

HemiLab DSM Demo

User manual

Version 1.0.1 beta

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Person	Version	Date
Jakub Pajęczek	1.0.0 Initial draft	12-11-2014
Jakub Pajęczek	1.0.1	12-11-2014
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1. About

HemiLab DSM application for Windows 8.1 is an interface client for HemiLab DSM Server.

HemiLab DSM is a graphical tool for managing store articles and price labels. As the DSM stands for Digital Store Map, ultimately the HemiLab system allows the user to create a digital version of the store. And keep his price labels up to date.

2. How it works

The DSM Demo for Windows 8.1 is a graphical interface for the staff to manage articles and labels in the store.

The application allows You to:

- Find any article in the store
- Find any price labels in the store
- Add new labels and articles
- Print price labels with a local or mobile printer
- Verify the prices and location of price labels

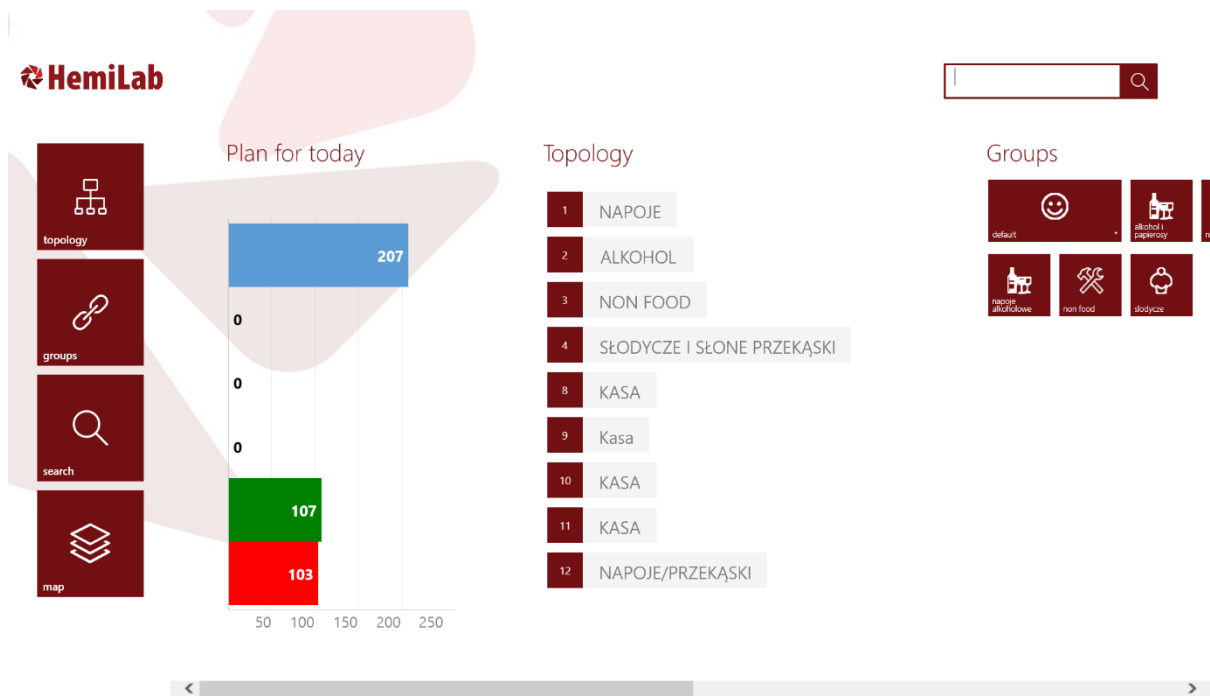
The store digital map is created using HemiLab DSM System which is managed with the DSM Server. This Client application connects to the server and synchronizes it's local database with the remote server.

Since it has an internal database the client application can work offline, and will synchronize any changes after connection. (!! Connection to server not available in demo version)

3. Getting started

After installing the application and launching You will see the login dialog.

Login with one of the suggested login credentials.



4. Login

Every application page (except for the main page) has a back button which will return You to the previous view.

Also every page has a bottom app bar where You have buttons to login, logout current user, check connection status or go back to main screen.

To login to the application press the Login button in the bottom bar. Enter Your credentials and You will be logged in.



After logging the login button will change with the user name, and now clicking on it will logout the current user.

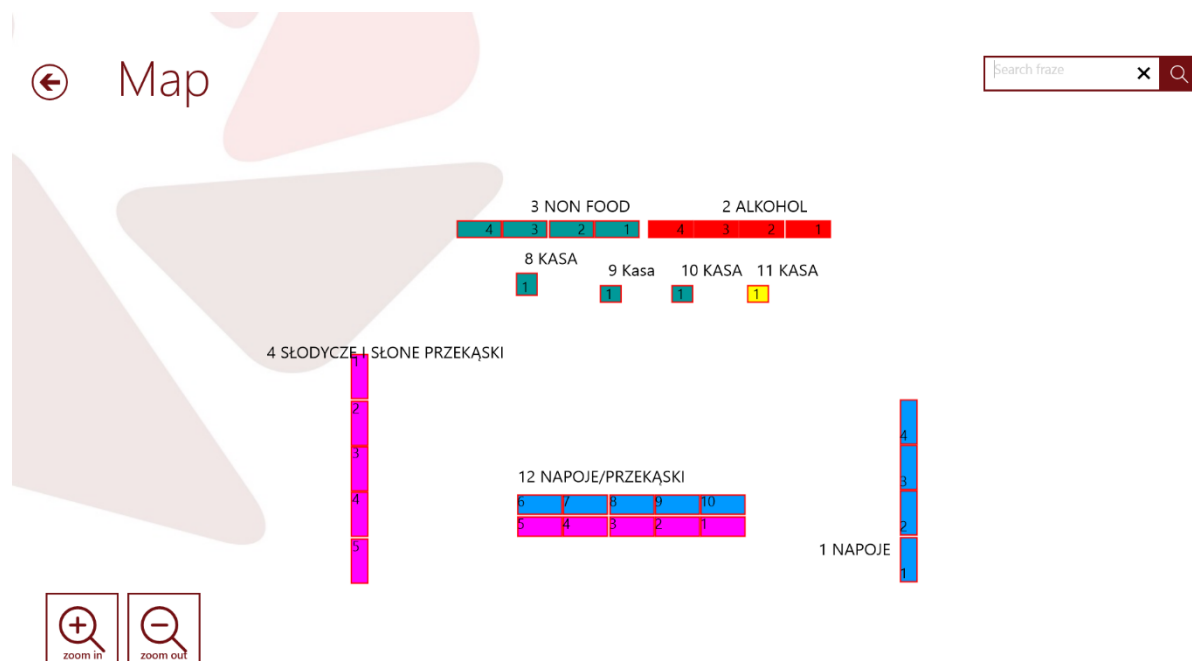


5. Main page

The main screen has a Hub layout so You can scroll it left and right.

