



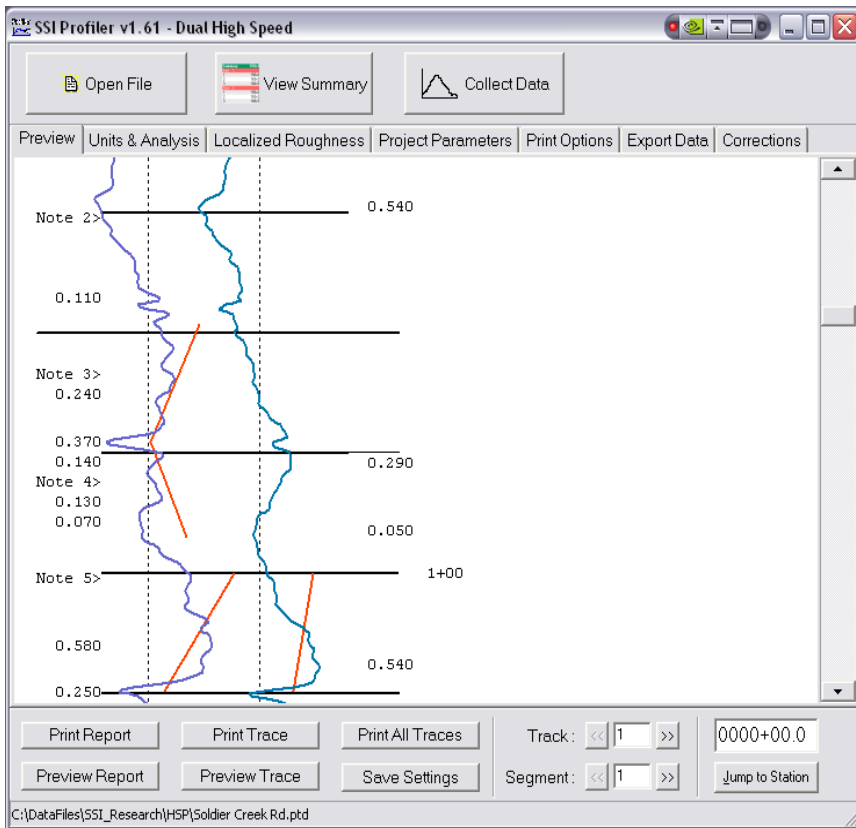
**SURFACE SYSTEMS & INSTRUMENTS, LLC**  
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[www.smoothroad.com](http://www.smoothroad.com)

# CS8800 WALKING PROFILER



- ▲ On-Screen View of Patented Multiple Profile Trace
- ▲ Exact Dimensions of Localized Roughness Detected
- ▲ Instantly Generates Commonly Used Profile Indices
- ▲ PDF Images and Excel Exports of Profile Reports and Traces

- ▲ Professionally Engineered Frame System
- ▲ True One-Inch (25mm) Sampling Interval
- ▲ Extended Battery Capacity

