

# Process ERP Software Selection RFP Template

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Description:

The simplified definition of enterprise resource planning (ERP) software is a set of applications that automate finance and human resources departments and help manufacturers handle jobs such as order processing and production scheduling. ERP began as a term used to describe a sophisticated and integrated software system used for manufacturing. In its simplest sense, ERP systems create interactive environments designed to help companies manage and analyze the business processes associated with manufacturing goods, such as inventory control, order taking, accounting, and much more. Although this basic definition still holds true for ERP systems, today its definition is expanding.

Today's leading ERP systems group all traditional company management functions (finance, sales, manufacturing, human resources) and include, with varying degrees of acceptance and skill, many solutions that were formerly considered peripheral (product data management (PDM), warehouse management, manufacturing execution system (MES), reporting, etc.). While during the last few years the functional perimeter of ERP systems began an expansion into its adjacent markets, such as supply chain management (SCM), customer relationship management (CRM), business intelligence/data warehousing, and e-Business, the focus of this knowledge base is mainly on the traditional ERP realms of finance, materials planning, and human resources. For more information on ERP, see:

ERP Beginner's Guide In So Many Words

The Essential ERP - Its Genesis & Future

Essential ERP - Its Functional Scope

The ERP Market 2001 And Beyond - Aging Gracefully With The 'New Kids On The Block'

Where Is ERP Headed (Or Better, Where Should It Be Headed)?

The old adage is "Such a beginning, such an end", and, consequently, many ERP systems' failures could be traced back to a bad software selection. The foundation of any ERP implementation must be a proper exercise of aligning customers' IT technology with their business strategy, and subsequent software selection. This is the perfect time to create the business case and energize the entire organization towards the vision sharing and a buy in, both being the Key Success Factors (KSFs). Yet, these steps are very often neglected despite the amount of expert literature and articles that emphasize their importance.

Goal:

The Process ERP Knowledge Base anticipates as many factors as possible that will assist businesses in the process manufacturing field. The knowledge base includes criteria for determining batch control and reporting, formula and routing, and material management capabilities. It also provides information for other enterprise management modules.

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### 1 Financials

This encompasses modules for bookkeeping and making sure the accounts are paid or received on time.

#### 1.1 General Ledger

General ledger keeps centralized charts of accounts and corporate financial balances. It supports all aspects of the business accounting process. In this module, financial accounting transactions are posted, processed, summarized, and reported. It maintains a complete audit trail of transactions and enables individual business units to view their financial information, while parent companies can roll up all business subsidiaries and view the consolidated information. The software should support the functionality such as chart of accounts structure; ledger development and maintenance; financial consolidation and reporting; journal entry; journal voucher ledger transactions; project cost ledger; ledger controls; multicurrency accounting and conversions; on-line inquiry reporting; financial statement reporting; financial report writer; variance analysis; and additional financial reporting.

#### 1.2 Accounts Payable

Accounts payable schedules bill payments to suppliers and distributors, and keeps accurate information about owed money, due dates, and available discounts. It provides functionality and integration to other areas such as customer service, purchasing, inventory, and manufacturing control. The software should support the following functionality: AP company policies and procedures; suppliers/voucher master data; payment controls; invoice processing and aging analysis; payment processing; journal voucher processing; AP ledger posting; check processing; AP transactions and controls; and AP reporting.

#### 1.3 Fixed Assets

Fixed assets manages depreciation and other costs associated with tangible assets such as buildings, property and equipment. The software should support the following functionality: fixed assets records; asset transactions; asset depreciation; depreciation

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books; revaluation and interest calculation; and tax reporting.

### 1.4 Cost Accounting

Cost accounting analyzes corporate costs related to overhead, products, and manufacturing orders. It provides a variety of costing approaches such as standard, FIFO, LIFO, average, target, and activity-based costing (ABC). The software should support the following functionality: cost data; cost allocation definitions; cost allocation process; cost management; cost and sales price calculation; activity based costing (ABC); and activity based cost tracing and tracking.

### 1.5 Cash Management

Cash management involves the capability of the system to record cash charges or deposits, recording of cash payments and receipts, cash projection reporting, calculation of expected cash uses/sources, current cash availability, etc. It monitors and analyzes cash holdings, financial deals, and investment risks.

### 1.6 Budgeting

Budgeting involves budgetary controls, budget accounting, budget development, and budget allocation. The software should provide sufficient tools to enable detailed budget development and analysis. Additional functionality should be available to integrate with project management software applications either natively or with external interfaces.

