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.

Acronis Revive 2019 Features (p. 3)

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## 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

Step 1. Select Disk - Acronis Revive 2019				_		×
Acronis Revive 2019						
Select presumable location for lost data.						
If you think that missing data was located on one of the existing logical d deleted, corrupted, inaccessible or missing due to any other reasons, sel	isks, select corresponding logica ect corresponding physical drive	l disk and click Next butt or its partition and click	on. If the logical disk Next button.	with lost data has been re-for	matted,	
Device/Disk	Label	FS	Start	Size		1
Samsung SSD 850 EVO M.2 500GB EMT21B6Q	S33DNX0H903763J	#0 SATA2 (0:0)	0 Bytes	465.76 GB		
Volume(d428f7d8-30c2-412d-acb0-77419698c423)		FAT32	1 MB	100 MB		
	515120	THISE STOLE	101 MB	128 MB		
O S C:	Windows	NTFS	229 MB	465.08 GB		
O Section 2010 Control Cont		NTFS	465.30 GB	471 MB		
○ Sempty Space14			465.76 GB	1.01 MB		1
✓ ○ S WDC WD2004FBYZ-01YCBB1 RR04	WD-WMC6N0E6VT36	#1 SATA2 (0:0)	0 Bytes	1.82 TB		
●		NTFS	1 MB	1.82 TB		
About			N	ext > Exit	Help	

#### 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.	<b>\$</b>
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.	3
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.	3

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.

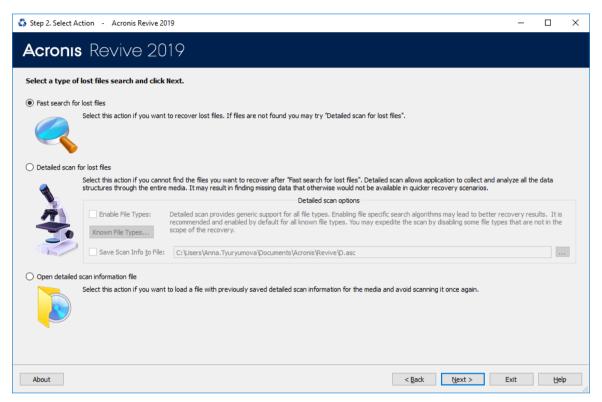
eted, corrupted, inaccessible or missing due to any other reasons, select co Device/Disk	l abel	FS	Start	Size
Samsung SSD 850 EVO M.2 500GB EMT21B6Q	S33DNX0H903763J	#0 SATA2 (0:0)	0 Bytes	465.76 GB
○ Samsung 350 830 870 8712 30036 EW12160Q ○ Samsung 350 830 870 870 872 30036 EW12160Q ○ Samsung 350 830 870 870 872 30036 EW12160Q	SYSTEM	FAT32	1 MB	100 MB
	STOTEM	TATUL	101 MB	128 MB
O Se C:	Windows	NTFS	229 MB	465.08 GB
O Sector C. O Volume{0eef3fa5-bfec-4168-a87e-a80f3e517c00}	Window3	NTFS	465.30 GB	471 MB
○		1411.5	465.76 GB	1.01 MB
○ Section Space 10	WD-WMC6N0E6VT36	#1 SATA2 (0:0)	0 Bytes	1.82 TB
○		NTES	1 MB	1.82 TB
WD Elements 25A2 1019	WX81A77DTFLY	#2 USB (0:0)	0 Bytes	931.48 GB
O Se E:	Elements	NTFS	1 MB	931.48 GB

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

Ĉ 🗞 🗞 🖞	S 🚳 🖬	]						ou want to recover and clic h for particular files and ap	
′ 🔳 🥯 C:				^			Name	Size, Bytes	Created
🗸 🔳 📕 Roo	t					ן 🗖	Intel	-	3.10.2016
> 🗌 📙 S	Recycle.Bin					ן 🗌	MSOCache	0	3.10.2016
	Config.Msi					ן נ	PerfLogs		2.04.2018
> 🗆 🗾	Documents and	Settings				]	Program Files		2.04.2018
> 🗌 📊	ntel					]	Program Files (x86)	1	2.04.2018
> 🗌 📙 I	MSOCache					]	ProgramData	1	2.04.2018
🗆 📙 F	PerfLogs					] 🗌	Recovery	0	3.10.2016
🗸 🔳 📙 F	Program Files			_		]	System Volume Information	2	8.05.2018
> 🗹	7-Zip					]	test_data	0	7.06.2018
	Bonjour					]	trunks	1	2.07.2018
>	Common File	es				]	Users	1	2.04.2018
>	Git					] 🗌	Windows	1	2.04.2018
>	Intel					1	bootmgr	384,322 1	6.07.2016
>	internet explo	orer				1	BOOTNXT	11	6.07.2016
>	Microsoft An	alysis Services				3	hiberfil.sys	6,819,586,048 1	2.07.2018
>	Microsoft Of	fice				\$	pagefile.sys	12,649,136, 2	8.05.2018
>	Microsoft SQ	L Server				\$	swapfile.sys	16,777,216 2	8.05.2018
> 🗆	Microsoft.NE	т				]	WinPEpge.sys	536,870,912 2	8.05.2018
> <b>□</b>	MSBuild			~	<				>
rted by: Real		Creation Time	Modification Time	Access Time		_	B== Details BBB Small	Icons 🔠 Medium Icons	Large Icc

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

#### Folders panel

🔲 X 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 C	reation 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	x
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.

