

Scanning Film with a Flatbed Scanner

Zolt Levay BPC CoC September 3, 2020

- Flatbed scanner with transparency function
- Scanning software: from hardware vendor or 3rd party (SilverFast is one example)
- Example: Epson V700 Photo (6400ppi native resolution)
 - Positive film (transparency) — color/B&W
 - Negative film — color/B&W (SW inverts, removes color mask)
 - Film holders: 35mm, medium format (120/6cm), large format (4x5, 8x10)



Epson V700 Photo scanner: letter-size flatbed scanner with full-size transparency unit



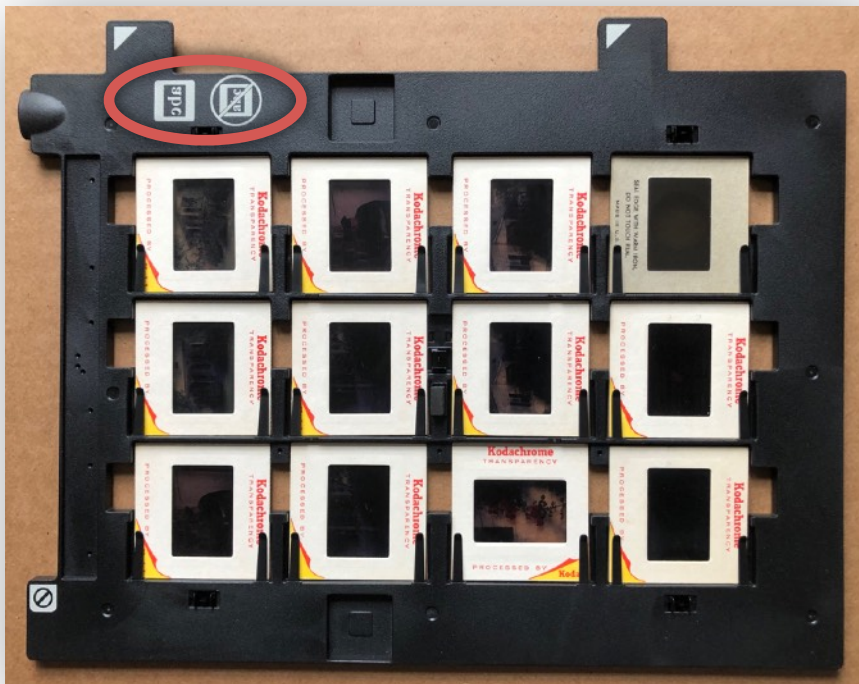
Transparency unit includes a separate light source above film with sensor below.

Film holders (film area guides)

- Hold film physically secure, flat, and registered to scanner area
- Allow scanning software to register and locate frames (potentially)

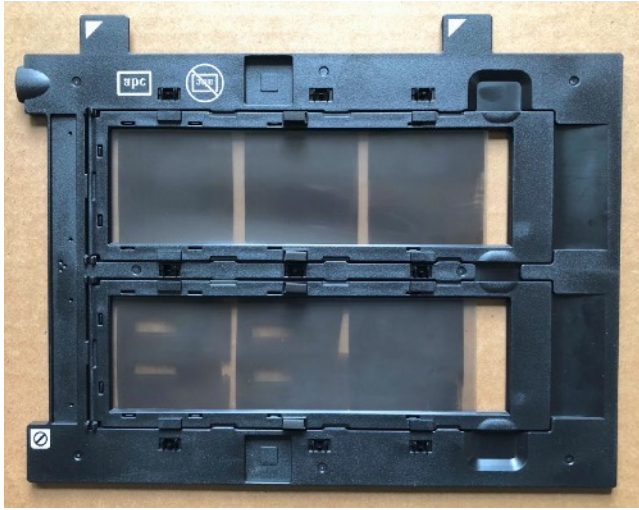


35mm film strip film holder, note guides for positioning film, emulsion side up.

