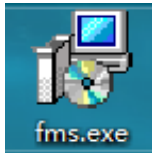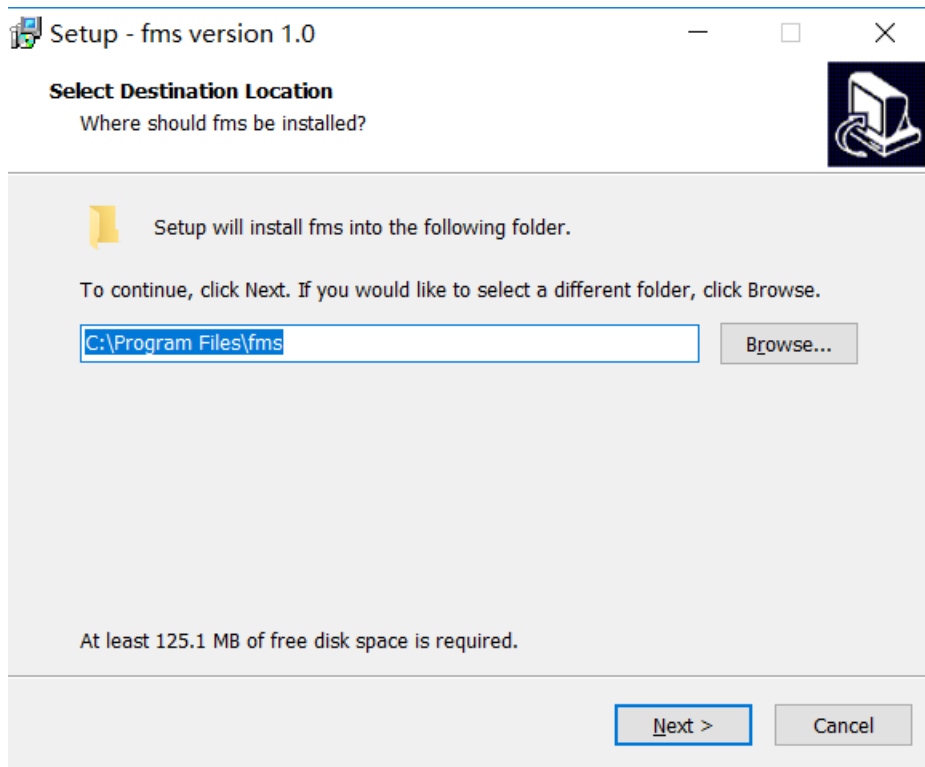# FMS User Guide

