

METALENSE 2

Operation Tool User Manual

Ver.1.0.0



Table of Contents

I . Overview.....	1
1. Introduction	1
2. Target Audience.....	1
3. User Manual Composition.....	1
4. Notes on Connection.....	1
II . PC IP Settings (Optional).....	2
1. Check Installation PC IP.....	2
2. Check and Modify INI File	2
III . Initial Device Connection.....	4
1. Check Server Address	4
2. Device Connection Approval	4
3. Device Connection Disconnection	4
IV . Dashboard Editing.....	6
1. Change Card Arrangement	6
2. Style Edit Menu	6
2-1. Change Style Button.....	6
2-2. Auto Sort Button	7
2-3. Add/Delete Table Button.....	7
2-4. Quit Button	7
V . Device Control	8
1. Device Control Method.....	8
2. Types of Device Control Functions	8
2-1. Power-Related Control	8
2-2. Environment Setting Related Control	8

VI. App Control	9
1. App Control Method	9
2. Types of App Control Functions.....	9
VII. Remote Screenshot and Mirroring	10
1. Check Device Connection Status	10
2. Open Details Window	10
3. HMD Screenshot Capture	10
3-1. Capture Button.....	11
3-2. Save Button	11
3-3. Back Button	11
3-4. Screenshot Preview Area	11
4. Real-time Screen Monitoring.....	12
5. Screen Control Monitoring	12
5-1. Restrictions and Usage	12
5-2. App Installation	13
5-3. File Transfer	13
VIII. HMD Alias Setting	14
1. Alias Setting Method (1)	14
2. Alias Setting Method (2)	14

I . Overview

1. Introduction

This user manual is a guide for the AR Operating Tools.

2. Target Audience

This manual is intended for users who manage P&C Solution's Metalense 2.

3. User Manual Composition

This user manual consists of a total of 8 chapters, configured as follows.

Chapter	Description
I. Overview	Explains the basic information about the user manual
II. PC IP Settings	Explains how to directly assign the IP to be used for the operating tool connection (Can be omitted).
III. Initial Device Connection	Explains how to connect the device and the operating tool
IV. Dashboard Editing	Explains the composition of the dashboard editing menu and how to operate it
V. Device Control	Explains the composition of the device control menu and how to operate it.
VI. App Control	Explains the composition of the app control menu and how to operate it.
VII. Remote Screenshot and Mirroring	Explains how to capture or monitor the current screen of the device in use.
VIII. HMD Alias Setting	Explains how to set a name for each HMD (Head-Mounted Display) managed.

4. Notes on Connection

If the operating tool and the device (Metalense 2) do not connect, please check the following:

- Please confirm that the Wi-Fi the device is connected to is the same network as the PC where the operating tool is installed.
- Please ensure that the IP and Port entered on the device match the Server Address displayed on the operating tool..

II. PC IP Settings (Optional)

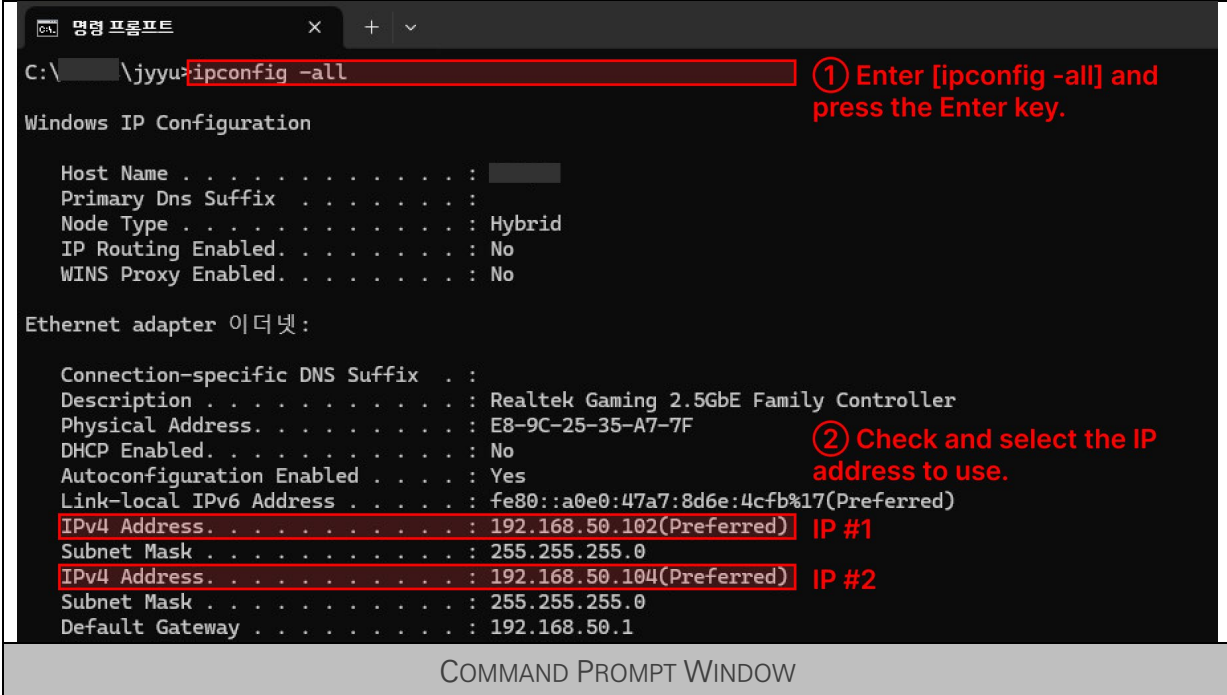
If multiple IPs exist on the PC, you can designate the IP to be used for the operating tool connection according to your needs. If not set manually, one of the existing IPs will be used randomly.

