

iFactory/MOM User Manual

English V1.0.1

(Applicable for software version after 1.4.5)



Version History

Date	Version	Author	Reviewer	Description
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Content

1	Introduction.....	3
2	Initial Setting and Function Introduction (for MIS personnel) ...	6
3	Portal Page (For Operators)	45
4	Portal Page(For Production Management Professionals)	50

1 Introduction

1.1 Product Introduction

The service of WISE-PaaS iFactory/Manufacturing Operations Management mainly provides the back-end management of various products in the manufacturing industry. It is a digital management tool that ensures the normal operation of each service by setting quality control rules, helping managers to quickly grasp the production status, helping to reduce costs and improve productivity and deliver products to customers faster.

WISE-PaaS iFactory/Manufacturing Operations Management has complete and powerful functions, which can complete the process deployment completely and effectively, connect the bound devices to the cloud system, and immediately reflect the real-time status of each service status and the data displayed by the platform. It can help platform users to accurately grasp the current production situation and speed up production efficiency and process.

1.2 Product Advantages

1. The web-based interface can be used in any browser on any device, and is not limited by the application
2. A complete operating system provides a complete deployment process
3. Utilize networking to monitor production quality and track exceptions to ensure that all supported services are operating normally and achieve systematic management
4. Integrate the advantages of various services to help operators quickly grasp the production status

1.3 Product Architecture

Figure 1-1 is the product's architecture diagram and system architecture diagram. The system architecture is mainly: Portal. The next chapter will introduce the operation method of the function page.

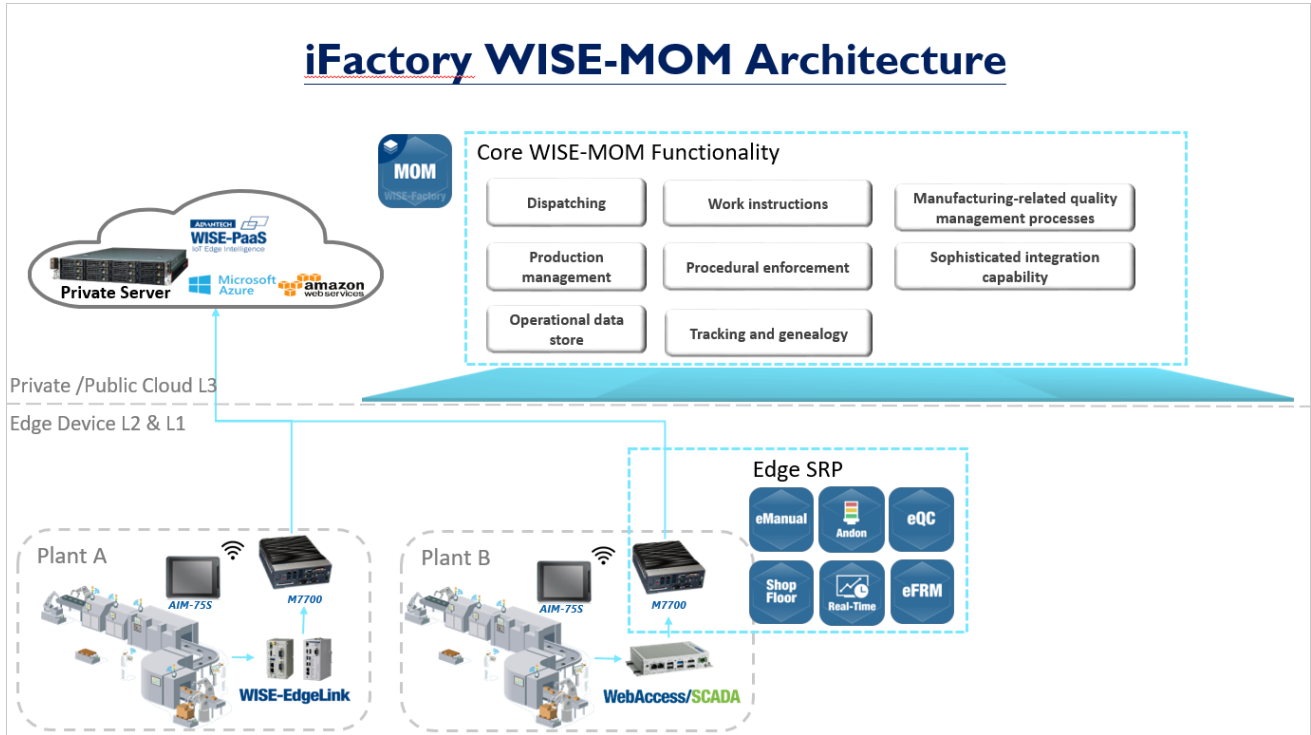


Figure 1-1 Product Architecture

1.4 Glossary

The technical or key terms mentioned in this document are explained as follows :

Term	Definition
WISE-PaaS iFactory/ MOM	The product name, as This product in the text.
Touch Panel Control Station	Installed on the device, workstation for unified management of on-site machines, as Touch Panel in the text.
MOM Portal	The management and setting platform of users, machines and other data in this system, referred to as Portal in the text.
Work Order	Field workers can create new work orders using the Touch Panel.
Report	Field operators can use the Touch Panel to select a work order for production progress reporting.
UUID	Universally Unique Identifier, which is automatically generated by the system when the Touch Panel is initialized.

Table 1-1 Glossary

Noun abbreviations in text :

Noun	Definition
TPC	Touch Panel Control Station
UUID	Universally Unique Identifier
WIP	Work In Progress

Table 1-2 Noun abbreviations

1.5 Basic Introduction

This chapter uses the screens of the Touch Panel, Portal, and Mobile devices to take a basic introduction to help users quickly and easily understand the menu categories and functions commonly used in each interface. Please refer to the subsequent corresponding chapters.

1.5.1 Portal Page

The Portal page provides complete operation functions to help users create and manage Data Settings, Order Dispatch, Production, and Data Explore. There are tabs such as **Master Data**, **Procedure**, **Order Dispatch**, **Production Management**, **KPI Management**, **iAPP Configuration**, and **Data Settings**, among which Master Data, Procedure, Order Dispatch, and Data Settings have the functions of **adding**, **editing**, **deleting**, **sorting**, and **searching**; and each tab will display the existing information. Take the Production Area in Master Data as an example, as shown in Figure 1-2. There are **Asset Name**, **Type**, **Capacity**, **Parameter**, **Date Modified** and other fields.

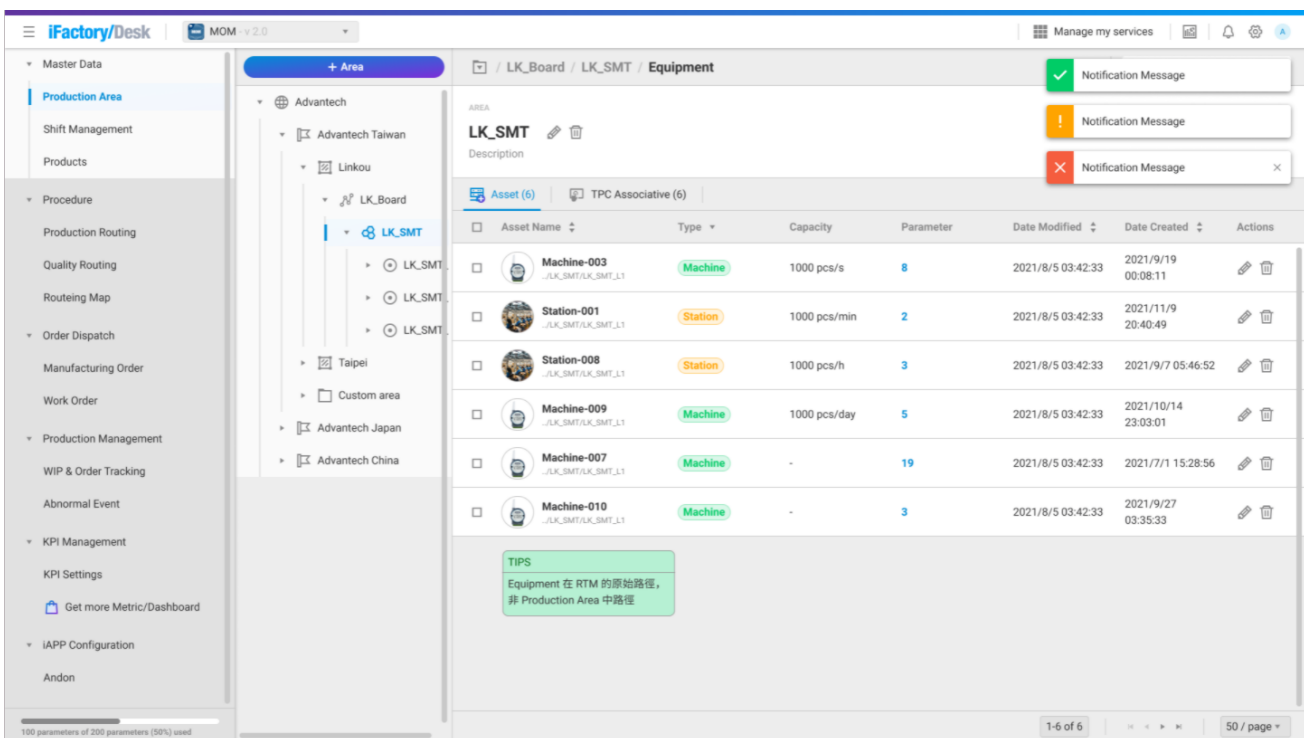


Figure 1-2 Portal Page

2 Initial Setting and Function Introduction (for MIS personnel)

The purpose of this chapter is to explain how to initialize the settings on the screen. If you need to know more about each function, please refer to the corresponding chapters. Please note that before using this system, please initialize the related equipment.

2.1 Portal Initialization and Introduction

2.1.1 Portal Login & Data Settings

Please enter the Portal login page first, and enter your account and password to log in.

After logging in, please click the Data Settings menu on the left, and you need to set the Asset, Parameter and Station.



Figure 2-1 Portal login page

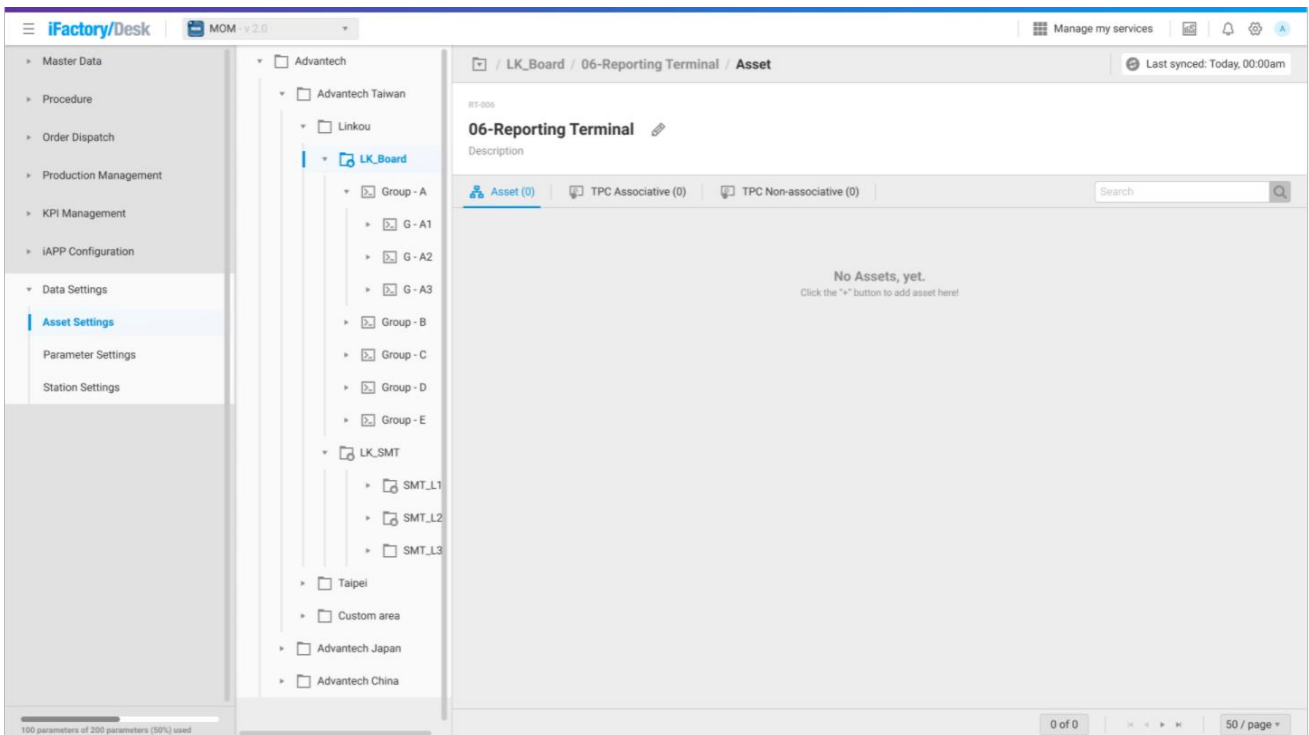





Figure 2-2 Data Settings - Asset Settings initial screen

2.1.1 Parameter Settings – Asset Parameter

Find the settings tab on your left, the Asset Parameter seen on the page is the default Parameter set by RTM. Normally, there are functions of **editing, deleting, sorting, filtering, and searching**. The page will also display the existing information, including **Parameter Name, Value Type, Unit, Mapping MOM Parameter, Time Interval, Last Updated Time, Date Created**, and other information as shown in Figure 2-3. You can switch  on the screen or click the editing  function to decide whether to display the Parameter in the Production Area. In addition, you can click the Mapping MOM Parameter column corresponding to Asset Parameter on the screen. You can also click the add  button to set parameters. Moreover, it means that no MOM parameter is available for binding if "No MOM Parameter, yet." is shown. Please refer to Chapter [錯誤! 找不到參照來源。](#) for creating.

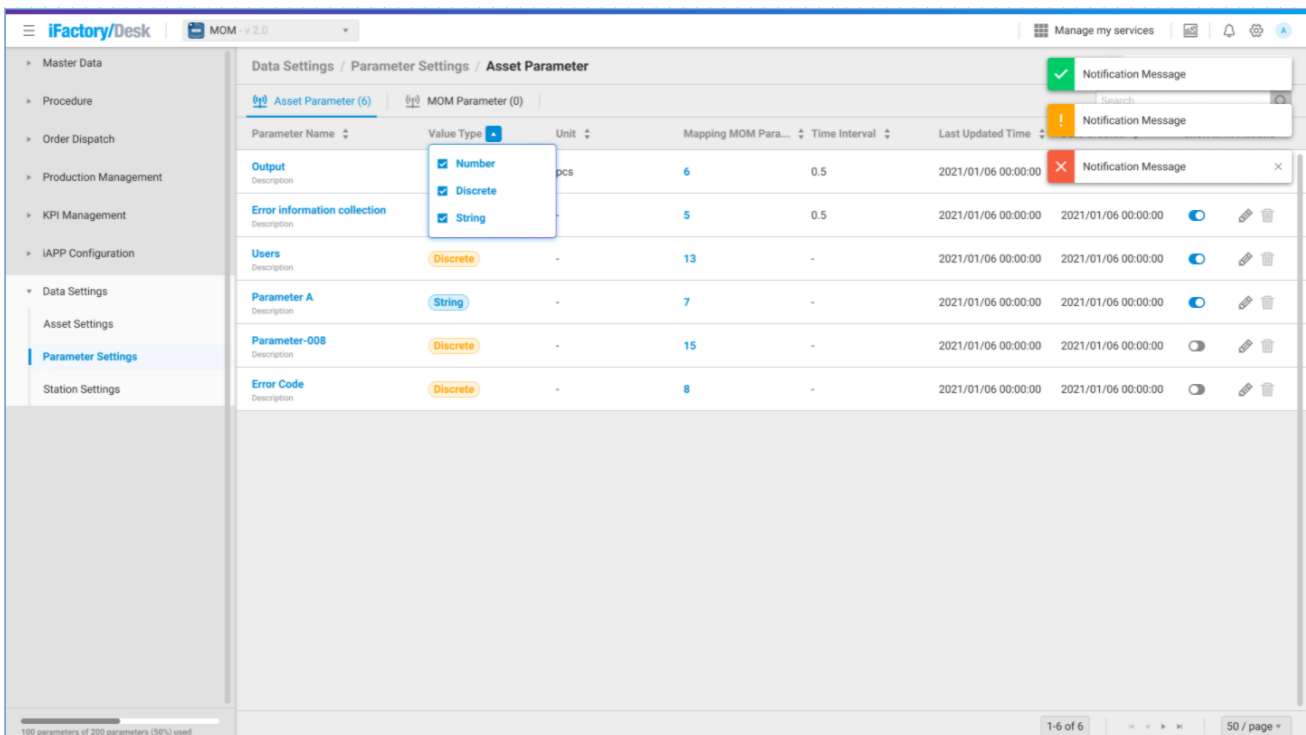


Figure 2-3 Parameter Settings – Asset Parameter

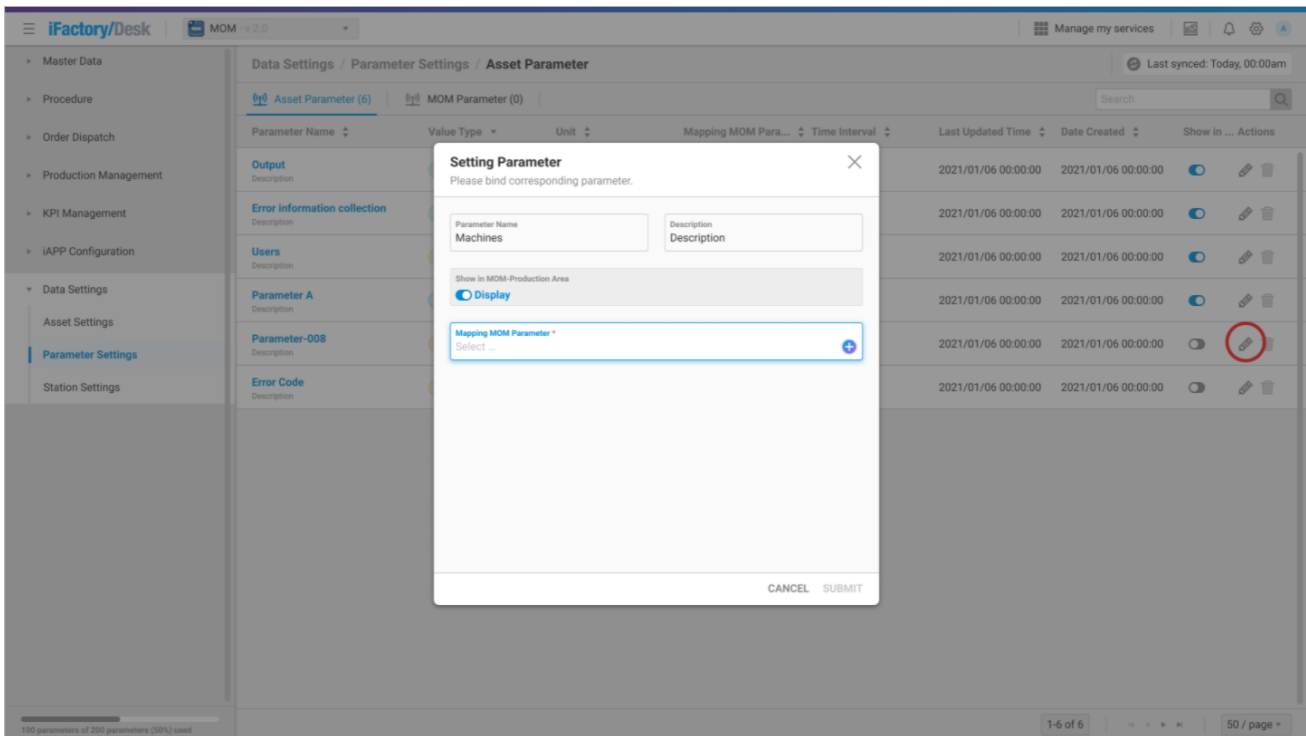


Figure 2-4 Edit Asset Parameter

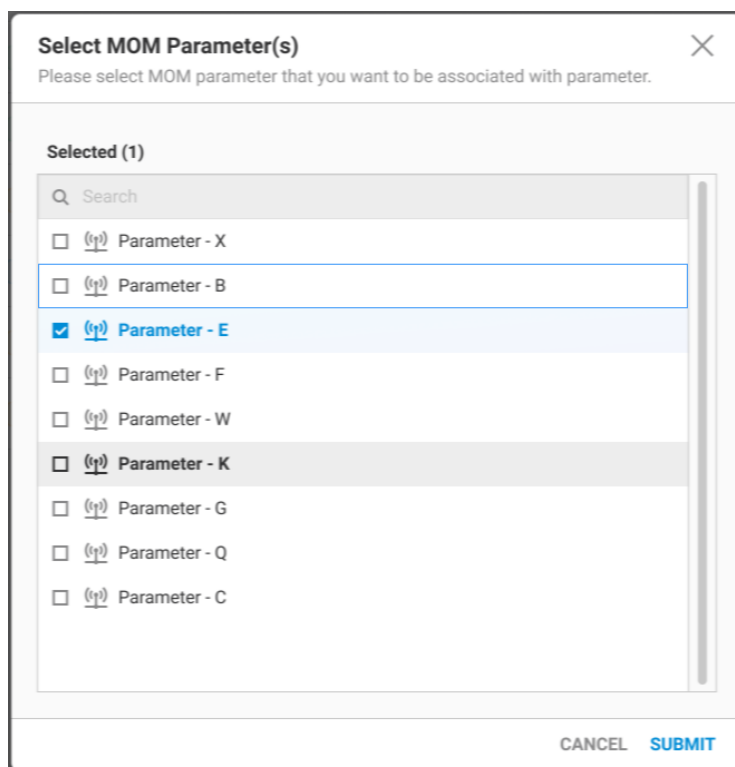



Figure 2-5 select MOM Parameter(s)

2.1.1 Parameter Settings – Tab “Parameter” within Asset Parameter

Following chapter 2.1.1, the Parameter Name column, within the Asset Parameter, lists all Parameters. Click the Parameter Name to enter the Parameter page. After entering the Parameter, the log tab can check all returned values. It means that no records are available if "No log, yet." is shown. Click the add  button on the right to add new parameters or batch delete.

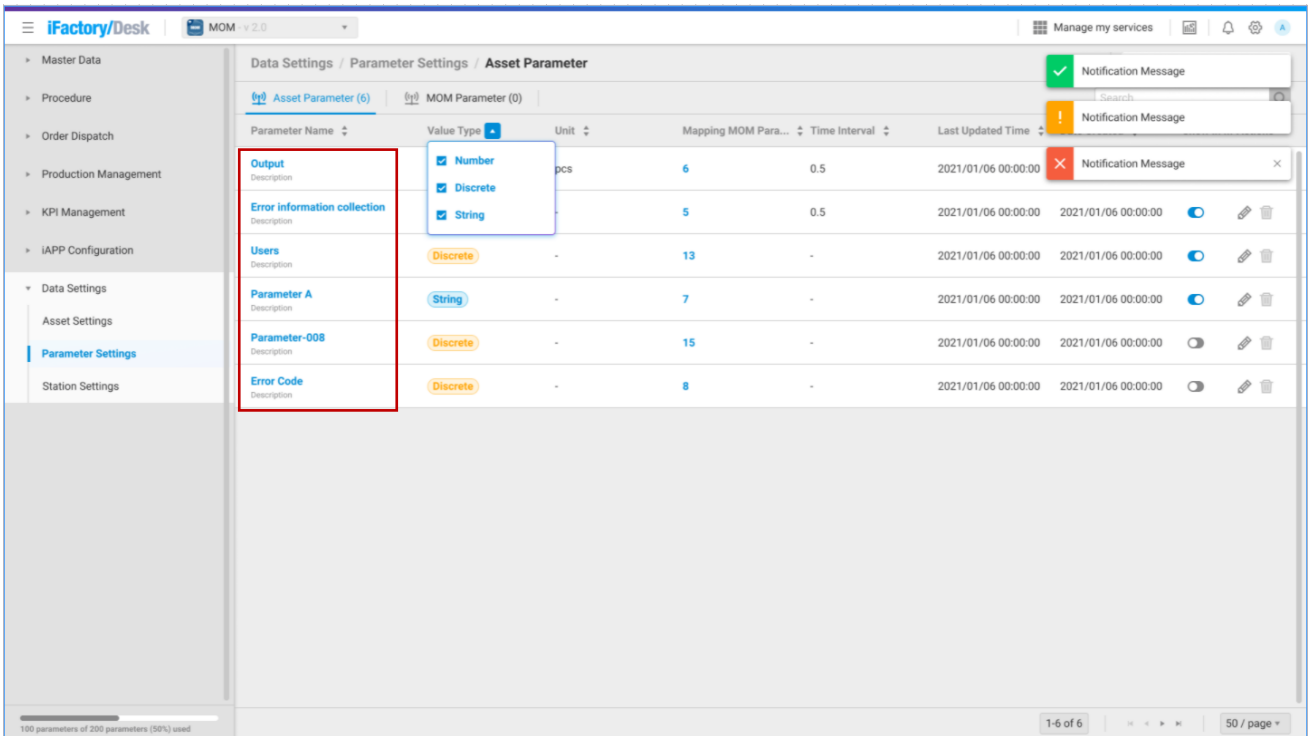


Figure 2-6 Click to enter Parameter

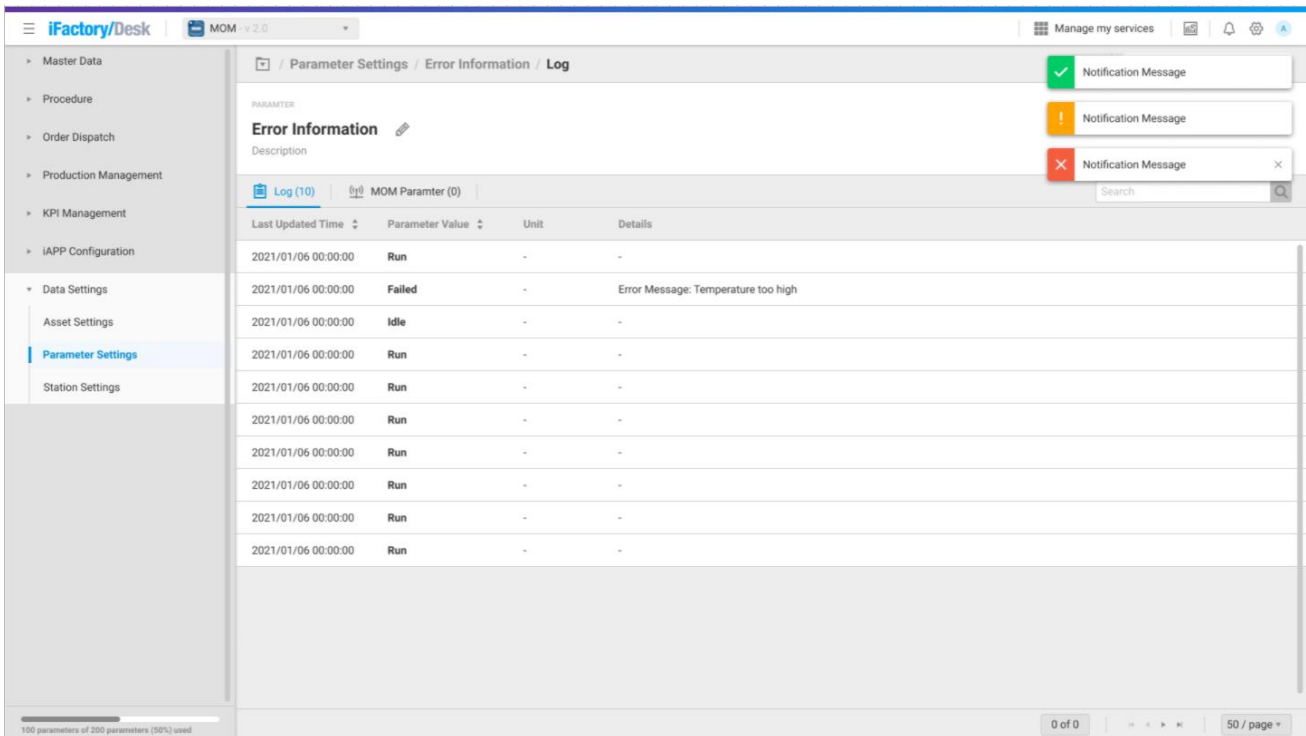


Figure 2-7 log tab

2.1.2 Parameter Settings – MOM Parameter

MOM Parameter manages all parameters within the service. Normally, there are functions of **adding, editing, deleting, sorting, filtering and searching**. You can find existing MOM parameters on this page, including [Parameter Name](#), [Value Type](#), [Unit](#), [Asset Parameter](#), [Time Interval](#), [Last Updated Time](#), [Date Created](#), and other information.

