

## DRS (Data Recovery System)

### Forensic Data Recovery & File Carving

- Fully support systems in NTFS, FAT12/16/32, exFAT, EXT2/3/4, HFS, HFS+ and HFSx, XFS, JFS, CDFS, UFS, YAFFS, YAFFS2 etc.
- Support file directory recovery for FAT file system
- Support PC, laptop, USB, SD card, CF card, TF card, Memory Stick, voice recorder, web server, IPC, surveillance recorder and diverse virtual storage file, as well as hexadecimal view. The supported format includes DD image(as well as mobile phone image), E01 and AFF image, etc.(for DRS Preview, certain hardware interfaces shall be prepared by the user himself)
- Support data recovery from VMDK virtual machine files.
- Support RAID recovery, including RAID0, RAID1, RAID5, RAID5e, RAID5ee, JBOD, and HP dual cycle, allowing the options of auto/manual analysis.
- ExtremeRI provides first-class fragment rebuilding technology into DRS, going deep into free sectors to scan for fragments and reconstruct files through baselevel calculation. DRS offers expected results to recover damaged photos and files, breaking through the limits of data recovery.
- Support scanning lost partition, and the custom scanning partitions is based on partition type and size.
- Support fast scan mode and advanced scan mode, which make recover data more flexible and efficient.
- Recover files by file signatures from unallocated data area, supporting 266 types of file formats including pictures, videos, compressed files, e-mails, etc.
- Support raw scan with customized file signature.
- Support breakpoint restore function which skips the recovered file to shorten the recovery time.

- Pattern scan supported, only files under designated directory are scanned. Extremely efficient when recovering files from bad sector disks.
- Save scanning history automatically, easy access of history scanning results.
- Three alternative displays of scanning results, sorting recovered files by real directories, file extensions, or last modified time.
- File content keywords search, supporting ASCII, big-endian Unicode, little-endian Unicode, GB2312, UTF8, supporting simultaneous search with multiple codings.
- Keywords search of filename folder name or file content, supporting hexadecimal view.
- Support specifying time range to search.
- File filtering by size or properties.
- Display of scanning results in detailed lists.
- Files thumbnail preview. Picture preview, zoom, and rotate.
- Documents preview, supporting doc, docx, xls, xlsx, ppt, pptx, pdf, txt, ini, c, cpp, h, f, xml, etc.
- Hex analyzer embedded, supporting value search, block navigation, data translator, template selection, calculator, etc.
- Simultaneous recovery of multiple partitions.
- Filtering out invalid files when recovering files.
- Recover file with the original directory structure.
- Hash calculation for all files recovered.

## **Disk Diagnostics**

- One-key quick disk diagnostics, detecting disk's PCB status, firmware function, ATA encryption, hidden sectors, S.M.A.R.T info, etc. (partially supported in DRS Preview)
- Disk firmware encryption detection and one-key decryption. (not available in DRS Preview)
- One-key HPA restore, recovering hidden sectors. (not available in DRS Preview)
- Quick diagnostics for USB drives, acquiring basic info, scanning sector status.

- Two bad sector scan modes are offered for HDD, the fast scan and the deep scan, to detect HDD bad sector status.
- Direct sector view, check out any sector data in decimal or hexadecimal display.

## **Firmware Recovery**

(Firmware recovery is not available in DRS Preview)

- Possess the core value out of the past 15 years experiences, DRS aims to provide complete solution to firmware damage, supporting all popular brands including Seagate, Western Digital, Maxtor, Hitachi, Samsung, Fujitsu and Toshiba, in total with thousands of versions.
- Fast recovery on common firmware problems, hidden sectors and unlock ATA encryption.
- Support Western Digital USB hard disk decryption.
- Support Western Digital slow problem recovery.
- Support Seagate common firmware problem recovery, such as disk busy, busy after ready, LED:CC, MCMT, partial sector inaccessible, etc.
- Seagate diagnose port unlock.
- Hitachi one-key decryption, partial sector inaccessible recovery.
- Toshiba G-list corruption recovery, virtual translator.

## **Disk Imaging**

- DRS High-speed Image Module works for normal HDD, USB Flash, CF cards and TF cards, RAID, Imaging file, etc. It can copy & clone data from HDD, USB Flash, CF cards and memory sticks, RAID, Imaging file which is widely applied to HDD copy by byte-to-byte and HDD image in the field of the digital forensics field.
- Supporting image format: DD, E01, AFF, VHD and VHDX
- Support imaging in bad sectors, provide solutions to stuck disk when imaging and even to inoperable sector data etc. Users can customize the configuration of accuracy to load sector data and image copy-failed sectors. The whole process of image is displayed on real time. Through anti- stuck technology, DRS offers an

ideal solution to bad sector imaging. (not available in DRS Preview)

- Apply UDMA-133 transform technology, and the testing copy speed reaches 12GB/min.
- Support reading data by forward/backward or reading repeatedly in order to extract more data. (not available in DRS Preview)
- Support identify the damaged head and adjust to selective head imaging. (not available in DRS Preview)
- Best solution for disks with bad sectors. (not available in DRS Preview)
- Break point resume, imaging process can be recovered and continued after unexpected interruption, like system crash.
- Support imaging a larger drive to a smaller drive. (the image will start from the first sector)
- Hash calculation for images.

## **Disk Monitor and Control**

- Real-time monitoring of disk power and current, showing in chart or graphic display.(not available in DRS Preview)
- Real-time display of disk basic info and connection status. (not available in DRS Preview)
- Disk power control, motor control, disk hard and soft reset. (not available in DRS Preview)
- Disk read and write control, transmission speed control. (not available in DRS Preview)
- Real-time data display, records erase. (not available in DRS Preview)
- Automatic system log, support to export or erase system operation log. (not available in DRS Preview)

## **Forensic Report**

- Disk diagnostic report, forensic imaging report and data recovery report provided.
- Support report preview with zoom control.
- Support exporting report in HTML or PDF format.

- Support printing report.

## Others

- Multi-tasking, supporting running up to 4 DRS process at the same time.
- Software environment auto detection.
- MP4 repair tool and Hash calculator provided in tool box.
- Support Hash calculation for physical drives.
- Best solution for disks with bad sectors.
- Only files under designated directory are scanned.
- File under designated directories are instantly recovered by only clicking desired directories.

## Hardware Unit



Dimensions: 10.8 x 7.2 x 3.4 in (274 x 182 x 87 mm)

Weight: 4.34 lb (1.97 kg)

Supported ports: USB1.0/2.0/3.0, IDE, SAS, SCSI, SATA1.0/2.0/3.0 with built-in write-blocker

Supported drive: All Drive Brands, flash cards and RAID series

Supported file system: NTFS, FAT16/32, exFAT, EXT2/3/4, HFS and HFS+

LED indicators for main controllers

Wide working temperature range: 0°C-60°C(33.8°F-140°F)

Relative humidity: 30%-80%

Power consumption: 72 Watt peak

Supply voltage: Input 12 VDC

## DRS Accessories

Item	Qty.
USB3.0 Data Cable	1
Adapter of SATA/3.5" IDE	1
SATA3.0 Extension Cable/Card	1
USB to IDE adaptor	1
Serial Command Transmitter	1
Serial Jumpers(Kit)	1
Adapter of 3.5"	1
USB3.0 Multi-functional Card Reader	1
USB3.0 4-in-1 Hub	1