

X3 Manufacturing Functionality Features

Comprehensive Product Data

Product attributes and categories
 Families of products for MPS
 Multiple manufacturing modes -ATO, MTO, CTO, MTS, process
 Multiple replenishment rules with seasonality
 Multiple material handling controls - lots, expiration dates, potency
 Multiple units of measure
 Bills of Material
 Multi-level
 Supports variants and options Validity dates
 Mass maintenance

Technical Data Management

Factory calendars
 Work and cost center management
 Machine, labor, subcontracting
 Routings
 Multiple routing
 Operation dates and times - Master routing
 Library of standard operations
 Setup Rules
 Subcontracted operations
 Forward and backward scheduling
 Plan association

Replenishment

Min/max
 MRP
 User-defined replenishment rules (net requirements, lots, fixed period coverage and safety stock adjusted for seasonality)
 Pegging
 Intersite based on contracts and transfers between two partnering sites

Cost Accounting

Definition of cost elements
 Calculation of planned costs (standard, revised standard, simulated, budgeted)
 Actual production costs
 Variance analysis per item
 Accounting interface

Planning

MPS (multi-site, planning bills of material, bills of labor, operational orientation, budget, simulation)
 Calculation of material requirements
 Multi-site
 Analysis of suggested requirements
 Replanning Messages

Order Release

Multi-item release
 Feasibility reasons
 Material and load allocations
 Forward and backward scheduling
 Order smoothing
 Shop traveler
 Production status reporting (by work order or batch)
 Control without production order (rate-based scheduling)

Decision-Making Tools

MPS and MRP schedules
 Analyze multiple sites by product families or products
 View stock outs and past due orders
 Work plan
 Analyze single sites and single products
 Order grouping
 Material planner workbench

Manufacturing Analysis
 Resource utilization
 Late order analysis
 Delayed operation analysis
 Operational yield
 Material yield
 Production yield
 Interactive drag and drop using Gantt Diagram
 Load simulation
 Finite capacity planning

Inquiries

Work-in-process by product
 Work-in-process by load
 Projected stock by date
 Analyze loads in graphical format
 Allocation details
 Order re-planning
 Progress of production orders
 Production order status reporting

Automatic Processing

Mass allocation and de-allocation
 Mass forward and backward scheduling
 Work order releases
 Automatic work orders

Quality Management

Technical sheets with user-defined questions and expected responses (e.g., tolerances)
 Accepted and rejected stock status control, including quarantines
 Perform quality testing at user-defined steps (receiving, work-in-progress, pre-shipping)
 Forward and backward quality traceability
 Customer-specific quality requirements

Lot Control and Tracking

Forward and backward lot traceability
 Record lot identifiers for each material transaction
 Allocate inventory by lot
 Maintain physical inventory by lot
 Expiration date management
 Option to allocate inventory on FEFO basis (First Expired / First Out)
 Expiring lot reports and inquiries
 Sub-lot tracking and control

MRP/MPS

Multi-site capability
 Simulations
 Net requirements
 Re-planning messages
 User-defined reordering parameters

Regulatory Requirements

MSDS
 Container Labeling
 Certificate of Analysis

Batch/Continuous Processing

Work Order-less processing
 Production reporting and back-flushing

Fixed period
 Seasonal patterns
 Net reorder quantities

User-defined planning horizons

CRP

- Multi-site capability
- Simulations
- Net requirements
- Re-planning messages
- User-defined reordering parameters

Routings

- Operation dates, times and shifts
- Master routing
- Library of standard operations
- Parallel operations
- Sub-contracted operations
- Forward and backward scheduling

Multi-Multi Design

- Multiple companies
- Multiple sites
- Multiple languages
- Multi-currency

Decision-Making Tools

- Work plan
- Analyze single sites and single products
- Order grouping
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- Manufacturing analysis
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- Production yield
- Interactive drag and drop scheduling using Gantt Diagram
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Sales

