Partner™ Software

Advanced Software for Materials Testing Systems

INSTRON®

*The difference
is measurable*™
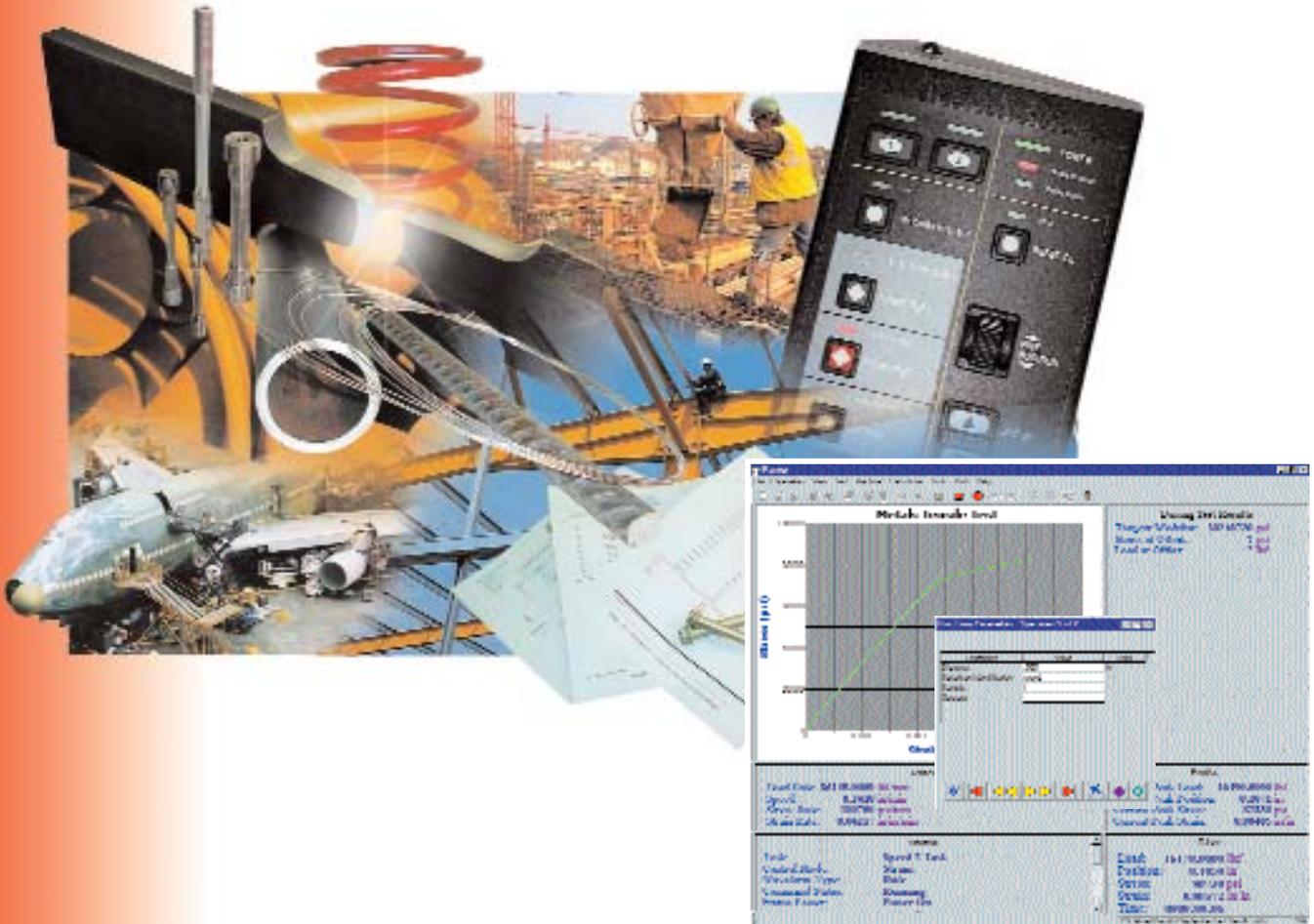
Partner™ Advanced Materials Testing with Business Operations
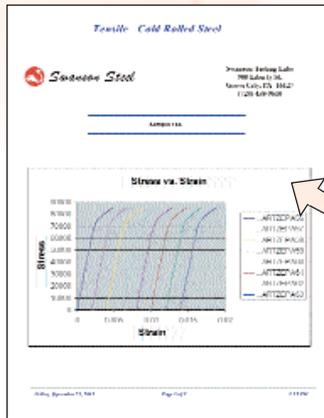
Designed and written for the Windows® platform, Partner combines ease-of-use and multitasking materials testing capability with the Microsoft® Office suite. Partner manages and automates the entire testing process from entering pretest parameters through report generation and distribution. Application-specific modules allow test technicians to quickly perform tensile, compression, shear, bend, or torsion testing, and an open architecture provides advanced capability for the power user. Partner's networkability, database structure, and built-in E-mailing capability allow users to share test results with other departments such as quality control, shipping, or accounting. The end result is a testing system which integrates seamlessly with other business operations.
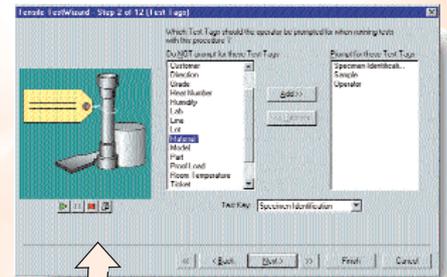
wizards