On the left side You can see the navigation buttons.:

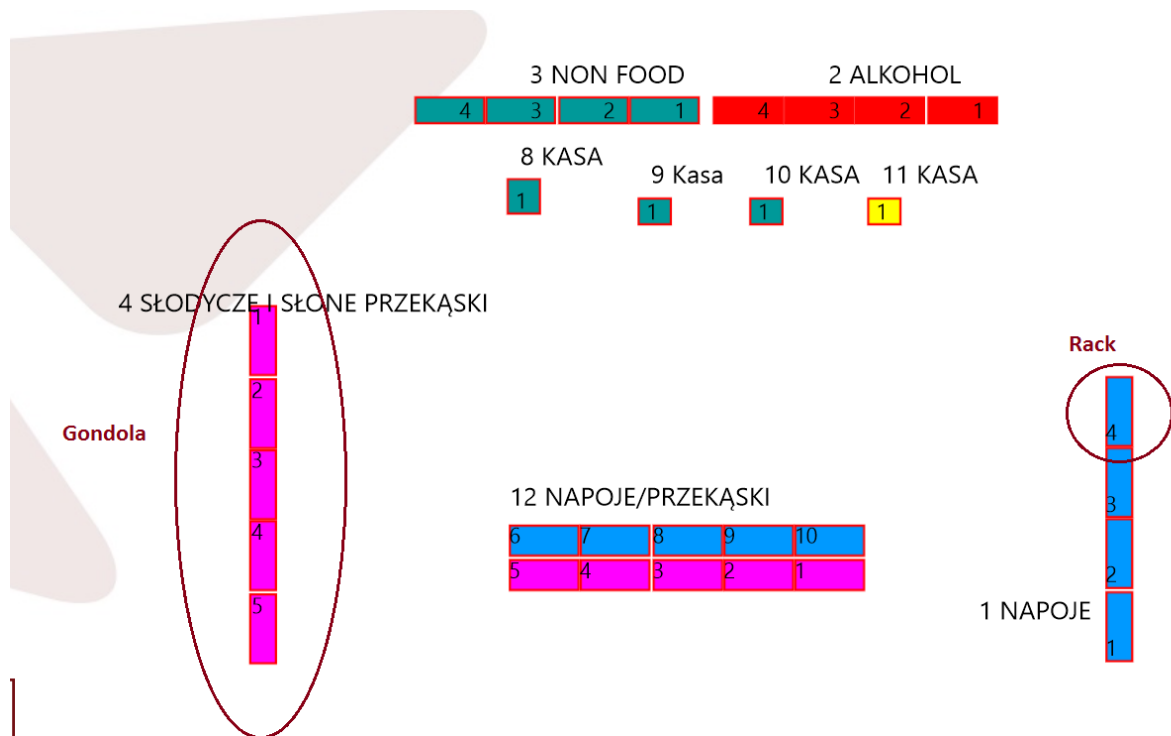
6. Topology – scrolls the screen to the topology section
7. Groups – scrolls the screen to the groups section
8. Search – scrolls the screen to the current search section
9. Map – opens the store digital map view



This page shows You the digital map of the store.

The store is separated into elements:

- Gondolas
- Racks
- Shelf's
- Labels



Shelf's and labels will be shown later in the rack graphic section.

5.1 Plan for today

The next section is the Plan For Today chart which demonstrates how much work You have.

The image shows that there are 202 paper labels that need to be printer due to price change, place modification or manual set for reprinting.

The next bar are sticker labels to print = 0;

The next are promotion labels to print = 0;

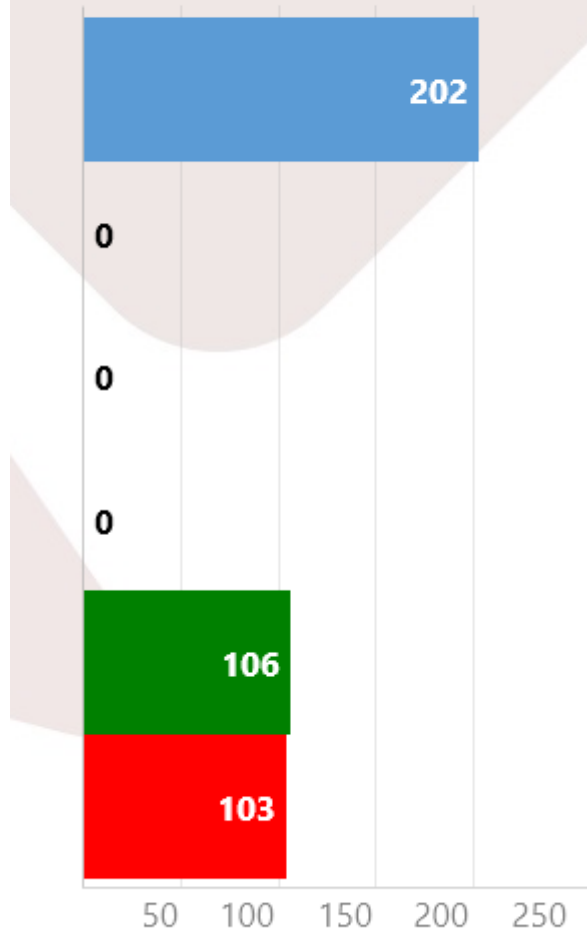
Then total number of shelf's that have some labels to print = 106

And finally shelf's that need to be verified or remapped = 103.

Mapping – process of scanning the sequence of articles on a shelf from left to right in order to add them to the digital map.

Verification – process of scanning the sequence of articles or labels on a shelf from left to right I order to verify if the shelf is in proper order.

Plan for today



5.2 Topology

This section contains a list of all gondolas, fridges or checkout stands on the digital map.

If the background of the object number is red, it means that there are some labels to print on that object.

Topology

1	NAPOJE
2	ALKOHOL
3	NON FOOD
4	SŁODYCZE I SŁONE PRZEKĄSKI
8	KASA
9	Kasa
10	KASA
11	KASA
12	NAPOJE/PRZEKĄSKI

If You click on a topology object You will get the list of all racks on that object.

← Gondole

The screenshot displays a software interface for managing racks. On the left, a vertical list of 12 items is shown, each with a number in a red square and a label in a white box. Item 3, 'NON FOOD', is selected and highlighted in red. To the right, the graphical view for the selected rack is shown, featuring a red header '3 NON FOOD' and three rack icons. Each icon consists of crossed wrenches and a red square with a white number. The first two icons are labeled 'non food' and '[8]', and the third is labeled 'non food' and '[7]'. Below these, a fourth rack icon is shown with a red square containing the number '4' and a white box containing '[8]'. The entire graphical view is set against a dark red background.

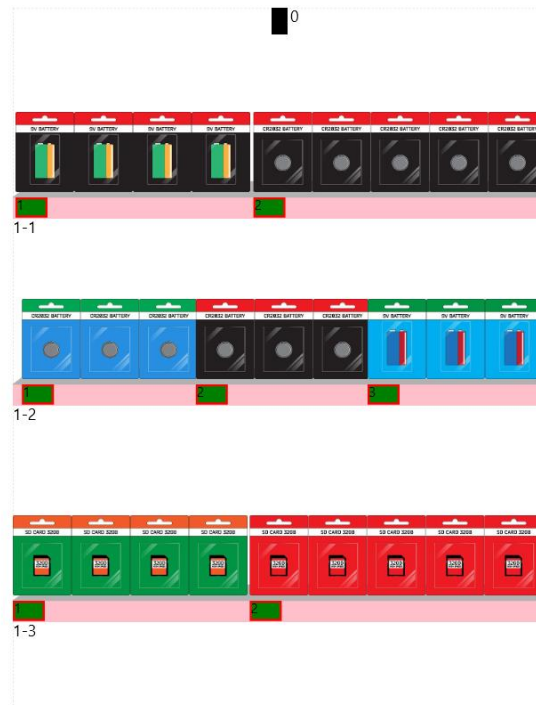
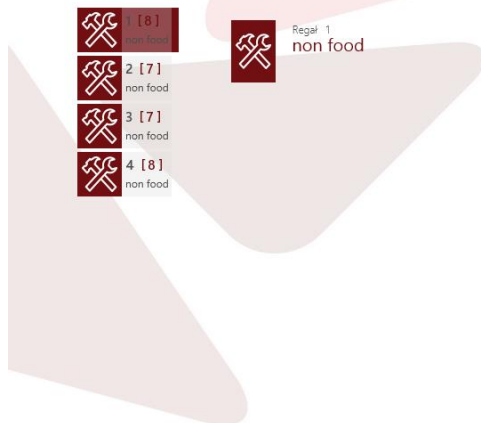
Item Number	Item Label	Graphical View Label
1	NAPOJE	
2	ALKOHOL	
3	NON FOOD	3 NON FOOD
4	SŁODYCZE I SŁONE PRZEKĄSKI	
8	KASA	
9	Kasa	
10	KASA	
11	KASA	
12	NAPOJE/PRZEKĄSKI	

In this view You can navigate through the list of racks on topology objects.