Order Entry

- User-defined order types for varying prompts, displays and event sequencing
- Special orders for loans, transfers and consignments
- Add new customers online during order entry
- Order products by customer product number and default customer-specific information on order line
- Order substitutes and products that supersede obsolete products

- Vary ship-to's, shipping sites, carriers and delivery dates by order line
- Order kits with variants and options
- Check minimum gross margin and low price thresholds, and block or accept further entry according to rules
- Sales order revision control with ability to replicate one change across multiple line items
- Automatically close unfilled orders and lines within predefined tolerance
- Automatic inter-company transaction management

Automatically Generate Purchase Orders

- Non-stock purchases
- Automatically order predefined minimum quantities from preferred supplier

Supporting Inquiries

- Inquire during or outside of entry functions
- Last prices and price reasons
- Customer account information
- Current and projected stock levels by site or all sites
- Zoom to more detailed information - locations, lots, serial numbers, etc.

Contracts

- Vary contract terms, validity dates and prices by line
- Schedule releases over user-defined firm and planning time horizons

Reminders/Dunning Letters

- Supports multiple successive levels of reminder according to severity of past due condition
- Block account activity based on user-defined criteria

Pricing

- Automatic pricing by line item according to pricing rules with ability to edit
- Maintains gross and net price on order line with option to view price reasons and last prices
- Automatically factor discounts and charges into net price or break out separately
- Adds free products or quantities if predefined thresholds are met
- Recalculates prices for groups of related products if predefined threshold is met
- Calculates differential between kit components selected during order entry

Sales Documents

- Order acknowledgements
- Sales quotes
- Contracts

Inventory Allocations

- Allocate manually during order entry or separately using a batch process with options
- Allocate by site, lot or consignment location
- Reserve inventory for customers (pre-order)
- De-allocate inventory
- Allocate by customer shipping route and priority

Quotes

- Enter quotes for customers or prospects with full expiration date control
- Produce hard copy quotations
- Track probability of converting quotes into orders
- Easily convert quotes into sales orders

Invoicing

Produced automatically or by user request
 Define invoicing rules according to customer preference (one per order, shipment, bill of lading or period)
 Consolidate invoices based on customer-preferred frequencies (daily, weekly, monthly, etc.)
 Supports counter sale environments
 Issue and track prepayment requests and payments
 Multiple payment terms and methods including scheduled due dates per invoice and recurring invoicing
 Automatically use alternate payment terms if amount is less than predefined minimum
 Proforma invoicing

Customer Delivery Scheduling

Default shipping sites by ship-to delivery address
 Maintain shipping lead times between sites and ship-to addresses
 Calculate shipping date for meeting requested delivery date based on lead time
 Maintain customer availability days and dates and round delivery date to next work day
 Multiple fulfillment methods (from stock, vendor direct, buyin, transfer order)

Shipping Confirmation

Produce picking tickets and packing slips
 Record serial numbers for end-user tracking
 Combine multiple orders on a single shipment
 Automatic or manual shipping confirmation

Sales Commissions

Multiple sales reps per order line
 Commission calculations based on user-defined formulas

Customer Returns

Link return to original shipment
 Track return, expected return and expiration dates
 Automatically or manually assign RMA numbers
 Track return reasons by line item
 Process returns for loans
 Produce credit memos

Credit Checking

Online credit checking with ability to hold customers that fail credit check
 Bypass credit checking for specified customers
 Customer credit inquiries

Reporting and Statistical Analysis

Standard reports or user-defined reporting using Crystal Reports™
 User-defined formulas for calculating ABC rankings for customers and products

Sales Tax Calculations

Supports North American and VAT taxing
 Option to calculate prices with or without taxes

CRM

Sales Support Features

Prospects/Customers

Automatic update of the steps in a sales cycle
 Secondary sales reps (possible by product groups)
 Inquiry on the entire pre- and post-sale history
 Automatic control over converting a prospect into a customer

