



Intel® Easy Steps

Processing Digital Images

Digital Photography: Process your Digital Images

The easily availability of digital cameras has made photography a very popular hobby today. Once you have purchased a camera there is hardly any expense involved in taking photographs. You can take hundreds of photographs and print only the ones you want. Moreover you can process the photographs to remove small defects and make them look good.

Digital photography is one of the several forms of digital imaging and is a form of photography that uses an array of light sensitive sensors to capture the image focused by the lens, as opposed to an exposure on light sensitive film. The captured image is then stored as a digital file ready for digital processing (colour correction, sizing, cropping, retouching, red eye correction etc.). When processed by a computer these files reproduce an image which is able to be printed on photographic paper.

Whether you are into film or digital photography, you still need post processing at one point in time. Post processing is one of the most important aspects of digital photography; it is just as important as the photo shoot itself.

What is required to import and process digital photographs?

1. A computer or laptop.
2. A digital camera using which you have captured images.
3. A data cable which is usually a USB cable and generally comes with the digital camera.
4. A post processing software like Windows* Live Photo Gallery installed. This is a basic image post processing software that is provided free of cost by Microsoft* to Genuine Windows* users and can be downloaded from Microsoft website if it is not installed on your computer.

In this activity you will import images that you have captured using your digital camera and do post processing activities like exposure, red eye, straightening, retouching etc.

Before you begin using the computer to import and process your digital images, take a moment to get familiar with the **Intel® Education Help Guide**. The Help Guide provides handy step-by-step instructions for common applications right as you work.

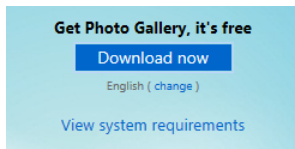
Please refer to the card - **How to Use the Help Guide**.

A. Download and Install Windows Live Photo Gallery (If you have Windows Live Photo Gallery installed on your computer, you can proceed to step B)

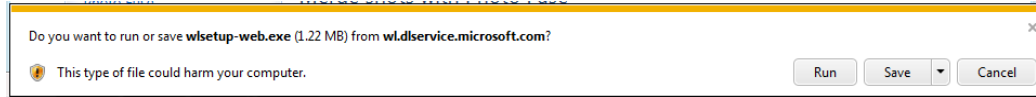
1. Start the web browser. (See, Help Guide, Web Technologies Skill 1.1 or 3.1).
2. Click to place your cursor in the Address or Location bar. Type <http://windows.microsoft.com/en-US/windows-live/photo-gallery-get-started>. (See Help Guide, Web Technologies Skill 1.4 or 3.4).

Note: Make sure that you type the Web site address correctly since a typing error may take you to a different Web site that is not intended.

3. Press the Enter key on your keyboard or click the Go button. Then, wait as the Web page loads on your computer. Click on the 'Download now' link that appears on the webpage. (See Help Guide, Web Technologies Skill 2.1 or 4.1).



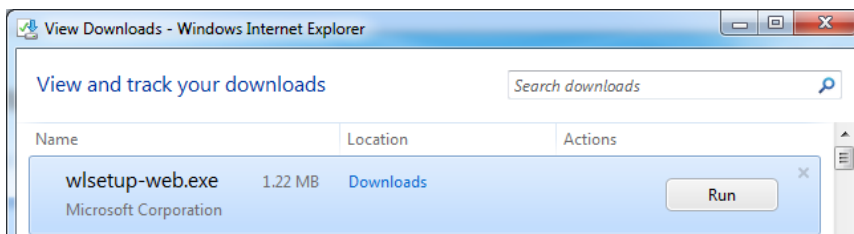
4. You will get the screen as shown below in the lower part of the browser window.



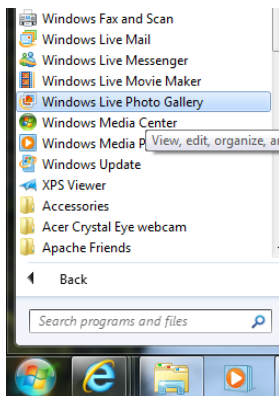
5. Click Save. The installation file starts downloading. After the download is completed the buttons on the same screen changes as below.



