

MULTI AWARD-WINNING MEDIA MANAGEMENT AND
DIGITAL DISPLAY SOLUTIONS

If you trace the evolution of real-time video manipulation back to its roots, there'll be one name that punctuates its history over and over again. Green Hippo Ltd.

Since Green Hippo's inception at the end of the last century, the timeline of this still-growing genre is a weave of two distinct threads; the demands of users driving Green Hippo to create class-leading solutions woven conversely with visual moments that simply would not have been possible without the innovative features Green Hippo has created.

Formed in 2000, the company has grown from a specialist manufacturer of bespoke solutions to one of the leading players in the ever-growing field of scenic video.

The AViary Video Tools range takes this wealth of experience and applies it to developing a range of devices that bring a unique, high-grade and ultra-flexible way of working to the world of Professional AV and installation.

AViary Video Tools is a fresh approach to the challenges of displaying video in a host of environments and applications from corporate AV to installation. A complimentary set of products, all aimed at enabling users to playback, manipulate and display media in ways not encountered before and all in broadcast quality, high-resolution formats where needed.

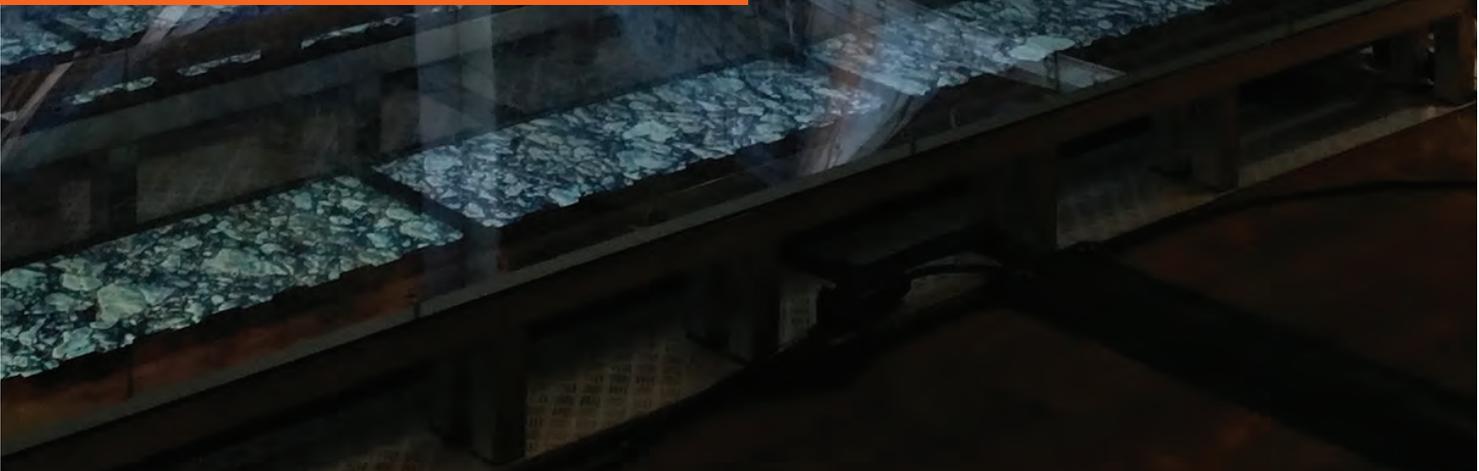
All the expected features such as playlists, simple media upload and remote triggering are present. Yet common to all products in the AViary range is the ability to manipulate and adapt media in-situ.

**AViary Video Tools
Fly Higher!**



“The cool thing about Par4Keet is that I didn’t even have to bring a monitor or any kind of device to control it. Just my finger.” Jon 9

www.holonyne.com







KEY FEATURES



KEY FEATURES

4K+ / 12 MEGAPIXELS



Par4Keet and BlueBird excel at handling 4K+ video streams easily and efficiently. This means that you can take any content up to 12 MegaPixels and beyond in size and map it onto multiple outputs, routed to pretty much any display configuration. Furthermore, as it is based around Green Hippo's propriety codec FlexRes, it is truly independent from any aspect ratio or resolution constraints.

For example, in the case of a panoramic video-wall made of 8 x 2 displays you can create content at a ratio of 7860 x 1080 pixels and play it back from a single unit. Some installations may require extreme portrait formats and those can just as easily be achieved.

A single Par4Keet or BlueBird can map and drive such setups easily and efficiently using multiple AVIary servers synchronised, there are even more possibilities..

