

Steel Inventory Control and Management System



sales@ilon-engineering.com 1-888-7788064

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com

 **Eilon Engineering**
Weighing Systems Ltd.



1. **System Description**
2. **System Operation**
3. **Installation example**
4. **Software Example**
5. **Advantages of implementation**

sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



1. System Description

The Ron CraneMaster (RCM) is an effective tool for steel manufacturers and suppliers to monitor, control and manage their inventory and manufacturing.

Precise inventory control results in increased efficiency, reduces inventory size and significant savings

sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



1. System Description

Increased savings are achieved by:

- * Greater detail for inventory control makes it possible to maintain smaller inventories (approximately 20% smaller).
- * Low system cost vs. millions in savings results in a great return on investment.
- * Load monitoring can be integrated with existing infrastructure without requiring down time.
- * Complete control of inventory and tracking of manufacturing processes.
- * Inventory count does not require down time.
- * Eliminate unplanned supply runs or plant-to-plant transfers, while ensuring precise customer deliveries.
- * Detailed tracking of raw material supplies for well planned and cost effective purchasing.
- * Space previously used for inventory can be retasked for other profit generating activities.
- * Materials are tracked and located with ease.
- * Reduce or eliminate inventory deficits.

sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



1. System Description

Hardware:

1. Highly accurate weather-proof load cells ($\pm 0.1\%$)*
2. Data collection and analysis unit
3. Printer (Optional)
4. Set point (Optional)
5. RFID for automatic identification and tagging (date / time; steel type; barcode, etc)

* Meets suitable environmental conditions (IP-67) Weather conditions, storm and water jets.

sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



1. System description

Software:

1. Data collection, processing and display:

- * Collection, transfer, reception and processing of data at a computer station and / or mobile devices
- * Track the updated total weight of steel inventory cataloged by type and size (diameter and length) in predefined groups (storage baths) and their management in real time
- * Tracking of material movements (history of each entry and exit with date and time)

2. Database:

All transactions are saved as history in the reporting system as HTML, JSON or CSV files.

sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



2. System operation

The system includes the following components:

- Load cells for measuring loads
- RFID tags to identify the part number (diameter and length of stock)
- Communication to transmit the information in a wired or wireless manner according to the customer's requirement
- The information management system.



sales@ilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



2. Description of the system operation:

Data Collection:

- Load
- Traffic (entry and exit)
- Date/Time
- Identification of inventory type (steel bars in different and predefined diameters and lengths), according to the part numbers that will be defined and placed by the user with RFID tags.

Real-time data display:

- Real-time summary data will be collected and displayed on the user screen
- The crane operator will be presented with basic data
- Each authorized user has access to complete data including transactions such as history and reports.
- In addition, control of entry and exit of material in the process of changing steel bar diameters

