



provides superior performance.

Summary

SimForce relies on a high-performance embedded computer, updating at 500 Hz an advanced intelligent servodrive. The servodrive provides high torque and safe speeds. The servodrive controls a servomotor which has:

- High Bandwidth
- Low Inertia
- No Gearing
- Zero Cogging
- Zero Backlash



The embedded computer provides tight control, dedicated safety, and smooth feedback. When coupled with Realtime Technologies' SimVehicleLT, power steer boost curves and tire aligning torque are accurately modeled and presented to the driver.

Design Applications

Used in conjunction with SimVehicleLT, SimForce is effective for assisting in the vehicle design process for steering system design, over steer/under steer studies, and stability management system design. The key is high-quality, accurate steering feedback dynamics in all types of terrain.

Research Applications

In the area of human factors research, SimForce allows you to investigate left and right hand turns, on center steering, hill ascent and decent, and deep skid recovery studies with confidence. Other research applications include driver behavior, driver training, hardware-in-the-loop, human-in-the-loop, and whole vehicle chassis design and layout studies.

Configuration

You have the power to configure SimForce to represent the vehicle you need. SimForce is available as a standalone product or included in the design of a complete simulator.

Realtime Technologies Inc. is proud to offer SimForce, a high-fidelity force feedback steering system. SimForce has been under development since 2001. Its revolutionary design

Specifications

- Inertia: 9.12 kg-cm²
- Torque Ripple: 0 Nm
- Starting Torque: 0.075 Nm
- Maximum Motor Torque: 25.8 Nm
- Motor time constant: 3.15 ms
- Model Update Rate: 500Hz
- Feedback Accuracy: 0.010°
- Encoder Resolution: 0.036° /sample
- Servo Amplifier Power: 250 W

SimForce™

We also deliver custom designs based on your specifications.

For difficult driving situations choose SimForce for realistic steering component engineering.



SimForce control loading system.

for more information contact:
Clayne Woodbury
cwoodbury@simcreator.com

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Realtime Technologies, Inc. (RTI), specializes in real time multibody vehicle dynamics, and graphical simulation and modeling. We offer simulation software applications, consulting services, custom engineering, software and hardware development. Realtime Technologies' customer base includes international, government and private entities. RTI was founded in 1998. For more information, visit us at www.simcreator.com.

1523 N. Main Street | Royal Oak, MI 48067 | 248.548.4876 | Fax: 248.548.6036
10069 S. Jordan Park Circle | South Jordan, UT 84095 | 801.647.4672 | Fax: 801.254.5007