QualNet 7.1
Model Library Index

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Model Library Index

Table 1 lists the model libraries alphabetically by model and Table 2 lists the model libraries alphabetically but by library.

TABLE 1. Model Library Index: Alphabetical by Model

Model	Library
802.11 MAC Protocol	Wireless
802.11a/g PHY Model	Wireless
802.11b PHY Model	Wireless
802.11e MAC Protocol	Wireless
802.11n MAC Protocol	Wireless
802.11n PHY Protocol	Wireless
802.11s MAC Protocol	Wireless
802.16 MAC and 802.16e MAC	Advanced Wireless
802.16 PHY	Advanced Wireless
802.3 LAN/Ethernet	Developer
Abstract Cellular	Cellular
Abstract Link MAC	Developer
Abstract Network Equation Satellite (ANESAT) Model	Wireless
Abstract PHY Model	Wireless
Abstract Satellite Model	Developer
Abstract Transmission Control Protocol (Abstract TCP)	Developer
Ad-hoc On-demand Distance Vector (AODV) Routing Protocol	Wireless
Address Resolution Protocol (ARP)	Developer
Aloha MAC Protocol	Wireless
Aloha Satellite Model with RSV Support (Satellite-RSV)	Wireless
Antenna Models	Wireless
Asynchronous Transfer Mode (ATM)	Developer
Automatic Model Selection	Urban Propagation
Bit Error Rate-based (BER) Reception Model	Wireless

TABLE 1. Model Library Index: Alphabetical by Model (Continued)

Model	Library
Background Traffic Model	Developer
Battery Models	Wireless
Bellman-Ford Routing Protocol	Developer
Border Gateway Protocol version 4 (BGPv4)	Multimedia and Enterprise
Bordercast Resolution Protocol (BRP)	Wireless
COST 231-Hata Propagation Model	Urban Propagation
COST 231-Walfish-Ikegami (COST-WI) Propagation Model	Urban Propagation
Carrier Sense Multiple Access (CSMA) MAC Protocol	Wireless
Cartesian Terrain Format	Wireless
Class-Based Queuing (CBQ)	Developer
Compact Terrain Database (CTDB) Interface*	Military Radios
Constant Bit Rate (CBR) Traffic Generator	Developer
Constant Shadowing Model	Wireless
Detailed Switch Model	Multimedia and Enterprise
Differentiated Services (DiffServ)	Multimedia and Enterprise
Digital Elevation Model (DEM) Terrain Format	Wireless
Digital Terrain Elevation (DTED) Terrain Format	Wireless
Distance Vector Multicast Routing Protocol (DVMRP)	Multimedia and Enterprise
Distributed Interactive Simulation (DIS) Interface	Federation Interfaces
Domain Name System (DNS) Model	Developer
Dynamic Hierarchical Configuration Protocol (DHCP)	Developer
Dynamic MANET On-demand (DYMO) Routing Protocol	Wireless
Dynamic Source Routing (DSR) Protocol	Wireless
Enhanced Interior Gateway Routing Protocol (EIGRP)	Multimedia and Enterprise
ESRI Shapefile Terrain Format	Wireless
FCSC Radio Prototype*	Military Radios
Fast Rayleigh Fading Model	Wireless
Faults	Developer
File Transfer Protocol (FTP)	Developer
File Transfer Protocol/Generic (FTP/Generic)	Developer
File-based Mobility Model	Wireless
File-based Node Placement Model	Developer
First-In First-Out (FIFO) Queue	Developer
Fisheye State Routing Protocol	Wireless
Fixed Communications Model	Developer
Free-space Pathloss Model	Wireless
Generic MAC Protocol	Wireless
Global System for Mobile Communications (GSM) Model	Cellular
Grid Node Placement Model	Developer
Group Node Placement and Mobility Models	Wireless

TABLE 1. Model Library Index: Alphabetical by Model (Continued)

