Product Bulletin

CIVIL ENGINEERING AND CONSTRUCTION

1 APRIL 2020

TRIMBLE ROADWORKS 2D PAVING CONTROL PLATFORM FOR ASPHALT PAVERS VERSION 1.0.0

Trimble Civil Engineering and Construction is pleased to announce Trimble® Roadworks 2D Paving Control Platform for Asphalt Pavers.

Trimble Roadworks is a new platform for paving control systems. The platform incorporates new hardware and software, while also utilizing existing Trimble Earthworks Grade Control Platform hardware and a familiar user interface similar to Trimble Earthworks Software.

Trimble Roadworks 2D for Asphalt Pavers is the successor to the Trimble PCS400 Paving Control System. It incorporates and enhances the features of PCS400 with refreshed and improved user experience, hardware, kitting, and software. Several additional new features for 2D paving are included in this release.

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Supported Asphalt Pavers

Trimble Roadworks supports asphalt pavers with PWM or PT+ valve types, found on such pavers as:

- Cat®
  - D Series
  - E Series
  - F Series
- Vogele
- Terex/Cedarapids
- Weiler

NOTE: *Asphalt Pavers with PT- valve types are not supported in Trimble Roadworks.*

NOTE: *Asphalt pavers may have valve types that vary depending on the age, make, and model of the machine. Refer to the machine service manual or contact your machine dealer to determine if the machine has a supported valve type.*

Hardware Improvements

Trimble Roadworks utilizes many of the same hardware components as Trimble Earthworks, such as:

- Trimble EC520 Electronic Controller (IMU not used for Roadworks 2D)
- Trimble VM510 Valve Module
- Trimble AA510 Audible Alarm

Displays

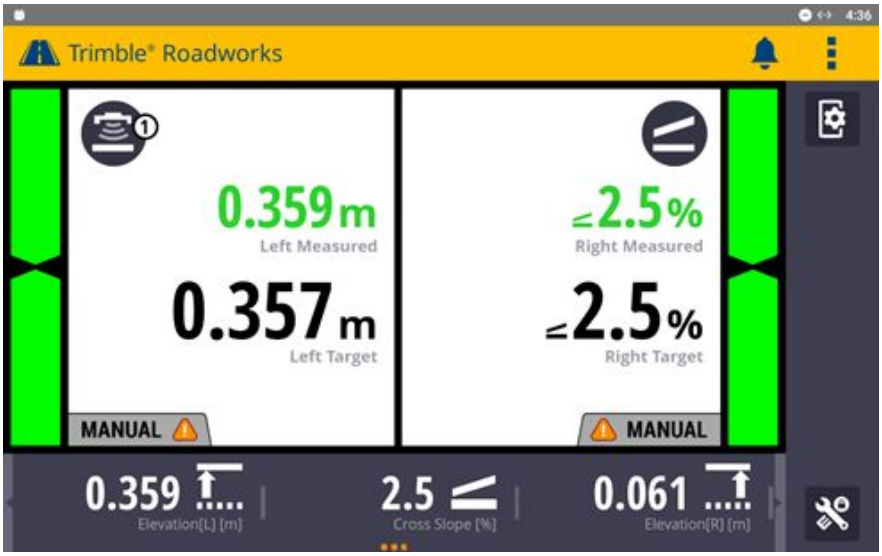
The new Trimble Roadworks system utilizes the ruggedized Trimble TD510 Display in conjunction with two tactile feedback keypads on both sides. The keypads are paired to the system and connected via harnessing and mounted on a bracket with the display in the housing. Up to three displays may be used on a Trimble Roadworks system for 2D asphalt paving.

Component Box

A new housing box assembly allows for the important hardware components (EC520, VM510, main harness etc...) to be mounted in a single location, simplifying installation and utilizing extension cables to reach connection points on the paver.