*This process is optional and can be skipped during program installation.

1. Check Installation PC IP

Run the Command Prompt and enter `ipconfig -all`.

Identify the IP address you wish to use from the IPs displayed after entering the command.



```
C:\>ipconfig -all

Windows IP Configuration

Host Name . . . . . : 
Primary Dns Suffix . . . . . : 
Node Type . . . . . : Hybrid
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No

Ethernet adapter 이더넷:

Connection-specific DNS Suffix . : 
Description . . . . . : Realtek Gaming 2.5GbE Family Controller
Physical Address. . . . . : E8-9C-25-35-A7-7F
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::a0e0:47a7:8d6e:4cfb%17(Preferred)
IPv4 Address. . . . . : 192.168.50.102(Preferred) IP #1
Subnet Mask . . . . . : 255.255.255.0
IPv4 Address. . . . . : 192.168.50.104(Preferred) IP #2
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.50.1
```

① Enter [ipconfig -all] and press the Enter key.

② Check and select the IP address to use.

COMMAND PROMPT WINDOW

2. Check and Modify INI File

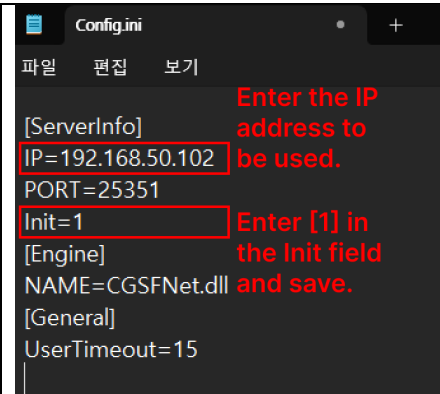
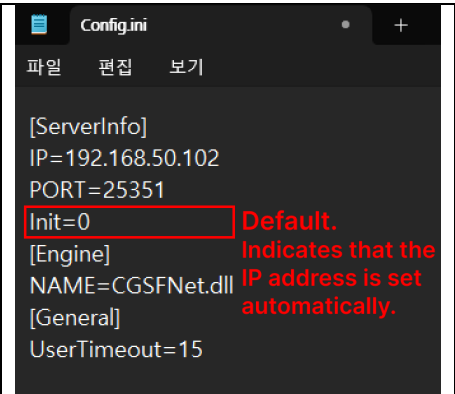
Navigate to the path where the operating tool is installed and run the [Config.ini] file.

*Build Standard Path: `\METALENSE OPT\ARGlass_OPT_Data\StreamingAssets\svr\Config.ini`

In the IP item displayed in the ini file, enter the **PC's IP** you want to use.

Enter [1] in the Init item and save the file.

The initial Init value is set to [0], which means the IP is set automatically.

 <p>Config.ini</p> <p>파일 편집 보기</p> <p>[ServerInfo] IP=192.168.50.102 PORT=25351 Init=1 [Engine] NAME=CGSFNet.dll [General] UserTimeout=15</p> <p>Enter the IP address to be used.</p> <p>Enter [1] in the Init field and save.</p>	 <p>Config.ini</p> <p>파일 편집 보기</p> <p>[ServerInfo] IP=192.168.50.102 PORT=25351 Init=0 [Engine] NAME=CGSFNet.dll [General] UserTimeout=15</p> <p>Default. Indicates that the IP address is set automatically.</p>
IP CONFIGURATION METHOD	(DEFAULT) AUTOMATIC IP SETTING


III . Initial Device Connection

1. Check Server Address

Connect the device to the same network as the operating tool PC (Wi-Fi connection).

