

AIDC & Digital Link, What's Possible?

Industry & Standards Event Denver

Steven Keddie & Phil Archer, GS1 Global office 2019-06-18





Anti-trust caution

- GS1 operates under the GS1 anti-trust caution. Strict compliance with anti-trust laws is and always has been the policy of GS1.
- The best way to avoid problems is to remember that the purpose of the group is to enhance the ability of all industry members to compete more efficiently.
- This means:
 - There shall be no discussion of prices, allocation of customers, or products, boycotts, refusals to deal, or market share.
 - If any participant believes the group is drifting toward impermissible discussion, the topic shall be tabled until the opinion of counsel can be obtained.
- The full anti-trust caution is available via the link below, if you would like to read it in its entirety: http://www.gs1.org/gs1-anti-trust-caution.



Statement & reminder for seeking intellectual property information

- Relevant to the features of the specification that are being developed in this work group, if anyone
 has knowledge or information about intellectual property rights, such as, patents or patent
 applications; please promptly convey this information to the work group facilitator.
- The intellectual property rights can either be in development or owned by persons, companies or third parties within this work group or outside this work group.
- We do this under the guidance of the GS1 Intellectual Property Policy, so that GS1 can seek to avoid the uncertainty regarding intellectual property claims against the Specification.



Meeting etiquette

- Meetings will begin promptly as scheduled
- Be present avoid multi-tasking
- Avoid distracting behaviour:
 - Place mobile devices on silent mode
 - Avoid sidebar conversations
- Be considerate
 - Avoid monologues
 - Keep comments concise
- Respect work group decisions
 - Avoid re-opening decisions unless there is a significant quality impact

- Collaborate in support of meeting objectives
 - Ask questions
 - Be open to alternatives
- Be representative
 - Avoid personal remarks
 - Do not speak for your company or community if you do not clearly understand their needs
 - Votes should reflect the needs of your company or community



GS1 Standards Event App

- 1 Get the App by searching your App store for "GS1 Global Events" (If you already have the Global App due to attendance at the Global Forum or Industry & Standards Event, you do not need to do this)
- Once you have the Global App on your mobile device, the event module should automatically load. If it doesn't, click inside the search bar to activate.
- If you are prompted for a login at any time, please use:

Username: GS1events Password: GS1events





WiFi internet access

- SSID GS1_Connect
- User name Gaylord_Conference
- Password: Connect2019



Agenda

- Part 1: live demos!
 - Barcode software and printing
 - Scanning by consumers, patients, warehouse operators and POS.

Break around 3pm

- Part 2: 'why it matters' 10 minute talks from our industry partners
- Q&A (we might go through to 5.30).



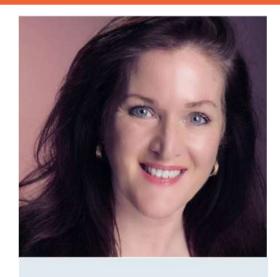
Today's line up





Elizabeth Sinclair

Elizabeth Sinclair is the senior manager of marketing for BarTender® by Seagull Scientific. She works with end users and industry groups in sectors such as food, chemical, pharma, medical devices, retail and healthcare, helping them enable supply chain efficiencies and regulatory compliance through deployment of Auto-ID and labeling technology, including barcode and RFID. Sinclair recently served as the chairperson and initial convener of the Track and Trace Committee of AIM, the international industry association for Auto-ID technology. Prior to Seagull Scientific, Sinclair managed marketing communications for the global chemical distributor Univar, supporting business units in the regulated industries. She attended the University of Washington, and holds a certificate in strategic marketing management from the school's Foster School of Business.







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Derek Dorsey

Derek Dorsey has been with Markem-Imaje for over 17 years in many positions including Engineering and Business Development. In his current role as Manager of Strategic Accounts he oversees a team responsible for the company's largest, global customers. Derek and his team use a consultative approach to solve pain points through solutions that are holistically integrated into customers' manufacturing processes. Derek has been a GS1-certified professional for many years allowing him to speak to customers regarding barcode compliance and using GS1-128 to enhance the supply chain route to market.







