

Enterprise Software Certification Report

Discrete Enterprise Resource Planning (ERP)
Oracle JD Edwards EnterpriseOne Version 9.0

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Technology Evaluation Centers

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TEC Product Certification Report

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Technology Evaluation Centers (TEC) is pleased to announce that **Oracle JD Edwards EnterpriseOne 9.0** is now **TEC Certified** for online evaluation of discrete manufacturing enterprise resource planning (ERP) systems in TEC's ERP Evaluation Center. This Evaluation Center enables you to compare and evaluate functionality based on TEC's comprehensive model of ERP software. Data used in the Evaluation Center are obtained from the vendor's responses to TEC's request for information (RFI). Certification ensures that product capabilities have been demonstrated to TEC analysts based on the responses Oracle provided in its completed TEC RFI; and that TEC analysts have analytically and comparatively reviewed this data against known benchmarks.

Benefits of Evaluating a TEC Certified Product

There are many benefits to evaluating a **TEC Certified product**. To potential clients of a software vendor, TEC certification provides the following:

- **Reassurance:** You can be assured that the data TEC provides about its certified products conform to a well-defined standard of accuracy. When a vendor's product is TEC Certified, it means that a trusted, independent third party has seen the product up close.
- **Better communication with vendors:** TEC certification helps ensure that vendors understand and respond accurately to their clients' RFI criteria. Certification with TEC analysts provides the opportunity to clarify any issues with the RFI criteria. This ensures that the vendor is speaking the same language as its potential clients—and gives the clients an unambiguous specification of product functionality to inform their selections.

The certification seal is a valuable indicator for organizations that rely on the integrity of TEC's research services for assistance with their software selection projects. Organizations looking for a solution can be confident that they're comparing the product on an "apples to apples" basis with other, similar products.

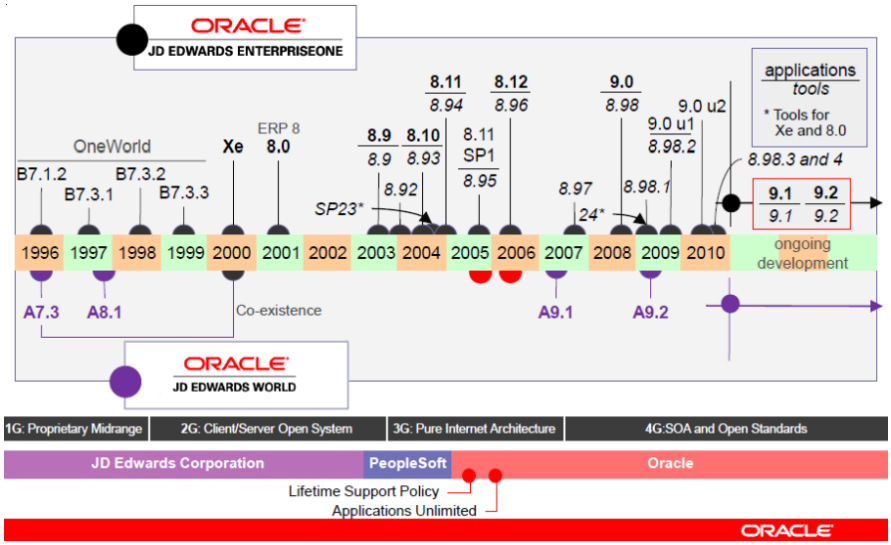


Background and Analyst View

Oracle Corporation is one of the largest business software vendors in the world, with product offerings for ERP, customer relationship management (CRM), human capital management (HCM), project management, business intelligence (BI), business performance management (BPM), supply chain management (SCM), and product lifecycle management (PLM).

JD Edwards was acquired by PeopleSoft in 2003, which in turn was acquired by Oracle in 2005. Through both these acquisitions, the two JD Edwards offerings—World (for IBM iSeries platform), and EnterpriseOne (cross-platform)—have experienced ongoing research and development, resulting in regular and consistent releases of new and enhanced products.

The image below provides a snapshot of the ongoing and consistent product investment in both World and EnterpriseOne. Note: JD Edwards OneWorld was renamed EnterpriseOne upon PeopleSoft's acquisition of JD Edwards in 2003.



