

March 2010

GRAPHICS

Pulse

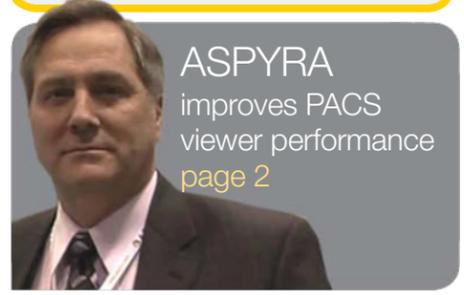
Matrox Graphics, Inc.

Delivering innovative multi-display solutions since 1976.

ECR 2010

European Congress of Radiology

Matrox Xenia Drives Imaging Applications Across the Show Floor



ASPYRA improves PACS viewer performance [page 2](#)

Zoom in on Xenia Series



Hardware available today typically doesn't gain new features down the road, unless the hardware was specifically designed to do so. Thanks to a new Matrox driver architecture and an expanded Software Development Kit (SDK), several new and improved features including advanced cloning and replication are being added to the Matrox Xenia Series display controller boards.

Xenia Series inherits the innovative features first seen in the Matrox TheatreVUE display projection controller boards, designed to clone any portion of a medical display onto a second large screen display or projector. Xenia Series' advanced board and software technologies provide further advantages including a third display output, plus higher resolution support on each output (up to 4MP+8MP+8MP).

Matrox Zoom allows clients to manipulate a specific area of the desktop, either by selecting the area manually or by choosing a pre-defined cell using Matrox Desktop Management tools. Selecting a region with the same aspect ratio as the feature display will maximize screen real estate. Preserving the aspect ratio of any on-screen selection is also possible, from a

resolution of 1x1 up to the entire displayable desktop with Matrox Zoom automatically scaling any selected region up or down for best fit on the feature display. For example, a Xenia Series board could be used to zoom in on a lung nodule or mass on a 3MP display and clone this selected area out to a projector for a larger group of radiologists to review.

The region of interest is not limited to a particular area on any one of the displays. A 1-to-1 clone of an entire display is possible where the aspect ratio of that display and the feature display are identical. For example, in an operating room, the images required for a particular intervention may be maximised on a 19" widescreen display and then cloned out to a full HD projector, where both are connected to a Matrox Xenia Series board. In this case, the optional third screen output is available for accessing other data that may be of interest during the surgery (HIS/RIS patient information, additional images, etc.).

The region of interest can be expanded even further by merging two independent display desktops and cloning any of the resulting area onto a third independent feature display.

For example, a single Xenia Pro board is capable of replicating mammography images across two merged portrait 5MP grayscale monitors out to a large 46" full HD display.

A growing number of healthcare facilities are configuring diagnostic workstations in multi-modality and mammography reading rooms with Xenia and Xenia Pro boards; the new zoom and clone functionality makes Xenia Series an ideal solution for radiology meeting/training rooms, operating rooms, and educational theatres as well.

Clients who have purchased Xenia Series boards and are interested in taking advantage of the new Matrox PowerDesk Zoom functionality are encouraged to contact their solution provider for more information on how to use it. Developers who are interested in integrating Matrox advanced cloning and replication functionality and/or other Xenia Series hardware features within their solutions are invited to contact Matrox to receive the free Matrox SDK.

See Xenia at ECR

EIZO
Ext. Expo A, #24

FUJIFILM (Europe)
Expo B, #212

IBA Dosimetry
Expo C, #332

mediDOK
Expo A, #109

MCL Medical Computer Line
Expo A, #109

NDS Surgical Imaging
Expo B, #208

NEC Display Solutions
Expo A, #109

QUBYX
Expo C, #332

Rein EDV – MeDiSol
Ext. Expo A, #6

Rogan-Delft
Expo C, #309

SECTRA
Foyer D, #406

TOTOKU
Ext. Expo A, #6

WIDE
Ext. Expo A, #17

Display compatibility: Xenia removes barriers

Xenia Series display controller boards are designed for medical imaging environments and are forward and backward compatible with the widest range of digital display models and resolutions.

"We've sold many of these display controller boards, and have several institutions that are evaluating them," says Jim Lindsay, Technical Product Manager with Ampronix. "The feedback has been exceedingly positive across the board."

