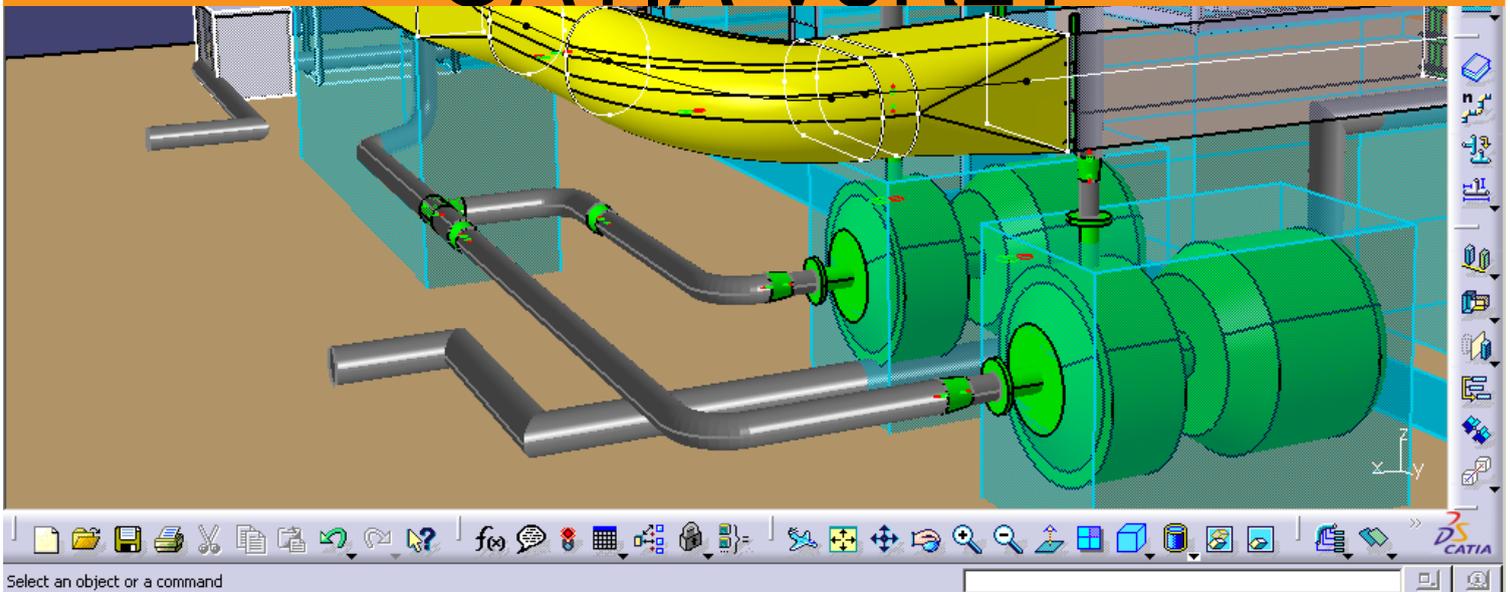


Equipment & Systems Engineering

# CATIA - Systems Space Reservation 2 (SSR)

## CATIA V5R21





## Equipment & Systems Engineering

# CATIA - Systems Space Reservation

Define space reservation network for electrical and fluidic systems for the purpose of early space claim and interference checking and provide the ability to define early space claim to allow interference checking at early stage of the design.

### Product overview

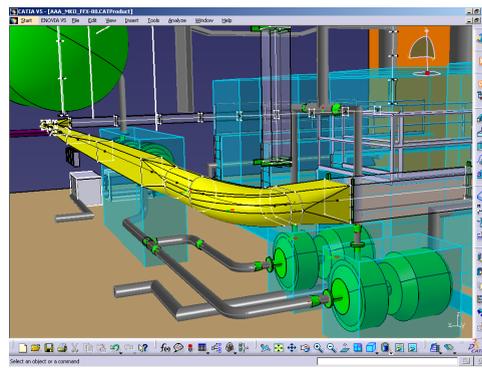
CATIA - System Space Reservation 2 (SSR) provides an efficient and cost-effective way to create space for tubing and electrical systems. It enables the user to easily define a space reservation network, including components and pathways and to segregate space networks. The entire process is accomplished through a simple, highly intuitive interface, combining traditional 2D layout paradigms with full 3D capabilities for building a 3D digital representation of the design. The product also enables the user to define lofted pathways that can be created dynamically in free space and on the fly. This powerful capability allows the designer to create pathway transitions among any combination of sections types, such as round to rectangular shapes.