Step 4. Specify Recover Options - Acronis Revive 2019	-		×
Acronis Revive 2019			
Select an output folder to write recovered files and click Next. You may also specify advanced recovery options.      To prevent additional data loss the destination folder should be located on the physical drive different from the original faulty drive.			
Output folder: Advanced recovery options			
Ignore file mask Recover alternative data streams for NTFS files. Has no effect on FAT files Recover security attributes for NTFS files. Has no effect on FAT files Do not recover hidden and system attributes	Bad Secto	ors Options	
About < Back Recover >	Exit	He	lp .

#### E Recover options

1	
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 <b>Default read attempts</b> is set to 0, the entire part with bad sectors will be filled with the specified pattern.
	If <b>Default read attempts</b> 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 <b>Default read attempts</b> to 1, a bad sector will be read 2 times.

#### **Bad Sectors** dialog box

🛟 Bad S	ectors Options
Default n	ead attempts: 1
Pattern	to fill bad sectors
ANSI:	BAD!
HEX:	42 41 44 21
	Ok Cancel

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.

🛟 Acror	nis Revive
	Using the same drive as file destination is not recommended. Click Cancel to abort or Save to continue at your own risk.
	Save

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:

🛟 File already exists (By default)
Existing File
E:\Recovered\Root\2014\Get started\fr\fr console.png
90206 Bytes; 22.05.2017 19:16:20.742000000
New File
fr console.Id_12255233.png
90206 Bytes; 22.05.2017 19:16:20.742000000
Apply the answer to all recovered files
Overwrite Rename Skip Abort Recovering
Overwrite Older Overwrite Smaller Overwrite Bigger

#### File already exists options

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 SmallerIf this option is selected, Acronis Revive 2019 overwrites the exwith the new one if the existing file is smaller than the new file stamp used is Modified.		
Overwrite BiggerIf this option is selected, R-Acronis Revive 2019 overwrites the exi with the new one if the existing file is bigger than the new file. The stamp used is Modified.		
Apply the answer to all recovered filesIf this check box is selected, the chosen option will be applied to a 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 F	ile Name	×
File Name:	?est6.arc	
New Name:	\$est6.arc	
	Edit broken symbols only Change all invalid symbols to: \$	
	Rename All Skip Skip All	

#### 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

🛟 There is not enough space on the disk	×
Current file information File Name: I:\Root\Recovered_Files\xpsp1a_en_x86.exe File Size: 125.09 MB	
Output folder:     I:\       Abort Recovery     Skip File     Continue Recovery	

#### Step 5. Recovery status panel

🕉 Step 6. Recover	y Status - Acronis	Revive 2019	-		×
J	A Cr		ess about losing a file again age backup with Acronis True Image bur data safe		
Recovery status:					
Failed 0 files.	were recovered.				
Туре	Date	Time	Text		
Recover     Recover	25.09.2018	16:28:53 16:28:53	Successfully restored: 3 files. Failed: 0 files. Elapsed: 35s.		_
About			< Back Einish Exit	He	lp

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 - C: -> VMware, VMware Virtual S1.0			
Files:         ▼           ReadMe.txt;MyLetter??.doc;*.jp?         ▼			
Example: r*me.t?t; ginger.*;			
Options Look at			
Look in: 🗸 Files			
From current folder   Folders			
Match case Deleted files			
Existing files			
Find/Mark mode: O Up			
Mark matched files			
V Use advanced options       Size From:     0       Bytes     Up To:       10     MB       File Id:     0			
✓ File creation date			
○ not older than 1			
○ not older than 1 → months and 2017-05-25 ▼			
✓ File modification date           Set for all			
○ not older than 1 → days ● between 2017-04-25 ▼			
$\bigcirc$ not older than 1 $\stackrel{\frown}{=}$ months and 2017-05-25 $\checkmark$			
✓ File last access date			
○ not older than 1 → days ● between 2017-04-25 ▼			
$\bigcirc$ not older than 1 $\checkmark$ months and 2017-05-25 $\checkmark$			
Advanced Ok Cancel			

#### **□** 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 <b>Entire disk, From current folder</b> . In the <b>Current folder and subfolders</b> , and in the Current folder only. If <b>From current folder</b> is selected, you may also specify the <b>Direction</b> 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:		
	<b>Find all matched files.</b> Acronis Revive 2019 searches for all files that match the search criteria. The search results appear on the <b>Find Results</b> 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 <b>Unmark matched files</b> .		
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 <b>From current folder</b> is selected in <b>Look in</b> .		
Advanced Option	15		
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 <b>Modified</b> , <b>Created</b> , and <b>Last Accessed</b> 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,

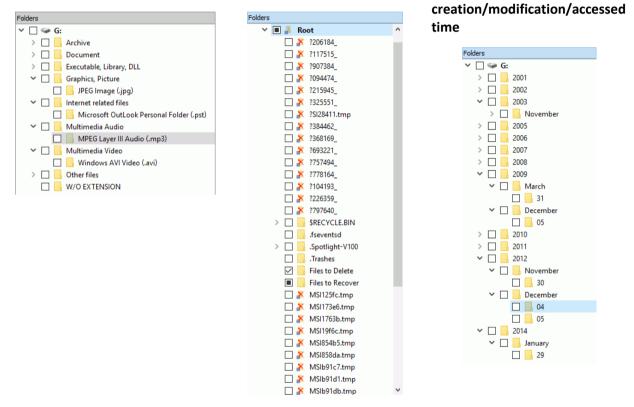
#### On the Sorted by bar, select

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**



### 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	Ν
File extension	E
Recognized file type	Т

To search for previous file versions,

Files sorted by their

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:

Step 3. Mark Files For Recovery - Acronis Revive 2019	– 🗆 X			
Acronis Revive 2019				
C 🗞 🗞 🍕 👔 🖬	Mark files/folders you want to recover and click Next. You may also search for particular files and apply file masks.			
<ul> <li>Mine</li> <li>Publisher</li> <li>Publishing</li> <li>screenshot for Mac</li> <li>svn</li> <li>System Volume Information</li> <li>V Temp</li> <li>toPub</li> <li>trunk</li> </ul>	Name         Size, Bytes         Created         Modified         Accessed           \$RECYCLE.BIN         28.05.2018         01.06.2018         01.06.2018         10.09.2018           Distr         14.06.2018         21.09.2018         21.09.2018         19.09.2018           Distr         14.06.2018         21.09.2018         21.09.2018         10.06.2018           JOB         01.06.2018         21.09.2018         21.09.2018         10.06.2018           JOB         01.06.2018         01.06.2018         01.06.2018         10.06.2018           Links         01.06.2018         01.06.2018         01.06.2018         10.06.2018           Mine         01.06.2018         06.08.2018         v         v			
Sorted by: Real Extensions Creation Time Modification Time Access Time	B Details Small Icons Hedium Icons Large Icons			
Find Results     X       NET     Name       Find All "All Files:", ""       === Matching files: 0   Total files searched: 2 ===				
Ready	Marked 9.07 MB in 93 files in 5 folders   Total 197.63 GB in 83069 files in 8386 folders			
About	< Back Next > Exit Help			

### 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,

 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

🖏 Define File Mask 📃
File Extensions: 🔻 doc;rtf;odt
Example: txt; doc; xls;
Match case Deleted files
Show empty folders
Use advanced options
Size From: 0 Bytes V Dy To: 0 Bytes V
· · · · · · · · · · · · · · · · · · ·
✓ File creation date Set for all
○ not older than 0 → days ● between 2017-04-25 ▼
○ not older than 0 → months and 2017-05-25 ▼
✓ File modification date
○ not older than 0 → days ● between 2017-04-25 ▼
○ not older than 0 ★ months and 2017-05-25 ▼
✓ File last access date           Set for all
○ not older than 0 ★ days ● between 2017-04-25 ▼
○ not older than       0
Advanced Ok Cancel

#### E 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 <b>Modified</b> , <b>Created</b> , and <b>Last Accessed</b> 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< th=""><th>Word position: beginning of the word</th></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).

#### 

MS Office files: even without Microsoft Office installed			
Word documents: doc (Office 97-2003) and docx			
<			
and pptx			
Adobe Acrobat pdf			
Video/Audio files: With proper software and codecs installed in the system			
Graphic files:			
Extension	Compression		
psd			
pix als alias			
iff blk	Rle		
bob			
CALS Raster Goup 1 cal cals			
	cx and pptx odecs installed in the syste <b>Extension</b> psd pix als alias iff blk bob		

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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	ері	
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	Iff	
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	

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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	
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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

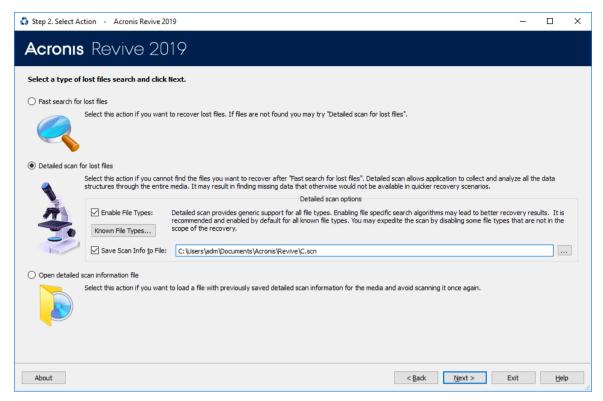
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	SYSTEM	FA132	101 MB	128 MB
<sup>()</sup> <sup>(w)</sup> Microsoft reserved partition <sup>()</sup> <sup>(w)</sup> C:	WC- dama	NITEC		
0.0	Windows	NTFS	229 MB 465.30 GB	465.08 GB 471 MB
○ Support Constant Constan		NTFS	465.30 GB 465.76 GB	4/1 MB 1.01 MB
O Sempty Space16		#1 0 T 10 (0 0)		
O S WDC WD2004FBYZ-01YCBB1 RR04	WD-WMC6N0E6VT36	#1 SATA2 (0:0)		1.82 TB
○ 🍩 D:		NTFS	1 MB	1.82 TB
O S WD Elements 25A2 1019	WX81A77DTFLY	#2 USB (0:0)	0 Bytes	931.48 GB
● 🥯 E:	Elements	NTFS	1 MB	931.48 GB