Chris Trlica

Chris Trlica is Product Marketing Manager for the ID Verification Products Business Unit at Cognex Corporation. He leads product development, strategy, and vision for barcode quality inspection systems. His prior role at Cognex involved close examination of a broad variety of customer parts across many industries and quickly designing the lighting, lensing, and software machine vision solution. He graduated from North Carolina State University with a focus on Chemical Engineering.





Emily Wilson

Emily Wilson is a senior software developer at Soom. She has been working in big data for 8 years, and specializes in enterprise data scalability and search algorithm optimization. She leads the development of technology that bridges the information gaps between data sources and physical products by utilizing barcode and mobile scan technology, and the Soom Knowledge Graph. She has a lifelong passion for combining technology with healthcare, and graduated from the University of Rhode Island with bachelor's degrees in Computer Science and Microbiology.







Ivelisse Gomez

Ivelisse Gomez is the North America Industry Marketing Manager for the Retail Industry at Datalogic. With over 12 years of experience in managing new product developments and marketing initiatives in the retail industry, she is a new member of the Datalogic team. She works closely with end users, industry leaders and strategic partners to develop product solutions and strategies while supporting the Datalogic's product roadmap of innovative cutting-edge technology designed for the retail industry worldwide. She holds a bachelor's degree in Electronic Engineering as well as an MBA.







Grant Courtney

Grant is recognised for his extensive experience in the pharmaceutical industry, having spent the past 24 years working for GlaxoSmithKline in product security, serialisation and enabling the digitisation of products, his focus is on making products Smarter and Safer for patients and consumers.

Grant has been an active member of the European Manufacturers association, EFPIA, for twelve years advising on both manufacturing and supply chain related issues. A core focus of this work has been the strategy and advocacy work behind the European Falsified Medicines Directive working with both the EMVO and European Commission.

He is a member of the GS1 Healthcare Leadership Team and now Co-Chairs the GS1 Digital Link working group. He obtained a Business degree at the University of Hertfordshire Business School and is a Musician and DJ in his spare time.











UPC/EAN



Panadol, OTC medicine



GS1 DataMatrix



Ermovate 0,05 % Crème



QR with GS1 Digital Link URI



Dal Giardino Risotto Rice with Mushrooms





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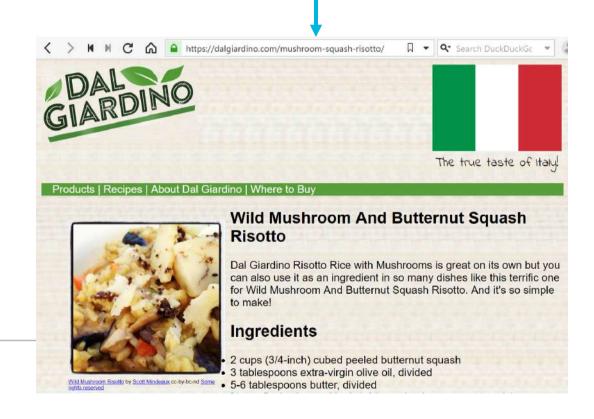
https://dalgiardino.com/risotto-rice-with-mushrooms/







id.gs1.org/01/09506000134352? linkType=recipeWebsite









SuperStore!

Home | Groceries | Household | Offers | Search store



Dal Giardino Risotto Rice with Mushrooms

A delicious mix of fragrant rice with Italian mushrooms

\$2.45

411g

Add to basket





https://superstore.com/gtin/09506000134352/lot/ABC

SuperStore!

Home | Groceries | Household | Offers | Search store



Dal Giardino Risotto Rice with Mushrooms

A delicious mix of fragrant rice with Italian mushrooms

\$2.45

Special Offer!

Only \$1.50!

411g

Add to basket





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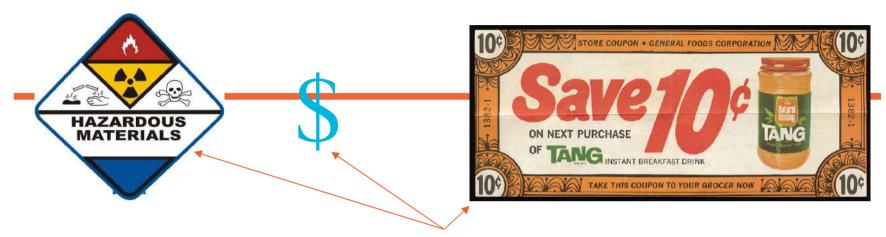


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Please review the standard!

