CODEC COMMANDER

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ABOUT COMREX

Comrex has been building reliable, high quality broadcast equipment since 1961. Our products are used daily in every part of the world by networks, stations and program producers.

Every product we manufacture has been carefully designed to function flawlessly, under the harshest conditions, over many years of use. Each unit we ship has been individually and thoroughly tested.

Comrex stands behind its products. We promise that if you call us for technical assistance, you will talk directly with someone who knows about the equipment and will do everything possible to help you.

You can contact Comrex by phone at 978-784-1776. Our toll free number in North America is 800-237-1776. Product information along with engineering notes and user reports are available on our website at www.comrex.com. Our email address is info@comrex.com.

I. PREFACE

ABOUT CODEC COMMANDER

Codec Commander is a Microsoft Windows[™] application designed to manage Comrex audio codecs. Codec Commander can provide near-universal control of any Comrex BRIC-Link, BRIC-Link II, ACCESS Portable, ACCESS 2USB, or ACCESS Rack codec.

Codec Commander is compatible with codec firmware 3.x and higher only.

Codec Commander has all the control capability of the built-in, browser-based control page of Comrex codecs. It's a good alternative for those who are concerned about the Adobe Flash[™] based web page.

With Codec Commander, the user can:

- Make connections from Comrex codecs to others
- · Create, edit, and delete profiles and peers
- Monitor audio levels across all hardware
- Monitor delay and frame loss on devices
- If utilized, monitor CrossLock connections and statistics
- Schedule connections between units on a one-time or a recurring basis

Codec Commander cannot adjust or enable any network devices or settings. Network setup must take place on the codec's direct control interface or via Comrex's **Device Manager** application.

INSTALLATION

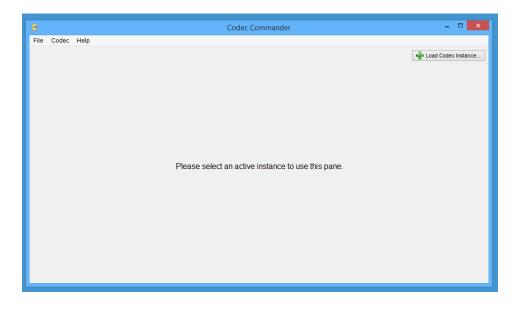
Codec Commander is installed via a Windows executable file that is downloaded from the Comrex website. It has been tested to work properly under Windows 7, 8 and 10. On launching the executable, Windows may provide a warning that the publisher is unknown. You must agree to install Codec Commander, and agree to the End User License Agreement when it is presented. You will be prompted for an install directory (default is **C:\Program Files (x86)\Comrex\Codec Commander**) and asked whether you want to add the program to the Start menu. Once installed, find Codec Commander in your Start menu or in the install directory and run it.

INSTANCES

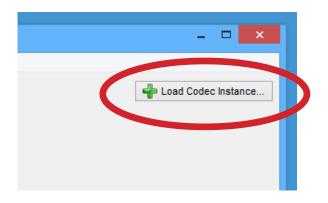
A connection from Codec Commander to a codec is called an instance.

ADDING DEVICES TO CODEC COMMANDER

Once launched, Codec Commander will open as shown below.



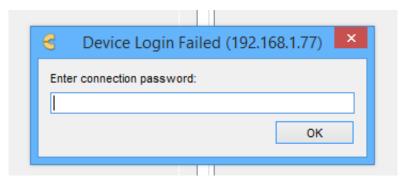
From here, click on the button in the top right named Load Codec Instance...



A popup with two fields will appear. Enter your device's IP into the IP box, its port number into the port box, and click **OK**. If the device is reachable, has remote control enabled, and the unit password is still the default password, the device will load successfully.

٢	Connect to Codec ×
IP Address	192.168.1.77
Port	80 Firmware 4.0 defaults to port 80. All other firmware defaults to 8080.
	Cancel OK

If the unit has an alternate password, then the connection will fail and a pop-up asking for the correct password will appear.



Once your unit is successfully loaded, the Codec Commander screen will populate the codec's information as shown below.

