QUALNET : A SIMULATION TOOL

QualNet Developer is ultra high-fidelity network evaluation software that predicts wireless, wired and mixed-platform network and networking device performance. Designed to take full advantage of the multi-threading capabilities of multi-core 64-bit processors, QualNet supports simulation of thousands of network nodes.

QualNet offers unmatched platform portability and interface flexibility. QualNet runs on sequential and parallel Unix, Windows, Mac OS X and Linux operating systems, and is also designed to link seamlessly with modelling/simulation applications and live networks. This software comes with various libraries, one of which can be purchased separately as per the requirement.

Components of QualNet Developer

QualNet Scenario Designer is a model setup tool that allows users to set up geographical distribution, physical connections, and the functional parameters of the network nodes. Using intuitive click and drag operations, the user can also define network layer protocols and traffic characteristics down to each node.

QualNet Animator offers in-depth visualization and analysis. As simulations are running, users can watch traffic flow through the network and view dynamic graphs of critical performance metrics. Users can also assign jobs to run in batch mode on a faster server and view the animated data later.

QualNet 3D Visualizer is a QT-based tool for rich animations of network simulations. Users set up QualNet scenarios in QualNet Scenario Designer and then send the simulation to the 3D Visualizer for animation.

QualNet Analyzer is a statistical graphing tool that displays hundreds of metrics. Users can choose to see pre-designed reports or customize graphs with their own statistics. Real-time statistics are also an option, where users can view metrics as they are generated while a simulation is running. Multi-experiment reports are also available. All graphs are exportable to spreadsheets.

QualNet Packet Tracer is a packet-level visualization tool for viewing the contents of a packet as it goes up and down the network stack. This is a valuable debugging tool.

Subjects: Wireless and Mobile Communication (ECL508), Digital Comm. system (ECL303), QualNet (EEV401)

References: www.scalablenetworks.com