sales@eilon-engineering.com 1-888-7788064

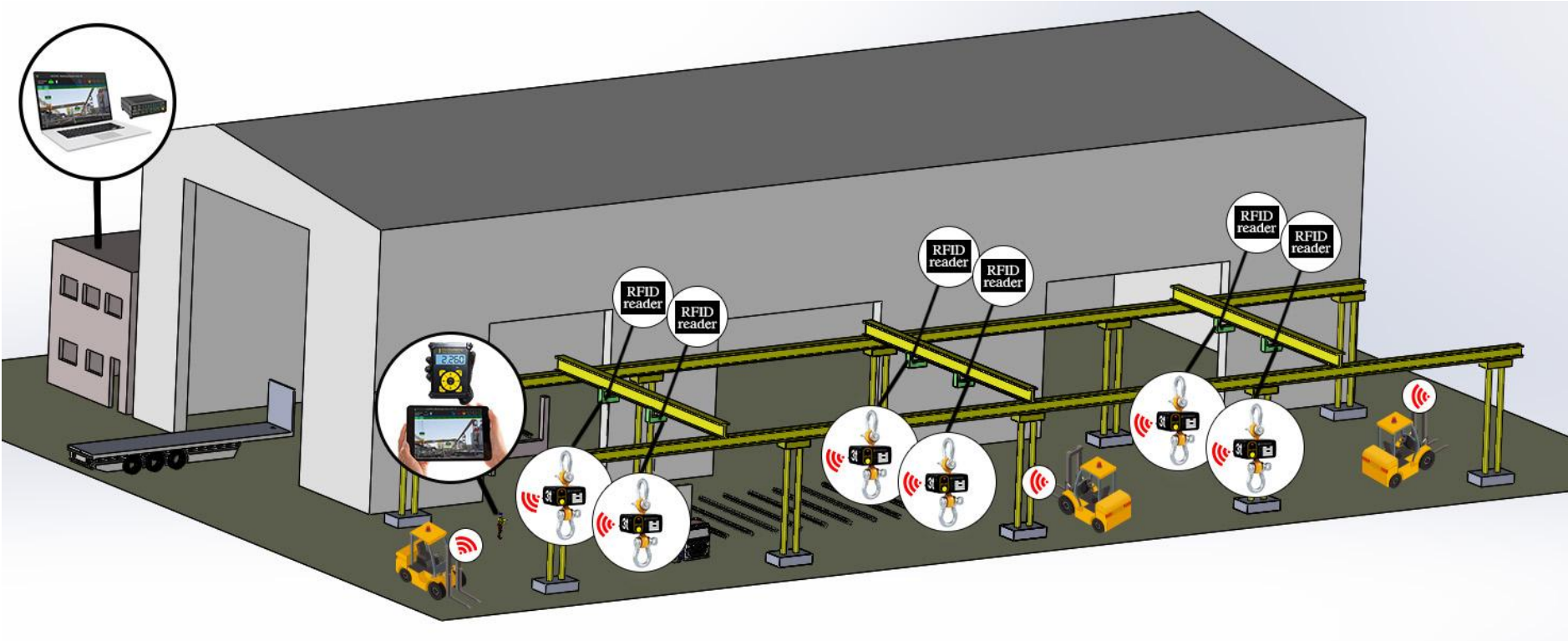
 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



