



The Leading Broadcast Graphics Solution
For Live Production

Powerful Shader-Based Masking

4K-Ready

PRIME GRAPHICS PLATFORM

PRODUCT INFORMATION SHEET

PRIME
GRAPHICS
PLATFORM
BRANDING,
CLIPS,
& MORE...

GROW VIEWERS. INCREASE REVENUE.

At a time of enormous industry transformation that demands the most efficient workflows, ease of use and return on investment, ChyronHego brings you the PRIME Graphics Platform.

At the core is the PRIME Video Engine, the latest version of our most powerful rendering engine. PRIME is a resolution-agnostic, software-based solution that leverages advanced 64-bit GPU- and CPU-based technologies for maximum power in rendering graphics and effects, as well as HDR-enabled 16-bit color.

Included is the PRIME Designer, a powerful design tool that enables the industry's fastest turnaround from graphics creation to playout. The PRIME Designer offers drag-and-drop intuitive design for quick and easy scene construction. Plus, the solution's Advanced Data Object provides filtered data binding for scene elements, and seamless integration with ChyronHego's NewsTicker™ enables access to back-end data streams.



PRIME also includes powerful and easy-to-use capabilities for building customized transitions, including ChyronHego's unique Warp Effects technology as well as auto-follow, mask, render texture, and more. PRIME includes full Unicode support and its user interface is localized in 13 different languages.



KEY FEATURES

- **Video I/O**

The PRIME Graphics Platform supports UHD, HD-SDI, NDI and SMPTE 2110 input sources, and UHD, HD-SDI, NDI, SMPTE 2110, and DVI output sources. Any input source can be routed to any output source.

In addition, the PRIME Graphics Platform supports up to 8 HD-SDI inputs or outputs, configured as Video or Key, for 8-bit or 16-bit color.

- **Audio**

Full audio capabilities for all inputs and outputs including audio mixing. Supports Dolby® pass-through.

- **Automation**

The PRIME Graphics Platform supports Chyron Intelligent Interface, PBus, VDCP and Ross® Talk.

- **Scripting**

The PRIME Graphics Platform supports VBScript, Jscript, LUA Script, Shader Editor an embedded C# scripting engine with Auto Complete, Expressions Engine, and a Drag and Drop Conditional Editor with Auto Complete.



KEY FEATURES

- **PRIME is Software-based**

The PRIME Graphics Platform is a software-based, resolution-agnostic solution that leverages advanced 64-bit GPU- and CPU-based technologies, 16-bit color per channel and full 10-bit I/O for maximum power in rendering graphics and effects. PRIME is available in three software tiers to meet your needs.

- **Advanced & Unique Effects**

Wow your audience with customized transitions, including unique Warp Effects, a unique special effects capability that integrates with industry-leading third-party modeling and rendering tools such as Adobe® After Effects and 3ds Max from Autodesk®.

- **Easier Design & Data Connections**

Supported by an all-new browser interface, PRIME's drag-and-drop design allows for quick and easy scene construction. Its Scene Designer sports an enhanced timeline. PRIME's Advanced Data Object provides drag-and-drop filtered data-binding to scene elements, and ChyronHego's NewsTicker™ can provide back-end data streams directly to PRIME. Available data connections include Text Files, XML with XPath and XSLT, RSS, Web XML, JSON, EXCLE Access, any ODBC compliant data source, AP Web Feed, Google Spread sheets, ChyronHego Data Engine, and more.

ONE PLATFORM. MULTIPLE USES.

The PRIME Graphics Platform is an extremely flexible solution that adapts to your requirements, offering:

• PRIME Branding

Deliver bold, up-to-the-minute branding elements such as headlines, sports scores, weather reports, financial data, snipes, social media commentary, and automated promos. Supports BXF. With a built-in design tool, PRIME Designer, your channel branding will reach new creative heights.

