



SD Card Formatter 5.0.3 for Windows/Mac User's Manual

Version 1.11

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SD Card Association

Revision History

Date	Version	Changes compared to previous issue
Jun. 30, 2017	1.00	First release
Jan. 15, 2018	1.01	Updated operating system supported versions
May 30, 2018	1.02	Updated operating system supported versions Added information related to new Format Size Adjustment feature
Jun. 13, 2018	1.03	Updated SD Card Formatter version
Sep. 4, 2018	1.04	Added note concerning overwrite format
Nov. 1, 2019	1.05	Updated operating systems supported versions
Jan. 23, 2020	1.06	Updated operating system supported version
Aug. 26, 2020	1.07	Updated operating system supported version
Jul. 15, 2021	1.08	Updated operating system supported version
Feb. 28, 2022	1.09	Updated SD Card Formatter for Windows Overwrite Format
Apr. 12, 2023	1.10	Updated Windows and macOS supported version
Oct. 15, 2024	1.11	Updated with SDUC support and supported OS versions

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Disclaimers

Downloading or using the SD Card Formatter is required to agree on the “End User License Agreement” shown in the SDA website when downloading the SD Card Formatter as well as when installing the application.

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Abbreviations

Name	Description
SD(SC)	SD Standard Capacity up to 2GB
SDHC	SD High Capacity over 2GB and up to 32GB
SDXC	SD eXtended Capacity over 32GB and up to 2TB
SDUC	SD Ultra Capacity over 2TB up to 128TB
EULA	End User License Agreement
SDA	SD (Card) Association
CPRM	Content Protection for Recordable Media

Important Notice: SDA has decided not to use “Secure Digital” for meaning of “SD” many years ago.

1. Introduction

The SD Card Formatter formats SD Memory Card, SDHC Memory Card, SDXC Memory Card and SDUC Memory Card (respectively SD/SDHC/SDXC/SDUC Cards) complying with the SD File System Specification created by the SD Card Association (SDA).

It is strongly recommended to use the SD Card Formatter to format SD/SDHC/SDXC/SDUC Cards rather than using formatting tools provided with individual operating systems. In general, formatting tools provided with operating systems can format various storage media including SD/SDHC/SDXC/SDUC Cards, but it may not be optimized for SD/SDHC/SDXC/SDUC Cards and it may result in lower performance.

2. System Requirements

2.1. Operating Systems

Please refer to the following SDA website for evaluated Windows and macOS.
Execution of SD Card Formatter requires Administrator Rights for both Windows and macOS

Windows

Refer to the following link in the FAQ:
<https://www.sdcard.org/downloads/formatter/Win>

macOS

Refer to the following link in the FAQ:
<https://www.sdcard.org/downloads/formatter/Mac>

2.2. SD Cards Capacity Types

The SD Card Formatter formats the following SD Card capacity types.

- SD up to 2GB
- SDHC more than 2GB up to 32GB
- SDXC more than 32GB up to 2TB
- SDUC more than 2TB up to 128TB

Note: The capacities listed above are the range of memory card capacities possible for each card type, however the host or card can determine the actual memory capacity it supports.

2.3. SD Card Interface Devices

The following SD interface devices are available to access SD/SDHC/SDXC/SDUC Card:

- SD Card slot on PC
- USB2.0, USB3.0, USB3.1, USB-C SD Card reader

Please check that your SD Card interface device is compatible with your SD, SDHC, SDXC or SDUC Card before using the SD Card Formatter.

3. SD Card Formatter Installation

- (1) Close all application programs on your PC
- (2) Execute the SD Card Formatter installation program which you downloaded from SDA website
- (3) Follow the instructions from the SD Card Formatter installation program, accepting the End User License Agreement (EULA) and complete the installation

Note: If you have installed an older version of the SD Card Formatter (Version 4.0 or earlier), you must uninstall the SD Card Formatter as described below, then install the latest SD Card Formatter.

If "User Account Control" window is displayed on the screen during the installation, please click [Yes].

4. SD Card Formatter Uninstallation

2.4. Windows 10 and Windows 11

- (1) Right-click [SD Card Formatter] icon in Start
- (2) Click [Uninstall]
- (3) Click [SD Card Formatter]
- (4) Click [Uninstall]
- (5) If confirmation window is displayed on the screen, click [Yes]
- (6) If "User Account Control" window is displayed on the screen, please click [Yes]

2.5. macOS

- (1) Open the [Applications] directory
- (2) Right-click [SD Card Formatter]
- (3) Click [Move to Trash]
- (4) Enter your password and click [OK]

5. Operation Guide

2.1. SD Card Formatter User Interface

When the SD Card Formatter is starting up, the following main window is shown on the screen.

