# C2000 SoftWare System





# **C2000 SoftWare Overview**

C2000 software is developed by Orient Digital Technologies CO.,Ltd, used in C2000 series products which exploited by our company.

C2000 software includes the following section:

• C2000 setting

- COM Test
- Network Test
- Virtual Serial Port manager
- Virtual Serial Port Driver Setup

You can quickly finish the setting of our products, and it will provide more convenience for you work

#### **System Configuration:**

Operating System: Windows 2000 or above.

Processor : Pentium III 733GHz

Memory: 128MB

Hard Disk:2 GB

Graphic Card:Resolution 1024\*768 color 24 bit

Network Card:Ethernet 10 Base

# COM Test 7.0

After finishing installed C2000 Software, click COM Test icon, then the main interface will be on shown. The picture is as followed:

40 COM Test	- X
Eile Face Style Help	
COM Setting Sand Data	
COM: COMI	lend
Baudrate: 9600 -	ms
Databit: 8	
Stopbit: 1 Handle	Send
Parity: None	
Flow Control: None Receive Data	Count
Open COM	Jata
Close COM	isplaying
Message	Ŧх

### Main function introduction:

- Set COM, baudrate, databit, stopbit, parity, flow control.
- Send hex and ASCII
- Receive hex and ASCII

# **Network Test 7.0**

When you have finished installed C2000 software, click the icon of " Network Test Program", then the picture is as followed:

🐠 Network Test				-		x
Net View Face	Style Help					
	2 6	<b>a</b>				
Start Listening Stop	Listening Request Connection	Close Connection Clear Status				
Connection ID	MAC Address	IP Address	Port	Types		_
						10
Send Data:				Marke Courd		Â
0000 68 65 60	: 6C 6F	hello	â	Auto sena		
				Interval 1000 ms		
	5 <b>1</b>	#		Handle Send		-
	710.0					
Receive Data:	1X: U	RX: U		Clear Count		
				Clear Data		
				Stop Displaying		
			•			
•		Ш			•	
Message					Ą	x
1						
Ready				CAP NUM	SCPI	

In net work test program, it has two socket modes(TCP and UDP).Let's introduce it one by one.

### **TCP work mode:**

In this work mode, it has two view(common view and DI/DO view). According the type of C2000, program will change view automatically.

#### common view

1, Connect type: According to the setting of this converter, choose the proper connect type. In this work mode , you should choose "Socket" or use "Use ocx protocol".

2, Start listen :PC will be in "listen state", then "local IP and port number" will be on shown. Setting local IP and listen the port number ,this picture is as followed:

Local IP And Port						
IP Address:	0.0.0.0					
Port:	8000					
	Cancel					

If connecting is successful, then it will be on shown as followed:

🐠 Network Test				-	= x
Net View Face Sty	le Help				
Start Listening Stop Lis	tening Request Connection	Close Connection Clear Status			
Connection ID	MAC Address	IP Address	Port	Types	
1	00.09.F6.02.3C.6F	10.1.1,85	8000	C2000 S232/1 TWZ	
Send Data:					*
0000 68 65 6C 6	C 6F 	hello	* *	Auto Send Interval 1000 ms Handle Send	III
T> Receive Data:	<: O	RX: 0		Clear Count	
0000				Clear Data	
			•	📕 Stop Displaying	•
1 E		Щ	2	4	] >
Message					Ψ×
Start Listening Successfully Built 1 Connection, the Oth	γ er Port IP:10.1.1.85 Port:80C	0 Time:00:28:15.			
Ready				CAP NUM :	SCRL

This interface has such functions:

- Send hex and ASCII
- Receive hex and ASCII

#### DI/DO view

1, Connect type: When the equipment is C2000 Plus SW32 and you use "use ocx protocol ",the program will automaticall change to DI/DO view.

