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JD Edwards EnterpriseOne Tools 8.96 Performance Monitor Guide

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JD Edwards EnterpriseOne Tools 8.96 Performance Monitor Guide
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Contents

About This Documentation Preface

JD Edwards EnterpriseOne implementation guides provide you with the information that you need to implement and use JD Edwards EnterpriseOne applications from Oracle.

This preface discusses:

- JD Edwards EnterpriseOne application prerequisites.
- Application fundamentals.
- Documentation updates and printed documentation.
- Additional resources.
- Typographical conventions and visual cues.
- Comments and suggestions.
- Common fields in implementation guides.

Note. Implementation guides document only elements, such as fields and check boxes, that require additional explanation. If an element is not documented with the process or task in which it is used, then either it requires no additional explanation or it is documented with common fields for the section, chapter, implementation guide, or product line. Fields that are common to all JD Edwards EnterpriseOne applications are defined in this preface.

JD Edwards EnterpriseOne Application Prerequisites

To benefit fully from the information that is covered in these books, you should have a basic understanding of how to use JD Edwards EnterpriseOne applications.

You might also want to complete at least one introductory training course, if applicable.

You should be familiar with navigating the system and adding, updating, and deleting information by using JD Edwards EnterpriseOne menus, forms, or windows. You should also be comfortable using the World Wide Web and the Microsoft Windows or Windows NT graphical user interface.

These books do not review navigation and other basics. They present the information that you need to use the system and implement your JD Edwards EnterpriseOne applications most effectively.

Application Fundamentals

Each application implementation guide provides implementation and processing information for your JD Edwards EnterpriseOne applications.

For some applications, additional, essential information describing the setup and design of your system appears in a companion volume of documentation called the application fundamentals implementation guide. Most product lines have a version of the application fundamentals implementation guide. The preface of each implementation guide identifies the application fundamentals implementation guides that are associated with that implementation guide.

The application fundamentals implementation guide consists of important topics that apply to many or all JD Edwards EnterpriseOne applications. Whether you are implementing a single application, some combination of applications within the product line, or the entire product line, you should be familiar with the contents of the appropriate application fundamentals implementation guides. They provide the starting points for fundamental implementation tasks.

Documentation Updates and Printed Documentation

This section discusses how to:

- Obtain documentation updates.
- Order printed documentation.

Obtaining Documentation Updates

You can find updates and additional documentation for this release, as well as previous releases, on Oracle's PeopleSoft Customer Connection website. Through the Documentation section of Oracle's PeopleSoft Customer Connection, you can download files to add to your Implementation Guides Library. You'll find a variety of useful and timely materials, including updates to the full line of JD Edwards EnterpriseOne documentation that is delivered on your implementation guides CD-ROM.

Important! Before you upgrade, you must check Oracle's PeopleSoft Customer Connection for updates to the upgrade instructions. Oracle continually posts updates as the upgrade process is refined.

See Also

Oracle's PeopleSoft Customer Connection, http://www.oracle.com/support/support_peoplesoft.html

Ordering Printed Documentation

You can order printed, bound volumes of the complete line of JD Edwards EnterpriseOne documentation that is delivered on your implementation guide CD-ROM. Oracle makes printed documentation available for each major release of JD Edwards EnterpriseOne shortly after the software is shipped. Customers and partners can order this printed documentation by using any of these methods:

- Web
- Telephone
- Email

Web

From the Documentation section of Oracle's PeopleSoft Customer Connection website, access the PeopleBooks Press website under the Ordering PeopleBooks topic. Use a credit card, money order, cashier's check, or purchase order to place your order.

Telephone

Contact MMA Partners, the book print vendor, at 877 588 2525.

Email

Send email to MMA Partners at peoplebookspress@mmapartner.com.

See Also

Oracle's PeopleSoft Customer Connection, http://www.oracle.com/support/support_peoplesoft.html

Additional Resources

The following resources are located on Oracle's PeopleSoft Customer Connection website:

Resource	Navigation
Application maintenance information	Updates + Fixes
Business process diagrams	Support, Documentation, Business Process Maps
Interactive Services Repository	Support, Documentation, Interactive Services Repository
Hardware and software requirements	Implement, Optimize, and Upgrade; Implementation Guide; Implementation Documentation and Software; Hardware and Software Requirements
Installation guides	Implement, Optimize, and Upgrade; Implementation Guide; Implementation Documentation and Software; Installation Guides and Notes
Integration information	Implement, Optimize, and Upgrade; Implementation Guide; Implementation Documentation and Software; Pre-Built Integrations for PeopleSoft Enterprise and JD Edwards EnterpriseOne Applications
Minimum technical requirements (MTRs) (JD Edwards EnterpriseOne only)	Implement, Optimize, and Upgrade; Implementation Guide; Supported Platforms
Documentation updates	Support, Documentation, Documentation Updates
Implementation guides support policy	Support, Support Policy
Prerelease notes	Support, Documentation, Documentation Updates, Category, Release Notes
Product release roadmap	Support, Roadmaps + Schedules
Release notes	Support, Documentation, Documentation Updates, Category, Release Notes
Release value proposition	Support, Documentation, Documentation Updates, Category, Release Value Proposition
Statement of direction	Support, Documentation, Documentation Updates, Category, Statement of Direction

Resource	Navigation
Troubleshooting information	Support, Troubleshooting
Upgrade documentation	Support, Documentation, Upgrade Documentation and Scripts

Typographical Conventions and Visual Cues

This section discusses:

- Typographical conventions.
- Visual cues.
- Country, region, and industry identifiers.
- Currency codes.

Typographical Conventions

This table contains the typographical conventions that are used in implementation guides:

Typographical Convention or Visual Cue	Description
Bold	Indicates PeopleCode function names, business function names, event names, system function names, method names, language constructs, and PeopleCode reserved words that must be included literally in the function call.
Italics	Indicates field values, emphasis, and JD Edwards EnterpriseOne or other book-length publication titles. In PeopleCode syntax, italic items are placeholders for arguments that your program must supply. We also use italics when we refer to words as words or letters as letters, as in the following: Enter the letter *O*.
KEY+KEY	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For ALT+W, hold down the ALT key while you press the W key.
`Monospace font`	Indicates a PeopleCode program or other code example.
“ ” (quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meanings.

Typographical Convention or Visual Cue	Description
. . . (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe (|).
[ ] (square brackets)	Indicate optional items in PeopleCode syntax.
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object. Ampersands also precede all PeopleCode variables.

Visual Cues

Implementation guides contain the following visual cues.

Notes

Notes indicate information that you should pay particular attention to as you work with the JD Edwards EnterpriseOne system.

Note. Example of a note.

If the note is preceded by *Important!,* the note is crucial and includes information that concerns what you must do for the system to function properly.

Important! Example of an important note.

Warnings

Warnings indicate crucial configuration considerations. Pay close attention to warning messages.

Warning! Example of a warning.

Cross-References

Implementation guides provide cross-references either under the heading "See Also" or on a separate line preceded by the word *See.* Cross-references lead to other documentation that is pertinent to the immediately preceding documentation.

Country, Region, and Industry Identifiers

Information that applies only to a specific country, region, or industry is preceded by a standard identifier in parentheses. This identifier typically appears at the beginning of a section heading, but it may also appear at the beginning of a note or other text.

Example of a country-specific heading: “(FRA) Hiring an Employee”

Example of a region-specific heading: “(Latin America) Setting Up Depreciation”

Country Identifiers

Countries are identified with the International Organization for Standardization (ISO) country code.

Region Identifiers

Regions are identified by the region name. The following region identifiers may appear in implementation guides:

- Asia Pacific
- Europe
- Latin America
- North America

Industry Identifiers

Industries are identified by the industry name or by an abbreviation for that industry. The following industry identifiers may appear in implementation guides:

- USF (U.S. Federal)
- E&G (Education and Government)

Currency Codes

Monetary amounts are identified by the ISO currency code.

Comments and Suggestions

Your comments are important to us. We encourage you to tell us what you like, or what you would like to see changed about implementation guides and other Oracle reference and training materials. Please send your suggestions to Documentation Manager, Oracle Corporation, 7604 Technology Way, Denver, CO, 80237. Or email us at documentation_us@oracle.com.

While we cannot guarantee to answer every email message, we will pay careful attention to your comments and suggestions.

Common Fields Used in Implementation Guides

Address Book Number Enter a unique number that identifies the master record for the entity. An address book number can be the identifier for a customer, supplier, company, employee, applicant, participant, tenant, location, and so on. Depending on the application, the field on the form might refer to the address book number as the customer number, supplier number, or company number, employee or applicant ID, participant number, and so on.

