

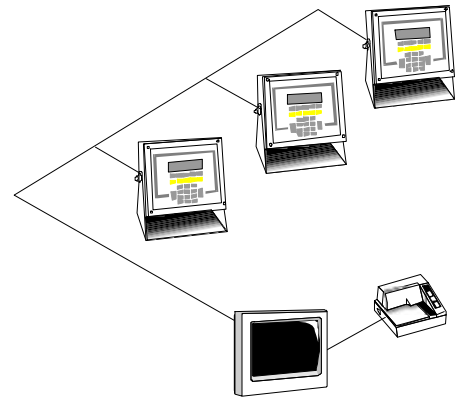
❖ **MULTI-MULTI-MULTI-SCALE APPLICATION**

A manufacturer of railroad equipment wanted to measure the load on each wheel of locomotives they manufacture to verify the balancing of the locomotive. They also needed the total load on each axle, on the front and the rear of the locomotive and the total weight.

Reference	<b>152083</b>
SIC Code	<b>3743</b>
Platform	<b>WI-130 Windows</b>

To achieve this, we were looking at 12 scales. Using an indicator for each scale creates a communication and wiring nightmare since all those indicators are to be connected to a single totalizer.

We used 12 Weighline sections, 3 WI-1130s with 4 scale input each. These WI-130 are going to a flat panel display using RS-485 in a multidrop configuration. A single 2 twisted pair cable goes from the totalizer display to all WI-130. The totalizer can access individual scale readings and calculate totals.



The totalizer display has an integrated touch-screen. From this screen the operator can see individual wheel readings, axle totals and the total weight of the locomotive. There are soft buttons to zero individual axles or all scales. A printer is also available to print readings and totals for their records.

M.T.



TOTALIZER DISPLAY

## ❖ ABOUT BARCODES

Barcodes are widely used in retail, manufacturing, transportation and health care businesses as a fast, accurate and easy way of entering data into an application.



Barcodes are just a different way of encoding numbers and letters by using a combination of bars and spaces of varying widths. They can be seen as a *alphabet* for computers. Barcode scanners decode that *alphabet* and transmits the data to a processor or computer.

### Symbologies

Barcodes are printed using one of several symbologies. The symbology can be seen as a font. Just as text can be printed in plain English using a Courier or a SansSerif font, a barcode can be printed using the UPC or the Code 39 symbology. The symbology does not determine the content of the barcode, just the way bars are laid out.

### What's on a barcode ?

Although barcodes can contain descriptive data such as quantities, dates/times, weights, or dimensions, they usually contain only a reference that is meaningful to the target application such as a product code, a customer account number or a vehicle ID. The application that processes the data read from the barcode can then lookup that reference in its database.

### Printing barcodes

Barcodes can be printed on labels or on tickets using printers that have built-in barcode printing capabilities. The data to encode in barcodes is sent by the device that controls the printer. Printers in the Weigh-Tronix product line that have barcode printing capabilities include the NCI 1410 and the Orion.

### Reading barcodes

The purpose of encoding data into a barcode, is so that the encoded data can be feed into an application without having to key that data in. Barcode readers come in different shape and with different capabilities. After decoding the bar pattern, the barcode reader, send the decoded data to the controller. The data can be transferred using an RS-232 interface. Weight indicators that have the capability to accept bar-coded data from a barcode scanner are the WI-130 and the Model 1310. In both cases, the indicator has to be programmed to process the information received.

## ❖ DISABLING THE APPLICATION IN A MODEL 1310

When installing or servicing a Model 1310 indicator, there may be times when it would be suitable to bypass or disable the application stored in the instrument to run tests or to view or set values. To do so, press and hold the PRINT key on the keypad, as power is applied to the indicator. The message CFG DISABLED will be briefly displayed, followed by the message BASIC DISABLED. The application in the Model 1310 will not be loaded and the indicator will show the scale weight.

To return to the application stored in the Model 1310, just restart the indicator.