

PRILOGA 1 - POROČILO PROGRAMA RIPROCESS O IZVEDENI KALIBRACIJI

RiPROCESS Scan Data Adjustment Protocol	
Project:	kalib_lesce_dipl
Protocol date:	2013-09-08 19:49
Operator:	Luka Kocijancic
Comments:	
Program version:	RiPROCESS v1.5.8 (2013-04-12)
Computer:	OBDLIDAR-MAIN
Physical units:	m, deg

Observation parameters

Calculation parameters	
Calculation mode:	Adjustment
Calculation time:	47 secs, 439 msec
Calculation mode:	Least Square Fit
Tolerance:	0.000100
Search corresp. planes:	True
Search radius [m]:	1.000
Angular tolerance [deg]:	5.000
Max. normal dist. [m]:	1.000
Observations active:	True
Observations count:	57521

Calculation results	
Number of free parameters:	3
Number of observations:	57521
Error (Std. deviation) [m]:	0.0323

Laser data							
Name	Roll	Pitch	Yaw	East	North	Height	Time
130702_142219_1_exp1	0.000	0.000	0.000	-0.048	-0.012	0.013	0.0000
- Confidence	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
130702_142219_1_exp2	0.000	0.000	0.000	0.040	0.046	0.014	0.0000
- Confidence	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
130702_142219_1_exp3	0.000	0.000	0.000	0.067	0.008	0.005	0.0000
- Confidence	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
130702_142219_1_exp4	0.000	0.000	0.000	0.000	-0.027	-0.021	0.0000
- Confidence	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
130702_143126_1_exp1	0.000	0.000	0.000	-0.007	-0.027	-0.015	0.0000
- Confidence	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
130702_143126_1_exp2	0.000	0.000	0.000	-0.052	0.019	-0.003	0.0000
- Confidence	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Tilt mounts			
Name	Roll	Pitch	Yaw

Laser devices							
Name	Roll	Pitch	Yaw	X	Y	Z	Range Shift
Scanner 2 (Q780, 9999176)	0.25218	-0.10134	0.10789	0.000	0.000	0.000	0.0000
- Confidence	0.013447	0.017057	0.062762	0.000000	0.000000	0.000000	0.0000

Navigation devices							
Name	Roll	Pitch	Yaw	East	North	Height	Time
INS-GPS 1 (, 11)	0.000	0.000	0.000	0.000	0.000	0.000	-0.0014
- Confidence	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Observations				
Best 15 observations				
#	Object 1	Object 2	Deviation	Description
1	130702_142219_1_exp2	130702_143126_1_exp1	0.000	
2	130702_142219_1_exp3	130702_143126_1_exp2	0.000	
3	130702_142219_1_exp3	130702_143126_1_exp1	0.000	
4	130702_142219_1_exp2	130702_142219_1_exp3	0.000	
5	130702_142219_1_exp1	130702_143126_1_exp2	0.000	
6	130702_142219_1_exp1	130702_143126_1_exp2	0.000	
7	130702_142219_1_exp3	130702_142219_1_exp4	0.000	
8	130702_142219_1_exp1	130702_142219_1_exp4	0.000	
9	130702_142219_1_exp1	130702_142219_1_exp4	0.000	
10	130702_142219_1_exp2	130702_143126_1_exp2	0.000	
11	130702_142219_1_exp3	130702_142219_1_exp4	0.000	
12	130702_142219_1_exp1	130702_143126_1_exp2	0.000	
13	130702_142219_1_exp2	130702_142219_1_exp3	0.000	
14	130702_142219_1_exp3	130702_143126_1_exp1	0.000	
15	130702_142219_1_exp3	130702_143126_1_exp2	0.000	
Worst 15 observations				
#	Object 1	Object 2	Deviation	Description