Enter the operating tool PC's [IP Address] and [Port] into the device you want to connect.

The [IP Address] and [Port] can be checked by clicking the [Settings Button] in the top menu of the operating tool.

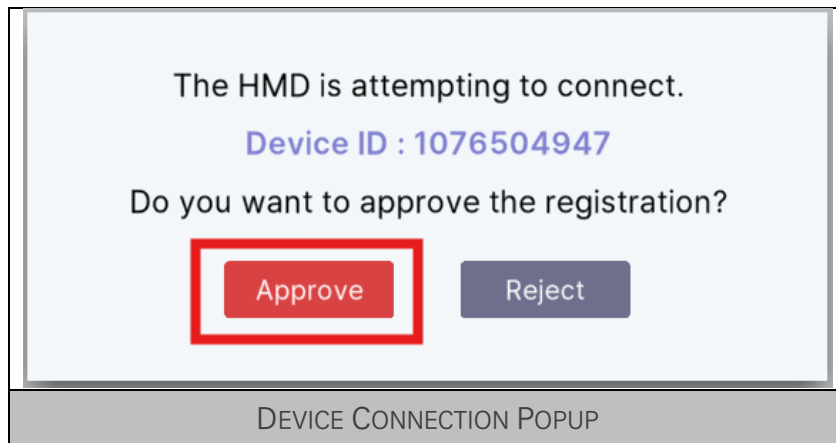


The screenshot shows a 'Settings' window with a sidebar on the left containing 'Screenshot', 'Volume', and 'Reset'. The main area is titled 'Server IP/Port' and contains two input fields: 'IP Address' with the value '192.168.50.193' and 'Port' with the value '25351'. A red rectangle highlights these two fields. To the right of the 'Port' field is a 'Save' button. Below the input fields, there is a warning icon and text: 'When changing ports, make sure they don't overlap with other ports.' followed by two bullet points: '- Allowed values : 1024 ~ 49151' and '- Exclusions : 3000, 8080, 5000, 5555'. The window has a close button in the top right corner. The caption below the window is 'OPERATION TOOL SETTINGS WINDOW'.

2. Device Connection Approval

When the device attempts to connect, a connection popup will appear in the operating tool.

Clicking the [Approve Button] will display the device on the dashboard.



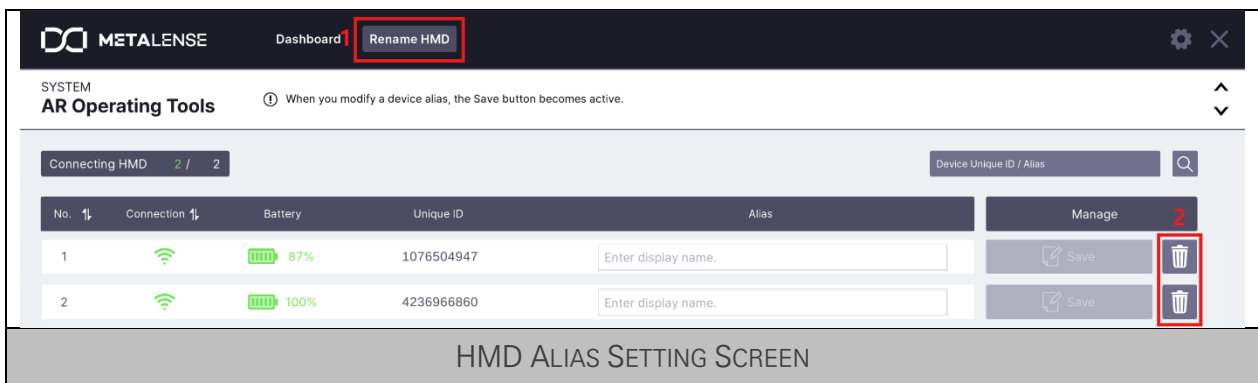
The screenshot shows a 'DEVICE CONNECTION POPUP' dialog box. It contains the text 'The HMD is attempting to connect.' followed by 'Device ID : 1076504947' in blue. Below this is the question 'Do you want to approve the registration?'. At the bottom, there are two buttons: 'Approve' (highlighted with a red rectangle) and 'Reject'. The caption below the dialog is 'DEVICE CONNECTION POPUP'.

3. Device Connection Disconnection

Go to the [HMD Alias Setting screen].

