Intercomp®

advanced weighing technology . . . by any measure

Vehicle Weighing Solutions

Eric Peterson - VP of Sales and Marketing

Intercomp®

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- Designs, Tests & Manufactures Products and Solutions for over 35 years
- Headquartered in Minneapolis, MN with Offices in London, UK & Santiago, Chile
- Placed & Installed Weighing Systems in Over 80 Countries
- Worldwide Leader in Scales for Transportation Industry
- Partnered with ITX Brazil

CERTIFIED ISO 9001:2008 COMPANY

Industries Served

Transportation

Military

Aviation

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CERTIFIED ISO COMPANY

Industrial

Racing

Agriculture

Mining

Traffic & Enforcement

Fixed Weigh-In-Motion

Portable WIM & Static Scales

Weigh-In-Motion (WIM) Applications

- Traffic Data Collection
- Pre-Screening & Pre-Sorting
- Road Research
- Weight Dependent Tolling

Real-time Data acquisition and reporting

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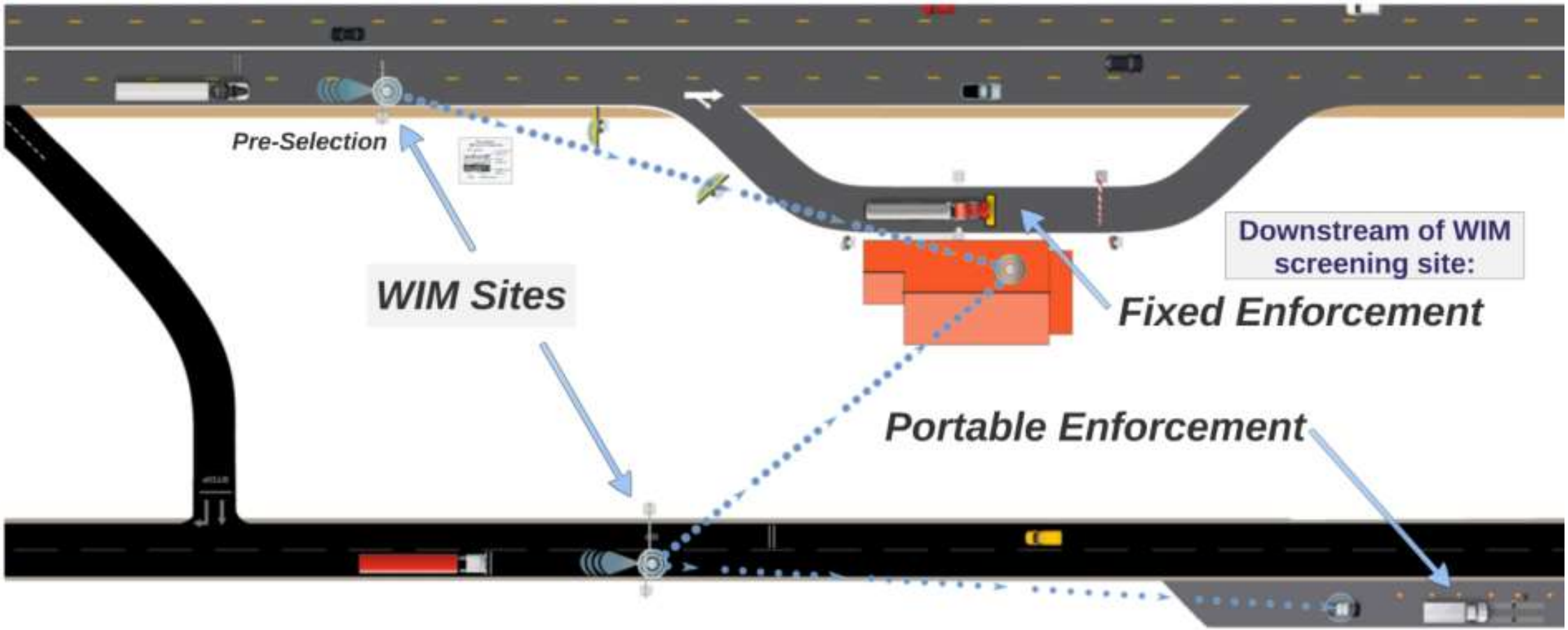
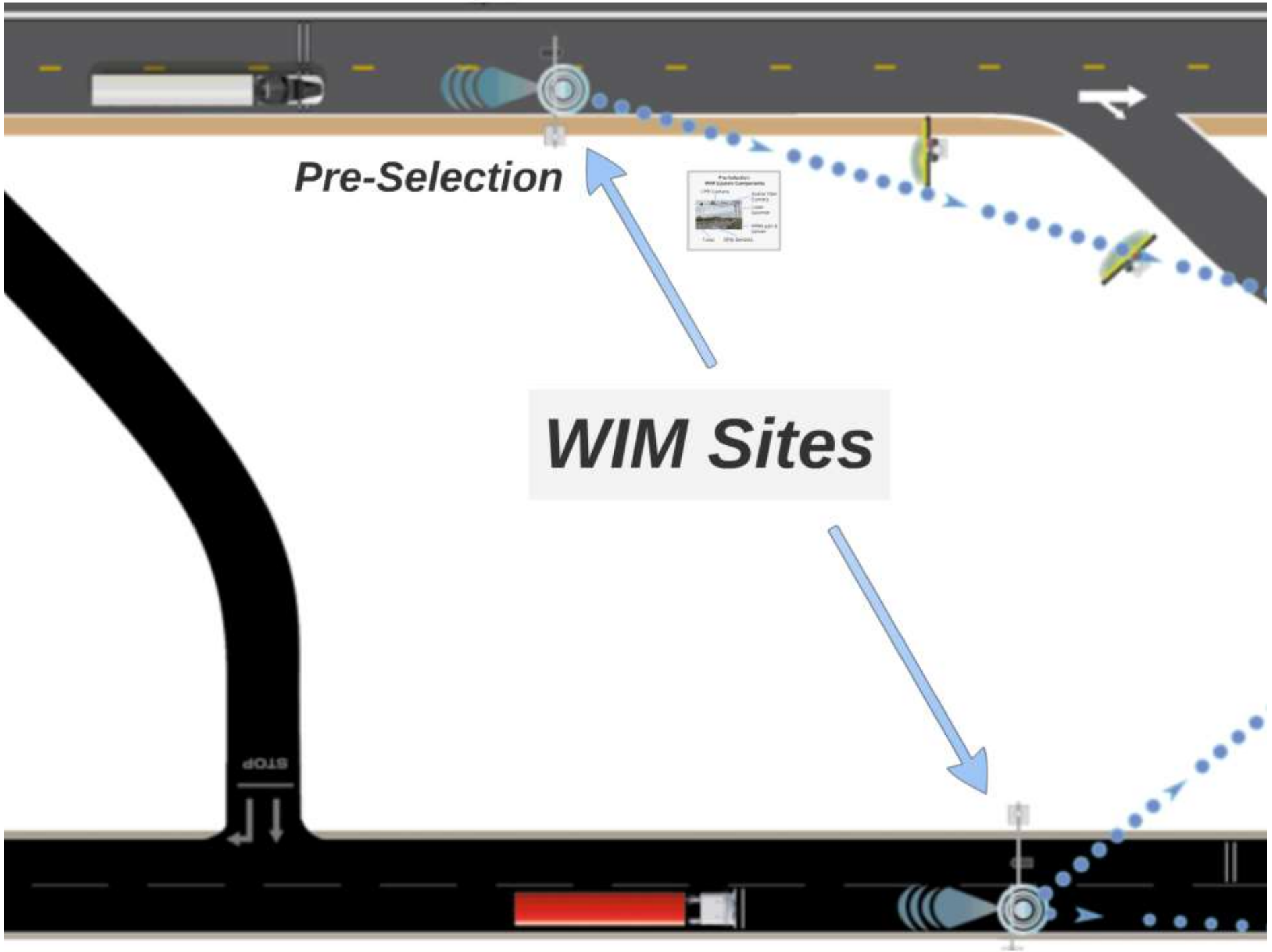
WIM System Overview



