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Backing up files and pictures

and using Free File Sync

Those of you who have attended more than one Computer Group A meeting are likely to have heard Jim droning on (and on and on and on) about backing up your data.

Why back up? Because whatever device your computer uses to store data can fail (and indeed almost certainly will fail eventually). You can reinstall software installed on your computer, but you can't get back that photo of the sunset over the Pacific unless you have a copy saved somewhere else.

So how to find out what size of backup device is needed?
Open File Explorer (the folder icon on your taskbar) to get this:
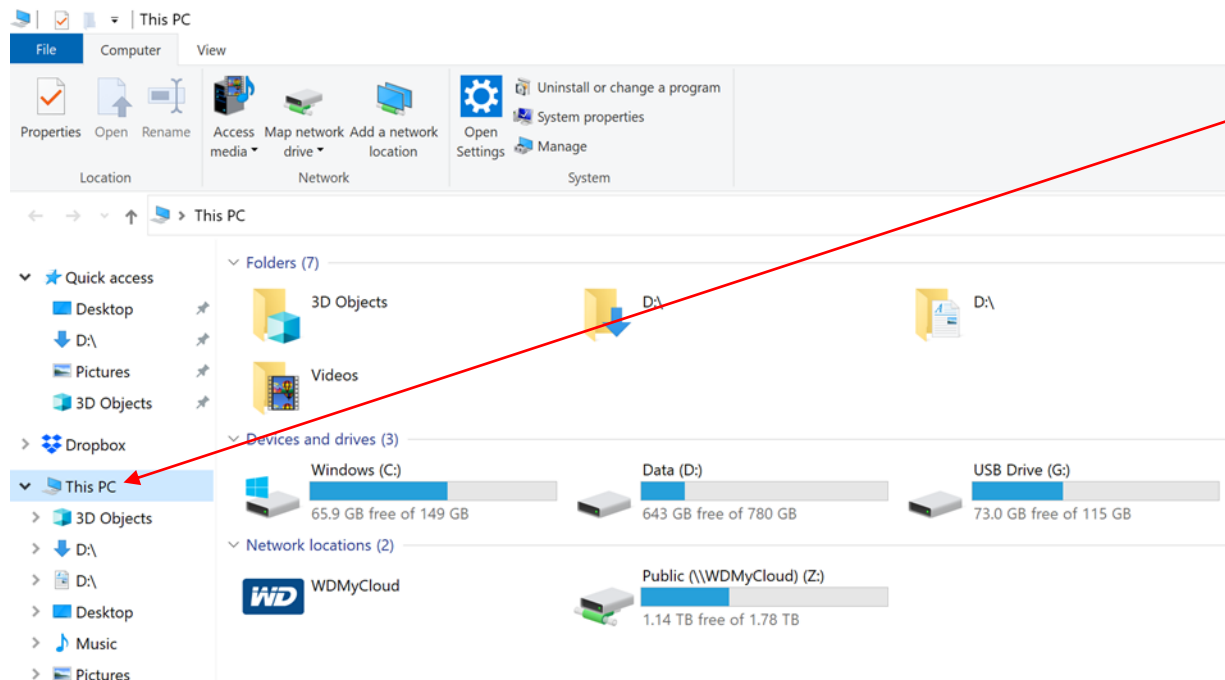
In the left-hand column click on "This PC", when the various drives will show on the right. You may only have one hard drive (normally C) and if so, it is simpler to back up everything. If you have a separate Data drive in your computer that is the more important to back up. Whatever your setup, File Explorer will show you the size of the drive as well as how much free space there is. The total size of your data can be obtained by deducting one from the other.

So what sort of device do we need for storage of the backup? Over the next few slides we'll have a quick look at the 4 main options here.

Option 1 is Cloud storage such as Microsoft's OneDrive or Google Drive. Many other services are also available, both free and paid, and these often come highly recommended by computer magazines and review websites.
You should be aware that the free services often have a limit to the amount of data which you can store, after which you will need to pay an ongoing monthly or annual fee. An internet connection is also needed for uploading and downloading data.

Our own attitude is that we are not keen on storing our data on someone else's computer, no matter how secure the system is said to be, and we prefer to retain control of our documents and photographs.

Option 2 is an external hard drive.

A 1 TB (1000 gigabyte) external drive can be found for less than £40 and is probably overkill for many laptop users without large photo collections.

External hard drives with 5 to 8 TB capacity can be found for between £100 and £150, and if you are a really keen photographer or someone who likes to store video files, £400 will get you a unit with 18 TB of storage.

