Macintosh Retail Group

Delivering Cross-Channel Strategy with Progress Pacific

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PROGRESS EXCHANGE

Agenda

- Introduction to Macintosh Retail Group
- X-Channel Strategy
- ICT Blueprint
- Progress Proof of Concept
- Where Are We? Future Roadmap

Macintosh Retail Group Introduction





Large-scale non-food retailer in Europe (NL, B and UK)



Our strategy can be summed up as selling shoes and home decorations through all sales channels in the most profitable way possible, and as such to increase Macintosh Retail Group's share of the wallet of satisfied customers

Retail is our business

TANO - Intreza⁹ Invito JONES MANFIELD















Consumer sales € 976 million in 2013 (about \$1,250).

Of total turnover 20% was generated from crosschannel activities

Headcount 10,831

Retail is our business























GORDON SCOTT





SCAP





























Macintosh Retail Group Cross-Channel Strategy



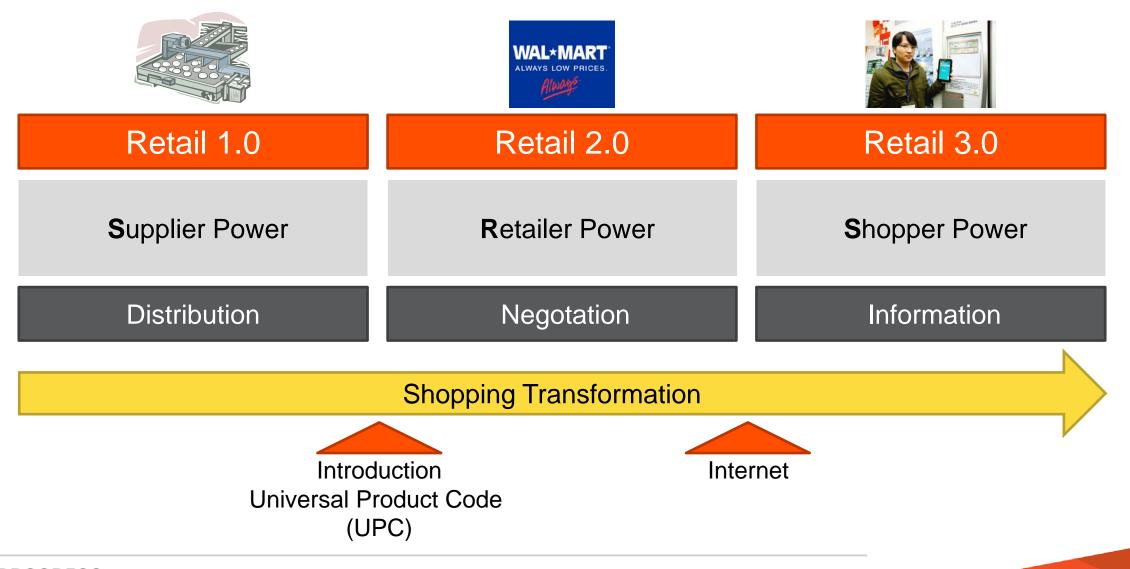
- More than 3 years ago we defined our cross-channel strategy, which is designed to enable Macintosh Retail Group to provide customers with the best shopping experience in the new retail reality
- Macintosh Retail Group has opted for a combination of optimum online solutions and recognizable, familiar and inspiring stores with excellent fulfilment
- We bring retailing to customers, through our own sales outlets and through third parties