As If Currency Code Enter the three-character code to specify the currency that you want to use to view transaction amounts. This code enables you to view the transaction amounts as if they were entered in the specified currency rather than the foreign or domestic currency that was used when the transaction was originally entered.

Batch Number Displays a number that identifies a group of transactions to be processed by the system. On entry forms, you can assign the batch number or the system can assign it through the Next Numbers program (P0002).

Batch Date Enter the date in which a batch is created. If you leave this field blank, the system supplies the system date as the batch date.

Batch Status Displays a code from user-defined code (UDC) table 98/IC that indicates the posting status of a batch. Values are:

Blank: Batch is unposted and pending approval.

A: The batch is approved for posting, has no errors and is in balance, but has not yet been posted.

D: The batch posted successfully.

E: The batch is in error. You must correct the batch before it can post.

P: The system is in the process of posting the batch. The batch is unavailable until the posting process is complete. If errors occur during the post, the batch status changes to *E*.

U: The batch is temporarily unavailable because someone is working with it, or the batch appears to be in use because a power failure occurred while the batch was open.

Branch/Plant Enter a code that identifies a separate entity as a warehouse location, job, project, work center, branch, or plant in which distribution and manufacturing activities occur. In some systems, this is called a business unit.

Business Unit Enter the alphanumeric code that identifies a separate entity within a business for which you want to track costs. In some systems, this is called a branch/plant.

Category Code Enter the code that represents a specific category code. Category codes are user-defined codes that you customize to handle the tracking and reporting requirements of your organization.

Company Enter a code that identifies a specific organization, fund, or other reporting entity. The company code must already exist in the F0010 table and must identify a reporting entity that has a complete balance sheet.

Currency Code Enter the three-character code that represents the currency of the transaction. JD Edwards EnterpriseOne provides currency codes that are recognized by the International Organization for Standardization (ISO). The system stores currency codes in the F0013 table.

Document Company Enter the company number associated with the document. This number, used in conjunction with the document number, document type, and general ledger date, uniquely identifies an original document.

If you assign next numbers by company and fiscal year, the system uses the document company to retrieve the correct next number for that company.

	If two or more original documents have the same document number and document type, you can use the document company to display the document that you want.
Document Number	Displays a number that identifies the original document, which can be a voucher, invoice, journal entry, or time sheet, and so on. On entry forms, you can assign the original document number or the system can assign it through the Next Numbers program.
Document Type	Enter the two-character UDC, from UDC table 00/DT, that identifies the origin and purpose of the transaction, such as a voucher, invoice, journal entry, or time sheet. JD Edwards EnterpriseOne reserves these prefixes for the document types indicated: *P:* Accounts payable documents. *R:* Accounts receivable documents. *T:* Time and pay documents. *I:* Inventory documents. *O:* Purchase order documents. *S:* Sales order documents.
Effective Date	Enter the date on which an address, item, transaction, or record becomes active. The meaning of this field differs, depending on the program. For example, the effective date can represent any of these dates: • The date on which a change of address becomes effective. • The date on which a lease becomes effective. • The date on which a price becomes effective. • The date on which the currency exchange rate becomes effective. • The date on which a tax rate becomes effective.
Fiscal Period and **Fiscal Year**	Enter a number that identifies the general ledger period and year. For many programs, you can leave these fields blank to use the current fiscal period and year defined in the Company Names & Number program (P0010).
G/L Date (general ledger date)	Enter the date that identifies the financial period to which a transaction will be posted. The system compares the date that you enter on the transaction to the fiscal date pattern assigned to the company to retrieve the appropriate fiscal period number and year, as well as to perform date validations.

JD Edwards EnterpriseOne Performance Monitor Preface

This preface discusses Object Management Workbench companion documentation.

JD Edwards EnterpriseOne Performance Monitor Workbench Companion Documentation

Additional, essential information describing the setup and design of JD Edwards EnterpriseOne Tools resides in companion documentation. The companion documentation consists of important topics that apply to JD Edwards EnterpriseOne Performance Monitor as well as other JD Edwards EnterpriseOne Tools. You should be familiar with the contents of these companion guides:

- EnterpriseOne Tools Release 8.95 Installation Guide for Microsoft Windows
- EnterpriseOne Application Release 8.11 Service Pack 1 Installation Guide for Microsoft Windows

CHAPTER 1

Getting Started with JD Edwards EnterpriseOne Performance Monitor

This chapter discusses:

- JD Edwards EnterpriseOne Performance Monitor Overview
- JD Edwards EnterpriseOne Performance Monitor Implementation

JD Edwards EnterpriseOne Performance Monitor Overview

Oracle's JD Edwards EnterpriseOne Performance Monitor enables you to view realtime and historical performance data of your JD Edwards systems. JD Edwards EnterpriseOne Performance Monitor provides the information that you need to solve immediate performance issues and analyze trends in system performance.