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

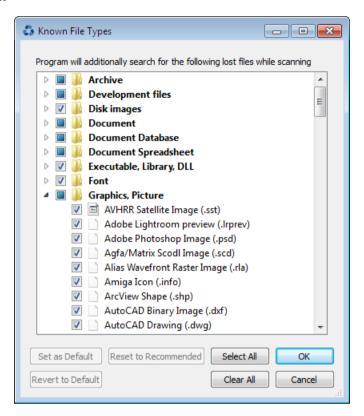
#### Step 2. Select action panel



#### 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

e are not selected. If necessar	y, select them manually	
Adobe PDF document: .pdf	Final Draft Document: .fdr	FrameMaker Document: .fm
GNU Info Document: .info	HTML Document: .html	Lotus AMI Pro Document: .sam
Lotus Word Pro Document: .lwp	Microsoft Money Data: .mny	Microsoft Office Open XML Document *
Microsoft Pocket Streets Map File: .mps	Microsoft PowerPoint 2007 XML Document*: .pptx	Microsoft PowerPoint Document*: .ppt
Microsoft Reader eBook annotations: .ebo	Microsoft Word 2007 XML Document*: .docx	Microsoft Word Document*: .doc
Microsoft WordPad Document: .wri	OLE Storage	OpenDocument Document
QuickBooks Backup File: *.qbb	QuickBooks Primary Data File: *.qbw	Quicken Data: *.qdf
TEX Document: .tex	Text Document: .txt	TurboTax return file:.tax
Word for Macintosh Document: .mcw	WordPerfect Document: .doc	XML Document: .xml
	Adobe PDF document: .pdf GNU Info Document: .info Lotus Word Pro Document: .lwp Microsoft Pocket Streets Map File: .mps Microsoft Reader eBook annotations: .ebo Microsoft WordPad Document: .wri QuickBooks Backup File: *.qbb TEX Document: .tex Word for Macintosh	GNU Info Document: .infoHTML Document: .htmlLotus Word Pro Document: .lwpMicrosoft Money Data: .mnyMicrosoft Pocket Streets Map File: .mpsMicrosoft PowerPoint 2007 XML Document*: .ptxMicrosoft Reader eBook annotations: .eboMicrosoft Word 2007 XML Document*: .docxMicrosoft WordPad Document: .wriOLE StorageQuickBooks Backup File: *.qbbQuickBooks Primary Data File: *.qbwTEX Document: .texText Document: .txt

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		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	tspot Image: .shg HP Command Language HP Raster Image: .rtl Image: .pcl		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: WordPerfect Gr .wmf 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*: MUS Music: .mu .mp3		
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	JAM archive: .jam LIMIT archive: *.lim	JAR archive: .jar LZA archive: *.lza	LZOParchive: .Jrc	
LHA/LZARK archive: *.lzh	-		-	
	LIMIT archive: *.lim	LZA archive: *.lza Microsoft Cabinet archive:	LZOParchive: .lzo Microsoft Compress 5	
LZSH archive Microsoft Compress 6	LIMIT archive: *.lim LZX archive: .lzx	LZA archive: *.lza Microsoft Cabinet archive: .cab	LZOParchive: .lzo Microsoft Compress 5 archive	

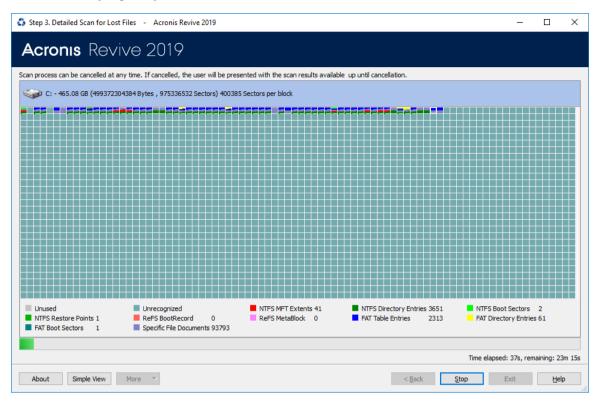
	1	1	1	
SQZ archive: .sqz	SZip archive	Stufflt archive: .sit	TAR archive: .tar	
UFA archive: .ufa	UHArc archive: .uha	UltraCompressor 2 archive: .uc2	UltraCrypt 2 archive: .ue2	
WIN-Freeze archive*: .ice	WRAptor archive: .wra	WinImp archive: .imp	YAC archive: .yc	
YBS archive: .ybs	ZIP archive: .zip	ZOO 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: Microsoft Linker .clw		
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 unfragmented 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.

🖏 Stop Detailed Scan
Please choose the desired:
Stop and show found files and folders
Stop and return to the Select Disk panel
$\bigcirc$ Stop and show the disk's detailed scan map (stay at the current page)
or click Cancel to continue detailed scan.
Ok Cancel

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.

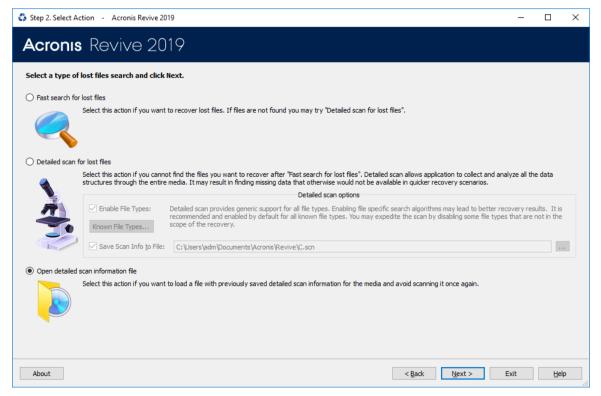
#### **Extra Found Files.**

C 🗞 🗞 🍕 🛐				Mark files/	folders you wa	nt to recove	r and click I	Next.
		^		^	lso search for p			
PerfLogs				Name		Size, Byte:	Created	Modifie
> Program Files				owsermdl.ttf		34,376	5/10/20	10/30/2.
Program Files (x86)			_	benetworkcaptivepo	ortal.exe		5/10/20	
>			🗹 🗙 res	ources.pri		19,616	5/10/20	4/11/20.
> A Recovery								
System Volume Information	in							
>								
> 🗌 🖡 Windows								
>								
V 🗹 🎗 Extra Found Files								
✓ × \$\$\$Folder00000								
✓ × \$\$\$Folder1000865797								
✓ × \$\$\$Folder1001390088								
\$\$\$Folder1003421702								
\$\$\$Folder1008467974								
> 🗹 🎗 \$\$\$Folder100859908							_	
✓ X \$\$\$Folder1011548166	Time Modification Time	~ 	<		··			2
orted by: Real Extensions Creation	mouncauon Time	Access T	ine	E Details	Small Icons	BB Medium I		arge Icons.

