Warehouse Operations Have Gotten More Complex Than Ever

How Technology Enables Operational Agility

Emmanuel Langlois

Executive Vice President





What You Will Learn During This Webinar:

- The changing reality of today's warehousing operations
- How should a modern, adaptable, and intuitive WMS support your operations
- Real-life examples of successful warehouse operations in these challenging times



The Changing Reality of Today's Warehousing Operations



Disruption is the new normal

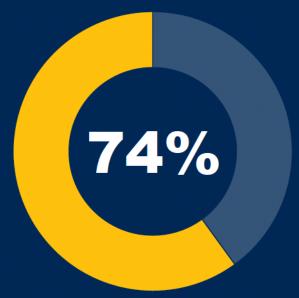


COVID-19, the Global Pandemic

The global pandemic has caused major shifts in:

- Consumer buying habits
- Online shopping
 - Ecommerce
 - Multichannel & omnichannel
- Inventory visibility
- Inventory forecasting
- Supplier diversification
- Cross-docking opportunities
- Staffing shortages





of supply chain leaders predict customers will expect real-time customized products and solutions



79%

Source: Gartner, "Supply Chain Executive Report: The Future of Supply Chain 2022", G00761064 © 2022 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner is a registered trademark of Gartner, Inc. and its affiliates.





Customer Expectations: Amazon's Impact

As Amazon grows, the enterprise continues to alter the supply chain industry.

Logistics companies around the world are altering their processes based on the Amazon model, with customer obsession and operational excellence becoming key factors to their success.

"Amazon's profit soars 220 percent as pandemic drives shopping online."

The New York Times



Government & Industry Regulations

Governments and industries continue to change regulations for various reasons, which often impact the supply chain. Businesses need to be able to adapt to regulatory changes to ensure they operate efficiently while meeting new regulations.



Record-Keeping Requirements Are Changing

The additional traceability record-keeping requirements proposed by the FDA will affect many F&B manufacturers in 2021. With aggressive deadlines, few exceptions, and no phase-in, the proposed rule would make compliance using paper-based systems nearly impossible. The FDA is calling this rule "a major milestone," and simply put, they are not messing around.

If passed as-is, the new rule would require companies to provide documentation for certain Key Data Elements (KDEs) for Critical Tracking Events (CTEs) within 24 hours of request — in a sortable, electronic spreadsheet. So who must comply with this rule, by when, and what's the easiest way to produce the required documentation given this aggressive timeline?





United States Job Openings Summary Calendar Stats Forecast Alerts Download -🛃 Export 🔛 API 1Y 5Y 10Y 25Y MAX Chart Compare Embed 12000 11855 11800 11681 11600 11448 11344 11400 11303 11283 11239 11200 11094 11040 11000 10922 10800 Jun 2022 Oct 2021 Feb 2022 Dec 2021 Apr 2022 Jul 2022 Nov 2021 Jan 2022 Mar 2022 May 2022 STATISTICS TRADINGECONOMICS.COM | U.S. BUREAU OF L

From the U.S. Department of Labor

"In July 2022 there were 11.2 million job openings"





United States Job Openings Summary Calendar Forecast Stats Alerts Download -10Y 25Y MAX 🔐 Chart 🔀 Compare 🛃 Export 🎬 API Embed 1Y 5Y 12000 10000 8000 walnum 6000 mm mmm 4000 2000 2004 2008 2012 2016 2020 TRADINGECONOMICS.COM | U.S. BUREAU OF LABOR STATISTICS



Primary Motivation for Investing in Automation



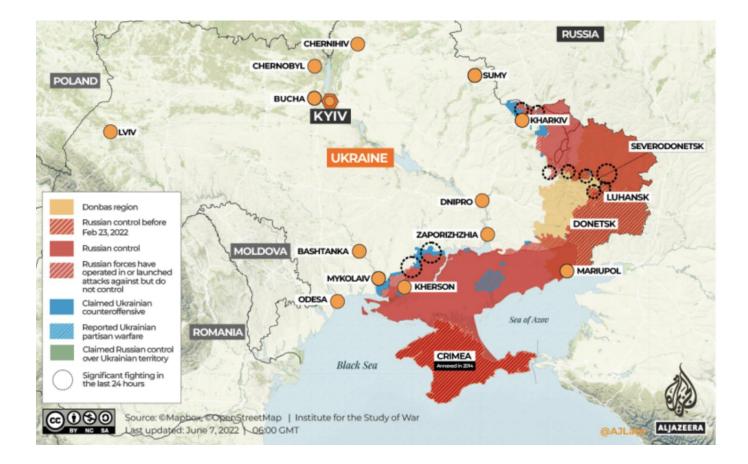
" By 2026, 75% of large enterprises will have adopted some form of intralogistics smart robots in their warehouse operations".

> **34%** Labor Cost



4 © 2022 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner is a registered trademark of Gartner, Inc. and its affiliates.

War in Ukraine





Many Phenomena Affecting Warehouse Operations

Hyperlocal Fulfillment. -

- Proximity versus scale
- Small local versus Big remote

Omni – Channel

- Ecommerce
- Anywhere, anytime, anyhow, any direction
- Change in the order mix

Economics

- Inflation, raising costs, transportation

People less

- Automation
- Employee engagement

Technology evolution

- Analytics / AI / ML
- Cloud adoption / Composability / Micro Services

" 30% of Supply Chain executives are shifting from a global supply chain model to one that is regionally based". Google Supply Chain

" 5.5 Trillion USD – Total Ecommerce market in 2022"." 21 % of the market up from 17% in 2020". Shopify, Google Supply Chain

"88% of data is ignored by businesses "
 "67% of executives do not feel comfortable accessing or using data with their existing tools and resources"
 Deloitte, Forrester, Google Supply Chain



Next Generation of WMS Agility in the Warehouse



Through 2026, More New, Revolutionary and Powerful Capabilities Will Be Added to WMS Than Were in the Last 25 Years!

Next Generation WMS Is in Its Adolescence





Cloud Adoption

28 %

Cloud Adoption

Transition from Cloud as an option to cloud as a preference





Beyond WMS the Future Is Warehouse **Operations** Management (WOM)





WCS + LMS =

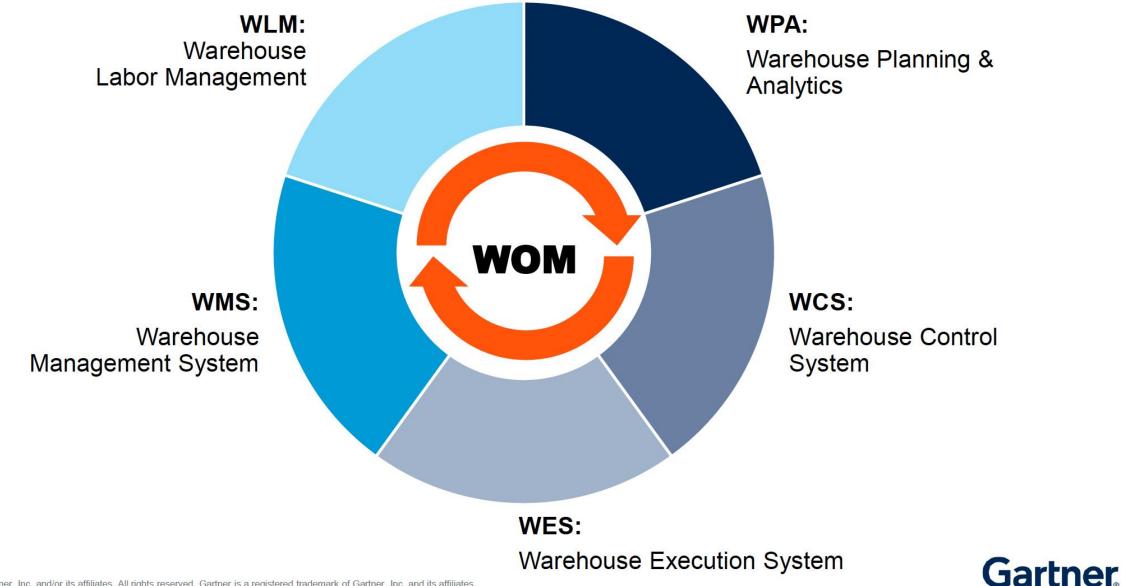




RMS



Evolution to Warehouse Operations Management

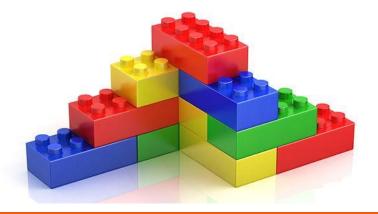


Moving forward, competitive advantages will fall to whoever has the ability to make operations model changes easier, faster, safer and less costly. Modular

operating models help create composability by breaking supply chain resources and processes into "LEGO blocks" of capabilities that can be quickly reused and reconfigured. A composable supply chain shortens the time to create or capitalize on a emerging opportunity and allows for quick reactions that can minimize the impact of an emerging threat or disruption

Cited from Predicts 2022, Supply Chain Strategy – 16 Nov 20.







