Energid Syntasis™
Rapid Robot Design Validation

Energid Technologies’ Syntasis provides a software infrastructure for rapid robot design validation. It includes fast high-fidelity dynamic simulation, with impact dynamics and articulation dynamics for both mobile and fixed mechanisms. Kinematic and dynamic simulation support randomized Monte Carlo simulation and parameter-optimization analysis.

Syntasis can automatically generate control systems for complex robotic mechanisms using Energid’s Actin Toolkit, a component of the framework. Syntasis includes XML-base configuration and integrates with many supporting tools, including Excel, MATLAB®, Mathematica®, and SolidWorks.

Features

- Parametric, Monte Carlo, and optimization analysis
- Support for mobile and fixed-base systems
- Support for branching and looping mechanisms
- Kinematic and dynamic analysis
- Interactive validation
- Automatic control system generation
- Simulation of cameras and other sensors
- DLL plugin support
- High fidelity dynamic actuator models
- Network-based interaction
- Support for Windows and Linux