Draft open for review at https://kwz.me/hy0 through 22 July



Speak up by Howard Lake cc-by-sa



601- Web Enabling Identification with GS1 Digital Link - Part 1



Wednesday 1:00 PM - 1:30 PM - GS1 Standards and Solutions Theater

Conference Track:

GS1 Standards and Solutions

Type: Industry Track Sessions

Speakers:

Phil Archer, Director, Web Solutions, GS1 Global Office Robert Beideman, Chief Solutions & Innovation Officer, GS1 Gena Morgan, Strategic Consultant, Corporate Development and Emerging Technologies, GS1 US John Phillips, Senior Vice President Customer Supply Chain & Global Go-To-Market, PepsiCo

Description:

The GS1 Digital Link standard for web-enabling data carriers promises to enhance the shopping experience for consumers around the globe while strengthening brand loyalty and improving supply chain traceability and efficiencies to bring scanning into the 21st century. Similar to the way a web address (URL) points to a specific website, GS1 Digital Link enables connections to all types of business-to-business and business-to-consumer information. Instead of being limited to more traditional barcodes, brands will be able to use QR Code, RFID, GS1 DataMatrix, or near-field communication (NFC) to deliver this information to their customers.

Who we are

Peter Alvarez



- Working with GS1 Global Office since 1999, 4 ½ years with GS1 US and 15 ½ with the Global Office
- Responsible for AIDC and Master Data standards in Healthcare
- Located in the US East Coast

Grant Courtney



- Worked for GlaxoSmithKline for the past 24 years
- An elected member of the GS1
 Healthcare Leadership Team for 10
 years
- Advisor to both EFPIA and the EMVO for the past 11 Years
- Now runs Smarter and Safer Products, a niche consulting company



A GS1 Healthcare strategic objective

Achieve a single barcode for identification, authentication and access to product information



- Allow a single GS1 barcode on a medical products to be scanned and have the user (e.g., consumer, healthcare provider) access the product digital content, complementing the reliance on the label information.
- With that, drive the efforts towards ONE barcode on medical product packages



The power of single scan



- Data Carrier
- Product Code, Batch/lot, Expiry, Serial Number
- Device
- Time, Language, User persona, Other





Why it matters?

Healthcare

A manufacturers perspective



Falsified products



This is Sita

- She is shopping for vital medicines for her daughter in Roxy, a huge market located in the bustling Adjame quarter of Ivory Coast's main city
- Fake pharmaceuticals are common and there is a chance that the product she buys will be falsified.



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Additional product information

This is Anaya

- She lives in Hyderabad, India and is taking medicines for the first time to treat a recently diagnosed condition.
- She we like to now more about the condition and also the products, how to take them and any side effects.





Supply chain visibility and traceability



This is Ben

- He is a health worker in sub-Saharan Africa and is transporting vaccines to a remote village.
- Often lifesaving vaccines are not available due to outdated and inefficient supply chains. Stock visibility and traceability information is impacting supply.



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Product safety

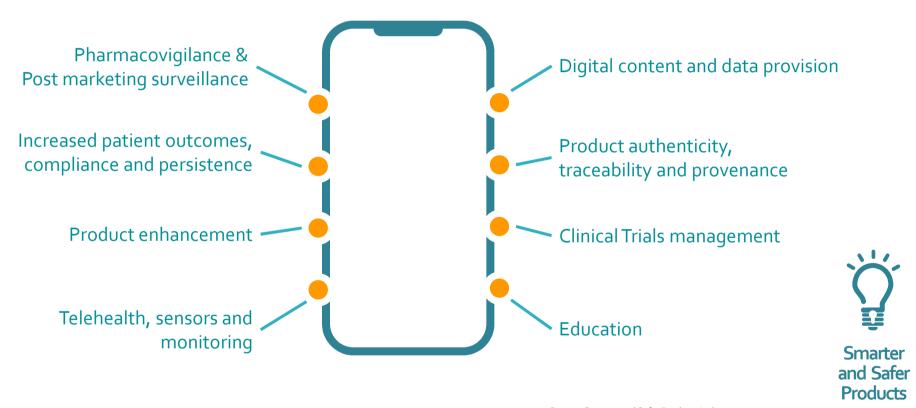
This is David

- He has recently been switched to an alternative medicine, however he has experienced some side effects which are not listed on the leaflet.
- He would like to check he has the most up to date information and perhaps notify the manufacturer of the issue he is having with the product.





