VW-MVIEW4X1 Tesira Command Sheet

For Tesira Command String blocks · Version 1.0.2

Every command the VW-MVIEW4X1 takes over the network, as fixed strings for Tesira Command String blocks. The unit is controlled on its own control port (TCP 8001); no other KanexPro software is needed. The same strings, with their bytes, are in `KanexPro-VW-MVIEW4X1-Tesira-Command-Sheet-1.0.2.csv` for copying.

> **Before you start —** the Tesira server must reach the VW-MVIEW4X1 on TCP port 8001. Give the unit a fixed IP address (or a DHCP reservation).

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1. CONNECTION

HOW THE UNIT IS CONTROLLED	
Transport	TCP, port 8001 (the unit's control port)
Line ending	"!" (hex `21`), after every string
Pacing	One string at a time. The unit answers within about 1.5 s; wait for the answer before the next string.
A refused string	The unit answers with an error line.

2. USING THE STRINGS

1. Point the Command String block at the unit's IP address, TCP port 8001.
2. Add one command per row of section 3: its string, then the line ending (hex `21`).
3. Wire each command to the control that should send it. The Bytes column is the whole string as it goes on the wire, to compare with a network capture.

Settings that only the unit's own web page has (its network, logins and firmware) stay on that page.

3. COMMANDS

71 strings, and a template for each level with more values than fit a list.

#	Command	String	Bytes (hex, with the line ending)
1	**Show: Show (single screen) = HDMI 1**	`s in source 1`	`73 20 69 6E 20 73 6F 75 72 63 65 20 31 21`
2	**Show: Show (single screen) = HDMI 2**	`s in source 2`	`73 20 69 6E 20 73 6F 75 72 63 65 20 32 21`
3	**Show: Show (single screen) = HDMI 3**	`s in source 3`	`73 20 69 6E 20 73 6F 75 72 63 65 20 33 21`
4	**Show: Show (single screen) = HDMI 4**	`s in source 4`	`73 20 69 6E 20 73 6F 75 72 63 65 20 34 21`
5	**Layout: Layout = Single screen**	`s multiview 1`	`73 20 6D 75 6C 74 69 76 69 65 77 20 31 21`
6	**Layout: Layout = PIP**	`s multiview 2`	`73 20 6D 75 6C 74 69 76 69 65 77 20 32 21`
7	**Layout: Layout = PBP**	`s multiview 3`	`73 20 6D 75 6C 74 69 76 69 65 77 20 33 21`
8	**Layout: Layout = Triple**	`s multiview 4`	`73 20 6D 75 6C 74 69 76 69 65 77 20 34 21`
9	**Layout: Layout = Quad**	`s multiview 5`	`73 20 6D 75 6C 74 69 76 69 65 77 20 35 21`
10	**Layout: Picture-in-picture position = Left top**	`s PIP position 1`	`73 20 50 49 50 20 70 6F 73 69 74 69 6F 6E 20 31 21`

11	Layout: Picture-in-picture position = Left bottom	`s PIP position 2`	`73 20 50 49 50 20 70 6F 73 69 74 69 6F 6E 20 32 21`
12	Layout: Picture-in-picture position = Right top	`s PIP position 3`	`73 20 50 49 50 20 70 6F 73 69 74 69 6F 6E 20 33 21`
13	Layout: Picture-in-picture position = Right bottom	`s PIP position 4`	`73 20 50 49 50 20 70 6F 73 69 74 69 6F 6E 20 34 21`
14	Layout: Picture-in-picture size = Small	`s PIP size 1`	`73 20 50 49 50 20 73 69 7A 65 20 31 21`
15	Layout: Picture-in-picture size = Middle	`s PIP size 2`	`73 20 50 49 50 20 73 69 7A 65 20 32 21`
16	Layout: Picture-in-picture size = Large	`s PIP size 3`	`73 20 50 49 50 20 73 69 7A 65 20 33 21`
17	Layout: Side-by-side arrangement = Mode 1	`s PBP mode 1`	`73 20 50 42 50 20 6D 6F 64 65 20 31 21`
18	Layout: Side-by-side arrangement = Mode 2	`s PBP mode 2`	`73 20 50 42 50 20 6D 6F 64 65 20 32 21`
19	Layout: Side-by-side shape = Full screen	`s PBP aspect 1`	`73 20 50 42 50 20 61 73 70 65 63 74 20 31 21`
20	Layout: Side-by-side shape = 16:9	`s PBP aspect 2`	`73 20 50 42 50 20 61 73 70 65 63 74 20 32 21`
21	Layout: Triple arrangement = Mode 1	`s triple mode 1`	`73 20 74 72 69 70 6C 65 20 6D 6F 64 65 20 31 21`
22	Layout: Triple arrangement = Mode 2	`s triple mode 2`	`73 20 74 72 69 70 6C 65 20 6D 6F 64 65 20 32 21`
23	Layout: Triple shape = Full screen	`s triple aspect 1`	`73 20 74 72 69 70 6C 65 20 61 73 70 65 63 74 20 31 21`
24	Layout: Triple shape = 16:9	`s triple aspect 2`	`73 20 74 72 69 70 6C 65 20 61 73 70 65 63 74 20 32 21`
25	Layout: Quad arrangement = Mode 1	`s quad mode 1`	`73 20 71 75 61 64 20 6D 6F 64 65 20 31 21`
26	Layout: Quad arrangement = Mode 2	`s quad mode 2`	`73 20 71 75 61 64 20 6D 6F 64 65 20 32 21`
27	Layout: Quad shape = Full screen	`s quad aspect 1`	`73 20 71 75 61 64 20 61 73 70 65 63 74 20 31 21`
28	Layout: Quad shape = 16:9	`s quad aspect 2`	`73 20 71 75 61 64 20 61 73 70 65 63 74 20 32 21`
29	Layout: Window 1: Window border on	`s window 1 border 1`	`73 20 77 69 6E 64 6F 77 20 31 20 62 6F 72 64 65 72 20 31 21`
30	Layout: Window 1: Window border off	`s window 1 border 0`	`73 20 77 69 6E 64 6F 77 20 31 20 62 6F 72 64 65 72 20 30 21`
31	Layout: Window 2: Window border on	`s window 2 border 1`	`73 20 77 69 6E 64 6F 77 20 32 20 62 6F 72 64 65 72 20 31 21`
32	Layout: Window 2: Window border off	`s window 2 border 0`	`73 20 77 69 6E 64 6F 77 20 32 20 62 6F 72 64 65 72 20 30 21`
33	Layout: Window 3: Window border on	`s window 3 border 1`	`73 20 77 69 6E 64 6F 77 20 33 20 62 6F 72 64 65 72 20 31 21`
34	Layout: Window 3: Window border off	`s window 3 border 0`	`73 20 77 69 6E 64 6F 77 20 33 20 62 6F 72 64 65 72 20 30 21`
35	Layout: Window 4: Window border on	`s window 4 border 1`	`73 20 77 69 6E 64 6F 77 20 34 20 62 6F 72 64 65 72 20 31 21`

36	Layout: Window 4: Window border off	`s window 4 border 0`	`73 20 77 69 6E 64 6F 77 20 34 20 62 6F 72 64 65 72 20 30 21`
37	Layout: Show each window's input name on	`s window source osd 1`	`73 20 77 69 6E 64 6F 77 20 73 6F 75 72 63 65 20 6F 73 64 20 31 21`
38	Layout: Show each window's input name off	`s window source osd 0`	`73 20 77 69 6E 64 6F 77 20 73 6F 75 72 63 65 20 6F 73 64 20 30 21`
39	Show: Switch to a new source by itself on	`s auto switch 1`	`73 20 61 75 74 6F 20 73 77 69 74 63 68 20 31 21`
40	Show: Switch to a new source by itself off	`s auto switch 0`	`73 20 61 75 74 6F 20 73 77 69 74 63 68 20 30 21`
41	Sound: Sound from = Window 1's source	`s output audio 0`	`73 20 6F 75 74 70 75 74 20 61 75 64 69 6F 20 30 21`
42	Sound: Sound from = HDMI 1 sound	`s output audio 1`	`73 20 6F 75 74 70 75 74 20 61 75 64 69 6F 20 31 21`
43	Sound: Sound from = HDMI 2 sound	`s output audio 2`	`73 20 6F 75 74 70 75 74 20 61 75 64 69 6F 20 32 21`
44	Sound: Sound from = HDMI 3 sound	`s output audio 3`	`73 20 6F 75 74 70 75 74 20 61 75 64 69 6F 20 33 21`
45	Sound: Sound from = HDMI 4 sound	`s output audio 4`	`73 20 6F 75 74 70 75 74 20 61 75 64 69 6F 20 34 21`
46	Sound: Volume = {level} (0 to 100)	`s output audio vol {level}`	`the level in place of {level}`
47	Sound: Volume = 0	`s output audio vol 0`	`73 20 6F 75 74 70 75 74 20 61 75 64 69 6F 20 76 6F 6C 20 30 21`
48	Sound: Volume = 50	`s output audio vol 50`	`73 20 6F 75 74 70 75 74 20 61 75 64 69 6F 20 76 6F 6C 20 35 30 21`
49	Sound: Volume = 100	`s output audio vol 100`	`73 20 6F 75 74 70 75 74 20 61 75 64 69 6F 20 76 6F 6C 20 31 30 30 21`
50	Sound: Mute on	`s output audio mute 1`	`73 20 6F 75 74 70 75 74 20 61 75 64 69 6F 20 6D 75 74 65 20 31 21`
51	Sound: Mute off	`s output audio mute 0`	`73 20 6F 75 74 70 75 74 20 61 75 64 69 6F 20 6D 75 74 65 20 30 21`
52	Picture: Output resolution = 4096x2160p60	`s output res 1`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 31 21`
53	Picture: Output resolution = 4096x2160p50	`s output res 2`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 32 21`
54	Picture: Output resolution = 3840x2160p60	`s output res 3`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 33 21`
55	Picture: Output resolution = 3840x2160p50	`s output res 4`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 34 21`
56	Picture: Output resolution = 3840x2160p30	`s output res 5`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 35 21`
57	Picture: Output resolution = 3840x2160p25	`s output res 6`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 36 21`
58	Picture: Output resolution = 1920x1200p60RB	`s output res 7`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 37 21`
59	Picture: Output resolution = 1920x1080p60	`s output res 8`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 38 21`

