## SuperComEdit V4.xx / SCL2008V2.xx

## **USER MANUAL**

# This manual maybe is different from the latest version of programs. 2008.06

Chapter 1	Install and setup	2
1.1	Install the software	. 2
1.2	Connect the computer and LED screen—Serial Communication	. 2
1.3	Connect the computer and LED screen—Ethernet Communication	. 2
1.4	Setup——Serial Communication	. 4
1.5	Setup—net communication	. 5
1.5	NTP Protocol, automatically time checking via Internet	. 6
Chapter 2	hapter 2 Operation Interface	
2.1	Tool bar	. 7
2.2	Schedule list	. 8
2.3	Program property	. 8
2.4	Imitating display	. 9
Chapter 3	Parameters settings	10
3.1	The hardware's property of LED screen	10
3.2	LED screen's size and color settings	11
Chapter 4	Displaying program making	12
4.1	Add program	12
4.2	Playing programs' playing time and their area sizes' changing	12
4.3	Time settings for automatic on/off and adjust area spaces	12
4.4	Add flash, word file and images	13
4.5	Delete items and pending items	13
Chapter 5	Program sending and remote control	14
5.1	Organize and refresh data	14
5.2	Multiple schedules management and control (directory management)	14
5.3	Transfer file(s)	14
5.4	SD Card use (SuperComm)	15
Chapter 6	Design clock displaying interface	
6.1	Background Words	
6.2	Clock time item	16
6.3	Countdown	
6.4	Temperature and Humidity	
6.5	Serial Data	
Chapter 7	Running info, update and safety mechanism	19
7.1	Running Info	19
7.2	Update	19
7.3	Safe Mechanism	20

#### Chapter 1 Install and setup

#### 1.1 Install the software

Run SCEditSetup.exe/SCL2008Setup.exe, the dialog box pops out:





Click [Next], and do the settings as the Setup wizard, or just use default settings to install the SuperCommEdit/SCL2008Edit into the computer, and it will automatically launch SuperCom/ SCL2008, and save the shortcut on the desktop.

After installation, users can try to make programs and adjust the playing areas, but if it is needed to send the programs to LED board, the users have to connect the LED board with PC, and setup the related communication parameters.

#### 1.2 Connect the computer and LED screen—Serial Communication

If using serial communication, the PC's RS232 interface should be connected to LED screen's RS232, or RS422/ RS485 interface, the cable should exchange PIN2 and PIN3 at the two ends.

#### 1.3 Connect the computer and LED screen—Ethernet Communication

Except for serial communication, PC can also visit LED screens via Ethernet.

The below diagram is a RJ45 connector, and its first PIN and the lines' order of 568A and 568B in EIA/ TIA standard.



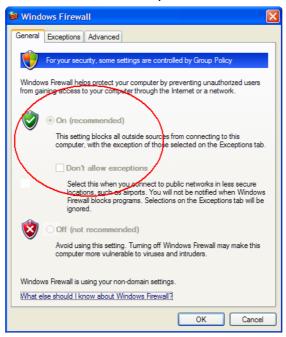
	568A	568B
1	Green/ White	Orange/ white
2	Green	Orange
3	Orange/ White	Green/white
1	Blue	Blue
5	Blue/white	Blue/ white
5	Orange	Green
7	Brown Awhite	Brown/ white
3	Brown	Brown

If PC is directly connected to LED screen, one terminal of the net cable is 568A, then another terminal should use 568B.

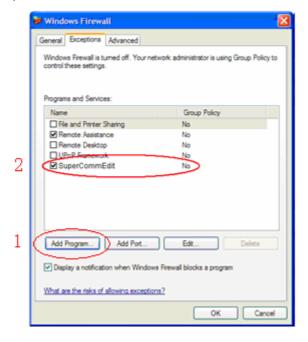
If PC is connected to LED screen through router, HUB or exchanger, then the two terminals of the cable both should be 568B.

<u>WindowsXP</u> firewall and the anti-virus program maybe will shut off some of PC's program or functions, so it is very important to make the correct firewall settings to make the LED screen work well, the user can go to: [Start] -> [Setup] -> [Control Panel], double click "Windows firewall", the Firewall settings interface will be as below:

Don't check the box before "don't allow exception" as in the below red ellipse.



