

Matrix Control Software Instructions

Matrix Control software	Matrix Control software introduction	history
V1.02	V1.02	20180414

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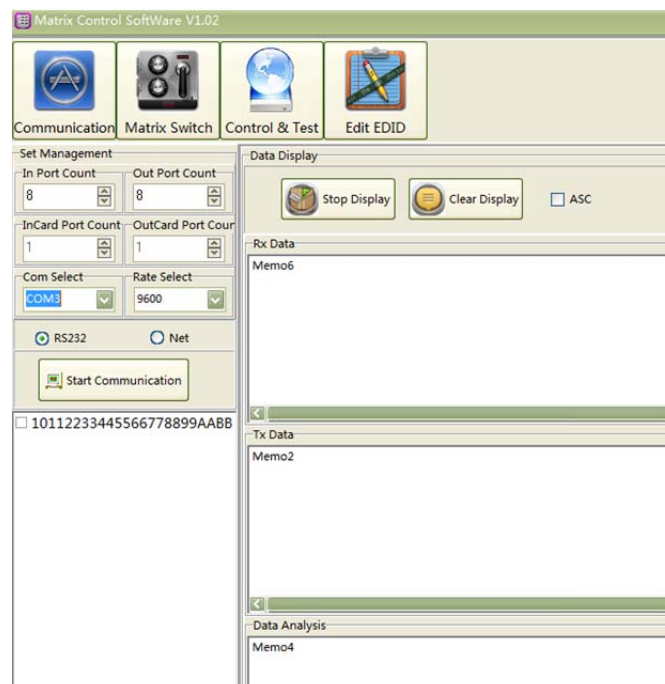
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1. Overview

Thank you for purchasing our product. Please read the instructions carefully before use. This software is a test matrix developed with our matrix product and the host computer software of the control matrix. You can use this software to switch the matrix through the serial port or LAN. The software provides a variety of switching operations, simple operation, easy to use. In the face of compatibility issues, EDID editing can also be performed. We have reserved a variety of EDIDs. The default delivery mode is the combination of EDID. Users can also customize the fixed EDID through this monitoring software. The software can also adjust the EQ value. If customers encounter long-term and short-term problems at the engineering site, they can solve the problem by adjusting the EQ value. We also reserved the function of upgrading the program through the serial port to facilitate the later program upgrade.

Open the Matrix Control software. The interface is as shown below:

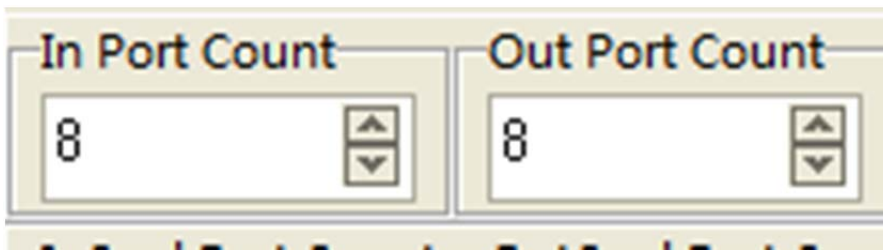
There are 4 submenus



2. Communication

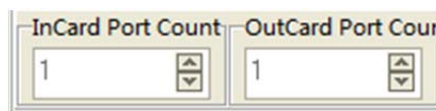
2.1 Number of input and output ports

As shown below , In Port Count. Out Port Count : It is set according to the number of integral matrix channels, and is set correctly according to the number of actual input and output channels of the matrix. For example, an 8 input/output matrix, and the number of input/output ports is 8.



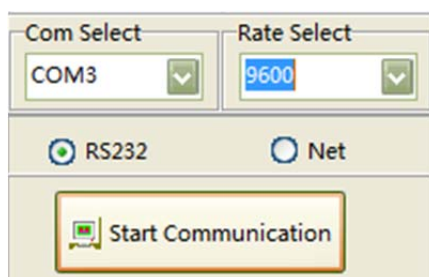
2.2 Card Port Count

As shown below , In Card Port Count. Out Card Port Count. It is set for the number of channels of the mixed matrix input/output card. Our mixed matrix is input to a single card with 4 channels. If it is a non-mixed matrix, it does not need to be set.



2.3 Communication Mode Settings

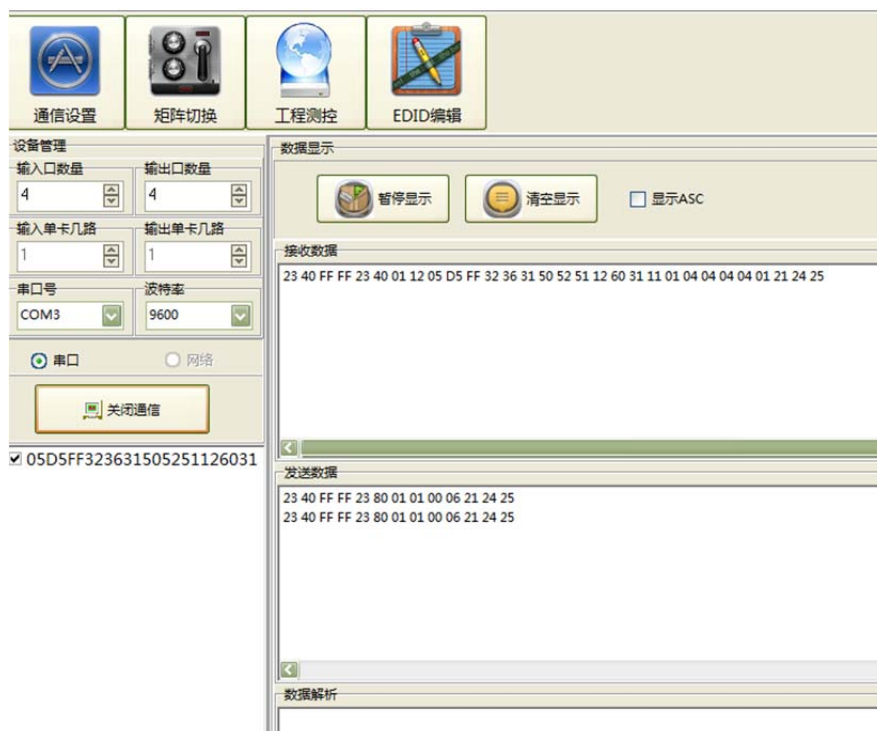
As shown below , There are two kinds of communication modes that can be set in the communication mode setting: serial port communication and network communication.



2.3.1 Serial Communication

The serial number must be selected correctly. If the serial port is selected incorrectly, there will be problems with communication. The method to confirm the serial port number is : "my computer" —> "Right click" —> "Device Manager" —> "port" —> View the connected serial port.

Click to start the communication button, the interface is as shown below : If the communication is successful, the sent data packet is displayed below the Receive Data and Send Data columns.

