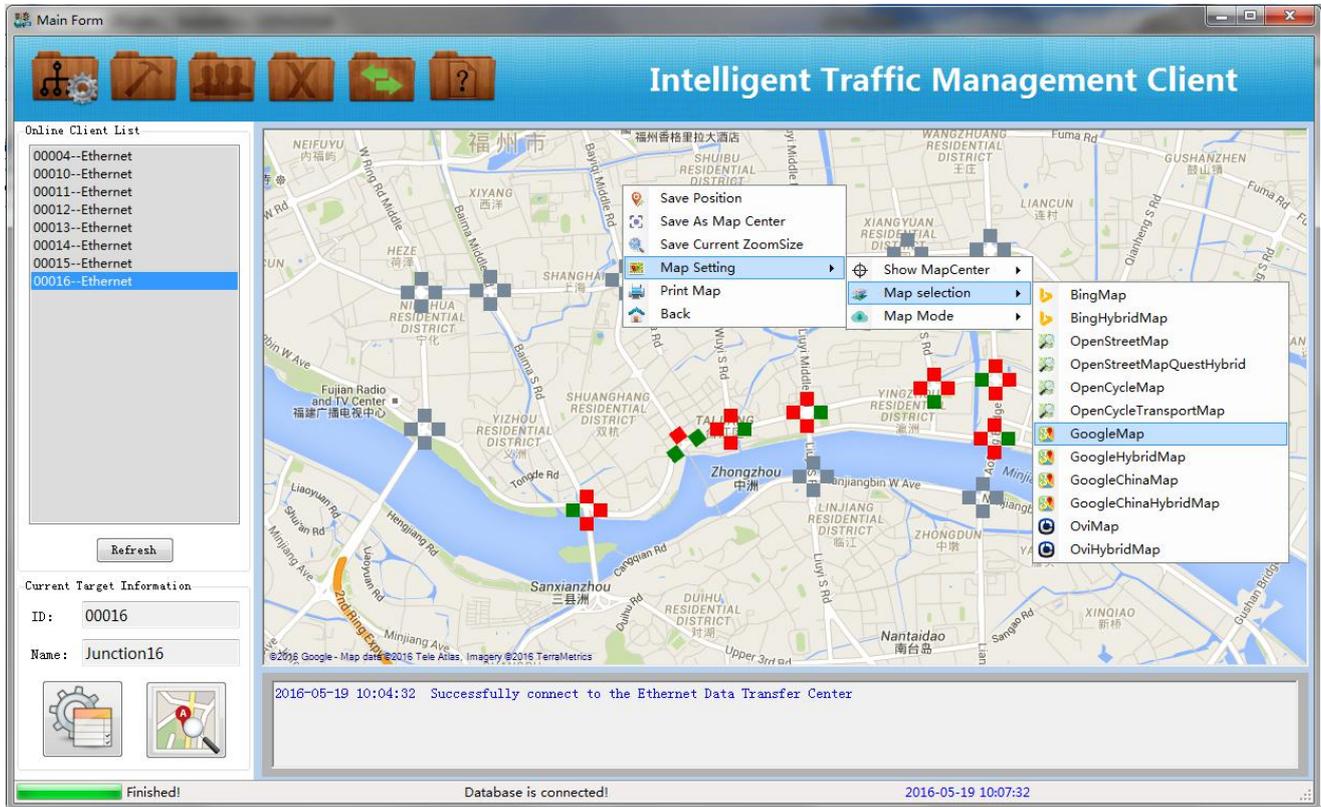


# Intelligent Traffic Management System

## Installation and operating instructions



Version 3.8

This specification applies to  
the controller unit that sales after April, 2017 & the software version after V6.5

---

# Software Features

- ◆ Friendly human-computer interaction interface, so that you can more convenient configuration and monitoring parameters for the state of each intersection;
- ◆ Can use Ethernet and GPRS communication methods, So that you can remote online control the whole system in any place where Internet coverage ,communication more convenient;
- ◆ Compatible with the international mainstream map, such as **Bing Map , Open Street Map, Open Cycle Map, Google Map, Nokia Ovi Map** and so on, there is always a right for you. Free access to the latest GIS data. Both the online and offline map data are supported;
- ◆ Using the latest .Net and multi-threaded programming technology, can adapt to multi-core hardware platform, make full use of hardware resources, To control the whole city intersection at the same time, build a complete traffic centralized control system;
- ◆ Online Monitoring, you can monitor the running statue of each traffic Control machine & traffic statue . it can report the fault timely and record it in the database;
- ◆ Being able to adapt to the Windows X86 & X64 platform;
- ◆ More features can be customized.



Welcome to use the Intelligent Traffic Management Client!  
Please read the manual carefully before use to help your better use of this system.

---

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# System Architecture Diagram

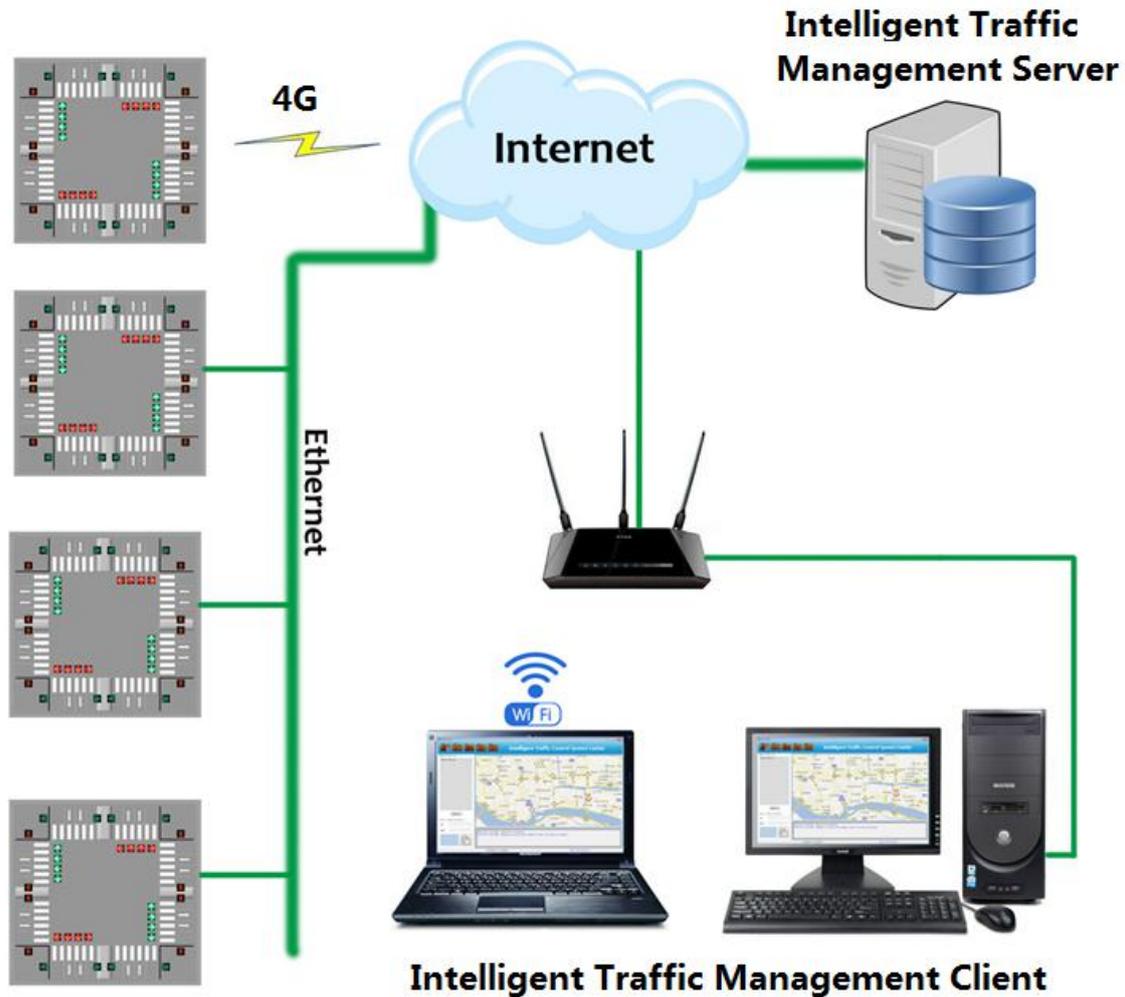


Figure 1. The system architecture diagram

The system consists of three major components: Junctions, Servers, Control center

**Intersection**-----Each intersection is equipped with a control unit, is responsible for intersection control, data acquisition and response to the control center command;

**Server**-----To complete intersection and data center-related data transfer and management;

**Control Center**-----City intersection centralized monitoring and intersection control, remote configuration parameters, and planning.

## Additional information:

1. Control machine connected to the Internet in two ways: wired -- Ethernet (recommended), wireless --4G.

2. The system must have a fixed IP address as the server for data transfer, the control center can be any PC which can access the Internet.

3. Server and Control Center can be installed on the same PC, the prerequisite is to meet the above Article 2, and PC configuration to meet the minimum hardware requirements

4. Each intersection of the ID number must be unique (in the same server)

5. Each intersection need to be registered to the server to complete the data transfer.

---

# System installation order

The Installation of this system requires the following order:

1. Install all the roads, and each control unit connected to the Internet with a network cable, **the destination IP address of each controller is configured to server IP**. Detailed operation, refer to this article follow instructions;

2. Install the server software **Intelligent Traffic Management Server.exe**, and register the respective control machine Center-ID (If you use GPRS, you also need to install the data center), detailed operation, please refer to this article follow instructions;

3. In the control center, the computer must to be installed the software **Intelligent Traffic Management Client.exe**, and set the number corresponding to each intersection and related information, configured with the correct server IP and port, and the local control center ID, It will take effective after the software restart. The specific operation details, please refer to text instructions.

---

# Intelligent Traffic Management Client

## Installation Requirements



**System Requirements:** Windows 7/8.1 X86 & X64 (already available test), or higher.

**Hardware requirements:** 2G or more memory, and a dual-core CPU, the higher the better.

Run **Intelligent Traffic Management Client.exe**, the software installation requires Microsoft .NET Framework V4.0, the running of the software is based on the plug, if used without plug-in version, you will have to download it from Microsoft's official website, during the installation process, please note that the software must be adding for the trust, to avoid it prevented by the anti-virus software, otherwise it can not work.

## 1. Software Login

I will be in accordance with the following menu sequence to introduce for each interface

### 1.1 Login Form

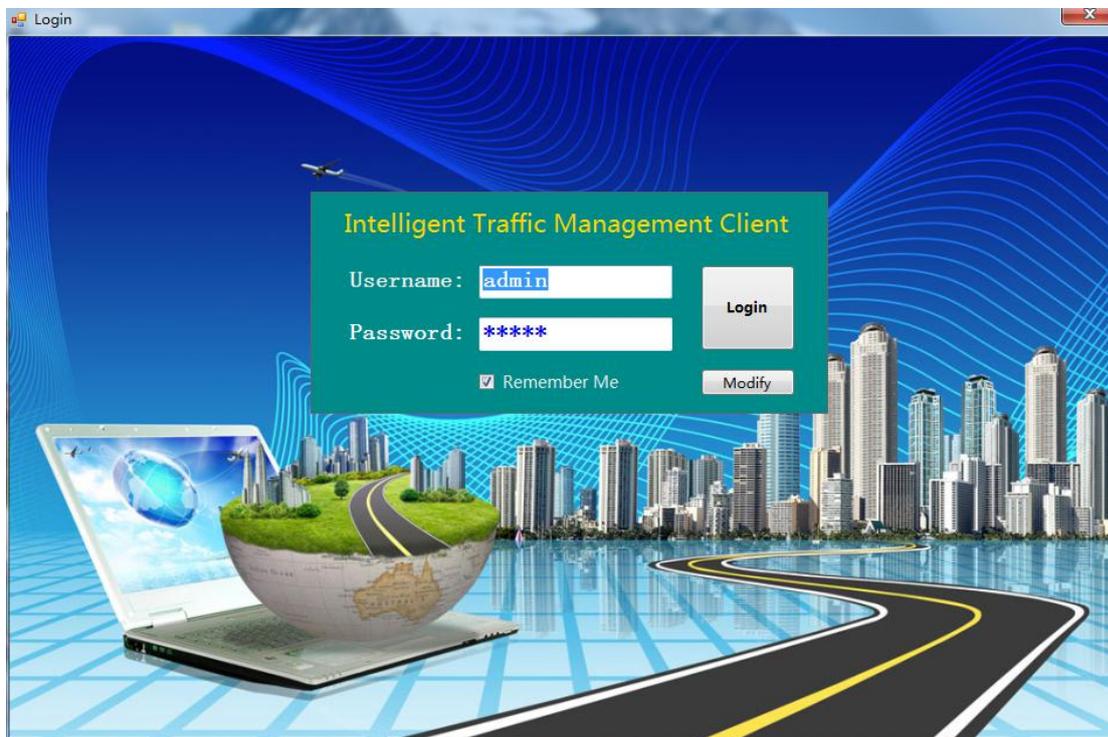


Figure 2 Intelligent Traffic Management Client Software Login form

Enter your user name and password (The initial username and password are **admin**), and press the Login button, It will display the main control interface.

---

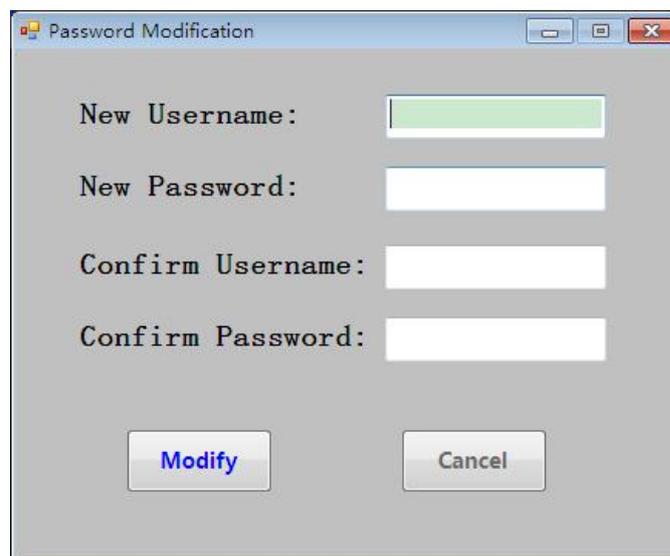
## 1.2 The Username & Password Modification

If you want to change the Username and Password, please press the Modify button, and the Password modification Form as it shown below.



The screenshot shows a dialog box titled "Password Modification". The main text inside the dialog reads: "Before modifying, Please enter the existing user name and password". Below this text, there are two input fields: "Username:" followed by a text box with a green border, and "Password:" followed by a text box with a white border. At the bottom center of the dialog is a button labeled "OK".

Type into the existing Username and Password, Press OK button, . If the authentication of the Username and Password pass,you will enter the



The screenshot shows the same "Password Modification" dialog box, but now it contains four input fields for modification: "New Username:" with a green-bordered text box, "New Password:" with a white-bordered text box, "Confirm Username:" with a white-bordered text box, and "Confirm Password:" with a white-bordered text box. At the bottom of the dialog, there are two buttons: "Modify" on the left and "Cancel" on the right.

Enter the New Username, New Password,Confirm Username and the Confirm Password, Press the Modify button to save data.

