

Intermediate Windows XP

Lesson 6

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Lesson 6 — Printing & Pictures

Introduction

Although there is a multitude of different printers, scanners and digital cameras out there, this lesson covers general principles regarding their use. “All-in-One” printers like the one in our computer lab are very popular as they include a printer, scanner, copier, memory card reader and in some cases fax capability in one device.

Networked computers may be setup so that printers attached to a particular computer may be shared by other computers on the net. Alternatively, a printer/scanner may be connected to a “server” that allows access by any

computer on the net. The computer lab's all-in-one device has a built-in wireless server so all computers in the lab may access and share its features.

Printing

This lesson will cover some common printer test and setup options that will help you maintain your printer. Also, you may have noticed that you can send another document to the printer while it is printing the current job. This is known as "print spooling." Your computer puts each job in a queue and prints them in the order that they were received. We will demonstrate how you can examine the printer queue and control your print jobs.

Pictures

Images on a computer are simply another type of computer file. There are many file formats used for images, the most common ones are listed here. You can determine the format by examining the file extensions.

File Type	Extension	Typical File Name
Graphic Interchange Format	gif	Grandkids.gif
Bit Map	bmp	Grandkids.bmp
Joint Pictures Group	jpg or jpeg	Grandkids.jpg
Tagged Image File Format	tif or tiff	Grandkids.tif

Image files are created on your computer by using a scanner or a digital camera or by copying or downloading them from the Internet, another computer or storage device (such as a CD, floppy disk or memory "stick"). Once converted to a digital image they are simply another file.

First, however, you must acquire pictures, and then you can use various computer programs to view, manipulate, store and even send pictures to others over the Internet.

Acquiring Pictures from A Digital Camera

Pictures can be transferred to a computer by connecting the camera to the computer with a small cable or by removing the memory card from the camera and inserting it into a card reader connected to the computer.

Your instructor will demonstrate the process of uploading pictures from the camera to the My Pictures folder on the computer's hard drive using a cable. The picture files are transferred through a USB (Universal Serial Bus) port on the computer. The process may vary slightly depending on the camera. Your computer may automatically recognize the camera and run an appropriate program, or you may have to use the demonstrated procedure.

The instructor will also demonstrate the transfer by plugging a camera memory card into the card reader facility built into the lab's all-in-one printer. In both cases, the pictures stored on the memory card appear to the computer as if they were stored on a disk drive. Thus, you can view, copy and/or move the picture files the same as you would any other.

Acquiring Pictures with a Scanner

If you have a scanner it undoubtedly came with instructions and a software package for scanning documents or pictures and saving them on your computer. These packages often include software for viewing and manipulating the images. Most scanner installations will also install a common software driver named Twain. This driver can be used as a way to directly scan pictures into a program such as IrfanView, a word processor or other program. You can try this at home by clicking on IrfanView, then click on the File menu and select Acquire or use the program that came with your scanner. If you do not have the Twain driver installed an appropriate message will be displayed. If the Twain driver is present, you will be linked to your scanner's software where you can set up and scan an image. The image will appear directly in the IrfanView window.

Exercise 6 — Printing & Pictures

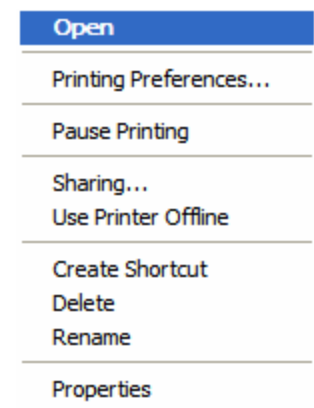
Setup/Checking Your Printer

You may have occasion to setup or check out your printer. Here's the procedure.

1. Click on Start | Control Panel¹ | Printers and Other Hardware | Printers and Faxes. This will display all printers currently installed on your computer or your home network. (If it displays a printer no longer connected to your computer, then highlight it and delete it.)

¹ These lessons use the Control Panel "Category View". If "Switch to Category View" appears in the Control Panel left hand Task pane, please click on it.

