WhatsMinerTool

Operation Guide

V2.0

Shenzhen MicroBT Electronics Technology Co., Ltd..

Forward

About this Document

This Document introduces specific functions and operation methods of WhatsMinerTool. All pictures and other information are merely for illustrative purposes. Read carefully the manual before using WhatsMinerTool.

Symbol instruction

Symbol	Instruction
	Provides additional information to supplement the text.

Revision history

Version	Revision Content	Release Time
V1.0	First release	20200101
V2.0	Updated content	20250311

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Contents

1. Introduction

1.1 Overview

This Document introduces operation instructions of WhatsMinerTool. WhatsMiner Tool is a software that you can download from our website WhatsMiner, and then operate on your computer. You can learn how to operate and maintain the miner by reading this Document. Some functions of WhatsMinerTool only support firmware versions after 20241011.12. You can download the latest firmware on our website WhatsMiner.

1.2 Running Environment

WhatsMinerTool can be run independently on a 64-bit system on a PC Windows 7-8-10-11.

1.3 Main Interface

After downloading WhatsMinerTool, double-click WhatsMinerTool-9.0.4 to enter the main interface.

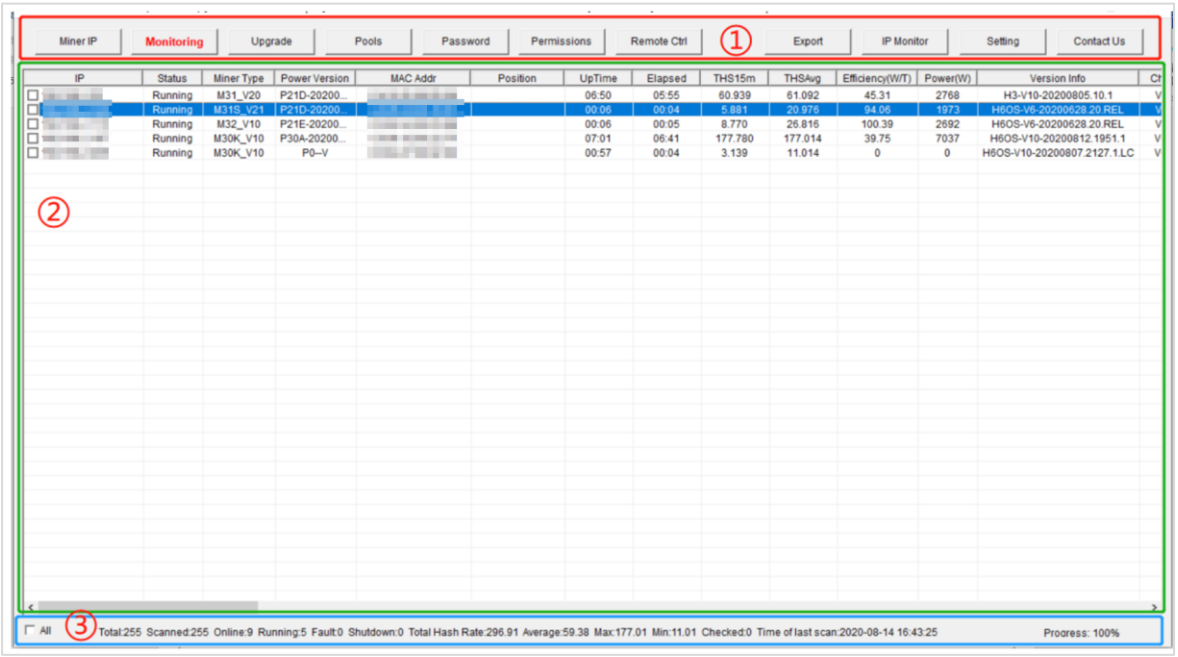

Figure 1-1

Among them, ① represents a function selection area, ② represents a miner list area, and ③ represents a status bar.

2. Configuring Miner IP Address

2.1 Adding IP Segment

Step 1 Click **Miner IP** to open a **Miner IP Management** window.

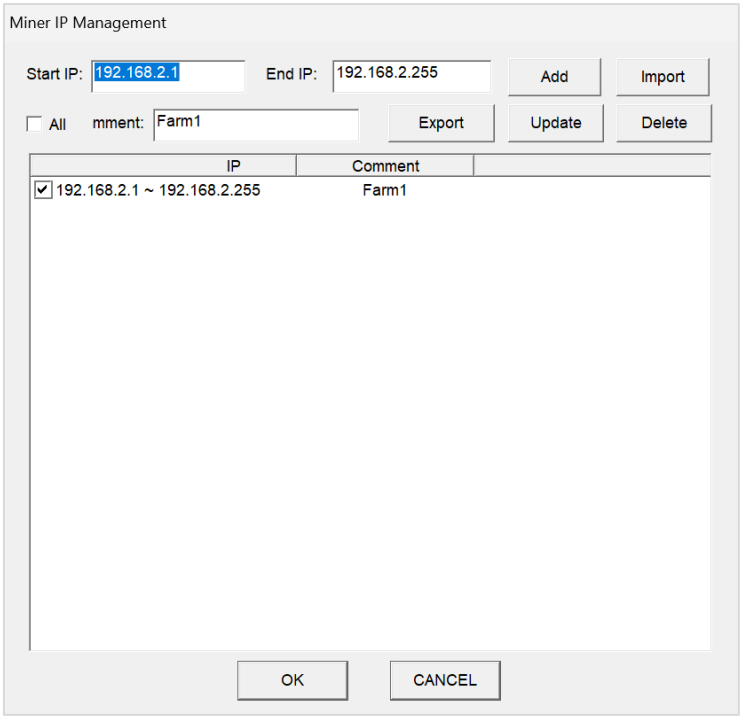

Figure 2-1

Step 2 Enter the corresponding IP segment in **Start IP** and **End IP**, and then click **Add**.

（Optional）Step 3 Select an IP segment, and then click **Update** or **Delete** to update or delete the IP segment.

Note:

- After the IP segment is selected, there will be a blue background color.
- Checking a checkbox to the left of the IP segment indicates that the segment is in a scanning range.

2.2 Importing Miner IP Address

Step 1 Click **Miner IP** to open a **Miner IP Management** window.

Step 2 Click **Import**, select an IP file in a .txt format you want to import in a popup window that appears, and then click **Open**.

Note: IP addresses must be written in a txt file in a line-by-line format.

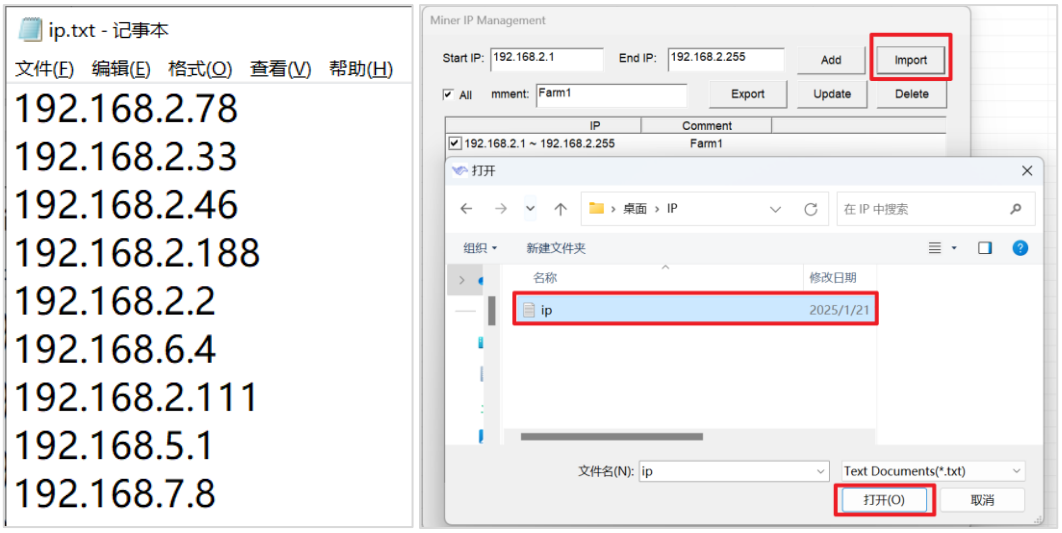

Figure 2-2

2.3 Exporting Miner IP Address File

Step 1 Click **Miner IP** to open a **Miner IP Management** window.

Step 2 Click **Export**, enter the exported IP address file name (.txt format) in a popup window, and then click **Open** to save the corresponding IP address file.

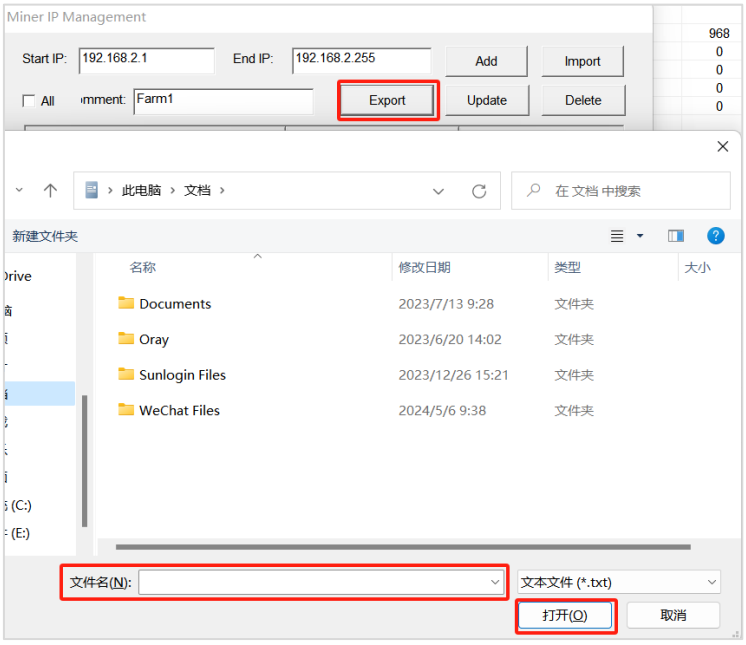

Figure 2-3

2.4 Saving IP Address Files Quickly

Select multiple IP addresses to be saved, right-click the selected IP addresses, and then click **Yes** to save them to an IP list.

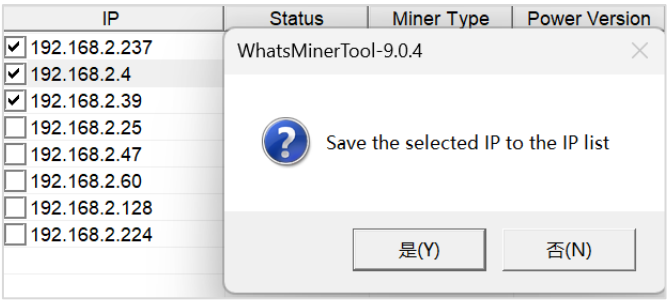

Figure 2-4

3. Scanning Miner

After you enter the IP segment in a **Miner IP Management** window and save it, click **Monitor**, and then a list box will list status of online miners in a current scanning range and **Monitor** will change to **Monitoring**.

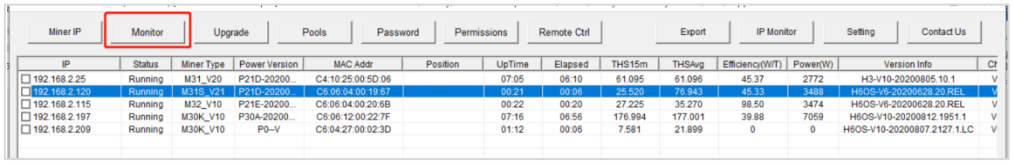

Figure 3-1

Note: Scanning results can be referred to a status display bar at the bottom, and scanning can be stopped at any time.

You can filter out miners you want to display in the list box based on their status and model.

