

CLIENT	Theodore P. Cummings, Esq. The Law Offices of Theodore P. Cummings, LLC 1600 Scripps Center 312 Walnut Street Cincinnati, OH 45202
CASE	2010-00527 High Dollar Store Supply Tracking
REQUEST DATE	May 3, 2010
REQUEST	Patent Search
POINTS OF FOCUS	<p>Publications or communications that describe, disclose or teach, in general, as stated in client's search request of May 3, 2010 the following...</p> <p>Currently, retail stores expend an exorbitant amount of money on certain supplies (e.g. plastic totes ~\$10, wooden pallets ~\$7) that are lost through reclamation and reverse logistics methods and other retail operations. The potential invention provides for a new system for applying a barcode to each of these high dollar supplies, so that the supplies can be tracked as they move throughout the store.</p>
RESULTS	<p>This search located nine (9) Tier One patent references, 13 Tier Two patent references and three (3) Non-patent reference that either speak directly or indirectly to the points of focus of which the following may be of interest...</p> <p>Asset tracking via robotic location crawling</p> <p>An Introduction to the Serial Shipping Container Code (SSCC)</p> <p>US7342497B2 Object monitoring, locating, and tracking system employing RFID devices</p> <p>US7586409B2 Container monitoring system</p> <p>US7259675B2 Process equipment tracking system</p>
NOTES	<ol style="list-style-type: none">1. Tier One references teach or speak to many of the elements listed in the points of focus and may touch on novelty.2. Tier Two references teach or speak to a few of the elements listed in the points of focus and, when combined, may touch on obviousness.
DISCLAIMER	<p><i>This search represents a thorough and continuous effort to locate the most appropriate references given the information provided by the client and the budget placed on this project. This is not a guarantee that every potential reference has been located. Furthermore, the information contained herein has been obtained from data sources believed to be reliable. Gilman Research Services, LLC disclaims all warranties as to the accuracy, completeness or adequacy of such information. No opinion, unless clearly stated, regarding freedom to operate, patentability or otherwise of the invention is expressed or implied other than the comments stated herein.</i></p>

Patent References - Tier One

US20090125350A1 2009-05-14 SYSTEM AND METHOD FOR CAPTURING AND STORING SUPPLY CHAIN AND LOGISTICS SUPPORT INFORMATION IN A RELATIONAL DATABASE SYSTEM (en)

Inventors: Pieter Lessing, Los Angeles, CALIFORNIA , United States of America;
Dennis Jeng, Yorba Linda, CALIFORNIA , United States of America;
Mark Crosby, Venice, CALIFORNIA , United States of America

Application/Filing Date:
2007-12-19

English Abstract:

A computer implemented method of and system for capturing, storing and organizing supply chain and logistics support information for a retail enterprise. Supply chain and logistics support information is stored and organized within a relational database in accordance with a logical data model comprising a plurality subject areas, and entities and relationships within the subject areas, defining the manner in which supply chain and logistics support information is stored and organized within the relational database. The relational database, populated with this information, provides a retail enterprise with detailed tracking and analysis support for shipping orders, freight bills, shipping order claims, and invoices; and detailed support for fleet tracking of shipments in the areas of legs, lanes and associated routes traveled, mode of transport, and specific equipment utilized in handling of shipments; allowing for improved supply chain efficiency through better informed decision making.

US20040122688A1 2004-06-24 Portable autonomous rental store (en)

Inventors: Steven Richard Janda, Peoria, ILLINOIS

Applicants/Assignees: Caterpillar, Inc.

Application/Filing Date:
2002-12-23

English Abstract:

A method provides rental equipment to a customer including providing a portable container containing a piece of equipment at a location chosen by the customer and authorizing the customer to access the portable container. The method detects removal of the piece of equipment from the portable container and/or return of the piece of equipment to the portable container. Usage of the piece of equipment is tracked.