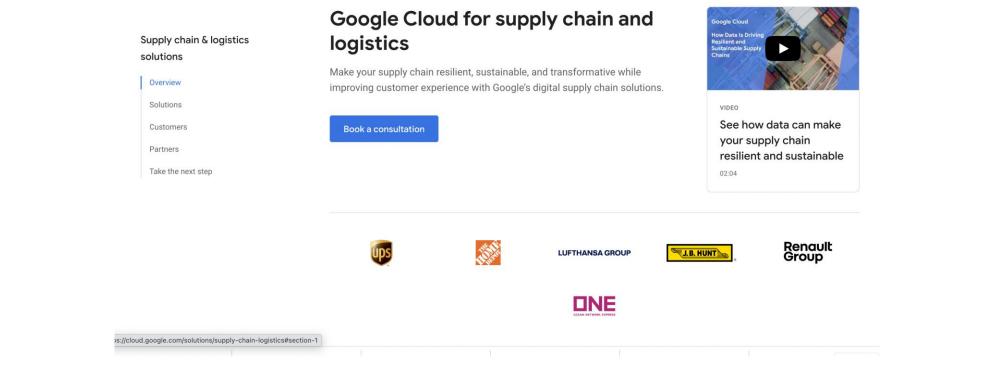
Google Cloud's Supply Chain Vision: Change the world by leveraging intelligence to create a transparent and sustainable supply chain for everyone

P



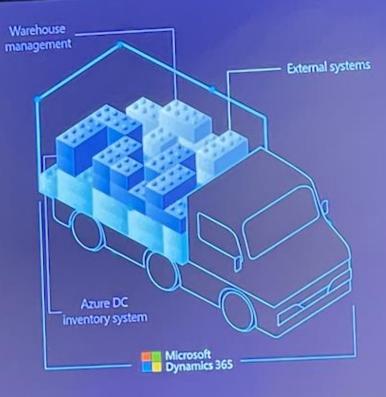
Google Cloud





Improve sustainability with an extensible platform

- Extend ERP systems with low code/no code
- Build a custom reverse logistics solution to reuse, resale and recycle decommissioned data center assets
- Run business processes more
 efficiently





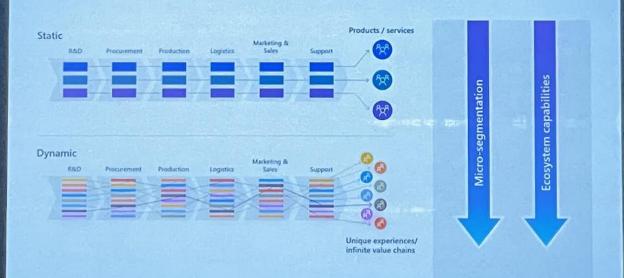
accenture

High performance. Delivered.

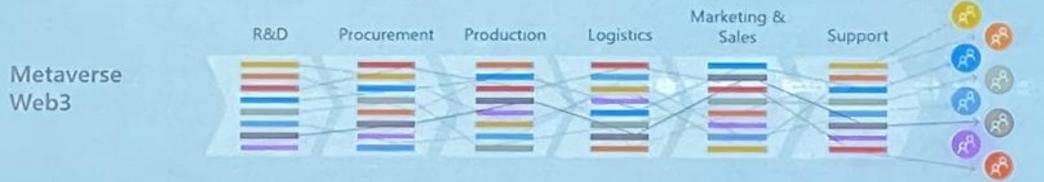
CO - Public



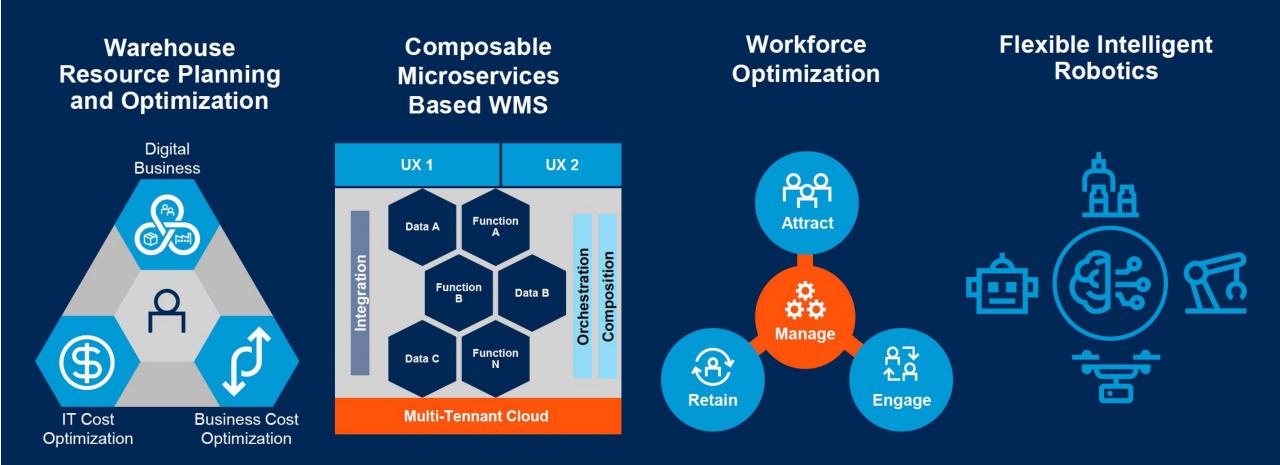
Building unique customer experiences



Value Chain Metaverse



What's New?





Gartner.

Gartner

Magic Quadrant for Warehouse Management Systems

Published 30 June 2021 - ID G00733892 - 98 min read By Analyst(s): Simon Tunstall, Dwight Klappich Initiatives: Supply Chain Technology Strategy and Selection

Strategic Planning Assumptions

Through 2025, technical architecture will equal functionality in importance for new WMS buyers seeking flexibility, adaptability, composability, usability and affordability.



WMS the New Normal ... Technology Matters — A Lot!





