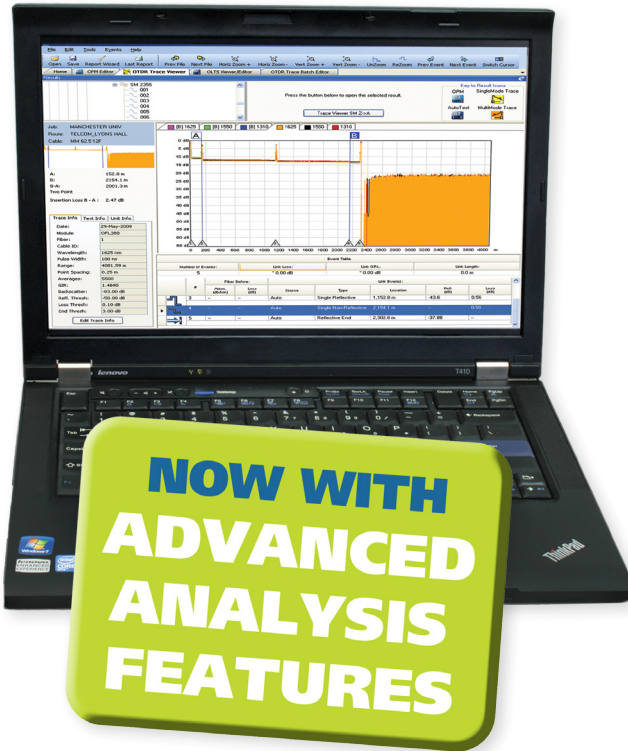


TRM® 2.0 Test Results Manager

All-In-One Comprehensive Analysis and Reporting Software



TRM 2.0 Basic Software Features

- Generate professional acceptance reports including:
 - OTDR traces
 - Certification loss results/OPM loss results
 - Connector end-face images from FOCIS and DFS1
- Create certification results and apply Pass/Fail
- Document networks to reduce maintenance cost
- Increase productivity with powerful OTDR Batch editing
- Telcordia (GR-196 v1.1, SR-4731 issue 1 & 2) .SOR file formats

TRM 2.0 Advanced Software Features

- Macro/Microbend detection capabilities
 - Identify excess insertion loss due to poor installation and fiber handling
 - Detect insertion loss difference between wavelengths (≥ 0.2 dB)
- Automatic Bi-directional trace analysis including
 - Bi-directional trace information in the Event table
 - Reverse direction test data for each event
- Reports with Macrobend and Bi-directional trace averaging
- Export .SOR file contents to .CSV format

Software Licensing

- TRM 2.0 Basic software
- TRM 2.0 Advanced software
- TRM 2.0 Upgrade from Basic to Advanced software

Languages supported

- English
- Italian
- Russian
- Chinese
- French
- Polish
- Spanish
- Japanese
- German
- Portuguese
- Turkish

TRM 2.0 Test Results Manager is Windows®-compatible, all-in-one analysis and comprehensive reporting software designed for use with AFL test and inspection products. Three software packages are available, TRM Basic software, TRM Advanced software and upgrade from TRM Basic to TRM Advanced software.

TRM 2.0 Basic permits technicians to quickly view results, generate acceptance reports, analyze OTDR traces, loss or certification results or batch edit OTDR traces uploaded from AFL OTDRs and OPM5 optical power meters.

TRM 2.0 Advanced adds Macro/Microbend detection, automatic Bi-directional trace averaging, and .SOR file export to .CSV file format.

TRM 2.0 Basic and TRM 2.0 Advanced software allow integration of fiber inspection images from the AFL FOCIS inspection system and DFS1 FiberScope to be included in customized test reports. Both versions support Bellcore/Telcordia .SOR file formats.



TRM® 2.0 Test Results Manager

All-In-One Comprehensive Analysis and Reporting Software

Test Results Manager 2.0 Basic Software

TRM 2.0 Basic software is included with all AFL OTDRs and OPM5 optical power meters and additional copies are available for purchase. TRM 2.0 Basic permits technicians to quickly view results, analyze OTDR traces, loss or certification results, batch edit OTDR traces and create acceptance reports conforming to industry guidelines. TRM 2.0 allows users to generate reports showing dual wavelength traces and event tables, end-face image, event map and loss data for each fiber. Users can apply Pass/Fail thresholds to OTDR events and OLTS measurement; create and apply application rules per industry standards. The OTDR Batch editor allows user to edit and analyze multiple trace files simultaneously.

