

# AV KVM Over IP Solution

User Manual

Version 2017 V1

Available from B2B Online Portal **CNE**AV.eu

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# Welcome

## About This Manual

This Manual is applicable to AVCNet (AV KVM Over IP). Thank you for choosing DigiBird, please read this manual carefully before using the product.

All pictures in this manual are only for reference, information in this document is subject to change without notice.

## **Cautions and Notes**

The following symbols are used in this manual:

i Notes	The necessary hints, additions and explanations to help you to understand the content of the manual more clearly.
l Cautions	This symbol indicates best practice information to show recommended and appropriate manner to use this product efficiently.
<b>O</b> Warnings	The important operating instruction that should be followed to avoid any potential damage to hardware or property, data loss, or personal injury.

The following spellings are used in the manual:

Spelling	Description
<key></key>	Description of a key on the keyboard
<key +="" key=""></key>	Press keys simultaneously
<key, key=""></key,>	Press keys successively
[Menu item]	Description of a menu item in the software

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## Trademarks

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## Disclaimer

While every precaution has been taken during preparation of this manual, the manufacturer assumes no liability for errors or omissions. The manufacturer assumes no liability for damages resulting from the use of the information contained herein. The manufacturer reserves the right to change specifications, functions, or circuitry of the product without notice.

The manufacturer cannot accept liability for damage due to misuse of the product or due to any other circumstances outside the manufacturer's control (whether environmental or installation related). The manufacturer shall not be liable for any loss, damage, or injury arising directly, indirectly, incidentally, or consequently from the use of this product.

# System Introduction

## Introduction

AVCNet-H is an independent research and development product by Digibird, with high density encoding and decoding, redundant AV networks and streams, secure content distribution, network error resilience, critical-quality 4K video compression with extremely low latency. AVCNet-H can distribute AV signals using standard off- the-shelf 1GbE network switches, supports a wide array of applications including Point-to-Point Extension and complex Matrix Switching, as well as Video Wall and MultiViewer displays.

## Diagram



Distribution: PureLink GmbH

## Structure

The AVCNet-H solution includes transmitter/ Tx (Input Node) and receiver/Rx (Output Node):

Tx: DVI, HDMI, SDI, VGA and DP are available.

Rx: DVI, HDMI and SDI are available.

Note: the products are being updated time to time without notices in this manual.

#### Transmitter

The default IP address of the transmitter is 192.168.1.202, which can be changed via software. To change IP, refer to <u>Rename and IP settings</u>.

#### Front Panel



1	CONFIG	For firmware updates.
	POWER	Power indicator.
	DVI	Input signal indicator. Here is the example of DVI version.
(2)	USB	Control signal (KVM) indicator.
	LOOP	Loop connection indicator.
	ТХ	Tx indicator: illuminated when Tx node connected well.
(3)	RX	Rx indicator: illuminated when Rx node connected well.
4	FIBER1	Output port: Fiber or Cat (Fiber-Cat adapter needed) output #1.
	FIBER2	Output port: Fiber or Cat (Fiber-Cat adapter needed) output #2.

#### **Rear Panel**

DVI



1	DVI IN	Video input port.
2	LOOP OUT	Loop Out: for local monitor.
3	AUDIO IN	Audio input port.
4	USB	USB: for KVM control.
5	DC 12V	Power input.

#### Other versions

HDMI:



SDI:



VGA:

0	0 () O	Ô		
VGA IN	LOOP OUT	AUDIO IN	USB	DC 12V

DP:

		Ô		
DP IN	LOOP OUT	AUDIO IN	USB	DC 12V

#### Receiver

The default IP address of the receiver is 192.168.1.203, which can be changed via software. To change IP, refer to Rename and Config.

#### Front Panel

DIGIBIRD AVCNet Receiver	O POWER O AUTO	○ IN1 MDE ○ IN2		FIBER1	O TX O RX FIBER2
	2	)	3) (4)	5	4

1	CONFIG	For firmware updates.
	POWER	Power indicator.
	AUTO	Dual-ports backup, auto select mode (1x main, 1x backup).
2	IN1	Input #1: illuminated when FIBER1 is main port (FIBER2 is backup).
	IN2	Input #2: illuminated when FIBER2 is main port (FIBER1 is backup).
	MDE	Mode of dual-ports backup switching. (Auto or Manual).
3	SEL	To select Input channel under the manual mode.
	ТХ	Tx indicator: illuminated when Tx node connected well.
4)	RX	Rx indicator: illuminated when Rx node connected well.
5	FIBER1	Input port: Fiber or Cat (Fiber-Cat adapter needed) input #1.
	FIBER2	Input port: Fiber or Cat (Fiber-Cat adapter needed) input #2.