WIM Screening Video

https://www.youtube.com/watch?v=ZbJVnLsruPo&feature=youtu.be


Pre-Selection
WIM Sites
STOP

Pre-Selection
WIM System Components

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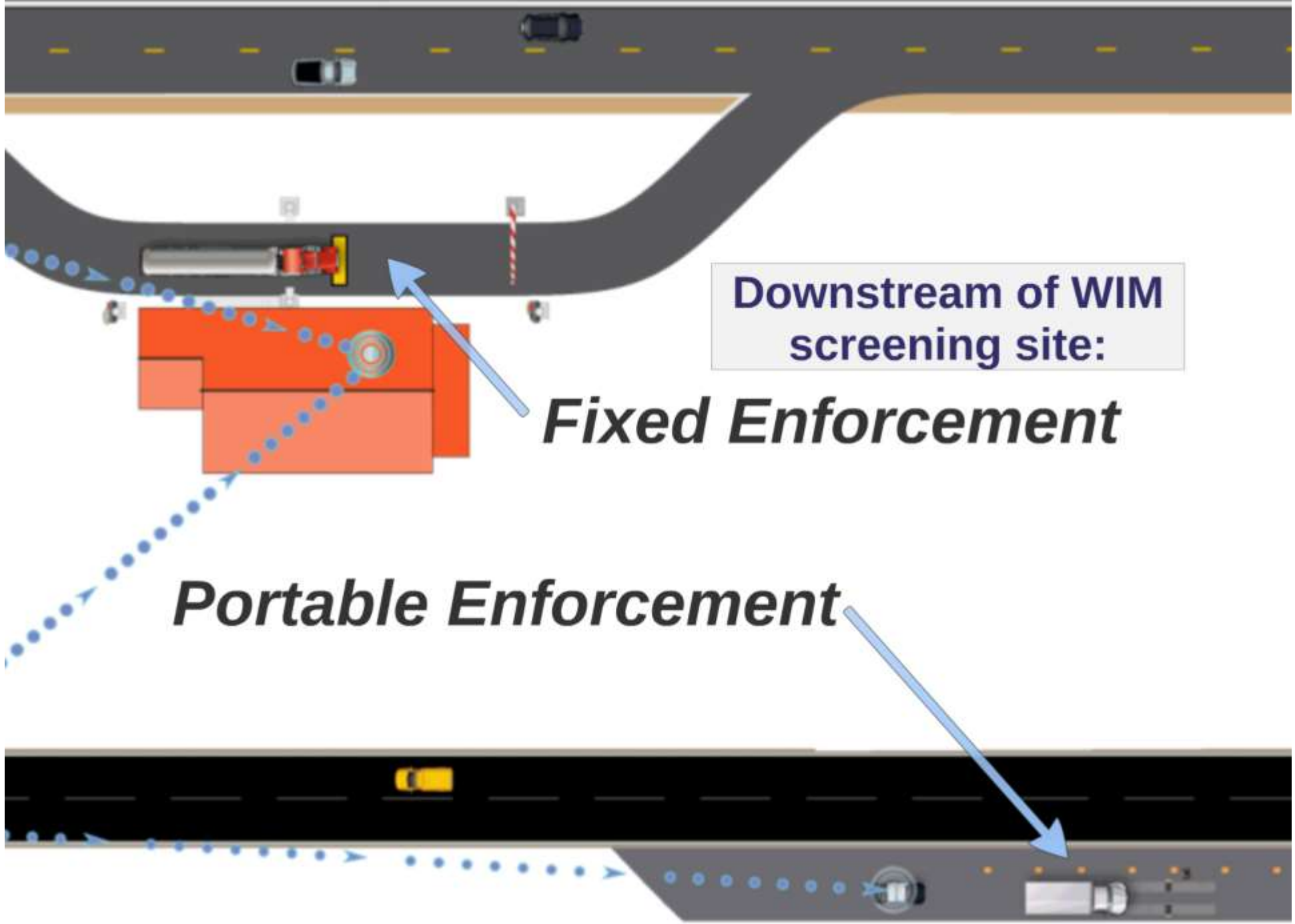
Downstream of WIM screening site:
Fixed Enforcement
Portable Enforcement

Fixed (WIM) Weighing Solutions

Low Speed WIM

High Speed WIM

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High Speed WIM Strip Sensor

- *Strain gauge-based technology*
- *Performance compliance meets or exceeds ASTM 1318 & COST 323*
- *Minimally invasive*
- *1 day installation*