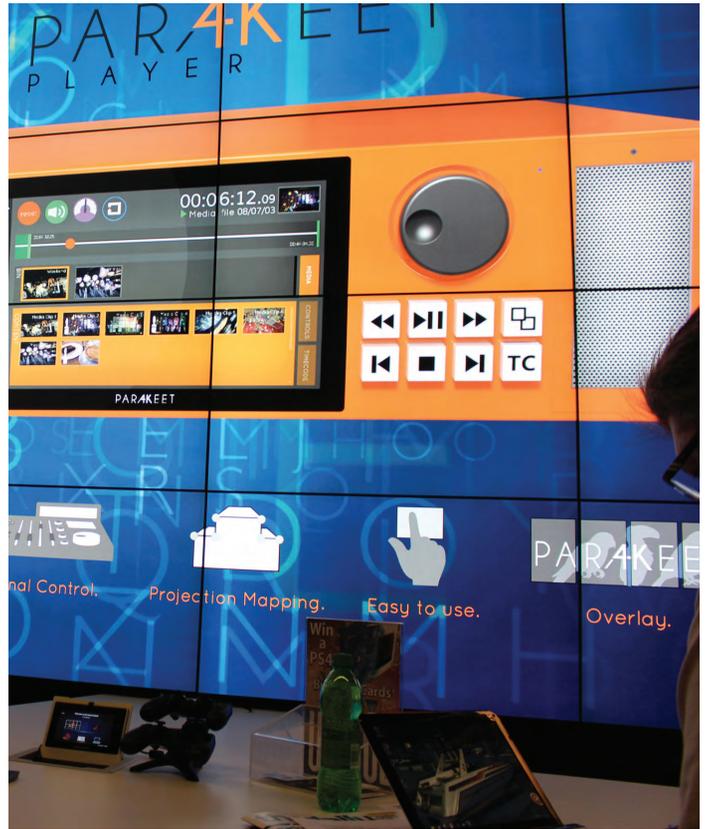
- Breaks 4K down into multiple streams.
- Can place the output anywhere on the canvas.
- Supports arbitrary rotation.
- Connects via DP/DVI or HDMI.
- Non linear aspect ratios.
- Playback videos and images up to 12 Megapixels and beyond with unrestricted aspect ratios. 16 x 9, ultra-wide, tall or thin; any aspect ratio will go.

KEY FEATURES

CODECS: FLEXRES



With four internal Codec settings to choose from, AVIary devices support playback of 4K and beyond with full flexibility in compression quality. The FlexRes Performance Codec offers unmatched playback performance while FlexRes Quality allows the user to tailor colour space and quality to suit the specific requirements. For the most visually demanding applications there is FlexRes Lossless. Transcode into any of these codecs is handled by the AVIary Video Tools software, and can use many popular source files such ProRes, H.264, Animation Codec and Image sequences.



KEY FEATURES INTERACTIVITY



With version 2.0 of Par4Keet, 2Kan and BlueBird, units can now host interactive and generative bespoke software that can simply be loaded as another video source. Utilising the industry standard software Spout, applications can share video memory to create a super-efficient transfer bus for real-time high resolution video delivery without any latency. This means that highly creative and bespoke applications can now be hosted on AViary units removing the need for external hardware or one-off solutions. What's more, the unit's built-in class-leading, output management and remapping capabilities can be used in just the same way as with any other content on the machine, removing the need for creative software developers to implement those functions in their application. Green Hippo has teamed up with leading artists in the field of creative coding and can offer both advice and help if such interactive applications are required.

- Bespoke interactive or generative applications can be hosted.
- Shared video memory provides a real-time, no latency bridge.
- Output management and remapping can be applied.
- Customisation support and service via Green Hippo.

KEY FEATURES INPUTS/ GRAPHIC OVERLAY



Par4Keet, 2Kan and BlueBird support a choice of input cards that allows live video and graphics to be fed into the system. It can then be manipulated in the same way as media and resized, positioned and colour corrected. This allows for a range of application where not only a media player is required, but an external source has to be routed to the display. As an example, on a publicly displayed video wall, important announcements may be displayed via an external PC connected via DVI. Or in a corporate lobby TV might be streamed onto a wall via the optional HD-SDI input.

- Connect external source via DVI/HDMI/HD-SDI.
- Present on the main output or as a scaled/ semi-transparent overlay.
- High quality scaling and low latency.
- Feed in TV/ Digital signage/ Live Camera/ PowerPoint.
- Acts as a video wall controller.
- Integrate existing infrastructure and map onto high quality display devices.

AVAILABLE ON PAR4KEET
AVAILABLE ON 2KAN
AVAILABLE ON BLUEBIRD
AVAILABLE ON MAGPI





KEY FEATURES VIDEOMAPPER



Green Hippo's VideoMapper plugin allows flexible tile based re-mapping of video playback images. This is ideal as a creative tool to resize and re-shape areas of the canvas. It also enables the outputs to be further subdivided into smaller segments which can be individually placed, scaled and rotated. So for example LED tiles can be freely placed and even rotated regardless of the capabilities of the controller. A simple, yet amazingly flexible and powerful video processing tool.

