

Gerald's Column

by Gerald Fitton

A couple of months ago I made reference to the Hewlett Packard iPOD machine as a successor to the Sony Walkman Audio Cassette Player. I have received a variety of opinions, some good and some bad, about this machine. In this article I want to concentrate on one possible alternative which, upon investigation, has its merits.

The HP iPOD

The HP iPOD is a music playing machine. You can buy the one with a 20GB hard drive from Argos for about £300 (possibly cheaper now) or the 4GB version for about £180. The claim is that about 250 musical tracks (of, say 3 or 4 minutes duration each) for each 1GB.

Although I did include a diagram showing how it is connected up to other useful equipment such as a pair of earphones (!), I have been taken to task for not showing a “real picture”; so here it is!



By default the iPOD uses a specialised format which has the file extension .m4p. If you have a CD with your tunes on it then you need a computer in order to convert the files from the format used on the CD to that used by the iPOD. The piece of software which does this is called “iTunes”; it is Windows software and requires Windows 2000 or Windows XP in order to work. iTunes will not run in Windows 98SE.

The biggest single criticism pointed out to me about the iPOD is that, whilst it plays music wonderfully (no complaints in that area) it does practically nothing else! So that is why, this month, I shall tell you about ‘something else’ which plays music equally well (so I have been told) and does other things as well!

A Slight Digression

I have been thinking for some time about getting a satellite navigation system for the car. The choice was between a dedicated SatNav system or a ‘bits and pieces’ system.

I chose the latter. I demonstrated it to my son, David (whose work takes him to out of the way unfamiliar places). He went straight out and bought a dedicated system. He says that he doesn't know how he managed without it.

I am in the process of writing a 'SatNav' article for Paul's companion magazine, Living with Technology, in which I shall describe how my SatNav system works.

The HP iPAQ

My SatNav 'bits and pieces' consists of a TomTom satellite receiver and a PDA (what does PDA stand for?). Many different PDAs will work with the TomTom receiver. I chose, not the cheapest, nor the most expensive; I chose the Hewlett Packard iPAQ model h4150.



It is a massive advance on the machine which has been my constant companion for a decade (or maybe more), the Acorn palmtop built by Psion (version II). The iPAQ can not be compared with the Psion II but the things I can do with it makes the Psion II redundant.

The photograph (and the reproduction here) does not do justice to the clarity of the screen. The JPEG format picture is displayed using something called iPAQ image zone software either in Portrait or Landscape mode. The pictures can be viewed as a Landscape slide show.

The screen size is just under 3 by 2 inches.

It has a resolution of 320 pixels vertically by 240 pixels horizontally using 65535 colours.

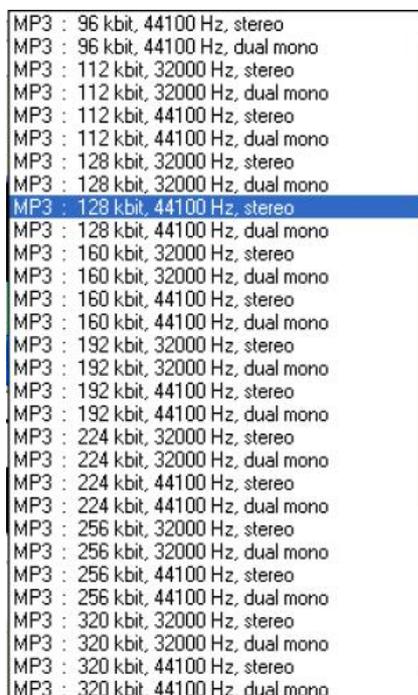
Rather than peer at the photographs in this document you may wish to load the JPEG format originals into !ChangeFSI (or possibly something such as Paint Shop Pro on a Windows machine). You will find the original JPEG files in the directory Screens.

Audio Quality

Rather like the iPod music machine, it has an earphone socket at the top just above the “hp” logo. I have tried high quality earphones and a fairly reasonable stereo system and the quality of the musical reproduction is, to my ears, as good as a borrowed iPod. From my experiments I am sure that the biggest single factor in determining the sound quality is the format in which the music is stored. Of course, the bigger the file the better the quality!

One format available is .mp3—which comes in a range of options! See the screenshot on the left below. As far as I can determine some of the highest rates just waste memory without any improvement in quality. Of course I am using a CD as the source of the music I am testing.

Another format is PCM with a range of sampling frequencies and bits per sample.

