

Click or tap the input field of **File Name** to input the file name to be saved with the pop-up virtual keypad.

- **Set the file path**

Click or tap the input field of **File Path**, then the disk management interface is displayed. Select the target file path and then click or tap **OK**. For detailed operations, refer to descriptions in *Disk Management*.

When a USB device is not connected, the default file path is the "Local Disk"; when a USB device is detected, the path is automatically set to "D:".


- **Overlay**

Click or tap the **Overlay** on/off switch to enable or disable the overwriting function. When this function is enabled, the existing file in the specified file path will be overwritten by the newly saved file that has the same filename as the existing one.

Click or tap **Save**, the current setup file is saved based on the settings and the storage menu is disabled.

TIP

When the quick action function is set to "Save Setup" or "Save Group" with "Save Setup"

selected, you can press the front-panel  key to save the setup.



20.2.4 Binary Data Format (.bin)

Binary data format stores waveform data in binary format and provides data headers that describe these data. As data are displayed in binary format, its file size is much more smaller than that in ASCII format. If several channels are enabled, then all the displayed channels will be saved (save the first channel then save the second, and then it goes on like this until all the displayed channels are saved).

Table 20.1 BIN File Format

File Header	Waveform Header	Waveform Data Header	Channel Data	Waveform Header	Waveform Data Header	Channel Data
16 Bytes	140 Bytes	16 Bytes	n Bytes	140 Bytes	16 Bytes	n Bytes

In BIN file format, it contains the following channel data:

- CH1 Data
- CH2 Data
- CH3 Data
- CH4 Data

- Math Waveform Data

Binary Header Format

1. File Header

There is only one file header in a binary file. The file header contains the following information.

Table 20.2 File Header

Cookie	Two-byte characters, RG, indicating that the file is the RIGOL binary data file format.
Version	Two-byte, indicating the file version.
File Size	An 8-byte long integer, indicating the number of bytes in the file. It includes the header.
Number of Waveforms	A 4-byte integer, indicating the number of waveforms that are stored in the file.

2. Waveform Header

It is possible to store several waveforms in the file. Each stored waveform has a waveform header. When several channels are stored, each channel can be considered as a separate waveform. The waveform header contains the information about the type of waveform data that are stored following the waveform data header.

Table 20.3 Waveform Header

Header Size	A 4-byte integer, indicating the number of bytes in the header.
Waveform Type	A 4-byte integer, indicating the type of the waveform stored in the file. It is fixed to 1. <ul style="list-style-type: none">- 0 = Unknown- 1 = Normal- 2 = Peak Detection- 3 = Average- 4 = Not Used- 5 = Not Used- 6 = Logic
Number of Waveform Buffers	A 4-byte integer, indicating the number of waveform buffers required to read the data. It is fixed to 1.

Number of Points	A 4-byte integer, indicating the number of waveform points in the data.
Count	A 4-byte integer. It is fixed to 0.
X Display Range	A 4-byte float, indicating the X-axis duration of the waveform that is displayed. For time-domain waveforms, it indicates the duration of the display. If the value is zero, then no data has been acquired.
X Display Origin	An 8-byte double-precision floating-point, indicating the X-axis value at the left edge of the screen. For time-domain waveforms, it indicates the time at the start of the display. The value is treated as a double precision 64-bit float point number. If the value is zero, then no data has been acquired.
X Increment	An 8-byte double-precision floating-point, indicating the duration between data points on the X-axis. For time-domain waveforms, it indicates the time between points. If the value is zero, then no data has been acquired.
X Origin	An 8-byte double-precision floating-point, indicating the X-axis value of the first data point in the data recording. For time-domain waveforms, it indicates the time of the first point. The value is treated as a double precision 64-bit float point number. If the value is zero, then no data has been acquired.
X Units	<p>A 4-byte integer, indicating the unit of measurement for X values in the acquired data. It is fixed to 2.</p> <ul style="list-style-type: none"> - 0 = Unknown - 1 = Volts (V) - 2 = Seconds (s) - 3 = Constant - 4 = Amps (A) - 5 = Decibel (dB) - 6 = Hertz (Hz)
Y Units	A 4-byte integer, indicating the unit of measurement for Y values in the acquired data. The possible values are listed above under X Units.
Date	A 16-byte character array, indicating the date when the file is saved.
Time	A 16-byte character array, indicating the time when the file is saved.

Model	A 24-byte character array in the format of MODEL#:SERIAL#, indicating the oscilloscope's model and serial number.
Channel Name	A 16-byte character array that contains the label assigned to the waveform.

3. Waveform Data Header

A waveform may have multiple data sets. Each waveform data set has a waveform data header. The waveform data header consists of information about the waveform data set. The header is stored before the data set.

Table 20.4 Waveform Data Header

Header Size	A 4-byte integer, indicating the number of bytes in the waveform data header.
Buffer Type	<p>A 2-byte integer, indicating the type of the waveform data stored in the file.</p> <ul style="list-style-type: none">- 0 = Unknown- 1 = Normal 32-bit float data- 2 = Maximum float data- 3 = Minimum float data- 4 = Not Used- 5 = Digital unsigned 8-bit character data (for digital channels)
Bytes Per Point	A 2-byte short integer, indicating the number of bytes per data point.
Buffer Size	An 8-byte long integer, indicating the number of bytes of the current channel waveform data.

20.3 Load a File

In the storage setting menu, click or tap the **Load** tab to switch to the load menu. In this menu, you can load the local file to the instrument.