Option 3: a USB flash drive/memory stick.

These have fallen dramatically in price over the last few years, and a 32GB capacity flash drive from a reputable manufacturer can be found for less than £6 and 64GB for less than £8. 128GB drives are available for less than £20 and 256GB drives for under £30.

1TB and 2TB drives are also available at a price. These are clearly more portable than external hard drives but easier to lose.

If you see a large capacity flash drive advertised online at a low capacity drive price, beware: it probably is too good to be true and could even be filled with malware to infect your computer!

Option 4 is an SD card (if your device has a built-in card reader or you have an external one).

These are worth considering for storing backups, and use the same technology as USB flash drives. They are also priced by their data transfer rates (expressed in MB/s), with the fastest cards being considerably more expensive than slower cards of the same capacity.

OK, we now have a device onto which we can backup our data. Let's do the first backup, which may take some time if we have a lot of data.

The simplest way is to:
- plug the backup device into our computer,
- open File Explorer,
- copy the data we want to preserve from the computer's hard drive, and
- paste it into the backup device.
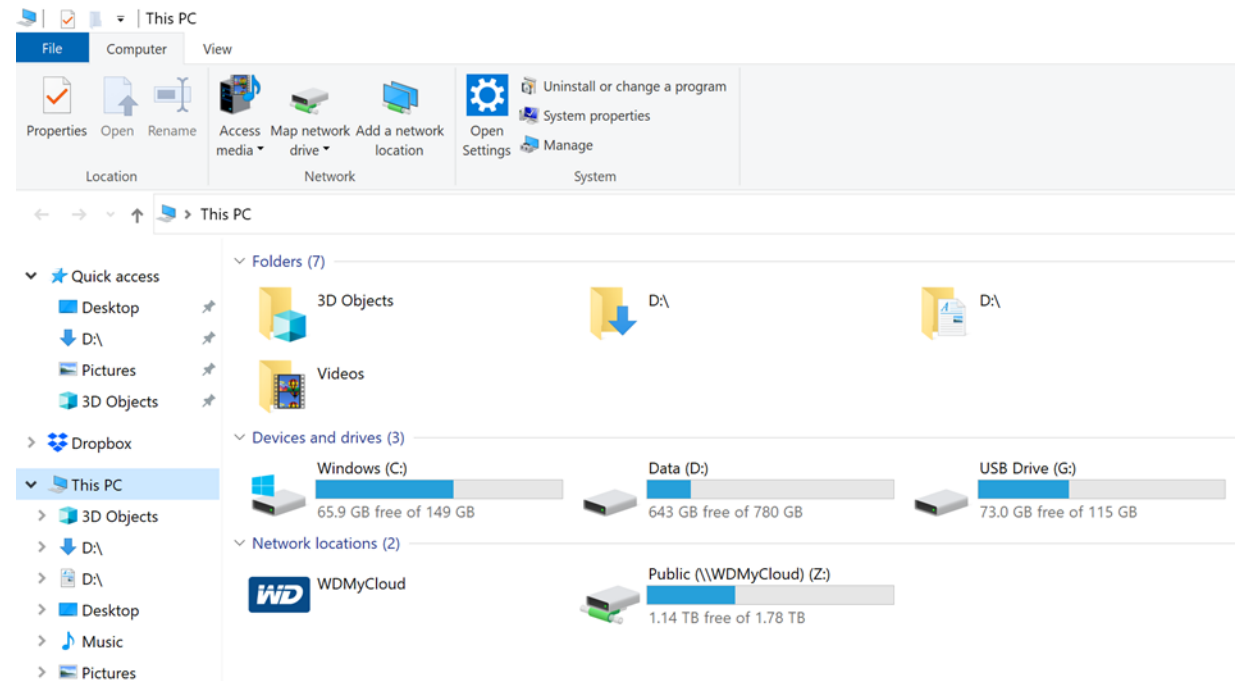
If you don't remember or have never learned how to copy and paste, we will help you individually or as a group.

Do we need to do all that every time we want to update our backup? Fortunately not!

There are programs which will backup any item which has changed, and some which can be set to do so automatically. Automatic backups really only work if the backup device is permanently attached to your computer (and carry the risk that they will backup something you erroneously deleted before you notice!)

For the purpose of this presentation we will have a look at a free program called Free File Sync which is ideal for manual synchronisation of our main computer and the backup device. The frequency with which the synchronisation is run is a matter for personal taste: monthly is often enough for many people, while the more paranoid may prefer to do daily backups.

