

TRIMIT B2C ITEM RESERVATION

White Paper

This document contains information about Item Reservation functionality in TRIMIT B2C shop

Version:

- TRIMIT ConnectPortal 4.9 (CPO)
- TRIMIT Portals 2015 (PORTALS)
- TRIMIT 2015 (TRIMIT)

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INTRODUCTION

Item Reservation functionality is introduced in order to allow web shops to sell items more efficiently by not allowing customers to lock products in their baskets without ever buying them. Item Reservation concept is the same as adding to basket with the difference that items can only be in an inactive basket for a certain amount of time. After this - items can be released for other customers.

The functionality described is the functionality in **TRIMIT 2015 W1**

The pictures in this White Paper are based on the demo database for **TRIMIT 2015 W1** (based on Microsoft Dynamics NAV 2015) in the demo company **CRONUS TRIMIT 2015 W1** (based on CRONUS International Ltd. from Microsoft Dynamics NAV 2015).

COMPONENTS

Here are described the components involved in Item Reservation functionality.

The components for Item Reservation functionality are residing on the ConnectPortal side, i.e. TRIMIT is not involved into this specific Item Reservation functionality for the B2C Shop.

The components are as follows:

- Product page (B2C shop web site)
- Basket (B2C shop web site)
- **CustomData** table in CPO database (Group name *TRM-RESV*)
- **ItemInfo** schedule – schedule responsible for items availability on B2C shop
- **Item-reservation-cleanup** schedule – manage item reservations on B2C shop
- **ItemInfo-express** schedule - the same as **ItemInfo** but runs only for purchased items
- Item reservation management in soft admin

