

Lesson 05

1. Introduction Of Adobe Photoshop
2. The Basic Digital Imaging Knowledge
3. Typography Knowledge
4. Page Layout Knowledge

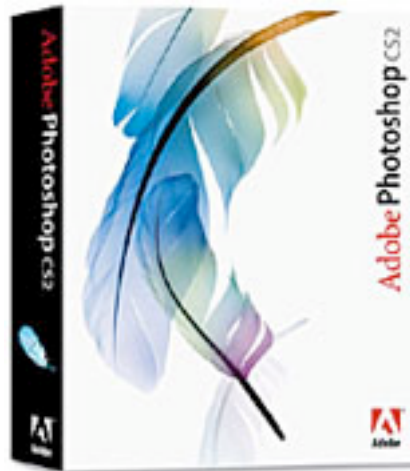
Introduction Of Adobe Photoshop

Adobe Photoshop is a software that has been widely used for image manipulation and retouching purposes. Nowadays, nearly all images are being retouched by it. Moreover, its number of user increases gradually.



Introduction Of Adobe Photoshop

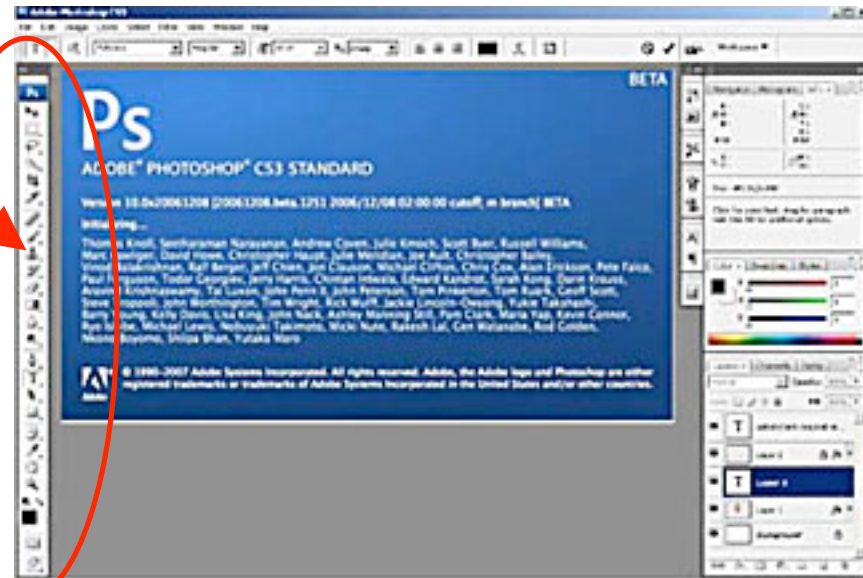
Adobe Photoshop is a software that that was originally created for the graphic art industry (printing). It was the cheapest imaging software that allows user turning RGB image into CMYK for publishing. Comparing with others, it was the cheapest, as it only cost less than \$500.00(USD) for each of the copy. This is why it attracted all of the graphic arts user.



Introduction Of Adobe Photoshop

As time goes by, it added photographic elements and features. For example, masking, change of color, and layering. These features fits and helps out the photographer for digital art creation, which broadened and expanded its user from the printers to the designers and photographers.

Retouching Tools



Introduction Of Adobe Photoshop

Although Photoshop is a digital imaging software, it only manipulates the captured data. It is not a software suitable for making up digital imaging data such as Adobe Illustrator. In other words, it needs a third party device such as digital camera or scanner for the image capturing.



The Basic Digital Imaging Knowledge

Photoshop Application Concerns (from the production perspective)

Image Resolution

Color Spaces: Grayscale, RGB, and CMYK

Anti-Aliasing

Flattening

Sharpening

File Formats

The Basic Digital Imaging Knowledge

Image Resolution

Adobe Photoshop is a raster based graphic art software. It measures and manages the digital image in the pixel format. Pixel is the minimum digital image information measurement. Photoshop remembers each of the individual pixel's color, location, placement, and size. By arranging and placing a lot of pixel at a certain area, a digital image is formed.

Resolution Equation

Image Resolution = Given PI X Enlargement Factor X Image Size

Vector image is resolution independent!!!

The Basic Digital Imaging Knowledge

Color Spaces: Grayscale, RGB, and CMYK

Color Spaces have to be defined for different digital imaging purposes.

Grayscale – Black and White image for all publication purposes.

RGB – Color image for the Internet or CD publications.

CMYK – Color image for paper based publication.