Test Results Manager 2.0 Advanced Software

TRM 2.x Advanced software includes all Basic software features and adds Bi-directional OTDR trace averaging, Macrobend detection, and export of .SOR files to .CSV file format.

Basic and Advanced Software Comparison

FEATURES	BASIC SOFTWARE	ADVANCED SOFTWARE
OTDR Trace Results	◆	◆
OLTS Viewer/Editor	◆	◆
OTDR Trace Batch Editor	◆	◆
Pre-defined Template for Reports	◆	◆
TRM Trace Comparison	◆	◆
OTDR/DFS1 Inspection	◆	◆
OTDR/FOCIS Inspection	◆	◆
Telcordia (GR-196 v1.1, SR-4731 issue 1 & 2) .SOR file formats	◆	◆
Macrobend/Microbend		◆
Automatic Bi-directional OTDR Event Table		◆
Report with Bi-directional OTDR Trace/Event information		◆
Report with Macrobend/Microbend Events		◆
Export .SOR File Contents to .CSV File		◆
License Key	Required (Seat License)	

Ordering Information

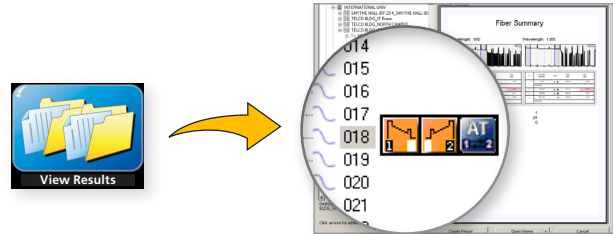
TRM 2.0 Basic software is included with M-Series, C-Series, OFL-Series, FLX-Series, CS-Series OTDRs and OPM5 (may be installed in up to 5 PCs). Users may download a full working version of TRM 2.0 (Basic plus Advanced features) and try it for 30 days. Once the evaluation period ends, users must purchase and install a TRM 2.0 Basic or Advanced software license to continue to use TRM. To order the TRM 2.0 software, contact your AFL Sales representative or AFL Customer Support. The TRM 2.0 Basic and Advanced software part numbers are listed below.

DESCRIPTION	AFL NO.
TRM 2.0 Basic Software (OTDR Trace/OLTS Viewer, Batch Editor and Reports)	TRM-00-0900PR
TRM 2.0 Advanced Software (Basic TRM plus Advanced Features and Reports)	TRM-00-0910PR
TRM 2.0 Upgrade from Basic to Advanced Software	TRM-00-0920PR

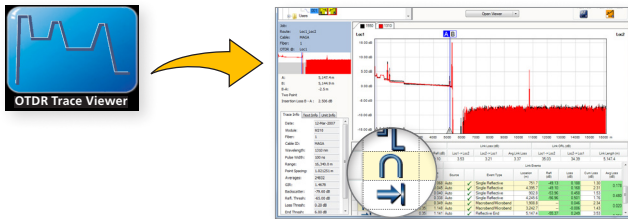
TRM® 2.0 Test Results Manager All-In-One Comprehensive Analysis and Reporting Software

Quickly and easily review test results

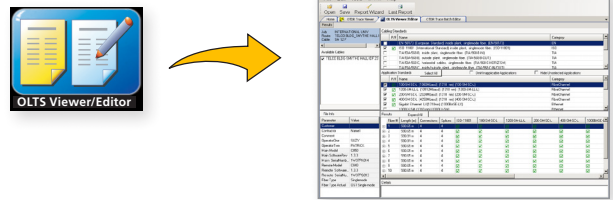
TRM's user friendly interface makes reviewing results easy. OTDR, Certification, Inspection, and OPM test results are indicated by specific icons to simplify selection of test results to review.



Easily Analyze OTDR, OLTS, and OPM results



Analyze OTDR traces by selecting the Trace Viewer icon. The automatic Bi-directional and Macroband/Microbend features enhance OTDR analysis to eliminate splice loss measurement errors related to fiber mismatch and detect excessive bends or stress in the fiber.



Select the OLTS Viewer icon to analyze Auto Test and OPM results. Apply Pass/Fail Rules to Auto Test, OPM and OTDR test results.