3.1 Filtering by Status

Right-click on any position in a **Status** column to display a **Status** popup window, and then you can filter out a miner you want based on its status. Regarding the status of the miner, you can select **All**, **Running**, **Fault**, **Shutdown**, **Success**, **Failed**.

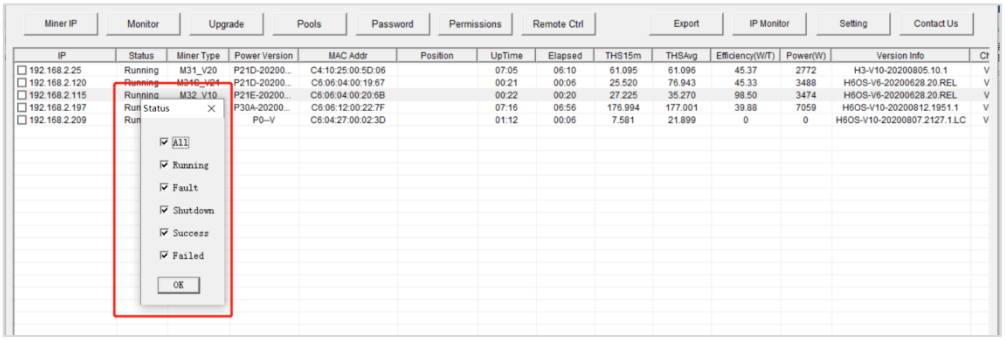

Figure 3-2

3.2 Filtering by Model

Right-click on any position in a **Miner Type** column to display a **Miner Type** popup window, and then you can filter out a miner you want based on its type.

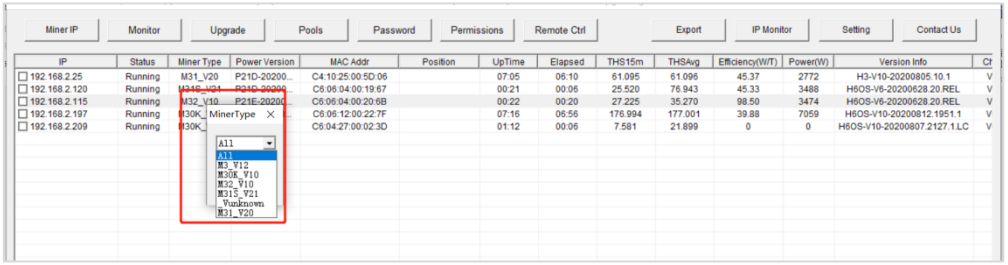

Figure 3-3

4. Upgrading Firmware

You can upgrade the firmware of a miner according to your actual needs.

Step 1 Click **Upgrade**, click **Select File**, and then select a firmware file to upgrade in a popup window.

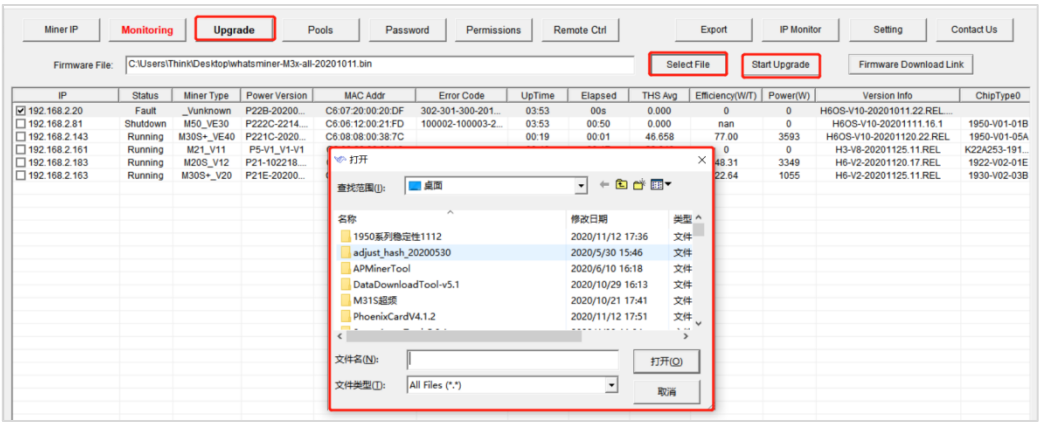

Figure 4-1

Step 2 Click a checkbox to the left of an IP address of a miner to be upgraded, and then click **Start Upgrade** to upgrade a firmware of the miner.

When a dialog box pops up, click **OK**. When **Status** of the selected miner shows **Success**, it means the upgrade is successful, otherwise**, Status** of the selected miner shows **Failure**.

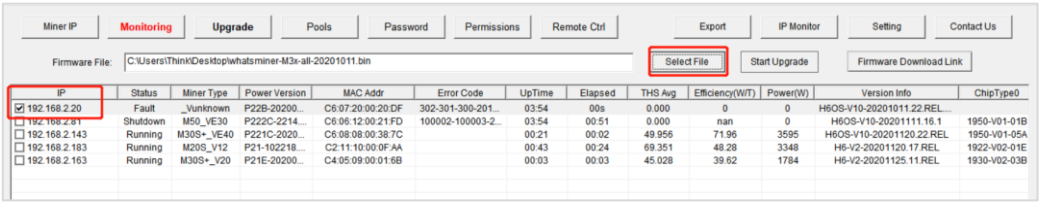

Figure 4-2

Note: Click **Firmware Download Link**, and then a browser will automatically jump to a firmware download website.

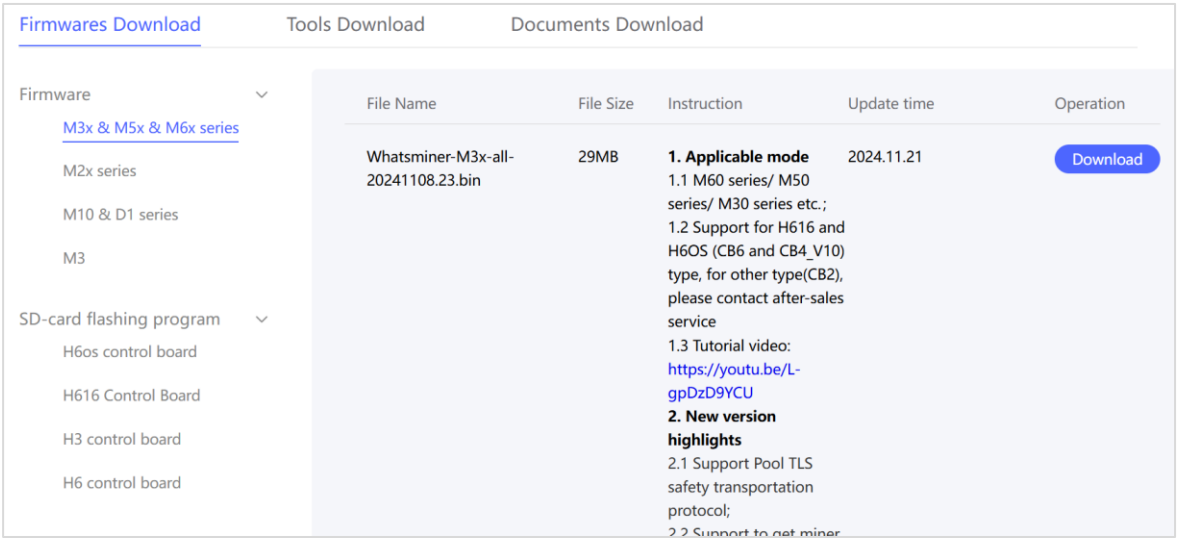

Figure 4-3

5. Configuring Pool

You can use WhatsMinerTool to collocate pool as needed. The following will introduce how to collocate a pool.

Before you start

Click **Settings** to enter a **Setting Dialog** box, select **IP Suffixes Count** from 1 to 4 to configure worker’ s IP suffix count, and then click **Save** to save the configuration. Other options can be configured as needed.

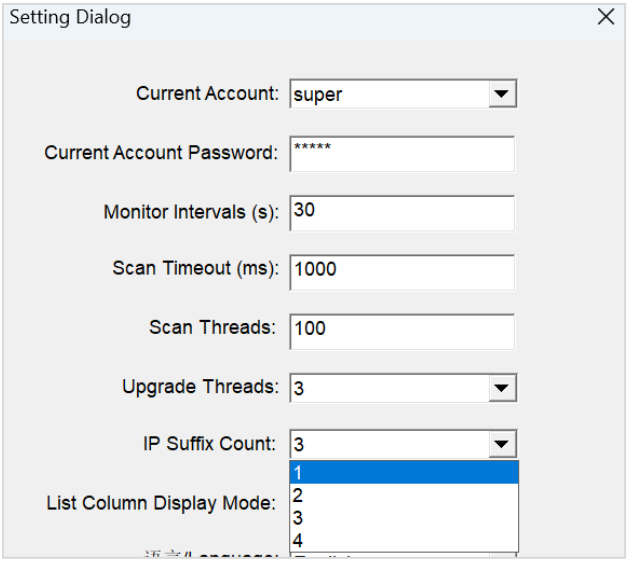

Figure 5-1

Step 1 Click **Pools**, and then configure a pool address, a worker name, a suffix form, a password, and a coin type.

You can configure one or more pools as needed.

Step 2 Select an IP address of a miner that needs to configure the pool and the worker, and then click **Start Upgrade**.

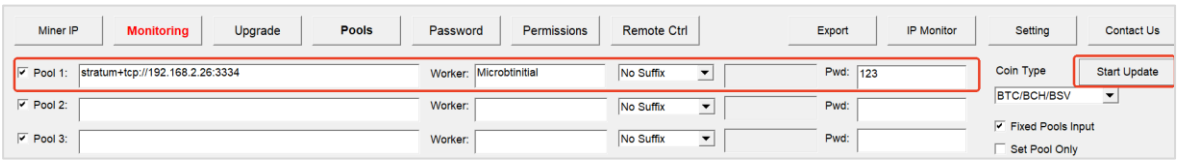

Figure 5-2

Note:

- Click **Fixed Pools Input**, and then a pool address you entered will be locked. When configuring the same pool for other miners, you do not need to enter the locked pool address again.
- Click **Set Only Pool** to only configure the pool, while locking the configuration of the worker, the suffix form, the password, the coin type and other functions.

Step 3 After a dialog box pops up, click **OK** to complete the configuration.

6. Configuring Password

You can change the old password to a new one as needed. The following will introduce how to change the password.

Step 1 Select an IP address of a miner you want to change its password, and then click **Password**.

Step 2 Select **super**, **user1**, **user2**, or **user3** from **Account**, and then enter an old password and a new password.

Note: The default password is the same as an account number.

Step 3 Click **Start Upgrade** to save the configuration.

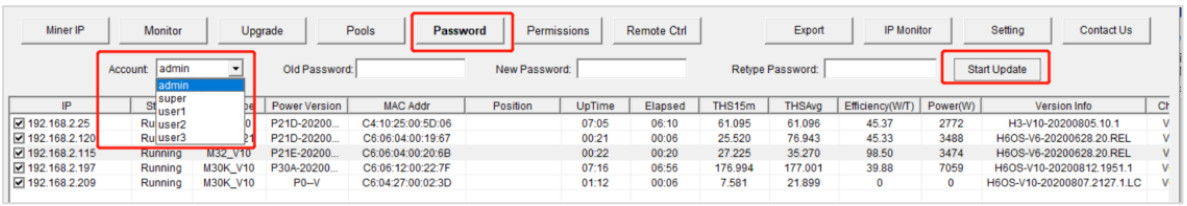

Figure 6-1

7. Configuring Permission

WhatsMinerTool has added an account of **super**, and only the account of **super** can configure permissions for accounts of **user1**, **user2**, or **user3**.

Click **Permissions** of the corresponding account to configure different permissions for three general accounts.