Sales Objectives

Forecast entry
 Definitions of objectives
 Calculation of the variances of actual results to forecasts

Contacts

Managed independently from business partners
 Multiple relationships with companies, sites and business partners
 Inquiry on the entire pre- and post-sale history

Opportunities/Projects

Competitive information
 Pre- and post-sale steps
 Associated projects
 Flow control to create sales quotes
 Quotes by opportunity and project
 Double expected value weightings on revenues

Sales Workbench

Global view of pending and late sales activities
 Quick search on the contact who is calling

Appointments, Calls and Tasks

May be managed using approximate dates
 Control over employees' scheduling conflicts with direct re-scheduling when necessary
 Resource reservations
 Appointment address search
 May be managed using approximate dates
 Automated call reporting
 Call attempts
 Phone number search
 Late warnings to the requester of the task
 Automatic control over the coverage of a request
 Solution search in a problem/solution knowledge base
 Request report history
 Semi-automatic creation of sales quote and customer appointment
 Creation of solution record when service is complete
 Warranty requests

Customer Support Features

Customer Database

Units installed at customer sites
 Specific physical location
 Associated service contract history
 Successive installation history

Service Contracts

Automatic creation of service contract templates
 Service contract invoicing
 Contract renewal
 Indexing databases
 Automatic contract revaluation
 Contract service constraints
 Skill groups covered
 Products and services covered
 Maintenance and warranty contracts

Service Responses

Automatic search for most qualified service employees
 Automatic search for service contractors who are qualified in the service response domain
 Schedule conflict control

Knowledge Base

Search by skill group
 Search on content
 Quick search on multiple keywords

Service Workbench

Requests for overdue and pending services
 View of late service responses and pending responses
 Dispatching content
 Statistics on personnel and queue workload
 List of service contracts to be renewed

Products

Associated warranties
Service contract templates
Warranty tickets
Accumulated per month
Expressed as an amount and percentage
Breakdown of the objectives according to multiple criteria
Month by month for a fiscal year

Sales Workbench

Global view of pending and late sales activities
Quick search on the contact who is calling

Service Contractors

Partner contractor skills
Service response fields
Collaborative financial conditions

Service Callers and Requests

Several service callers per customer
Dynamic service caller parameters and information
Service caller assignment by user
Automatic assignment of requests by skill groups
Assignment possible on: Service site, Queue, Personnel, Redirect to sales rep
Automatic control over the coverage of a request
Solution search in a problem/solution knowledge base
Request report history
Semi-automatic creation of sales quote and customer appointment
Creation of solution record when service is complete
Warranty requests

Marketing Features

Competing Products

Competitors
Average sell prices
Strengths and weaknesses

Marketing Campaigns

Planned and actual budget used by a campaign
Creation of the marketing activities

Marketing Plan

Tree-structure view of the campaigns and ongoing activities

Mass Mail Assistant

Recipient selection
Combining lists (merge, intersect, etc.)
Message design
Creation of the mailing history
Automatic contract revaluation

Phone Campaign Assistant

Definition or recall of phone call targets
Distribution of calls to tele-reps by various user-defined methods
Definition of call scripts

Trade Show Assistant

Entry of booth characteristics and cost

Purchasing

Purchased Product Categories

Raw materials
Products purchased for resale
Supplies and capital equipment
Services and recurring items (e.g., maintenance)
Non-stocks
Sub-contracted products

PO Creation Methods

Manually enter PO's or duplicate a previous PO
Copy from purchase requests and vendor quotes
Automatically generate PO's from sales orders and buyer work plans

Contracts

Vary terms, validity dates and prices by line item
Schedule releases over user-defined firm and planning time horizons

Purchasing Modes

Centralized and decentralized purchasing sites
Deliver to internal sites, consignment locations and customers (direct shipments)

Encumbrance Accounting

Checks budget allowances at time of request and purchase
Pre-commits at time of request; commits at time of PO, in fiscal period of order date or due date
Signature process for approving budget overruns