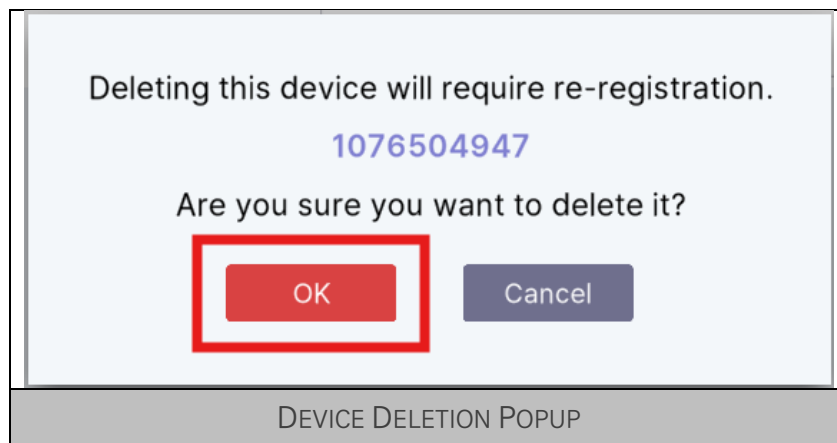
Find the device you want to disconnect from the list of connected devices.

Clicking the [Trash Can Button] on the far right of the item will display a deletion confirmation popup.



Clicking the [OK Button] will delete all information about the device from the operating tool and disconnect the connection.

Deleted devices can be re-registered through the initial registration process.



IV. Dashboard Edit

1. Change Card Arrangement

You can change the placement of the connected device's cards by clicking the [Edit Style Button].



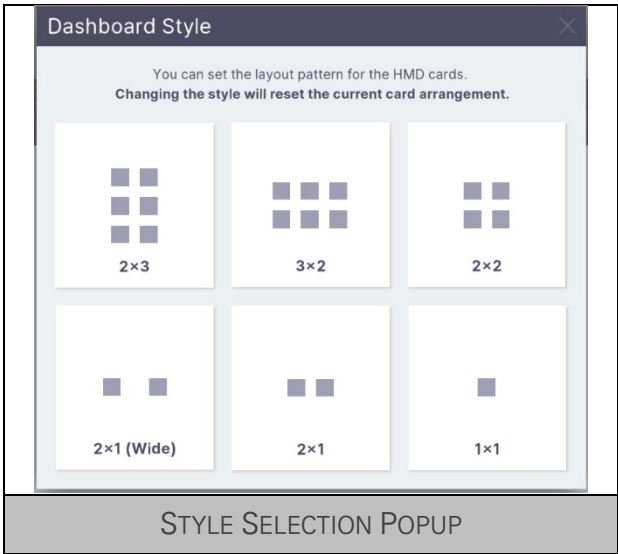
2. Style Edit Menu

Clicking the [Edit Style Button] on the top right of the screen displays the Style Edit Menu at that location.



2-1. Style Change Button

You can set the layout style of the card group through Style Change. Clicking the [Change Style Button] opens the Style Selection Popup, which offers six card layout options.



2-2. Auto Sort Button

Clicking the [Auto Sort Button] rearranges all devices in the order they were registered in the operating tool.

2-3. Add/Delete Table Button

Clicking the [+ Button] adds a group table.

Clicking the [- Button] deletes the last group table.

Group tables that already have devices placed cannot be deleted.

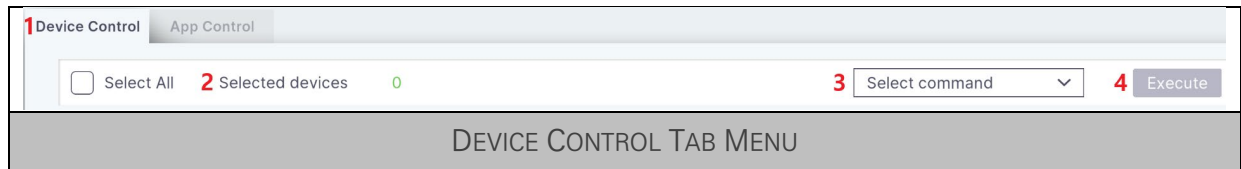
2-4. Quit Button

Clicking the [Quit Button] exits the editing mode.

