

## More flexible, efficient and faster: SIMATIC IT, the future of production

**SIMATIC IT** continues the success story of TIA (Totally Integrated Automation). **SIMATIC IT** enables total integration, full support of existing industrial standards and a component-based approach.

**SIMATIC IT Framework** synchronizes, analyzes, coordinates and optimizes your production. Heterogeneous applications can be integrated to better manage the complexity of production.

**SIMATIC IT Components** provide excellent manufacturing functionality, such as Laboratory Management, Production Performance Management, and Product Specification Management. These components can be coordinated by **SIMATIC IT Framework** or used as independent applications.

The tried and tested interaction of the different components means efficiency and quality, and protects your investments.

### Where do we go from here?

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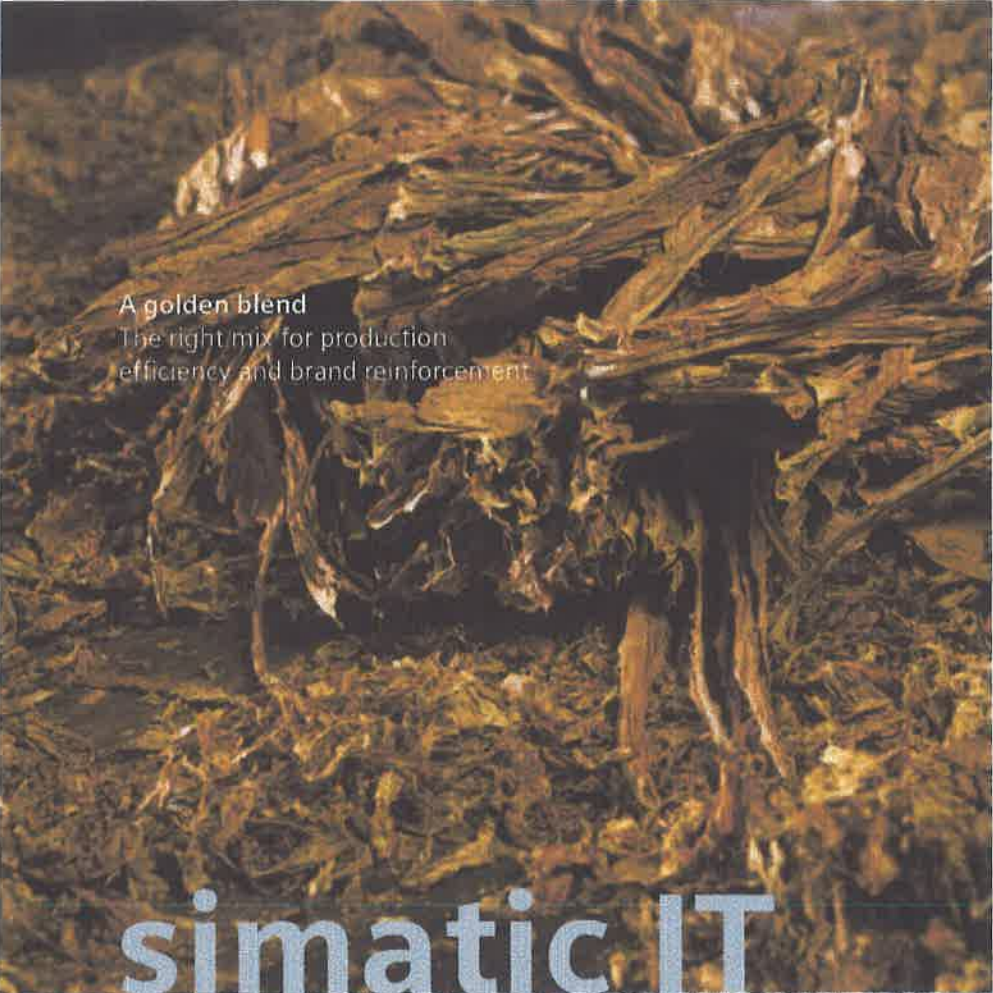
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**A golden blend**  
The right mix for production  
efficiency and brand reinforcement

**simatic IT**  
FOR THE TOBACCO INDUSTRY

**SIEMENS**



# MAINTAIN SIMATIC IT



## What does it take to achieve strong brands and growth in markets?

Among the complex challenges facing tobacco manufacturers are brand protection, dealing with government policies, regulatory issues and ensuring growth in existing and new markets. At the same time, they must effectively sustain profit margins, manage distributed production and increase productivity. All while developing new and safer products.