6. Click on 'View downloads'. This will display the downloaded files in a separate window which appears as given below.

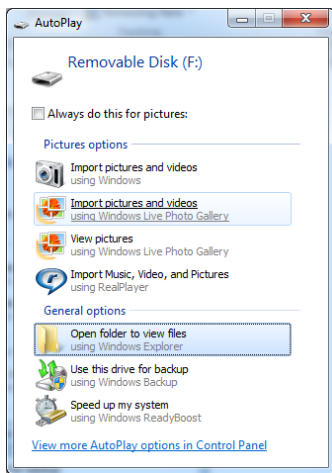


7. Click on the 'Run' button for the download named 'wsetup-web.exe' and follow the steps to complete the installation. (See Help Guide, Operating Environment Group 1: Installing Related Software and Updates).
8. You can start the post processing software by clicking on Start -> All Programs -> Windows Live Photo Gallery.

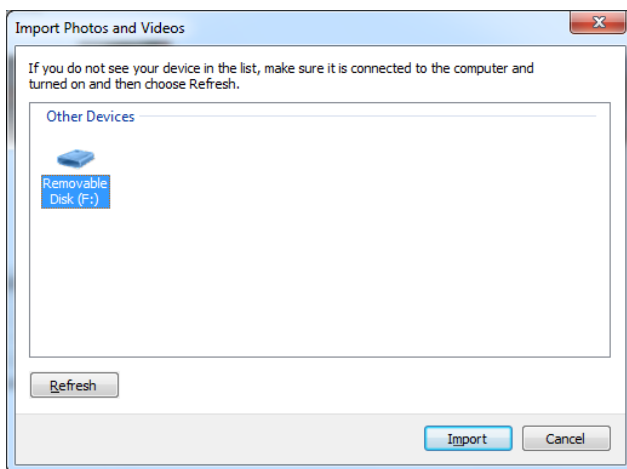


B. Import images captured on your digital camera

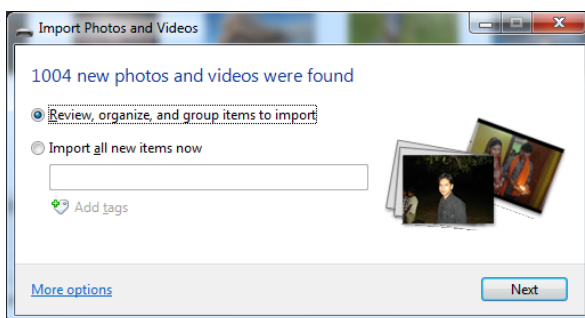
1. Before you start processing your digital images, you should import the images captured on your digital camera. Connect your digital camera with the computer using the data cable that came along with the camera. After you connect your camera, you will get the following screen that displays the list of activities that you can do with the images on the camera.



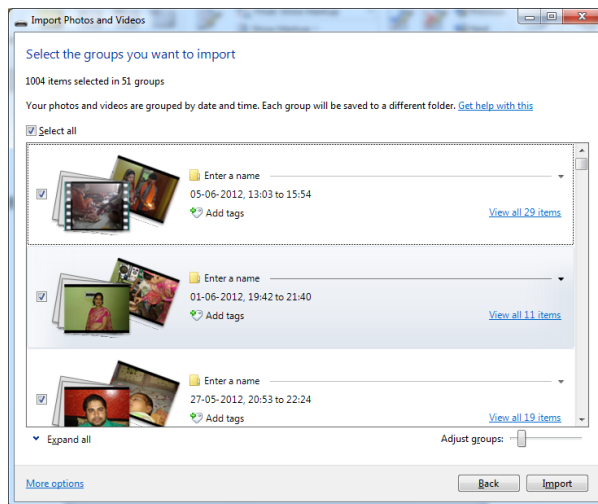
2. Click on 'Import pictures and videos using Windows Live Photo Gallery'. You will get the following screen which displays the connected devices.