Oracle JD Edwards EnterpriseOne 9.0 was released in late 2008. Since then, Oracle has delivered two application updates and four tools updates. These updates include new technologies, application features, products, and integrations, as well as bundled fixes. This methodology of smaller and frequently released updates is part of Oracle JD Edward's strategy to provide customers with updates that are easier to deploy than large major releases.

Oracle JD Edward's products are widely used across many industries, with a customer base ranging from traditional small to medium businesses (SMBs) to very large multinationals. Many of the enhancements in EnterpriseOne 9.0 are targeted at construction, real estate, engineering and professional services, and configure-to-order (CTO) manufacturing. The major improvements include enhanced support for government contract accounting, more options for expense management, and improvements in general ledger performance. Also, enhanced HCM functionality addresses complex needs such as government contract accounting timecard compliance and automated labor reclassification functionality. Finally, manufacturing capability has improved, allowing better flexibility across production-related activities (using tools such as Dynamic Configurator and Advanced Sales Order Kit).

While release 9.0 reflects major enhancements for the aforementioned industries, EnterpriseOne serves a wide range of industries already covered by the product, including agriculture, food and beverage, distribution, energy and natural resources, and industrial manufacturing. Since our product review, Oracle JD Edwards has released two new products: Apparel Management (to support the distribution and manufacturing capabilities unique to the apparel and similar industries that have specific requirements around multiple variables, such as style, color, size, or season) and Fulfillment Management (to prioritize the fulfillment of finished goods inventory for which demand is greater than supply by defining and using customized rules).

Product Highlights

Oracle JD Edwards EnterpriseOne 9.0 supports simple-to-complex business processes, but is also easy to use and well structured. The Web-based interface is user friendly despite sometimes requiring navigation between different screens for complex operations. The system has a good level of interaction with the user, which can be enhanced via tailored alerts, menus, and screens. In addition, the last three tools releases for EnterpriseOne have contained enhancements designed to improve end-user experience, streamline tasks, and improve overall efficiencies. The product road map indicates that these will continue to be areas for ongoing enhancement focus.

From a functional standpoint, the system extensively supports most modules needed by companies in the industries mentioned previously. Some specific submodules need improvement, as described in the **Functionality Benchmarks** later in this document. EnterpriseOne 9.0 can be used with the following databases: Oracle, SQL Server, IBM DB2, or as a hosted solution. Server platforms compatible with the system: IBM iSeries (AS400), Linux, Unix, and Windows Server.

Oracle JD Edwards EnterpriseOne 9.0 offers extensive support for North and South America, Australia, Europe, strong support for Asia and Southeast Asia (including the Far East and Japan), and adequate support for Africa and the Middle East. The system can be used in 21 languages, including English, French, Arabic, Chinese (traditional and simplified), German, Italian, Russian, and Spanish.

Based on four main principles, here are the product highlights for Oracle JD Edwards EnterpriseOne 9.0:

Ease of Use

- **Layout**: Different types of menus are used in the application: drop-down menus; side menus—usually located on the left-hand side, with options for main modules, favorites, buttons to open new windows, help, etc.; and on-screen menus for users to select between different options (such as OK, Cancel, etc.). These are usually accompanied by icons that are consistent across modules.

- **Interface**: The interface uses an Internet browser and can be personalized by the user. The screens can have several tabs, and each tab has well delimited sections, built based on business logic. Additional fields and tabs can be added to the defaults by administrators. Warnings and error messages show up on screen, not in pop-up windows that may be blocked by browser settings. Different colors are used for different message types (e.g., warnings, error messages), and explanations are provided to remind users of the action they are about to perform, or to prompt for a problem fix.

- **Task performance:** Each list of records contains filters for all columns, allowing multiple filters to be used at the same time. Mandatory fields are marked with an asterisk; users cannot navigate away from an empty mandatory field. Several windows can be used in parallel, among which navigation is straightforward. Within a single screen, users can navigate to the previous or next record, as well as to the first or the last entry in a list. Data entry times can be reduced by data relationship rules defined by defaults in the system. For example, upon creating a new customer, when the user enters the ZIP code, the system will pre-populate the city, state, and country fields with the right information. The tasks to be performed in any given module are logically defined and easily accomplished. A “select all” button allows users to select all the records in a list.