### Product Highlights

- ❑ Define space reservations for your electrical systems in an early phase in design
- ❑ Easy and intuitive routing capabilities to create your pathways
- ❑ User definable lofted pathway creation
- ❑ Full modification capabilities for design iteration

### Product Key Customer Benefits

Defining space reservations of electrical



objects and connecting them through a network of pathways... Space reservation is one part of the electrical interconnect design process. Once the functional systems have been defined, they will be routed through pathways. Mapping can be defined between functional devices from CATIA - ELECTRICAL SYSTEM FUNCTIONAL DEFINITION 2 (EFD) for space reservations (based on a unique identifier in the project). Space reservation objects may be assembled to reproduce the electrical device assembly (Equipment assembles several connectors). Pathways are integrated with the signal routing product in order to manage available area for signal and cable routing and separation rules. Pathway objects can be straight (line) or bent (arc circle), with a round, rectangular, rectangular with rounded corners, or flat oval sections. Users can define Production Break points, which are points with hole connectors to specify maintenance locations and areas where a break in the route needs to be introduced.

### User Definable Lofted Pathway Creation...

With Release 9, users can define lofted

pathways that can be created dynamically in free space and on the fly. Additionally, it allows users to create pathway transitions among any combination of section types, such as round to rectangular shapes.

**Intuitive Routing capability...** Routing allow users to create pathways for system space reservation. The routing tool is intuitive and easy to use. The following features are provided within the pathway routing engine:

- ▣ Management of pathway forks (one pathway extremity can be connected to more than one pathway).
- ▣ Management of maximum fill ratio inside a pathway (pre-defined growth factor).
- ▣ Management of pathway separation code.
- ▣ Routing of pathways on CATIA V4 points (with no associative constraints).
- ▣ Routing of pathways with associative constraints on mechanical features (a extremity can be routed on a V5 point)
- ▣ Routing through hole connectors and creation of master/slave connections.

**Junction connection definition to allow easy modification and stretching of a network (forks)...**

**Equipment and resource reservation placement capabilities...**

- ▣ Placement of parts and equipment on any face of an object in the design model.
- ▣ Placement of lofted pathways anywhere in free space.
- ▣ Selection from a user-defined catalog of Equipment and Resources.
- ▣ Easy placement of electrical connectors on faces of boxes or planes.
- ▣ Interactive (on the fly) creation of connector on any component; ability to place multiple connectors at user-defined spacing and direction.
- ▣ Analysis of the cableway connectivity between equipment.

**Specific rules and attributes to control routing through pathways...**

- ▣ Separation Code: allows users to route separate individual runs.
- ▣ Available Area: tells users how much space is available.

- ▣ Used Area: tells users how much space has been used.

**Full Modification Capabilities...**

**Intuitive Local Axis Management...** Coupled with advanced features such as Move boundary Alignment, Mirror, Offset from Objects, and Snap to Drafting elements, gives users the added functions needed to move quickly on their designs.

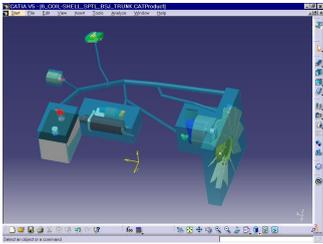
**Standard Windows capabilities...**

Copy/Paste options allow easy manipulation of the Equipment within the design. New workbench available for users (used with Systems Routing product).

**Provides Interference Detection and Equipment...**

Available "change out" capabilities through CATIA Product Synthesis.

Other images



## ABOUT CATIA V5R21

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

**[www.3ds.com/products/catia](http://www.3ds.com/products/catia)**