**The Confirm Username must be the same with the Confirm Username.so does the Confirm Password .Otherwise, the data modification will be faired.**

## 2.The main interface description

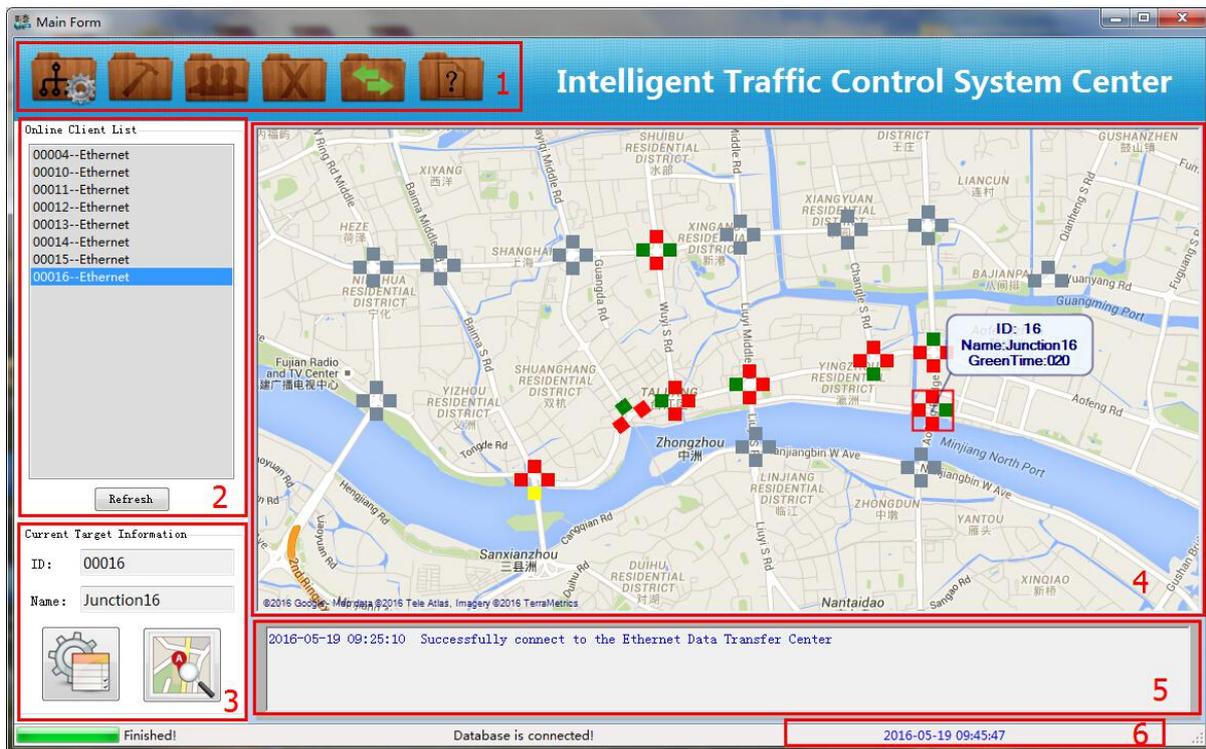


Figure 3 Main Form

Introduction:

(1). Function button area

- 1.**Server Setting**: remote server connection parameter settings
- 2.**Debug**: System Debug (debug communications for developers, please do not operate)
- 3.**Members Management**: management junction member
- 4.**Exception Record**: Fault record
- 5.**Green Wave Plan Tool**: Green Wave Band Parameter Plan tool
- 6.**Help**: Help documentation

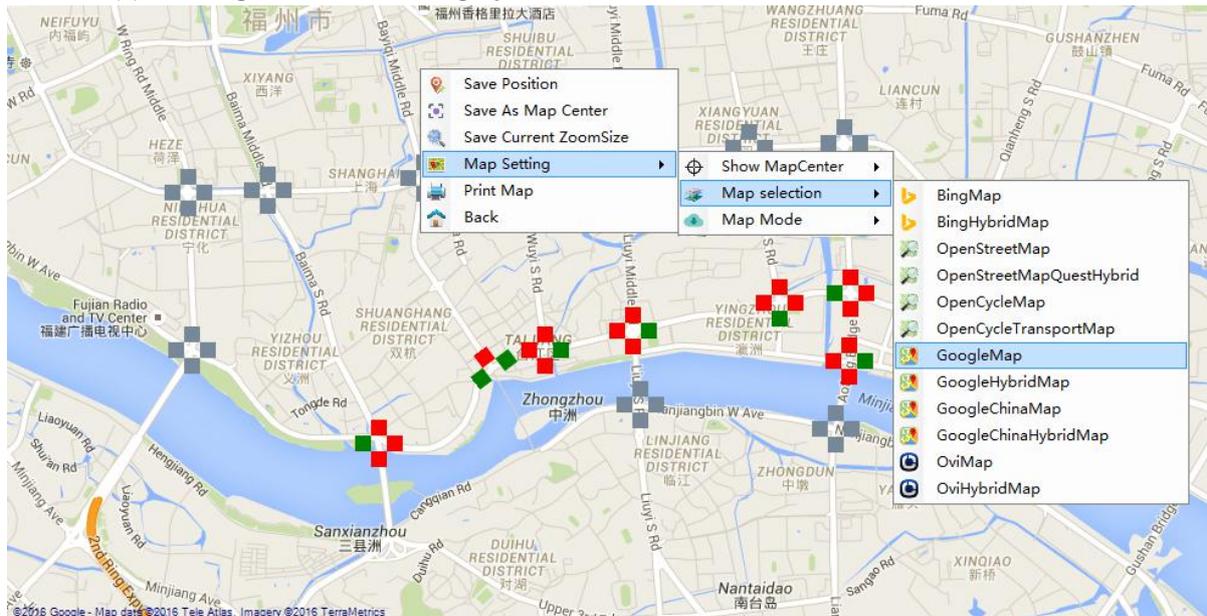
(2). Online intersection list

- 1.Format: intersection number - Communication Mode
- 2.This parameter can be modified in the Members Management. You can custom modifications intersection number of communication ,which can select Ethernet or GPRS.
- 3.**Refresh**: Manually refresh the online list

(3).The current configuration of the intersection information

- 1.**ID**: crossing number.
- 2.**Name**: intersection name
- 3.**Set button**:For single intersection data monitoring and configuration interface
- 4.**Find button**: Navigate to the intersection of your choice.

(4).The Map & intersection display zone.



The map zone contains the Map Setting & Operation, intersection setting.

Question: **How to open the map setting menu?**

Answer: Left double-click on a blank area of the map, it will pop-up the menu like above.

**Save Position:** Save current position to a intersection, this can help you easily to configure the location of a intersection on the map.

**Save As Map Center:** To save the current map center as the default.

**Save Current ZoomSize:** To save the current map ZoomSize.

**Map Setting:** Map Center Flag display & Map selection.

The maps that the System supports are as below:

**Bing Map**

**Bing Hybrid Map**

**Open Street Map**

**Open Street Question Hybrid Map**

**Open Cycle Map**

**Open Cycle Transport Map**

**Google Map**

**Google Hybrid Map**

**Google China Map**

**Google China Hybrid Map**

**Ovi Map**

**Ovi Hybrid Map**

**Print Map:** To print the current area of the map to a picture.

**Back:** Back to the default of the map center



Question: **How to move the map, change the Zoom size of the map?**

Answer: Keep Right Click on a blank area of the map and move the mouse, the map will move with you. The wheel of the mouse will help you to change the zoom size.

Question: **How to change the location of the intersection?**

Answer: Keep Right Click on the intersection that you need to change and move the mouse to the position where you want to move, then release, the system will remember the location. If the position that you want to set is out of the Current map area, you can move the map to the position that you want to set first and use the “save position” to save the location data to the intersection.



Question: **How to enter the intersection monitoring and setting from the map?**

Answer: Keep Right Click on a blank area of the map and move the mouse,the map will move with you. The wheel of the mouse will help you to change the zoom size.

The Intersection information is used to display the detailed information about the select intersection. As it shown below.

Intersection information	
<b>ID</b>	16
<b>ClientID</b>	00016
<b>Latitude</b>	26.0520021675922
<b>Longitude</b>	119.335899353027
<b>Direction</b>	0
<b>Class</b>	F
<b>Statue</b>	Online
<b>Mode</b>	Ethernet
<b>Name</b>	F
<b>Address</b>	0

(5). Real-time information display area (green wave display) of the Urban traffic junctions

(6).The system real-time message display area

### 3. Remote Server Connection Parameters Setting

The screenshot shows a 'Server Setting' window with three main sections. The first section, 'Remote Ethernet Server IP', has four input fields containing the numbers 104, 250, 140, and 138, separated by dots. Below these fields are 'Query' and 'Modify' buttons. The second section, 'Remote Ethernet Server Port', has a single input field containing the number 8899, with 'Query' and 'Modify' buttons below it. The third section, 'Local CenterID', has a single input field containing the number 60000, with 'Query' and 'Modify' buttons below it.

Figure 4 Remote Server Connection Parameters Setting Form

Introduction:

**Remote Ethernet Server IP:** Ethernet Server IP

**Remote Ethernet Server Port:** Ethernet Server port

**Local CenterID:** Local ID (60000 ~ 60010)



**Note:** Please strictly follow the address and port (shown at right), which is displayed on the Intelligent Traffic Management Server, to fill in, otherwise it will not be able to normally receive and send data.

The remote IP & Port of 4G are the same as the Ethernet. Configure 4G server IP & port, to make sure it can connect to the Ethernet server. To get the method of configuration, please refer to the chapter of 4G Setting.

### 4. System Debugging

The interface for program debugging, Please do not operate.

## 5. Intersection Parameters

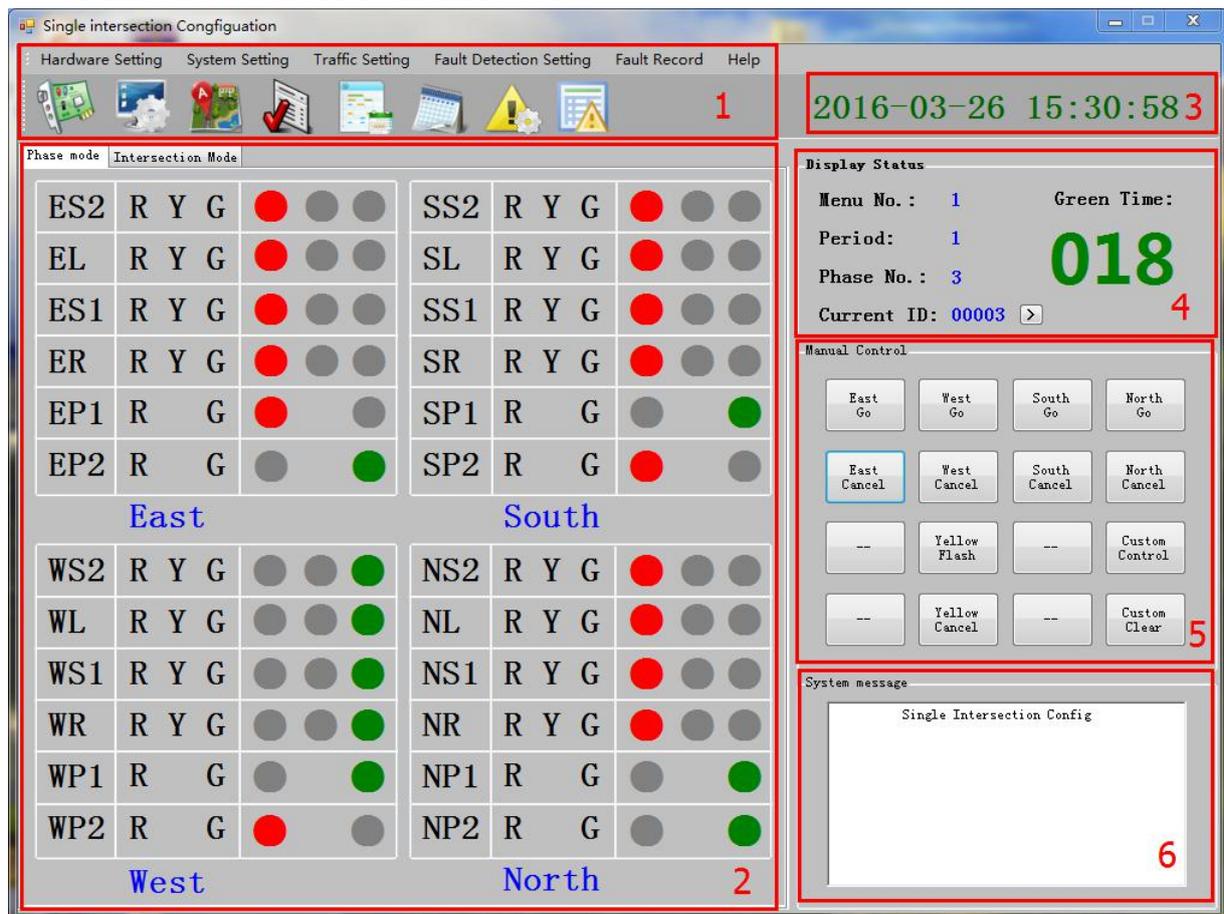


Figure 5 Single Intersection Configuration (Phase Mode)

Introduction:

### 1. Menu Bar

**Hardware Setting:** control machine hardware settings

**System Setting:** control system settings

**Traffic Setting:** transportation-related parameter settings

**Help:** Help Documentation

The second row of the first image corresponding to: the hardware settings, system settings, the Green Wave with display, Menu settings, Solution settings, Week Plan, Exception record.

### 2. intersection traffic lights real-time display

**Phase Mode:** phase display mode (top right icon)

**Intersection Mode:** intersection display mode (bottom right page shown)

### 3. System time display area

### 4. The current status display area intersection

**Menu No.:** The current Menu number which is displayed

**Period:** the current period of running

**Phase No.:** the current Phase number that is running

**Current ID:** The ID of the intersection which is currently being set

**Green Time:** The current intersection remaining green time

Change the object intersection control target  
 Click the , will pop up the online intersection list, shown at right ,choose the intersection ID that you want to control. Then click the  to confirm the change.

00002  00002

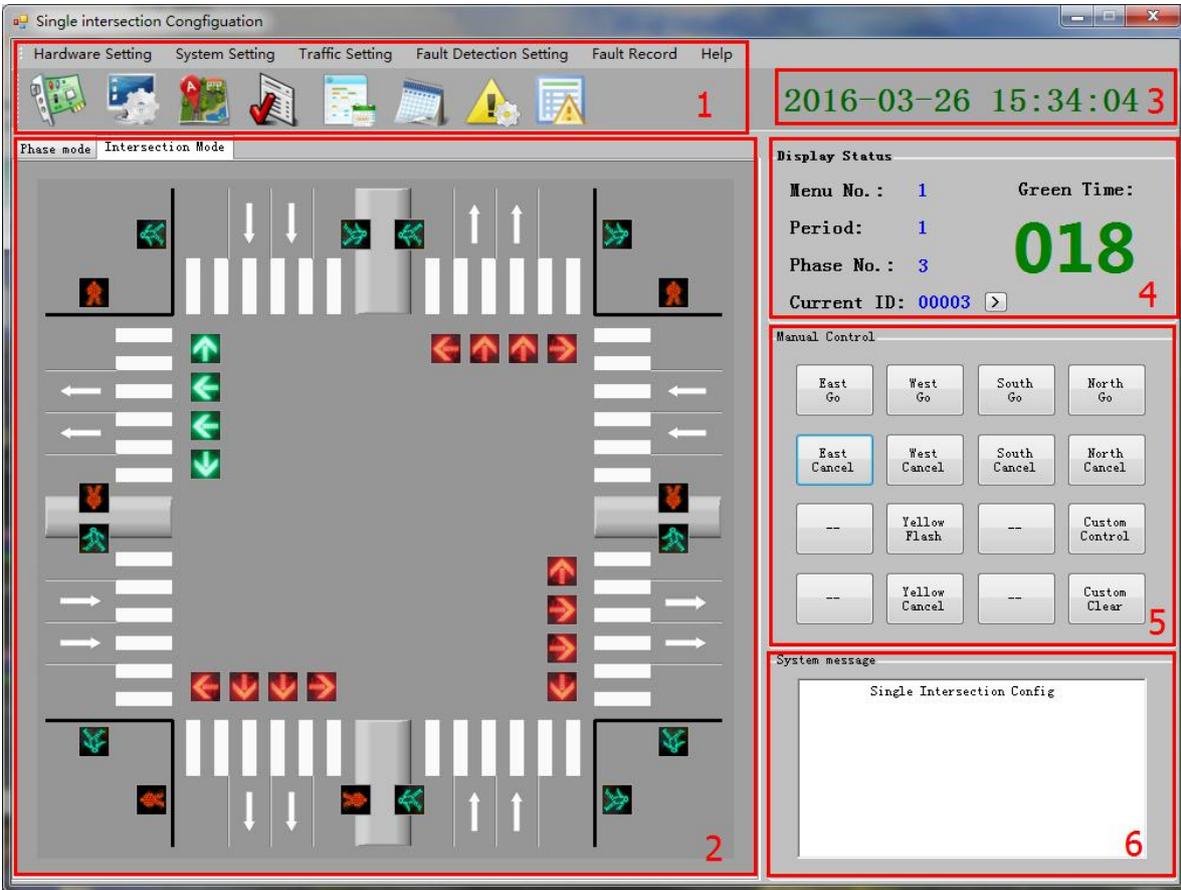


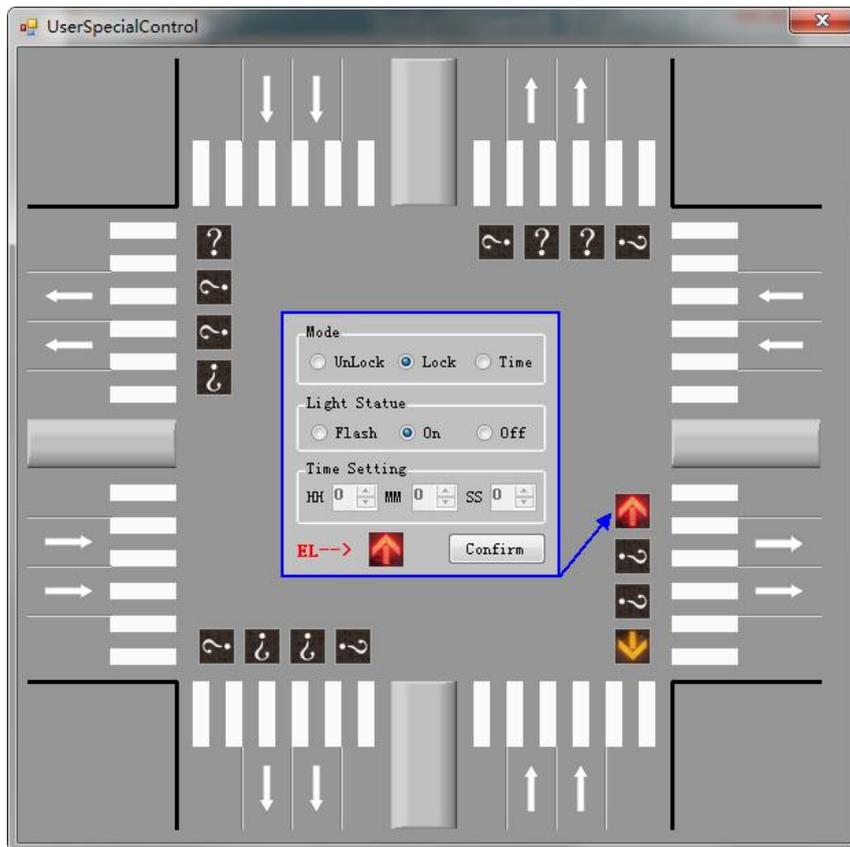
Figure 6 Single Intersection Configuration (Intersection Mode)

5. The traffic control area:

- |   |   |
|---|---|
| <b>East Go:</b> East to Go                  | <b>North Cancel:</b> Cancel the North to Go   |
| <b>East Cancel:</b> Cancel East to Go       | <b>Shut Down:</b> Shutdown (reserved)         |
| <b>West Go:</b> West to Go                  | <b>Yellow Flash:</b> Open four yellow flash   |
| <b>West Cancel:</b> Cancel the West to Go   | <b>Yellow Cancel:</b> Cancel yellow flash     |
| <b>South Go:</b> South to Go                | <b>All Red:</b> Open four all-red (reserved)  |
| <b>South Cancel:</b> to cancel the South Go | <b>Custom Control:</b> Custom special control |
| <b>North Go:</b> North to Go                | <b>Custom Clear:</b> Clear the Custom control |

Note: The traffic control time is up to 240 seconds, it can be set in the traffic parameter settings

Tips: The details of **Custom Control** , please refer to the next page.



