



Vision picking

July 2019

Training type: Classroom session

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Overview



10 min

This Topic Includes:

- » [Solution Overview](#)
- » [Devices Overview](#)
- » [Pre Go live preparation](#)

Overview



Vision picking

- ☒ Overview
- ☐ New functionalities
- ☐ Devices and setup
- ☐ Frontline Command Center
- ☐ Frontline Workplace
- ☐ Reporting

The overall solution consists of two parts Software and Hardware

Software

- The Vision picking solution is developed by the German company Ubimax. The xPick (Vision Picking) solution is based on Server Platform (Frontline Command Center) and Client Platform (Frontline Workplace). The Server Platform, hosted on CCH servers, allows user management, assigning dedicated functionalities to users, etc. and the Client Platform which is the basis for CCH specific solution will be installed on the Hardware (smart glasses). It is an innovative "pick-by-vision" solution which supports manual order picking, in-coming, outgoing and sorting of goods as well as inventory management. xPick allows for hands-free execution of these processes.

Hardware

- The selected hardware for Coca-Cola Hellenic's use case includes: Realware HMT-1
- Integration with SAP – Atos consultants.



Devices

Vision picking

- ☐ Overview
- ☐ New functionalities
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- ☐ Frontline Workplace
- ☐ Reporting

RealWear HMT-1

Assisted reality smartglass with monocular display, Bluetooth 4.1LE, WiFi. Camera: 16MP. With microphone, headphones and additional microphone available as extra accessory. Weight: 370gram. OS: Android 6.0. IP66 (dust proof & waterproof) and MILSPEC 810G (2 meter drop test onto concrete). HMT-1-Z1 (Article ID HM008001) for FMC1/D1 & ATEX Zone 1 (potentially explosive environments in oil & gas, etc.). Rugged device optimized for heavy industry and outdoor environments. Easy mounting and use in combination with own glasses or helmet and pretty stable. A good option when moving between different temperature zones that include a frozen zone of -20 degrees Celsius.



Devices and setup



20 min

This Topic Includes:

- » [Realwear HMT-1](#)
- » [Vuzix M300XL](#)
- » [Setup](#)

Vision picking

- ☐ Overview
- ☒ **Devices and setup**
- ☐ Frontline Command Center
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- ☐ Frontline Workplace
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- » 1. Power button / Standby button
- » 2. Home button / Action Button
- » 3. Camera
- » 4. Adjustable display

The home button should not be pressed while Vision Picking application is running. Use this button with care as it can interrupt the process.

If the power button is pressed while Vision Picking application is running, the device will change to standby mode and lock the screen. The running Frontline Workplace can be continued after resuming from standby mode / screen lock.

To control Vision Picking application use only speech commands.



"Show Help"

Displays all the available commands outside Vision Picking application.



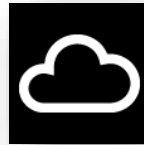
"Show Commands"

Displays all the available commands for a particular Screen within Vision Picking application.



Device icons - legend

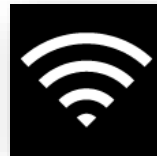
Wi-Fi Setup



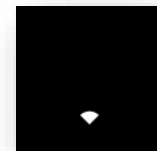
Server Online



Server Offline



Strong Wireless Network Signal



Weak Wireless Network Signal



Wireless Network Connection Error



Microphone Module Active



Speech command not recognized



Speech module listening/processing

Vision picking

- ☐ Overview
- ☒ **Devices and setup**
- ☐ Frontline Command Center
- ☐ New functionalities
- ☐ Frontline Workplace
- ☐ Reporting



Frontline Workplace



60 min

This Topic Includes:

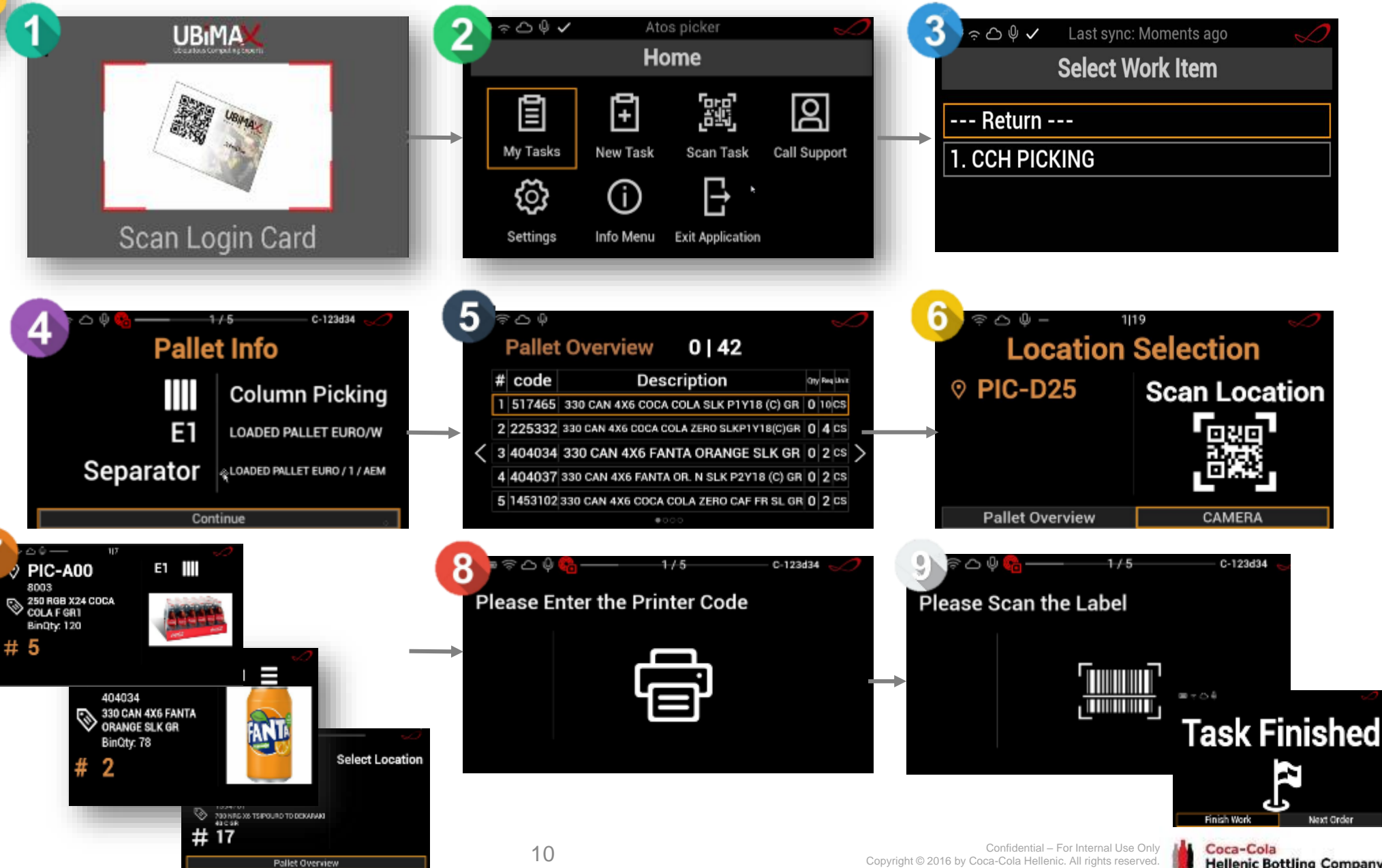
- » [Start work](#)
- » [Scenarios](#)
- » [Alcohol and Coffee picking](#)
- » [Force replenishment](#)
- » [Vision Lowering](#)