Workflow Design

- **Security:** Security can be defined by user, role, and all users. Usually, only administrators can customize screens, grids, reports, etc., but limited rights can also be assigned to regular users. Administrations and monitoring tools can be used to not only define and manage user rights and securities, but also to monitor the components of the system. Default values can be overwritten only by users with specific profiles, based on predefined rules.

- **Reporting capabilities:** Report designs can be changed using the Report Writer, where a wizard guides users through the process and suggests next steps. Besides options to customize the way the report shows the data, the Report Writer allows users to define calculations via formulas. In addition to the hundreds of reports provided out of the box, users can utilize add-on solutions for operational reports, customer-facing reports, and end-user reporting. For customer-facing reports, the Oracle Business Intelligence Publisher reporting tool is provided for all licenses of Oracle JD Edwards EnterpriseOne 9.0 and allows users to produce high-fidelity reports with logos, graphics, multiple formats (e.g., Word, Excel, HTML, PDF), as well as sending reports to printer, or by e-mail or fax, or storing them using file systems. For end-user reporting, Oracle JD Edwards EnterpriseOne 9.0 provides integration with Oracle BI Publisher Enterprise, allowing users to easily access data and enforce security and formatting rules. In addition, customers have an option to license Oracle Business Intelligence Applications (OBIA). Oracle provides out-of-the-box adapters to easily extract, transform, and load (ETL) data, which allows customers to use OBIA for, e.g., financials, sales orders, and manufacturing analytics. These analytical applications can be embedded directly within the ERP application forms, providing users with additional reporting and business insight to support business decisions within Oracle JD Edwards EnterpriseOne applications.

Ease of Modification

- **Flexibility:** Multiple levels of modification are available. For example, users are provided easy-to-use techniques for configuring applications to match the way they work, including the ability to hide/show grid columns, arrange columns by dragging and dropping, and build and save reusable filters to quickly find subsets of records. Users can also format grids for preferred sort order and colors, with options for different font styles. Multiple filters can be used when searching for specific information. Logical operators such as “greater than,” “and,” or “is equal to.” In addition, administrators can modify the base product forms with more sophisticated customizations using the included Forms Design Aid tool. Change management tools are included for governance of changes from development, to testing, to production. Objects such as forms and reports can be moved between different instances.

Innovation

- **Tools for enhanced productivity:** JD Edwards EnterpriseOne Oracle Technology Foundation allows customers to build and manage the infrastructure required for system installation. It includes limited-use licenses of the Oracle Database, Oracle Fusion Middleware (including products that can be used for service-oriented architecture [SOA]), and Oracle JD Edwards EnterpriseOne Tools (tools created to allow system management and functionality extension without jeopardizing system integrity). Oracle Business Accelerators for Oracle JD Edwards EnterpriseOne 9.0 are complete solutions, which include services, hardware, financing, and rapid implementation tools with questionnaire wizards and configuration components. Five major modules are contained within the scope of Oracle Business Accelerator solutions: CRM, distribution, financials, HCM, and manufacturing.