**When the command center find clogged intersection,by using the current function, guide traffic to the smooth running of the line, avoid further road congestion.**

The User Special Control is available to every lane (Red, Yellow, Green), can be set to three mode:

**Unlock mode:** Cancel control, the traffic light will run as it 's previous program.

**Lock Mode:** The lane light will run as the setting of the *Light Statue* all the time

**Time Mode:** The lane light will run as the setting of the *Light Statue* with the timing

Light Statue:

Flash: the Light will flash

On : the Light will keep on

Off: the Light will keep on

Time setting: to set the control time in the Time mode

The maximum time is 17 hours 59 minutes 59seconds.

Click the   to change the light color and press the Confirm button to change the setting data. Then press the **SEND COMMAND** to save data to the control and make it effective.

**Warning: In the User Special control, the program will not check the command that whether the Green Conflict is occur, you must make sure that your command is in accordance with local traffic regulations and safety rules. Otherwise, Error Command may lead to accidents!**

6. The system message area

## 6. Control hardware configuration

### 6.1 Hardware setting

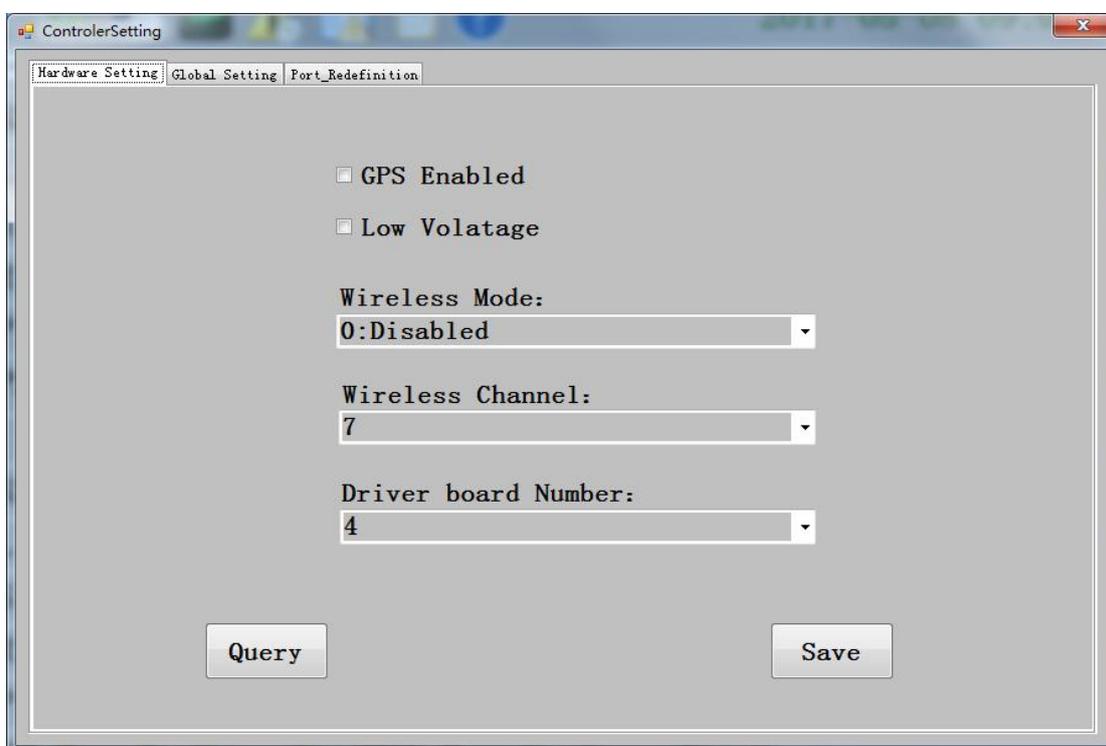


Figure 7 Control Setting Form

Hardware parameter query and save display area

GPS Enabled: GPS enabled

Low Voltage: Low voltage detection enabled

Wireless Mode: wireless communication detection mode to slave

Wireless Channel: wireless communication channel between master and slave

Driver board Number: (reserved)

Additional information:

(1) The slave wireless communication detection mode:

0: Disabled: Close the wireless communication between master and slave\*

1: All Enable/East Enable: **Enable all the detection and send the wireless signal/** just enable the East wireless detection (for the old controller) \*

2: **Simulation**/E & S Enable: enable southeast slave wireless detection \*

3: E & S & W Enable: enable East West direction wireless slave detection

4: ALL Enable: enable all slave wireless detection

5: Simulation: Enable the wireless communication without detection

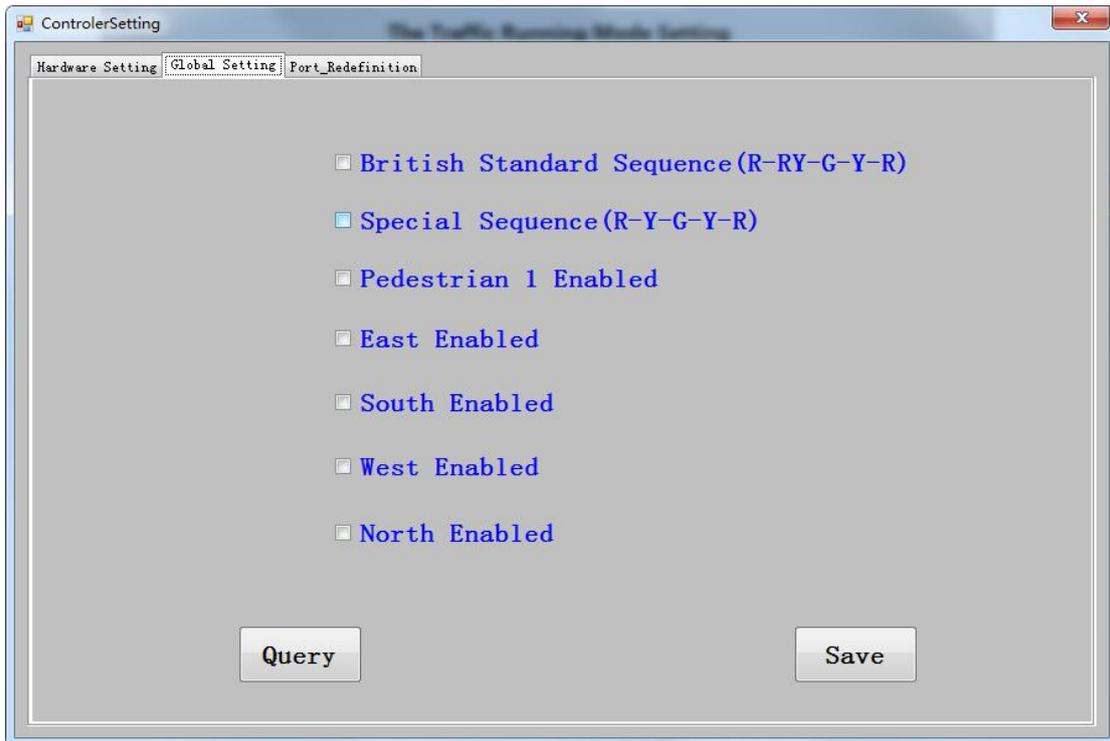
**Warning: Only, Item with \* is applies to the controller version later in July 2016**

(2) select a radio channel (1 to 8) Recommended 6,7,8

Query button: Discover the current parameters from the master

Setting button: After selecting the parameters, click this button to save the parameters to the control unit (check before you set the parameters, otherwise the system-related functions are not available.)

## 6.2 Global Setting



Global\_Parameters :

British Standard Sequence: British Mode,the work sequence is R -> RY -> G -> Y -> R

Special Sequence: special Mode,the work sequence is R -> Y -> G -> Y -> R

Pedestrian 2 Enabled: Pedestrian 2 enabled.

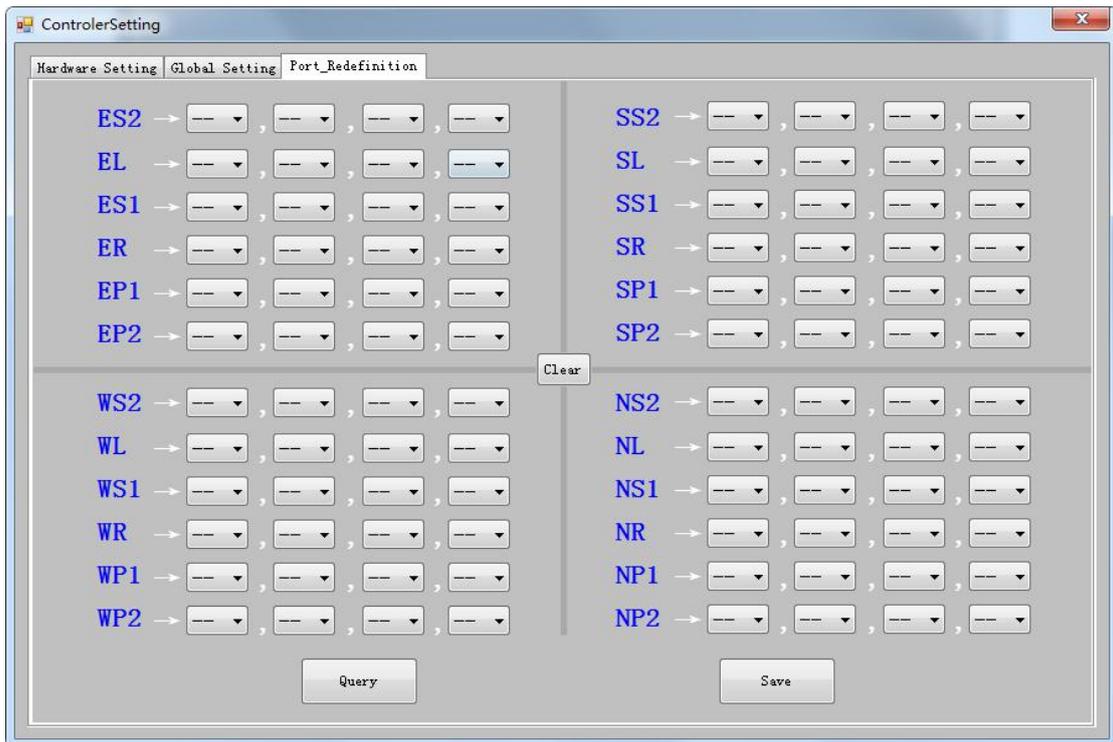
East Enabled: Enable the East output board.

South Enabled: Enable the South output board.

West Enabled: Enable the West output board.

North Enabled: Enable the North output board.

## 6.3 Port Redefinition



This function is advanced function, you can use at least one output board to control a crossing. Users can freely choose the number of output boards, can freely redefinition the port to what you want to be.

Port redefinition Rule:

- 1.Each Lane group,such as the ES1(R/Y/G), can redefinition to any other Lane group. One group at most redefinition to 4 other groups. The Lane group can not redefinition to pedestrian group.**
- 2.Each pedestrian group can also redefinition to any other pedestrian group. One group at most redefinition to 4 other groups. The pedestrian group can not redefinition to lane group.**
- 3.Each group signal can only be redefinition once. While the group is occupied, any other group can not redefinition to it, to avoid infinite loop.**

There is a example for the redefinition:

Use only a output board to control a simple crossroads:

SS1-> EL    WS1-> ER    NS1-> ES2    (-> stand for redefinition to)

Such an output board will be able to control a crossroads of the four straight line. More waiting for your exploration!

## 7. Controller system configuration

### 7.1 Time Zone Setting

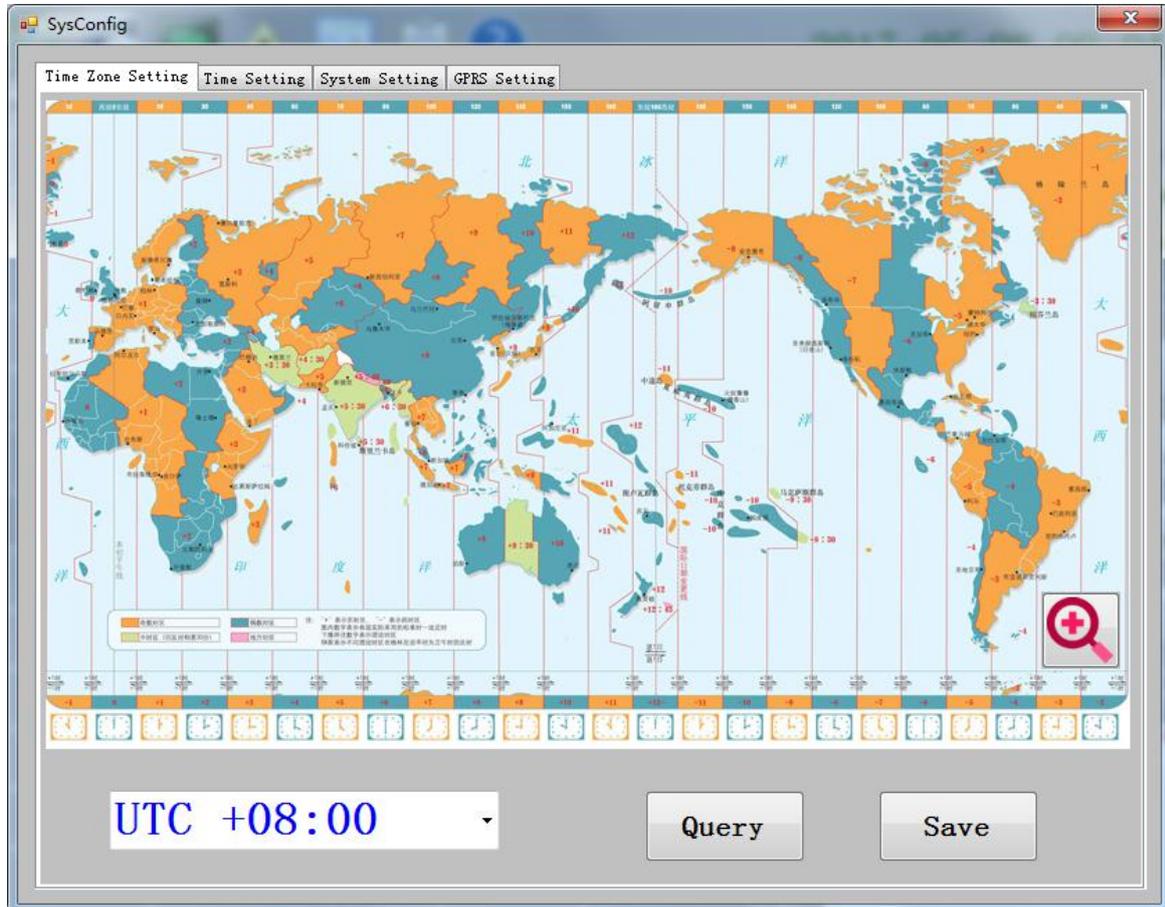


Figure 8 Time Zone Setting Form

Introduction:

You can select East and West time zones, hours, minutes. For minutes, only 00 and 30 two kinds. For example interface displays: +8: 00 is East eight districts ,which is China's time zone

**Principle:** GPS module is used to obtain Greenwich Mean Time (0:00 time) from the satellite signals, adding a correction value of the area and you can get the exact time of the current time zone.

