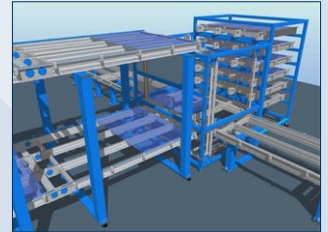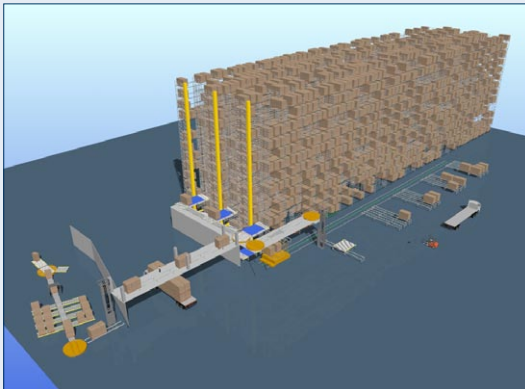# Demo3D

3D system planning, animation and detailed simulation of production and logistics facilities

Demo3D provides a user-friendly and interactive virtual reality environment for the 3D system planning, animation and detailed simulation of production and logistics facilities. This is facilitated by utilising state-of-the-art technologies from the games industry. Nonetheless the tool pursues an engineering approach and captivates through clear structures, an open architecture and a multitude of functions that can be adapted to individual fields of application.

Fields of application

Supporting the sales process

During the sales phase of production and logistics facilities, it is crucial to be able to communicate potential solutions to the customer quickly and convincingly. With the aid of Demo3D plants can be created and animated within a short time from modular kits. The plant can then be viewed from any angle and virtually walked through, enabling the client to comprehend a customised solution as fast as possible. This creates a foundation for a mutual understanding; based on this, even non-engineers are able to make decisions.
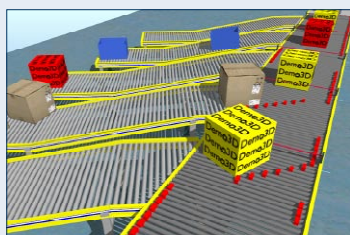
3D system planning, development and Digital Factory

The application of CAD in the layout planning is state of the art. However, the expenditure for the creation of CAD drawings is still not insignificant, slowing down the pace and creativity of planning in the early planning stages. The application of Demo3D can redress this, resulting in a more efficient planning process whilst increasing the planning quality at the same time. Truthful 3D models and animation of the plant design immediately establish a high understanding of the system, allowing the interactive modelling and evaluation of alternatives.

Detailed simulation of conveyor systems

With the classic simulation programmes for material flows, conveyor systems can be analysed to a certain level of detail. These reach their limits as soon as physical effects play a larger part or are the object of

investigation. An example is the separation of cardboard boxes using conveyor technology. Friction and mass are a decisive factor in this.

Demo3D takes these parameters into account as standard, therefore delivering extremely accurate results. This can be crucial as it facilitates the identification of bottlenecks that would not have been discernible using classic simulation programmes, due to the abstraction in the illustration.
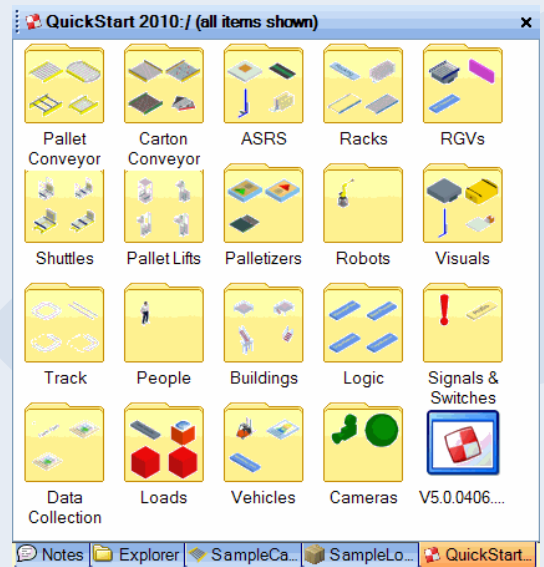
Basic features

Model construction

Models are constructed using pre-defined modules from so-called catalogues. There is a multitude of standard modules that can be extended with customer-specific modules.

Beyond the graphic representation, these modules can contain logic circuits to control material flows and movements. If required, further intelligence can be added to the modules to facilitate operation in certain fields of application.

Generally, when representing material flows, physical properties such as gravitation, friction and mass are taken into account. However, if required, this may be deactivated selectively or collectively.

The virtual plant can be walked or flown through from all angles. Furthermore, videos can be produced from any desired camera angle. If desired, these can then be rendered to provide them

with photo-realistic quality. In order to accommodate various fields of application and user groups, Demo3D offers different editions that are based on one another.
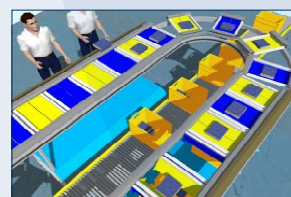
Demo3D Standard: Model generation with the aid of the standard catalogues.

Demo3D Professional: Import of 2D and 3D graphical data in different formats. Option to utilise customised catalogues (third party or self-generated).
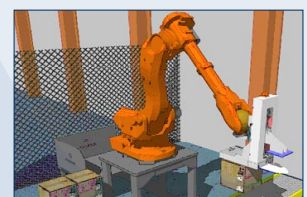
Demo3D Enterprise: Powerful development environment for the creation of custom-made catalogues (scripting).

The following companies have already decided on Demo3D, to name but a few:
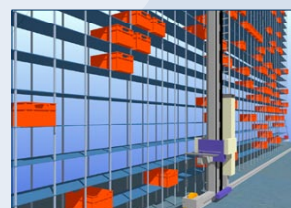
- BSS Bohnenberg GmbH
- Dematic GmbH
- Distrisort B.V.
- Dürr Ecoclean
- General Motors Corporation
- HK Systems
- integral logistics
- Intralox
- Klug GmbH integrierte Systeme
- MLOG Logistics GmbH
- Nestlé
- OCS / Wipotec
- Siemens AG
- Stöcklin Logistik GmbH
- Swisslog
- TGW
- Vanderlande Industries

Split Tray Sorter

Robotics

High rack warehouse

Driverless transport systems

SimPlan AG

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