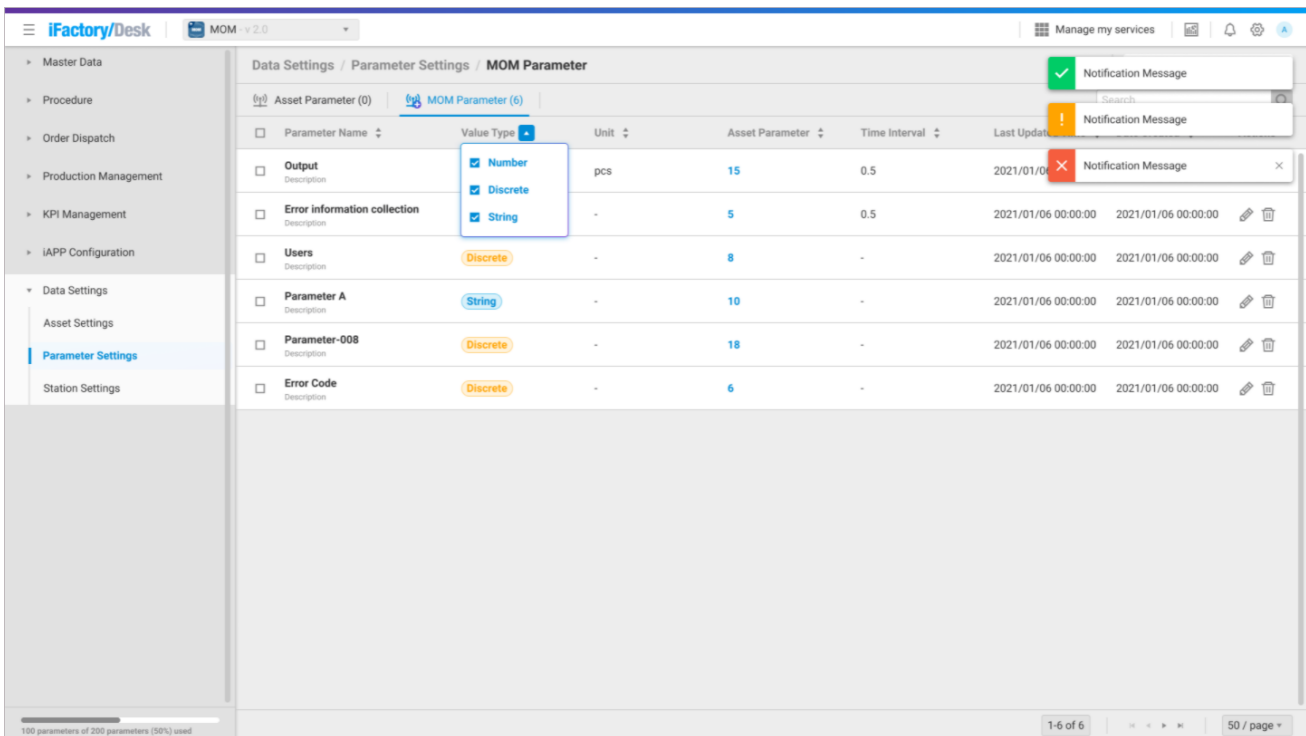


Figure 2-8 MOM Parameter page

2.1.3 Parameter Settings – Create, Edit, Delete MOM Parameter

Create new MOM Parameter : Click first, then click button 1 to enter the window, then click button 2 .

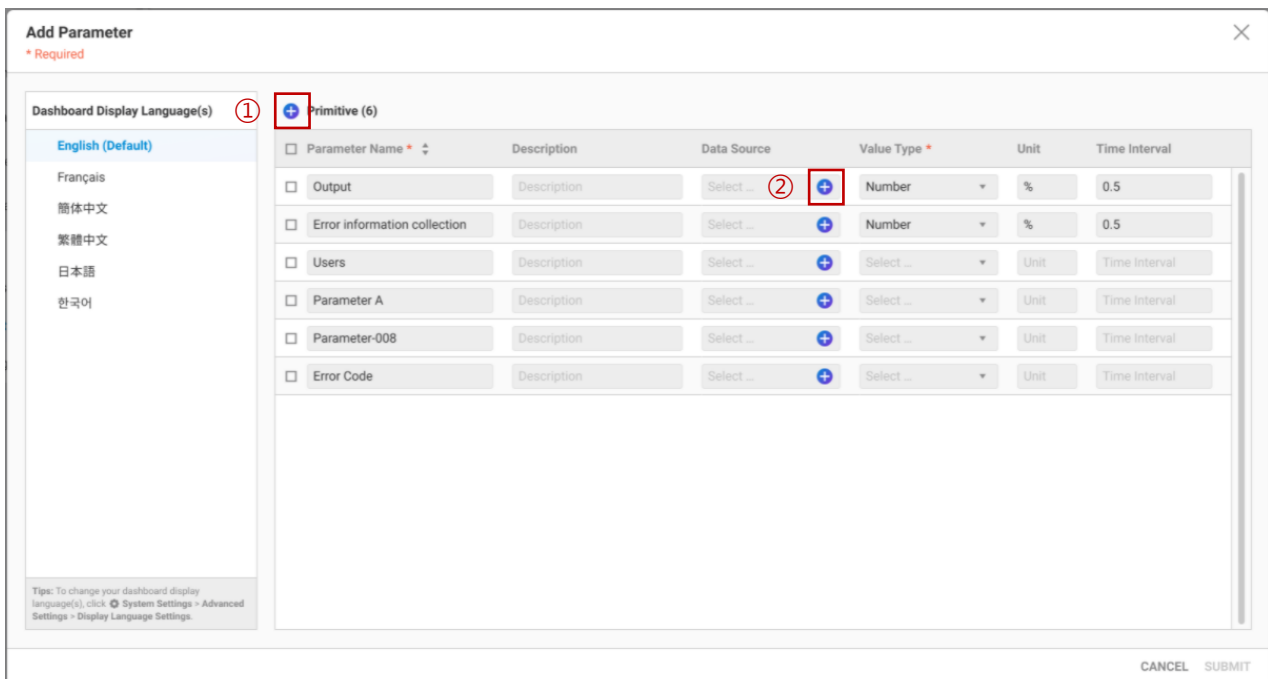



Figure 2-9 MOM Parameter-Add Parameter

The following information needs to be filled in the window (* are required fields)

- ***Parameter Name:** fill in the parameter name
- **Description:** add a note in any
- **Data Source:** Click  Add button, select the Asset Parameter to be bound.
- ***Value Type:** Choose one from Number, Discrete or String.

Click the [\[submit\]](#) button for submission.

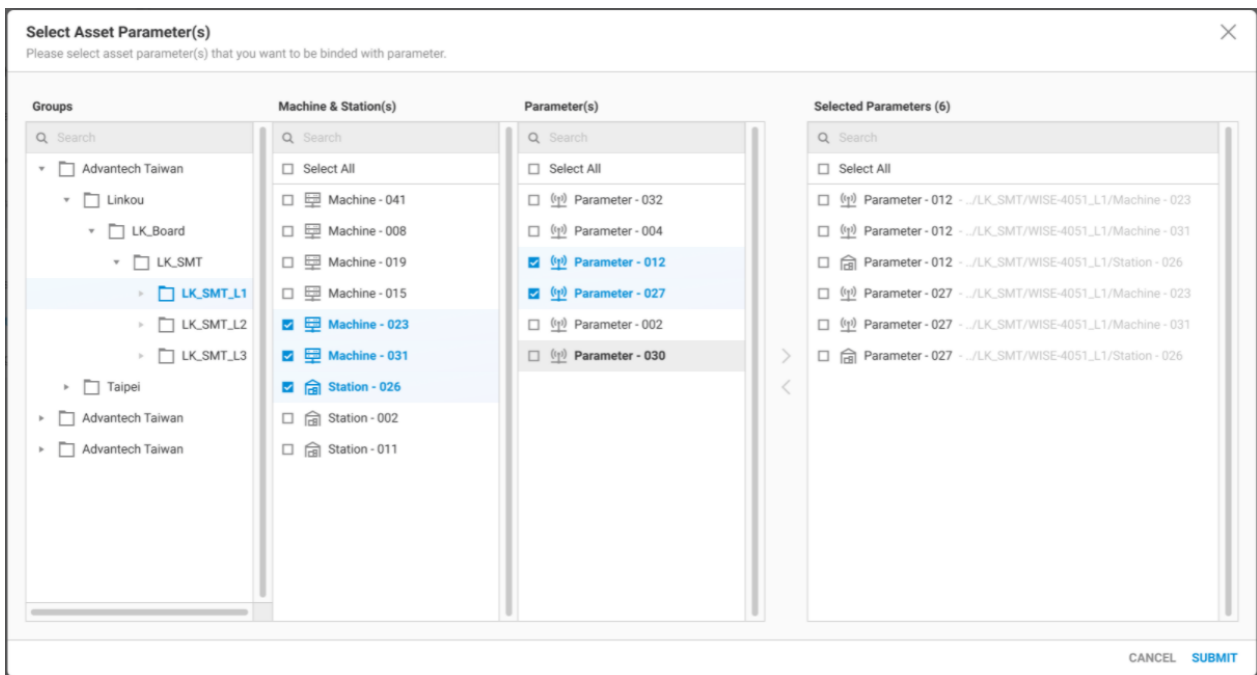






Figure 2-10 MOM Parameter-Bind Parameter

To Edit MOM Parameter : Select the MOM Parameter data to be modified from the list, and press the Edit button  to modify the data of this item.

To Delete MOM Parameter : Select the MOM Parameter data to be deleted from the list (multiple), and press the delete button  to remove the data of this item.

2.1.4 Parameter Settings – Tab “Asset Parameter” within MOM Parameter

Continue chapter 2.1.5, in the MOM Parameter tab, the Asset Parameter column displays the number of Asset Parameter linked to each MOM Parameter, as shown in Figure 2-11, click the corresponding number to enter the Asset Parameter tab, click the Add button  to enter the add window, as shown in Figure 2-10, you can check the Asset Parameter to be linked with the MOM Parameter, and the addition will be completed after checking **SUBMIT** . If you want to delete the established association, select it from the list (you can check it) and click the delete button  to remove the association, as shown in Figure 2-12.

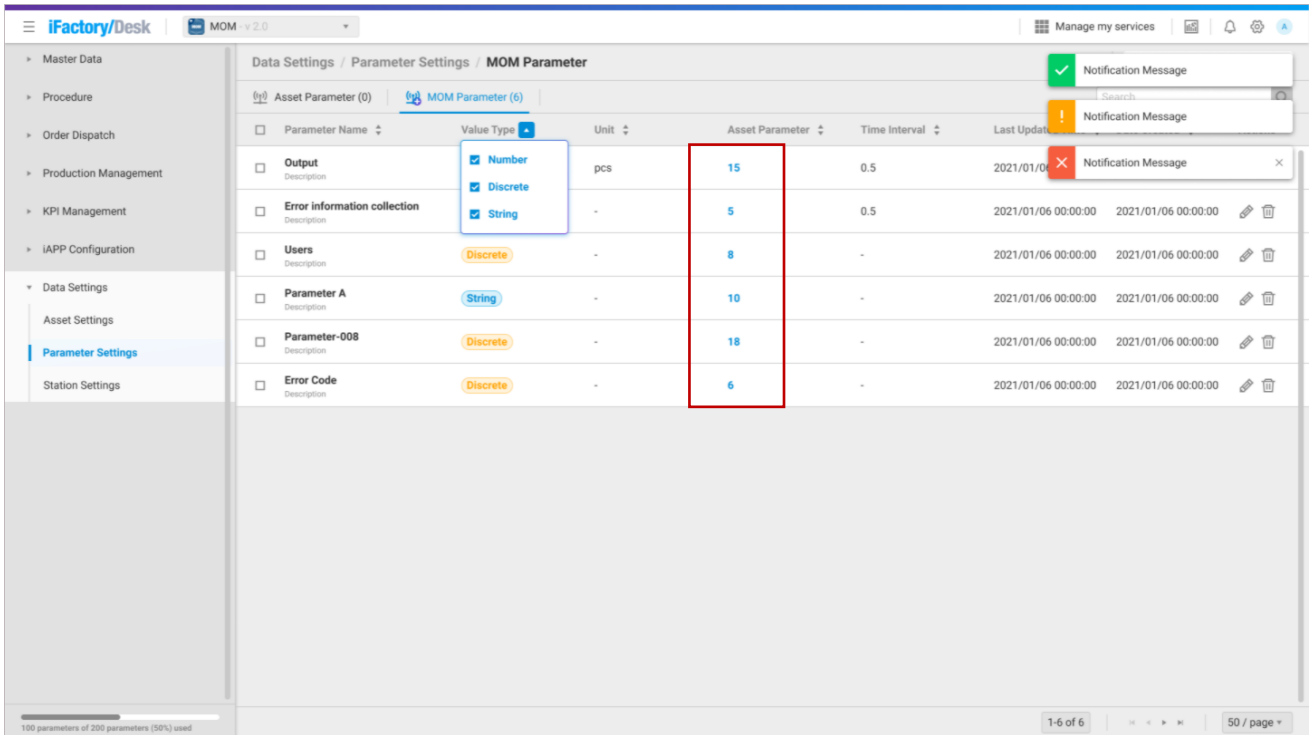


Figure 2-11 MOM Parameter-Asset Parameter

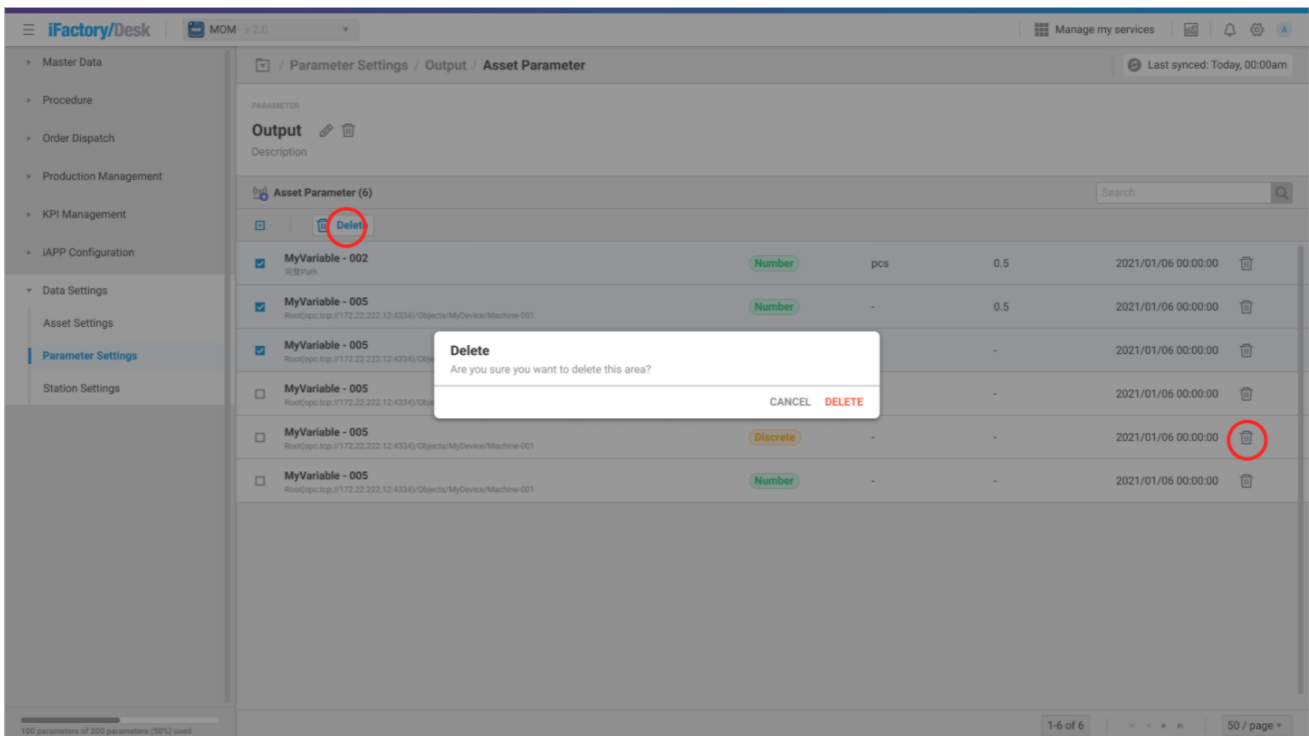
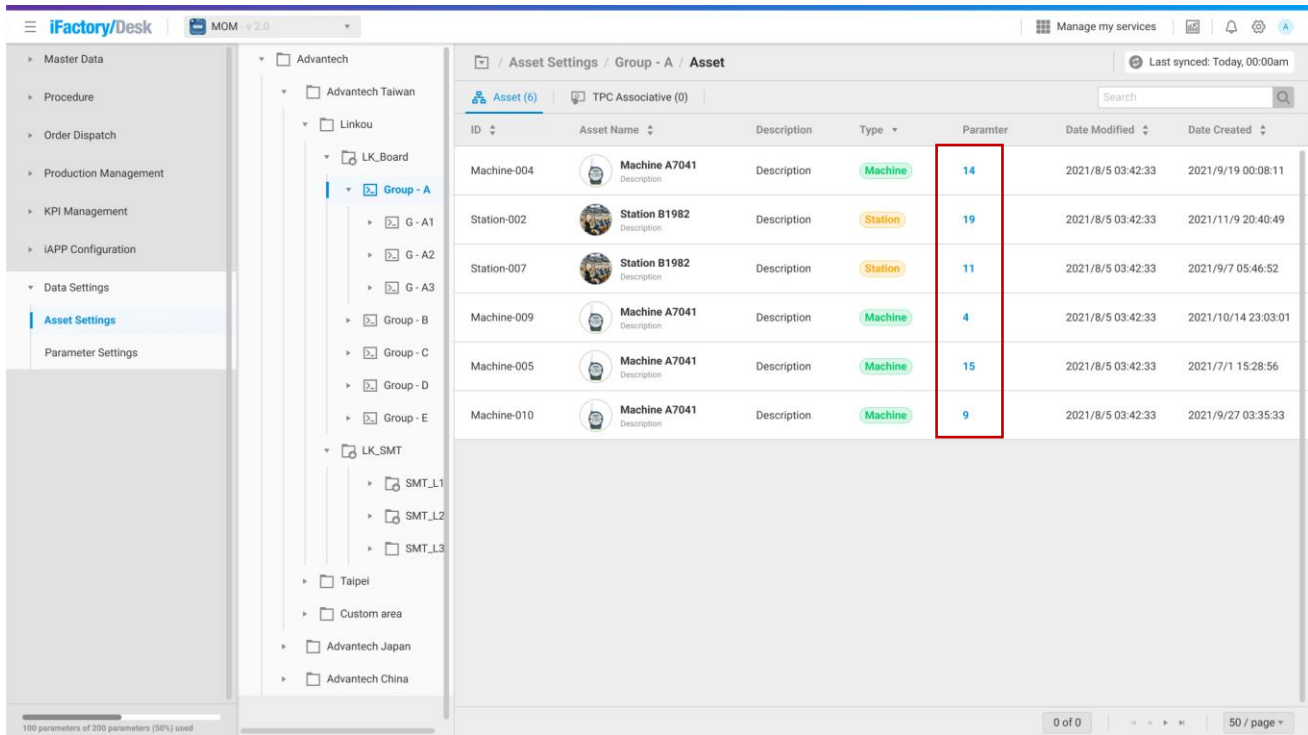


Figure 2-12 MOM Parameter-delete Asset Parameter

2.1.5 Asset Settings – Asset


MIS professionals can utilize iFactory/RTM to manage and view the assets in the selected node. The page displays the existing asset information, including [ID](#), [Asset Name](#), [Description](#), [Type](#), [Parameter](#), [Date Modified](#), [Date Created](#). Click the parameter column to view details of connected parameters.



ID	Asset Name	Description	Type	Parameter	Date Modified	Date Created
Machine-004	Machine A7041 Description	Description	Machine	14	2021/8/5 03:42:33	2021/9/19 00:08:11
Station-002	Station B1982 Description	Description	Station	19	2021/8/5 03:42:33	2021/11/9 20:40:49
Station-007	Station B1982 Description	Description	Station	11	2021/8/5 03:42:33	2021/9/7 05:46:52
Machine-009	Machine A7041 Description	Description	Machine	4	2021/8/5 03:42:33	2021/10/14 23:03:01
Machine-005	Machine A7041 Description	Description	Machine	15	2021/8/5 03:42:33	2021/7/1 15:28:56
Machine-010	Machine A7041 Description	Description	Machine	9	2021/8/5 03:42:33	2021/9/27 03:35:33

Figure 2-13 Asset Settings – Asset page

2.1.6 Asset Settings – Reporting Terminal

Switch the screen to the Reporting Terminal tab, which provides management of edgeSRP iapp services provided by each lower computer, as shown in Figure 2-14, click the edit icon  on the screen to edit the Reporting Terminal ID, Reporting Terminal Name, and add a Description, as shown in Figure 2-15.

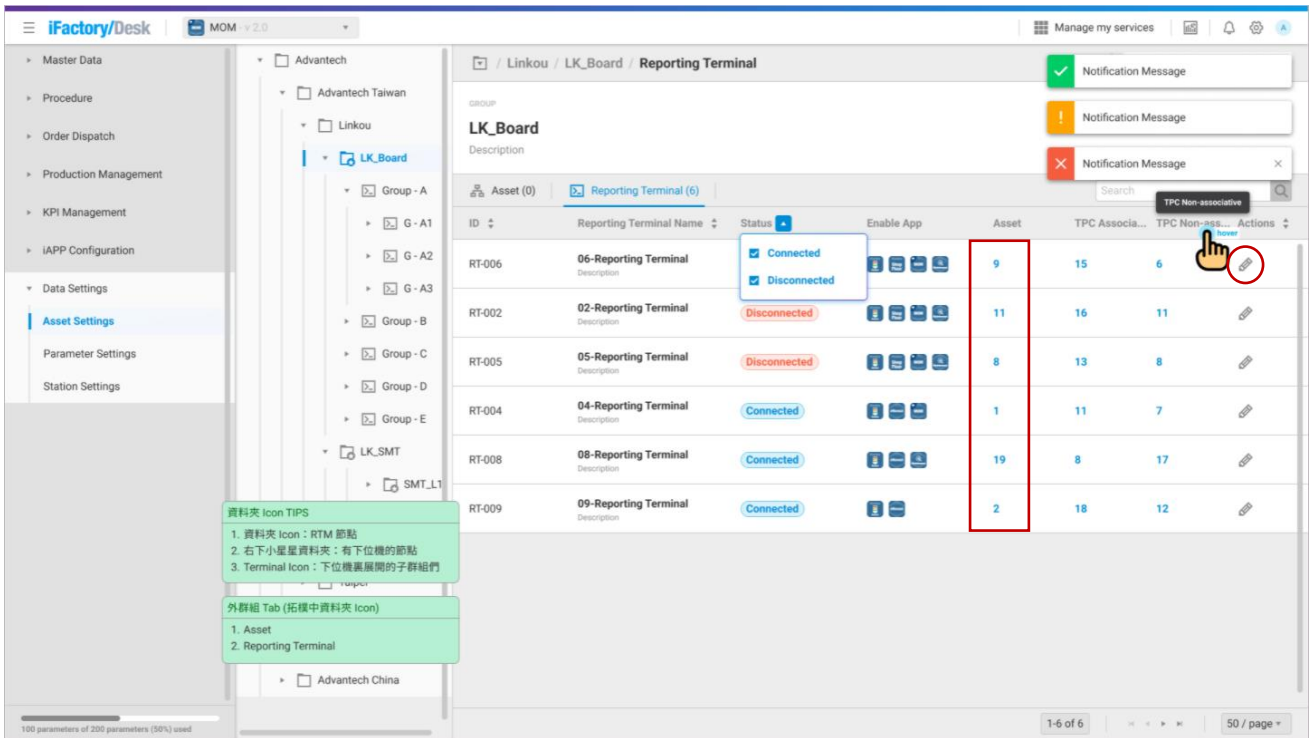


Figure 2-14 Asset Settings – Reporting Terminal page

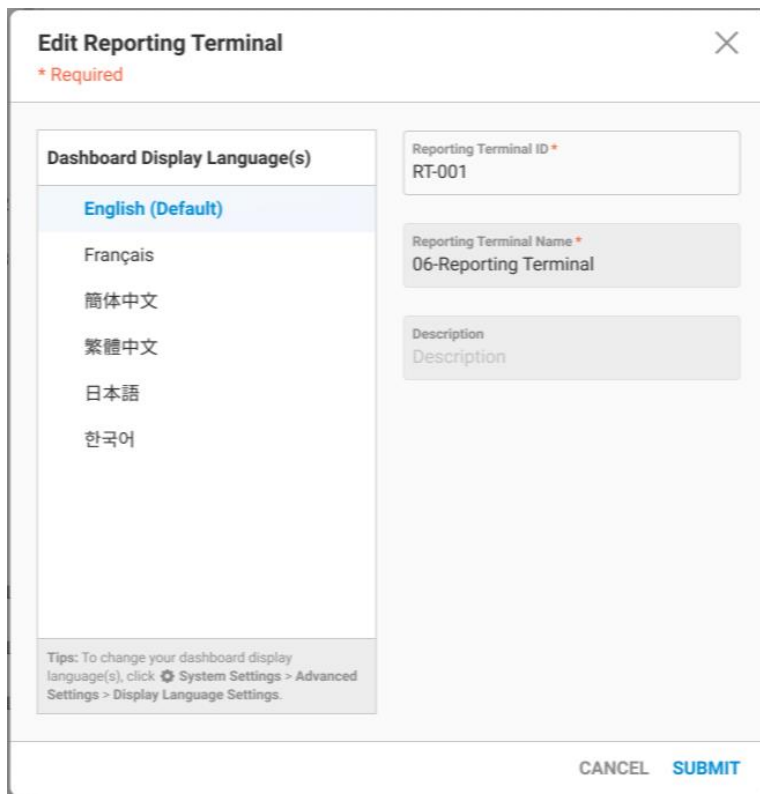


Figure 2-15 Asset Settings – edit Reporting Terminal

2.1.7 Asset Settings – Asset in Reporting Terminal

Asset, TPC Associative, and TPC Non-associative can be set in each Reporting Terminal; click the number of Asset fields corresponding to the screen to enter the Reporting Terminal, as shown in Figure 2-16, if "No Assets, yet. ", you need to complete the new action first, then click the number of Parameter fields corresponding to the Asset in the screen to view the Parameter used by the Asset. If you need to add and set a Parameter, please refer to Chapter 2.1.3.

