Acronis Revive 2019

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1 Introduction to Acronis Revive 2019

Acronis Revive 2019 is a powerful and cost-effective undelete and data recovery software. Empowered by the new unique data recovery technologies, it is the best data recovery solution for recovering files from FAT12/16/32, NTFS, ReFS/ReFS2+ file system (Resilient File System, Windows 2012/2016 Server), and NTFS5 (created or updated by Windows NT 4.0, 2000, XP, 2003, Vista, 7.) logical disks. Flexible parameter settings give you absolute control over the data recovery.

1.1 Acronis Revive 2019 Features

Acronis Revive 2019 features:

- Wizard-oriented interface.
- Host OS: Windows XP, 2003, Vista, 7, 8/8.1, Server 2012, Windows 10.
- Supported file systems: FAT12, FAT16, FAT32, NTFS, NTFS5 (created and updated by Windows 2000/XP/2003/Vista/7/8/8.1, Server 2012, 10), ReFS/ReFS2+ file system (Resilient File System, Windows 2012/2016 Server).
- Support for known file types. Acronis Revive 2019 searches for files with known typical features of their structures allowing the user to search for files on devices with unknown files systems, including an HD, CD, DVD, floppy disk, Compact Flash Card, USB drive, ZIP drive, Memory Sticks, and other removable media.
- Detailed scan process visualization. While searching an object, Acronis Revive 2019 graphically shows items that have been found, including files of known types, FAT and NTFS MFT records, boot records, etc.
- Dynamic disk support.
- Creates image files for logical disks and hard drives. Such image files can be processed like regular disks. Acronis Revive 2019 can scan objects while creating their images.
- Recovers compressed files (NTFS, NTFS5).
- Recovers encrypted files (NTFS5).
- Recovers alternative data streams (NTFS, NTFS5).
- Support for NTFS deduplication.
- Recognizes localized names.

- Recovered files can be saved on any (including network) disks visible by the host operating system.
- A hexadecimal disk and file viewer.
- File preview. Most of the file types can be previewed to estimate recovery chances.
- Support for S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) attribute monitoring.
- Installation on a removable device. This feature is useful when lost files reside on a system disk and program installation may overwrite them making their recovery impossible.

Acronis Revive 2019 recovers files:

- That have been removed without Recycle Bin, or when Recycle Bin has been emptied;
- Removed by virus attack or power failure;
- From deleted or corrupted logical disks or partitions

Acronis Revive 2019 can create image files for a logical disk or hard drive. Such image files can be processed like regular disks. Images are very useful if there is a risk of total data loss due to hardware malfunction. If bad blocks are constantly appearing on a hard drive, the only way to save the data is to immediately create an image of that drive. All data search and recovery can be done from this image.

1.2   System Requirements and Installation Notes

System Requirements

- An Intel-compatible platform running Windows XP, 2003, Vista, 7, 8/8.1, Server 2012, Windows 10.
- At least 32 MB of RAM, a mouse, and enough disk space for recovered files, image files, etc.
- The administrative privileges are required to install and run Acronis Revive 2019 under Windows /XP/2003/Vista/7/8/8.1/Server 2012/Windows 10.

Installation Notes

NEVER install any software or write any data on the disk where lost data resides! Or you may damage or even completely lose the data.

See the Data Recovery Issues (p. 47) topic for details.

If the lost data resides on your system disk (usually C:):

Create a portable version

You may create a portable version on any removable media. When installing Acronis Revive 2019, select Create portable version on the Acronis Revive 2019 installation wizard and specify the device with removable storage.

Acronis Revive 2019 portable is installed in the Acronis Revive 2019 folder in the device root. Also the autorun.inf file is created and any time the device is connected, Acronis Revive 2019 will start automatically. If you do not want that, simply delete the autorun.inf file from the device and start Acronis Revive 2019 portable by launch the Acronis Revive 2019.exe from the Acronis Revive 2019 folder.

Use another computer

1. Install Acronis Revive 2019 on a second computer.

2. Disconnect the hard drive with the lost data from the computer where it has been hosted (the primary computer).

3. Connect the hard drive to the second computer. You may connect it as a second hard drive or use an HDD-to-USB 2.0 adapter.

4. Run Acronis Revive 2019 on the second computer and recover the data.

   Now you may reconnect the hard drive to the first computer.

1.3   Technical Support

Maintenance and Support Program

If you need assistance with your Acronis product, please go to http://www.acronis.com/support/

Product Updates

When a new version of Acronis Revive 2019 is available, a special notification icon is displayed in the main window of the program.

To update Acronis Revive 2019:

1. Start Acronis Revive 2019.
2. Click **Download Update**.
3. Follow the installation wizard's steps.

2 Data Recovery Using Acronis Revive 2019

NEVER TRY TO SAVE RECOVERED FILES/FOLDERS TO THE SAME LOGICAL DISK WHERE THEY RESIDE!!!

Or you may obtain unpredictable results and lose all of your data.

See the Data Recovery Issues (p. 47) topic for details.

You may start data recovery with Acronis Revive 2019 directly from Windows Explorer.

Right-click the disk in Windows Explorer and select **Find recently deleted files with Acronis Revive 2019** on the shortcut menu

Note: If you try to start Acronis Revive 2019 under an account without administrative rights, you will have to enter an administrative password on the **User Account Control** dialog box.

Depending on your situation, you will need to:

- Recover lost files from an existing logical disk (p. 7)
- Recover lost files from a deleted logical disk (p. 37)
- Create or load a disk image (p. 35)

You make the selection on the **Step1. Select disk** panel

Step1. Select disk *panel*
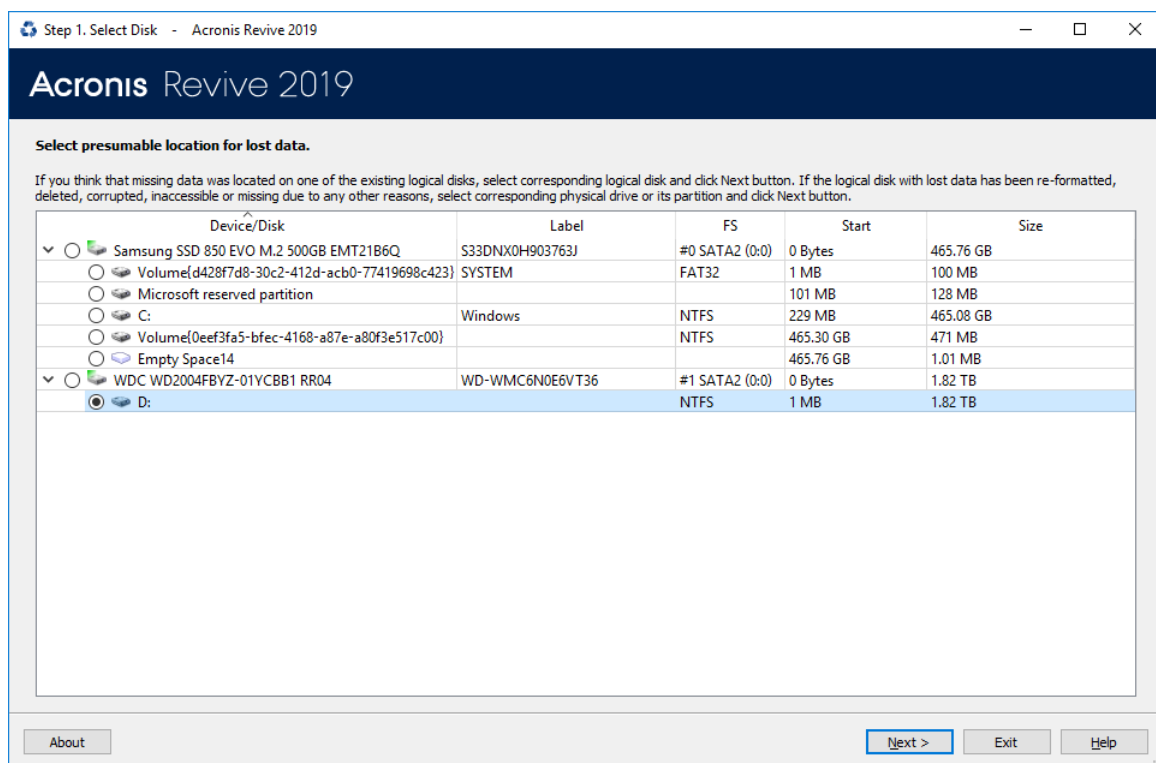
S.M.A.R.T. Info for a Hard Drive

Acronis Revive 2019 shows hard drive S.M.A.R.T. states using their icons.

- *Hard drive S.M.A.R.T. states and icons*

Normal: This state indicates that the hard drive is in good conditions.	
Warning: This state indicates that some small problems with the disk are possible in the future, you may work with it but with cautions and regular check of these parameters. Disk imaging (p. 35) is strongly recommended.	
Critical: This state indicates that the hard drive conditions are critical and chances of hardware failure are great. The best recommendation for this case is to stop working with the disk and bring it to professional data recovery specialists. You may though continue to work with the disk at your own risk, but Disk imaging (p. 35) is very strongly recommended.	

You may check the hardware conditions of a drive by viewing its S.M.A.R.T data. See the S.M.A.R.T. data (p. 50) topic for more details.

S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) is a technology widely-used in hard drives and solid-state devices that monitors their reliability conditions to predict possible hardware failures.

2.1   Recover Lost Files from Existing Logical Disks

Note: If you have done all the operations listed below, but still cannot find your lost files, you need to perform an exhaustive search (p. 24) for the files on the logical disk.

To recover deleted files from a logical disk,

1. Select the logical disk on the Acronis Revive 2019 Step1. Select disk and click the **Next** button, or double-click the disk.
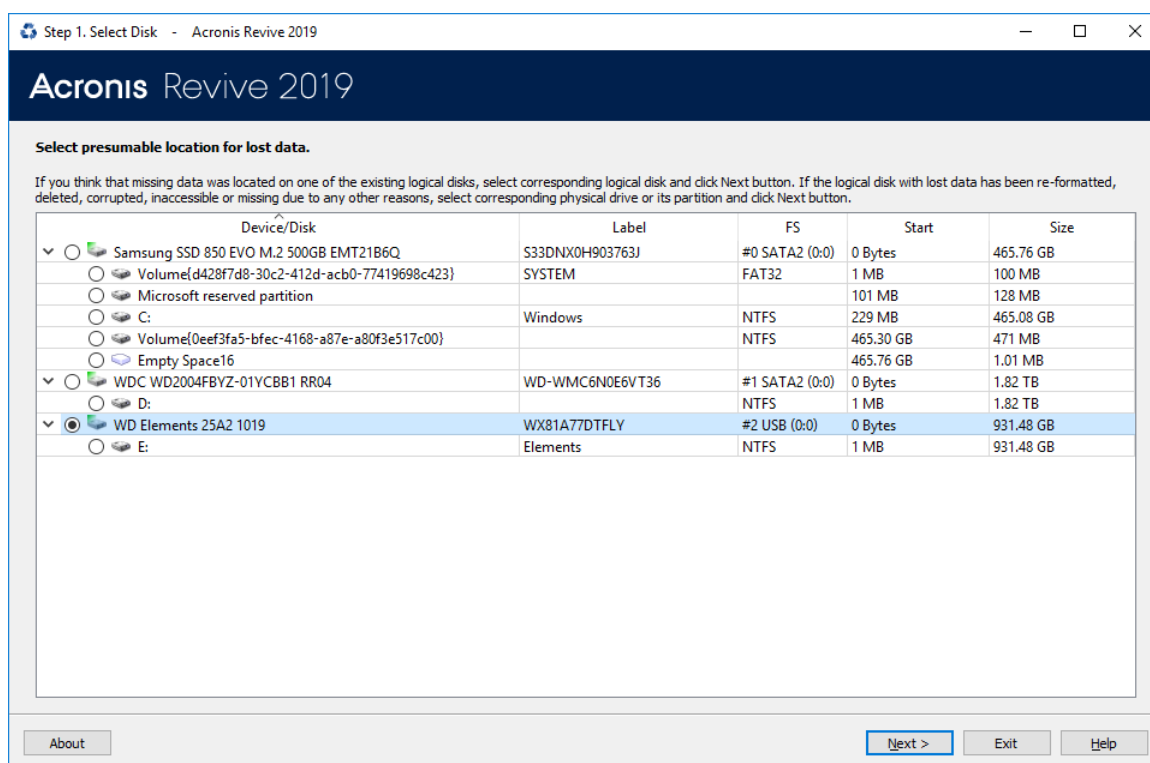
You may start data recovery with Acronis Revive 2019 directly from Windows Explorer.

Right-click the disk in Windows Explorer and select **Find recently deleted files with Acronis Revive 2019** on the shortcut menu
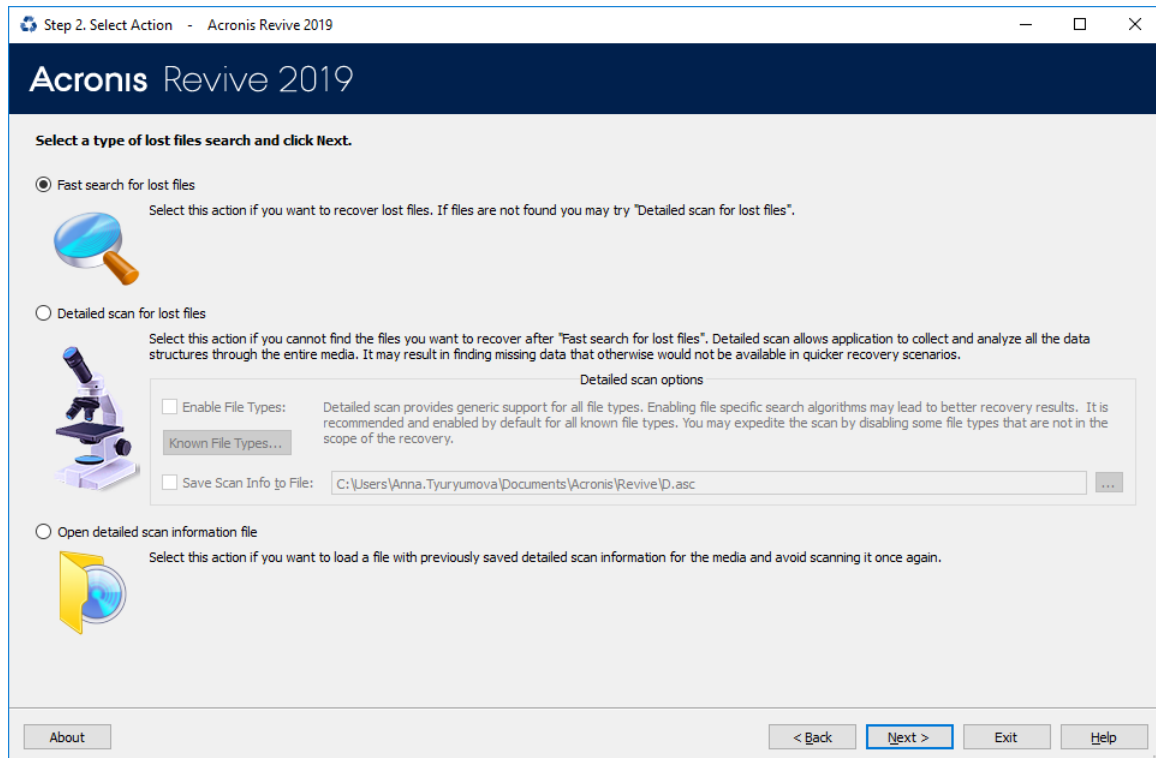
Note: If you try to start Acronis Revive 2019 under an account without administrative rights, you will have to enter an administrative password on the **User Account Control** dialog box.

2. Select **Fast search for recently deleted files** on the Step 2. Select action panel and click the **Next** button

Acronis Revive 2019 will change its panel showing the disk's folders/files structure

Acronis Revive 2019 analyzes data on the disk and displays all files which records have been found. Then deleted files, which records still remain, can be recovered. If files have not been found, that means that their records have been deleted. To find such files, Detailed Scan (p. 24) is required.

Please note that Acronis Revive 2019 shows only those files/folders that match a specified file mask (p. 19).

