## Backups and why you should – using Windows 10 and Google Drive

- 1. Your computer data such as documents, music, photos and programs are stored magnetically on a device called a hard drive. It is made of a series of spinning discs which are accessed to store or retrieve the data when needed. Hard drives are not perfect and don't last for ever. When the computer can't find what it wants on the hard drive it stops working properly and this is what is known as a "crash". There are also what are known as solid state hard drives which eliminate the magnetic discs and use solid state memory instead.
- 2. Even the Pass IT On administration computer hard drive crashed when all the data appeared to be lost. This is what Sandy felt like!



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- 3. Files on the hard disc can become corrupted and can't be recognised by the computer so to avoid losing that music whose master CD you've lost or that photo which you've just wiped from the camera memory, a copy called a **backup** is made. When the master data is lost the **backup** can be accessed to retrieve it.
- 4. It is sometimes possible to retrieve all or some of the lost data from the hard drive but it can take a long time (2 full days for Pass IT On).

- 5. There are 2 sorts of **backup** of your data. The **first** is just a duplicate copy of the data stored in a different place on the hard drive. This can be done simply by copying each file into a **backup** folder which you can create and which will be held on a different part of the hard drive. However this will only be any good if the hard drive is not completely corrupted and still allows access.
- 6. The **second** sort of **backup** is a copy saved on a separate medium eg CD, DVD, External Hard Drive, Memory stick or Cloud (storage via the internet in a data centre). To do this you need go to the Windows 10 Backup facility.

## 7. Backing up in Windows 10

Left-click on the Settings Button, then on "Update and Security" Update & Security

then on Backup.

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You can set it to **backup** files automatically. Ensure that the slider is in the On position.
And you are given options (if you

And you are given options (if you have not done this before and no drive is available)

## Back up using File History Back up your files to another drive and restore them if the originals are lost, damaged, or deleted. Automatically back up my files On More portions

Looking for an older backup?
If you created a backup using the Windows 7 Backup and Restore tool, it'll still work in Windows 10.

Go to Backup and Restore (Windows 7)

Backup

where you have to select a drive to **backup** to by left-clicking on "Add a drive".

## Backup

Back up using File History

Back up your files to another drive and restore them if the originals are lost, damaged, or deleted.



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[Note that once you have selected a drive you will get a different display (see below) as Windows 10 remembers what you chose before.]

You will be presented with a list of possible drives. Hopefully you've added one which is visible and can be used. Make sure that it has plenty of storage space to cover the files you wish to **backup**. When you select the required one and start the **backup** process it will set up a File History folder where the back up will be stored. If you wish to Browse for other drives left-click on "Show all network locations".

Select a drive

Backup hdd (D:)
914 GB free of 931 GB

Show all network locations

To find out the status left-click on "more options".

This shows an Overview of the drive available.

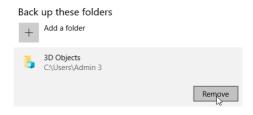


Back up now

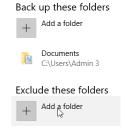
Here there are also options to select how often you want to back up and for how long, and also to choose what you backup by including or excluding folders. It is a good idea to backup regularly. Left-click on the down arrows to choose the options.

Left-click on "Add a Folder" to add one to **backup** and it will allow you to Browse to select a folder. Continue till all required are selected.

Then left-click on each folder that you want to remove and then left-click on "Remove".



In this case all folders have been removed except Documents. You can Exclude folders within that if you left-click on "Add a folder".



Note that there is a limit as to how deep you can go into folders. For instance if you only wanted to **backup** a folder within Documents then if you remove Documents it will remove the sub folder as well so you have to be content with all of Documents being backed up, though you can have the sub folder both within Documents and separately!

Similarly with "Exclude these folders" where if you left-click on "Add a folder" it will allow you to Browse to select a folder to remove. Continue till all required are selected.

To start the **backup** left-click on "Back up now".

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Overview
Size of backup: 0 bytes
Total space on Backup hdd (D:) (D:): 931 GB
Your data is not yet backed up.

Back up now

This may take some time and it will show a message "Backing up your data" whilst in progress.

Overview
Size of backup: 0 bytes
Total space on Backup hdd (D:) (D:): 931 GB
Backing up your data...
Cancel

Once all this is finished it will show the size of **backup** and when it was backed up.