Note: All receivers have the same front panel.

#### **Rear Panel**

DVI



1	DVI OUT	Video output port.
2	USB 2.0	Reserved port, for future use.
3	AUDIO OUT	Audio output port.
4	USB-HID	USB: for KVM control.
5	DC 12V	Power input.

#### Other versions

#### HDMI:



SDI:



# Software

It supports web-based control without application or software installed. Web browser supported:

Browser	Version
Google Chrome	Version 49 or later
360 Chrome	8.1 or later
QQ Browser	9.5.1 or later
CM Browser	6.0 or later
UC Browser	5.7.16400.16 or later
Sogou Browser	7.0 or later

## Login

The instruction is based on Google Chrome. Before using this web-based control, please make sure the IP addresses of your PC, AVCNet-H server, Transmitters and Receivers are under the same domain LAN network.

• Type the IP address of the AVCNet-H server (for example: 192.168.3.201) then to connect.



• Use the default User Name and Password to login (User Name: admin; Password: 123).



**1** The IP address of the AVCNet-H server is 192.168.1.56 and 192.168.3.56. Or ask your sales to get new one.

# Dashboard

The Dashboard is shown as below:



1	Scene	The Scenes list: right click to view the menu of enable, delete, preview and rename.
2	Tools	Settings, Logout, Save Scene, Refresh, Preview and Search.
3	Preview	Preview any input or output signal.
4	Input/ Output	Here list all of the auto-detected Tx/Rx nodes. Select one input and then output(s) to distribute the signal or enable KVM control.
5	Distribution	Here list all relations between inputs and outputs with KVM status.
6	OK/ Cancel	Click OK to confirm the distribution, Cancel to abandon.

The ToolBar is shown as below:



## Settings

Click <sup>1</sup>/<sub>2</sub> to enter setting interface: Config, Group, User, Backup, Server, Upgrade, Custom Resolution and License, etc.

#### Software

ARWIN		×	2											1	
← ⇒ C	19	2.168.3.20	1:8080	/darw	in/frame/manage/in	dex.html?i	=0.641622	8769812733							• \$ \$ ₹
DIGIBIRD													admin		│ Dashboard →
	Â	O Refresh	<b>D</b>	Delete o	ffline nodes ••• Batch o	peration <b>Y</b>	Filter							Searc	h node
Config		Inpu	t Node				Nodes : 3	Selected : 0	€ Ou						Selected : 0
Group		Select all	Name	Index	Type IP Address Edi	t Status	Operate	Server ID ( 🔳 🔳 🛑 )	Select all	Name	Index	Type IP Address E	dit Status	Operate	Server ID ( 🔳 🔳 🎒 )
••	U.		0002	1	HDMI192.168.3.73 🖉	Config	•			0001	1	HDMI192.168.3.148 [	Config	0	
User	U.		0004	2	HDMI192.168.3.21 🗹	Config	•			0003	2	HDMI192.168.3.203	Config	0	
Backup			0005	3	HDMI192.168.3.81 🖉	Config	••	~							
Server Management	l														
रिः System Upgrade	l														
8 System															

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# Switch

# Input/ Output Switch

To switch one input signal to one or more outputs.

• Select one Input Node.

ARWIN X	2000.01	1 . 1	Land Land		
DIGIBIRD	AVCNet Matrix	/mainpage/index	ntmi	admir	n ⊕ ŵ English ▼
Scene	Save scene	O Refresh	E Preview		Search node
	Input Node			Output Node	Select All
			A0002	A0003	
		AV Input Group	All 🔻	AV Output Group All	*
	0002	2	0004	1 0001 (1) (2) 0003 ()	
	Selected KM	Connected			
			Ok	Cancel	

• Select output(s):

ARWIN X	2									6	0	x
← → C 🗋 192.168.3.201	:8080/darwin/frame/	/mainpage/index.h	ıtml								•• ☆	
DIGIBIRD	AVCNet Matrix								admin	⊕ ⊜	English	•
	Cave scene	O Refresh	E Preview							Search	n node	
	Input Node					Output No	de				Select	All
			A0002					A0003				
		AV Input Group	All	Ŧ			AV Output Group	All				
	0002	0	0004	Ð		0001		0003				
	Selected KM	Connected 1 2										
					Ok	Cancel						

- Click Cancel to abandon.
- Click OK to confirm.