- Re-map any area of video.
- Tile based position, scale, rotation and colour correction.
- Ideal for creative LED or monitor walls.

KEY FEATURES REAL-TIME PLAYBACK AND IMAGE PROCESSING



AVIARY's powerful on-board real-time processing engine allows users to instantly select media and change many parameters in real-time. This has two key benefits; firstly, the media playback can be optimised instantly for a specific purpose. For example if the aspect ratio of the rendered media does not match the display this can be corrected in seconds and does not required a trip back to the editing suite. Adjust the colours, saturation or contrast instantly to add extra punch to your content. Or simply trim a few seconds off the beginning or the end of a clip. All those tasks can be highly beneficial when out in the field. Secondly, the benefit of real-time processing is that users can build interactive systems where the media changes in response to external triggers. Let the user start the playback by, for example, breaking a light barrier, or in response to an RFID reader in a shop. Many third-party sensors can be used to build an immersive experience.

- Real-time control of many parameters.
- Control geometry, colour, in and out points and playback speed instantly.
- No need to re-render content.
- Build interactive installations allowing visitors to trigger or modify content.
- Integrate into complex systems using external control (i.e TCP/IP).



KEY FEATURES MEDIA MANAGEMENT



All AViary products include an easy to use, feature-rich media management system that allows the user to manage their content locally or remotely. With support for all popular industry media formats, the MediaManager provides an intuitive interface between the content creator and the playback system, converting any files to the optimal internal playback format automatically. Furthermore, it gives the user detailed control over encoding parameters, bandwidth and colour space to ensure smooth, high-quality playback. A flexible media-mapping system allows swift organisation of extensive libraries into banks or bins all using an intuitive drag and drop interface.

The optional Remote Media Upload module allows the creation of a "Watchfolder", a location on a network where media can be uploaded. This allows the system to be fully automated and content creation teams can generate images or video files which will then automatically appear on the playback device. If linked to a cloud based system (i.e. dropbox) this can also be done from a completely remote location.

- Automatically transcode media to optimal format
- User friendly drag and drop management of banks/bins
- Full alpha channel support for both images and movies
- Automate media upload via network or cloud

KEY FEATURES

NETWORKING AND REMOTE CONTROL APPLICATION (MAGPI VIEWER AND BIRDKEEPER)



AViary products all support a remote control interface that can be deployed onto any Win7/8 PC, laptop or tablet. This is critical when controlling multiple units from a remote location or when the location of the systems prevents a clear view of the displays. AViary's networking system supports fast and feature rich functionality providing an almost identical experience to that encountered when the user is local to the system. For real-time adjustments, programming and 'tweaking' this is highly beneficial and improves the workflow, speed of delivery and ultimately, the quality of projects.

- Connect up to 64 units on any standard Ethernet network
- Control any unit remotely in real-time
- Equipment installed back-stage or in rack-rooms can easily be accessed, configured and controlled with full output monitoring
- Free to deploy and use in multiple locations on the network

AVAILABLE ON PAR4KEET
AVAILABLE ON 2KAN
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KEY FEATURES

EXTERNAL CONTROL



Real-time video players and processors are rarely used in isolation so integrating them into an environment is key. All AViary products come with an intuitive and easy to use TCP/IP command set that allows access to all parameters from common controllers such as Crestron or AMX. Magpi further sports control via DMX so can be driven directly from lighting consoles. So whether you wish to only trigger clips or you wish to create an entire show controlled externally, this can all be automated from other devices to build immersive engaging environments.

- Easy control via comprehensive TCP/IP command set.
- Direct access to all real-time parameters.
- Automate complex tasks and synchronise with other automated functions.



KEY FEATURES

SMPT E SYNCHRONISATION



When a single player isn't enough you can link multiple Par4Keets, 2Kans, BlueBirds or magpis together via our own synchronisation protocol based on standard Ethernet networks. One Master will lead and multiple units can follow creating super large pixel canvases for the most demanding installations. All in real-time, so you can still pause, stop, rewind or even scrub the Master and all the slaves will follow.

If frame accurate synchronisation to external devices is required then standard SMPTE timecode can be applied to the players and the playback will track accurately and instantly.

- Create larger setups where multiple units follow a single Master unit.
- Connect to external SMPTE timecode sources.

