TC3XYNT & C2000

C2000 Manager

Version 1.02

Operation Instructions



INDEX

Software function:	2
Virtual COM Driver and C2000 Manager working condition:	2
Virtual COM installation progress:	2
Step I - TC3XYNT/C2000 hardware setting:	3
4.1. TC3XY hardware setting:	3
4.2. C2000 converter hardware setting:	3
Step II - Install C2000Setup_Eng:	4
Step III - Setting up TCP configuration.	11
6.1. Using Converter Setting (recommended):	11
6.2. Using Web Browser:	15
Step IV - Map IP of TC3XYNT/C2000 to a Virtual COM	17
Step V – Save Settings	21
Install and Un-install Virtual COM Driver:	22
. C2000 Manager Operation instruction:	23



1. Software function:

The virtual COM driver issued by our company is commonly used to make several virtual COM on host computer. To application, the virtual COM made by this software has the same interface as the real COM (COM1, COM2) built-in. It means the software that can be used on real COM (COM1, COM2) also can be used on this virtual COM.

C2000 series converters are the TCP/IP-RS485 converter. It supports the transparent communication between COM and TCP/IP. It gets the data from the virtual COM and sends it to the network, at the same time, get the data from the network and transmit it to the virtual COM.

C2000 Manager is used to map one or more IP of C2000/TC3XYNT into one or more Virtual COM, also manage the data transferring. Customers can use virtual COM driver make several virtual COM on their host PC, then appoint the C2000 plus converters COM to the appointed virtual COM, then use the transmitting function of C2000 Manager. After that, you may achieve the communication between the virtual COM and locale equipments.

2. Virtual COM Driver and C2000 Manager working condition:

Virtual COM Driver and C2000 Manager can work in the condition as below: Windows 98 Windows 2000 Server, Service Pack 1 to 4 Windows 2000 Professional, Service Pack 1 to 4 Windows XP SP1 & SP2

3. Virtual COM installation progress:



KEYKING

4. Step I - TC3XYNT/C2000 hardware setting:

4.1. TC3XY hardware setting:

- Set ID of Controller: Please refer the Starter Guide document to define the ID of each controller on the network. There should be no duplicated ID on the same network. You can able to set the same ID for 2 controllers and then map them into 2 separate virtual COM but we don't recommend this way. It would slow down the speed of communication between PC and those controllers. We are going to recommend you map 2 or more TC3XYNT to only one Virtual COM port therefore the ID of each controller should be different.

- There are 2 switches next to the battery on the controller board. They are used to change the status of TCP configuration.

SW1=ON, Configurable Mode, user can read/write the TCP setting of controller.

SW1=OFF, Protected Mode, user can read but cannot write the TCP setting of controller.

SW2=ON, Forced Default IP Mode, the IP of controller will be back to default (IP: 10.1.1.10, subnet mask=255.255.255.0).

SW2=OFF, Normal Mode, the IP of controller will be the one in TCP setting.

To prepare for setting up TCP configuration of controller please change the SW1, SW2 to ON, then you can able to find and save the new TCP setting of controller. After finishing please change those switches back to OFF to apply for new setting.

4.2. C2000 converter hardware setting:

- The C2000 supports TC3XYMT which provides RS485/RS232 interface. One C2000 converter can drive up to 127 TC3XYMT. Please refer the Starter Guide to define the ID of each controller. If you are planning to use more than one C2000 in your application we are going to recommend you map all C2000 converter into only one virtual COM port therefore all of controllers on your application should have different ID.

- There are 4 switches on the bottom side of converter:

DIP1=ON, Configurable Mode, user can read/write the TCP setting of converter.

DIP1=OFF, Protected Mode, user can read but cannot write the TCP setting of controller.

DIP2=ON, Forced Default IP Mode, the IP of converter will be back to default (IP:10.1.1.10, Subnet mask=255.255.255.0)

DIP2=OFF, Normal Mode, the IP of converter will be the one in TCP setting.

DIP3, Reserved

DIP4=ON, Reset Mode

DIP4=OFF, Normal Mode

To prepare for setting up TCP configuration of converter please change the DIP1, DIP2 to ON, then you can able to find and save the new TCP setting of converter. After finishing please change those switches back to OFF to apply for new setting.