Macintosh Retail Group ICT Blueprint

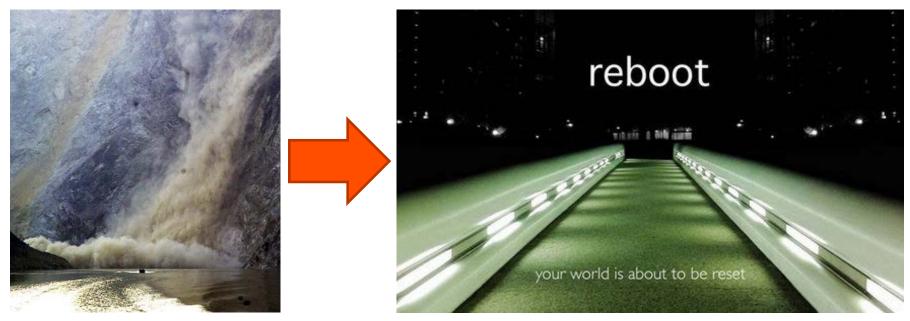


Changing Shopper Behavior: It's All About Who is in Control



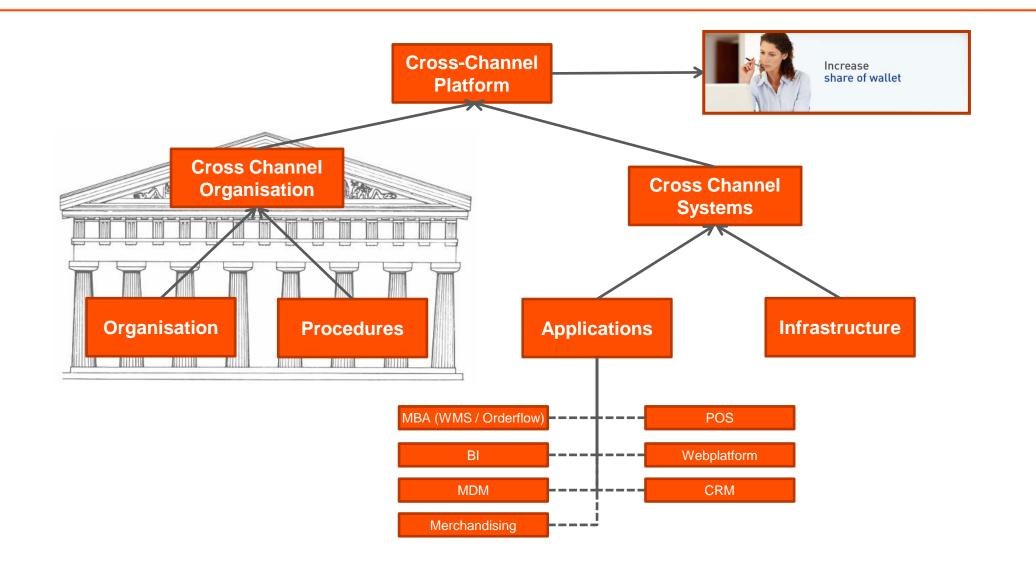
Reboot Systems and Organization

 Customer centricity and the always connected, channel agnostic customer are impacting business processes, our organizations and systems and are causing a real landslide



 Our product centric processes, organisations and systems were designed to support separate store and digital channels have become obstacles in our need to fulfill anywhere and at anytime

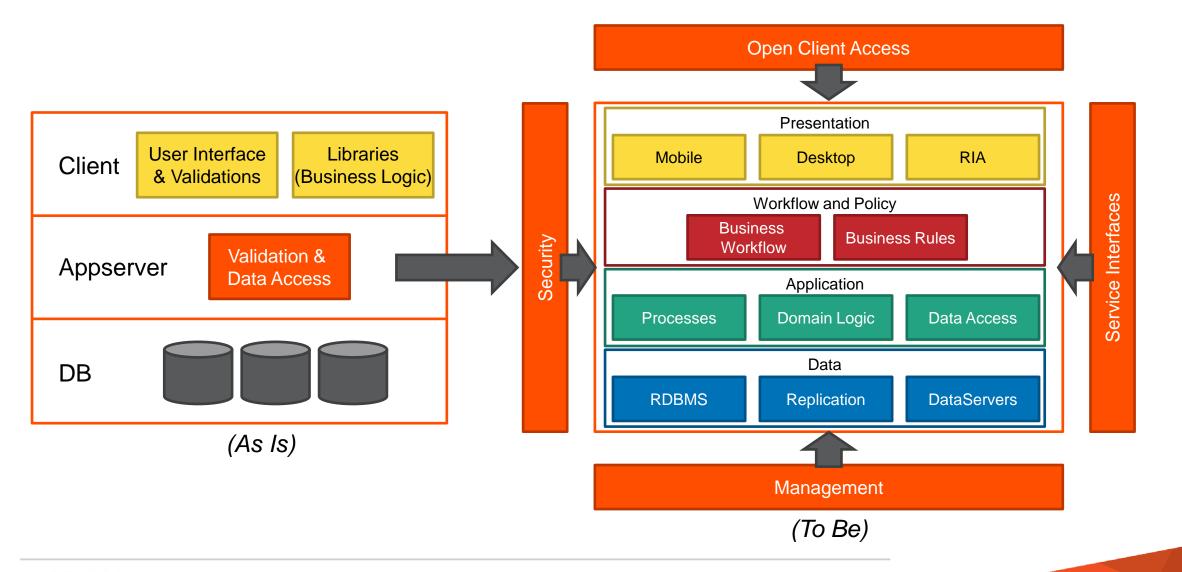
It's Not Only About ICT Systems



To Be Architecture

- Based on the principles of
- Service-oriented architectures (SOA)
- Process-oriented architecture (POA)
- Combines latest industry best practices
- Pre-requisite for X-channel (real time, web services)
- User Interface agnostic business logic & available on different UI devices (also apps and mobile)
- Designed to ensure maximum flexibility and productivity (e.g. via Business Process Management tooling that helps for deployment of dynamic business process applications)

Open Edge Reference Architecture



New Packaging For Our Existing Systems?