Incidentally if your backup device is permanently attached to your laptop, consider what would happen if you lost the laptop?

The first view of Free File Sync is this:
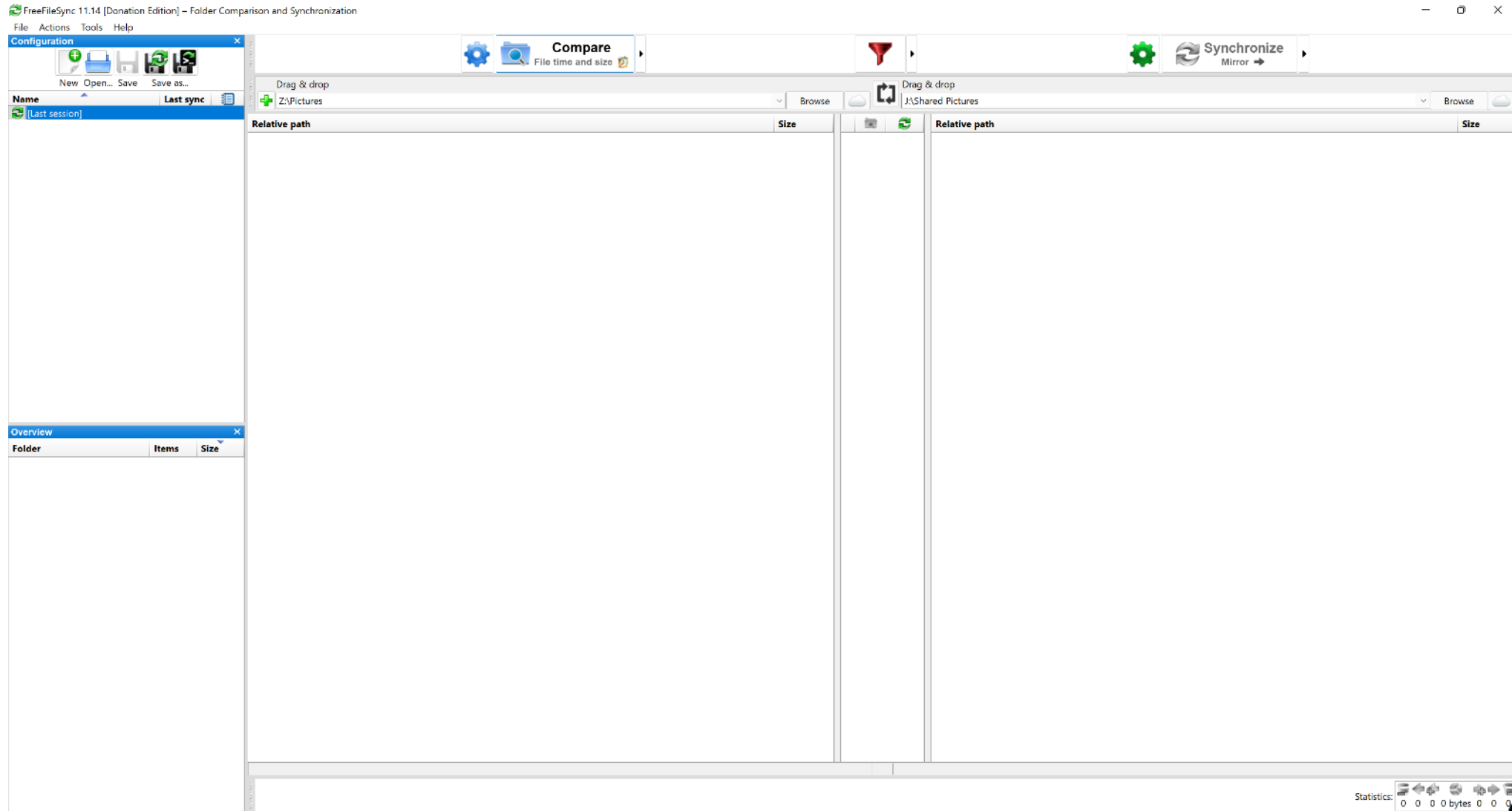
Before we look at how to use the program to make backups, let's look at the different operations which can be undertaken in the software.