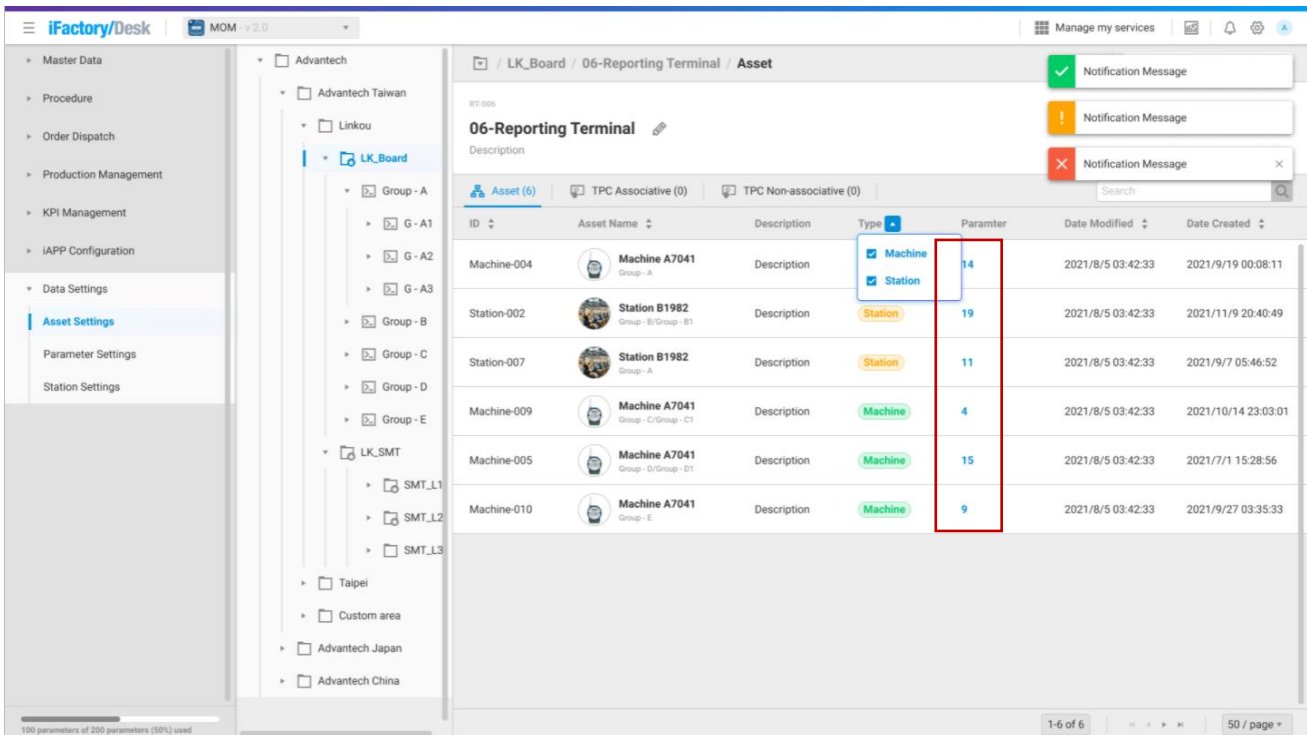


Figure 2-16 Reporting Terminal – Asset

2.1.8 Asset Settings - TPC Associative in Reporting Terminal

Switch the screen to the TPC Settings tab. This tab provides management of the TPC devices associated with each node. Click the number corresponding to the TPC Associative/ TPC Non-associative field to view the bound/unbound TPC of the node. If you want to bind a new TPC device, please refer to the next chapter.

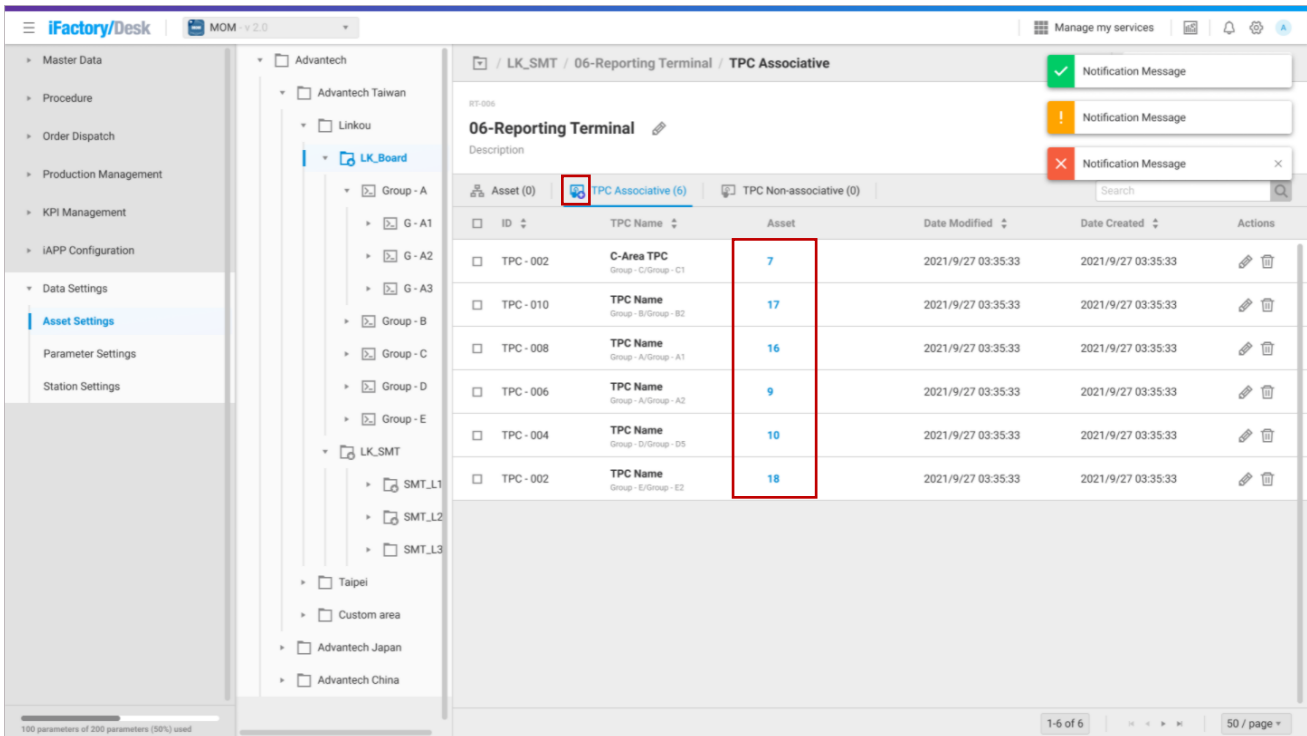



Figure 2-17 Reporting Terminal – TPC Associative

2.1.9 Reporting Terminal – Add, Edit, Delete TPC Associative

To Add TPC : Click  to add a registered TPC, and the Add Touch Panel Controller window will pop up, as shown in Figure 2-18

The following information needs to be filled in the window (* are required fields)

***TPC Name :** name the new TPC

Description : fill in the description


TPC UUID : choose TPC UUID


Asset : Select the asset to be bound, as shown in Figure 2-19

After filling in, click **SUBMIT** to complete the addition.

Figure 2-18 TPC Associative – Add TPC

Figure 2-19 TPC Associative – Select Asset

To Edit TPC : Select the TPC data to be modified from the list and press the Edit button  to modify the data of this item.

To Delete TPC : Select (multiple) the TPC data to be deleted from the list, and press the delete button  to remove the data of this item.

2.1.10 Asset Settings -TPC Non-associative Function Introduction in Reporting Terminal

On the TPC Non-associative tab, you can view the registered but unconnected TPCs, as shown in Figure 2-20; this tab also provides the function of batch delete.

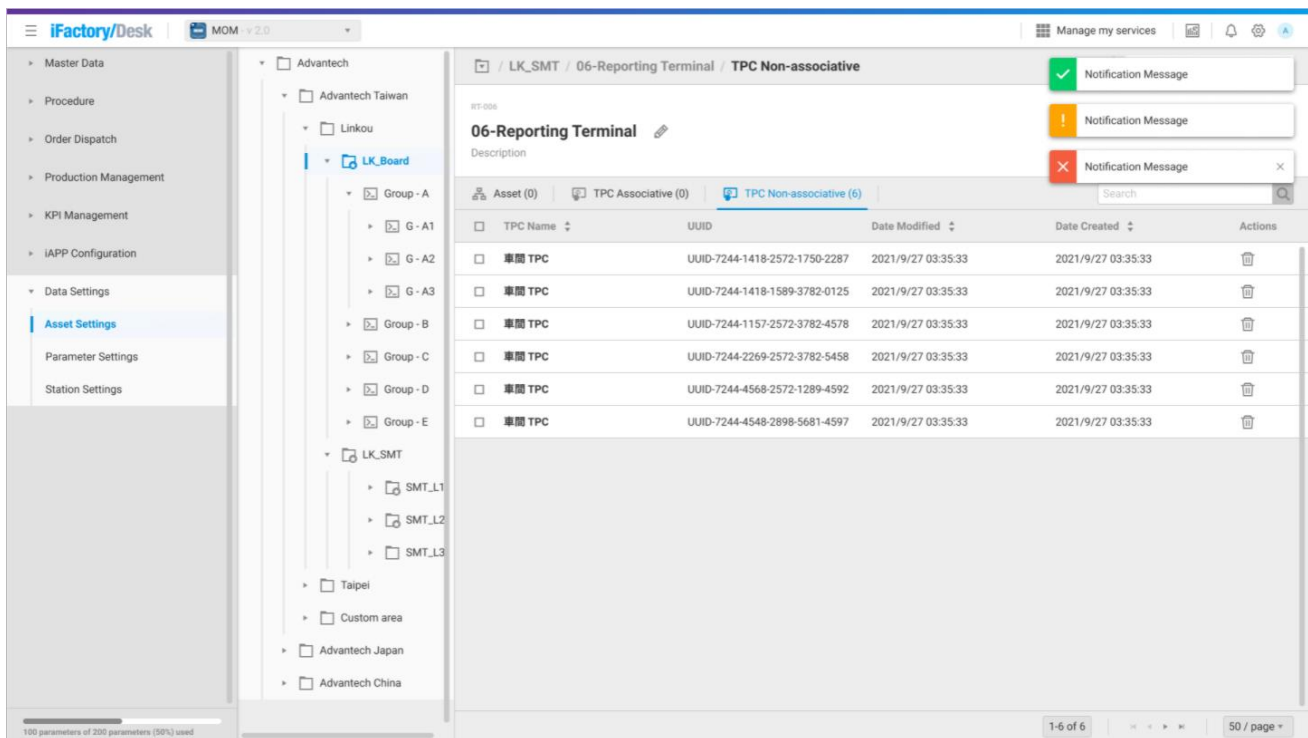


Figure 2-20 Reporting Terminal – TPC Non-associative

2.1.11 Production Area

Production Area can auto-generate tree diagram of production nodes to organize configuration, analyze production lines, and establish the relationship between Assets and Production Area.

This function will be divided into two sessions:

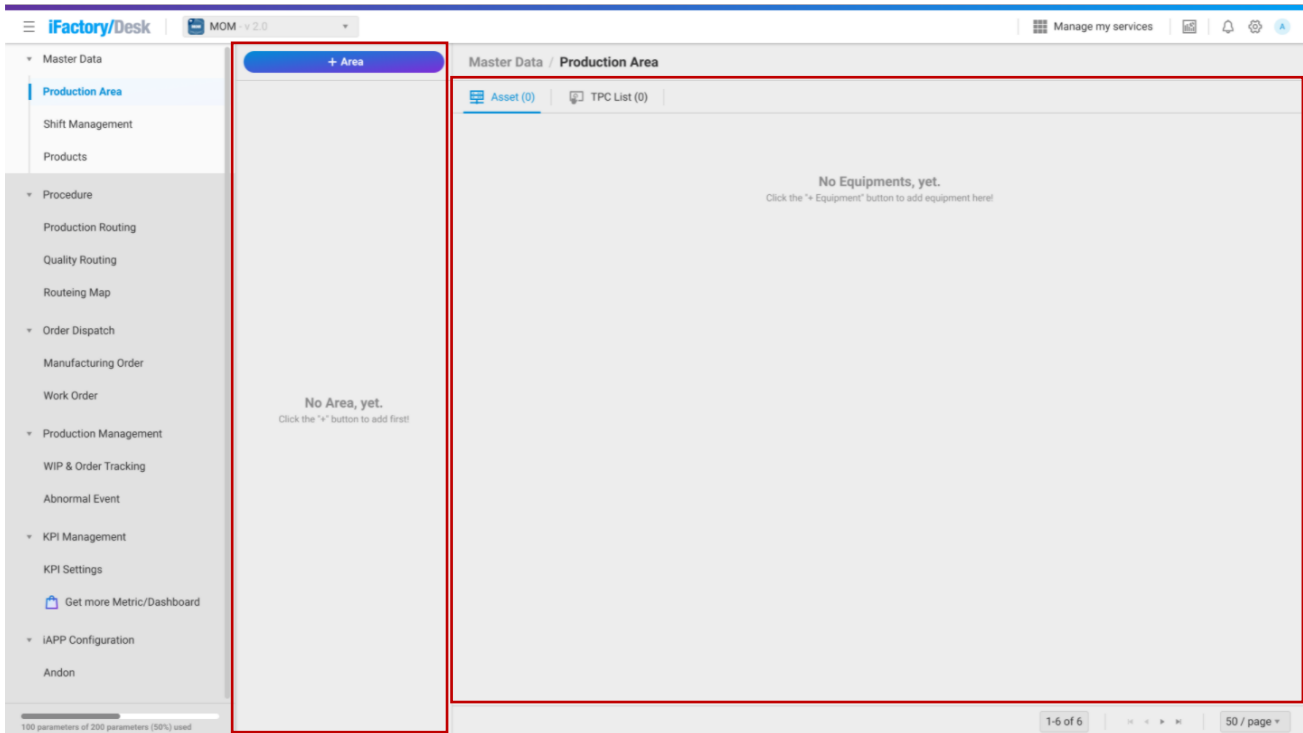


Figure 2-21 Production Area initial tab

2.1.12 Production Area – Create, Edit, and Delete Production Areas

Create new Areas:

If the production area is focused on the Work Local or Customize layer in the topology, all three new methods can be used.

If you focus on the Work Center in the structure, you can only add sub-topologies whose Type is Work Center or Customize.

To enter the new step, please click the [\[+ area\]](#) button, and select the intended approach.

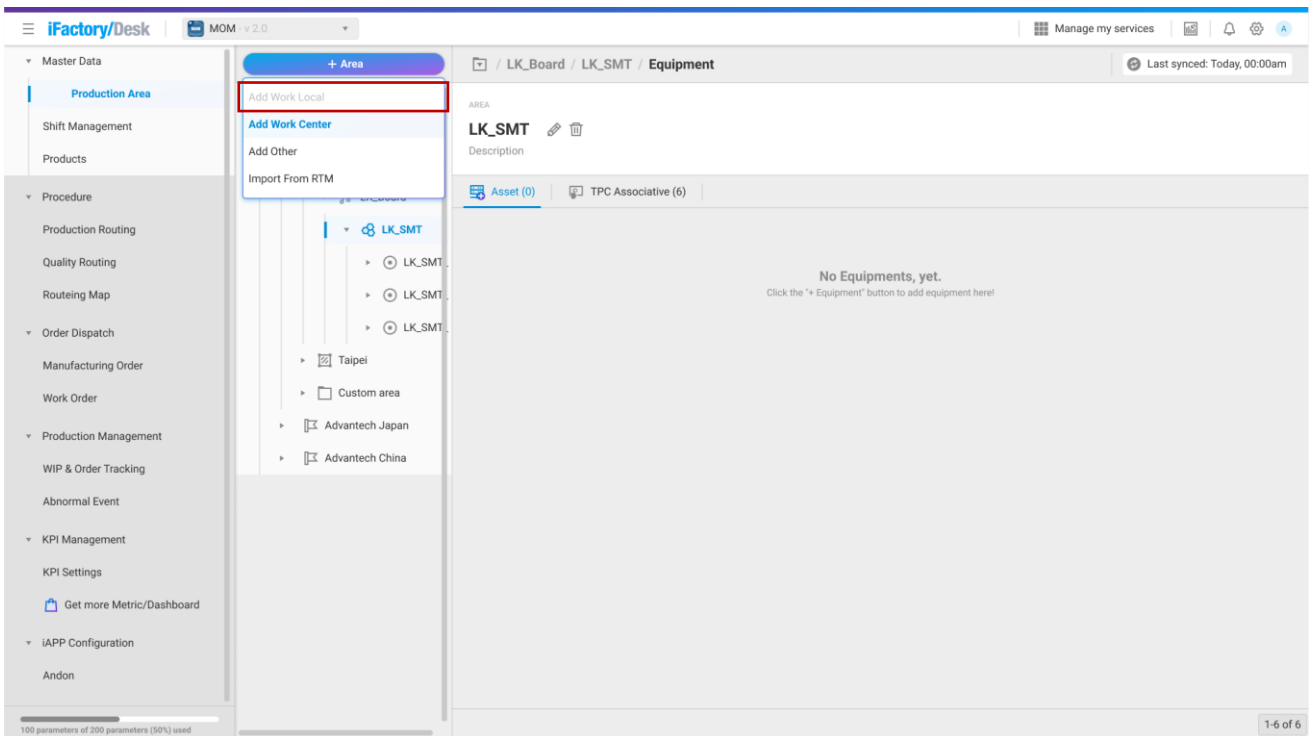


Figure 2-22 Production Area- Description of the new logic

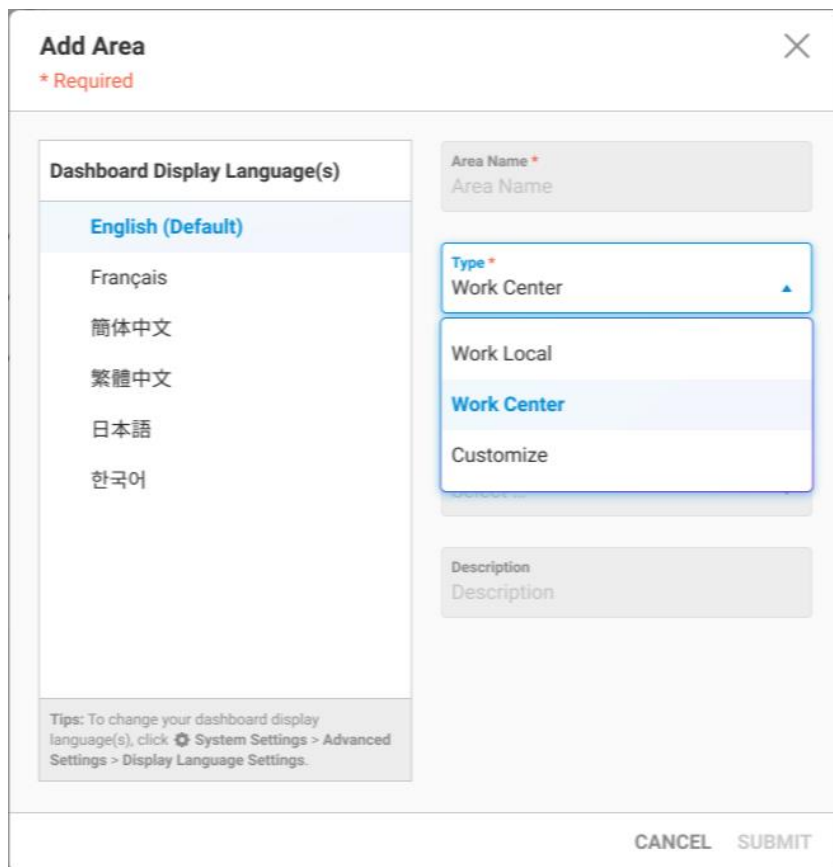


Figure 2-23 Production Area – Add Area

The following information needs to be filled in the window (* are required fields)

*Area Name : Fill in the Area name

*Type : Select the way to add new Area

*Area Type : Select Area type

- If you select Work Local: Choose one from Enterprise, Site or Area
- If you select Work Center: Choose one from Line, Zone, Cell group or Cell for selection; if
- If you select Other: Please manual type your input is selected as the new method, this field provides the user to input text by himself

*Time Zone : select the time zone

Description : add a note

After filling in, click the [submit] button for submission.

Import From RTM :

Create a new Area and click the Import from RTM option to import the RTM structure. The import structure includes RTM group, Asset, and Parameter.

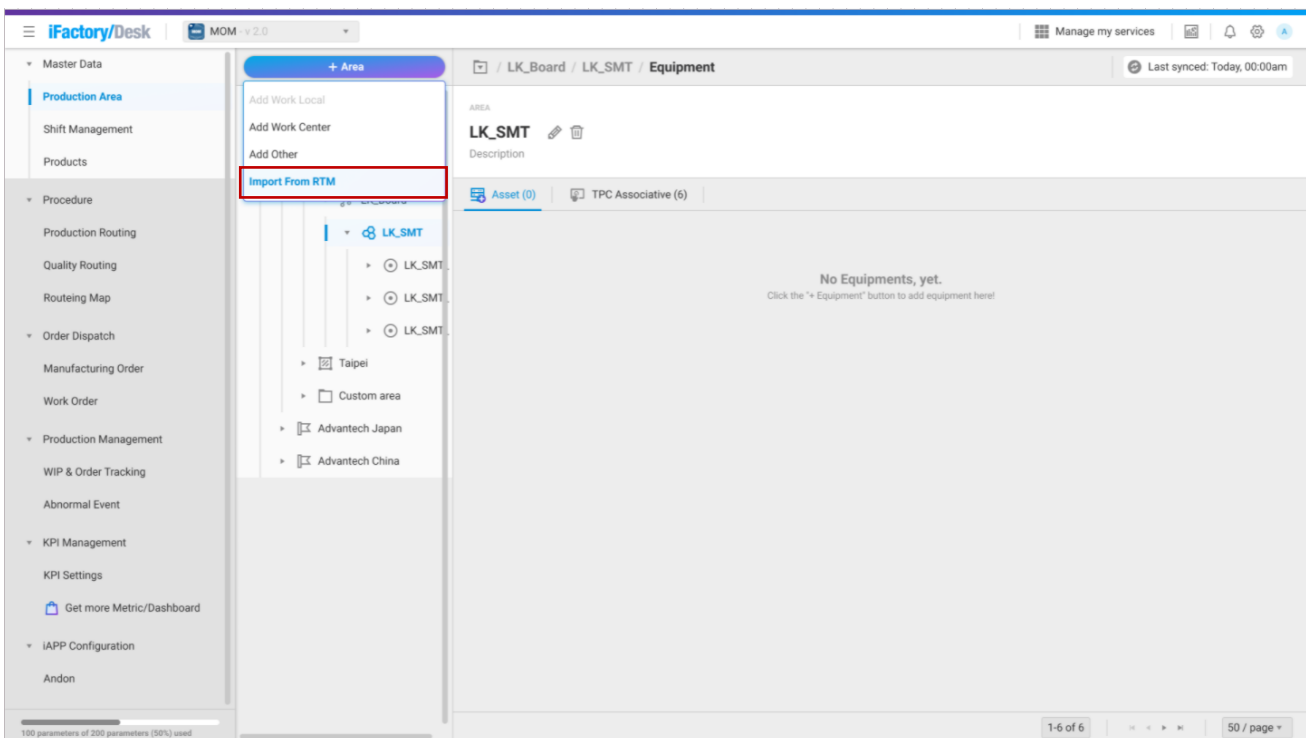


Figure 2-24 Production Area – Import From RTM

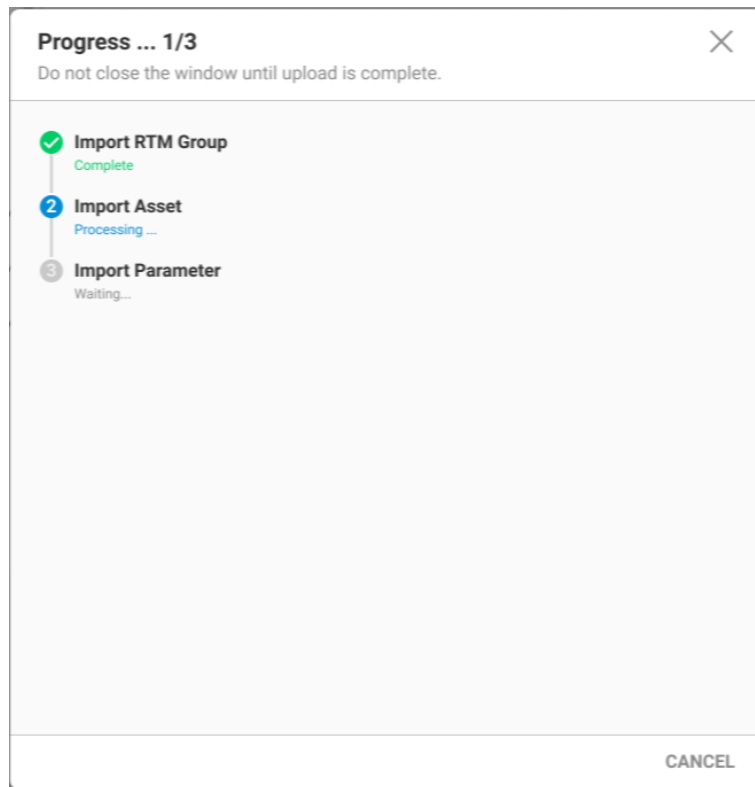



Figure 2-25 Production Area – Import RTM progress

Edit Area : Please select the area to be edited, and click the edit  button on the screen to modify it. You can only modify Type, Area Type, and Description if you import from RTM.

