

Entersoft WMS 5.5.0.0

Entersoft Business Suite® | Entersoft CRM® | Entersoft WMS®

New features and extensions

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Brief description of version contents

A summary of the main version features. Next up, the full new features & improvements catalog is broken down per category, along with the use of instructions & examples, as appropriate.

Entersoft WMS Back Office

- User software licenses check
- Simplified barcode configuration (pre-processing) and extensions to the resolving process
- Improved performance of the Actions by item view
- Improved performance of the container integrity check process
- Additional restrictions to data modifications of Shipping orders

Entersoft WMS Mobile

- Receipt of nested containers
- Extension of the Collective picking sorting with target container declaration
- Improvements in Collective picking sorting
- Extension to Real time collection - picking request fulfillment based on SSCC container
- Expansion to Bulk item movement to WH
- Extension to the update mechanism of the Operation entry for processes based on item request (IMP-25949)
- Canceling the 2nd cross-docking step
- Improved Real time collection for bulk stock

Entersoft WMS Touch

- Receipt station: adjusted search fields in touch functionality
- Receipt station: Identifying a lot with a GS1 barcode
- Receipt station: fixed item search field, fixed receipt quantity, and auto-creation of new container
- Receipt station: auto-create container and receipt container declaration check
- Receipt station: improved the process of creating a new container from an SSCC scan
- Packing station: display quantity confirmation screen when selecting item request
- Packing station: extension to the package type confirmation screen
- Packing station: repackaging before packing
- Packing station: extension to entering Surplus for multi-company facilities
- Packing station: ability to identify an item from a lot barcode

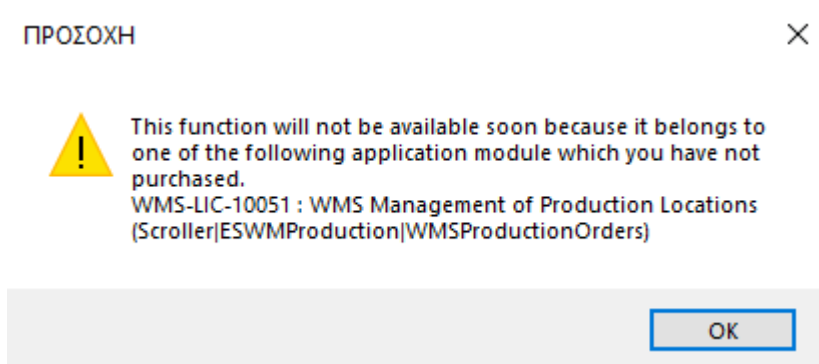
1. WMS Back Office extensions

1.1 User software licenses check

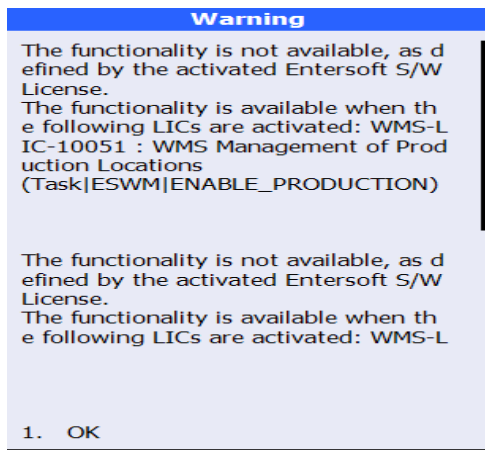
In this version, the check mechanism has been enabled for the installed user software licenses in the Back office, Mobile & Touch applications of Entersoft WMS.

The check function, for the time being and until the September 2023 version will remain at a **warning** level. Practically, if the user calls a feature that is not enabled in the installation, they shall receive a warning message (with the full details).

The user can continue the process normally by selecting OK. The next time the same function is called, the same message will not occur again, unless the server is restarted.



For the RF, the resulting message is an error message, but by pressing ESC the flow continues normally. Once the user receives the error for a specific option once, they will not receive it again, unless they log out/log in to the application.



1.2 Configuration of the pre-processing process & resolving mechanism

A series of extensions were made to simplify the configuration required to resolve item barcodes, mainly regarding the pre-processing process. These extensions also aim to resolve barcodes based on the GS1 standard, without any configuration required by the implementers.

1.2.1 New GS1 configuration screen

In the application menu:

[Configuration > Warehouse Items > GS1 Configuration](#)

A new screen has been added, displaying the data stored in the ESGS1Config.xml file in application folder ..\ESConfig. In addition, user convenience is provided regarding the integration of additional application identifiers at an installation level.

