Honeywell

Guided Work Solutions

Picking Workflow Plug-In 1.5

Product Description

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Web Address: automation.honeywell.com

Patents

For patent information refer to hsmpats.com

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ABOUT PICKING WORKFLOW PLUG-IN

This document is intended to familiarize the user with the basic functionality of the Guided Work Solutions (GWS) Picking Workflow Plug-In.

The GWS Picking Workflow Plug-In is an out of the box solution that can be deployed in two ways:

- Using the GWS Service.
- Embedded in the GWS App without using the GWS Service.

This document covers both scenarios.

The current integration mechanisms are based on:

- Microsoft SQL Server Stored Procedures
- Oracle Stored Procedures
- Rest Web Services.
- JSON or YAML files

These implementation mechanisms are covered in the *Guided Work Solutions Picking Workflow Plug-In Integration Guide*.

Description

This Plug-In is used to implement different warehouse operations by generating voice dialog based on data retrieved from the data source.

The plug-in functionalities are:

Functionality	Description
Operator Sign On	With or without passcode
Operator status notification	The Host System is notified about the status of the Worker

Functionality	Description
Directed work order assignment or selected by operator	Work orders can be assigned by the Host system or selected by the operator
Cluster	Operator can put goods in multiple containers
Weight input	Operators can speak the weight of the pick if the line is configured properly. There are optional limits and validations for the obtained weight
Batch number confirmation	Batch numbers can be confirmed by the operator
Shortage	Operator can declare shortages or exceptions
Assisted Countdown	The operator receives feedback of the pick pending quantities each time he confirms a partial quantity until the total quantity is reached or an exception is declared
Quantities tolerances	Definition of lower and upper quantity tolerances
Printing	Message to the Host System to perform the label printing
Place in dock	Workflow to guide the operator to place the finished picks at the specified dock
Instructions or advice	Optionally the system can speak instructions or advice at each pick and send back the response to the Host System (Yes / No)
Stock counting	Stock can be requested optionally after each pick. This feature can be used as a standalone stock counting workflow without doing picking
Reverse picking	Operator can work in reverse order starting from the last picking line of the group of picking lines.
Internal movements	Workflow for internal movements, allowing operators to follow processes such as Replenishment (complete and partial), Put-away, combined Replenishment and Put-away, and any other type of internal goods movement

Getting Help

Additional Documentation

Additional documentation may be found in your product package and on online partner portals.

Find most Honeywell Voice technical documentation at help.honeywellaidc.com.

Honeywell Voice Reseller Services

If you purchased equipment or services through a Honeywell Voice reseller, please contact your reseller first for support or to purchase a support plan.

Honeywell Voice Technical Support

Submit incidents or questions to honeywell.custhelp.com or contact Honeywell Technical Support Center:

> **Americas**
> Email: VoiceTechnicalSupport@Honeywell.com
> Phone: +1(866) 862-7877

- **Europe, Middle East, Africa**
  Email: VoiceTechnicalSupport@Honeywell.com
  Phone: +44 (0) 1344-65-6123

- **Rest of World**
  Email: VoiceTechnicalSupport@Honeywell.com
  Phone: +1 (412) 376-9384

To report support incidents or ask technical questions for other Honeywell devices, visit honeywell.com/PSStechnicalsupport.

Honeywell Voice Customer Service

For order placement or customer service inquiries:

- **North America, Latin America**
  Email: VoiceCustomerServiceAmericas@Honeywell.com
  Phone: +1(866)862-6553

- **Europe, Middle East, Africa, Turkey**
  Email: voicecustomerserviceEMEA@honeywell.com
  Phone: +44 (0) 1698-915777

- **Japan**
  Email: csjapan.pss@honeywell.com

Phone: +81-3-6730-7344

- **Brazil**
  Email: ACSHSMCentraldepedidos@honeywell.com
  Phone: + 55 35 36299000

- **Asia Pacific**
  Email: VoiceCustomerServiceAPAC@honeywell.com
  Phone: +44 16989 15777

Honeywell Voice Hardware Repair

For returns or to check the status of a Return Material Authorization (RMA) for Voice hardware products:

- **Americas**
  Email: VoiceRMA@Honeywell.com
  Phone: +1 (866) 417-6988

- **Europe, Middle East, Africa**
  Email: VoiceEMEARMA@honeywell.com
  Phone: +1 (866) 417-6988

- **Rest of World**
  Email: VoiceRMA@Honeywell.com

For returns or to check the status of an RMA for other Honeywell hardware products, visit the SPS RMA portal: sps-support.honeywell.com/s/pss/pss-rma

DIALOG FLOW EXAMPLES

Sign On (Access Allowed with Password)

When the operator attempts to log in to the voice system, a request is made to the host system to validate the user's access. The following example shows the login of operator 7767 with the voice device. The system allows access if the operator correctly says the password 1234.

Voice Dialog

Device	Operator
Welcome!	
Password?	1234

Data Integration

Request:

GetOperatorStart		
Input	Operator	7767
	Device	99999999999
	Language	en
Output	Allowed	1
	Password	1234
	Message	Null

Sign On (Access Allowed without Password)

Voice Dialog

Device	Operator
Welcome!	

Data Integration

Request:

GetOperatorStart		
Input	Operator	7767
	Device	9999999999
	Language	en
Output	Allowed	1
	Password	Null
	Message	Null

Sign On (Access Not Allowed)

Voice Dialog

Device	Operator
You can't access at this time!	

Data Integration

Request:

GetOperatorStart		
Input	Operator	7767
	Device	9999999999
	Language	en
Output	Allowed	0
	Password	Null
	Message	Null

Operator Start

After the operator is validated via the correct password spoken (if required), the host system is notified that the operator is starting work using the *SetOperatorsStart* method.

Voice Dialog

Device	Operator
Welcome to the EWM System	Ready

Data Integration

Request:

SetOperatorStart		
Input	Operator	7767
	Device	9999999999
Output	Message	Welcome to the EWM System

Work Order (No Work)

When the host system does not return a work order, a predefined message is spoken and a new get work order request is made to retry the operation.