versatile reporting

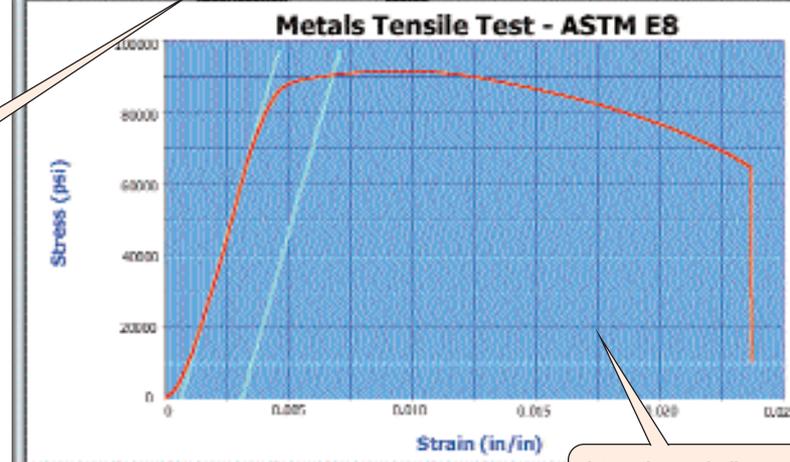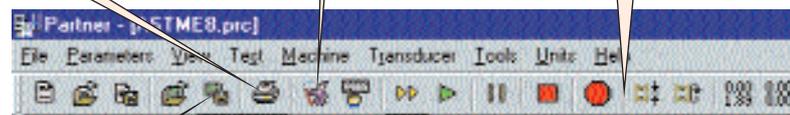From one-click ▶ reporting to custom reports, Partner provides flexible reporting formats

▲ Wizards walk testing professionals through the entire testing process

Tool bar includes standard save, new, open, and print functions as well as test control (stop, pause, start, online, zero.).

Interactive graph allows test technicians to zoom in, pick key calculations points, choose custom colors, set graph titles, and define axis labels.

▲ Seamless integration with Microsoft Office enables users to manage test results with Microsoft applications such as Access, Excel, or Word

office integration

Standard Features

Compatible with Windows® operating systems and networks. (Consult sales engineer for currently supported Windows versions.)

True 32-bit application

True multi-tasking capability

Seamless integration with Microsoft® Office Professional

Custom reporting via Microsoft Access

User-definable test tags before and after the test

Test storage, recall, and recalculation capability

User-selected calculations

Accelerator (Hot) keys

Auto-zeroing

Multimedia help system

Context sensitive help

Simultaneous digital and graphical displays

Automatic and manual plot scaling

During test calculation

Multi-level password protection

User-definable data acquisition rates

User-definable data retention (Delta save)

Specification/tolerance checking

Graphical pick points

During-test construction lines

During-test calculations

User selectable units in any combination of US customary, metric, and SI
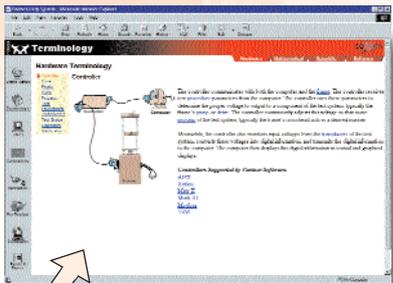
Report writing tools

Standard and customizable file formats

Ability to configure multi-zone tests in load, stress, strain, or position control

Programmable safety limits

Ability to e-mail test reults and data points

Colorful, highly-graphical multimedia segments on Partner™'s help system educate users in various aspects of materials testing

Digital displays feature live, rate, and peak values as well as during test and after test calculation results.

