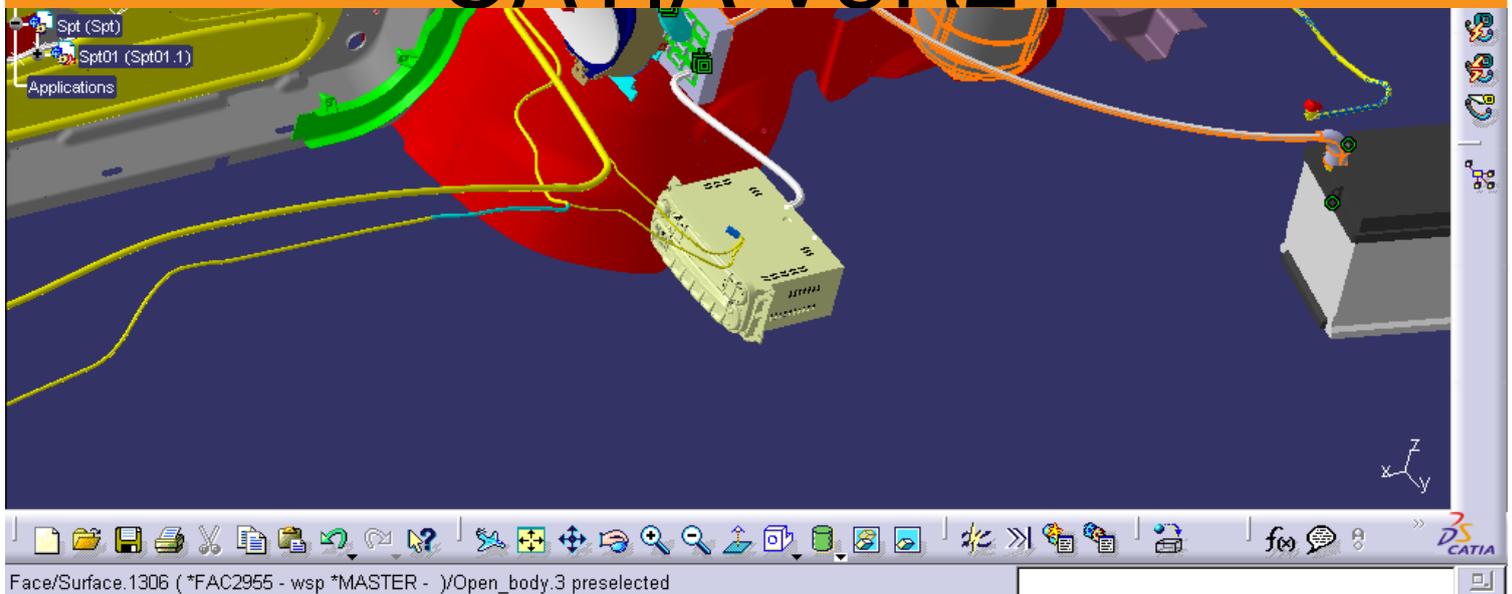


Equipment & Systems Engineering

CATIA - Electrical Harness Installation 2 (EHI)

CATIA V5R21





Equipment & Systems Engineering

CATIA - Electrical Harness Installation

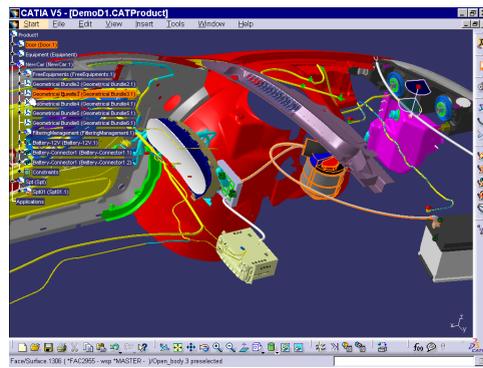
Provide powerful tools to design physical harnesses within the context of the 3D digital mock-up.

Product overview

CATIA - Electrical Harness Installation 2 (EHI) is a product dedicated to the design of physical harnesses within the context of the 3D digital mock-up. Natively, the mechanical context is used as an input for electrical design and then to obtain a complete integration. Easy modifications and associations between the 3D environment and the harness are available. For instance, CATIA - Electrical Harness Installation 2 (EHI) provides unique slack management capabilities and an unconstrained derivation point. Complete integration between the functional and physical definitions of the electrical harness is provided. Due to the integration with mechanical assemblies, electrical harnesses can be connected either to mechanical parts or electrical devices.

Product Highlights

- ❑ Creates round bundle segments within the 3D mock-up in a very intuitive and productive way
- ❑ Supports associative constraints.
- ❑ Defines electrical connectivity between bundles, segments and electrical devices.
- ❑ Analyzes electrical links between objects.
- ❑ Realistic creation of branched bundle segments due to the ability of having floating branch points
- ❑ Within harnesses, allows users to route wires according to functional definition the context of the digital mock-up, as a



of integration with the CATIA - Electrical Wire Routing (EWR) product

Product Key Customer Benefits

Bundle segments creation in the context of the digital mockup... Users create directly within the mechanical context. Bundle segments can be constrained by:

- ❑ points;
- ❑ following the external body of a part;
- ❑ supports defined with CATIA - Electrical Library 2 (ELB);
- ❑ an existing curve (spline or helix); or
- ❑ electrical components (supports, connectors, etc.).

User has the ability to split harness segment to manage derivation. Branch point follows the segment curve therefore the whole harness follows the connector position even in case of modification. Thus change management is greatly facilitated.

Definition of round bundle segment

properties... such as diameter, length,

minimum bend radius, and distributed slack.

Bundle simulation... Offers a fully realistic representation through the ability to simulate the shape of the bundle segment taking into account: bundle segment properties, as well as bundle segment route and gravity.

Associative constraints... between bundle segment extremities, and between bundle segment extremities and electrical devices.

Bundle Junction (electrical connection between bundle segments)... The bundle junction provides electrical connections between bundle segments and electrical devices to allow routing of wires within harnesses.

Analysis of electrical links between objects... Users can analyze all electrical links between objects for all electrical applications. For example:

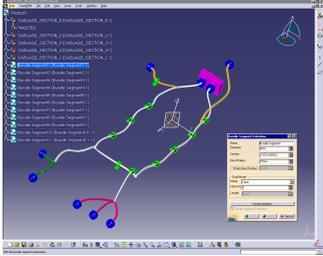
- ☒ Determine whether bundle segments are connected together or with electrical connectors.
- ☒ Identify wires contained in a bundle segment.
- ☒ Determine on which pin a wire is connected to an electrical connector
- ☒ Determine the physical implementation of functional connector/equipment.

Route wires in harnesses... Once harnesses have been designed, signals can be routed on harnesses with CATIA - Electrical Wire Routing. Electrical signals are then converted into physical wires. This route can be based on a functional system definition set in CATIA - Electrical System Functional Definition 2 (EFD).

Complete integration between electrical products, from the functional to the physical definition.

V4 to V5 data migration model to CATProduct (Batch method)... V4 BNS to V5 Bundle Segment

Other images



ABOUT CATIA V5R21

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

www.3ds.com/products/catia

