



INFOR BLENDING

## Performance specification 8.1

Infor Blending® has been developed for recipe-oriented manufacturing in the pharma and cosmetics, food and beverage, as well as chemicals and biotechnology industries. The extremely vertical orientation of Infor Blending corresponds with the expectations of our customers, that a modern ERP solution must unite an in-depth industry knowledge, international availability, and investment security. Shaped by these guiding principles, we have developed Infor Blending 8.1.

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## Blending basis

### Audit trail

For documenting all modifications of master data

- Manual or automated statement of change reasons
- Multiple-level documentation of all dependent data

### Customising tool

For form configuration without source code modification

- Fields show/hide
- Positioning on forms and tab successions
- Function and field size change

### Graphic user interface with:

- Flexible form design, colour & font size independent of the Windows configuration
- Slider function, form size configurable on respective hardware such as scanner, PDA, etc.
- Variable grid configuration
- Formatting of special events/values using colour codes and symbols

### Online help

German, English, French

### Multiple-language capability

Supports data management in the form of Unicode and double byte as a basis for processing and printing international character sets

### Individual links to fields and programs

With transfer of call parameters to individual program links among one another

### Freely definable master data templates

For articles, business partners, manufacturing processes, etc.

### Mass maintenance of master data (details)

For articles, business partners, stock locations, etc. with functions such as find/replace in batch

### Import of master data (details)

- From MS Excel or XML structure
- With various checks (new, changed, unchanged, erroneous data sets)

### Integrated printout of MS Office documents

- As subsequent voucher for Blending vouchers
- Fills placeholders with Blending data
- External documents depending on, for example, the voucher type, customer/supplier, article

### Document output protocol

With the saving of all environment data, such as user, time stamp, document information, output type, output destination, etc.

### Data Model Explorer

Displays and evaluates data structures

### Free definition from user queries

For individual configurations of evaluations

- With dynamic date filter, grouping, etc.
- Chart output (e.g. bars, columns, pies)
- Data export (MS-Excel, Access, ASCII)
- Integrated print function with standard layout, or
- Special layout per query

## Event monitor/workflow control

- Definition of tasks and warnings (formula locked, credit limit exceeded, client order with a negative margin, etc.)
- Determination of recipients (user or user groups)
- Event monitor selected according to status, names, priority, escalation level or deadline
- Direct call and processing of the program from the event monitor
- Recording all the processing steps of an event
- Escalation management, status administration and forwarding options for actions
- Representation regulations and team leader functions

## ION process (workflow)

- Visualisation of Blending tasks and warnings on one central activity monitor
- Bidirectional
- Also as a mobile application

## ION connect

- Data transmission to third-party systems
- Data assumption from third-party systems
- Standardised data exchange using XML (OAGIS)
- Simulation mode
- Communication with other Infor® products
- Update of the ION® Business Vault (BI reporting)

## System integration

Online integration into financial accounting

- IGF (Infor Global Financials)
- DIAMANT/2 (Financial accounting + cost accounting)

## Program interface EVA

(Export and shipment processing) of partner company Anton to create:

- Export and shipping documents
- Long-term supplier declarations

## Interface freight forwarders

Data exchange per XML during creation of delivery note

## Program interface DMS d.3 (Document management system)

- Support of life science client
- Archiving voucher, notes and SOPs etc.
- Direct call from Blending via search client, or
- As an alternative from the document overview in Blending

## Weighing dialogue

As a core function of existing Blending programs

- Integration from weighing systems
  - Mettler Toledo IND890
  - More upon request

## Interface to process computer

Using ION (Intelligent Open Network)

## Electronic voucher output

Offers, order confirmations, purchase orders, etc.

Alternatively as print, fax, mail or in XML format

## Data export

- To MS Excel, MS Access, text, printer
- From all grid displays, optional saving of templates per grid
- Default layouts when printing from grid

## Allocation of MS Office documents

(Excel, Word, etc.) at form and field level

# System maintenance

## User maintenance

Allocation to user groups and roles

## Password administration in accordance with 21 CFR part 11

- Password rules (number of digits, expiry, etc.)
- Encrypted entries for all passwords
- Password check via Active Directory (AD)

## Rights dependent on roles for:

- Notes (show, amend)
- Program functions (hide, execute)
- Administrative tasks (e.g. menu maintenance or parameter)
- Individual data fields and grids of all Blending programs (hide, show, modify)
- Individual columns in user queries and data views
- Exporting grid content (e.g. Excel)

## Authorizations in accordance with data content

- Comprehensive definition of access to selected data content (display, edit)
- Comprehensively implemented for plants and companies (e.g.: employee may only view/edit articles or orders of one plant.)

## User-specific menus

- With overview of all open programs
- With program history and last key per program
- Favourites menu configurable by user

## User-specific dialogue templates

To call up a program with preset start parameters and selection criteria

## Automation of batch programs

Combination of several batch programs to be executed in a single batch job

User-specific variable display of grids

- Hide or show columns
- Sorting and sequence of rows

## Log file

Selection for a user, program, status and execution date etc.

## Basic data

### Multi-language

- Forms according to login language
- Description fields of all tables (terms of payment and delivery, etc.) according to login language

Overview of multisite functions (detailed information in the following special fields)

- Calendar per plant or site
- Stock-keeping of several clients in one warehouse
- Material removal from another company with automatic change of owner
- Internal settlement of the above material removals/consumption
- Material valuation at plant level
- Material relocation proposals from net requirements
- Plant transfer with transfer warehouse
- Plant-related formula
- Central purchase

### Multiple companies

Within a database

### Plant level

For separate planning and material availability of facilities or production sites

### Maintenance of plant-related master data

- Warehouses
- Availability data from the article master, such as minimum balance, reorder point quantity etc.
- Variants of formulae and bills of material

### Plant-related processing of:

- Sales plans
- Reorder proposals
- Net requirement calculations
- Display of availability
- Customer orders, production orders and purchase orders

### Access rights/protection:

- Blending users can work within one or all plants
- Each user has reading rights for data of all plants
- User group rights on all posting types

### Companies for:

Maintenance of several separate companies at stock/availability control level (one stock control system and multiple distribution organisations, if applicable legally independent with own financial accounting)

