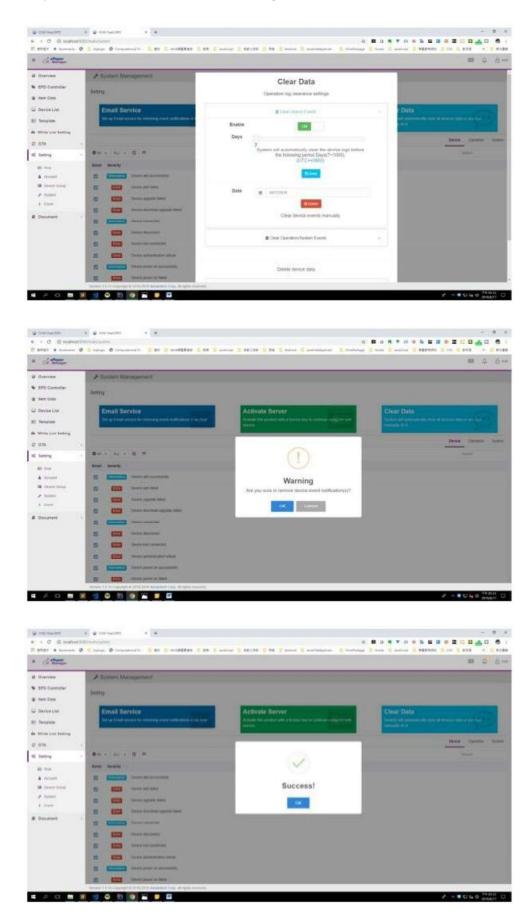
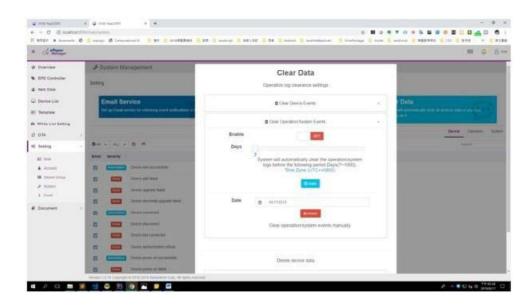
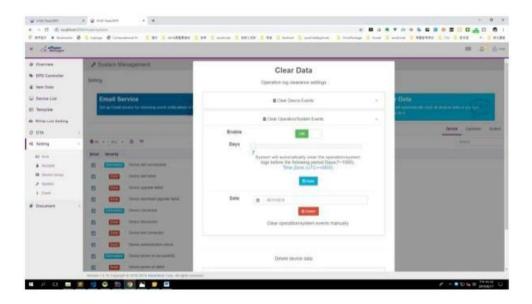
Select the clearance date (Reminder: the events between the date and before will be cleared), then click the Delete button to begin to clear data.

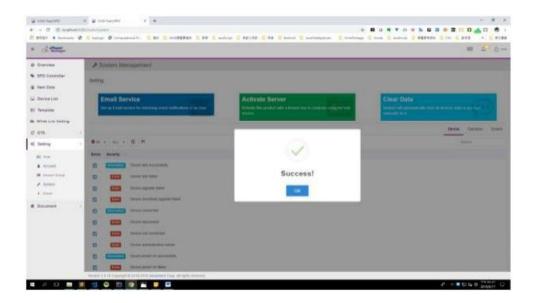


- 3. Clear operation/system events:
 - 1.) Open the Clear Operation/System Events section.

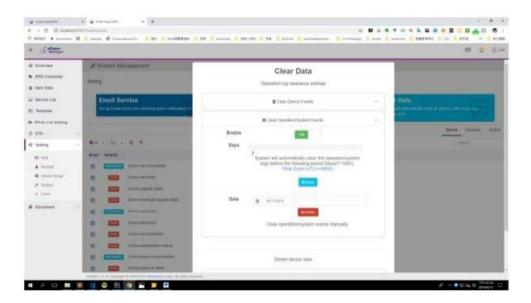


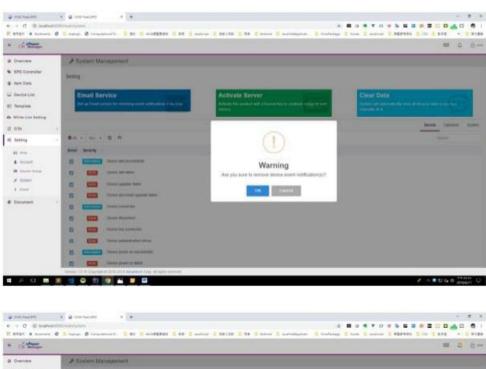
2.) Change the Enable switch to ON, and select the days how often the system will begin clearance, and then click save button to finish this configuration.

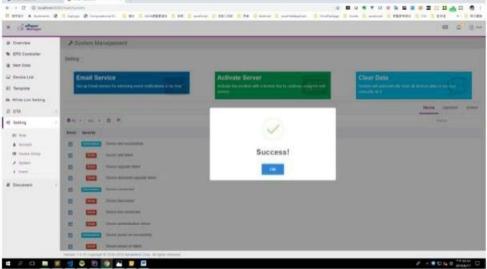




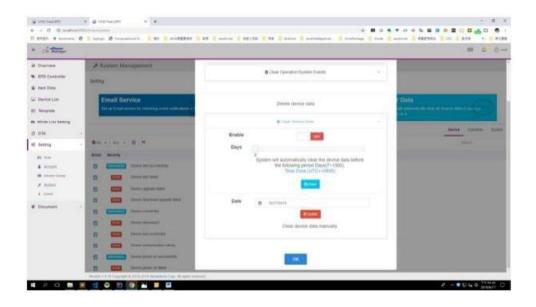
3.) Clear events manually. Select the clearance date (Reminder: the events between the date and before will be cleared), and click the Delete button to begin to clear data.



