

# REPLACING A PHYSICAL HARD DRIVE IN A TWO- WAY-MIRRORED "STORAGE SPACE" IN "WINDOWS 8"



Web location for this  
presentation:

<http://aztcs.org>

Click on

“Meeting Notes”

# EXECUTIVE SUMMARY

"Storage Spaces" is a feature in "Windows 8..". that provides for various hard drive enhancements including real-time, automatic drive mirroring so that two hard drives always contain the same data files and folders in real time. Here is the procedure for replacing a physical hard drive in a two-way-mirrored "Storage Space".

REPLACING A  
PHYSICAL HARD  
DRIVE IN A  
TWO-WAY-  
MIRRORED  
"STORAGE SPACE"

# Replacing A Physical Hard Drive In A.. "Storage Space" (continued)

- You cannot logically remove a physical hard drive from a mirrored "Storage Space" unless you first add in another hard drive to the "Storage Pool":

# Replacing A Physical Hard Drive In A.. "Storage Space" (continued)

**Step 0: Physically remove one of the hard drives from a two-way-mirrored "Storage Space". (If the activity light of the hard drive is blinking, wait for it to stop blinking.)**

# Replacing A Physical Hard Drive In A.. "Storage Space" (continued)

Step 1: Start "File Management" and check to see if you can still access the "Storage Space". If you are unable to access the "Storage Space", start "Disk Managment", then assign a drive letter to the "Storage Space".

# Replacing A Physical Hard Drive In A.. "Storage Space" (continued)

**Step 2: Attach a USB 2, USB 3, eSATA, or SATA hard drive to your computer.**

**Step 3: Press Windows + x.**

**Step 4: Click on "Control Panel" in the pop-up "Power Users Menu".**



# Replacing A Physical Hard Drive In A.. "Storage Space" (continued)

Step 5: Locate and double-click on the "Storage Spaces" applet.

Step 6: A "Storage Spaces" window will be displayed.

Step 7: Click on "Add drives".

# Storage Spaces

Control Panel > All Control Panel Items > Storage Spaces

Search ...

Control Panel Home

Create a new pool and storage space

## Manage Storage Spaces

Use Storage Spaces to save files to two or more drives so that your files remain safe, even when a drive fails. Storage Spaces also enables you to easily add more drives if you run low on capacity.

Change settings

### Storage Pool

Warning

Using 5.00 GB of 1.58 TB pool capacity

Unhealthy drives; check drive health

[Create a storage space](#)  
[Add drives](#)  
[Rename pool](#)

#### Storage Spaces



StorageSpace07 (S:)  
Two-way mirror  
814 GB logical size  
Using 4.00 GB

Warning  
Reduced resiliency; check drive health

[View files](#)  
[Rename](#)  
[Delete](#)

#### Physical Drives



ST310003 33AS USB Dev...  
Attached via an unrecog...  
930 GB  
0.26 % used

Warning  
Selected for data reallocation

[Rename](#)  
[Remove](#)



Seagate FreeAgent Pro U...  
Attached via USB  
698 GB  
0.35 % used

OK

[Rename](#)

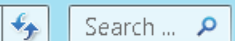
See also

[File History](#)

[BitLocker Drive Encryption](#)

# Replacing A Physical Hard Drive In A.. "Storage Space" (continued)


Step 8: A "Select drives to add to the storage pool" window will be displayed:



### Select drives to add to the storage pool

#### Formatted drives



 The following drives might contain files. If you use a formatted drive to create a storage pool, Windows permanently deletes all the files on that drive. You can't recover the files by using the Recycle Bin.

<input type="checkbox"/>		ST310005 28AS USB Dev... Attached via USB 931 GB	Disk 8 Online	<a href="#">View files</a> <a href="#">Take offline</a>
<input type="checkbox"/>		WDC WD30EZRS-00J99B... Attached via RAID 2.72 TB	Disk 0 Online	<a href="#">View files</a> <a href="#">Take offline</a>

Add drives

Cancel

# Replacing A Physical Hard Drive In A.. "Storage Space" (continued)

Step 9: Place a checkmark for the hard disk drive that you wish to add to the storage pool:


# Add Drives

Control Panel > All Control Panel Items > Storage Spaces > Add Drives

Search ...

## Select drives to add to the storage pool

### Formatted drives

 The following drives might contain files. If you use a formatted drive to create a storage pool, Windows permanently deletes all the files on that drive. You can't recover the files by using the Recycle Bin.



