EKON Intelligent Lighting Control System

1. Software Introduction

EKON intelligent lighting control system is a complete set of lighting control software, which contains the functions of equipment control, equipment management, equipment debugging, equipment status overview, equipment fault query, energy meter parameter collection and calculation, and light sensor data collection and calculation functions. Combined with related equipment developed by our company, it can be widely used in building lighting, factory lighting, shopping mall lighting and other fields.

2. Operating instructions

After booting, the homepage is shown in Figure 1. After clicking the homepage, a progress bar refreshing interface will be displayed (as shown in Figure 2). After the progress bar is refreshed, it will enter the device overview interface (as shown in Figure 3).



Figure 1 Homepage



Figure 2 Progress Bar



Figure 3 Area Overview

The Area Overview Contains:

- a) Number of devices
- b) Equipment operating status display
- c) Illumination value display
- d) Monthly power consumption display
- e) Area equipment operation status display
- f) Dimming control (check the area to be controlled)

Function Guide Menu is shown in Figure 4. Click on different functions to switch to the corresponding control interface.



Figure 4 Function Guide Menu

Energy Eff. Analysis (Energy efficiency analyze) is shown in Figure 5. Enter the basic value of the energy saving calculation in the total energy box and click "Set" to calculate the energy saving rate for the past 12 months. Click "Read" to read the basic value of the energy saving calculation that has been set. At the same time, you can see the power consumption in the past 12 months and the power consumption in the past 30 days.

			EKON SMAR	T LIGHTING CONTROL SYSTEM	
	E-Saving Rate in 12	Months		E-Consume in 12 months	E-Consume in 30 Days
Area Overview	Monthly Reference	e Energy Vali		Recent Months E-Consume (kWh)	Recent Days E-Consume (kW
Energy Eff. Analyze					
Device Management	01 504	Read	Set		
Fault Statistics	lant Manatha	100%	130% 200%		
System Maintenance	Last Months		70		
Authority Management	Last 2 Months		70 07		
Superliker	Last 3 Months		70		
P Super Oser	Last 4 Months		%		
	Last 5 Months		%		
	Last 6 Months		%		
	Last 7 Months		%	10	10
	Last 8 Months		%		11
	Last 9 Months		%	12	12
	Last 10 Months		%		
	Last 11 Months		%		14
	Last 12 Months		%		

Figure 5 Energy Efficiency Analysis

Device Management page is shown in Figure 6. Select the area to be controlled, and you can adjust Dimming Value and color temperature changing in the control area. If you need to restore the automatic control after manual adjustment, click the "AUTO" button.

0		<u></u>	EKON S	MART LIG	ITING CON	TROL SYST			1. <u>1. 1. 1.</u>	
	Area Device Op	eration Status								
🕋 Area Overview	Total Diet		E and Dist	T and Diet	T all Die	T Sth Diet	E Ste Die	TT 7th Dirt		TT Of Dist
🚹 Energy Eff. Analyze	Dim	Dim %	Dim %	Dim %	Dim %	Dim %	Dim %	Dim %	Dim %	Dim %
Device Management	Status	Status	Status	Status	Status	Status	Status	Status	Status	Status
Running Status-1										
Running Status-2	10th Dist.	11st Dist.	2nd Dist	13rd Dist	14th Dist	15th Dist	16th Dist	17th Dist	18th Dist	19th Dist
Running Status-3	Dim %	Dim %	Dim %	Dim %	Dim %	Dim %	Dim %	Dim %	Dim %	Dim %
Running Status-4	Status	Status	Status	Status	Status	Status	Status	Status	Status	Status
SCH Manadement										
Schumanagement	20th Dist.	21st Dist.	22nd Dist	23rd Dist	24th Dist	25th Dist	26th Dist	27th Dist	28th Dist	Other Area
LAL. Management	Dim %	Dim %	Dim %	Dim %	Dim %	Dim %	Dim %	Dim %	Dim %	Next Area
C Fault Statistics	Status	Status	Status	Status	Status	Status	Status	Status	Status	
🎓 System Maintenance	Area Device Op	erating Area								
Buthority Management	0% 10% 2	0% 30% 40%	50% 60% 70	* 80% 90% 1 1 1 1 1	100%	ON	80%	70%	60%	
🐳 Super User	DIM									AUTO
		0% 30% 40%	50% 60% 70	% 80% 90%	100%	50%	40%	20%	OFF	
	ССТ									

Figure 6 Control Interface

SCH. Management (The Schedule Management) is shown in Figure 7. Select the corresponding area. If the equipment in this area supports the color temperature mode, you can check the "CCT Mode". If it is not supported, check the "DIM Mode" and enter the required Schedule (the later period needs to be later than the previous period, if the later period is earlier than the previous period, then the period starts from this period and the schedule is invalid). Click "Settings" to send the schedule of this area. Click "Read" to read back the Schedule previously set in this area.

