

DANTE.IO

User's Manual





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DANTE.IO

Introduction

DANTE.IO is an audio network module for Dante / AES67. It is hosted in a PRODIGY mainframe.

All functions of the device are managed via the Dante Controller application.

To control the functions of the host device connect your computer with the management network port (MGMT) and use the globcon application.

Dante Controller

To control a Dante network the application 'Dante Controller' needs to run on a computer that is connected to the audio network.

The software is available from the Audinate website (requires a free registration): https://www.audinate.com/products/software/dante-controller

A detailed documentation about using Dante Controller is available here: https://dev.audinate.com/GA/dante-controller/userguide/webhelp/

At startup Dante Controller scans the network for connected Dante devices a shows them automatically in the 'Network View'.

The IP address of a Dante device must fit into the network environment for proper operation of a Layer 3 based network. However Dante Controller will mark a device entry red if the IP Address is not matching the network environment and helps resolving the issue.



ΝΟΤΕ

DANTE.IO supports control via Dante Domain Manager.

When a device is enrolled in a domain, it can be viewed and configured in Dante Controller only by DDM users that are members of the domain.

To use an enrolled device outside of the domain it is required to un-enroll it from DDM first or to reset the device via Dante Controller.

User Guide 'Dante Domain Manager' (Chapter: Enrolling Devices in Domains) https://www.audinate.com/learning/technical-documentation

Network View

The 'Network View' is organised in several tabs. All detected Dante devices are shown on a list.

			Dante	Controller - Net	work View				
File Device View	Help								
🛛 🔗 🖬 ★	# ⊠ ⊞	۵ ۵		G	rand Master Clock	PRODICY-14a	99c		?
		Routing	Device Info	Clock Status	Network Status	Events			
Device Name	Model Name	Product Version	Dante Version	Device Lock	Primary Address	Primary Link Speed	Secondary Address	Secondary Link Speed	
EXBOX-MD	EXBOX.MD	1.0	4.2.0.28		192.168.74.118	1Gbps	N/A	N/A	
PRODIGY-14a99c	PRODICY	1.0	4.0.9.1		192.168.74.33	1Gbps	N/A	N/A	

The DANTE.IO is delivered with the network interface set to DHCP as a default. Dante Controller can be used to discover the device on the network and change the IP configuration if necessary - see "Network Config" on page 8.

Clock Status

The tab 'Clock Status' informs about the clock settings of each connected device and allows to modify them.

• • •						Dante	Controller - Netw	ork View					
ile Device View	Hel	p 83	(FF)		69		Gr	and Master Cloc	k: PRODICY-1	4a99c			2
		-		•				and marter croc	A. THODIGI'''				
Denice				KO	Clock	Device Into	Primary	Reimany	Events	Secondary	Prefe	Eastela Sumr	
Name	Sync		Mute		Source	Status	v1 Multicast	v2 Multicast	v1 Multicast	v2 Multicast	Mast	To External	
EXBOX-MD					Dante	N/A	Slave	Disabled	N/A	N/A			
PRODICY-14a99c					Dante	N/A	Master	N/A	N/A	N/A	a		
P: 冒							Unmanaged M	Multicast Bandwi	idth:0 bps E	vent Log: 📒 C	lock Sta	itus Monitor	

'Preferred Master' sets the device as PTP Grandmaster in the network

'Enable Sync to External' allows to clock the device from an external source that is defined in the clock settings of PRODIGY- e.g. AES, MADI or internal. The device shall become Grandmaster of the network then.



Routing

The audio signal routing is accessible in the tab 'Routing'



'Dante Receivers' in the vertical column displays the receiving devices (= destinations).

'Dante Transmitters' in the horizontal row displays the transmitting devices (= sources).

The channel list can be expanded or collapsed for each device.

Connections are made by clicking into the matrix.



ТІР

To patch a 1:1 connection: Hold CTRL + Click the minus-symbol

To un-patch a 1:1 connection: Hold CTRL + SHIFT + Click the minus-symbol



Device View

The 'Device View' is also organised in to several tabs. It can be opened by double-clicking on to a device name in the 'Network View'.

🖉 👁 🛥 🔒 🚡	PRODIG	Y-14a99c 🙄	
Receive Transmit Status	Latency Device Config	Network Config	AES67 Config
Device Information			
N. N	Aanufacturer: DirectOut Tech	inologies	
Pro	duct Version: 1.0		
Soft	ware Version: 1.0.0		
Dense information			
-Dance information	1200-01200	10000	
D	Model: Brook ante Firmware Version: 4.0.9	dyn ≣ .1	
	Hardware Version: 4.0.2	.7	
	ROM/Boot Version: 1.3.6	•	
Clock Synchronisation			
Mute Status:	Unmuted		
External Wor	d Clock: No		
Preferred:	Yes first: 0 com		
riedeency.o	user o ppm		
Interfaces			
IP Ad	Idress: 192.168.74.33		1.
P 1G Tx Utilis	sation: 94 Mbps Errors: 0	Clear Co	unters
Rx Utilis	sation: 5 Mbps Errors: 0		

The status tab informs about the current firmware and software versions.

TIP

See "DANTE.IO- Firmware Update" on page 10.





Network Config

The tab 'Network Config' of the device view provides access to the operating mode of the built-in network switch and the network settings of the device.

					rko	DIGT	144	199C C			3
Receive Trans	mit Status Li	atency	C	hevice	Con	fig	Net	work Confi	9 A	ES67 Confi	
	5										
	Switch Config	uration urrent:	Swit	tched							
		New	15	witche	d						
			R	ledund led Ser	ant						
	Addresses	-	_		_	-	_	_			
	Obtain an	IP Ade	ires	Auto	mati	cally	defa	oflu			
	O Manually	config	ure a	an IP A	ddre	55					
	IP Address:	192		168	1	74		33			
	Netmask:	255		255		255	ú	0			
	DNS Server:	192		168		74	•	1			
	Gateway:	192	-	168	-	74	•	1			
		Αρρ	ly .		lever	rt					
	Reset Device -		_	_	_		_	_			
	Ret	tood									
			-								

Device Config

The tab 'Device Config' to adjust the device name, sample rate, encoding modes and more.

		PRODIGY-14a99c
R	eceive Transmit Status Latency	Device Config Network Config AES67 Config
	Rename Device	
	PRODICY-14a99c	Apply
	1100101111035	
	- Sample Rate	
	Sample Nate	
	Sample Rate: 48k	Pull-up/down: NONE
	Incoding	Clocking
	Preferred Encoding: PCM 24	Unicast Delay Requests: Disabled 😋
	Device Latency	
	Device Latency Latency: 1.0	miec
	Device Latency Latency: 1,0 ' Reset Device	msec 📴

Switch - Configuration

Three network ports are available for transmission of audio signals and remote control. The built-in network switch can be operated in three modes:

- Switched (all ports in the same network)
- Redundant (1 = Primary, 2 = Secondary, 3 = Primary)
- Red_Sec (1 = Primary, 2 & 3 = Secondary)



The switch will be configured automatically by selecting the respective operation mode in Dante Controller.

NOTE

If redundancy is being used, secondary interfaces should be connected to a second separate network. Secondary interfaces cannot communicate with primary interfaces.

Device Management over the audio network

This configuration is exemplary to illustrate the possibility to integrate the management data that is used to control the host device into the audio network.



- set the switch configuration to 'Switched'
- connect the MGMT port of the device with Port 2 of the DANTE.IO
- connect the DANTE network to Port 1 of the DANTE.IO
- connect the DANTE network to Port 3 of the DANTE.IO (if needed)



DANTE.IO - Firmware Update

The device can be updated either via the:

- online procedure using the 'Dante Updater' which is integrated in the latest version of 'Dante Controller'.
- offline procedure using an update file and ,Dante Firmware Update Manager'



WARNING

It is strongly recommended to backup the device configuration before running any update.

Online Procedure

- 1. Open Dante Controller
- 2. Menu: View- Dante Updater (CMD-U)
- 3. Select device to update and click 'Update Selected Devices'

• •			Dante Updater 1.0.4					
DME LIBRARY	HISTORY FAIL-SAFE							? .
▼ UPDATE(S)) AVAILABLE							
UPDATE	DEVICE NAME	MANUFACTURER	MODEL NAME	STATUS TA	PRODUCT VERSION	LATEST PRODUCT ~~ VERSION	DANTE VERSION	LATEST DANTE VA VERSION
	▼ PRODIGY-14a99c	DirectOut Technologies	PRODIGY	💠 Out of date	1.0.0	1.1.0	4.0.9.1	4.2.0.28
▶ UP-TO-DA	IP ADDRE MAC ADDRE REBOOT DEVI MANUFACTURER MESS	ESS: 192.168.74.33 ESS: 00:1D;C1:14:A9:9C ICE: REBOOT AGE: Version 1.1						
CONSULT	MANUFACTURER							
ELECT ALL CL	EAR ALL						UPDATE S	ELECTED DEVICE

4. Confirm and take your time until the update procedure has finishe
--

<u> </u>		Dante Opuater 1.0.4	
оме		1 DEVICES WILL BE UPDATED	
▼ 1	DEVICE NAME	IP ADDRESS	UPDATE STATUS
UPC	PRODIGY-14a99c	192.168.74.33	Ready for update
	A Do not power	off or disconnect your computer or devices while upo	lates are in progress
	REBOOT DEVICE: REBOOT		CANCEL UPDATE NOW
	MANUFACTURER MESSAGE: Version 1.		

		Dante Updater 1.0.4	•
номе		UPDATING IN PROGRESS	U.
-			
	DEVICE NAME	IP ADDRESS V.A	UPDATE STATUS
UPD	PRODIGY-14a99c	192.168.74.33	×.
		off or disconnect your computer or devices while upo	iates are in progress
		I understand that audio will be interrupted.	area are in progress
			CANCEL
	MANUFACTURER MESSAGE: Version 1.		
		,	

5. Mark the updated device for reboot and click 'Reboot Selected Devices'.

•	••			Dante Updater 1.0.4			
н	оме			UPDATING COMPLETED			3.
	UPC	DEVICE NAME PRODIGY-14a99C SELECT ALL REBOOT SELECTED DEVICE	•••	IP ADDRESS 192.168.74.33	**	UPDATE STATUS REQUIRED CLOSE	Ψ.h.
		MFR FIRMWARE VERSION: 1 IP ADDRESS: 1 MAC ADDRESS: 0 REBOOT DEVICE: MANUFACTURER MESSAGE: V	0.0.0 02.168.74 0:1D:C1:14 REBOOT ersion 1.1	.33 4489:90			



6. After Reboot the Updater will report the Update Status.

			UPDATING COMPL	ETED		
L	DEVICE NAME		IP ADDRESS	Ψ.A.	UPDATE STATUS	
PC	PRODIGY-14a99c		192.168.74.33	(✓ Successful	
						CLOSE
-	MFR FIRMWARE VERSION:	1.0.0.0	man ecoacion en anjupor o			
	IP ADDRESS:	192.168.74	33			
	MAC ADDRESS:	00:1D:C1:1	4:A9:9C			
	REBOOT DEVICE:	REBOOT				
	MANUFACTURER MESSAGE:	Version 1.1				

Offline Procedure

- **1.** Download the update file from the product page at www.directout.eu.
- **2.** Open ,Dante Firmware Update Manager' and follow the instructions. https://www.audinate.com/products/firmware-update-manager

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