

AxC-CN32IO: CobraNet Quick User's Manual



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CobraNet discovery Is a software application from Cirrus logic, used to set-up CobraNet devices and so CobraNet parameters of the AxC-CN32io. It allows set-up of parameters:

- Dynamic IP address (warning not persistent)
- Device name
- Audio routing, format and latency
- Conductor priority
- Set-up IP static address (using SNMP)

CobraNet Discovery can be downloaded from http://cobraNet.info/downloads/disco

CobraNet Discovery allows user to access other parameters via SNMP remote management, a CobraNet Programmer reference is available at this address:

http://www.CobraNet.info/sites/default/files/CobraNet_Programmer_Manual_PM25.pdf

First you need to have the good IP address on Network card

- Open Network & Internet settings
- Open dialog box on the network card used

Propriétés de Connexion au réseau local	×						
Gestion de réseau Partage							
Connexion en utilisant :							
Intel(R) 82578DM Gigabit Network Connection							
<u>C</u> onfigurer							
Cette connexion utilise les éléments suivants :							
V Client pour les réseaux Microsoft							
Partage de fichiers et imprimantes Réseaux Microsoft							
Planificateur de paquets QoS							
✓ Protocole Internet version 4 (TCP/IPv4)							
Protocole de multiplexage de carte réseau Microsoft							
✓ Pilote de protocole LLDP Microsoft							
Protocole Internet version 6 (TCP/IPv6)							
< >>							
Installer Désinstaller Propriétés							
Description							
Protocole TCP/IP (Transmission Control Protocol/Internet Protocol). Protocole de réseau étendu par défaut permettant la communication entre différents réseaux interconnectés.							
OK Annuler	_						

- Select Internet protocol (TCP/IP v4) line
- Click "Properties" : following dialog box appears

Propriétés de : Protocole Internet versi	ion 4 (TCP/IPv4)	\times						
Général								
Les paramètres IP peuvent être déterminés automatiquement si votre réseau le permet. Sinon, vous devez demander les paramètres IP appropriés à votre administrateur réseau.								
O <u>O</u> btenir une adresse IP automatiq	juement							
Utiliser l'adresse IP suivante :								
Adresse IP :	10 . 31 . 0 . 200							
Masque de <u>s</u> ous-réseau :	255.255.255.0							
Passerelle par <u>d</u> éfaut :								
Obtenir les adresses des serveurs	DNS automatiquement							
Utiliser l'adresse de serveur DNS s	suivante :							
Serveur DNS pré <u>f</u> éré :								
Serve <u>u</u> r DNS auxiliaire :								
<u>Valider les paramètres en quittant</u> <u>A</u> vancé								
	OK Annule	r						

• Put IP address: 10.31.0.200 for example and sub-mask 255.255.0.0

4. Auto assign dynamic IP addresses to CobraNet devices

When CobraNet Discovery is used for the first time, IP range must be configured, and IP autoassignment must be enabled, to access devices connected.

To auto assign dynamic IP address to CobraNet devices, process as described below:

1) Select "Tools" and "Options"

40					4 Options	~
445	CopraiNet(tm) l	Discovery				^
Cob	raNet Edit	View Tools Help		_	Network Adapter	
S	IP Address	MAC Address	errorCount	sysDescri		
	192.168.0.1	00602b0691f0	request	request	[0] Intel(R) 82578DM Gigabit Network Connection	•
	192.168.0.4	00602b06b0e4	request	request		
1	192.168.0.2	00602b06b107	request	request	IP Address Range	
	192.168.0.3	00602b06b112	request	request	Start: 192 . 168 . 0 . 1 📝 Enable Auto Assignme	nt
					End: 192 . 168 . 0 . 199 Default	
					Database Location	
					C:\Cirrus Logic\CobraNet Discovery\firmware	
					Default Brow	vse
٠.				_	OK	Cancel
Statu	S		_	_		concer

🗱 Options

2) Remove the "checkmark" in "Enable Auto Assignment"

🗱 Options

Network Adapter

IP Address Range

Database Location

Start:

End:

[0] Intel(R) 82578DM Gigabit Network Connection

C:\Cirrus Logic\CobraNet Discovery\firmware

10 . 31 . 0 . 1

10 . 31 . 0 . 199

Network Adapter [0] Intel(R) 82578DM Gigabit Network Connection • IP Address Range 3) Put the correct IP address range, which Start: . 31 . 0 . 1 Enable Auto Assignment 10 must be in the same domain as computer \times End: 10 . 31 . 0 . 199 Default base Location Ŧ rrus Logic\CobraNet Discovery\firmware Default Browse... Enable Auto Assignment OK Cancel Default Click in "Enable Auto Assignment" to 4) display the "checkmark" Default Browse...

