



Geo-Search completes PLM classification and modular product structure

10th CADENAS INDUSTRY FORUM
February 2009 Augsburg

Speaker: Dr.-Ing. Helmut Maier
ICP Solution, Stutensee



Referent

Helmut Maier

- ▶ Product Management
- ▶ PLM Implementierung
- ▶ PLM Integrationen



Competence Partner ICP Solution



- ▶ **ICP Solution**
 - ▶▶ PLM Competence
 - ▶▶ PLM Consulting, Sales & Service
 - ▶▶ PLM Implementation
 - ▶▶ Product Development
 - ▶▶ Business Processes
 - ▶▶ Innovation & Change Management
 - ▶▶ Standardization

- ▶ **Stutensee / G**
- ▶ **Frick / CH**
- ▶ Hamburg
- ▶ Niederrhein
- ▶ Berneck / CH

PLM One Stop Shop

16.02.2009 ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009 Folie 3



PLM Partner ICP Solution



- ▶ **ICP Solution strategical cooperation**



- ▶ **Stutensee / D**
- ▶ **Frick / CH**
- ▶ Hamburg
- ▶ Niederrhein (MG)
- ▶ Berneck / CH

PLM One Stop Shop

16.02.2009 ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009 Folie 4

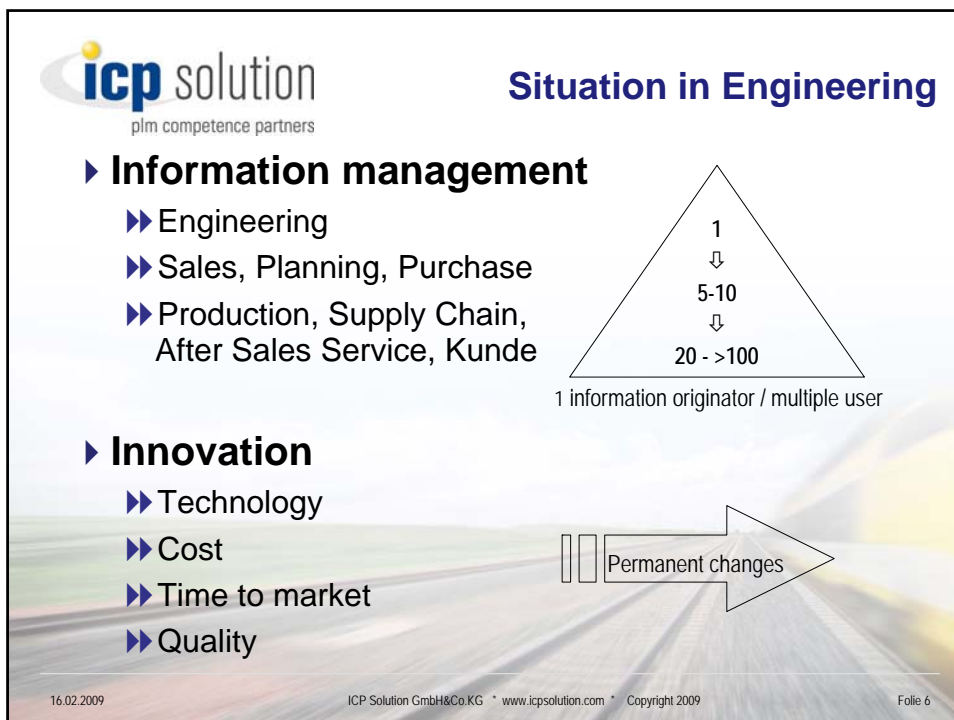


icp solution
plm competence partners

Subjects

- ▶ **Need and benefits of PartSolution and GeoSearch integrated with PLM.**
- ▶ **Completion of product standardization and classification**
- ▶ **Interacting of PLM with PartSolution and GeoSearch**

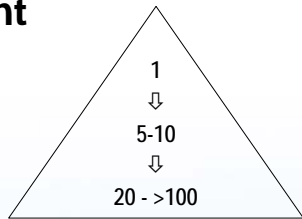
16.02.2009 ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009 Folie 5




icp solution
plm competence partners

Situation in Engineering


- ▶ **Information management**
 - ▶▶ Engineering
 - ▶▶ Sales, Planning, Purchase
 - ▶▶ Production, Supply Chain, After Sales Service, Kunde
- ▶ **Innovation**
 - ▶▶ Technology
 - ▶▶ Cost
 - ▶▶ Time to market
 - ▶▶ Quality


1 information originator / multiple user



Permanent changes

16.02.2009 ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009 Folie 6

icp solution Increasing complexity of products
plm competence partners



- Product Complexity
- Outsourcing
- Innovation
- Shorter Lifecycles
- Environmental Regulations
- Globalization