Agility in the Warehouse

- Usability
- Adaptability / Configurability
- Composability
- Implementation Tools

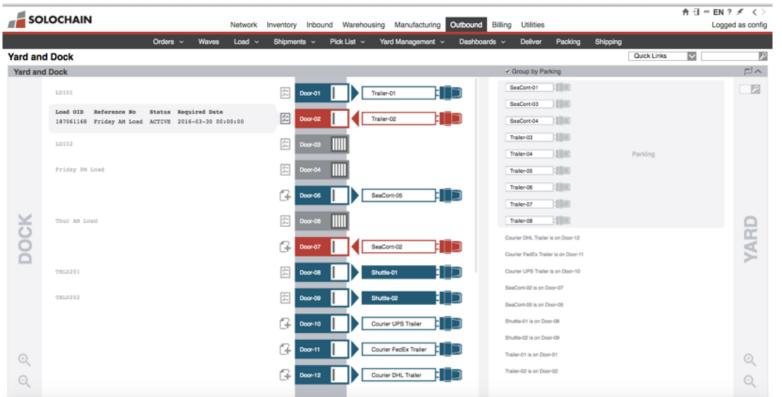


CO - Public

A Better User Experience

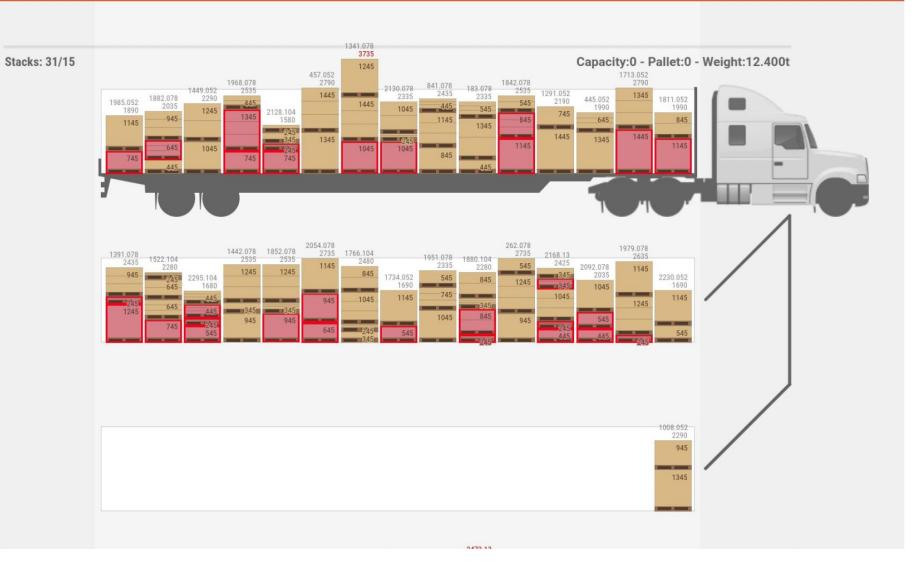






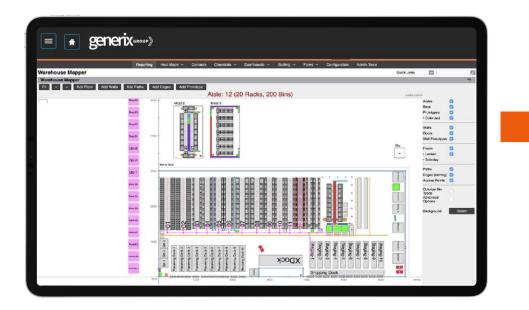


Stacking Optimization Editor





Warehouse Mapper – 2D



Graphical Advantage of a 2D Mapper

Heat Map Build a layout ofeach site Expedited warehouseconfiguration Conversion to 3D model









Highly Adaptable Mobility Processes – A Must

An agile WMS allows business to add or to modify mobile computer processes as needed.







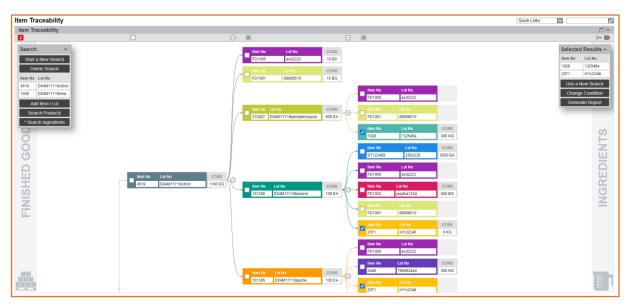


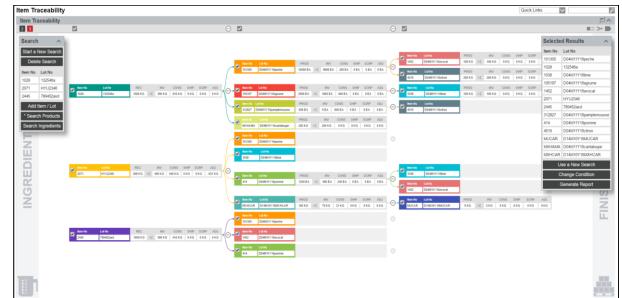


Warehouse Management System (WMS) Agility

An agile WMS, with MES capabilities need to allow business to quickly generate item traceability and recall reporting.

Item Traceabiltiy Report



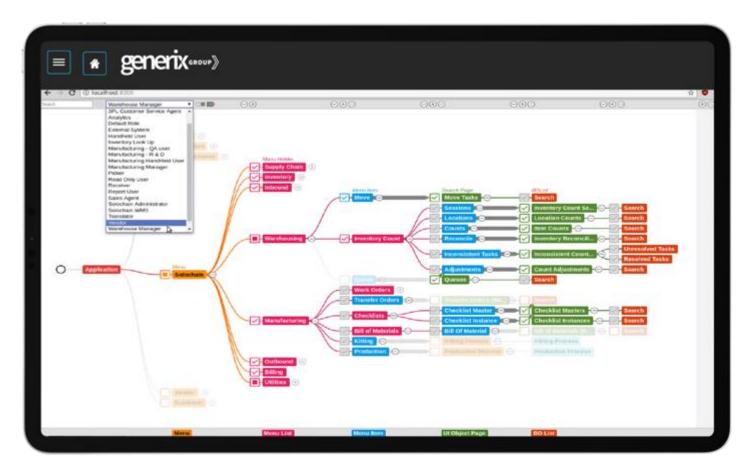




Graphical Roles & Permission System

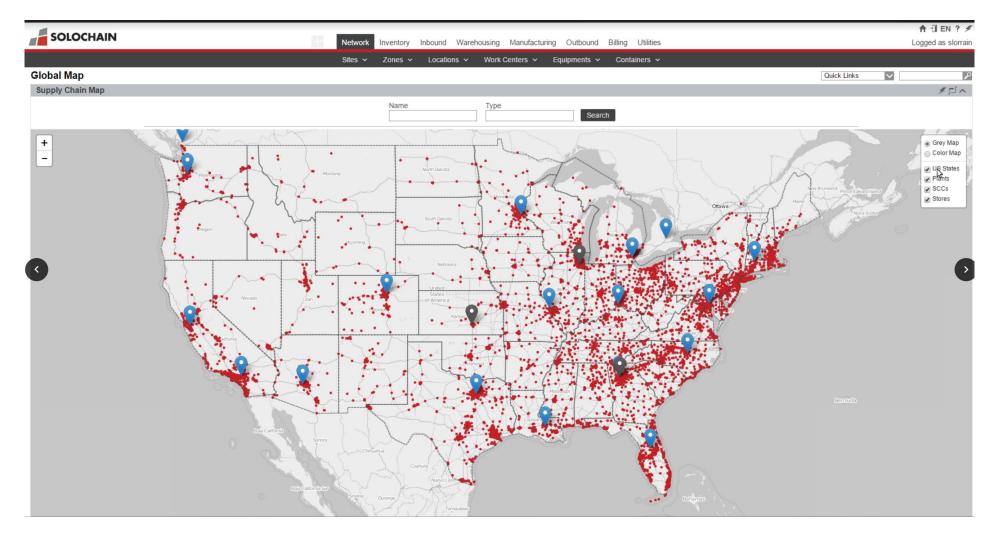
Graphical Roles & Permission Setup:

- Intuitive tool facilitates operations management
- Visualization of relationships such as roles, permissions and locations
- Continuous evolution of features and capabilities