The Basic Digital Imaging Knowledge

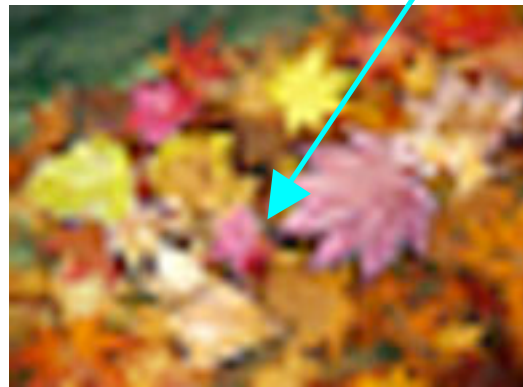
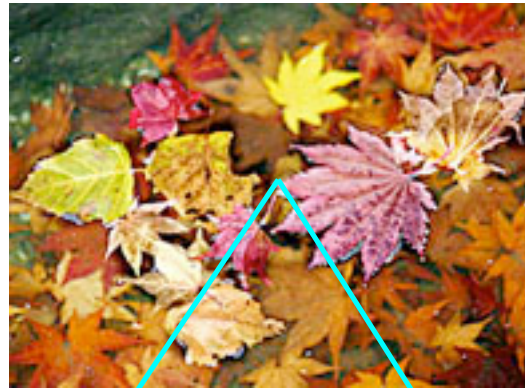
Anti-Aliasing

Pixel based raster image resolution varies on the capturing quality. Its resolution has to be captured to the correct output purpose in the beginning. Raster image size can be reduced, but not to be enlarged. If enlargement is desired after image capturing, then anti-aliasing is an important concerning factor in the equation.

If Anti-Aliasing is on – computerized calculation pixel will be formed.
If Anti-Aliasing is off – jaggy edge will be formed.

The Basic Digital Imaging Knowledge

Anti-Aliasing



Anti-Aliasing On



Anti-Aliasing OFF

The Basic Digital Imaging Knowledge

Sharpening

There are many features to sharpen a raster image, but only Un-sharp Mask works. There is a slang for remembering the Un-sharp Mask feature, “To sharpen an image, you have to un-sharp it.” Un-sharp Mask was a technique created by the MIT in the early 80’s.

The three Un-sharp Mask controlling components

Amount – It means how much % of the image to be sharpened.

Radius – It means how many pixel to be involved in sharpening.

Threshold – It means where should sharpening occur within the pixel.

The Basic Digital Imaging Knowledge

Sharpening – The Un-sharp Mask



Un-sharp Mask OFF



Un-sharp Mask On

The Basic Digital Imaging Knowledge

File Formats

File format is the last, but the most important concern in the electronic publishing system. RIP machines reject all of the wrong file formats. Both of the vector and the raster images have to be sent in the open source file format, in order to be processed.

Vector Image			Raster Image	
Publications	Formats	°@	Publications	Formats
Internet / CD	GIF/PNG	°@	Internet / CD	JPG
Printing	EPS	°@	Printing	TIFF

Typography Knowledge

Typography is the most basic form of written communication. Ideas, concepts, knowledge, meanings, and etc will be understood and scripted as symbols such as letters or Chinese characters for mass publication.

In the old days, communication was being written on a piece of substrate such as papyrus or paper by hand. In 1452, Gutenberg invented the first removable type printing machine. Since then, typography has been commonly used for publication. In the recent time, it has been converted from the conventional to digital typesetting.

Typography Knowledge

There are two kinds of type settings.

1. Conventional Type Setting
2. Digital Type Setting

Conventional Type Setting

It means setting the type (written message) with metal fonts. Placing them right to each other, to form a meaningful passage.

Digital Type Setting

It means setting the type (written message) with computer software such as MS Word, Layout Software. Type the passing out on keyboard, and saving it as a printable digital file for outputting.

Typography Knowledge

Before discussing the conventional and the digital type setting, its measurement, history, and shape have to be understood first.

Typography Measurement

Typography – It means the knowledge and art of the displaying word.

Typeface – It means the appearance of the written word.

Size – It means how big or small the word should be.

Font – It is a combination of a certain typeface + a certain size.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Typography Knowledge

Typography History

Typography have been evolved into different shapes and formats for fitting different purposes through out the human history.