3	Codec Commander	- 🗆 🗙
File Codec Help NicoleR (192.168.1.77:80) Connections Statistics Settings Crosslock Log Meters		Losd Codec Instance
Remote Access Units Address Loopback 127.0.0.1 Comrex Lab Voice 70.22 155.132 ★ ACCESS Rack #3 ★ ★ Conference Room ACCESS	Current State RX Codec Crosslock No No Local disconnect Yes Yes Ves Current State RX Codec Crosslock No Local disconnect Yes Ves No Local disconnect Yes CAC Mono HE-AAC Stereo HE-AAC Stereo HE-AAC V2 Stereo AAC-ELD Mono AAC-ELD Mono AAC-ELD Mono AAC-ELD Mono AAC-ELD Stereo Linear PCM FLAC OPUS Mono EBU 3326/SiP OP	System Status Current Encoder None Switchboard Server Online SIP
Type here to filter the Remote Access Units	Type here to filter the	NAT Type Symmetric NAT

III. CONTROLLING AND MANAGING YOUR CODEC

ADDING PEERS (REMOTES)

To add a peer to the device's peer list, click "Codec" menu option and then select **Add Peer**. Fill out the form that appears (unit name, IP address, etc.) and click **OK**. The peer will be added to the device.

🚭 Codec Co	mm	ander					– 🗆 X
File View	Co	dec Help					
Spiderman's	\odot	Load Codec Instance	Ctrl+N				🚽 Load Codec Instance
Connections	٢	Disconnect from Codec Instance	Del				
Remote		Copy MAC Address			Profiles		
Name	۲	Duplicate Profile	e	RX (^	<custom mono="" opus=""></custom>	^	Connect
Loop	~	Edit Profile			AAC Mono Simplex		
Com	×	Edit Profile			(remote control)		
Com		Add Peer			(remote control)		Disconnect
74.94	•				AAC Dual Mono		Bioconnicot
192.		Edit Peer			OPUS Mono Simplex (receiving only)		
С	v	Disable Metering			100 ms OPUS Mono		
(rem	^	Disable Metering			Copy of AAC Mono		
Test		Disable Logging			Copy of AAC Stereo		
AR 4		Disable Logging			Custom 2 OPUS Mono		
BLII		Set Alert Sounds			Custom 3 AAC Stereo		
					Custom 11 AAC Dual Mono		

ADDING PROFILES

To add a profile to the active device's profile list, you must make a copy of an existing profile. First, select a profile that roughly matches the one you would like to create. Next, right click that profile and select **Duplicate Profile** from the drop-down menu.

		- 🗆 🗙
	[Load Codec Instance
Profiles		
3G AAC-ELP BGAN A CO	Duplicate Profile	Connect
POTS	Luit rome	
<aac mon<br="">AAC Stere</aac>	Assign Profile to the selected Peer	connect
HE-AAC M	Set this as the Unit's Default Profile	
HE-AAC S HE-AAC V	Conv Drofile to	
HE-AAC V.	Copy Profile to	1 Status
AAC-LD S 👄	Remove Profile	
AAC-ELD Mono		ent Encoder
AAC-ELD Stere	0 None	

A new profile (same name as the profile copied with the text "(**Copy**)" added to the end) is created and will appear in your **Profiles** list.

EDITING PROFILES

Right click the profile you wish to edit and select **Edit Profile** from the drop-down menu. A profile editor will pop up. Use the profile editor to make your desired changes and then click **Save**.

Z	Profile Editor	×
Profile Settings		Edit Setting
Global Settings Profile Name Channel Local Settings Connection Timeout Encoder Transmit On/Off Remote Settings Connection Timeout Encoder Transmit On/Off Transmit On/Off Show Advanced Settings	3G AAC-ELD (Copy) BRIC Normal 60 J4: AAC-ELD Mono 24Kb On 60 J2: AAC-ELD Stereo 64Kb On	Configurable name for this profile. Current Value 3G AAC-ELD (Copy) 3G AAC-ELD (Copy) Clear Text
		Cancel Save

For more information on **Profiles** and settings associated with them, please consult your product manual.

NOTE: You cannot remove or edit factory profiles, but you can duplicate a factory peer and edit the duplicated profile.

REMOVING PEERS/PROFILES

Right click the peer/profile you wish to remove and select **Remove Peer** or **Remove Profile** from the drop-down menu. Confirm action to delete the peer/profile by selecting **Yes** on the pop-up dialogue box.

ADDING LICENSES

Codec Commander allows you to add licensed features to Comrex hardware. License keys are provided by Comrex support for specific features like Switchboard and specific encoders (If not included by default).

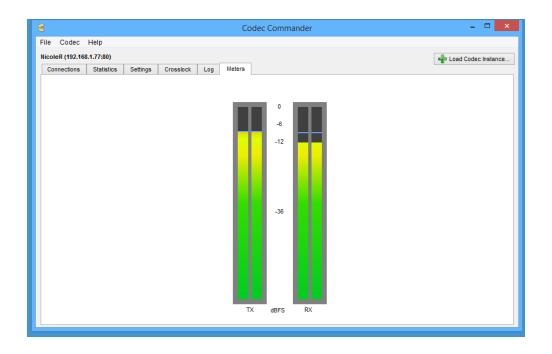
To add licenses to a device under Codec Commander, click on the **System Settings** tab and then click on the **Device Licenses..** button in the bottom right.

The next window popup is where you can view and apply licenses to the units.

System Settings		Edit
BRIC Normal	~	Please select a setting to edit.
Acc 🧧 Software Licensing 🛛 🗙		
▲ Conne		
Alw Node ID		
PO1 00:05:b7:e3:32:6d		
Uni		
Applied Licenses		
CC AAC Encoder		
Cor Switchboard Server		
Cor		
Cor		
Cor		
Cross License Code		
Alw		
Ena		
Rec		
Ret		
4 EBU 3	~	
Show A Apply License Code		
Show A Apply License Code		
		Device Licenses
		Derios Electrosol

METERING

This feature can consume a fair amount of bandwidth, and requires a well performing network to work correctly. By default, metering is turned on.



To disable metering, select Codec from the top menu and select "Disable Metering."

3						Co	dec	Com
File	Code	ю	Help					
Re		Dis Coj Duj Edi Ado	ad Codec Instance connect from Codec Instan by MAC Address olicate Profile t Profile I Peer t Peer able Metering	ICE	Ctrl+N Del	Meters 55 0.1 155.131 155.132 6.196.17 50.178		Prot 3G) 3G) 3G) 4GA AAC HE- HE- AAC AAC AAC AAC AAC AAC AAC AAC EBL
<	2					>	~	
Ту	ype her	e to	filter the Remote Access Units	3				Туре

To re-enable it, select **Codec** from the top menu and select **Enable Metering**.

3						Co	dec	Comman
File	Coo	lec	Help					
Nicol	0		ad Codec Instance sconnect from Codec Instan	се	Ctrl+N Del	Meters		
R		Du	py MAC Address plicate Profile it Profile			.0.1 .155.131	^	Profiles 3G AAC-E 3G AAC-E BGAN AA
	٢	Ed	d Peer it Peer			.155.132 6.196.171 .50.178		POTS <aac mo<br="">AAC Ster HE-AAC</aac>
		En	able Metering					HE-AAC HE-AAC AAC-LD I AAC-LD : AAC-ELE AAC-ELE Linear Pi FLAC OPUS Mi EBU 332

SETTINGS

Codec Commander allows you to change your device settings. These settings are the same available via the unit's Web-based Interface or touchscreen Interface (if ACCESS 2USB Portable), and are described in the user manual for the codec. To modify device settings, click the **Settings** tab. Choose a setting on the left panel, and edit it in the right panel. When you're finished changing your settings, click the **Save** button. If you wish to discard your changes, press the **Reset** button.

leR (192.168.1.77:80)			🚽 Load Codec Instanc
onnections Statistics Settings	Crosslock Log Meter	S	
System Settings			Edit
BRIC Normal		^	Please select a setting to edit.
Accept incoming connections	Enabled		
Connections			
Always Connect To	(No Peer)		
Incoming Connection Passw.			
POTS Modem Tones	Not Enabled		
Unit Name	NicoleR		
Contact Closures			
CC Connect Status	Not Enabled		
Connect on CC1	(No Peer)		
Connect on CC2	(No Peer)		
Connect on CC3	(No Peer)		
Connect on CC4	(No Peer)		
 Crosslock 			
Always Connect	(none)		
Enable	Enabled		
Encoder Throttle	Enabled		
Redundant Transmission	Off		
Retransmit delay	2xRTT		
EBU 3326/SIP		¥	
Show Advanced Settings	Save	Reset	

TIP: If you are editing the settings of a device, and someone saves edits to the same device, your edits will be overwritten. It is best to only control a device with one app at a time.

WARNING: The Settings editor, (under **Security**), allows you to change a setting titled **Remote Control**. Exercise caution when setting this to **false**. If you do, this will disable the mechanism by which every interface, including Codec Commander, can operate this device. The only way to re-enable this feature is to re-enable it on the device's console GUI which requires you have physical access to the device.

Codec Commander – 🗆								
le Codec Help								
coleR (192.168.1.77:80)				👆 Load Codec Instance				
Connections Statistics Settings	Crosslock Log Meter			Toad Codec Instance				
connections Statistics Settings	Crossiock Log Meter	5						
System Settings				Edit				
A count in committee count of the count	Not Enabled		<u>^</u>	This enables remote control and firmware update				
Accept incoming connections				functionality.				
Incoming Connection Profile SIP Password	EBU 3326/SIP OPUS Mo	no						
SIP Password SIP Proxy Address								
SIP Proxy Address SIP Username				Current Value Enabled				
Use SIP Proxy	Not Enabled			Default Value Enabled				
▲ HTTP	NotEnabled							
Accept incoming connections	Enabled			Enabled				
Encoder	AAC Stereo 128Kb							
A Modem	AAC SIETEO TZOND							
Accept incoming connections	Enabled							
 Accept incoming connections Security 	Lilableu							
Remote Control	Enabled							
Remote Control Password	xermoc							
▲ Standard RTP	Xermoe							
Accept incoming connections	Enabled							
Incoming Connection Profile	None							
 Switchboard Server 	-							
Show Offline Units	Not Enabled							
Switchboard Enabled	Enabled		\checkmark					
Show Advanced Settings	Save	Reset		Default				
				Device Licenses				
				Device Licenses				

FIGURE 1 REMOTE CONTROL SETTING

CONNECTING

Select a device the **Connections** tab and choose a peer from the list. The **Connect** button should light up. Press the **Connect** button to establish a connection.

Note that each outgoing peer needs to have a profile assigned to it (otherwise the **default** profile is chosen). If a profile has been pre-assigned to the outgoing peer, it will be highlighted in the profile list on the right side. You can change the selected profile by choosing another option on the right.

DISCONNECTING

Select the peer you'd like to disconnect from. The **Disconnect** button should light up. Press the **Disconnect** button to disconnect from that peer.

USING AND SETTING THE DEFAULT PROFILE

Devices have a default profile that will be assigned is another profile is not assigned to the codec. You may assign the default profile to a peer by right clicking the peer and choosing **Assign the Default Profile to this peer**. You may change the device's default profile by right clicking the desired profile and choosing **Make this the Default Profile**.

SWITCHBOARD PEERS

Switchboard is an optional feature. It employs a cloud-based server that synchronizes with a codec fleet, displays presence information, and aids in connection.

Codec Commander handles Switchboard functionality. On configured and licensed units, Switchboard peers appear in the **Connections** peer list. Switchboard peers have colored asterisk icons next to their name in the peer list. A gray icon indicates the remote peer cannot reach the Switchboard server. A red icon indicates the remote peer is online, but a network path to the peer is not available via Switchboard.

coleR (192.1	69 4 77-90)				
Connections		Settings	Crosslock	Log	Meters
				209	
Remote Ac	cess Units —				
Name				Addre	ss
Loopt	back			127.0	.0.1
Comr	ex Lab Voice			70.22	.155.13
	ex Lab Music onference Ro		70.22	.155.13	

CROSSLOCK

Firmware version 4.0 and higher offers a reliability feature called CrossLock. This is an entirely new transport layer that adds the following features:

- Error Correction (ARQ and FEC)
- Dual Network support (Bonding and Redundancy modes)
- Enhanced statistics and diagnostics

Use of CrossLock is optional, and requires a Comrex codec running firmware 4.0 or higher on each end of the link.

ड	Codec Commander	- • <mark>· ×</mark>
File Codec Help		
ACCESS Rack #3		Load Codec Instance
Connections Statistics Settings Crosslock Log Meters		
Utilization		
		57
		Kbps
		0
Loss / Late / Recovery		
		100%
		(1) Ethernet Port>AirCard 340U
		0% (0) Ethernet Port>PICASO LTE Adapter
Oms	Delay	2000ms
Automatic Delay Mode	 Transmit 	○ Receive
L		

FIGURE 2 CROSSLOCK TAB

If CrossLock is utilized, the **CrossLock** tab will show real-time statistics from the CrossLock layer. This includes error correction activity as well as how data is allocated if using multiple networks. The data rate graph moves from right to left over a window of 60 seconds, and has different colors to indicate the total data rate used for each network. CrossLock is able to provide these graphs for both directions in the link. The user can choose between transmit and receive statistics.

In addition to the data rate, the lower half of the graph is dedicated to displaying the status of IP packets that are late, lost or recovered with color-coded bars. It's a visual illustration of the effectiveness of

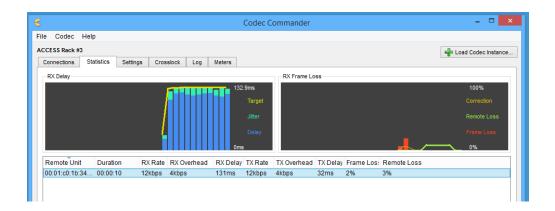
CrossLock's error protection in action. Deep red indicates lost packets that could not be recovered, bright red indicates packets that were too late to be useful, and green indicates successfully corrected packets. The vertical axis of this graph is percentage of affected packets in a one second window. If this graph shows lots of activity, it's time to troubleshoot your network(s) for data loss.

The **CrossLock** tab has a delay slider bar in the lower half of the tab. This gives a visual indication of the delay calculations being made by the CrossLock algorithm, while giving the user the ability to override them by unchecking the Automatic Delay Mode checkbox if desired.

Consult your product manual for more details on CrossLock.

STATISTICS

Codec Commander offers connection statistics similar to the ones provided by the ACCESS, BRIC-Link and BRIC-Link II web interfaces. To view these stats, click on the **Statistics** tab. This tab displays two graphs that represent the quality of the incoming connection as well as details on both the Local (TX) and Remote (RX) ends of the connection.



Note: If you are using firmware 4.0 and higher and are utilizing CrossLock, it is recommended that you use the **CrossLock** tab to monitor statistics. The **CrossLock** tab displays finer details about network utilization and performance and allows you to drill down into individual networks if multiple networks are being used.

SCHEDULING CONNECTIONS BETWEEN UNITS

Codec Commander allows users to schedule the timing and duration of connections between units. These connections can be made on a one-time basis or on a recurring daily or weekly basis. This means that customers who regularly establish connections between given Comrex units (e.g., daily or weekly radio broadcasts) only need to set up the scheduled connections between their units once and no longer have to manually establish these connections.

IV.

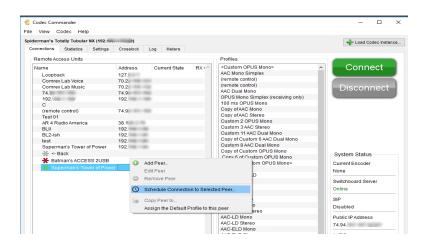


FIGURE 1 SELECT THE TARGET PEER UNIT

To schedule a connection, first right click on the unit that will establish the connection (i.e., the unit that will "make the call") and select "Schedule Connection" as shown in Figure 1.

lerman's Totally Tubular NX (192.		🚽 Load Codec Inst
ennections Statistics Settings	Crosslock Log Meters	
Remote Access Units	Profiles	
Name	Address Current State RX (Custom OPUS Mono> A	Connect
Loopback	CodecCommander	×
Comrex Lab Voice		
Comrex Lab Music		ect
74	Target Peer	
192.		
с	Superman's Tower of Power	
(remote control) Test 01	Landonumentalitation	· · · · · · · · · · · · · · · · · · ·
AR 4 Radio America	Force Connection (disconnects all peers when the event starts)	
BLII	Scharge Recurrence	
BL2-ish		
test	Start On't Repeat	
Superman's Tower of Power	Calendar 11/2/2018 3:00 PM Calendar Calendar	
⅔ <- Back	End O Repeat Weekly	
★ Batman's ACCESS 2USB		
🌟 Superman's Tower of Pow	an Calendar 11/2/2018 4.00 PM	

FIGURE 2 SCHEDULE THE DATE/TIME THE CONNECTION WILL BEGIN AND END

Next, select the dates and times when the connection will begin and end using the buttons on the left side of the screen as shown in Figure 2 above.

erman's Totally Tubular NX (1	92.		🚽 Load Codec Insta
nnections Statistics Set	ings Crosslock Log Meters		
Remote Access Units		Profiles	
Name Loopback	CodecCommander	×	Connect
Comrex Lab Voice Comrex Lab Music 74. 192.	Target Peer		Disconnect
С	Superman's Tower of Power	-	
(remote control) Test 01	Force Connection (disconnects all peers when the	event certs)	
AR 4 Radio America	Schedule	Recurrence	
BLII	Start		
BL2-ish test		O Don't Repeat	
test Superman's Tower of Por	Calendar 11/2/2018 5:28 PM	Repeat Daily	
-# <- Back	End	Repeat Weekly	System Status
* Batman's ACCESS 2	Calendar 11/2/2018 6:28 PM 🜩		
* Superman's Tower of		Repeat Until	Current Encoder
		Calendar 11/2/2018 6:28 PM	None
		Repeat Forever	Switchboard Server
			Online
			SIP
			Disabled

FIGURE 3 SCHEDULE A REPEAT CONNECTION

By default, scheduled connections are not set to repeat. If you want a connection to recur on a daily or weekly basis, select the relevant option on the right side of the screen, as well as the date and time when the recurring connection will end (if applicable), as shown in Figure 3.

If you want the connection to continue on a standing basis check the "Repeat Forever" box.

Note: Recurring connections will continue as specified by the user <u>unless the target peer unit is moved</u> <u>or otherwise acquires another IP address</u>. If this happens, the user will need to reschedule the recurring connection using the target peer unit's new IP address.

Please note: <u>Codec Commander **must** be running for scheduled connections to be initiated or ended.</u> If the program is not running it will **not** establish or end the connections as scheduled. If Codec Commander is turned on after a connection was scheduled to begin, it will then attempt to connect to the target peer unit. Likewise, if the program is turned on after a connection was supposed to have ended, it will then proceed to end the connection. If Codec Commander is closed after a connection has begun but before it has ended, it can still end the connection as scheduled <u>as long as the program is</u> <u>restarted **before** the scheduled end-time</u>.

PEER/PROFILE FILTERING

You can filter the peer and profile lists on the **Connections** tab by typing in the boxes underneath each list. This makes it easier to find what you're looking for on systems with many peers and profiles. Filters that yield no results cause the background to turn red. When a filter is active, the filter box background becomes bright yellow. To remove the filter, simply remove all text from the appropriate filter box.

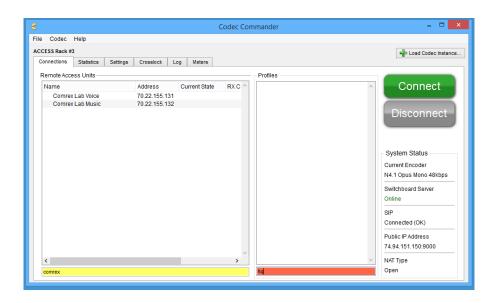


FIGURE 4 FILTERING

RESIZING THE PANES

The height of the summary and details panes can be modified by finding the spot between these two windows where the mouse cursor changes from a regular arrow to a vertical resize icon, and click and drag to adjust the interface. Either pane can be hidden by resizing it all the way to zero. To unhide a hidden pane, simply find the resize spot and drag it to open the hidden pane.

RECOMMENDED SYSTEM

Codec Commander currently runs on Windows 7, 8 and 10. We recommend using a system with a strong network connection and at least 2GB of RAM. We <u>strongly recommend</u> using a monitor with a resolution of at least 1024px by 768px.

LOGGING

The Logging feature allows a user to log all activity while the feature is enabled and to view all activity on the unit since they last logged into it. The log contains valuable information like when audio connections start and stop and when a connection loss percentage reached a significant threshold. Customers can use the log to debug connection failures and to determine if an audio connection dropped due to user error or bad network conditions.

	Coo	ec Help			
iderman's	٢	Load Codec Instance Ctrl+N			- Load Codec Instant
Connections	0	Disconnect from Codec Instance Del			
Remote		Copy MAC Address		Profiles	
Name	0	Duplicate Profile	e RXIA	<custom mono="" opus=""></custom>	Connect
Loop		Edit Profile		AAC Mono Simplex	
Com		Edit Frome		(remote control)	
Com	0	Add Peer		(remote control)	Disconnect
74.9				AAC Dual Mono	Disconnect
192.		Edit Peer		OPUS Mono Simplex (receiving only)	
С	×	Disable Metering		100 ms OPUS Mono	
(rem	^	Disable metering		Copy of AAC Mono	
Test		Enable Logging		Copy of AAC Stereo	
AR 4	-	Endore Logging		Custom 2 OPUS Mono	
BLII		Set Alert Sounds		Custom 3 AAC Stereo	
BL2-	ish		_	Custom 11 AAC Dual Mono	
test		1000-1000-1000		Copy of Custom 6 AAC Dual Mono	
Supe	ermar	's Tower of Power		Custom 8 AAC Dual Mono	
	- Ba	*		Copy of Custom OPUS Mono	System Status
*	Batma	in's ACCESS 2USB		Copy 6 of Custom OPUS Mono	
	Runer	man's Tower of Power Local disc	connect	Copy of <custom mono="" opus=""></custom>	Current Encoder
	Buper	man's Tower of Power Local disc	connect	3G AAC-ELD	None Current Encoder
	Buper	man's Tower of Power Local disc	connect	3G AAC-ELD BGAN AAC-ELD	None
	Super	man's Tower of Power Local disc	connect	3G AAC-ELD BGAN AAC-ELD POTS	None Switchboard Server
	Buper	man's Tower of Power Local disc	connect	3G AAC-ELD BGAN AAC-ELD POTS AAC Mono	None
	Super	man's Tower of Power Local disc	connect	3GAAC-ELD BGAN AAC-ELD POTS AAC Mono AAC Stereo	None Switchboard Server Online
	Super	man's Tower of Power Local disc	connect	3G AAC-ELD BGAN AAC-ELD POTS AAC Mono AAC Stereo HE-AAC Mono	None Switchboard Server Online SIP
	Buper	man's Tower of Power Local disc	connect	3G ÅAC-ELD BGAN AAC-ELD POTS AAC Mono AAC Stereo HE-AAC Mono HE-AAC Stereo	None Switchboard Server Online
	Super	Local disc	connect	3GÅAAC-ELD BGAN AAC-ELD POTS AAC Mono AAC Stereo HE-AAC Mono HE-AAC Stereo HE-AAC V2 Stereo	None Switchboard Server Online SIP Disabled
	Super	Local disc	connect	3G ÅAC-ELD BGAN AAC-ELD POTS AAC Mono AAC Stereo HE-AAC Mono HE-AAC Stereo	None Switchboard Server Online SIP Disabled Public IP Address
	Super	man's Tower of Power Local day	connect	3GAAC-ELD BGAN AAC-ELD POTS AAC Mono AAC Stereo HE-AAC Stereo HE-AAC Stereo AAC-LD Mono	None Switchboard Server Online SIP Disabled
	Super	Local disc	connect	3GAAC-ELD BGAHAC-ELD POTS AAC Mono AAC Stereo HE-AAC Mono HE-AAC Stereo HE-AAC 2 Stereo AAC-LD Mono AAC-LD Mono AAC-LD Stereo	None Switchboard Server Online SIP Disabled Public IP Address 74.94.
	Buper	man's Tower of Power Local day	connect	3GAAC-ELD BGANAC-ELD POTS AAC Mono AAC Stereo HE-AAC Stereo HE-AAC V3 Stereo AAC-LD Stereo AAC-LD Stereo AAC-LD Stereo AAC-LD Stereo	None Switchboard Server Online SIP Disabled Public IP Address 74.94. NAT Type
	Buper	mari's Tower of Power Local das	connect	3GAAC-ELD BGANAC-ELD POTS AAC Mono AAC Stereo HE-AAC Mono HE-AAC Stereo HE-AAC 2 Stereo AAC-LD Mono AAC-LD Mono AAC-LD Stereo AAC-ELD Mono AAC-ELD Stereo	None Switchboard Server Online SIP Disabled Public IP Address 74.94.
	Super	man's Tower of Power Local dec	sonnect	3GAAC-ELD BGANAC-ELD POTS AAC Mono AAC Stereo HE-AAC Mono HE-AAC Stereo AAC-LD Mono AAC-LD Stereo AAC-LD Stereo AAC-ELD Stereo Linear PCM	None Switchboard Server Online SIP Disabled Public IP Address 74.94. NAT Type Symmetric NAT

FIGURE 5 ENABLING LOGGING

To enable logging, click the "Codec" menu option in the upper left and select "Enable Logging" as shown in Figure 5.

The logging function works best when it's used for specific purposes and durations. Normal operations don't require the use of a log. Because of this, and because the device log can grow to be 1,000 lines long and clog up the XML connection between Codec Commander and the device, **Comrex recommends that users disable logging when they've finished using it**.

The process for disabling logging is the same as for enabling it, except that the user should select "Disable Logging" instead.

	ir NX (192.								 Load Co	dec Instr	ine
Connections Statistics	Settings	Crosslock	Log	Meters							
Wed, 31 Oct 2018 21:04	27:										^
Wed, 31 Oct 2018 21:04 Wed, 31 Oct 2018 21:04		rk interfaces c	hanged,	1 available							
Thu, 01 Nov 2018 15:38			to flash								
Thu 01 Nov 2018 16:04											
Thu, 01 Nov 2018 16:30											
Thu, 01 Nov 2018 16:52:											
Thu, 01 Nov 2018 16:57:											
Thu, 01 Nov 2018 17:00:											
Thu, 01 Nov 2018 17:01:											
Thu, 01 Nov 2018 17:02:											
Thu, 01 Nov 2018 17:04 Thu, 01 Nov 2018 17:04											
Thu, 01 Nov 2018 17:04 Thu, 01 Nov 2018 17:08											
Fri. 02 Nev 2018 17:21:0											
Fri 02 Nev 2018 17 21:0											
Fri. 02 Nev 2018 17:21:0					connect rea	Instead					
Fri 02 Nev 2018 17:21:0											
Fri. 02 Nov 2018 17:21:0	crosslock sid	3584 state ch	anging S	earching -> 4	Connecting						
Frl, 02 Nov 2018 17:21:0											
Fri, 02 Nov 2018 17:21:0	crosslock sid	3721 state ch	anging C	onnecting ->	Authenticat	ing					
Fri, 02 Nov 2018 17:21:1						cated					
Fri, 02 Nov 2018 17:21:1					-> Active						
Fri, 02 Nov 2018 17:21:1 Fri, 02 Nov 2018 17:21:1				9							
Fri. 02 Nov 2018 17:21:1											
Fri. 02 Nov 2018 17:21:1	s peer 100 star	us changed co	medure m (adda	quested -> c	onnected		 	in .			
Fri. 02 Nov 2018 17:21:1				aa-trac							
Fri 02 New 2018 17 21 3				nect							
Fri. 02 Nev 2016 17:21:3	peer 100 cha	nnel state Loc	discon	nect							
Fri. 02 Nov 2018 17:21:3	2: peer 100 stat	us changed co	nnected	-> network	disconnectio	9					
Fri, 02 Nov 2018 17:21:3						-					
Fri, 02 Nov 2018 17:22:0			vork dis	connecting	- disconnec	ting					
Fri, 02 Nov 2018 17:22:0											
Fri, 02 Nov 2018 17:22:3						t' retry=0					
Fri, 02 Nov 2018 17:22:3				ctive -> Retir	ed						
Fri, 02 Nov 2018 17:22:3 Fri, 02 Nov 2018 17:22:5											

FIGURE 6 SAVING LOGS

The best way for users to maintain longterm records of a unit's performance is to save the unit's logs on a regular basis. To do this, select the "Log" tab in the middle of the screen and click the "Save" button in the lower right corner, as shown in Figure 6. The log will be saved as a .txt file.

derman's Totally Tubula	r NX (192	-				- Aller and A	ad Codec Ins	
onnectiona Statiatica		rosslock Log	Meters			- Sector	ad codec ins	
Wed, 31 Oct 2018 21:04:	27:							^
Wed, 31 Oct 2018 21:04:		nterfaces change	d, 1 available					
Wed, 31 Oct 2018 21:04:								
Thu, 01 Nov 2018 15:38:1								
Thu, 01 Nov 2018 16:04:								
Thu, 01 Nov 2018 16:30:								
Thu, 01 Nov 2018 16:52:1								
Thu, 01 Nov 2018 16:57:4								
Thu, 01 Nov 2018 17:00:								
Thu, 01 Nov 2018 17:01:1								
Thu, 01 Nov 2018 17:02:4								
Thu, 01 Nov 2018 17:04:								
Thu, 01 Nov 2018 17:04:								
Thu, 01 Nov 2018 17:08: Fri 02 Nov 2018 17:21:01								
Fri. 02 Nov 2018 17:21:01				ver				
Fri. 02 Nov 2018 17 21:01 Fri. 02 Nov 2018 17 21:01								
Fri 02 Nov 2018 17:21:01				> connect request	60			
Fri. 02 Nov 2018 17:21:01				Connection				
Fri 02 Nov 2018 17:21:01				Connecting				
Fri. 02 Nov 2018 17:21:01				< Authentication				
Fri 02 Nev 2018 17 21:10								
Fri 02 Nev 2018 17 21 1								
Fri. 02 Nov 2018 17:21:15				0.000				
Fri 02 Nev 2018 17 21:11								
Fri. 02 Nov 2018 17:21:15				connected				
Fri. 02 Nev 2018 17:21:15								
Fri. 02 Nov 2018 17:21:18	concer 100 decode	c stabilized						
Fri. 02 Nov 2018 17:21:3			annect					
Frl. 02 Nov 2018 17:21:33								
Fri. 02 Nov 2018 17:21:3	2: peer 100 status	changed connect	ed -> networ	disconnecting				
Fri, 02 Nov 2018 17:21:33								
Fri. 02 Nov 2018 17:22:03	2: peer -1 status of	hanged network (isconnecting	-> disconnecting				
Fri, 02 Nov 2018 17:22:03								
Frl. 02 Nov 2018 17:22:34					try=0			
Fri, 02 Nov 2018 17:22:34			Active -> Re	tired				
Fri, 02 Nov 2018 17:22:3-								
2018 17:22:51): committing confie	changes to flas	1					

FIGURE 7 RESETTING LOGS

In order to ensure optimal performance in Codec Commander, Comrex also recommends that users reset their logs after they've saved them. To do this, users should follow the process to save their log, but press the "Reset" button in the lower left corner instead (Figure 7).

Note: Codec Commander will automatically reset the unit's log once it reaches the maximum size of 1,000 lines. Any log information that hasn't been saved at that point will be lost.

FAQ

What is Codec Commander?

Codec commander is an application that lets you manage and operate ACCESS and BRIC-Link products.

Does it run on Windows? Yes.

Does it run on OS X?

Not yet, but we are working on a port that will run on intel-based Mac computers.

Does it run on Linux?

We aren't planning on it, but it isn't impossible.

What does Codec Commander control?

Codec Commander will manage all ACCESS codecs, BRIC-Links and BRIC-Link IIs running firmware versions 3.x and higher.

Can I change device settings in Codec Commander?

Yes.

Can I monitor audio meters in Codec Commander?

Yes! Audio metering is shown on the Meters tab.

COMREX CORPORATION

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