Some of the many Healthcare use cases



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Why use GS1 Digital Link?

Healthcare

A manufacturers perspective



GlaxoSmithKline

Who we are

100,000

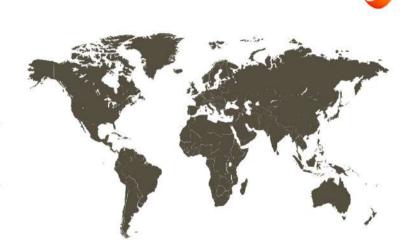
We employ around 100,000 people in over 150 countries, with more than a third in emerging markets

£30.2bn

Our 2017 Group turnover was £30.2 billion, with 33% coming from outside USA and Europe

86

We have a network of 86 manufacturing sites serving patients and consumers in over 150 countries



- GSKs digital solutions need to operate globally
- Global standards allow GSK to work with regulators to harmonise requires and deploy common solutions across the enterprise



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GlaxoSmithKline

Who we are

Pharmaceuticals

We've a broad portfolio of innovative and established medicines. We focus on developing new medicines in respiratory, HIV, oncology and immuno-inflammation, with an R&D approach focused on science related to the immune system, use of genetics and advanced technologies.





Vaccines

We offer the world's broadest vaccines portfolio and our vaccines business is one of the largest. We research and make vaccines that help prevent illnesses like meningitis, malaria and measies.





Consumer Healthcare

We're one of the world's largest over-the-counter medicines companies. We develop and market famous oral health, pain relief, respiratory and skin health brands, including Sensodyne, Panadol, Voltaren, Othrvin and Zovirax





- GSK operate in several business areas which drives a broad and diverse set of digital business cases and requirements
- Using an extensible solution like GS1 Digital Link is fundamental to facilitating the business needs



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Questions





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ThankYou

Grant Courtney 💄



www.SmarterandSaferProducts.com %



Emily Wilson

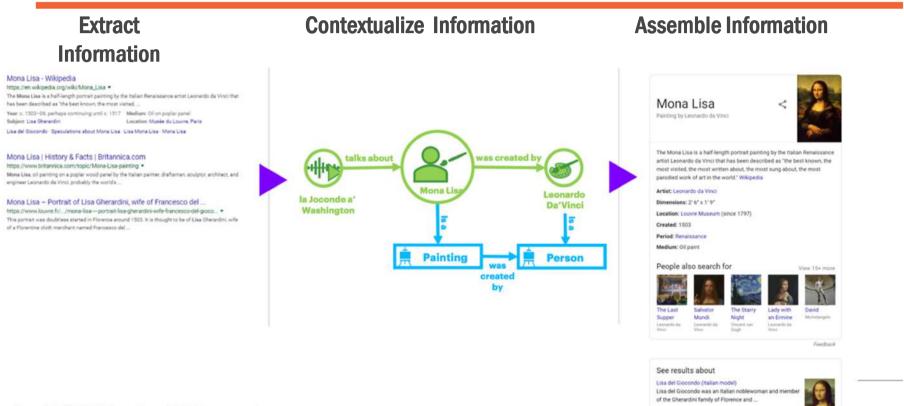
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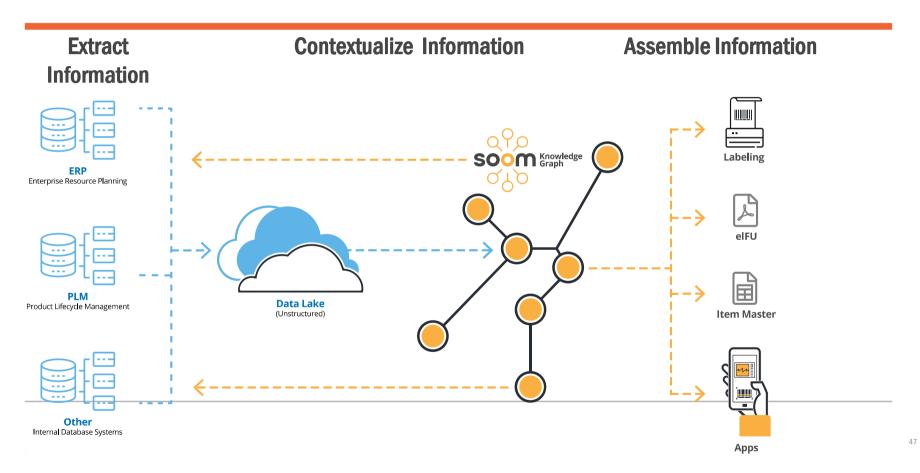