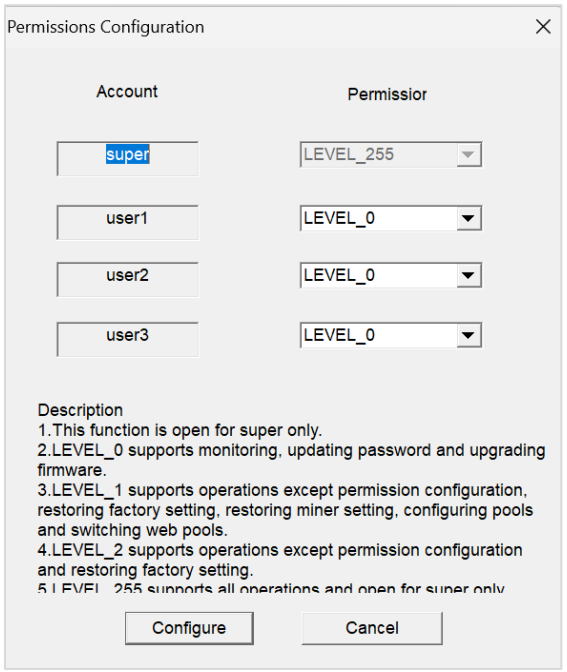

Figure 7-1

Note:

- To configure the permissions, you need to log in to the account of **super**. At present, the login account can be viewed in an upper left corner of a main interface.
- The account of **super** is logged in to perform all operations on a miner by default. To login to other accounts, click **Setting**, and then select an account you want to log in from **Current Account**.

8. Configuring Remote Control

Before configuring remote control, you can choose to open or close **Compact Mode** in a **Setting Dialogue** window. In a compact mode, functions of remote control are simplified, including **Reboot, Leds Control, Miner API Switch, Restore Miner, Export Log, Webs Pools Switch.**

8.1 Restarting Miner

Step 1 Select an IP address of a miner you want to restart.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Reboot**, and then click **OK**.

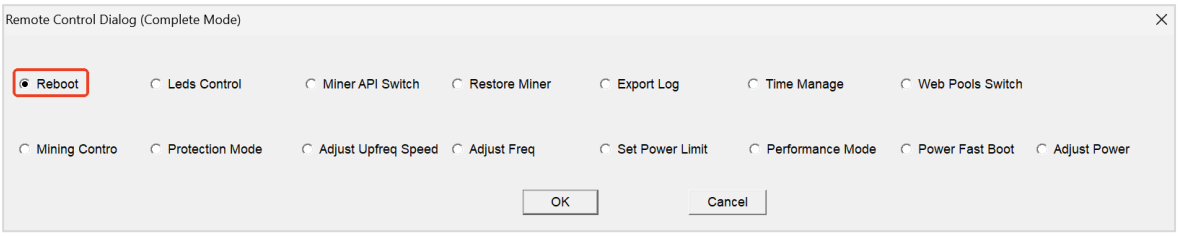

Figure 8-1

Step 3 After a dialog box pops up, click **OK** to restart the miner.

8.2 Controlling Mining

Step 1 Select an IP address of a miner you want to control its mining.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Miner Control**, and then click **OK**.

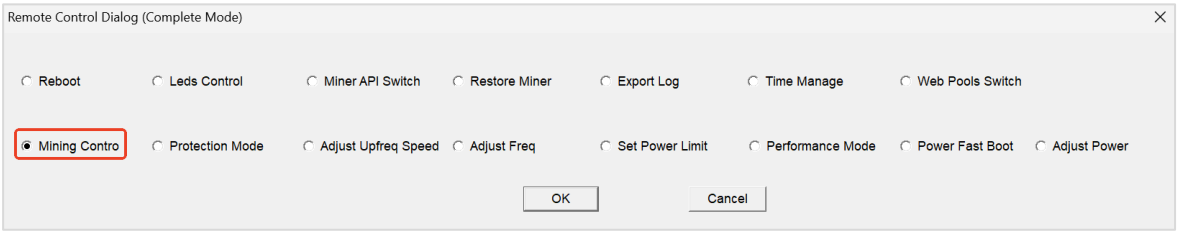

Figure 8-2

Step 3 After a dialogue box pops up, select **Resume Mining** or **Suspend Mining**, and then click **OK** to switch a mining mode.

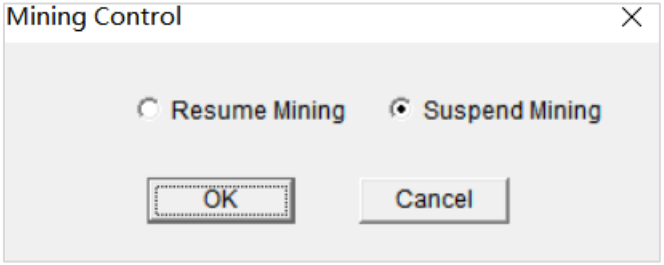

Figure 8-3

Note: M3 and other early mines are not supported when the miner is turned off.

8.3 Switching Performance Mode

For some models of miners, in order to improve hashrate, they can operate in high

performance mode, while in situations such as bitcoin price drops, the miners can operate in low performance mode to reduce energy consumption. At this time, you can use WhatsMinerTool to adjust a performance mode of a miner you want to change its power.

Step 1 Select an IP address of a miner you want to change its power mode.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Performance Mode**, and then click **OK**.

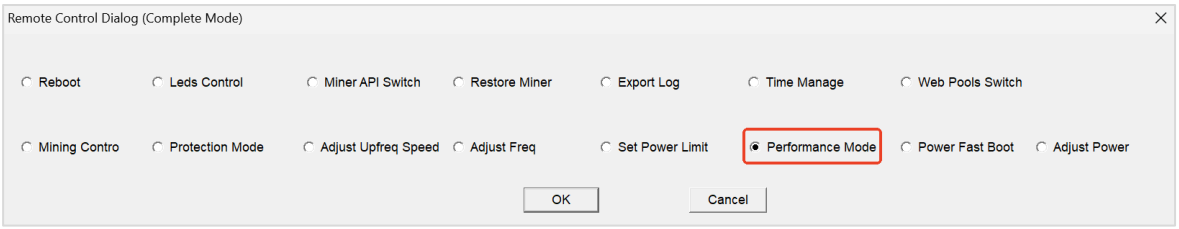

Figure 8-4

Step 3 After a dialogue box pops up, select **High**, **Normal**, or **Low** to change the performance mode of the miner, and then click **OK** to switch the performance mode of the miner.

After selecting **High** performance mode, the miner can operate at a higher frequency and efficiency, significantly improving its computing power, but at the same time, it can also cause an increase in energy consumption.

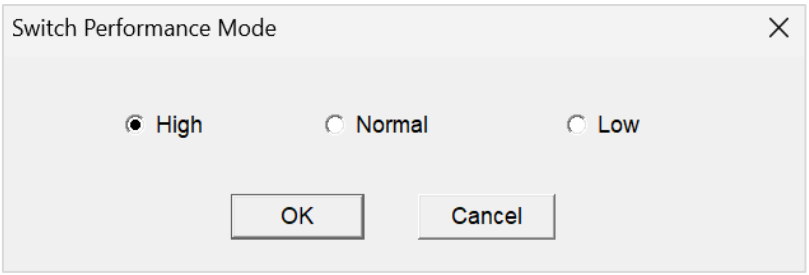

Figure 8-5

Note:

- M3 and other early miners do not support this function.
- At present, the high-performance mode only supports M30S series and subsequent miners, and it is required that the voltage be higher than 230 V.

8.4 Restoring Miner

If you want to restore a miner to its original state, you can use WhatsMinerTool to complete this operation.

Step 1 Select an IP address of a miner you want to restore.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Restore Miner**, and then click **OK**.

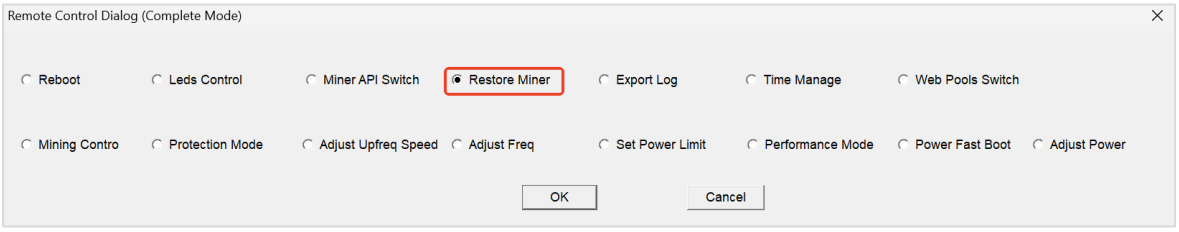

Figure 8-6

Step 3 After a dialog box pops up, select **Restore DHCP**, **Restore Factory Setting**, or **Restore Miner Setting** as needed, and then click **OK** to restore the DHCP, settings, or factory settings of the miner.

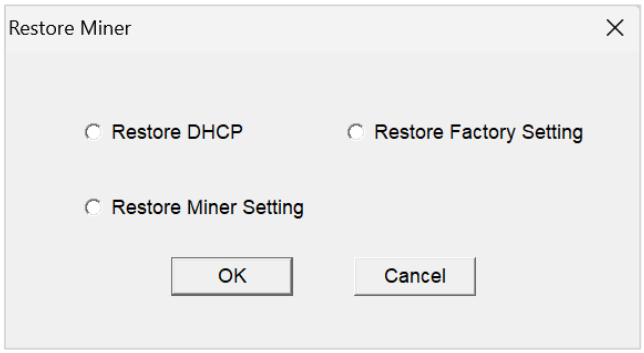

Figure 8-7

8.5 Configuring Miner API

Miner management software functions similar to WhatMinerTool can be achieved via API. You can download the API document on our official website. By default, the API read permission is granted, while the API write permission has to be enabled through WhatMinerTool. Thus, if you intend to retrieve data and modify configurations within your application, you can make use of this functionality.

Step 1 Select an IP address of a miner you want to obtain its data or modify its parameters. You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Miner API Switch**, and then click **OK**.

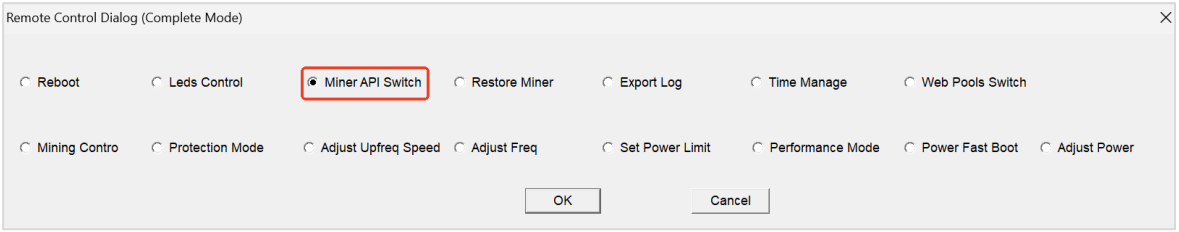

Figure 8-8

Step 3 After a dialog box pops up, you can select **Enable** or **Disable**, and then click **OK** to

enable or disable an API function.

After opening the API switch, you can use an API interface to obtain various states of the miner and modify the parameters of the miner.

Note: You need to upgrade a firmware of the miner to an official version 20200801 and later.

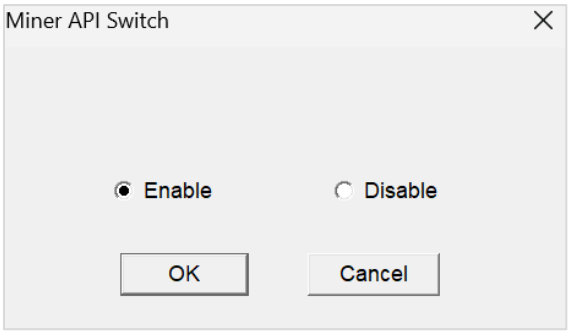

Figure 8-9

8.6 Configuring Power Fast Boot

Step 1 Select an IP address of a miner you want to quickly increase its power.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Power Fast Boot**, and then click **OK**.