click "OK"

5)

Cancel

OK

6) Power OFF/ON devices which are in the IP address range

 \times

7) When Power ON all the CobraNet devices must have an IP address in the new range and parameters must be seen, like name

4	CobraNet(tm) D	iscovery									
Co	braNet Edit V	/iew Tools Help									
S	IP Address	MAC Address	errorCoun	t sysDescription	sysName	errorCode	condPriority	condStatus	audioAllowedChar	audioTx(audic
	10.31.0.5	00602b0691f0	19190	Cirrus Logic EV-2/	CM18102	0x1827	32	0	32	0	0
	10.31.0.4	00602b06b0e4	2497	Cirrus Logic EV-2/	AxC-CN32IO	0x1022	32	0	32	0	0
	10.31.0.2	00602b06b107	237639	Cirrus Logic EV-2/	toto	0x1022	32	0	32	0	0
	10.31.0.3	00602b06b112	2598	Cirrus Logic EV-2/	AxC-CN32IO	0x3D	33	1	32	0	0

8) CobraNet devices are ready to be configured properly

Notice:

- Dynamic IP addresses auto assigned to CobraNet devices are addresses given by CobraNet Discovery Software. These addresses can be changed manually using the CobraNet Discovery software using "New IP address" command for each CobraNet devices,
- Dynamic IP address are not "persistent" addresses and is not memorized in flash. See in next chapter how to set a "static IP address" using SNMP.

5.1 Introduction

Before set-up parameters, it is important to enable "auto-save parameters", called "Persistence" in CobraNet software for each CobraNet device.

When Persistence is enabled, device name, latency, audio routing and format are saved automatically every minute.

WARNING:

- As save is done every minute, it is important to not power off device before 1 minute after changing parameters.
- If "Persistence" is removed, when device is power off, all the setup is lost. At power ON default values are putting in all parameters.

5.2 Enable "Persistence"

- 1) To enable "Persistence" on one device, double click on the device selected.
- 2) Dialog box "CobraNet configuration" appears:



modeRate Control 48 kHz, 5 1/3 mS

N.A.

N.A.

Motorola

Overloaded

OK

Cancel

Proc Mode N.A.

TagEnable

HMI Mode

FreeCycles NetMask

Apply

Refresh

- 3) Click on "Advanced" button, "persistence" box appears on the top of this new dialog window
- 4) Click on "Persistence" box and the box will be markchecked.

6. Device Name and Latency Settings

You can change the device name and the latency in the advanced window

- Select device and double click on the device selected to get "CobraNet configuration" window (you can also make a right click)
- 2) After click on "advanced button"

Warning: latency must be setup in the same way in all CobraNet devices connected in the same network



7. Audio Routing and format

CobraNet device uses audio bundles to carry audios streams. Each bundle can contain a maximum of 8 streams.

- 1) Select device and double click on the device selected to get "CobraNet configuration" window (you can also make a right click)
- 2) 4 transmit bundles (TX) and 8 receive bundles (RX) are available
- 3) Select TX or RX bundle number

7.1 Transmit Bundle

- 1) Click on "configure" button
- 2) In this new window, you can:
 - a. Change the bundle number
 - b. Change the bit depth (16, 20,24)
 - c. Change the number of stream
- 3) To put the same bit depth for all bundle, you must enable "All Same" box.

Notice:

- Bundle O is an unused bundle never transmitted
- Bundle1-255 are always multicast bundles, transmitted by a single CobraNet interface and received by any number of devices
- Bundle 256-65279 are unicast bundles sent to only one destination

7.2 Receive Bundle

- 1) Select RX number
- 2) Click on "configure" button
- 3) Put the appropriate bundle number
- 4) Patch the bundle channels (Ch) to the inputs (SubMap).