The red number on the rack item indicates how many labels are there to print.

Selecting a rack will open the graphical view of a rack.

← Gondola 3



Where You can see the graphical view of shelf's, label's and product's on a rack.

5.3 Topology Rack Graphic

Colors:

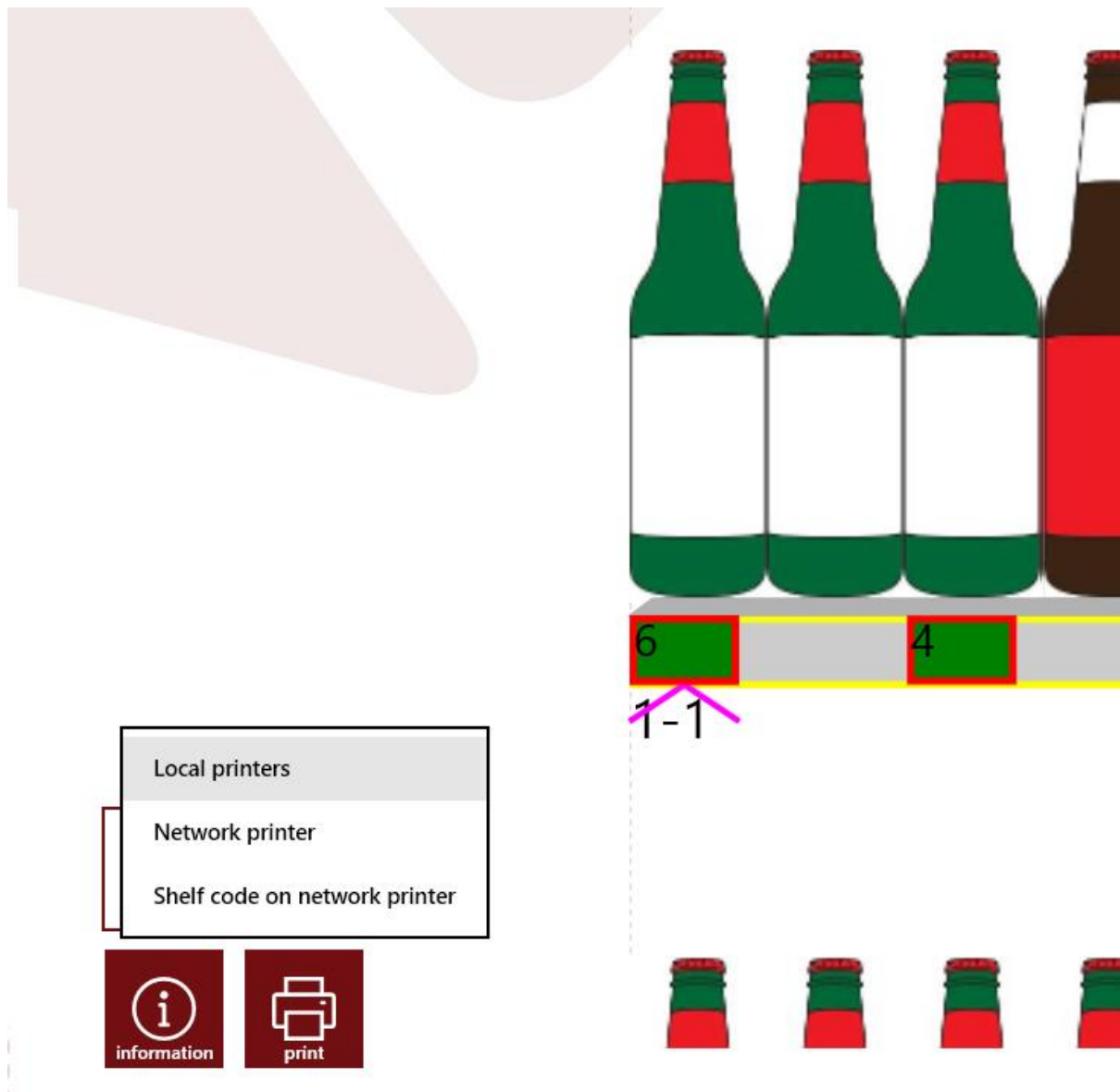
1. Shelf
 - a. Gray – normal
 - b. Pink – needs to be verified
 - c. Yellow – selected
2. Labels
 - a. Fill
 - i. Dark Green – paper
 - ii. Blue – Electronic
 - iii. Light Green – Sticker
 - b. Border
 - i. Red – marked for printing
 - ii. Pink bottom arrow – promotion is active
 - iii. Yellow – selected

If any object has a dotted border around it, it means that it has been locally modified and has not yet synchronized those changes with the DSM Server. (Any changes made in the demo version will not synchronize, due to no server connection, so labels will become inactive after changes. You can always restore the demo database through the options charms.)

Clicking on an object will select it, double click will open information [page](#).

Main Buttons:

- Zoom in – zooms in the view (can be held)
- Zoom out – zooms out the view (can be held)
- Information – show information about the selected element
- Print – shows print option flyout

