

Virtual memory

[Experience](#), [Memories](#)



Virtual Memory With today's modern technology, we need to ensure that our computers are able to run quick and with ease. In order to run programs with speed, Individuals need to ensure that they have sufficient memory to allow for programs running. Computers come with memory, but sometimes It Is not enough to run what Is needed or wanted. One way to ensure speed Is to use virtual memory. Virtual memory can be described as memory that emulates RAM, and allows programs to run as though the computer has more memory than It actually does.

This Is a great benefit for Individuals who are running various programs at one time. According to Mr.. Stallings, he wrote " virtual memory allows for very effective multiprogramming and relieves the user of the unnecessarily tight constraints of main memory" (p. 343, 2012). Using virtual memory is a good choice to help run programs on your system. There are two approaches to providing virtual memory in a system. They are paging and segmentation. Paging is dividing the processes into very small fixed pages. When pages are loaded a page table is created.

Segmentation is for varying of sizes. When segments are loaded a table is created for this process. A benefit is that paging and segmentation can be combined in memory management. Some benefits of using virtual memory are freeing up your systems RAM, cheaper than buying more RAM, and using either an external hard drive or USB thumb drives also gives you space to use. Freeing up your system's RAM is easy to do by closing out programs you are not using at the moment. This frees up space to be used by a program you are needed at the moment.

RAM on some systems is not overly priced depending on the type. Individuals can spend a lot of money on upgrading their RAM if they are not careful with what they really need for their system. Two examples of virtual memory are an external hard drive or a USB thumb drive. Either of these can be used in connection to your system to give virtual memory. Trying to run many programs at one time can cause your RAM to be full, and then no other programs can be started until others are closed. This is beneficial if you receive an error message stating memory is low. Having virtual memory is an alternative to buying more RAM for your system also. Stallings wrote "the addresses a program may use to reference memory are distinguished from the addresses the memory system uses to identify physical storage sites, and program-generated addresses are translated automatically to the corresponding machine address" (p. 341, 2012). If an individual wants to change the size of their virtual memory, they can on their system. They can right click on their computer icon, and click on properties.

Click on the advanced settings tab, look down on the performance part and click settings. Your system will show a recommended amount of virtual memory, but the person can change it to what they feel is needed. This is something that can be changed at any time just in case someone tries running on what they think is needed for their system. When installing and running programs, everyone would like their system to run quick. Having the right amount of RAM and virtual memory can help your system run smoothly and efficiently.