## KVM

• Select one input node, the relevant output nodes will displayed at the right side.

#### Switch

DARWIN X	3					
← → C 🗅 192.168.3.201	8080/darwin/frame	/mainpage/index	.html			% ☆ ≡
DIGIBIRD	AVCNet Matrix					admin 🕀 🕸 English 🔹
Scene	B Save scene	O Refresh	围 Preview			Search node
						Journa and
	Input Node			Output N	odé	Select All
			A0002		A0003	
		AV Input Group	All 🔻		AV Output Group All	*
	0002	0	0004	1 0001	0003	
	Selected KM	Connerted				
				Ok Cancel		

• Click the icon (a) to select enable KVM and the icon will turn to be (c). The KVM channel number will display in the below KM (Keyboard & Mouse) list.

DARWIN X	2								
← ⇒ C 🗋 192.168.3.201	:8080/darwin/frame,	/mainpage/index	.html						• ಭ ≡
	AVCNet Matrix						admin	⊕ ⊚	English *
Scene	B Save scene	O Refresh	E Preview					Search	node
	input Node			i i	Output No	de			Select All
			A0002				A0003		
		AV Input Group	All 💌			AV Output Group	All	•	
	1 0002	2	0004	]	0001	0	0003		
	Selected KM	Connected	)						
				Ok	Cancel				

• Click OK to confirm or Cancel to abandon.

#### Preview

To preview any input or output signal.

- Select any input or output node.
- Click the icon 1 and turn to be 1 on the selected input node:

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#### Switch

ARWIN ×	2					
← → C 🗋 192.168.3.20	1:8080/darwin/frame	/mainpage/index	html			କ ଝା ≡
DIGIBIRD	AVCNet Matrix					admin 🕀 🕸 English 🔹
Scene	Save scene	O Refresh	E Preview			Search node
	Input Node			Output No	de	Select All
	1 0002 Selected KM	AV Input Group	A0004 All * 0005	0k Cancel	A0001 AV Dutput Group All (2 0003 (	¥ B

• Preview the output:

DARWIN ×	2								â	_ 5 <mark>_ X</mark>
← → C 🗋 192.168.3.201	L:8080/darwin/frame	/mainpage/index	.html							• ☆ ≡
DIGIBIRD	AVCNet Matrix							admin	⊕ ©	English 🔻
Scene	Save scene	⊖ Refresh	R Preview						Search	node
	input Node					Output No	de			Select All
		AV Input Group	A0004	×			AV Output Group	A0003	•	
	1   0002     Selected   KM     2	Connected	0004			0001	B (2)	0003		
					Ok	Cancel				

## Preview all

Click Preview button on the toolbar, the user is able to check all inputs/ outputs relations.

	Save scene Q Refresh	E Preview
	Jinput Node	
Preview	+	×
Input Node		Output Node
1 0002	1 0001	
2 0004	2 0003	
		Close

# Scene

The Scene means preset or scenario, which contains all distributions between input nodes and output nodes, can be recalled anytime.

#### Save

• Click Save Scene:



• Input a name for the scene:

120003330			
Name:			
scene	1		
		0.020310	

## Preview

The user is able to preview the scene before recalling.



# Enable

Right click on the scene list and *enable* to recall the scene.



#### Rename

The user is able to rename the scene at any time.



## Delete

The user is able to delete the scene at any time.

DIGIBIRD		
Scene		
CI4 scene 1	Message	×
E Preview	Delete"scene 1"?	
∑ Rename	Ok	Cancel

# Config

The config includes input/output settings, audio channel selection, I/O node name and resolution settings.

