

MyScope

functionality makes it your oscilloscope



The TDS5000B DPO Series works the way you do. It's the world's easiest to use midrange oscilloscope.

MyScope

functionality makes everything more efficient



As engineers and technicians, you are facing increasingly shorter schedules to develop, test, and ship new designs. Your challenge is due to ever-expanding performance and feature-set requirements and ever-shrinking product life cycles. The oscilloscope is a key tool during the design and development process of many of these new products. Due to the need to get these new products out the door in less time, it is imperative that you focus your efforts on the design itself, not on having to learn, or relearn, the oscilloscope.

Like the end products they're being used to validate, oscilloscopes are constantly expanding, not only in terms of performance capabilities (bandwidth, sample rate, record length, waveform capture rate, etc.), but also in the continual addition of new features and analysis packages. All of this capability, while certainly powerful and useful, can be intimidating to novice users as well as to intermittent users, who generally use only a fraction of an oscilloscope's capabilities. Even experienced power users, who navigate through the same layers of menus to perform similar tasks hundreds of times each day, undoubtedly find the extra steps for each process irritating and a huge waste of time.

This brochure describes how a revolutionary new feature called MyScope™ can be used to create custom control windows that will make all oscilloscope users maximally efficient, thus reducing development times and program costs.

MyScope control windows

When using your oscilloscope, have you ever been frustrated because . . .

- ▶ You can't find the feature that you really need, even though you know it's there?
- ▶ You know where the feature is, but it's buried three or four menu layers deep?
- ▶ The feature you want is hidden amongst a menu full of other features you don't care about?
- ▶ You spend as much time navigating menus as you do doing real work?

If you answered "yes" to one or more of these questions, then MyScope control windows will make you more efficient with the oscilloscope and more effective at your job. This revolutionary new feature allows you to quickly and easily build your own control windows that contain only the controls, features, and capabilities you care about and are important in your job.

How to build a MyScope control window

As shown in the following figures, a new entry called MyScope has been added to both the Menu bar and the Button bar that run along the top of the oscilloscope display.

Selecting New Control Window from this menu opens the MyScope setup screen shown in the figure on the next page, where several key aspects of this setup window are discussed.



Figure 1— Menu bar



Figure 2— Button bar

Setup Window

puts you in control

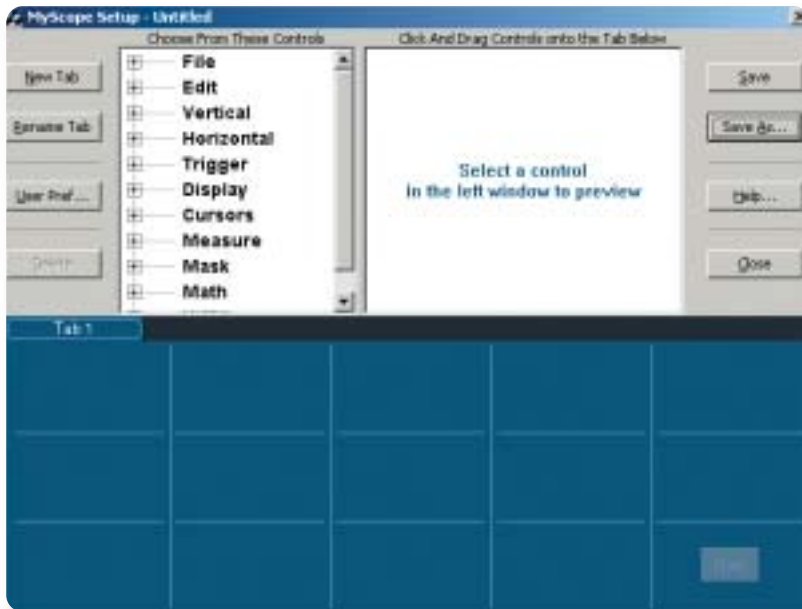


Figure 3—Control tree

Control Tree

The control tree includes all of the controls available for use when building your MyScope control window. The first-level items listed in bold font are merely categories, not controls. When you click on the “+” symbol next to one of the categories, you see the list pop open to show the controls available in that category. The tree is organized in the same fashion as the menus in the regular UI to make it easy to find the feature you’re looking for. For example, all the controls that you normally find in the Vertical menu are included in the Vertical category. In Figure 4, the Vertical category has been expanded to show the controls available.