Test Results
Diameter: 0.5050 in
Area: 0.2003 in²
Tensile Strength: 85170 psi
Peak Load: 17060 lbf
Tangent Modulus: 30210720 psi
Stress at Offset: 85120 psi
Load at Offset: 17050 lbf

Peaks
Current Peak Load: 16490
Current Peak Position: 0
Current Peak Stress:
Current Peak Strain: 0.004
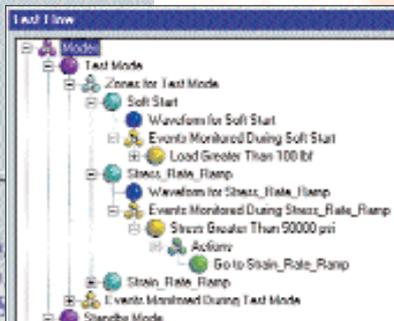
A suite of components developed especially for the power user enable testing professionals to design unique testing procedures, create custom calculations, build virtual measurements, and more!

multimedia help

open architecture

3

Simple Operation

A straight-forward user interface makes it easy to tag, test, and report.

Tag

Simplfy data entry by prompting operators for specimen dimensions and test tags.

Reduce errors by checking for missing specimen dimensions, required test tags, or necessary calculation parameters before the test begins.

Improve operator efficiency with specimen 'stacking.' This tool allows operators to enter tags and dimensions for up to 20 specimens at once.

Live displays allow operators to safely adjust the crosshead while minimizing specimen damage prior to the test.
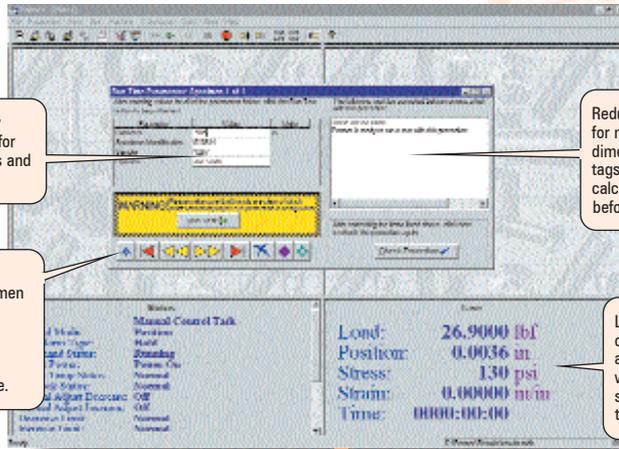
Test

Increase the accuracy of results with interactive graphics. This tool allows users to zoom in or pick key points for calculations.

Comply with standards by selecting units, setting resolution, and customizing result names. Many results can be computed during the test.

Increase productivity by continuing to enter tags and dimensions for future test specimens while a test is in progress.

Ensure tests are run safely and correctly by monitoring peak values, measurement rates and live displays. Users can set the resolution of all live displays.
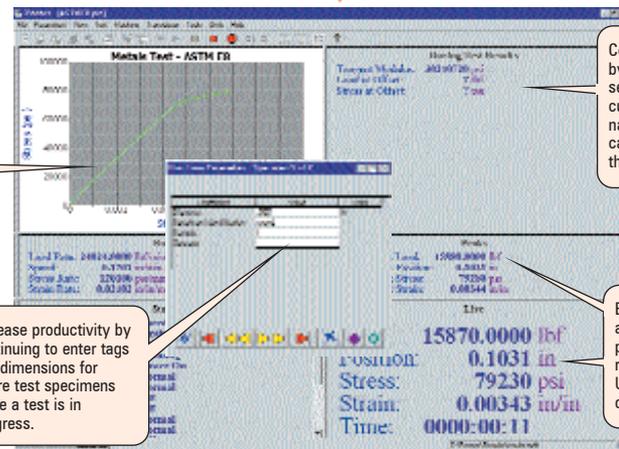
> " The best thing about Partner™ is the ease in which a non-technical person can run a test just by loading the procedure and pressing the run test button. "
>
> Gordon Balbach
> Senior Electronic Technician
> Barry Controls Aerospace

Report

A multitude of reporting options allow users to share detailed test results with ease.
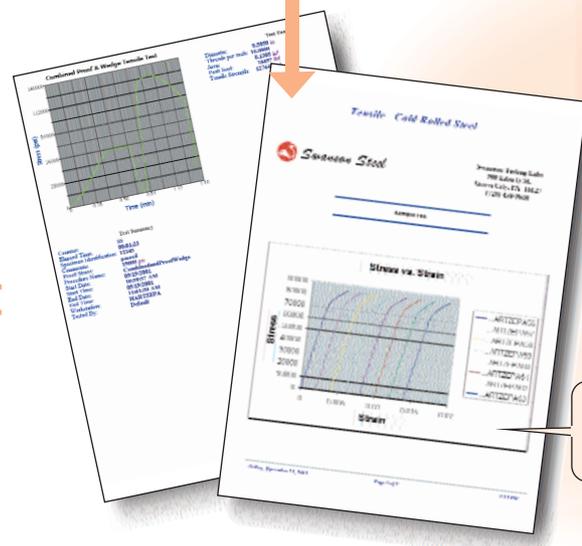
Simple Set-up

Wizards "walk" testing professionals through test set-up.

Simplify specimen selection by choosing from a list of common specimen types.