• PRIME Clips

A multi-channel Clip Player with user-defined clip transitions, and integration to CAMIO, ChyronHego's graphics asset management solution. PRIME Clips can play up to six HD full-frame clips or three clips with key. Up to 6 full frame HDSD clips with support for most all major codecs, QuickTime®, DNxHD, ProRes® GTC, AVC Intra, XDCam®, and many more. Folder watchers and clip convertors for transcoding are all part of PRIME's "Workflow" toolset.

• PRIME News

PRIME News provides full integration to ChyronHego's MOS-based and NRCS-connected graphics asset management solution, CAMIO, as well as to its interconnected news producer tool, LUCI5, enabling the industry's fastest turnaround from graphics creation to playout.

ONE PLATFORM. MULTIPLE USES.

The PRIME Graphics Platform is an extremely flexible solution that adapts to your requirements, offering:

- PRIME Interactive

Let your news and sports reporters tell a better story with visually compelling, data-driven interactive touch screen presentations.

- PRIME Studio Monitors

Today's studio set designers are taking advantage of the larger canvas offered by modern monitor display technology. PRIME Studio Monitors feed your graphics to atypical aspect ratio monitor walls, touchscreens, integrated anchor desk monitor displays, and more. A single PRIME Channel can feed multiple monitors or span monitors in a Display Matrix.

- PRIME Workflow

Access to your graphics has never been more critical, particularly in today's multi-platform, file-based newsroom production and editing environments. PRIME Workflow extends your access to ChyronHego content syncing and distribution tools, such as HubDrive, as well as a wide range of Non-linear Editing and other third-party applications. Moreover, the PRIME Folder Watcher application can transcode clip formats without any operator intervention.



PRIME HX

TECHNICAL SPECIFICATIONS

GENERAL SYSTEM

- **Height:** 3.5 in (89 mm)
- **Width:** 17.2 in (437 mm)
- **Depth:** 24.8 in (630 mm)
- **Weight:** 22.7 kg/50 lbs.
- **Power Supply:** Dual 740 Watt Redundant Hot Swappable Supplies (80 Plus Platinum)
- **Power Requirements:** AC Input 100-240V, 60-50Hz, 9 Amp Max, 3.2 Amps @ 120VAC Typical
- **OS:** Windows 7 Ultimate 64-bit
- **Processor Family:** Intel Socket 2011-v3 Octa-Core Processor
- **Memory:** 64 GB DDR4-2400
- **GPU:** NVIDIA® GPU, Quadro 5000 series
- **USB:** (2) USB 2.0 on Rear, (2) USB 3.0 on Rear and (2) USB 3.0 on Front
- **Serial:** (2) DB9 RS232 Serial Ports. 2 RS232 to RS422 Converters Included
- **Network:** (2) RJ45 1 Gbe Connectors

STORAGE

- **System:** 2x200 GB SSD (Raid1)
- **Media:** 4x800 GB SSD (High Performance RAID5, over 2 TB usable) * Optional expansion available

SDI IO (IF EQUIPPED)

- **Supported Video Standards:**
 - SD-SDI:** 525i NTSC, 625i PAL
 - HD-SDI:** 1080i, 1080PsF, 720p, 1080p60
- **Data Format:**
 - SD:** 10-bit, 270 Mb/s ITU-R Bt.601 SMPTE 259M-C
 - SD:** 10-bit, 270 Mb/s ITU-R BT.656-4
 - HD:** 10-bit, 1.485 Gb/s ITU-R Bt.709 SMPTE 292M
 - UHD:** 4x 3G 8-bit 2.97 Gb/s ITU-R Bt.709 SMPTE 424M, Level A and Level B Dual Stream
- **Genlock:** Bi-level & Tri-level Analogue Genlock
- **Connector Type:** HD-BNC Connector

IO Configurations:

8 reconfigurable SDI Ports

Outputs: Video or Video and Key

Inputs: All remaining ports can be used as inputs

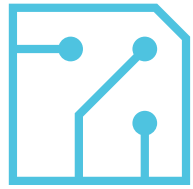
Embedded Audio:

SDI Input: 16 per channel – Up to 32 channels embedded SDI

SDI Outputs: 16 per channel – Up to 32 channels embedded SDI

HW/SW OPTIONS

- External Video Bypass Panel
- **GPI:** 16 (8 IN/8 OUT)
- **AES Audio:**
 - AES Inputs:** 4 AES3id for 8 mono tracks
 - AES Outputs:** 4 AES3id for 8 mono tracks
 - AES Connector Type:** BNC, unbalanced
- **Additional Storage:** Expandable in 800 GB increments, up to and additional 5 TB.



