/i Technology

Accuracy, Simplicity, Compatibility

What is /i Technology?

/i Technology is a metadata protocol that enables film and digital cameras to automatically record key lens data for every frame shot via electronics inside each /i equipped lens: focal length, focus distance, zoom position, near and far focus, hyper focal distance, T-stop, horizontal field of view, entrance pupil position, inertial data and more. Data is recorded in either metric or imperial and can be selected for either format. All is synced to time code within the camera.

Why do I need /i Technology?

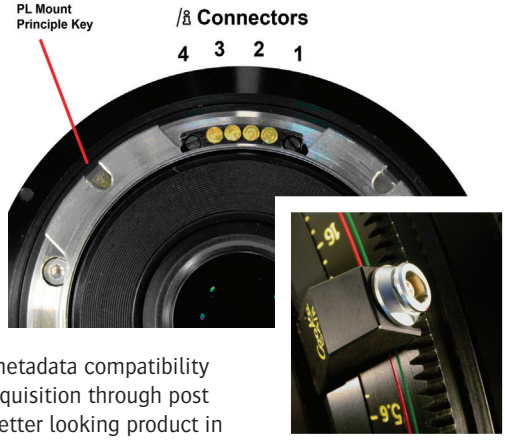
Whatever your final product — feature, TV series, documentary, commercial, music video — the use of /i metadata will streamline production and make the FX process faster and more accurate during post production. Metadata recording takes place without having to monitor or manipulate anything, so normal operations on set are not affected. Manual entries in camera log books will be unnecessary, saving time in production. Effects artists will save hours of time when they have to composite a creature into that 16.4mm to 32.7mm eight second zoom, during a follow focus from 65 to 12 feet at T2.8 1/3. With the /i metadata automatically recording every move, you just saved the guesswork in Match Moving and mountains of paperwork in post.

> **"The use of this data provides more accurate results in faster time and removes yet another element of uncertainty from the set-to-post information transfer process. Its use will allow more complex shots to be completed and will also allow new types of shots."**
>
> **Michael Lancaster, product director, The Pixel Farm**

Applications like Match Moving and 3D camera tracking are much more efficient and streamlined using the /i Technology inertial tracking data (position and orientation data). Coming soon, /i³ (cubed) will provide distortion mapping. This is not just a theoretical measurement of all lenses of a particular length, but will be specific to the lens being used. Important for 3D modeling, inertial data, lens data and distortion and illumination maps will help VFX teams to better deal with common issues like occlusions, fast camera motion (motion blur) and other challenges associated with fast paced camera motions typical of today's shooting style. Virtual graphic placement teams can match /i data with their algorithms for better image quality and positioning accuracy, saving time and budget for live broadcast applications like virtual show enhancements, product placement, enhanced graphics, statistical graphics and other dynamic virtual show elements.

How does it work?

Electronics inside each /i lens connect and communicate with /i compatible cameras, like Arri, RED and Sony. **The preferred way to record is in-camera with the data transmitted through 4 pins in the /i compatible lens mount**. The metadata is then stored with the image and the time code in the camera. **Or, use the external port on the lens to record directly to your recorder of choice**. Third party boxes like Codex Datalogger, talk to the camera to retrieve timecode and to the lens to record the frame-by-frame metadata. /i Technology is open-source by design. Providing our industry with a digital, open standard to ensure metadata compatibility downstream from acquisition through post production gives a better looking product in a shorter amount of time. Everyone wins.



Current /i Technology partners

As of this printing

/i Technology has received wide support in the industry from companies who are adopting /i Technology within their own hardware and software products. The growing list includes: Aaton, Andra, Angenieux, Arri, Atomos, AVID, Birger Engineering, Blackmagic Design, Canon, Cinematography Electronics, CMotion, Codex, Element Technica, Fujinon, gbi, IB/E Optics, Mark Roberts Motion Control, OptiTek, Ovide, Panavision, Preston Cinema Systems, RED, Service Vision, Sony, The Foundry, The Pixel Farm, Transvideo, Vision Research, Zeiss. **Companies interested in becoming an /i Technology partner by incorporating /i protocol into their product, contact us at iTech@cookeoptics.com.**

> **"This technology represents the essence of forward compatible, forward thinking metadata support. Open source, anyone can use it, high degree of accuracy. Ten stars out of a possible five for providing for the digital future of cinematography. Bravo!"**
>
> **David Stump, ASC, DP/VFX Supervisor**

Technology by Cooke

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