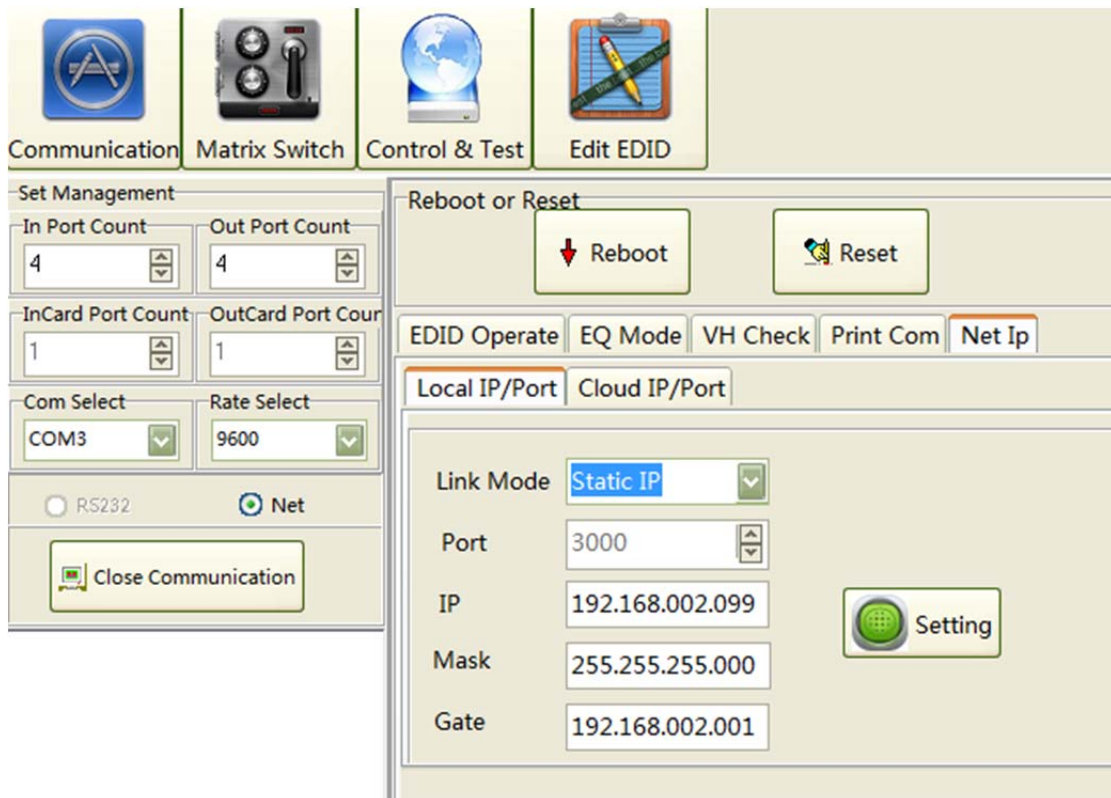


2.3.2 Network Communication

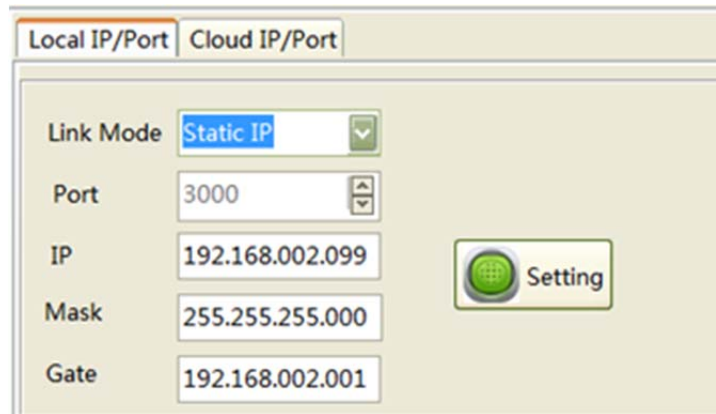
If only the general matrix switch can select the serial port, you can also choose network communication. The specific depends on the configuration of the ports on the matrix. For example, the HDMI0404 and HDMI0808 matrices only provide serial ports. The HDMI/DVI0404 (1U standard chassis) and HDMI1616 provide a network interface.

To select network communication, you need to set the IP for the matrix.

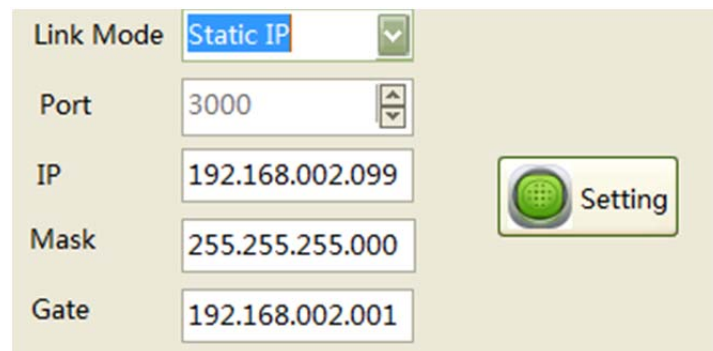
Click the Control & Test button, the interface is as shown below:



In the interface shown in the figure above, click the Net IP Settings button. The interface is as shown in the following figure:



Click the Local IP/Port Settings button. The interface is as shown in the following figure:

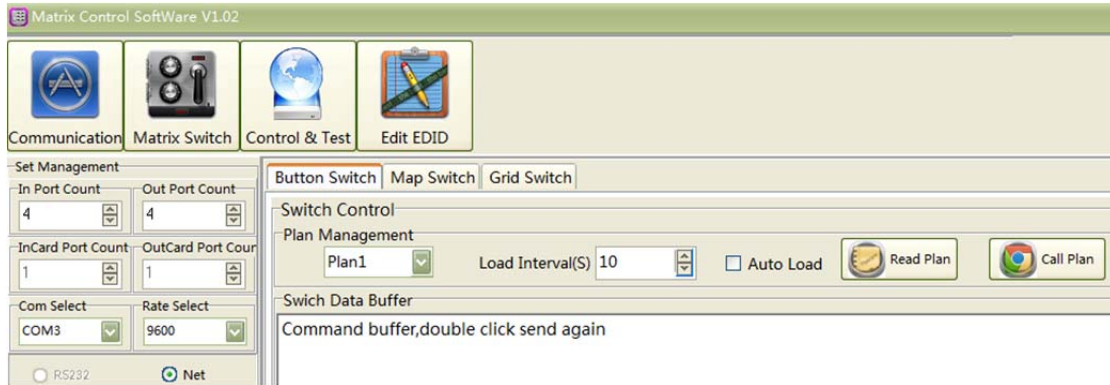


Network communication setup instructions:

- If you select the DHCP mode, IP will be automatically obtained. The host IP, subnet mask, and default gateway can be set. Click the Configure button to configure the relevant IP information.
- If you select the Static IP mode, you need the network administrator to inform the network information in the environment where the matrix is located. Click the Configure button to configure the relevant IP information
- After the configuration, you need to restart the matrix to be effective. Then click "Network" -> "Start Communication" to implement network communication.
- The network needs to be networked after restarting, plus the video image output, so the network control time is 15 seconds later.

