Advanced, Adaptable Video Wall Processor

Planar's Indisys™ Extensity 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 most advanced 4K-capable electronics, allowing the easy configuration of a system to meet specific video wall requirements and supports a wide range of inputs. Indisys Extensity scales from small, simple video walls to large, complex video walls of over 100 displays. It has the capability to share information across multiple walls and the full enterprise.

Indisys Extensity features the latest generation field-proven architecture deployed in hundreds of mission-critical control rooms around the globe. Indisys Extensity is designed to integrate tightly with Planar's Clarity™ Matrix LCD Video Wall System and Clarity™ LED Series rear projection display walls. The elegant approach allows for high system resiliency and flexibility in building your video wall control system. Indisys Extensity is designed for 24x7 operation, keeping video wall downtime to a minimum.

Powerful, leading edge image processing

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

Extensity Processors

Image Master X-D
1U rack processor for Clarity Matrix LCD Video Walls and Planar UltraRes Series displays

Front

Back

4x DisplayPort 1.1 Input and Loop-out pairs. Also takes IP^2 from Image Hub X-D

2x DisplayPort Output to video wall

4x Multiformat Inputs DVI, HDMI, VGA, Composite, Component, S-Video (DVI connector with adapters)

Note: All Extensity inputs are HDCP compliant

MultiCrop X
Internal processor in Planar rear projection displays

4x DisplayPort 1.1 Input and Loop-out pairs. Also takes IP^2 from Image Hub X-D

Extensity Expansion Processor

Image Hub X-D
1U rack expansion processor

Front

Back

4x DisplayPort 1.1 Input and Loop-out pairs

2x IP^2 (Indisys Packetized Protocol) Outputs to Extensity Processors

4x Multi-format Inputs DVI, HDMI, VGA, Composite, Component, S-Video (DVI connector with adapters)

Note: All Extensity inputs are HDCP compliant

Indisys Extensity

- Slim profile, high performance
- Mission-critical design
- Secure architecture
- Scales up in small increments
- Rich and open control environment

Superior hardware, superior control

Indisys Extensity processors take the contents of inputs and place them on the video 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. With Planar rear projection displays, the processor is embedded in the display.

With larger input requirements, input expansion processors are added to the system. The input expansion processors handle all types of sources – up to 4K resolution 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.

Indisys Extensity processors are 1U, 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. Remote displays or smaller video walls can be added to the system. The rack-mounted processors work effectively with rack-located sources in the command room.