Vision Picking Application - Flow

Log on

Vision picking

- Overview
- Devices and setup
- Frontline Command Center
- New functionalities
- Frontline Workplace**
- Reporting



Vision Picking Application – Show Commands

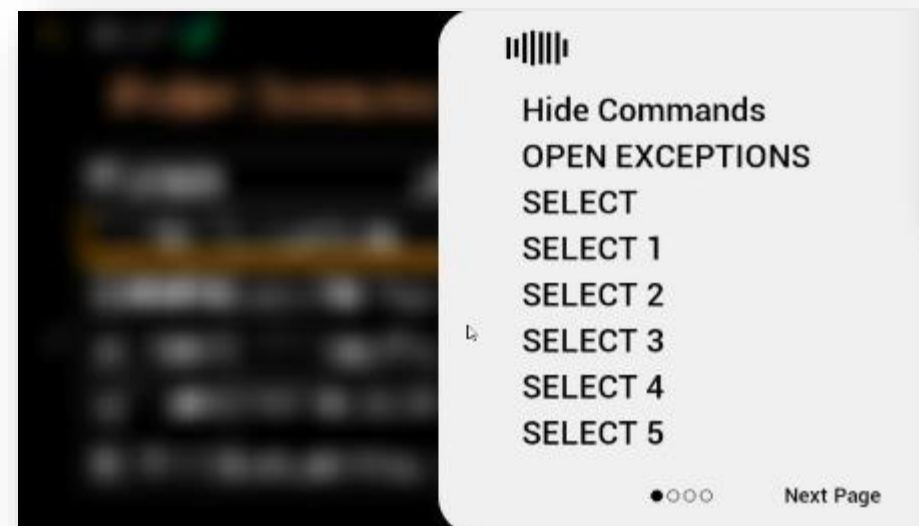
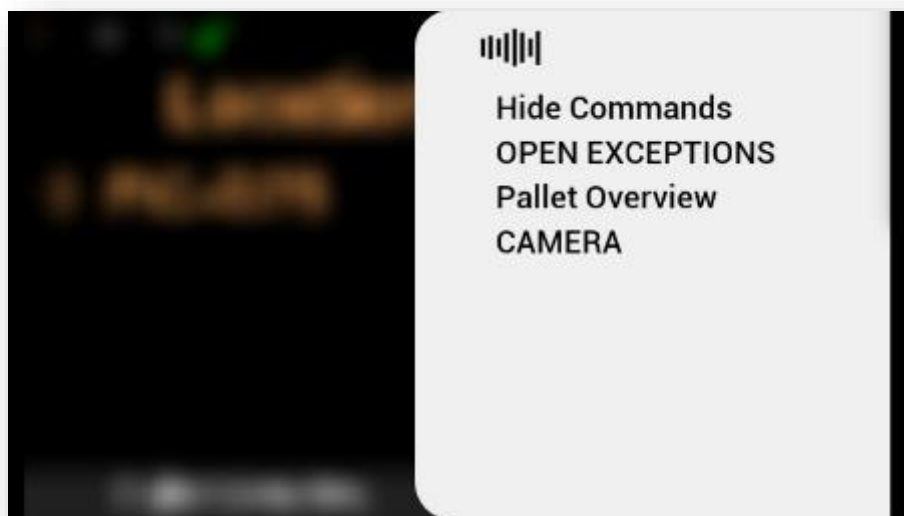
Log on

Vision picking

- ☐ Overview
- ☐ Devices and setup
- ☐ Frontline Command Center
- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting



"Show Commands" : Displays all the available commands for a particular Screen.



Log on

Vision picking

- ☐ Overview
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- ☐ Frontline Command Center
- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting



The user logs in by scanning QR code containing his personal credentials.

Vision Picking Application - Log On



[How to create QR code?](#)

Vision Picking Application - Start Vision Picking

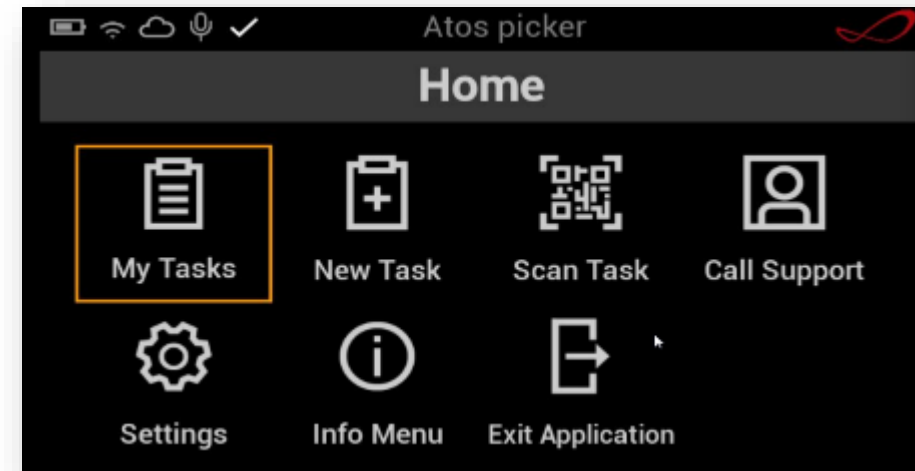
Start Vision Picking

Vision picking

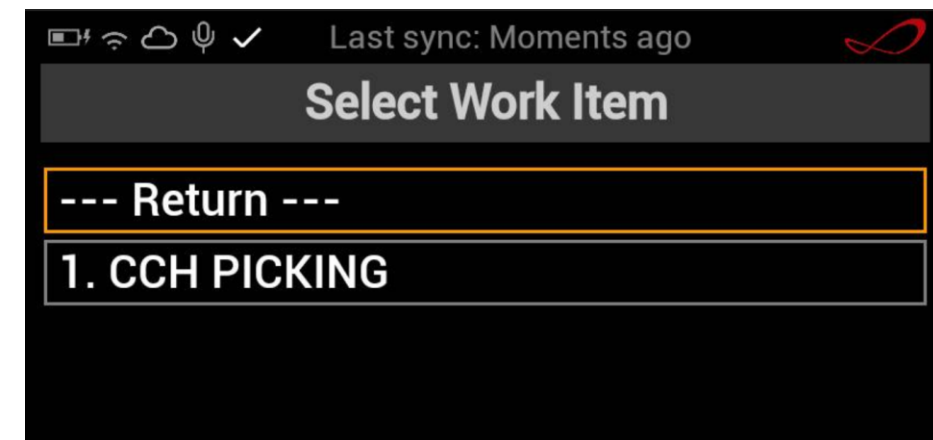
- ☐ Overview
- ☐ Devices and setup
- ☐ Frontline Command Center
- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting



Voice command "**My Tasks**"



Voice command "**Select one**" or "CCH Picking"



your
technology
partner
4 growth

Vision Picking Application – Request a task

Request a task

Vision picking

- ☐ Overview
- ☐ Devices and setup
- ☐ Frontline Command Center
- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting



Voice command "**Start**"



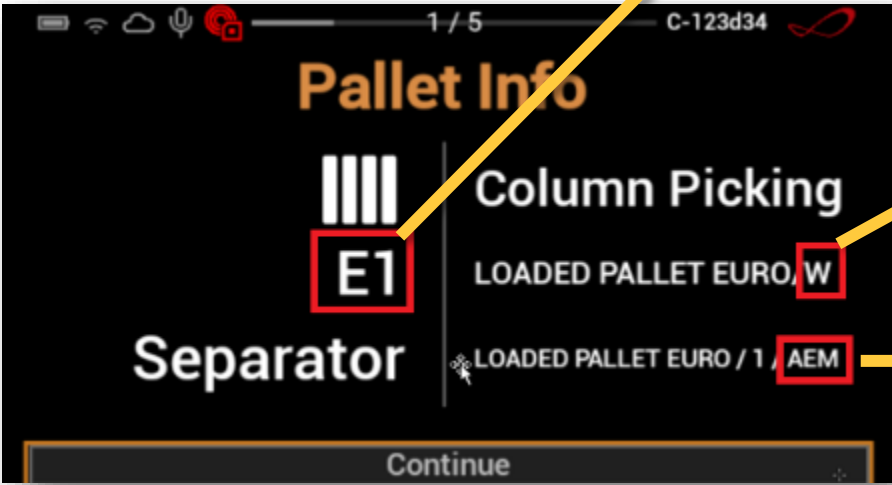
Vision Picking Application – Pallet Info

Pallet Info



Voice command **"Continue"**

That screen shows useful details for building the pallet – type of pallets, number of separators and type of picking (column/layer).



