

Save/Recall (Setups, Screens, Data)

Oscilloscope setups, reference waveforms, and mask files can be saved to internal oscilloscope memory or to a USB storage device and recalled later. You can also recall default or factory default setups.

Oscilloscope screen images can be saved to a USB storage device in BMP or PNG formats.

Acquired waveform data can be saved to a USB storage device in comma-separated value (CSV), ASCII XY, and binary (BIN) formats.

There is also a command to securely erase all the oscilloscope's non-volatile internal memory.

Table 30 Save/Recall Features

Feature	Front Panel Key/Softkey Location (see built-in help for more information)
Save setup files, screen images, waveform data, mask files	[Save/Recall] > Save > You can also configure the [Quick Action] key to save setups, screen images, or data. See "Configuring the [Quick Action] Key" on page 90.
Save setup files	[Save/Recall] > Save > Format, Setup (*.scp) Press to Save
Save screen images	[Save/Recall] > Save > Format, <ul style="list-style-type: none"> ▪ 8-bit Bitmap image (*.bmp) ▪ 24-bit Bitmap image (*.bmp) ▪ 24-bit image (*.png) Settings > <ul style="list-style-type: none"> ▪ Setup Info ▪ Invert Grayscale ▪ Palette (Color, Grayscale)

Table 30 Save/Recall Features (continued)

Feature	Front Panel Key/Softkey Location (see built-in help for more information)
Save waveform data	<p>[Save/Recall] > Save > Format,</p> <ul style="list-style-type: none"> ▪ CSV data (*.csv) ▪ ASCII XY data (*.csv) ▪ Multi Channel Waveform data (*.h5) ▪ Binary data (*.bin) <p>Settings > Length (to select number of data points to be saved, see "Length Control" on page 85)</p> <p>When saving waveform data, the save times depend on the chosen format: BIN=fastest, ASCII XY=medium, CSV=slowest.</p>
Quick save to USB storage device	[Save to USB] (once "save to USB" settings have been configured under [Save/Recall] > Save)
Recall setups, mask files, or reference waveforms	[Save/Recall] > Recall > Recall:
Recall setup files	[Save/Recall] > Recall > Recall:, Setup (*.scp)
Factory default setup	[Save/Recall] > Default/Eraser > Factory Default
Secure erase	[Save/Recall] > Default/Eraser > Secure Erase

Length Control

The **Length** control is available when saving data to CSV, ASCII XY, or BIN format files. It sets the number of data points that will be output to the file. Only displayed data points are saved.

The maximum number of data points depends on these things:

- Whether acquisitions are running. When stopped, data comes from the raw acquisition record. When running, data comes from the smaller measurement record.
- Whether the oscilloscope was stopped using [Stop] or [Single]. Running acquisitions split memory to provide fast waveform update rates. Single acquisitions use full memory.
- Whether only one channel of a pair is turned on. (Channels 1 and 2 are one pair.) Acquisition memory is divided among the channels in a pair.

- Whether reference waveforms are on. Displayed reference waveforms consume acquisition memory.
- Whether segmented memory (available on DSOX1000-Series models) is on. Acquisition memory is divided by the number of segments.
- The horizontal time/div (sweep speed) setting. At faster settings, fewer data points appear on the display.
- When saving to a CSV format file, the maximum number of data points is 50,000.

When necessary, the Length control performs a "1 of n" decimation of the data . For example: if the **Length** is set to 1000, and you are displaying a record that is 5000 data points in length, four of each five data points will be decimated, creating an output file 1000 data points in length.