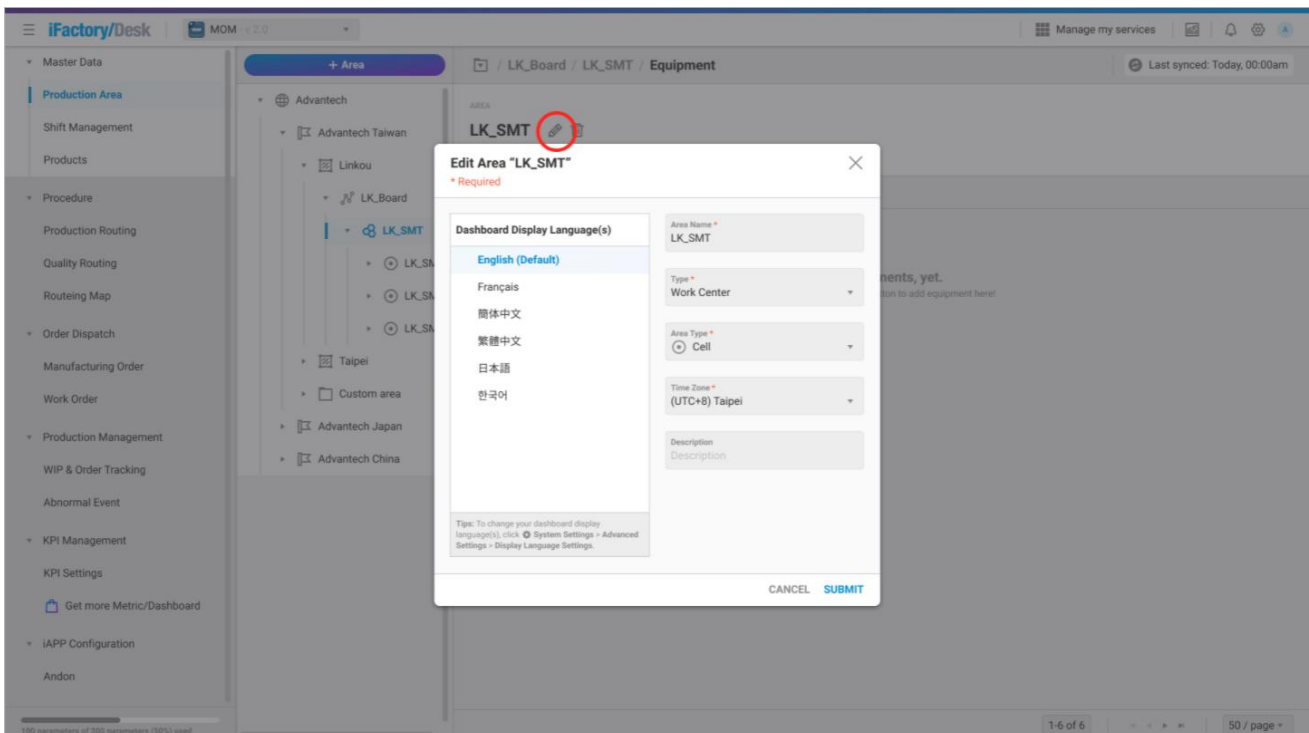



Figure 2-26 Production Area – Edit Area

Delete Area : Please select the Area to be deleted and click the delete  button to remove the Area.

2.1.13 Production Area - Asset

The Assets tab of the Production Area manages all the assets connected to the Area. Normally, there are creating, editing, deleting, sorting, filtering and searching.

The page will display the existing Asset information, including [Asset Name](#), [Type](#), [Capacity](#), [Parameter](#), [Date Modified](#) and other information.

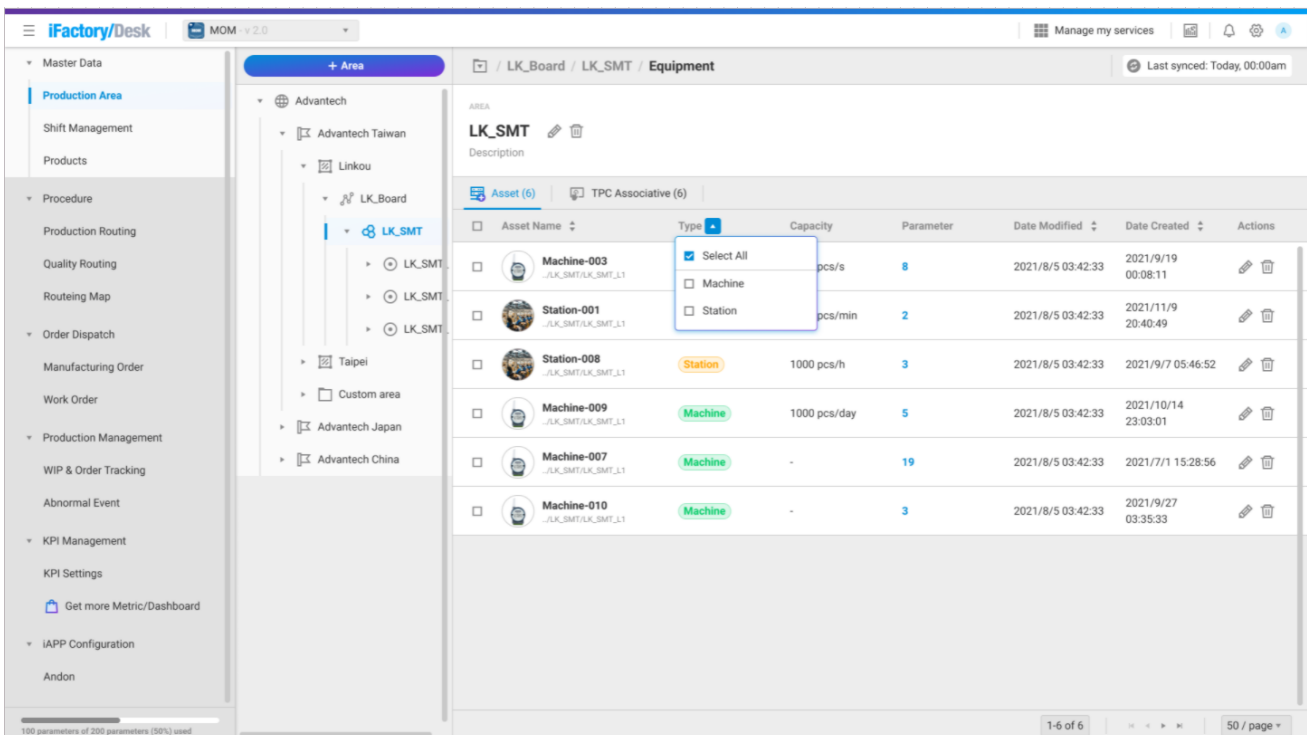



Figure 2-27 Production Area – Asset tab

2.1.14 Production Area – Create, Edit, and Delete Production Areas

Create new Assets: Select the Area to be added and click the add  button.

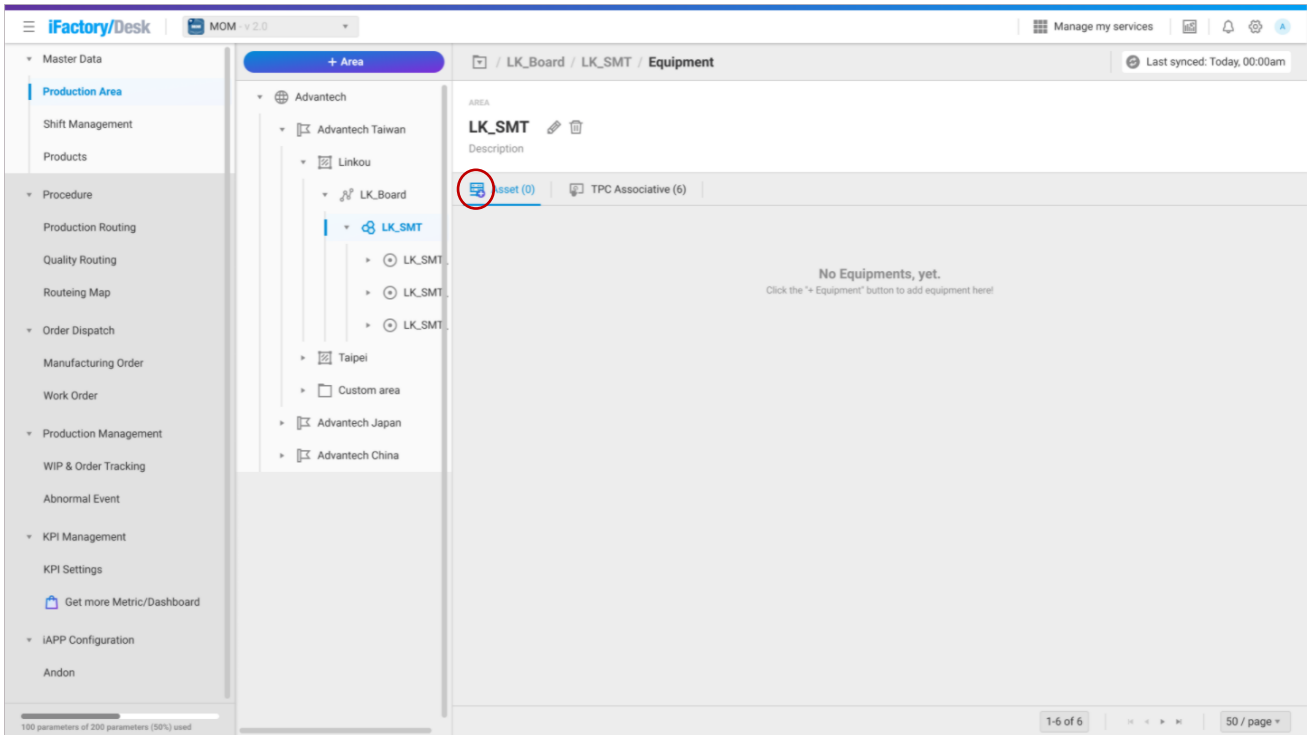


Figure 2-28 Production Area – Asset initial tab

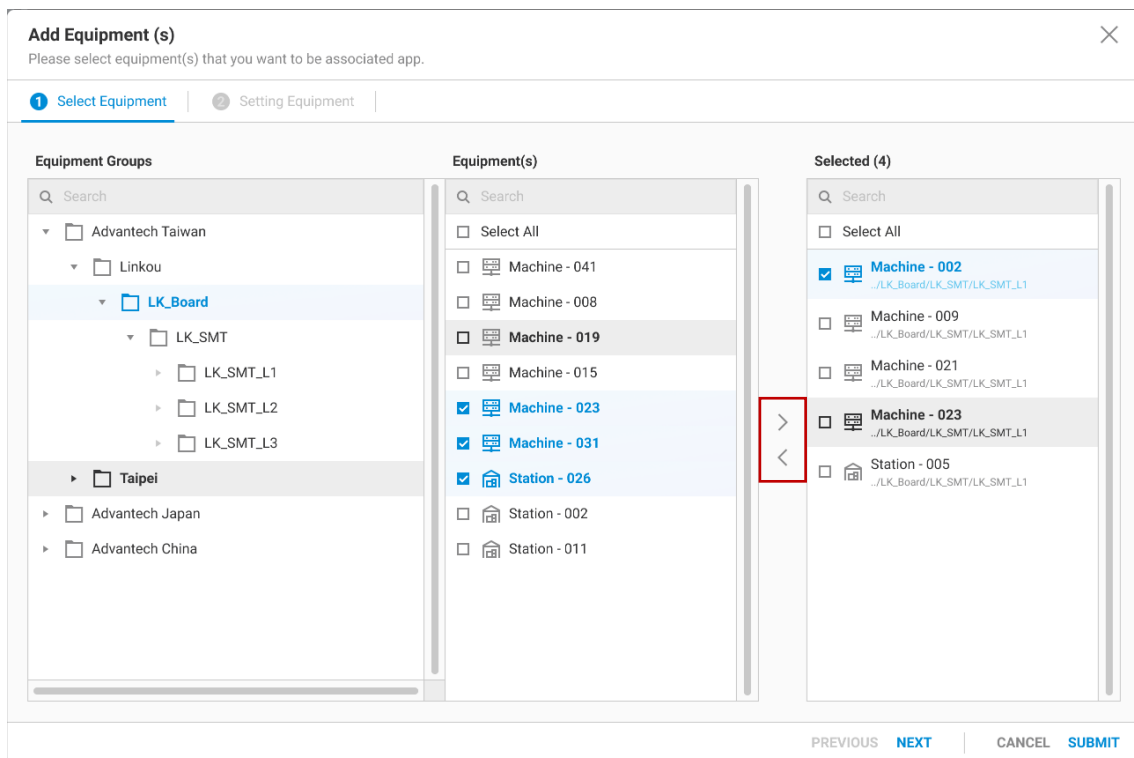


Figure 2-29 Add Equipment(s) - step1

Step 1: Select the Equipment to be connected, click the right arrow, the click the [next] button.

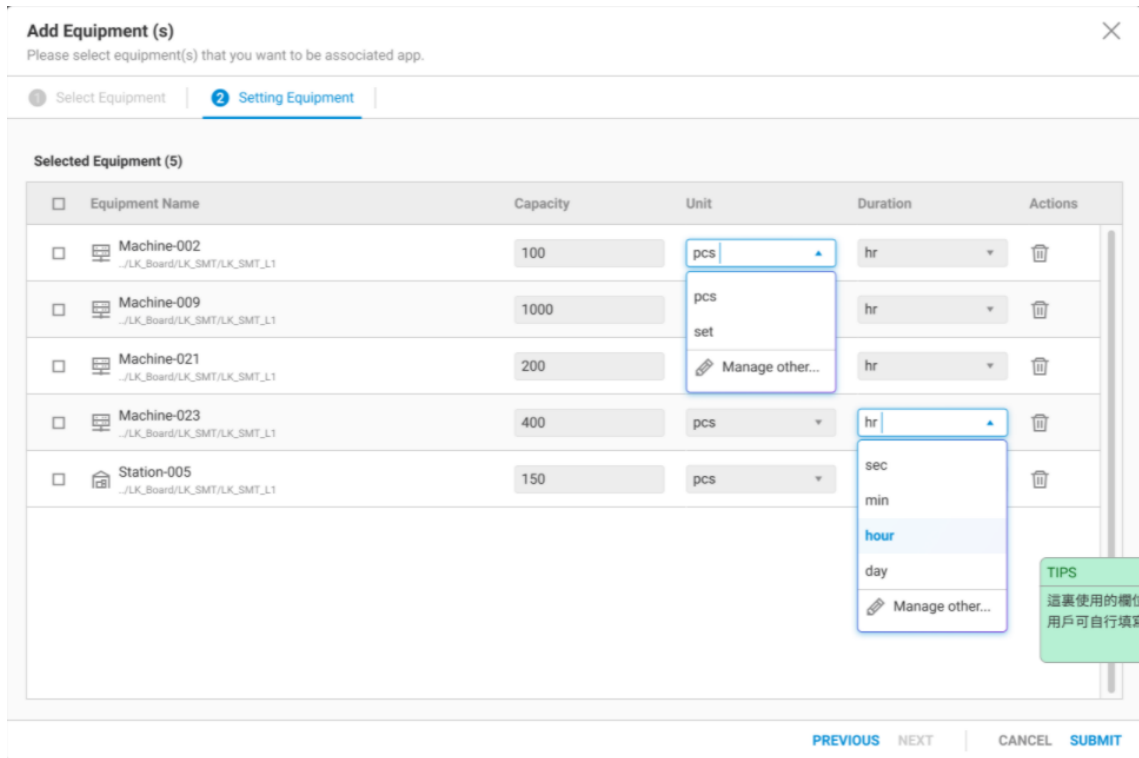


Figure 2-30 Add Equipment(s)-step 2

Step 2: Set the selected Equipment, including Capacity, Unit, and Duration, then click [Submit] button for completion.

Edit Asset: Select the asset data to be modified from the list, and press the Edit button to modify the data of this item.

Delete Asset: Select the (multiple) asset data to be deleted from the list, and press the delete button to remove the data of this item.

2.1.15 Production Area – TPC Associative

The TPC Associative tab here only provides a list of TPCs to view the newly added associated asset connection. To make any changes, please go to TPC Settings within Asset Settings, you can also refer to chapter 2.1.8

If you want to add Assets in the connected TPC, please click the number of Asset fields corresponding to TPC, enter the Asset tab and click the Add button for completion.

TPC Name	Description	Asset	Date Modified	Date Created
TPC - 002	Description	16	2021/9/27 03:35:33	2021/9/27 03:35:33
TPC - 010	Description	6	2021/9/27 03:35:33	2021/9/27 03:35:33
TPC - 008	Description	19	2021/9/27 03:35:33	2021/9/27 03:35:33
TPC - 006	Description	6	2021/9/27 03:35:33	2021/9/27 03:35:33
TPC - 004	Description	20	2021/9/27 03:35:33	2021/9/27 03:35:33
TPC - 002	Description	11	2021/9/27 03:35:33	2021/9/27 03:35:33

Figure 2-31 Production Area – TPC 列表

2.1.16 Shift Management – Shift

Click Shift Management on the left menu to plan and arrange the shift schedule on the Shift Tab. Normally, there are functions of **adding, editing, deleting, sorting, and searching**. The page will display the existing Shift information, including **Shift Name, Description, Operator, Date Modified**, and other information. If it has not been added any Shift, the screen will display " No Shift, yet.", please continue to refer to the follow-up instructions.

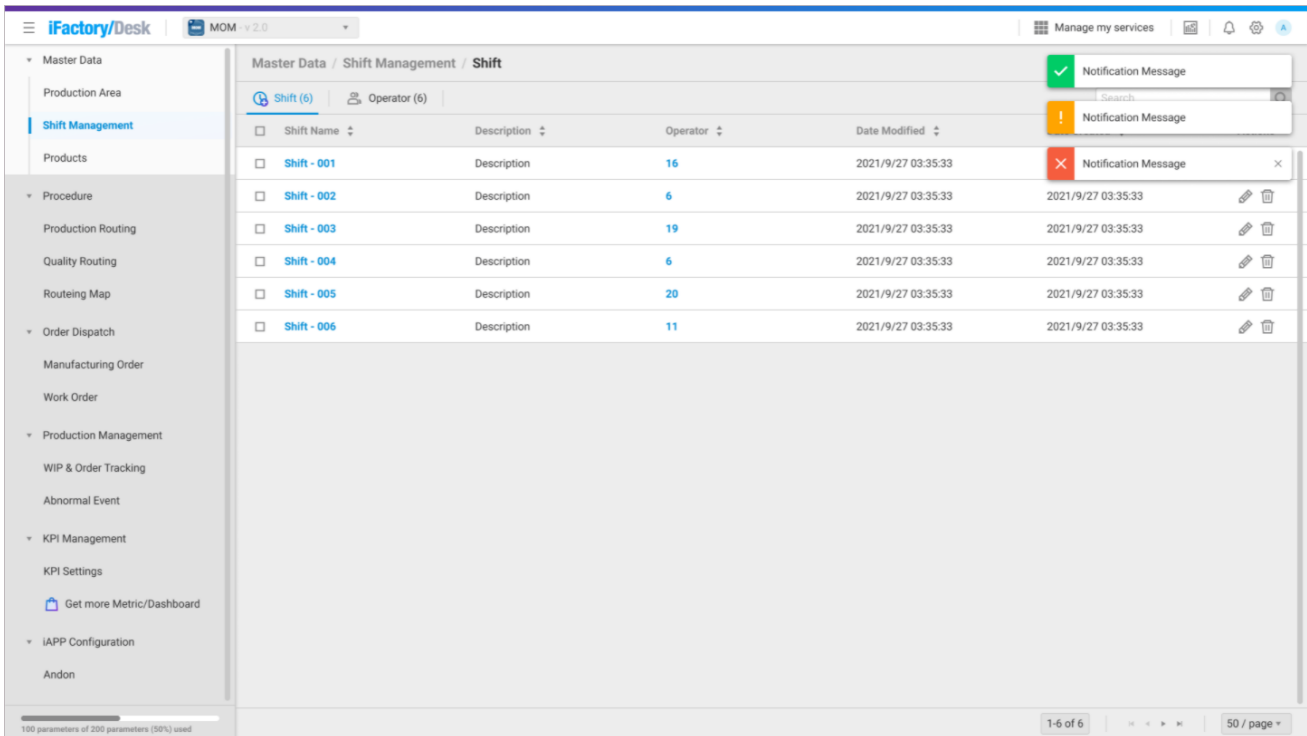



Figure 2-32 Shift Management – Shift tab

2.1.17 Shift Management – Create, Edit, and Delete Shifts

Create new Shifts: Click the Add  button, and the Add Schedule window will pop up.

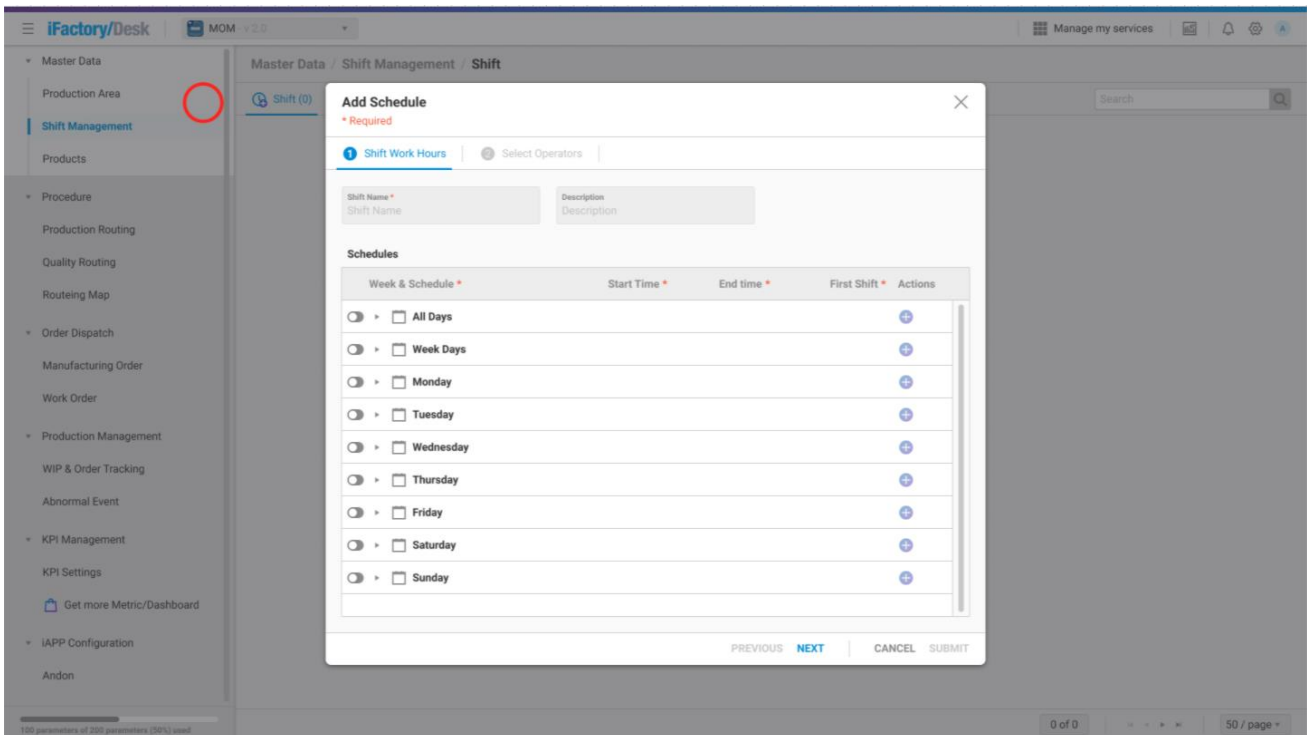


Figure 2-33 Shift Management – Create new Shifts

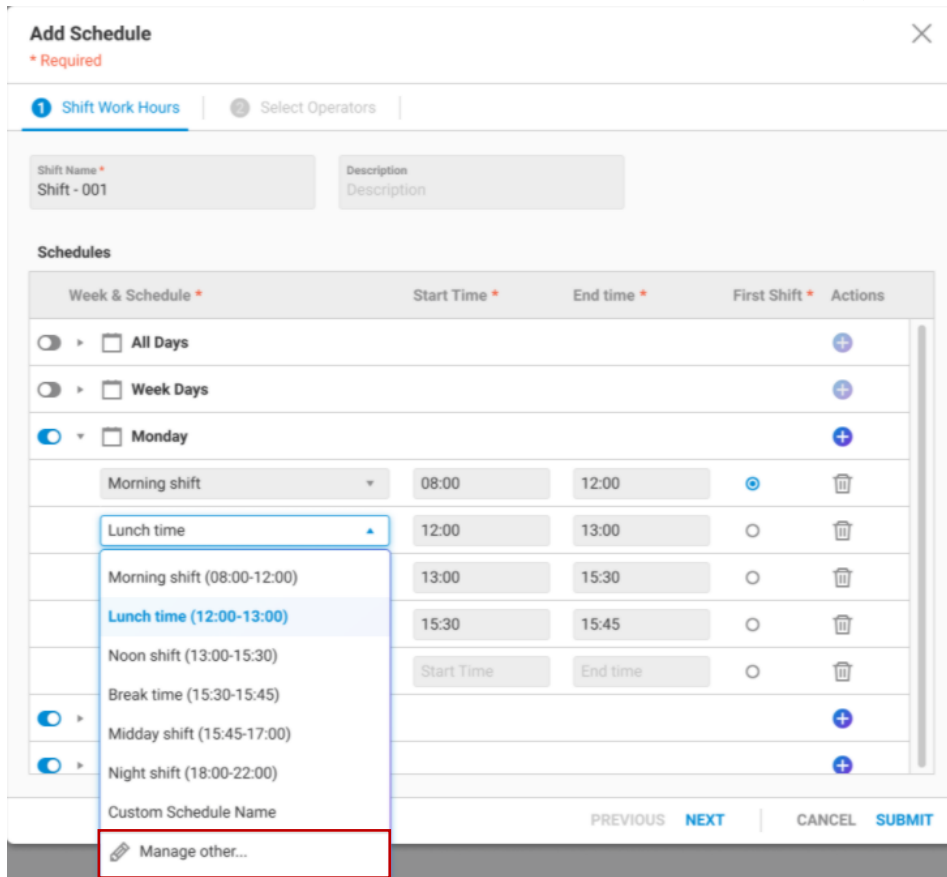




Figure 2-34 · Add Schedule–step1

Step 1: The following information needs to be filled in. (* means mandatory field)

- ***Shift Name:** fill in the class name
- **Description:** add a note

Schedules: Select the shift schedule period you want to use, turn on the switch  button and then click the create  button, the system will display a list of shift schedules preset as Morning shift, which can be modified directly. Click the Add button once and a blank shift schedule column will appear, including ***Schedule Name**, ***Start Time**, ***End Time**, and then click the drop-down list to select the desired shift schedule. If you need to set a new shift schedule, you can do it via the "Manage Other" field. Don't forget to click the next button

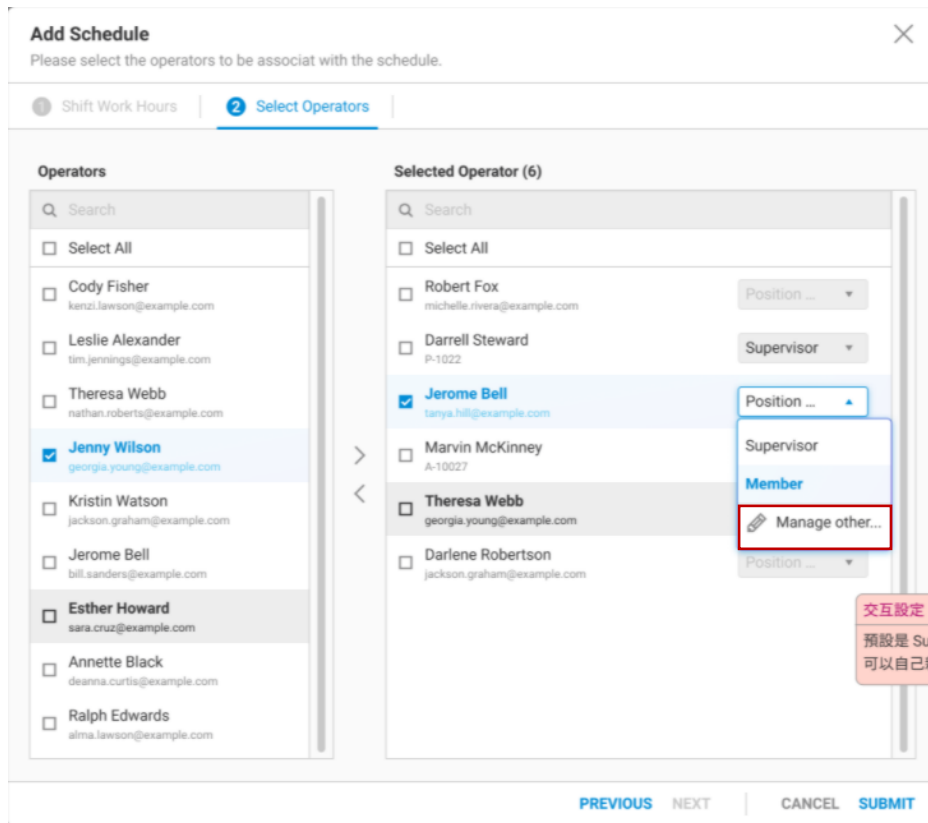


Figure 2-35 · Add Schedule–step2

Step 2: Check the Operators you want to add to the shift schedule. If there is no Operator to choose from, please refer to Chapter 21 for initialization. You can also customize operators via the "manage other" button. Click the [\[submit\]](#) button for completion.

