



Siemens PLM Software

D-Cubed components

Geometric software components for CAD, CAM, CAE and PLM software developers

Benefits

- Add D-Cubed components to your products economically and quickly with our flexible licensing arrangements and simple integration process
- Ensure the productivity of your software developers and end-users with our market-proven quality
- Minimize your development and testing requirements and the risk of in-house development overruns with our market-proven technology
- Benefit from the same solutions used by more than 4 million end-users

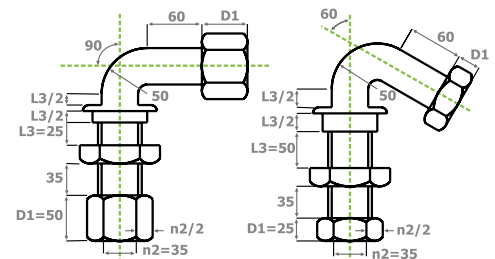
Summary

Siemens PLM Software provides D-Cubed™ components within its family of PLM Components products. PLM Components are open tools used by software developers and manufacturers to accelerate software development and improve productivity while promoting industry standardization and interoperability throughout the product lifecycle.

D-Cubed components are licensed by software developers for integration into their products. Six different software libraries are available that provide various capabilities, including parametric sketching, part and assembly design, motion simulation, collision detection, clearance measurement and hidden line visualization. These components are used in a wide variety of applications, including mechanical CAD, CAM, CAE, mold, sheet metal, mechanism, garment, architectural, civil, structural, plant and ship design, GIS, CMM and reverse engineering systems, as well as various configurators.

D-Cubed 2D DCM

2D Dimensional Constraint Manager provides a geometric constraint solving capability that enables end-users to create and modify 2D sketches more efficiently. 2D DCM's driving dimensions (parameters) and geometric constraints specify the location of the geometries in 2D sketches. End-users can modify their designs by changing dimension values or dragging geometry. 2D DCM maintains the design intent by ensuring that the dimensions and constraints are satisfied.



D-Cubed components

Features

- D-Cubed components made openly available through our “level playing field” policy
- Supplied as C++ libraries that support C++, C, C# and other development environments
- D-Cubed components compatible with your current data-structures for easy integration with existing products
- Integration assisted by the world’s most experienced support team in these areas of component functionality

D-Cubed 3D DCM

3D Dimensional Constraint Manager facilitates the efficient use of dimensions and constraints in positioning parts within assemblies and mechanisms, controlling the shape of parts and producing 3D sketches. It supports a wide range of geometry, dimensions and constraints, enabling designers to efficiently build, modify and animate the most demanding models. The 3D DCM is the foundation of the latest interactive approaches to assembly part positioning and kinematic simulation, 3D sketching and direct (non-history based) part shape modification.

D-Cubed AEM

Assembly Engineering Manager brings realistic motion simulation on accurate solid models to the core of a CAD system. AEM models the physical behavior of an assembly or mechanism based on the mass properties of its parts and the forces acting on them. It simulates a wide range of forces and mechanical devices, including torques, springs, gravity, motors and conveyors. Requiring no special preparation by the end user, AEM automatically adds and removes 3D contact constraints between geometries as parts come into contact.

D-Cubed PGM

Profile Geometry Manager is used to manage high-level sketching operations on 2D profiles. Used alone, it provides a comprehensive suite of offsetting tools for enhancing CAD capabilities or generating 2D toolpaths. It can also be integrated with 2D DCM to enable profile constraints, such as distance-to-profile and profile area.

D-Cubed HLM

Hidden Line Manager is used in products that need to compute hidden line views for enhanced on-screen visualization, engineering drawings and technical illustrations of parts and assemblies.

Distinguished by a combination of excellent performance and reliability, HLM is compatible with virtually every geometric modeler, including combinations of

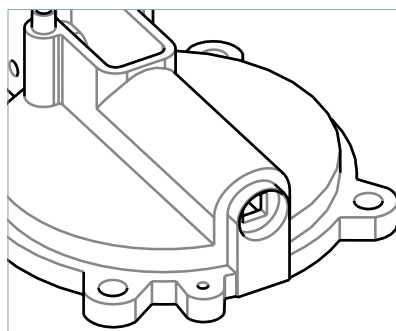
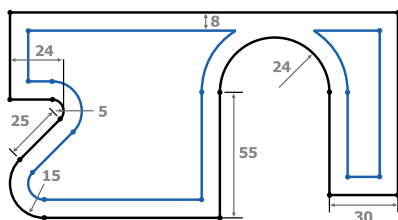
different modelers in the same application. It supports combinations of exact, faceted, solid, surface, wireframe, manifold and non-manifold parts.

D-Cubed CDM

Collision Detection Manager accurately and rapidly detects collisions and clearances in interactive assembly and motion simulation environments. It is compatible with any surface or solid modeler operating on exact or faceted models. Its distinctive strength is fast performance on exact models.

Conclusion

By selecting D-Cubed components, you can rapidly deliver superior capabilities to your customers while freeing resources to focus on your own areas of expertise, thereby enhancing your market position. You can also be confident that you are maximizing the value of your software development investment while minimizing your business risk.



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