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Purpose

This document provides instructions on formatting large volumes (for e.g., USB drives, microSD cards, etc.) in FAT32 format using DiskGenius.

DiskGenius has its own full User Guide can be viewed here:

https://www.diskgenius.com/manual/DiskGenius User Guide.pdf

Download link https://www.diskgenius.com/download.php

Tested versions

Ver 5.4.2.1239 Ver 5.4.1.1178

Recommended Hardware requirement

1 GHz x86 or compatible CPU, 512MB RAM memory, mouse and keyboard.

Supported file system FAT12, FAT16, FAT32, exFAT, NTFS, EXT2, EXT3, EXT4.

Supported operating system

Windows 2000/XP/Vista/7/8/8.1/10, Small Business Server 2011/2003/2008, Windows home server 2011, and Windows Server 2003/2008/2008 R2/2012/2012 R2/2016/2019 (both 32bit and 64bit).

Description

DiskGenius is a versatile program packed with comprehensive functions for partition recovery, file recovery, disk management, data backup, disk utilities, etc. It manages storage space with high efficiency, recovers data lost due to disk corruption, formatting, deletion, virus attack, etc. and provides the easiest yet reliable backup solutions to let users say NO to data loss.

Formatting 64GB Devices to FAT32

Windows OS has a limitation when formatting a device in a volume of 64GB and over to FAT32. DiskGenius provides the means to bypass this limitation:

- 1. Open DiskGenius.
 - 1.1. click on Tools.
 - 1.2. click on Batch Format USB Disk(<u>A</u>).



- 2. Once the following window opens, check the following parameters:
 - 2.1. All parameters inside of the red squares are critical, they must be set as shown!
 - 2.2. Both parameters inside of the **blue squares** are **highly not recommended to be checked** as they significantly slow down the formatting process.
 - 2.3. The parameters inside of the green square is suggested to be unchecked unless the cards already have data which is needed.
 - 2.4. The rest of the parameters are optional.
 - 2.5. Mind the notes and warning issued by DiskGenius inside of the **black squares** before starting with the formatting process(s):

	Critical		
	Format USB drive in batch	×	
	Select Target Disk	Format Option	[]
	Capacity Range (SB): 0 -> 128 GB	File System: FAT32 V Scan Bad Sectors	Highly NOT recommend
Suggested	Match Model Prefix: GenericFlash Format Empty Disk Only Auto-ejecting After Completion	Cluster Size: Default v Clear Sectors Volume Label:	
	1) Waiting		
	Eject		
Notes and	Warning: Do not insert irrelevant disk in case of data loss!		
warnings	Formatting starts automatically after eligible USB disk is inserted. It's able to format several disks at the same time.		

- 3. Once you have verified that **all** of the parameters are **correctly** set, insert a card reader with the 64GB (or more) microSD in it to a USB port. 3.1. Up to 4 devices (USB card readers can be inserted for a parallel process.
- 4. DiskGenius will automatically start the formatting process(s).

5. Once a process is done DiskGenius will present a full (100%) progress bar and will return to a "Waiting..." status, for e.g.: 5.1. A single device formatting:

×					
Select Target Disk Capacity Range (GB): 0 -> 1) RD1:GenericSD/MMC(29GB)(D:) FAT32 10% Eject Format USB drive in batch Format Option File System: FAT32 GenericFlash Cluster Size: Default Cluster Size: Default Cluster Size: Default Cluster Size: Default 100% Eject					
Format Option File System: FAT32 Grant					

5.2. Formatting 4 devices:

Format USB drive in batch	×
Select Target Disk Capacity Range (GB): 0 -> 128 GB Match Model Prefix: GenericFlash Format Empty Disk Only Auto-ejecting After Completion 1) RD1:GenericSTORAGEDEVICE(4GB)(D:) FAT32	Format Option File System: FAT32
3) RD3:GenericSD/MMC(59GB)(F:) FAT32 100% Eject 100% Eject	4) RD4:GenericSD/MMC(29GB)(G:) FAT32 100% Eject 100% Eject
Format USB drive in batch	×
Select Target Disk	Format Option

Format 03b drive in batch			
Select Target Disk		Format Option	
Capacity Range (GB):	0 -> 128 GB	File System: FAT32 V Scan Bad Sector	rs
Match Model Prefix:	GenericFlash	Cluster Size: Default \checkmark Clear Sectors	
Format Empty Disk Only	Auto-ejecting After Completion	Volume Label:	
1) Waiting	Eject	2) Waiting	ct
3) Waiting		4) Waiting	
	Eject	[] Ejec	ct

6. All device(s) are auto ejected from Windows, can be unplugged from the USB port(s) and are ready for use.

Troubleshooting

1. If during the formatting one or more formatting process are not advancing you may click on the "stop" button in order to proceed with further inspections as needed of the microSD card and/or the card reader:

Format USB drive in batch			\times
Select Target Disk Capacity Range (GB): Match Model Prefix: Format Empty Disk Only 1) RD1:GenericSTORAGEDEVIC	0 -> 128 GB GenericFlash Auto-ejecting After Completion E(4GB)(D:) FAT32 100% Eject	Format Option File System: FAT32 Scan Bad Sectors Cluster Size: Default Clear Sectors Volume Label: 2) RD2:GenericSTORAGEDEVICE(4GB)(E:) FAT32 1% Stop	
- 3) RD3:GenericSD/MMC(59GB)(F:) FAT32	4) RD4:GenericSD/MMC(29GB)(G:) FAT32	

1.1. Pull the device out of the USB port and reinsert it after the other connected device(s) has been auto ejected by DiskGenius.

- 2. If a formatted drive is causing a device to not turn on when it's supposed to, use Windows Disk Management and check if an unallocated volume exists in the drive:
 - 2.1. Right mouse click on the Windows "Start" button > left mouse click on "Disk Management".



2.2. If an unlocated volume does exit in a drive it will look similarly to the one shown in the picture below:

Disk 1 Removable 58.88 GB Online	58.28 GB Healthy (Primary Partition)		603 MB Unallocated	
		603 MB Unallocated		

2.3. to solve this issue open DIskGenius > left mouse click on the correct drive > left mouse click on "Disk" > left mouse click on "Quick Partition(F6)".



2.4. The following window will open, under "Partition Count" area, check "Custom" and choose 1 partition > choose the appropriate/correct format > press "OK"

Quick Partition - RD1:GenericSD/MMC(59GB)		×
Current Disk(Click to Change)	Advanced Options	
RD1:GenericSD/MMC(59GB) - Remova	1: NTFS ∨ 🗗 59 GB Label: System ∨ 🗹 Primary	
Partition Table Style:	Default Size Clear All Labels	
Partition Count		
O 3 Partitions O 4 Partitions		
○ 5 Partitions ○ 6 Partitions		
© Custom: 1 → Partitions		
Rebuild MBR(Master Boot Record)		
Keep the Exist ESP Partition		
Create ESP Partition: 300 MB		
Create MSR Partition		
	Reserve sectors between partitions: 2048 Sectors	
	Align Partitions to Integral Multiples of Sectors: 2048 Sector (1048576 Byte)	-
Tip: You can press "3, 4, 5 or 6" to select partiti	ion count.	
Note: All partitions on current disk will be dele	ted. And new partitions will be formatted.	
Save As Default Settings Clear Default	Settings OK Cancel	

2.5. When repeating stages 2.1 – 2.2 you should see that the unallocated volume doesn't exist anymore and if so, the problem should be fixed.