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Decizie de indexare a faptei de plagiat la poziţia 00419 / 06.02.2018 şi pentru admitere la publicare în volum tipărit

care se bazează pe:

A. Nota de constatare şi confirmare a indiciilor de plagiat prin fişa suspiciunii inclusă în decizie.

Fişa suspiciunii de plagiat / Sheet of plagiarism's suspicion		
Opera suspicionată (OS)		**Opera autentică (OA)**
Suspicious work		**Authentic work**
OS	TURCU Cristina, CERLINCA Marius, PRODAN Remus, CERLINCA Tudor, TURCU Cornel, GÎZA Felicia and POPA Valentin. Enhancing enterprise performance with RFID technology. *Proceedings of the 12th WSEAS international conference on Computers.* 2008 Jul 23. pp. 23-25.	
OA	TURCU Cristina, CERLINCA Marius, CERLINCA Tudor, PRODAN Remus, TURCU Cornel, GÎZA Felicia and POPA Valentin. An Integrated RFID-Based B2B System for Supply Chain Logistics and Warehousing. *International Journal of Computers and Communications*. 2007. **1**(3). pp.90-98.	
Incidenţa minimă a suspiciunii / Minimum incidence of suspicion		
P01:	p.724:Abstract	p.90:Abstract
P02:	p.724:08d – p.725:05s	p.90:19d – p.90:42d
P03:	p.726:09 – p.726:39d	p.91:28s – p.92:11d
P04:	p.727:Fig.1	p.94:Fig.2
P05:	p.729:23s – p.729:41s	p.97:11d – p.98:02s
Fişa întocmită pentru includerea suspiciunii în Indexul Operelor Plagiate în România de la Sheet drawn up for including the suspicion in the Index of Plagiarized Works in Romania at www.plagiate.ro		

Notă: Prin „p.72:00" se înţelege paragraful care se termină la finele pag.72. Notaţia „p.00:00" semnifică până la ultima pagină a capitolului curent, în întregime de la punctul iniţial al preluării.

Note: By „p.72:00" one understands the text ending with the end of the page 72. By „p.00:00" one understands the taking over from the initial point till the last page of the current chapter, entirely.

B. Fişa de argumentare a calificării de plagiat alăturată, fişă care la rândul său este parte a deciziei.

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Fişa de argumentare a calificării

Nr. crt.	Descrierea situaţiei care este încadrată drept plagiat	Se confirmă
1.	Preluarea identică a unor pasaje (piese de creaţie de tip text) dintr-o operă autentică publicată, fără precizarea întinderii şi menţionarea provenienţei şi însuşirea acestora într-o lucrare ulterioară celei autentice.	✓
2.	Preluarea a unor pasaje (piese de creaţie de tip text) dintr-o operă autentică publicată, care sunt rezumate ale unor opere anterioare operei autentice, fără precizarea întinderii şi menţionarea provenienţei şi însuşirea acestora într-o lucrare ulterioară celei autentice.	
3.	Preluarea identică a unor figuri (piese de creaţie de tip grafic) dintr-o operă autentică publicată, fără menţionarea provenienţei şi însuşirea acestora într-o lucrare ulterioară celei autentice.	✓
4.	Preluarea identică a unor tabele (piese de creaţie de tip structură de informaţie) dintr-o operă autentică publicată, fără menţionarea provenienţei şi însuşirea acestora într-o lucrare ulterioară celei autentice.	
5.	Republicarea unei opere anterioare publicate, prin includerea unui nou autor sau de noi autori fără contribuţie explicită în lista de autori	
6.	Republicarea unei opere anterioare publicate, prin excluderea unui autor sau a unor autori din lista iniţială de autori.	
7.	Preluarea identică de pasaje (piese de creaţie) dintr-o operă autentică publicată, fără precizarea întinderii şi menţionarea provenienţei, fără nici o intervenţie personală care să justifice exemplificarea sau critica prin aportul creator al autorului care preia şi însuşirea acestora într-o lucrare ulterioară celei autentice.	✓
8.	Preluarea identică de figuri sau reprezentări grafice (piese de creaţie de tip grafic) dintr-o operă autentică publicată, fără menţionarea provenienţei, fără nici o intervenţie care să justifice exemplificarea sau critica prin aportul creator al autorului care preia şi însuşirea acestora într-o lucrare ulterioară celei autentice.	✓
9.	Preluarea identică de tabele (piese de creaţie de tip structură de informaţie) dintr-o operă autentică publicată, fără menţionarea provenienţei, fără nici o intervenţie care să justifice exemplificarea sau critica prin aportul creator al autorului care preia şi însuşirea acestora într-o lucrare ulterioară celei autentice.	
10.	Preluarea identică a unor fragmente de demonstraţie sau de deducere a unor relaţii matematice care nu se justifică în regăsirea unei relaţii matematice finale necesare aplicării efective dintr-o operă autentică publicată, fără menţionarea provenienţei, fără nici o intervenţie care să justifice exemplificarea sau critica prin aportul creator al autorului care preia şi însuşirea acestora într-o lucrare ulterioară celei autentice.	
11.	Preluarea identică a textului (piese de creaţie de tip text) unei lucrări publicate anterior sau simultan, cu acelaşi titlu sau cu titlu similar, de un acelaşi autor / un acelaşi grup de autori în publicaţii sau edituri diferite.	
12.	Preluarea identică de pasaje (piese de creaţie de tip text) ale unui cuvânt înainte sau ale unei prefeţe care se referă la două opere, diferite, publicate în două momente diferite de timp.	