US20070205867A1 2007-09-06 ULTRA WIDEBAND RADIO FREQUENCY IDENTIFICATION SYSTEM, METHOD, AND APPARATUS (en)

Inventors: PHILIP T. KENNEDY, 4347 Eaglemere Court SE, 52403, Cedar Rapids, IOWA, United States of America;
JOSEPH A. GERKE, 4223 Morelle Road NE, 52227, Cedar Rapids, IOWA, United States of America;
DAVID M. SNYDER, 652 Old School Road, 52227, Ely, IOWA, United States of America

Applicants/Assignees: LIGHTWAVES SYSTEMS, INC. , 1131 Wenig Road NE, 51402, Cedar Rapids, IOWA, United States of America

Application/Filing Date:
2007-04-26

English Abstract:

A method associated with a UWB RFID system provides for receiving a data transmission transmitted using UWB and accessing data within the data transmission using a communications protocol. An initial portion of the data transmission defines a structure of the data transmission such that subsequent data in the data transmission is directly accessible without additional decoding.

US20100060455A1 2010-03-11 IDENTIFICATION AND SURVEILLANCE DEVICE, SYSTEM AND METHOD FOR INDIVIDUAL ITEM LEVEL TRACKING (en)

Inventors: Giovanni Frabasile, Dollard des Ormeaux, Canada

Applicants/Assignees: Absolutesky Holding, Inc. , Montreal, Canada

Application/Filing Date:
2007-06-20

English Abstract:

There are provided an identification and surveillance device, a system and a method using active RFID technology to accurately and automatically track inventory at the item-level across the supply chain in real-time and at a distance. The device is provided with an attaching device for attaching to the item and a radio-frequency device securely mounted with the attaching device. The radio-frequency device comprises storing means for storing data therein, the data comprising individual tag-related information, a transmitter, an antenna and a power source for powering the device. The radio-frequency device, with the help of the transmitter, is able to communicate with a corresponding radio-frequency receiver for tracking the item.

US7342497B2 2008-03-11 Object monitoring, locating, and tracking system employing RFID devices (en)

Inventors: Kevin Kwong-Tai Chung, Princeton, NEW JERSEY, United States of America;
Cynthia Ting-Wah Chu, Princeton, NEW JERSEY, United States of America;
Xiaoming Shi, Highland Park, NEW JERSEY, United States of America;

Jing Jian Li, Plainsboro, NEW JERSEY, United States of America

Applicants/Assignees: Avante International Technology, Inc ,
Princeton Junction, NEW JERSEY, United States of America

Application/Filing Date:
2005-08-05

English Abstract:

A system for monitoring a container comprises an RFID device interior the container and a receiving device exterior the container. The RFID device transmits messages each including unique identifying information, and the receiving device exterior the container receives and stores and/or relays messages received from the RFID device interior the container. Ones of the messages transmitted by the RFID device when the container is closed are not received by the receiving device and ones of the messages transmitted by the RFID device when the container is not closed are received and stored by the receiving device, whereby the messages stored in the receiving device provide an indication of whether the container has or has not been opened. Messages may include power level codes and be transmitted at more than one power level, and may be processed for locating and/or tracking the container.

US6949052B2 2005-09-27 Exercise equipment locator (en)

Inventors: Peter Millington, 170 Marlborough Ave., Apt. #2,
02116, Boston, MASSACHUSETTS, United States of America;
Ralph Galetti, 5800 Nugget NE., 87111, Albuquerque, NEW
MEXICO, United States of America

Applicants/Assignees: MILLINGTON PETER ;
GALETTI RALPH

Application/Filing Date:
2001-11-27

English Abstract:

The present invention is directed to devices, systems, and methods for intelligent or 'smart' exercise equipment to indicate the location, the intent to use, and/or the amount and/or type of use of a piece of exercise equipment. More specifically, one embodiment of the invention may be used to locate or indicate the location of a portable piece of exercise equipment. Such an indicator may also indicate to other users, a particular user's intent to use the piece of equipment such that other users will not attempt to use the equipment or the current user may end their use of the equipment and pass it to the intended user. In a further embodiment, the indicator may not be activated if the piece of exercise equipment is already in use by a current user. In another embodiment of the invention, the amount of use of, e.g., repetitions done on, a piece of exercise equipment may be indicated to the user or may be logged for later viewing, downloading, or transmission. Similarly, another embodiment of the invention may determine, indicate, store, display, download, and/or transmit the type of exercise done on a piece of equipment. Any of the above embodiments may include electronic devices or systems mounted in or on the exercise equipment itself. Those systems and/or devices may be rechargeable at a recharging unit within the mounting location for that piece of equipment.

