



Software Manual

PaceBlade Series

SDT-121,
MDT-760, MDT-860
MDT-801, LDT-101

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1. Update firmware and customization

1.1 By SD card

1.1.1 Update firmware by SD card

- Copy a firmware (update_mdt740_gms_3.5.3.zip) at the root of the SD card and insert this card in the device and click “Yes” when the firmware upgrade popup appears.
- Wait until firmware upgrade is complete. The device will then restart.
- The device need maintains sufficient battery power.

1.1.2 Installing kiosk mode config file

- Create a folder named perso at the root of a SD card.
- Reference kiosk mode Quick Guide to set the perso content.
- Copy a firmware at the root of the SD card.
- Insert this card in the device and click “Yes” when the firmware upgrade popup appears.
- Wait until firmware upgrade is complete. The device will then restart, displaying the new splash screen and boot animation, and will start the Demo Kiosk application directly.

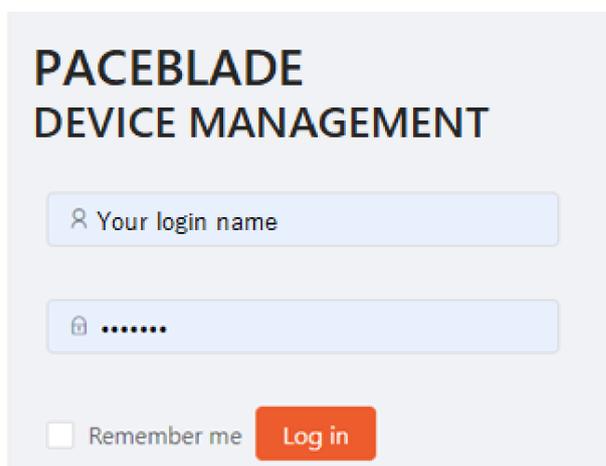
1.2 Update by remote control server

Device management servers are mainly used to remotely upgrade software and install kiosk mode configurations.

1.2.1 Login

Paceblade device management server website: <https://fw.topicon.hk/topicon/web/#/login>

- Enter account and password to login the server.
- Customer can receive a own dedicated environment
- Change the password.



PACEBLADE
DEVICE MANAGEMENT

🔍 Your login name

🔒

Remember me

Password:

Confirm Password:

* Owner:

 Save

1.2.2 Upgrade Firmware

- Choose device mode.

Device Management					
User	mdt740				
Management	SN	IMEI	OS now	configStatus	OS to
Devices	<input type="checkbox"/>	741020400059	352031100160505	mdt740_gms_3.4.5	<input type="text"/>
ct2030	<input type="checkbox"/>	741020400060	352031100162584	mdt740_gms_3.4.5	<input type="text"/>
mdt750	<input type="checkbox"/>	741020400052	352031100162451	mdt740_gms_3.4.5	<input type="text"/>
mdt720	<input type="checkbox"/>	741020400051	352031100165256	mdt740_gms_3.4.5	<input type="text"/>
tsd200	<input type="checkbox"/>	741020400053	352031100165835	mdt740_gms_3.4.5	<input type="text"/>
mdt840	<input type="checkbox"/>	741020400054	352031100161636	mdt740_gms_3.4.5	<input type="text"/>
mdt520	<input type="checkbox"/>	741020400055	352031100165165	mdt740_gms_3.4.5	<input type="text"/>
mdt740	<input type="checkbox"/>	741020400056	352031100161677	mdt740_gms_3.4.5	<input type="text"/>
mdt540	<input type="checkbox"/>				
mdt660	<input type="checkbox"/>				
mdt760	<input type="checkbox"/>				

- Search your device by entering Serial number and IMEI.

 Group Edit

- Upgrade firmware for one device.

Find the device you want to upgrade the firmware, click “OS to” to select the firmware version and click ok, it will show edit device success.

mdt740 Group Edit 0010 740020140310

SN	IMEI	OS now	configStatus	OS to	Config	upload log	log url
740020140310	352031100105823	mdt740_gms_3.4.5		mdt740_gms_3.5.3		NO	

1-1 of 1 items < 1 / 10 / page Goto

edit device success!

Upgrade from mdt740_gms_3.4.5 to mdt740_gms_3.5.3? Cancel OK

mdt740

SN	IMEI	OS now	configStatus	OS to
740020140310	352031100105823	mdt740_gms_3.4.5		mdt740_gms_3...

- When the device is connected to the network, it automatically downloads the firmware to the device, and you can check the firmware download progress on the server.

mdt740 Group Edit 0010 740020140310

configStatus	OS to	Config	upload log	log url	status	upgrade msg	Update Time
	mdt740_gms_3...		NO		connected	downloading... 0%	2020-11-13 15:37:34

- Upgrade firmware for a group of devices.
- Enabled devices that you want to upgrade firmware.

mdt740

SN	IMEI	OS now
741020400059	352031100160505	mdt740_gms_3.4.5
741020400060	352031100162584	mdt740_gms_3.4.5
741020400052	352031100162451	mdt740_gms_3.4.5
741020400051	352031100165256	mdt740_gms_3.4.5
741020400053	352031100165835	mdt740_gms_3.4.5
741020400054	352031100161636	mdt740_gms_3.4.5
741020400055	352031100165165	mdt740_gms_3.4.5

- Click Group Edit.

