Panasonic

TOUGHBOOK

PaRC tool

User Reference Document

Version : 0.3

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Panasonic Mobile Communications Co., Ltd.

Change History

Date	Version	Description
21.1.2019	0.1	A first draft version and there may be wrong and missing information, and all the contents are subject to change.
31.1.2019	0.2	Updated some contents
08.03.2019	0.3	Updated some contents given feedbacks from PSCEU

Contents

1. Introduction

2. What is PaRC

3. Staging Procedure with PaRC

4. Create Staging Profile

1. Introduction

This document describes about The PaRC staging toolset for users to understand how to use the tool clearly and easily.

The main target audience is Panasonic customers, partners and sales engineers in Panasonic group who are in charge of educating our partners and customers about this tool.

1.1 What is PaRC

PaRC stands for Panasonic Rapid Configuration and is a staging tool for IT managers or end users of Panasonic Android hand-held devices to conduct initial settings and application installs at a time to minimize customer's time and effort for their device deployment.

1.2 Why using PaRC

When enterprise customers buy Android devices, they usually conduct specific settings to them that fit in their work circumstances and conditions from IT manager's and end users perspectives. Nowadays especially large enterprise customers introduce MDM (Mobile Device Management) into their system and apply device policies to their devices in terms of security and usability. However MDM doesn't help them apply detailed settings and then such settings need to be conducted manually by IT manager or users, which is very time-consuming and burdensome to complete. Also given changes of rules, situations or other reasons, the settings may need to be changed in the middle of the device's lifecycle after the devices are deployed on the site and used for months or years, which is very painful and it is very difficult to ensure all the devices are on the new settings.

The PaRC staging toolset address the problem and support customers in such situations with its capability of very detailed settings that can be conducted very easily, quickly and completely in multiple ways that fit in customer's circumstances.

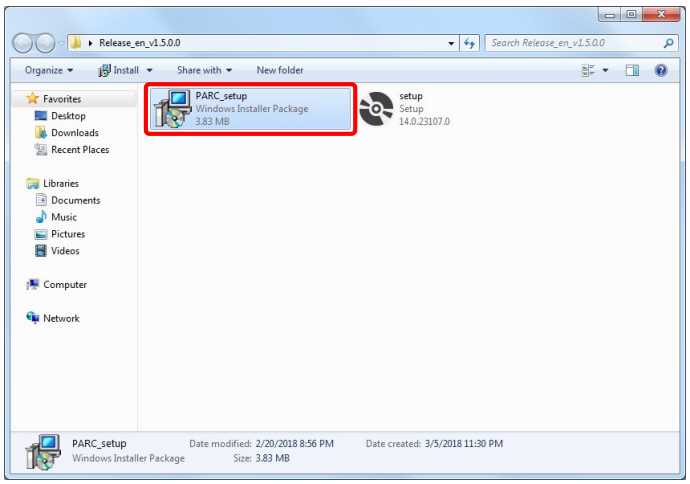
2. Getting started

The PaRC staging toolset has applications on both Windows (PC) and hand-held sides.

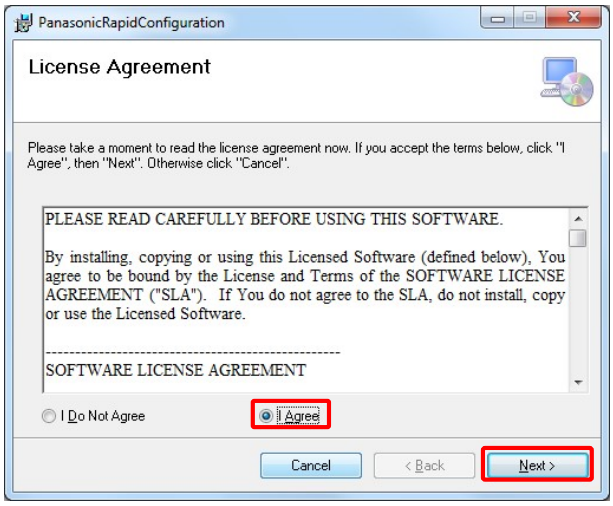
The PaRC hand-held application is preinstalled in Panasonic hand-held devices, FZ-N1 series, FZ-T1 series and FZ-L1 series. And then users need to install only the PaRC Windows application.

2.1 How to Install PaRC Windows Application

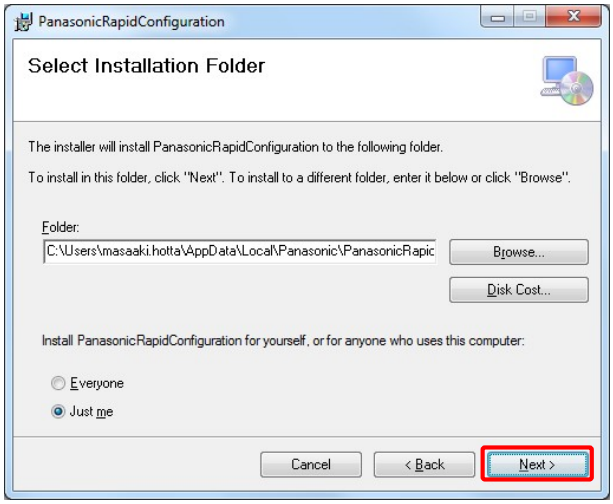
1 Double-click [PARC_setup].



2 Select [I Agree] and click [Next].

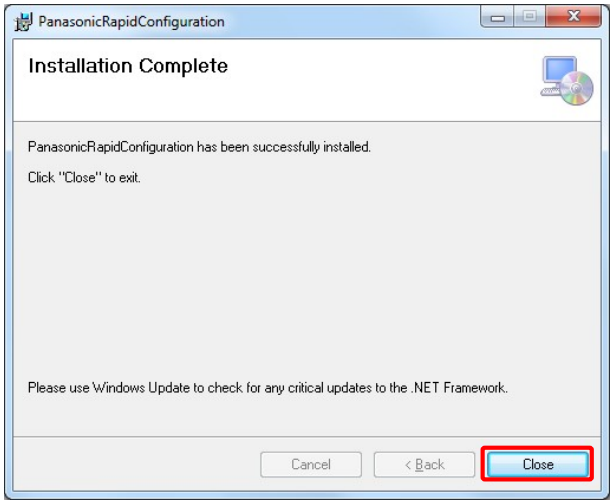


3 Click [Next].



➔ Installation starts.

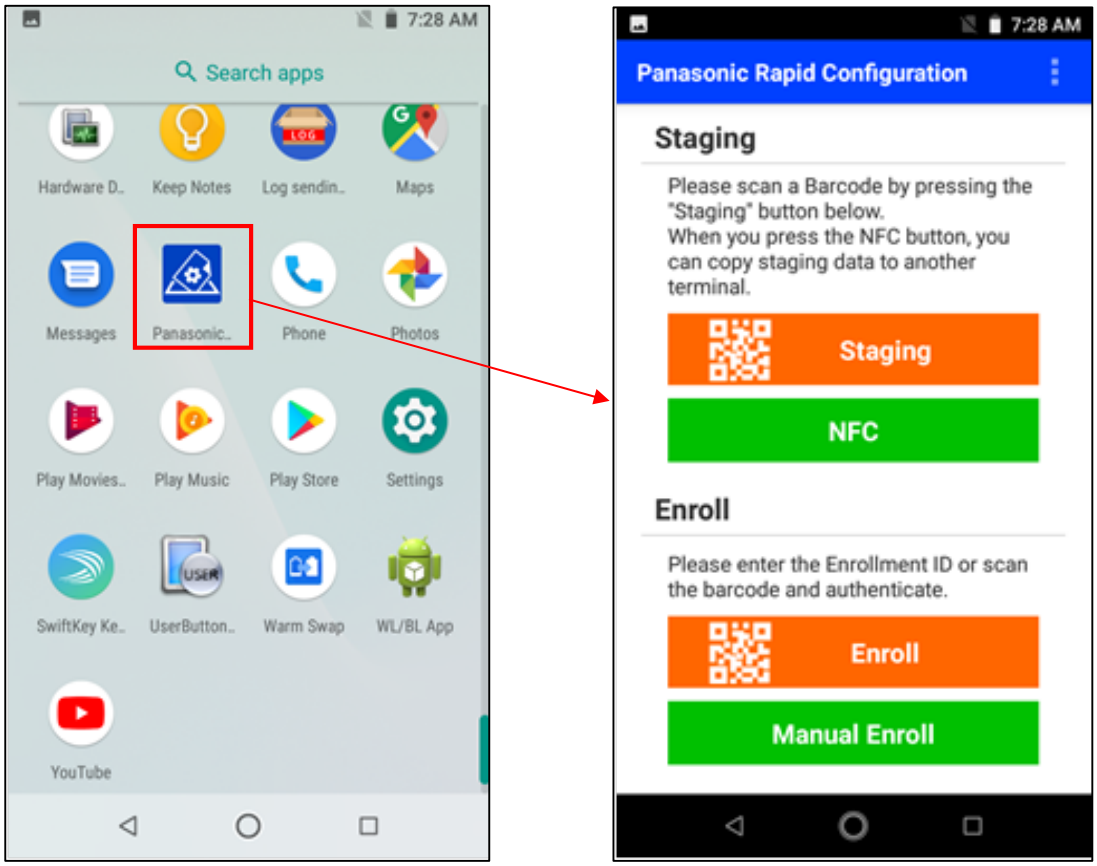
4 Installation is done. Click [Close].



➔ The [PanasonicRapidConfiguration] icon is displayed on the Desktop.

2.2 The PaRC hand-held application is preinstalled.

The PaRC hand-held application is preinstalled.



3. Staging Procedure with PaRC

In deploying hand-held devices in a customer environment, PaRC offers easy and efficient staging experience. PaRC Windows Application and PaRC hand-held Application create SQLite DB file of staging profile and place it in a specific directory, and then KittingTool performs the device's staging based on the staging profile in SQLite DB file in the specific directory.

3.1 Overview of Staging Procedure

The Staging Procedure takes the three steps.

Step 1. Create staging profile on PC
Step 2. Transfer the staging profile to a specific folder in hand-held device
Step 3. Configure the hand-held device based on the staging profile

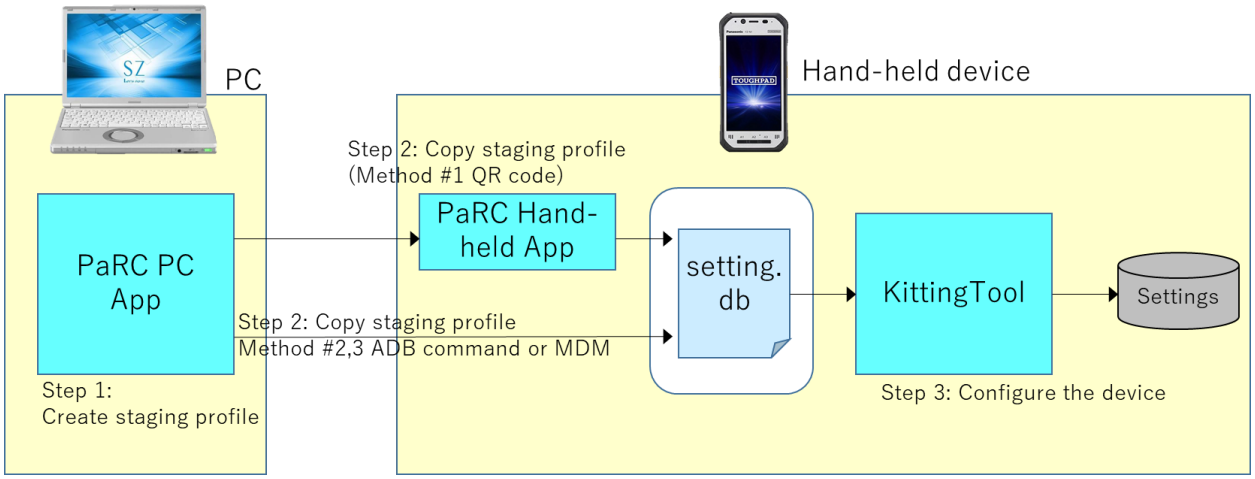
*Step 1 and Step 2 are what end users do manually while Step 3 is automatically conducted by KittingTool.

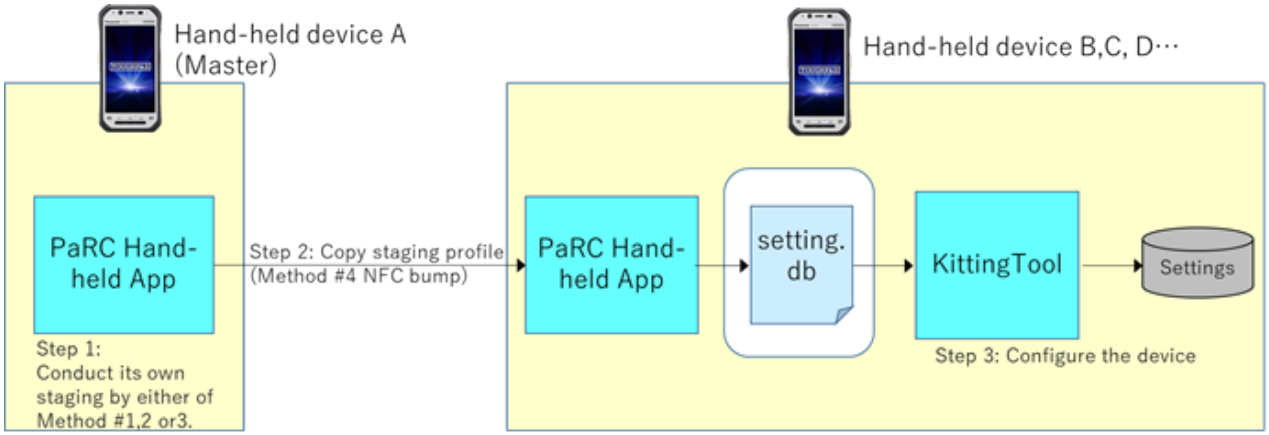
3.2 Four Methods of Staging Procedure

There are the four methods for the Staging Procedure below and users take either of them for their staging.

*Step 1 and 2 are what end users need to do and Step 3 is automatically conducted by Kitting Tool.

	Step 1 Create staging profile	Step 2 Copy staging profile to hand-held device	Step3 Configure the device
	Manual	Manual	Automatic
Method #1 QR code	Input settings and make QR code(s) in PaRC Windows App.	Scan the QR code displayed on PaRC Windows App by PaRC hand-held App to make SQLite DB file in a specific folder in the hand-held device.	KittingTool detects the DB file and configure the device according to the staging profile.
Method #2 ADB command	Input settings and make a SQLite DB file in PaRC Windows App. .	Transfer the DB file from PC to a specific folder in the hand-held device by ADB command.	
Method #3 MDM		Transfer the DB file from PC to a specific folder in the hand-held device by MDM.	
Method #4 NFC bump	Conduct settings for master unit in either of the methods from #1 to #3.	Copy the settings of the unit to other ones with the NFC bump function of PaRC hand-held App.	





3.3 About Software Components of PaRC

PaRC consists of three software components below.

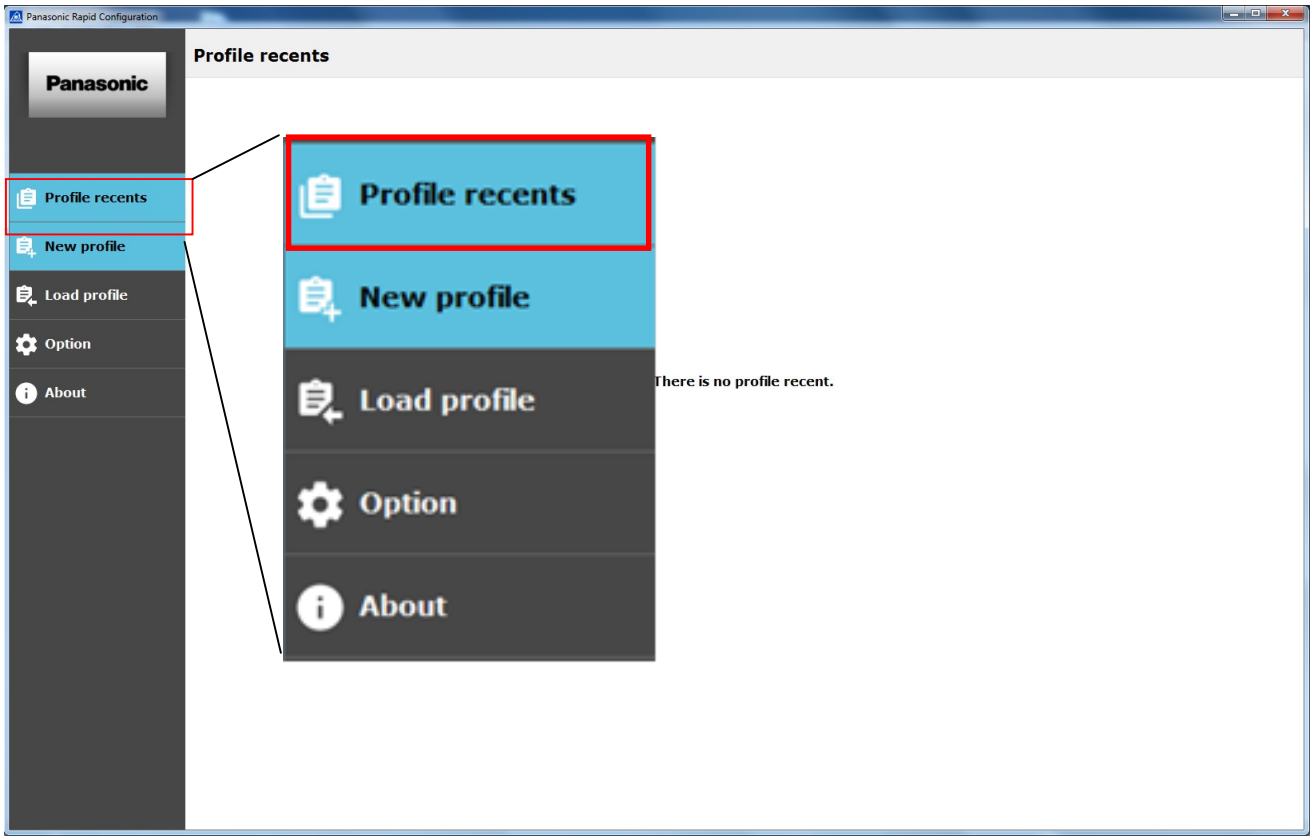
Name	Type	Role
PaRC Windows application	Windows App for PC (Not pre-installed)	Make a SQLite DB file or QR code based on staging profile created by end user. 1. The SQLite DB file in PC is to be copied to a specific directory of hand-held device through MDM or ADB command 2. The QR code is to be scanned by PaRC hand-held Application in the target device.
PaRC hand-held application	Android App for hand-held device (Pre-installed)	Scan a QR code of staging profile made by PaRC Windows Application and displayed in it, and make SQLite DB file in a specific directory of hand-held device from the staging profile.
KittingTool *(Hand-held side)*	Android App for hand-held device (Pre-installed)	Perform collective configurations and application installations based on staging profile in the SQLite DB file in the specific directory.

3.4 Detailed Staging Procedure

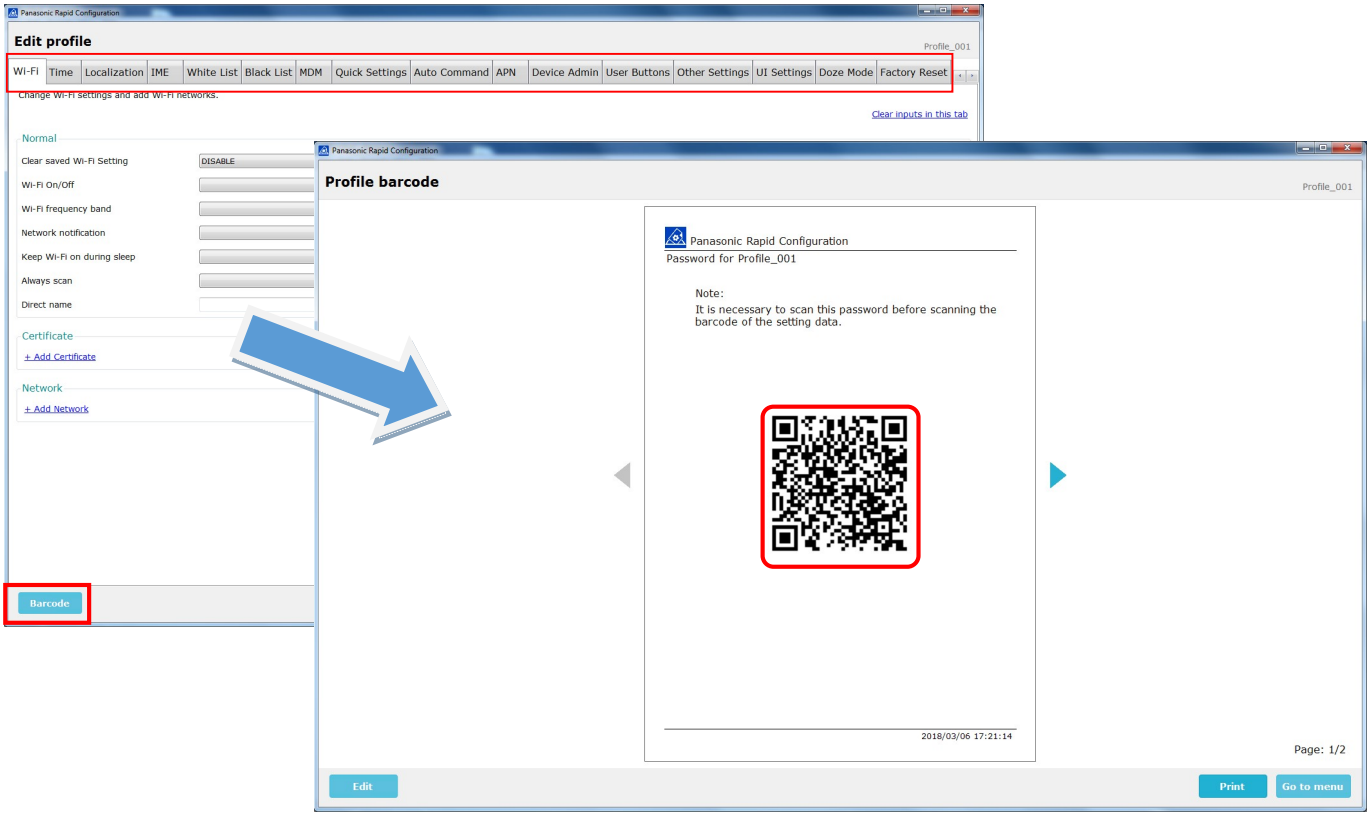
3.4.1 Method #1: QR code

[Step 1] Create Staging Profile: Configure all settings on PaRC Windows App, click the “Barcode” button.

1. Tap “New profile”

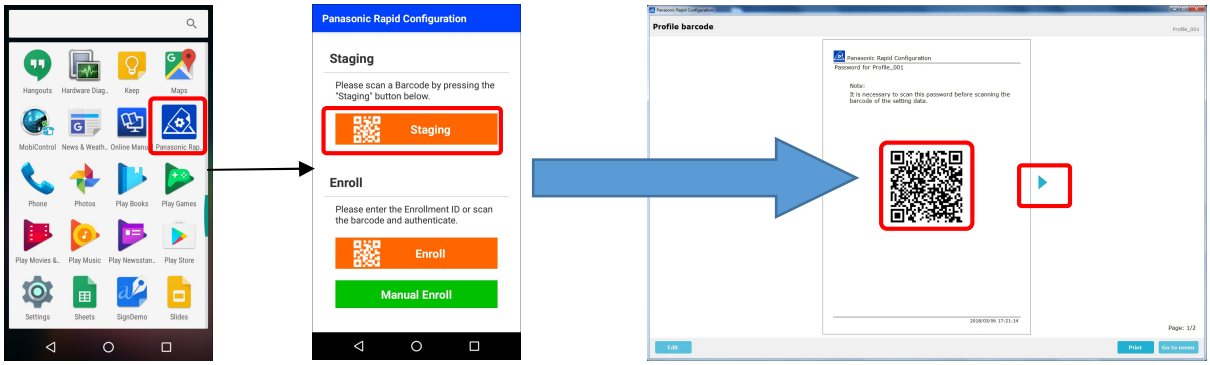


2. Create a staging profile and make a QR code



[Step 2] Copy staging profile to hand-held device: Scan the QR code with PaRC hand-held App

Open PaRC hand-held App, Tap the “Staging” button and Scan the QR code.



*QR code could be more than one.

Switch QR codes and scan all of them.