US20080266110A1 2008-10-30 SYSTEM AND METHOD FOR TRACKING PERSONNEL AND EQUIPMENT (en)

Inventors: Tracy L. Hayford, Newburgh, INDIANA, United States of America;
David Clardy, Lexington, KENTUCKY, United States of America;
Mark Watson, Lexington, KENTUCKY, United States of America;
Justin E. Bennett, Evansville, ILLINOIS, United States of America;
Paul R. Blaylock, Evansville, ILLINOIS, United States of America;
Timothy M. Debaillie, Evansville, INDIANA, United States of America;
Mike E. Ciholas, Evansville, INDIANA, United States of America;
Evan M. Buchanan, Evansville, INDIANA, United States of America;
Christopher Elpers, Evansville, INDIANA, United States of America

Applicants/Assignees: ALLIANCE COAL, LLC , Lexington,
KENTUCKY, United States of America

Application/Filing Date:
2008-06-13

English Abstract:

A system for tracking personnel and equipment in hazardous environments in pre or post-accident situations includes an intrinsically safe tracking tag and an intrinsically safe reader system. The intrinsically safe tracking tag transmits identification and status information to the intrinsically safe reader system, which includes a plurality of intrinsically safe antennas and a hub cable driver. In one embodiment, antennas are located at known positions in the hazardous environment and connected via a redundant, wired-mesh topology. The wired-mesh topology also allows more flexible antenna placement than line-of-sight wireless-mesh systems. The hub cable driver provides intrinsically safe power to and communication with the antennas using communication cables, receives data signals from the antennas, and transmits the data signals to a server. The server stores the data signals in a storage device and is connected to a workstation. The workstation retrieves the stored data to track persons or equipment.

US7259675B2 2007-08-21 Process equipment tracking system (en)

Inventors: Kenneth D. Baker, Ambler, PENNSYLVANIA, United States of America;
David Greer, Perkasio, PENNSYLVANIA, United States of America;
Michael C. Needling, Norristown, PENNSYLVANIA, United States of America;
Gary Rozenblat, Sherman Oaks, CALIFORNIA , United States of America;
George Younan, Porter Ranch, CALIFORNIA , United States of America

Applicants/Assignees: NewAge Industries, Inc. , Southampton,
PENNSYLVANIA, United States of America

Application/Filing Date:
2005-03-16

English Abstract:

A process equipment tracking system utilizing an attached RF ID tag attached to the process equipment during manufacture or thereafter. The RF ID tag is coded with an identification specific to the particular process equipment. An RF ID tag reader is provided, which is usable by a user to obtain the identification from the RF ID tag on the process equipment, preferably after the equipment is installed at the user facility. The RF ID tag reader includes a user input for at least one trackable event and can write data based on the at least one trackable event back onto the RF ID tag. The RF ID tag reader is at least one of connectable to a PC or the internet, or is compatible for uploading the identification and any user input to an internet accessible device. A process equipment database is provided, having process equipment-related information. The process equipment database provides access to a user to obtain the process equipment-related information based on the identification from the RF ID tag and receives and stores data related to the at least one trackable event.

US7586409B2 2009-09-08 Container monitoring system (en)

Inventors: Gary Armstrong, Coal Creek, Canada;
Craig Demmings, Minto, Canada;
Wayne Wainwright, Chipman, Canada;
George Watson, Agincourt, Canada;
Leo Cahalan, Willowdale, Canada;
Dan Small, Halifax, Canada

Applicants/Assignees: Armstrongs Communication Ltd. , New Brunswick, Canada

Application/Filing Date:
2006-10-26

English Abstract:

A container monitoring system which includes a microprocessor comprising a memory to store data, and a control program executed by said microprocessor, said microprocessor having a stand-by mode and an active mode, a communications means connected to said microprocessor for transmitting data from said microprocessor to a monitoring station, a zone monitoring device on the container connected to said microprocessor in a loop with said microprocessor in said stand-by mode, a power source for supplying power to said microprocessor, communications means and zone monitoring device, wherein upon said microprocessor receiving an input signal from said zone monitoring device, said control program directs said microprocessor to switch to active mode, generate and store in said memory an alarm message corresponding to said input signal from said zone monitoring device, activate said communications means, and transmit said alarm message to a monitoring station.

