

„The World of Identification: AIDC/RFID“

Presented By **RFIDEBLICK** 

Program

March 8th, 2012
Convention Center, Hanover

Industrial Automation | Transportation | Secure Identity | Sensors |

Aviation Industry | Baggage Handling | Readers | Transponder Technology |

Intralogistics | Material Flow | German eID | Logistics | Airports |

The following associations and academic institutions support the annual conference "The World of Identification: AIDC/RFID." With their extensive experience in practice, science, and research, they are outstanding experts in the field of automatic identification.



AIM-D
Association of AIDC
hardware, software, and
service providers
www.AIM-D.de



Research Institute
BIBA – Methods, pro-
cesses, technologies for
production and logistics
www.biba.uni-bremen.de



BITMi is the representa-
tive trade association for
SMEs in the German IT
industry.
www.bitmi.de



The RFID-AZM
brings developers, users,
and scientists together
with an interdisciplinary
platform.
www.rfid-azm.de



Anja Van Bocxlaer
Chief Editor
„RFID im Blick“

Dear participants,

I welcome you all most sincerely to the first international conference, organized by the magazine „RFID im Blick,“ titled „The World of Identification: AIDC/RFID.“

Today, I would like to invite any interested parties, decision makers, future thinkers, and those who are in the midst of AIDC/RFID projects to discuss, contact, and inform. Take advantage of the conference in order to bring forth innovative solutions.

Automatic identification may not be chic, trendy, or a „must have,“ but it is stable and vital, without a lack of creativity. It is a guarantee for process optimization, competitive advantages, and new developments.

I would like to extend thanks to all speakers, presenters, consultants, and the team of „RFID im Blick.“

Anja Van Bocxlaer
Chief Editor
„RFID im Blick“



Speakers

„The World of Identification: AIDC/RFID“



The moderators at the international conference "The World of Identification: AIDC/RFID" are experts in their respective subject areas. They will lead the lectures with their expertise and ensure the involvement of the conference participants with their individual issues. The moderators will guide you through the day and are available for discussions at your disposal.

Björn Anderseck
Fraunhofer Institute for
Material Flow and Logistics IML



Björn Anderseck is head of AIDC technologies at Fraunhofer Institute for Material Flow and Logistics IML in Dortmund, where he has worked since 2009. His team develops innovative logistics processes for various industries with help from identification technologies such as RFID. His area of research is the Internet of Things in logistics. While studying industrial engineering at the Technical University of Dortmund, he was also involved in product development at BMW in Munich.

Matthias Deindl
FIR at the
RWTH Aachen University



Matthias Deindl studied industrial engineering at the University of Karlsruhe (TH) with a focus on information management, applied computer science, technical logistics, and operations research. During his studies, he attended the John Molson School of Business at the Concordia University in Montreal and worked as an intern at SAP. Since April 2008, Mr Deindl has been a research assistant in information management for the FIR at the RWTH Aachen University. He is also project manager of the Smart Objects Innovation Lab at the RWTH campus logistics cluster. Since August 2011, he has been head of the Information Technology Management Division.

Christian Gorldt
BIBA-Bremer Institut
für Produktion
und Logistik GmbH



Since 2004, Christian Gorldt has been a researcher at BIBA in the Department of Intelligent Production and Logistics Systems (IPS). His research focuses on the logistic and technical uses of current ICT technologies. Christian Gorldt is active in applied research projects and industrial projects. From 2009 to 2010, he was the head of research in the field of factory logistics. Since 2011, the Business Administration graduate and media specialist has been the senior engineer for strategy and organization at BIBA.

14 speakers in technology and practical use will discuss with you questions such as: which processes are optimized today with AIDC/RFID technologies? What obstacles are there to overcome? The technical presentations at the international conference "The World of Identification: AIDC/RFID" will take you to different areas of application: aviation, baggage handling, industrial automation, the German eID, intralogistics, material flow, transportation, and airport logistics. What connects all of the presenters is their experience and their openness to future technologies.

Tom Burian
Lufthansa Technik
Logistik GmbH



Tom Burian is RFID Project Manager at Lufthansa and has been in charge of the overall project management of the research project, "Development of an Airworthy RFID Transponder," which developed RFID applications for widespread use in aviation, since 2009. Initially, as IT sub-project manager, the graduated business informatics specialist was involved in a research project for the development and coordination of integration concepts (middleware, SAP, mobile web applications) and the development of the real-time location system, Mojix.