V. Device Control

1. Device Control Method

Control Method : [Select device to control] → [Select command] → Click[Execute Button]



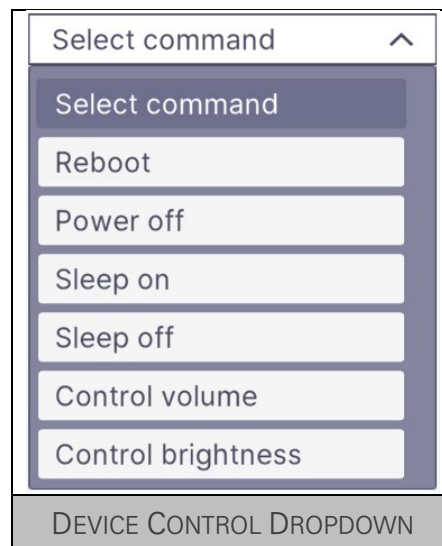
2. Types of Device Control Functions

2-1. Power-Related Control

- 1 Reboot: Shuts down the device power and starts it again.
2. Power Off: Shuts down the device power completely.
- 3.Sleep On: Changes the device to power-saving mode.
- 4.Sleep Off: Activates the device from power-saving mode.

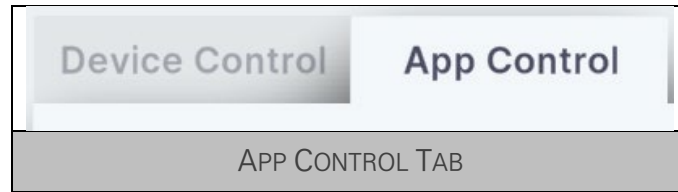
2-2. Setting Control

1. Volume: Changes the device's volume (0 to 15 levels).
2. Screen Brightness: Changes the device's screen brightness (0 to 5 levels)



VI. App Control

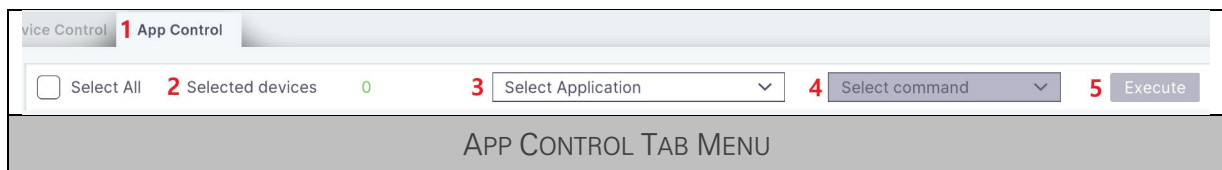
Clicking the [App Control Tab] displays the related menu.



1. App Control Method

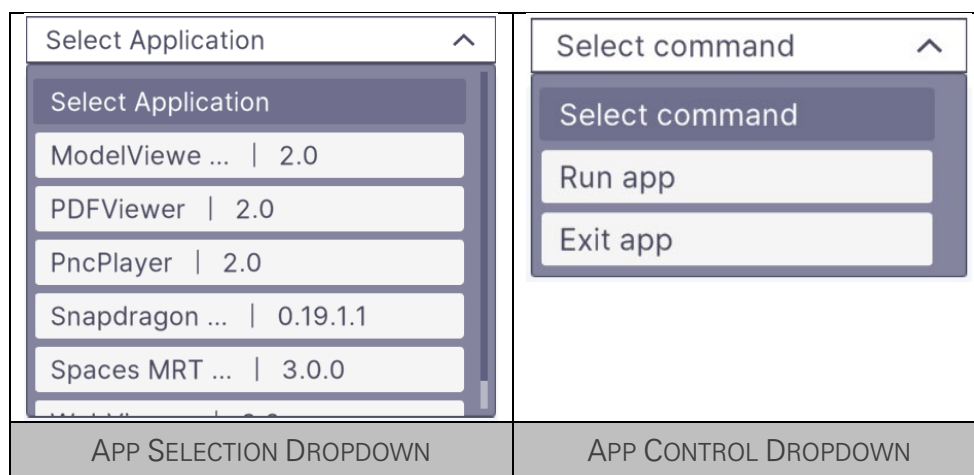
App Control Method : [Select device to control] → [Select App] → [Select command] →

Click [Execute Button].



2. Types of App Control Functions

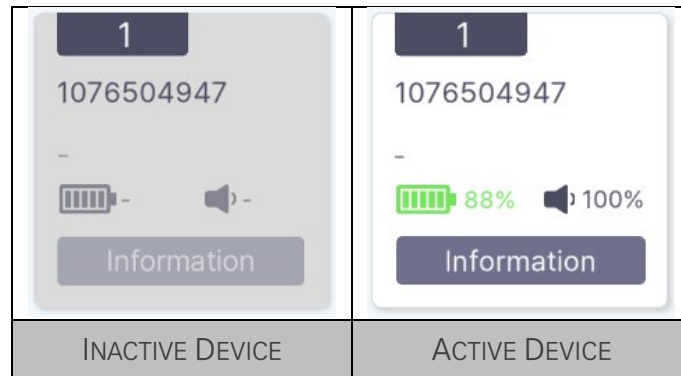
1. Run App : Runs the selected app on the selected device.
2. Close App : Closes the selected app on the selected device.