**Note:** The control unit acquires the satellite time to update the control unit time from the GPS, the frequency is 1 hours, controller of each program as well as energy-saving and other features are based on the correct time, to ensure the proper running of the program . So, please make sure that the parameter settings is correct according to the local time zone.

## 7.2 Time Setting

The screenshot shows the SysConfig application window with the 'Time Setting' tab selected. The window is divided into two main panels, both highlighted with red boxes and labeled with red numbers 1 and 2. Panel 1, titled 'The time in controller', shows the current date as 2015-10-18, the current time as 18:26:58, and the current week as Sunday. A 'Query' button is located at the bottom of this panel. Panel 2, titled 'Time Setting', features a calendar for August 2016. The date 2016-08-25 is selected in the calendar. Below the calendar, the date is displayed as 2016-08-25, the time as 8:59:19, and the week as Thursday. A 'Synchronize' checkbox is checked. A 'Save' button is located at the bottom of this panel. The application window has a menu bar with the following options: Time Zone Setting, Time Setting, System Setting, GPRS Setting, and Map Setting.

Figure 9. Time setting form

Introduction:

1. Time Query Area

**Date:** Current date of the controller

**Time:** Current time of the controller

**Week:** Current week of the controller

2. Time setting area

Setting method:

Method 1. Select the current date in the calendar at the top right, the date will be automatically filled, and the week will be calculated automatically in the calendar, click the Save button to save data.

Method 2. checked the Synchronize function, the software will automatically fill the current time and date, then click Save button to save data. (Method 2 is recommended.)

**Note: In the case of that there is No GPS in function, or can not receive GPS signals ,you can use this function to set the control's internal time.**

Query: Query button

Save: Save parameters

## 7.3 System Setting

Figure 10. System Setting form

### Introduction

**System IP:** control system IP (reservation, optional)

**System ID:** control system ID (reserved, optional)

**Intersection Name:** intersection name (reserved, optional)

**System PassWord:** system password (**please remember the password after you modify it , otherwise the Traffic Controller Configuration software on pc will not be able to connect to the controller**)

**Default:** The default setting

**Sort Reset:** control software reboot

**Reset Default:** control machine parameters to restore the factory settings.

**Error Clear:** Clear the Error records that stored in the controller.

**Note:** Please be caution to use the Reset Default button functions. When the control unit runs abnormally or if it is unable to clear the error by setting, you can use this button to restore the factory settings and then reset all parameters.

Otherwise, the system will restore the factory settings of all parameters, the user's individual parameter settings will be lost!

## 7.4 4G Setting

SysConfig

Time Zone Setting | Time Setting | System Setting | GPRS Setting 7/7

Net Statue: In Service Net Mode: LTE

IP: 104.250.140.138 Port: 8899

APN: , ,

Reg Code: 0001FFFE

IMEI Code: 356566070992391

ICCID Code: 89860043191574365747

Query Save

\* Warning: The function is only for the Controller that contain 4G Module.

Figure 11.GPRS Setting form

### Introduction:

The page is mainly on the 4G module configuration, APN, IP, port, registration code and other settings.

The Sever IP and port are the address of the server, the server must have a fixed IP by a computer composition, when using 4G communication with the server need to use these parameters. Settings must be correct, otherwise it can not communicate.

The registration code is the login password when the controller is connected to the server. This setting error will cause the data forwarding center to not recognize the control machine

**APN is generally no need set up, if some countries need to set up a communication network, please set according to the parameters provided by the network operator.**

IMEI and ICCID parameters are read-only, to obtain the module's hardware and network identity parameters, reserved .

Net status. Displays the current working status of the 4G module

Net Mode. Display the current network format.

The 4G module support the following modes:

TDD-LTE FDD-LTE WCDMA TD-SCDMA GSM/GPRS/EDGE

The upper right corner for the module network signal strength display , you can use this feature to get the module network signal strength.

**If you do not use the 4G communication, no need to set the parameters of this page.**

## 8. Traffic Setting

### 8.1 The Traffic Function Setting

Setting Name	Value
Boot Yellow Flash Time	0
Yellow Flash Enable	0
Boot All Red Time	0
All red time	0
Vehicle Gn Flash Time	0
Energy_saving start time	0
Vehicle Rd Flash Time	0
Energy_saving end time	0
Ped Rd Flash Time	0
Energy saving percentage	0
Ped Gn Flash Time	0
Max-traffic_control time	0
Yellow light time	0
Data Synchronization	0

Figure 12.The Traffic Function Setting form

#### Introduction:

Boot Yellow Flash Time:	(0-255)	Yellow Flash Enable:	(1/0)
Boot All Red Time:	(0-255)	All bright red time:	(0-255)
Vehicle Gn Flash Time:	(0-255)	Energy_saving start time:	(0-24)
Vehicle Rd Flash Time:	(0-255)	Energy_saving end time:	(0-24)
Ped Rd Flash Time:	(0-255)	Energy saving percentage:	(0-99)
Ped Gn Flash Time:	(0-255)	Max-traffic control time:	(<=240)
Yellow light time:	(0-255)	Data Synchronization:	(1/0)

Supplement: the last item is used to active Data Synchronization , 1 stands for enabled and 0 is disabled

Query: Query button

Save: Save parameters

## 8.2 Menu Setting

The screenshot shows the 'Menu Setting' window in the 'Traffic\_Setting' application. The window title is 'Traffic\_Setting' and it has several tabs: 'Function Setting', 'Menu Setting', 'Plan Setting', 'Week Plan Setting', 'Holiday Plan Setting', and 'Mode Setting'. The 'Menu Setting' tab is active. A progress bar in the top right corner shows '3' out of '4/4'. Below the tabs, the 'Menu Setting' section contains a 'Menu No.' dropdown set to '1' and a 'Total Phase' spinner set to '4'. To the right, there is a checked checkbox for 'Green Conflict Detection'. Below this is a table with columns for 'Phase No.', 'Green Time', and various intersection green light groups (ES2G, ELG, ES1G, ERG, EP1G, EP2G, SS2G, SLG, SS1G, SRG, SP1G, SP2G, WS2G, WLG, WS1G, WRG, WP1G, WP2G, NS2G, NLG, NS1G, NRG, NP1G, NP2G). The table shows green checkmarks in several cells, indicating that green light is set for those groups. Below the table is a large grey area labeled '4'. At the bottom, there is a 'Function button area' (5) with buttons for 'Query', 'Print', 'Import', 'Export', and 'Save'. To the right of the buttons is a compass rose (6) showing cardinal and intercardinal directions.

Introduction:

Figure 13. Menu Setting form

### 1.Menu & Total Phase selection area

Menu No.: (1-240)

Total Phase:(1-30)

### 2.Green Conflict Detection checked box (To enable the green conflict checking procedure)

### 3.The progress bar about the query & save procedure.

### 4.The menu parameter table, which you can read and modify the traffic menu

Phase No. :The current phase No.

Green Time: The green of current phase (0~999 seconds)

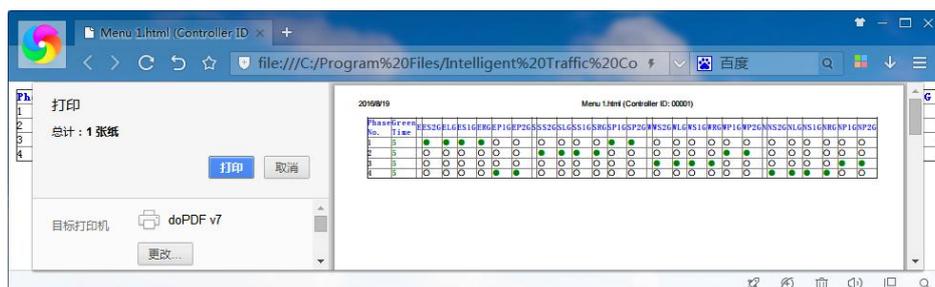
ES2G~NP2G: Corresponding to the each group of intersection green light (check indicates that green light,otherwise the red light)

### 5.Function button area

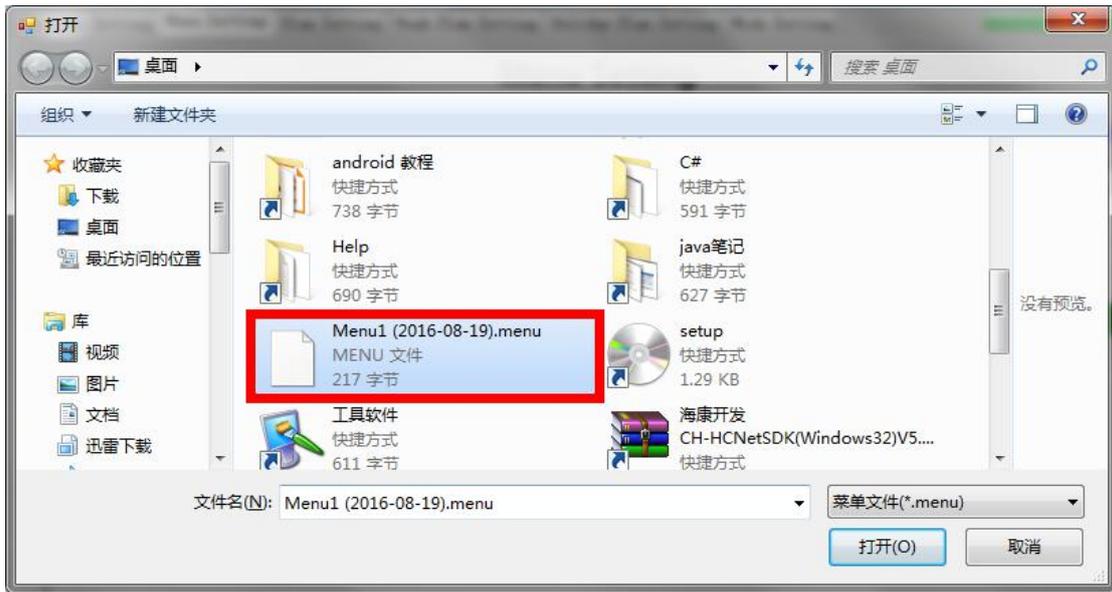
Query: Query the menu parameter

Save:Save the menu parameter

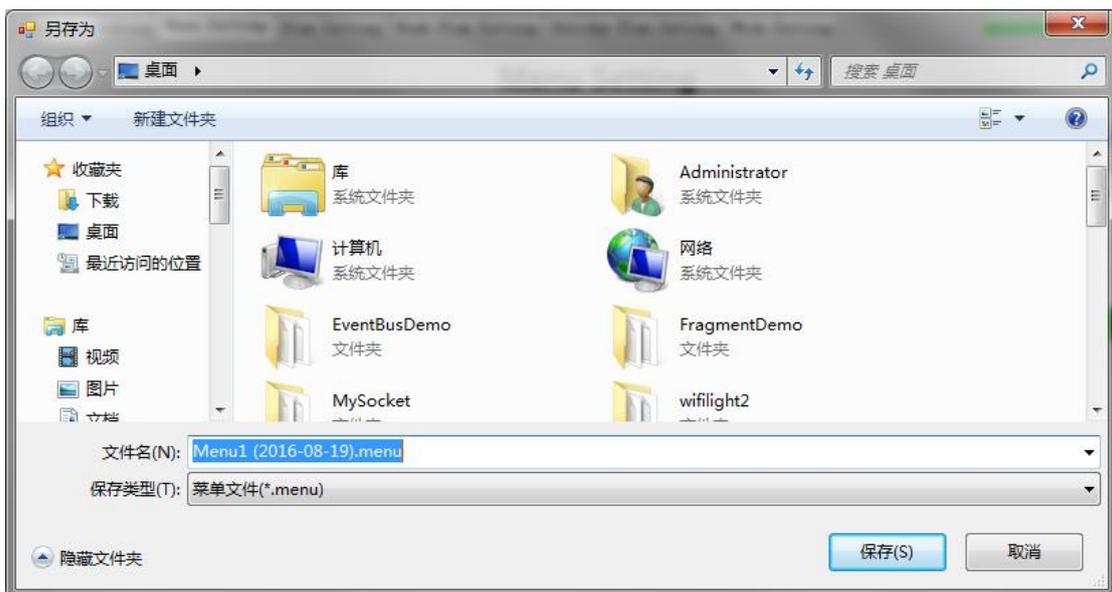
Print: print the menu table (as it shown below)



Import: Import the menu file (XXX.menu) ,to recover the menu that you have backup or we planed for you.



Export: Export the current menu to a file (XXX.menu) , you can export a backup copy to another controller or for backup.



## 6.Green conflict Interface

Description:

**White box block:** Setting prohibited

**Dark gray box block:** you can set (not set)

**Red box block:** you can set (has been set)

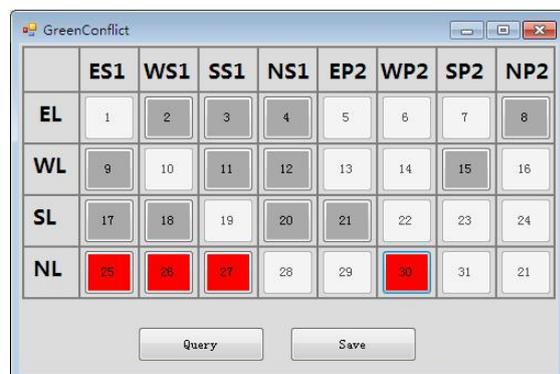


Figure 14. Green Conflict Setting form

---

**The Menu setting process:**

- 1.Select the menu No. that you want to set.
- 2.Select the total phase
- 3.Modify the green time and light statue to what you want it to be in the table
- 4.Save

**tips: You can also import the menu from a backup menu file and then save it to controller.**

**Warning:** Please check your menu to ensure that there is no green conflict. If the green conflict detection has been enabled and there exist green conflict , the system will pop up a warning and stop the menu writing process..

**The Menu query process:**

- 1.Select the menu No. that you want to query
- 2.Waiting for the query process finished and you will get the whole menu parameter in the table.

**Tips: After query,you can print the menu or export it to a file for backup or copy to save into other controller.**

## 8.3 Plan Setting

The screenshot shows the 'Plan Setting' window in the 'Traffic\_Setting' application. The window has a menu bar with 'Function Setting', 'Menu Setting', 'Plan Setting', 'Week Plan Setting', 'Holiday Plan Setting', and 'Mode Setting'. A progress bar in the top right corner is labeled '2'. Below the menu bar, the title 'Plan Setting' is centered. Underneath, there are two dropdown menus: 'The Plan No. : 1' (labeled '1') and 'Total Time Tables: 4' (labeled '4'). A table with the following data is displayed (labeled '3'):

Current Time Table	Start Time	End Time	Menu No	Mode
1	00:00:00	12:00:00	1	1-1 (Cycle Mode)
2	12:00:01	14:05:00	255	1-1 (Cycle Mode)
3	14:05:01	18:00:00	1	1-1 (Cycle Mode)
4	18:00:01	23:59:59	1	1-1 (Cycle Mode)

At the bottom of the window, there is a row of buttons: 'Query', 'Print', 'Import', 'Export', and 'Save' (labeled '4').

Figure 15. Solution Setting form

### Introduction:

#### 1.Plan selection & total time table selection area

plan: 1-240 total time table: 1-30

#### 2.The progress bar for query and setting

#### 3.Plan Setting & display table

Current Time Table: the current time table No..

Start Time: The start time of current time table.

End Time: The end time of current time table.

