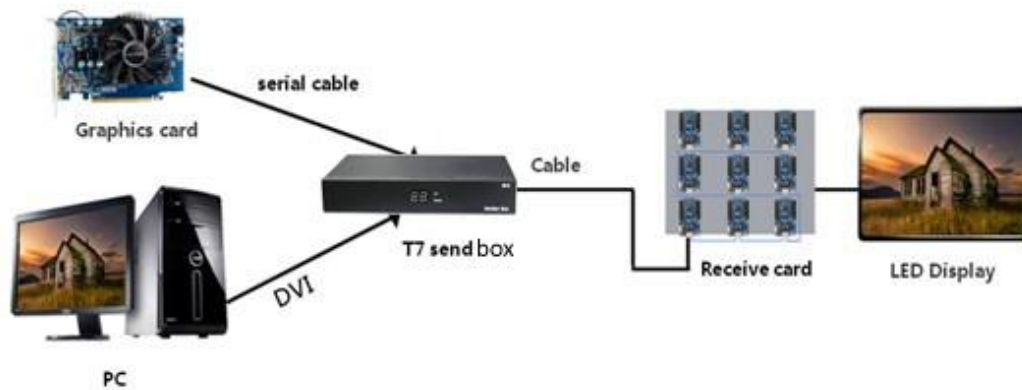


## The ST7 Sending Box

Colorlight synchronous send box - ST7, is a professional send box for LED synchronized display, with the function of adapting resolution automatically. One ST7 send box can control the LED display with 1.3 million pixel (maximum columns is 2048 points, maximum lines is 1024 points), if over the maximum, the send boxes can be cascaded, and used with DVI or HDMI graphics card. This article focuses on the steps of setting send boxes.

### 一、Connection Diagrams of Send Boxes



topological connection diagrams of send box

### 二、Hardware structure





### Send box port defined

#### 1. Power supply( 5V/2A)

- ◆ 100-240V (50Hz-60Hz) AC
- ◆ The red indicator light means the power supply correctly

#### 2.Connection

- ◆ Connect ST7 send box with graphics card, by a DVI cable, for transmitting image data

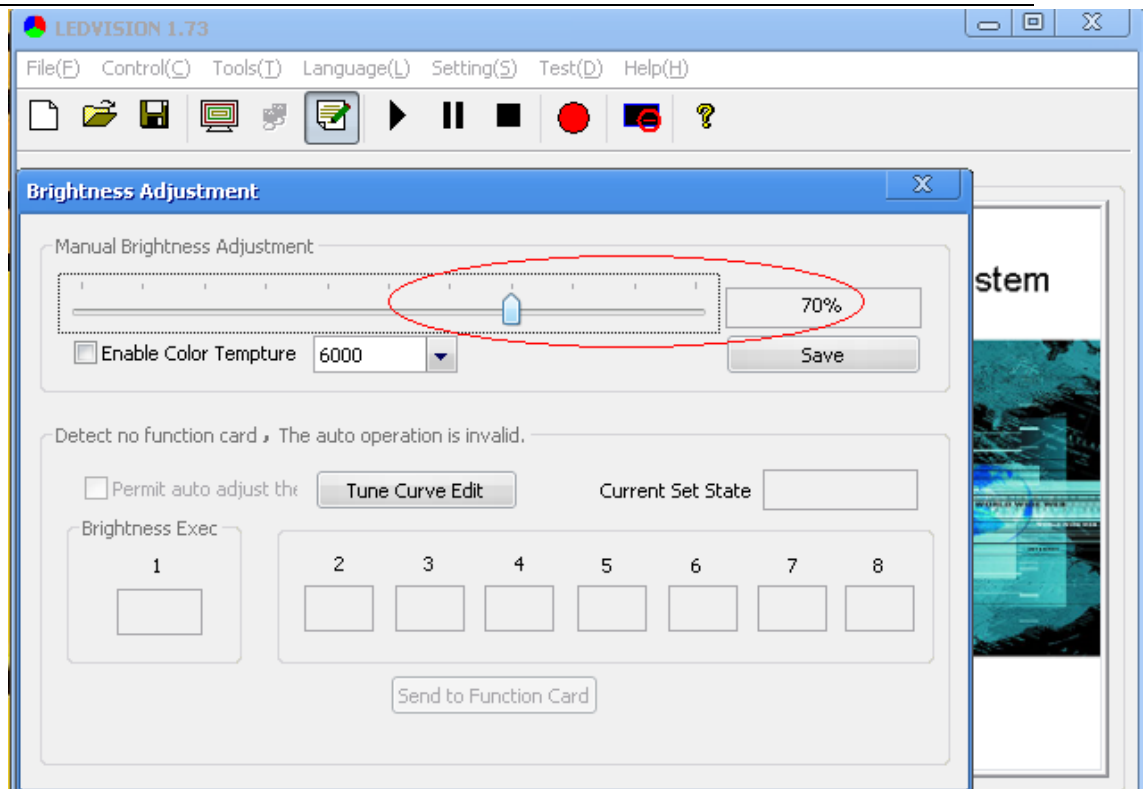
Connect ST7 send box' serial port with the computer's serial port, by a USB serial cable, for setting program to the send box.