Notă:

a) Prin „provenienţă" se înţelege informaţia din care se pot identifica cel puţin numele autorului / autorilor, titlul operei, anul apariţiei.

b) Plagiatul este definit prin textul legii[1].

> *„ …plagiatul – expunerea într-o operă scrisă sau o comunicare orală, inclusiv în format electronic, a unor texte, idei, demonstraţii, date, ipoteze, teorii, rezultate ori metode ştiinţifice extrase din opere scrise, inclusiv în format electronic, ale altor autori, fără a menţiona acest lucru şi fără a face trimitere la operele originale…".*

Tehnic, plagiatul are la bază conceptul de **piesă de creaţie** care[2]:

> *„…este un element de comunicare prezentat în formă scrisă, ca text, imagine sau combinat, care posedă un subiect, o organizare sau o construcţie logică şi de argumentare care presupune nişte premise, un raţionament şi o concluzie. Piesa de creaţie presupune în mod necesar o formă de exprimare specifică unei persoane. Piesa de creaţie se poate asocia cu întreaga operă autentică sau cu o parte a acesteia…"*

cu care se poate face identificarea operei plagiate sau suspicionate de plagiat[3]:

> *„…O operă de creaţie se găseşte în poziţia de operă plagiată sau operă suspicionată de plagiat în raport cu o altă operă considerată autentică dacă:*
> *i) Cele două opere tratează acelaşi subiect sau subiecte înrudite.*
> *ii) Opera autentică a fost făcută publică anterior operei suspicionate.*
> *iii) Cele două opere conţin piese de creaţie identificabile comune care posedă, fiecare în parte, un subiect şi o formă de prezentare bine definită.*
> *iv) Pentru piesele de creaţie comune, adică prezente în opera autentică şi în opera suspicionată, nu există o menţionare explicită a provenienţei. Menţionarea provenienţei se face printr-o citare care permite identificarea piesei de creaţie preluate din opera autentică.*
> *v) Simpla menţionare a titlului unei opere autentice într-un capitol de bibliografie sau similar acestuia fără delimitarea întinderii preluării nu este de natură să evite punerea în discuţie a suspiciunii de plagiat.*
> *vi) Piesele de creaţie preluate din opera autentică se utilizează la construcţii realizate prin juxtapunere fără ca acestea să fie tratate de autorul operei suspicionate prin poziţia sa explicită.*
> *vii) In opera suspicionată se identifică un fir sau mai multe fire logice de argumentare şi tratare care leagă aceleaşi premise cu aceleaşi concluzii ca în opera autentică…"*

[1] Legea nr. 206/2004 privind buna conduită în cercetarea ştiinţifică, dezvoltarea tehnologică şi inovare, publicată în Monitorul Oficial al României, Partea I, nr. 505 din 4 iunie 2004
[2] ISOC, D. *Ghid de acţiune împotriva plagiatului: bună-conduită, prevenire, combatere*. Cluj-Napoca: Ecou Transilvan, 2012.
[3] ISOC, D. *Prevenitor de plagiat*. Cluj-Napoca: Ecou Transilvan, 2014.

