

Sertag eRetail3.1 User Manual

V1.3

DALIAN SERTAG TECHNOLOGY CO., LTD

Historic Version

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1.0	2023/3/31	Correction Document	Tony	Tony
1.1	2023/8/9	New Features/UI Interface Modifications	Merlin	Tony
1.2	2023/8/22	eRetail3.1 User Manual Translate	Kris	Tony
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1. Abstract

1.1 Architecture

System B/S architecture, divided into: Database, Cache processing, front-end web application;

Database refers to a data storage container for storing system and user information (System utilizes MySQL);

Cache processing is used to compare data changes. (System utilizes Redis) ;

The front-end web application is a client-side application based on web browsers, with a default port of 4000.

1.2 System Architecture

The management system deployed on the server is used to provide system administrators and business personnel with information about the system's operational status, daily maintenance, and data queries.

The system is divided into six major module main menus: Home, Store Management, Data Management, Data Query, Template Management, System Management.

[Store Management]: Store List, Base Station Management, Electronic Shelf Label Management, Digital Signage Management, Area Management, Advertising Screen Management, Video Service Management;

[Data Management]: Product Management, Material Management, Shelf Management;

[Data Query]: Electronic Shelf Label Communication Log, Digital Signage Communication Log, Data Synchronization Log, System Log Query;

[Template Management]

[System Management]: User Management, Permission Settings, Organization

Structure, Parameter Settings, Admin Tools, System Configuration, System Management, Application Management.

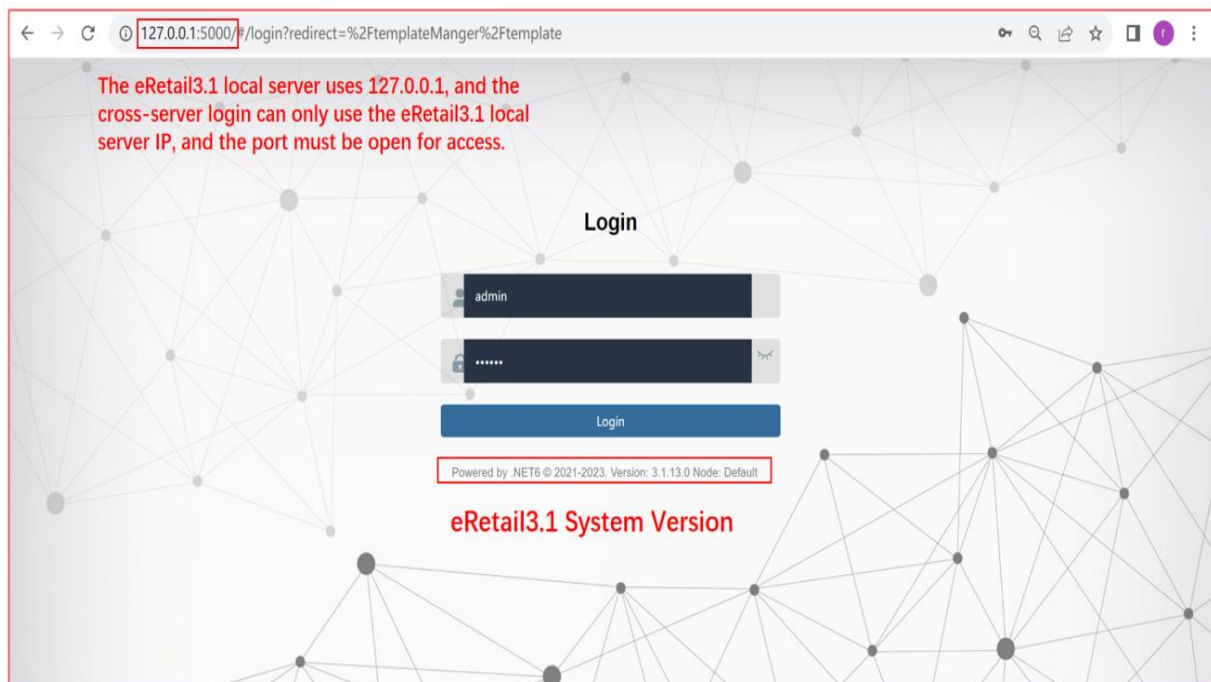
2. System Login

2.1 Login Steps

🚦 Open a web browser (Google is recommended), enter the eRetail3.1 system address in the input bar. The address consists of the server's IP address and port.

🚦 Enter the account and password (default admin account: admin, password: Pass99).

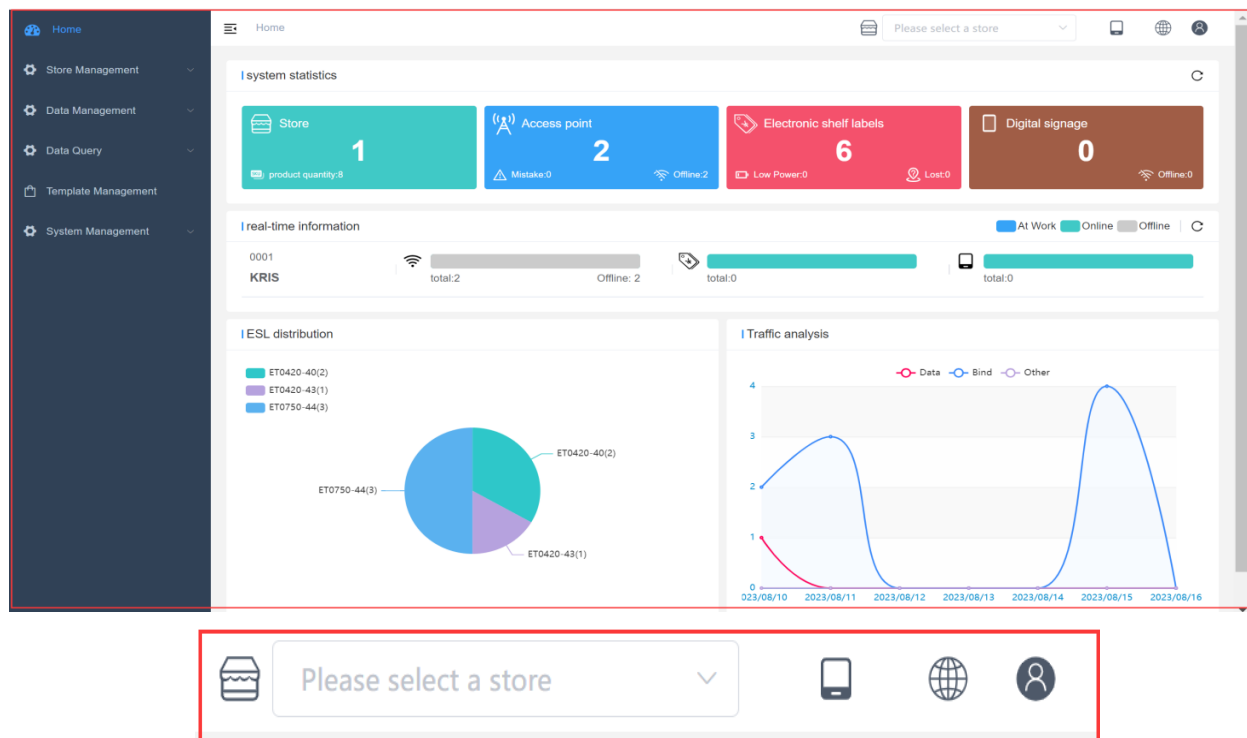
🚦 Recommended to add the eRetail3.1 system address to your browser bookmarks or create a shortcut on your desktop for quick access.




3. System Menu Function Introduction

3.1 Home

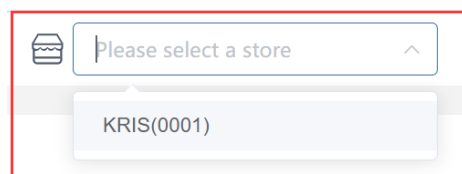
After login, the content of the Home is displayed by default, and no data for the first use.



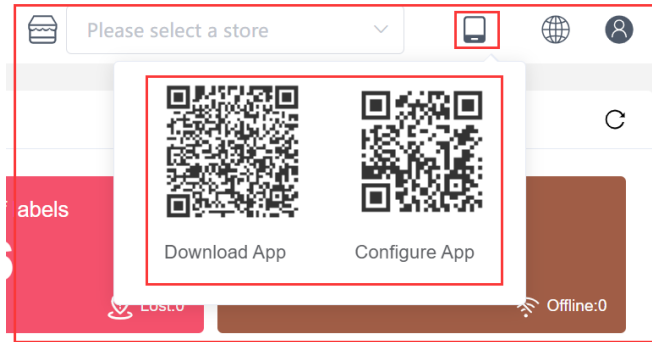
1. Top menu: Fixed page.

(1)  Side menu collapse, open button

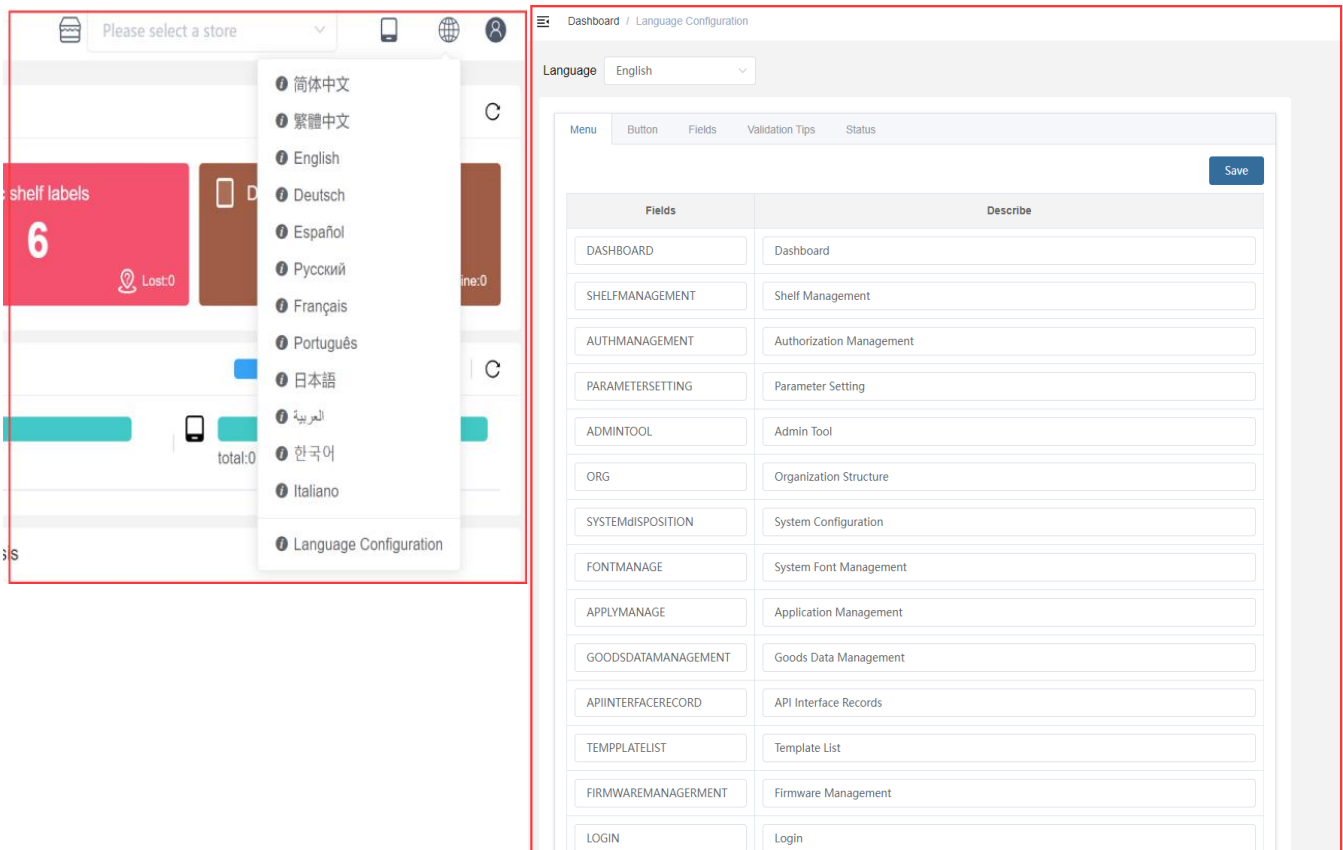
(2) Please select a store: Search and select the store you want to view, and only display the store information;