### Currencies and exchange rates

For sales, purchasing and financial accounting

### Unlimited number of posting periods

With possible divergent financial accounting and periods of statistics as well as separate calendar and special days

- Multilingual article descriptions Multilingual terms of payment
- Incl. instalments
- Article, customer, supplier texts and general additional texts
- Combinable, multilingual, and automatically loadable Allowance numbers and commodity codes
- For deliveries to Switzerland (VOC)
- ADR – allocations, hazard codes
- Multi-level customer and supplier hierarchy (See also Sales and Purchasing sections)

## Hierarchical groups of statistics

- For the representation of complex clients/suppliers and article structures

## Voucher number schemes

- Per company, plant or entry code

## Variable account number allocation

- For automatic accounting of incoming and outgoing invoices
- Flexible quantity units
- With conversion to article and lot level

## 7- level hierarchy of stock balances

Article, customer, plant, warehouse, stock location, lot, subplot, or package

## Article master with flags/information

- Lot control (y/n)
- Stock control (y/n)
- Division into bulk and bin articles (y/n)
- Loaned bin y/n
- REACh information

## Workflow article master management

- Status management per department during creation/amendment
- Release/block per department or overall
- Workflow via event monitor or Infor Ming.le®

## Article maintenance/bin maintenance

- Automatic creation of bin articles and BOMs for bins from bulk article and bin code
- Bin code: empty bin (article or order parts list, e.g. can, top, label), quantity and unit content
- Overview of article balance displaying all bin articles of the same bulk article
- Copy article and formula including all bin articles and bills of material
- Update of specifications of bin articles from bulk article
- Inheritance of density from bulk article to bin article

## Packaging versioning

- Simplified management of multiple versions of a packaging with varying validity periods

## Lot profiles

- To define lot number systems
- To determine the time of the lot creation
- To control (mandatory) entries such as 'external date of expiry', lot text, etc

## Quality-oriented lot control

- Date of receipt, production, and expiry
- Remaining shelf-life, in general and by business partners
- Quality status and lot texts
- Plan and actual specification (also customer- and article-related values)
- External lot data (job order production)

## Sublots (specifically for filling into bins)

- Splitting a main lot into several sublots
- Maintenance of quality data for main lot or subplot
- Bin-oriented allocation of sublots
- Supplementary description of lot balances using: Error codes/characteristics

Random warehousing using:

- Max. volume- and weight
- Pallet types
- Article admission checks
- Index for separate stock picking

### **Creation of reservation areas**

For reservations spanning several warehouses

### **Barcodes/data matrix codes**

- Definition of barcodes used in Blending
- Output possible on any Blending printout, e.g. bin labels or production order
- Supports current barcode formats, composed barcode, EAN/UCC format

### **Article- and customer-specific individual data**

- For further editing in order and customer order forms and transfer to subsequent processes
- For being outputted on vouchers (delivery note, invoice etc.)
- For further statistical evaluation

## **Stock and logistics**

Flexible assignment of warehouses and stock location numbers

### **Free definition of posting types**

- With possible automatic calculation of expiry dates and locks for quality control
- Stocktaking and balance corrections
- Article transfer postings (from/to articles)
- Lot transfer postings (from/to lot)
- Valuation amendment
- Quality postings (status, receipt date, expiry date, creation date, error code, etc.)
- Automatic stock location search feature with receipt postings
- Batch release of containers

### **Flexible posting codes**

- With user group authorization and assigning a password (optional)
- Differentiation between manual and automatic posting codes (delivery note, production receipt, etc.)

### **Free definition of quality status and error codes**

- E.g. released, in quarantine, locked, etc.
- Allocation of an availability code (e.g. incoming goods with blocked status but with available planning)

## Lot profiles with special features

- Calculation of expiry dates starting from the input of active substance (pharmaceutical)
- Lot no. with US week
- Rounding off the expiry date (e.g. last day of month)
- Differing external views of the expiry date (e.g. 'Aug. 2014') also foreign language
- Inheritance of lot data from bulk article to bin article or during transfer postings (stock postings via formula)
- Differing lot profile in customer/article structure

## Multi-level check of quality codes and expiry date

Lot is treated as expired if a used lot is locked or has expired

## Automatic quality postings

Locked status for lots expiring within a given period of time

## Continuous lot tracking

- Display and print of all transactions
- Access to related serial numbers (for use in serialisation/pharmaceutical)
- Material use in a lot over several production levels back to the supplier
- Material use for a lot through all steps up to the customer
- Which articles/lots has the client received?
- Which articles/lots came from which supplier?

## Issuing strategy for lots

- Manually
- FIFO (first in-first out)
- FEFO (first expired-first out)

## Valuation levels

- Articles, articles/warehouse, articles/lot number, or articles/warehouse/lot number
- Alternatively, several warehouses can be combined as a valuation location

## Valuation prices

- Last purchase price
- Weighted average price
- Cumulative average price
- Standard price/production costs
- Lowest purchase price
- Individual valuation price
- The system automatically maintains all prices listed above, as well as fictitious or replenishment prices

## Planning grid

Calculation based on period, week, day, or campaign

## Reorder quantity code

Exact, fixed, fixed-step multiple, minimum, or maximum reorder quantities

## Month end stock balances

Based on standard price

## ABC analysis

- For articles, customers, and suppliers
- Based on quantity, gross or net value

## Open items management

Overview of unfinished transactions for articles with quantity postings without values or value postings without quantity

## Availability control

- Using availability codes/methods (driven by demand on time or cumulative demand, demand based on sales plan or reorder point)
- Consideration of confirmed balances—'soft reservations' without lot procurement
- Calculation/update of reorder point quantity based on archived data

### **Multi-level availability inquiry**

- Can a product be produced in a given quantity by a certain date?
- Multi-level check for all components
- Link from customer order entry, etc.