ST310005 28AS USB Dev... Disk 8  
Attached via USB Online  
931 GB

[View files](#)  
[Take offline](#)



WDC WD30EZRS-00J99B... Disk 0  
Attached via RAID Online  
2.72 TB

[View files](#)  
[Take offline](#)

Add drives

Cancel

# Replacing A Physical Hard Drive In A.. "Storage Space" (continued)

**Step 10: Click on the "Add drives"  
button:**


# Add Drives


Control Panel > All Control Panel Items > Storage Spaces > Add Drives

Search ...

## Select drives to add to the storage pool

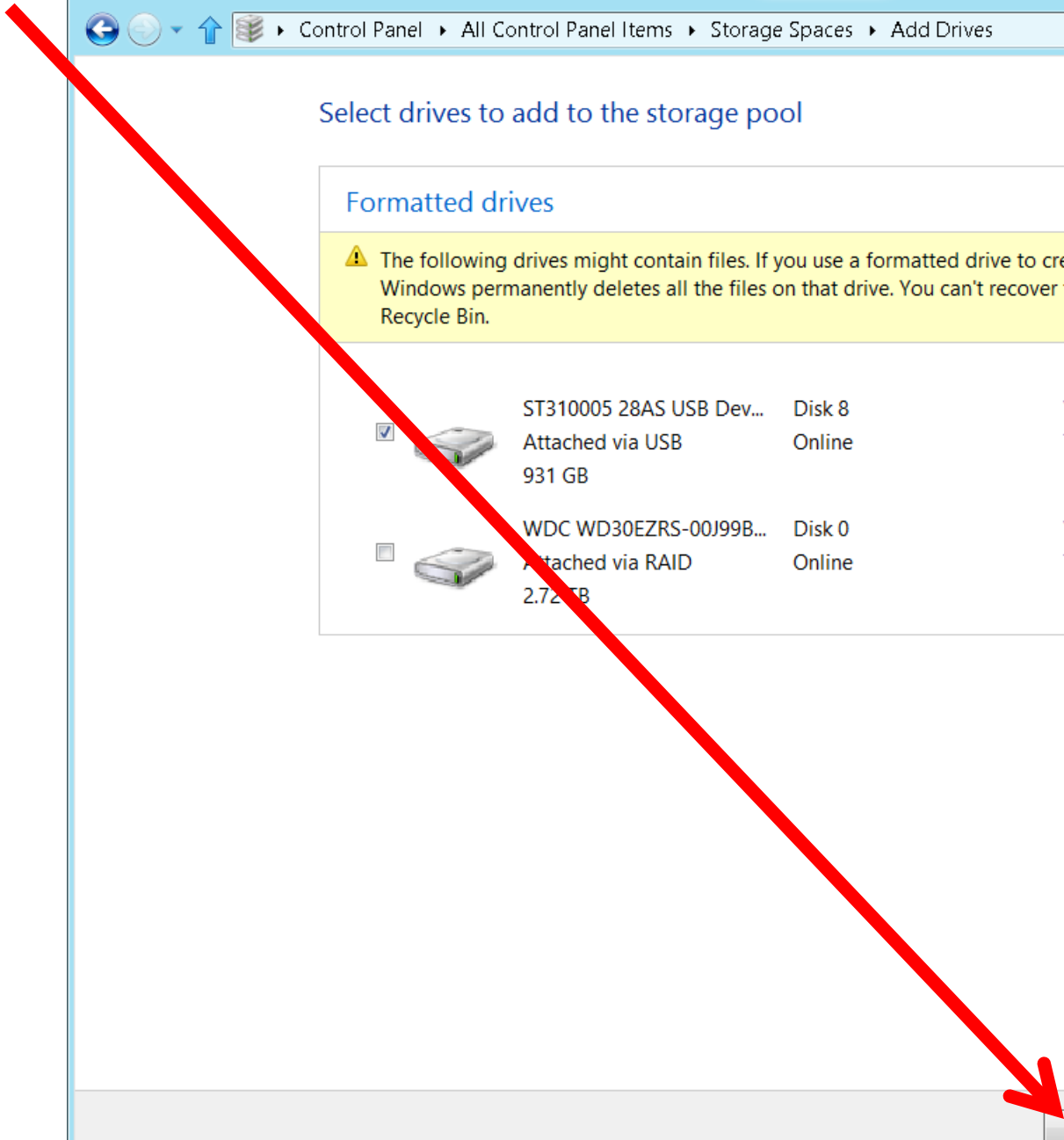
### Formatted drives

 The following drives might contain files. If you use a formatted drive to create a storage pool, Windows permanently deletes all the files on that drive. You can't recover the files by using the Recycle Bin.