0	<u></u>		ЕКО	N SMART I	LIGHTING	CONTROL	SYSTEM	//			
V	Each Area Sch	edule Operate									
😭 Area Overview	Tatol Dist.	🔲 1st Dist	🔲 2nd Dist	🔲 3rd Dist	🔲 4th Dist	🔲 5th Dist	🗖 6th Dist	🔲 7th Dist	🔲 8th Dist	🔲 9th Dist	🔲 10th Dist
🚹 Energy Eff. Analyze	11st Dist	12nd Dist	13rd Dist	14th Dist	15th Dist	16th Dist	17th Dist	18th Dist	19th Dist	20th Dist	21st Dist
Device Management											
Running Status-1	22nd Dist	23rd Dist	24th Dist	25th Dist	26th Dist	27th Dist	28th Dist	29th Dist	30th Dist	31st Dist	32nd Dist
Running Status-2	🔲 33th Dist	34th Dist	🔲 35th Dist	36th Dist	37th Dist	38th Dist	39th Dist	40th Dist	41st Dist	42nd Dist	43rd Dist
Running Status-3	🔲 44th Dist	45th Dist	d6th Dist	47th Dist	48th Dist	49th Dist	50th Dist	51st Dist	52nd Dist	53rd Dist	54th Dist
Running Status-4	📰 55th Dist	56th Dist	57th Dist	58th Dist	59th Dist	60th Dist	61st Dist	62nd Dist	63rd Dist	🔲 64th Dist	65th Dist
SCH. Management	🔲 66th Dist	67th Dist	68th Dist	69th Dist	70th Dist	71st Dist	72nd Dist	73rd Dist	74th Dist	75th Dist	76th Dist
LAL. Management											
C Fault Statistics	77th Dist	78th Dist	79th Dist	80th Dist	74st Dist	82nd Dist	83rd Dist	84th Dist	85th Dist	86th Dist	87th Dist
🎓 System Maintenance	🔲 88th Dist	🔲 89th Dist	90th Dist	91st Dist	92nd Dist	93rd Dist	94th Dist	🔲 95th Dist	96th Dist	🔲 97th Dist	🔲 98th Dist
Authority Management		1.40	Hou	r Minute Cl	r Ratio Dim R	tatio	Hou	r Minute C	T Ratio Dim F	Ratio	
🔹 Super User	Dim M	ode	nequie		/×	401	schedule				Read
		ode 2nd S	chedule		%	% 5th :	Schedule		%	%	Set
-		3rd S	chedule		%	% 6th	Schedule		%	%	

Figure 7 Schedule management

LAL. Management (*Latitude and longitude management*) is shown in Figure 8. For Cuicuit Switch equipment, the function of latitude and longitude switches is supported. Enter the latitude and longitude of the area where the device is located, select the area to be controlled, and click "Settings". You can send the latitude and longitude to the Circuit Switch, and the Circuit Switch will automatically turn off and turn on the power according to the location information and according to the sunrise and sunset times of each day. Click "Read" to read back the set latitude and longitude of the area.

EKON SMART LIGHTING CONTROL SYSTEM											
V	Each Area Longitude and Latitude Operate										
🕋 Area Overview	Tatol Dist.	1st Dist	2nd Dist	🔲 3rd Dist	4th Dist	🔲 5th Dist	🗖 6th Dist	🔲 7th Dist	Bth Dist	🔲 9th Dist	🔲 10th Dist
🚹 Energy Eff. Analyze	11st Dist	12nd Dist	13ml Dist	14th Dist	15th Dist	16th Dist	17th Dist	18th Dist	19th Dist	20th Dist	21st Dist
Device Management											
Running Status-1	22nd Dist	23rd Dist	24th Dist	25th Dist	26th Dist	27th Dist	28th Dist	29th Dist	30th Dist		32nd Dist
Running Status-2			35th Dist	🔲 36th Dist	37th Dist	🔲 38th Dist	39th Dist	40th Dist	41st Dist	□ 42nd Dist	🔲 43rd Dist
Running Status-3	44th Dist	45th Dist	46th Dist	🔲 47th Dist	48th Dist	49th Dist	50th Dist	🗖 51st Dist	52nd Dist	53rd Dist	🔲 54th Dist
Running Status-4	55th Dist	56th Dist	57th Dist	58th Dist	59th Dist	🔲 60th Dist	🗖 61st Dist	E 62nd Dist	63rd Dist	E 64th Dist	🔲 65th Dist
SCH. Management	E 66th Dist	67th Dist		69th Dist	70th Dist	🔲 71st Dist		73rd Dist	T4th Dist	75th Dist	T6th Dist
LAL. Management	77th Dist	78th Dist	79th Dist	80th Dist	74st Dist	82nd Dist	83rd Dist	84th Dist	85th Dist	86th Dist	87th Dist
C Fault Statistics											
🎓 System Maintenance	88th Dist	89th Dist	90th Dist	91st Dist	92nd Dist	93rd Dist	94th Dist	95th Dist	96th Dist	97th Dist	98th Dist
Butherity Management											
🔹 Super User		Long	litude	La	titude						
								Read	Set		

