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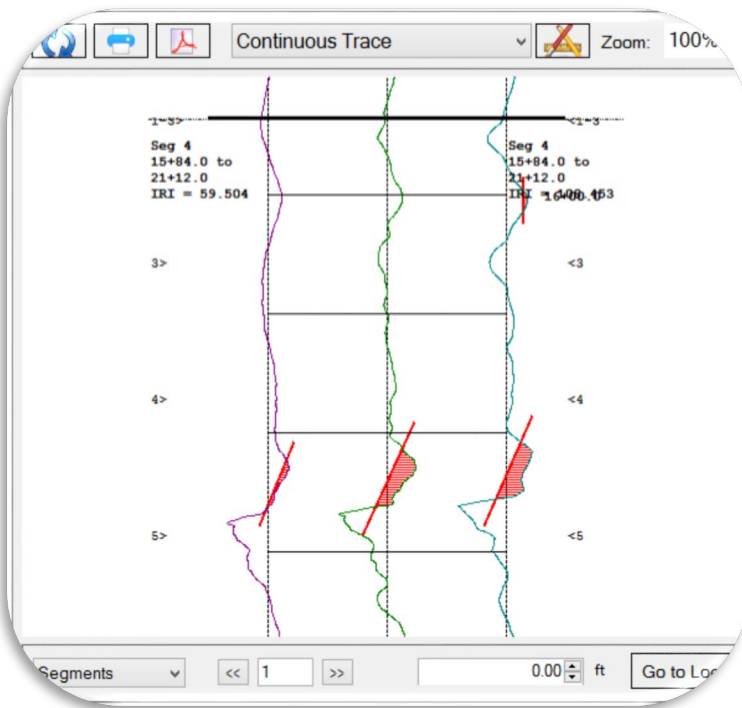
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**SURFACE SYSTEMS & INSTRUMENTS, INC.**

[smoothroad.com](http://smoothroad.com)

- Road Profilers • 3D Scanners • ADA Access • FF/FL • Custom Test Equipment

# CS8800 WALKING PROFILER



- ▲ Simple Software for Calibration, Collection and Analysis ▲
- ▲ Immediate On-Screen Results • GPS for Feature Tagging & Mapping ▲

- ▲ Rugged, Portable Hardware ▲
- ▲ Configurable Sampling Interval (1"/25mm default) ▲
- ▲ Laser Option for Pavement Texture ▲

## Precision Device for Pavement Smoothness, Transverse Profile & Texture



- ▲ Longitudinal Profile for Smoothness • Transverse Profile for Road Depth ▲
- ▲ Laser Option for Texture & Short-Wave Features ▲ AD/GIS, Project Computer ▲

- ▲ Reusable Case for Shipping and Storage ▲

HARDWARE FEATURES	SOFTWARE FEATURES
<ul style="list-style-type: none"> <li>•Complies with ASTM E2133 and E950M-22 (Reference Class Profiler).</li> <li>•Proven 99% repeatable.</li> <li>•Configurable sampling Interval: 1"/25.4 mm default.</li> <li>•Guaranteed compliance with specifications (AASHTO, ASTM, DOT).</li> </ul>	<ul style="list-style-type: none"> <li>•Reports IRI (ASTM E1926), MRI, PRI (ASTM E1274), RN, and configurable localized roughness. •Transverse profiles for rut depth.</li> <li>•Optional FF/FL and Americans with Disabilities Act (ADA) sidewalk access reporting (e.g. cross-slope, running grade, evenness, more).</li> </ul>
<ul style="list-style-type: none"> <li>•Qualified reference device for accuracy certification of inertial profilers.</li> <li>•Modular, portable design: all core components can ship express and are field replaceable.</li> </ul>	<ul style="list-style-type: none"> <li>•Instant test results and viewing of profile traces and reports.</li> <li>•Outputs longitudinal profile, transverse profile, elevation data, slope, ERD/PPF (for ProVal), CAD/GIS and text formats.</li> </ul>
<ul style="list-style-type: none"> <li>•Panasonic <a href="#">Toughbook G2</a> military specification notebook computer with daylight readable Touchscreen controls.</li> <li>•Professionally engineered, self-balancing frame with zero lateral tilting.</li> <li>•Assembles in minutes (by attaching handle and computer).</li> <li>•Entire system fits in reusable container for storage and shipping.</li> </ul>	<ul style="list-style-type: none"> <li>•Multiple trace reporting allows cross-surface analysis of parallel profile traces (patented by SSI).</li> <li>•Append data to existing files for comparison of original surface condition with corrected surface.</li> <li>•On-Screen user's manual and instructions for software operation.</li> </ul>
<ul style="list-style-type: none"> <li>•Multiple sensor inputs (encoders/inclinometers) processed with SSI proprietary collection electronics and filtering methods for best profile.</li> <li>•Bi-directional collection and reporting of multiple profile traces on a single report (patented technique for lateral surface evaluation).</li> </ul>	<ul style="list-style-type: none"> <li>•Profile reports and traces available on-screen, in PDF images, Excel (templates supplied), hard copy prints, or electronic formats.</li> <li>•Colorized traces and highlights of bonus/penalty profile areas.</li> <li>•Encrypted raw data for infinite reanalysis with variable parameters</li> </ul>
<ul style="list-style-type: none"> <li>•Rear wheelbase options available: 250mm (9.85") or 305mm (12").</li> <li>•Extended capacity Li-ion battery for full day (&gt;10 hours) of testing.</li> </ul>	<ul style="list-style-type: none"> <li>•Software updates by auto-installing internet download.</li> <li>•Real time diagnostics monitor system health and ease support.</li> </ul>
<ul style="list-style-type: none"> <li>•GPS subsystem with choice of accuracy configurations: Low (2-3 meter), Medium (0.7 meter) or High (2-5 cm, with subscription or RTK).</li> </ul>	<ul style="list-style-type: none"> <li>•GPS subsystem has real-time position display, merges GPS with project stations, GPS Tracker for navigation, and Google Earth export.</li> </ul>
<ul style="list-style-type: none"> <li>•3D survey option (merges profile with corrected GPS or total stations).</li> <li>•Pavement texture (MPD) option with spot or 3D wide footprint laser.</li> <li>•Worldwide support and on-site training. •CS8800 rentals available.</li> </ul>	<ul style="list-style-type: none"> <li>•Data infinitely rewritable with configurable analysis parameters.</li> <li>•Desktop license supplied for viewing, analyzing, reporting, and sharing of CS8800 data using SSI Profiler software.</li> </ul>