Soom | Knowledge Graph like Google KG

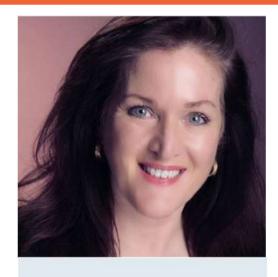


Soom | Knowledge Graph like Google KG



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Why now?



- Smart phones are everywhere
- Consumers: the "Thin Interface"
- Brands: control the conversation
- New ways of thinking about labeling

The Global Language of Business



© GS1 2018

Supply chain



- Communicate safety and handling data
- Enable the Circular Economy
- Capture chain of custody
- Traceability
- Retailer: product, pricing and marketing information



Derek Dorsey

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Redefine the possible"



Redefine the possiblesm



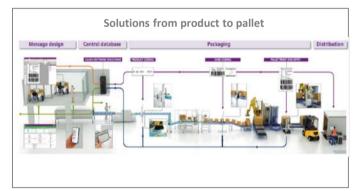
Markem-Imaje at a Glance

Markem-Imaje (subsidiary of Dover Corporation) is a trusted world manufacturer of product identification and traceability solutions. We offer complete range of services, software, and innovative inkjet, thermal transfer, laser, digital, print & apply systems and consumables.



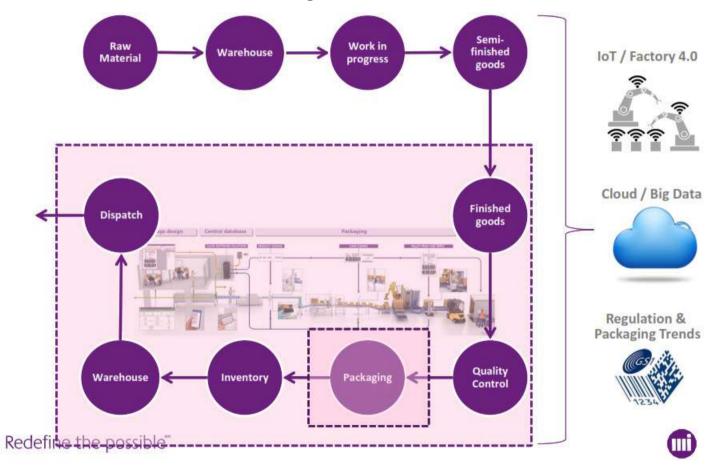
Key markets

- Food
- Beverage
- Extrusion
- Cosmetics
- Pharmaceutical
- Electronics
- Etc.

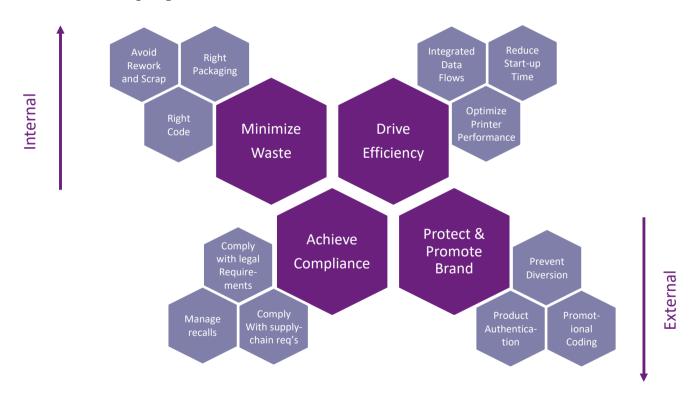




About Markem-Imaje...How we can contribute



4 Key Business & Operational Outcomes That we can help you address:



Redefine the possible ***



Markem-Imaje Packaging Intelligence Solutions Portfolio



Need to improve your data accuracy and line efficiency?