Model	Library
H323 and H225 Protocols	Multimedia and Enterprise
High Level Architecture (HLA) Interface	Federation Interfaces
Hot Standby Router Protocol (HSRP)	Multimedia and Enterprise
HyperText Transfer Protocol (HTTP)	Developer
Inter-channel Interference Model	Wireless
Interior Gateway Routing Protocol (IGRP)	Multimedia and Enterprise
Internet Control Message Protocol (ICMP)	Developer
Internet Control Message Protocol version 6 (ICMPv6)	Developer
Internet Group Management Protocol (IGMP)	Developer
Internet Protocol - Dual IP	Developer
Internet Protocol version 4 (IPv4)	Developer
Internet Protocol version 6 (IPv6)	Developer
Interzone Routing Protocol (IERP)	Wireless
Intrazone Routing Protocol (IARP)	Wireless
IPv6 Autoconfiguration Model	Developer
Irregular Terrain Model (ITM)	Wireless
Landmark Ad Hoc Routing (LANMAR) Protocol	Wireless
Link 11 Protocol*	Military Radios
Link 16 Protocol*	Military Radios
Location-Aided Routing (LAR) Protocol	Wireless
Logical Link Control (LLC) Protocol	Developer
Lognormal Shadowing Model	Wireless
Lookup Traffic Generator	Developer
Long Term Evolution (LTE) Evolved Packet Core (EPC) Model	LTE
Long Term Evolution (LTE) Layer 2 Model	LTE
Long Term Evolution (LTE) PHY Model	LTE
Microwave Links	Wireless
Mobile IPv4	Multimedia and Enterprise
Multi-Generator (MGEN) Toolset*	Military Radios
Multi-Protocol Label Switching (MPLS)	Multimedia and Enterprise
Multicast Constant Bit Rate (MCBR) Traffic Generator	Developer
Multicast Dissemination Protocol (MDP)	Developer
Multicast Extensions to OSPF (MOSPF)	Multimedia and Enterprise
Multiple Access Collision Avoidance (MACA) MAC Protocol	Wireless
Neigbor Discovery Protocol	Developer
Okumura-Hata Propagation Model	Urban Propagation
On-Demand Multicast Routing Protocol (ODMRP)	Wireless
Open Shortest Path First version 2 (OSPFv2) Routing Protocol	Multimedia and Enterprise
Open Shortest Path First version 3 (OSPFv3) Routing Protocol	Multimedia and Enterprise
Optimized Link State Routing Protocol - INRIA (OLSR-INRIA)	Wireless

TABLE 1. Model Library Index: Alphabetical by Model (Continued)

Model	Library
Optimized Link State Routing Protocol version 2 (OLSRv2)	Wireless
Pathloss Matrix Model	Wireless
UMTS Call Traffic Generator	UMTS
Policy-based Routing	Multimedia and Enterprise
Protocol Independent Multicast Protocol: Dense Mode (PIM-DM) and Sparse Mode (PIM-SM)	Multimedia and Enterprise
Quality of Service Extensions to OSPF (QOSPF)	Multimedia and Enterprise
Radio Energy Models	Wireless
Random Early Detection (RED) Queue	Developer
Random Early Detection with In/Out (RIO) Queue	Developer
Random Node Placement Model	Developer
Random Waypoint Mobility Model	Wireless
Rayleigh Fading Model	Wireless
Real-time Transport Protocol (RTP)	Multimedia and Enterprise
Ricean Fading Model	Wireless
Round Robin Scheduler	Developer
Route Map	Multimedia and Enterprise
Route Redistribution	Multimedia and Enterprise
Router Access List	Multimedia and Enterprise
Router Model	Multimedia and Enterprise
Routing Information Protocol next generation (RIPng)	Developer
Routing Information Protocol/Routing Information Protocol version 2 (RIP/RIPv2)	Developer
Satellite Toolkit (STK)	Developer
SNR-based Reception Model	Wireless
Self-Clocked Fair Queueing (SCFQ) Scheduler	Developer
Session Initiation Protocol (SIP)	Multimedia and Enterprise
Socket Interface	Federation Interfaces
Source Tree Adaptive Routing (STAR) Protocol	Wireless
Static Multicast Routes	Developer
Static and Default Routes	Developer
Street Microcell Propagation Model	Urban Propagation
Street Mobile-to-mobile Propagation Model	Urban Propagation
Strict Priority Scheduler	Developer
Suburban Propagation Model	Urban Propagation
Super Application Traffic Generator	Developer
Switched Ethernet	Multimedia and Enterprise
Telecommunications Network (TELNET)	Developer
Threaded Application*	Military Radios
Time Division Multiple Access (TDMA) MAC Protocol	Wireless
Trace File-based Traffic Generator (Traffic-Trace)	Developer

TABLE 1. Model Library Index: Alphabetical by Model (Continued)

