# How to Use Microsoft's "Windows File Recovery" on Windows 10

HTG **howtogeek.com**/680458/how-to-use-microsofts-windows-file-recovery-on-windows-10

Chris Hoffman



Microsoft's Windows File Recovery is an official tool for recovering deleted files from hard disks, SD cards, USB drives, and other storage media. Here's an in-depth, step-by-step guide on using this command-line utility.

## What You Need to Know

Microsoft's Windows File Recovery tool doesn't have <u>a graphical interface</u>—it's only a command-line utility. We'll show you how to use it, but it's a more hands-on process than you might expect from an official Microsoft utility available in Windows 10's Store.

This tool requires you've installed <u>Windows 10's May 2020 Update</u> or a newer version of Windows 10. It doesn't run on older versions of Windows.

Whether Microsoft's tool can actually find and recover a file you've deleted depends on the drive. <u>Deleted files aren't removed from hard drives immediately</u>, but they often are removed from solid-state drives immediately. If you've written a lot of data to a device like an SD card since you've deleted the file, it's likely that the file's data may have been overwritten.

Even if you manage to recover a file, you may only get some of the file's data—the file may be corrupted. You can only get whatever data is still on the drive. There are no guarantees here, and that's <u>why backups are so important</u>.

The utility also has multiple modes intended for different situations and file systems. We'll explain which you should use and how to use them.

## How to Install Windows File Recovery

To get started, install the Windows File Recovery tool from the Microsoft Store to get started. You can open the Store and search for "Windows File Recovery" or just click that link to open the Store.

Once it's installed, open your Start menu and search for "File Recovery." Launch the "Windows File Recovery" shortcut once and click "Yes" to the UAC prompt.
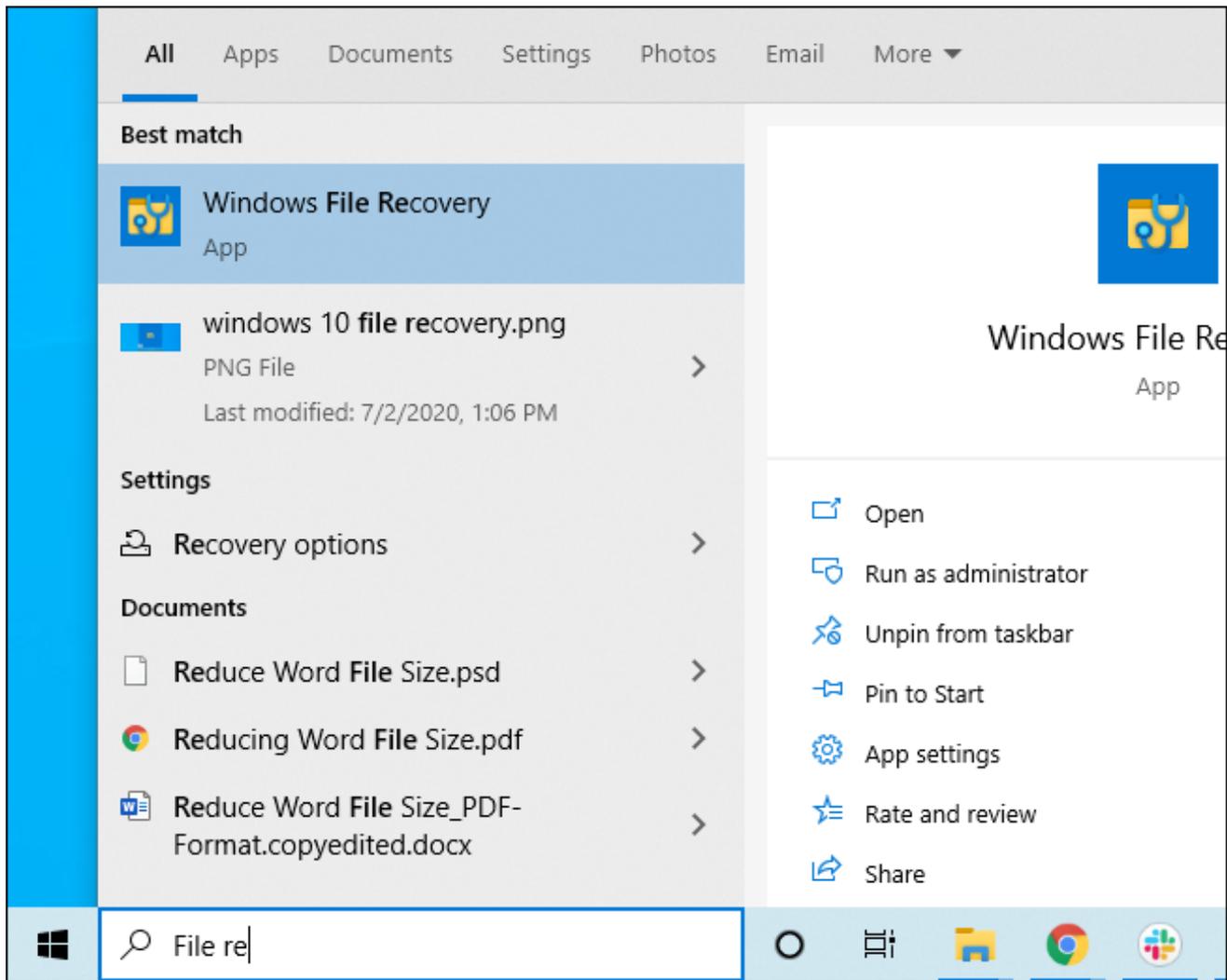


