JT-based 3D Sales Configurator

PLM-integrated Sales Engineering with Perspectix P’X5

Perspectix AG
PLM World, June 2008
What we do.

Perspectix optimizes technical sales and basic engineering of complex, variant-rich products in four sectors:

- mechanical engineering
- plant construction
- electrical engineering
- workplace and storage systems

With the P’X5™ Software Suite Perspectix supports manufacturers in the implementation of rationalizing and differentiating concepts for PLM-integrated sales engineering.
Siemens PLM – Perspectix Partnering

- Perspectix is Siemens PLM Solution Partner
  - P’X5 is a complementary offer to the Siemens PLM strategy
  - P’X5 supports the Siemens PLM applications
    - NX
    - SolidEdge
    - Teamcenter

- P’X5 supports the open Siemens PLM technologies JT and PLMXML

- P’X5 is the mobile front-end tool for
  - Sales Engineering

- with back-end integration into
  - Teamcenter
  - ERP systems
Solution Elements

Communication, Solution Orientation, Customer Service

Commercialization
- Product Knowledge Editor
- Product Management Tool
- Offer Calculator
- Product Configurator
- Project Configurator
- Layout Planner
- Installed Base Tool
- Tech Doc

Unified & Integrated Product Informationen

CAD PDM ERP

Designer Product Manager Sales Manager Project Manager Service Manager
Development Marketing Sales Engineering Manufacturing Service
P’X5 as PLM Front-end

Integrated Planning & Configuration

PDM/PLM Front-end

Product Knowledge

Modular Platform

Design & Execution

PDM/PLM Backbone

PX5 Software Suite

Content Engine | Presentation Engine | Sales Engine | Configuration Engine | Connectivity Engine

PX5 Produktsbasis

Modular Machine | Modular Automation | Modular Piping | Modular Cabling | Modular Building | Modular Software | Modular Manufact. | Modular Service

M-CAD | M-CAD | P&ID | E-CAD | A-CAD | CASE | ERP | ERP

Document Management, Master Data Management, Change Management
Integration Architecture Siemens PLM – P’X

Perspectix P’X 5™

Product Catalog
- Price List

Product Configuration
- Technical Calculation

Offer Calculation
- Layout Planning
- Offer Documentation

Perspectix P’X 5™

E-CAD
- NX

Teamcenter

Solid Edge

ERP

PLM Components
JT Open

PLM Components
PLM XML
P‘X5 Product Configurator

- Logical, structural, & geometrical constraints
- Top-down product configuration with 3D visualization
  - Parametric property propagation, 150% BOM configuration
- Bottom-up product configuration of modular building systems & layout planning
  - Dynamic, rule-based module composition & aggregation
- Flexible mix of top-down & bottom-up configuration
- Multi-BOM Management
  - Consistent structures for parallel design, business, & process BOMs
- Technical and commercial calculations
P’X5 Project Organizer

- Product-centric CRM with Web-based project collaboration
  - BOM & document management
  - Project handover between back office, field sales & partners
  - Online/offline data synchronisation & mobile applications (field sales)
- Project Tree
  - Flexible node types
  - Flexible project structure
- Article List
  - Hierarchical BOM
  - Offer calculation
- Product Catalog
- Product Configurator
  - embedded in Project Organizer
P’X5 Document Generation

Document Generation & Print-outs
in PDF, PDF 3D, RTF & TIFF formats

- Commercial & Technical Offers

- Assembly Instructions

- Raster Plots
Graphical plant configuration in Siemens Engineering Tool

- 3D layouting of production plants
- Library for plant layout
- Configuration of actors & sensors
- Automatic number assignment
- List of resources in sync with 3D view
- Selection in tree or 3D
- STEP7 Code generation in SIMATIC Automation Designer
P’X5 Applications

Punching, Forming & Assembly Techn.
- Tools Configuration
- Machinery Configuration
- Offer Calculation

Users: ~50

IT Infrastructure
- CAD: NX
- PDM: Teamcenter
- ERP: AS400
P’X5 Applications

- Electronics Assembly Systems
  - Machinery Configuration
  - Plant Configuration
  - Offer Calculation

