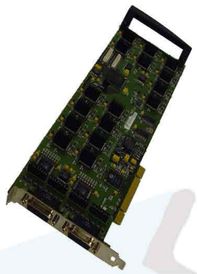
Configuration Hardware Options

Input and Output Graphics Cards

Quad Output Card



9 Channel Video Input Card

IP Video Stream Decoder

Optional Hot Swappable units

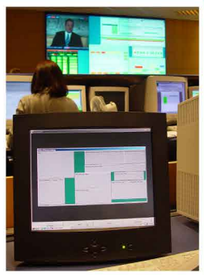
Removal Disk

Power Supply

Remote Mouse & Keyboard

IR Keyboard & IR Mouse

Window Manager



CommandaNT
window manager using touch screen solution.

Networkable Keyboard and Mouse

RemKam

The video wall mouse can be acessed via the network by an operators or supervisors workstation. Harp software called RemKam allows transfer of the mouse from workstaion to video wall just by selecting a dedicated function ley on the users workstation.

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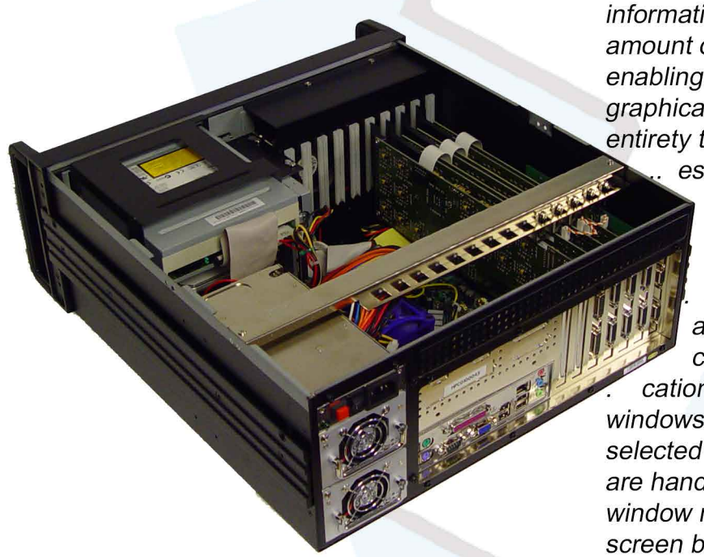
MERLIN IPX

Video Wall Processor - IP Video Decoder

Turn your display wall into one giant workstation, with a tool that manages visual flow from screen to screen, displaying seamless movement in real time.



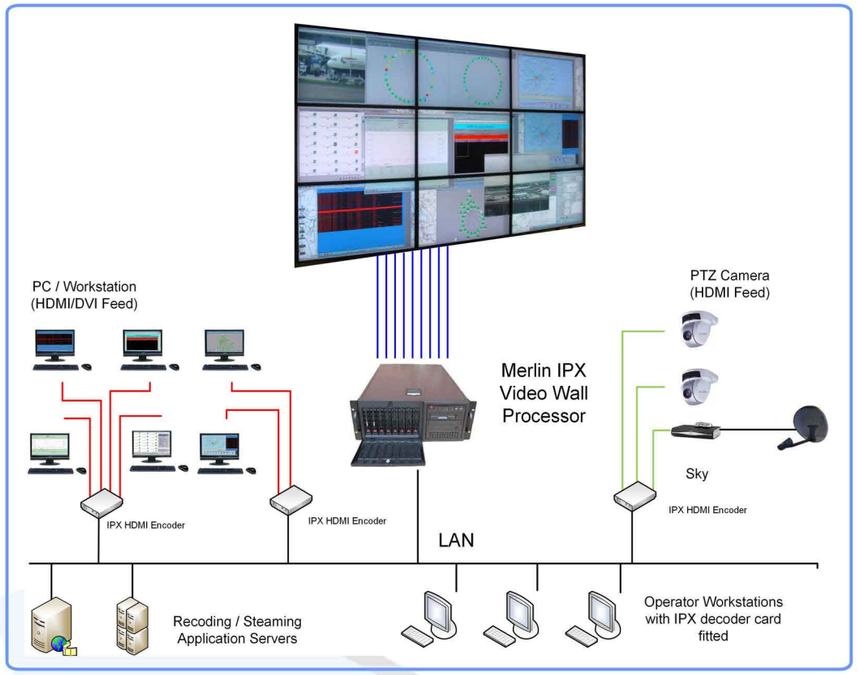
With the Harp MERLIN video wall processor users can view up to 16 connected screens ' as one' - increasing the number of people who can comfortably view larger amounts of information. The MERLIN increases the amount of screen real-estate available enabling large computer generated topographical images to be viewed in their entirety that could not be viewe are seaml ... ess and carried out in real time.d on a single desk top monitor.