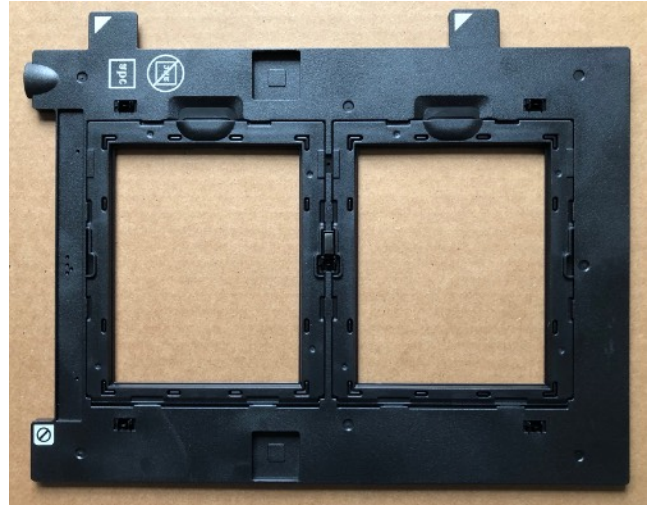


35mm slides in 2x2-inch mounts

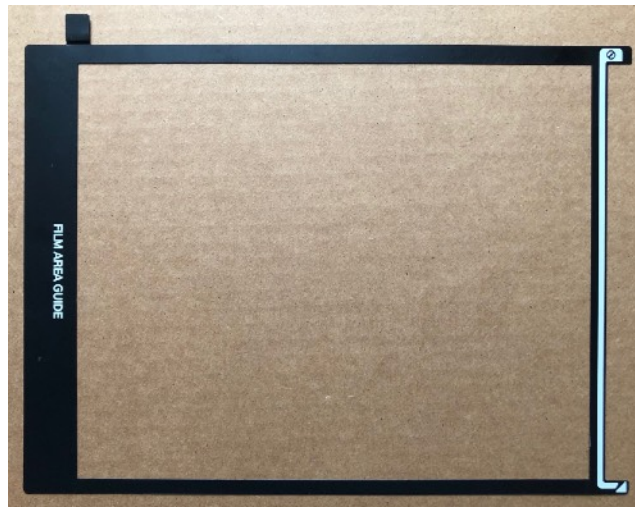
Additional film guides



120 (6cm) film strips



4x5-inch sheets

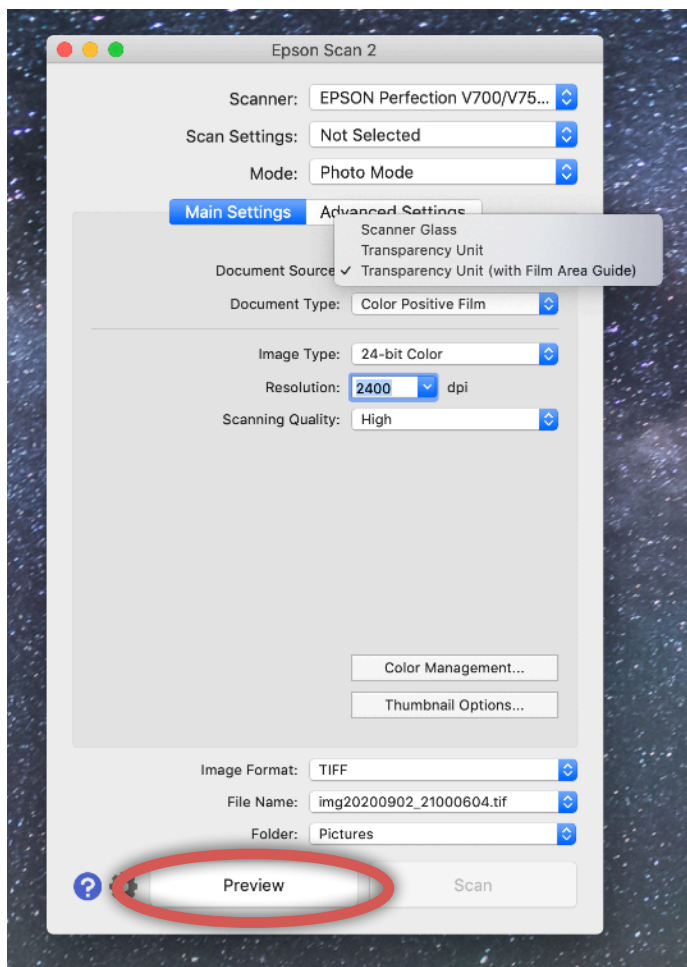


8x10-inch sheet

Software

- Select primary scanning options
 - Mode
 - Color/b&w
 - Resolution
- Pre-scan to view photos
- Select frames to scan
- Pre-process
- Scan: save to file
- Post-process (as a raw file)

