

Introduction to Computers

(5.0 Hour/0.5 CEU Correspondence Course for Court Reporters)

by

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with
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Disclaimer: The contents of this correspondence course are informational and instructional only. This course does not constitute an offer to provide technical support to any court reporter. The authors are not responsible for the application of any information contained in this correspondence course.

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5.5 Storage Media

5.5.1 Diskettes

Early personal computers had 5 ¼-inch floppy disk drives. The user saved data on the floppy disk, which served two main purposes. (1) It provided data portability between machines. (2) It provided backup copies of data in the event the hard drive failed.

However, floppy disks themselves were easily damaged. Because they were indeed 'floppy', they could be bent. Physical damage of the floppy disk often resulted in a disk that could not be read at all by the computer's floppy drive.

Improvements in disk drive storage media led to the 3.5-inch floppy disk still seen today. These disks have a mechanical component that can be damaged. The 3.5-inch disk drives that are internal (inside the computer) are typically designated as drive A. However, these drives are rapidly becoming obsolete to CD and DVD drives. A number of new computers sold today, both desktop and notebook models, do not include an internal drive A as standard equipment. However, for those of us who have data archived on 3.5-inch floppy disks, external floppy disk drives that plug into the computer's USB drive (described in Section 5.8) are inexpensive and readily available.

5.5.2 CD and DVD

CD (compact disk) and DVD (digital versatile disk) media are not just for storing music and movies. They are excellent for backup copies of data. They have high capacities, so a significant amount of data can be stored on one disk. Some key points about CD and DVD drives follow.

Internal or External. CD and DVD drives can be either internal (permanently installed inside the computer case) or external (connected by a cable, usually USB). Notebook computers sometimes have removable drives to reduce the weight of the computer when the CD or DVD drive is not needed.

Standards. There are two competing standards for DVD recorders (+ and – which is pronounced as plus and dash, respectively). Many DVD drive manufacturers now support both formats. Files written to one standard cannot be read by a DVD reader that only supports the other standard.

Formats. CD and DVD media are available in two formats: recordable and rewritable.

Recordable Format: CD-R and DVD-R. The designation '-R' stands for recordable. Once data is recorded to these disks, it cannot be erased or written over. CD-R and DVD-R media can, however, be used in multiple sessions until they are full. Once the disk is full, it is not possible to erase old files and replace them with new ones.

Rewriteable Format: CD-RW and DVD-RW. The designation '-RW' stands for rewritable. Theoretically, these disks can be reused indefinitely, just like 3.5-inch floppies. However, rewritable media are more expensive than their single-use recordable counterparts. Rewritable media are generally not the best option for data storage because recordable media are very inexpensive.

Sturdiness. While CDs and DVDs are arguably sturdier than 3.5-inch floppy disks, they can be damaged. It is strongly advised to make more than one backup copy of data files.

File Storage Characteristics. It is important to know that when you record files to a CD or DVD, the files are automatically created as 'read only' files. This means the files are not available for editing in that format - they are just available to read. Court reporters who must retrieve a file from a CD or DVD for a backwrite must know how to convert the file from 'read only' to 'read-write' format. The instructions for doing so appear below.

To remove the 'read only' status of a file saved on a CD or DVD so you can edit the file, follow these directions.

Step 1. Locate the file name in the appropriate directory.

Step 2. Highlight the file name and right-click the mouse.

Step 3. Click properties on the menu that appears.

Step 4. The tab for General Properties will appear. At the bottom of that screen you will see a section for File Attributes followed by check boxes for 'read only' and 'hidden'.

Step 5. Click on the checked box in front of 'read only' to remove the read only designation for that file.

Step 6. Click Okay. You will now be able to edit the file. It is a good idea to save the file immediately to the hard drive in its editable format.

7.4 Display Settings

Under the Control Panel, there are a number of options you may employ to customize your display settings including background color or pattern, screen saver, color scheme and screen resolution.