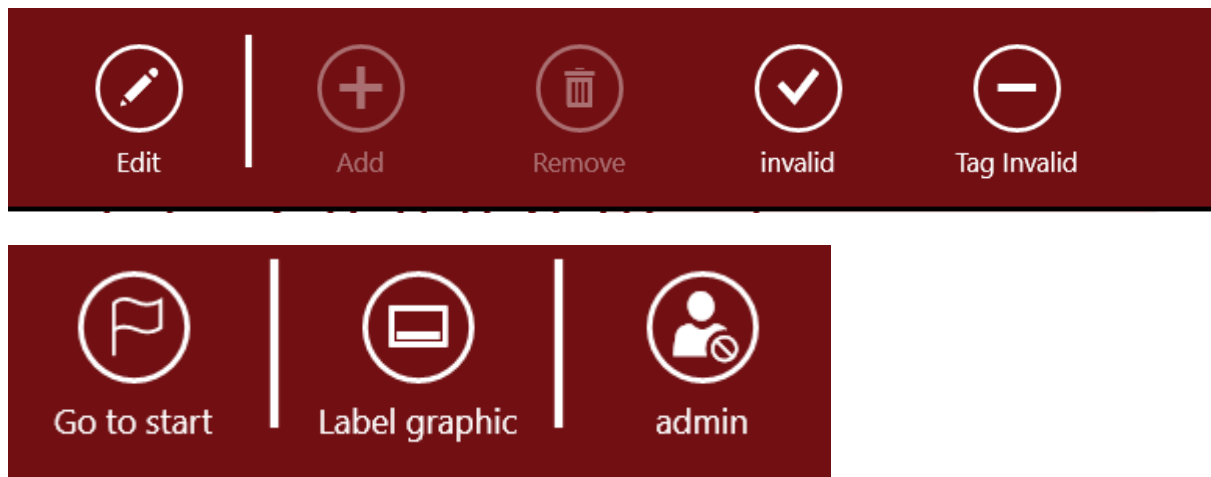


Local printers – printers installed in operating system

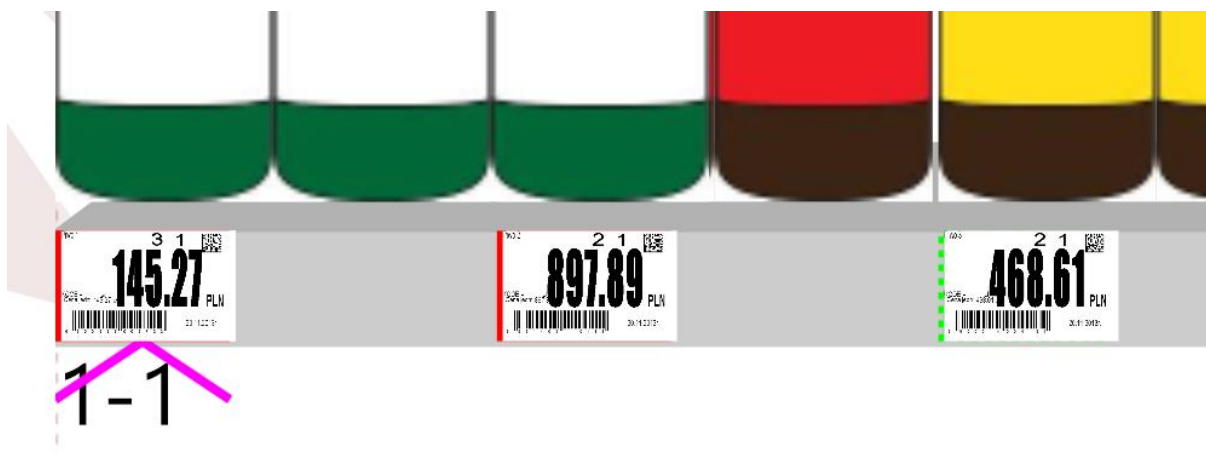
Network printer – printer defined in DSM (Charms – Settings - Printer)

Shelf code on network printer - if shelf is selected, print shelf DSM address code as barcode

Additional buttons:



- [Verify](#) – visible if shelf is selected (triggers verification mode)
- Edit – triggers edit mode
- Invalid – sets selected labels as invalid, marked for printing
- Tag valid – Labels are valid, unmarked for printing
- Label graphic – triggers labels full graphic mode



5.3.1 Verification

Shelf verification is a process of scanning the sequence of labels on a shelf and determining if the labels are on the correct position with the correct barcode.

To verify a shelf select it and toggle verify button. (Only visible if no other mode is triggered like edit)

Then input the barcodes of items currently on the shelf (either manually using the search text box or by a barcode scanner)

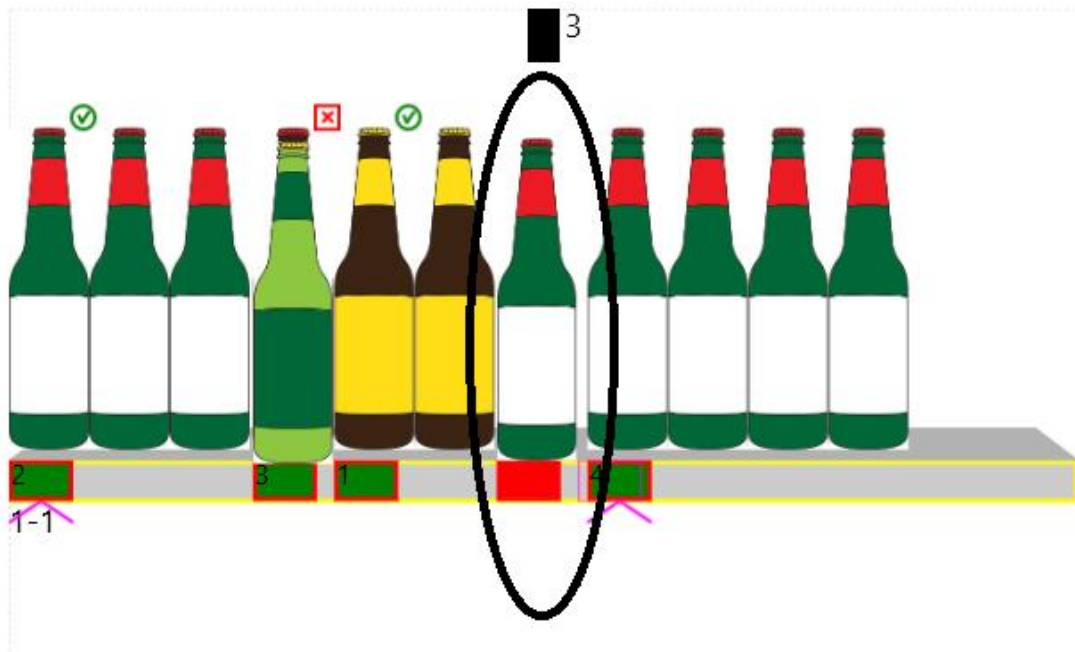


After scanning the first item, the scanned item appeared in front of the old one. The red X means that the article is different than the old one. As You can see it is the same article, but the number of faces is different. So if You scan it two more times...

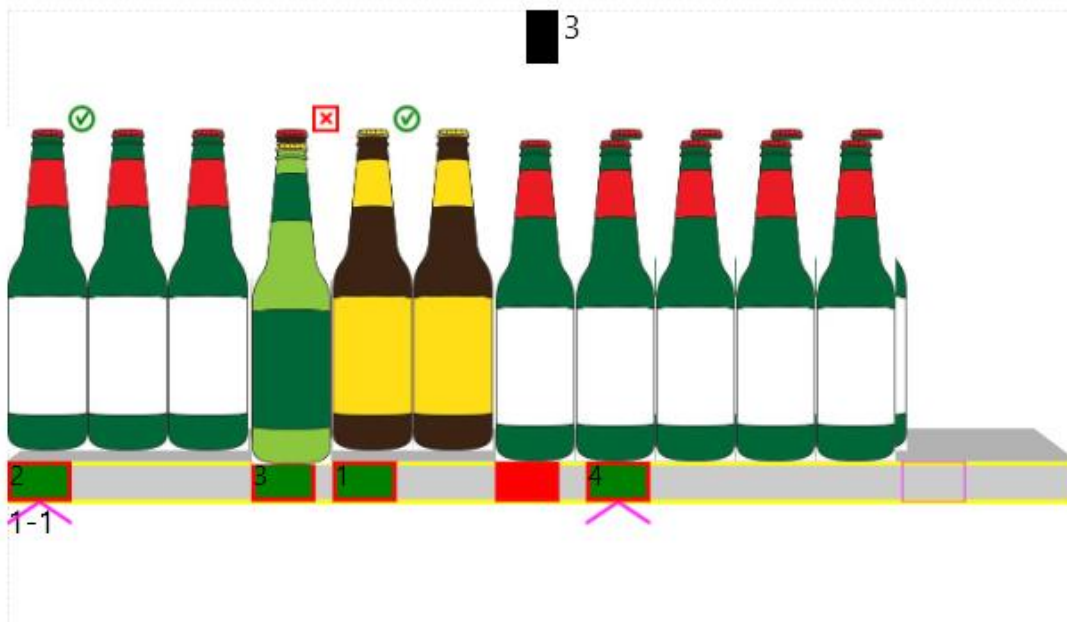


... there is a green tick on top of the first item, meaning that there is no change in that item position on shelf.

