

Most people seem to prefer to purchase a laptop/notebook computer these days instead of the more traditional desktop computer. The problem is that users are not always aware of information they truly need to make that all-important purchasing decision. We have tried below to provide you with a reasonable summary of the advantages and disadvantages of each.

Laptop v's Notebook

Most people refer to their portable computer as a 'laptop', whilst this is not technically the correct term in a lot of cases. Here we examine the difference between the 'laptop' and 'notebook' definitions.

In the late 1980's and early 1990's portable computers became widely available. They were all called 'laptops' and they were heavier than we have become used to. Prior to this the only portable computers were very large 'suitcase' style machines which were quite heavy. As these laptop computers became smaller during the 1990's the term 'notebook' computer began to emerge. Most portable computer manufacturers will now refer to their product as a 'notebook' rather than a 'laptop'. The term 'notebook' has partially replaced the term 'laptop' because these 'heavier' machines are no longer being made.

Traditionally, a 'notebook' computer would have most of these features:

- Ultra-light and very low profile (ie. thin)
- 4 hours of battery life
- No internal floppy drive
- Minimal graphics subsystem
- Maximum 14" TFT screen
- Integrated modem/network connections
- Smallest possible keyboard (retaining functionality)
- Low power consumption processor

The problem with a notebook computer is that, in order to have a high specification, they come at a cost. Many 'notebook' computers cannot actually be used on your 'lap', so they cannot really be described as a 'laptop' – this is because the main cooling air fan inlet is on the bottom. Comspec would suggest that when you are actually intending to use your notebook computer on your knees, then you should place a small board (even a tray) underneath it.

'Laptop' computers realistically do not exist anymore, they are being referred to as 'desktop replacement' computers. They are designed to offer desktop performance, but still be portable.

Traditionally, a 'laptop' computer would have had most of these features:

- 14" to 17" TFT screen
- Nvidia GeForce or ATI Radeon graphics subsystem
- Internal DVD-ROM or DVD-RW drive
- Large full-featured keyboard
- 2 hours battery life
- Upgradeability (within some restrictions)
- Integrated modem, network and Wi-Fi capabilities
- High quality integrated audio/speaker system
- Low power consumption processor

Most people, however, still refer to their 'notebook' as a 'laptop' and numerous retailers still call them 'laptops'. The terms are used interchangeably and could be used either way. Because of the advances in portable computing, the definitions have become fuzzy and it is a matter of opinion as to which you call your computer. The layman will probably always refer to it as a 'laptop'.

Laptop/Notebook v's Desktop

The portable computer should not realistically be used as a 'replacement' for a desktop computer – it is purely a 'portable' solution. Some retailers are misleading (I hope not intentionally) customers by telling them the laptop they are selling is a straight replacement for a desktop. I have even heard one salesperson say that the desktop computer is now obsolete and the laptop is the new computer.

The advantages of a desktop computer are:

- More powerful
- Higher storage is available
- Easy to upgrade or repair
- More resistant to theft
- Less prone to component failure
- Components are less expensive
- Components are not always specific to any machine
- More overall performance per pound cost
- Multiple monitor support is standard on some desktops

The advantages of a laptop/notebook are:

- Portability makes them very useful
- Access to wireless networking in public places

There is no real comparison on performance between a laptop and a desktop computer. The laptop has a couple of fundamental problems to overcome which limit it. The first of these is size – the smaller the machine the less room to put components. The second is heat – the laptop is small, giving less room to circulate air to cool components. Because manufacturers are constantly fighting against these problems the laptop will never truly ‘replace’ the desktop.

A major number of laptops are ‘proprietary’ meaning that their components are not interchangeable. If you want a component for your laptop you will usually have to stick to the same manufacturer to get it. The design of laptops changes so often that parts are not always easy to get.

Here are a few other important factors which you need to be aware of regarding laptop/notebook computers:

- 1) Their processor usually runs at a reduced speed when on battery power
- 2) The cost of repairing a laptop/notebook can be much more than a desktop. Labour is more intensive and the parts are always more expensive.
- 3) The hard drive in a laptop is smaller than their desktop cousins. This means that, whilst laptops are being supplied with larger disks, the desktop computer is still the number one choice for users with large storage needs.
- 4) The laptops/notebooks which are being offered for sale in the £300-£500 price bracket are usually not what we would describe as ‘business’ machines. They are built to a lesser specification and their upgradeability path is small to non-existent.
- 5) Anyone who relies on graphics or sheer power for gaming is forced to go the desktop route to gain the specification they require.

So, to summarise, Comspec do not recommend that you avoid laptops, but you should realistically only buy one if you are happy to trade performance for portability. The portability aspect is very important – if you do not need it, always go for a desktop computer. The debate will go on as the industry develops, but the purpose of this article is simply to give you, the user, a heads-up on this ‘political’ debate.