#### **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.

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.

🖏 Acror	is Revive	<b>×</b>
?	Detailed scan is not completed and some files ma to continue the detailed scan, click Rescan to rest to view the detailed scan map.	
Reso	an	Continue Cancel

# 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
- 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 - D:	<b>X</b>
Image filename: C:\Users\adm\Documents\Acror	nis\Revive\D.rdr
Main Scan Information Advanced	
Byte to byte image	
<ul> <li>Compressed Image</li> </ul>	
Compressed Image Options	
Compression ratio	Image split size
Faster speed Smaller size	<ul> <li>● Automatic</li> <li>● Fixed: 4</li> <li>▼ GB</li> </ul>
Image password:	Confirm password:
Estimated size: 6.96 GB	
	Ok Cancel

#### **Create Image File dialog box**

🛟 Create Imag	e - D:	<b>X</b>
Image filename		
	n Information Advanced	
The scan i	nfo file will be saved to the same place with the image file. C:\Users\adm\Documents\Acronis\Revive\D.scn	
File System:	NTFS; ReFS; FAT/exFAT	Change 🔻
🔽 Extra Sea	rch for Known File Types	Known File Types
		Ok Cancel

**□** 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 <b>Compressed image (R-Drive Image compatible)</b> 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 <b>Compressed image (R-Drive Image compatible)</b> is selected.
Image split size	You may set this option to <b>Automatic</b> 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 <b>Fixed size</b> for that. Active only if the <b>Compressed image (R- Drive Image compatible)</b> is selected.
Password	You may protect your image file with a password. <b>Note:</b> This feature provides a relatively moderate protection against conventional unauthorized access. Active only if the <b>Compressed image (R-Drive Image compatible)</b> 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

🛟 Create Im	age - D:	×
Image filenar	me: C:\Users\adm\Documents\Acronis\Revive\D.rdr	
Main S	Scan Information Advanced	
-Bad Sect	ors	
Read att	tempts: 1	
Patterr	n to fill bad blocks	
ANSI:	BAD!	
HEX:	42 41 44 21	
		2
	Ok Cance	!

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. IRight-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.

cronis Revive 2019				
ect presumable location for lost data.				
ou think that missing data was located on one of the existing logical d eted, corrupted, inaccessible or missing due to any other reasons, selv				with lost data has been re-formatted
Device/Disk	Label	FS	Start	Size
🔿 🦤 Samsung SSD 850 EVO M.2 500GB EMT21B6Q	S33DNX0H903763J	#0 SATA2 (0:0)	0 Bytes	465.76 GB
O See Volume{d428f7d8-30c2-412d-acb0-77419698c423}	SYSTEM	FAT32	1 MB	100 MB
O Sector Microsoft reserved partition			101 MB	128 MB
O ⊕ G	Windows	NTFS	229 MB	465.08 GB
Volume{0eef3fa5-bfec-4168-a87e-a80f3e517c00}		NTFS	465.30 GB	471 MB
○ 😔 Empty Space14			465.76 GB	1.01 MB
○ See WDC WD2004FBYZ-01YCBB1 RR04	WD-WMC6N0E6VT36	#1 SATA2 (0:0)	0 Bytes	1.82 TB
• • D:		NTFS	1 MB	1.82 TB

#### 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

#### Step1. Select disk panel

ou think that missing data was located on one of the existing logical d eted, corrupted, inaccessible or missing due to any other reasons, selv	isks, select corresponding logica ect corresponding physical drive	l disk and click Next butto or its partition and click I	on. If the logical disk Next button.	with lost data has been re-formatted
Device/Disk	Label	FS	Start	Size
🔿 🍉 Samsung SSD 850 EVO M.2 500GB EMT21B6Q	S33DNX0H903763J	#0 SATA2 (0:0)	0 Bytes	465.76 GB
O Sumsding 555 656 EVO Miz 56666 EV0215662 O Sumsding 555 656 EVO Miz 56666 EV0215662 O Sumsding 555 656 EVO Miz 56666 EV0215662		FAT32	1 MB	100 MB
○ Solution Of the served partition			101 MB	128 MB
() @ C	Windows	NTFS	229 MB	465.08 GB
Volume{0eef3fa5-bfec-4168-a87e-a80f3e517c00}		NTFS	465.30 GB	471 MB
○ Space16			465.76 GB	1.01 MB
○ See WDC WD2004FBYZ-01YCBB1 RR04	WD-WMC6N0E6VT36	#1 SATA2 (0:0)	0 Bytes	1.82 TB
 ○ ♀ D:		NTFS	1 MB	1.82 TB
🔿 🍉 WD Elements 25A2 1019	WX81A77DTFLY	#2 USB (0:0)	0 Bytes	931.48 GB
● 🥯 E:	Elements	NTFS	1 MB	931.48 GB