Complete control of any image on any size wall

Control the video wall

Capture sources

Share information
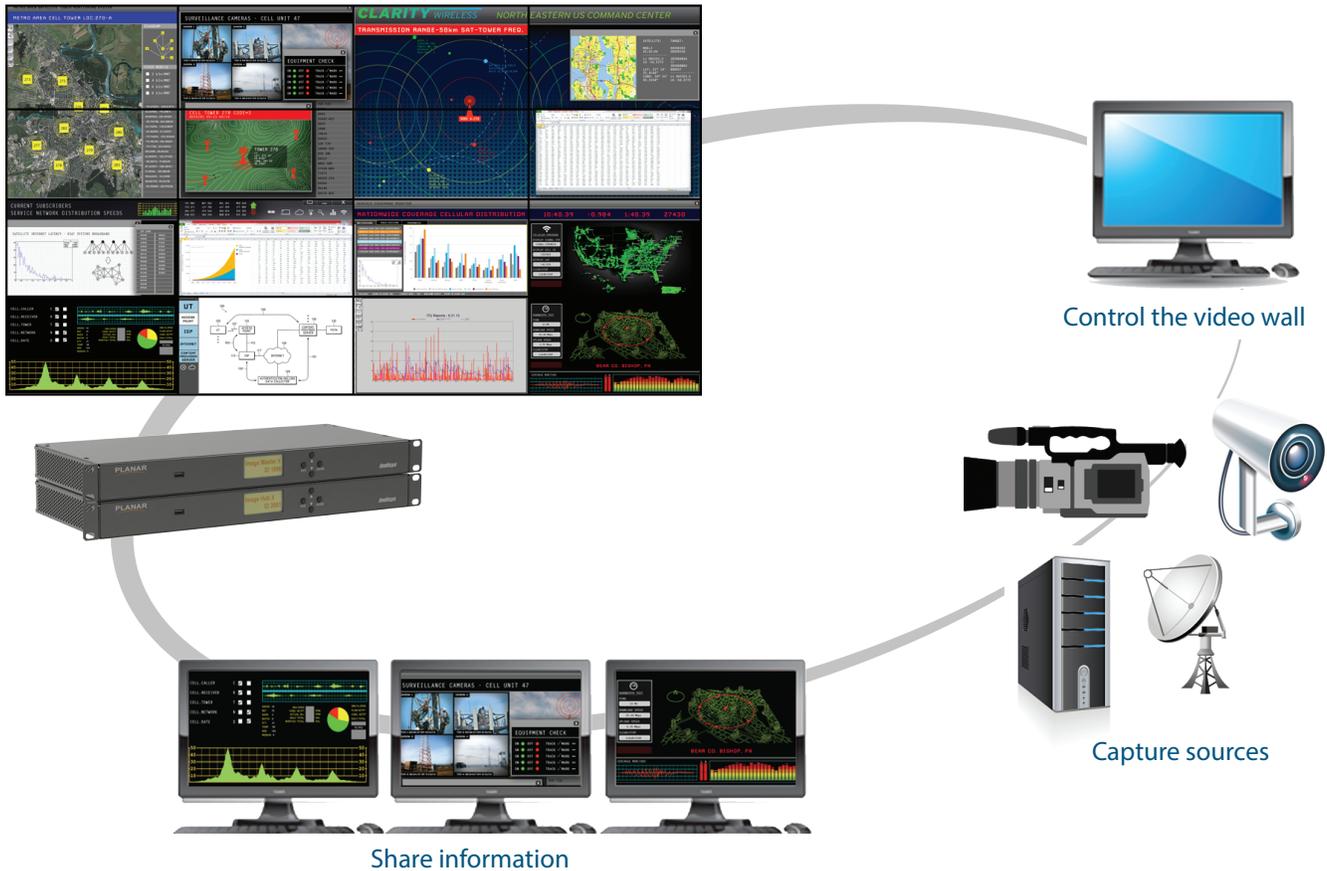
Flexible Setup, Control, and Monitoring Software

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 so performance and up-time are optimized.

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.

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

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.
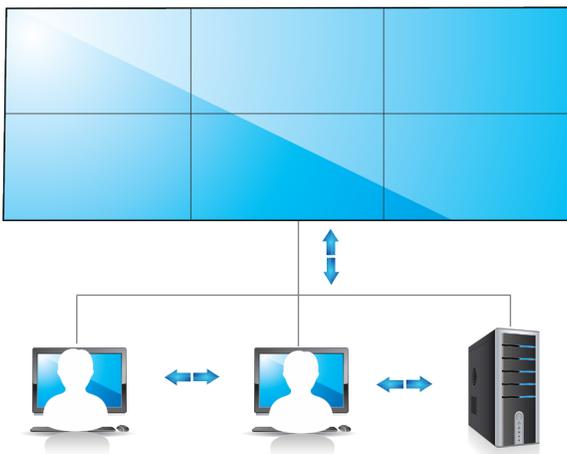
Indisys Desktop Service
Network-based Collaboration

