



Video Wall Image Processing Solution

The Clarity Visual Control Station (VCS) is a flexible and easy to use wall controller designed for the capture, display and management of visual sources on a video wall. Its compact yet powerful form factor supports a wide variety of visual inputs including analog video, digital video, computer sources and, via the optional VCS IP Decoder, video over IP.

VCS is fully configurable and can drive video walls comprised of up to 40 high resolution displays. Using the Windows® 7 based VCS Control software, visual sources can be placed and resized individually anywhere on the wall or, through the click of a mouse, the entire wall can revert to a preset layout of windows. The entire system is designed to be easy to set up, easy to use and easy to maintain.

CLARITY VCS PROCESSOR

The VCS Processor utilizes a 4U rack mountable chassis with high performance PCI express backplane. With its choice of powerful server-class CPUs, RAID 0,1 hard drives and redundant power supplies, the wall processor is both powerful and reliable. VCS is preloaded with 64 bit Windows 7 ensuring compatibility with the latest customer applications. By using the VCS Expansion Chassis, the controller can expand to support larger walls and numbers of sources. Clarity VCS supports the VCS Graphics4 output cards each of which can drive 4 displays at up to 1920x1200 resolution.

KEY FEATURES

- All-in-one complete hardware and software solution
- No additional software license fees
- Windows 7 64 bit intuitive UI, and application compatibility
- Wide choice of supported inputs
- Scalable from small to large installations
- Easy installation and maintenance



The VCS processor features server-class CPU, 192Gb/sec PCI Express backplane, RAID hard drives, redundant power supplies and modular expansion.

BROAD RANGE OF SOURCE CAPTURE

Clarity VCS is able to capture and display a wide range of visual sources. VCS captures standard definition video in composite and S-video formats. Higher resolution sources using DVI, HDMI, component HD, analog RGB, Dual Link DVI and SDI (SD, HD, 3G) can also be captured. Using the VCS IP Decoder, streaming video over IP is supported so that, for instance, IP-based CCTV camera feeds can be displayed and monitored on the video wall. Through different VCS configurations, varying combinations of these different sources can be displayed at the same time and managed in a unified fashion using Clarity VCS Control.

Through its wide variety of source capture and modular expansion capabilities, VCS offers flexibility and freedom of choice unachievable with many processors.

INPUTS

- HD: DVI / HDMI / RGB
- SD: Composite, S-Video
- Dual Link DVI
- SDI (SD, HD or 3G)
- IP Video → VCS IP Decoder



OUTPUT

DVI to Display Wall

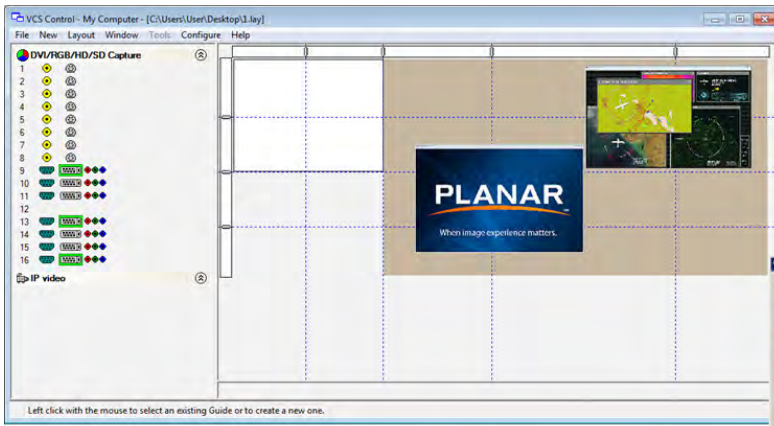
- 4 x USB
- 2 x 1Gb
- 1 x Serial
- VGA Output

CONNECTIVITY

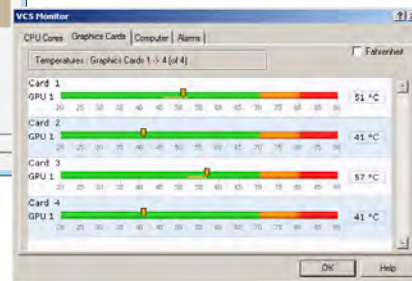
CONTROL AND MONITORING SOFTWARE

Clarity VCS Control software provides a visual environment in which to control the entire wall layout. With VCS Control, windows on the video wall can be opened, placed, moved and sized. Layouts can be saved and recalled. The VCS Control interface dynamically adjusts to display whatever type of source is connected to the controller and the software's interface complies with the familiar Windows design standards making it intuitive and easy to learn.

Every VCS controller also includes VCS Monitor software that monitors the health of the overall system. Through a graphical interface, system components can be monitored, thresholds are configured and alarms and notifications can be triggered according to the wishes of the administrator.



Control and monitoring software comes standard with every VCS controller.