Verify Fibers Meet Customer Requirements

Date of Test	Time	Fiber #	Length (m)	Loss (dB)	Pass/Fail	OTDR (dB)	OTDR (dB)
Sep 21, 2009	4:56 PM	1	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	4:57 PM	2	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	4:57 PM	3	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	4:58 PM	4	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	4:59 PM	5	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:00 PM	6	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:01 PM	7	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:02 PM	8	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:03 PM	9	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:04 PM	10	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:05 PM	11	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:06 PM	12	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:07 PM	13	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:08 PM	14	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:09 PM	15	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:10 PM	16	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:11 PM	17	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:12 PM	18	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:13 PM	19	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:14 PM	20	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:15 PM	21	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:16 PM	22	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:17 PM	23	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:18 PM	24	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:19 PM	25	1000.00	1000.00	Pass	2.00	2.10
Sep 21, 2009	5:20 PM	26	1000.00	1000.00	Pass	2.00	2.10

Test to Industry Standards (ISO/TIA/EN), Application Rules (IEEE/ANSI), or create User Rules and User Application Rules. As new rules and applications develop, compare existing test results to the new rules, such as emerging Ethernet standards.

10GbE Fiber Certification

Supports industry-standard 10GbE IEEE 802.3ae specification using pre-configured 10GbE application rules. Produces detailed 10GbE test report.

File Info	Results																								
<table border="1"> <tr><th>Parameter</th><th>Value</th></tr> <tr><td>Route</td><td>MORRIS_SMT</td></tr> <tr><td>Date</td><td>9/21/09</td></tr> <tr><td>Available Cables</td><td>100BASE-SX (300m) on OM3 62.5um fiber (100BASE-SX-300)</td></tr> <tr><td>100BASE-SMT-300</td><td>100BASE-SX (300m) on OM3 62.5um fiber (100BASE-SX-300)</td></tr> </table>	Parameter	Value	Route	MORRIS_SMT	Date	9/21/09	Available Cables	100BASE-SX (300m) on OM3 62.5um fiber (100BASE-SX-300)	100BASE-SMT-300	100BASE-SX (300m) on OM3 62.5um fiber (100BASE-SX-300)	<table border="1"> <tr><th>Fiber #</th><th>Length (m)</th><th>Connections</th><th>Splices</th><th>100BASE-LRM 62.5</th><th>100BASE-SX 62.5 500</th><th>100BASE-S 62.5 100</th></tr> <tr><td>1</td><td>25.00</td><td>2</td><td>0</td><td>Pass</td><td>Pass</td><td>Pass</td></tr> </table>	Fiber #	Length (m)	Connections	Splices	100BASE-LRM 62.5	100BASE-SX 62.5 500	100BASE-S 62.5 100	1	25.00	2	0	Pass	Pass	Pass
Parameter	Value																								
Route	MORRIS_SMT																								
Date	9/21/09																								
Available Cables	100BASE-SX (300m) on OM3 62.5um fiber (100BASE-SX-300)																								
100BASE-SMT-300	100BASE-SX (300m) on OM3 62.5um fiber (100BASE-SX-300)																								
Fiber #	Length (m)	Connections	Splices	100BASE-LRM 62.5	100BASE-SX 62.5 500	100BASE-S 62.5 100																			
1	25.00	2	0	Pass	Pass	Pass																			

Apply rules to Auto Test and OPM data to ensure fibers meet required specifications. Pass/Fail indication for each test simplifies the review of test results.

TRM® 2.0 Test Results Manager

All-In-One Comprehensive Analysis and Reporting Software

Optimize Productivity with Powerful Batch Processing

Analysis

- Edit cables or groups of fibers in one batch session
- Modify event pass/fail thresholds:
Loss, ORL, Link Loss, Link ORL
- Add or remove Launch and Receive cables
- Adjust Launch and Receive cable length
- Adjust the location of the cursors

