

# FTB-1 V2/FTB-1 Pro Platform

EMPOWERING FRONTLINE TECHNICIANS



PART OF THE  
EXFO | FTB Ecosystem



The FTB-1 version 2, available in a standard (FTB-1 V2) or Pro (FTB-1 Pro) model, is a portable system designed for fast and powerful optical, Ethernet, time-division multiplexing (TDM) and multiservice applications.

## KEY FEATURES

**Connects anywhere:** USB, mobile, Wi-Fi, virtual private network (VPN) and Bluetooth

**Loaded with utilities:** equipped with all the tools needed to optimize field testing, plus any third-party applications

**Like a PC:** available with a dual- or quad-core processor and Windows operating system

**EXFO Connect-ready:** automated asset management; data goes through the cloud and into a dynamic database








## COMPLEMENTARY PRODUCT



Fiber Inspection Probe FIP-400B  
(Wi-Fi or USB)

## ADAPTED FOR DEDICATED APPLICATIONS. DEDICATED TO HELPING YOU ADAPT.

Thanks to its small format, ultra-powerful processing and highly intuitive interface, the FTB-1 V2 is optimized to allow field technicians to carry out dedicated optical, Ethernet and multiservice test applications simply and efficiently.

APPLICATIONS AND MODULES		
	<b>Module</b> FTB-720C Access OTDR	<b>Access Fiber Network Testing</b> The ideal construction and troubleshooting OTDRs for everyday field testing in any access network, such as PON FTTx (up to 1x32 splitter), fiber-to-the-antenna (FTTA) and distributed antenna systems (DAS).
	<b>Module</b> FTB-720C LAN/WAN OTDR	<b>LAN/WAN and Datacenter Fiber Testing</b> OTDR for certification and troubleshooting of any enterprise and data-center fiber networks.
	<b>Module</b> FTB-730C FTTx/MDU OTDR	<b>FTTx/MDU Fiber Network Testing</b> The perfect tool for field technicians who need to seamlessly characterize splitters in passive-optical-network (PON) FTTx applications (up to 1x128 splitter), as well as troubleshoot in-service with the in-line dual-channel PON power meter and live OTDR wavelengths.
	<b>Module</b> FTB-735C Metro/FTTx OTDR	<b>Metro/FTTx Fiber Network Testing</b> High-resolution OTDR designed for metro network testing and splitter characterization in PON FTTx applications (up to 1x128 splitter).
	<b>Module</b> FTB-750C Long-Haul OTDR	<b>Long-Haul Fiber Network Testing</b> High dynamic range combined with high resolution for highly accurate fiber characterization on any long-haul network.
	<b>Modules*</b> FTB-880 V2 NetBlazer 10G Tester FTB-870 V2 NetBlazer 10G Tester	<b>10G Dual-Port Multiservice Testing*</b> The FTB-880 and FTB-870 V2 NetBlazer modules enable field technicians to easily turn up, validate and troubleshoot OTN, SONET/SDH, DS <sub>n</sub> /PDH, ISDN/PRI, CPRI, Fibre Channel and Ethernet services up to 10 Gbit/s in converged optical networks.
	<b>Modules*</b> FTB-700G V2 Series Optical, Ethernet, CPRI and Multiservice Test Modules	<b>Fronthaul/Backhaul Testing (Mobile Backhaul, FTTA/Remote Radio Heads, DAS and Small Cells)*</b> All-in-one optical/Ethernet/CPRI solution combining the best of fiber test capabilities (inspection, OTDR/iOLM) with a wide range of Ethernet and multiservice tests (OTN, SONET/SDH, Fibre Channel, GigE/10 GigE, CPRI/OBSAI and SyncE/1588 PTP), and designed to streamline field operations when installing, activating and troubleshooting any type of fiber-fed wireless infrastructure.

\* Applicable to the FTB-1 Pro version only.

TEST MODULES		FTB-1 V2	FTB-1 PRO
OTDR	FTB-720C	•	•
	FTB-730C	•	•
	FTB-735C	•	•
	FTB-750C	•	•
10G dual port	FTB-880 V2		•
	FTB-870 V2		•
10G quad port	FTB-880Q		•
	FTB-870Q		•
OTDR/Ethernet/CPRI	FTB-720G V2		•
	FTB-730G V2		•

## OPTICAL PLUG-AND-PLAY OPTIONS

The platform features optical plug-and-play options that can be purchased whenever you need them: at the time of your order or later on. In either case, installation is a snap, and can be performed by the user without the need for any software update.