- ◆ (Note: for the first time, need to install the serial driver. After install the Colorlight LED control system software: LEDShowT9 or LEDVISION, the "PL-2303 Driver Installer.exe" can be found in installation directory and install this file)
- ◆ Connect ST7 send box with receive card, by a network cable, for controlling the receive card and the screen

(Note: the connecting cables between send boxes and receive card, and the cables among receive cards are UTP cable or category six cable, the network cable plug comply with the line order of 568B international standard)

#### 3.Button

- ◆ The front two buttons for brightness adjustment , the adjustment range is 0-16. Digital display shows the current brightness level
- ◆ Through the buttons adjust the brightness, the brightness values within the control system software will change accordingly.



### 三、Graphics card settings

#### 1. Graphics card model

Currently, there are two mainstream graphics cards series on the market:

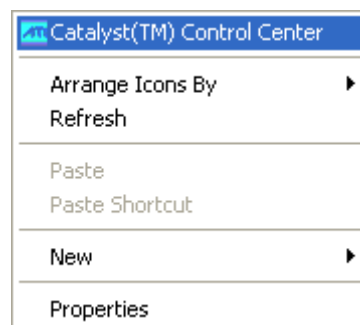
NVIDIA's MX Series (model 400, 440, 5200 etc.)

ATI's RADEON Series (Model 4670, 5550, 7000, 7500, 8500, 9000 etc.)

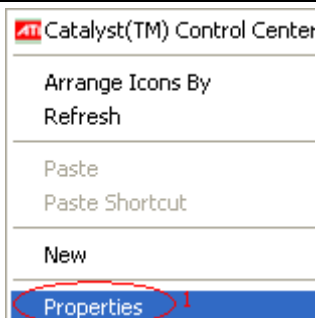
Install the corresponding graphics card driver correctly.

#### 2. ATI graphics card settings

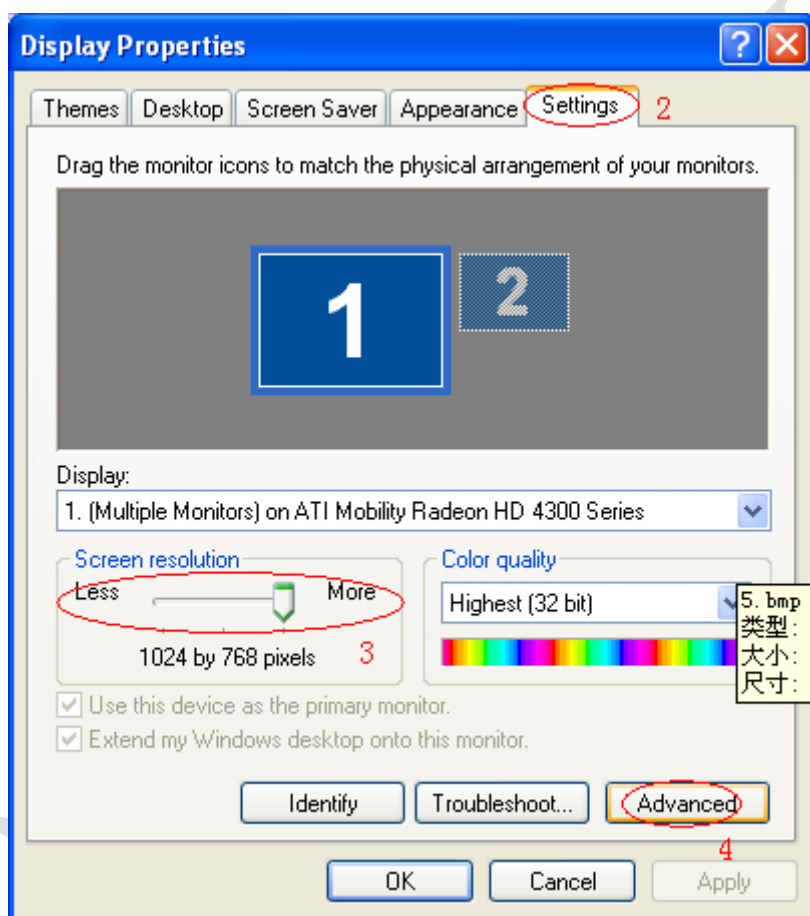
1) First, we open the graphics card setting interface: Right-click the space on desktop, select [ATI Control Panel] in the menu, just as the following image shows