16.02.2009 ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009 Folie 7

icp solution Focus on Discrete Manufacturing
plm competence partners

- ▶ **Characteristics**
 - ▶▶ Project oriented business on customer needs
 - ▶▶ Order driven manufacturing based on standard program
 - ▶▶ Engineered-to-Order
- ▶ **Challenges**
 - ▶▶ Short time-to-market/customer
 - ▶▶ Innovation in products and processes
 - ▶▶ Extended enterprise with outsourcing and remote sites
 - ▶▶ After-Sales-Service as a new core business area

16.02.2009 ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009 Folie 8

icp solution
plm competence partners

Variable Standards

Standardized, but „open“ part families

Steel strip trimming machine
SMS DEMAG Bandanlagen

CSP-Anlage
Beizen
Kaltwalzwerke
Reiniger-
Kaltwalzwerke
Wärmbandstrahl
Glätten und
Oberflächenveredelung
Behälter und
Anlagenleistungen

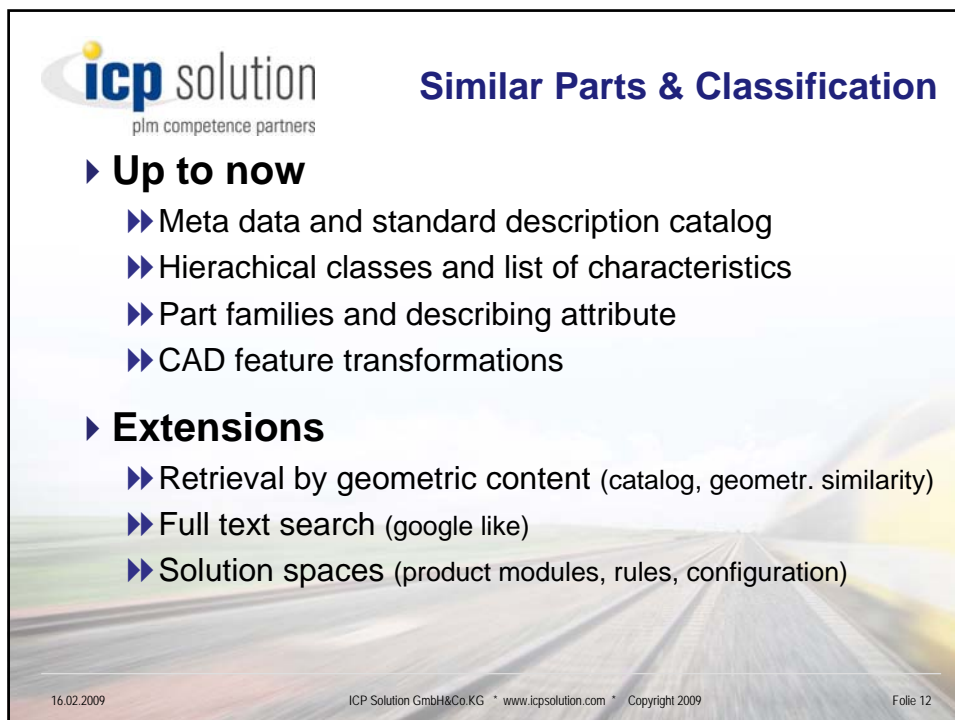
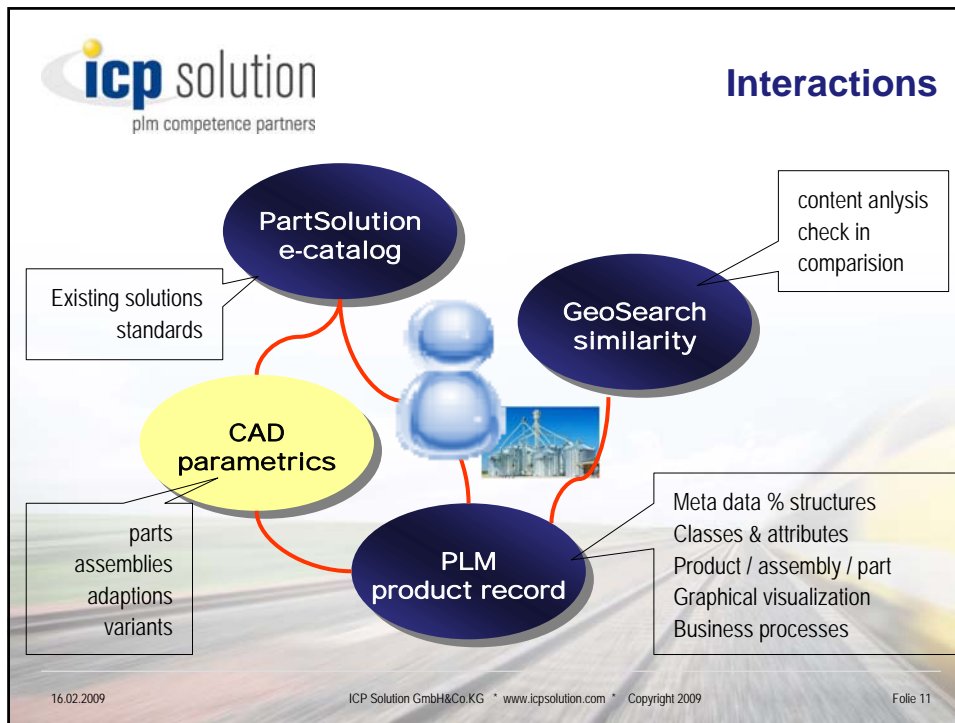
16.02.2009 ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009 Folie 9

