PV logistics & simulation services

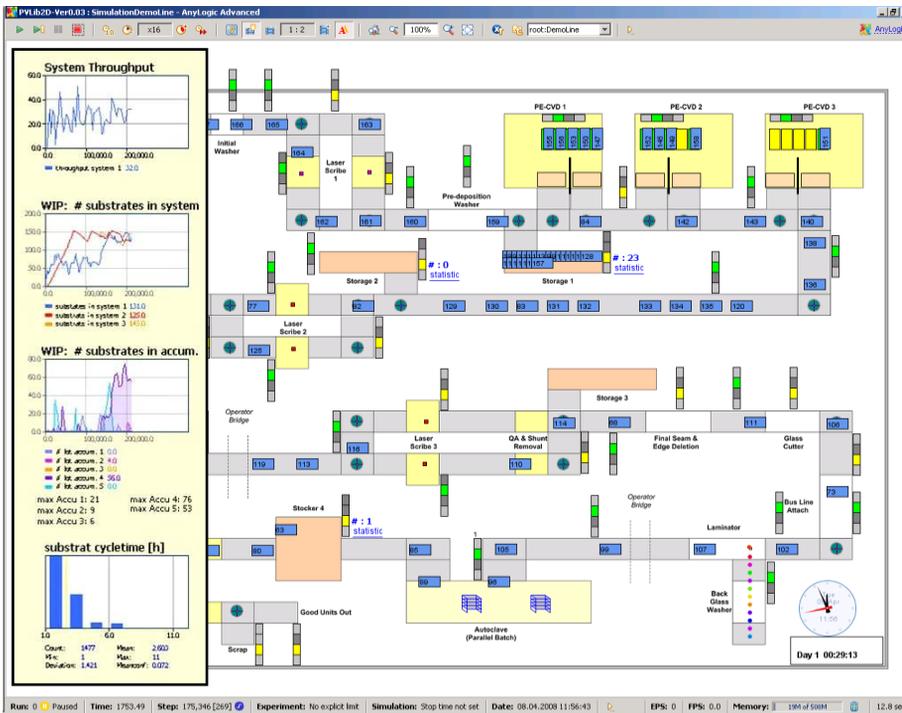## Planning, simulation and optimization of PV manufacturing

acp-IT accompanies you during design, simulation and optimization of your photovoltaic (PV) manufacturing system. We are a competent and experienced partner for material flow and logistics planning. Using advanced planning techniques and simulation software environments along with our comprehensive logistics know-how, we are able to support your PV projects regarding:

PV factory planning

acp-IT provides comprehensive material flow, layout planning and simulation support for photovoltaic manufacturing lines. Benefit also from our simulation services. We use the simulation software AnyLogic, a modern and innovative tool. Our PV simulation library allows modelling of manufacturing lines in few steps with consideration of detailed material flow control policies. Therefore, we are able to answer essential questions with regard to factory planning and operation of new or already existing manufacturing lines. In simulation studies we answer your questions with regard to throughput maximization, line balancing and optimum capacity allocation.

PV factory ramp-up

Our simulation models can also be applied for testing and configuration of your Manufacturing Execution System (MES) solution. Simulated control policies can be adopted directly by MES solutions. The MES can run against the simulation instead of being connected to the real factory. The simulation model provides the essential control events and status changes which will be provided in the real manufacturing line from your equipment. Consequently, the software testing of your MES can be done upfront in a virtual world enabling early error handling and software configuration according to your needs. As a result, factory ramp-up times can be reduces significantly.

Who we are

acp-IT's simulation experts dispose of an excellent background in discrete event systems modelling, operations research and optimization techniques. With our locations in Stuttgart, Dresden, Timisoara (Romania) and Villach (Austria) we offer professional IT products and services for planning and operation of high-tech manufacturing facilities.

Simulation software

acp-IT has experience with the simulation software packages AnyLogic, AutoMod and Plant Simulation. acp-IT is also official distributor of AnyLogic – a powerful multi-paradigm simulation software capable of modeling systems as a combination of discrete event, system dynamics and agent based models.

FEATURES

PV Simulation Library

- Approved in several PV simulation projects
- Includes relevant PV equipment types
- Includes transportation and storage equipment
- Individual configuration of state models for each equipment
- Drag & drop layout modelling
- Predefined reports and online charts for throughput, work-in-process and utilization monitoring

OUR SERVICES

- Line capacity planning
- Layout planning
- Conception and simulation of material flow policies
- Automation concept planning
- Simulation model development with custom libraries for photovoltaic manufacturing simulation
- Simulation studies supporting factory planning
- Optimization techniques for maximum throughput and line balancing
- Interfacing IT systems and emulation of MES
- Distribution and support for AnyLogic simulation software
- Simulation training with AnyLogic

CONTACT

acp-IT AG
advanced clean production
Information Technology AG

Laurentiu Maniu

Handwerkstraße 29

70565 Stuttgart

T: + 49 (0) 711 7 82 40 89-0

F: + 49 (0) 711 7 82 40 89 10

info@acp-it.com

www.acp-it.com