

# ProLink Inertia Simulation

## Software-in-the-Loop to simulate vehicle energy

### ProLink InertiaSim

Software feature which enables the dynamometer to automatically adjust the load on the brake to different vehicle weight conditions, failed system configurations, or fixed levels of inertia for dynamic weight transfer at high deceleration levels. **InertiaSim** also reduces the amount of physical inertia changes, hence reducing the labor required and increasing the efficiency (dynamometer runtime) during the test

### ProLink DynamicSim

Software function which uses real-time control of the motor torque to simulate the instantaneous change in inertia due to the dynamic weight transfer during the brake event during FMVSS or AMS testing. **DynamicSim** can integrate with HiL or SiL solutions to enhance the dynamometer operation.

### ProLink RegenSim

Software function integrating the regenerative braking function from electric or hybrid systems to provide the appropriate blending of electric and frictional braking. **RegenSim** uses constant power, constant deceleration, or full electric or frictional braking during the same brake event depending upon braking conditions and the electric/hybrid configuration of the vehicle under test

### ProLink SlipSim

Automatic transmissions and limited slip differential systems need to rely on a precise simulation of the engagement operation to properly assess the frictional output and other critical phenomenon like chatter or moan. **SlipSim** uses a patented set of functions to allow this evaluation on standard SAE No.2 testing systems or on full inertia dynamometers for slip differential applications.

For further information visit [www.linkeng.com](http://www.linkeng.com), e-mail us at [sales@linkeng.com](mailto:sales@linkeng.com), or call us at 734.453.0800