You'll see a Command Prompt window with Administrator access. This is where you'll run the File Recovery commands.

You can use other command-line environments like the Windows Terminal and PowerShell, but be sure to launch them with Administrator access. (In the Start menu, right-click the one you want to use and select "Run as Administrator.")

```
 Administrator: C:\Windows\System32\cmd.exe

Windows File Recovery
Copyright (c) Microsoft Corporation. All rights reserved
Version:            0.0.11761.0
------------------------------------------------------------

USAGE: winfr source-drive: destination-folder [/switches]

/r            - Segment mode (NTFS only, recovery using file record segments)
/n <filter>   - Filter search (default or segment mode, wildcards allowed, trailin
r)

/x            - Signature mode (recovery using file headers)
/y:<type(s)>  - Recover specific extension groups (signature mode only, comma sepa
/#            - Displays signature mode extension groups and file types

/?            - Help text
/!            - Display advanced features
```

## How to Recover Deleted Files on Windows 10

To use this tool, you will run the `winfr` command, specifying the drive you want to search for the deleted file, the destination you want to save it to, and the various switches that control what the tool searches for and how it searches. You must save the deleted file to a different drive.

Here's the basic format:

winfr source-drive: destination-drive: /switches

After running the command, the tool will automatically create a directory named "Recovery_[date and time]" on the destination drive you specify.

## Which Mode Should You Use?

Before you continue, you should determine the "mode" you want to scan for the deleted file. There are three modes, Default, Segment, and Signature. Default is the fastest mode, while Segment is similar but slower and more thorough. Signature mode can search for files by type—it supports ASF, JPEG, MP3, MPEG, PDF, PNG, and ZIP files. (Searching for "ZIP" files will also find Office documents stored in formats like DOCX, XLSX, and PPTX.)