KEYKING

5. Step II - Install C2000Setup_Eng:

Unzip the C2000Setup_eng.zip into an empty folder, run Setup.exe, follow these steps below:

InstallShield Wizard
License Agreement Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
To display your license agreement, replace the License.txt file currently located in the Language Independent\Operating System Independent folder of the Setup Files pane. NOTE: The text in your license file should contain hard returns after lines with more than 1,024 characters.
Click on Yes to
Do you accept all the terms of the preceding License Agreement? If you go to next screen setup will close. To install C2000Plus, you must accept this agreement.
InstallShield

InstallShield Wizard	
Customer Information Please enter your information.	
Please enter your name and the name of the company for whom you wor	k.
User Name:	
Nicholas Nguyen	
Company Name:	
home	Click on Next to go
	to next screen after
	defining user name
	and company name
InstallShield	
< Back Next	> Cancel

Keyking International Limited Suite 3, 12/B Wissotzky St., Tel Aviv, 62338, Israel Tel: (972)-3-5464256 Fax: (972)-3-5464259 Website: <u>www.key-king.com</u>



InstallShield Wizard	
Choose Destination Location Select folder where Setup will install files.	
Setup will install C2000Plus in the following folder.	
To install to this folder, click Next. To install to a different folder, click Brows another folder.	e and select
Destination Folder	Click on Next after define
C:\Program Files\C2000Plus	the Destination folder
< Back New >>	Cancel
InstallShield Wizard	
Start Copying Files Review settings before copying files.	
Setup has enough information to start copying the program files. If you war change any settings, click Back. If you are satisfied with the settings, click copying files.	it to review or Next to begin
Current Settings:	
СІ	ick on Next to go to next
SC	reen



Setup Status		
C2000Plus Setup is performin	g the requested operations.	
Installing: C:\WINDOWS\system32\ED	Install progress. Please wait until it finishes	
	21%	
InstallShield		
	Cancel	
InstallShield Wizard		
	InstallShield Wizard Complete	
	InstallShield Wizard Complete Setup has finished installing C2000Plus on your computer.	
	InstallShield Wizard Complete Setup has finished installing C2000Plus on your computer.	
	InstallShield Wizard Complete Setup has finished installing C2000Plus on your computer.	
	InstallShield Wizard Complete Setup has finished installing C2000Plus on your computer.	
	InstallShield Wizard Complete Setup has finished installing C2000Plus on your computer.	
	InstallShield Wizard Complete Setup has finished installing C2000Plus on your computer.	
	InstallShield Wizard Complete Setup has finished installing C2000Plus on your computer. Click on Finish to d	complete.
	InstallShield Wizard Complete Setup has finished installing C2000Plus on your computer.	complete.
	InstallShield Wizard Complete Setup has finished installing C2000Plus on your computer. Click on Finish to d	complete.

After complete installing C2000Setup_Eng the installer will install Virtual COM driver if it hasn't installed in your PC. Installing Virtual COM driver is similar to other physical device.





Found New Hardware Wiz	ard			
	Welcome to t Hardware Wi	the Found Ne zard	w	
	This wizard helps you	install software for:		
	Virtual Serial Port			
	If your hard or floppy di	Select "Install the	software automatica	lly"
	What do you	e wizard to do? vare automatically (Rec	ommended)	
	Install from a lis Click Next to continue	t or specific location (A ».	Click on Next to screen	go to next
		(Back Next 🗲	Cancel	
Found New Hardware Wiz	ard			
Please wait while the wiz	ard searches			
🍠 Virtual Serial Po	rt	Please wait for for virtual COM	windows searching	driver
	9			
		Back Next>	Cancel	

KEYKING

C2000 & TC3XYNT Virtual COM installation user guide



Found New Hardware Wiza	ard			
	Completing the Found New Hardware Wizard			
	The wizard has finished installing the software for:			
	Virtual Serial Port			
		Click on complete inst	Finish all progre	to ess
	Click Finish to close the wizard.	7/		
	< Back Finish	Cancel		





You have passed Step II successfully. Please refer below to change next step.

6. Step III - Setting up TCP configuration.

6.1. Using Converter Setting (recommended):

Lunch Start \rightarrow Programs \rightarrow C2000Plus \rightarrow Converter Setting to run the Converter Setting software. When starting the software will search all TC3XYNT/C2000 in the network. All found controller and C2000 will be recorded like the screen below. If it cannot find the controller/converter please check the hardware, cable and your network again.