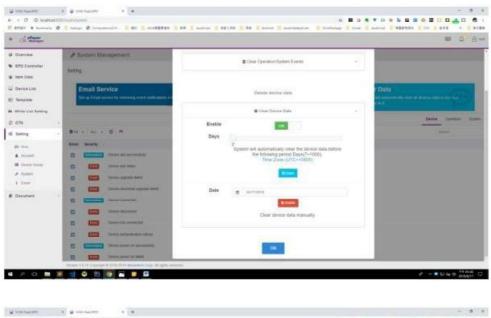


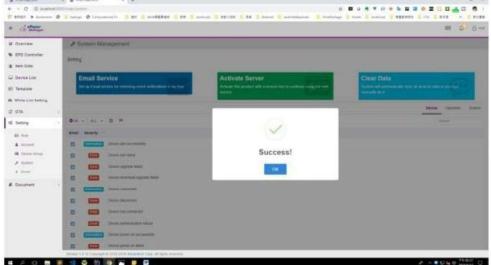


- 4. Clear device data:
 - 1.) Open the Clear Device Data section.

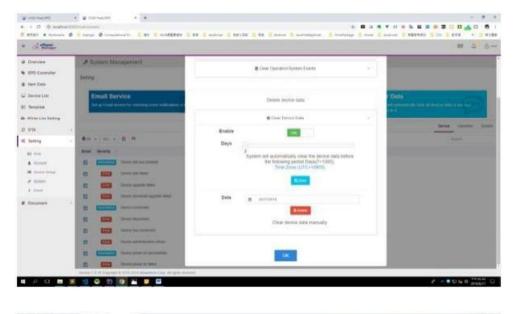


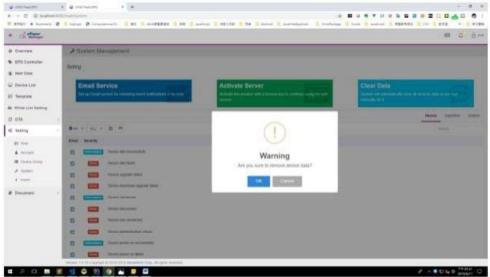
2.) Auto clearance. Change the Enable switch to ON, and select how often system will begin clearance, then click save button to finish configuration.

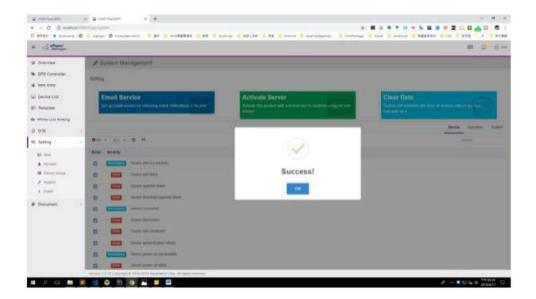




3.) Clear events manually. Select the clearance date (Reminder: the data between the date and before will be cleared), then click the Delete button to begin to clear data.

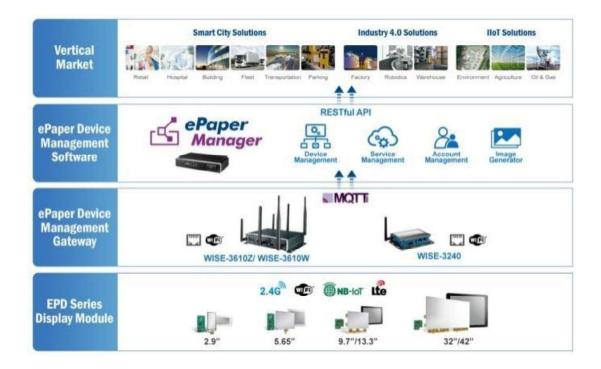






4.4 Integrate EPD APIs Into Your System

We provide easy-to-use APIs to help you integrate into your own system. Below are samples for you to understand. It's very easy to integrate into your system with our restful APIs.



Vertical applications need to send API to ePaper manager. Sample code below.

1. Our API in Javascript: setItemData to update data into ePaper manager and ePaper manager will help forward the data to EPD.

2. The user also can use: setSensorData to control EPD LED

```
// set LED light
           function setSensorData(){
               var agentid = $('#agentid').val();
               var plugin = $('#plugin').val();
               var sensorId = $('#sensorId').val();
                      sensorValue
                                           parseInt($('#sensor-
               var
Value').val());
               var url = HOST + '/esl/v1/devicectrl/data';
               var type = 'POST';
               var data = {agentId: agentid, plugin: plugin,
sensorIds: [{n: sensorId, v: sensorValue}]};
               api(url, type, data, function(res){
                   console.log(JSON.stringify(res));
                   if(res && res.items && res.items.length > 0
&& (res.items[0].statusCode === 202 || res.items[0].statusCode
=== 200)){
                   alert("Update Sensor Data Command Sended!") }
                  else {
                   alert("Ajax request error!");
                  }
               });
           }
```

For more APIs, check the next chapter.

