DA-310

DominoWAN® Internetwork Analyzer

For monitoring, troubleshooting and simulation in internetworking environments

- *Plug-in modules support all popular WAN interfaces to 2 Mbit/s*
- *Award-winning interactive expert analysis*
- *Multisegment, multi-topology analysis ability when used with other Domino® analyzers*
- *Full time stamp synchronization with other Domino analyzers*
- *Advanced RISC-based hardware architecture*
- *Identification of more than 900 protocols with more than 350 full decodes*
- *Autoconfiguration for fast, easy setup*
- *Lightweight and highly portable*
- *Compatible with notebook computers running Windows®*

A Field-Service Solution for Internetworks

Field-service organizations require an analyzer that can handle the multiple protocols and multiple topologies of today's complex networks. They also need one that's easy to carry and easy to use.

The DominoWAN® analyzer provides a complete solution in one box. It can monitor activity, decode protocols, and generate network traffic on all popular WAN interfaces, making it unsurpassed in troubleshooting wide area networks. DominoWAN allows the user to monitor statistics and conditions related to the WAN network, as well as support station-level statistics derived from the encapsulated protocols. In addition, the DominoWAN analyzer measures the relationship of overhead to user-payload data to help network managers maximize network efficiency.

DominoWAN is designed to provide detailed and accurate information on a variety of networks. This includes Frame Relay, PPP, X.25, ISDN, SNA/SDLC, HDLC, Asynchronous and others. By combining the DominoWAN with other Domino® analyzers, frames and packets can be tracked through diverse network equipment and across multiple interfaces in real time for quick resolution of problems and equipment testing.

Weighing less than three pounds, DominoWAN connects to and is controlled by a notebook PC. Multiple Domino analyzers can be linked together to perform simultaneous multisegment analysis, which makes it well suited to device testing. By generating and receiving traffic simultaneously, the instrument is an ideal tool for benchmarking routers, bridges, gateways, and other network equipment prior to installation or after an upgrade.

High-Performance Architecture

DominoWAN is capable of extremely high performance because it employs multiple, independent RISC processors, each dedicated to performing separate functions. For example, separate RISC processors capture and decode traffic. High-speed links connect these processors, thus avoiding bottlenecks between them and allowing the analyzer to analyze network traffic in real time.

WAVETEK WANDEL GOLTERMANN
Communications Test Solutions

Easy Operation and Online Help for Fast Troubleshooting

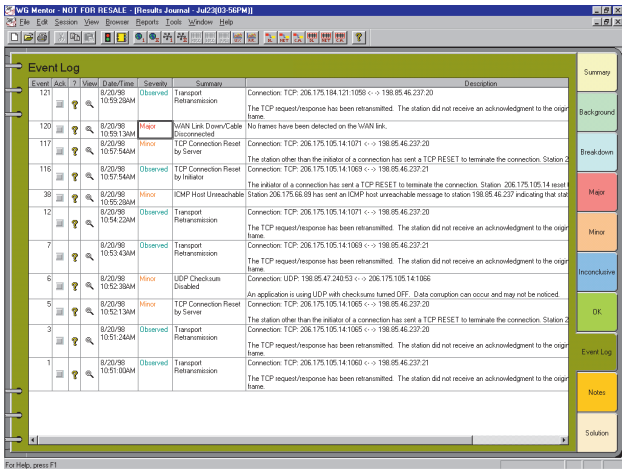
With its colorful screen, Microsoft Windows®-based user interface and autoconfiguration function, DominoWAN is as easy to use as it is powerful. In addition to pull-down menus and buttons for common monitoring and analysis tasks, DominoWAN also features context-sensitive Help screens to ensure that even infrequent users find DominoWAN easy to use. The Microsoft Windows compatibility also provides access to additional Windows applications and utilities such as word processors, spreadsheets and print managers, making report generation a breeze. Using this facility, the DominoWAN user can embed a dated and timed pie chart into a spreadsheet without having to retype the information.

Remote Analysis: Anywhere, Anytime with Domino

Sometimes it just doesn't make sense to send someone into the field. Wavetek Wandel Goltermann provides an alternative with DominoServer™. Acting in a client/server model, network professionals connect to the DominoServer and control remote Domino analyzers - realizing all the features and functions as if the analyzers were locally attached. Users can connect, start an application, disconnect and return at a later time to view or stop the session, all without interrupting or stopping the analysis. And since the processing is being done on the Domino analyzers attached to DominoServer, a minimal traffic is being added to the network or dial-up link when the user is connected.

