Optimizing your Computer's Performance

Computer performance is driven by competition for computer resources by the software you are running on your computer. Current operating systems and applications are powerful and flexible. This power and flexibility comes at a cost; they demand lots of processor power, main memory and disk space. Malware is another factor that can destroy computer performance.

Is your computer up to the task? You should check the following:

- Processor speed
- Main memory (RAM)
- Hard disk free space and fragmentation
- System protection

Processor Speed – state-of-the-practice processors are now dual-core (two processors working together) at 2.7 GHz for a total of 5.4 GHz (and getting faster every year). If your processor is less than 1 GHz or so it is time to get another; slower processors will not support today's operating systems and applications. To check your processor's speed; right-click My Computer, click Properties, click the General tab. Processor speed and memory size is listed under Computer.

Main Memory (RAM) – see processor speed above for how to check your memory size. Today's operating systems (OS) and applications are memory hogs. If your computer doesn't have enough memory the processor will have to swap portions of the OS and applications from the hard drive into RAM. In extreme cases as much as 95+ per cent of the processor's capacity can be given over to this swapping. The operating system and web browser alone will use about ½ GBs of memory. Any other applications add to that. If you have ½ GB or less your processor will spend more time managing memory than working on your applications. Your computer should have at least 1 GB memory and more if possible.

Hard Disk Space – computer hard drives are now measured in the 100s of Gigabytes (GB). Yours should be at least 30 or 40 GB. The amount and distribution of free space on your drive is more important than the size of the drive. You should have a minimum of ten percent free space on your drive fifty percent or more is optimal. This free space should be as contiguous as possible; it should not be broken up into small chunks. Check your hard drive by opening My Computer, right-click the C drive and click properties. This will give you the size of your drive and the amount of free space. To check for fragmentation; click the Tools tab on the properties window, click Analyze, if the white space is badly broken by colored space click Defragment Now (be patient) this will take a while. Before you defragment it is a good idea to remove as many files as you can (games and music eat resources like candy).

Issues and Solutions – if the issue is processor speed about the only solution is to get a new system. The internals of systems with older, slower processors are not compatible with new processors. If the problem is a lack of RAM, it is inexpensive and might be worth upgrading instead of replacing the system. Hard drive space is inexpensive too. Here you can also consider an upgrade instead of replacement. But, the bottom line is if your system is 5 or 6 years old it's time to buy a new one.

System Protection – a good security suite is absolutely mandatory. Operating on the Internet without a firewall and up-to-date anti-virus software will bring you grief! Never run without anti-virus software. Also, never run with two anti-virus programs at the same time (this is almost as bad as running with

none). You also should run a pop-up blocker and something to block spyware. A good security suite will do all these things. Remember too that there are good pop-ups; many features in Blackboard are implemented as pop-ups; set McKendree as a trusted site on your computer.

Note: If you are doing something important like taking a test on Blackboard consider closing all other applications, especially anything that streams files to your computer.