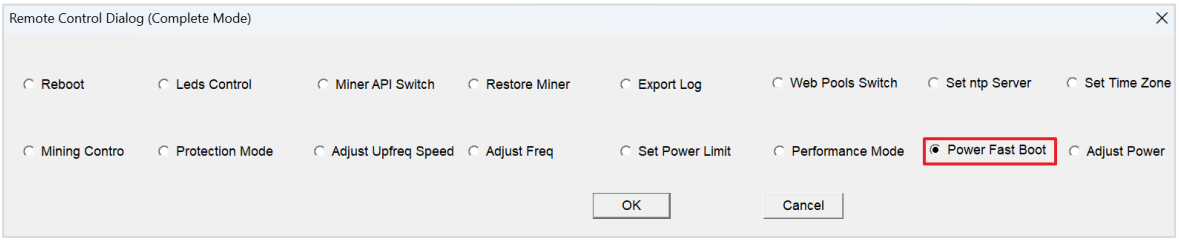

Figure 8-10

Step 3 After a dialog box pops up, you can select **Enable** or **Disable**, and then click **OK** to enable or disable a power fast boot switch function.

After restarting the miner, its load can quickly reach a rated load within one minute in a startup stage, and load fluctuation can be reduced.

Note:

- This function cannot improve computing speed.
- You need to upgrade a firmware of the miner to an official version 20200801 and later, and only M30 series and subsequent miners support this function.

8.7 Controlling LED Light

Step 1 Select an IP address of a miner you want to control its LED lights.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Leds Control**, and then click **OK**.

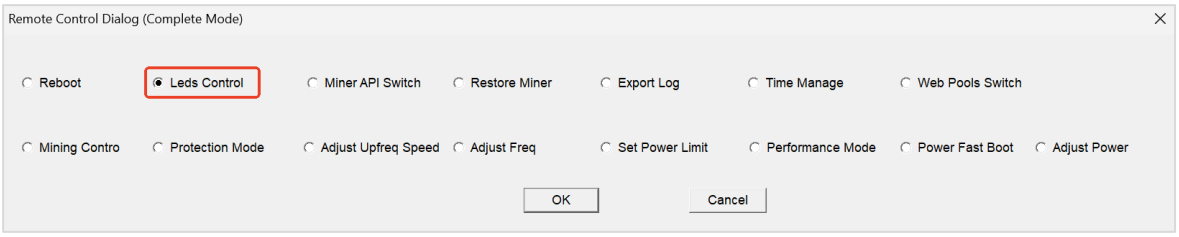

Figure 8-11

Step 3 After a dialog box pops up, click **Flash**, and then click **OK**.

After completing this operation, LED lights of a selected miner will flash quickly to facilitate rapid and accurate positioning of the miner.

You can also click **Remote Ctrl**, click **Leds Control**, click **OK**, and then click **Normal** in a pop-up dialogue box to return the LED lights of the miner to a normal state.

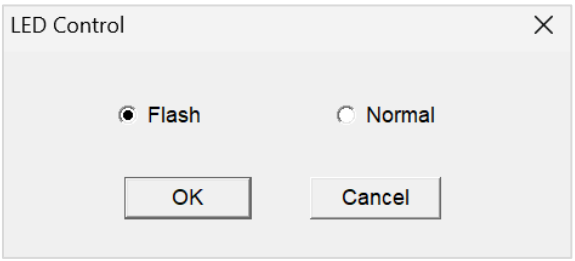

Figure 8-12

8.8 Exporting Log

If your miner encounters some problems or errors, you can export its logs to our after-sales operation and maintenance personnel for assistance. The following will introduce how to export its log.

Step 1 Select an IP address of a miner you want to export its log.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Export Log**, and then click **OK**.

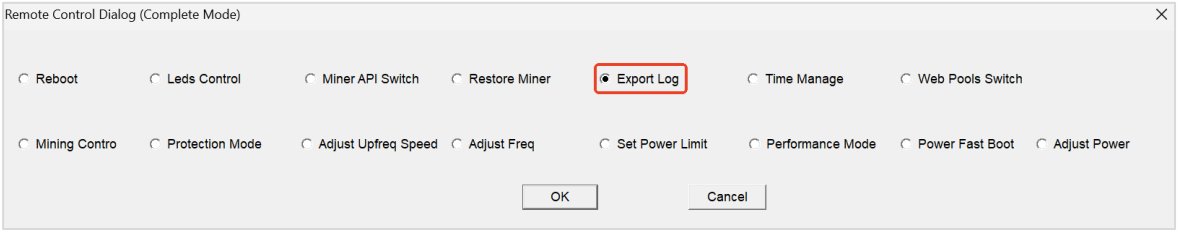

Figure 8-13

Step 3 After a dialog box pops up, select a save path for an exported log, and then click **OK**.

A log contains upfreq_test.log, power.log, miner.log, system.log, api.log.

Figure 8-14

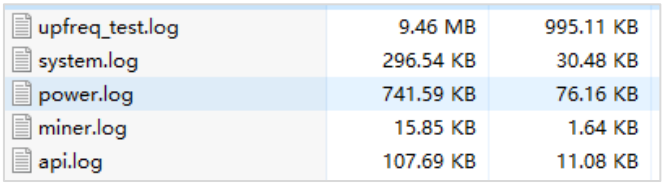

Figure 8-15

8.9 Configuring Web Pools Switch

Step 1 Select an IP address of a miner you want to configure web pool switch.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Web Pool Switch**, and then click **OK**.

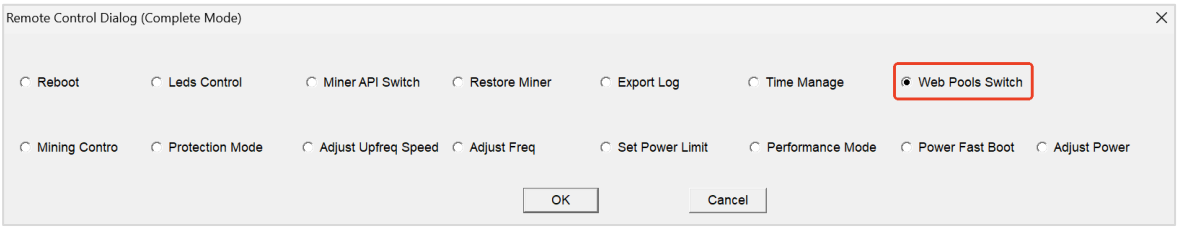

Figure 8-16

Step 3 After a dialog box pops up, select **Enable Web Pools Config** or **Disable Web Pools Config**, and then click **Select**.

Enable Web Pools Config: This function can display a pool configuration page of the miner in a main page of a backend of the miner.

Disable Web Pools Config: This function can hide a pool configuration page of the miner in a main page of a backend of the miner.

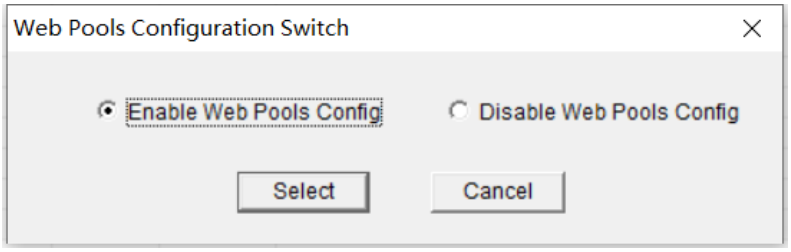

Figure 8-17

8.10 Configuring Frequency Adjustment

Step 1 Select an IP address of a miner you want to adjust its frequency.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Adjust Freq**, and then click **OK**.

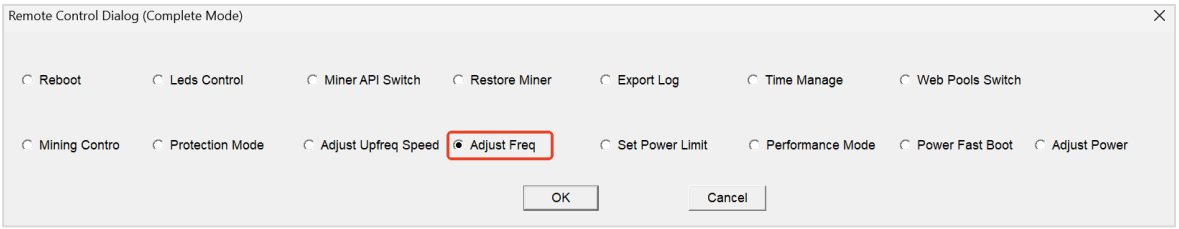

Figure 8-18

Step 3 After a dialog box pops up, select **Up (+)**, **Down (-)** or **Normal** and configure a specific percentage, and then click **OK**.

After completing this operation, the selected miner displays a percentage of an up/down action under **Performance Mode** tab.

Note:

- When you adjust the frequency, it is actually based on **Normal** performance mode for adjustment.
- Up-up frequency only supports hydro-cooling miners, immersion-cooling miners, and M61 series air cooling miners. Normally, **High** performance mode corresponds to 120% to 130%, so in reality, you cannot increase the frequency of the miner by 100% because the frequency you set may already exceed the maximum frequency that the miner can reach. Therefore, when increasing the frequency of the miner, you can only reach its maximum frequency that it can reach, rather than increasing it by 100%.

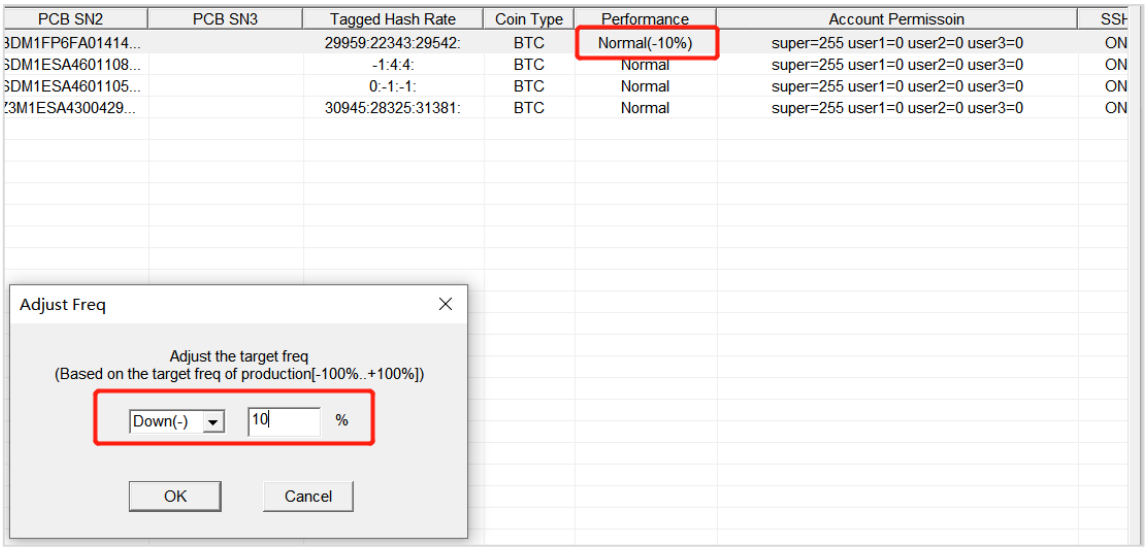

Figure 8-19

8.11 Configuring Protection Mode

This function is only available for hydro-cooling miners.

Step 1 Select an IP address of a miner you want to configure its protection mode.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Protection Mode**, and then click **OK**.