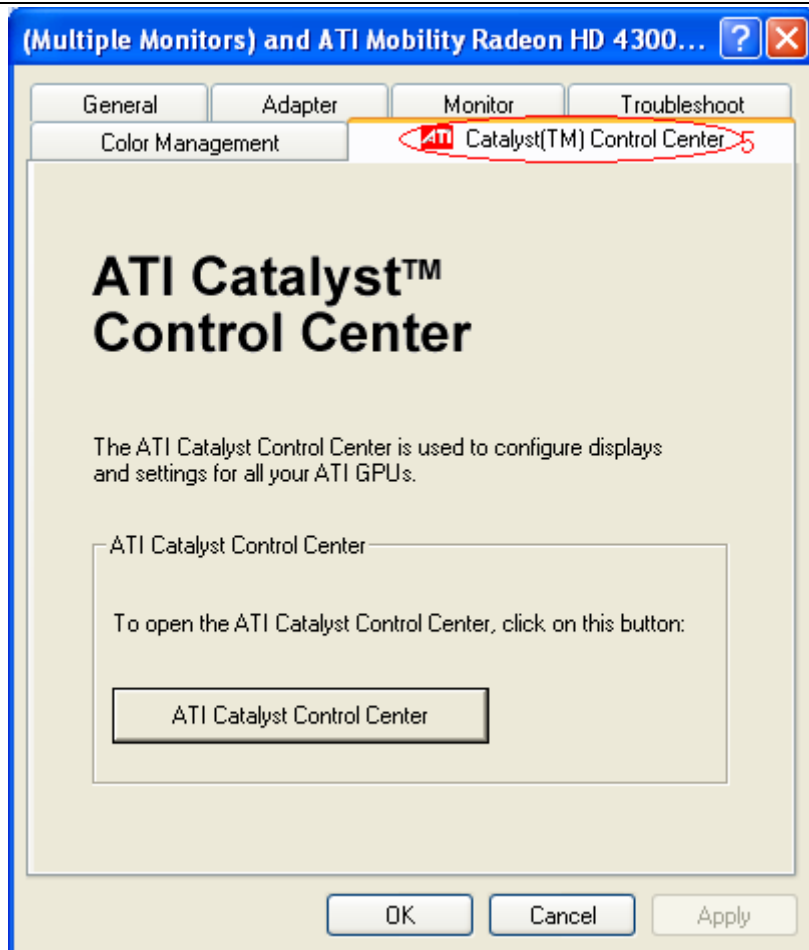
If there is no [ATI control panel] in the menu, we can also click on [Properties], as the following image



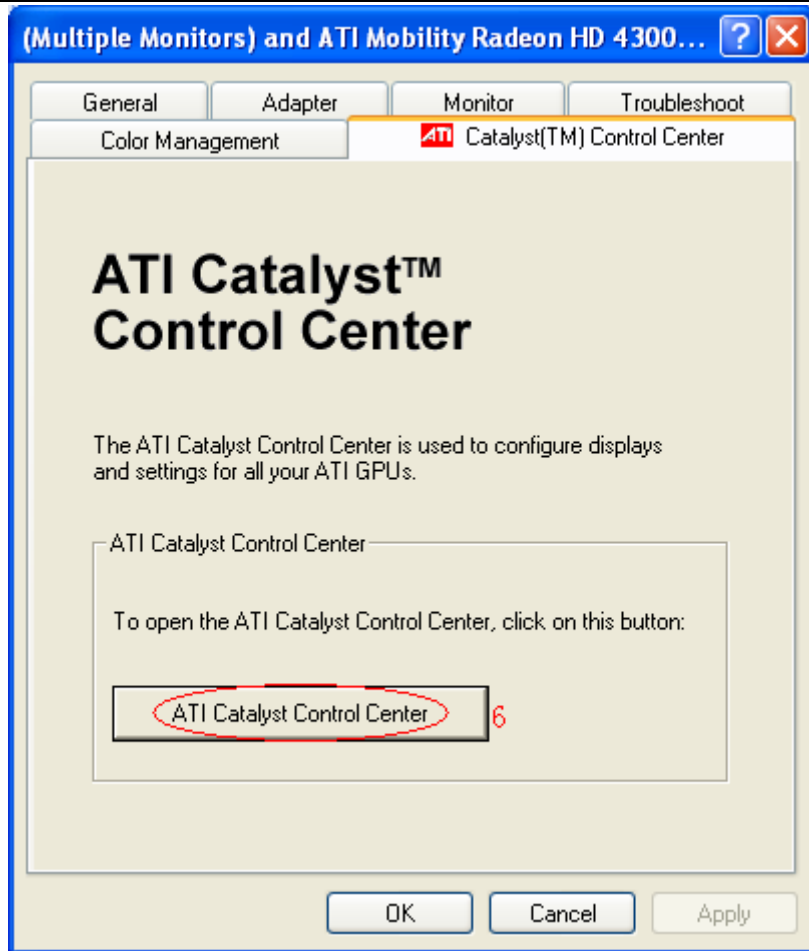
In the [Display Properties] dialog box, click the [Setting], select the appropriate display resolution, and then click [Advanced] button, as shown below:



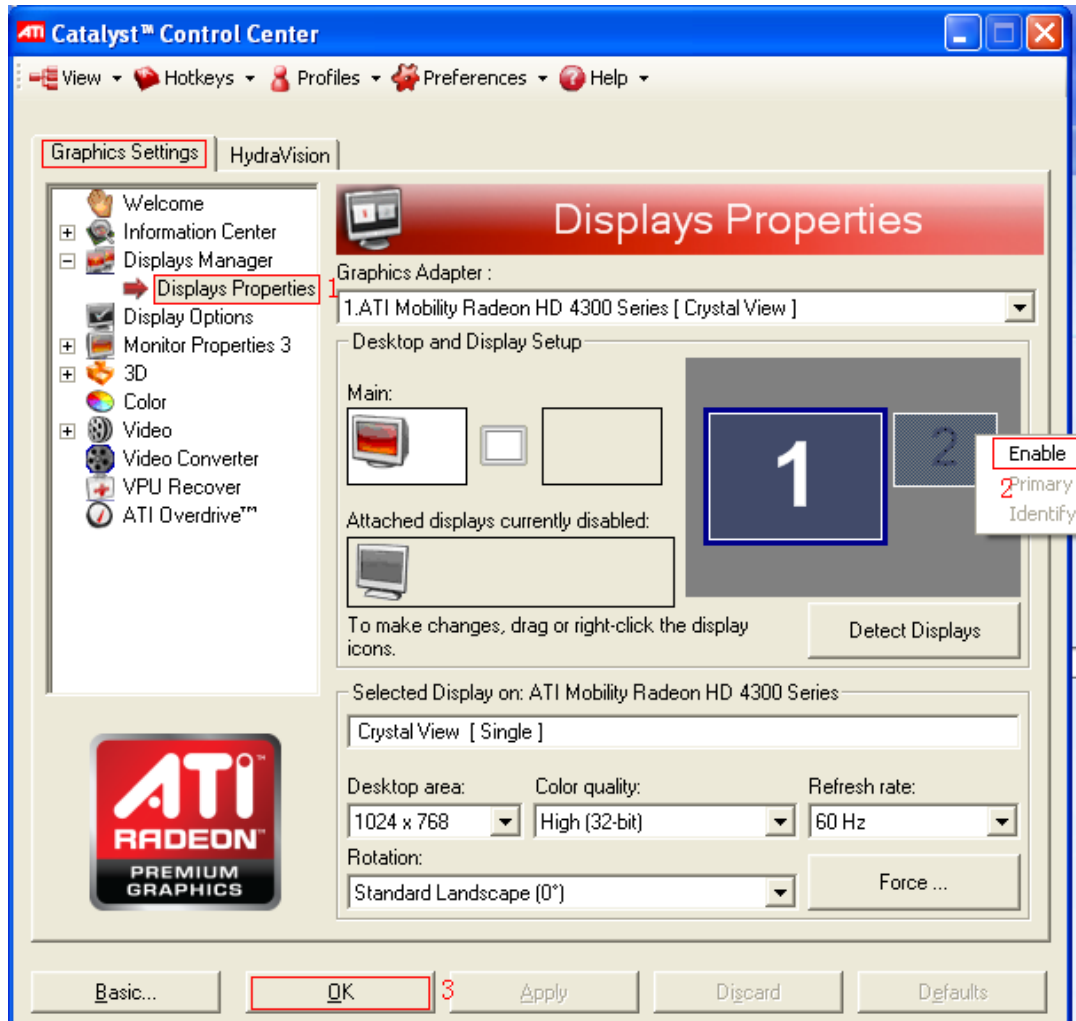
Then, click the [ATI ...] in the interface, as following shown