Voice Dialog

Device	Operator
No work assigned. To try again, say ready.	Ready

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output		

Work Order (Empty Work)

Empty work is a generic task that is commonly used to speak a message and force the device to request another work order after the operator confirms the message.

Voice Dialog

Device	Operator
Empty work message. To try again, say ready.	Ready

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	Null
	Message	Empty work message. To try again, say ready.
	Type	Null

GWS Picking Plug-In Workflow Product Description

Work Order (Begin Picking Order) (Deprecated)

> **IMPORTANT**
> This task is deprecated and will no longer be supported in future versions. Please use the *BeginOrder* task instead.

A task of type *BeginPickingOrder* gets the basic information of the work order to be performed by the operator. This is spoken to the operator. After the operator confirms the information, it moves on to the next task (which should be one of type *PickingLine*), reporting to the server the completion of the task.

Voice Dialog

Device	Operator
Order WO12345677, in pallet, 1 container	Ready

Response:

The response is formatted and converted into a *SetWorkOrder* request.

SetWorkOrder		
Input	Operator	7767
Output	Code	WO12345677
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:10:18

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345677
	Message	Begin picking order
	Type	BeginPickingOrder
	Customer	Customer
	ContainersCount	1
	ContainerType	pallet

Work Order (Select Option Order)

A task of type *SelectOption* allows the operator to select the desired option from a menu or to speak Cancel to not select any option..

Voice Dialog

Device	Operator
Option?	1
Option 1?	Yes

Response:

The response is formatted and converted into a *SetWorkOrder* request.

SetWorkOrder		
Input	Operator	7767
Output	Code	WO12345677
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:10:18
	SelectedOption	1

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345677
	Message	Option
	Type	SelectOption
	Options	Option1, Option2

Work Order (Select Work IDs Order)

A task of type *SelectWorkIDs* allows the operator to select a set of work orders to do from a list of available work IDs or from an open-ended list. The operator can say or scan a maximum number of works if defined, or use a command to stop the selection ("no more"). After the operator speaks the works, it moves on to the next task (which should be one of type *PickingLine*), reporting to the server the completion of the task.

Voice Dialog

Device	Operator
Work?	1
1?	Yes
Work?	2
2?	Yes

Response:

The response is formatted and converted into a *SetWorkOrder* request.

SetWorkOrder		
Input	Operator	7767
Output	Code	WO12345677
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:10:18
	SelectedWorkIDs	1, 2

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345677
	Message	Work?SelectWorkID
	Type	s
	MaxWorksToSelect	2
	AvailableWorkIDs	1, 2, 3

Work Order (Begin Order)

A task of type *BeginOrder* gets the basic information of the work order to be performed by the operator. This is spoken to the operator. After the operator confirms the information, it moves on to the next task (which should be one of type *PickingLine* or *InternalMovement*), reporting to the server the completion of the task.

Voice Dialog

Device	Operator
Order WO12345677, in pallet, 1 container	Ready

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345677
	Message	Begin order
	Type	BeginOrder
	Customer	Customer
	ContainersCount	1
	ContainerType	Pallet
	WorkType	Picking/Movement

Response:

The response is formatted and converted into a *SetWorkOrder* request.

SetWorkOrder		
Input	Operator	7767
Output	Code	WO12345677
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:10:18

Picking Line

The picking line is always started by directing the operator to the location where the products are to be picked. The Aisle message is only spoken if there is a change from the previous line.

Once the location has been spoken, the operator can:

- Validate the check digit to continue with the preparation.
- Postpone the line using the SKIP SLOT command. The corresponding signal is sent to the host system so that it can reprogram the line when it deems appropriate.

- Postpone all lines in current aisle using the SKIP AISLE command. The corresponding signal is sent to the host system so that it can reprogram the aisle when it deems appropriate.

- Cancel the line using the command INCIDENCE. This refers to a problem that prevents the line from being prepared, either at this moment or in the future.

- Declare a breakage with the command BREAKAGE.

- Start the process of depositing the pallet in the loading area using the command DOCK.

- Take a break using the command TAKE A BREAK.

After validating the location check digit (location validation by scanner is not allowed), the system informs the operator of the item to be prepared, requiring additional validation if necessary. Then, one of the batches can be selected. The operator can select item any by saying "yes" or say "no" to move on to the next batch. If the operator does not wish to select any batch, they can say "cancel" to leave it empty. After this, the quantity to be collected is presented in the preferred (or original) format. Upper and lower tolerance can be configured to allow the operator to pick greater or less than the requested quantity.

At this point, the operator can also choose not to prepare the line using the INCIDENCE command, which has the same effect at the line level as when it at the location level.

After indicating the collected quantity, it is validated within the limits established for the current service format.

If the operator speaks a quantity lower than indicated, the system asks if they want to reschedule the preparation of the remaining quantity for later, or if they want to finalize the indicated quantity. If the weight needs to be entered, the operator is prompted to do so.

The operator can use commands to refresh information about what they are doing at that moment. For example:

- A command to remember their location (LOCATION)

- A command to request information about the product description (DESCRIPTION)

- A command to request information about the product number (PRODUCT NUMBER)

- A command to request information about the UPC number (UPC NUMBER)

- A command to request information about the store being prepared (STORE NUMBER)

- A command for requesting the number of pending lines (HOW MUCH MORE)

Voice Dialog

Device	Operator
First line	Ready
Aisle 1	Ready
Slot A	Ready
02	123
2 boxes	2 Ready

Data Integration

Request:

GetWorkOrder			
Input	Operator		7767

Output	Code	WO12345678
	Message	First Line
	Type	PickingLine
	Customer	Customer
	PendingLines	16
	Aisle	1
	Slot	A
	Position	02
	CD	123
	ProductName	Product name
	Product Number	Product number
	UpcNumber	UPC number
	OriginalServingCode	BOXES
	OriginalServingPrompt	2 boxes
	OriginalServingQuantity	2
	OriginalUnitsFormat	6

Response:

The response is formatted and converted into a *SetWorkOrder* request.