(3) APP configuration menu: Download Android APP and APP Configure;

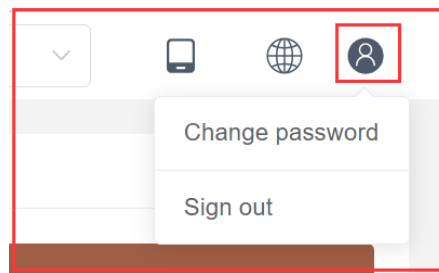


(4) System Language menu: You can set the interface language of eRetail3.1 system. Currently, 12 languages are supported, and other languages can be added according to requirements. Click the language setting in the drop-down menu to see the text description of the corresponding field. You can see the text description in other languages through the language selection, and you can modify and save the description;



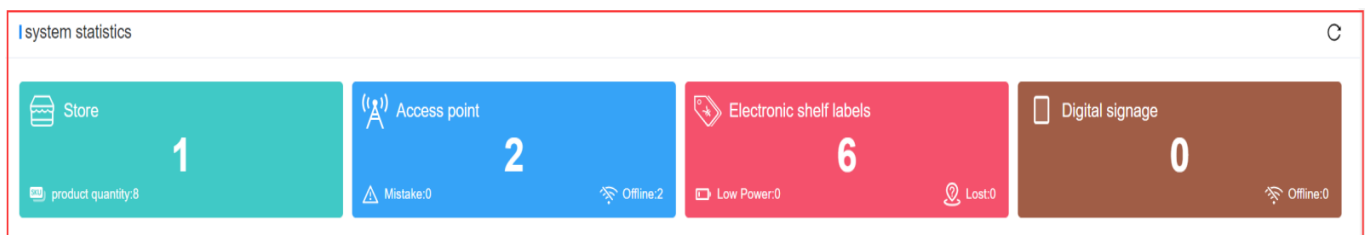
(5) User: To modify the password of the currently logged-in account and to log out of

the eRetail3.1 system (redirecting to the login page).



3.1.1 System Statistics

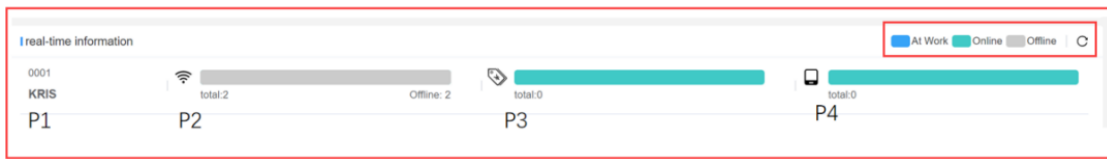
View the number of all stores (including the number of products), the number of Access points (including the number of status and offline), the number of electronic shelf labels (including the number of low battery and lost labels) and the number of digital signage(including Offline Quantity) under the eRetail3.1 system . Click the corresponding color square to jump to the corresponding side menu;



3.1.2 Real-time Information

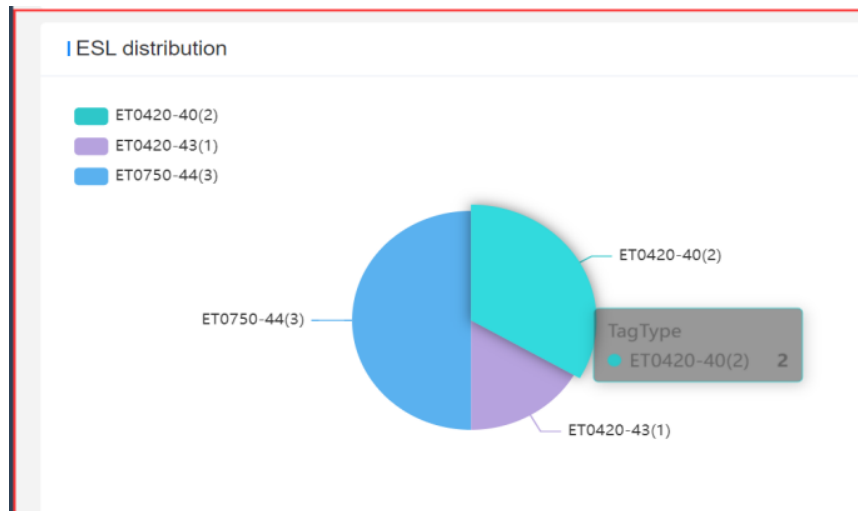
- **P1** Display the number of stores under the eRetail3.1 system, display the store number(not the customer store number), store name.
- **P2** The area displays the number of AP in the corresponding store, the total number on the left, and the offline number or the number in work on the right (this part is the same in the latter two areas).
- **P3** The area displays the number of ESL that the corresponding store is communicating with.
- **P4** The area displays the corresponding store [Digital signage - LCD ESL] quantity

and offline and working status



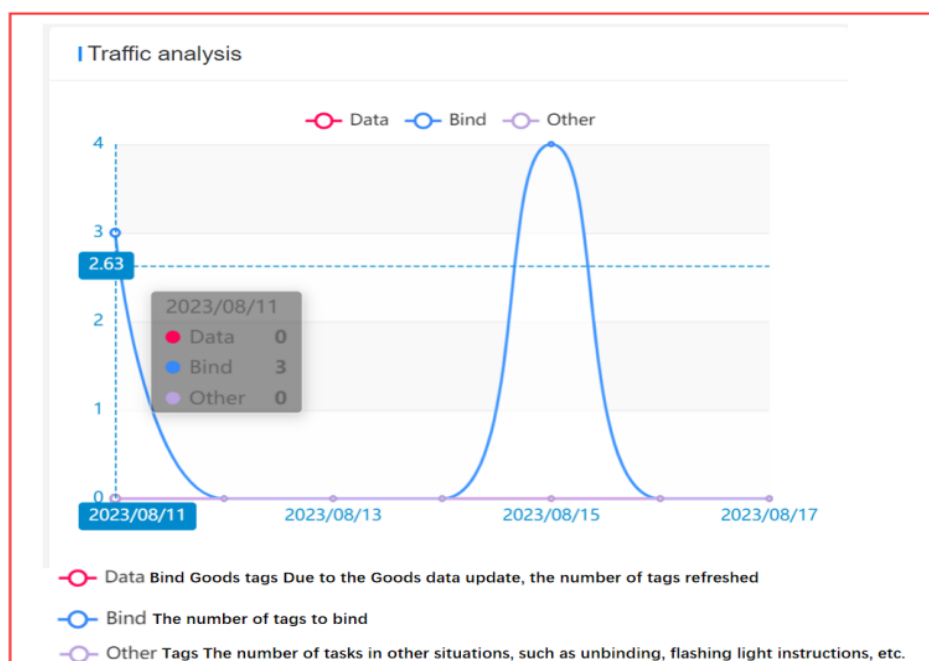
3.1.3 ESL Distribution

Pie chart of the quantity of ESL and LCD ESL of each size.

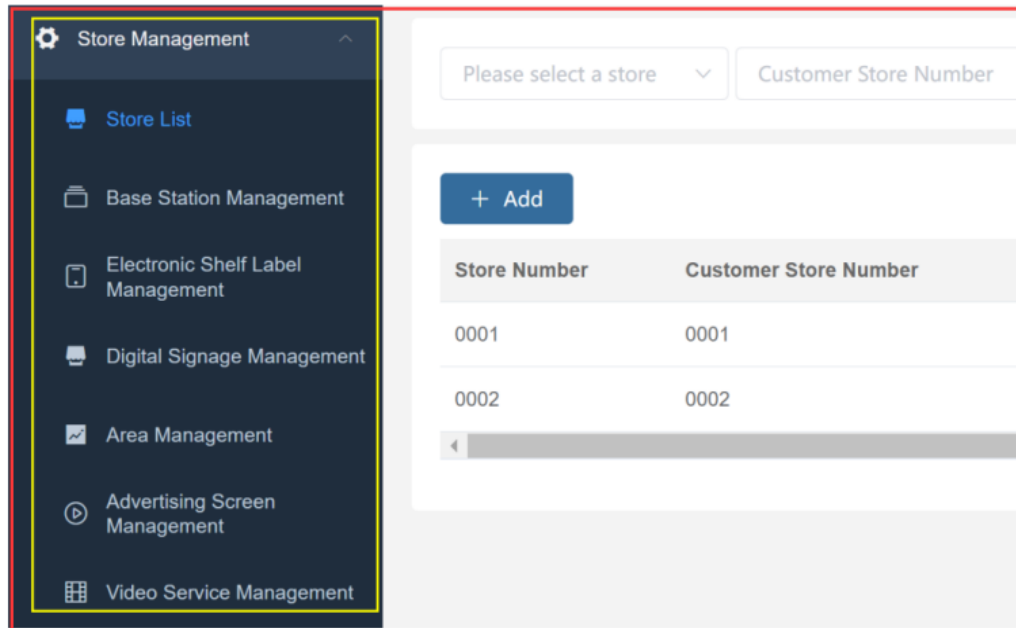


3.1.4 Traffic Analysis

View the trend changes in the data of the day's bound tags Goods update, tags and Goods binding, tags unbinding, and flashing light situation for a week.

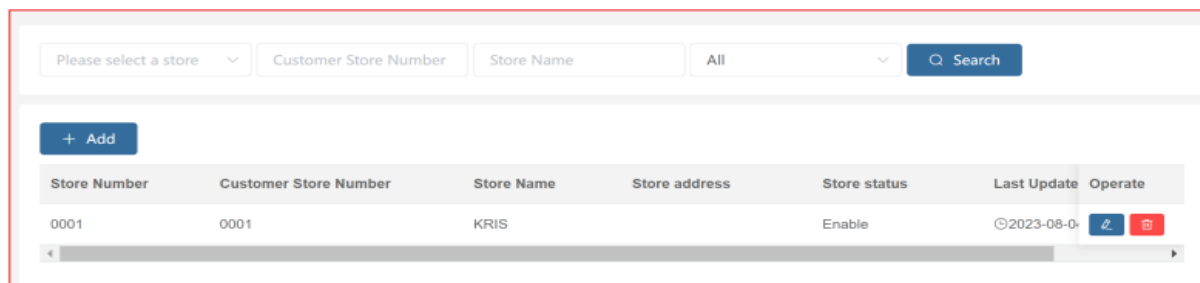


3.2 Store Management

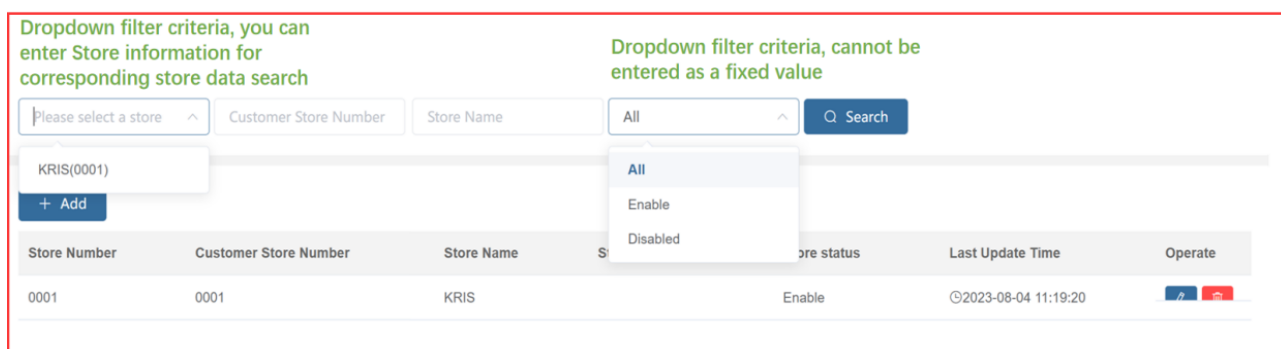


3.2.1 Store List

For creating new stores.