4.5 Control EPD Data Through ePaper Manager API

1. Upload EPD Data

- path: /esl/v1/items
- method: POST
- header: Basic Authorization
- body paramters:
- code: string
- name (group name): string
- content: JSON string
- response(example)
 { "result": true }

2. Upload EPD Data for a specific item group

- path: /esl/v1/items/name/{name}
- method: POST
- header: Basic Authorization
- body paramters:

```
code: string
name (group name):
string – content: JSON string
body(example)
{ "items": [ { "code": "X001", "name": "John", "content: "{"name": "John", "age":
```

response(example)
{ "result": true }

3. Update EPD Data

"18"}" }] }

- path: /esl/v1/items
- method: PUT
- header: Basic Authorization
- body parameters:
 - code: string
 - name (group name):

string - content: JSON string

body(example) (Notes: you have to give all content in body even if you only need to edit partial content)

```
{ "items": [ { "code": "X001", "name": "John", "content": "{"name": "John","age": "20"}" } ] }
```

response(example)
{ "result": true }

4. Delete EPD Data

- path: /esl/v1/items
- method: DELETE
- header: Basic Authorization
- body parameters:
 - code: string
- body(example)

{ "items": [{ "code": "X001" }] }

response(example)
{ "result": true }

5. Get EPD device AgentID

- path: /esl/v1/devices/agentid
- method: GET
- header: Basic Authorization
- url parameter: ?itemcode=[ITEM CODE]
- response(example)

{ "agentid": "00000001-0000-0000-0012-4b001557aa72" }

6. Get EPD device Status

- path: /esl/v1/devices/status
- method: GET
- header: Basic Authorization
- url parameter: ?agentid=[DEVICE AGENT ID]
- response(example) (Notes: all possible status are "sending command", "command timeout", "setting image", "set image okay", "set image error", "refreshing image", "refresh image okay", "refresh image error") { "status": "set image okey" }

7. Set EPD device Binding

path: /esl/v1/devices/setBinding

- method: POST
- header: Basic Authorization
- body parameters:
 - agentid: string
 - templatename: string
 - body(example) (Notes: you must provide "agentid" or "did" in body, and for other parameters as follows, you only need to give at least one: "tid or templatename", "iid or itemcode", "mid")

{ "agentid": "00000001-0000-0000-0012-4b001557a500", "templatename": "Abnormal-English" }

response(example)
{ "result": true }

8. Set EPD devices Binding

- path: /esl/v1/devices/setBindings
- method: POST
- header: Basic Authorization
- body parameters:
 - agentid: string
 - templatename: string
 - body(example) (Notes: you must provide "agentid" or "did" in body, and for other parameters as follows, you only need to give at least one: "tid or templatename", "iid or itemcode", "mid")
 { "bindings": [{ "did": 32, "itemcode": "Stop0002", "templatename": "Bus Stop

 $\label{lem:code} $$ { "bindings": [{ "did": 32, "itemcode": "Stop0002", "templatename": "Bus Stop Demo Init" }, { "agentid": "00000001-0000-00012-4b001557a682", "itemcode": "Stop0002", }] }$

response(example)
{ "result": true }

9. Transmit Image

- path: /esl/v1/devices/setImage
- method: POST
- header: Basic Authorization
- body parameters:
 - agentid: string
 - refresh(optional, default: 1): number [available values: 1: Refresh after transmit, 0: Just store image to ESL device memory]
 - page(optional, default: 0): number [available values: 0 ~ maxpagesize-1]

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body(example)

{ "agentid": "00000001-0000-0000-0012-4b001557aa72", "refresh": 1, "page": 0 }

response(example)
{ "status": "setting image" }

10. Transmit Image with Item Data

- path: /esl/v1/devices/setImageWithData
- method: POST
- header: Basic Authorization
- body

parameters: –
agentid: string –
item: JSON
– code: string

name (optional): string

- content (optional): JSON string
- refresh (optional, default: 1): number [available values: 1: Refresh after transmit, 0: Just store image to ESL device memory]
- page (optional, default: 0): number [available values: 0 ∼ maxpagesize-1]
- body(example)

{ "agentid": "00000001-0000-0000-0012-4b001557aa72", "item": { "code": "Stop0001", "name": "Taipei 101", "content": "{\"Stop_Name\":\"Grand Hotel\", \"Route1 Name\":\"Test\"}" }, "refresh": 1, "page": 0 }

response(example)
{ "itemStatus": "update item okay", "status": "set image okay" }

11. Refresh Image

- path: /esl/v1/devices/refreshImage
- method: POST
- header: Basic Authorization
- body parameters:
 - agentid: string
 - page(optional, default: 0): number [available values: 0 ~ maxpagesize-1]
 - body(example)
 { "agentid": "00000001-0000-0000-0012-4b001557aa72", "page": 0 }
- response(example)
 "status": "refreshing image" }

12. Get Item

- path: /esl/v1/items/itemcode/{itemcode}
- method: GET
- header: Basic Authorization
- response(example)

