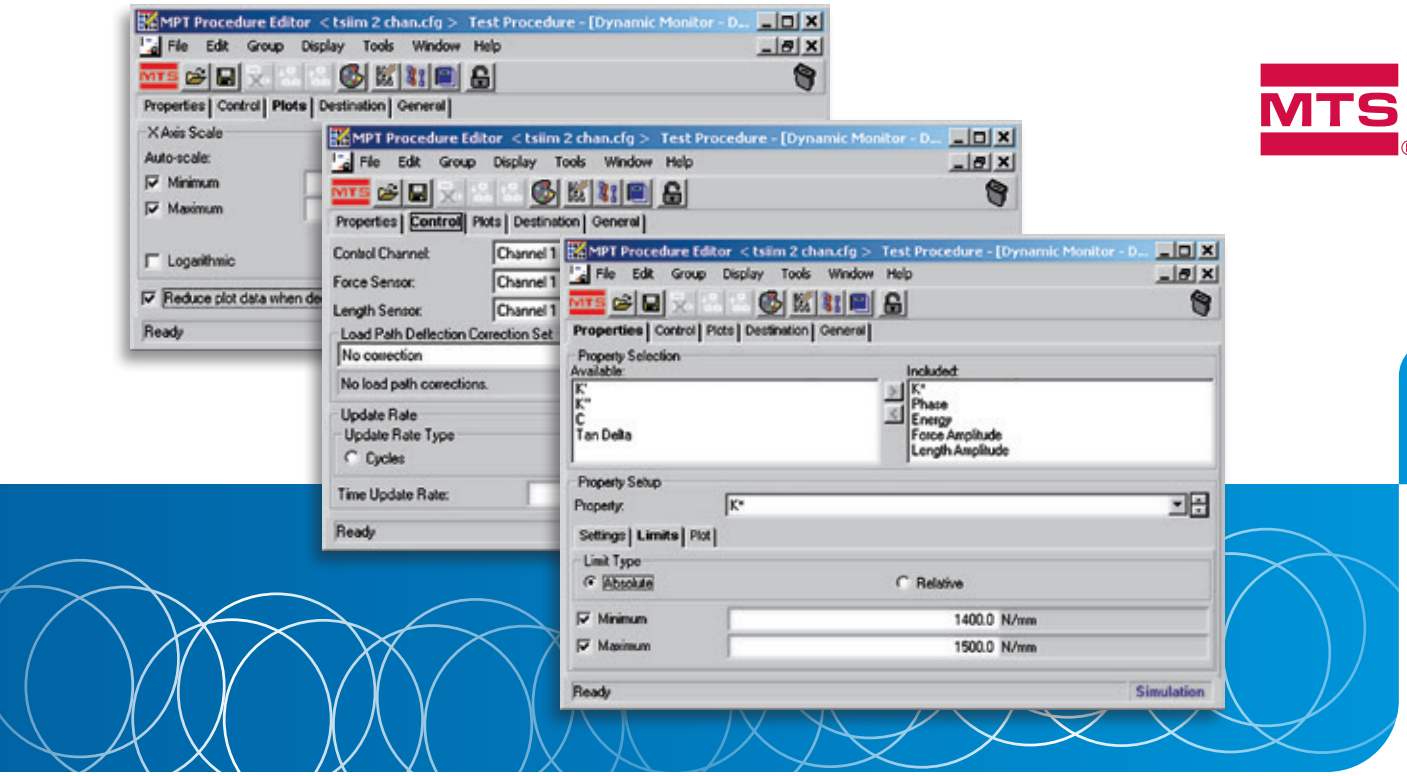

Model 793.17 Dynamic Properties

Monitor software for elastomer testing

Because tracking the change in dynamic properties vs. fatigue cycles is important to elastomeric material and component tests, MTS has developed a dynamic monitoring software package for use with its elastomer test software.

Designated the Model 793.17 Dynamic Properties Monitor, this software was developed to provide monitoring of dynamic properties vs. time or fatigue cycles.

When used for monitoring dynamic properties, a common application in elastomer testing, the software provides for monitoring up to nine properties in one process. These include: K*, K', K", Phase, Tan Delta, Damping (C) Total Energy, and displacement and load amplitude.

The Dynamic Properties Monitor software calculates and displays dynamic properties by sampling specified force, length, and phase relationship of input signals. The dynamic characteristics are displayed on a graphical run-time window to monitor desired properties vs. time or cycle count. Limit values can be defined in order to terminate cycling when a preset property limit is reached. Like the trend monitoring function, this process is run in parallel with a cyclic command process.

Software windows guide the user in specifying display and monitoring parameters. Dynamic property limits allow you to add a safety feature to the test, protecting the specimen and the test itself.

Other parameter monitoring window controls include adjustment of various window characteristics such as axis scaling (manual or automatic), graph type (linear or logarithmic), limit settings and a data decimation option.

Dynamic property windows can be displayed throughout the test, or the operator can select which window to display at any time. Each dynamic property specified has its own window, labeled with the established test parameters. These windows provide run-time plots that can be saved and printed. The option menu in this window lets you manually adjust scale, graph type, enable or disable the auto scaling function, or change limits with the dynamic property monitor.

If you view data that you want to retain, saving it is simply a matter of selecting the plot you want to save, and where you want to save it. You can easily choose a file name and store it within the system's directory. Plots can be quickly printed upon operator request at any time during the test.

While the Model 793.17 Dynamic Properties Monitor Process is straightforward and simple, it is an important tool for understanding the fatigue characteristics of elastomeric materials and components. It is a critical element in the quest for a better understanding of the dynamic properties and behavior that are so vital a part of choosing appropriate designs for the many elastomer applications.

For More Information

If you would like more information on the Model 793.17 software, or other software products that focus on testing elastomers, contact your local MTS sales engineer. You can also contact the company at the address below, or visit our website at www.mts.com.

MTS Systems Corporation
14000 Technology Drive
Eden Prairie, MN 55344-2290 USA

Telephone: 1.952.937.4000
Toll Free: 1.800.328.2255

E-mail: info@mts.com
www.mts.com

ISO 9001 Certified QMS

100-001-120b EleastomerTesting793.17 • Printed in U.S.A. • 01/24