IMAGE ACQUISITION & PREP

Basics of image preparation for print design and production

ACQUIRING IMAGES

3 BASIC KINDS OF "ART"

- Reflective
- Transparency
- **Digital**

KINDS OF "SCANNERS"

- Flatbed
- Slide/film
- Drum
- **Digital camera**

ISSUES REFLECTIVE ART

- *Dimensions of original - will it fit on scanner*
- *Quality of hardware and software*
- *Difficulty of operating hardware/software*

IMAGE MODE & FILE SIZE

3 BASIC IMAGE "MODES"	FILE SIZE 7" x 5" IMAGE 300 DPI	*ISSUES*
• Line Art	400k	*Pay attention to the file size in relationship to <u>mode</u> needed.*
• Grey Scale	3mb	
• Color		*File size increases with amount of color information.*
- RGB	9mb	
- CYMK	12mb	

RESOLUTION & FILE SIZE

7" x 5" IMAGE RGB MODE	FILE SIZE	*ISSUES*
72 dpi	***500 k***	*Pay attention to the file size in relationship to resolution needed.*
100 dpi	1 mb	
200 dpi	4 mb	
300 dpi	***9 mb***	*Higher dpi means larger file size.*
400 dpi	16 mb	
500 dpi	25 mb	
600 dpi	***36 mb***	

DIMENSIONS & FILE SIZE

RGB MODE 300 DPI	**FILE SIZE**	***ISSUES***
3.5" x 2.5"	2.25 mb	*Pay attention to the file size in relationship to dimensions needed.*
7" x 5"	9 mb	
14" x 10"	36 mb	*Larger dimensions means larger file size.*

FILE SIZE INFLUENCES

CONTRIBUTORS

- Mode
  - Line Art
  - Grey Scale
  - Color
    - RGB
    - CYMK
- Resolution (dpi)
- Dimensions

ISSUES

- *File Size Issues*
  - *storage/archive*
  - *upload time*
  - *open/save times*
  - *copy times*
  - *print times*

BASIC IMAGE FILE FORMATS

RASTER

- TIFF
- ~~EPS~~
- PSD
- PNG
- JPEG
- GIF

VECTOR

- PDF
- AI
- ~~EPS~~

ISSUES

- *Compatibility with use (print/web/etc.) and software applications*
- *Cross-platform*
- *Compression lossless vs lossy*
- *Distribution size for email or upload*

NEED TO KNOW — USE OF IMAGE

How is image being used, reproduced, or distributed?

PRINT

What is the "quality" of the product?

What kind of paper

- -newspaper — - newsprint
- -newsletter — - uncoated
- -magazine or book — - coated

Halftone line screen

- 65-85 newspaper
- 85-100 "newsletter"
- 100-150 magazine or book

NEED TO KNOW — LAYOUT OF IMAGE

Scale of the image - how large is the image in your layout ?
In InDesign check effective resolution in the Links Palette

SIMPLE EQUATION

2x line screen @ 100% final scale = desired rez
2x 133 lpi (screen) @ 100% final scale = 266dpi desired rez

LONG EQUATION

lpi x 2 = ____ x final width = ____ ÷ original width = desired rez
of image of image

RULE OF THUMB — use 300 dpi

GARBAGE IN — GARBAGE OUT

- Focus
- Color balance/saturation
- Exposure
  - too light - washed out
  - too dark
  - too much contrast - highlight blown out
- Scratches/dust/other defects?
- Interfering elements - power lines, etc.
- How is it cropped?

Can fix most of these in Photoshop

LINKED OR EMBEDDED?

LINKED IMAGES

- Manage a low rez placeholder or "FPO"then replace with high rez originals during file output
  - low rez is used for placement, scale, cropping
  - the high rez version is used for color correction and retouching
  - keeps document (InDesign) file size smaller
  - need to provide all images during output
  - update links if original is altered

LINKED OR EMBEDDED?

EMBEDDED IMAGES

- Place then embed images
  - use for placement, scale, cropping
  - replace images (update links) if color correction and retouching are done to original
  - document (InDesign) file size increases
  - don't need to provide images during output

PERFORM PRELIMINARY IMAGE MANIPULATIONS IN IMAGE EDITING PROGRAM (other than minor alterations)

- Scale
- Cropping
- Rotation

- Color & Contrast

- Resolution — down rez if needed
  of course you can't effectively "up rez"