You'll need to know what file system the drive you'll be scanning is formatted with. To find this, open File Explorer, right-click the drive under This PC, and select "Properties." You'll see the file system displayed on the "General" tab.
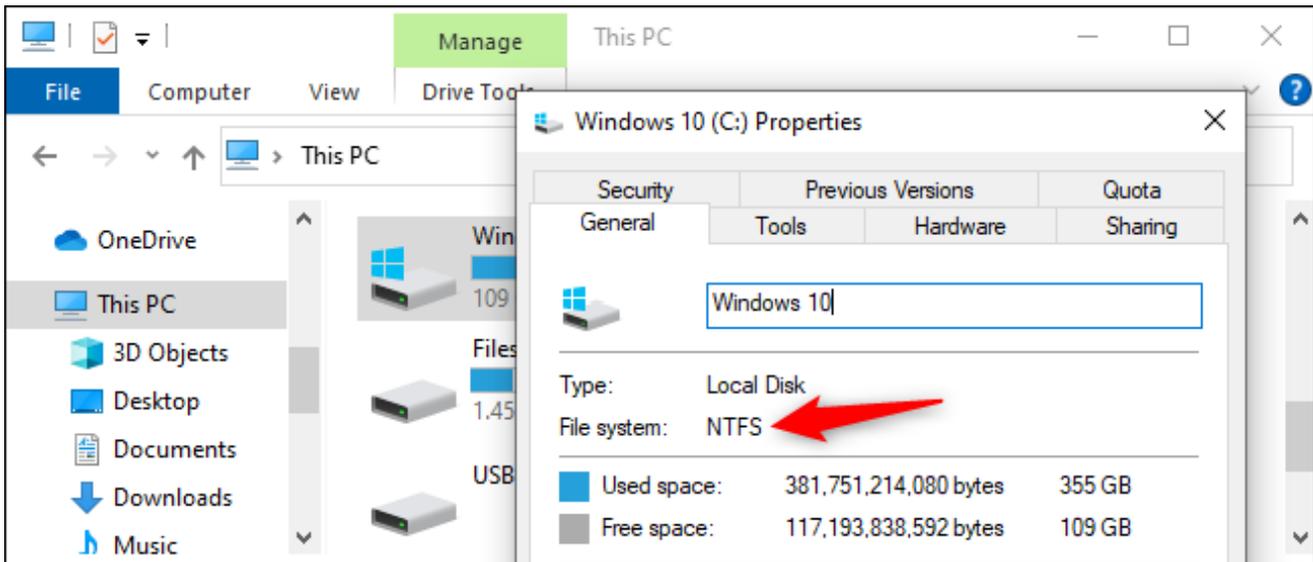
Here's when you should use the different modes:

- Are you trying to find a file you recently deleted on a drive formatted with NTFS, which is the default Windows 10 file system? Use Default mode.
- If you're scanning an NTFS drive in another situation—for example, if you deleted the file a while ago, you formatted the drive, or you're dealing with a corrupt drive—try Segment mode first and then try Signature mode afterward.
- Are you trying to find a file stored on a FAT, exFAT, or ReFS drive? Use Signature mode. The Default and Segment modes only work on NTFS file systems.

If you're in doubt, just start with Default mode. You can then try Segment and then Signature if Default mode doesn't work.

## How to Recover a File in Default Mode

To use the default mode, you use `/n` followed by a search path:

- To search for a file named document.docx, you'd use `/n document.docx`. You can also specify a full path to the file, such as `/n \Users\Bob\Documents\document.docx`
- To search for all files that were in the Documents folder if your username is Bob, you'd use `/n \Users\Bob\Documents`.
- To search with a wildcard, use a *. For example `/n \Users\Bob\Documents\*.docx` will find all DOCX files there were in the Documents folder.

Let's put that all together now. To search for all DOCX files on drive C: and copy them to drive D:, you'd run the following command:

winfr C: D: /n *.docx

You will have to type "y" to continue.

```
Administrator: C:\Windows\System32\cmd.exe - winfr C: D: /n *.docx

C:\WINDOWS\system32>winfr C: D: /n *.docx

Windows File Recovery
Copyright (c) Microsoft Corporation. All rights reserved
Version:              0.0.11761.0
-----------------------------------------------------------

Source drive:        C:
Destination folder:  D:\Recovery_20200702_141115
Filter:              **.DOCX
Extension filter:     *

Sector count:        0x000000003a15b8aa
Cluster size:        0x00001000
Sector size:         0x00000200
Overwrite:           Prompt
Mode:                Default


Continue? (y/n)
Pass 1: Scanning and processing disk
Scanning disk:   100%

Pass 2: Recovering files
```
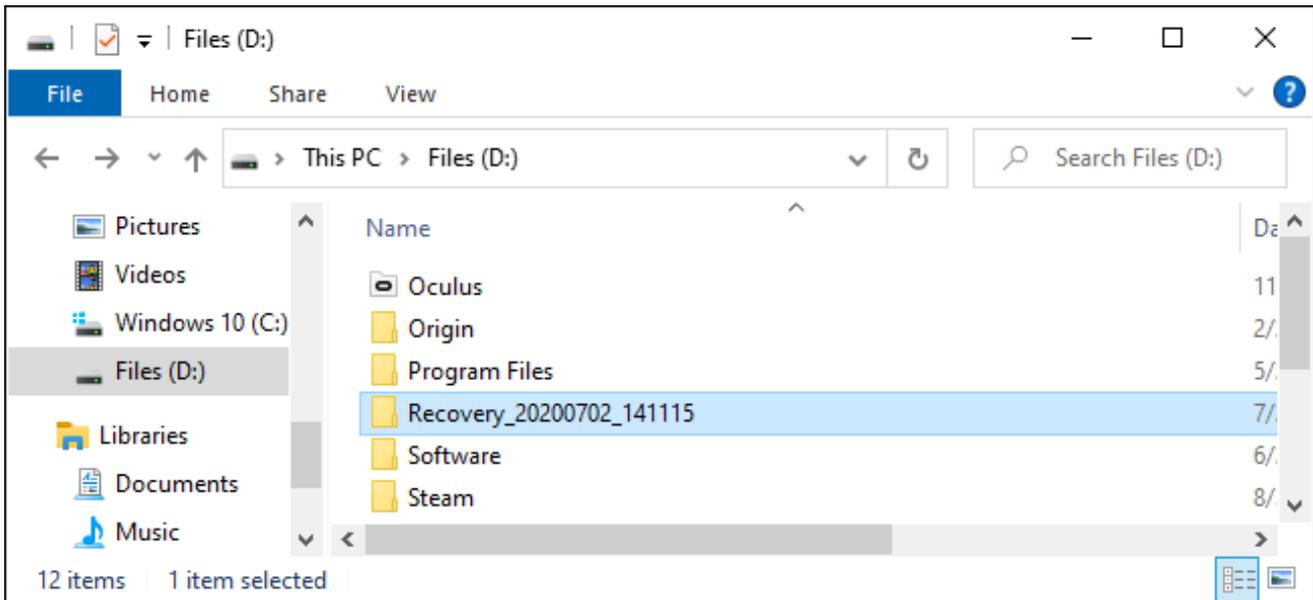
As we mentioned above, you'll find the recovered files in a directory named "Recovery_[date and time]" on the destination drive you specified in the command line.



To find all files with a word in their name, use wildcards. So, to find all documents with "project" anywhere in their name, you'd run:

winfr C: D: /n *project*

You can specify multiple searches with multiple `/n` switches. So, to find all Word, Excel, and PowerPoint files, you'd run the following:

winfr C: D: /n *.docx /n *.xlsx /n *.pptx

To search for a specific file named important_document.pdf that was in the \Users\Bob\Documents folder on drive C:—and then save it to drive D:—you'd use:

winfr C: D: /n \Users\Bob\Documents\important_document.pdf

## How to Recover a File in Segment Mode

Segment mode works almost exactly like Default mode. To use segment mode, which examines file record segments, you use `/r` in addition to `/n` .

In other words, you can construct Segment mode recovery commands in the same way you construct Default mode commands—just add the `/r` .

For example, to recover all deleted MP3 files from your C: drive and save them to your D: drive, you'd run:

winfr C: D: /r /n *.mp3

So, if a Default mode search doesn't find what you're looking for, add the `/r` and try again.
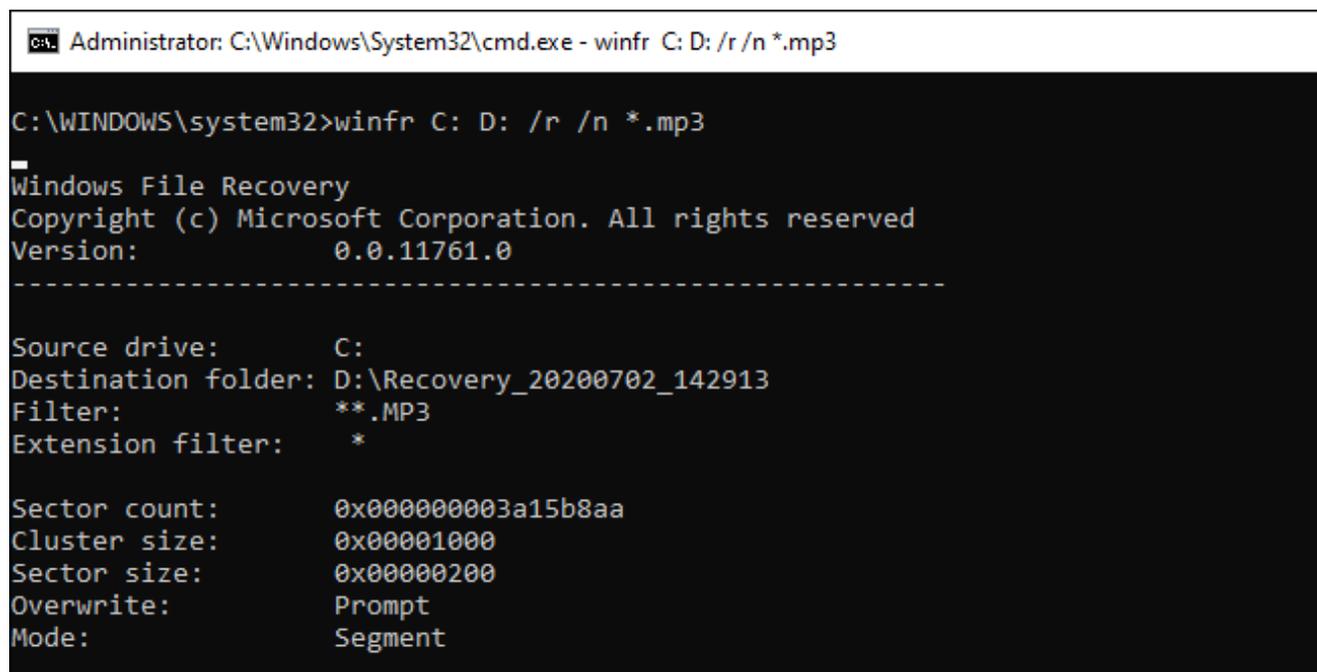
```
Administrator: C:\Windows\System32\cmd.exe - winfr C: D: /r /n *.mp3

C:\WINDOWS\system32>winfr C: D: /r /n *.mp3

Windows File Recovery
Copyright (c) Microsoft Corporation. All rights reserved
Version:          0.0.11761.0
-----------------------------------------------------

Source drive:      C:
Destination folder: D:\Recovery_20200702_142913
Filter:            **.MP3
Extension filter:   *

Sector count:      0x000000003a15b8aa
Cluster size:      0x00001000
Sector size:       0x00000200
Overwrite:         Prompt
Mode:              Segment
```

## How to Recover a File in Signature Mode

Signature mode works a bit differently. It examines file types, so it can only find deleted files of certain file types. To use Signature mode, you use `/x` to specify Signature mode and `/y:` to list the file type groups you'd like to search for.
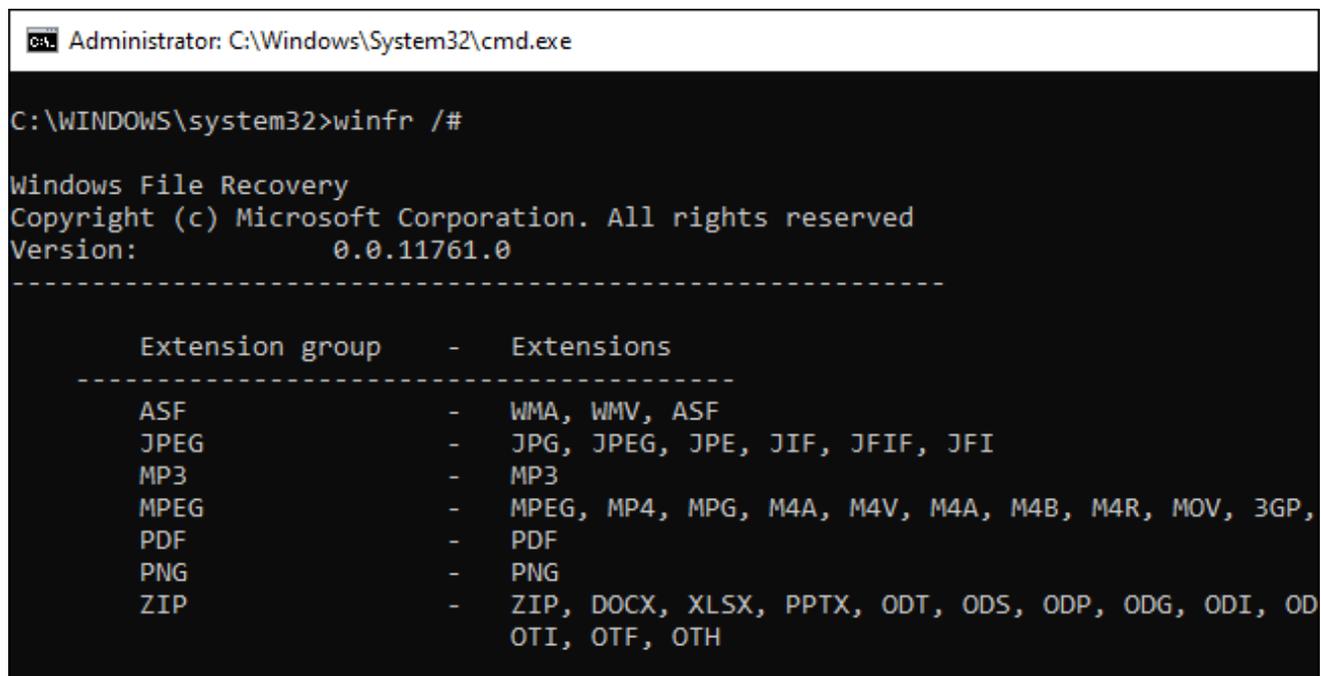
Here's a list of supported file types and the groups they're sorted into, taken from Microsoft's documentation:

- **ASF**: wma, wmv, asf
- **JPEG**: jpg, jpeg, jpe, jif, jfif, jfi
- **MP3**: mp3
- **MPEG**: mpeg, mp4, mpg, m4a, m4v, m4b, m4r, mov, 3gp, qt
- **PDF**: pdf
- **PNG**: png
- **ZIP**: zip, docx, xlsx, pptx, odt, ods, odp, odg, odi, odf, odc, odm, ott, otg, otp, ots, otc, oti, otf, oth

Note that the "ZIP" group includes ZIP files in addition to Microsoft Office and OpenDocument documents.

You can pull up this list at any time by running the following command:

winfr /#



Let's say you want to search drive E: for images in JPEG format and save them to drive D:. You'd run the following command:

winfr E: D: /x /y:JPEG

You can specify multiple file groups by separating them with a space. So, if you want to find JPEG files, PDFs, and Word documents, you'd run:

winfr E: D: /x /y:JPEG,PDF,ZIP

```
CM Administrator: C:\Windows\System32\cmd.exe

C:\WINDOWS\system32>winfr E: D: /x /y:JPEG,PDF,ZIP

Windows File Recovery
Copyright (c) Microsoft Corporation. All rights reserved
Version:          0.0.11761.0
----------------------------------------------------------
```

## More Help With winfr

More information is available on Microsoft's official winfr documentation page. You'll find a detailed list of all `winfr` 's command-line options on that page, too.

For a refresher on the basics, just run `winfr` or `winfr /?` .

There are also additional advanced options you can see by running `winfr /!` .

```
CM Administrator: C:\Windows\System32\cmd.exe

C:\WINDOWS\system32>winfr /!

Windows File Recovery
Copyright (c) Microsoft Corporation. All rights reserved
Version:          0.0.11761.0
----------------------------------------------------------

USAGE: winfr source-drive: destination-folder [/switches]
/p:<folder>     - Specify recovery log destination (default: destination folder)
/a              - Accepts all user prompts

/u              - Recover non-deleted files (default/segment mode only)
/k              - Recover system files (default/segment mode only)
/o:<a|n|b>      - Overwrite (a)lways, (n)ever or keep (b)oth always (default/segme
/g              - Recover files without primary data stream (default: false, defau
/e              - Disable extension exclusion list (default/segment mode only)
/e:<extension>  - Disable specific extension(s) (default extension list no longer

/s:<sectors>    - Number of sectors in volume (segment/signature mode only)
/b:<bytes>      - Number of bytes in cluster (segment/signature mode only)
/f:<sector>     - First sector to scan (segment/signature mode only)
```