

Synchronous 'Graphics Insertion Processor' providing real time overlay of video and DVI / VGA windows for high performance display walls

- **9.6 Gb/s bandwidth**
- **Dedicated 0.3 Gb/s bandwidth for each input channel**
- **Up to 32 inputs per chassis**
- **Up to 16 outputs per chassis**
- **DVI-I inputs for analogue or digital capture up to 1600 x 1200**
- **Composite and S-video inputs for video**
- **DVI-I outputs up to SXGA+**
- **Gen-lock sync in and sync out**



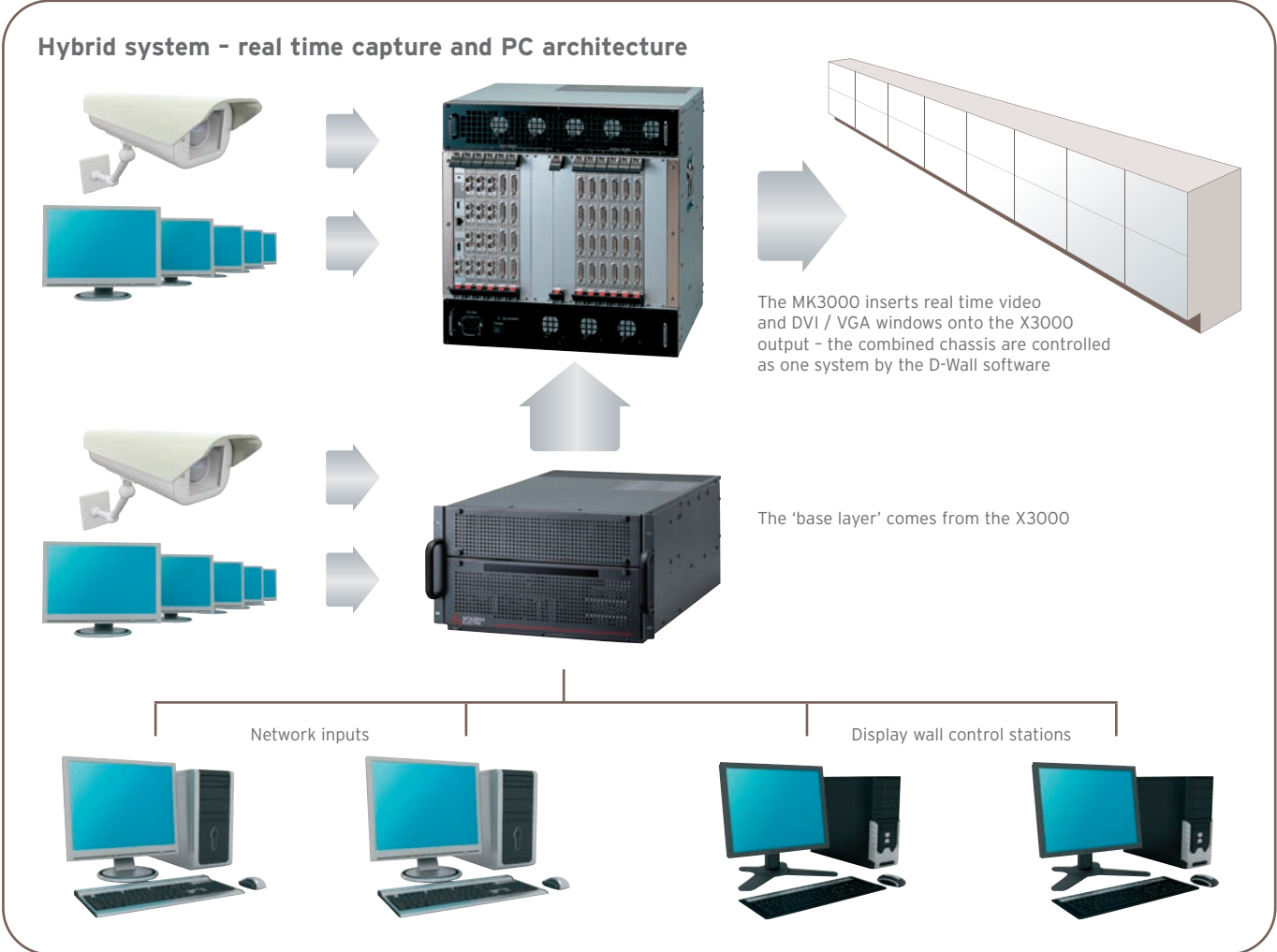
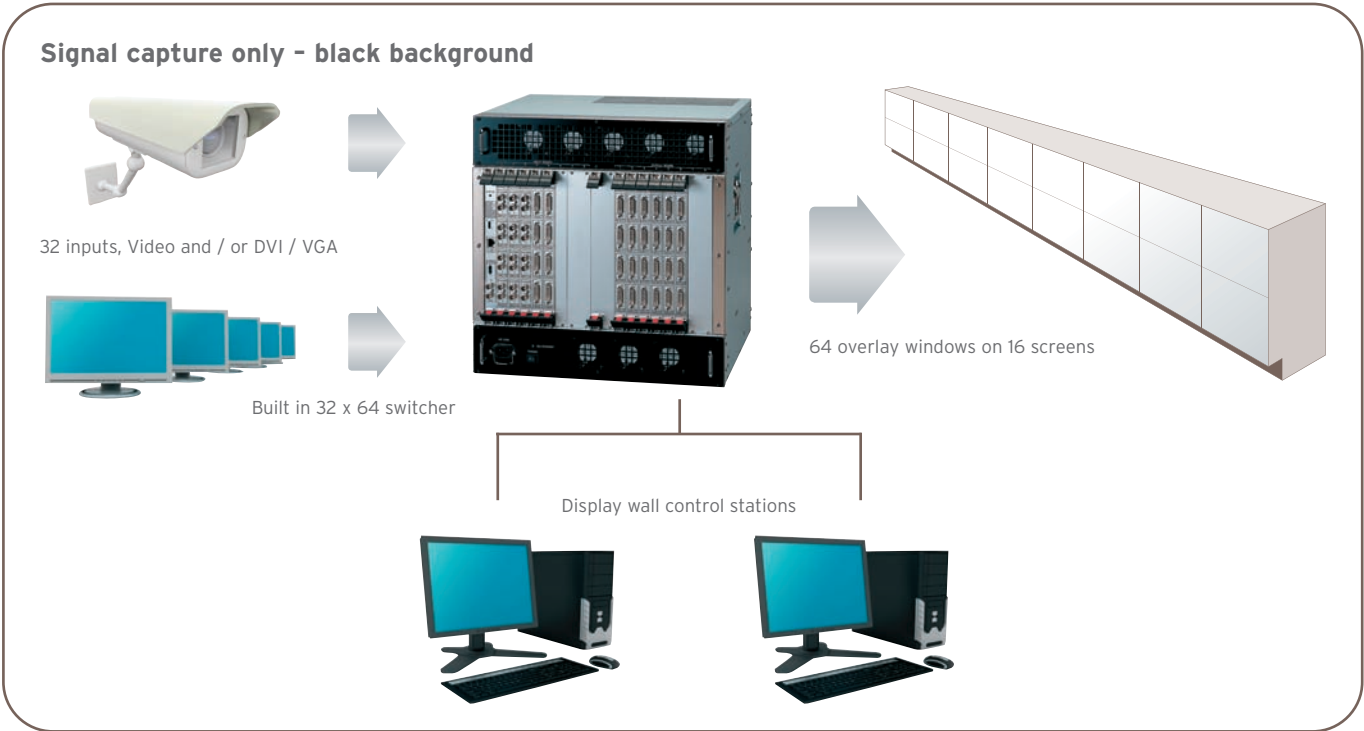
VC-MK3000 DISPLAY WALL PROCESSOR