Figure 8 Latitude and Longitude Management

Fault Statistics page is shown in Figure 9. It can display the faulted device information of the past 3 days. Fault type 1 represents the lamp failure, and 2 represents the communication loss. If there are too much faulty devices, you can use "Previous Page" and "Next Page" to switch pages.

	Last 30 Faulty Devices List		
Area Overview	Num. Area Device ID Faulty Type	Num. Area Device ID Faulty Type	Num. Area Device ID Faulty Type
Device Management		11	21
C Fault Statistics	2	12	22
🎓 System Maintenance	3	13	23
Authority Management	4	14	24
🚸 Super User	5	15	25
	6	16	26
	7	17	27
	8	18	28
	9	19	29
	10	20	30
		Refresh Delete	

Figure 9 Fault statistics

System Maintenance page is shown in Figure 10. On this page, the equipment under the control system can be entered into the system. The "Device List Operate" option is to perform the device related functions in the list. "Single Device Operation" is to operate a single device.

		EKON	SMART LIGHTI	NG CONTROL SY			11
Area Overview	Device Info. List			Previous	NextPage	Device List Operate	
Energy Eff. Analyze	Num.	Device Type	Device ID	Area	Device Status	Device List Import	Set
2 Device Management						Device List Install	Set
Fault Statistics						Delete All Devices	Set
System Maintenance						Single Device Operation	
 Super User 						Device ID	
						Area	
						Set	Delete
						Device Information List I Device Status Desc: 1 - Installing Not Su 3 - Installing Succes	Desc cceed sful
						Device Type Desc: 1 - Dimming Contro 2 - Single-Driver CC 3 - Double- Drivers 4 - Loop Controller 5 - Light sensing eq 6 - Douver Meter	ller T Controller CCT Controller uipment
inne y	L					6 - Power Meter	

Figure 10 System maintenance

Authority Management interface is shown in Figure 11. After clicking Enable Password Verification, the control-related commands will prompt for a password confirmation. If the password is wrong, the operation will not be performed. "User PWD Management" (user password management) can modify the control password and initialize the password (requires super administrator password).

	EKON SMART LIGHTING CONTROL SYSTEM	
🕋 Area Overview		
📊 Energy Eff. Analyze		
Device Management	Password Enable Selection Operation	
G Fault Statistics	PWD Required to Stop Controlling	
🎓 System Maintenance	PWD Required to Start Controlling	
Authority Management	Set	
💠 Super User		
	User PWD management	
	User PWD	
	Set	
	Initialization	

Figure 11 Authority Management

Debugging Interface 1 is shown in Figure 12. You can enter the device ID, Dimming it, Reading the version number, status, and other working parameter settings.

	EKON SMART LIGHTING CON	TROL SYSTEM	
Area Overview	Target Operate Device Target ID		Read
Lenergy Eff. Analyze	Dimming Operate Dimming Value % Read Set	Version Read	Read
C Fault Statistics	Latitude and Longitude Operation Longitude Latitude Latitude	Baud Rate Setting 1200bps 4800bps 9600bps	Set
System Maintenance Authority Management	Read Set	Dimming Direction Setting Forward Backward	Set
Super User Debug Interface 1	Schedule Operation Dim Mode CCT Mode Hour Minute CCT Ratio Dim Ratio	Dimming Voltage Setting 5V 10V	Set
Debug Interface 2	1st	Status Reading Lamp Fail 📄 Tempt. Fail 📄 Clock Fail	
	3rd : % % 4th : % %	Dimming Value % Active Power W Voltage V	
	5th:%%	Current A Temperature °C	Read
	Read Set		

Figure 12 Debugging Interface 1

Debugging Interface 2 is shown in Figure 13. This interface is generally used by internal technicians. According to the protocol, enter the identification code that needs to be processed, enter the corresponding data area data for control, or read back the data area data for analysis.



Figure 13 Debugging interface 2

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