After the addition is complete, you can click the Shift Name corresponding to the newly added Shift to view the newly added class; and click the number of operators corresponding to the newly added Shift to add, edit and delete Operators on the inner tab. and other actions.

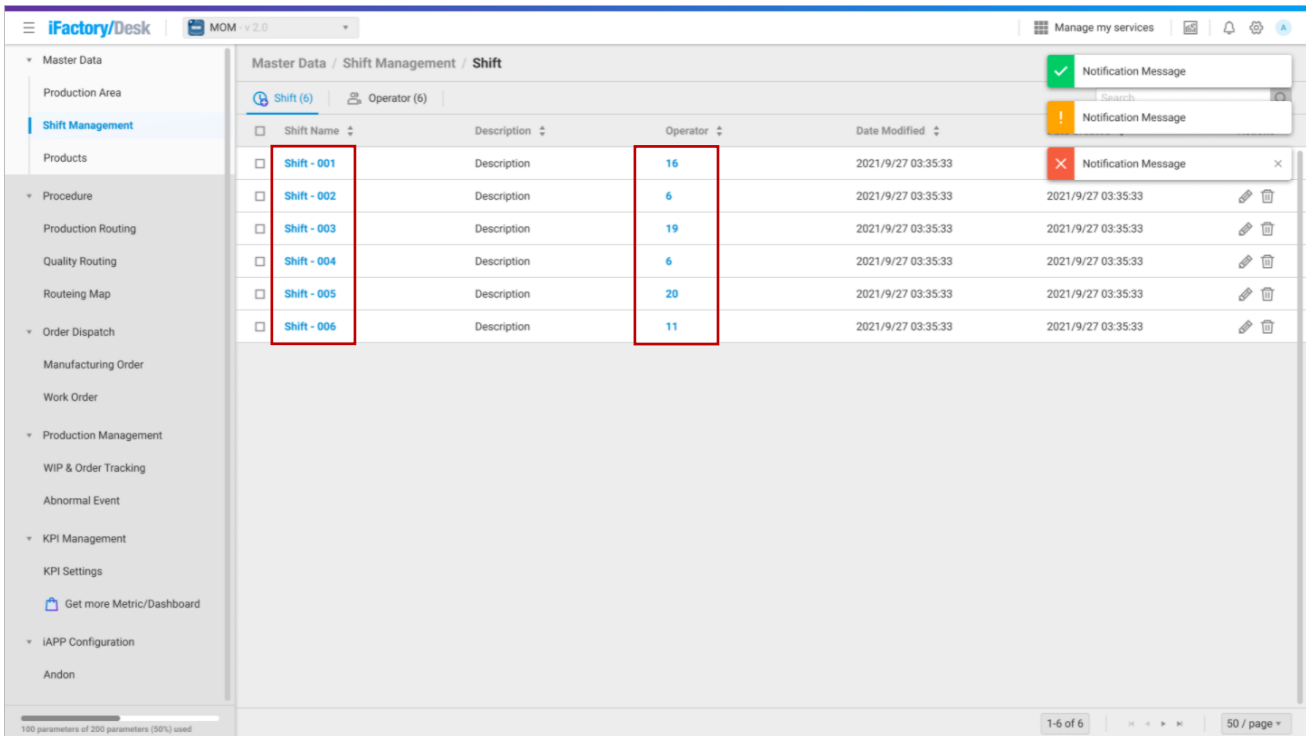




Figure 2-36 · Shift Management – Shift tab

Edit Shift: Select the Shift data to be modified from the list , and press the Edit  button to modify the data of this item.

Delete Shift: Select the (multiple) Shift data to be deleted from the list, and press the delete  button to remove the data of this item.

2.1.18 Shift Management – Operator

Switch the screen to the Operator tab. You can manage operators from this tab. Normally, there are functions of **adding, editing, deleting, sorting, and searching**. The page will display the existing Operator information, including **Operator Name, Description, Member Shift, Phone, E-Mail, Status, Date Modified**, and other information. "No Operator, yet. " will be shown if no operators have been added.

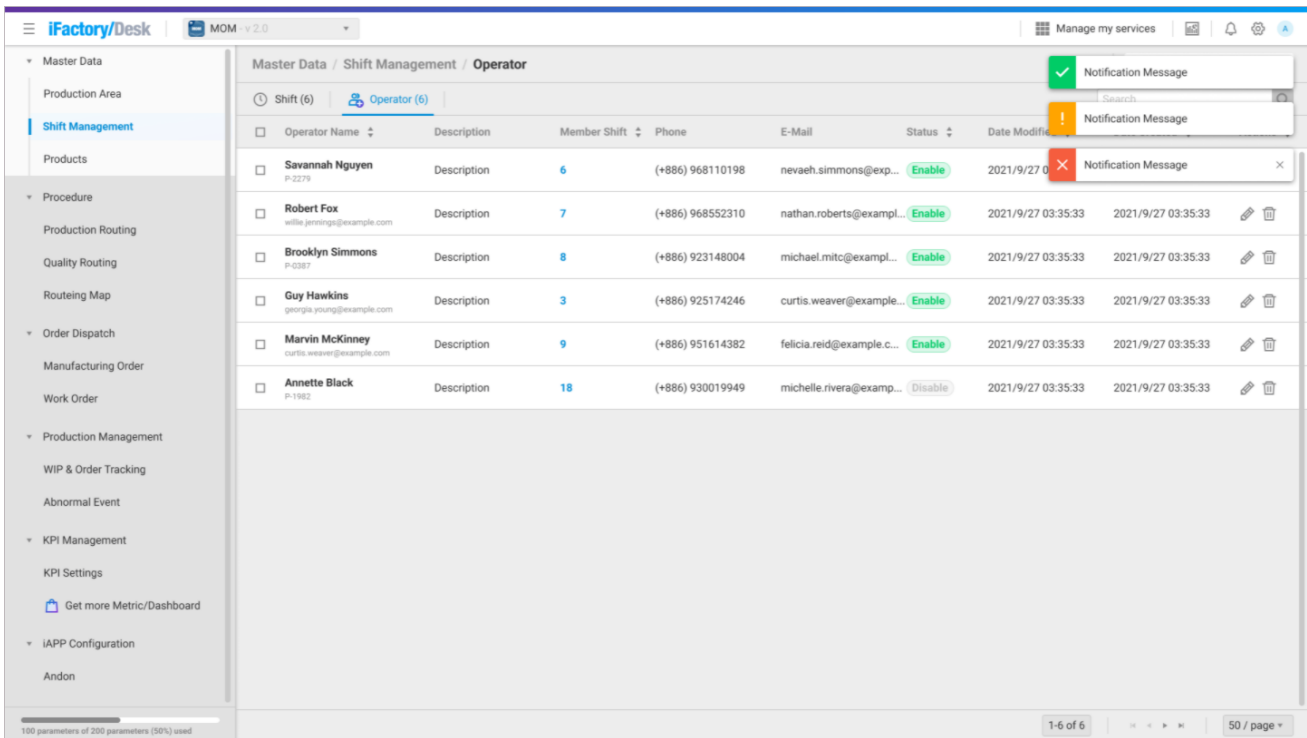


Figure 2-37 \ Shift Management – Operator tab

2.1.19 Shift Management – Create, Edit, and Delete Operators

Create new Operators: Click the Add  button, then Add Operator window will pop up.

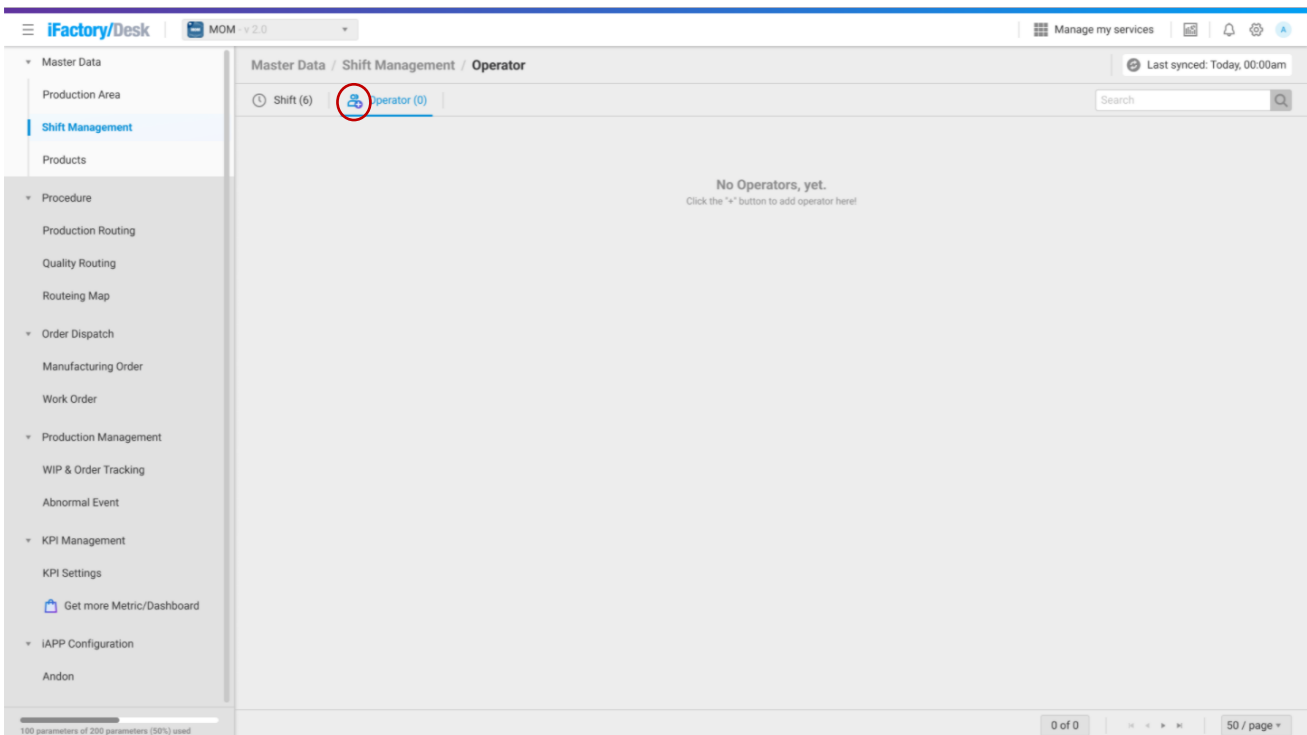


Figure 2-38 \ Shift Management – Create new Operators

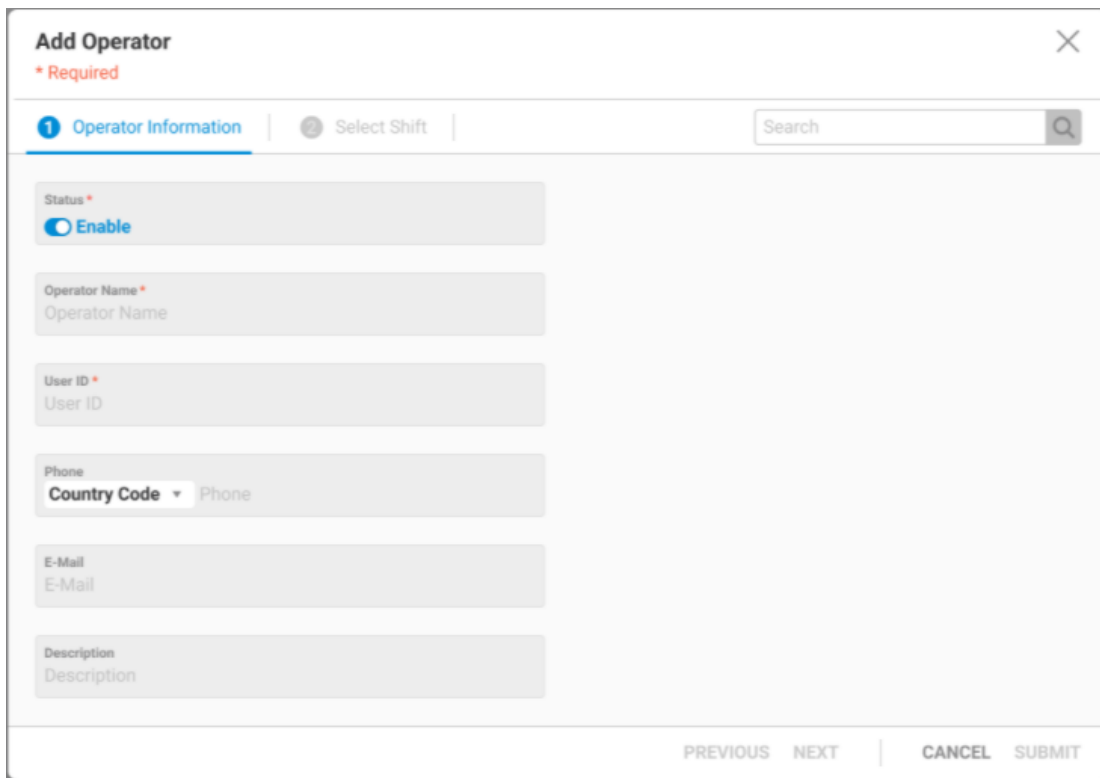


Figure 2-39 · Add Operator–step1

Step 1: The following information needs to be filled in. (* are required fields)

- ***Status:** The status needs to be set to **Enable** before scheduling this Operator.
- ***Operator Name:** Fill in the operator name
- ***User ID:** Fill in the user ID
- **Phone:** Select country code and enter mobile number
- **E-Mail:** fill in the mailbox
- **Description:** add a note if any

After filling in, click the [\[Next\]](#) button for next step.

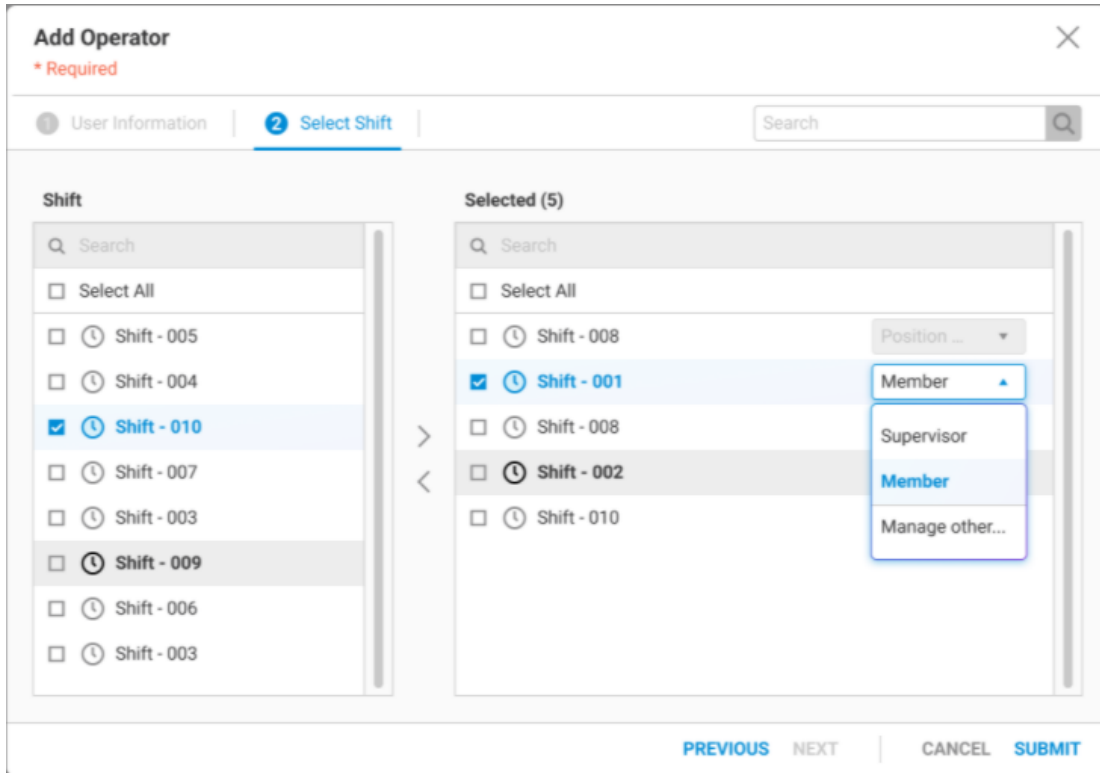


Figure 2-40 · Add Operator–step2

Step 2: Select the Shift that you want to add to this Operator. If there is no Shift to choose from here, please refer to Chapter 2.1.1.19 to add it. After selecting, click the [\[Submit\]](#) button for completion.

Click the number of Member Shifts corresponding to the Operator to view shift details. You can also perform creating, editing, and deleting here.

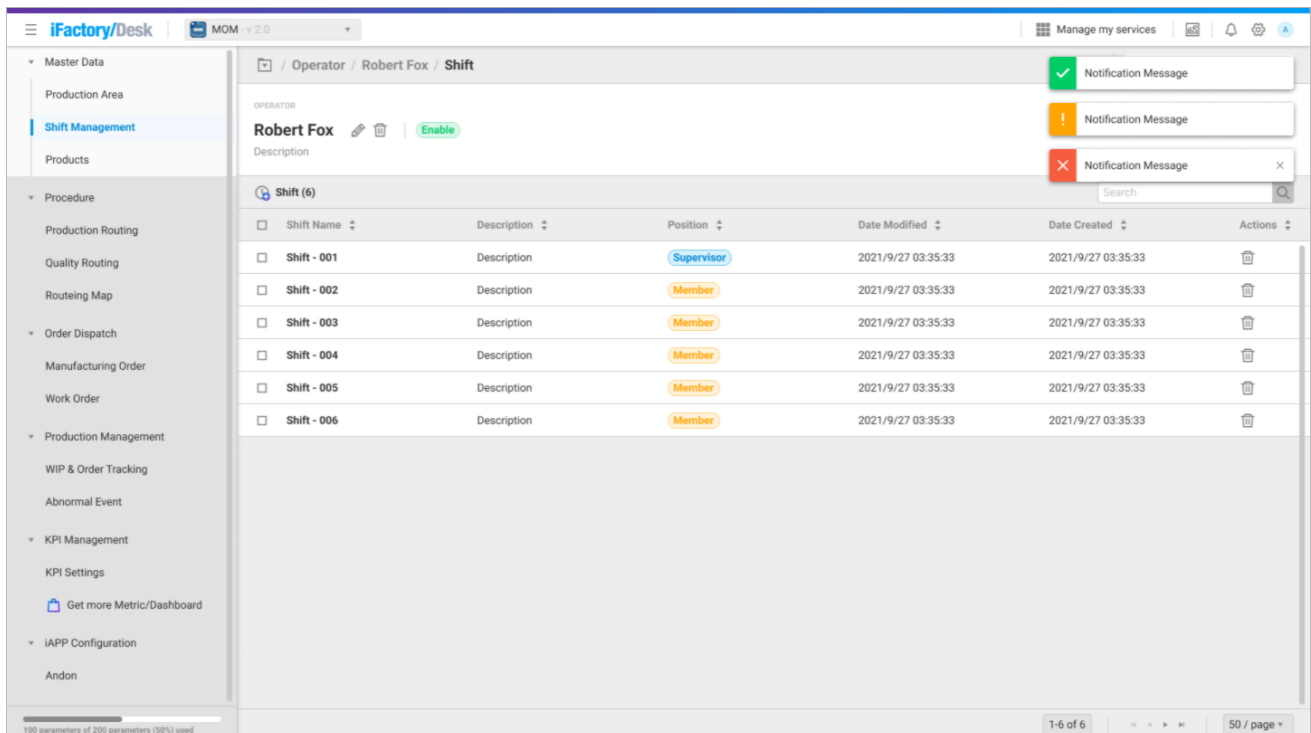




Figure 2-41 · Operator – Member Shift

Edit Operator: Select the operator data to be modified from the list, and press the Edit  button to modify the data of this item.

Delete Operator: Select the (multiple) operator data to be deleted from the list, and press the delete  button to remove the data of this item.

2.1.20 Products

Click the tab Products in the left menu to manage product information. Normally, there are functions of adding, editing, deleting, sorting, filtering and searching. This page will display the existing Product information, including the [Product ID](#), [Product Name](#), [Type](#), [Unit](#), [Cycle Time](#), [Route](#), [Current Version](#), [Date Modified](#), and other information. "No Products, yet." will be shown if products have been added.