Step 3. Select files for recovery panel
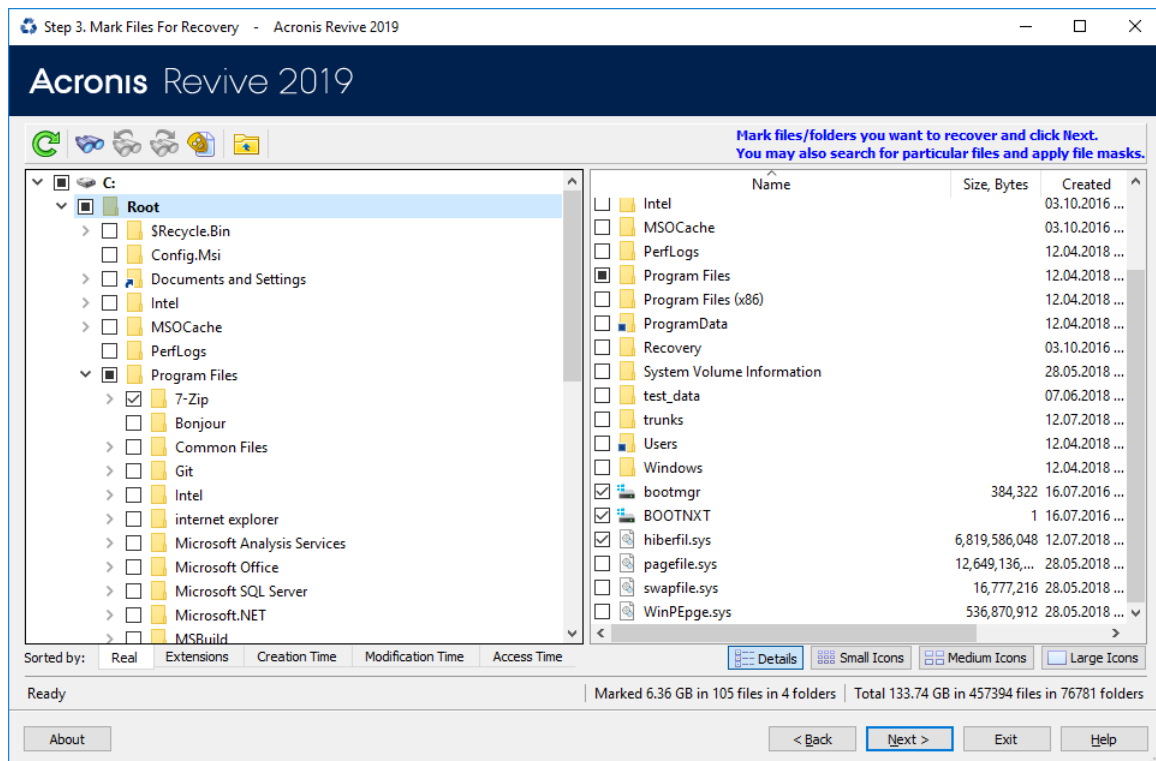
Panel view options

You may select which columns will be shown on the **Contents** pane. Right-click the table header and select the required ones. You may also arrange the data as required. Select the required arrangement on the **Mark files for recovery** panel.

Buttons

	Find Click this button to find a particular file/folder. Acronis Revive 2019 searches for files only among files specified by a File Mask.
	Find Next Click this button to find the next object specified in the Find dialog window.
	Find Previous Click this button to find the previous object specified in the Find dialog window.
	File Mask Click this button to specify a file mask.
	Up Click this button to move highlighting one folder up.

Folders panel

Recovered_Files	Deleted folder
Files to Delete	Marked folder (all child objects in this folder are marked)

☑ 📁 Files to Recover	Partially marked folder (some child objects in this folder are marked)
☐ 📁 Users	Target of a symlinked folder
☐ 📁 Documents and Settings	Symlink to a folder
☐ 📁 ?797640_	Cross-linked deleted folder (A FAT folder containing data which also belongs to other FAT folders.)
┄ ☑ 📁 ?MP	Questionable Cross-linked deleted folder (A FAT folder found by Acronis Revive 2019, but with apparently invalid content.)

You may also arrange the data as required: by their extensions, creation/modification time, or as a real file structure

Sorted by:	Real	Extensions	Creation Time	Modification Time	Access Time
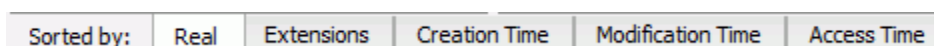
Files panel

☐ ✖ ~$pe Test 2.doc	Deleted file:
☑ ✖ Wipe Test 1.doc	Marked deleted file
☐ 📄 test1.arc	Selected deleted file
☐ 📄 Wipe Test 2.doc	Target of a hard link
☐ ✖ Wipe Test 2.doc	Hard link to a file

The Find Results panel

Appears when File Search (p. 16) has been performed.

```
Find Results                                                               ✕
Find All "File Extensions: doc", "G: -> WDC WD75AA-00BAA0 10.09K11 : WD-WMA2L2883101\"
Root/Files to Recover/~$pe Test 2.doc
Root/Files to Recover/Wipe Test 1.doc
Root/Files to Recover/Wipe Test 2.doc
Root/Files to Recover/Wipe Test 3.doc
Root/Files to Recover/Wipe Test 4.doc
Root/Files to Recover/Wipe Test 5.doc
Root/Files to Recover/Wipe Test 6.doc
=== Matched 7 files and 0 folders out of total 183 files and 56 folders searched ===
```

Log panel

Ready	Marked 3.03 MB in 7 files in 3 folders	Total 4.42 GB in 183 files in 56 folders

You may also copy the information about folders and files.

⊟   **For the folder (the Folders pane):**

Click **Copy Folder:**	To copy the folder's name

Click **Copy Path:**	To copy the path to the folder

⊟   **For the file (the Contents pane):**

Click **Copy (Column Name):**	To copy the file's Name, Size, Created, etc., depending on which column is selected
Click **Copy Path:**	To copy the file path.
Click **Copy Selected Text:**	To copy all the columns of the selected file.

3. Select file(s)/folder(s) to recover and click the **Next** button

Mark a file/folder to recover by clicking the box left to the object, or select Mark on the shortcut menu. You may mark several files/folders in different parent folders. You may mark all objects in the folder by selecting Mark All on the shortcut menu. To unmark an object, click the box left to the object once more or select Unmark on the shortcut menu. You may unmark all objects in the folder by selecting Unmark All on the shortcut menu.

Acronis Revive 2019 can search for a particular file. Go to the Searching for a File (p. 16) topic for details.

File content may be previewed before recovery. Go to the Previewing Files (p. 21) topic for details.

If you do not find files that you want to recover:

Sometimes Acronis Revive 2019 can find the files but not the entire file paths to them. It puts such files into the Extra Found Files folder. Try to search for the files there. If that does not help, try to find them by using file search globally on the entire disk. Go to the Searching for a File (p. 16) topic for details

If you still cannot find files that you want to recover but are sure they have existed on the logical disk, you need to use Detailed Scan (p. 24) to find them.

4. Specify recover options and output folder on the Step 4. Select place for recovered files panel and click the Recover button

NEVER TRY TO SAVE RECOVERED FILES/FOLDERS TO THE SAME LOGICAL DISK WHERE THEY RESIDE!!!

Or you may obtain unpredictable results and lose all of your data.

☐ *Recover options*

Recover real folders structure	Enabled when the files are sorted by their extensions or date. If this check box is selected, Acronis Revive 2019 recovers the real folders/files structure on the disk rather than that of sorted files.
Ignore file mask	If this check box is selected, Acronis Revive 2019 recovers all content of selected folder(s), ignoring specified File Mask (p. 19).
Recover alternative data streams:	If this check box is selected, Acronis Revive 2019 recovers alternative data streams for NTFS files. Has no effect on FAT files. See Extended Information Recovery (p. 49) for details.
Recover security attributes:	If this check box is selected, Acronis Revive 2019 recovers security attributes for NTFS files. Has no effect on FAT files. See Extended Information Recovery (p. 49) for details.
Do not recover hidden and system attributes	If this check box is selected, Acronis Revive 2019 will remove the Hidden and System attributes from recovered files enabling the user to see them in the Windows Explorer.
Bad Sectors Options	You may specify how to process files with bad sectors. You may specify the number of attempts to read the bad sectors and a pattern to fill the bad block. Acronis Revive 2019 treats bad sectors in the following way: It reads a certain part of disk (predefined by Windows) and If **Default read attempts** is set to 0, the entire part with bad sectors will be filled with the specified pattern. If **Default read attempts** is set to a non-zero value, Acronis Revive 2019 reads again that part sector by sector, repeating the attempts the specified number of times. If Acronis Revive 2019 still cannot read a bad sector, it fills

	the sectors with the specified pattern. In this case only the bad sectors will be filled with the pattern, but that extremely slows the disk read process.
	For example, if you set **Default read attempts** to 1, a bad sector will be read 2 times.

Bad Sectors *dialog box*
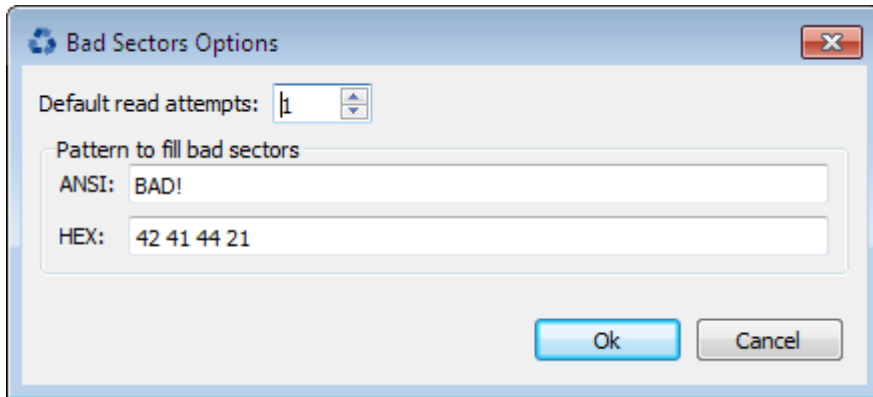
If you try to specify the same disk for the recovered files on which the deleted files resided, the 'Saving a recovered file to the same disk...' message will appear. You may continue recovering the files on such disk, but at your own risk.
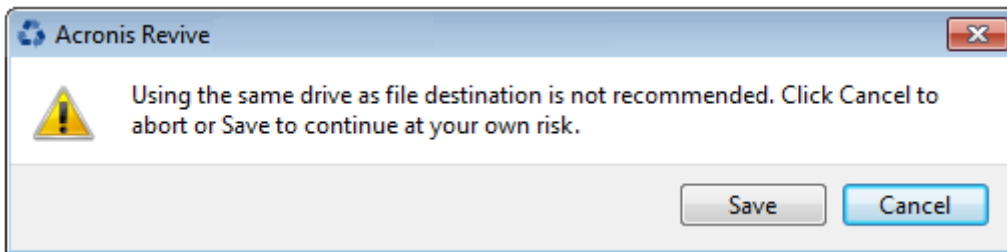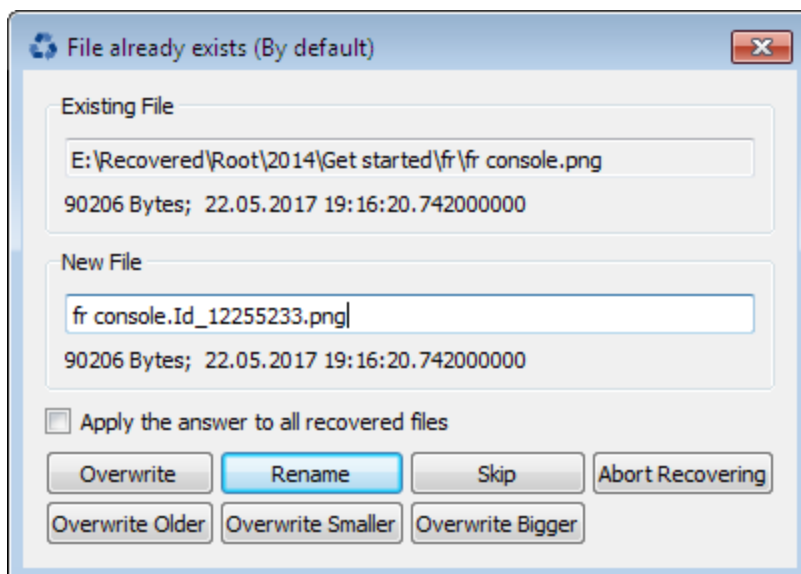

- ▪ **Acronis Revive 2019 will recover the selected/marked files/folders to the specified folder**

  The **Step 5. Recovery status** panel will show the results.

  If there are file(s) with the same name in the output folder, the **File already exists** dialog box will appear. You may overwrite, rename, or skip the file, or abort recovery.

  File already exists dialog box:

Rename	If this option is selected, Acronis Revive 2019 adds a File ID to the file name. If a file already exists with the same name and that file ID, a number will be added to the file name and file ID.
Skip	If this option is selected, Acronis Revive 2019 skips all new files with the same name.
Overwrite	If this option is selected, Acronis Revive 2019 overwrites the existing file with the new one.
Overwrite Older	If this option is selected, Acronis Revive 2019 overwrites the existing file with the new one if the existing file is older than the new file. The time stamp used is Modified.
Overwrite Smaller	If this option is selected, Acronis Revive 2019 overwrites the existing file with the new one if the existing file is smaller than the new file. The time stamp used is Modified.
Overwrite Bigger	If this option is selected, R-Acronis Revive 2019 overwrites the existing file with the new one if the existing file is bigger than the new file. The time stamp used is Modified.
Apply the answer to all recovered files	If this check box is selected, the chosen option will be applied to all other duplicate files.

If a file to be recovered appears to have an invalid name, a **Broken File Name** dialog box will appear. You may correct the name and resume file recovery.

Broken File Name dialog box:
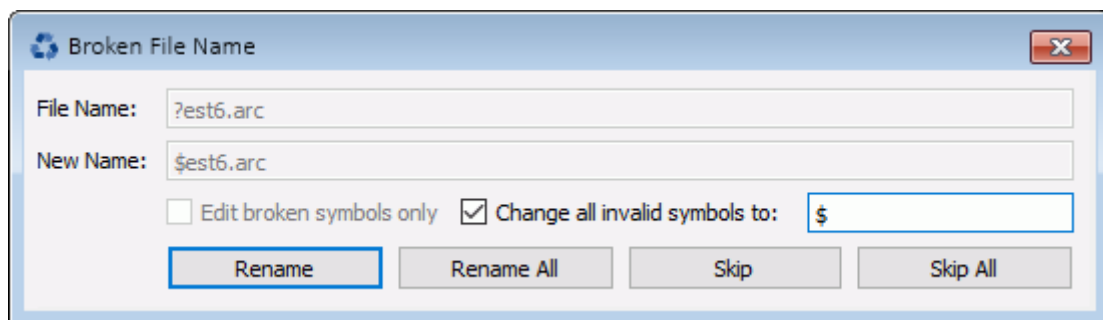
☐ *Broken File Name options*

File name	Shows the current incorrect file name.
New name	Field for a new file name.
Edit broken symbols only	If this check box is selected, only invalid symbols may be corrected
Change all invalid symbols to	If this check box is selected, all invalid symbols will be changed to the specified symbol
Buttons	
Rename	Click to resume file recovery
Rename All	Click to resume file recovery. All other files will be renamed according to the specified rule.
Skip	Click to skip this file

Skip All	Click to skip all files and stop file recovery

If there is no space available for the recovered files, the **There is not enough space on the disk** dialog box will appear. You may either select other place to store the files, skip that particular file or abort the recovery process.

There is not enough space on the disk dialog box
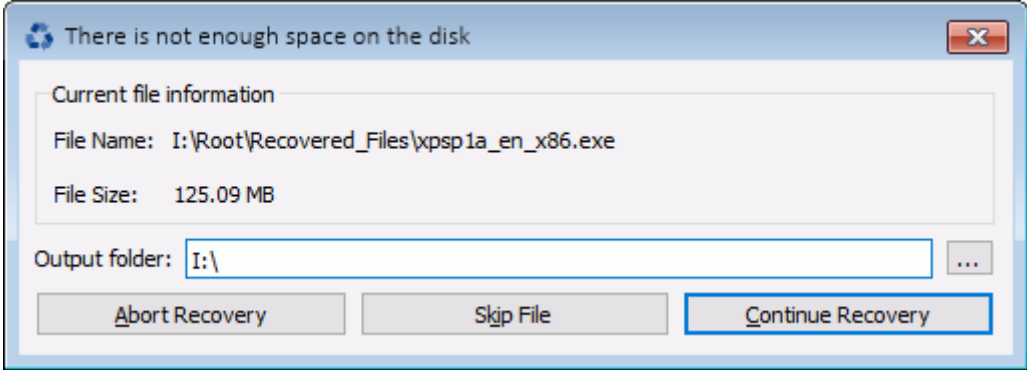
Step 5. Recovery status panel
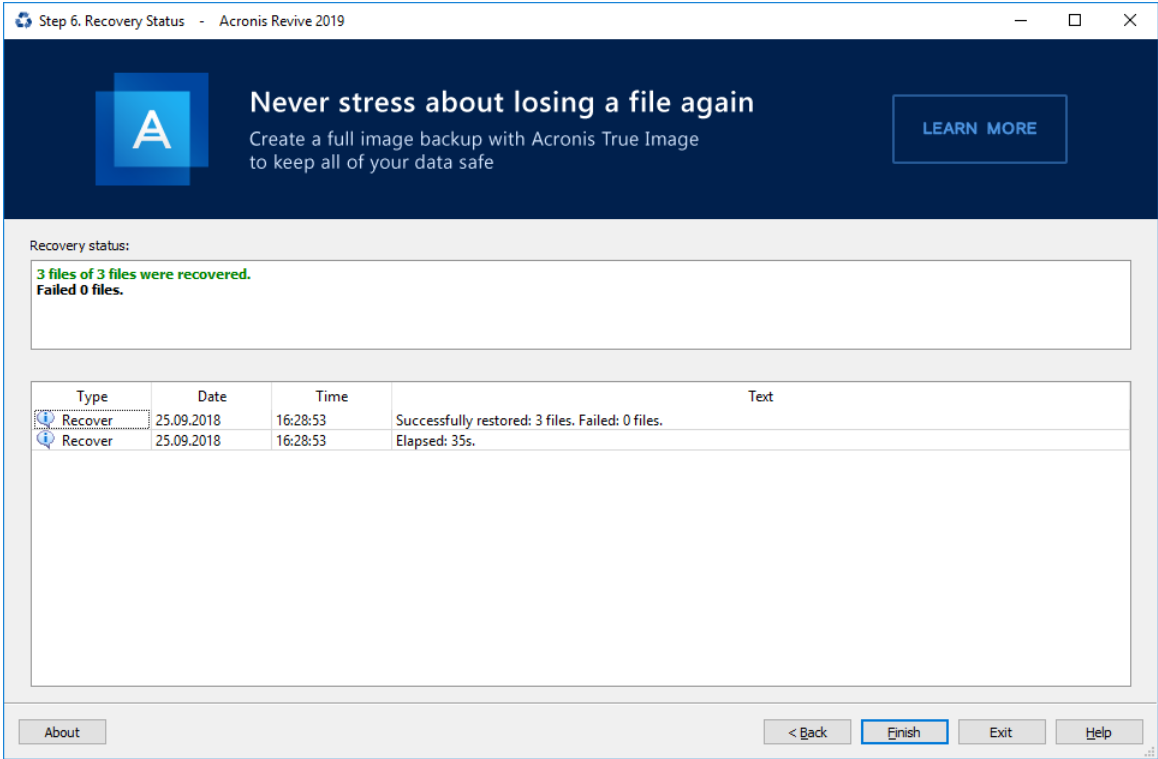
Click the Finish button to return to the **Select the disk to recover files from** panel or Exit to quit Acronis Revive 2019.