 $\label{thm:code:"device_00001", "iid": 243, "name": "RunCard", "content": "{\"device_Number\":\"device_00001\",\"Template_ID\":\"RunCard\",\"WorkOrder\":\"YSI5001ZA\",\"PartNumber\":\"DLV8315-1J30000\",\"Qty\":\"20\",\"Station\":\"Assy\",\"NextStation\":\"BurnIn\",\"Arrival-Time\":\"5/22/189:11\",\"LeaveTime\":\"\",\"StayTime\":\"0\",\"Cautions\":\"\",\"Remark\":\"\"}"}$

4.6 ePaper Manager Feature list

4.6.1 Component List

Dashboard



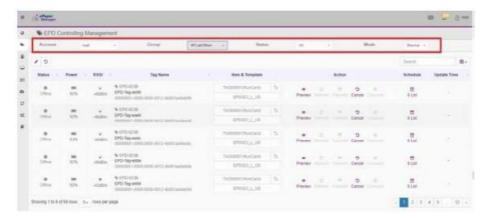
- 1. Device status: Provides EPD device status in system
- 2. Battery status: Shows battery status on EPD device.
- 3. EPD Device: Shows image update status.



4. Schedule tasks:
Users can select current schedule in the system

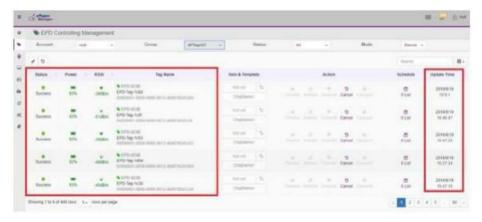
EPD Controller

EPD device search



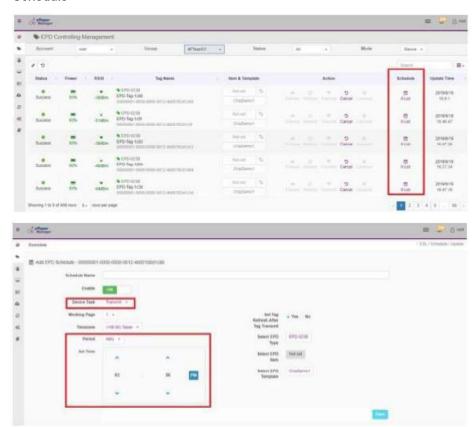
Search criteria Account/ Group/Connecting Status/ EPD Device Mode

Properties



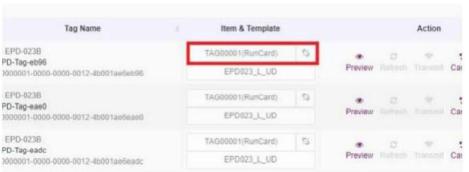
Name / Panel type/ total page /Connecting status / Update Status

Action Schedule

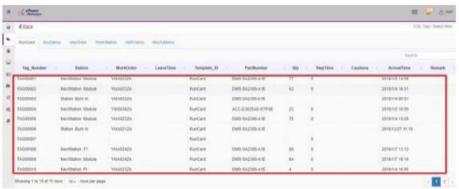


The user can setup SLEEP/ TRANSMIT/REFRESH as the scheduling task daily / weekly/ monthly /yearly.

Bind Item



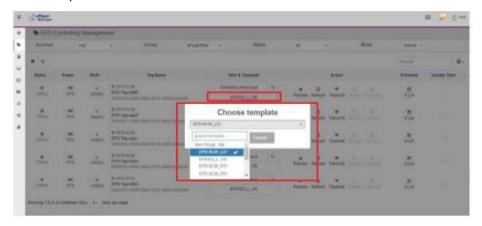
Available Target Product and Data



The user can manual bind/unbind ITEM DATA to the EPD device

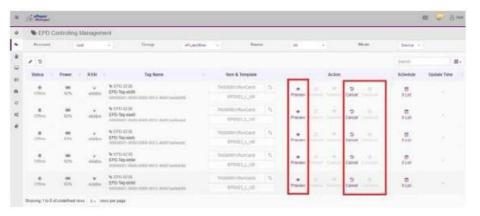
- 1. Click the eye image icon
- 2. Select the bind icon
- 3. The system will pop-up another page for Available Target Product and Data.

Action Bind Template



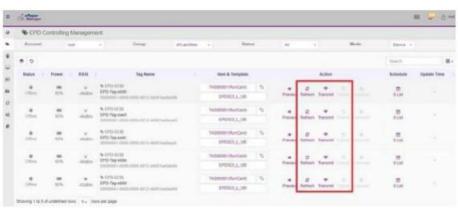
The user can manually bind TEMPLATE to EPD device

Action Preview

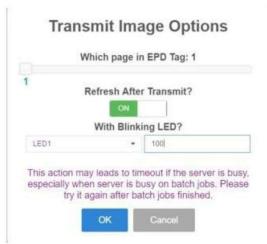


The user can preview the EPD Device image.

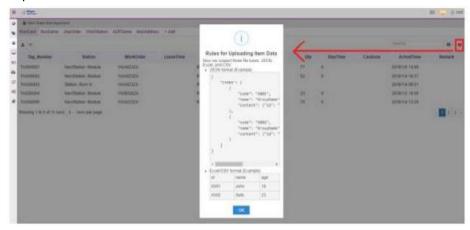
Transmit



- 1. The user can re-fresh the image on the EPD device
- 2. The user can transmit images to the EPD device
- 3. If the user clicks "transmit" or "re-fresh" for the device, then the system keeps busy, not responding from the device side. The user can click "reset" to cancel the execution.
- 4. LED blinking values: maximum is 86400, minimum is 0, duration cycle 1.5 secs.