By default, JD Edwards EnterpriseOne Performance Monitor is disabled on a new JD Edwards EnterpriseOne installation. To enable JD Edwards EnterpriseOne Performance Monitor, follow the configuration instructions in this guide.

When you have a JD Edwards application environment running and you have set up JD Edwards EnterpriseOne Performance Monitor, you can begin to capture and analyze JD Edwards EnterpriseOne performance data.

JD Edwards EnterpriseOne Performance Monitor Implementation

This section provides an overview of the steps that are required to implement JD Edwards EnterpriseOne Performance Monitor.

In the planning phase of your implementation, take advantage of all JD Edwards sources of information, including the installation guides and troubleshooting information. A complete list of these resources appears in the preface in *About This Documentation* with information about where to find the most current version of each.

JD Edwards EnterpriseOne Performance Monitor Implementation Steps

This table lists the steps for JD Edwards EnterpriseOne Performance Monitor implementation.

Step	Reference
1. Install EnterpriseOne.	EnterpriseOne installation documentation for your platform.
2. Install one or more EnterpriseOne applications.	EnterpriseOne installation documentation for your applications.

CHAPTER 2

Understanding JD Edwards EnterpriseOne Performance Monitor

This chapter discusses:

- JD Edwards EnterpriseOne Performance Monitor.
- JD Edwards EnterpriseOne Performance Monitor elements.
- Implementation options.
- JD Edwards EnterpriseOne Performance Monitor instrumentation.
- JD Edwards EnterpriseOne Performance Monitor integration with third-party systems.
- JD Edwards EnterpriseOne Performance Monitor data.
- Scope of JD Edwards EnterpriseOne Performance Monitor.

JD Edwards EnterpriseOne Performance Monitor

JD Edwards EnterpriseOne Performance Monitor helps system administrators monitor JD Edwards EnterpriseOne performance data and, if wanted, share the data with third-party monitoring tools. JD Edwards EnterpriseOne Performance Monitor is a diagnostic utility for monitoring the performance of the main elements of your JD Edwards EnterpriseOne system, such as web servers, application servers, and process scheduler servers. You can monitor realtime performance and analyze historical data.

JD Edwards EnterpriseOne Performance Monitor reports durations and key metrics of JD Edwards EnterpriseOne runtime execution, such as SQL statements and business functions.

Note. JD Edwards EnterpriseOne Performance Monitor enables you to isolate and identify the causes of performance issues; however, it does not provide automatic solutions to performance issues.