Menu No.: 1-240 are user-defined menus and the 254、255 are fixed menus

Mode: there are six working mode:

- 1-1 cycle Mode
- 1-2 Green Wave Mode
- 2-1 Pedestrian Mode 1
- 2-2 Pedestrian Mode 2
- 3-2 Fuzzy Vehicle Actual
- 3-3 Full Vehicle Actual

#### 4.Function button area

Query: Query the menu parameter

Save:Save the menu parameter

Print: Print the plan table ( the use method is the same with the menu section in page 21 )

Import: import the Plan from a file ( the use method is the same the menu section in page22 )

Export: Export the Plan to a file ( the use method is the same with the menu section in page22 )

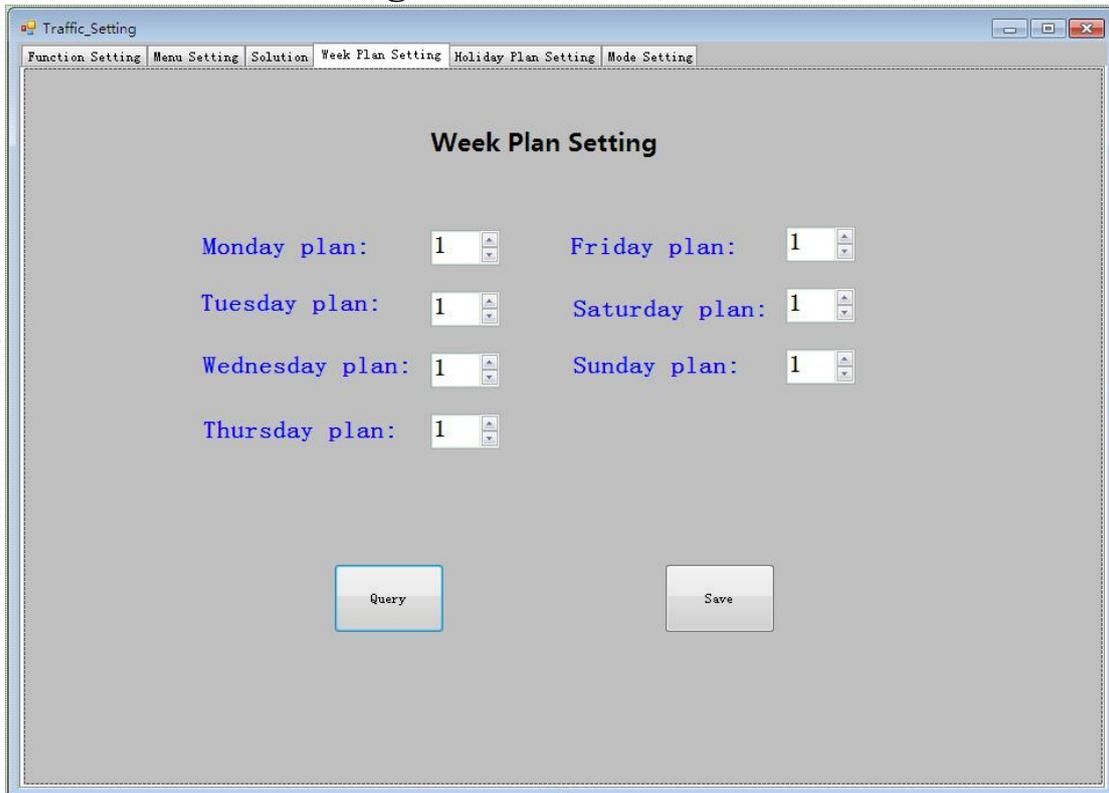
**The setting progress:**

- 1.Select the plan No. That you want to set
- 2.Select the total time table
- 3.Modify the start & end time,menu No. and work mode in each row.
- 4.Save

**tips:** You can also import the plan from a backup menu file and then save it to controller.

**Warning:** Plan is start with 00:00:00 and end in 23:59:59, this is can not be changed. The start time of the next period is from the end of the last period of time add 1, by the system automatically calculated. Before you save the plan, please make sure that the settings are set correctly, and that the menu in the table are already exists.

## 8.4 Week Plan Setting



The screenshot shows a software window titled "Traffic\_Setting" with several tabs: "Function Setting", "Menu Setting", "Solution", "Week Plan Setting", "Holiday Plan Setting", and "Mode Setting". The "Week Plan Setting" tab is selected. The main area of the window is titled "Week Plan Setting" and contains seven rows of labels and dropdown menus. The labels are "Monday plan:", "Tuesday plan:", "Wednesday plan:", "Thursday plan:", "Friday plan:", "Saturday plan:", and "Sunday plan:". Each label is followed by a dropdown menu showing the number "1". At the bottom of the window, there are two buttons: "Query" and "Save".

Figure 16. Week Plan Setting form

**Introduction:**

The current page is used to set the week plan that needs to run. From Monday to Sunday, you can set the different Solution No. If you do not have special needs, you can set the same Solution No. For the whole week.

The Solution No. is range from 1 to 240. **The Solution No. that you filled must have been planned, otherwise, when running, if the plan does not exist, to control the machine will alarm!**

## 8.5 Holiday Plan Setting

The screenshot shows a software window titled "Traffic\_Setting" with a menu bar containing "Function Setting", "Menu Setting", "Solution", "Week Plan Setting", "Holiday Plan Setting", and "Mode Setting". The main content area is titled "Holiday Plan Setting". It features a "Date selection Area:" which includes a calendar for December 2015. The calendar shows the 7th as the selected date. To the right of the calendar, "The selection date:" is displayed as "2015-10-18". Below this, "The selection Solution No.:" is shown as "1". At the bottom of the form are two buttons: "Query" and "Save".

Figure 17. Holiday Plan Setting form

### Introduction:

Date selection Area: Date Navigator

The selection date: the currently selected date

The selection Solution No.: the currently selected Solution No. (1-240)

### The Query Procedure:

1. Select a date that you want to queried in the left calendar
2. Click Query button, on the right side it will show the Solution No. that stores in the control unit . (If the value is 255,it indicated that there were no holiday Plan on the current date)

### The Setting Procedure:

1. Select a date that you want to set
2. Fill the Solution No. that needs to run, then click Save button to save data.

---

## 8.6 The Traffic Running Mode Setting

### 1. Ped Operation Mode Parameter Configuration

Ped Operation Mode | The Sensor Mode | Bus Priority Mode | Green Wave Band

The pedestrian step time: 0

Minimum of step time: 6

Maximum of step time: 6

Stop walk flashing time: 7

Query Save

Figure 20. Ped Operation Mode Parameter Configuration form

The pedestrian step time:

Minimum of step time: (>5)

Maximum of step time: (>5)

Stop walk flashing time: (>6)

## 2. The sensor Mode Parameter Configuration

Parameter	Fuzzy Induction Mode	All Induction Mode
Vehicle 1st Run Time:	0	Ped max Run Time: 0
Vehicle Delay Time:	0	Vehicle Delay Time: 5
Vehicle max Run Time:	0	Vehicle max Run Time: 60
Ped 1st Run Time:	0	Ped Delay Time: 8
Ped Delay Time:	0	Ped max Run Time: 30

Figure 20. The sensor Mode Parameter Configuration form

### **Fuzzy Induction Mode**

Vehicle 1<sup>st</sup> Run Time: (>0)  
Vehicle Delay Time: (>0)  
Vehicle max Run Time: (>0)  
Ped 1<sup>st</sup> Run Time: (>0)  
Ped Delay Time : (>0)  
Ped max Run Time: (>10)

### **All Induction Mode**

Vehicle Delay Time: (>0)  
Vehicle max Run Time: (>0)  
Ped Delay Time : (>10)  
Ped max Run Time: (>10)

## 3. Bus Priority Mode Parameter Configuration (Reserved)

## 4. Green Wave Band Parameter Configuration (Reserved)

## 9. Fault Detection Setting

### 9.1 Traffic Light Detection

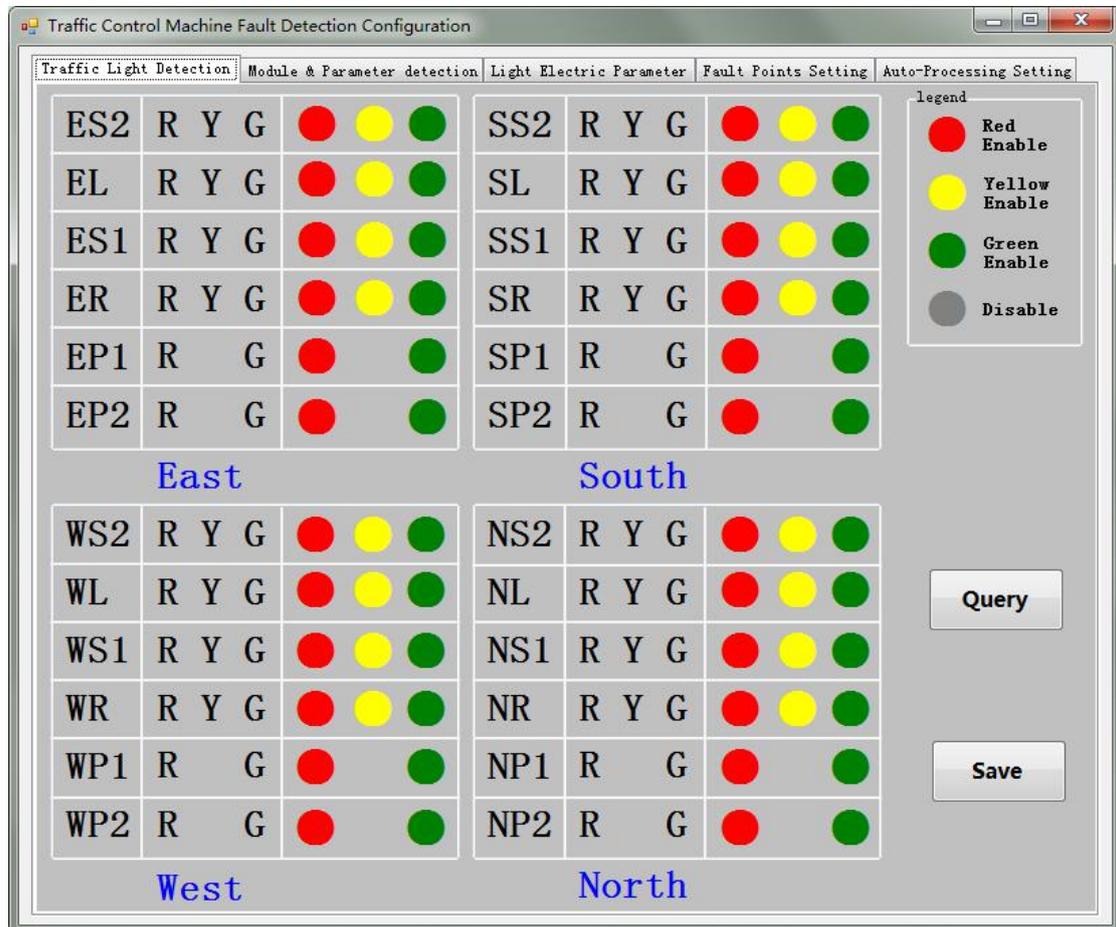


Figure 21. Traffic Light Detection form

The above is a complete intersection. Left-click a certain light, corresponding to light detected state changes. You can set these lights according to your actual installation intersection and your needs. In the upper right corner of the interface shows the different states of light. Red-yellow-green lights corresponding to the representative of the detection is turned on, and gray indicates detection is disabled.

**Query:** The button to query the light detection from the traffic controller.

**Save:** The data saving button. When you have configured the detection of all lights, you can press this button to save the setting to the traffic controller.

Note:

## 9.2 Module & Parameter Exception Detection

Traffic Control Machine Fault Detection Configuration

Traffic Light Detection | Module & Parameter detection | Light Electric Parameter | Fault Points Setting | Auto-Processing Setting

- Hard\_Error\_Enable
- Mode\_Error\_Enable
- Function\_Error\_Enable
- No\_Solution\_Error\_Enable
- No\_Menu\_Error\_Enable
- No\_Time\_Error\_Enable
- No\_Week\_Error\_Enable
- Storage\_Error\_Enable
- Wireless\_Error\_Enable
- GPRS\_Error\_Enable
- Network\_Error\_Enable
- Clock\_Chip\_Error\_Enable
- GPS\_Error\_Enable
- Reserved

Query Save

Figure 22. Module & Parameter Exception Detection form

This page is mainly used for fault detection type configuration.

Fault detection can be configured as follows:

**Hard\_Error\_Enable:** the detection enable of that Hardware Error

**Mode\_Error\_Enable:** the detection enable of that the running mode parameter error

**Function\_Error\_Enable:** the detection enable of that the running function parameter error

**No\_Solution\_Error\_Enable:** the detection enable of that the solution parameter is null

**No\_Menu\_Error\_Enable:** the detection enable of that the menu parameter is null

**No\_Time\_Error\_Enable:** the detection enable of that the time is error

**No\_Week\_Error\_Enable:** the detection enable of that the week plan is null

**Storage\_Error\_Enable:** the detection enable of that storage Error

**Wireless\_Error\_Enable:** the detection enable of that wireless communication module Error

**GPRS\_Error\_Enable:** the detection enable of that GPRS communication module Error

**Network\_Error\_Enable:** the detection enable of that Ethernet communication module Error

**Clock\_Chip\_Error\_Enable:** the detection enable of that clock communication module Error

**GPS\_Error\_Enable:** the detection enable of that GPS communication module Error

**Warning: This page features being upgraded, is currently unavailable**

## 9.3 Light Electric Parameter Setting

The screenshot displays a software window titled "Traffic Control Machine Fault Detection Configuration". The window has a tabbed interface with the following tabs: "Traffic Light Detection", "Module & Parameter detection", "Light Electric Parameter" (which is the active tab), "Fault Points Setting", and "Auto-Processing Setting".

The main content area is divided into five configuration panels, each for a specific light type:

- The Red light of the Lane:** Open-Circuit Current: 0.1, Short-Circuit Current: 2.3
- The Green light of the Lane:** Open-Circuit Current: 0.1, Short-Circuit Current: 2.3
- The Yellow light of the Lane:** Open-Circuit Current: 0.1, Short-Circuit Current: 2.3
- The Red light of the pedestrian:** Open-Circuit Current: 0.1, Short-Circuit Current: 2.3
- The Green light of the pedestrian:** Open-Circuit Current: 0.1, Short-Circuit Current: 2.3

At the bottom of the window, there are two buttons: "Query" and "Save".

Figure 23. Light Electric Parameter Setting form

This page is used to set the detection about the electrical parameter of the light.

Based on the position and power of the light, the light can be divided into two categories: Driveway lights and pedestrian lights.

There are three kind of lanes lights: Red/Yellow/Green

There are two kind of pedestrian lights: Red/Green

Every Light contain two parameter that you can configure:

**Open-Circuit Current:** When the detected current is less than the value, the system will report the Open-Circuit Current.

**Short-Circuit Current:** When the detected current is greater than the value, the system will report the Short-Circuit Current.

The normal operating current of the light will between the Open-Circuit Current and the Short-Circuit Current.

**Attentions: the value of Open-Circuit Current must be less than the value of the Short-Circuit Current**

## 9.4 Fault Points Setting

Category	Parameter	Value
Light	Red-Light	1
	Green-Light	5
	Yellow-Light	10
	Pedestrian	7
	Leakage	7
	Overload	5
Electric	Short-Circuit	1
	Open-Circuit	3
	Reserved	0
Direction	Turn-Left	10
	Turn-Right	4
	Straight-On	1

Figure 24. Fault Points Setting form

This page is used to set the weights for each fault.

Whenever a fault occurs, the system will add the fault points and **calculate the scores of every light that in fault**, compared with the degraded fraction, automatically downgrade display process.