Group Edit History Search

- Click “OS to” to choose the firmware version and click Save changes, it will show edit device success.

The screenshot shows the 'Device Group Edit' window for the 'mdt740' group. On the left, the 'OS To' dropdown is set to 'mdt740_gms_3.5.3'. A 'Save changes' button is visible at the bottom of the left panel. On the right, a table lists device details, and a green notification bar at the top right says 'edit device success!'.

	SN	IMEI	OS now	configStatus	OS to
<input type="checkbox"/>	741020400059	352031100160505	mdt740_gms_3.4.5		
<input checked="" type="checkbox"/>	741020400060	352031100162584	mdt740_gms_3.4.5		
<input type="checkbox"/>	741020400052	352031100162451	mdt740_gms_3.4.5		
<input checked="" type="checkbox"/>	741020400051	352031100165256	mdt740_gms_3.4.5		
<input type="checkbox"/>	741020400053	352031100165835	mdt740_gms_3.4.5		
<input checked="" type="checkbox"/>	741020400054	352031100161636	mdt740_gms_3.4.5		
<input checked="" type="checkbox"/>	741020400055	352031100165165	mdt740_gms_3.4.5		

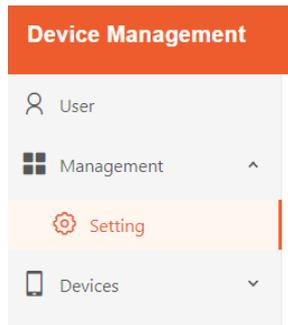
- Check the firmware download progress on the server.

The screenshot shows the 'mdt740' device management page. A table displays the upgrade progress for each device. The 'upgrade msg' column is highlighted with a red box, showing 'success' for some devices and 'downloading...' for others. The 'status' column shows 'connected' for all devices.

Config	upload log	log url	status	upgrade msg	Update Time
	NO		connected	success	
	NO		connected	downloading... 0%	2020-11-13 16:28:40
	NO		connected	success	
	NO		connected	downloading... 0%	2020-11-13 16:28:40
	NO		connected	success	
	NO		connected	downloading... 0%	2020-11-13 16:28:40
	NO		connected	downloading... 0%	2020-11-13 16:28:40
	NO		connected	success	
	NO		connected	success	

1.2.3 Install kiosk mode configurations

- Create a configuration file.
- Click Management and then click Setting enter the setting.



- Click New key to create a new configuration.



- Select the device type and fill in the setting name (no space for the setting name).

Setting - New

Basic

* setting name:

* device type:

* owner:

- Following the Kiosk mode instructions to select keys and click Generate to create a configuration file.

upload files

Selinux:

Factory reset: factory reset

[Kiosk mode quick start guide](#)

- You can check and edit the configuration file in the setting.

Path	owner	Create Time	Action
update_config_mdt740_root_1602220900.zip	topicon	2020-10-09 13:21:40	Edit Delete
update_config_mdt660_gpsglobelogo_1601180035.zip	topicon	2020-09-27 12:13:55	Edit Delete
update_config_mdt740_gigaconceptlogo_1594871221.zip	topicon	2020-07-16 11:47:01	Edit Delete

- Install configuration file for one device.
- Search the device and click config to choose a configuration file to install.

mdt740 Group Edit History 740020370002

SN	IMEI	OS now	configStatus	OS to	Config	upload log	log url
740020370002	352031100091783	mdt740_gms_3.5.3				NO	

clear
 update_config_mdt740_restrict_access_1559886777.zip
 update_config_mdt740_root_1602220900.zip
 update_config_mdt740_test_1585822556.zip
 update_config_mdt740_timezone_Europe_Berlin_1553666695.zip

- The config status will show the configuration file if the download is successful.

mdt740 Group

SN	IMEI	OS now	configStatus	OS to	Config	uplc
740020370002	352031100091783	mdt740_gms_3.5.3	mdt740_timezone_Europe_Berlin			

- Install configuration file for a group of devices.
- Enabled devices that you want to install configuration.

mdt740 Group Edit History Search

SN	IMEI	OS now	configStatus	OS to	Config	upload log	log url
741020400059	352031100160505	mdt740_gms_3.4.5			update_config_...	NO	
741020400060	352031100162584	mdt740_gms_3.4.5		mdt740_gms_3...	update_config_...	NO	
741020400052	352031100162451	mdt740_gms_3.4.5			update_config_...	NO	

- Click Group edit to choose the config file and then click Save changes.

