Photo Transit™

Quick Start Guide

Welcome to **Photo Transit**, a digital shot planning tool for outdoor photographers.

To get started, follow these easy steps:

1. ▣ Add your camera. (You can add multiple cameras, but be sure to choose the correct sensor/film type to see an accurate field of view.)
2. ▥ Add your lenses. (You can add multiple zooms and/or primes, and select either one zoom, or one or more primes. Lenses are **not** shared between cameras.)
3. Position the camera for your shot, using one or more of the following steps:

    ○ ◥ Go to your current location

    ○ ⟋ Search for a location; tap to select

    ○ ⚲ Move the <u>map</u> or camera pin

4. Position the subject for your shot:

    ○ ⚲ drag and drop the subject pin

    ○ ⟋ long press a location

5. Adjust your camera orientation and zoom using the <u>camera controls</u> to see your virtual field of view on the map
6. Explore what you can see from your shooting position using the <u>elevation chart</u> or <u>Google Street View™</u>
7. To get a sense for how you can use the app, explore the shots included in the "Sample shots" project - be sure to drill down to the shot details to view notes and reference photographs
8. For additional documentation and tutorials, visit our website at <u>phototransit.com</u>

Map

Moving around

- Drag map with one finger to pan
- With two fingers drag up/down to adjust map tilt angle; pinch to zoom; twist to rotate
- Camera pin shows camera position
- Subject pin shows subject position
- Tap and hold pins to move camera and subject by dragging and dropping
- Map overlay shows field of view from camera to subject, based on selected camera, lens, camera orientation and focal length
- For zoom lenses, the maximum and minimum zoom extents are shown, in addition to the selected focal length (see <u>Camera controls</u>)
- If multiple prime lenses are selected, the field of view for each is shown on the map

Sidebar

- Go to current location

- Tap a second time to access tracking mode

- Centre camera pin after moving map

- Swap camera and subject positions

- Toggle Google Street View
  (Note: disabled if pin is not directly on a street with Google Street View coverage)
- Map type selector:

  - Google Standard

  - Google Hybrid

  - Google Terrain

  - OpenStreetMap*

  - OpenCycleMap Topographic*

  Map tiles are stored offline automatically

Camera controls

- Select or add camera. When adding a camera, be sure to choose the correct sensor/film type. You can add your own types for any equipment that is not already included: define the sensor or film dimensions using the manufacturer's technical information for the camera.
- *Note:* for Nikon, because many models have slightly different sized sensors, most DSLR camera models are listed explicitly. For other manufacturers, that use a limited range of discrete sensor sizes, only the sensors are included, for example: Canon APS-C, Canon APS-H, Canon Full
- Set camera orientation: landscape or portrait
- Select or add lens: a single variable zoom lens or multiple prime lenses can be selected
- Optionally select a teleconverter: the focal length of the selected lens is multiplied by the teleconverter factor (e.g. ×1.7)
- *Note:* in the app, each lens 'belongs' to just a single camera. This is to handle the case where a photographer has multiple, mutually-incompatible camera systems (e.g. Mamiya and Hasselblad). Many photographers will own lenses that work on more than one camera body (e.g. Nikkor lens on a D800 or a D300): in this case, you will need to add the same lens to each camera (this is a one time set-up task)
- Use slider to adjust focal length of variable zoom lenses