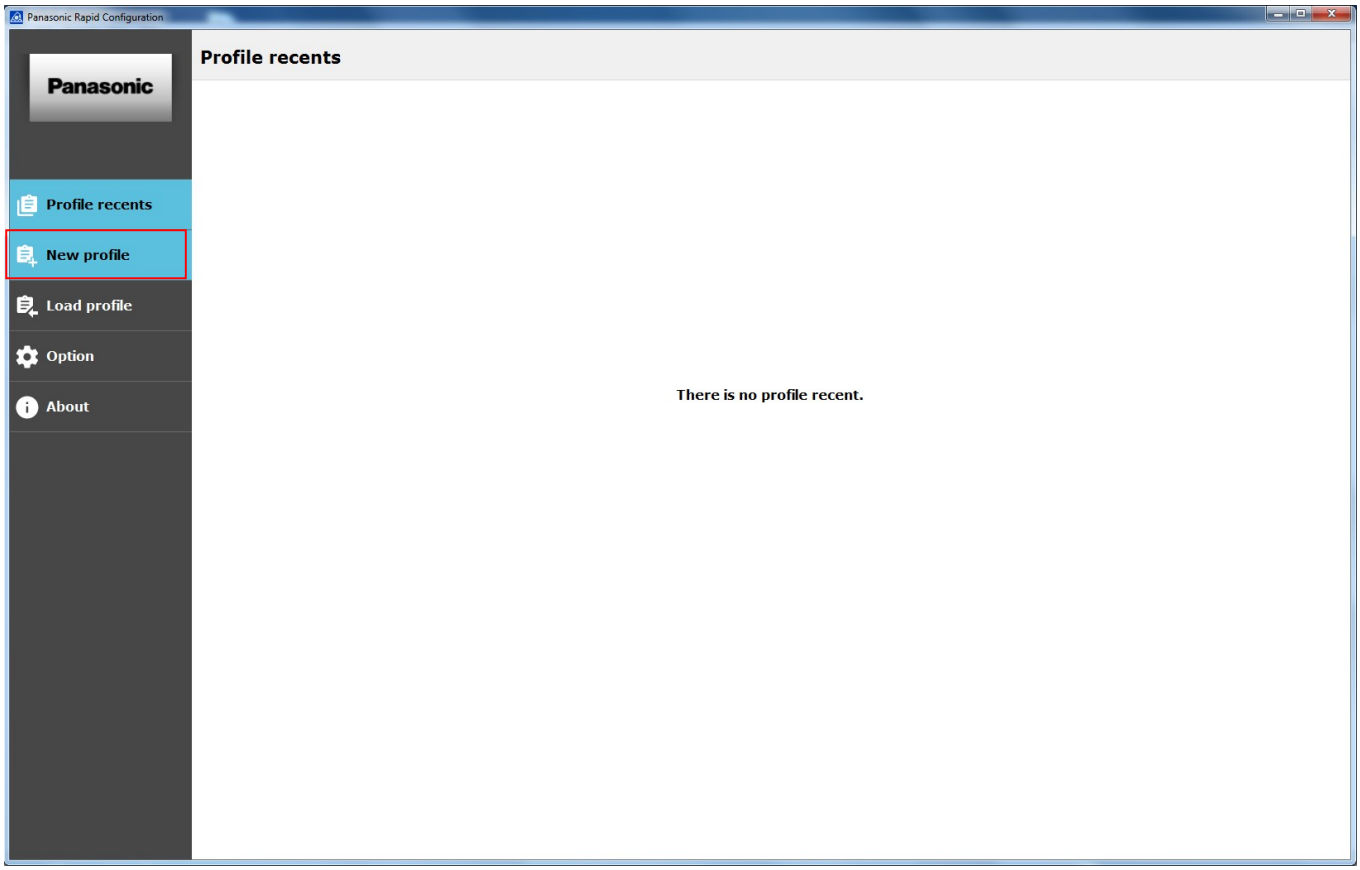
[Step 3] KittingTool automatically configure the device according to the staging profile.

End users have nothing to do manually.

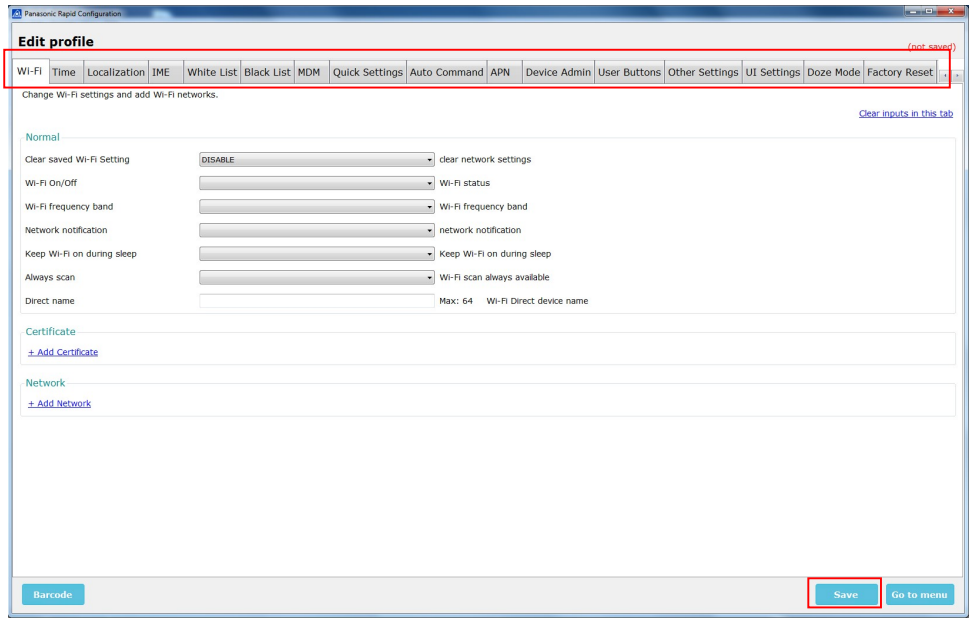
3.4.2 Method #2: ADB command

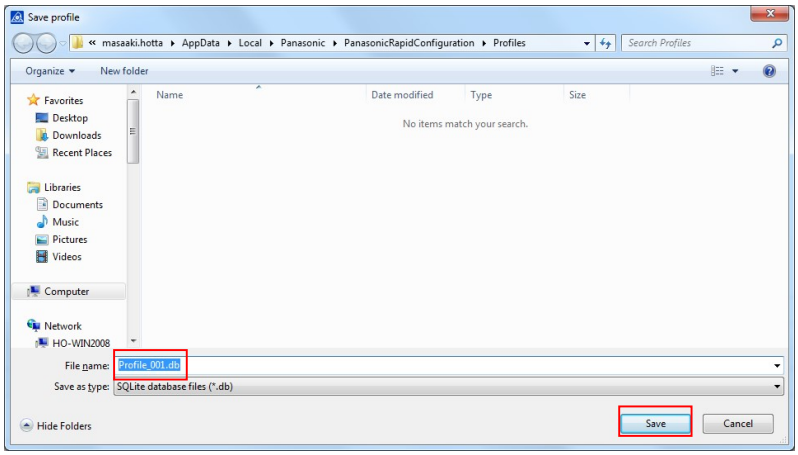
[Step 1] Create Staging Profile: Configure all settings on PaRC Windows App, save a staging profile as a SQLite DB file by clicking the “Save” button with any file name.

1. Tap “New profile”



2. Create a staging profile and make a SQLite DB file.





[Step 2] Copy staging profile to hand-held device: ADB command to copy staging profile to hand-held device

Copy a staging profile named “settings.db” to the specific directory in hand-held device by ADB command.

```
# adb push settings.db /scard/com.panasonic.psn.android.app.kittingtool2/
```

[Step 3] KittingTool automatically configure the device according to the staging profile.

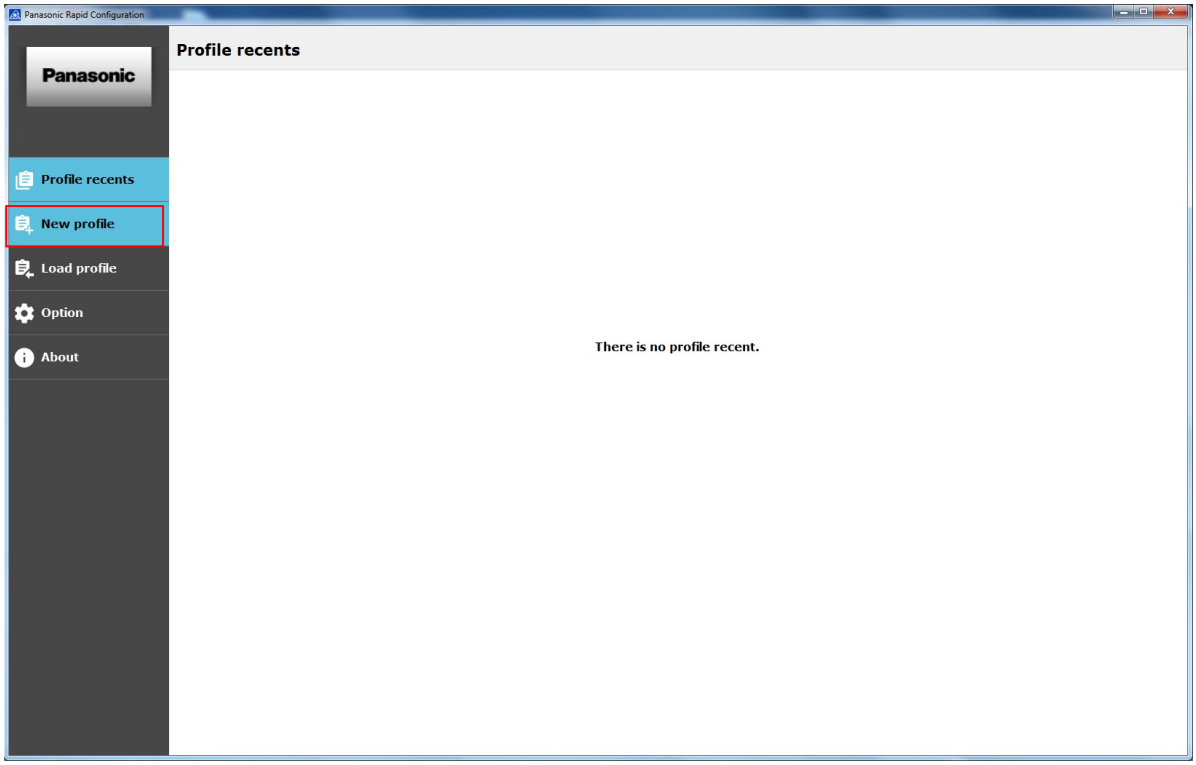
End users have nothing to do manually.

3.4.3 Method #3: MDM

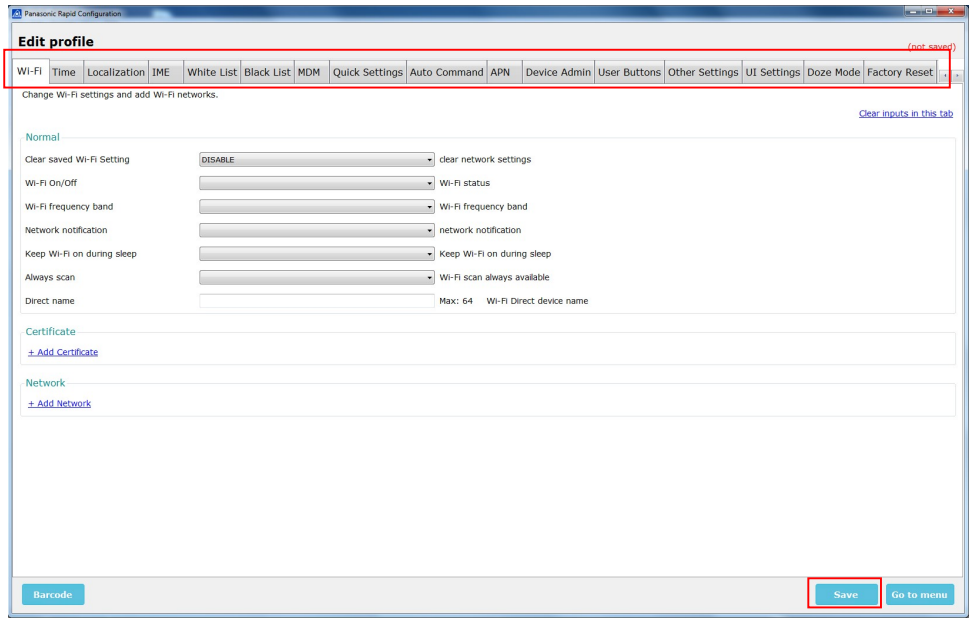
[Step 0] Preparation of MDM before staging: If MDM is not ready yet, Provision and Enroll MDM in some way such as Zero Touch Enrollment, enrollment upon the set-up wizard by NFC bump or QR code.

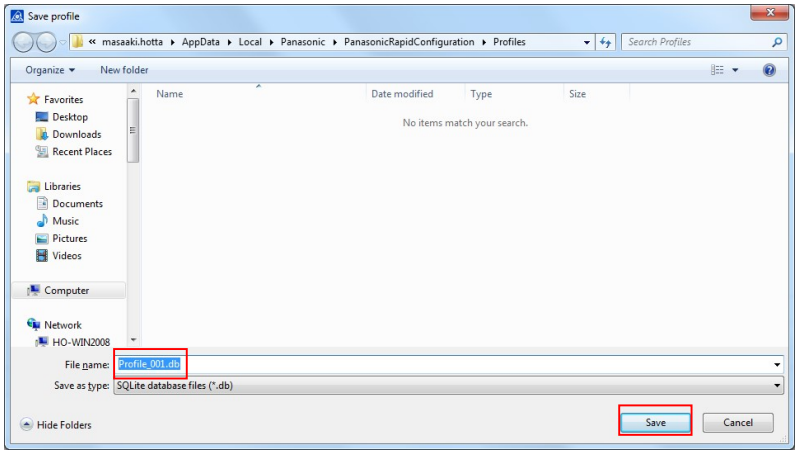
[Step 1] Create Staging Profile: Configure all settings on PaRC Windows App, save a staging profile as a SQLite DB file by clicking the “Save” button with any file name.

1. Tap “New profile”



2. Create a staging profile and make a SQLite DB file.





[Step 2] Copy staging profile to hand-held device: MDM to copy a staging profile to hand-held device

Copy a staging profile named “settings.db” to the specific directory(*) in hand-held device by MDM such as AirWatch, Mobicontrol.

*/scard/com.panasonic.psn.android.app.kittingtool2/

Note; Users need to provision their MDM and enroll their devices by Google’s Zero Touch Enrollment, EMM token NFC-based, QR code-based provisioning or another way before taking this method.

[Step 3] KittingTool automatically configure the device according to the staging profile.

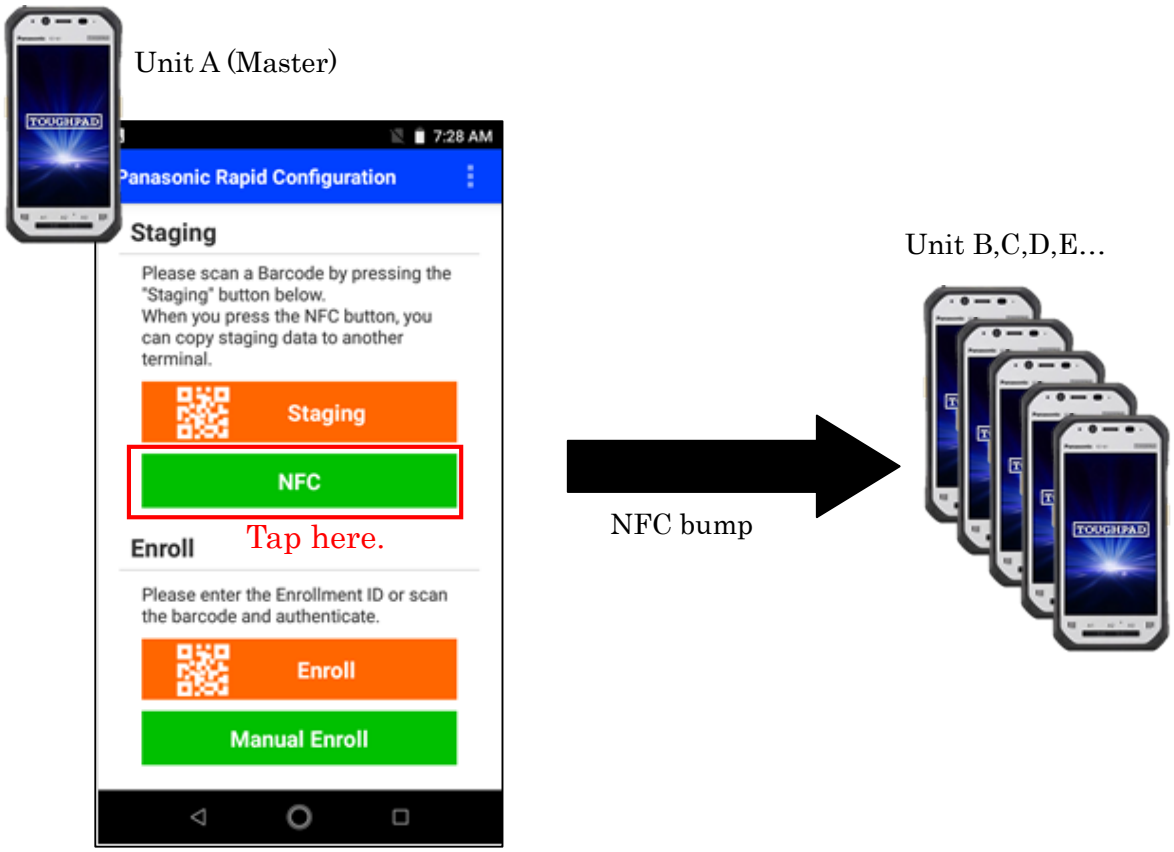
End users have nothing to do manually.

3.4.4 Method #4: NFC bump

[Step 1] Conduct settings for the “Master” unit in either of the methods from #1 to #3.

[Step 2] Copy the settings of the “Master” unit to other ones with the NFC bump function

1. Turn on NFC of all the concerned units in the Settings application.
2. Start the PaRC hand-held application of and tap the “NFC” button.
3. Bump the “Master” unit with other units to copy the settings.



[Step 3] KittingTool automatically configure the device according to the staging profile.
End users have nothing to do manually.

3.5 Encryption of SQLite DB file

For security purposes, SQLite DB file can be encrypted by end users.

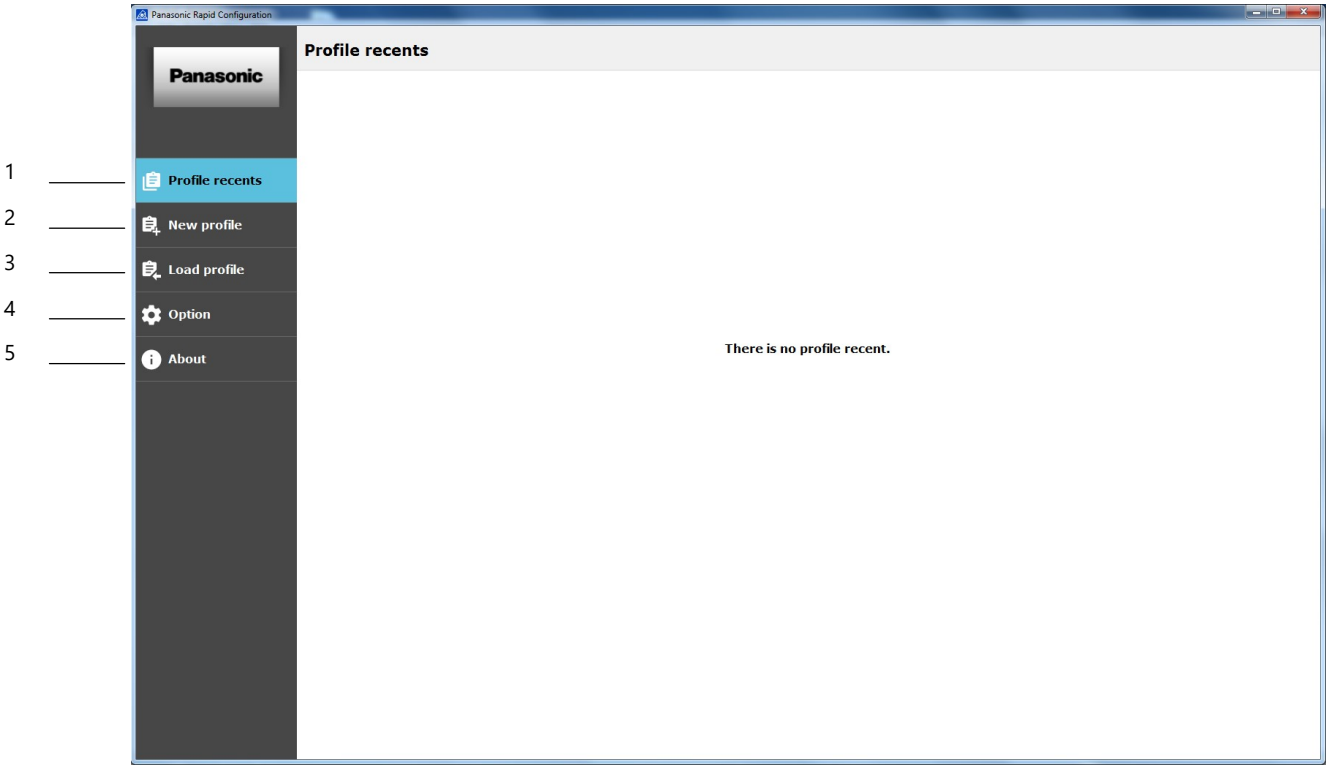
In that process, end users need to make SQLite DB file by saving a DB file data with the suffix, “.db.enc” with a password that becomes an encryption key (namely “pw.txt”) when decrypting the DB file.

For Details please refer to a document named “xxxx.doc”

4. Create a Staging Profile

4.1 Overview of the PaRC Windows applications

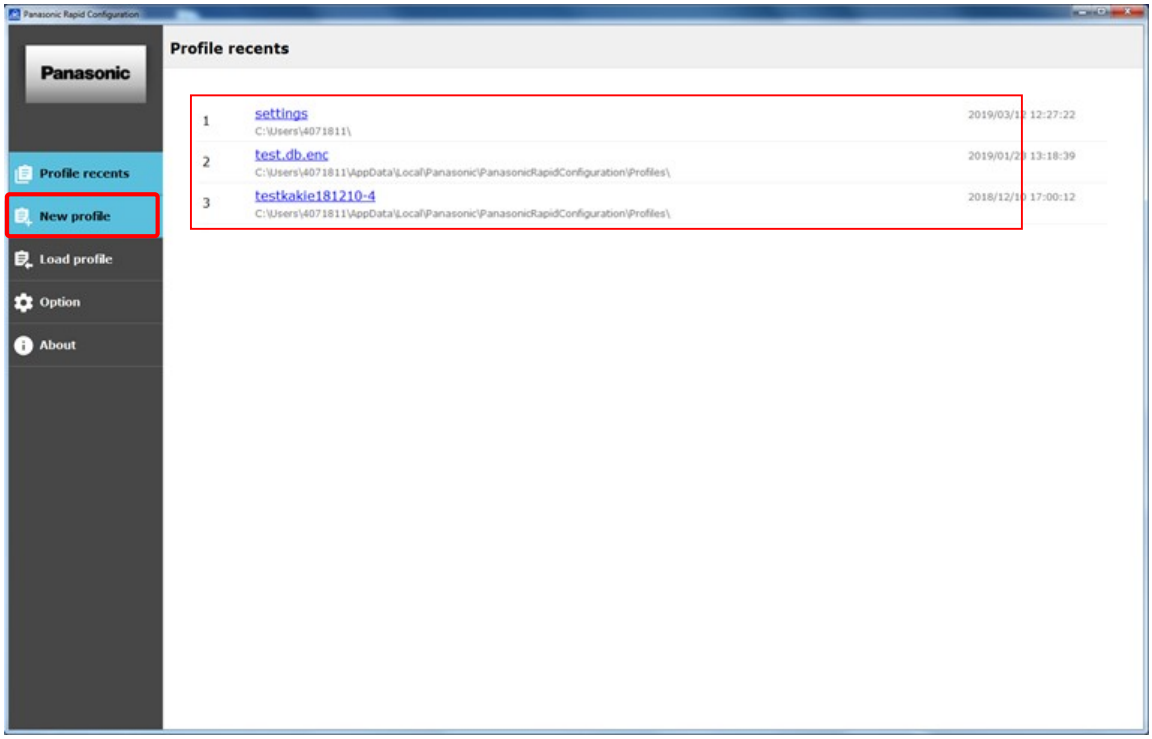
4.1.1 The menu screen



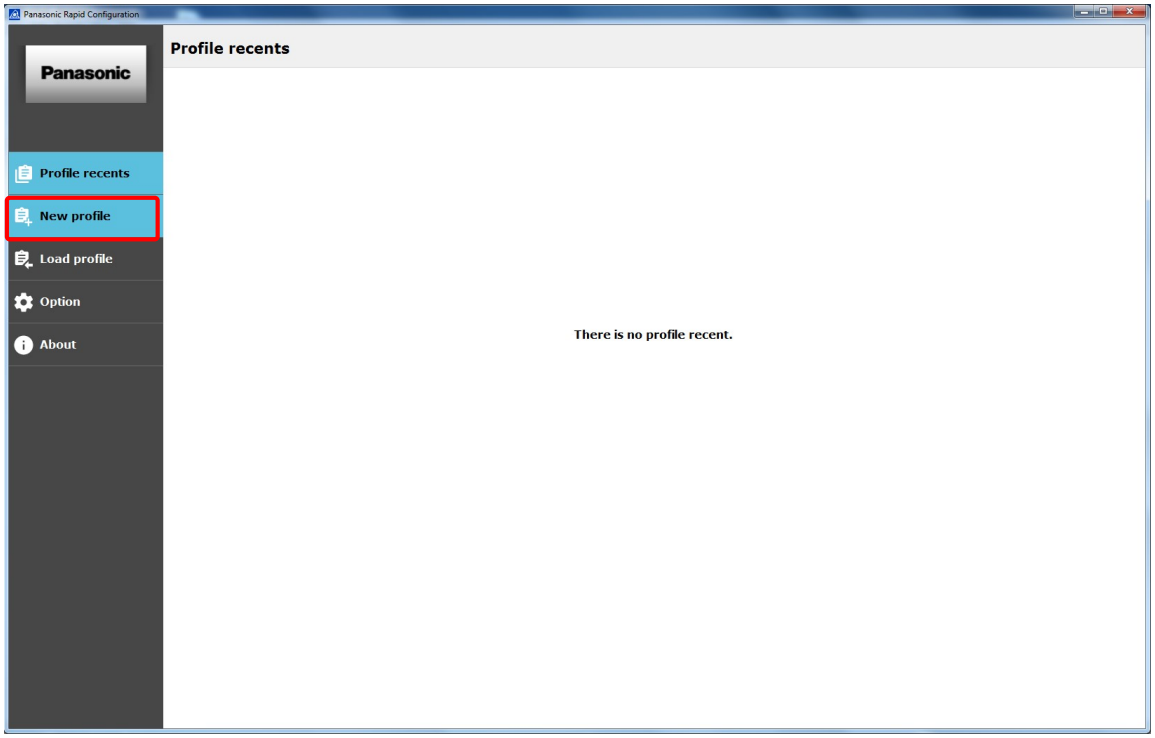
No.	Button name	Description
1	Profile recents	Show a list of profiles recently created as a profile history. Selecting a profile in the list, the profile is loaded and users can edit it based on it.
2	New profile	Create a new profile with various settings.
3	Load profile	Load a profile data as a file named settings.db stored in the PC.
4	Option	- Set a password for a created QR code - The amount of data that can be encoded in the QR code. - Enable/Disable a logging. - Whether to restart the device after staging - Set the staging order.
5	About	Show the PaRC version and open source components and licenses used in this software.