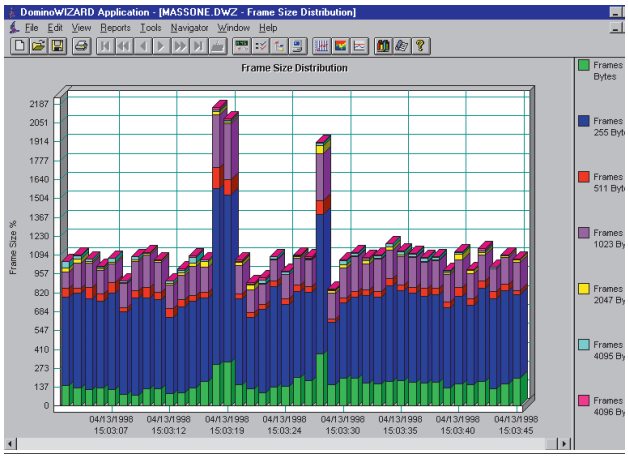
Interactive Expert Analysis Pinpoints Problems and Speeds Up Resolution

Resolve problems faster by adding WWG's award-winning Mentor™ Interactive Expert Analysis System. Mentor accurately pinpoints, prioritizes and proposes solutions to network problems. While other expert systems merely count and report network problems (sometimes masking the real problem), Mentor prioritizes events for each situation based on input and past history - and then tells you how to fix them. And Mentor scales to the user's expertise. Whether you're an occasional user, intermediate or expert, Mentor is a trusted and skilled counselor.



Baseline Network Health with Domino

When used with applicable Domino analyzers, the Wizard™ Network Baselining System supplies the tools necessary to provide value-added services, such as network health checks or capacity planning. It is unsurpassed in its ability to collect critical information about trends, anomalies and capacity utilization and report all of the network vital statistics with an integrated reporting tool. It also gives the user the ability to schedule baselines around peak periods (time of day, day of week) and runs on its own. With a user-friendly architecture and award-winning online Help, the bottom line is increased network uptime.



Portable Analysis Kit

For networking professionals that require portable network analysis solutions, WWG offers a soft carrying case with shoulder strap. This custom-designed bag has room for a Domino analyzer, laptop and cables. Also available are anti-static containers for storing and shipping Domino interface modules and interface cables.

The soft carrying case with shoulder strap and anti-static shipping/storage containers are shown above, along with the DominoLAN® and DominoWAN internetwork analyzers.

Notebook Compatibility and Connection

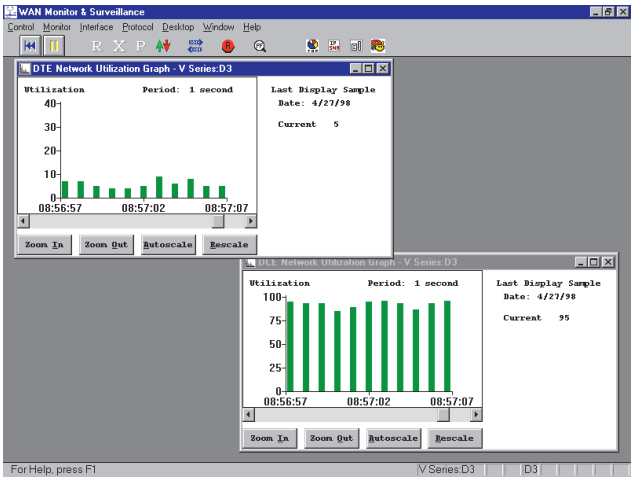
With its small footprint and stackable design, Domino accommodates many popular Windows-compatible notebook PCs. This compatibility allows users to choose and upgrade PCs according to needs and desires, so users are not held captive to a proprietary platform or yesterday's PC standard.

Warranty Information

Domino Internetwork Analyzers come with a two-year manufacturer's warranty, which covers any defects detected by the customer or Wavetek Wandel Goltermann. Domino software is covered under a 90-day manufacturer's warranty.

