# A 360° Revolution in Video Walls



# World-Class Portfolio of Hardware, Software, and Developer Tools for Any Video Wall Requirement

Highest Density with the Smallest Footprint • Dynamic System Scalability Market-Leading Image Quality • Customizable Software Solutions • Powerful Video Processing

The revolution in video walls starts here: Matrox video wall products deliver industry-leading density and the highest image quality on the market. Building on 40 years of technological innovation and industry-specific expertise, we supply dynamic system scalability capabilities, powerful video processing, intuitive software applications, and a variety of API and SDK tools for personalized deployments. Future-proof and backwards compatible, our 360-degree solutions evolve with your changing needs.



### A 360° Revolution in Video Walls

#### World-Class Hardware, Software, and Developer Tools for Any Video Wall Requirement

Video wall deployments pose different challenges depending on dimension, resolution, connectivity, and application requirements. Matrox offers a 360° approach, delivering a comprehensive range of hardware and software products designed to meet any video wall project requirement.

Ideal for AV and system integrators and OEMs looking to create small-scale systems for digital signage, conference or classroom presentations, or medium-sized and large multi-board configurations for security, traffic management, or control rooms, Matrox video wall products offer the most reliable, scalable, industry-tested architecture available.

# **Highest Density with the Smallest Footprint**

Matrox provides a wide range of single-slot multi-functional input and/or output boards and multi-monitor controllers that give you the high-density connections you need with the smallest footprint- streamline your integration process using less hardware components and reduce cost and maintenance.



Matrox Mura IPX<sup>™</sup> Series provides unprecedented, high-density capabilities, with four 4K and/or 16 Full HD encode/decode available on a single card.



Matrox Mura MPX<sup>™</sup> Series delivers up to four Full HD inputs and four Full HD outputs on a single card.



Matrox C-Series<sup>™</sup> drives up to six 4K displays or as many as nine 1920x1200 displays from a single card.



Matrox QuadHead2Go<sup>™</sup> Series drives up to four pristine quality Full HD displays from a single source. Combine multiple units to create largescale video wall solutions.

# **Dynamic System Scalability**

Fully compatible Matrox products allow mixing and matching to build video walls to the scale required; it's simple to add more components to a system as capture, encoding, streaming, decoding, and display demands evolve. Matrox AV-over-IP products are based on open-standard H.264 codec technology for complete interoperability with not only Matrox products—IP-based or not—but virtually all browsers, devices, computers, tablets, and networks to create even larger, collaborative ecosystems.

We create products with end-to-end perspective in mind—all pieces are backwards compatible, thus protecting your investments, and built on the universal codec to future proof your system as your needs change.



Baseband Video Walls Integrate multiple Mura MPX cards and get universal input support on up to 56 synchronized outputs.



Networked Video Walls Combine Mura IPX with C-Series or Mura MPX cards to gain network connectivity and build small- and large-scale video walls.



Scalable Video Walls Combine C-680 or third party graphics with multiple QuadHead2Go multi-monitor controllers to build large-scale video walls.

### **Market-Leading Image Quality**

Our hardware and software portfolio delivers the best streaming image quality on the market today. Matrox excellence is integrated in our products down to their very algorithms; you can see the difference with higher-quality images available at lower bitrates, whether it's fast-moving video content or the smallest copy details on a Microsoft<sup>®</sup> Excel<sup>®</sup> chart.

10 bit YUV 4:4:4

**Highest Image Quality** 

RGB 10-bit and YUV 4:4:4 offerings are unmatched by any competitor.



#### **Color Depth Options**

Class-leading color details ensure only the highest quality output for your video walls; we can deliver deep 32-bit color, as well as 24-bit true color based on your needs.

# **Customizable Software Solutions**

Matrox offers a complete range of video wall software, SDKs, and libraries that allow OEMs and developers to deploy intuitive, ready-touse software or build custom interfaces and applications. Whatever the installation requirement, Matrox provides the necessary toolkit to create end-to-end solutions and continues to support existing APIs with new releases to protect your investments in the long term.



#### Matrox PowerWall<sup>™</sup> & MuraControl<sup>™</sup> Software

are designed to make video wall management easier. Offering an intuitive way to manage your video walls remotely; the Matrox PowerWall™ and MuralControl™ software are customizable with the white-labeling option for a personalized user interface.



Network API grants users command-level access to build custom capture, streaming, and display video wall applications using Telnet, RS-232, and/or HTTP/HTTPS.