### **Availability and material availability**

Using a variable planning horizon taking into account actual balances, minimum/maximum balances, reorder points, projected and negative balances, sales orders, purchase orders and production orders

### **Availability cockpit**

- Searching for and processing 'problematic' articles
- Link to all relevant programs
- 'Planning (availability) confirmed until' mark

### **Availability Trail/Availability Controller**

- All amendments to availability data are logged (sales plans, orders, production proposals, reorder proposals etc.)
- Automatic calculation of amendment proposals when changes are made to availability while observing quantity and deadline tolerance limits
- Release functions of the above changes for MR planners

### **Material picking list for production**

- Selection criteria: Production orders, dates and machines
- Consideration of balances still available in destination warehouse possible
- Indicates shortages in source warehouse
- Indication of balances in other warehouses
- Consideration also of third-party balances (multisite)
- Consideration of bin size / relocation in complete units only
- Relocation of demand quantities in batch
- Relocation protocol and transport order for logistics respectively

### **Picking of customer orders**

- Selection criteria: customer orders, delivery dates, and delivery methods
- Consideration of balances still available in picking area possible
- Indicates shortages in source warehouse
- Indication of balances in other warehouses
- Consideration also of third-party balances (multisite)
- Consideration of pallet quantities (if relocation possible only in whole pallets)
- Relocation of demand quantities in batch
- Relocation protocol and transport order for logistics respectively or transfer to scanner system (mobile posting)

### **Storing balances from the picking area, incoming goods, etc.**

- Predefined source and destination warehouse
- Consideration of pallet sizes; splitting the quantity per article into several postings
- Finding free storage areas in the high bay warehouse according to standard rules in Blending
- Relocation protocol and transport order for logistics respectively or transfer to scanners (mobile posting)

### **Relocations for transfer of plant, etc.**

- Selection of articles to be relocated with the above functionality
- Alternatively, creation of relocations from net requirements
- Processing functions such as print of delivery note, correction, cancellation, etc.
- Displays 'Goods in transit' during the time of transfer

## Voucher-oriented periodic stocktaking

- Stocktaking by warehouses and articles
- Count lists and difference lists (also sorted according to stock locations)
- Entering balances, closing, and reporting thereof
- Inquiries and reports also after stocktaking was completed
- Optional 'Post balance to 0' when starting stocktaking or for uncounted articles

## Inquires/reports

- Stock query (incl. wildcards) on balance according to articles, bins, warehouses, and stock locations with all relevant lot data (also list available)
- Periodical article statistics (quantities per posting type)
- Stock transaction report by articles, place of storage, type of posting, user, date, etc.
- End-of-month values per stock account

## Intra-EU trade

- Countries and regions of origin, commodity codes, types of business
- Ports and airports, transportation modes
- Determination of the report data on the basis of deliveries executed or plant transfers (multisite)
- Creation of transfer file

## Integration of financial accounting

- Preparation of integration data for reporting inventory values due to stock transactions
- Flexible account assignment

## Mobile posting

- Definition of bar code schemes
- Data matrix code or bar code type (EAN-13, Code-128, etc.)
- Bar code content (article no., lot, location, etc.)
- Particular posting programs for balance corrections, stocktaking, relocations, feedback of production orders, etc.
- Query programs for lot status, balances, etc.
- Posting server which executes postings that were initiated by mobile device via WTS or Citrix

## Mobile picking

- Manually create picking lists with scanners
- Confirm/correct items on picking lists
- For the generation of SSCCs (Serial Shipping Container Code) during picking
- Consider picking sequences and assignments (staff)

## Package maintenance

- Maintenance of containers with serial numbers and sales packages (e.g. barrels etc.) without serial numbers
- Split up incoming goods or produced quantities into packages with information about fill quantities
- Itemization of packages during order entry for finishing customer order with various bins/packages and order-specific filling quantities
- Planned splitting of packages in production order printout
- Automatic posting out of empty containers with receipt posting of the product filled
- Differentiation of package balances with filling quantities (supply in %)
- Automatic update of loaned bin account
- Package availability
- Extra posting program with package identification using serial number for package return from customers and supplier
- Package labels with hazardous material information, integration in Envicon

## Sales

### Flexible, multi-level business partner hierarchy

- Maintenance of addresses and conditions (also to show different business partners relating to orders, delivery (reception) and invoices, as well as branch-based and centralized paying institutions (purchasing associations))
- Graphical view of the business partner hierarchy as tree structure with simplified copy function (drag-and-drop)

### Flexible definition of order types

With variable assignment and sequence of:

- Shipping/picking list incl. SSCC
- Delivery note
- Invoice
- Payment lists

All above vouchers also with collective function

Release procedures per processing level to show, among other things, the following order types:

- Immediate invoicing, cash sales
- Domestic or export order
- Delivery notes for remote warehouses, relocations to remote warehouse, supplying remote warehouses
- Sample delivery (check to max. number of allowed samples)
- Credit notes with/without goods

### Form design by order types

- Normal entry with complex checks
- Quick entry with asynchronous storage (item defaults from listing, special prices, or customer article structure)

## Pricing

- Special customer prices (optionally based on quantity and currency)
- Customer/article exclusion/procurement authorisations
- Price lists (optionally based on quantity or currency)
- Copy from price lists and special prices
- Prices generally with 2-item discounts and date for price changes with new price and new discounts
- Article group prices
- Standard sales price in article master
- Divergent pricing units and price quantity units for price lists and special prices
- Rebates in kind in price lists / special prices
- Entry of price origin (promotions, etc.)
- Retail prices

### Lists for wholesale arrangements

- Discontinuations for markets, etc.

### Procurement authorizations

- Pharmaceuticals: Certain article groups may only be sold to predefined customer groups

### Discounts

- Item and total discounts (optionally based on quantity or value)
- Order discounts (optionally based on quantity or value)
- Rebates in kind incl./excl. rounding functions
- Discounts up to 100% with signs (discounts and surcharges)
- Date for discount change with new discount

## Customer/article structure

For the definition of:

- Technical specifications of planned values (density, viscosity, etc.) with upper/lower limits
- Admissibility of delivery
- Automatic printout of certificates of analysis (y/n)

## Currencies

- Unlimited number of currencies and conversion rates

## Taxes

- Unlimited number of VAT codes
- Automatic determination of VAT codes using the combination of customer and article

## Credit limit checks

- Against order value, or
- Against order value and open items
- Alternatively, with or without locking the order, locking the delivery, or locking the order and delivery

## Quotation maintenance

- With period of validity and date of reminder
- Freely definable calculation models
- Similar functionality as order maintenance, yet with no impact on availability control or balance

