



Government of South Australia
Department of Planning,
Transport and Infrastructure

Public Transport Services
71 Richmond Road
Mile End SA 5031

ATTACHMENT 1 - PLATFORM CLEARANCE REPORT

Track: SFUP12101
File Name: PTN_161012020148
Line Type: Single Line
Direction: Down
Start Km: 13.067 00
Data Collection
Platform Start Km: 13.032 44
Platform Length: 120.60 [m]
Recording Date: 12/10/2016 02:01:48
Report Date: 15/12/2017 01:40:04



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Minimum Offset [mm]	1568
Maximum Offset [mm]	1987
Minimum Height [mm]	874
Maximum Height [mm]	1224
Average Offset [mm]	1598
Average Height [mm]	1201

Platform Height Defects

Km of Defect Extreme	Km of Defect Start	Limit Level	Extreme Platform Top [mm]	Platform Distance at Top Extreme [mm]	Length of Defect [m]
12.914 50	13.032 10	P1	1224	1597	120.280

Platform Horizontal Offset Defects

Km of Defect Extreme	Km of Defect Start	Limit Level	Extreme Platform Distance [mm]	Platform Top at Extreme [mm]	Length of Defect [m]
13.032 30	13.032 40	P1	902	1987	120.600

Report Table 10m

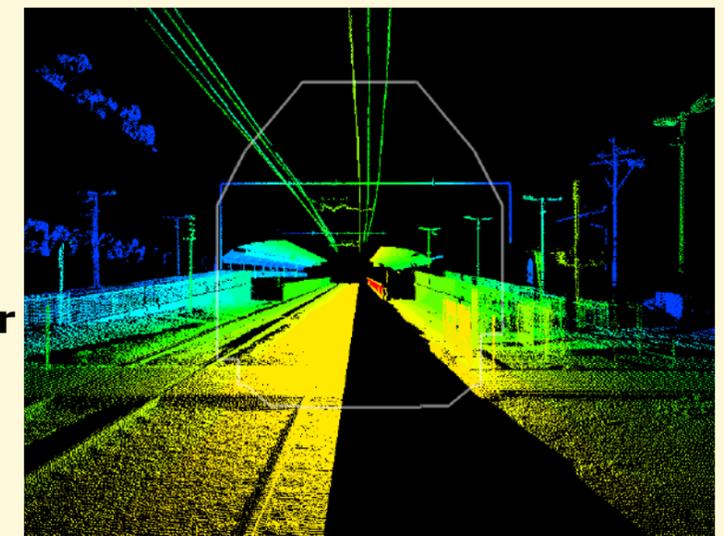
Km	GPS		Horizontal offset [mm]	Vertical height [mm]	Cant [mm]	Radius [m]
	Latitude	Longitude				
13.032 40	138.54000000	-35.00980000	1970	894	2	160
13.022 40	138.54000000	-35.00970000	1613	1204	3	166
13.012 40	138.54100000	-35.00960000	1601	1199	4	164
13.002 40	138.54100000	-35.00960000	1600	1202	4	183
12.992 40	138.54100000	-35.00950000	1609	1198	3	199
12.982 40	138.54100000	-35.00940000	1608	1194	2	161
12.972 40	138.54100000	-35.00940000	1593	1190	1	163
12.962 40	138.54100000	-35.00930000	1596	1203	6	193
12.952 40	138.54100000	-35.00920000	1584	1195	5	168
12.942 40	138.54100000	-35.00910000	1594	1214	6	163
12.932 40	138.54100000	-35.00910000	1582	1214	7	159
12.922 40	138.54100000	-35.00900000	1588	1209	7	166
12.912 40	138.54100000	-35.00890000	1595	1214	6	139



Track Clearance Scanner



Track Clearance Scanner with built-in track geometry measurement and camera.



PRECISION TRACK INSPECTION

KZV's Exclusive Distributor for Canada and the United States
www.trackinspect.com



Manufacturer:
Komerční železniční výzkum, spol. s r.o.
U Kaplicky 1199, PRAGUE 6, CZ-165 00
tel./fax.: +420 233 920 185
cell.: +420 604 830 199
e-mail: jturek@kzv.cz, web: www.kzv.cz



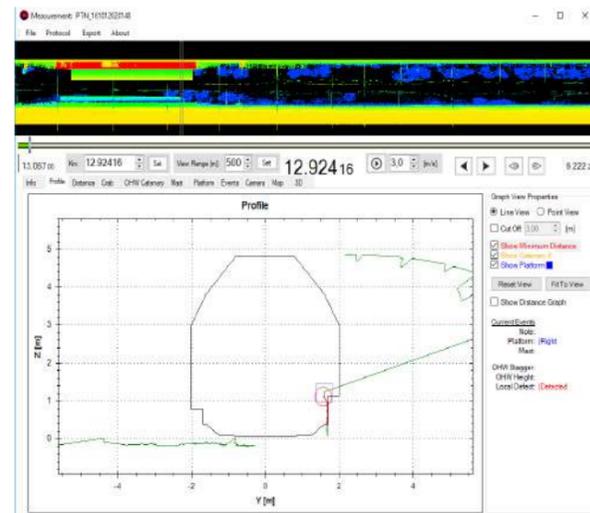
LPS is a measuring equipment based on two rotating lasers for complete track envelope inspection. It can be used for scanning of tunnels, station platforms, OH wire position (height and stagger), electrification masts position, vegetation or any object located along the track. As the system is based on stable Krab platform, it also measures full track geometry data. In such way the system gets enough data to reconstruct full 3D profile of the track.

