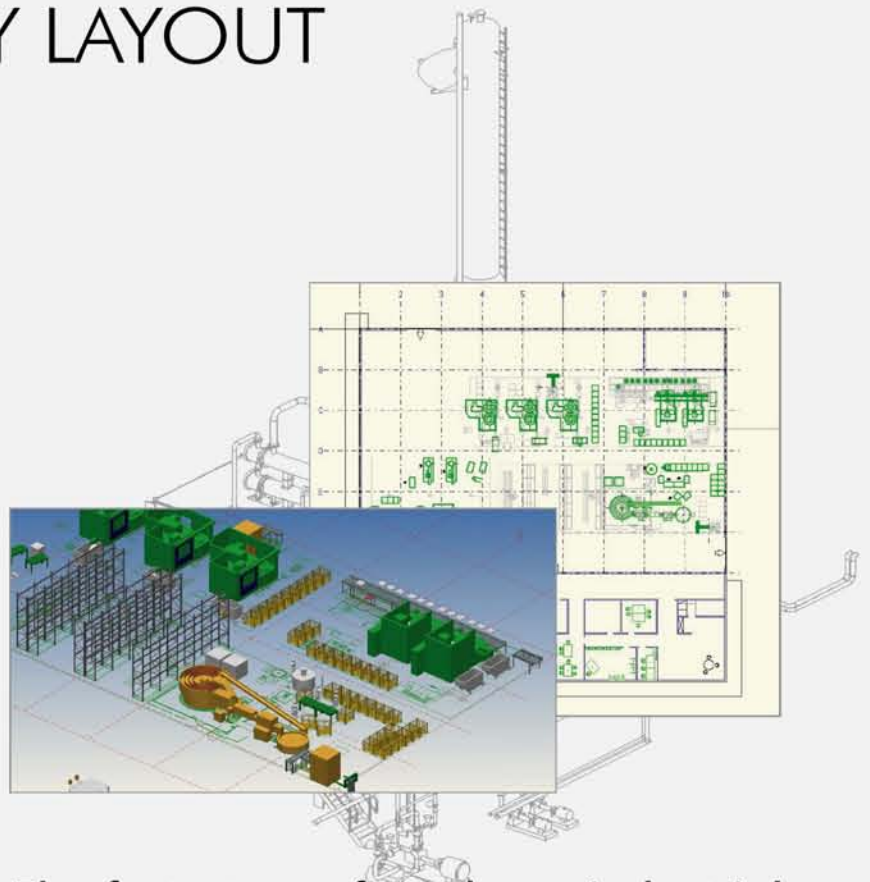


MPDS₄

FACTORY LAYOUT



The fastest way from large industrial layouts to 3D visualisations



ADD-ON

MPDS4 FACTORY LAYOUT is a whole new concept for interaction between the world of industrial layouts and the world of services and space management, giving installation designers and suppliers a rapid, flexible design environment for the entire design process, from tender to concept to build order – fully integrated with their existing 3D strategy.

Overview

You use a 3D modelling tool to design machinery and equipment, often delivered as complete capital plants, factories or other installations for discerning clients. Or you procure ranges of equipment, providing complete turnkey installations. In order to quickly create winning project proposals, you need a system that complements your product modelling environment, using the most effective tools for each stage of the design process, offering the ability to make radical modifications rapidly, while outputting high quality installation designs.

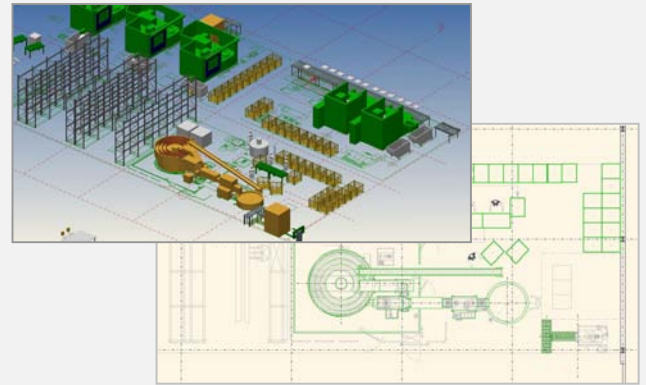
You need to combine the quick and effective layout capabilities of a drawing-based approach with detailed space management and visualisation options, making full use of your existing equipment models; it's the most productive way of deploying your time and resources.