Scanning further...



... this place was empty so a new label has been added.

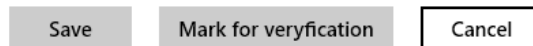


If finished, tap verification button.



Save new mapping

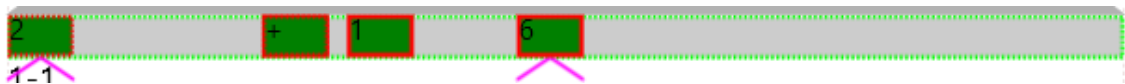
Shelf verification unsuccessful, save new mapping?



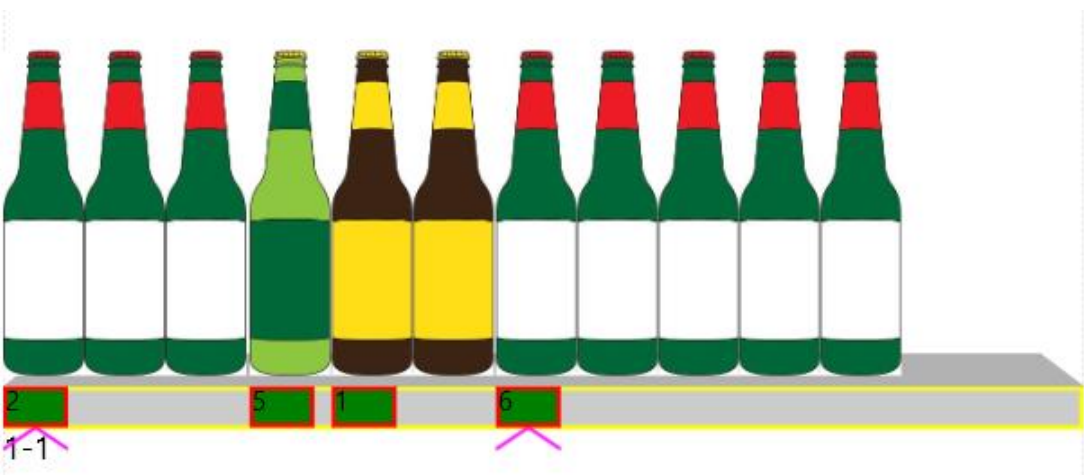
Save – saves new mapping

Mark for verification – marks the shelf as invalid, for later verification (pink color on rack)

If You press save and You are connected to the server, the labels and shelf will be shown with a dotted stroke for the moment when the data is send to the sever and result data will be back. (Not available in demo version)



After the server returned the data the shelf will look like this.



Labels which are not returned by the server are in unsynchronized state and some options are unavailable for them. You cannot print unsynchronized labels because those labels don't have a graphical representation. On lists those labels will be marked as grayed out.

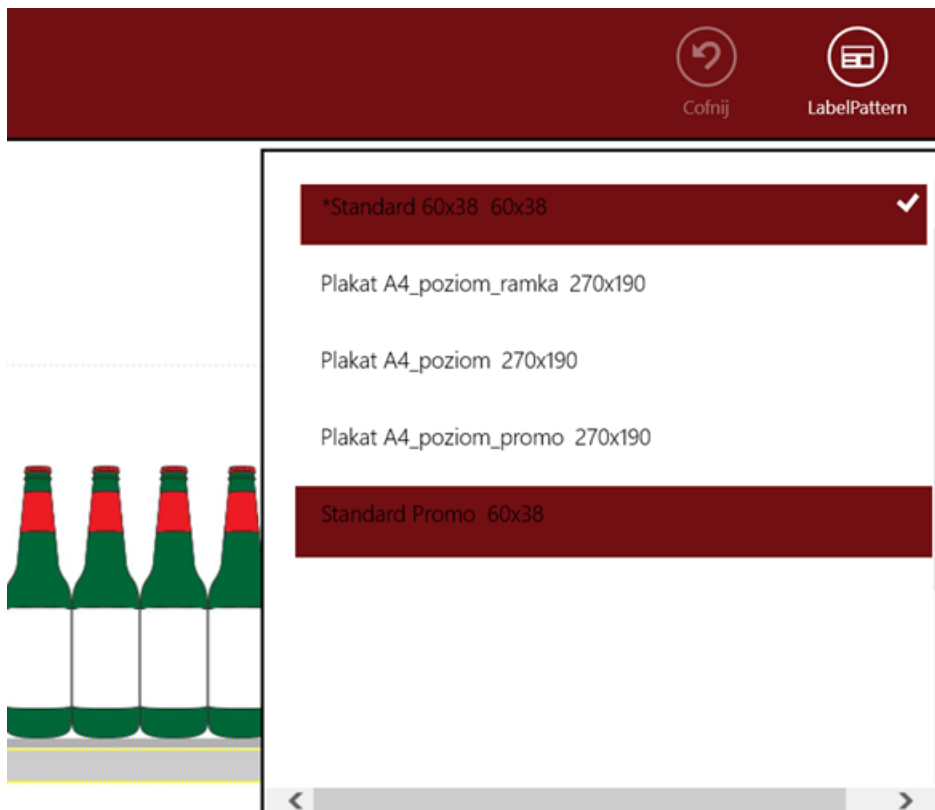
During verification on the top app bar You can use two additional buttons:



pattern
Standard 60x38

Undo – moves one step back.

Label Pattern – allows You to change the label pattern for new added labels



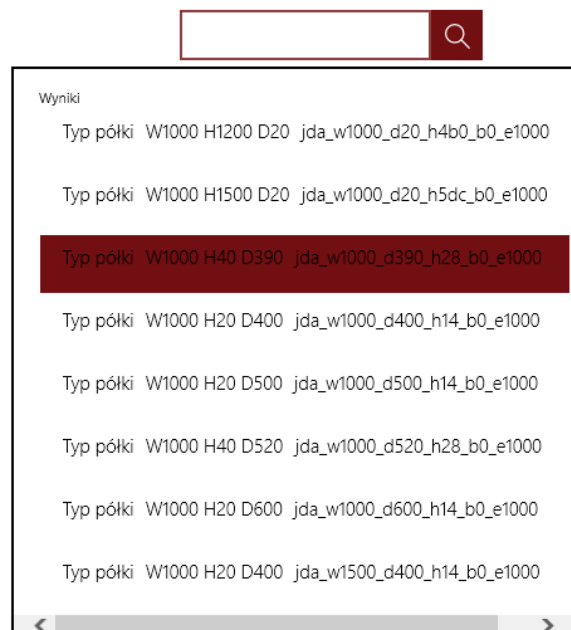
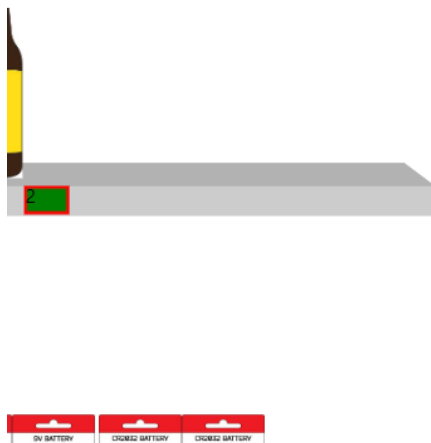
5.3.2 Edit

