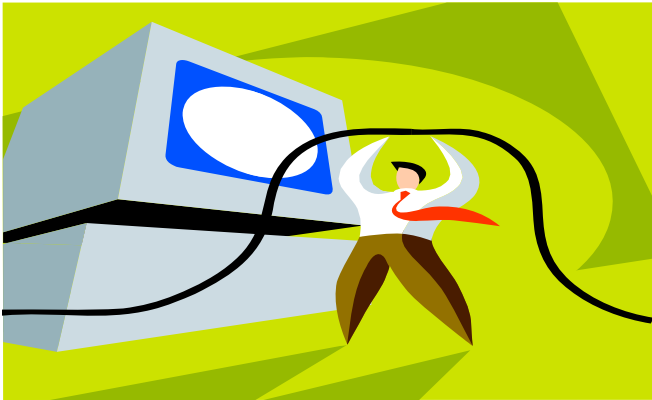


# FrontERP

*TASK MANAGEMENT*

*CRM*

*SALES & DISTRIBUTION*



*eCOMMERCE*

*FINANCIALS*



# Introduction

FrontERP is web enabled Enterprise Resource Software (ERP) available in Java/ J2EE. Below are its features

- Standards based
  - It is easy to learn for those familiar with similar software
  - It is easy to reuse existing software based on the same standards
  - It is easy to integrate with other internal or partner systems
  - Based on: Sun Java, J2EE; W3C XML, HTML, SOAP; WfMC XPDL; OMG GL, Party, Product, Workflow
- All applications built on the same framework, tools & components
  - No need to learn and use many different technologies
  - No need to integrate applications
  - No need to deal with limited features because of poor integrations between disparate technologies
  - Huge cost savings because of consistent and easy to maintain components
- Standards based flexible and generic data model
  - Covers all major entities used in businesses
  - Provides a structure to simplify the achievement of custom data needs
  - Uses common terms for entity names to make it easier to understand and use
- Flexible and efficient to use data layer
  - No database system lock-in; supports many different databases
  - No need to write redundant persistence code and configuration
  - Easy to use XML data definitions
  - Powerful API offers generic operations that behave differently based on data definitions
  - Most operations can be done with a single line of code and no need to write supporting code
- Loosely coupled multi-layer component architecture
  - It is easy to customize and reuse components
  - It is easy to build new applications through the composition of existing components
  - It is easy to find code and other components based on consistent patterns
  - Components can be replaced without breaking other components because of well defined and managed dependencies
- Distributed architecture
  - It is easy to scale multiple servers or pools of servers
  - It is easy to seamlessly integrate & communicate with other systems
- Service based logic layer
  - All logic modeled as a service
  - Makes it easy to reuse logic
  - Services can be automatically exposed as Web Services
  - Makes it easy add custom user interfaces, even many at once
  - Makes it easy to distribute the system over multiple servers
  - Makes it easy to communicate with other systems
- Advanced web application framework
  - Separates input processing logic, view data preparation logic and view presentation templates
  - Supports many different types of logic, including scripting languages and services

- Supports many different types of view templates including XML/XSLT, FreeMarker, Velocity, JSP, and any other
  - Tracks all visits and page hits for security and marketing purposes
  - Keeps statistical traffic and performance data since server start and in time bins
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## Components

### 1. eCommerce

- Perfect for B2C and B2B eCommerce
- Can be easily configured for secure or public catalog viewing
- Supports automatic switching from HTTP (insecure) to HTTPS (secure) and back based on protection desired for each page
- Product Finding
  - Product search
    - Supports any combination of constraints per search, including keyword, category, feature, and other constraints
    - Indexed Product Keyword Constraints
      - Can search for all keywords specified or any keyword specified
      - Configurable stop words are removed during indexing and searching so they won't affect search results
      - Configurable suffixes (such as -y, -ies, etc) are removed during indexing so they won't affect search results
      - Different product fields can be weighted differently when indexing
    - Category Constraints
      - Can restrict search to products in a given category; this makes it possible to only have the products for the active catalog show up in keyword search results and other effects
      - Can search in a category and include all child categories
      - Can include multiple categories in the search to get a cross section of products in the categories, ie the products must be in all categories
    - Can restrict search to products with a given feature applied
    - Search results are ordered by default based on keyword weights determined during indexing, other orderings are supported as well
    - When search results are presented all constraints are listed that were used in the search and any one can be removed
  - Product category browse
    - Expandable browse tree shows current category context in the left column on relevant pages (by default)
    - Products in a category can be laid out with different templates assigned to different categories, and different sub-templates assigned to different products
    - By default 10 products are shown at a time and you can go to previous and next pages (these settings are easily changed)
    - Products can belong to multiple categories
    - Sub-categories can belong to multiple parent categories
    - Root browse category will change automatically based on the settings associated with the active catalog