<input checked="" type="checkbox"/>		ST310005 28AS USB Dev... Attached via USB 931 GB	Disk 8 Online	<a href="#">View files</a> <a href="#">Take offline</a>
<input type="checkbox"/>		WDC WD30EZRS-00J99B... Attached via RAID 2.72 TB	Disk 0 Online	<a href="#">View files</a> <a href="#">Take offline</a>

Add drives

Cancel





# Replacing A Physical Hard Drive In A.. "Storage Space" (continued)

Step 11: "Storage Spaces" will start "Repairing.." the newly-added hard drive by copying data files and folders from the existing hard drive to the newly-added hard drive.

Control Panel Home

Create a new pool and storage space

### Manage Storage Spaces

Use Storage Spaces to save files to two or more drives so that your files remain safe, even when a drive fails. Storage Spaces also enables you to easily add more drives if you run low on capacity.

[Change settings](#)

#### Storage Pool

Warning

Using 5.25 GB of 2.49 TB pool capacity

Unhealthy drives; check drive health

[Create a storage space](#)  
[Add drives](#)  
[Rename pool](#)

#### Storage Spaces



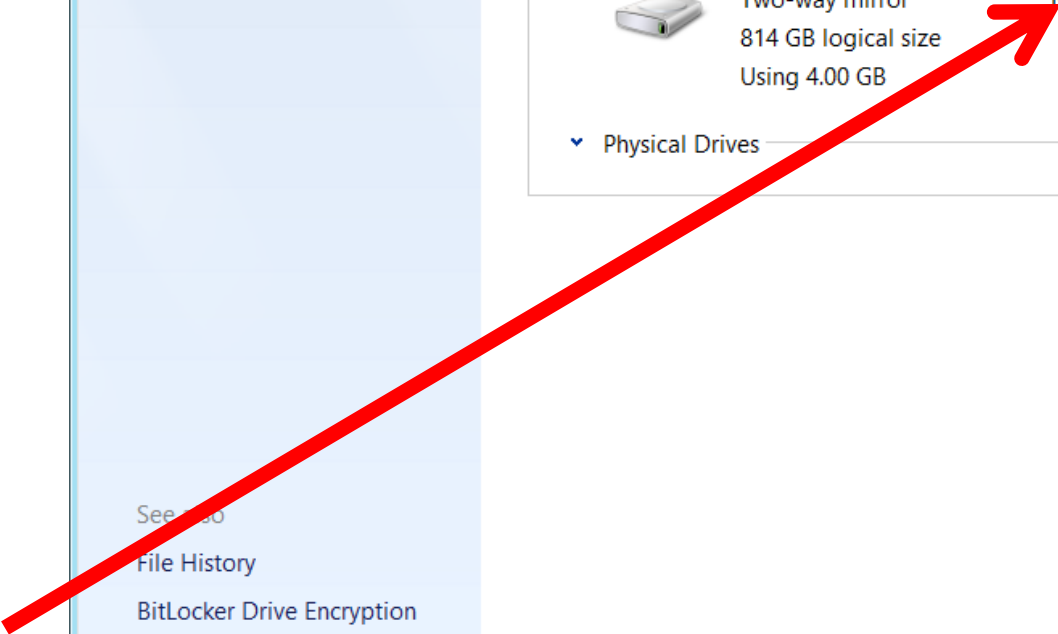
StorageSpace07 (S:)  
Two-way mirror  
814 GB logical size  
Using 4.00 GB

Warning  
Repairing (12 %)

[View files](#)  
[Rename](#)  
[Delete](#)

#### Physical Drives

See also  
[File History](#)  
[BitLocker Drive Encryption](#)



# Replacing A Physical Hard Drive In A.. "Storage Space" (continued)

Step 12: Click on "Remove" for the hard drive that you wish to logically remove from the "Storage Space".

# Storage Spaces

Control Panel > All Control Panel Items > Storage Spaces

Control Panel Home  
Create a new pool and storage space

## Manage Storage Spaces

Use Storage Spaces to save files to two or more drives so that your files remain safe, even when a drive fails. Storage Spaces also enables you to easily add more drives if you run low on capacity.

