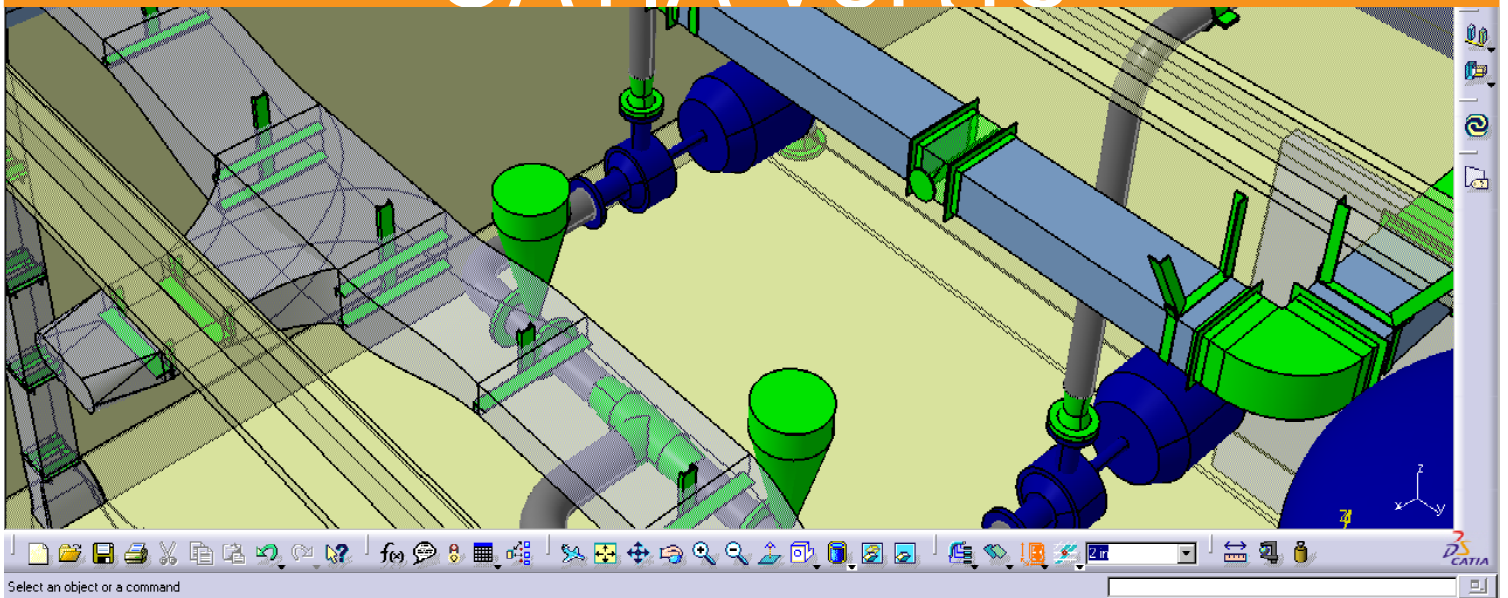


Equipment & Systems Engineering
CATIA - Hanger Design 2 (HGR)

CATIA V5R18





Equipment & Systems Engineering

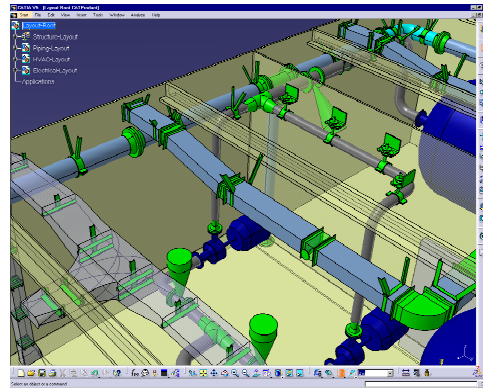
CATIA - Hanger Design

Enable designers to quickly define, place, modify, analyze, and document hanger supports for piping, tubing, HVAC, cable trays, waveguides and other lineal systems in ships, process plants or complex equipment.

Product overview

CATIA Hanger Design 2 product provides customers with a complete set of tools to build and manage hangers needed to support 3D Systems, such as HVAC, piping, and electrical systems, including cable routing through hangers, using industry standard conventions, terminology, and practices. This product is tightly integrated with the Electrical Cable Routing product that provides the capability to easily route cables through a predefined hanger arrangement. Additionally, it is integrated with the pathway reservation product that permits the user to define the required space claim needed for interference checking.

