

Presentation for Map Printing

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Work flow for map printing

- ✦ Color separation
- ✦ Film making
- ✦ Film checking
- ✦ Plate making
- ✦ Printing
- ✦ Package checking

Objective

To print 1:50000 scale topographic maps for National rehabilitation and development.

Color separation

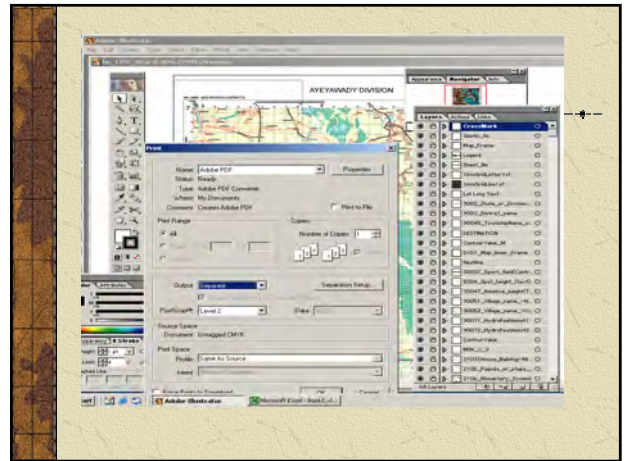
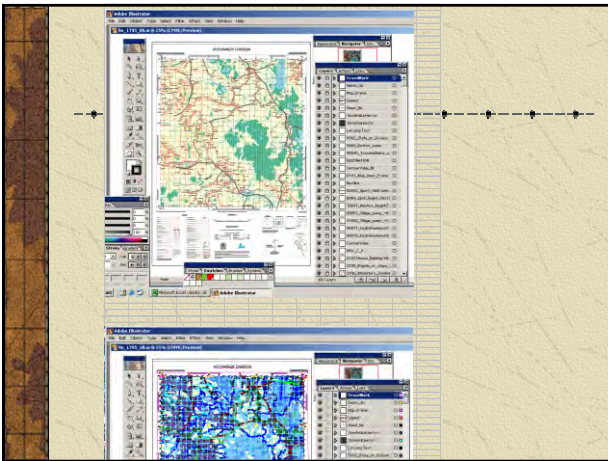
- ✦ Inspected drawing files will be divided by 6 colors.
- ✦ Six color separated drawing files will be prepared for each sheet.
- ✦ Using software Illustrator
- ✦ Separation method 6 spot color

Separated color percentage



Process for color separation

- ✦ Process for spot color separation was done by ILLUSTRATOR software automatically.



Film making

- ✦ Negative of printing film will be prepared from color-separated files by using Image Setter.

Machine

- ✦ Image setter(Select Set Avantara 44S)



Software



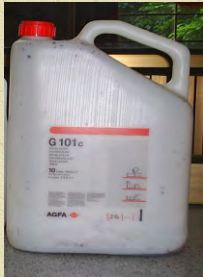
- ✦ Apogee PDF Rip (Raster Image processor)
- ✦ File type PDF files 600dpi

Film



- ✦ AGFA Roll Film (36" x 250 ft)

Developer



G 101 C solution

Fixer



G 333 C

Output Film



- ✦ Negative
- ✦ LPI 150
- ✦ Resolution 2400dpi

Time taking

- ✦ Average 7 minutes / each color

No.of color



- ✦ 6 spot colors
 - ◆ Black
 - ◆ Brown
 - ◆ Red
 - ◆ Green
 - ◆ Blue
 - ◆ Yellow

Image speed

- ✦ 742 sq inch /min

Film checking

- ❖ Compute the coordinates of four corners of the map with TNTmips software
- ❖ Compute the length of each Neat line by coordinates
- ❖ Measure the length of each Neat lines by beam compass
- ❖ Compare the computed dimension and measured dimension

PLATE MAKING

- ✘ Six plates composed of each map sheet will be prepared by plate making machine.

Plate making machine



- ✘ Printing down frame
- ✘ (Yositani-JAPAN)
- ✘ Exposure Light
- ✘ Ultra Violet (UV) Light

Exposure time



- ✘ 25 Seconds (twice)

Exposing method

- ✘ Partially exposed



Using Plate



- ✘ Pre-sensitized Plate
- ✘ (Already grained & coated)

Size of plate

✘ 895mm x 715mm



Developer

✘ Ready made Developer



Processing

- Exposing
Contact film & Plate emersion up to up and expose
- Developing
To develop image on the plate by using developer
- Washing
Wash out the face of plate to clean grease
- Gumming
To protect abrasive material gum with Gum arabic

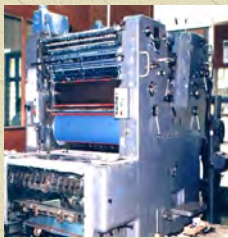
Printing

✘ Topographic maps will be printed using offset printing machine.

Printing machine

Specification

- ✘ Category Hydelberg (Sordz) Germany
- ✘ Printing Unit Two Unit
- ✘ Permissible size Maximum 32" x 23"
- ✘ Speed 8000 sheet/hr
- ✘ Essential electric power 440 Volt



Process

✘ First run
Black & Blue



Second run

✘ Red & Green



Third run

✘ Yellow & Brown



Used materials for printing

- ✘ Used Paper Wood free 80 GSM (Indonesia) Paper1
- ✘ Used printing ink Panorama

Final Product

- ✘ Printing films 48x6 films
- ✘ Printing plates 48x6 plates
- ✘ printed topographic maps 48 x 500 sheets

Thank you very much