Patent References - Tier Two

US20090157472A1 2009-06-18 Personalized Retail Information Delivery Systems and Methods (en)

Inventors: Mark A. Burazin, Oshkosh, WISCONSIN, United States of America;
Thomas Gerard Shannon, Neenah, WISCONSIN, United States of America;
Henry L. Griesbach, III, Atlanta, GEORGIA, United States of America

Applicants/Assignees: KIMBERLY-CLARK WORLDWIDE, INC. , Neenah, WISCONSIN, United States of America

Application/Filing Date:
2007-12-14

English Abstract:

A personalized shopping system can provide for delivery of relevant information that is responsive to the needs and desires of shoppers. Any suitable information can be delivered including, but not limited to, advertisements. By taking one or more preferences or parameters of the shopper into account, the advantages of targeted advertising and/or other information delivery can be achieved with reduced adverse effects on shoppers. To the contrary, the shoppers may benefit from the system, since it is configured to address the needs of the shopper, rather than the needs of only the manufacturer, retailer, advertiser, or other information purveyor. The system can evaluate whether to present information at various opportunities based on the shopper's media preferences. Further, the system may respond to user requests for information. The system may be configured to provide navigational guidance, such as a map through a retail location, for use by a shopper.

US7184860B2 2007-02-27 In-store equipment remote monitoring system (en)

Inventors: Hideki Nakajima, Daito, Japan;
Tsuyoshi Kawaai, Uji, Japan

Applicants/Assignees: Sanyo Electric Co., Ltd. , Osaka, Japan

Application/Filing Date:
2004-01-27

English Abstract:

A monitoring system is provided for remotely monitoring in-store equipment. A controller is provided in each store for monitoring and controlling in-store equipment. A monitoring computer is connected to the controller in each store through a communication line. The controller includes data transmission means for transmitting to the monitoring computer data related to each in-store equipment and predetermined measurement data, and display means for displaying power saving advice information fed from the monitoring computer, and the monitoring computer comprising power saving advice information production means for producing power saving advice information for efficiently operating each in-store equipment on the basis of the data received from the controller, and power

saving advice information transmission means for transmitting to the controller the produced power saving advice information.

US6454208B1 2002-09-24 Automated galley-cart storage system (en)

Inventors: Nervig, Steven N. , Kent, WASHINGTON;
Sundine, Craig P. , Snohomish, WASHINGTON;
Sherotsky, George D. , Renton, WASHINGTON

Applicants/Assignees: The Boeing Company , Seattle, WASHINGTON

Application/Filing Date:
2000-12-22

English Abstract:

An automated galley-cart storage system for use in a structure having a lower area and an upper level. The storage system includes a container (22) sized to hold a predetermined maximum number of galley-carts (20) in lateral rows. An equal number of cart pallets (34) are provided as well. Galley-carts are positionable on the pallets within the container. A cart elevator (64) is located within the container and is used to lift and lower cart pallets through an upright passage (60) connecting the container with the upper level. An elevated transfer system (36) is located within the container to move the cart pallets in a predefined pattern within the container. The pattern passes through the elevator. During use, an operator may retrieve unused galley carts from the container and store used galley-carts in their place.

US7612338B2 2009-11-03 Real time system for monitoring containers from a quayside crane (en)

Inventors: John I. Alioto, St. Helena, CALIFORNIA , United States of America;
Matthew T. Alioto, Dublin, CALIFORNIA , United States of America

Applicants/Assignees: Veritainer Corporation , St. Helena, CALIFORNIA , United States of America

Application/Filing Date:
2006-11-28

English Abstract:

In a real time container monitoring system, a data collection computer is in communication with the control computer of a container crane. The electrical signal from each of the radiation detection units carried by the spreader of the container crane is applied to the data collection computer to store as digital data information commensurate with the electrical signal from each of the radiation detection units in response to the control signal being indicative that the container has been engaged by the twist locks. A data analysis computer is in network communication with the data collection computer to download the digital data from the data collection computer and analyze the digital data to determine whether the threat material is present in the container.