Searching for a File (p. 16)

Finding Previous File Versions (p. 18)

Regular Expressions (p. 20)

Previewing Files (p. 21)

2.1.1 Searching for a File

Acronis Revive 2019 can find a particular file, if it is difficult to find it manually on the **Folders** or **Files** panel. You can also automatically mark/unmark all found files.

Finding and marking files using the Find/Mark dialog box

You may find and mark a single or all the necessary files on the entire disk by using **Mark matched files** in the **Find/Mark** mode option.

To search for a file,

1. Click the **Find** button,
2. Specify a file to be found and its options on the **Find** dialog box, and click the **OK** button

Note that a File Mask (p. 19) may be applied.

Find/Mark dialog box
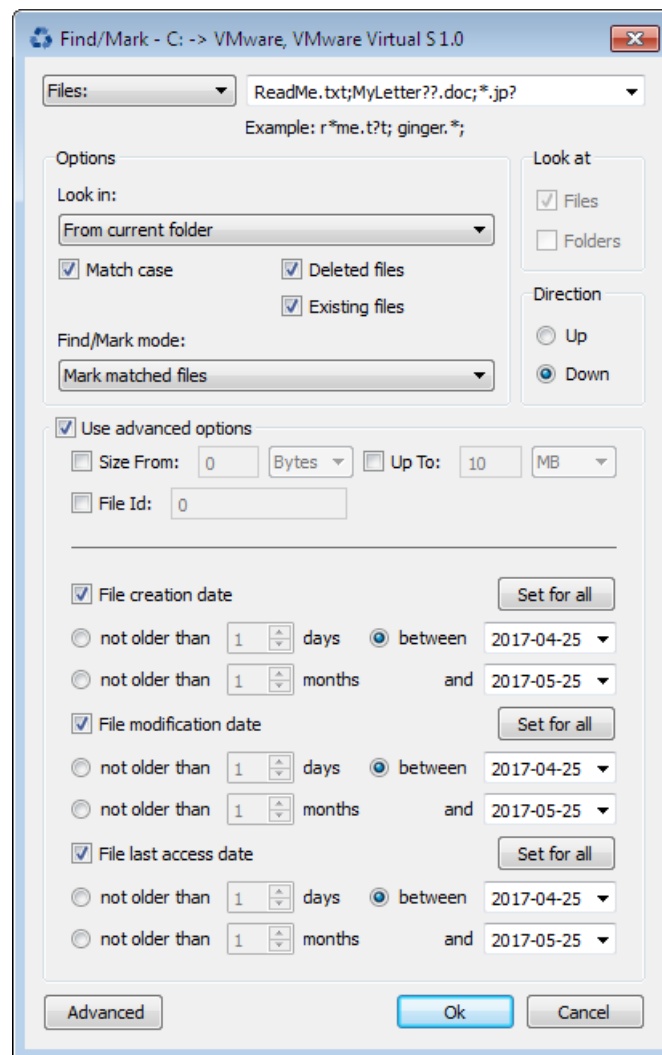
⊟ *Find/Mark options*

You may specify how to treat specified strings. Please note that Acronis Revive 2019 stores previously entered search strings.	
Files	If this option is selected, Acronis Revive 2019 treats specified strings as file names. Use ? for

	one unspecified character and * for an unlimited number of them to specify file masks.
File Extensions	If this option is selected, Acronis Revive 2019 treats specified strings as file extensions
Regular Expressions	If this option is selected, Acronis Revive 2019 treats specified strings as regular expressions
All Files	If this option is selected, Acronis Revive 2019 applies Advanced Options to all files.
Options	
Match case	If this check box is selected, Acronis Revive 2019 makes a case-sensitive search
Look in	Specifies where Acronis Revive 2019 searches for, and marks, files. It can look for them on the **Entire disk, From current folder**, In the **Current folder and subfolders**, and in the Current folder only. If **From current folder** is selected, you may also specify the **Direction** for the search from the current position in the current folder.
Deleted files	If this check box is selected, Acronis Revive 2019 makes a search among deleted files/folders.
Existing files	If this check box is selected, Acronis Revive 2019 makes a search among existing files/folders.
Find/Mark mode	Specifies what Acronis Revive 2019 does with the found files. It may: **Find all matched files.** Acronis Revive 2019 searches for all files that match the search criteria. The search results appear on the **Find Results** panel. **Find first matched file.** Acronis Revive 2019 stops at the first found file. **Mark matched files.** Acronis Revive 2019 marks all found files. **Unmark matched files.** Acronis Revive 2019 unmarks all found files. Please note, that when performing a new find and mark/unmark task, Acronis Revive 2019 does not takes into consideration the previous marked/unmarked state of files. For example, if you first mark all doc files, and then all txt files, all doc files remain marked, too. To unmark them, you should specify doc once again and select **Unmark matched files.**
Look at	
Files	If this check box is selected, Acronis Revive 2019 includes files into a search.
Folders	If this check box is selected, Acronis Revive 2019 includes folders into a search.
Direction	Specifies search direction from the current position. Available only if **From current folder** is selected in **Look in**.
Advanced Options	
Size from/up to	Specifies file size limits.
File Id	Specifies File Id that Acronis Revive 2019 assigns to a file.
Date	Specifies file date boundaries. Dates for **Modified**, **Created**, and **Last Accessed** timestamps may be set separately. The Set for all button sets the specified data for all fields.

Acronis Revive 2019 will show/mark the found file(s) on the **Find Results** panel.

To repeat the search,

▪ Click the **Find Next** or **Find Previous** buttons

Acronis Revive 2019 will show the found files on the **Find Results** panel

Sorting files by their extensions or creation/modification/accessed time

To sort files by their extensions or creation/modification/accessed time,

▪ **On the Sorted by bar, select**

Existing Structure	to sort the files by their existing folders/files structure
Extensions	to sort the files by their extensions
Creation Time	to sort the files by their creation time
Modification Time	to sort the files by their modification time
Accessed Time	to sort the files by their accessed time

Restorer Ultimate will show the sorted files in the **Folders** and **Content** panels, showing a path to each file

Files sorted by their extensions
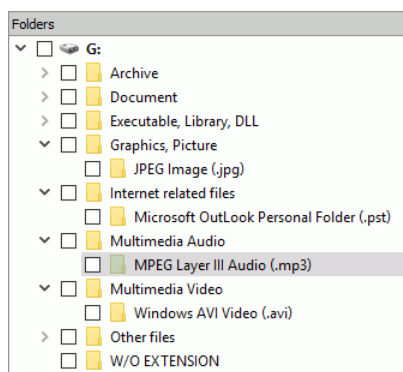
Real folders/files structure
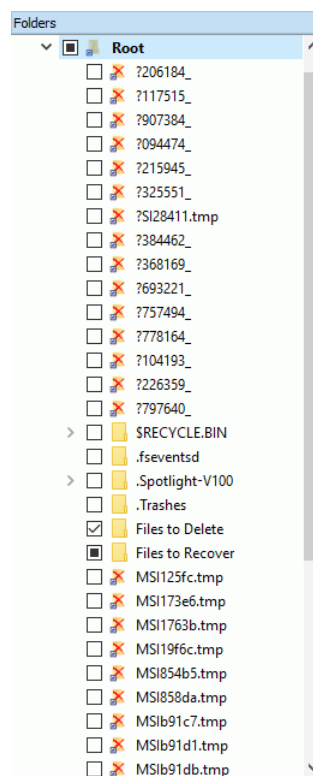
Files sorted by their creation/modification/accessed time
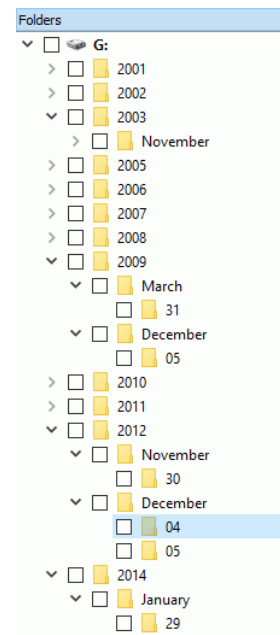
2.1.2   Finding Previous File Versions

Acronis Revive 2019 can find previous versions of files. It searches for them in the file's current folder and in **Extra Found Files**.

File versions are searched for using file size. If the size of a files is within 10% of the original filesize, the following conditions are checked:

Conditions	Legend
File name	N
File extension	E
Recognized file type	T

To search for previous file versions,

- Right-click the file and select **Find Previous Versions of the File** on the shortcut menu

Acronis Revive 2019 will show the files in the list:
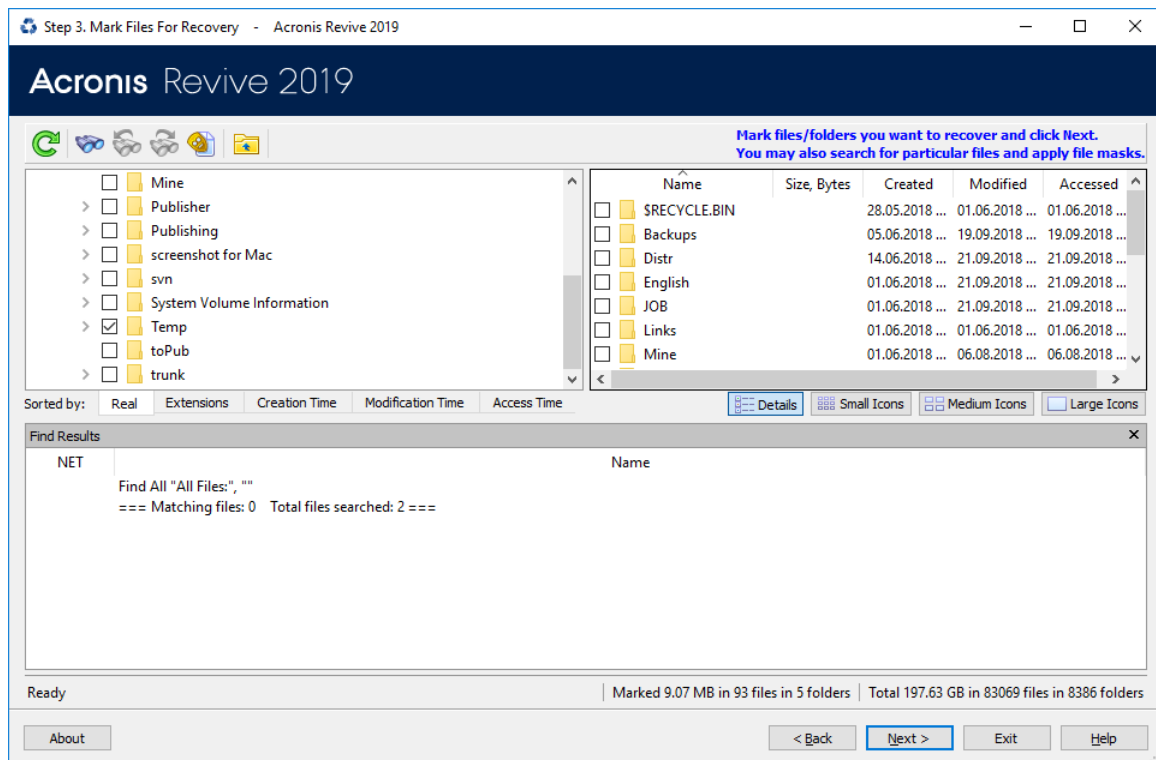
2.1.3   File Masks

Acronis Revive 2019 shows only those files/folders that match the specified file mask. File mask affects files/folders that are processed by the Recover and Find commands.

To specify a file mask,

1. Click the **File Mask** button, or

   Right-click a folder and select **File Mask** on the shortcut menu

2. Specify the file mask on the **File mask** dialog box and click the **OK** button
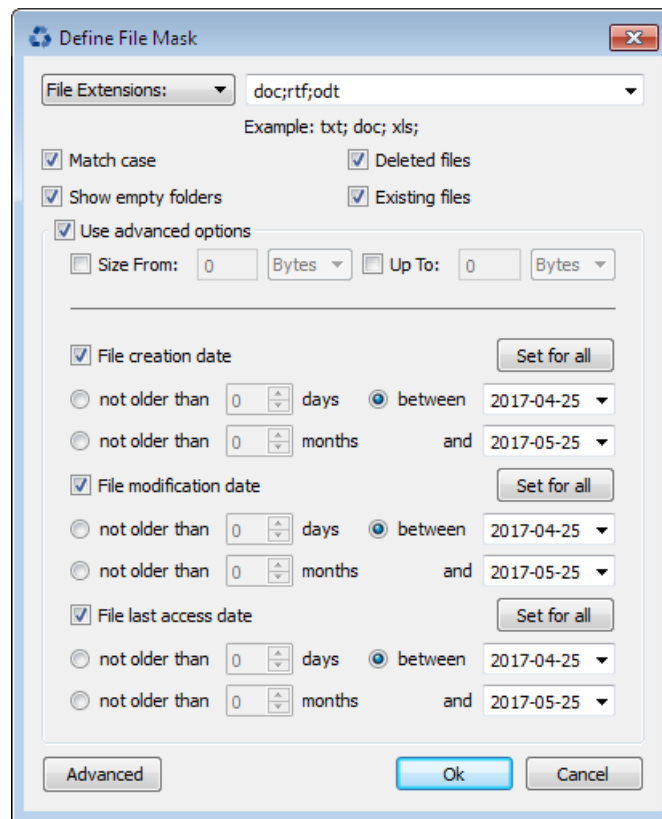
☐ *File mask options*

You may specify options for **All Files, File Extensions**, **Files**, and **Regular Expressions**	
Match case	If this check box is selected, Acronis Revive 2019 makes a case-sensitive search.
Show empty folders	If this check box is selected, Acronis Revive 2019 will show folders with no files matching the mask.
Deleted files	If this check box is selected, Acronis Revive 2019 makes a search among deleted files/folders.
Existing files	If this check box is selected, Acronis Revive 2019 makes a search among existing files/folders.
Advanced Options	
Size from/up to	Specifies file size limits.
Date	Specifies file date boundaries. Dates for **Modified**, **Created**, and **Last Accessed** timestamps may be set separately. The Set for all button sets the specified data for all fields.

Acronis Revive 2019 will show only those files that match the specified file masks

2.1.4   Regular Expressions

Regular expression is a notation for patterns of text, as opposed to exact strings of characters. The notation uses literal characters and metacharacters. Every character which does not have special meaning in the regular-expression syntax is a literal character and matches an occurrence of that character. For example, letters and numbers are literal characters. A metacharacter is a symbol with special meaning (an operator or delimiter) in the regular-expression syntax.

.	Wildcard: any character
*	Repeat: zero or more occurrences of previous character or class
^	Line position: beginning of line
$	Line position: end of line
[class]	Character class: any character in the set
[^class]	Inverse class: any character not in the set
[x-y]	Range: any characters within the specified range
\x	Escape: literal use of metacharacter x
\<xyz	Word position: beginning of the word
xyz\>	Word position: end of the word

For example, the following regular expression **.*** matches any string of characters, **^a** matches any string beginning with character a.

2.1.5   Previewing Files

Acronis Revive 2019 has a built-in file previewer that allows you to preview both existing and deleted files. You may use this feature to estimate recovery or a file to be recovered.

To preview a file

▪   Double-click the file on the **Files** panel, or

Right-click the file on the **Files** panel and select **Preview** on the shortcut menu

Acronis Revive 2019 will show the content of the file

If the previewer cannot recognize the format, the file will be opened in the Hex viewer (p. 42).