Receiving

Receive by supplier, PO number or product
Assign putaway locations
Record lot numbers and serial numbers
Inspect QC products and calculate expiration dates
Receive full or partial quantities and products not on PO; option to disallow over-receipts
Record rejected and disputed receipts

Requests for Proposal

Enter manually or copy from purchase requests
Issue RFQ's to any number of vendors
Send follow-up reminders to vendors
Record vendor quotes, terms and conditions
Automatically generate pricing records

Supplier Invoice Entry

Vary entry based on user-defined parameters and by invoice type (normal, memo, third-party)
Load lines from original PO or receipt
Match invoice to PO and receipt information

Purchase Requests

Enter manually or generate automatically from replenishment requirements
Pre-commit amounts against budgeted expenditures (encumbrance accounting)
Optional multi-level approval cycle

Purchase Order Entry

User-defined order types for varying prompts, displays and event sequencing
Vary receiving sites and delivery dates by line item
Access previous purchase prices during entry
Enter and default product information by supplier product
Track product group price thresholds for obtaining free freight
Issue purchase orders (hard copy or electronic)
Order status inquiries by PO, supplier and product
PO revision control with ability to replicate one change across multiple line items

Supplier Returns

Enter manually or copy from PO or receipt
Tracking of return reasons and lot numbers
Option to cancel order or reinstate on same PO line, new PO line or new PO

Accounting Integration

Track invoices to be received
 Online update of GL when validating invoices
 Post invoice variances automatically
 Define installments and track payments
 Update inventory receipt costs AUC, last, FIFO, average lot, order

Pricing and Units of Measure

Automatic pricing by line item according to pricing rules with ability to edit
 Automatically factor discounts and charges into net price or break out separately
 Checks for blanket order discounts and minimum purchase amounts and quantities
 Converts order quantities into purchasing units
 Converts quantities into supplier packing units

Standard Reports

Open purchase orders, purchase requests, RFQ's and contracts
 Receiving worksheet (expected receipts)
 PO receipts log
 Supplier return preparation list
 Calculates statistics in real time or deferred

Closing Unfulfilled Purchase Orders

Automatically close lines within user-defined tolerance
 Force close status on unfilled lines outside of tolerance

Supplier Performance Measurements

Lead time
 Price
 Quality
 Quantity
 User-defined metrics
 Provides total percentage to compare with other vendors

Statistics and User-Defined Reports

User-defined statistical formulas and calculations - such as supplier ABC rankings, average number of receipts per PO, etc.
 User-defined reports using Crystal Reports™

Workflow

Controlled by signature management specifically for PO processing
 Available globally based on any significant event trigger

Signature Management

Multi-level approval process
 Purchase requests
 Purchase orders
 Contracts

Integrated with Stock Replenishment

Lists open requirements based on date PO is required to meet due date
 Calculates due dates based on vendor lead time
 Reorder based on reorder points or periods of coverage
 Inventory

Inventory

Product Categories

Manufactured
 Purchased
 Subcontracted
 Phantom
 Internal (supplies and capital equipment)
 Services

Descriptive Product Information

User-defined numbers, descriptions and notes
 Attached images and documents (such as MSDS)

Supporting information for sales and purchasing
 (warranty periods, non-stocks and substitutes and superseding)
 Life cycle validity dates

Quality Control

Flexible definition of questions and responses
 Tracks accepted, rejected and expired stock
 Performed with or without lot control
 Receiving, storage and pre-shipping inspections
 Historical transaction inquiries for traceability

Location Management

Flexible location numbering formats
 Dedicated, random and dynamic storage types
 Suggested putaway and picking location assignments
 Dedicated to single or multiple items/locations
 Immediate, delayed or blocked access
 Consigned inventory tracking at third-party sites

Stock Management

Track inventory by physical location
 Lot numbers and sub-lots
 Quality status and disposition (accepted, rejected, in QC)
 Serial numbers
 Expiration dates
 Potency
 Issue stock based on first-in or first-expired
 International Units management
 Forward and backward traceability