US6892890B2 2005-05-17 Dynamic sortation of items in a containerization system (en)

Inventors: Gilbert Dominguez, Mukwonago, WISCONSIN, United States of America

Applicants/Assignees: ABB Automation, Inc. , New Berlin, WISCONSIN, United States of America

Application/Filing Date:
2001-01-16

English Abstract:
A dynamic sortation system and method. The invention is preferably utilized in a robotic containerization system having a number of locations for containers such as carts or pallets. Each location may be assigned a speed of loading rating that represents the time needed for a robot to load an item to a location. The system may be preprogrammed with a simplified, base scheme of destinations. After these initial steps, the system reads destination codes from each of the plurality of items in a load of items sent to the system for sortation. The system may store the destination code of each read item in a historical database. The system then determines whether the read destination code is assigned a location. If the destination code is assigned a location, the item is loaded in a container at the assigned location. If the destination code is not assigned a location, the system determines whether to assign the destination code a location based on whether the destination code is in the scheme of destinations, the projected or historical number of items having the same destination code, and the speed of loading rating for each location.

US4955489A 1990-09-11 Storage rack system (en)

Inventors: Donald R. Allen, Frenchtown, United States of America

Applicants/Assignees: Frazier Industrial Company , Long Valley, United States of America

Application/Filing Date:
1988-08-12

English Abstract:
A storage rack system having a plurality of storage bays adapted to store pallet loads of three pallets deep is disclosed. Each of the storage bays includes a pair of tracks having a lower cart and an upper cart movable along the tracks between a forward position and a back position. The forward positions of both the lower cart and the upper cart are located at the entry end of the storage bay, the back position of the lower cart is located two pallets deep from the entry end of the storage bay and the back position of the upper cart is located three pallets deep from the entry end of the storage bay. Storage rack systems adapted to store pallet loads of four pallets deep are also disclosed.

US7253715B2 2007-08-07 Secure cargo transportation system (en)

Inventors: Benjamin G. Bates, Boise, IDAHO, United States of America

Applicants/Assignees: Micron Technology, Inc. , Boise, IDAHO, United States of America

Application/Filing Date:
2005-01-18

English Abstract:
A method of controlling access to a movable container, the method comprising controllably locking the container using an electronically actuated locking mechanism; storing in a memory a desired geographical location; determining the geographical location of the container; and enabling the locking mechanism to unlock the container if the determined geographical location matches the desired geographical location. A secure cargo transportation system comprises a vehicle including an enclosure having an opening; a door movable relative to the opening between a closed position, wherein the door restricts access to the enclosure, and an open position; an electronically actuatable lock configured to selectively lock or unlock the door relative to the enclosure; a memory supported by the vehicle and configured to store a location coordinate; and a global positioning system supported by the vehicle and coupled to the memory and to the lock, and configured to enable the lock to unlock the door if the vehicle is within a predetermined distance of the location coordinate.

US20050107092A1 2005-05-19 System and method for tracking data related to containers using RF technology (en)

Inventors: Hal Charych, East Setauket, NEW YORK, United States of America;
Raj Bridgellall, Mount Sinai, NEW YORK, United States of America;
Avi Nudelman, Dix Hills, NEW YORK, United States of America

Application/Filing Date:
2003-11-19

English Abstract:
Described are RF tracking system and method. The RF system may include a shell for holding a plurality of containers which store a material that interferes with RF communications. The shell includes a bottom container supporting surface and a plurality of leg extensions attached thereto; the shell extends away from the bottom surface. The tracking system also includes at least one RF tag attached to a first one of the leg extensions. The tag has a memory arrangement storing data relating to at least one of an identity of the shell, an identity of the containers held in the shell and a material stored in the containers. Furthermore, the tracking system includes at least one RF scanner communicating with the tag to collect the data and a computing arrangement which includes a database and communicating with the scanner to update the database as a function of the collected data. The tag is situated at a

predetermined distance away from the containers held in the shell to overcome an electromagnetic dampening effect of the material.