### 1.7 Accounts Receivable

Accounts receivable tracks payments due to a company from its customers. It contains tools to control and expedite the receipt of money from the entry of a sales order to posting payments received. The software should support the following functionality: AR company policies and procedures; customers/voucher master data; bill processing and aging analysis; credit management; cash/payment application, receipt processing; journal voucher processing; AR ledger posting; multicurrency accounting and conversions; AR transactions and controls; and AR reporting.

### 1.8 Financial Reporting

Financial reporting enables robust analysis of company performance through delivered reports. These reports will allow individual business units to view their financial information, while parent companies can roll up all business subsidiaries and view the consolidated information. Additionally, solutions should provide user generated reporting tools that are easy to use and provide sufficient depth of and access to the financial data to permit comprehensive analysis.

## 2 Human Resources

Human resources encompasses all the applications necessary for handling personnel-related tasks for corporate managers and individual employees. Modules will include personnel management, benefit management, payroll management, employee self service, data warehousing, and health and safety.

### 2.1 Personnel Management

Personnel management automates personnel processes including recruitment, personnel profile, organizational structure, career development & training, reward management, job position and wage profiles, and business travel and vacation allotments. The software should support the following functionality: recruitment management; personnel information and tracking; organizational structuring; job position and salary profile; career development, training and performance management; compensation management; budgeting and cost control; government compliance reporting; expenses management; union information; discipline actions and grievances tracking; and employment history/personnel reporting.

### 2.2 Benefits

Benefits administers a diverse range of benefit plans such as health and medical, life and supplemental life insurance, accidental death and dismemberment (AD&D), disability plans, flexible benefits, 401(k) plans, profit sharing plans, stock plans, retirement plans, and leave plans including vacation and sick leave accruals. The software should support the following functionality: base benefits; employee benefit plan profile; benefits administration; and pension administration.

### 2.3 Payroll

Payroll handles accounting and preparation of checks related to employee salaries, wages, and bonuses. The software should support the following functionality: employee payroll profile; earnings and deductions; eligibility controls; user balances; tax deductions and calculation; payroll calculation; payroll and payment processing; check processing and printing; labor distribution and accounting; payroll and regulatory reporting; IRS documentation; security and audit; and automated timesheets.

### 2.4 Employee Self-Service

Employee self-service lets workers access their personal information and benefit allocations on-line to manage life events and benefit selections without having to send forms to human resources. The software should also support benefit enrollment programs and new hire initiation.

### 2.5 Data Warehousing

Data warehousing simply defined, is a place for data, whereas data warehousing describes the process of defining, populating, and using a data warehouse. Creating, populating, and querying a data warehouse typically carries an extremely high price tag, but the return on investment can be substantial.

### 2.6 Health and Safety

Health and safety provides the tools to administer compliance with the health and safety regulations, accident and injury reporting, and tracking of lost time by employee.

## 3 Process Manufacturing Management

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Manufacturing management encompasses a group of applications for planning production, taking orders, and delivering products to the customer.

### 3.1 Formulas/Recipes

### 3.2 Process Model (Formulas + Routings)

### 3.3 Process Batch Control and Reporting

### 3.4 Conformance Reporting

### 3.5 Process Manufacturing Costing

### 3.6 Material Management

### 3.7 Product Costing

Product costing analyzes product costs related to overhead, labor, material, and manufacturing costs. It provides a variety of costing approaches such as standard, actual, and average.

### 3.8 Shop Floor Control

Shop floor control provides control and tracking of the status of production orders in the plant. It involves production orders dispatching, capacity planning, resource allocation, production tracking and reporting, and waste/reject tracking.

### 3.9 Production Planning

Production planning performs capacity planning and creates a daily/weekly/monthly production schedule for a company's manufacturing plants. It involves forecasting, production scheduling, and material planning.

## 4 Inventory Management

Inventory Management encompasses a group of applications for maintaining records of warehoused goods and processes movement of products to, through and from warehouses.

### 4.1 Inventory Management On-line Requirements

### 4.2 Processing Requirements

### 4.3 Data Requirements

### 4.4 Reporting and Interfacing Requirements (Inventory Management)

### 4.5 Locations and Lot Control

### 4.6 Forecasting

### 4.7 Reservations and Allocations

### 4.8 Inventory Adjustments

## 5 Purchasing Management

Purchasing Management encompasses a group of applications that controls purchasing of raw materials needed to build products and that manages inventory stocks. It also involves creating purchase orders/contracts, supplier tracking, goods receipt & payment, and regulatory compliance analysis and reporting.