⊟ *List of supported file formats*

MS Office files: even without Microsoft Office installed		
Word documents: doc (Office 97-2003) and docx		
Excel spreadsheets xls (Office 97-2003) and xlsx		
PowerPoint presentation ppt (Office 97-2003) and pptx		
Adobe Acrobat pdf		
Video/Audio files: With proper software and codecs installed in the system		
Graphic files:		
Format	**Extension**	**Compression**
Adobe Photoshop Document	psd	
Alias Image	pix als alias	
Amiga IFF	iff blk	Rle
Bob Ray-Tracer	bob	
CALS Raster Goup 1	cal cals	
Canon PowerShot	crw	

Casio QV-10/100 Camera	cam	
Chinon ES-1000 digital camera	cmt	
Cloe Ray-tracer	clo	
CompuServe GIF	gif giff	
DKB Ray-tracer	dis	
DPX	dpx	
Deluxe Paint, Electronic Arts	lbm	
Digital F/X	tdim graf	
EPS Interchange Format	epi	
Electric Image	ei eidi	
Encapsulated Postscript (Preview)	eps	
Explore (TDI) & Maya	tdi iff	
Gimp Bitmap	xcf	
Gimp Brush	gbr	
Gimp Icon	ico	
Gimp Pattern	pat	
Image Magick	mif miff	
Imaging Fax	g3n	
Intergraph Format	itg cit rle	
Joint Photographic Experts Group	jpg jpeg jif jfif	
Jeff's Image Format	jif	
Kodak Cineon	cin dpx	
Kodak DC120 Digital Camera	kdc	
Kodak DC25 Camera	k25	
Kodak Photo CD	pcd	
Konica Camera File	kqp	
LucasFilm Format	lff	
MTV Ray-tracer	mtv	
Macintosh Quickdraw/Pict	pic pict pct	
Mayura Draw	pdx	
Multiple Network Graphics	mng	
OS/2 Bitmap	bmp bga	Rle 4 & 8 bits
Open Image Library Format	oil	
PaintShopPro Browser Cache File	jbf	
PaintShopPro Frame	pfr	
PaintShopPro Image	psp	

PaintShopPro Mask	msk	
PaintShopPro Pattern	pat	
PaintShopPro Picture Tube	tub	
PaintShopPro Texture	tex	
Palm Pilot	pdb	
Pegs	pxa pxs	
Photopaint Image	apx	
Picture Gear Pocket	prc	
Pixar picture file	pic pxr picio pixar	
Pixibox	pxb	
Portable Bitmap	pbm rpbm	
Portable Document Format	pdf	
Portable Greyscale	pgm rpgm	
Portable Image	pnm rpnm	
Portable Network Graphics	png	
Portable Pixmap	ppm rppm	
Postscript	ps	
Psion Series 3	pic	
Psion Series 5	mbm	
Qrt Ray-tracer	qrt	
Quantel VPB	vpb	
Quicktime Picture	qtif qti	
Rayshade	pic	
Ricoh Digital Camera	j6i	
SciTex Continuous Tone	sct sc	
Seattle Film Works	sfw	
Seattle Film Works multi-image	pwp	
Sega SJ-1 DIGIO	sj1	
Silicon Graphics RGB	rgb bw iris sgi	Rle
Softimage bitmap	pic si	Rle
Sony DSC-F1 Cyber-shot	pmp	
Sony Playstation TIM PSX	tim	
Sun Icon/Cursor	icon cursor pr	
Sun Raster Images	ras rast sun sr scr rs	
Sun TAAC file format	iff vff suniff taac	
Synthetic Universe	synu syn	

TIFF Revision 6	tif tim tiff	Rle LZW LZW + Prediction
TrueVision Targa	tga pix bpx vda icb vst	Rle
Utah Raster image	Rle	
Vista	vst	
Vivid Ray-tracer	img	
Wavefront Raster file	rla rlb	
Webshots	wbc wbp wbz	
Winfax	fxs fxo	
Windows & Aldus Metafile	wmf	
Windows Bitmap	bmp rle rl4 rl8 sys	Rle 4 & 8 bits
Windows Clipboard	clp	
Windows Cursor	cur	
Windows DIB	dib	
Windows Enhanced Metafile	emf	
Windows Icon	ico	
Wireless Bitmap (level 0)	wbmp wbm wap	
X11 BitMap	xbm bm	
X11 PixMap	xpm pm	
XV Visual Schnauzer	p7	
Zsoft Multi-page Paintbrush	dcx	
Zsoft Publisher's Paintbrush	pcx pcc dcx	Rle

2.1.6   Detailed Scan

If you did not find your lost file through the fast search for lost files (p. 7), you need to perform the exhaustive search for them. Sometimes, this procedure is called "Disk scan". During this process, Acronis Revive 2019 completely analyzes data structure on the logical disk and may find deleted files that do not appear file enumeration.

Attention: Performing an exhaustive search for files on large objects may be a very lengthy process!

Note: If you try to start Acronis Revive 2019 under an account without administrative rights, you will have to enter an administrative password on the **User Account Control** dialog box..

To perform a detailed scan for files on a logical disk,

- Select the logical disk on the Acronis Revive 2019 Step1. Select disk panel and click the Next button,
  or double-click the disk.

Step1. Select disk panel
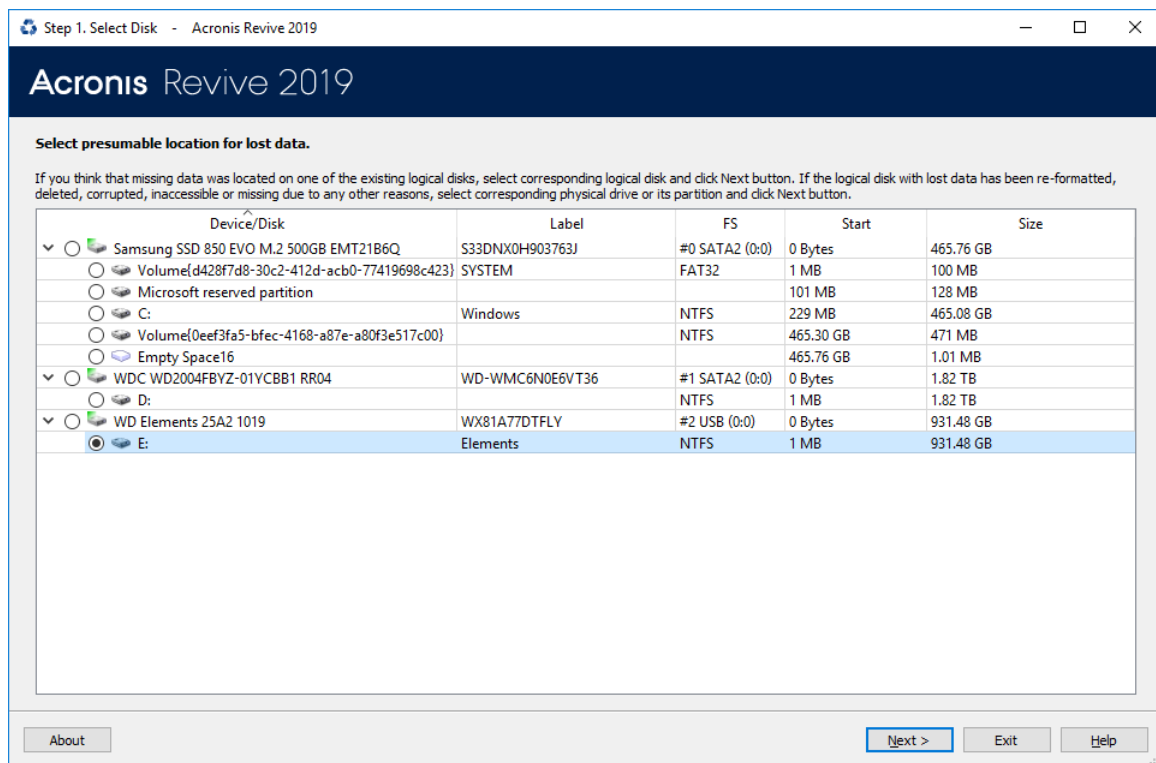
You may start performing exhaustive search for files on a logical disk with Acronis Revive 2019 directly from Windows Explorer. Right-click the disk in Windows Explorer and select **Perform Detailed Scan on the disk with Acronis Revive 2019** on the shortcut menu.

If there is bad S.M.A.R.T. data for the hard drive, Acronis Revive 2019 will show a S.M.A.R.T. warning describing the situation. You may decide what to do with the drive.

1. Select **Detailed Scan** on the Step 2. Select action panel and click the **Next** button

Step 2. Select action panel
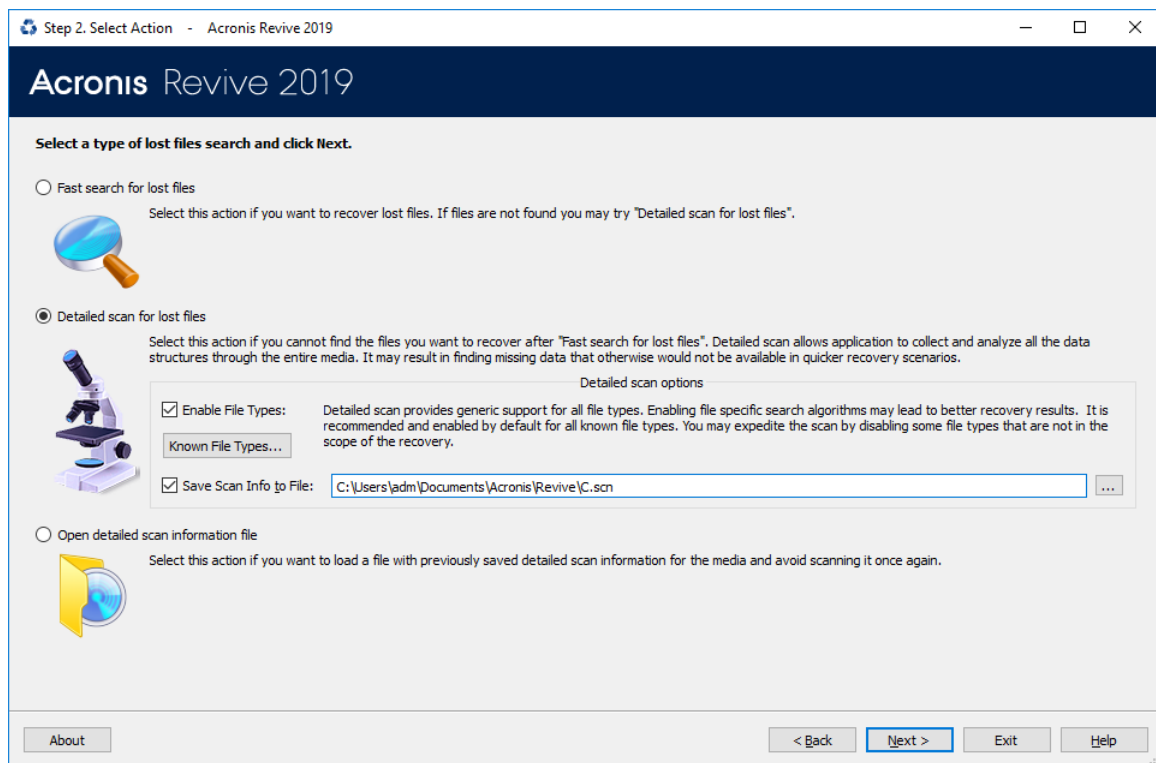
Known File Types:

While performing exhaustive search, Acronis Revive 2019 can recognize the data's particular file type. Using such information, Acronis Revive 2019 can obtain more information about data/file structure on the object being searched. By default, Acronis Revive 2019 tries to recognize all supported file types, greatly increasing time required for the search. You may reduce it by selecting only those file types that you need. Click the Known File Types... button on the **Data Recovery Action** panel and select the required file types on the **File Types** dialog box.

File Types dialog box
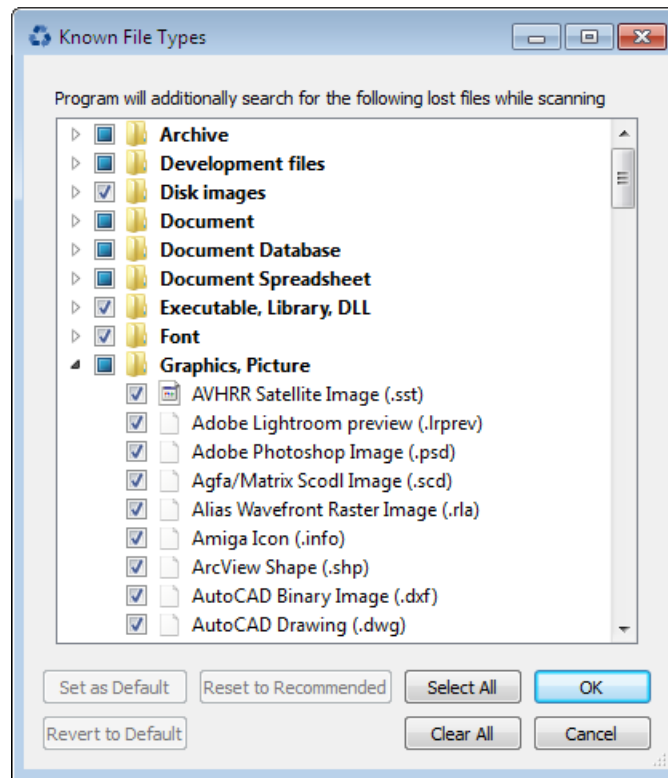
⊟ *List of known file types*

* By default, files of this type are not selected. If necessary, select them manually			
Document			
AbiWord Document: .abw	Adobe PDF document: .pdf	Final Draft Document: .fdr	FrameMaker Document: .fm
Garmin MapSource data: .mps	GNU Info Document: .info	HTML Document: .html	Lotus AMI Pro Document: .sam
Lotus Organizer Report: .rep	Lotus Word Pro Document: .lwp	Microsoft Money Data: .mny	Microsoft Office Open XML Document *
Microsoft OneNote section file: .one	Microsoft Pocket Streets Map File: .mps	Microsoft PowerPoint 2007 XML Document*: .pptx	Microsoft PowerPoint Document*: .ppt
Microsoft Reader eBook: .lit	Microsoft Reader eBook annotations: .ebo	Microsoft Word 2007 XML Document*: .docx	Microsoft Word Document*: .doc
Microsoft Word2 Document: .doc	Microsoft WordPad Document: .wri	OLE Storage	OpenDocument Document
PostScript document:*.ps	QuickBooks Backup File: *.qbb	QuickBooks Primary Data File: *.qbw	Quicken Data: *.qdf
Rich Text Document: .rtf	TEX Document: .tex	Text Document: .txt	TurboTax return file:.tax
Unicode Document: .txt	Word for Macintosh Document: .mcw	WordPerfect Document: .doc	XML Document: .xml
Document: Spreadsheet			

Lotus Spreadsheet: .wks	Lotus3 Spreadsheet: .wk3	Microsoft Excel 2007 XML Document*: .xlsx	Microsoft Excel Document*: .xls
Microsoft Excel2 Spreadsheet: .xls	Microsoft Excel3/4 Spreadsheet: .xls	Quattro Pro Spreadsheet: .wq1	

Document: Database

Data Interchange Format file: .dif	dBase III Database: .dbf	Microsoft Access 2007 Database: .accdb	Microsoft Access 2007 XML Document: .accdt
Microsoft Access Database: .mdb	Microsoft Linker Database: .lk	Microsoft Program Database: .pdb	Microsoft SQL Database: .mdf
Microsoft SQL Log: .ldf	MySQL Database: .myi	Omnis Studio Database: .df1	Omnis Studio Library: .lbs

Internet-related files

Compiled HTML file: .chm	Internet shortcut: .url	Microsoft OutLook Personal Folder: .pst	Microsoft Outlook/Inbox offline folder: .ost
Mozilla Firefox browser extension: .xpi	Mozilla Mail Summary file: .msf	Outlook Express Messages: .dbx	The Bat! Address book: .abd
The Bat! Message Base: .tbb	The Bat! Message Index: .tbi	Windows Address Book: .wab	XML document (Unicode): .xml

Font

Adobe PostScript Font: .pfb	Adobe Printer Font: .pfm	BDF Unix font	BGI font: .chr
CPI DOS font: .cpi	MyTest Font: .mtf	TrueType Font: .ttf	Windows System Font: .fon

Graphics/Picture

3D XML file: .3dxml	3DStudio Mesh: .3ds	Adobe InDesign File: .indd	Adobe Photoshop Image: .psd
Agfa/Matrix Scodl Image: .scd	Alias Wavefront Raster Image: .rla	ArcView Shape:.shp	AutoCAD Binary Image: .dxf
AutoCAD Drawing: .dwg	AutoCAD Image: .dxf	Autodesc Animator Image: .pic	Autodesc Animator Pro color map: .col
Autodesc Animator Pro Image: .pic	Autologic Image: .gm	AVHRR Satellite Image: .sst	Bentley MicroStation CAD Drawing: .dgn
BMF Image: .bmf	Canon RAW graphics file: .crw	Canon RAW graphics file*: .cr2	Canon RAW graphics file: .crw
ColoRIX Image: .rix	CompuServe GIF Image: .gif	ComputerEyes Raw Image: .ce1	Continous Edge Graphic Image: .ceg
Corel Texture Image: .tex	CorelDraw CMX Image: .cmx	CorelDraw Image: .cdr	Cubicomp Picture Maker Image
Dr. Halo palette: .pal	Enhanced MetaFile Image: .emf	Epson Stylus Image: .prn	Erdas LAN/GIS Image: .lan
Fractal Image Format: .fif	Freehand (MX) Database: .fh10	GEM Raster Image: .img	GEM VDI Image: .gdi
GOES Satellite Image: .goe	Graphics Workshop for Windows Thumbnail: .thn	Gridded Binary Image: .grb	Hitachi Raster Image: .hrf