2, Start listening: The host computer is in the state of listening , the frame of "local IP and port" will be on shown. Setting local IP and listening port. Such as followed:

Local IP And P	ort	x
IP Address:	0.0.0.0	
Port:	8000	
Ok		

If connect successfully, then it will change to DI/DO view, the difference between this view and the common view is the setting of DI/DO. Such as followed:

4) Netwo	ork Te	est										-		x
Net V	View	Face Style	Help											
Start Lis	tening	Stop Listeni	ng Reques	Connection	Close Co	nnection (	Clear Status							
Connecti	ion ID		MAC Addr	ess	IP	Address		Port		1	Types			
2			00.09.F6.(	02.4B.FC	10	.1.1.99		8000		c	2000 Plus 5232	/5W32		
		0	0	0	0	0	۲	۲	0					*
		0	0	0	0	0	0	0	0					
Messag	ge												ą	×
Start Lister Built 2 Con	ning Su Inectio	uccessfully n,the Other P	ort IP:10.1.	1.99 Port:8	000 Time:C	00:36:01.								
Ready												CAP NUM	SCRI	1.4

#### This interface has such functions:

- Send hex and ASCII
- Receive hex and ASCII
- Setting DO/DI.

#### **UDP Work mode :**

Connect type :Choose "UDP", the program will change to UDP view.

Start listen:PC will be in "listen state", then "local IP and port number" will be on shown. Setting local IP and listen the port number ,this picture is as followed:

Local IP And Port						
IP Address:	0.0.0.0					
Port:	8000					
Ok	Cancel					

When the connect type is "UDP", you can just receive data, the series ocx of sending data is forbidden. Such as followed:

🀠 Netwark Test	_ = ×
Net View Face Style Help	
Start Listening Stop Listening Request Connection Close Connection Clear Status	ıs
Send Data:	<u>^</u>
0000 68 65 6C 6C 6F hello	• Auto Send
	Interval 1000 ms
	Handle Send
TX: 0 RX: 0	≣ Clear Count
	Clear Data
	Stop Displaying
Message	Ψ ×
UDP: Open Successfully 10/7/2006 12:41:54 AM Start Listening Successfully	
Ready	CAP NUM SCRU

In connect type, If you need send data , you should build connection . Execute "request connect": "The other side IP and port" will be on shown, setting IP and port which side needs be connected. The picture is as follows:

Peer IP And Port							>	c
IP Address:	0.	0	. 0		0			
Port:	8000					]		
OK			Car	nce	I	]		

When the setting is right, the connection built successfully, at this moment you can send data. The picture is as followed:

4) Network Test	- 5	1 X
E Net View Face Style Help		
Start Listening Stop Listening Request Connection Close Connection Clear Status		
Send Data:		
0000 68 65 6C 6C 6F hello	and	
Interval 1000	ms	
Handle Se	nd	
TX: 5 RX: 0 Receive Data:	nt	III
Clear Dat	a	
Stop Disp	laying	
Messana		• ×
UDP: Open Successfully 10/7/2006 12:41:54 AM Start Listening Successfully 10/7/2006 12:46:02 AM UDP: Open Successfully 10/7/2006 12:46:02 AM Request Connection 10.1.1.99 Successfully UDP: Send 5 Bytes 10/7/2006 12:46:11 AM		
Ready	CAP NUM SC	RL Ja

In this work mode, the connect type is "UDP", if it doesn't listen, then it will connect directly, the default listening port is random.

This interface has such functions:

• Send hex and ASCII

• Receive hex and ASCII

# C2000 Setting 7.0

When C2000 Software has been installed, clicking the setting icon of C2000, then the main interface is displayed, as shown in the figure below:

🕖 C2000 Settini	g Progra	am				- =	x
E Setting View	Face St	yle Help					
Search Device	Setting	Default Setting	Query Status	Clear Message			
MAC Address		IP Address		Model		Name	
00.09.F6.02.3C.6F	-	10.1.1.85		C2000 S232/1 TV	VZ		
<b>4</b>							•
Message						<b>4</b>	×
Found 1 C2000 dev	rice!						
Ready					CAP	NUM SCRL	

# **Setting Module**

### **Searching Function:**

Search: Searching all of the C2000 on the previous net, the result will be shown on the "message frame", as shown in the figure below:

C2000 Setting Progr	am			-	ΞX
Setting View Face S	štyle Help				
Search Device	Default Setting	Query Status	Clear Message		
MAC Address	IP Address		Model	Name	
00.09.F6.02.02.C6 00.09.F6.02.3C.6F	10.1.1.86 10.1.1.85		C2000 S232/1 TWZ C2000 S232/1 TWZ		
4					•
Message					Ψ×
Found 2 C2000 device!					
Ready				CAP NUM	SCRL