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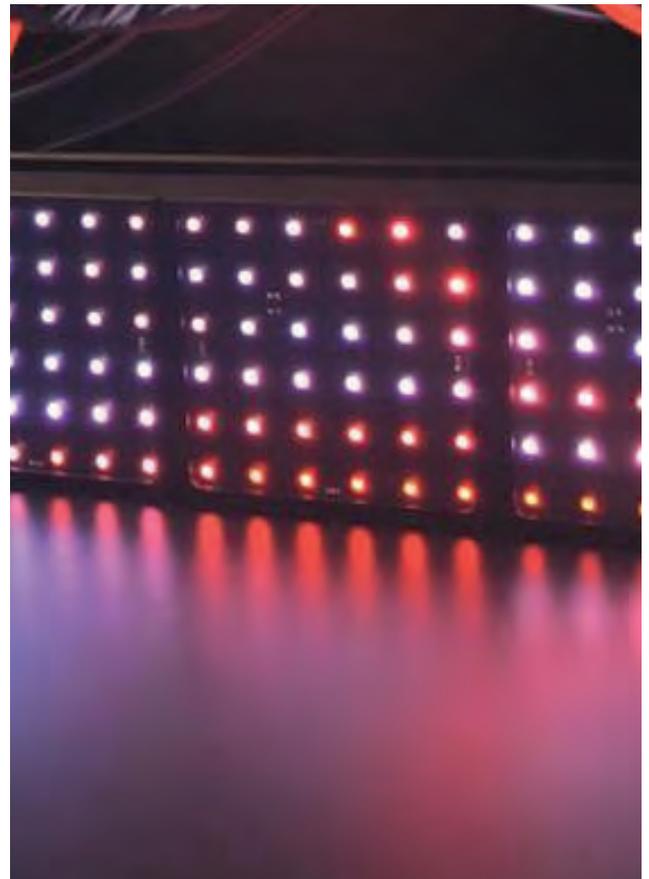
KEY FEATURES

SCREENWARP/ SOFTEDGE BLENDING

As part of the toolset for projectors, magpi features 2 powerful tools to manipulate the final output. ScreenWarp allows images to be bent and warped onto non linear surfaces. Whether these are concave or convex screens, cylinders or spheres, simply grab node points and bend the image into the right shape. If multiple outputs are used to create one large image, the built-in soft-edge blending tool can apply gradients to the edges hence making the overlapping areas disappear.

The third tool in the projection tool kit is LiveMask. For each output you can create an arbitrary mask to hide parts of the image so to match a projection surface that has no rectangular shape. Integrating projection into architectural display features of any shape becomes fast and easy to deliver. The tool features all simple shapes as well as freeform linear and Bezier curves. In addition you can feather any edge to soften them.

- Project onto non-linear and off shape surfaces.
- Blend multiple outputs to create one seamless image.
- Draw masks in real-time.
- Save masks and warps and recall in real-time.



KEY FEATURES

PIXELMAPPER

LED Lighting has become immensely popular for architectural installations. As the cost of LED fixtures is falling, the number of these fixtures in the average installation is rising steeply. magpi's PixelMapper feature allows video to be mapped onto those discrete LED fixtures, creating stunning and engaging displays. Due to the brightness and flexibility of LED fixtures, a typical scenario is to install them on or in buildings and then map video onto the grid of light points. PixelMapper is a feature rich tool capable of mapping many thousand light points easily and effectively. Supporting an extensive catalogue of fixture formats as well as different protocols, no project is beyond reach. As new LED fixtures are being developed, simply create your own fixture personality to map them then to a real-world grid.

- No restriction on number of DMX Universes.
- 'SuperSampling' with adjustable parameters help average out the colour and intensity of a group of pixels for low resolution LED arrays providing better representation of the media.
- PixelMapper can be seen as an additional output via an Ethernet port - no need to lose a Video port when driving LEDs.
- Fast and intuitive mapping interface.
- Personalities for most available fixtures or create custom profiles.
- Unique Fixture Designer - Fixture-based design principles make programming swift and easy.
- Ability to drive non-RGB fixtures - RGBi, CMY, CMYK and level only fixtures such as bulbs and dimmers.
- Shutter Control of fixtures.
- Control Channel Mapping - fixture specific additional channels easily programmed or routed through to control console.





PAR4KEET

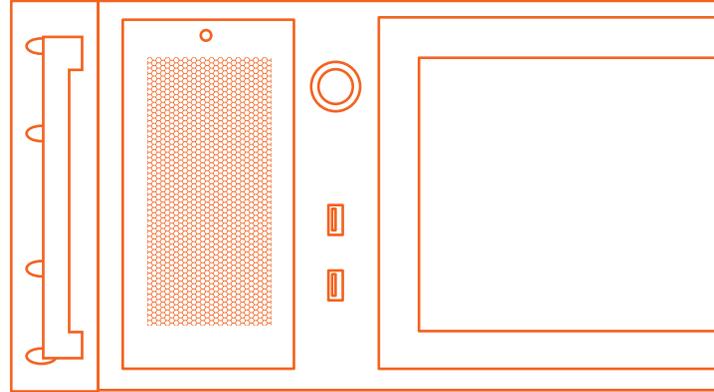
DIGITAL DISPLAY SOLUTION

Par4Keet is the first media to screen solution to combine class-leading video playback at 4K resolution and beyond along with true realtime media manipulation and multi-screen configurability in a robust rackmount casing.