Go to [exception], click [add program], add SuperCOmEdit.exe/ SCL2008.exe, check in the box before SuperComEdit.exe/ or SCL2008.exe

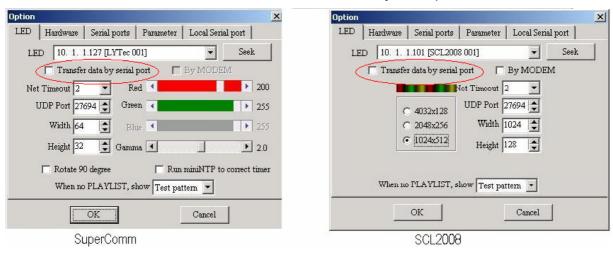


#### 1.4 Setup——Serial Communication

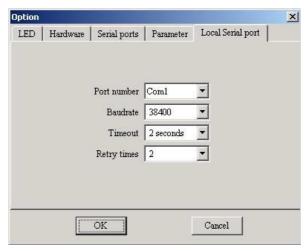
SuperComm can support 10M/100M net communication as well as serial communication. SCL2008C just supports serial communication, while SCL2008N supports both serial and net communications.

The default serial port settings for both Supercomm and SCL2008 are: COM1, the baud rate: 38400. To use serial port for communication referring to the blow steps:

- Step 1: Use the serial cable with PIN2 and Pin3 exchanged to connect the controller's COM1 with PC's serial port.
- Step 2: In the software, go to [tool] -> [Option], first to setup [LED], in the below dialog box, check the box before "Transfer data by serial port".



Step 3: In the software, go to [Tool] -> [Option] -> [PC serial port], setup PC's serial port number, baud rate, Net Timeout (time delay) and Retry times, then click [ok]



Step 4: In the menu, click [Run Time information] to get the running information (which means the communication has got through, it can use serial port to communicate and control the LED screen)

So far, it is ok to run SuperComm/SCL2008 by sending/ receiving data through serial port.

It can setup the LED controller's serial port through **Ethernet** while setting up the LED screen's hardware, it also has 4 steps as below:

Step1: In the menu, go to [tool] -> [option], setup [LED], don't choose "transfer data by serial port"

Step2: Go to [LED Serial port], to setup controller's serial port: [Data bit] is 8, [Stop bit] is 1, [Check bit] choose None, [Same Check] leave blank, mark the check before [Data Transfer], then click [OK]

Step3: Go to [Tool] -> [Option] -> [LED], choose "Transfer data by serial port"

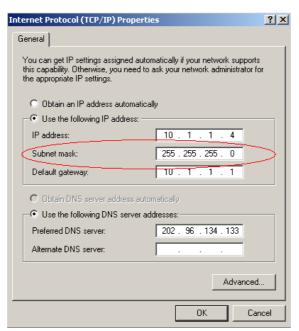
Step4: Go to [PC serial port], setup the same parameters as the settings in step2, and setup the [Time out] and [Retry times] according to the actual communication distance and the interference from the environment, then click [Ok]

SuperComm: while setup serial communication through net, each LED screen's address code is IP's last segment. For example, if IP is 10.1.1.127, then LED screen's address code is 127.

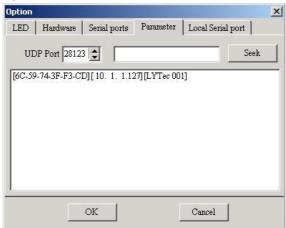
SCL2008: the address code of Serial communication is not related to the IP address, it can be setup independently.

#### 1.5 Setup—net communication

First of all, it needs to get PC's net parameters. In the PC's local connection, right click property, to find TCP/ IP connection, click [Property], to find and remember the subnet mask parameters.

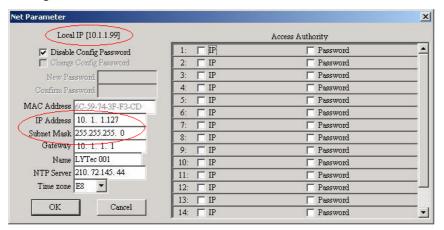


Then run SuperComEdit/ SCL2008Edit, in the menu, go to [Tool] -> [Option] -> [Parameter], the dialog box is as below:



When searching in the same net segment, then just clear the edit box, then click [Seek]; if searching across net segment, need input the LED's IP address, then click [seek]. When the controller finds out the LED screens, it will show all the LED screen's IP addresses in the window as in the above dialog box, then double click the IP line in need, to setup the net parameters.