### 5.1 Vendor and Supplier Profile

### 5.2 Supplier Rating and Profile

### 5.3 Requisitions and Quotations

### 5.4 Purchase Orders

### 5.5 Prices and Discounts

### 5.6 Vendor Contracts and Agreements

### 5.7 Purchase Order Management

### 5.8 Procurement Reporting, On-line Reporting Capability

### 5.9 Repetitive Vendor Procurement

### 5.10 Procurement Receipts

### 5.11 On-line Requirements

### 5.12 Reporting and Interfacing requirements (Purchasing Management)

### 6 Quality Management

Quality management encompasses applications for operational techniques and activities used to fulfill requirements for quality control, inspection plan creation, and management, defective item control and processing and inspection procedure collection planning.

- 6.1 Defective or excess material return processing must update on-hand
- 6.2 Damaged material--corrective action and failure analysis available to vendor on-line
- 6.3 Inspection required indicator by supplier and by item
- 6.4 Pre-inspection receipts registered as "inventory on hold"
- 6.5 On-line inquiry of inspection and material review board (MRB) queue
- 6.6 Validation against automated inspection criteria
- 6.7 Inspection disposition with audit trail
- 6.8 Disposition delinquency report
- 6.9 Quantity rejected
- 6.10 Reject reason codes
- 6.11 Open rejections report
- 6.12 Non-conformance processing
- 6.13 Corrective action creation and tracking
- 6.14 Reject status: no disposition, awaiting vendor approval
- 6.15 Rework status: waiting for rework manufacturing order
- 6.16 Use as is status: awaiting QA variance memo
- 6.17 Return-to-vendor status: awaiting shipment
- 6.18 Overall supplier quality, survey data and letters
- 6.19 On-line return-to-vendor
- 6.20 Customer return file: awaiting disposition
- 6.21 Automatic rescheduling of return-to-vendor items
- 6.22 Approved items substitution listing for each item
- 6.23 Approved vendor for each item number
- 6.24 Return note printing
- 6.25 Return-to-vendor debit memo printing
- 6.26 Recalculation of average cost
- 6.27 Quality data on-line
- 6.28 Requirements grouping using collection plans
- 6.29 Quality document linkage with product master within PDM

### 7 Sales Management

Sales Management encompasses a group of applications that automates the data entry process of customer orders and keeps track of the status of orders. It involves order entry, order tracing and status reporting, pricing, invoicing, etc. It also provides a basic functionality for lead tracking, customer information, quote processing, pricing & rebates, etc.

- 7.1 On-line Sales Management Requirements
- 7.2 Reporting and Interfacing requirements
- 7.3 Available-to-Promise (ATP)

Automated available-to-promise (ATP) is achieved by giving order takers access to inventory and capacity information, and in some cases even vendor information, so that they are able to commit to reliable delivery dates while the customer is still on the phone.

- 7.4 Pricing and Discounting

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Pricing and discounting modules help automate the data entry process of customer orders and track the status of orders. It involves order entry, order tracing and status reporting, pricing, and invoicing. It also provides basic functionality for lead tracking, customer information, quote processing, and pricing and rebates.

### 7.5 Customer Service and Returned Goods Handling

### 7.6 Customer Relationship Management (CRM) and E-commerce Requirements

Ranges from simple, off-the-shelf contact management solutions to high-end interactive selling suites that combine sales, marketing, and executive information tools. These include product configuration, quote and proposal management, and marketing encyclopedias. Some systems extend functions to include complex pricing, promotions, commission plans, team selling, and campaign management. Enterprise-level solutions installed at large companies with hundreds or even thousands of users have capabilities for call centers/help desks, field service, forecasting, and analysis.

## 8 Product Technology

This category defines the technical architecture of the product, and the technological environment in which the product can successfully run. Criteria include product and application architecture, software usability and administration, platform and database support, application standards support, communications and protocol support and integration capabilities. Relative to the other five evaluation criteria, best practice selections place a lower relative importance, on the product technology category. However, this apparently lower importance is deceptive, because the product technology category usually houses the majority of the selecting organization's mandatory criteria, which usually include server, client, protocol, and database support, application scalability and other architectural capabilities. The definition of mandatory criteria within this set often allows the client to quickly narrow the long list of potential vendors to a short list of applicable solutions that pass muster relative to the most basic mandatory selection criteria. During the process of product selection a great deal of attention is given to the functional capabilities of the software being evaluated. While this aspect is obviously important, ignoring the technical mechanisms by which the software actually operates can be fatal to a project.

### 8.1 Architecture

### 8.2 User Interface

### 8.3 Platforms

### 8.4 Application Tools

### 8.5 Workflow and Document Management

### 8.6 Reporting