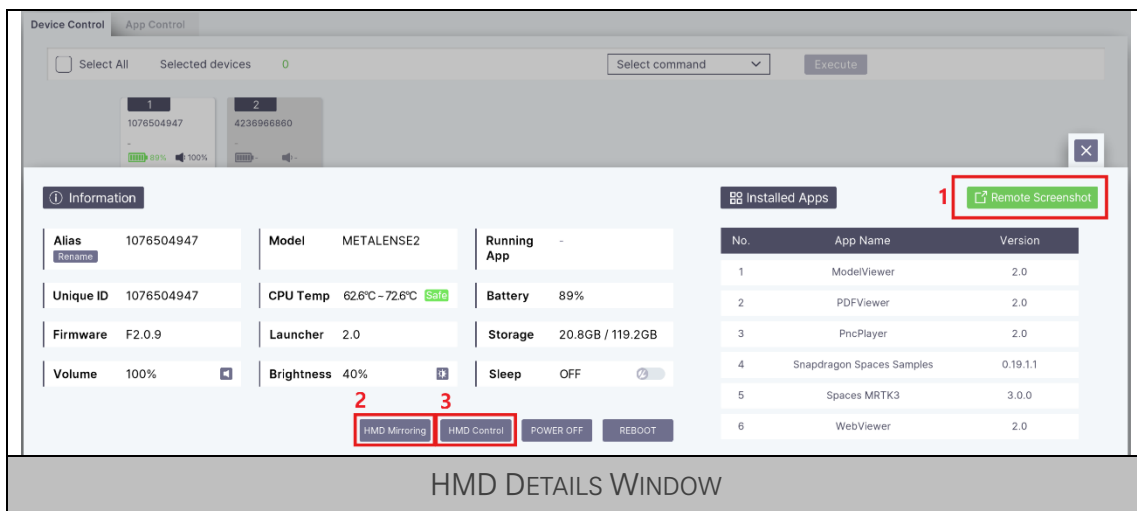
VII. Remote Screenshot and Mirroring

1. Check Device Connection Status

This is provided in the [HMD Details Window] displayed when clicking the [Information Button] on the activated device card in the dashboard. The [Information Button] is activated when the device is connected.



2. Open Details Window



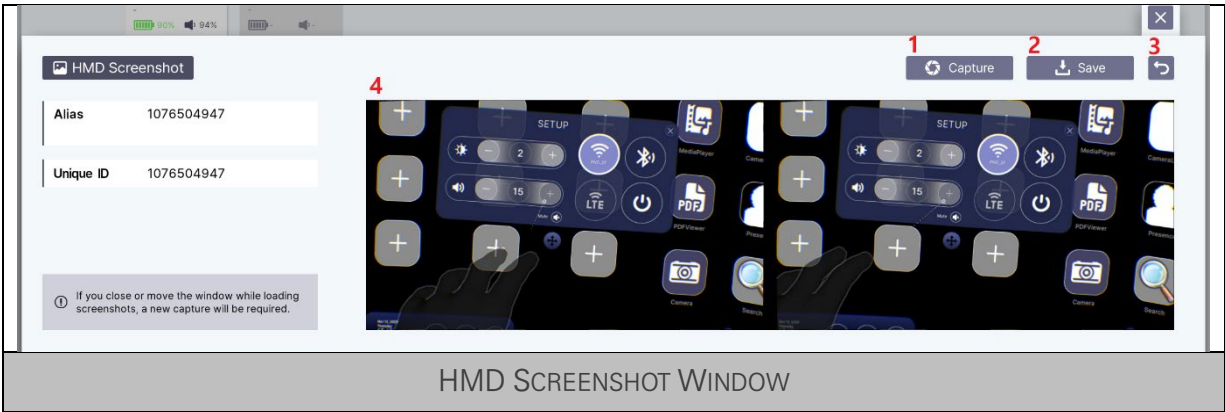
1. Remote Screenshot: Changes to the screenshot capture screen when clicked.
2. HMD Mirroring: Creates a window displaying the virtual and real environment as seen from the device's perspective.
3. HMD Control: Creates a window displaying the virtual environment as seen from the device's perspective.

