

“Digital Imaging Definitions and Hints”

Read these definitions and hints and use them as a teacher reference sheet to clarify and provide management ideas for your classroom.

Program Memory Allocation

Working with digital images can be “memory intensive”. For example, it takes relatively little memory to create a basic document in Microsoft Word, but can take significant amounts of memory to open a large, high-resolution image in Photoshop. You may need to increase the available memory on your computer to ensure that it will be able to handle such memory intensive applications.

Program Memory Allocation – Mac Computers, OS9 and Earlier

Mac computers running these operating systems allocate a certain amount of memory to each application when it is installed. If a program cannot open an image due to lack of memory, you can manually allocate more memory to that program. (Of course, you need enough memory installed in the computer to allocate more to the program).

1. With the program closed, select the program application icon (not the folder).
2. From the *File* menu, choose *Get Info-memory*.
3. Increase *Preferred Size* and then put that same number in the *Minimal* size field.

Repeat this process as necessary to determine the appropriate memory allocation to your programs based on your use. Macs running these operating systems partition memory so if you open and close many images and programs, the remainder of memory available diminishes. If after you allocated more memory it still doesn't work, try restarting the computer which should fix the problem.

Program Memory Allocation – Mac Computers, OS X and Windows

Mac and Windows computers running these operating systems allocate memory dynamically, i.e., they assign as much of the available installed memory as required by running applications. So besides the memory allocated for running the operating system, if you have only one application open, it can request and obtain all the remaining installed memory on the computer.

Depending on how much memory you have installed, you may be able to run several programs, including an imaging program, and all will work well. If you find you do not have enough memory to open an image, you should first quit other running programs and try again. If you are repeatedly unable to open large, high-resolution images in your imaging program, you probably

do not have enough memory installed on the computer, and should upgrade the amount of installed memory.

Image Resolution

To save space on media, to reduce memory need, and to speed loading graphics, it's best to scan at 72 dpi for screen images, 150 dpi for general use, and 300 dpi for a good quality print.

Reducing File Size

Cropping images, reducing image size, reducing resolution, and saving in any file format can affect the final file size of a graphic image.

Image File Formats

BMP (Windows bitmap) 2-17 million colors and usually not compressed. (.bmp or .rle)

PSD (PhotoShop)

TIFF (Tagged Image File Format) A very large, high-resolution image format (.tiff)

GIF (CompuServe Graphics Interchange Format) 2-256 colors and highly compressed. Usually used for drawings and animations on the web. (.gif)

JPEG (Joint Photographic Experts Group) Some compression. Usually used for photos. (.jpg)

Please Note: Because files are compressed each time you save in jpeg, save the original in a non-compression format (like Photoshop). Duplicate and make changes to the image and then save in the appropriate file format to minimize reducing the quality/clarity of the picture.

Plagiarism

Definition from **Merriam-Webster's Collegiate Dictionary**

Main Entry: **pla·gia·rize**

transitive senses : to steal and pass off (the ideas or words of another) as one's own : use (another's production) without crediting the source

intransitive senses : to commit literary theft : present as new and original an idea or product derived from an existing source