View specimen dimensions from all angles using Partner's interactive panel.

Improve traceability by prompting operators to enter pertinent test information. Choose from a list of predefined inputs or create custom tags.

Inputs

Controls

Customize test procedures to meet specifications by selecting the number of control zones.

Ensure consistent test results by using servo control of load, stress, strain, or speed (crosshead position).

Guarantee rapid and consistent testing by automating control changes.

Results

Accelerate testing by choosing from an extensive list of automatic calculations which includes elongation, offset yield, tensile strength, modulus, and others.

Meet many testing standards by entering specific calculation parameters, defining result names, and setting resolutions.

Learn about each calculation with Partner™'s interactive movies.

Manageable Results

Partner™ provides flexible result file formats to fit business operations.

> **Partner interfaces with Microsoft® programs which is perfect for all of our business formats.**
>
> Brenda Booher
> Laboratory Technician
> Strongwell Corporation

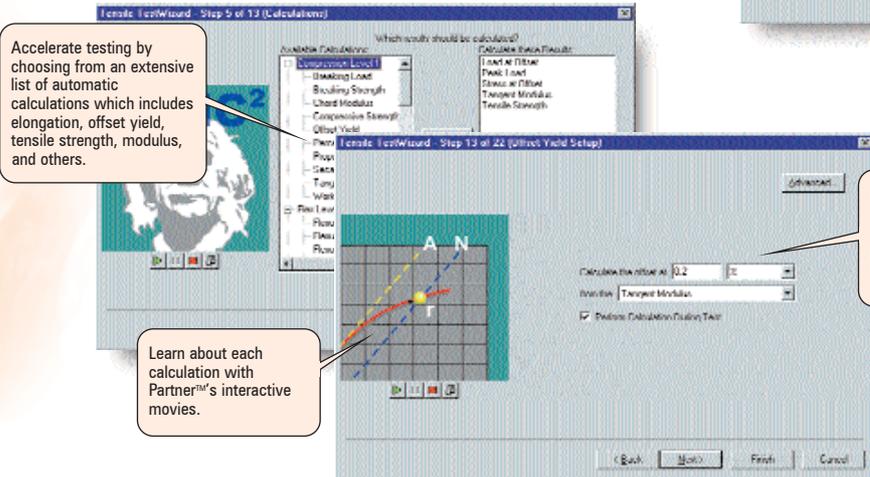With four standard storage options and the ability to customize storage templates, the possibilities to integrate test results with business operations are endless!

Standard File Formats

By default, Partner stores all results into Microsoft Access database format. This enables testing professionals to manage test results with Microsoft Office applications such as Access, Excel, or Word. The database can be queried directly to find specific test results. For example, users can search for failed tests, tests run for a specific customer, or all tests where results were higher or lower than expected. In addition, users can choose to save results and data points as text files. These text files can be opened by Microsoft Excel, Microsoft Word, Notepad, or other text editors where users can examine, plot, and study results with ease.
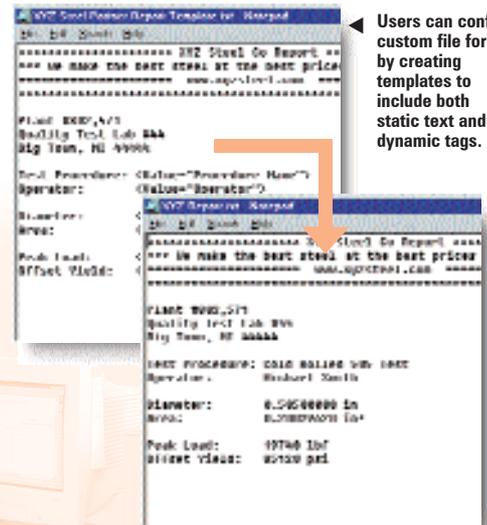
Create Custom Formats

Sometimes the ideal way to manage results is to store them in a custom format compatible with existing business systems. With Partner, testing professionals can meet this challenge by defining custom result templates. These templates give users the ability to store any or all test results, specimen dimenions, and test tags in a specific order. Users can also add company specific input or additional text for explanation and traceability.
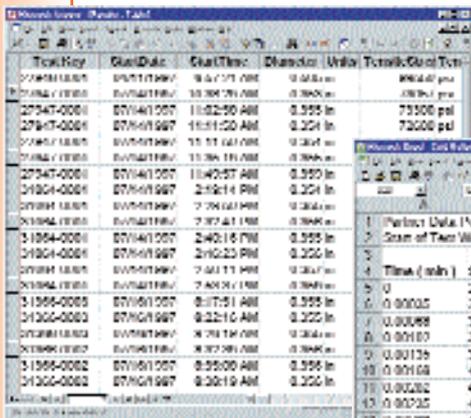
▲ Test results are saved into Microsoft Access database format
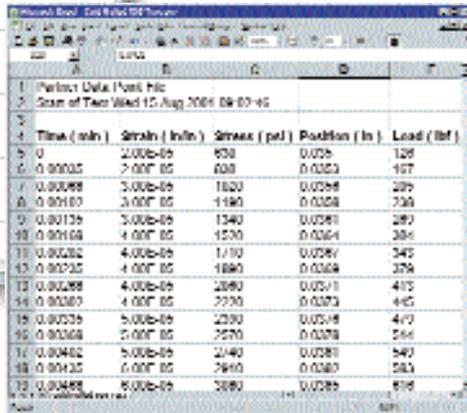
▲ Data points are saved into text format (*.csv) and opened with Microsoft Excel