For across net visiting, the router or the exchanger's firewalls maybe have shut off the LED screen's UDP port. In this case, it is needed to apply for 2 consecutive UDP port from net management.



At first, input the local IP subnet mask code into the subnet mask box, setup the LED's IP according to local IP address (PC's IP) and subnet mask code.

Subnet mask and IP address both have 4 segments. If one segment of the subnet mask is 255, then the segment in the same location in LED's IP will be as same as the one of local IP. In the above dialog box, the first 3 segments are all 255, so LED's IP and local IP both have the same value in their first 3 segments, the first 3 segments are all 10.1.1, only the last segment is different. The Local IP's last segment is 142, LED's last segment is 127.

The name below the gateway in the above box, is used to name each LED screen, which is easy for users to remember.

#### 1.5 NTP Protocol, automatically time checking via Internet

In the above dialog box, under the name, there is an IP address of a NTP time server and its time zone, (China is in E8 zone). After correctly setting up the related parameters, the contoller will hourly check the time with the time server to get the standard time.

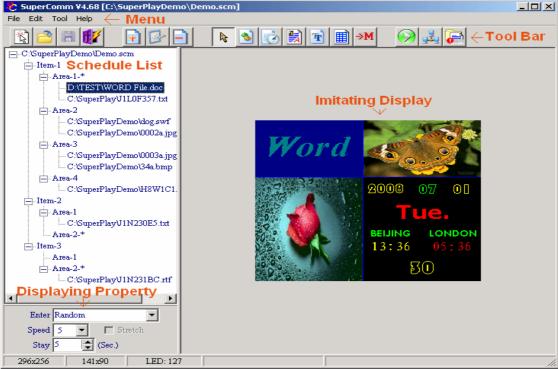
If there is a time server in the same LAN, then directly input server's IP in the box.

If the LAN which the controller is connected to could visitInternet, and the correct IP was setup, then in the box directly input the time server's IP address.

Using Internet timing server, it is not necessary to especially setup the router and exchanger, as NTP protocol is an open protocol, normally the routers and exchangers support this protocol.

#### **Chapter 2** Operation Interface

Run SuperComEdit/SCL2008Edit, the dialog interface is as below: SuperComm V4.68 [C:\SuperPlayDemo\Demo.scm] File Edit Tool Help



#### 2.1 Tool bar

The tobbar in the software has 4 kinds of buttons as below:

1. for schedule manipulation: [New],[Load],[Save] and [Exit]

♦ [New]: Clear the schedules and displaying programs, create the new

programs in the file.

♦ [Load]: Download the prepared programs. ♦ [Save]: Save the current edited programs

Exit SuperComEdit program 

2. For program manipulation: [add], [Delete] and [Property]

Create a new program, its interface will match the full screen, which

can have multiple areas, and each area can have multiple items.

♦ [Delete]: Delete one item in one area, or delete one program, and it is not

able to delete one area, (but the user can move the area dividing

line to get different sizes of areas).

♦ [Property]: Choose one program in a schedule, and click the property to revise

timing property of the schedule, and adjust the space between the

areas.

3. For editing manipulation: it includes [Cancel], [Add File], [Add Timer], [Add RTF], [Add Text], [Add Table] and [Switch Main area].click on one editing button, then click on one displaying area, then can do the related editing manipulation.

♦ [Cancel]: After clicking on one editing buttons, and the user wants to cancel this editing manipulation, just click on [Cancel], it will cancel the editing manipulation.

♦ [Add Image]: Add one or more programs in one area, which can be

images, text file, FLASH and word file.

♦ [Add Timer]: Add clock timer in one area.

♦ [Add RTF]: Add a RTF item in one area, can directly input the contents

in the area, and right click the area, where can choose the

font, color, and choose the text alignment.

♦ [Add Text]: Add one text file in one area, similar as RTF file, but it

cannot adjust the individual font and color, or part of the

words, but it can enable the compacting layout of words,

♦ [Add Table]: Add one table in one area

♦ [Switch main area]: Change the main area to another area.

4. For the system manipulation: it includes [Transfer] and [Runtime Info]

♦ [Preview]: Display the programs on the monitor, when the LED screen

is not connected, it can show the displaying effect.

♦ [Transfer]: Transfer data.

♦ [Run Tim Info]: Display the running information and update the screen's

player.