Need to minimize rework and scrap from coding errors?



Need to avoid waste from packaging material errors?



Need a way to support more digital marketing campaigns?



Need to track batches and pallets seamlessly?



Need to rely on unique product fingerprints?

Line & Data Management solution

Provides seamless manual and automated data and information processing, marking and coding for improved efficiency of
your entire production line or packaging operations. Includes full integration of third-party systems: ERP (Enterprise Resource
Planning), MES (Manufacturing Excellence Systems), WMS (Warehouse Management Systems).

Coding Integrity solution

 Identifies any potential product coding and packaging errors in real time, instead of at the end of the production run, so you can take action before too many products have been incorrectly marked.

Packaging Integrity solution

 Confirms that printed product, packaging and logistics data are consistent and reliable, ensuring the right message is printed on the right pre-printed packaging.

Promotional Coding solution

Makes it easier to use packaging as a vehicle to run 'always on' promotions by removing need for costly real-time controllers
and hardware which have historically limited such campaigns to a few production lines, or involved purchasing pre-printed
materials. With this solution, unique codes are printed on demand, even at high speeds.

Pallet Tracking solution

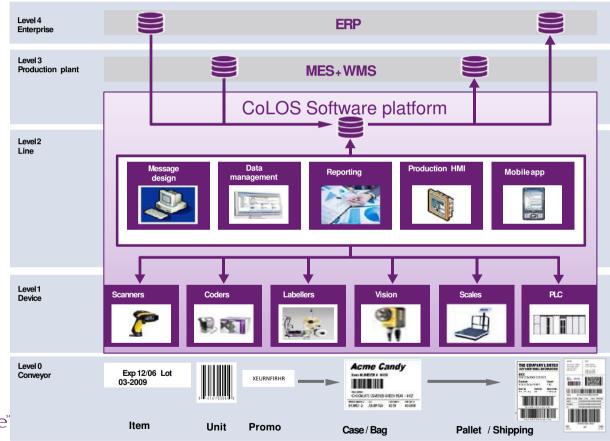
 Automates pallet labelling processes and establishes unique, fully GS1-compliant pallet identities, enhancing your inventory management data in real time and improving traceability in the marketplace.

Product Tracking solution

Creates unique product fingerprints which make single products seamlessly trackable, delivering reliability and safety for
distributors, resellers and users. Also enables aggregation of product coding data to entire carton units and the aggregation
of the same for multiple cartons on pallets, so you can scan and track output at every packaging level.



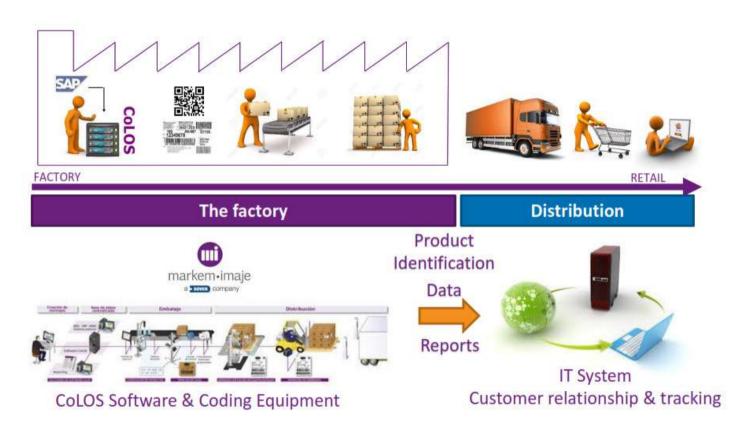
Markem-Imaje Packaging Intelligence Fully integrated to your IT and OT environment



Redefine the possible



Packaging Intelligence Product Tracking





2D Symbols Near Term Production Floor Use

- Almost all industry label software can generate GS1 Datamatrix or QR symbols
- Most industrial printers can produce GS1 Datamatrix or QR symbols in the production environment with Digital Link Syntax
- Inline variable data printing and scanning/reading
 - > Print conformance is application solution dependent
 - Speed, materials, print technology, material handling all affect the final solution
 - > Barcode reading
 - Imager-based barcode decoding is seeing year over year growth
 - » Multiple symbol reading
 - » Emerging inline conformance test to validate data integrity and compliance
 - > Most of the time current coding equipment is DL compatible with minor changes



Can today's industrial printers print 2D symbols in production?