Overview
Size of backup: 10.5 GB
Total space on Backup hdd (D:) (D:): 931 GB
Last backup: 19/04/2019 11:19
Back up now

The data is stored in a folder "File History".

If you try to start Backup again whilst it's going you'll get a message that you're already backing up your files.

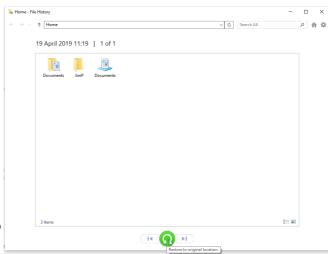


8. If you wish to **restore** your files you leftclick on "Restore files from a current backup" at the bottom of the "Backup Options" screen.

Related settings See advanced settings Restore files from a current backup

You will be shown a "File History" screen which shows the option to **restore** to original location. You can select which items you require to **restore** by left-clicking on them and then left-click on the round arrow.

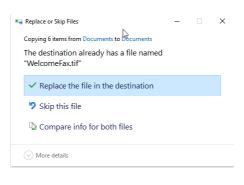
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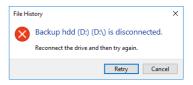
Whilst it's going you'll see this display.



You may get a message that a file exists and giving options which you can select. If you're happy that the files are the same you can choose to "Skip this file", or if you want to double check you can compare the files. The restore may also take some time.



If by any chance you remove the "File History" from your **backup** disc you will get a message that the drive is disconnected even though it isn't.



- 9. If you have already backed up in a previous version of Windows left-click on "Go to Backup Looking for an older backup? If you created a backup using the Windows 7 Backup and Restore (Windows 7)" instead and Go to Backup in Windows 10. Go to Backup in Windows 10. Go to Backup in Windows 7) follow that through. Note that this backup will be separate from the Win 10 backup.
- 10. You could also use 2 devices at alternate **backups** so that if one were to fail then the other is still available. But you will have to reselect which device manually each time. Left-click on "Stop using drive" to change the device and alter the frequency/timing by starting again choosing to "Add a drive" as in para 6. You will have to redo all the selection and exclusion of files so this will probably be too much hassle!

- 11. **Backing up to the Cloud** is a way of storing your data remotely, i.e. not on your hard drive, and via the internet. This has the advantage of not being vulnerable to damage, theft or loss. Many providers will give you a certain amount of free storage but over and above that there will be costs involved. In the cloud your files are distributed over more than one store so there is less chance of their being lost, and they should be encrypted making it more difficult for hackers to gain access. Ideally you should **backup** both to an external hard drive and to the cloud. This is called a 3-2-1 **backup** strategy i.e. 3 copies of your data, 2 on-site but on different mediums, and 1 offsite.
- 12. To backup to the Cloud e.g. OneDrive

Google Drive or Dropbox you will have to set this up. There are other providers which you can search for. First you will have to open an account. Then you will be able to download an App which will allow you to organise it. This will enable syncing (i.e. automatic backing up). You should be able to sync a number of devices so they all back up to the same account. There will be facilities to allow others to access some of your data (e.g. photos) if required. For important documents you should use a password protected system e.g 7zip which will encrypt them.

13. We will describe how to use Google Drive as this allows you to easily sync with Android phones. Here you are allowed 15Gb of storage free but that includes your gmail account (messages and attachments) and Google Photos if you have these. If you want more storage

you will have to upgrade to Google One and pay a monthly charge.

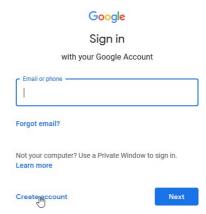
14. First set up a Google account at <a href="www.google.com">www.google.com</a>.

Left-click on the "Sign in" button in the top-right corner.

If you have an account already (e.g. for gmail) then just sign in.

Otherwise left-click on "Create account" and follow the instructions. You can use your existing email address rather than creating a new gmail address.