## Quantity-oriented contract management

- Call orders against contract items with possible over-deliveries
- Parallel, time-overlapping contracts
- Scope of services such as order maintenance, but without balance check

## Sales plans

- With allocation of deliveries and open orders
- With formula and variant to be considered in production planning

## Order entry/processing

- Copy orders
- Transfer quotations to orders, orders to purchase orders, etc.
- Manual or automatic load of texts (customer, article, customer/article, and general texts)
- Total or partial deliveries
- Credit limit checks
- Business partner information available during order entry
- Terms and master data in order header and item fields (such as warehouse, price, discounts, quantity unit, representative, cost centres/cost objectives) alterable
- Code for order-related production or order
- Calculation of date of shipping and delivery on the basis of entered transport times (from delivery address)
- Lot allocation during order entry (includes consideration of customer and article-related quality specifications)
- Display of current order values, e.g. gross/net weights, - volume, - values

## Sales plans

- Free decision on calculation scheme
- Simulation mode to check calculation
- Allocation of a calculation scheme for article or customer/article structure
- Opening calculation scheme from order entry
- Manually or automatically in the background
- Overwriting manually of accordingly marked items possible: freight, collection remuneration, commission, etc.

## Order picking

- Automatic lot allocation (picking list) according to FIFO, FEFO, specific, planned customer or article specifications or based on manual selection
- Cross-warehouse reservations within defined reservation areas
- Optional inclusion of subsequent delivery codes (shortages must be re-ordered)
- Remaining shelf lives of lots are considered
- Generation of picking lists according to order, customer, delivery or shipping date, warehouse, or priority
- Picking list order printing, sorted by stock location index (optimized picking)
- Summary list by warehouse, article, lot and stock location (for optimized picking)
- Shortage lists
- Single correction or cancellation possible
- Confirm picking as separate release to the next processing level (optional)

## SSCC (Serial Shipping Container Code)

- Generation of SSCC according to numbering scheme
- Allocation of voucher items to SSCC
- Print of packing lists and labels
- Print of SSCC on subsequent vouchers
- Dispatch note with SSCC information via EDI

## Delivery note

- Partial, under- and over-deliveries
- Automatic lot allocation (if picking lists are not used) automatically according to FIFO, FEFO, planned customer- or article-related specifications or based on manual selection
- Generation of delivery note according to order, customer, delivery or shipping date, warehouse, priority, delivery note with lot number and stock location number
- GGVS summary according to class and subclass

- Packaging groups and rules for describing the 'small quantities' rule
- Printout of several transport methods
- Optional stock adjustment upon creation of delivery note
- Correction and cancellation of delivery note

## Invoicing

- Selected generation of invoice according to order type, customer, delivery or shipping date, warehouse, priority
- One invoice for several delivery notes (collective invoicing)
- Rounding of final invoice amounts dependent on the currency
- Confirm invoices as separate release to the next processing level (optional)
- Optional stock adjustment during creation of invoice (unless it was posted in previous levels)
- VOC calculation and disclosure for deliveries to Switzerland

## Internal settlement /multisite

- Purchase and sale settlement from material removals or handovers (multisite)
- Freely selectable settlement period

## Payment lists

- Payment lists according to invoice, order type, customer number, delivery or shipping date, warehouse, and priority
- Unlimited number of invoices on one payment list
- Cancellation function to reverse posting

## Credit notes

- Credit notes with goods returned (returns)
- Credit notes without goods returned
- Cancellation function to reverse posting

### Third-party order

- Generation of orders from customer orders
- Invoicing customer triggered by receipt of supplier's dispatch note

### Complaints management

- With reference to lots and orders
- Complaints are recorded
- Free definition of the reasons for complaining and classifications
- Generation of follow-up action, such as creation of test order and/or returns and credit note, respectively
- Manual address entry for credit note if claim has deviating original delivery address
- Monitoring and statistical evaluations of steps taken

### Loaned bin

- User definition of loaned bins (containers, pallets, etc.) for customers
- Consideration in order maintenance, picking lists, delivery notes, invoices, credit notes, and returns
- Precise control of stock possible (down to lot level)
- Automatic update of loaned bin stock for shipments and returns
- Inquiries and reports on loaned bin stocks per customer
- Returns with separate posting program

### Order parts lists

- Maintenance of order parts lists to display sets, order parts list, rebates in kind, multiple component systems, dependent bins, extra costs, deposits, etc.
- Free definition of any number of sets/sales item lists with indication of the relevant structure quantity, currency, validity, automatic loading of BOMs, or dialogue processing during order maintenance, dependency on article positions

- Unlimited number of articles assignable to each set/order parts list, with the articles indicating the quantity proportions (optionally also with price and discount)

### Sales commission

Two non-related representatives per order with commission based on gross margin or turnover per:

- Representative/customer/article
- Representative/article
- Representative/customer
- Representative/commission group
- Representative

Sales commission data can be amended at item level and may be evaluated according to representative and period.

### Bonus settlement

- Maintenance of bonus lists and allocated bonus percentages
- Allocation of customer groups and article groups to bonus lists
- Generation of bonus settlements for user-defined time periods (months)
- Display of billing data with export function to Excel

### Integration to German DSD (Duales System)

- Customer and article classification for DSD invoicing
- Transfer of the following notification types to DS customer:
  - Master data: package for 'package-related notification', article for 'article-related notification'
  - Period data: sold quantities and returns for monthly and yearly notifications

## Customer information system

- Information about open items, credit limit, open order value, prices and conditions, etc.
- Sales, turnover, gross margin value compared to plan figures and previous period covering any periods on article level, or an overview thereof
- Detailed invoice history with information at item level

## Voucher inquiry

Quick voucher inquiry via any voucher form

- Displays all previous and subsequent vouchers for the selected voucher type and first selected voucher
- Detailed information at voucher header level, item level, lot level
- Drill-down function
- Displays processing status (symbols)
- Predefined user queries to request information about orders, vouchers, and invoices for purchasing/sales
- Displays the original vouchers from Blending (or integrated DMS)