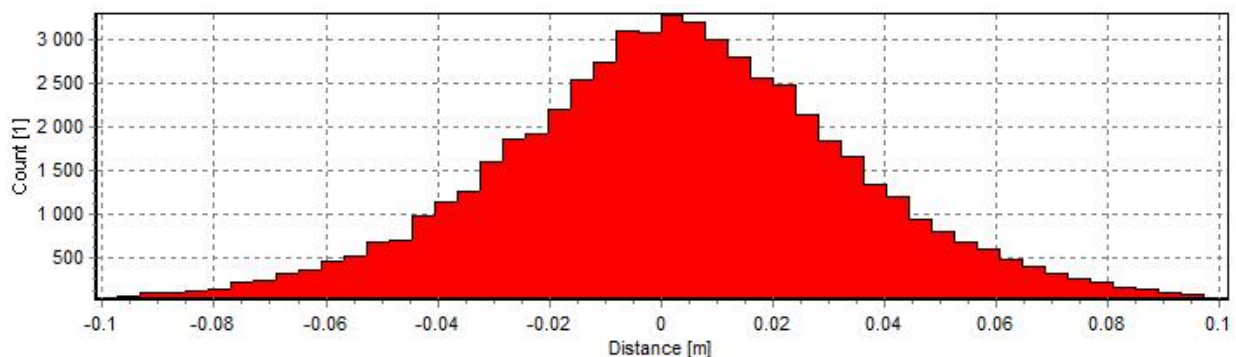
#	Object 1	Object 2	Deviation	Description
1	130702_142219_1_exp2	130702_142219_1_exp4	0.099	
2	130702_142219_1_exp1	130702_143126_1_exp2	0.099	
3	130702_142219_1_exp1	130702_142219_1_exp3	0.099	
4	130702_142219_1_exp1	130702_142219_1_exp3	-0.099	
5	130702_143126_1_exp1	130702_143126_1_exp2	0.099	
6	130702_142219_1_exp1	130702_142219_1_exp3	-0.099	
7	130702_142219_1_exp4	130702_143126_1_exp2	0.099	
8	130702_142219_1_exp1	130702_142219_1_exp3	-0.099	
9	130702_143126_1_exp1	130702_143126_1_exp2	0.099	
10	130702_142219_1_exp1	130702_142219_1_exp3	-0.099	
11	130702_142219_1_exp1	130702_142219_1_exp3	-0.099	
12	130702_142219_1_exp1	130702_142219_1_exp3	-0.099	
13	130702_142219_1_exp1	130702_142219_1_exp3	-0.099	
14	130702_142219_1_exp4	130702_143126_1_exp1	0.099	
15	130702_143126_1_exp1	130702_143126_1_exp2	0.099	

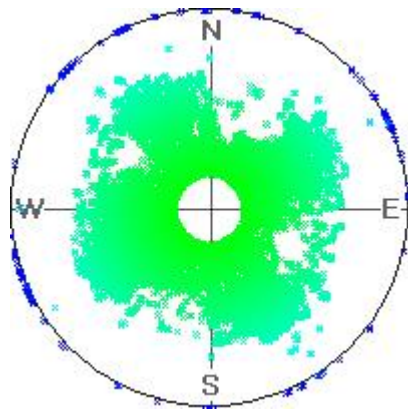
Best 6 scans

Name	Objects	Std. dev.
130702_142219_1_exp2	15472	0.027
130702_142219_1_exp1	21204	0.030
130702_143126_1_exp1	22685	0.032
130702_142219_1_exp4	15828	0.032
130702_142219_1_exp3	19050	0.034
130702_143126_1_exp2	20803	0.034

Worst 6 scans

Name	Objects	Std. dev.
130702_143126_1_exp2	20803	0.034
130702_142219_1_exp3	19050	0.034
130702_142219_1_exp4	15828	0.032
130702_143126_1_exp1	22685	0.032
130702_142219_1_exp1	21204	0.030
130702_142219_1_exp2	15472	0.027

Histogram of residues**Orientation chart**



PRILOGA 2: POROČILO TERENSKE MERITVE, IZVOŽENE IZ PROGRAMA TRIMBLE
ACCESS

Survey Report

Job name	diplona-meritev
Creation date	13 Jun 2013
Version	Trimble General Survey 1.60
Distance Units	Meters
Angle units	Degrees
Pressure Units	mbar
Temperature Units	Celsius