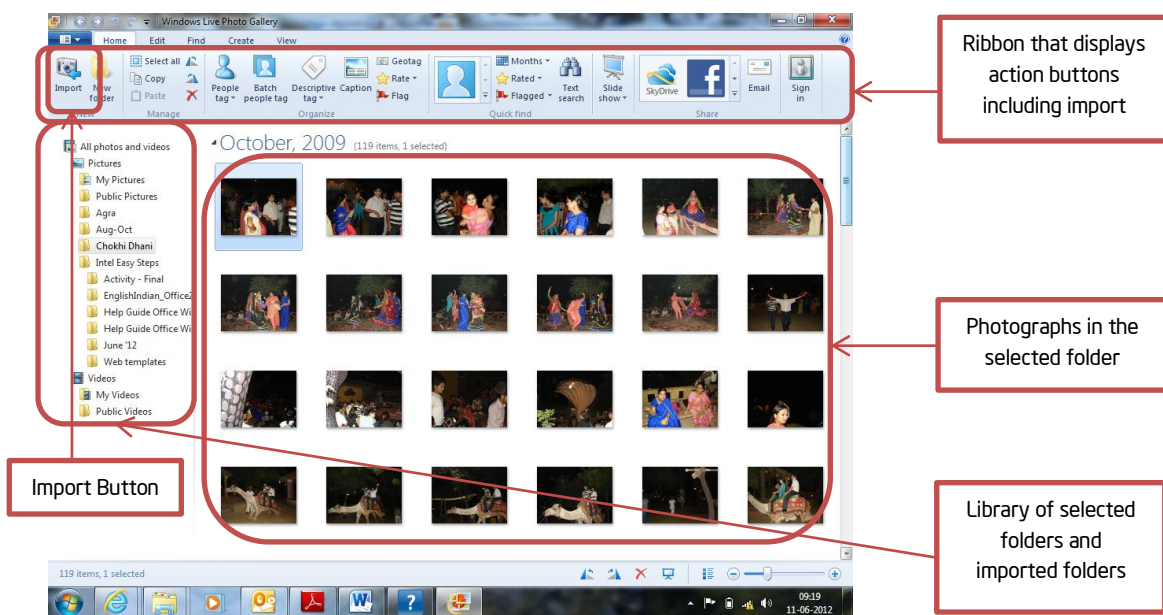
3. Select the device you want to import from (in this case 'Removable Disk (F:)' and click on 'Import' button. You will get the screen as shown below where you can see the photos and videos that you have not imported as yet.



4. Click on the 'Next' button. If you have selected 'Import all new items now', all photos will get imported. If you have selected 'Review, organize, and group items to import', you will get the photos grouped and organized by dates on which they were captured. You can import photographs captured on specific date or several dates from the screen below.



5. Check the dates for which you want to import the photographs and then click on 'Import' button. The photographs are imported from the connected device and Windows Live Photo Gallery opens up for you to start processing the images.
6. Alternatively, you can also import images by clicking on the import button which on the extreme left of the ribbon with action button as shown in the screen below.
7. The Windows Live Photo Gallery screen looks as below.



Ribbon that displays action buttons including import

Photographs in the selected folder

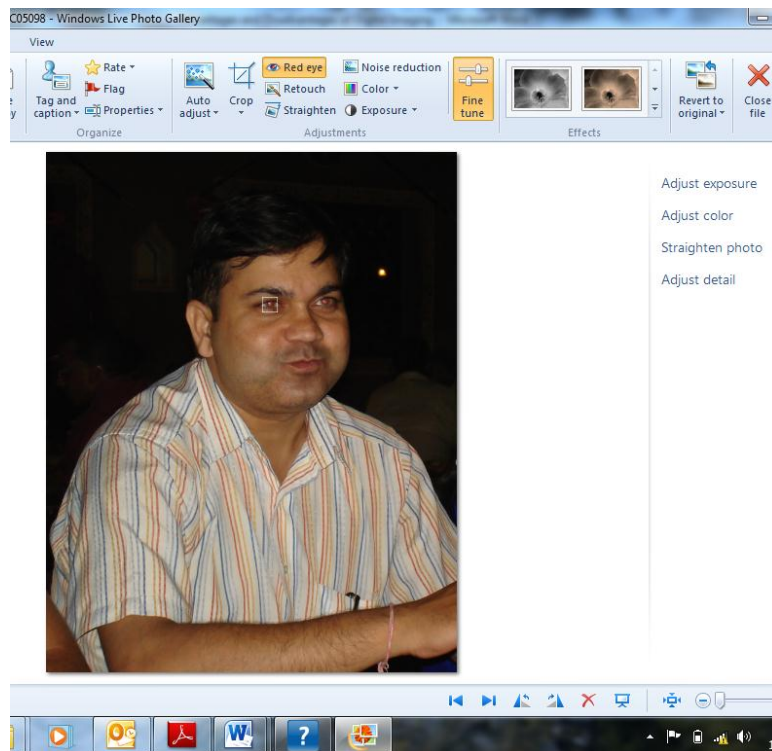
Import Button

Library of selected folders and imported folders

C. Red Eye Correction

One common defect that happens while taking digital photographs is the red eye. The eyes of the object become red in colour which can be corrected using post processing software.

1. Open the post processing software. Select the folder in the library section and then select photograph which has a red eye defect.
2. The post processing software displays the image with red eye defect with the editing action buttons in the ribbon.