▲ Users can configure custom file formats by creating templates to include both static text and dynamic tags.

Data	File Format	Application/Usage
Test results	Database (mdb)	Microsoft® Access
Test results and data points	New text file (csv, txt, asc, prn)	All text editors, all spreadsheet applications
Test results and data points	Appended to text file (csv, txt, asc, prn)	All text editors, all spreadsheet applications
Test results	Serial port	Data loggers, LIMS systems, company mainframe, Integration with legacy systems
Test results	Custom file	All text editors, all spreadsheet applications

▲ Partner can save test results and data points in a variety of file formats

▲ Customized file includes company information and results from the latest test.

Versatile Reporting

Design custom reports or e-mail test results with Partner™'s versatile reporting tools.

Generate Quick Reports with One Click

Partner's simplest report can be generated with just one click. This single specimen report includes a graph, test results, and test summary information.

### Customize Reports with Built-In Reporting Tools

Partner's built-in reporting tools (Report Generator and Chart Generator) allow testing professionals to easily query Partner's databases to create multi-specimen reports. Users can select quick queries, such as the last 10 tests, or more complex queries that search for specific test result criteria. For example a report could include all tests where peak load failed to meet a desired value. Futhermore, users can choose from six different reporting styles and may include a company logo, statistical data, graphs, and up to eight additional fields of information.

### Design advanced reports with Microsoft® Access

Unlock the power of Microsoft Access by designing custom reports. By using the Access report wizard testing professionals can define report styles, fields to include, query criteria, and statistical information. Users can modify the layout of the report by using Microsoft's drag and drop design view. This enables users to add logos, change fonts, modify headings, and add unique text.

E-Mail Test Reports

Save time and money associated with printing, mailing, and routing test results with Partner's built-in E-mail capability. Test results can be sent automatically after each test or on command by selecting File-Mail. Users can choose which information is E-mailed and define default mailing lists.
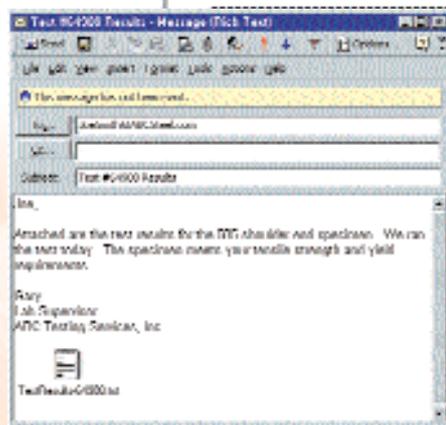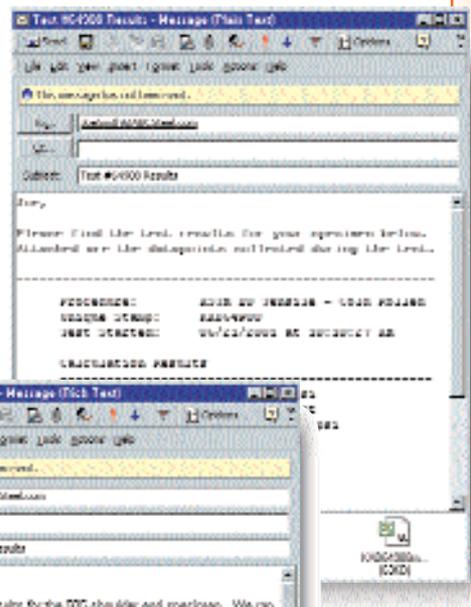
▲ Results and datapoints can be sent as an attachment or embedded in an e-mail
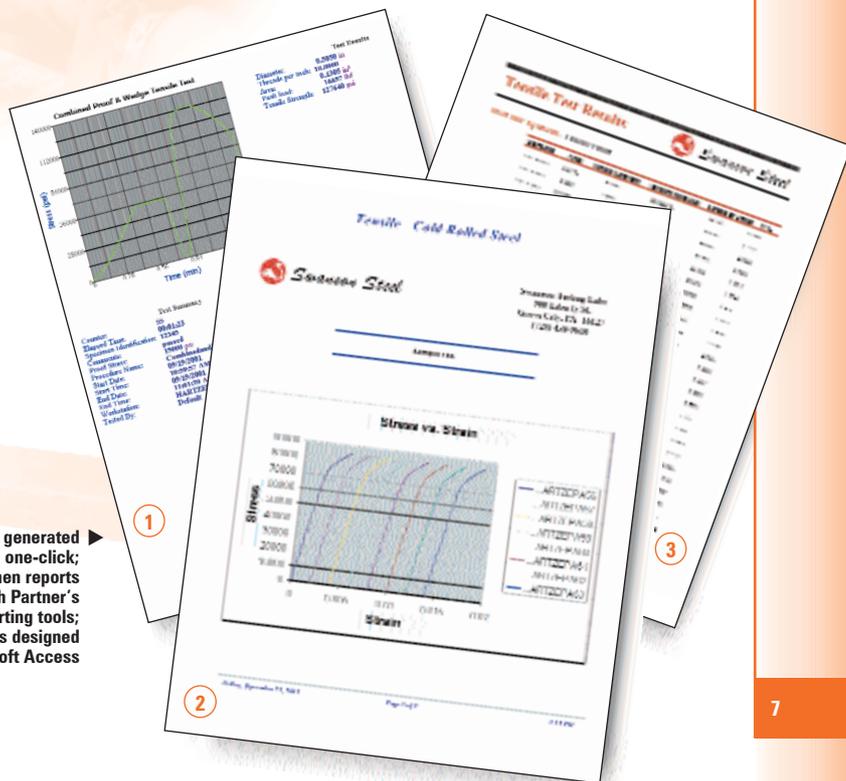
1. **Quick reports generated** ▶ **with one-click;**
2. **Multi-specimen reports generated with Partner's reporting tools;**
3. **Custom reports designed in Microsoft Access**

