FAST MEMORY STORAGE - THE LATEST ADDITION TO THE FTI6 ON-LINE THERMAL IMAGER

The FTI6 thermal imager was introduced by in 1999 and was described as incorporating the latest focal plane array detector technology ingeniously engineered to produce accurate temperature measurement, ruggedly constructed to cope with demanding industrial environments.

The latest FTI6 now incorporates new features which make the imager even more versatile, with the capability to capture and store a sequence of thermal and/or visual images at fast rates, up to the full frame rate of 20Hz.

Additionally images of reduced spatial resolution (128 x128) may be stored at the higher rate of 80 frames per second. Stored sequences of images can be replayed at a range of speeds in forward and reverse direction and can be transferred to a memory card or PC for permanent storage.

The new facility enables the FTI6 to capture images from fast moving or transient processes, such as the operation of moulding machinery, for measurement and analysis.

NEW FAST MEMORY OPTION

The new fast memory storage card enables a maximum of 256 consecutive images to be stored providing benefits such as the ability to capture images in harsh, often dangerous environments quickly and efficiently for analysis when convenient.

It provides the ability to monitor rapidly changing scenes for analysis at a later time.

The increased capture rate of 80 frames per second can be achieved at 128 x128 image resolution.

The fast memory facility is unique for a stand-alone imager.

The LIPS F image processing software has also been extended to provide full control of the fast memory system from a PC.

The new feature appears as an additional page in the Remote Controller dialog box of LIPS.
LIPS THERMAL IMAGING
SOFTWARE ENHANCEMENTS

The LIPS software has been extended to provide full control of the fast memory system from a PC, which will operate under Windows 95, 98 or 2000.

An important new feature is the Image Recorder, which enables capture of images at higher speeds (up to 12Hz) by the framegrabber card to provide a fast detailed analysis.

Images are stored directly to the hard disk of the computer.

The length of recording is limited only by the disc capacity allocated.

It is possible to select the capture and playback speed for the system, and to transfer images to the standard memory card of the imager or to the PC.

The DDE capabilities of LIPS have also been extended and the functions available are listed in a Word document included on the LIPS CDROM.

A third variant, LIPS FT has been added; it combines all of the functions included in LIPS F and LIPS T for greater flexibility of operation.

LIPS F handles live images input through a frame grabber card, and includes extensive on-line temperature measurement and alarm functions.

LIPS T operates with digital images transferred via the serial link or a memory card and provides temperature analysis, image processing and a Report Writer.

THERMAL IMAGING
APPLICATIONS

When liquid steel is tapped from a basic oxygen or electric arc furnace, it is advantageous to minimise the quantity of slag carried over into the ladle. Previously this has been done by visually or by the use of electromagnetic induction coils mounted onto the furnace. However, neither of these methods has proved to be entirely reliable. A thermal imaging system has now been introduced which is capable of withstanding the harsh conditions of the BOS plant and is proving to be highly successful. The difference in emissivity results in slag displaying significantly higher apparent temperature than steel when seen by the thermal imager. An FT16 can be used to detect slag by means of its increased brightness in the thermal image. Used in combination with the new LIPS F application dedicated slag detection software it can activate an alarm when the presence of slag is detected, alerting the operator to terminate tapping.