Plant Historian AM

Alarm Management System

Long-term archiving system for alarm analysis and reduction
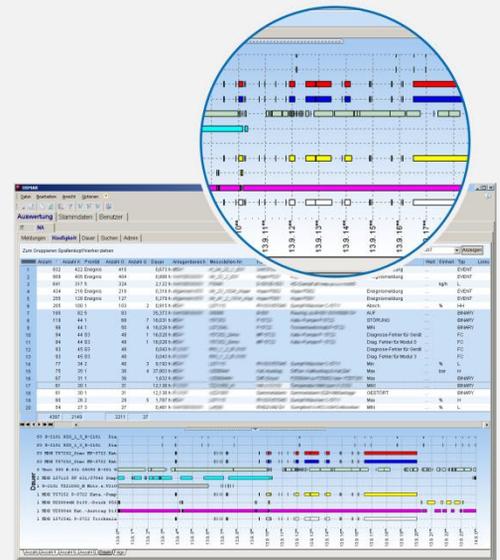
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Plant Historian AM is a long-term archiving system for PCS-events, operator interventions and batch protocols. Alarms and events can be analyzed comprehensively and can be used to optimize production processes.

Plant Historian AM is a corporate-wide, central solution for long-term event archiving and analysis. Comprehensive analysis functions enable structured approaches to reduce alarms and to optimize plants. Sustainable alarm management supports the plant staff and ensures the plant security.
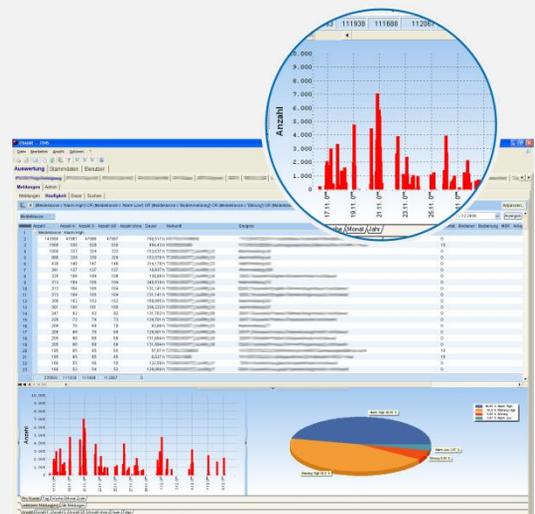
Plant Historian AM provides relevant information for plant operators, e.g.:

- ► A&E frequency evaluation with bar and pie chart visualization and different analysis periods, e.g. hours, days, month, years
- ► Evaluation of A&E-duration with Gantt charts
- ► Identification of follow-up alarms within a predefined time range
- ► Distribution of alarm frequency by divisions, priorities or notification classes
- ► Instant or periodic forwarding of alarm and events via email, phone or SMS
- ► Monitoring the availability of technical equipment

Functions:

- ► A&E overview with hyperlinks to process instructions
- ► Monitoring and evaluation of A&E duration, triggering of notification processes (via email, phone or SMS)
- ► KPI reporting according to ISA-18.2 (follow-up and flicker alarms, average alarm frequency per operator)
- ► Instant alarm and event forwarding via SMS, email or phone
- ► Automatic KPI reports or event-based failure reports
- ► Visualization of different PCS/PLC connections on a central A&E monitor
- ► Visualization of historic and following alarms
- ► Column-related grouping, sorting and filter functions for A&E
- ► Analysis and filter options can be saved as user profiles

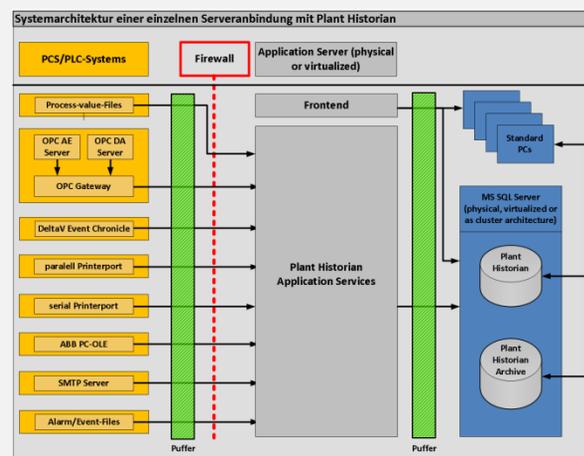**PCS-independent - scalable - intuitive**

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Benefits:

- ► High plant security
    - ► Shorter reaction time due to alarm notifications via SMS, email or phone
    - ► Supports the plant staff with references to process instructions
- ► Supports alarm reduction processes
- ► Reduces the plant staffs´ workload
- ► Identifies defective measuring units and error sources
- ► Plant benchmarking according to ISA-18.2
- ► Identifies issues of the plant operation process
- ► Protects and transfers the plant knowhow with references to process instructions
- ► Feedback for alarm management operations
- ► Transparent analysis of all alarms and events
- ► Identifies potentials for optimization
- ► Reduces reaction time
- ► Flawless, automatic reporting
- ► Corporate-wide, central solution; no client installation required
- ► Central infrastructure: low costs for hardware, maintenance, support and license
- ► Short implementation phase, low costs for implementation and configuration
- ► Intuitive, customizable user interface; low costs for trainings
- ► Connectable to every PCS/PLC-system
- ► Potentials for optimization can be anticipated at an early stage and can be implemented sustainably

Plant Historian alarm management ensures the plant **security**, increases the data **availability** and **optimizes** the production process.

Technologies:

- ► Interfaces to standard PCS/PLC-systems
- ► OPC-gateway tested and certified by Siemens
- ► Connection via OPC, printer interfaces to PCS/PLC:
    - ► Siemens: Simatic PCS7, S7, WinCC, Teleperm M, COROS
    - ► Emerson: Delta V
    - ► Honeywell: Experion, FSC102
    - ► ABB: Freelance 2000, 800xA, Advant Master, Symphony Maestro UX, Contronic P, Contronic E, Operate IT, Digimatic
    - ► Foxboro: I/A Series
    - ► B&R: APROL
- ► Memory and runtime-optimized long-term archiving of A&Es, operator interventions and batch protocols
- ► Central SQL-database and central application server
- ► High availability due to data buffering and redundancies
- ► Scalable system: new PCS/PLC server connections can be added

Systemarchitektur einer einzelnen Serveranbindung mit Plant Historian

PCS-independent - scalable - intuitive