FACTORY LAYOUT offers the ideal solution by combining drafting power tools with the advanced capabilities of a plant design system, all integrated with your 3D environment. It offers the optimum solution for each step of the design process, and the ability to use 3D simply and effectively early in the tender stage. This means you don't have to leave spatial detail to post-contract design, or spend an immense amount of time and effort prior to gaining an order.

FACTORY LAYOUT Interactive Design

While most initial layout for project quotations is done in 2D, often by others, many project

engineers long for 3D visualisations that bring designs to life for customers, helping to win bids. Yet large-scale 3D work can be very time-consuming, especially at the iterative stage, where much is thrown away before arriving at a workable solution. Or visualisation is only achieved with tools that don't deliver CAD content. The skill is to use minimum resources while achieving maximum effect and accuracy.



Build complete plants directly from a 2D layout

FACTORY LAYOUT works with your existing CAD and catalogue data and allows you to switch the design environment quickly from layout drawings to 3D visualisations, offering time-saving automation.

Creating the Initial Layout

- Import DXF/DWG drawings, or even scanned paper-based designs, using raster backdrop to create a layout drawing
- The system's power tools make it quick, easy and intuitive to add symbols and geometry to reflect current ideas

Working Between Two Worlds

- Drawing data can be shown in the 3D world for easy working
- Position components in any 3D plane – to place machinery on raised, slanted platforms for example

- Symbols from the symbol library, with added user attributes, are used to position:
 - items of equipment which are represented in the 3D world by your 3D models (easily defined in MEDUSA4 3D, or use Pro/ENGINEER® or import from IGES/STEP/STL)
 - catalog components from the Piping, Steel, Ducting and Electrical disciplines (e.g. valves, tees, pipe fittings, cable trays) to model services and support structures

Modelling Complex Floors and Ground

Adding floor height texts at any point on the drawing – to show the various spot heights across a site or building – automatically produces a 3D model representing the shape of the ground or a complex floor with falls for water drainage.

Auto-Modelling the Architecture

FACTORY LAYOUT takes the tedium out of a lot of architectural modelling. Simply add a Z attribute to selected line geometry and the 3D solid model is automatically generated when switching to 3D.

Auto Update

Any changes made to the drawing are automatically reflected in the 3D world, and vice versa.

Walk-through Movies

The optional ENGINEERING REVIEW module for realistic design reviews also allows users to generate movie-like walk-throughs of their installation, complete with eye movement controls – excellent for pre- and post-contract sales and marketing purposes.

Supporting Technologies

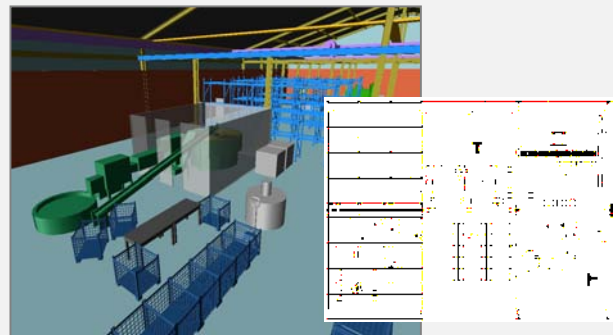
- Multi-user relational database for querying, reports, B.O.M. and extensive project control
- Easy handling of extremely large-scale assemblies of equipment models

- Parameterised catalog components: feed Pro/ENGINEER with design specials
- Fast drawing production & easy data exchange with customers/suppliers (DXF/DWG/IGES)

Benefits

FACTORY LAYOUT increases your competitive edge by delivering powerful, flexible tools to companies that design/provide complete installations, providing high quality results while cutting project engineering time and costs. Its advanced 2D/3D interaction means you can:

- shorten the iterative pre-sales period through greater accuracy earlier in the design process
- impress customers with 3D models of large installations in the earliest stages
- respond rapidly to changing requirements, easily propagating changes made to buildings or machinery in the layout or 3D world
- highlight layout challenges and equipment requirements early in the design process



Layout for a flexible manufacturing facility, complete with all services (piping, cabling, ductwork, handling equipment etc.)

Platforms Supported

- Windows® 2000 (Service Pack 4), XP Professional (Service Pack 2), Vista Business
- Sun® SPARC Solaris 9 and 10 with CDE

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