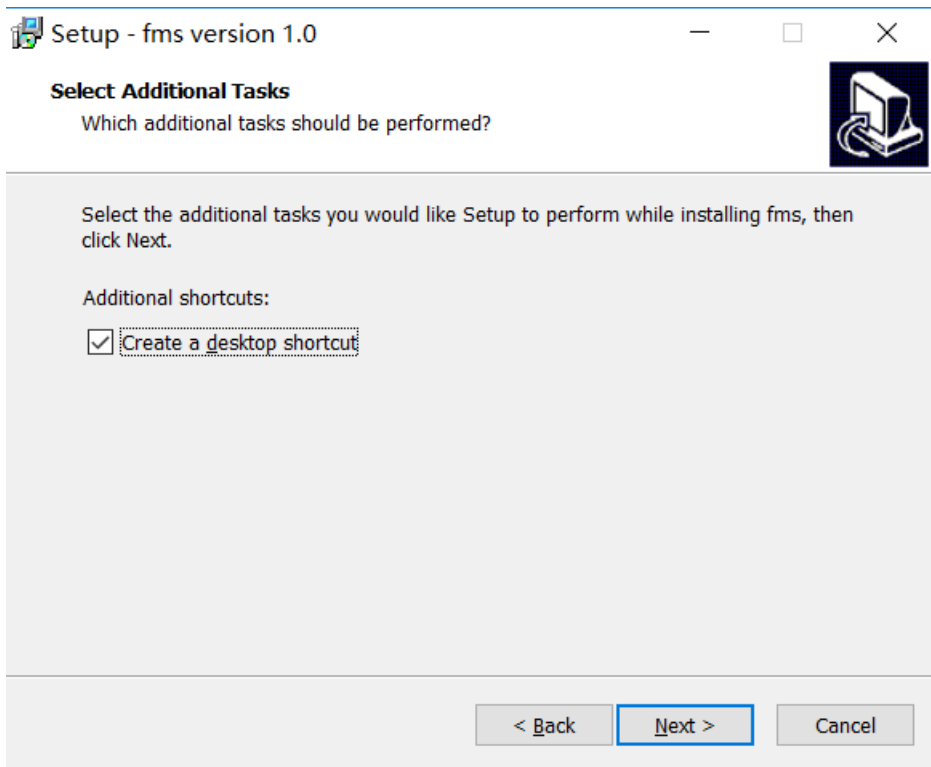for 1.3.2 version and later

● Installation

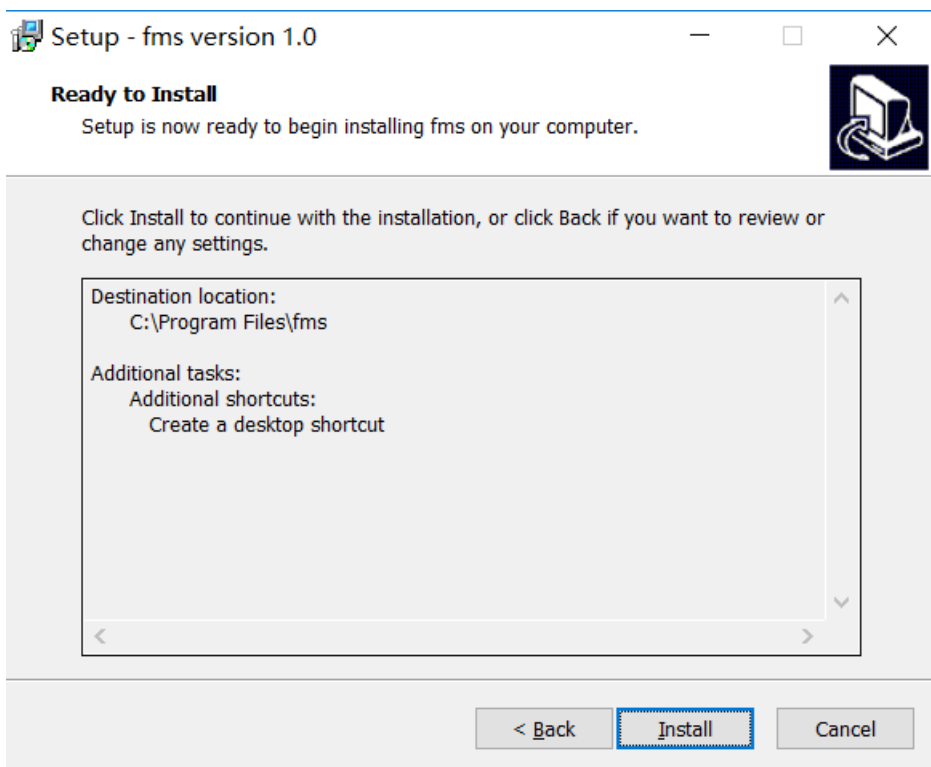1. Double click fms.exe icon to start the installer.

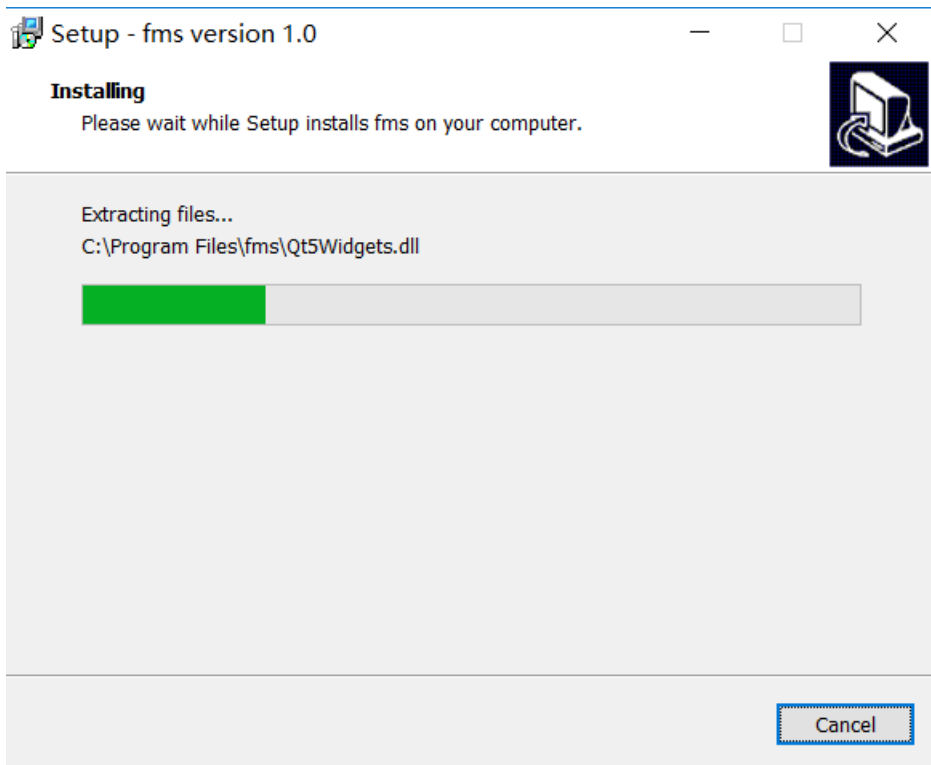2. Specify the installation directory in the following installer window:
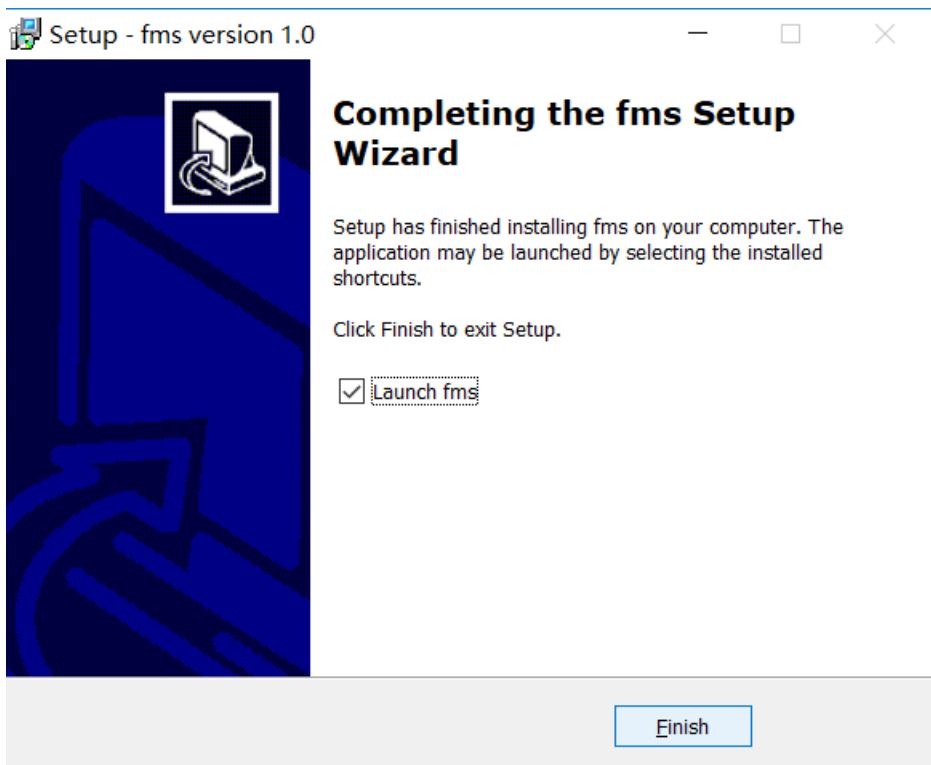

3. Click Next:

4. Click Next:

5. Click Install to start installation:

Once the progress is completed:

Click finish to finish the installation.