**When there are multiple failures occur simultaneously, the system will be on the highest priority (the smallest fraction) for processing fault.**

**Priority: (The higher the score, the lower the priority)**

**Light\_Error**      Red-Light > Green-Light > Yellow-Light  
Points                1                    5                    10

**Electric\_Error**    Short-Circuit > Open-Circuit > Overload > Leakage  
Points                1                    3                    5                    7

**Direction**        Straight-On > Turn Left > Pedestrian > Turn Right  
Points                1                    4                    7                    10

**Calculation Method:(The higher the score, the lower the priority)**

Total Points = Electric\_Error\_Points × 10 + Direction\_Points + Light\_Error\_Points

## 9.5 Auto-Processing Setting

Figure 25. Auto-Processing Setting form

This page is for setting the automatic demotion Points

### Priority:

All Lights Off > All Yellow Flashing > Reduce The Display Level > Ignore And Continue Running

From the 9.4, we know that the Calculation Method as follows:

$$\text{Total Points} = \text{Electric\_Error\_Points} \times 10 + \text{Direction\_Points} + \text{Light\_Error\_Points}$$

E.g:

There is a Short-Circuit Exception occurred at the ES1R,

$$\text{Total Points1} = \underset{\text{Short-Circuit}}{1} \times 10 + \underset{\text{Straight-On}}{1} + \underset{\text{Red-Light}}{1} = 12$$

At the same time there is another Leakage Exception occurred at the ERY,

$$\text{Total Points2} = \underset{\text{Leakage}}{7} \times 10 + \underset{\text{Straight-On}}{10} + \underset{\text{Red-Light}}{10} = 90$$

**As the Total Points1 is less than Total Points2, the automatic demotion Points of system is 12. According to the Auto -Processing grade Points, the traffic controller will turn into the 'All Lights Off'.**

## 10. Members Management

### 10.1 Junction member setting

The screenshot shows a window titled "MembersManagement" with two tabs: "JunctionMember" and "JunctionGeography". The "JunctionMember" tab is active, displaying a table with the following data:

ID	ClientID	Style	Name	Address
1	00001	Ethernet	junction1	
2	00002	Ethernet	Junction2	
3	00003	Ethernet	Junction3	
4	00004	Ethernet	Junction4	
5	00005	Ethernet	Junction5	
6	00006	Ethernet	Junction6	
7	00007	Ethernet	Junction7	
8	00008	Ethernet	Junction8	
9	00009	Ethernet	Junction9	
10	00010	Ethernet	Junction10	
11	00011	Ethernet	Junction11	
12	00012	Ethernet	Junction12	
13	00013	Ethernet	junction13	
14	00014	Ethernet	Junction14	
15	00015	Ethernet	Junction15	
16	00016	Ethernet	Junction16	
17	00017	Ethernet	Junction17	
18	00018	Ethernet	Junction18	
19	00019	Disable	Junction19	
20	00020	Disable	Junction20	

Below the table is a form for editing a member. The form contains the following fields and buttons:

- Intersection ID:
- Name:
- Save button
- Mode:  (dropdown menu)
- Address:
- ClientID:
- Refresh button

Figure 21. Members Management table

Introduction:

Intersection ID: Intersection ID

Communication Mode: Communication Mode (**Ethernet**, Disabled )

Client ID: the ID of the control in Ethernet communications mode

Name: intersection name

**Note: Ethernet and GPRS communication methods are upgraded to Ethernet. Traffic control center and forward center directly using Ethernet , intersection to forwarding center by Ethernet or GPRS (Recommended the use of Ethernet)**

The Setting Procedure:

1. Select the intersection that need to be set on the table above, the Intersection ID below will be automatically changed ;
2. Select the communication mode you want to use (Ethernet, Disabled);
3. Fill the corresponding ID (required Client ID in Ethernet mode);;
4. Fill intersection Remarks name (optional);
5. Click the Save button to save it.

## 10.2 Junction Geography setting

MembersManagement

JunctionMember JunctionGeography

ID	Latitude	Longitude	Visible	Direction	Class
1	26.0627199578044	119.289464950562	1	0	F
2	26.0628741634586	119.295043945313	1	0	F
3	26.063645188685	119.306030273438	1	0	F
4	26.0640306993951	119.312982559204	1	0	F
5	26.0651872239133	119.319934844971	1	0	F
6	26.0655727295485	119.328861236572	1	0	F
7	26.0658811331432	119.335556030273	1	0	F
8	26.0617176161041	119.345512390137	1	0	B
9	26.0526961549129	119.289722442627	1	0	F
10	26.0472983674432	119.302940368652	1	0	F
11	26.0513081761621	119.310836791992	1	37	B
12	26.0526961549129	119.314527511597	1	0	F
13	26.0539106228361	119.320739507675	1	0	F
14	26.0557033858161	119.331092834473	1	0	F
15	26.0563973512194	119.336156845093	1	0	F
16	26.0520021675922	119.335899353027	1	0	F
17	26.0492261772172	119.321136474609	1	0	F
18	26.0476839319343	119.334955215454	1	0	F
19	26.0426839319343	119.33025456	0	25	F
20	0	0	0	0	B

Intersection ID:  Direction:

Visible:  YES  NO

Latitude:  Class:

Longitude:




### Introduction:

Intersection: the ID of the intersection

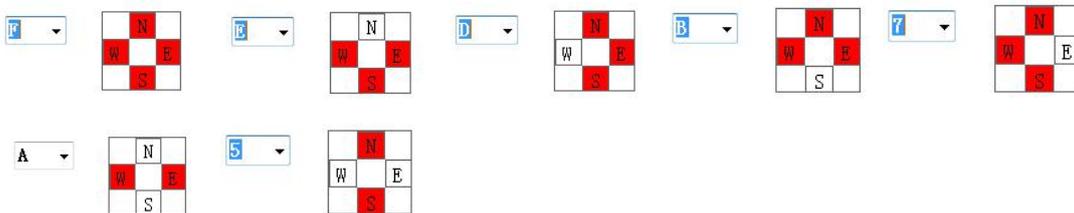
Visible: the visible of the intersection

Latitude: the Latitude of the intersection

Longitude: the Longitude of the intersection

Direction: the direction of the intersection (to fine tune the direction of the intersection.)

Class: the intersection class, as it shown below



**Tips:** it is strongly suggest to modify the intersection location in the map.

## 11. Exception Record & Analysis

ID	Intersection ID	Fault Position	Fault type	Fault date	Fault time
40	11	WP2G	Open-Circuit	2016-03-02	14:16:54

2016年3月

周日 周一 周二 周三 周四 周五 周六

28 29 1 2 3 4 5

6 7 8 9 10 11 12

13 14 15 16 17 18 19

20 21 22 23 24 25 26

27 28 29 30 31 1 2

3 4 5 6 7 8 9

今天: 2016-03-08

Query Mode Selection :

Today

Select Date

All Record

Query

Clear

Analysis

Figure 22. Exception Record form

This interface is used to record the information of fault analysis for each controller.

Table parameters Introduction:

- ID:** fault record number
- Intersection ID:** Intersection of the fault occurred
- Fault Position:** location of the fault occurred
- Fault type:** Fault type of the fault occurred
- Fault data:** the date of the occurrence of the fault
- Fault time:** Fault occurred Date
- Notes:** Remarks

Records check steps:

1. Select the Query mode that you need to use, (Today /Select Date /All record)
2. If you are select Today or All Record, then click Query button to get the record, or you need to select the date in the calender , click Query button to query the fault record in corresponding date.

**Clear** : Click Clear button to clear the record.

**Analysis** : turn to the page of Exception Analysis

The detail of the Exception Analysis will be introduced at the next page.

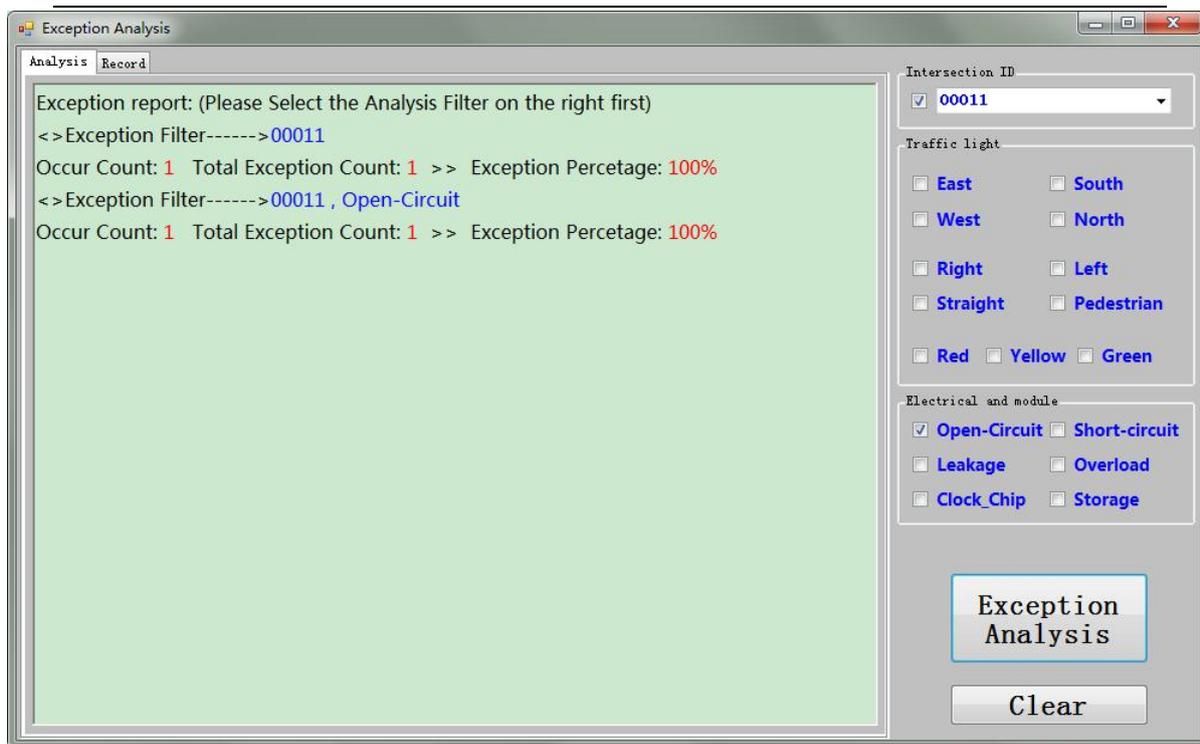


Figure 22. Exception Analysis form A

**Analysis zone:** show the Analysis result , the result contain 4 parts as the list of below:

**Exception Filter**-----The object or the type of Exception that you want to analyze. **You can define your filter on the right part of the form.**

**Occur Count**-----The number of times you filter failure has occurred

**Total Exception Count**-----The total number of Exception record in the database

**Exception percentage**-----The percentage breakdown of the total number of Exception of your screening

**Filter Options Description:**

**Intersection ID:** When you need to analyze the Exception of a intersection, select the corresponding *intersection ID* and enable the filter condition

**Traffic light:** Traffic lights correlation analysis items. You can set the filter to go from the *intersection direction, lane, light color* three categories, each category within the conditions allow only Select One. Can be freely combined between different classes

**Electrical and module :** Fault type

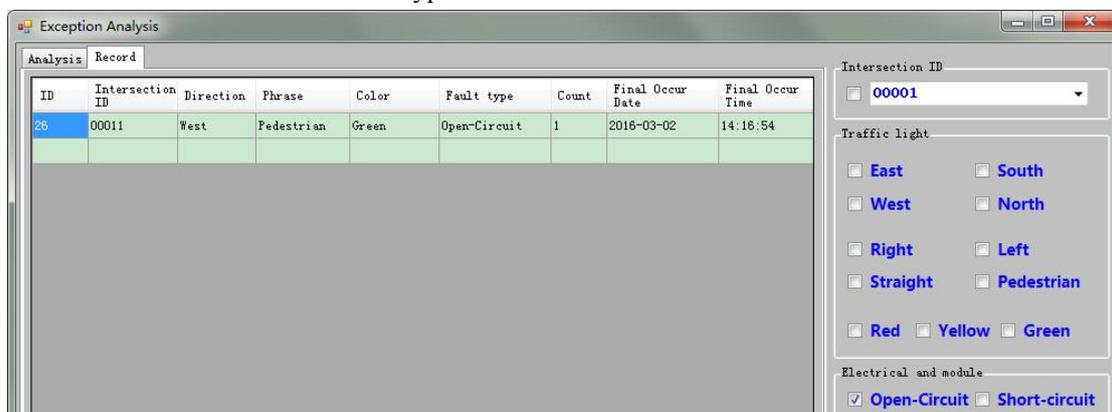
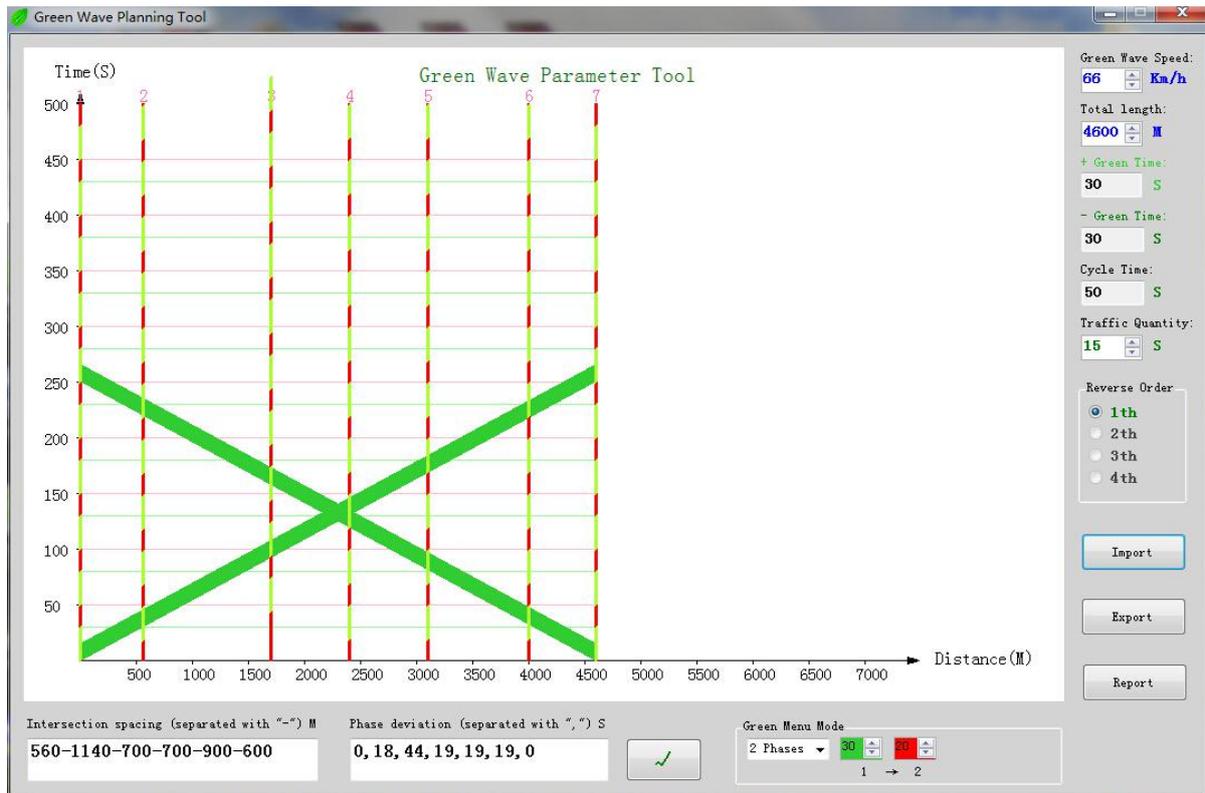


Figure 22. Exception Analysis form B

## 12.Green Wave Parameter Planning Tool



This tool is to help you to plan the Green Wave parameter. The example is the Green Wave Planning about the Fuzhou city.

**Intersection spacing:** the space between the two intersection nearby.

**Phase deviation:** Compare to the first intersection, the menu time of each intersection's deviation time. It's an important parameter to ensure the Green wave

**Green Menu Mode:** Select the Green Wave Menu, 2 Phases is recommended.

**Green Wave Speed:** Driving in this speed ,you can enjoy the Green Wave.

**Total length:** The Green Wave Road length. It can be auto-calculated according to the "intersection spacing".

**+Green Time:** The Green time of the Forward Green Wave band Menu.

**-Green Time:** The Green time of the Reverse Green Wave band Menu. If the Green Wave Mode is 2 Phases, the "-Green Time" is the same Time with the "+Green Time"

**Cycle Time:** The time of the whole menu.In other words,it's a loop time.

**Traffic Quantity:**the traffic Quantity that expected.

**Reverse Order:** The reverse direction start step.If the Green Wave Mode is 2 Phases,The “Reverse Order” is 1th and can’t be changed. In the 4 Phase,it can be checked between 2th to 4th.

**Import:** You can import a history Plan file from the computer.

**Expert:** Save the current Green Wave Plan to a file ,so that you can import it to the software if you need to refer to it one day.