- Users: ~120 worldwide
- JT and 3D PDF export
- IT Infrastructure
  - CAD: NX
  - PDM: Teamcenter
  - ERP: SAP
P’X5 Applications

Plant Equipment

- Shelf and Workplace Configuration
- Offer Calculation

- Users: ~150 worldwide
- IT Infrastructure
  - CAD: AutoCAD
  - ERP: SAP
P’X5 Applications

USM Möbelbausysteme

Office Furnitures
- Furniture & Project Configuration
- Offer Calculation
- Catalog Management

- P’X5 Desktop Application
- Users: 50 intern, 720 extern
- Web Configurator
- IT Infrastructure
- CAD: AutoCAD
- ERP: SSA LN (Infor, ex BaaN)
P’X5 Applications

Shopfitting
- Product Configuration
- Category Planning
- BOM & Offer Calculation

- P’X5 Desktop Application
  - Users: ~ 100
- IT Infrastructure
  - CAD: AutoCAD
P’X5 Applications

Door Systems

- Door Configuration
- Project Configuration
- Offer Calculation

- Users: ~250 worldwide
- IT Infrastructure
  - CAD: AutoCAD
  - ERP: Oracle
P’X5 Applications

Optimus

Medical Technology
- OP Configuration
- Building Configuration
- Offer Calculation

- Users: ~25
- CAD: AutoCAD
P’X5 Applications

Building Installation Technology

- Electro Configuration
- Cabling
- Technical Calculation
- Offer Calculation

- Users: ~150 worldwide
- IT Infrastructure
  - CAD: UGS NX, E-Plan
  - PDM: UGS Teamcenter
  - ERP: SAP
P’X5 Editor Environment

Product Management Tool (PMT) 1

- Harmonization of product master data
- Sales classification and attributes
- Assembly & variant definitions
- Commercial calculation schemes
- Catalog structures
- Catalog generation (HTML, PDF)

Authoring Workbench (AWB) 2

- Graphical data (3D geometry)
- Composition logic & plausibilities
- BOM logic
- Interaction logic
- Output templates (files, print-outs)
## Knowledge-driven Automation

### Automation functionality with P’X5:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AutoPlacing</td>
<td>Autom. positioning and connecting of product modules</td>
</tr>
<tr>
<td>AutoAssembling</td>
<td>Autom. generation of product structures and aggregations</td>
</tr>
<tr>
<td>AutoDimensioning</td>
<td>Autom. dimensioning &amp; labeling of configured components</td>
</tr>
<tr>
<td>AutoValidation</td>
<td>Autom. conflict checks and solution evaluations</td>
</tr>
<tr>
<td>AutoRouting</td>
<td>Autom. path search for cabling and piping</td>
</tr>
<tr>
<td>AutoSolving</td>
<td>Autom. solution finding with constraint solving</td>
</tr>
<tr>
<td>AutoTransformation</td>
<td>Autom. transformation of multiple BOM structures</td>
</tr>
<tr>
<td>AutoPricing</td>
<td>Autom. cost, price and margin calculations</td>
</tr>
<tr>
<td>AutoDocumentation</td>
<td>Autom. document generation for offers, assembling, ...</td>
</tr>
<tr>
<td>AutoTranslation</td>
<td>Autom. generation of multi-language output</td>
</tr>
<tr>
<td>AutoAnimation</td>
<td>Autom. generation of movement and explosion paths</td>
</tr>
<tr>
<td>AutoUpdate</td>
<td>Autom. synchronization of master and transactional data</td>
</tr>
</tbody>
</table>
What we offer.

Perspectix offers

- Visual Product Selling (VPS) which is a proven integration strategy
- P’X5 configuration technology which is predestined for sales, basic engineering and after-sales services
- XML-based product knowledge base & integration middleware
- Flexible methods for variant-rich & modular product portfolios
- Expertise on PLM-integrated sales engineering solutions
Contact

Perspectix AG

Hardturmstrasse 253
CH-8005 Zürich

tel +41 – 44 – 445 95 95
fax +41 – 44 – 445 95 96

www.perspectix.com
info@perspectix.com

Your contact

Dr. Philipp Ackermann

tel direct +41 – 44 – 445 95 11
mobile +41 – 79 – 223 67 22
ackermann@perspectix.com