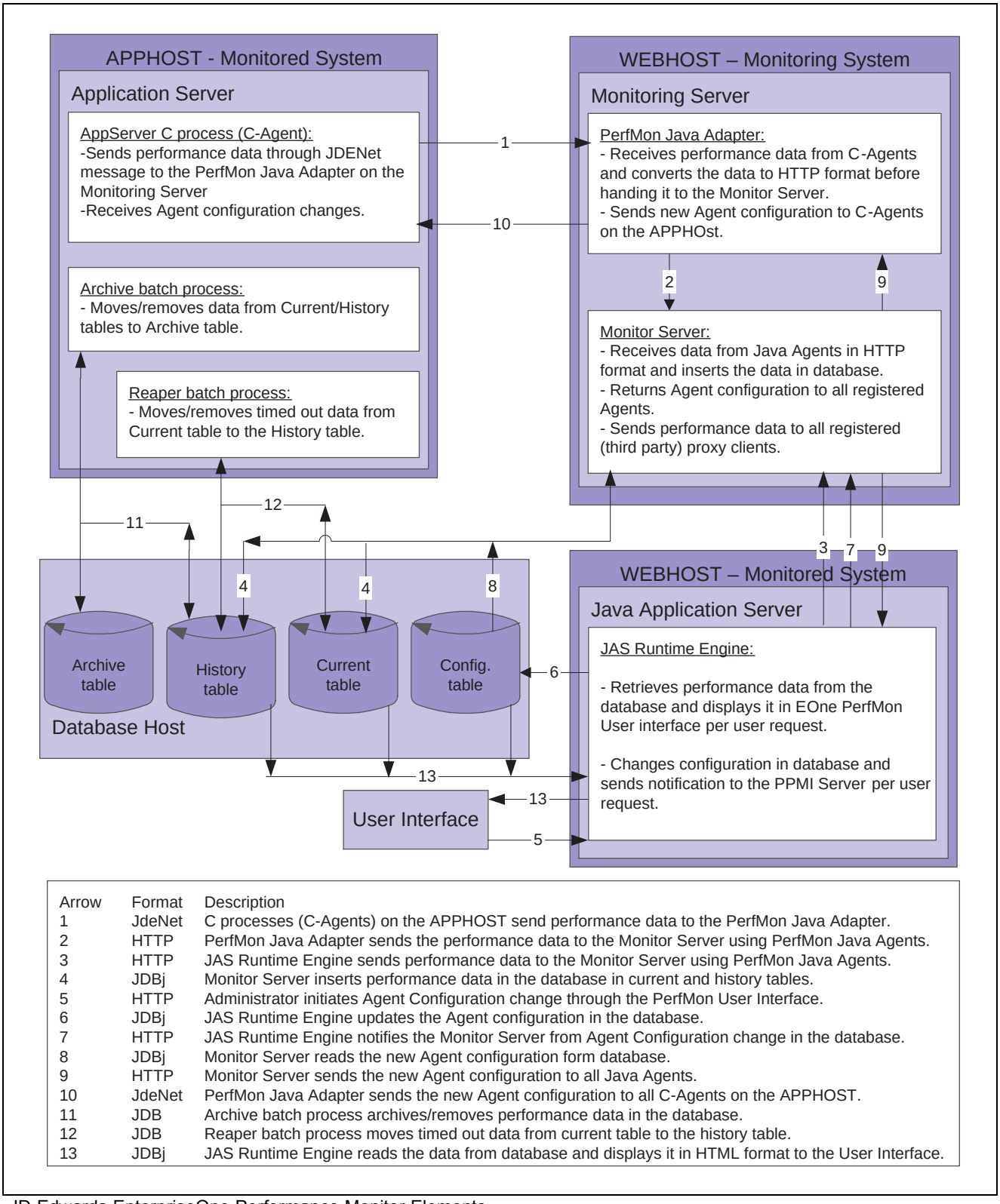
JD Edwards EnterpriseOne Performance Monitor Output

The metrics provided by JD Edwards EnterpriseOne Performance Monitor enable system administrators to:

- Monitor realtime system performance.
- Identify poorly performing tiers, hosts, domains, servers, application code, and SQL statements in an EnterpriseOne environment.
- Identify performance trends.
- Address and isolate performance bottlenecks.

JD Edwards EnterpriseOne Performance Monitor Elements

This diagram illustrates the main elements of JD Edwards EnterpriseOne Performance Monitor:



Arrow	Format	Description
1	JdeNet	C processes (C-Agents) on the APPHOST send performance data to the PerfMon Java Adapter.
2	HTTP	PerfMon Java Adapter sends the performance data to the Monitor Server using PerfMon Java Agents.
3	HTTP	JAS Runtime Engine sends performance data to the Monitor Server using PerfMon Java Agents.
4	JDBj	Monitor Server inserts performance data in the database in current and history tables.
5	HTTP	Administrator initiates Agent Configuration change through the PerfMon User Interface.
6	JDBj	JAS Runtime Engine updates the Agent configuration in the database.
7	HTTP	JAS Runtime Engine notifies the Monitor Server from Agent Configuration change in the database.
8	JDBj	Monitor Server reads the new Agent configuration form database.
9	HTTP	Monitor Server sends the new Agent configuration to all Java Agents.
10	JdeNet	PerfMon Java Adapter sends the new Agent configuration to all C-Agents on the APPHOST.
11	JDB	Archive batch process archives/removes performance data in the database.
12	JDB	Reaper batch process moves timed out data from current table to the history table.
13	JDBj	JAS Runtime Engine reads the data from database and displays it in HTML format to the User Interface.

JD Edwards EnterpriseOne Performance Monitor Elements

For a detail explanation of the diagram, see Appendix B.

A monitoring system can monitor one or more JD Edwards EnterpriseOne application systems. However, the monitored system can be monitored by just one monitoring system.

You can configure a self-monitoring system for development and testing.