PackMats	Pall.type
Z001	E1
Z002	E1
Z003	E1

ORG_DOCT	Src.Doc.	Packing ID	PackType	Status	X_POS	Column	Level	ORIENTATION	Created On	Pack group	U
S	1000042496	1	L	2	0	0	0		03.04.2019		s/
S	1000042496	2	M	2	1	1	2		03.04.2019		s/
S	1000042496	3	R	3	1	0	2		03.04.2019		s/
S	1000042496	4	S	3	2	1	0	2			
S	1000042496	5	S	3	2	3	0	2			
S	1000042496	6	M	3	3	1	0	2			

Restrict Value Range (5)

LOW	Short Descript.
0	Without
1	Lengthwise LxW
2	Widthwise WxL

Z013	CP
Z014	CG
Z015	CG
Z016	CG
Z017	QP
Z018	E2
Z020	CS
Z082	EP
Z106	NE
Z131	CP
Z741	RO
Z998	WD
Z999	NP

AEL – After Each Layer
AEM – After Each Material

Vision picking

- Overview
- Devices and setup
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- Frontline Workplace**
- Reporting



Vision Picking Application – Pallet Overview

Pallet Overview

Vision picking

- ☐ Overview
- ☐ Devices and setup
- ☐ Frontline Command Center
- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting

Screen shows all materials within a pallet assigned for Vision Picking.



Voice command "Select #"

Example:

Voice Command "Select 2"

The screenshot shows the 'Pallet Overview' screen with a list of materials. Annotations include: a teal box 'total cases to be picked' pointing to the '0' in the 'Qty' column; a yellow box 'total requested qty per material' pointing to the '5' in the 'Req' column; a red circle around the page indicator dots with an arrow pointing to the text '# of pages'; and a teal box 'already picked' pointing to the '0' in the 'Qty' column of the last row.

#	code	Description	Qty	Req	Unit
1	517464	330 CAN 4X6 COCA COLA SLK GR	0	5	CS
2	8003	250 RGB X24 COCA COLA F GR1	0	5	CS
3	10008595	300 CUPX50 CC SMALL GR	0	5	EA
4	10008600	CUP LIDX100 MEDIUM	0	5	EA
5	433203	9.0 TNK PMX SPRITE 57.6 GR	0	5	CS

of pages

already picked

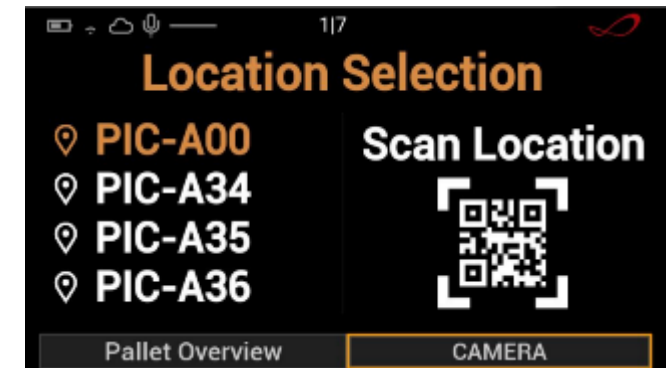
Location Selection

Vision picking

- ☐ Overview
- ☐ Devices and setup
- ☐ Frontline Command Center
- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting

Vision Picking Application – Location Selection

Select source location bin by scanning bin QR code



Select source location by voice command "Select #"

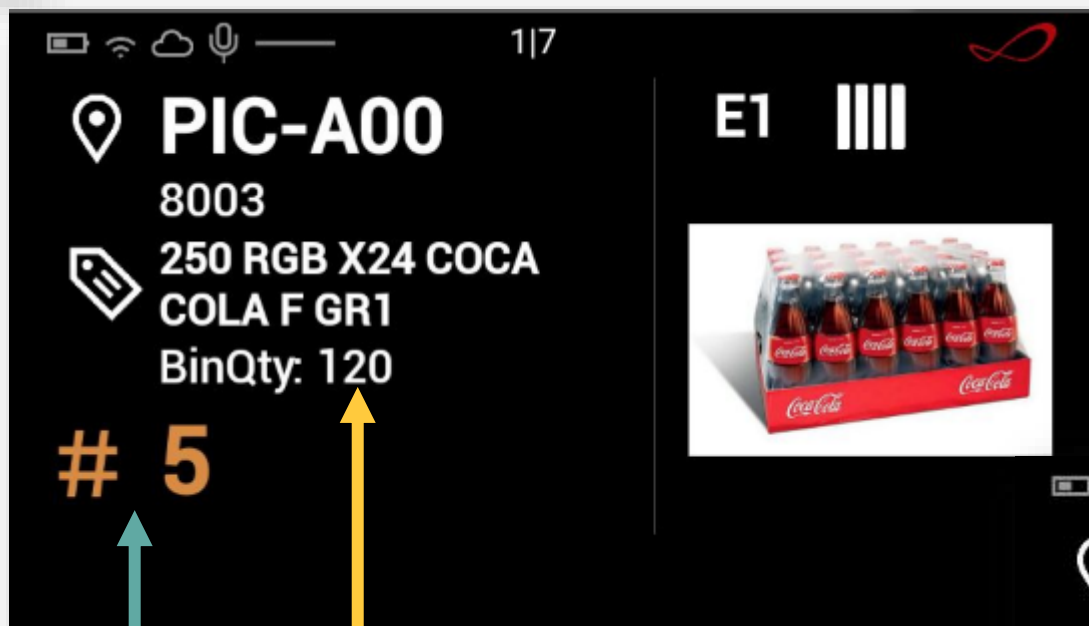


Picking

Vision Picking Application - Picking

Vision picking

- ☐ Overview
- ☐ Devices and setup
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- ☐ New functionalities
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- ☐ Reporting