Notice:

- Input 1 is defined as Submap 33
- If a bundle is available with this bundle number and the SubFormat (frequency, bit depth, latency) is compatible, the box on the right will be green, indicating audio is being received correctly
- If the box is red, the SubFormat is not compatible
- If the box is grey the bundle number is not available

🎗 Receiver 1 Configuration — 🗆 🗙							
	Bundle 256						
Ch.	SubMap	SubFormat					
1	33	48 kHz, 20, 5	5 1/3 mS				
2	34	48 kHz, 20, 5	5 1/3 mS				
3	35	48 kHz, 20,	5 1/3 mS				
4	36	48 kHz, 20,	5 1/3 mS				
5	37	48 kHz, 20,	5 1/3 mS				
6	38	48 kHz, 20,	5 1/3 mS				
7	39	48 kHz, 20, 5	5 1/3 mS				
8	40	48 kHz, 20,	5 1/3 mS				
Refresh Apply OK Cancel							

ang man	ismitter i Conn						
	Bundle 256						
Ch.	SubMap	SubFormat					
1	1	20 🗸					
2	2	20 👻					
3	3	20 -					
4	4	20 -					
5	5	20 💌					
6	6	20 💌					
7	7	20 💌					
8	8	20 💌					
	Clear All	All Same 📝					
SubCount 8 🔹							
UniCastMode Never Multicast 🗸							
	MaxUniCast	1					
Re	fresh A	oK Cancel					

8. Dynamic IP address settings

In CobraNet interface, you can have a dynamic IP address and a static IP address

- Dynamic IP address is not saved and disappear when device is power off and CobraNet Discovery software is close.
- Static IP address is saved (if "persistence" mode is enabled)

8.1 Force a dynamic IP address

First, CobraNet discovery auto-assigns IP address. After, you can change these IP addresses

1) Click "OK" New address is assigned

Cob	raNet Edit	View Tools Help				
5	IP Address	MAC Address	errorCoun	t sysDescription	sysName	errorCode
Ø	10.31.0.5	00602b0691f0	19354	Cirrus Logic EV-2/.	. CM18102	0x1827
Ø	10.31.0.4	00602b06b0e4	2497	Cirrus Logic EV-2/.	. AxC-CN32IO	0x1022
Ø	10.31.0.2	00602b06b107	265167	Cirrus Le	ignmen —	X
V	10.31.0.3	006026066112	3028	Cirrus Lo Enter IP	Address	
				10	. 31 .	0 . 125

- 2) Put new IP address in the range defined in the "option" panel
- 3) Click "OK" New address is assigned

Possible Warning

- Error "New Ip address may be unreachable can appear"
- IP address assigned doesn't match with IP address range defined in the option panel

IP Address	MAC Address	errorCount	sysDescription	sysName	errorCode	condPriority	condS	tatus audioAllowe	dChar audio	Tx(audio	R: Tx4
10.31.0.4	00602b0691f0	3684	Cirrus Logic EV-2/	CM18102	0x1827	32	0	32	0	0	0/
10.31.0.3	00602b06b0e4	2491	Cirrus Logic EV-2/	AxC-CN32IO	0x855	32	0	32	0	0	20
10.31.0.102	00602b06b107	Overflow	Cirrus Logic EV-2/	toto	0x1022	32	0	33	0	•	0/0
10.31.0.65	00602b06b112	2645	Cirrus Logic EV-2/	AxC-CN32IO	0x3D	33	E	nter IP Address	0	102	0/
				Warning	address may be	unreachable.	×	OK	Can	cel	-
				[ОК	Annuler					

8.2 STATIC IP ADDRESS

To put static IP on CobraNet device, you must use SNMP module

- 1) Select device and double click on the device selected to get "CobraNet configuration" window (you can also make a right click)
- 2) Click on "SNMP" button

48	CobraNet Con	figuration —		×
IP	Address	Conductor		-
16	59.254.0.4	SNMP Advanced Report	Con	figure
4	🕻 Generic SNM	IP R/W —		×
	Туре	IP RO X	Y	
	OID	1.3.6.1.4.1.2680.1.1.9.2.1.0		
	Value	0.0.0.0		
	Group	Monitor		•
	Variable	ipMonStaticIP		•
	Form OID	Reset OID Put Get	0	К

- 3) In the new dialog box, select "Monitor" in group menu and " ipMonStaticIP" in the Variable Menu
- 4) Click on "get" button to get static IP address. If no static address was wrote, the default address is 0.0.0.0
- 5) Change the address value and click "PUT" button.

🗱 Generic SNN	1P R/W —		\times
Туре	IP RO X	Y	
OID	1.3.6.1.4.1.2680.1.1.9.2.1.0		
Value	169.254.0.65		
Group	Monitor		•
Variable	[ipMonStaticIP		•
Form OID	Reset OID Put Get	OK	

- 6) Click OK
- 7) IP address will change after reboot