- All product, category and catalog associations are effective dated with from and thru dates
    - Unlimited number of products, categories and catalogs
  - Product detail view
    - Displays large product image (if one is specified), with a link to the detail image (if one is specified)
    - Displays all relevant product information including name, short & long descriptions, price, whether or not inventory is available, etc
    - Displays all cross-sells, up-sells, products deprecated by this product, products that deprecate this product, and any other desired associated product through simple template changes
    - For products with variants (aka "virtual" products) shows drop downs for each feature type that is associated as a selectable feature; to handle available feature combinations shows all available in the first drop down, and each additional one is populated when a selection in a previous drop-down has been chosen
    - For products with variants can display small images for each of the features of the first selectable feature type; a useful application of this is having the color be the first selectable feature type and having small images for each different color; when large images are associated with the variant products the large image will change as corresponding features are selected in the drop-down(s)
    - Displays links to previous and next products in the current category for easy browsing through the details of a given category
    - With flexible product attributes and features additional structured information can easily be added and displayed just how you want
  - Special categories
    - Shown on special pages like the main page
    - Examples include top 10 most popular, promoted items, new items, etc.
    - These categories are attached to the active catalog
  - Cross-sells and up-sells
    - Modeled as special types of product associations
    - Can also include product deprecations, marketing packages, etc
    - Shown on the product detail page for each product
  - Shopping cart random cross-sells
    - Random cross-sells are chosen from all items currently in the shopping cart
    - Shown three at a time; when more than three unique products are available a different set is chosen on each new page
    - As a product is added to the shopping cart it is no longer shown
    - Displayed on the shopping cart detail page
    - Displayed in a small box in the right column underneath the mini shopping cart on relevant pages (by default)
  - Quick re-order
    - Re-order list built from products previously ordered
    - List is weighted by quantity ordered and frequency of ordering
    - Default re-order quantity is an average of all quantities previous ordered for a given product
    - Only the top five are shown at any given time
    - As a product is added to the shopping cart it is no longer shown
    - Displayed in a small box at the bottom of the right column on relevant pages (by default)
- Promotions
  - Promotion Conditions Supported
    - Cart Sub-total
    - Total Amount of Product

- X Amount of Product
    - X Quantity of Product
    - Account Days Since Created
    - Party
    - Role Type
  - Promotion Actions Supported
    - Gift With Purchase
    - Free Shipping
    - X Product for Y% Discount
    - X Product for Y Discount
    - X Product for Y Price
    - Order Percent Discount
    - Order Amount Flat
  - Use limits per order, customer, promotion
  - Promotion Codes
    - Can be required for promotion to apply
    - Use limits per customer, code
    - Can be restricted to only allow use by a customer with a specific email address or party ID
  - Can associate products and/or categories with the entire promotion or a specific condition or action, support include, exclude, and always associations
  - With conditions and actions can support buy X get Y free (or for Z% discount) and many other options
- Rule Based Pricing
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- Customer Profile
  -
- Shopping Cart & Checkout Process
  -
- Order History
  -
- Affiliate & Marketing Data

## 2. Party Manager

Note: A Party can be either a Person, or a group of Parties. A Party Group could be a company, an organization within the company, a supplier, a customer, and so forth. Information that describes Parties or is directly related to Parties is contained in these entities.

