

Coiltrack® *Coil tracking with maximum precision*



The processing of strips is a complex application for automation technology. High line speeds in conjunction with intensive quality demands on the products, line operators are no longer able to identify critical situations without making use of advanced information systems.

The great number of line and production parameters that must be correlated is based on empirical values provided by the plant operator and has an impact on the quality of the final product. Only when process data is consistently logged and documented an optimum quality can be guaranteed and an increase in productivity and product quality can be ensured.

Direct feedback of production process data leads to minimum waste and thereby to profitable products. Coiltrack is a software system which has been developed in close cooperation with the strip processing industry. Based on a made-to-measure solution a product has been developed which is today well-proven in practical applications.

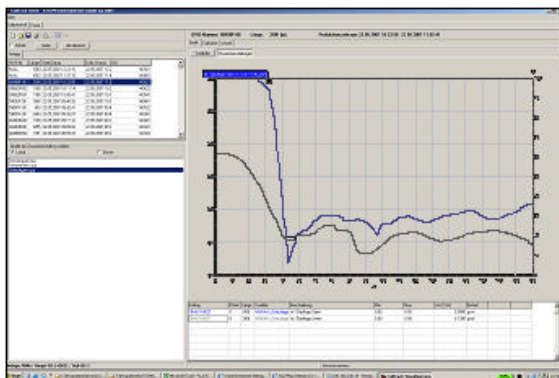


Fig. 1: Tool for viewing coil protocols

How does Coiltrack works ?

By means of Coiltrack the plant is virtually mapped. All individual parameters can be modelled ideally without any restrictions. This leads to the excellent precision which is highly appreciated by our customers. Connections to the process level and the higher control system are made using standardized interfaces that offers a maximum of flexibility. Coiltrack provides a precise, meter based correlation of the time-based process-data to the position inside the coil, even in case of strip elongation or compression. Line components may be connected or disconnected online. Even slitting of a coil, where the slit portions are processed by different sub-lines, can be tracked by Coiltrack.

The user-friendly graphical evaluation tools allow the operator to track process data online using a trend indicator and to view the coil protocols immediately after the coil has left the line.

Who uses Coiltrack?

The software is used in the industrial production and processing of steel and nonferrous metal strips and in the foil and paper industry.

Precise quality assurance

Coiltrack enables the Quality Management to rapidly receive an overview of the quality of a coil. Using a customized selection of process-parameters the quality of production can be effectively assessed.

Easy handling of complaints

In the event of a complaint, the parameters of a processed coil can be easily searched and checked..

Support for management decisions

Coiltrack offers various reports, i.e.:

- reports of the produced tonnage, the surface area or the volume over a free defined time period
- reports of the reject material
- reports generating interrelationships between line downtimes and products, product series, shifts etc.

What is the benefit of Coiltrack?

The Coiltrack software system tracks the strips from the uncoiler right through the line to the exit. Coiltrack establishes a realtime, precise relationship between time-based process values coming from the process-level and the strip meter-position. Once a strip has left the line a coil-protocol on a meter basis will be generated which will ensure easy access to product related informations at any time in the future.

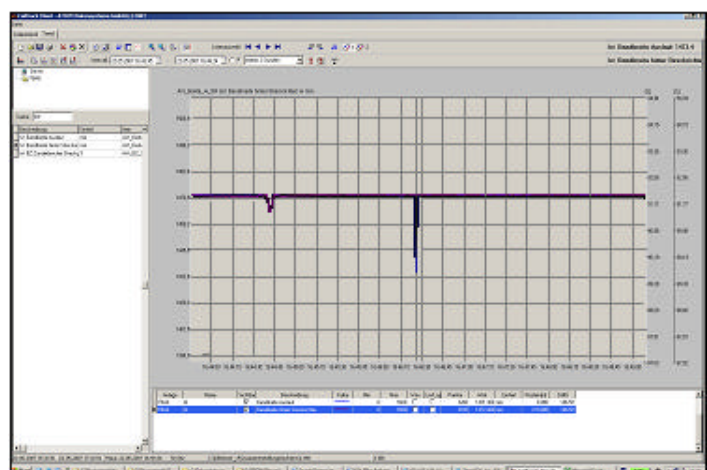
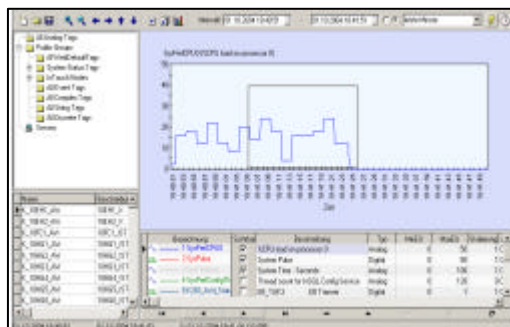
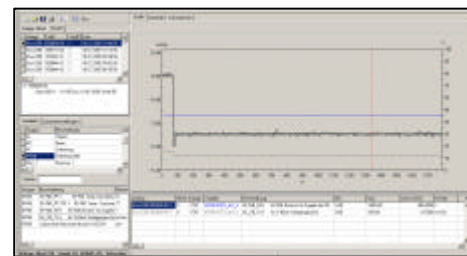
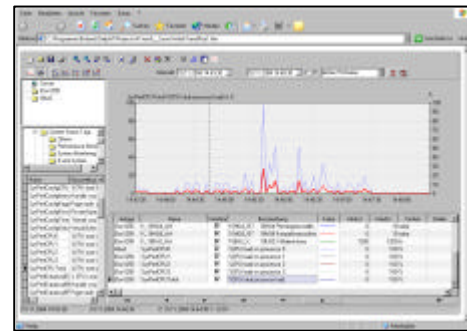


Abb. 2: Tool for viewing historical trends

Summary of Coiltrack:

- Storage and display of meter - and time-related process values
- Web-based, i.e. any number of clients may access production data via Intranet
- Ergonomic evaluation tools
- Connection of measuring systems and PLCs via standard interfaces
- Comparison of coils across different lines:
 - comparison of sections with the parent coil
 - comparison of protocols from one coil during various lines and production stages
- Processing of high and low strip speeds (higher than 250m/min and lower than 0.5 m/min)
- Cutting at the entry and the exit areas, thus each strip section produced is documented
- Dilations and compression of the strip are taken into account in the coil protocols
- Online / historical coil protocols
- Online detection of parameter limit violations and documentation of defective strip sections:
 - consideration of the strip edge
 - flexible assessment of the strip or of strip sections
- Documentation of setup values
- Process value storage in databases. Various fallback strategies
- Possibility of adding line components online.
- Online changing of coil paths
- Any number of freely editable measuring points, strip accumulators, position transmitters, switch points etc. are building a line model reflecting the real line



- The meter positions are directly correlated to the process values
- Possibility of distributing data acquisition across various sites
- Tracking of slit coils in the line or in line sections
- Possibility of triggering individual actions at each point in the line using plugins, e.g.:
 - messages to any control system
 - alarms when limit values are exceeded
 - immediate evaluation and forwarding of incorrect sections
 - database actions
 - feedback to the process control systems
- Any number of measuring points and position transmitters
- Unlimited number of coils in the line
- Downtime logging
- Seam tracking
- System is working independently of the plc level
- Required operating system: Microsoft Windows




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