X-Channel Platform

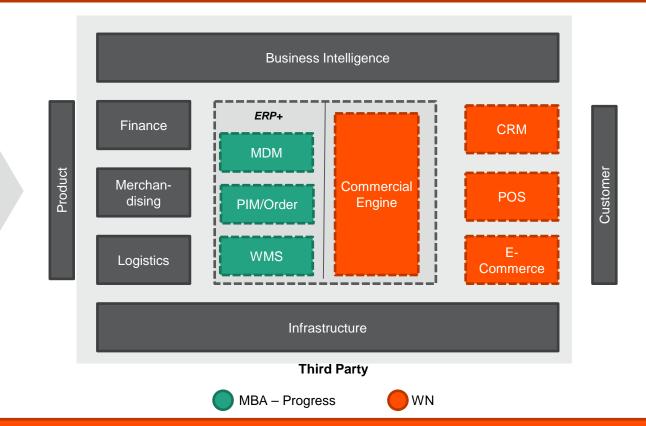
Realizing our X-Channel Platform by selecting proven solutions and technology...

ERP+ : MBA / Progress

 Existing, own developed, and proven solution to further enhance (X-channel)

Commercial Engine

 Standard X-Channel solution including POS and CRM foundations, fitting MRG's commerce needs



...by molding partnerships that allow MRG to respond to the increased complexity and speed of change

Planned vs. Realised







POC



Pacific Platform

MRG Proof of Concept – MDM

PROGRESS EXCHANGE

- Background to MDM as Candidate for POC
- POC: Core Principles / Instructions for the Development of MDM
- POC: Two Meta-Models Need to Work With Each Other
- POC: What Did We Build

Background to MDM as Candidate for POC



- A seamless cross-channel experience is impossible without master data management (MDM)
- Leveraging product data consistently across all channels is key in meeting customer expectations
- Traditional Article management is never designed to meet the demands of the Omni channel retailing:
 - Real-time access
 - Rich data and digital assets
 - Flexible data models
 - Variety of devices in omni-channel commerce
 - Central available / providing single point of view

POC: Core Principles / Instructions for the Development of MDM



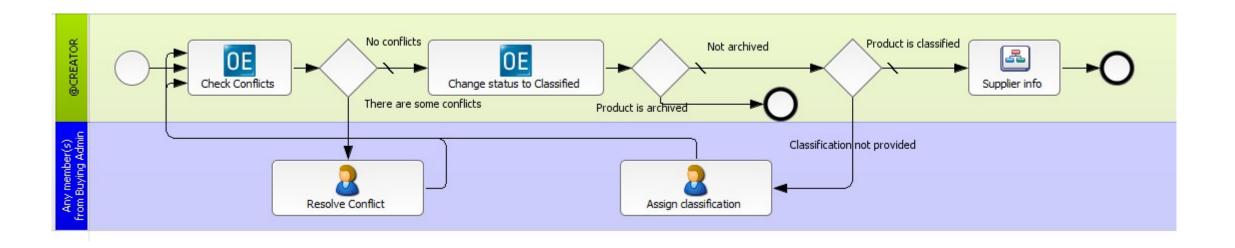
MASTER DATA CATEGORIES & DOMAINS (OR ENTITIES)



In Scope for POC

Creating Master Data Via Workflows

 Information of Master Data is most of the time built up over time and by different people involved (e.g., one first gets the picture of the product of the supplier, later on cost price information is handed over, later on the marketing department enriches the product with commercial descriptions etc.) In Scope for POC



Manually entered

- This is the traditional methodology
- Where possible, manual creation or maintenance of Master Data will be kept to a minimum. E.g. by importing product information coming from suppliers, suppliers editing their data via supplier portals or customers maintaining their data on websites etc.
- Upload from files (csv, xml,)
 - This is currently being used in certain instances e.g., for supplier barcodes and data enrichment
 - This methodology will continue to be used and needs to be available for all Master Data
- Web services
 - CRUD services need to be available for creating/ updating/deleting Master Data