#### 2.2 Schedule list

Schedules are in the left part of the dialog box, schedule has 4 levels:

The highest level is the schedule file name, if it is a new made schedule, then highest level is "new schedule':

The second level is of program, each program consists of one or multiple areas.

The third level is area, each area can display multiple items, under the same program, there is a main area, (followed with '\*'), the main area's playing time determines the whole program's playing time.

The forth level are displaying items, which can be SWF (FLASH), word, BMP or JPG image, RTF, TEXT file and clock items.

In the schedule, one displaying item can be dragged from one area to another area under the same program or the area under different programs.

If one displaying item is a word file, double click it, it will automatically run the word file, and arrange the page layout according to the actual displaying size of the word file.

If one displaying item is an image, (BMP or JPG), double click on it, then it will automatically run the Windows paint program (under WindowsXP) to edit the image, or run Windows image and fax viewer (under WindowsMe).

If it is a clock item, then double click on it, it will start the clock editor.

#### 2.3 Program property

In the software, it can choose playing methods, moving speed and staying time. For the image file, it can choose [stretch] to make the picture fit the display window.

#### 2.4 Imitating display

In the right part of the operating interface is an imitating display.

For a RTF or TEXT file, it can be directly input and edited in the editing box; right click inside the box, it can set the font and its color. If it was a RTF file, then it is able to revise or change just part of the words' font, sizes and colors. For TEXT files, it cannot change part of the words' font, sizes and colors, if need changed, then need change all the words' (not just part of it) property.

If in one area, the item is a SWF file, then this area will display FLASH;

If in one area, the item is a clock file, then this area will display the requested time;

If in one area, the item is a word file, then this area will display a word file.

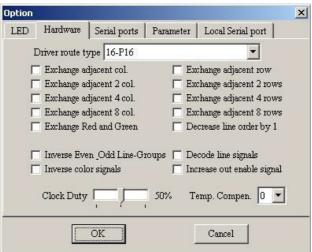
#### **Chapter 3** Parameters settings

Before the initial running of SuperComEdi/SCl2008t, it has to setup the related parameters. Before setting up the parameter, it needs to power on the controller, and connect the communication cable. If just to practice making the displaying program in the software, then it is not necessary to power on the controller and connect the communication cable, in this situation, you can only setup the LED's size (width x height).

In the SuperComEdit operating interface, go to [Tool] -> [option] to setup the parameters.

#### 3.1 The hardware's property of LED screen

The hardware parameter should be setup by professional engineers. If the parameter was incorrectly set, it may damage the LED screen. So it should be very careful to setup or revise the hardware parameters. Before accessing to parameters' setting interface, the software will ask the user for the password, if the password was wrong, the dialog box will go back to LED parameters setting interface, and not allow revision or settings of the hardware parameters.



In the above dialog box, we can choose the Driver route type, the route type is described in the format: <u>xx-Pyy [-nn-mm]</u>.

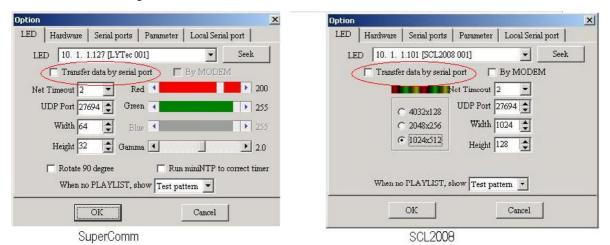
'xx' means scanning mode, it can be one of 16(1/16 scanning), 08(1/8 scanning) 04(1/4scanning), 02(1/2 scanning), or 01 (static mode), 'yy' indicates the row number which one signal port provides, normally it can be 02, 04, 08, 16; but very few can be 01. Referring to the different connection method between LED and IC pins, 'nn' and 'mm' can have multiple choices, 'nn' is for columns, 'mm' is for the rows. (Please refer to the lights panel in the website for more details)

Sometimes the sequences of the connected PINs are different, this will make the displaying patterns incorrect, so we can exchange the sequences for some columns and rows to get the correct displaying.

Scanning duty cycle is to adjust proportion of the high-level and low –level of the clock time. This can be very useful when the data signal need be transferred to the furthest end of the LED board.

#### 3.2 LED screen's size and color settings

LED setting is a very common setting. Before you make the displaying programs, the LED screen size should be setup, and when the LED screen is connected, the user can adjust the LED's RGB brightness and the contrast.