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Picked	2
	ServingCode	BOXES

GWS Picking Plug-In Workflow Product Description

Picking Line (Validate Location)

The location can be validated by entering the check digit. This value can also be scanned. If no value exists in CD and BarcodeCD the location does not require validation.

Voice Dialog

In this instance, the check digit can be scanned.

Device	Operator
Picking line 1	Ready
Aisle 2	Ready
Slot B	Ready
Check digit?	(scan) 123456
Pick 1 pallet	1 Ready

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767

Output	Code	WO12345678
	Type	PickingLine
	Customer	Customer
	Aisle	1
	Slot	A
	BarcodeCD	123456
	ProductName	Product name
	Product Number	Product number
	UpcNumber	UPC number
	OriginalServingCode	Pallet
	OriginalServingPrompt	Pick 1 pallet
	OriginalServingQuantity	1
	OriginalUnitsFormat	100

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:12
	Picked	1
	ServingCode	Pallet

Picking Line (Product Validation)

The product can be validated by entering one of the check digits specified in the ProductCDs field. This value can also be scanned. If no value exists in ProductCDs, the product does not require validation.

Voice Dialog

In this instance, the check digit can be scanned.

Device	Operator
Product description	Ready
Check digit?	11111 Ready
Incorrect	
Check digit?	12345 Ready
2 boxes	2 Ready

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345678
	Type	PickingLine
	Customer	Customer
	Aisle	1
	Slot	A
	Position	02
	ProductName	Product name
	Product Number	Product number
	UpcNumber	UPC number
	Products Cds	123456789
	OriginalServingCode	BOXES
	OriginalServingPrompt	2 boxes
	OriginalServingQuantity	2

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Picked	2
	ServingCode	BOXES

Picking Line (Ask for Weight)

The product can be weighed in various ways and its behavior will vary depending on the type and the activation of Countdown picking:

Weight Behavior	Non-countdown Picking	Countdown Picking
After Take (default)	Weighed after pick	Weighed after each take
After Pick (option 1)	Weighed after pick	Weighed after pick
Each Unit After Take (option 2)	Weighed by units after pick	Weighed by units after each take

Additionally, there are two types of validation weights: validate total weight or validate weight per unit. Each has its own distinct behavior depending on the weighing behavior type and the Countdown picking. The table below defines the behavior types and indicates whether the total and per unit minimum and maximum weight tolerances are applied.

Weight Behavior	Non-countdown Picking		Countdown Picking	
	Min/Max Weight	Min/Max Weight Per Unit	Min/Max Weight	Min/Max Weight Per Unit
After Take (default)	Applied	Applied	Not Applied	Applied

GWS Picking Plug-In Workflow Product Description

Weight Behavior	Non-countdown Picking		Countdown Picking	
	Min/Max Weight	Min/Max Weight Per Unit	Min/Max Weight	Min/Max Weight Per Unit
After Pick (option 1)	Applied	Applied	Applied	Applied
Each Unit After Take (option 2)	Applied	Applied	Not Applied	Applied

Voice Dialog

Device	Operator
2 boxes	2 Ready
Total weight?	3.5 Ready
3.5?	Yes
The weight is more than allowed	
Total weight?	2.5
2.5?	Yes

Data Integration

Request:

GetWorkOrder

Input	Operator	7767

Output	Code	WO12345678
	Type	PickingLine
	Customer	Customer
	Aisle	1
	Slot	A
	Position	02
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC number
	OriginalServingCode	BOXES
	OriginalServingPrompt	2 boxes
	OriginalServingQuantity	2
	OriginalUnitsFormat	6
	AskWeight	true
	WeightMin	0.5
	WeightMax	3
	ScanWeight	false

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Picked	2
	ServingCode	BOXES
	Weight	2.5
	ScannedWeight	

Picking Line (Prepare in Alternative Format)

The operator can perform the preparation in the original format or change the preparation format with the FORMAT command.

> **NOTE**
> To allow a change of format, the data received must include the alternative format data in addition to the original.

Voice Dialog

Device	Operator
1 pallet	CHANGE UNIT OF MEASURE
10 boxes	10

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767

Output	Code	WO12345678
	Type	PickingLine
	Customer	Customer
	Aisle	1
	Slot	A
	Position	02
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC number
	OriginalServingCode	PALLET
	OriginalServingPrompt	1 pallet
	OriginalServingQuantity	1
	OriginalUnitsFormat	100
	AlternativeServingCode	BOXES
	AlternativeServingPrompt	10 boxes
	AlternativeUntisQuantity	10
	AlterntiveUnitsFormat	10

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Picked	10
	ServingCode	BOXES

Picking Line (Prepare in Units)

The operator can perform the preparation in either the original or alternative format, or switch to preparing in units using the UNITS command. When the line is confirmed, the value of the *ServingCode* field is UNITS.

> **NOTE**
> To allow a change of format, the data received must include the unit's quantity data in addition to the original.

Voice Dialog

Device	Operator
1 BOX	UNITS
10 units	10

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767

Output	Code	WO12345678
	Type	PickingLine
	Customer	Customer
	Aisle	1
	Slot	A
	Position	02
	ProductName	Product name
	ProducNumber	Product number
	UpcNumber	UPC number
	OriginalServingCode	BOXES
	OriginalServingPrompt	1 box
	OriginalServingQuantity	1
	OriginalUnitsFormat	10
	AlternativeUnitsQuantity	10

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Picked	10
	ServingCode	UNITS

Picking Line (Ask for Batch)

The operator can be prompted with the batch of the product being prepared.

GWS Picking Plug-In Workflow Product Description

Voice Dialog

Device	Operator
Aisle 1	Ready
Slot A	Ready
01	123
Select batch	
Batch 1?	No
Batch 2?	Yes
2 boxes	2

Data Integration

Request:

GetWorkOrder

Input	Operator	7767

Output	Code	WO12345678
	Type	PickingLine
	Customer	Customer
	Aisle	1
	Slot	A
	Position	02
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC number
	OriginalServingCode	BOXES
	OriginalServingPrompt	2 boxes
	OriginalServingQuantity	2
	OriginalUnitsFormat	6
	AskBatch	true
	Batches	1|2

Response:

SetWorkOrder

Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Picked	2
	ServingCode	BOXES
	Batch	2

SetWorkOrder

GWS Picking Plug-In Workflow Product Description

Picking Line (Shortage)

When the operator is allowed to take less quantity than required, they can be asked for the reason.

