Animation Hardware Requirements

So you’re interested in Animation! Congratulations! You are moving towards a rewarding and satisfying creative career! However, as with any new beginning, there is an initial investment. For us, it is in computer hardware and software. Because we are dealing with manually creating complex 2D and 3D imagery, we need machines capable of processing this information quickly and efficiently. Unfortunately, this means that the average computer capable of creating animation is going to be costlier. The good news is that the higher end laptops will remain functional and have the power to last for 3-4 years.

We do not recommend purchasing a MacBook or MacBook Pro. There are several reasons for this. First, Mac’s are not an animation industry standard like they are for Graphic design or film. The majority of studios use either Windows or Unix based workstations. This combined with the cost of comparative hardware and user interface difference make purchasing a MacBook something we generally discourage.

We recommend laptops over desktops, mainly because portability is extremely helpful. Having your homework or projects with you at all times, is invaluable. The list below covers three of the laptops that we suggest from a couple vendors. This list is not comprehensive, but all have several things in common which we will go over below.

Less than $600
Newegg: Acer Aspire AS5750G-6804 Available Here

$600-$999
Best Buy: Asus U52JC-BBG6 Available Here
Newegg: Lenovo IdeaPad Y570 (08622KU) Available Here

$1000-$1500
BestBuy: Asus G74SX-BBK7 Available Here
Newegg: ASUS G Series G73SW-XN2 Available Here

Finally, a couple notes on what hardware/software is essential and why. A related resource, from the software that we use for 3D animation: http://usa.autodesk.com/maya/system-requirements/

1. Video cards.
   a. A discrete (stand-alone) video card is VERY important. A integrated video card has far less power, and will only be powerful enough to do some initial animation. The computer must have a good graphics card. Look for something that has a Geforce GT (or GTX preferably) 3XXM or higher (4XXM, 5XXM, etc.), or and ATI Radeon 4XXX or higher.

1 This is definitely the reviewer’s choice, as I will be purchasing this myself shortly.
2. Processor (CPU).
   a. The CPU (processor) should be at least a dual core, and capable of running a 64-bit operating system (see #3). Most new systems will have this, but always make sure. Ideally, you want a quad-core that operates at 2 Gigahertz (Ghz).

3. The Operating System (OS)
   a. Most animation today is done on Windows or Unix boxes. We suggest Windows 7, as it is the most recent iteration of Windows, and also the easiest to support on campus. Also, as mentioned in #2, it should be 64-bit. This allows the system to use more memory, which in turn can make creating animation easier.

4. Memory (RAM)
   a. This is not hard-drive or storage space. This is basically the space that allows the computer to store information on what is currently being worked on, for easy access to the processor. What this means, in a nutshell, is the more Memory the laptop has, the faster and more efficient it will run.

5. Hard Drive
   a. This is your file storage. The more the merrier, but most laptops should have at least 500 Gigabytes (GB). Along with any computer purchase, it is a good idea to have another portable storage device. A portable hard-drive is a great investment, and can often be cheaper than a flash drive per GB. Informational note here: Roughly 1000 Megabytes (MB) are in a GB. Roughly 1000 GB are in a Terabyte (TB). Additionally, there are online services that can store and synch files to your computer, one of which is Dropbox.

6. Screen Size
   a. This is where we start to slide into personal preference. The most important aspect of a screen is its resolution. An HD screen is preferable if available. Beyond that, physical size and glossy/matte is all up to personal taste and preferences.

I hope you have found this short guide helpful. Once again this is not a complete list, but each of the items has the basics listed above covered. Should you have any questions please feel free to contact Topher Cavanaugh @ chricav@regent.edu (preparer of this list) or Peggy Southerland @ peggys@regent.edu .

P.S.

Keep in mind that some of the new tablets that come out in October will be quad core, have dockable keyboards and may well work for this area. We’ll be investigating and will pass along info as it becomes available.

Peggy Southerland