Coordinate system (Job)

System	1_ESRS
Zone	ESRS SLO
Datum	ESRS sistem SLO

Projection

Projection	Transverse Mercator
Origin lat	0°00'00.00000"N
Origin long	15°00'00.00000"E
False northing	-5000000.000
False easting	500000.000
Scale	0.99990000
South azimuth (grid)	No
Grid coords	Increase North-East
Ellipsoid	Semi-major axis: 6378137.000 Flattening: 298.25722154

Local site

Type	Grid
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Datum transformation

Type	Seven parameter
Semi-major axis	6378137.000
Flattening	298.257223
Rotation X	0°00'00.0000"
Rotation Y	0°00'00.0000"
Rotation Z	0°00'00.0000"
Translation X	0.000
Translation Y	0.000
Translation Z	0.000
Scale	0.00000ppm

Collected Field Data

Datum transformation

Type	Seven parameter
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Semi-major axis	6378137.000
Flattening	298.257223
Rotation X	0°00'00.0000"
Rotation Y	0°00'00.0000"
Rotation Z	0°00'00.0000"
Translation X	0.000
Translation Y	0.000
Translation Z	0.000
Scale	0.00000ppm

Corrections

South azimuth (grid)	No
Grid coords	Increase North-East
Magnetic declination	0°00'00"
Distances	Ground
Neighborhood adjustment	Off

Projection

Projection	Transverse Mercator
Origin lat	0°00'00.00000"N
Origin long	15°00'00.00000"E
False northing	-5000000.000
False easting	500000.000
Scale	0.99990000
Ellipsoid	Semi-major axis: 6378137.000 Flattening: 298.25722154

Local site

Type	Grid
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Feature library

Library name	test1
Library File Name	test1.fxl
Attribute Support	No

Coordinate system

System	1_ESRS
Zone	ESRS SLO
Datum	ESRS sistem SLO

Job properties

Reference Description	
Operator	luka
Notes	

Instrument

Instrument type	Trimble VX/S Series
EDM Refractive Index	278.6
EDM Carrier Wavelength	80.6
Horizontal Circle Mode	Set to azimuth
Horizontal Angle Precision	0°00'02"
Vertical Angle Precision	0°00'02"
EDM precision	2mm +2ppm

Point	20000	North	1000.000	East	1000.000	Elevation	0.000	Code	
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Atmosphere

Pressure	1015.00mbar	Temperature	20.0°C	ppm	-0.5				
Curvature correction	Yes	Refraction correction	Yes	Refraction const.	0.142				

Station setup

Station	20000	Instrument height	1.623	Station type	Station setup	Scale factor	1.00000000	Std Error	?
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Orientation

Station	20000	Backsight point	30000	Orientation correction	0°00'00"	Orient. Std Err	?		
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Point (B.S.)	30000	HA	0°00'00"	VA	87°52'28"	SD	?	Code	
Std Errors		HA	0°00'02"	VA	0°00'02"	SD	?		
Target height	?	Prism constant	0.0mm						
Point	1	HA	125°09'43"	VA	92°29'24"	SD	10.908	Code	
Std Errors		HA	0°00'02"	VA	0°00'02"	SD	0.002		
Target height	0.000	Prism constant	0.0mm						
Point	2	HA	126°12'43"	VA	92°30'43"	SD	10.900	Code	
Std Errors		HA	0°00'02"	VA	0°00'02"	SD	0.002		
Target height	0.000	Prism constant	0.0mm						
Point	3	HA	126°22'46"	VA	92°48'30"	SD	11.124	Code	
Std Errors		HA	0°00'02"	VA	0°00'02"	SD	0.002		
Target height	0.000	Prism constant	0.0mm						
Point	4	HA	127°04'54"	VA	92°48'57"	SD	11.119	Code	

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Point	20001	North	1501.481	East	1000.000	Elevation	0.000	Code	
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