3. Simulation of the system components installed in a steel plant



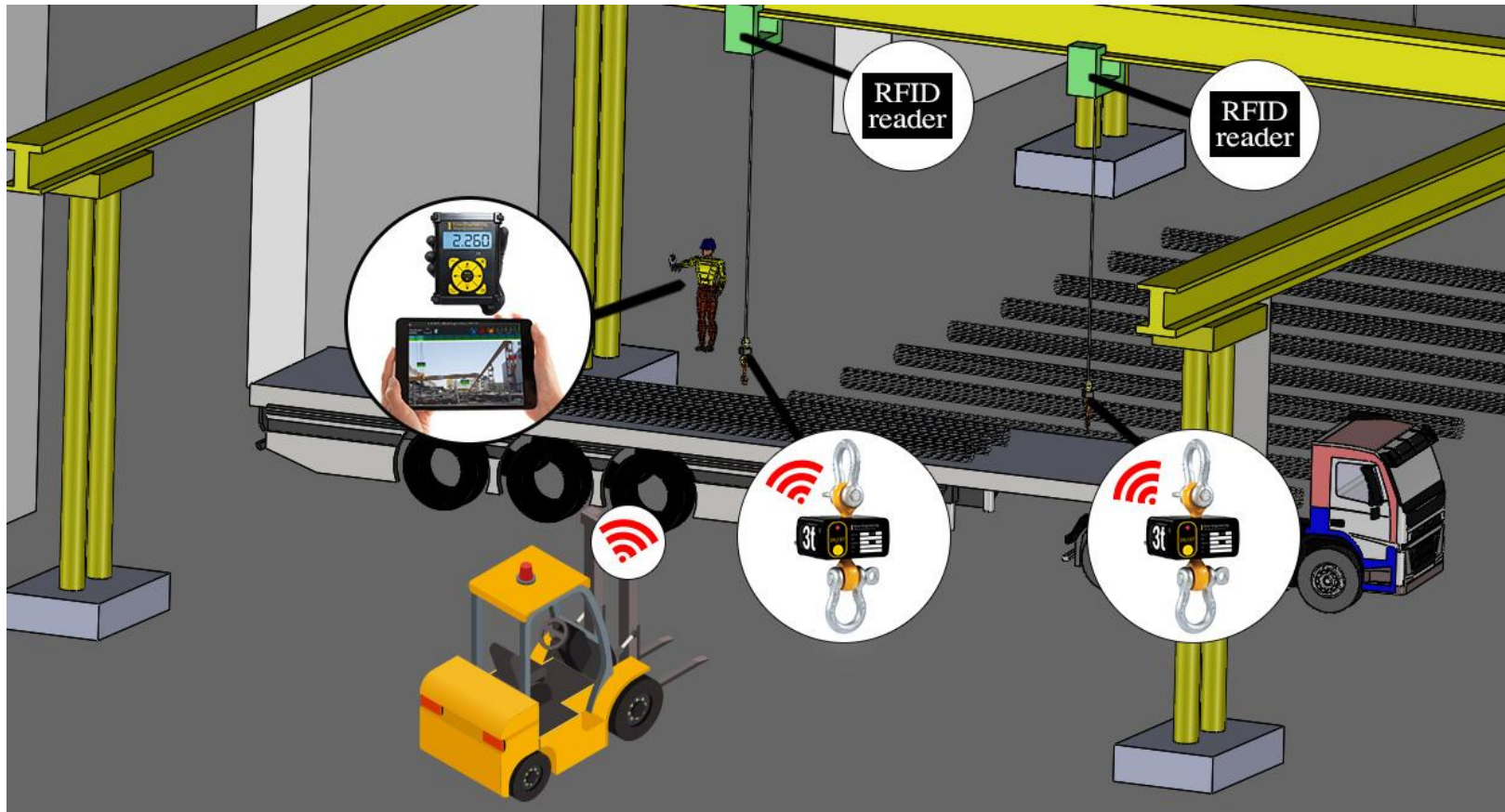
sales@ilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com