Jens Fromm,
Fraunhofer Institute for
Open Communication
Systems FOKUS



Jens Fromm is head of the electronic identity research group and leading numerous industry and research projects for one of the largest European research associations, the Fraunhofer Society. His research focus at the Fraunhofer Institute for Open Communication Systems FOKUS is on sociological and technical trust relations, electronic identities, and technical and organizational interoperability. As the head of the competence center, Secure Identity, supported by the German Federal Ministry of Interior, his current focus is on accompanying the introduction of Germany's electronic identity card.

Dr. Lutz Hartmann
Fraunhofer Research
Institution for
Polymeric Materials and
Composites



Dr. Lutz Hartmann (project manager) studied physics at Leipzig University where he also obtained his PhD in physics in 2004 with a work on the molecular dynamics in ultra-thin polymer films investigated by broadband dielectric spectroscopy. As postdoc he joined the Physikalisch-Technische Bundesanstalt (PTB) Braunschweig where he was involved in the development of a novel absolute distance interferometer. In 2008, he started as project manager for bistable cholesteric reflective displays at the Fraunhofer Research Institution for Polymeric Materials and Composites (PYCO).

Jörg Hehlans
Harting Technology Group



Jörg Hehlans, employed at the Harting Technology Group since 2002 inter alia in the field of microsystems engineering, is the system application manager at Harting Electric. Since 2005, he has worked with a focus on passive UHF RFID transponders and 3D-MID technology. After studying electrical engineering at the Technical University of Braunschweig, he helped develop, among other things, fiber optic transmission systems, satellite systems, microwave radio systems, and antennas at Fuba. Then, Jörg Hehlans was the director of product marketing at Huber+Suhner for products of active mobile communication services.

Jürgen Heim
Psion GmbH



Since 1999, Jürgen Heim has worked at Psion, the global provider of solutions for mobile computing and wireless data collection. Since 2003, he has been responsible for the German and Austrian branches of Psion as Managing Director. Previously, the graduated business informatics specialist worked for various U.S. software and hardware companies in European sales management in the computer hardware, distribution hardware, and software industries.

Frank Linti
Schreiner LogiData



Frank Linti, Business Development Manager RFID at Schreiner LogiData, has more than 20 years of experience in sales and business development of RFID and encoding solutions. He has worked for renowned corporations such as Océ Printing Systems, Computype Inc., and Canon Europe as an RFID systems and process consultant to customers from the general industrial, logistics, automotive, aviation, and service sectors. At Schreiner LogiData, Frank Linti is responsible for analyzing customer processes in terms of seamless RFID integration and for the technical aspects of equipping the various components with RFID labels.

Heinz-Peter Peters
Simatic Ident
Siemens AG



Heinz-Peter Peters is acting as Consultant for Industrial Identification at Siemens AG, Industry Automation Division. In the Business Development he is looking after customers in the Food & Beverage and logistics industries. In his career, he acquired wide experience in acquisition, planning, and installation of systems and solutions for production and logistics automation. Peters studied at the Hochschule Niederrhein, where he graduated with a degree in electrical engineering.

Manfred Pierl
SICK Vertriebs-GmbH



After studying communications engineering at the RWTH Aachen, Manfred Pierl worked at SEL/Alcatel as a development engineer in the field of „broadband, wireless data networks.“ As system and application engineer at Intermec in the 90s, Pierl introduced today's wireless technology for mobile applications in industrial environments. After successful stops in product management of AIDC/RFID solutions and the attainment of an MBA in Innovation Management, Pierl, as portfolio manager at SICK, has been responsible for the „IDpro“ product platform, which consists of bar code/laser scanner, camera, and RFID systems, since 2008.

Oliver Pütz-Gerbig
Balluff GmbH



Since 2011, Oliver Pütz-Gerbig has worked as Senior Product Manager for Balluff. In this position, he is responsible for the business unit „Identification.“ The physicist has had many years of experience in the RFID industry. Before he joined Balluff, he most recently worked at the Schreiner Group as the head of RFID business development. He also worked at AEG Identifikationssysteme as sales manager and was group leader in product development and electronic components at Zinser Textilmaschinen.

Heiko Röhr
T-Systems International
GmbH



At T-Systems, Heiko Röhr leads the AIDC/RES Solution Center as Head of Sales. In of sales activities, he is responsible for all T-Systems Units and customers worldwide. He shows customers how to get more transparency and efficiency in their value grid. Before coming to T-Systems, Mr. Röhr was employed as Sales Director at Broadvision Germany, responsible for the automotive and insurance industry, helping to support customers and their end products with personalized web service with a self-service approach. He began his career at GE CompuNet as a sales representative and holds master degrees in economy as well as computer science.