#### Matrox VWLib API & DWC API

provides C/C++ code for building custom capture, display, and stream video wall applications. The VWLib API makes use of DirectX<sup>®</sup> under Windows and OpenGL<sup>®</sup> under Linux<sup>®</sup>.

|  | Software Development Kits |                       |                     |                   |                                   |  |
|--|---------------------------|-----------------------|---------------------|-------------------|-----------------------------------|--|
| Hardware   | DirectShow<br>Support     | Matrox<br>Network API | Matrox<br>VWLib API | Matrox<br>DWC API | Matrox<br>QuadHead2Go<br>REST API |  |
| Mura IPX Capture Series + Mura MPX                 | No                        | Yes                   | No                  | Yes               | No                                |  |
| Mura IPX Capture Series + C-Series                 | Yes                       | Yes                   | Yes                 | No                | No                                |  |
| Mura IPX Capture Series + Third-party <sup>2</sup> | Yes                       | Yes                   | Yes                 | No                | No                                |  |
| Mura IPX Decode & Display Card <sup>3</sup>        | No                        | Yes                   | No                  | No                | No                                |  |
| QuadHead2Go Series                                 | No                        | No                    | No                  | No                | Yes                               |  |

1. C420 not supported. 2. See release notes for details on which brands, models, and configurations are supported.

3. Currently, this card works as a standalone multi-viewer, not requiring any operating system on the CPU host system to function.

Matrox software also provides the flexibility to incorporate other products into your video wall installation. We give you room to tailor a solution to your exact specifications, using the components you know and trust.



DirectShow-Supported Software enables your pre-existing DirectShow applications to function with Matrox hardware.



Third-Party Interoperability with AMD®, Intel®, and NVIDIA® means you benefit from flexible hardware integration.



#### **Operating System Options**

allow for working in Windows- or Linuxbased platforms, whichever your preference.

### **Powerful Video Processing**

From huge installations to smaller-scale set-ups, striking video walls demand attention. Execute your vision with our advanced multifunctional processing capabilities, giving you the power and flexibility to incorporate smooth, high-fidelity post-production effects in your video wall designs and layouts.



Personalized Compositing Create alpha blending, color key, crop, rotation, mirror, and flip effects to ensure all visuals are of the highest standard.



**Customized Animations & Transitions** 

Apply eye-catching animations and transitions, including movement and compositing, on windows showing local and external content. Multiple transitions can be combined to create an endless variety of complex, striking effects.

### **Compatibility Within the Same System**

|                           | Mura IPX 4K<br>Capture Cards | Mura MPX Series | Matrox C-Series <sup>1</sup> | QuadHead2Go  | Third-Party<br>Graphics |
|---------------------------|------------------------------|-----------------|------------------------------|--------------|-------------------------|
| Mura IPX 4K Capture Cards | 1                            | ✓               | 1                            | ✓            | 1                       |
| Mura MPX Series           | ✓                            | ✓               | Х                            | $\checkmark$ | x                       |
| C-Series <sup>1</sup>     | 1                            | Х               | $\checkmark$                 | $\checkmark$ | •                       |
| Third-Party Graphics      | 1                            | Х               | ٠                            | $\checkmark$ | ✓                       |
| QuadHead2Go Series        | ✓                            | <i>✓</i>        | <i>√</i>                     | $\checkmark$ | 1                       |

✓ Currently compatible. X Not compatible. ● Third-party graphics can only be used as console display in C-Series-based systems. 1. C420 not supported.

|         | Mura IPX 4K Capture Cards<br>+<br>C-Series Graphic Cards <sup>1</sup>  | Mura IPX 4K Capture Cards<br>+<br>Mura MPX Series  | Mura IPX Decode &<br>Display Card  | Mura IPX 4K Capture<br>Cards<br>+<br>Third-Party Graphics  | QuadHead2Go<br>Series  |
|---------|--|--|--|--|--|
| Windows | All 64-bit Professional®, Standard®,<br>Embedded®, and Server® versions<br>of Microsoft Windows 7, and<br>Windows 10 | Windows Embedded Standard 7<br>(64-bit), Windows 7 Professional<br>(64-bit), Windows 7 Professional for<br>Embedded Systems (64-bit),<br>Windows Server 2008 R2 (64-bit) | Currently, this card works<br>as a standalone multi-<br>viewer, not requiring any<br>operating system on<br>the CPU host system to<br>function | All 64-bit Professional,<br>Standard, Embedded, and<br>Server versions of Microsoft<br>Windows 7<br>and Windows 10 | This product works<br>independently of the<br>source's operating<br>system |
| Linux   | 1  | х  |  | 1  |  |

✓ Currently compatible. X Not compatible. 1. C420 not supported.

For comprehensive details on all our product lines, please visit matrox.com/graphics to view datasheets for Mura IPX Series, Mura MPX Series, C-Series and QuadHead2Go Series



Montreal Headquarters: 1-800-361-4903 (North America), 514-822-6364 (Worldwide) I video@matrox.com London Office: +44 (1895) 827300 Serving: United Kingdom, Ireland, Benelux, France, Spain, Portugal, Middle East, Africa

Munich Office: +49 89 62170-444

Serving: Germany, Austria, Switzerland, Denmark, Finland, Norway, Sweden, Central and Eastern Europe, the Baltic States, Greece, Turkey, Italy

© 2019 Matrox Graphics, Inc. All rights reserved. Matrox reserves the right to change specifications without notice. Contact Matrox for more details on specific requirements. Matrox and Matrox product names are registered trademark in Canada or other countries and/or trademarks of Matrox Electronic Systems, Ltd and/or Matrox Graphics Inc. All other company and product names are registered trademarks of their respective owners. 05/201 ners. 05/2019