Acterna FST-2000 TestPad
User Interface Module (UIM) Version 6

The Acterna FST-2000 TestPad is the user interface for the Acterna TestPad family. The combination of a user interface and an application module represents a complete test tool. This architecture provides TestPad users with the flexibility to invest in additional test modules as their testing needs change, allowing them to capitalize on an investment already made.

The FST-2000 has been designed for mobile technicians to improve the overall installation and troubleshooting process by providing features that are enablers for a total process improvement solution. The FST-2000 employs wireless connectivity, along with a local Web Browser and VT100, allows for storage and transfer of files, all of which enable field technicians to complete their jobs more effectively.

Highlights

- Identical user interface for all applicable TestPad application modules
- Remote GUI allows for remote testing
- Web Browser to access the Internet/Intranet
- VT100 and Web Browser to provision network elements
- Variety of connectivity methods: RS-232, USB, Ethernet, Bluetooth™, 802.11b, analog and wireless modems
- Customizable and preconfigured test scripts

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Process Improvement

Growth in the telecommunications market has resulted in increased competition in the telecommunications industry. This has caused lower priced services and equipment, higher customer churn and overall margin erosion. Therefore, these market dynamics have forced service providers and manufacturers to focus on initiatives that help them improve their efficiency of service deployment and maintenance. The TestPad family of products is focused on improving the productivity and the test process in today's competitive environment.
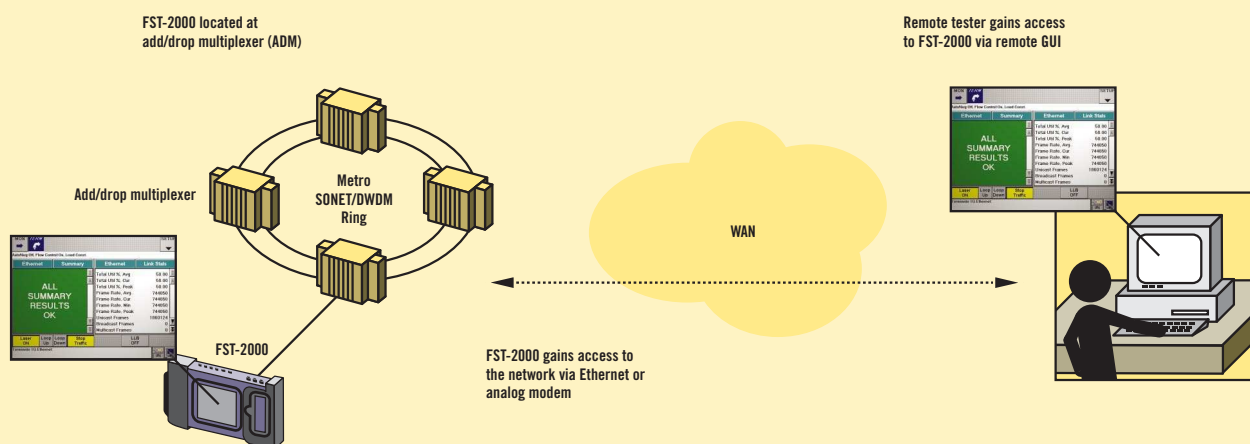
Features

– Remote control via Web Browser makes remote testing and technical support straightforward
– Web Browser and VT100 emulator provide access to provisioning systems, while Web Browser also allows for retrieval of information from the Intranet/Internet
– Support of Bluetooth, RS-232, USB-compatible and 10/100BaseT interfaces provide a choice of local connectivity to the TestPad
– Support of Ethernet, 802.11b, analog and wireless modems (CDPD, CDMA, etc.) allow for various LAN and WAN connectivity options
– Customizable and preconfigured test scripts offer support for closeout tests, ensuring that M&Ps are followed
– Storage and transfer of results provide ability to store files on the test set and transfer them to computers and other network locations via file transfer protocol (FTP)
– Non-display version offers a lower cost solution for customers that want to rely on laptop's display for test configuration and retrieval of results

