All about images

The important factors that make up each our images, and how they can be leveraged to to improve the quality of the output.

- Colour modes
- Bit depth
- Resolution
- File types

Colour modes

Bit depth

Resolution

File types

Camera RAW

https://fileinfo.com/

Camera raw files are image files created by digital cameras. They are saved in an uncompressed and unprocessed format that stores the exact data captured by the camera's sensor. Because each type of digital camera has a different sensor, many different types of camera raw formats exist. In order to open a camera raw file, the program must support both the file type and the specific camera model that captured the image.

Common camera raw file extensions include .DNG, .CR2, .NEF, and .ARW.

https://fileinfo.com/filetypes/camera_raw

DNG – Digital Negative

Universal RAW image format for saving digital photos in an uncompressed format; developed by Adobe Systems as a RAW image archival format and is supported by many image viewing and photo editing programs.

https://fileinfo.com/extension/dng

TIFF

A TIFF file is a graphics container that stores raster images. It may contain high-quality graphics that support color depths from 1 to 24-bit and supports both lossy and lossless compression. TIFF files also support multiple layers and pages.

More Information

TIFF files were designed to be a standard image format for saving high-quality color images on multiple computer platforms. They are also commonly seen with the .TIF extension.

> **NOTE:** The TIFF format was originally developed by Aldus, who merged with Adobe Systems in 1994.

JPEG

A JPEG file is an image saved in a compressed graphic format standardized by the Joint Photographic Experts Group (JPEG). It supports up to 24-bit color and is compressed using lossy compression, which may noticeably reduce the image quality if high amounts of compression are used. JPEG files are commonly used for storing digital photos and web graphics.

More Information

A JPEG file also contains metadata that describes the contents of its file, such as the color space, color profile, and image dimension information. Image files saved in the JPEG format are more commonly appended with the .JPG extension than the JPEG extension.

If you come across a JPEG file on your computer you can open it with any program that supports images. There are a large amount of free and commercial image editors available for desktop and mobile platforms. You can also view it in a web browser by dragging and dropping it in the browser window.

PNG

A PNG file is an image file stored in the Portable Network Graphic (PNG) format. It contains a bitmap of indexed colors and uses lossless compression, similar to a .GIF file but without copyright limitations. PNG files are commonly used to store graphics for web images.

More Information

The PNG format was created in response to limitations with the GIF format, primarily to increase color support and to provide an image format without a patent license. Additionally, while GIF images only support fully opaque or fully transparent pixels, PNG images may include an 8-bit transparency channel, which allows the image colors to fade from opaque to transparent.

PNG images cannot be animated like GIF images. However, the related .MNG format can be animated. PNG images do not provide CMYK color support because they are not intended for use with professional graphics. PNG images are now supported by most Web browsers.

> **NOTE:** Mac OS X 10.4 and later saves screenshots as PNG files. Ubuntu Linux also stores print screen screenshots in the PNG format.