Technology	Max Speed (m/min) (Size 18X18)	Image
CIJ (Continuous Ink Jet)	~45m/min	
Laser (CO ² 30W)	~60m/min	
TTO (Thermal Transfer Overlay) Labels and Film	~24m/min	
тіј (Thermal Ink Jet)	~60m/min	



2D symbols Near Term Production Floor Printing

- What would need to be done to production lines to enable the printers to print 2D symbols?
 - > Technology Dependent what printing devices you are using
 - > Application specific Primary, secondary or tertiary printing
- What can be done to print 2D symbols on high speed production lines?
 - > Printing Technologies exist and are being released that will not only meet 2D symbols conformance standards, but also the brands' production requirements







>120m/min

>150m/min

>360m/min

Redefine the possible T



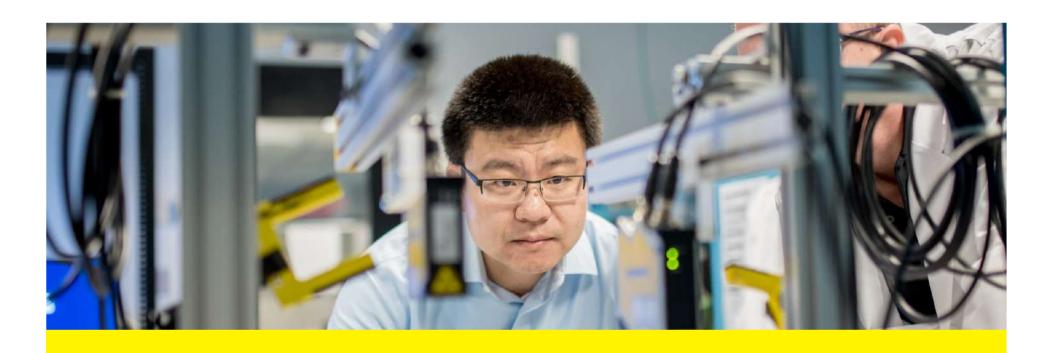


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Introduction to Cognex

Chris Trlica | 2019.06.18



COGNEX

\$806
MILLION
2018 REVENUE

OVER 37
YEARS IN THE BUSINESS

500+
CHANNEL PARTNERS

GLOBAL OFFICES IN 20+ COUNTRIES

2,000,000+
SYSTEMS SHIPPED

What Is Machine Vision?



The camera lens and sensor capture images...

Cognex advanced vision software interprets what's being seen

Cognex Vision Systems

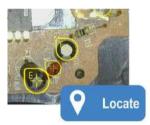
2D Vision

3D Vision

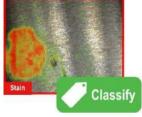
Deep Learning Vision Software













Cognex Barcode Readers







- Advanced algorithms, processing platforms and image formation technology that achieves the highest read rates for 1D and 2D codes
- Integrated illumination, optics and communication modules deliver an all-in-one code reading solution
- Lighting, lens and communication flexibility provide the ultimate in hardware versatility



Cognex Barcode Verifiers

- Acquired Webscan, Inc. in 2016
- · Based out of Boulder, CO
- World Leader in Barcode Verification
- Best-in-Class Code Quality Grading Accuracy and Repeatability