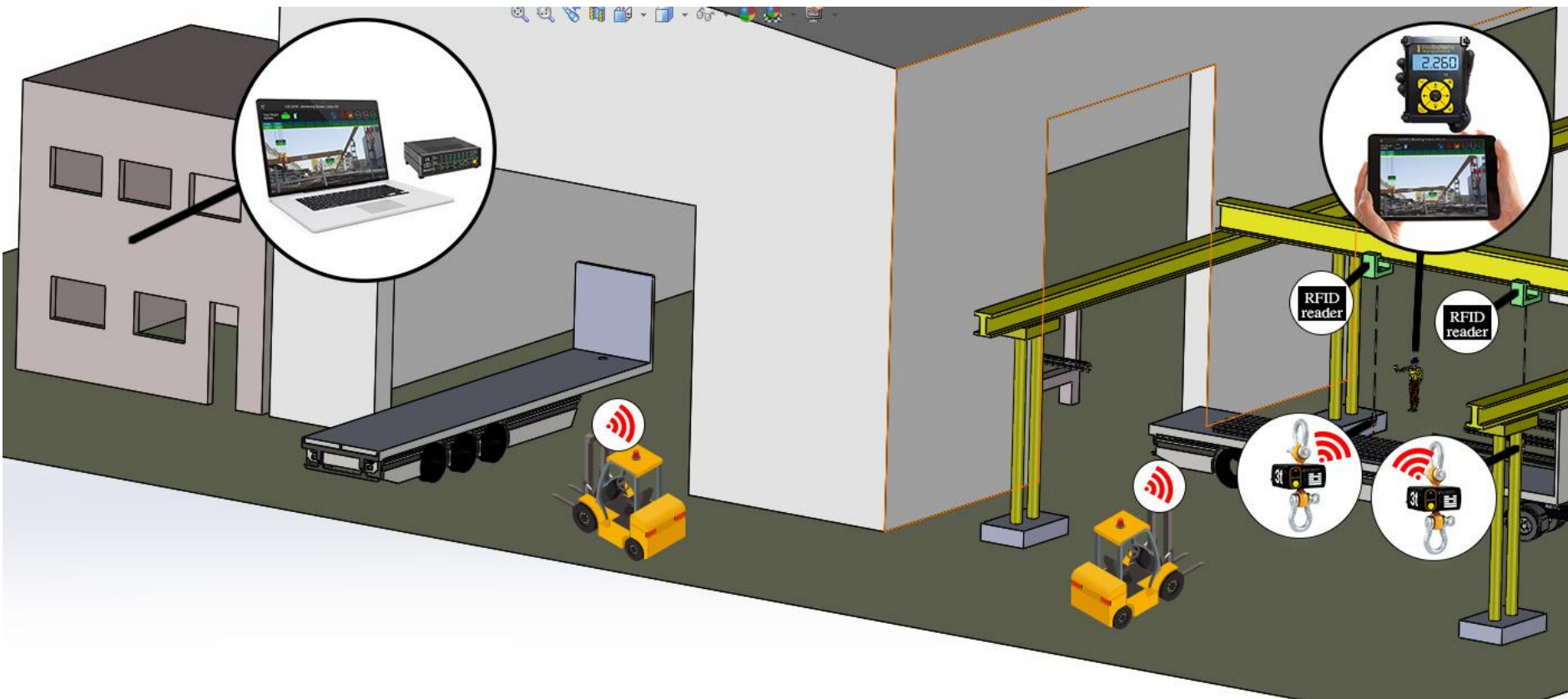
sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com





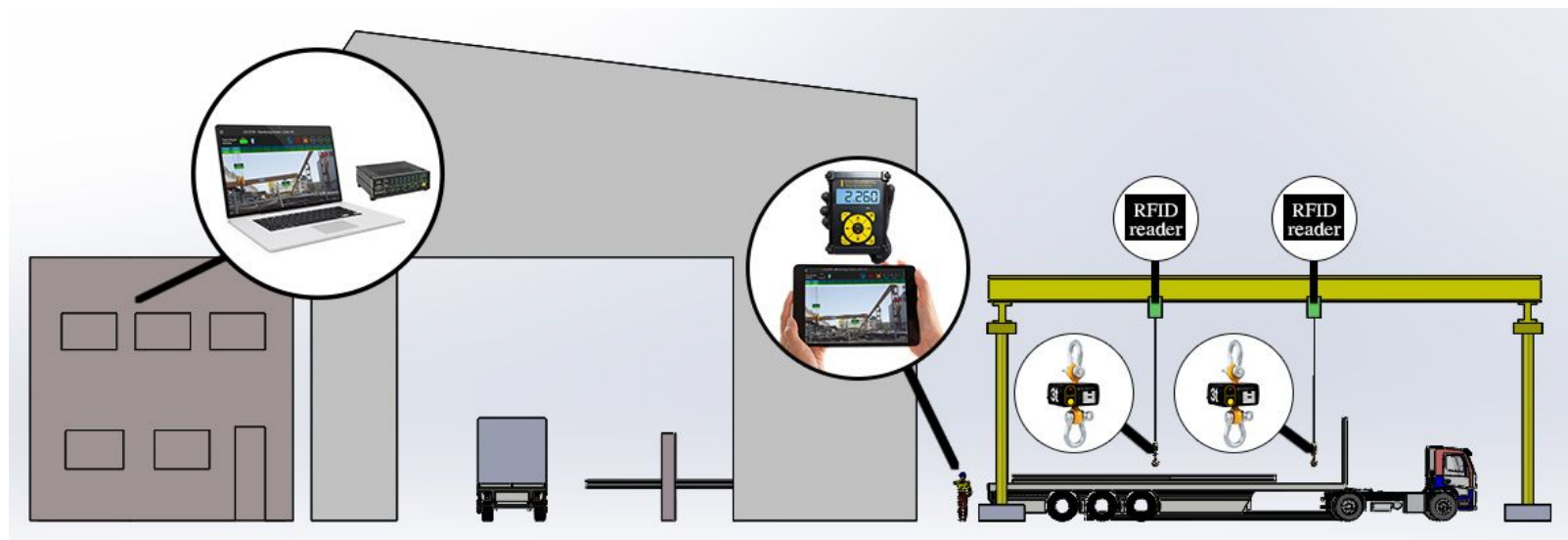
sales@ilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com





