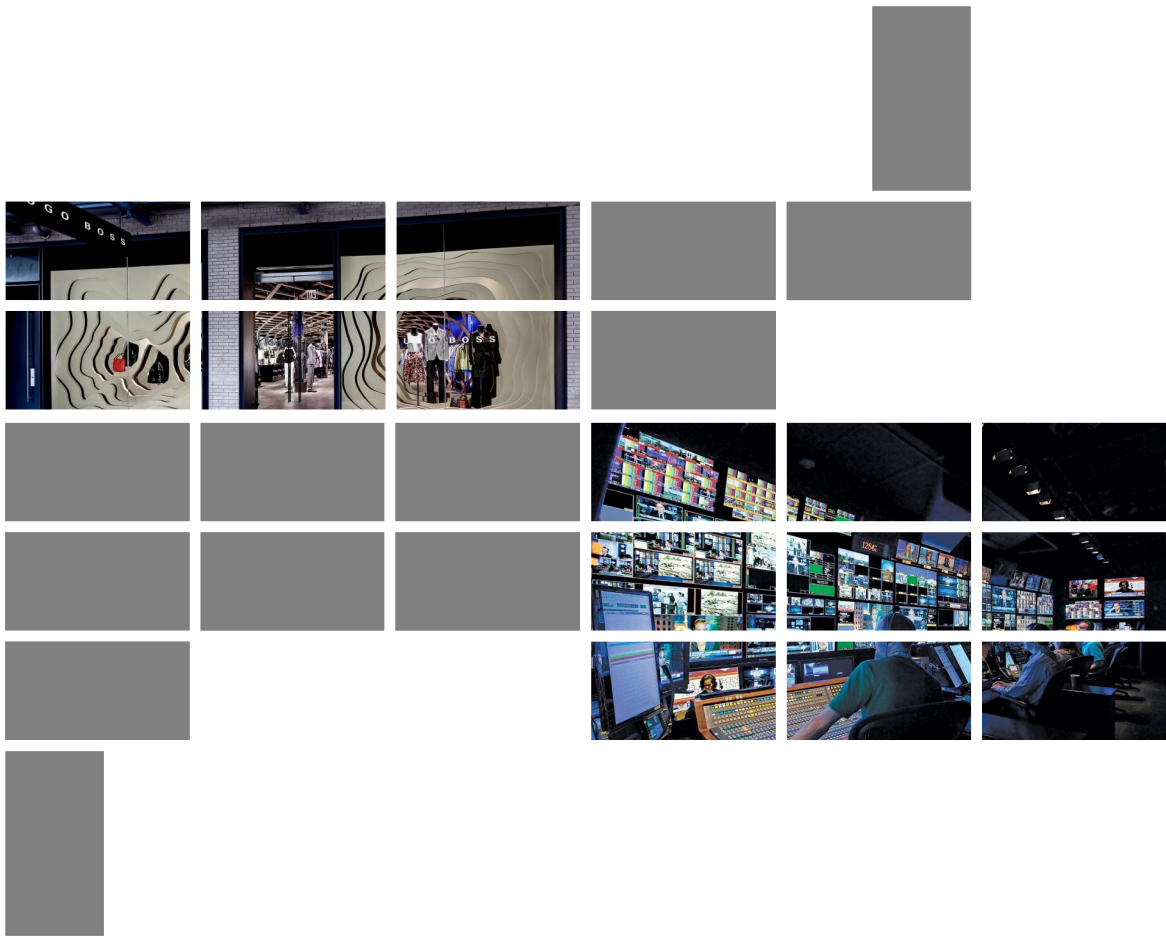


PIPView BlackBIRD

Video and Data Wall Controller Solutions



Video and Data Wall Controller Solutions

Standard models or fully configurable for retail, corporate, education, broadcast, control and monitoring

The Power

The PIPView BlackBIRD is available in a number of pre-built configurations or as a custom build for customer requirement.

All PIPView BlackBIRD models come with Intel i7 or Xeon CPUs, 8GB RAM, Windows 7 x64 Embedded, Solid State Drive.

The Flexibility

- Up to 64 outputs
- DisplayPort or DVI output
- Data Capture from VGA, DVI, HDMI
- Video Capture from CVBS, YUV, HDMI
- HDCP Compatibility
- 4K Capture

The PIPView BlackBIRD is a video and data wall controller capable of managing multiple video inputs and graphical outputs in order to drive large video and data wall installations.

