GLOMIDCO

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Straight through XBRL processing

Please be interactive

If you've a question, please **ask using a microphone**!

Please note: The speaker has **severe hearing problems**!

Interactivity has our preference !!



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GLOMIDCO & XBRL

GLOMIDCO has taken a completely different approach to tackle the XBRL problem

Simplification and zero coding is what GLOMIDCO has to offer for XBRL usage.



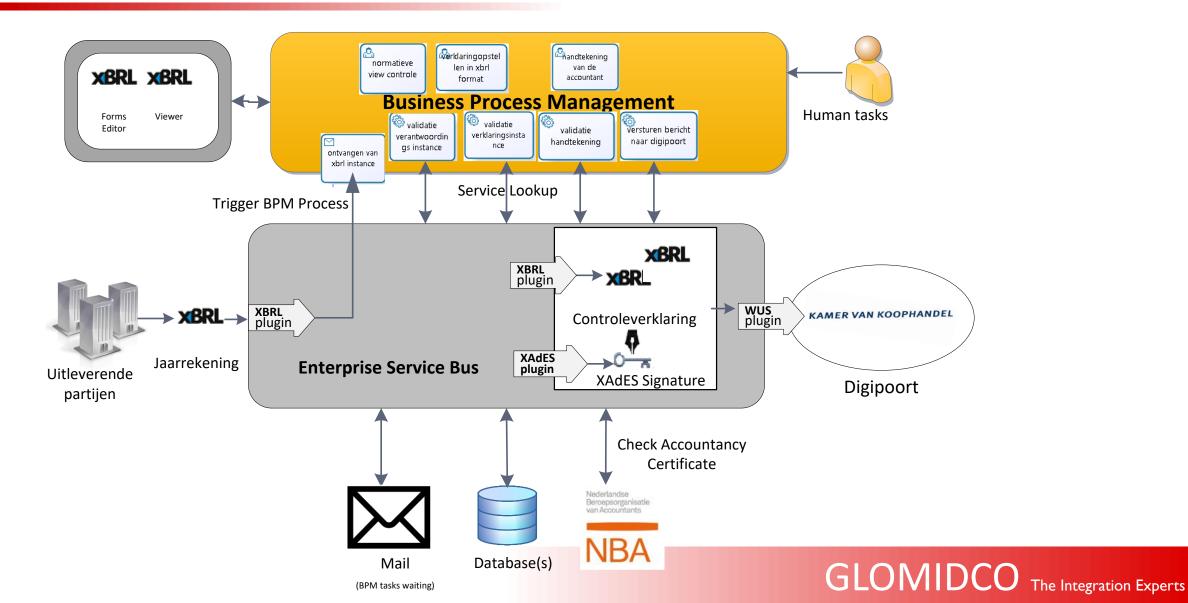
my XBRL journey: 2008-2014

- Build middleware components for handling XBRL as component in a wide range of middleware products (Tibco BW, SF MuleSoft, IBM/SAG Webmethods)
- Full functional and based on a shared JAVA based XBRL processor
- Build for fast and reliable Straight Through Processing (STP)
- All calculations and hard crunching on XBRL meta data done at start/init-time), Milliseconds for each XBRL transaction run-time
- Adhering to the Taxonomy package standard BUT....
- > XBRL standard was expanding faster than JAVA resources available
- Unfortunately, the world was not ready for Middleware based XBRL solutions

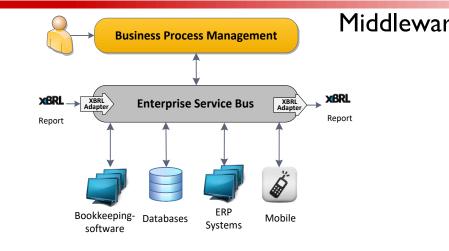
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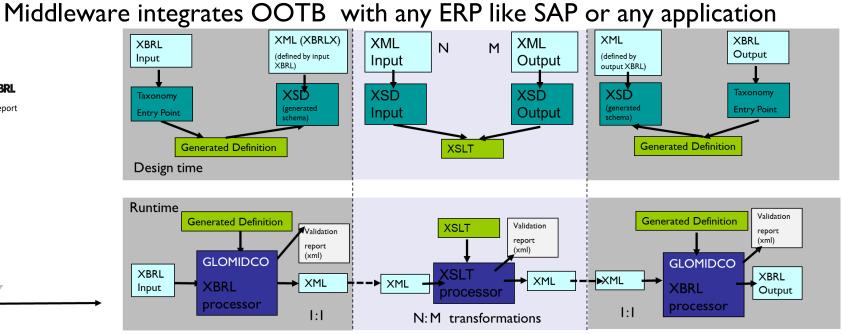
Project Halted (suspended and ready for relaunch)