Hotspot Image: .shg	HP Command Language Image: .pcl	HP Raster Image: .rtl	HSI JPEG Image: .hsi
IBM Picture Maker Image: *.pic	iPhoto Image: .attr	Jovian Logic Image: .vi	JPEG 2000: .jp2
JPEG Digital Camera*: .jpg	JPEG Image: .jpg	Kodak PhotoCD Image: .pcd	LBM/IFF Image: .lbm
Lightwave Object: .lwo	Lotus PIC Image: .pic	Macintosh Paint Image: .mac	Macintosh PICT Image: .pct
Microsoft Paint Image: .msp	Minolta RAW image: .mrw	Nikon RAW image*: .nef	Olympus RAW image: .orf
PaintShop Pro Image: .psp	PaperPort Image: .max	PBM Image: .pbm	PGM Image: .pgm
Pictor PC Paint Image: .pic	PIX Image: .pix	PM Image: .pm	PNG Image: .png
PPM Image: .ppm	Print Shop Image: .pds	QuarkXpress Database: .qxp	QuarkXPress file: .qxd
Quick Link II fax Image: .qfx	QuickDraw 3D Metafile: .3dmf	RenderMan Image: .rib	SGI Image: .sgi
Sigma RAW image: .x3f	Sketch Image: .sk	SmartDraw file: .sdr	SmartDraw template: .sdt
Sony RAW image: .arw	STAD Image: .pac	Sun Raster Image: .sun	SymbianOS Image: .mbm
Tagged Image Format File: .tif	TI Image: .92i	TrueVision Image: .tga	Utah Raster Toolkit Image: .rle
VITec Image: .vit	Windows Animated cursor: .ani	Windows Bitmap Image: .bmp	Windows cursor: .cur
Windows Fax Cover Image: .cpe	Windows icon: .ico	Windows MetaFile Image: .wmf	WordPerfect Graphics Image: .wpg
X PixMap Image: .xpm	X Window Dump Image: .xwd	Xara Drawing: .xar	ZSoft PCX Image: .pcx
Multimedia: Audio Files			
Advanced Streaming Format file: .asf	AIFF Sound: .aif	Amusic tracker: .amd	aPac Audio: .apc
AudioCD file: .cda	AVR Sound: .avr	CMF Music: .cmf	Creative Voice File: .voc
DiamondWare Sound: .dwd	Digital Speech File: .dss	Digital Voice File: .dvf	EA ASF/MUS Audio: .asf
Extended M3U playlist: .m3u	FLAC Audio	La Lossless Audio: .la	Liquid Audio: .la1
MIDI Instrument definition: .idf	MIDI Music: .mid	MIDI stream: .mds	Monkeys Audio: .ape
MPEG Layer I Audio: .mpg	MPEG Layer II Audio*: .mp2	MPEG Layer III Audio*: .mp3	MUS Music: .mus
Musepack Audio: .mpc	Next/Sun Sound: .au	Ogg Vorbis Audio: .ogg	OptimFROG Audio: .ofr
RIFF MIDI Music: .rmi	RK Audio Sound: .rka	Sierra AUD Sound: .aud	Sony OpenMG Audio: .oma
Super NES Audio: .spc	TTA Audio: .tta	VQF Sound: .vqf	WavPack Audio: .wv
Westwood AUD Sound:	Windows Audio Compression Manager	Windows Media Audio:	Windows WAVE Sound:

.aud	driver: .acm	.wma	.wav
X-MIDI Music: .xmi	ZyXEL Sound: .zyx		

Multimedia: Video Files

3GPP multimedia audio/video: .3gp	3GPP2 multimedia audio/video: .3g2	4X Movie Video: .4xm	Adobe Filmstrip Animation: .fsf
AMV Video: .amv	ANIM Animation: .cel	Autodesk Animator: .fli	BCS Video: .bcs
BINK Video: .bik	DeluxePaint Animation: .anm	Director Video: .dcr	DriveCam Video: .dce
DVM Video: .dvm	Eyemail Video: .eye	Flash Video: .flv	Google Video: .gvi
Intel DVI Video: .dvi	Intel Indeo Video File: .ivf	Interplay MVE Video: .mve	Lotus ScreenCam Video: .scm
LZA Animation: .lza	MPEG Video: .mpg	Nancy Codec Video: .noa	NEOchrome Animation: .ani
Nullsoft Video: .nsv	NuppelVideo (MythTV) Video: .nuv	QuickTime Video: .mov	QV-10 Video: .cam
RPL Video: .rpl	Sega FILM/CPK Video: .cpk	SGI movie format: .mv	Shockwave Video: .swf
Smacker Video: .smk	SMJPEG Video: .mjpg	Sony Movie Player Video: .mqv	VideoCD MPEG: .dat
VideoCD Video: .vcd	Vivo streaming Video: .viv	VOB video files: .vob	VP6 encoded Video: .vp6
Windows AVI Video: .avi	Windows Media Video: .wmv		

Multimedia Files

Material Exchange File: .mxf	MP4 file: .mp4	Real Networks audio/video: .rm	RIFF Multimedia File

Archive Files

| 7-Zip archive: .7z	ACE archive: .ace	AIN archive: .ain	ARJ archive: .arj
ARX archive: .arx	Aladdin Systems StuffIt archive: .sit	BAG archive: .bag	BIX archive: .bix
BOA archive: .b58	BZip2 archive: .bz2	BlackHole archive: .bh	Blink archive: .bli
CPIO archive: .cpio	CRUSH archive	ChArc archive: .chz	Compress archive: .z
FOXSQZ archive: .sqz	GZip archive: .gz	HA archive *: .ha	HAP archive: .hap
HPACK archive: .hpk	Hyper archive: .hyp	InstallShield Cabinet archive: .cab	InstallShield Data archive: .z
InstallShield archive	JAM archive: .jam	JAR archive: .jar	JRC archive: .jrc
LHA/LZARK archive: *.lzh	LIMIT archive: *.lim	LZA archive: *.lza	LZOParchive: .lzo
LZSH archive	LZX archive: .lzx	Microsoft Cabinet archive: .cab	Microsoft Compress 5 archive
Microsoft Compress 6 archive	PAKLEO archive: .pll	Pack archive *	QFC archive: .qfc
Quantum archive *: .ark	Quark archive	RAR archive: .rar	RPM archive: .rpm
ReSOF archive: .sof	SAR archive: .sar	SBC archive: .sbc	SCO archive *

SQZ archive: .sqz	SZip archive	StuffIt archive: .sit	TAR archive: .tar
UFA archive: .ufa	UHArc archive: .uha	UltraCompressor 2 archive: .uc2	UltraCrypt 2 archive: .ue2
WIN-Freeze archive*: .ice	WRAptor archive: .wra	WinImp archive: .imp	YAC archive: .yc
YBS archive: .ybs	ZIP archive: .zip	ZOO archive: .zoo	ZZip archive: .zz
Apple Safari Web Archive: .webarchive	Microsoft Internet Explorer Web Archive: .mht	R-Drive Image Archive: .arc	R-Drive Image V1 Archive: .arc
WinImage Archive: *.imz			

Executable/Library/DLL

DOS Style Executable: .exe	ELF Executable (UNIX)	ELF Library (UNIX)	ELF Module (UNIX)
Java Bytecode: .class	Novell NetWare executable: .nlm	RDOFF executable	Win32 DLL*: .dll
Win32 Executable*: .exe	Windows OCX File: .ocx		

Development files

Borland Delphi 6 Library: .dcu	Borland Turbo Pascal compiled Unit: .tpu	COM Type Library: .tlb	Delphi 7 Compiled Unit: .dcu
Library: .lib	Microsoft .NET XML Resource template: .resx	Microsoft ClassWizard file: .clw	Microsoft Linker database
Microsoft Precompiled header: .pch	Microsoft Visual C++ Database: .mdp	Microsoft Visual Studio Database: .dsp	Microsoft Visual Studio Solution: .sln
Microsoft Program database	Microsoft Visual C++ project		Microsoft Visual Studio workspace: .dsw
OMF Object library: .lib	VisualBasic Database: .vbp	Windows Compiled resource (16bit) *: .res	Windows Compiled resource (32bit): .res

Other file types

ABBYY Lingvo dictionary: .lsd	File Crypt file: .rzx	Kaspersky Anti-virus data base: .avc	NOD32 Antivirus Update file: .nup
OziExplorer Map data:.map	RegEdit file: .reg	RegEdit file (UNICODE): .reg	Windows Backup File: .bkf
Windows Clipboard file: .clp	Windows Color Profile: .icm	Windows Minidump	Windows National locale: .nls
Windows Password file: .pwl	Windows Policy file: .pol	Windows Registry file: .dat	Windows Registry hive: .hiv
Windows shortcut: .lnk	WinHelp: .hlp	WinHelp Contents: .cnt	

Note: Using scan for Known File Types, Acronis Revive 2019 can successfully recover only un-fragmented files.

Save Scan Info to Files: If this checkbox is selected, Acronis Revive 2019 will save scan information to a specified file. Later this file may be opened. Please note, that this option does not save actual disk data, only information on disk data structure gathered during disk scan.

Acronis Revive 2019 start detailed scan showing its progress and found objects

**Detailed scan in progress panel**
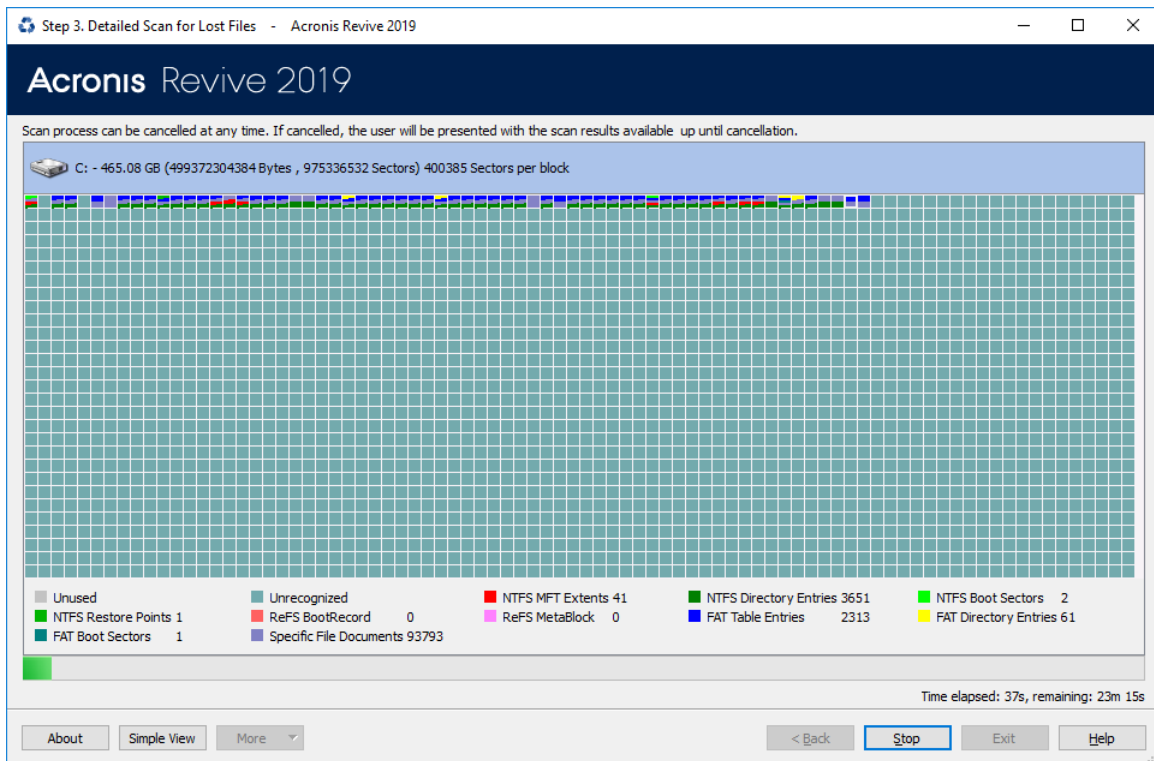
If you click the Stop button and select the action you want to make on the **Stop** message. You may stop the exhaustive search and go back to the **Select the disk to recover files from** panel, continue searching, show already found files, or remain on the **Detailed file search results** panel.
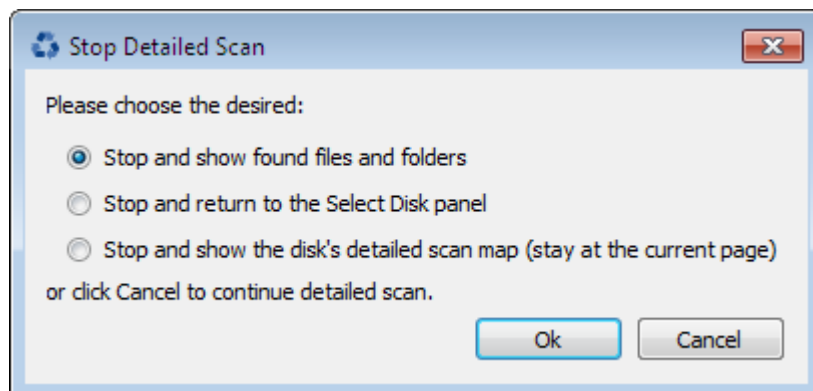
When the search is through, Acronis Revive 2019 will show the **Files/Folders** panel will appear. You may make data recovery (p. 6) based on the scan result. If *Known File Types*: are enabled, Acronis Revive 2019 shows found such files on the **Files/Folders** panel as Extra Found Files.
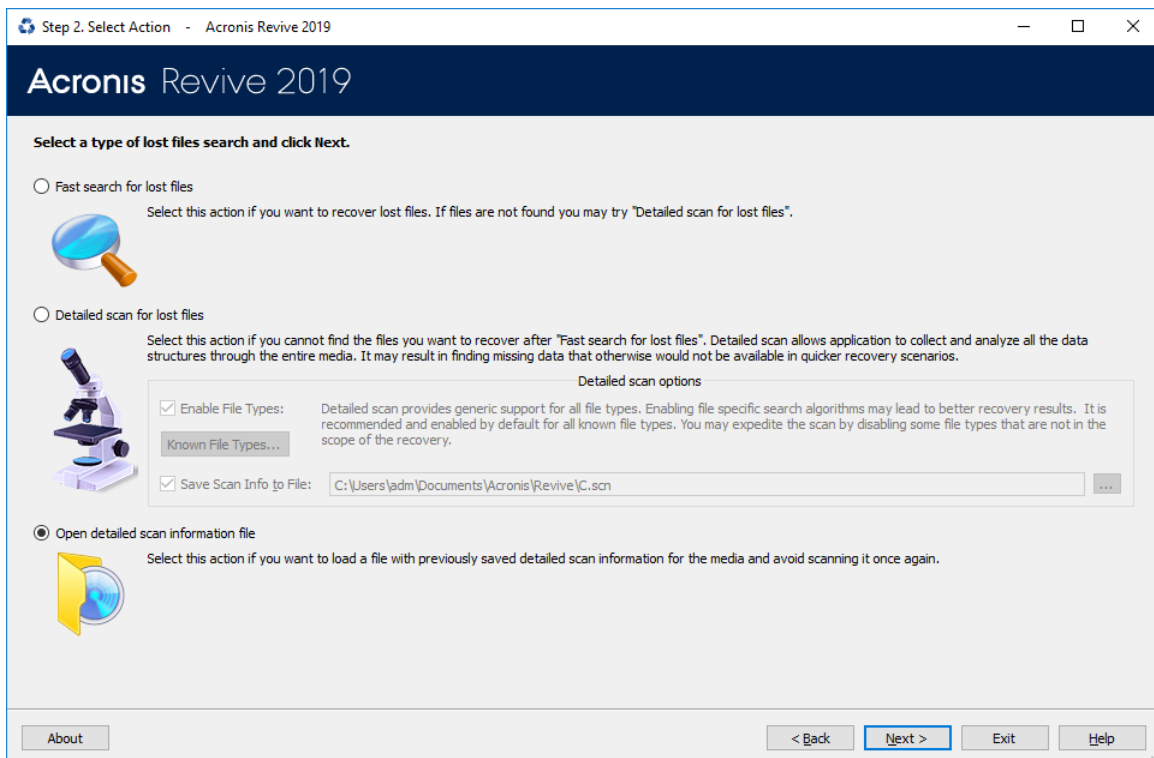
Extra Found Files.
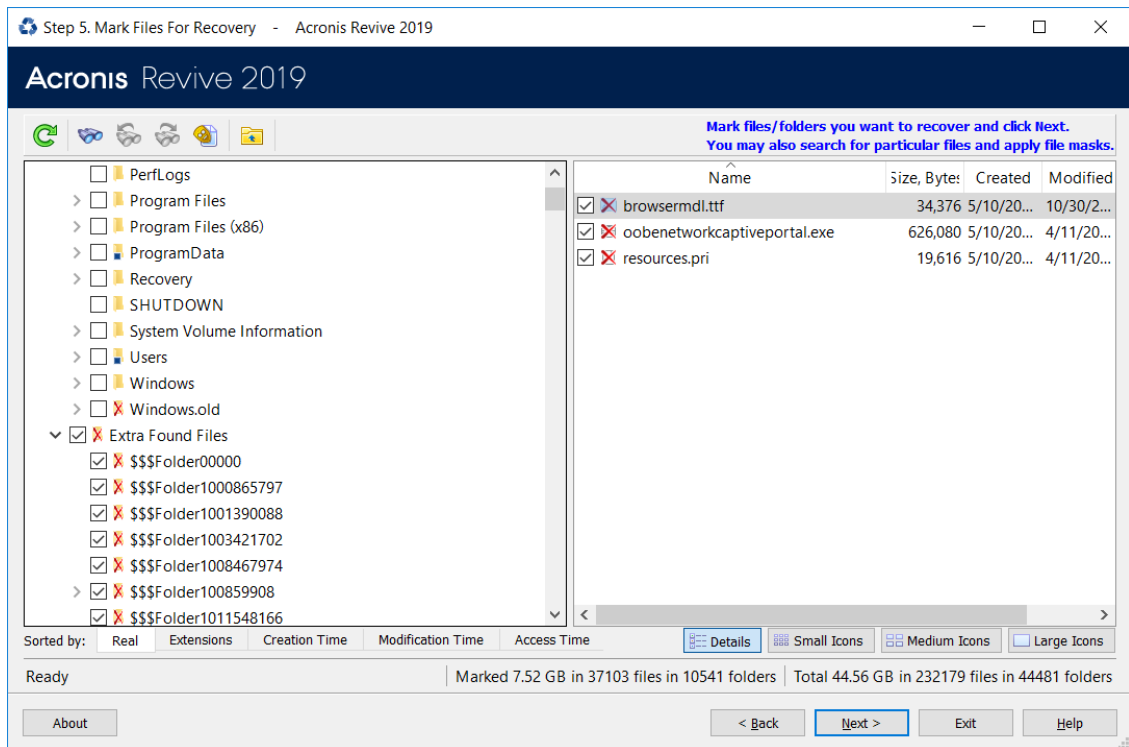