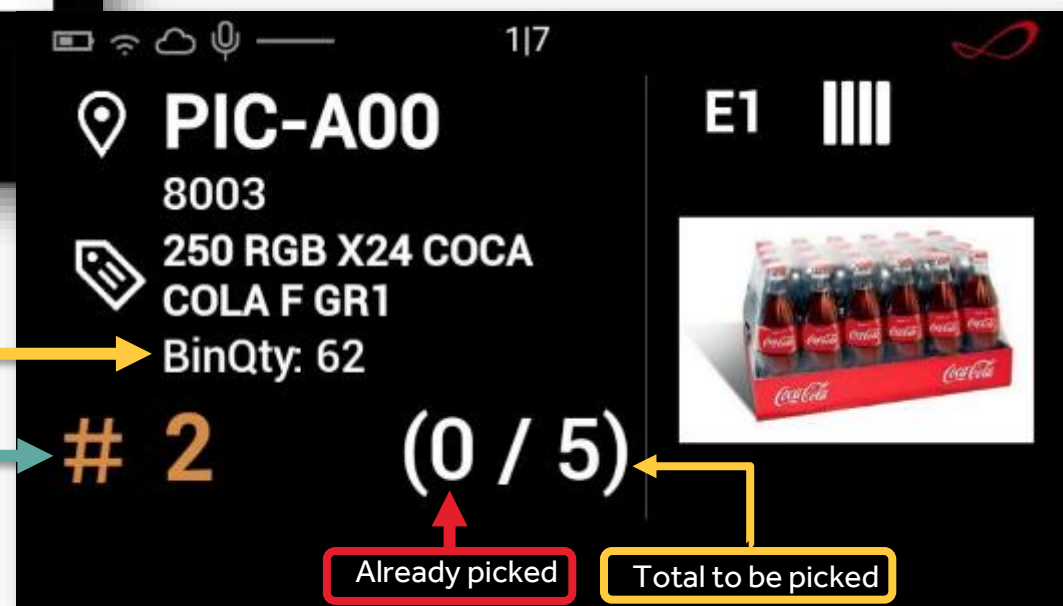
Total bin quantity

Quantity to be picked



Vision Picking is done on active pallet (open pallet) level !

	Selected Bin Location
	Article Details
	Quantity expected to be picked from the open pallet
(0 / 10)	*shown when active pallet qty could not cover the remaining qty to be picked (Quantity already picked/ Total Quantity to be picked for that Item) +



Total bin quantity

Can be picked from active pallet

Already picked

Total to be picked

Scenarios

Vision picking

- ☐ Overview
- ☐ Devices and setup
- ☐ Frontline Command Center
- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting

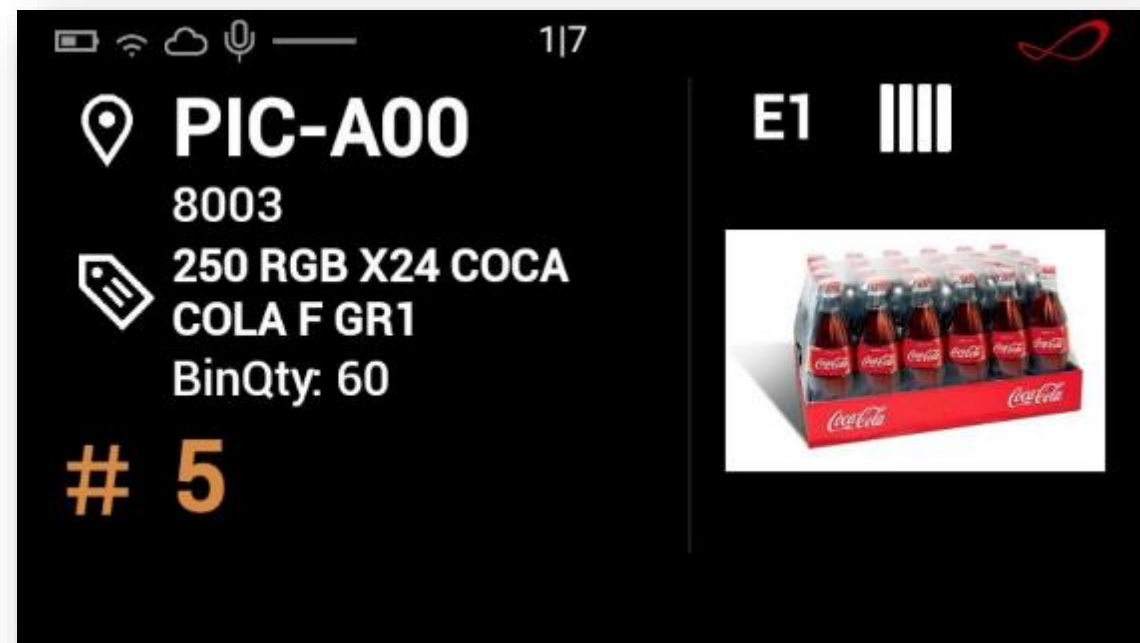
» Quantity in active pallet (60 CS) is enough to cover total remaining qty for picking (# 5)

SAP qty in active pallet	60 CS
Physical qty in active pallet	60 CS
Total bin qty	60 CS
Total qty for picking	5 CS



Voice command **"Pick 5"**

Vision Picking Application – Scenarios



Scenario 1/2

Vision picking

- ☐ Overview
- ☐ Devices and setup
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- ☒ **Frontline Workplace**
- ☐ Reporting

» Scenario OVERPICK - active pallet is empty after picking

SAP qty in active pallet	1 CS
Physical qty in active pallet	3 CS
Total qty for picking	5 CS



Voice command "Pick 3"

Voice command "YES"

Vision Picking Application – Scenario OVERPICK



Vision Picking Application – Scenario OVERPICK

Scenario 2/2

Vision picking

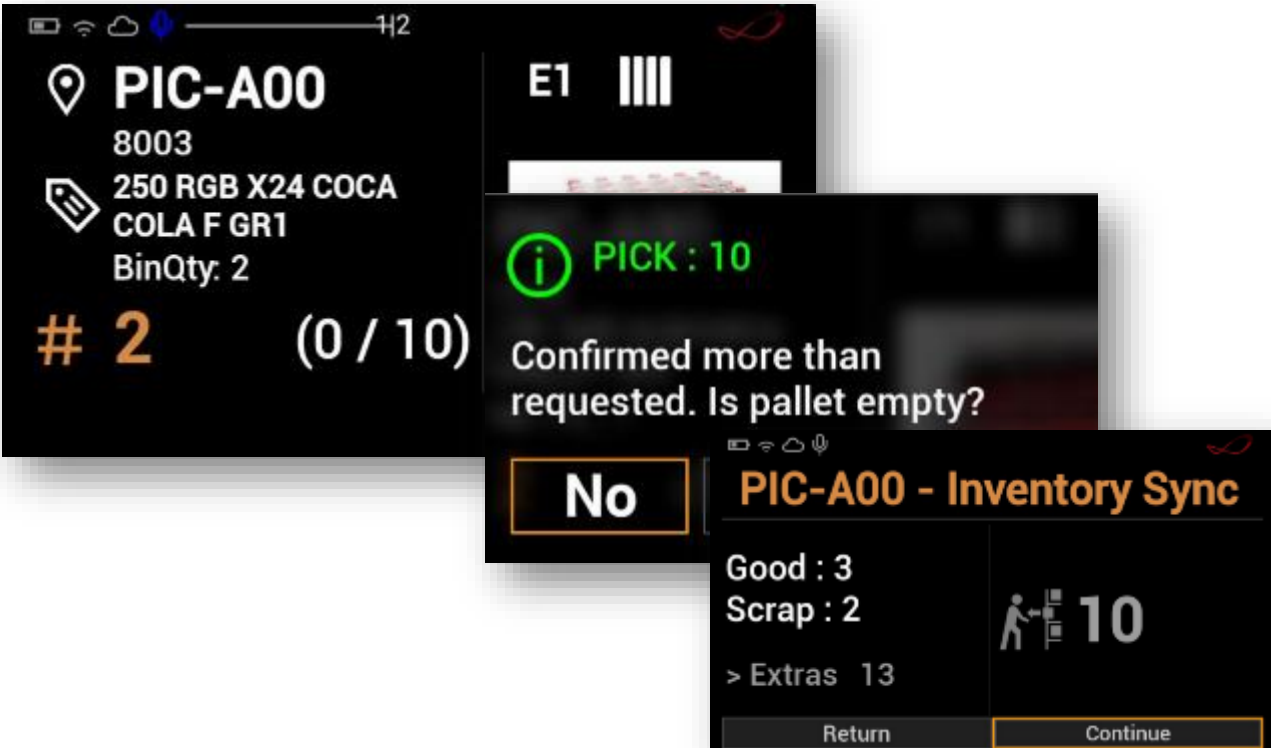
- Overview
- Devices and setup
- Frontline Command Center
- New functionalities
- Frontline Workplace**
- Reporting

