

Simulation Case Study

Simulation
Services

Analysis &
Optimization

Component
Testing

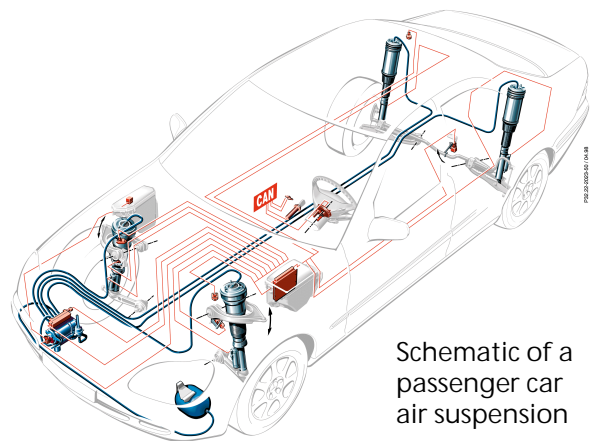
Hardware
Development

Task

- ➔ Investigations on the dynamics of a passenger car air suspension

Explanation

- ➔ Air suspension systems using air rather than metal springs to support the car and control ride motion.
- ➔ Air springing results in a smoother ride, because the natural frequency of vibration of an air spring does not vary with loading as it does with metal springs.
- ➔ Air springs can be made very soft for the lightly loaded condition and the pressure is automatically increased to match the increase in load, thus maintaining a constant spring vibration at any load.



Realization

- ➔ DSHplus simulation model of pressure supply, and air suspension including wheel load (simplified)



Air suspension legs with vehicle masses