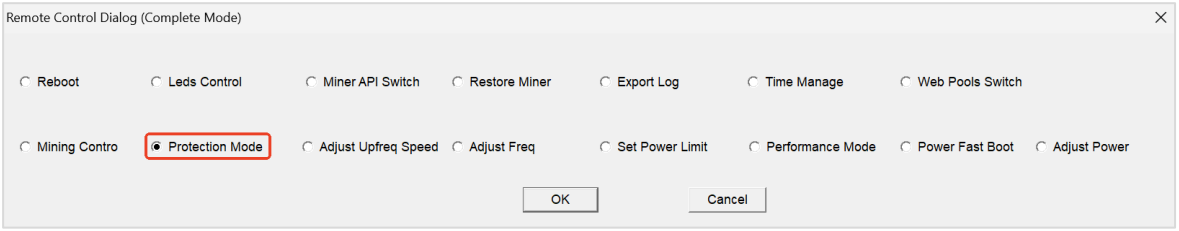

Figure 8-20

Step 3 After a dialog box pops up, you can select to switch to **Power-Keeping** mode, and then click **OK**.

Power-Keeping mode: After you select this mode, the selected miner will continue to work to keep the power after network interruption.

Anti-Freezing mode: After you select this mode, the selected miner will be automatically heated to 5°C-10°C to prevent the inside of a hydro-cooling plate from freezing.

Note:

- The default mode is **Anti-Freezing** mode.
- If water flow is abnormal, the selected miner will not keep the power, and its protection mode will automatically switch to **Anti-Freezing** mode.

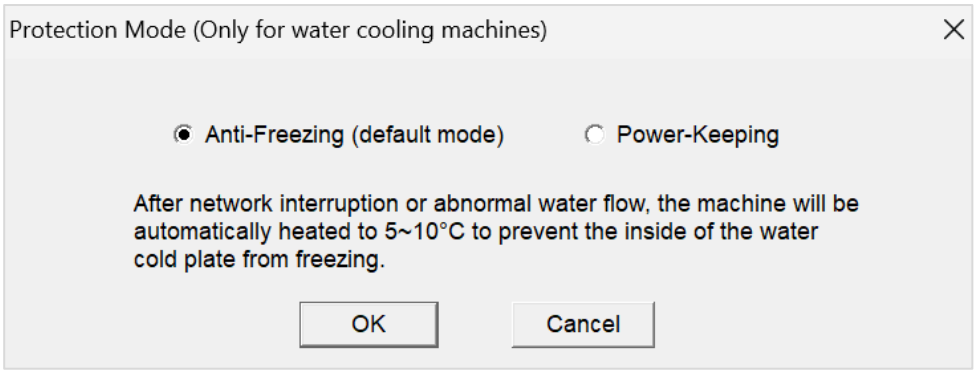

Figure 8-21

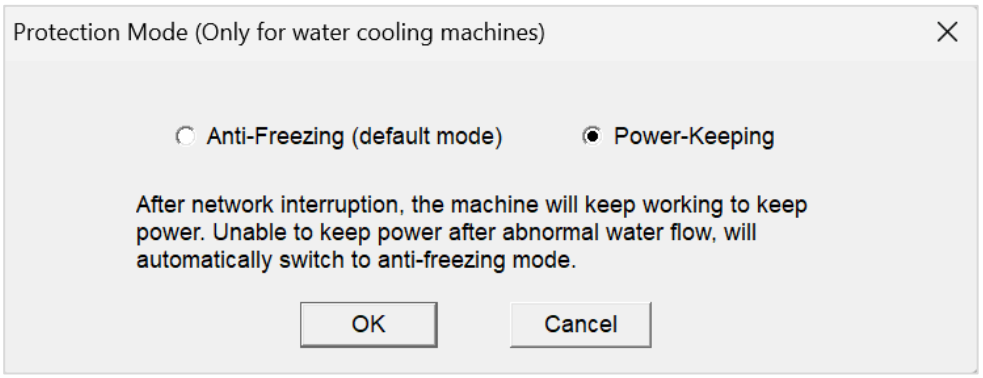

Figure 8-22

8.12 Configuring Frequency Search Speed Adjustment

Increasing frequency search speed can shorten time from startup to operation and reduce relative power consumption, but it may also bring a stability risk.

Step 1 Select an IP address of a miner you want to configure its frequency search speed. You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Adjust Upfreq Speed**, and then click **OK**.

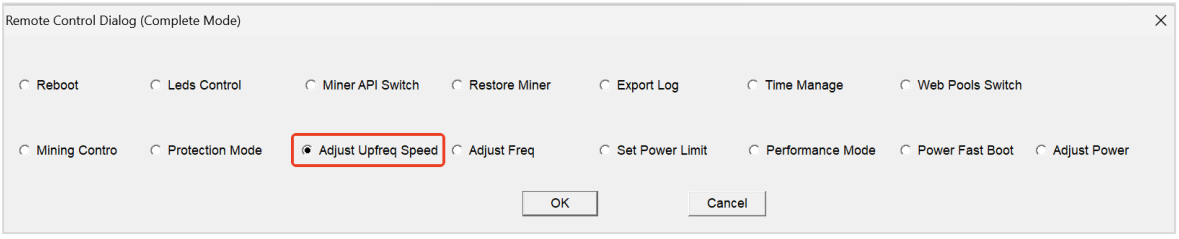

Figure 8-23

Step 3 After a dialog box pops up, you can drag a slider to select a number from 0 to 10, and then click **OK**.

You can adjust frequency search speed from 0 to 10. 0 indicates normal frequency search speed, 10 indicates fast frequency search speed. The larger the number is, the faster the frequency search speed is.

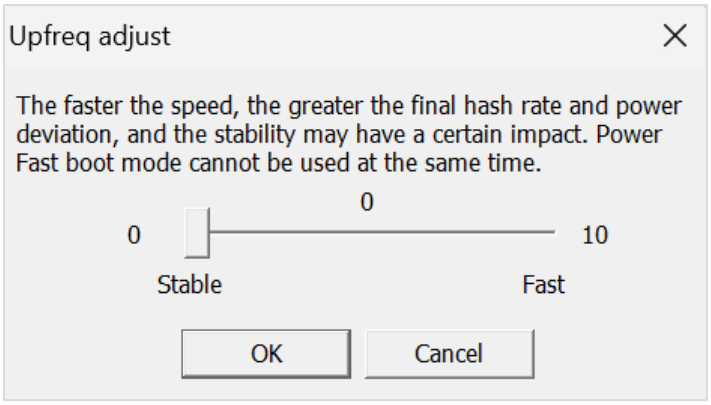

Figure 8-24

8.13 Configuring Power Limit

Setting a power limit of a miner can control power consumption, protect hardware, improve stability and hashrate.

Step 1 Select an IP address of a miner you want to configure its power limit.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Adjust Power Limit**, and then click **OK**.

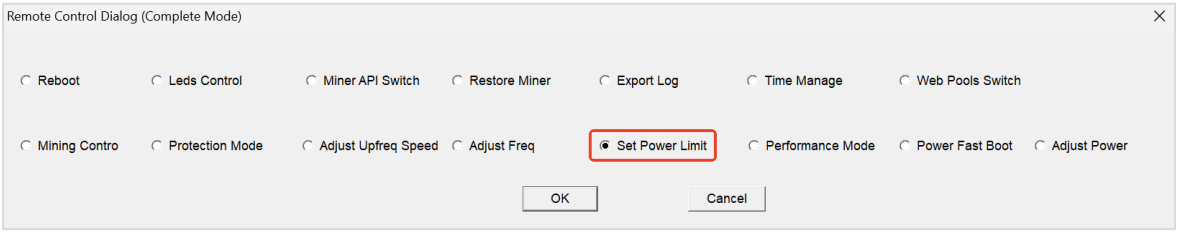

Figure 8-25

Step 3 After a dialog box pops up, you can configure a power limit between 0 W and 99999 W as needed, and then click **OK**.

After completing this operation, the selected miner displays its set value of power limit under **PowerLimitSet** tab and its actual maximum value of power limit under **PowerLimit** tab.

Note: The power limit you configure cannot exceed the maximum power that the miner itself can actually achieve.

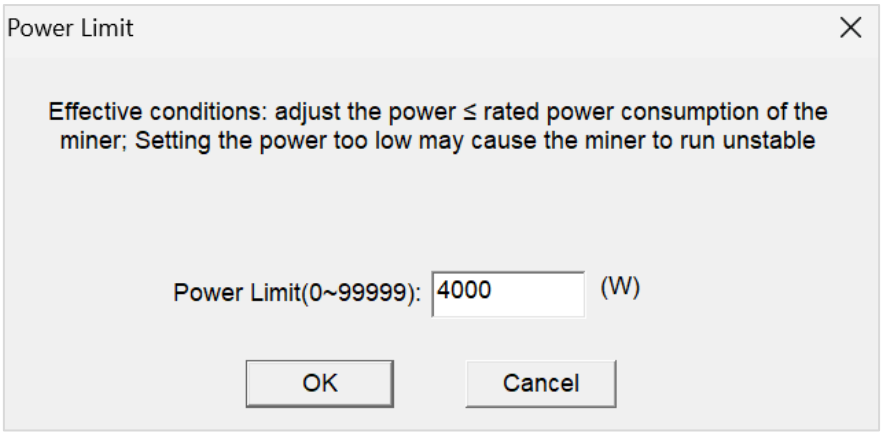

Figure 8-26

Power Version	MAC Addr	Error Code	UpTime	Elapsed	THS RT	THS Avg	Efficiency(W/T)	Power(W)	PowerRT(W)	PowerLimit	PowerLimitSet
P0-_-V0	CC:59:12:00:02:B6	302-303-322-323-...	00:50	00s	0.000	0.000	0.00	0	-1	0	
P221C-5635.1...	C8:04:16:00:6A:8B	11000	03:44	02:59	0.000	0.000	0.00	86	84	0	
P222C-3117.1...	C8:05:06:00:33:F2	11000	03:44	02:59	0.000	0.000	0.00	99	97	0	4000
P0-_-V0	CC:0B:1D:00:17:3B	300-309-500-800	23:57	00s	0.000	0.000	0.00	0	-1	0	
P732A-4543.1...	CE:0B:0D:00:67:60	100003	04:53	00s	0.000	0.000	0.00	6	8	0	
P0-_-V0	CA:03:15:00:B4:95	300-309	12d 00:13	00s	0.000	0.000	0.00	0	-1	0	4000
P0-_-V0	00:00:00:0C:00:00	300-309-500	2d 03:31	00s	0.000	0.000	0.00	0	-1	0	
P0-_-V0	CC:0C:13:00:52:EB	300-309-500-530-...	01:35	00s	0.000	0.000	0.00	0	-1	0	

Figure 8-27

8.14 Configuring NTP Servers

Setting up an NTP server can ensure time synchronization, improve transaction accuracy, and facilitate troubleshooting and analysis of faults of a miner.

Step 1 Select an IP address of a miner you want to configure its NTP servers.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Time Manage**, and then click **OK**.

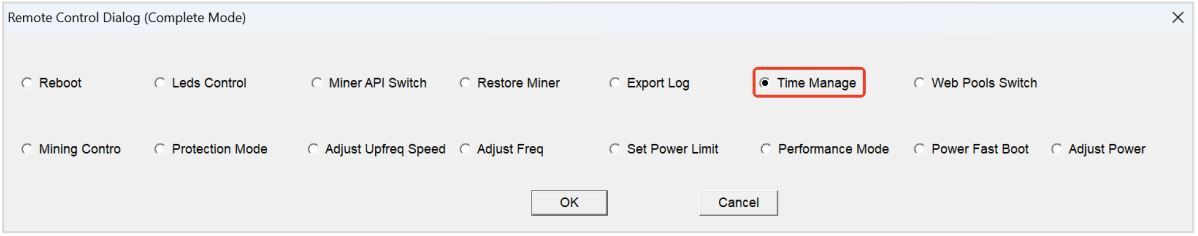

Figure 8-28

Step 3: After a **TimeManage** dialogue box pops up, click **Set ntp Server**, and then click **OK**.

