

Calibrating Pins in *Wizard PDS*®

Document Scope

The pins in the *Wizard PDS* system may occasionally lose their calibration. The most common reason pins become misaligned is when an operator turns off a control box and manually moves the pins with a wrench. The risk of calibration issues increases with rough treatment such as dropping lumber on them.

Pin Positioning Overview

The pins are initially calibrated during installation of the *Wizard PDS* system. PLCs (programmable logic controllers) in the control boxes track their current location at all times by receiving data on how many rotations have occurred and in what direction.

If the control boxes are turned off, and the pins moved manually, the PLCs will not receive data for movement that happened while they were off, so the system thinks the pins are in different position than they actually are, and every command after that will be wrong.

As of software version 2020.1.15.100, there are three types of pins:

- Fixed—Never moves.
- Top—Moves either direction to hold the top chord in place.
- Bottom—Moves either direction to hold the bottom chord in place.

Calibrating

The *Pin Calibration* window allows an operator to tell the system the actual physical location of the pins. Rails can either be calibrated one at a time, several at a time, or in a group of all the same type. When selecting more than one rail, the values provided for the top and bottom pins will be changed for every rail selected.

Figure 1: Pin Calibration Window as of Version 2020.1.15.100

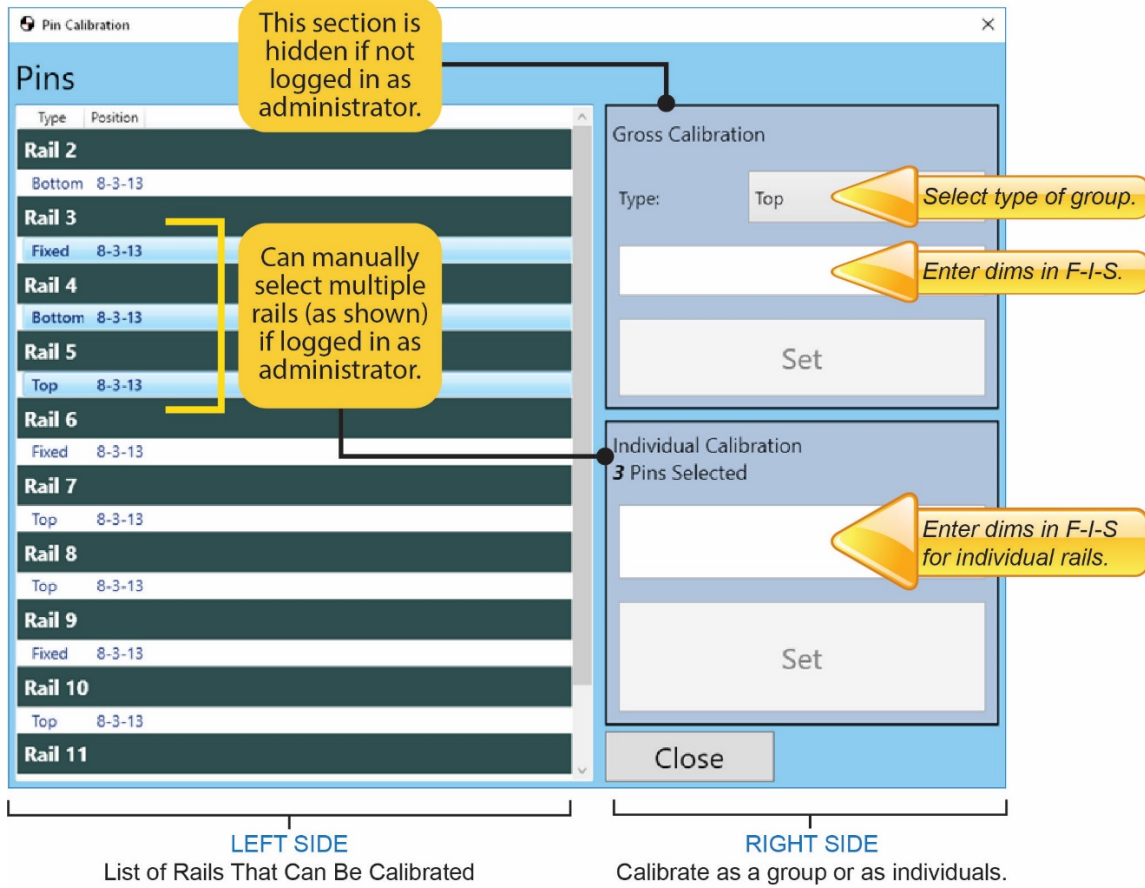
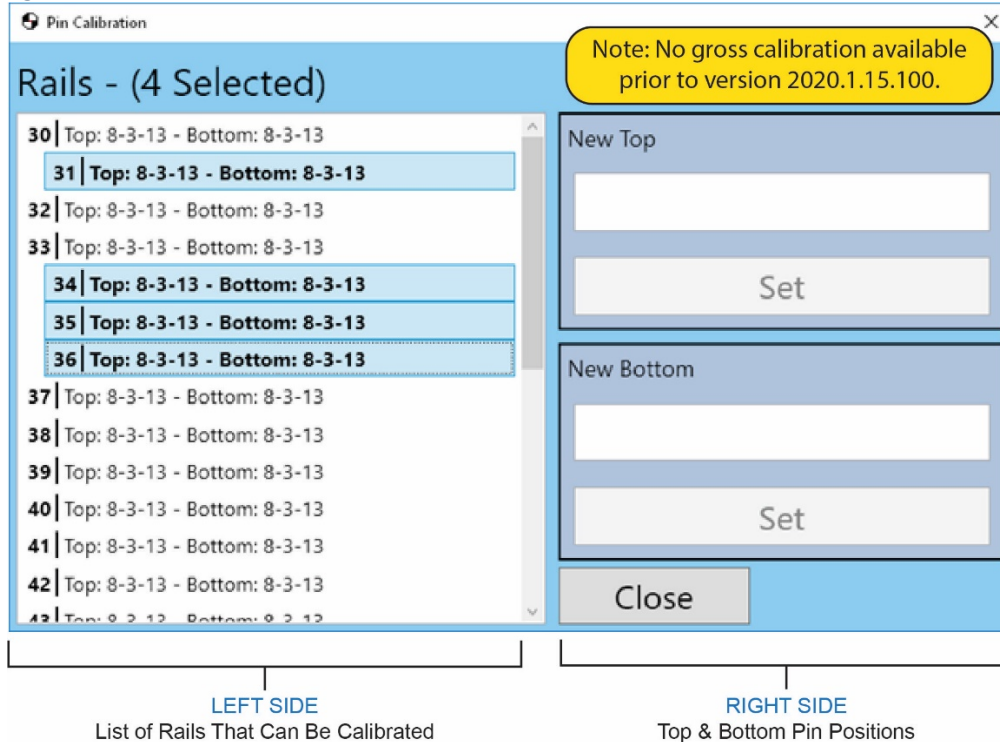