#### Chapter 4 Displaying program making

#### 4.1 Add program

Click on [Add] button on the tool bar, the dialog box with templates of displaying layouts as below:



When users double click on one layout template, the schedule will be added one program with this layout. Choose the item, and click on [Property] button, to setup the playing time, the spaces between the areas.

#### 4.2 Playing programs' playing time and their area sizes' changing

One program can consists of several (up to 4) areas, and each area can display multiple images, word file, RTF file, TEXT file and Flash or clock time.

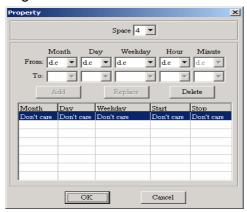
Each program only has one major area, which determines the playing time of the whole program, the other areas are minor areas. If the items in the major area are done, then the whole program is done. If the programs in minor areas are done, but the major area has not done yet, then the items in minor areas will automatically repeat.

In the program, the area followed with a star \* is the major area.

The user can drag the dividing line to adjust the areas size.

#### 4.3 Time settings for automatic on/off and adjust area spaces

First, choose one program in the left part of operating interface, then click on the [property] button, the dialog box will be as below:

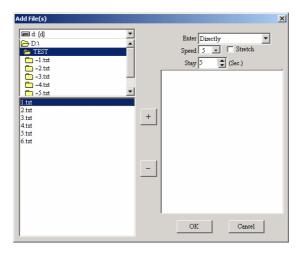


On the top of the dialog box, it can setup the space between the areas.

And in the below boxes setup the time frame based on month, date, week, hour and minute. And one program can set up to 8 time frames.

#### 4.4 Add flash, word file and images

In the tool bar, click on [Add files] button, then click on area where the file need be placed, then to choose the file,



From the top left window of the above dialog box, to find the file location, and in the below column, show all the files and displaying programs, and double click on one program, then it will be added to the right window; or users just choose several programs together, and click '+', then all the chosen programs can be added to the list in the right column.

On the top right area of the above interface, it can setup the files' entering mode, moving speed and the staying time. For an image file, it can choose [stretch] to automatically fit the LED screen.

Note: Entering mode is invalid to FIASH and clock time, and as the limitation of the displaying speed, FLASH can not exceed 256 x 192 pixels per picture page.

#### 4.5 Delete items and pending items

In the schedule list, click on the displaying programs or items, then click on [Delete], the displaying programs and items will be deleted.

#### Chapter 5 Program sending and remote control

#### 5.1 Organize and refresh data

On the tool bar, when clicking on the [Transfer file(s)] button, it reminds if it need rearrange program file(s). In order to save storage memory, SuperComEdit/SCL2008 will compress a big size image to fit the displaying area. Furthermore, it will divide the Word, RTF and Text file into several files for displaying, and download the FLASH pictures, this is an organizing and refreshing data process.

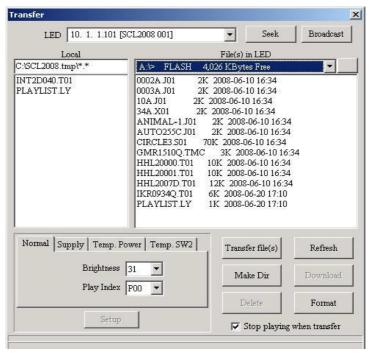
#### 5.2 Multiple schedules management and control (directory management)

The LED screen can store up to 100 schedules, and each schedule is stored in different files. The file's name indicates the # of the file, for example, "P03" indicates 3<sup>rd</sup> schedule.

If SD card stored several schedules, and the controller was assigned to play one schedule when the LED is powered on, then the system will automatically create a CONFIG.LY file in SD card directory, in order to read the program index, to start playing.

#### 5.3 Transfer file(s)

After the data is rearranged, it will show the transfer management window.



In the left part of the interface are the well organized files (under PC C:\SCL2008.tmp directory), and the user can just choose part of the programs to transfer. If no file was chosen, then it will automatically transfer all the files.

One of the controller's drivers is shown in the above interface. It shows the free space of the driver. If the place shows "<DIR>", then it means a subdirectory, double click

the file name, then access to the sub-directory, and there show all the files. And click on

in right of path, it will return to directory. While transferring the file, the files will always be stored in the current subdirectory of the current driver.