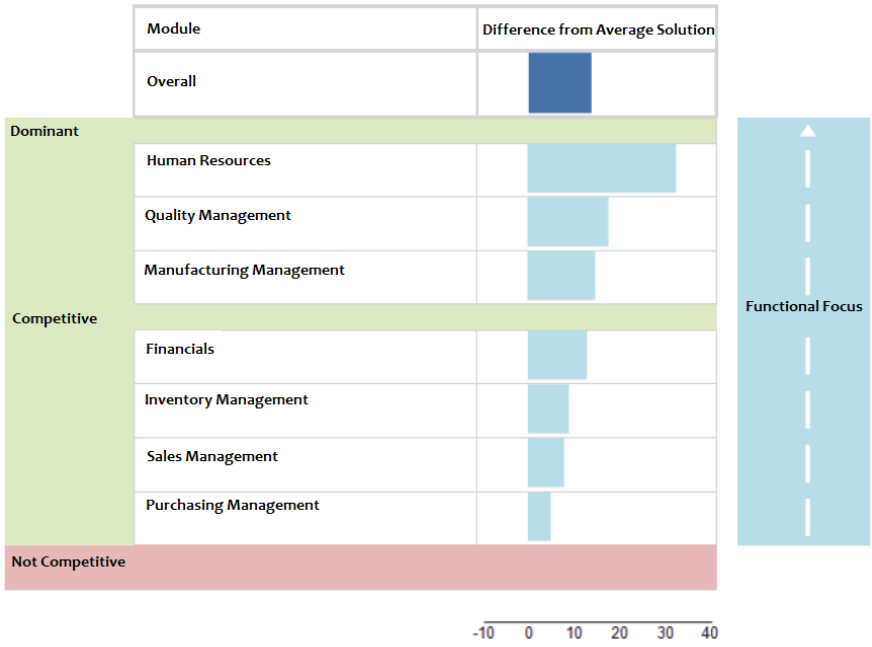
Product Analysis

The following high-level graphs identify this product's functional focus and competitive strengths. All data may be reviewed in depth, using the TEC Advisor decision support system in TEC's public Evaluation Centers.

The TEC Focus Indicator™

This **TEC Focus Indicator** tells you which types of functionality are most likely to differentiate Oracle JD Edwards EnterpriseOne 9.0 from other products in the discrete manufacturing ERP space. It includes three zones indicating the product's focus: the **Dominant zone**, **Competitive zone**, and **Not Competitive zone**. TEC's model of ERP systems for SMBs is designed with a comprehensive breadth; generally vendors will deliver a common base of functionality. While it's necessary to know whether a product supports a base of common functionality, it's very helpful to understand how a product really differs from the crowd.

The rankings in this Focus Indicator represent neither the quality of the product nor an absolute quantity of supported functionality. Rather, the bars show support relative to the average solution. The functional focus arrow indicates which modules of this product provide an equal or greater quantity of support than the average solution. Modules near the top of the functional focus arrow reveal where Oracle JD Edwards EnterpriseOne 9.0 is more likely to differentiate itself through breadth of functionality. The more concern you have for the type of functionality near the top of the functional focus, the more it's to your advantage to explore this product further.



TEC Focus Indicator for Oracle JD Edwards EnterpriseOne 9.0

The Human Resources module is located in the Dominant zone, and indicates that release 9.0 brings not only enhanced time, labor, and payroll support, but also HCM features (which is something rather unusual for the manufacturing space). Quality Management and Manufacturing Management are also located in the Dominant zone. Understanding that these features are essential for manufacturing companies, Oracle has focused on developing these functionalities, aiming to attract a wider range of manufacturing companies, of all sizes, and from different industries.

Four modules located in the Competitive zone: **Financials**, **Inventory Management**, **Sales Management**, and **Purchasing Management**. All these modules are very important for manufacturing companies, for which most of the products in our ERP Evaluation Center have good or very good levels of support. The improvements in Financials for release 9.0 (e.g., general ledger performance, and increased expense management flexibility) may explain why Oracle JD Edwards is competitive in this space. Also, the presence of the Sales Management module in the Competitive zone may be attributed to new advances in sales order kit functionality and improved sales options for production activities. Finally, Purchasing Management is also in the Competitive zone and may be attributed to new functionality such as component purchase order.

Understanding the TEC Focus Indicator

The top **Overall** bar shows the overall difference in supported functionality between Oracle JD Edwards EnterpriseOne 9.0 and the average solution. The Overall bar is our measure for determining which modules fall within the Dominant zone. If a module's difference from the average is greater than the product's overall difference from the average, we label it dominant. Those are the modules most responsible for pulling the Overall bar beyond the average. Modules with values that do not extend beyond the Overall bar but still provide as much or more functionality than the average solution, are labeled competitive.

The average solution forms the benchmark from which we calculate the difference in functionality offered by Oracle JD Edwards EnterpriseOne 9.0. We plot the average solution's capabilities at point zero on the x-axis. TEC defines an average solution using data about real software products available on the market. We calculate an average of the capabilities about which vendors recently provided us with information and that we've certified. We define these capabilities and assign numeric ratings representing various levels of support in our models of enterprise software. These models may be accessed on our publicly available Evaluation Centers. Typically, we use anywhere from a thousand to several thousand criteria to determine the average scores.

Next, we determine the quantity of functionality supported by Oracle JD Edwards EnterpriseOne 9.0 for each module in our model. We assume that all criteria are equally important. In a real-world situation, you would give a greater priority to criteria that are more important for your needs. However, for the sake of the TEC Focus Indicator analysis, we want to draw conclusions about the product's focus independent of any users' functional priorities. (Note: If you wish to prioritize and evaluate the product's functionality, you can do so online in our Evaluation Centers.)