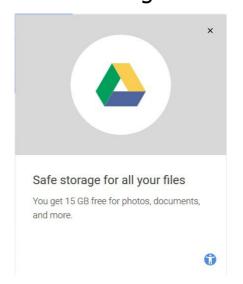
You will be asked to enter your phone number which will allow a verification code to be sent by text to make sure it's you applying. When you choose a



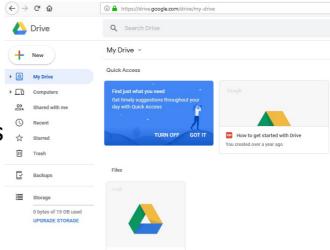
password make sure it is strong i.e. a mixture of lower and upper case letters and numbers, preferably with symbols as well. You will have to agree the Terms and Conditions.

15. To access Google Drive left-click on the grid icon near the top-right corner of the Google home page when you will be able to select Google Drive.

You will see an introductory screen.



Close this and check out the dashboard. Double-click on the document "How to get started with Drive" and this will show you all the facilities available. (The PDF version shows up better).



At this time there are none of your files stored in the Drive. You will have to set this up. Find the link to Download the App (page 9 of the PDF) and left-click on it.

Personal

Backup and Sync

your computer

Learn More

Then choose the Personal box and leftclick on "Download" which allows you to "Backup and Sync".

Back up files from your computer, camera, or SD cards to the cloud. Find your files on any device or computer using Google Drive, and see your photos in Google Photos.

You will have to agree to Google Drive's Terms and Service by left-clicking on "Agree and download".

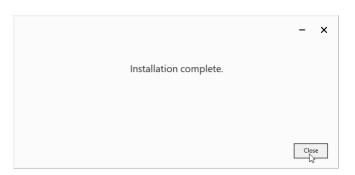
Left-click on "Save File".



Then in your Downloads Folder double click on the file "installbackupandsync" and agree to letting the App make changes to your device by left-clicking "Yes".



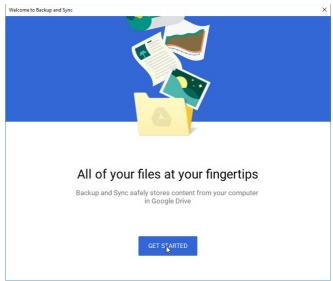
Various displays will appear with the stages of the Installation. When the Installation is complete leftclick on "Close".



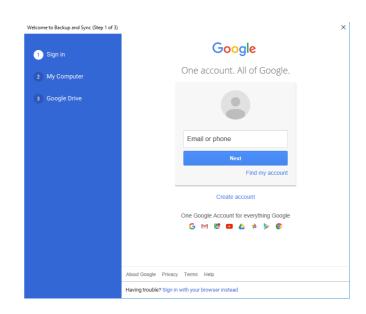
16. You will find that 3 Files appear on your Desktop.



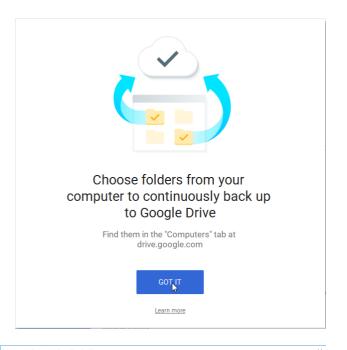
Minimise all your Windows and you should see the "Welcome to Backup and Sync" Window. Left-click on "GET STARTED"



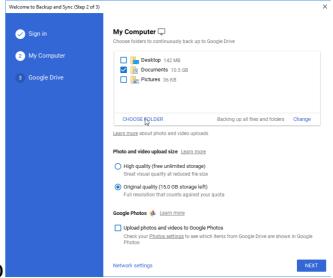
and you will be asked (Step 1) to "Sign in" (or create an account).



Once you have worked through this you can choose the folders to **backup**. Left-click on "GOT IT".



The next display (Step 2) allows you to select the folders from Documents and Photos. Here we have chosen to leave only "Documents" ticked. If you don't want to back up all your Documents then left-click on "CHOOSE FOLDER" and select those you want to

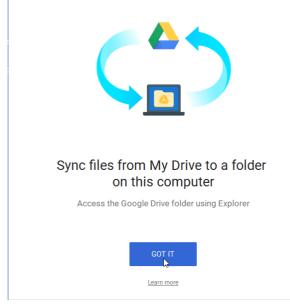


**backup** by left-clicking on "Select Folder". With Photos and Videos you can choose if you want to store originals or reduced quality.