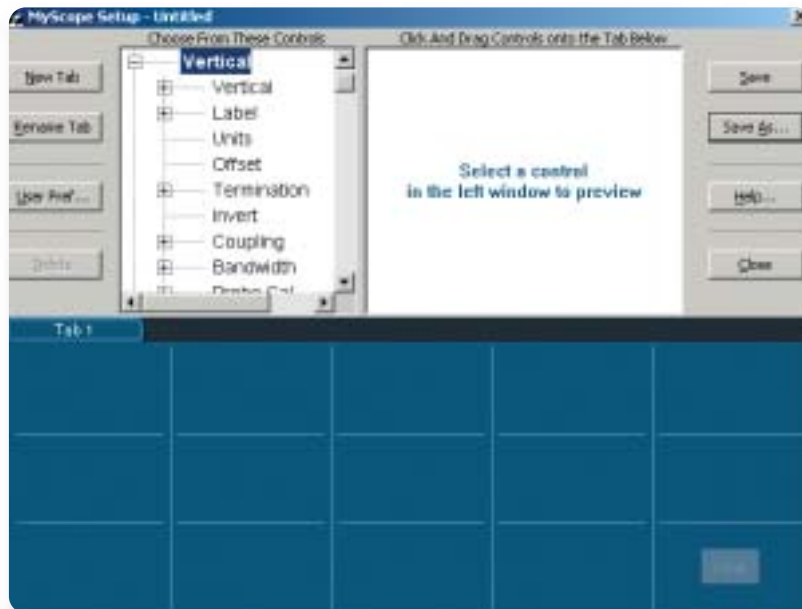


Figure 4—Vertical menu

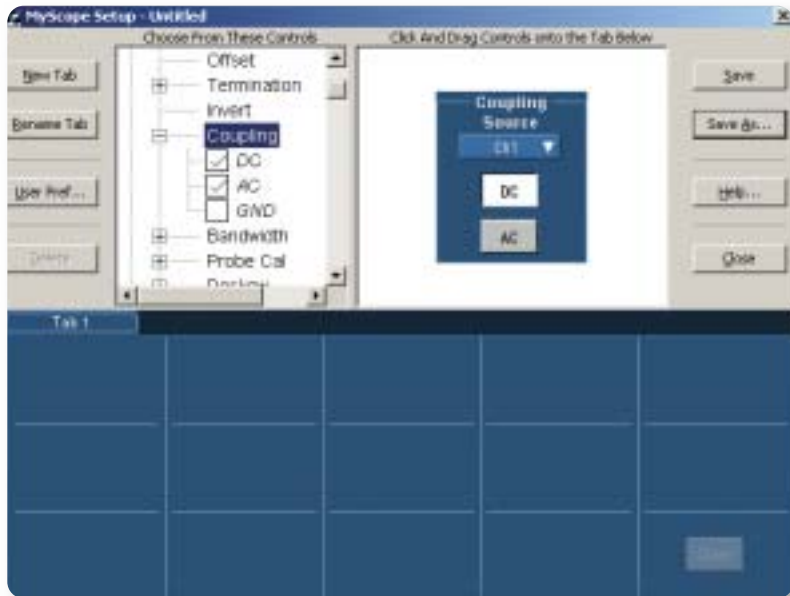


Figure 5—Preview window

Preview Window

When you select a control in the tree on the left, the control is previewed in this window. This allows you to see what the control looks like, how many grid locations it requires, and what components are included in it. Many controls can be further customized by clicking the “+” symbol next to the control name and then checking and unchecking individual components. For example, in Figure 5, GND coupling has been removed from the Coupling control by unchecking the box next to it. As you check and uncheck items, the previewed control changes size based on the number of components included.

