

Folders, Files, Shortcuts Drag and drop

Notes for the DI group Talk

Roots, Trees and Branches – how to store your information.

Storage is anything which records information when the power is off.

i.e Hard disks, Pen drives and CDs

Memory is working space for the programs and calculations. Basically this is RAM.

If you have lots of storage then you can keep lots of programs ready to use and have lots of documents and pictures. While if you have a good supply of RAM there is plenty of room for your computer to keep working copies. Because it is much faster to work from RAM the computer runs much more quickly if you have enough RAM for everything you want to use.

The problem, of course, is that anything in RAM is lost when there is no power, so when you have finished work you must make a copy on a storage device. In other words you must 'save' your work. The you 'open' it again next time you use it, which means copy it from storage to RAM again.

Basically every physical device, hard disk, pen drive, compact flash card drive or CD drive, is assigned a letter i.e. C:, D:, E: etc. (Very big drives can have two or more letters to make them easier to use but that is the only real exception). Each of these letters is called a root letter.

The root is the basis of what is called a tree structure. The tree structure is a way of organising information in storage so that it is easier to find again. Oddly enough we think of the tree in an upside down way with the root at the top and branches below.

Really the structure is a convenience for people. The computer doesn't much care where data is kept, but putting everything a big heap directly at the root would make it hard for us to find anything.

Each piece of information that we want to store and retrieve is called a file. A picture is a file, a letter to Aunt Maud is a file, and even programs are stored as one or more files.

We name them so that we can find them again and so that the computer knows what they are. The first part of a filename is just the name such as 'letter to maud' or 'picture of a cat'. Then there is a dot to separate the second part. The second part is three letters and this tells us and the computer what it is. For instance .doc is a document file or .jpg is a picture.

We can guess what the contents might be, but the second bit still helps us sometimes. The computer really needs the second part otherwise it can't tell if the information is a picture or a document or a spreadsheet. What is actually in there is just a mass of numbers; there is no real difference once the data is stored.

We also split the root storage into containers called directories or folders. On Windows they are given an icon that looks like a folder. These are named by the users to help us to find things again later. So you might have a folder called 'holiday pictures' and one called 'letters to aunt maud'. Naturally you can put anything you like in any folder, but it really makes sense to group together your work in logical way. So if you put all your pictures from the steam railway in the 'letters from aunt maud' folder you may have a little trouble finding them again in a year's time!

Windows helpfully gives you some top level folders called 'My Documents', 'My pictures' etc. which can be a good place to start and are often the default place for programs to put things anyway. Or if you have more than one hard drive you could keep all your work on D: and leave C: free for programs. C: is traditionally the main hard drive and is the place where Windows itself is usually stored. There is also a directory called Program Files, where most programs are kept and it is generally a good idea to keep to this scheme.

Now we can create, copy, delete and move files and folders around almost as we like in order to keep things tidy and well organised.

To find a root device you normally look under 'My Computer' in the main menu or from the desktop icon.

Once you are looking at a Window showing the contents of the device you can move around and see what is there and copy, move, create and delete as you want.

Point and Click – how to select what you want

Each folder appears as either an icon or a window. Depending whether it is open closed. A folder can contain more folders and so on, which makes our structure of branches. To reach the folder you want you must follow the correct set of branches. So it helps to make the folder names easy to understand. The folders are just a way to split things up so that we can find the file we want more easily. It is still all just 1s and 0s on the same physical device.

So to open a folder we just double click on its icon and a window will appear showing the folder contents. If we were already looking in a window then probably that window's contents will just change. It depends how your folder preferences are set up. These can be accessed from the menu bar at the top of any window. They also let you choose whether you want to see a list of files by name or a set of icons.

Usually if you click an icon once that means 'I select this item' and twice means 'do something with this item'. So if you point to a folder you can select it for later moving or renaming, but if you click it twice you will open it.

If you want to select many things you can do it in three ways.