Suitable for a range of markets from retail to broadcast and monitoring the PIPView BlackBIRD provides a high performance, scalable solution in complex video environments.

Backed by a seamless range of capture and image cards, the PIPView BlackBIRD has been designed, developed and optimised to provide capture up to and including 4K and HDCP sources for display across the entire wall.

PIPView BlackBIRD wall controllers are high-performance, industrial grade Windows embedded systems for continuous operation



The PIPView BlackBIRD range of video wall processors offers new levels of performance and flexibility whenever you need multiple screens for command and control, showcase, collaboration or in retail. Using cutting edge technology for the capture of live video feeds, processing into easily defined layouts and finally output to up to 64 screens each showing full 1080p resolution.

Available as either standard models or custom built to client requirements the PIPView BlackBIRD has been designed specifically to capture and display video in real-time in up to ultra-high definition resolution from any device or multiple devices simultaneously at any scale on the video wall canvas.

Capture from VGA, DVI, HDMI, SDI, HD SDI, RGB, Composite, YUV and IP sources can be freely positioned and scaled to any size across the display canvas.

The display canvas can be up to 64 monitors, LCD, TFT, LFD, Project or LED arrays.

SYSTEM ARCHITECTURE

This PIPView BlackBIRD wall controller has been designed, developed and optimised to operate with the latest generation of world leading PCI Express video graphics and capture cards. The graphics cards are PCI Express compatible providing support for HD, SD, DVI and RGB video overlays. They can provide a maximum resolution of 4 x 1920 x 1200 x 32 bit. The video capture cards provide HD video capture or HDMI capture capabilities as well as a number of high resolution video capture modes including 3G-SDI, HD-SDI, Dual Link DVI, RGB, VGA and Composite; for Analog video and Standard Definition.

The PIPView BlackBIRD wall controller is built around a 9x or 11x slot backplane and single board computer. The Single board computer features either Intel Dual Xeon processor or single Intel i7 processor, with up to 16GB of memory and full set of I/O for computerization solutions.

Complex layouts of inputs can be instantly recalled to the display canvas from the PIPView Wall Control software or via external control interface's such as RS232 and Telnet.

The PIPView BlackBIRD is engineered with the highest quality in mind with individual components selected for their high MTBF.

Additional features like redundant power supplies, solid state drives, dynamic thermal management, internal diagnostic and a range of alert features ensure your wall is available when you need it through an extended life cycle.

PIPView BlackBIRD wall control, a complete easy to use experience for setting up, managing, and controlling the layouts of live inputs on a wall

PIPView BlackBIRD Wall Control is a software application for controlling live capture, IP-Camera and third-party application windows on the wall controller. It provides a graphical representation of the data wall and a toolbar through which to manipulate all available sources and applications.

Wall Control can be used to interactively open, move, size and position any window on either the local machine or any number of remote network client machines.

A standardized set of property sheets provide an intuitive interface for each type of window how it will be displayed, with/without menu's, you can also define a capture title for the window along side various colour and processing options.

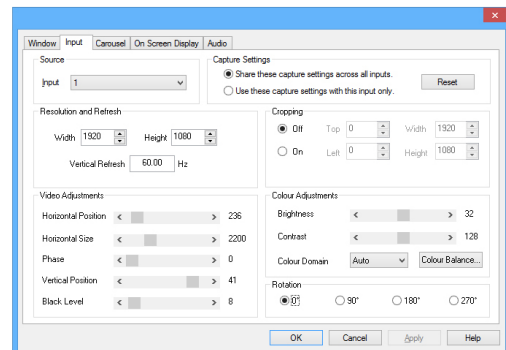
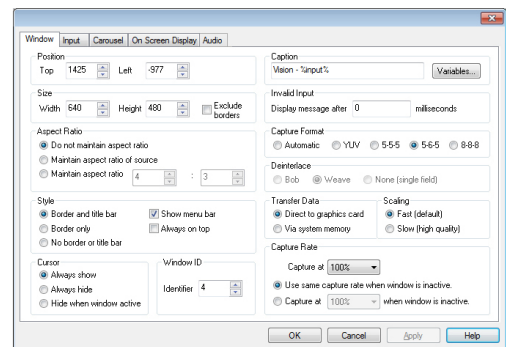
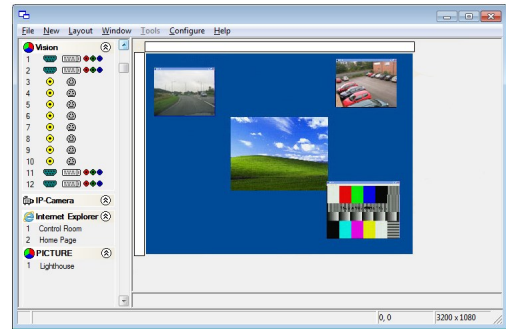
Input options allow for colour adjustments as well as cropping of the input video and rotation for application where portrait screens fit the requirement.