## Statistics

- Detailed invoice history with information at item level
- Periodic statistics comparing actual with previous year or planned figures according to company, customer, article, statistic codes per customer and article, results include sales, turnover, gross margin, discounts in value and percent
- Hit lists compared with previous year or planned values and limit search to a number of results (e.g. the Top 50)
- Hit lists with hierarchical structure of statistic codes, transfer of subtotals to higher level (e.g. subtotals for federal state, country, continent)

## Online integration into financial accounting

- Reporting outgoing invoices
- Flexible account references (revenue, sales deductions, extra costs, tax accounts)
- Support SEPA (Single Euro Payments Area)

## Inquires/reports

- Order balance according to order, external order number, customer, delivery date, shipping date, lock code, processing code, order entry type, and warehouse with details on order items
- Voucher tracking: review of all vouchers generated for an order and its items with related detail information and original vouchers

## Interface freight forwarders

- Data exchange per XML during creation of delivery note
- Integration EVA (third party tool for export and customs)

The required order-specific data is supplied for the creation of all common shipping and export documents (approx. 60 forms) as well as long-term supplier declarations

- EDI/data import/export
- Configurable interface for import and export of data from Blending vouchers
- Supports common EDI formats
- Customs tracking
- Tracking of quantities of material taxed at a lower rate

## CRM (Customer Relationship Management)

- Maintenance of additional data on business partner
- Configurable key, date and description fields, etc.
- Projects with defined additional fields
- Contacts with functions
- Editing of notes and documents relating to the above contacts and projects
- Selection of companies/persons to create personalised letters
- Creation of visit reports with internal task allocation (edit complaints, start substitute delivery, etc.) via the event monitor
- Integration in MS Word and Outlook, e.g. creation of tasks with reminders
- Research function with free design of search forms
- 'CRM-Monitor' as a summary view of all relevant customer information (master data and transaction data)

# Purchasing

## Order types

- Individual purchase orders for a plant
- Central purchase of an article for several plants
- In doing so, the main position with the total quantity is used to find the price and terms; depending on the subheading, deviating delivery addresses or dates can be managed

## Order entry code & processing types

- User interface design and password maintenance based on order entry codes
- Quick entry with asynchronous storage (item default from special prices or supplier-article structure)

## Flexible, multi-level business partner hierarchy

- Maintenance of addresses and conditions for representation of different business partners for ordering, billing, delivery, and payment

## Supplier/article structure

- Definition of supplier- and article-related prices, article numbers and descriptions, replenishment times, testing times, buffer times, minimum reorder quantity, fixed and fixed-step reorder quantities, quality reference, and country of origin (Intrastat)
- Registration number and validity (REACH)
- Inquiry about “who delivers what?” or about “what is delivered by whom?”

## Pricing

- Special supplier prices (optionally based on quantity or currency)
- Price lists (optionally based on quantity or currency)
- Copy from price lists and special prices
- Prices generally with 2-item discounts and date for price changes with new price and new discounts

- Detection of price lists via supplier groups/article group matrix
- Article group prices
- Standard sales price in article master
- Divergent pricing units and price quantity units for price lists and special prices

## Discounts

- Item and total discounts (optionally based on quantity or value)
- Order discounts (optionally based on quantity or value)
- Discounts up to 100% with signs (discounts and surcharges)
- Date for discount change with new discount
- Detection of discounts via supplier groups/article group matrix

## Calculation of order proposals

Calculation of exact reorder quantities by date based on the balances, ordered quantities, purchase orders, sales plan and availability master data (see ‘Stock control’ section), selectable by article, article group, planner, supplier, availability code. and planning horizon

## Edit order proposals

Proposals for maintenance can be limited according to article, article group, planner, supplier, status and order date, and be sorted by:

- Supplier/article, article/supplier
- Supplier/article group, article group/supplier
- Manual creation, amendment, combination, release, lock, and deletion of reorder proposals and generation of reorder proposals
- Version checking and possible correction possibility (for packaging materials)
- Verification of registration number/validity (REACH)
- Automatic contact assignment when creating or editing order suggestions taking into account any deviating supply times for availability

## Manual creation of proposals

Edit customer order relation, warehouses, quantities, order and supply and availability date, supplier and contract selection with availability overview and availability indicator

## Quotation maintenance

- With order and contact generation
- Specification of validity time frame and date of reminder
- Scope (services) corresponds to reorder processing, but without impact on availability control or balance

## Quantity-oriented contract management

- Query orders against contract items with possible excess fulfilment directly from order management
- Parallel, time-overlapping contracts
- Indicates the time of validity
- Scope (services) corresponds to reorder processing, but without impact on availability control or balance

## Purchase order entry/editing

- Copy orders
- Manual or automatic load of texts (customer, article, customer / article and general texts)
- Credit limit checks
- Business partner information available during order entry
- Conditions and master data, editable on an order-specific basis
- Supplemental order texts (multilingual, form type-dependent, as text templates and editable on an order-specific basis)
- Arbitrary number of order positions (optionally against contracts (calls))
- Verification of registration number/validity (REACH)
- Item-related master data can be edited on an order-specific basis (destination storage location, price, currency, discounts, quantity unit, statistics ID, cost centre, and cost objective)
- Display of current order values, e.g. gross/net weights, volumes, and values

## Incoming goods/invoices

- Combined incoming goods and invoice with and without reference to order and item-based individual processing with scope of delivery of the incoming goods and invoice
- Incoming goods/invoice of several orders from one supplier

## Debit notes

With or without goods return

## Voucher cancellation

Of incoming goods and/or invoices and debit notes

## Complaints management

- With reference to lots and orders
- Complaints are recorded
- Free definition of the reasons for complaining and classifications
- Generation of follow-up action such as debit notes with/without goods return
- Monitoring and statistical evaluations of steps taken

## Procurement authorizations/supply chain

- Which group of goods may be procured from which suppliers
- Definition of valid manufacturers (not suppliers)

## Loaned bin

- Free definition of loaned bins (containers, pallets, etc.) of suppliers
- Consideration for incoming goods and returns
- Precise control of stock possible via lot or serial number
- Automatic update of loaned bin stocks for incoming goods and returns
- Inquiries and reports on loaned bin stocks per supplier

