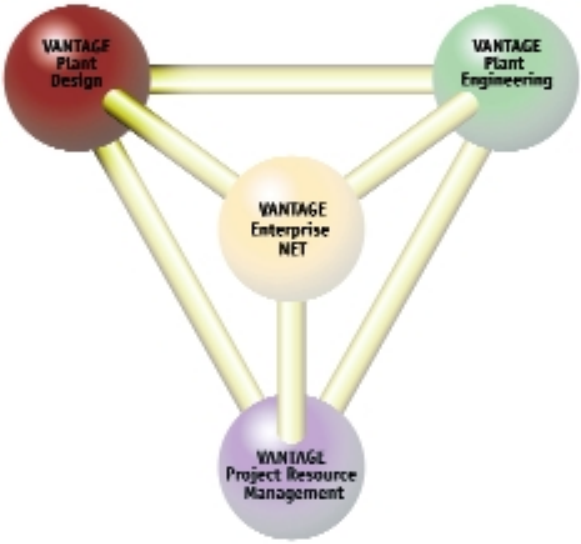
VANTAGE

Plant Design

Router



INTEGRATED PIPE ROUTING AUTOMATION – SAVING TIME, MATERIALS AND MONEY

At the conceptual phases of design projects, using non-expert methods to establish optimal pipe runs and material take-offs (MTO) for cost estimations often provides engineers with unreliable results.

With the pipework design progressing alongside other disciplines, a fully integrated design approach allows piping engineers to optimise pipe routes quickly, utilising powerful clash reports to establish the pipe run viability.

Leading the way in pipe routing automation, and fully integrated with VANTAGE PDMS, Router – a component of the VANTAGE Plant Design, provides an effective rule-driven system, which significantly reduces man-hours and costs in piping design throughout the project.

Router finds the most effective, least constrained route and minimises the effects of any clash with other modelling disciplines. In-line components are easily handled and can be rapidly positioned, either manually or automatically – directly from the P&ID. Rule-based selection criteria determines, which pipes will be run first to ensure that the cost of materials is minimised.

AVEVA

"The VANTAGE Plant Design Router will significantly decrease DuPontís project costs. We expect up to a ten times productivity improvement during piping designs, and the improved quality will result in reduced installation costs. Further productivity gains will be possible as we apply the rule-based features."

Curtis Fisher
DuPont

VANTAGE

Key Features and Benefits:

- Fully integrated with VANTAGE PDMS, with access to the multi-discipline database enabling full clash detection and data consistency checking
- An ideal conceptual and detailed design tool for minimising pipe material costs
- Automatic component specification-driven selection to achieve connection compatibility
- Component placement features include: automatic positioning, orientation of major components, enforcement of minimum bend distance on planes and pipe rack, balanced flow tees and component position locking
- Extensive feedback about the selected route and any problems that were encountered
- Powerful rules engine allows significant routing points, planes and pipe rack constraints to be defined
- Intelligent pipe entry, exit and spacing on pipe rack, enables an optimised approach to onshore piping
- Automatic pipe network ordering and sequencing based on pipe attributes, such as bore and specification
- Front-loading and population of the 3D model from the P&ID, creating pipes, branches and principal piping components
- Facilitates pipe routing from non-orthogonal nozzles

Four essential issues.
Four product families.
One world-class name.
VANTAGE

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