

Transferring Slides to Digital

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Assess Your Collection

The size of your collection, slide formats used, and other factors will help you determine which method to use to convert the images to print or digital formats.

Define Your Goals and Guidelines

- What do you want your result to be? For example:
 - Downsize collection to eliminate unwanted slides (goal of a smaller collection)
 - Downsize to save space by disposing of trays (could include transferring all slides to digital so collection is not smaller)
 - Keep slides relevant to family history that illustrate your family stories. Focus on photos of:
 - People
 - Places lived in
 - Significant places or events
 - Other???
- Define your criteria for what NOT to transfer, such as
 - No photos of scenery without people, parties including mostly unrelated people, events that did not include family, etc.
 - No bad quality photos: out of focus, over exposed, etc.
 - No duplicate content where a better picture is available
- Exceptions: Allow for some exceptions to your rules. Ex. If the only photo you have of a person is out of focus, its OK to bend the rule about poor photo quality.
- Write your criteria down and keep the list handy when selecting slides to help you remember your goals.

4 Options for Transferring Slides

- Search internet for combination of 'Slide' or 'Film' with 'Scanner', 'Scanning', 'Converter', 'Conversion' or 'Transfer' or Transferring
 - Look for "Best of..." or "top 5", "Top 10" reviews
 - Look for companies or products that have been review over several years and always rate well
 - Read review looking for specific reasons for positive/negative comments

1. Slide Transfer Services

- Slide Transfer Services - Considerations
 - Compare Costs - Examples

Ex Costco \$0.32 per slide after 1st 62 @\$19.99 <https://www.costcodvd.com/services-and-pricing/slide-transfer>

Dpsdave.com: Economy \$.15 per slide, \$35 minimum; Premium \$.19 to \$.41
<https://dpsdave.com/slide-to-digital-prices/>

- Compare Available Options
 - Flat fee offers
 - Limits - Quantity or price
 - Other Media Services: 8mm movies, video cassette transfer, etc.
- Test their service – Send small number of slides
 - Quality – does the test meet your personal standards
 - How close to the original color, exposure, color saturation
 - If edited, are images improved compared to original?

2. Home Digital Conversion Equipment

- **Scanner Concepts**
 - Connects to computer with cable
 - Carriers for slides and/or film negatives

- Comes with software
- Light source may be LED
- **Process steps**
 - Load carrier & insert it into scanner
 - Set parameters for the scan
 - Either press button to scan or use software
 - Manually slide carrier to line up next slide
- **DIY Scanner Considerations**
 - Scanning and rendering time – 30 to 50 seconds
 - Limits of editing – software can be clunky
 - Image quality due to light source (may be LED). Possible problems:
 - Saturation – intense color with loss of clarity
 - Color shift due to color of light source
 - Rectangular carrier opening does not accommodate square images; part of slides cut off
 - Higher priced equipment may have better quality images and more features in software

3. Projection on Screen

- **Screen placement**
 - Distance from projector – shorter distance with small image on screen should make better
 - Reflective quality of screen (beaded surface, silver lenticular, flat painted wall, etc) may affect how camera picks up the image
- **Lenses of projector and camera: on same level and as close together as possible**
- **Center of projection source in center of screen**
 - Keystone effect – image distortion that may be corrected in editing
- **Projection on Screen - Considerations**
 - Ambient room light – should not fall on screen
 - Dark Halo caused by projector lamp – hot in middle with dark edges
 - Screen location relative to the projector
 - Screen distance from projector – smallest image possible
 - Center image so it does not have keystone shape
 - May need to refocus some slides
 - Camera – lens parallel to projector lens at same height; close as possible
 - Camera wobble when shooting – use shutter cable, remote, voice

4. Cell Phone and Slide Viewer Light Box

- YouTube Example 1: <https://www.youtube.com/watch?v=NaLg4AU7CNI> House of Hacks
 - Box with diffused light to come through back of slide
 - Slide mount to hold slide steady and in correct position relative to the camera
 - Use camera or phone on a tripod
 - Exposure, zoom, white balance and aspect ratio included in discussion

*Other related videos on his House of Hacks YouTube
- YouTube Example 2: Jeffrey Howard <https://www.youtube.com/watch?v=x2iC76S10Jo>
 - iPad (or tablet) used for light source
 - ISSUE: Pixels form a grid pattern when slide/film placed directly on surface
 - Box to raise phone so pixels do not show
 - 2 panes of glass to hold film negative (from picture frames) to put on top of box
 - (Can use cardboard frame to block excess light. He did not show this.)
 - Spacer (2 tuna cans) to keep phone lens parallel to film and for proper focus
 - Film negatives need a program to reverse the image from negative to positive
- Phone Camera Variation
 - PVC pipe with slots for slide and phone:
 - <https://www.instructables.com/35mm-Slide-Converter-with-Cellphone/>