And there is a power supply management area in the box. It can setup the time for switch on and switch off, and it can also force to switch on or off the LED screen.

And there is an area showing the operations to create new files, delete file or subdirectory, download, format driver C.

After sending the programs of a schedule to the LED screen, it can change the playing schedule to display another schedule the user wants, and have the LED screen to display this program when the LED screen is powered on.

Note: when it is to change the playing index (schedule) to change the LED screen switching off/on time, or to adjust the brightness, or to search for the requested programs, the changed effect will immediately display on the LED screen. This is just for avoiding too many nonsense writing operations.

#### 5.4 SD Card use (SuperComm)

SuperComm controller can support SD card for extension.

The SD card need be formatted before being inserted into the controller SD slot, user need use a SD card reader to format the SD card and copy files, and while formatting the SD card, it need choose FAT format without volume label.

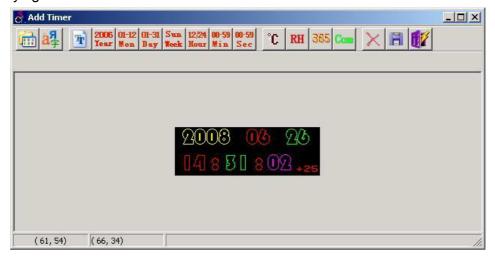
It can send the files to SD card through internet, or just copy the files to SD card, then insert the SD card into the controller's slot for displaying; while using a SD card to copy files, it just need copy all the files from PC c:\superplay.tmp to SD card after the programs are rearranged.

The LED controller searches and plays the programs in the below sequence: Driver C, Driver B, then Driver A, and it will first search under the related subdirectory according to the assigned index, then search under all driver's P00 directory, and search under all the driver's directory.

The files in Driver C is not savable, if the LED controller is powered off, then all the files in this driver will be lost.

#### Chapter 6 Design clock displaying interface

Click on the [Add timer] button in the tool bar, then click on the area where the time items need be placed, or double click on the clock items in the program, the clock displaying interface will be as below:



In the time displaying interface, the upper part is tool bar, the lower window is an imitating display.

The most left button on the tool bar is [Load background], and [Font]. "Load background' can have an image as the background of the time displaying interface. "Font" is used to setup the displaying words, and its sizes and colors.

On the tool bar, [Font] button are followed with: [Text], [Year], [Month], [Date], [week], [Hour], [Minute], [Second], [Temperature], [Humidity], [Countdown], [Data from Serial port]. And the most right 3 buttons are [Delete], [Save] and [Exit]

#### **6.1 Background Words**

On the tool bar, click on [Text], then in the below imitating display, click on the place where the words should be input, and there is an editing box below the tool bar, where can input the words. These words will not be changed while displaying.

#### 6.2 Clock time item

On the tool bar, click on [Year], [Month], [Date], [Week], [Hour], [Minute], or [Second], then click on the area in the imitating display where the clock items should be input. These clock items' data are read from the LED controller.

Note: [hour] need choose the time zone. When you place [Hour] item in the displaying area, the system will automatically choose the time zone, but the user can also specify the time zone.

#### 6.3 Countdown

On the tool bar, click on [Counter], then in the imitating display, click on the place where the countdown items need be input.

In the countdown property, the user can choose "Hide lead-zero', 'Bit number', countdown direction.

#### 6.4 Temperature and Humidity

On the tool bar, click on [Temperature] or [Humidity], and in the imitating display, click on the area where they need be input.

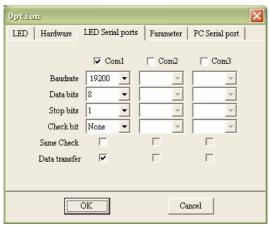
Note: it needs the hardware to support for the temperature and humidity displaying.

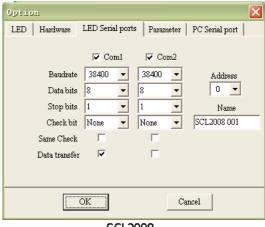
#### 6.5 Serial Data

On the tool bar, click on [Data from serial port], then in the imitating display, click on the place where the serial data want to be input, the item will be added.

This item can choose to display the data from whichever serial port, which data from the serial port, and bit number.

It need setup the related the hardware of the serial port before the serial data can be displayed. In the menu, go to [Tool] -> [Option] where the parameters can be set.





SuperComm

SCL2008

It also needs password to access to serial port setting.

