P2 DUAL FAT SYSTEM

Most computer uses will have noticed that microsoft operating systems have undergone various changes over the years. DOS 5 thro 6 need FAT 16 and NT can be run on this system. However WIN 98 and above need FAT 32 and we have some more recent systems on FAT 64 and NTSC.
What is the advantage of all the extra complexity particularly when modern computers tend to have a driver for every piece of electronics inside the cover ?
From the authors point of view many good functional programs have been written for DOS and are freely available. WIN98 has an underlying DOS 7 which can be involked directly by using TWKIU and DOS 6 can peacefully exist with NT. However they are both on different FAT systems.

The different FAT systems make it impossible for DOS 6 and WIN98 to be operational on the same hard disk. I found that you can FDISK a hard drive for FAT 16 (max 2G at a time) and load DOS 6 then when WIN98 is loaded there is no way of booting up DOS 6.

After much head-scratch and gnashing of teeth I came up with the idea of loading the two systems on separate hard drives and using the IDE cs (cable select) pin28 to select which drive has the boot and operating system. This requires a dual IDE lead and a change over switch which allows either hard drive to be selected as master. Pin 28 can easily be counted from pin 1 which is the red stripe on the lead. The slave drive has open cct on pin 28.

When using FDISK, FORMAT and loading the operating system it is best to use only one drive at a time. I actually loaded WIN98 on another computer with large disk enabled. This was to avoid the CDROM not being loaded on start-up in my P2 computer. If you do this save the WIN98 disk at the same time because diferent drivers might be needed when you use it in the final dual computer.

The results were in the final dual computer.

FAT16 hard drive in 2Gb drives C DOS, E winNT (you can boot into DOS at start-up) Remarks – You can see the WIN98 in drive D although if

you click on it it says incompatable file system.Other drives F and G are visible and usable.

FAT32 hard drive formated as 6Gb drive you can only “see” the C drive WIN98. (use twkiu to get into 32 bit DOS7 first, then type WIN to get back in to WIN98.

Finally the need for all this, I run

CNCPRO/DOS
ZEUS CNC/DOS
ACE(file converter)/DOS
Agilent VEE/NT/WIN98
MISC DOS GAMES
The chance to check programs for DOS 6 & 7
WIN 98 USB and IRDA access

PS I allready had software on my FAT16 drive it was my instrument controlling program VEE this was drive E when the software was used with only one drive in the computer it was drive D. This meant that all the file references were wrong and I could not use VEE. It would have been OK if it was loaded while the drive allocation was E. Also I would not de-install because of the same problem.
Some way had to found to get rid of the useless troublesome slave D drive when using 16bit.
Refering to the IDE spec pin 39 is the test for hard discs on spin-up. Since the Maplin switch was double change-over I was saved. I could use the other bit to change over the spin-up test. If the computer does not “see” a hard disc in 1 (slave) its OK as long as it “sees” a working master. Hey presto my software is back in the D drive. Phew !!

Enjoy----------