Focused Solutions

Standard applications include tension, compression, proof, flexure, torsion and fastener testing.

Calculations

Tensile/ Fastener
Breaking Load
Peak Load
Breaking Strength
Tensile Strength
Chord Modulus
Secant modulus
Tangent Modulus
Offset Yield
EUL Yield
Halt of Force Yield
Upper/Lower Yield
Proportional Limit
Maximum Elongation
Total Elongation
Uniform Elongation
Percent Elongation
Uniform Elongation
Yield Point Elongation
Reduction of Area
n-Value
r-Value

Flexure/Bend
Offset Yield Strength
Flexural Secant Modulus
Flexural Strength
Flexural Stress
Flexural Tangent Modulus
Flexural Yield Strength
Maximum Strain

General Purpose
Area Under the Curve
Linear Regression
Peak
Value at Break
Value at Peak
Value at Valley
Average Value
Find Value
Incremental Change
Change
Apparent Elastic Limit
Automatic Modulus

Compression
Breaking Load
Breaking Strength
Compressive Strength
Chord Modulus
Secant modulus
Tangent Modulus
Offset Yield
Percent Compressive Strain
Proportional Limit
Work

Application Packages

Proof
Data Acquisition Only
Torsion
Tension
Compression

Flexure/Bend
Fastener
GeoTextile
Peel

Application Packages

Partner™'s specialized application packages are perfect for focused testing. Designed to operate in and complement the Partner environment, each package includes an application specific wizard and preprogrammed algorithms for conducting tests to ASTM, SAE, or other industry standards. In addition, each package provides the capability to select specimen types, choose test tags, and add automatic calculations (see table at left).

