Plant Simulation® and MPDS₄
Simulation in Plant Design and Factory Layout

CAD Schroer

iSILOG

www.cad-schroer.com
Plant engineers who wish to run simulations as part of their process plant or factory layout activities can face a significant duplication of effort as they try to combine two fundamentally different disciplines, each requiring dedicated software solutions. To meet this challenge, CAD Schroer and iSILOG have joined forces to deliver an MPDS4-Plant Simulation® integration, offering bidirectional data exchange between the CAD and simulation environments for integrated project engineering.

**Plant Simulation**

Siemens’ Tecnomatix Plant Simulation software uses computer models to represent complex production systems and processes. It is used strategically for material flow, resource utilisation and supply chain optimisation.

**Bi-directional Data Exchange**

The 2D/3D process plant layouts created with MPDS4 are transferred to Plant Simulation with all the relevant attribute information, such as component constituent parts, position, or connectivity. Plant Simulation uses the existing engineering layout. There is no need to create a separate layout for simulation purposes.

After running a simulation, users can optimise the position of production line components in Plant Simulation, then transfer the data to MPDS4, which automatically updates its 2D/3D layout to reflect the changes made. This ensures that layout mistakes are eliminated and project lead times reduced.

In addition, attributes relevant to a simulation - such as conveyor speeds, bottlenecks, or processing times - can be stored in MPDS4 in advance, allowing users to run their simulationsstraightaway. The Plant Simulation model can then be used to refine and optimise system performance. Any changes to the attributes exchanged (speed, actuating time, etc.) are automatically updated in the MPDS4 software. Plant designers thus gain an immediate overview of the technical requirements which must be considered when selecting appropriate plant equipment.

**Interface Technology**

The XML-based interface between the two products ensures maximum flexibility and portability. Customisations can easily be integrated. The technology also ensures future viability and compatibility with other interfaces (e.g. AutomationML).

**iSILOG and CAD Schroer**

The MPDS4-Plant Simulation integration was developed in partnership between iSILOG and CAD Schroer. iSILOG is a leading simulation and virtual plant operation services provider. Having completed more than 500 projects in diverse industry sectors, iSILOG is an expert at driving forward interdisciplinary solutions that address and channel diverse requirements. CAD Schroer is a longstanding global engineering solutions provider. Both CAD Schroer and iSILOG are Siemens Solution Partners in the field of Product Lifecycle Management (PLM).

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