The device displays a menu with a set of options explaining why less quantity was taken and sends a status according to the reason.

There also is an the option for not asking a reason, in this case the status sent is be **OK**.

All of this depends on the value of **PickingLine:AskReasonForShortPick** field. It can be modified in the config file if in service mode or on the settings screen if on embedded mode. If the value is true, an option can be chosen; if it is false, an option cannot be chosen.

> **NOTE**
> By default, the value is true.

PickingLine:AskReasonForShortPick true:

Menu Option	Reason
1	Empty
2	Breakage
3	Complete
4	Dock
5	Continue
6	Cancel

Voice Dialog

Device	Operator
2 boxes	1
Asked for 2, you said 1. Is this a short?	Yes
Reason code	02
Breakage?	Yes

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767

Output	Code	WO12345678
	Type	PickingLine
	Customer	Customer
	Aisle	1
	Slot	A
	Position	02
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC number
	OriginalServingCode	BOXES
	OriginalServingPrompt	2 boxes
	OriginalServingQuantity	2
	OriginalUnitsFormat	6

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	Breakage
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Picked	1

PickingLine:AskReasonForShortPick false:

Voice Dialog

Device	Operator
2 boxes	1
Asked for 2, you said 1. Is this a short?	Yes

Picking Line (Countdown Pick)

When countdown picking is enabled, the operator can pick the requested quantity through multiple picking operations. If operator says zero before the quantity is reached, the operator is prompted with a menu containing the following reasons:

Menu option	Reason
1	Empty
2	Breakage
3	Complete
4	Dock
5	Continue
6	Cancel

Voice Dialog

Device	Operator
4 boxes	1
Remain 3	2
Remain 1	0
Asked for 4, you said 3. Is this a short?	Yes
Reason code?	02
Breakage?	Yes

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345678
	Type	PickingLine
	Customer	Customer
	Aisle	1
	Slot	A
	Position	02
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC number
	OriginalServingCode	BOXES
	OriginalServingPrompt	4 boxes
	OriginalServingQuantity	4
	OriginalUnitsFormat	6
	CountdownPick	true

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Picked	3

In countdown picking the operator can be limited for the quantity picked per operation.

Voice Dialog

Device	Operator
4 boxes	2
The maximum quantity allowed per pick is 1	
4 boxes	1
Remain 3	

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767

Output	Code	WO12345678
	Type	PickingLine
	Customer	Customer
	Aisle	1
	Slot	A
	Position	02
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC number
	OriginalServingCode	BOXES
	OriginalServingPrompt	4 boxes
	OriginalServingQuantity	4
	OriginalUnitsFormat	6
	CountdownPick	true
	OriginalMaxQuantityAllowedPerPick	1

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Picked	4

> **IMPORTANT**
> If we disconnect after having picked a certain quantity, the system automatically confirms the picked quantity and sends a new status called 'PartialPicking'.

Voice Dialog

Device	Operator
Picking line 1	Ready
Aisle 2	Ready
Slot B	Ready
Pick 10 boxes	5 Ready
5 remaining	Sign off
Sign off correct?	Yes
Bye bye	

Data Integration

Request

GetWorkOrder		
Input	Operator	7767

Output	Code	WO12345678
	Type	PickingLine
	Message	Picking line 1
	Customer	Customer
	Aisle	2
	Slot	B
	BarcodeCD	123456
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC number
	OriginalServingCode	BOXES
	OriginalServingPrompt	Pick 10 boxes
	OriginalServingQuantity	1
	OriginalUnitsFormat	100
	CountdownPick	True

Response

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	Partial Picking
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Picked	5

Picking Line (Stock Counting)

If the line does not contain a quantity to be prepared, and the *StockQuantity* mode is 'Always', the order can be used for stock counting only. The Stock counting options available are the following:

Value	Description
0	Not counting
1	Stock counting only for partial picking
2	Counting always

Voice Dialog

Device	Operator
Aisle 1	Ready
Slot A	Ready
02	123
Quantity in location	10
10?	Yes

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767

Output	Code	WO12345678
	Type	PickingLine
	Customer	Customer
	Aisle	1
	Slot	A
	Position	02
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC number
	StockCounting	2

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Stock	10

Picking Line (Declare Exception)

The operator can declare an exception at any point in the picking line workflow. The status returned to the host system depends on the point of the exception. For example, if an exception occurs during location validation, the status returned is 'BadLocation'. If an exception occurs during product validation with a check digit, the status is 'NoCheck'. For exceptions occurring at other sites, the status is 'Canceled'.

Voice Dialog

Device	Operator
Aisle 1	Ready
Slot A	Exception
Exception?	Yes

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345678
	Type	PickingLine
	Customer	Customer
	Aisle	1
	Slot	A
	Position	02
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC number
	OriginalServingCode	BOXES
	OriginalServingPrompt	2 boxes
	OriginalServingQuantity	2
	OriginalUnitsFormat	6

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	BadLocation
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18

Picking Line (Place in Containers)

A Picking Line can be configured to indicate where the quantity should be deposited. In this case, the system provides information about the available containers along with their validation method, which can be done by saying the CD using the voice, scanning the BarcodeCD, or simply saying 'Ready' if neither is available. Additionally, this configuration allows specifying an alternative quantity and a unit quantity.

In case there are no validation method, the field CD in the response will be null.