● User interface Introduction

1. Double click the desktop icon to enter FMS:
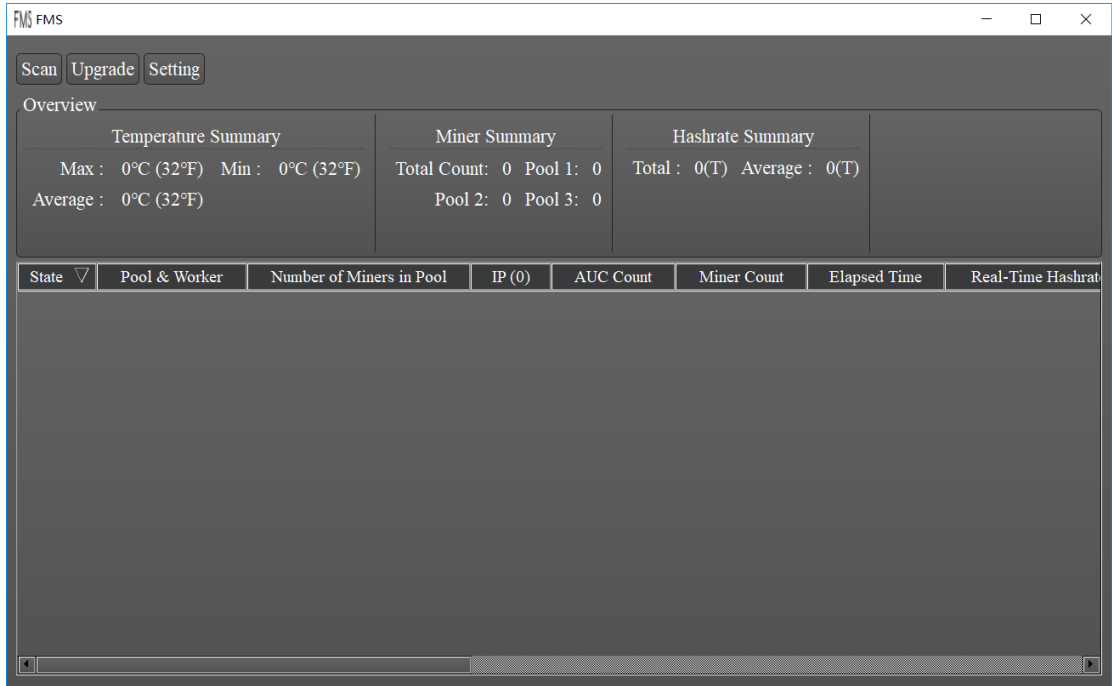
Scan		manual scanning
LED ON		Batch turn on LED
LED OFF		Batch turn off LED
Upgrade		firmware upgrade
Restart		Batch restart miners
Change Pool		Batch change pool setting
Setting		change settings
Temperature Summary Max : 0℃(32℉) Min : 0℃(32℉) Average : 0℃(32℉)		temperature monitoring

|		
Miner Summary Total Count:　0　　　Pool 1:　0 Pool 2:　0　　　Pool 3:　0		miner monitoring
Hashrate Summary Total :　0(T)　　Average :　0(T)		hash rate monitoring

The State column provides checkboxes to select or unselect each miner for other operations (like firmware Upgrade). The Pool & Worker column shows the mining pool and miner ID.