We calculate the difference between EnterpriseOne 9.0 and the average solution, and plot that value as a positive or negative distance from zero (the average solution's capability). If, for example, Oracle JD Edwards EnterpriseOne 9.0 offers a greater quantity of support for a particular module than found in the average solution, its line will extend to the right of zero.

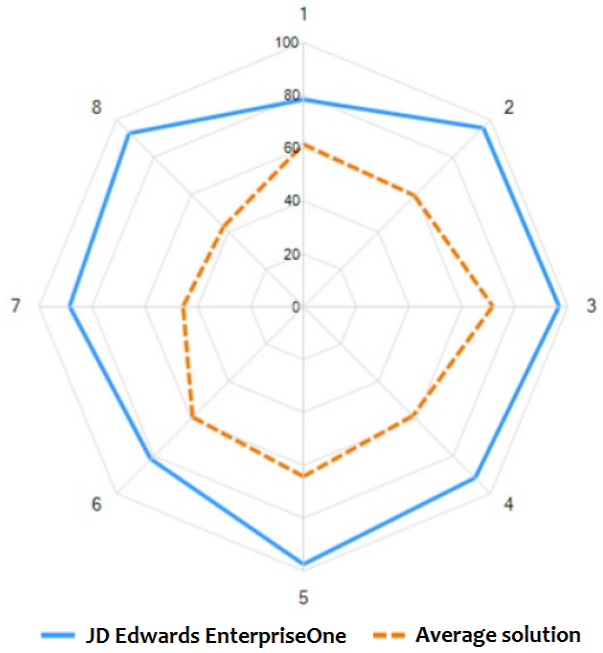
It's important to note that just because a product has more or less functionality than other products, does not mean it is a good or bad product. To understand whether it will do what you need it to do, at a price within your budget, you must evaluate the product in depth.

Functionality Benchmarks

The following functionality benchmark graphs represent the quantity of support by Oracle JD Edwards EnterpriseOne 9.0 for the functionality within each module identified in the TEC Focus Indicator, on a scale of 100 points. The closer the plotted value is to 100 (toward the outside in spider graphs; toward the top in bar charts), the more functionality JD Edwards EnterpriseOne 9.0 supports. For the sake of comparison, you can see an average of what competitor solutions offer by referring to the dashed orange line (or orange bar in bar charts).

Human Resources

Human Resources (HR) covers the processes required to manage personnel. This includes Personnel Management, Benefits, Payroll, Employee Self-Service, Employee Metrics, Health and Safety, Workforce Management, and Training.

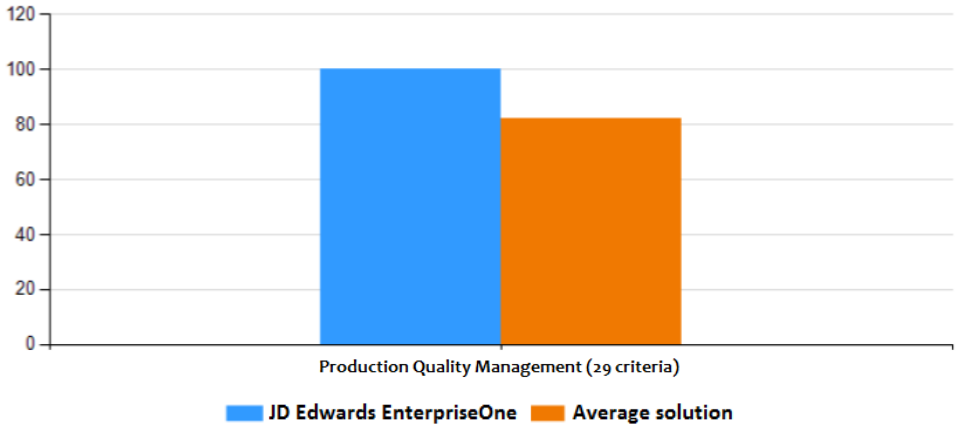


	Criteria Legend	No. of Criteria
1	Personnel Management	118
2	Benefits	24
3	Payroll	70
4	Employee Self-service	22
5	Employee Metrics	13
6	Health and Safety	11
7	Workforce Management	147
8	Training	26

Generally speaking, the discrete manufacturing ERP software vendors in our ERP Evaluation Center provide extensive support for some of the submodules of the HR module. But even for the submodules with the best average coverage (Benefits, Payroll, Employee Self-Service, Employees Metrics), Oracle JD Edwards EnterpriseOne Release 9.0 has ratings of over 90%. For Workforce Management and Training, the difference between the average solution and Oracle JD Edwards EnterpriseOne 9.0 is at least 40 points.

