

IPS Cable Simulation

Software for design and simulation of cables and hoses

Capability

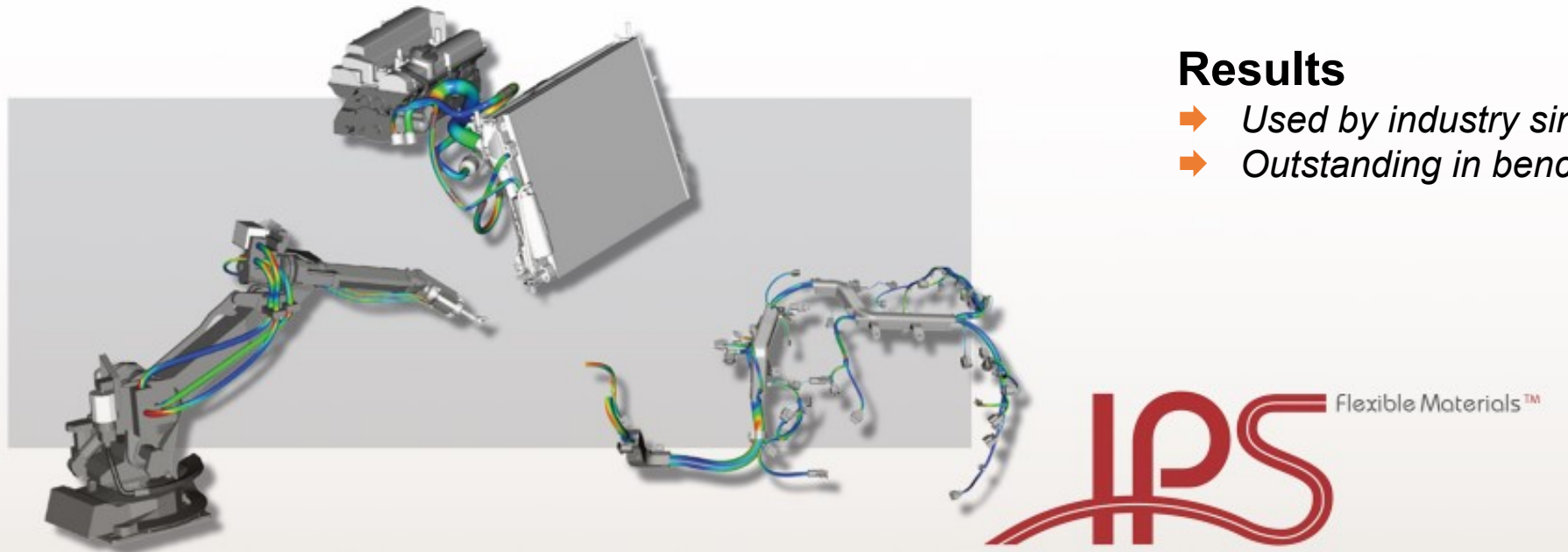
- ➔ *Real time deformations of cables, hoses and complex wiring harnesses*
- ➔ *Various material types, cross-section profiles, and kinematical clips.*
- ➔ *Analysis of forces, moments and critical clearances*

Benefits

- ➔ *Power (accurate physics)*
- ➔ *Speed (Real time simulation)*
- ➔ *Easy to use (one day crash course)*

Results

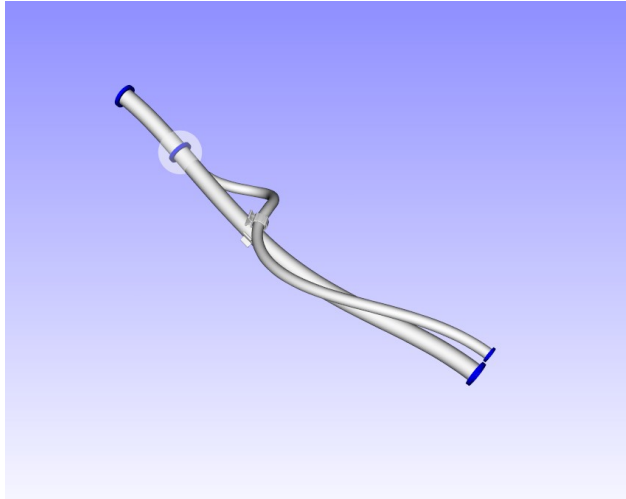
- ➔ *Used by industry since 2007*
- ➔ *Outstanding in benchmarks*



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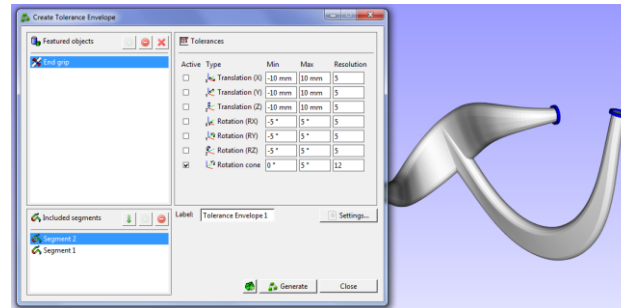
Simulation with cables and hoses

Easy creation and handling of cables and hoses



- Easy creation of cables and hoses using Nodes, Mount frames and Grips
- Kinematic Clips for realistic simulation
- Contact handling (*external – internal*)
- Component Libraries
- Clip Libraries
- Analyze

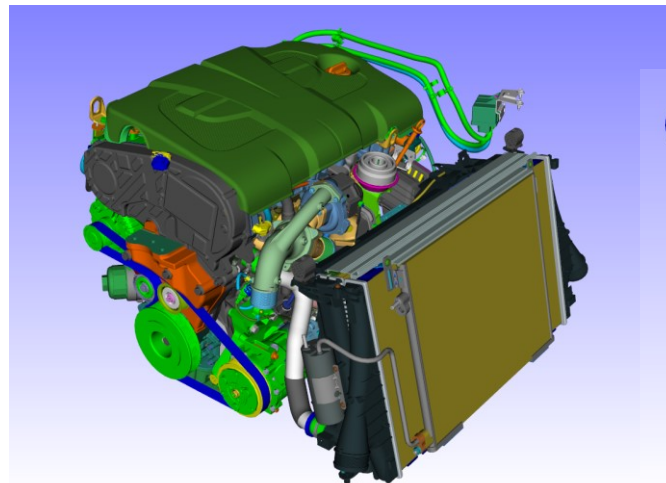
Envelope possibilities



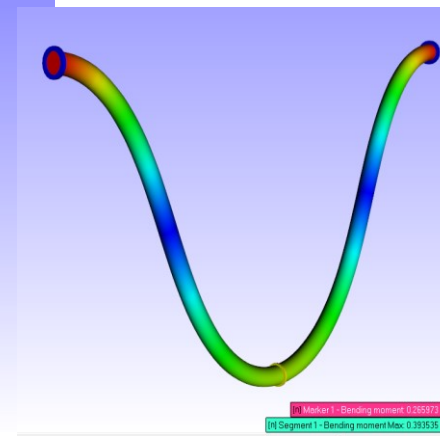
- **Tolerance Envelope:** Generate envelope for tolerance on mounting angle
- **Motion Envelope**
- **Motion Sweep**

Hose simulation during engine movements

- Wake up CAD geometry
- Create new optimized proposals
- Create hoses, cables and harnesses with correct material properties
- Drag and drop for connection to rigid bodies
- Simulate motion
- Analyze



Easy visualization and measuring



- Visualization of forces and moments
- Value measurements of forces and moments
- Analyze
- Optimize