Example: Epson Scan 2 with V700 scanner



Main Epson Scan 2 dialog

Important options

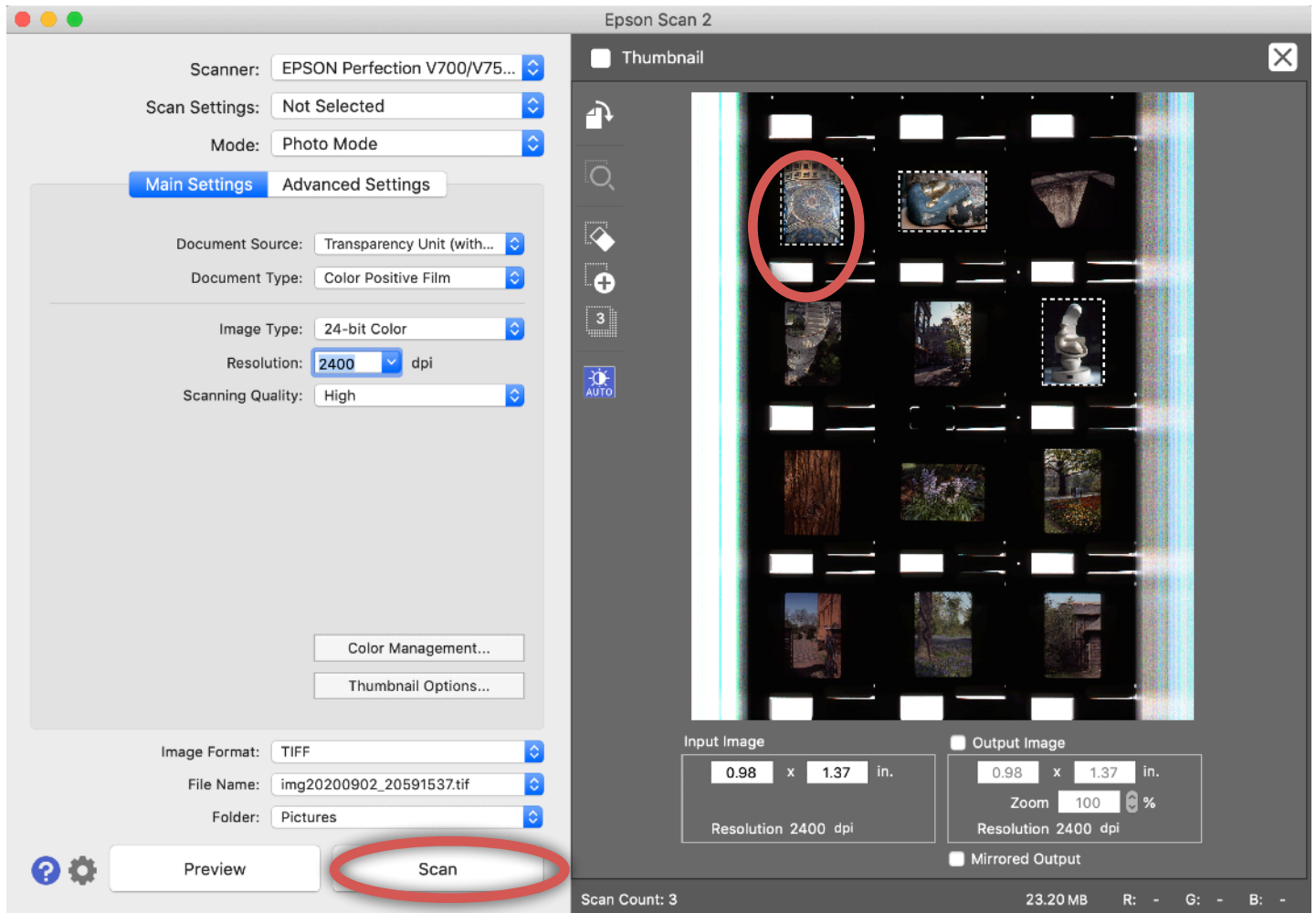
- Document source: Transparency Unit with Film Area Guide
- Document Type: film type: color neg., color pos., B&W neg.
- Image Type: output file bit depth, color or b&w
- Resolution: scanning resolution on film frame, can opt to specify output image resolution

Numerous other options under Advanced Settings to process while scanning: sharpening, color correction, descreening, dust removal. Or can apply in post-processing.