On the occasion of the new screen, let's recall the screen fields (and the file, by extension):

- ID: the Application Identifier according to the GS1 standard
- Barcode data type: it accepts two values - 0 - numeric, 1 - alphanumeric. Refers to the type of characters allowed in the barcode (see example below)
- Length: concerns the length of barcode digits
- Variable length: yes/no
- Column name: according to the GS1 standard
- Value type: string/date/numeric/numericdecimalpoint

For example, the SSCC field has the info displayed in the following screenshot:

ations ▾ Actions ▾  

Stock items - GS1 Configuration

	Identifier	Barcode data type	Length	Variable Length	Column name	
1	00	Numeric	18	No	SSCC	String

Note that the Barcode data type field has value 0 - numeric, while the Value type is String.

The entries that appear on this screen are those contained in the ESGS1Config.xml file - the fields, that is, that the application supports by default. If, at an installation level, the file needs to be enriched with a new Application Identifier ([based on the GS1 standard or not](#)), then it is recommended to do it from this specific screen.

1.2.2 Barcode separation character

Based on the applicable functionality, the barcode separation character for variable length barcodes (FNC1 according to the GS1 standard) is specified at company parameter:

["Barcode separation character" | WMS_FNC1](#)

and has character "=" as a default value.

This default configuration requires, in most cases, additional device configuration, so that resolving can be done properly.

The extension made to the current version aims to minimize the requirement of additional device configuration. Specifically, a new company parameter was added:

[Parameter type "Barcode separation character" | WMS_FNC1_ParamType](#)

with the following available values: Character, ASCII character no.

For reasons of compatibility with the current installations, the default value of the new parameter is “Character”, referred to in the “=” of parameter “Barcode separation character”.

It is recommended to change the parameter value Parameter type "Barcode separation character" to "ASCII character no" and the parameter value “Barcode separation character” to "29". This configuration does not require additional configuration for the majority of the devices on the market.

1.2.3 Auto-integrate the GS1 standard into the pre-processing process

This extension essentially eliminates the use of pre-processing scripts in the case of GS1 barcodes. The resolving mechanism has been extended to [always](#) check when scanning a barcode, whether it meets the GS1 standard, based on what is designated at the GS1 configuration screen.

If custom implementation is required (except GS1), the pre-processing script technique should be used. However, the script no longer requires managing the GS1 barcodes (starts with 01 & 02). Recording the differentiation is sufficient.

If a pre-processing script is already used in an installation, it does not need to be changed. If there is, then it is always given priority.

As far as the post-processing script is concerned, there is no extension. All that needs to be emphasized is that, if an Identifier (that should be assigned to a specific field of the action item) is added as custom in the GS1 configuration, then the post-processing script should also be extended as custom. This also applies to the existing functionality.

1.3 Performance improvements

In this version, there was a significant improvement to the “Actions by item” view in terms of performance.

[Menu](#) > [Overview](#) > [Actions by item](#)

It is recommended to update the custom implementations in existing installations, as a significant improvement in the response time of the view is expected, especially when no specific criteria are used or the date range is too large.

In particular, the extension is very simple and can be done on any custom implementation. Simply add a new parameter to the view (not visible) with the name ES_EOSQL and default value "option(Recompile)":

29	Sorting container SSCC	String	Sorting container SSCC
30	ES_EOSQL	String	option(Recompile)

and add the corresponding column / expression with the parameter (the column must be visible):

Column - Expression

Title EOSQL

Name in filter EOSQL

Acts as

Type String

Fields ▾

Parameters ▾

Sub-filters ▾

Descriptions ▾

1

{@ES_EOSQL}

In regard to performance, apart from the actions by item, the container integrity check process was additionally improved. No further action is needed in terms of implementation.

1.4 Additional modification prohibitions for SO fields

A phenomenon has been observed, when users are modifying fields of SO-type documents, such as e.g. the trade account and date of issue, when these have been completed (meaning, loaded or canceled). These are handling errors, for which protection by the application has been requested.

In this context, the [Shipment configuration](#) process in the configuration wizard in the Depositors has been enriched with the ability to Prohibiting SO data modification, namely the Trade account and the Issued on date.

Shipment configuration

Shipment documents - configuration

Select sales orders

ΠΔΣ

...

Copy series to SHO/SHC from:

ΠΔΣ

...

Do not allow modification of SO details

All

☒ All
☒ Trade account
☒ Issued on

Previous

Next

Accept

Cancel

This process essentially adds the extra fields to the additional prohibitions of the Access privileges profile.

If you wish to prohibit the modification of extra SO fields, then you should do so again through the Access privileges profile

[Configuration > Documents and Series > Access privileges profile for documents](#)

In the additional prohibitions:

WMS Administrators-WMS Admini...

mations

Actions

?