An Integrated RFID-Based B2B System for Supply Chain Logistics and Warehousing

Cristina Turcu, Marius Cerlincă, Tudor Cerlincă, Remus Prodan, Cornel Turcu, Felicia Gîză, Valentin Popa

P01

***Abstract*—**The need to track and trace objects in real time has determined numerous companies to adopt one of today's greatest contributory technologies, namely Radio-Frequency Identification (RFID). The paper examines the impact and the potential benefits generated by the integration of this technology in business-to-business (B2B) applications through a proposed RFID_B2B system. This system offers multiple performance levels for varying system and application needs, and can be readily personalized to meet current and future user demands. A proof of concept has been introduced to demonstrate the feasibility of an RFID_B2B application in a specific supply chain. A realistic business scenario has been taken into consideration to illustrate that RFID technology may enhance the operational efficiency in enterprise systems and even help numerous companies comply with the ever-growing demands of business customers. Furthermore, the authors maintain that RFID enables more integrated and collaborative B2B e-commerce solutions. The paper aims to increase awareness about the tremendous potential of integrating RFID technologies in B2B applications.

***Keywords*—**B2B, PDA, RFID, supply chain, tag

I. Introduction

RFID (Radio Frequency IDentification) technology is classified as a wireless Automatic Identification and Data Capture (AIDC) technology. RFID allows the identification, location, tracking and monitoring of various objects such as individual products or palleted goods [1]; real-time information about these objects can be easily obtained from the factory, through shipping [2] and warehousing, to the retail location [3]-[4]. Incorrect or outdated information used in invoices, bills of lading or purchase orders can result in product delivery errors and lost sales estimated at more than $50 billion annually [5]. But RFID technology can prevent these costly data inaccuracies [6].

The Internet has connected companies around the world and has changed how business is conducted across the world. Thus, due to economic globalization, enterprises need to carry out collaborative relationships with their suppliers and customers on the Internet [7]-[8]. E-commerce facilitates some forms of globalization; many in the world are able to compete in global markets regardless of languages, physical distance and national boundaries. E-commerce between businesses is defined as business to business (B2B). B2B exchange generally refers to any business transaction occurring between two separate business entities. This includes the exchange of products, services, or information between businesses rather than between businesses and consumers [9]-[10].

For many companies, providing real-time product availability to customers at minimal operation costs is an important factor that determines the success of their businesses. As one IBM study reveals, 70% of a typical distribution center's cost is represented by labor [10]. Tagging inventory upstream with RFID tags and automating this process via an integrated RFID_B2B solution achieve high levels of accuracy with better labor efficiencies and better velocity.

Following a short investigation of a business-to-business process, we maintain that RFID technology opens new opportunities for enterprise systems to operate efficiently and better comply with the demands of business customers. Furthermore, we also argue that RFID enables more integrated and more collaborative B2B e-commerce solutions [11]-[12].

II. System Architecture

P02

Our research team has developed an RFID_B2B integrated system which combines the advantages of B2B with those of RFID technology and which presents itself as a viable solution for the problems raised by globalization. The software system deals with business relations between corporations, big companies and groups of companies, in order to optimize the flow of materials among them and the supply chain management inside every company. The RFID_B2B system could be tailored to the diverse needs of the companies and the different roles of employees in each company. The RFID_B2B system architecture is flexible and easily extensible.

To identify both parts and finite products, our system uses passive 13.56 MHz tags. Unique IDs are used to control and trace every part of a finite product. If this system is embraced by the entire supply chain management, final consumers will be able to follow the entire production chain of a finite product. And this is possible if the traceability information is memorized on each tag attached to some part of the final product.

The following case study scenario illustrates the many benefits that retailers can obtain through the implementation of RFID_B2B solutions: significant stock reductions, increased customer satisfaction and sales.