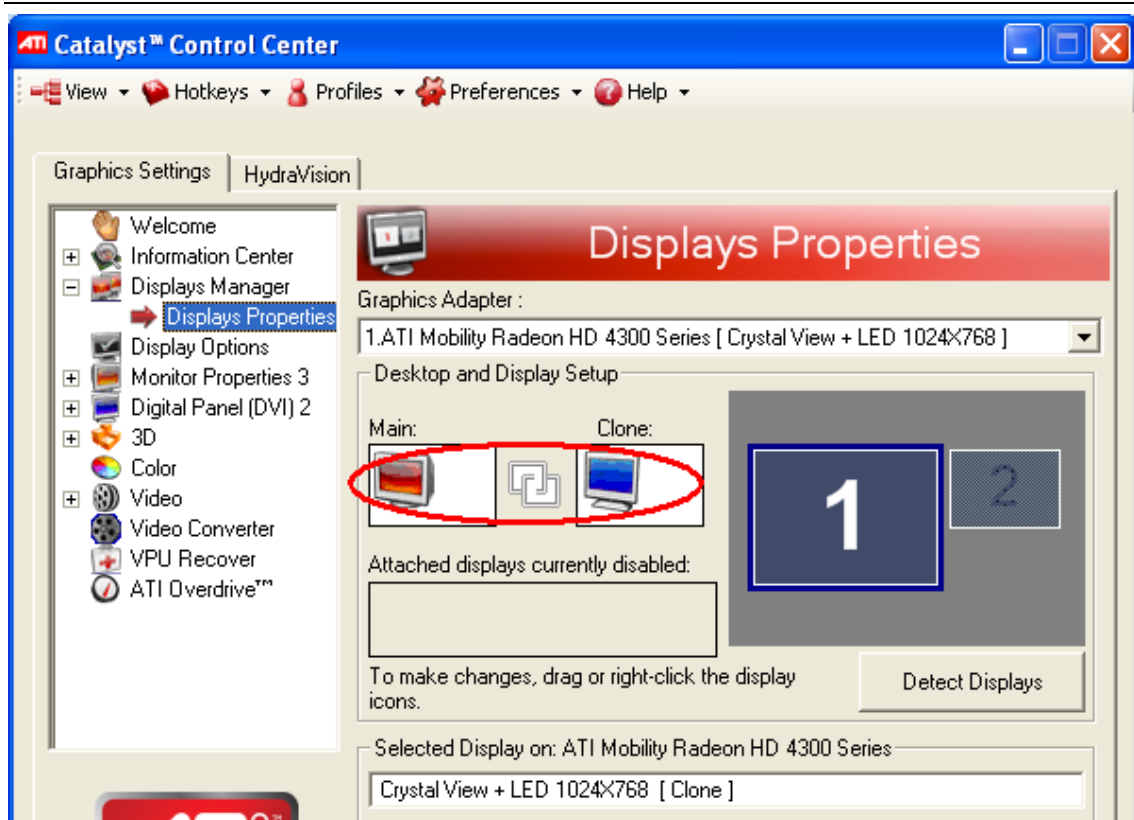
In the interface, click the [ATI Catalyst Control Center] as following image shows, also can open the graphics card settings interface



In the ATI control panel, select [Monitors Manager], as following image shows, then right-click simulate monitor 2, click [Enable], select [Copy Mode], and click [Application], [OK].

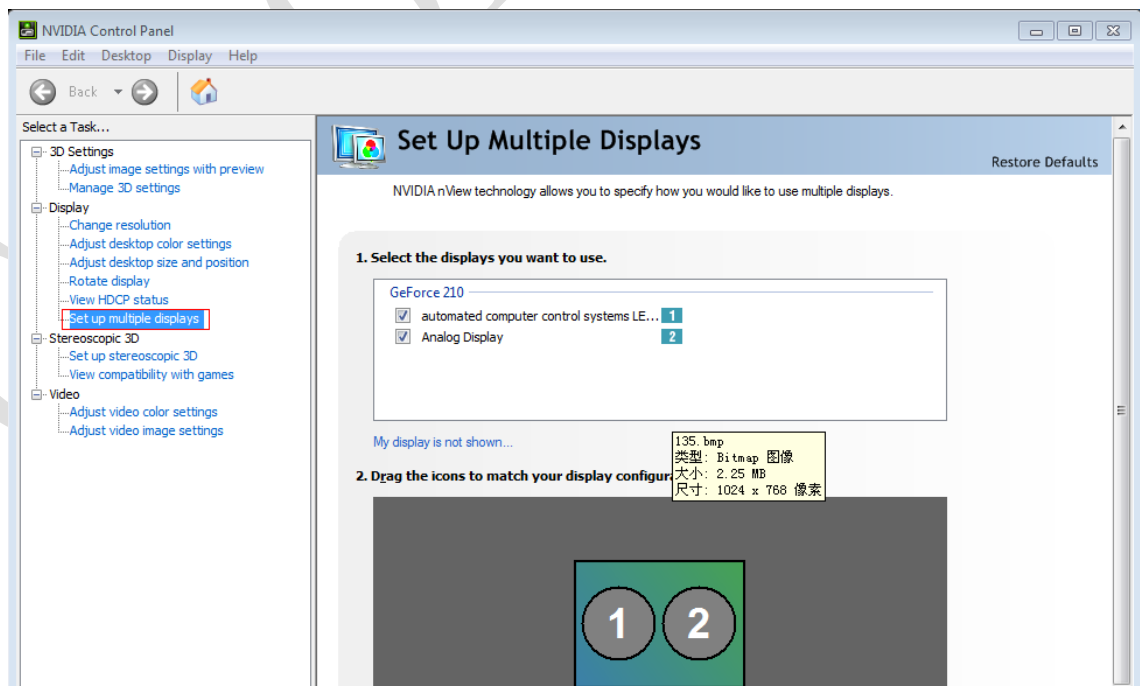


The interface as shown in below image appears, click [OK] to finish the ATI graphics card setting.



### 3. (NVIDIA graphics card settings)

- 1) First, open the graphics card setting interface, and its operation is similar to opening ATI setting interface
- 2) In the [NVIDIA Control Panel], select [set up multiple monitors], and then select [Copy Mode], click [Application] button.