sales@eilon-engineering.com 1-888-7788064

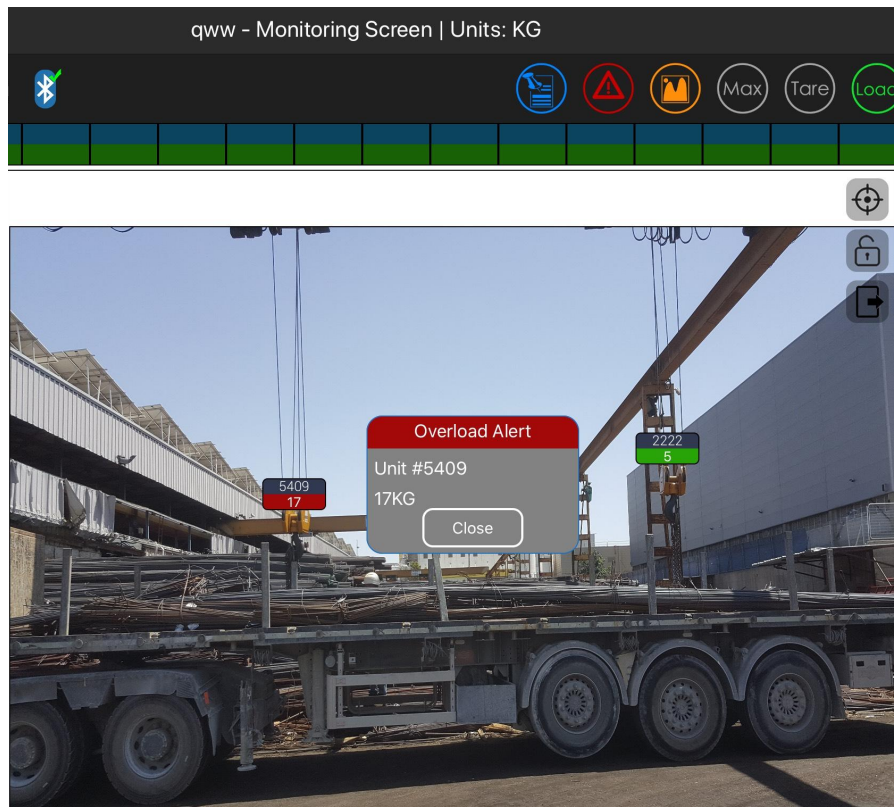
 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