● Usage

1. Miner Discovery

If the miners and the management PC are in the same network, use the following procedure to discover the miners. Click Settings to bring up the Base Config window:
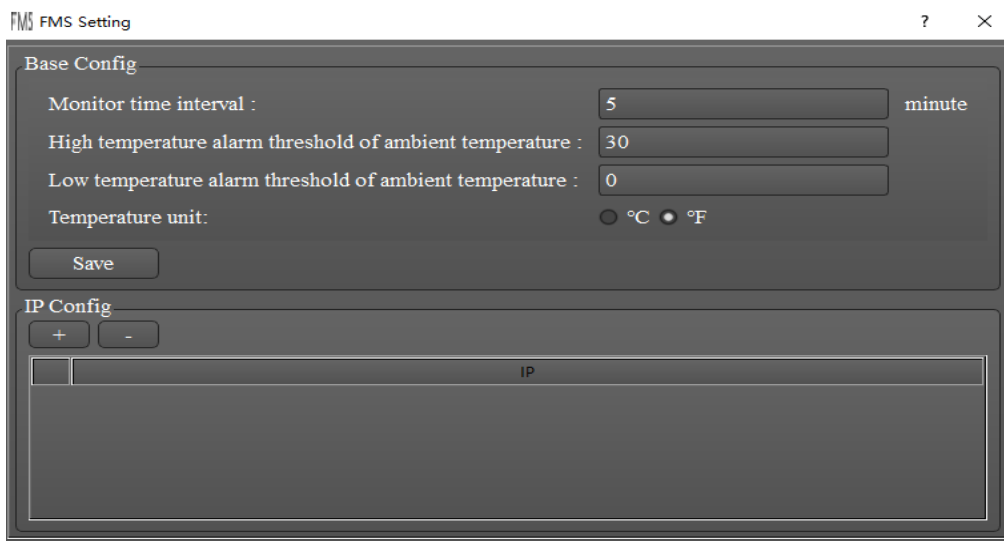
Click "+" button and enter the subnet IP range for the miners (e.g. 192.168.193.1-192.168.193.255), and click Confirm to auto-discover the miners.
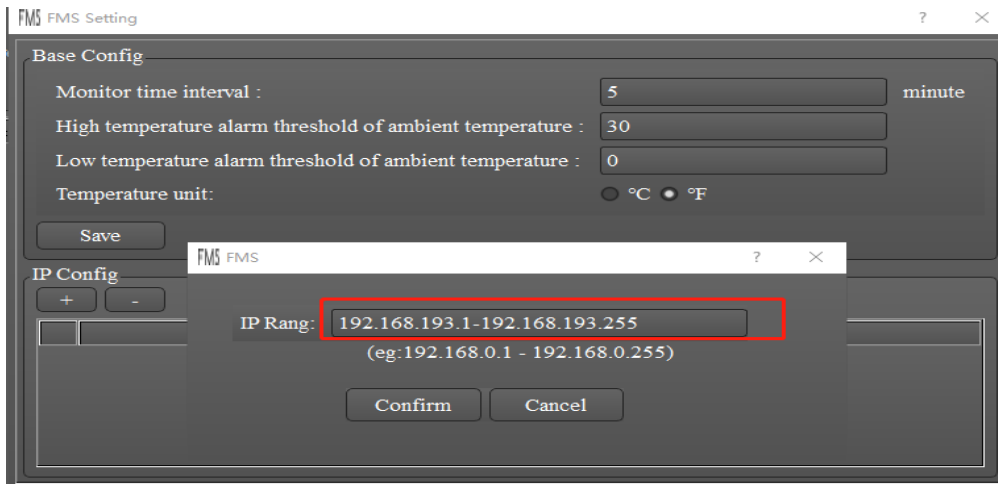
Select miners and click Save, the discovered miner IP addresses will be shown in the main window:
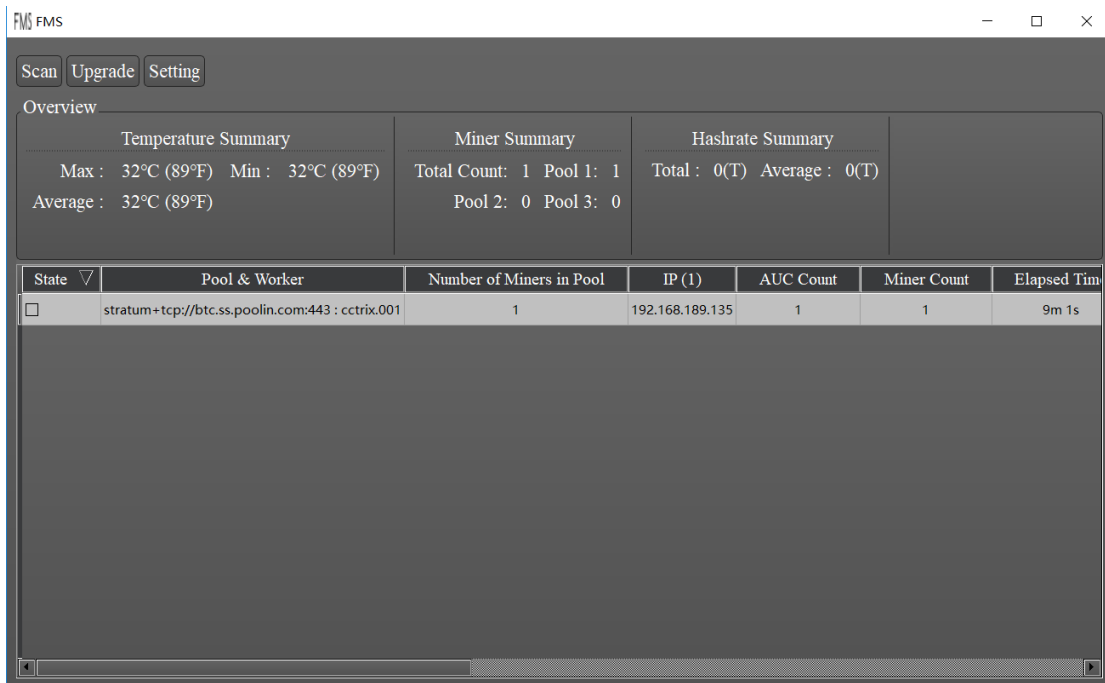
2. Firmware Upgrade

Select the miner to be upgraded in the main window, and click Upgrade

Select the firmware file in the popup window:

Click Open to begin the upgrade process.

The following dialog will be shown if the upgrade is successful:

3. Batch Turn On/Off LED

First select one or multiple miners from table by clicking the checkbox of state column. Then click LED ON or LED OFF button to switch LED for selected miners. During the process, a progress dialog will popup. When the progress dialog finish, it means LED switching operation finish and a result dialog will popup.
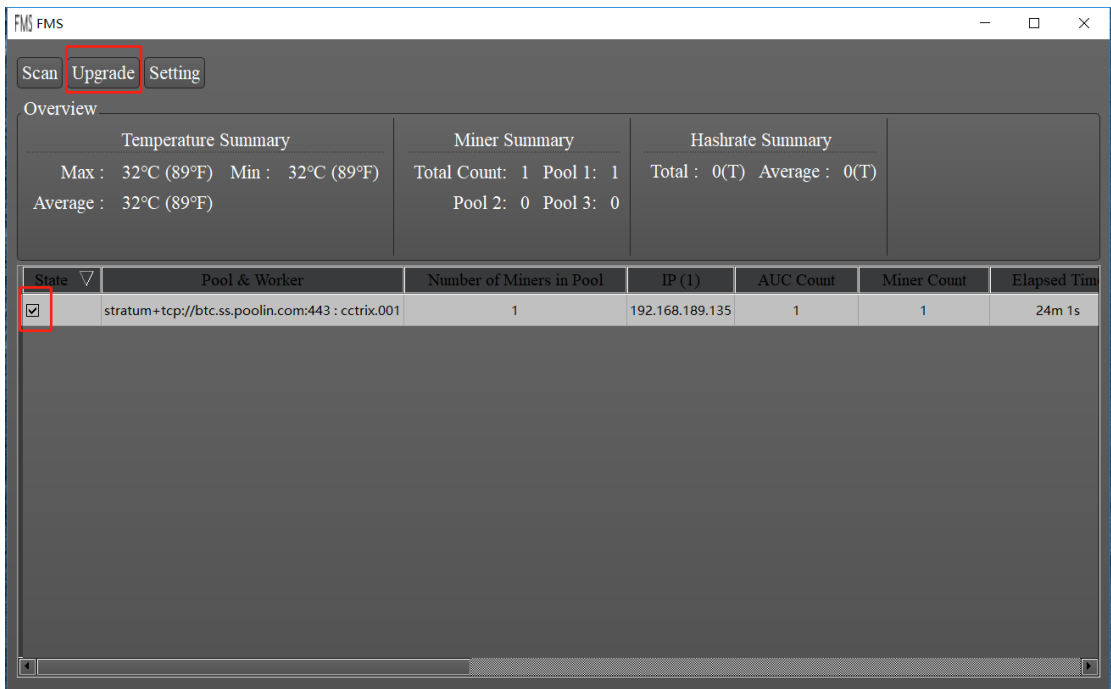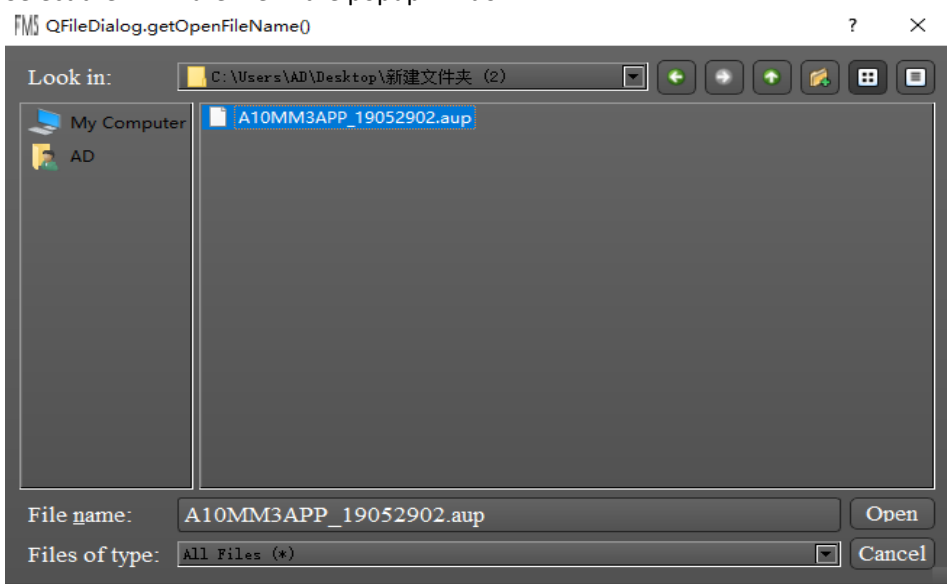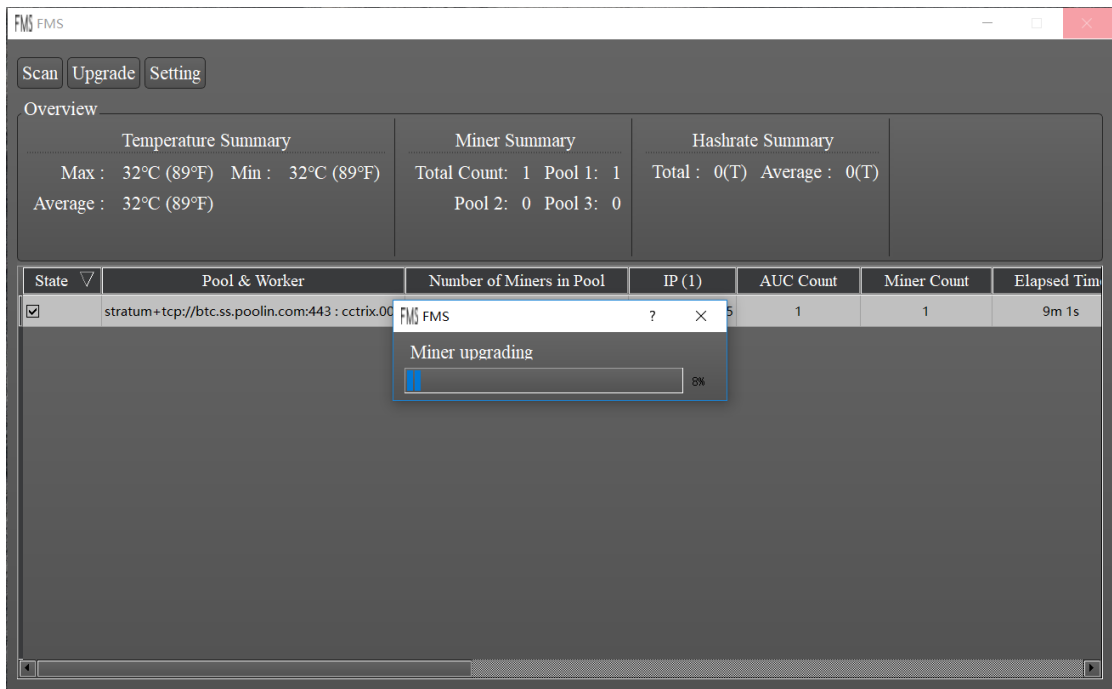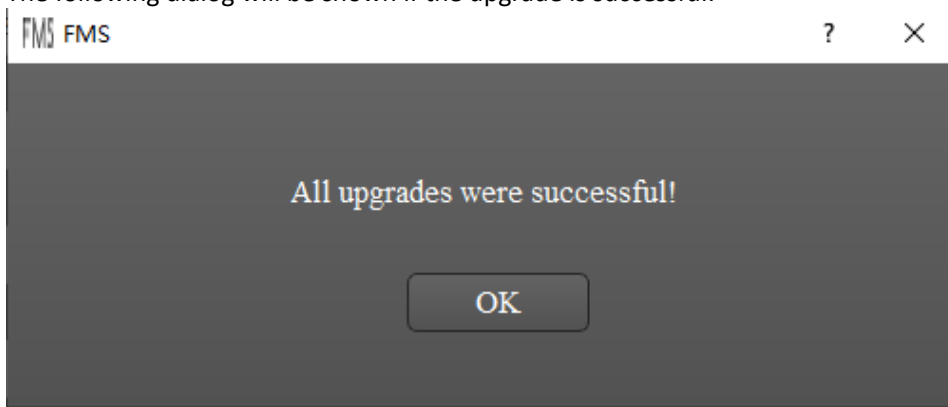
4. Batch Restart