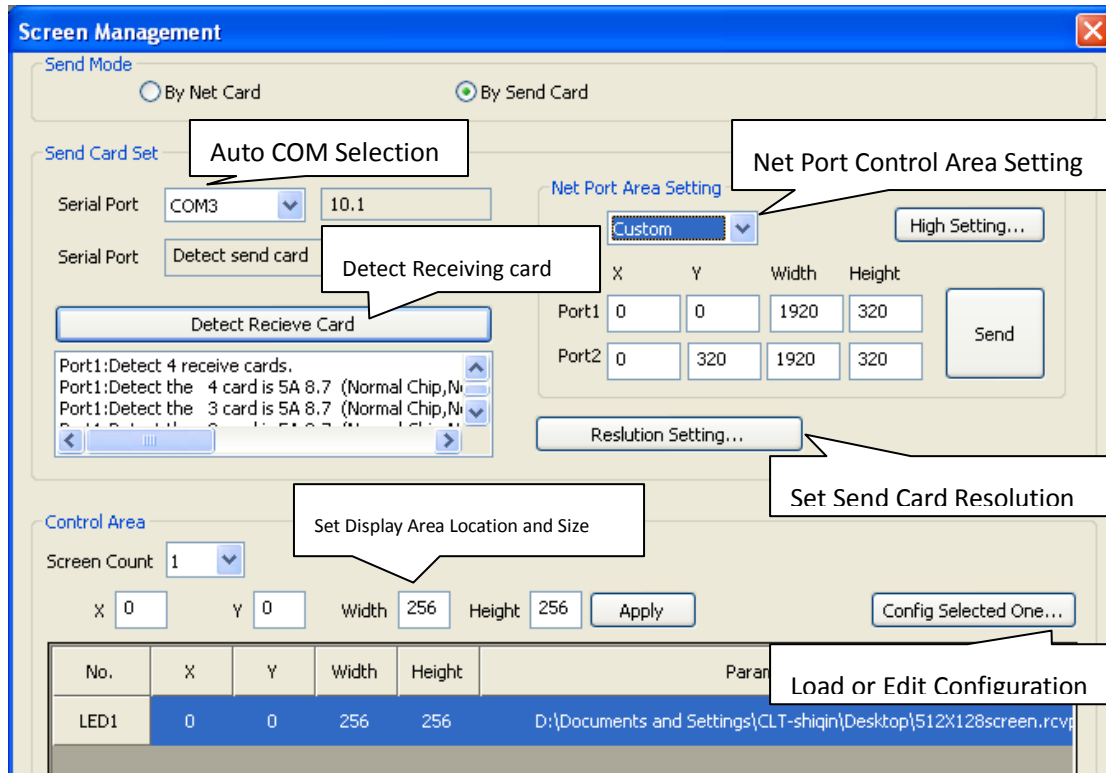




#### 四、Set send box's parameters

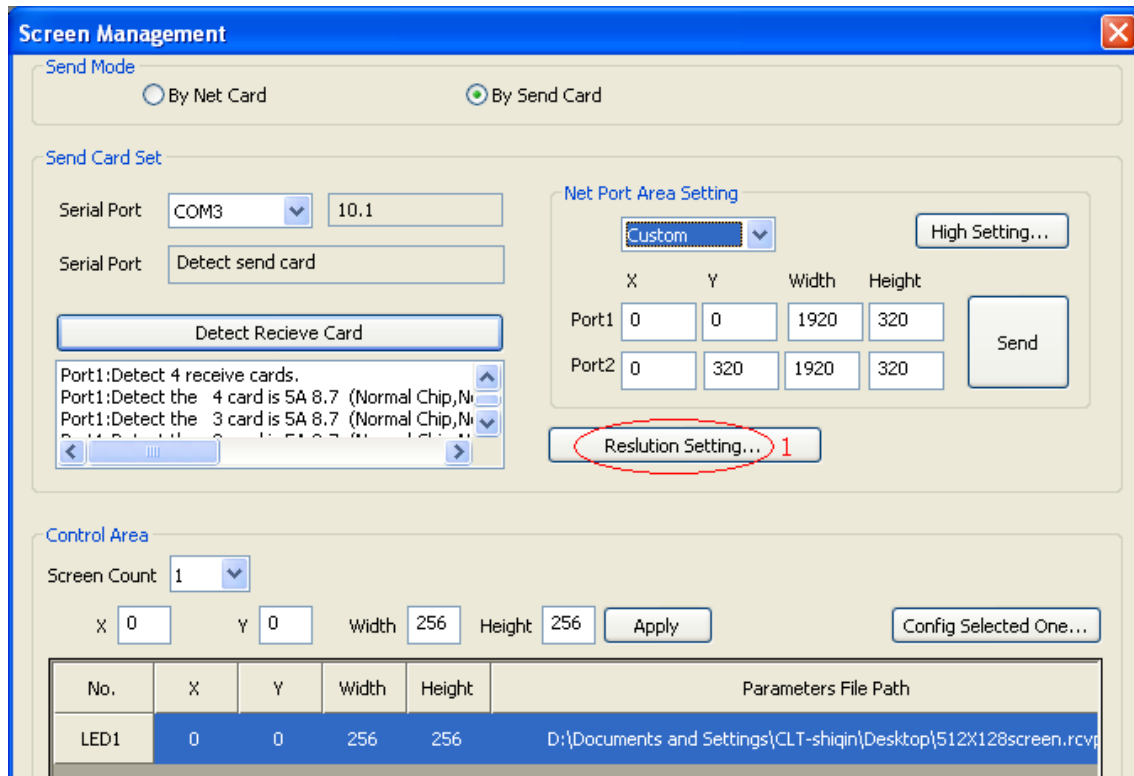
## 1. Control interface

Open Colorlight control system software, click [Control screen] - [Management screen], select the [Send card send], passwords, [168], just as the following image of [Management screen] interface

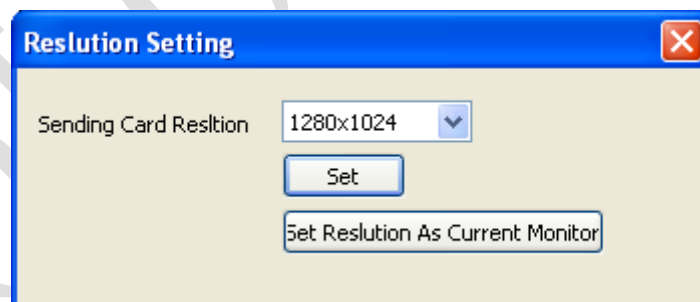


## 2、 send box resolution setting

Click [resolution setting]



Send boxes' default resolution is 1280x1024, 9.9 version send box support the function of adapting resolution automatically., click [set