### **Setting function:**

The converter which has been selected, can be setted its detail parameters. Then the picture of "C2000 Setting " will be as shown in the figure below:

C2000 Setting		x
Information Network	Setting Serial Port 1 Parameters	
Model:	C2000 S232/1 TWZ	
MAC address:	00.09.F6.02.3C.6F	
COM Number:	1	
Name:		
Save Defau	uit Load Default OK Cancel	

Save default: Preserve the previous setting in the default file, the every Type C2000 has a default Setting file .

Load default: Reading the previous type C2000 default setting file ,and use it to update the interface.

Ok: Preserver the modify, and exit setting.

Cancel: Cancel all of the modify, and exit setting.

### **Information Page:**

Model : The Model of C2000.

MAC address: The address of C2000.

COM Number: The total Serial port of C2000.

Name: Named C2000 .The C2000 whose name can't be supported, its name can be saved in the local file.

C2000 Setting		x
Information Network	Setting Serial Port 1 Parameters	_
Model:	C2000 S232/1 TWZ	
MAC address:	00.09.F6.02.3C.6F	
COM Number:	1	
Name:		
Save Defa	ult Load Default OK Cancel	

#### **C2000 Network Parameters Page:**

Auto get IP address: When it be selected, DHCP Server on the net where the C2000 is, will distribute IP address.

C2000 IP Address: Set IP address of the C2000.

Subnet Mask:Set the subnet mask of the C2000.

Gateway: The gateway of the net where the C2000 is.

C2000 Setting						x
Information Network Settin	9 Seri	al Port	1 Para	meters		
Auto get IP address						
C2000 IP Address:	10	. 1	. 1	. 85	_	
Subnet Mask:	255	. 0	. 0	. 0	-	
GateWay:	0	. 0	. 0	. 0		
Save Default	Loa	d Defa	ult	0	К	Cancel

### **Serial Parameters Setting Page:**

This page is result from the total of the converters whose serial ports have been chosen. For example, if the converter has two serial ports, then it will results in two pages, such as "serial port1 parameters setting";  $\phi$  "serial port2 parameters setting".

Operating Mode: TCP Client Mode, TCP Server Mode, UDP Mode.

C2000 Port: The TCP port which is adopted, when C2000 communicates with other network equipment .

Server IP: The address of equipment which communicates with C2000, when it works in TCP Client Mode or UDP Mode. Could Obtain computer IP address by "Obtain computer IP", and setting computer IP as Server IP.

Server Port: The adopted TCP Port of equipment which communicates with C2000, when it works in TCP Client Mode or UDP Mode.

Flow control: Providing None, RTS/CTS, and XON/XOFF three modes.

Other serial parameters , such as baudrate, databit, stopbit, parity and so on.

C2000 Setting		x
Information Network Se	tting Serial Port 1 Parameters	
Socket Setting		
Work Style:	Tcp Client	
C2000 Port:	8000	
Server IP:	10 . 1 . 1 . 78 Local IP	
Server Port:	8000	
Use virtual COM	or EdSockServer.Ocx(dll)	
COM Setting		
Baudrate:	9600 🔽	
Databit:	8	
Parity:	None	
Stopbit:	1	
Flow control:	None Advanced	
Save Default	Load Default OK Cancel	

Advanced setting : The dialog box of "transmit ruler" will be on shown,setting Byte Interval Timeout ,Max Frame Size and other parameters of this previous serial of the converter which has been chosen, as shown in the figure below:

			2	c
-Transmit Ruler				١
Interval Timeout:	20		ms	
Max Frame Size:	1000		Bytes	
				J
OK		Cancel		

### **Quickly Setting Function**

Quickly setting: Quickly setting the single converter, then "Quickly setting " will be on shown at once, as shown in the figure below:

Quickly Setting					x
📃 Auto get IP	address				
IP Address:	10.	1	. 1	. 85	
Subnet Mask:	255 .	0	. 0	. 0	
OK			Can	cel	

If you select : "Auto get IP address", then DHCP Server of the net ,which the C2000 is in, will distribute the IP address to the C2000.Otherwise ,you need design an IP address to it. Now ,the C2000 works in TCP Client Mode, and the Server IP is your computer IP, other parameters is set as default.