III. Case Study

Let us consider a medium-size production company called Company Prod and suppose that it assemblies PC components [13]. Company Prod uses RFID_B2B system in order to achieve increased performance and productivity in some main process: receive, ship, inventory. Various simplifications and assumptions are made to capture the

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essence of integrating RFID technology in a B2B process without making the case study unnecessarily complicated. Company Prod has an Internet connected PC network. Some of its employees use handheld personal computing devices, such as Pocket PC as an integral part of their job. Company Prod has three local storehouses and a fourth one in a different location. Each storehouse has two entry gates (a main and a secondary one) and two exit gates (also a main and a secondary one), which are supervised by several embedded devices with attached RFID readers; these devices will be called "gates". As RFID-tagged cases of components arrive from suppliers, gates read the tags and memorize the time they are coming into range and update immediately the components inventory. When components are taken out to be assembled with computers, inventory is reduced appropriately. The tag components products are read and tracked through the entire company with handheld mobile devices. Company Prod has more assembly stations. Every day, John picks up the computer components and drops them at the appropriate assembly station. As components leave the storage area, attached tags are read and the inventory is updated in real time. As John drops the components at each assembly station, tags are read, scripts are interpreted and the system verifies that the right type of components is dropped at the right assembly station. Michael works at one of the assembly stations. Once he assembles a computer, he creates a computer tag, associates the tags of the components to the tag of the computer and places this new tag on the computer case. Once Michael gets done a lot of computers, John moves the finished computers to the storage area. The system updates the finished products storage area inventory and the offered product web page. Through the B2B web platform a partner company can order products. When a partner places an order, one of two things could happen: 1) company Prod has the product in stock or 2) the ordered product wasn't in stock. If the first scenario is true, an invoice is created and is sent to the partner. If the second scenario is true, company Prod sends an email to his partner to notify about the estimated date of incoming delivery or cancels the order if it is no longer producing the ordered product. The partner whose order could not be fulfilled immediately could cancel the order, for example if it cannot accept the long delivery time.

At one of the exit gates, Peter consults the list of orders and is taking out products from the most prior order. As the product is coming into the range of the exit gate, the stock is modified consequently and the partner company is notified about the delivery.

Entry gates of the partner company register the product tags when they are coming into range. These data collection of precise and timely product information are immediately transferred to the system server. Within seconds the goods delivered are compared in detail with the goods ordered. Information regarding stock levels can then be obtained very quickly by authorized users.

The advantages with the RFID_B2B system is that all the items will be entered with specifications and prices, and it will give a real-time inventory control.

Once the user has selected the desired items and has added them to his shopping cart, he is ready to submit his order.

RFID_B2B system gives the user the flexibility to tailor his business to address the pricing variations he wants to support for his customers. Thus, this system supports personalized content and pricing for each customer. Different items, pricing and content can be displayed to different customers based on their price level, customer grouping, or purchase history.

This case study presents a simplistic view of a real-world scenario as the focus is on identifying the main benefits of the integrating RFID technology into B2B platform.

The system architecture is presented in

Fig. 1.

The integrated system comprises the following elements:

- an IBM-PC compatible computer which runs an OPC (OLE for Process Control) server with two main components: communication and data acquisition;
- an IBM-PC compatible computer which runs an OPC dedicated client; in fact one and the same computer may be used to run both the server and the dedicated client;
- a network comprising several gate devices; each gate has attached a low-cost RFID reader and processes the local data;
- PDA devices with attached RFID readers;
- an IBM-PC compatible computer which runs the local B2B server [14];
- an IBM-PC compatible computer which runs the central B2B server [14].

In this case study, we will consider three different complexity gates for each storehouse: Low Complexity Control Gates, described in [15] (which is referred as LCCGs), Medium Complexity Control Gates, described in [16], (which is referred as MCCGs) and High Complexity Control Gates, described in [17], (which is referred as HCCGs). The gates are connected to a RS485 network that will end on a PC with an RS485-RS232 connector [15]-[18]. In case the system uses an Ethernet connection, the MODBUS TCP/IP communication protocol is selected. The system is highly configurable and can be adapted to any demand.

Every storehouse has an Internet-connected PC running the OPC data server (OPC DAServer) [19]. The OPC client application may be installed on any computer connected to the company's network and may be used to watch data flow and even to modify the information from RFID tags and so on. At this level (company level), the application will be installed on a central system performing several operations such as the collection of storehouse data, the storage of the data in a database and the computation of reports about inputs and outputs or the stock level.