The flagship player of the AViary range can deliver media at arbitrary resolutions, untying AV professionals from the restrictions of standard aspect ratios and opening the doors on unrestricted and creative display configurations.

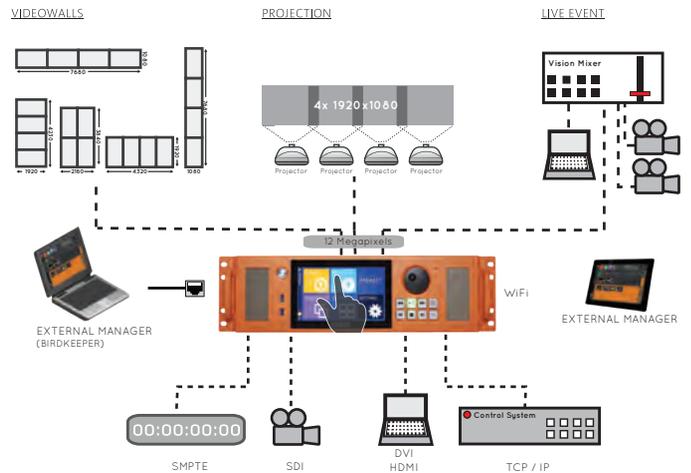
Logo overlay, in/out points, and integration with protocols such as SMPTE and TCP/IP can be deployed and programmed easily from within the unit's intuitive user interface removing the need for additional processing equipment or return visits to an edit suite.

Comprehensive output mapping tools bring much of the functionality found in video wall controllers inside the source machine removing the need for third party processors and enabling super-creative display layouts even with semi-professional and domestic grade screens. Full compensation for canvases comprising devices with varying resolutions, freeform spacing and arbitrary rotation of any or all displays, configured quickly and intuitively from Par4Keet's front panel or accompanying software.



Technical Data

Software	Par4Keet 2.0
Media processing	Unrestricted resolution
Playback	Still Images
	Playlist
	Overlay with Mix Modes and Transparency support
Media Management	Complete FlexRes family of codecs
	ingest from all common formats
Output Processing	Freeform placement of outputs on video canvas
VideoMapper	Included
Watchfolder	Included
Master / Slave Sync	Included
System Connectivity & Control	
Output Connector	4x DisplayPort 1.2
Local Control	Touchscreen and Jog / Shuttle
Audio Out	Stereo Out
Video Capture (optional)	8 channel optional via MOTU 828x
	2x DisplayPort 1.2
	DVI / HD-SDI / Composite
	2x DVI
	2x HD-SDI
Internal Drive Storage	500GB SSD
System Drive	SSD
Networking	2 x Gigabit Networking
Device Control	TCP/IP
External Management	Free BirdKeeper software
Redundant Power Supply	Optional
External SMPTE Timecode	Optional
External Genlock	Optional
Hardware Specifications	
Mounting system	3U
W x D x H	480 x 530 x 135 mm
Weight	16.5kg
Power Consumption	650W (Max)
Voltage	100-250V 50/60Hz Auto Sense
Operating system	Windows 8 Embedded
Support	
Green Hippo Support	24 hour support via phone or email
	Knowledge Base Library
Hardware warranty	1 year (RTB)
Software updates	Free up to 3 years



BlueBird

DIGITAL DISPLAY SOLUTION

BlueBird digital display solution is a one-box device for displaying and manipulating high-resolution video for the installation and display markets.

With the ability to play back media at resolutions of up to 12MegaPixels and beyond whilst supporting high frame-rates and in lossless quality, it would be easy to focus on the exemplary way in which BlueBird delivers media to a wide variety of displays. Yet this 2U rackmount unit is so much more than just a player. In keeping with all products in the AViary Video Tools range, BlueBird is a complete media to screen solution, performing tasks usually handled by a series of devices, eliminating the need for video-wall controllers and signal processing equipment and all within a custom designed chassis.

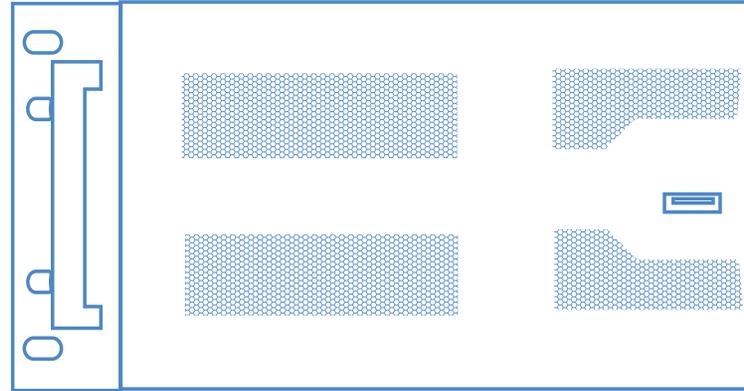
BlueBird loves a challenge. Whilst most video devices presume an output in a recognised aspect ratio such as 16:9, BlueBird player knows that today's AV professionals must address the challenges presented by multi-screen canvases, physical space limitations, or simply the workings of a creative mind. Whilst BlueBird will happily work with broadcast guidelines, it is also at home with innovative shapes and multiple display devices with mixed resolutions and varying physical sizes. Unusual display shapes are positively encouraged! AViary Video Tools' acclaimed output mapping module is included allowing quick positioning and configuration of multiple screens from the on-board interface or remotely including arbitrary rotation of individual screens and bezel compensation along with support for third party splitters. For more adventurous setups VideoMapper makes the most challenging setups a breeze.