## Supplier information system

- Information about open items, credit limit, and open order value
- Sales, turnover, gross margin value compared to plan figures and previous period covering any periods on article level, or an overview thereof
- Detailed invoice history with information at item level

## d.3 Workflow (DMS)

- Link/keywords of documents (confirmation, delivery note, invoice) for accounting entries
- Document query in d.3 from Blending process

## Order parts lists

- Maintenance of order parts lists to display sets, order parts list, rebates in kind, multiple component systems, dependent bins, extra costs, deposits, etc.
- Free definition of any number of order part lists stating the relevant structure quantity, currency, validity, automatic loading of BOMs, or dialogue processing during order maintenance

## Bonus settlement

- Maintenance of bonus lists and allocated bonus percentages
- Allocation of customer groups and article groups to bonus lists
- Generation of bonus settlements for user-defined time periods (months)
- Display of billing data with export function to Excel

## Statistics

- Detailed invoice history with information at item level
- Periodic statistics comparing actual with previous year or planned figures according to company, supplier, article, and statistic codes supplier and article
- Hit lists compared with previous year or planned values, limit search to a number of results (e.g. Top 50)

## Online integration into financial accounting

- Reporting incoming invoices
- Flexible account references (costs/expenditure, extra costs, tax accounts)

## Inquires/reports

- Order balances according to order number, supplier, shipping date, availability date, lock code, processing code, order entry type, and warehouse
- Voucher tracking: review of all vouchers generated for an order and its items with all details and original vouchers (also from DMS when available)

## Vendor valuation

Supplier valuation/supplier-article valuation (before entering into business relations).

Supplier valuation/supplier-article valuation (during business relations).

- Maintenance of valuation criteria, incl. KO criteria
- Maintenance of static data, i.e. ISO certified? Successful audit? etc., possible separately for assessment and valuation
- Automatic detection of variable data, such as variance of date, quantity or price as well as data of quality control, etc.
- Documentation of results displayed on screen or as a printout
- Function link from valuation to basic data such as purchase order, test order etc.
- Determination of supplier for reorder proposals according to valuation of classification
- Lock or release of supplier or supplier-article description in purchasing

## Preference calculation

See "Production planning/control" section

## Packaging versioning

See "Cross-area programs" section

## Product organisation

### Resource management

For the definition of:

- Operations (mixing, reviewing/checking, filling, etc.)
- Materials, packaging & auxiliary material (with and without calculation)
- Auxiliary material whose quantity does not increase in proportion to production quantity (e.g. filter)
- Intra-material (formula, variant and intermediate products e.g. bulk production requiring two-day fermentation)
- Direct allocation of costs, cost type (calculation), work centre, standard operating procedures and safety procedures per resource

Plant-related capacity points with statement of max. capacity

### SOPs

- Standard working instructions as text blocks
- Authorization concept, see formulae

### Safety instructions

- Safety instructions as text blocks
- Authorization concept, see formulae

### Generic comparison of formulae

Comparison of products, variants, or versions

### Formulae

- User group-related authorization concept per function (entry/amend/delete) and status (released/in development/locked, etc.)
- Production sequence-orientated description of formula structure based on resources
- Unlimited number of levels (semi-finished products)
- Unlimited number of variants (production or structure variants)

- Formula status (free, locked, in development) per variant with remarks
- Validity period/quantity validity per variant
- Unlimited number of production steps (formula parts) with work centres, quantity basis, and batch sizes
- Unlimited number of items/resources of type
  - Input (material, operation)
  - Neutral (auxiliary materials, catalysts)
  - Output: output material: finished product(s) or
  - By-products/co-products
- Copy formula
- Amendment index with history per formula/variant
- Option to copy any part from other bills of material
- Automatic creation of the output from sum and inputs (optional)
- Flexible plan quantity basis and unit
- Alternative calculation quantity and unit (e.g. formula in kilograms, calculation in litres)
- Comparison of plan and actual quantity basis (optionally with maximum allowable deviation in percent)
- Comparison between plan and actual production orders with modified formula variant and, if necessary, adjustment of PO with cancellation of PO print
- Integrated detection and classification of hazardous substances (when using the Envicon module)
- Consideration of loss at item level (for calculation and availability)
- Specification of material input quantities either in percent or quantity unit
- Specification of weighing type and location when using Blending weighing dialogue
- Optional display of costs at item level
- Allocation of working instructions for each item as specific text or text blocks (standard operating procedures or safety instructions)
- Operations with fixed or variable times (for calculations and capacity planning)

- Specification of any output material per formula/variant for definition of:
  - Finished products and possible losses
  - Of by-products and co-products
- Allocation of specifications individually or via resource groups
- Specifications for encoding active and compensation substances (depending on active substance, quantity conversions based on used lots)
- Resource-dependent conversion of formula possible
- Interactive calculation of costs, technical specifications and hazardous materials
- Dialogue as to whether changes in the process should be transferred to production orders which have not yet been started

### **Bills of material for filling/packaging**

- User group-related authorization concept per function (entry/amend/delete) and status (released/in development/locked, etc.)
- Production sequence orientated description of BOM structure based on resources
- Unlimited number of variants (production or composition variants) per BOM
- BOM status (free, blocked, in development) with comments per variant
- Validity period/quantity validity per variant
- Any number of parts lists with own work centre and batch size for illustrating a multiple-level picking
- Unlimited number of items/resources per bill of materials parts with definition of each item as:
  - Input (material, operation)
  - Neutral (auxiliary materials, catalysts)
  - Output: finished product(s)
  - By-products/co-products
- Copy bill of material and create output in article master based on source article

- Amendment index with history per BOM/variant
- Option to copy any part from other bills of material
- Flexible plan quantity basis and unit (e.g. piece, carton, bottle, can, etc.)
- Divergent calculation quantity and unit (e.g. bill of material in can, calculation in litres)
- Specification of gross and net input quantities at item level to allow for loss (for calculation and availability)
- Optional display of costs at item level
- Allocation of working instructions for each item as specific text or text blocks (SOPs and safety instructions)
- Operations with fixed or variable times (for calculations and capacity planning)
- Specification of any output per bill of variant for defining finished products and possible losses
- Allocation of specifications individually or via resource groups
- Integrated calculation of costs and technical specifications
- Dialogue as to whether changes in the formula in production orders which have not yet been started should be carried over