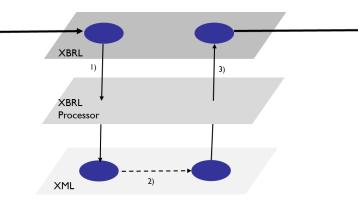
Example NBA Assurance (NL)

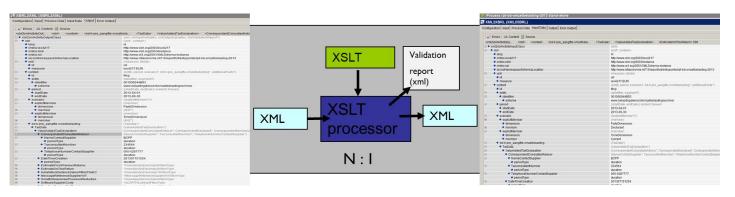


XBRL & Integration – FULL functional

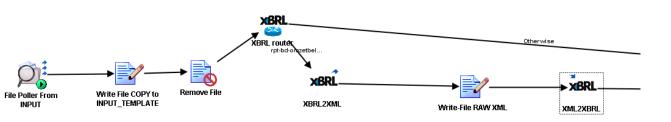








Extensible Business Reporting Language Tibco Business Works

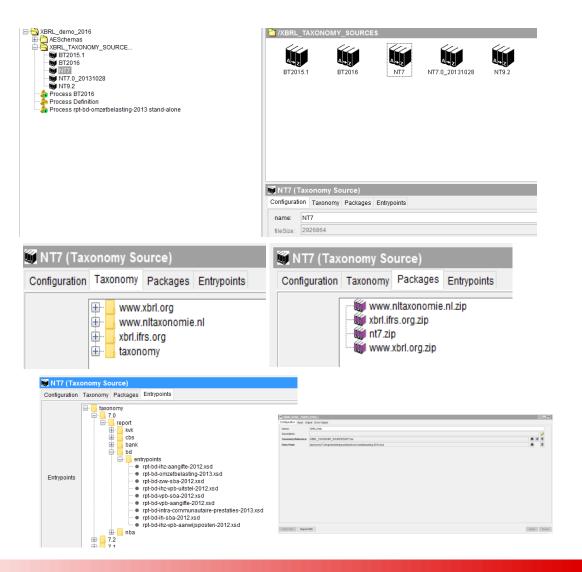








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		\$XBRL2XML/xbrl2xmlActivityOutputClass/ns2.xbrl/ns2.unit
Avri Virian Virian		



MuleSoft XBRL extensible Business Reporting Language



Validate XBRL instance Created by Christian Vermeulen, last modified on Sep 28, 2015

Using DataWeave to map to XML Created by Maarten van Benthem, last modified on Oct 19, 2015

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The XBRL to XML component return an XML file, representing the processed XBRL instance, as a String. Entry points found | Validate XBRL instance is used to validate XBRL instances and an XML validation report is generated based on the schema type and filter. Through Mule DataSense, the entry point can be mapped in Anypoint Studio

Example XBRL to XML configuration: xbrlToXmlFlow For Each Context validateFloy XRR Get Turnove XBRL to XML FILE File loggerFlow Message Flow Global Elements Configuration XML 🗚 XBRL to XML 🛛 🔝 Problems 📮 Console 🖷 Progres O There are no errors. Notes Notes Display Name: XBRL to XM Basic Settings Connector Configuration: NT9.2 ~ 🍦 🛪 XBRL to XM ie/cbs-rpt-mndeng-visverwerking-vervaardiging-van-meel-plantaardige-dierlijke-olien-vetten-2015.xsd Entry point: Schema type: Filter prese

selected entry point in a taxonomy. Schema type and filter are not applicable here. Through Mule DataSense, the XA Example overview Example validate XBRL instance configuration: For Each XBRL Longer Validate XBRI Get Validation Logger instance Errors Error handling Message Flow Global Elements Configuration XML 🛪 🕼 Validate XBRL instance 🗴 🖹 Problems 📮 Console 🖷 Progress There are no errors. 0 Display Name: Validate XBRL instance Basic Settings Connector Configuration: NT9.2 + Z Validate XBRL instance Operation General Entry Point: v.nltaxonomie.nl/9.0/report/bd/entrypoints/bd-rpt-ob-aangifte-2015.xsd 🗸 🦑 Figure 1: Complete example of XBRL flows

XML to XBRL

XBRL to XML

Created by Christian Vermeulen, last modified by Bas Philippus on Oct 02, 2015

Created by Christian Vermeulen, last modified by Bas Philippus on Oct 02, 2015

The XML to XBRL component return an XBRL file, representing the processed XML file, as a String. E schema type and filter. Through Mule DataSense, the entry point can be mapped in Anypoint Studio.