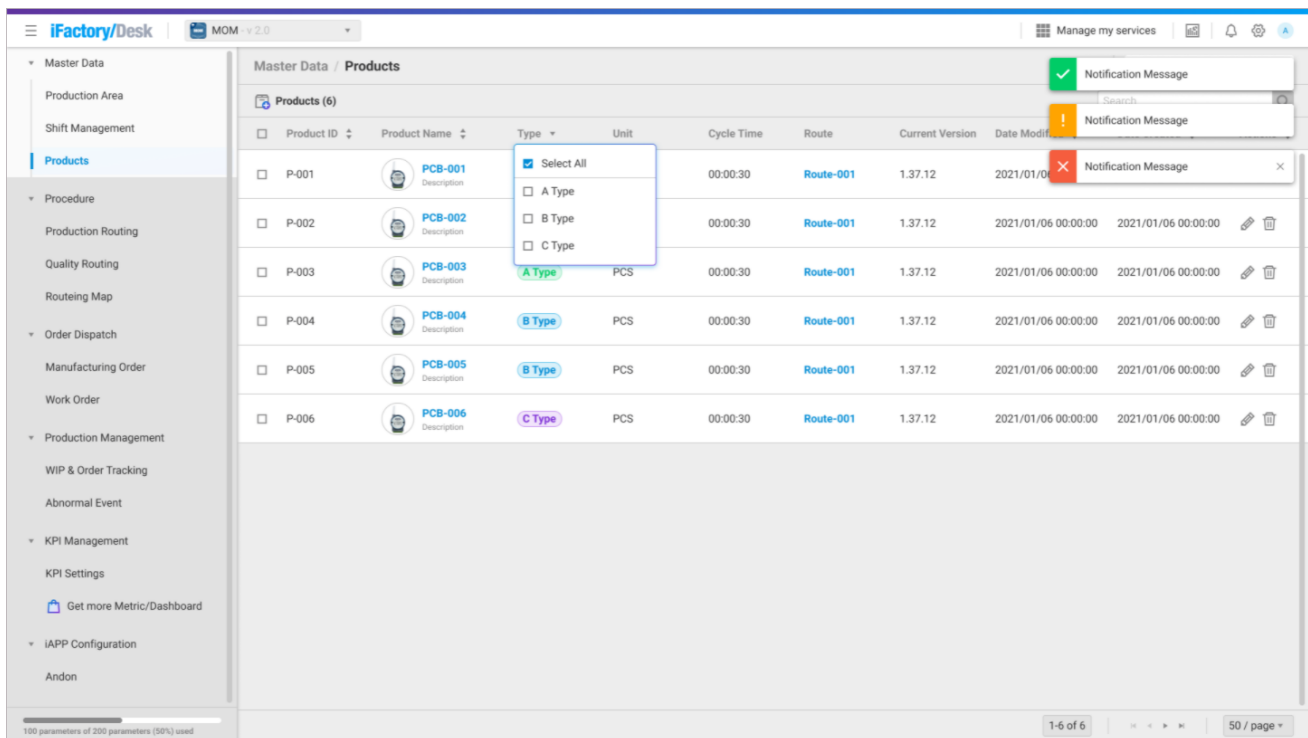



Figure 2-42 · Products tab

2.1.21 Products – Create, Edit, and Delete Products

Create new Products: Click the Add  button, then the Add Product window will pop up

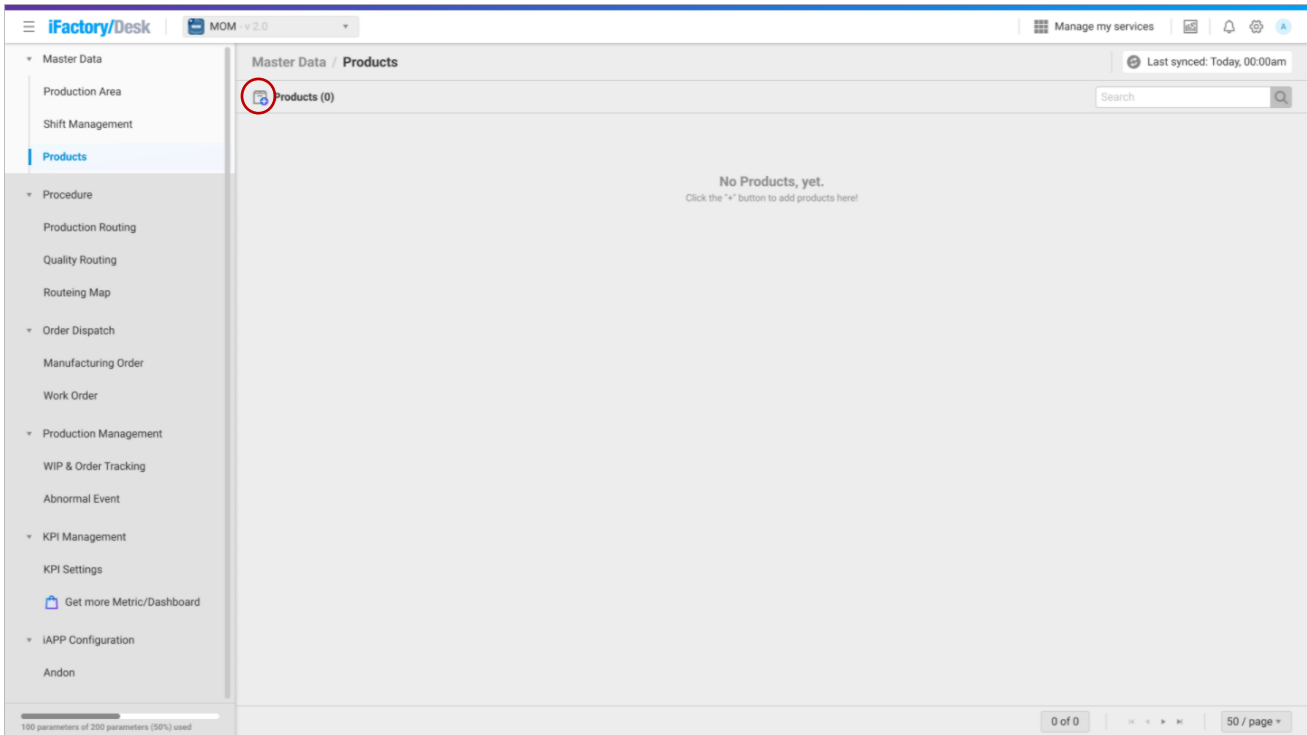



Figure 2-43 · Products initial screen


Figure 2-44 · Add Products window


The following information needs to be filled in. (* are required fields)

- ***Product ID:** Fill in the product number
- ***Product Name:** fill in the product name
- **Image URL:** Fill in the product photo URL
- **Description:** add a note
- ***Version:** Select the product version number from the drop-down list, click Add New Version at the bottom to add a new version number
- ***Type:** Select the product type from the drop-down list. You can also click "Manage other" at the bottom to manage the type list
- ***Route:** Click the Add  button to select a product route, if you need to add a new product route, please refer to Chapter 錯誤! 找不到參照來源。
- ***Unit:** Select the product unit from the drop-down list. You can also click "Manage other" at the bottom to manage the unit list.
- ***Cycle Time:** Enter the product cycle

Click the [\[Submit\]](#) button for completion.

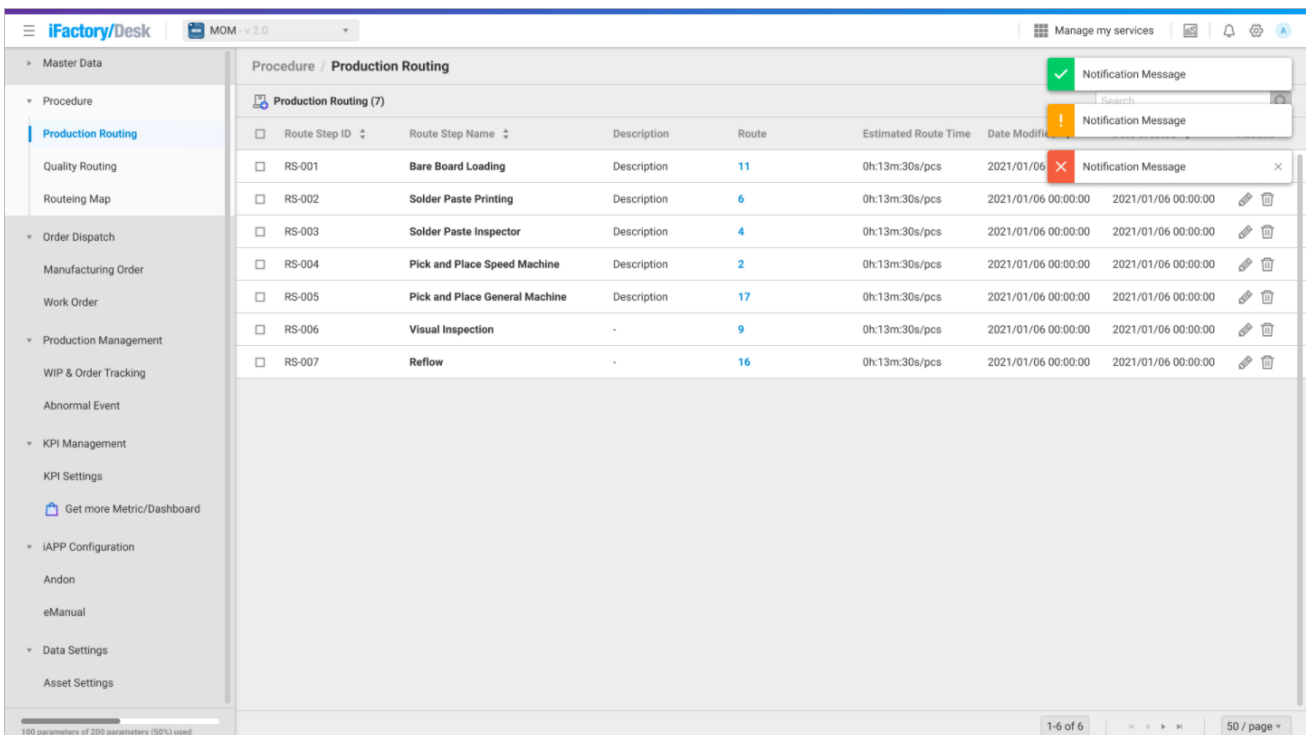
After complete creation, click the name of the newly added product to enter the subpage. On the Version tab, you can view the detailed content corresponding to each version number of the product. You can use the editing function of this tab to set the current version number and delete it. You can find the product route step diagram within the Route Step tab.

Edit Product: Select the Product data to be modified from the list, and press the Edit  button to modify the data of this item.

Delete Product: Select the (multiple) product data to be deleted from the list, and press the delete  button to remove the data of this item.

2.1.22 Production Routing

You can manage production routing within the Routing Tab. Normally, there are functions for **creating, editing, deleting, sorting, and searching**. The page will display the existing Production Routing information, including [Route Step ID](#), [Route Step Name](#), [Description](#), [Route](#), [Estimated Route Time](#), [Date Modified](#), and other information. "No Route Steps, yet." will be shown if no route steps have been added.
















Route Step ID	Route Step Name	Description	Route	Estimated Route Time	Date Modified	
RS-001	Bare Board Loading	Description	11	0h:13m:30s/pcs	2021/01/06	
RS-002	Solder Paste Printing	Description	6	0h:13m:30s/pcs	2021/01/06 00:00:00	 
RS-003	Solder Paste Inspector	Description	4	0h:13m:30s/pcs	2021/01/06 00:00:00	 
RS-004	Pick and Place Speed Machine	Description	2	0h:13m:30s/pcs	2021/01/06 00:00:00	 
RS-005	Pick and Place General Machine	Description	17	0h:13m:30s/pcs	2021/01/06 00:00:00	 
RS-006	Visual Inspection	-	9	0h:13m:30s/pcs	2021/01/06 00:00:00	 
RS-007	Reflow	-	16	0h:13m:30s/pcs	2021/01/06 00:00:00	 

Figure 2-45 \ Production Routing tab

2.1.23 Production Routing – Create, Edit, and Delete Production Routings

Create new Production Routings: Click the Add  button, and the Add Route Step window will pop up.

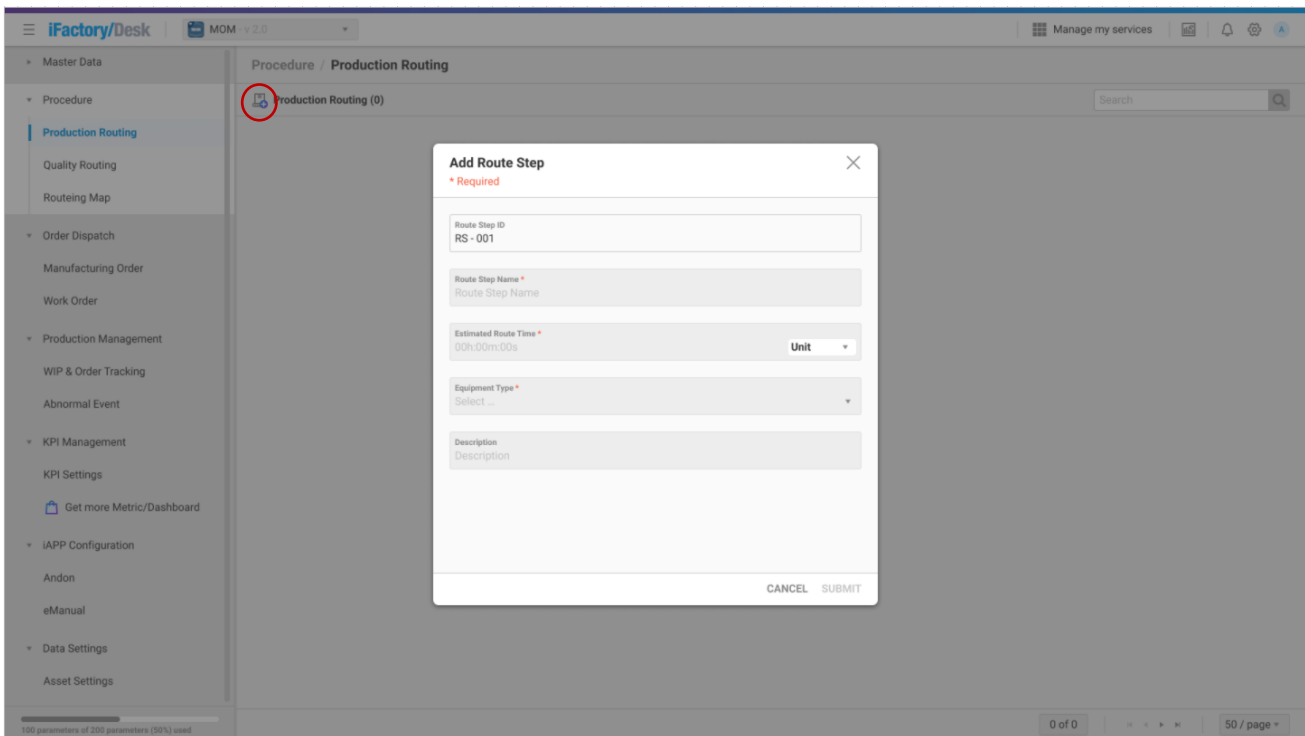


Figure 2-46 · Production Routing - Add Route Step window

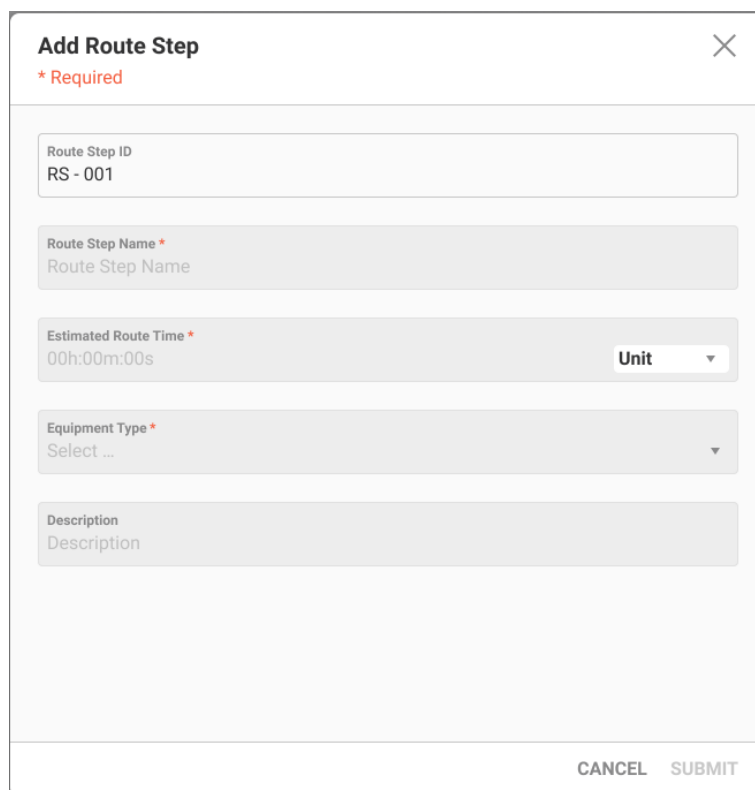


Figure 2-47 · Add Route Step


The following information needs to be filled in. (* are required fields)

- ***Route Step ID:** Product route step number
- ***Route Step Name:** Product route step name
- ***Estimated Route Time:** The estimated time required for the completion of this product. You can click "Manage Other" at the bottom to change the unit.
- ***Equipment Type:** Select the equipment type from the drop-down list.
- **Description:** Add a note if any

Click the [Submit] button for completion.

After complete creation, you need to bind the newly added product route within the routing map tab. Then you can check the corresponding route number of each production routing by clicking the route number.

編輯 Production Routing : 從列表中選定欲修改的 Route Step 資料，按下  編輯鍵，即可修改此項目的資料。

刪除 Production Routing : 從列表中選定(可複選)欲刪除的 Route Step 資料，按下  刪除鍵，即可移除此項目的資料。

2.1.24 Routeing Map

You can set the association of each procedure as well as the products which contain this route in the Routing Map. Normally, there are functions of **adding, editing, copying, deleting, sorting and searching**. The page will display the existing Routing Map information, including [Route ID](#), [Route Name](#), [Description](#), [Product](#), [Estimated Route Time](#), [Date Modified](#), and other information. "No Routes, yet." will be shown if no route has been added.

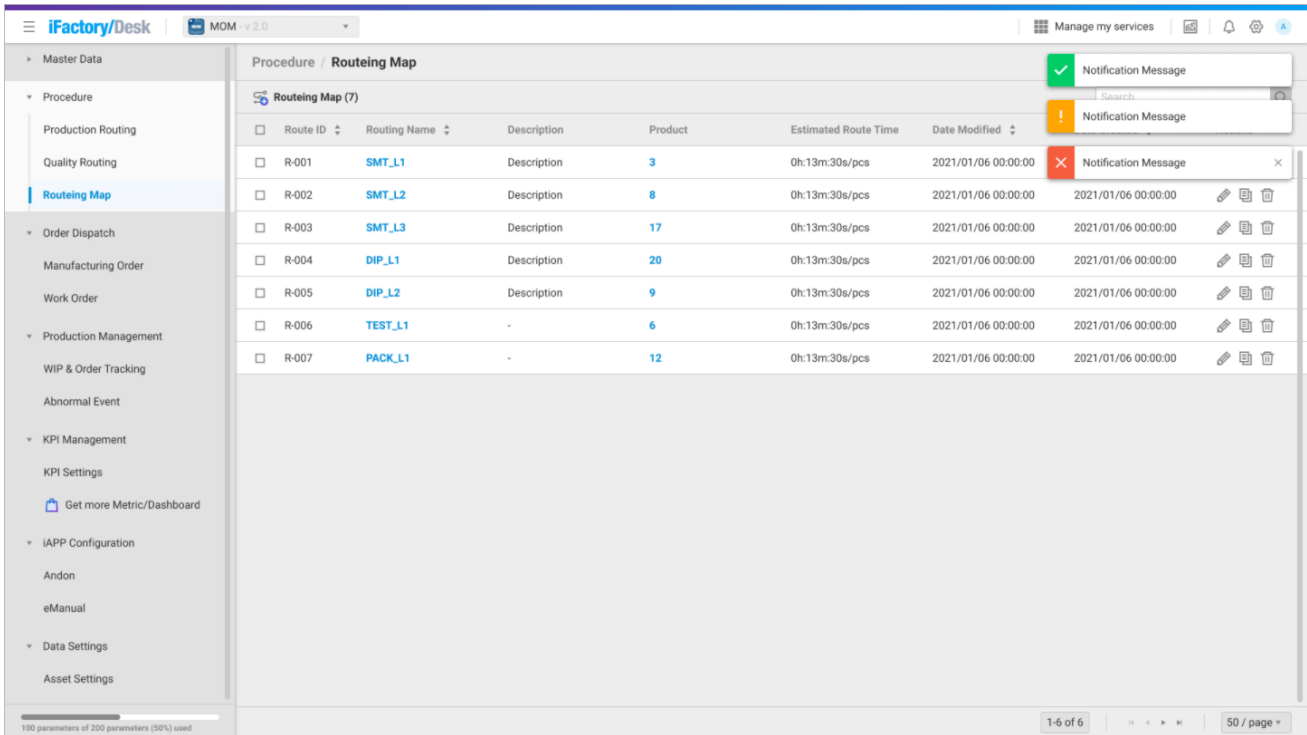



Figure 2-48 · Routeing Map tab

2.1.25 Routing Map – Create, Copy, Edit, and Delete Routing Maps

Create new Routing Maps: Click the Add  button, and the Add Route window will pop up.

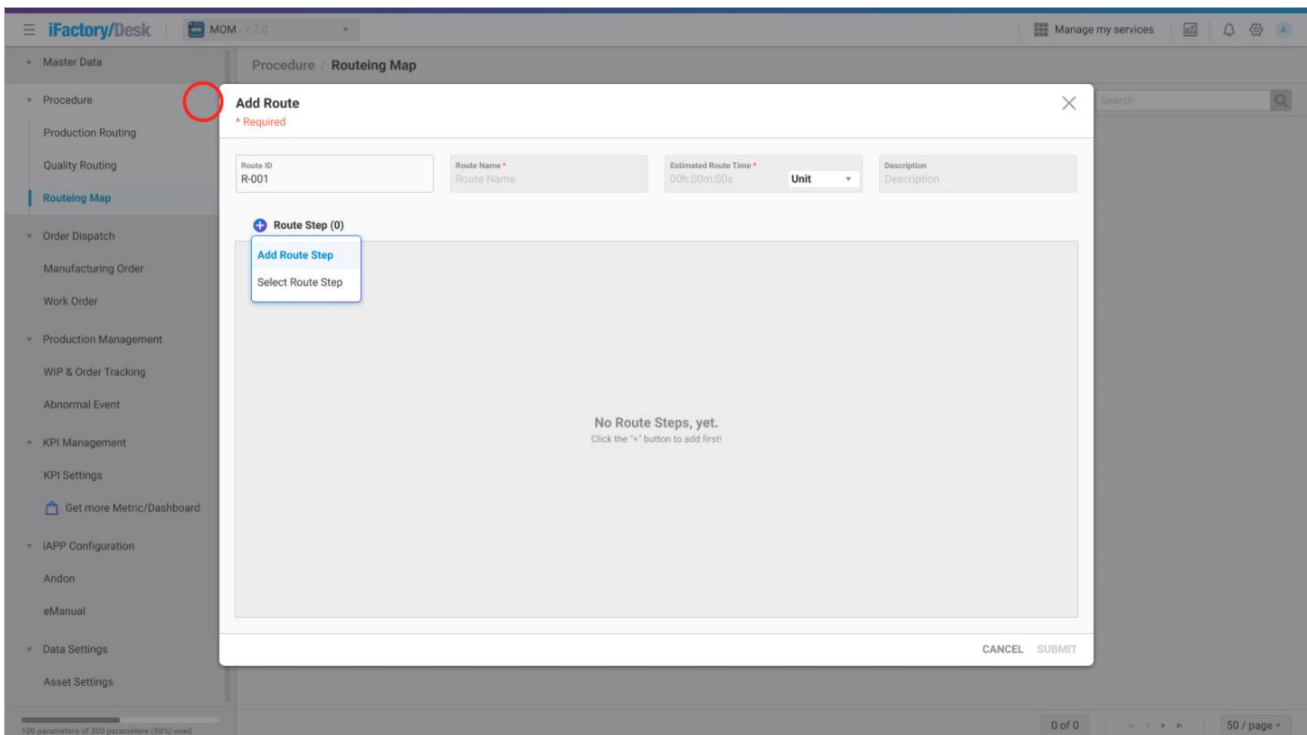


Figure 2-49 · Routeing Map – Add Route window

The following information needs to be filled in. (* are required fields)

- ***Route ID:** Fill in the product route number
- ***Route Name:** Fill in the product route name
- ***Estimated Route Time:** The estimated time required for the completion of this product. You can click "Manage Other" at the bottom to change the unit.
- **Description:** Add a note if any

After complete creation, click the Add button on the screen, and you can select either Add Route Step or Select Route Step. You can add the route step manually or import the route step if you have completed the creation of the route step according to Chapter 2.1.25.

Add Route
* Required

Route ID: R-001
Route Name*: SMT_L1
Estimated Route Time*: 01h:11m:30s
pcs
Description: Description

Route Step (6)

ID	Route Step Name	Job Report	Before Step	Report timing	Report Mode	Conversion R...	Availability	Actions
RS - 001	Bare Board Loading	<input checked="" type="checkbox"/>	First st...	Check I...	TPC	1.5	<input checked="" type="checkbox"/>	
RS - 002	Solder Paste Printing	<input checked="" type="checkbox"/>	Bare B...	Check I...	TPC	1.5	<input type="checkbox"/>	
RS - 003	Solder Paste Inspector	<input checked="" type="checkbox"/>	Solder...	Check I...	TPC	1.5	<input type="checkbox"/>	
RS - 004	Pick and Place Speed Ma...	<input type="checkbox"/>	Select ...	Select ...	Select ...		<input type="checkbox"/>	
RS - 005	Pick and Place General M...	<input type="checkbox"/>	Pick a...	Check I...	TPC	1.5	<input type="checkbox"/>	
RS - 006	Visual Inspection	<input checked="" type="checkbox"/>	Select ...	Select ...	Select ...		<input type="checkbox"/>	

Route Step Name TIPS

- 在此新建的 Step：Route Step Name 可以編輯。
(如RS-001~004)
- 若 Step 是批次勾選進來：Route Step Name 不能編輯。
(如RS-005,006)

CANCEL SUBMIT


Figure 2-50 \ Add Route – Route Step setting


Add Route: The following information needs to be filled in. (* are required fields)


- **Route Step ID:** The product route step number; the newly created Step can be edited here, but it cannot be edited if it is the Step selected for the batch.
- **Route Step Name:** The name of the product route step; the newly created Step can be edited here, but it cannot be edited if it is the Step selected for the batch.
- ***Job Report:** Whether to report for work or not. The default is open
- ***Before Step:** Select the relation between product steps, including:
 - First step
 - Bare Board Loading

- Solder Paste Loading
 - Solder Paste Inspector
 - Terminal
 - ***Report timing:** Select the reporting time, including:
 - None
 - Check In
 - Check Out
 - Check in & Out
 - ***Report Mode:** Select the reporting method, including:
 - TPC
 - Bar Code
 - QR Code
 - DWI(auto-collected)
 - Conversion Rate: Fill in the conversion rate (used when creating a new work order to convert the output)
 - Availably Check in Quantity Control: Permit to report work on the Touch Panel page or not
- Click the [\[Submit\]](#) button for completion.


After complete creation, you can click the newly added Routing Name to view the product route step diagram.

Edit Routing Maps: Select the route data to be modified from the list, and click the edit  button to modify the data of this item.

Copy Routing Maps: Select the route data to be copied from the list, and click the copy  button to copy the data of this item.

Delete Routing Maps: Select the (multiple) route data to be deleted from the list, and click the delete  button to remove the data of this item.

2.2 Touch Panel Initialization and Introduction

Please input the Touch Panel Name  first, the UUID is auto-generated. Binding the Touch Panel with assets is required after the submission. And please login to the portal first for following steps.

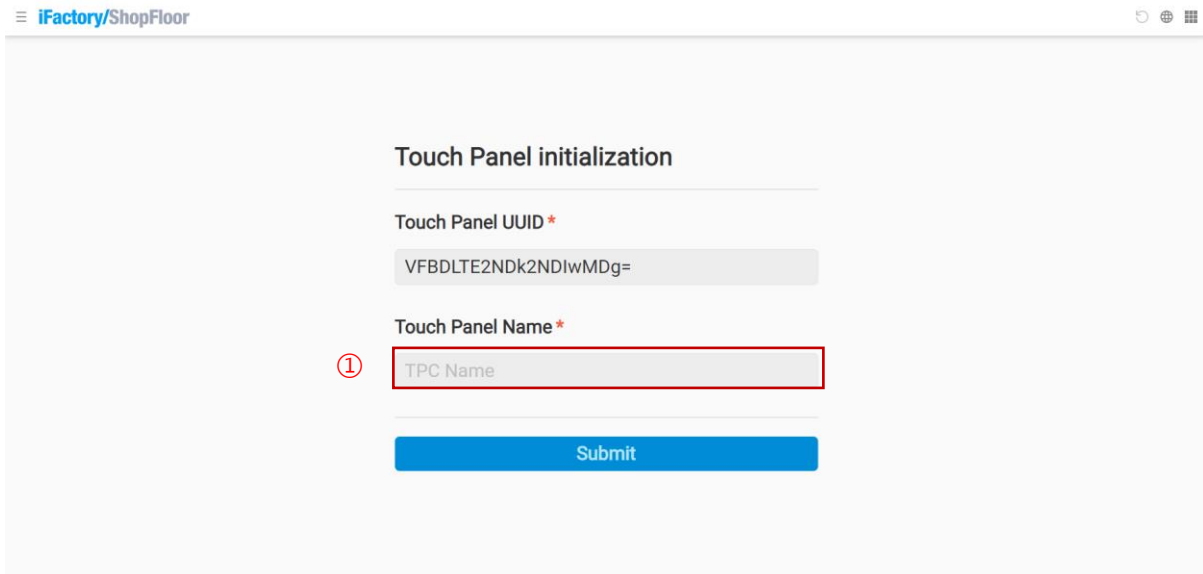


Figure 2-51 \ TPC initialization

3 Portal Page (For Operators)

Operators can utilize touch panels to report work order progress for supervisors to manage the production efficiency more efficiently. Please note that the initialization of touch panels are required before proceeding.