4.1.2 Profile recents

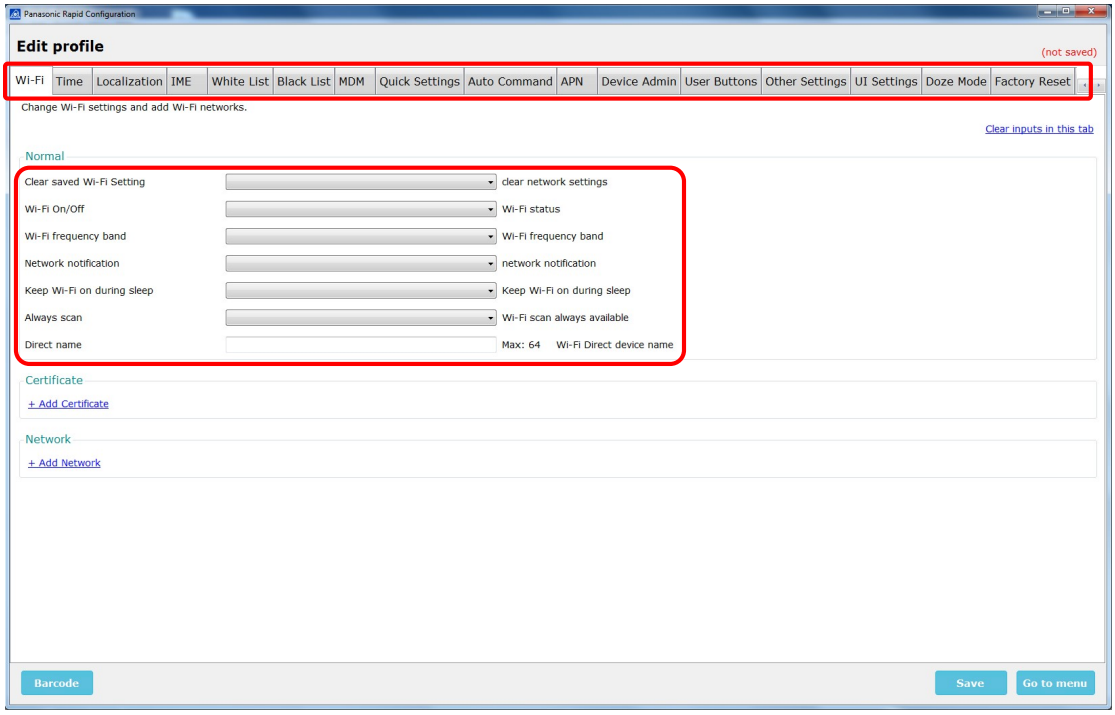
Show recently created profiles.



4.1.3 New Profile



1 Select a tab and configure the settings.

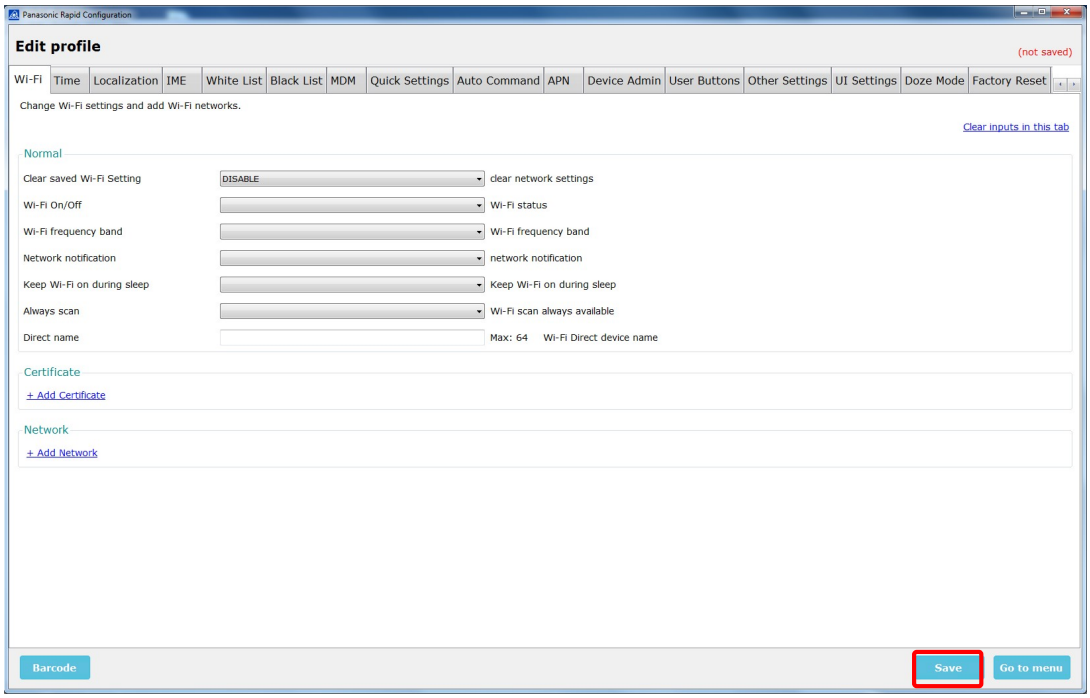


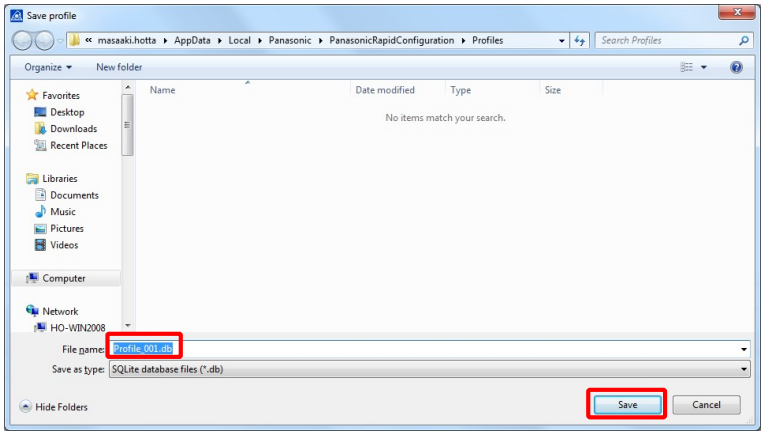
2 Create a profile

As a profile, a database file (settings.db) or QR code can be used.

2-1 Create a profile as a settings.db file

Click “Save”



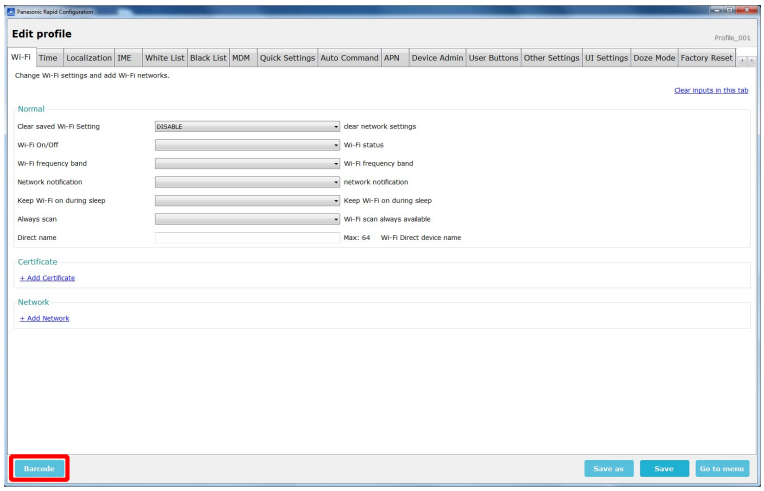


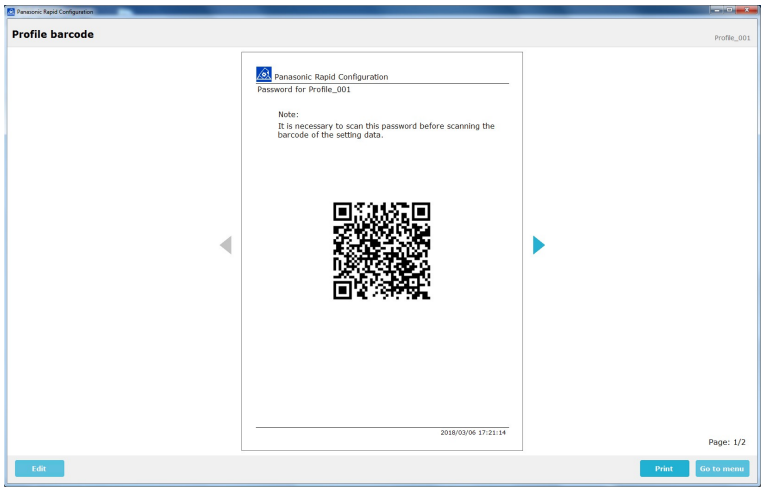
Use the settings.db for staging by sending it to a specific directory in hand-held devices by MDM or adb command.

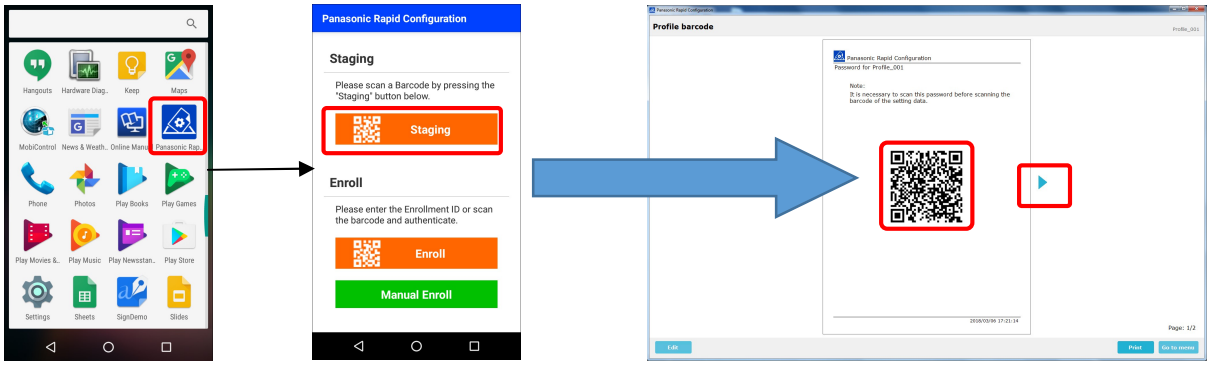
```
# adb push settings.db /scard/com.panasonic.psn.android.app.kittingtool2/
```

2-2 Create a profile as a QR code

Click “Barcode”



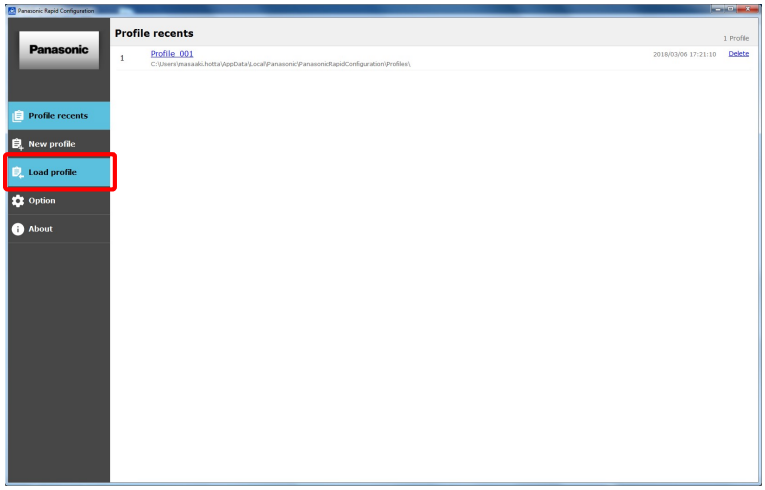




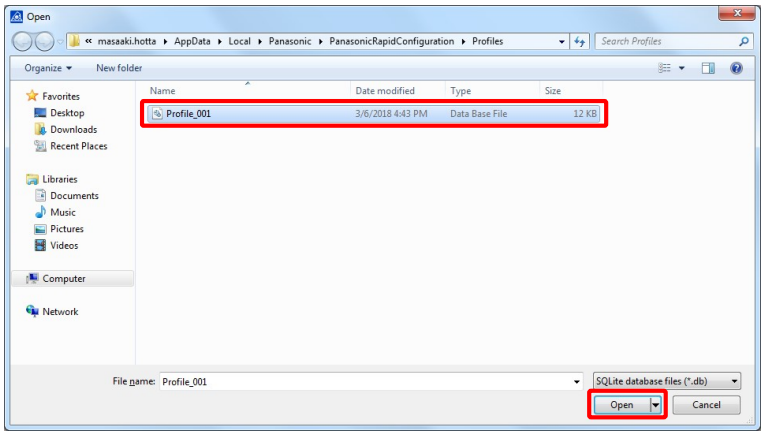
*QR code could be more than one.
Switch QR codes and scan all of them.

4.1.4 Load Profile

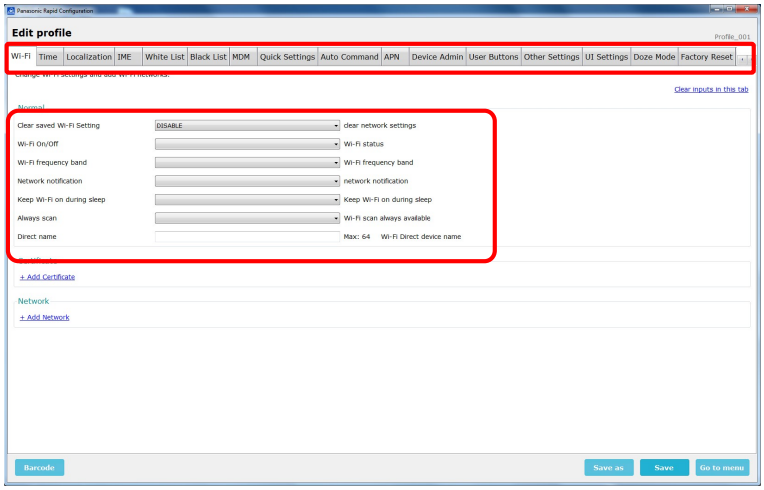
1. Click [Load profile].



2. Select a profile to display and click [Open].



3. Edit settings and create a profile

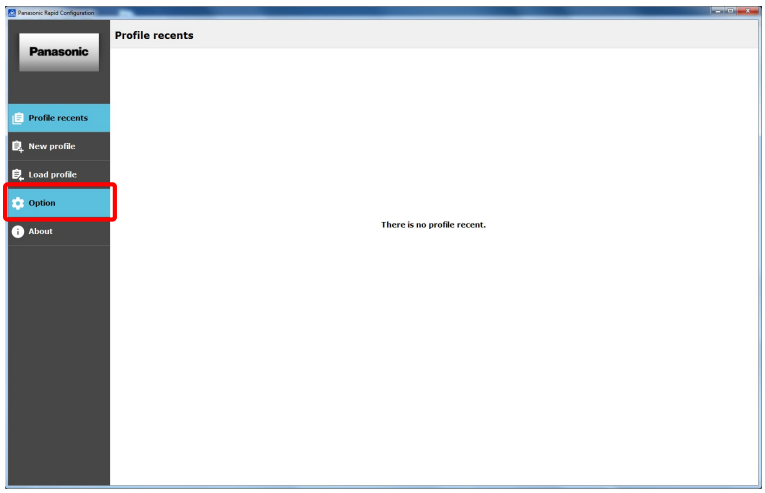


4.1.5 Option

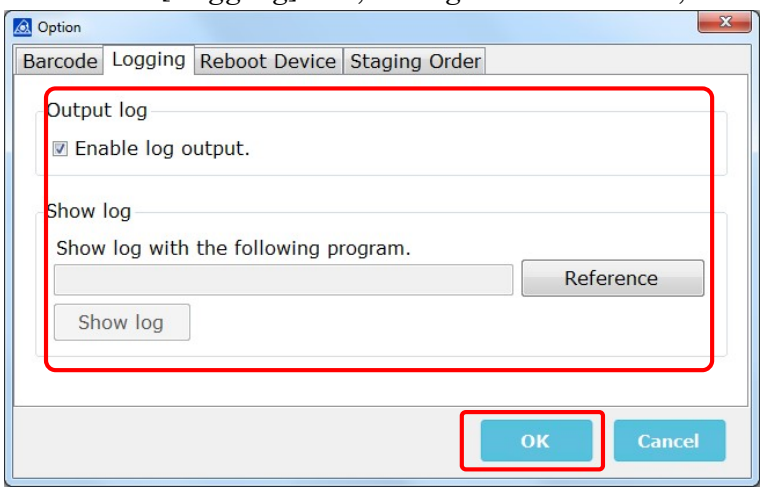
4.1.5.1 Setting log output

Save the operation log of Panasonic Rapid Configuration.。
You can also specify an application and display the log.

1 Click [Option].



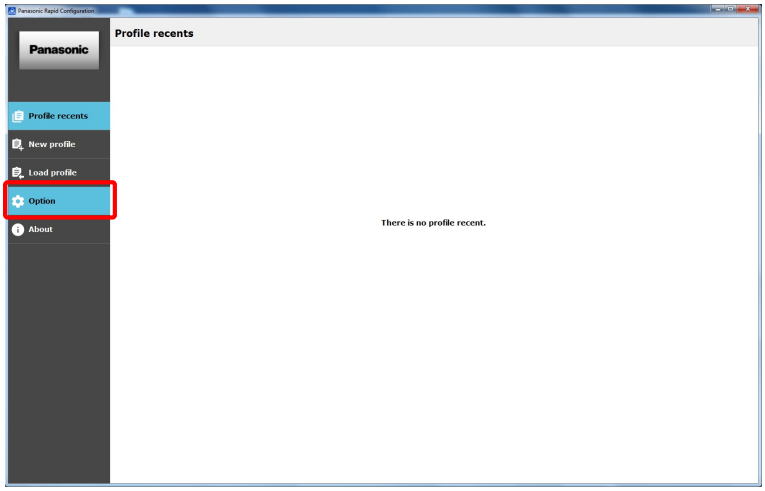
2 Select the [Logging] tab, configure the details, and click [OK].



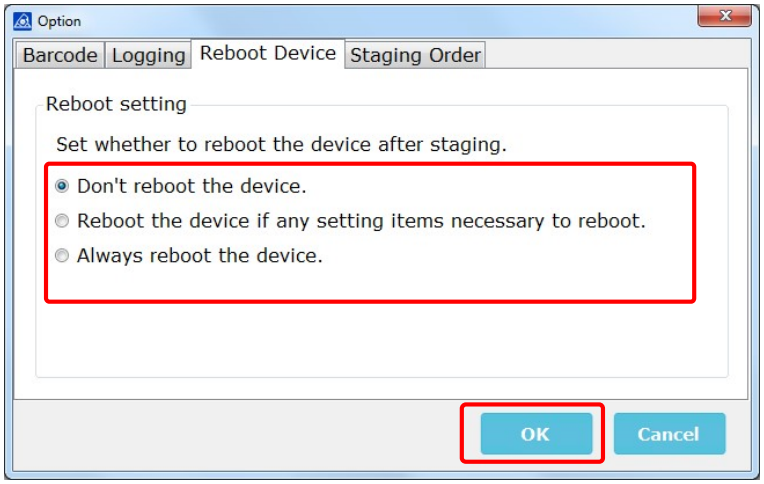
4.1.5.2 Setting device restartlog output

You can set whether to restart the device after applying settings (staging) is complete.

1 Click [Option].



2 Select the [Reboot Device] tab, configure the details, and click [OK].

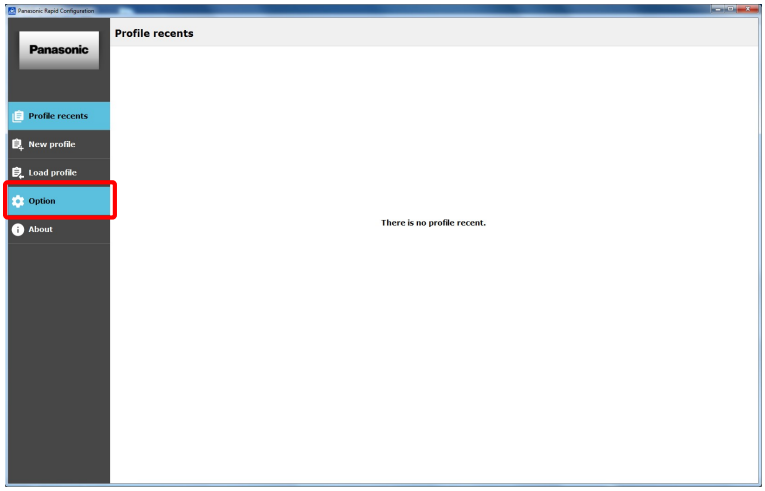


- [Don’t reboot the device.]
  Restart the device manually after applying settings when necessary.
- [Restart the device if any setting items necessary to reboot.]
  Restarts the device automatically depending on the details of the applied settings.
- [Always reboot the device.]
  Always restarts the device automatically after applying settings.

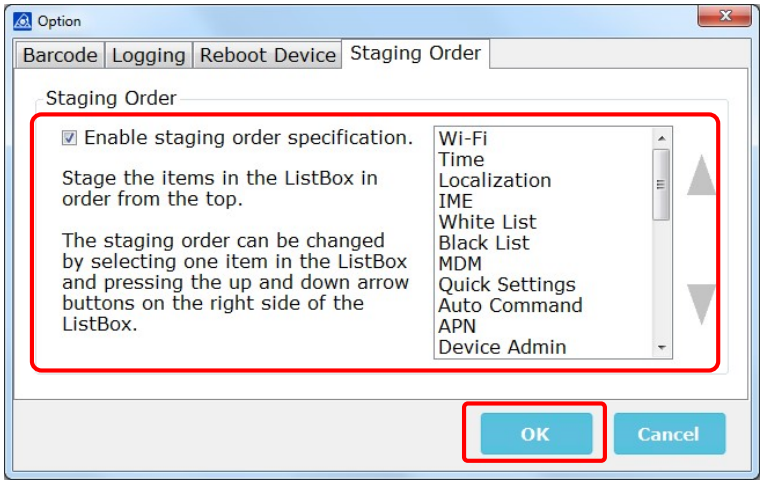
4.1.5.3 Setting order of applied settings

You can change the order in which settings are applied (staged).

1 Click [Option].



2 Select the [Staging Order] tab, configure the details, and click [OK].



- [Enable staging order specification.]
  The settings input in the list box will be applied in order from top to bottom.
- List box
  Input the order of the setting items. To change the order, click the item whose order you want to hange, and click the up or down arrow buttons on the right side.

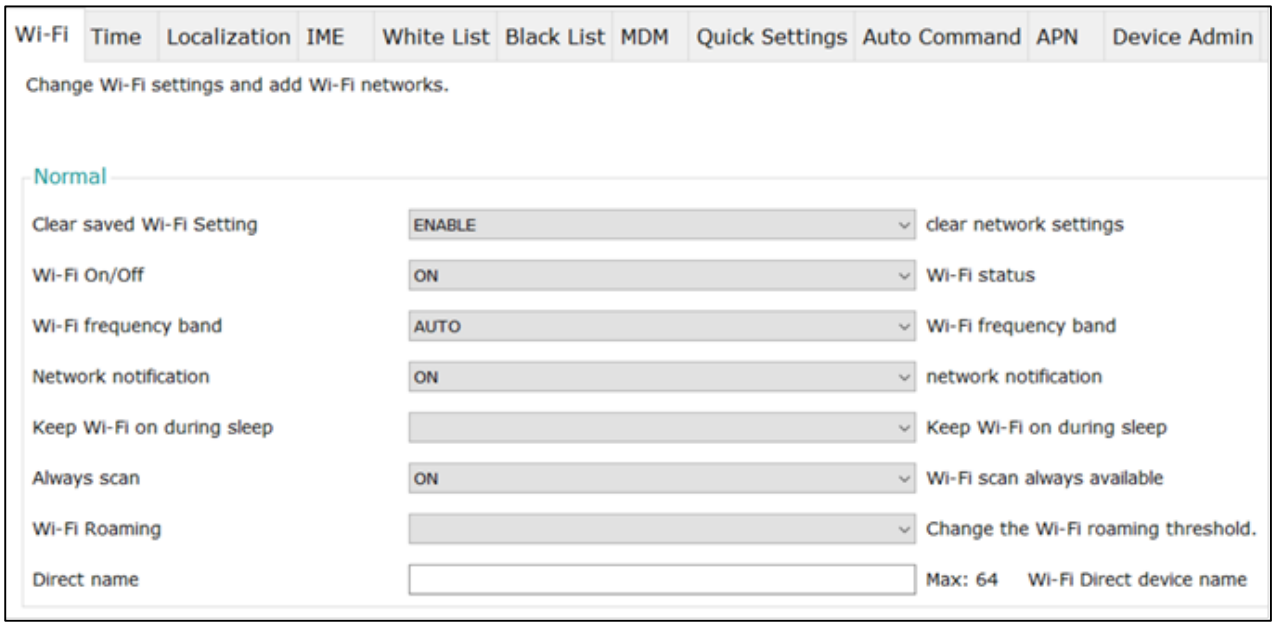
4.2 Profile Editting

a. Wifi

a-1. Normal

With “Normal” in “Wifi”, basic settings for Wifi connectivity can be configured.