(1) Upper left search bar with four search criteria and one search button.



Add
* is required
×

* Store Number

* Customer Store Number

* Store Name

Store address

* Organization

ETAG-TECH

Store Number: eRetail3.1 system store number, 4 digits, the value filled in cannot be repeated.

Customer Store Number: The customer's store number, the length is not required, and the filled value is usually determined by the docking data and cannot be repeated.





Store Name: The name of the customer's store, such as a New Zealand department store supermarket.

Store address: Customer store address, optional.

Organization: The largest organization: ETAG-TECH, other organizations are managed by this organization.

3.2.2 Base Station Management

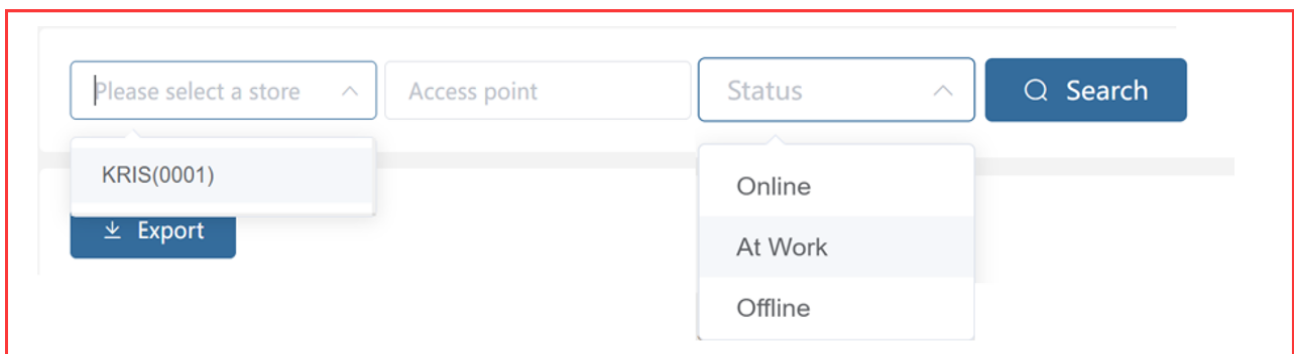
Mainly check base station information.

Store Number	Access point	Access point name	IP	MAC	Status	Offline count	Firmware	Last online	Operate
0001	01		192.168.8.106	02:81:CC:27:DA:B3	Offline	17	1.0.115	2023-08-16 1	
0001	02		192.168.8.126	02:81:B1:DA:39:98	Offline	7	1.0.115	2023-08-16 1	

- **Store Number:** eRetail3.1 system store number (the same meaning will not be explained in the follow-up menu).
- **Access point:** Base station ID, consisting of two digits, is determined by configuring the input information parameters of the base station, and cannot be repeated!
- **Access point name:** Customize the name of the base station, which can be

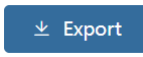
modified at any time.


- **IP:** The input information parameters of the configuration base station are determined. The base station has a fixed IP, and the IP cannot be repeated. If it is mapped to the external network, this IP is not the IP used by the actual base station.
- **MAC:** Base station MAC, each base station has a unique MAC value.
- **Status:** Offline, online, at work. Usually offline means that the base station cannot access the background of the eRetail3.1 system, and working means that the base station is processing the sending task.
- **Offline count:** The number of times the base station failed to access the eRetail3.1 system background within the period (heartbeat).
- **Last online time, Last offline time, Last working time, Last heartbeat time**
- **Last heartbeat time:** The base station is offline, the time of the last heartbeat on eRetail3.1.



(1) Top left search bar, three search criteria and a search button.

(2) Operation button

(3)  Export the Excel table of the base station display information;


(4)  Online base stations cannot be deleted, but offline base stations can be deleted;

3.2.3 Electronic Shelf Label Management

Functional operations such as ESL status query, bound Goods status, ESL binding,

<div><div>Delete</div><div>Unbind</div><div>Refresh</div><div>Refresh Specific Base Station</div><div>Flash</div><div>+ Batch Add</div><div>Import</div><div>Export</div></div>											
<input type="checkbox"/>	Store Number	ESL ID	ESL type	UPC	Status	Electricity	Signal strength	Temperature	Communication count	Communication base station	Operate
<input type="checkbox"/>	0001	4400000A90C8	ET0750-44	0120230815	Idle	100%	-65	25	4/5	02	<div><div></div><div></div></div>
<input type="checkbox"/>	0001	430000078B27	ET0420-43	13338	Idle	100%	-39	26	2/2	01	<div><div></div><div></div></div>
<input type="checkbox"/>	0001	40000000E58D	ET0420-40	3001	Init	—	—	—	0/0		<div><div></div><div></div></div>
<input type="checkbox"/>	0001	400000077E72	ET0420-40		Init	—	—	—	0/0		<div><div></div><div></div></div>
<input type="checkbox"/>	0001	440000010473	ET0750-44	3002	Init	—	—	—	0/0		<div><div></div><div></div></div>
<input type="checkbox"/>	0001	4400000708DC	ET0750-44	1002	Init	—	—	—	0/0		<div><div></div><div></div></div>

unbinding, combined binding, refresh, import, export, etc.

➤  The field column (top) is selected for the current page, and the label information column is selected for the label. After selecting, you can perform operations on the top button menu; (the same meaning in the subsequent menus will not be explained)

➤ **ESL ID:** The value of the tag barcode, each tag has a unique value, which can be called the tag ID, device ID;

➤ **ESL type:** The device type can be distinguished by the tag ID, and the first two digits of the tag ID correspond to the tag type;

➤ **UPC:** Commodities that are bound and displayed by this tag, empty means unbound or unbound. UPC is the Goods data field corresponding to the customer's GoodsCode selected in the template parameter configuration during data docking. Click here to view the detailed information of the Goods;

➤ **Status:**

Init: Unused tags, imported into eRetail3.1 system for the first time.

Idle: Non-working tag.

Low power: The voltage of frozen tags is lower than 2.2V, and the voltage of regular tags is lower than 2.5V.

At work: This tag is communicating (refreshing, binding, unbinding, flashing lights, etc.).

Fault: The temperature is 0, but the sending is successful (communication is successful).

Lost: If the number of sending times is less than 128 and more than 64 times are marked as lost, the process is in failure.

Blacklist: Sending more than 128 times eventually failed.

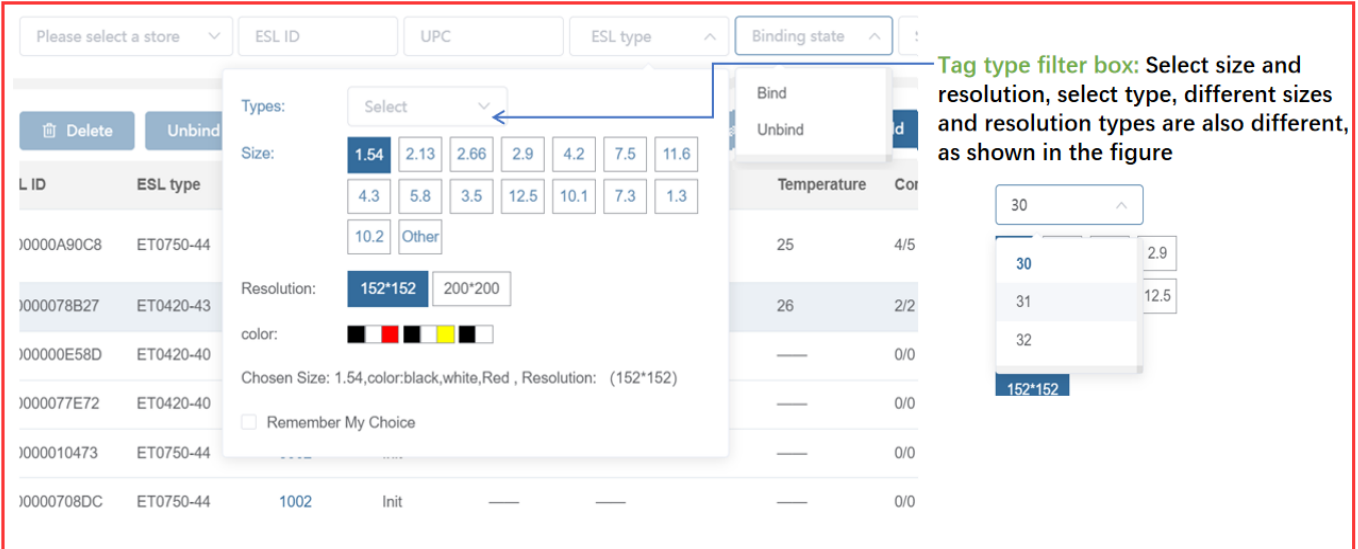
Others: Undefined.

Electricity:

Regular tag				Frozen tag	
Power≥29	100%	24≤Power < 26	20%	Power≥27	100%
28≤Power < 30	90%	23≤Power < 25	10%	26≤Power < 30	80%
27≤Power < 29	80%	Power < 23	0%	25≤Power < 29	60%
26≤Power < 28	60%			24≤Power < 28	40%
25≤Power < 27	30%			23≤Power < 27	10%

- Signal strength: Communication quality between the base station and the price tag (usually determined by distance and obstacles), the higher the value, the better the communication;
- Temperature: The ambient temperature recorded in the last communication of the tag;
- Communication count: The number of successful communications before the \backslash , and the total number of communications after the \backslash ;
- Communication base station: The AP ID used for the last successful connection between the AP and the tag;

- Last sent time
- The upper left search bar, six search criteria and one search button



The screenshot shows a web interface for managing ESLs. At the top, there's a search bar with filters: 'Please select a store', 'ESL ID', 'UPC', 'ESL type', and 'Binding state'. Below this is a table with columns 'L ID' and 'ESL type'. A modal window is open over the table, titled 'Types:'. It contains a 'Size' section with buttons for 1.54, 2.13, 2.66, 2.9, 4.2, 7.5, 11.6, 4.3, 5.8, 3.5, 12.5, 10.1, 7.3, 1.3, and 10.2. There's an 'Other' button. The 'Resolution' section has buttons for 152*152 and 200*200. The 'color' section has a row of color swatches. Below these, it says 'Chosen Size: 1.54,color:black,white,Red , Resolution: (152*152)' and a checkbox for 'Remember My Choice'. To the right of the modal, there's a 'Tag type filter box' with a dropdown menu showing '30', '31', '32', and '152*152'. A text box next to it says: 'Tag type filter box: Select size and resolution, select type, different sizes and resolution types are also different, as shown in the figure'.

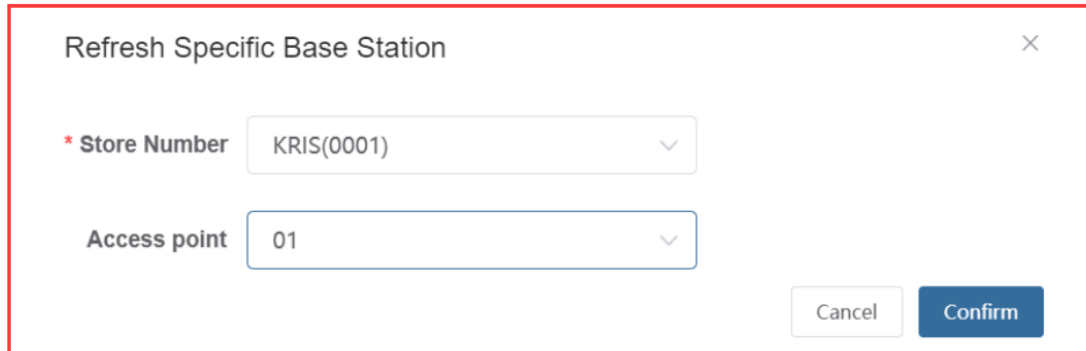
(2) Upper left function button bar



The screenshot shows a horizontal bar with several buttons: 'Delete', 'Unbind', 'Refresh', 'Refresh Specific Base Station', 'Flash', '+ Batch Add', 'Import', and 'Export'.