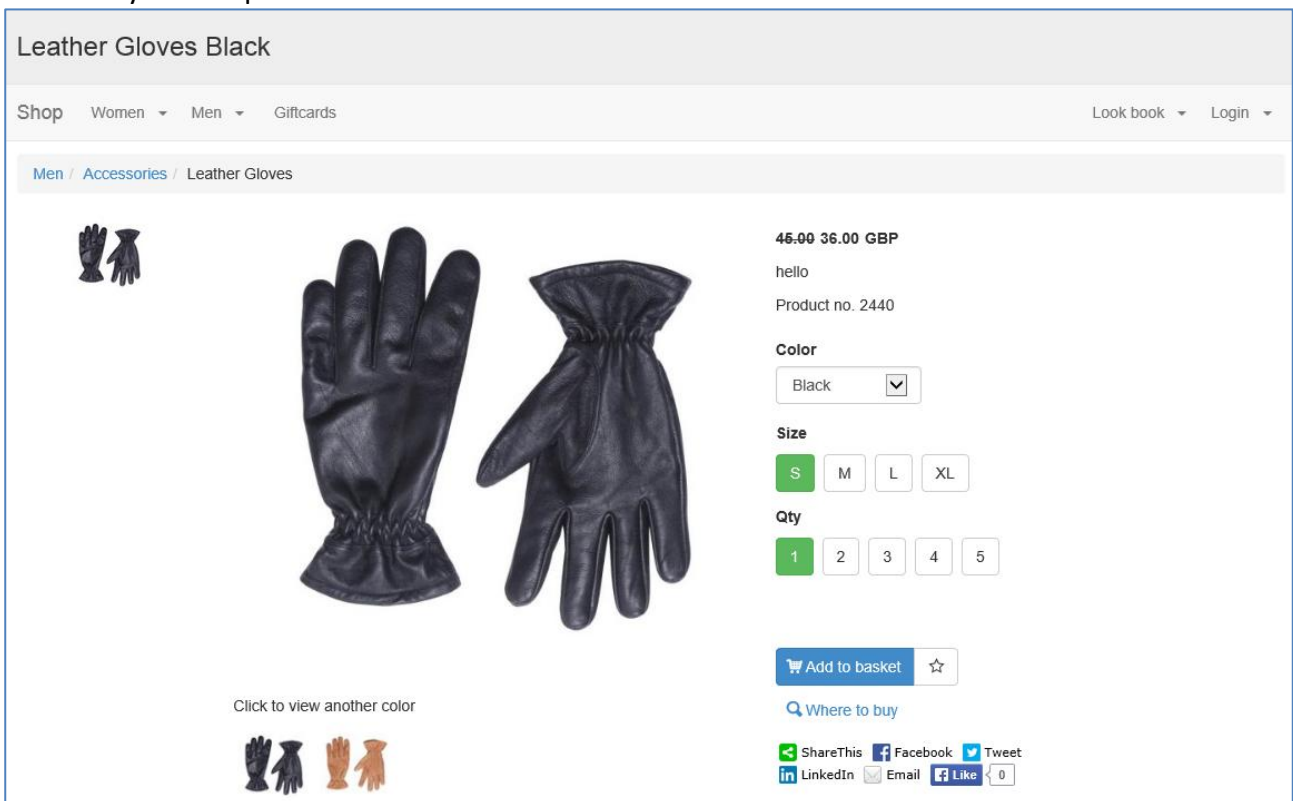
PROCESS

This chapter contains a short description regarding the overall process of Item Reservation in TRIMIT B2C shop.

The process of Item Reservation contains several stages:

- Add to basket
- Item reservation timeout warning
- Item reservation timeout
- Go to payment
- Purchased
- Schedule Item-reservation-cleanup run
- Schedule ItemInfo-express run

The following describes the process behind the Item Reservation in TRIMIT B2C shop. The flow begins from the product details page, which contains pictures, colors, sizes and availability for the product as well as button “Add to basket”.



NOTE:

Product colors and sizes are synchronized from TRIMIT to Custom Data table in CPO database with help of schedule “**Filter-populate**”. The product availability is synchronized from TRIMIT to Custom Data table with help of schedule “**ItemInfo**”

Custom Data table (in CPO database) – contains data which is taken from TRIMIT by means of CPO schedules. This data is then used on B2C shop. Custom data includes, among other things, product, availability and price information. Using custom data improves site performance, saving the round trip to TRIMIT for data retrieval.

ITEM RESERVATION MANAGEMENT

In TRIMIT B2C Shop **Soft admin** it is possible to enable or disable the Item Reservation functionality. It is also possible to adjust the Item Reservation warning and timeout time stamps when this functionality is enabled.

Item Reservation Management in Soft admin includes the following parameters:

Item reservation	This parameter enables / disables the Item Reservation functionality. TRUE value enables, FALSE value disables.
Max. reservation time (minutes)	The time in minutes, which indicates how much time item(s) in basket, can be inactive. After this time passes by – reserved items become available again for other user sessions. When this time limit is reached a user gets a warning with the following message: <i>Please go to the basket page and review your items.</i> The default value is 30.
Time before warning (minutes)	The time in minutes, which indicates how much time it should go from the last basket update until the item reservation warning message appears as follows: <i>Press "Update" if you wish to renew your basket.</i> The default value is 25.
Max. available items	This parameter determines the maximum quantity on stock for available items that will be shown for the current item in the basket line. E.g. (5+) This is made to hide the full stock quantity (and therefore the stock value) from the end customer.

ITEMINFO SCHEDULE

This CPO schedule updates the **CustomData** table in B2C shop database with what TRIMIT knows about products availability. In connection to item reservation – this schedule also cleans out purchased reservations. This schedule is of a heavy load and can be run e.g. one's a day.

For more information about schedules please refer to document **White Paper – TRIMIT Portals Schedules**.

ITEM-RESERVATION-CLEANUP SCHEDULE

This schedule cleans up expired reservations (in **CustomData** table, group *TRM-RESV*) when "**Max. reservation time**" is reached (this value is adjustable in soft admin) and also deletes item reservations for no longer online user sessions. The frequency of running this schedule has to be high, e.g. every 5 minutes.

For more information about schedules please refer to document **White Paper – TRIMIT Portals Schedules**.

NOTE:

Gift Card items are never reserved when put into the basket – they are not affected by Item Reservation functionality, as they can never expire.

ITEMINFO-EXPRESS SCHEDULE

This CPO schedule is a small edition of **ItemInfo** schedule with a difference that this schedule runs more frequently and aimed for already purchased items specifically.

Here is how it works:

After an item has been purchased then the item reservation record with this item gets a check mark in field **Purchased** and the record time stamp is updated, all other check marks are cleared out. **ItemInfo-express** schedule runs frequently, e.g. every 5 minutes, and scans all item reservation records to find the purchased ones. As soon as the time stamp of the purchased record becomes older than 15 minutes – **ItemInfo-express** schedule synchronizes the availability of the specific item with TRIMIT and deletes the purchased record from item reservation.