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

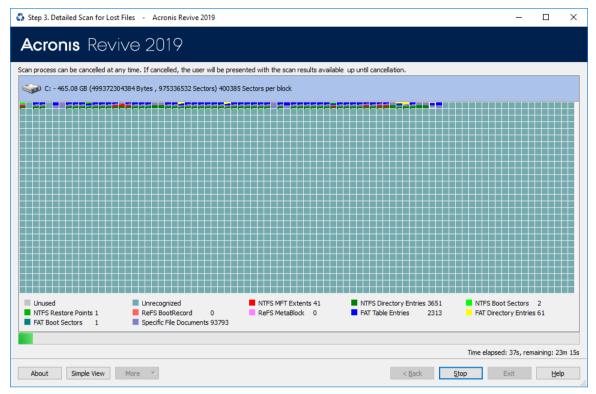
#### Step 2. Confirm action panel

🔹 Step 2. Select Action - Acror	nis Revive 2019 —		×
Acronis Reviv	/e 2019		
Select a type of lost files searc	h and click Next.		
Detailed scan all	lows application to collect and analyze all the data structures through the entire media. It may result in finding missing data that otherwise wo ker recovery scenarios.	uld not be	:
	Detailed scan options		
Enable File     Known File T	recommended and enabled by default for all known file types. You may expedite the scan by disabling some file types that are r		
Save Scan	Info to File: D:\Users\Documents\Acronis\Revive\WD Elements 25A2 1019.asc		
Open detailed scan information Select this action	file n if you want to load a file with previously saved detailed scan information for the media and avoid scanning it once again.		
About	< Back Next > Exit	Help	<b>.</b>

You may enable/disable search for Known File Types.

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

Device/Disk	FS	Start	Size
	NTFS	1 MB	450.00 MB
g → Volume(15021591-cae/-4806-b61c-5c222e5//450/ (Recognized9)	NTFS	146.92 MB	3.01 MB
Volume{9ba6de94-e9bc-4345-8968-41c28fbeace2} (Recognized11)		451 MB	103.00 MB
Sec (Recognized8)	NTFS	566 MB	59.45 GB

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
	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

^		Name	Size, Bytes	Created	Modifie
	🗹 🎗 en-US			1/17/20	5/10/20.
	✓ X images			1/17/20	5/10/20.
	-	e	52,736	1/17/20	1/17/20.
	🗹 🗙 hmmapi.dll		53,760	1/17/20	1/17/20.
	🗹 X iediagcmd.e	xe	506,880	1/17/20	1/17/20.
	🗹 🔀 ieinstal.exe		498,176	1/17/20	1/17/20.
	🗹 🔀 ielowutil.exe		223,232	1/17/20	1/17/20.
	🗹 X IEShims.dll		410,112	1/17/20	1/17/20.
	🗹 🐹 iexplore.exe		812,384	1/17/20	1/17/20.
	🗹 X sqmapi.dll		42,408	1/17/20	1/17/20.
~	<				
	<	<ul> <li>X en-US</li> <li>X images</li> <li>X ExtExport.ex</li> <li>X iediagcmd.ei</li> <li>X iediagcmd.ei</li> <li>X ieinstal.exe</li> <li>X ielowutil.exe</li> <li>X ielowutil.exe</li> <li>X ielowutil.exe</li> <li>X ielowutil.exe</li> <li>X ielowutil.exe</li> <li>X ielowutil.exe</li> <li>X sigmapi.dll</li> </ul>	You may also search fo Name X en-US ExtExport.exe X images ExtExport.exe X ieidiagcmd.exe X ieinstal.exe X ieionstal.exe X ielowutil.exe X ielowutil.exe X ielowutil.exe X isoplore.exe X sqmapi.dll	You may also search for particular file         Name       size, Byte:         Nimages          ExtExport.exe       52,736         Xi iediagcmd.exe       506,880         Xi iediagcmd.exe       498,176         Xi ielowutil.exe       223,232         Xi ielowutil.exe       812,384         Xi iexplore.exe       812,384         Xi sqmapi.dll       42,408	Name       Size, Syte       Cleated         Name       Size, Syte       Cleated         Name       1/17/20       1/17/20         Name       Size, Syte       1/17/20         Name       Size,