- Delete: Delete the selected ESL, you can delete in batches
- Unbind: Unbind the tag that has been bound to the UPC Goods. After unbinding, the tag will display the unbind screen (this screen can be customized - corresponding to the template code U) and the UPC value will become empty
- Refresh: Communicate with the selected ESL, so that the tag refreshes and displays the content first

- Refresh Specific Base Station: The tag of the same store, communicate with the designated AP for the selected ESL



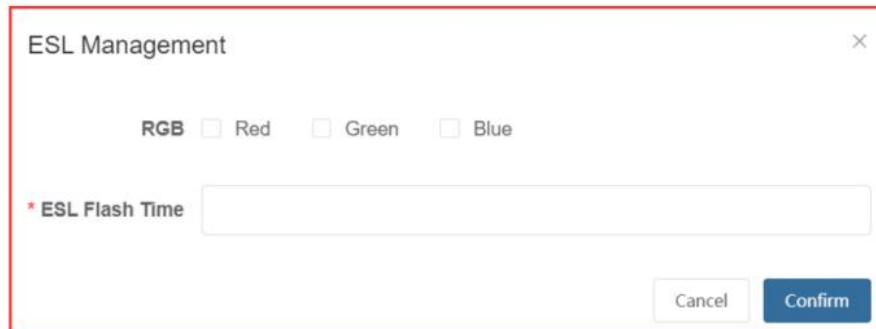
Refresh Specific Base Station

* Store Number KRIS(0001) ▼

Access point 01 ▼

Cancel Confirm

- Flash: Specify the flashing color and flashing time for the selected ESL, RGB three colors can be customized to form 7 colors to light up



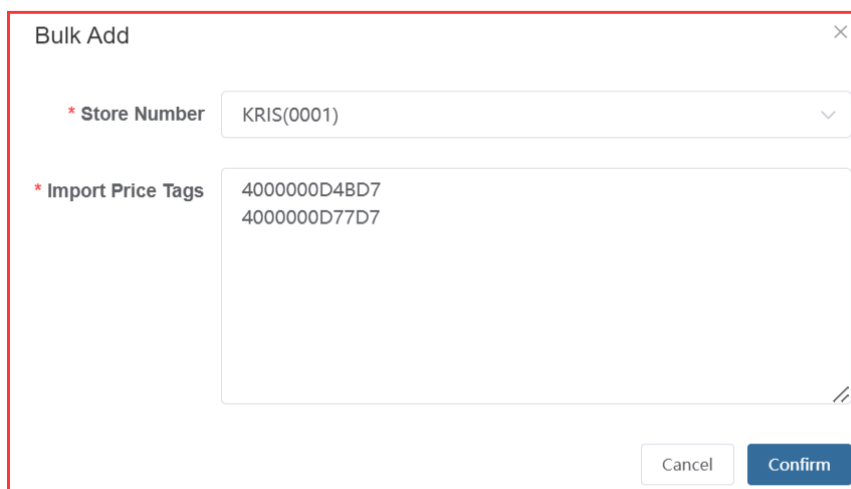
ESL Management

RGB ☐ Red ☐ Green ☐ Blue

* ESL Flash Time

Cancel Confirm

- +Batch Add: Select the store that needs to add a tag, and enter the tag ID in the import option



Bulk Add

* Store Number KRIS(0001) ▼

* Import Price Tags

4000000D4BD7
4000000D77D7

Cancel Confirm

- ↑Import: Click the template download to download the fixed format tag form
- ↓Export: Export all ESL information tables after confirming the execution

(3) Operate

ESL Management

ESL ID

4400000A90C8

ESL type

ET0750-44

Go

Import Price Tags

* Store Number

Store Number

* Import Price Tags

Please select a file

Please upload Format is xls/xlsx files

☐

Override Existing Binding Relationship

Click here to download template


Cancel

Confirm

For the tag existing in the eRetail3.1 system and bound to Goods, if the tag ID is in the table when importing and the corresponding GoodsCode field is bound to other Goods UPC, then the tag information will be updated.



Bind the specified tag with the specified Goods. The Goods ID can be fuzzily unlocked by entering the UPC and Goods name, and click Confirm to submit the binding;

-  Comb binding: Comb bind templates (one template can display multiple template types or multiple Goods), and decide how many Goods to display by designing the template. The following figure shows a tag that displays two Goods information at the same time;

ESL Management

ESL ID

400000077E72

ESL type

ET0420-40

* ESL Template

2X2

Goods ID

13338

























13331

Cancel

Confirm

3.2.4 Digital Signage Management

LCD ESL status query, bound Goods status, LCD ESL binding, unbinding, refresh, display preview, import, export, etc.

<div> <div>Refresh</div> <div>Screen Off</div> <div>Screen On</div> <div>Unbind</div> <div>Sync Status</div> <div>Import</div> <div>Export</div> </div>									
<input type="checkbox"/>	Tag ID	Store Number	Area Belong	Goods ID	Show template	Status	LCD Status	Last t	Operate
<input type="checkbox"/>	000B00189016	0040	Verduras		Video vertical 10.1	Offline	Screen On	11-11	   
<input type="checkbox"/>	000B0018AA90	0040	Verduras		Video vertical 10.1	Offline	Screen On	11-11	   
<input type="checkbox"/>	0092008C9B92	0010		01567 111	videoproductX2	Offline	Screen On	03-13	   
<input type="checkbox"/>	00920831A276	0027		a1	globalte1	Offline	Screen On	06-06	   
<input type="checkbox"/>	00920833526A	0027			U	Offline	Screen On	06-06	   
<input type="checkbox"/>	009208339438	0021				Offline	Screen On	09-27	   

- Store Number: The store number entered when LCD ESL performs network distribution. This store number can be modified, please do not modify the equipment

that has been configured with the network;



- Area Belong: Select the region when binding the APP. In the region management settings, the template video can be partially bound to the region, and the LCD ESL playback video is the bound video of the corresponding region.
- Goods ID: When data docking, the template parameter configuration product code selects the corresponding customer product data field, click to jump directly to the data management - product management menu
- Show template: The template selected when binding
- Status:


Offline	LCD ESL has a heartbeat cycle (set in System Management - Parameter Settings - TFT Configuration), and if the eRetail3.1 system cannot be accessed within the cycle, it is judged as offline
Online	Same as offline
Inactivated	The tag imported through the import function has not been configured with a network
Downloading	Tag in communication, downloading play content

- LCD Status: The screen is displayed or closed by the function button on the upper left to turn off the screen and turn on the screen
- Last heartbeat time: LCD ESL online and offline are determined by heartbeat reporting, and the time of the last heartbeat report to eRetail3.1
- Last download time: LCD ESL last communication time
- Time consuming
- Firmware version

Search bar on the upper left, seven search criteria and one search button

(1) Action bar button

-  Select a template, and bind tags, Goods, videos, pictures, etc. according to the template settings
-  Preview: Click to view the current LCD ESL display content

-  Delete: Factory reset and forced deletion, unactivated tags can be deleted directly, activated tags can only operate this function in the online state.

Hint

×

Are you sure you want to delete this record?

Cancel

Factory Reset

Force Deletion

























Forced Deletion: Delete the information recorded by ESL LCD in the eRetail3.1 system, and ESL LCD retains the original distribution network information

Factory Reset: Delete ESL LCD distribution network information and delete ESL LCD record information in eRetail3.1 system, ESL LCD cannot be used directly after deletion

3.2.5 Area Management

Set and manage the area where LCD ESL and LCD devices are located

+ Add




Store Number	Area ID	Area Name	Creation Time	Operate
0005	1	Picture	©2022-11-22 15:34:36	   
0004	3	drink	©2022-12-07 15:09:07	   
0023	5	Shelf A	©2023-03-30 14:05:53	   
0020	6	Pizzhut	©2023-04-20 00:38:05	   
0020	7	KFC	©2023-04-20 00:38:13	   
			-	   

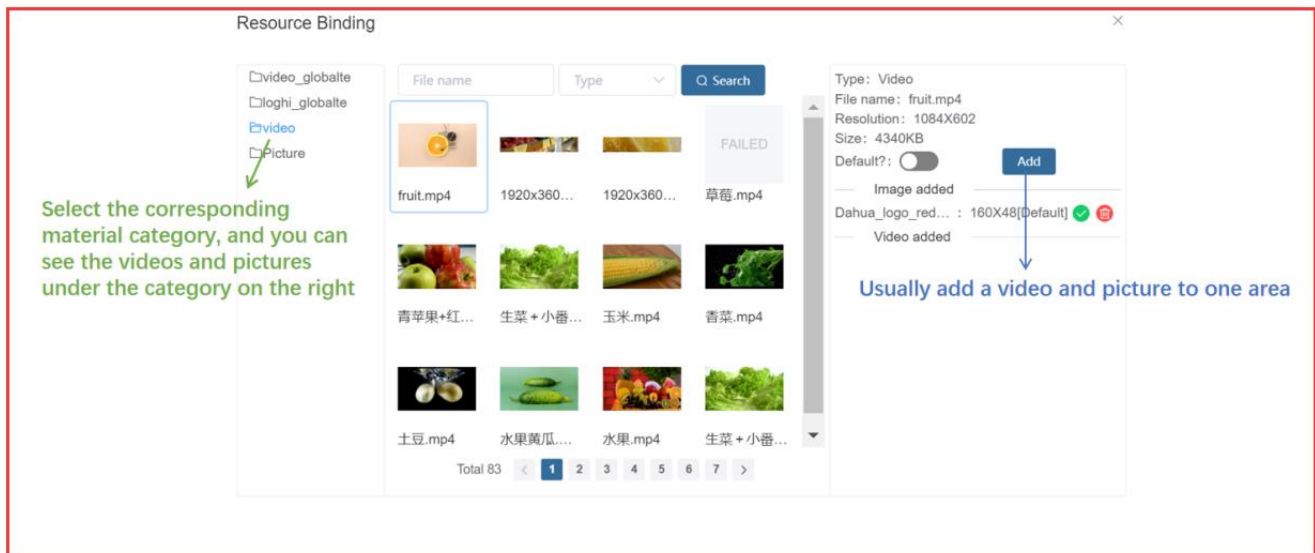
Sub-area

(1) **+Add** : The area can only be used under the store, so each store needs to add the corresponding area (stores that only use ESL do not need to add). The area name is the name of the type of sales area in the mall, such as the fruit area, aquatic product area, cooked food area, etc.

(2) **Action bar buttons:**

-  Add sub-area

-  Modify area information
-  Delete area
-  Area bind material



3.2.6 Advertising Screen Management

LCD status query, binding, refresh, display preview and other functional operations

Delete





Refresh

One-click Binding

<div><div></div></div> Store Number	Device ID	Device name	Device model	IP	Size	Monitor Count	Template name	Device status	Operate
<div><div></div></div> 0055	24ba8287097b91f0	--	Android-rk3288	192.168.0.167	1080 * 1920	2	Side A:wertyui Side B:wertyui	Online	<div><div></div><div></div><div></div><div></div></div>
<div><div></div></div> 0040	6a8b00e1d81920b0	--	WYST-T972-WYST-T972	192.168.137.200	2880 * 158	1		Offline	<div><div></div><div></div><div></div><div></div></div>
<div><div></div></div> 0023	888bc09ff2ebb0f3	--	WYST-T972-WYST-T972	192.168.0.88	2880 * 158	1	测试1080*1920	Offline	<div><div></div><div></div><div></div><div></div></div>
<div><div></div></div> 0040	b9321968916e0723	37 Romarin	UniWin-Uniwin-Link M135	192.168.204.149	1920 * 540	1	Prueba	Offline	<div><div></div><div></div><div></div><div></div></div>
<div><div></div></div> 0055	d9925a97d5f1e586	--	Android-rk3288	192.168.200.169	1080 * 1920	2	Side A:wertyui Side B:wertyui	Online	<div><div></div><div></div><div></div><div></div></div>

(1) One-key binding: When multiple LCDs display the same Goods information, you need to select these devices first. In the search bar, one of the search criteria device size or device model must be selected to use this function.