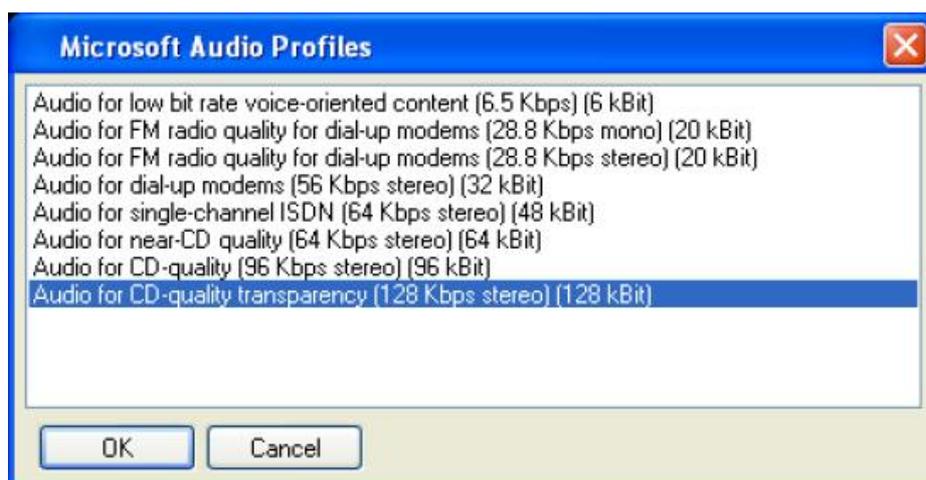


MP3 Formats



One of many PCM Formats

However, the default for the software is the .wma (Windows Media Audio) format (below). This is the default/preferred audio format of the software called Windows Media Player.



I have found when converting musical files from a CD to run on the HP iPAQ, that the best reproduction (for my ears—and with my HiFi plugged into the earphone socket) is the 128Kbps stereo .wma format which is highlighted in the screenshot above.

To my ears this beats the .mp3 and is equivalent to a good PCM format. However, I must repeat that I think the format of the original sound on a standard music CD is the limiting factor and not the iPAQ.

Playlists

The music which you might want to play is organised through what are called 'Playlists'.

You select tunes for your Playlist from all the music on the machine.

You can have many different Playlists.

You select the particular Playlist you want and the machine plays all the tunes on that Playlist.

I have named one of my Playlists "My Favourite Tunes".

You will see it (misspelt without the "u") in the picture on the left below.



The tunes I have selected are those in the list starting with "Bampy" and ending with "Dancing with Wolves". I should explain that "Bampy" is a corruption of "Grampy" (grandfather) and that I and one of my grandchildren composed this tune on my MIDI keyboard and transferred the MIDI file to the iPAQ as a (high quality) .wma format file.

I have included a second picture which shows the whole machine as it appears during the process of selecting tunes to be added to the Playlist.

There is an "Add" icon at the bottom of the screen which is not easily seen in the picture. It is just visible in a 'blown up' version of the original JPEG file in the Screens directory.

Playing the Music

The screen displays the Windows Media Player logo by default during Playback. This is the software which is playing the music. However, by tapping on the “x” icon (top right) you can remove it and do something else (such as play Solitaire!) whilst the music is playing.



Storage

On the iPAQ, unlike the iPOD, the storage medium is not a multi GigaByte hard drive. It uses SD memory storage cards.

Of course this is an extra cost of running the iPAQ when compared with using the iPOD.

One of the comparisons which ‘Grandchild C’ put to me was that a 20GB hard drive will take something like 5000 tunes (of 3 or 4 minutes each) whereas a 256MB storage card will store “only 64 tunes”!

My response was that most of the tunes should be stored on the main computer and a selection of “only 64 tunes” should be transferred as and when those particular tunes are the ones wanted that week (or day or month)!

Other Media Files

I said earlier that the iPAQ will do more than store and playback audio files.

My first picture in this article shows that, using the software iPAQ Image Zone, it can be used to store and display snaps taken with a digital camera. A short audio clip can be added to each picture. I usually do this using the digital camera rather than using the iPAQ. Either method produces good quality mono sound.

However, on the iPAQ still pictures from my digital camera are not all!
To my surprise and great delight it will store and play movies!

But that is another story! I am currently working on a video of a School Musical. In order to have a temporary storage of something I can show to parents I have transferred my current version of the production to the iPAQ. On the iPAQ the 45 minute video in .wmv format uses about 100 MB of a 128MB SD card. On the main computer I store the video as an .avi file which is a massive 10GB.

I shall return to video in another article.

Summary

The iPOD will store about 5000 tunes on its 20GB hard drive.

The iPAQ will store about 64 tunes on a 256MB SD memory card.

The iPOD is a music (or audio file) only machine.

The iPAQ will play music, display snaps and even movies—as well as being the means of displaying the output from my TomTom SatNav ‘gadget’.

Communication

Thanks for all your emails, letters and discs.

These days I am finding an increasing number of my correspondents are sending me CDs they have burned rather than floppies. That is because the files they are sending me are much larger than can be fitted onto a floppy. I guess it is a sign of the times?

Please contact me by email (preferred) or by letter if you have any questions or comments. You can email me at <Archive@abacusline.demon.co.uk>.