4. Simulation of software screens



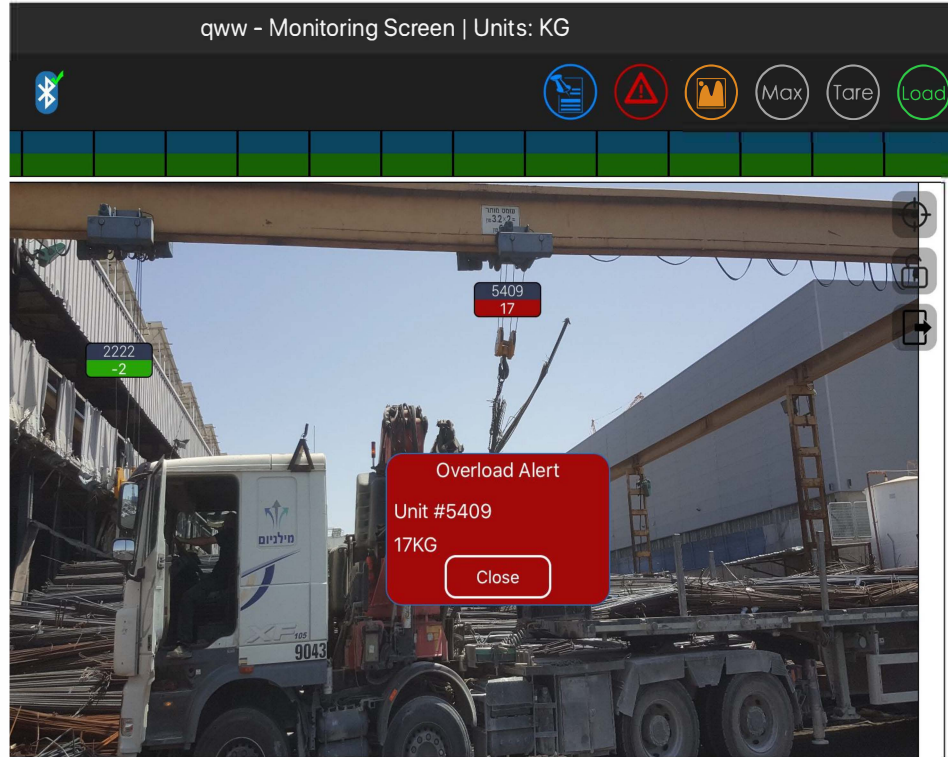
sales@ilon-engineering.com 1-888-7788064

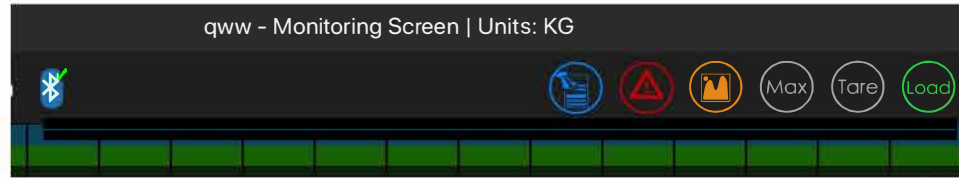
 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com








4

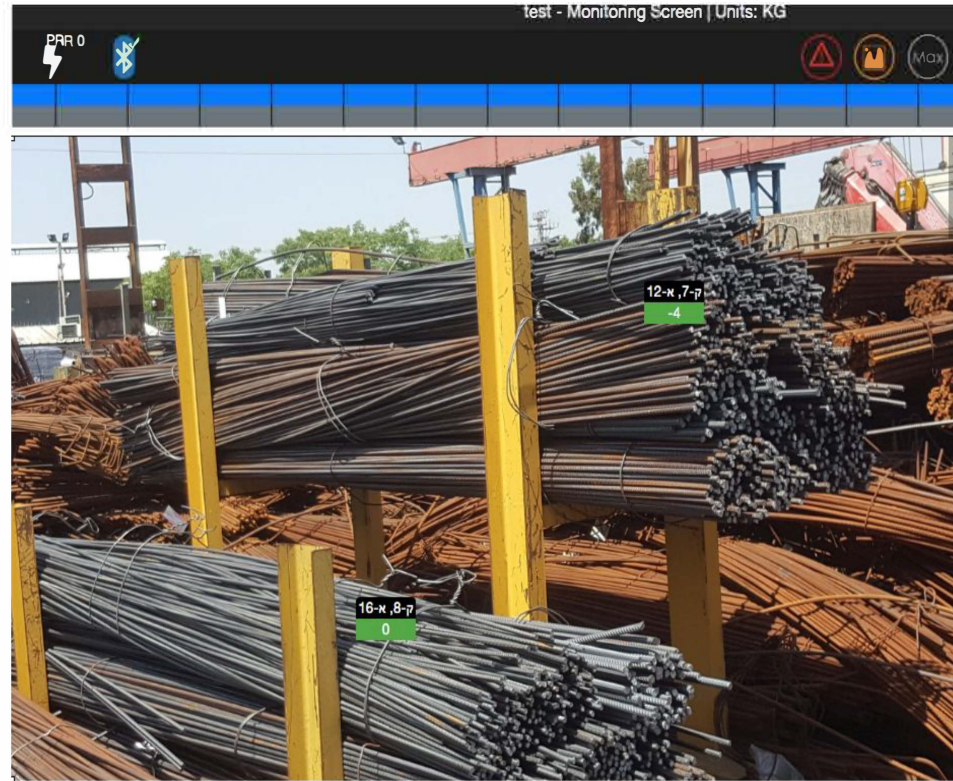
IntertechRio
instrumentação-controle de processo