[Change settings](#)

### Storage Pool

Warning

Using 5.25 GB of 2.49 TB pool capacity

Unhealthy drives; check drive health

[Create a storage space](#)  
[Add drives](#)  
[Rename pool](#)

#### Storage Spaces



StorageSpace07 (S:)  
Two-way mirror  
814 GB logical size  
Using 4.00 GB

Warning  
Repairing (37%)

[View files](#)  
[Rename](#)  
[Delete](#)

#### Physical Drives



ST310005 28AS USB Dev...  
Attached via USB  
930 GB  
0.26 % used

OK

[Rename](#)



ST310003 33AS USB Dev...  
Attached via an unrecog...  
930 GB  
0.02 % used

Warning  
Selected for data reallocation

[Rename](#)  
[Remove](#)

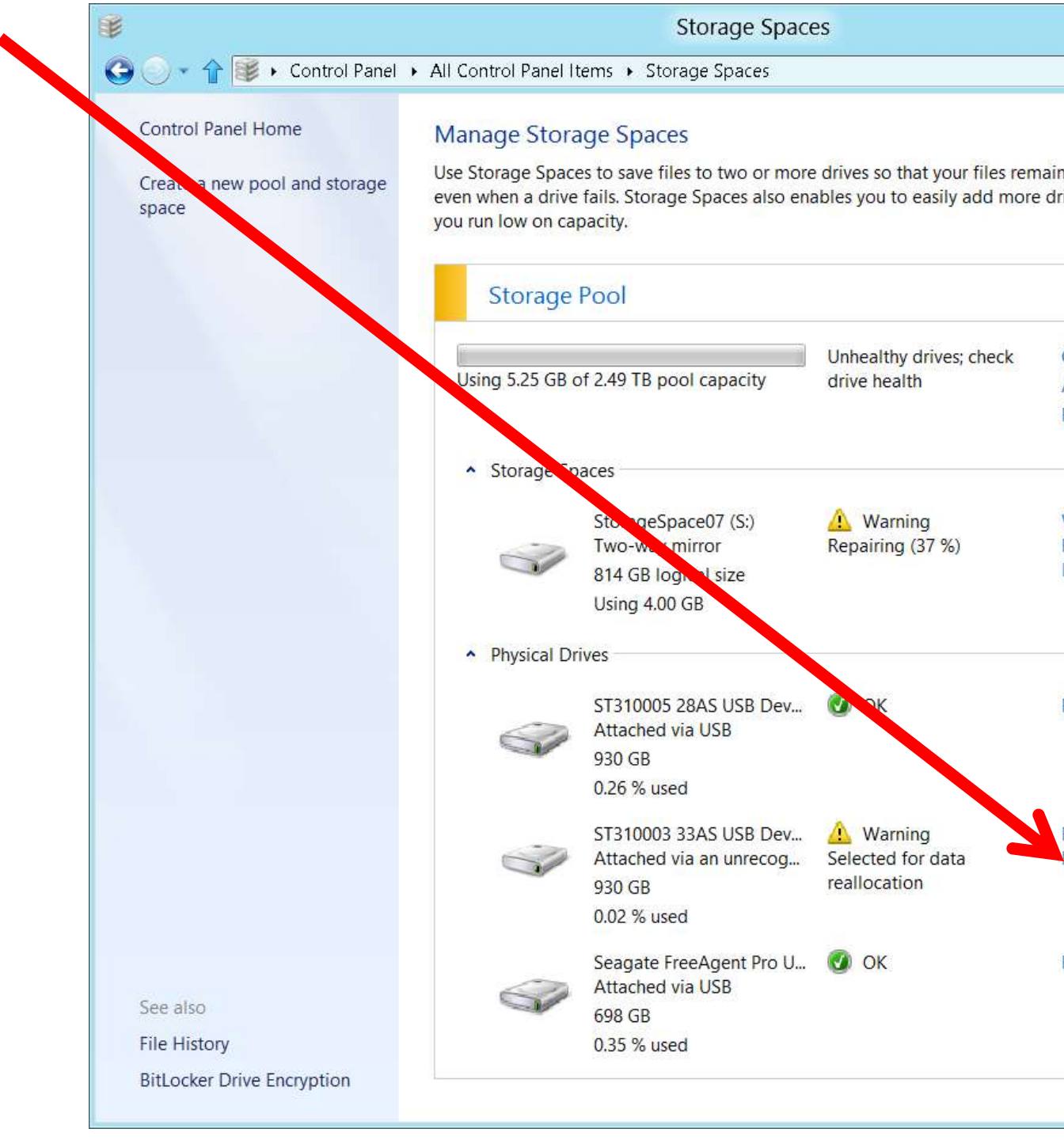


Seagate FreeAgent Pro U...  
Attached via USB  
698 GB  
0.35 % used

OK

[Rename](#)

See also  
[File History](#)  
[BitLocker Drive Encryption](#)



# Replacing A Physical Hard Drive In A.. "Storage Space" (continued)

**Step 13: Click on the "Remove"  
button:**

## Remove a Drive

« All Control Panel Items ▶ Storage Spaces ▶ Remove a Drive

Search ...