Dr. Regiane Romano
Vip-Systems Informática



Dr. Regiane Relva Romano obtained her PhD in Business Administration in the field of Management of Information Technology FGV-SP. She is a university professor and Coordinator of the Fields Technology Analysis and Systems Development, Information Systems and Computer Science – UNIFIEO. In recent years, she has dedicated herself to participation in international fairs and congresses, e.g. the NRF (New York), the CeBIT (Hanover), and the Convention „Internet of Things“ (Berlin), with focus on the search for emerging technologies that can be applied to business.

Marcel Schweda
Assion
Electronic GmbH



Marcel Schweda has been employed at Assion Electronic GmbH, a full-service systems integrator for electronic and logistic system solutions, since 1999. Since 2007, he has worked as a technical manager at Assion in hardware and software development. The telecommunications engineer and his team develops RFID-based systems and specific hardware for different applications, ranging from animal identification to container tracking, on to the recycling of materials up to comprehensive warehouse management and access control systems.

Frithjof Walk
Feig Electronic GmbH



Frithjof Walk has worked for Feig Electronic since 1991 and is a sales manager for OBID RFID reader systems. Since 2007, he has been the president of Feig Electronics, Inc. in Atlanta, USA. As the Director of Marketing and PR, he was elected chairman of AIM Deutschland e.V. and appointed Chairman of the Council's Chapter in the EMEA region by AIM Global in 2002. Since 2003, Frithjof Walk has held a seat on the board for AIM Global.

Michael Zehnpfennig
DHL SOLUTIONS &
INNOVATIONS



Michael Zehnpfennig graduated in 1997 in physics at the University of Bonn. From 1997 to 1998, he worked as a scientist at the German Aerospace Agency (DLR) and the University of Bonn. Afterwards, he worked in the audio industry, developing professional audio equipment and software. In 2004 and 2005, he worked on his own as a technology consultant, mainly in China. In 2005, he joined METRO Group where he started the METRO RFID Test Lab and ran it until 2009. Since 2009, he has worked with DHL now, responsible for global RFID projects and working in standardization and regulation as well as development and evaluation of RFID technology.

Automotive Industry



Aviation



Industrial Automation



Intralogistics



Retail



Material Flow



Secure Identity



Port Logistics



Program

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Moderators



AIDC technologies can optimize processes in aviation logistics. The harsh environment places very high demands on the technological components; they must function in a metallic environment as well as withstand extreme temperatures, acids, and oil. The economic potential of civil aviation is reflected in its steady market expansion. In 2010, it was able to reach new growth, as reported by the German Aerospace Industries Association (BLDI). According to BLDI, civil aviation remained the highest in revenue and employment in the German aviation and aerospace industry, with a total revenue of 16.1 billion Euro.

Moderator:
Christian Gorltd

Aviation: Identification of Assets, Baggage and Materials

9:30 - 9:55
RFID in Logistics and Maintenance Management at Lufthansa Technik



Tom Burian
Lufthansa Technik Logistik GmbH

As part of the RFID management program, all RFID activities are driving the Lufthansa Technical Group ahead. At the LTL warehouse in Hamburg, hundreds of components are going in and coming out every day, from tagged life jackets to marked parts outside of an aircraft cabin.



- Maintenance & overhaul
- Marking components outside the cabin
- Warehouse logistics

9:55 - 10:20
Luggage Handling at the Airport



Manfred Pierl
SICK Vertriebs-GmbH

With a hybrid Airport Luggage Identification System (ALIS), Sick has developed a solution to decrease the throughput times of luggage at the airport, to reduce the manual expense, and to curb the search and handling costs for lost or delayed luggage. In addition, bar code and RFID solutions are used here to label and read RFID luggage tags at unmanned luggage counters.



- Automation of check-in processes
- Identification of all sorts of luggage
- Readability of different codes

10:20 - 10:45
Safety at the Airport



Marcel Schweda
Assion Electronic GmbH

At a German major airport, the airport lighting of the runway is labelled with RFID to simplify maintenance visits. In a South African city, the company installed an RFID system for access control. Since the implementation, the number of criminal offences in the security zone has verifiably decreased.



