Sun City Summerlin Computer Club

Seminar

Android
Smartphone Photography

Tom Burt
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Agenda

- **Smartphone Photography Concepts**
- **Principles of Photography**
- **Good and Failed Photo Examples**
- **The Android Camera App**
- **Taking Selfies & Videos**
- **Moving Pictures & Videos From Your Phone**
- **Your Phone as a Scanner (an App for That)**
- **Getting More Android Help**

Smartphone Photography Concepts

- **First rule – No absolute rules**
  - Digital photos are essentially cost free, so you can try many variations and setups.
  - You can always toss out failed shots.
- **Smartphone screen is like a SLR camera.**
  - Lets you see exactly what the camera will capture.
- **Smartphone cameras are very high-resolution.**
  - 5, 8, 12 or even 40 Megapixels are common resolutions.
  - This means you can crop and zoom in afterward using an image editor.
- **[Most] Smartphones Don't Have Fancy Lenses**
  - No optical zoom
  - Not much (if any) correction for spherical distortion (bulging in the center of the image).

"Good" Smartphone Photo

Failed Photos (1)

Android Smartphone Photography

Failed Photos (2)

Principles of Photography (1)

- **Light**
  - Pay attention to where the light is coming from.
  - Best if light source is behind you; otherwise, the camera will underexpose the subject.
  - Indirect light is best for portraits; there are fewer shadowy areas.
  - You may want to use the flash in low light settings.

- **Camera Orientation**
  - Landscape works best for most shots. You can always crop later.
  - Portrait can be good when the subject is tall and narrow.
  - Pay attention to horizontal and vertical lines in the image; make sure the camera is square with those.

- **Composition**
  - Look at the entire image on the screen. Try to eliminate distracting elements (e.g. a tree sticking up behind someone's head). Not always easy in outdoor and ad-hoc settings.
  - Avoid cutting off top of subjects' heads, feet.
  - Rule of thirds: https://www.youtube.com/watch?v=lpEuYp4_iSg
    You can turn on a 9-cell grid in the Camera app to help.

Principles of Photography (2)

- **Subject**
  - Make sure your intended subject is completely within the image on the screen. If necessary, back up or have the subject(s) back up.

- **Focus**
  - Tap the section of the screen that you want the camera to focus on.
  - The camera app will flash a square around that point.

- **Stability**
  - Motion blur is all but impossible to fix after the fact.
  - If possible, have the subject hold still.
  - Hold the camera with two hands, generally close to your body.
  - When tapping the screen or pressing the volume button, DON'T MOVE THE SMARTPHONE!
  - In ad-hoc situations, you may want to use the multi-exposure mode (camera shoots 30 frames in rapid succession). The idea is that somewhere in that set of 30 will be a few "good" shots. Downside – you get lots of shots of the same subject.
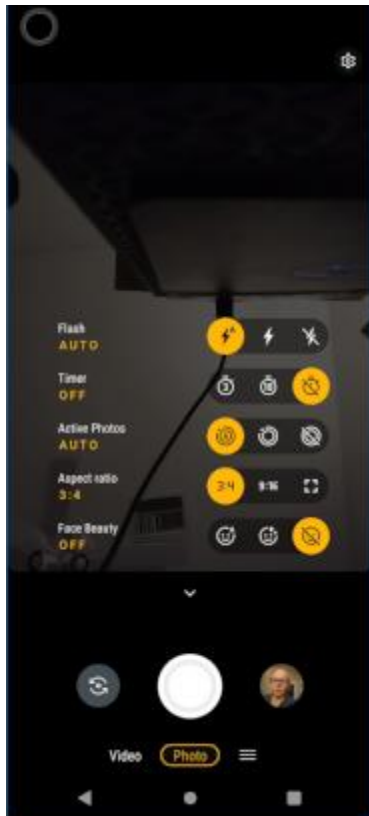
The Android Camera App

- **Your Android phone or tablet has one or more built-in cameras.**
- **Before taking photos, gently clean the camera lens with a soft microfiber cloth.**
- **To take photos, you first need to launch the camera App by tapping its icon on the home screen.**
- **The Camera App displays what either the front or rear camera lens sees along with a number of visible controls.**

Hide/display options.

Select an app to share photos and videos.

Start the Gallery.

Turn the flash on or off.

Record videos.

Switch between front and rear cameras.

Take photos.

Change camera options.

Back to the previous screen.

