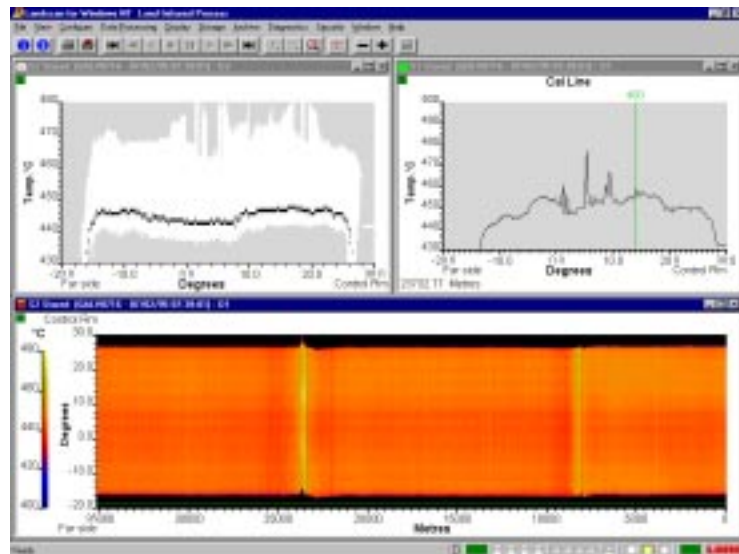


Typical Landscan NT screens - showing a combination of profile, 3-D and thermal maps, and product data table.



APPLICATIONS

LANDSCAN is increasingly being used to solve temperature measurement problems in a wide variety of industries and applications, some of which are listed below:

- **Hot strip and hot plate mill**
Rougher, edge heaters, coil box, finishing stands, gauging cold correction, coiler
- **Beam, billet and sections mill**
Rail head, beam roughing and finishing, gauging cold correction
- **Rod/wire mill**
Pre-coiler, cooling conveyor
- **Continuous, thin strip and aluminium casting**
Spray chamber, rougher and induction heater exit, crop shear
- **Reheat furnace**
Furnace exit
- **Welding**
Turbine shaft and induction pipe welding
- **Galvanizing**
Snout, furnace, top roll
- **Galvanneal**
Entry dip, top roll
- **Continuous annealing lines**
Cooling and heating
- **Glass**
Float, forming and toughening
- **Paper**
Web and roll
- **Research and development**

For further information or free advice on your specific temperature measurement problems, contact your nearest **LAND** office.

PRODUCT ASSURANCE

When you specify **LAND** products you are assured of receiving a completely pretested, calibrated working product. Each instrument is carefully checked to ensure complete compliance with specification and is fully guaranteed. **LAND** was the first manufacturer of infrared instruments to successfully obtain ISO 9001 Quality Management System Approval for both design and manufacture of non contact infrared temperature measuring equipment.

The quality management system of Land Instruments International Ltd. is approved to BS EN ISO 9001. Stockholding of the Minolta/Land Cyclops range of portable thermometers is covered by BS EN ISO 9002. Calibration Certificates are available from our UKAS Accredited Calibration Laboratory No. 0034.

CE LANDSCAN complies with current European directives relating to electromagnetic compatibility and safety (EMC directive 89/336/EEC; Low voltage directive 73/23/EEC).