The Monitored System

The monitored system comprises these main elements:

- JD Edwards EnterpriseOne application database.
- JD Edwards EnterpriseOne application server.
- JD Edwards EnterpriseOne web server.

Note. An application server is also known as a *business logic server* in some materials. However, in this guide, only the term *application server* appears.

JD Edwards EnterpriseOne Performance Monitor agents reside on each main element of the monitored system. Agents run on the servers to gather and report performance information. An agent is a small piece of code operating from within an existing process. It collects performance data and uses a dedicated thread to send the data to the monitoring system. Agent threads report data to the monitoring system's monitor servlet, which in turn reports performance data to the PSPPMSRV server processes in the monitoring system's application server.

Two types of agents exist:

- *Process instrumentation agents* that report data about the specific server activities.
- *Domain resource agents* that report resource usage statistics about the process and server, such as CPU usage.

JD Edwards EnterpriseOne Application Database

This database is installed with the installation of the JD Edwards EnterpriseOne system. This database has all the tables to store performance data for EnterpriseOne. The default installation installs both JD Edwards EnterpriseOne application tables and JD Edwards EnterpriseOne Performance Monitor tables within the same database. JD Edwards EnterpriseOne users can use the Object Configuration Management (OCM) settings to use a separate database for Performance Data. Separating performance data and production data into separate databases should enhance the performance of the JD Edwards EnterpriseOne Servers.

Application Server

The JD Edwards EnterpriseOne application server, also known as the JD Edwards EnterpriseOne Enterprise Server, contains the CallObject Kernel processes used to run business functions on the application server. Each CallObject Kernel process, or each CallObject thread, in the case of multi-threaded CallObjects, uses a C-Agent to collect and send the performance data to the JD Edwards EnterpriseOne Performance Monitor Java Adapter on the monitoring server.

The C-Agent is a small piece of code that operates within an existing CallObject process or thread. The C-Agent uses the JD Edwards EnterpriseOne JDENet communication protocol to send the performance data to the monitoring server. C-Agents report data to the PerfMon Java Adapter, which in turn sends the data to the Monitor servlet. The monitoring system's monitor servlet then sends performance data to the monitoring system's Data Collator Servlet.

Note. JD Edwards EnterpriseOne Performance Monitor does not monitor the performance of the RDBMS or the server on which it runs.

Web Server

The JD Edwards EnterpriseOne web server, also known as the JD Edwards EnterpriseOne JAS (Java application server), contains Java components of the JD Edwards EnterpriseOne web server. The JD Edwards EnterpriseOne Java components have been instrumented to send performance data to the monitoring server. Each component of the JAS Server uses a Java Agent to collect and send the performance data to the monitor servlet on the monitoring server.

A Java Agent is a small piece of code operating from within an existing JVM process. It collects data and uses a dedicated thread to send the data to the monitoring system. Java Agents report data to the Monitor servlet which in turn sends XML formatted performance data to the Monitoring System's Data Collator servlet.

The Monitoring System

The monitoring system includes these elements:

- JD Edwards EnterpriseOne Performance Monitor Java Adapter.
- JD Edwards EnterpriseOne Monitor Servlet.
- JD Edwards EnterpriseOne Performance Monitor Integration (PPMI) Servlet.
- JD Edwards EnterpriseOne Data Collator Servlet.

JD Edwards EnterpriseOne Performance Monitor Java Adapter

JD Edwards EnterpriseOne Performance Monitor Java Adapter is the bridge between the JD Edwards EnterpriseOne application server and the monitoring server. C-Agents on the application server (CallObject Kernel processes/threads) collect and send the performance data to the Java Adapter using the JDENet communication protocol. For each C-Agent on the application server, a Java Agent is created within the JD Edwards EnterpriseOne PerfMon Java Adapter process. Based on the type of the message sent by the C-Agent, the Java Agent calls into the appropriate Java Agent API. From this point on, the performance data is processed the same way as if a Java Agent running on the JD Edwards EnterpriseOne web server sent the data. This architecture allows the same components on the monitoring server (Monitor, PPMI, and Data Collator servlets) to manage Agents and process performance data regardless of the origin of the data: application server or web server.

See Chapter 2, "Understanding JD Edwards EnterpriseOne Performance Monitor," Implementing the Production Monitoring System, page 8.

JD Edwards EnterpriseOne PPMI Servlet

The PPMI servlet registers and manages PPMI clients. The Data Collator is an integrated PPMI client for JD Edwards EnterpriseOne monitoring server. Any third-party solution can register to the PPMI servlet and receive JD Edwards EnterpriseOne performance data.