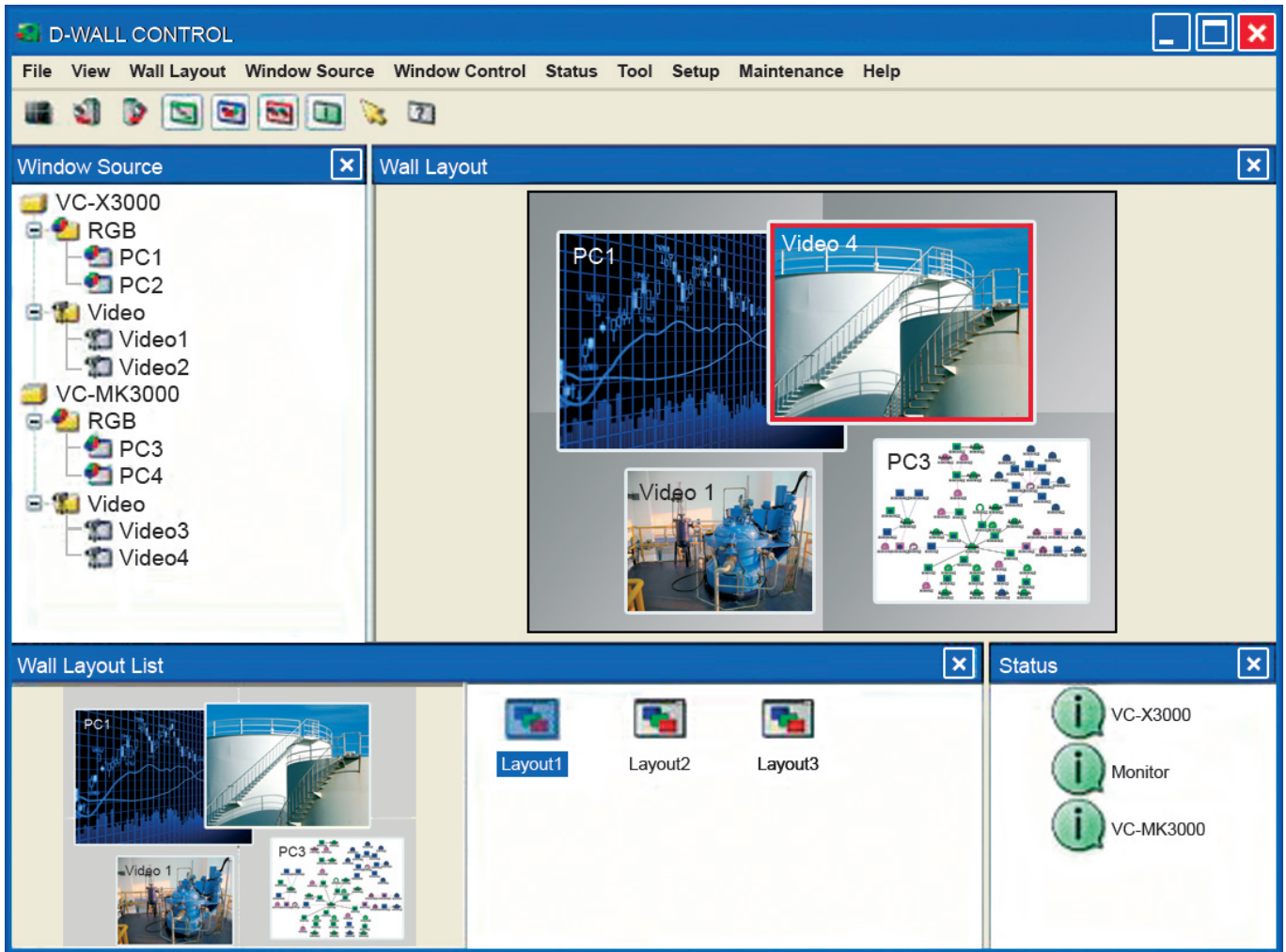
The VC-MK3000 provides throughput far beyond the level of PCI bus based processors so that every video input and every DVI / VGA input is displayed synchronously on the display wall with no dropped frames. Inputs and outputs can be gen-locked to an external signal - the MK3000 has sync in and sync out connectors.