3.1 Report

Select the processing work order, click [Report] button, and input the reporter ID manually ① or select from the list ②.

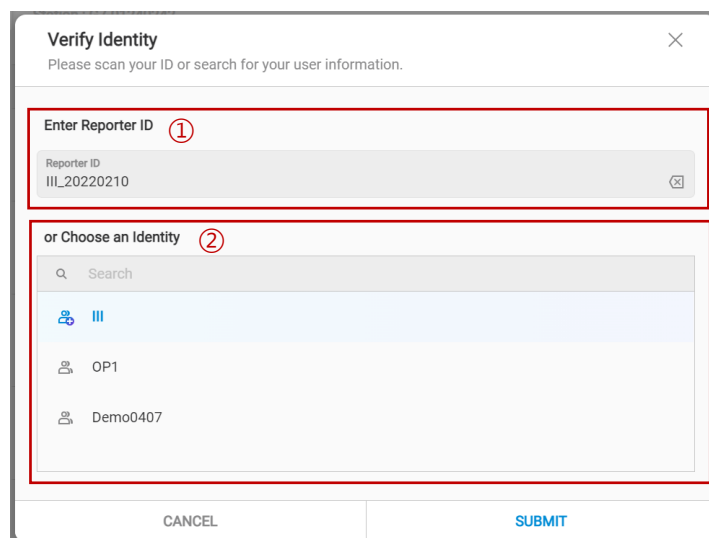


Figure 3-1 \ Report – Verify Identity

3.1.1 Manual Report

點選 Manual Report 鍵並 SUBMIT 送出，進到手動報工介面，如 Figure 3-2，點擊 OK Qty/NG Qty 窗格跳出數字選單即可填入欲輸入之產量，如 Figure 3-3。

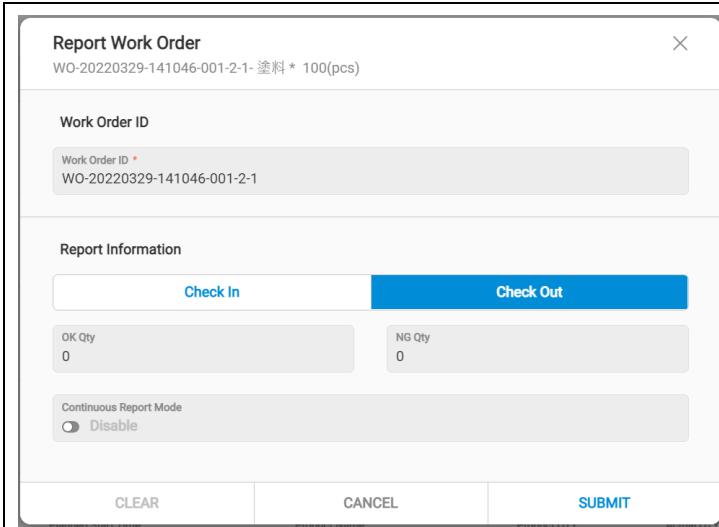


Figure 3-2、Manual Report

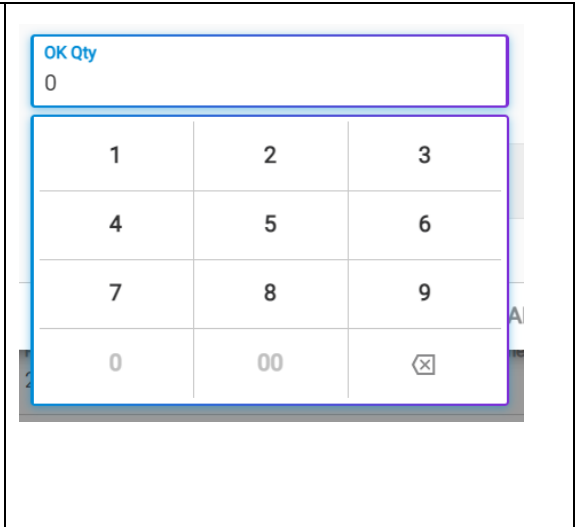


Figure 3-3、Numeric Keypad

3.1.2 Report - Auto. Collect

➤ Auto. Collect Architecture

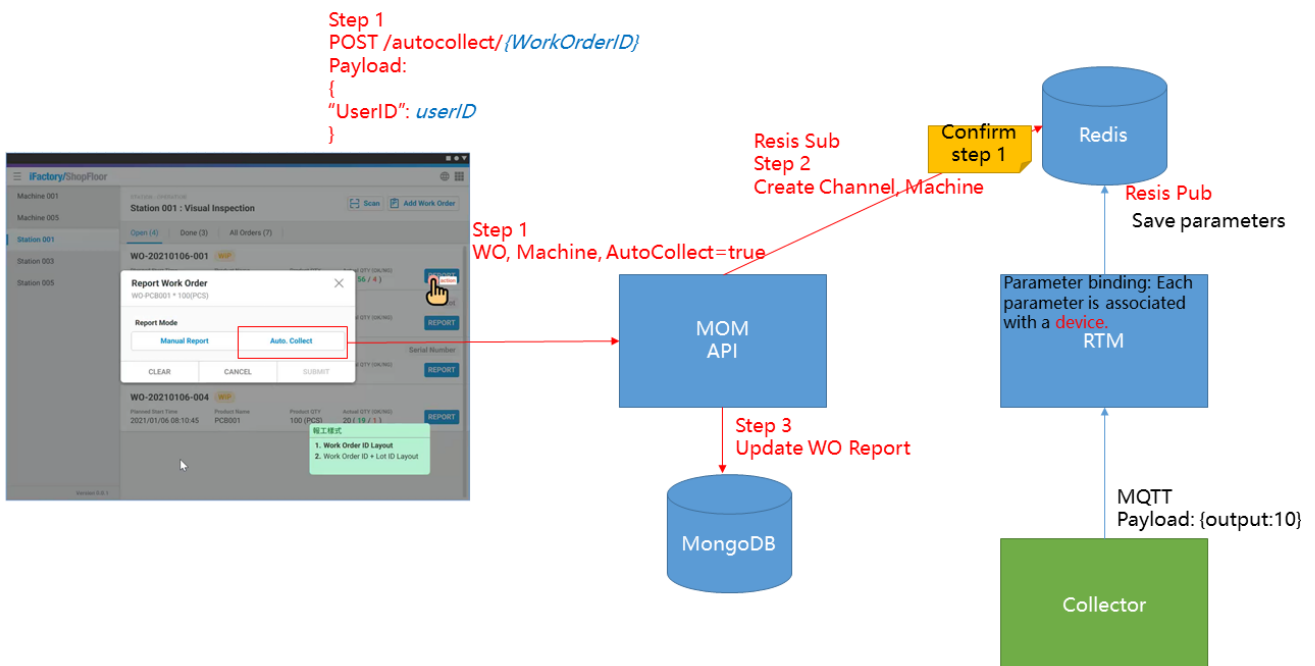


Figure 4 Auto. Collect Architecture

➤ Flowchart

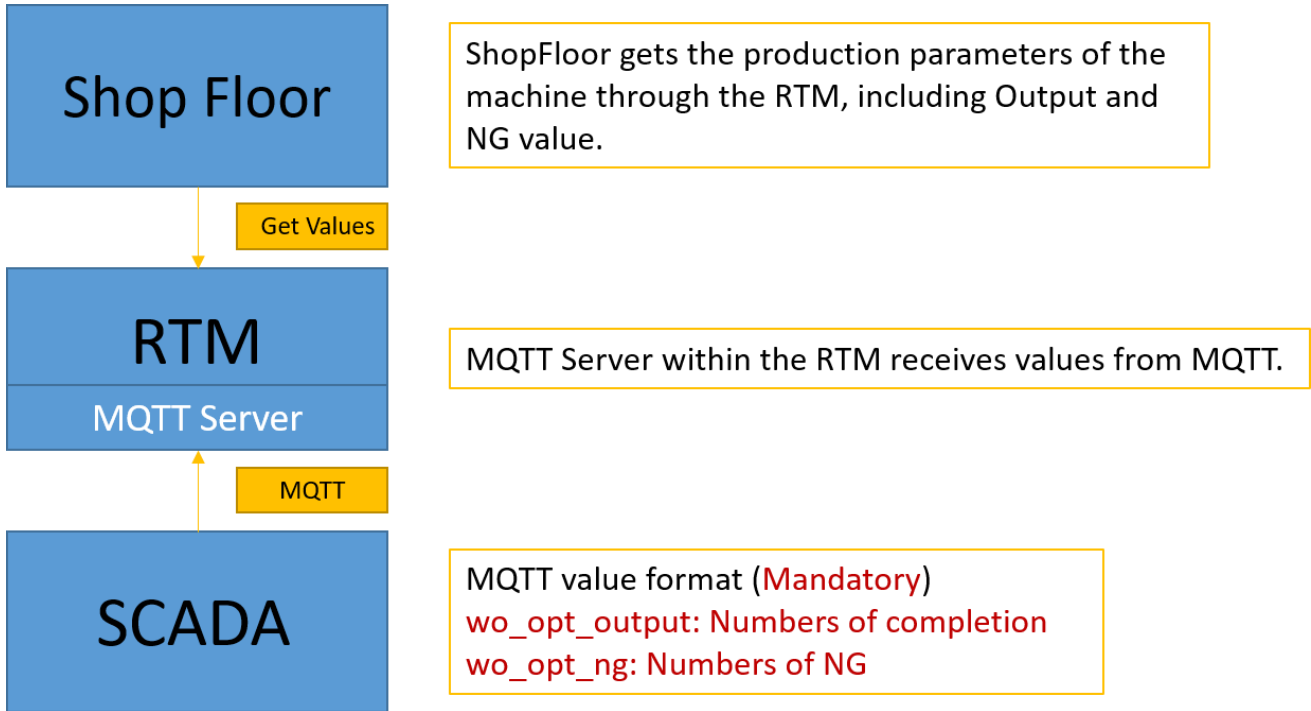


Figure 5 Auto. Collect Flowchart

➤ Auto. Collect Initialization and Testing

1. Binding "Desk Inbound" with "MQTTBox" from "Data Gateway" within Desk.

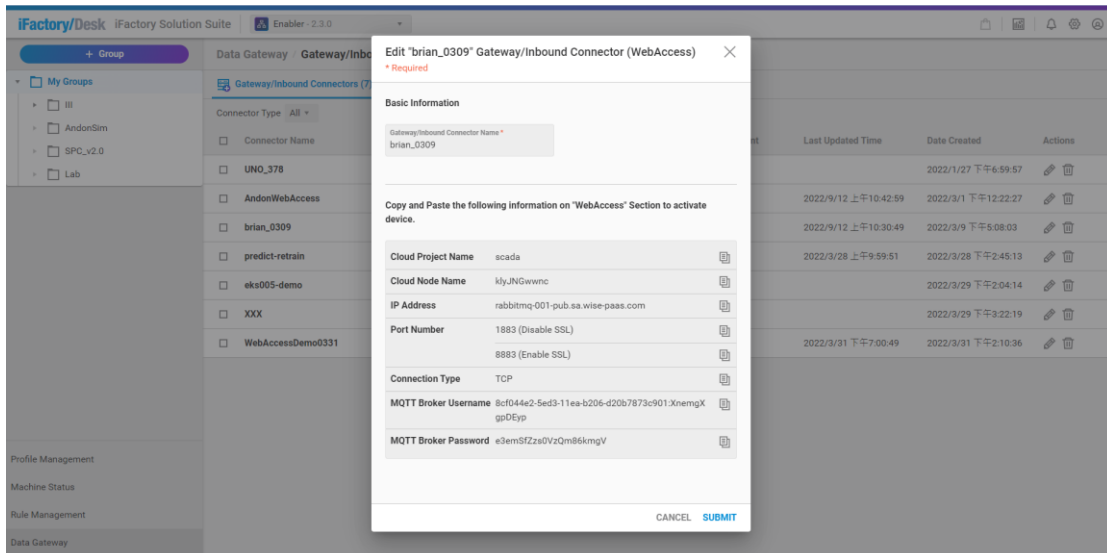


Figure 6 Data Inbound

2. Open MQTTBox, click [\[Create MQTT Client\]](#).

Figure 7 Create MQTT Client

- MQTT Client Name: Input a customized name
- Protocol: Select [[mqtt/tcp](#)]
- Host: Copy "IP Address" from Figure 6
- Username: Copy "MQTT Broker Username" from Figure 6
- Password: Copy "MQTT Broker Password" from Figure 6
- Keep other fields as system default values, and click [[Save](#)] for completion.

3. Click "Auto. Collect" from the reporting page

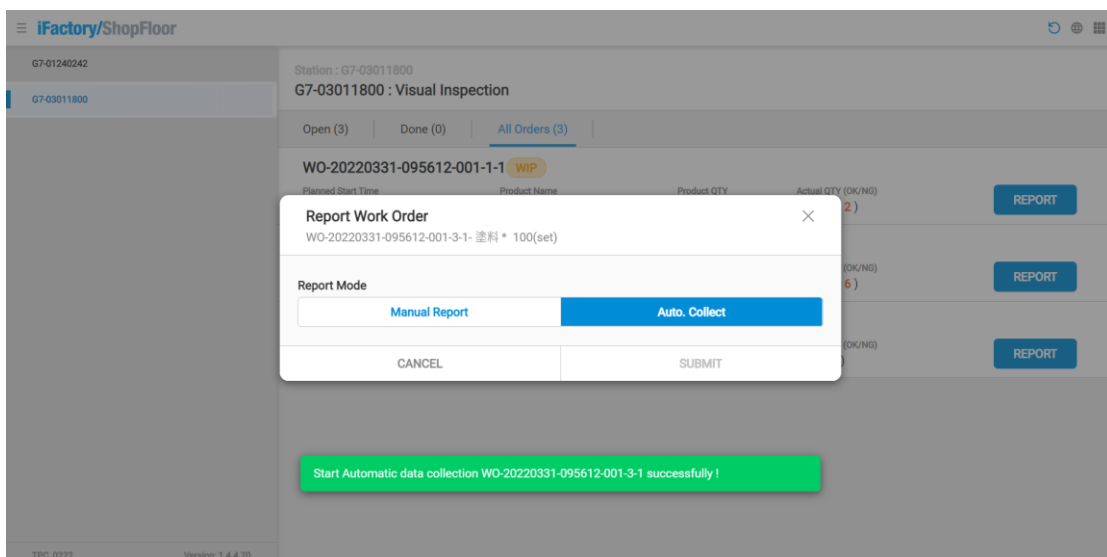


Figure 8 Auto. Collect page

4.Publish a mock value from MQTTBox

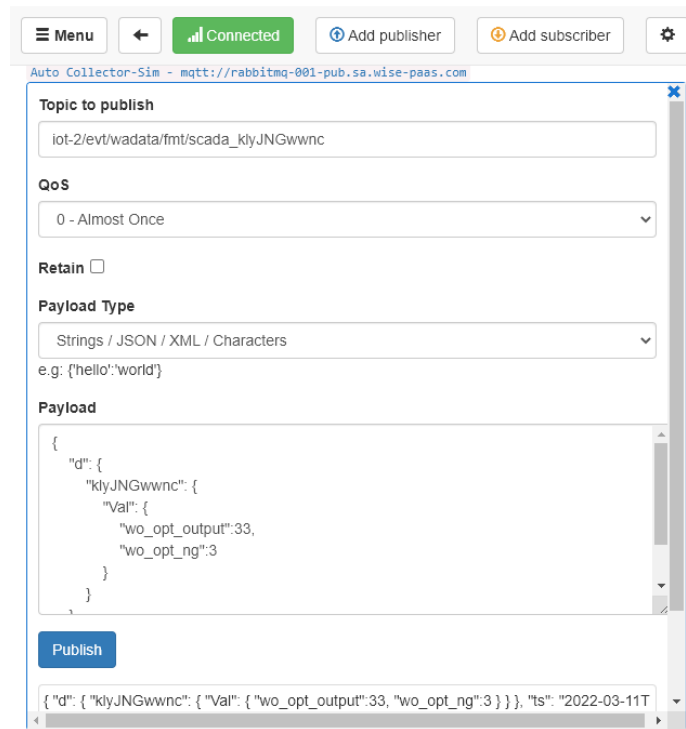


Figure 9 Publish mock values

- Topic to publish: **iot-2/evt/wadata/fmt/scada_**(Copy Cloud Node Name from Gateway)

- Payload(Please follow below format):

```
{
  "d": {
    "(Copy Cloud Node Name from Gateway)": {
      "Val": {
        "wo_opt_output":10,
        "wo_opt_ng":2
      }
    }
  },
  "ts": "2022-03-11T09:14:59.396Z"
}
```

Example:

Topic to publish: *iot-2/evt/wadata/fmt/scada_klyJNGwwnc*

Payload:



```
{
  "d": {
    "klyJNGwwnc": {
      "Val": {
        "wo_opt_output": 100,
        "wo_opt_ng": 22
      }
    }
  }
},
"ts": "2022-03-11T09:14:59.396Z"
}
```

5. Click [\[Publish\]](#) to publish the mock value, and refresh the front end page of Shop Floor to check the value.

4 Portal Page(For Production Management Professionals)

4.1 Manufacturing Order

The manufacturing Order tab provides the production management professionals to manage the product manufacturing order. Normally, there are functions of **adding, editing, deleting, filtering, sorting, and searching**. The page will display the information of the existing Manufacturing Order, including [Manufacturing Order ID](#), [Product](#), [QTY](#), [Production Area](#), [Shift](#), [Route](#), [Responsible](#), [MO Status](#), [Estimated Completed Time](#), and other information. "No Manufacturing Order, yet." will be shown if no manufacturing order has been created.

Available/ Closed Manufacturing Order: You can tell whether the manufacturing order is still open  or closed  by the status button. If the manufacturing order is still open, then you can edit it. On the other hand, it means that the manufacturing order has been completed and closed for editing.

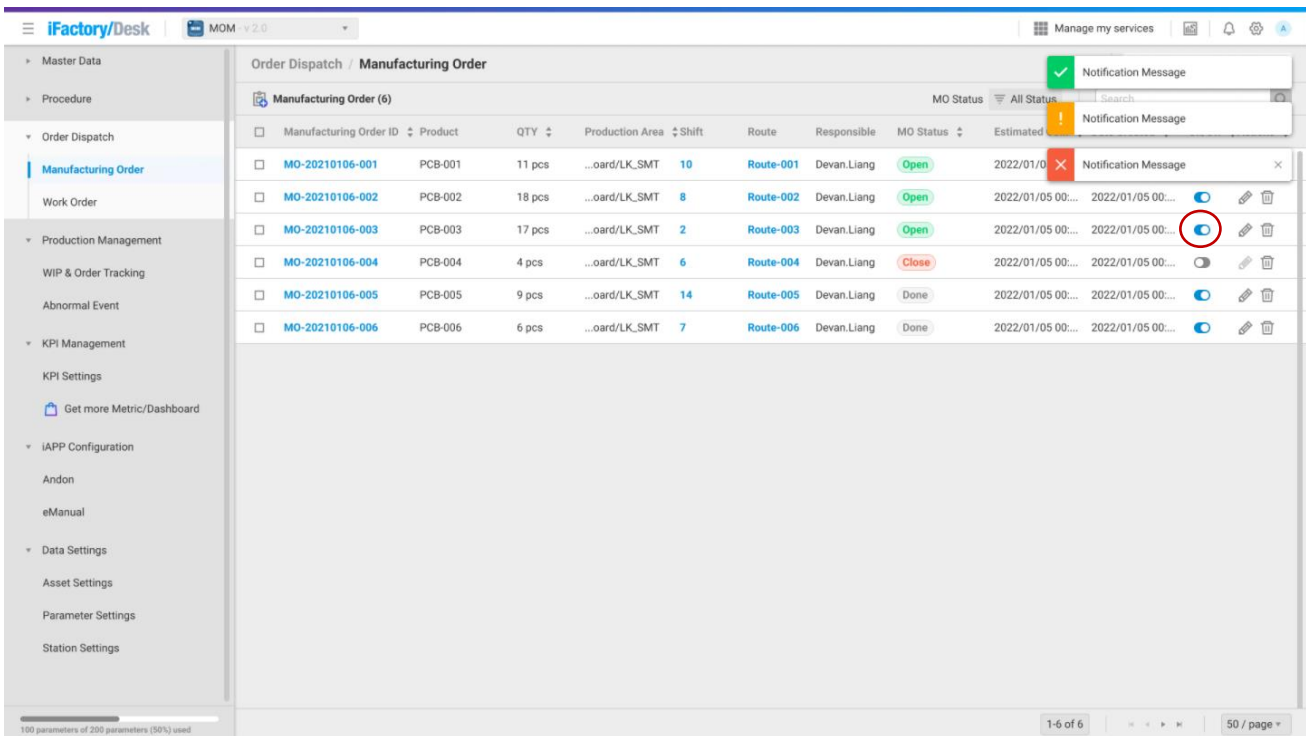



Figure 4-1 \ Manufacturing Order Tab

4.1.1 Manufacturing Order – Create, Edit, and Delete Manufacturing Orders

Please login the portal first, and enter the Manufacturing Order tab.

Create new Manufacturing Orders: Click the Add  button, and the Add Manufacturing Order window will pop up.

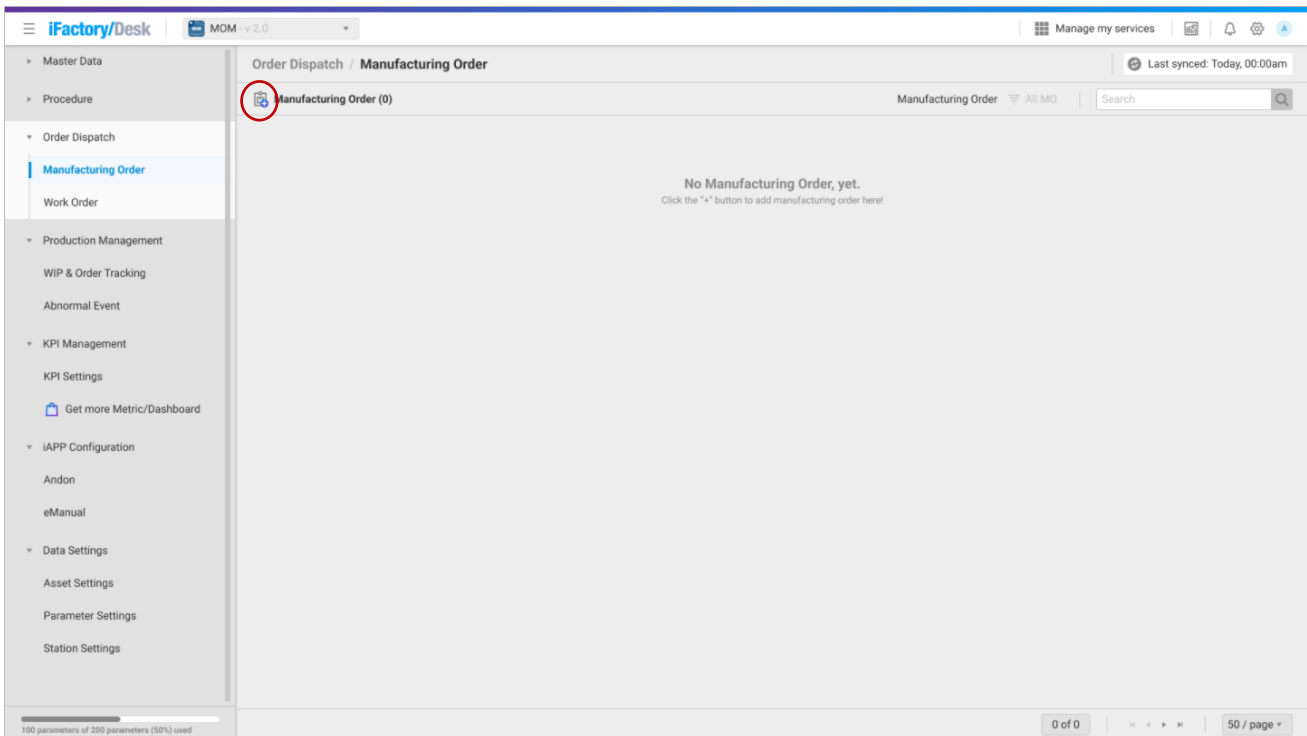


Figure 4-2 · Manufacturing Order initial page

Add Manufacturing Order ✕

* Required

Manufacturing Order ID
MO-20210106-001

Product * Select ... +	Product Quantity * 100	Unit Select ...	Responsible Select ... +
Production Area * Select ... +	Shift * Select ... +	Estimated Complete Time No Estimated Complete Time 📅	

+ Work Order (0)

No Work Order, yet.
Click the "+" button to add first!