Camera App Options
(Tap the Gear Icon for Full Settings)

- **Switch between 16:9 (default) and 4:3 aspect ratios**

- **Turn on High Dynamic Range (default is off)**

- **Turn on the timer – choose 3 or 10 second delay (default is off)**

- **Turn on voice commands (Cheese, Smile, Kim Chi, LG) to take a picture (default is off)**
- **Turn on grid lines for "rule of thirds" (default is off)**

- **Set the location to save photos (if using a SD memory card) (default is internal storage)**

- **Auto-shot settings (default is none) Shoot when hand is clenched to a fist Shoot when camera detects a face (3-second delay)**

Taking Pictures (1)

- **Taking Pictures of Subjects in Front of You**
  - Aim the camera at your subject and check how the subject appears on the screen.
  - If in low light, consider turning on the flash or auto-flash (icon on screen).
  - Generally best to hold the camera horizontally; you can crop and resize later.
  - Hold the camera steady and level, aimed at the subject, with your arms close to your body to prevent jerking. Tap the subject on the screen to tell the camera what to focus on.
  - Make sure your fingers aren't in front of the lens or flash!
  - To take the picture, either tap the camera icon on the screen or press either volume button. DON'T jerk up or down when pressing the button!!
  - The picture will be saved as an image file in the device's DCIM folder.

Taking Pictures - Selfies

- Start the Camera App.
- Tap the "Switch camera" icon to select the front camera (the one facing you) or drag in any direction.
- You will now see yourself (and whatever is behind you) on the screen.
- Move the camera toward or away from yourself as needed to get yourself into the desired position and fully in the frame.
- Hold the camera steady with one or two hands and then press one of the volume buttons or tap the camera icon to take the picture.
- Consider using a smartphone tripod and the timer or the auto-shoot feature of the Camera App. ?This is especially good for group shots.
- Can also buy a "selfie stick" that gives you more reach.
- DON'T jerk up or down when pressing the volume button.
- The picture will be saved as an image file in the device's DCIM folder.
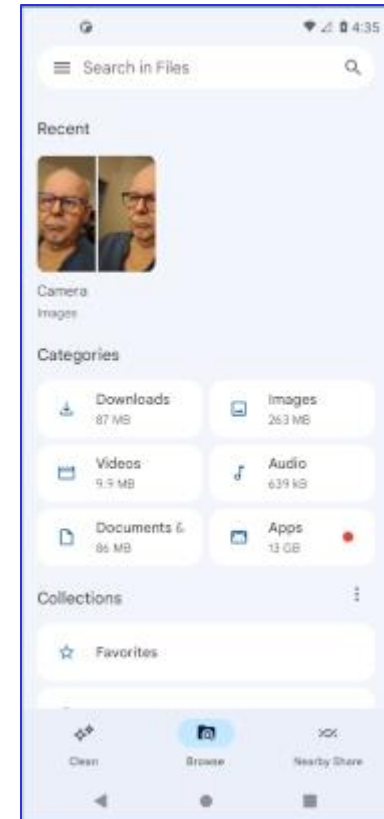
Taking Videos

- **Start the Camera App.**
- **Tap the "switch camera" icon to select the rear camera.**
- **Aim the camera at your subject and check how the subject appears on the screen.**
- **If in low light, consider turning on the flash or auto-flash (icon on screen).**
- **Generally best to hold the camera horizontally; you can edit later.**
- **Hold the camera steady and level, aimed at the subject, with your arms close to your body to prevent jerking. Tap the subject you wish the camera to focus on.**
- **Make sure your fingers aren't in front of the lens or flash!**
- **To begin recording the video, tap the Video button on the side of the screen. The microphone and video camera will both turn on.**
- **Your tablet or phone will record video and sound and save it as a video file in the Gallery folder.**
- **You can pause recording by tapping the Pause icon; resume by tapping the red dot.**
- **You can stop recording by pressing the square icon.**

Taking Screenshots

- **Screenshots (images of the device's current screen) are useful for illustrating specific steps in some process on your device, such as in this tutorial.**

- **They can also be helpful when reporting problems to Support or other Help groups and can also save on-screen receipts or directions.**

- **Method 1:**

  - **When your device's screen shows what you want to capture, swipe down from the top and tap the Capture+ icon.**

  - **Capture+ will copy the current screen into an image file and then offer a small menu bar of choices. The image file will *not* include the swiped down panel of quick actions.**

  - **Tap the 3 vertical dots icon in the menu and select Done. In the pop-up menu that appears, choose Gallery. This will save the screen shot into the Capture+ folder of the Gallery where you can retrieve it later.**

- **Method 2:**

  - **You can also save a screenshot by pressing the Power button and the Volume Down button at the same time. This is more difficult to do consistently, but snaps the entire screen, including the navigation and status bars.**

Android File Management Apps

- **File Manager is built-in (most devices)**
  - **Plain, but good tool for browsing your files.**
  - **Create folders.**
  - **Copy or Move files & folders.**
  - **Rename files.**
  - **Delete files.**
  - **"Play" media files (pictures, music, videos).**