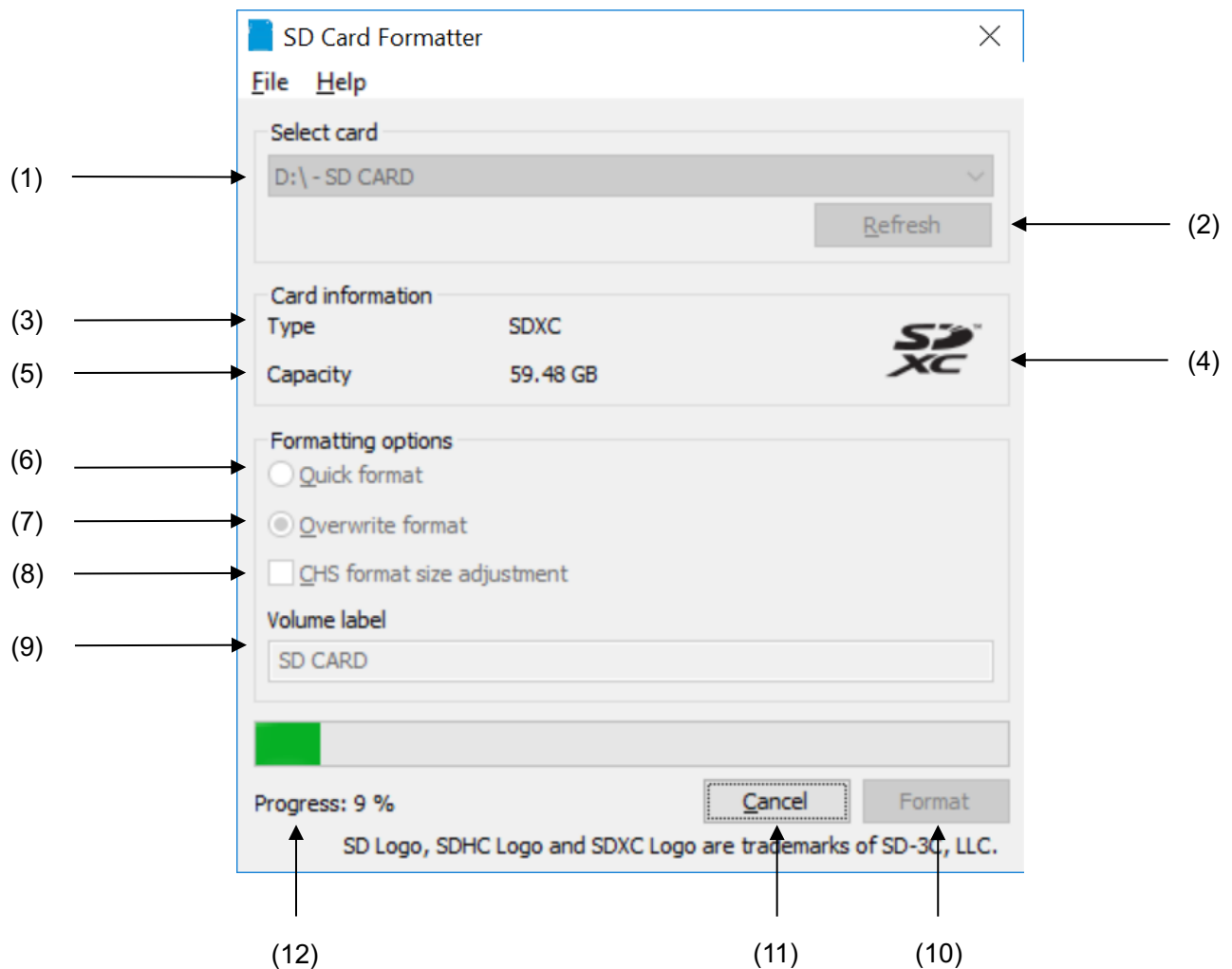


Figure 1: SD Card Formatter Main Window

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- (1) Drive List
This list indicates SD/SDHC/SDXC/SDUC Cards recognized by the SD Card Formatter.
You can select the card to be formatted within this list.
- (2) Refresh Button
This button is used to update the list of cards detected. Click this button when new SD/SDHC/SDXC/SDUC Card is inserted to an SD Card interface device.
- (3) Card Type
This field indicates the card type, either SD, SDHC, SDXC, or SDUC which was selected.
- (4) SD Card Logo
This field indicates the SD Card Logo, either SD, SDHC, SDXC, or SDUC Logo of the card selected.
- (5) Size
This field indicates the card capacity.
On Windows, the capacity is calculated with base 1024 (i.e. 1kB = 1024 Bytes), while on macOS, the capacity is calculated with base 1000 (i.e. 1kB = 1000 Bytes).
- (6) Formatting Option, Quick format
This option performs Quick formatting. It deletes all the file/directory entries by initializing file system parameters of the card but does not initialize the data written in files. If you need to initialize the data in the files, use the [Overwrite format] option.
- (7) Formatting Option, Overwrite format
This option deletes file/directory entries by initializing file system parameters of the card and erase all data by overwriting the user data area completely. This formatting option takes much longer time than Quick format depending on the card capacity. Please make sure that your computer is connected to a power supply and that sleep mode is disabled.
- (8) CHS Format Size Adjustment (only available on Windows version)
This option adjusts the formatted capacity calculated by number of Cylinders, Heads and Sectors (CHS). This option is available for both Quick format and Overwrite format.
Note: this option is enabled only when the user capacity of the card is less than or equal to 8032.5MB (8,422,686,720 Bytes).
- (9) Volume Label
This field shows the volume label of the card, and you can enter a new volume label to be written into the card during formatting. You can enter up to 11 characters in the [Volume label] field.
Note: if the volume label has been written in other than English characters, the information in this field may not be shown correctly. In this case, you should enter a new volume label using English characters.
- (10) Format Button
This button starts the format operation. After clicking this button, a confirmation window will be shown on the screen. You can [Continue] or [Cancel] the formatting.
- (11) Cancel Button
This button cancels the ongoing format operation.
If you cancel the format operation during [Overwrite format], the user data area will not be overwritten (or erased), however the file system parameters of the card will be initialized and the volume label you entered will be written into the card.
- (12) Progress Information
This message indicates the current progress of the formatting.