The number of overlay windows per screen can be traded against the number of outputs. For example you can configure 4 overlays per screen over 16 screens or 8 overlays per screen over 8 screens.

Inputs for a base layer allow the 'desk top' from a VC-X3000 processor to display client server windows and other 'software' windows alongside the real time windows inserted by the MK3000.

Up to 10 MK3000 chassis can be cascaded to feed hundreds of inputs to a display wall of over a hundred cubes. Alternatively, the X3000 processor can be combined with the MK3000 to make a hybrid system with the ideal combination of coverage and real time image capture.





The D-Wall software suite manages all aspects of set up, configuration, and daily use of the MK3000 or hybrid X3000 + MK3000 display wall. Firstly the D-Wall Configure software is used to set up the display wall system. The system integrator uses D-Wall Configure to recognise the features of the display wall cubes in the wall, set up the wall size and establish the default values for the parameters that may be changed later by the users.

Next, the D-Wall Server software is installed on the X3000 to control all of the devices in the system - including the MK3000.

Finally the D-Wall Control software is installed on the operators' PCs.

D-Wall Control is used by the system operators and supervisors to adjust, control and monitor the system. Wall layouts can be created, saved and recalled by drag and drop or by clicking an icon. Window parameters such as brightness, borders, cropping etc. can be managed - and windows can be labelled and placed as required.

D-Wall Control graphically displays inputs, current layout, stored layouts and system status information for the processor and the display wall cubes with image 'thumb nails' on the windows. Daily operation is carried out by drag and drop, mouse click and by monitoring the status display. D-Wall Control can be hidden from view, and set to respond to touch panel control for a really safe and simple user interface.

The screen shot above sources connected to the X3000 and the MK3000 seamlessly managed by the software. This is the only hybrid processor system which has integrated software control.

A typical application for this hybrid concept is the TV studio back drop wall where gen-locked video windows are needed on top of a computer graphics 'desk top'.

SPECIFICATIONS - VC-MK3000

Number of inputs	32 max, video or DVI / VGA 4 per input board, 8 input boards per chassis
Video input board	BNC x 8 4 composite video or 4 S-video inputs NTSC, PAL, SECAM Line doubling and 3D Y/C separation (NTSC)
DVI / VGA input board	DVI-I x4 RGB, Y/Pb/Pr, Y/Cb/Cr interlaced and non-interlaced 25 - 162 MHz (640 x 480 to 1600 x 1200 and 1080i)
Base layer inputs	1DVI-I per output channel RGB non-interlaced 25 - 108 MHz (640 x 480 to 1400 x 1050)
Number of outputs	16 in 4 overlay mode (2 outputs per board) 8 in 8 overlay mode (1 output per board)
Output board	DVI-I x 2 RGB non-interlaced. 40 - 93 MHz (800 x 600 to 1400 x 1050) analogue and digital
Sync connectors	1 x BNC sync in. 1 x BNC sync out
Ethernet connection	10 Base-T / 100 Base-TX 1 x RJ45
Power supply	AC 100 V to 240 V 50 / 60 Hz 490W
Chassis dimensions	431 mm (w) x 443 mm (h) x 390 mm (d)

VC-X3000

The VC-MK3000 Graphics Insertion Processor and the VC-X3000 display wall processor can be used together to create the ultimate hybrid system with real time DVI / VGA capture and gen-locked synchronous video. The remote client D-Wall software controls the windows from both systems creating a single layout that seamlessly merges X3000 windows and MK3000 sources. More details are available in the MK3000 brochure and the application note 'VC-X3000 / VC-MK3000 hybrid systems'.

