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# SIMATIC IT Interspec

Maximize Brand Value

Answers for industry.

# SIMATIC IT, Integration and Standardization

With SIMATIC IT, Siemens is broadening the scope of MES. Plant IT solutions must be based on a strong technology platform, compatible with the enterprise's IT infrastructure, flexible and scalable at the same time.

But IT increasingly has to enable the integration of processes and systems across divisions and plants inside the organization, synchronizing manufacturing processes with business processes and complex supply chains.

The SIMATIC IT portfolio can cover these requirements offering the infrastructure to achieve the real-time enterprise for optimum market responsiveness.

- SIMATIC IT Production Suite is the plant-centric IT solution covering all manufacturing needs. SIMATIC IT Production Suite fills the gap between Business Systems (e.g. ERP) and Control Systems, creating the conditions for an efficiency increase at the plant and within supply chain operations
- SIMATIC IT Intelligence Suite makes the real-time enterprise possible, translating critical, real-time manufacturing information into business-level performance indicators.

- SIMATIC IT R&D Suite streamlines R&D and manufacturing processes and enables seamless transition of product data and definitions through the entire manufacturing process by integrating R&D data and workflows with the manufacturing environment.

SIMATIC IT Interspec is a key component of the R&D Suite but can also be implemented as a stand-alone system for global specification management in process industries.



# The Significance of Specification Management

In the current global market landscape of mergers, acquisitions and strategic divestments brand value can be maximized through efficient innovation processes and centralized product specification management. Efficient innovation processes will not only positively influence time-to-market, they will also support the harmonization of product ranges, centralized purchasing and collaboration with strategic partners along the supply chain.

Supply chain complexity, together with the strict prevailing regulatory climate, strong competition and price pressure and increasing consumer awareness, forces companies to reconcile product

innovation with cost-efficient processes and reliable quality.

To retain their leading position it is important for companies to speed up innovation and continuously improve products and production processes.

Speed, efficiency and security in food, chemical or pharmaceutical product manufacturing can only be realized when product information is well managed and available in a structured way, throughout the enterprise, and across its boundaries.

This cannot be achieved without a structured and clear product specification management.

Product specifications are critical elements of a company's intellectual property. In the increasingly dynamic supply chain this knowledge is the backbone in virtually every business process in and outside the enterprise.

Supply chain flexibility, smooth integration of acquisitions, effective production outsourcing and collaboration between business partners, and revenue increases through global buying, require efficient and centralized management and standardization of specifications.

Siemens understands these challenges and offers SIMATIC IT Interspec for efficient specification management.



# Capitalize on Standardization

A company's success in the current global market largely depends on its innovation capacity and business efficiency.

Only when its knowledge is standardized and centrally available in a secure and structured way, can a company reduce time-to-market and save costs.

## A Corporate Architecture

SIMATIC IT Interspec is a corporate specification management system, the "single point of reference" for product specifications throughout the company.

Whether for five plants or for a global or multinational company, SIMATIC IT Interspec offers a scalable distributed architecture with a central database.

The possibility to link local databases with this central database allows for a phased implementation and rollout.

Whether as stand-alone specification management or as a component of a fully integrated SIMATIC IT MES solution SIMATIC IT Interspec is not only the corner stone of Product Life Cycle Management but also offers full integration with MES, ERP, LIMS or other systems.

## Advanced Configurability

Specifications can be defined for raw materials, packaging materials, semi-finished and finished products, and utilities. The information can contain product characteristics, quality norms and methods, recipes, nutritional values and statements, production methods, etc... At the basis of all specifications is a uniform, enterprise-wide, multi-lingual glossary.

All specifications, as well as the system itself, the glossary, access rights, user preferences, and workflows are fully configurable. All configurations are subject to version control and audit trail.

Through its flexible and configurable structure, SIMATIC IT Interspec endorses standardization and synchronization of intellectual property throughout the company.

## Meeting customer requirements

Several global top companies in the process industry have successfully implemented SIMATIC IT Interspec to structure their specifications around the globe and pave a 'solid path to growth'.

SIMATIC IT Interspec is also a key element of the SIMATIC IT R&D Suite which streamlines R&D and manufacturing processes, and enables seamless transition of product data and definitions through the entire manufacturing process by integrating R&D data and workflows with the manufacturing environment.

A network of Siemens offices and strategic business partners backs up SIMATIC IT Interspec with the relevant skills and know-how, providing a complete range of services, such as training, support, implementation and validation.



### Structured Specification Design

SIMATIC IT Interspec offers templates for each type of specification, supporting any product structure and ensuring a consistent information structure. The frames allow intuitive input through field calculations and validation. The use of a glossary enforces the standardization of specifications and facilitates their translation.