### Optical Power Meter

A high-level power meter (GeX) that can measure up to 27 dBm, the highest in the industry. This is essential for hybrid fiber-coaxial (HFC) networks or high-power signals. If used with an auto-lambda/auto-switching compatible light source, the power meter automatically syncs on the same wavelength, thus avoiding any risk of mismatched measurement.

- › Extensive range of connectors
- › Auto-lambda and auto-switching
- › Offers measurement storage and reporting
- › Choice of seven standard or coarse wavelength-division multiplexing (CWDM)-calibrated wavelengths

### Visual Fault Locator (VFL)

The plug-and-play VFL easily identifies breaks, bends, faulty connectors and splices, in addition to other causes of signal loss. This basic, yet essential, troubleshooting tool should be part of every field technician's toolbox. The VFL visually locates and detects faults over distances of up to 5 km by creating a bright-red glow at the exact location of the fault on singlemode or multimode fibers (available with the Optical Power Meter only).

## THE WINDOWS 8.1 PRO ADVANTAGE ON THE FTB-1 PRO

Stay productive and connected while on the move with Windows-compatible applications and services.

### Applications

Use them the way you always have: install Word, Excel, PowerPoint and other programs that you count on to continue working the way you are accustomed to.

#### Best User Experience

- › Faster start time
- › Multitasking

#### Familiar Desktop

- › File Explorer
- › Boot to desktop
- › Start button

#### Apps for Everyone

- › Skype
- › OneDrive
- › Windows Store

Connect to a wide range of devices, such as printers, cameras, keyboards and mice.

**FIBER CONNECTOR INSPECTION AND CERTIFICATION – THE ESSENTIAL FIRST STEP BEFORE ANY OTDR TESTING**

Taking the time to properly inspect a fiber-optic connector using an EXFO fiber inspection probe can prevent a host of issues from arising further down the line, thus saving you time, money and trouble.

**The First Fully Automated Fiber Inspection Probe for the Field**

Housing a unique automatic focus adjustment system, the FIP-430B USB and FIP-435B Wi-Fi Probes automate each operation in the connector endface inspection sequence, transforming this critical process into one quick and easy step, which can be performed by technicians of all skill levels.

**100%**  
Automated<sup>a</sup>

**1-step**  
process<sup>a</sup>

**57%**  
shorter test time<sup>b</sup>



**FIVE MODELS TO FIT YOUR BUDGET**

FEATURES	USB WIRED			WIRELESS	
	Basic FIP-410B	Semi-Automated FIP-420B	Fully Automated FIP-430B	Semi-Automated FIP-425B	Fully Automated FIP-435B
Three magnification levels	✓	✓	✓	✓	✓
Image capture	✓	✓	✓	✓	✓
Five-megapixel CMOS capturing device	✓	✓	✓	✓	✓
Automatic fiber image-centering function	X	✓	✓	✓	✓
Automatic focus adjustment	X	X	✓	X	✓
Onboard pass/fail analysis	X	✓	✓	✓	✓
Pass/fail LED indicator	X	✓	✓	✓	✓
Wi-Fi connectivity	X	X	X	✓	✓

For more information, visit [www.EXFO.com/fiberinspection](http://www.EXFO.com/fiberinspection).

**Notes**

a. FIP-430B and FIP-435B models.

b. Data sourced from EXFO's case study, with calculation based on typical analysis time.

## SOFTWARE TEST TOOLS

This series of platform-based software testing tools enhances the value of the FTB-1 V2 platform, providing additional testing capabilities without the need for additional modules or units.

### EXpert TEST TOOLS

#### EXpert VoIP TEST TOOLS

EXpert VoIP generates a voice-over-IP call directly from the test platform to validate performance during service turn-up and troubleshooting.

- › Supports a wide range of signaling protocols, including SIP, SCCP, H.248/Megaco and H.323
- › Supports mean-opinion-score (MOS) and R-factor quality metrics
- › Simplifies testing with configurable pass/fail thresholds and RTP metrics

#### EXpert IP TEST TOOLS

EXpert IP integrates six commonly used datacom test tools into one platform-based application to ensure that field technicians are prepared for a wide range of testing needs.