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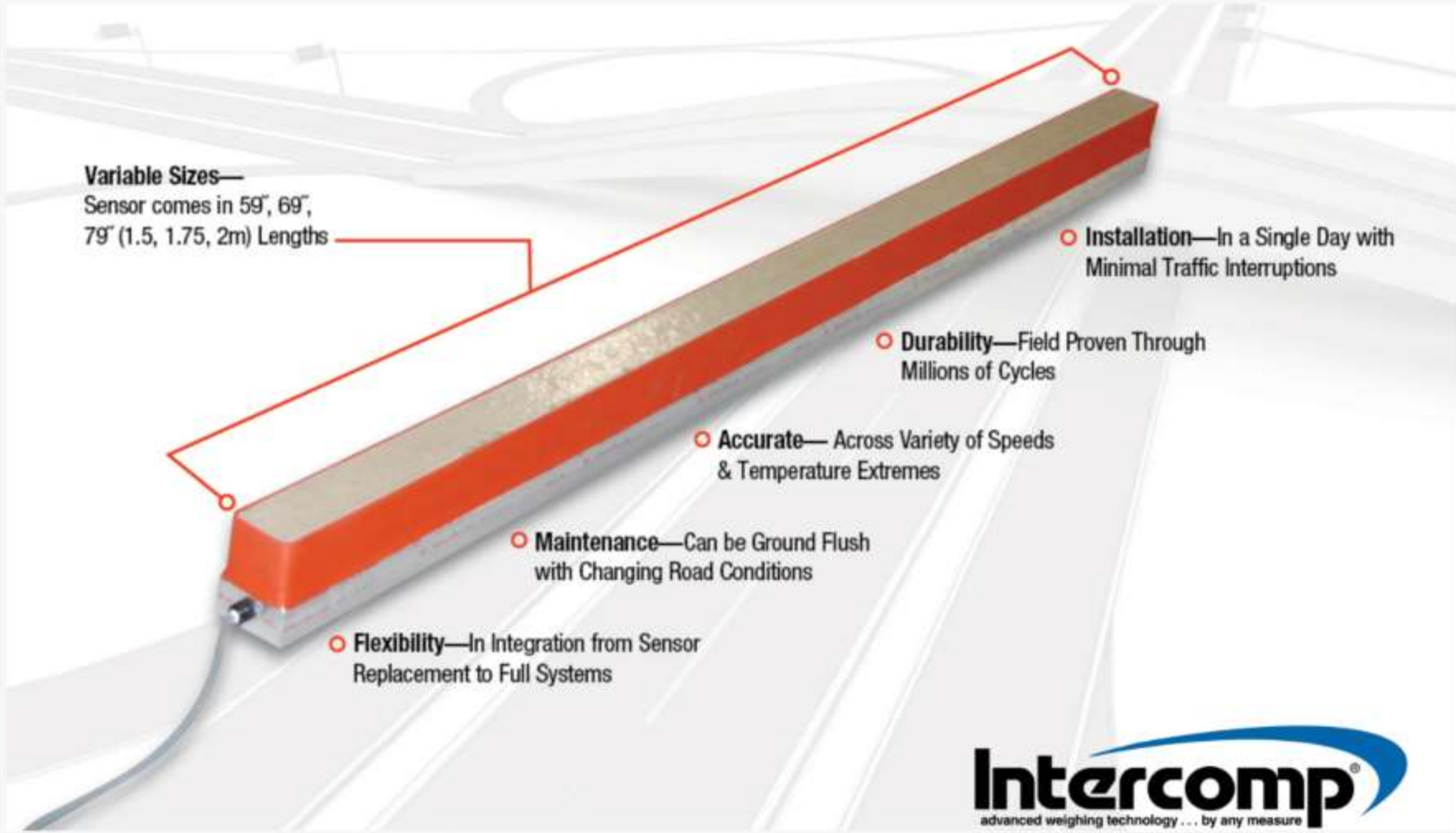
Strain Gauge Strip Sensor Features



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Installation

Accomplished within 1 day with minimal time and machinery

- *Mark areas for cuts- sensors and loop*
- *Cut slots with saw*
- *Place sensors*
- *Pour grout*
- *Confirm grout cured*
- *Grind surface flat*

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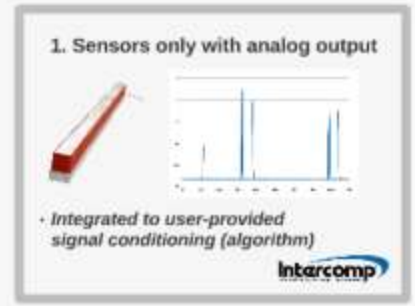
Intercomp Supplies Components or Systems