Item Data Import ITEM Data

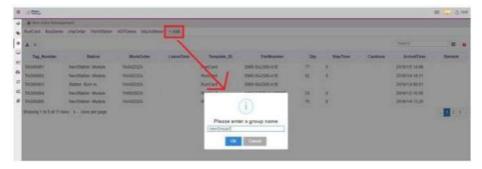


Supports CSV, EXCEL , JASON Format

Add new data into current item



Working Group



- 1. The user can perform different working group in the same system.
- 2. The user can add new group by click "Add" icon.

Device List Device search including EPD device, Router and Gateway.



Search criteria Account/ Group/Connecting Status/ EPD Device Mode

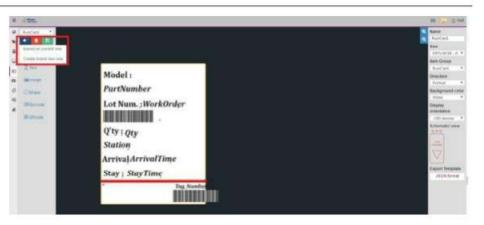
Action



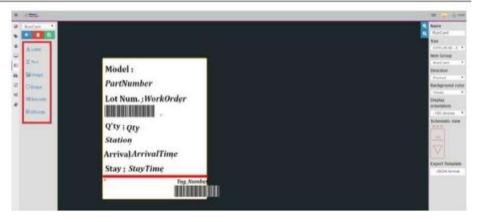
Remote control device:

- 1. Default column is Name and status message.
- 2. The user can click the icon at the right to select more fields: monitoring and Get/Set Data.

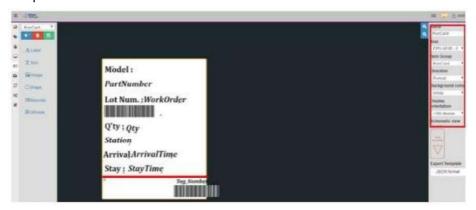
Template



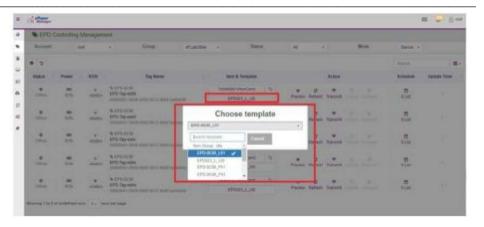
The user may add, save, delete Template



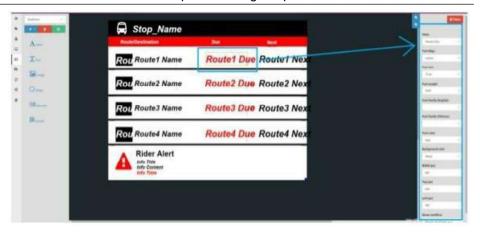
Provides image tool Label / Text / Image / Shape / Barcode / Qrcode The user may save the template and then go to EPD controller to bind the template with the EPD device.



Template name: EPD Size ITEM DATA group Image direction Background color Display orientation Schematic view



1.EPD controller should setup the binding template.



- 1. Select on component
- 2. Right side shows the component properties.



- 1. Select on component
- 2. Right side shows the component properties.
- 3. Select the field "Value" and drop down menu shows data field from item data.

whitelistSetting



File format



Epd-023,053 whitelist setting.

The user needs to import the device list and then the device can join the network.

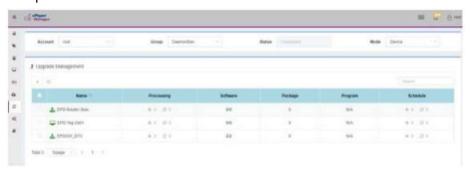
OTA Note:

The upgrade action currently is valid for WISE-3610Z only and cannot upgrade single device individually.

Upgrade: This step will proceed Download and Deploy, which describe the following:

Download: This step will download the specific version of package file from FTP server. Before proceeding this step, you need to upload the package file in the upload page.

Deploy: This step will deploy the file and upgrade the EPD devices firmware to the specific version.



Select upgrade device

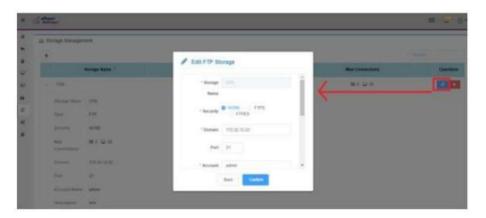
Package



File preparation for the upgrade

OTA Storage





FTP & File path setting

Setting Role



Definition as below

Superadmin:

Admin:

Device admin:

Account & Group

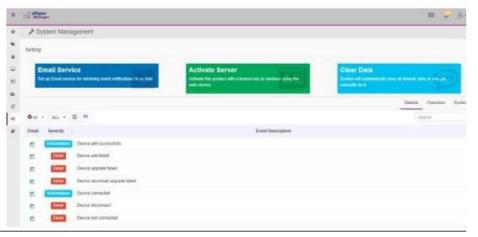




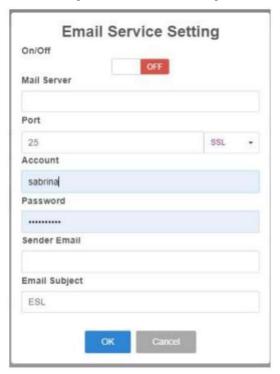
Sets the device into group.