Real-Time Supply Chain View





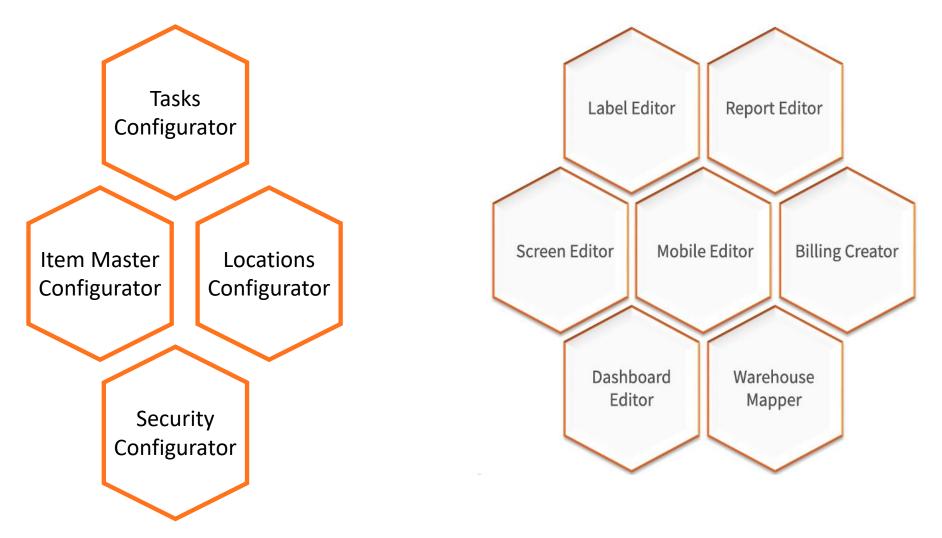
Warehouse Management System (WMS) Agility

An agile WMS allows businesses to report on key performance indicators (KPI's) and add or modify KPI's as needed.