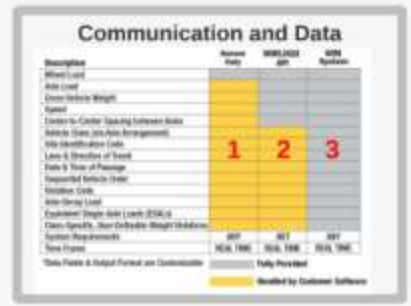
Offered in customizable options:

1. Sensors only

2. Sensors and WIMLogix CPU

3. Complete WIM System





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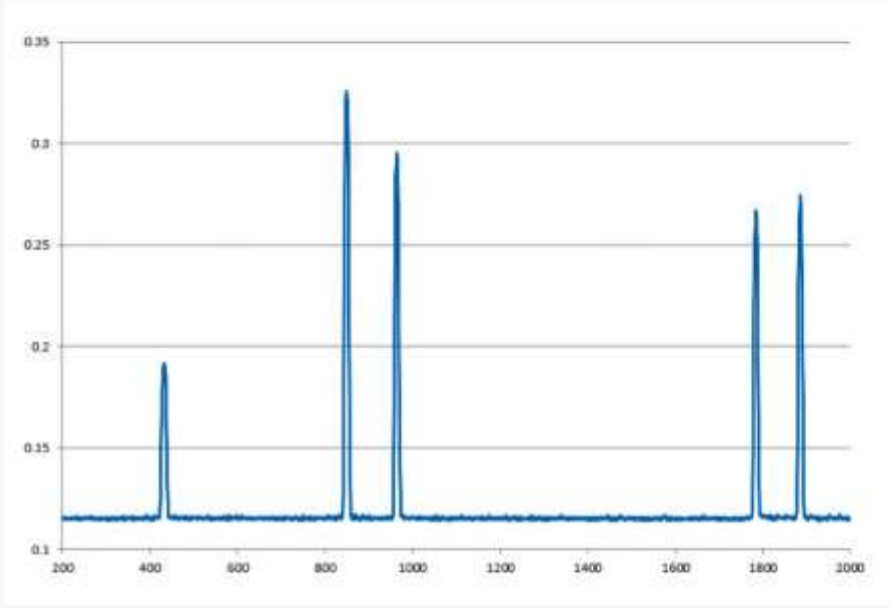
1. Sensors only with analog output



- ***Integrated to user-provided signal conditioning (algorithm)***

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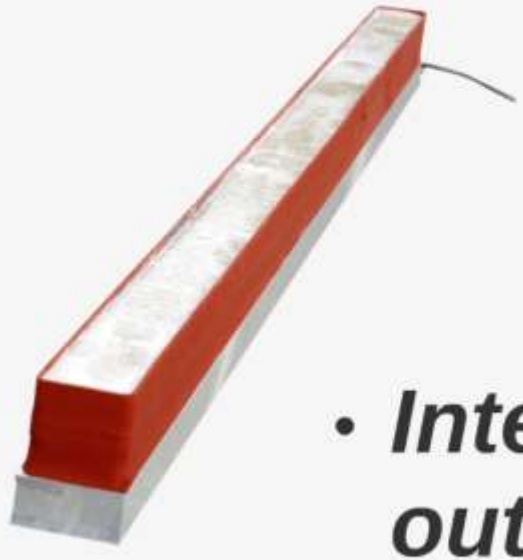
2. Sensors and WIMLogix CPU Serial or Ethernet output with Windows-based API



- ***Intercomp electronics with output to user-provided software***

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3. Complete WIM System and Software

