RAPIDSPAR

Safer. Easier. Better.

Data Recovery Kit for IT Service Specialists.

RapidSpar is the first cloud-driven device built to help IT generalists and other non-specialized users recover client data from damaged or failing HDDs/SSDs. Following are the main advantages over software-only data recovery solutions.

RECOVER DATA FASTER AND SAFER

SOFTWARE

Whenever a read command falls on a bad sector, hard drives spend 4-20+ seconds making hundreds of failed read attempts, then write to their firmware area (located on the platters) to update various logs, and finally respond with an error message. This process wastes time, quickly causes further physical degradation of the drive, risks firmware corruption, and software applications cannot do anything to stop it.

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RapidSpar's proprietary ATA controller automatically terminates bad sector processing. If a drive does not respond to a read command within a few tenths of a second, RapidSpar uses hardware reset commands to force the drive to drop the read request early. This alone eliminates the large majority of fruitless processing, and also stops the drive from registering bad sectors in its firmware logs. If a serious internal exception causes the drive to stop responding to all commands, as a last resort RapidSpar automatically repowers it to seamlessly continue the recovery process.

This really adds up! As a result of this process, unstable drives are recovered 200%-3,000%+ faster on RapidSpar in comparison with software-only solutions. The reduction to drive stress is even greater than that, allowing RapidSpar to recover drives which software tools would only destroy due to lack of hardware read instability handling.

DISABLE FAILED/WEAK HEADS

SOFTWARE

Most drives use multiple read/write heads, one for each side of a platter. Each head is a separate physical part and they usually degrade at different rates. If one head cannot read well anymore then the drive becomes entirely inaccessible by software recovery methods because software cannot stop accessing the failed head.

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RapidSpar uses vendor specific commands to test each individual head, and gives an option to disable failed/weak heads to achieve a partial recovery from the heads which are still working.

IDENTIFY MORE DRIVES

SOFTWARE

To begin working with drives, standard computers send a large number of initialization commands, such as Set UDMA Transfer Mode, Initialize S.M.A.R.T., Initialize Device, Recalibrate, and so on. If the drive is degraded, it may fail to respond to all of these commands within the expected timeframe, leaving it unidentified in BIOS.

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RapidSpar uses the lightest initialization procedure for each case, which for most modern drives is a single Disk Identification command. RapidSpar is also built to be forgiving of possible deviations in the drive's response, ensuring that there are no unexpected problems and that only truly failed drives are unidentified.

REPAIR FIRMWARE ISSUES

Hard drives with firmware issues typically spin up and sound healthy, but cannot identify in a standard PC. RapidSpar uses the cloud-driven RapidNebula system to perform automated firmware repairs. We collect hundreds of diagnostic parameters from the drive and use statistical analysis to compare your case with all the other cases which were previously solved by the RapidNebula system. When the problem is identified, the relevant solution is sent down by our servers which is then applied by the local RapidSpar device. As of June, 2017, the RapidNebula system is repairing just over half of drives with firmware issues and it will only improve with time as our case database grows. User data does not ever leave the local PC – we collect strictly diagnostic information about the drive, as necessary for recovery processes. Our license agreement guarantees this fact.

RECOVER FILES AND CLONE THE DRIVE IN ONE PROCESS

RapidSpar combines the convenience of full-drive cloning with the precision of direct file recovery. First it clones the file system metadata to the healthy target drive. From there it works only with the target drive to parse the file system and build a file tree. Some file system elements have multiple copies, which will be located and used automatically in place of elements that have bad sectors. Once the file tree is built, specific files can be cloned directly to the target drive, after which the rest of the drive can be filled in to complete the full clone. This functionality is made possible by the live sector map RapidSpar maintains on its built-in SSD, which keeps the addresses of all previously recovered sectors, ensuring that RapidSpar never reads the same sector twice. This also allows the recovery process to be stopped and continued at any time without losing progress.

ELIMINATE CRASHES

RapidSpar's hardware, firmware, and software are all specifically designed for data recovery and will work reliably despite drive errors/instabilities. Drives are handled directly by the RapidSpar device and Windows is removed from the recovery process, ensuring that the PC will not crash, restart, or otherwise stop working due to drive issues.

ACCESS PROFESSIONAL DATA RECOVERY SUPPORT

All of our tools include technical support from our team of data recovery professionals who are also our developers. We even help with cases that fall outside of the scope of our tools! For example when the damaged printed circuit board of a non-spinning drive must be swapped to proceed with the recovery, our team can help you figure out which donor drive is compatible, and which firmware chip(s) must be transferred to make this swap a success.

THIS FUNCTIONALITY ADDS UP TO RECOVER 50% OF THE CASES WHERE SOFTWARE APPLICATIONS FAIL TO DO THE JOB!