(2) Action bar button

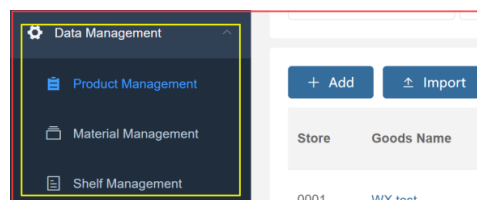
-  The operation method here is the same as that of LCD ESL, where the two sides are divided into A side and B side, and both sides need to be bound and submitted separately.
-  Modify the device name, customize the device name.
-  Preview the current display screen of the device.
-  Remote control: IT operation menu, please do not use this content function at will

3.2.7 Video Service Management

View service IP and port, online and offline status, software version, etc. LCD ESL and LCD are only available when this service is online.

Store Number	Video service IP	Service type	Temperature (°C)	Version	Last heartbeat time	Status	Online times	Creation Time	Operate
All stores	47.91.90.82:9068	TFT API service		3.1.12.0	2023-08-17 16:49:20	Online	11228	2022-09-26 17:11:02	
All stores	47.91.90.82:9069	Video service		3.1.2.0	2023-08-17 16:48:53	Online	8	2022-09-26 17:11:17	

3.3 Data Management



3.3.1 Product Management

View Goods information, modify Goods information, bind materials, etc.

After clicking the gear, the Goods information field will pop up. Select the field to display the field value, or hide it if you do not select it

Store	Goods Name	Goods Code	Template	UPC	ShopCode	GoodsCode	GoodsName	UPC1	UPC2	UPC3	Price1	Price2	Price3	Origin	Spec	Unit	Grade	SAL_TIME_START	SAL_TIME_END
0002	San-Palagino	95547	REG	45,7198,7198,7198	0002	45	San-Palagino	7198	7198	7198	7.52								
0002	Parmer Water	95547	SAL	95547,7198,7198,7198	0002	95547	Parmer Water	7198	7198	7198	5.25								
0002	San-Palagino	95548	REG	95548,7198,7198,7198	0002	95548	San-Palagino	7198	7198	7198	7.52								
0002	Parmer Water	95549	REG	95549,7198,7198,7198	0002	95549	Parmer Water	7198	7198	7198	5.25								
0001	CAR	1234	REG	1234,111,111,111	0001	1234	CAR	1	1	1	24588	10000	10000						
0001	PC	1234	REG	1234,111,111,111	0001	1234	PC	1	1	1	24588	10000	10000						
0002	Coca Cola	95549	REG	95549,7198,7198,7198	0002	95549	Coca Cola	7198	7198	7198	5.25								
0048	BE P	2345	REG	2345,1234,1234,2345	0048	2345	BE P	1234	2345	2345	12.34								

Product History Click the Goods Name to view the Goods price change record

Goods Name	Goods Code	Template	ShopCode	GoodsCode	UPC1	UPC2	UPC3	Price1	Price2	Price3	Origin	Spec	Unit	Grade	SAL_TIME_START	SAL_TIME_END	UPC
Orange water	95549	REG	0002	95549	Orange water	7198	7198	7198	7.52								95549,7198,7198,7198

(1) Function button bar on the upper left

+ Add ↑ Import ↓ Export ↻ Bind ↓ Export Resource Binding ↑ Import Resource Binding

➤ **+Add:** Add new Goods information, Different dynamic model configurations add different information. Enter the value of the Goods field. If the system is synchronized, please obtain new data from the synchronization interface;

Product Management

* Template: * System Store:

ShopCode: GoodsCode:

GoodsName: UPC1:

UPC2: UPC3:

Price1: Price2:

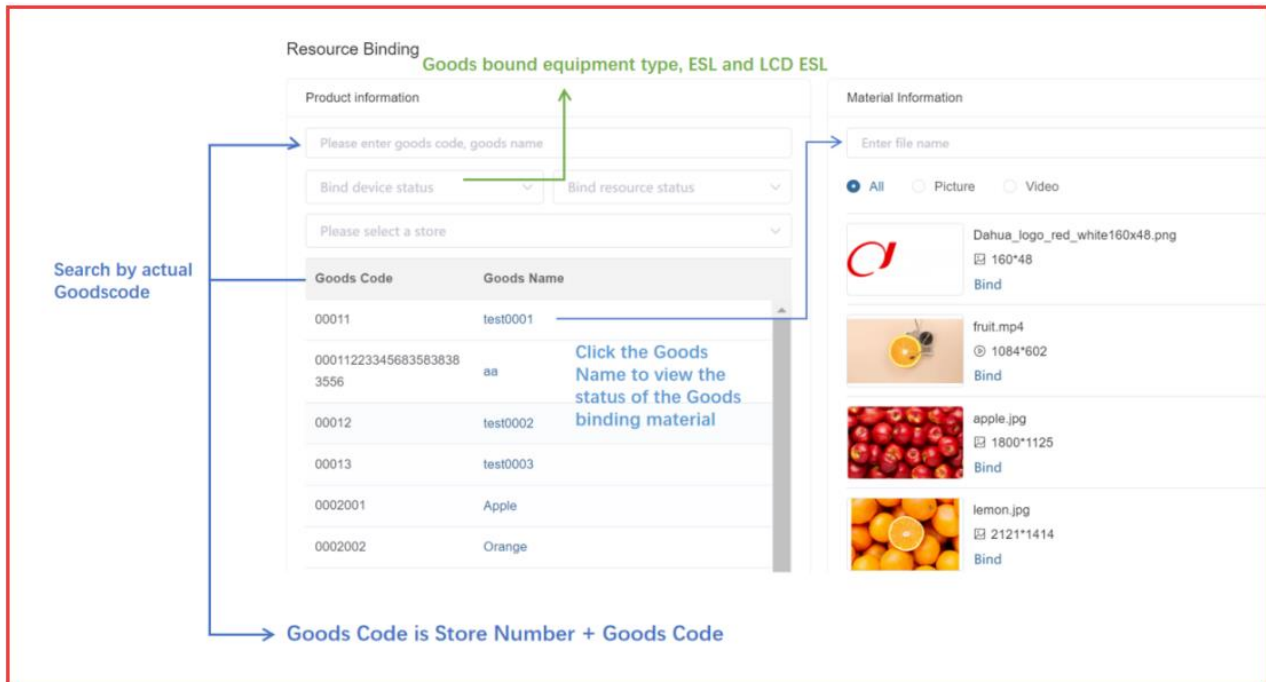
Price3: Origin:

Spec: Unit:

Grade: SAL_TIME_START:



SAL_TIME_END: QR CODE:

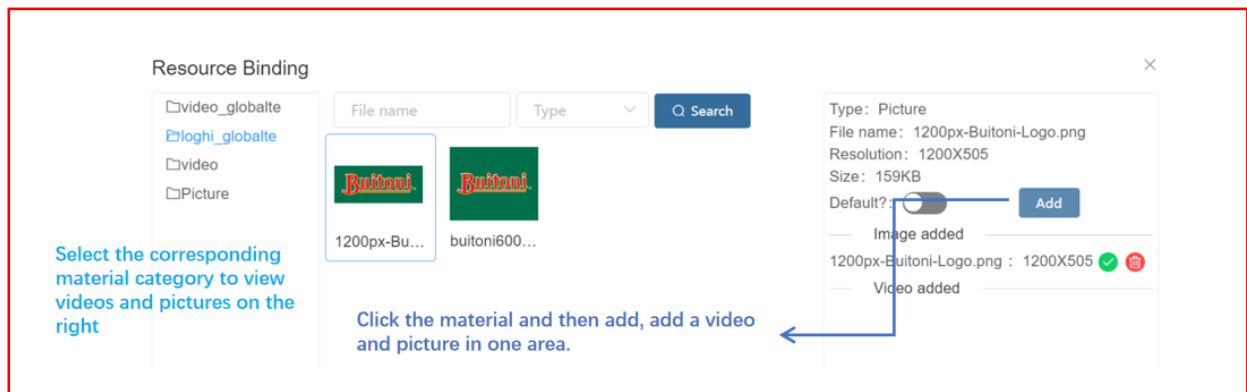
- **Import/Export:** After selecting a store, operate and import Goods information without a fixed form. You can export Goods data first, use the exported form as a form template, and modify the content for import. Mainly used for file docking.
- **Bind:** Check out the Goods-bound footage




- **Export Resource Binding/Import Resource Binding:** Select a store that uses LCD ESL and LCD. If you want to bind materials with tag binding Goods, you can first bind a store material, export the material binding relationship of this store, change the store number and import the material, and quickly bind materials to other store Goods. The premise is that the name and code field values corresponding to Goods of each store are the same.

(1) Action bar button

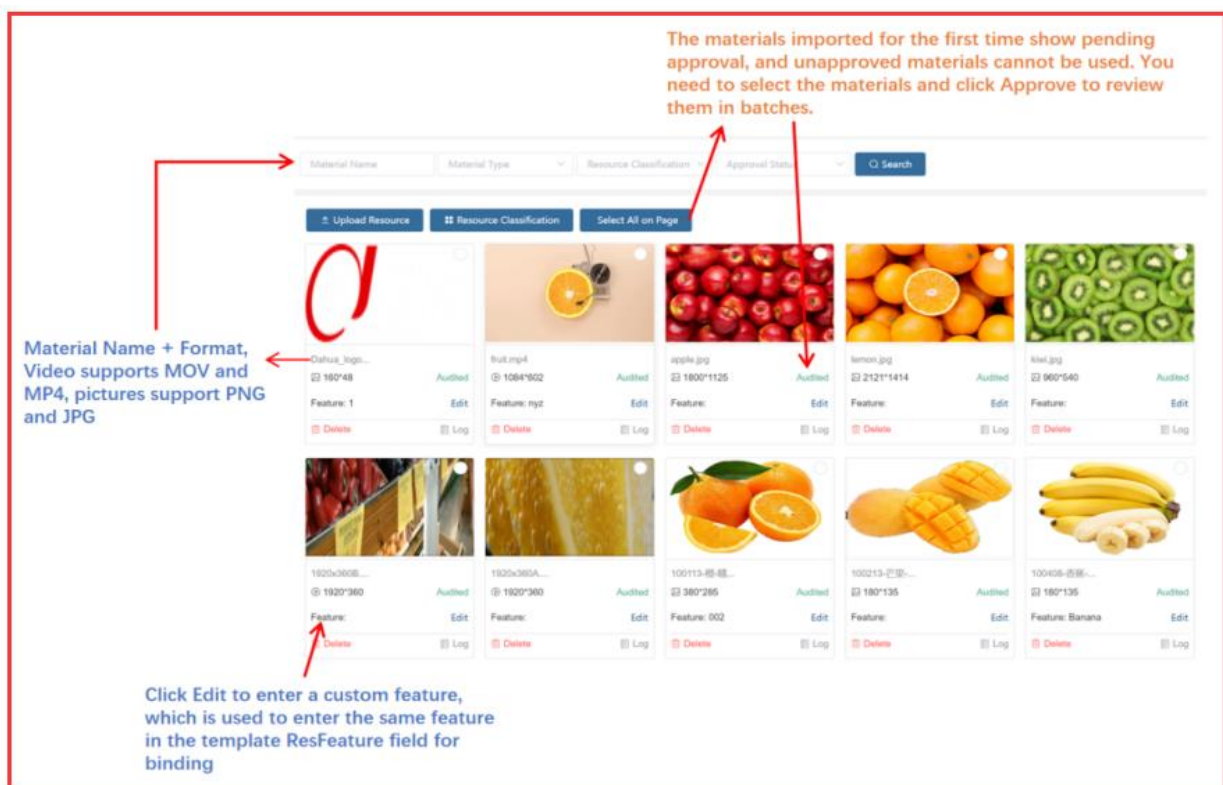
-  Modification of Goods information is invalid for database, FTP file, customization, and API interface push docking methods. Modified content will be overwritten after synchronization;
-  Resource Binding



-  Delete the corresponding Goods information, which cannot be deleted in batches.

3.3.2 Material Management

Upload, review, delete video and picture materials and other functions.



(1) **Resource Classification:** Distinguish material format, use area, etc.;

Resource Classification

Class Name	Operate
video_globalte	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
loghi_globalte	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
video	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
Picture	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

(2) **Upload Resource:** Support batch upload.