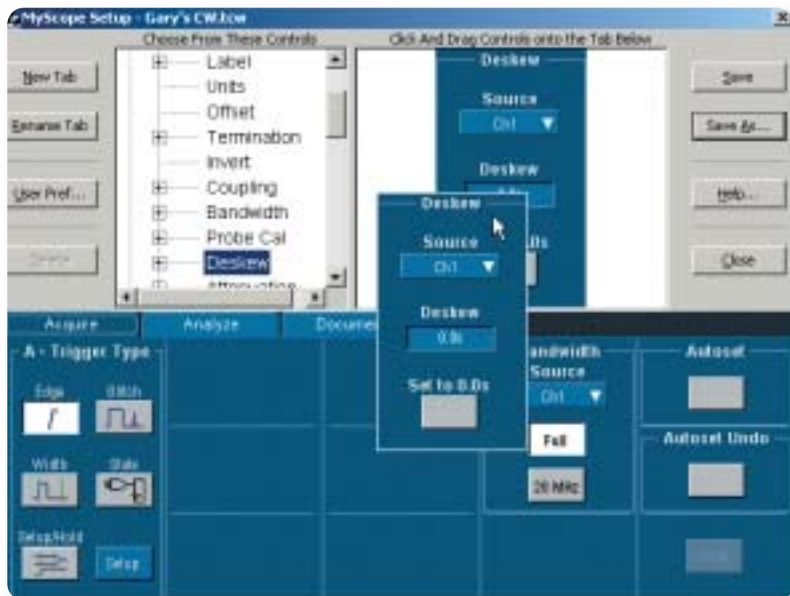


Figure 6—Layout area

MyScope Control Window Layout Area

The lower half of the setup screen represents your MyScope control window layout. It is the same size and shape as the standard control windows used throughout the instrument. The layout area is divided up into a three-row by five-column grid. Once you have selected a control and configured it the way you want it in the preview window, simply click and drag the previewed control to the desired location in the layout area (Figure 6). When you fill up a tab, just click the “New Tab” button to add another tab to your MyScope control window to place additional controls. Up to eight tabs with user-defined names can be used in a custom control window.

Using this simple process of previewing and placing controls, you can insert all the controls you use on a regular basis into your MyScope control window and organize them any way you see fit. You might follow a workflow structure and name your tabs Acquire, Analyze, and Document as shown in Figure 7. Or you might have a series of tests that you perform on a regular basis, and each tab and its associated controls could correspond to a particular test. In any case, once you've created your MyScope control window, simply save it and close the setup screen. Your MyScope control window will be activated automatically and is ready for use!

User Preferences

You can set user preferences in the regular UI, but if you are using your oscilloscope in a shared environment, it's likely that somebody else in the lab will change the preferences to what they prefer when they use the oscilloscope. MyScope resolves this situation by allowing you to specify your user preferences with your MyScope control window. Then when you load your control window, your user preferences are automatically restored as well.



Figure 7—Acquire, Analyze, and Document tabs

Create as many control windows as you like

Using a MyScope control window

One of the most powerful features of MyScope control windows is that you and your co-workers can create as many custom control windows as you like. MyScope windows are stored as files on the oscilloscope's hard drive, making it simple to transfer your custom control windows to other TDS5000B Series products in your lab, or even to your co-workers around the world, by simply emailing the .TCW file.

In a shared oscilloscope environment, each scope user can create their own MyScope control window, tailoring the oscilloscope user interface to their exact needs, without worrying about "messing up" the instrument for co-workers. In fact, each user can have many unique control windows for different tests or tasks. Although you can create many unique control windows, only one MyScope control window is open and active at any one time, so you don't need to worry about having to navigate through all the control windows your co-workers use.