[Setting example]



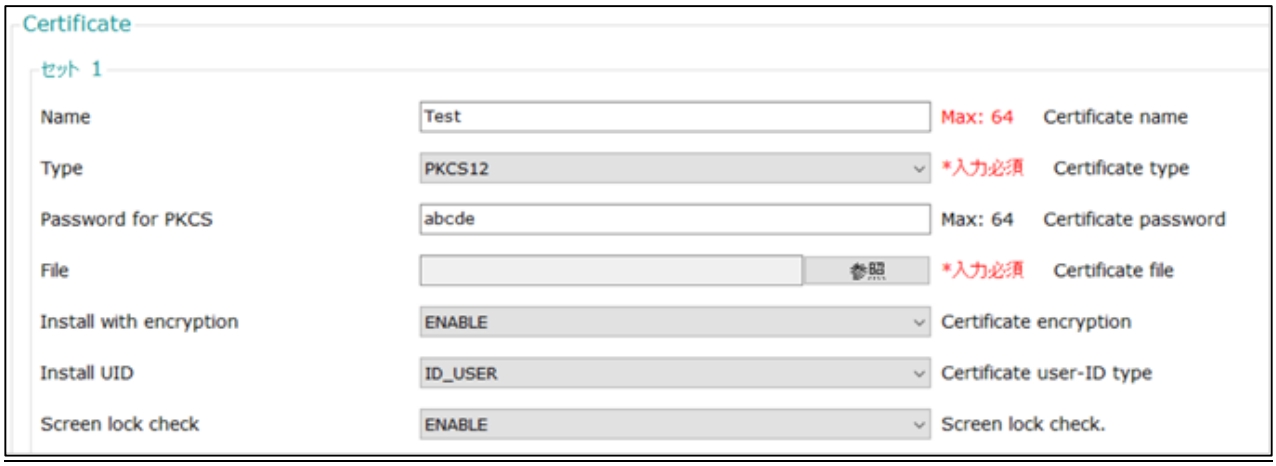
[Setting Details]

Setting	Setting value	Description
Clear saved Wi-Fi Setting	DISABLE/ENABLE	Enable: Clear a saved access point Disable: No action
Wi-Fi On/Off	ON/OFF	On: Set Wifi enabled Off: Set Wifi disabled.
Wi-Fi frequency band	AUTO/5GHZ/2.4GHZ	Select Wifi band *Auto: both 5GHz and 2.4GHz
Network notification	ON/OFF	On: Notify a high-quality pubic network available without password required around the device with pop-up on the screen. Off: Disable this notification.
Keep Wi-Fi on during sleep	ALWAYS/ONLY_WHEN_PLUGGED_IN/NEVER	Wi-Fi connection status during its sleep mode. ALWAYS: Wifi connection ON during device is in the sleep mode. ONLY_WHEN_PLUGED_IN: It is ON when the device is plugged to power supply. NEVER: It is always OFF.
Always scan	ON/OFF	Enable or disable “Wifi Always Scan” to always scan Wifi AP to utilize Wifi AP information to support more accurate location services whether Wifi is on or off.
Direct name	Free description	Set Wifi Direct name of the device. E.g. "MyDevice1" *“MyDevice1” is seen as a Wifi Direct name from other devices.

a-2 Certificate

With “Certificate” in “Wifi”, settings for certificate of IEEE 802.1X can be configured.

[Setting example]



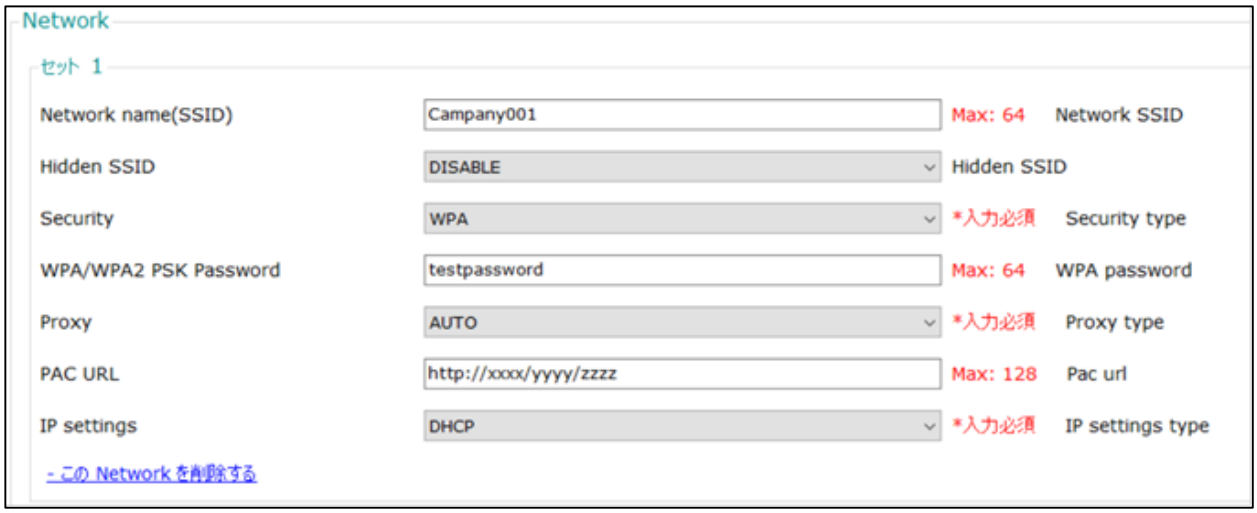
[Setting Details]

Setting	Setting values	Description
Name	Free description	Set a name of the certificate for IEEE 802.1X authentication.
Type	PKCS12/OTHER	Select certification type
Password for PKCS	Password	Set a password for PKCS format certificates.
File	Select a file	Select a file of certificate for IEEE 802.1X authentication
Install with encryption	DISABLE/ENABLE	Select whether to encrypt the certificate.
Install UID	ID_USER/ID_WIFI	Select user ID type of the certificate.

4.2.1.3 Network

With “Network in “Wifi”, settings on Wifi access point can be configured.

[Setting example]



[Setting details]

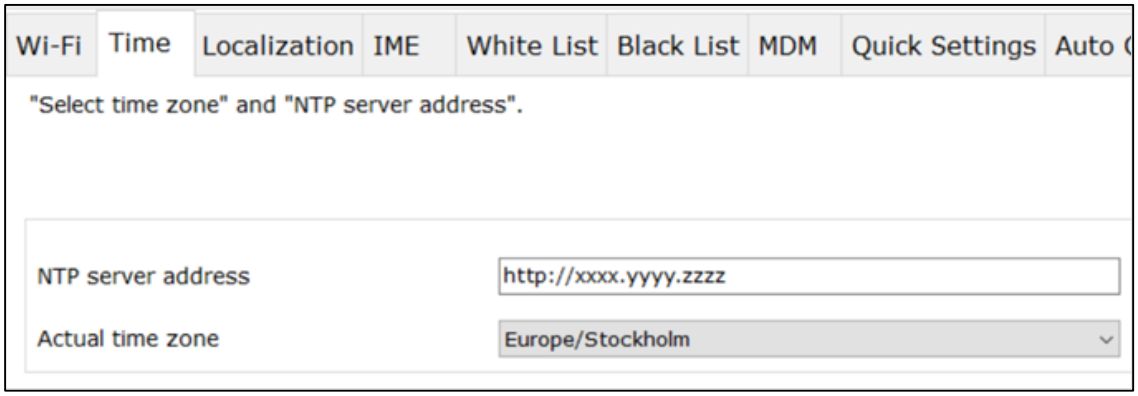
Setting	Setting values	Description
Network name (SSID)	SSID	Input SSID of a Wifi access point to connect
Hidden SSID	DISABLE/ENABLE	Select whether to connect to a hidden SSID
Security	NONE/WEP/WPA/EAP	Select Wifi connection security type
WEP Password	Password	When “WEP” in “Security” is selected, Input the WEP password.
WPA/WPA2 PSK Password	Password	When “WPA” in “Security” is selected, Input the WPA/WPA2 PSK password.
EAP method	PEAP/TLS/TTLS/PWD	When “EAP” in “Security” is selected, Set the EAP type.
User certificate	Free description	When “EAP” in “Security” and “TLS” in “EAP method” are selected, Input the user certificate.
Phase-2 authentication	NONE/MSCHAPV2/GTC	When “EAP” in “Security” and “PEAP” or “TTLS” in “EAP method” are selected, Set the Phase-2 authentication method.
CA certificate	Free description	When “EAP” in “Security” is selected, Input the CA certificate.
Identity	Free description	When “EAP” in “Security” is selected, Input an EAP ID.
Anonymous identity	Free description	When “EAP” in “Security” and “PEAP” or “TTLS” in “EAP method” are selected, Input the anonymous EAP ID.
EAP password	Password	When “EAP” in “Security” and “PEAP” or “TTLS” in “EAP method” are selected, Input the EAP password.
Proxy	NONE/MANUAL/AUTO	Select whether to use a proxy server and Select whether to select the proxy server automatically or manually.
Proxy hostname	Free description	When “MANUAL” is selected in “Proxy”, Set the hostname of the proxy.

Proxy port	Proxy port (0~32767)	When “MANUAL” is selected in “Proxy”, Set the proxy port.
Bypass proxy for	Free description	When “MANUAL” is selected in “Proxy”, Set bypass proxy when not using a proxy server.
PAC URL	URL	When “AUTO” is selected in “Proxy” Specify the URL for the proxy automatic setting file.
IP settings	DHCP/STATIC	Set the IP address setting type.
IP address	IP address	When “STATIC” is selected in “IP settings” Input the IP address.
Gateway	IP address	When “STATIC” is selected in “IP settings”, Input the gateway.
Network prefix length	Value (0-32)	When “STATIC” is selected in “IP settings”, Set the prefix.
DNS 1	IP address	When “STATIC” is selected in “IP settings”, Input DNS 1.
DNS 2	IP address	When “STATIC” is selected in “IP settings”, Input DNS 2.

4.2.2 Time

With “Time”, clock settings can be configured.

[Setting example]



[Setting details]

Setting	Setting values	Description
NTP Server IP Address	IP address or URL	Input IP address or host address of NTP server
Actual Time Zone	Time zone from the list	Select the time zone.

4.2.3 Localization

With “Localization”, settings for country and language can be configured.

[Setting example]

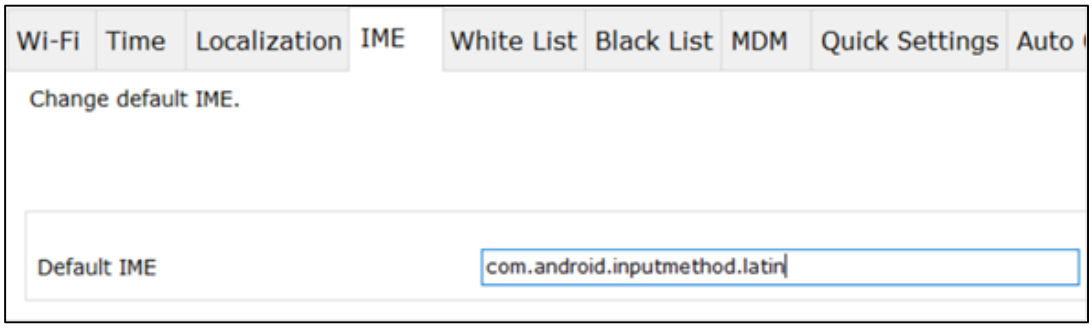
[Setting details]

Setting	Setting values	Description
Country and language	Language from the list	Select the language to adopt.

4.2.4 IME

With “IME”, default IME of keyboard can be configured.

[Setting example]



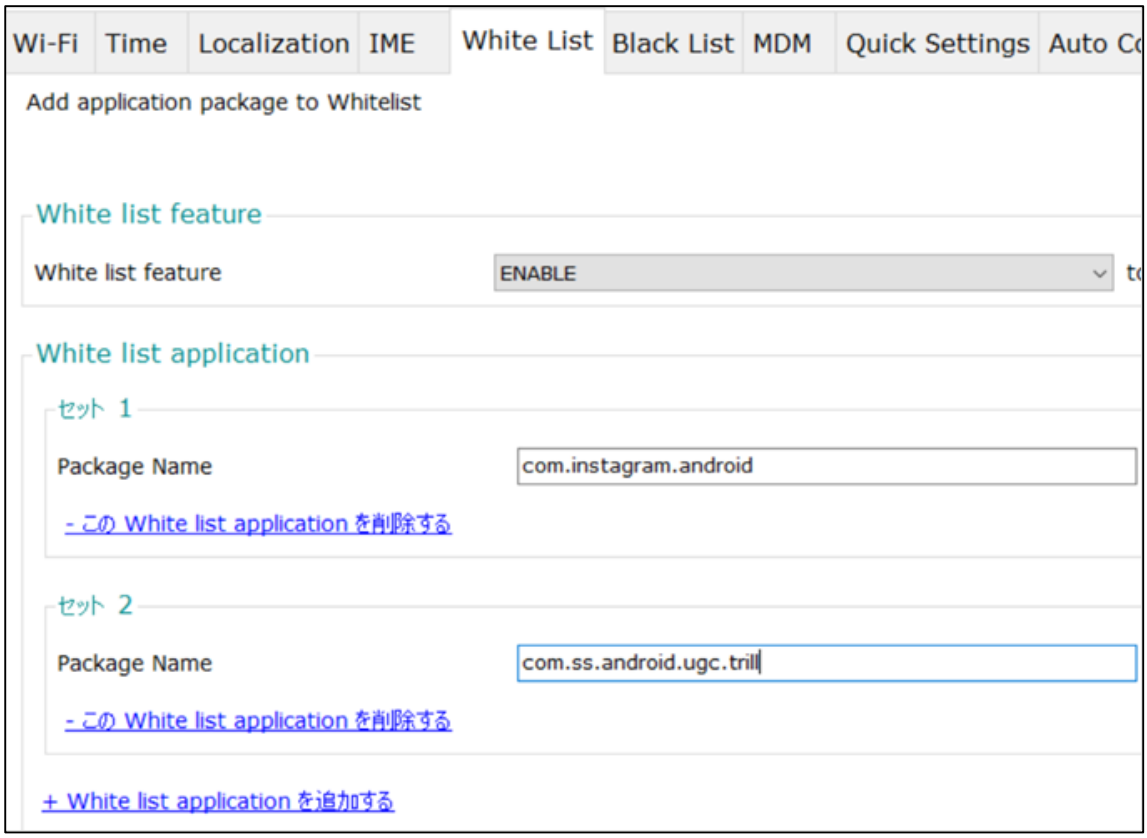
[Setting details]

Setting	Setting values	Description
Default IME	App package name	Input package name of keyboard app. (E.g.) com.android.inputmethod.latin (AOSP Keyboard)

4.2.5 White List

With “White List”, applications that are permitted to be installed can be specified. And if “white list feature” is enabled, other applications than ones in the white list cannot be installed.

[Setting example]



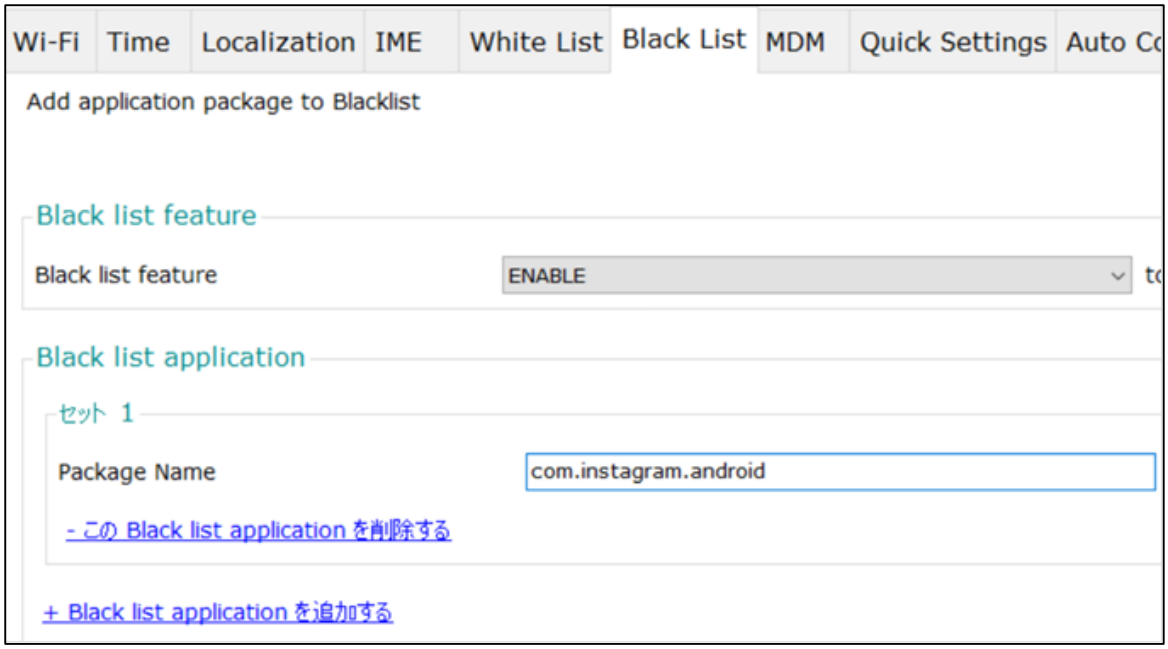
[Setting details]

Setting	Setting values	Description
White list feature	DISABLE/ENABLE	Select whether to enable the white list.
Package name	Package name	Set the name of PACKAGE of the app to be added in the white list and permitted being installed in the device. *Already installed apps not listed in the white list are wiped away. (E.g.) com.instagram.android (Instagram) com.ss.android.ugc.trill (TikTok)

4.2.6 Black List

With “Black List”, applications that are prohibited to be installed can be specified.

[Setting example]



[Setting details]

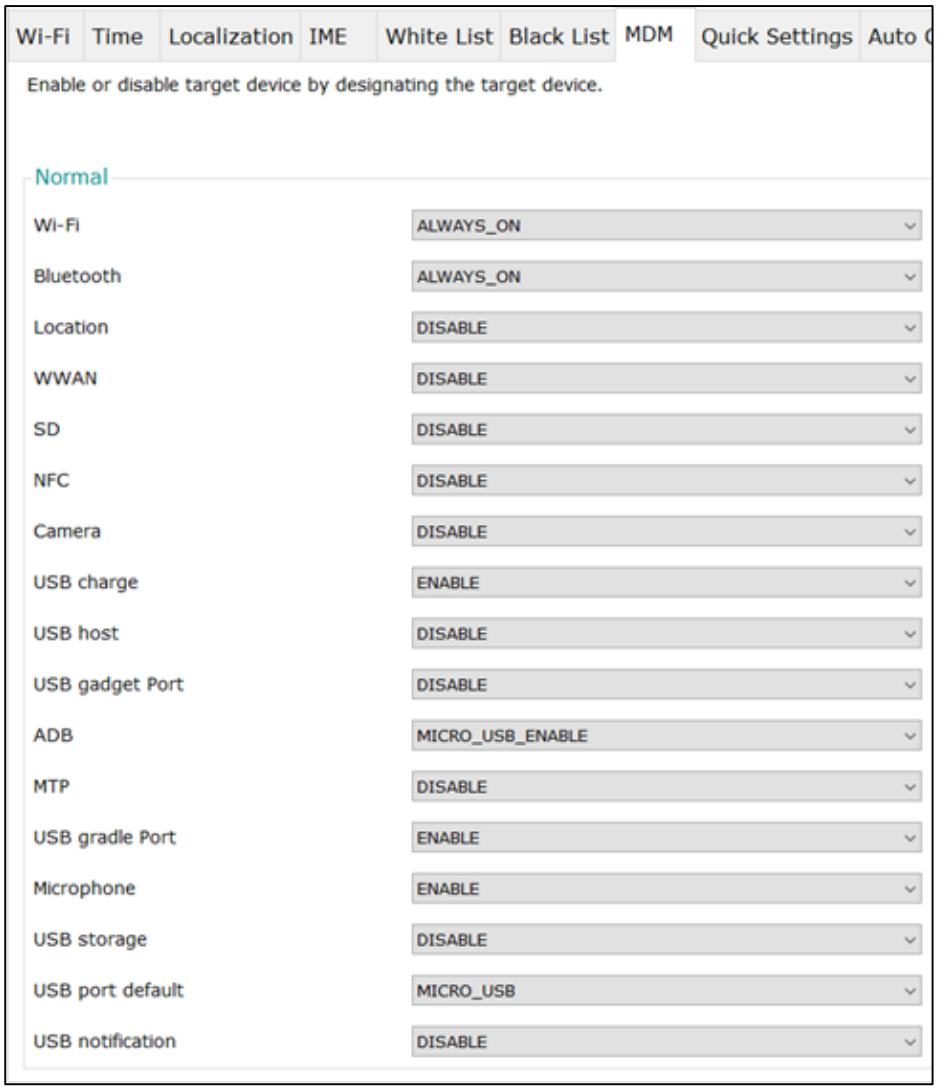
Setting	Setting values	Description
Black list feature	DISABLE/ENABLE	Select whether to enable the black list.
Package name	Package name	Set the name of PACKAGE of the app to be added in the black list and prohibited being installed in the device. *Already installed apps listed in the black list are wiped away. (E.g.) com.instagram.android (Instagram) com.ss.android.ugc.trill (TikTok)

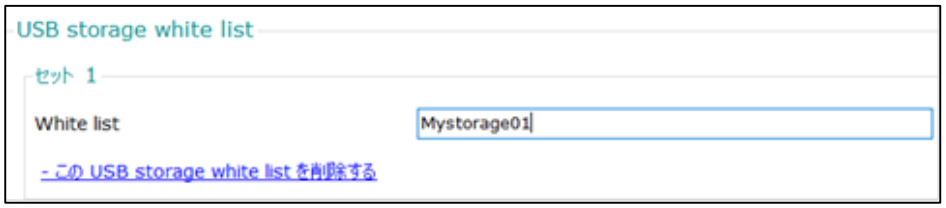
4.2.7 MDM

4.2.7.1 Normal

With “Normal” in “MDM”, settings related to device management and control can be configured.

[Setting example]





[Setting details]

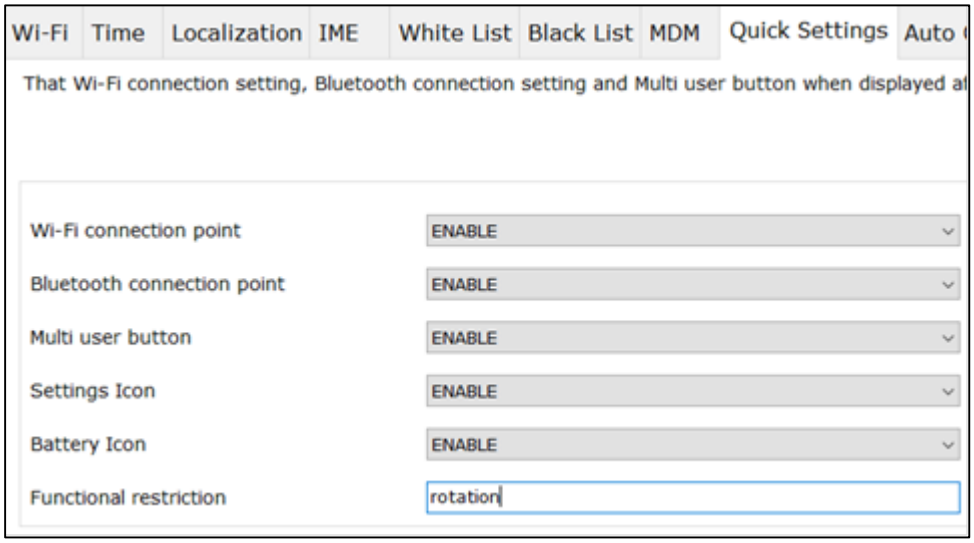
Setting	Setting values	Description
Wi-Fi	DISABLE/ENABLE/ALWAYS_ON/ALWAYS_ON_EXC_WS	Disable: Cannot be turned ON on the UI Enable: Can be turned ON/OFF on the UI Always_ON: Always on and cannot be turned off Always_ON_EXC_WS: Always ON expect for Warm Swap.

