

Film

Why use film in 2014?

If you have a film camera you really love using.
If you like spending time in a darkened room surrounded by toxic chemistry.
If you prefer the style of images captured on film.



Disadvantages

Limited ISO range (typically 100 – 400) single ISO for complete film.
Film is either colour or black and white you can not mix.
No image confirmation you have to wait until the film is processed to see if you have the image you wanted.
Lower technical quality from film compared to DSLR.
No colour (white light) correction when using colour film.
To obtain a digital image for web, or print you have to scan the film.
Unlike digital where cards are reused, a new film has to be purchased for each set of images.
All of which explains why film sales have dropped by over 99% since the turn of the century and why film capture is now only used in an estimated 0.05% of cases. (I last used film in 2001)

Processing film

Colour film (negative film) is a standard C-41 process carried out at 37degrees C.
Black and white film processing is more flexible and generally carried out at room temperature.

Black and white film processing

Black and white film is sensitive to all colours of light so must be handled in total darkness.
When a black and white film is exposed in the camera a 'latent image' is created on the film.
This image is very weak and needs to be amplified by developing it. This process is flexible and different amounts of development will give different results. The effective film speed (ISO) can be altered by developing for different times or by using different developers. The contrast range of the film can also be changed by adjusting the exposure and varying the development times.

Method

Typically the film is loaded into a developing tank in total darkness and the actual processing is carried out in daylight. It is a two bath process Develop and Fix.
Some photographers will chose to pre-bath the film, wetting it with water first prior to developing.
The film is then developed for the chosen time in the developer of your choice - there are still a number of different developers available – working in different ways for specific purposes.
This process chemically changes only the silver on the film that has reacted to light.
The development is then 'stopped' (with a stop bath) or washed with water to achieve the same effect.
At this stage the film is still light sensitive so the excess silver need to be removed by using a fix bath.
Unlike developing, fixing is a reasonably standard process, the type of fixer has no effect on the quality of the final image.

Throughout the processing sequence the chemicals are agitated to ensure that fresh chemistry reaches the film. The film is then washed to remove all trace of chemistry and then dried before it is ready for printing.