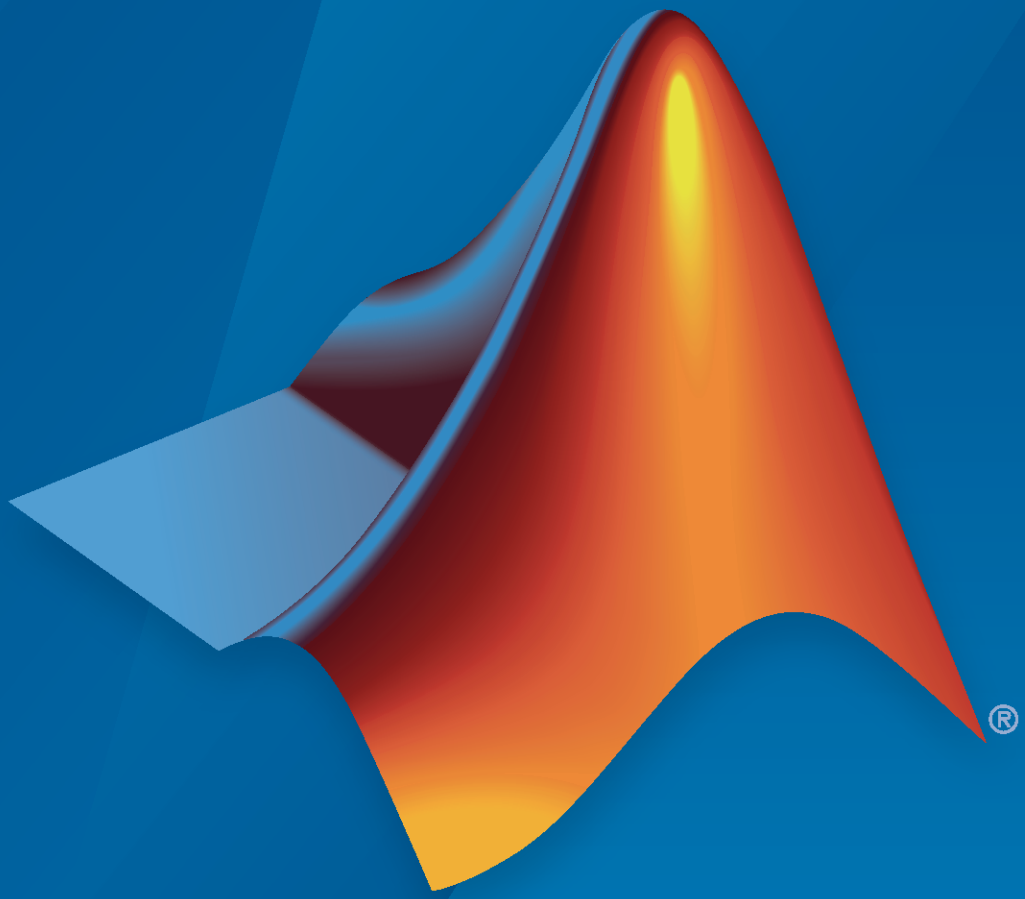
Radar Toolbox

Getting Started Guide



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Getting Started with Radar Toolbox Software

Radar Toolbox Product Description

Design, simulate, and test multifunction radar systems

Radar Toolbox includes algorithms and tools for designing, simulating, analyzing, and testing multifunction radar systems. Reference examples provide a starting point for implementing airborne, ground-based, shipborne, and automotive radar systems. Radar Toolbox supports multiple workflows, including requirements analysis, design, deployment, and field data analysis.

You can perform link budget analysis and evaluate design trade-offs at the radar equation level interactively with the Radar Designer app. The toolbox includes models for transmitters, receivers, propagation channels, targets, jammers, and clutter. You can simulate radars at different levels of abstraction using probabilistic models and I/Q signal level models. You can process detections generated from these models or from data collected from radar systems using the signal and data processing algorithms provided in the toolbox. You can design cognitive radars that operate in crowded RF shared spectrum environments. For automotive applications, the toolbox lets you model radar sensors at the probabilistic and physics-based levels and simulate data, including micro-Doppler signatures and object lists.

For simulation acceleration or rapid prototyping, the toolbox supports C code generation.

Radar Systems

“Modeling Radar Detectability Factors”“Modeling the Propagation of Radar Signals”“Modeling Target Radar Cross Section”“Simulate a Scanning Radar”“Radar Scenario Tutorial”“Model Platform Motion Using Trajectory Objects”