Bluetooth	DISABLE/ENABLE/ALWAYS_ON/ALWAYS_ON_EXC_WS	Disable: Cannot be turned ON on the UI Enable: Can be turned ON/OFF on the UI Always_ON: Always on and cannot be turned off Always_ON_EXC_WS: Always ON expect for Warm Swap.
Location	DISABLE/ENABLE/ALWAYS_ON	Disable: Cannot be turned on on the UI Enable: Can be turned on/off on the UI Always_ON: Always on and cannot be turned off
WWAN	DISABLE/ENABLE/ALWAYS_ON/ALWAYS_ON_EXC_WS	Disable: Cannot be turned ON on the UI Enable: Can be turned ON/OFF on the UI Always_ON: Always on and cannot be turned off Always_ON_EXC_WS: Always ON expect for Warm Swap.
SD	DISABLE/ENABLE	Disable: Cannot be turned on on the UI Enable: Can be turned on/off on the UI
NFC	DISABLE/ENABLE/ALWAYS_ON/ALWAYS_ON_EXC_WS	Disable: Cannot be turned ON on the UI Enable: Can be turned ON/OFF on the UI Always_ON: Always on and cannot be turned off Always_ON_EXC_WS: Always ON expect for Warm Swap.
Camera	DISABLE/ENABLE	Disable: Cannot be turned on on the UI Enable: Can be turned on/off on the UI
USB charge	DISABLE/ENABLE	Disable: Cannot be turned on on the UI Enable: Can be turned on/off on the UI
USB host	DISABLE/ENABLE	Disable: Cannot be turned on on the UI Enable: Can be turned on/off on the UI
USB gadget port	DISABLE/ENABLE	Disable: Cannot be turned on on the UI Enable: Can be turned on/off on the UI
ADB	DISABLE/ENABLE	(Micro_USB_, Cradle_)Disable: USB Debugging Cannot be turned ON on the UI (Micro_USB_, Cradle_)Enable: Can be turned on/off on the UI
MTP	DISABLE/ENABLE	File Transfer through USB Disable: Cannot be turned on on the UI Enable: Can be turned on/off on the UI
USB cradle Port	DISABLE/ENABLE	Disable: Cannot be turned on on the UI Enable: Can be turned on/off on the UI
Microphone	DISABLE/ENABLE	Disable: Cannot be turned on on the UI Enable: Can be turned on/off on the UI.
USB storage	DISABLE/ENABLE/WHITE_LIST	Disable: Cannot be turned on on the UI Enable: Can be turned on/off on the UI
USB port default	Dynamic Micro USB Cradle	Select which USB part is prioritized. Dynamic: The one plugged first Micro USB: Cradle USB interface is Disabled Cradle: Micro USB on the side is Disabled.
USB notification	DISABLE/ENABLE	Select whether to enable notification and change option for enabled port when both of the USB ports are detected.
White list	Free Description	If “WHITE_LIST” is elected in “USB” storage, input the name of the USB storage that are permitted to be connected to Panasonic handheld devices.

4.2.8 Quick Settings

With “Quick Setting”, settings related to “Quick settings” that appear when swiping down at the top of screen can be configured.

[Setting example]



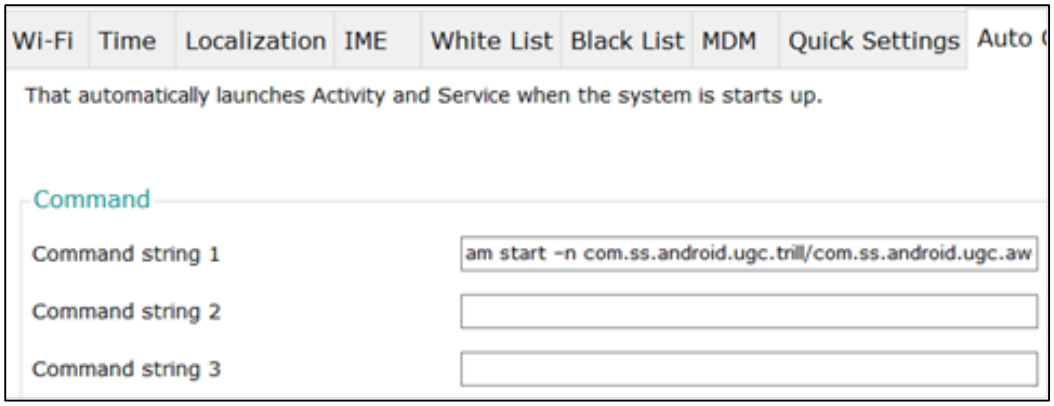
[Setting details]

Setting	Setting values	Description
Wi-Fi connection point	DISABLE/ENABLE	Disable/Enable advanced settings of Wifi connection in the quick settings. Note: On/Off setting is always possible
Bluetooth connection point	DISABLE/ENABLE	Disable/Enable advanced settings of Bluetooth connection in the quick settings. Note: On/Off setting is always possible
Multi user button	DISABLE/ENABLE	Disable/Enable multi user selection by tapping Multi-user icon in the quick settings.
Settings Icon	DISABLE/ENABLE	Disable/Enable transfer to setting app by tapping setting icon in the quick settings
Battery Icon	DISABLE/ENABLE	Disable/Enable transfer to battery detailed info by tapping battery icon in the quick settings.
Functional Restriction	Free description	Restrict settings in the quick settings by specifying the settings. (E.g) wifi, nfc, rotation, user, etc.

4.2.9 Auto Command

With “Auto Command”, shell commands to start up activities and services upon system boot up can be configured.

[Setting example]



[Setting details]

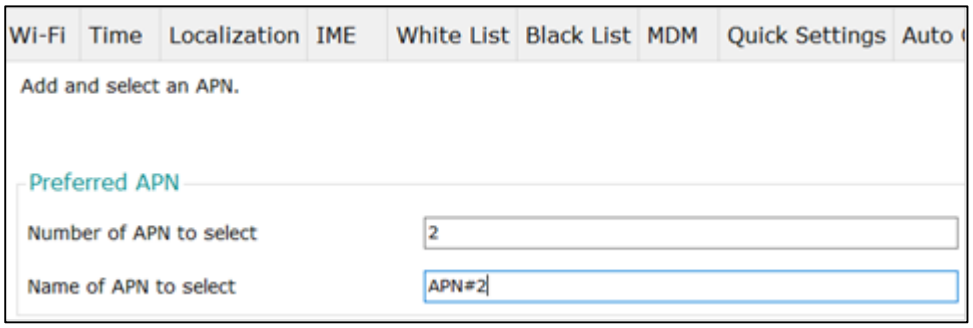
Setting	Setting values	Description
Command string 1-9	Command (“am start –n [package name]/[activity name or service name]”)	Set adb shell command to select activities / services to start up every time the system boots up. (E.g.) "am start –n com.ss.android.ugc.trill/com.ss.android.ugc.aweme.splash.SplashActivity"

4.2.10 APN (Access Point Name)

➢ Preferred APN

With “Preferred APN” in “APN”, an APN can be specified that is prioritized when more than one APN exist.

[Setting example]



[Setting details]

Setting	Setting values	Description
Number of APN to select	A specific number of the preferred APN.	Select a preferred APN out of the added APNs. *When more than one APNs, preferred APN is to

		be selected with a specific number of the added APN. (E.g.) 1,2,3
Name of APN to select	A specific name of the preferred APN.	Select a preferred APN out of the added APNs. *When more than one APNs, preferred APN is to be selected with a specific number of the added APN. (E.g.) APN#1, APN#2,APN#3

➢ APN

[Setting details]

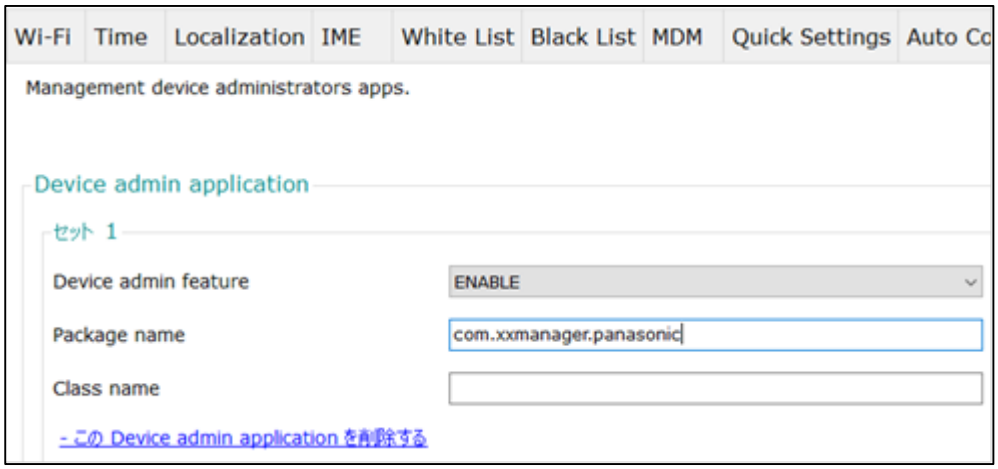
Setting	Setting values	Description
Name	Free description	Input the name of the APN to add.
APN	Address	Input the address of APN. (E.g.) spmode.ne.jp
MCC	Three digit number	Input an identifier, MCC (Mobile Country Code), for the region in the country. (E.g.) In case of NTT Docomo, it's 440.
MNC	Two digit number	Input an identifier, MNC (Mobile Network Code), for the carrier used with MCC. (E.g.) In case of NTT Docomo, it's 10.
Proxy	IP Address	Input IP address of the proxy.
Port	Number	Input the proxy port. (E.g.) 8080
Username	Free description	Input a username.
Password	Free description	Input the password for the user name.
Server address	IP address	Input IP address of the server.
MMSC	Address	Input an address for the MMSC (Mobile Messaging Services Center). (E.g.) http://mms-s
MMS proxy	Address	Input an address for the MMS proxy. (E.g.) eummms.example.uk
MMS port	Number	Input port number for the proxy. (E.g.) 8080
Authentication Type	NONE/PAP/CHAP/PAP /CHAP	Select the authentication type for the APN.
APN type	Free description	Input the APN communication type. (E.g.) mms, default
APN protocol	IPv4/IPv6/"IPv4/IPv6"	Select the APN IP protocol.
APN roaming protocol	IPv4/IPv6/"IPv4/IPv6"	Select the APN roaming IP protocol.
Bearer	LTE/HSPAP/HSPA/HS UPA/HSDPA/UMTS/E DGE/GPRS/eHRPD/EV DO_B/EVDO_A/EVDO _0/1xRTT/IS95B/IS95A	Select the bearer. For Android L: Specify one of the setting values. For Android M: Specify multiple setting values.
MVNO type	SPN/IMSI/GID	Select the MVNO type.
MVNO value	Free description	Input the MVNO Match data.

Auto_DNS	DISABLE/ENABLE	Select whether to enable Auto DNS.
DNS1	IP address	Input the DNS1 address.
DNS2	IP address	Input the DNS2 address.

4.2.11 Device Admin

With “Device Admin”, applications being given the Device Admin authorization can be specified.

[Setting example]



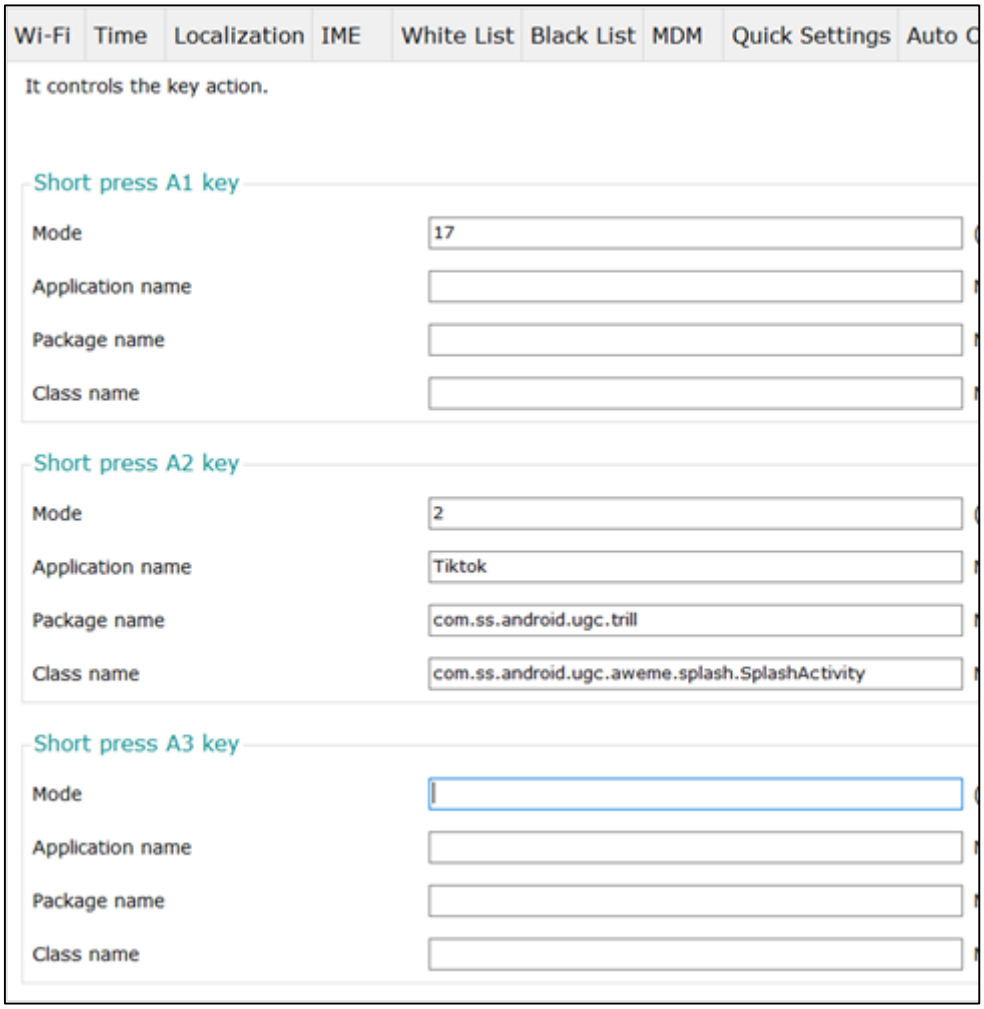
[Setting details]

Setting	Setting values	Description
Device admin feature	DISABLE/ENABLE	Enable/disable Device Admin mode for apps.
Package name	Free description	Input the package name of the app to enable Device Admin mode.
Class name	Free description	Input the class name of the app to enable Device Admin mode ONLY for the class.

4.2.12 User Buttons

With “User Buttons”, functions assignments to hardware buttons on handheld devices can be configured.

[Setting example]



[Setting details]

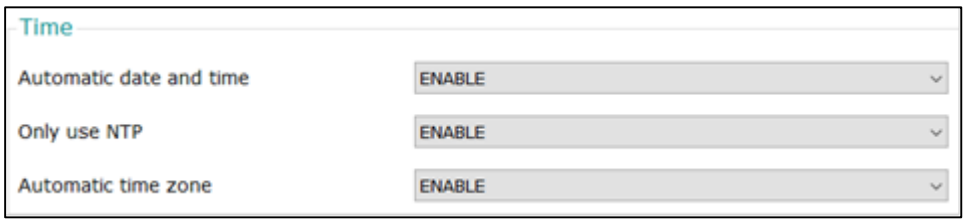
Setting	Setting values	Description
Mode	Number	Select the mode number from the User Button Mode list in “4.3 User Button Mode”.
Application name	Free Description	With mode of “Launch application”, Input the application name. (E.g.) Tiktok
Package name	Free Description	With mode of ”Launch application”, Input the package name of the application. (E.g.) com.ss.android.ugc.trill
Class name	Free Description	With mode of “Launch application”, Input the class name. (E.g.) com.ss.android.ugc.aweme.splash.SplashActivity

4.2.13 Other Settings

➢ Time

With “Time” in “Other Settings”, clock relevant settings can be configured.

[Setting example]



[Setting details]

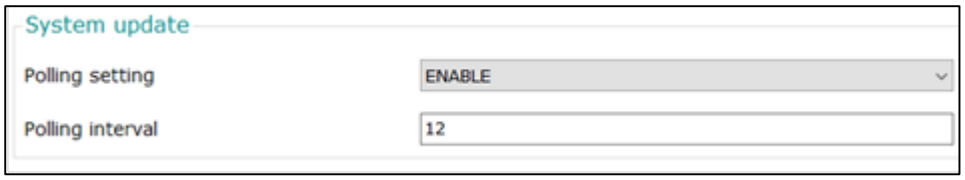
Setting	Setting values	Description
Automatic date and time	DISABLE/ENABLE	Select whether to enable automatic date and time settings.
Only use NTP	DISABLE/ENABLE	Select whether to use NITZ (Network Identity and Time Zone). *NITZ is the corresponding system for mobile phone to NTP for PC.
Automatic timezone	DISABLE/ENABLE	Select whether to use the automatic time zone feature.

➢ System Update

With “System Update” in “Other Settings”, settings related to polling for system update can be configured.

*This setting is applied after the device’s initial communication with FOTA server.

[Setting example]



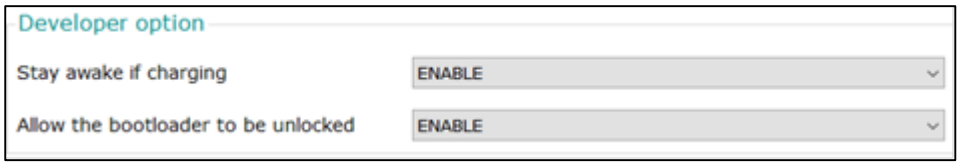
[Setting details]

Setting	Setting values	Description
Polling setting	DISABLE/ENABLE	Select whether to enable polling for software update.
Polling interval	Number (1 to 23)	Set the software update polling interval (1 to 23 hours).

➢ Developer Option

With “Developer Option” in “Other Settings”, settings in Developer Option in the Setting app can be configured.

[Setting example]



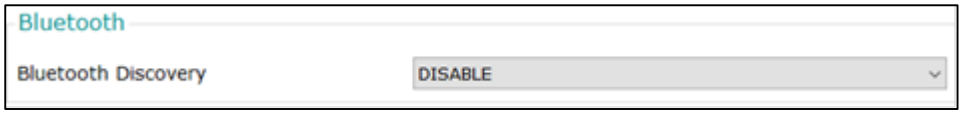
[Setting details]

Setting	Setting values	Description
Stay awake if charging	DISABLE/ENABLE	Whether the device stays awake while being charged.
Allow the bootloader to be unlocked.	DISABLE/ENABLE	Select whether to allow the bootloader to be unlocked.

➢ Bluetooth

With “Bluetooth” in “Other Settings”, in can be configured whether to enable Bluetooth Discovery.

[Setting example]



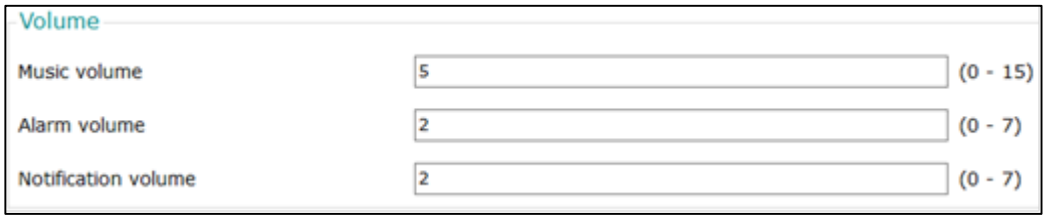
[Setting details]

Setting	Setting values	Description
Bluetooth Discovery	DISABLE/ENABLE	Select whether to enable Bluetooth discovery.

➢ Volume

With “Volume” in “Other Settings”, volume settings can be configured.

[Setting example]



[Setting details]

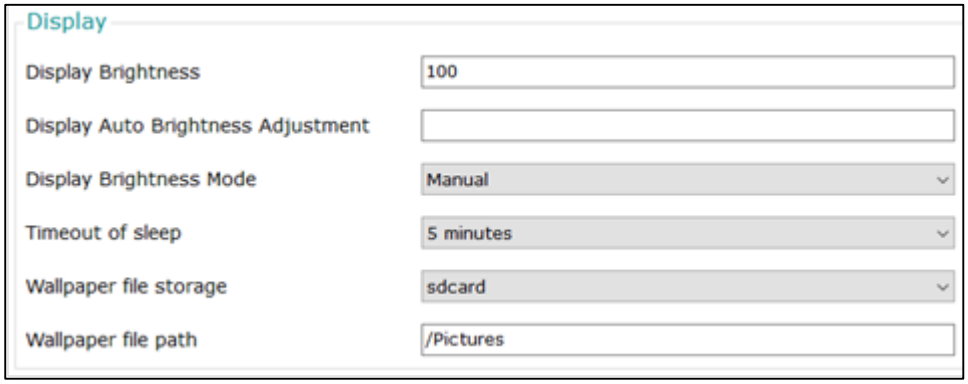
Setting	Setting values	Description
Music Volume	Number (0-15)	Set sound volume for the system

Alarm Volume	Number (0-7)	Set sound volume for the alarm
Notification Volume	Number (0-7)	Set sound volume for the notification volume

➢ Display

With “Display” in “Other Settings”, settings related to screen of handheld devices can be configured.

[Setting example]



[Setting details]

Setting	Setting values	Description
Display Brightness	Number (20-255)	Set the display brightness (20 to 255). 20: 0% brightness 255: 100% brightness
Display Auto Brightness Adjustment	Number (0-100)	Set the screen’s automatic brightness adjustment value (0 to 100).★
Display Brightness Mode	Manual/Auto	Auto: Turn on Adaptive Brightness Manual: Turn off Adaptive Brightness
Timeout of sleep	15 seconds/30 seconds/ 1 minute/2 minutes/ 5 minutes/10 minutes/ 30 minutes	Select the time until the device enters sleep mode.
Wallpaper file storage	sdcard/sdcard1/usb1/ usb_cradle1/usb_cradle2/ pconfig1/pconfig2 /pconfig3	Select a storage where a picture to be a wallpaper is stored (E.g) If the picture that you would like to be a wallpaper is in the path sdcard/Pictures/Screenshots/example.png, then select “sdcard”.
Wallpaper file path	Path	Input a path in which the picture to be wallpaper is stored (E.g) If the picture that you would like to be a wallpaper is in the path sdcard/Pictures/Screenshots/example.png, then input “Pictures/Screenshots/example.png”.

➢ Application Install

With “Application Install” in “Other Settings”, application installation with APK file stored in the handheld device can be performed.

[Setting example]

[Setting details]

Setting	Setting values	Description
APK file storage	sdcard/sdcard1/usb1/ usb_cradle1/usb_cradle2/ pconfig1/pconfig2 /pconfig3/enterprise_config	Select a storage where an APK file to be installed is stored (E.g) If an APK file that you would like to install is in the path sdcard/Android/example.apk, then select “sdcard”.
APK file path	Path	Input a path where an APK file to be installed is stored (E.g) If an APK file that you would like to install is in the path sdcard/Android/example.apk, then input “Android/example.apk”.

➢ Application Uninstall

With “Application Uninstall” in “Other Settings”, application uninstallation can be performed.

[Setting example]

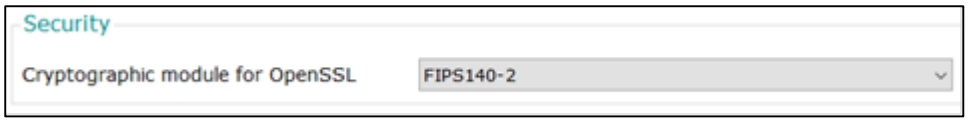
[Setting details]

Setting	Setting values	Description
Application uninstall	App package name	Input a package name of an application to be uninstalled. (E.g) If TikTok is to be uninstalled, input the package name, “com.ss.android.ugc.trill” #Doesn’t work#★

➢ Security

With “Security” in “Other Settings”, security related settings can be configured.

[Setting example]



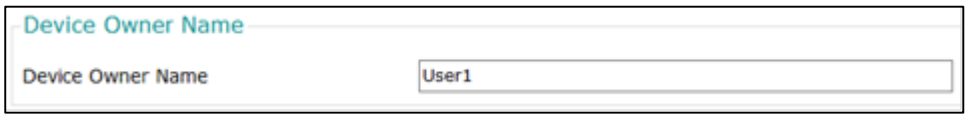
[Setting details]

Setting	Setting values	Description
Cryptographic module for OpenSSL	NORMAL/FIPS140-2	Select a type of cryptographic module.
Make a password on lock screen visible	Disable/Enable	Select whether to make a password visible one letter by one letter on lock screen visible.

➢ Device Owner Name

With “Device Owner Name” in “Other Settings”, a device owner user can be specified.

[Setting example]



[Setting details]

Setting	Setting values	Description
Device Owner Name	Free Description	Set a name of device owner. The Profile info in “Users” in the Setting app is set.

➢ Screen Rotation

With “Screen Rotation” in “Other Settings”, it can be configured whether to enable screen rotation.

