



Indisys High Definition VIDEO WALL PROCESSOR



Efficient, Scalable Video Wall Processor

Planar's Indisys™ High Definition Video Wall Processor is designed for the capture, management and display of high-resolution sources on a video wall. It is built on a simplified and modular graphics processing approach that utilizes today's digital-focused video electronics, allowing the easy configuration of a system to meet specific video wall requirements and supports a wide range of inputs. Indisys High Definition scales from small, simple video walls to large, complex video walls of over 100 displays and has the capability to share information across multiple video walls and the full enterprise.

Indisys High Definition features field-proven architecture deployed in hundreds of mission-critical control rooms around the globe. Indisys High Definition is designed to fuse tightly with Planar's Clarity™ LED Series rear projection video wall display as well as Planar's wide range of LCD displays including the Clarity™ Matrix video wall family. The elegant approach allows for high system resiliency and flexibility in building your video wall control system. Indisys High Definition is designed for 24x7 operation, keeping video wall downtime to a minimum.

High definition, leading edge image processing

With its purpose-built design and powerful internal processor, Indisys High Definition hardware is designed for 24x7 operation and exceptional visual performance, keeping video wall downtime to a minimum.

High Definition Processors

MultiCrop HD

Internal processor in Planar rear projection displays

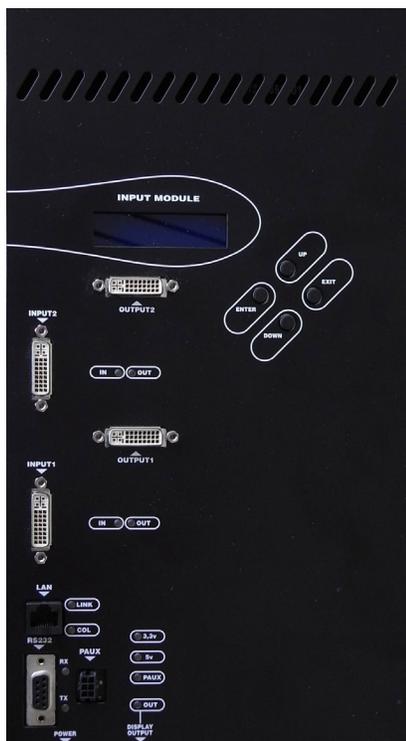
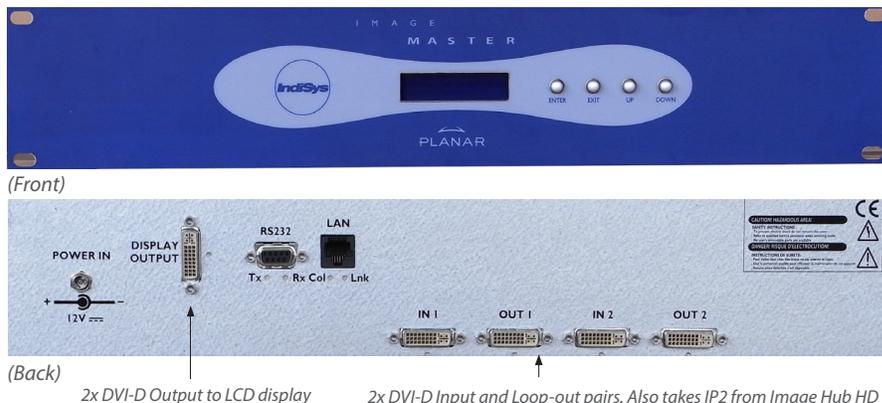


Image Master HD

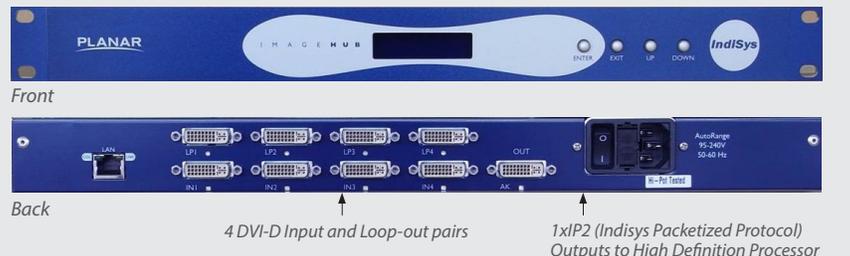
2U rack processor for Clarity Matrix LCD Video Walls and Planar large format LCD displays