Harp MERLIN operates on a . soft Windows XP or Windows 7, and incorporates a sophisticated . control manager which allows appli. . . cations to be launched automatically, windows moved, and scenarios and salvos selected on demand. As all screen breaks are handled by the MERLIN, drawings and window movements from screen block to screen block are seamless and carried out in real time.

The system is eaily operated via a user-friendly touch panel, and /or remotely by cursor operation on a PC over the LAN.

Base Windows appliactions can be run directly on the MERLIN. Externally generated PC and UNIX windows can be digitally fed into the Windows environment, whilst video feeds can be super-imposed enabling satellite and CCTV information to be displayed in real time.

SYSTEM ARCHITECTURE



System Overview

Images can be displayed onto the video wall using a number of different techniques. In its basic form the Merlin video wall processor is a multi-headed PC that can drive up to 40 screens. This allows windows to be resized from thumb nail to full screen size seamlessly across screen boundaries. Appliactions can be run directly on the Merlin as if it were a PC on some ones desk although it has a somewhat bigger screen than usual.

Input

The IPX version of the Merlin Video Wall processor series has been design principally for video steaming where all of the video sources are received via a LAN connection. All video feeds are from IPX encoder units which can have converted in real time up to 4K HDMI feeds to an H264 4.4.4 format. Multiple streams can be decoded in parallel on this processor and displayed on the video wall.

Outputs

The interface between the Merlin and the video wall is done using DVI cables which ensures that the best possible image is generated putting a square pixel into a square LCD element on the screen.

TECHNICAL DATA

Technical specification	
Architecture	Intel i7 Core 3.2GHz Hyper-Threading Technology Intel Q57 chipset and Intel 3450 chipset for embedded computing 16GB DDR2 SDRAM
Software	Operating System: XP Service Pack 3 or Windows 7
Graphics Output Card	Outputs: 4 ports per card Maxium of 10 cards giving ability to drive 40 screens Format: VGA or Dual/Single Link DVI Interface Resolution: 640 x 480 to 3840 x 2160 pixels Frame Buffer: 2 GB Video Input Bus: Inter-card high speed 5Gb/s SIP Bus
IPX Decoder Card	Codec: H.264/MPEG-4 Part 10 (AVC), Up to level 5.2 Format: RTP, RTSP< RTMP, MPEG2-TS Video Bus: PCLe x8 (Gen2) Window Update: Real time 25/30 fames per second.
DVI / RGB Input Card	DVI/RGB Mode: 640 x 480 to 3840 x 2160 pixels. Sample rate : 170 Mpixels per second. Sample depth: 24 bits per pixel in 8:8:8 format Capture Memory: 32 Mbytes per channel (updated in real time), triple buffered
Power Supply	100-240V AC , 50/60 Hz
Communications	Ethernet RJ45 10/100/1000 Mbps

Physical specifications	
Dimensions	202mm (h) x 160 mm (w) x 474mm(d)
Weight	12Kg
Temperature	640 x 480 to 1920 x1080 pixels
Video Input	Operational +5°C to + 40°C Survival -10°C to + 50°C Storage -15°C to + 60°C
Humidity	Operational 15% to 95%. RH at + 40°C Storgae 15% to 95%. RH at + 65°C
Safety	EN55022, UL478 FCC reg 151, Class A-EMI/RFI, ISO924-3, CE Approved
Reliability	MTBF 20, 000 Hrs

System Options	
Power Supply	Dual Redundant PSU Hot Swap
Hard Disk	Dual 250GB Hard Drive with removable caddy
Ethernet	Redundant Ethernet Adapter

Auxiliary Products	
Commandant Control Manager	Allows multiple appliactions to be moved and started from the touch panel
KAM Server	LAN Connection of keyboard and Mouse

INTERNAL ARCHITECTURE

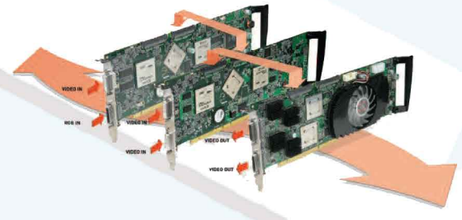


Diagram shows the additional internal bus architecture that allows transfer of the video images at high speed without using the PC mother board bus.