Configuration – The Tools Versus the Rules





CO - Public





The Skills



The Out Of the Box

enenx.mb)			,	Marketing Sales	Implementation	Support Deve	opment Admin A	ctivities Utilities			A - EN ? Logged as elangi
			Accounts	Contacts Tasks	Orders Devi	s BPA's He	ation Time Logs	Activities - Releases -			
ustomer Fea	ture (10906)								Quick Links		
ieneral Informa	tion										+
											1 Resul
Customer Release			Customer No.		Label			Feature No.	Ed		
Stokes-8-1.0			IN-8F-007-01		Receive	Against a Shipment		BC-IN-8F-038		1 60	O Ver
est Cases Flow	Excluded Test										
List						۴					
List						70.	Detail Tests				
	All			Last Test Status			Detail				+
					and a	M					
	Label	0.	rput	Data Setup	Search		Main - R	eceiving against shipn	nent		
							IN-8F-007-01-	001 (SC-IN-BF-038-C002)			
None + N	w Internal Test +	New Customer T	leat @ Passed Test 💧 I	Failed Test 🔬 Failed							
					≪ ⓒ 1/4	③ >> 74 Result	Input				
Customer No.	Subtype	Use Case	Label	Status	Build (Date		und! Select (1 - Receiving)			
		No.				1000		SCAN RECEIVING AREA : IScan a Rec	eiving Bevil		
IN-BF-007-01-0			Main - Receiving against				· S02.01	SELECT DOCUMENT TYPE : (Shipmen	9		
IN-BF-007-01-0	12 Main	SC-IN-BF-	Main - Receiving by line	Passed	10	10/9/18		ENTER DOCUMENT NO : (Enter the Shi	inment Reference No 1		
1 11-00-01-01-0							 \$02.02 				
IN-8F-007-01-0		SC-IN-BF-		er 📓 Passed	10	10/9/18	 \$02.05 	SELECT RCLH FOR DOCUMENT (Sele	ect list)		
IN-8F-007-01-0	Main	SC-IN-BF	Main	Passed	10	109/18	 \$02.05 \$04.01 	SELECT RCLH FOR DOCUMENT (Sele SELECT ITEM : (Select part number to n	ect list) eceive)		
IN-8F-007-01-0	Main		Main	Passed		109/18	 \$02.05 \$04.01 \$06.01 	SELECT RCLH FOR DOCUMENT: (Sele SELECT ITEM : (Select part number to n ENTER QTY PER LABEL : (Enter receive	ect list] eceive] ed quantity]		
IN 8F-007-01-0 IN 8F-007-01-0 IN 8F-007-01-0 IN 8F-007-01-0	H Main 5 Alternative 6 Alternative	SC-IN-BF-	Main S01.01 - Receiving dock, 501.03 : Doc. View	Passed	10 10 10	109/18 109/18 109/18	 \$02.05 \$04.01 \$06.01 \$12.01 	SELECT RCLH FOR DOCUMENT (Sele SELECT ITEM : (Select part number to n ENTER QTY PER LABEL : [Enter receive SCAN LABEL OR LOCATION : [Scan a 1	ct list) eceive) ed quantity} Generic Label)		
IN-8F-007-01-0 IN-8F-007-01-0 IN-8F-007-01-0 IN-8F-007-01-0	H Main 5 Alternative 6 Alternative	SC-IN-BF-	Main S01.01 - Receiving dock, 501.03 : Doc. View	Passed	10 10	109/18 109/18 109/18	 \$02.05 \$00.01 \$00.01 \$00.01 \$12.01 \$13.01 	SELECT RCLH FOR DOCUMENT (Sele SELECT ITEM : (Select part number to n ENTER QTY PER LABEL : (Enter necelus SCAN LABEL OR LOCATION : (Scan a I SCAN COLUCATION Confirmation Mes	ect list] eceive) ed quantity] Generic Label) mage : Material Activated		
IN 6F-007-01-0 IN 6F-007-01-0 IN 6F-007-01-0 IN 6F-007-01-0 IN 6F-007-01-0	H Main S Alternative Alternative Alternative	SC-IN-BF-	Main S01.01 - Receiving dock, S01.03 : Doc. View S02.02 - Invalid document	Passed Passed Passed t Passed	10 10 10	109/18 109/18 109/18 109/18	 \$02.05 \$04.01 \$06.01 \$12.01 \$13.01 \$13.01 	SELECT RCLH FOR DOCUMENT: [Select SELECT ITEM : [Select part number to n ENTER QTY PER LABEL : [Enter nooling SCAN LABEL OR LOCATION : [Sean a 1 SCAN LOADCATION Confirmation Mes SCAN COLLOCATION : [SKIP] to leave 1	ict list] exeive) ed quantity] Generic Label) sage : Material Activated tem on Receiving Dock		
IN-8F-007-01-0 IN-8F-007-01-0 IN-8F-007-01-0 IN-8F-007-01-0 IN-8F-007-01-0 IN-8F-007-01-0	4 Main 15 Abernative 8 Abernative 17 Abernative 8 Abernative	SC-IN-BF- SC-IN-BF- SC-IN-BF-	Main S01.01 - Receiving dock, 501.03 : Doc. View S02.02 - Invalid documen 502.02 - Continue Receiv	Passed Passed Passed Passed t Passed t Passed t Passed	10 10 10 10 10	109/18 109/18 109/18 109/18	 S02.05 S04.01 S06.01 S12.01 S13.01 S13.01 S04.01 	SELECT RCLH FOR DOCUMENT: [Select SELECT ITEM : [Select part number to n ENTER QTY PER LABEL : [Enter nooles SCAN LOALOCATION : [Sean a I SCAN COLLOCATION Confirmation Mess SCAN COLLOCATION : [SkP] to leave II SELECT ITEM : Repeat steps until all pa	ict list] exeive) ed quantity] Generic Label) sage : Material Activated tem on Receiving Dock		
IN 8F-007-01-0 IN 8F-007-01-0 IN 8F-007-01-0 IN 8F-007-01-0 IN 8F-007-01-0 IN 8F-007-01-0 IN 8F-007-01-0	H Main Abernative Abernative Abernative Abernative Abernative	SC-IN-8F- SC-IN-8F- SC-IN-8F- SC-IN-8F- SC-IN-8F-	Main 501.01 - Receiving dock, 501.03 : Doc. View 502.02 - Invalid documen 502.02 - Continue Receiv 504.01 - Select product n	Passed Pa	10 10 10 10 10	109/18 109/18 109/18 109/18 109/18 109/18	 S02.05 S04.01 S06.01 S12.01 S13.01 S13.01 S04.01 S04.01 	SELECT RCLH FOR DOCUMENT: [Select SELECT ITEM : [Select part number to n ENTER QTY PER LABEL : [Enter nooling SCAN LABEL OR LOCATION : [Sean a 1 SCAN LOADCATION Confirmation Mes SCAN COLLOCATION : [SKIP] to leave 1	ict list] exeive) ed quantity] Generic Label) sage : Material Activated tem on Receiving Dock		
IN 6F-007-01-0 IN 6F-007-01-0 IN 6F-007-01-0 IN 6F-007-01-0 IN 6F-007-01-0 IN 6F-007-01-0 IN 6F-007-01-0	H Main Abernative Alternative Abernative Abernative Abernative Abernative	SC-IN-8F- SC-IN-8F- SC-IN-8F- SC-IN-8F- SC-IN-8F-	Main S01.01 - Receiving dock, S01.03 : Doc. View S02.02 - Invalid documen S02.02 - Continue Receiv S04.01 - Select product n S04.01 - Select product n	Passed Pa	10 10 10 10 10 10	10918 10918 10918 10918 10918 10918 10918 10918	 \$02.05 \$004.01 \$066.01 \$12.01 \$13.01 \$04.01 \$04.01 \$04.01 \$04.01 	SELECT RICH FOR DOCUMENT (Sele BLECT RICH) (Select part number to BLECK NUMBER) (Select part number SCAN LABLE) (RI LOCATION (Select a SCAN COLOCATION Confirmation SCAN COLOCATION (SINP) to leave it BLECT RICH) (Social select and BLECT RICH) (Social select and BLECT RICH) (Social select and BLECT RICH) (Social select and SELECT RICH) (Social select	ect list] workvej ed quant/ty] Generic Label sage : Material Activated fam on Receiving Dock ets are received		
N 6F-007-01-0 N 6F-007-01-0 N 6F-007-01-0 N 6F-007-01-0 N 6F-007-01-0 N 6F-007-01-0 N 6F-007-01-0 N 6F-007-01-0	Main IS Abernative	SC-IN-8F- SC-IN-8F- SC-IN-8F- SC-IN-8F- SC-IN-8F- SC-IN-8F-	Main S01.01 - Receiving dock, 501.03 : Doc. View S02.02 - Invalid documen 502.02 - Continue Receiv S04.01 - Select product n 504.01 - Select product n 504.01 - Missing Volumet	Passed Pa	10 10 10 10 10 10 10 10	109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18	 \$02.05 \$004.01 \$066.01 \$12.01 \$13.01 \$04.01 \$04.01 \$04.01 \$04.01 	SELECT RCLH FOR DOCUMENT: [Select SELECT ITEM : [Select part number to n ENTER QTY PER LABEL : [Enter nooles SCAN LOALOCATION : [Sean a I SCAN COLLOCATION Confirmation Mess SCAN COLLOCATION : [SkP] to leave II SELECT ITEM : Repeat steps until all pa	ect list] workvej ed quant/ty] Generic Label sage : Material Activated fam on Receiving Dock ets are received	een closed	
N 48F-407-61-40 N 48F-407-61-40 N 48F-407-61-40 N 48F-407-61-40 N 48F-407-61-40 N 48F-407-61-40 N 48F-407-61-40 N 48F-407-61-40 N 48F-407-61-40	Main IS Abernative	SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF	Main 501.01 - Receiving dock, 501.03 : Doc. View 502.02 - Invalid document 502.02 - Continue Receiv 504.01 - Select product n 504.01 - Select product n 504.01 - Select product n 504.01 - IP/Ibr/ & Todays	Passed	10 10 10 10 10 10 10 10 10	109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18	 \$02.05 \$004.01 \$066.01 \$12.01 \$13.01 \$04.01 \$04.01 \$04.01 \$04.01 	SELECT RICH FOR DOCUMENT (Sele BLECT RICH) (Select part number to BLECK NUMBER) (Select part number SCAN LABLE) (RI LOCATION (Select a SCAN COLOCATION Confirmation SCAN COLOCATION (SINP) to leave it BLECT RICH) (Social select and BLECT RICH) (Social select and BLECT RICH) (Social select and BLECT RICH) (Social select and SELECT RICH) (Social select	ect list] workvej ed quant/ty] Generic Label sage : Material Activated tem on Receiving Dock ets are received	een closed	
IN 487-007-01-0	Main IS Abernative IS Abernative	SCIN-BF- SCIN-BF- SCIN-BF- SCIN-BF- SCIN-BF- SCIN-BF- SCIN-BF-	Main 501.01 - Receiving dock, 501.03 : Doc. View 502.02 - Invalid document 502.02 - Continue Receiv 504.01 - Select product n 504.01 - Select product n 504.01 - Maxing Volumed 504.01 - (Dhange Doc)	Passed	10 10 10 10 10 10 10 10 10 10	109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18	\$02.05 \$04.01 \$04.01 \$12.01 \$13.01 \$15.01 \$504.01 \$04.01 \$04.01 \$04.01 \$04.01 \$04.01 \$04.01 \$02.01 Data Setup	SELECT RCLH FOR DOCUMENT (Sele SELECT TIEM (Select part functor to ICMR QTY PER LABE). [Enter noise SCAN COLOCATION (Second Second Seco	incl list) motive) de quarthy) generatic Lakel) sage : Material Activated tem on Receiving Dock sta are received on Message : Receiving has b	een closed	
Weit-007-01-0	H Main S Abernative M Abernative Abernative Abernative O Abernative O Abernative S Abernative S Abernative	SCIN-BF- SCIN-BF- SCIN-BF- SCIN-BF- SCIN-BF- SCIN-BF- SCIN-BF- SCIN-BF-	Main 501.01 - Receiving dock, 501.03 : Doc. View 502.02 - Invalid document 502.02 - Continue Receiv 504.01 - Select product in 504.01 - Select product in 504.01 - Maxing Volumet 504.01 - Jifferd & Today 504.01 - Jifferd & Today 504.01 - Jifferd & Today 504.01 - Jifferd & Today	Passed	10 10 10 10 10 10 10 10 10 10 10 10	109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18		SELECT RICH FOR DOCUMENT (Sele BLECT RICH) (Select part number to BLECT RICH) (Select part number SCAN LABLE) (RI LOCATION (Selan a SCAN COLOCATION Confirmation SCAN COLOCATION (SRMP) to leave it BLECT RICH) (SRMP) to leave it BLECT RICH) (Sologies and a particular SELECT RICH) (Sologies Rec.)	ect list] monive) de quarthy] Generic Lakeij asap: Material Activated tem on Received on Message : Receiving has be on Message : Receiving has be	een closed	
N-8E-007-01-0	H Main S Abernative Abernative Abernative Abernative Abernative Abernative Abernative Abernative S Abernative S Abernative S Abernative	SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF	Main 501.01 - Receiving dock, 501.03 - Doc. View 502.02 - Invalid document 502.02 - Invalid document 504.01 - Select product n 504.01 - Select product n 504.01 - Masing Volumet 504.01 - Imer (& Todays 504.01 - Imer (& Todays 504.01 - Imer (& Todays 504.01 - Imer (& Todays 504.01 - Imer (& Todays	Pased	10 10 10 10 10 10 10 10 10 10 10 10 10 1	109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18		BELECT RCLH FOR DOCUMENT (Sele BELECT REI) (Select part tunker for INTER OTY PER LARGE., Stern noels SCAN COLLOCATION (Son's) (Son's) SCAN COLLOCATION (Son's) (Select I) SCAN COLLOCATION (Son's) (Select I) SELECT TIEL (Schee Rec.) SELECT TIEL (Schee Rec.) SELECT TIEL (Schee Rec.)	ect list] monive) de quarthy] Generic Lakeij asap: Material Activated tem on Received on Message : Receiving has be on Message : Receiving has be	een closed	
N 48F-007-01-0 N 48F-007-01-0	H Main Abenative	SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF	Main 501.01 - Receiving dock, 501.03 : Doc. View 502.02 - Invalid documen 502.02 - Continue Receiv 504.01 - Select product n 504.01 - Select product n 504.01 - Masing Volumet 504.01 - Pithing 1 Todays 504.01 - Change Docj 504.01 - Status 505.01 - [Di Hosonatoric]	Pased	10 10 10 10 10 10 10 10 10 10 10 10 10 1	109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18		BELECT RCLH FOR DOCUMENT (Sele BELECT REI) (Select part tunker for INTER OTY PER LARGE., Stern noels SCAN COLLOCATION (Son's) (Son's) SCAN COLLOCATION (Son's) (Select I) SCAN COLLOCATION (Son's) (Select I) SELECT TIEL (Schee Rec.) SELECT TIEL (Schee Rec.) SELECT TIEL (Schee Rec.)	ect list] monive) de quarthy] Generic Lakeij asap: Material Activated tem on Received on Message : Receiving has be on Message : Receiving has be	een closed	
W48F-807/01-0 W48F-807/01-0	H Main S Abenative Abenative Abenative Abenative Abenative Abenative Abenative Abenative Abenative Abenative Abenative Abenative Abenative Abenative Abenative Abenative Abenative Abenative	SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF SCINBF	Main 501.01 - Receiving dock, 501.03 : Doc. View 502.02 - Invalid documen 502.02 - Continue Receiv 504.01 - Select product n 504.01 - Select product n 504.01 - Filter) & Todays 504.01 - (Filter) & Todays 504.01 - (Filter) & Todays 504.01 - (Filter) & Todays 504.01 - (Datas) 504.01 - (Datas)	Passed Pessed Passed Passed Quest Passed Quest Passed Quest Passed Passed Passed Passed Passed Passed Passed Passed Passed	10 10 10 10 10 10 10 10 10 10 10 10 10 1	109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18 109/18		BELECT RCLH FOR DOCUMENT (Sele BELECT REI) (Select part tunker for INTER OTY PER LARGE., Stern noels SCAN COLLOCATION (Son's) (Son's) SCAN COLLOCATION (Son's) (Select I) SCAN COLLOCATION (Son's) (Select I) SELECT TIEL (Schee Rec.) SELECT TIEL (Schee Rec.) SELECT TIEL (Schee Rec.)	ect list] monive) de quarthy] Generic Lakeij asap: Material Activated tem on Received on Message : Receiving has be on Message : Receiving has be	een closed	