Email Service

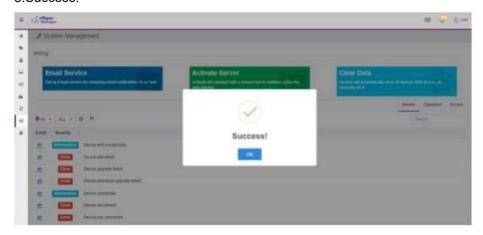
1.Click system button under the setting list



2.Click Email Service Setting, and fill in the following form.



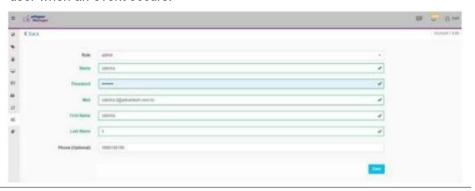
3.Success.

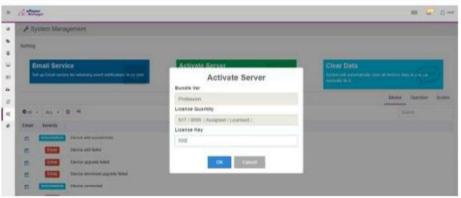


4.Add email account list for this service. Click Account button under the Setting List.



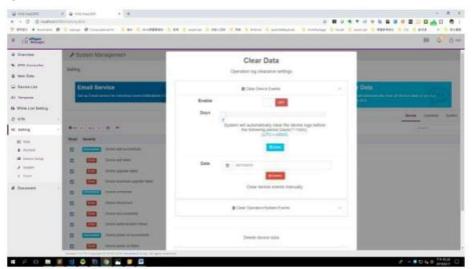
5.Add an admin account. Click Save button. An email will be sent to this local user when an event occurs.



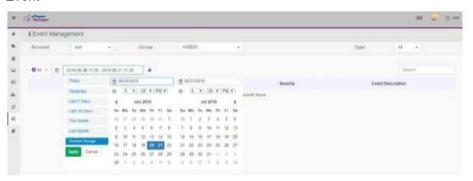


Add EPD connection number license.

Clear Data

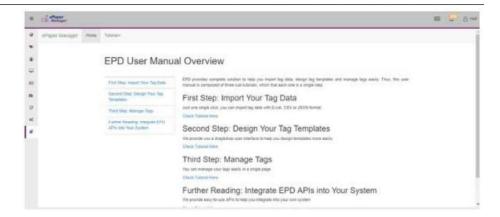


Event



The user can query the event by clicking the calendar.

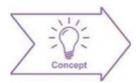
Document

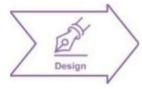


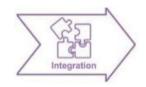
Usermanual Restful API Release Notes

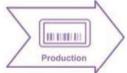
Chapter

WISE-EC EPD Designin Service









5.1 The Acquisition of Information

Since ePaper is not a plug and play device, Advantech WISE-EC Design-in Services help customers to reduce the time and work involved with designing new ePaper devices. Advantech handles the complexities of technical research and provides hardware and software integrated connectivity solutions to accelerate the implementation in a wide range of applications such as electronic shelf labelling, smart logistic, smart factory, smart hospital, digital information signage and smart transportation. Advantech not only provides the single end device but for end-to-end solutions includes our ePaper Manager server, IoT gateway, and router.

With ePaper Manager, you can manage all information on ePaper devices in realtime. Remotely control all services to provide your customers with the latest information and have proper interaction with them. We also provide APIs to integrate data with your original management system.

Full centralized control at a glance

- Monitoring functions for low power etc
- Immediate/scheduling information to end user
- Control stock levels in stocktaking mode

Flexible content editor for users

- Creation of templates with simple GUI
- Content previews for system management
- Auto-generated content by system
- Easily check product expiry dates

5.1.1 Concept

- Product selection guide
- Node-to-cloud architecture proposal
- Demo kit for POC evaluation with SDK

According different user scenarios and requirements, Advantech offers product selection guide and system architecture proposals for customer to choose the right solution. After preliminary selection of the specification, customers can use our demo kit for POC Evaluations. We not only offer hardware planning and technology consulting, but also software for evaluating your solution. Resolving customer concerns is Advantech's main target at this sdevicee. Indeed, we all know that product evaluation is the key task in the planning period, especially for performance and specification, so we try to help our customers conduct all the necessary tests for their user scenarios.

5.1.2 Design

Design Guideline Support

- Multiple I/O extension
- Customized industrial design

Wireless Conductive Measurement

TX power / mask / RF harmonic tuning / RX sensitivity

When a product moves into the design sdevicee, Advantech will supply a design guide of the EPD device for reference as well as antenna selection & schematic review. The EPD device design guide provides onboard IO definitions and recommendations of the industrial design, so customers can have a clear guideline to follow during their EPD device development. In addition, our team is able to assist customers to review the placement/layout and schematics to ensure the EPD device design meets their full requirements.