- › Rapidly performs debugging sequences with VLAN scan and LAN discovery
- › Validates end-to-end ping and traceroute
- › Verifies file-transfer-protocol (FTP) performance and hypertext-transfer-protocol (HTTP) availability

#### EXpert IPTV TEST TOOLS

This powerful Internet-protocol-television (IPTV) quality assessment solution enables set-top box emulation and passive monitoring of IPTV streams, allowing for quick and easy pass/fail verification of IPTV installations.

- › Real-time video preview
- › Analyzes up to 10 video streams
- › Comprehensive quality-of-service (QoS) and quality-of-experience (QoE) metrics, including the MOS score

### THIRD-PARTY TEST TOOLS

#### Wireshark

This live-network packet-capture utility makes it possible to look *inside* the packets and obtain data, including transmission time, source, destination and protocol type. Users can then diagnose a problem or root out suspicious behavior.

### SOFTWARE APPLICATIONS

#### ConnectorMax2

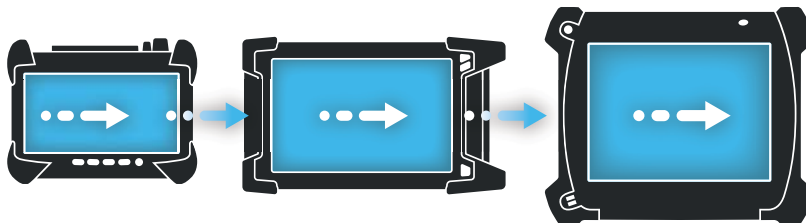
Providing lightning-fast results during the first step of fiber-link testing, ConnectorMax2 is a powerful, platform-based automated inspection application that delivers quick pass/fail assessment of connector endfaces, and which is specifically designed to save both time and money in the field.

#### FastReporter2 EFFICIENT POST-PROCESSING SOFTWARE

Consolidated data management and post-processing tool designed to increase reporting productivity for connector endface inspection and all types of optical-layer testing: optical link mapper (iOLM), OTDR, ORL, loss, PMD and chromatic dispersion (CD).

## CONNECTED ANYWHERE, ANYTIME

The value of connectivity resides in the ability to connect your platform anywhere, at any time. This is why we've equipped our platforms with technology offering unprecedented flexibility. Whether you need to transfer data to the cloud or interface with a smart device, you'll have the capability needed.



 Bluetooth®    WiFi    3G    GPS



### Secure VPN communications

Offers the ability to install and configure any VPN client solution defined by your IT department. Secure communications are now within your reach.



### 3G/4G/LTE mobility

Get connected wherever you are: choose any Windows-supported 3G/4G/LTE USB dongle and connect to your wireless service provider.



### Remote control

Use remote assistance to troubleshoot units in the field, trigger tests remotely, or help a technician with a problem. Working without it is hard to imagine.



### Instant messaging

Because our platforms are Windows-based, they function just like PCs. You can even install chat tools to quickly communicate with your team members (Skype comes pre-installed on the FTB-1 Pro).

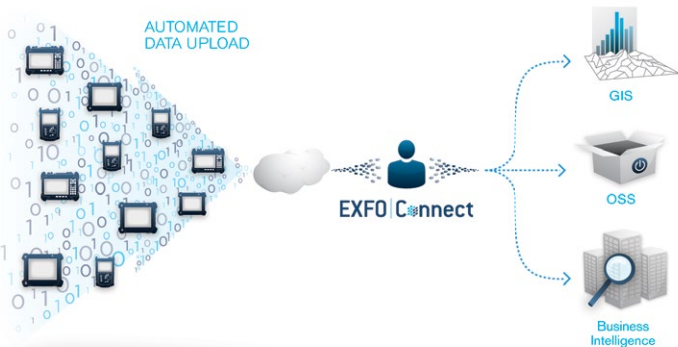
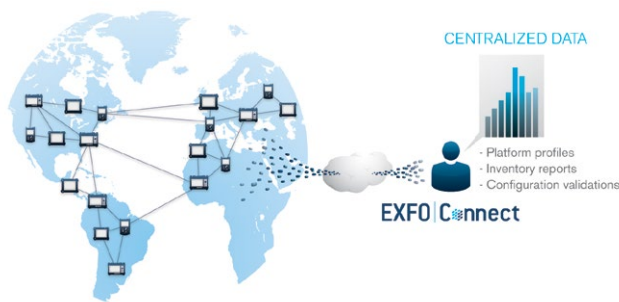
# EXFO | Connect