Loading Scan Information

To load scan information on the disk,

1. Select Open detailed scan information file on the the logical disk on the Acronis Revive 2019
2. Select action panel and click the **Next** button

3. Select the required file with the scan info.

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If the previous scan is not completed, the 'Detailed scan is not completed...' message will appear. You may either continue the scan or process the existing scan information.
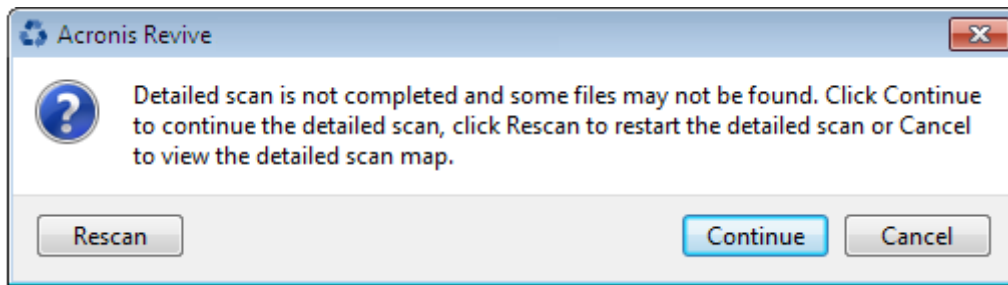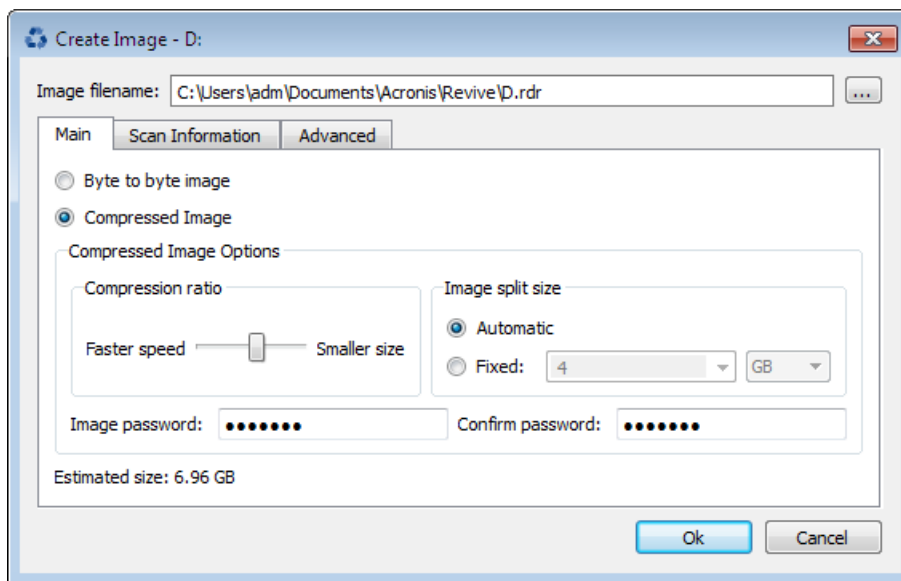
3   Disk Image

An *image* is an exact, byte by byte, copy of any object on the **Step1. Select disk** panel. When created, images can be processed like their original objects.

Images are very useful if there is a risk of total data loss due to hardware malfunction. If bad blocks are constantly appearing on a hard drive, you must immediately create an image of this drive. All data search and recovery can be done from this image.

To create an image,

1.   Right-click the disk on the Acronis Revive 2019 **Step1. Select disk** panel and select **Create Image File** on the shortcut menu

2.   Specify image options, a file name, and destination for the image on the **Create Image** dialog box

   Note: To store an image file, you need a free space equal to at least the object size.

   Create Image File dialog box
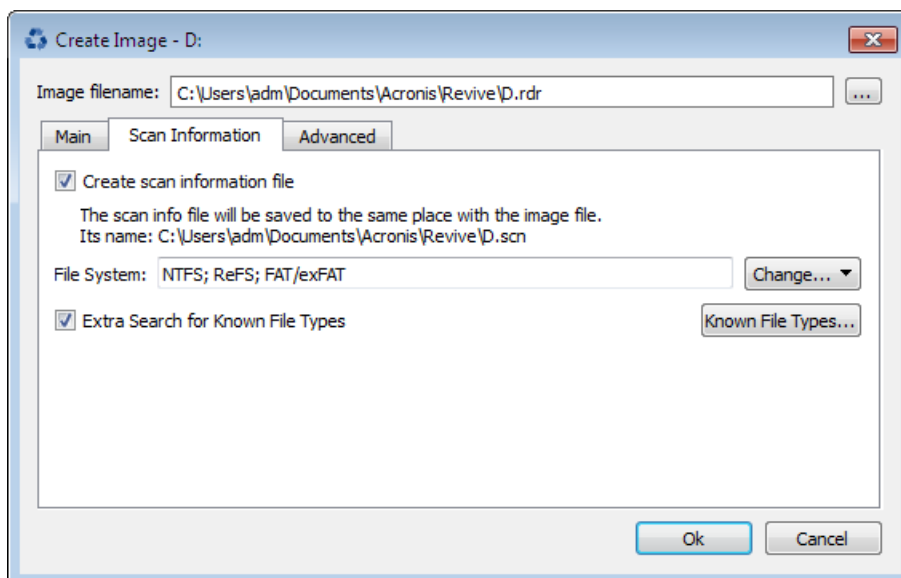

   Create Image File dialog box

⊟ *Image Options*

Image name	Specifies the name and path for the image file
Byte to byte image	If this option is selected, Acronis Revive 2019 will create a simple exact copy of the object. This image format is compatible with the previous versions of Acronis Revive 2019.
Compressed image (R-Drive Image compatible)	If this option is selected, Acronis Revive 2019 will create an image file which can be compressed, split into several parts, and password-protected. This image file is fully compatible with the images created by R-Drive Image, but incompatible with the previous versions of Acronis Revive 2019.
Image compression ratio	You may compress the data in the image to save space. Active only if the **Compressed image (R-Drive Image compatible)** is selected.
Estimated size	Shows the estimated size of the image file. An actual image size depends on how much empty space is on the selected partition and what file types are there. Active only if the **Compressed image (R-Drive Image compatible)** is selected.
Image split size	You may set this option to **Automatic** and let Windows decide how to split the image file. This mostly depends on the file system on the destination disk. You may also either explicitly specify the split size, or choose a preset for various devices with removable storage. Select **Fixed size** for that. Active only if the **Compressed image (R-Drive Image compatible)** is selected.
Password	You may protect your image file with a password. **Note:** This feature provides a relatively moderate protection against conventional unauthorized access. Active only if the **Compressed image (R-Drive Image compatible)** is selected.
Create scan information file	If this option is selected, Acronis Revive 2019 will perform disk scan simultaneously with image creation. See the Detailed Scan (p. 24) help page to learn scan options.

You may also specify how to process files with bad sectors. You may specify the number of attempts to read the bad sectors and a pattern to fill the bad block.

Create Image File dialog box
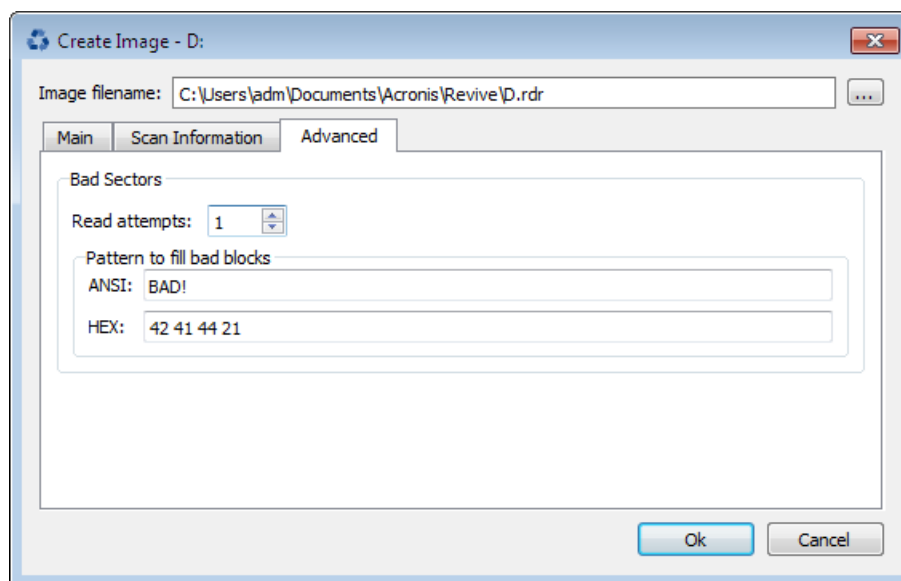

Acronis Revive 2019 will start creating the image

To process an already created *Image*, the image file should be opened.

To open an image

1. ⬛Right-click any object on the **Step1. Select disk** panel and select **Open Image File** on the shortcut menu
2. Select the required image file

   An *Image* object will appear on the **Step1. Select disk** panel

You may perform all data search and recovery from this image as it were a regular drive/disk object.

Step1. Select disk panel.
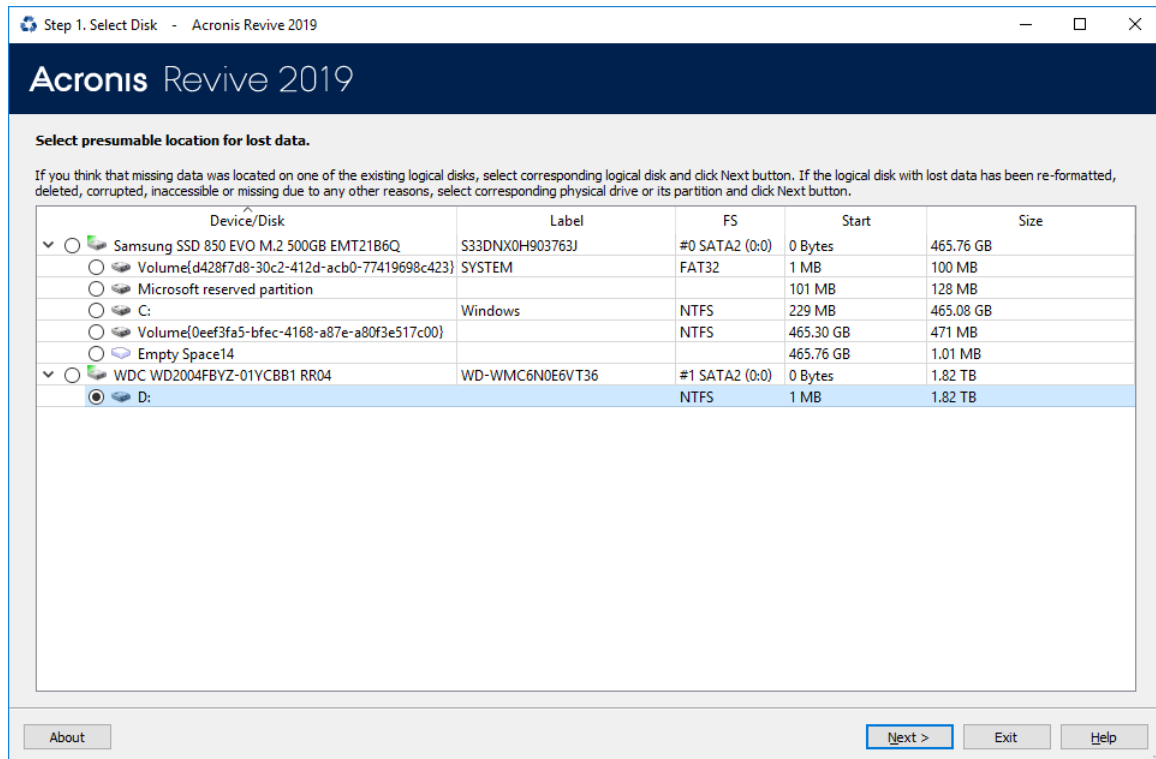
**To remove an image from the list,**

- Right-click the image and select **Remove Image From List** on the shortcut menu

  The image will disappear from the **Step1. Select disk** panel

  Note: When you remove an image from the **Step1. Select disk** panel, the original image file will remain in its place.

3.1 Recover Lost Files from Deleted/Corrupted Logical Disks/Partitions

To recover deleted files from a deleted logical disk,

1. Select the hard drive where the deleted logical disk resided on the Acronis Revive 2019 Select the disk to recover files from panel and click the **Next** button
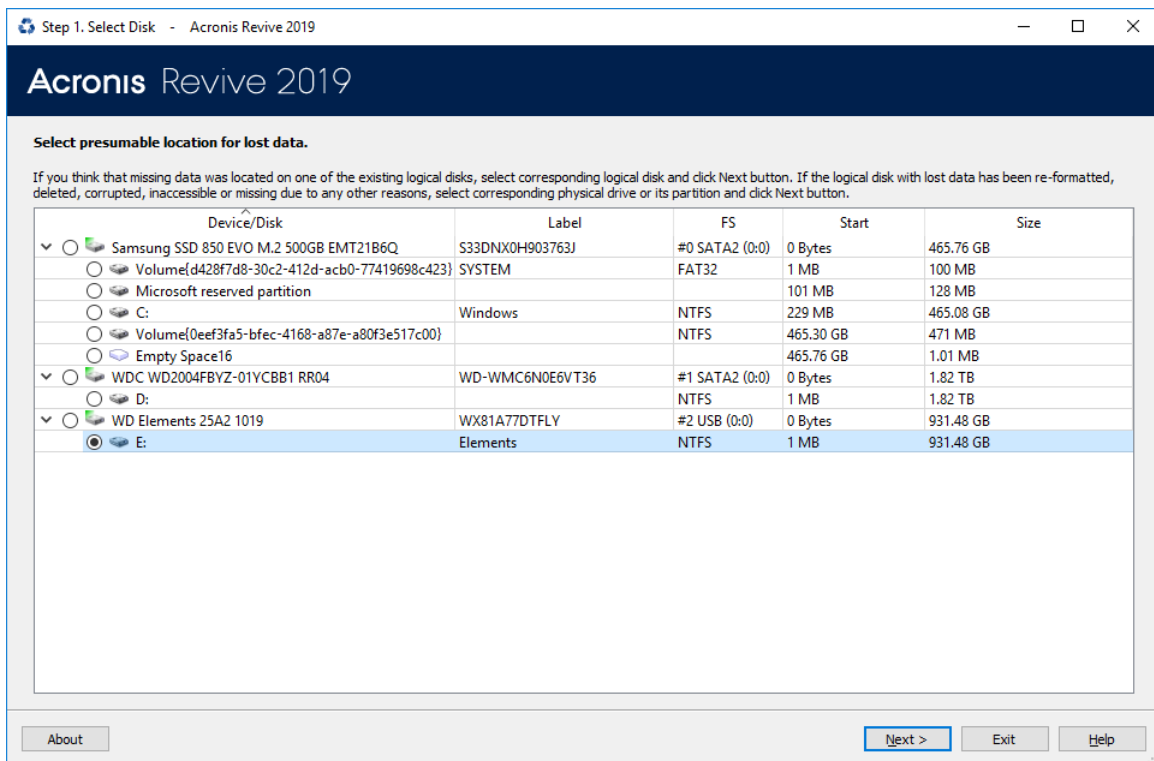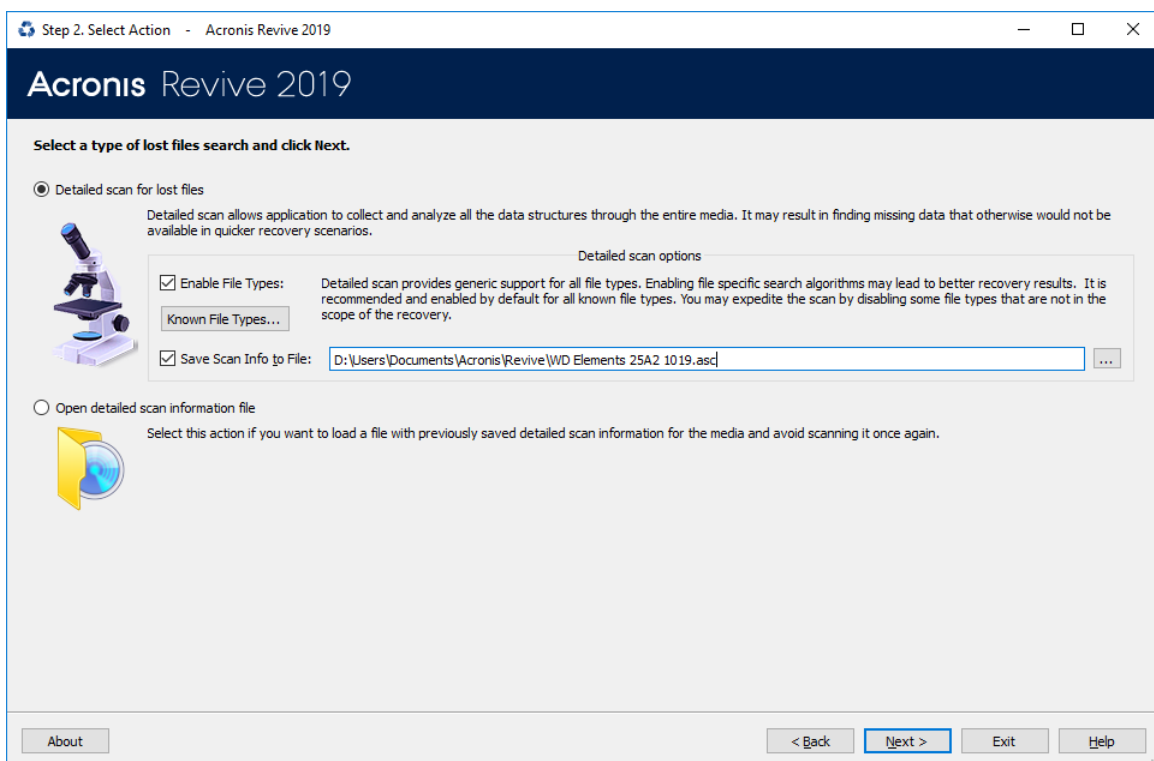
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Step1. Select disk panel

If there is bad S.M.A.R.T. data for the hard drive, Acronis Revive 2019 will show a S.M.A.R.T. warning describing the situation. You may decide what to do with the drive.