Applications

Remote testing

Since it is not always economical to give every central office (CO) a full support staff, many providers have "dark" or unmanned COs. However, there is still a need to test at these sites, so remote access to test equipment is necessary. In addition, some troubleshooting and/or installation calls require that the test set remains at the customer premise for an extended period of time. The FST-2000 allows centrally located users, such as NOC personnel, to access TestPad modules located at the customer premise and unmanned CO, using an Ethernet connection or analog modem for dialing into the unit. Once access to the test set is acquired, users are able to view/configure the test set's GUI, run tests and store and transfer results. For Test-Pads that are only used in remote applications, a non-display version is available.
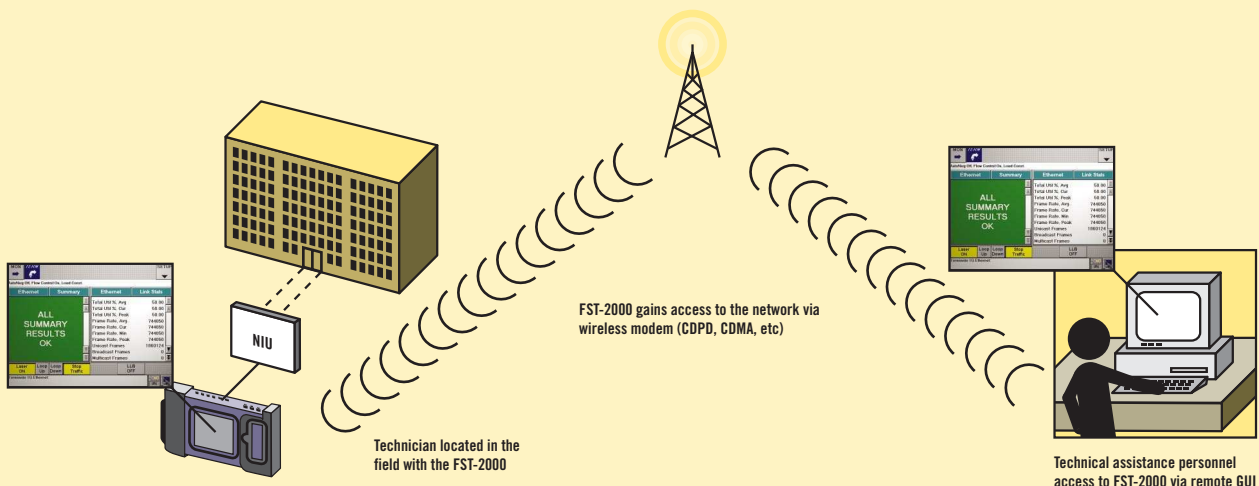

FST-2000 located at
add/drop multiplexer (ADM)

Remote tester gains access
to FST-2000 via remote GUI

Metro
SONET/DWDM
Ring

Add/drop multiplexer

WAN

FST-2000

FST-2000 gains access to
the network via Ethernet or
analog modem

Application 1 Remote testing

Advanced technical assistance

When a technician is deployed to a remote site, there are a number of situations in which technical assistance may be necessary. For example, if a technician cannot isolate/fix a problem, a technical support person may be called to assist. In either case, the ability to access, control, and retrieve test information from a remote site is essential in improving installation and maintenance efficiency.

The FST-2000 supports a variety of wireless modem cards (CDMA, CDPD, etc), which allow a mobile technician to connect to the network. Once connected, technical support personnel can access the test set using a standard Web Browser. This set-up allows both the technical support person, and the technician to view the test set's GUI simultaneously. A mobile technician is now able to perform testing, while guided by the remote user. Advanced technical assistance provides a unique method of "real-time" troubleshooting and training.

