Coupled In-Motion (CIM) Application Form

This form provides METTLER TOLEDO with specific information that enables us to determine the system most appropriate for your coupled in-motion application.

I. CUSTOMER INFORMATION:

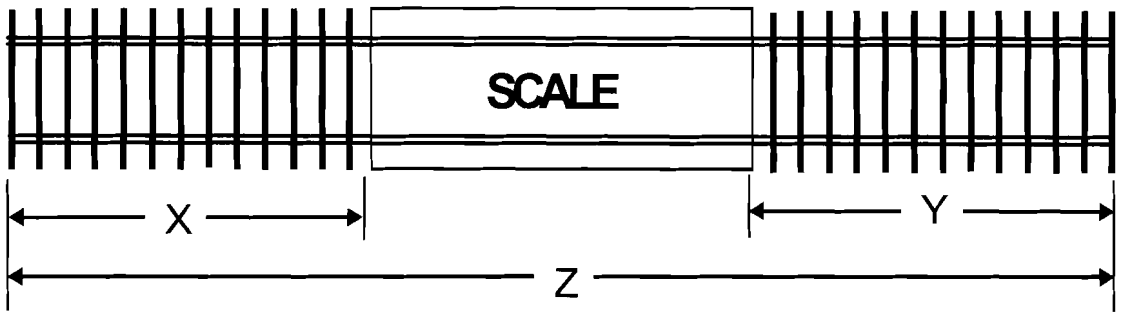
CUSTOMER INFORMATION		SITE INFORMATION:
	Name	
	Address	
	Contact	
	Phone	
	R/R	

II. SITE INFORMATION:

IDEAL INSTALLATION: The system requires a flat, level, and continuous track (no switchpoints or cross tracks) prior to and beyond the scale. The track should be equal to 2X the length of the longest train, or 1000 ft (300 m), whichever is shorter. T

TYPICAL INSTALLATION: METTLER TOLEDO realizes that an "ideal" installation is not always possible, however, acceptable results have been attained at installations less than "ideal." Performance may need to be optimized to maintain required accuracy.

RULE OF THUMB: The scale must be installed at a location where unwanted forces (binding couplers, car vibration, and oscillations) are eliminated or repeatable and a train must maintain a *constant* speed with a variance of only +/- 1 mph or km/h



Ideal track prior to scale: _____ (X) Grade: _____ % (Z)
Ideal track beyond scale: _____ (Y) Expected speed: _____ mph or km/h

Supply other site information, such as track layout and elevation plans, that may be helpful in determining the proper location of the CIM scale

Note: 75 ft (23 m) minimum concrete approach to the scale will be required on all CIM installations in each direction.

III. HARDWARE:

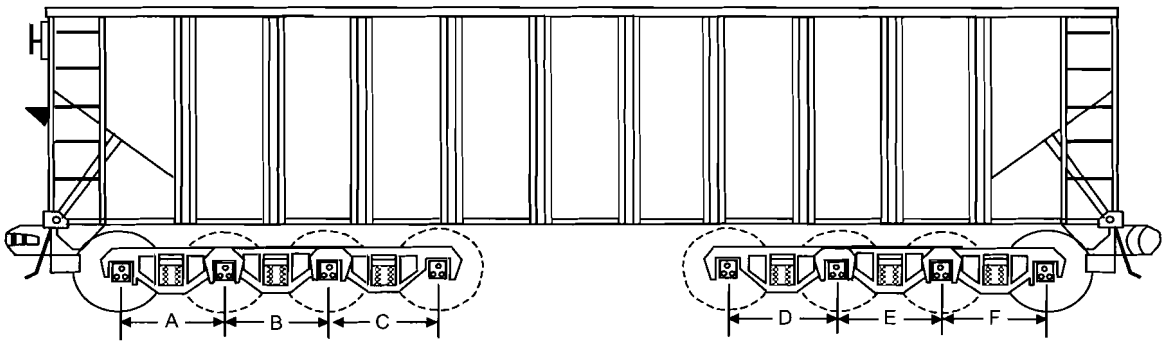
CAR IDENTIFICATION: To calculate the NET weight (product weight) in a car, the TARE weight must be input into the CIM controller. Please specify how this will be accomplished.

AEI*:	_____	Reweighing:	_____	ACI (Bar Code):	_____
Manual Entry:	_____	Host:	_____	Other:	_____

* Automatic Equipment Identification

IV. TRAIN INFORMATION:

TRAIN DESCRIPTION: The CIM controller can automatically distinguish between engines and cars within a train when the wheel spacings of the engine are clearly differentiated. If the engine is not identifiable by wheel spacings, it will be weighed and cou



A = ____ B = ____ C = ____ D = ____ E = ____ F = ____ G = ____

Complete the wheel spacings as needed to depict the engines/cars in the train.
Compare the engines to the cars for spacing differences.
(Copy this figure to identify other engines/car types that will be weighed by the 9411E.)

SIZE/VOLUME: The CIM controller can store a maximum of 650 cars in memory. Determine how many trains can be stored and how often the train data must be printed or sent to a host before it is cleared.

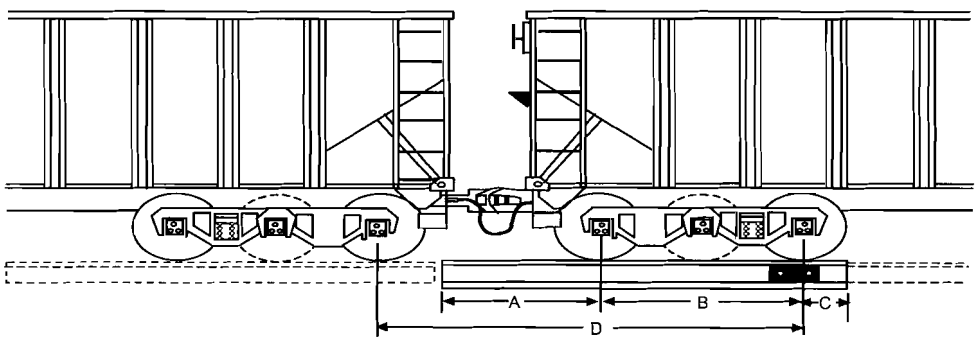
Avg. train length: _____ cars x _____ trains per day/week ÷ 650 cars = _____ times cleared per day/week

V. SCALE INFORMATION:

CALCULATING SCALE SIZE: The scale length is a critical parameter in the weighing operation, as it determines whether or not particular cars can be weighed. The following formulas are used, to determine the length required to weigh site-specific cars.

A = Distance to achieve the required 1/2 second of weigh time based on train speed.

6 mph = 53 in.	10km/h = 1400 mm
5 mph = 44 in.	9 km/h = 1250 mm
4 mph = 35 in.	7 km/h = 975 mm
3 mph = 26 in.	5 km/h = 700 mm



B = Length of the longest truck to be weighed
C = Distance from wheel detector to the end of the scale (Minimum is 6 inches or 150 mm.)
D = Distance from leading wheel of longest truck to the leading wheel of next truck.

$$\frac{\quad}{(A)} + \frac{\quad}{(B)} + \frac{\quad}{(C)} = \frac{\quad}{(D)}$$ MINIMUM SCALE LENGTH

____ MAXIMUM SCALE LENGTH (If A + B is less than D)
Note: If A + B is greater than D, consult the factory