2. Right-click on one of the printers to reveal this menu. Click on “Printing Preferences.” Preferences differ among printers, but there are some general settings you should check. For example, you can usually set certain defaults (like Portrait orientation on Letter size paper). Depending on your printer, you may want to set it to print the last page first or vice versa. For example, if the pages come out face up (next page on top of previous page), then you probably would select “Back to Front” (or similar) to print them in proper order.
3. Right-click again and then click on Properties. This window is somewhat printer dependent, but to verify that the printer is properly connected, click on “Print test page”. Another window will pop up where you can click on OK if the page prints properly. If not, then click on Troubleshoot to try to locate and fix the problem. Depending on your printer, you will probably find “Utility” or “Maintenance” options in the Properties window for performing other functions such as cleaning the print heads, etc.
4. Right-click once more and click on “Create Shortcut”. You may see a message that it cannot create the short cut here, but it can put it on the desktop — click on Yes. Then close all windows and return to the desktop. You are urged to do this on your home computer.

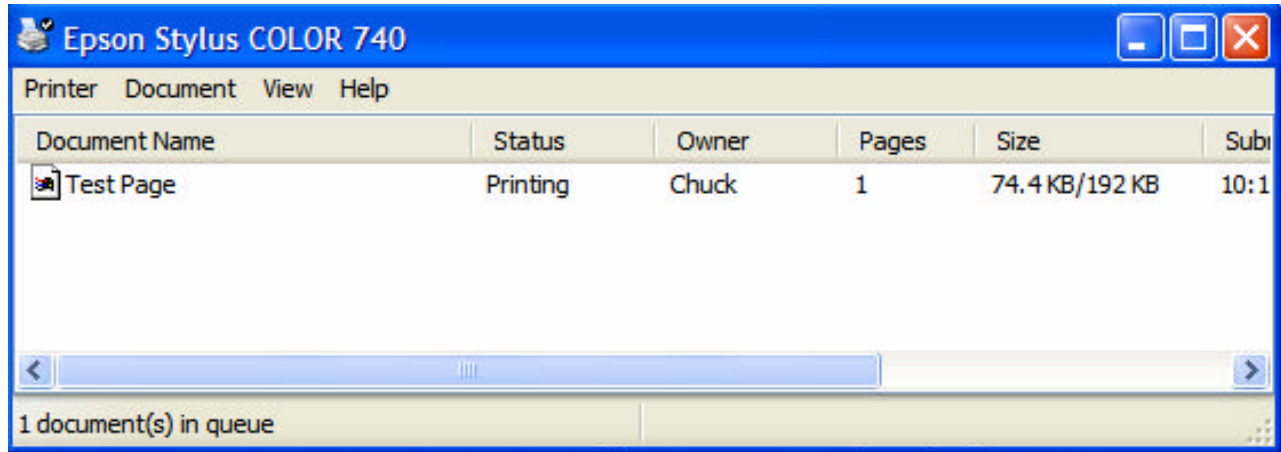


The Print Queue

1. Click on the shortcut created in the previous step, and you will see a window similar to the following. Here are listed all documents in the print queue along with their status.
2. On the Menu bar click on Printer and note the options. Take special note of “Cancel all Documents.” If your printer is having major problems (ejecting page after page of useless or blank information), you can click here to empty the queue and stop printing.
3. Click on Document (all options will be “grayed out” unless there is something in the print queue). Notice, however, if you first highlight an

item in the queue, then you can use the Document menu to Pause, Restart or even Cancel that document.

4. Close the printer queue window.



Common Printer Problem

A frequently encountered problem is one where nothing prints or a printout stops before finishing and just hangs there. A user's typical response is to click on print again and again with no results! Usually this is caused by a printing error that "hangs" in the print queue preventing all succeeding print jobs stacked up behind it. The first thing to do is open up the print queue window as described above and see if the first job's status is "error". If so, then highlight that job, click on Documents and select "cancel."

Alternatively, click on Printer and cancel all jobs to clear out the queue. It may take a minute or two for the stalled job to clear.

Working With Pictures

We will examine a couple of ways to get picture files stored on the computer. Then we will use the computer to view and edit the picture files.

Digital Camera Demonstration

Your instructor will demonstrate two methods of acquiring pictures from a digital camera or a camera memory card to the My Pictures folder on the computer. The camera connected to a USB (Universal Serial Bus) port on the computer using a cable provided with the camera. When connected, the

computer will treat the camera's memory as if it were a new disk drive. Alternatively, a memory card is removed from the camera and inserted in the card reader slot on the all-in-one printer.