Quality Management

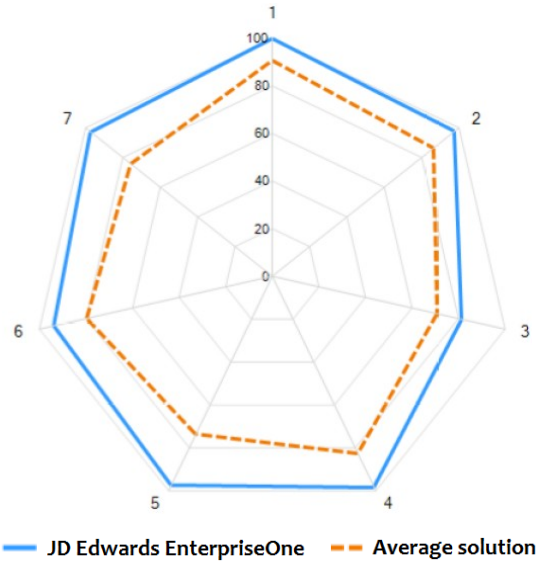
The Quality Management module provides functionality for the management of all actions taken by a company to ensure it delivers high-quality products or services.



Quality Management, particularly Production Quality Management, is an area that discrete manufacturing ERP software vendors take very seriously, which explains the average solution rating of over 80%. Oracle JD Edwards EnterpriseOne Release 9.0 covers all of TEC's criteria in this module.

Manufacturing Management

The Manufacturing Management module addresses processes associated with product data and production.

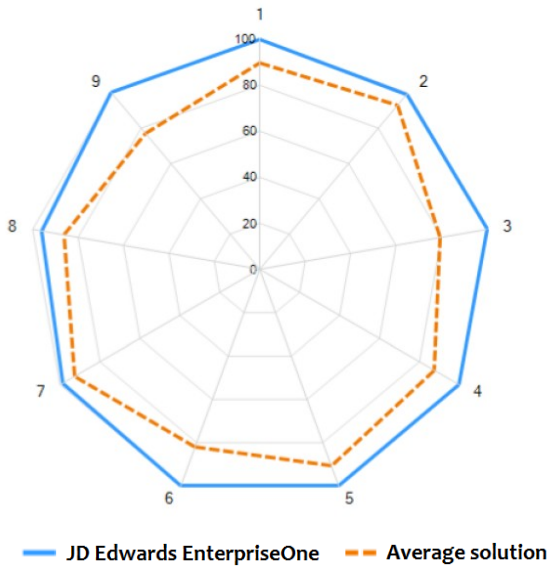


	Criteria Legend	No. of Criteria
1	Product Costing	105
2	Shop Floor Control	385
3	Field Service and Repairs	119
4	Production Planning	297
5	Project Management	36
6	Product Data Management	68
7	Product/Item Configurator	38

This module is covered very well by the majority of discrete manufacturing ERP software vendors in our ERP Evaluation Center. Oracle JD Edwards EnterpriseOne 9.0 follows the pattern of the average solution for Product Costing, Shop Floor Control, Field Service and Repairs, and Product Data Management, where the difference between Oracle JD Edwards product and the benchmark is up to 20 points. For Production Planning, Project Management, and Product/item Configurator, the difference between Oracle JD Edwards EnterpriseOne 9.0 and the average is at least 20 points, with the rating level of Oracle JD Edwards product approaching 100%.

Financials

Financials modules cover the processes required for bookkeeping, including General Ledger, Accounts Payable (A/P), Fixed Assets, Cost Accounting, Cash Management, Budgeting, Accounts Receivable, Financial Reporting, and Project Accounting.