Some scanners include hardware-level "Digital ICE" technology to remove scratches and other blemishes during scanning.

Press "Preview" to pre-scan and view frames

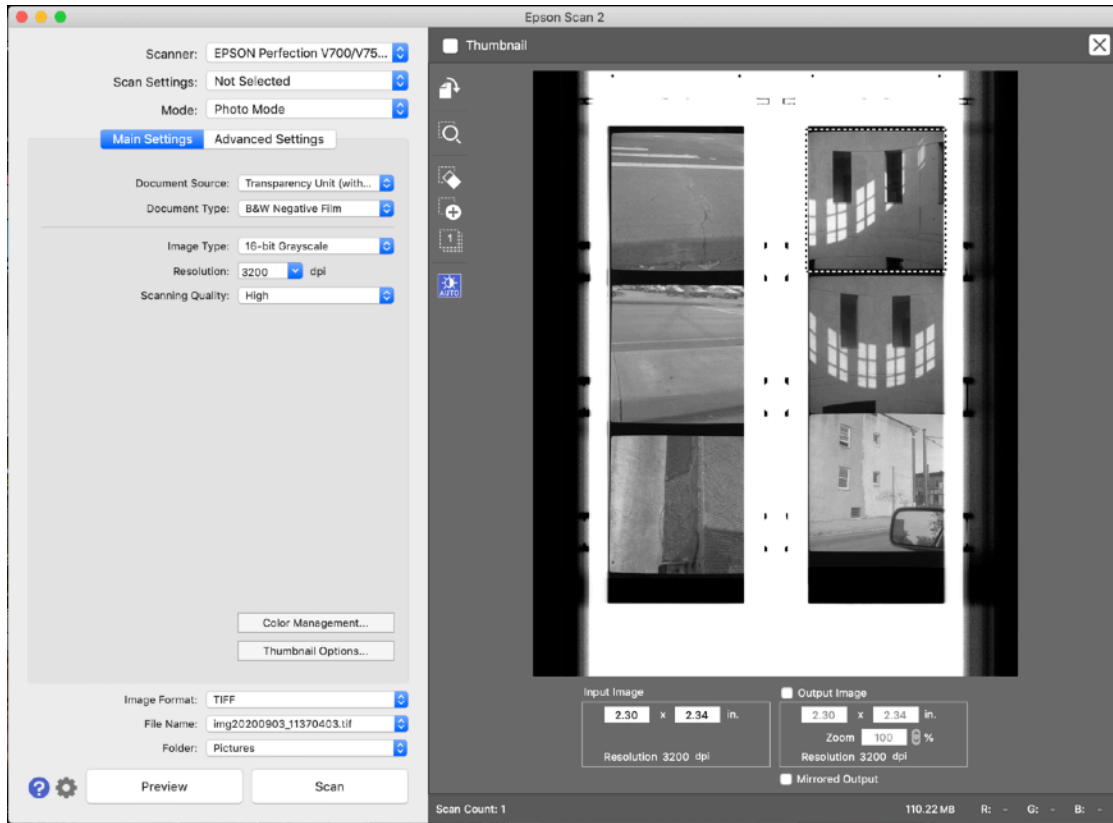
Scanning



Result of Preview: panel of pre-scanned images to process and select for scanning

- Select one or more frames to scan with marquee(s)
- Pre-process (Advanced Settings)
- Note “Color Management” options to apply scanner color profile to output images
- Press “Scan” to perform scan and save to output file(s)
- Process in photo editing software (Lightroom, Photoshop, etc.) as with a raw file

Black & White negative film (6x6cm 120)



Additional processing options