Upload Resource

*** Resource Classification**

Resource Classification

Classify the uploaded materials and create a new category in the material classification

System Store

Please select a store

Select a store, this material can only be used under this store, if you do not select a store, the material will be used globally

Select Material

Select File or Zip

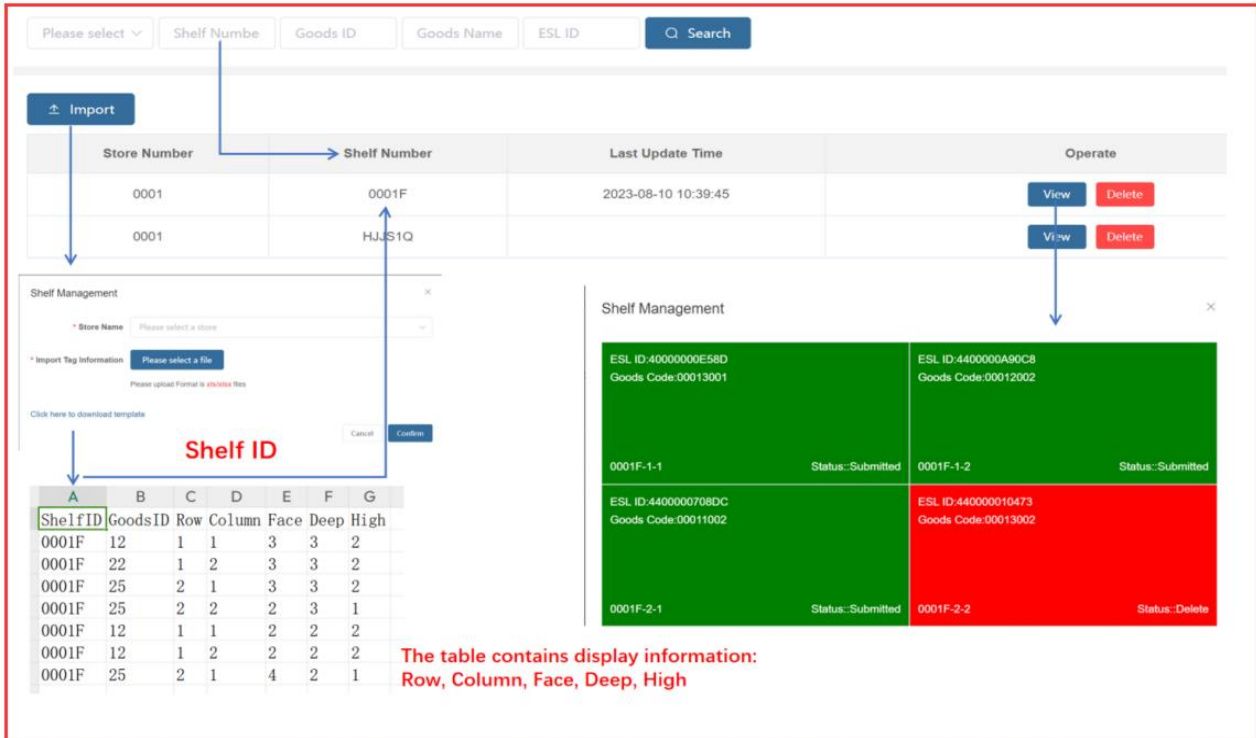
To upload a single video or picture, you can upload a compressed package for batch upload. Some formats of the compressed package are not supported, and the maximum supported size is 200M.

☐ Overwrite Existing Tag Records

Must be checked by default

3.3.3 Shelf Management

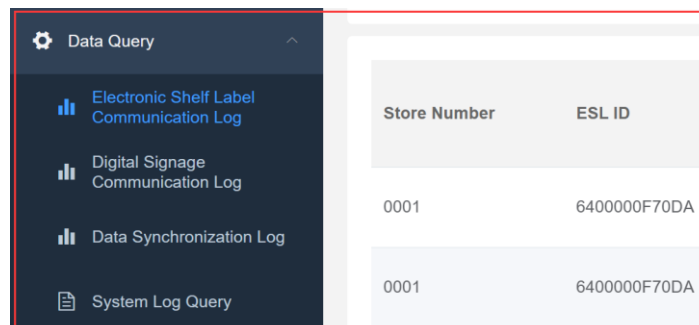
To upload the shelf display information table, view the content of the shelf display information table, and delete the shelf display, you need to use it with the APP display adjustment (this function will continue to be optimized in the future).



The screenshot displays the 'Shelf Management' interface. At the top, there is a search bar with fields for 'Please select', 'Shelf Number', 'Goods ID', 'Goods Name', and 'ESL ID', along with a 'Q Search' button. Below the search bar is an 'Import' button. The main table shows shelf data with columns: Store Number, Shelf Number, Last Update Time, and Operate. The table contains two rows of data. To the left of the table is a 'Shelf Management' sidebar with options for 'Store Name', 'Import Tag Information', and a 'Click here to download template' link. Below the sidebar is a 'Shelf ID' table with columns A through G. The table contains data for various shelf locations. To the right of the main table is a 'Shelf Management' detailed view showing a grid of shelf information with columns for ESL ID, Goods Code, and Status. The grid contains four rows of data. A red arrow points from the 'View' button in the main table to the detailed view. A red text box at the bottom right of the screenshot states: 'The table contains display information: Row, Column, Face, Deep, High'.

(1) Scenario: The customer has display data (shelf location and product binding), uploads and synchronizes the display data to the eRetail3.1 system, the customer directly binds the tag according to the display data, and the tag displays Goods information according to the corresponding Goods in the display data. Tag is no longer directly bound to Goods.

3.4 Data Query



The screenshot displays the 'Data Query' interface. On the left is a sidebar with a 'Data Query' header and four query options: 'Electronic Shelf Label Communication Log', 'Digital Signage Communication Log', 'Data Synchronization Log', and 'System Log Query'. On the right is a table with two columns: 'Store Number' and 'ESL ID'. The table contains two rows of data.

Store Number	ESL ID
0001	6400000F70DA
0001	6400000F70DA

3.4.1 Electronic Shelf Label Communication Log

Check the communication status of the label to determine whether the label and the base station are in an abnormal state.

Please select a store

ESL ID

Goods ID

ESL type

Communicat

Communicat

Start Time

End Time

Search

Store Number	ESL ID	ESL type	ESL Template	UPC	Communi- cation Type	Communi- cation Status	Electricity	Signal strength	Temperature	Creation Time	Last sent time	Operate
0001	6400000F70DA	ET1020-64	REG	0220230818	Bind	Success	100%	-79	25	2023-08-18 11:08:29	2023-08-18 11:08:3	
0001	6400000F70DA	ET1020-64	REG	0220230818	Bind	Success	100%	-85	25	2023-08-18 11:01:19	2023-08-18 11:01:2	
0001	4400000A90C8	ET0750-44	TEST	0120230815	Bind	Success	100%	-85	25	2023-08-15 09:53:42	2023-08-15 09:54:3	
0001	4400000A90C8	ET0750-44	TEST	0120230815	Bind	Init	—	—	0	2023-08-15 09:49:20		
0001	4400000A90C8	ET0750-44	TEST	0120230815	Bind	Success	100%	-82	25	2023-08-15 09:45:46	2023-08-15 09:46:3	
0001	4400000A90C8	ET0750-44	TEST	0120230815	Bind	Success	100%	-58	25	2023-08-15 09:20:13	2023-08-15 09:45:4	
0001	430000078B27	ET0420-43	OLD	13338	Bind	Success	100%	-39	26	2023-08-11 12:39:35	2023-08-11 12:39:3	
0001	430000078B27	ET0420-43	OLD	13338	Bind	Success	100%	-52	29	2023-08-11 12:38:28	2023-08-11 12:38:2	
0001	430000078B27	ET0420-43	OLD	13338	Bind	OverWrite	—	—	0	2023-08-11 12:35:28		

(1) Communication Type:

Status	Meaning	Status	Meaning
First	The state of the task just created	Data	Tasks created by product information changes
Bind	Tasks created by binding	Unbind	Tasks created by unbinding
Search	Undefined	Specific	Undefined
Refresh	Tasks created by refreshing	LED	Tasks created by the flash command
Image	Tasks created by specifying an image	Heartbeat	Undefined
TFT	Undefined	Preview	Tasks created through APP custom templates
Low Power	Task created when Label is low on battery	Broadcast	Undefined

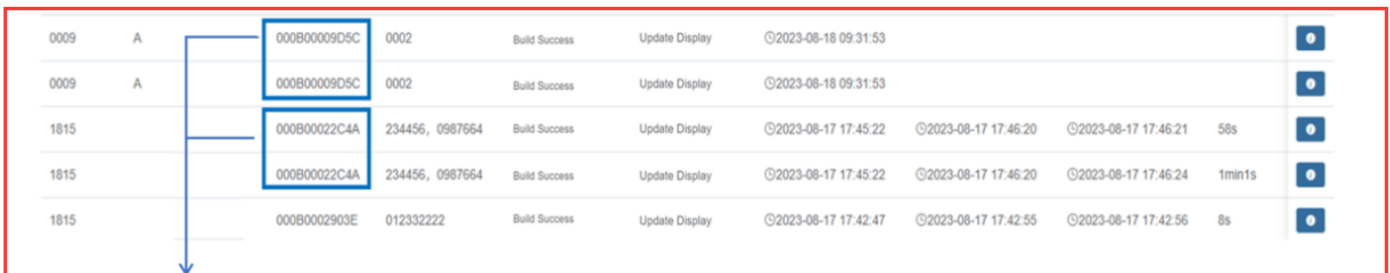
(2) Communication Status:

Status	Meaning	Status	Meaning
Init	Initialization, no communication	Sending	Communicating
Success	Successful communication	Error	Failed communication
Max Try	Label's single communication reached 128 times	Timeout	Undefined
Drop	Undefined	Pause	Undefined
Over Write	Task coverage	Other	Undefined

(3) Communication base station: Check which base station successfully communicated with the task of the label, which is distinguished by the base station ID. The number in () behind the base station ID is the number of times the label communicated this time.

3.4.2 Digital Signage Communication Log

Check the communication status of ESL LCD to judge whether the WIFI base station and video service are in an abnormal state;



An ESL LCD task generates two records, displaying the content generation task and the communication task. After the video is generated, the task communication is performed. If the display content is not successfully generated (**the waiting time for generation is related to the distribution of video tasks and the number of video tasks in the TFT configuration**).

- 1.Batch communication failed, please check the settings of related videos.
- 2.If a single communication fails, please check the material, and the ESL LCD status is communicating.

(1) Task Type :

Status	Meaning	Status	Meaning
Update display	Tasks created by binding, product data changes	Default	Tasks created by specifying an image
Turn off Backlight	Tasks created by "Screen Off"	Turn on Backlight	Tasks created by Bright Screen
Reset	Tasks created by "Delete-Factory Restore"	OTA Upgrade	Tasks created by "OTA upgrade"

(2) Video Send Status:

Status	Meaning	Status	Meaning
Not Generated	Display content	Generating	Display content
Build Failed	Display content	Build Success	Display content
Task Overridden		Download Failed	
Task Overload		Confirmation Failed	
Execution Exception		Confirmation Complete	

(3) Operation: button, you can view the information created in this task, download videos and pictures, etc.

3.4.3 Data Synchronization Log

Each store synchronizes the logs. When the product information does not meet the requirements, check whether the synchronization logs are updated normally, which is controlled by the Data Sync service.

