




# ncam<sup>®</sup>

## AUGMENTED REALITY

Augmented reality technology for the media and entertainment industries.

Ncam's second generation camera tracking software offers a massive leap forwards in camera tracking capabilities. Ncam Reality generation two software offers unrivalled accuracy, robustness and flexibility combined with autonomous operator free functionality.

 <p><b>ncam<sup>®</sup></b> <b>REALITY</b> Generation Two</p>	<p><b>Automatic</b> Fully automatic &amp; autonomous camera tracking functionality allowing technician free operation.</p>	<p><b>New Core</b> Complete new generation two camera tracking core offers unrivalled accuracy, robustness and speed of setup.</p>	<p><b>Sensor Fusion</b> State-of-the-art sensor fusion techniques integrate 14 real-time sensors offering unique stability.</p>
<p><b>No Limits</b> Track any environment, on any camera, with complete freedom of movement, including handheld &amp; cable camera systems.</p>	<p><b>Complete Flexibility</b> Unlimited environment size, whether studio or location, indoors or outdoors.</p>	<p><b>Light Change Resilient</b> Ultra-resistant to dynamic changes in lighting conditions. The system automatically adjusts to lighting changes, indoors or outdoors.</p>	<p><b>Depth Keying</b> Ncam Reality Event and FX offer real-time depth keying in combination with chroma keying.</p>

Tracking Products Feature Set	ncam   REALITY			
	PTZ	STUDIO	EVENT	FX
Lens calibration	●	●	●	●
SDK	●	●	●	●
Fixed Tripod (Pan, Tilt, Zoom)	●	●	●	●
Studio (Indoor) Tracking	●	●	●	●
6 DOF (Degrees of freedom) Tracking	○	●	●	●
Indoor & Outdoor Tracking	●	○	●	●
Depth Keying	○	○	●	●
Data Capture	○	○	○	●
Compositing Engine	○	○	○	●
Ncam Motion Builder Plugin	○	○	○	●
Ncam Unreal Plugin	○	○	○	●
Ncam Unity Plugin	○	○	○	●



## Main Camera Information

**Supported Cameras** • Digital broadcast cameras with HD SDI monitoring.

**Supported Lenses** • Prime lenses.  
• Zoom lenses: Parfocal (cine style) or varifocal (ENG style).

**Lens Metadata** • Canon/Fujinon lens data from virtual port using Ncam smart cable.  
• Direct encoding of focus, iris & zoom from proprietary Ncam encoders.  
• Preston, Cmotion and LDS lens data support.

**Lens calibration** • Ncam proprietary: Measured & calibrated off-line during install or prep.  
• Stored & selectable from database and exported to graphics engine.  
• Real-time lens data support via SDK.

**Ncam line-up** • < 1 minute on lens change.

**Camera configurations** • Handheld, Steadicam, tripod, dolly, pedestal, jib/crane.

**Composite preview feed to camera** • 1920/1080 HD SDI (wired or wireless)  
• Frame rate based on camera monitor output.  
• Interlaced, Progressive or PsF.  
• Displayed on electronic viewfinder or monitor.

## NCAM® SERVER

**Configuration** • One server per broadcast camera.

**Device** • Silent running bespoke workstation.  
• Server interface, monitor, keyboard, mouse.

**Operating System** • Bespoke Linux.

**Application Software** • Ncam Reality.

**Location** • Studio - rack mounted - controlled over KVM.  
• Mobile OB Truck.

## NCAM® CAMERA BAR

**Configuration** • Multi-sensor tracking technology;  
1 bar per camera.

**Mounting** • Fixed to front camera rods or custom mount.

**Operation** • Tether cable to Ncam Server:  
Copper (ethernet) up to 100m  
Fibre via separate fibre or using camera fibre trunk.