High Definition Expansion Processor

Image Hub HD

1U rack expansion processor

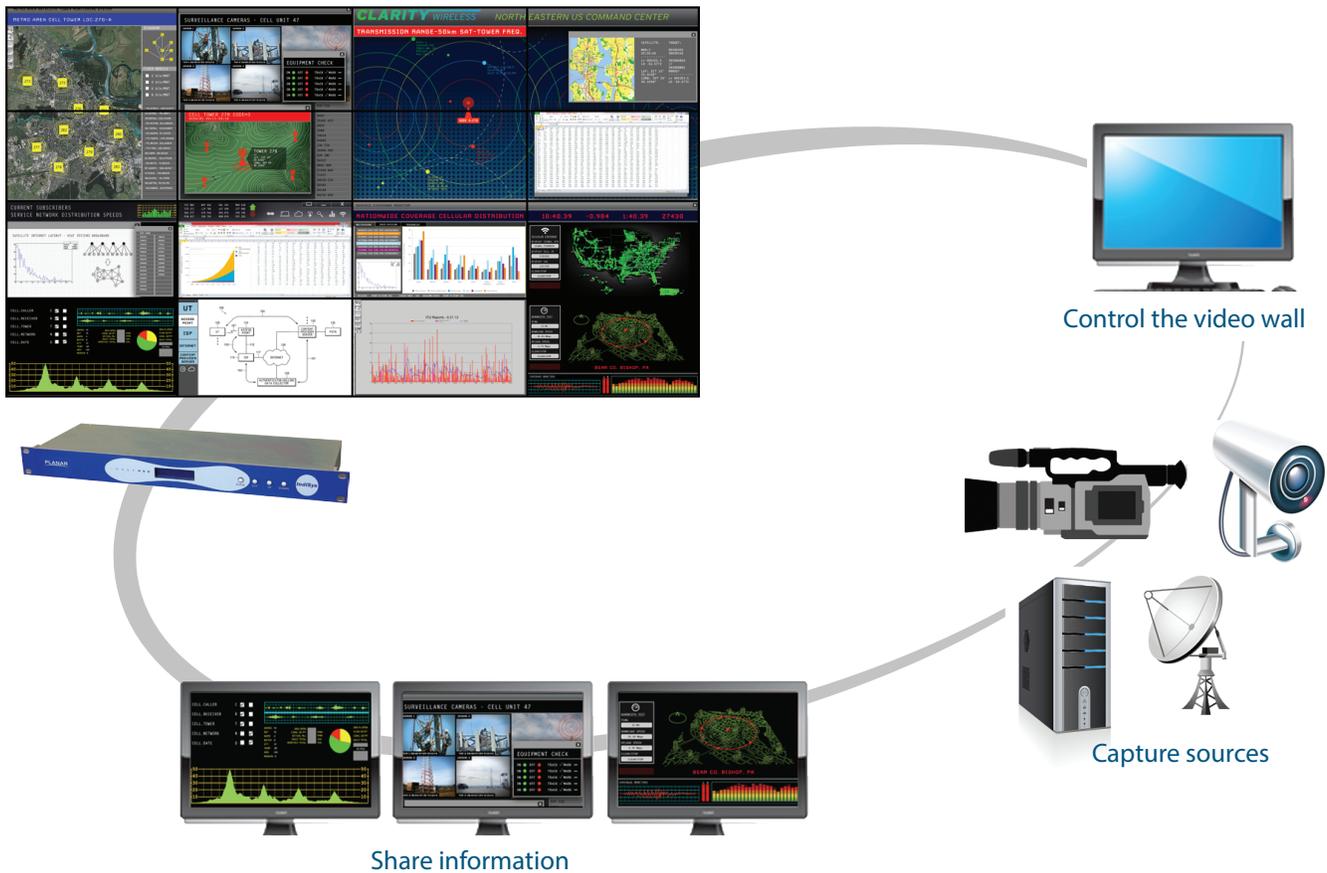


Superior hardware, superior control

Indisys High Definition processors take the contents of inputs and place them on the wall using an array of windowing capabilities such as upscale, downscale, crop, frame-rate adjust, Picture-In-Picture, wall snapshot, image alignment, full image placement flexibility, and more. The key is that the Indisys High Definition processors are embedded in each Planar rear-projection display, saving space and building redundancy across the video wall. Additional or remote LCD displays or small LCD video walls can be added to the system by way of a Indisys High Definition Image Master processor. To support large input requirements, input expansion processors are added to the system. The input expansion processors handle all types of sources – digital sources, analog video, computers, media players, applications, IP video, web inputs – in a unified way. Each source can be captured and displayed simultaneously on a video wall. Additional input expansion processors are efficiently added to match requirements for more input sources or sections of the video wall.

While the Indisys MultiCrop is embedded in the rear projection display, Indisys expansion and LCD processors are rack-mount modular units. The modular processing system is managed over a private Ethernet network giving supervisory flexibility in setting and changing image layouts. Different video walls can be mixed into one system. The rack-mounted processors work effectively with rack-located sources in a command room.