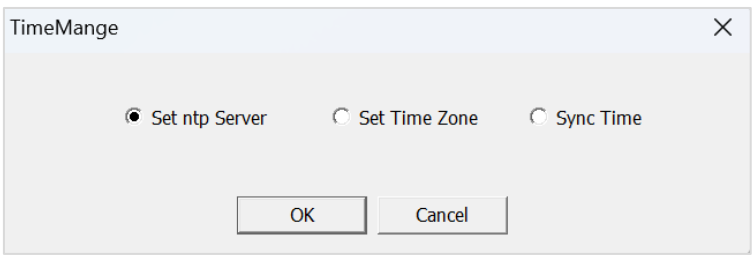

Figure 8-29

Step 3 After a dialog box pops up, you can configure NTP servers as needed, and then click

OK.

Note:

- You can configure up to 4 NTP servers.
- When you configure the NTP server, addresses of the 4 NTP servers are initially configured by default, you can see specific addresses in a main page of a backend of the miner.

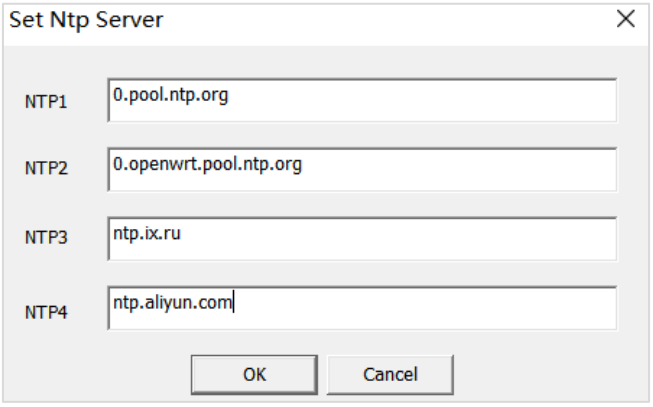

Figure 8-30

8.15 Configuring Time Zone

Step 1 Select an IP address of a miner you want to configure its time zone.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Time Manage**, and then click **OK**.

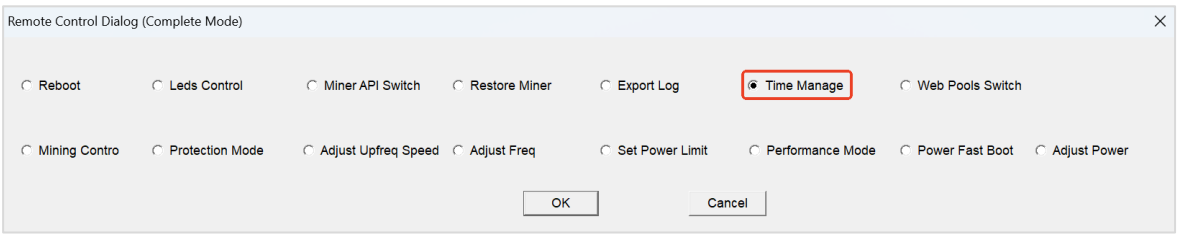

Figure 8-31

Step 3: After a **TimeManage** dialogue box pops up, click **Set Time Zone**, and then click **OK**.

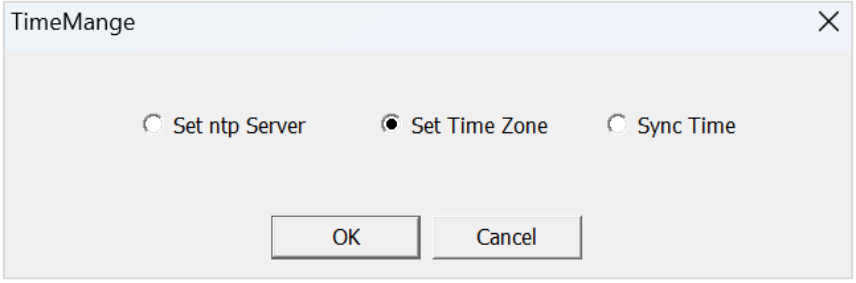

Figure 8-32

Step 4 After a dialog box pops up, you can select a time zone as needed, and then click **OK**.

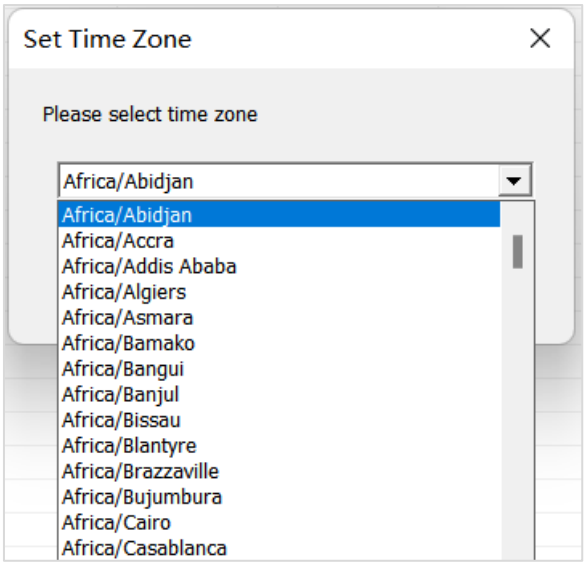

Figure 8-33

8.16 Configuring Synchronization Time

Step 1 Select an IP address of a miner you want to synchronize with system time.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Time Manage**, and then click **OK**.

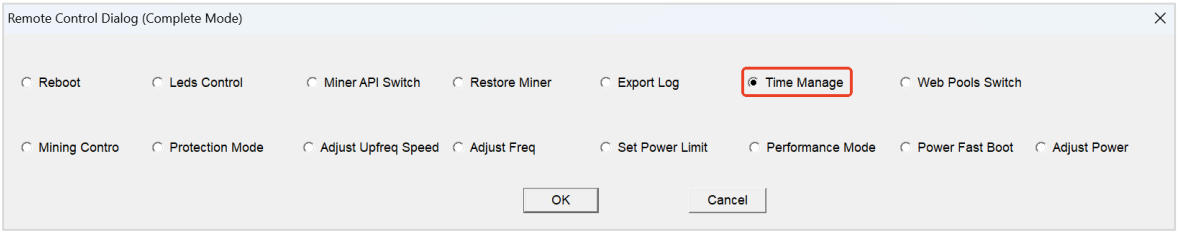

Figure 8-34

Step 3: After a **TimeManage** dialogue box pops up, click **Set Time Zone**, and then click **OK**.

After completing this operation, the miner can be synchronized with the system time

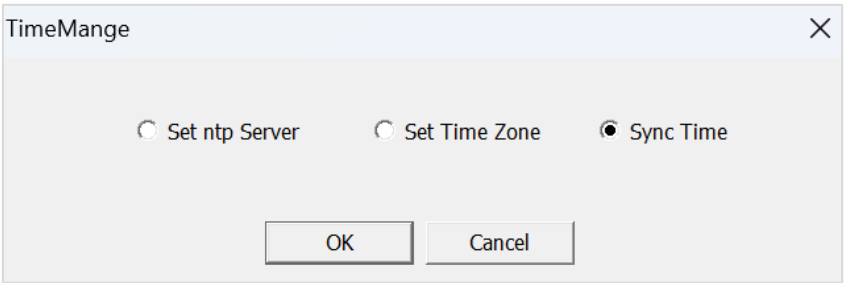

Figure 8-35

8.17 Configuring Power Adjustment

When you adjust power of a miner according to an actual situation, there are three modes you can select, including **Reset setting**, **Normal mode**, and **Fast mode**. You can select an

appropriate mode as needed.

Step 1 Select an IP address of a miner you want to adjust its power.

You can also select multiple IP addresses of multiple miners.

Step 2 Click **Remote Ctrl**, click **Adjust Power**, and then click **OK**.

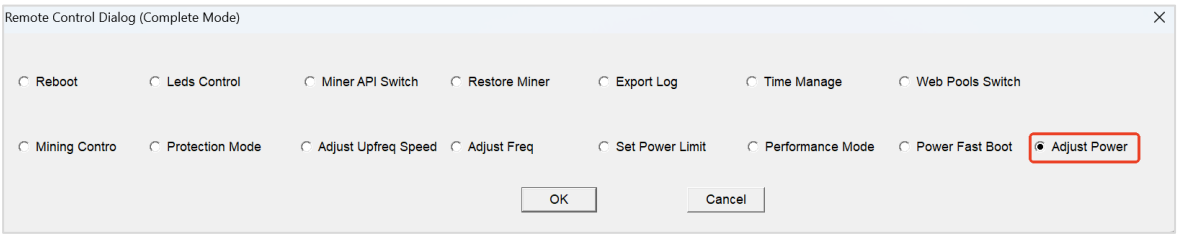

Figure 8-36

Step 3 After a dialog box pops up, you can select an appropriate mode and configure a specific power value and percentage value, and then click **OK**.

Reset setting: When you select this mode, the power of the miner can be reset and restored to startup power without restarting.

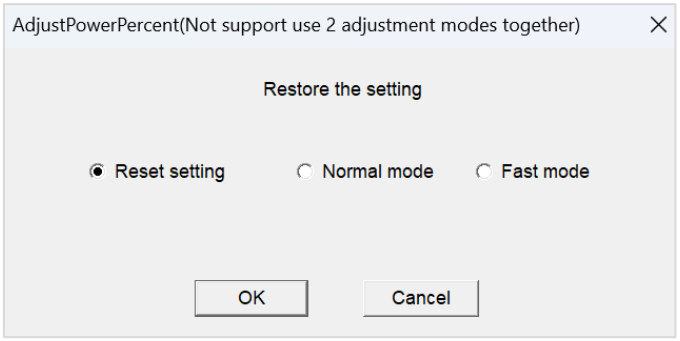

Figure 8-37

Normal mode: When you select this mode and configure a specific power value, the power of the miner can quickly reach the set power in an optimal state. However, frequency search time is relatively long.

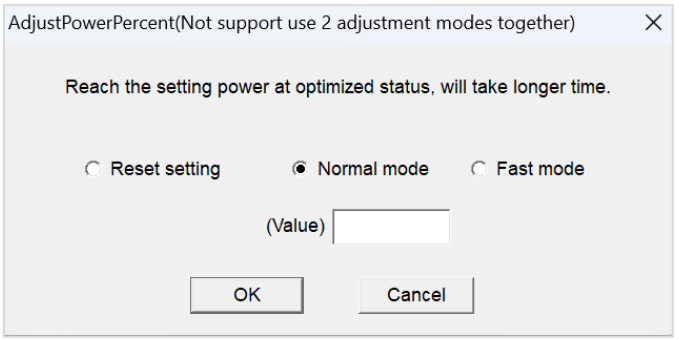

Figure 8-38

Fast mode: When you select this mode and configure a specific percentage value, the power of the miner can quickly reach the set power. However, power consumption will be higher.

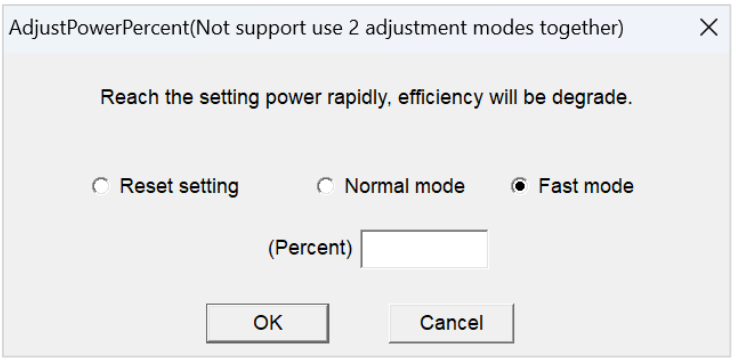

Figure 8-39

9. Configuring Data Export

You can also export and save list information in a current status list box on your computer. On a main interface of WhatsMinerTool, click **Export**, select an appropriate storage path in a pop-up window, and then click **Save**.