- Party Types: Persons and Groups
- Finding Parties
- Party Data Maintenance
  - Personal Data
  - Organization Data
  - UserLogin & Security Data
  - Contact Mechanisms: Telecom Number, Postal Address, Email Address, Web Page Address, etc.
  - Payment Mechanisms: Credit Cards, EFT Accounts
  - Party Roles
  - Party Relationships
- Security Data Maintenance
  - Security Permissions
  - Security Groups
  - UserLogin Group Membership
  - Group Permission Association

## 3. Marketing Manager

- Tracking Code Management
- Marketing Campaign Management
  - Central place to track marketing activities
  - Right now includes promotions and tracking codes

## 4. Catalog Manager

Everything involving your products that will be seen by your customers is managed from here.

- Product Stores
  - Identify the venue from which sales will be made
  - Select which stores will handle which catalogs, categories and products
- Product Catalogs
  - Create new catalogs
  - Develop collections of products or categories, assigning them to their related catalogs
  - Associate product with price, location, availability, features, graphics, and other details
- Product Categories
  - Specify what products or features will be gathered under what categories
  - Create categories as needed here
- Products
  - Define products
  - Describe products
  - Associate graphic images with products
  - Gather information on facilities, inventory, content, IDs, keywords, associations, suppliers, attributes, and more

- Product Features
  - Add, delete or modify features as shown in the catalog for any product
  - Changes to features can be date defined to start and to stop
- Price Rules
  - Prices can be modified at a working employee or ordering level when the rules are defined here for price variations such as discounts, special sales conditions, etc.
  - Create names (IDs) for prices rules to be applied to events, categories, products, stores, etc.
- Promotions
  - Define product promotions
  - Specify text for promotion
  - Specify rules for administration
  - Identify stores for applicability
  - Assign tracking codes

## 5. Facility Manager

- Facility Management
  - Facility
    - Facility can be a Warehouse, Retail Store, Office, Building, Meeting Room, etc, etc.
    - Inventory & Warehouse Management
      - Inventory Location Management
      - Pick/Primary and Bulk Location Management, set thresholds for recommend replenishment stock moves
      - Inventory Management: Quantity On Hand & Available To Promise with Order Inventory Reservations and Item Issuance for Shipments
      - Pick & Pack Management with picklist generation, supports limited number of orders per picklist, sorts list by location, can generate pick lists separately for different shipment methods
      - Handles order splitting preference to ship all at once or as available
      - Order only included in picklists when sufficient inventory is on hand in pick/primary locations
      - Streamlined or detailed packing and shipping processes with serial scale support for weighing and label printing support
  - Facility Group
    - Grouping facilities under a common topic enables consolidated assignments or instructions
    - Group features
      - Rollups (parent/child relationships)
      - Role assignments
        - Party to group
        - Group to party
      - Time of existence or relationship
        - From
        - Thru
- Shipment Management
  - Parties
    - Contact mechanism content
  - Automatic Shipment Creation from Purchase and Sales Orders
    - Estimated Costing

- Latest Cancel Date
- Shipment Scheduling
- Shipment Items
- Shipment Packages
- Shipment Item Package Assignment
- Shipment Route Segments
- Shipment Package Route Segment Assignment
- Generate a Shipment Plan
- UPS XML-based Integration (XPCI)
  - Confirm Shipment (gets tracking number, pricing and other information)
  - Accept Shipment (gets shipping label image and finalizes the shipment)
  - UPS then knows what to pickup and has all information about shipments and packages
  - Void Shipment
  - Track Shipment (updates tracking info)

## 6. Order Manager

- Search for existing orders
  - By Order ID or Customer PO#
  - By Product ID
  - By Role Type <>By Party ID or User LoginID
  - By Order Type <>By Store or Web Site
  - By Status
  - With Date Filter
- View existing orders
- Order Entry
  - Sales Orders
  - Purchase Orders
- Purchase Order Receipt Scheduling
- Back Orders: includes customer notification, delivery estimates, partial CC settlements, CC refunds, etc
- Returns & Refunds: based on order items, track reasons, put refunds on CC, billing account, mail a check, store credit, etc; assisted creation of replacement order