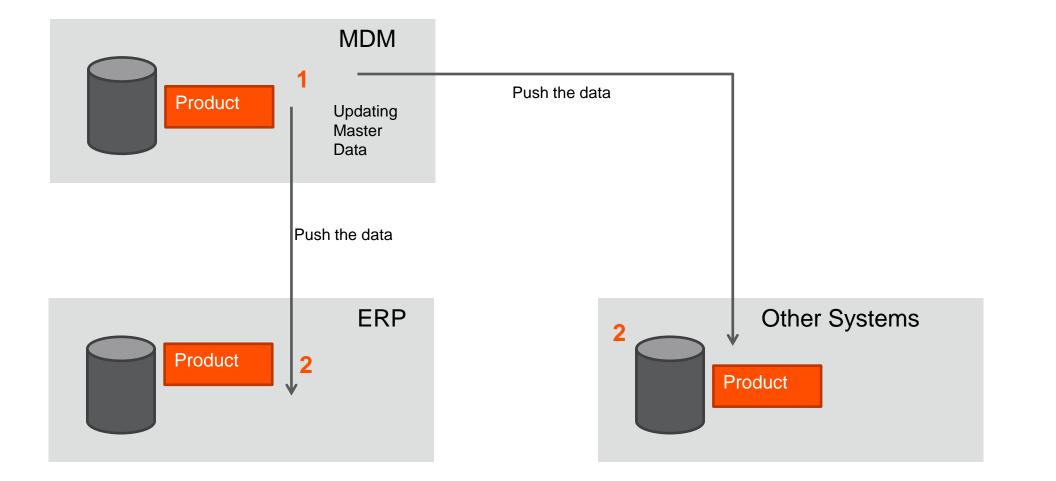






In Scope for POC

Base Principle: Centralized Setup: MDM Updates Pushes the Data



Product Information Management

- Product Management is about information from products that are for sale or for use within a company
 - Products have two subtypes :
 - Goods are products that are tangible,
 - Services are products that involve the use of time and in general are not tangible
- Product Management will have the following high level setup / base principles
 - Data from the central database is pushed (in real-time) to the subsystems
 - Product management will contain all data of the product (textual, images) for all processes within the different OPCO's. There will be no different source of product information, be it in a direct or indirect way
 - In principle all information is defined on the highest level, but on all levels one is able to change the default data
 - Product information (material, commercial descriptions etc) will be stored via a flexible attribute management
 - 2 types of data entry screens will need to be created
 - Screens allowing for traditional data entry (reflecting more ore less the underlying database tables)
 - Screens allowing for entering data as part of a workflow (reflecting the data needed/available as part of the normal workflow)

Product Information Management

Product Attribute Management:

- Allows to flexibly model all the information we want to store re. the product
- In principle adding new types of information does not need database changes
- **Product Attribute Template** allows to define what information needs to be stored for what type of product. (Store different information for footwear vs textile)
- Inheritance principles to be used to reduce as much as possible the work involved in managing product information
- From Date to Date
 - Each attribute has a from date to date indicating if the attribute is available yes or no
 - Each attribute value has a from date to date indicating if the value is applicable yes or no / allowing for defining future values

Product Hierarchy Management

- Primary vs Alternate Hierarchies
- Both are created based on rule sets
- Each Hierarchy has a from date to date
- The primary hierarchy reflects the physical characteristics of the product
- A product can
 - Only belong to one category in the primary hierarchy
 - Belong to multiple categories in alternate hierarchies

Article number

- The article number is meaningless
- On channel level it will be possible to create a artificial meaningful article number based on a rule set
- The rule set will have a from date to date defined

Size ranges

- Will be defined via the product attribute template
- Can be multidimensional (Length, width,..)
- A UOM conversion rule will allow for converting from e.g. UK Sizes to Euro Size
- On the product the base UOM is defined

1	Delivery in a short timeframe
2	Improvements in development speed and flexibility
3	 Needs to be state of the art and prove the technical concept where all future development will be build upon Modernisation Different tooling used within the Pacific Platform (Rollbase, Openedge BPM, Corticon, Openedge ABL, SOA architecture,) At minimal 1 workflow via Openedge BPM is defined
4	Needs to be able to used on different client platforms : desktop, tablet, smart phone,