Voice Dialog

Device	Operator
Picking line 1	Ready
Aisle 2	Ready
Slot A	Ready
Position 03	Ready
Item number?	111
Pick 3 boxes	3 Ready
Place 2 in 1	Ready
Place 1 in 2	Ready

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767

Output	Code	WO12345678
	Type	PickingLine
	Message	Picking line 1
	Customer	Customer
	Aisle	1
	Slot	A
	Position	02
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC number
	OriginalServingCode	BOXES
	OriginalServingPrompt	2 boxes
	OriginalServingQuantity	2
	OriginalUnitsFormat	6
	Containers	Code:001,002 Quanity2,1

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Finished Containers	Code:110,002 Quanity:2,1 ValidationCode:123,456

Picking Line (Reverse Pick)

The operator can perform the preparation in a reverse mode. This allows the operator to start from the last picking line we have before changing the type of work.

This command is available only at the start of the picking line (before validating the location).

This command has different behaviors depending on the behavior used, Continuous or Batch

Continuous

A new status called "ReversePicking" is sent so that the WMS knows to send the following lines in reverse mode.

Voice Dialog

Device	Operator
Picking line 1	Ready
Aisle 2	Reverse pick
Reverse pick, correct?	Yes
Picking line 3	Ready

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767

Output	Code	WO12345678
	Type	PickingLine
	Message	Picking line 1
	Customer	Customer
	Aisle	2
	Slot	A
	Position	02
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC number
	OriginalServingCode	Pallet
	OriginalServingPrompt	1 pallet
	OriginalServingQuantity	1
	OriginalUnitsFormat	100

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	ReversePicking
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Picked	Null
	ServingCode	Pallet

Batch

It goes to the last PickingLine before switching the type of work. When the operator confirms the line, it goes to the previous one until the PickingLine where the operator said the command is reached. The operator needs to confirm this one too.

> **NOTE**
> If Reverse Pick is already active, the command is disabled until the next work batch.

Voice Dialog

Device	Operator
Picking line 1	Ready
Aisle 2	Reverse pick
Reverse pick, correct?	Yes
Picking line 2	Ready
Aisle 2	Ready
Slot B	Ready
02	123
2 pallets	2 Ready
Picking line 1	Ready
Slot A	Ready
02	123
1 pallet	1 Ready

Data Integration

Request:

GetWorkOrder

Input	Operator	7767

GetWorkOrder		
Output	Code	WO12345678
	Type	PickingLine
	Message	Picking line 1
	Customer	Customer
	Aisle	2
	Slot	A
	Position	02
	CD	123
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC number
	OriginalServingCode	Pallet
	OriginalServingPrompt	1 pallet
	OriginalServingQuantity	1
	OriginalUnitsFormat	100
	Code	WO12345679
	Type	PickingLine
	Message	Picking line 2
	Customer	Customer
	Aisle	2
	Slot	B
	Position	02
	CD	123
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC Number
	OriginalServingCode	Pallet
	OriginalServingPrompt	2 pallets
	OriginalServingQuantity	2
	OriginalUnitsFormat	200

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345679
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Picked	2
	ServingCode	Pallets

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:12:20
	Finished	12/04/2024 10:12:58
	Picked	1
	ServingCode	Pallets

Picking Line (Shortage Location)

When the operator needs to validate the ProductCDs, but the location is empty, the operator can validate through the location CD. If the system confirms that the operator says the location CD instead of one of the ProductCDs will ask the operator if this is a shortage.

If 'yes' the device sends a status 'Empty' so that the WMS knows that the location is empty.

If 'no' the dialog will ask again for the ProductCD

> **NOTE**
> This is only available when validating the ProductCDs.

> **NOTE**
> With this change, when the integration contains the CD and ProductCDs we only validate the ProductCDs

Voice Dialog

Device	Operator
Picking line 1	Ready
Aisle 2	Ready
Slot A	Ready
Position 03	Ready
Item number?	123
Is this a shortage?	Yes

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767

Output	Code	WO12345678
	Type	PickingLine
	Message	Picking line 1
	Customer	Customer
	Aisle	2
	Slot	A
	Position	Position 03
	CD	123
	ProductName	Product name
	ProductNumber	Product number
	UpcNumber	UPC number
	OriginalServingCode	Pallet
	OriginalServingPrompt	1 pallet
	OriginalServingQuantity	1
	OriginalUnitsFormat	100
	ProductCDs	111, 222, 333

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	Empty
	Started	12/04/2024 10:12:20
	Finished	12/04/2024 10:12:58
	Picked	Null

Internal Movements (Complete Replenishment Process)

The InternalMovement task supports the replenishment process through data configuration. In this scenario, the process begins by directing the operator o a source location. At this stage, the location and the product can be validated before the container is loaded.

To validate the location, the operator can use a check digit or scan the barcode value. If neither the value is available, the operator can confirm the location with a 'Ready'. Additionally, the operator has the option to skip the aisle or slot if needed.

The product is pronounced and validated by entering one of the digits specified in the ProductCDs fields, scanning it, or confirm with 'Ready' if ProductCDs does not have any value.

Once the container is loaded, the operator is guided to the destination location, which can be validated in the same way as the source location. Finally, a confirmation message prompts the operator to confirm the placement of the container.

Throughout the internal movement process, the operate can take a break or declare an exception if necessary, or refresh the information about their current task using any of the following commands:

- Cancel the task using the command EXCEPTION. This refers to a problem that prevents the task from being prepared, either at this moments or in the future.
- Take a break using the command TAKE A BREAK.
- A command to remember their location (LOCATION).
- A command to request information about the product description (DESCRIPTION).
- A command to request information about the product number (PRODUCT NUMBER).
- A command to request information about the UPC description (UPC NUMBER).
- A command for requesting the number of pending lines (HOW MUCH MORE)

Voice Dialog

Device	Operator
Aisle 1	Ready
Slot A	Ready
01	123 Ready
HEPA Filter 2 pack	
Item number?	789 Ready
Take container 123456. To continue, say Ready	Ready
Aisle 2	Ready
Slot B	Ready
1	456 Ready
Place the container. To continue say Ready	Ready

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767

Output	Code	1.1
	Type	InternalMovement
	canSkipAisle	true
	SourceAisle	1
	SourcePosition	1
	SourceSlot	A
	SourceCD	123
	DestinationAisle	2
	DestinationPosition	1
	DestinationSlot	B
	DestinationCD	456
	SpeakSourceProductName	true
	ValidateSourceProduct	true
	ProductName	HEPA Filter 2 pack
	ProductNumber	083820124026
	UPCNumber	083820124026
	ProductCDs	[123, 456, 789]
	ContainerCode	123456

Response:

The response is formatted and converted into a SetWorkOrder request.