Edit mode allows You to:

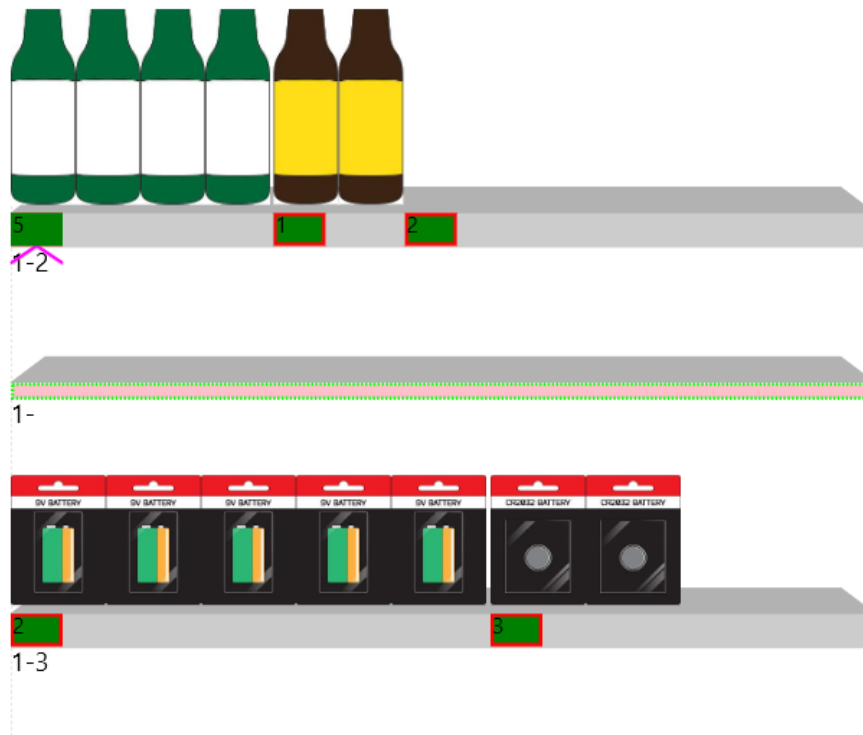
- Add, move and remove shelves
- Add, remove, change label pattern of labels

To edit some element simply toggle the edit button:

1. Label
 - a. Add – select an empty place on a shelf and press Add button, then scan or enter item barcode to add label (with chosen label pattern)
 - b. Remove – select label press and confirm remove
 - c. Change pattern – select label, press label pattern button and select pattern from list
2. Shelf
 - a. Add – select an empty space on rack, press add type the name of the shelf type or press enter to view all, select one to add shelf type. (it will only show shelf's that are the proper width)



New label gets added:



Remember !

New added elements have empty number because that number is generated by the DSM Server.

- b. Remove – Select shelf, press and confirm remove.
- c. Move – Select shelf, double click on a new place on rack

To save, just deselect edit button.

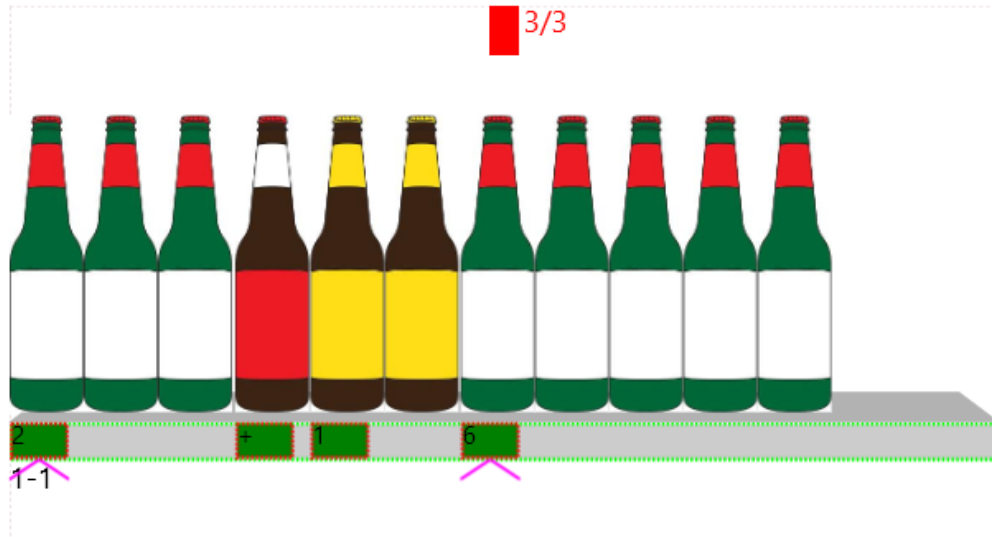
(Data will become unavailable in demo version –due to no server connection)

Labels container

Label container is a special place to store labels that You cannot put on a shelf.

Every rack has a container on top of the graphic view. If the rectangle is red, means there is something to print else it's black.

The number beside the black rectangle signifies how many labels out of how many in the container are set for printing



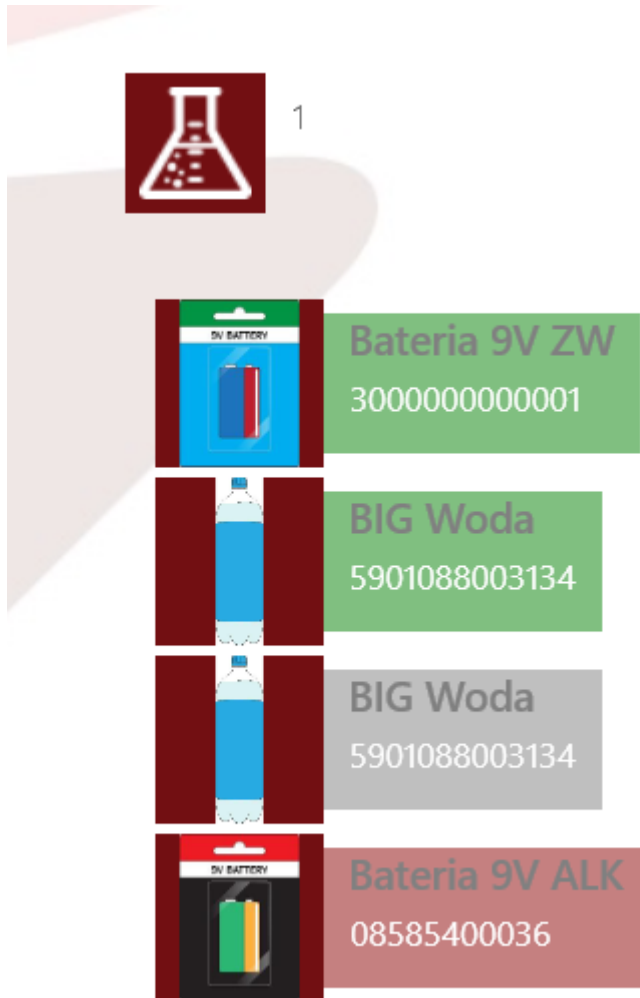
.If You click on the container rectangle You will go to container labels list page.

5.4 Container for labels

Containers NAPOJE



The container for labels is a place where You can store labels without defining their exact position on rack. You just add them to a rack without shelf x,y position.



Labels colors:

- Green – label ok
- Red – label to print
- Gray – unsynchronized with DSM server

Right panel contains printing buttons and filters.

