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SURFACE SYSTEMS & INSTRUMENTS, LLC

Custom Test Equipment • Mobile Technology Solutions

www.smoothroad.com

CS8700 LIGHTWEIGHT PROFILER



**Precision Digital Surface Profiling System Instrumented
on Professionally Customized Lightweight Aluminum Vehicle**

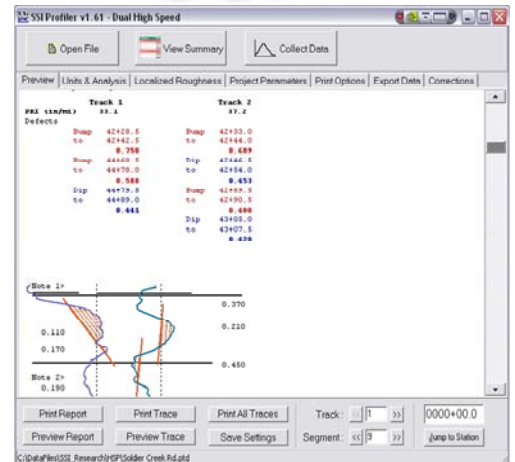


▲ Retractable Dual Track Option ▲

Panasonic



▲ Toughbook Touch-Screen Computer ▲



▲ Windows Collection & Analysis Software ▲



CS8700 LIGHTWEIGHT PROFILING SYSTEM



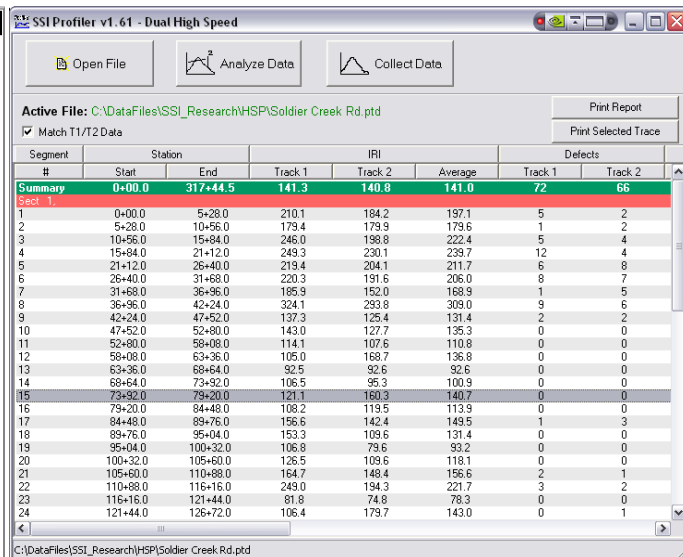
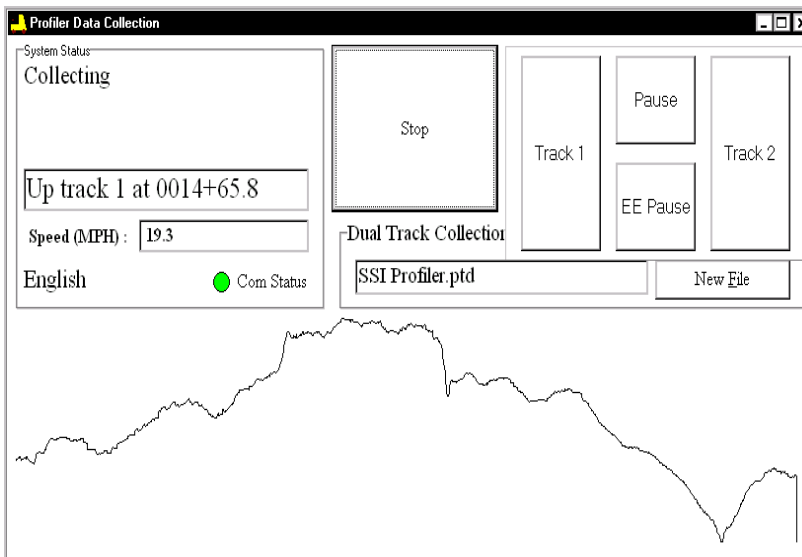
HARDWARE FEATURES

- Single or dual track systems available. (Note: single track systems have patented ability to report dual track profiles).
- Ultra-compact profiling system components. All electronics and sensors smaller than Toughbook laptop used to operate the system.
- Guaranteed to comply with agency specifications and test methods
- True ASTM Class I Profiler at all collection speeds.
- Optional wide footprint sensor configurations to reduce impact of tinning, grooving and coarse textures on profile index and localized roughness values. (Multiple single point or RoLine sensors available)
- Wide range of collection speeds (~5 mph to vehicle maximum).
- All-in-Cab operation—collect/analyze data without leaving vehicle.
- Non-contact inertial system—no sensors touch road surface.
- Core components field installable and available by express shipping
- Lightweight, aluminum industrial utility vehicle with 400cc engine.
- Vehicle uplifts supplied, including custom hard top, alternator, toolbox and four side safety strobes.
- Professionally engineered sensor mounts are vibration free and allow for lateral and horizontal repositioning of sensors.
- Panasonic [Toughbook 30](#) military specification notebook computer with daylight readable Touchscreen controls.
- Multiple data collection methods allow versatility and cost savings: (1) SSI reverse direction trigger collects exact stations without pre-marking test sections, (2) electric-eye sensor triggers by reflective tape, and (3) touchscreen push button trigger for start/stop.
- 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.

SOFTWARE FEATURES

- 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.
- 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 ▼



▲ Computer Instructed Collection and Calibration Routines ▲

▲ Immediate Results and Advanced Data Analysis Features ▲

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