There is always room for productivity increases that boost profitability. Tobacco manufacturers must continuously define new strategies to maximize profits and ensure brand and market growth. These strategies have to fit both the requirements of the global market and take into account increasing regulation.

SIMATIC®IT is the Manufacturing Execution System (MES) from Siemens. SIMATIC IT gives tobacco manufacturers new sources of productivity and manufacturing efficiency by bridging the gap between business systems and the control layer and by synchronizing operations along the production life cycle.

SIMATIC IT offers specification management, tracking and tracing, product genealogy and integrated quality assurance and comes with functionality specifically designed for the tobacco industry.

What can we do for you?

## SIMATIC IT Production Suite

The SIMATIC IT Production Suite is composed of the SIMATIC IT Framework and SIMATIC IT Components.

The SIMATIC IT Components include basic and guaranteed MES functions for order management, material management, messaging, personnel management and report management.

The SIMATIC IT Framework provides a graphical environment to model production process, equipment and facilities intuitively and without the necessity of programming skills. The graphical production model offers a clear understanding of the plant's behavior and visualizes the entire production status.

## SIMATIC IT Historian

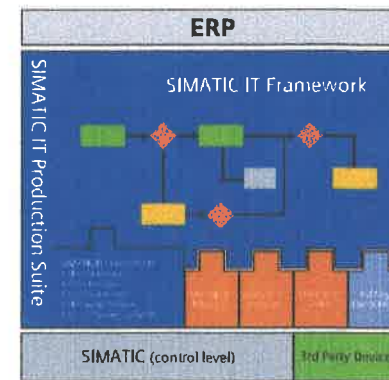
A collection of software modules, to collect, store and quickly retrieve process and production information for Quality Assurance, Reporting, Certifications, Statistical Analysis, Performance Monitoring, etc.

## SIMATIC IT Unilab

Enterprise Laboratory Information Management System (LIMS) handling all quality data in the laboratory (samples, analyses, instruments, etc.) conforms to all industry and laboratory standards (GLP, GAMP, ISO, 21CFR11, etc.).

## SIMATIC IT Interspec

Enterprise Specification Management System handling product specifications for raw materials, semi-finished and finished products as well as packaging materials. This incorporates company-wide specifications as well as individual specifications for a single plant, supplier or customer.



## SIMATIC IT Report Manager

Optional component of SIMATIC IT offering advanced, fully integrated, and user-friendly reporting functionality. The Report Manager meets regulatory requirements for ad hoc reporting (e.g. EC 178/2002, US Bio-Terrorism Act) and offers valuable operational insights.

## SIMATIC IT Client Application Builder

Thanks to SIMATIC IT Client Application Builder, all business related information is integrated and aggregated into reports, allowing management decisions and supporting regulatory compliance. These high level financial performance indicators allow increased competitiveness and enable continuous improvement of business.





# STRATEGIC ADVANTAGES

Every manufacturer must secure profitability. Increasing productivity is the best way to realize this, especially in the face of new markets and regulatory requirements. Finding the right enabler to optimize manufacturing efficiency and effectiveness is the key. Tobacco manufacturers can achieve specific business goals with SIMATIC IT. Particularly in regard to traceability, genealogy, production efficiency, brand awareness and protection, quality and distributed manufacturing.

## Quality and brand value

*How do you protect brand value and prove quality?*

Brand awareness directly affects market share. Brand portfolio strategies are therefore a top priority for all cigarette manufacturers. By proving that their products have been manufactured to the highest quality standards, tobacco manufacturers can address the public awareness towards the industry. Global and integrated management of all production, product and quality data is essential for worldwide protection and reinforcement of brands.