DominoWAN Internetwork Analyzer in Action

For fast, real-time analysis of mission-critical internetwork problems, Domino leads the way. If you're looking for a portable, easy-to-use field internetwork analyzer, follow Domino as we track down a problem in a hospital network.

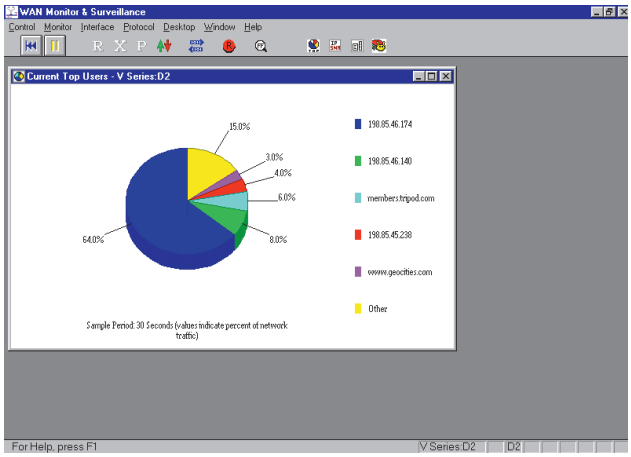


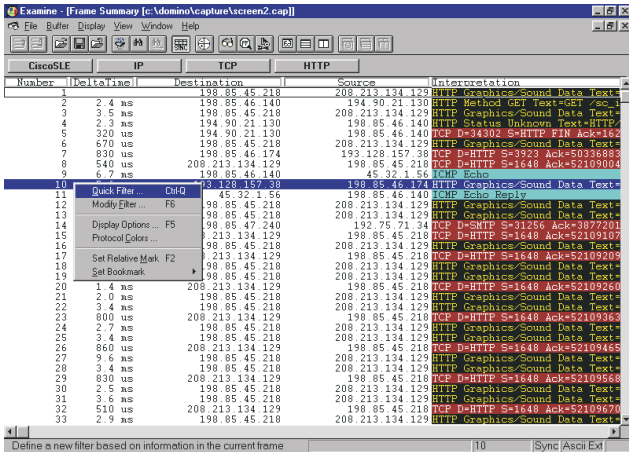
8:55 AM
The MIS manager calls. The hospital CFO says he can't access the patient revenue files from the Boston site. You say you'll get right on it.

8:56 AM
You get DominoWAN and punch up Monitor.

8:57 AM
Grab the WAN utilization statistics. You notice you have near 100% utilization on one direction of your WAN link, but what or who is causing it?

8:58 AM
You take a look at the top protocol addresses on the WAN link and discover a single IP address is responsible for over 50% of the WAN traffic.



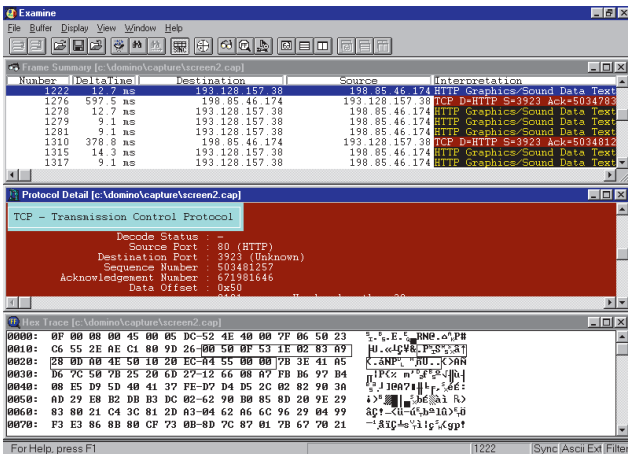


9:00 AM
Time to examine the packets themselves and get to the bottom of the problem.

A simple right click on any packet containing the offending address initiates the "Quick Filter," focusing your analysis on the transaction responsible.

9:02 AM
Upon further examination of the packet type and size, you discover that it's graphic files of X-rays clogging the link from Boston to your New York site.

9:04 AM
You call Boston. Since it's a batch run they should be doing at night, they terminate and you call the MIS manager. Mission accomplished.