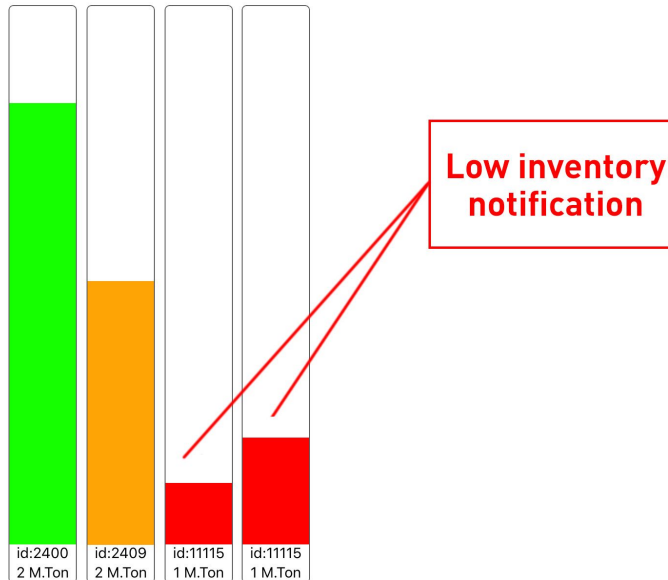
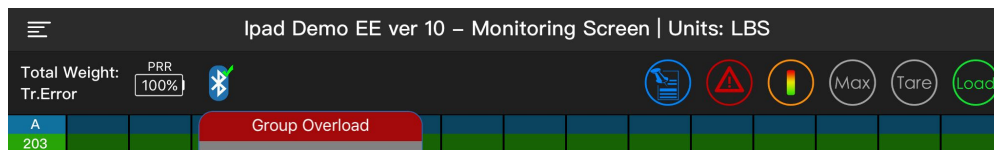
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com

 **Eilon Engineering**
Weighing Systems Ltd.







sales@eilon-engineering.com 1-888-7788064

 Eilon Engineering
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



qww Reports View					Mail	Delete
Projects List	10:24 - 11.Jun.20					
	Unit ID	Load	Battery	Time		
	qww	5409	4 KG	80%	10:24 - 11.Jun.20	
	10:27 - 11.Jun.20					
	Unit ID	Load	Battery	Time		
	Total Weight	20KG		10:27 - 11.Jun.20		
	Group1	20 KG		10:27 - 11.Jun.20		
	2222	TR.Error		10:27 - 11.Jun.20		
	5411	TR.Error		10:27 - 11.Jun.20		
	10:27 - 11.Jun.20					
	Unit ID	Load	Battery	Time		
	Total Weight	28KG		10:27 - 11.Jun.20		
	Group1	28 KG		10:27 - 11.Jun.20		
	2222	2 KG	40%	10:27 - 11.Jun.20		
	10:27 - 11.Jun.20					
	Unit ID	Load	Battery	Time		
	Total Weight	33KG		10:27 - 11.Jun.20		
	Group1	24 KG		10:27 - 11.Jun.20		
	5409	26 KG	80%	10:27 - 11.Jun.20		

