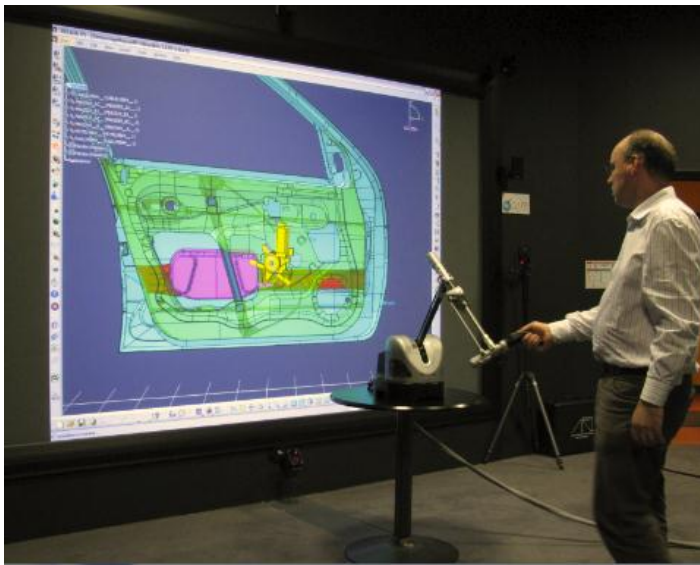


h a p t i o n VIRTUAL TOUCH

Product|Software

IFC Core

Interactive Fitting for Catia™ V5



"IFC Core" Interactive Fitting for Catia is a software add-on to Catia V5™. It enables interactive real-time assembly simulation with force-feedback inside DMU Navigator™. Using IFC Core, you reduce the time needed for :

- ⇒ **Assembly** process validation,
- ⇒ **Disassembly** testing,
- ⇒ **Ergonomic** study,
- ⇒ **Operator** Training.

Furthermore, you can benefit from the know-how of expert operators inside the digital mock-up.

Key Features

- ⇒ Easy to set up simulation with collisions, weight, constraints
- ⇒ Include IPSI Package

Technical Requirements

- ⇒ Catia V5 R18/R19/R20/R21/R22 (*)
- ⇒ Hardware: valid configuration certified by Dassault System. (**)
- ⇒ IPSI Server

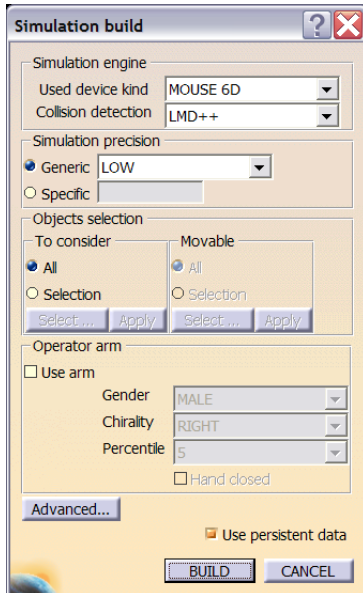
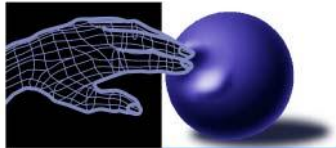
Reference customers

- ⇒ PSA Peugeot Citroën
- ⇒ Toyota
- ⇒ DASSAULT AVIATION
- ⇒ Thales Alenia Space

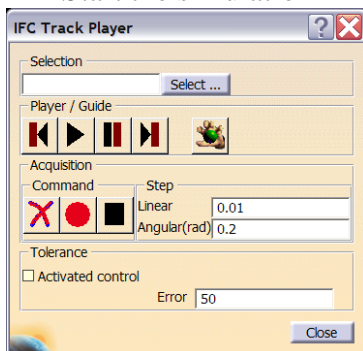
3D real-time interactive physics Experience

IFC Core lets you:

- Connect to the IPSI server
- Manage the simulation: start, stop, pause, resume
- Manage the type of device: with force-feedback Haption Virtuose and Inca and without force-feedback 6D USB mouse from 3D connexion and Optical Tracking from ART
- Manage the collision process: attach and detach 3D objects to the manipulation device. Also activate or deactivate the collision during a certain time.
- The dynamic engine is able to run in real-time the collisions detection and the contact simulation.
- The collision is visible by some red balls in superposition of visualization 3D.
- Realtime motion using the 6 degrees of freedom input device (6D mouse, ART) and Realtime force feedback in 6 degrees of freedom (haptic device).
- Indexing all the 6 degrees-of-freedom.



Start the simulation



Track Tools

Load 3D objects

IFC integrates a compute program, which creates persistent data needed by the collision detection process. The data can be stored on files for fast reloading of the simulation experience.

This tools can physicalize any type of 3D loaded in the viewer of Catia V5 (included Catia V4, CGR, VRML, ...)

The user can specify the geometric resolution before load or create the physic data, by selecting parts, or defining a zone of interest (a Cube).

The user can add weight of moving part.

Kinematics Constraint

IFC Core provides kinematic constraints (virtual mechanicals joints) between objects or between one object and the world: Prismatic, plane, translation, hinge, ball-and-socket, etc.

Real-Time Recording Trajectory

IFC Core provides way to record track with the device, store as a DMU track, which can permit to replay. The user can use this track like a virtual guide.

Colocalisation in immersive mode

In immersive mode, the graphic representation of the manipulated object must be able to be superposed with the grip of the manipulation device (also called prop)

(*) Prerequisites from Dassault Systemes Catia V5 R18, R19, R20, R21, R22
Configuration MD2 or equivalent, containing at least DM2, SPA, KIN, FIT

(**) Catia V5 is trademarks of Dassault Systemes