ibaPDA-Interface-LANDSCAN

Interface for Ametek infrared line scanner

In brief

- Interface for acquiring data of Ametek LSP infrared line scanners
- Connection via standard Ethernet connection
- Supports binary and ASCII communication
- Acquires up to 1000 samples per line
- Color graded display of the temperature distribution in ibaAnalyzer or online in ibaQPanel

Temperature as quality characteristic

In high-temperature applications, especially in steel industries, temperature monitoring is an essential aspect in quality control. Essential product properties can be influenced by keeping the optimum temperature limits. Moreover, the user can draw conclusions about the operating status of the plant.

Interface for infrared line scanner

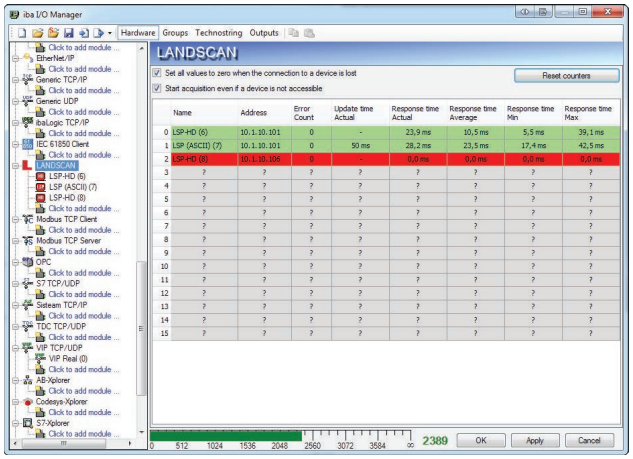
For measuring temperature profiles in ibaPDA, the ibaPDA interface LANDSCAN allows for acquiring the data of Ametek LSP infrared line scanners of the LSP-HD 10/11 and LSP-HD 20/21 type. One widely used application is the monitoring of the temperature distribution for hot-rolled strips in rolling mills. The infrared scanner measures the temperature over the whole width of the strip in high resolution and provides 1000 temperature samples per line with a sampling rate of up to 150 Hz.
The connection to the ibaPDA system is established via Ethernet. For integrating older generation line scanners, ibaPDA does not only support binary but also ASCII communication.

Customized resolution

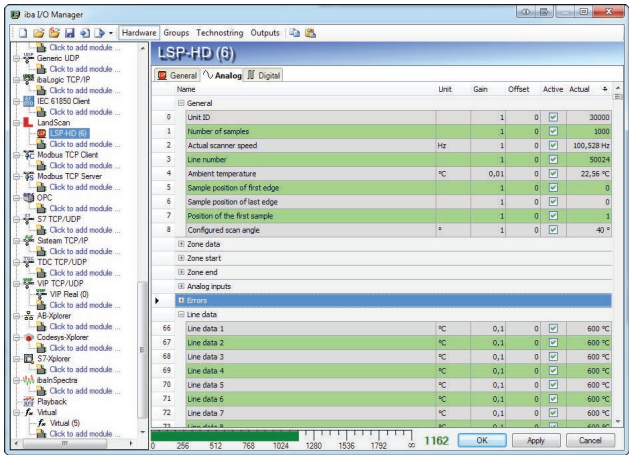
In ibaPDA, values like product ID, scanning speed, the environmental temperature, the position of the strip, etc. can be acquired in parallel to the temperature values. In the binary module, the 1000 samples per line can be decreased, in order to reduce the amount of data. Depending on the application, also 500, 250, and 100 samples can be sufficient.

Live display in ibaPDA

A so-called LSP module is created in ibaPDA for each scanner. The module and the required signals can be configured conveniently in ibaPDA. In course of the measurement process, the user can follow the signals live in the trend display.
The temperature distribution can be visualized graded in color in a 2D view using the ibaPDA-Add-on ibaQPanel. This view is identical to the offline display in ibaAnalyzer, see page 2.



Overview and diagnosis of connections



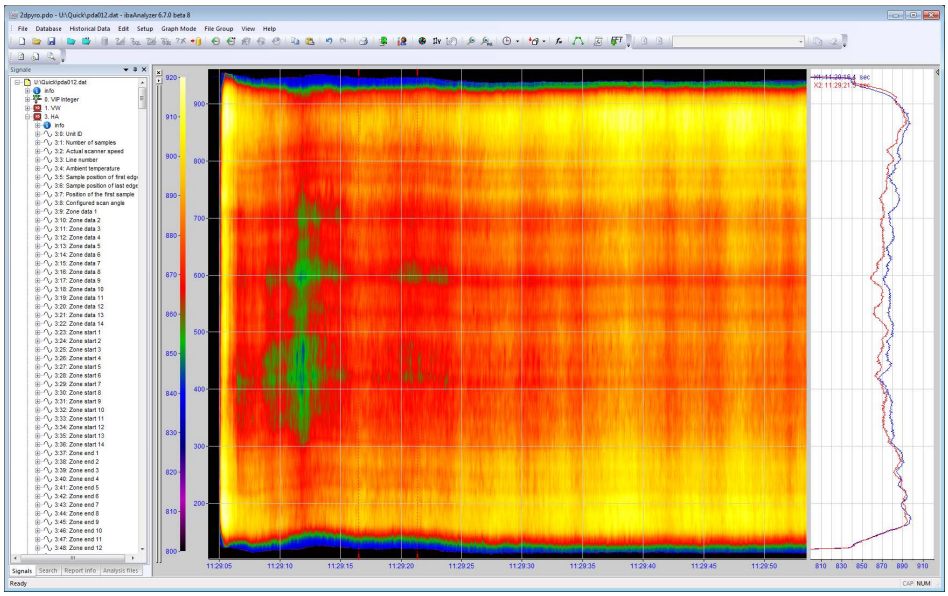
Signal table in ibaPDA

Analyze and visualize with ibaAnalyzer

Subsequently, the recorded measurement data can be visualized in detail and analyzed according to different aspects with ibaAnalyzer* (free of charge). Among other things, ibaAnalyzer offers a 2D-color display that shows at a glance the temperature distribution of the whole strip graded in colors. The temperature profiles provide precise information about the temporal and local temperature distribution on the steel strips. The user can draw conclusions about the product and process quality. Moreover, the trends of the other analog and digital measurement values and of all the signals recorded during the process can be displayed and set into relation to the temperature distributions.

Licensing model

For using the LANDSCAN interface, an ibaPDA basic license with sufficient number of signals is required. One ibaPDA-Interface-LANDSCAN license supports 2 scanners. With one-step-up licenses, another 2 scanners per license are supported, up to a max. of 16 scanners (corresponds to 8 licenses).
ibaQPanel is needed for the live display of the 2D-color display.



The 2D-color display in ibaAnalyzer provides a comprehensive view of the temperature distribution.

Order No.	Designation	Description
31.001011	ibaPDA-Interface-LANDSCAN	Communication interface for 2 scanners
31.101011	one-step-up interface LANDSCAN	Interface extension for another 2 scanners
30.670030	ibaQPanel	Add-on for displaying process and quality data in an HMI image

*Analysis software with license free of charge when using it for analyzing *.dat files that have been generated with a licensed iba software.

iba AG

Postal address:
Koenigswarterstr. 44
D-90762 Fuerth

Mail address
P.O. box 1828
D-90708 Fuerth

Phone: +49 (911) 97282-0
Telefax: +49 (911) 97282-33

www.iba-ag.com
iba@iba-ag.com