PRIME MX

TECHNICAL SPECIFICATIONS

GENERAL SYSTEM

- **Height:** 3.5 in (89 mm)
- **Width:** 17.2 in (437 mm)
- **Depth:** 24.8 in (630 mm)
- **Weight:** 22.7 kg/50 lbs.
- **Power Supply:** Dual 740 Watt Redundant Hot Swappable Supplies (80 Plus Platinum)
- **Power Requirements:** AC Input 100-240V, 60-50Hz, 9 Amp Max, 3.2 Amps @ 120VAC Typical
- **OS:** Windows 7 Ultimate 64-bit
- **Processor Family:** Intel Socket 2011-v3 Septa-Core Processor
- **Memory:** 32 GB DDR4-2400
- **GPU:** NVIDIA® GPU, Quadro 4000 series
- **USB:** (2) USB 2.0 on Rear, (2) USB 3.0 on Rear and (2) USB 3.0 on Front
- **Serial:** (2) DB9 RS232 Serial Ports. 2 RS232 to RS422 Converters Included
- **Network:** (2) RJ45 1 Gbe Connectors

STORAGE

- **System:** 2x200 GB SSD (Raid1)
- **Media:** 4x400 GB SSD (RAID5, over 1 TB usable)
* Optional expansion available

SDI IO (IF EQUIPPED)

- **Supported Video Standards:**
SD-SDI: 525i NTSC, 625i PAL
HD-SDI: 1080i, 1080PsF, 720p, 1080p60
- **Data Format:**
SD: 10-bit, 270 Mb/s ITU-R Bt.601 SMPTE 259M-C
SD: 10-bit, 270 Mb/s ITU-R BT.656-4
HD: 10-bit, 1.485 Gb/s ITU-R Bt.709 SMPTE 292M
- **Genlock:** Bi-level & Tri-level Analogue Genlock
- **Connector Type:** HD-BNC Connector
- **IO Configuration:** 4 reconfigurable SDI Ports

Outputs: Video or Video and Key

Inputs: All remaining ports can be used as inputs

Embedded Audio:

SDI Input: 16 per channel – Up to 32 channels embedded SDI

SDI Outputs: 16 per channel – Up to 32 channels embedded SDI

HW/SW OPTIONS

- External Video Bypass Panel
- **GPI:** 16 (8 IN/8 OUT)
- **AES Audio:**
AES Inputs: 4 AES3id for 8 mono tracks
AES Outputs: 4 AES3id for 8 mono tracks
AES Connector Type: BNC, unbalanced
- **Additional Storage:** Expandable in 400 GB increments, up to and additional 800 GB.

ABOUT CHYRONHEGO

ChyronHego, a portfolio company of Vector Capital, is a global leader in products, services, and solutions for the broadcast and sports industries. Specializing in live television, news, and sports production, ChyronHego offers some of the industry's most widely deployed solutions — including Lyric®, the world's most popular broadcast graphics creation and playout offering; the all-new CAMIO® Universe newsroom workflow; and TRACAB® Optical Tracking, the global leader in optical sports tracking systems as well as Click Effects, the most proven and versatile stadium broadcast family of graphics products. Headquartered in Melville, New York, ChyronHego also has offices in the Czech Republic, Denmark, Finland, Germany, Mexico, the Netherlands, Norway, Singapore, Slovak Republic, Sweden, and the United Kingdom.

For more information on ChyronHego, visit www.chyronhego.com.

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