US7036729B2 2006-05-02 Article tracking method and system (en)

Inventors: Kevin Kwong-Tai Chung, Princeton, NEW JERSEY, United States of America

Applicants/Assignees: Amerasia International Technology, Inc. , Princeton Junction, NEW JERSEY, United States of America

Application/Filing Date:
2005-03-08

English Abstract:

A system and method are useful for tracking and/or managing an article at a plurality of stations. An RFID tag including a memory and an antenna is associated with each article to be tracked, or a container, or both. RFID tag readers at the stations communicate with the RFID tags and store information therefrom in a database. The databases may be accessed, e.g., from a remote and/or web-based processor, via communication means whereby the article being tracked or managed may be located and its history obtained.

US20090201152A1 2009-08-13 ANTI-TAMPER CARGO CONTAINER LOCATOR SYSTEM (en)

Inventors: Lawrence J. Karr, Santa Monica, CALIFORNIA , United States of America;
Kevin C. Murphy, Los Angeles, CALIFORNIA , United States of America;
Paul D. DeRocco, Pacific Palisades, CALIFORNIA , United States of America

Application/Filing Date:
2008-11-26

English Abstract:

The present disclosure relates to location and communication systems that can be utilized for locating cargo containers using tags with a radio communication subsystem in the form of a transponder or micro-transponder. Each cargo container tag (CCT) is capable of communicating with either other cargo container tags or a base-station (BS) locator devices. The tags can be arranged for tracking the opening and closing of doors on individual cargo containers using radio communication methods. Lost cargo container can be located using communications from a base station and the cargo container tags. CCT devices can also detect intrusions and/or tampering with cargo containers, and store a variety of collected data for later retrieval.

US20060047550A1 2006-03-02 Autonomic determination and location of product support infrastructure resources (en)

Inventors: Lisbeth Ann Dineen, Bridgeville, PENNSYLVANIA, United States of America;
Verlyn Mark Johnson, Wykoff, MINNESOTA, United States of America;
John Edward Laskowski, Rochester, MINNESOTA, United States of America;
Janet Rooney Olausen, Woodbury, MINNESOTA, United States of America;
Clark Lewis Roscher, Warwick, RHODE ISLAND, United States of America;
Christina Anne Stockey, Bramalea, Canada

Applicants/Assignees: International Business Machines Corp. , Armonk, NEW YORK, United States of America

Application/Filing Date:
2004-09-02

English Abstract:

A method and system for enabling autonomic determination and allocation of product support resources. The automated process allocates support resources based on a combination of product and market requirements and historical data on resources used by similar products in similar markets. Projects requiring a support infrastructure are algorithmically classified by a combination of product complexity metrics and target market maturity metrics. Then, support infrastructure requirements are calculated based on the combined classification along with historical usage records for similarly classified products. The classification and allocation process is automated so that a product (or multiple products competing for available resources) can self-provision/request its resource requirement as a part of the product development and go-to-market process.

US5558638A 1996-09-24 Patient monitor and support system (en)

Inventors: David C. Evers, Acworth, United States of America;
A. Darrell Lindsey, Marietta, United States of America;
Marcus Finch, Atlanta, United States of America;
Reynolds G. F. Gorsuch, Yountville, United States of America

Applicants/Assignees: Healthdyne, Inc. , Marietta, GEORGIA, United States of America

Application/Filing Date:
1993-04-30

English Abstract:

A system for monitoring the health and medical requirements of a plurality of patients located at remote sites and providing these requirements to a care center. At the patient site, there is a base unit, which can be connected to a number of sensors and/or recorders with sensors. The sensors are for monitoring the patient's medical state and the recorders are for recording the medical data. The base unit stores the data and transfers the data to a care center, where the data is stored and analyzed. The care center may likewise communicate with the base unit and may reconfigure the base unit based on the data analyzed. The data retrieved from the base units is accessible on a local area

network and care providers of the patients may monitor their patients by accessing the local area network.