The Management



The Tools

EMBEDDED LABEL EDITOR

	Application Data Actions UI Process Reporting System Interfaces Monitoring Documents Security	۹ 🛓
Editor		0
ditor		
	Diagram Colors WrapLines E ZPL B Save	
CTL RECEIVING TAG \$!materialLabel.Materia I.MaterialMaster.PartNo BarCode	<pre>21</pre>	
SimmName	32 #else 33 ^BY3^F080,188^BCN,75,N,N,N^FD>:>8\$!mmPartNo^FS 34 #end 35	
Lot No: SilotNo	36 37 ^FB690,2,,c 38 ^F055,310^CI0^A0N,31,45^FR^FD\$1mmName^FS 39 40	
Exp. Date: StrecExpDate	41 ^fX First Vertical Line 42 ^f0248,750^601,250,2^FS 43 ^FX Second Vertical Line 45 ^f0299,1000^601,150,2^FS	
Serial No:	46 47 ^FX Bloc 1°F0,400°G8250,3,130°FS°FX Bloc 2 48 °FV,530°G8250,3,130°FS 49 °FX Bloc 3	
Receipt Date: StrecDate Received By: Strcth.User.UserName P.O. #: StorderNo	50 ^F0,650°GB250,3,100°F5 51 52 ^F0,530°GB810,3,1°F5 53	
Receiving UOM: StmaterialLabel.Material.InventoryU QTY: StmaterialLabel.Material.Quantity Label #: StcurrentLabelNo OF StnbLabelsToP	55 F090,435"(10 A00,43,43 FK F0L01 No: F5 56 #1f ((SlotNo) 66 (*SlotNo" != **))	
StrasterialLabel.Mat erial.CurrentRCLI.R	abel.Material 59 mend	
\$!uoiinfos \$!rclh.Site.Ac	CountNo 64 64 64 64 65 65 65 65 65 65 65 65 66 66 66 66 66	
	68 69 ^F0,650°GB810,100,1°FS	
	70 71 ^F050,690^CI0^A0N,45,45^FR^FDSerial No:^F5	



>>

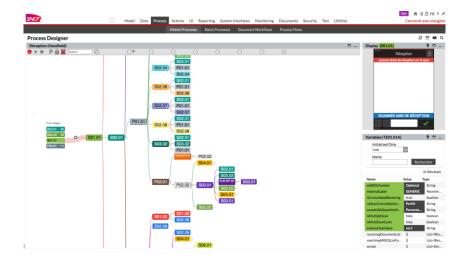
O Deep 40 El CO A

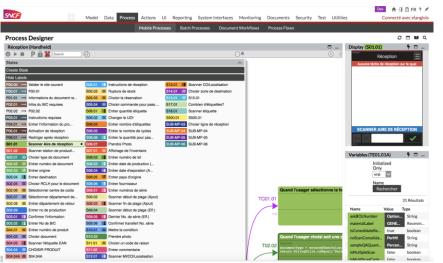
generix Application > Q 🛔 : 🗅 Export 🖉 Edit Import 🛛 🗂 Report - BillOfLadingLoadReport Module Typ Report Editor 100% (1px = 2dot) ✓ General ^ 🖸 🗏 🖬 🖾 劉文 billoflading_load Parent: Timestamp DeliveryDate String ShipFromAddress1 Label: Bi 4 î String ShipFromCity "Page "+SV(PAGE_NUM_! * + SV. title Descriptio patate \$R(SHIPPER_NO) String ShipFromName R{CARRIER_NO} \$F{Carrier Archivable \$R(STATIC_HEADER2) \$R(DATE) \$F(DeliveryDate) I= null ? \$F String ShipFromPostalCode \$F{CarrierName Printer For SR(CARRIER_NAME) SR(SCAC) String ShipFromProvince pageHeader 2 レコ SP(TO) String ShipToAddress1 \$F{ShipToName} \$F{ShipFromName} ~ Attribut • String ShipToCity Abc String ShipToName : SF{ShipToAddress1} SF(ShipFromAddress1) SRIADDRESS. SRADDRESS. String ShipToPostalCode SF(ShipToCity) + ", " + SF(ShipToProvince) + " Zip Code" + ... \$F{ShipToCity} + ", " + \$F{ShipFromProvince} + " Zip Code "... SRIDESTINA_ \$R(ORIGIN) Name String ShipToProvince SRIVEHICULE \$R(STATIC_US_DOT) (x) Integer sumContainers File Name SRINUMBER] Band Height 84 \$R{ROUTE} (X) BigDecimal sumWeight Split Type Stretch ¥ columnHeader SRIDETAILS_N.. SRIDETAIL \$R{DETAILS_DESCRIPTION} \$R(DETAILS_WE., \$R(DETAILS_RA., \$R(DETAILS_CH. XA 3RD_PARTY ~ 6 XA 3RD_PARTY_BILL_TO 3 detail 1 [[[[]] XA ADDRESS_STREET 84 XA ADDRESS_ZIPCODE F \$V(sumConta \$V{sumWeigi XA BOL_SIGNATURE_CARRIER 400 SRICOD ADDRESS) SR{CO ... SR(COD_AMT) BOL_SIGNATURE_DATE INSTATIC NOTE: INSTATIC PERCENT > Labels S BAICOD_FREIGHT_CHARGES) BACCE_FREIGHT_FREINKI | BACCE_FREIG A BOL_SIGNATURE_EMERGENCY per T taxes SIRISTATIC SUBJECT SIGNATURE ~ Actions A BOL_SIGNATURE_PER INSTATIC RECEIPTER XA BOL_SIGNATURE_SHIPPER 500 -÷ S Grouped E SHIROL_SIGNATURE_SHIPPER IN(BOL_SIGNATURE_CARRIER) IN(NOL_SIGNATURE_PER) SHIEOL SIGNATURE PERI Action XA CARRIER_NO SHIBOL SIGNATURE_ENERGENCY) RIDOL_SKINATURE_DATE INSTATIC SOMETIME HONTOPEN XA COD ~ 1 XA COD_ADDRESS 600 -XA COD_AMT \$R(SHIPPER_NOS)

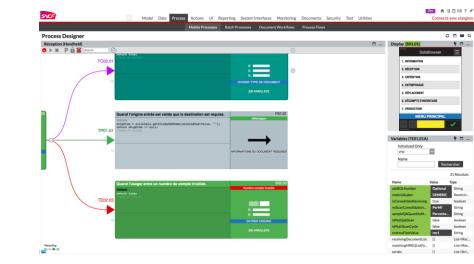


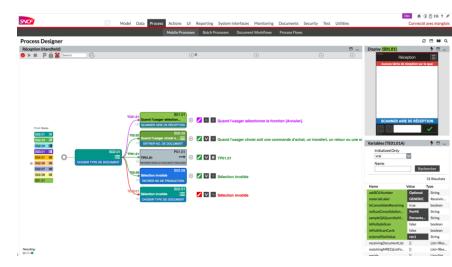
÷.