Multiple Units of Measure

Inventory units
 Sales units, by product and customer product
 Purchasing units, by product and supplier product
 Packing units
 Statistical units
 Fixed or variable conversion factors
 Define decimal quantities up to six digits

Inventory Balances

On-hand
 Allocated
 Reserved
 QC
 Available
 On-order
 Backordered
 Transferred
 In-transit
 Available-to-promise

Stock Inquiries

Quantities by warehouse
 Stock details by warehouse
 Location contents
 Expired and expiring stock
 Projected stock quantities
 Lots
 Serial numbers
 Available-to-promise
 Stock movements
 Allocation details
 Potency

Physical Counting

Cycle, spot, annual and zero stock counts
 Option to include serial number validation
 Select products based on ABC class
 Enter, review and validate physical counts
 Maintain last count data by product/size

Inventory Replenishment

Calculates reorder points and EOQs
 User-defined safety stock factors
 Calculates periods of coverage and lot sizes
 Use with or without MRP
 Supports min/max

Inventory Costing Methods

Standard
 Revised standard
 Order cost
 Average lot cost
 FIFO
 LIFO
 Average unit cost
 Last cost

Bills of Material

Single or multi-level production and sales bills
 Normal components, variants and options
 Alternate BOM for special customer requirements
 Where-used inquiries
 Copy feature for defining similar BOM structures

Inventory Movements and Transactions

Inter-site (transfers between sites)
 Intra-site (transfers between locations)
 Picking location replenishment suggestions
 Receiving putaway suggestions
 Places locations with expired products on hold
 Complete traceability of all movements
 User-defined inventory quantity adjustments

Statistics and Management Reports

Inventory accuracy based on count adjustments
 Quality control (rejects, expired products, etc.)
 ABC rankings (simulated and actual)
 Supports up to five user-defined statistical product groups (product line, price class, etc.)
 Last activity data by product/site

General Ledger

Chart of Accounts

Simplified charge of account structures with account linking
 Fixed or variable GL account lengths with user-defined mnemonics
 Validity date-controlled
 Financial and quantity amounts
 Collective accounts for storing business partner account activity
 Up to nine user-defined analytical dimensions
 (e.g., departments, cost centers, product lines)

Fiscal Periods

Multiple fiscal calendars per company
 Up to 24 periods per calendar
 Year-end period for adjustments
 Reopen closed periods according to rules

Analytical Dimensions

Define up to nine analytical dimensions
 Financial and quantity amounts
 Multi-dimension analytical pyramids (99 levels)
 Optional use by company and site
 Restricted combinations of accounts and dimensions
 (e.g., no R&D department in New York)

Journal Matching

Manual and automatic
 Collective account journal matching (e.g., payments on account)
 User-defined search priorities
 Match based on amounts, balances, descriptions, references and currencies

Un-matching capability

Multi-Currency Management

Unlimited number of currencies and exchange rates manually entered or imported
 Tracks and posts exchange rate variances
 Currency by company, site and account
 Multiple currency types (company, business partner and reporting)
 Multiple exchange rate types daily, monthly, average
 Euro-compliant

Multi-Company Processing

Multiple companies with same or different account structures
 Inter-company transactions and eliminations
 Consolidate results
 Multiple fiscal calendars

Financial Integration

Automatic journals from sales, PO, AR, AP, etc.
 Real-time or deferred posting

Allocations

Redistribute to and from any account
 Perform multiple allocation passes
 Define recurring allocations based on fixed or variable amounts

Budgeting

By company or site
 Financial and quantity amounts
 Up to three dimension views (e.g., sales by channel by product line)
 Track budgets against pre-committed and committed amounts from purchasing
 Actual vs. budget comparisons
 Unlimited revised budgets
 Enter manually, import from spreadsheets or use formulas
 Adjust budgets based on monthly weighting factors
 (e.g., seasonal profiles)
 Create budgets using cost allocation ratios (e.g., overhead by department)