60	Picture: Output resolution = 1920x1080p50	`s output res 9`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 39 21`
61	Picture: Output resolution = 1360x768p60	`s output res 10`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 31 30 21`
62	Picture: Output resolution = 1280x800p60	`s output res 11`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 31 31 21`
63	Picture: Output resolution = 1280x720p60	`s output res 12`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 31 32 21`
64	Picture: Output resolution = 1280x720p50	`s output res 13`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 31 33 21`
65	Picture: Output resolution = 1024x768p60	`s output res 14`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 31 34 21`
66	Picture: Output resolution = Auto	`s output res 15`	`73 20 6F 75 74 70 75 74 20 72 65 73 20 31 35 21`
67	Picture: Picture mode = Video	`s output itc 1`	`73 20 6F 75 74 70 75 74 20 69 74 63 20 31 21`
68	Picture: Picture mode = PC	`s output itc 2`	`73 20 6F 75 74 70 75 74 20 69 74 63 20 32 21`
69	Picture: With no source show = Black screen	`s output vka 1`	`73 20 6F 75 74 70 75 74 20 76 6B 61 20 31 21`
70	Picture: With no source show = Blue screen	`s output vka 2`	`73 20 6F 75 74 70 75 74 20 76 6B 61 20 32 21`
71	Power: Power On	`power 1`	`70 6F 77 65 72 20 31 21`
72	Power: Power Standby	`power 0`	`70 6F 77 65 72 20 30 21`

4. READING THE UNIT BACK

Send these to read the unit back (on a timer, or after a change).

#	String	Bytes (hex)	The reply gives
1	`r power`	`72 20 70 6F 77 65 72 21`	Power
2	`r in source`	`72 20 69 6E 20 73 6F 75 72 63 65 21`	Show (single screen)
3	`r multiview`	`72 20 6D 75 6C 74 69 76 69 65 77 21`	Layout
4	`r window 0 border`	`72 20 77 69 6E 64 6F 77 20 30 20 62 6F 72 64 65 72 21`	Window border
5	`r PIP position`	`72 20 50 49 50 20 70 6F 73 69 74 69 6F 6E 21`	Picture-in-picture position
6	`r PIP size`	`72 20 50 49 50 20 73 69 7A 65 21`	Picture-in-picture size
7	`r PBP mode`	`72 20 50 42 50 20 6D 6F 64 65 21`	Side-by-side arrangement
8	`r PBP aspect`	`72 20 50 42 50 20 61 73 70 65 63 74 21`	Side-by-side shape
9	`r triple mode`	`72 20 74 72 69 70 6C 65 20 6D 6F 64 65 21`	Triple arrangement

10	`r triple aspect`	`72 20 74 72 69 70 6C 65 20 61 73 70 65 63 74 21`	Triple shape
11	`r quad mode`	`72 20 71 75 61 64 20 6D 6F 64 65 21`	Quad arrangement
12	`r quad aspect`	`72 20 71 75 61 64 20 61 73 70 65 63 74 21`	Quad shape
13	`r window source osd`	`72 20 77 69 6E 64 6F 77 20 73 6F 75 72 63 65 20 6F 73 64 21`	Show each window's input name
14	`r auto switch`	`72 20 61 75 74 6F 20 73 77 69 74 63 68 21`	Switch to a new source by itself
15	`r output audio`	`72 20 6F 75 74 70 75 74 20 61 75 64 69 6F 21`	Sound from
16	`r output audio vol`	`72 20 6F 75 74 70 75 74 20 61 75 64 69 6F 20 76 6F 6C 21`	Volume
17	`r output audio mute`	`72 20 6F 75 74 70 75 74 20 61 75 64 69 6F 20 6D 75 74 65 21`	Mute
18	`r output res`	`72 20 6F 75 74 70 75 74 20 72 65 73 21`	Output resolution
19	`r output itc`	`72 20 6F 75 74 70 75 74 20 69 74 63 21`	Picture mode
20	`r output vka`	`72 20 6F 75 74 70 75 74 20 76 6B 61 21`	With no source show
21	`r fw version`	`72 20 66 77 20 76 65 72 73 69 6F 6E 21`	Firmware

5. TROUBLESHOOTING

Nothing happens.
Check the unit's IP address and that TCP 8001 is open between the Tesira server and the unit (same network or VLAN, or routed; no firewall in between). Check the line ending is sent after each string.

The unit answers with an error.
The string or its value is not one it takes, or the unit is in standby: turn it on first.