

## Functions and Features of the QM Module

This chapter first outlines a number of important features of the R/3 basis system and certain central functions that are especially important to quality management. Detailed information on the R/3 basis system and the central functions is available in other brochures. This chapter then provides a brief overview of the functions in the QM module. These functions are described individually in the following chapters.

### Features of the R/3 Basis System

As an integral part of the R/3 System, the QM module uses certain features that are part of the basis system:

- ❑ All functions of the QM module use the standard graphical user interface and the R/3 System's common system management capabilities. This makes it easier to become familiar with the system, since the user can apply the skills acquired in other R/3 modules to the QM module.
- ❑ The R/3 System's common database ensures that the quality data will be consistent even if it originates from other applications, such as materials management, production or sales/distribution and even if it applies to different organizational units within a company.
- ❑ The logging of change documents permits critical processes to be reconstructed.

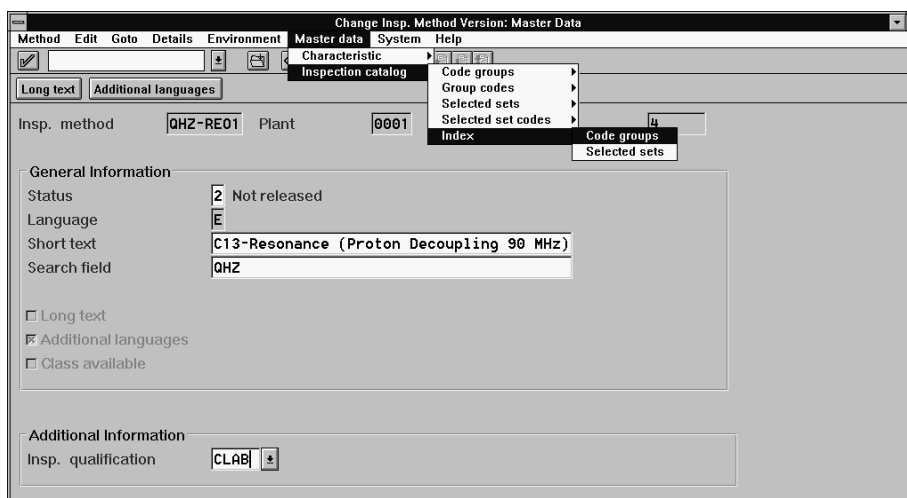


Fig. 2-1: Graphical User Interface

- ❑ The R/3 System is designed for international use. The user interface is available in several languages and the master data can also be maintained in several languages.
- ❑ The authorization concept can be configured to meet the requirements or needs of every user. This ensures that every system user has access to the processes and information that he needs to perform his tasks.

The R/3 graphical user interface conforms to the state-of-the-art GUI used in the industry today. The SAP style guide is continuously reviewed and updated, based on the advancements in the applicable ergonomic standards and the design guidelines of the leading R/3 System front-end suppliers. The guide is used as a source of reference by all SAP developers. Those who are familiar with Windows, OS/2 or OSF-Motif for example, will easily find their way through the R/3 graphical interface.

### Central Functions of the SAP System

The QM module uses a number of central functions of the R/3 System and Logistics application for quality management purposes:

- ❑ Central service functions minimize the resources required to manage the system; for example when reorganizing and archiving quality data.
- ❑ The central document management function manages quality documents and stores them in central archives.
- ❑ An engineering change management function coordinates the changes in the material masters and documents with the changes in the bills of material, master recipes, routings and inspection plans.
- ❑ The classification system organizes and defines selected objects such as the material specification and batch definition.
- ❑ The Logistics Information System stores the summarized inspection data and provides efficient tools for evaluating the data.
- ❑ With the help of the controlling system, the user can record, settle, and analyze the quality-related costs.
- ❑ SAP graphic tools and interfaces to external systems provide a means of effectively presenting the quality data.
- ❑ The Workflow component controls complex operational sequences and the associated messages. It links information and business-related objects with processes and places them at the disposal of the involved parties at the right time and in the proper format.

## Comprehensive Functions of the QM Module

The QM module uses the SAP System's integration to link the tasks of quality management with those of the other applications, such as materials management, production, sales/distribution and cost accounting. An example of this is the automatic triggering of an inspection when goods are received.

The QM module supports the exchange of data with other applications to prevent related data from being recorded and stored redundantly. For example, the information provided by goods receipt posting relating to material, vendor and lot size is automatically transferred to the inspection lot data record when an inspection is triggered.

The QM module fulfills the following CIQ tasks:

- ❑ Comprehensive functions
  - Integrates the quality data in the material master
  - Manages the material-relevant quality information for vendors and customers or sales areas
  - Links the quality characteristics with the inspection characteristics in the material specifications
  - Manages the quality-relevant documents in the central document management facility
  - Links the quality inspection and problem processing components to the SAP Business Workflow
- ❑ Materials Management, Procurement
  - Releases vendors
  - Manages the release status of delivery relationships, for example for model or other deliveries
  - Evaluates vendors on the basis of quality
  - Manages and dispatches vendor-related technical delivery terms and quality management agreements
  - Triggers goods receipt inspections
  - Requests and monitors the receipt of quality certificates
  - Triggers inspections for goods movements (for example, upon goods receipt)
  - Manages the stock of goods during the inspection
  - Takes the goods being inspected into account for material planning purposes

- Transfers inspection results to batch characteristic values
- Manages problems in procurement
- Production
  - Integrates inspection planning and work scheduling
  - Triggers inspections in production
  - Links inspection and production operations
  - Supports the integrated confirmation of operating and quality data
  - Monitors the production quality with the help of control charts
  - Manages partial lots of a material that differ in quality
  - Manages problems in production
- Sales/Distribution
  - Triggers an inspection when the delivery note is created
  - Automatically creates quality certificates with the delivery
  - Manages problems in sales and distribution
- Controlling
  - Settles appraisal and defect costs

### Internal Functions of the QM Module

The QM module's internal functions do not directly interact with the data or processes of other modules. The QM module fulfills the following functions of a CAQ system:

- Quality planning
  - Management of master data for quality planning and inspection planning
  - Material specifications
  - Inspection planning
- Quality inspection
  - Trigger inspections
  - Inspection processing with inspection plan selection and sample calculation
  - Print shop papers for sampling and inspection

- Results recording and defects recording
- Usage decision and follow-up actions
- Quality control
  - Dynamic sample determination on the basis of the quality level history
  - Statistical process control, quality control charts
  - Quality scores for inspection lots
  - Quality notifications concerning internal or external problems, corrective actions
  - Inspection lot processing and problem processing linked to the Workflow component
  - Inspection data and problem data for the Quality Management Information System (QMIS)

**The QM module supports the traditional tasks of quality management and is closely linked to the Logistics applications.**

Which traditional tasks of quality management does the QM module support?

The QM module supports

- quality planning
- quality inspection
- quality control

With which logistics applications do the functions of the QM module interact?

The QM module is integrated in the master data and processes for

- materials management (purchasing, inventory management, warehouse management, materials planning)
- production (work scheduling, production control)
- sales/distribution (delivery, creation of quality certificates)

What advantages does the integration of the QM module in the R/3 System provide?

The functions of the SAP basis system and the central functions of the SAP Logistics application can be used for quality management purposes.