The drag and drop interface is also complemented with a user configurable grid, guide and snap sensitivity to accurately position windows on the data wall. This allows pixel perfect positioning of windows on the data wall.

There is also control of 3rd party software built into the wall control software. This offers the ability to control other software such as Microsoft Internet Explorer or Media playback and slide display thus saving on external PC's being used for rudimentary tasks.

There is a full set of remote control features and protocols available via RS232 or Telnet. This is idea in installations where such controllers as Crestron or AMX are employed to automate other features of an installation.

PIPView BlackBIRD wall control is able to show a full preview of the output on the wall without the need to revert to webcams and go see technology. This preview capability is further extended with off-line configuration of layouts. This feature allows for layout to be designed with out being directly connected to the wall controller, and only updated to the wall control once approved thus saving time and energy.



A full suite of monitoring tools are provided to look after the systems temperature, voltages and other key metrics. These user configurable alarms warn the user about impending problems, using: emails, on screen display and system buzzer. Ultimately there is an automatic system shutdown if a serious error is detected.



PIPView BlackBIRD range of capture cards provide a variety of high or standard definition capture capabilities as well as audio in some models. Video capture modes supports include Single or Dual Link DVI, 3G-SDI, HD-SDI, RGB, Component YPbPr, Composite video and S-video.

Collectively the PIPView range of capture cards allow the capture of video sources including Composite video (PAL, NTSC, SECAM and S-Video), HD up to 1080p (HDMI and Component), Serial digital interface (SD-SDI, HD-SDI and 3G-SDI), PC Graphics (DVI and analogue RGB).

MultiStream functionality is made possible through low level hardware control available only in the PIPView capture card range. MultiStream technology provides DMA support for 16 independent capture clients, for example, a PV-HD4 card has a 64 clients. Each client can have independent capture size (scale factor), frame rate, pixel depth, DMA destination and cropping rectangle. MultiStream allows 'Preview', 'Capture' and 'Stream' clients with different bandwidth requirements to be supported from a single input source.

A captured frame can be scaled up or down within a 4K x 4K range using a high quality polyphase filter. The scaling process reduces overall DMA bandwidth by ensuring any downscaling is performed on the capture card before data is transferred to the destination. Any of the 16 MultiStream input clients can be up or down scaled independently.

Signal detection is provided by internal driver algorithms assisted by physical hardware measurements. This provides accurate signal detection for all signal sources including analogue 3/4/5 wire, DVI, HDMI, component, composite SDI, dual link, display port and s-video.

The PIPView interface allows text, bitmaps and user defined operations to be overlaid onto the capture data buffer.

Each DVI or HDMI capable input exposes a 128 byte PV card or 256 byte PV-AV EDID. Each EDID has a 'Preferred' and 'Additional' timings block available for configuration. The EDID can be displayed and configured in either 'Video Definition' or 'EDID' format.



PIPView BlackBIRD Specifications

Main Chassis

CPU Board

Processor

Intel i7, optional 2x Intel Xeon

System Memory

4GB Standard, Optional 8GB

Expansion Slots

3rd Generation PCIe switched fabric

9 or 11 slot x8—8GB/s uplink and downlink

Disk Storage

1x SSD 60GB SATA3

Optional 2x SSD RAID 1

Optional DVD/RW Combo Drive

Network Interface

Dual 10Base-T/100Base-T/1—Base-T

Ethernet

RS232

For Control

USB

2x USB 2.0 (Back Panel)

2x USB 2.0 (Front Panel)

Operating System

Windows 7 x64 Pro Embedded (WES7P)

Optional Windows 7 x64 Pro

Optional Windows Server 2012 Standard

Electrical Requirements

Input

100-240 VAC Auto-ranging power supply

10A—5A

Line Frequency

47-63Hz

Output

550 Watt Dual Redundant

Environmental

Operating Temperature

0 to 35 DegC (32 to 95 DegF)

Storage Temperature

-20 to 70 DegC (-4 to 158 DegF)