SIMATIC IT considers integrated quality control and assurance into a production process. Thanks to product specification management and advanced production data registration and management, it offers a lot of new features for quality and traceability. This helps to protect the value of a brand.

## Production Efficiency and Flexibility

*How do you increase profitability?*

Production efficiency and flexibility must be top priorities if you are to achieve all of your business goals and increase profitability. To realize these objectives, companies must significantly increase production transparency. This requires a system that enables real-time planning and scheduling, accurate performance measurement and optimizes machine availability. These capabilities will help tobacco companies to maximize output and minimize costs, while guaranteeing flexible production capabilities necessary to support the continuous segmentation of the market.

SIMATIC IT enables the user to access individual execution, optimization and control of all production operations. It provides a uniquely flexible modeling environment. The SIMATIC IT framework provides a system that can be adapted to all plant configurations, all tasks, compliance with the new ISO 9001 industry standard features.

## Tobacco Business Drivers

- Health awareness of consumers
- Increasing regulations
- High quality expectations
- Global and consolidating market
- Importance of brand protection
- Stable demand

## Regulatory compliance and public awareness

*How do you address public awareness and anticipate regulatory requirements?*

Health policies and various governmental agreements have generated a lot of public attention and have led to increasingly severe and constantly changing regulations concerning consumer protection. This is a vicious circle that leads to frequently changing and ever stricter labeling requirements. It also usually means more regulations and the need to declare all ingredients, their effects and their function in the finished product. All current and future rules and regulations have one thing in common: they require tobacco manufacturers to evaluate the capabilities of their manufacturing system infrastructure and prepare for the future.

SIMATIC IT provides a range of material management capabilities, such as central material management and control of all production processes, enabling users to plan and control production processes.

## Globalization, distributed manufacturing

*How do you reconcile global procedures and local manufacturing facilities?*

An increasing number of alliances, mergers and privatizations are resulting in the establishment of manufacturing bases in new regions. As consolidation takes place, the need increases for systems that enable it while supplying consolidated data to HQ. The system must also take into account the local variations and local legislation. This requires a flexible system that can be easily implemented and rolled out in other plants.

SIMATIC IT offers comprehensive, and in some cases, a complete set of functions to design, implement, execute, control and thereby streamline operations at a high level, yet maintaining a flexibility in an operational level.



# GROWTH

## From Global to Local Design

Reduce time and manage global design.

**SIMATIC IT** helps to help manage, from data and distribution back to design and distribution. It provides a complete solution for product and plant specifications for any materials, equipment and plant products and packaging materials and also installed equipment ends.

## Download Orders

Eliminate the manual entry of ERP.

**SIMATIC IT** allows bidirectional data exchange with ERP systems. This seamless integration with ERP will help to reduce the risk of production errors as well as the risk of data inconsistencies.

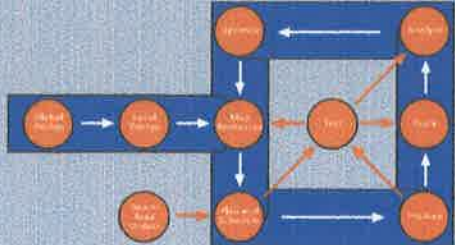
## Map Local Resources

Enter the plant processes and use the architecture.

**SIMATIC IT** enables the central distribution of processes and procedures, you can use local plant resources and constraints. This enables consistent and homogeneous production processes throughout the plant and increases the return on existing investments.

## SIMATIC IT along the Production Lifecycle

**SIMATIC IT Framework, Components and Libraries facilitate and synchronize operations all along the product lifecycle including product specification, planning and scheduling, production, laboratory management, as well as tracking, tracing and production analysis.**



Added Value

## Plan & Schedule

Oversee raw material status, rough plan and control your flexibility.

**SIMATIC IT** offers a fully integrated planning and scheduling. Using real time data, **SIMATIC IT** optimizes resource allocation and supports while maintaining flexibility.

