

Interfaces to ERP Systems



The tool **iT-INTERFACE** consists of a variety of interfaces **between iQ-Basis and usually higher-level ERP and material management systems**. The data transfer is handled using standard communication systems.

The individual interface tables include almost all fields of iQ-Basis, which are relevant for a data exchange. If on the other hand some fields are not known in the program on the higher level it will result in functional restrictions of iQ-Basis.

Since most **ERP systems are not familiar with quality assurance** from an IT perspective, the availability of important quality information is limited. So iQ-Basis has to work self-sustaining from ERP systems.

The most economical way of integration is to get the information independently by reading directly from the tables of the ERP. We are able to do this because we have the means to handle **several databases on different hardware platforms simultaneously**.

Communication

- Use of all **popular communication techniques**
- Various kinds of data exchange
 - **Online transaction-oriented**
 - Synchronously or asynchronously via tables
 - With **relational and hierarchical** databases
 - Asynchron only by using ASCII files
- Distributed responsibilities concerning the ASCII file management
- **Reaction** in case of **erroneous transfers** due to
 - Communication failures
 - Non-processable data
 - Repeated transfers of identical records
- **SAP**: Remote function call; Uniface also supports BAPI

Supported ERP Systems

- SAP R/2; RM-Mat, RM-QSS
- SAP R/3; MM: material, business partner, deliveries, use decisions
- QM: quality messages, failure catalogues
- PM: gauges (equipments)
- BRAIN, BRAIN International
- BaaN
- Dialog Total, BOG
- Navision
- Several individual ERP systems

The Transfer Monitor

- Running as a batch process on any computer in the network
- If one computer is not active, another temporarily stores all data to be sent, until the other is available again.
- Incorrectly transferred records are marked as faulty.

- Record troubleshooting; records that can be repaired using the monitor can be reactivated to be processed by the background process.
- Display of all records sent or received
- Content editing
- **Processing logs**
- **Simultaneous handling of different systems** (ERP, CAD etc.)

Overview of the Most Important Interface Data

- Business partner
 - Site address, contact persons
- Material
 - Master data
 - Product groups
 - Revision state of material
- Inspections plan: Using these interface formats inspection plans can be generated automatically
 - By importing aged data from to be replaced systems
 - By a CAD system, e.g. for initial inspection plans
 - By NC-controlled measuring automats directly from the measuring program
- Inspection plan data
 - Inspection plan header
 - plan versions
 - inspection operations
 - attributive characters
 - variable characters
- Supplier / parts relation
- deliveries

- incoming goods
 - booking of deliveries, generation of inspection orders made automatically
 - initial inspections
 - purchase order information
 - serial numbers, charge identification
 - cancellation of deliveries
 - use decision after inspection
- plant organization
 - plant, production areas
 - cost center
 - worker
- plant maintenance
 - master files of equipment
 - spare parts
 - operation plans, versions
 - spare parts and tools for operations
 - security measures

SAP R/3 tables

Varios iQ-Basis modules are working together with SAP R/3

- eventdriven receiving inspection
- situations oriented maintenance and empirically based
- audit system
- gauge management system
- customer complaint management
- Q-project management

SAP R/3 data transfer

- remote function call; RFC
- Business Application Interface; BAPI
- IDOC
- all R/3 developments with ABAP's made by AHP
- data received from R/3
 - stock master file
 - failure groups and codes
 - Q-messages
 - plant information
 - country keys
- automotive supplements
 - car types
 - defect history
 - verios new tables
- data sent to R/3
 - Q-messages
 - use decisions
 - status of equipments