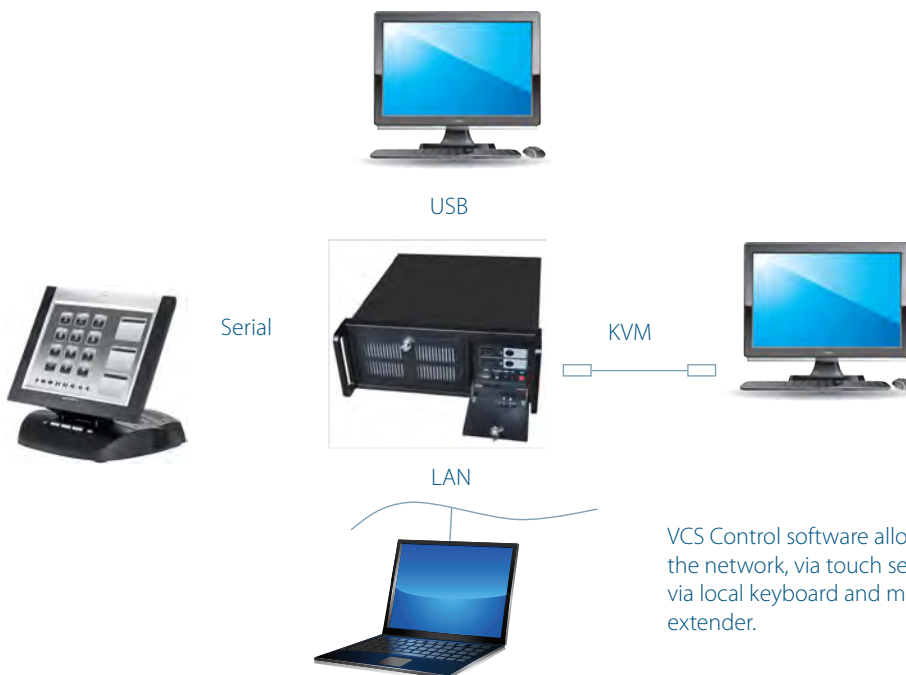


VCS Control

VCS Monitor

FLEXIBLE OPERATION

The VCS Control software runs directly on the VCS processor and can be managed locally on the controller's Windows 7 desktop. Using a KVM extender, the control room operator can interact directly with a controller located in a rack room. Alternatively, VCS Control software can be installed on another Windows 7 machine and operate the VCS controller over the network. Finally, VCS Control supports serial commands and, via RS-232 connection, can be driven by leading touch-based room control systems.



VCS Control software allows for wall control over the network, via touch serial interface or directly via local keyboard and mouse control or KVM extender.

STANDARD CONFIGURATIONS

Outputs	Inputs	
	DVI / RGB / HD	SD Video
4	5	4
8	5	4
8	8	8
12	5	4
12	8	8
16	5	4
16	8	8
IP Video (MPEG)	16 at D1 per IP Decoder	

CLARITY VCS SPECIFICATIONS

VCS Chassis	
Form factor	19"4U industrial PC chassis
Standard Processors	
CPU	Intel® Quad Core 2.66 GHz SBC
System Memory	4GB DDR2
Optional Processors	
CPU	Intel® Core i7
System Memory	8GB DDR3
Operating System	Windows® 7 64 bit
Backplane	PCI Express Switch Fabric (192 Gb/s peak bandwidth)
Expansion Slots	9 x PCI Express
Hard Disk Drive	2 x 500GB removable SATA hard drives with RAID 1
Removable Storage	1 x DVD-RW drive
VGA Port	Integrated VGA output for control screen
Networking	2 x 10/100/1000 Ethernet
USB Ports	4 external ports, USB 2.0
Serial Ports	1 via USB to Serial adapter
Power Supply	2 x 500 Watt, Redundant
Power Consumption	227 Watt (typical)
Dimensions (W x H x D)	17.3" x 7.0" x 17.7" (438.5 mm x 177.0 mm x 450.0 mm)
Weight	67 lbs (34.4 kg) (shipping)
Expansion Chassis	
Form factor	19"4U industrial PC chassis
Dimensions (W x H x D)	17.3" x 7.0" x 17.7" (438.5 mm x 177.0 mm x 450.0 mm)
Expansion slots	8 x PCI Express
Graphics Output	
Max Output Resolution	DVI outputs. 1920 x 1200 @ 60Hz max resolution each
GPU	Dual 128 bit GPU with 2 x 256MB frame buffer (512 MB total)
SD Video Capture	
Inputs	Composite and S-video
Video Formats	PAL, NTSC and SECAM
Max Capture Resolution	720 x 576
Max Data Transfer	480MB/s
Connectors	D connectors with BNC adapter

CUSTOM CONFIGURATIONS

With VCS Custom Configurations, nearly any combination of inputs and outputs can be integrated in a system. Contact Planar for a quote.

CLARITY VCS SPECIFICATIONS (CONTINUED)

HD: DVI / HDMI / RGB Capture	
Max Component HD Capture	1080p at 60 frames per second
Max DVI Capture	1920 x 1200
Max Analog RGB Capture	2048 x 1536
Max Data Transfer	650MB/sec
Connectors	DVI-I type, DVI/HDMI adapter, DVI/Component adapter
Dual Link DVI Capture	
Video Formats	DVI Dual Link, DVI Single Link. Autodetected
Max DL DVI Capture	330MHz. 3840 x 2160 @ 30Hz
Max Data Transfer	650MB/sec
Connectors	Dual Link DVI-D type
SDI Capture	
SDI Capture formats	SD-SDI (480i/576i)
	HD-SDI (up to 1080i)
	3G-SDI (up to 1080p @ 60Hz)
Max SDI Bit Rate	3Gb/sec
Max Data Transfer	650MB/sec
Connectors	SDI BNC
IP Decoder	
Form factor	19"4U Industrial PC Chassis
Max streams	16 at D1 (720 x 576)
Formats	RTSP, MPEG2, MPEG4, H.264
Software	
Operating System	Windows® 7 64 bit
Wall Control	VCS Control
Language Support	English, French, Spanish
Controller Monitoring	VCS Monitor
Environmental & Regulatory	
Operating Temperature	0° to +35° C
Storage Temperature	-20° to +70° C
Relative Humidity	5% to 90% non-condensing
Product Approvals	FCC-Class A, RoHS, IEC60950, CE low voltage compliance



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