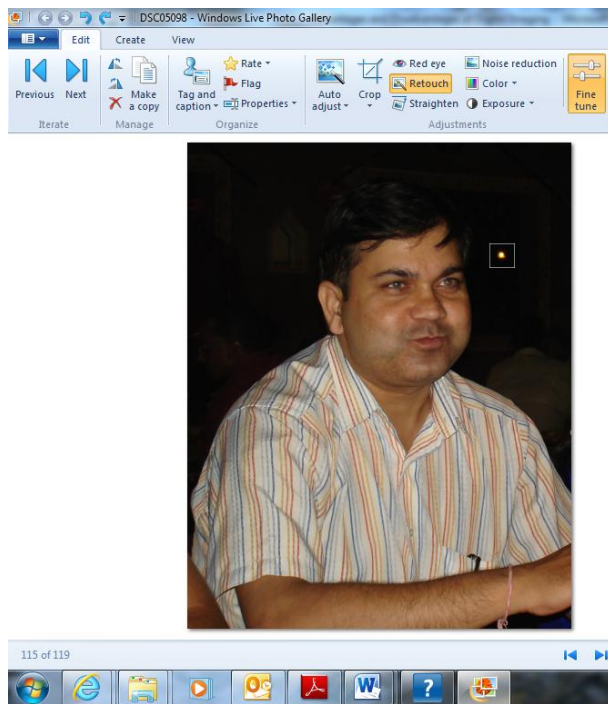
3. Click on the 'Red eye' button on the ribbon and select the red eye in a rectangular area by dragging the mouse over the eye. The red eye gets corrected. Repeat the step for the second eye also. You will get an image with the red eyes corrected.



D. Retouching

Another common activity done with digital images is retouching. This removes minor imperfections, marks and blemishes from a photo.

1. The photograph whose red eye has been corrected has a tiny light glowing on the right side of the face. Retouch will help us in removing the tiny light.
2. With the image still open in the post processing software, click on 'Retouch' button in the ribbon and select the imperfection (the tiny light in this case) in a rectangular area by dragging the mouse over it. The imperfection is removed as is evident from the screen below.



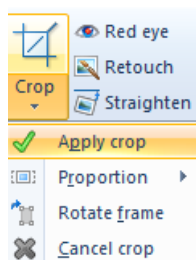
E. Crop images to select only part of an image

Suppose you want to remove certain parts of the image, you can crop to do the same.

1. With the image open in the post processing software, click on 'Crop' button in the ribbon. The image appears as shown in the screen below.



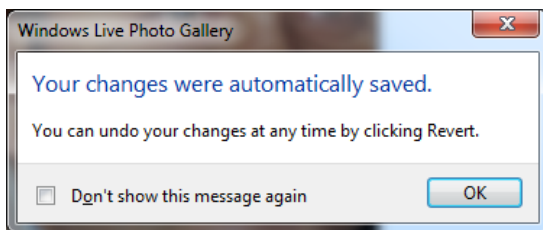
2. You will see tiny white points appearing in a grid on the image. These tiny white points are called resize handles. When you bring your mouse over these resize handles, the mouse pointer turns to a double headed arrow. You can now resize the image by dragging the mouse.
3. After you have completed selecting the part of the image that you want, click on the arrow below 'Crop' on the ribbon and select 'Apply Crop'.



4. You will see the cropped image in the window as shown below.



5. If you want to process another image, you can select another image from the library by clicking on 'Close file' on the extreme right of the ribbon. Clicking on the 'Close file' button displays the following screen to inform you that your changes are automatically saved and you can revert back to the original image anytime by clicking on the 'Revert to original' button on the ribbon.



F. Straighten images

Sometimes the images will have objects in an angle if the camera was not held straight while taking the photograph. You can correct the angle and make the object look straight using the post processing software.

1. With the image open in the post processing software, click on 'Crop' button in the ribbon. The image appears as shown in the screen below.

Straighten button

Image selected has Taj Mahal at an angle in the background which can be corrected by straightening.

2. Click on the 'Straighten' button on the ribbon. The image gets corrected as shown in the image below.



G. Revert to original image

You can revert back to the original image anytime by clicking on the 'Revert to original' button on the ribbon.

H. Review your work

1. Connect your device with digital images to the computer.
2. Import images from the device on which you have captured them.
3. Select an image with red eye from the library which you want to process.
4. Remove the red eye on the image.
5. Remove some of the imperfections using the Retouch button on the ribbon.
6. Crop the image such that it has only the face of the object.
7. Close the image and select another image from the library that has a tilted image.
8. Straighten the image.
9. Revert one of the images back to its original look.