Additional restrictions

Code

WMS Administrators

Description

WMS Administrators

Alternative description

NULL

Company

001

Inactive

☐

Restrictions exceeded

	User group	Data category	Field name	Administrators
1	WMS BO Admin	Informative data		☒
2	WMS BO User	Informative data		☒
*				

Additional restrictions

	User group	Data category	Field name	Condition script
1	WMS BO Admin	Official identification data	(Trade acco...	eslufk("IADDocumentTypeID";"Code")="EAP"
2	WMS BO User	Official identification data	(Trade acco...	eslufk("IADDocumentTypeID";"Code")="EAP"
*				

2. WMS Mobile extensions

2.1 Package receipt in pallet (nested containers)

In menu:

[1. IMPORTS](#) > [1. RECEIPT](#) > [3. MIXED CONTAINER WITH PACKAGES](#)

the ability was added to receive nested containers (package to pallet [only](#)), in correspondence with the Direct import.

In the outer container, scan the pallet SSCC (or create a new one) and then scan or create the package SSCC for one or more items.

Receipt requests WPRCPT-00320	Receipt requests	Receipt requests WPRCPT-00320
1. CONTAINER	LOCATION: RIN.02	LOCATION: RIN.02
2. MIXED CONTAINER	Outer Container SSCC	SSCC
3. MIXED CONTAINER WITH PACKAGES		
4. BULK		
5. CHECK PACKAGE		
6. MULTIPLE CONTAINERS		

2.2 Extensions to the Collective picking sorting

The first extension concerns the ability of designating a target SSSC in sorting, with the ability to create a new target container and print a label. The extension concerns both simultaneous sorting in the Direct picking menu, as well as independent sorting from the menu

3. ORDERS > 8. SORTING

The second extension concerns the integration of the following functionalities into the sorting flow:

- Cancel open quantity
- Change MU
- Quantity excess (if allowed in the ICP)

Sorting
WPSHIP-02146

Route: 01
SO: EAP-1-00068
Item: MAP03 - XAPTEΣ 03
Pick.Qty.: 5 TEM
rcpt.qty.: 3 TEM
Qty (TEM)
PickLocation.
SSCC:

F1:Route. | F5:Cancel | F2:Change MU | F

2.3 Direct picking – Extensions related to container picking

In the Direct picking process, available in menu

[3. ORDERS > 3. DIRECT PICKING](#)

fulfilling a picking request is now supported, based on the SSCC container scanned.

It only concerns direct picking requests (without reservation) with a hint container.

It is necessary to enable this parameter in Config.xml:

[GRPICK_ALLOW_AUTO_ITEM_SEARCH](#)

In addition, the picking location criterion was removed, which was mandatory when this parameter was enabled.

2.4 Bulk item movement to WH (except WMS)

It is now possible to bulk move items from one location or container to a WH outside WMS.

This functionality is available in menu:

[5. STOCK MOVEMENT > 3. BULK EXECUTION](#)

and requires enabling parameter: in Config.xml:

[STOCK_TRANSFER_BULK_TO_WAREHOUSE](#)

Which displays the target WH declaration field at the final screen of the bulk item movement. This process generates a WMOV-type action.



In addition, if this parameter is enabled, then even if a homogeneous container is scanned, the flow continues to request the next container, unless the user presses ESC.3

2.5 Operation entry and picking

In this version, two extensions have been implemented concerning the process of recording the duration of the picking actions (operation entry).

Initially, the recording feature was enabled in the Direct Picking process.

Secondly, it is now possible to record the picking duration based on when the user selects the picking request. It applies to all picking flows related to requests, with reservations or not. The difference is qualitative, in the sense that in addition to picking action time, the time of the idle user is also recorded. This functionality is enabled via the parameter in the Config.xml file:

[OPERATION_ENTRY_PER_REQUEST_ITEM](#)

2.6 Canceling the 2nd cross-docking step

In the 2th step cross-docking process available in menu:

[1. IMPORTS > 3. CROSS DOCKING > 3. 2nd STEP](#)

It is now possible to cancel an open request quantity by selecting FK.

2.7 Improved Direct Picking

This extension facilitates and speeds up the process of item picking outside of a container in Direct picking. By enabling the new parameter in the Config.xml file:

[GRPick_AUTOFOCUS_ITEM](#)