Intelligent and powerful placement and modification tools are furnished allowing the user to define the necessary hanger arrangement required for supporting 3D Systems. Comprehensive tools are provided enabling the designer to customize hanger data model such as attributes and classes of hangers. This grants the ability to standardize attribute data required for query, extraction and reporting such as material take-off. Integration with the knowledge rules engine allows design validation, and guarantees that company standards are followed throughout the entire design process. This captured intelligence can then be reused for downstream design processes, providing further benefits to the customer's overall business processes. The product's comprehensive and flexible setup functions include an easy way to define project



standards and catalogs that help users get into production rapidly. The product comes with a starter parametric hanger parts catalog. All these design tools employ a highly intuitive and productive user interface that enables designers to create, modify, and manage their hanger arrangement quickly and easily.

Together with CATIA Version 5's data management offerings, the Hanger Design 2 product gives users the power to manage their systems from initial design to operations in a way that is easily adapted to how the customer works.

Product Highlights

- Intelligent Data Model
- User- defined ID rules for classes of objects
- Hanger placement and management
- Integration with 3D Cable Routing
- Hanger modification tools
- Query/Analysis tools

- ☒ Integrated dynamic rule triggering
- ☒ User Customized Reports
- ☒ Powerful setup and parts creation tools

Product Key Customers Benefits

Intelligent "Smart" object modeling and customization...

HVA provides a base object model that can implement basic Hanger Design behaviors, relationships and attributes. In addition, it allows the user to customize the object model by providing the ability to define sub-classes and add attributes.

User-defined ID rules for objects...

Designers can define ID rules to specify their company-specific naming formats and conventions by object type. Additionally, ID rules can be assigned to individual classes of objects. When objects are created in the design document, their ID's will be generated automatically using the user-defined ID rules.

Hanger placement and management...

Dedicated powerful and highly intuitive hanger placement tools enable users to hangers as needed in a design. This includes placing in free space, at a turn, on a plane, or multiple hangers along a direction. Additionally, the user can insert hangers in a pathway to automatically split and maintain the connected pathway network. Hangers can be renamed, deleted or modified easily.

3D Integration with Cable Routing...

This feature enables all cables to be routed through hangers and to automatically associate them to the hanger tiers based on segregation rules. Designers can visualize cable arrangements displayed on the different hanger tiers in 3D and then analyze the cable paths for critical data such as weight and hanger overloading conditions. Cable locations can be easily modified using direct manipulation. Additionally, users can move a cable from one tier to another, and copy a cable

layout from another hanger. Secondly, hangers can be automatically resized based on the routed cables and growth factors.

Intelligent modification of hangers...

Designers can revise hanger arrangements using direct manipulation. Editing properties can be easily done through a dedicated interface. Users can resize hangers by adding tiers to adjust for overloaded conditions plus required growth factors.

Query/Search of hanger parts and configurations...

Change detection is readily available through a dedicated command that enables the user to pinpoint all hangers that require updating due to a change at the hanger attach or support locations. Key properties are readily available to the user at element pre-highlight. Users can perform a wide variety of queries and/or analysis to inquire about the specific properties of any hanger in the design document. This capability includes searching for hangers in the design model based on object class hierarchy and attributes. Designers can browse through a hanger parts catalog and search by catalog hierarchy, hanger symbol geometry, or hanger part technology.

Integrated dynamic rule triggering...

Knowledge rules are provided to detect hangers that are not attached to any structure and that are not supporting any system. When rules are activated, design checking actions are automatically launched to validate the proposed design. Users can add their own rules to customize the required behavior and to enforce company standards.

User customized Reports

A dedicated definition tool is provided to enable users to define and customize required or standard reports. Additionally, a dedicated report generation command is supplied to permit report generation in various out formats and insertion into a 2D drawing. This capability provides associativity between 2D and 3D documents so that if the 3D design changes,

the user is notified of the change, and can simply update the 2D to reflect the change.

Powerful setup and parts creation tools...

Built-in setup tools allow the user to customize corporate data and define rules that will enforce company standards:, such as defining hanger specifications, standard parametric parts catalogs, design rules, and other setup data. This includes hanger parts creation, and catalog structure definition. Hanger geometry can be created using a standard yet very powerful geometry and constraint engine.

ABOUT CATIA V5R18

CATIA is Dassault Systemes' PLM solution for digital product definition and simulation.

plm.3ds.com/CATIA