Clicking on the rightward arrow next to the "Synchronize" button opens a small window with 4 types of synchronisation to choose from.
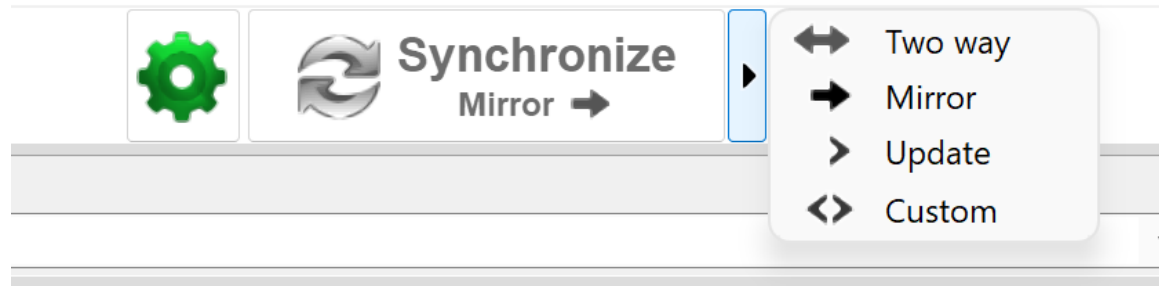
"Two way" is intended for people who regularly use 2 different devices (such as a desktop and laptop) and who want to ensure that both devices have the latest version of any document which may have been opened on the other device. For that reason we recommend using the "Mirror" option, which will copy changes, new entries and deletions from the left-hand folder (the main device) to the right-hand folder (the backup device). "Update" may do exactly the same but we have not yet tried it.

The first thing to do is to set the source and destination for the synchronisation, using the "Browse" buttons shown and remembering that the synchronisation will be from left to right.
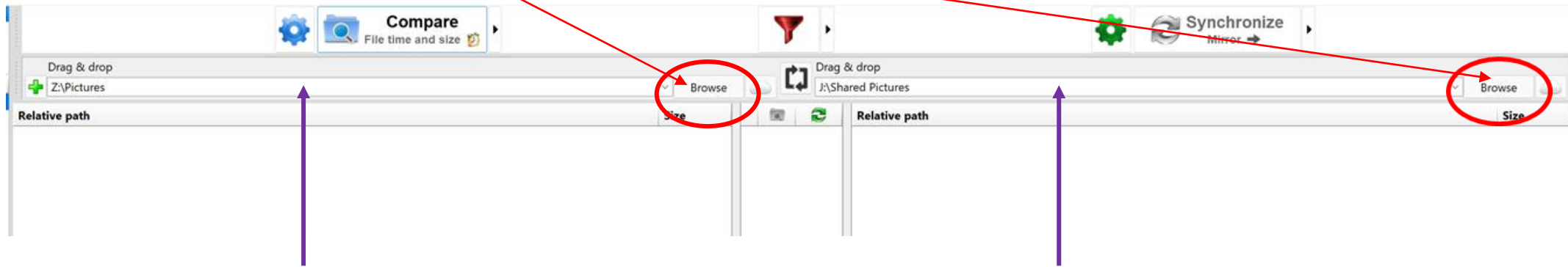
In the left-hand field you should select the source folder, normally on the hard drive of your computer.

In the right-hand field you should select the destination folder, normally on the backup device.

It is worth making a final check before moving on to the next step that the source and destination folders are the correct way round. The program will remember your choices and these folders will be pre-populated when you next open the program.

It is now time to click on the "Compare" button,
and doing so very quickly populates the main fields of the display like this:

On the next slide we will look at this in more detail.

The top part of the central column has a green background showing which files have changed in one way or another.

New files on the left which have not previously been backed up are shown by a green arrow and plus sign.

Files which have been edited on the computer since the previous backup are indicated by a green arrow.

Files which were previously backed up but have since been deleted from the main computer are shown by a bin and red minus sign.