LAND

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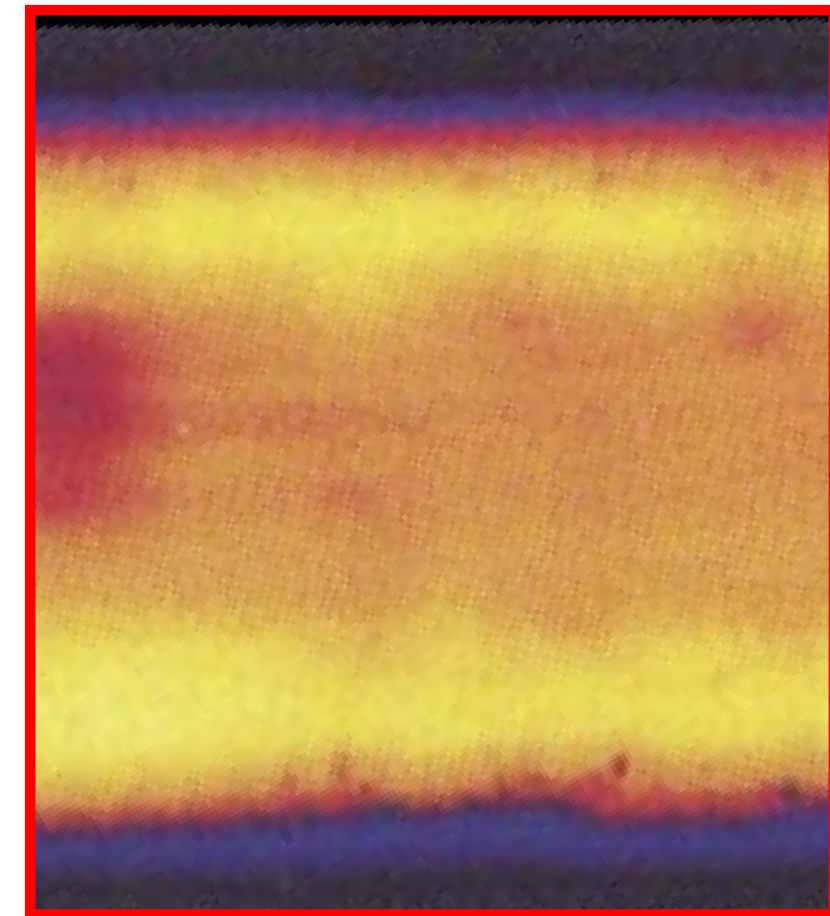
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LAND



LANDSCAN

INFRARED LINESCANNING IN CONTINUOUS STRIP PROCESSING



LANDSCAN

INFRARED LINESCANING SYSTEMS

CONTINUOUS STRIP PROCESSING LINES . . .