Please Note that an Object to String transformer must be placed before the XBRL component, i

Example	XML	to	XBRL	configuratio	r
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CBSShortte	ermStatisticTitleFlow								
Source	Transform Message	c	bject to String						
Þ		Error hand	ling						
Message Flo	w Global Elements	Configurati	on XML						
XBRL XBRL ×	🛐 Problems 📮	Console	🎋 Mule Debugger						
	📀 There are no e	rrors.							
General									
Notes	Display Name: XBRL								
	Basic Settings	Basic Settings							
	Connector Configuration: Operation:		NT9.2	~ 🔶	7				
			XML to XBRL		~				
	General								
	Entry point: :ing-vervaardiging-van-meel-plantaardige-dierlijke-olien-vetten-201								
	Schema type: Filter presentation				~				
	Filter	COCCI	ermStatisticTitle		1.6				

Merge XBRL Created by Bas Philippus, last modified on Oct 02, 2015

mergeXBRLFlo

The merge XBRL operation is used to create a single XBRL instance from multiple XBRL files.

Example merge XBRL configuration:

Source	Scatter-Gather	CBSShorttermStati sticTitleFlow	XBRL	File
۶.		Error handling		
CBSShortterr	mStatisticTitleFlow	t.		
Source	Transform	Object to String		
Þ	Message	Error handling		
GlobalComn	nonDocumentTax	onomyCBSTitleFlow		
Source	Transform Message	Object to String		
)		Error handling		
lessage Flow	Global Elements	Configuration XML		

XBRL to HTML

Created by Christian Vermeulen, last modified by Bas Philippus on Oct 02, 2015

XBRL to HTML generates a HTML report based on the selected entry point and processed X custom layout to the generated report. Schema type and filter are not applicable here.



Basic Settings

Operation:

Entry point:

General

Connector Configuration: NT9.2 + 🗹 XBRL to HTML 'bd/entrypoints/bd-rpt-ob-aangifte-2015.xsd 🗸 🔗 Layout CSS file (optional): a layout.css

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This section contains an example how you can use the Mule Dataweave component to map several input types to xmi, using a taxonomy XSD schema. When the input is mapped to a valid XML message, the XBRL component can be used to transform the message into a XBRL message. In our example we use the following entrypoint: www.nltaxonomie.nl/9.0/report /bd/entrypoints/bd-rpt-ob-aangifte-2015.xsd. This example contains a step-by-step guide on howto successfully create a XBRL message using multiple sources as input. Figure 1 contains the complete example flow.

