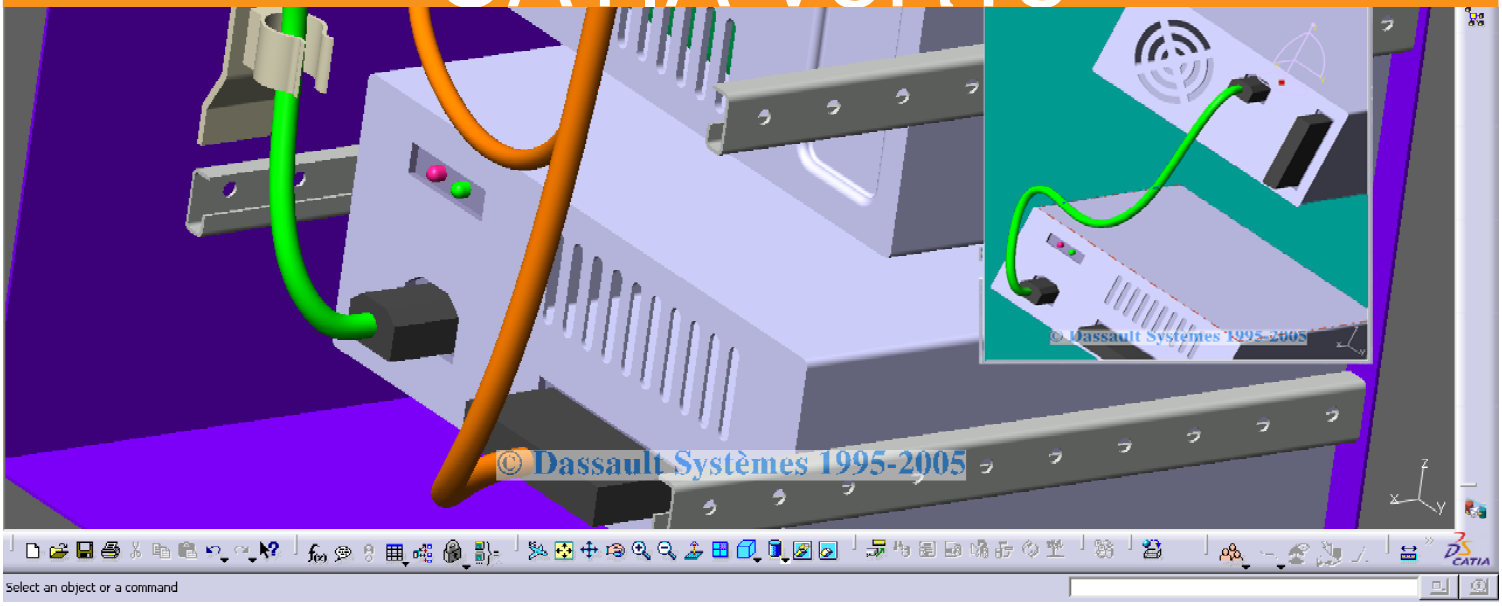
Product Synthesis

CATIA - Flex Physical Simulation 2 (FLX)

CATIA V5R18



Product Synthesis

CATIA - Flex Physical Simulation

Enables to design the realistic shape of flexible harnesses based on physical and environmental behavior.

Product overview

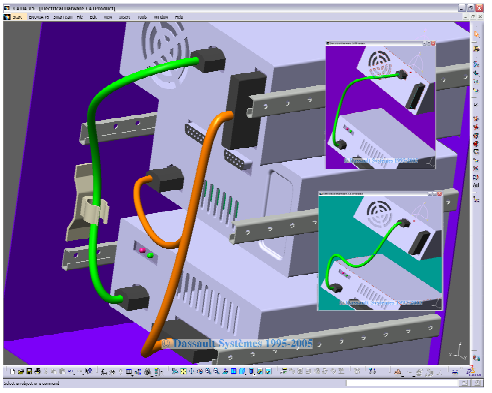
CATIA - Flex Physical Simulation 2 (FLX) enriches the design by realistic deformation of flexible harnesses by taking into account environmental conditions, like gravity, and physical non-linear behavior of the harness and its protections.

This imbedded technology of behaviour simulation facilitates the harness design in the simplest manner and introduces reality in the early design phase, by leveraging CATIA - Electrical Harness Installation (EHI) usage as a co-requisite.

The product is dedicated to industries (Auto, Aero, Electronics) where large amounts of flexible harnesses, whose real shapes are not purely geometric but are natural shapes resulting from environmental conditions, are occuring.

Product Highlights

- Avoids installation problems in the physical mock-up by providing more harness shapes in the DMU
- Brings a transparent simulation through fast computation
- Fully imbedded technology for immediate designer's adoption
- Provides exact geometry for direct benefit to downstream applications
- Provides capabilities to create branchable bundle with several computed bend radius the same branch



Product Key Customers Benefits

Avoids installation problems in the physical mockup by providing more accurate harness shapes in the DMU

When designing harnesses, gravity, the wire and coverings stiffnesses are taken into account for a realistic deformation. This physical definition enhances the product quality earlier in the process without building physical prototypes and reduces design iterations.

Brings a transparent simulation through fast computation

The fast computation of the deformation gives the designer a seamless usage of realistic simulation during the cable definition.

Fully imbedded technology for immediate designer's adoption

V5R15 introduces the realistic deformation of electrical harnesses during their design with

CATIA - Electrical Harness Installation 2 (EHI). When CATIA - Flex Physical Simulation 2 (FLX) is available, designers can define flexibility inside CATIA - Electrical Harness Installation 2 (EHI).

Provides exact geometry for direct benefit to downstream applications

Computation gives an exact geometry, replacing the previous one. This exact, realistic deformation can be used directly for downstream applications and is available for all in digital mock-up definition: Assembly drawings are more realistic and all space analysis capabilities can be performed transparently by reviewers.

Provides capabilities to create branchable bundle with several computed bend radius on the same branch

For advanced and complex harnesses design, bend radius is evolving as a computation result along the branchable bundles: this leverage decision on different alternatives for a high quality at lower cost harness.

ABOUT CATIA V5R18

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

plm.3ds.com/CATIA