- **A Few Alternate File Manager Apps**
  - **https://fossbytes.com/best-android-file-manager-explorer-apps/**
  - **ES File Explorer (Local, Cloud & LAN)**
  - **ASTRO File Manager (no ads)**
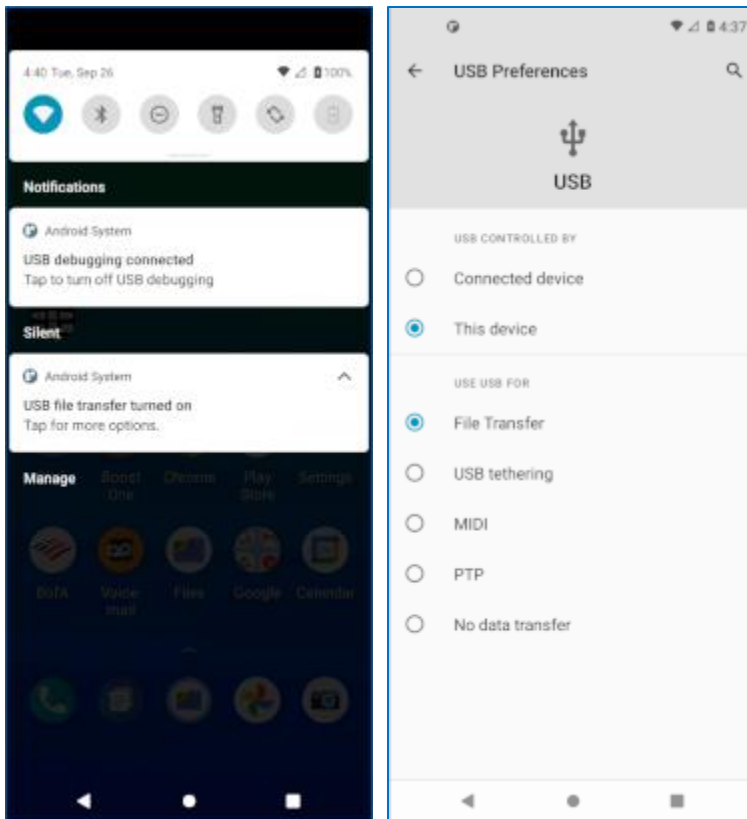 - **Total Commander (no ads)**

Android File Sharing To / From the Cloud

- **Your Android Phone or Tablet can take photos, play videos and music and even display and edit documents.**
    - **So how do you move various file types to/from your tablet to your PC?**

- **You can use "Google Drive" to copy files (via WiFi router) between your device and the Google Drive cloud.**
    - **Each Google Drive account has a 15 GB storage limit (with exceptions).**
    - **If your Android device is connected to your Google account, it will *automatically* sync photos and videos you take to your Google Photos storage space on the Google Drive "cloud" servers.**
    - **Will also sync from your Google Drive cloud storage to your PC and other devices that have Google Drive or Google Backup and Sync installed.**
    - **Can be a bit slow if you have a lot of large images.**

- **Other Cloud Storage Services Supported via Apps**
    - **https://www.cloudwards.net/best-cloud-storage-for-android/**
    - **MS OneDrive   SugarSync   PCloud**
    - **IDrive   Dropbox   Sync.com**

Android Smartphone Photography   16

File Sharing To / From Your Mac or PC

Via a USB cable, You can plug your device into a USB port on your Mac or PC.

- After your device is plugged in, you may need to change it from charging to "File Transfer" mode.
- Swipe down from top and then tap the "Change USB options" band.
- In the screen that appears, tap the bubble for "File Transfer.
- Windows will detect the device and open a File Explorer window displaying the device's file system.
- You can use normal Windows actions to copy files back and forth, delete files, rename – all the usual things.
- This works well for large files like videos and music.

Smartphone Scanning Apps

- **Use Your Smartphone Camera as a Scanner**
  - **Specialized apps**
  - **Take a picture of a document or photo to convert it to an image file**
  - **Can save as an image file or a PDF**
  - **May need to do some additional image post-processing with a tool like GIMP, Photopea or Photoshop Elements**

- **Google Photoscan**
  - **Free from the Google Play Store**

- **Microsoft Office Lens**
  - **Free from the Google Play Store**

Getting More Android Help

- **Online Tutorials, Reviews and Articles**
  - **YouTube videos … search for your phone make / model / Android version**
  - **Vendor on-line help forums, videos, user guides**
  - **General Google Search (good for trouble-shooting)**

- **Computer Club Sessions and Material**
  - **Glenn Latta and Tom Burt's presentations in Android section of smnr area: www.scscc.club/smnr**
  - **Tom Burt's articles in Gigabyte Gazette – occasional**
  - **Gene Koch – Android Help - 3rd Thursday at 1 PM**

Questions
and
Answers