

PureMedia PM Tools Installation & User Guide

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1.in/Out Channel : 32 2.RS232 Baudrate : 115200 Bps 3. IP Address 192.168.000.155 4.Product ID: 255 5.Softwate Ver.: PM_32X_Main_3.43	001 002 001 002 004 004	2 003 2 003 4 004	004 004 004	005 005 004	006 006 004	007 007 004	008 008 004	009 009 004	010 010 004	011 011 004	012 012 004	013 013 004	014 014 004	015 015 004	016 016 004	4
	017 018	019 019	020 020	021 021	022 022	023 028	024 024	025 025	026	027 027	028 028	029 029	030	031 031	032 082	
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Status Touch Lock CoolFan																
Debug		TPUT	•	/IDEO		AUE	010									
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PureLink[™]

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For order support, please contact your local dealer. For technical support, please contact us at support@purelinkav.com PM Tools program is an utility program that mimics the PureMedia chassis' front panel touch screen function.

PM Tools is designed to control PureMedia chassis via RS232 or LAN control from Mac or Windows PC.

PM Tools Installation Guide

In order for PureMedia chassis to communicate with PM Tools, firmware version of 3.43 or higher is required. Firmware version can be checked from front panel touch screen on System info section 6. Software ver.

					-											
1. INPUT Channel : 16 2. OUTPUT Channel : 16 3. Rs232 Baudrate : 115200 Bps 4. Lan IP Address : 192.168.000.002 5 Declarat ID : 205 6. Software Ver. : PM-16X-M1.20	31 01 01	32 02 02	93 93	94 94 94	95 95	36 06	97 07 97	98 08	99 09	10 10 10	11 11	12 12 12	13 13 13	14 14 14	15 15	16
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Please contact PureLink support team if you need new firmware for the chassis.

Please install appropriate Java program version based on your PC environment. Java link: <u>http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html</u> PM Tools link: <u>https://drive.google.com/file/d/0ByG0IZGK55iIS0tyR1RhWW5JZDA/view?usp=sharing</u> Please unzip PM Tools and run ^{PM Tools}. If the program does not start, please check your zip program's preference and file association and make sure disable .JAR format and run it again.

PM Tools.zip - ALZi	p (Trial Version)			1	- 🗆	×
Extract New	Open Ad	d Files Delete Files	View	THE FA	STEST	PIGG
Folder Filter Sear	rch × Filenam	e A		Comp	ressed	Original S
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	Compress	ALZ	ACE	ARC		
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		⊠ BZ	BZ2	CAB	EAR	
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<Disabling JAR format from zip program>

It is recommended to connect PureMedia chassis and your computer via LAN (wired or wireless) or RS232 (null modem cable) before you run the PM Tools program.

PM Tools User Guide

PM Tools is designed with seven (7) main menus.

- System Info
- Create
- Preset
- EDID
- Test Pattern
- Sys Config
- Scaling

1. System Info

🕌 PM Tools											2)	\times
System Info Create Preset EDID I	O Config	Sys C	onfig	Scal	ing										Connect	
Sytem Info	Channe	el Info														
1.In/Out Channel : 32 2.RS232 Baudrate : 115200 Bps	001 00	2 003	004	005	006	007	008	009	010	011	012	013	014	015	016	-
3. IP Address 192.168.000.155 4.Product ID: 255 5.Softwate Ver.: PM_32X_Main_3.43	001 00 004 00	2 003 4 004	004 004	005 004	006 004	007 004	008 004	009 004	010 004	011 004	012 004	013 004	014 004	015 004	016 004	
	017 01	8 019	020	021	022	023	024	025	026	027	028	029	030	031	032	
	017 01 004 00	8 019 4 004	020 004	021 004	022 004	023 004	024 004	025 004	026 004	027 004	028 004	029 004	030 004	031 004	032 004	
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Debug	00	TPUT	V	/IDEO		AUE	010									4
Summary Input Output Audio Inpu	t Extender	Outp	ut Exte	nder	J											_

It displays the overview of current system's status

1.1) System Information

- It displays frame's maximum capacity of I/O ports
- It displays current system's communication setting status (RS-232 Baud rate,
- IP address, product ID, and firmware version)
- It displays touch screen's lock/un-lock status
 - ✓ In security-lock mode, user only has access to "System info" menu, other menus will be locked.
- It displays cooling fan's status
 - ✓ If the status shows as Cool Fan Error, please turn off the system and contact your PureLink representative immediately.

1.2) Channel info

- It displays Matrix Router's current Video and Audio switching status
 - ✓ 1st row in white color represents Output numbers
 - 2nd row in green color represents Video Input numbers yellow color represents Test Pattern mode orange color represents Fixed Video Input numbers

差 PM Tools		\times
System Info Create Preset EDID I/O Config Sys Config Scaling	Col	nnect
Input Channie Info Infomation		
1. Input Ch. : 01 2. Slot Type : 4Kx2K HDMI INPUT		
3. IN Video Sel. : - 4. IN Audio Sel. : Auto Audio Mode 5. Main Edid : 4Kx2K [PUR][3D] 6. Sub Edid : -		
7. Firm Ver. : PM-HIS4K-V3.12 8. Video Timing : No Signal 9. Video Mode :-		
10.Rx Status :- 11.Tx Status :-		
Summary Input Output Audio Input Extender Output Extender		

2) Input, Output, Audio and Extenders status check

PureMedia Matrix Router has built-in signal analyzing function which enables user to check the detail information of incoming and outgoing signals.

- It displays Input port number, Board type, EDID information, firmware version, incoming signal's resolution, Video format, and transmission status.
- It displays Output port number, Board type, selected Input channel number, connected monitor's EDID information, firmware version, incoming signal's resolution, Video format, and transmission status.
- It displays Audio Matrix Router's switching status and Output volume.
- It displays input transmitter's type, signal information (resolution & audio) and firmware version.
- It displays output receiver's type, signal information (resolution & audio) and firmware version.

PM Tools offers debugging window where user can check all the command communication between the PC and the PureMedia chassis. This is very useful tool for 3rd party controller programming.

2. Create

PureMedia series Matrix Router is designed to create an independent Video/Audio switching or switching Video/Audio together. This section will guide user how to create/disconnect switching Video and Audio connection.

1) Video

1	2	3	4	5	6	7	8	
Laptop1	Laptop2	IN3	IN4	IN5	IN6	IN7	IN8	
9	10	11	12	13	14	15	16	
IN9	IN10	IN11	IN12	IN13	IN14	IN15	IN16	
17	18	19	20	21	22	23	24	P
IN17	IN18	IN19	IN20	IN21	IN22	IN23	IN24	
OUTPUT								
1.51	2.52	3.0UT3	4.OUT4	5.OUTS	6.OUT6	7.0077	8.OUT8	1
Laptop1	Laptop2	IN3	IN4	IN5	IN6	IN7	IN8	
9.0079	10.OUT10	11.0UT11	12.0UT12	13.0UT13	14.0UT14	15.0UT15	16.0UT16	
IN9	IN10	IN11	IN12	IN13	IN14	IN15	IN16	
13 011213	18.OUT18	19.OUT19	20.0UT20	21.0UT21	22.0UT22	23.0UT23	24.0UT24	
17.00117								

This section is to switch Video connection only. Select Input and Output numbers to route source signal to destination devices and push "Enter" button on the bottom right to execute. User can select multiple Outputs for the Input.

2) Audio

INPUT								
9	2	3	4	5	6	17	8	
Laptop1	Laptop2	N3	N4	NS	NS	107	NS.	
9	10	11	12	13	14	15	16	
N9	IN10	N11	IN12	IN13	N14	IN15	N16	
17	18	19	20	21	22	23	24	ч
N17	N18	IN19	IN20	IN21	N22	N23	N24	
OUTPUT					V	1		
Laptop1	Laptop2	N3	8.0014	N5	N6	N7	NS	
9.0079	10.00710	11.00711	12.0UT12	13.0UT13	14.00714	15.0UT15	16.0UT16	
819	N10	N11	N12	N13	8114	N15	N16	
17.00117	18.0UT18	19.0UT19	20.00720	21.00721	22.00122	23.00723	24.00724	L
N17	N18	N19	W20	N21	N22	8123	8124	

This section is to switch Audio connection only. Select Input and Output numbers to route source signal to destination devices and push "Enter" button on the bottom right to execute. User can select multiple Outputs for the Input

Set All

"Set All" button is to select all the Output w/o pushing them individually.

Clear All

"Clear All" button is to clear all the Output that was selected w/o pushing them individually.

One to One

"One to One" button is to create an one to one connection between Input and Output; for example, connect Input #1 to Output #1, Input #2 to Output #2, ~ Input #15 to Output #15, Input #16 to Output #16.

Enter

"Enter" button is to execute the changes made.

Cancel

"Cancel" button is to cancel the changes made.

3. Preset

System Info Create Preset EDID I/O Config Sys Config Scaling	ect
Preset Name Laptop 1 to all Save	
Laptop 1 to all	

PureMedia series Matrix Router provides Preset function for user to execute predefined multiple switching at once. Presets can be saved and recalled from the front panel touch screen or from PM Tools.

- When a preset is recalled, it replaces the current configuration. The recalled preset overwrites the entire current configuration.
- Preset only applies to Video switching only.

Creating & calling a preset

- Type in preset name and press "Save" button
- "Preset save" window will pop-up
- Create input/output switching for the present and press "Save" button
- Now New preset is created
- Simply click preset name to call the preset

4. EDID

PureMedia Matrix Router provides Auto EDID management system; easy and fail safe way to handle EDID, via EDID library system (internal) and EDID emulation (external).

What's EDID?

Extended Display Identification Data (EDID) is an information set that digital display provides to describe its capabilities to a Video source. Video source will know what kinds of displays are connected and it will determine which resolution to Output according to the EDID information received from the display.

The EDID normally includes manufacturer name and serial number, sets of capable resolution including native resolution, supported timing, pixel mapping data (for digital displays only) and etc.

In a digital connectivity environment; in order to support the maximum resolution of connected monitor, EDID handshake is a critical because improper EDID handshake between sources to the display will result in no image on the display.

EDID handshake may sound simple; however, with multiple peripheral devices within the chain, display's EDID information easily get lost or blocked while it is traveling to the source device.

PureMedia series Matrix Router provides Auto EDID management system to meet today's sophisticated digital connectivity integration environment.

🛓 PM Tools						1	-	
System Info Crea	te Preset E	DID I/O Confi	g Sys Config	Scaling				Connect
EDID Manage	.og							
Intenal EDID								
1024x7	68 @60	2 1280x10	024 @60	3	00 @60	4 HD 108	0i <mark>@</mark> 60	Ď
5 HD 108	0P(2ch)	6 HD 1080	DP(Multi)	7 1920×10	80(DVI)	8 1920x10	30(VGA)	
9								
Input								
1 Laptop1	2 Laptop2	3 IN3	4 IN4	5 N5	6 IN6	7 IN7	8 1N8	n
9	10	11	12	13	14	15	16	
IN9	IN10	IN11	IN12	IN13	IN14	IN15	IN16	
IN17	IN 18	IN19	IN20	IN21	IN22	IN23	IN24	ļ
External EDID	Internal EDID		Set ALL	CIr ALL		E	inter	Cancel

EDID library (Internal EDID)

9 most widely used EDID data is pre-programmed internal EEPROM chipset which user can take and save onto the any of the Matrix Router's Input EEPROM. EDID library list

1024 x 768 @ 60Hz	1280 x 1024 @ 60Hz	1920 x 1200 @ 60Hz
HD 1080i @ 60Hz	HD 1080p (2CH)	HD 1080p (Multi)
1920 x 1080 (DVI)	1920 x 1080 (VGA)	3840 x 2160

Factory default EDID is set to 1920 x 1080p@60Hz

- Select EDID from the list
- Select Input# where selected EDID data will be saved on to.
 - * Multiple Inputs can be selected at once.
- Push enter button to save

Emulation (External EDID)

The user can easily save an EDID data from any display devices directly onto the Matrix Router's Input port or EDID library's empty spot. By saving display device's EDID information on the Matrix Router Input port, Input port will act as a display to the Video source.

Note) There may be display devices that are not allowing other device to emulate its EDID data.

Note) Certain EDID data may not be compatible with some devices, in this case, it is recommended to use scaling output option

- Select Output #
- Select Input# where selected EDID data will be saved on to.
 - * Multiple Inputs can be selected at once.
- Push enter button to save.

5. Test Pattern

PureMedia series Matrix Router provides a built-in Test Pattern Generator, enabling easy Testing from the Matrix Router to the display.

- Select timing
- Select pattern
- Select output
- Press "Enter"

Multiple Outputs can be selected at once.

🕌 PM Tools				-		×
System Info Create Preset EDID	I/O Config Sys C	onfig Scaling			Co	nnect
Timing	OUTPUT					
1 : 1024x768 @60	1.51	2.52	3.OUT3	4.OUT4	5.OUT5	
2 : 1920x1200 @60	Laptop1	Laptop2	IN3	IN4	IN5	
3 : 1200x720p @60	10016	1.0017 N7	8.0018 IN8	9.0019	IN10	
4 : 1920x1080p @50	11.0UT11	12.0UT12	13.0UT13	14.0UT14	15.0UT15	
5:1920x1080p@60	IN11	IN12	IN13	IN14	IN15	
Pattern	16.OUT16	17.0UT17	18 OUT18	19.OUT19	20.OUT20	
	IN16	IN17	IN18	IN19	IN20	
1: Colorbars	21.0UT21	22.0UT22	23.0UT23	24.0UT24	25.0UT25	
2: Cross Hatch	IN21	IN22	IN23	IN24	IN25	
3: 16 Gray	26.OUT26	27.OUT27	28.OUT28	29.0UT29	30.OUT30	
4: 256 Gray	IN26	IN27	IN28	IN29	IN30	Ť
5: Black				Set A	Cir ALI	
				[Fata		
Test Pattern				Enter	Cancer	

Available timing options are: 1024 x 768 @ 60Hz 1920 x 1200 @ 60Hz 1280 x 720p @ 60Hz 1920 x 1080p @ 50Hz 1920 x 1080p @ 60Hz

Available pattern options are: Color bars Cross Hatch 16 Gray 256 Gray Black

6. Sys Config

This section contains connection method and its configuration to communicate with PureMedia chassis. Plus, input/output device naming.

Connect Mode	Ethernet Connecti	on Setting	
O Serial Port	IP address	192.168.0.155	
Ethernet Port		Conneu	
	PC RS232 Port Se	tting	
Device Naming	Boudrate	115200	
Edit		Connect	
Output	Audio Matrix		
Edit	Enable		

Connection Mode

- Serial port (via RS232) null modem cable is required
- Ethernet port (LAN)

Ethernet Connection Setting

Enter the IP address of the PureMedia chassis. User can set IP address, Gateway address, Subnet mask information from the front panel touch screen.

Note) Please contact your Network Administrator for network information to avoid any IP conflict.

RS232C Port Setting

Select correct RS232 port # and baud rate of the PureMedia chassis. User can set baud value from the front panel touch screen.

Device Naming

User can label input and output port to the desired letters, numbers, or in combination.

🔳 Ir	nput Settting	×	<		×
No	Name				
1	Laptop1				onnect
2	Laptop2		Scaling		
3	IN3				
4	IN4				
5	IN5				
6	IN6				
7	IN7				
8	IN8				
9	IN9		0.155		
10	IN10				
11	IN11		Connect		
12	IN12				
13	IN13				
14	IN14				
15	IN15				
16	IN16				
17	IN17				
18	IN18				
19	IN19		T		
20	IN20		7		
21	10/21				
		Save Cancel	Connect		
	Eait			~	
				-	
	Output	Audio Matrix			
	Edit	Enable			
		·			

Once labeling is saved, buttons on Create page will show the name.

7. Scaling

This menu is to set output scaling resolution timing for local output boards (HDMI, DVI, and SDI output cards)

🕌 PM Tools	<u> </u>									
System Info Create Preset EDID I/O Config Sys Config Scaling										
Timing										
18. 1280x1024@60	9. out	10. out	11. out	12. out	Î Î					
19. 1280x1024@75	12 out	14 aut	15 out	15. aut						
20. 1400x1050@60	13, 001	14. Out	15.001	16. 001						
21.1600x1200@60	17. out	18 out	19. out	20. out						
22.1360x768@60	01 AUTO	01.AUTO	01.AUTO	01.AUTO						
23. 1366x768@60	21. out	22. out	23. out	24. out						
24. 1400x900@60	27.3840x 2160@30	27.3840x 2160@30	27.3840x 2160@30	28.BYPASS						
25. 1920x1200@60	25. out	26. out	27. out	28. out						
26. 3840x 2160@24										
27.3840x2160@30	29. out	30. out	31. out	32. out						
28. BYPASS					•					
				Set ALL	CIr ALL					
HDMI SDI				Enter	Cancel					

- Select output board options (HDMI/DVI or SDI)
- Select timing
- Select output #
- Press "Enter"