

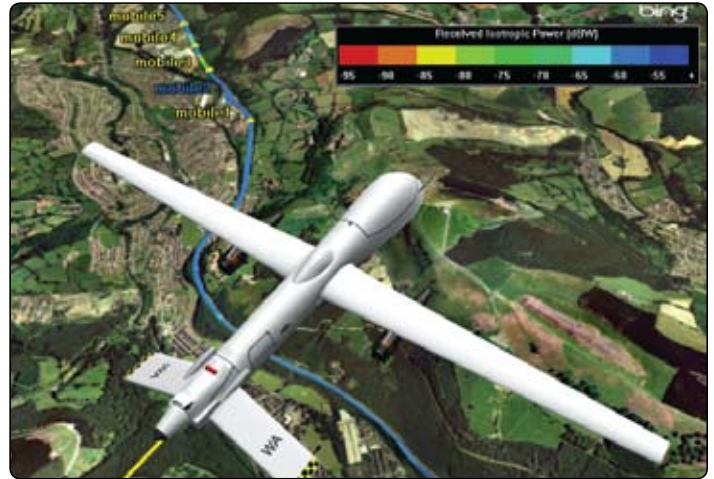
QualNet Interface for STK/Communications



STK 9.2 offers an enhanced solution for communications network modeling by introducing off-the-shelf interoperability with QualNet, an industry-recognized network modeling and simulation tool.


The QualNet Interface for STK/Communications combines network performance evaluation from QualNet with the platform mobility models, wireless link calculations and mission visualization environment of STK, making it easier to establish a realistic mission scenario, improve the fidelity of physical layer calculations, and help illustrate how network performance impacts the mission.

QualNet's basic mobility models are replaced with STK-designed routes that are true to the physics and performance that govern the motion of aircraft, missiles, satellites and other platforms. QualNet's wireless link computations between the transmit antenna input and receiving antenna output use high-fidelity predictions from STK that include advanced atmospheric models and antenna obstructions from the vehicle body.




The combined simulation also leverages STK's full motion 3D visualization capabilities of geospatial data, ISR sensors and other non-communication assets, providing mission-centric analysis for network-centric C4ISR, cyber warfare and airborne or space-based networking.

Mission Analysis Environment



- Platform mobility models
- Wireless links calculations
- Mission evaluation environment

Network Modeling & Simulation



- Data traffic simulation
- Routing, latency and loss
- Network behavior/performance

Benefits

- Higher-fidelity physical layer
- Clarification of network performance effects on a mission
- Comprehensive C4ISR and cyberwarfare analysis

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