Whether healthcare providers choose to invest in the latest medical display technology or re-use their current monitors, radiologists are sure to get the complete picture by choosing Matrox Xenia Series.

Save Time & Money with Matrox Xenia Series

Xenia Series delivers the leading-edge features and performance you demand from a display controller board, with the simple installation, stable drivers and flexible configuration options you've come to expect from Matrox.

"The ease of use and ease of installation are highly appreciated. Partners who do a thorough Total Cost of Ownership (TCO) calculation will certainly go the Xenia way."

Steven Stevens, Country Manager, Avnet

- Facilitate deployment and reduce support costs by standardising across multi-modality reading rooms, meeting/training rooms and operating theatres
- Upgrade or deploy new workstations more quickly with easy installation and simple configuration tools

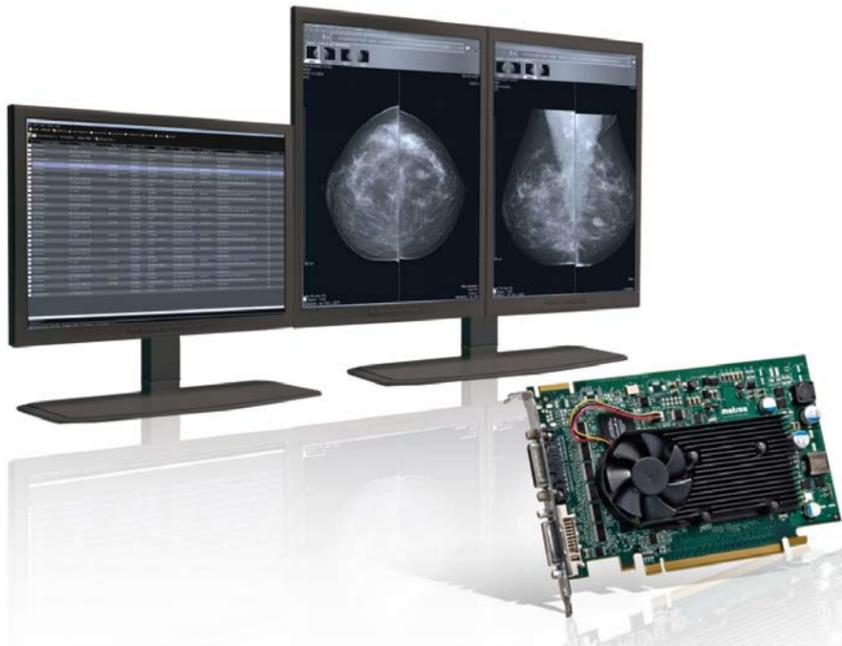
- Eliminate multiple board/driver conflicts and associated support with a single slot board offering triple digital high-resolution display output
- Reduce capital expenditures by re-using current monitors, choosing from the widest range of compatible displays
- Future-proof your enterprise with forward and backward display compatibility
- Correct or enhance luminance uniformity on displays in less than two minutes, bringing them within global industry standards
- Save energy with class-leading board technology featuring low power consumption
- Reduce down-time with reliable hardware and drivers tested with a wide range of medical imaging applications
- Improve workflow and boost radiology reporting capacity with smooth window/level, zoom/pan and image load performance
- Benefit from additional performance gains via onboard image processing with the free Matrox SDK for developers

For more information, visit www.matrox.com/xeniaseries.

"With the Matrox Xenia Pro, we can offer our customers outstanding graphics performance. This fits with our strategy to deliver the most efficient workflow experience for digital mammography"

Jose Abellan-Martinez, Managing Director, Image Diagnost.

Extend the life of your PACS Workstations



If you are looking to upgrade your PACS workstations with leading-edge features and hardware-accelerated performance, a quick and intuitive installation of Xenia Series display controller boards may be all it takes.

Menno Timmer, Product Manager with Rogan-Delft, claims, "The ease of installing the Xenia boards surprised us in a positive way. Never before did it take so little time to prepare our systems [...] a single board solution, and therefore single driver solution, rules out any possible driver conflicts." Lutz Lammers, Senior Product Specialist for PACS at FUJIFILM Europe GmbH concurs, "Matrox Xenia Series offers a number of advantages

[...] there's less power consumption related to the use of one vs. two video boards and you save one PCIe slot. And due to the possibility of hardware-software integration, higher performance."