- Macro Lenses for Phone Cameras – Digital zoom works, but macro lens may create better result

Slide Viewer Transfer Setup (Met my standards for quality, speed and cost)

- Translucent surface to diffuse light:
 - Slide sorter, Chinese food container, Lunchable tray, sheet of plexiglass, etc.
 - Search for 'slide viewer light box' or 'Light pad' or 'backlight'
- Bulb Considerations for Light Source: Color Temperature
 - Light bulbs and natural light have different colors temperatures
 - Range: Red >orange red >yellow >yellow white >White >white blue > blue
 - Color temperature is measured in Kelvin (1700K to 9500K)
 - Higher number = colder or whiter or bluish
 - LCD or CRT screen – 9500K
 - Average daylight, or electronic flash – 5500K to 6500
 - Daylight on horizon - 5000K (slightly warm)
 - Lower number = warmer or more yellow
 - Incandescent Tungsten light – 2800K
 - Match – 1700K
 - Look for the Kelvin numbers on light packaging
- Phone Camera Tips
 - Zoom in to fill narrow width of slide with narrow width of phone screen
 - When zooming in to fill the view with the slide, you can include the frame so you can see any notes written on the frame. The frame can be cropped off in editing after the notes are recorded or added to the title.
 - Warped slides – hold flat or place between glass to flatten so parts are not out of focus
 - Reduce Reflection off shiny phone case or back of phone
 - Cover phone with black paper or fabric or leave flexible cover liner on the phone
 - Use solid material to block excess light – cardboard with opening for slide so only light comes through the slide
 - Reduce light from lamps or overhead lighting that might reflect
- Phone Camera Settings on Android
 1. Turn on the camera
 2. Click the **gear** in the top tool bar to open **Camera Settings**
 3. (Optional: Change Aspect Ratio by selected **Rear Picture Size** and changing it from 4:3 to 16:9)
 4. Scroll down to, and select, **Shooting Methods**
 5. Turn on **Voice Control** so you can trigger the shutter using one of the listed words
 6. Press Back arrow to return to **Camera Settings** menu
 7. (Optional: Scroll down to **Shutter Sound** and turn it on **Shutter sound**)

TIP: Remove dust on slide surface and any surface it sits on (compressed air sprayer)

My Process for Shooting

1. Take one tray or box at a time (small batch)
 2. Remove the slides and stack them nearby
 3. Position first slide and phone camera – parallel, focal length, zoom
 4. Say "Shoot" or press shutter button
 - a. Observe to see that it took – visual and audible to hear the click
 5. Remove slide and put in the next one (just line up in viewer)
 6. Say "Shoot" and repeat
- * Could shoot over 100 slides in a half hour

Processing Slides with Slide Viewer (one batch at a time)

1. When all slides in batch are shot, move them to a computer
 - a. Create a file on computer to move images to (Ex: ~Slides)
 - b. Connect phone to computer with USB cable (or upload to your storage area)
 - c. Open Explorer/file menu and locate the phones files with the pictures to be moved. Android phone
example: *NameOfPhone* > Phone > DCIM > Camera
 - d. In Phone folder: Click **1st image**, hold **Shift** and click **last image** to select range
 - e. Move to computer (drag and drop or **right click selected area** and click **Move** then paste in folder)
 - i. Moving removes the images from your phone
 - ii. Moving keeps the original JPEGs without loss of quality like copying does (Maybe?)
2. Processing – Sort and Label
 - a. In the ~Slides folder
 - i. Create permanent folder for batches/topics/categories
 1. When processing is complete move these folders to permanent file location
 - ii. Move slides to permanent master folders
 - iii. Rename the images in each folder
 - iv. Processing - Editing
 - b. View each slide. Evaluate quality; reshoot if necessary
3. Editing

Open slide in an editing program. If you do not have a designated photo editor, Windows 10 has a Photo viewer that provides basic editing. Double click an image to open it and it should open in either Windows Photo or whatever photo viewer is your default.

Tools that are most frequently used: Straighten, Crop, Rotate, Flip. Adjustments: Brightness, Color, Clarity or Sharpness

Concepts for Using Slide Viewer with Cell Phone

- Backlight slides with diffused light
- Use light with color temperature that provides best color
- Camera lens parallel to slide
- Phone or camera steady on tripod or solid base
- Focal length – Correct distance for good focus
- Ambient Light - Reduce or eliminate to avoid reflections
- Remove dust from slide surface
- Avoid vibration of camera/phone