The PPMI servlet also receives the Agent configuration notifications sent by the JD Edwards EnterpriseOne web server. Administrators can change the Agent configuration for one or all the registered Agents and notify all the Agents of the changes. The JD Edwards EnterpriseOne web server sends an Agent notification message to the PPMI servlet, which in turn, notifies the Monitor servlet. The Monitor servlet reads the new Agent configuration for the appropriate Agents from the database and sends the configuration back to Agents. Note that each time an Agent sends the performance data to the Monitor Servlet the Agent configuration is sent back to the Agent as the response. The PPMI servlet also adds a new record in the database for each Agent registered with the monitoring system.

JD Edwards EnterpriseOne Monitor Servlet

The Monitor servlet receives the performance data from Agents and sends it to the Data Collators. For each message sent by an Agent, the Monitor servlet sends back the Agent configuration. This way, the Agents are always up-to-date of any configuration changes. Note that administrators can change the Agent configurations from the JD Edwards EnterpriseOne PerfMon User Interface.

JD Edwards EnterpriseOne Data Collator Servlet

The Data Collator servlet registers itself with the PPMI servlet as a PPMI client. By registering with the PPMI, the Data Collator will receive the performance data sent by the Monitor servlet. Note that the PPMI servlet notifies the Monitor servlet of all newly registered clients. The Data Collator's main function is to write the performance data to the JD Edwards EnterpriseOne PerfMon database. Two main database tables are used to contain the performance data: Current Transaction table and History Transaction table. The Data Collator writes the performance data for a running transaction to the current transaction table until the transaction ends. The Data Collator then writes the End Transaction data to the History Transaction table and removes all records related to this transaction from the Current Transaction table.

Implementing the Production Monitoring System

In a production environment, you should configure the JD Edwards EnterpriseOne monitoring system separate from the production monitored systems. Any JD Edwards EnterpriseOne system database that is delivered with JD Edwards EnterpriseOne installation contains the appropriate database definitions to store all JD Edwards EnterpriseOne Performance Monitor data. With the separate monitoring system, you can monitor a single JD Edwards EnterpriseOne system, or you can configure it to monitor multiple JD Edwards EnterpriseOne systems.

Note. JD Edwards EnterpriseOne Performance Monitor can monitor any JD Edwards EnterpriseOne system running on 8.95 or greater. Always consult JD Edwards EnterpriseOne Release Notes and guides to become aware of any exceptions or unsupported features between release levels.

JD Edwards EnterpriseOne Performance Monitor Instrumentation

This section explains the terminology that is associated with JD Edwards EnterpriseOne Performance Monitor instrumentation. Instrumentation refers to the modifications that are made to internal JD Edwards EnterpriseOne programming code that enable the system to report performance data to a monitor. Selected areas of JD Edwards EnterpriseOne runtime source code have been instrumented. When the system runs instrumented code, it generates time-stamped performance metrics that are relevant to that section of code. Agents running on the monitored system send the performance data to JD Edwards EnterpriseOne Performance Monitor. Instrumentation generates performance measurement units (PMUs) and events.

Understanding PMUs

A PMU is a unit of measure that reflects the execution of a section of code. The system starts and stops a PMU at specific locations in the code, and the system may update a PMU anytime between the start and stop times. JD Edwards EnterpriseOne has defined a set of PMU types, and each type of PMU corresponds to the instrumentation at a specific code location such as a SQL Execute in the application server or a JDBj request in the web server.

Each PMU includes:

- PMU Type.
- Instance identifier (a unique identifier for a specific PMU instance).
- Start time.
- Stop time.
- Status.
- Metrics (such as number of SQL fetches or buffer size used in a Jolt response).

Open PMUs are those that are currently being processed. These are PMUs for which a "stop" transaction has not yet been received. Completed PMUs are those for which a "stop" transaction has been received. PMUs can assume a parent-child relationship. Child PMUs start within a parent PMU. Child PMUs are linked to their parent by the parent instance ID.

You can view PMUs within a tree structure that reveals the hierarchy of parent-child PMUs and indicates the processing times at each level.

Understanding Events

Events are not implemented for the 8.95 release of JD Edwards EnterpriseOne Performance Monitor.