Elevation bar

- Tap grey elevation bar at the bottom of the map to show chart displaying apparent altitude and elevation profile along the path from camera to subject
- Left hand axis displays either apparent altitude (in degrees) or elevation above sea level (in metres or feet)
- Tap the chart to toggle between altitude and elevation profile display
- Apparent altitude shows the topography of the landscape adjusted for distance, curvature of the earth and atmospheric refraction
- Areas that are not visible from the camera position are shown with a dotted line
- The vertical field of view of the camera/lens is overlaid on the chart (measured in degrees, on the left hand axis)
- Tap the controls button at the bottom right of the chart to view shot controls:
- Adjust pitch of camera (tap and hold + or – button to adjust continuously)
- Adjust height of camera above ground, e.g for a camera high in a building
- Adjust height of the subject above the ground, e.g. the height of a building
- Double tapping graph alternates left hand axis scale to zoom in apparent altitude only, or to scale to show both apparent altitude data and vertical field of view
- For zoom lenses, use focal length slider to adjust the vertical FOV as shown on chart
- Subject height is shown as a thick line on the right of the chart. If the subject is obscured by terrain between the camera and subject, the line is shown as dotted
- Select from three different elevation data sources:
  - *Google Elevation*: best for cities, accurate mountain summits elevations, and short camera to subject distances; data points are interpolated (smoothed); data includes bathymetry (depth data for undersea locations); data cannot be stored offline
  - *SRTM3*: high quality data elevation model for coverage between latitudes 60°N and 56°S; 3 arc-second resolution, not interpolated; viewed data is stored for offline use
  - *AsterGDEM*: newer data elevation model for coverage between latitudes 83°N and 65°S; 3 arc-second resolution, not interpolated; viewed data is stored for offline use
  - *GTOPO30*: low resolution model offering coverage at all latitudes 90°N to 90°S; 30 arc-second resolution, not interpolated; viewed data is stored for offline use. If you need elevations in central Antarctica, use this!
  - For SRTM3 and AsterGDEM, if data is unavailable from the primary source, the secondary source is automatically queried
  - For shots planned over water (e.g. lakes, ocean), you may wish to use SRTM3 or AsterGDEM: Google Elevation includes depth data which is misleading for visualizing the field of view

Toolbar

Shots

- A project is a folder that contains one or more shots. Edit your project to drag and drop shots into the desired shooting sequence, or add new shots.

- A shot includes the key information from the app user interface: camera selection, orientation, pitch, and camera height; lens selection, focal length; subject position and user notes

- ![mountains icon] Tap a shot to display it. Tap the disclosure button to view/edit notes, reference URLs and reference image. The currently selected shot title is displayed in the toolbar.
- Changing any aspect of a shot when viewing (e.g. pin position, camera pitch etc) adds an asterisk to the shot name in the toolbar. You can update the current shot with these adjustments or save as a new shot (choose Edit in the Project, then 'Add new shot').
- Tapping the current shot within the project shot list, will prompt to save or discard changes, if the shot has been modified (e.g. by changing the focal length, or map view)

Locations

- A *location* is a place represented by a latitude/longitude coordinate
- Save locations you want to return to in the future
- Tap a location to move the camera
- Tap and hold (long press) a location to choose whether to move the camera or the subject
- Type in search field to find locations; tap **save** to save to list
- Use **+** to save a new location to the list based on either the current camera or subject pin position
- Photo Transit can import locations from KML files: choose Open 'With… then Photo Transit

Share

- Share a link to a shot via Message, Twitter or Facebook
- View shot in Safari browser
- Open TPE (The Photographer's Ephemeris®) using the camera and subject positions in Photo Transit (see also Settings below)
- Export saved locations as KML. (KML locations can be imported into TPE, Google Earth™ and many other GPS apps.)
- Email details of the current shot
- Add the current shot to your calendar
- Email all shots in your current project. (To use this option, select any saved shot from the project you wish to share.)
- Project and Shot emails include a KML file which can be opened in applications such as Google Earth and other GPS apps: generally, rather than importing locations from the Project or Shot KML file, you should use the Photo Transit link included in the file to view each shot within the app.

Settings

- *Show current location*: shows current device location on the map (may consume extra power)
- *Imperial/English units*: display distances/heights in feet/miles
- *Use magnetic north*: bearings are relative to camera location magnetic north when enabled (true north when off)
- *Camera is TPE primary pin*: when true, Photo Transit camera position is used for TPE primary pin position, and subject is used for secondary pin (default is off, i.e. subject = primary, camera = secondary). This setting is used when you choose 'Open In TPE' from the Share screen
- *Check for updated sensor/film types*: click to download new sensor/film type definitions (note: you can

add your own sensor/film types by showing the Camera list, then choosing Add, Sensor, Add)

- *Restore sample project*: restores the sample project on the subsequent app start. Note: if you have not deleted the sample shot photos from your device's camera roll, there will be duplicate copies after a restore.
- *Share usage data*: sends anonymous data on the features you use within the app to us when enabled. We use this data to plan improvements to the app based on the features you use most frequently
- *Clear offline data*: deletes all stored offline map tiles and elevation data. You may wish to clear offline data if your device is running low on storage and you do not require the stored offline data

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