In the above settings:

"Same Check" means the LED screen will only display the data only after controller receives the data twice.

"Data transfer" means the controller will use this COM to transfer the data with PC.

If just in the clock displaying interface, to show the serial data, then don't choose it (no check in the box).

**Data displaying protocol**: the leading code is ASII code "N", it is a displaying string less than 8 groups of data, which ends with the Enter key(0dH+0aH) to skip to another line, each group is divided by ",". Except for the ASCII code "0"-"9", it still can use "+", "-", "." and space.

Clock time checking protocol: the leading code is ASII code "T", it is a 14 digits time data, which ends with the Enter key (0dH+0aH)

### "T06091902101328"+0dH+0aH

The year has 2 digits, Sun is "00".

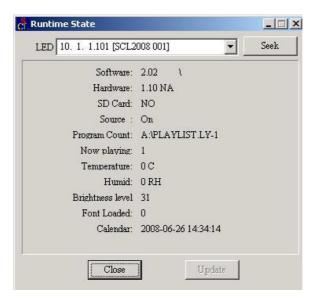
Nx1,x2,... ..., xn+[Enter]

Here N is the character 'N', x1-xn are 8 groups of ASII digits, each group can only consists of space, decimal, '+', '-' and the digit '0'- '9'. X1-xn is divided by ','. It don't have to be 8 groups of data, it can be less than 8.

#### Chapter 7 Running info update and safety mechanism

#### 7.1 Running Info

On the tool bar, click on [Runtime info], it will show the system's running info as below:



The dialog box shows the software version, hardware version, SD card status, LED source supply status, the driver of current playing programs, and the current programs serial number, temperature, humidity and brightness sensors data, the controller's clock time.

#### 7.2 Update

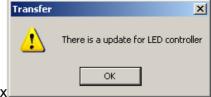
LED screen's playing software should agree with program's making software (SuperCommEdit), otherwise it cannot work well with each other.

Transfer

Please use newest SuperComm
OK
DOX, which
the program's making software, in this

X

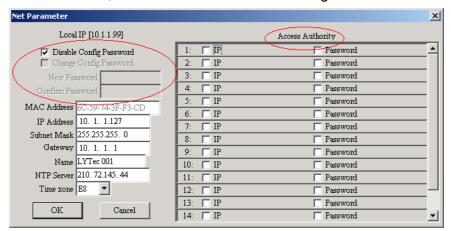
While running the program, it reminds the box shows the conroller's playing software is later than the program's making software, in this case, PC need download the latest the version of program's making software.



While running the program, it shows the dialog box which means the program's making software is later than the controller's playing program, in this case, it just need go to [Runtime info], and when the [update] is active, then click it to update.

#### 7.3 Safe Mechanism

In the parameter setting interface, choose [Parameter], click on [Seek], all the LED screens in the LAN will show their MAC address and IP address in the list, double click on the LED which need set, then it will show the below dialog box:



After the IP address, subnet mask, and gateway are correctly setup, it can setup a password in order to prevent unauthorized person revising the related parameters. If the password is invoked, then before revision of the net parameters, the system will ask for and verify the password. If the password is incorrect, then the parameters cannot be set or revised.

As the LED is connected to the controller via LAN, any PC with SuperComm/SCL2008Edit in the LAN can visit and control the LED screen. So In order to prevent the unauthorized person sending the data to the LED screen, in the SuperCommEdit, the user can designate the PC's IP who can visit the LED screen.

It can designate at most 16 IP addresses, or 16 passwords for the PCs who need visit the LED screen. After the settings of the password, it will need password to access to parameters setting and data sending and receiving. If the password was incorrect, the related settings and operations will not work.

文件名: SCL User Manual. doc

目录: E:\My\_LED\\_SCL2008\Document

模板: C:\Documents and Settings\Young\Application

 ${\tt Data\Microsoft\Templates\Normal.}\ dot$ 

标题: SuperComEdit V1

主题:

作者: guorich@vip. 163. com

关键词:

备注:

创建日期: 2006-10-8 18:04:00

修订号: 647

上次保存日期: 2008-7-29 18:47:00

上次保存者: GuoRichard 编辑时间总计: 2,511 分钟

上次打印时间: 2008-8-1 16:20:00

打印最终结果

页数: 20

字数: 4,328 (约) 字符数: 24,674 (约)