L’Usine Numérique à l’heure du PLM 2.0

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IBM Software Group – Product Lifecycle Management

**Les Architectures Orientées Services**

IBM WebSphere fournit l’infrastructure logicielle des architectures orientées services (SOA) pour aligner les responsables fonctionnels et informatiques autour des priorités métiers de l’entreprise.

**Logiciel IBM WebSphere**

**Le Gardien du Système d’Information**

Assurer la visibilité, le contrôle et l’automatisation de l’ensemble des actifs métier et technologiques de l’entreprise grâce au Service Management d’IBM.

**Logiciel IBM Tivoli**

**IBM Software : une offre complète de logiciels d’infrastructure pour répondre à tous les besoins de vos clients.**

6 familles modulaires, évolutives et complètes, s’appuyant sur des solutions compatibles entre elles.

**Logiciel IBM Information Management**

**La Valeur de l’Information**

Exploiter l’information comme une ressource stratégique pour créer plus de valeur et d’innovation. Informations contextuelles, validées et contrôlées. Données hétérogènes.

**Logiciel IBM Lotus**

**Mieux Travailler Ensemble**

Lotus, une stratégie axée sur l’utilisateur. Les solutions Lotus améliorent l’agilité de l’entreprise, facilitent l’innovation par la collaboration et renforcent la capacité des individus à être plus efficaces dans leur contexte de travail.

**Logiciel IBM Rational**

**La Plate-forme de Livraison de Logiciel**

IBM Rational Software apporte la solution la plus efficace face aux défis posés par la livraison de logiciels, systèmes et prologiciels en permettant l’innovation et la modernisation des entreprises.

**Logiciel IBM Product Lifecycle Management**

**De l’idée au produit**

Gérer le cycle de vie du produit industriel de bout en bout : concevoir, tester, fabriquer, maintenir, recycler.
PLM : de l’historique 2D - 3D à la collaboration

Product Life Cycle Management

Maquette Numérique

3D

Collaborative Simulation Réalistique

Business Process

PLM 1ère Génération

PLM 2nde Génération

Ce que couvre le PLM

Gestion du portfolio  Développement du Concept  Conception  Test & Production  Support & Maintenance  Rebus & Recyclage

De l’idée ... Product Lifecycle Management ... à la fin de vie Produit

Concevoir, tester, fabriquer, maintenir, recycler
PLM 2.0 on V6: Architecture

“Manufacturing Lifecycle Management”
Digital Manufacturing & Production for all Communities

Experience

Consumers

Share

Collaborators

Create

Creators

Collaborators

Consumers

Creators

Shop Floor Workers

Production Manager

Production Intelligence Expert

Quality Manager

Program Manager

Process Planner

Industrial Engineer

Designer
DELMIA V6 Value Proposition

- **DELMIA V6 EXTENDS** …
  global access to Manufacturing IP and instant collaboration to faster innovation

- **DELMIA V6 CREATES** …
  a lifelike Experience in production with 3D

- **DELMIA V6 ACCELERATES** …
  IP creation through the pervasive proliferation of engineering and manufacturing knowledge

- **DELMIA V6 TRANSFORMS** …
  the manufacturing lifecycle through ready-to-use industry specific PLM business processes.

- **DELMIA V6 EXPANDS** …
  to multiple communities with a unique architecture for rapid deployability across entire enterprise & supply chain

1. Global collaborative innovation
2. Lifelike experience
3. Single PLM platform for IP management
4. Online creation and collaboration
5. Ready-to-use PLM Business Processes
6. Lower Cost of Ownership
IBM Software Group – Product Lifecycle Management

DELMIA V6: 11 Targeted Industries

- Automotive
- Aerospace
- Shipbuilding
- Industrial Equipment
- High Tech
- Consumer Goods
- Consumer Packaged Goods
- Life Sciences
- Energy
- Construction
- Business Services
DELMIA V6 Digital Manufacturing & Production Solutions

Planning

Plant & Resource

Program & Control

Production Execution
DELMIA V6

“Plan & Prepare your Manufacturing IP”
DELMIA – Manufacturing Planning

**DELMIA Process Planning**
- Provides the basic process planning capabilities for all manufacturing industries.

**DELMIA Custom Time Analysis**
- Provides tools to define customized data cards for time analysis according to company standards.

**DELMIA Resource Planning**
- Provides generic capabilities for logistic resource management, manual line balancing, and layout planning in all industries.

**DELMIA BIW Process Planning**
- Provides a complete fastener planning solution for automotive body in white processes.

**DELMIA Assembly Process Simulation**
- Enables users to do feasibility and assembly simulation studies, and includes to publish the results of the simulation in shareable formats.
"Design & Build your Manufacturing Assets"
DELMIA – Plant & Resource Engineering

**DELMIA Mechanical Device Builder**
Integrated package allowing full definition of mechanical devices such as industrial robots and machines.

**DELMIA NC Machine Builder**
Enables creation of virtual NC machine resource with kinematics and technological data. Milling Machines, Turning Machines and Mill-Turn Machines can be created.
DELMIA V6

“Run & Simulate your Factory”
Program & Control
DELMA – Program & Control Engineering

**DELMA Device Task Definition**

Allows the user to define and simulate the motion of a mechanical device—from simple clamps that open and close, to more complex mechanisms such as EDM-assisted devices.

**DELMA Robot Task Definition**

Provides the tools required to perform robotic feasibility studies, and device and robot task programming and validation.

**DELMA Robotics Spot Welding**

Provides an integrated solution for selecting the right tool to perform spot welding, to creating an optimized spot welding task.

**DELMA Robotics Offline Programming**

Enable Import and Export of Production Robot Programs. Provides Suite of Functions to Support Workcell Calibration.
IBM Software Group – Product Lifecycle Management

DELMIA – Program & Control Engineering

Ergonomics

Program & Control Engineering
DELMIA Ergonomics Analysis

Provides a set of standard ergonomic analysis capabilities to be used when manipulating or posturing an existing manikin, as well as anthropometry editing for this manikin.

Program & Control Engineering
DELMIA Ergonomics Task Definition

An intuitive and powerful product allowing authoring, simulation, and validation of human tasks.

Program & Control Engineering
DELMIA Ergonomics Evaluation

An intuitive and powerful product allowing the creation and manipulation of accurate standard digital human manikins.
DELMA – Program & Control Engineering

DELMA Mill-Turn Machining
- Defines NC programs dedicated to machining 3D parts using advanced 2,3,5-axis milling, drilling and turning operations.

DELMA Turning Machining
- Defines NC programs dedicated to machining 3D parts on multi-slide lathe machines or lathe centers. It also provides high-level automation and knowledge reuse capabilities.

DELMA Milling Machining
- Delivers the capability to program a milling machine to operate efficiently and quickly.

DELMA Extended Milling Machining
- Dedicated package to machine complex part on a multi-axis milling machine with easy to use advanced multi-axis operations.

Machine programming

DELMA NC Machine Simulation
- Simulates machining processes and helps users generate error-free and optimized NC programs.
Control Systems Engineering

Program & Control Engineering

DELMIA Smart Device Builder

A dynamic solution used to design virtual equipment (Smart Devices).

Program & Control Engineering

DELMIA Virtual Controls Validation

Allows validating control programs from any PLC against a 3D virtual model of the controlled system.

Production Execution

DELMIA Live Shop floor Review

Delivers process information and 3D work instructions to the shop floor for operator training and production execution.