



QualityLogic®
Putting Technology to the Test

New in FaxLab 9!
▶ 20 New Fax/MFP Device Profiles
▶ Remote Control Automation for V.17

FaxLab® Facsimile Compatibility Test System

Features

Emulates 177 V.17 and 45 V.34 fax machines, MFPs, fax modem/fax software combinations

FaxLab Viewer allows viewing of FaxLab database

Uses ITU Figure of Merit recommendations for call quality and page transmission success

End-to-end capabilities for communication network, T.38 testing

Real-world fax traffic generation

Remote control

Benefits

Reduces test time, increases thoroughness

Replaces a room full of fax devices

Quickly identifies and analyzes problems

Reduces support costs

Share results with others who do not own FaxLab

FaxLab saves time, reduces costs and helps you get your product to market faster, and the level of testing provided by FaxLab is much deeper than you can accomplish manually.

FaxLab is used by device manufacturers, network equipment providers and carriers to simplify and automate fax compatibility testing. Using highly-detailed statistical profiles and a comprehensive set of test calls, FaxLab plays back the behavior of real-world devices, allowing developers and integrators to replace a room full of facsimile devices with software.

Testing compatibility is an essential step in bringing new fax devices and technologies to market, regardless of whether the facsimile protocol code was developed in-house or obtained from a third party. In the past, the only way to perform this testing was to locate or purchase large numbers of fax devices, and manually test dozens of devices and hundreds of feature combinations.

FaxLab uses QualityLogic's ChannelTrap, an external hardware device that generates and receives facsimile traffic. Using additional ChannelTraps, FaxLab executes up to 32 fax calls simultaneously, reducing the time required for testing and enabling generation of traffic conditions from many different device emulations.

In-Depth Emulation

During profile creation, FaxLab initiates an extensive collection of calls as sender and receiver, directing the device through the widest possible variety of call paths and conditions and measuring hundreds of distinct call parameters. Most parameters are recorded multiple times for variations in data modulation, data rate, image

encoding and resolution. FaxLab also presents the device being profiled with illegal T.30 conditions to determine its reaction. The resulting profile is then tested to ensure that it accurately represents that device's performance.

Compatibility Testing

FaxLab sends fax calls to and receives calls from the device under test, using the profiles you select. You may use actual sampled values, including best- and worst-case behavior, or synthesize statistically valid values based on the sampled data. No other method more completely and accurately represents a device's performance.

End-to-End & T.38 Testing

Timing delays, dropped packets, or other network anomalies can corrupt fax calls as they move through a complex communications network. FaxLab automates testing for these types of transmission errors.

You can create a test system that plays the originator and answering party in a fax call using FaxLab and ChannelTraps. The system identifies message degradation caused by the network transport, as well as fax protocol violations in gateways. ChannelTraps can be operated over a network or via modem, so the system can diagnose problems at remote locations, reducing support costs.

Quality of Image

FaxLab implements the ITU Figure of Merit recommendations E.453 and E.458 for classifying fax image quality and page transmission success. Its expanded statistical report makes statistical summaries of user-selected test call groups. FaxLab can also measure post-dial delay parameters.



FaxLab Facsimile Compatibility Test System

Test Automation

FaxLab's automation features for V.17 and V.34 can remotely:

- ▶ Select, start and stop ChannelTraps
- ▶ Select and execute test calls using specified emulations
- ▶ Load and execute saved ChannelTrap test configurations including call lists
- ▶ Log execution of test calls
- ▶ Retrieve pass/fail and ITU Figure Of Merit test call results

FaxLab Viewer

The FaxLab Viewer application lets you open and view an existing FaxLab database without a full copy of the FaxLab software, so you can share results of FaxLab sessions with others who need to review results. FaxLab Viewer runs independently from the FaxLab 8 product that controls the ChannelTrap and cannot conduct any actual call sessions.