For software development, Advantech WISE-EC software team can assist customers to establish an environment for software development and evaluate the amount of time and resources needed. If customers outsource software development to a 3rd party, Advantech can also cooperate with the 3rd party and provide proficient consulting services. With Advantech's professional supports, the design process becomes much easier and product quality will be improved to meet their targets.

Design Assistance Service

Advantech provides a check list for engineers for easily check their schematics and also review services based on customer carrier board schematics. Those services are preventative and help to catch design errors before they happen. This helps to save a lot of time and costs with regard to developing carrier boards.

- Schematic Review
- Placement and Layout Review
- Debugging Assistance Services
- General/Special Reference Design Database.

5.1.3 Integration

- Performance fine tuning
- SW integration from end-to-end
- Certification pre-scan
- Wireless & safety certification

Integration sdevicee

This phase comprises of HW/SW integration, application development, and ePaper implementation. Due to the lack of knowledge and experience on platforms, customers need to spend a certain amount of time on analyzing integration problems. In addition, ePaper implementation has a lot to do with driver and signal communication which is not plug and play device. Therefore the customer has to learn from trial and error and finally get the best solution with the least effort. Advantech's team has a complete total standard HW/SW solution to help fine tune, with driver integration and application-specific customization. Consequently, we support customers with professional advice and information as well as shortening development time and enabling more effective product integration.

Validation sdevicee

After customer's ES sample is completed, the next step is a series of verification steps. In addition to verifying a product's functionality, the related tests of the product's efficiency and stability are also an important part at this sdevicee. Advantech primarily helps customers solve their problems in the testing process and will give suggestions and tips as well. Through an efficient verification process backed by our technical supports, customers are able to optimize their applications with less fuss. Furthermore, Advantech's team can provide professional consulting services about further testing and equipment usage, so customers can find the right tools to efficiently identify and solve problems to further enhance their products quality and performance.

5.1.4 Production

- Production
- Worldwide logistics management
- Global repair service & RMA

Advantech has two manufacturing centers in Taiwan and Kunshan to provide customized chassis assembly, testing services, packaging and labeling to meet customer special needs. Customers can place an order via our smart and fast on-line system. With a global peripheral procurement service and global logistics service, Advantech provides vertical integration in short lead time and competitive price for customers' one-stop shopping solutions, and then direct shipment to end users. After sales, a complete global repair service (RMA) is offered to provide a full repair service.

5.2 Contact Information

Below is the contact information for Advantech customer service.

Region/Country	Contact Information
America	1-888-576-9688
Brazil	0800-770-5355
Mexico	01-800-467-2415
Europe (Toll Free)	00800-2426-8080
Singapore & SAP	65-64421000
Malaysia	1800-88-1809
Australia (Toll Free)	1300-308-531800-810-0345
China (Toll Free)	800-810-8389Sales@advantech.com.cn
India (Toll Free)	1-800-425-5071
Japan (Toll Free)	0800-500-1055
Korea (Toll Free)	080-363-9494
080-363-9495	
Taiwan (Toll Free)	0800-777-111
Russia (Toll Free)	8-800-555-01-50

You can reach our service team through the website, our technical supports engineers will provide quick response once the form is filled out:

http://www.advantech.com.tw/contact/default.aspx?page=contact_form2&subject=Technical+Supports

5.3 Global Service Policy

5.3.1 Warranty Policy

Below is the warranty policy of Advantech products:

5.3.1.1 Warranty Period

Advantech branded off-the-shelf products and 3rd party off-the-shelf products used to assemble Advantech Configure to Order products are entitled to a 2 years complete and prompt global warranty service. Product defect in design, materials, and workmanship, are covered from the date of shipment.

All customized products will by default carry a 15 months regional warranty service. The actual product warranty terms and conditions may vary based on sales contract.

All 3rd party products purchased separately will be covered by the original manufacturer's warranty and time period, and shall not exceed one year of coverage through Advantech.

5.3.1.2 Repairs under Warranty

It is possible to obtain a replacement (Cross-Shipment) during the first 30 days of the purchase, thru your original ADVANTECH supplier to arrange DOA replacement if the products were purchased directly from ADVANTECH and the product is DOA (Dead-on-Arrival). The DOA Cross-Shipment excludes any shipping damage, customized and/or build-to-order products.

For those products which are not DOA, the return fee to an authorized ADVANTECH repair facility will be at the customers' expense. The shipping fee for reconstructive products from ADVANTECH back to customers' sites will be at ADVANTECH's expense.

5.3.1.3 Exclusions from Warranty

The product is excluded from warranty if

- The product has been found to be defective after expiry of the warranty period.
- Warranty has been voided by removal or alternation of product or part identification labels.
- The product has been misused, abused, or subjected to unauthorized disassembly/modification; placed in an unsuitable physical or operating environment; improperly maintained by the customer; or failure caused which ADVANTECH is not responsible whether by accident or other cause. Such conditions will be determined by ADVANTECH at its sole unfettered discretion.
- The product is damaged beyond repair due to a natural disaster such as a lighting strike, flood, earthquake, etc.
- Product updates/upgrades and tests upon the request of customers who are without warranty.