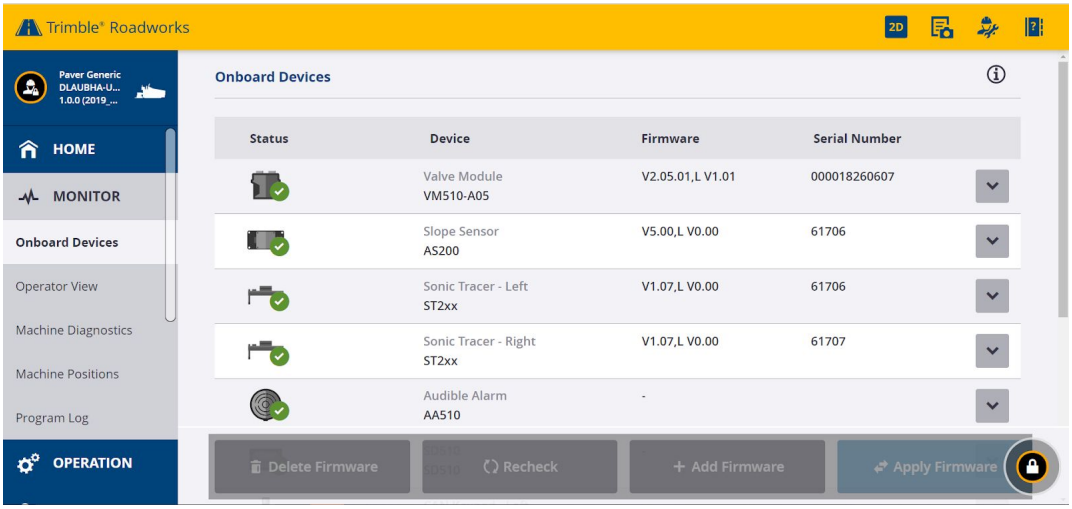
Software Improvements

Trimble Roadworks leverages the power of the Android OS. The intuitive operator interface allows users to edit measured and target values directly, change sensor combinations with a screen press, and more.



Web Interface

The Web Interface allows operators or technicians to configure the system, pair displays to the system, complete valve calibrations, manage files, monitor device statuses, and more.



Additional New Features

- **Separation of Controls and Display:** The system is controlled by the EC520 and not by the displays. The PCS400 CB440 displays were both the control and display mechanism for that system.
- **Text Items:** A slide bar in the lower part of the display may be configured with text items - elevation left, elevation right, and cross slope.
- **Upgrading:** The system can be upgraded without any additional software or tools. A user needs only the correct .sg6 file, which can be downloaded to a USB and then uploaded to the system.
- **Information Sync:** Files can be synched to and from the system via USB, including log files, diagnostic files, screen captures, and ***valve calibration files***. Valve calibration files may be stored for a machine and can be restored without performing a new valve calibration.
- **Remain in Autos While in Menus:** Operators can now enter screen menus without being disengaged from autos when doing so.
- **Information Messages:** Information messages remain on the screen while the operator can enter menus to take corrective action.
- **Edit Measured Values Directly:** Measured sensor values can now be changed directly using a press and hold action instead of only being able to adjust the target value.
- **Numerical Entry:** The measured or target value can be entered directly using a numerical keypad. The keypad is activated by a press and hold over a target or measured value.
- **System Snapshots (ZSNAPs):** A system snapshot captures a screen shot of the display as well as the valve calibration, log files, and CAN traffic for approximately the last 5 minutes, which is a helpful diagnostic tool.
- **Trimble LR410 Laser Receiver Support:** The LR410 can be utilized as a 2D sensor with Trimble Roadworks 2D. It cannot be used as a 3D sensor in PCS900 3D paving applications.

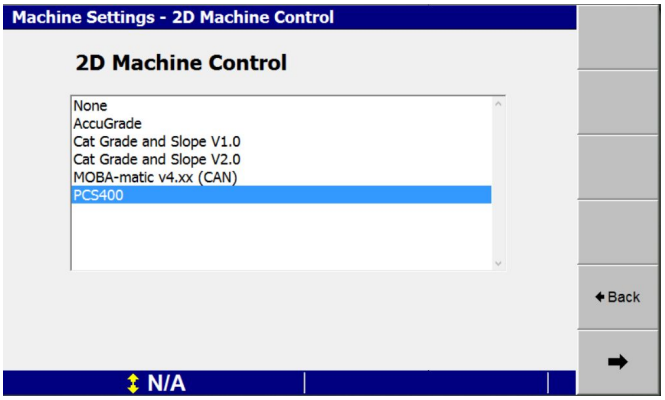
Existing 2D Paving Sensors

2D sensors and sensor kits used in the PCS400 Paving Control System are supported and utilized in Trimble Roadworks. The 2D sensors and kits specifically supported are the:

- Trimble ST200 and ST220 Sonic Sensor add on kits
- Trimble AS200 Angle Sensor
- Trimble CS200 Contact Sensor add on kit
- NA and EU Averaging Beam upgrade kits

Trimble PCS900 3D Paving Control System and Trimble Roadworks 2D

The Trimble PCS900 3D Paving Control System for asphalt pavers can be installed as the 3D system over the Trimble Roadworks 2D system. If utilizing PCS900 3D for asphalt paving over a Trimble Roadworks 2D system, the 2D machine control selection will remain as PCS400:



Simulator

The Trimble Roadworks simulator is a useful training tool for configuring the operator interface, web interface, and simulate paving operations on a PC or TD510.