→ C 🗋 19	2.168.3.20	1:8080,	/darw	in/frame/manage/ir	idex.html?i	=0.491	1331	5682206303							<b>₽</b> ☆
IBIRD													admin		Dashboard
	O Refresh	<u>ā</u> c	elete of	ffline nodes 🛛 👐 Batch c	peration <b>Y</b>	Filter								Searc	h node
onfig	∋ Inpu														
	Select all	Name	Index	Type IP Address Ed	it Status	Ope	rate	Server ID ( 🔳 🛢 🛑 )	Select all	Name	Index	Type IP Address	Edit Status	Operate	Server ID ( 🔳 🔳 🌒 )
••		0002	1	HDMI192.168.3.73 🛛	Config		0			0001	1	HDMI192.168.3.148	Config	0	
Jser		0004	2	HDMI192.168.3.21 🖉	Config		0			0003	2	HDMI192.168.3.203	Config		
		0005	3	HDMI192.168.3.81 😰	Config	Q	0								
аскир															
LA Server															
יני System															
Jpgrade															
<b>8</b> \$8															

## Rename and IP settings

Select one node, click the icon *lageted* to rename or change the IP settings.

Ð									
Selec	t all	Name I	ndex	Туре	IP Address	Edit	Status	Operate	Server ID ( 🗖 🕅 🛑 )
e	)	0001	1	HDMI	192.168.3.14		Config		
						▼			
		Ed	it Noc	le				×	
				Nar	ne				
				0	001				
				IP					
				1	92.168.3.141				
				Gat	eway				
				15	92.168.3.1				
				Ma	sk				
				2	55.25 <mark>5</mark> .255.0				
							Ok	Cancel	

Click [OK] to complete as below:

€ Ou							
Select all	Name Inc	lex Type	IP Address	Edit	Status	Operate	Server ID ( 🔳 🔳 🛑 )
	0001	HDM	1192.168 <mark>.3</mark> .141	L 😰	Config	0	

## Status

Click the icon 💭 on the selected input node or 🥮 on the selected output node to check the connection status.

Refresh	<b>宣</b> D	elete of	fline nodes •••• Batch ope	ration <b>T</b>	Filter							Searc	h node
elect all	Name	Index	Type IP Address Edit	Status	Operate	Server ID (	Select all	Name	Index	Type IP Address Edi	Status	Operate	Server ID
	0002	1	HDMI192.168.3.73 🖄	Config	0		0	0001	1	HDMI192.168.3.148 🖄	Config	0	
	0004	2	HDMI192.168.3.21 🖄	Config	0			0003	2	HDMI192.168.3.203 🖄	Config	0	
	Ch	eck de	vice status						Check	KM status			
	Ch	eck de	vice status						Check	KM status			
											$\mathcal{A}$		
			Connector							Disconnected	Discourse		
			Connected							Disconnected	Disconni	ected	
					Ok							Ok	

#### Audio

It supports embedded audio or separated audio channels selection (for HDMI or SDI version).

) Inpu	t Node						Nodes : 3		
Select all	Name	Index	Туре	IP Address	Edit	Status	Operate	Server ID ( 🔳 🔳 🛑 )	
	0002	1	HDMI	192.168.3.73	Ø	Config			–Embedded Audio
	0004	2	HDMI	192.168.3.21	. 🖉	Config			-Separated Audio
	0005	3	HDMI	192.168.3. <mark>81</mark>	Ø	Config	•		

The user is able to use the batch operation button to select audio channels for more nodes at one time.

DARWIN	×							
← → C 🗋	192.168.3.201:80	80/darwin	/frame/ma	nage/index.html?r	=0.5461056	5684143841		
DIGIBIRD								
	O Refresh (	🖞 Delete offli	ine nodes 2	• Batch operation	Filter			
Config	Input No	de	(	() Audio 3	s : 3	Selected : 2	Output Node	
Group	Select all Na	me Index	Type IP A	Edit	erate	Server ID	Select all Name Ind	
22	<b>1</b> 00	02 1 1	HDMI192.1	Add to local server	lab		0001 1	
User	00	04 2 1	HDMI192.1	Remove from local se	nver 0		Audio	×
Backup	00	05 3 1	HDM[192.16	8.3.81 🖉 Config	0			4  Separated Embedded
								Ok 5 Cancel
Server Management								
£.								
System Upgrade								
8 System								

## Resolution

#### Selection

• Click the resolution button to select resolution for the output node:

✓ ■ DARWIN ← → C □ 1	×\ 92.168.3.20	1:8080	/darw	in/frame/manage/in	dex.html?	r=0.5461056	6684143841			la	이 - 10 - X 우 입 승 =
DIGIBIRD									admin	I @•	Deshboard
	O Refresh	n 🗇 E	Delete o	ffline nodes 🛛 👐 Batch o	peration <b>T</b>	Filter				Search	n node
Coning	Inpt										
Group	Select all	Name	Index	Type IP Address Edl	t Status	Operate	Server ID ( 🔳 📾 🛢 )	Select all Name Index Type IP Address	Edit Status	Operate	Server ID ( 🔳 📾 🛢 )
2.		0002	1	HDMI192.168.3.73 🖄	Config			0001 1 HDMI192.168.3.14	3 🖾 Config		
User	8	0004	2	HDMI192.168.3.21	Config	Resolution		× <del>20158.220</del>	Config		
Backup		0005	3	HDMI192.168.3.81	Config		e Inher	rit  Custom Caprel			
Server Management											
रिए System Upgrade											
System											

• Inherit: to set the same resolution with that of input; Custom: to set a confirmed resolution.