## EXFO CONNECT MAKES YOUR DATA MEAN BUSINESS

EXFO Connect completely redefines integrated testing with its cloud-hosted solution. Equipped with powerful database and application technologies, EXFO Connect provides an automated, secure environment that links together your EXFO test instruments and centralizes captured data across your organization. With its powerful correlation engine, EXFO Connect enables you to convert captured data into actionable information through customized test-data reporting and features that streamline test operations from build-out to maintenance.

### Test Equipment Manager

EXFO Connect's Test Equipment Manager is an automated application that centralizes the management of all EXFO test instruments. A repository for software loads, licenses and platform profiles, it helps managers handle constant demand for software updates. It also keeps track of equipment and ensures field technicians are equipped with up-to-date capabilities.

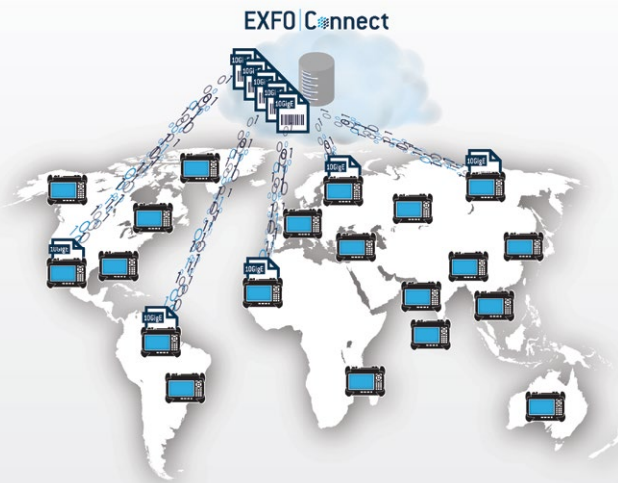


### Test Data Manager

EXFO Connect's Test Data Manager is an automated application that provides a secure and centralized environment in which test data is collected, archived and referenced for future use. With test results at their fingertips, managers can create birth certificates, generate reports and set benchmarks.

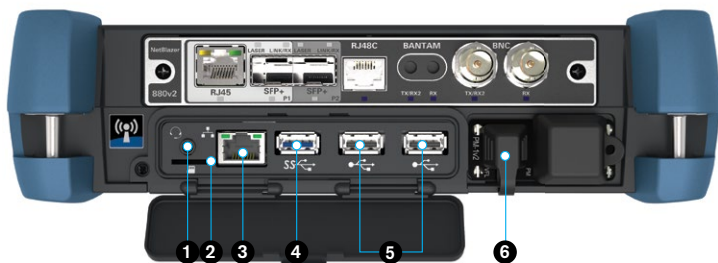
### FTB Anywhere: Floating Test Licenses

FTB Anywhere™ is a shared test-license capability for the award-winning FTB Ecosystem. This unique approach to delivering advanced test applications enables network operators to purchase a specific number of cloud-hosted licenses that can be shared instantly with their technicians, wherever they happen to be.



## DESIGNED FOR EFFICIENCY

- |                       |                                 |                  |
|-----------------------|---------------------------------|------------------|
| 1 Mic./headset jack   | 7 AC adapter                    | 13 Power on/off  |
| 2 Micro SD card slot  | 8 Kensington security lock slot | 14 Battery LED   |
| 3 1 GigE port         | 9 Speaker                       | 15 Module back   |
| 4 One USB 3.0 port    | 10 Brightness control           | 16 Stand support |
| 5 Two USB 2.0 ports   | 11 Keyboard/screen capture      |                  |
| 6 Power meter and VFL | 12 Switch application           |                  |






