

One feature of the Risc PC is its much improved flexibility when it comes to RAM upgrades. However, such flexibility brings with it a wealth of potential confusion, and in this article we aim to explain briefly what is involved in upgrading the Risc PC's two types of RAM - DRAM and VRAM.

DRAM UPGRADES

Dynamic RAM (DRAM) forms the common or garden RAM in your computer - in other words the place where programs and data are stored. In the Risc PC, DRAM can be fitted in the form of one or two industry-standard SIMMs (single in-line memory modules), as used in most PC compatibles. These are small cards which clip into special sockets on the computer's main board. For upgrading, SIMMs are as easy to remove as they are to fit.

Each SIMM fitted can currently have a capacity of 1, 2, 4, 8, 16, 32 or 64Mbytes, giving a total of 128Mbytes with two SIMMs. In the near future (a year or so), 128Mbyte SIMMs will become available, allowing the full potential of a 256Mbyte machine to be achieved. All the standard Risc PC models have just one SIMM fitted, containing 2, 4 or 8Mbytes. Obviously, a SIMM of any of the above capacities can be fitted to the second socket, but ultimately, you will probably need to replace the original SIMM as well. If you're lucky, you may find a dealer who will take it as a trade-in.

There are two basic ways of obtaining SIMM modules. Firstly, you could go to a reputable Acorn dealer, or developer, and buy with the assurance that you will get a product that works in the Risc PC. The alternative, which can keep the cost down, is to go to a PC supplier, such as those advertising in PC magazines. However, there are pitfalls to this. Firstly, they must be 72-pin SIMMs of the type used in Pentium PCs, and not the much more common 36-pin devices found in most PCs. Secondly, they must meet the Acorn specification for Risc PC DRAM. This not only specifies the basic access speed of the RAM (which must be 70ns or faster), but also defines many more parameters that must be matched. Whilst most SIMMs will be suitable, some won't. To this end, Acorn are drawing up a list of approved SIMM types which will be available from their customer services department.

More Memory for the RISC PC

David Spencer unravels the world of Risc PC memory upgrades.

As far as pricing is concerned, you can expect to pay around £150 + VAT per 4Mbytes for SIMMs, so a 32Mbyte module would be around £1200. However, be warned - the 64Mbyte SIMMs are very expensive at the moment, and if you really must have them, then be prepared to pay a lot for the privilege.

VRAM UPGRADES

The second type of RAM found in the Risc PC is video RAM (VRAM) which, as its name suggests, is primarily intended for use as screen memory, although any spare becomes available to other applications just as if it was DRAM. If no VRAM is fitted, as is the case for the bottom-of-the-range Risc PC, then DRAM is used for the screen, although this is limited to 1Mbyte, and its use slows down the computer. The other two Risc PC models have 1Mbyte of VRAM as standard, but although this solves any speed problems, it still restricts the available choice of modes. For example, it can't even cope with normal VGA in 16 million colours. You are therefore well advised to upgrade to the maximum 2Mbytes of VRAM at a very early stage.

Unfortunately, although the VRAM module is a plug-in card similar to the DRAM SIMMs, it is not an industry-standard product, and so choice is limited. Acorn themselves sell a 2Mbyte VRAM module at £199 + VAT, and HCCS have just launched their rival product at £149 + VAT. No doubt many other third parties will follow suite. If you are upgrading a machine that already has 1Mbyte of VRAM, then the old module must be removed first. Rather than throwing this away, you may be able to trade it in against the 2Mbyte unit. Indeed, you may find a dealer who can upgrade your original 1Mbyte module to 2Mbytes simply by soldering some extra chips on - though your warranty is unlikely to survive such an upgrade.

AND FINALLY

Don't be fooled into thinking that memory

