

> EXTEND THE POSSIBILITIES OF YOUR MEDIA SERVER AND LIVE CONTENT WITH OUR AWARD-WINNING PIXEL PROCESSING RANGE

Designed to simplify the management of multiple sources and outputs for complex high-resolution systems, multi-screen experiences, mega canvasses, and warped and blended projection displays



> APPLICATIONS

- Visitor attractions
- Esports arenas
- Corporate presentations
- Broadcast backdrops
- Virtual production environments
- Themed entertainment experiences
- Performance venues
- Hospitality

> KEY FEATURES & BENEFITS

- Configurability: multiple Juggler processors can be linked via high-speed box-to-box fibre-optic cables, to add additional input and output capability
- Video signals: up and down scaling, video matrixing, picture-in-picture, time base correcting, format conversion, framerate conversion, signal type conversion, and bit-depth conversion
- Features SMPTE ST 2110 input and output to support the latest in video signal distribution standards
- DisplayPort™ 1.4, 12G SDI and HDMI® 2.0 baseband modules (coming soon).
- Supports input and output bandwidth up to DCI 4K @ 60 FPS 12-bit 4:4:4
- Video signal type conversion between most digital input and output interfaces, including baseband and ST 2110 (analogue not supported)
- Warp and blend via 2D MPCDI file import
- Colourspace mapping via 3D LUT
- DisplayPort SST to MST conversion
- External control over IP (TCP, UDP, Art-Net™)
- User interface: 7thSense Compere software

> OVERVIEW

7thSense's Juggler® pixel processor range is designed to manage large canvas, multi-screen, and blended display systems. Typically, these applications require a high level of flexibility, signal density, and extremely low processing latency.

In line with 7thSense's support of the highest-grade uncompressed media servers, the Juggler range has the headroom and scalability to support incredibly large systems, maintaining the quality of content from file to screen. As a flexible and customisable product line, Juggler supports input and output signals up to DCI 4K @ 60 FPS 12-bit 4:4:4, or various other signals at 120 FPS.

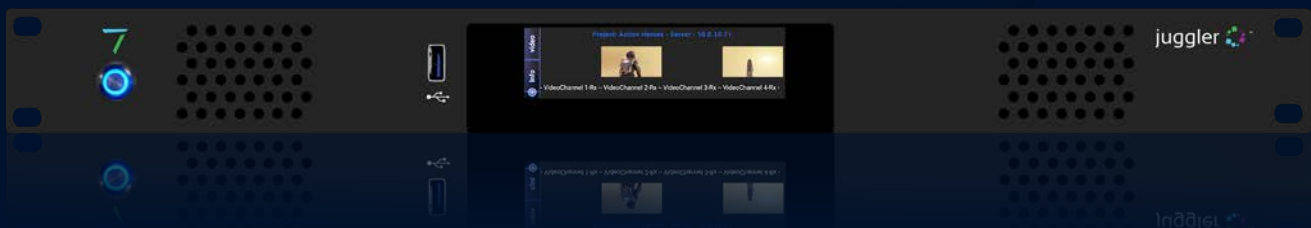
Juggler is not fixed to typical formats, bit-depths, and frame rates, allowing to support the signal bandwidth you need to show your content without compromise.

Juggler is available as a bespoke system, configured at the factory to support customers' required specifications. During the specification process, 7thSense's engineers determine the best suited chassis and card combinations to support your design. The Juggler 1 RU chassis has two card slots for a choice of DisplayPort, HDMI, or high-speed fibre optic source linking (bussing). Additionally, Juggler 1 has a built-in HDMI input and output, plus SFP ports to support additional bus expansion or 12G SDI modules. While a single unit is quite powerful, Jugglers can be linked into larger systems using the high-speed fibre optic source linking.

When moving to larger and more complex systems, including those requiring the latest in networked signal distribution, the new Juggler 2 RU system is the choice. Juggler 2 has two ultra high-speed slots for signal networks/bussing (25G+) and four high-speed slots to support a variety of baseband signal interfaces, including DisplayPort and HDMI. Chassis linking supports incredibly large and complex systems, while still maintaining the quality from source to screen.

Linking Jugglers together adds flexibility and capacity by joining multiple boxes into a single system, working in unison. Composite up to 32 UHD video input windows onto a large, shared output canvas using a live background, window positioning, and scaling, with very low processing latency. These large canvases can work in tandem with additional canvases, providing even more flexibility, all under the control of 7thSense's Compere software.

If warp, blend, and/or pixel mapping is required, Juggler's processing can be re-programmed to handle geometry adjustments, blend overlays, and re-mapping of pixels. Warp and blend complies with industry standard 2D MPCDI files supported by several camera-based projection calibration systems. The warp and blend functionality is especially useful when you have a larger blended surface that requires several projectors, but the content could be served by fewer outputs of your media system, since Juggler creates the duplicated pixels in the blend regions.



> HARDWARE SPECIFICATIONS

> JUGGLER 1: 1 RU CHASSIS

Environmental Characteristics	Operating	Non-operating
Temperature	+15 to +30 °C	-10 to +50 °C
Humidity (non-condensing)	10 to 90%	5 to 95%
Altitude	≤2000 m	≤10000 m
Specification	Rating/Description	Notes
Rackmount dimensions (H x W x D)	(1U) 44 × 424 × 500 mm (17.3 × 167 × 197 in)	Width including mounting ears: 483 mm (19 in)
Rackmount weight (approx.)	8 kg	
Power supply	100-240 V, 3 A, 50-60 Hz	Autoranging, IEC C14 inlet
Power	100 W	
BTU rate	341	

> JUGGLER 2: 2 RU CHASSIS

Environmental characteristics	Operating	Non-operating
Temperature	+15 to +30 °C	-10 to +50 °C
Humidity (non-condensing)	10 to 90%	5 to 95%
Altitude	≤2000 m	≤10000 m
Specification	Rating/Description	Notes
Rackmount dimensions (H x W x D)	(2U) 88 × 429 × 491.5 mm (3.5 × 16.9 × 19.4 in)	Width including mounting ears: 483 mm (19 in)
Rackmount weight (approx.)	9 kg (approx)	
Power supply	100-240 V, 3 A, 50-60 Hz	Autoranging, IEC C14 inlet
Power	300 W	
Cooling	Forced air	Inlets at front, exhaust at rear

THE POWER BEHIND THE STORY

EXPLORE THE 7THSENSE PERFORMER RANGE

delta 

The original 7thSense media server product line, and the first to bring uncompressed media playback to the world.

P-Series **R-Series**

7thSense's media server hardware platform range. Designed to be the host of Actor®, Conjuror®, and Delta Media Server®. Available as hardware-only for use in generative media applications.

medialon 

Our Show Control product suite, connecting the Performer Range to other brands and products within an installation, including lighting, audio, DSPs, and special effects hardware.


actor 

The next generation 7thSense media server – optimised for uncompressed video playback, projection mapping, pixel-packing for LED displays, and real-time motion tracking.



juggler 

Our award-winning pixel processor range designed to be the backbone of complex high-resolution systems and mega canvasses to streamline, simplify and optimise workflows.

conjurer 

Our generative content solution – bringing generative engines such as Unreal®, Unity® and Notch® into our Compere workflow.

compere 

Our intelligent workflow interface that brings together the Performer Range.