LPR Camera

Scene View Camera

Laser Scanner

WIMLogix & Server

Loop

Strip Sensors

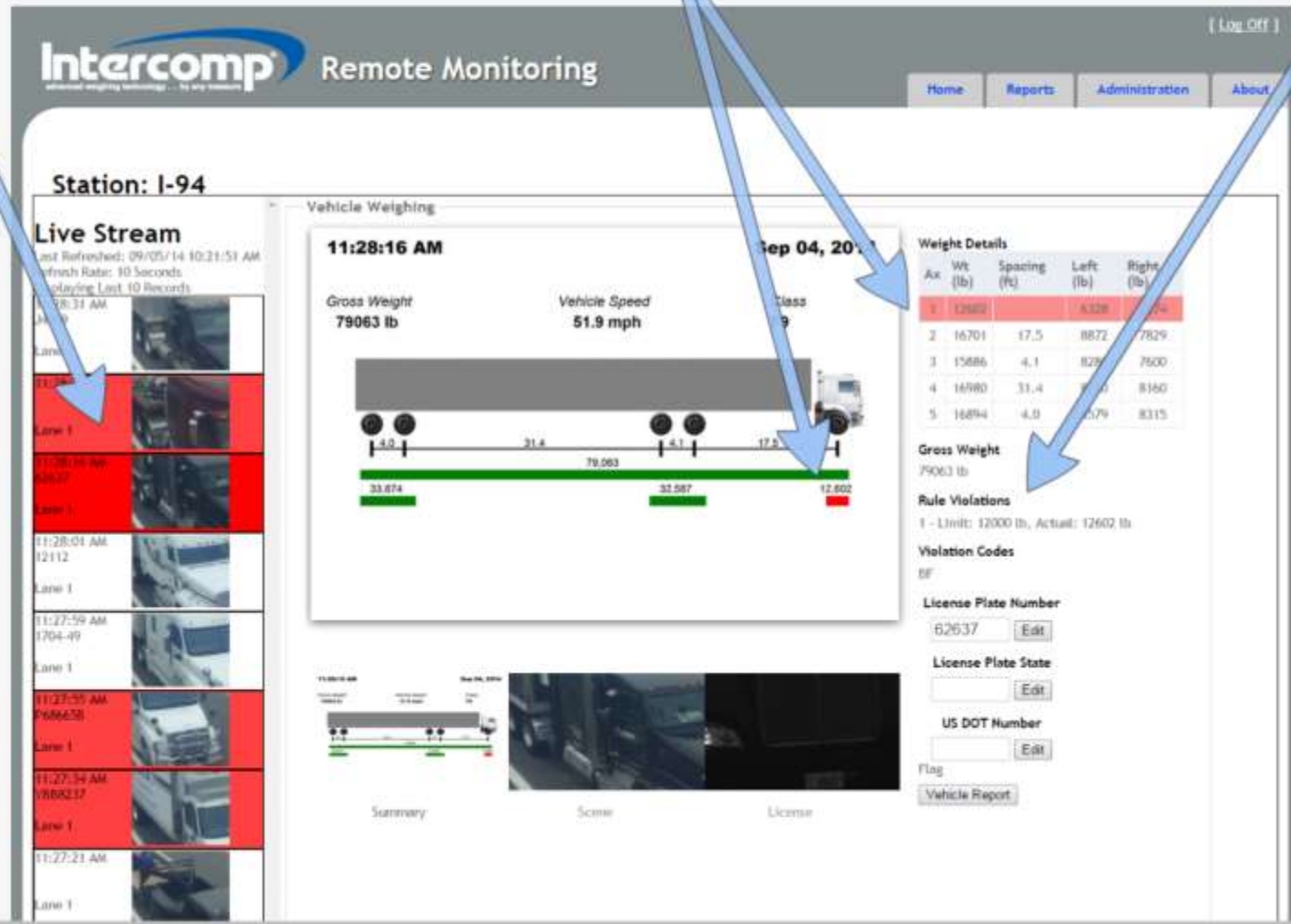
Intercomp

VWIM System Software

Flagged Vehicle Records

Specific Vehicle Violations

Additional Vehicle Information



Communication and Data

Description	Sensor Only	WIMLOGIX API	WIM System
Wheel Load			
Axle Load			
Gross Vehicle Weight			
Speed			
Center-to-Center Spacing between Axles			
Vehicle Class (via Axle Arrangement)			
Site Identification Code	1	2	3
Lane & Direction of Travel			
Date & Time of Passage			
Sequential Vehicle Order			
Violation Code			
Axle-Group Load			
Equivalent Single-Axle Loads (ESALs)			
Class-Specific, User-Definable Weight Violations			
System Requirements	ANY	.NET	ANY
Time Frame	REAL TIME	REAL TIME	REAL TIME

*Data Fields & Output Format are Customizable

Fully Provided

Handled by Customer Software

Strip Sensor Performance

Araranguá-SC WIM Test Site
Performance test on Gross Vehicle Weight (GVW) measurements
December 17-18, 2014

Araranguá-SC WIM Test Site Reports:

COST 323
"When evaluating the results according to the COST 323 methodology, for Gross Vehicle Weight (GVW) measurements the Intercomp system reached a performance equivalent to **class A(5) for a confidence level of 95%.**"

ASTM E1318
"When evaluating the results according to the ASTM E1318 methodology, for Gross Vehicle Weight (GVW) measurements the Intercomp system reached a performance equivalent to **Class III for a confidence level of 95%**"

DNIT Departamento Nacional de Infraestrutura de Transportes

UFSC

Intercomp

Test Vehicles:

Vehicle	3 axle	5 axle
Reference (kg)	20700	39162,5

"For the total of 60 runs, the average error and the standard deviation was calculated:"

Intercomp	
Average Error	-1,0%
Standard Deviation	1,8%

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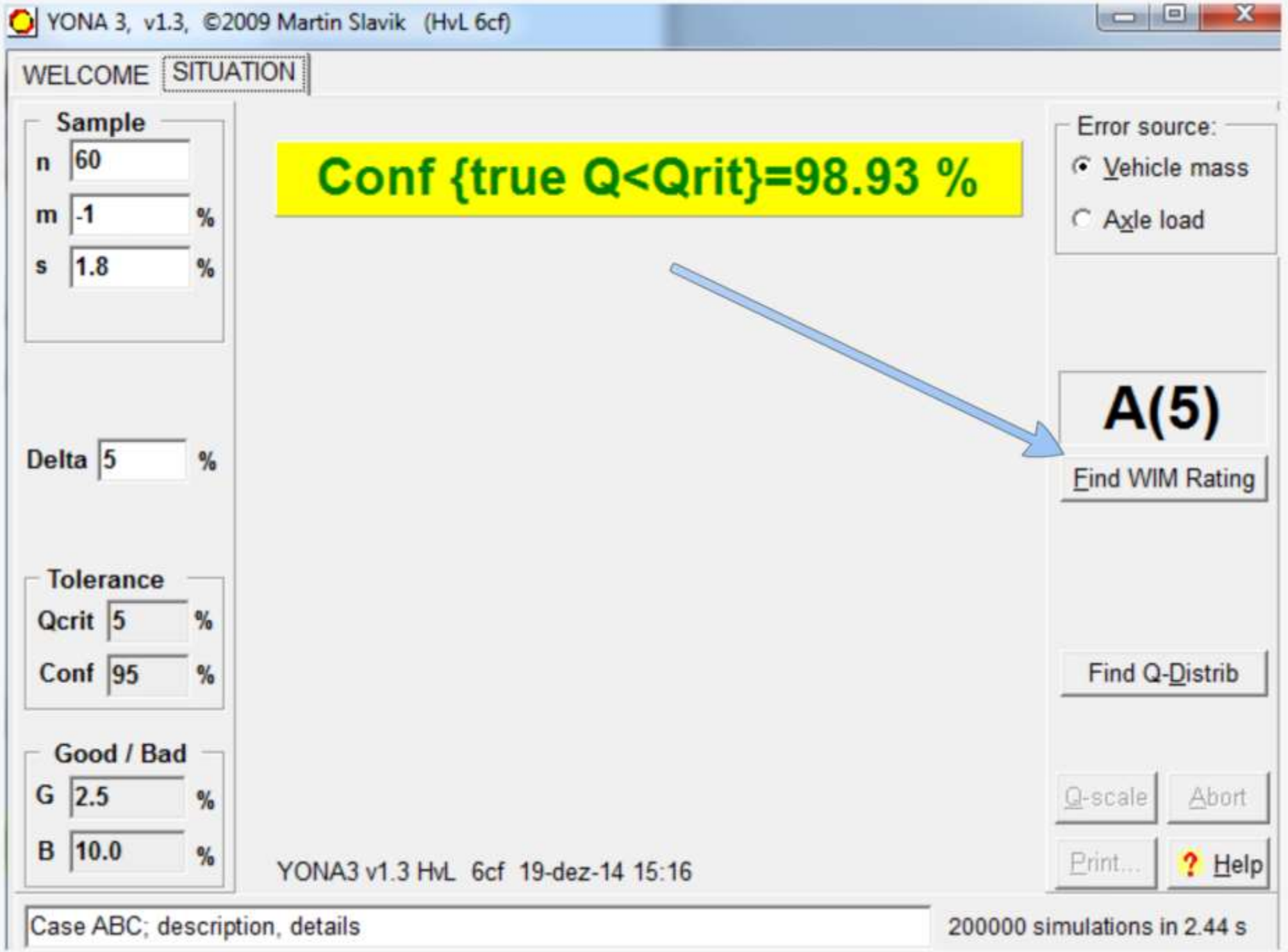
YONA 3, v1.3, ©2009 Martin Slavik (HvL 6cf)
WELCOME
SITUATION
Sample
n 60
m -1 %
s 1.8 %
Delta 5 %
Tolerance
Qcrit 5 %
Conf 95 %
Good / Bad
G 2.5 %
B 10.0 %
Conf {true Q<Qrit}=98.93 %
Error source:
Vehicle mass
Axle load
A(5)
Find WIM Rating
Find Q-Distrib
Q-scale
Abort
Print...
Help
YONA3 v1.3 HvL 6cf 19-dez-14 15:16
Case ABC; description, details
200000 simulations in 2.44 s

