



## Managing Shipping Containers with RFID

If you've seen one pallet you've seen 'em all—but you don't see where they all go. So you don't know who to look to when your pallets don't return—and you end up eating the replacement cost. A quarter of all companies lose more than 10 percent of their reusable shipping containers every year, according to a published study.

Instead of looking for missing pallets, racks, totes, drums and other returnable containers, look into the visibility and accurate tracking that RFID can bring instead. RFID can take the guesswork, blind spots and manual recording out of returnable container management. There's a clear and strong business case for tracking logistics assets with RFID that's backed up by many successful real-world references.



### Why are companies large and small turning to RFID to manage returnable logistics assets?

*Because RFID operations are proven to reduce losses and labor.* It's very cost-effective to apply RFID smart labels to permanently identify and track expensive shipping containers. With RFID, reusable shipping containers can be automatically identified and added or removed from the asset pool database each time they enter or leave your facility. Readers can be built into dock doors, forklifts and mobile computers to support a variety of material handling processes. No labor time is needed to record serial numbers at the shipping and receiving dock or warehouse, or to enter them into the computer system. Tracking is automated, accurate and complete, leading to improved asset visibility and utilization.

*Because RFID is standardized and compatible with legacy systems.* Companies don't have to radically redevelop their databases or asset management applications to take advantage of RFID. Legacy serial numbers plus standardized, commonly used identifiers such as Global Returnable Asset Identifiers (GRAIs) and Serial Shipping Container Codes (SSCCs) can be encoded into RFID tags, and also printed as bar codes to complement legacy operations. There are also several widely supported RFID technology standards suitable for identifying logistics containers, including the EPCglobal Gen 2 and ISO 18000 standards, plus real time locating systems (RTLS) technology that is standardized and is also compatible with legacy Wi-Fi® wireless networks.

*Because RFID is proven.* RFID is used for asset management more than anything else in business, and logistics container tracking is a big reason why. RFID applications are proven time and money savers whether companies are tracking transfers between their own facilities or delivering goods on pallets, racks, totes and drums to their carriers and customers. Many companies already have systems in place for RFID tagging the products they ship, and are starting to leverage the systems to track shipping containers and provide internal benefits.

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<sup>1</sup> "RFID-Enabled Logistics Asset Management: Improving Capital Utilization, Increasing Availability, and Lowering Total Operational Costs" Aberdeen Group, June 2004



**Why do manufacturers around the world rely on Zebra to meet their RFID smart labeling needs?**

*Because Zebra is the industry leader with the printers, materials and experience to make sure your valuable assets are identified permanently and accurately.* Zebra manufactures the broadest range of RFID smart label printer/encoders, so you can find the model and configuration best suited for efficient integration into your processes and information systems. Options include rugged industrial printer/encoders that can be installed at dock doors, cart-mounted models for mobile labeling, and components that work with automatic label applicators for high-volume, hands-free label production and placement.

There are even more materials options. We've solved the challenges of developing labels that will provide accurate reads when exposed to cold storage, washdowns, chemicals, gases, electrostatic discharge, sunlight, UV light, temperature extremes and harsh handling processes. Zebra offers hundreds of stock and custom materials options-all of which are produced in ISO 9001-certified facilities and undergo extensive quality control testing to ensure reliable performance.

*Because Zebra supports multiple RFID technologies.* Zebra has smart label printer/encoders that support the leading standards and protocols used in global logistics, supply chain and asset management operations, including the EPCglobal Gen 2 and ISO 18000-6 standards. WhereNet, a Zebra Technologies company, is a leading provider of real-time locating systems (RTLS) whose systems are used to manage and secure thousands of freight containers around the world.

*Because Zebra® printers are proven in thousands of warehouses, distribution centers, yards and docks.* Zebra printers have a reputation for being rugged and reliable. Our advanced printer monitoring and management tools help keep them that way. The ZebraLink™ Solutions suite of networking, software and firmware products provides real-time remote monitoring and hands-free management for Zebra printers networked anywhere in your organization. Zebra's solutions let a printer contact you if error conditions exist-by alert message delivered by e-mail, cell phone or pager. Couple this with the powerful remote troubleshooting capabilities and you'll minimize printer downtime.

To learn more, visit [www.zebra.com](http://www.zebra.com) and download the white papers:

- Increasing Profits and Productivity: Accurate Asset Tracking and Management with Bar Coding and RFID
- Unchaining the Value of RFID: How Closed-Loop Systems Provide Flexibility and Fast ROI

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**GLOBAL/AMERICAS HEADQUARTERS**

Zebra Technologies Corporation  
333 Corporate Woods Parkway  
Vernon Hills, IL 60061-3109 U.S.A.

T: +1 847 793 2600 or  
+1 800 423 0442  
F: +1 847 913 8766

**EMEA HEADQUARTERS**

Zebra Technologies Europe, Limited  
Zebra House, Unit 14, The Valley Centre  
Gordon Road, High Wycombe  
Buckinghamshire HP13 6EQ, UK

T: +44 (0)1494 472872  
F: +44 (0)1494 768251

**ASIA-PACIFIC HEADQUARTERS**

Zebra Technologies Asia Pacific, LLC  
16 New Industrial Road  
#05-03 Hudson TechnoCentre  
Singapore 536204

T: +65 6858 0722  
F: +65 6885 0838

Web: [www.zebra.com](http://www.zebra.com)

**OTHER LOCATIONS**

**USA**

California, Rhode Island, Texas, Wisconsin

**EUROPE**

France, Germany, Italy, Netherlands,  
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#14368L(10/07)



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GSA#: GS-35F-0268N