**Precision Surface Profiling Device for Roads, Airports, Floors and Specialty Applications**



▲ Texture Measurement With Optional Line Scan Laser



Mil-Spec Operator Computer with Touchscreen





# CS8800 WALKING PROFILER



HARDWARE FEATURES		SOFTWARE FEATURES	
<ul style="list-style-type: none"> <li>Proven 98% repeatable data on same surface test runs.</li> <li>True one inch (25.4 mm) sampling interval (equivalent to ASTM E950 Class I equivalent profiling device).</li> <li>Guaranteed compliance with agency specifications and test methods.</li> </ul>		<ul style="list-style-type: none"> <li>Reports IRI, HRI, PRI, Localized Roughness Outputs (must-grind bumps/dips, etc.) and Floor Flatness/Levelness (Beta version).</li> <li>Outputs longitudinal profile, elevation data, slope, simulated profilograph, raw strip trace, ERD, PRO and PPF formats.</li> </ul>	
<ul style="list-style-type: none"> <li>Modular, portable design. All core electronic and sensor components smaller than Toughbook operator interface computer.</li> <li>Core components field installable and available by express shipping</li> </ul>		<ul style="list-style-type: none"> <li>Instant test results and viewing of profile traces and reports.</li> <li>Feature rich Windows software programs for calibration, data collection and analysis.</li> </ul>	
<ul style="list-style-type: none"> <li>Panasonic <a href="#">Toughbook 19</a> military specification notebook computer with daylight readable Touchscreen controls.</li> <li>Professionally engineered, self-balancing frame.</li> <li>No assembly required (handle removes to fit entire system into compact 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 profiling software.</li> </ul>	
<ul style="list-style-type: none"> <li>Multiple sensor inputs (Encoders/Inclinometers) processed with SSI patented collection electronics and filtering methods.</li> <li>Bi-directional collection and reporting of multiple profile traces on a single report (patented technique for transverse surface evaluation).</li> </ul>		<ul style="list-style-type: none"> <li>Profile reports and traces available on-screen, in PDF images, Excel format, hard copy print out, or electronic format (email or desktop).</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>Extended capacity battery for full day (8 hours) of testing.</li> <li>Buy or Rent.      • On-site customer training and support.</li> </ul>		<ul style="list-style-type: none"> <li>Software updates by self-executing internet download.</li> <li>Real time diagnostics monitor system health and ease support.</li> </ul>	
<ul style="list-style-type: none"> <li>GPS subsystem (optional) with real-time display of GPS position, GPS correlation with profile stations, and Google Earth integration.</li> <li>Surveying subsystem (RTK corrected GPS or robotic stations) optional</li> <li>Texture measurement option with lateral scanning laser.</li> </ul>		<ul style="list-style-type: none"> <li>Data infinitely rewritable with variable analysis parameters (English or Metric units, profile indexes, data filters, localized roughness, etc).</li> <li>Desktop software license supplied for viewing, analyzing, printing and emailing of profile data.</li> </ul>	
TECHNICAL SPECIFICATIONS*			
• Device Classification/Rating		• ASTM E950 Class I equivalent. World Bank Standard—Class 1 profiling device.	
• Test Results and Data Outputs		• IRI, HRI, PRI, RQI, RN, CA Bridge, Variable localized roughness templates. PDF, Excel, ERD/PPF and raw strip trace formats. Floor Flatness/Floor Levelness.	
• Localized Roughness		• Dimensions of bumps/dips measured with maximum amplitude of peaks and troughs calculated. Variable template for measuring defects with straightedge, profilograph, or relative profile methods	
• Measurement Units		• English/Metric (variable, re-writeable).	
• Operating Speed		• .0– 3.0 mph (0-5 km/hr) (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		• ±0.0025mm (±0001 inch) per 254 mm (12 inch) wheel-base.	
• Grade Measurement Resolution		• 1 in 4.7 or 12 degrees.	
• Longitudinal (Distance) Resolution		• +/- .025%.	
• Power Supply		• Main system battery: extended capacity 12V battery. Notebook PC runs on CS8800 main battery or separately on internal Li-Ion battery. New system battery life designed to exceed 8 hours of testing.	
• 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: 15 -140°F (-10 to 60°C). Storage: -50-170°F (-30-75°C).	
• Data Collection Electronics		• SSI proprietary embedded microprocessor based electronics architecture (ISO 9001 fabricated).	
• Operator Computer		• Panasonic Toughbook 19 military specification notebook PC with touchscreen controls.	
• Operating System		<ul style="list-style-type: none"> <li>MS Windows XP/Vista operating system.</li> <li>Custom Windows software for calibration, data collection and feature rich data analysis.</li> </ul>	
• Data Storage		• Typical notebook hard drive (80-160GB) stores >200000 miles (320000 km) of profile data. Raw data files are transferable through portable storage media or email.	
• Data Format		• SSI proprietary encrypted format. Export routines (supplied) for ERD, PRO, PPF, PDF or Excel.	
• Options:		• GPS integrated with profile data. •Survey subsystem (RTK GPS or robotic stations). •Texture laser.	
*Specifications subject to change without notice.			

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