- 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

	EXTENSITY PROCESSORS		EXTENSITY EXPANSION PROCESSORS	
Model	**MultiCrop X**	**Image Master X**	**Image Hub X**	**Multi Video Input Module**
Description	In-display Extensity processor that resides inside the Clarity LED3 rear projection displays	Rack-mount Extensity processor designed to connect to Clarity Matrix video walls, UltraRes displays or any standard display.	Rack-mount Extensity processor designed to provide additional expansion connecting to MultiCrop X or Image Master X.	External processor that captures analog SD video sources and feeds them to MultiCrop X, Image Master X or Image Hub X
Typical Uses	One MultiCrop X processer per Clarity LED3 rear projection display	One IMX per 4 to 8 Clarity Matrix displays, One IMX per 1 or 2 UltraRes Display, One IMX per 2 Full HD LCDs	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
Graphics Bandwidth	Dual 136 Gb/s (gigabit per second) custom processors	Dual 136 Gb/s (gigabit per second) custom processors	Dual 136 Gb/s (gigabit per second) custom processors	Custom A-to-D converter
Pixel Processing	63 Gpxop/s (gigapixel ops per second)	63 Gpxop/s (gigapixel ops per second)	63 Gpxop/s (gigapixel ops per second)	
Base Inputs	4x DisplayPort 1.1 Up to 3840 x 2160 @ 30Hz each 330 MHz Max 24 bits true color (16 million) HDCP Compatible	4x DisplayPort 1.1 Up to 3840 x 2160 @ 30Hz each 330 MHz Max 24 bits true color (16 million) HDCP Compatible	4x DisplayPort 1.1 Up to 3840 x 2160 @ 30Hz each 330 MHz Max 24 bits true color (16 million) HDCP Compatible	8 x PAL, NTSC, Secam, Composite Video, S-Video, SD Component (interlaced) 1 BNC + 1 DIN per input optional component adapters 24 bits true color (16 million colors)
Optional Inputs (Internal) - Model		**Image Master X-D**	**Image Hub X-D**	
		4 Additional Multi-format Inputs DVI-I Connector Formats: DVI, HDMI (HDCP), VGA, HD Component, Composite, S-Video HDCP Compatible	4 Additional Multi-format Inputs DVI-I Connector Formats: DVI, HDMI (HDCP), VGA, HD Component, Composite, S-Video HDCP Compatible	
Optional Inputs (For Upstream Expansion)	Image Hub X Image Hub X-D Multi Video Input Module	Image Hub X Image Hub X-D Multi Video Input Module	Image Hub X (via Cascading) Image Hub X-D (via Cascading) Multi Video Input Module	n/a
Display Output Support	Internal connection to Clarity LED3 display 4x DisplayPort 1.1 Loop Outputs - Used to loop out to other cubes in the wall	2x DisplayPort 1.1 4x DisplayPort 1.1 loop Outputs	No Direct Display Support Only outputs to other Indisys Extensity Processors 2x DisplayPort 1.1 4x DisplayPort 1.1 loop Outputs	No Direct Display Support Only outputs to other Indisys Extensity Processors 1x DVI-D Output
Supported Displays	All "xi" Clarity LED3 Cube series	Clarity Matrix Gen 2, UltraRes, other Planar Displays	MultiCrop X, Image Master X, Image Master X-D, Image Hub X, & Image Hub X-D	Image Master X-D & Image Hub X-D
Functions	Up to 8 source window crops (8 PIP), Upscaling, downscaling, wall snapshot, cropping, resizing, zoom in and out,	Up to 8 sources window crops (8 PIP) Upscaling, downscaling, wall snapshot, cropping, resizing, zoom in and out,	Encodes and/or routes input signals to multi-stream IP2 outputs	Combines multiple video inputs for downstream processing
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
Miscellaneous				
Case	Cube-imbedded Module	1 RU Module	1 RU Module	1 RU Module
Dimensions (WxHxD)	Housed inside Cube	(19" with mounting kit) 440mm x 44mm x 200mm	(19" with mounting kit) 440mm x 44mm x 200mm	(19" with mounting kit)
Weight	1.8 Kg / 4.0 lbs	2.5 Kg / 5.5 lbs	2.5 Kg / 5.5 lbs	2.9 kg / 6.4 lbs
Power supply	12 VDC from Planar Cube Display	24 VDC external power adapter,	24 VDC external power adapter,	12 VDC External power adapter
		autorange 100-240 V 50/60 Hz	autorange 100-240 V 50/60 Hz	Autorange 100-240 V 50/60 Hz
Power consumption		50 watts - IMX 75 watts - IMX-D	50 watts - IHX 75 watts - IHX-D	70 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)
Humidity range		< 90% non condensing	< 90% non condensing	< 90% non condensing
Model			**PLI**	
Description			4U processor adds native resolution desktop and network-based applications to Extensity video walls (see separate PLI datasheet)	

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

Vidoe 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 X, Image Master X, 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

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