Relative Humidity

5% to 90% non-condensing

Noise

48dB(A) up to 68dB(A); Dependent on system configuration & ambient temperature

Rack mount Chassis 4U

Dimensions

50cm x 17.5cm x 48.2cm (L x H x W)

Weight

19-25Kg

Shipping Weight

30-33Kg

Graphics Output

PVB-DP4

Processor

4x DisplayPort 1.1a

Max. Resolution

4x 2560x1600 @ 60Hz up to 359 megapixels/s at 24bit

Max. Cards in System

16 cards (64 outputs) with expansion chassis

Graphics Input

PVB-1ES

Inputs

One DVI-I Type

Formats

VGA, DVI, HDMI (Non HDCP)

PVB-2ES

Inputs

Two DVI-I Type

Formats

VGA, DVI, HDMI (Non HDCP)

PVB-SDI2

Inputs

Two BNC Male Type

Formats

SD-SDI, HD-SDI, 3G-SDI, 2k Digital Cinema

PVB-DVI4K

Inputs

One DVI-D Dual Link Type

Formats

DVI Dual Link Max Res. 4kx4k, DVI Single Link

PVB-AVHDCP

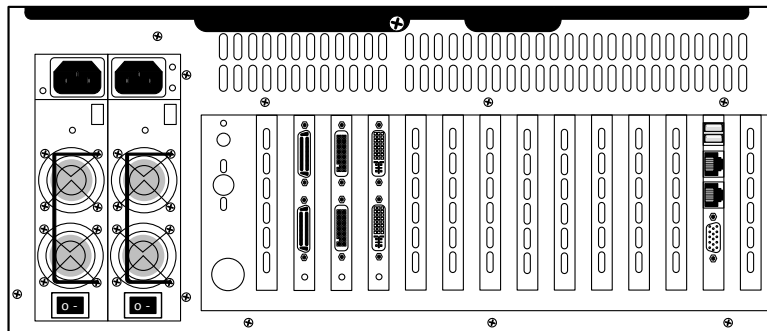
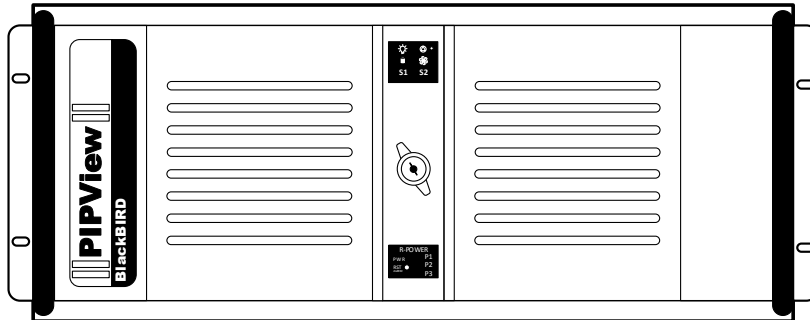
Inputs

Two DVI-I Single Link Type

Formats

VGA, DVI, HDMI with HDCP on supported displays and interconnections

PIPView BlackBIRD Specifications



Standard Product Ordering

PVB-2x2

Description

PIPView BlackBIRD configured as a 2x2 video wall with 4 inputs of either VGA, DVI, HDMI

PVB-3x3

Description

PIPView BlackBIRD configured as a 3x3 video wall with 4 inputs of either VGA, DVI, HDMI

PVB-4x4

Description

PIPView BlackBIRD configured as a 4x4 video wall with 6 inputs of either VGA, DVI, HDMI

Bare Bone Product Ordering

PVB-04xx

Description

PIPView BlackBIRD configured with 4 outputs, no inputs. Additional output and input cards are selected from available upgrade list

PVB-0402

Description

PIPView BlackBIRD configured with 4 outputs, 2 inputs (VGA,DVI,HDMI no HDCP). Additional output and input cards are selected from available upgrade list

Graphic I/O Product Ordering

PVB-DP4

Description

4x DisplayPort 1.1a outputs

PVB-1ES

Description

1x VGA or DVI or HDMI no HDCP

PVB-2ES

Description

2x VGA or DVI or HDMI no HDCP

PVB-SDI2

Description

2x SD-SDI or HD-SDI video inputs

PVB-DVI4K

Description

1x 4K Capture on Dual Link DVI-D

PVB-AVHDCP

Description

2x VGA or DVI or HDMI with HDCP

Video and Data Wall Controller Solutions

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