### **Batch Setting Function:**

"Batch setting" function could only be availability, when you choose two or above the same type C2000, you could press "ctrl" and click on the row which need be chosen.

MAC Address	IP Address	Model	Name
00.09.F6.02.02.C6	10.1.1.86	C2000 S232/1 TWZ	
00.09.F6.02.3C.6F	10.1.1.85	C2000 S232/1 TWZ	

Execute "batch setting "command "Batch setting" will be on shown.

Batch Setting					x
C2000 Network Sett	ing Serial I	Port Para	meters		
Auto get IP add	dress				
First IP:					
Last IP:					
Subnet Mask:					
GateWay:					
				ОК	Cancel

First IP£°The IP address of the C2000 which has been firstly chosen .

Last IP: The IP address of the C2000 which has been last chosen. It is counted by program automatically, user needn't fill it.

Description of other parameters, you can refer to "setting "command .

### **Default Setting function:**

"Default setting " could choose C2000 and set it by read "Default Setting File". Creating "Default Setting File" by "setting" interface of "Save as default". Every type of C2000 has save a "Default Setting File".

### **Query Status Function:**

Query status: All the setting parameters of the converter which has been chosen, then the "Query Status" dialog will appear.

### **Query Information Page:**

The model ,MAC address, COM Number and name of the converter which has been chosen, will be on shown. The picture is as followed:

Query Status		x
Information Netwo	rk Status – Serial Port, 1 Status	
Model: MAC Address: COM Number: Name:	C2000 S232/1 TWZ 00.09.F6.02.3C.6F 1	
	OK Cancel	

### C2000 Network status Page:

The IP address, Netmask, Gateway and other parameters of this converter chosen will be on shown. The picture is as followed:

Query Status								x
Information Network Sta	ltus Ser	ial Por	£1	Stati	us			
C2000 IP Address:	10 .	1		1		85		
Subnet Mask:	255 .	0		0		0		
GateWay:	0.	0		0		0		
					0	ĸ	Cance	

### **Serial Port status Page:**

This page is resulted from the number of the converter which has been chosen .If the pre-converter has two serial ports, then it will result in two pages, which are "Serial Port 1 Status" and "Serial Port 2 Status". The parameters of this converter will be on shown on this page. The picture is as followed:

Query Status			x
Information Network Stat	us Serial Port 1 Status		
-Socket Status			
Work Style:	Top Client 💽		
Connect Status:	No Connection		
Peer IP:			
Peer Port:			
C2000 Port:	8000		
Use virtual COM o	r EdSockServer.Ocx(dll)		
COM Status			
Baudrate:	9600		
Databit:	8		
Parity:	None		
Stopbit:	1		
Flow control :	None	-	
Flow control Status:	None		
Interval Timeout:	20		ms
Max Frame Size:	1000		Bytes
	ОК		Cancel
	OK		Carloon

### **Reset Function:**

Reset : Resetting the converter which has been chosen. The operating result will be on shown in message dialog .

### Web Login Password Setting Function:

Web Login Password Setting: Setting the password of the converter which has been chosen, when it login . Then the frame of "Web Login Password Setting" will appear.

Web Login PassWor	d Setting	x
New PassWord:		
Confirm:		
ОК	Cancel	

#### OK: The pre-passed will be applied in this converter.

Cancel: Close the frame of "Web Login Password Setting".

### **Clear Information Column Function**

Clear Message: Clear all the information of "message dialog".

### **Exit Function**

Exit: Exit program.

# **View Module**

Tool Column: Display or hidden tool column.

Status Column: Display or hidden status column.

# **Interface Style Module:**

### 1. Skin style:

XP LUNA: From software interface to "the heart of sea" style.

XP ROLAE: From software interface to "north scene" style.

Office 2007: From software interface to "romantic season "style.

Default: From software interface to "nostalgic affection".

### 2. Toolbar style:

Office XP: From toolbar to "Office XP" style.

Office 2000: From toolbar to "Office 2000" style.

Office 2003: From toolbar to "Office 2003" style.