The lower part of the column shows an equals sign on a white background ( ) indicating that the file has not been changed since the last backup.
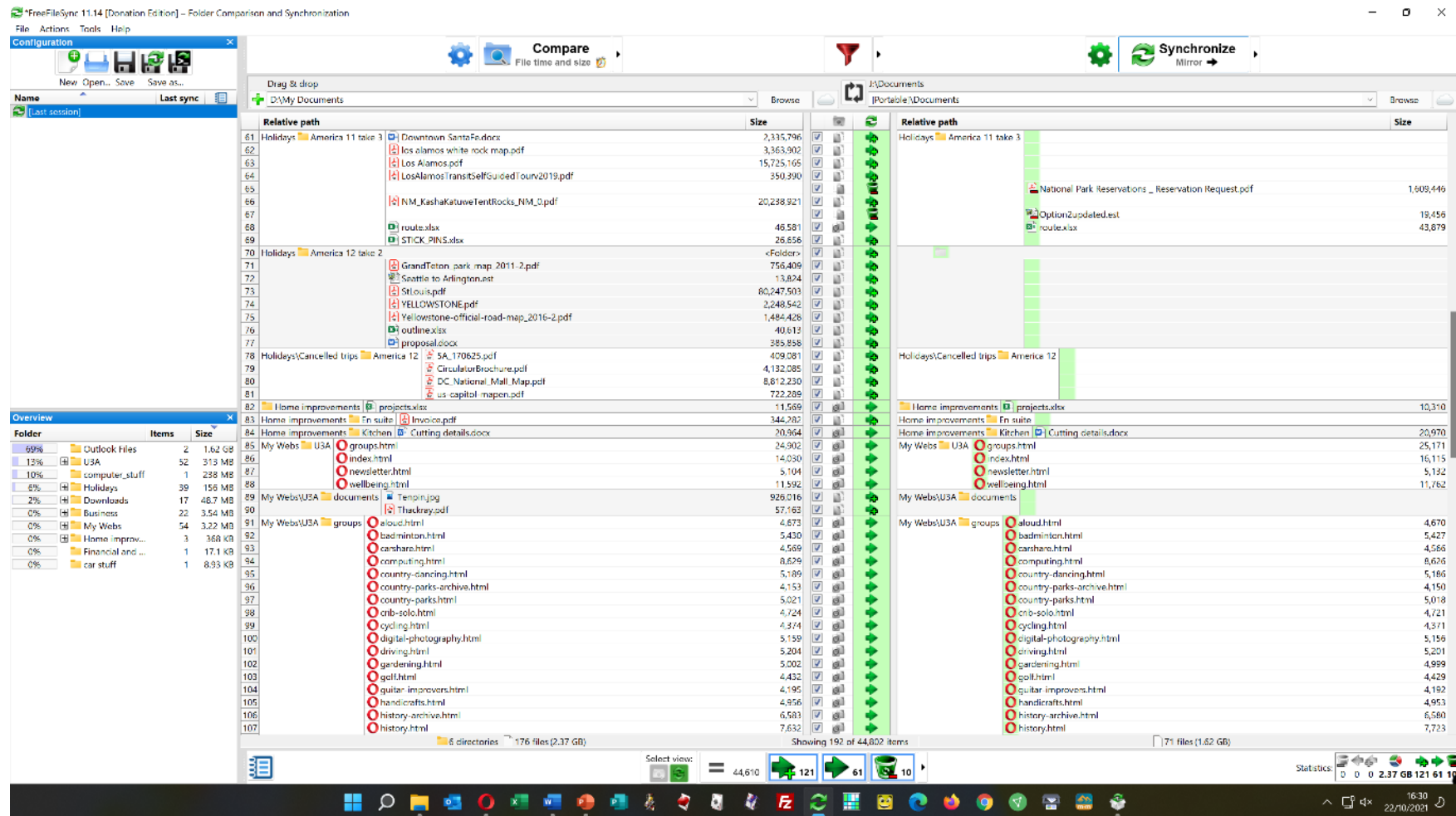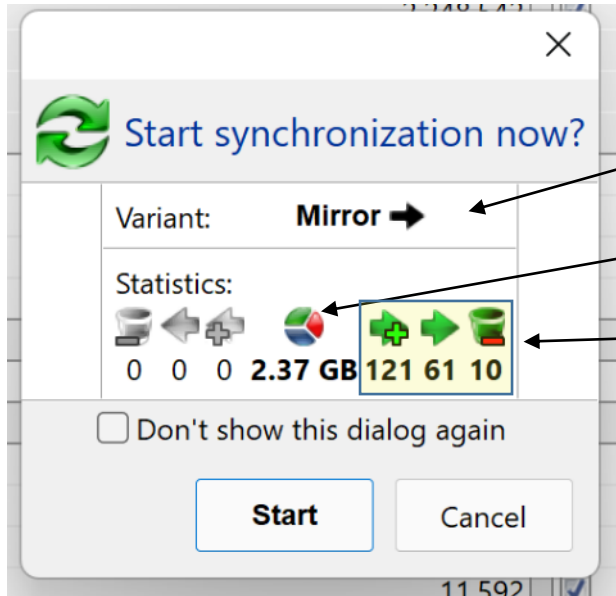
If you have been busy or lazy about backing up, you may find you have hundreds of changes!
This screen is a useful look at what you have been up to recently and can be a reminder of things you meant to do.

