

Keysight Technologies to provide 5-day On-Site training at NASA Glenn Research Center on the eXata software. The software is being used for aeronautics communications, and cybersecurity research in support of Aeronautics Research programs and projects. Details of training content shown below:

## **Training Agenda**

### **Introduction to QualNet/EXata Simulation**

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- Day 1: Introduction to SNT GUI

<u>Lecture</u>	<u>Lab/Activity</u>
Introduction	Installation
Tools	WiFi to Start
Simulation concepts	Simple wired
Overview	Simple wireless
Building Scenarios	Large Wired
Summary	Large Wireless

- Day 2: Wired Networks

<u>Lecture</u>	<u>Lab/Activity</u>
Wired Components	Gound Microwave Satellite
Mechanics	IGMP/Multicast
Network Layer Protocols	IPv4 vs. v6
Routing	Routing

- Day 2: Wireless Networks

<u>Lecture</u>	<u>Lab / Activity</u>
Elements	Channels
Events	Terrain

Operations  
Subnets  
Terrain  
Pathloss  
Antennas  
Satellite  
Summary/Conclusion

Antennas  
SATCOM  
First Responder

## **Training Agenda**

### **Introduction to QualNet/EXata Simulation**

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- Day 3: STAT DB & Emulation Construct with EXata

#### Lecture

Configuration  
Tables Overview  
Queries  
EXata Emulation Basics  
Typical Hardware Setup  
EXata Emulation Features  
EXata Connection Manager  
Running Applications on an  
EXata network

#### Lab / Activity

SQL browser  
Urban Terrain  
Basic Connectivity  
Build Notional Architecture  
Scenario

- Day 4: Programmer training

Command Line

System Architecture  
Troubleshooting  
Writing and Extending Protocols

- Day 5: User Defined training

User Scenario's  
User configurations  
User defined issues  
Q&A period