Getting Pictures From the Internet

1. Open Internet Explorer. At the Google page click on Images then enter "horse" in the search box and click on "Search Images."
2. Right-click on a horse image and select Copy (or Copy Image).
3. Open IrfanView, click on Edit and select Paste. Notice that the picture now appears in IrfanView. Use Save As to save it to the My Pictures folder on the computer.

NOTE: Many pictures on the internet are associated with a "Link." That is, when you hover the mouse on the picture the mouse pointer changes to the "hand" symbol and a balloon opens up showing the link address, and if you click it will take you to the link address. If you paste a picture into a document or email and it remains a link (the "hand" appears), you can remove the link by right-clicking on the picture, select "Hyperlink" and in the resulting menu click on "Remove Hyperlink."

Acquiring Pictures From a Scanner


Most scanners come with software that facilitate the transfer of picture into the computer. There are two many variations in commercial products to cover here, but we can demonstrate the process using the previously installed IrfanView program.

With IrfanView open click on File | Acquire... and follow the instructions. This runs the scanner program and scans a picture directly into IrfanView. You may find this same capability built into various programs such as a Word Processor.

Viewing Pictures

This exercise will demonstrate some of the many features of the IrfanView program.

1. With IrfanView open click on View, select Display Options and click on Fit to Window.

2. Click on File | Open, navigate to My Pictures and double click on the first picture.
3. Press the space bar to go to the next picture. Press the Backspace key to backup to the previous picture.
4. At the keypad press the plus (+) key to zoom in. Press the minus (-) key to zoom out.
5. Press the Enter key to expand to full screen mode then roll the mouse wheel back and forth to cycle through the pictures.
6. Press the Esc key to return from full screen mode.
7. At the IrfanView toolbar, click on the information button and examine all the information available for a picture. 
8. Close the Information window and press Esc to close IrfanView.

Editing Pictures

1. Go to My Pictures and double click on a picture file. Notice that IrfanView opens and displays the picture².
2. Find a picture that has some red color, then use the drag and drop method to draw a very small box around a part of the picture with red in it. (We are simulating drawing a box around a person's eye with the famous "red eye" problem in photos.)
3. At the IrfanView menu bar click on Image then select Red Eye Reduction and notice that the red is taken away.
4. Draw a box around a portion of the picture (e.g. someone's head, or a flower, etc.). Click on Edit then on Crop (or use the keyboard shortcut Ctrl-Y).
5. Go to File | Save As and save the cropped picture with a new name. (If you just used Save it would replace your original picture.)

² This works only if the computer's file associations have been set to IrfanView. See the Appendix for information on setting file associations.

6. Press the “R” key and notice that the picture rotates 90 degrees to the right. Press it three more times to return it to normal.
7. Press the “L” key to rotate to the left. Return it to normal.
8. Try the “V” and “H” keys and observe what happens.
9. Click on Image and select “Enhance Colors”. Experiment with changing brightness, contrast and other features. If you’re happy with your changes, click on “Apply to Original” and save your image.

You can use any time remaining to experiment with manipulating pictures. You might want to try creating a slide show. Start in IrfanView by typing a “W”.

Homework

- ÿ Review Lesson 6.
- ÿ Try checking out your IrfanView and if necessary download and install the latest version. Open the Task Manager and have a look at it’s various features.
- ÿ Read Lesson 7.

Appendix – Setting File Associations

To make IrfanView your default image file program proceed as follows.

1. Open IrfanView and click on Options | File Associations.
2. Check those file types that you want IrfanView to work with. Recommendations are shown below.
3. Click on OK and follow instructions.

Some of these files may require a “plug in” from IrfanView. You can obtain the plug-ins from <http://www.irfanview.com>. Just click on “Plugins/Add Ons” and proceed as described in an earlier lesson to install them.

File Types

Most image or picture files that you encounter will be one of the following types:

BMP

GIF

JP2, JPG, JPM

TIF, TIFF

If you want to use IrfanView as your default movie viewer include the following file types:

ASF

AVI

MPG

WMV

MP3