When you are ready to synchronise, click on the "Synchronize" button to open the confirmation window in the middle.
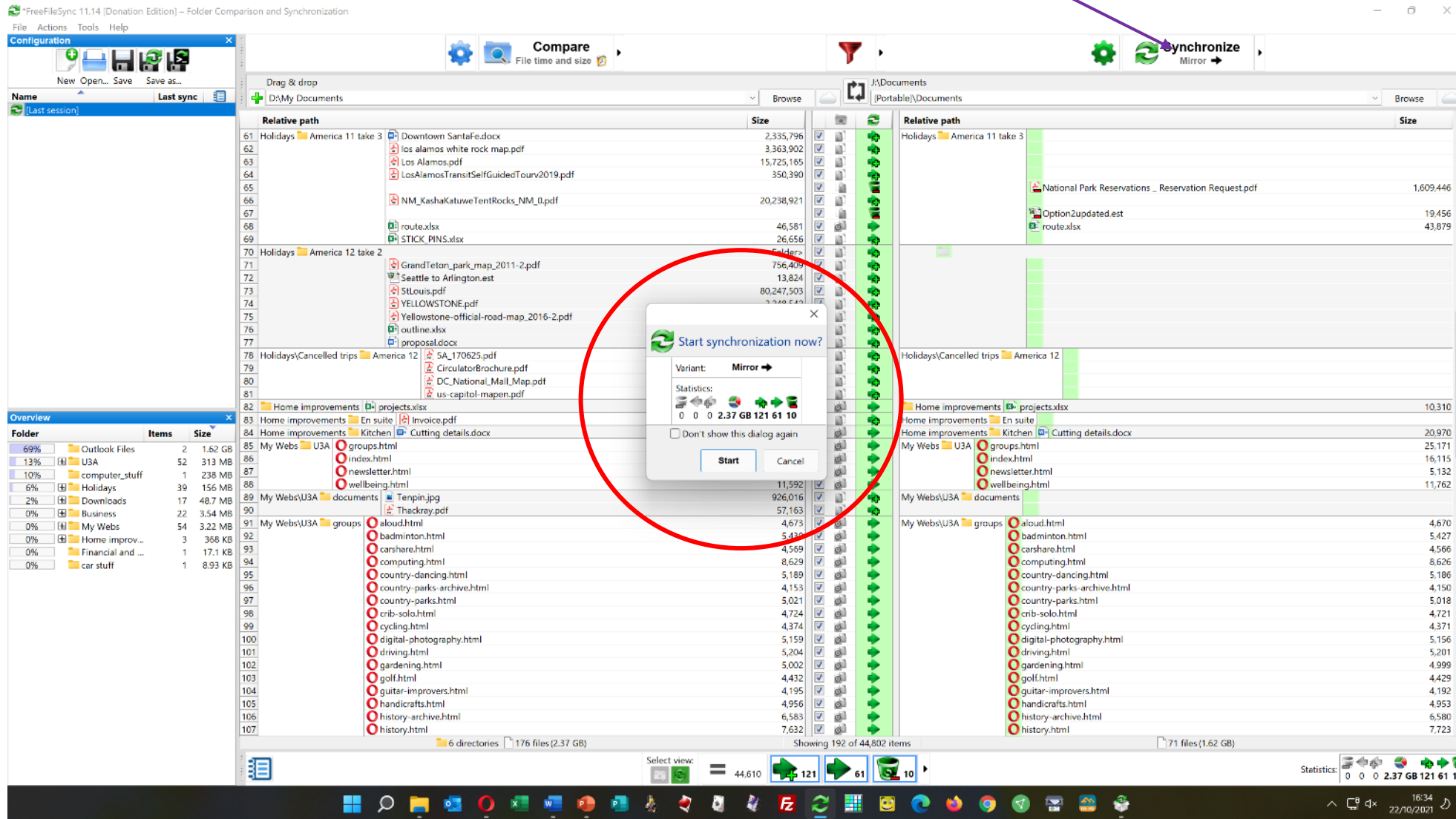
This window allows you to confirm:
- The type of synchronisation
- The size of the data to be changed, and
- The number of files to be added, changed or deleted.

When you are ready, click on "Start" and the synchronisation will happen (normally very quickly).

THE END