



SURFACE SYSTEMS & INSTRUMENTS, INC.

Custom Test Equipment • Mobile Technology Solutions

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CS9400 Inertial Profiler

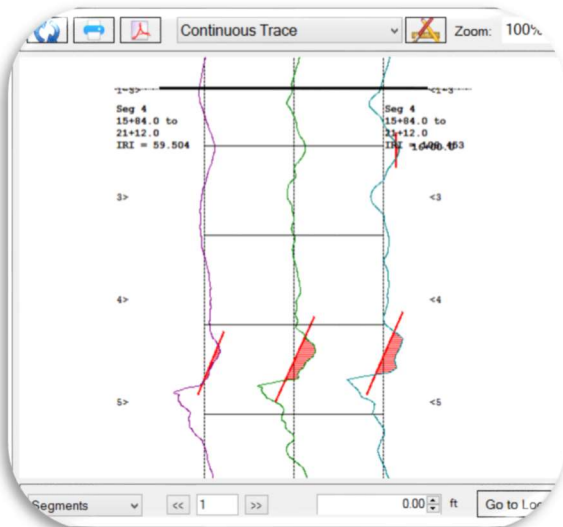


▲ CS9400 as a Lightweight Profiler ▲



▲ CS9400 as a High-Speed System ▲

A Portable, Cost Effective Solution for Precision Smoothness Testing



▲ Multiple Track Reporting ▲






▲ Reusable Case for Shipping/Storage ▲



▲ Wide-Footprint Laser ▲


Profiling System Specifications

- Collect data 5 to >100 mph (8-160 kph).
- Meets  **E950**,  **M328, R054, R056-057**.
- Meets or exceeds all Class I requirements of **ASTM E950**.
- Zero-Speed Option:** collect certifiable data through vehicle stoppages and at **ANY** speed: **0-100 mph**.
- Gocator 5 kHz  **wide beam lasers** for best results on textured asphalt and concrete pavements.
- ±10g accelerometers with 0.0001g resolution.
- Collection system can be used on multiple vehicles.


Compliance and Equipment

- Complies with all commonly used agency specifications.
- Equipped with industrial grade sensors and connectors.
- Core electronics manufactured in an ISO 9001 facility.







TOUGHBOOK

-  rugged computer on all systems.
- Connects to host vehicle's 12-volt power supply.

Operation, Training & Support

- Designed for safe one-person operation.
- Operating temperature: 32°-128°F (0°-53°C).
- Waterproof core components.
- Automatic software updates with SSI Profiler 3 .
- In field replacement of portable, modular components.
- Worldwide multi-lingual operator training available.
- Warranty** and rapid response **customer support** on all profiling system hardware and software components.
- Options:** **GPS-DMI**, survey GPS with CAD output, HD camera, rut measurement, texture and more.




Best-In-Class Profiling System Software

-  Windows 10 Professional software programs.
- Easy calibration instructions for bounce test, laser verification, accelerometer and distance calibrations.
- Patented multiple track collection and reporting.
- On screen visual aids and fast reporting of profile results.
- Support for  Google Earth, Google Maps .
- Navigate to locations within profile data using real time **GPS Tracker** and navigational/mapping capabilities.
- Configurable parameters (e.g. English or Metric units).
- Real time data display of profile trace.
- Electric Eye data trigger functions at 30+ feet (10+ meters).
- User programmable keyboard shortcuts
- Continuous Collection function tracks vehicle position below 5 mph and resumes inertial data at 5 mph or more.
- Pause areas integrated into collection. View paused areas separately or exclude.
- Multiple Profile Indexes: **IRI** (International Roughness Index, Mean IRI (**MRI**), Half Car Ride Index (HRI), Profile Ride Index (**PRI**, ASTM E1274), Ride Number (RN).
- Multiple outputs for **Areas of Localized Roughness:** IRI based roughness with configurable thresholds; Rolling Straightedge, Profilograph must-grind bumps, Texas 1001-S localized roughness, Boeing Bump reporting.
- Raw data is rewritable: change parameters at any time.
- Export data into  (PPF, ERD),  PDF,  Excel, CSV, PRO, CAD/LAS (survey systems).




SSI Profiler 3.2

Edit View Mapping Help



Summary Report



Zoom: 100%

Track 1			Track 2			Average
Seg	Station (ft)	IRI (in/mi)	Seg	Station (ft)	IRI (in/mi)	IRI (in/mi)
1	0+00.0	122.136	1	0+00.0	133.591	127.863
	5+28.0			5+28.0		
	5+28.0	81.657		5+28.0	92.005	
2	7+99.1		2	7+99.1		86.831
	0+00.0	108.399		0+00.0	119.480	
	7+99.1			7+99.1		

Defect Locations:

Run 1:

Defect Type	Track	Segment	Start	End	Length (ft)	Peak Height(in)	Peak Station	Closest GPS Note
1 Bump	1	1	0+06.3	0+15.2	8.8	Peak: 0.505	at 0+09.3 38 38' 24.55" N 121 23' 56.11" W	
2 Bump	2	1	0+08.3	0+11.1	2.8	Peak: 0.340	at 0+09.0 38 38' 24.52" N 121 23' 56.09" W	
3 Bump	2	1	0+30.3	0+41.3	11.0	Peak: 0.545	at 0+33.8 38 38' 24.69" N 121 23' 55.86" W	

Segments

<< 1 >>

0.00 ft

Go to Location

▲ GPS Tracking Thru Profile Data in SSI Profiler 3, Google Earth/Maps ▲

▲ Immediate Results with Advanced Data Analysis Features ▲

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