POC: Two Meta-Models Need to Work With Each Other

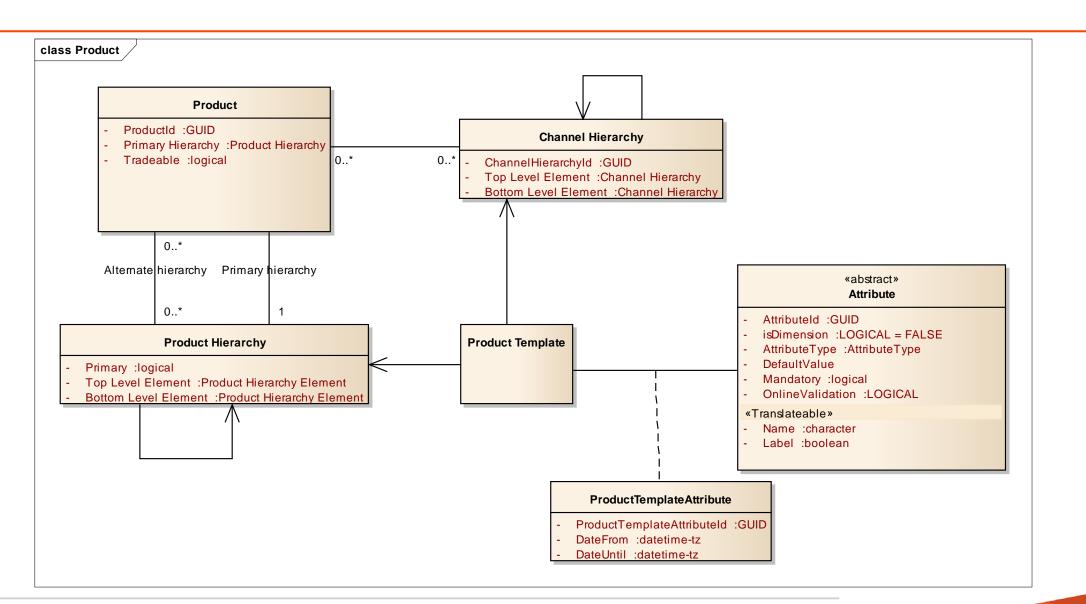
- Is het goed dat ik in het Nederlands presenteer?
- C'est bon que je vous présente en français?
- Ist es gut dass ich auf Deutsch präsentiere?
- Is it ok to present in English?

PROGRESS Exchange

Some Complexities

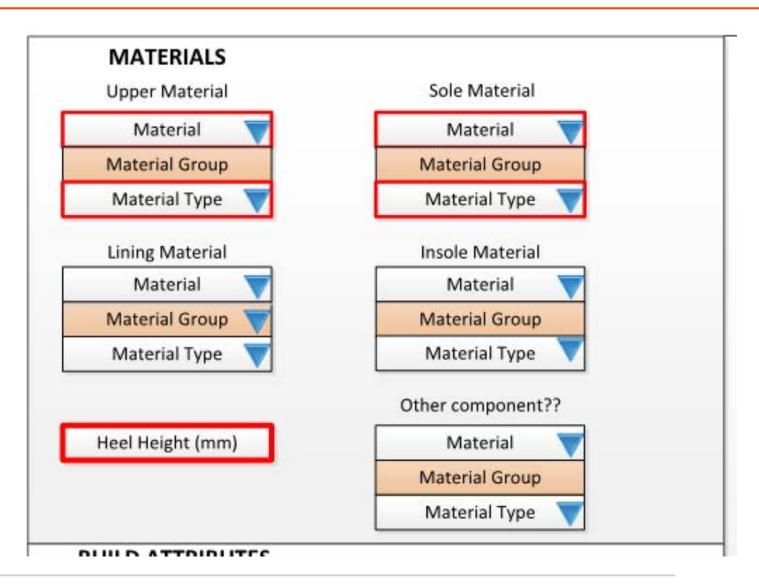
- Article/Attribute definition
 - An article has attributes. E.g. sole material, heel height.
 - But attributes are different per shoe: sandals don't have heel height.
 - New channels require new attributes, e.g. Amazon requires extra attributes on their website
 - We can't do with a classical article table, we need to 'link' attributes to a specific article 'on the fly'
- Attribute value definition
 - Attributes get a value. In many cases there is a list to choose from, e.g., materials (leather, suede, neopreen)
 - The possible values are dependent on the values of other choices (defined in Corticon)
 - The possible values to choose from are built up at runtim, e.g., when showing a dropdown list
- Attribute group
 - Attributes are defined in groups
 - In a User Interface groups will be tied together
 - Need for tabfolders (or the like) that will show all attributes of a specific group