The basic information submitted by the control gates (read from the RFID tags) are imported by the OPC Data Server and saved into the central company database server using the Internet connection available. The software system we have devised enables the use of PDAs to read/write RFID tags associated to different products/parts.

Another feature of our software system is that a Web server may be easily installed in any company in order for the general public (future partners) or associated companies to gain access to certain information.

Let us consider the following example. Company Prod receives from a partner company named Distrib an order to

P03

kind of Internet-connected network. He can also manage the system registered users, enabling users' visualization, adding or deletion of certain users, profile modification, etc. Only the user with the specific system privileges can administrate the events database. The mobile application supports multi-user configuration to meet the requirements. Thus each registered user can set his own configuration.

P04

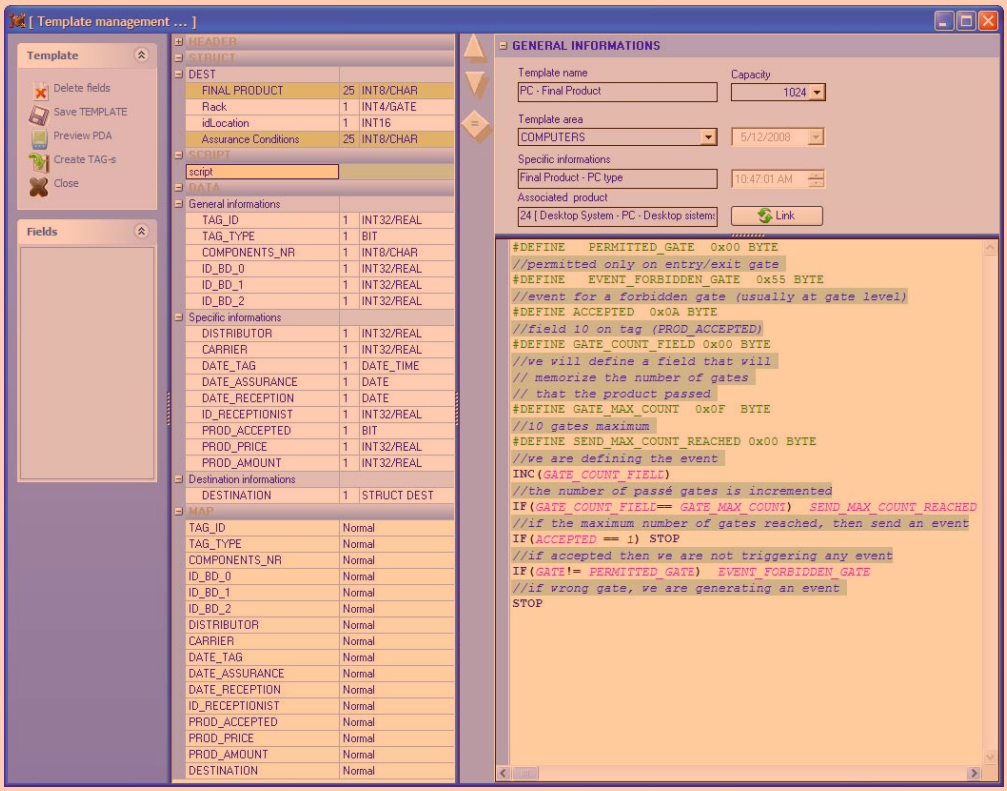

Fig. 2. The script– template PC – final product window

Fig. 3. PC Component. PDA Preview, first and second visual zone

- greater visibility through permanent presence of companies in a virtual market capable of enhancing the development of registered companies;
- the organization of exhibitions and promotion campaigns for products or services in a permanent virtual show-room which facilitates market access;
- a more accurate evaluation of market demands, better management of stocks;
- an error-free environment by using electronic data;
- closely inventory and availability management;
- reducing manual supply chain processes and transaction costs;
- the removal of intermediary agents/companies;
- increasing the amount and type of information that a company share with its partners;
- a faster access to market information and the accumulation of considerable business knowledge among the participants in the virtual market, both qualitatively and quantitatively.