Win XP: From toolbar to "Win XP" style.

# **Help Module:**

Help : The help will appear.

### **Start Transmit:**

In TCP Client Mode, the C2000's server IP is as the same as the host computer, and it will connect with the host computer after transmitting. If the host computer wants to connect with the C2000 which works in TCP Server Mode, you should use "add the C2000 which works as server", then add it to the C2000 list .Now, the user's software which is based serial port can communicate with devices by using " Virtual Serial Port ".

# **Stop Transmit:**

Close all of the connection. Then, the use's software, which is based serial port, can't communicate with the devices.

## Manual add C2000:

If the C2000 wasn't displayed in the list, you need add it to C2000 list by hand. It is as shown in the figure below:

Manual add C2000		x
MAC address:	00.09.F6.	
Model:		-
ОК	Cancel	

Fill the MAC address of the C2000 in the dialog "MAC Address", and choose its type. Click on "confirm", then add it to C2000 list.

# Add the C2000 which works as Server:

For the C2000 which works in TCP Server Mode, you should use this command to add it to "Server List". Only Start transmitting, this system can connect with it.

Add the C2000 v	vhich works as server		x
C2000 IP	Port	_	
		C2000 IP:	· · ·
		Port:	8000
		<<< Add >>> Remove	
	ОК	Cancel	

## **Import Configuration Files:**

You can import the ".edc" configuration file which creates by last edition C2000 Manager, and you can also import the ".ini" configuration file which is saved by present edition "Export Configuration File". After importing ,the present configuration file is modified ,then it will work in new configuration.

# **Export Configuration File:**

Backup Configuration information to ".ini" file.

# **System Password Setting:**

Setting System P	asswor	d	x
Old Password:			
New Password:			
Confirm New:			
	K	Cancel	

After setting system password, you should enter you password when you start this software.

## Lock:

Lock	х
System password:	
OK Cancel	

If you want to lock, you should enter the password. After locking, all of the operation can't be done.

# **Unlock:**

Unlock		x
System password:		
OK	Cancel	

If you want to unlock, you should enter the password. After unlocking, all of the operation can be done.

## Exit:

If you want to exit, you should enter the system password.

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# Search:

Search: Searching all of the C2000 on the local network.

# **Quickly Setting Function:**

Quickly setting : Setting the single converter quickly, then "parameters setting " will be on shown at once, the picture as followed:

Quickly Setting						x
Auto get IP add	lress					
C2000 IP:	10 .	1	1	85		
Subnet Mask:	255 .	0	0	0		
ОК				Са	ncel	

If you select : "Auto get IP address", the DHCP Server of the net which the C2000 is in will distribute the IP address to the C2000.Otherwise ,you need design an IP address to it. Now ,the C2000 works in TCP Client Mode, and the Server IP is your computer IP, other parameters is setted as default.

# Setting:

The converter which has been selected , can be setted its detail parameters. Then the picture of " Setting " will be on shown:

9	Setting		x
	Information Network	Setting Serial Port 1 Parameters	
	Model:	C2000 S232/1 TWZ	
	MAC Address:	00.09.F6.02.3C.6F	
	Serial Port:	1	
	Name:		
	Load Default	Save Default OK Cancel	

Save default: Preserve the present setting in the default file , the every Type C2000 has a default Setting file .

Load default: Reading the default setting of file pre-type C2000.

OK: Preserve the modify , and exit setting.

Cancel: Cancel all of the modify , and exit setting.

# **Information Page:**

Setting		x
Information Network	Setting Serial Port 1 Parameters	
Model:	C2000 S232/1 TWZ	
MAC Address:	00.09.F6.02.3C.6F	
Serial Port:	1	
Name:		
Load Default	Save Default OK Cancel	

Model: The model of C2000.

MAC address: The address of C2000.

Serial Port : The total Serial port of C2000.

Name: Named C2000 .The C2000 whose name can't be supported, its name can be saved in the local file.

## **C2000 Network Parameters Page:**

Setting		x						
Information Netwo	Information Network Setting Serial Port 1 Parameters							
Auto get IP ad	dress							
C2000 IP:	10 . 1 . 1 . 85							
Subnet Mask:	255.0.0.0							
Gateway:	0.0.0.0							
Load Default Save Default OK Cancel								

Auto get IP address: When it be selected, DHCP Server on the net where the C2000 is ,will distribute IP address.