SetWorkOrder	
Input	Operator	7767
	Device	111111
	Code	1.1
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Status	OK

Internal Movements (Partial Replenishment Process)

This process begins in the same way as complete replenishment, but the operator will put some quantity somewhere before going to the destination, which can be the source location or somewhere else, depending on the destination location value.

The quantity can be checked against any existing tolerances if exists.

Voice Dialog

Device	Operator
Aisle 1	Ready
Slot A	Ready
01	123 Ready
Take container 123456. To continue, say Ready	Ready
Aisle 2	Ready
Slot B	Ready
1	456 Ready
HEPA Filter 2 pack	789 Ready
Item number?	
Put 4 boxes	4
Aisle 1	Ready
Slot A	Ready
1	456 Ready
Place the container. To continue say Ready	Ready

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	1.1
	Type	InternalMovement
	canSkipAisle	true
	SourceAisle	1
	SourcePosition	1
	SourceSlot	A
	SourceCD	123
	DepositAisle	2
	DepositPosition	1
	DepositSlot	B
	DepositCD	456
	DestinationAisle	1
	DestinationPosition	1
	DestinationSlot	A
	DestinationCD	123
	SpeakDepositProductName	true
	ValidateDepositProduct	true
	ProductName	HEPA Filter 2 pack
	ProductNumber	083820124026
	UPCNumber	083820124026
	ProductCDs	[123, 456, 789]
	ContainerCode	123456
	Prompt	Put 4 boxes
	Quantity	4
	UpperTolerance	50.0
	LowerTolerance	50.0

Response:

The response is formatted and converted into a SetWorkOrder request.

SetWorkOrder		
Input	Operator	7767
	Device	111111
	Code	1.1
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Status	OK
	QuantityPut	4

Internal Movements (Put-Away)

In the put-away process, the source location is not provided because the container codes (SSCC or LPN) are selected using a SelectWorkIDs task.

Voice Dialog (for SelectWorkIDs)

Device	Operator
LPN?	12345 Ready
12345?	Yes
LPN?	6789 Ready
6789?	Yes
LPN?	No more (VCOMMAND17)
No more?	Yes

Data Integration (Input properties for SelectWorkIDs)

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	1.0
	Type	SelectWorkIDs
	Message	LPN?

Response SelectWorkIDs:

The response is formatted and converted into a SetWorkOrder request.

SetWorkOrder		
Input	Operator	7767
	Device	111111
	Code	1.0
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Status	OK
	SelectedWorkIDs	["12345", "6789"]

Voice Dialog

Device	Operator
Take the container 123456. To continue say Ready	Ready
Aisle 2	Ready
Slot B	Ready
1	456 Ready
Place the container. To continue say Ready	Ready

Data integration

Request:

GetWorkOrder		
Input	Operator	7767

Output	Code	1.1
	Type	InternalMovement
	DestinationAisle	2
	DestinationPosition	1
	DestinationSlot	B
	DestinationCD	456
	ProductName	HEPA Filter 2 pack
	ProductNumber	083820124026
	UPCNumber	083820124026
	ContainerCode	123456

Response:

The response is formatted and converted into a SetWorkOrder request.

SetWorkOrder		
Input	Operator	7767
	Device	111111
	Code	1.1
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Status	OK

Internal Movements (Replenishment and Put-Away)

We can combine the replenishment process with the put-away process by specifying a quantity to deposit and a destination. As in the previous example, the process begins by selecting the LPN or SSCC using the SelectWorkIDs task

Voice Dialog (for SelectWorkIDs)

Device	Operator
LPN?	12345 Ready
12345?	Yes
LPN?	6789 Ready
6789?	Yes
LPN?	No more (VCOMMAND17)
No more?	Yes

Data Integration (Input Properties for SelectWorkIDs)

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	1.0
	Type	SelectWorkIDs
	Message	LPN?

Response SelectWorkIDs:

The response is formatted and converted into a *SetWorkOrder* request.

SetWorkOrder		
Input	Operator	7767
	Device	111111
	Code	1.1
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Status	OK
	SelectedWorkIDs	["12345", "6789"]

Voice Dialog (for SelectWorkIDs)

Device	Operator
Take the container 123456. To continue say Ready	Ready
Aisle 1	Ready
Slot A	Ready
01	123 Ready
HEPA Filter 2 pack	
Item number?	789 Ready
Put 4 boxes	4
Aisle 2	Ready
Slot B	Ready
1	456 Ready
Place the container. To continue say Ready	Ready

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	1.1
	Type	InternalMovement
	DepositAisle	1
	DepositPosition	1
	DepositSlot	A
	SourceCD	123
	DestinationAisle	2
	DestinationPosition	1
	DestinationSlot	B
	DestinationCD	456
	SpeakSourceProductName	true
	ValidateSourceProduct	true
	ProductName	HEPA Filter 2 pack
	ProductNumber	083820124026
	UPCNumber	083820124026
	ProductCDs	[123, 456, 789]
	ContainerCode	123456
	Prompt	Put 4 boxes
	Quantity	4
	UpperTolerance	50.0
	LowerTolerance	50.0

Response:

The response is formatted and converted into a SetWorkOrder request.

SetWorkOrder		
Input	Operator	7767
	Device	111111
	Code	1.1
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Status	OK
	QuantityPut	4

Take a Break

During the preparation of a line, the operators can indicate that they are going to take a break by using the corresponding command. When they do so, a flow is triggered that discards the rest of the pending work and notifies the host server via *BeginBreak*. The device speaks a message, and the operator can stop working with the terminal.