The exported file is in. csv format and can be opened and edited in Excel. The default name of the exported file is "Current specific time (year, month, hour, minute, second). csv". For example: 20201211141322.csv.

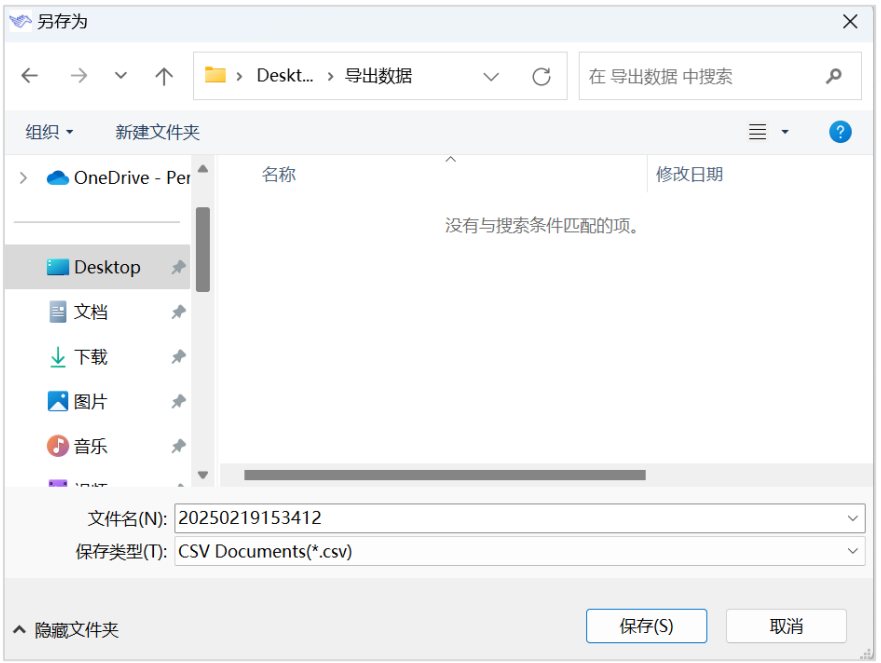

Figure 9-1

10. Configuring IP Detection and Static IP Setting

10.1 Detecting IP

Before you start

After starting a miner, press **IP Found** button on a control board of the miner for several seconds, and then wait for two LED lights to flash, indicating that the miner has broadcast its IP address and MAC address to the network.

On the main interface of WhatsMinerTool, click **IP Monitor**, and then click **Start** to detect an IP address.

At this time, WhatsMinerTool will automatically detect the IP address reported by the miner.

Note: If you want to suspend or stop detection, click **Stop**.

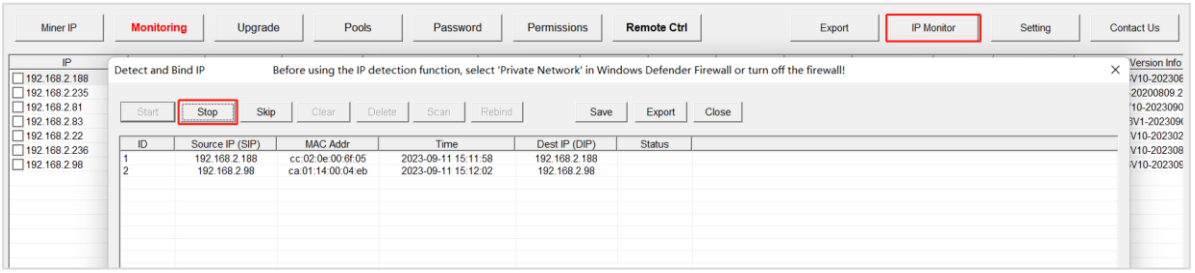

Figure 10-1

After IP detection is completed, you can click **Save** to save current data, so that these data will not disappear when you close the window, or you can click **Export** to save a current miner IP list in a form of a file on your computer.

10.2 Setting Static IP

When setting the static IP address, for **SIP**, you can select from the detected IP addresses or click **Import SIP** to import; and for **DIP**, you can click **Import DIP** to import, or manually write an IP address, and then click **Update DIP**.

After changing **DIP** and its corresponding subnet mask, gateway address, broadcast address, and DNS address, click **Set Static IP**. When **Status** of the corresponding IP shows **Success**, the static IP address is successfully set.

Note:

- Before setting a static IP address, you should ensure that a mask address, a broadcast address, a gateway address, and a DNS address are set correctly.

- After the static IP address is successfully set, the miner will automatically restart to enable the newly set IP address.

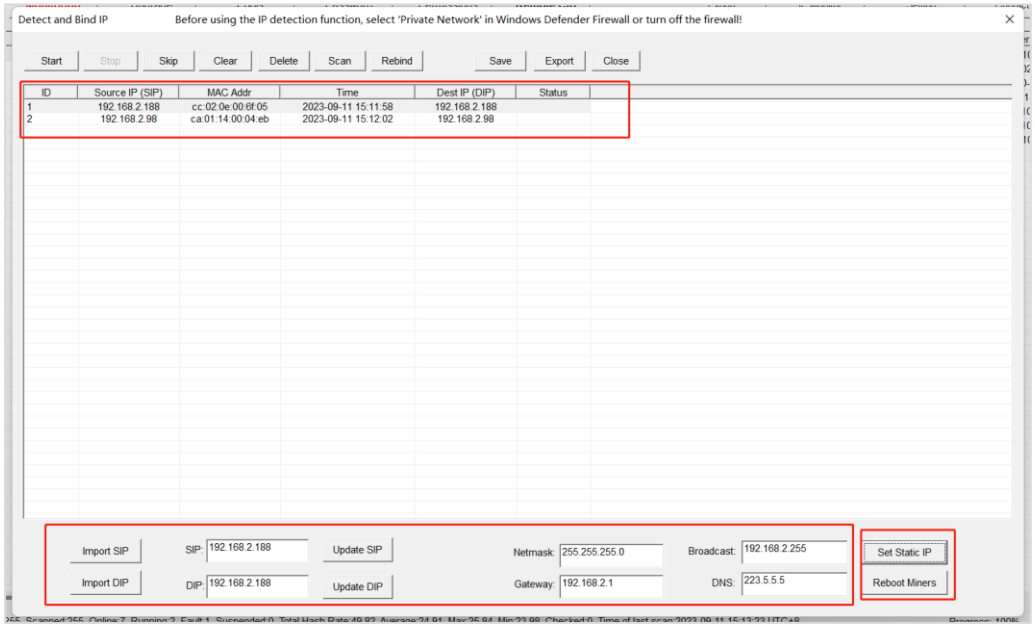

Figure 10-2

11. Configuring Functions in Setting Window

On a main interface of WhatsMinerTool, click **Settings** to open a **Setting Dialog** popup window, and then you can configure functions as needed.

You can select to log in to a different administrator account, and you need to enter an account password correctly before operating as an administrator.

You can configure **Monitor Interval**, **Scan Timeout**, **Scan Threads**, **Upgrade Threads**, **IP Suffix Count**, **List Column Display Mode** as needed.

Among them, for a function of **List Column Display Mode**, you can select **Compact Mode**, **Complete Mode**, and **Custom Mode**. In the **Custom Mode**, a **List Columns Configuration** window will be popped up, you can check data items you want to display as needed.

In addition, you can select Chinese version or English version as needed.

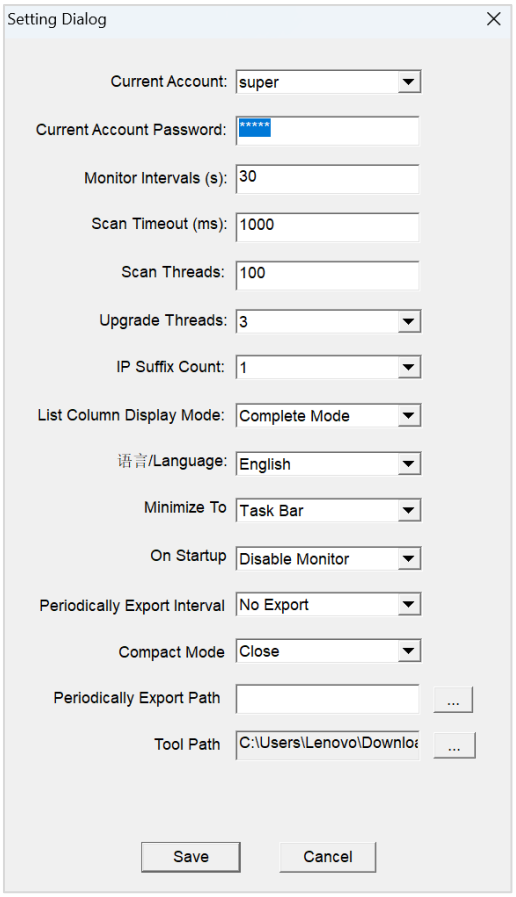

Figure 11-1

You can select an export interval from a drop-down box of **Periodically Export Interval** as needed or select to not export data. If you select a specific export interval, you need to select an export path, and then click **Save**.

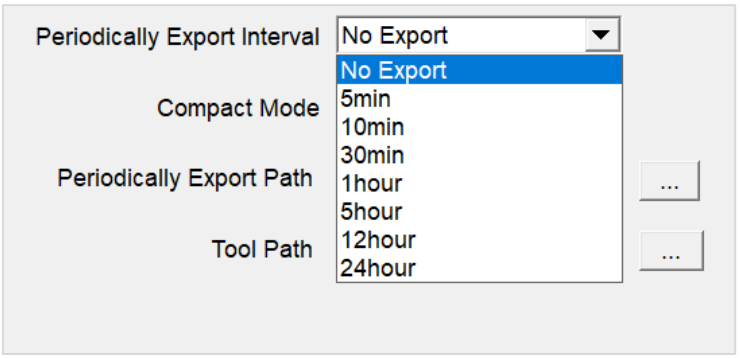

Figure 11-2

After completing this operation, data file will be saved to the corresponding export path according to the selected export interval.

12. Contacting Us

You can click **Contact Us** on a main interface of WhatsMinerTool, and then the browser will automatically redirect to our official website.

13. Others

If you encounter any problems when using WhatsMinerTool, feel free to contact us.

Contact channels

Company website: www.microbt.com or www.whatsminer.com

Official website email: Support@microbt.com

After-sales customer service: whatsminer_service

Technical support wechat: Microbt16

14. Appendix

When your miner encounters problems or fails during operation, its error code will be displayed under **Error Code** tab. The following table shows reasons for different error codes and corresponding processing methods.