CANCEL SUBMIT

Figure 4-3 · Add Manufacturing Order-step1

Step 1: The following information needs to be filled in. (* are required fields)

- ***Manufacturing Order ID:** The number of the manufacturing order (The default value will be auto-input. You can also revise it manually.)
- ***Product:** Please click the add button for popping up the Select Product window to select the product you want to connect with. After submitting, you can find corresponding details within Work Order.
- ***Product Quantity:** fill in the output
- **Unit:** Select the unit from the drop-down list. You can also click “Manage other” at the bottom to manage the unit list.
- **Responsible:** Select the responsible operator. If there is no option to be selected, please refer to Chapter 2.1.19 to initialize the Shift Management.
- ***Production Area:** Select the production area to complete this manufacturing order. If there is no option to be selected, please refer to Chapter 2.1.14 to initialize the Production Area.
- ***Shift:** Select the Shift(s). If there is no option to be selected, please refer to Chapter 2.1.19 to initialize the Shift setting.
- **Estimated Complete Time:** Select the estimated completion date and time

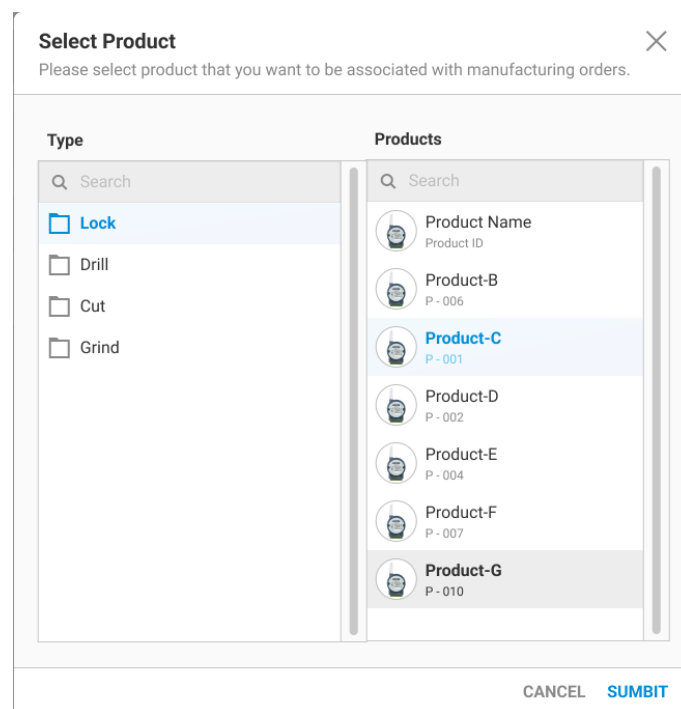


Figure 4-4 、 Select Product window

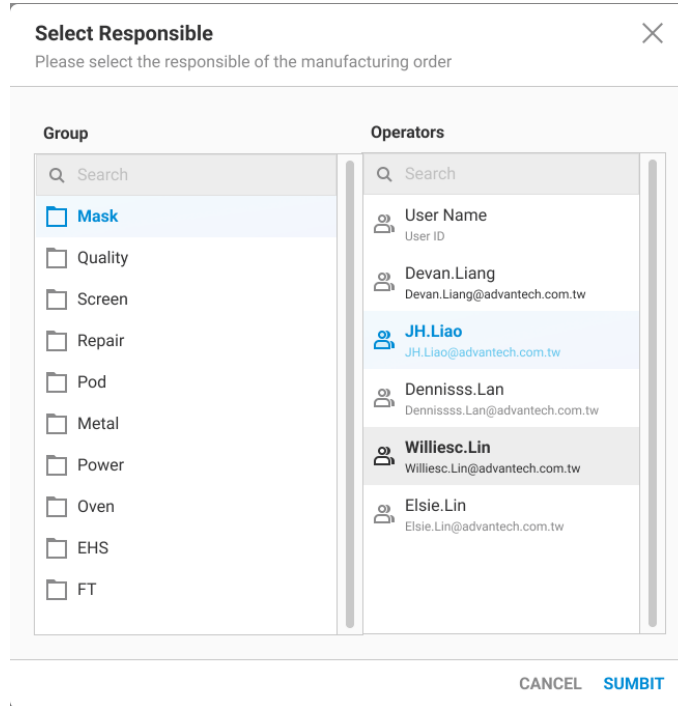


Figure 4-5 · Select Responsible window

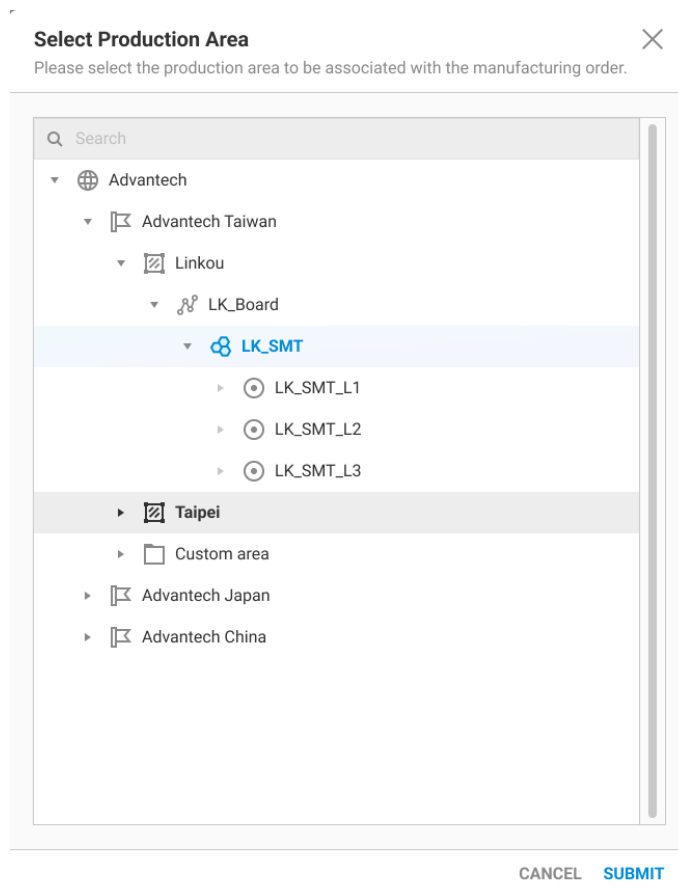


Figure 4-6 · Select Production Area window

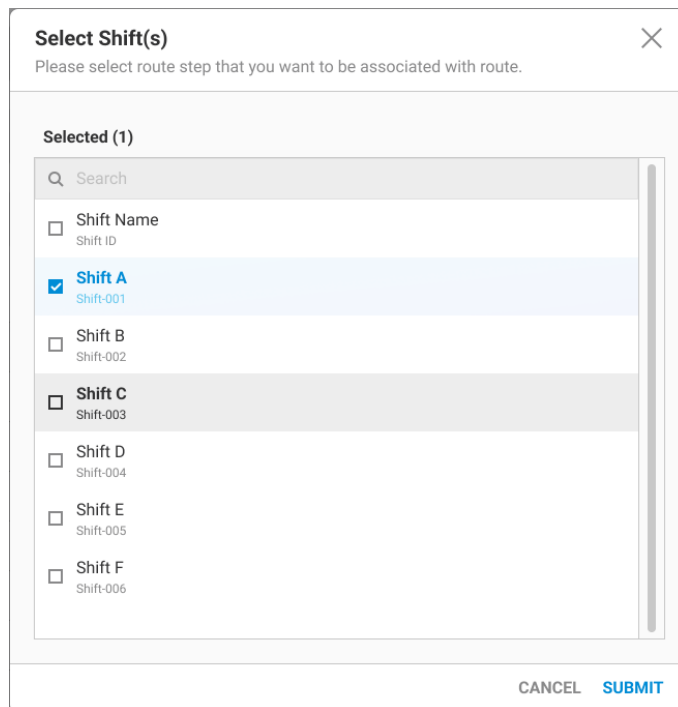


Figure 4-7 · Select Shift(s) window

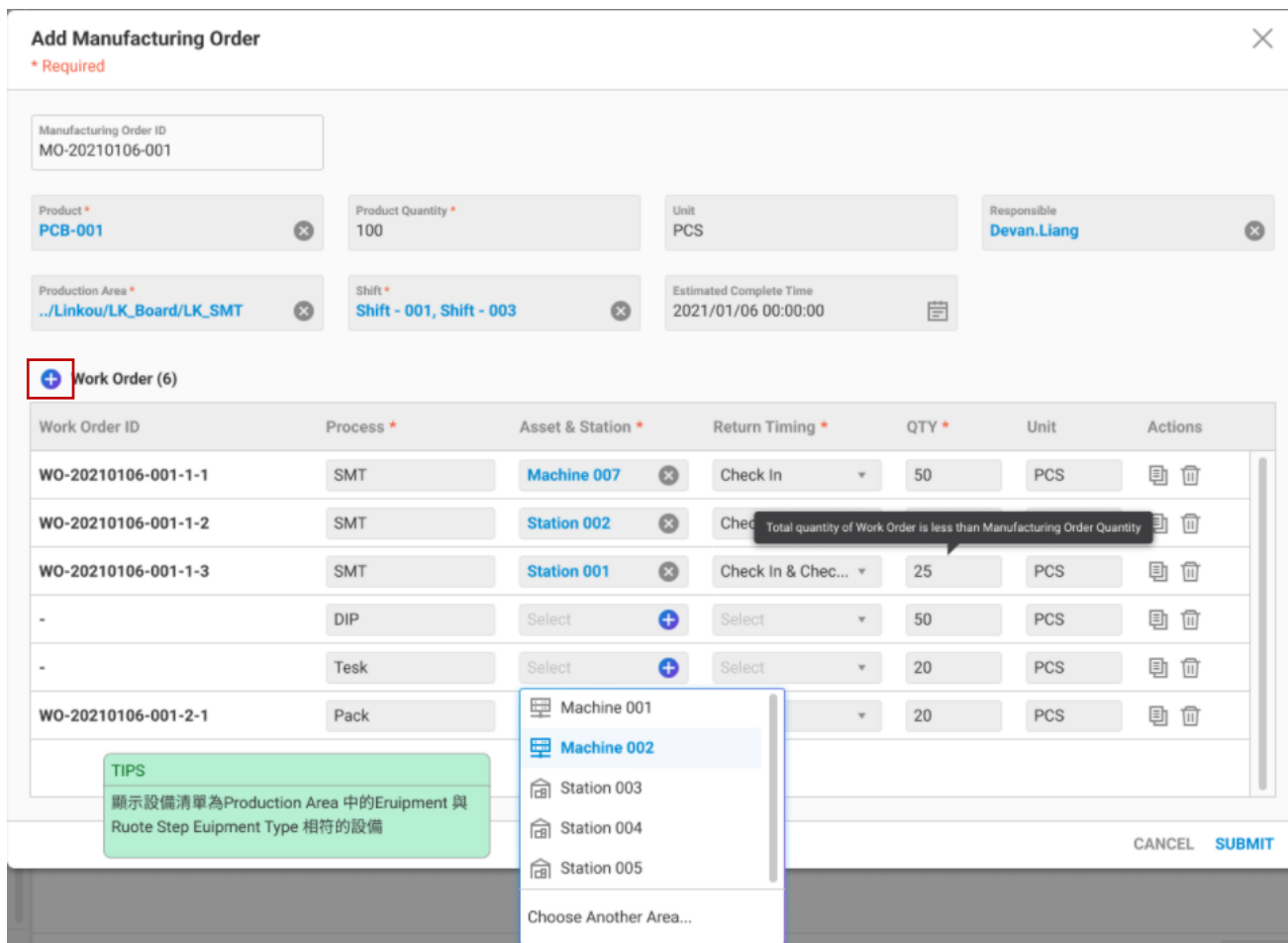


Figure 4-8 · Add Manufacturing Order-step2

Step 2: If you still need to add a new Work Order after completing Step 1. Please click the add. And this step is unnecessary if you import manufacturing orders via .csv files.

- Work Order ID: Work order number (The default value will be auto-input.)
- ***Process:** Existing Production Routing of the current product will be auto-imported. You can also manually modify or added, but any amendment won't affect the existing process of the product.
- ***Asset & Station:** Click the drop-down list to select assets from the production area. You can also click "Choose Another Area" to select assets in other production areas.
- ***Return Timing:** Select the auto report timing from the drop-down list, including:
 - None
 - Check In
 - Check Out
 - Check in & Out
- ***QTY:** The quantity here will be automatically converted according to the Conversion Rate set by the Route and the estimate output of the manufacturing order.
- Unit: Select the unit from the drop-down list. You can click "Manage Other" at the bottom to change the unit.
- Actions: You can edit or delete work orders.

Click the [\[Submit\]](#) button for completion.

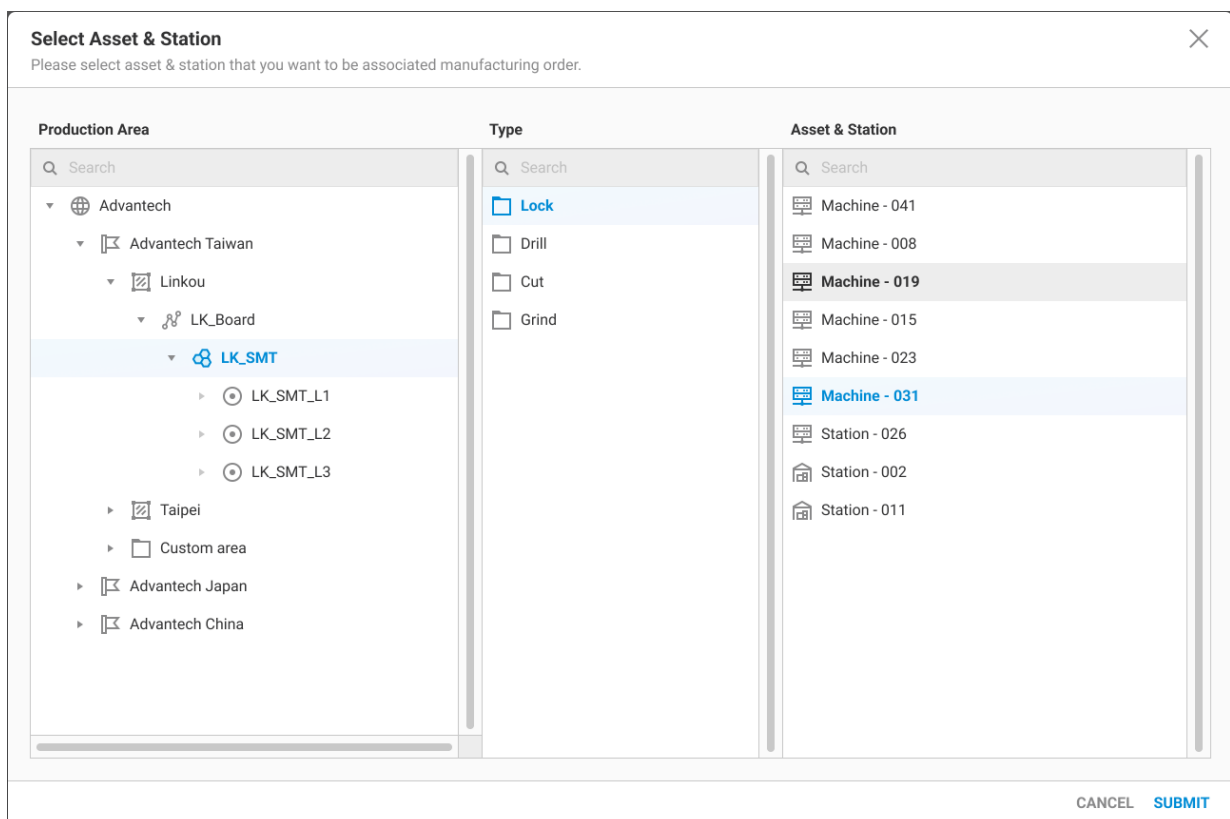
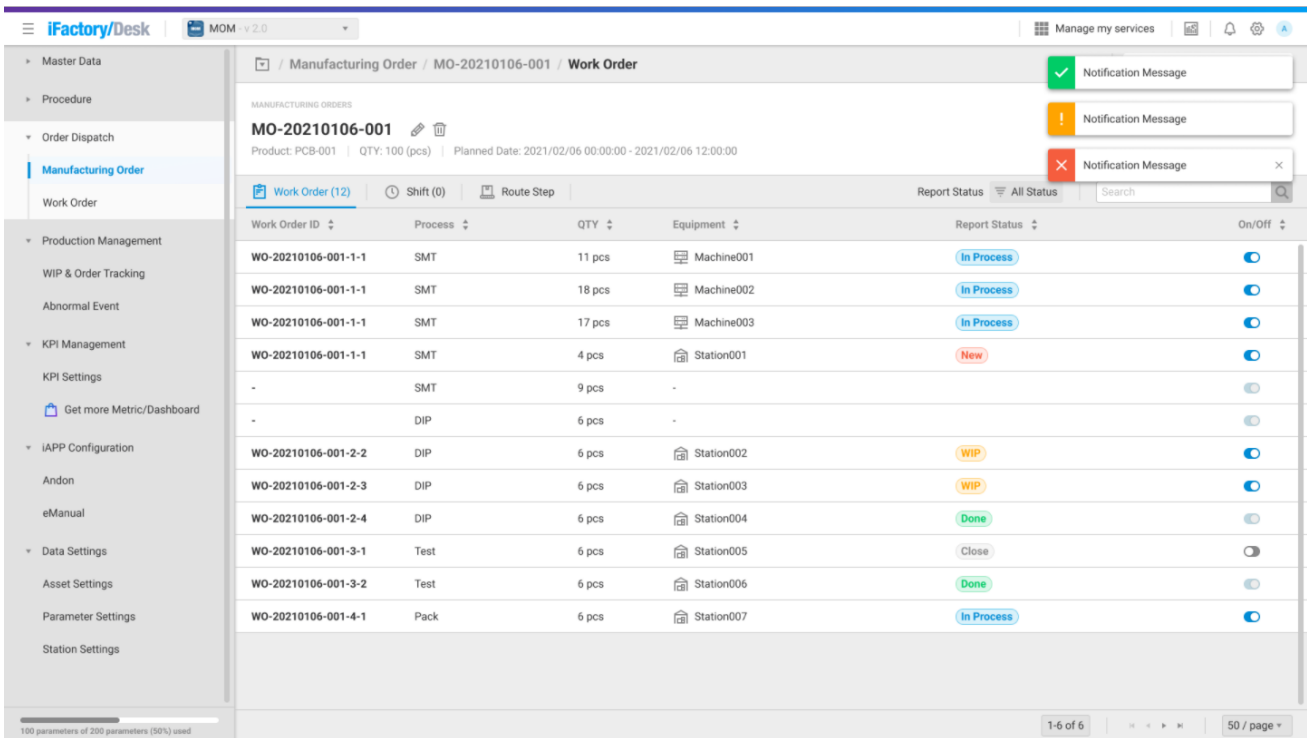


Figure 4-9 、 Select Asset & Station window

After complete creation, you can enter the work order tab by clicking manufacturing order ID to review the status. You can also enter the Shift tab to amend the Shift setting. Furthermore, you can find shift details and operators from the Shift Name tab. Last but not least, the route map of this manufacturing order can be found within the Route Map tab.



iFactory/Desk | MOM - v 2.0 | Manage my services

/ Manufacturing Order / MO-20210106-001 / Work Order

MANUFACTURING ORDERS
MO-20210106-001
 Product: PCB-001 | QTY: 100 (pcs) | Planned Date: 2021/02/06 00:00:00 - 2021/02/06 12:00:00

Work Order (12) | Shift (0) | Route Step | Report Status: All Status | Search

Work Order ID	Process	QTY	Equipment	Report Status	On/Off
WO-20210106-001-1-1	SMT	11 pcs	Machine001	In Process	On
WO-20210106-001-1-1	SMT	18 pcs	Machine002	In Process	On
WO-20210106-001-1-1	SMT	17 pcs	Machine003	In Process	On
WO-20210106-001-1-1	SMT	4 pcs	Station001	New	On
-	SMT	9 pcs	-	-	Off
-	DIP	6 pcs	-	-	Off
WO-20210106-001-2-2	DIP	6 pcs	Station002	WIP	On
WO-20210106-001-2-3	DIP	6 pcs	Station003	WIP	On
WO-20210106-001-2-4	DIP	6 pcs	Station004	Done	Off
WO-20210106-001-3-1	Test	6 pcs	Station005	Close	Off
WO-20210106-001-3-2	Test	6 pcs	Station006	Done	Off
WO-20210106-001-4-1	Pack	6 pcs	Station007	In Process	On

100 parameters of 200 parameters (50%) used | 1-6 of 6 | 50 / page

Figure 4-10 · Manufacturing Order – Work Order tab

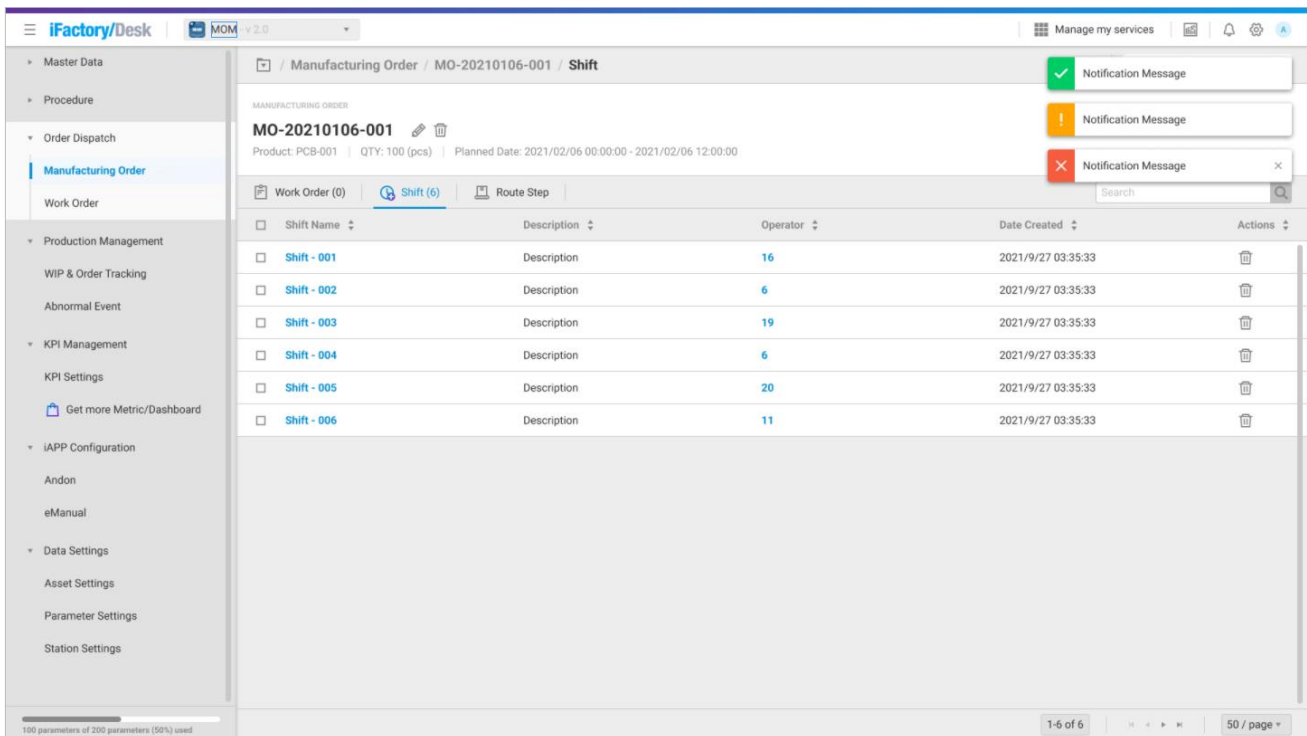


Figure 4-11 \ Manufacturing Order – Shift tab

Edit Manufacturing Order: Select the Manufacturing Order data to be modified from the list , and press the Edit button to modify the data of this item.

Delete Manufacturing Order: Select (can check) the Manufacturing Order data to be deleted from the list, and press the delete button to remove the data of this item.

4.1.2 Work Order

You can view the status of the Work Order from the Work Order Tab. Normally, there are functions of **filtering, sorting, and searching**. The page will display the existing Work Order information, including [Work Order ID](#), [Process](#), [QTY](#), [MO Status](#), [Asset](#), [Report Status](#), [Planned Start Time](#), and other information. You can also Filter Another MO ID by the filter button.

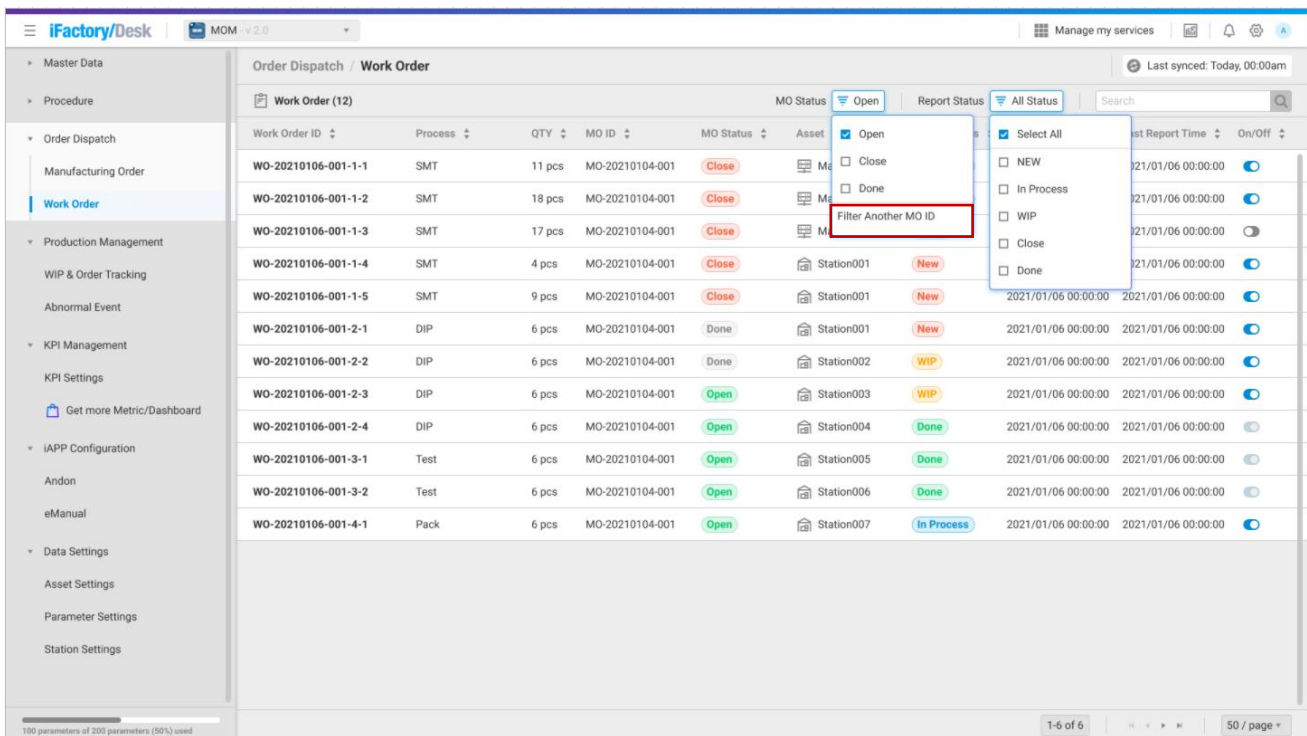


Figure 4-12 · Work Order tab

Report Status: Work Order can be divided into 5 states

1. New: New work order, production has not yet started.
2. WIP: Work order in progress, production quantity (excluding NG products) > 0
3. In Process: The work order of the last click, to help users search quicker.
4. Done: Reported by the operator to complete the work (Numbers of OK > Target)
5. Close: After being closed by the production management professional from the Portal, this work order is closed regardless of whether the production is actually completed or not.

Opened/ Closed Work Orders:

- New/ In Process/ WIP: Select the Work Order data to be closed/enabled from the list. Opened work orders will be displayed on the TPC and editing is allowed.
- Done/ No status: The switch button is displayed as , indicating that this work order has been completed or has no status, so it cannot be closed.

Close: The switch button is displayed as , indicating that this work order has been closed, so it cannot be opened again.