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

ile	Edit \	/iew	То	ols																						
D nd	Find Prev	) /ious	ہ Fin	Solution of the second	dt	STOP Stop		Offse	t to q	o to	~	Byt	tes	•	AI		_	n C	_	M) Column	UNIC	ODE Colun	nn I	UNI+ UNICODE+ Column		
Of	fset								Bina	ry di	ata										ANS	I		UNICODE		
octor	0 (Parent	• Daw	File	Dec	orde	1525	168)																			
	o (i arcin		i ne.	- nee	oru.	1525	100)																			
	0:	5A	57	53	68	BF	В9	9C	7B	- F	BA .	A2	С6	14	F2	E6	65	11	2	WShï	.њ{сј	ўЖ.тже.		ㅋㅋ릿ㅋㅋㅋ.໖		
	10:	4B	28	24	9E	44	83	07	73	- 0	CC	1F	38	67	88	CF	F1	E7	7 E	(\$ħD:	ŕ.sM	.8g.Пc:	з.	. OOOHO쾈.		
	20:	2C	6D	94	1A	65	96	Dl	E2	- 1	FO .	20	64	54	66	F5	78	41	),	m″.e	-Свр	dTfxxM	1 [	o.oo. o		
	30:	33	СВ	D6	14	68	4D	В0	3C	- 1	71	30	A1	Dl	80	26	67	D4	1 3	лц.ы	M° <c(< td=""><td>ОЎСЪ&amp;д₫</td><td>Þ 🕴</td><td>쬳ㅁㅁㅁㅁ톡.푧</td><td></td><td></td></c(<>	ОЎСЪ&д₫	Þ 🕴	쬳ㅁㅁㅁㅁ톡.푧		
	40:	06	EΒ	24	AE	С4	1A	31	СВ	- 3	30	6D	16	66	68	60	8E	20	: .	л\$⊛Д	. 1ЛОг	n.fh`Ћ,		·긤.쬱====		
	50:	6D	36	BD	Α7	CD	99	85	36	- 2	21	D6	DE	90	9B	55	4A	B2	2 n	16S§H	6!1	ЦЮђ>UJI		□.□□혡□□뉊		
	60:	Cl	30	BC	6A	AE	D4	DC	6E	- 3	L6 🗄	B3	DE	СС	43	В9	8C	ва	3 E	Ojj®	ФЪn.i	iЮMC.њё	6 0	그그풮그댖쳞륃뢌		
	70:	74	34	73	E1	47	95	Ε4	2A	- 3	ЗE	61	E1	72	93	5F	0D	61	t	436G	• д*>а	абr".c		o.o.oooo		
	80:	F8	A2	AB	25	5F	4E	85	B2	- 1	3	СВ	18	E5	A3	17	70	B4	1 <b>1</b>	ığ≪% l	NIyJ	I.eJ.pr	-	<mark>.□</mark> 늅쯳.∺된		
	90:	ЗA	EF	1D	93	1C	6C	39	4F	- (	27	FC	71	5F	В4	D9	7D	27	۱ :	п.".	1903	- ьд тЩ}*	÷ .			
	A0:	23	E9	AD	C6	17	B9	BD	7D	- 1	F6	D4	F4	51	25	55	0B	13	3 #	й.Ж.	.S}ц	₽ΦQ%U		. 욭륏o퓶ooo		
	B0:	F6	42	6E	A1	81	6C	18	A5	- :	54	8C	69	FF	84	CA	26	81	Г ц	(BnЎ́́Г	1. ГТ	- Бія"К&Ц	1 0	00000쪄0		
	C0:	EF	63	77	F7	08	4E	38	F4	- 1	<b>78</b>	Fl	8B	<b>B</b> 5	AC	15	5C	DE						ם.ם떋ㅁ.		
	D0:	58	6F	02	ЗF	ЗF	<b>A</b> 8	AC	04	- 9	9E	BO	DO	08	9E	C2	5A	10				°P.ħBZ.				
	E0:	23	C1	62	CF	BA	20	D3	02	- 1	45	AB	3E	E8	A2	Dl	9E	CI	) #	БрПс	У.Ґ.	«>иўСћН	1	섣콢톢춞		
	F0:	<b>A</b> 8	23	00	E7	7E	DO	B5	30	- I	Ξ5	F6	7A	22	F6	BC	D2	C3	3 Ë	<b>#.</b> 3~1	Pµ0er	цz"цjTI	r .	큾ㅁ볶쏒		
	100:	A6	6D	A0	CE	D7	BC	ED	4A	- 3	31	21	OF	B3	57	D8	7C	27	A :	m.OU	jHJ1	.iWII)*	< D	□츊볗□□댏		
	110:	74	42	3E	F6	A6	E1	6A	FA	- 9	93	59	8C	E6	B3	Α4	AO	DA	ι t	:В>ц	- бјъ"1	YExi¤ 'B	ьс			
	120:																					. Е 6 ЯЖ] І		힘oooxo웟썝		
	130:															8C						с∖ю.њбј				
	140:																					и (SOй B@		롌,팜==== 깂		
	150:																					ц:Р°Ш.Х		ㅁ.ㅁㅁ킦.픞		
	160:																					©љ. Кц		HONGO.		
	170:																					j*r4>.		고관늹냶됪ㅁㅁ		
	180:																					А¬.г»_5		ᄆ뇻ᄆ쀶ᆬ믣읟		
Std	Unlimit			ect																		-				 

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	o Offset										
From:	egin	۹ ا	HEX								
	Current position	0	DEC								
	<ul> <li>Current position (backward)</li> </ul>										
	End (backward)										
	Range: [07d097]										
Offset:	120		* *								
	dec: 288		288 Bytes								
	Range: [03e8]		Range: [01ff]								
Sector:	0	offset:	120 হ								
	dec: 0		dec: 288								
G	p!	ОК	Cancel								

#### 

From:	Jump / offset direction. For example, if you need to find the offset from the object end for a selected byte, switch to the <b>End (backward)</b> 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 <b>Go!</b> button moves the cursor to the specified positions, but the <b>Go To Offset</b> dialog box remains open. The <b>OK</b> 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		×
Search for	Vot Equal	
ANSI:	file	
HEX:	66 69 6c 65	
OEM:	file	
UNICODE:	楦敬	
	Match Case	
-Search are	a	Search options
From c	urrent position	Exhaustive search
From s	tart position	Search at offset (hex)
From a	ddress (hex):	0 HEX -
0	HEX 🔻	
To add	ress (hex):	Reverse
0	HEX 🔻	Find All
		OK Cancel

### 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	
НЕХ	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 <b>Find Results</b> pane.