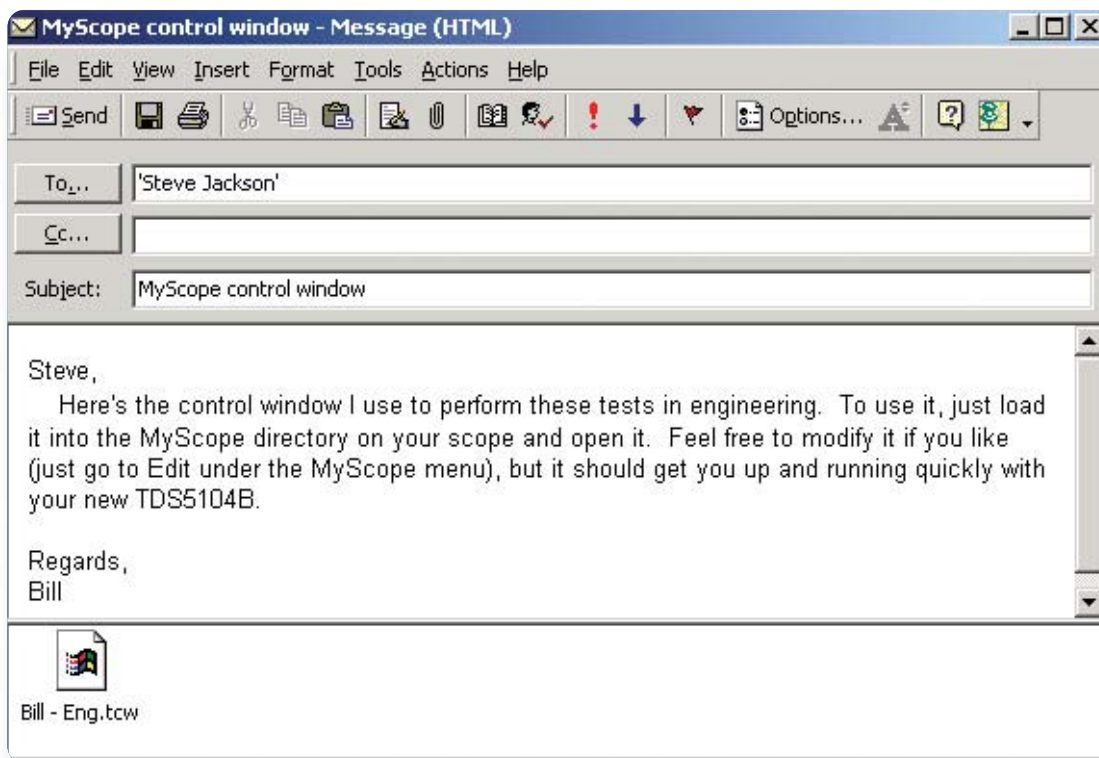


Figure 8—Email MyScope files

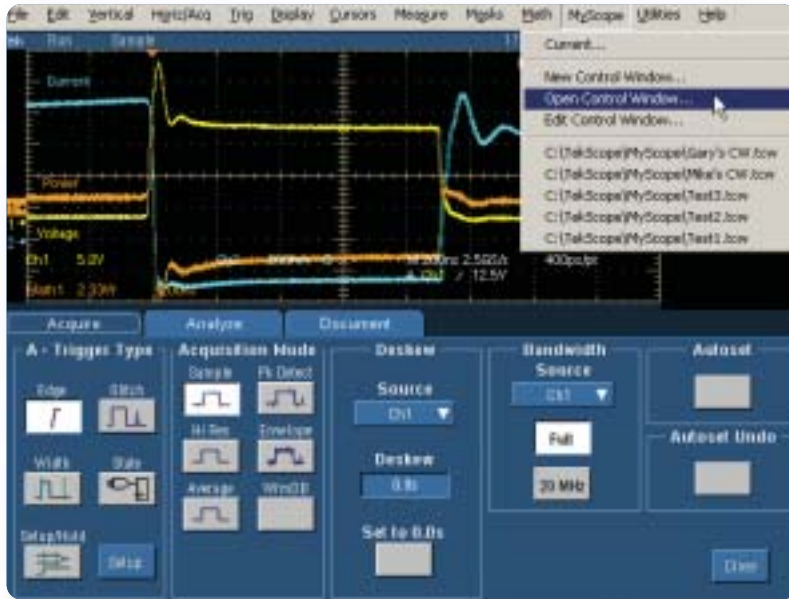


Figure 9—Open control window

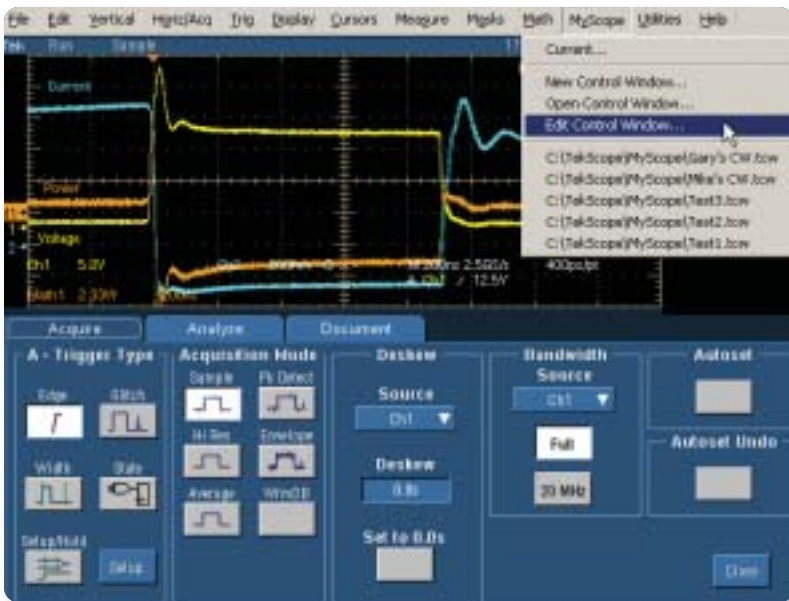


Figure 10—Edit control window

If your MyScope control window isn't already loaded and ready for use, all you have to do is go to the MyScope menu, select Open Control Window, and pick the appropriate .TCW file (Figure 9). Once your MyScope control window is loaded, it stays active (even during power cycles) and is accessed just like any other control window. MyScope entries have been added to both the Menu and Button toolbars to facilitate easy navigation to your control window.

Finally, it's easy to keep your MyScope control window up-to-date as your testing needs change over time. You can edit your control window at any time to add or remove features as you see fit by simply selecting Edit Control Window from the MyScope menu (Figure 10). A quick way to easily modify controls you've already placed is to click and drag the control back into the preview window. When you do this, the relevant portion of the control tree is opened so you can quickly check and uncheck any component you would like to change and then drag it back into the control window when you're done.

Users of

MyScope control windows

Intermittent User