### **Packaging versioning**

See “Cross-area programs” section

### **Resource calculation**

For updating periodically material prices in formula and bills of material

### **Formula calculation/bills of material calculation**

- Pre-calculation of formula based on flexible calculation scheme
- Summation of costs according to specifications / groups (e.g. raw material, packaging material, semi-finished products etc.)
- Fixed or percentage surcharges
- Consideration of combined products (distribution of costs or fixed value for a product)

## Calculation results

Transferred from pre-calculation to stock control for valuation price

## Flexible definition of specifications

- Technical (quantitative and qualitative specifications: density, viscosity, appearance, smell, etc.)
- Cost specifications (material costs, production costs, surcharges, etc.)
- Hazardous substances specifications (butanol, xylol, toluol etc.)
- Texts, text blocks (appearance, smell, RAL colours etc.)
- Calculated values using formula functions—totals or percentages (density, proportion of hazardous material, etc.)
- Batch maintenance by loading group specifications
- Hierarchical structure of specifications with totals of plan values, upper and lower limit in higher levels

## Search for formulae and lots

- Based on technical specifications
- With several combinable specifications
- 'And/or' link with given planned values

## Product information

- Allocation of specification also with default values for missing actual data
- Release and print of product information (possible for selected data for customer)

## Resource exchange

Mass replacement of resources with:

- Selection from/to formula and variant
- Entry of compensation substance by 1:n exchange (alternate active substance content, etc.)

## Formula history

Display of the formula / BOM history per variant and index with all information about resources

## Inquires/reports

- Structure of formula/bill of materials with direct or level explosion
- Direct resource usage or over all levels
- Calculation results directly or over levels

## Production planning and control

### Production calendar

- Different from stock control calendar
- Maintenance of daily capacities per machine

### Net requirement calculation

- Calculation of net requirements based on stock balances, reservations, reorders, sales plan and availability master data (refer to stock control)
- Creation of production proposals (inclusion of possible planning horizon for the purpose of planning certainty = no new proposals in defined time frame)
- Representation of production campaigns (combination of proposals for certain dates/intervals)
- Creation of production proposals for raw material and packaging
- As an alternative to production proposals or reorder proposals (see above), relocations/ plant transfers can also be generated

## Production proposals

- Proposals can be limited according to article, article group, plant, status, start date, formula, collection number, planning horizon
- Selection results sorted according to:
  - Plant/article, article/plant
  - Plant/article group
  - Article group/plant
- Manual creation, individual amendment, combination, release, lock, deletion, or change of proposals and generation of production plans or orders
- Creation and amendment of proposals with customer order reference, variant, number of batches, lot number, warehouse, quantity, start date, end date and availability date, display of the required input materials, and usage of the proposal, as well as availability overview and item availability
- Transfer of lot information and texts with customer order relation from customer order into production proposal

## Packaging versioning

See “Cross-area programs” section

## Plan orders

- Creation, deletion and amendment of plan orders with customer order reference, variant, number of batches, lot number, warehouse, quantity, start date, end date, order-specific structure amendment, and remarks
- Display of required resources and usage of finished product, as well as the overview of availability, item availability, stock level, and article statistics
- Update of availability data of all resources
- Generation of production orders from plan orders

## Allocated production

(As alternative production type)

- Demand detection bulk quantity from all related bin articles for a defined time period
- Merging bulk and bin items (several sales products) into one production order
- Separation of production and bin articles possible via formula parts

## Production order maintenance

- Creation, deletion and amendment of orders with customer specific references, variants, number of batches, lot number, warehouse, quantity, start date, end date, order-specific structure amendment, and remarks
- Lock/release orders with status history
- Update of production order structure possible after modifying formula or BOM
- Transfer of lot information and texts with customer order relation from customer order into production proposal
- Availability control check for resources
- Lot profile determines lot accounting and time of lot creation
- Update of availability data of all resources

## Print production orders

- Using order number and start date (alternatively with structure quantity, batch quantity or total quantity and with or without test order (technical specifications) as initial or repeat print)
- Print batch related or non-batch related
- Print cancellation after formula amendment
- Release of production orders and associated documents (material provision list, weighing labels) in the relevant plant language

## Lot allocation

- Automatic reservation of shortages in consideration of exclusion criteria
- Selection by order, order type, customer number, start date, end date and warehouse; alternatively, with batch-related lot allocation, automatic printout, and stock balance adjustment for resources
- Issuing strategy according to article by FIFO, FEFO or based on manual lot allocation
- Consideration of confirmed balances ("soft reservation")
- Consideration of necessary remaining shelf lives and input materials
- Conversion of active and compensation substances based on actual active substance content for lot used

## Material picking list/picking list

- Selection of picking lists according to order number, start date, and business partner with previous voucher
- Picking list per order for order-related allocation
- Order-related shortage list for materials with shortages
- Post report per work centre with sum of material covering all orders

## Post allocation

- Automatic posting of resources against production order according to lot allocation
- Selection according to bill of materials number, order, business partner, start date, or end date
- Cancellation of picking lists for reversal of postings

## Feedback of production order

- Order-related feedback of all issues (if not posted via picking list)
- Plan = actual posting possible (with articles without lot control)
- Posting of material usages with reference to lot and location over and under usage, lot split

- Consideration of lot exclusion criteria
- Additional items (e.g. reconditioning)
- Posting of required times per operation
- Receipts: Posting of receipts with reference to lots and locations (also for co-products and by-products, with over and under quantities)
- Split posted products in used packages (sublots), also with serial number
- Closing formula part batches before closing order

## Production documentation

- Manufacturer documentation with output of material usage, production times, and process-related deviation documentation
- Batch-related or non-batch-related
- Printed on production report, automated or upon request

## Production report

- On completion of production order automated or upon request
- Contains all relevant materials used with any weighing steps (zero setting, taring, etc.) as well as work steps with time stamp, incl. user details

## Stock postings against formulae

- Receipts and issue postings for materials (for lot and stock locations) without production order against the formula structure
- After possible change of usage quantity and resources during reprocessing or lot split
- Inherit lot data during transfer posting for ext. reposting