#### ■Features of the Not Equal option

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

Sector1FILEAAAAASector2FILEBBBBBSector3NOTAFILE

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. IRight-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
  - Given the select of the select
  - 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.

; Find Nex		STOP Stop	0	ffset	to go	o to	~	Bytes	5	•	DAT	A: DA	() AT	IR)		•	_	NSI Column		n UNIC		UNICODE + Co	lumn Auto flow
Offset								Bina	ry e	data									ANSI		C	DEM	UNICODE
5160:	00	00	00	00	00	00	00	00	-	00	00	00	00	00	00	00	00						
5170:	00	00	00	00	00	00	00	00	-	22	14	00	00	00	00	00	00		"			."	
5180:	05	00	53	00	75	00	6D	00	-	6D	00	61	00	72	00	79	00	s.	u.m.m.a.	r.y.	S.u.m	.m.a.r.y.	.Summary
5190:	49	00	6E	00	66	00	6F	00	-	72	00	6D	00	61	00	74	00	I.n.	f.o.r.m.	a.t.	I.n.f.o	.r.m.a.t.	Informat
51A0:	69	00	6F	00	6E	00	00	00	-	00	00	00	00	00	00	00	00	i.o.	n		i.o.n		ion
51B0:	00	00	00	00	00	00	00	00	-	00	00	00	00	00	00	00	00						
51C0:	28	00	02	01	02	00	00	00	-	04	00	00	00	FF	FF	FF	FF	(		ŶŶŶŶ	(		(Ă
51D0:	00	00	00	00	00	00	00	00	-	00	00	00	00	00	00	00	00						
51E0:	00	00	00	00	00	00	00	00	-	00	00	00	00	00	00	00	00						
51F0:	00	00	00	00	16	00	00	00	-	00	10	00	00	00	00	00	00			• • • •		• • • • • • • • • •	ന

#### 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         Image: Introduction of the state of the
When right- clicking any column Copy as File Signature	Data pasted into a text editor       Initited - Notepad       File       Eile       Eile       Lix05\x00\x75\x00\x6D\x00\x6D\x00\x61\x00\x72\x00\x79\x00
When right- clicking the Binary data column Copy as "Binary data"	Data pasted into a text editor          Untitled - Notepad       -       ×         File       Edit       Format       View       Help         0500530075006D006D00610072007900       ×       *          >
When right- clicking the ANSI column Copy as "ANSI"	Data pasted into a text editor Untitled – File Edit Format View Help 
When rightl- clicking the UNICODE column Copy as "UNICODE"	Data pasted into a text editor Untitled – <u>K</u> <u>Elie Edit Format View Help</u> <u>Summary</u> <u>Summary</u> <u>Summary</u>

## 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: 2797640\_

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. 🗹 🔉 ?MP

#### 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:

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.

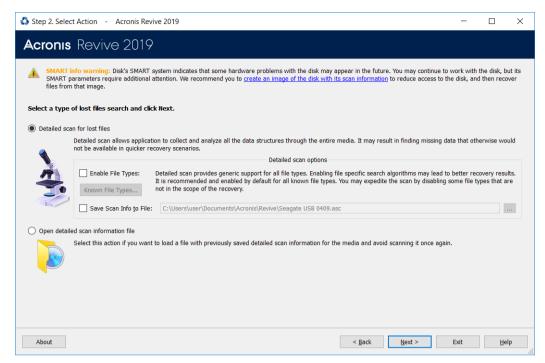
Device/Disk list panel with the S.M.A.R.T. data

Samsung SSD 850 EVO M.2 500GB EMT21B6Q		FS	Sta	rt		Size
	S33DNX0H903763J	Health Status: GOOD (100	%)			
Volume{d428f7d8-30c2-412d-acb0-77419698c4						
	23) 3131 EIVI	ID Attribute Name	Curre	nt Wors	t Threshold	Raw Values
O Sector Microsoft reserved partition		05 Reallocated Sector Count	100	100	10	0000000000000000
O ⇔ C:	Windows	09 Power-on Hours	97	97	0	00000003543
O Solume{0eef3fa5-bfec-4168-a87e-a80f3e517c00	)}	0C Power-on Count	98	98	0	000000000490
🔘 🥯 Empty Space16		B1 Wear Leveling Count	96	96	0	00000000042
○ See WDC WD2004FBYZ-01YCBB1 RR04	WD-WMC6N0E6VT3	B3 Used Reserved Block Count (To		100	10	0000000000000
() 🥯 D:		B5 Program Fail Count (Total)	100	100	10	000000000000
→ WD Elements 25A2 1019	WX81A77DTFLY	B6 Erase Fail Count (Total)	100	100	10	0000000000000
		B7 Runtime Bad Block (Total)	100	100	10	0000000000000
○ 🍩 E:	Elements	BB Uncorrectable Error Count	100	100	0	0000000000000
		BE Airflow Temperature	65	47	0	00000000023
		C3 ECC Error Rate	200	200	0	000000000000
		C7 CRC Error Count	100	100 99	0	00000000000000000000000000000000000000
		EB POR Recovery Count E1 Total LBAs Written	99 99	99	0	0008DEED2076
		F1 Total LBAS Written	99	33	U	00060FFD2076

### 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.

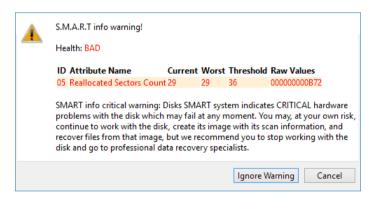
#### Caution S.M.A.R.T. warning



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.