ADD TO BASKET

When a customer goes to a product details page and presses on button “**Add to basket**” – the product with the selected color, size and quantity is added to the basket (stored as XML representation in user session).

If item reservation is enabled then this product is added to **CustomData** table within the group **TRM-RESV**. The time stamp of adding this product to basket together with user session ID is assigned to the same record in this CPO table.

If another customer adds the same product to the basket, if availability allows this, then a new line is created in the **CustomData** table with a different user session ID and time stamp.

Adding product to the basket, i.e. reserving a product, affects the availability of this product on the product page. This is made in such a way that product quantity available equals to **ItemInfo** quantity minus Item Reserved quantity.

TIMEOUT WARNING

If the basket is not active, i.e. has not been updated, for the time specified in “**Time before warning**” parameter then customer gets a warning message, which suggests to Update the basket if customer is still interested in products or close the warning.

Your basket is about to expire

Press "Update" if you wish to renew your basket

↻ Update

Close

To reset the item reservation timeout it is needed to update the basket, i.e. one of the following actions:

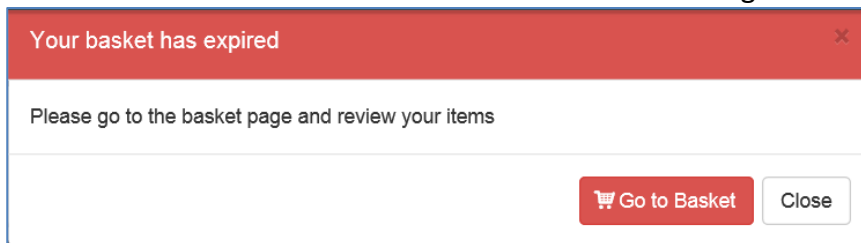
- add item to basket
- update item quantity in the basket
- change currency
- delete item from basket
- proceed to Delivery or Confirm order pages

After customer updates the basket then the record in **CustomData** table gets a new time stamp and the countdown begins from scratch.

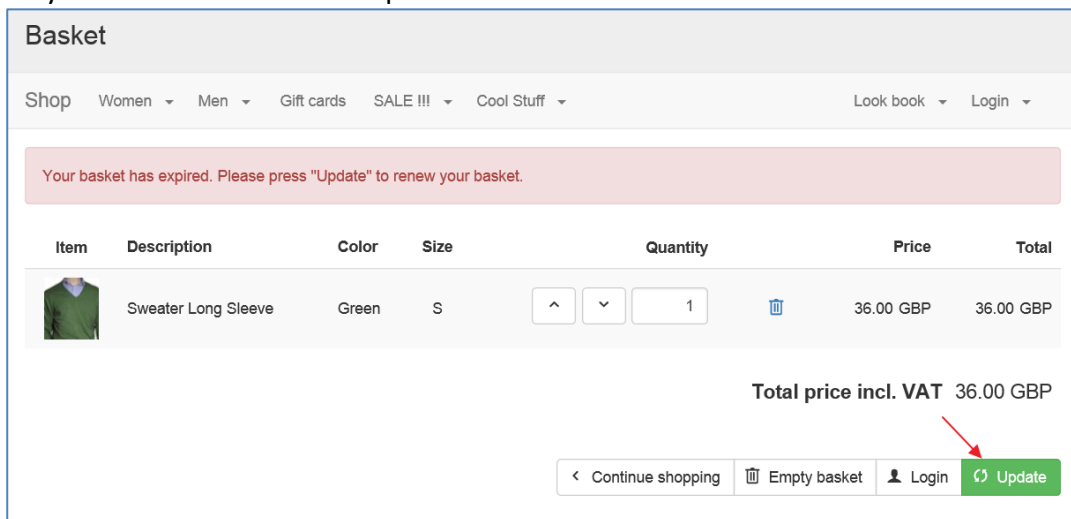
If customer closes the item reservation warning message then nothing happens and item reservation time continues to count down until it reaches the timeout.

TIMEOUT

If product reservation is timed out, then the customer gets a message as below. To proceed to the basket - click on button “**Go to Basket**” within the message:



At this point of time, the availability of the products in the basket is unknown, as other customers may have reserved the same products.