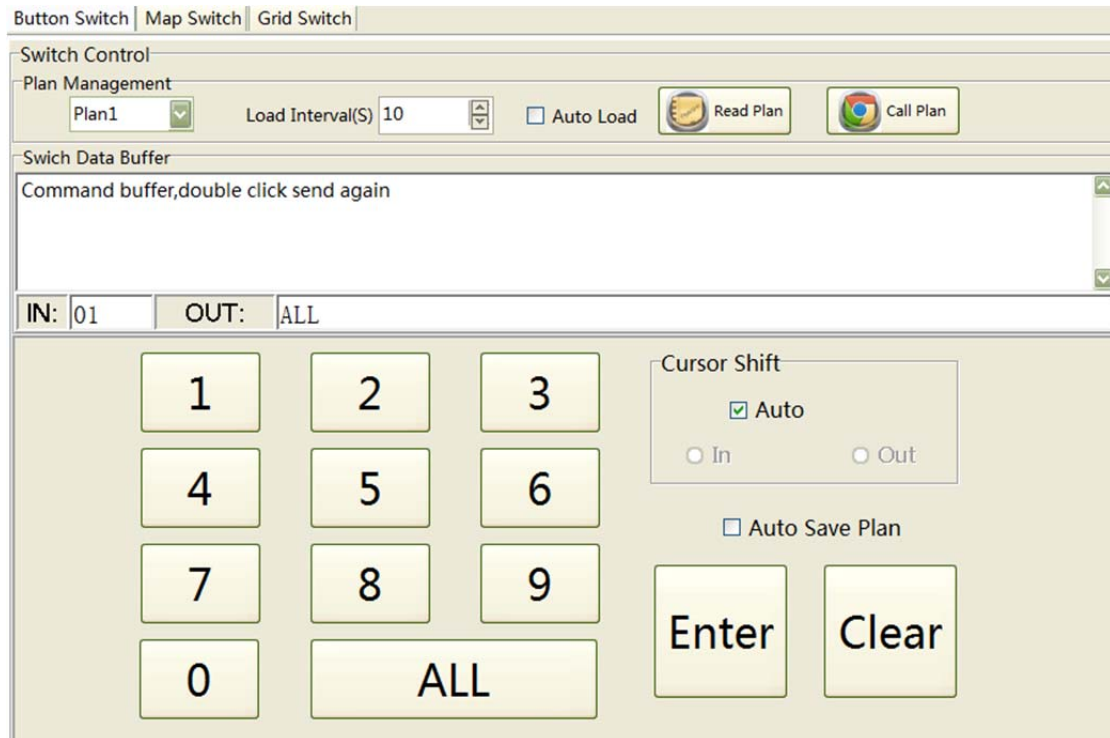
3. Matrix Switch

Matrix switching has the following three switching methods: button switch, Map switch, and grid switch. As shown below:



3.1 Button Switch

Click the button switch, the interface as shown below:



1. There are two ways to select the IN and OUT channels:

When the automatic mode is valid, the input and output are automatically switched, and the input and output channels can also be

manually selected. Input and output selection, click the OK button, you can achieve this switch.

2. Plan Management :

This software can save the plan when the matrix switch is available, so that it can be used for subsequent calls.

1) Call Plan

Preservation plans can be saved manually or automatically.

If you need to save the current switch status, select a name under the "Plan Management" section and click the "Call plan" button.

If you check the "Auto save plan" option, the result of each switch will be automatically saved and the cycle will be overwritten. Up to 9 plans can be saved.

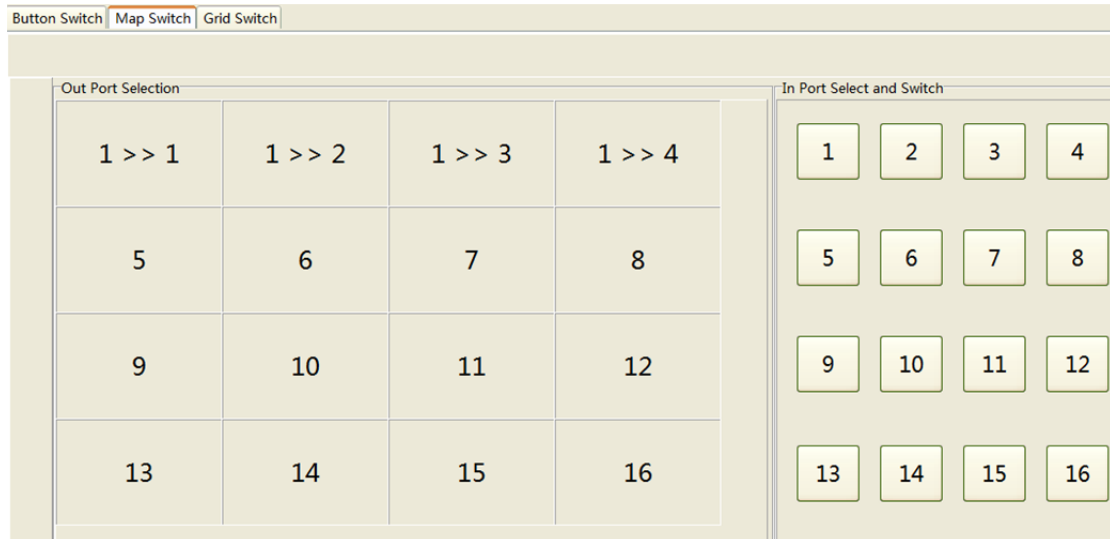
2) Read Plan

If you need to read a previously saved plan, you can find the saved plan name under the "plan management" column and click Read Plan.

" Load Interval" refers to the interval between the retrieval of the plan. If you check the "Auto Load" , when reading the plan, the software can automatically read the previously saved plan.