to the current display resolution], also can select the same resolution to current display, in the drop-down menu of [send card resolution] and click [set], just as following image shows.



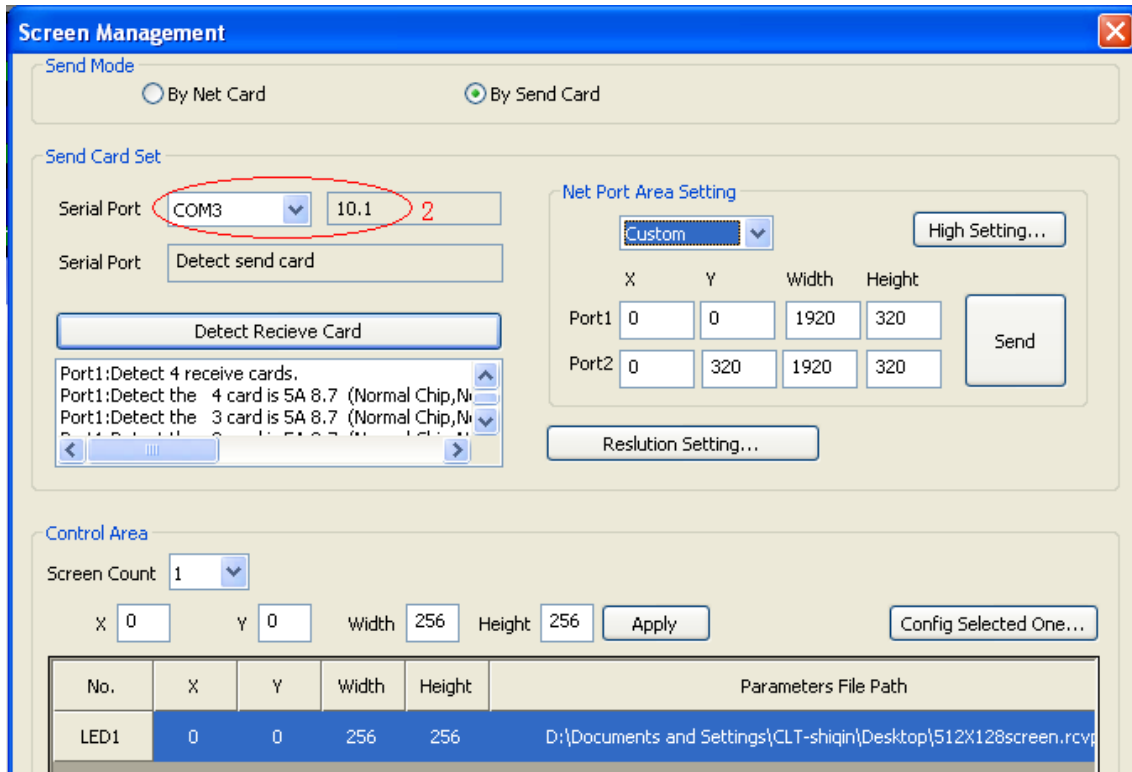
After click [set] or [set to the current display resolution], it will appear the progressing interface, as show below

After the transmission, the software will prompt [send successfully, please power off the send box, and restart! **Note: After restart the send box, need to do the steps of graphics card setting again, in Chapter III of this article]**