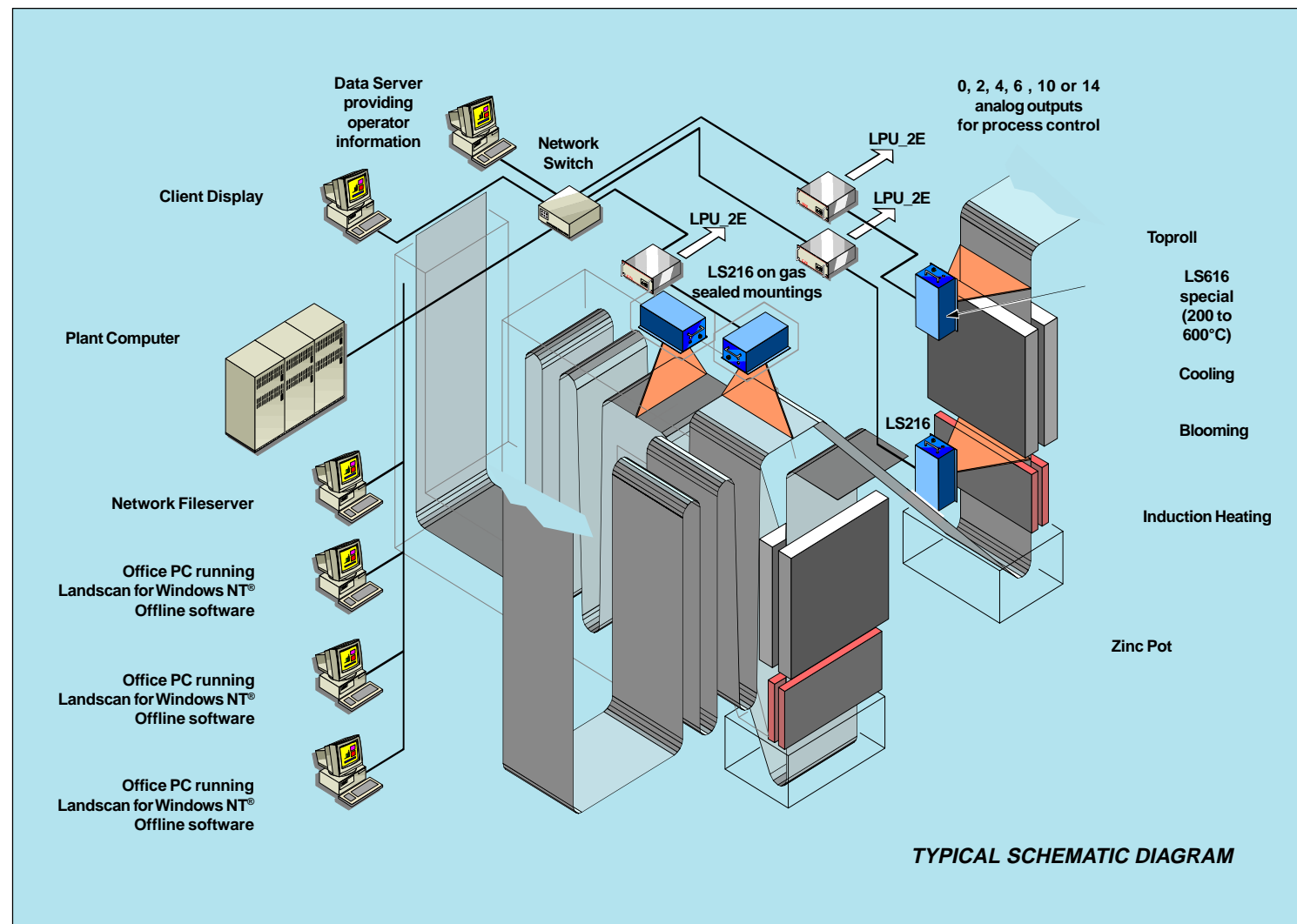
. . . C.A.L., GALVANISING AND GALVANNEALING

Application of Landscan linescanning to Continuous Strip Processing Lines has been a growth area over the last few years, with over 50 Landscan sensor head installations world-wide.

Plants producing high grade material with demanding consistency requirements, for use in automotive body parts or for white and brown goods, have quickly recognising that the enhanced information and subsequent process understanding delivered by a Landscan installation is critically important in meeting Quality Assurance objectives.

BENEFITS AND FEATURES:

- Yield enhancements attributable to more consistent product temperature distributions.
- Subtracted map displays give immediate post-processed images of the difference between the latest batch and a reference batch.
- Database - trending for QA, statistical summaries, and downstream customers' Certificates of Conformity etc.
- Enhanced understanding by Process Development and Research of the coil coating process leading to more effective problem solving and enhance efficiency.



C.A.L.

- Exit of each induction heater stage or exit furnace
- Entry to last cooler in Rapid Cooling Section (RCS)
- Exit of RCS
- Exit cooled rolls after RCS

GALVANISING

- Top of snout/entry dip (can utilise the wedge method given appropriate sighting)
- Exit cooling (Toproll entry)

GALVANNEALING

- Top of snout/entry dip
- Exit of soaking zone
- Exit cooling (Toproll entry)

Management of product database on Landscan for Windows NT® Data Server is automatic with file naming and storage control by Coil/Product ID via RS232 or Ethernet communication from Process Computer, or storage control via weld detector as required.

Land Infrared can supply Landscan sensor heads with special temperature measurement ranges to suit the particular application, as well as a selection of mountings and accessories. Gas sealed mounting plates and rugged housings, with embedded sighting windows purged by directly connected process feed gas (as required), are also available. Contact Land for details.

Photos far left and below showing typical thermal maps of but welds; centre left a galvanising/galvanneal line; and centre right a Linescanner top roll installation.