The Six Typography Types

1. Roman
2. Black Letter
3. Uncial
4. Serif
5. San Serif
6. Script

Typography Knowledge

The Six Typography Types

Roman: ABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890

Black Letter: **A B C D E F G H I J K L M N O**

Uncial: **a b c d e f g h i a b c d e f g h i**

Serif: ABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890

San Serif: ABCDEFGHIJKLMNOPQRSTUVWXYZ12345467890

Script: ABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890

Typography Knowledge

Typography Shapes

Normal: ABCDEFGHIJKlmonpqrstuvwxyz123456789

Bold: **ABCDEFGHIJKlmonpqrstuvwxyz123456789**

Italic: *1234567890(.,!/?&\$£€)*

Skewed: *ABCDEFGHIJKlmonpqrstuvwxyz123456789*

Underline: ABCDEFGHIJKlmonpqrstuvwxyz123456789

Outline: Dd Ee Ēē Ff

Typography Knowledge

1. Conventional Typesetting

Metal fonts are being applied in this type setting method. Tons of metal font are being placed right next to each other, in order to form a passage. After the types are set, then they will be locked up onto a piece wood plate for printing.



Typography Knowledge

2. Digital Typesetting

Nowadays, desktop publishing has replaced the conventional publishing technology with computers. Software such as MSWord, and all of the layout software are being used for type setting purpose.

Typography has been digitally changed. Moreover, some of its traditional terminology has also been shifted.

For Example: Font has replaced the meaning of typeface.

Typography Knowledge

2. Digital Typesetting

Basically, there are two kinds of digital font that can be used for desktop publishing or personal usage.


1. Adobe Font
2. TrueType Font

Both of them works fine in the modern publishing technology, but Adobe font is still being recommended for being more stable.

Typography Knowledge


2. Digital Typesetting – Adobe Font

Adobe Font was invented for the postscript printer printing purpose in 1985. It was the first digital font that allows users to output written passage in stylish typeface, instead of the boring type-writer style. It is resolution independent. Its size can be enlarged or reduce freely.

 NimbusRomNo9L-Regu (Embedded)

Type: Type 1

Encoding: Ansi

 NimbusSanL-Regu (Embedded)


Type: Type 1

Encoding: Ansi

Typography Knowledge


2. Digital Typesetting – TrueType Font

TrueType font was invented by Apple Computer in the late 80's. It was invented to compete with the Adobe Font for not allowing it to be the monopoly of the publishing game. Unfortunately, it was painful to be used, as it is not as stable as the Adobe Font. It is also resolution independent, and its size can be reduced or enlarged freely.

 Arial (Embedded Subset)

Type: TrueType

Encoding: Ansi

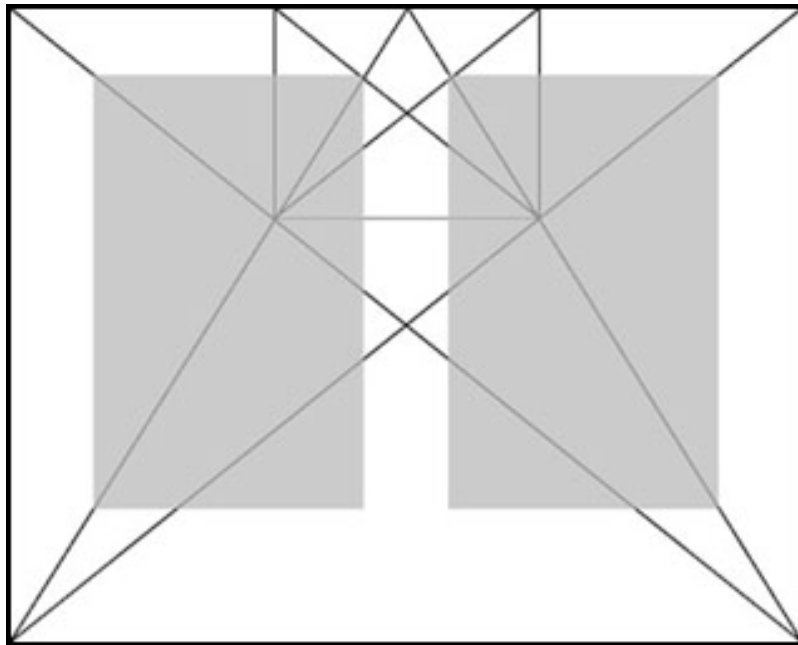
 ClassGarmndBT (Embedded Subset)

Type: TrueType

Encoding: Ansi

Page Layout Knowledge

Laying out is a very old form of art in the publishing world. In the ancient time, the Roman Catholic Church used to hand copy scripts. They have invented a page layout system for all of their written books.



Page Layout Knowledge

Nowadays, computer publishing software such as the QuarkXpress and the InDesign have been applied for page layout purpose. These software acts as an middleman between the typography, the line-arts, and the photograph. They are markup language (SGML or XML), which remembers the placement, and the specification of these material information. It links all material together to form a piece of layout.



Page Layout Knowledge

Page Layout Software Example