To resume work, speaking 'ready' triggers a call to *EndBreak* to notify the end of the break. If the working behavior is in continuous mode, a new *GetWorkOrder* request is made so that the operator can obtain an updated work order.

Voice Dialog

Device	Operator
Aisle 1	Take a break
Reason?	01
Break?	Yes
At break. To resume work, say ready.	Ready

Data Integration

Request:

BeginBreak		
Input	Operator	7767
	Reason	1
	Code	WO12345679
Output		

Request:

EndBreak		
Input	Operator	7767
Output		

Print Labels

The process of label printing identifies the default printer to be used. If the operator needs to select another printer, they can use the command PRINTER and choose one of the printers provided. Next, if the number of labels to print is not provided, the system prompts for it.

Voice Dialog

Device	Operator:
Printer 1, to print, say ready	Ready

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345679
	Type	PrintLabels
	DefaultPrinter	1
	Copies	2

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	LabelsToPrint	2
	Printer	1

Validate Printing

The operator validates the previous print. If the printing was not correct, a Retry status is sent in the response for the host system to act accordingly by launching the reprint. Additionally, if a set of codes to be validated is provided, the operator must read them in any order. If the number of digits to be validated is indicated, the operator only needs to read the last n digits of the label.

Voice Dialog

Device	Operator
Correct printing?	Yes
Validate labels	
Remain 2	45
Remain 1	78
Completed	

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345679
	Type	ValidatePrinting
	ValidationCodes	12345|45678
	VoiceLength	2

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	ReadLabels	12345|45678

> **NOTE**
>
> If the operator wants to cancel, the work before validating the codes provided, the user can do this by using the command **Cancel**. This sends the status *Cancelled* in the response.
>
> If the operator wants to cancel the work during the validation of the codes provided, the user can do so by using the command **No More**. This sends a status *OK* but with the field "ReadLables" partially complete.

The dialog examples for these two cases are shown below.

Cancel Before Validating Labels

Voice Dialog

Device	Operator
Correct printing?	Cancel
Cancel correct?	Yes

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345679
	Type	ValidatePrinting
	ValidationCodes	12345|45678
	VoiceLength	2

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	Cancelled
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	ReadLabels	

Cancel During Validating Labels

Voice Dialog

Device	Operator
Correct printing?	Cancel
Validate labels	
Remain 2	345
Remain 1	No more
No more, correct?	Yes

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345679
	Type	ValidatePrinting
	ValidationCodes	12345|45678
	VoiceLength	2

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	ReadLabels	345

Place In Dock

The system guides the operator to deposit the labeled merchandise. If the system indicates a destination, it asks for a control digit to confirm that it is being deposited at the indicated place. Otherwise, it is up to the operator to decide where to leave the merchandise. In any case, the response always informs where the merchandise was placed.

Voice Dialog

Device	Operator
Place in dock	
Dock 02	123

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345679
	Type	PlaceInDock
	Dock	02
	CD	123
	BarcodeCD	12345678

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18
	Dock	02

Work Order (End Picking Order) (Deprecated)

The task type *EndPickingOrder* indicates the completion of the work and can be spoken to the operator with a message to confirm. In case of message, the message is prompted to the operator. Then the completion of the work is reported to the server.

> **IMPORTANT**
> This task is deprecated and will no longer be supported in future versions. Please use the *EndOrder* task instead.

Voice Dialog

Device	Operator
Picking complete	Ready

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345679
	Message	Picking complete
	Type	EndPickingOrder

Response:

The response is formatted and converted into a SetWorkOrder request.

SetWorkOrder		
Input	Operator	7767
	Code	WO12345677
	Status	Ok
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:10:18

Work Order (End Order)

The task type *EndOrder* indicates the completion of the work and can be spoken to the operator with a message to confirm. In case of message, the message is prompted to the operator. Then the completion of the work is reported to the server.

> **IMPORTANT**
> This task is deprecated and will no longer be supported in future versions. Please use the *EndOrder* task instead.

Voice Dialog

Device	Operator
Picking complete	Ready

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345679
	Message	Picking complete
	Type	EndOrder

Response:

The response is formatted and converted into a SetWorkOrder request.

SetWorkOrder		
Input	Operator	7767
	Code	WO12345677
	Status	Ok
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:10:18

Ask a Question

The ask question work is used to ask an operator a question. If the operator responds "Yes", the status returned is OK. If the operator responds No or Cancel, the result status is Canceled.

Voice Dialog

Device	Operator
Can you prepare this line?	Yes

Data Integration

Request:

GetWorkOrder		
Input	Operator	7767
Output	Code	WO12345679
	Type	AskQuestion
	Message	Can you prepare this line?

Response:

SetWorkOrder		
Input	Operator	7767
	Code	WO12345678
	Status	OK
	Started	12/04/2024 10:10:15
	Finished	12/04/2024 10:12:18

Sign Off

When the operator says sign off command ('sign off', sign off now' or the any other specified command), a request is made to the system to validate and register the sign off.

Several situations are considered where the system could or should deny the exit. For example, if the operator is to deposit merchandise, the sign off result must be not allowed. A message would indicate that the operator must deposit the merchandise at the dock before signing off. Another case could be when trying to sign off during a break as the operator must first register the end of the break.

Voice Dialog

Device	Operator
2 boxes	Sign off
Sign off?	Yes
Sign off not allowed. Pending lines	
2 boxes	

Data Integration

Request:

GetOperatorExit		
Input	Operator	7767
Output	Allowed	0
	Message	Sign off not allowed. Pending lines

GWS INSIGHTS

GWS Insights captures data about how the worker interacts with the Guided Work solution and sends this data to Honeywell Forge Performance[+] for Guided Work or another configured third-party solution (by using OpenTelemetry standard). Data is represented as time spans and may include related information as well as other events that occurred during that time span.

Events

In the GWS Picking Workflow Plug-In the events that are collected as spans are:

Event	Description
Assignment	Collected information about the Picking work code and how long the Picking work was.
Travel	Collected information about the aisle, slot, and position to reach and how long the travel was.
Pick	Collected information about quantity picked and how long the pick was.
Break	Collected information about how long the break was.
Delivery	Collected information about the dock and how long the delivery was.

