engineer
- Employee of GEA Group AG, joined 1988
- Segment HX (Heat Exchangers)
  http://www.gea-heatexchangers.com/
- Based in Gaspoltshofen, Austria
  Business Unit Air Treatment
- Head of IT for Austria since 1999
- Management of global IT projects
- Since 2011 also member of HX-IT team for ERP systems
- Married, 4 Children - mailto:thomas.pucher@gea.com
Who is Franziska?

- Support Account Manager at Autodesk
- Responsible for global key accounts
- 7+ years experience in account management
  - Pre-sales, sales, marketing
  - Product management, support services
- International experience from Spain, Mexico, the Netherlands
- Based in Munich, Germany
- E-MAIL: Franziska.Fleischer@Autodesk.com
Class Summary

Why is everyone talking about harmonization? Distributed engineering and production teams need to stay competitive globally. They need to work together in a fast and efficient way – and the way to do that is to harmonize methodology and systems in all different locations. The business goals are clear: resource balancing, multisite development, concurrent engineering and production, optimized infrastructure, always access to the most current data, and reducing mistakes. We use as an example customer project our engagement with GEA Air Treatment. The class will focus on how to set up and manage project across different locations. We will not focus on technical features.
Learning Objectives

At the end of this class, you will be able to:

- Conduct an international harmonization and consolidation project and address concerns, hurdles and resistance
- Integrate several sites with different technical skill levels and methods
- Ensure engineering teams work in an optimized infrastructure/environment
- Ensure operational uptime with appropriate support to mitigate risks
Agenda

- GEA Business needs and project goals
- Introduction into the Project
- Enterprise Priority Support
- Success Factors
Does this sound familiar to you?

No. You are done!

Yes. Welcome to this session!
Business needs for engineering and production

- Consolidation of GEA product portfolio
- Increase flexibility in which site the products are manufactured
- Increase efficiency – more with less
- Balance engineering and production resources
- Secure competitive advantage by designing and producing globally and concurrently
Pain points

- Heterogeneous technologies and processes in place
- Inefficient work processes over several development and production sites
- Failures, mistakes
- Issues with data transfer between sites
- Redundant data and extra work
GEA Air Treatment?

GEA Group AG
• One of the largest system providers for food and energy processes
• About EUR 5.4 billion revenue in 2011
• About 24,500 employees worldwide as of September 30, 2012
• Headquarter in Düsseldorf, Germany

Business Units of HX
- AFC Single Tube
- Compact Systems
- ACC/Heller
- **Air Treatment**
- Wet Cooling
- Shell & Tube
- PHE Systems

GEA Heat Exchangers

GEA Group
engineering for a better world
GEA Air Treatment Products

For more information visit gea-airtreatment.com
http://www.gea-airtreatment.com/fileadmin/gea_a_division/02-1_Air-Economy-City/Animation/index.html
### GEA Air Treatment Engineering/Production Sites

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Country, City</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>United Kingdom, Hereford</td>
<td>Close Control</td>
</tr>
<tr>
<td></td>
<td>Germany, Herne</td>
<td>Central Engineering Dep., Filter units (Delbag), Product manager</td>
</tr>
<tr>
<td></td>
<td>Germany, Wurzen</td>
<td>AHU (Air Handling Units)</td>
</tr>
<tr>
<td></td>
<td>Germany, Bebra</td>
<td>Industrial Filter units</td>
</tr>
<tr>
<td></td>
<td>Czech Republic, Liberec</td>
<td>Fan coils, Unit heater, Filter, Clean rooms, Electronic components</td>
</tr>
<tr>
<td></td>
<td>Austria, Gaspoltshofen</td>
<td>Strategic Development AHU (Support) Controls (Support)</td>
</tr>
<tr>
<td></td>
<td>Turkey, Istanbul</td>
<td>AHU (Air Handling Units) Close Control</td>
</tr>
</tbody>
</table>
Initial situation for collaboration and file sharing
New concept for collaboration

- Wurzen, Gaspoltshofen: Product line Air Handling Units
- Hereford, Herne, Liberec: Product line Close Control

Flexible, project related engineering workgroups
Flexible production site fast product line relocations
Project goals

- Harmonization and consolidation of environments and used tools
  - Resource balancing through design departments across all sites
  - Multisite development and methodology
  - Concurrent engineering and production - Design and Build anywhere
- Optimized infrastructure
- Access to current data for all parties involved
- Reducing mistakes
- Optimization / minimization of traditional data transfers
Introduction into the Project
Measure of success

- Concurrent engineering and distributed production are enabled
- High level of user acceptance in regard of system performance and handling
- Actively use the new technology and methods (Adoption)
- Project budget and (realistic) schedule are met
Project scope: CAD Harmonization

- Optimize the use of Vault professional as standard and central data management tool for all sites working together / collaborating
  - Technical concept of replication / collaboration / data structure / numbering / workflows / categories / release management
  - Concept of data migration and merging of data from all sites / central Vault
  - SharePoint-Vault-Integration

- Use same CAD standards in all sites
  - Training concept and methodology handbook
Project Setup

- Assessment and requirements gathering
- Management commitment and involvement
- Start Enterprise Priority Support
- Planning considering the business needs from each location. Set the priority for the site to start with. Using key users as local facilitators
- Decision to upgrade site by site and later merge to meet the business need and minimize risk and downtime
- Training concept
- Implementation step by step/milestones
- Limit the flexibility in changing the plan – consider the business needs
Concept Data Migration