FST-2000 gains access to the network via wireless modem (CDPD, CDMA, etc)

Technician located in the field with the FST-2000

Technical assistance personnel access to FST-2000 via remote GUI

Application 2 Advanced technical assistance

Reduced need for a laptop

Over the years, laptop use in the field has increased, as technicians have begun using laptops to configure network elements (routers, add/drop multiplexers), customer premise equipment (HTU-Rs), and to store test results. At the same time, the need to reduce the amount of equipment technicians must carry (a laptop and multiple test sets) increases.

The FST-2000 provides a number of PC features most commonly used for testing. The advantage of this approach is two-fold:
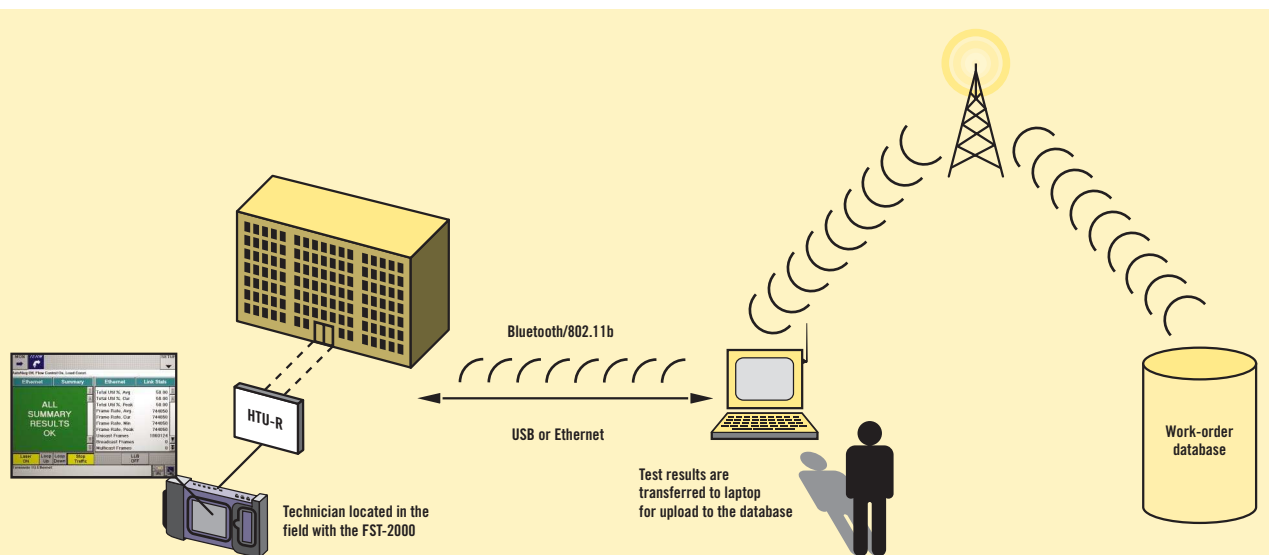– Overall reduction in equipment technician needs to bring to the job site
– Reduction in capital expenditures for managers who are purchasing laptops for these limited applications.

The FST-2000 provides ability to store/transfer results via FTP, print files, retrieve performance information from equipment via VT100, view Internet/Intranet content via local Web Browser, and connect to the network via various wireless and analog modems, as well as Ethernet and 802.11b.

Work-order integration and close-out testing via PC integration

Current mean-time-to-repair (MTTR) and repeat rates are too high, resulting in unsatisfied customers, higher customer churn, and escalated installation and maintenance costs. Such problems may occur because field technicians do not follow M&Ps, are not properly trained to use the test set, and/or are not able to interpret results of their tests.

The FST-2000 allows technicians to use their TestPad modules in an integrated fashion with their laptops. The users are able to connect their laptop to the test set via wired/physical (USB or Ethernet) or wireless (Bluetooth or 802.11b) connection, while using their laptop to connect to the back-office system, access their work-order database and download their work-orders. The FST-2000 scripting feature allows technicians to run automated tests that contain configurations based on the work-orders, which will ensure that M&Ps are followed. Once a test is completed, results can be stored on the FST-2000 and transferred to a laptop. From the laptop, the technician can store results with the work-order and send it back to the work-order database.