[Setting example]

[Setting details]

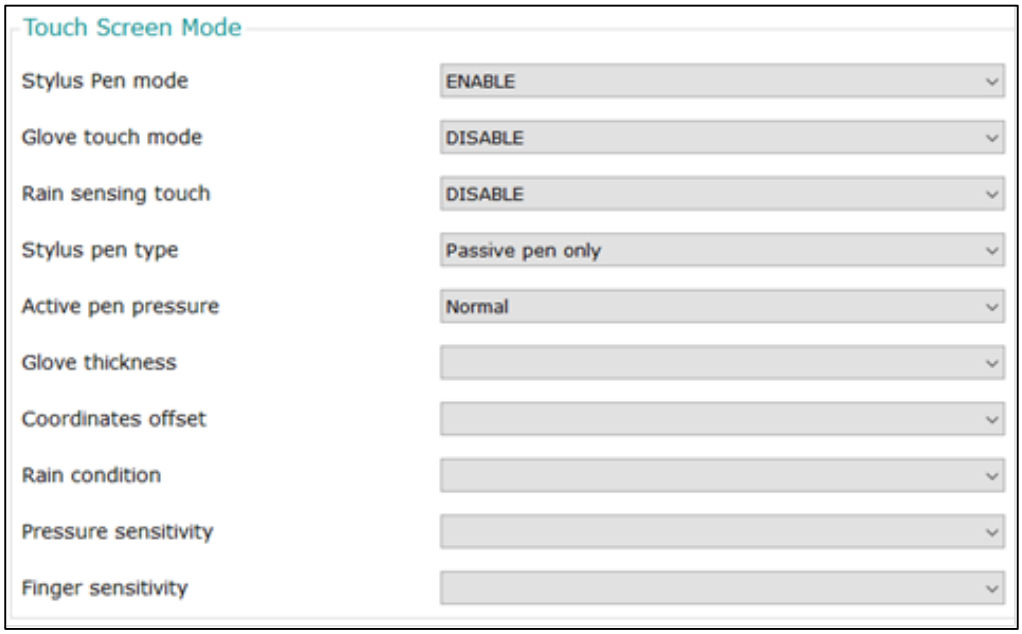
Setting	Setting values	Description
Screen Rotation	unlock/lock	Select whether to enable the screen rotation feature. Lock: Screen doesn’t rotate

		Unlock: Screen rotates

➢ Touch Screen Mode

With “Touch Screen Mode” in “Other Settings”, touch screen relevant settings can be configured.

[Setting example]



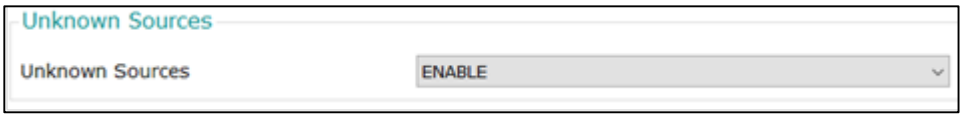
[Setting details]

Setting	Setting values	Description
Stylus Pen mode	DISABLE/ENABLE	Select whether to enable stylus pen mode.
Glove touch mode	DISABLE/ENABLE	Select whether to enable glove touch mode.
Rain sensing touch	DISABLE/ENABLE	Select whether to enable rain sensing touch mode.
Stylus pen type	active pen only/passive pen only/active_and passive pen	Select the stylus pen type.
Active pen pressure	normal/light	Select the active pen pressure.
Glove thickness	thick/medium/thin	Select the glove thickness when using glove touch mode.
Coordinates offset	none/auto/low/medium/high	Select the coordinates offset when using glove touch mode.
Rain condition	light/heavy	Select the rain condition when using rain sensing touch mode.
Pressure sensitivity	high/medium/low	Select the pressure sensitivity when using rain sensing touch mode.
Finger sensitivity	High/Medium/Low	Select the finger sensitivity.

➢ Unknown Sources

With "Unknown Sources" in "Other Settings", it can be configured whether to allow sideloading of applications.

[Setting example]



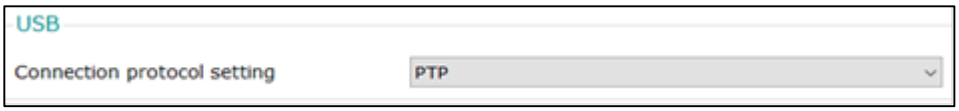
[Setting details]

Setting	Setting values	Description
Unknown Sources	DISABLE/ENABLE	Select whether to allow unknown sources. *Enable: Allow to install unknown applications from the other sources than Google Play. *Disable: Prohibit applications from being installed from the other sources than Google Play

➢ USB

With "USB" in "Other Settings", USB connection protocol can be configured.

[Setting example]



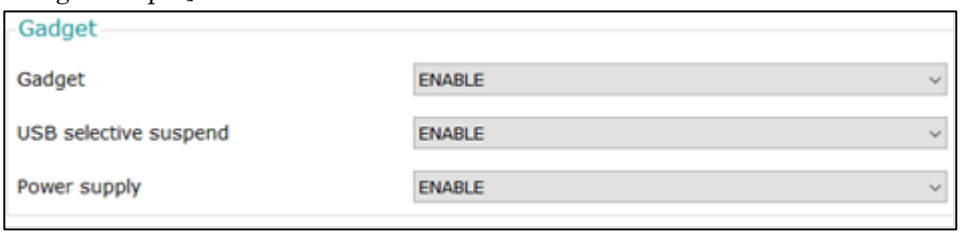
[Setting details]

Setting	Setting values	Description
Connection protocol setting	Disable (none)/charging (charging)/mtp (file transfer)/ptp (photo transfer)	Select the protocol for USB connection.

➢ Gadget

With "Gadget" in "Other Settings", settings related to the gadget port can be configured.

[Setting example]



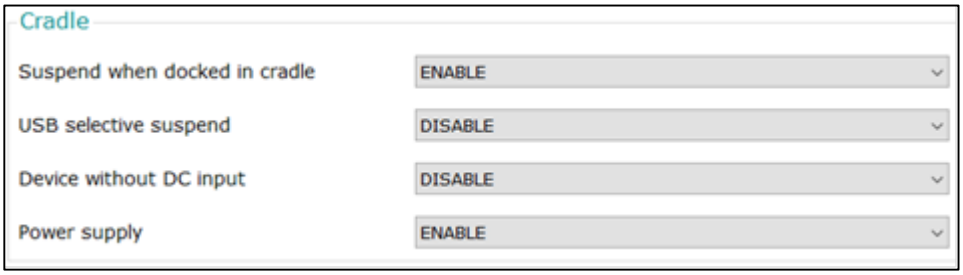
[Setting details]

Setting	Setting values	Description
Gadget	DISABLE/ENABLE	Select whether to enable gadget port.
USB selective suspend	DISABLE/ENABLE	Select whether to enable the USB selective suspend feature when a gadget device is connected.
Power supply	DISABLE/ENABLE	Select whether to supply power to a gadget device when the system is sleeping.

➢ Cradle

With "Cradle" in "Other Settings", settings related to power management when handheld device is put on a cradle can be configured.

[Setting example]



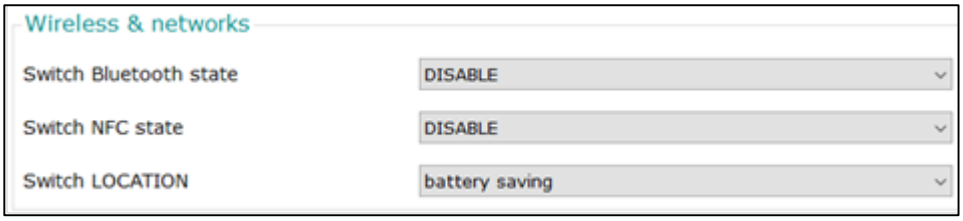
[Setting details]

Setting	Setting values	Description
Suspend when docked in cradle	DISABLE/ENABLE	Select whether to enable the device suspend feature when the device is docked in a cradle.
USB selective suspend	DISABLE/ENABLE	Select whether to enable the USB selective suspend feature when the device is docked in a cradle.
Device without DC input	DISABLE/ENABLE	Select whether to enable cradle settings when the device is without DC input.
Power supply	DISABLE/ENABLE	Select whether to supply power to a device without DC input when the system is sleeping.

➢ Wireless & Networks

With "Wireless & Networks" in "Other Settings", Bluetooth, NFC and location states can be configured. This is not in use for FZ-T1, L1 and N1mk2.

[Setting example]



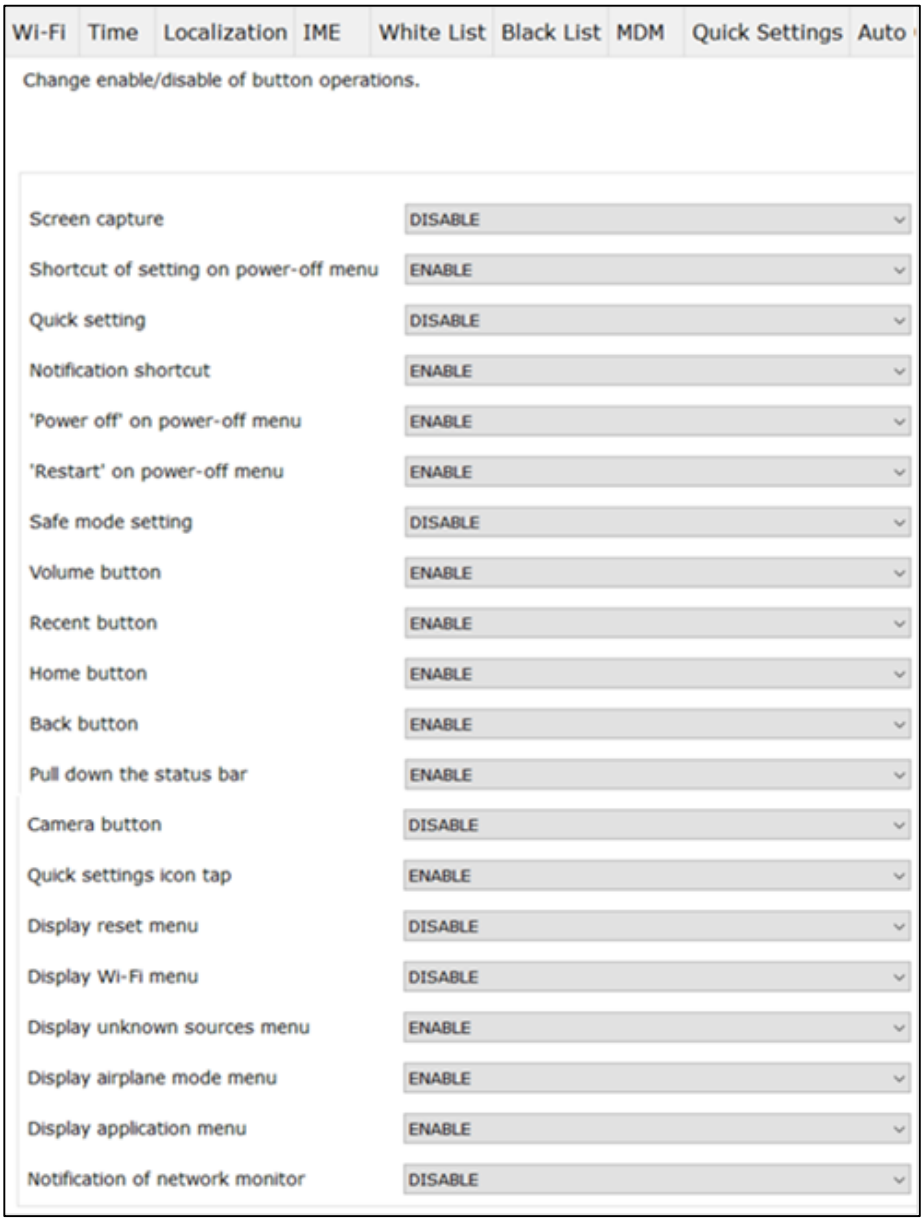
[Setting details]

Setting	Setting values	Description
Switch Bluetooth state	Disable/Enable	Select whether to enable Bluetooth.
Switch NFC state	Disable/Enable	Select whether to enable NFC
Switch LOCATION	mode off/sensors only/ battery saving/high accuracy	Select location mode.

4.2.14 UI Setting

With “UI Setting”, settings related to user interfaces such as hardware buttons, touchscreen operations can be configured.

[Setting example]



[Setting details]

Setting	Setting values	Description
Screen capture	DISABLE/ENABLE	Select whether to enable screen capture.
Shortcut of setting on power-off menu	DISABLE/ENABLE	Select whether to enable the touch operation mode shortcut from the power-off menu to the Setting app.
Quick setting	DISABLE/ENABLE	Select whether to enable quick settings.
Notification shortcut	DISABLE/ENABLE	Select whether to enable shortcut operation of the notification panel.
"Power off" on Power-off menu	DISABLE/ENABLE	Select whether to show "power off button" in the power off menu.
"Restart" on Power-off menu	DISABLE/ENABLE	Select whether to show "restart" in the power off menu.
Volume button	DISABLE/ENABLE	Select whether to enable the volume.
Recent button	DISABLE/ENABLE	Select whether to enable the return button.
Home button	DISABLE/ENABLE	Select whether to enable the home button.
Back button	DISABLE/ENABLE	Select whether to enable the back button.
Pull down the status bar	DISABLE/ENABLE	Select whether to enable pull down operation of the status bar.
Camera button	DISABLE/ENABLE	Select whether to enable the camera button.
Quick settings icon tap	DISABLE/ENABLE	Select whether to enable icons in quick settings.
Display reset menu	DISABLE/ENABLE	Select whether to enable the factory reset menu in the Settings app.
Display Wi-Fi menu	DISABLE/ENABLE	Select whether to enable the Wifi On/Off menu in the Settings app.
Display unknown sources menu	DISABLE/ENABLE	Select whether to enable the Unknown Sources On/Off menu in the Settings app.
Display airplane mode menu	DISABLE/ENABLE	Select whether to enable the Airplane mode On/Off menu in the Settings app.
Display application menu	DISABLE/ENABLE	Select whether to enable the Application menu in the Settings app.
Notification of network monitor	DISABLE/ENABLE	Select whether to show the notification of network monitor when the device is connected through VPN.

4.2.15 Doze Mode

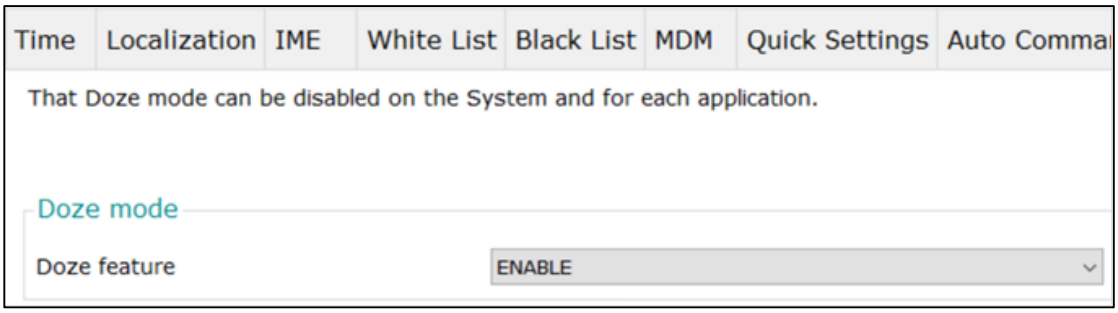
With "Doze Mode", it can be configured whether to enable the Doze mode which is to stop network access of applications and Wifi channel scan while the device is in the sleep mode.

*This setting becomes valid after rebooting the device.

➢ Doze mode

It can configure whether to enable the Doze mode.

[Setting example]



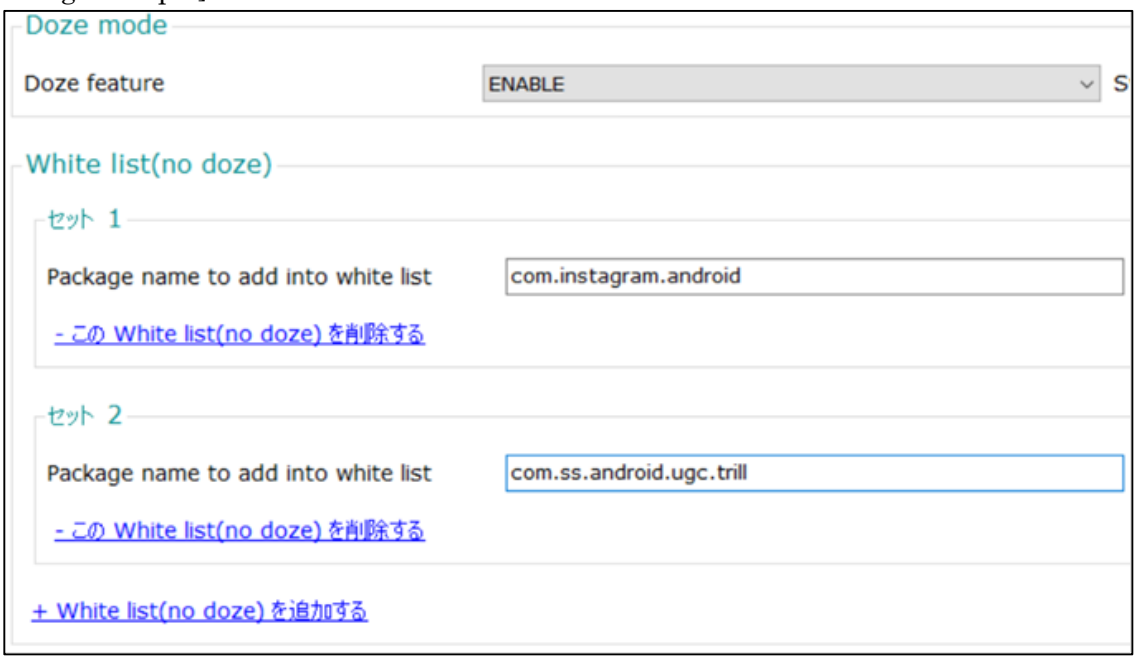
[Setting details]

Setting	Setting values	Description
Doze feature	DISABLE/ENABLE	Select whether to enable Doze Mode.

➢ White list

With “Whitelist” in “Doze mode”, when “Doze feature” is enabled, it can specify application(s) in the white list that don’t fall in the Doze mode.

[Setting example]



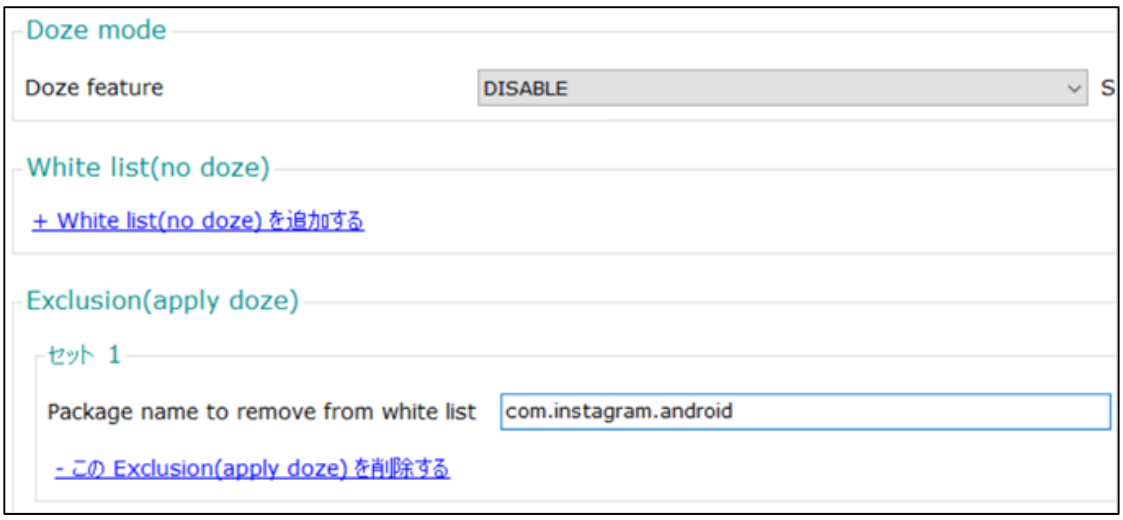
[Setting details]

Setting	Setting values	Description
Package name to add into white list	Application Package Name	Input application package name(s) to add in the white list to rule the app(s) out of the Dose mode. (E.g.) com.instagram.android (Instagram) com.ss.android.ugc.trill (TikTok)

➢ Exclusion

With “Exclusion” in “Doze mode”, when “Doze feature” is disabled, it can specify application(s) that are enabled the Doze mode as exception(s).

[Setting example]



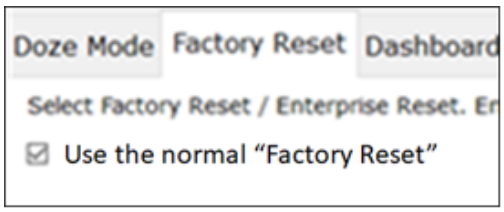
[Setting details]

Setting	Setting values	Description
Package name to remove from white list	Application Package Name	Input application package name(s) to apply the Doze mode as exception(s) when "Doze mode" is disabled. (E.g.) com.instagram.android (Instagram) com.ss.android.ugc.trill (TikTok)

4.2.16 Factory Reset

With "Factory Reset", it can configure to get the device's reset mode back to Factory Reset from Enterprise Reset.

[Setting example]



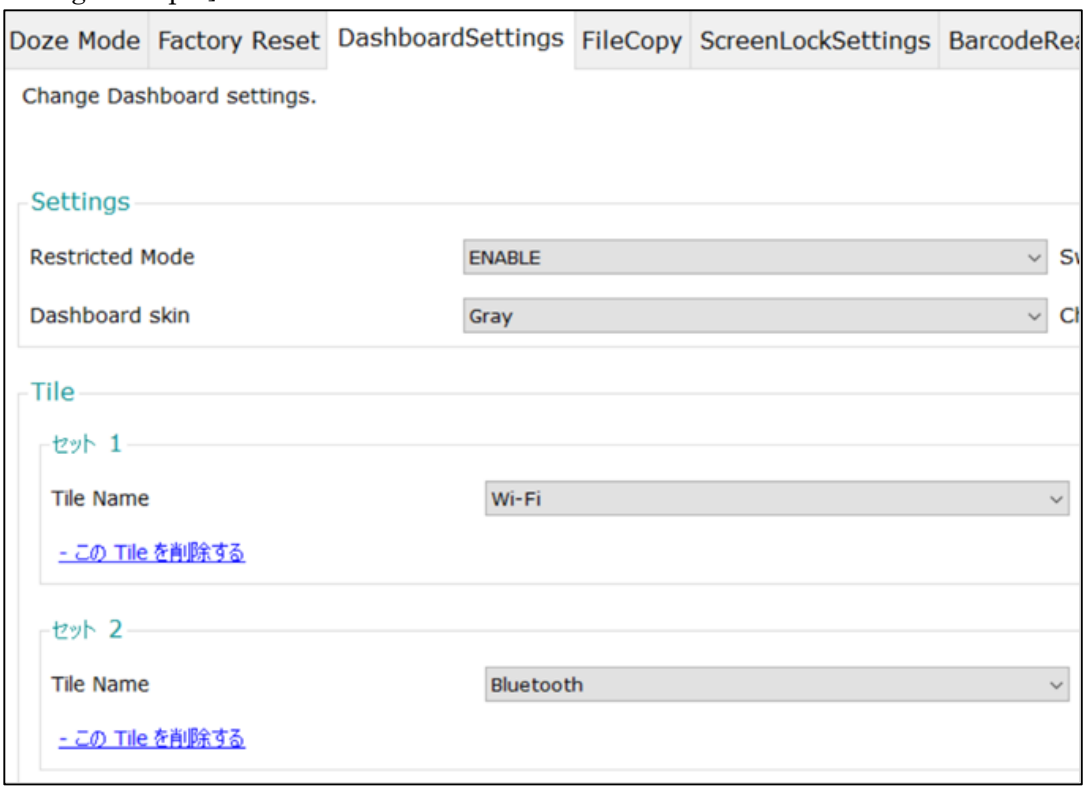
[Setting details]

Setting	Setting values	Description
Use the normal "Factory Reset"	Tick/Untick	Whether Factory Reset or Enterprise Reset is conducted when "Erase all data" is performed. *Tick: Factory Reset to remove all data, settings and applications and go back to delivery state. *Untick: Enterprise Reset to remove all other data than staging profile.

4.2.17 DashboardSettings

With “Dashboard Settings”, it can configure whether to enable dashboard menu in the Dashboard application.

[Setting example]



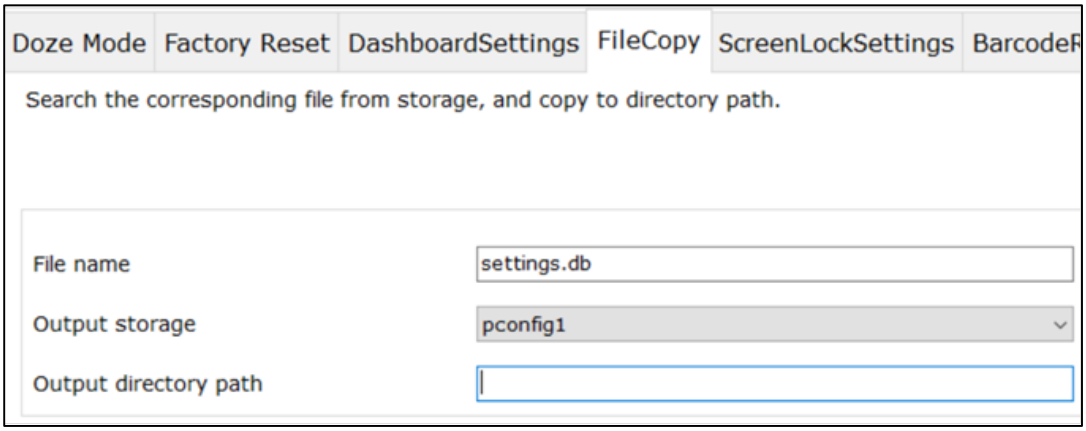
[Setting details]

Setting	Setting values	Description
Restricted Mode	DISABLE/ENABLE	Select whether to enable the dashboard menu on the Dashboard app. Enable: No “menu” button Disable:the “menu” button is on the app.
Dashboard skin	white/gray	Select the dashboard skin color.
Tile Name	Airplane mode/ Wi-Fi/WWAN/Bluetooth/Location/ Auto-rotate/Mic/ Custom silent	Select a tile name to add in the dashboard app.
Package name and Class name	[Application Package Name],[Class Name]	Input the package and class names to add the application for short-cut from the dashboard app. (E.g.) com.panasonic.mobile.barcodereader,com.panasonic.mobile.barcodereader.BarcoderReaderSetting (for BarcodeReader app)

4.2.18 FileCopy

With “File Copy”, a file can be copied from external SD card to the device’s internal storage.