Often times, you spend months out of the lab while working on new designs, and then, when prototype parts arrive, you spend nearly all of your time in the lab verifying that the prototypes work correctly. Upon returning to the lab, you find you're not quite as familiar with the oscilloscope user interface as you were the last time you used it. Now you have to spend your time relearning the oscilloscope. With MyScope control windows, all you have to do is load the control window you used last time and start working—no time spent relearning the oscilloscope user interface!

Power User

In some job situations, you use oscilloscopes all the time. When you perform the same or similar tasks hundreds of times a day, you want to be as efficient as possible in every step of the process. Having to navigate through an extra layer or two of menus on the way to the feature you want to use repeatedly can mean significantly more work, lower overall efficiency, and more frustration. With MyScope control windows, the extra steps are eliminated.

Average User

You use an oscilloscope for a variety of different tasks on a regular basis in your job. Over the years, you've come to rely on a set of features (triggers, measurements, math, etc.) that you use to solve most problems. These features might represent only 10% of the oscilloscope's overall capabilities, but they are the 10% that you find most useful. Unfortunately, they are spread across multiple menus in the user interface, making it difficult to remember exactly where they are or how to navigate to them. With MyScope control windows, you can simply pull all those features into the same control window, effectively creating your own oscilloscope "toolbox" in one central location for maximum ease of use.