Figure 2: Prior to Version 2020.1.15.100: Pin Calibration Window, With Rails to Calibrate Selected



Setting new positions

The correct positions for the top and bottom pins can be entered in either in F-I-S (feet-inches-sixteenths) format or in decimal inches. The top and the bottom values are set separately from one another. Once you set the new pin position, the rail information on the left will change to what is currently in the PLC.

Figure 2: Position Dimensioning Formats

The image shows a software dialog box titled "Position Dimensioning Formats". It is divided into two main sections: "New Top" and "New Bottom".
- The "New Top" section contains a text input field with the value "12-3-15". To its right is a yellow arrow pointing left, with a callout box containing the text "Dimension entered in F-I-S format.". Below the input field is a grey "Set" button.
- The "New Bottom" section contains a text input field with the value "242.35". To its right is a yellow arrow pointing left, with a callout box containing the text "Dimension entered in metric format.". Below the input field is a grey "Set" button.
- At the bottom of the dialog box is a grey "Close" button.

Understanding How to Calibrate Multiple Rails (Gross Calibration)

By default, operators can only calibrate one rail at a time to prevent accidental over-calibration by inexperienced operators. To select more than one rail at a time, either manually or with Gross Calibration, the operator must be logged into the Move Pins software as an Administrator. This feature is useful during installation and maintenance.

To login as an Administrator, click the  icon.

Once logged in as an Administrator, you can either select multiple rails in the Pin Calibration window manually or use the Gross Calibration feature if you want to move all rails of one type.

To manually select multiple rails, use one of these ways shown here. Multiple rows will be highlighted, and the number of rails selected are displayed at the top of the window.

- Hold the **ctrl** key while clicking multiple rails anywhere in the left side of the window.
- Hold the **shift** key and click the first rail and the last rail in a consecutive list.

Troubleshooting

I can't type anything in either text box

If there is no rail selected then the text boxes are disabled. They are only enabled when a rail or rails are selected.

I can type in the box but the "Set" button is disabled

The **Set** buttons are only enabled when a value is provided in the text box. They are greyed out and disabled if the text box is empty.

I don't see every rail

If some of the controllers are not communicating, the software is unable to get the information for those rails. The list box can only be populated with information that the PLCs provide. Check the PLC configuration screen to see if any rails are showing as disconnected (red in color). Make sure every controller is communicating before attempting to open the calibration window again.

The rail numbers aren't accurate

This depends on the settings file. The rail set for each table has a property that determines where to start the rail numbering. Every rail has an optional property called "Label." If this property exists, the label will be shown. If there is no label, then the corresponding rail number is shown instead. Ensure that the rails affected are setup properly.

For example: If the table starts at rail 1 and rail 3 has a label property of "3b", the screen will show "3b". However if there is no "Label" property (or the property is empty) then the screen will show "3".

I can't select multiple rails

Must be logged in as an administrator.