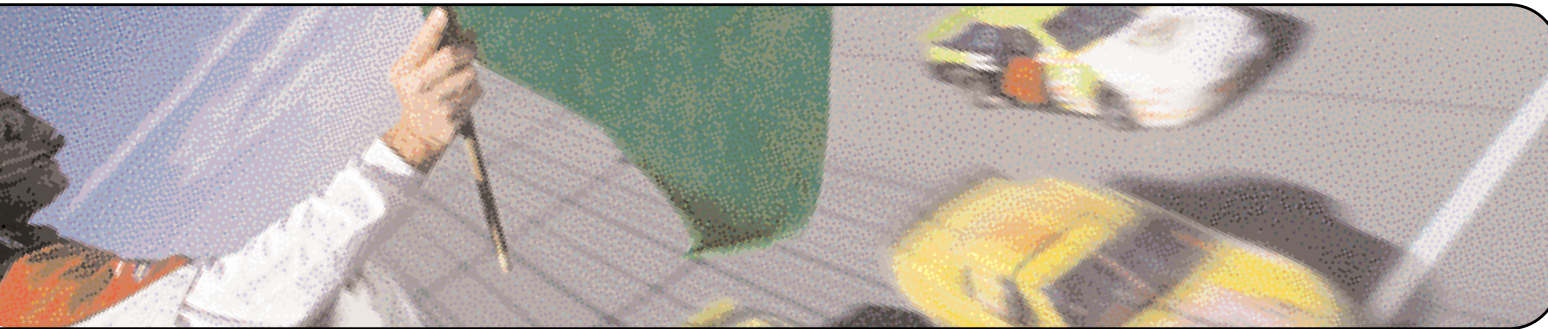


▶ Triggering

If I could
...trigger on any event,
even those buried deep in my signal...

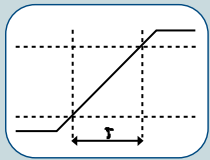


It All Starts With The Trigger

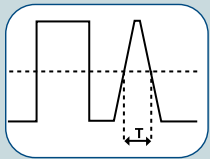
An oscilloscope's trigger function is crucial for clear signal characterization because it is what synchronizes the horizontal sweep at the correct point of the signal. Trigger controls allow you to stabilize repetitive waveforms and capture single-shot waveforms.

Edge triggering is the basic and most common type. Advanced trigger controls enable you to isolate specific events of interest to optimize the oscilloscope's sample rate and record length.

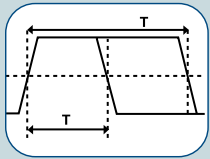
Advanced triggering capabilities on Tektronix oscilloscopes give you highly selective control. The intuitive user interface on all Tektronix oscilloscopes allows rapid setup of trigger parameters with wide flexibility in the test setup to maximize your productivity.



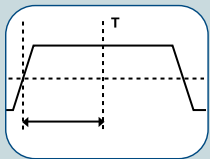
► **Slew Rate Triggering.** High frequency signals with slew rates faster than expected or needed can radiate troublesome energy. Slew rate triggering surpasses conventional edge triggering by adding the element of time and allowing you to selectively trigger on fast or slow edges.



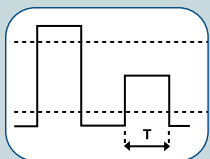
► **Glitch Triggering.** Glitch triggering allows you to trigger on digital pulses when they are shorter or longer than a user-defined time limit. This trigger control enables you to examine the causes of even rare glitches and their effects on other signals.



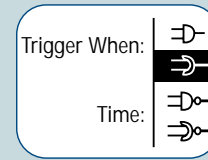
► **Pulse Width Triggering.** Using pulse width triggering, you can monitor a signal indefinitely and trigger on the first occurrence of a pulse whose duration (pulse width) is outside the allowable limits.



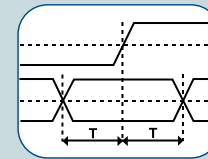
► **Time-out Triggering.** Time-out triggering lets you trigger on an event without waiting for the trigger pulse to end, by triggering based on a specified time lapse.



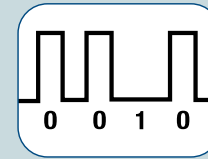
► **Runt Pulse Triggering.** Runt triggering allows you to capture and examine pulses that cross one logic threshold, but not both.



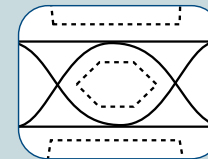
► **Logic Triggering.** Logic triggering allows you to trigger on any logical combination of available input channels – especially useful in verifying the operation of digital logic.



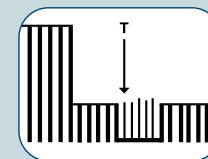
► **Setup-and-Hold Triggering.** Only setup-and-hold triggering lets you deterministically trap a single violation of setup-and-hold time that would almost certainly be missed by using other trigger modes. This trigger mode makes it easy to capture specific signal quality and timing details when a synchronous data signal fails to meet setup-and-hold specifications.



► **Serial Pattern Triggering.** Serial pattern triggering compares the series of 1s and 0s captured on a specified channel to a user-defined pattern (up to 32 bits), and when a match is made, stops the acquisition of the data stream and displays the user-defined pattern with the data around it. This trigger enables you to isolate pattern-dependent failures, simplifying the debug of serial data streams.



► **Communication Triggering.** Communication triggering addresses the need to acquire a wide variety of Alternate-Mark Inversion (AMI), Code-Mark Inversion (CMI), and Non-Return to Zero (NRZ) communication signals.



► **Video Triggering.** Video triggering enables you to trigger on any specific line or field on a broad array of video formats, such as NTSC, PAL, SECAM, analog HDTV and others.