



eiere

## Memory Facts

The process of installing memory is very easy; you just have to have the right chips.

Forget about swapping memory from another computer – go buy what you need. However, at first glance finding the right chip for your computer is pretty scary. Forget your user manual. It is great for telling you how to install but lousy on telling you what to buy.

### **How do I buy the right memory chip??**

Purchase from Crucial, Dell, Kingston, or EBay (maybe HP). Good luck with anyone else.

Go to the website of your choice and type in your computer make and model. You will be told what to buy. (Careful with EBay.) The only choice you need to make is the size; e.g. 1 GB.

### **What size memory chips and how many??**

Most people will want 2 chips of 1 GB each. Computers often have 4 slots for memory so you can use your new chips in 2 slots and the 2 largest capacity chips left over in the other 2 slots.

Your best bet is to install chips in pairs; your manual will tell you which 2 slots are paired. For example, you may put your 2 chips of 1 GB in slots 1 & 2 and your 2 chips of 512 MB in slots 3 & 4. **READ YOUR MANUAL.** Sometimes slots 1 & 3 are paired!

**DO NOT PAIR UP CHIPS OF DIFFERENT SIZES OR SPEEDS!**

### **Is there anything else I need to know?**

**NO!** However, I am going to tell you anyway, for the two people who will bug me otherwise.

Typically memory (RAM) will have two important designations; pin configuration and speed.

Modern pin configurations are DDR (or DDR1), DDR2, and DDR3. (*DDR stands for Double Data Rate, which conveys no meaningful information. Don't call me up and yell. DDR is short for more nonsense and specifications take up 4 pages, single spaced. In practice, it's the pins!*)

*If your computer has a different memory configuration; e.g. SIMM, throw it away.*

The three DDRs cannot be interchanged; they won't even fit in the wrong slot.

Speed is best measured in MHz; e.g. 533 MHz or 666 MHz. This is NOT the speed of your computer (i.e. your CPU such as Intel Pentium 4). This is the transfer rate for data that the chip can handle and is significantly less than your CPU speed. The speed is sometimes given as DDRxxx; e.g. DDR400. Sometimes it is given as PCyyyy; e.g. PC2700. The higher the number, the faster the speed. Unfortunately, the numbers are misleading; e.g. DDR400 really works at 200 MHz. Don't worry about it. The bigger the number, the faster the memory. It is OK to go faster, but not slower. Your computer will probably run at the speed of the slowest chip.