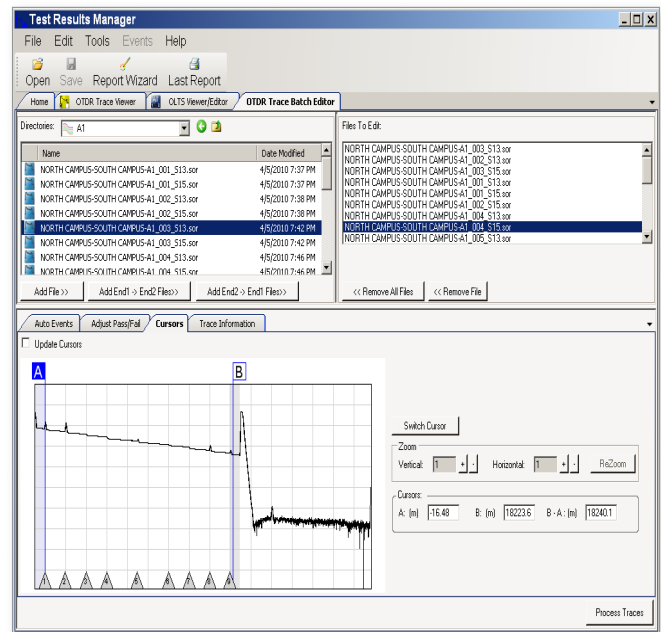
Documentation

Add and edit

- Trace File Names (Fiber Number, Cable ID, End 1, End 2, and Direction of test),
- Cable Information (Cable Type and GIR)
- Job Information (Company name, Main Operator, Second Operator, and Comment)

Reporting

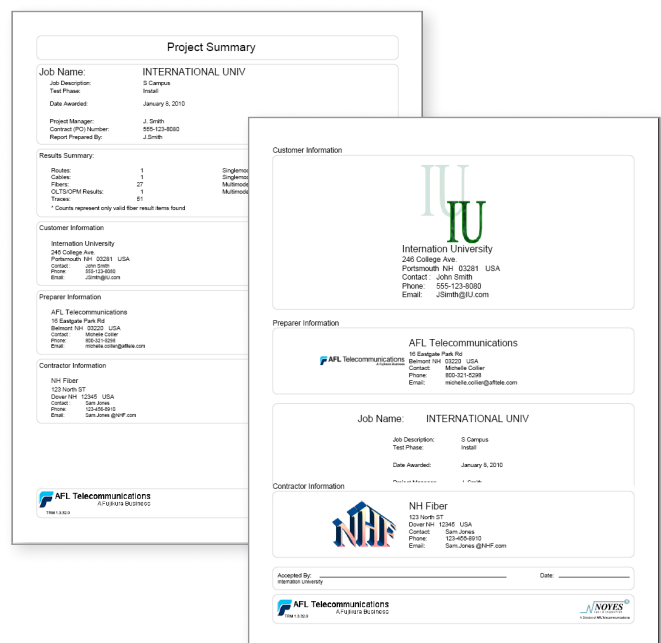
- Generate professional reports by applying edits to a group of fibers for consistency of information and uniformity of results



Create Professional Personalized Reports

Featuring the Report Wizard - a powerful tool for creating test reports, TRM allows users to generate personalized professional reports for customer's job acceptance.

Generated reports meet accepted industry documentation and can be personalized by customizing cover pages to include customer's logos.



TRM® 2.0 Test Results Manager

All-In-One Comprehensive Analysis and Reporting Software

Reporting Flexibility

- Create custom cover pages with logos for end-users, installers or consultants
- Generate OTDR summary table with thumbnail OTDR traces
- Combine OTDR trace(s), event table, loss measurements, connector end-face image, and event map in a single report
- Export jobs to Zip files or save reports as PDF files

OTDR Cable Summary Page

OTDR cable summary page shows job information and test setup, Loss and ORL test results with or without thumbnails of OTDR traces (shown with Loss/ORL table and OTDR thumbnails).

Cable ID: MM 62.5 12F Tested By: SUZY OTDR Setup: Eipart
 End 1: TELCOM Launch Cable: Noyes (150m) End Thres: 3 dB
 End 2: LYONS HALL Tail Cable: Noyes (150m) Loss Thres: 0.1 dB
 Date Of Test: 07/27/2009 16:06:16 GIR: 1.496 Refl Thres: -65 dB
 Backscatter Coef: -68 dB