Resolution. Perhaps the most important display setting for court reporters is resolution. Resolution is stated in `pixels`, which are the smallest elements of an image that can be individually processed in a video display. Each computer monitor has a maximum resolution it supports. This number appears in the monitor specifications. It represents the maximum number of pixels that can be supported horizontally and vertically. For example, the monitor resolution may be stated as 1024 x 768, meaning that the maximum number of pixels the monitor can display is 1024 horizontally and 768 vertically. This is a common resolution for notebook LCD screens. A stand-alone monitor may support a higher resolution, such as 1600 x 1200.

Minimizing Eyestrain. It is a very common misconception that screen resolution should be set at the maximum level the monitor supports. However, this can lead to eyestrain. High resolution settings reduce the size of the objects and letters displayed, because higher resolutions allows a greater area to be displayed on the screen. For most of us, it is very uncomfortable to try to read documents at high resolution settings.

Current Settings. The current setting of the display resolution is available in the Windows Control Panel. That is also where users modify the display resolution settings. Usually, the lowest resolution setting is 640 by 480 pixels. A comfortable resolution setting for many people is 800 by 600 pixels. At this setting, icons and printed material appear large enough to read comfortably.

Viewing Web Pages. Many Internet Web pages are 800 pixels wide. If a resolution higher than that is used to view a Web site designed for a width of 800 pixels, the Web page image will appear centered on the display. A vertical blank strip will be visible on the left and right sides of the display. If a monitor is set to view 1600 pixels horizontally, an 800 pixel-width Web page will only take up half of the display width. There will be blank space on both sides of the Web page. Because the material only takes up half the width of the screen, all of the lettering and images will be half the size they would be if the resolution were set at 800 x 600 pixels. For those who spend a lot of time reading materials on their computer displays, this can lead to unnecessary eyestrain.

Instructions to adjust display resolution under Windows XP Home Edition follow. The procedure is similar in other versions of Windows.

Step 1. Access the Control Panel from the Start Menu.

Step 2. Select Display.

Step 3. Several tabs will appear across the top of the Display menu. Select Settings, which is the last tab on the right.

Step 4. You will see a sliding scale for resolution. Note the current setting. Slide the bar all the way to the left and the right to establish the minimum and maximum resolution settings your monitor supports. Select a setting. Try 800 x 600, for example, which optimizes viewing of most Web pages.

Step 5. Click Apply.

Step 6. Open a document and see how readable it is. Access the Internet and see if Web pages are more legible for you at this resolution.

Step 7. Try a few resolution levels, and select the one that is most comfortable for you.

13 Glossary of Terms

Term	Definition
802.11 card	A card (frequently installed in notebook computers) that allows the computer to use wireless Internet service or participate in a wireless network.
active matrix	A technology for LCD monitors that directly addresses each pixel in such a way that real-time video can be clearly displayed.
administrator account	A category of user account available with Windows XP. The administrator account has the power to view the contents of all user accounts (even if they are password protected). The administrator account can install or delete hardware and software and perform all computer maintenance tasks.
ADSL	Asynchronous Digital Subscriber Line, a type of broadband Internet service in which the download speed is faster than the upload speed.
automatic updates	A feature of Windows XP that automatically checks the Microsoft Website to see if software updates are available for the system. There are options to automatically download and install, automatically download and notify that downloaded updates are ready to install, or to just notify the user that downloads are available.
bandwidth	The amount of space in a communications channel that is available to send a signal.
broadband	A type of Internet service that uses a greater bandwidth to send and receive data compared to traditional dial-up Internet service. Broadband service is therefore faster than dial-up service.

Test

Document 1 of 3
(Return for Course Credit)

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Name:	
Directions:	<p>Please print your name in the space above. Read each question carefully and refer back to the course materials if necessary. For multiple choice and true/false questions, please circle the correct answer. Space is provided for completion and short answer questions.</p> <p>The questions that follow total 100 points. The number of points for each question appears in the left column. A score of 85 is required to pass the test. Good luck!</p>

Points	Question
4 pts	1. Which of the following is NOT one of the four generations of computing technology? a. Vacuum tubes b. Transistors c. LEDs d. Integrated circuits
2 pts	2. For comparable features, a desktop computer is less expensive than a notebook computer because the notebook computer contains miniaturized components that sit within a smaller chassis. a. True b. False
12 pts	3. Name a component of computer hardware you learned about in this course, and in a sentence or two, describe the role or function of this component.