FaxLab Product Structure

FaxLab contains a single installer for the V.17 and V.34 modules of the product. The V.17 simulations are placed in one directory and the V.34 simulations in another, making it much easier to find the test cases you need and switch back and forth between V.17 test software and V.34 test software.

FaxLab Specifications

- ▶ Comprehensive compatibility testing using facsimile device emulations
- ▶ V.17 emulations support data rates of 2400, 4800, 7200, 9600, 12,000, 14,400 bps
- ▶ V.34 emulations support data rates up to 33,600 bps
- ▶ MH, MR, MMR, JPEG (full color & grayscale), T.85 bi-level JBIG encoding
- ▶ On-screen display of all image encodings
- ▶ Easily configurable for testing networks
- ▶ V.8 or non-V.8, V.21 start-up in any combination at either end of set-up
- ▶ Detailed modem status in call timeline
- ▶ Selectable send and receive test modes
- ▶ Call progress indicator
- ▶ Pass/fail based on transmission success
- ▶ Warnings based on T.30 limits
- ▶ Runs under Windows 2000, XP, XP Pro, Vista, 7
- ▶ Supports V.17, V.33, V.29; V.27ter, V.8, V.34

Minimum System Requirements

- ▶ PC with 2GHz processor clock speed; Intel Pentium/Celeron family, or AMD K6/Athlon/Duron family, or compatible processor recommended
- ▶ 1GB of RAM
- ▶ 4GB of available hard disk space
- ▶ Microsoft Windows XP/XP Pro, Vista Pro or Windows 7 Pro 32- or 64-bit operating system (English versions)
- ▶ At least one RJ-45 Ethernet port for ChannelTrap connection
- ▶ Super VGA (800 x 600) video adapter, monitor
- ▶ CD-ROM or DVD drive
- ▶ Keyboard and Mouse or compatible pointing device

Key Emulation Parameters

- ▶ DIS capability bits
- ▶ INFO0 capability bits
- ▶ Non-compliant DIS and DCS signal construction
- ▶ MPh capability bits
- ▶ Duration of inter-signal silent periods
- ▶ Predefined test calls for each device
- ▶ ECM (Error Correction Mode) support
- ▶ Support for all T.30 image resolutions
- ▶ T.2 and T.4 timeouts

Ordering Information

T4006-9.0 KIT	FaxLab 9.0 Kit
FaxLab Kit contains the following:	
T4006-9.0 S	FaxLab Software
T4006-9.0 KEY	FaxLab Key
F2009-T	ChannelTrap IV Hardware



2LJ

QualityLogic Distributor for Europe

17 rue Bayard

38000 Grenoble (France)

+ 33 (0)6 89 84 14 20

www.2LJ.fr • contact@2LJ.fr

 **QualityLogic®**
Putting Technology to the Test

Phone 805 531 9030 • Fax 805 531 9045

info@qualitylogic.com • www.qualitylogic.com

5401 Tech Circle • Moorpark, CA • 93021 • USA



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FaxLab 9.0 Emulations List

FaxLab 9.0 emulates 177 V.17 and 45 V.34 fax machines, MFPs, fax modems and PC-based fax software, listed below. V.34 emulations are marked with an asterisk (*). Emulations shown in bold are new in FaxLab 9.