Start Testing Quickly

What makes these application packages unique is their intelligent wizards. Each application wizard only prompts the user for pertinent information. For example, only the proof wizard will prompt the user to enter a proof level and maintain time. These focused wizards allow users to create new testing procedures quickly!
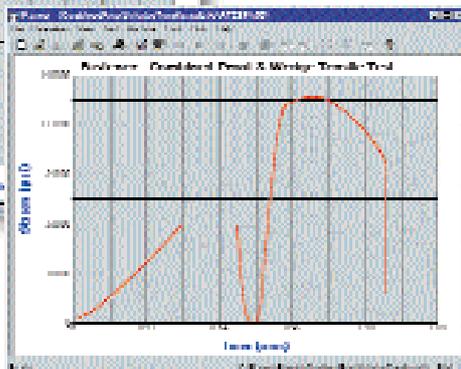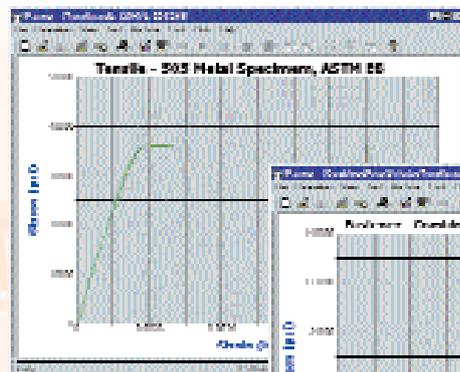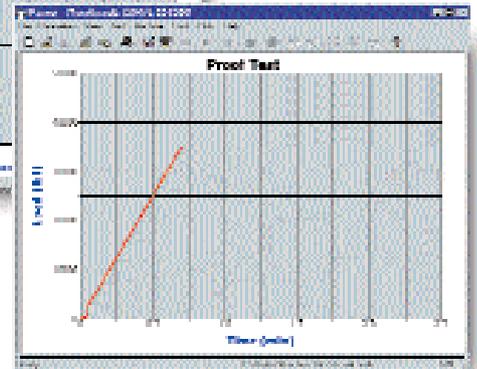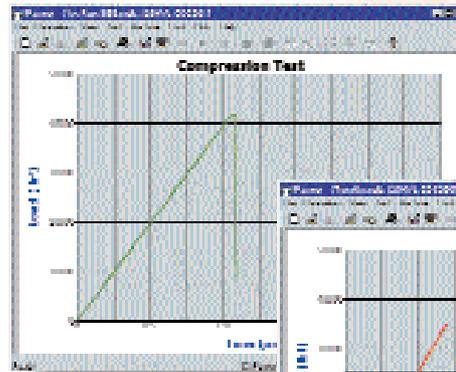
Open Architecture

Create complex test procedures and custom calculations for unique applications.

The Partner™ environment can be complemented with a suite of components developed especially for the power user. Testing professionals can design unique testing procedures, create custom calculations, build virtual measurements, and more!

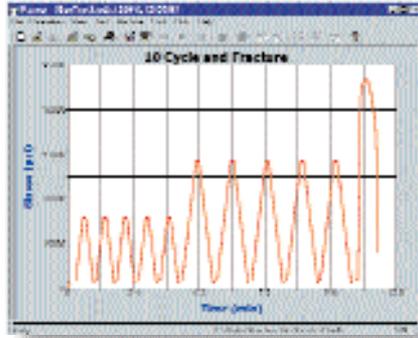### GenTest Opens Partner's Architecture to the User

GenTest, short for General Test, is an optional module that gives users the freedom to design virtually any type of testing procedure. Users can define up to 40 zones of control, add triggers to look for events to happen, and set actions to create custom testing procedures

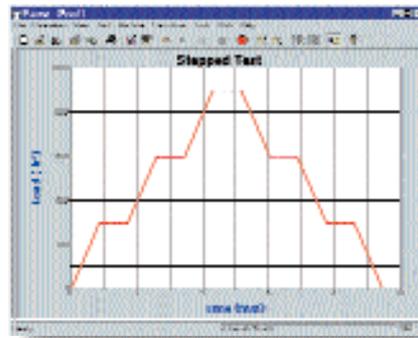### Expression Builder Allows Users to Create Calculations

Expression Builder provides the capability to design custom measurements, calculations, and logical expressions that evaluate areas of particular interest without requiring custom software. Users can pick from system measurements, specimen properties, test tags, other calculations, and previous virtual measurements to create unique calculations, measurements and logical expressions.

> " **My favorite Partner feature is the GenTest module. It allows for a very diverse collection of testing procedures.** "
>
> Steve Jackson
> Physical Testing Supervisor
> Missouri Department of Transportation

▲
Expression Builder tool is used to create a user-defined custom calculation

▲
Cycle and fracture procedure created with GenTest

▲
Stepped procedure created with GenTest

Designate the type of **wave form** for each zone of control

Add **events** to monitor : a measurement level, specimen break, calculation completion, transition to a new zone, a proof time, and more!

Add **actions** for the test system to take when an event triggers: end test, pause test, resume test, go to a different zone, change the data acquisition rate, lock a measurement, zero a measurement, beep the PC speaker, play a wave file, display a custom pop-up message, record values, record dates and times, execute a file, increment a counter, and more

▲
General Test (GenTest) module is used to create custom testing procedures

The Textbook is at your Workstation

Increase operator knowledge with Partner™'s unique teaching tool.

Multimedia Help System

Partner's help system includes a series of multimedia segments that educates users in various aspects of materials testing. Colorful audio-visual segments, like those shown, describe materials testing calculations, testing equipment, and other common testing terms.

With Partner's help system, technicians who are somewhat new to materials testing can rapidly familiarize themselves with key concepts. The help system is also an excellent tool for customers who must provide training for new testing technicians.

