

FLIR Agisoft Metashape Workflow

Steps	Menu	Function	Action
Photo Setup, Alignment, Adjustment			
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: f, cx, cy, k1, k2, k3, p1, p2
6	Chunk - Raster Transform	Formula Tab	Type 0.04 * B1-273.15 and check "Enable transform"; In the Palette tab change the histogram range to Auto set the Preset to Gray. Hit Apply (close and open to refresh).
Error Reduction & Bundle Adjustment			
6	Main Menu - Model Gradual Selection	Reconstruction Uncertainty (Geometry)	Set Level: 20-30 (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: f, cx, cy, k1, k2, k3, p1, p2
			Repeat and continue to lower the level closer to 20 without having to delete points - Not always possible
7	Main Menu - Model Gradual Selection	Projection Accuracy (Pixel Matching Errors)	Set Level: 4 - 6 (if more than 50% of pts are selected, increase the level to a higher value (i.e. 6))
			Delete the points, Optimize
		Tighten Tie Point Accuracy Value	Repeat and continue to lower the level closer to 6 without having to delete points - Not always possible
			Change the settings of the tie point accuracy (pix) from 1 to .5 Optimize <input checked="" type="checkbox"/> Check on (all): f, cx, cy, k1, k2, k3, k4, b1, b2, p1, p, p3, p4
8	Main Menu - Photo Edit Markers	Add Control Points (Markers)	Import in the ground control points (if available), manually select or use autodetection on individual images
		Add Scale Bars	Select the Coordinate System (Local, Geographic, Projected) and Select Projection (i.e. WGS84)
9	Main Menu - Model Gradual Selection	Reprojection Error (Pixel Residual Errors)	Set Level: .5 (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): f, cx, cy, k1, k2, k3, k4, b1, b2, p1, p, p3, p4
			Repeat until reaching the .5 level without having to delete points - Not always possible
Build Dense Point Cloud, Mesh, Texture, DEM, Orthomosaic			
10	Main Menu - Workflow	Build Dense Cloud	Quality: High, Med, Low Depth Filtering: Moderate
		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