2. Select options on the Step 2. Confirm action panel and click the **Next** button

Step 2. Confirm action panel

You may enable/disable search for Known File Types.

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Acronis Revive 2019 starts analyzing the hard drive, and its Detailed file search in progress panel will show search progress and found objects

Detailed file search in progress panel
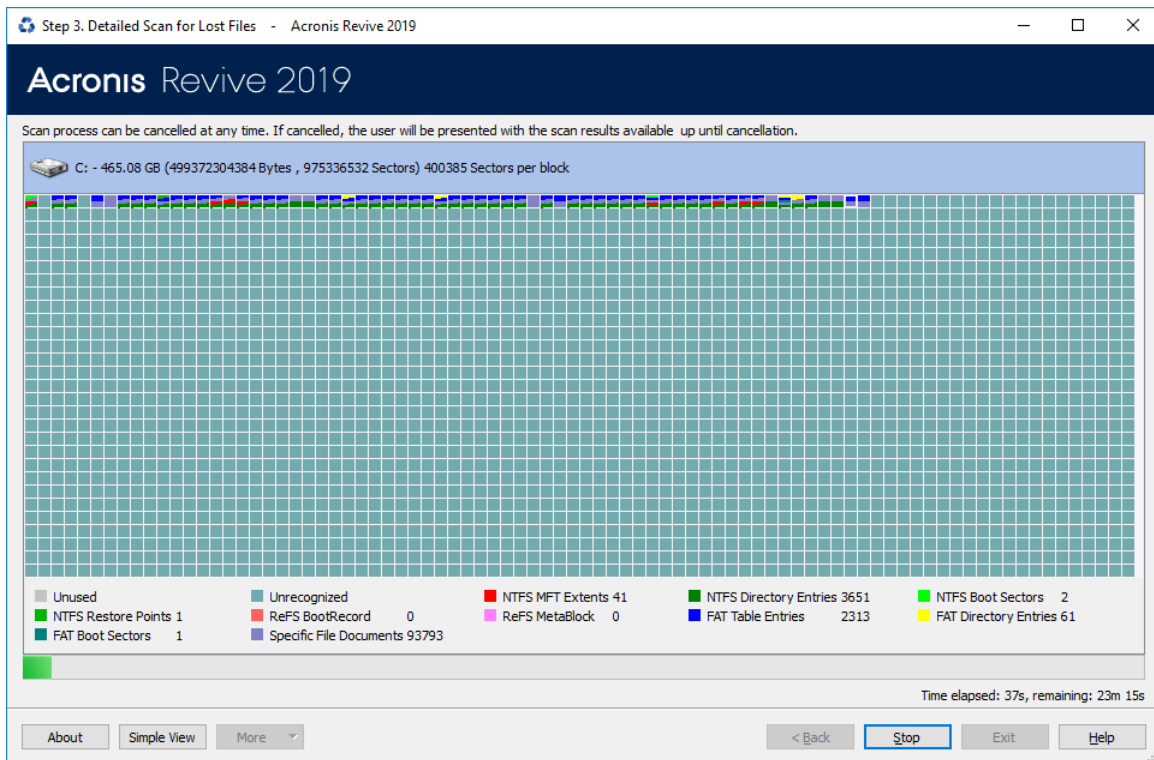
If you click the Stop button and select the action you want to make on the **Stop** message. You may stop the exhaustive search and go back to the **Select the disk to recover files from** panel, continue searching, show already found files, or remain on the **Detailed file search results** panel.

3. Select the deleted/corrupted logical disk/partition where the lost files resided on the Step 3. Select found disk panel and click the Next button

Step 3. Select found disk panel
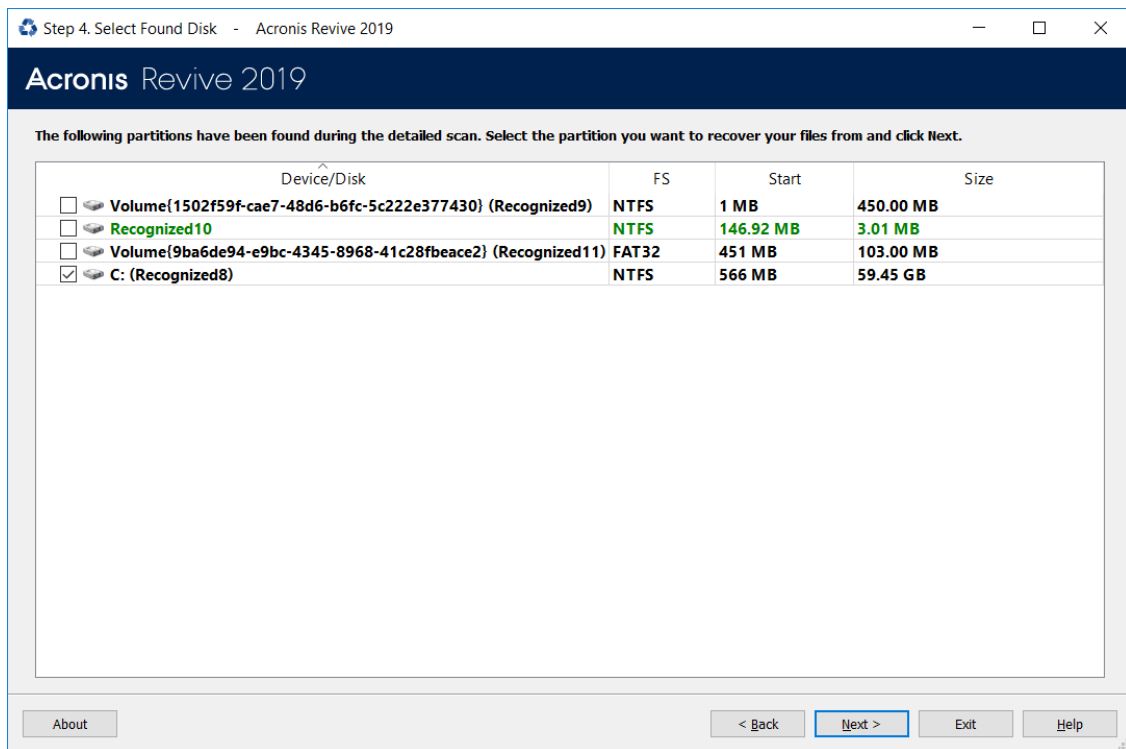
Acronis Revive 2019 shows found objects in different colors depending on which elements of the partition have been found.

Recognized6 (F:)	An existing logical disk or partition
Recognized2	Both boot records and file entries are found for this partition
Recognized1	Only file entries are found for this partition
Recognized3	Only boot records are found for this partition

4. Perform all necessary lost file recovery operations starting from the Step 4. Select files for recovery panel the same way as if the files were on an existing logical disk

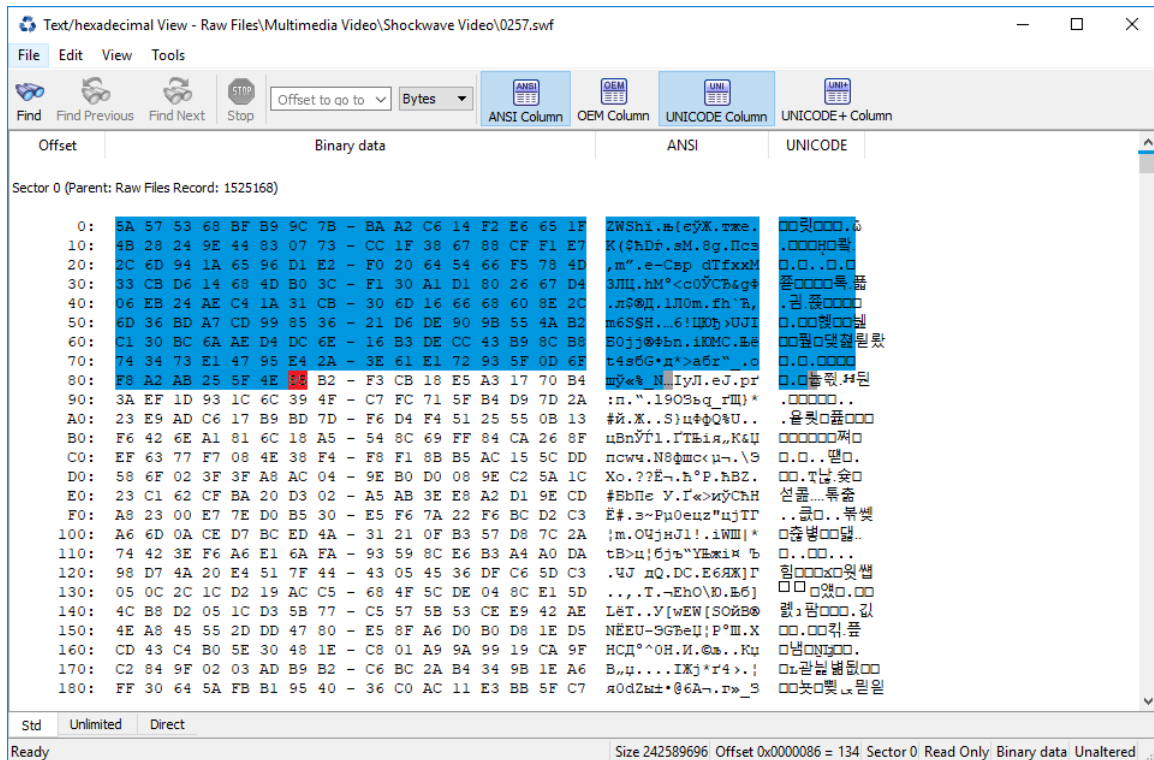**Step 4. Select files for recovery** panel
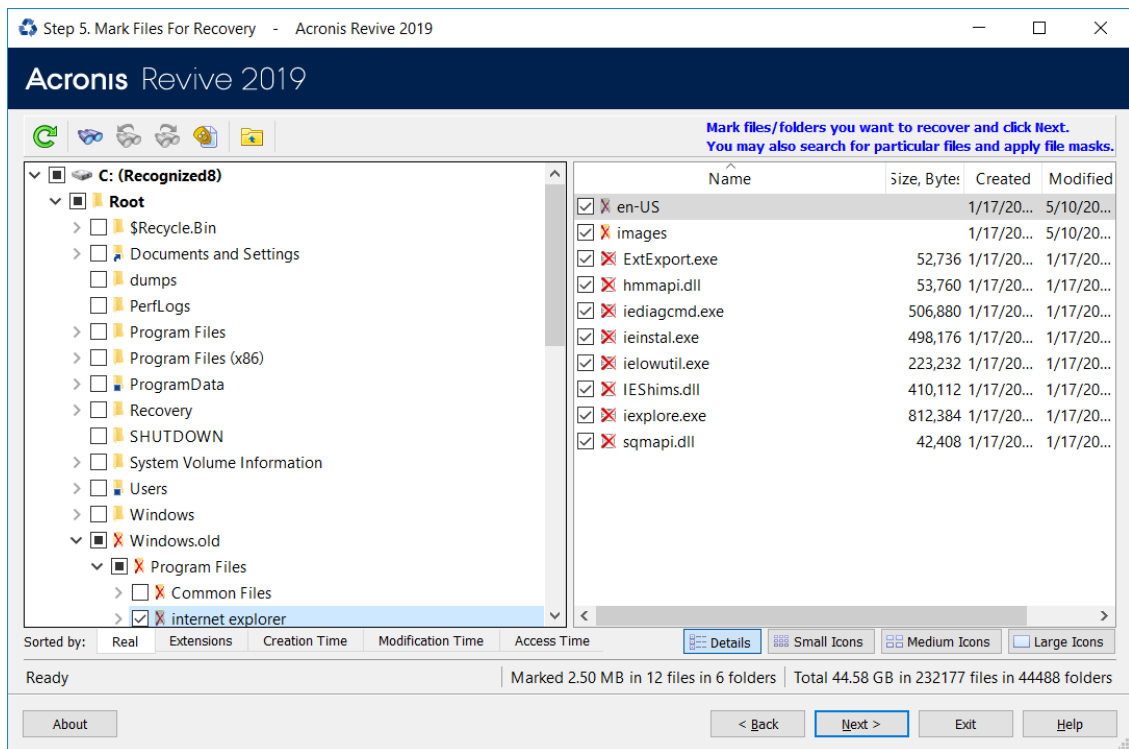
See Recovering lost files from an existing logical disk (p. 7) for the detailed instructions on file recovery.

4 Hexadecimal Viewer

If the previewer (p. 21) cannot recognize the format of the file to be previewed, it will open the file in the Text/Hexadecimal viewer.

Viewer panel

There are up to four tabs showing the data in different representations. Actual number of tabs depends on the object and property being viewed.

Std	Exact attribute data. If the attribute is compressed, Acronis Revive 2019 decompresses it prior to showing.
Unlimited	Exact attribute data + free space of last cluster. If the attribute is compressed, Acronis Revive 2019 decompresses it prior to showing.
Direct	Actual data written on the disk. If the attribute is not compressed, it coincides with the Std representation.
Allocation	Resident part of the attribute.

Navigating

You may quickly move to a particular part of the object. To move to a particular part of the object being viewed/edited, enter the required offset in the Go to Offset field between the buttons. If you select Bytes, you may use KB, MB, or GB as multipliers. If a file is opened in Hexadecimal Viewer, you may select data representation for that file.

You may also use the **Go To Offset** dialog box to go to a specified place in the object. Click the Offset field on the Status bar. You may also use this dialog box to copy the offset.

Go To Offset dialog box
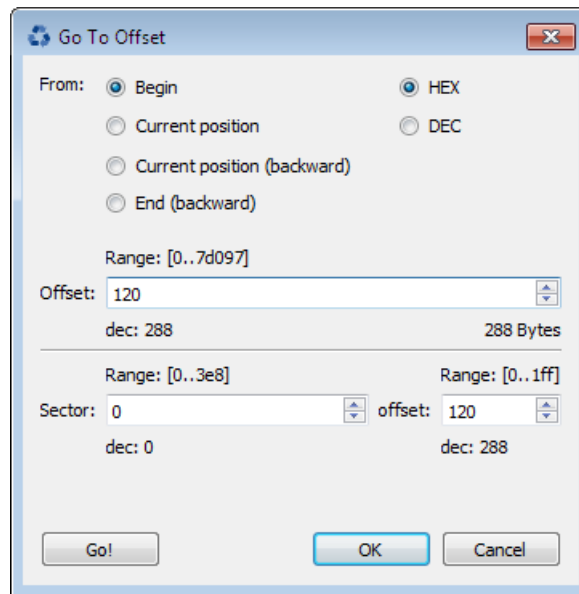
☐ *Go To Offset options*

From:	Jump / offset direction. For example, if you need to find the offset from the object end for a selected byte, switch to the **End (backward)** option.
HEX / DEC	Switch between the hexadecimal and decimal data representation.
Range	Range of values that can be entered.
dec / hex:	Alternative data representation.
Offset:	Flat data offset (without separation between the sector and offset in the sector).
Sector / offset	Data offset represented as a sector and offset in the sector.
Go! /OK buttons	The **Go!** button moves the cursor to the specified positions, but the **Go To Offset** dialog box remains open. The **OK** button closes the dialog box after moving the cursor.