File Edit View Tools Help

### Confirm removal of the drive

Drive to remove



ST310003 33AF USB Dev...  
Attached via an unrecog...  
930 GB  
0.02 % used

 Warning  
Selected for data  
reallocation

Remove drive

Cancel

# Replacing A Physical Hard Drive In A.. "Storage Space" (continued)

Step 14: Click on the downward pointing caret to the left of "Physical Drives":

Storage Spaces

Control Panel > All Control Panel Items > Storage Spaces

Control Panel Home

Create a new pool and storage space

### Manage Storage Spaces

Use Storage Spaces to save files to two or more drives so that your files remain safe, even when a drive fails. Storage Spaces also enables you to easily add more drives if you run low on capacity.



[Change settings](#)

#### Storage Pool

Using 5.00 GB of 1.58 TB pool capacity

[Create a storage space](#)  
[Add drives](#)  
[Rename pool](#)

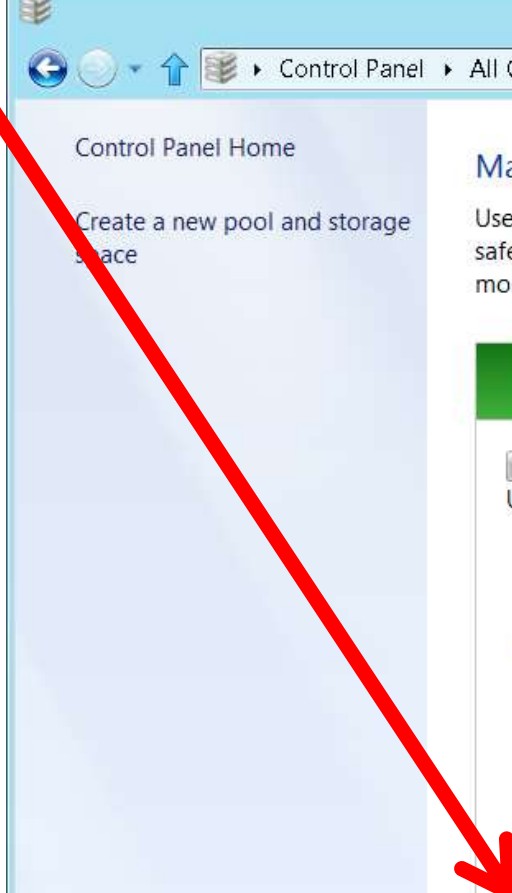
Storage Spaces

	StorageSpace07 (S:) Two-way mirror 814 GB logical size Using 4.00 GB	 OK	<a href="#">View files</a> <a href="#">Rename</a> <a href="#">Delete</a>
---	---	--	--

Physical Drives

See also

- File History
- BitLocker Drive Encryption





# Replacing A Physical Hard Drive In A.. "Storage Space" (continued)

Step 15: Note that the hard drive that you wanted logically-removed from the "Storage Space" is no longer displayed:

# Storage Spaces

Control Panel > All Control Panel Items > Storage Spaces

Search ...

Control Panel Home

Create a new pool and storage space

## Manage Storage Spaces

Use Storage Spaces to save files to two or more drives so that your files remain safe, even when a drive fails. Storage Spaces also enables you to easily add more drives if you run low on capacity.

 Change settings

### Storage Pool

OK 

Using 5.00 GB of 1.58 TB pool capacity

[Create a storage space](#)  
[Add drives](#)  
[Rename pool](#)

#### Storage Spaces



 StorageSpace07 (S:)  OK  
Two-way mirror  
814 GB logical size  
Using 4.00 GB

[View files](#)  
[Rename](#)  
[Delete](#)

#### Physical Drives

 ST310005 28AS USB Dev...  OK  
Attached via USB  
930 GB  
0.26 % used

[Rename](#)

 Seagate FreeAgent Pro U...  OK  
Attached via USB  
698 GB  
0.35 % used

[Rename](#)

See also

[File History](#)

[BitLocker Drive Encryption](#)