Error code	Reason	Processing method
110	Fanin detect speed error	Check whether the fan connection is normal, or replace the power supply, or replace the fan
111	Fanout detect speed error	Check whether the fan connection is normal, or replace the power supply, or replace the fan
120	Fanin speed error (Deviation 2000+)	Check whether the fan connection is normal, or replace the power supply, or replace the fan
121	Fanout speed error (Deviation 2000+)	Check whether the fan connection is normal, or replace the power supply, or replace the fan
130	Fanin speed error (Deviation 3000+)	Check whether the fan connection is normal, or replace the power supply, or replace the fan
131	Fanout speed error (Deviation 3000+)	Check whether the fan connection is normal, or replace the power supply, or replace the fan
140	Fan speed is too high	Check the ambient temperature
200	Power probing error, no power	Detect the power supply flat cable, or

Error code	Reason	Processing method
	found	update to the latest firmware, or replace the power supply
201	Power supply and configuration file mismatch	Confirm the power supply type, such as mixing P21D and P21E, and replace with the correct power supply
202	Power output voltage error	Upgrade to the latest firmware or check the power supply
203	Power protecting	Check the ambient temperature
204	Power current protecting	Check the ambient temperature
205	Power current error	Check the power supply of power grid
206	Power input voltage is low	Improve the power supply conditions and increase the input voltage if the input voltage is too low, or replace the power supply if the input voltage is too high
207	Power input current protecting	Improve the power supply conditions and increase the input voltage
208	Power supply changes too much	Replace the power supply
209	The deviation value between the power supply setting voltage and the actual voltage suddenly changes.	Replace the power supply
210	Power error status	Check power supply failure code
211	Power output current deviation is too large	Replace the power supply
212	Power output voltage margin is insufficient	Consult after-sales personnel
213	Power input voltage and current do not match the power	Replace the power supply
214	Power pin did not change	Contact after-sales personnel
215	Power vout set error	Contact after-sales personnel
216	Power remained unchanged for	Replace the power supply

Error code	Reason	Processing method
	a long time	
217	Power set enable error	Replace the power supply
218	Power input voltage is lower than 230V for high power mode	Improve the power supply conditions and increase the input voltage if the input voltage is too low, or replace the power supply if the input voltage is too high
219	Power input current is incorrect	Replace the power supply
233	Power output over temperature protection	Check the ambient temperature
234	Power output over temperature protection	Check the ambient temperature
235	Power output over temperature protection	Check the ambient temperature
236	Overcurrent Protection of Power Output	Check the ambient temperature, and check screws of the copper bar
237	Overcurrent Protection of Power Output	Check the ambient temperature, and check screws of the copper bar
238	Overcurrent Protection of Power Output	Check the ambient temperature, and check screws of the copper bar
239	Overvoltage Protection of Power Output	Check the power supply of power grid
240	Low Voltage Protection for Power Output	Check the power supply of power grid
241	Power output current imbalance	Replace the power supply
243	Over-temperature Protection for Power Input	Check the ambient temperature
244	Over-temperature Protection for Power Input	Check the ambient temperature
245	Over-temperature Protection for Power Input	Check the ambient temperature
246	Overcurrent Protection for Power Input	Replace the power supply
247	Overcurrent Protection for Power Input	Replace the power supply

Error code	Reason	Processing method
248	Overvoltage Protection for Power Input	Check the power supply of power grid
249	Overvoltage Protection for Power Input	Check the power supply of power grid
250	Undervoltage Protection for Power Input	Check the power supply of power grid
251	Undervoltage Protection for Power Input	Check the power supply of power grid
253	Power Fan Error	Replace the power supply
254	Power Fan Error	Replace the power supply
255	Protection of over power output	Check the ambient temperature
256	Protection of over power output	Check the ambient temperature
257	Input over current protection of power supply primary side	Try to power off and restart, and replace the power supply if there is no effect
258	Power input three-phase voltage imbalance warning	Check the power supply of power grid
259	Power input three-phase voltage unbalance protection	Check the power supply of power grid
263	Power communication warning	Check whether screws of the control board are locked
264	Power communication error	Check whether screws of the control board are locked
267	Power watchdog protection	Contact after-sales personnel
268	Power output over-current protection	Check the ambient temperature, and check screws of the copper bar
269	Power input over-current protection	Improve the power supply conditions and increase the input voltage
270	Power input over-voltage protection	Check the power supply of power grid
271	Power input under-voltage protection	Check the power supply of power grid
272	Warning of excessive power output of power supply	Check the ambient temperature

Error code	Reason	Processing method
273	Power input power too high warning	Check the ambient temperature
274	Power fan warning	Check if the power supply fan is blocked, or try to replace the power supply
275	Power over temperature warning	Check the ambient temperature
28X-29X	Power custom register error	Contact after-sales personnel
30X	SMX temperature sensor detection error	Check the wiring of the hashboard
309	All temperature sensor detection errors	Check the wiring of the hashboard
32X	SMX temperature reading error	Check whether screws of the control board are locked properly, and check the contact situation between adapter board and flat cable
326	Liquid cooling temperature sensor communication error	Replace the power supply
329	Control board temperature sensor communication error	Replace the power supply
35X	SMX temperature protecting	Check the ambient temperature
360	The temperature of the hashboard is overheating	Check the ambient temperature
370	The environment temperature fluctuates too much	Check the ambient temperature, or check the ambient wind direction and wind speed
41X	SMX detect eeprom error	Check the contact situation between adapter board and flat cable
42X	SMX parser eeprom error	Upgrade to the latest firmware
43X	SMX chip bin type error	Upgrade to the latest firmware
44X	SMX eeprom chip num X error	Upgrade to the latest firmware
45X	SMX eeprom xfer error	Check the contact situation between adapter board and flat cable, and upgrade to the latest firmware
500	No software configuration is	Upgrade to the latest firmware

Error code	Reason	Processing method
	added for the model	
51X	SMX miner type error	Due to inconsistent version and type of hashboards, replace with the correct hashboard
52X	SMX bin type error	Due to inconsistent chip type of hashboards, replace with the correct hashboard
53X	SMX not found	Check the connection and flat cable of the adapter board, or replace the control board, check whether there is solder void in the connector of the hashboard
54X	SMX reading chip id error	Power off, unplug and plug in the adapter board again or swap the position of the hashboards
55X	SMX have bad chips	Contact after-sales personnel
56X	SMX loss balance	Power off, unplug and plug in the adapter board again or swap the position of the hashboards
57X	SMX xfer error chip	Contact after-sales personnel
58X	SMX reset error	If the hashrate is abnormal, consult after-sales personnel
59X	SMX frequency too low	Contact after-sales personnel
600	Environment temperature is high	Check the ambient temperature, which needs to be controlled below 35 °C in normal mode
610	If the ambient temperature is too high in high performance mode, return to normal mode	Check the ambient temperature, which needs to be controlled below 30 °C in high performance mode
620	Liquid cooling liquid temperature protection	Check the liquid temperature
652	The liquid temperature fluctuation is too large.	Check the liquid temperature.
701	Control board no support chip	Upgrade the firmware of the corresponding type

Error code	Reason	Processing method
702	Control board version unknown	Contact after-sales personnel
710	Control board rebooted as exception	Update to the latest firmware, and check whether screws of the control board are locked properly, replace the control board if there is no effect
712	Control board rebooted as exception	Update to the latest firmware, and check whether screws of the control board are locked properly, replace the control board if there is no effect
714	The network connection is seriously unstable	Check the network cable connection or replace the control board
72X	SMX serial port communication error	Upgrade the firmware or replace the control board
800	Cgminer checksum error	Re upgrade firmware
801	System-monitor checksum error	Re upgrade firmware
802	Remote-daemon checksum error	Re upgrade firmware
810	Air to liquid or Adjust frequency and PCBSN does not match	Re upgrade the air cooling to immersion cooling firmware or re adjust the frequency
820	Air to liquid or Adjust frequency and PSUSN does not match	Re upgrade the air cooling to immersion cooling firmware or re adjust the frequency
901	Power rate error	Check whether the miner has been modified
90XX	The process exited abnormally	Upgrade the newest firmware on our website, and if it does not work, consult after-sales personnel
2000	No pool information configured	Check pool configuration
2010	All pools are disable	Check the network environment or pool configuration
2020	Pool0 connect failed	Check the network environment or pool configuration
2021	Pool1 connect failed	Check the network environment or pool configuration

Error code	Reason	Processing method
2022	Pool2 connect failed	Check the network environment or pool configuration
2030	High rejection rate of pool	Check the network environment or pool configuration, and setting of mining currency
2040	The pool does not support the asicboost mode	Check the pool configuration
2050	Failed to switch to a new pool	Check the network environment or pool configuration
2310	Hash rate is too low	Check the power supply of power grid, network environment, and ambient temperature
2320	Hash rate is too low	Check the power supply of power grid, network environment, and ambient temperature
2340	The loss of hash rate is too high	Check the power supply of power grid, network environment, and ambient temperature
2350	The loss of hash rate is too high	Check the power supply of power grid, network environment, and ambient temperature
501X	SMX chip voltage too low	Contact after-sales personnel
502X	chip voltage change	Replace the power supply
503X	The maximum and minimum temperature difference of the SMX chip is too large	Check heat dissipation of miner
504X	SMX temperature maximum chip temperature difference is too large	Check heat dissipation of miner
505X	SMX chip temperature protection	Check the ambient temperature
507X	SMX liquid velocity is abnormal	Check if water flow is normal
5079	The liquid flow rate is too slow.	Check the velocity of flow of liquid
508X	SMX chip temperature calibration failed	Try to restore factory settings and recalibrate

Error code	Reason	Processing method
5090	Chip temperature calibration abnormality	Try to stop miner for a while, and then restart it, or restore factory settings, or check heat dissipation of hashboard.
511X	SMX Frequency Up Timeout	Try to reboot, tighten screws of the copper bar on hashboards, or upgrade to the latest firmware
8000	WhatsminerTool version is too low	Download the latest WhatsMinerTool
8010	Frequency is not up to standard	Upgrade to the latest firmware or restore factory settings
8020	hashrate is not up to standard	Upgrade to the latest firmware or restore factory settings
8400	Wrong software version (older or not the official version)	Upgrade to the correct official firmware version
8410	Wrong software version (M2x mining rig uses M3x firmware, or M3x uses M2x firmware)	Upgrade to the correct firmware version
8700	Miner and power supply model do not match	Replace with the correct power supply
52XBBB	SMX chip BBB error nonce	Contact after-sales personnel
53XBBB	SMX chip BBB few nonce	Contact after-sales personnel
54XBBB	SMX chip temp protected	Restart the miner, and contact after-sales personnel if it doesn't work
55XBBB	SMX chip BBB is reset	Replace the power supply, and contact after-sales personnel if it doesn't work
56XBBB	SMX chip BBB does not return nonce at all	Replace the power supply, and contact after-sales personnel if it doesn't work
100000	Security library error	Upgrade to the latest firmware or burn the card
100001	/antiv/signature Illegal	Upgrade to the latest firmware or burn the card
100002	/antiv/dig/initd.dig Illegal	Upgrade to the latest firmware or

Error code	Reason	Processing method
		burn the card
100003	/antiv/dig/pf_partial.dig Illegal	Upgrade to the latest firmware or burn the card
100100	Security btminer be removed	Upgrade to the latest firmware or burn the card
110000	Security illegal file	Upgrade to the latest firmware or burn the card
110001	Security virus 0001 is removed	Upgrade to the latest firmware or burn the card

PSU error code	Reason	Processing method
0x0001	Input voltage is too low,need improvement	Check the power provided from the power supply
0x0002	Temperature sampling over temperature protection of power radiator	Turn off the power for 10 minutes and then turn it back on. If the phenomenon recurs, replace the power supply
0x0004	Temperature sampling over temperature protection of power radiator	Turn off the power for ten minutes and then turn it back on. If the phenomenon recurs, replace the power supply
0x0008	Over temperature protection of environmental temperature sampling in power supply	Turn off the power for ten minutes and then turn it back on. If the phenomenon recurs, replace the power supply
0x0010	Primary side over current	Turn off the power for ten minutes and then turn it back on. If the phenomenon recurs, replace the power supply
0x0020	Output undervoltage	Check the power provided from the power supply
0x0040	Output over current (continuous load 320A for more than 2S)	Tighten screws of the copper bar again

PSU error code	Reason	Processing method
0x0080	Primary side over current	Turn off the power for ten minutes and then turn it back on. If the phenomenon recurs, replace the power supply
0x0100	Single circuit overcurrent (protection point 120a)	Tighten screws of the copper bar again
0x0200	Single circuit overcurrent (protection point 120a)	Tighten screws of the copper bar again
0x0400	Single circuit overcurrent (protection point 120a)	Tighten screws of the copper bar again
0x0800	Fan failure	Replace the power supply
0x1000	Output over current (continuous load of 310A for more than 5min)	Tighten screws of the copper bar again
0x2000	Output over current (continuous load 295A for more than 10min)	Tighten screws of the copper bar again