◄ Multimedia segments explain key topics on materials testing

Multimedia segments explain ► Partner's calculations

> " Partner's support team is very helpful, knowledgeable, and willing to help in any way possible. In addition, Partner's modem hook up (online diagnostics) makes problem solving a lot easier, faster, and even a learning tool. "
>
> Steve Jackson
> Physical Testing Supervisor
> Missouri Department of Tansportation

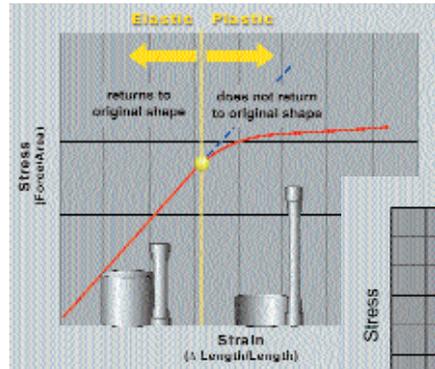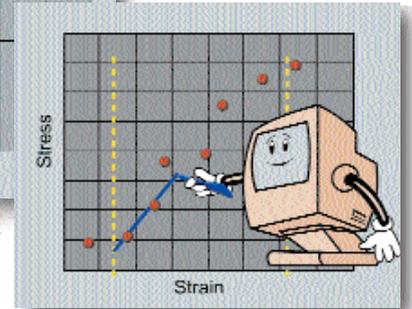### On-line Diagnostics Puts Support Technician at Your PC

Resolve problems faster, experience less downtime, and reduce service calls with On-Line Diagnostics. Every standard Partner software package is shipped with an application sharing utility and an external modem (with purchase of a PC). This package provides a virtual communication link between a customer's PC and hotline desk at Instron®. This unique diagnostic tool allows Instron to provide unmatched support to its customers.

Full Service and Support

Instron is committed to providing qualified, factory trained service, applications, and sales engineers in every office to assist customers. Factory trained agents are available throughout the world. These skilled Instron personnel provide continuing services to ensure that each user obtains the maximum performance and satisfaction from Instron equipment. You can choose from a wide range of service, calibration and support contracts, designed to ensure your system remains in perfect order.

Partner's help system ► includes terminology definitions, calculations algorithms, instructions for setting up procedures, and more
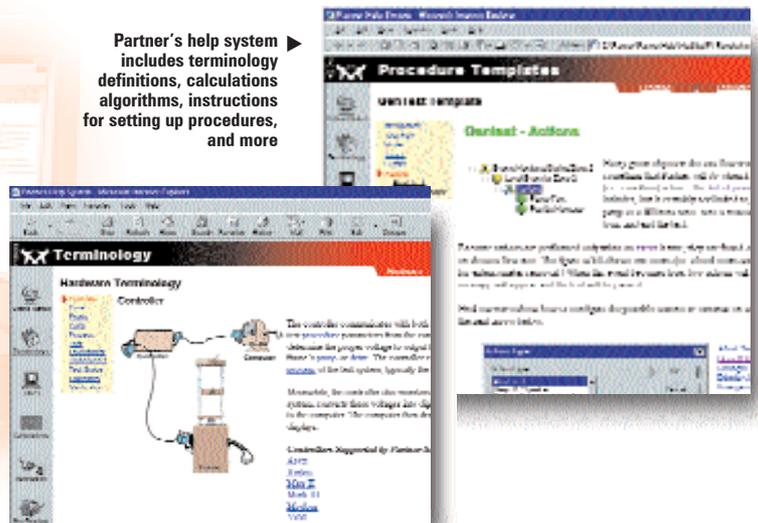
The Ultimate Strength is the User

**Partnering with our customers has created
hundreds of raving fans.**

> " **Since retrofitting our Tinius Olsen load frame with Partner software, it has truly become part of our 'bread and butter'. Over 95% of all of our production parts get tested on this system** "
>
> Gordon Balbach
> Senior Electronic Technician
> Barry Controls Aerospace

▲ **Matt Skiljo, lab manager at Wheatland Tube, upgraded this Tinius Olsen testing system with Instron® controls and Partner™ software.**

> " **Partner is a perfect fit with our corporate network; its Microsoft® Access integration is key for test result reporting.** "
>
> Matt Skiljo
> Lab Manager
> Wheatland Tube Co.

▲ **Scott Drost, quality lab technician at Rath manufacturing, uses Partner software to run tensile tests on sections of welded tube, the company's principal product.**

> " **By programming Partner's GenTest module to include wave files and pop-up screens we have reduced human error dramatically and increased productivity of new technicians.** "
>
> Steve Nagode
> QA Engineer
> REI, Outdoor sporting goods retailer

▲ **Steve Nagode, QA Engineer at REI, uses Partner's GenTest module to develop unique testing procedures which simulate actual conditions under use.**

▲ **Mindy Strasburger, Quality Control Lab Technician at NuCor Steel uses Partner to test hot and cold rolled steel samples.**

> " **I like Partner's Access database integration. It makes it simple to look up several test results at once, and compare them to other tests** "
>
> Brenda Booher
> Laboratory Technician
> Strongwell Corporation

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