### 1. Serial ports choice

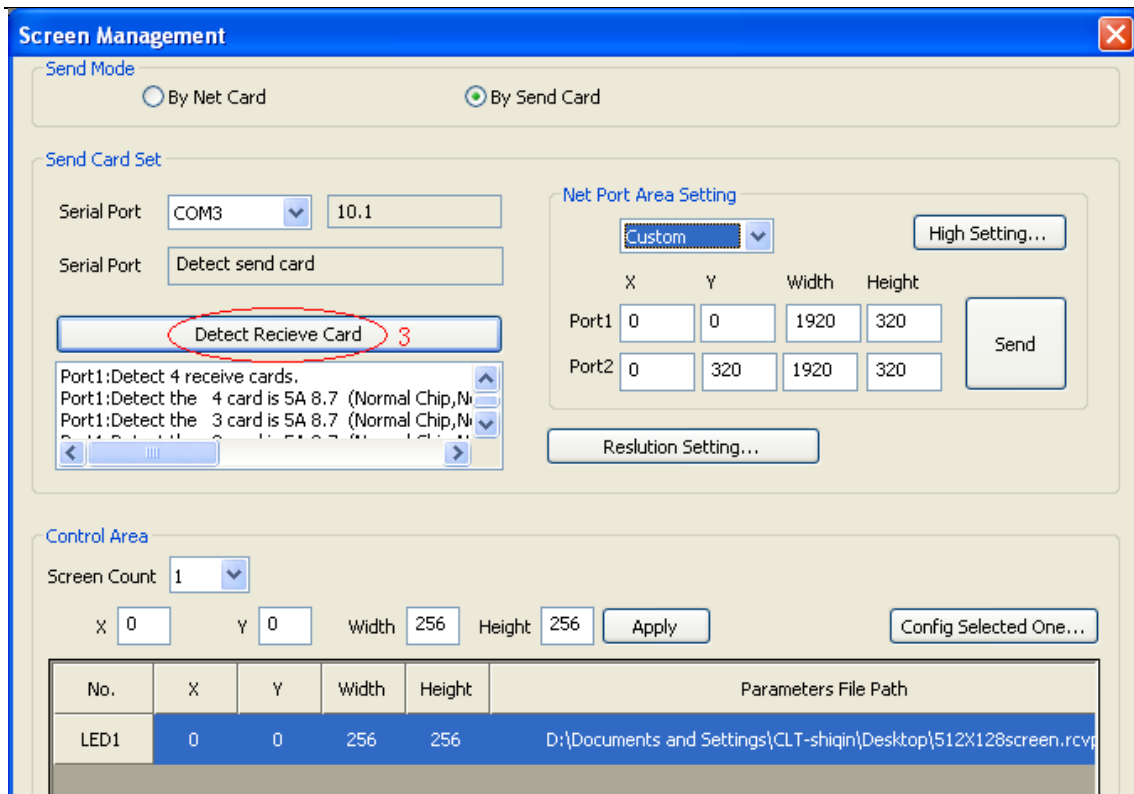
Connect ST7 send box' serial port with the computer' s serial port, by a USB serial cable, for setting the program to the send box. When the serial ports

communicates well, the status of serial port, in the software's management interface, will be just as below image shown [found to send cards, can set parameters] (Note: For the first time, need to install the serial driver. After install the Colorlight LED control system software: LEDShowT9 or LEDVISION, the "PL-2303 Driver Installer.exe" can be found in installation directory and install this file)



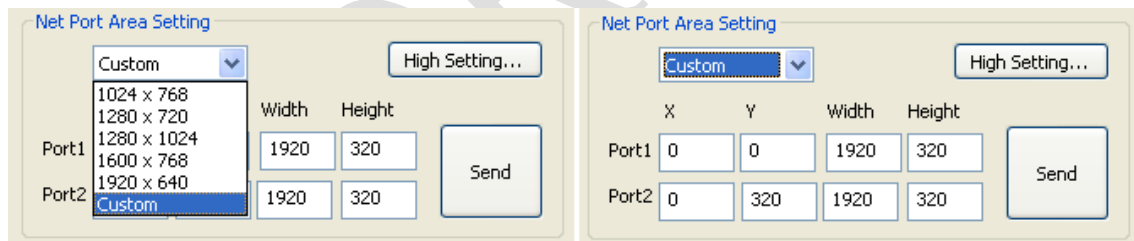
## 2. Detecting receive card

For testing whether the receive card communicate well (or observe whether the green lamp on receive card flash quickly). If detect no receive card, or the quantity of detected receive cards does not match with the actual receive cards, please check whether the receive cards has been powered well, or whether the network cable is in good connection. The correct operation as shown in below image



### 3. network interface control area setting

According to the size of LED display, choose network interface control area, just as the image (a), then click [Send], send to the card. If the screen is a little larger, need to use dual network interface, also can use the custom mode, such as display (1344 \* 672), set the network interface, just as image (b), then [Send], send to the card.



### network interface control area setting

Above are all the steps for setting ST7 send box