### Advanced Editing

The clear data structure together with ready-to-use enquiries (e.g. multi-level BOM, or where-used, claim checks) facilitates searching and filtering on specification properties or keywords and advanced editing in large data volumes. Complex filters can be stored and reused.

### Swift and Secure Workflow

SIMATIC IT Interspec offers powerful tools to follow the product life cycle. A structured workflow as well as lifecycle statuses can be configured, assigning responsibilities to various departments, from the creation and submission over the approval cycle, to manual or automatic release and distribution, with automatic notification of the involved parties upon status changes.

All specifications are version controlled, ruling out the possibility of two versions of the same product with the same life cycle status.

### Access Control

SIMATIC IT Interspec is the single point of reference for various functions in and outside the company (Management, R&D, Marketing, Purchasing, Production, Lab, but also Suppliers, Retailers, Consumers). Access control can be set for individual

users or for workgroups. It can be linked to the user profile, to product types, or to data types.

### New Product Development and Introduction

SIMATIC IT Interspec supports the R&D process. During experiments and trials researchers can capture experiment descriptions and results in experiment specifications. These are fully configurable and support search on text, multiple comparisons, price calculations, nutritional value calculation, ... Afterwards the specification of a successful experiment can easily be transferred to a standard product specification.

### Flexible Reporting

SIMATIC IT Interspec provides comprehensive analysis and reporting functionality. It includes standard reports but also lets users retrieve all data required and perform calculations and basic statistic operations on them such as multi level ingredient list, nutritional value calculation, ingredient declaration, claim checks, free from reports, and specification comparison.

Data from SIMATIC IT Interspec can be combined into a report with data from other databases, such as process data, optimizing the view of plant operations.

### Web-enabled

With the SIMATIC IT Interspec web-based technology users can use the Internet to search, retrieve, view, print, and approve specifications from anywhere, with the same stringent access control and security as in the regular architecture. The concept of bandwidth optimization

enables users to manage thousands of specifications with minimum transfer times by only transferring the required part of the information.

### Multi language

SIMATIC IT Interspec allows translation of the glossary in different languages and online language switch, showing the same up-to-date specification to different users in different languages.

### 21 CFR 11 compliance

SIMATIC IT Interspec allows different levels of auditing functionality, to be switched on/off according to specific compliancy requirements. This includes system security and access control, electronic signatures, record history logging and archiving, version control, and a validation package.

### Validation pack

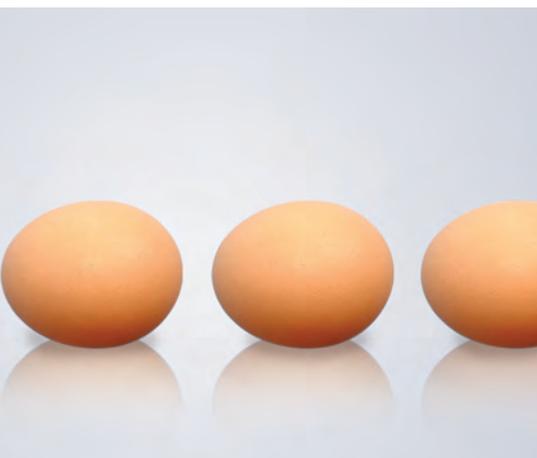
Illustrates that SIMATIC IT Interspec was developed, encoded, reviewed and tested following a verifiable life cycle and includes a Certificate of Independent Audit.