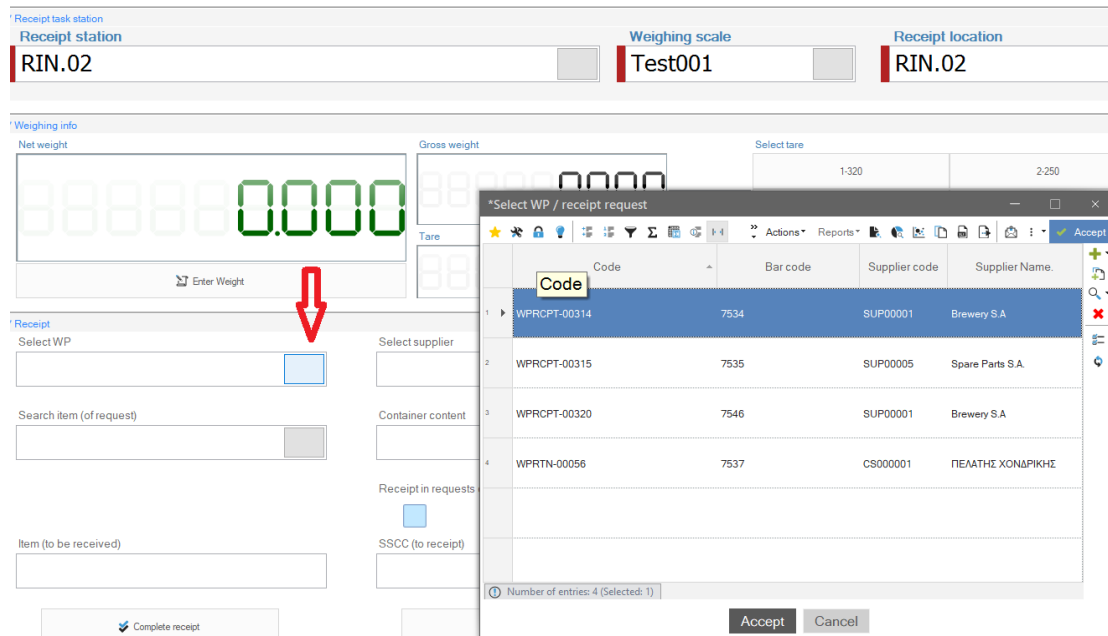
the user is right away directed to the Item field (and not the SSCC field).

3. WMS Touch applications extensions

3.1 Receipt station

3.1.1 Touch functionality in search fields

In search fields (either via F3 or Shift+F3) of the Receipt Station forms (with a weighing scale or not), buttons were added that perform the search by pressing them. This functionality serves the full touch mode, although it is also available in a keyboard environment.



The screenshot shows the 'Receipt station' form with fields for 'Receipt station' (RIN.02), 'Weighing scale' (Test001), and 'Receipt location' (RIN.02). Below these is the 'Weighing info' section with 'Net weight' (0.0000) and 'Gross weight' (0.0000). A red arrow points to the 'Enter Weight' button. To the right, a modal window titled '*Select WP / receipt request' is open, showing a table of receipt requests.

	Code	Bar code	Supplier code	Supplier Name
1	WPRCPT-00314	7534	SUP00001	Brewery S.A
2	WPRCPT-00315	7535	SUP00005	Spare Parts S.A
3	WPRCPT-00320	7546	SUP00001	Brewery S.A
4	WPRTN-00056	7537	CS000001	ΠΕΛΑΤΗΣ ΧΟΝΔΡΙΚΗΣ

Number of entries: 4 (Selected: 1)