Buttons:

- PrintAll – prints all labels on list marked for printing
- PrintSelected – prints all selected labels that are marked for printing
- Deselect labels – deselect all selected labels on list

Filters:

- Actual – show actual labels (cannot be printed until marked as not actual)

- Not actual – show not actual labels that should be printed
- Synchronization – three state checkbox (show only synchronized, unsynchronized or both labels)



Options :

- Add – add new label (scan or input in search box)
- Remove – remove selected labels
- valid – mark selected labels as actual
- tag invalid – mark selected label as not actual

Double click on the label image will navigate You to label detail [page](#).

5.5 Groups



Groups page presents labels for each item group defined.

Labels colors:

- Green – label ok

- Red – label to print
- Gray – unsynchronized with DSM server

Buttons:

- PrintAll – prints all labels on list marked for printing
- PrintSelected – prints all selected labels that are marked for printing
- Deselect labels – deselect all selected labels on list

Filters:

- Actual – show actual labels (cannot be printed until marked as not actual)
- Not actual – show not actual labels that should be printed
- Synchronization – three state checkbox (show only synchronized, unsynchronized or both labels)

Double click on the label image will navigate You to label detail [page](#).

5.6 Search

The search section is used to find articles in the database.

To use the search section You need to use the search panel on any page. When searching for an article and there is more articles to find You will see "More" button.

After clicking it You will be navigated to the search section where all the items for the given query will be shown.

pi 🔍

Results

Article 8594404115115 PILSNER URQUELL 0,5 P

Article 5900595002722 Piwo 1

Article 8594403110111 Piwo 2

Article 5900014004184 Piwo 3

Article 75002121 Piwo 4


Article 5901359412047 Piwo 5


Article 5901559830009 TATRA PILS 0,5 BZ


Article 5901559846000 TATRA PILS 4 x 0,5 P


More


Press "more" button...




 topology


 groups


 search


 map

Search results

You searched **pi**

Article 8594404115115 PILSNER URQUELL 0,5 P

Article 5900595002722 Piwo 1

Article 8594403110111 Piwo 2

Article 5900014004184 Piwo 3

Article 75002121 Piwo 4

Article 5901359412047 Piwo 5

Article 5901559830009 TATRA PILS 0,5 BZ

Article 5901559846000 TATRA PILS 4 x 0,5 P

🔍

Contact

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44-194 Knurów
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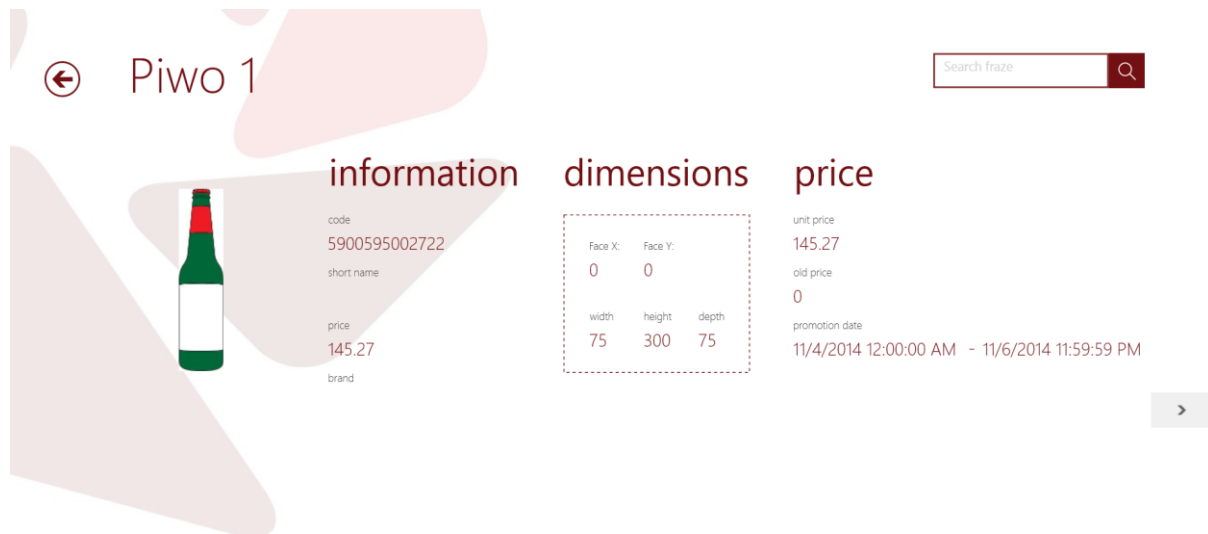
tel: **+48 32 236 45 21**

emial: **office@hemilab.pl**

← →

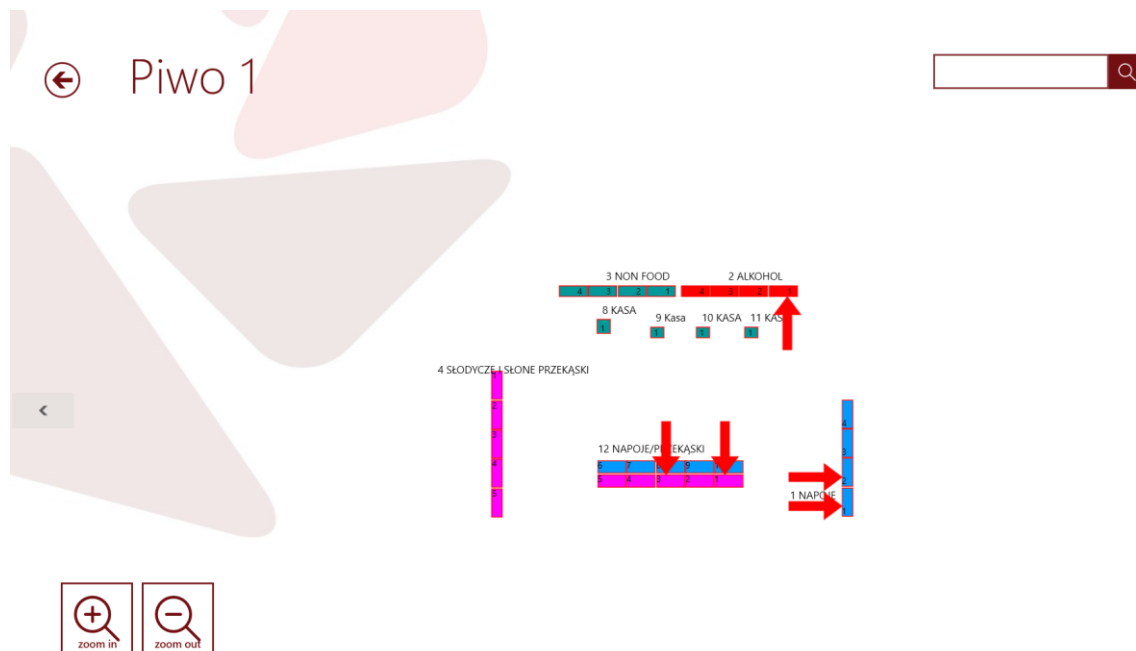
Click on an item to go to item details page.

5.7 Item details



This page shows all information about this item.

The arrow on the right side of the screen (or scroll right gesture) will display the floor map with arrows pointing on places with this article labels.



Pressing on a label arrow will navigate You to the labels detail page.