Mobile workflow designer











🔤 🕈 🗄 🗇 FR ? 🖋

Connecté avec elanelois

Rechercher

boolear

boolean

List<IRec. List<Stri

Optional GENERIC

false boolean

rec1

0000

9 □ _

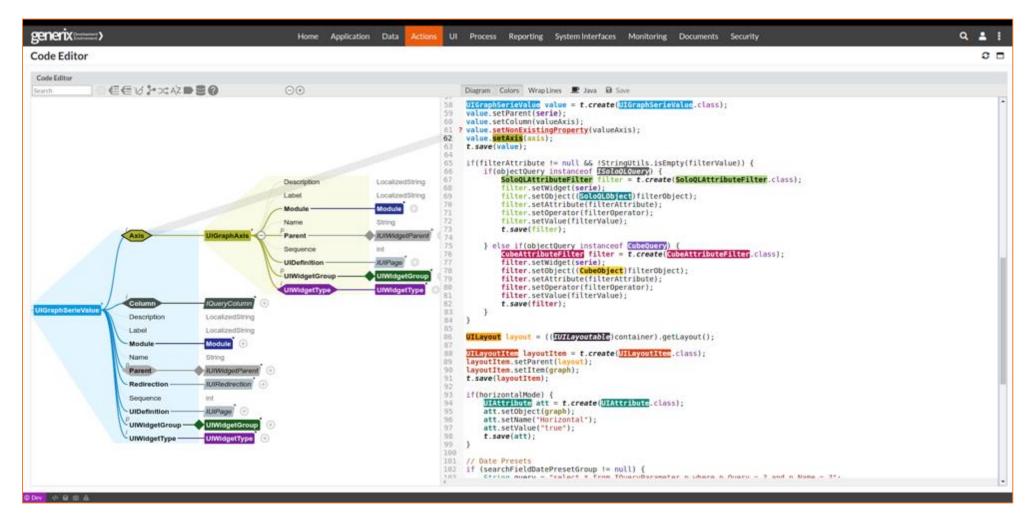


Page Configuration

nventory			0 5
 Search 	Code Editor \$ 12119400	□ ×	
	Search 🗧 🗧 🧭 🐎 💢 AZ 🖿 🛢 🕝	Diagram Recognition Wrap SoloQL Execute Actions	
		1 SoloQL Query	
Site	K 7=	2 3 SELECT concat(obi, '#', obi, Class), invloc.AllocateInventory.	
GenWarehous		<pre>3 SELECT concat(obj,'@',obj.Class), invloc.AllocateInventory, 4 AND obj.Label = 0 THEN (</pre>	Search
Item Manua		5 SELECT enumValue.Label	
Item Name		6 FROM EnumerationValue enumValue	
l⇒		7 INNER JOIN Enumeration enum ON enum = enumValue. Enumeration	
		8 WHERE enum.Name = 'Material.ManualCatchWeight'	
TopContainer	Tables	9 AND enumValue.Name = 'MANUAL') ELSE concat(obj.Weight,	
1+		10 FROM [Material] obj	
		11 INNER JOIN [MaterialMaster] mm on mm = obj.[MaterialMaster]	
Condition Reas		12 LEFT JOIN [ILocation] 1 on 1 = obj.[Location] 13 LEFT JOIN [Container] tc on tc = obj.[TopContainer]	
		14 LEFT JOIN [Container] c on c = obj. [Container]	
		15 LEFT JOIN (UDIConfig) woi on woi = chi (UDI)	
Tracking Mode		16 LEFT JOIN [Site] o on o = obj. [Owner]	
		1 Model Query	
		 3 obj.MaterialMaster.PartNo, 	
		4 obj.MaterialMaster.Name,	
⊘ None Ø Upd		5 obj.Material.Quantity.InventoryUOI,	
		6 obj.MaterialConditionMaterialCondition.Label,	
OID 2		7 obj.MaterialMaster.MMProductClass.Code,	Weight
		8 obj.ZoneZone.Name,	
		9 obj.OID,	
		10 obj.TopContainer.Name, 11 obj.Container.Name,	
		12 obj.Owner.DisplayName,	
		13 obj.Material.Weight,	
		14 obj.Location.Name,	
		15 obj.Quantity,	
		16 obj.ExternalOID,	

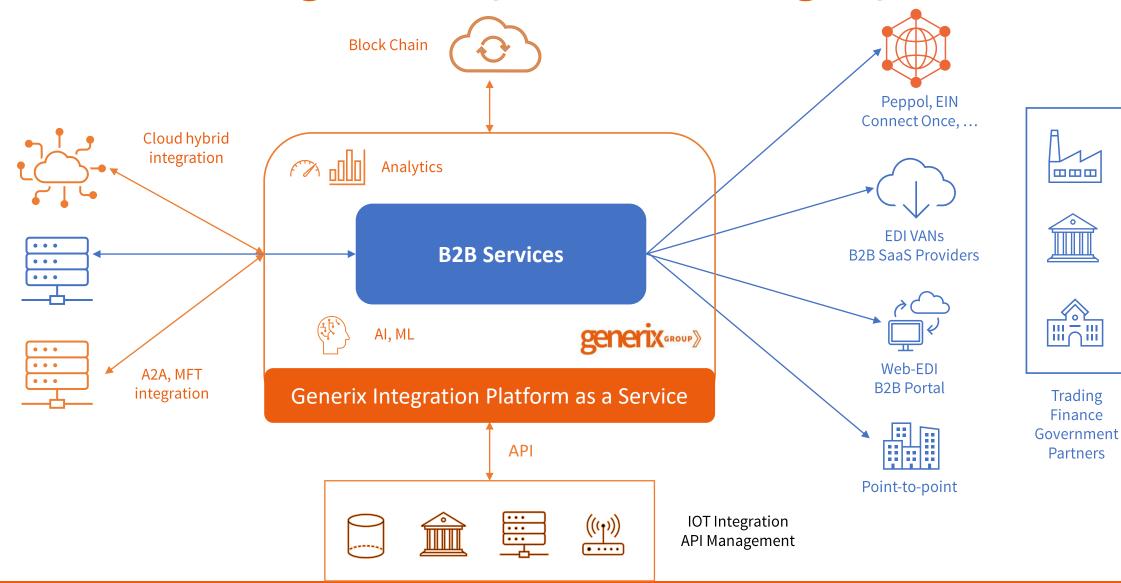
0 Dw 7 # 2 8 0 4

Code Editor – Low Code / No Code





Warehouse Management System (WMS) Agility

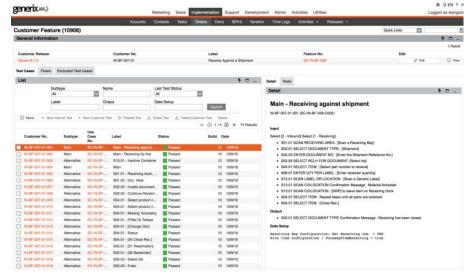




Implementation Tools

- 👰 Co
 - Company's requirements
 - Supply chain documentations
- Business processes
- **Tactics**
- Features and use cases
- Configurations
- 🛞 Testing program
- 📀 Training program
 - Release Mangaement
 - Support and maintenance