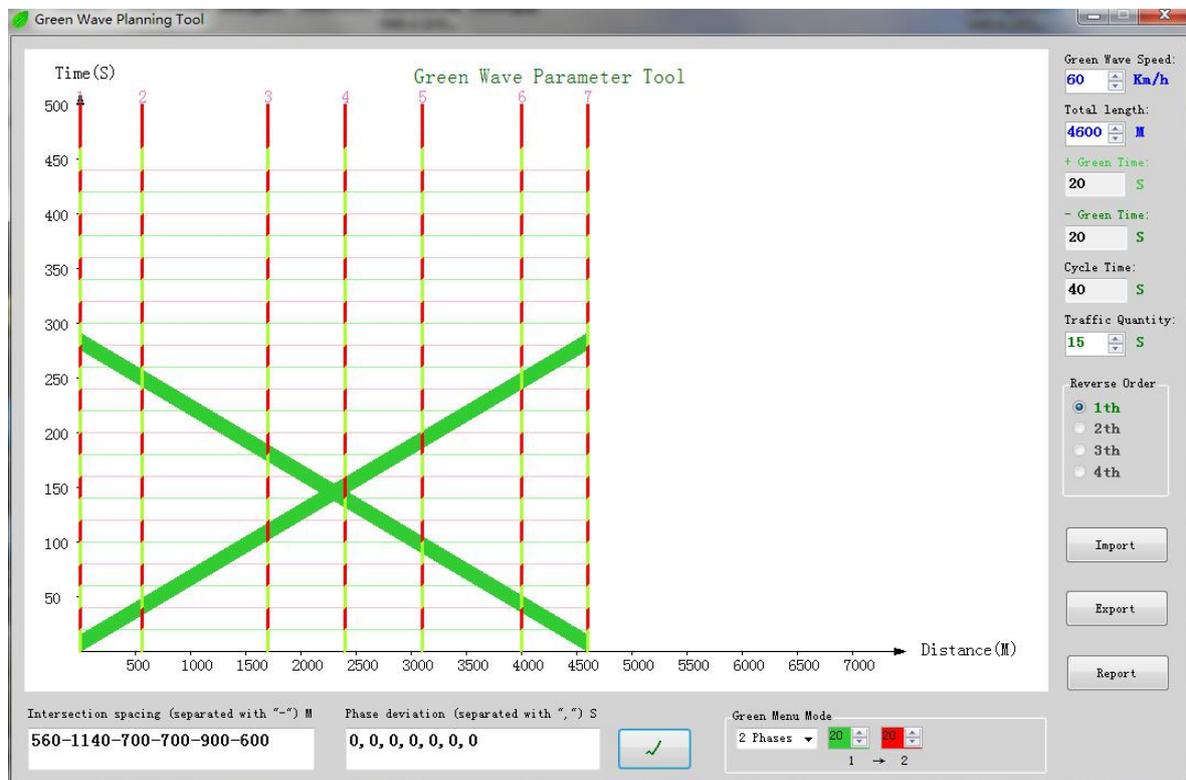
**Report:** While you Green Wave Plan is OK, you can press this button to get the detail Green wave setting parameter. You just need to type into the Reference time of the green Wave, the software will give a report about the Green wave menu and solution setting guide.

**The operation procedure of the green Wave Plan Tool:**

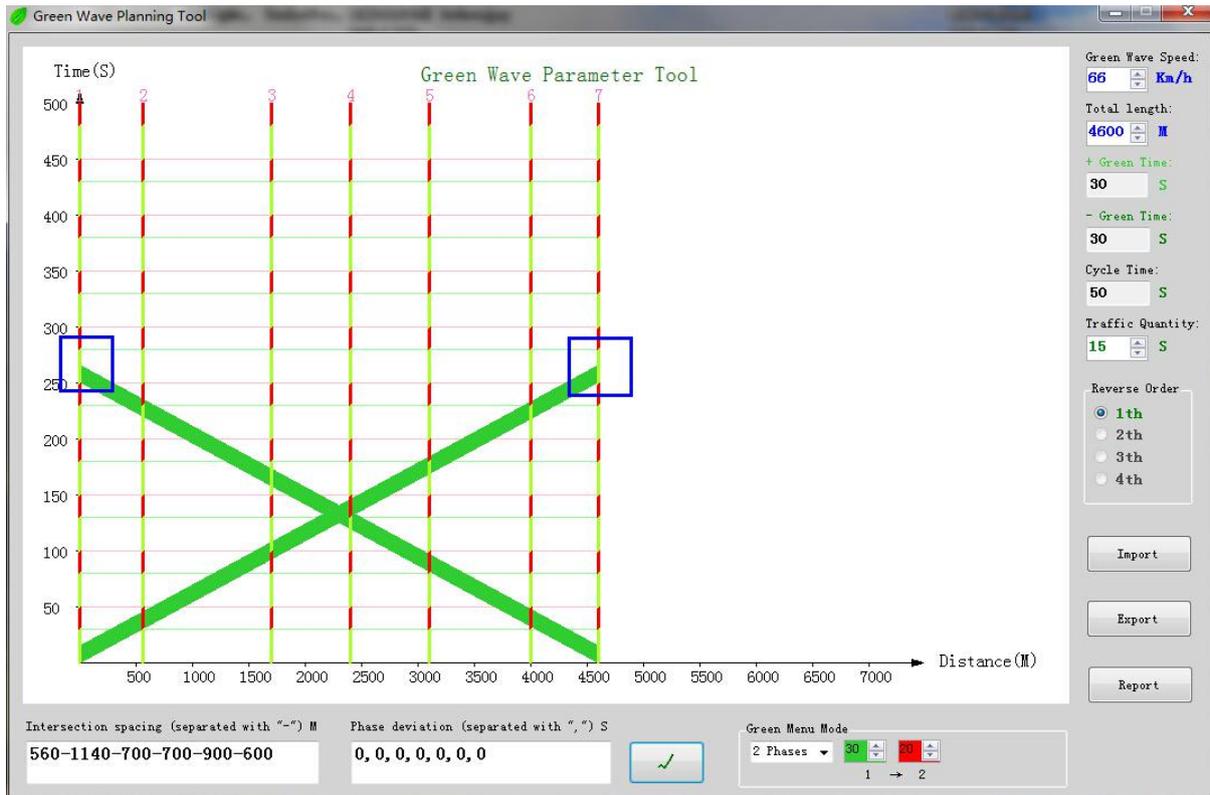
1.prepare the information of the intersection that ready for the green wave, measure the exact distance in meters between those intersection.



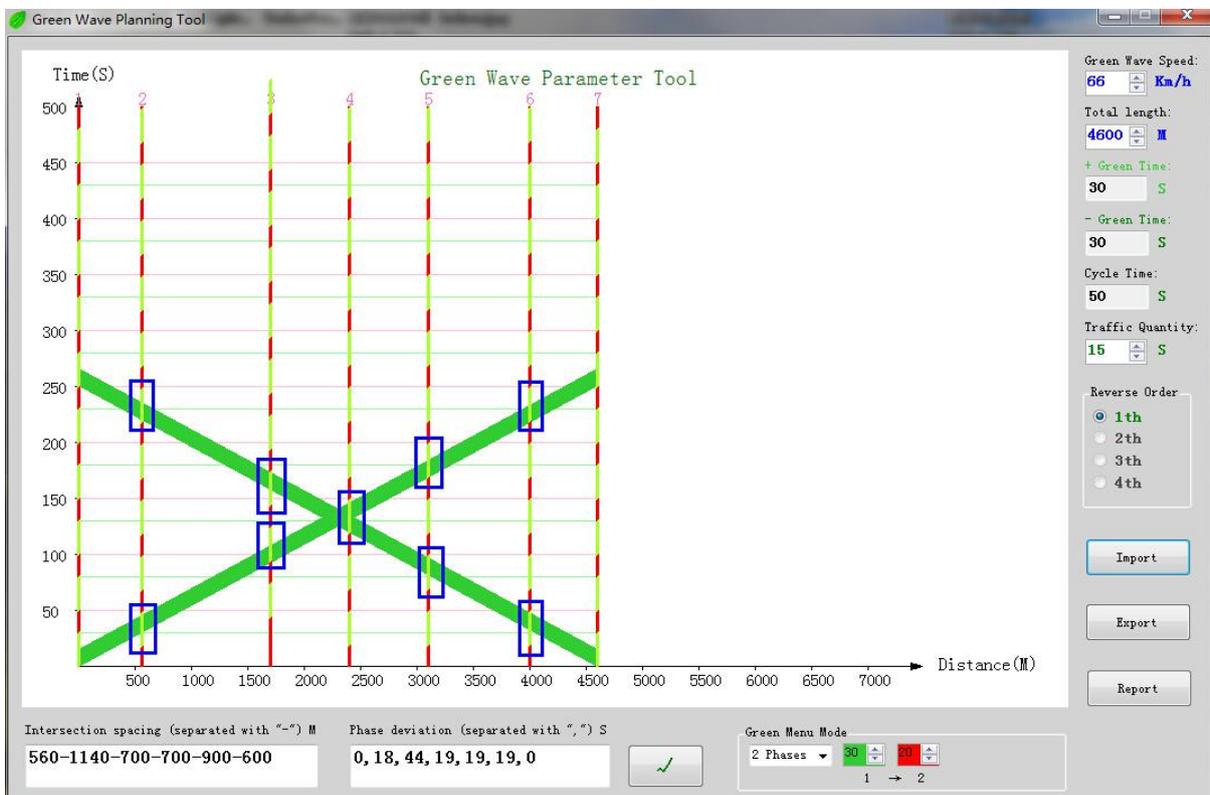
2.Type into the Intersection space with the data that you have prepared, and enter the Green time & other time in the “Green Menu mode”, then press the “√”button.



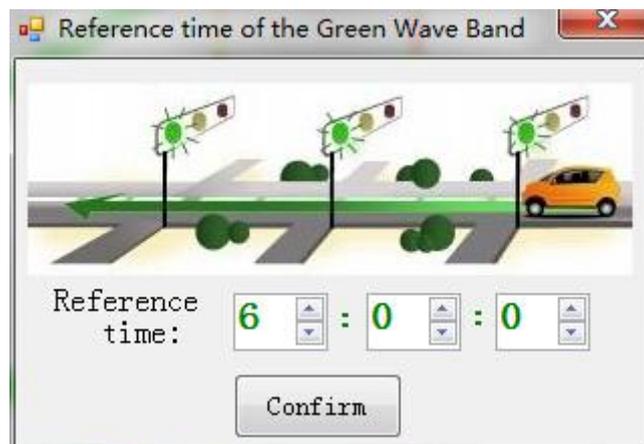
3. Adjust the Green Wave speed to ensure that the Green Wave band line is meet to the green line at the end of the time.



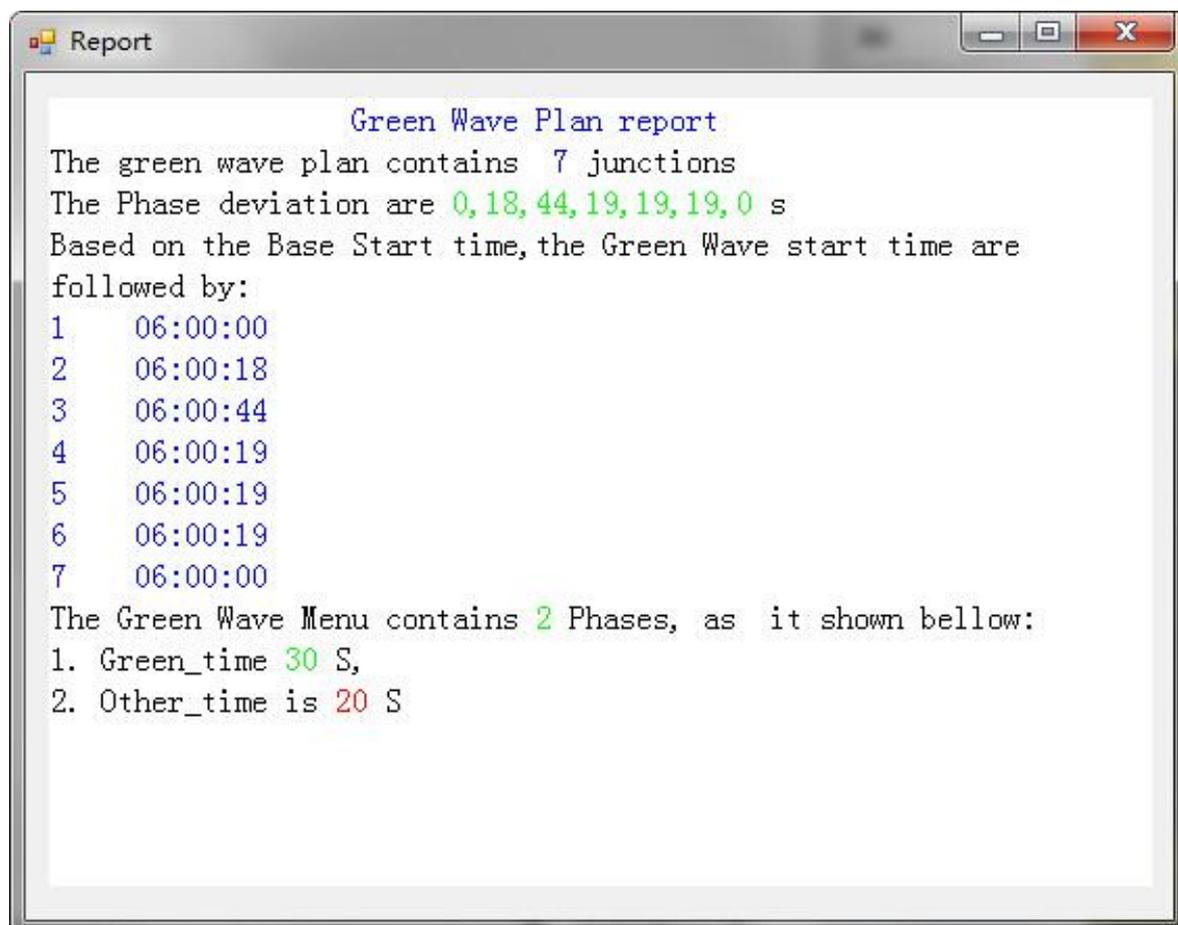
4. Adjust the Phase deviation and press the “✓” to ensure the green line of the each intersection’s menu to meet with the Green wave band, as it shown below in blue box.



5. The Green Wave Planning is done, you can Press the “**Export**” button to save it to a file if you want to. The next , press the “**report**” button to Generate a report.



6. Type into the Green wave Refence time ,and press “**confirm**” button . It will give a report about the Green wave menu and solution setting guide.



7. According to the data above to plan the green menu and solution in the traffic setting and configure each intersection of the Green Wave band members.

---

# Appendix I: Intelligent Traffic Management Server



## Installation Requirements

**System Requirements:** Windows 7/8.1 X86 & X64 (already available test), or higher.

**Hardware requirements:** 2G or more memory, and a dual-core CPU, the higher the better.

Run Intelligent Traffic Management Server.exe, the software installation requires Microsoft .NET Framework V4.0, the software will be built in the plug, if used without plug-in version, you will have to download it from Microsoft's official website, during the installation process, please note that the software must be adding for the trust, to avoid it prevented by the anti-virus software, otherwise it can not work.

## 1. Software Login

### 1.1 Login Form

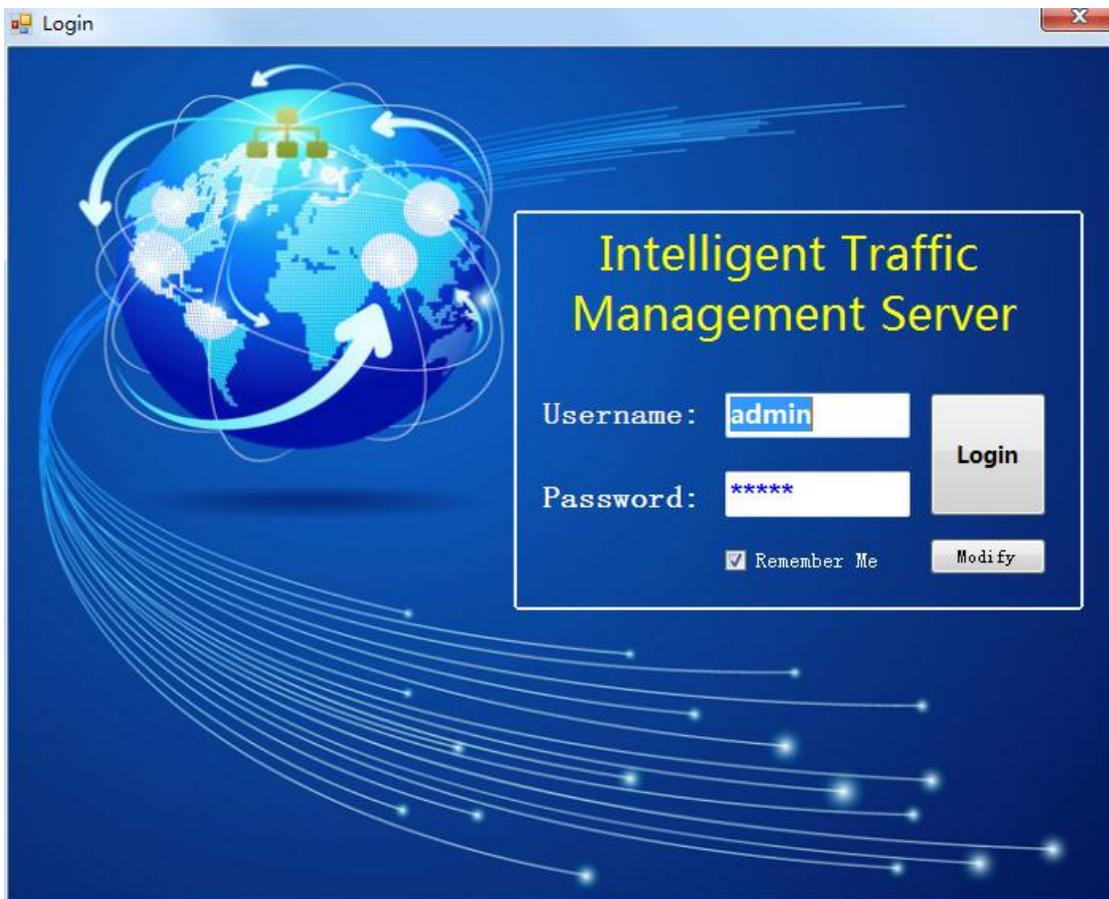


Figure 23. The login form of the Intelligent Traffic Management Server

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Enter your user name and password (The initial username and password are **admin**), and press the Login button, It will display the main control interface.

