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Camera Work Flow

By

Badrul Hisham Mohd Nor
CAMERA WORK FLOW

A Docket is a work instruction from the Pre-Press Department. It contains information of all aspects of book work, i.e., information for typesetting, proofing, page making, impositioning, and camera work, printing, and binding. Sizes and quantities of books were also given. The Docket is the ‘director’ of the process.

The Lay Out Process

1. Preparation of Dummy. (a sample, a group of machine folded paper, a book supposed to be)

   a) Follow the directive of the "Docket"

   b) Title

   c) Book size - to determine the paper size and binding

   d) Binding - to enable the signature are arranged in sequence
e) Proof and CRC - for format, prelims, text and indexes/ending

f) Numbering the pages consecutively.
   Odd numbers always on the right. (Recto)
   Even numbers always on the left. (Verso)

Preparation of Lay Out Base.

The Lay Out base is a plan/mould for impositioning, so that when printed, the pages will be attractive, neat and easy to be read.

For preparation

a) Dummy
b) Docket
c) Book size
d) Type of binding
e) Text (height and width)

One factor both the printer and the binder must consider when figuring the imposition is an extra paper allowance of 1/8" to 1/4" on all outside margins. This will be trimmed or cut off when the sheets are squared up.

3. Impositioning

Impositioning is the arrangement of pages on a printed sheet in such a way that they will be in correct order when the sheet is folded and trimmed. A full sheet will normally print in units of 4, 8, 16, 12 and 32 pages. When folded, these units are called "signatures".
For impositioning we need:

a) Lay out base
b) Dummy
c) CRC (Camera Ready Copy)
d) Proof
e) Apparatus - i) scissor
   ii) divider
   iii) printers type gauge/pica rule
   iv) NT cutter
   v) pens - red, blue and black
   vi) pencil
   vii) adhesive tape
   viii) technical pen

The process:

Negative work.

The CRCs are taped on a sheet of paper. The pages are in accordance to the page numbers of the dummy. A sheet of blank paper must be overlapped on the lay out base before taping the CRCs. This is important because the lay out base is the guide/mould to positioned the text area. Impositionings are done on a montage table.

Positive work

Positive films are arranged on mounting foil overlapped on the Lay out base. The pages are in accordance to the page
numbers of the dummy. For four colour jobs impositioning are done layer by layer (B+C+M+Y). Montage table is also required for this process.

Impositioning is not determined by the designer, but by the binder and the printer: the binder because only he knows how the pages should be positioned to be handled most efficiently on his equipment: the printer because he has to take the imposition supplied to make it work.

FILING

Photo Reproduction - to reproduce/record image as exact as possible with chemical photography from a model.

Base of photo reproduction

1. Light
2. Lens
3. Camera
4. Film
5. Developer

Important parts of a camera

1. Copy board
2. Lens
3. Bellows
4. Focusing glass
5. Film board
6. Aperture - f no.
Filming
1. Placed the CRCs/lay out on the copy board.
2. Set the correct size.
3. Set the correct aperture. f 22
4. Check sharpness of image through focusing glass.
5. Expose film.

Development
The exposed film must undergo chemical treatment to get negative films either by processor or manually.
The process
a) Development - to visualise the latern image/hidden image during exposure on the film.
b) Stop bath - to stop developer’s chemical reaction on the exposed area when requirement of development are not needed anymore.
c) Water - to wash all chemical remains.
d) Drying.

Correction
Corrections were made by stripping and retouching. Retouching - applying opaque by brush to touch up pin holes and unwanted images that appears on the negative films.

Problems
Under exposure - low density background.
This problem is caused either by insufficient light passing through the lens or insufficient time of exposure.
The image formed on the film are thick and seems to joined together.

To solve this problem just increase the time exposure or change the aperture to let more light passing through the lens.

Over exposure.

This problem is caused by too much light passing through the lens or too much time exposure being used.

The images formed on the negatives have jagged edges, broken and lost of fine images.

To solve the problem just decrease the main exposure or change the aperture.

To get good negative films

1. Good original neg.
2. Correct main exposure - time
3. Enough light - aperture
4. Good agitation - hand development
5. Fresh developed
6. Exact temperature
7. Development time

Quality Control

Check list

a) Exposure time
b) Sharpness of image
c) Density of film
d) Pin holes - more or less

The finished are called "flat"

Plate making

All printing plates have one thing in common: the area to be printed must stand apart from the non-printing area. There are 3 basic ways to separate the printing area from the non-printing area. (1) raise the printing area. (2) lower the printing area or (3) leave both areas on the same level and treat the plate chemically so that the printing area accept ink while the non-printing area reject it.

Note
1. Letterpress
2. Gravure
3. Offset printing/lithography

Offset Plates

Offset plates are made photographically. The plate which may be albumen, anodised aluminium, bimetal, presensitized or a specially processed paper. It is coated with a light sensitive chemical similar to that used on photographic paper.

Plate making - Work flow
1. Exposure
2. Development
3. Inking
4. Gumming
5. Drying
Exposure

Equipment and materials.
1. Plate maker
2. Flat (-/+)
3. Plate (-/+)
4. Registration pin
5. Hole Puncher
6. Step Guide
7. Yellow safe light

The process
The flat is brought into contact with the plate (vacuuming) and exposed to a high intensity light for a period of time.

Development

Equipment and apparatus:
1. Plates (-/+)
2. Developer (-/+)
3. Developing pad
4. Squeegee
5. Sponge
6. Protection ink (-/+)
7. Arabic gum
8. Corrector (-/+)
9. Water
10. Drying machine
The Process

1. The exposed plate is then either processed by hand or put through an automatic processor where it is developed. In the process of development the plate is chemically treated so that the image area (oleophylics) will reject the water solution and accept ink, and the non-image area (hydrophylics) will accept water and rejects ink.

2. The developed plate is then washed.

3. Corrections are then done on the plate - deletion of unwanted images.

4. The plate is then washed again.

5. Apply protection ink on the image area and wash.

6. Apply arabic gum on the surface of the plate.

Drying.

The plate is now press ready.