3. HMD Screenshot Capture

Clicking the [Remote Screenshot Button] on the top right of the details window changes the

configuration of the details window.

The main components include the [Capture Button], [Save Button], [Back Button], and [Screenshot Preview Area].

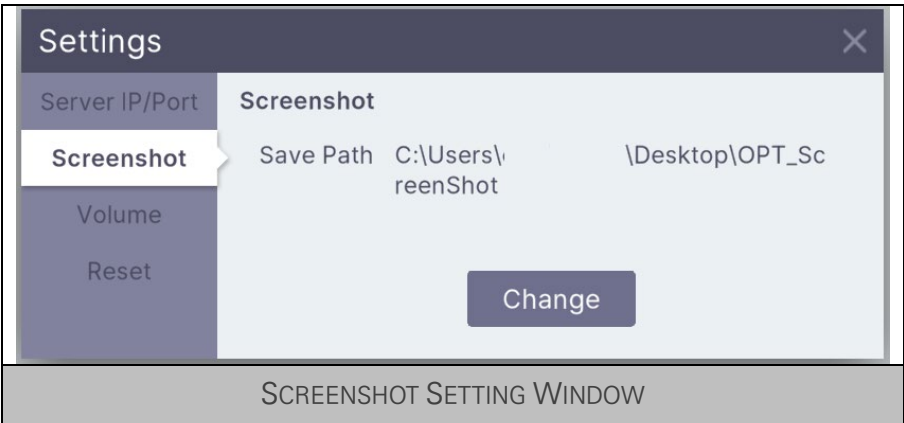


3-1. Capture Button

Displays a confirmation popup window when clicked.
Clicking Confirm again captures the current HMD screen and displays it in the Screenshot Preview Area below.

3-2. Save Button

Saves the original image displayed in the preview area to the PC.
The save path can be checked or changed in the operating tool settings.



3-3. Back Button

Click to exit screenshot mode and return to device details view.

3-4. Screenshot Preview Area

Displays the captured screen based on both lenses of the device. The actual surrounding environment is not captured.

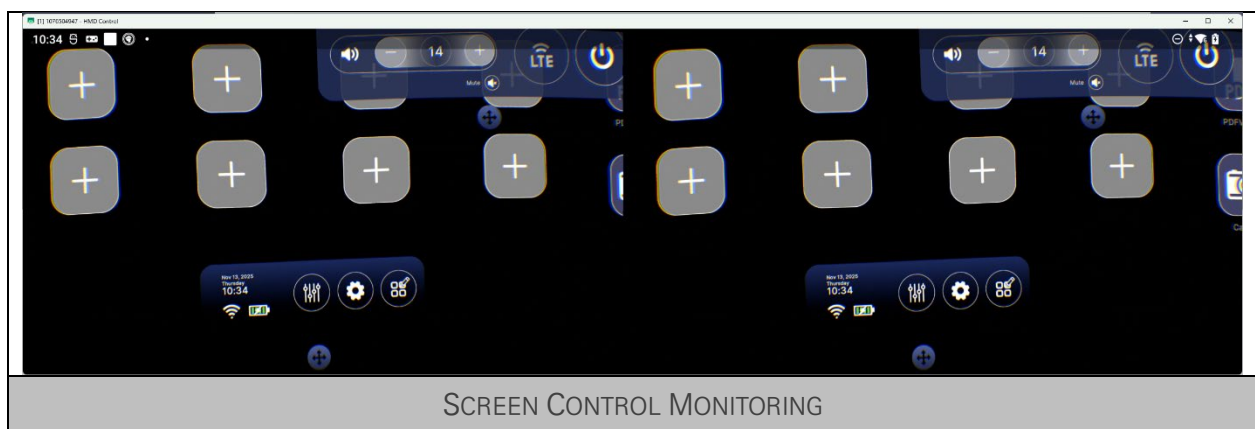
4. Real-time Screen Monitoring

Clicking the [HMD Mirroring Button] in the details window displays the monitoring screen in a separate window. You can view the virtual environment and the actual surrounding environment in real-time as seen from the device's perspective.



5. Screen Control Monitoring

- Clicking the [HMD Control Button] in the details window displays the control screen in a separate window..



5-1. Restrictions and Usage

It only works with apps that allow touch or mouse operation within the screen.

It can be used to operate system UI that cannot be directly controlled on the device, or to transfer apps or files to the device.