- Identification and location of runway flares
- Unambiguous identification of vehicles and staff
- Meeting complex safety requirements

Image: Günter Wicker/ Berliner Flughäfen

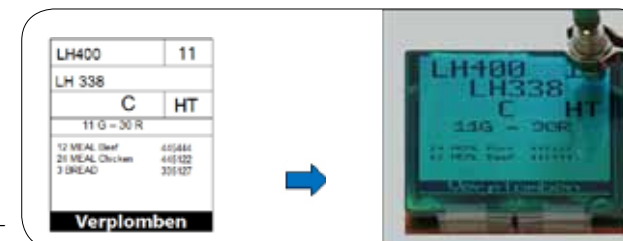
Aviation: Identification of Assets, Baggage and Materials

10:45 - 11:10
Bistable Displays with Wireless Control for Logistic Applications



Dr. Lutz Hartmann
Fraunhofer Research Institution for Polymeric Materials and Composites

The use of RFID in logistics often suffers the drawback that information stored on tags is not visible for operators, but needs additional hardware to be read. We demonstrate the coupling of RFID tags with bistable displays to circumvent this drawback. Potential applications of this technology will be discussed.



- Combination of RFID tags with bistable displays
- Energy supply by inductive coupling
- Potential applications in modern logistics

Coffee Break 11:10 -11.30

11:30 - 11:55
RFID - Small Transponder, Big Impact



Jörg Hehlhans
Harting Technologiegruppe

Harting, together with Lufthansa Technik Logistik and the Fraunhofer Institute for Integrated Circuits IIS, developed an aviation UHF tag. This is the first of its kind, fulfilling the high requirements of maintenance operations in the aviation industry.



- 3D-MID technology
- RFID use in harsh environments
- UHF on metal

Aviation

AIDC systems offer possibilities for the optimization of baggage handling and tracking. A simplification of the procedures is possible through the use of RFID tags at both manned and automatic check-in counters. To minimize the risk of security breaches, AIDC technologies can make an important contribution. At the capital's new airport „Willy Brandt“ in Berlin, AIDC technologies are a part of the safety concept. At another major German airport, the lights on the runway are marked with RFID. In a major South African city, criminal offenses are shown to be contained within the security sector with help from an RFID-based access control system.



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The Industry is in a transition. Innovations such as the self-controlling factory are becoming a reality; among experts, this leads to a debate over the “fourth industrial revolution.” AIDC/RFID technologies provide an essential contribution to the improvement of efficiency and security in production. A unique part identification system across the entire production chain gives manufacturing companies a distinct, competitive advantage. One of the most important industrial sectors in Germany, with annual sales of almost 250 billion Euro, is the automotive industry. Here, too, the manufacturers and suppliers constantly rely on automation.

Moderator:
Matthias Deindl

Industrial Automation: Identification of Parts through the Assembly Line

11:55 - 12:20
Power to Compete through Industrial Identification



Heinz-Peter Peters
Simatic Ident, Siemens AG

Flexibility and effectiveness are fundamental in order to be able to meet individual customer requirements in a targeted and reliable manner. Through the use of identification concepts, you benefit from more efficiency in logistics, material management, production and services and can therefore act flexibly in a tough competitive environment.



- Complete transparency in every sector
- Synchronize the flow of goods with the virtual flow of data
- Integrated control of the production and delivery chain

12:20 - 12:45
RFID-Applications in the Automotive Industry: New Solutions for Tracking & Tracing



Oliver Pütz-Gerbig
Balluff GmbH

Balluff offers RFID solutions for identification of metal components in the automobile industry. Special screw-like tags will be applied to motorblocks. RFID tags (HF or UHF) enable the entire manufacturing process to be traceable and improve the efficiency of the supply chain.



- HF and UHF solutions for automotive industry
- UHF applications on item level
- High-resistant RFID tags for metal application

12:45 - 13:10
Continuous RFID Tracking of Metallic and Non Metallic Objects across the Production Lifecycle



Frank Linti
Schreiner LogiData

What are the benefits of continuous automatic tracking along the production chain? How does RFID fit into highly automated production processes? What requirements must RFID tags meet when on metal? These and other questions will be answered in this lecture.



- Material-specific challenges in production objects
- Optimal precision in the reading range for automated tracking
- Cost reduction in production scheduling

Lunch Break 13:10 - 14:00

Security: Identification of People

14:00 - 14:25
Secure RFID The New German eID



Jens Fromm
Fraunhofer Institute for Open Communication Systems FOKUS

There is more and more doubt on the user side when it comes to technologies. But trust in IT becomes more and more critical. Is RFID secure enough? Is the new German eID a good example for secure RFID?



