

Remapped Sectors remain after successful erasure with Drive Eraser

Created date	Updated date	Affects version	Fix version
13 Sep 2021	13 Sep 2021	Drive Eraser - All versions	N/A

Problem

Blancco Drive Eraser erased remapped sectors on a disk successfully, yet remapped sectors are shown on the erasure report and are seen when investigating the disk.

Disk: 1	Vendor: SATA Size: 16GB HPA: Doesn't exist Health Status: good	Model: SSD Bus: SATA/SSD DCO: Doesn't exist	Serial: XXXXXXXXXX Sectors: 31277232 Remapped Sector(s): 23
Remapped Sector(s) After Erasure:	23		
Start/End Time:	2021-06-30 16:41:55 / 2021-06-30 17:14:06		
Duration:	00:32:11		
Method:	Blancco SSD Erasure - ATA		
Erasure Rounds:	4 (2 overwriting, 2 firmware based erasure)		
Status:	Erased		
Information:	Device is SSD, see manual for more information. Remapped sectors area erased.		

Cause

Modern drives have a lot of functions for self-testing, self-recovering and keeping track of their state. One of the possibilities is sector remapping. This allows the drives to detect and hide the sectors, which will either be or have become impossible to access. The drives have a so-called spare area intended precisely for this.

When a failed sector is detected, the drive controller assigns the address of the sector to a new one in the spare area. The address remains the same but the owner is changed. The remapped sector may contain some of the user's data.

Resolution

Blancco Drive Eraser is able to successfully erase the data stored on the remapped sectors as long as the target drive supports the required erasure commands. Running successful erasure for the remapped sectors does not actually fix the bad/remapped sectors and such sectors will remain unusable in the future.

Because these sectors are still marked bad/remapped they will be shown as "Remapped Sector(s)" on the Blancco Drive Eraser erasure report, and if a 3rd party tool is used to investigate the drive the sectors will remain marked as bad/remapped.

Exception to this rule are SCSI drives where the remapped sectors count may be reset when the remapped sectors are being erased and the amount of remapped sectors after erasure will be zero.

Further information on remapped sectors can be found from the Blancco Drive Eraser Manual.