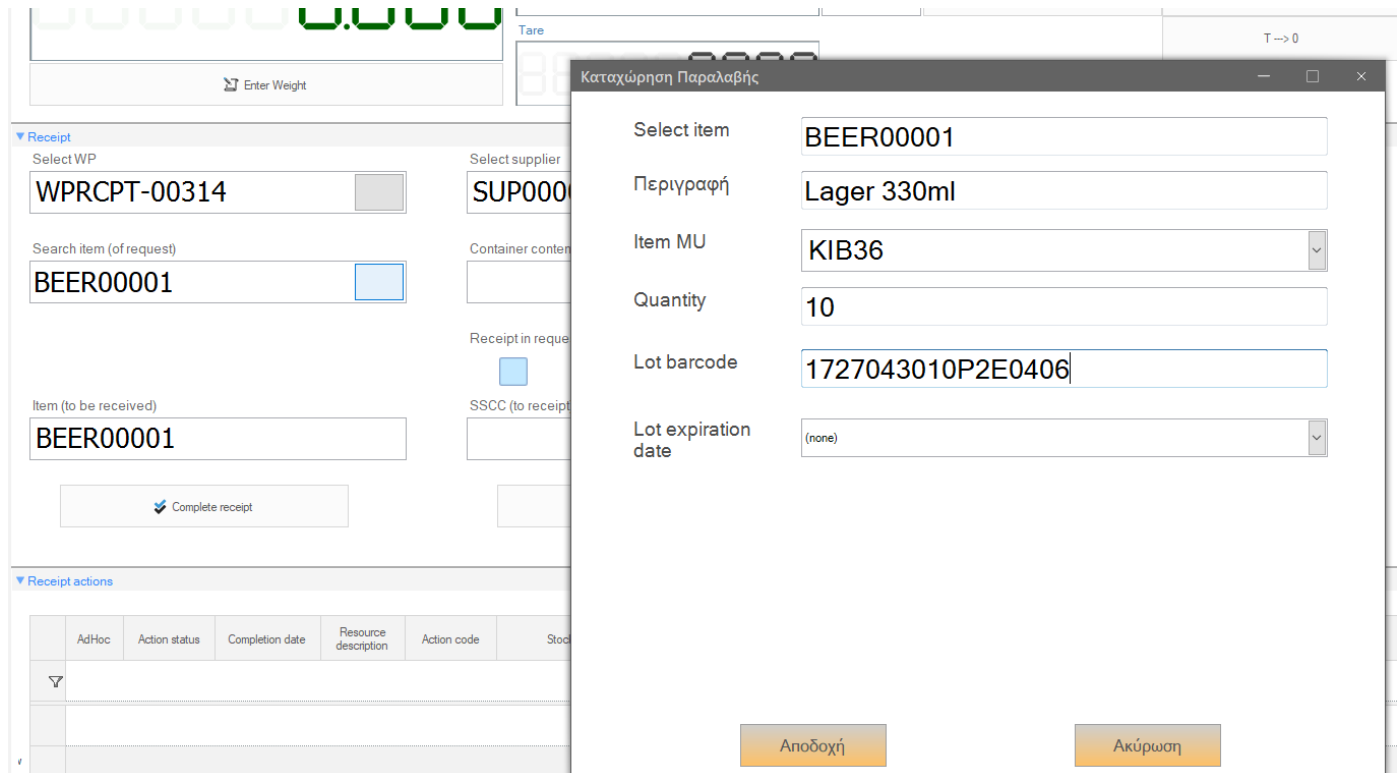
Buttons: Accept, Cancel

The extension is available in hotfix of versions 5.3.0.0 and 5.4.0.0.

3.1.2 Identifying a lot with a GS1 barcode

A lot can be identified using a GS1 barcode in the Lot barcode field, on the Receipt input screen. Keep in mind that according to the GS1 standard, the Application Identifier of the lot is 10, the barcode is alphanumeric, while the barcode length of the lot is variable, from 1 to 20 characters and separated by character FNC1, as long as it's not located at the end of the string.

If the scanned barcode identifies more lot details (such as Due date), then these are automatically assigned to the receipt action.



The screenshot shows the 'Receipt' input screen in the Entersoft WMS. A modal dialog titled 'Καταχώρηση Παραλαβής' (Receipt Registration) is open, displaying the following fields:

- Select item: BEER00001
- Περιγραφή (Description): Lager 330ml
- Item MU: KIB36
- Quantity: 10
- Lot barcode: 1727043010P2E0406
- Lot expiration date: (none)

Buttons at the bottom of the dialog are 'Αποδοχή' (Accept) and 'Ακύρωση' (Cancel). The background screen shows the 'Receipt' section with fields for 'Select WP' (WPRCPT-00314), 'Search item (of request)' (BEER00001), and 'Item (to be received)' (BEER00001). A 'Complete receipt' button is visible. Below this is a 'Receipt actions' table with columns: AdHoc, Action status, Completion date, Resource description, Action code, and Stock.

This functionality does not require configuration and is also available in Hotfix of 5.3.0.0 & 5.4.0.0.

Similarly, the control of the Item has been extended to identify the Item as long as:

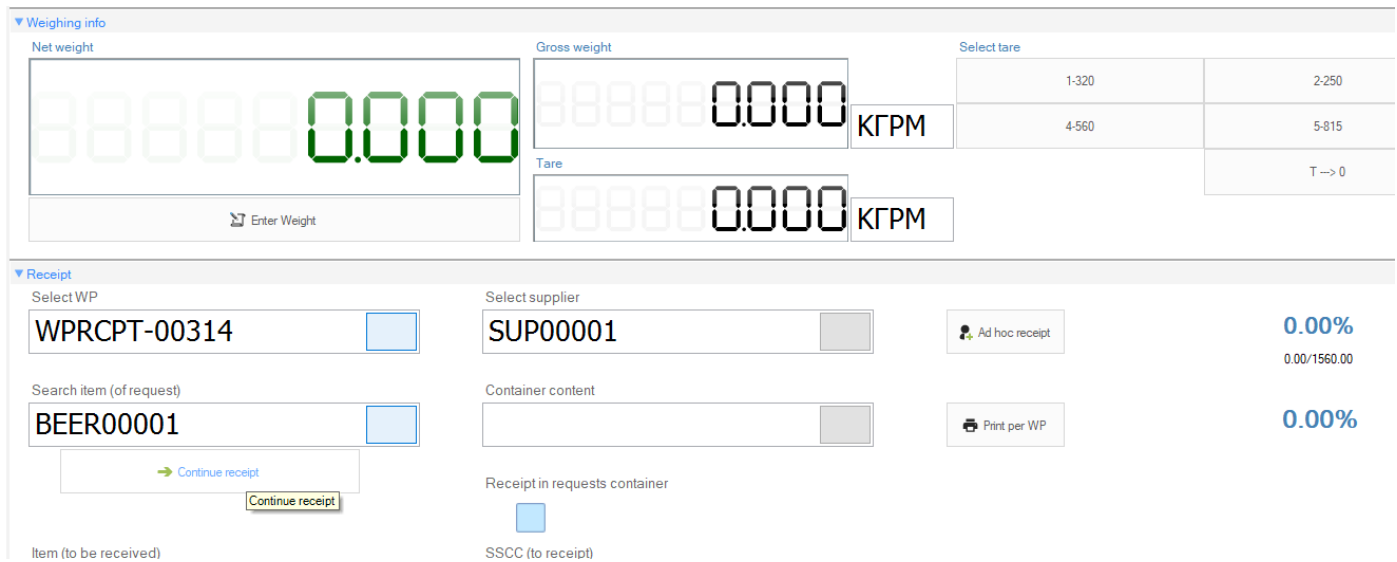
- the lot GS1 barcode is scanned and
- the argument of WMS_ITEM_INVESTIGATION_TYPE company parameter is set to:
#LotBarcode.0.E

3.1.3 Fixed field of item search

The extension serves receipts that usually include very few items in very large quantities, which are received in part. The following have been implemented:

- The Item search field after each receipt remains (is not cleared) until the user presses F3 to change item
- the receipt quantity specified the first time remains fixed, until the user changes item.

By pressing the new **Continue receipt** button, the user continues to receive the same item until the receipt is completed.



The screenshot displays the 'Weighing info' and 'Receipt' sections of the Entersoft WMS interface.

Weighing info section:

- Net weight:** A large digital display showing '0.0000' with a unit of 'KGPM'.
- Gross weight:** A digital display showing '0.0000' with a unit of 'KGPM'.
- Tare:** A digital display showing '0.0000' with a unit of 'KGPM'.
- Select tare:** A table with two columns and three rows:

1-320	2-250
4-560	5-815
T → 0	

Receipt section:

- Select WP:** A dropdown menu showing 'WPRCPT-00314'.
- Select supplier:** A dropdown menu showing 'SUP00001'.
- Search item (of request):** A dropdown menu showing 'BEER00001'.
- Container content:** A dropdown menu.
- Receipt in requests container:** A checkbox.
- SSCC (to receipt):** A text input field.
- Buttons:** 'Ad hoc receipt', 'Print per WP', and 'Continue receipt' (highlighted in yellow).
- Progress indicators:** Two progress bars showing '0.00%' completion, with values '0.00/1560.00' and '0.00%'.

This functionality (and display of the Continue receipt button) is enabled using the new parameter in ES00KioskParams file:

KEEP_SELECTED_ITEM_CODE

Note that it serves only the cases where an item is selected, not scanned.

In case the receipt occurs in a container, pressing the Continue receipt button and assigning value 1 to the new parameter in ES00KioskParams file:

CONTINUE_RECEIPT_PROCESS_NEW_SSCC_CREATION_MODE

creates a new container each time, with container type the one opened last time.

3.1.4 Auto-create receipt container and check receipt in container

To perform the receipt process faster at the Receipt station, it is now possible to set a default container type, based on which a New container is created by pressing the relevant button, without the user being required to select the container type each time.

The default container type must be only one and is set at the new parameter in ES00KioskParams file:

CONTAINER_TYPE

In order to ensure errors during receipt in container, it is now possible to check whether a container has actually been set upon receipt, by enabling the new parameter in ES00KioskParams file:

CHECK_CONTAINER_INPUT

If no container has been entered (either new or existing), then the application prohibits the selection of an item that has either been scanned or searched, therefore the receipt cannot be completed.