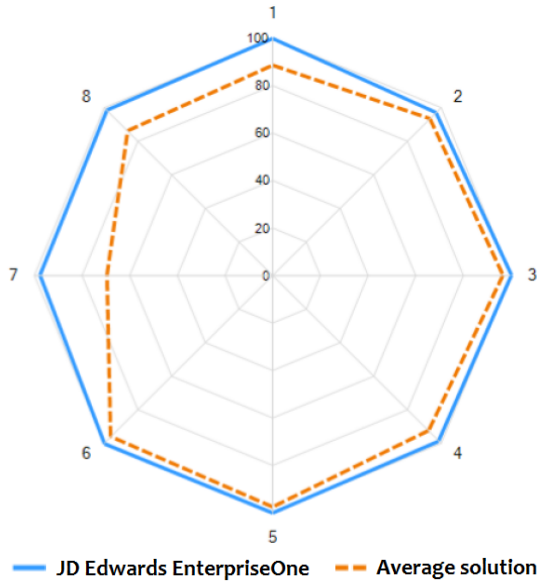


	Criteria Legend	No. of Criteria
1	General Ledger	314
2	Accounts Payable	235
3	Fixed Assets	89
4	Cost Accounting	49
5	Cash Management	16
6	Budgeting	65
7	Accounts Receivable	105
8	Financial Reporting	35
9	Project Accounting	51

Financials is another area where discrete manufacturing ERP software vendors have very strong ratings. The average solution ranks highly for all submodules, except: Fixed Assets, Budgeting, and Project Accounting. With ratings of nearly 100% for all submodules, Oracle JD Edwards EnterpriseOne 9.0 scores higher than the average solution, by at least 20 points.

Inventory Management

The Inventory Management module covers processes required for record keeping of goods in the warehouse and the management of the movements of these goods.

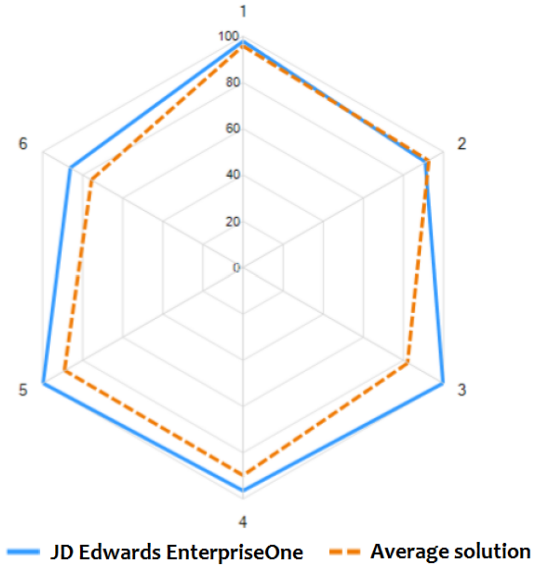


	Criteria Legend	No. of Criteria
1	Inventory Management (Online Requirements)	30
2	Processing Requirements	28
3	Data Requirements	12
4	Locations and Lot Control	20
5	Reporting and Interfacing Requirements (Inventory Management)	16
6	Adjusting Inventory	8
7	Forecasting	48
8	Reservations and Allocations	22

Management of finished goods and raw materials is essential for manufacturers, explaining why the average discrete ERP solution has a high level of coverage for this functionality. Common functionality such as Locations and Lot Control, Reporting and Interfacing Requirements, and Adjusting Inventory, is almost fully covered by the average solution and approaches 100% coverage for the Oracle JD Edwards product.

Sales Management

The Sales Management module provides functionality for data entry processing, basic CRM, and reporting.



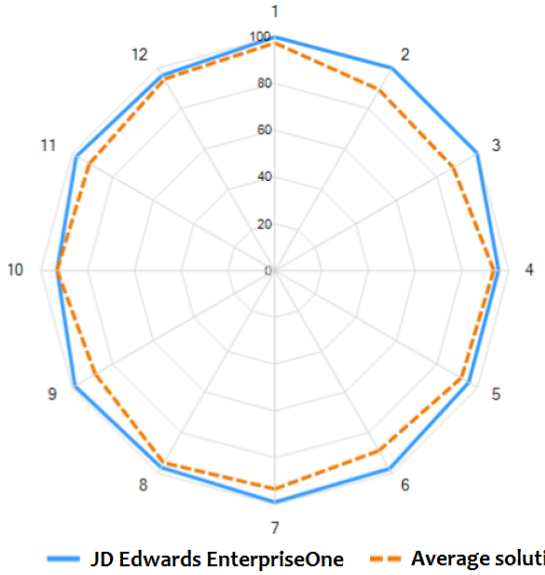
	Criteria Legend	No. of Criteria
1	Online Requirements (Sales Management)	42
2	Reporting and Interfacing Requirements (Sales Management)	49
3	Available-to-promise	10
4	Pricing and Discounting	77
5	Customer Service and Returned Goods Handling	29
6	CRM and E-commerce	23