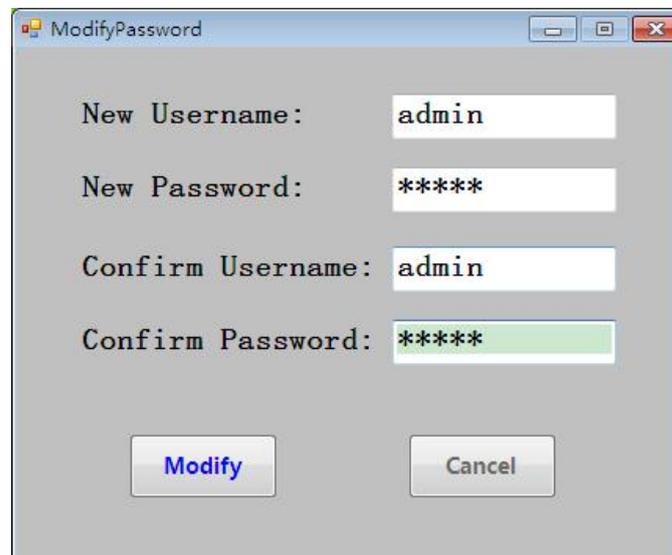
## 1.2 The Username & Password Modification

If you want to change the Username and Password, please press the Modify button, and the Password modification Form as it shown below.



The screenshot shows a window titled "ModifyPassword" with a grey background. At the top, it says "Before modifying, Please enter the existing user name and password" in blue text. Below this, there are two input fields: "Username:" with the text "admin" and "Password:" with "\*\*\*\*\*". A green highlight is under the password field. At the bottom center is an "OK" button.

Type into the existing Username and Password, Press OK button, . If the authentication of the Username and Password pass,you will enter the



The screenshot shows the same "ModifyPassword" window. It now has four input fields: "New Username:" with "admin", "New Password:" with "\*\*\*\*\*", "Confirm Username:" with "admin", and "Confirm Password:" with "\*\*\*\*\*". A green highlight is under the confirm password field. At the bottom are two buttons: "Modify" and "Cancel".

Enter the New Username, New Password,Confirm Username and the Confirm Password, Press the Modify button to save data.

The Confirm Username must be the same with the Confirm Username.so does the Confirm Password .Otherwise, the data modification will be faired.

## 2. The Main form

**Ethernet Data Transfer Center**

**Client List**

StationID	IP	Port	CenterID	status	StationName	Notes	Updatetime
00001	220.112.237.196	2368	60000	--	Station1		2015-11-28 20:30:46
00002	220.112.237.196	2369	60000	--	Station2		2015-11-28 20:31:46
00003	220.112.237.196	2371	60000	--	Station3		2015-11-28 20:34:46
00004	220.112.237.196	2370	60000	--	Station4		2015-11-28 20:32:56
00005	220.112.237.196	2373	60000	--	Station5		2015-11-28 20:47:26
00006	220.112.237.196	2374	60000	--	Station6		2015-11-28 20:48:16
00007	220.112.237.196	2789	60001	Offline	Station7		2015-12-3 18:56:32
00008	220.112.237.196	2365	60000	--	Station8		2015-11-28 20:28:26
00009	220.112.237.196	2366	60000	--	Station9		2015-11-28 20:27:46
00010	220.112.237.196	2815	60000	Online	Station10		2015-12-4 9:18:37
00011				--			
00012				--			
00013				--			
00014				--			
00015				--			

**Center List**

CenterID	IP	Port	Status	CenterName	Notes	Updatetime
60000	220.112.237.196	2816	Online	Center1		2015-12-4 9:18:50
60001	220.112.237.196	2771	Offline	Center2		2015-12-3 17:45:34

Log:

```

2015-12-3 18:48:02 --> <220.112.237.196:2789>---Offline
2015-12-3 18:56:32 --> <220.112.237.196:2789>---Offline
2015-12-4 9:14:10 --> <220.112.237.196:2814>---Online
2015-12-4 9:14:12 --> <220.112.237.196:2814>---Offline
2015-12-4 9:18:36 --> <220.112.237.196:2815>---Online
2015-12-4 9:18:48 --> <220.112.237.196:2816>---Offline
  
```

Online Client Numbers: 2      Database is connected!      124.172.118.184 : 8899

Figure 23. The Main form of the Intelligent Traffic Management Server

**Notes: When you start to deploy our system, you need a fixed IP for your own server!**

The main interface Description:

### 1. Function button area

- Ethernet Parameter: Server Network IP configuration
- Debugging From: server data debugging
- Members Management: Control unit data forwarding management
- Refresh: Refresh member parameters
- Help: Help Documentation

### 2. Real-time control parameter list

- StationID: Controller Ethernet ID
- IP: the IP of the Control Machine
- Port: the Port of the Control Machine
- CenterID: the center ID of the Control Machine (Important)
- Status: Control Machine Status
- Station Name: control machine Remarks Name
- Notes: Remarks Information
- Updatetime: The start time of the control machine landed this server

3. The control center real-time parameters list
  - CenterID: The ID of the traffic Control Center
  - IP: The IP of the traffic Control Center
  - Port: The Port of the traffic Control Center
  - Status: Control Center status
  - CenterName: The Name of the traffic Control Center
  - Notes: Remarks Information
  - Updatetime: the start time of the traffic center landed this server
4. System Message Area
  - display real-time messaging of the system and clients
5. Software status display area
  1. Online Client Number: number of clients that currently online (controller + Control Center)
  2. Database database connection status
  3. The current server IP and port

**Note: Both of the control unit and control centers need to be connected the IP and port which shown in the picture with red number 5 ,to ensure appropriate communication.**

### 3. The Server IP Setting

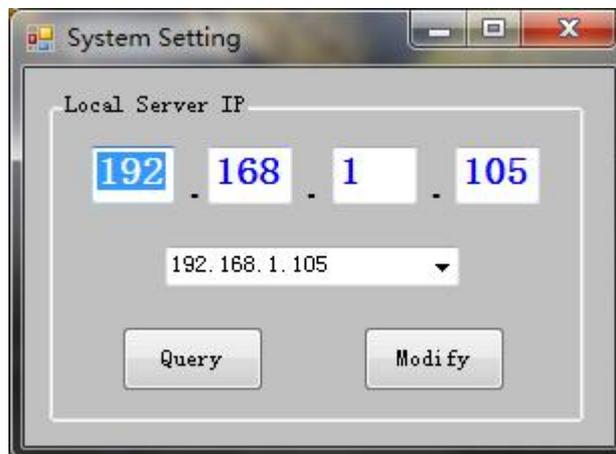


Figure 23. The Server IP Setting form of the Intelligent Traffic Management Server

Click the , it will automatically get the current IP of the PC, usually there is only one IP (please ensure that current computer IP is a fixed IP). Then click on the **Auto** button, the system will automatically fill it to the top of the box, click on the **Modify** button to save your changes (**It will take effect after the software restart**)

Click Query can query the current IP.

### 4. Debugging

This interface is used for debugging, Please do not operate

## 5. Transponder Parameters Configuration

The screenshot shows a window titled "MembersManagement" with two tabs: "Station Parameter" and "Control Center Parameter". A red box labeled "1" highlights the tab area. Below the tabs is a table with the following data:

StationID	IP	Port	CenterID	StationName	Notes	UpdateTime
1			60000	Station1	...	2015-11-18 14:17:17
2			60000	Station2	...	2015-11-13 09:56:39
3			60000	Station3	...	2015-11-18 14:17:17
4			60000	Station4	...	2015-11-13 10:05:25
5			60000	Station5	...	2015-11-13 10:05:25
6			60000	Station6	...	2015-11-13 10:05:24
7			60000	Station7	...	2015-11-13 10:05:24
8			60000	Station8	...	2015-11-13 10:05:23
9			60000	Station9	...	
10			60000	Station10	...	
11				...		
12				...		
13				...		
14				...		
15				...		
16				...		
17				...		
18				...		
19				...		
20				...		
21				...		
22				...		

Below the table, there are four input fields: StationID (value: 1), CenterID (value: 60000), StationName (value: Station1), and Notes. A red box labeled "3" highlights these fields. To the right of the input fields are two buttons: "Save" and "Refresh", highlighted by a red box labeled "4".

Figure 23. The Transfer Parameters Configuration form of the Intelligent Traffic Management Server

Explanation:

1. Station & Center selection:

Station Parameter: Transfer Parameters Configuration of the controller (required)

Control Center Parameter: Transfer Parameters Configuration of the Center (optional)

2. The control unit Transponder Parameters display area

3. Control machine to Transponder Parameters Configuration area

StationID: Ethernet ID of the controller (select the ID from the table , this parameter will change accordingly)

CenterID: control center ID (**range 60,000 to 60,010**) (**required**)

StationName: control machine / intersection name (optional)

Notes: Remarks

4. Operation button

Save: Save data

Refresh: Refresh list

Parameter modification Procedure:

1. Click the control ID that need to be modify in the table ,the corresponding number will be automatically filled with StationID

2. Fill in the CenterID (required, the other parameters are optional)

3. Click the Save button to save the parameters.

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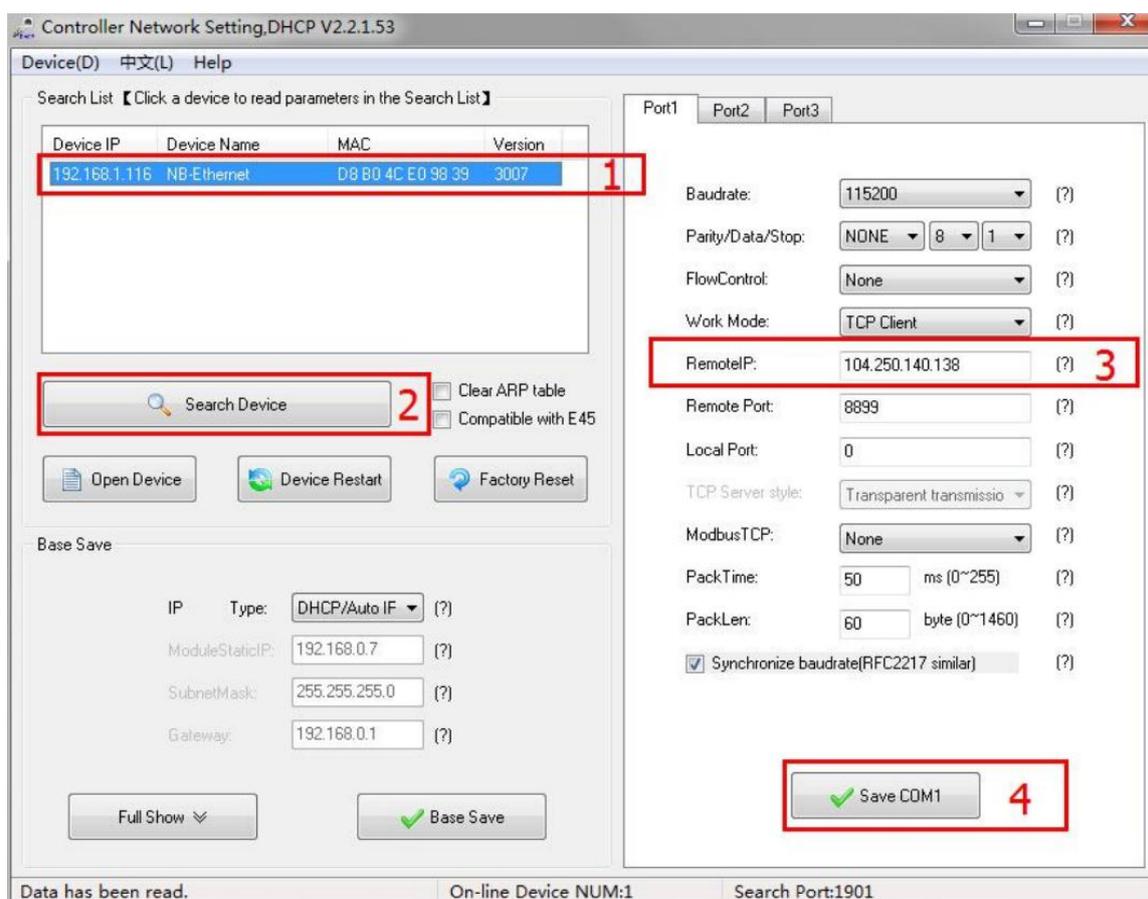
## **6. System parameters Refresh**

Modify the relevant parameters on the previous page, turn to the main form, click the Refresh button to update the data.

## **7. Help**

Check system help documentation (reserved, the latter will make up)

## Appendix II: Controller Network Setting



### Intersection:

1-- Online controller list

2-- Search button

3-- Remote IP ( ← ← **The Only parameter that you need to modify**)

4-- Save button

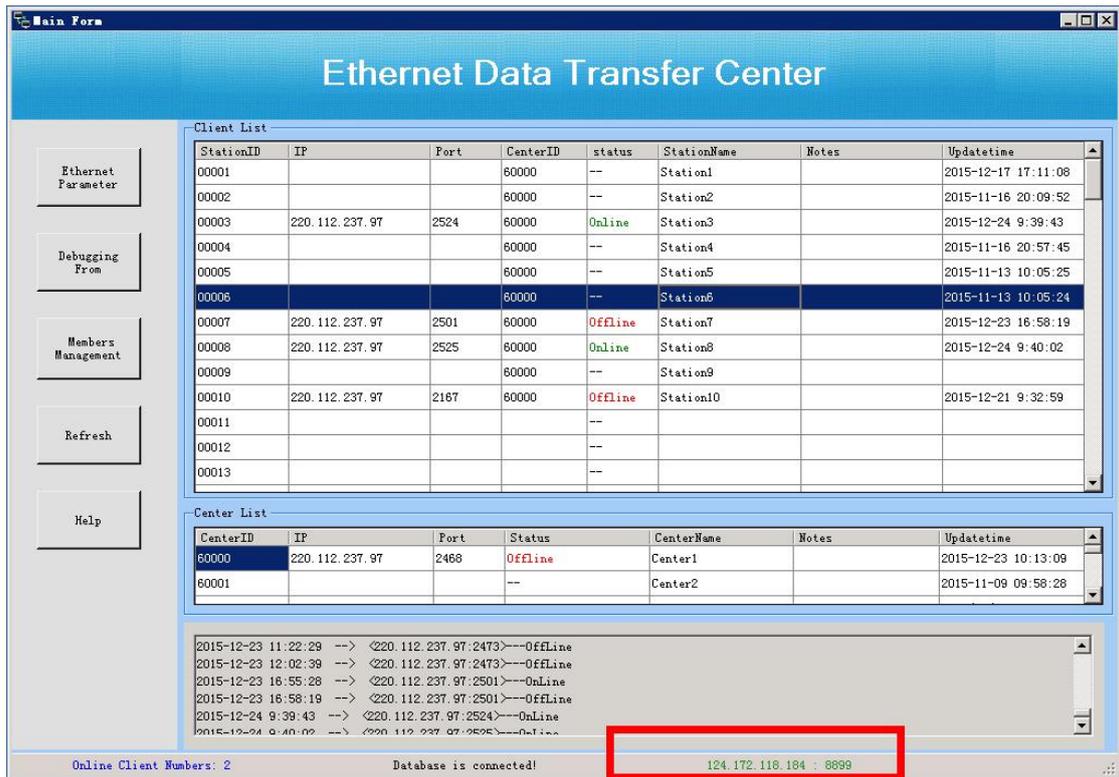


If you have finished the deployment of the Intelligent Traffic Management Server ,you can follow these

steps to configure the controller-related parameters:

1. Connect the control unit to the LAN with the network cable, be sure that the control machine and your Configuration PC in the same LAN
2. Click "Search Device" button to find the controller unit, as it shown above
3. Click the item to select the module that you want to configure,the parameter of the selected module will display on the right
- 4.change the Remote IP to your own server IP, you can find the server IP in the Ethernet data Transfer center (as it shown at the next page)
- 5.Press the Save COM1 button to save data to the controller unit.

**Warning : Please do not modify the other parameter which is not introduced above, otherwise,the controller will not be able to connect to the data center.**



**Note:**

1. Please do not modify the **Destination Port** and the **Module ID**, otherwise the control unit will not function properly in communication with the control center.
2. If you find that there is a **Module ID** is same to the other one, please change it to be not the same with it. The range of the Module ID, please refer to the station ID of the available in the Intelligent Traffic Management Server above .