3.2 Map Switch

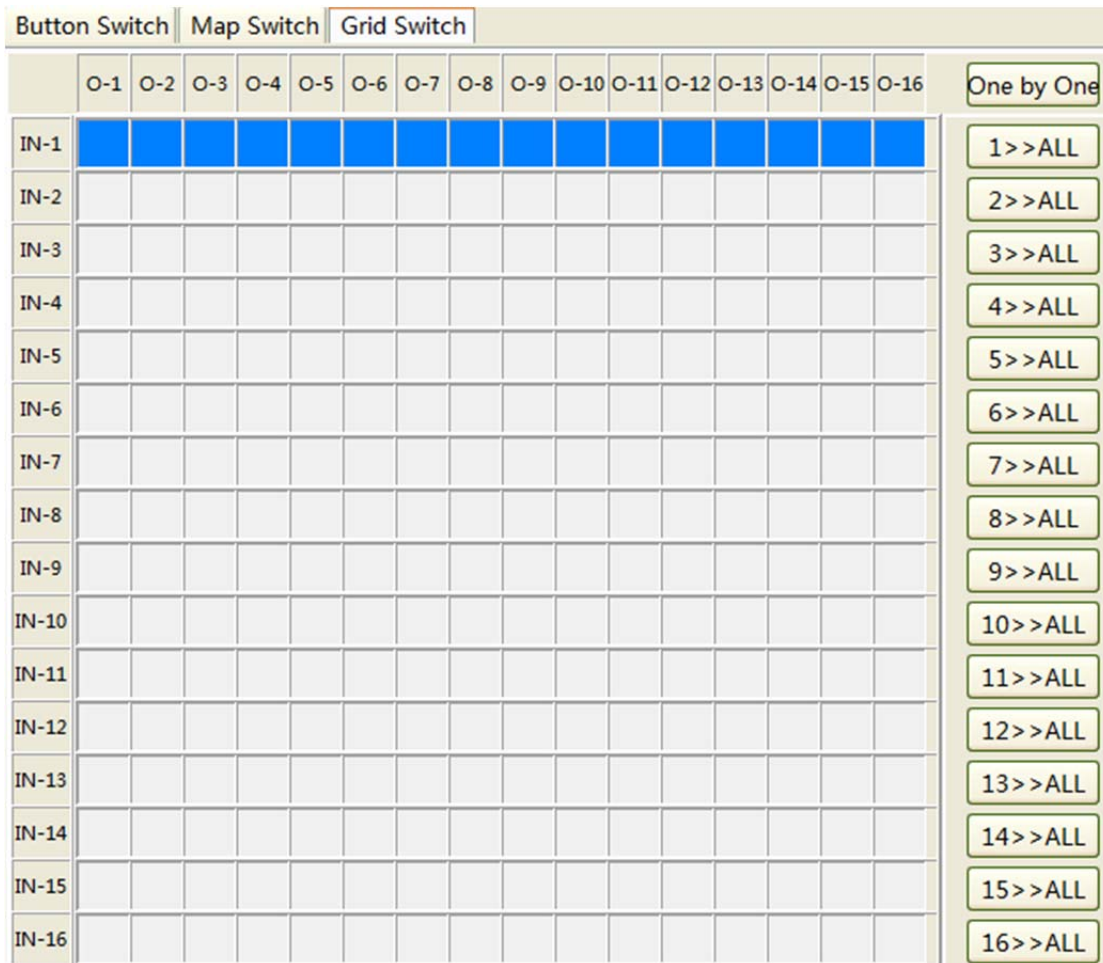
Click the Map Switch button, the interface as shown below:



1. Output port selection : A single click can also be dragged to select multiple, press the left mouse button is not loose, the mouse into a small hand can drag and drop the output port, Output blue highlights the selected output port.
2. Input port selection: Select the input button to complete the switching action.

3.3 Grid Switch

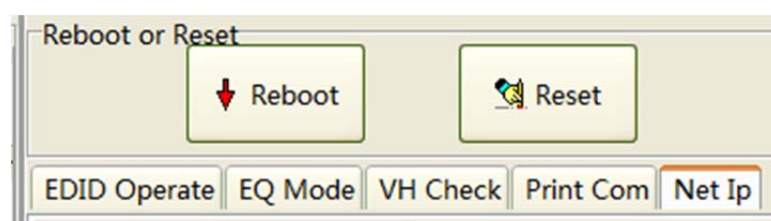
Click the Grid Switch button, the interface as shown below:



1. Rows represent input, columns represent output, and click to switch.
2. You can select an input port corresponding to all output ports on the right side.

4. Control & Test

。 Click the Control & Test button, the interface displays as shown in the figure below: There are 5 buttons for EDID Operate, EQ mode, VH Check, print Com, and Net IP settings.

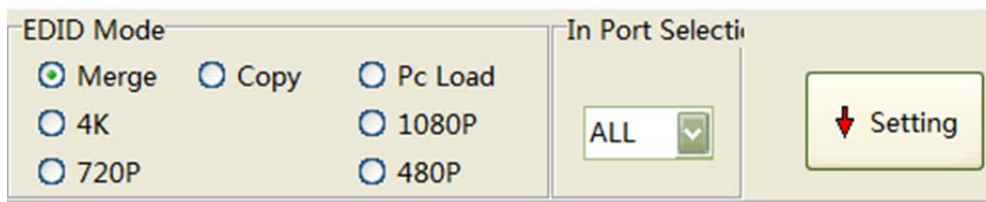


4.1 Reboot or Reset

1. Reboot : Restart the matrix.
2. Reset : Perform a factory reset operation on the matrix.

4.2 EDID Operate

Click the EDID Operate button, the display interface as shown below:



There are seven types of EDID modes:

- A. The default is a combination of EDID methods.
- B. If the combination of EDID has incompatibility, you can choose "copy" mode.
- C. PC Load: You can edit an EDID in "EDID Edit" and write it through your computer
- D. the other 4 are fixed EDID, divided into 4 kinds: default 4K, default 1080P, default 720P, default 480P

After selecting the desired mode, you also need to click the "Setting" command button.

Input interface can choose the same or different EDID mode. If you choose the same EDID, select ALL at the input port.

EDID operation instructions:

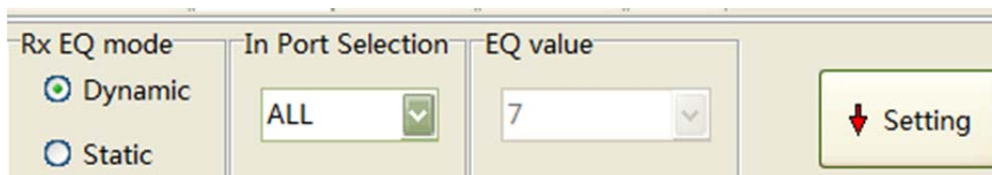
1. Combine the EDID of the output port and use the EDID that the output display device is compatible with.
2. Specify a fixed EDID: predefined: four fixed EDIDs of 4k, 1080p, 720p, and 480p.
3. Copy mode: Use the EDID information of the output port directly. At

this time, you only need to select the input port.