The advent of resolutions at 4K and beyond brings with it limitations in cable runs but because BlueBird can be fully controlled over a network using BirdKeeper remote control software, any networked units can be positioned close to the display, maintaining high frame rates and retaining video quality. Every single function from media management to configuring Ethernet adapters can be done from any networked Windows enabled device.

All Green Hippo devices have built in encoding meaning no lengthy encoding prior to adding media. Using WatchFolder, any media added to a designated location on a network can be shared with multiple machines and there is full Dropbox support meaning media can be managed from anywhere in the world where there is an Internet connection.

BlueBird supports control via all major protocols such as TPCP/IP, TeINet and even DMX making it idea for integration into any installation. Advanced support for SMPTE Timecode adds even more applications to BlueBird's extensive list of uses.

For environments where there should be no compromise in playback quality, configuration, flexibility and integration, BlueBird excels on all levels. Where the possibilities with many competitive players end, BlueBird is only just getting into its stride. When your creativity runs away with itself, BlueBird is there to validate and reassure every step of the way.



Technical Data

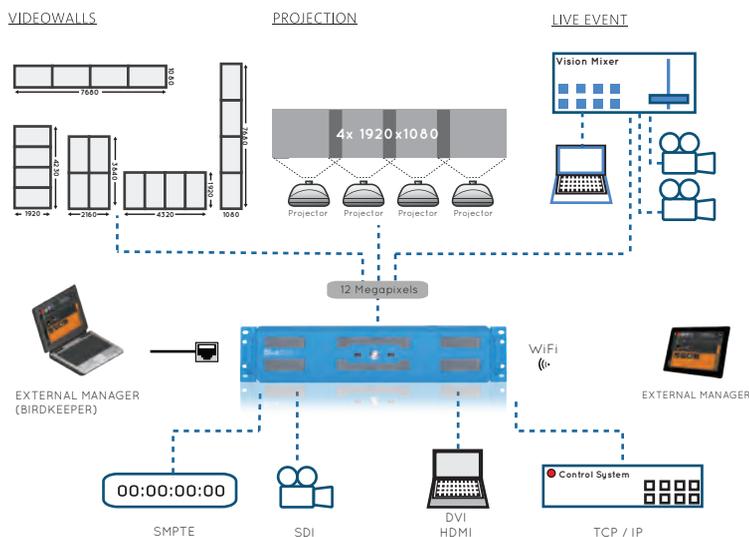
Software	BlueBird
Media processing	
Playback	Up to 12 megapixels Still Images Playlist Overlay with Mix Modes & Transparency support
Media Management	Complete FlexRes family of codecs ingest from all common formats Freeform placement of outputs on video canvas
Output Processing	Optional
VideoMapper	Optional
Watchfolder	Optional
Master/Slave Sync	Optional
System Connectivity & Control	
Output Connector	4x DisplayPort 1.2
Audio Out	Stereo Out 8 channel optional via MOTU 828x
Video Capture (optional)	2x DisplayPort 1.2 DVI / HD-SDI / Composite 2x DVI 2x HD-SDI 500GB SSD SSD
Internal Drive Storage	500GB SSD
System Drive	SSD
Networking	2 x Gigabit Networking
Device Control	TCP/IP
External Management	Free BirdKeeper software

Hardware Specifications

Mounting system	2U
W x D x H	480 x 470 x 90 mm
Weight	12kg
Power Consumption	500W (Max)
Voltage	100-250V 50/60Hz Auto Sense
Operating system	Windows 8 Embedded

Support

Green Hippo Support	24 hour support via phone or email Knowledge Base Library
Hardware warranty	1 year (RTB)
Software updates	Free up to 3 years



2KAN

DIGITAL DISPLAY SOLUTION

2Kan video player combines class-leading playback at 2k resolution with pixel counts of up to 3 Mega- Pixels, unique realtime media manipulation and advanced output mapping capabilities over standard display cabling, all from within a robust rackmount chassis.