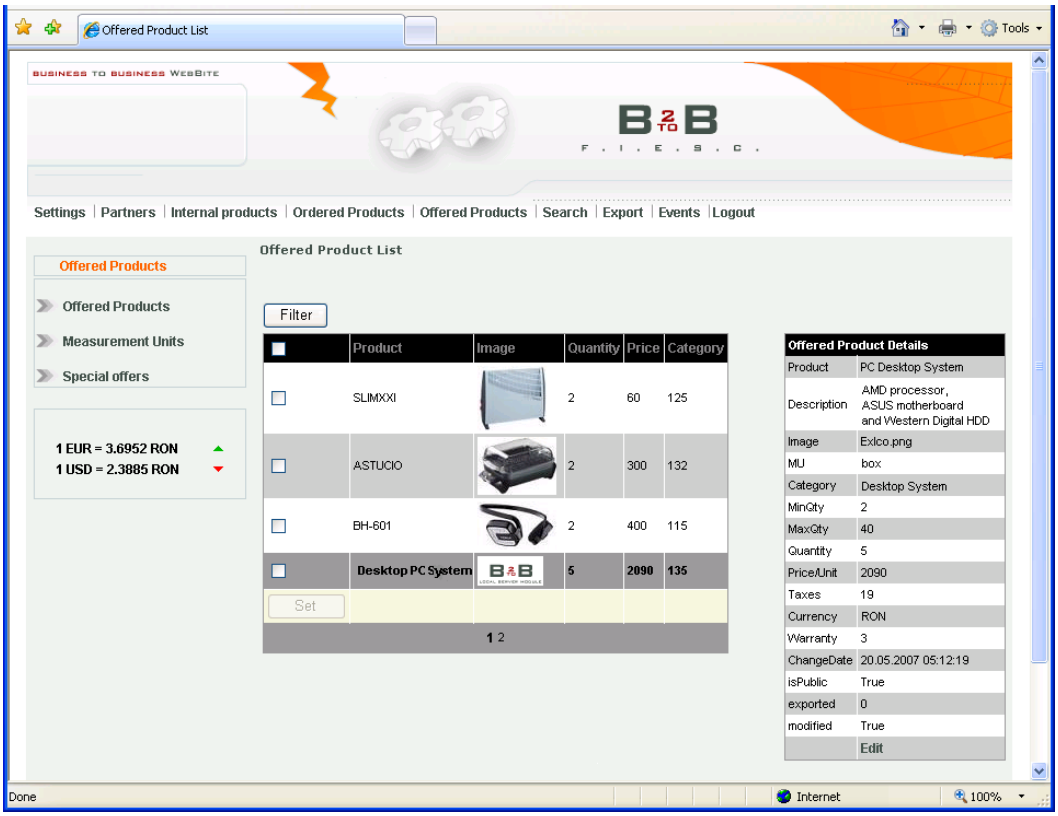

Fig. 7. Product page

Unauthorized readout of the RFID tag content has raised privacy concerns from different B2B participants (retailers, consumers). The RFID_B2B system provides counter measures which enhance B2B partners' privacy. Thus, the developed template framework represents a simple and efficient answer to prevent unauthorized reading of tag data. This solution has an almost limitless potential for product applications across a wide range of industries including retail, automotive, healthcare and more.

VI. Future Improvements

With the growing number of B2B sites available through Internet, a useful addition to the RFID_B2B system would be an intelligent software agent for information gathering. The agent will be able to perform semantic query optimization and to offer data mining facilities. It will dynamically plan for alternative information source when a source or a B2B site goes down. This agent will organize the results and display them in an easily interpreted manner to the user.

A useful feature would be a special section that enhances the management of production planning to ensure good deliveries and productive efficiencies.

P05

VII. Conclusion

In a global market where change is continuous, companies require tools that allow them to respond quickly to new opportunities. The presented RFID_B2B system can be considered as a viable solution for potential problems raised by globalization process, contributing to a significantly more efficient business process. We have chosen to analyze a simple scenario that does show the potential of the RFID technology in a B2B platform. With this system companies achieve lowering inventory costs, improve operational efficiencies and gain visibility on the market. Because different data users can impose different requirements the developed system is flexible and scalable. The RFID_B2B system allows users to exchange precise information amongst B2B transactions, to automate routine purchase-order transactions, to reduce the cycle time for purchase-order placement, to reduce errors etc. A company can quickly add new partners and can choose to share more real-time information with its partners.

We believe that integrating RFID technologies in B2B