

# Agisoft PhotoScan Workflow

Steps	Menu	Function	Action
<b>Photo Setup, Alignment, Adjustment</b>			
1	Main Menu - Workflow	Add Photos	Navigate to directory with photos. Select and add all necessary photos for project
2	Reference Panel - Settings	Set Coordinate/Projection	Select the Coordinate System (Local, Geographic, Projected) and Select Projection (i.e. WGS84)
3	Main Menu - Tools	Camera Calibration	Check to make sure that all the photos with the same focal distance/parameters are grouped together
4	Main Menu - Workflow	Align Photos	Settings: high, generic or referenced, 60,000, 0
5	Reference Panel - Optimize	Initial Bundle Adjustment	<input checked="" type="checkbox"/> Check on: <i>f, cx, cy, k1, k2, k3, p1, p2</i>

<b>Error Reduction &amp; Bundle Adjustment</b>			
6	Main Menu - Edit Gradual Selection	Reconstruction Uncertainty (Geometry)	Set Level: 10 (if more than 50% of pts are selected, increase the level to a higher value (limit 50))
			Delete the points, Optimize
			<input checked="" type="checkbox"/> Check on: <i>f, cx, cy, k1, k2, k3, p1, p2</i>
			Repeat and least 2 times and continue to lower the level closer to 10 without having to delete points
			Monitor: Projections goal not less than 100, Error (pix) goal = .3, SEUW = 1.0

7	Main Menu - Edit Gradual Selection	Projection Accuracy (Pixel Matching Errors)	Set Level: 2 - 3 (if more than 50% of pts are selected, increase the level to a higher value (i.e. 3))
			Delete the points, Optimize
			<input checked="" type="checkbox"/> Check on: <i>f, cx, cy, k1, k2, k3, p1, p2</i>
		Repeat and least 2 times and continue to lower the level closer to 2 without having to delete points	
		Tighten Tie Point Accuracy Value	Change the settings of the tie point accuracy (pix) from 1 to .1
		Optimize	
		<input checked="" type="checkbox"/> Check on (all): <i>f, cx, cy, k1, k2, k3, k4, b1, b2, p1, p, p3, p4</i>	
			Monitor: Projections goal not less than 100, Error (pix) goal = .3, SEUW = 1.0

8	Main Menu - Photo	Add Control Points (Markers)	Import in the ground control points (if available), manually select or use autodetection on individual images
	Edit Markers	Add Scale Bars	Select the Coordinate System (Local, Geographic, Projected) and Select Projection (i.e. WGS84)

9	Main Menu - Edit Gradual Selection	Reprojection Error (Pixel Residual Errors)	Set Level: .3 (if more than 10% of pts are selected, increase the level to a higher value)
			Delete the points, Optimize
			<input checked="" type="checkbox"/> Check on (all): <i>f, cx, cy, k1, k2, k3, k4, b1, b2, p1, p, p3, p4</i>
			Repeat until reaching the .3 level without having to delete points
			Monitor: Projections goal not less than 100, Error (pix) goal = .3, SEUW = 1.0

<b>Build Dense Point Cloud, Mesh, Texture, DEM, Orthomosaic</b>			
10	Main Menu - Workflow	Build Dense Cloud	Quality: High, Med, Low Depth Filtering: Agressive
		Build Mesh	Height Field, Dense cloud, High Interpolation: Enabled
		Build Texture (optional)	Orthophoto, Mosaic
		Build DEM	Set Coordinate System/Projection, Dense Cloud, Enabled
		Build Orthomosaic	Geographic, Set Coordinate System/Projection, Mesh, Mosaic