Scenario OVERPICK - active pallet is **NOT** empty after picking

SAP qty in active pallet	2 CS
Physical qty in active pallet (13 CS good + 2 CS scrap)	15 CS
Total qty for picking	10 CS



Voice command **"Pick 10"**
Voice command **"NO"**



Vision Picking Application – SHORTPICK (UNDER PICK)

Vision picking

- ☐ Overview
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- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting

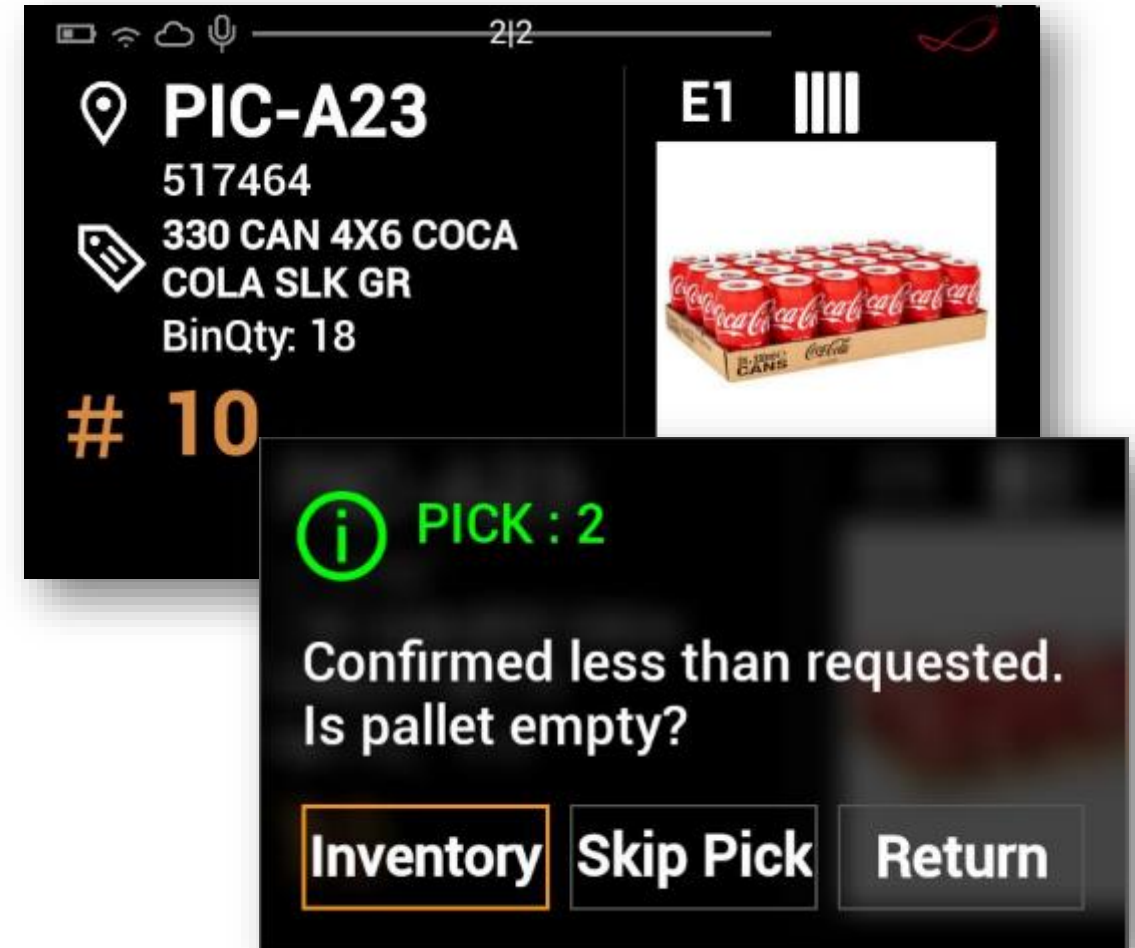
» SHORTPICK (Under pick) due to inventory differences:

SAP qty in active pallet	18 CS
Physical qty in active pallet:	
good quality	2 CS
scrap	16 CS
Total qty for picking	10 CS



Voice command "**Pick 2**"

Voice command "**Inventory**"



Vision Picking Application - SHORTPICK (UNDER PICK)

Scenario
Shortpick 1/3

Vision picking

- ☐ Overview
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- ☐ Reporting



Voice command "**Scrap 16**"

Voice command "**Continue**"



Vision Picking Application - SHORT PICK (UNDER PICK)

Vision picking

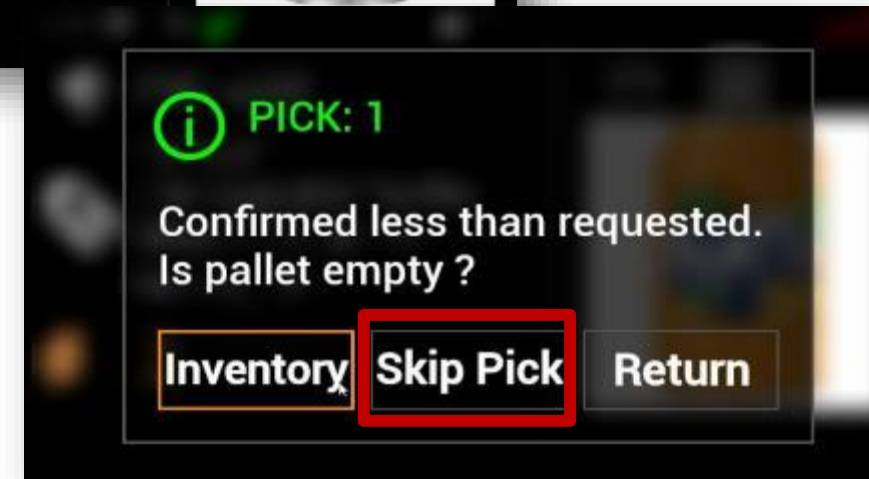
- ☐ Overview
- ☐ Devices and setup
- ☐ Frontline Command Center
- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting

» SHORTPICK (Under pick) Skip Item

SAP qty in active pallet	2 CS
Physical qty in active pallet	2 CS
Total bin qty	78 CS
Total qty for picking	2 CS



Voice command "**Pick 1**"



Quantity which was skipped (1CS) will be proposed for picking as last material in this pallet. Skip option allows reordering picking sequence.