SPECIFICATIONS <sup>a</sup>	FTB-1 V2	FTB-1 PRO
Mainframe	Dual-core processor/4 GB RAM/Windows Embedded 8 Standard	Quad-core processor/4 GB RAM/Windows 8.1 Professional OS
Display	Multitouch, wide-screen, color, 1280 x 800 TFT 203 mm (8 in)	Multitouch wide-screen, color, 1280 x 800 TFT 203 mm (8 in)
Interfaces	RJ45 LAN 10/100/1000 Mbit/s Two USB 2.0 ports One USB 3.0 port Micro SD card slot 3.5 mm headset/microphone port	RJ45 LAN 10/100/1000 Mbit/s Two USB 2.0 ports One USB 3.0 port Micro SD card slot 3.5 mm headset/microphone port
Storage	64 GB internal memory (flash)	128 GB internal memory (flash)
Battery	Rechargeable Li-ion smart battery	Rechargeable Li-ion smart battery
Power supply	AC/DC adapter, input: ~ 100 – 240 V; 50/60 Hz; 2.5 A max, output: --- 24 V; 3.75 A	AC/DC adapter, input: ~ 100 – 240 V; 50/60 Hz; 2.5 A max, output: --- 24 V; 3.75 A

GENERAL SPECIFICATIONS		
Size (H x W x D)	With single-depth module With double-depth module	210 mm x 254 mm x 66 mm (8 ¼ in x 10 in x 2 5/8 in) 210 mm x 254 mm x 96 mm (8 ¼ in x 10 in x 3 13/16 in)
Weight (with battery) <sup>c</sup>		1.5 kg (3.3 lb)
Temperature	Operation Storage	0 °C to 50 °C (32 °F to 122 °F) -40 °C to 70 °C (-40 °F to 158 °F) <sup>b</sup>
Relative humidity		0 % to 95 % non-condensing

BUILT-IN POWER METER SPECIFICATIONS (GEX) (OPTIONAL) <sup>d</sup>	
Calibrated wavelengths (nm)	850, 1300, 1310, 1490, 1550, 1625, 1650
Optional CWDM calibrated wavelengths (nm)	1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610, 1383 and 1625
Power range (dBm)	Typical 27 to -50
Uncertainty (%) <sup>e, f</sup>	±5 % ± 10 nW
Display resolution (dB)	0.01 = max to -40 dBm 0.1 = -40 dBm to -50 dBm

VISUAL FAULT LOCATOR (VFL) (OPTIONAL)
Laser, 650 nm ± 10 nm
CW/Modulate 1 Hz
Typical P <sub>out</sub> in 62.5/125 μm: -1.5 dBm (0.7 mW)
Laser safety: Class 2

LASER SAFETY	
	<p>The test modules that you use with your unit may have different laser classes. Refer to the module's documentation for exact information.</p>

**Notes**

- a. All specifications valid at 23 °C (73 °F).
- b. -20 °C to 60 °C (-4 °F to 140 °F) with the battery, and -20 °C to 45 °C (-4 °F to 113 °F) for long-term storage.
- c. Platform with batteries and without module.
- d. At 23 °C ± 1 °C, 1550 nm and FC connector. With modules in idle mode. Battery-operated after warm-up.
- e. Typical.
- f. At calibration conditions.

**ORDERING INFORMATION**

**FTB-1-V2-XX-XX-XX-XX-XX-XX-XX-XX**

**Model**

FTB-1-V2 = Platform

**Display**

S1 = Standard display  
S2 = Enhanced display for outdoor use

**Wi-Fi/Bluetooth option**

00 = Without RF components  
RF = With RF capability (Wi-Fi and Bluetooth)

**Memory**

64G = 64 GB internal memory (flash)

**Power meter/VFL**

00 = Without power meter(PM)/VFL  
VPM2X = VFL platform, PM; GeX detector  
VPM2X-CWDM = VFL platform; PM; GeX detector; CWDM wavelengths calibrated

**Connector adapter**

FOA-12 = Biconic  
FOA-14 = NEC D4: PC, SPC, UPC  
FOA-16 = SMA/905, SMA-906  
FOA-22 = FC/PC, FC/SPC, FC/UPC, FC/APC  
FOA-28 = DIN 47256, DIN 47256/APC  
FOA-32 = ST: ST/PC, ST/SPC, ST/UPC  
FOA-54 = SC: SC/PC, SC/SPC, SC/UPC, SC/APC  
FOA-78 = Radiall EC  
FOA-96B = E-2000 E-2000/APC  
FOA-98 = LC  
FOA-99 = MU