Definitions Stored in Progress Database

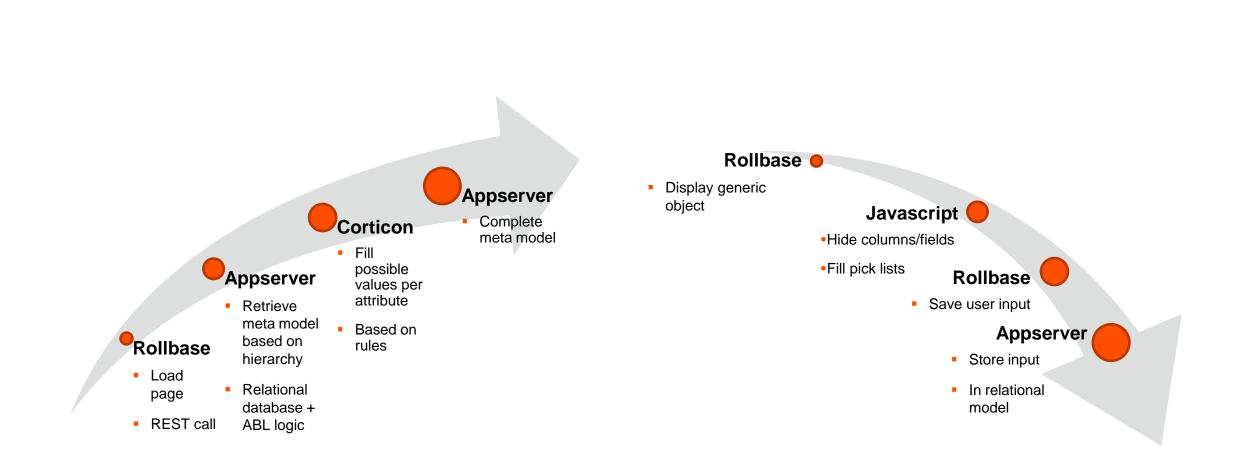


- Boot
 - Attribute: Material
 - Possible value: Leather
 - Possible value: Neopreen
 - Attribute: Heelheight
 - Possible value: 1 5 cm
 - Possible value: 6 10 cm
 - Possible value: 10 15 cm
- Sandal
 - Attribute: Material
 - Possible value: Leather
 - Possible value: Suede

Per Article the Screen is Different



How Did We Solve It?

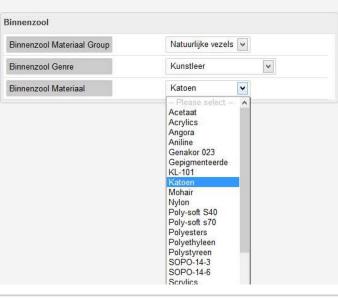


What Was the Result

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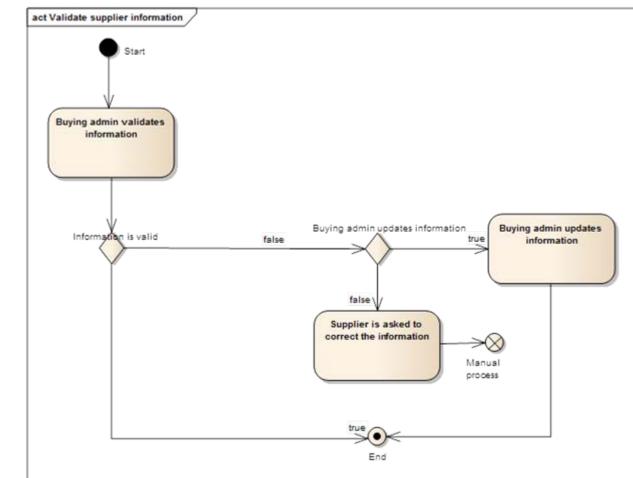
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POC: What Did We Build

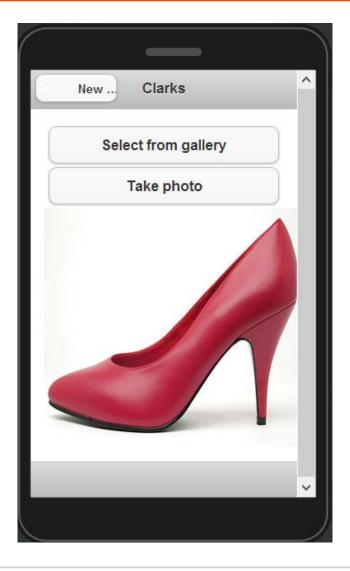


High Level Process Overview

- Article creation starts in a Mobile App (OE-Mobile)...
- ... Triggers a Business Process (OE-BPM)
- Buying administrator enriches data using Rollbase
- Manufacturer supplies product attributes ruled by Corticon
- All core functionality in ABL
- Persisted in OE Database