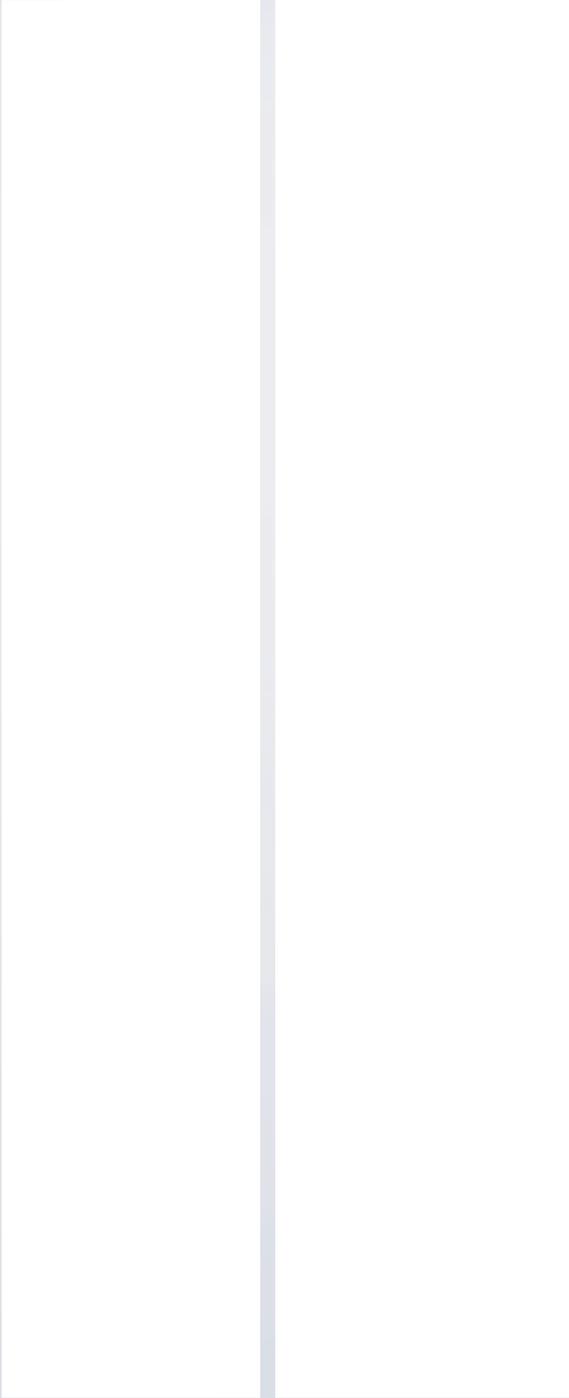
### Process definition

SIMATIC IT Interspec lets users define the production process of a product, including actions, set points, materials and other properties. All process definitions are defined in the glossary, and together with the specification, form a part of the workflow.

### Integration with other Systems

SIMATIC IT Interspec communicates with different systems, not only with SIMATIC IT components, but also with third party MES and other systems, such as LIMS, ERP, SCM systems.







# SIMATIC IT Interspec Benefits

## **Standardization – Global buying**

Enhancing the buying power through raw material standardization is a near impossible exercise without an information tool for standardization and communication of specifications, norms and methods.

SIMATIC IT Interspec supports harmonization of specifications across all local plants and makes all local specifications visible across the supply chain and to the central purchasing department. This results in the rationalization of the product offer and enables global buying by leveraging common specifications while respecting local or customer requirements. Further cost-efficiency is achieved by the resulting ability to easily integrate newly acquired production facilities.

## **Innovation – Faster time-to-market**

SIMATIC IT Interspec supports the strategic development of the product portfolio by giving researchers in R&D access to centrally available existing product knowledge for use in product development experiments.

This substantially facilitates the creation and administration of specifications for new products or product variations.

The integration with business information systems together with the efficient workflows in SIMATIC IT Interspec speeds up the communication to other departments, business partners, and regulatory authorities.

The common infrastructure for specification management ensures a fast transfer of new product specifications to marketing and production and helps synchronize R&D processes with production speeding up the time-to-market.

## **Information – Quality & Compliance**

SIMATIC IT Interspec supports quality assurance and regulatory compliance in different ways. The central availability of specifications, the clearly defined access rights, and the seamless integration with LIMS eliminates the risk of using incorrect, outdated, or unapproved specifications and thus the risk of product liability. This also ensures product conformity in case of decentralized production of a particular product, reinforcing your brand into the bargain.

The clearly defined workflow, the extensive auditing functionality and the advanced reporting capabilities enable immediate response to information

requests from customers, regulatory bodies, or supply chain partners.

The advanced editing capabilities and the switch on/off principle of the auditing functionality also allow companies to anticipate future regulations in their industry.

## **Integration – Supply Chain flexibility**

SIMATIC IT Interspec supports full integration with other information systems, such as ERP, MES, LIMS, and SCM. This facilitates communication between departments, and speeds up New Product Development and Introduction, but also avoids data overhead in the MES and LIMS systems and enforces consistent use of correct product data throughout the enterprise.

Supply chain flexibility through effective collaboration with supply chain partners can be achieved thanks to immediate and mutual sharing of product information.

The multi-site and multilingual electronic availability of harmonized product and process specifications drastically accelerates the integration of new suppliers, co-manufacturers or newly acquired plants and facilitates manufacturing outsourcing.

# SIMATIC IT Interspec

## Maximize Brand Value

SIMATIC IT Interspec is Siemens' product specification management system to develop, deploy and manage all product specifications across a corporation in a single repository to ensure the use of correct product specifications across the organization. It offers tools such as configurable workflows, lifecycle control, versioning, extensive access rights and audit trail to centrally maintain all product-related data. SIMATIC IT Interspec is available both as an integrated component of SIMATIC IT MES (Manufacturing Execution System), or as a standalone software product. It supports full integration with information systems involved in the manufacturing environment, such as ERP, MES, and LIMS.

**SIMATIC IT Interspec offers competitive advantages in terms of market responsiveness and cost leadership:**

- Shorter time-to-market
- Rationalized and harmonized product range
- Purchasing costs lowered by global buying
- Faster exchanging of product data with internal and external partners
- Reduced administrative tasks and errors
- Reduced product liability risks
- NPD and NPI cost reduction
- Brand consistency and protection

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