Model: MAC: COM Number:	C2000 S-net + Define the Controller/Converter 00.09.F6.02.0 1
Converter Name:	Controller1
	Click on Next to go to
	<pre></pre>

Keyking International Limited Suite 3, 12/B Wissotzky St., Tel Aviv, 62338, Israel Tel: (972)-3-5464256 Fax: (972)-3-5464259 Website: <u>www.key-king.com</u>





Network Setting Step 2	
Please fill the Converter's Gateway. Gateway:	
Click on Next to next screen	to go
< Back Next> Cancel	

KEYKING

C2000 & TC3XYNT Virtual COM installation user guide

Socket 1 Setting Step 1	Select the TCP Client	
Please select the Converter's Workstyle. Workstyle: Tcp Client		
This option indicates that whether using EDSoc using EDSockServer.ocx or Virtual COM Check this option	kServer.ocx or Virtual COM or	not.
		Click on Next to go to next screen
	< Back	Next > Cancel

Socket 1 Setting Step 2	
Converter Port : When the Converter Port : When the Conver Server IP: When the Conver "TCP Server". Server Port: When the Conver "TCP Server". Converter Port: Server IP: Server Port: 80	nverter works as "TCP Server Leave it default er works as "TCP Client" more than a server of the Port of the IP of PC 32 . 168 . 0 . 110 Do Leave it default
	Click on Next to go to next screen



COM 1 Setting Ste	01
Baudrate:Select this s Databit: Select this se Parity: Select this seri Stopbit: Select this se Flow control : Select t	erial port's baudrate. ial port's Databit. al port's Parity. al port's Stopbit. iis serial port's Flow control mode.
Baudrate:	9600
Databit:	8
Parity:	None Leave them default
Stopbit:	1
Flow Control:	None
	Click on Next to go to next screen
	< Back Next Cancel





6.2. Using Web Browser:

The TC3XYNT/C2000 supports web based interface for setting up the TCP configurable. You can either using IE or any other web browser to access TCP configuration of controller/converter.

Example: the IP of controller: 10.1.1.10. Open your web browser, enter <u>http://10.1.1.10</u> in address bar.





Config C2000 Plus System

Net	Ря	ram	eter
1100	1 0	1 ann	CUUL.

MAC address:00 09 F6 01 02 0A
□ Automatic get IP address (DHCP)
C2000 IP address: 10.1.1.35 Mask: 255.0.0.0
Gateway: 0.0.0.0
Workstyle TCP Client
C2000 port: 8000
Server IP address: 10.1.1.1 Server port: 8000
□ Socket Communication:
□ Proxy
Proxy server IP: 10.1.1.1 Proxy server port: 5000
COM Parameter
Baudrate: 115200 - Databit: 8 - Parity: None - Stopbit: 1 -
Least send time: ms (range 0~65535)
Least send bytes: byte (range 0~1000)
☑ CTS/RTS flow control
\Box Xon/Xoff flow control
Config Return



7. Step IV - Map IP of TC3XYNT/C2000 to a Virtual COM

Lunch Start \rightarrow Programs \rightarrow C2000Plus \rightarrow Manager to run the Manager software. The screen would look like below.

🏂 Manager -						
System(C) Net View(V) Help(H)	S 2	<u>\$</u>		_	1955	
Wizard New Open Save Modify	Start	Stop	Connect	کہ Disconnect	Clear	
All Connect						
	t ID Model					
Click on Wizard button to start mapping						
IP of controller/converter to a virtual						Stop
COM port.						
						Net Receive
						1110-11
						Net Send
						COM Receive
						COM Send
						~
	111					
Ready						



Keyking International Limited Suite 3, 12/B Wissotzky St., Tel Aviv, 62338, Israel Tel: (972)-3-5464256 Fax: (972)-3-5464259 Website: <u>www.key-king.com</u>



Step 1
Config Local Port Manager will listen at this port.When the Converters work as ''TCP Client'' mode,this port should be consistent with the server port of Converters.when all of Converters work as ''TCP Server'' mode,you can fill it with any value,but we suggest you to use the default value.
Listen Port:
Click on Next to entonext screen
< Back Next > Cancel

Step 2	
Config the number of Virtual COM you need The wizard can create lots of Virtual COMs.you can not only create one Virtual COM also create a number of virtual COMs to manage several Converters.	to manage several Converters,but
Virtual COM Count : The Number of Virtual COM would be created. We recommend only one Virtual COM	
	Click on Next to enter
	next screen
< Back	Next > Cancel

Keyking International Limited Suite 3, 12/B Wissotzky St., Tel Aviv, 62338, Israel Tel: (972)-3-5464256 Fax: (972)-3-5464259 Website: <u>www.key-king.com</u>