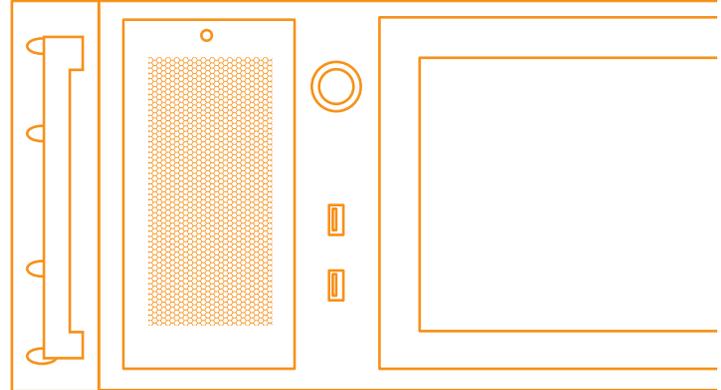
Capitalising on Green Hippo's unique FlexRes codec, 2Kan delivers media at arbitrary resolutions, untying AV professionals from the restrictions of standard aspect ratios and opening the doors on creative display configurations.

Green Hippo's pedigree in solving the issues of video in challenging environments has been thrust into the very heart of 2Kan. Even in standard form, the system carries a set of tools to produce creative visual setups quickly and easily.

Logo overlay, in/out points, and optional integration with protocols such as SMPTE and TCP/IP can be deployed and programmed easily from within the unit's intuitive user interface removing the need for additional processing equipment or return visits to an edit suite.

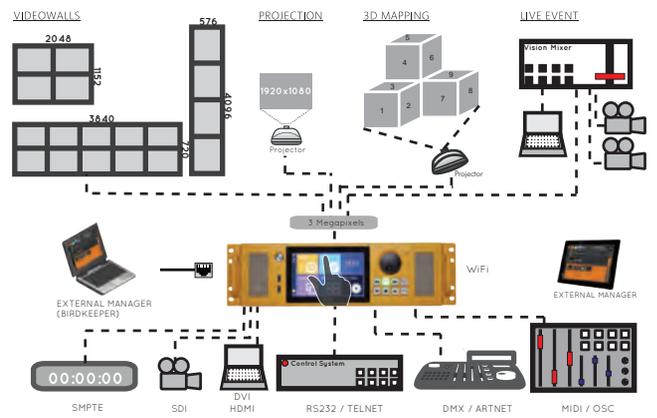
Comprehensive output mapping features make light work of challenging display setups. Software tools such as VideoMapper, RegionMapper and ScreenWarp mean that you can adapt your content for unusual setups or non-linear surfaces on site without the need to rework media in third party programs.

2Kan: because you Kan!



Technical Data

Software	2Kan 2.0
optional Modules*	Remote Media Sync VideoMapper Sync (Master/Slave, SMPTE) Genlock Redundant PSU External Control
Media processing	
Playback	up to 3 megapixels Still Images Playlist
Media Management	FlexRes codec ingest from all common formats
Output Processing	Freeform placement of outputs on video canvas Debezil, Rotation, Scaling
System Connectivity	
Output Connector	1x DisplayPort 1.2
Audio Out	Stereo Out
Live Input (optional)	8 channel optional via MOTU 828x 2x DisplayPort 1.2 DVI / HD-SDI / Composite
Internal Drive Storage	2x DVI
System Drive	2x HD-SDI
Networking	500GB SSD
Device Control	SSD
	2 x Gigabit Networking
	TCP/IP
Hardware Specifications	
Mounting system	3U
W x D x H	480 x 530 x 135 mm
Weight	16.5kg
Power Consumption	650W (Max)
Voltage	100 -250V 50/60Hz Auto Sense
Operating system	Windows 8 Embedded
Support	
Green Hippo Support	24 hour support via phone or email Knowledge Base Library
Hardware warranty	1 year (RTB)
Software updates	free up to 3 years