• The user is able to select from the dropdown list or setup customized one.



#### Custom resolution

RD											admin	@	b Day
up *	() Add	O Delete	🖊 Edit										
٩.	Name	H. Total	H. Polarity	HS Width	H. Front Porch	Active Pixels	VS Frequency	V. Total	V. Polarity	VS Width	V. Front Porch	Active lines	Custom res
er	640*480@75	840	1	64	16	640	75	500	1	3	1	480	Yes
Ĵ.	720*483@30	858	0	28	57	720	30	525	0	6	5	483	Yes
cup	720*483@60	858	0	28	57	720	60	525	0	6	5	483	Yes
2	720*576@25	864	0	28	57	720	25	625	0	6	5	576	Yes
ver (	720*576@50	864	0	28	57	720	50	625	0	6	5	576	Yes
	800*600@60	1056	0	128	40	800	60	628	0	4	1	600	Yes
ን em	960*2160@25	1100	0	22	44	960	25	2250	0	10	8	2160	Yes
ade	960*2160@30	1100	0	22	44	960	30	2250	0	10	8	2160	Yes
8	1024*768@60	1344	1	136	24	1024	60	806	1	6	3	768	Yes
em	1024*768@75	1312	0	96	16	1024	75	800	0	3	1	768	Yes

• Enter the System Resolution settings to setup custom resolution:

• The user is able to add new resolution.

IBIRD					System Resolution		¢		admin		U‡≉ I Dashb
Group	1 ( Add	(O Delete	/ Edit		H. Total	The value can not 2					
22	Name	H. Total	H. Polarity	HS	H. Polarity	The value can not	V. Polarity	VS Width	V. Front Porch	Active lines	Custom resolutio
User	640*480@75	840	1		HS Width	The value can not	1	3	1	480	Yes
⊜	720*483@30	858	0		H. Front Porch	The value can not	0	6	5	483	Yes
ackup	720*483@60	858	0		Active Pixels	The value can not	0	6	5	483	Yes
	720*576@25	864	0		VS Frequency	The value can not	0	6	5	576	Yes
ierver d agement	720*576@50	864	0		V. Total	The value can not	0	6	5	576	Yes
<u> </u>	800*600@60	1056	0	1	V. Polarity	The value can not	0	4	1	600	Yes
vstem	960*2160@25	1100	0		VS Width	The value can not	0	10	8	2160	Yes
pgrade	960*2160@30	1100	0		V. Front Porch	The value can not	0	10	8	2160	Yes
	1024*768@60	1344	1	1	Active lines	The value can not	1	6	3	768	Yes
	1024*768@75	1312	0			3	0	3	1	768	Yes

The user added resolution can be edited or deleted but the default one not allowed to edit or delete.

#### Server ID

Server ID: to manage the input/output nodes controlled under the current server. Un-checked: means the node(s) is (are) not under this server management.

Check the 📕 to be 🗹 then the user is able to manage it.

) Inpu	t Node					N	lodes : 3	Selected : 0	E	) ou								
Select all	Name	Index	Туре	IP Address	Edit	Status	Operate	Server ID (  )	Se	lect all	Name	Index	Type 1	P Address	Edit	Status	Operate	Server ID (  )
	0002	1	HDMI	192.168.3.73	Ø	Config	0			0	0001	1	HDMI19	2.168.3.14	18 🖾	Config	0	
	0004	2	HDMI	192.168.3.21	12	Config	•			Rem	inder						× )@(	
	0005	3	HDMI	192.168.3.81	1	No config	•		-	vvouid	you like	e to cha	ange serv	rer ID 7	Ok	Cancel		
) Inp	ut Node					1	Nodes : 3	Selected : 0					/	/				
Select all	Name	Index	к Туре	IP Address	Edit	Status	Operate	Server ID ( 🔳 🔳 🛢 )	ľ			/						
8	0002	1	HDMI	192.168.3.73	8 🖄	Config					/							
	0004	2	HDMI	192.168.3.21		Config	•											
	0005	3	HDMI	192.168.3.81	Ø	No config	0		K									

# Group

To group the input/output nodes.