Model	Library
Traffic Generator (Traffic-Gen)	Developer
Traffic Generator Extension for Military Radios (Traffic-Gen-Ext)*	Military Radios
Transmission Control Protocol (TCP)	Developer
Two-ray Pathloss Model	Wireless
Uniform Node Placement Model	Developer
Universal Mobile Telecommunication System (UMTS)	UMTS
Urban Terrain Data Formats	Wireless
User Behavior Model	Cellular
User Datagram Protocol (UDP)	Developer
Variable Bit Rate (VBR) Traffic Generator	Developer
Virtual LAN (VLAN)	Multimedia and Enterprise
Voice over Internet Protocol (VoIP)	Multimedia and Enterprise
Weather Pattern Model	Wireless
Weighted Fair Queuing (WFQ) Scheduler	Developer
Weighted RED (WRED) Queue	Developer
Weighted Round Robin (WRR) Scheduler	Developer
ZigBee Application	Sensor Networks
ZigBee MAC	Sensor Networks
ZigBee PHY	Sensor Networks
Zone Routing Protocol (ZRP)	Wireless

* Subject to export restriction under the International Traffic in Arms Regulations (ITAR) 22 CFR 120-130. International sales of these modules require authorization from the US Department of State.

TABLE 2. Model Library Index: Alphabetical by Library

Library	Models
Advanced Wireless	802.16 MAC and 802.16e MAC
	802.16 PHY
Cellular	Abstract Cellular
	Global System for Mobile Communications (GSM) Model
	User Behavior Model
Developer	802.3 LAN/Ethernet
	Abstract Link MAC
	Abstract Satellite Model
	Abstract Transmission Control Protocol (Abstract TCP)
	Address Resolution Protocol (ARP)
	Asynchronous Transfer Mode (ATM)
	Background Traffic Model
	Bellman-Ford Routing Protocol
	Class-Based Queuing (CBQ)
	Constant Bit Rate (CBR) Traffic Generator
	Domain Name System (DNS) Model
	Dynamic Hierarchical Configuration Protocol (DHCP)
	Faults
	File Transfer Protocol (FTP)
	File Transfer Protocol/Generic (FTP/Generic)
	File-based Node Placement Model
	First-In First-Out (FIFO) Queue
	Fixed Communications Model
	Grid Node Placement Model
	HyperText Transfer Protocol (HTTP)
	Internet Control Message Protocol (ICMP)
	Internet Control Message Protocol version 6 (ICMPv6)
	Internet Group Management Protocol (IGMP)
	Internet Protocol - Dual IP
	Internet Protocol version 4 (IPv4)
	Internet Protocol version 6 (IPv6)
	IPv6 Autoconfiguration Model
	Logical Link Control (LLC) Protocol
	Lookup Traffic Generator
	Multicast Constant Bit Rate (MCBR) Traffic Generator
	Multicast Dissemination Protocol (MDP)
	Neigbor Discovery Protocol
	Random Early Detection (RED) Queue
	Random Early Detection with In/Out (RIO) Queue

TABLE 2. Model Library Index: Alphabetical by Library (Continued)

Library	Models
Developer (continued)	Random Node Placement Model
	Round Robin Scheduler
	Routing Information Protocol next generation (RIPng)
	Routing Information Protocol/Routing Information Protocol version 2 (RIP/RIPv2)
	Satellite Toolkit (STK)
	Self-Clocked Fair Queueing (SCFQ) Scheduler
	Static and Default Routes
	Static Multicast Routes
	Strict Priority Scheduler
	Super Application Traffic Generator
	Telecommunications Network (TELNET)
	Trace File-based Traffic Generator (Traffic-Trace)
	Traffic Generator (Traffic-Gen)
	Transmission Control Protocol (TCP)
	Uniform Node Placement Model
	User Datagram Protocol (UDP)
	Variable Bit Rate (VBR) Traffic Generator
	Weighted Fair Queuing (WFQ) Scheduler
	Weighted RED (WRED) Queue
	Weighted Round Robin (WRR) Scheduler
Federation Interfaces	Distributed Interactive Simulation (DIS) Interface
	High Level Architecture (HLA) Interface
	Socket Interface
LTE	Long Term Evolution (LTE) Evolved Packet Core (EPC) Model
	Long Term Evolution (LTE) Layer 2 Model
	Long Term Evolution (LTE) PHY Model
Military Radios	Compact Terrain Database Format 7 (CTDB 7) and Format 8 (CTDB 8) Models*
	FCSC Radio Prototype*
	Link 11 Protocol*
	Link 16 Protocol*
	Multi-Generator (MGEN) Toolset*
	Threaded Application*
	Traffic Generator Extension for Military Radios (Traffic-Gen-Ext)*