[Setting example]



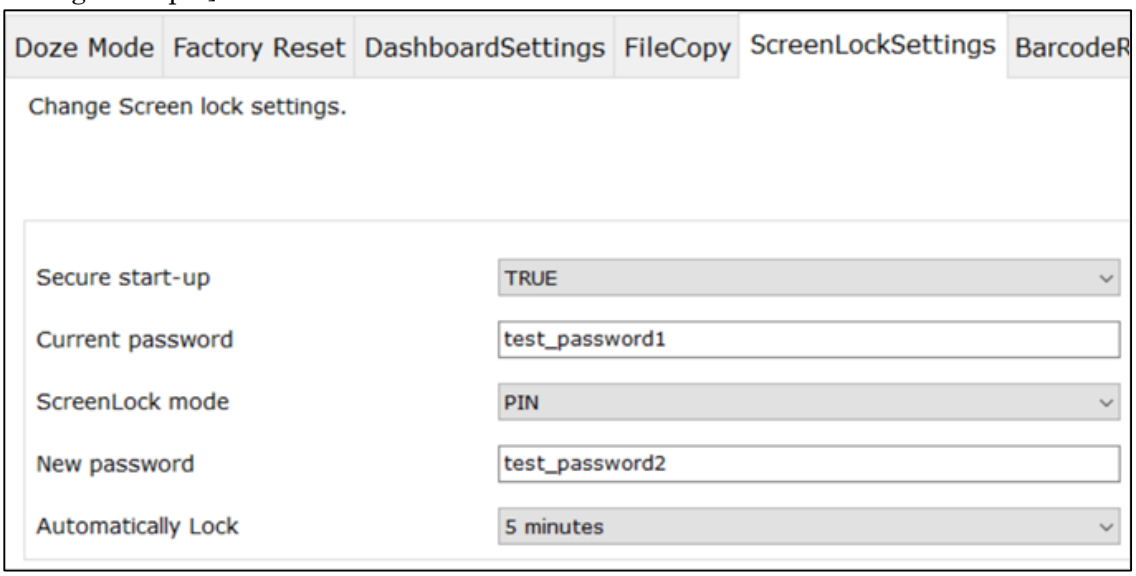
[Setting details]

Setting	Setting values	Description
File name	Free description	Input the file name in an external SD card to copy into the device’s internal storage. Based on the input name, it searches in all directories in the external SD card.
Output storage	sdcard/pconfig1/pconfig2 pconfig3/enterprise_config	Select a destination directory of the device’s internal storage to copy a file from an external SD card.
Output directory path	Free description	Specify a destination path of the device’s internal storage to copy a file from an external SD card. With no description, the specified directory in “Output storage” becomes its destination.

4.2.19 ScreenLockSettings

With “ScreenLockSettings”, screen lock relevant settings such as a password for screen lock can be configured.

[Setting example]



[Setting details]

Setting	Setting values	Description
Secure start-up	false/true	Select whether to use screen lock on startup.
Current password	password	Set the current password.
ScreenLock mode	None/Swipe/PIN/PASS WORD	Select the lock mode.
New password	password	Set a new PIN or Password. * This is displayed when [PIN] or [PASSWORD] is selected in [ScreenLock mode]. - PIN: 4 to 16 digits of numbers - Password: 4 to 16 digits of letters
Automatically Lock	Immediately/5 seconds/ 15 seconds/30 seconds/ 1 minute/2 minutes/ 5 minutes/10 minutes/ 30 minutes	Select the time to go to the lock mode.

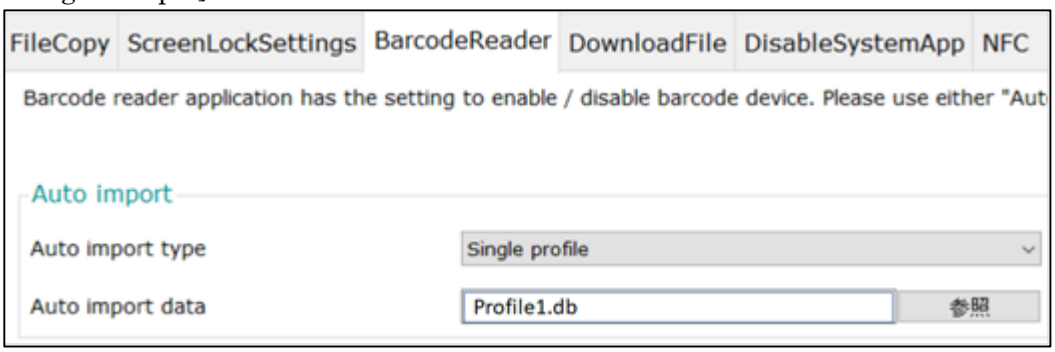
4.2.20 BarcodeReader

With “BarcodeReader”, settings related to barcode reader can be configured.

➢ Auto import

With “Auto import” in “Barcode Reader”, setting profile data can be imported in the form of a file.

[Setting example]



[Setting details]

Setting	Setting values	Description
Auto import type	Single profile/all profile	To select whether to import all profiles or a single profile.
Auto import data	File Selection	To select a file of profile data to import.

➢ Individual settings

With “Individual settings” in ”Barcode Reader”, barcode reader profile can be created.

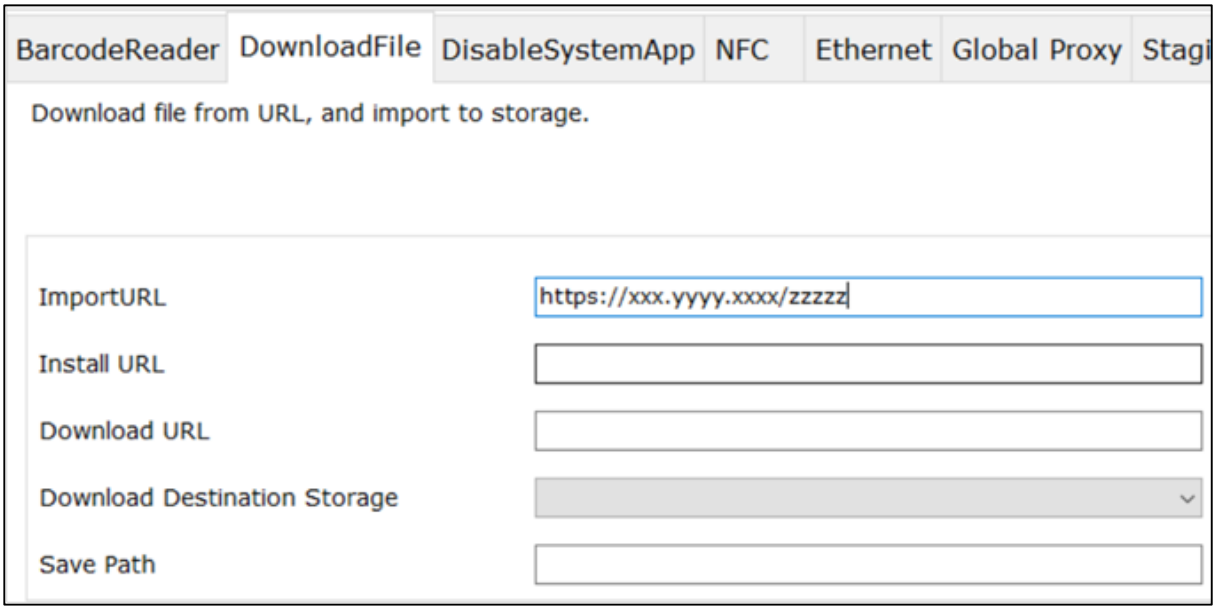
Setting	Setting values	Description
Barcode profile	Free Description	Input the profile name that will be changed.
keyboard wedge	ON/OFF	Select whether to enable keyboard wedge data.
keyboard wedge transmission mode	Text/Keycode	Select test or keycode for input by keyboard wedge.
Intent output	ON/OFF	Select whether to enable the intent output feature to deliver the barcode data through Intent.
Intent action name	Free Description	Input the intent action name.
Intent category name	Free Description	Input the intent category name.
Intent delivery type	Start Activity/Start Service/Send broadcast	Select the way of issuing the Intent
Use foreground package name	false/true	Automatically show/hide the name of the application displayed at the forefront of the screen.
Intent package name	Free Description	Input the intent package name.

4.2.21 DownloadFile

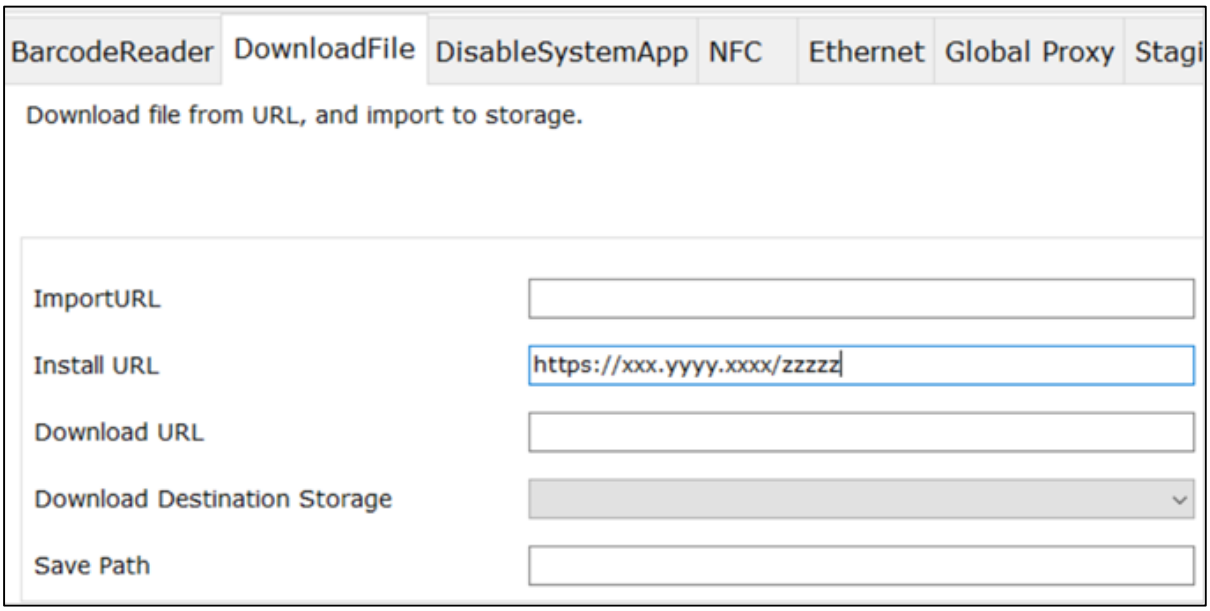
With “DownloadFile”, file import, install and download can be performed such as PaRC configuration file (settings.db), APK file.

[Setting examples]

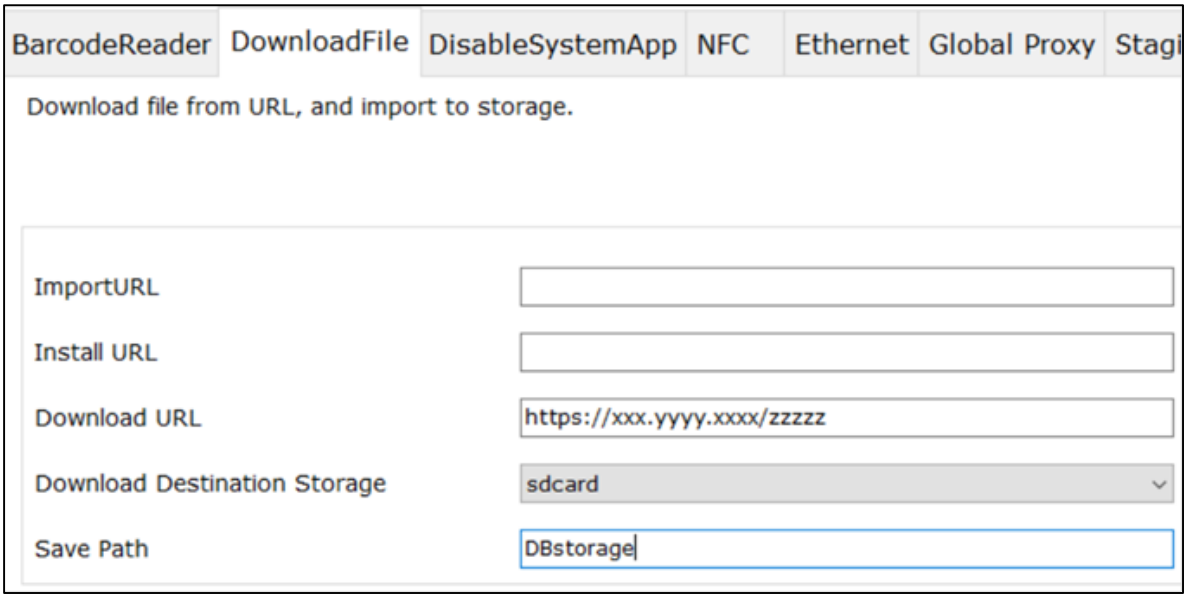
➢ Import settings.db



➢ Install APK



➢ Download settings.db



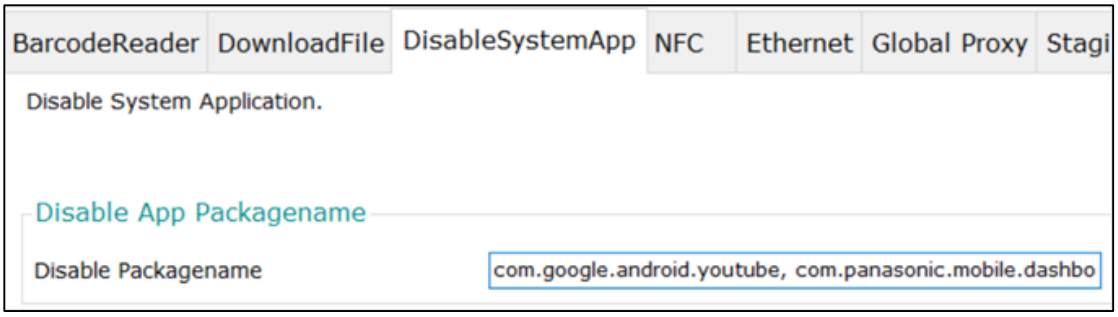
[Setting details]

Setting	Setting values	Description
Import URL	URL	Set an URL for downloading and automatically importing settings.db file to the directory for KittingTool.
Install URL	URL	Set an URL for downloading and automatically installing APK file.
Download URL	URL	Set an URL for downloading settings.db file to a specified directory in “Download Destination Storage” and “Save Path”.
Download Destination Storage	sdcard/pconfig1/pconfig2 pconfig3/enterprise_config	Select a storage to save a downloaded settings.db file in.
Save Path	[Path]/[File Name]	Set a path and file name for the Downloading to save a downloaded settings.db file.

4.2.22 DisableSystemApp

With “DisableSystemApp”, system application(s) that are preinstalled in the device can be disabled.

[Setting example]



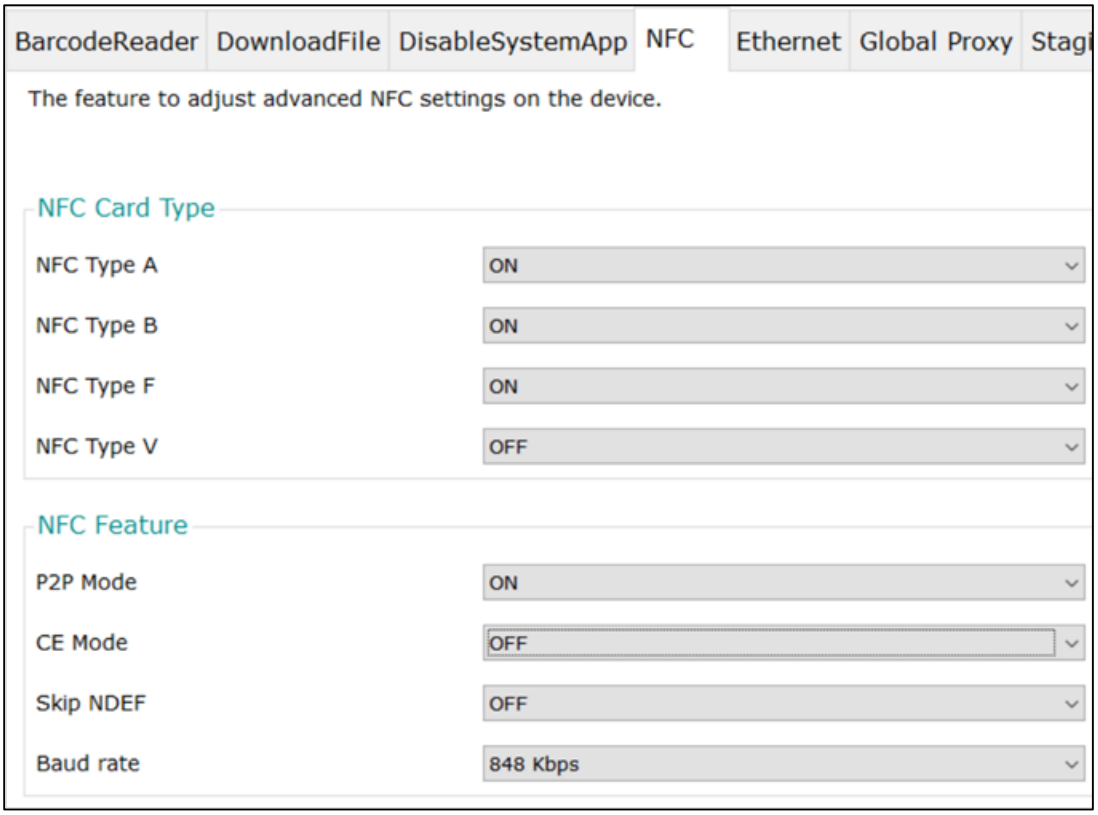
[Setting details]

Setting	Setting values	Description
Disable Packagename	Package name	Set a package name to disable system applications. *When set more than one package names, comma “,” is needed for separation. *In order to have disabled systems apps, Factory Reset is needed. (E.g) com.google.android.youtube (Youtube) com.panasonic.mobile.dashboard (Dashboard app)

4.2.23 NFC

With “NFC”, NFC relevant settings can be configured.

[Setting example]



[Setting details]

Setting	Setting values	Description
NFC Type A	ON/OFF	Select whether to use type A.
NFC Type B	ON/OFF	Select whether to use type B.
NFC Type F	ON/OFF	Select whether to use type F.
NFC Type V	ON/OFF	Select whether to use type V.
P2P Mode	ON/OFF	Select whether to enable P2P mode.
CE Mode	ON/OFF	Select whether to enable CE mode.
Skip NDEF	ON/OFF	Select whether to skip NDEF.
Baud rate	106 Kbps/212 Kbps/424 Kbps	Select the baud rate.

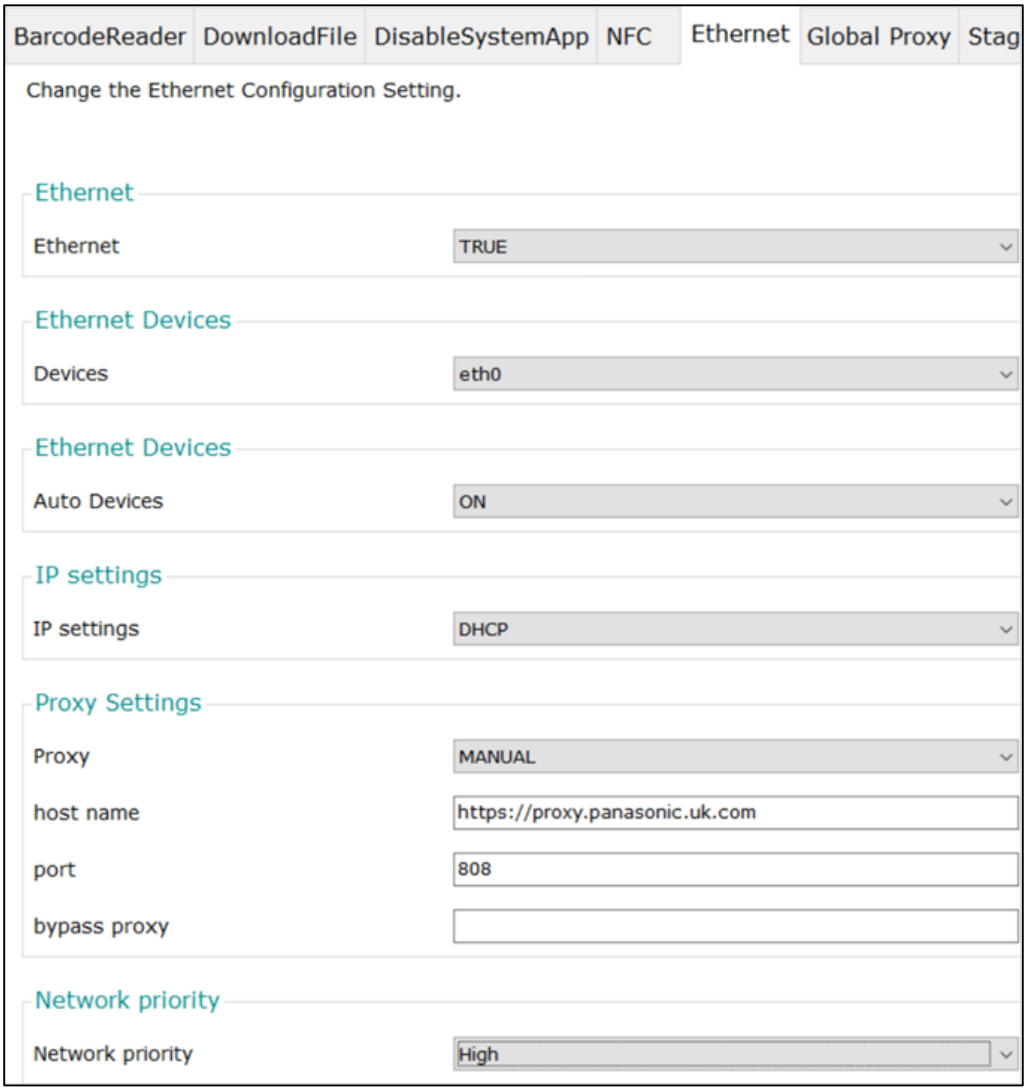
*All settings for Type A,B,F and V have to be selected as “ON” or “OFF” and at least one setting has to be “ON”

*The settings of “P2P mode”, “CE Mode”, “Skip NDEF” and “Baud rate” are optional.

4.2.24 Ethernet

With “Ethernet”, Ethernet relevant settings can be configured.

[Setting example]



[Setting details]

➢ Ethernet

Setting	Setting values	Description
Ethernet	false/true	Select whether to enable Ethernet.

➢ Ethernet Devices

Setting	Setting values	Description
Devices	eth0/eth1/eth2 usb0/usb1/usb2	Select the Ethernet device to be used.

➢ Ethernet Devices

Setting	Setting values	Description
Auto Devices	eth0/eth1/eth2	Select the Ethernet device to be used

	usb0/usb1/usb2	automatically.

➢ IP settings

Setting	Setting values	Description
IP settings	DHCP/STATIC	Select type of IP setting
IP address	IP address	Set IP address for the device *In case of "STATIC IP setting"
Gateway	IP address	Set IP address for the gateway *In case of "STATIC IP setting"
Network prefix length	Number (0 to 255)	Set length of network prefix *In case of "STATIC IP setting"
Dns1	IP address	Set IP address for the DNS server 1 *In case of "STATIC IP setting"
Dns2	IP address	Set IP address for the DNS server 2 *In case of "STATIC IP setting"

➢ Proxy Settings

Setting	Setting values	Description
Proxy	NONE/MANUAL	Select whether to have the proxy server.
Host name	Free Description	When "MANUAL" is selected in "Proxy", Set the hostname of the proxy.
Port	Port Number	When "MANUAL" is selected in "Proxy", Set the proxy port.
Bypass proxy	Free	When "MANUAL" is selected in "Proxy", Set bypass proxy when not using a proxy server.