**Software option**

00 = Without any software option  
IPT = Ping and traceroute functionalities  
Expert-VoIP = RTP-based call testing software application, including packet loss analysis, jitter measurement and complete voice quality metrics  
Expert-IP = IP/Ethernet test suite, with tests including FTP performance, HTTP availability, VLAN scan, LAN discovery, ping, traceroute and IP/Ethernet port statistics (license for a single platform)  
EXpert-IPTV = IPTV test suite  
EXpert-TPP-Bundle = Triple-play bundle for voice, video and data testing; includes EXpert IP Test Tools, EXpert IPTV Test Tools, EXpert VoIP Test Tools and EXpert SIP  
EXpert-SIP = SIP call-signaling support<sup>b</sup>  
EXpert-SCCP = SCCP call-signaling support<sup>b</sup>  
EXpert-H.323 = H.323 call-signaling support<sup>b</sup>  
EXpert-H.248 = H.248/Megaco call-signaling support<sup>b</sup>  
FR2-PL = FastReporter 2 Software  
Fiber characterization package  
FR2-PL-LB = FastReporter 2 Software  
Fiber characterization package and iOLM Loopback mode

**Inspection probe base tips**

APC = Includes FIPT-400-U25MA and FIPT-400-SC-APC  
UPC = Includes FIPT-400-U25M and FIPT-400-FC-SC

**Inspection probe models**

FP410B = Digital video inspection probe<sup>d</sup>  
Triple magnification  
FP420B = Analysis digital video inspection probe<sup>d</sup>  
Automated pass/fail analysis  
Triple magnification  
Autocentering  
FP425B = Wireless digital video inspection probe<sup>d,e</sup>  
Automated pass/fail analysis  
Triple magnification  
Autocentering  
FP430B = Automated analysis digital video inspection probe<sup>d</sup>  
Automated focus  
Automated pass/fail analysis  
Triple magnification  
Autocentering  
FP435B = Wireless analysis digital video inspection probe<sup>d,e</sup>  
Automated focus  
Automated pass/fail analysis  
Triple magnification  
Autocentering

Example: FTB-1-V2-S1-RF-64G-VPM2X-CWDM-FOA-22-FP420B-APC-FR2-PL-LB

**Notes**

- a. Available if power meter is selected.
- b. Available if EXpert VoIP selected.
- c. Available if inspection probe is selected.
- d. Includes ConnectorMax2 software.
- e. Requires RF capability (Wi-Fi and Bluetooth hardware option).

**ORDERING INFORMATION**

**FTB-1-PRO-XX-XX-XX-XX-XX-XX-XX-XX**

**Model**

FTB-1-PRO = Platform

**Display**

S1 = Standard display  
S2 = Enhanced display for outdoor use

**Wi-Fi/Bluetooth option**

00 = Without RF components  
RF = With RF capability (Wi-Fi and Bluetooth)

**Memory**

128G = 128 GB internal memory (flash)

**Power meter/VFL**

00 = Without power meter(PM)/VFL  
VPM2X = VFL platform, PM; GeX detector  
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Automated pass/fail analysis  
Triple magnification  
Autocentering  
FP430B = Automated analysis digital video inspection probe<sup>d</sup>  
Automated focus  
Automated pass/fail analysis  
Triple magnification  
Autocentering  
FP435B = Wireless analysis digital video inspection probe<sup>d,e</sup>  
Automated focus  
Automated pass/fail analysis  
Triple magnification  
Autocentering  
Notes

Example: FTB-1-PRO-S1-RF-128G-VPM2X-FOA-98-FP430B-APC-EXpert-IPTV

**Notes**

- a. Available if power meter is selected.
- b. Available if EXpert VoIP selected.
- c. Available if inspection probe is selected.
- d. Includes ConnectorMax2 software.
- e. Requires RF capability (Wi-Fi and Bluetooth hardware option).

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EXFO serves over 2000 customers in more than 100 countries. To find your local office contact details, please go to [www.EXFO.com/contact](http://www.EXFO.com/contact).

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