

Year: 2017/2018 Semester: Second Advanced Photogrammetry

Lab No. : 1

Given a digital photogrammetric workstation and a stereo-pair of standard aerial photographs that are scanned with 600 dpi resolution. The photography is taken with a camera having a principal distance of 153.380 mm. The calibrated coordinates of the four fiducial marks of the camera are tabulated as follows:

Fiducial Mark	x (mm)	y (mm)
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1	-113.000	0.000
2	113.000	0.000
3	0.000	-113.000
4	0.000	113.000

The ground coordinates as well as the pixel coordinates on the left and right photos of four ground control points are listed in the table below.

Pt.	X (m)	Y (m)	Z (m)	x(mm)	y(mm)	x'(mm)	y'(mm)
1	240254.93	1188894.57	64.63	4844.58	4644.90	2671.38	4619.63
2	239771.28	1189764.02	82.56	2741.63	730.13	508.68	709.36
3	239775.19	1188851.91	66.46	2723.38	4813.63	535.91	4792.24
4	240249.41	1189740.85	78.63	4920.66	860.79	2674.63	836.13

Using the data given above and the exterior orientation parameters of each of the two photos, generated in assignment no. 2, perform the interior and exterior orientation procedures for the given photos on the available digital photogrammetric software. Prepare a report elaborating on the procedure followed on the software, input data, results, and obtained accuracy figures.