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SURFACE SYSTEMS & INSTRUMENTS, LLC

Custom Test Equipment • Mobile Technology Solutions

www.smoothroad.com

T₃ Ultra-Light Surface Profiling System

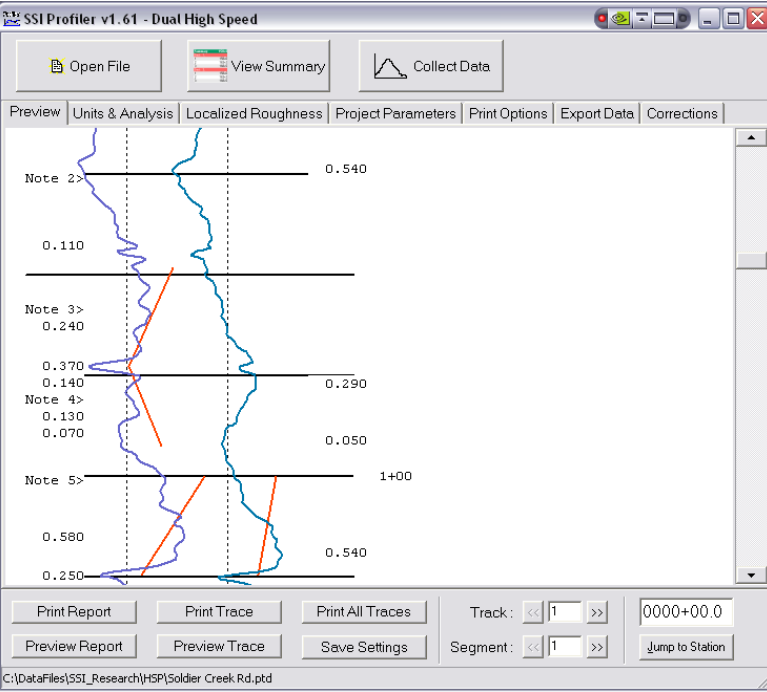
▼ Windows Software ▼ Multiple Profile Reporting



▲ Electric Personal Mobility Vehicle Platform ▲

Specialty Profiling System for Sidewalks, Runways or Road Surfaces

Installed on **T₃MOTION** Zero Emissions Personal Mobility Vehicle



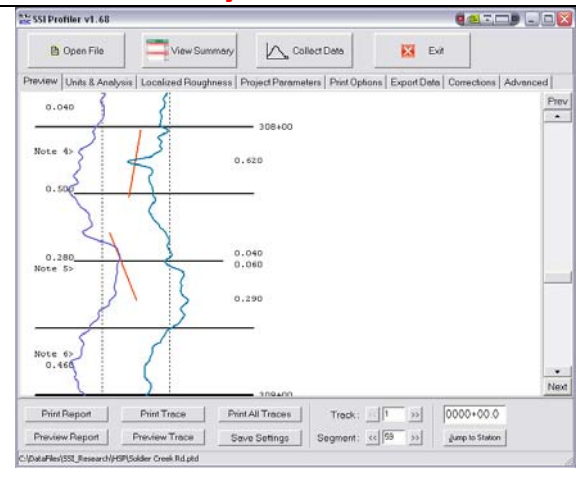
- ▲ Instantly Generates Commonly Used Profile Indices (IRI, PRI, etc)
- ▲ Sidewalk Condition Assessment for ADA Accessibility Guidelines
 - ▲ One-Inch (25mm) Data Sampling Interval
 - ▲ Precise Localized Roughness Detection
- ▲ One Touch PDF Images and Excel Exports of Profile Data



Zero Emissions Vehicle • Swappable Batteries



Rugged Operator Computer



Easy, Feature Rich Windows Software

HARDWARE FEATURES

SOFTWARE FEATURES

- **T3MOTION** vehicle platform. Electric, Zero Emissions.
- Field swappable batteries for long testing cycles.
- Minimum range 15 miles.
- Up to 75 miles with optional high capacity batteries.
- < \$0.50 daily operating costs.
- Lightweight (240 lb curb weight)
- Speed: 18-20 mph (29-32 kph)
- Zero degree turning radius.
- True ASTM Class I Profiling System at all collection speeds.
- Laser/accelerometer inertial platform with elevations and distance samples measured at 1 inch (25mm) increments.
- Guaranteed compliance with agency specifications.
- Ultra-compact profiling system components. All electronics and sensors smaller than Toughbook laptop used to operate the system.
- Non-contact inertial system—no sensors touch road surface.
- Core components field installable and available by express shipping
- Panasonic **Toughbook 19** military specification notebook computer with daylight readable Touchscreen controls.
- Wireless, removable computer with Windows XP/Vista operating system embedded into T3 vehicle with multiple interfaces.
- Wide range of collection speeds (<5 mph to vehicle maximum).
- Optional wide footprint sensor to reduce impact of tines, grooves and coarse textures on profile index and localized roughness values. (Multiple single point or RoLine sensors available).
- Optional Grade and Cross-Slope, and Texture measurements.
- GPS subsystem (optional) with real-time display of GPS position, GPS correlation with profile stations, and Google Earth integration.
- Surveying subsystem with high resolution RTK corrections available with integrated site design and machine control options.
- Buy or Rent (with or without operator).