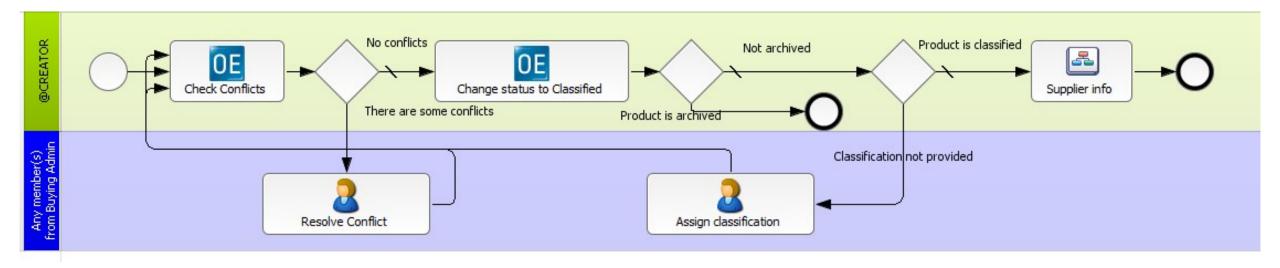


OE Mobile Starts Article Creation



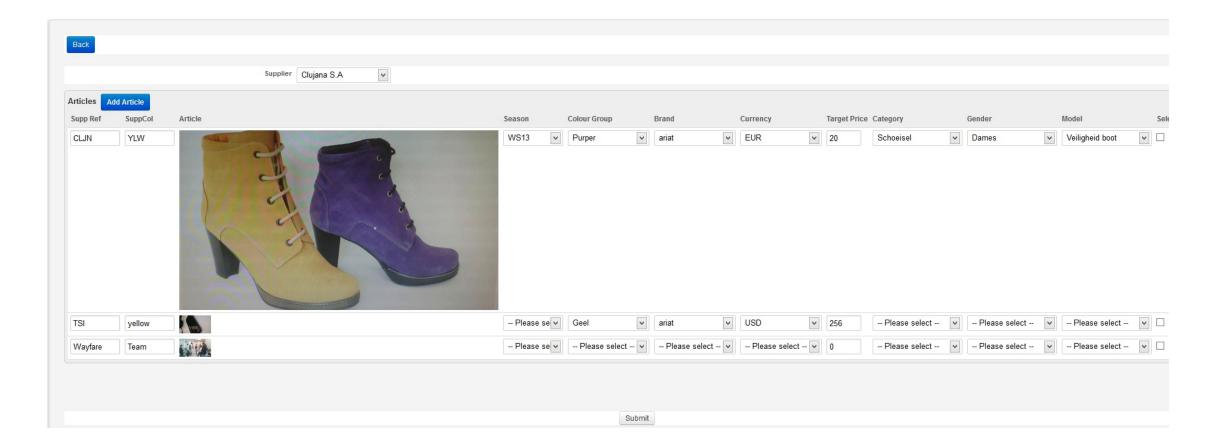
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OE BPM Defines the Article Creation Process



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Buying Administrator Enriches Data Using Rollbase



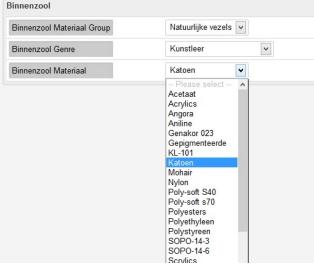
Manufacturer Supplies Product Attributes Using Rollbase

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SuppCol YLW	GenderValue	Ladies	ColourGroupValue		
	ModelValue	Safety Boot	SeasonValue		
Image			CurrencyValue		
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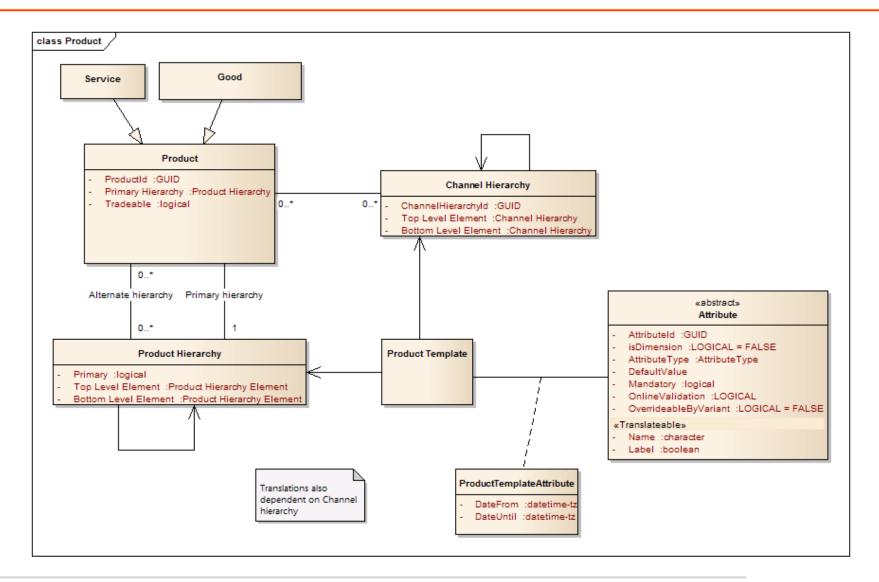
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Bovenmateriaal

All Relations Between Attributes are Defined in Corticon

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ABL Generates Variants Based on Color/Size/Fit (3-Dimensional)



Development

Tore Van Greembergen

PROGRESS EXCHANGE

Agenda

- Objectives
- Organization
- Development (Delivered, In Progress and Planning)
- Challenges
- Conclusions

- Realization Rapid Application Development
 - Modern flexible tooling to support fast changing Business Strategies and Markets