First select one or multiple miners from table by clicking the checkbox of state column. Then click Restart button to restart all selected miners. During the process, a progress dialog will popup. When the progress dialog finish, it means restart operation finish and a result dialog will popup. After restarted, these miners need some time to initialize and probably don't appear in FMS until they begin mining.

5. Batch Change Pool

First select one or multiple miners from table by clicking the checkbox of state column. Then click Change Pool button to change pool setting for all selected miners. A pool setting dialog will popup to allow users choose which pool they want to use. After conform, FMS will start to change pool setting for selected miners and restart them. During the process, a progress dialog will popup. When the progress dialog finish, it means changing operation finish and a result dialog will popup. After restarted, these miners need some time to initialize and probably don't appear in FMS until
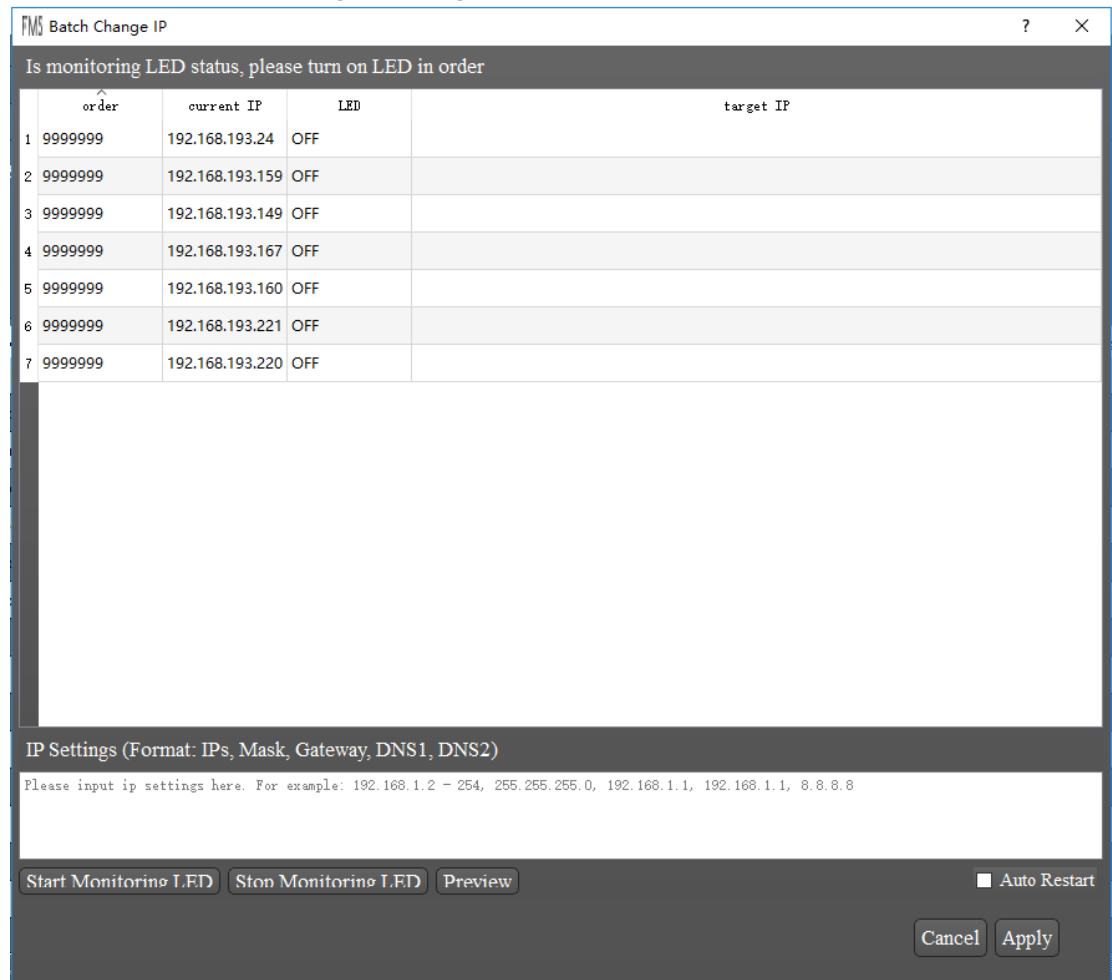
they begin mining.