magpi

DIGITAL DISPLAY SOLUTION

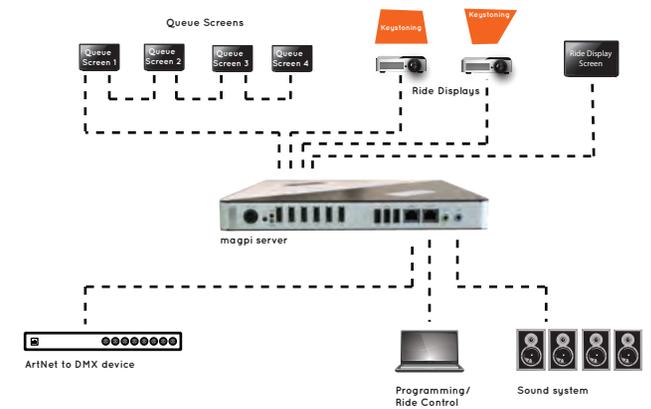
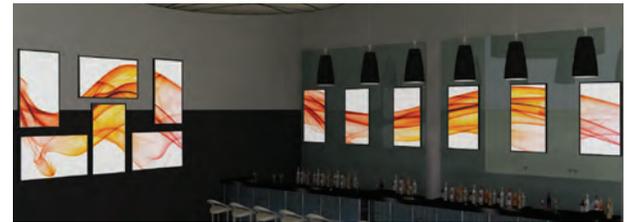
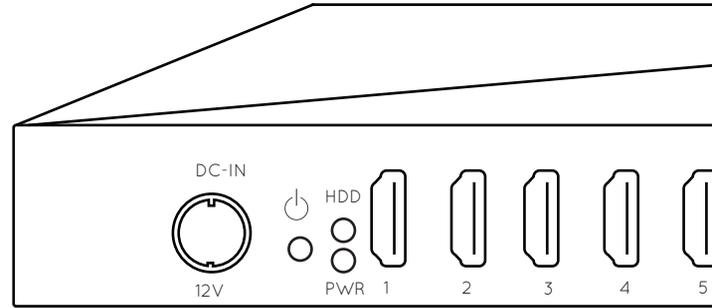
For installation professionals who need up to 4 streams of high-definition video or 6 streams of 720p video, magpi is a playback device that provides highly configurable media feeds, real-time correction and trimming of clips along with a host of tools to tackle the most challenging display setups, like 6 individual and configurable players, all within one chassis

magpi not only provides realtime playback control, but uniquely delivers control for parameters such as speed, in and out points, and geometry along with colour and contrast correction for each of its 6 players individually. All changes can be stored within the timeline controller with the option to trigger playback and adjust parameters via external protocols such as SMPTE timecode, Artnet and many more

magpi sports an extensive toolbox of output mapping utilities, removing the need for additional video wall controllers or processing devices. It's all on-board. Furthermore, it's fully remote controllable from any PC using magpi's own proprietary control software.

Features such as VideoMapper and PixelMapper cover all eventualities for projection mapping, LED display wall routing or architectural installations. With a robust compact chassis supporting wall-mount options, magpi can be installed just about anywhere and configured and controlled remotely from any distance.

magpi - A black and white solution for a world of colour.



Software	magpi
Media processing	
Playback	up to 1920 X 1080 @60Hz Still Images Timeline
Media Management	MPEG2 ingest from all common formats
Output Processing	Freeform placement of outputs on video canvas
System Connectivity	
Output Connector	Up to 6x HDMI
Audio Out	Single stereo mixed output (unbalanced) included. Supports external sound interfaces for multiple channels
Internal Drive Storage	1x removable 2.5" HDD drive bay
System Drive	HDD
Networking	2 x Gigabit Networking
PixelMapper Outputs	Artnet 1 or 2, KiNet
Device Control	SMPTE, TCP/IP, DMX, MIDI
Hardware Specifications	
Mounting system	Wall Mountable
W x D x H	275 x 275 x 30
Weight	3.1kg
Power Consumption	150W
Voltage	100-250V 50/60Hz Auto Sense
Operating system	Windows 8 Embedded
Support	
Green Hippo Support	24 hour support via phone or email Knowledge Base Library
Hardware warranty	1 year (RTB)
Software updates	free up to 3 years

Distributors

Green Hippo

Manufacturer of AVIary Video Tools and Hippotizer Media Servers

www.green-hippo.com

A.C Entertainment Technology - United Kingdom

We are one of the largest single-source providers of professional equipment and related services to the entertainment industry. Our four specialist product divisions supply to dealers, distributors and end users in the stage, theatre, touring, film & TV, events & exhibitions, corporate, education and architectural markets world wide.

www.ac-et.com
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APG Displays - Orlando, USA | Toronto, Canada

A specialist distributor of video walls and large format collaboration displays with complete technical services. We offer a comprehensive portfolio of video wall display solutions, each with customized accessories, technical services, full system design and installation, and after-sales service to support our channel partners.

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CSI/ Freevox - France

CSI manufactures and distributes reference products for all areas of professional lighting. A complete range of solutions dedicated to the world of entertainment includes projectors, monitors, lasers, accessories and the most advanced technologies for the dissemination of images. Associated with the quality and expertise of our technical services, our equipment accompany your best shows, events and facilities.

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Kupo - China

Kupo has been in the professional lighting equipment industry for 35 years. Their core business endeavors include manufacturing, brand promotion, sourcing electronic and stage equipment, and logistic management. KUPO's company vision is to continually expand as an international provider of professional lighting equipment, audio, photographic, display equipment, and optical filters.

www.kupo.com.cn
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Lexair Entertainment - Australia

Lexair is the Australian & New Zealand distribution partner for entertainment lighting and vision control systems from High End Systems, Green Hippo, and TMB.

www.lexair.com.au
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PSCO - United Kingdom

Experts in videowall and large format displays, focused on delivering our channel partners the full solution using our technical knowledge.

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