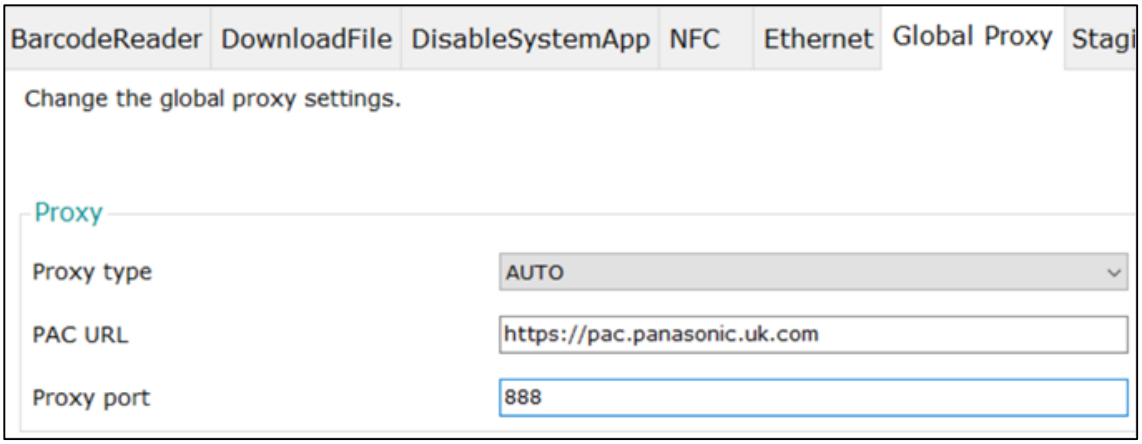
➢ Network Priority

Setting	Setting values	Description
Network Priority	Low/High	Select the network priority. *High: high priority for Ethernet and low priority for Wifi Low: high priority for Wifi and low priority for Ethernet

4.2.25 Global Proxy

With "Global Proxy", settings related to global proxy can be configured.

[Setting example]



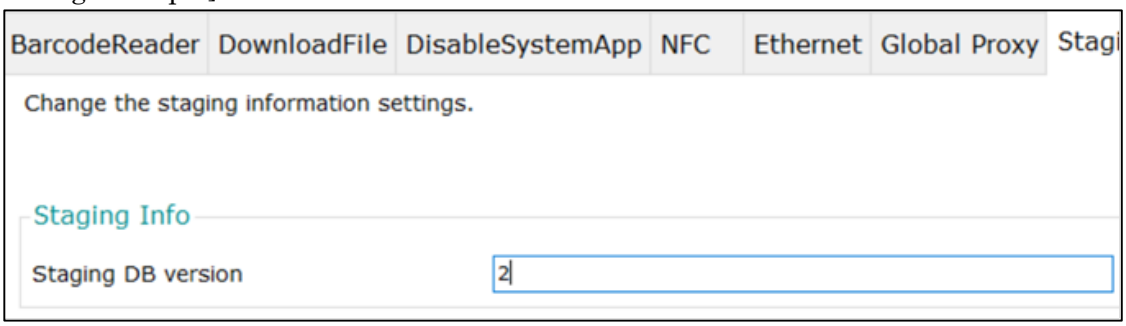
[Setting details]

Setting	Setting values	Description
Proxy type	None/Manual/Auto	Select the global proxy type.
Proxy hostname	Free Description	When “MANUAL” is selected in “Proxy type”, Set the hostname of the proxy.
Proxy port	Port Number	When “MANUAL” is selected in “Proxy type”, Set the proxy port.
Proxy exclusion	Free Description	When “MANUAL” is selected in “Proxy type”, Set the excluded hosts for the proxy. *If there are more than one hosts, then please use commas as a separation. (E.g.) Example.com, mycomp.test.com
Proxy port	Port number	When “Auto” is selected in “Proxy type”, Set the proxy port number.
PAC URL	URL	When “Auto” is selected in “Proxy type”, Set URL for PAC (Proxy Auto Config) file that specifies proxy settings.

4.2.26 Staging Info

With “Staging Info”, settings can be switched by selecting a version of staging DB file.

[Setting example]



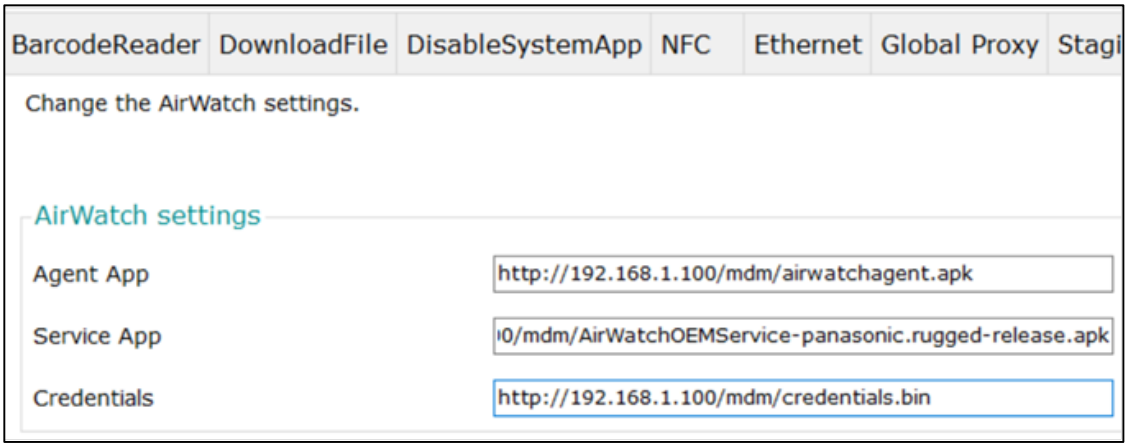
[Setting details]

Setting	Setting values	Description
Staging DB version	Number	Set the version of settings.db

4.2.27 AirWatch

With “AirWatch”, it can provision Airwatch.

[Setting example]



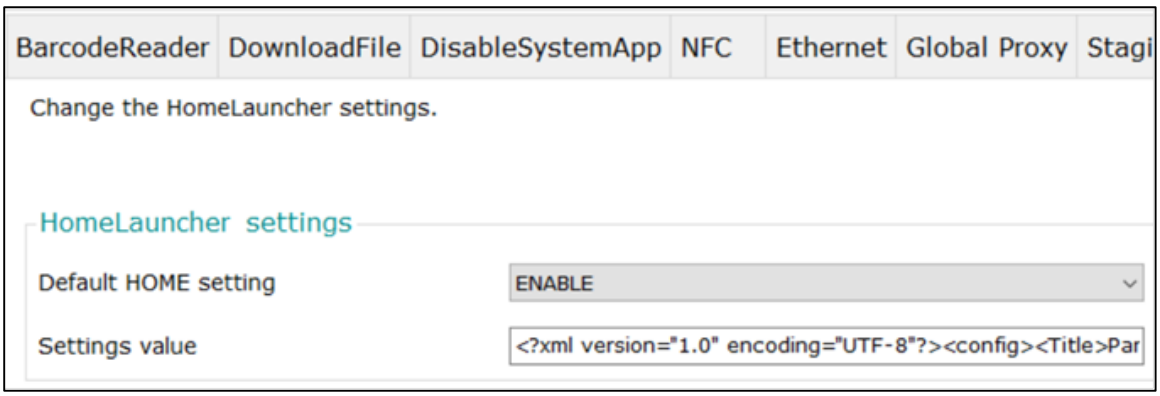
[Setting details]

Setting	Setting values	Description
Agent App	Path (URL or Directory)	Set path for AirWatch Agent App (E.g) If it is on a file server, http://192.168.1.100/・・・・/airwatchagent.apk If it is in the internal storage, airwatchagent.apk
Service App	Path (URL or Directory)	Set path for AirWatch Service App (E.g) If it is on a file server, http://192.168.1.100/・・・・ /AirWatchOEMService-panasonic.rugged-release-3.1.0.9-2_aligned.apk If it is in the internal storage, AirWatchOEMService-panasonic.rugged-release-3.1.0.9-2_aligned.apk
Credentials	Path (URL or Directory)	Set path for Credentials for AirWatch (E.g) If it is on a file server, http://192.168.1.100/・・・・/credentials.bin If it is in the internal storage, credentials.bin

4.2.28 HomeLauncher

With “HomeLauncher”, It can be configured whether to make Panasonic Enterprise Launcher a home application and Panasonic Enterprise Launcher’s settings.

[Setting example]



*Example of "Setting value";


```
<?xml version="1.0" encoding="UTF-8"?><config><Title>Panasonic Enterprise
Launcher</Title><Kiosk><Enable>false</Enable></Kiosk><Applications/><Password/>
<DisableFunctions><HomeButton>false</HomeButton><CameraButton>
false</CameraButton><PowerButton>false</PowerButton><UsbDebugging>
false</UsbDebugging><BackButton>false</BackButton><VolumeButton>
false</VolumeButton><StatusBar>false</StatusBar><RecentButton>
false</RecentButton></DisableFunctions><AutoLaunch><Launch6>not_set</Launch6>
<Launch5>not_set</Launch5><Launch4>not_set</Launch4><Launch3>not_set</Launch3>
<Launch9>not_set</Launch9><Launch8>not_set</Launch8><Launch7>not_set</Launch7>
<Launch10>not_set</Launch10><Launch2>not_set</Launch2><Launch1>
not_set</Launch1></AutoLaunch><DisableApplications/><Shortcuts><Enable>
false</Enable></Shortcuts><HideConfigFile>false</HideConfigFile>
<AdminTimeout>-1</AdminTimeout></config>
```


[Setting details]

Setting	Setting values	Description
Default Home setting	Enable/Disable	Select whether to enable Panasonic Enterprise Launcher *Enable: Panasonic Enterprise Launcher is a default home app. Disable: Launcher3 is a default home app.
Setting value	XML	Set contents of Panasonic Enterprise Launcher configuration file.

4.3 User Button Mode

4.3.1 FZ-N1mk1

Mode	Operation
0	Do nothing
1	Launch Dashboard application
2	Launch application that user specified
3	Security mode
4	Save Screenshot
5	Not Supported
6	Not Supported
7	Action same as Back key
8	Action same as Home key
9	Action same as Menu key
10	Not Supported
11	Not Supported
12	Launch Program1
13	Launch Program2
14	Launch Program3
15	Switch of Silent mode
16	Select SIM card slot
17	Scan Barcode ※Should be set "Barcode scanner" to both short press and long press.
18	Launch Push-to-Talk application
19	Switch of Glove Touch mode
20	Switch of Water Proof Touch mode
21	Switch of Stylus Pen mode ※only supported in FZ-N1
22	Launch Camera ※Should be set "Camera" to both short press and long press.
23	Volume Up ※Should be set "Volume Up" to both short press and long press.
24	Volume Down ※Should be set "Volume Down" to both short press and

	long press.

4.3.2 FZ-N1mk2

Mode	Operation
0	Nothing
1	Launch Dashboard apl
2	Launch application
3	Security mode
4	Screen shot
7	BACK *1
8	HOME *1
9	MENU *1
12	PROGRAM1
13	PROGRAM2
14	PROGRAM3
15	Customized silent mode
16	Select SIM card slot (*3)
17	Barcode scanner *2
19	Glove touch
20	Rain Sensing touch
21	Stylus pen
22	Camera
23	Volume up
24	Volume down
25	KEYCODE_0
26	KEYCODE_1
27	KEYCODE_2
28	KEYCODE_3
29	KEYCODE_4
30	KEYCODE_5
31	KEYCODE_6
32	KEYCODE_7
33	KEYCODE_8

34	KEYCODE_9
35	KEYCODE_A
36	KEYCODE_B
37	KEYCODE_C
38	KEYCODE_D
39	KEYCODE_E
40	KEYCODE_F
41	KEYCODE_G
42	KEYCODE_H
43	KEYCODE_I
44	KEYCODE_J
45	KEYCODE_K
46	KEYCODE_L
47	KEYCODE_M
48	KEYCODE_N
49	KEYCODE_O
50	KEYCODE_P
51	KEYCODE_Q
52	KEYCODE_R
53	KEYCODE_S
54	KEYCODE_T
55	KEYCODE_U
56	KEYCODE_V
57	KEYCODE_W
58	KEYCODE_X
59	KEYCODE_Y
60	KEYCODE_Z
61	KEYCODE_ENTER
62	KEYCODE_TAB
63	KEYCODE_SPACE
64	KEYCODE_ESCAPE
65	KEYCODE_DEL
66	KEYCODE_F1
67	KEYCODE_F2
68	KEYCODE_F3

69	KEYCODE_F4
70	KEYCODE_F5
71	KEYCODE_F6
72	KEYCODE_F7
73	KEYCODE_F8
74	KEYCODE_F9
75	KEYCODE_F10
76	KEYCODE_F11
77	KEYCODE_F12
78	KEYCODE_NUMPAD_0
79	KEYCODE_NUMPAD_1
80	KEYCODE_NUMPAD_2
81	KEYCODE_NUMPAD_3
82	KEYCODE_NUMPAD_4
83	KEYCODE_NUMPAD_5
84	KEYCODE_NUMPAD_6
85	KEYCODE_NUMPAD_7
86	KEYCODE_NUMPAD_8
87	KEYCODE_NUMPAD_9
88	KEYCODE_NUMPAD_DIVIDE
89	KEYCODE_NUMPAD_MULTIPLY
90	KEYCODE_NUMPAD_SUBTRACT
91	KEYCODE_NUMPAD_ADD
92	KEYCODE_NUMPAD_DOT
93	KEYCODE_NUMPAD_COMMA
94	KEYCODE_NUMPAD_ENTER
95	KEYCODE_NUMPAD_EQUALS
96	KEYCODE_NUMPAD_LEFT_PAREN
97	KEYCODE_NUMPAD_RIGHT_PAREN
98	KEYCODE_DPAD_UP
99	KEYCODE_DPAD_DOWN
100	KEYCODE_DPAD_LEFT
101	KEYCODE_DPAD_RIGHT
102	KEYCODE_DPAD_CENTER
103	KEYCODE_MOVE_HOME

104	KEYCODE_MOVE_END
105	KEYCODE_PAGE_UP
106	KEYCODE_PAGE_DOWN
107	KEYCODE_INSERT
108	KEYCODE_FORWARD_DEL
109	KEYCODE_SHIFT_LEFT
110	KEYCODE_SHIFT_RIGHT
111	KEYCODE_ALT_LEFT
112	KEYCODE_ALT_RIGHT
113	KEYCODE_CTRL_LEFT
114	KEYCODE_CTRL_ RIGHT
115	KEYCODE_META_LEFT
116	KEYCODE_META_RIGHT
117	KEYCODE_CAPS_LOCK
118	KEYCODE_NUM_LOCK
119	KEYCODE_SCROLL_LOCK
120	KEYCODE_SYSRQ
121	KEYCODE_BREAK
122	KEYCODE_FUNCTION
123	KEYCODE_MINUS
124	KEYCODE_EQUALS
125	KEYCODE_LEFT_BRACKET
126	KEYCODE_RIGHT_BRACKET
127	KEYCODE_GRAVE
128	KEYCODE_SLASH
129	KEYCODE_BACKSLASH
130	KEYCODE_SEMICORON
131	KEYCODE_APOSTROPHE
132	KEYCODE_COMMA
133	KEYCODE_PERIOD
134	KEYCODE_FORWARD
135	KEYCODE_APP_SWITCH
136	KEYCODE_CALCULATOR
137	KEYCODE_EXPLORER
138	KEYCODE_ENVELOPE

139	KEYCODE_BOOKMARK
140	KEYCODE_MUSIC
141	KEYCODE_CALL
142	KEYCODE_ENDCALL
143	KEYCODE_MUTE
144	KEYCODE_CONTACTS
145	KEYCODE_SEARCH
146	KEYCODE_CALENDAR
147	KEYCODE_VOLUME_MUTE
148	KEYCODE_BRIGHTNESS_UP
149	KEYCODE_BRIGHTNESS_DOWN
150	KEYCODE_POWER
151	KEYCODE_SLEEP
152	KEYCODE_WAKEUP
153	KEYCODE_HEADSETHOOK
154	KEYCODE_MEDIA_PLAY_PAUSE
155	KEYCODE_MEDIA_STOP
156	KEYCODE_MEDIA_NEXT
157	KEYCODE_MEDIA_PREVIOUS
158	KEYCODE_MEDIA_REWIND
159	KEYCODE_MEDIA_FAST_FORWARD
160	KEYCODE_MEDIA_PLAY
161	KEYCODE_MADIA_PAUSE
162	KEYCODE_MEDIA_CLOSE
163	KEYCODE_MEDIA_EJECT
164	KEYCODE_MEDIA_RECORD
165	KEYCODE_BUTTON_L1
166	KEYCODE_BUTTON_R1
167	KEYCODE_BUTTON_L2
168	KEYCODE_BUTTON_R2
169	KEYCODE_BUTTON_A
170	KEYCODE_BUTTON_B
171	KEYCODE_BUTTON_C
172	KEYCODE_BUTTON_X
173	KEYCODE_BUTTON_Y

174	KEYCODE_BUTTON_Z
175	KEYCODE_BUTTON_THUMBL
176	KEYCODE_BUTTON_THUMBR
177	KEYCODE_BUTTON_START
178	KEYCODE_BUTTON_SELECT
179	KEYCODE_BUTTON_MODE
180	KEYCODE_BUTTON_1
181	KEYCODE_BUTTON_2
182	KEYCODE_BUTTON_3
183	KEYCODE_BUTTON_4
184	KEYCODE_BUTTON_5
185	KEYCODE_BUTTON_6
186	KEYCODE_BUTTON_7
187	KEYCODE_BUTTON_8
188	KEYCODE_BUTTON_9
189	KEYCODE_BUTTON_10
190	KEYCODE_BUTTON_11
191	KEYCODE_BUTTON_12
192	KEYCODE_BUTTON_13
193	KEYCODE_BUTTON_14
194	KEYCODE_BUTTON_15
195	KEYCODE_BUTTON_16
196	KEYCODE_ZENKAKU_HANKAKU
197	KEYCODE_EISU
198	KEYCODE_MUHENKAN
199	KEYCODE_HENKAN
200	KEYCODE_KATAKANA_HIRAGANA
201	KEYCODE_YEN
202	KEYCODE_RO
203	KEYCODE_KANA
204	Flashlight

*1 “BACK/HOME/MENU” can’t assign to Long-press and 2keys press simultaneously.

*2 “Barcode scanner” can’t assign to 2keys press simultaneously.

Additionally, Barcode application supports both short press and long press (Hold) for barcode Aimer.

Should be set “Barcode scanner” to both short press and long press.

*3: NA-mode only.

4.3.3 FZ-T1, FZ-L1

Mode	Operation
0	Nothing
1	Launch Dashboard apl
2	Launch application
3	Security mode
4	Screen shot
7	BACK *1
8	HOME *1
9	MENU *1
12	PROGRAM1
13	PROGRAM2
14	PROGRAM3
11	Customized silent mode
17	Barcode scanner *2
13	Glove touch
14	Rain Sensing touch
15	Stylus pen
16	Select SIM card slot *3
23	Volume up
22	Camera
24	Volume down
25	KEYCODE_0
26	KEYCODE_1
27	KEYCODE_2
28	KEYCODE_3
29	KEYCODE_4
30	KEYCODE_5
31	KEYCODE_6
32	KEYCODE_7
33	KEYCODE_8
34	KEYCODE_9
35	KEYCODE_A

36	KEYCODE_B
37	KEYCODE_C
38	KEYCODE_D
39	KEYCODE_E
40	KEYCODE_F
41	KEYCODE_G
42	KEYCODE_H
43	KEYCODE_I
44	KEYCODE_J
45	KEYCODE_K
46	KEYCODE_L
47	KEYCODE_M
48	KEYCODE_N
49	KEYCODE_O
50	KEYCODE_P
51	KEYCODE_Q
52	KEYCODE_R
53	KEYCODE_S
54	KEYCODE_T
55	KEYCODE_U
56	KEYCODE_V
57	KEYCODE_W
58	KEYCODE_X
59	KEYCODE_Y
60	KEYCODE_Z
61	KEYCODE_ENTER
62	KEYCODE_TAB
63	KEYCODE_SPACE
64	KEYCODE_ESCAPE
65	KEYCODE_DEL
66	KEYCODE_F1
67	KEYCODE_F2
68	KEYCODE_F3
69	KEYCODE_F4
70	KEYCODE_F5

71	KEYCODE_F6
72	KEYCODE_F7
73	KEYCODE_F8
74	KEYCODE_F9
75	KEYCODE_F10
76	KEYCODE_F11
77	KEYCODE_F12
78	KEYCODE_NUMPAD_0
79	KEYCODE_NUMPAD_1
80	KEYCODE_NUMPAD_2
81	KEYCODE_NUMPAD_3
82	KEYCODE_NUMPAD_4
83	KEYCODE_NUMPAD_5
84	KEYCODE_NUMPAD_6
85	KEYCODE_NUMPAD_7
86	KEYCODE_NUMPAD_8
87	KEYCODE_NUMPAD_9
88	KEYCODE_NUMPAD_DIVIDE
89	KEYCODE_NUMPAD_MULTIPLY
90	KEYCODE_NUMPAD_SUBTRACT
91	KEYCODE_NUMPAD_ADD
92	KEYCODE_NUMPAD_DOT
93	KEYCODE_NUMPAD_COMMA
94	KEYCODE_NUMPAD_ENTER
95	KEYCODE_NUMPAD_EQUALS
96	KEYCODE_NUMPAD_LEFT_PAREN
97	KEYCODE_NUMPAD_RIGHT_PAREN
98	KEYCODE_DPAD_UP
99	KEYCODE_DPAD_DOWN
100	KEYCODE_DPAD_LEFT
101	KEYCODE_DPAD_RIGHT
102	KEYCODE_DPAD_CENTER
103	KEYCODE_MOVE_HOME
104	KEYCODE_MOVE_END
105	KEYCODE_PAGE_UP

106	KEYCODE_PAGE_DOWN
107	KEYCODE_INSERT
108	KEYCODE_FORWARD_DEL
109	KEYCODE_SHIFT_LEFT
110	KEYCODE_SHIFT_RIGHT
111	KEYCODE_ALT_LEFT
112	KEYCODE_ALT_RIGHT
113	KEYCODE_CTRL_LEFT
114	KEYCODE_CTRL_ RIGHT
115	KEYCODE_META_LEFT
116	KEYCODE_META_RIGHT
117	KEYCODE_CAPS_LOCK
118	KEYCODE_NUM_LOCK
119	KEYCODE_SCROLL_LOCK
120	KEYCODE_SYSRQ
121	KEYCODE_BREAK
122	KEYCODE_FUNCTION
123	KEYCODE_MINUS
124	KEYCODE_EQUALS
125	KEYCODE_LEFT_BRACKET
126	KEYCODE_RIGHT_BRACKET
127	KEYCODE_GRAVE
128	KEYCODE_SLASH
129	KEYCODE_BACKSLASH
130	KEYCODE_SEMICORON
131	KEYCODE_APOSTROPHE
132	KEYCODE_COMMA
133	KEYCODE_PERIOD
134	KEYCODE_FORWARD
135	KEYCODE_APP_SWITCH
136	KEYCODE_CALCULATOR
137	KEYCODE_EXPLORER
138	KEYCODE_ENVELOPE
139	KEYCODE_BOOKMARK
140	KEYCODE_MUSIC

141	KEYCODE_CALL
142	KEYCODE_ENDCALL
143	KEYCODE_MUTE
144	KEYCODE_CONTACTS
145	KEYCODE_SEARCH
146	KEYCODE_CALENDAR
147	KEYCODE_VOLUME_MUTE
148	KEYCODE_BRIGHTNESS_UP
149	KEYCODE_BRIGHTNESS_DOWN
150	KEYCODE_POWER
151	KEYCODE_SLEEP
152	KEYCODE_WAKEUP
153	KEYCODE_HEADSETHOOK
154	KEYCODE_MEDIA_PLAY_PAUSE
155	KEYCODE_MEDIA_STOP
156	KEYCODE_MEDIA_NEXT
157	KEYCODE_MEDIA_PREVIOUS
158	KEYCODE_MEDIA_REWIND
159	KEYCODE_MEDIA_FAST_FORWARD
160	KEYCODE_MEDIA_PLAY
161	KEYCODE_MADIA_PAUSE
162	KEYCODE_MEDIA_CLOSE
163	KEYCODE_MEDIA_EJECT
164	KEYCODE_MEDIA_RECORD
165	KEYCODE_BUTTON_L1
166	KEYCODE_BUTTON_R1
167	KEYCODE_BUTTON_L2
168	KEYCODE_BUTTON_R2
169	KEYCODE_BUTTON_A
170	KEYCODE_BUTTON_B
171	KEYCODE_BUTTON_C
172	KEYCODE_BUTTON_X
173	KEYCODE_BUTTON_Y
174	KEYCODE_BUTTON_Z
175	KEYCODE_BUTTON_THUMBL

176	KEYCODE_BUTTON_THUMBR
177	KEYCODE_BUTTON_START
178	KEYCODE_BUTTON_SELECT
179	KEYCODE_BUTTON_MODE
180	KEYCODE_BUTTON_1
181	KEYCODE_BUTTON_2
182	KEYCODE_BUTTON_3
183	KEYCODE_BUTTON_4
184	KEYCODE_BUTTON_5
185	KEYCODE_BUTTON_6
186	KEYCODE_BUTTON_7
187	KEYCODE_BUTTON_8
188	KEYCODE_BUTTON_9
189	KEYCODE_BUTTON_10
190	KEYCODE_BUTTON_11
191	KEYCODE_BUTTON_12
192	KEYCODE_BUTTON_13
193	KEYCODE_BUTTON_14
194	KEYCODE_BUTTON_15
195	KEYCODE_BUTTON_16
196	KEYCODE_ZENKAKU_HANKAKU
197	KEYCODE_EISU
198	KEYCODE_MUHENKAN
199	KEYCODE_HENKAN
200	KEYCODE_KATAKANA_HIRAGANA
201	KEYCODE_YEN
202	KEYCODE_RO
203	KEYCODE_KANA
204	Flashlight
205	Touch operation mode

*1 “BACK/HOME/MENU” can’t assign to Long-press ~~and 2keys press simultaneously~~.

*2 “Barcode scanner” can’t assign to 2keys press simultaneously.

Additionally, Barcode application supports both short press and long press (Hold) for barcode Aimer.

Should be set “Barcode scanner” to both short press and long press.

*3 This function is available at CN-model only

EOD