Complete control of any image on any size video wall



Flexible Setup, Control, and Monitoring Software

Planar's Indisys™ Management Suite (IMS) software provides a visual environment to control the system set-up and the entire video wall layout. Sources can be placed throughout the video wall from display-by-display, section-by-section, or layered picture-in-picture. Presets allow users to quickly change different layouts as needed. IMS also allows the monitoring of the health of the overall visual experience system. Through a graphical interface, system components can be monitored that performance and up-time are optimized.

Video Wall Management

- Manage a wide variety of visual sources across multiple video walls
- Define and save window layouts
- Zoom, crop or resize sources
- Recall layouts from Indisys Director or any touch controller

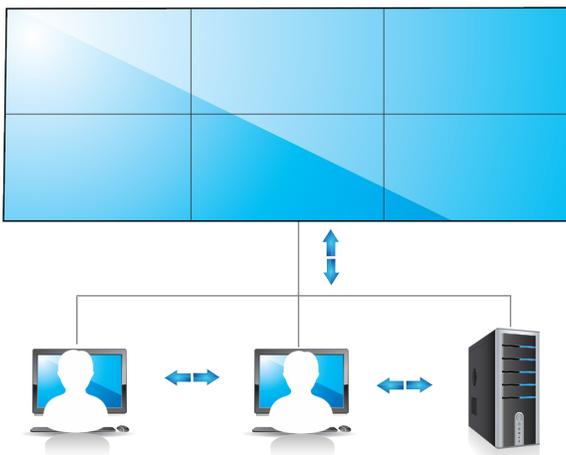
Visual Information where it's needed

Through its intuitive graphical interface, Indisys Director allows for the precise placement of any visual source on a video wall or other display. Window layouts can be created, saved and recalled either using Indisys Director directly or through any touch panel room controller. Operators can easily customize views of individual sources by zooming, cropping or sizing them to display just the right information for the situation, and then saving these views for future recall or as part of predefined layouts. Sources can even be previewed as thumbnails on the Control PC before being displayed on the video wall.



Desktop Collaboration

The Indisys Desktop Service (IDS) capability provides network-based collaboration for the Indisys control room. IDS allows authorized PC users to more freely and directly share visual information with one another, improving collaborative decision making. Through its software KVM, desktop control can be delegated and via network capture, casual participants can share visual information – all over the network, either locally or remotely. Secured by a robust but intuitive authorization model, IDS facilitates collaboration between authenticated users.



Indisys Desktop Service Network-based Collaboration

- View another desktop on your local PC
- Take control of another desktop
- Send your desktop to another PC or to the video wall
- Capture, display and control a desktop on the video wall