Some events will be represented inside other spans, these events are:

Event	Description
Skip	Attached to the Travel event when the slot is skipped.
SkipAisle	Attached to the Travel event when the aisle is skipped.

Event	Description
Shortage	Attached to the Pick event when the quantity picked is less than requested.
ContainerFull	Attached to the pick even when the quantity picked is less than requested because the container is full.
Put	Collected information about placing goods and how long the process was.
Load	Collected information about the process of loading a container.
Select Work	Collected information about the process of indicating a series of data to indicate what work is going to do, like orders or containers.

For more information about this feature, please refer to the *Guided Work Solutions Developer Guide*.

Configuring GWS Insights

To configure this feature in GWS App, use the following parameters:

- **WorkflowEnabled**: Enables workflow events to be tracked.
- **TCPCommsEnabled**: Enables TCP communications with GWS Service to be tracked.
- **MethodCallsEnabled**: Enables Behavior method calls to be tracked
- **ReportingEnabled**: Enables reporting to endpoints.
- **ReportingDelaySeconds**: Specify sending of information every X seconds.
- **ReportingMaxBatchSize**: Specify max. number of events sent at once.
- **ReportingHoneywellEndpoint**: Url pointing to Honeywell Forge Performance[+] for Guided Work collector. Used when configuring Android devices.
- **ReportingHoneywellHeaders**: Optional headers to be sent with requests to Honeywell Forge Performance[+] for Guided Work collector. Used when configuring Android devices.
- **ReportingHoneywellHubNamespace**: Namespace for Honeywell Forge Performance[+] for Guided Work collector hub. Used when configuring a VoiceConsole Task Package.
- **ReportingHoneywellHubName**: Name for Honeywell Forge Performance[+] for Guided Work collector hub. Used when configuring a VoiceConsole Task Package.
- **ReportingHoneywellTenantId**: Tenant identifier for Honeywell Forge Performance[+] for Guided Work collector hub. Use it when configuring on a VoiceConsole Task Package.

- **ReportingHoneywellClientId**: Client identifier for Honeywell Forge Performance[+] for Guided Work collector hub. Used when configuring a VoiceConsole Task Package.

- **ReportingHoneywellClientSecret**: Client secret for Honeywell Forge Performance[+] for Guided Work collector hub. Used when configuring a VoiceConsole Task Package.

- **ReportingOTLPEndpoint**: An OpenTelemetry Protocol Endpoint for third-party services.

- **ReportingOTLPHeaders**: Optional headers sent along with telemetry data.

- **SiteName**: Optional name for site classification.

For Android devices, provide a OneTimeStartup.config file declaring the GWSInsights repository. Below is a sample structure for the OneTimeStartupSetting.config:

```
{
  "Repositories": {
    "GWSInsights": {
      "WorkflowEnabled": "true",
      …
    }
  }
}
```

When creating Task Packages within VoiceConsole declare parameters using the **Advanced Settings** on the **Device Settings** tab of the task package, adding the following format: 'AdditionalParam_Insights_<parameter>=<value>'

```
AdditionalParam_Inights_WorkflowEnabled=true
AdditionalParam_Inights_TCPCommsEnabled=true
AdditionalParam_Inights_ReportingEnabled=true
AdditionalParam_Inights_ReportingDelaySeconds=5
AdditionalParam_Inights_ReportingMaxBatchSize=100
```

Using GWS Service as a Proxy

In the implementation scenario where devices running the GWS App are not allowed to perform requests via the Internet, insights can be routed through the GWS Service to the destination.

To use the GWS Service as a proxy:

- In GWS App: use the *ReportingOTLPEndpoint* setting to specify the address for the GWS Service web endpoint, for example: http://myserver:8090

- In GWS Service: include the following configuration in the config file:

```
<insights forwardingUrl="">
  <forwardingHeaders>
    <add name="" value="" />
  </forwardingHeaders>
</insights>
```

Where *forwardingUrl* is the target destination for requests coming from devices and *forwardingHeaders* are a collection of headers to be added to those proxied requests. This provides authorization tokens for the remote service in just one place, instead of setting this information in the GWS App for every device.

Once this feature is enabled, the service listens for connections to a specific endpoint. In the above example: http://myserver:8090/v1/traces.

> **IMPORTANT**
> GWS Service exposes its proxy endpoint as part of its Web Environment (by default using the port 8090), which does not have the capability for enabling secure communications. To achieve that, the GWS Service Web Environment must be placed behind a Reverse Proxy. Please review Appendix B of the *Guided Work Solutions Developer Guide* for a sample procedure to enable this scenario.

VOICE COMMANDS

Command	Display Value	Spoken Value	Description
VCOMMAND01	Exception	exception	Declare an exception in picking line workflow.
VCOMMAND02	Dock	dock	Start the process of depositing the pallet in loading area.
VCOMMAND03	Take a break	take a break	Start a break.
VCOMMAND04	Skip slot	skip slot	Skip current slot.
VCOMMAND05	Printer	printer	Select printer.
VCOMMAND06	How much more	how much more	Speak how many lines are left.
VCOMMAND07	Location	location	Speak current location.
VCOMMAND08	Description	description	Speak current product description.
VCOMMAND09	Cancel	cancel	Cancel current picking line.
VCOMMAND10	Breakage	breakage	Declare a breakage.
VCOMMAND11	Store number	store number	Speak current store number.
VCOMMAND12	Change unit of measure	change unit of measure	Change the unit of measure of current picking line.
VCOMMAND13	Units	units	Pick in units.

Command	Display Value	Spoken Value	Description
VCOMMAND14	Skip aisle	skip aisle	Skip current aisle.
VCOMMAND15	Product number	product number	Speak current product number.
VCOMMAND16	Upc number	upc number	Speak current product UPC number.
VCOMMAND17	No more	nomore	Indicates the stop selection in the SelectWorkIDs task.
VCOMMAND18	Reverse picking	reverse picking	Indicates when the pciking line should operate in reverse mode.

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