When loading high resolution medical images, strong, reliable performance is a must. According to Dr. Frédéric Banegas, PhD, Chief Technical Officer, Intrasure SAS, "The handling of 10-bit radiographic images is obviously a key feature of Matrox products, in addition to powerful graphic processing capabilities." Aspyra's product manager, Bill Culton, agrees, "Even without using the advanced medical functionalities available on the Xenia Series, it is significantly faster than the MED Series."

Software developers can add advanced features to their applications, upgrading older workstations with newer technologies and accelerated performance. FENICS CEO Jérémy Clech notes, "The Matrox Xenia Pro board dramatically reduces the development process by providing high-level libraries and native C# example source and executables for rapid development."

Monitor calibration is vital across the enterprise, yet many displays lack accurate internal calibration capabilities. In less than 2 minutes, a Matrox Xenia Series board provides a multi-point calibration using Qubyx PerfectLUM software and an external sensor. And with support for the widest range of displays, allowing healthcare facilities to invest in the latest display technology or re-use their current displays, Matrox Xenia Series is the obvious choice.

ASPYRA improves PACS viewer performance with Xenia Pro SDK



Excerpts from an interview with Bill Culton, Product Manager at Aspyra

George Rigas (Matrox Graphics): Aspyra is a valued Matrox MED Series solution provider for the PACS and mammography market and together, we recently issued a press release about ASPYRA AccessNET PACS workstations incorporating Matrox Xenia hardware. What really excites you about Matrox Xenia Series display controller boards?

Bill Culton (Aspyra): The Matrox Xenia Series

provides on-board support for most of the image processing functions needed for fast display of high resolution medical images. This is very unusual from a commercially available product.

GR: Many have said that Matrox Xenia Series is faster than MED Series or anything else they've seen to date. Can you explain how your application uses this increased performance to improve workflow?

BC: Even without using the advanced medical functionalities available on the Xenia Series, it is significantly faster than the MED Series. There is no comparison! In addition, we are using the large on-board memory to very quickly scroll through large stacks of images. Tracking functions like real-time window level

adjustments, magnification, and panning are often directly related to how quickly and accurately they can review medical images. The raw speed to display an image coupled with the performance improvements gained from on-board window/level, panning, and magnification tracking significantly improves efficiency and quality of healthcare.

GR: We incorporated your request to improve zoom and pan performance. How much has this helped?

BC: The results of these improvements are amazing, especially on the higher resolution monitors like the five megapixels.

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Bill Culton, Product Manager: Aspyra

adjustments, magnification, and panning are performed immediately. I mean, without the draw delays you typically see on large high-resolution monitors used for mammography.

GR: How measurable is this? Can the user go through more studies in less time, are images more accurate, or do a number of things simplify the whole architecture for you?

BC: Absolutely! Our customer's livelihoods and the lives of the patients they serve are

ASPYRA AccessNET PACS is a modular designed PACS solution that ranges from imaging modality viewing stations to multi-facility, enterprise-wide implementations with load balancing, redundancy, and remote backup archives, allowing healthcare facilities to build systems with components that meet their needs.

"This [Xenia + triple display] configuration optimizes the performance of the graphical system and saves us from possible conflicts between different graphics cards installed in the same computer"

Jordi Lopez, Technical Manager, Alma IT Systems.

About Matrox Graphics, Inc.

Matrox Graphics is a leading manufacturer of graphics solutions for professional markets. In-house design expertise, top-to-bottom manufacturing, and dedicated customer support make our solutions the premier choice in industries that require stable, high-reliability products. Founded in 1976, Matrox is a privately held company headquartered in Montreal, Canada, with representation and offices in the Americas, Europe, and Asia.

Matrox display controller boards for medical imaging offer a wide range of display output options, resolution capabilities, and features to suit the demanding needs of medical imaging professionals. Matrox Xenia is the first native PCI Express board with all-digital triple-monitor support in a single-slot and the built-in flexibility to drive practically any known medical or non-medical display configuration.

For more information and regular updates on Matrox products, visit www.matrox.com/graphics

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