



**SURFACE SYSTEMS & INSTRUMENTS, INC.**

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

Custom Test Equipment • Mobile Technology Solutions • FF/FL • Road Profilers • Panasonic Toughbooks

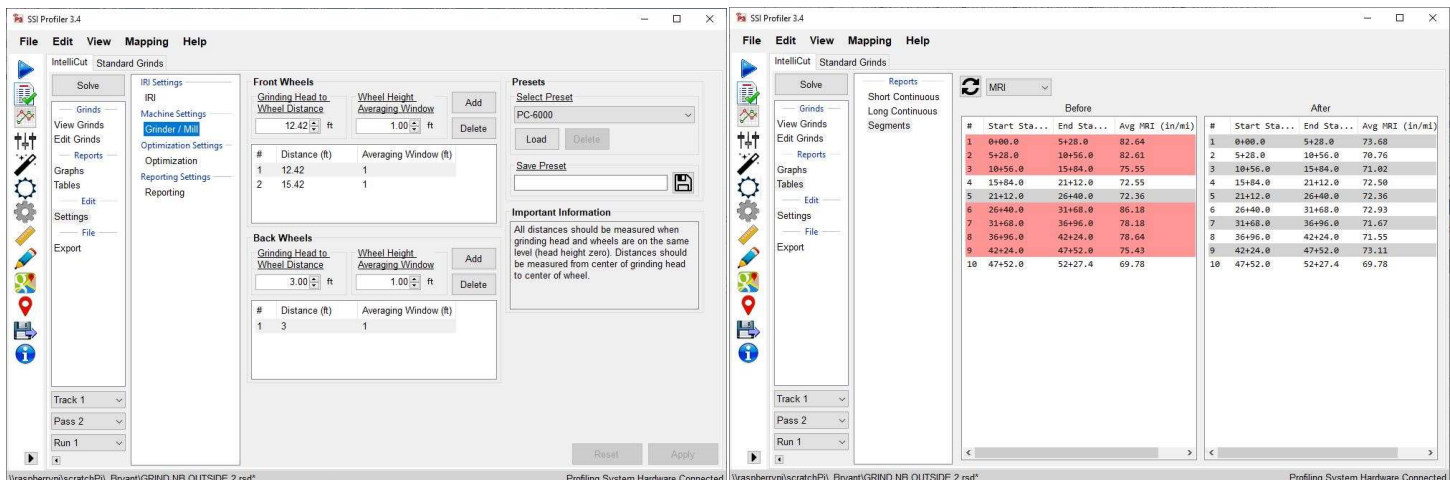
# INTELLICUT GRIND OPTIMIZATION

**Automation to Determine Locations for IRI & MRI Corrective Grinding**

**More Efficient than ProVal & Analyzes Dual Track Data Simultaneously**



▲ Load Existing Profile Data and Quickly Determine Grind Locations for IRI/MRI/ALR Thresholds ▲



▲ Commercial Grinder Models Pre-Configured ▲    ▲ Compare Roughness Before/After Grinds Per Pass ▲

## FEATURES

**Fast, Efficient Grinding Plans for Achieving Smoothness:**

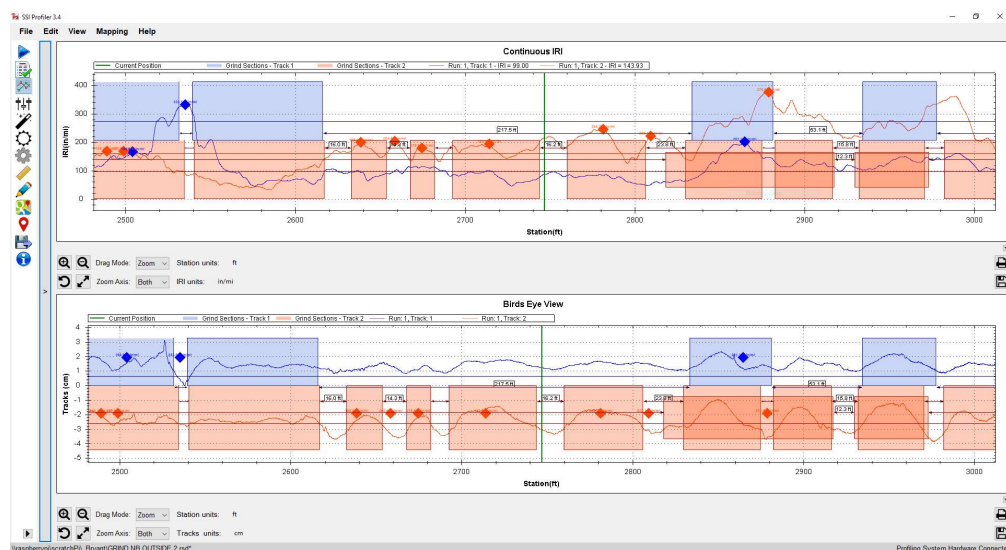
- Works with any PPF data or RSD data from SSI devices
- Embedded within SSI Profiler collection program
- User inputted short continuous, long continuous and fixed interval values for analysis and specification compliance
- Diminishing returns stop for maximizing operation profitability
- Simultaneously correct for any combination of IRI short continuous (ALR), IRI long continuous, and MRI/IRI fixed interval thresholds
- Optimize grinds per the operating cost of grinding
- Preset dimensions for commercially available grinders (e.g., G-38, PC-390, PC-1500, PC-4500, PC-6000)
- Multi-depth analysis corrects roughness in fewer passes
- Limit the cut depth to a restrictive value

**Improvements Over Other Software (ProVal):**

- Precise head entry and exit ("daylight") locations allow for on the fly head height calibration
- Determine optimized corrective grinding for MRI/IRI segment specifications
- Eliminate manual trial-and-error iteration
- Accurately reports MRI post-grind results
- Efficient grind selection eliminates unnecessary grinding
- Add more than 2 passes over same location
- Also simulates single and multi-pass fixed depth milling

**Optimization Works with CS7900 On-Grinder GPS Tool:**

- Navigate to grind locations without paint marks
- Utilize a precise GPS receiver with an optional subscription, accurate to within 0.1 meter (3.9 inches)
- Active display of exact locations to begin and end grinding; also shows height of trace peaks
- Display current position by GPS and linear distance to next and previous grind locations
- View single or dual graphs (profile, continuous IRI)
- Use the profile data and GPS collected with an inertial profiler or profilograph system
- Clear distinction between Track 1 and Track 2 grinds
- Grinding locations can be merged longitudinally and transversely
- Data can be transferred to the grinder in under 5 minutes by USB or Wi-Fi connection
- Hardware can be mounted on any diamond grinder or cold planer
- Hands-free use of software during grinding operation
- Large touchscreen utilizing Panasonic Toughbooks
- Portable hardware can be used on multiple pieces of equipment or in your vehicle
- View actual elevation profile for reference with cutting model
- View and create reports in PDF and Excel



▲ Real Time Navigation to Grind Locations Using CS7900 ▲

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