Searching

To search for a particular string, click the Find, Find Next, or Find Previous buttons or the same items on the Edit menu, and specify the string on the **Search** dialog box.

Search dialog box
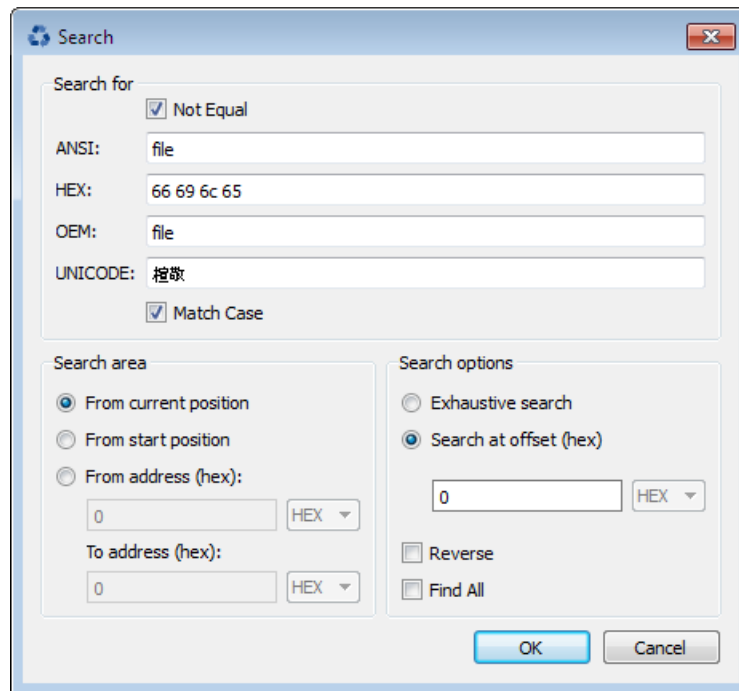
▣ *Search options*

Not Equal	Search for the place which content is not equal to the string. For example, the first byte not equal to 00 or FF.
Search for	
HEX	Field for the string to search for in the hexadecimal representation
ANSI	Field for the string to search for in the ANSI encoding
OEM	Field for the string to search for in the OEM encoding
UNICODE	Field for the string to search for in the UNICODE encoding
Match case	Select this check box to make the search case-sensitive
Search area	
From current position	Select this check box to start search from the current position
From start position	Select this check box to start search from the beginning of the object
From Address	Select this check box and specify the range in which the search is to be carried out
Search position	
Exhaustive search	Select this check box to search the entire object
Search at offset	Select this check box and specify the sector offset from which the search will start
Reverse	Select this check box to start the search in the reverse direction
Find all	Select this check box to search for all instances of the string to search. Search results will be shown in the **Find Results** pane.

⊟*Features of the Not Equal option*

Suppose we have an object which first 3 consecutive sectors start with:

```
Sector1    FILEAAAAA.........................................
```

```
Sector2    FILEBBBBB.........................................
```

```
Sector3    NOTAFILE..........................................
```

And the search string is Not Equal FILE.

If the **Exhaustive search** option is selected, the **Hexadecimal Viewer** will stop at the first A character in Sector1.

If the **Search at offset=0** option is selected, the **Hexadecimal Viewer** will stop at the N character in Sector3.

Data Copy

Text/hexadecimal Editor gives you various ways to copy selected data navigate in an object. See the Data Copy (p. 46) for more details.

Selecting and saving an area in the Hexadecimal Viewer

You may select an area in the **Viewer** panel and save it as a file.

To select and save an area in the Viewer panel,

1. ⬚Right-click the beginning of the selection and select **Select From** on the shortcut menu
2. Right-click the end of the selection and select **Select To** on the shortcut menu
   ⊟ *Other ways to select an area*
   - Select Select... on the Tools menu and specify an area to select on the **Select** dialog box, or
   - Click the start point of the area and drag the mouse cursor to its end.

Select **Save to Binary File...** or **Save to Hexadecimal File** on the **File** menu to save the selected data to the file.

5 Data Copy

Text/hexadecimal Viewer gives you various ways to copy selected data navigate in an object.

Data selected in Text/hexadecimal Viewer
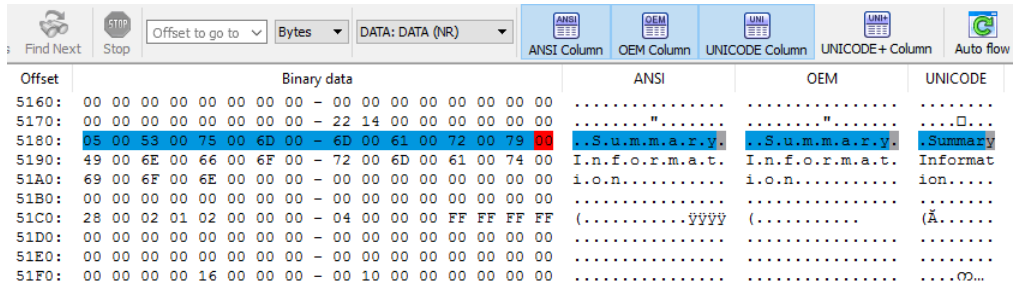
Depending on what column you have control-clicked, the following commands are available in the shortcut menu:

When right-clicking any column Copy Editor Display	Data pasted into a text editor
When right-clicking any column Copy as File Signature	Data pasted into a text editor
When right-clicking the Binary data column Copy as "Binary data"	Data pasted into a text editor
When right-clicking the ANSI column Copy as "ANSI"	Data pasted into a text editor
When rightl-clicking the UNICODE column Copy as "UNICODE"	Data pasted into a text editor

6 Data Recovery Issues

NEVER TRY TO SAVE RECOVERED FILES/FOLDERS TO THE SAME LOGICAL DISK WHERE THEY RESIDE!!!

Or you may obtain unpredictable results and lose all of your data.

Acronis Revive 2019 writes directly to a hard drive only when writing recovered data and from its hex editor, if writing is enabled. In all other actions, Acronis Revive 2019 only reads data and analyzes them, and never modifies data on the hard drives being analyzed.

Most operating systems use lazy-write. So, there is a time lag between file actions and actual changes on data on a hard drive. Acronis Revive 2019 analyzes data on hard drives only. That is why it does not always detect recent changes in data structure.

Most operating systems constantly write their service information on hard drives. Such writing is especially intensive during start-up and shut-down procedures. When an operating system deletes a file/folder, it treats the space where it has resided as empty and may write something in this place. If this happened, the file/folder and its parameters may be detected correctly, but its data may be lost.

Folder names like **$$$Folder58448** on NTFS partitions mean that the folder has not been found on the drive but some references to it have been. For example, folders **My documents, Work, Photos** have been found and all they have one parent folder, whose description has not actually been found on the disk, so its name is unknown and therefore represented as **$$$Folder58448.** It may happen that the description of such folders was outside of the search area, so try to enlarge the region or search the entire hard drive. If that does not help, most likely that the description of the folder has been overwritten.

Folder names like **$ROOT58448** on FAT partitions mean that some folders have been found, but they cannot be included into the folder structure for this FAT partition. Sometimes, such folders may contain other folder structures.

If you recover a file, and it appears that the file contains wrong data, try to perform exhaustive search (p. 24) for the files on the disk

FAT file system:

Cross-Linked Folders

Often Acronis Revive 2019 finds several FAT folder records that contain the same data. Such folders are called *cross-linked*. **Acronis Revive 2019** marks such folders with an arrow mark: ☐ ✗ ?797640_

Acronis Revive 2019 attributes the content of cross-linked folders to one folder called a *target folder*. When recovering, Acronis Revive 2019 places the content to the target folder.

To view the list of cross-linked folders,

▪ Right-click a cross-linked folder and select **Cross Linked Folders** on the shortcut menu

A list of cross-linked folders will appear

You may go to any folder in this list by clicking it.

To find a target folder,

▪ Right-click a cross-linked folder and select **Go Target** on the shortcut menu, or

If **Go Target** is gray, this folder is already the target folder.

To set the target folder manually,

- Right-click a cross-linked folder and select **Set As Default Target** on the shortcut menu,

If **Set As Default Target** is gray, this folder is already the target folder.

Questionable Folders

Sometimes, Acronis Revive 2019 may find FAT records, which look like folders, but their content is invalid. For example, file names have invalid characters, date, time, and size, or other file attributes may look strange. Please note that Acronis Revive 2019 correctly recognizes localized names. Acronis Revive 2019 treats such records as folders, but does not analyze their content and structure. You can manually search such folders, but results may be unpredictable. Usually, such search reveals garbage.

Acronis Revive 2019 marks such folders with a question mark.

To re-search an object,

- Right-click a questionable folder on the **Acronis Revive 2019's Folders** panel and select **Re-search** on the shortcut menu, or

Select the questionable folder and select **Rescan** on the **File** menu.

NTFS file system:

Symbolic links (symlinks)

Symbolic links (of symlinks) are file system objects that point to other file system objects (named targets). Those objects are usually folders, but may be of any kind. Acronis Revive 2019 shows symlinks and targets using the following icons:

A symlinked folder: Documents and Settings

The target folder: Users

You may find a target or symlink for an object. Right-click the object and select **Links** on the shortcut menu.

Files:

Hard links

Hard links are file system entries that give file names to files. This term is usually used when files may have several names. Acronis Revive 2019 shows hard links using the following icons:

A hard link: Wipe Test 2.doc

The target file: Wipe Test 2.doc

You may find a target or hard link for a file. Right-click the file and select Links on the shortcut menu.

7 Extended Information Recovery

Acronis Revive 2019 supports recovery of compressed files, alternative data streams, encrypted files, file security and extended file attributes. If the Acronis Revive 2019 host OS and the file system of the disk you are going to save file to support any particular extended information, it will be saved with the file, too. Otherwise, the extended information will be saved as separate files with the same name as the restored file and extension showing the type of the extended information. Below is a quick reference for the host OS and file system of the target drive.

Extended Information	Required host OS	Required target disk FS
Encrypted files	Windows 2000/XP	NTFS
Alternative data streams	Windows NT/2000/XP	NTFS
File security	Windows NT/2000/XP	NTFS
Extended file attributes	Windows NT/2000/XP	NTFS or FAT

8 S.M.A.R.T. data

You may check the hardware conditions of a drive by viewing its S.M.A.R.T. data. To see it, right-click the drive and select **Show S.M.A.R.T.** on the shortcut menu.

S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) is a technology widely-used in hard drives and solid-state devices that monitors their reliability conditions to predict possible hardware failures.
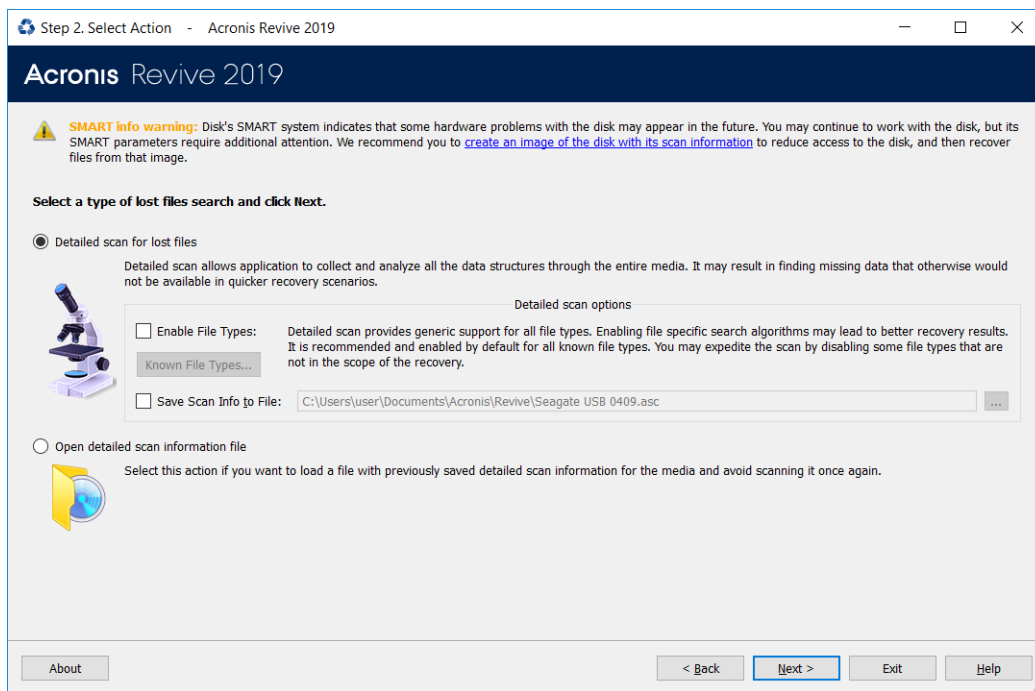
Device/Disk list panel with the S.M.A.R.T. data
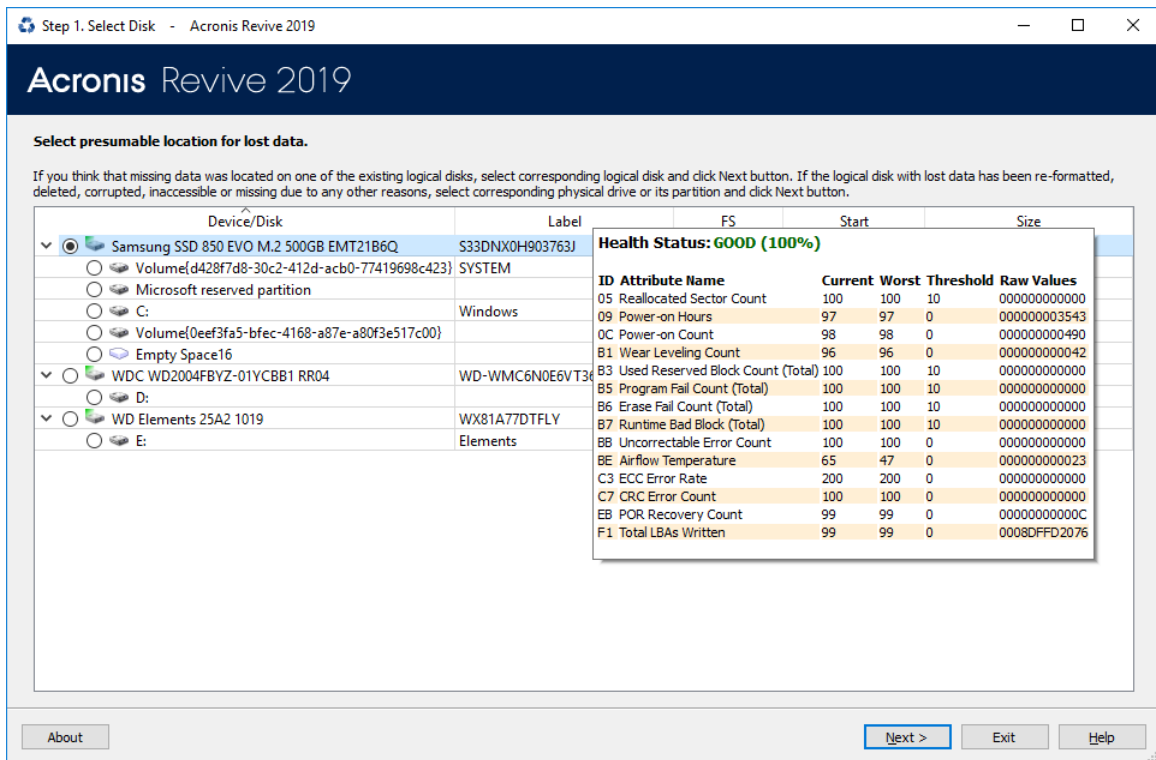
If drive's S.M.A.R.T. data shows warnings

In case the S.M.A.R.T. data of a drive shows hardware problems, Acronis Revive 2019 will show a warning. You may check the S.M.A.R.T. data and decide what to do with the drive.

Caution S.M.A.R.T. warning

This warning indicates that there are possible some small problems with the disk in the future, you may work with it but with cautions and regular check of these parameters.

Disk imaging (p. 35) is recommended. You may start imaging clicking the create its image with scan information link. Then you may recover your files later from that image.

Caution S.M.A.R.T. warning
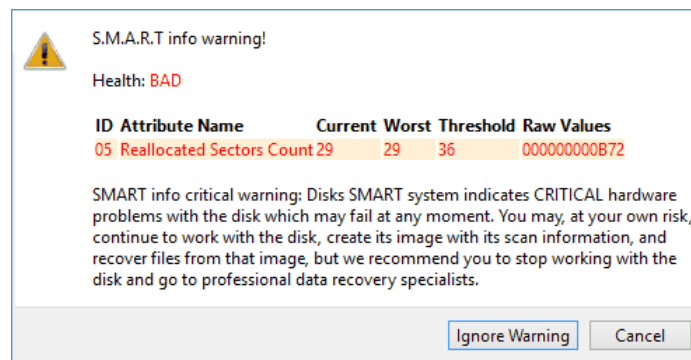
This warning indicates that the disk conditions are critical and chances of hardware failure are great. The best recommendation for this case is to stop working with the disk and bring it to professional data recovery specialists. You may though continue to work with the disk at your own risk, but disk imaging (p. 35) is very strongly recommended. You may create the image by clicking the **Create Image** button. Then you may recover your files later from that image.