Here we show one File selected. Then left-click on "NEXT".

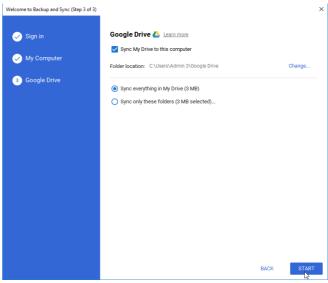


You are now ready to Sync these files from My Drive to a folder on this computer. Left-click on "GOT IT".



Then provided you're happy with the selection left-click on "START" (Step 3).

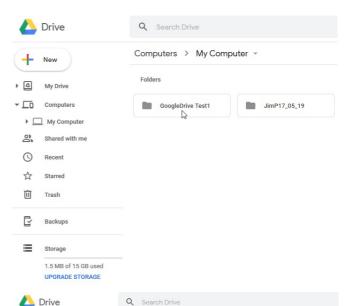
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17. To see the folders that you have synced, look at your Google Drive on the web by left-clicking on "OPEN GOOGLE DRIVE"

Find your files in Google Drive Selected folders on your computer continuous back up to Google Drive in the "Computers" tab

and to check what's in the folder double-click on it.



Computers > My Computer >

Computers > My Computer > GoogleDrive Test1 >

Drop files here

Q Search Drive

Or it may look like this.

18. When you first put a folder into Google Drive then you are given the option of either dragging files onto the area or leftclicking on the New (+, www. button where you will be given various options. Select which

is appropriate

and follow it

through.

Folder

File upload Folder upload

Google Docs

Google Sheets Google Slides More

Ī ľ 2.7 MB of 15 GB used

**A** My Drive

Drive

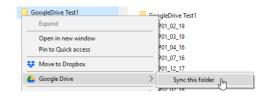
- New

▶ △ My Drive ▼ □ Comp

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- 19. Sometimes it may be difficult to find where the file(s) have gone even though you have selected the path; in which case do a Search... (rather than Browse for files) in My Computer drive (C:) on the filename of one of the files to see where it has been stored.
- 20. Once you have set up your Google Drive Folder a folder can be synced to it by right-clicking on the folder and selecting "Google Drive"



then "Sync this folder". Note that this option does not always appear for files or some folders.

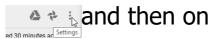
- 21. You may get a message in a window when you move files in or out of the Synced folder, or delete files, in which case select the appropriate response.
- 22. So if you lose a file on your Computer that you have backed up on Google Drive then you can retrieve it from Google Drive.
- 23. Find the Backup and Sync Cloud icon in the Toolbar at the bottom right of the screen and left-click (Backup and Sync from Google-Updated 25 minutes ago it.

Note that if the Backup and Sync Cloud icon is missing you will have to left-click the Start button and then on the Backup and Sync from Google folder and then on the App.

If it turns out that it is already running you will get a temporary message saying this.

Left-click on the Settings symbol

Quit Backup and Syno





This allows you to select which folders to Sync in the same way as above. When syncing is taking place the cloud shows circular movement ■.

If you remove a folder you will get a message saying that syncing has stopped but your files will remain in Google Drive.

If you subsequently select the folder you will be asked if you want to "Continue merge?", i.e. items in the folder, left-click on "CONTINUE" and the items will re-sync with Google Drive.



"Stop syncing this folder".

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It will be removed from the list of folders.

25. Under Preferences there are selections to "Learn More" e.g. under Google Drive. 

\*\*Removing Items synced\*\*\* these Google Drive and this computer\*\*

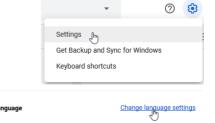
This takes you to a screen with lots of selections which you can investigate.

26. You can share folders with other people but this is outwith the scope of this document.

PTO

27. It is best to ensure that your language settings are correct, e.g. English United Kingdom as your Default. To do this sign in to your Google Account and then left-

click on the Settings button and then on "Settings" and then on Language "Change language settings"



If your choice is not the default then left-click on the edit symbol &

and choose the correct language then left-click on "SELECT". CANCEL SELECT

28. So we've covered the basis of **backups**. Let's hope that you never have to use the **restore** facility but if you regularly **backup** you will be prepared if you have to.