Please select a store

⌚ Start Time

⌚ End Time

🔍 Search














Store Number	Log encoding	Log level	Describe	Time of occurrence
0010	4000	Infor	同步服务已经启动,DataSync Server version 【3.1.2.0】 TaskProducer '300',DataSyncStatus '-1'.	⌚2023-07-12 14:15:17
0010	4000	Infor	DataSync service start,DataSync Server version 【3.1.2.0】 TaskProducer '300',DataSyncStatus '-1'.	⌚2023-03-21 11:23:02
0010	4000	Infor	同步服务已经启动,DataSync Server version 【3.1.2.0】 TaskProducer '300',DataSyncStatus '-1'.	⌚2023-02-27 23:35:56
0010	4000	Infor	同步服务已经启动,DataSync Server version 【3.1.2.0】 TaskProducer '300',DataSyncStatus '-1'.	⌚2023-02-25 21:18:51
0010	4000	Infor	同步服务已经启动,DataSync Server version 【3.1.2.0】 TaskProducer '300',DataSyncStatus '-1'.	⌚2023-02-25 20:37:57
0010	4000	Infor	同步服务已经启动,DataSync Server version 【3.1.2.0】 TaskProducer '300',DataSyncStatus '-1'.	⌚2023-02-25 20:26:21
Global	4001	Warning	数据同步服务未启动,No store configurations found to synchronize,Service suspension	⌚2023-02-25 14:55:18
Global	4001	Warning	数据同步服务未启动,No store configurations found to synchronize,Service suspension	⌚2023-02-24 14:55:18
Global	4001	Warning	数据同步服务未启动,No store configurations found to synchronize,Service suspension	⌚2023-02-23 14:55:18

Meaning of each value

Status	Meaning	Status	Meaning
Find	The number of products queried under this store	Update	Number of product data updates
Insert	The number of items added	Sync Type	Synchronization type, the first number of 0-0 represents on and off synchronization, -1 off, 0 on -0 means data source, 0 database, 1 file, 2FTP file, 99 customized

3.4.4 System Log Query

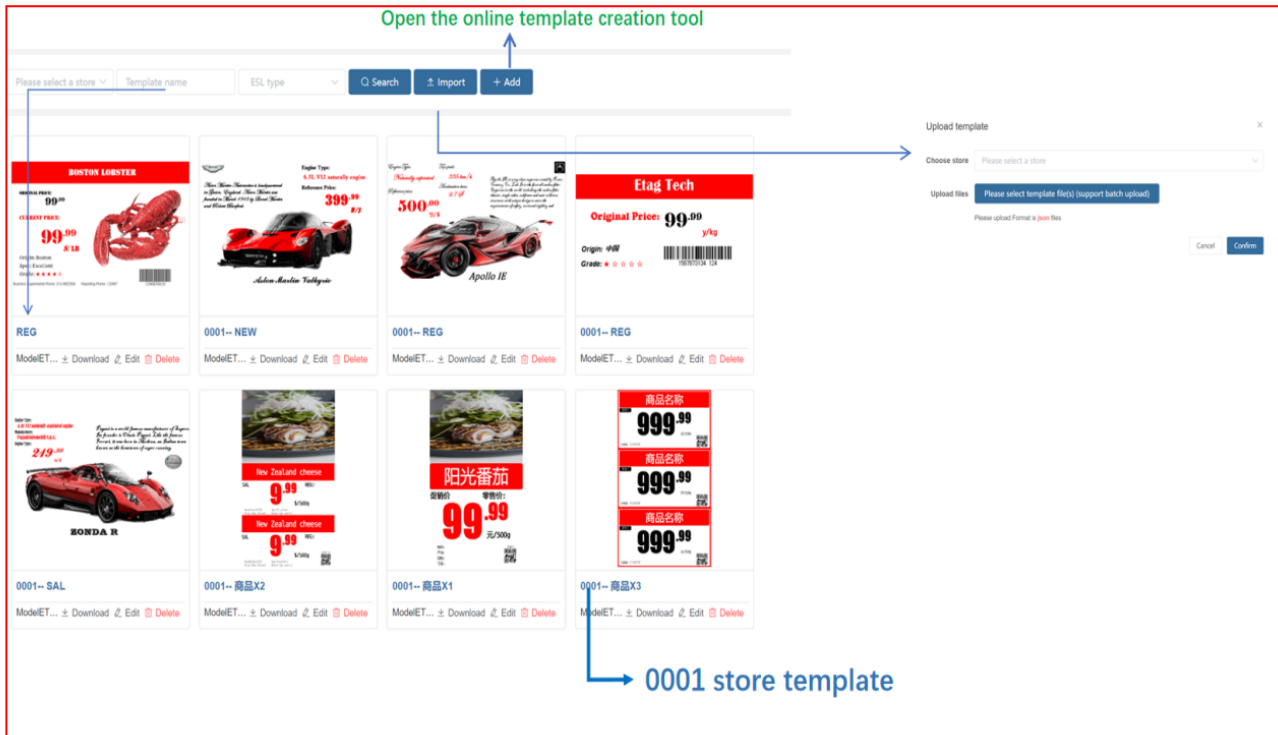
Synchronization logs, system status information, label communication status, offline base station, whether the service is running abnormally, login account information, whether the system configuration is abnormal, WEB page operation, you can check the message code through the log code to determine which module of the system is the problem, and operate button to see the contents of the system log.

Store Number	Log encoding	Log level	System log	Time of occurrence	Operate
0003	1028	Infor	基站上线,APID 10	©2023-08-21 12:14:55	
0003	1028	Infor	基站上线,APID 10	©2023-08-21 11:54:39	
0003	1028	Infor	基站上线,APID 10	©2023-08-19 11:45:14	
0003	1028	Infor	基站上线,APID 10	©2023-08-18 12:06:44	
0031	1028	Infor	基站上线,APID 01	©2023-08-17 17:35:50	
0031	1028	Infor	基站上线,APID 01	©2023-08-17 15:08:34	
0031	1028	Infor	基站上线,APID 01	©2023-08-17 13:39:18	
0031	1028	Infor	基站上线,APID 01	©2023-08-17 13:24:32	
0003	1028	Infor	基站上线,APID 10	©2023-08-17 11:48:53	
0032	1029	Warning	基站离线,APID 01	©2023-08-16 20:38:50	
0032	1002	Infor	任务已经创建 (绑定) ,1	©2023-08-16 20:23:52	
0032	1002	Infor	任务已经创建 (绑定) ,1	©2023-08-16 20:23:36	
0032	1002	Infor	任务已经创建 (绑定) ,1	©2023-08-16 20:21:59	

3.5 Template Management

3.5.1 Template Management

The product judges the template type through the template configuration-template expression, calls the corresponding template for display, and makes the corresponding template according to the required label model and the number of template types. Templates can be created and edited online, or templates made by eDesigner3.1 template tools can be imported through the import function. Templates are divided into global and store. The store template can only be used in this store, and the global template can be used in all stores.



(1) Description of the template name: REG corresponds to the general sales model of the product, SAL corresponds to the promotional sales model of the product, and MER corresponds to the member sales model of the product. The names of these three categories can be customized, and this name is defaulted. The meaning of the template code fixed by the system, U is unbinding, and OOS is the APP inventory mark template. **Commodity x 1** is usually the template name of LCD ESL or LCD, and **Commodity x 2** means that the price tag displays two commodity information at the same time. Only U and OOS mentioned above cannot customize the name. The name of the label template of the same model cannot be the same, and the name of the label template of different models can be the same.

(2) Template name naming specifications: model + template type or template display product quantity, such as 4.2-inch REG, 2.13-inch frozen REG, 10.1-inch **product x 2**.

(3) **+Add**: there are many contents, and the user manual is made separately;

3.5.2 Holiday Management

Set the date to automatically switch special themes (festivals, events) templates for LCD ESL. First of all, make festival and activity templates in template Management.

Click to view the Settings activity information

Select the start date and end date

Add

* name

Choose store Please select a store

Start Time

End Time

Cancel Confirm

P1: Default template

0001-- ProductX2

ModelET... Download Edit Delete

P2: Festival、activity template

0001-- Productx2_NationDay

ModelET... Download Edit Delete

Template name corresponding (Festival, event name)

3.6 System Management

System Management

User Management

Permission Settings

Organization Structure

Parameter Settings

Admin Tools

System Configuration

System Font Management

Application Management

template

000101	0001
--------	------

3.6.1 User Management

1. Manage eRetail3.1 system background and APP background login accounts, and the same account can log in to multiple devices.

Username

User status

User role

Q Search

+ Add

Username	Store	Status	Role	Last login time	Contact email	Operate
template		Normal	pda	🕒 2022-06-13 16:25:04		<div><div>🔍</div><div>🗑️</div><div>🔄</div></div>
000101	0001	Normal	admin	🕒 2023-08-09 15:09:21		<div><div>🔍</div><div>🗑️</div><div>🔄</div></div>

(1) **+Add**: Add new user.

Add
X

* Username
Username: Login account

* Login password
Login password: Password

Contact email
Contact email: Optional

* User role

User role

User role: Different roles have different permissions, which are determined by the permission setting menu.

* Organization

Organization

Organization: Used for store and account area management, each area can't view the information under each other's store, it is determined by the organizational structure menu.

Store

Please select a store

Store: If it is an account used by APP, please select the corresponding store, background, template tools, etc.

Cancel
Confirm

3.6.2 Permission Settings

Role	Status	Audit permission	Remarks	Last Update Time
admin	Normal	<input checked="" type="radio"/> Open	Administrator	2022-05-06 15:24:37
manager	Normal	<input checked="" type="radio"/> Open	Store manager	2022-05-06 15:24:37
pda	Normal	<input type="radio"/> Closure	PDA user,Shop user	2022-05-06 15:24:37
advertiser	Normal	<input type="radio"/> Closure	Advertisers	2022-05-06 15:24:37
OPEN_API	Normal	<input type="radio"/> Closure	Open api user	2022-05-06 15:24:37
ESLUser	Normal	<input type="radio"/> Closure	Esl user	2022-05-06 15:24:37
LCDUser	Normal	<input type="radio"/> Closure	Lcd user	2022-05-06 15:24:37
ADVUser	Normal	<input type="radio"/> Closure	Adv user	2022-05-06 15:24:37
ESL_ADVUser	Normal	<input type="radio"/> Closure	Esl and adv user	2022-05-06 15:24:37
ESL_LCDUser	Normal	<input type="radio"/> Closure	Esl and lcd user	2022-05-06 15:24:37
LCD_ADVUser	Normal	<input type="radio"/> Closure	Lcd and Adv user	2022-05-06 15:24:37
ESL_LCD_ADVUser	Normal	<input type="radio"/> Closure	Esl,lcd,adv user	2022-05-06 15:24:37

(1) The meanings corresponding to the name of each authority role.

Character name	Meaning
admin	Administrator authority, the highest authority, all content can be set and changed
manager	Customer business manager login account role
pda	The relevant personnel who use the APP at the store end to log in to the account role
advertiser	Advertiser users, only the homepage displays content
OPEN_API	Interface permissions, used for users used in API docking, mainly used for data transmission, etc.
ESLUser	Label permissions
LCDUser	ESL LCD permission
ADVUser	ADV permission
ESL_ADVUser	Label and ADV permission

ESL_LCDUser	Label and LCD permission
LCD_ADVUser	LCD and ADV permission
ESL_LCD_ADVUser	LCD、Label and ADV permission