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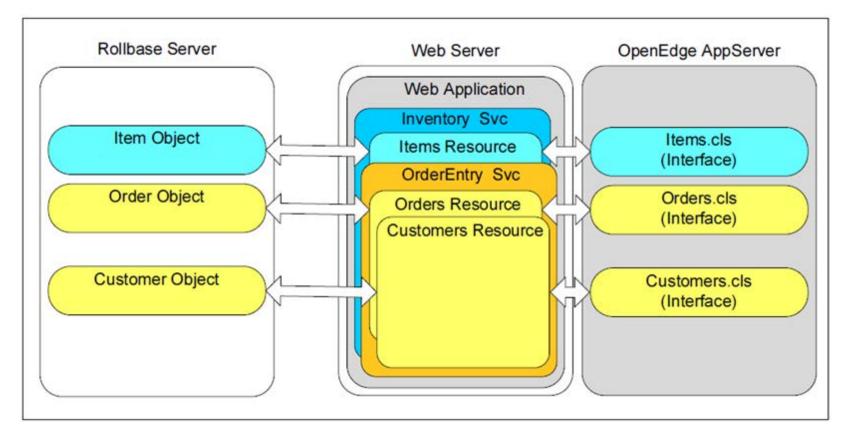
- Maintainability
- Cost of Ownership

Organization

- Organization development team to meet business goals
 - Existing (Local) team for continuation daily operations
- Near shoring for modernization
 - New developments (replacement, adding new functionalities/ modules)
 - Adding knowledge for new available tools
- Architectural support Progress Professional Service
 - Support
 - Services
- Integration Existing (Local) team and Near Shore team
 - (When it all comes together Resources and source code)

Development – Delivered

- Rollbase replaced Store Front Office Application (POS+)
- Replacement of current application (Modernization) including Open Edge BL integration for real-time communication – New design



Development – In Progress

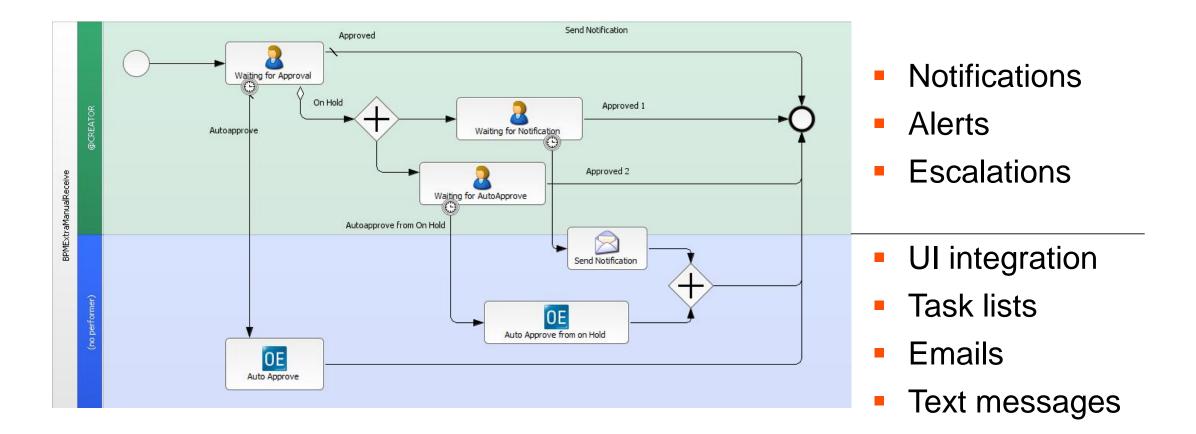
Rollbase integration Back Office with Front Office

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- BPM for Managing Message Flows
- Web services Interfacing third-party applications (Web services Rest incoming/ SOAP outgoing)

Development – In Progress

BPM Integration with Open Edge



Development – In Progress

• (Rollbase) Mobile



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Development – Planning

- Further integration Rollbase, BPM, Mobile with existing OpenEdge application
 - Client BL separated from UI
 - Enabling current Business Logic as a service
 - Replacement UI (Client by Web Based)
- Introduction Corticon (BRM)
 - For complex and/ or fast changing rules

Challenges

- Training to keep in pace
- Early adaptor Progress tools
- Embedding BPM, Corticon, OE Mobile, Rollbase Mobile, Rollbase and Open Edge
- Managing source code

- Utilization existing knowledge (Business and Development) beware of the pitfalls
- Controlled project planning and rollout
- Cost control (What, How and When)
- Fast development to keep in pace with fast changing Business Strategies and Markets
- Near shoring provides additional knowledge, capacity and flexibility
- Progress tools supports (our) integrated tooling requirements challenges but recognized

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