Integrated Implementation Platform - Testing

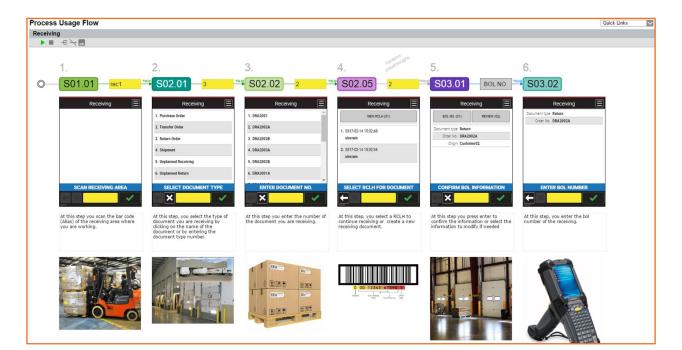
enerix									A TEN ? #	
a a kana	1		6	Aarketing Sales	Implementation Support Develop	oment Admin Activities Utilities		L	ogged as elangloit	
			Accounts	Contacts Tasks	Orders Devs BPA's Neral	ion Time Logs Activities - Releases -				
ustomer Fe	ature (10906)						Quick Links		25	
General Inform	nation								* = _	
									1 Result	
Customer Relea	10		Customer No.		Label	Feature No.	Edit			
Blokes-8-1.0			IN-BF-007-01		Paceive Against a Shipment	BC-IN-BF-008		Ø 50	O Vev	
fest Cases Flo	ws Excluded Test	Cases								
List					• = _	Detail Tests				
	Subtype	Johype Name		Last Test Status Al		Detail			•	
	All					Detail				
	Label		Output	Data Setup	1.00	Main - Receiving against shipmer	at			
				Sturch						
☑ None +	Name And Address of Married Street	Marco Charleson	r Teat @ Passed Test A	Charles A Root	Customer Test Delete	IN-BF-007-01-001 (SC-IN-BF-038-C002)				
C None T	New mornal cost +	NEW CONDINE	e ear le rand en 201	and our O rando	(Control of the control of the co					
					W C THE C W HERBER	Input				
Customer No	Subtype	Use Case	Label	Status	Build Date	Select (2 - Inbound) Select (1 - Receiving)				
12104-12-12-0		No.	1000000	1999 CUR	111 TOP 10 100 TO	 S01.01 SCAN RECEIVING AREA : [Scan a Receiving 	g Bey]			
IN-BF-007-01	and the second se	BC-IN-BF	Main - Receiving against .	Passed	10 10/9/18	 S02.01 SELECT DOCUMENT TYPE : [Shipment] 				
IN-BF-007-01		SC-IN-BF	and the second se	Passed	10 10/9/18	 \$02.02 ENTER DOCUMENT NO : (Enter the Shipme 	nt Reference No.]			
IN-BF-007-01					10 10/9/18	 S02.05 SELECT RCLH FOR DOCUMENT: [Select its 				
IN-BF-007-01		SC-IN-BF		Pased	10 10/9/18	 S04.01 SELECT ITEM : (Select part number to receive 	7.0			
IN-BF-007-01				Passed	10 10/9/18	 S06.01 ENTER QTY PER LABEL : [Enter received qu 				
IN-BF-007-01			An and a start free	Passed	10 10/9/18	 \$12.01 SCAN LABEL OR LOCATION (Scan a Gene S12.01 SCAN COLOCATION COLOCATION) 				
IN-BF-007-01	-007 Alternative	SC-IN-BE		t 📓 Passed	10 10/9/18	 \$13.01 SCAN CO/LOCATION Confirmation Message \$13.01 SCAN CO/LOCATION : [SKIP] to leave item of 				
IN-BF-007-01	Alternative	SC-IN-BF	S02.02 - Continue Receiv	I Passed	10 10/9/18	 S04.01 SELECT ITEM : Repeat steps until all parts a 	Dental V Dental Ch			
IN-BF-007-01	Abernative 600-	SC-IN-BF		📓 Passed	10 10/9/18	 S04.01 SELECT ITEM : [Close Rec.] 				
IN-BF-007-01	-010 Alternative	SC-IN-BF	S04.01 - Select product n.	Passed	10 10/9/18					
IN-BF-007-01	011 Alternative	SC-IN-BF		ry 📓 Passed	10 10/9/18	Output				
IN-BF-007-01	-012 Alternative	SC-IN-BF	S04.01 - [Filter] & Todays	Passed	10 10/9/18	 S02.01 SELECT DOCUMENT TYPE Confirmation Me 	essage : Receiving has been	n closed		
IN-BF-007-01	-013 Alternative	SC-IN-BF		Passed	10 10/9/18	Data Setup				
IN-8F-007-01	-014 Alternative	SC-IN-BF		Passed	10 10/9/18	Receiving Bay Configuration: Set Receiving Job = TRD				
IN-BF-007-01	015 Alternative	SC-IN-BF		Passed	10 10/9/18	Site Item Configuration : PutawayFromHeceiving = true				
IN-8F-007-01	016 Alternative	SC-IN-BF		Passed	10 10/9/18					
IN-BF-007-01	017 Alternative	SC-IN-BF		Passed	10 10/9/18					
IN-BF-007-01	O18 Alternative	SC-IN-BF		Pased	10 10/9/18					
IN-8F-007-01	019 Atternative	BC-IN-BF	\$05.03 - Enter	Passed	10 10/9/18					



Integrated Implementation Platform - Training

An agile WMS allows businesses to record, modify, and print mobile processes and desktop usage flows for training and support purposes.

Process Usage Flow – Receiving





Next Generation of WMS Real-Life Examples of Operational Agility











A – Dry Ice Pod

B – Vial Trays

C – Inner Pack

D – Foam Lid

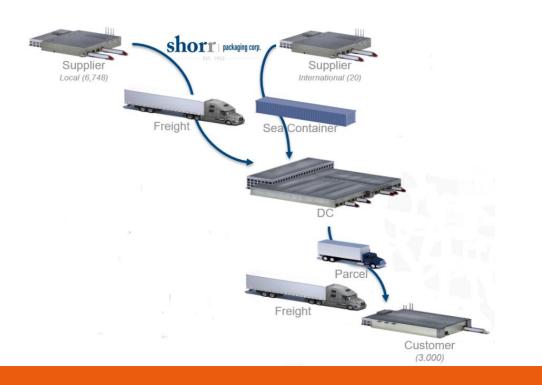
E – Thermal Shipping Container

Chapman's "Ice Cream" secured two medical-grade deep freezers capable of dropping to -80° C (-112° F) to store **Pfizer-BioNtech vaccines**.



shorr | packaging corp.

- Multi Site Agility
- Multi Site Rollout, 9 Sites



"SOLOCHAIN is infinitely configurable"

"The sky is the limit. We are no longer constrained by an old rigid WMS".

"Traceability functions currently deployed are so slick and intuitive that everyone that sees it quickly understand how it works thus Shorr will gain immediate credibility by showing SOLOCHAIN, a tool to get the job done and an aid to sell our Services.

James Pstrzoch National Implementations Manager



Browns Shoes

- Automatic sorting system
- Warehouse Space Utilization
- Process Efficiency











Gartner SOLOCHAIN top strengths *

- Usability (Rank # 3)
- Adaptability / Configurability (Rank # 2)
- Implementation tools (Rank # 1)
- Manufacturing Extension / VAS (Rank # 1)
 - * Gartner ranking of the top WMS solutions worldwide (Source Gartner Critical Capabilities Report June 2021)



Thank You for Attending!

generix

Emmanuel Langlois elanglois@generixgroup.com

www.generixgroup.com

🅤 @GenerixGroupNA

in www.linkedin.com/company/generix

