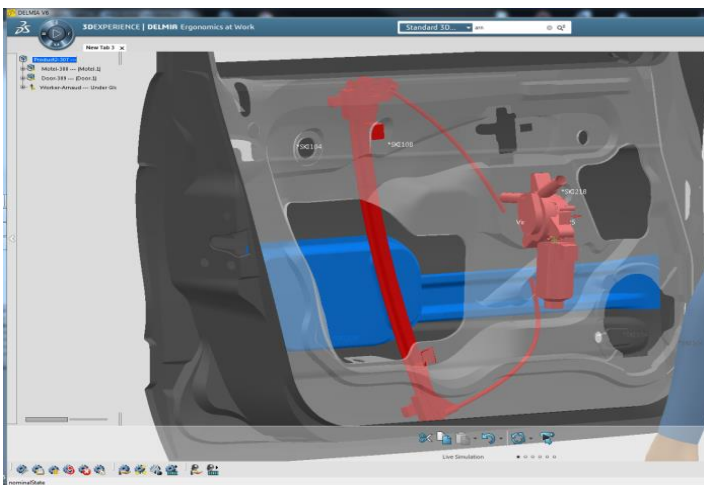


haption VIRTUAL TOUCH

Product|Software

Motion Capture for Assembly Simulation

Interaction for V6 3D Experience



Motion Capture for Assembly Simulation is a software add-on for Dassault Systemes 3D Experience™. It enables interactive real-time simulation with force feedback inside a virtual environment, while maintaining all basic functions.

Using MCAS, the users can simulate **manual operations** in:

- ⇒ **Assembly process validation**
- ⇒ **Disassembly testing**
- ⇒ **Operator training**
- ⇒ **Ergonomic study**

The User Benefits are: optimal comprehension of physical collisions, increased productivity, increased quality, lower development effort.

Key Features

- ⇒ **Easy calibration**
- ⇒ **Stop on collision cues**
- ⇒ **Simulation of contact, weight and kinematic constraints**
- ⇒ **Record trajectories in a 3D Experience™ track**

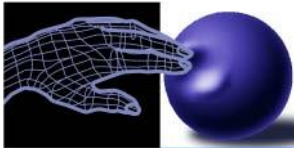
Technical Requirements

- ⇒ 3D Experience™, IFW, CSV, CNV, MAE, Delmia APS, ETD, EGE, Enovia CPF, LIV, VPM,
- ⇒ Supported releases: 2013X, 2014X
- ⇒ Hardware: valid configuration certified by Dassault Systemes
- ⇒ Haption IPSI Server

3D Real-Time Interaction and Simulation

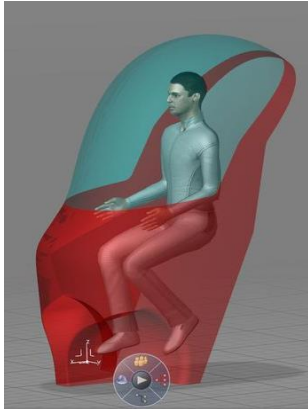
MCAS offers functionality for:

- Simulation set-up
 - Easy control: start, stop, pause, resume, active/deactivate
 - Identify tools and moving parts
 - Create groups of objects
 - Manipulate objects: attach/detach to interaction devices, activate/deactivate collision detection
 - Visualize collision points on the screen
 - Record the movement of the object in a track
- Manipulation device management
 - Optical tracking system; currently supported are ART™, VICON™, MotionAnalysis™, and trackd™
 - Haption's force-feedback devices Virtuose 6D and Inca 6D

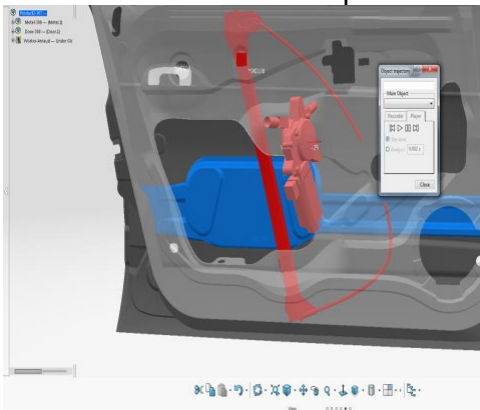


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Simulation Set-up



Track Tools



Haptic devices manipulation

- Simulation process control
 - Attach/detach manipulation devices to 3D objects
 - Automatically calibrate the operator using motion tracking equipment, attach/detach the virtual manikin with one click

Deeper experience in physics

More than creating physics in your environment, MCAS will allow you to make use of haptic devices (Virtuose, Inca, Able) right in your working environment. More than touching the objects, you will feel them: collision on forces and torques, weight capacities, you will have the sensation your 3D mockup is finally in your room.

Latest simulation technology

You will be able to experience gravity, feel contact forces, record object motion in tracks, and have a precision up to sub-millimeters level in your very own virtual environment, just a click away from your session. Recreating environments conform to the reality is therefore really simple, and will allow you to do maintenance and assembly studies long before the product is created.

Real-Time Trajectory Recording

Using MCAS, you can record the movement of objects, and store them as DMU tracks, and then use standard 3D Experience functions to replay, edit, and analyse it. You will also be able to provide training, either by giving a freedom into the virtual environment or by applying a certain guidance in the manipulation of the tools.

3D Experience™ is a trademark of Dassault Systemes

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