Meeting the Challenges of 3D Plant Design

The MPDS4 plant design software is scalable, modular, multi-user capable, user friendly, integrates with existing systems, and easily handles huge amounts of data. MPDS4 provides a flexible plant assembly solution regardless of project size. Its multi-user relational database approach provides a rules-based, specification-driven 3D design environment for all the major plant disciplines, including P&ID driven process piping. It provides detailed engineering review capabilities as well as external 3D walk-through tools for project stakeholders.

MPDS4 offers extremely high productivity through its wide range of specialised toolsets for design tasks such as piping layout, steelwork design and HVAC duct routing, all driven by extensive, and extensible, component libraries supplied with the software. Automatic consistency checking and interference checking play a vital role in quality assurance. Automatically generated reports, BOMs and parts lists can be used to monitor project profitability. Boasting an integrated advanced drafting environment, MPDS4 delivers all the 2D drawings required for downstream manufacturing. A large number of interfaces offer easy data exchange with other 2D and 3D data formats, as well as ERP systems integration.
**Large-scale 3D Plant Design**

Use MPDS4 for large-scale, rules-based, multi-user, cross-discipline plant assembly directly in 3D. The software offers a comprehensive range of add-on modules for all the main plant engineering disciplines, including Piping, Steel, Hangers & Supports, P&ID, HVAC Ducting, Mechanical Handling, and Electrical Design.

**Global Collaboration**

Distributed design teams can collaborate on the same plant project via a multi-user, version-controlled database.

**Quality Assurance**

MPDS4 drives up project quality by offering integrated consistency and interference checking. The software automatically detects clashes between components, or obstructions in clearance spaces.

**Project Data and Engineering Content Management**

MPDS4 provides central project and database administration, version and user management, with a Project Data Control (PDC) environment for effectively managing multiple project databases and the engineering information they contain.

**Catalog-driven Design**

MPDS4’s customisable libraries of 3D parametric catalog components support rules-driven, standard-compliant, accurate design. Users specify, place and auto-route components, which are automatically modelled in 3D. An optional 3D Component Editor allows designers to create custom parametric catalog components.

**Downstream Data**

MPDS4 automatically generates BOMs, parts lists, reports and 2D drawings directly from the plant design. There are interfaces to ISOGEN™, pipe stress analysis software, ERP and EDM systems.

**2D/3D Integration**

MPDS4’s integrated drafting software automatically generates editable 2D views of 3D data. Imported 2D layouts can form the basis of 3D buildings. Use 2D P&IDs to drive 3D Piping. High quality 2D/3D and raster image interfaces are also available.

**3D Walk-throughs**

Use MPDS4 for design reviews and 3D plant fly-throughs, ideal for customer presentations. Export e-mailable plants for clients using the separate MPDS4 REVIEW software for walk-through reviews and annotations.