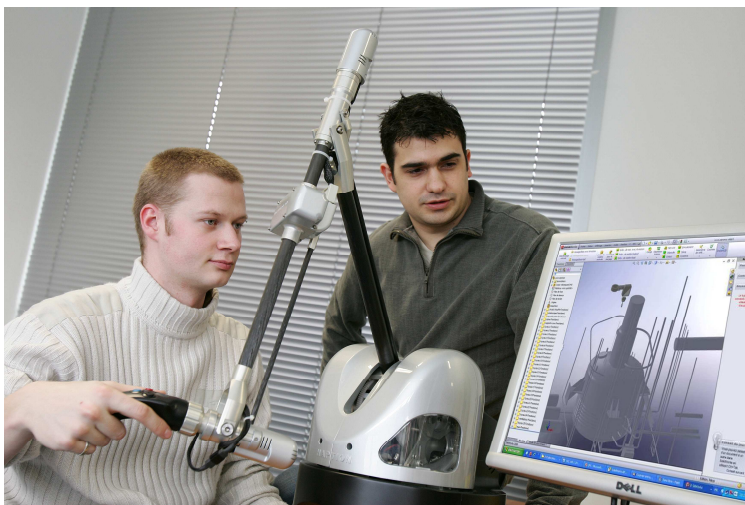


# haption VIRTUAL TOUCH

Product|Software

## IFS Core

## Interactive Fitting for SolidWorks™



IFS Core "Interactive Fitting for SolidWorks" is a software add-on to SolidWorks™. It enables interactive real-time assembly simulation with force-feedback inside a CAD assembly.

IFS Core helps save time and increase quality of:

- ⇒ **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 of contact, weight, manipulation constraints**

### Technical Requirements

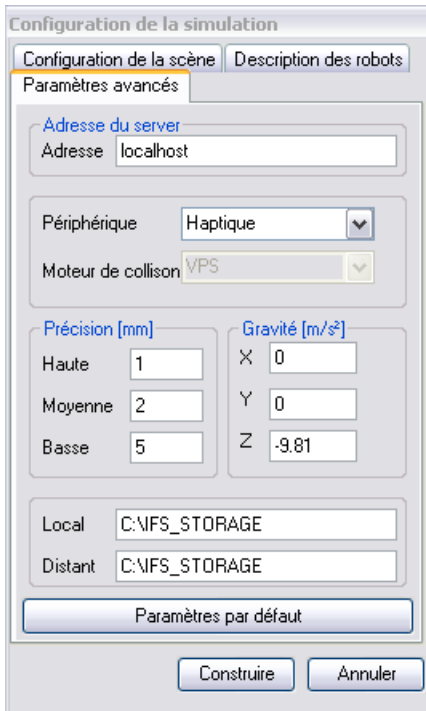
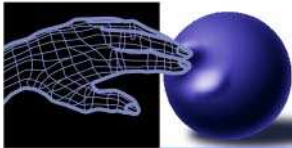
- ⇒ SolidWorks (32 or 64 bits)
- ⇒ Supported releases: 2009/2010/2011
- ⇒ Hardware: valid configuration certified by Dassault System
- ⇒ Haption IPSI Server

### 3D real-time interactive physics Experience

IFS Core lets you:

- Connect to the IPSI server
- Manage the simulation: start, stop, pause, resume
- Choose the type of interaction device
- Manipulate objects: attach and detach to interaction devices, activate/deactivate collision detection
- Create groups of objects
- Visualize collision points on the screen
- Record the movement of the object
- Apply manipulation constraints (hinge, prismatic, plane, ball-and-socket)

During the simulation, IFS Core updates the position of all objects in the assembly in real-time, without reducing the visual frame-rate.



Start the simulation



Record a track

### Geometry conversion

IFS Core sends tessellated data to the IPSI Server, which is used for collision detection between objects. The visual tessellation is used, so that any kind of model visible inside the SolidWorks window can be activated in the physics.

The geometry conversion requires no intervention of the user. It can be batch-processed overnight in case of very large models. Converted geometry can be stored for fast reloading ("persistent data").

### Manipulation constraints

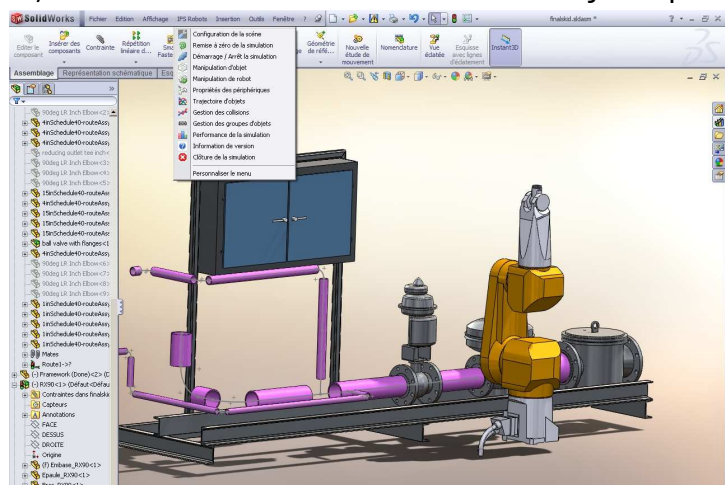
IFS Core provides kinematic constraints (virtual mechanical joints) to be used when manipulating objects: Prismatic, plane, translation, hinge, ball-and-socket, etc. The direction of constraints can be axis-aligned or arbitrary.

### Real-Time trajectory recording

IFS Core provides means to record the movement of objects. The data can be replayed with IFS Core using collision detection, in order to re-validate the trajectory in case the assembly has been modified.

### Robotic workbench

IFS Robotics is an add-on to IFS Core, dedicated to the real-time simulation of robots. A robot is defined as a SolidWorks sub-assembly, composed of rigid bodies and kinematic constraints. Robots can be manipulated just as any kind of object, and their movements can be recorded in joint space.



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