Fax Machine Emulations

T&T 9015 PF	<i>Galeo 7065</i>	Panasonic KX-F580	Sharp FO-145
AT&T PPF200	HP Fax-200	Panasonic KX-F3000	Sharp FO-235
Brother Fax-190	<i>HP Fax-650</i>	Panasonic KX-FP270	Sharp FO-445
Brother Fax-8360P*	Minolta MF3300	Panasonic KX-FPC95	Sharp FO-5400
<i>Brother Fax T102</i>	Mita LDC-570	Panasonic Pro Line PX-5	Sharp UX-108
Brother IntelliFax-2920	Mita LDC-750	Panasonic PX-150	Sharp UX-117
Brother IntelliFax-580MC	Mita TC-170	Panasonic PX-350	Sharp UX-104
Brother IntelliFax 600	Monroe MX-4020	Panasonic UF-V60	Sharp UX-1400
Brother IntelliFax 625	Murata M820	Panasonic UF-880	Sharp UX-3600M
Brother IntelliFax 950M	Muratec F-56	Philips Laserfax 855*	Sharp UX-256
Brother IntelliFax 2500	Muratec F-90	<i>Philips Magic 5 EcoVoice</i>	Sharp UX 460
Canon Fax B70	Muratec F-150	Pitney Bowes 8050	Telecom AM-11
Canon Fax B340	Muratec Imagemate CX	Ricoh Fax 180	Telecom NP-80
Canon Fax B750	NEC NEFAX-480	Ricoh Fax 240	Toshiba TF421
Canon Fax L140*	NEC SilentWriter 95	Ricoh RF-05	Toshiba TF501
Canon Fax TF-301	Okidata OKIFax 2200	<i>Sagem Phonefax 4840</i>	Toshiba TF231
Fujitsu Dex 85	Okidata OKIFax 4580*	Samsung FX-40x	Toshiba TF671
Fujitsu Dex 740	Olivetti OFX-1000	Samsung FX-1502	Xerox 7021
<i>Galeo 6275</i>	Olivetti OFX-3100	Sanyo SFX11	Xerox 7024
<i>Galeo 7000</i>	Panasonic KX-F500	Sanyo SPF-301	

MFP Emulations

Brother 6650MC	Canon MultiPASS C560	HP OfficeJet 5610*	Ricoh Fax-4420L*
Brother 7150C	Canon MultiPASS C755	HP OfficeJet 570	<i>Sagem Agoris 4640*</i>
Brother intelliFAX 1940cn*	Canon MultiPASS C5500	HP OfficeJet 7110*	Sagem MF 5461*
<i>Brother intelliFAX 2820</i>	Canon MultiPASS F80*	HP Photosmart 3310*	Samsung CLX-3175FN*
Brother MFC 3320CN*	Canon MultiPASS L6000	Konica 7310	Samsung SCX-4521F*
Brother MFC 4550	Canon MultiPASS L777	KyoceraMita KM-F1050*	Samsung SCX-4720F*
Brother MFC 4650	<i>Canon Pixma MX410*</i>	Lexmark X215*	Sharp FO-4400*
Brother MFC 4600	Canon Pixma MP830*	Lumina 2096	Sharp FO-DC525*
<i>Brother MFC 795CW*</i>	Canon Pixus MX850*	Minolta MF2800*	Sharp FO-DC600*
Brother MFC 8820d*	Epson PX-FA700*	Muratec F-320*	Toshiba DP120F*
<i>Brother MFC 9120CN*</i>	Canon Satera MF4270*	Okidata OkiFax 1000	Xerox 7033
Brother MFC 930CDN*	Epson Stylus CX5800F*	Okidata OkiFax 4580*	Xerox 3004
Brother MFC 9440CN*	<i>HP eAIO C410B*</i>	Okidata OkiOffice 84	Xerox WorkCenter 250
<i>Canon i-SENSYS L390*</i>	HP Fax 920	Panasonic KX-F1600	Xerox WorkCenter 470cx
Canon MultiPASS C2500	HP LaserJet 3050	Panasonic UF-7000*	Xerox WorkCenter 480cx
Canon MultiPASS C530	HP LaserJet 3200	Panasonic UF-9000*	Xerox WorkCenter Pro 575*
Canon MultiPASS C545	HP OfficeJet	Ricoh 3500L	Xerox WorkCenter XE90fx
Canon MultiPASS C555	HP OfficeJet 350	Ricoh Fax-3000L	Xerox XK50cx