PRODUCTS ACROSS ALL INDUSTRIES



















ARE MADE BETTER AND AT LOWER COST WITH

COGNEX VISION

Technology Leader



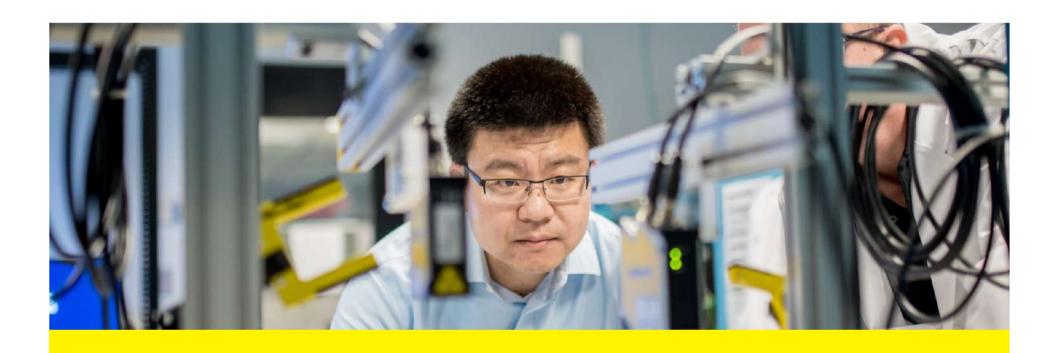
OF REVENUE INTO
R&D

US & INTERNATIONAL PATENTS
ISSUED & PENDING

Technology Leader - Cognex and GS1 Digital Link

- Standards-based industry interoperability is critical to our success
- Engaging at the ground floor is the best way to ensure we can maximize value for our customers and our partners
- Supporting our customers and partners in each of their varied use cases is a top priority
- We want to support our customers in any new technology initiatives they roll out
 - Digital Link matters to us because it matters to them!





Thank you



Ivelisse Gomez

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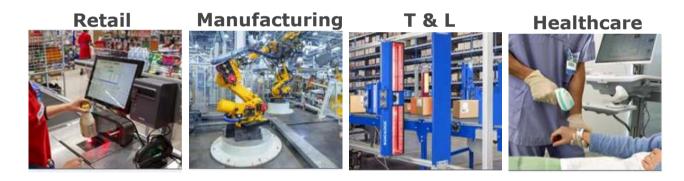


Ivelisse Gomez June, 2019



About Datalogic

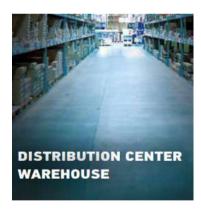
Datalogic is a global technology leader in the **automatic data capture** and **process automation markets**, specialized in the designing and production of **bar code readers**, **mobile computers**, **sensors** for detection, **measurement** and **safety**, **vision** and **laser marking systems**.





Datalogic - Retail Value Proposition

Aim to satisfy globally the Retailers Auto-ID business needs by leveraging our value proposition that foresees an end-to-end product & solution portfolio (from the Distribution Center to the Check Out)









Retail Scanning - Product Overview





Magellan 9800i - Live Demo!





- Top Down Reader (TDR) adds significant performance on top and leading-edge bar codes
- Datalogic's **Illumix™ Intelligent Illumination** Technology - Provides correct illumination for high speed data capture
- TDR and Customer-Facing Reader (CFR) offer an integrated, accessible approach for customer interaction – mobile coupons, loyalty cards
- Faster throughput reduces waiting times
- Thin design allows better accessibility in selfcheckout lanes
- Fully integrated EAS tag deactivation
- All-Weighs Platter & ScaleSentry 20% longer than other bi-optics- helps to eliminate cashier weighing mistakes and produce losses – faster for clerks to place items for weighing















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Mobile Computer – Some Scanning Options





Digital Link - Why it Matters to Datalogic?

Innovation

- Changes in consumer behavior
 - More information! Readily available
- Improving Functionality / Operations for our customers
 - Easier / Faster identification of area to scan
 - Faster throughput reduces waiting times
- Omnichannel initiatives will continue to evolve the potential for 2D imaging



Potential use cases for Digital Link?

- Avoid the 'Where's Waldo?' effect
 - A future with one 2D symbol
- Provide faster and more convenient checkout options
 - At the traditional checkout lanes
 - Reduce customer confusion at SCOs
- Track and Trace Liability
 - Automotive aftermarket, pharmaceuticals, baby food, tobacco, cannabis dispensaries
- Personal Shopping Scan and Go
 - Connect to relevant pricing and availability information











Contact Information

Ivelisse Gomez

NA Industry Marketing Manager

Thank You!

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www.datalogic.com





AIDC and GS1 Digital Link What's Possible?