• Select input node to add a group from the dropdown list.



• Input the group name and click OK.

DARWIN	×						
← → C [] 1	192.168.3.201:8080/darv	win/frame/mana	age/index.html?r=0.5	461056684143841			¶a 🏠 🗮
DIGIBIRD						admin	│ ⊕+ │ <sub>Dashboard</sub> →
G			<b>•</b> I	nput Node	Outpu	t Node Search node	
Config	input Node				Group	¥	Remove all
Group	0007 0002	E 0004	0004 (2) (0005	0005	grou	up 1 1 Ok 2 Cancel	
••							
User							
Backup	8						
Server							
Management							
रिू System Upgrade							
8 System							

• Select input nodes to add to the group.

DARWIN	×	3														- 0 -	×
← → C 🗋	192.168.3.20	01:8080/d	arwin/frame/m	anage/ind	ex.html?r=0.54	461056684	143841									<b>₽</b> ☆	=
DIGIBIRD													admin			Dashboard	
G	Î				li 💽	nput Node			00	Dutput No	de	Search	node				1
Config	⊕ Ing							Gro	oup	group 1			٠		1	Remove a	11
Group	6002	0002	B (004	0064		0005	(III)	0002	0002	(D)(1	000	) 0004		0			
L. User																	
Backup	8																
Server Management																	
<b>Ç</b> System Upgrade																	
8 System																	

• Go back to the dashboard, the user is able to show the group of nodes.

Input Node		
e National States	anna an	
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AV	Input Group 1 V	
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• To add group for the output nodes by the same operation:

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		) Input Node	Output Node	Search node		
Group	Cutput Node		Group group 1	×	Rem	ove all
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## User

To manage multiple users and dispatch different authorization.

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DIGIBIRD					lmin   ⊕   Dashboard >
	🕢 Add 🖉 Edit 🕞 Del	Authorities Please to in	the user name		
	Account	Name	Email	Phone	Availability
Group	admin	admin			Yes
User					

## Add

- Click Add to new a user.
- Fill in the information for the new user:

New		×
	Name:	
	user	Optional
	Account:	
	This account verified. Password:	Required
	Phone:	
	Email:	Optional
	Availability: Yes	Required
	С	Ok Cancel

## Authorization

To setup different user levels with different authorization.

1. Click the

to setup.

• Input Node authorities

Enable: the user is able to manage the input node. Disable: the user is NOT able to manage the input node. Inherit: is default settings.

Authority	View
🔺 😋 Input Node	●Enable●Disable
[0002]	○ Enable ○ Disable ● Inherit
[0004]	○ Enable ○ Disable ● Inherit
<b>[</b> 0005]	○ Enable ○ Disable ● Inherit
	Save Close
uthority AVCnet] Menu Authority	Save Close
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uthority Authority ▲ authority ▲ ⓐ Input Node ⓑ (0002] ⓑ (0004]	Save Close

• Menu authorities

Enable: the user is able to manage the menu. Disable: the user is NOT able to manage the menu. Inherit: is default settings.

[A\	(Cnet] Menu		
	Authority	View	
1	🔺 🚞 Home	Enable	
2	AVCNet Matrix	○Enable○Disable●Inherit	
3	a 😑 Settings	Enable     Disable	
4	📄 Config	○Enable○Disable●Inherit	
5	📄 Group	○Enable○Disable●Inherit	
6	🔺 🤤 User	○Enable Disable Inherit	
7	🔺 😋 Authorities	○Enable○Disable●Inherit	
8	Permissions saved	○Enable Disable Inherit	
9	📄 Delete	○Enable Disable Inherit	
10	Add	Enable     Disable     Inherit	
Au	thority	Save	Close
Au	thority /Cnet] Menu	Save	Close
Au [A)	thority /Cnet] Menu Authority	Save	Close
Au [A\	thority /Cnet] <mark>Menu</mark> Aduthority ▲ ⊖Home	Save	Close
Au [Av 1	thority /Cnet] <mark>Menu</mark> Authority a GHome a AVCNet Matrix	Save	Close
Au [Av 1 2 3	thority Cret] Menu Authority Game Game Game Settings	Save	Close
Au [Av 1 2 3 4	thority Authority authority Generation AVCNet Matrix Settings Settings Settings	View ©Enable©Disable ©Enable©Disable ©Enable©Disable ©Enable©Disable® ©Enable©Disable®	Close
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Au [Av 1 2 3 4 5 6 7 8 9	thority Cately Menu Authority Home AVCNet Matrix Settings Config Group Authorities Permissions saved Delete	Save View ©Enable©Disable©Inherit ©Enable©Disable©Inherit ©Enable©Disable©Inherit ©Enable©Disable®Inherit	Close