3.6.3 Organization Structure

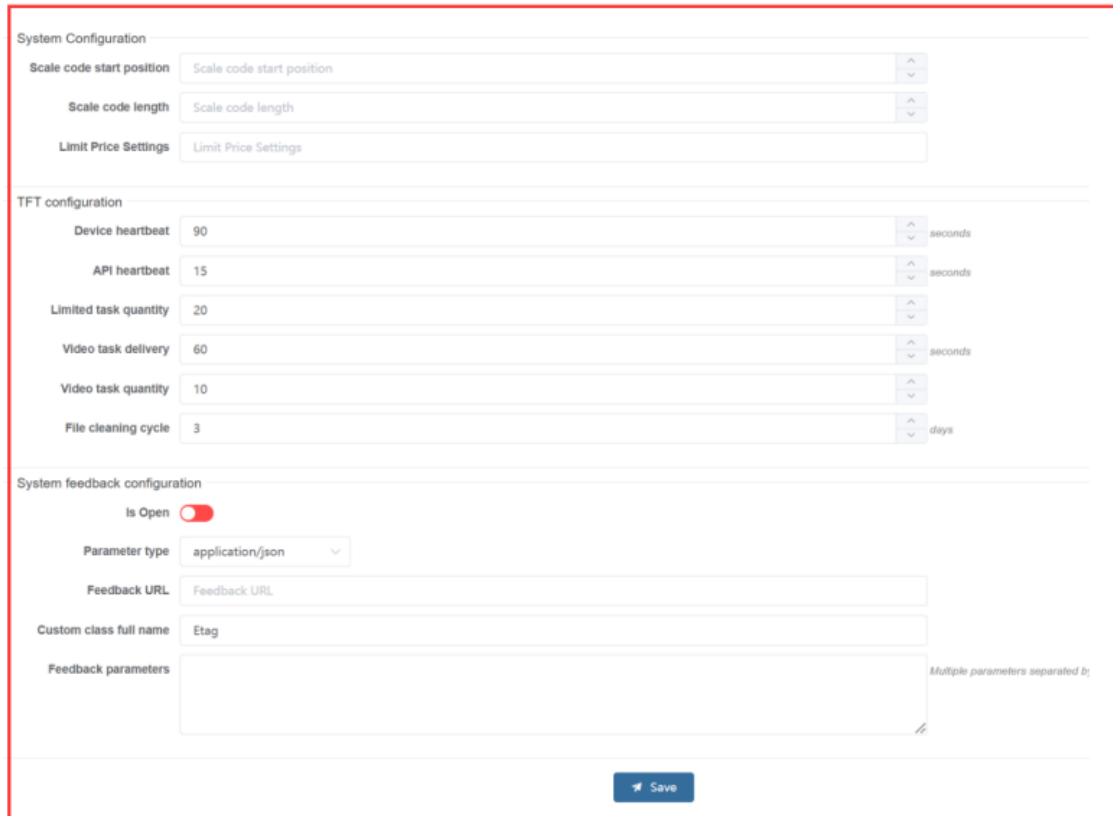
The default Sertag organization, all sub-organizations are managed under this organization, and organizations of the same level as Sertag cannot be added, and sub-organizations can be added through +.

Organization name	Organization ID	Creation Time	Operation
SERTAG	1	2023-08-04 11:16:51	+ ↻ ✖

(1) Effect: It is used to log in to the APP account (global account) and the establishment of stores in the background to realize the management of stores under different organizations.

(2) For example: the newly-built stores 0013 and 0014 belong to the Australian region, the 0015 store selects the UK region, the new global account role selects manager, the organization selects the Australian region, and the login account eRetail3.1 system background only displays the information of 0013 and 0014 stores. Stores that do not display 0015 display.

3.6.4 Organization Structure



The screenshot displays a web-based configuration interface for a system. It is divided into three main sections:

- System Configuration:** Contains three input fields: "Scale code start position", "Scale code length", and "Limit Price Settings". Each field has a small up/down arrow icon on its right side.
- TFT configuration:** Contains six input fields: "Device heartbeat" (value 90), "API heartbeat" (value 15), "Limited task quantity" (value 20), "Video task delivery" (value 60), "Video task quantity" (value 10), and "File cleaning cycle" (value 3). The first four fields have "seconds" as a unit, and the last one has "days". Each field has a small up/down arrow icon on its right side.
- System feedback configuration:** Contains a toggle switch for "Is Open" (currently turned on), a dropdown menu for "Parameter type" (set to "application/json"), a text input for "Feedback URL", a text input for "Custom class full name" (set to "Etag"), and a text area for "Feedback parameters" with a note "Multiple parameters separated by;".

A "Save" button is located at the bottom right of the interface.

(1) Please Select a Store: You can also set a single store when setting the global setting. The TFT configuration part is only used for the global. After selecting a store, click + to add store configuration, and select the corresponding store to set parameters;

(2) System Configuration

★ **Scale code start position and Scale code length:** Parameters filled in for APP interception and binding.

★ **Limit Price Settings:** It is restricted that the price changed by the store app cannot be greater than the price specified by the headquarters. Invalid for database and customized synchronization methods.

(3) TFT configuration: Only set globally.

(4) Set the TFT timer switch time, control all LCD ESL under this store

Device heartbeat	90	API heartbeat: Report the screen data to the cloud background at a fixed time of 15 seconds. If the report cannot be made regularly, the device will display offline. Device heartbeat: The default is 90 seconds, set the size according to the use scene (number of screens in the area), the maximum is 80 screens with one WIFI, the number of screens in the use scene area is far less than 80 screens, 90 seconds can be shortened to 30 seconds, etc. The number of screens is far greater than 80 screens, it is recommended to add more WIFI. Limited task quantity: Process 20 screens at the same time
API heartbeat	15	
Limited task quantity	20	
Video task delivery	60	
Video task quantity	10	
File cleaning cycle	3	

Video task delivery: Video task processing cycle → **Process 10-screen video tasks every 60 seconds**
Video task quantity: The number of tasks processed in the task processing cycle → **Process 10-screen video tasks every 60 seconds**
File cleaning cycle: Clean every 3 days

(5) System feedback configuration: To feedback parameters such as ESL refresh and base station status to the customer system, the customer needs to provide the URL address of the feedback. If it is a customer-customized project, the customer needs to inform the custom name and feedback parameters.

System feedback configuration

Is Open ☒

Parameter type application/json

Feedback URL Feedback URL

Custom class full name Etag

Feedback parameters

Multiple parameters separated by ,

3.6.5 Admin Tools

(1) Set information modification, set stores to synchronize independently.



(2) The instance name is the actual column name parameter filled in the system configuration.

Data Backup

Instance Name

Backup Tables


☒ D2M
☒ Configure
☒ Template
☒ SysUser
☒ Shop
☒ Tag
☒ GoodsBind
☒ ResBind
☒ TFTInfo
☒ Settings
☒ Area

Enable automatic backup
☒

★ Select the backup data table, D2M is the commodity data connection information table, Shop is the store information table, and Tag is the ESL information table.

★ Enable automatic backup: Set the backup period-Scheduled backup.

(3) If the synchronization service is abnormal or not synchronized, it will show that the synchronization service is not running. When the data cannot be updated normally, check whether it is running normally here.



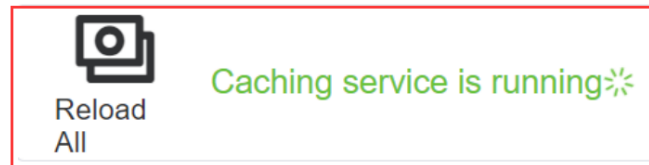
Reload All

Sync service is running*

☒

Request submitted, please wait about one minute to check

(4) Clear the eRetail3.1 system-related data in Redis. If the base station is not online, the data cannot be imported or exported. Try to clear the cache service.



(5) Refresh all labels in the specified store, or refresh the labels under the store according to the conditions;

TFT screen refresh	ESL refresh
<input type="text" value="Store"/>	<input type="text" value="Store"/>
<input type="text" value="Select area"/>	<input type="text" value="Template name"/>
<input type="text" value="Template name"/>	<input type="button" value="Submit"/>
<input type="button" value="Submit"/>	

(6) LCD ESL hardware program upgrade, click Add, enter the MAC address of the device to upgrade, the label MAC address is the device ID.

OTA Upgrade

3.6.6 System Configuration

(1) Parameters set in the system configuration. Enabling the shared directory means that the video is sent through the SendServer service, and after it is enabled, it is downloaded through the TFTAPI shared folder;

System parameters

* Instance name

ETAG

Customer code

ETAG

Client name

Kris

System default language

English

* Please enter the current site access address

http://192.168.4.118:5000/

Enable Share Directory

☒

Save

(2) **Message Stack:** eRetail3.1 system log files are sent to relevant maintenance personnel by email.

Message stack

Monitor Configuration

Is enabled

☒

Monitor API

http://api.etag-tech.com/api/Monitor/Push

Mail configuration

Is enabled

☐

Sender account

Sender password

Mail server

Recipient list

Multiple parameters', Segmentation

Message configuration

* Message code

Message code

Email

☐ Enable ☒ Disabled

API

☐ Enable ☒ Disabled

Monitor

☒ Enable ☐ Disabled

Cancel

Confirm

Receiving method object, different log files can be sent to different objects, you can choose multiple

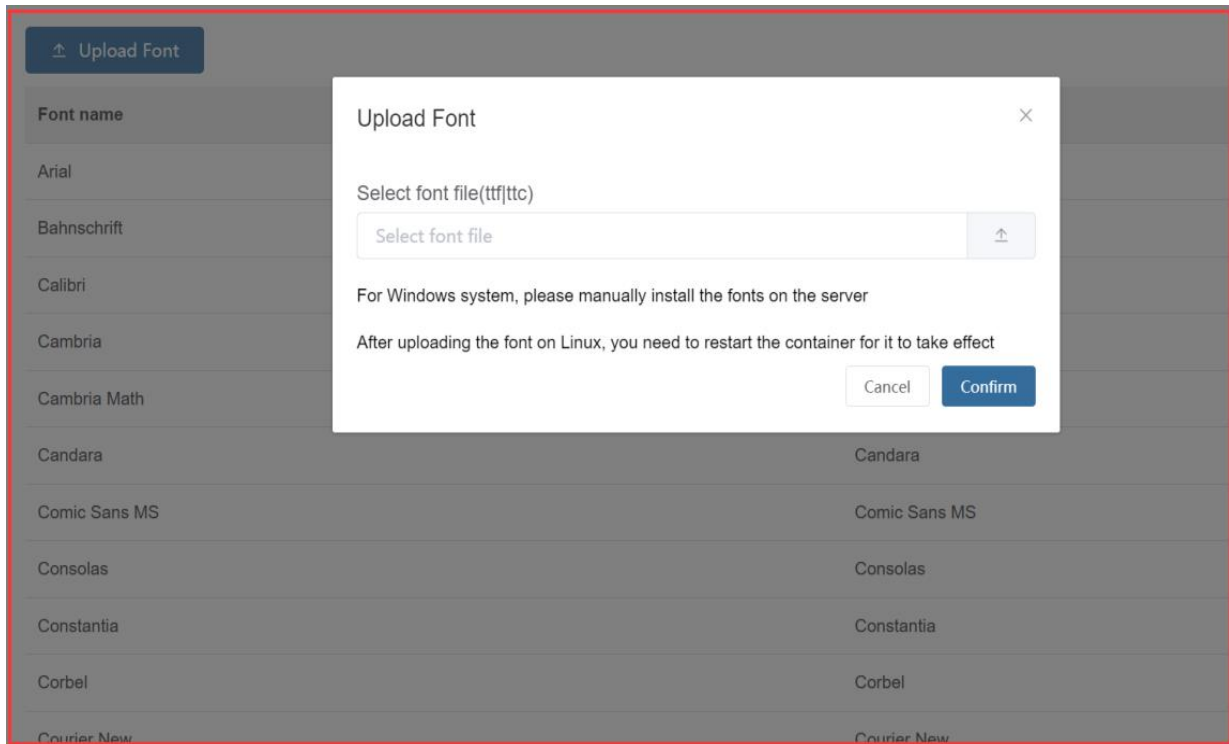
Customize and add the log content sent: You can choose the base station offline, online, label refresh failure, service offline, etc.

Message configuration

Message code	Message description	Email	API	Monitor	Operate	
2061	服务下线	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<div>+ Add</div>

Save

(3) **System Font Management:** The font selected when making the template needs to be installed on the eRetail3.1 system server to achieve the display effect.



(4) **Application Management:** Download the APP software, LCD software, upload the ESL handheld APP here to scan the QR code in the APP configuration menu to download the APP.

APPID	Application name	Version Number	Build number	Describe	Last release time	Download	Operate
5D460546C356CAE04E88-D6FAFBE81A59	ESL 电子价签	3.1.0	2	电子价签手持APP	2022-06-14 17:01:19	Download	
4b9fcea8-1dd5-45c8-90d8-6f0937354260	ePlayer	3.1.3	3	广告屏播放器	2022-06-14 17:01:19	Download	
ETAG0546C356CAE04E88-D6FAFBE86877	LightHouse	3.1.0	1	灯条APP	2022-06-14 17:01:19	Download	

Publish New Version

Application name

ESL 电子价签

* Build number

2

^

v

* Version Number

3.1.0

Select APK

Select APK installation file

^

Cancel

Confirm