Clicking on **Update** button on the Basket page does the following:

The script in table **CustomData** (group *TRM-RESV*) runs through all occurrences of products in the basket for all currently active user sessions. The quantity of each product and for each user session is summarized and deducted from the quantity for the same product, which is fetched by schedule **ItemInfo** from TRIMIT and saved in **CustomData** table (group “c2”).

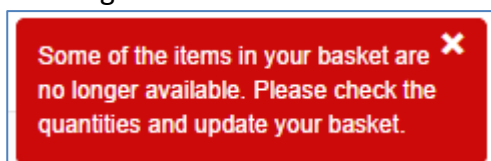
Then there are three scenarios:

- Item is still fully available
- Item is partly available
- Item is no longer available.

If item in the basket is *fully available* then after clicking on **Update** button on the Basket page there will be no changes to the basket content.

If item in the basket at this moment is only *partly available* then after clicking on **Update** button item line will be highlighted and a warning will be shown together with mentioning the current available quantity of the item in the parentheses next to the actual quantity of item in the basket.

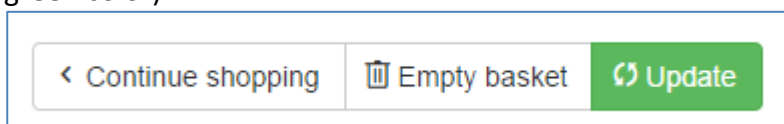
Warning:



On the Basket page:

Color	Size	Actual amount	Quantity	Currently available	Price	Total
White	S	↑ ↓	2 (1)	🗑	20,00 GBP	40,00 GBP

In this case the customer should either decrease the quantity with button **Down**, on the left to the **Quantity** field, to available quantity or decrease to zero if item is no longer of interest. To complete the update click button **Update** in the lower part of the Basket page (highlighted with green color):



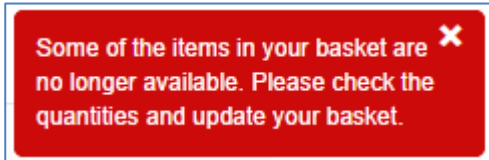
If item in the basket is *not available* any more, the customer will see the following picture on the Basket page:

Basket						
Shop Women Men Giftcards				Look book My page Soft Admin		
Item	Description	Color	Size	Actual amount	Quantity	Currently available
	Comfort Trousers	Grey	30/32	↑ ↓	1 (0)	🗑
				Price		Total
				81,00 GBP		81,00 GBP

In this case, the customer will have to delete the line from the basket either by clicking the delete icon or reduce the quantity to zero with the help of button **Down** and update the basket by clicking on **Update** button in the lower part on the Basket page. The item will be removed from the basket.

If the item is no longer available and not removed from the basket then there is a possibility that after some time this item becomes available as another user releases it. In this case clicking on **Update** button on the Basket page activates the item line in the basket.

Otherwise, if expired item is not deleted from the basket, customer will be getting the following warning on adding a new item to the basket:



GO TO PAYMENT

When a customer proceeds from page Basket to the Delivery page (through Billing address page – this page does not renew the item reservation in the basket) then the item reservations in the basket are renewed as customer shows serious intentions of making the purchase. Proceeding further to “Confirm order” page renews the item reservations one more time.

When customer goes to payment then the product record in **CustomData** table gets a check mark in the field **Payment**.

If customer has not yet confirmed the credit card credentials but goes back from the payment page to Order confirmation page - then the check mark in the **Payment** field in item reservation table is removed.

IMPORTANT: nothing prohibits customer to wait on payment provider page (input payment card credentials page) until the item reservation times out. In this case, item will be released for other users and there is a possibility that several users can buy the maximum available quantity of the item several times. This is not handled in CPO because payment session timeout has to be managed by payment provider.

PURCHASED

When a customer makes a payment for the products in the basket then each product line within this specific user session in the **CustomData** table gets a check mark in field **Purchased**. All other checkmarks for the product line are set to FALSE.

Now availability of the product on the B2C shop takes those product lines into account until the next run of the **ItemInfo-express** schedule. I.e. the availability of the product is calculated as follows: product quantity fetched from TRIMIT during the last **ItemInfo** run minus all reserved product records (including purchased).

The next run of the **ItemInfo-express** schedule does the following: synchronizes the quantities of recently purchased products with NAV and deletes purchased product records from the reservations.

The next run of the **ItemInfo** schedule does the following:

Updates the quantities of all the products taken from TRIMIT and deletes all purchased product records from the reservations if there are any.