nctech

iSTAR®

360 degree rapid imaging

OVERVIEW

Designed for rapid 360° precision imaging, iSTAR is a 360° panoramic camera that captures full spherical images and high resolution panoramic video streams, providing efficient visual documentation of the surrounding environment.

Versatile, rugged and portable, iSTAR can be hand held, tripod mounted, vehicle mounted or networked. With a small footprint and a one-button capture, iSTAR is fast and easy-to-use either indoors or outdoors.

4 x pre-calibrated sensors deliver a 50 megapixel full spherical accurate image with excellent high dynamic range. iSTAR is fast at capturing images with typical capture times of 2 to 3 seconds.

NCTech's desktop application Immersive Studio, batch stitches images in seconds. Full 360° video can also be processed in a matter of minutes.

FOV: 360° X 275°

10cm
Small footprint

4 x pre-calibrated sensors

Automatic 26ev HDR and ISO

Rechargeable removable battery

Ruggedised: iP 64 rated

High resolution 50 megapixel panoramic image

Live remote viewing and capture over wifi

Integrated compass and tilt sensors GPS integration

3/8" tripod thread

SECTORS

A wide range of sectors benefit from iSTAR's
rapid 360° data capture capabilities.

GEOMATICS

Scenes of crime
Collision investigations
Public order events
Tactical visual documentation

ENGINEERING

Airborne Photography & Mapping
Asset Management
Visual Documentation
Mining & Monitoring

MILITARY

Rapid Reconnaissance
Tactical Response Planning
Pre Visualisation
Threat Assessment

MEDIA

Street Mapping
Spherical Interior Imaging
Broadcast Immersive Media
Virtual Tours

HERITAGE

Visual Documentation
Heritage Documentation
3D Digital Visualisation
3D Modelling & Mapping

GOVERNMENT

HM Revenue and Customs
Border Control
Immigration Security
Ports and Harbours

HDR3
Alexandra Palace, London

APPLICATIONS

iSTAR is well suited for any application requiring high-resolution, fast, accurate 360º images and video that not only captures the location precisely but also the position.

Typical applications include forensic image documentation, situation awareness, asset documentation, geospatial documentation and vehicle-base photogrammetry.

- RGB point cloud colourisation
- Mobile mapping
- "Street view" type imaging
- Destination marketing
- 360º monitoring and surveillance
- Rapid reconnaissance
- Crime scene investigation
- Asset management and visual documentation

KEY TECHNICAL CAPABILITIES

SPHERICAL VIDEO STREAMING

For surveillance and mobile capture applications, iSTAR can record images at a high frame rate and at high resolution that can be processed as immersive video. Raw data can be captured directly to a computer or to a connected SSD (hard drive) to allow for true mobile data capture.

For remote monitoring applications, a "live" spherical data stream can be viewed directly from iSTAR either over WiFI to a tablet device or to a dedicated computer via Ethernet.

MEASUREMENTS FROM DATA

iSTAR is a high precision capture system engineered and calibrated precisely to deliver highly accurate data. This enables accurate measurements to be extracted from the images (and video) captured. iSTAR's typical accuracy is 10mm over 10 meters (+/- 1mm).

A wide range of third-party software applications can be used in conjunction with iSTAR to extract this data.

DATA WITH POSITIONING

GPS receivers can be connected to iSTAR to record the position and location of the data captured. iSTAR has been tested and is compatible with a wide range of industry standard receivers including high end IMU's for higher accuracy.

iSTAR's internal sensors record the compass positioning as well as tilt variations during capture. The data is written directly to the images and the EXIF data and is retained throughout the post-processing work-flow.

HDR & EXPOSURE FUSION

A key feature of iSTAR is it's high dynamic rage capabilities (HDR) with an impressive EV range of 27 f-stops. This enables iSTAR to capture the true colours and a light variant in a scene ensuring no data is lost.

iSTAR can be set to capture a single exposure, three, or set to fully automatic where the location is automatically analysed prior capture to determine the best EV capture range.

Sports arena
Media & Entertainment

Asset documentation
Engineering

Crash scene investigation
Law enforcement

Spanish villa
Destination tourism

iSTAR was very impressive. It's size, ease of use, portability and image quality make it a worthy companion for our FARO Focus Laser Scanners.

Andrew Maltby Mrics, Director, Maltby Surveys

To us iSTAR was a revelation! It has become one of the first bits of kit that comes out of the car and is used by every member of the team.

Colin Humphreys, Forensic Collision Investigator, Warwickshire Police

I am really liking what this unit can do in the dark with HDR. I can see how the iSTAR could be applied to crime and accident scenes, but just as well to caves, tunnels, manufacturing...

Eugene Liscio, Forensic Expert, Ai2-3D