- Feature rich Windows software for calibration, data collection and analysis software run on touch-screen Toughbook computer.
- On-Screen user's manual and instructions for profiling software.
- Real time diagnostics continually monitor health of profiling system and facilitate prompt resolution of support issues.
- Guaranteed to comply with agency specifications and test methods
- Instant test results and on-screen view of profile traces and reports.
- Profile reports and traces available on-screen, one-touch PDF images, hard copy print-from on-board printer, or in electronic format.
- One-touch data export to ERD, PPF, and Excel templates (supplied).
- Unmatched precision in detecting surface features exact dimensions of localized roughness—*Proven and Guaranteed!*
- Localized roughness reports predict dimensions of grind/fill areas.
- Colorized traces and highlights of bonus/penalty profile areas.
- Profile data reported under various profile indices [International Roughness Index (IRI), Profilograph Index (PI), Ride Quality Index (RQI), Half Car Ride Index (HRI), Ride Number, etc.]
- User-selectable data collection and analysis parameters (project details, filtering methods, blanking band, bump/dip templates, etc.).
- Multiple profile trace reporting for lateral surface analysis.
- Add new profile data to existing data files for comparison of original condition with constructed surfaces.
- Simulation routines for estimating ride index and localized roughness after corrective grinding or overlays.
- Raw data encrypted for infinite reanalysis with variable parameters.
- Industry leading Windows software designed by PhD engineers with decades of profiling industry experience.
- Desktop software supplied for viewing, analyzing, printing and emailing of profile data.
- Collection system pauses if vehicle slows <5mph or when stopped.

Industry Leading Windows Profiling System Software:

System Status: Collecting

Up track 1 at 0014+65.8

Speed (MPH): 19.3

English

Com Status

Stop

Track 1

Track 2

Pause

EE Pause

Dual Track Collector

SSI Profiler.ptd

New File

Segment	Station	Track 1	Track 2	Average	Defects
Summary	0+00.0 317+44.5	141.3	140.8	141.0	72 66
Sect 1					
1	0+00.0 5+28.0	210.1	184.2	197.1	5 2
2	5+28.0 10+56.0	179.4	179.9	179.6	1 2
3	10+56.0 15+84.0	246.0	198.8	222.4	5 4
4	15+84.0 21+12.0	249.3	230.1	239.7	12 4
5	21+12.0 26+40.0	219.4	204.1	211.7	6 8
6	26+40.0 31+68.0	220.3	191.6	206.0	8 7
7	31+68.0 36+96.0	185.9	152.0	168.9	1 5
8	36+96.0 42+24.0	324.1	293.8	309.0	9 6
9	42+24.0 47+52.0	137.3	125.4	131.4	2 2
10	47+52.0 52+80.0	143.0	127.7	135.3	0 0
11	52+80.0 58+08.0	114.1	107.6	110.8	0 0
12	58+08.0 63+36.0	105.0	168.7	136.8	0 0
13	63+36.0 68+64.0	92.5	92.6	92.6	0 0
14	68+64.0 73+92.0	106.5	95.3	100.9	0 0
15	73+92.0 79+20.0	121.1	180.3	140.7	0 0
16	79+20.0 84+48.0	109.2	119.5	113.9	0 0
17	84+48.0 89+76.0	156.6	142.4	149.5	1 3
18	89+76.0 95+04.0	153.3	109.6	131.4	0 0
19	95+04.0 100+32.0	106.8	79.6	93.2	0 0
20	100+32.0 105+60.0	126.5	109.6	118.1	0 0
21	105+60.0 110+88.0	164.7	148.4	156.6	2 1
22	110+88.0 116+16.0	249.0	194.3	221.7	3 2
23	116+16.0 121+44.0	81.8	74.8	78.3	0 0
24	121+44.0 126+72.0	106.4	179.7	143.0	0 1

- Computer Instructed Collection and Calibration Routines
- Immediate Results and Advanced Data Analysis Features

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