3.2 Packing station

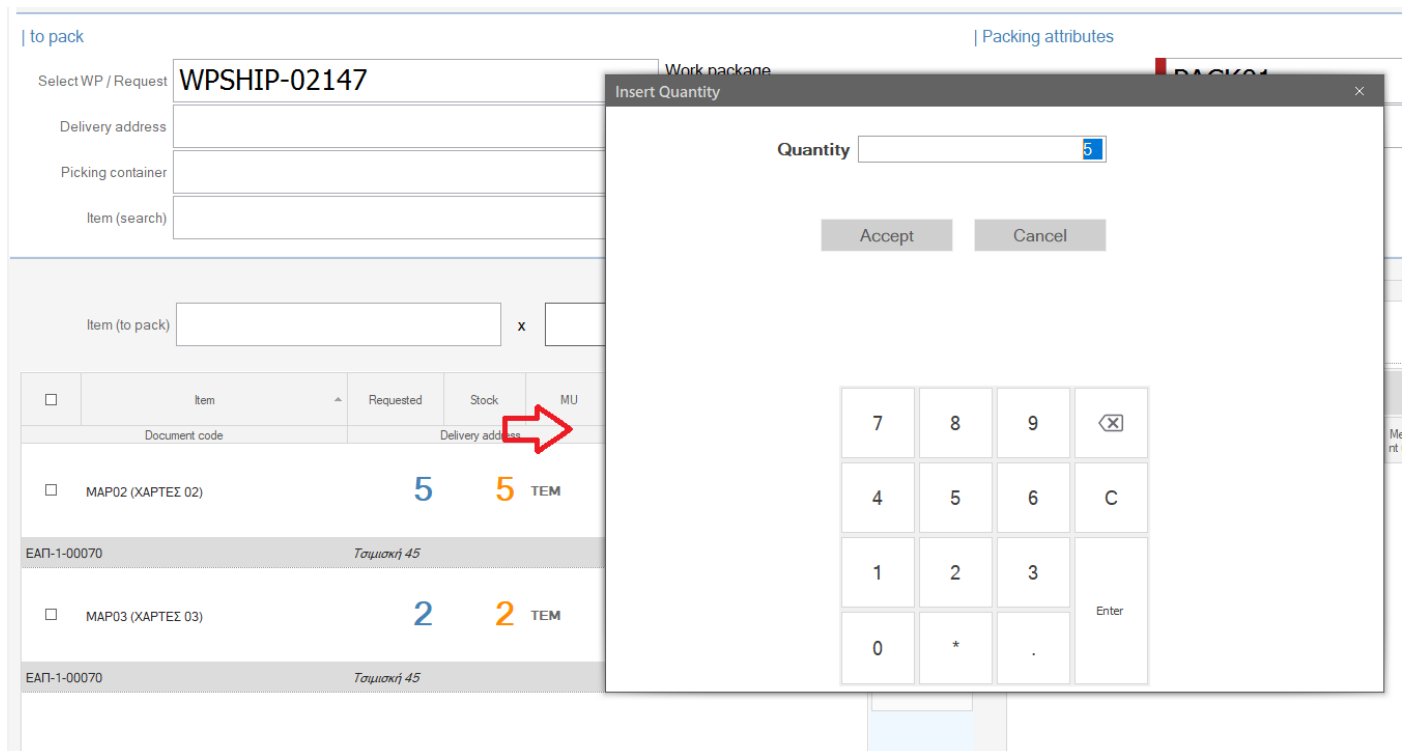
3.2.1 Item confirmation screen

The extension concerns an already existing functionality, more specifically the quantity confirmation screen being displayed, in case the parameter in the ES00KioskParams file has a value of 2:

[INPUT_QTY_DEFAULT_VALUE_BASED_ON_PACK_REQUESTS](#)

Note that in this case, when an item for packing with a quantity of requests > 1 is scanned, then a quantity confirmation screen is displayed with the total amount of item requests scanned as the default quantity.

The same solution was implemented even when an item is selected from packing requests (without any scanning).



The screenshot shows the 'to pack' screen with the following details:

- to pack** | Packing attributes
- Select WP / Request: **WPSHIP-02147**
- Delivery address: [Empty]
- Picking container: [Empty]
- Item (search): [Empty]
- Item (to pack): [Empty] x [Empty]

Item	Requested	Stock	MU
MAP02 (ΧΑΡΤΕΣ 02)	5	5	TEM
ΕΑΠ-1-00070	Ταχυοσκή 45		
MAP03 (ΧΑΡΤΕΣ 03)	2	2	TEM
ΕΑΠ-1-00070	Ταχυοσκή 45		