4. PC Load mode: EDID must be edited and imported. It is necessary to ensure the correctness of EDID.

4.3 EQ Mode

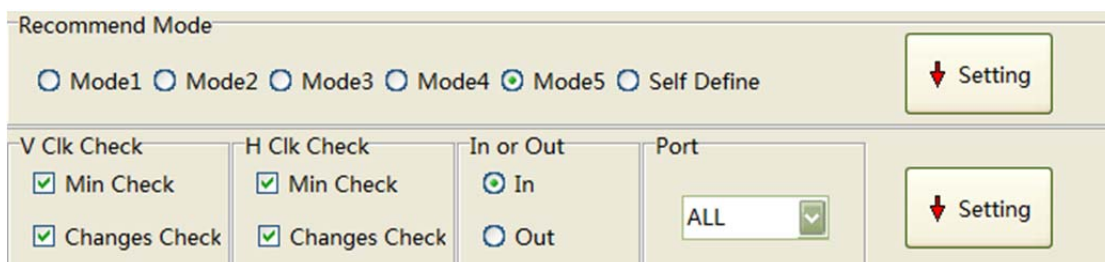
Click EQ mode button, the display interface is as shown below:



1. The same or different RX EQ mode can be selected for each input port
2. RX EQ is divided into automatic EQ and manual EQ. When fixed EQ is selected, the appropriate EQ position can be selected under the fixed EQ value.
3. After selecting, click the Setting button to confirm the EQ mode.
4. The default factory setting of the matrix is the automatic mode. In case of special circumstances, if the customer uses a poor quality wire and the automatic EQ is inaccurate, a suitable manual EQ value can be selected.

4.4 VH Check

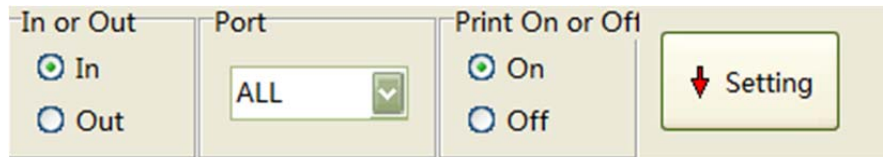
Click VH Check button, the display interface is as shown below:

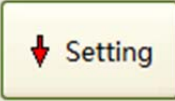


1. Recommend Mode :The default recommended mode 5 at the factory, generally does not need to be changed. In case of special circumstances, such as compatibility issues, you can try to select other recommended modes, or custom mode.
2. VH Check is only used by our engineers to judge the problem. Please do not change it at any other time.

4.5 Print Com

Click the Print Com button, the display interface as shown below:



In or Out <input checked="" type="radio"/> In <input type="radio"/> Out	Port ALL	Print On or Off <input checked="" type="radio"/> On <input type="radio"/> Off	
--	--------------------	--	---

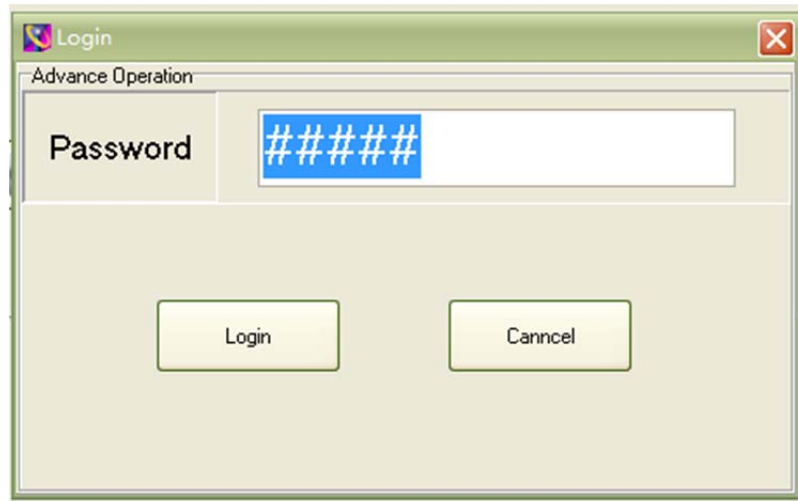
Print Com is only used by our engineers when judging problems.

4.6 NET IP

The NET IP setting operation has been introduced under 2.3.2 Network Communication and will not be described here.

5. Edit EDID

Click EDID edit button, the display interface is as shown below:



EDID editing and program upgrade are advanced operations. Non-professionals do not perform this operation. To enter the EDID interface, enter the password: LT123456. After the password is entered correctly, the EDID editing function is valid, and the hidden button is displayed: "Update Code".

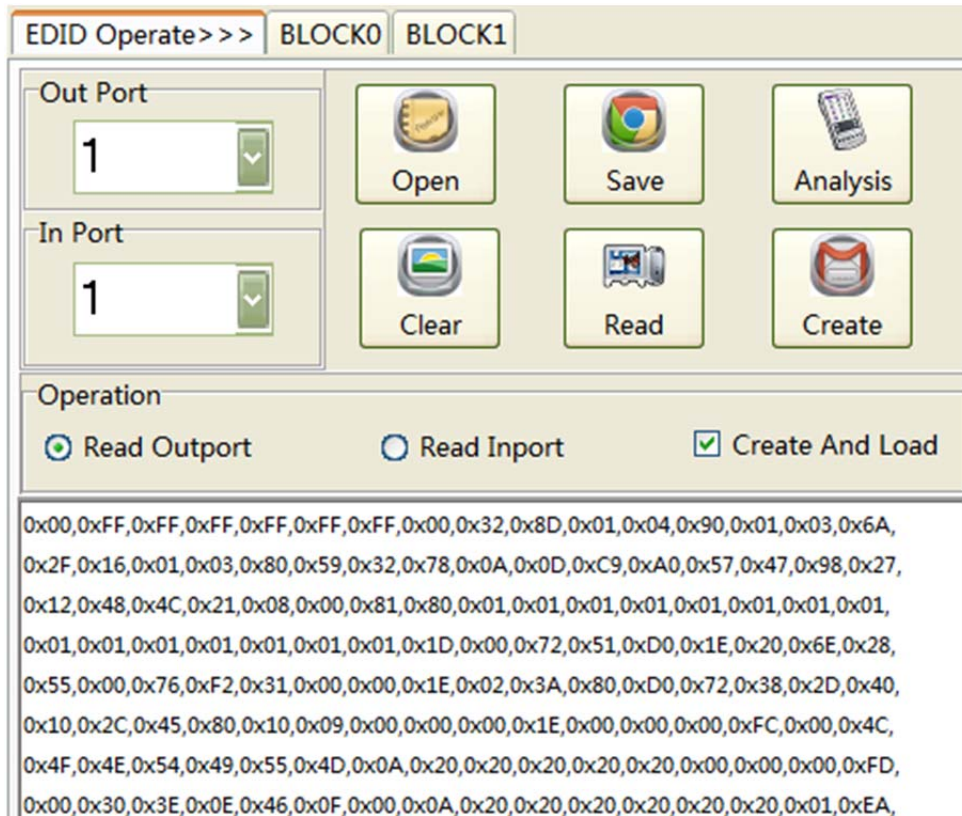


note:

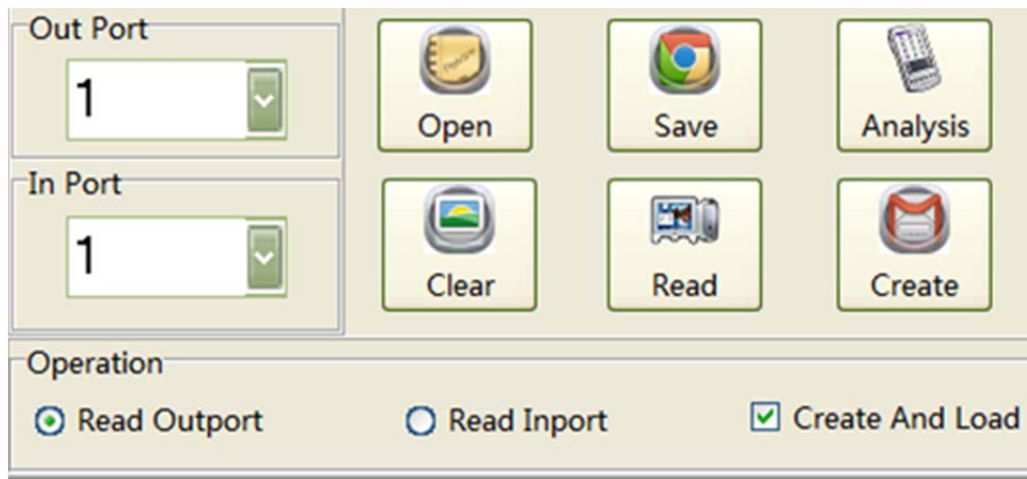
After the password is entered successfully, the EDID edit button and the Update Code button can be set

5.1 Edit EDID

Click EDID edit button, the display interface is as shown below:



EDID editing is an advanced operation that involves a lot of professional skills and will not be described in detail here. Here we only explain several parts related to matrix operations, as shown below.

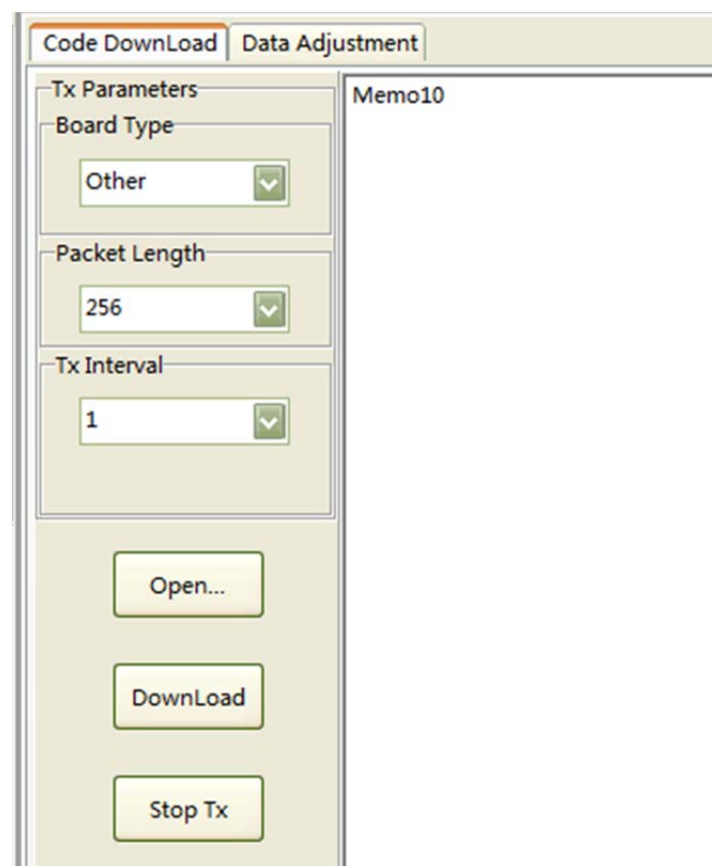


- 1) Open: Open an existing EDID
- 2) Save: Save the generated EDID.
- 3) Analysis: The open EDID information is parsed and the parsed results are displayed in the right column.
- 4) Clear: Clear the EDID information shown below.

- 5) Read: Reading the EDID information of the matrix will display the read EDID information in the columns below. You can choose to read the EDID information of the matrix output port, or you can choose to read the EDID information of the input port.
- 6) Create: The edited EDID information is regenerated into a new EDID. After clicking the “Generate EDID” button, the interface will jump to the “EDID Operation” interface. You can choose to write the edited EDID information to the matrix on the EDID operator interface.

5.2 Update Code

Click the Update Code button, the display interface as shown below:



Update Code is also an advanced operation. This is usually done when upgrading the software version.

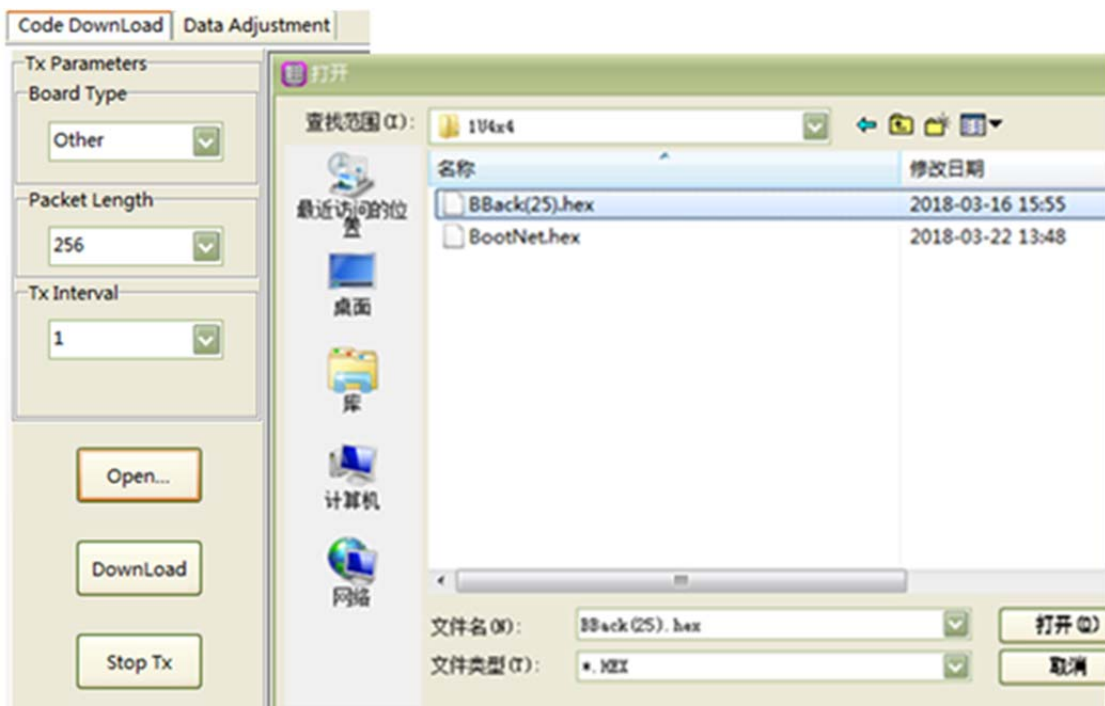
5.2.1 4*4Matrix Upgrade

Note: It is only suitable for 4*4 matrix of 1U standard chassis version.
There are two kinds of program upgrade modes for this version matrix:

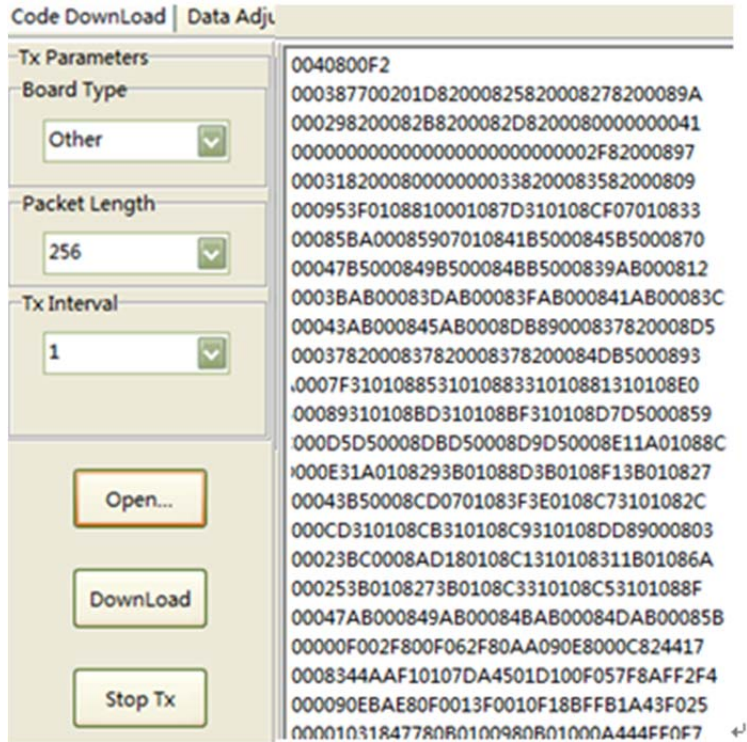
5.2.1.1 Serial Port Upgrade

Before upgrading, first select the serial port communication mode in the communication settings, the baud rate is 9600, and start communication.

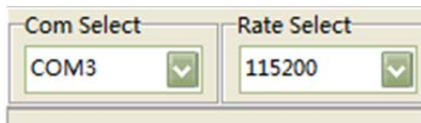
1. Click the "Open" button to find out where the program is stored, as shown in the following figure:



2. Select the program to be upgraded and click Open. The program upgrade interface is displayed as follows:

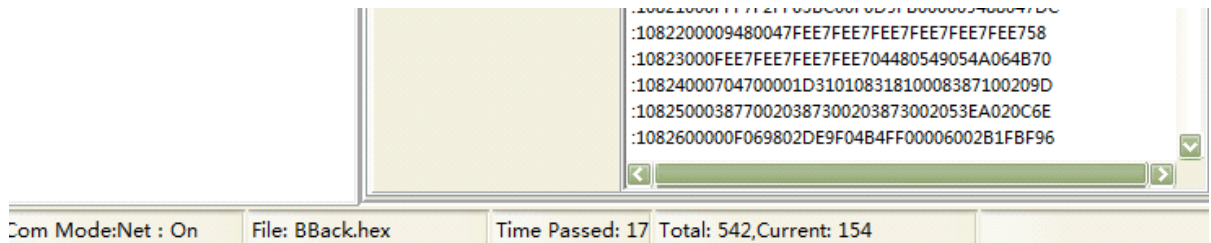


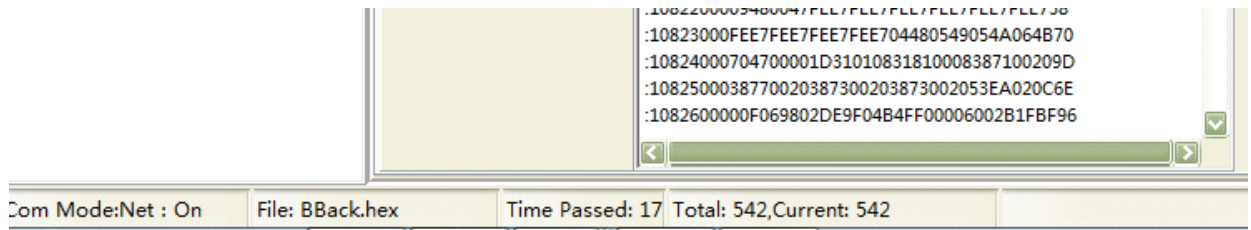
3. Click on the download button and change the baud rate to 115200 in the communication settings.



When the baud rate is changed to 115200, the program starts upgrading. At the bottom of the display interface, you can see the total number of packets and the current number of packets. When the current number of packets matches the total number of packets, the upgrade is completed.

As shown below:



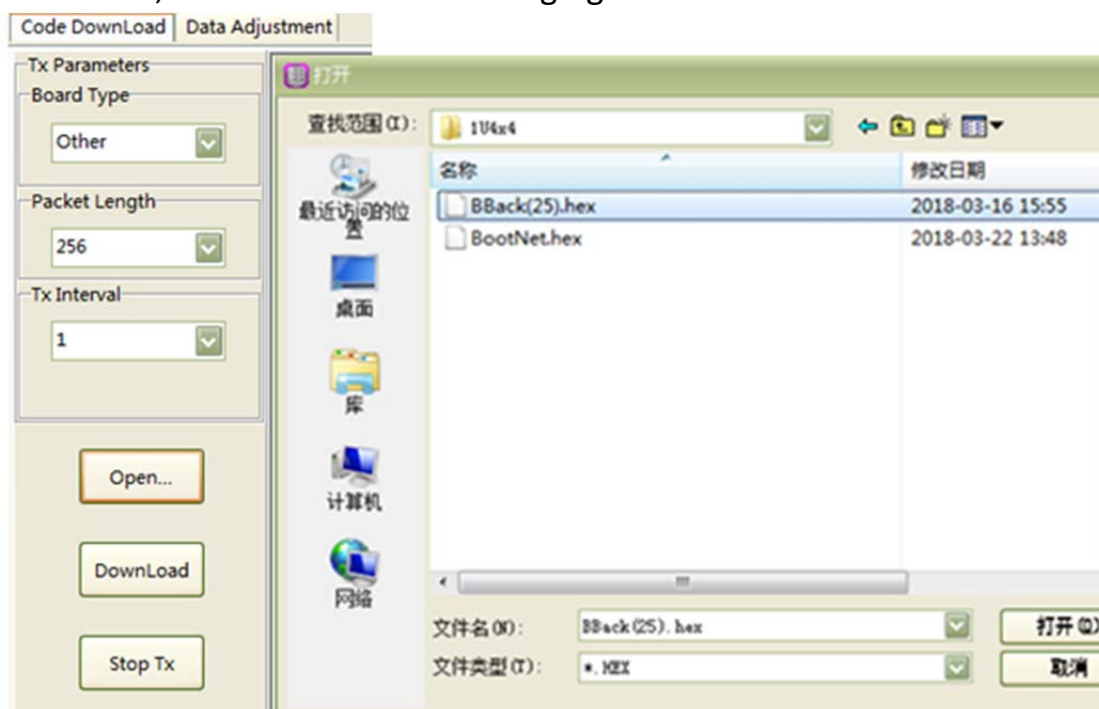


4. After the upgrade is complete, change the baud rate back to 9600 in the communication settings and keep the same with the baud rate of the matrix before continuing to control.

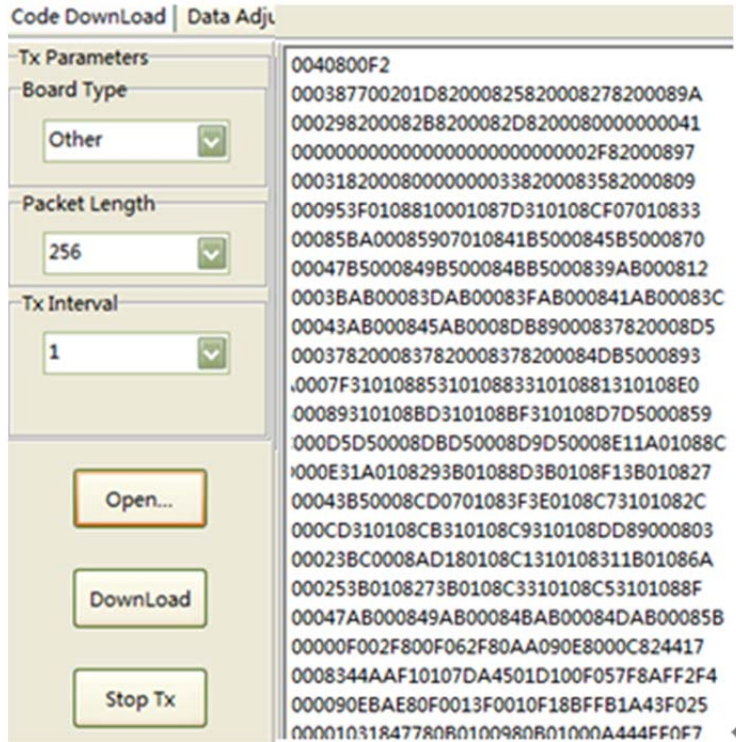
5.2.1.2 Network Port Upgrade

Before upgrading, first select the network communication mode in the network communication settings.

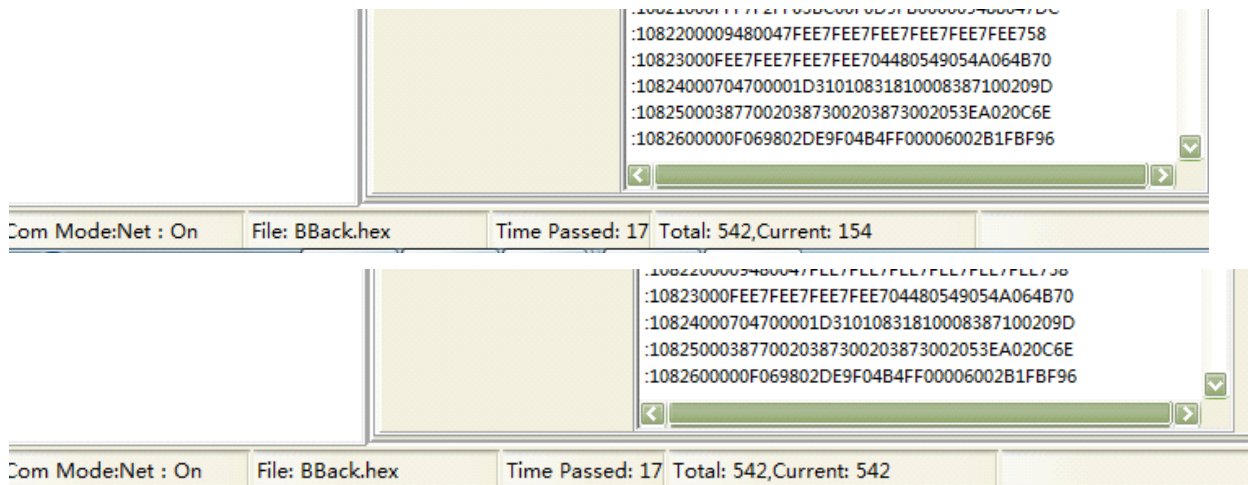
1. Click the "Open Data" button to find out where the program is stored, as shown in the following figure:



2. Select the program to be upgraded and click Open. At this time, the program upgrade interface is displayed as follows:



3. Click the download button and the program starts to upgrade.
At the bottom of the display interface, you can see the total number of packages and the current number of packages. When the current number of packages matches the total package, the upgrade is complete. As shown below:



5.2.2 8*8 Matrix Upgrade

1. Change the baud rate to 9600 in the communication settings and start the serial port.
2. Click "Open" → "Download."
3. Change the baud rate back to 115200 in the communication settings and wait for the program update to complete.

5.2.3 16*16 Matrix Upgrade

16*16 Matrix Upgrade Mode One:

1. Panel upgrade:
 - a、 In the communication setup, change the baud rate to 9600 (consistent with the baud rate of the matrix itself) and start the serial port.
 - b、 Click "Open" → "Download".
 - c、 Back to the communication settings to change the baud rate back to 115200, waiting for the program to complete the update.
2. Backplane upgrade: Click "Open" → "Download". Waiting for the program to complete the update
3. Input board upgrade: Click "Open" → "Download" Waiting for the program to complete the update.
4. Output board upgrade: Click "Open" → "Download" Waiting for the program to complete the update.

16*16 Matrix Upgrade Mode Two:

1. Use the keypad in front of the matrix in combination with the display to change the baud rate of the matrix to 115200.
2. Change the baud rate to 115200 in the communication settings in

this software and start the serial port.

3. Click “Open” →”Download”. Waiting for the program to complete the update.
4. After all the modules that need to be updated have been updated, change the baud rate of the matrix back to 9600 by pressing the key.