## 7. Financials

- General Ledger Accounts
  - View Chart of Accounts
  - Create New GL Account
  - Edit an existing GL Account
- Billing Accounts
  - Find a Billing Account
  - View/Edit a Billing Account
    - Delete
    - Update
    - Modify Roles
    - Modify/Create new Terms
    - Find/View Invoices
    - Payments
- Invoices
  - Find/View existing Invoices
  - Automatic Invoices from Purchase and Sales Orders
- Payments

- Find a Payment Received
  - by Payment ID
  - by Payment Method Type
  - by Status
  - From/To Party
  - with Date Filter
- Record a Manual Transaction

## 8. Task Manager

- Track work efforts
  - Tasks & to-do items
    - Hierarchical items for projects, phases, tasks, sub-tasks, etc.
    - Assign items to multiple parties
    - Track priority, cost estimates, etc
    - Track estimated and actual: start times, end times, durations
  - Calendar events
    - Manage shared and private scheduled calendar event
    - View by day, by week or by month
    - Notify other parties of events, tasks, assignments, and accomplishments
  - Workflow activities
    - View all activities assigned to you
    - View all activities assigned to a role or party group that you belong to
    - Update the status of your involvement in the activity
    - Based on your status updates the system will automatically update the activity status
    - Custom templates and views can be added to display information related to each activity from the workflow process context or other database data
  - Work efforts are associated with the cost side of the Cost-Benefit analysis; to manage both sides of the comparison work efforts can be associated with requirements or requests
- Track requests
  - Supports requests: for support, for features, for fixes, for information, for quotes, for proposals
  - Associate requests with requirements
  - Associate requests with work efforts (tasks, projects, etc)
  - Each request consists of multiple items, each of which contains details about what is desired
  - The request acts as a package of multiple desired items
  - Each request item contains a "story" of what is desired
  - In the Cost-Benefit scheme of things a request is associated with the benefit side; costs are associated with the resulting work efforts, allowing you to track and manage BOTH sides of the comparison
- Track requirements
  - Used to internally manage required features for a product
  - Usually based on requests, or request items to be more accurate
  - Each requirement contains a "use case" for a more formal description of what is to be created
  - Requirements are also on the benefit side of the Cost-Benefit analysis, but the benefits are generally better understood through associated requests

## 9. Content Manager

- Web Site Management

- Create sites
  - Modify sites
  - Associate parties
  - Assign Hosts and Ports
  - Establish Standard and Secure Content Prefix
  - Specify Cookie Domain
- Dynamic Survey Management
  - Create survey
  - Find existing survey
  - Edit existing survey
- General Information/Concepts
  - Basic Content application screens for creating/updating content, data resources, meta data, content structure, etc.
  - Use slightly modified WYSISWIG editors from WSPublisher for editing of HTML, XML, plain text and other content
  - Tools to mount content structures as webapp resources
  - Associate parties with content for administrative purposes or for things like keeping track of who has read and who must read specific content
  - Categorization and security features so that sets of content can be administered and view by limited groups of users.
  - FreeMarker/XSLT/Velocity to allow for templating in content text, makes it more flexible like JSPs for dynamic content when needed
  - Utility transforms put in the FreeMarker context for content templates that allow for including other content, referring to external resources such as images, javascript files, CSS files, etc.
- Data Resource Management
  - Powerful search engine to find existing resources
  - Specify/Identify resources
  - Locate/Edit Text, HTML, Images, Attributes, Roles and Product Features
- Content Management
  - Specify the Content Setup by updating the Content Type ID for Parent TType Id, description, etc.
- Layout Editor

## 10. WebTools

- Cache Tools
  - Cache Maintenance
    - View cache size and hit/miss statistics
    - Clear all caches, individual caches, even individual cache lines
    - Clear all expired cache entries
    - Manage cache parameters such as size limit, expire time, soft references, etc
    - View individual elements in each cache
- Debug Tools
  - Adjust Debugging Levels
    - Adjust debug log message levels as the application is running
    - Changes here stay until the server is shut down
    - For permanent changes, use the debug.properties file
- Entity Engine Tools
  - Entity Data Maintenance
    - Find, view, create, update, and remove data in any entity
    - Works dynamically according to entity definitions
    - Uses flexible permissions to allow access to all entities, or to a specific set of entities