sales@ilon-engineering.com 1-888-7788064

www.ronloadcells.com

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br



4. Advantages of implementing the system:

Cost savings

- **Inventory reduction** - estimated at up to 20%!
- **Efficiency in dispersing the material** - within the plant, to the plant, between plants and to the customers. Avoiding double or unnecessary travel.
- **Reducing the cost of raw materials** by planning large and accurate orders while avoiding emergency orders
- **Efficiency in collecting material from different points in the factory**
- **Preventing the plant from shutting down due to year end inventory count**
- **Preventing overloading of trucks before departure** - will reduce internal traffic and save time
- **Regular inspection of the bridge scales** - saves loss due to incorrect or inaccurate weighing of the trucks
- **Tools for evaluating the efficiency of crane operators** - by monitoring the pace of work, the number of overload events and more

sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



4. Advantages of implementing the system:

Cost savings (continued)

- **Increasing Efficiency -> Releasing cash for the purchase, upgrade or preservation of assets**
Estimate: Reducing inventory by approximately 20%!
- **Free space in the warehouse:** can allow other income such as:
 - * Storage services
 - * Use surpluses for steel production for self-use or for sale
- **Prevention of Deficiencies** (Thefts?)
- **Easily locate goods**
- **Using current inventory** and preventing inventory from lying at the bottom of the stack

sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



Article about proven savings of steel factories thanks to better inventory management:

For instance, a leading Asian downstream metals manufacturer was able to reduce its total inventory **by more than 20% in just six months** through a series of strategic cross-functional actions. In North America, a company that manufactures specialty metals **was able to free up almost \$100 million in cash in less than a year** without starving its production lines or hurting customer deliveries. Both companies are beginning to see benefits in other areas as well, such as shorter lead times and improved product availability.

<https://www.bcg.com/publications/2016/supply-chain-management-metals-manufacturing-four-rules-managing-inventory-better.aspx>

sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



4. Advantages of implementing the system:

Cost savings (continued) - manufacturing management:

- **Reduction of inventory surplus and wastage** (selling steel as surplus at a lower price)
- **Inventory level warnings for timely resupply**
- **A more efficient production process**
- **Inventory control throughout the concern**

sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



4. Advantages of implementing the system:

Monitoring and control:

- **Monitoring and tracking** to ensure complete order fulfilment
- **Real time inventory control**
- **Accuracy:** Reduce inaccuracies due to human error with automated calculations and reporting
- **Availability:** Advanced and comprehensive reporting is available at any time to the relevant entities that receive authorization
- **Simplicity:** Simple system operation. In addition, controlling and viewing reports is simple and intuitive

sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



4. Advantages of implementing the system:

Higher level customer service:

- **Short delivery times for customers** and improved product availability
- **Accurate and fast ordering**
- **Strengthening your reputation** as an advanced, accurate, efficient enterprise and at attractive prices (thanks to efficiency and savings)

sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



4. Advantages of implementing the system:

Increasing safety:

- **Overload warning**
- **Accident prevention** as a result of attempting to lift a load attached to other loads

sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com



4. Advantages of implementing the system- why Eilon Engineering?

Proven technology

- **44 years of experience as well as advanced and stable technology :**
 - * The software base has undergone a debugging process of years and has been used in entertainment and aerospace for 14 years
 - * Advanced wireless technology: Decades of experience, projects with NASA on launching sites and in the biggest entertainment shows in the world (Oscar, Grammy).
The challenge in all the projects: a lot of steel, a lot of wireless transmissions
Task: Overcome environmental conditions and provide:
Reliable signal
Long transmission distance
Long battery life
- **Fast service** for software and load cells

sales@eilon-engineering.com 1-888-7788064

 **Eilon Engineering**
Weighing Systems Ltd.

IntertechRio
instrumentação-controle de processo
21 3681 7199 - 21 99607 2513
contato@intertechrio.com.br
www.intertechrio.com.br

www.ronloadcells.com