Mouse Right-Clicks

make work more intuitive

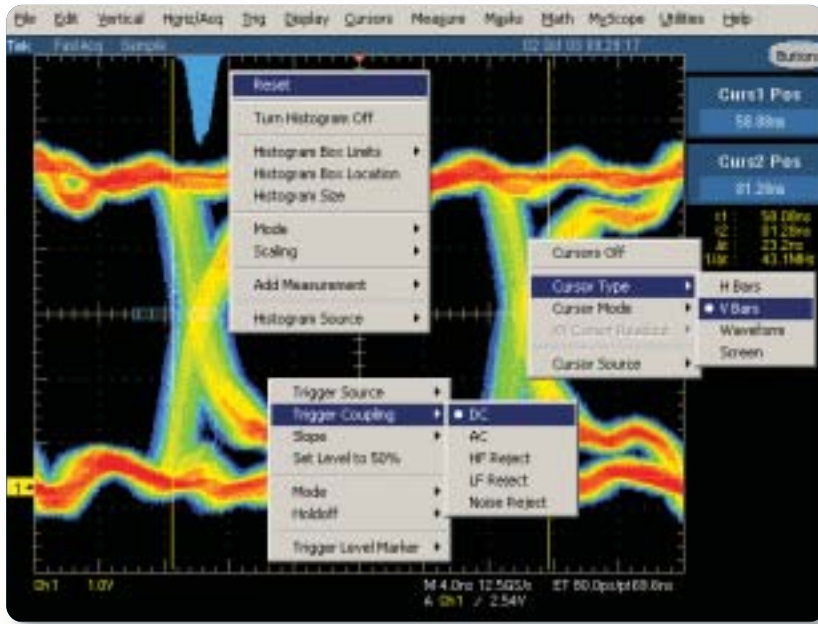


Figure 11—Right-click menus

Context-Sensitive Mouse Right-Click Menus

Simple things should be simple. That's what right-click menus are all about. The TDS5000B Series has numerous context-sensitive right-click menus available to make you exceptionally efficient by minimizing the amount of time you spend navigating through menus and control windows to perform simple tasks.

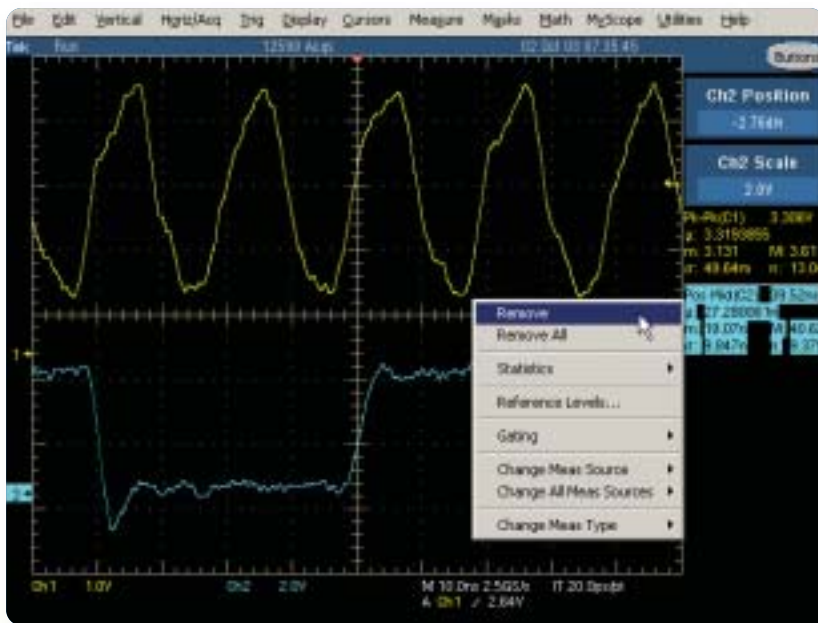


Figure 12

Right-click targets are intuitive. Do you want to change cursor type? Right-click on the cursor or the cursor readout and select a new type. Do you want to reset your histogram? Right-click on the histogram. Do you want to change your trigger parameters? Right-click on the trigger readout. Virtually all objects and readouts on the display have their own right-click menus that contain the most commonly performed tasks associated with them. So if you want to adjust something, simply right-click on it for direct access, rather than going through menus and control windows.