The image shows two side-by-side screenshots of the 'Device Group Edit' interface. Both windows show the same fields: Model (mdt740), Current Edit Item (741020400059,741020400052,741020400060), OS To (dropdown), Owner (dropdown), and Config (dropdown). The 'enable' checkboxes for OS To, Owner, and Config are all checked. In the right screenshot, the Config dropdown is expanded, showing a list of items: 'clear', 'update_config_mdt740_restrict_access_1559886777.zip', 'update_config_mdt740_root_1602220900.zip', 'update_config_mdt740_test_1585822556.zip', 'update_config_mdt740_timezone_Europe_Berlin_155366...', and 'update_config_mdt740_timezone_Europe_Berlin_1553...'. The last item is highlighted with a red box.

1.2.3 Key restrictions

- When creating a profile you can choose to make extra settings like restrictions
- You check or uncheck certain keys to change their behavior .

Select keys to change behavior

<input type="checkbox"/> restrict_access	<input type="checkbox"/> disable_status_panel	<input type="checkbox"/> restrict_top_bar	<input type="checkbox"/> sd_launcher	<input type="checkbox"/> global_action_disabled	<input type="checkbox"/> navbar_disabled
<input type="checkbox"/> low_bat_warn_disabled	<input type="checkbox"/> volume_keys_disabled	<input type="checkbox"/> home_key_disabled	<input type="checkbox"/> recent_key_disabled	<input type="checkbox"/> cam_tap_pwr_disabled	<input type="checkbox"/> tethering_disabled
long_home_intent: <input type="text"/>	short_home_intent: <input type="text"/>	report_user_activity: <input type="text"/>			
restrict_addon: <input type="text"/>					

In the configuratie menu 2 other menus are shown to configure :

- Select special purpose keys/options
- Select keys to change default config

2. Software support

We can provide serial port apk and NFC demo. Please contact our Sales Team for details.

2.1 Serial ports

Please also see the software setting for serial port

There are two serial ports available on the device:

- one shares the USB data pins of the mini A/B USB connector. Only TX and RX pins are available, voltage is TTL 3.3V.
- one is on the Pogopin interface (pins 3, 5, 6 and 7). TX, RX CTS and RTS are available, voltage is RS232.

On the software side, the tty devices corresponding to these ports are:

- for the RS232 port, /dev/user_external_tty
- for the TTL port, /dev/user_tty

In addition, one I2C port is available both on the USB and Procopin connectors.

- The I2C interface is accessible through /dev/user_i2c

2.2 Ignition State

If your application wants to read the ignition state, please use below API.

The 12V input is reported to the application as a key press (high level pressed, low level depressed) in the java Android API, this key is KeyEvent.KEYCODE_TV_INPUT

A second way to access the ignition state is to register a broadcast receiver or the action "hk.topicon.intent.action.IGNITION"

The current ignition status is given by the extra Boolean "state".

This intent is sticky, i.e., the application will be immediately notified of the current status at registration, even if no transition occurred.

Here is a code snippet:

```
private static final String ACTION_IGNITION = "hk.topicon.intent.action.IGNITION";
private BroadcastReceiver mIgnitionReceiver = new BroadcastReceiver() {
    public void onReceive(Context context, Intent intent) {
        String action = intent.getAction();
        if(!action.equals(ACTION_IGNITION))
            return;
    }
}
```

```

boolean state = intent.getBooleanExtra("state", false);
if(state)
    Log.d(TAG, "ignition event is on");
else
    Log.d(TAG, "ignition event is off");
}
};

```

2.3 Power off or reset

It is possible to use an application to power off or reset the device

You can install the PowerProxy.apk package that will allow you to command power off or reset with a simple broadcast from non-privileged application (test application with source code is also provided). PowerProxy.apk needs to be installed through perso (as it needs to be a system application).

Please download apk, source code using this link

https://drive.google.com/file/d/1QjDFnwe2h_KndVWEYWfxwvqY5zcSPI-n/view?usp=sharing

2.4 Remote install and upgrade

It is possible to install and upgrade your apk remotely

1. Install PackageInstallerProxy.apk through perso. You can also install it from the remote-control server.

To download and install PackageInstallerProxy apk, use the following link:

<https://drive.google.com/file/d/1QVKYrp0v9NoMcaOZP4pAIXE3GsUH4VyF/view?usp=sharing>

Note: If you do not install through perso or using our remote-control server, it will not work

After that you should have it available in /oem/app/PackageInstallerProxy.vendor.apk

2. Then install DemoPackageInstallerProxy.apk as a normal application and use it to install other packages. Its source code is also provided for you to integrate it into your own code.

To download PackageInstallerProxy demo and source code use the following links, respectively:

<https://drive.google.com/file/d/1oANWHYfhgl2IXYaSUhVzqzbcRwmKHLij/view?usp=sharing>

https://drive.google.com/file/d/1I9mUPJaqB-J8RN8omR_V4yzf4U2yovQy/view?usp=sharing