### TECHNICAL SPECIFICATIONS\*

•Device Classification/Rating	•ASTM E2133 and E950M-22 (Reference Class Profiler). •World Bank Standard—Class 1 profiling device.
•Test Results and Data Outputs	•IRI, MRI, HRI, PRI, RN, Boeing Bump, configurable localized roughness outputs; PDF, CSV, Excel, ERD/PPF and GPS/GIS formats. •Optional FF/FL (floor flatness/levelness) or ADA Access reporting.
•Localized Roughness	•Dimensions of bumps/dips reported with amplitudes of peaks/troughs. Configurable parameters for localized roughness for IRI and rolling straightedge methods. Boeing Bump airfield reporting.
•Measurement Units	•English/Metric (variable, re-writeable).
•Operating Speed	•0.0– 3.0 mph (0-5 kph) (slower speed required for best results on rougher or coarse surfaces.)
•Sampling Interval	•Default = 1 inch (25.4 mm). Alternate sampling intervals configurable.
•Profile Accuracy	•±0.381 mm (±0.015 inch) per 45.7 meters (50 yards).
•Height Measurement Precision •Grade Measurement Resolution	•±0.0025mm (±0001 inch) per: (1) 305 mm (12 inch) wheelbase, or (2) 250mm (10 inch) wheelbase. •1 in 4.7 or 12 degrees.
•Longitudinal (Distance) Resolution	•+/- .025%.
•Power Supply	•Main system battery: extended capacity 12V Lithium-Ion battery. Notebook PC runs on CS8800 main battery or separately on internal battery. Estimated battery life designed to 12-16 hours.
•Weight	•~40 lb/18 kg (without Toughbook computer, battery, accessories or carrying case).
•Dimensions	•34.5" (L) x 18.0" (W) x 12.125" (H) [collapsed, 36.5" with handle extended].
•Environmental	•Operating Temperature: 0 -140°F (-20 to 60°C). Storage: -50-170°F (-30-75°C). 0-92 % relative humidity.
•Data Collection Electronics	•SSI proprietary embedded microprocessor-based electronics architecture (ISO 9001 fabricated).
•Operator Computer	•Panasonic <a href="#">Toughbook G2</a> military specification notebook PC with touchscreen controls.
•Operating System	•Microsoft Windows 11 Professional operating system. •SSI built Windows software for calibration, data collection and feature rich data analysis/reporting.
•Data Storage	•Typical notebook hard drive (512GB-1TB) stores >200000 miles (320000 km) of profile data. Raw data files are transferable through portable storage media or email attachment.
•Data Formats	•SSI proprietary encrypted format. Export routines (supplied) for ERD/PPF (for ProVal), PDF or Excel.
•Options:	•GPS integrated with profile data. •Survey subsystem (RTK GNSS or total stations). •Texture laser.

\*Specifications subject to change without notice.

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