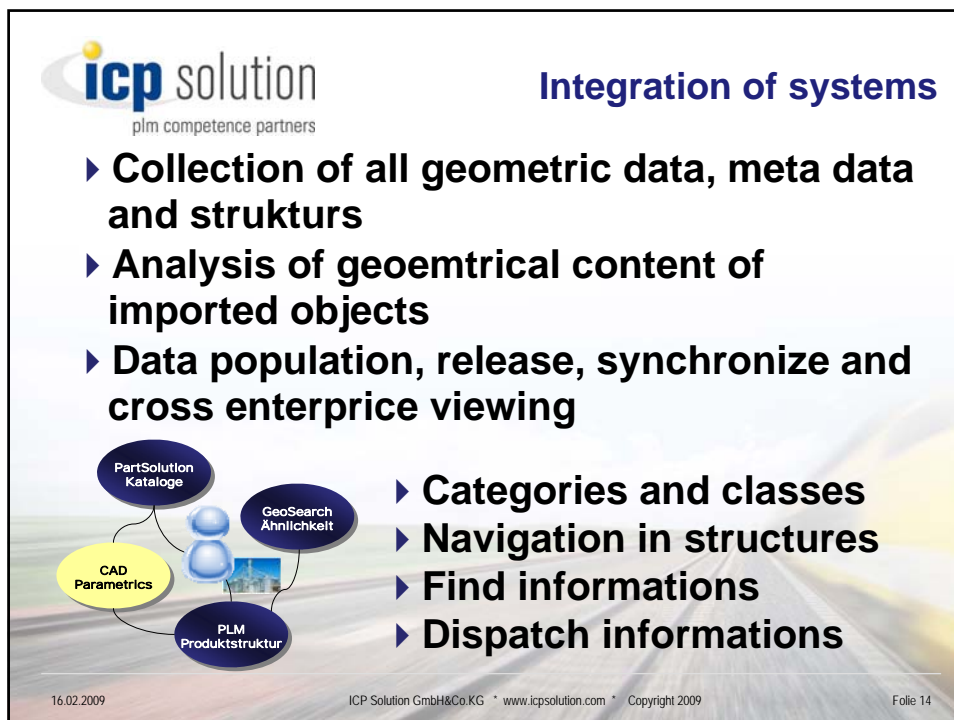
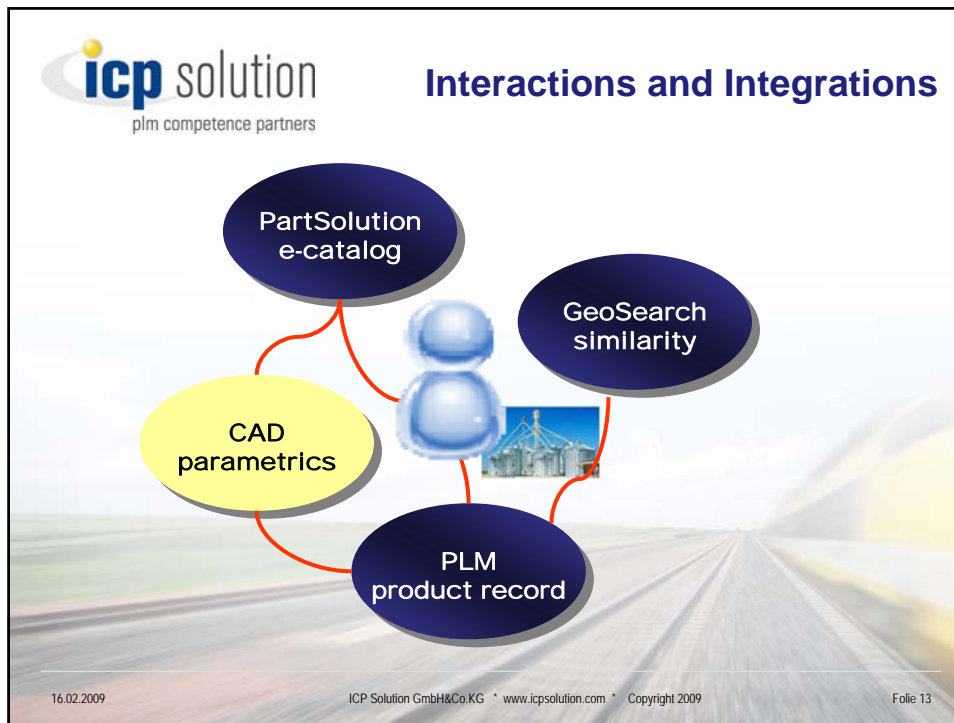
icp solution
plm competence partners