Test SharePoint integration

MS 1 test environment

MS 2 Herne CED + Hereford work on one Vault

MS 4 Wurzen and Gaspoltshofen work on new version

MS 5 Liberec work on new version

All sites work on one vault

Vault 2012

MS 4/GEAPDM

Migrate Hereford Inventor files

Herne CED / Hereford

Gaspoltshofen / Wurzen

Liberec

All sites

Vault 2012

Vault 2012

Vault 2012

Vault 2012

Vault 2012

VaultBCP

Vault 2012

DELBAG

Migrate DELBAG

Migrate Bebra Deichmann

Migrate Bebra files to Inventor files and add to Vault

Vault 2012

Vault 2012

Vault 2012

Vault 2012
## Deliverables overview

<table>
<thead>
<tr>
<th>Milestones / Tasks</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS1 – Concept phase</td>
<td></td>
</tr>
<tr>
<td>- Workshops to analyze vault sites and non vault sites</td>
<td>Completed</td>
</tr>
<tr>
<td>- Concept for harmonization and merging vaults</td>
<td>Completed</td>
</tr>
<tr>
<td>- SharePoint test environment</td>
<td>Completed</td>
</tr>
<tr>
<td>- Test phase (Migration, Merging, Replication)</td>
<td>Completed</td>
</tr>
<tr>
<td>MS2 – Installation Herne (Upgrade + Integration Hereford)</td>
<td>Completed</td>
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<tr>
<td>MS3 – SharePoint Integration</td>
<td>Completed / Deferred</td>
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<tr>
<td>MS4 – Installation Wurzen (Upgrade + Gaspoltshofen)</td>
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<tr>
<td>MS5 – Installation Liberec</td>
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<tr>
<td>MS6 – Migration/ Archiving Obershausen</td>
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<tr>
<td>MS7 – Delbag</td>
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<tr>
<td>MS8 – Bebra (Migration to Inventor, Migration to Vault)</td>
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<tr>
<td>Configuration</td>
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<tr>
<td>Customizing</td>
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<tr>
<td>Dynamics</td>
<td>Deferred</td>
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<td>CAD Manual</td>
<td>Changed the scope</td>
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<td>Project Management</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Training</td>
<td>Completed</td>
</tr>
</tbody>
</table>
Project execution

- Flexibility
- Test environment
- Involvement of the key users and regular meetings
- “Pre-”Trainings
- Introduction / on boarding to support system
- Coaching after Go-Live(s)
Concept for Collaboration

Central Database

Replicated Databases
Concept for Collaboration

- SQL Replication
- One Publisher – four Subscriber
- Replicated sites with all metadata
- User log in on local site
- Files are stored on local Server and will be replicated on schedule and on demand
- Libraries (default and custom) are also replicated
- 5 workgroups (MOE, HRN, LIB, WUR, GAS)
Standards

- Categories
- Lifecycles
- Properties
- Folder structure
- Templates
Risks and mitigation

- Workflow/Methodology change – Training/Coaching
- Performance – Testing, Feedback from key users
- Migration / Merge – Testing
- Infrastructure and users availability – Management involvement
- Getting feedback from Users after Go Live and availability to fix issues
- Enterprise Priority Support engaged during the project implementation
Enterprise Priority Support
Enterprise Priority Support

- What is Enterprise Priority Support?
  - A comprehensive program of proactive support services designed to meet the needs of direct, large enterprise customers, especially those using Autodesk software on complex multisite projects

- Why was this relevant to GEA for this project?
  - Full support benefits already during implementation phase: Keep up the motivation during transition
  - Dedicated technicians coordinated by a Support Account Manager form a team committed to ensure business continuity
Benefits of Enterprise Priority Support to GEA

- Adopt to GEA structure: Understand the setup of GEA user groups and created the support process to GEA needs
- Capitalize support: Onboarding of users and process quality control
- Priority access: Response time & resolution targets, previous version fix
  - Hot fix for Inventor migration of iparts from version 2008 to 2012
- Improve communication: Tools to ensure closest connection
- Input for roadmap: Quarterly reviews with involvement of Product Management
Benefits of Enterprise Priority Support to GEA

Supporting the project with proactive measures:

- In implementation phase issues with performance were detected
  → Operational Assessment to support project goals

- Increased amount of business critical data to be managed
  → Health Check on Disaster recovery to support project close phase

- Go-Lives during weekends
  → A fully briefed dedicated support technician on standby

- Improve overall performance
  → Planned downtime for weekend maintenance by support technician
Project close out

- Project review meeting with key users
- Communication of responsibilities (internal and external)
- Continuity – ensured via support engagement in early project phase
Success factors

People

Process

Technology
Success factors

- Communication is key for success
- Define joined goals and agree on them
- Involve the users from all locations - Make them participants
- Consider special needs of the users – culture, language…
- Definition of roles and responsibilities
- Commitment and involvement of Management
Success factors

- Risks and mitigation
- Document your processes then implement
- Start small and get quick wins – shrink to what is really needed
- Make use of reliable support process
- Improve during implementation
- Refine and change after implementation
Success factors

- Use checklists
- Propose a feasible and realistic plan
- Test the considered solution early enough
- Be flexible in changing the plan – driven by the business needs
- Training concept
- Ensure Resource Availability
Lessons learned

- Set the right expectation and review it regularly
- Regular meetings and communication with all involved parties
- Awareness/consideration of cultural aspects
- One on one meetings with each site
- The proper infrastructure is a must for a successful implementation
- Good and tight collaboration between GEA and Autodesk project teams
- Strategic relationship enables access to all relevant Autodesk teams
Please Fill Out Your Class Survey.

Thank you!
Contact

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