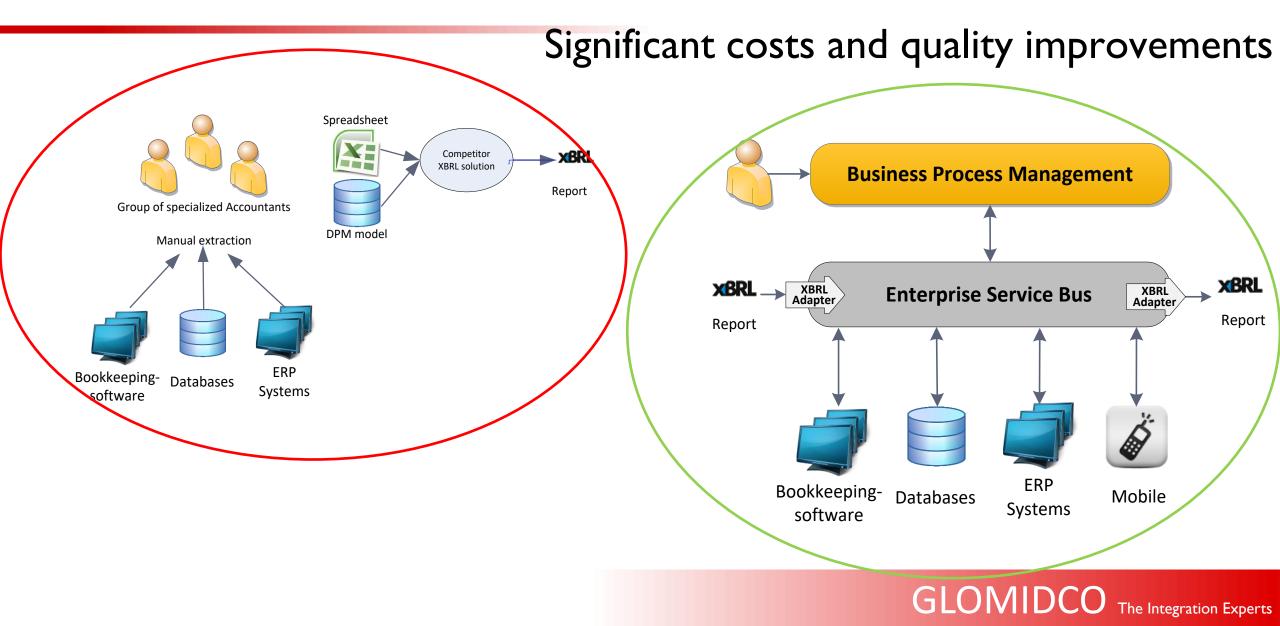
SAG (now IBM) Webmethods

g-xbrl::Integratio	(t/adapter_index_dsp?url=%	(2E)W/mART%2EListResources.dsn%2Eadant	 Iocalhost:5555 - webM 				
Server	 Iocalhost:5555/WmRoot/adapter-index.dsp?url=%2FWmART%2FListResources.dsp%3Fadapt Iocalhost:5555 - webM sag-xbrl :: Integration Server :: XBRL Adapter :: default 			sag-xbrl :: Integration Server :: XBRL #	dapter :: default			
Scheduler Service Usage Statistics Logs				XBRL Adapter Adapters > XBI Connections About Configure New C Eliker Connection	LAdapter > Connections			
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<u>54ML</u>	Cloud Connector Service Document Type Flat File Dictionary Flat File Schema	JDBC Adapter MLIP Adapter Saleförec.com Adapter Sample Adapter XBRL Adapter	Select Taxonomy (depends on .tax f			taxonomy/7.0/report/bank/entrypo taxonomy/7.0/report/bank/entrypo taxonomy/7.0/report/bank/entrypo taxonomy/7.0/report/bank/entrypo taxonomy/7.0/report/bank/entrypo taxonomy/7.0/report/bank/entrypo	ints/rpt-bank-ihz-aangifte-met-winstbijlage-2012.xsd ints/rpt-bank-ihz-aangifte-met-winstbijlage-tussentijds-2012.xsd ints/rpt-bank-krediet-kl-comm-2012.xsd ints/rpt-bank-krediet-kl-fisc-2012.xsd ints/rpt-bank-krediet-kl-fisc-cns-2012.xsd ints/rpt-bank-krediet-kl-fisc-cns-2012.xsd	
	 Flow Service Folder Java Service 	New Adapter Service	found in Package s	selected in Connection	n)	Select Entry P	oint from dropdown list	
	JMS Trigger Package math REST Resource Schema Specification	Select a Template Template Name JBR.U.M. XML 2XBRL	Description tranform XBRL-FR to XML (XBRL-) tranform XML (XBRL-) to XBRL-FR					
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GLOMIDCO XBRL Design principles

- Event driven / message driven
- Real-time / transactional
- Data in-flight, no databases
- STP (Straight Through Processing)
- ESB (Enterprise Service Bus)
- SOA/BPM based principles
- Full API Led architecture support
- Enables Data Lake House
- Supported by GEN-AI

What differentiates our XBRL solution?



Present - 2025

- ➢ In 2023 Gen-AI (chat-GPT) made entrance
- XBRL standards and sub-standards moved on
- Java XBRL processor needs to be updated
- > XBRL too complex for AI to handle without XBRL processor (for example to validate)
- Base design of existing JAVA XBRL processor is good (XBRL, XML, JSON, inline XBRL ready)
- > New demand for XBRL for example sustainability standards like ESG

The main question of today:

Is there in 2025 a market **demand** for XBRL components in middleware? (IBM, Tibco, SF, expanding to Java based integrations for example SAP CPI?)

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If the answer is yes

- > Updating all middleware connectors, adapters and plugins to latest versions of middleware is required
- > An updated version of the Java XBRL processor needs to be build! (accelerate build using AI?)
- > Is there **funding** for a such?

GLOMIDCO Facts

➢ Founded in 2000

- Focus on Integration with first class vendors (Tibco, SoftwareAG, MuleSoft and many more leaders in integration)
- ≥2014 Rebranded to GLO-Integration (termination of XBRL effort)
- ➢ 2022 GLO-Integration (55 staff) sold to Deloitte (XBRL and GLOMIDCO as brand excluded from sale)
- > April 2024 GLOMIDCO operational again
- Research driven and focus on education
- April 2024 also partnership in Digitect (focused on Meta Data), see my Meta Data presentation using EC-API-Design GLOMIDCO The Integration Experts

Questions