OTDR Summary
 Length 589.1 Meters

Fiber #	Loss(dB) End 1 -> End 2		Loss(dB) End 2 -> End 1		ORL(dB) End 1 -> End 2		ORL(dB) End 2 -> End 1	
	850m nm	1300m nm	850m nm	1300m nm	850m nm	1300m nm	850m nm	1300m nm
1	1.95	0.57	1.80	0.54	-28.12	-32.01	-28.00	-32.04
2	1.95	0.57	1.92	0.54	-28.04	-32.01	-28.17	-32.00
3	1.99	0.57	1.80	0.55	-28.08	-32.00	-28.10	-32.03
4	2.00	0.58	1.95	0.54	-28.12	-32.08	-28.05	-32.00
5	1.98	0.57	1.81	0.53	-28.16	-32.08	-28.01	-32.00
6	1.95	0.59	1.91	0.53	-28.08	-32.08	-28.10	-32.00

Fiber Detail Results Page

Fiber Detail Results page documents equipment used for testing, job information, test setup, cursor info and OTDR trace with Event map. OPM or Certification results and end-face image may be included if available (as shown) with an overall Pass or Fail.

OTDR Results
 TELCOM-LYONS HALL-MM 62.5 12F 001-M

Event #	Distance (m)	Loss (dB)	Event Type
1	100	0.15	Connector
2	150	0.15	Connector
3	200	0.15	Connector
4	250	0.15	Connector
5	300	0.15	Connector
6	350	0.15	Connector
7	400	0.15	Connector
8	450	0.15	Connector
9	500	0.15	Connector
10	550	0.15	Connector
11	600	0.15	Connector
12	650	0.15	Connector
13	700	0.15	Connector
14	750	0.15	Connector
15	800	0.15	Connector

CERTIFICATION RESULTS
 TELCOM-LYONS HALL-MM 62.5 12F 001-M

Date of Test	Time	Fiber #	Loss (dB)	Length (m)	Pass/Fail	Headroom (dB)
07/27/2009	16:34	1	2.95	594.63	Pass	0.63
07/27/2009	16:34	2	2.72	594.12	Pass	0.63
07/27/2009	16:34	3	2.72	594.12	Pass	0.63
07/27/2009	16:34	4	2.72	594.12	Pass	0.63
07/27/2009	16:34	5	2.72	594.12	Pass	0.63
07/27/2009	16:34	6	2.72	594.12	Pass	0.63

Certification Report Page

Certification report page shows overall Pass/Fail report 1 to standards (ISO shown) - with Pass/Fail 2 indicated for each fiber as well as User Rule 3 and Applications for which the fibers have passed.

- Combine OTDR trace(s), event table, loss measurements, connector end-face image, and event map in a single report.
- Export jobs to Zip files or save reports as PDF files

Certification Results Cabling Standard: ISO 11801 (International Standard) all cables, 50 or 62.5 µm fiber. 1

Number of Connections: 2 Loss Limit: 850nm (3.58 dB), 1300nm (2.39 dB)
 Number of Splices: 0 Length Limit: 2000 Meters

TELCOM-LYONS HALL-MM 62.5 12F 001-M

Date of Test	Time	Fiber #	Loss (dB)		Length (m)	P/F	Headroom (dB)	
			850 nm	1300 nm			850 nm	1300 nm
Jul 27, 2009	3:35 PM	1	E1-E2: 2.95	1.95	594.63	Pass	0.63	0.74
Jul 27, 2009	3:36 PM	2	E1-E2: 2.72	1.42	594.63	Pass	0.90	0.97
Jul 27, 2009	3:36 PM	3	E1-E2: 2.72	1.42	594.12	Pass	0.89	0.55
Jul 27, 2009	3:36 PM	4	E1-E2: 2.91	1.69	594.12	Pass	0.67	0.70
Jul 27, 2009	3:37 PM	5	E1-E2: 2.53	1.00	594.12	Pass	1.05	0.79
Jul 27, 2009	3:38 PM	6	E1-E2: 2.88	1.42	594.37	Pass	0.90	0.97
Jul 27, 2009	3:39 PM	6	E1-E2: 2.72	1.86	594.37	Pass	0.89	0.53
Jul 27, 2009	3:39 PM	6	E2-E1: 2.91	1.69	594.37	Pass	0.67	0.70

Applications these fibers have been tested to support: User Defined Rule (Marriott Rule) 10100BASE-SX (850 nm) on (OM1) 62.5 µm fiber. 3



International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts