

# Protocol 3000

Kramer devices can be operated using Kramer Protocol 3000 commands sent via serial or Ethernet ports.

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## Understanding Protocol 3000

Protocol 3000 commands are a sequence of ASCII letters, structured according to the following.

- **Command format:**

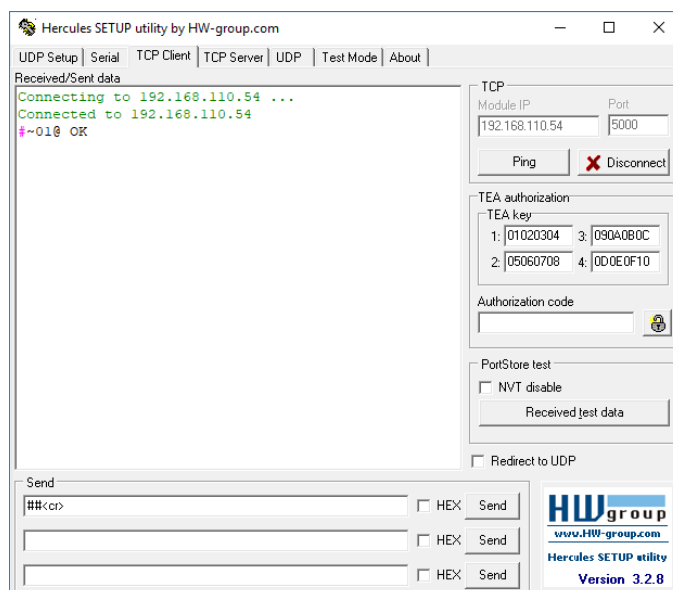
Prefix	Command Name	Constant (Space)	Parameter(s)	Suffix
#	Command	_	Parameter	<CR>

- **Feedback format:**

Prefix	Device ID	Constant	Command Name	Parameter(s)	Suffix
~	nn	@	Command	Parameter	<CR><LF>

- **Command parameters** – Multiple parameters must be separated by a comma (,). In addition, multiple parameters can be grouped as a single parameter using brackets ([ and ]).
- **Command chain separator character** – Multiple commands can be chained in the same string. Each command is delimited by a pipe character (|).
- **Parameters attributes** – Parameters may contain multiple attributes. Attributes are indicated with pointy brackets (<...>) and must be separated by a period (.).

The command framing varies according to how you interface with **VW-4**. The following figure displays how the # command is framed using terminal communication software (such as Hercules):



# Protocol 3000 Commands

Function	Description	Syntax	Parameters/Attributes	Example
#	<p>Protocol handshaking.</p> <p>① Validates the Protocol 3000 connection and gets the machine number.</p> <p>Step-in master products use this command to identify the availability of a device.</p>	<b>COMMAND</b> #<CR> <b>FEEDBACK</b> ~nn@ok<CR><LF>		#<CR>
BEZEL	Set bezel On/Off, H/V correction.	<b>COMMAND</b> #BEZEL_out_index,hv_value,switch,h_value,v_value<CR> <b>FEEDBACK</b> ~nn@BEZEL_out_index,hv_value,switch,h_value,v_value<CR><LF> >	<b>out_index</b> – 0 <b>hv_value</b> – 0 – current H/V value 1 – max. H/V value <b>switch</b> – Enable/Disable bezel correction 0 – Off 1 – On <b>h_value</b> – Horizontal correction values <b>v_value</b> – Vertical correction values	Set bezel On with H/V correction: #BEZEL_1,0,1,12,24<CR>
BEZEL?	Get bezel switch, H/V correction status.	<b>COMMAND</b> #BEZEL?_<CR> <b>FEEDBACK</b> ~nn@BEZEL_out_index,hv_value,switch,h_value,v_value<CR><LF> >	<b>out_index</b> – 0 <b>hv_value</b> – 0 – current H/V value 1 – max. H/V value <b>switch</b> – Enable/Disable bezel correction 0 – Off 1 – On <b>h_value</b> – Horizontal correction values <b>v_value</b> – Vertical correction values	Get bezel switch, H/V correction status: #BEZEL?_1<CR>
BUILD-DATE?	Get device build date.	<b>COMMAND</b> #BUILD-DATE?_<CR> <b>FEEDBACK</b> ~nn@BUILD-DATE_date,time<CR><LF>	<b>date</b> – Format: YYYY/MM/DD where YYYY = Year MM = Month DD = Day <b>time</b> – Format: hh:mm:ss where hh = hours mm = minutes ss = seconds	Get the device build date: #BUILD-DATE?<CR>
CPEDID	<p>Copy EDID data from the output to the input EEPROM.</p> <p>① Destination bitmap size depends on device properties (for 64 inputs it is a 64-bit word).</p> <p>Example: bitmap 0x0013 means inputs 1,2 and 5 are loaded with the new EDID.</p> <p>In certain products Safe_mode is an optional parameter. See the HELP command for its availability.</p>	<b>COMMAND</b> #CPEDID_edid_io,src_id,edid_io,dest_bitmap<CR> or #CPEDID_edid_io,src_id,edid_io,dest_bitmap<CR> <b>FEEDBACK</b> ~nn@CPEDID_edid_io,src_id,edid_io,dest_bitmap<CR><LF> ~nn@CPEDID_edid_io,src_id,edid_io,dest_bitmap <CR><LF>	<b>edid_io</b> – EDID source type 1 – Output <b>src_id</b> – Number of chosen source stage 0 – Default EDID source 1 – HDMI OUT 1 2 – HDMI OUT 2 3 – HDMI OUT 3 4 – HDMI OUT 4 <b>edid_io</b> – EDID destination type (usually input) 0 – Input <b>dest_bitmap</b> – 1	Copy the EDID data from the Output 1 (EDID source) to the Input: #CPEDID_1,1,0,1<CR>
CPEDID?	GET EDID data from the output to the input EEPROM.	<b>COMMAND</b> #CPEDID?_<CR> <b>FEEDBACK</b> ~nn@CPEDID_edid_io,src_id,edid_io,dest_bitmap<CR><LF>	<b>edid_io</b> – EDID source type 1 – Output <b>src_id</b> – Number of chosen source stage 0 – Default EDID source 1 – HDMI OUT 1 2 – HDMI OUT 2 3 – HDMI OUT 3 4 – HDMI OUT 4 <b>edid_io</b> – EDID destination type (usually input) 0 – Input <b>dest_bitmap</b> – 1	Get the EDID data from the Output 1 (EDID source) to the Input: #CPEDID?_<CR>
DISPLAY?	Get output HPD status.	<b>COMMAND</b> #DISPLAY?_out_index<CR> <b>FEEDBACK</b> ~nn@DISPLAY_out_index,status<CR><LF>	<b>out_index</b> – Number that indicates the specific output: 1-4 <b>status</b> – HPD status according to signal validation 0 – Signal or sink is not valid 1 – Signal or sink is valid 2 – Sink and EDID is valid	Get the output HPD status of Output 1: #DISPLAY?_1<CR>
DPSW-STATUS?	Get the DIP-switch state.	<b>COMMAND</b> #DPSW-STATUS?_dip_id<CR> <b>FEEDBACK</b> ~nn@DPSW-STATUS_dip_id,status<CR><LF>	<b>dip_id</b> – 1 to 4 (number of DIP switches) <b>status</b> – Up/down 0 – Up 1 – Down	get the DIP-switch 2 status: #DPSW-STATUS?_2<CR>
ETH-PORT	<p>Set Ethernet port protocol.</p> <p>① If the port number you enter is already in use, an error is returned.</p> <p>The port number must be within the following range: 0-(2<sup>16</sup>-1).</p>	<b>COMMAND</b> #ETH-PORT_port_type,port_id<CR> <b>FEEDBACK</b> ~nn@ETH-PORT_port_type,port_id<CR><LF>	<b>port_type</b> – TCP/UDP <b>port_id</b> – TCP/UDP port number (0 – 65535)	Set the Ethernet port protocol for TCP to port 12457: #ETH-PORT_0,12457<CR>

Function	Description	Syntax	Parameters/Attributes	Example
ETH-PORT?	Get Ethernet port protocol.	<b>COMMAND</b> #ETH-PORT?_port_type<CR> <b>FEEDBACK</b> ~nn@ETH-PORT_port_type,port_id<CR><LF>	port_type – TCP/UDP 0 – TCP 1 – UDP port_id – TCP / UDP port number (0 – 65535)	Get the Ethernet port protocol for UDP: #ETH-PORT?_1<CR>
FACTORY	Reset device to factory default configuration.  ⓘ This command deletes all user data from the device. The deletion can take some time. Your device may require powering off and powering on for the changes to take effect.	<b>COMMAND</b> #FACTORY<CR> <b>FEEDBACK</b> ~nn@FACTORY_ok<CR><LF>		Reset the device to factory default configuration: #FACTORY<CR>
HDCP-MOD	Set HDCP mode.  ⓘ Set HDCP working mode on the device input:  HDCP supported - HDCP_ON [default].  HDCP not supported - HDCP OFF.  HDCP support changes following detected sink - MIRROR OUTPUT.  When you define 3 as the mode, the HDCP status is defined according to the connected output in the following priority: OUT 1, OUT 2. If the connected display on OUT 2 supports HDCP, but OUT 1 does not, then HDCP is defined as not supported. If OUT 1 is not connected, then HDCP is defined by OUT 2.	<b>COMMAND</b> #HDCP-MOD_stage,stage_id,mode<CR> <b>FEEDBACK</b> ~nn@HDCP-MOD_ok<CR><LF>	stage – Input/Output 0 – Input 1 – Output stage_id – Input number: 1 – HDMI Output number 1 – HDMI 1 2 – HDMI 2 3 – HDMI 3 4 – HDMI 4 2 – HDBT mode – HDCP mode Input: 0 – Off 1 – On Output: 2 – Follow input 3 – Follow output	Set the input HDCP-MODE of the HDMI input to Off: #HDCP-MOD_0,1,0<CR>
HDCP-MOD?	Get HDCP mode.  ⓘ Set HDCP working mode on the device input:  HDCP supported - HDCP_ON [default].  HDCP not supported - HDCP OFF.  HDCP support changes following detected sink - MIRROR OUTPUT.	<b>COMMAND</b> #HDCP-MOD?_stage,stage_id<CR> <b>FEEDBACK</b> ~nn@HDCP-MOD_stage,stage_id,mode<CR><LF>	stage – Input/Output 0 – Input 1 – Output stage_id – Input number: 1 – HDMI Output number 1 – HDMI 1 2 – HDMI 2 3 – HDMI 3 4 – HDMI 4 mode – HDCP mode Input: 0 – Off 1 – On Output: 2 – Follow input 3 – Follow output	Get the input HDCP-MODE of the HDMI input: #HDCP-MOD?_0,1<CR>
HDCP-STAT?	Get HDCP signal status.  ⓘ io_mode =1 – get the HDCP signal status of the sink device connected to the specified output. io_mode =0 – get the HDCP signal status of the source device connected to the specified input.	<b>COMMAND</b> #HDCP-STAT?_io_mode,in_index<CR> <b>FEEDBACK</b> ~nn@HDCP-STAT_io_mode,in_index,status<CR><LF>	io_mode – Input/Output 0 – Input 1 – Output io_index – Number that indicates the specific number of inputs or outputs Input number: 1 – HDMI Output number 1 – HDMI 1 2 – HDMI 2 3 – HDMI 3 4 – HDMI 4 status – Signal encryption status - valid values On/Off 0 – HDCP Off 1 – HDCP On	Get the output HDCP-STATUS of IN 1: #HDCP-STAT?_0,1<CR>
HELP	Get command list or help for specific command.	<b>COMMAND</b> #HELP<CR> #HELP_cmd_name<CR> <b>FEEDBACK</b> 1. Multi-line: ~nn@Device_cmd_name,_cmd_name...<CR><LF>  To get help for command use: HELP (COMMAND_NAME)<CR><LF> ~nn@HELP_cmd_name:<CR><LF> description<CR><LF> USAGE: usage<CR><LF>	cmd_name – Name of a specific command	Get the command list: #HELP<CR>  To get help for AV-SW-TIMEOUT: HELP_av-sw-timeout<CR>

Function	Description	Syntax	Parameters/Attributes	Example
<b>MACH-NUM</b>	<p>Set machine number.</p> <p>ⓘ Some devices do not set the new machine number until the device is restarted.</p> <p>Some devices can change the machine number only from DIP-switches.</p>	<p><b>COMMAND</b></p> <pre>#MACH-NUM_machine_id&lt;CR&gt;</pre> <p><b>FEEDBACK</b></p> <pre>~nn@MACH-NUM_machine_id&lt;CR&gt;&lt;LF&gt;</pre>	<p><b>machine_id</b> – New device machine number</p>	<p>Set machine number:</p> <pre>#MACH-NUM_1&lt;CR&gt;</pre>
<b>MODEL?</b>	<p>Get device model.</p> <p>ⓘ This command identifies equipment connected to VW-4 and notifies of identity changes to the connected equipment. The Matrix saves this data in memory to answer REMOTE-INFO requests.</p>	<p><b>COMMAND</b></p> <pre>#MODEL?_&lt;CR&gt;</pre> <p><b>FEEDBACK</b></p> <pre>~nn@MODEL_model_name&lt;CR&gt;&lt;LF&gt;</pre>	<p><b>model_name</b> – String of up to 19 printable ASCII chars</p>	<p>Get the device model:</p> <pre>#MODEL?_&lt;CR&gt;</pre>
<b>MUTE</b>	<p>Set audio mute.</p>	<p><b>COMMAND</b></p> <pre>#MUTE_out_index,mute_mode&lt;CR&gt;</pre> <p><b>FEEDBACK</b></p> <pre>~nn@MUTE_out_index,mute_mode&lt;CR&gt;&lt;LF&gt;</pre>	<p><b>out_index</b> – 0</p> <p><b>mute_mode</b> – On/Off</p> <p>0 – Off</p> <p>1 – On</p>	<p>Set Output 1 to mute:</p> <pre>#MUTE_1,1&lt;CR&gt;</pre>
<b>MUTE?</b>	<p>Get audio mute.</p>	<p><b>COMMAND</b></p> <pre>#MUTE?_out_index&lt;CR&gt;</pre> <p><b>FEEDBACK</b></p> <pre>~nn@MUTE_out_index,mute_mode&lt;CR&gt;&lt;LF&gt;</pre>	<p><b>out_index</b> – 0</p> <p><b>mute_mode</b> – On/Off</p> <p>0 – Off</p> <p>1 – On</p>	<p>Get mute status of output 1</p> <pre>#MUTE_1?&lt;CR&gt;</pre>
<b>NAME</b>	<p>Set machine (DNS) name.</p> <p>ⓘ The machine name is not the same as the model name. The machine name is used to identify a specific machine or a network in use (with DNS feature on).</p>	<p><b>COMMAND</b></p> <pre>#NAME_machine_name&lt;CR&gt;</pre> <p><b>FEEDBACK</b></p> <pre>~nn@NAME_machine_name&lt;CR&gt;&lt;LF&gt;</pre>	<p><b>machine_name</b> – String of up to 15 alpha-numeric chars (can include hyphen, not at the beginning or end)</p>	<p>Set the DNS name of the device to room-442:</p> <pre>#NAME_room-442&lt;CR&gt;</pre>
<b>NAME?</b>	<p>Get machine (DNS) name.</p> <p>ⓘ The machine name is not the same as the model name. The machine name is used to identify a specific machine or a network in use (with DNS feature on).</p>	<p><b>COMMAND</b></p> <pre>#NAME?_&lt;CR&gt;</pre> <p><b>FEEDBACK</b></p> <pre>~nn@NAME_machine_name&lt;CR&gt;&lt;LF&gt;</pre>	<p><b>machine_name</b> – String of up to 15 alpha-numeric chars (can include hyphen, not at the beginning or end)</p>	<p>Get the DNS name of the device:</p> <pre>#NAME?_&lt;CR&gt;</pre>
<b>NET-DHCP</b>	<p>Set DHCP mode.</p> <p>ⓘ Only 1 is relevant for the mode value. To disable DHCP, the user must configure a static IP address for the device.</p> <p>Connecting Ethernet to devices with DHCP may take more time in some networks.</p> <p>To connect with a randomly assigned IP by DHCP, specify the device DNS name (if available) using the <b>NAME</b> command. You can also get an assigned IP by direct connection to USB or RS-232 protocol port, if available.</p> <p>For proper settings consult your network administrator.</p> <p>ⓘ For Backward compatibility, the <b>id</b> parameter can be omitted. In this case, the Network ID, by default, is 0, which is the Ethernet control port.</p>	<p><b>COMMAND</b></p> <pre>#NET-DHCP_netw_id,dhcp_state&lt;CR&gt;</pre> <p><b>FEEDBACK</b></p> <pre>~nn@NET-DHCP_netw_id,dhcp_state&lt;CR&gt;&lt;LF&gt;</pre>	<p><b>netw_id</b> – Network ID—the device network interface (if there are more than one). Counting is 0 based, meaning the control port is '0', additional ports are 1,2,3....</p> <p><b>dhcp_state</b> –</p> <p>1 – Try to use DHCP. (If unavailable, use the IP address set by the factory or the <b>net-ip</b> command).</p>	<p>Enable DHCP mode for port 1, if available:</p> <pre>#NET-DHCP_1,1&lt;CR&gt;</pre>
<b>NET-DHCP?</b>	<p>Get DHCP mode.</p> <p>ⓘ For Backward compatibility, the <b>id</b> parameter can be omitted. In this case, the Network ID, by default, is 0, which is the Ethernet control port.</p>	<p><b>COMMAND</b></p> <pre>#NET-DHCP?_netw_id&lt;CR&gt;</pre> <p><b>FEEDBACK</b></p> <pre>~nn@NET-DHCP_netw_id,dhcp_mode&lt;CR&gt;&lt;LF&gt;</pre>	<p><b>netw_id</b> – Network ID—the device network interface (if there are more than one). Counting is 0 based, meaning the control port is '0', additional ports are 1,2,3....</p> <p><b>dhcp_mode</b> –</p> <p>0 – Do not use DHCP. Use the IP set by the factory or using the <b>net-ip</b> or <b>net-config</b> command.</p> <p>1 – Try to use DHCP. If unavailable, use the IP set by the factory or using the <b>net-ip</b> or <b>net-config</b> command.</p>	<p>Get DHCP mode for port 1:</p> <pre>#NET-DHCP?_1&lt;CR&gt;</pre>

Function	Description	Syntax	Parameters/Attributes	Example
NET-GATE	Set gateway IP.  ① A network gateway connects the device via another network and maybe over the Internet. Be careful of security issues. For proper settings consult your network administrator.	COMMAND #NET-GATE_ip_address<CR> FEEDBACK ~nn@NET-GATE_ip_address<CR><LF>	ip_address – Format: xxx.xxx.xxx.xxx	Set the gateway IP address to 192.168.0.1: #NET-GATE_192.168.0.001<CR>
NET-GATE?	Get gateway IP.  ① A network gateway connects the device via another network and maybe over the Internet. Be aware of security problems.	COMMAND #NET-GATE?_<CR> FEEDBACK ~nn@NET-GATE_ip_address<CR><LF>	ip_address – Format: xxx.xxx.xxx.xxx	Get the gateway IP address: #NET-GATE?_<CR>
NET-IP	Set IP address.  ① For proper settings consult your network administrator.	COMMAND #NET-IP_ip_address<CR> FEEDBACK ~nn@NET-IP_ip_address<CR><LF>	ip_address – Format: xxx.xxx.xxx.xxx	Set the IP address to 192.168.1.39: #NET-IP_192.168.001.039<CR>
NET-IP?	Get IP address.	COMMAND #NET-IP?_<CR> FEEDBACK ~nn@NET-IP_ip_address<CR><LF>	ip_address – Format: xxx.xxx.xxx.xxx	Get the IP address: #NET-IP?_<CR>
NET-MAC?	Get MAC address.  ① For backward compatibility, the id parameter can be omitted. In this case, the Network ID, by default, is 0, which is the Ethernet control port.	COMMAND #NET-MAC?_id<CR> FEEDBACK ~nn@NET-MAC_id,mac_address<CR><LF>	id – Network ID—the device network interface (if there are more than one). Counting is 0 based, meaning the control port is '0', additional ports are 1,2,3.... mac_address – Unique MAC address. Format: XX-XX-XX-XX-XX-XX where X is hex digit	#NET-MAC?_id<CR>
NET-MASK	Set subnet mask.  ① For proper settings consult your network administrator.	COMMAND #NET-MASK_net_mask<CR> FEEDBACK ~nn@NET-MASK_net_mask<CR><LF>	net_mask – Format: xxx.xxx.xxx.xxx	Set the subnet mask to 255.255.0.0: #NET-MASK_255.255.000.000<CR>
NET-MASK?	Get subnet mask.	COMMAND #NET-MASK?_<CR> FEEDBACK ~nn@NET-MASK_net_mask<CR><LF>	net_mask – Format: xxx.xxx.xxx.xxx	Get the subnet mask: #NET-MASK?_<CR>
PROT-VER?	Get device protocol version.	COMMAND #PROT-VER?_<CR> FEEDBACK ~nn@PROT-VER_3000:version<CR><LF>	version – XX.XX where X is a decimal digit	Get the device protocol version: #PROT-VER?_<CR>
RESET	Reset device.  ① To avoid locking the port due to a USB bug in Windows, disconnect USB connections immediately after running this command. If the port was locked, disconnect and reconnect the cable to reopen the port.	COMMAND #RESET<CR> FEEDBACK ~nn@RESET_ok<CR><LF>		Reset the device: #RESET<CR>
SCLR-AS	Set auto-sync features.  ① Sets the auto sync features for the selected scaler.	COMMAND #SCLR-AS_scaler_index, sync_speed<CR> FEEDBACK ~nn@SCLR-AS_scaler_index, sync_speed<CR><LF>	scaler_index – Scaler Number – 1 sync_speed – 0, 1 or 2 0 – off 1 – fast 2 – slow	Set auto-sync features: #SCLR-AS_1,1<CR>
SCLR-AS?	Set auto-sync features.  ① Sets the auto sync features for the selected scaler.	COMMAND #SCLR-AS_scaler_index<CR> FEEDBACK ~nn@SCLR-AS_scaler_index, sync_speed<CR><LF>	scaler_index – Scaler Number 1- Scaler1 sync_speed – 0, 1 or 2 0 – off 1 – fast 2 – slow	Get auto-sync features: #SCLR-AS?_1<CR>
SHOW-OSD	Set the OSD of selected channel.	COMMAND #SHOW-OSD_out_index, switch<CR> FEEDBACK ~nn@SHOW-OSD_out_index, switch<CR><LF>	out_index – Number that indicates the specific output: 1 switch – On/Off 0 – Off 1 – On	Set the OSD of selected channel: #SHOW-OSD_1,1<CR>
SHOW-OSD?	Get the OSD of selected channel.	COMMAND #SHOW-OSD?_out_index<CR> FEEDBACK ~nn@SHOW-OSD_out_index, switch<CR><LF>	out_index – Number that indicates the specific output: 1-N (N= the total number of outputs) switch – On/Off 0 – Off 1 – On	Get the OSD of selected channel: #SHOW-OSD?_1<CR>
SIGNAL?	Get input signal status.	COMMAND #SIGNAL?_in_index<CR> FEEDBACK ~nn@SIGNAL_in_index, status<CR><LF>	in_index – Number that indicates the specific input: 1- status – Signal status according to signal validation: 0 – Off 1 – On	Get the input signal lock status of IN 1: #SIGNAL?_1<CR>
SN?	Get device serial number.	COMMAND #SN?_<CR> FEEDBACK ~nn@SN_serial_num<CR><LF>	serial_num – 14 decimal digits, factory assigned	Get the device serial number: #SN?_<CR>

Function	Description	Syntax	Parameters/Attributes	Example
VERSION?	Get firmware version number.	<b>COMMAND</b> #VERSION?_<CR> <b>FEEDBACK</b> ~nn@VERSION_ <u>firmware_version</u> <CR><LF>	<b>firmware_version</b> – XX.XX.XXXX where the digit groups are: major.minor.build version	Get the device firmware version number: #VERSION?_<CR>
WALL-LAYOUT	Set the video wall layout.	<b>COMMAND</b> #WALL-LAYOUT_ <u>h_value,v_value</u> <CR> <b>FEEDBACK</b> ~nn@WALL-LAYOUT_ <u>ok</u> <CR><LF>	<b>h_value</b> – Number of columns: 1 to 8 <b>v_value</b> – Number of rows: 1 to 8	Set the video wall layout to 3x2: #WALL-LAYOUT_ <u>3,2</u> <CR>
WALL-LAYOUT?	Get the video wall layout.	<b>COMMAND</b> #WALL-LAYOUT?_<CR> <b>FEEDBACK</b> ~nn@WALL-LAYOUT_ <u>h_value,v_value</u> <CR><LF>	<b>h_value</b> – Number of columns: 1 to 8 <b>v_value</b> – Number of rows: 1 to 8	Get the video wall layout: #SHOW-OSD?_<CR>