Step 3		
Mapping mode	- coloret, "All Convertors' covial parts man to this) (it)	
COM".Otherwise,select "One serial port map	to one virtual COM", then fill Converter's	
number" and "Virtual COM", finally add them I	to the list. Select	the Virtual Port you
	want to	mapped to
 Map Uption All Converters' serial ports map to this 	Virtual COM	-
Rine serial port map to one virtual CO	M	-
- Map Li		
MAC Serial Virtual COt	MAC: 0009/6	
	Model:	
	Serial Port:	<u> </u>
	Venuel COME	<u> </u>
Select "All Converter's se	erial ports map to this	
Virtual COM" to map every	controller/converter into	
this port.		Click on Next to enter
		next screen
	- Beel - North	
	< Back Next>	
Step 4 There are "TCP Server" Converters. If the Converters work as "TCP Server" m Converter's IP and Listen port,finally add ther	ode "please select "There are TCP Server Converte n to the list.	rs'',then fill the table with
There are "TCP Server" Converters.		
– Converter list		
IP Port	ID:	_
192.168.0.110 8000	IP: 192.168. 0 .110	
	Port: 8000	
	Add<<<	
		Click on Next to enter
		next screen
	L	7
		//////

Keyking International Limited Suite 3, 12/B Wissotzky St., Tel Aviv, 62338, Israel Tel: (972)-3-5464256 Fax: (972)-3-5464259 Website: <u>www.key-king.com</u>



Step 5	
Auto run and load If you select "Auto run auto load.	Check "Auto run and load" to enable Auto run function. The Manager will start automatically when Windows starting.
✓ Auto run and load	
	Click on Next to enter next screen
	< Back Next Cancel
Finish	
	Finish the wizard You are finish setting succeed. To close the wizard , click "Finish".
	Click on Finish to complete
	< Back Finis Cancel

Keyking International Limited Suite 3, 12/B Wissotzky St., Tel Aviv, 62338, Israel Tel: (972)-3-5464256 Fax: (972)-3-5464259 Website: <u>www.key-king.com</u>



8. Step V – Save Settings

After finishing Step IV, the wizard will offer you save the new setting into a file.

Manager will use this file in the next loading. You can able to copy this file to other PC for Manager on that PC.

nish	Finish the wizard		
_	You are finish settir	g succeed. To close the wizard ,click "Finish".	
Save As		<u> </u>	
Save in: 🚞	Sphinx_TC300	- 🖬 🏝 -	
DB			
C Photo			
WCOM			
File name:	јусом	Save	
Save as type:	C2000M File(*.edc)	Cancel	



😹 Manager - VCOM								
System(C) Net View(V) Help(H)							
Wizard New	Open Save	Modify	Start	Stop	Connect	Disconnect	Clear	
All Connect MAC IP 0009/6020175 193168	Deport V 0.110 8000 C The controller COM5. You C by using Sphi	r/converter can able to nx softwar	• has bee • operate e.	Model C2000 S-net+ en mappe e this con	ed into atroller			Normal Net Receive Net Send COM Receive COM Send
Start listen successful, Time:	2/01/2005 19:51:04		IIII					>
Ready	19.51.04							

9. Install and Un-install Virtual COM Driver:

By default the Virtual COM Driver will be installed and uninstalled automatically when you install and uninstall the C2000Setup_Eng.

Install: "Start" \rightarrow "Programs" \rightarrow "C2000Plus" \rightarrow "Install Virtual COM Driver".

Uninstall: "Start" → "Programs" → "C2000Plus" → "Uninstall Virtual COM Driver"



😹 Manager - VCOM ystem(C) Net ew(V) Help(H) P Ê <u>, i</u> ₹ 8 ¢] Wizard New Onen Modify Connect Disconnect Clear Save Start Ston All Connect Virtual COM Connect ID Model MAC IP port Normal Status Indication Net Receive Net Send Links List COM Receive COM Send Events List Start listen failed, Time: 17/12/2004 11:53:50 Ready

10. C2000 Manager Operation instruction:

Link

List: List all Controllers/ Converters and their mapping port those connect to the Manager.

- C2000 MAC address: The Controller/Converter network physical address.
- IP: Controller/Converter IP.
- Virtual COM: The Virtual COM port which is mapped to Controller/Converter.
- Connect ID: The connect ID of the network built between Controller/Converter and Manager.
- Model: Model number of TCP module of Controller/Converter.
- Status Indication: It will show you the Manager working status.
- Events List: System events. Any actions and mistake will be displayed here.
- New: Make a new setting file.
- Open: Open a setting file saved to disk.
- Save: Save the setting to disk.
- Modify: Modify the current setting.