## Post-calculation

Accompanying, order-related post calculation with display of all resources and their:

- Plan and actual values
- Plan and actual quantities
- Plan and actual times

As well as total costs, resulting material costs and production costs for total quantity and for each quantity unit

### Production costs

- Article-related post-calculation comparing costs of formula variants in a defined period of time
- Determination of average of production costs depending on variant and variant comparisons

### Feedback of quality data

- Maintenance of lot-related quality data per resource, lot and, if required, production order number
- Testing of actual value against plan value and lower/upper limit

### Quality certificates

- Generation of lot-related certificates of analysis in multiple languages (optionally based on plan values or actual feedback values)
- Customer specific certificates/works test certificates

### Inquires/reports

Plan orders and production orders according to order, order type, business partner, lot number, start date, end date, status and formula number with order details at order header level and item level

### Preference calculation

- Trigger can be set manually
- Calculation via lots used of all production levels, incl. consideration of combined productions

### Graphical capacity scheduling

- Displays existing production orders and production proposals as a diagram and in table form, also parallel using two monitors
- Selection according to plants and production areas, sorted by work centre groups
- New entry and amendment of orders in graph mode
- Dividing production orders and re-scheduling remaining quantity
- Re-scheduling production as well as plan orders according to parameter-controlled rules, moving to allowed work centres
- Joint relocation of dependent production orders within a work centre
- Aligning several nodes of an order
- Close gaps for orders of a work centre
- Coloured display of different order types and progress flags
- Function for calculating possible shortages, depiction of affected production orders
- Turns production proposals into production orders in graph mode
- Displays of dependencies between partial formulae (following items) and production orders (job number or manually)
- Definition of shifts with employees and work times, multiple shift schemes, depiction of idle periods
- Alternative calculation of operating cycles (cycle per hour)
- Depiction of labour times and “bottle necks” at formula part level
- Shift reports with entry of times in production order
- Simulation mode
- Saving of several simulations, loading of previously saved simulations
- Material availability calculation based on data simulated
- Rights can be assigned separately for simulation and live operations

## Cross-area programs

### Weighing dialogue/connection of scale

With this order, the quantity assumption of a load receptor (scales) is implemented in the relevant posting program (stock posting, incoming goods, PO feedback, reposting, etc.). The other standard manual entries or cumbersome interfaces do not apply.

- Maintenance of picture files/symbol combinations
- Scale maintenance and checking

### Definition of scaling methods

- Central scaling and on-site scaling
- Gross scaling and net scaling
- Standard or withdrawal scaling
- Additive scaling  
(several components in one destination container)
- Free scaling

### Formula scaling

- Considers active and compensation substances
- Material picking list for weighing while considering bin balances
- Identification of raw material and comparison with production order through scanning (force scanning, if required)
- Automatic posting correction (stocktaking) during assessment of balance difference in bin
- Production order block when exceeding the target quantity of a raw material position and possible recalculation for complete production order structure (additive scaling)
- Label print for weighed input material and remaining bin
- Relocation of weighed materials to production area

### Development formulae

- Description of development projects with development criteria and allocation of external documents
- Development formulae with sequential numbers for depicting variants and parallel developments
- Copy formulae or formula parts from Blending formulae with conversion of quantity basis to laboratory sizes
- Creation of finished development formula as Blending formula with article and conversion to production sizes
- Simply kept, multi-level formula structure with usage of resources which are not yet entered in stock control (samples)
- Parallel maintenance and display of several attempts next to one another / illustration of the deviations
- Calculations of costs, technical data and hazardous substance data with specifications when Envicon or Envicon Simulation is used
- Comparison of costs and technical specifications of several attempts
- Breaks down structure into base components, analysis by monitoring limit values with specifications
- Print of laboratory orders
- Generic comparison of development formulae

### Gross demand calculation

- For budget, material and capacity planning for definable time periods (e.g. for liquidity planning in accounting or contract negotiations in purchasing)
- Calculation based on Blending master data—but deliberately outside operative production planning
- Maintenance of sales plans to differentiate between material groups, sales districts etc.
- Generation of requirement plans and consideration of historic data
- Transfer plans to sales as Excel sheet for external editing

- Transfer and summary of several Excel sheets in gross requirements planning
- Calculation of material requirements, machine capacity, and required budget
- Display and printout of results

## Quality Assurance/LIMS

(Laboratory Information and Management System)

- Laboratory maintenance
- Test equipment maintenance
- Monitoring of test equipment
- Definition of test methods
- Definition of quality templates for special release rights
- Specification definition of:
  - Quantitative values (numbers and ranges)
  - Qualitative values (texts and text blocks)
- Special specification type (variable NK positions) for soiling
- Test series
- Dissolution (in accordance with USP)
- Calculation of specifications and 'derivative values' existing specifications
- General test plans for articles
- Special test plans for customer articles, supplier articles as well as manufacturer article names possible
- Manual creation or automatic generation of test orders on reception of goods, test order creation or print, etc. according to parameters
- Repeated and multiple tests
- Inheritance of specification (measured values transferred from bulk to finished products)
- Double control while entering test values
- Completion of the test orders at various authorization levels such as origin (production, purchasing, warehouse, etc.) or product groups
- Stability tests
- Test reports with measured values per test specification

- Certificates of analysis with alternative scale units for test order
- Analyses (statistics) for PQR
- Sample rules with sample overview and label printing, editing of the suggested sample scope possible
- Frequencies (skip lot and offset rules)
- Statistic evaluations for PQR, correlation analysis, out-of-trend analysis etc.

## Packaging versioning

Several versions of one packaging can be valid at any one time. Different versions of a packaging can be used in one picking order. Purchasing and production must consider this task in terms of availability.

- Simplified maintenance of master (version neutral) and version articles
- Version articles 'inherit' any changes from the maintenance of the master article
- A version article must be defined as 'standard' (per plant or overall) for any background programs
- A BOM can contain master (version neutral packaging) or version articles
- Production and order proposals can contain master or version articles
- When converting to a production order or purchase order, a specific version article must be determined from any master article
- Contracts in purchasing can be completed via the master and the version article
- Purchasing statistics are kept either via master or version articles
- Display of packaging material balances of all lots of version articles of a master article

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