C2000 IP: Set IP address of C2000.

Subnet Mask: Set subnet mask of C2000.

Gateway: The net where C2000, and the Gateway of this net.

## **Serial Parameters Setting Page:**

Se	etting		x
h	nformation Network S	etting Serial Port 1 Parameters	_
	Socket Setting Work style:	TCP Client	
	C2000 port:	8000	
	Server IP:	10 . 1 . 1 . 78 Get Host IP	
	Server port:	8000	
	COM Setting	None	
		Advanced	
(	Load Default	Save Default OK Cancel	

This page is result from the total of the C2000, whose serial ports have been chosen. For example ,if the C2000 has two serial ports, then it will results in two pages, such as "serial port1 parameters setting", "serial port2 parameters setting".

Work style: TCP Client Mode, TCP Server Mode, UDP Mode.

C2000 Port : The TCP port which is adopted ,when C2000 communicates with other network equipment .

Server IP: The address of equipment which communicates with C2000, when it works in TCP Client Mode or UDP Mode. Could Obtain computer IP address by "Obtain computer IP", and setting computer IP as Server IP.

Server Port: The adopted TCP Port of equipment which communicates with C2000, when it works in TCP Client Mode or UDP Mode.

Flow control: Providing None, RTS and CTS three modes.

Other serial parameters, such as baud rate, data bits, stopbits, parity and so on, because of adopting virtual serial port mode, these parameters will be accordant with the setting of virtual serial port. Therefor, you needn't setting. Advanced setting : The dialog box of "transmit rule" will be on shown :

Advanced			x
Pack rule			]
Interval timeout:		20	ms
Max frame size:		1000	bytes
	ОК	Cance	

Interval Timeout :In last version, we call it as "least send time ".After the C2000 receives data from serial port and byte interval is time out, if it didn't receive the next data from the serial port ,the C2000 send the data which it has received before to the network .The C2000 only needed meet either"Interval Timeout"or"Max Frame Size",then it will send data to the network.

Max Frame Size : In last version, we call it as "least send byte ".When the C2000 received data whose length is as much as it, the C2000 will send data to the network. The C2000 only needed meet either"Interval Timeout"or"Max Frame Size",then it will send data to the network.

# **Batch Setting :**

"batch setting" function could only be availability ,when you choose two or above the same type C2000,you could press "ctrl" and click on the row which need be chosen.



Execute "batch setting " command "Batch setting" will be on shown.

Batch Setting						x		
Network Setting Serial Port 1 Parameters								
Auto get IP addre	ess							
First C2000 IP:	0.	0	0	. 0				
Last C2000 IP:	0.	0	0	. 0				
Subnet Mask:	0.	0	0	. 0				
Gateway:	0.	0	. 0	. 0				
					ОК	Cancel		

First IP£°The IP address of the C2000 which has been firstly chosen.

Last C2000 IP: The IP address of the C2000 which has been last chosen. It is counted by program automatically , user needn't fill it.

Description of other parameters, you can refer to "setting "command.

# **Default Setting:**

"Default setting "could choose C2000 and set it by read "Default Setting File". Creating "Default Setting File" by "setting" interface of "Save default". Every type of C2000 has save a "Default Setting File".

# **Delete:**

Delete the C2000 which you have chosen.

# **Process priority:**

It includes three priority: high , normal and low (Advice: Use high priority !).

# **Delay compensate:**

It may occur network delay when use the C2000.By using delay compensate, now delay can be overcome. It was only valid in windows 2000 or above. The picture is as followed:

Delay compensate		x
Delay compensate:	0	ms
mode Do not use it		
O mode 1(recommend)		
💿 mode 2		
ОК	Cancel	

Note: Recommend you to use Mode 1,and you'd better set the time between 0 to 30s.

#### show "Send/Receive" Column

It was selected, the "Send" and "Receive" column will display in the C2000 list.

# Virtual Serial Port Driver Setup 7.0

According requirement, install or uninstall Virtual COM.

(Note: You should restart the computer after uninstall the virtual COM driver.)