Journals

Manual journal entry with user-defined entry screens and processing rules
 Multiple types of automatic journals
 Temporary and final status controls
 Recurring journals - fixed by period or variable
 Distribute total amount based on monthly weighting factors (e.g., seasonal profile)
 Simulated journals (active and inactive)
 Model journals (templates)
 Perform automatic accrual reversals on user-defined date
 Currency variances

Commitment Accounting

Budget controls for PO pre-commitments and commitments
 Multi-dimensional inquiries
 Zooms from general to details
 Multi-criteria search
 Accounts, account balances, dimensions and dimension balances
 Inquiry of analytical dimension pyramids (groupings) with successive zooms

Financial Extraction and Reporting

Operating statements and balance sheets
 Other financial reports - trial balances, etc.
 Integrated with FRx™ and F9™
 Inquiry screens or hard copy
 User-defined row and column content and formats
 Reporting codes and company group codes to restrict report content
 User-defined reporting periods and accounts
 Consolidated, company and site-level reporting

AR/AP

Integrated with Sales and Purchasing

Automatic generation of receivable and payable items from sales and purchase invoices
Multiple invoice types (normal, credit, returns)

Multi-Currency Management

Unlimited number of currencies and exchange rates manually entered or imported
Tracks and posts exchange rate variances
Multiple currency types (company, business partner and reporting)
Multiple exchange rate types (daily, monthly, average)
Euro-compliant

Business Partner Roles and Types

One parent for multiple business partner types and roles
Flag business partner as customer, supplier, carrier, sales rep, factor or miscellaneous
Multiple ship-to, bill-to and pay-by suppliers per parent
Multiple buy-from, bill-from and pay-to suppliers per parent
Unlimited contacts and addresses per business partner

User-Defined Cash Collection Process

Enter and apply payments
Select single or multiple banks for deposit
Generate deposits and create deposit slips
Post cash to GL

Cash Application Methods

Dunning Letters/Reminders

Optional by business partner
Send based on single late invoice or to business partner for all invoices
Multiple levels
Reminders for installment payments

Flexible AP Payment Process

Payment proposals (simulated or real)
Payment selections (manual or automatic)
Pay partial or full amounts
Optional item and payment approval, multi-level
Select single or multiple bank accounts (prorated)
Check writing with restart and number controls
Check voiding with item reinstatement
Check reconciliation by check or bank statement
Import bank statements

AP Payment Proposals

By payment method, business partner, site
By due date, minimum and maximum amount
Pay from single bank account or prorate across multiple bank accounts

Credit Management

Inquiry of complete customer account
Credit insurance amounts by business partner
Authorized credit amount and current available credit calculations
Customer hold/release management
Tracks credit position with suppliers

Manual Invoice Entry

Enter customer invoices for miscellaneous sales
Multiple invoice types including proforma
Enter vendor invoices for miscellaneous purchases
Automatically detects duplicate invoice numbers

Open Item Management

Inquiries based on user-defined criteria
Prepayments
Installment payments with multiple due dates and payment methods

Multiple payment methods and types (check, EFT, credit card with user-defined processing rules)
Edit open items (e.g., extend due dates)
Send statements, optional by business partner
Track disputed items

Flexible Payment Terms

User-defined rules for calculating item due dates
Split item amount by percentages and create multiple due date installments
Share terms between AR and AP
Automatically calculate item due dates based on user defined rules
Automatically adjust due date to next workday based on pre-defined calendar
Automatic use of alternate payment term if amount due is less than pre-defined minimum

Cash Application Methods

Automatic payment matching
Apply by invoice and amount
Apply fully or partially
Sort items by date, amount, etc. prior to applying
Apply against range of invoices
Enter payments on account
Apply by invoice statement
Re-apply mistaken applications

Multi-National Requirements

"Southern European" accounting
Draft management
VAT
Analytical accounting



Accelerate you Business Performance