2.2. SD Card Formatter Version Information

On Windows operating system, click the [Help] menu and then click [About] to display the application version information.

On macOS operating systems, click the [SD Card Formatter] menu and then click [About SD Card Formatter].



Figure 2: Version information

2.3. SD Card Formatter Update Function

Every time the application starts, it checks whether a new version of the SD Card Formatter is available. If a new version is available, the following window is shown:

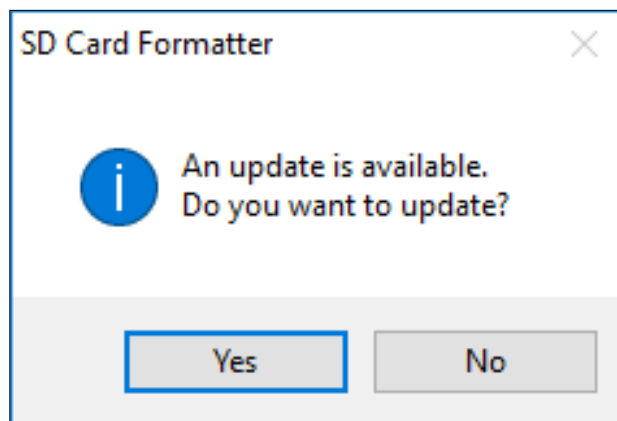


Figure 3: Available software update

After clicking [Yes], a browser window opens with the SDA SD Card Formatter download page. Proceed to download the most recent version from this page.

Note: it is possible to manually check for updates by clicking on the [Help] menu and then on [Check for updates] on Windows; and by clicking on the [SD Card Formatter] menu and then on [Check for updates...] on macOS.

2.4. SD Card Formatter Help Function

The help function provides easy access to the SD Card Formatter User's Manual (this manual) through SDA website.

For Windows operating system, click the [Help] menu and then click [Help]; and for macOS operating systems, click the [Help] menu and then click [SD Card Formatter Help].

6. Important Notice

- (1) Do not format recordable media other than SD/SDHC/SDXC/SDUC Cards using the SD Card Formatter. If you accidentally formatted a recordable media other than SD/SDHC/SDXC/SDUC Cards, reformat the media using the appropriate formatting software which came with the media.
- (2) Do not remove an SD/SDHC/SDXC/SDUC Card or an SD Card interface device like USB SD Card reader while formatting. Please use EJECT function on Windows and Mac for safe removal of the card.
- (3) Once formatting has started, all recorded information will no longer be available.
- (4) Check the position of the write protect switch on your card before formatting. The position shall be on the NOT PROTECTED position (i.e. upward).
- (5) If the SD Card Formatter does not recognize the SD/SDHC/SDXC/SDUC Card, re-insert the card and click the [Refresh] button.
- (6) The SD Card Formatter does not format the Protected Area in SD/SDHC/SDXC card. The Protected Area is used by CPRM (Content Protection for Recordable Media). The Protected Area shall be formatted by appropriate PC applications or SD host devices that provide CPRM function.
Note: SDUC card has no Protected Area.
- (7) If the SD/SDHC/SDXC/SDUC Card cannot be recognized by the SD Card Formatter after the card is inserted into an SD interface device (SD Card slot on PC, USB SD Card reader), check that the SD interface device is compatible with SD/SDHC/SDXC/SDUC Cards. Some SD interface devices are interoperable only with SD and SDHC Cards. Also, some PCs need to install drivers and file systems to work with SD/SDHC/SDXC/SDUC Cards.
If your system is compatible with SD/SDHC/SDXC/SDUC Cards but the card is not recognized, try to restart your PC and execute the SD Card Formatter again.
- (8) If you choose the [Quick format] option, all files in the card are deleted. However, data in the files still remains in the card and it may be retrieved by using data recovery tool. Please use the [Overwrite format] option if you want to erase all data in the files completely.
- (9) SD Card Formatter does not format SD/SDHC/SDXC/SDUC Card encrypted by the "BitLocker To Go" provided with Windows. Please unlock the SD/SDHC/SDXC/SDUC Card specified by Windows before formatting the card.
- (10) Execution of the SD Card Formatter requires Administrator Rights for Windows and macOS.
- (11) Overwrite format can be long depending on the size and speed of the card. Make sure that your computer is connected to a power supply and that sleep mode is disabled.