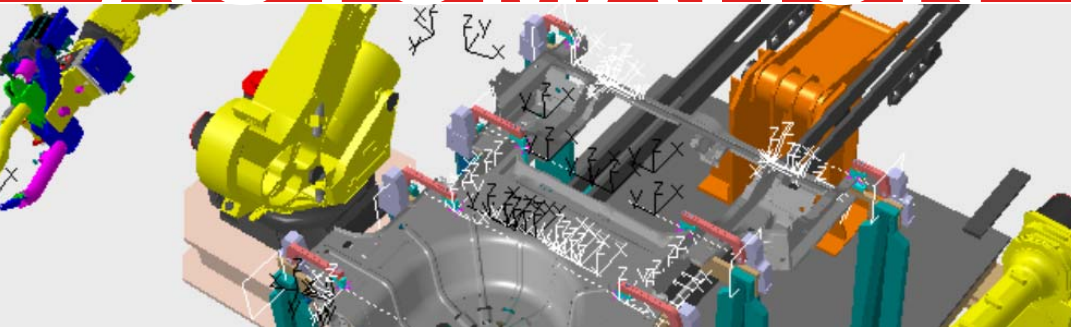


DELMIA V5

AUTOMATION™



Collaborative Programming
Solution to Digitally define,
Control, and Monitor
Automated Systems

DELMIA Automation offers a New Paradigm for Control Engineering

DELMIA V5 Automation offers a powerful solution for control engineering and automation lifecycle management. Current offerings enable programming of various Programmable Logic Controllers (PLC), and validation of this logic against a virtual machine, a cell, or an entire line and the performance analysis of these systems. With time and cost considerations putting pressure on new product introductions, PLC programming can no longer be seen as an isolated, independent function of moving a product forward on to the shop floor. DELMIA V5 Automation allows control departments to work in parallel and share information with mechanical and electrical departments earlier in the development process allowing optimization of engineering processes.

During the ramp-up of production lines, as well as in machine building, time to ramp-up and risk of error have become crucial factors in determining productivity and profitability. DELMIA V5 Automation helps cut ramp-up time significantly by catching logic errors well before the ramp-up, by evaluating PLC program changes on the virtual equipment instead of taking risks on real equipment, and allowing pre-commissioning with the real PLC.

DELMIA Automation LCM Studio

DELMIA V5 Automation LCM Studio is a PLC programming environment using the standard languages defined in the IEC61131-3 standard. LCM Studio provides the tools necessary to create, edit, debug, and validate controls logic and allows users to create and re-use pre-defined control logic blocks. DELMIA Automation LCM Studio allows the user to create the PLC program independent of the hardware. The resulting program can be downloaded to a targeted PLC through an optional dedicated DELMIA Automation PLC Setup. In addition,

DELMIA Automation LCM Studio allows the controls engineer to program and validate controls logic in the “context” of the virtual equipment designed using DELMIA Automation Smart Device

DELMIA Automation Smart Device Builder

DELMIA V5 Automation Smart Device Builder turns your 3D CAD models (CATIA, Solidworks, UGS, ProE, Solidedge, and others) into actuators and sensors to be used in defining kinematics/tasks, internal behavior and electrical I/Os. The internal device behavior is easy for control engineers to define using programming languages supported by DELMIA Automation LCM Studio. The internal behavior can also be used to create default and abnormal conditions to validate how the PLC program will react to such conditions. Smart devices can then be assembled to build complete virtual equipment with a complete set of I/Os.

DELMIA Automation Controlled System Simulator

DELMIA V5 Automation Controlled System Simulator allows the user to simulate, debug, and validate a complete PLC program against virtual equipment before any real equipment is even built.

The PLC program can be loaded to a virtual PLC or to the real PLC. Users just map the PLC program I/Os defined with DELMIA Automation LCM Studio to the virtual equipment I/Os defined with the DELMIA Automation Smart Device Builder and then define the simulation environment. The simulation environment is defined by an input part flow (source and sink) and such stochastic distributions for creation times and part types. Production system analysis and reporting can be generated providing part-centric and resource-centric statistics.



AUTOMATION™

DELMIA Automation Control PLC Setup

The PLC Setup is developed by or in close collaboration with the major PLC providers (Schneider Electric, Omron, Siemens and others) using the V5 open platform (CAA V5). PLC Setup (one per PLC provider/type) downloads a PLC program developed with DELMIA Automation LCM Studio to the real PLC:

- Compiled to the PLC native code and transfer to the real PLC.
- Developed by PLC vendor using CAA V5, to guarantee the downloaded program and shorten support time for new PLC hardware.
- Integrated into DELMIA Automation V5 Desktop so control and maintenance engineers can download, run, stop, and debug in the same environment.



Using DELMIA Automation Controlled System Simulator with the real PLC

Once the virtual PLC program is downloaded to the real PLC using the correct DELMIA Automation PLC Setup, the controlled system simulator can be used to link the real PLC and the virtual equipment using open connectivity (OPC). The users can define the simulation environment as previously described and perform production system analysis and reporting. Operations can be created with the real Human Machine Interface (HMI) connected to the real PLC. The DELMIA Automation Control System Simulator can be used for virtual startup, virtual commissioning with end users, and operation training.

About DELMIA

DELMIA, a Dassault Systèmes brand, provides two solution offerings for the digital factory. **DELMIA Automation**, allows control engineers to digitally design, test and validate the control of a machine, workcell, or entire factory line and **DELMIA PLM**, providing the process and resource capability to enable continuous creation and validation of manufacturing processes as related to the product throughout the entire product lifecycle. DELMIA serves industries where the optimization of manufacturing processes is critical, including automotive, aerospace, fabrication and assembly, electrical and electronics, consumer goods, plant, and shipbuilding sectors. Information about DELMIA is available at www.delmia.com.

About Dassault Systèmes

As world leader in three-dimensional product lifecycle management (PLM) solutions, the Dassault Systèmes group brings value to more than 70,000 customers in 80 countries. A pioneer in the 3D software market since 1981, Dassault Systèmes develops and markets 3D PLM application software and services that support industrial processes and provide a 3D vision of the entire life cycle of products from conception to maintenance. Its offering includes 3D PLM integrated solutions for product development (CATIA®, ENOVIA®, DELMIA®, SMARTEAM®), general-use 3D solutions (SolidWorks), and 3D components (ACIS®) from Spatial Corp. Dassault Systèmes is listed on the Nasdaq (DASTY) and Euronext Paris (#13065, DSY.PA) stock exchanges. Information about Dassault Systèmes is available at www.3ds.com.