US20090125350A1 2009-05-14 SYSTEM AND METHOD FOR CAPTURING AND STORING SUPPLY CHAIN AND LOGISTICS SUPPORT INFORMATION IN A RELATIONAL DATABASE SYSTEM (en)

Inventors: Pieter Lessing, Los Angeles, CALIFORNIA , United States of America;
Dennis Jeng, Yorba Linda, CALIFORNIA , United States of America;
Mark Crosby, Venice, CALIFORNIA , United States of America

Application/Filing Date:
2007-12-19

English Abstract:
A computer implemented method of and system for capturing, storing and organizing supply chain and logistics support information for a retail enterprise. Supply chain and logistics support information is stored and organized within a relational database in accordance with a logical data model comprising a plurality subject areas, and entities and relationships within the subject areas, defining the manner in which supply chain and logistics support information is stored and organized within the relational database. The relational database, populated with this information, provides a retail enterprise with detailed tracking and analysis support for shipping orders, freight bills, shipping order claims, and invoices; and detailed support for fleet tracking of shipments in the areas of legs, lanes and associated routes traveled, mode of transport, and specific equipment utilized in handling of shipments; allowing for improved supply chain efficiency through better informed decision making.

Non-patent References

Accuracy, efficiency and timely response to your customers needs

<http://www.qssi-wms.com/phftFeatures.asp#palTrack>

Pallet Tracking

Bar-coded labels are used as license plate ID numbers to track pallets or any other type of unit load, such as totes. The pallet ID can be a system generated bar-coded label or pre-numbered rolls of bar-coded labels can be used. The pallet ID is tracked throughout the warehouse and all location and item content changes are recorded as they occur. At any time the pallet ID can be scanned with an RF device to determine the item content on the pallet.

Carton Tracking

Bar-coded labels can also be used as carton ID numbers to track nested, serialized containers or cartons or either mixed or homogeneous product on an individual or palletized basis. The carton ID is tracked throughout the warehouse and all location and item content changes within the carton are recorded as they occur. At any time the carton ID can be scanned with an RF device to determine the item content in the carton.

An Introduction to the Serial Shipping Container Code (SSCC) 2006

Executive Summary

There are many reasons to use the Serial Shipping Container Code (SSCC) but the most compelling would be the primary benefit of speeding your products through the process of shipping and receiving. When used in conjunction with the Advance Ship Notice (ASN), SSCC allows entire cases or pallets of products to be scanned and quickly processed through distribution centers and other receiving locations.

The SSCC is a critical element when electronically exchanging information about the movement and location of logistics units. A logistic unit is defined as any composition established for transport and/or storage, which needs to be tracked through the supply chain (cartons or pallets). Data exchange and tracking of logistics units is an application of the GS1 System (formerly the EAN.UCC System). This can be accomplished through the use of the SSCC. The SSCC is the "license plate" to identify specific information about cartons, pallets, or even trailer loads of products. The SSCC moves products from one trading partner to another quickly and efficiently. More importantly, the costs associated with moving and receiving products are greatly reduced.

The ROI of RFID in the Supply Chain

Although RFID implementations are not without costs and risks, a number of companies in manufacturing, warehousing and distribution and retailing have achieved a 200 percent return on investment.

By Thomas Pisello
Aug. 21, 2006

Asset tracking via robotic location crawling

Patil, A. and Munson, J. and Wood, D. and Cole, A.
Communications 31: 6 pages 1067--1077
2008

Abstract

From manufacturers, distributors, and retailers of consumer goods to government departments, enterprises of all kinds are gearing up to use RFID technology to increase the visibility of goods and assets within their supply chain and on their premises. However, RFID technology alone lacks the capability to track the location of items once they are moved within a facility. We present a prototype automatic location sensing system that combines RFID technology and off-the-shelf Wi-Fi based continuous positioning technology for tracking RFID-tagged assets. Our prototype system employs a robot, with an attached RFID reader, which periodically surveys the space, associating items it detects with its own location determined with the Wi-Fi positioning system. We propose four algorithms that combine the detected tag's reading with previous samples to refine its location. Our experiments have shown that our positioning algorithms can bring a two to three fold improvement over the positional accuracy limitations in both the RFID reader and the positioning technology