Vision Picking Application – ALCOHOL/COFFEE

Alcohol/
Coffee

Vision picking

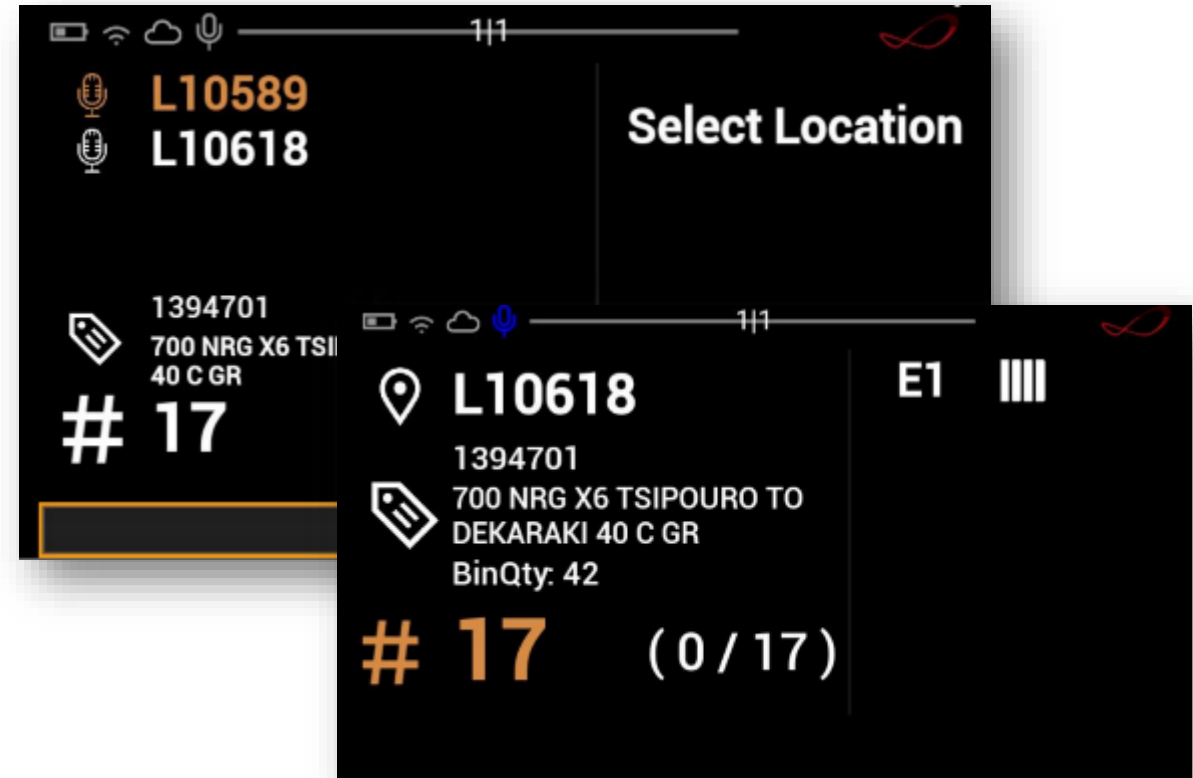
- ☐ Overview
- ☐ Devices and setup
- ☐ Frontline Command Center
- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting

» User physically collects all required quantities for a single material and then registers them on Vision Picking application by choosing batches.



Voice command **"Select 2"**

Voice command **"Pick 5"**



Vision Picking Application – ALCOHOL/COFFEE

Alcohol/
Coffee

Vision picking

- ☐ Overview
- ☐ Devices and setup
- ☐ Frontline Command Center
- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting

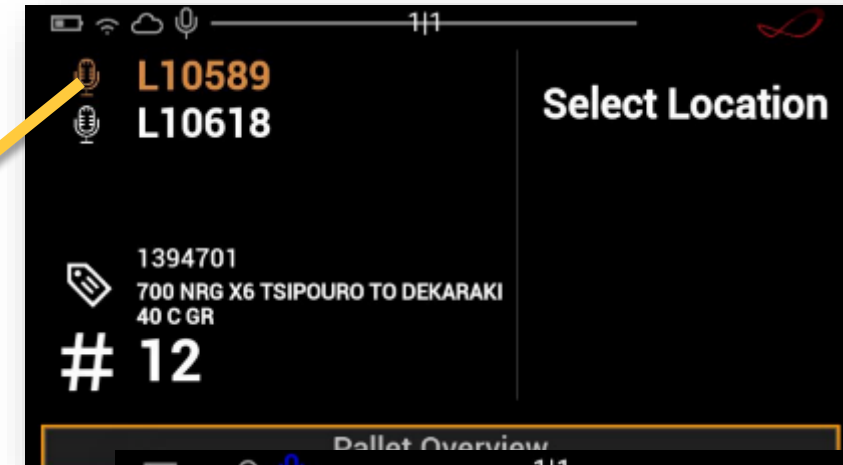
» User physically collects all required quantities for a single material and then registers them on Vision Picking application by choosing batches.



Voice command **"Select 1"**

Voice command **"Pick 12"**

» NO losses/scraps can be registered in Vision Picking application for alcohol/coffee products. Warehouse supervisor must be contacted.



Vision Picking Application – Force replenishment

Force
replenishment

Vision picking

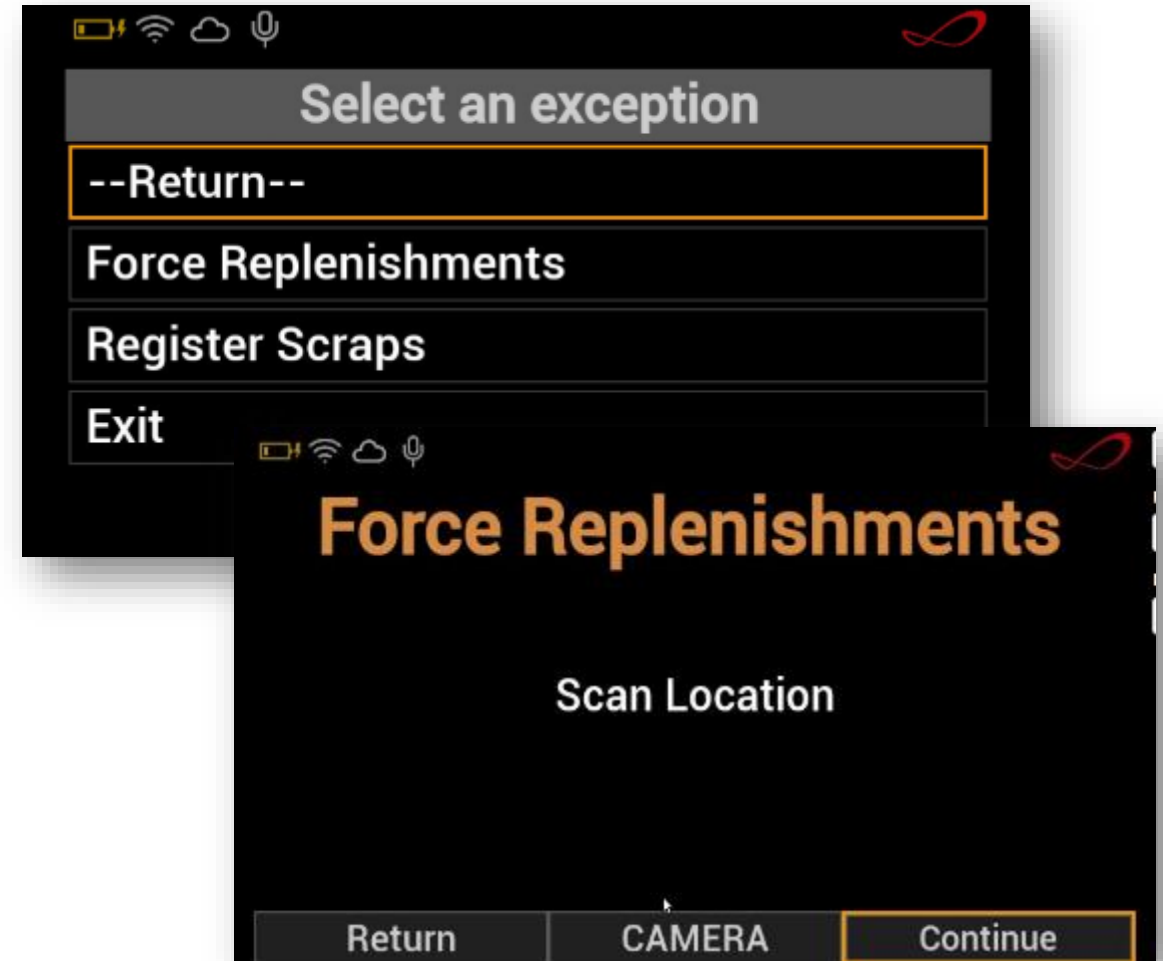
- ☐ Overview
- ☐ Devices and setup
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- ☒ **Frontline Workplace**
- ☐ Reporting