## Produce

Control and control with utilization at all operations.

**SIMATIC IT** controls all activities, including production and maintenance production to reduce and to increase production efficiency. By requesting material plans, factories, suppliers and relationships on development and ERP can be performed, as well as create visibility with external partners.

## Track & Trace

Be on top of compliance.

**SIMATIC IT** enables the tracking of every material movement and this full information and analysis view generally. **SIMATIC IT** also supports traceability management, ensuring the right labeling and packaging. It offers the right capabilities for regulatory production and reporting processes.

## Test

Seamless integration of TQM processes.

**SIMATIC IT** includes a Track-Headed Laboratory Information Management System to manage laboratory processes and supplies. Online analytical tests can be generated and fed back into the production process as a part of quality for regulatory compliance.

## Analysis and Optimization

Continuous improvement of performance and quality.

**SIMATIC IT** enables the definition of Key Performance Indicators (KPI) in order to measure business performance. **SIMATIC IT** also offers fully integrated reporting functionality, making all production-related information available for better decision support.

## SIMATIC IT – A paradigm shift

Due to its modular, object oriented, open and scalable architecture, **SIMATIC IT** enables customers to standardize processes at a high level while maintaining previously unachievable flexibility at the operational level. This unique approach makes it possible to:

- Roll-out solutions smoothly and gradually
- Implement future changes and enhancements easily
- Reuse previously defined logic to reduce project duration
- Secure Investments in local facilities

## SIMATIC IT ISA-95 compliance

ISA-95 is increasingly being accepted as the world standard for Manufacturing Execution that customers can rely on to secure their investments in MES. **SIMATIC IT** not only covers ISA-95 functions but also actually uses ISA-95 as a blueprint for its product architecture. As an active Member of the ISA-95 Committee, Siemens continues to actively contribute to the further development of the standard.

## SIMATIC IT & Totally Integrated Automation

**SIMATIC IT** is an integral part of Totally Integrated Automation (TIA), the Siemens comprehensive solution platform that satisfies the whole range of automation requirements. **SIMATIC IT** benefits from this integration with the rest of the Siemens product line thanks to a wide range of pre-configured objects, ready to be used without any other engineering effort. TIA guarantees quick project implementation, native integration and compatibility across different generations of products.

## SIMATIC IT Cross-Industry Libraries

Pre-configured with reusable functions, the **SIMATIC IT Cross-Industry Libraries** are delivered free of charge to our Certified Partners. They, in turn, add their unique industry expertise and deliver Tobacco Solutions fully tailored to your needs.

## Missing the Real ROI - MES as a Case Study

August 1, 2008 AMR Research | Albert - Bill Swanson, Albert Smith

AMR Research interviewed a group of industry companies that have implemented MES (Manufacturing Execution System) recently. We found that companies saw three tiers of benefits from their projects. **Cost reductions** (reducing inventory, inventory, cycle time, cycle time, cycle time, cycle time) by the end of the second year. **Quality improvements** (reducing scrap, cycle time, cycle time, cycle time) by the end of the second year. **Market improvements** (reducing cycle time, cycle time, cycle time) by the end of the second year. **Market improvements** (reducing cycle time, cycle time, cycle time) by the end of the second year. **Market improvements** (reducing cycle time, cycle time, cycle time) by the end of the second year.

## ARC on Collaborative Manufacturing – ARC 2003 - CPM Systems – Market Analysis and Forecast through 2008

Collaborative Manufacturing has been a focus of many years of investment and research. It is about connecting the plant floor production systems to business systems and knitting together internal and external value chains. Business processes together with external partners, processes, collaborative value chains are a competitive strategy that become a market for companies. It is a collaborative manufacturing strategy that creates value through collaborative work. It is a focus on core manufacturing capabilities, that creates an environment for manufacturing as a business with a high level of responsibility and integration. It is a focus on the expectations of customers and value networks partners. It is also a demand for a level of integration rarely seen before.