6. Batch Change Static IP Settings
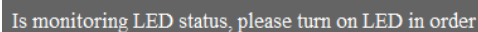
Step 1: Launch Batch Change IP Dialog

Click check box to select all the miners needed to set new static IP. Then click **Change IP** button to launch Batch Change IP Dialog:

	order	current IP	LED	target IP
1	9999999	192.168.193.24	OFF	
2	9999999	192.168.193.159	OFF	
3	9999999	192.168.193.149	OFF	
4	9999999	192.168.193.167	OFF	
5	9999999	192.168.193.160	OFF	
6	9999999	192.168.193.221	OFF	
7	9999999	192.168.193.220	OFF	

FMS Batch Change IP

Is monitoring LED status, please turn on LED in order

IP Settings (Format: IPs, Mask, Gateway, DNS1, DNS2)

Please input ip settings here. For example: 192.168.1.2 - 254, 255.255.255.0, 192.168.1.1, 192.168.1.1, 8.8.8.8

Start Monitoring LED   Stop Monitoring LED   Preview   ☐ Auto Restart

Cancel   Apply

Its topmost line will show operation result or error info or any hint. Below it is a table to show info about all selected miners. The 'order' column means the order number this miner's LED is turned on manually. The default 999999 indicates it has not been turned on yet. The 'current IP' column means current miner IP address. The 'LED' column means LED status of miner. Please note that 'turn off LED' only means LED is not white color. In fact LED will always be on in some other color. The 'target IP' column means which IP address will be set into this miner.

Step 2: Turn On LED in Order

When LED status are all OFF in the table, topmost line usually will show:

Is monitoring LED status, please turn on LED in order

Then it's time to turn on LED of selected miners one by one in the order you want. To turn on LED, please short press FUNC button of miner. Please note that there is another RESET button, DO NOT press it by mistake. And please DO NOT long press FUNC button, or the miner will be rebooted. When the LED turns to white color, then automatically turns to original color by AMF, it means AMS has known this miner's order and next one can be turned on. If white LED is still there, please wait for several seconds, it's possible AMS has some delay. But if white LED don't be turned off in 10 seconds, it probably indicate this miner lost connection or some other issue. If so, please try to reboot this miner and wait, or find some other help.

In AMS side, when any LED has been turned on, AMS will update the miner's LED column and then turn off it. Message like below will show in topmost line:

192.168.193.167 has been turned on in order 1

When all selected miners have been turned on at least one time, a dialog will be popped out:

FMS Stop Monitor Confirm ×

? All selected miners are in order, do you need to change order again?

Yes No
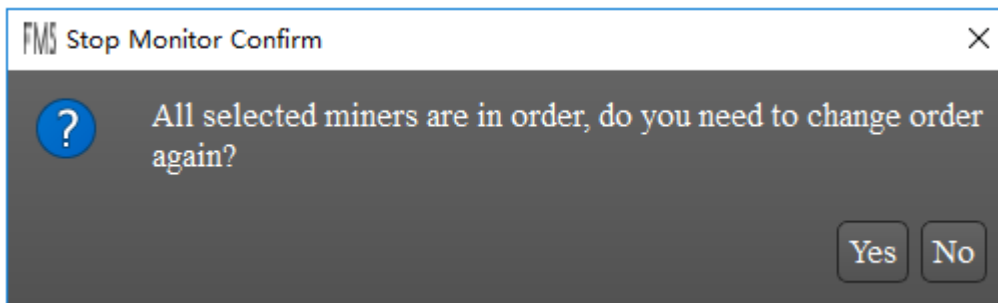
If select 'No', LED status monitor will be stopped to avoid affections of later LED on operation. If monitor has been stopped and you want to change order again, please press

Start Monitoring LED button. Anytime you can press Stop Monitoring LED

button to stop monitor.

If any order is wrong, please turn on the first wrong miner again to clear all order numbers after it.

Step 3: Edit IP Settings

After all miners have their order number, it's time to edit IP settings.

Just below the table is IP Settings edit box. Every line in it means an static IP range/group.

Every line should includes 5 parts: IP range/group, subnet mask, gateway IP address, primary DNS address, second DNS address. They should be separated by a comma like:

192.168.193.2-5,255.255.255.0,192.168.193.1,8.8.8.8,202.106.0.20

This example means IP range is from 192.168.193.2 to 192.168.193.5, which contains 4 IP addresses. Subnet mask is 255.255.255.0 gateway is 192.168.193.1, primary DNS is 8.8.8.8 and second DNS is 202.106.0.20.

IP range/group part supports several format:

1) Contiguous range: a hyphen between two number indicate a contiguous range.
   For example:
   192.168.1-3.5
   Means 4 IP addresses: 192.168.1.5，192.168.2.5，192.168.3.5，192.168.4.5.
   Range can be used in multiple parts of IP address. For example:
   192.168.1-2.5-6
   Means 4 IP addresses: 192.168.1.5，192.168.1.6，192.168.2.5，192.168.2.6.

2) Multiple group: in any part of IP address, slash can be used to union multiple range or individual number. For example:
   192.168.1.3/6/7
   Means 3 IP addresses: 192.168.1.3，192.168.1.6，192.168.1.7.
   It can be mixed with range. For example:
   192.168.1-2.4-5/8/10/14-15
   Means 12 IP addresses: 192.168.1.4, 192.168.1.5, 192.168.1.8, 192.168.1.10, 192.168.1.14, 192.168.1.15, 192.168.2.4, 192.168.2.5, 192.168.2.8, 192.168.2.10, 192.168.2.14, 192.168.2.15.

3) Default prefix: if IP address doesn't contains 4 parts, the omitted parts will be filled with current IP address same position parts. For example, if all current IP addresses belong to 192.168.3.0, then 5.7-10 means 192.168.5.7-10.

Please edit IP settings according to above format. After that, you can go to next step.

Step 4: Preview

Press [Preview] button will let AMS show setting results about which miner will have which new IP address. AMS fill target IP column in order with IP address series extracted from your IP settings.

It any settings error, an error message will be displayed in topmost line. Please correct IP settings and press Preview button again.