TABLE 2. Model Library Index: Alphabetical by Library (Continued)

Library	Models
Multimedia and Enterprise	Border Gateway Protocol version 4 (BGPv4)
	Detailed Switch Model
	Differentiated Services (DiffServ)
	Distance Vector Multicast Routing Protocol (DVMRP)
	Enhanced Interior Gateway Routing Protocol (EIGRP)
	H323 and H225 Protocols
	Hot Standby Router Protocol (HSRP)
	Interior Gateway Routing Protocol (IGRP)
	Mobile IPv4
	Multicast Extensions to OSPF (MOSPF)
	Multi-Protocol Label Switching (MPLS)
	Open Shortest Path First version 2 (OSPFv2) Routing Protocol
	Open Shortest Path First version 3 (OSPFv3) Routing Protocol
	Policy-based Routing
	Protocol Independent Multicast Protocol: Dense Mode (PIM-DM) and Sparse Mode (PIM-SM)
	Quality of Service Extensions to OSPF (QOSPF)
	Real-time Transport Protocol (RTP)
	Route Map
	Route Redistribution
	Router Access List
	Router Model
	Session Initiation Protocol (SIP)
	Switched Ethernet
	Virtual LAN (VLAN)
	Voice over Internet Protocol (VoIP)
Sensor Networks	ZigBee Application
	ZigBee MAC
	ZigBee PHY
UMTS	UMTS Call Traffic Generator
	Universal Mobile Telecommunication System (UMTS)
Urban Propagation	Automatic Model Selection
	COST 231-Hata Propagation Model
	COST 231-Walfish-Ikegami (COST-WI) Propagation Model
	Okumura-Hata Propagation Model
	Street Microcell Propagation Model
	Street Mobile-to-mobile Propagation Model
	Suburban Propagation Model

TABLE 2. Model Library Index: Alphabetical by Library (Continued)

Library	Models
Wireless	802.11 MAC Protocol
	802.11a/g PHY Model
	802.11b PHY Model
	802.11e MAC Protocol
	802.11n MAC Protocol
	802.11n PHY Protocol
	802.11s MAC Protocol
	Abstract PHY Model
	Abstract Network Equation Satellite (ANESAT) Model
	Ad-hoc On-demand Distance Vector (AODV) Routing Protocol
	Aloha MAC Protocol
	Aloha Satellite Model with RSV Support (Satellite-RSV)
	Antenna Models
	Battery Models
	Bit Error Rate-based (BER) Reception Model
	Bordercast Resolution Protocol (BRP)
	Carrier Sense Multiple Access (CSMA) MAC Protocol
	Cartesian Terrain Format
	Constant Shadowing Model
	Digital Elevation Model (DEM) Terrain Format
	Digital Terrain Elevation (DTED) Terrain Format
	Dynamic MANET On-demand (DYMO) Routing Protocol
	Dynamic Source Routing (DSR) Protocol
	ESRI Shapefile Terrain Format
	Fast Rayleigh Fading Model
	File-based Mobility Model
	Fisheye State Routing Protocol
	Free-space Pathloss Model
	Generic MAC Protocol
	Group Node Placement and Mobility Models
	Inter-channel Interference Model
	Interzone Routing Protocol (IERP)
	Intrazone Routing Protocol (IARP)
	Irregular Terrain Model (ITM)
	Landmark Ad Hoc Routing (LANMAR) Protocol
	Location-Aided Routing (LAR) Protocol
	Lognormal Shadowing Model
	Microwave Links
	Multiple Access Collision Avoidance (MACA) MAC Protocol
	Omnidirectional Antenna Model

TABLE 2. Model Library Index: Alphabetical by Library (Continued)

Library	Models
Wireless (continued)	On-Demand Multicast Routing Protocol (ODMRP)
	Optimized Link State Routing Protocol - INRIA (OLSR-INRIA)
	Optimized Link State Routing Protocol version 2 (OLSRv2)
	Pathloss Matrix Model
	Radio Energy Models
	Random Waypoint Mobility Model
	Rayleigh Fading Model
	Ricean Fading Model
	SNR-based Reception Model
	Source Tree Adaptive Routing (STAR) Protocol
	Time Division Multiple Access (TDMA) MAC Protocol
	Two-ray Pathloss Model
	Urban Terrain Data Formats
	Weather Pattern Model
	Zone Routing Protocol (ZRP)

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