PCMCIA Modem Emulations

PC Modems	Software Used	PC Modems	Software Used
3Com EtherLink III LAN + 33.6 FaxTalk	FaxTalk	Motorola Power 14.4	BitFax, FaxTalk, FaxWorks, QuickLink, WinFax
Compaq 9600	FaxTalk	New Media 14.4	FaxTalk
Eiger 14.4	FaxTalk	Scout 14.4	FaxTalk
Megahertz	FaxTalk	US Robotics WorldPort	FaxTalk
Motorola CELlect 14.4	FaxTalk		

FaxLab Emulations List

External Modem Emulations

PC Modems -External	Software Used	PC Modems -External	Software Used
AT&T DataPort	QuickLink	SupraFAX V.32bis	FaxTalk
Boca MV.34E	FaxTalk		WinFax
Cardinal 14.4 V32bis2	FaxTalk	US Robotics Sportster 33.6 1172	FaxTalk
Global Village Teleport Bronze II	Global Fax		Microsoft Fax
Hayes JetFax	Hayes		WinFax Pro
Hayes Optima	FaxTalk	US Robotics Sportster 28.8	Macintosh
Intel SatisFAXtion/400e	QuickLink	MacComm	
Motorola UDS 14.4	FaxTalk	ZyXEL Omni 288S	FaxTalk
Practical Peripherals V.32bis	FaxTalk	ZyXEL U-1496E	FaxTalk
Supra 28.8 Macintosh	Supra		

Internal Modem Emulations

PC Modems-Internal	Software Used	PC Modems-Internal	Software Used
Gammalink Fax Modem	GammaFax	Viva 14.4	FaxTalk
MultiTech MultiModem ZPX V.92*	FaxTalk	Zoom Telephonics 14.4	FaxTalk
	Messenger Pro 7.0	Zoom Telephonics 9600	FaxTalk
US Robotics Sportster	QuickLink	Zoom Telephonics V.32 bis	FaxTalk

Facsimile Software Emulations

Fax Software	Hardware Used		
BitFax	Motorola Power 14.4-PCMCIA		
FaxTalk	3Com EtherLink III LAN +33.6	Boca MV.34E	Cardinal 14.4 V.32bis
	Compaq 9600	Eiger 14.4	Hayes Optima
	Megahertz	Motorola CELlect 14.4	Motorola Power 14.4
	Motorola UDS 14.4	New Media 14.4	Practical Peripherals V.32bis
	Scout 14.4	SupraFAX V.32bis	US Robotics Sportster 14.4
	US Robotics Sportster 36.6 1172	US Robotics WorldPort	Viva 14.4
	Zoom Telephonics 14.4	Zoom Telephonics 9600	Zoom Telephonics V.32bis
	ZyXEL Omni 288S	ZyXEL U-1496E	
FaxWorks	Motorola Power 14.4-PCMCIA		
GammaFax	Gammalink Fax Modem		
Global Fax	Global Village Teleport Bronze II		
Hayes	Hayes JetFax		
MacComm	US Robotics Sportster 28.8 Macintosh		
Microsoft Fax	US Robotics Sportster 33.6 1172		
QuickLink	AT&T DataPort	Intel SatisFAXtion/400e	
	Motorola Power 14.4-PCMCIA	US Robotics Sportster	
Supra	Supra 28.8 Macintosh		
WinFax	Motorola Power 14.4-PCMCIA		
WinFax Pro	US Robotics Sportster 33.6 1172	SupraFAX V.32bis	

Synthesized Profiles

V.34 Standard*
V.34 Nominal*
V.17 Standard
V.17 Nominal



2LJ

QualityLogic Distributor for Europe

17 rue Bayard

38000 Grenoble (France)

+ 33 (0)6 89 84 14 20

www.2LJ.fr • contact@2LJ.fr

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Phone 805 531 9030 • Fax 805 531 9045
info@qualitylogic.com • www.qualitylogic.com
5401 Tech Circle • Moorpark, CA • 93021 • USA

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Availability of device emulations subject to change. Contact QualityLogic for current availability.