First you can click in a piece of empty space near to the items, keep holding the mouse button down and move the pointer over everything you want to select. But this means that what you want to select all have to be together. You could move all the icons individually until you arrange them all but there is a quicker way. If you select the first thing you want and then hold down the CTRL key you can select each other item in turn until you release the CTRL key. Lastly if you want to select a group of things that are together you can click on the first one, hold shift and click on the last one and everything in between will be selected. If you have the fingers for it you can even combine shift and CTRL clicks to select several groups.

So to summarise

Click = select

Double Click = activate

CTRL Click = add to selected

Shift Click = select up to here

Drag and Drop – how to move it around

Now you can, for example, move all the selected items to another folder. First ensure that your source and destination folders are both open on the desktop. Then select (as above) the item or items you want to move and then click on one of them. Holding the mouse button down drag them to the destination folder and let go of the button. Just like picking them up and dropping them.

Normally if the destination is on the same root as the source you will move the items and if it is on a different root you will copy them. The only difference is whether a copy is left behind or not. You can use the right click menu to specify which you want to do and Windows 7 usually gives you options anyway. But there are some keyboard shortcuts to help. When you have clicked on the items and are dragging them to the destination you can select CTRL or shift. If you are holding CTRL when you drop the items they will be copied but if you are holding shift they will be moved. It makes sense really because shift is also a word for move (and CTRL begins with c like copy)

So to summarise

CTRL drop = Copy

Shift drop = move

You can move or copy folders or files. If you move a folder then its contents and all the folders inside it also move.

Icons and Shortcuts – speeding things up

An icon is just a picture representing something, usually a file or a folder. It may be the item itself or it may just be a shortcut. A shortcut is a particular form of icon. You can usually tell by the little arrow in the corner. People's desktops are often full of shortcuts. A shortcut is not an actual item, it is just a tiny little link to enable you to find a file or folder or start a program quickly. If a folder you use a lot is 6 layers down in your tree structure that means six clicks to get there every time you want it. This will soon get boring so you need a short cut. There are two ways to make a shortcut. The first is to find the item you want, say a folder right click on it and choose Create Shortcut from the menu. This makes a shortcut in the same folder as the item. This of course is not much help but you then just move the shortcut to a more convenient place, like the Desktop. You can also rename it if you want.

The Desktop is actually just a folder buried in the guts of the C: drive but it is special because everything on it is usually visible most of the time, unless something is covering it up of course. It is the base layer above which all other windows are shown.

You can also create a shortcut from the Desktop, or anywhere, by right clicking and selecting new and then shortcut. This time you get a space in which to type the path to the item, if you know it, or a button to allow you to browse. The easiest way is to browse to the folder or file you want a shortcut to. Then you get the option to pick a picture and name the shortcut as you wish. Then finally it is created wherever you right clicked.

If you want to tidy up your desktop or just generally you can delete any shortcut at any time. A shortcut is not an item it is just a tiny aid to save time trawling through folders. So if you delete it you have not removed anything important and, as we have seen, it is easy to make a new one if you want it back later. If you try to delete something without the little arrow in the corner it is not a shortcut and you will be warned about deleting it.

A trick from Gordon is that when you are asked what picture you want you can type shell32.dll in the space provided and you get a lot more to choose from. Or you can download free icon files from some sites on the internet, or even pay for them if you want.

Like most things in Windows, if you want to change the name of a shortcut or the picture you can right click and choose properties.

If you make a shortcut to a program file then this is much the same as a short cut to a folder, but instead of opening the folder, when you click it you run the program. So if you use a program a lot and you don't want to go down through several folders to find it, or use the start menu you can create a shortcut on your desktop and launch it in one click. The method is the same as the one for folder shortcuts but you are looking for a file with an extension .exe. This extension stands for executable and just means instructions that can be executed by the processor, in other words a program.

Another trick is to try to drag and drop a program icon from the start menu to the desktop. Windows won't let you, but it will offer to make a shortcut instead.