	HIGH DEFINITION PROCESSORS		INPUT EXPANSION PROCESSORS AND MODULES		
Model	MultiCrop HD	Image Master HD	Image Hub HD	Multi Video Input Module	Single and Dual Image Gateway
Description	Rear Projection Windowing Processor	LCD Windowing Processor	Upstream Expansion Processor	Upstream Analog Video Converter	Upstream VGA Video Converter Option for SD video support
Typical Uses	One processor per Clarity Cube display Processors looped-through together	One processor per Full HD LCD Processors looped-through together	Varies on the number of source inputs, often one to four added per wall.	Varies on the number of source inputs, typically required in only select cases.	Varies depending on how many VGA-based sources
Graphics Bandwidth	Single 51 Gb/s (gigabit per second) custom processors	Single 51 Gb/s (gigabit per second) custom processors	Single 51 Gb/s (gigabit per second) custom processors	Custom A-to-D converter	Custom A-to-D converter
Pixel Processing	9 Gpxop/s (gigapixel ops per second)	9 Gpxop/s (gigapixel ops per second)	9 Gpxop/s (gigapixel ops per second)	Custom A-to-D converter	Custom A-to-D converter
Base Inputs	2 Inputs DVI-D Up to 3840 x 2160 pixel capable 330 MHz Max 24 bits true color (16 million)	2 Inputs DVI-D Up to 3840 x 2160 pixel capable 330 MHz Max 24 bits true color (16 million)	4 Inputs DVI-D Up to 1920 x 1200 pixel capable 165 MHz Max 24 bits true color (16 million)	8 inputs PAL, NTSC, Secam, Composite Video, S-Video, SD Component (interlaced) 1 BNC + 1 DIN per input optional ordereable component adapters. 24 bits true color (16 million colors)	1 (single) or 2 (dual) VGA inputs (Option for SD video support for PAL, SECAM, NTSC/Composite, S-Video, YUV)
Optional Inputs (Internal) - Model	Image Hub HD Multi Video Input Module	Image Hub HD Multi Video Input Module	Image Hub HD (via Cascading) Multi Video Input Module	n/a	n/a
Display Output Support	Internal Connection to Clarity LED Series Display 2x DVI-D Loop Output used to loop out to other Integrated Processors	DVI-D output to DVI FHD display 2x DVI-D Loop Output used to loop out to other Integrated Processors	No Direct Display Support Only outputs to other Indisys Integrated Processors via one DVI-D Output Models: MultiCrop HD, Image Master HD and Image Hub HD	No Direct Display Support Only outputs to other Indisys Integrated Processors via 1 DVI-D Output Models: Image Master HD & Image Hub HD and MultiCrop HD	No Direct Display Support Only outputs to other Indisys Integrated Processors via 1 DVI-D Output Models: Image Master HD & Image Hub HD and MultiCrop HD
Supported Displays	Internal Connection to	Clarity Matrix Video Wall, Planar Large Format LCDs: Planar UltraLux Series, Planar UltraRes Series, Planar EP-Series, Planar M-Series	No Direct Display Support	No Direct Display Support	No Direct Display Support
Functions	Up to 4 source window crops (4 PIP), Upscaling, downscaling, wall snapshot, cropping, resizing, zoom in and out	Up to 4 sources window crops Upscaling, downscaling, wall snapshot, cropping, resizing, zoom in and out	n/a	n/a	n/a
Control	Indisys Management Suite Software via Ethernet 10/100/1000 TCP/IP Additional 4 Push Buttons/ OLED Panel	Indisys Management Suite Software via Ethernet 10/100/1000 TCP/IP Additional 4 Push Buttons/ OLED Panel	Indisys Management Suite Software via Ethernet 10/100/1000 TCP/IP Additional 4 Push Buttons/ OLED Panel	Indisys Management Suite Software via Ethernet 10/100/1000 TCP/IP	Indisys Management Suite Software via Ethernet 10/100/1000 TCP/IP
Miscellaneous					
Case	Cube-imbedded Module	2 RU Module	1 RU Module	1 RU Module	1 RU Module, or optional non-rack unit
Dimensions (WxHxD)	Housed inside Cube	(19" with mounting kit) 440mm x 88mm x 200mm	(19" with mounting kit) 440mm x 44mm x 200mm	(19" with mounting kit) 440mm x 44mm x 200mm	(19" with mounting kit) 440mm x 44mm x 200mm
Weight	1.8 Kg / 4.0 lbs	2.5 Kg / 5.5 lbs	2.7 Kg / 5.95 lbs	2.9 kg / 6.4 lbs	Single: 2.3kg/5.07 lbs Dual: 2.5kg/5.5 lbs
Power supply	12DC from Planar Cube Display	24 VDC external power adapter, autorange 100-240 V 50/60 Hz	autorange 100-240 V 50/60 Hz	12 VDC External power adapter Autorange 100-240 V 50/60 Hz	autorange 100-240 V 50/60 Hz
Power consumption		50 watts	25 watts	70 watts	8 and 16 watts
Temperature range		50°F-104°F (10°C-40°C)	50°F-104°F (10°C-40°C)	50°F-104°F (10°C-40°C)	50°F-104°F (10°C-40°C)



INDISYS MANAGEMENT SUITE SOFTWARE

Video Wall Control

- Open, place and size images on the video wall through intuitive drag and drop interaction
- Save frequently-used image layouts and presets
- Restore presets manually, per schedule or based on pre-defined events or alarms
- Capture the contents of the video wall in a bitmap file (Wall Snapshot)
- Preview inputs before displaying them on the video wall
- Monitor system status and health
- Video wall can also be controlled from remote computers on the network

Display Management

- Manual color balance and brightness control
- Set it and Forget it (SiFi3™) auto color balance
- Supports Planar and 3rd party displays

System Control

- Video wall set-up and source configuration and maintenance
- Touch screen and 3rd party interfacing for remote control
- Multi-user support
- Multi-language support

Remote Monitoring

- Intuitive web interface for local and remote access
- Monitors Indisys components (Multi-Video Input, Image Hub HD, Image Master HD, PLI and Clarity Integrated rear projection displays)
- Event and trigger management
- Configuration preview
- Temperature, fan speed and lamp life monitoring
- Error detection and notification

Workgroup Collaboration and Control

- Share desktop displays across the network
- KVM control of desktop sources
- Control PLI and Control PC remotely

Minimum System Requirements*	
	Planar Control PC
Processor	Pentium Class
Operating System	Win 7 32/64, XP 32-bit
RAM	2GB
Hard Drive	250GB (2GB free)
Graphics	Embedded graphics or better Rack-mounted

*Contact a Planar representative regarding support for other operating systems