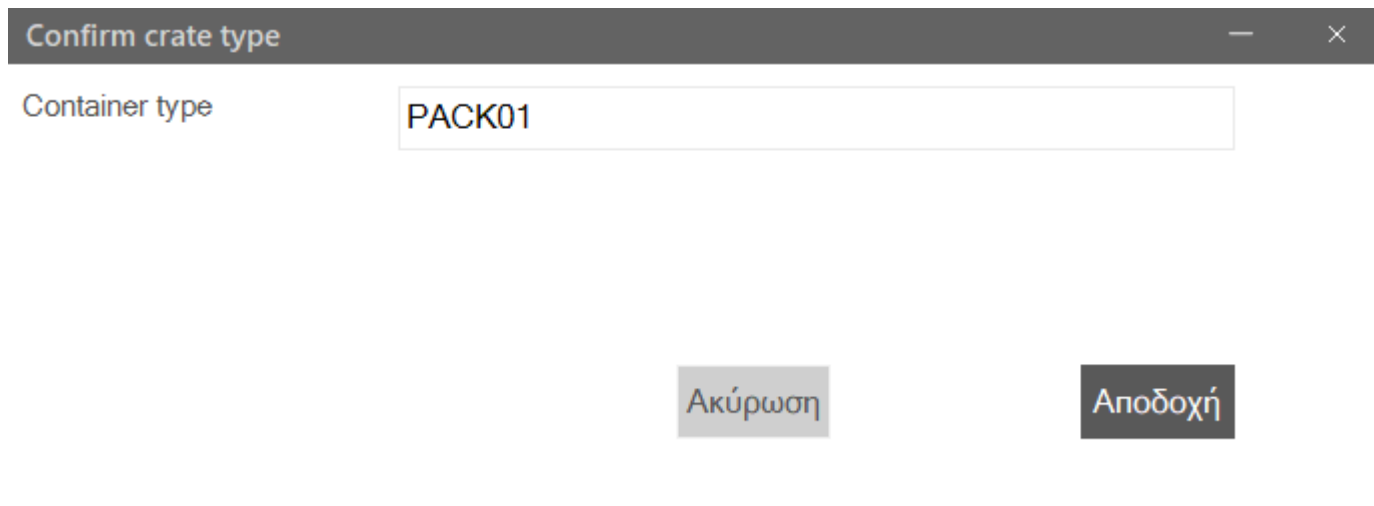
The 'Insert Quantity' dialog box is overlaid, showing:

- Quantity: 5
- Accept
- Cancel
- Numeric keypad with buttons: 7, 8, 9, 4, 5, 6, 1, 2, 3, 0, *, ., Enter, and a backspace button.

3.2.2 Improvement to the package type confirmation screen

In the package type confirmation screen, it is now possible to cancel the package selection (and, therefore, it closes) with the "Cancel" button. Keep in mind that the Package type confirmation screen is enabled with the parameter in ES00KioskParams.xml file:

[VALIDATE_PACKAGE_TYPE](#)



3.2.3 Repackaging during packing

This extension covers a special case, where the stock naturally located in the location of the packing station is in a package lower than that of the packing request's. The fact that the packing request has a different packaging to that of the physical stock usually results from the fact that the picking (part of it, or in whole) was carried out by a third system (automated) that does not have the ability to manage multiple stock packages.

In order to meet this requirement, it is necessary during the packing process to repackage the stock from the lower request measurement unit to scanned measurement unit.

The functionality described below, in the form of an example, is activated via a new parameter in ES00KioskParams.xml file:

[AUTOMATIC_REPACK](#)

For example, if there are 2 packages of 6 pieces in the packing location stock, and provided that the packing requests are as follows:

- a request with a quantity of 1 and Package as a measurement unit
- two requests with quantity of 2 and 4 respectively and Piece as a measurement unit

In the package barcode scan, the application:

- Searches, by priority, for packing requests that have a unit of measurement identical to the one being scanned (in this case, it closes the request with the Package).

If there is an excess quantity, or, in our example, in the barcode scan for the 2nd package:

- Searches for packing requests with a measurement unit of less than and equal to the ratio of the request MU and the MU being scanned (in this case, the two requests that sum up to 6 Pieces)
- It generates a packing action with the request measurement unit (pieces) as the "from" measurement unit and the measurement unit being scanned as the a "to" measurement unit, thus simultaneously repackaging into the actual measurement unit of the stock and packing.

There are some common truths about the functionality concerning the configuration of items and data resulting from picking:

- If the MU being scanned does not belong to the item hierarchy, then a relevant error message occurs.
- If there is more than one relation between the MU being scanned and the request MU, the user opens a selection screen to select the correct relation.
- If the sum of the open request quantities is not sufficient to carry out the repackaging, then an error message occurs.

3.2.4 Handling a surplus in a multi-company environment

This extension concerns an improvement of the Surplus management process in the packing station, in case of a multi-company environment, so that even if the same name is used in the surplus scripts, the process can tell which one to call, based on the Login company.

3.2.5 Extensions to the item resolver

In this version, as well as in hotfix of 5.3.0.0 & 5.4.0.0, extensions have been made to the item resolver:

- The lot is identified and assigned in the action, if a GS1 barcode is scanned (either with an Item or just a Lot)
- The lot is identified and assigned if a simple lot barcode is scanned and company parameter WMS_ITEM_INVESTIGATION_TYPE is set to argument #LotBarcode.0.E