Some submodules of Sales Management, such as Pricing and Discounting, are better covered than others, such as CRM and e-Commerce, by discrete manufacturing ERP solution vendors, and this is perfectly natural, as many companies use standalone CRM and e-Commerce products. Surprisingly, for reporting and interfacing requirements for sales management, Oracle JD Edwards EnterpriseOne 9.0 falls slightly under the average—this is an exception, as all other submodules are above the average, and the difference reaches 20 points for the ATP submodule.

Oracle JD Edwards EnterpriseOne 9.0 supports multiple business services in the Sales Order Management module, allowing this product to interface with any other product, and conforming to a service-oriented architecture (SOA) standard architecture. Examples of such services include import and export of sales orders, item availability, and pricing information.

Purchasing Management

The Purchasing Management module provides functionality for the management of activities related to the acquisition of raw materials and finished goods.



	Criteria Legend	No. of Criteria
1	Profile of Suppliers	12
2	Rating of Suppliers	13
3	Requisitions and Quotations	13
4	Purchase Orders (POs)	63
5	Pricing	13
6	Vendor Contracts and Agreements	16
7	Management of POs	25
8	Procurement Reporting and Online Reporting	24
9	Repeat Procurement	19
10	Receipts for Procurement	30
11	Online Requirements for Purchasing Management	14
12	Reporting and Interfacing Requirements for Purchasing Management	18

The average solution for the Purchasing Management module is very high, which makes the difference between the average and the Oracle JD Edwards product insignificant for submodules such as Profile of Suppliers and POs

Analyst Summary

Oracle JD Edwards EnterpriseOne 9.0 clearly shows Oracle's ambition to solidify its position in industries such as engineering, construction, CPG, manufacturing, wholesale and distribution, and energy and natural resources. But the main theme of release 9.0 is project management, including professional services, contract accounting, and government contractors.

Oracle JD Edwards Release 9.0 runs on Microsoft SQL Server, Oracle, and IBM DB2 databases, and can be installed on servers using Windows, Solaris, IBM, Linux, and Unix operating systems.

Oracle JD Edwards's sweet spots are SMBs and large companies with 200 to thousands of users and annual revenues ranging from $50 million (USD) to several billions.

Since we certified the product, Oracle has released Update 1 for both Oracle JD Edwards EnterpriseOne and Oracle JD Edwards World, which brings enhancements for expense management, Oracle Business Accelerators (OBA) for engineering and construction, and improved tax calculations and capture. And Update 2 has also been released for Oracle JD Edwards EnterpriseOne 9.0, delivering a number of enhancements in financials, HCM, and overall usability features.

The functional variety of options specific to discrete manufacturing ERP make Oracle JD Edwards EnterpriseOne 9.0 a very good option for this space, but may make it a challenge when setting up and configuring the software for many users. To reduce implementation complexity, Oracle developed OBA for Oracle JD Edwards EnterpriseOne. OBA are complete solutions that include services, hardware, financing, and rapid implementation tools with questionnaire wizards and configuration components. There are five major modules that are contained within the scope of OBA solutions: CRM, Distribution, Financials, HCM, and Manufacturing.

About Technology Evaluation Centers

Technology Evaluation Centers (TEC) provides insight and expertise in offering impartial resources and services to minimize the costs, risks, and time associated with software selection. Over 3.5 million technology decision makers visit TEC's Web sites each month, to find information on hundreds of solutions, and to access articles, white papers, and podcasts.

TEC's decision support system (DSS) and analyst data assist with the evaluation, comparison, and selection of enterprise solutions and services. TEC's offerings include in-depth research, detailed product information, and software selection services for any industry or company size.



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