METALS

LEVEL 2 APPLICATIONS

FOR THE METAL INDUSTRY

ANDRITZ

ENGINEERED SUCCESS

30 years competence in modeling and MES

New and modern production environments have significantly raised the expectations for quality, efficiency, and reliability of industrial processes during the last decade. It became necessary to replace traditional schemes of control with smarter solutions to obtain results with competitiveness in today's markets. Part of these smarter solutions is a means of gaining more knowledge on the process state, dynamics, and trends, for which traditional measuring is not adequate. ANDRITZ accepts the industry 4.0 challenge in being one of the leading companies to implement plant automation technologies of the future.

All major software development work is conducted in Microsoft .NET Visual C#. This ensures compatibility with all MS Windows operating systems and architectures (32bit, 64bit). Certain parts of the mathematical models are developed in Microsoft C++ or nVidia CUDA technology to achieve fastest possible calculation time and highest accuracy. Standard databases, like MS-SQL and Oracle, are used for data storage.

ADVANCED FURNACE CONTROL MODELS
- Furnace modeling with an accurate physical model
- Realistic offline simulation
- Predictive control with optimization strategies
- Observer principle (self-adapting model)
- Immediate response to external influences
- Real-time history/prediction chart

ROLLING MILL APPLICATIONS
- Mill management system
- Roll shop management

MANUFACTURING EXECUTION SYSTEMS (MES) CHARACTERISTICS
- Modular design – easy modifications and extension of functionality
- Splitting and/or joining of material units
- Supports easy scheduling for production
- Reporting tools for web, file, or printed reports

COMMON APPLICATIONS
- Material tracking
- Coil sequencer (automated rule-based product sequencing)
- Automated quality notification system (AQNS)
- Level 3 communication interface
- Advanced reporting
- Maintenance and utilities
- Manual inspection, and interfaces to automatic inspection systems
- Coil identification (barcode processing)

WHAT YOU CAN EXPECT FROM US?

- Server/client architecture (secure access from anywhere)
- Full redundancy (hot stand-by)
- Common database, alarm, and L1 interfaces
- Hardware virtualization support (VMware)
- Optional service and maintenance contracts
- Optional intuitive touch-based user interface
- Smart tablet and wireless support
- Easy day-to-day operation, simple workflows
- Comprehensive data recording and reporting
- On-site or classroom training
- In-house software development and know-how
- Continuous R&D activities and improvements

WHAT ARE YOUR BENEFITS?

- Increased productivity
- Reduced energy consumption and emissions
- Maximized target temperature compliance
- Reduced maintenance costs

ENGINEERED SUCCESS
FOR FLAT PRODUCT PROCESSING

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