Specifications

DominoWAN (DA-310)

Hardware

Protocol Analysis Processor:	INMOS T425 transputer, RISC architecture
Physical Interfaces:	EIA/TIA-232/V.24, V.35, RS-449/V.36, RS-530, V.11/X.21, E1, T1, ISDN BRA
Capture Memory:	23.5 Mbit/s standard for all data rates
PC Interface:	notebook PC via EPP, bi-directional, or standard parallel port

Data Transfer

Data Channels:	1 transmit, 2 receive
Clock Signals:	2 transmit, 3 receive
Protocols Supported by Hardware:	async character oriented, bisync, bisync transparent, HDLC bit oriented protocols
Data Transmission Modes:	asynchronous, synchronous, binary synchronous
Data Codes:	NRZ, NRZI
Character Framing:	5-8 bits
Parity:	even, odd, mark, space, none
Bit Sense:	normal, inverted Mil-188C
Bit Order:	MSB first, LSB first
Maximum Data Rate:	2,048 kbit/s, full duplex, 100% line utilization
Error Checking:	CRC 16, CCITT-16, CCITT-32
TIME STAMPING:	
Hardware Timer	32 bit
Time Resolution	32 µs
Max. Time Count Before Wrap-Around	38.17 hours

External Trigger Input and Output

Ext. Tigger Input:	2.5 mm audio jack
Trigger Set:	neg. TTL pulse <0.8 V
Trigger Off:	input voltage >2.5 V
Ext. Trigger Output:	2.5 mm audio jack
Trigger Set:	neg. TTL pulse <0.8 V
No Trigger Set:	output voltage >4.5 V

General Specifications

Weight:	1.3 kg (2.8 lbs.) per analyzer
Size (L×W×H):	290×230×33 mm 11.4×9×1.3 inches
Ambient Temperature Range:	
Use	+5°C to +40°C
Storage & transport	-20°C to +60°C
Power supply (Via external AC adapter):	100-240 VAC 50/60 Hz
Power Consumption:	30 VA certified by CSA UL
Safety:	UL 3111; CAN/CSA C.22.2 No. 1010.1, EN-61010-1, IEC 1010-1

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Minimum PC Requirements

For minimum PC requirements, visit our website: http://www.wg.com/products/domino/pc_specs.html

Ordering Information

BN 9314/01	DA-310 DominoWAN Internetwork Analyzer *includes software, power supply, notebook/parallel port cable*
INTERFACE OPTIONS (requires at least one):	
BN 9314/90.10	V-series interface
BN 9314/90.11	2 Mbit/s ETSI interface
BN 9314/90.12	1.544 Mbit/s T1 interface
BN 7514/00.18	ISDN BRA 2B+D interface
ACCESSORIES (charged extra):	
BN 9314/90.63	Soft carrying case with shoulder strap
BN 9309/00.31	Interface storage/shipping container
BN 9314/93.88	SNA session generator software
BN 9307/93.79	Frame Relay Application Suite
K9125	Domino/Printer cable (1m)
K9126	Domino trigger cable, BNC-audio
K9194	Domino/Domino stacking cable
K9137	2-meter notebook/parallel port cable

Wavetek Wandel Goltermann Sales Offices

USA
PO Box 13585
Research Triangle Park, NC
27709-3585
Tel. +1 919 941-5730
Fax +1 919 941-5751

East Europe
Postfach 13
Elisabethstrasse 36
A-2500 Baden
Austria
Tel. +43 2252 85521 0
Fax +43 2252 80727

Latin America
Av. Eng. Luis Carlos Berrini,
936-8/9. andar
04571-000 Sao Paulo, SP
Brazil
Tel. +55 11 5503 3800
Fax +55 11 5505 1598

CIS Countries
1st Neopalimovskiy per.
15/7 (4th floor)
119121 Moscow
Russia
Tel: +7 095 248 2508
Fax +7 095 248 4189

Asia-Pacific
PO Box 141
South Melbourne, Victoria
3205
Australia
Tel. +61 3 9690 6700
Fax +61 3 9690 6750

West Europe
Arbachtalstrasse 6
D-72800 Eningen u.A.
Germany
Tel. +49 7121 86 2222
Fax +49 7121 86 1222

Internet Address
www.wwgsolutions.com

WAVETEK WANDEL GOLTERMANN
Communications Test Solutions