- Entity Reference & Editing
  - Displays detail about all defined entities including fields, types, table & column names, relationships, etc
  - In main view frame entities are sorted alphabetically by package
  - In the left frame there is an alphabetical list of package and an alphabetical list of all entities
  - Relationships are displayed with links to the related entities, making it easy to browse the data model
  - An editing page can be used to create and modify entity definitions in memory
  - A page that compares entity definitions to the database (just like what is done on startup) and optionally adds missing tables and columns to the database
  - Templates that write the entity model and entity group model XML files in a consistent way for easy comparison (note that these must be used to save in memory entity definition changes); these templates can also be used to output this information to the browser
  - A template that reads database meta-data and creates first pass XML entity definitions which can then be refined according to your preferences
- XML Data Export
  - Exports data from entities as an XML file
  - The XML is structured such that there is one element for each entity instance, and one attribute or sub-element for each populated field in the entity
  - The XML file can be saved to the disk on the server or delivered through the browser to be viewed and/or saved on the client
  - High performance and scalable stream based output technique can export an unlimited number of entity instances in each pass
- XML Data Import
  - Imports data from entities in an XML file
  - The XML is structured such that there is one element for each entity instance, and one attribute or sub-element for each populated field in the entity
  - The XML file can be loaded from the disk on the server or uploaded through a form in the browser
  - High performance and scalable stream and SAX based input processing technique can import an unlimited number of entity instances in each pass
- Service Engine Tools
  - Job List
    - View all scheduled "job" services
    - Displays job ID, start date/time, finish date/time, and service name to invoke
  - Schedule Job
    - Allows the manual scheduling of a named service
    - Can specify interval size and count
    - Can specify an absolute start and finish date/time
    - Can manually add data to the persisted context used for running the service
  - Thread Viewer
- Workflow Engine Tools
  - Workflow Monitor
    - View all running processes
    - Displays package & version, process & version, status, priority, start date, etc for each process
    - Can drill down to see all activity instances that are part of the process

- Displays activity ID, priority, status, start date, complete date and assignments for each activity
    - Links to activity management page in the Work Effort Manager for each activity
    - Links to party profile management page in the Party Manager for each party assigned to each activity
  - Read XPDL File
    - Reads, verifies, and displays an XPDL file
    - Can be located in a file on the server or at any URL location
    - Can verify only, or also write the data to the database for workflow process execution
- Rule Engine Tools
  - Logikus - Run Rulesets
    - Provides a web-based user interface for querying a ruleset containing facts and inductive rules
    - Currently only supports backward chaining
    - Can determine one result at a time or all results at once
    - Many example rulesets are included for experimentation
- Data File Tools
  - View Data File
    - Displays data from flat files based on a format definition file
    - Can write the data file back out to verify the format definition and read/write repeatability
    - Can load data file and format definition file from a URL or file on the server
- Misc. Setup Tools
  - Edit Custom Time Periods
    - Browse, create, update, and delete hierarchical custom time periods
    - Time periods can be associated with an organization party, and browsing time periods can be filtered by party ID
    - Manages fiscal years, quarters, months, bi-week, week and any custom period type
    - Track a period number, period name, from date and thru date with each time period
  - Edit Enumerations
    -
  - Edit Status Options
    -
- Server Hit Statistics Tools
  - Stats Since Server Start
    - Displays server load and performance statistics for each resource, group of resources, and for all resources
    - Tracks data about different types of resources including requests, events and views
    - Displays accumulated data since the server started
    - Links to pages that display the same data for specific time bins
    - Time bin data is persisted for future analysis

FRONT-ERP is based on the open source project of-Biz. We have enhanced it to add more features and also provide support for deploying it on Websphere / Weblogic servers. For more information, please contact Pandu Yelamanchili at 630-281-2852.

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