5-2. App Installation

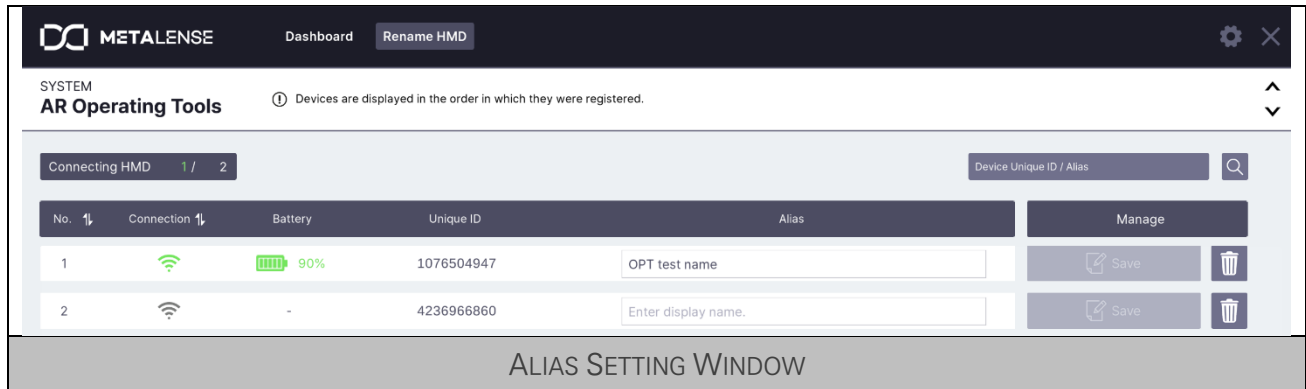
Dragging and dropping the apk file to be installed onto the Screen Control window will automatically install the app on the device.

5-3. File Transfer

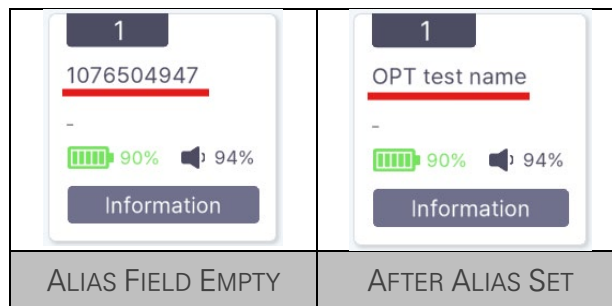
Dragging and dropping the file to be transferred onto the Screen Control window will save the file to the device's [Download Folder].

VIII. HMD Alias Setting

In the [Rename HMD Screen], you can set a name for each device for management purposes.

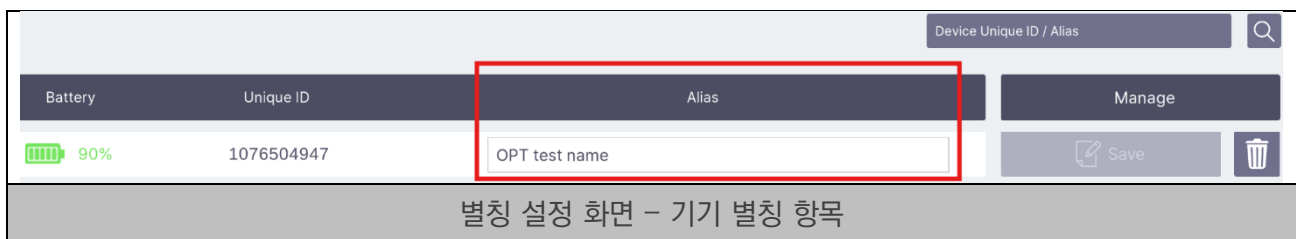


The alias is displayed on the dashboard and in the device's device information. If no alias is set, the Unique ID is displayed



1. Alias Setting Method (1)

Enter the desired alias in the Device Alias field.



2. Alias Setting Method (2)

Open the details window for the device you want to change on the [Dashboard].

Click the [Rename Button] for the Device Alias.

Enter the alias in the displayed box and click the [Save Button], and the name will be immediately applied

<div data-bbox="320 152 552 203"> <i>i</i> Information </div> <div data-bbox="336 255 679 327"> Alias 1076504947 <div data-bbox="347 297 448 327">Rename</div> </div>	<div data-bbox="820 152 1051 203"> <i>i</i> Information </div> <div data-bbox="836 255 1262 338"> Alias <input data-bbox="991 255 1262 338" type="text" value="OPT test"/> <div data-bbox="836 304 938 327">Save Cancel</div> </div>
DETAILS – ALIAS FIELD	SCREEN AFTER CLICKING EDIT

–END–

2025-10-16

Based on METALEASE_OPT_ver.1.0.0 (Release Version).