The system is further equipped with camera, which is fully synchronized with the profile measurement and provides valuable visual data. The trolley is intended to be pushed manually with typical walking speed of 4 km/h. After the measurement is finished, the data are copied to USB flash disk and further processed by evaluation program on PC.

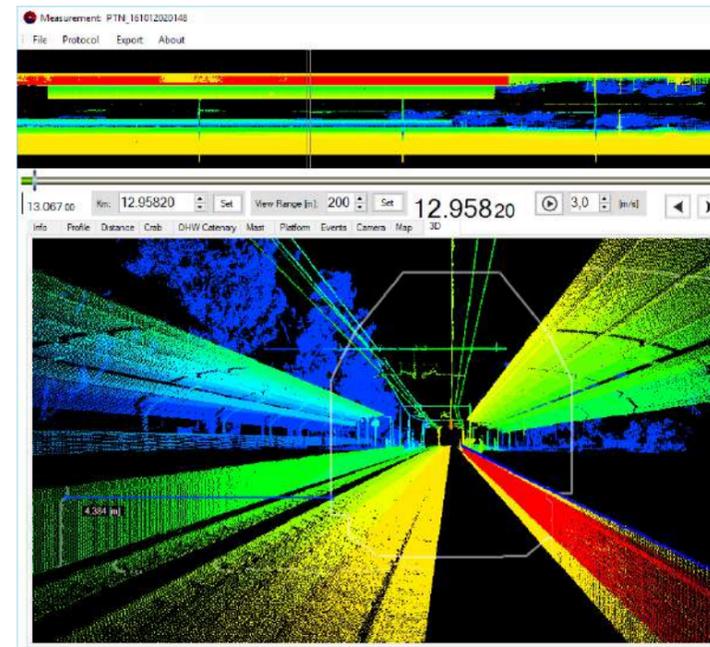


EVALUATION PROGRAM

Dedicated evaluation program LPS-Eval allows to explore clearance data in great detail. Built-in evaluation modules automatically detect individual track objects and provides related reports. Measured section can be also displayed on the map with indicated reference profile infringements.



LPS Parameters		
Laser heads	Laser rotation speed	100 Hz (6000 rpm)
	Operating mode	interlaced
	Angular resolution	0,1667 deg
	Range	60 m (90% reflexivity)
Camera (visual inspection)	Picture resolution	full HD
	Operating mode	day / night mode
Track geometry	Gauge	
	Gauge variation (typically mm/2m)	
	Cant	
	Vertical alignment - Top	
	Horizontal alignment	
	Twist	
GPS receiver	Garmin GPS 16-HVS	



OH Wire evaluation module

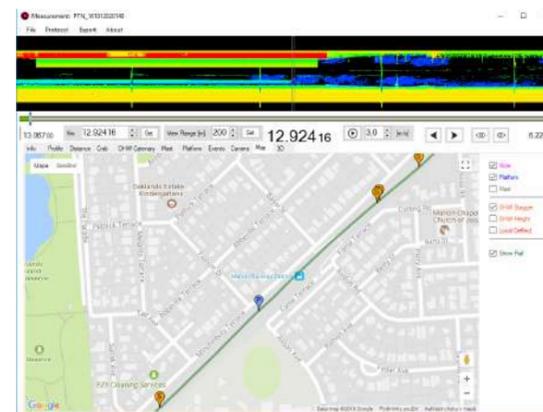
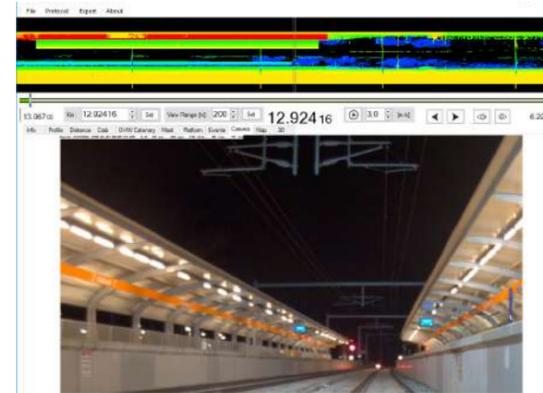
This module automatically separate signals of the contact wire height and stagger for which related tolerances is set.

Station platform evaluation module

Automated detection of the platform edge position: offset from the track centre, platform edge height.

Electrification mast position module

This module automatically detects electrification masts and provides its offsets from the track centre.



3D render module

Complete overview on the measured track including user defined reference clearance profile. Direct distance measurement of any object.

Profile evaluation module

Comparison of the reference clearance profile with measured profile. This module is intended for overall clearance inspection. It allows customer to measure manually distance of any object from the clearance profile.