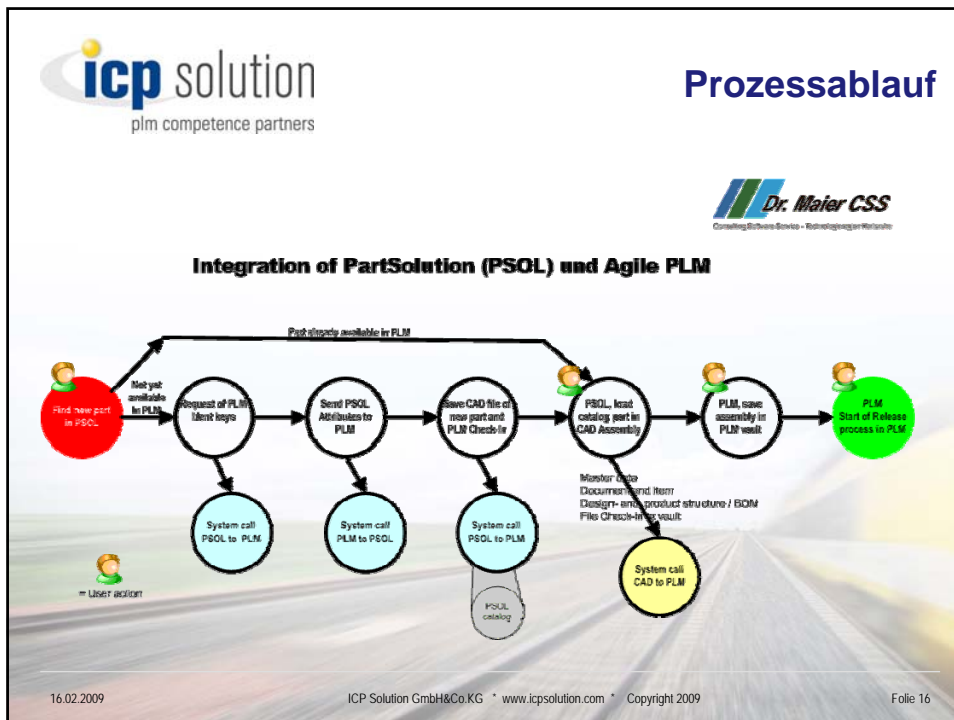
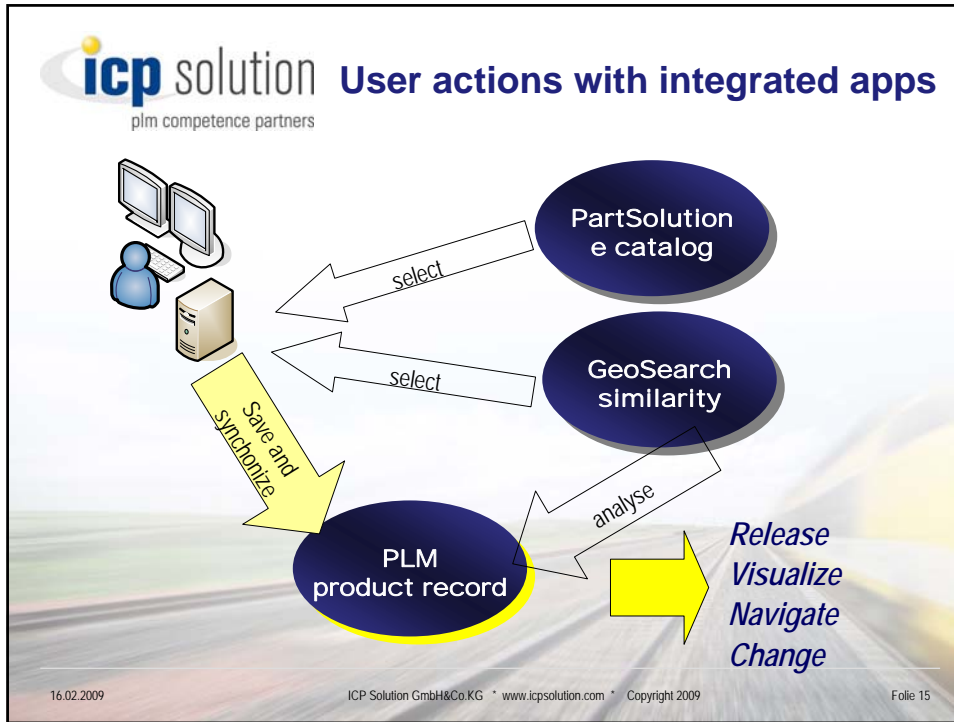
Standards in Plant Engineering