Araranguá-SC WIM Test Site Reports:

COST 323

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ASTM E1318

"When evaluating the results according to the ASTM E1318 methodology, for Gross Vehicle Weight (GVW) measurements the Intercomp system reached a performance equivalent to Class III for a confidence level of 95%"

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Low Speed Precision WIM

- *Weigh-In-Motion accuracy of 1-2% up to 12mph (20km/h)*
- *Static Mode accuracy +/- 0.1%*
- *Capacity of 25 Tons (per axle)*

- *Integration into Systems for weigh stations, ports, tolling*

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Medium Speed WIM

- *Load cell technology*
- *Half height of traditional load cell-type scales*
- *Alternative to bending plates*
- *Durable with long life*

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Portable Scale Solutions

Low-Speed WIM

Low-Profile Static

RF X WIRELESS WEIGHING

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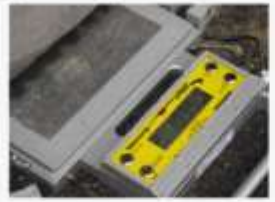
Portable Static Weighing Solutions



Fixed WIM Solutions

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Vehicle Weighing Solutions for over 35 years

- *Offer HS-WIM Components or Systems*
  - *Customize to site or capabilities*
- *Strain Gauge Load Cell technology*
  - *High Sensitivity, Durability, Accuracy, Temperature Compensation*
- *Performance consistent with ASTM 1318-09 and COST 323*
- *Complete range of Fixed and Portable WIM Products*

Portable WIM Solutions

Virtual WIM (VWIM) Solutions

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Vehicle Weighing Solutions for over 35 years

- *Offer HS-WIM Components or Systems*
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- *Strain Gauge Load Cell technology*
  - *High Sensitivity, Durability, Accuracy, Temperature Compensation*
- *Performance consistent with ASTM 1318-09 and COST 323*
- *Complete range of Fixed and Portable WIM Products*

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Vehicle Weighing Solutions
Eric Peterson - VP of Sales and Marketing

Portable Scale Solutions
Low-Speed WIM
Low-Profile Static
Intercomp

Portable Scale Series
Intercomp

Medium Speed WIM
· Load cell technology
· Half height of traditional load cell-type scales
· Alternative to bending plates
· Durable with long life
Intercomp

Low Speed Precision WIM
· Weigh-In-Motion accuracy of 1-2% up to 12mph (20km/h)
· Static Mode accuracy +/- 0.1%
· Capacity of 25 Tons (per axis)
· Integration into Systems for weigh stations, ports, tolling
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Fixed (WIM)
Weighing Solutions
Low Speed WIM
High Speed WIM
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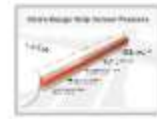
Indicators, Displays,
Software, Apps & Printers

High Speed WIM
Strip Sensor
Intercomp



Intercomp Supplies
Components or Systems
Intercomp

Portable Static Weighing Solutions
Fixed WIM Solutions
Portable WIM Solutions
Virtual WIM (VWIM) Solutions
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Weigh-In-Motion (WIM) Applications
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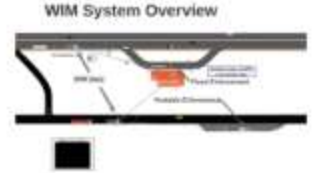
Strip Sensor Performance
DNT


WIM System Overview

RF X
WIRELESS WEIGHING

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