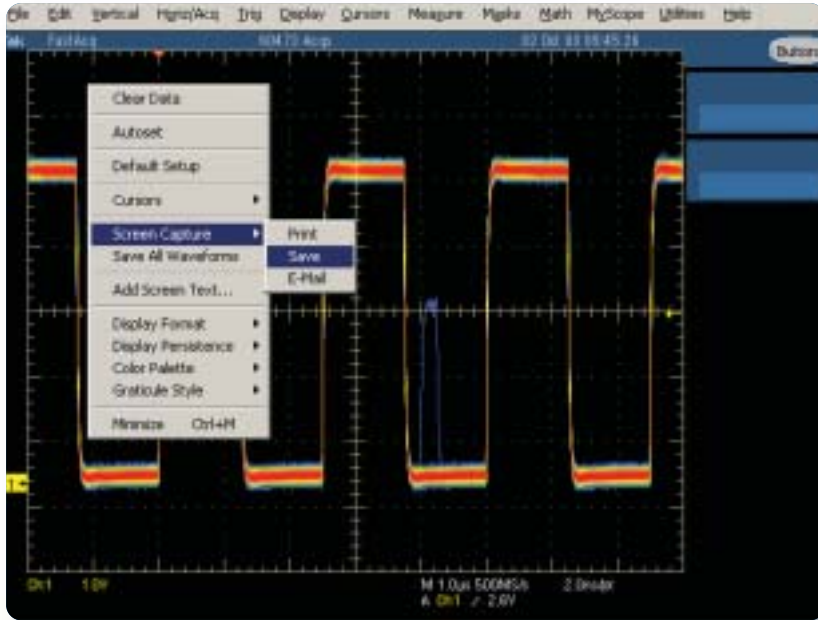


Figure 13

In addition to right-clicks of the mouse, the TDS5000B uses the mouse-wheel to greatly improve efficiency. You are probably used to scrolling Web pages on your PC with the mouse-wheel, but now you can use it to adjust numerical parameters in the oscilloscope's user interface. Any time you select something from a right-click menu that has a parameter associated with it, that parameter is automatically assigned to the Multi-purpose Knob (MPK) and made active, so you can adjust it using the mouse-wheel. Initially, scrolling the mouse-wheel up or down makes course adjustments to the parameter. However, if you press the mouse-wheel, you activate the FINE adjustment mode (like pressing the button on

the front panel next to the MPKs) so that you can fine-tune the parameter to the exact value you desire. Press the mouse-wheel again, and it exits FINE mode so you can make course adjustments again. This means you can quickly select the item you want to adjust without going through control windows. You can also have coarse and fine adjustment capability without ever taking your hand off the mouse.

The TDS5000B DPO Series



With today's ever-increasing workloads and ever-shortening time-to-market demands, you have to focus your energy and efforts on the problem at hand, not on your test equipment. With MyScope custom control windows and intuitive context-sensitive right-click menus, the TDS5000B Series is the easiest to use digital oscilloscope on the market today, enabling you to achieve new levels of efficiency and productivity you wouldn't have thought possible with your current oscilloscope.

Features in the TDS5000B DPO Series

MyScope™ custom control windows make the TDS5000B DPO Series the easiest-to-use digital oscilloscope on the market today.



Intuitive mouse right-click menus and mouse-wheel operations make you exceptionally efficient at driving the oscilloscope.

DPX® acquisition technology identifies elusive glitches and anomalies in seconds rather than hours, with a capture rate of >100,000 wfms/sec.

OpenChoice™ platform and **Windows 2000 operating system** deliver unparalleled connectivity to your design environment.

Large, 10.4" display housed in a small-footprint form factor that saves valuable space on your desk or lab bench.

MultiView™ Zoom with Lock and Scroll simplifies navigation of long acquisitions to speed debugging and analysis. A powerful, but simple and intuitive feature that puts the user in control when comparing multiple waveforms and examining long time histories in detail.

Extensive triggering capabilities allow you to isolate the event of interest you are looking for with pinpoint accuracy.

Sophisticated measurement system includes 53 automatic measurements with statistics and histograms and user-adjustable reference levels.

Extensive math capabilities ranging from simple, predefined expressions to FFTs and a powerful equation editor that can utilize waveforms, measurement results, a variety of math functions, and user-defined variables to transform your data into meaningful results.

Broad range of optional application-specific software including communications mask testing, communications pulse compliance measurements, jitter and timing analysis, power analysis, optical storage measurements, disk drive measurements, USB testing, and more.

iView™ interoperability with Tektronix logic analyzers provides instant digital and analog insight, and radically speeds the debugging of multiple signals.