Voice command **"Open Exceptions"**

Voice command **"Force Replenishment"**

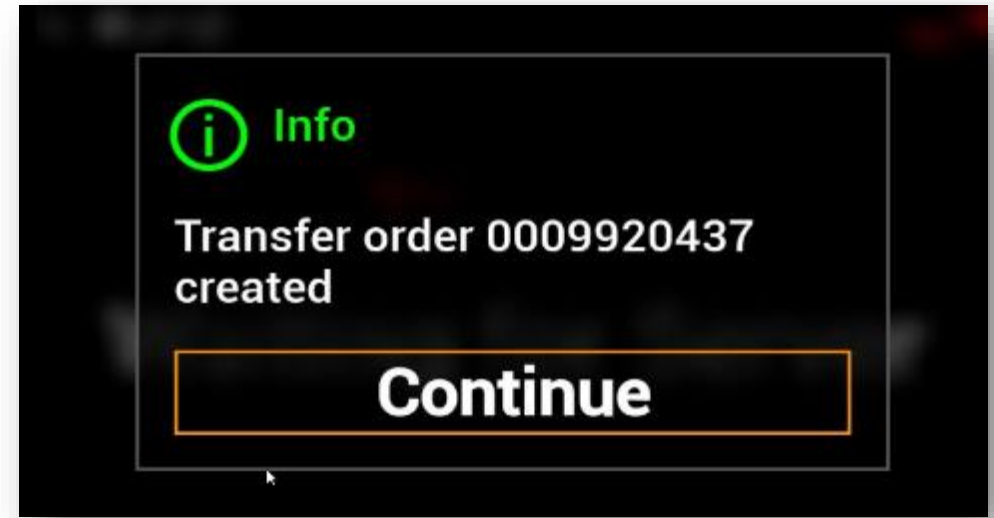
Voice command **"Camera"**



Force
replenishment

Vision Picking Application – Force replenishment

Scan bin QR code



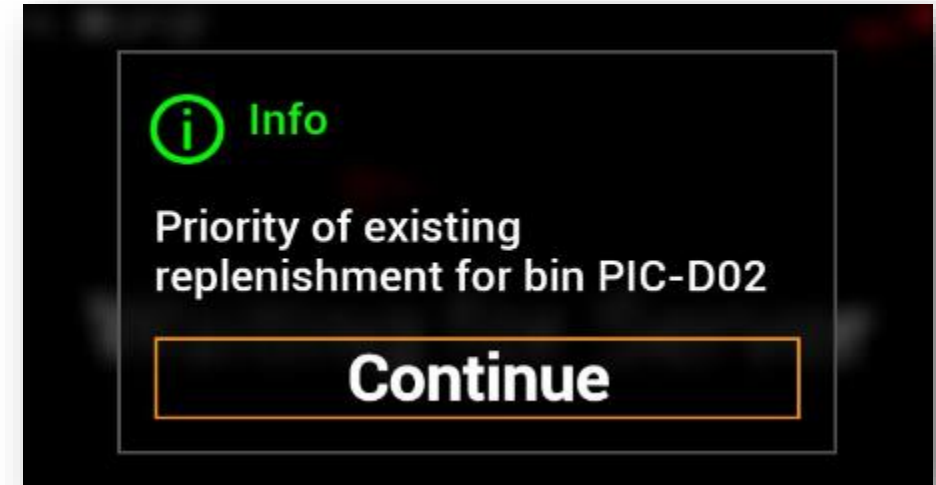
Vision Picking Application – Force replenishment

Force
replenishment

Vision picking

- ☐ Overview
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» Try to replenish the same bin again (before forklift driver executes replenishment on MLS)



Vision picking

- ☐ Overview
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- ☐ Reporting

Vision Picking Application – Force replenishment

» Try to force replenish a bin which available qty (LX03) is more than minimum quantity defined in transaction ZMLS_FIXBIN.
Example:



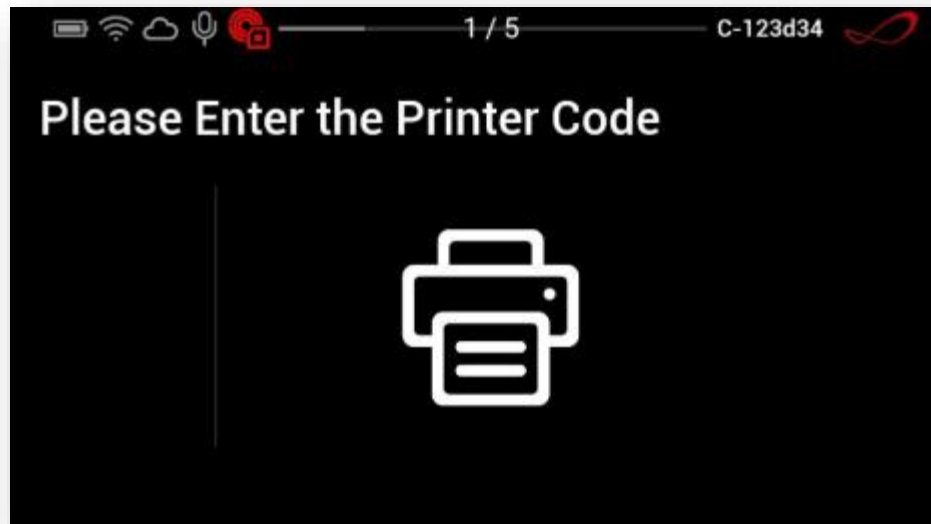
Vision Picking Application – Print Label

Print Label

Vision picking

- ☐ Overview
- ☐ Devices and setup
- ☐ Frontline Command Center
- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting

➤➤ After all items within a pallet are picked (canceled), user is forced to scan printer QR code.