5.3.2 Repair Process

5.3.2.1 Obtaining an RMA Number

All returns from customers must be authorized with an ADVANTECH RMA (Return Merchandise Authorization) number. Any returns of defective units or parts without valid RMA numbers will not be accepted; they will be returned to the customer at the customer's cost without prior notice. An RMA number is only an authorization for returning a product; it is not an approval for repair or replacement. When requesting an RMA number, please access ADVANTECH's RMA web site: http://erma.ADVANTECH.com.tw with an authorized user ID and password.

You must fill out basic product and customer information and describe the problems encountered in detail in "Problem Description". Vague entries such as "does not work" and "failure" are not acceptable.

If you are uncertain about the cause of the problem, please contact ADVANTECH's Application Engineers (AE). They may be able to find a solution that does not require sending the product for repair.

The serial number of the whole set is required if only a key defective part is returned for repair. Otherwise, the case will be regarded as out-of-warranty.

5.3.2.2 Returning the Product for Repair

It's possible customers can save time and meet end-user requirements by returning defective products to an y authorized ADVANTECH repair facility without an extra cross-region charge. It is required to contact the local repair center before offering global repair service.

It is recommended to send cards without accessories (manuals, cables, etc.). Remove any unnecessary components from the card, such as CPU, DRAM, and CF Card. If you send all these parts back (because you believe they may be part of the problem), please note clearly that they are included. Otherwise, ADVANTECH is not responsible for any items not listed. Make sure the "Problem Description" is enclosed.

European Customers that are located outside European Community are requested to use UPS as the forwarding company. We strongly recommend adding a packing list to all shipments. Please prepare a shipment invoice according to the following guidelines to decrease goods clearance time:

- 1. Give a low value to the product on the invoice, or additional charges will be levied by customs that will be borne by the sender.
- 2. Add information "Invoice for customs purposes only with no commercial value" on the shipment invoice.
- 3. Show RMA numbers, product serial numbers and warranty status on the shipment invoice.
- 4. Add information about Country of origin of goods

In addition, please attach an invoice with RMA number to the carton, then write the RMA number on the outside of the carton and attach the packing slip to save handling time. Please also address the parts directly to the Service Department and mark the package "Attn. RMA Service Department".

All products must be returned in properly packed ESD material or anti-static bags. ADVANTECH reserves the right to return unrepaired items at the customer's cost if inappropriately packed.

Besides that, "Door-to-Door" transportation such as speed post is recommended for delivery, otherwise, the sender should bear additional charges such as clearance fees if Air-Cargo is adopted.

Should DOA cases fail, ADVANTECH will take full responsibility for the product and transportation charges. If the items are not DOA, but fail within warranty, the sender will bear the freight charges. For out-of-warranty cases, customers must cover the cost and take care of both outward and inward transportation.

5.3.2.3 Service Charges

The product is excluded from warranty if:

- The product is repaired after expiry of the warranty period.
- The product is tested or calibrated after expiry of the warranty period, and a No Problem Found (NPF) result is obtained.
- The product, though repaired within the warranty period, has been misused, abused, or subjected to unauthorized disassembly/modification; placed in an unsuitable physical or operating environment; improperly maintained by the customer; or failure caused which ADVANTECH is not responsible whether by accident or other cause. Such conditions will be determined by ADVANTECH at its sole unfettered discretion.
- The product is damaged beyond repair due to a natural disaster such as a lighting strike, flood, earthquake, etc.
- Product updates and tests upon the request of customers who are without warranty.

If a product has been repaired by ADVANTECH, and within three months after such a repair the product requires another repair for the same problem, ADVANTECH will do this repair free of charge. However, such free repairs do not apply to products which have been misused, abused, or subjected to unauthorized disassembly/modification; placed in an unsuitable physical or operating environment; improperly maintained by the customer; or failure caused which ADVANTECH is not responsible whether by accident or other cause.

Please contact your nearest regional service center for detail service quotation. Before we start out-of-warranty repairs, we will send you a pro forma invoice (P/I) with the repair charges. When you remit the funds, please reference the P/I number listed under "Our Ref". ADVANTECH reserves the right to deny repair services to customers that do not return the DOA unit or sign the P/I. Meanwhile, ADVANTECH will scrap defective products without prior notice if customers do not return the signed P/I within 3 months.

5.3.2.4 Repair Report

ADVANTECH returns each product with a "Repair Report" which shows the result of the repair. A "Repair Analysis Report" is also provided to customers upon request. If the defect is not caused by ADVANTECH design or manufacturing, customers will be charged US\$60 or US\$120 for in-warranty or out-of-warranty repair analysis reports respectively.

5.3.2.5 Custody of Products Submitted for Repair

ADVANTECH will retain custody of a product submitted for repair for one month while it is waiting for return of a signed P/I or payment (A/R). If the customer fails to respond within such period, ADVANTECH will close the case automatically. ADVANTECH will take reasonable measures to stay in proper contact with the customer during this one month period.

5.3.2.6 Shipping Back to Customer

The forwarding company for RMA returns from ADVANTECH to customers is selected by ADVANTECH. Per customer requirement, other express services can be adopted, such as UPS, FedEx and etc. The customer must bear the extra costs of such alternative shipment. If you require any special arrangements, please indicate this when shipping the product to us.



www.advantech.com

Please verify specifications before quoting. This guide is intended for reference purposes only.

All product specifications are subject to change without notice.

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