Bluetooth/802.11b

USB or Ethernet

HTU-R

ALL SUMMARY RESULTS OK

Technician located in the field with the FST-2000

Test results are transferred to laptop for upload to the database

Work-order database

Application 3 Work order integration and close-out testing via PC integration

Acterna FST-2000 TestPad technical specifications

Physical characteristics

Overall dimensions	6.7 x 11.5 x 2.2 in (with strap), 6.7 x 9.9 x 2.2 in (without strap)
Weight	3.75 lb

Environment

Temperature range

Operating	32°F (0°C) to 113°F (45°C)
Non-operating	−4°F (−20°C) to 140°F (60°C)
Humidity	10% to 95% relative humidity, non-condensing
Shock	In accordance with IEC 61010-1
Vibration	In accordance with IEC 68-2-64 (alt. IEC 68-2-36)

Power requirements

AC adapter	100-220 at 60 Hz or 200-240 at 50 Hz VAC to 19 VDC, 2.95 Amps
Charging time	Maximum charging current is 2 Amps (powered off) — thus, charging time will depend on battery type and application module
Battery type	10.8 VDC Nickel-Metal-Hydride (NiMH)
Operating time	Depends on the application module

Display*

Graphic LCD color display (Touchscreen)	6.2-inch diagonal viewable area
Resolution	640 x 480 pixels

*Product also available in non-display configuration

External Connectors/Interfaces

Input/Output connector	10-pin DIN host connector for USB-like port and RS-232 port (provided via Y-cable) configuration
Power charger connector	5 mm barrel connector
Headset connector	2.5 mm audio jack
PCMCIA slot	2 Type II CardBus Slots (also supports 1 Type III Slot)
Application module connector	DB-25 male connector

LEDs

Power
Charging
Low battery

Ordering information

Part number	Description
2000-V6	Display mainframe
2000-V6-ND	Non-display mainframe
2000-GUI	Remote GUI
2000-WEB	Web browser
2000-VT100	VT100 emulation
2000-BT-MODEM	Bluetooth™ wireless PCMCIA card
2000-LAN	10/100 BaseT PCMCIA card
2000-WLAN	802.11 wireless LAN PCMCIA card
2000-ANLG-MODEM	Analog dial-up PCMCIA modem
2000-USB-PRINTER	USB printer
PR-40B	Serial printer
2000-HEADSET	2.5 mm headset

Note 1: The 2000-V6 includes a color display, kickstand, soft carrying case, power adapter/charger, Y-cable (that provides USB-compatible and RS-232 connector) and a printer cable. An application module must be ordered along with the FST-2000 Version 6 UIM, unless ordering an upgrade for existing modules in the field.
Note 2: Other options and accessories are available. Please call your local sales office or our Customer Care at 1-800-638-2049.
Note 3: Please call our Technical Assistance Center at 1-800-638-2049 for the list of supported PCMCIA cards.

Compatible TestPad Applications Modules

TestPad Application Module	Description
FST-2510a	High Speed Optical Analyzer
FST-2310	SONET Services Module
FST-2209	T1/T3 Services Module
FST-2207	T1/T3 Wireless Services Module
FST-2700	Base Station and Air Interface Test Module
FST-2802	Gigabit Ethernet Services Module

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Acterna is the world's largest provider of test and management solutions for optical transport, access and cable networks, and the second largest communications test company overall. Focused entirely on providing equipment, software, systems and services, Acterna helps customers develop, install, manufacture and maintain optical transport, access, cable, data/IP and wireless networks.

Note: Specifications, terms and conditions are subject to change without notice.

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FST2000/DS/ACC/07-02/AE/ACT00360