- ▶ **CAD generic variant parts and assemblies**
 - ▶▶ Parametric geometry
 - ▶▶ Attribute controlled configuration
 - ▶▶ External engineering
- ▶ **Standards**
 - ▶▶ Part families, classified by attributes
 - ▶▶ Electronic product catalogs
 - ▶▶ product platforms
- ▶ **Configurable solutions**
 - ▶▶ kit of standard modules with customer specific adaptations
 - ▶▶ Product combinatorics und rules

16.02.2009 ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009 Folie 10









PartSolution PLM Integration (1)

▶ Integration of PartSolution and PLM is processed in background mostly

- ▶▶ Bidirectional synchronization of attributes between PartSolution and PLM system,
- ▶▶ Check in of CAD Objekt in PLM vault,
- ▶▶ Create a new or append an existing material record,
- ▶▶ Set relation attributes between CAD objects and item,
- ▶▶ Avoid multiple data recording in PLM across the extended enterprice,
- ▶▶ Start of work items and actions in workflow process (such as approval, release)

16.02.2009

ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009

Folie 17



PartSolution PLM Integration (2)


▶ Extension of CAD connector features

- ▶▶ Check in of catalog CAD objects as design structure in PLM
- ▶▶ Import of product structure (bom) in PLM
- ▶▶ Suppress of catalog part bom (optional)
- ▶▶ Check out of CAD objects from PLM vault and catalog library
- ▶▶ Batchprocessing (CAD import, similarity analysis, neutrale file formats, plotting etc.)

16.02.2009

ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009


Folie 18



Benefits by Integration

- ▶ **Less time effort for part management**
- ▶ **Faster information (search & find)**
- ▶ **Better decision for engineering solution**
- ▶ **Less risk by using the wrong part revision**
- ▶ **Reduction of using duplicates**
- ▶ **Quantifying of benefit**
 - ▶ Search/find in e-catalog → see www.cadenas.de
 - ▶ Avoid new part idents → up to 100 k€ and more

16.02.2009
ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009
Folie 19



Example

▶ **Medium sized enterprise machinery and manufacturing about 100 M € revenue**

Reduction of new part idents by reuse (only general expenses)

simple parts	per new item	65 €	51%
assemblies	per new item	115 €	31%
complex assemblies, product modules	per new item	195 €	18%
existing item (total)		220.000	
active items (about)	range of 3-5 years	85.000	
new items	per year	8.850	
total general expenses	per year (about)	920.000 €	

Reduction of general expenses by re-use of items

avoided new items	per year, about	750	up to 1.325
saved general expenses by avoiding new items in total		78.000 €	138.000 €

16.02.2009
ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009
Folie 20

 **Benefits by Integration (Summary)**
plm competence partners

- ▶ **Reduction of amount of new items**
- ▶ **Less time effort for part management**
- ▶ **Faster information (search & find)**
- ▶ **Less risk by using the wrong part revision**
- ▶ **Analysis and merge of similar part geometries**
- ▶ **Classification of parts and assemblies**
- ▶ **Release and dispatch information**
- ▶ **Graphical visualization of assemblies**

16.02.2009

ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009

Folie 21




**Thank you very much for
your interest and for your attention.**

Don't hesitate to contact us.
We would be pleased to answer your questions.

 www.icpsolution.com

 info@icpsolution.com

 +49 7244 6080260

16.02.2009

ICP Solution GmbH&Co.KG * www.icpsolution.com * Copyright 2009

Folie 22