- Secure identification, German eID, mobile

14:25 - 14:50
Secure Identities and Secure Items through the Proper Use of RFID Technology



Frithjof Walk
Feig Electronic GmbH

RFID systems are used in various applications. The challenge in future business transactions will be in the ability to move in safe environments. The secure identification of persons and objects are increasingly implemented and realized with RFID technologies.



- The new ID card
- Smart cards and contactless payment cards
- Safe use of RFID by cryptography

Secure Identity

The issue of security is becoming increasingly important in high-tech communication companies. At the same time, it is increasingly more difficult to accomplish. Whether on the ticket to a football match, when redeeming a voucher, or using the new ID card, the need for reliable information is increasing.



AIDC technologies can help satisfy security standards and reduce costs. Here, the reliability of the technology is as important in ruling out manipulation as systemic safety. The safest product is not always the cheapest. Concomitantly, the challenge for the user is taking great care in the selection of solutions for person and access control that are based on RFID or another form of AIDC technology.

From the milk on the supermarket shelves to the newspaper – efficient logistics determine our everyday lives, despite being virtually hidden. Because of the increasing global flow of goods, the logistic and transport sectors are always facing new challenges. The main players in the industry are continuously working to meet the increasing demands. When it comes to automating logistic processes and freight delivery, AIDC/RFID technologies are indispensable.

In modern intralogistics, companies increase their efficiency through automation. But their needs are many: the industry needs to adapt to circumstances, cope with labor shortages, and deal with financial crisis. The Federal Statistics Office estimated the number of people of working age was nearly 52 million in 2010. By 2050, the number of workers will dramatically decline to 38 million. Until then, companies have to meet the demands of an increasingly aging workforce. Part of the solution here is workplace ergonomics.

Moderator:
Björn Anderseck

Logistics and Transportation: Identification in Storage and on a Shop Floor

14:50 - 15:15
Convergence of Different Identification Technologies in Logistics - Bar Code, RFID, Voice



Jürgen Heim
Psion GmbH

The convergence of different identification technologies in logistics will be the lecture topic for Jürgen Heim. The company's approach is to make barcode-, RFID-, or voice-based solutions easier to combine. Modular handhelds allow flexible change in the use of different technologies.



- Bar code, RFID and voice-based solutions
- Combining technologies for modular handhelds
- Customized solutions for individual demands

Coffee Break 15:15 - 15:45

15:45 - 16:10
DHL's Approach for Industry-Independent RFID Solutions



Michael Zehnpfennig
DHL Solutions und Innovations

From Fashion to High Tech: LSPs handle goods from various industry sectors. Except for small customization parts, any RFID solution has to be agnostic about the industry it is used for. This presentation is about DHL's way forward in generalizing RFID solutions.



- Application examples in fashion, high value, automotive
- Benefit of using standards
- Innovative IT systems

Logistics and Transportation: Identification in Storage and on a Shop Floor

16:10 - 16:35
Optimized Logistics Processes in Ports



Heiko Röhr
T-Systems International GmbH

ThyssenKrupp operates a new smelter in Brazil to produce approximately five million tons of flat rolled steel per year, which is transported to the U.S. and to Germany. To accelerate the port turnaround, the steel company relies on an RFID solution by T-Systems.



- Cost savings due to reduced loading times in ports
- Data processing in AIDC/ RES platform
- Increased safety for personnel in ports

16:35 - 17:00
Software for AIDC in Retail



Dr. Regiane Romano
Vip-Systems Informática

Using RFID and other AIDC (QR Code, NUI, Bar code, Cameras, and others), Vip-Systems developed 15 applications such as Smart POS and Smart Logistics. It improves the interactivity and the mobility of customers and employees. As a result, sales increase and expenditure shrinks.



- Software integration for store management
- Large variety of AIDC applications
- Improving processes for customers and employees

Retail

We are far from the „supermarket of the future“, in which each individual package is labeled with an RFID tag. For low-priced products, there are basic approaches in packaging and cold chain management. With high-priced products, RFID technology has already been proven its worth and is established in many areas.



It is the same in the high-price segment of the fashion industry. Here, the areas of application range from production control and incoming goods control to permanent inventory and theft protection. Experts in the fashion industry estimate that in 2012, the ten most actively traded European fashion retailers will have consistently implemented RFID solutions. This development is driven primarily by vertical manufacturers with their own areas.



Exhibitors

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Automotive Industry



Industrial Automation



Aviation



Intralogistics



Port Logistics



Retail



Partners