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# Result and Error Codes

## Syntax

In case of an error, the device responds with an error message. The error message syntax:

- **~NN@ERR XXX<CR><LF>** – when general error, no specific command
- **~NN@CMD ERR XXX<CR><LF>** – for specific command
- **NN** – machine number of device, default = 01
- **XXX** – error code

## Error Codes

Error Name	Error Code	Description
P3K_NO_ERROR	0	No error
ERR_PROTOCOL_SYNTAX	1	Protocol syntax
ERR_COMMAND_NOT_AVAILABLE	2	Command not available
ERR_PARAMETER_OUT_OF_RANGE	3	Parameter out of range
ERR_UNAUTHORIZED_ACCESS	4	Unauthorized access
ERR_INTERNAL_FW_ERROR	5	Internal FW error
ERR_BUSY	6	Protocol busy
ERR_WRONG_CRC	7	Wrong CRC
ERR_TIMEOUT	8	Timeout
ERR_RESERVED	9	(Reserved)
ERR_FW_NOT_ENOUGH_SPACE	10	Not enough space for data (firmware, FPGA...)
ERR_FS_NOT_ENOUGH_SPACE	11	Not enough space – file system
ERR_FS_FILE_NOT_EXISTS	12	File does not exist
ERR_FS_FILE_CANT_CREATED	13	File can't be created
ERR_FS_FILE_CANT_OPEN	14	File can't open
ERR_FEATURE_NOT_SUPPORTED	15	Feature is not supported
ERR_RESERVED_2	16	(Reserved)
ERR_RESERVED_3	17	(Reserved)
ERR_RESERVED_4	18	(Reserved)
ERR_RESERVED_5	19	(Reserved)
ERR_RESERVED_6	20	(Reserved)
ERR_PACKET_CRC	21	Packet CRC error
ERR_PACKET_MISSED	22	Packet number isn't expected (missing packet)
ERR_PACKET_SIZE	23	Packet size is wrong
ERR_RESERVED_7	24	(Reserved)
ERR_RESERVED_8	25	(Reserved)
ERR_RESERVED_9	26	(Reserved)
ERR_RESERVED_10	27	(Reserved)
ERR_RESERVED_11	28	(Reserved)
ERR_RESERVED_12	29	(Reserved)
ERR_EDID_CORRUPTED	30	EDID corrupted
ERR_NON_LISTED	31	Device specific errors
ERR_SAME_CRC	32	File has the same CRC – not changed
ERR_WRONG_MODE	33	Wrong operation mode
ERR_NOT_CONFIGURED	34	Device/chip was not initialized