Step 5: Apply Changes

After all miners have their target IP, please press [Apply] button to apply these changes tominers. If you hope AMS to automatically reboot miners after changing static IP address, please check [☐ Auto Restart]. If Auto Restart is not checked, AMS will only change IP settings and these miners will still work with current IP address until next reboot.
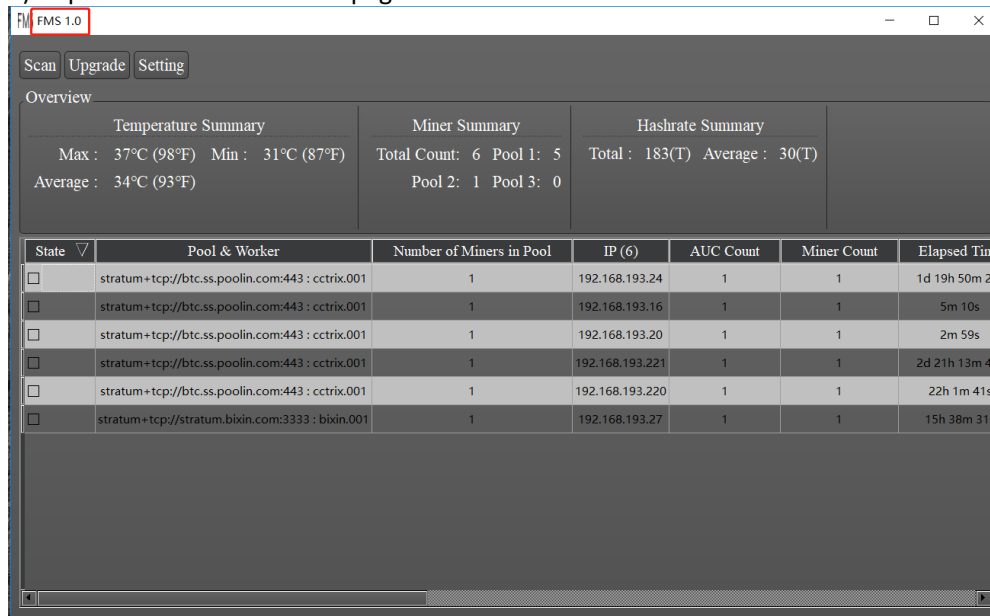
7. Version of FMS

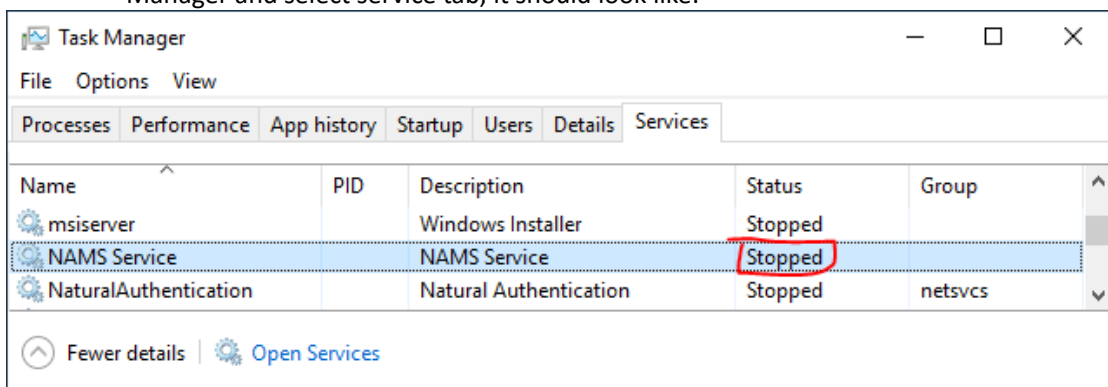Two ways to find out version of FMS:

1) top left corner of the main page

2) details in the installation package properties
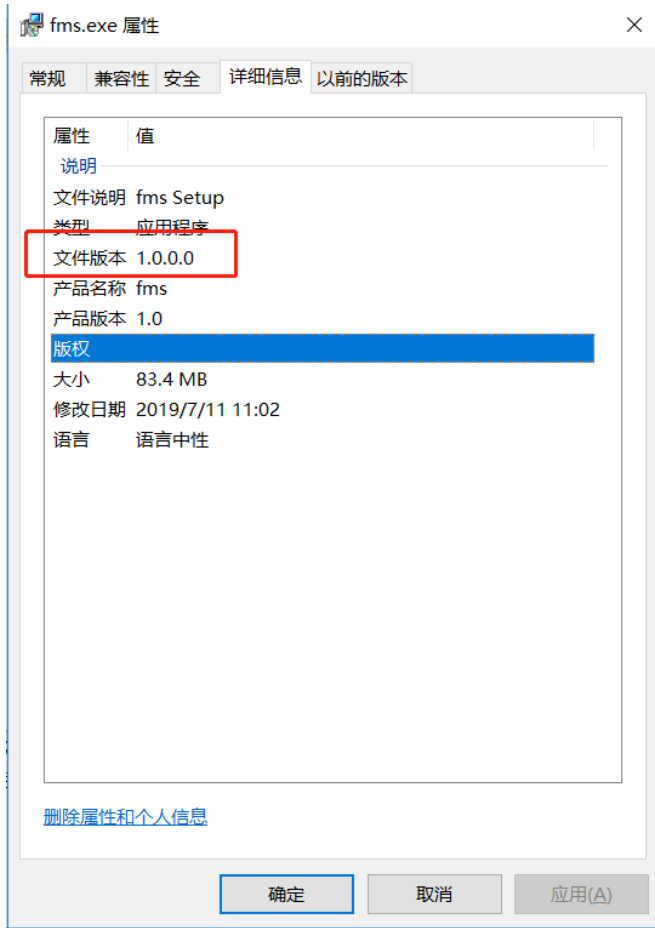
8. FAQ

a) Q: FMS keeps in waiting status and cursor seems like for a long time (several minutes)?

A: It usually means the background NAMS service stopped. If open Windows Task Manager and select service tab, it should look like:

Please confirm whether there are any software which limit background services or applications. If so, please config them to allow NAMS service or add NAMS service into the software's white list.

It's possible that NAMS service can't auto start when OS restart for some setting issues, you can manually start NAMS service to workaround too.

b)   Q: When upgrade firmware, some miners always failed.
A: It can happen on miners with some special old version firmware. To workaround, please power off and on these miners and then upgrade them ASAP.