5.8 Label details

The screenshot shows a mobile application window titled 'MMA1.0.Windows'. The main header is 'Piwo 2' with a back arrow on the left and a search bar on the right. Below the header, there are two main sections:

- Label Image:** A rectangular image of a label for 'Piwo 2'. The label features the text 'Piwo 2', '6 1', a QR code, '897.89 PLN', 'KGOE =', 'Cena jedn: 897.89', a barcode, and '20.11.2013r.'.
- information:** A list of metadata for the label:
 - code: **8594403110111**
 - label type: paper
 - state: valid
 - create date: 10/25/2014 4:15:34 PM
 - update date: 10/27/2014 9:31:12 AM
 - pattern: Standard 60x38
 - adress: 002-02-02-002
 - version: 1
- dimensions:** A table showing dimensions:

Face X:	Face Y:
6	1
position x:	position y:
0	0

At the bottom right of the information panel, there is a right-pointing arrow button.

Label detail page shows information about this particular label for article.

The image presents the label graphic.

You can print this label from the bottom app bar if label is in not valid state.

Arrow on the right side of the screen (or scroll right gesture) will show the floor map with the arrow position of the label.

Clicking on the barcode will navigate You to this label [article](#).

5.9 Contact

Contact

Hemilab sp. z o.o. sp. k.

Kazimierza Wielkiego 20A lok.16/1
44-194 Knurów
Poland

tel: **+48 32 236 45 21**

emial: **office@hemilab.pl**

6. Configuration

To enter application configuration enter the settings – options through the charms panel or simply select the connection status button on the bottom app bar.

←
Options

Server address

127.0.0.1
✕

CONNECT

Verification type

Sequential
▼

Allow identical neighbouring labels

Off

Label to product justification

Left
▼

Options:

- Server address – DSM server host name or address
- Connect – save address and connect to server
- Verification type
 - Sequential – labels during verification are verified by exact position on shelf, from left to right
 - Simmetrical – labels during verification are spread evenly on shelf
- Allow identical neighbouring labels
 - On – if same item is scanned twice, new label will not be created, but the previous labels will have another face incremented
 - Off – allows to identical labels next to each other
- Label to product justification
 - Left – label is at the left edge of the article
 - Center – label is at the center of the article
 - Right – label is at right side of the article

!! In demo version server connection is not available, but additionally You have the restore demo database button. It can be used to restore default database for demo version.

7. Network printer

←
Printer

Printer name ✕

Printer ip address

Port

Language CPCL ▼

Paper size 60 38

Sensor Mark ▼

Speed **Quality**

Paper backfeed

On

Connection test
Calibrate

Options:

- Printer name – name used for displaying printer info
- Printer ip address – ip address to connecto to printer
- Port – port on which to connect to printer
- Language:
 - CPCL
 - ZPL
- Paper size – width and height of paper used in mm
- Sensor – sensor to use for labels detection:

- Mark – Black mark
- Gap – Gap between labels (stickers)
- Speed – speed or quality in label printing
- Paper backfeed – backfeed label before print?
- Connection test – test connection to printer
- Calibrate – sends calibration info to printer

8. Advances barcode usage

The DSM system can manages barcodes using prefixes.

Prefixes:

- None – article
- H – shelf
- M – position on shelf
- P – define new mobile printer
- A – label dsm address on store map

If You scan or input through the search panel a plain barcode it will be searched as an article, but if You use a prefix like:

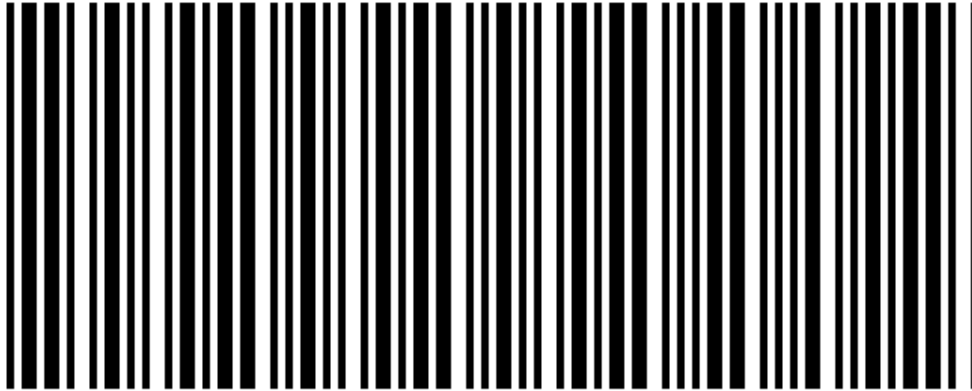
HGGRRSS, the dsm will search and navigate You to the shelf specified.

GGG – gondola number

RR – rack number

SS – shelf number

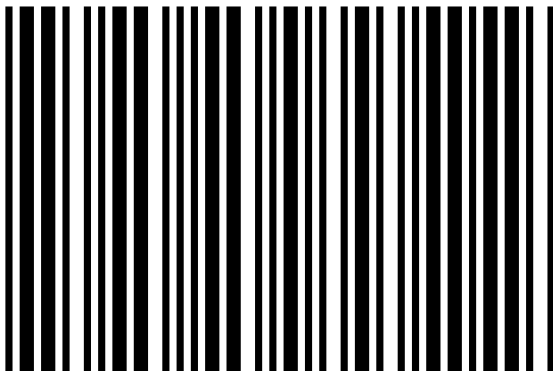
Example to use:



H0010101 – gondola 1 rack 1 shelf 1

M – position

Position is used to specify label position during label [verification](#).



M100

During label verification scanning this code will move the current pointer position to 100mm from the left side of the shelf.

P – define printer

P{IPADDRESS}/{PORT}/{LANG}/{WIDTH}/{HEIGHT}/{SENSOR}/{BACKFEED}/{PRINTERNAME}



P192.168.1.45/9100/C/60/38/M/T/Zebra

So ...

IPADDRESS – address of the printer

PORT – port of the printer

LANG – printer language (CPCL or ZPL – C or Z)

WIDTH – width of the paper in mm

HEIGHT - height of the paper in mm

SENSOR – sensor of the printer (black mark or gap – M or G)

BACKFEED – use backfeed T or F

PRINTERNAME – name of the used printer (used only for information, can be a custom name)

A – label DSM address – address of label on map



A{VERSION}{GONDOLA}{RACK}{SHELF}{LABEL}

AVVGGRRSSLLL

VERSION – current label version

GONDOLA – gondola number

RACK – rack number

SHELF – shelf number

LABEL – label number

Scanning a label with wrong version number will result in setting it for printing (not actual)

Scanning a label not on map will result in shelf verification error (shelf will be set for verification)

Camera barcode scanner

Now You can use Your device camera to scan barcodes (Beta version , the scanner is not always accurate)

On every page there is a bottom app bar button added – camera.

On click the camera turns on for scanning barcodes.

Dependent on Your hardware, there is an error if no camera is present, the face camera is opened or back camera is opened for barcode scanning.

The screenshot displays the HEMILAB DSM application interface. On the left, a sidebar contains a 'topologia' section with a link icon and a 'grupy' section. The main area shows a barcode scanner view with a red bounding box around the barcode. To the right, a list of categories is displayed:

- 2 ALKOHOL
- 3 NON FOOD
- 4 SŁODYCZE I SŁONE PRZ
- 8 KASA
- 9 Kasa
- 10 KASA
- 11 KASA
- 12 NAPOJE/PRZEKĄSKI

The bottom navigation bar includes a 'połączony' icon and a 'Camera' icon.

If handled correctly, the barcode data will be read.

If Your device has two camera's, You can change camera in the settings charm. (Change camera)