Vision Picking Application – Print Label

Print Label

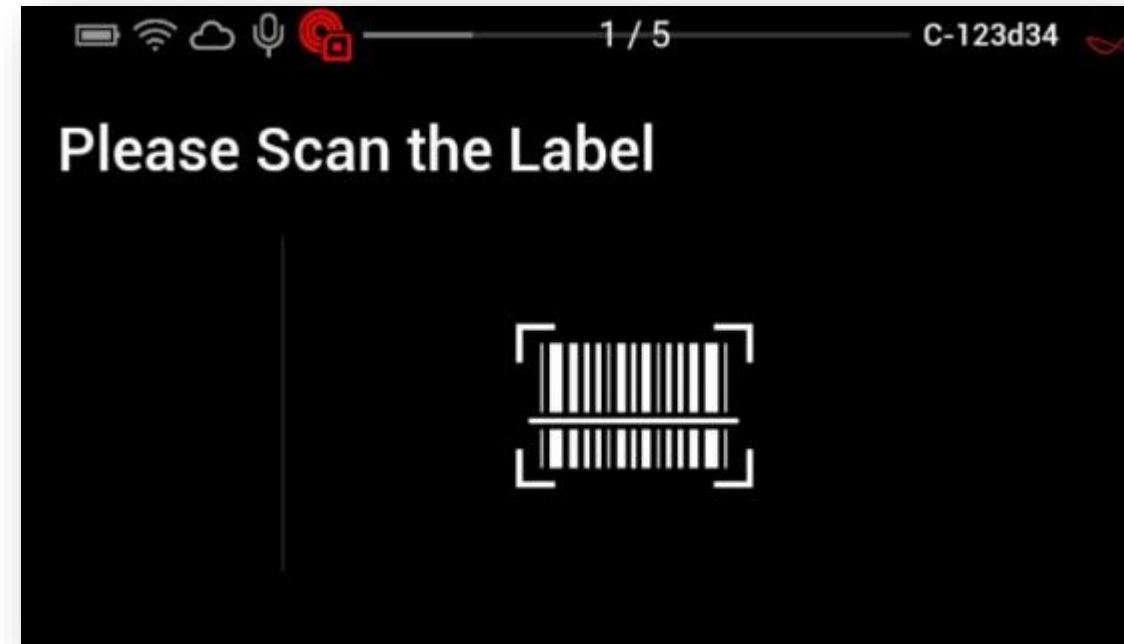
Vision picking

- ☐ Overview
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- ☐ Reporting

» Once the print out is successfully obtained, the picker should scan the SSCC code that is available on the label.



Voice command "**Camera**"



Vision Picking Application – Pre-stage bin

Pre-stage bin

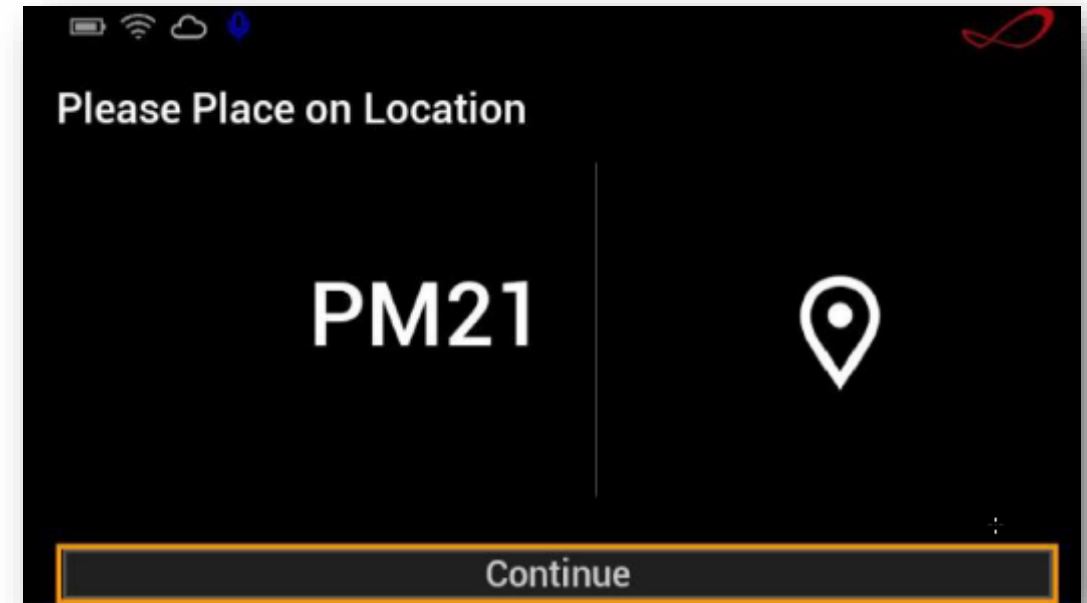
Vision picking

- ☐ Overview
- ☐ Devices and setup
- ☐ Frontline Command Center
- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting

» After scanning the pallet label, Vision Picking application shows pre-stage bin where the picker should place the ready pallet.
Once the pallet is placed in the pre-stage bin:



Voice command **"Continue"**



Vision Picking Application – Finishing task

Finishing task

Vision picking

- ☐ Overview
- ☐ Devices and setup
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- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting

»» This last screen confirms that picking of the specific pallet is completed. It triggers respective updates in SAP (pallet status etc)



Voice command **"Finish Work"**
- Goes to the screen with Work items – CCH Picking and Exceptions



Voice command **"Next Order"**
- Request a new task for picking

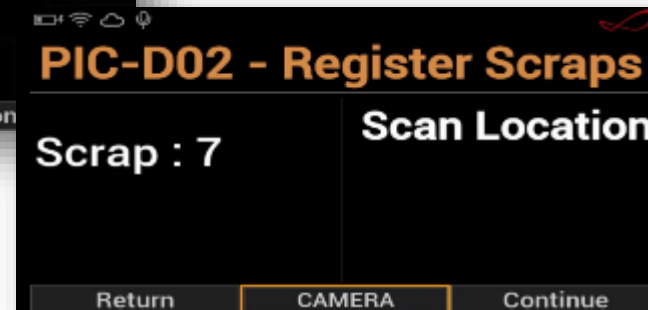
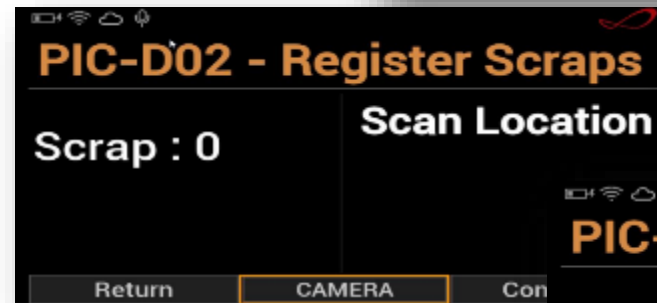
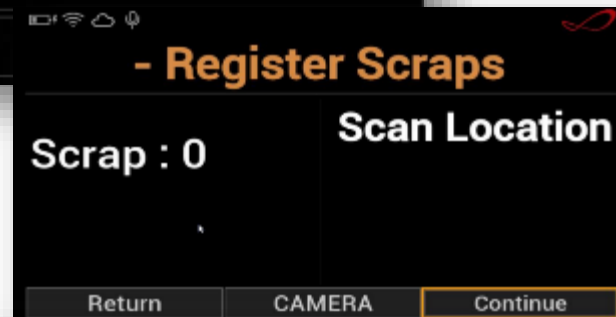
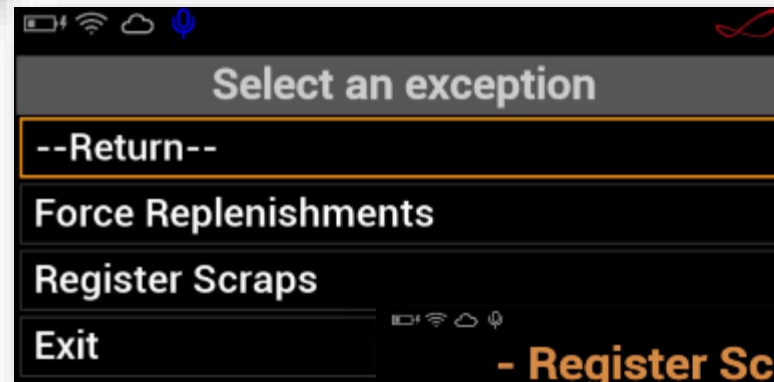


Vision Picking Application – Register Scraps

Register scraps

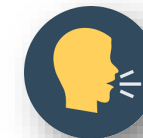
Vision picking

- ☐ Overview
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- ☐ New functionalities
- ☒ **Frontline Workplace**
- ☐ Reporting



Voice command "**Open exceptions**"

Voice command "**Register scraps**"



Voice command "**Camera**"

Voice command "**Scrap 7**"



Voice command "**Continue**"

As a result quantities are moved from picking area to 999 SCRAP.



Thank you!