**1** Inherit: means the authorities of the current level is the same as the upper level, for example when the check enable for settings and inherit for config, then the authorities of

config is enabled; when check disable for settings then that of config is disable. The inherit level will follow its upper level settings.

2. Re-login with the added user account, the software interface has been changed.



Admin: with all authorities



User: with limited authorities

#### Edit

Select one user account and edit the info:



## Delete

Select one user account and delete:

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Config	• A	dd 🖉 Edit 🛛 🖓 🖸 Di	elete Authorities Please fill	In the user name		
		Account	Name	Email	Phone	Availability
Group	_	admin	admin			Yes
••	1	user	user			Yes
User			Message		×	
			0	Are you give to delete the use		
Backup			U			
<b>F</b> ₽				<sup>3</sup> Ok	Cancel	
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management						-
ft.						
Upgrade						
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System						

# Backup and Restore

# Backup

To backup the configuration for future restore.



Click Backup data button Backup data to backup all configuration data of hardware and software.

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Config	🕘 Backup data 🔷 Restore 🗶 Delete	Download     Dupload & restore	
		Backup time	Backup type
Group		2017-08-11 02:21:14	User backup
Group		2017-08-10 12:10:00	System backup
<u>.</u>			
User			
Backup			
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wanagement			
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Click	Download button	to download the da	ata to vour PC.

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	Backup time	Backup type
	1 201 08-11 02:21:14	User backup
Group	2017-4-10 12:10:00	System backup
<u>.</u>		
User	Download	
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Server Management		
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The AVCNet-H is able to backup data every day automatically and keep for 7 net days one time. The data on the 1<sup>st</sup> day will be displaced on the 8<sup>th</sup> day.

#### Restore

1. Restore data from hardware



2. Restore data from PC

Click Upload & restore	to select, upload and recovery the data
saved in your PC.	

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Config	Backup data     A Restore     Deveload     Deveload     Deveload	
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Group	1 2017-08-11 02:21:14	User backup
Group	2017-08-10 12:10:00	System backup
Lee User	Upload & restore 🗸 🗡 🗡	
Backup	Piñase choose a file Upload 4	
<b>₽</b>	0%	
Server	nt l	
System Upgrade		
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3. Recovering

It may take 2 minutes to complete the restore.

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Loading	
Starting Darwin	

# Server

The server is used to configure, manage, control and preview the input and output nodes.

The user is recommended to change this setting for sever when install your project under DigiBird technical supports help.

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DIGIBIRD						admin		Dashboard
Config			Preview IP					
Group	Current Preview IP	192.168.3.201 (00-30-18-CD-BE-11)	Server IP	IP ( MAC )	Ŧ	Ok		
Le User			Darwin IP					
Backup								
Server Management	Current Darwin IP	192.168.3.201	Server IP	þ	¥	Ok		
<b>Çı</b> System Upgrade								
8 System	÷							

# Upgrade

Select and upload the upgrade file to complete. The user is able to request the latest firmware from your sales or contact our team at <a href="mailto:sales@digibirdtech.com">sales@digibirdtech.com</a>.

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DIGIBIRD		admin	a   ⊕+   Dashboard >
Config	Current version : 1.0.1.0 (Standard)		
Group	2 Please choose a file	load & upgrade	
Liser		0%	
Backup			
Server Management			
1 ft System Upgrade			
808 System			

**i** Do NOT power off when do the upgrading.

# License

For renew your license, please contact your sales or contact our team: <a href="mailto:sales@digibirdtech.com">sales@digibirdtech.com</a>



## Protocol

## Communication

TCP or UDP, port 5000.

#### Address

Each command line contains one device address "ADDR", default is 0. When ADDR is default 0: the device is to receive all commands. When the command sender (the device to send command out) is with ADDR 0, the receiver device must receive this command no matter what ADDR this device has. When the command sender's ADDR is not 0 and the receiver device's ADDR is not 0, they have to match the address then to receive command. Send Command (INFO,0), to check the device's ADDR. ({"ctrlAddr":"2","ip":"192.168.1.201/192.168.3.201",inputNum":10,"inputIndex":10,"out putNum":20,"outputIndex":22,"deviceName":"avcnet"}), "ctrlAddr":"2": means the address is 2.

## AVCNet third-party commands

#### Format:

(command name, address, data, data, ...) The address is must, if it is 0, means the current device.

Single channel switching

#### Format: (SWCH, ADDR, V/C, IN-OUT)

V/C: V means to switch video, C means to switch control signal and the video together. Response: Correct (SWCH, ADDR, OK); Error (SWCH, ADDR, Err)

Note: this command is used to switch one input signal to another output channel. The address is optional.

For example: to switch video of input 1/device 1 to output 2

Command: (SWCH,1,V,1,2)

#### Multiple channels switching

Format: (SWCM, ADDR, IN-OUT/OUT/OUT-C)

If not switch the KVM control signal, C value is 0 and C must be one of the output channels.

Response: Correct (SWCH, ADDR, OK); Error (SWCH, ADDR, Err)

Note: this command is used to switch multiple channels, maximum 32x channels, address is optional.

For example #1: to switch input 1/device 1 to outputs 2, 3 and 4 with KVM control switched to output 3.

Command: (SWCM,1,1-2/3/4-3)

For example #2: to switch input 1/ device 1 to output 3 without KVM control switched.

Command: (SWCM,1,1-3-0)

**1** This command may causes switching closed, for example when change input 1 switched to 1 and 2 from 1, 2, 3 and 4, then the switching to 3 and 4 will be closed.

#### All channels switching

Format: (SWCA, ADDR, V, IN)

Response: correct (SWCA, ADDR, OK); Error (SWCA, ADDR, Err)

Note: this command is used to switch one input to all outputs, address is optional. For example, to switch input 2/ device 1 to all output channels: Command: <u>(SWCA,1,V,2)</u>

#### Output status

(1) Single channel status

Format: (GETV/GETC,ADDR,OUT)

GETV: to get switching status of audio and video.

GETC: to get switching status of KVM control signal.

Response: Correct to response status; Error (GETV, ADDR, Err)

Note: this command is used to query the switching status of single channel.

For example, to query status of the output 1/ device 1

Command: (GETV,1,1)

Response: <u>(GETV,1,2)</u>

(2) Multiple channels status

Format: (GETV/GETC, ADDR, OUT, OUT....)

Response: Correct to response status; Error (GETV, ADDR, Err)

Note: this command is used to query all output channels status, maximum

32x channels per command line, address is optional.

For example, to query status of the output 1, 2 and 3/ device 1

Command: (GETV,1,1,2,3)

Response: (GETV,1,7,8,9)

#### Save scene

#### Format: (SAVE, ADDR, Num)

Response: Correct (SAVE, ADDR, OK); Error (SAVE, ADDR, Err)

Note: this command is used to save the current distribution status to some scene. Num: the number of scene begins with 1.

For example, to save the distribution status of device 1 to scene 3.

Command: (SAVE,1,3)

#### Recall scene

Format: (CALL, ADDR, Num)

Response: Correct (CALL, ADDR, OK); Error (CALL, ADDR, Err)

Note: this command is used to recall some scene and to replace the current distribution status.

For example, to recall scene 3/ device 1

Command: (CALL,1,3)

#### Change address

## Format: <u>(ADDR,ADDR,newADDR)</u> Response: Correct <u>(ADDR,ADDR,OK)</u>; Error <u>(ADDR,ADDR,Err)</u> Note: this command is used to change the address of device. The response is still the original address. For example, change device 1 to device 2. Command: <u>(ADDR,1,2)</u>

#### Query basic information

Format: <u>(INFO,ADDR)</u> Response: Correct (<u>{"ctrlAddr":"2","ip":"192.168.1.201/192.168.3.201",inputNum":10,"inputIndex":10, "outputNum":20,"outputIndex":22,"deviceName":"avcnet"}); Error <u>(INFO,AddR,Err)</u> For example, to query the current device info Command: <u>(INFO,0)</u></u>



Available from <u>B2B Online Portal</u>