Events are notifications containing performance metrics that are different from PMUs in that they are not hierarchical and they do not have durations. Events relate to resource usage, such as CPU usage or memory allocation. JD Edwards EnterpriseOne has defined a set of event types, and each type of event is reported at a specific location in the instrumented code.

Each event has:

- Type.
- Instance identifier (a unique identifier for a specific event instance).
- Timestamp.
- Severity.
- Metrics (such as CPU usage and memory allocation).

See Chapter 7, “Evaluating JD Edwards EnterpriseOne Performance Monitor Meta-Data,” Revising Event Definitions, page 43.

Performance Integration with Third-Party Systems

Using web service technology, performance data that is generated by JD Edwards EnterpriseOne Performance Monitor can be shared with third-party performance-monitoring tools by way of JD Edwards EnterpriseOne Performance Monitor Integration (PPMI) API. The PPMI API uses the Simple Object Access Protocol (SOAP).

Note. The PPMI API protocol is not documented in guides. It is used only in products that are developed by JD Edwards EnterpriseOne system and performance management integration partners. You can use the PPMI API only if you are licensed through JD Edwards.

JD Edwards EnterpriseOne Performance Monitor Data

After JD Edwards EnterpriseOne Performance Monitor is configured to retrieve and store data in the performance database tables, you can view the performance data using a variety of JD Edwards EnterpriseOne applications that:

- Provide a summary of performance data.
- Present raw performance data.

You can access all of the forms that are related to JD Edwards EnterpriseOne Performance Monitor using the JD Edwards EnterpriseOne Performance Monitor menu. Some performance information appears in grids, while other performance information appears in charts. You have the option to view chart information in grids for sorting and downloading to Microsoft Excel.

Scope of JD Edwards EnterpriseOne Performance Monitor

JD Edwards EnterpriseOne Performance Monitor provides performance metrics for:

- JD Edwards EnterpriseOne application server components
  - Business function processing
  - Database operations (insert, delete, update, select).
- JD Edwards EnterpriseOne WEB Server (also known as JAS) components.
  - Business function processing
  - Database operations (insert, delete, update, select)
  - JD Edwards EnterpriseOne application events.

CHAPTER 3

Setting Up JD Edwards EnterpriseOne Performance Monitor

This chapter provides an overview of the configuration of JD Edwards EnterpriseOne Performance Monitor and discusses how to:

- Enable the required elements on the monitoring system.
- Enable the required elements on the monitored system.

Configuring JD Edwards EnterpriseOne Performance Monitor

Configuring JD Edwards EnterpriseOne Performance Monitor involves enabling the required elements on the monitored system and the monitoring system.

When you install the JD Edwards EnterpriseOne System and transfer the appropriate files to the web server and application server, all of the required elements are in place. You do not need to install additional modules for JD Edwards EnterpriseOne Performance Monitor.

Enabling the Required Elements on the Monitoring System

This section covers the configuration of your monitoring system, which includes:

- Setting up JD Edwards EnterpriseOne Performance Monitor database.
- Setting up the web server for the monitoring system.
- Configuring JAS.INI file on the monitoring server.

Setting Up JD Edwards EnterpriseOne Performance Monitor Database

The monitoring database requires the use of at least the JD Edwards EnterpriseOne System database for the production monitoring system. Set up this database up using the instructions in the JD Edwards EnterpriseOne Installation Guide. To improve performance of the monitored server, you may want to map the PerfMon database tables to a database other than the production database. These tables would need to be mapped:

Table	Server
F95900	PM System Definitions (PSPMSYSDEFN)
F95900D	PM System Definition Languages (PSPMSYSDEFN_LAN)
F95901	PM System Defaults (PSPMSYSDEFAULTS)
F95902	PS System Version (PSPMSYSVERSION)
F95903	PM Table Map (PSPMTABLEMAP)
F95904	PM Global Administration (PSPMMONITORGBL)
F95905	PM Monitor Clustering (PSPMMONINST)
F95906	PM Frequent Users (PSPMOPRDEFN)
F95907	PM Trace Names (PSPMPERFTACE)
F95908	PM Frequent Components (PSPMPNLGRPDEFN)
F95909	PM Agent Definition (PSPMAGENT)
F95910	PM Agent Filters (PSPMAGENTFILTER)
F95911	PM Archive Parms (PSPMARCHRUNCNTL)
F95912	PM Collator Instances (PSPMCOLLINST)
F959310	PM Event Set (PSPMEVENTSET)
F959310D	PM Event Set Language (PSPMEVENTSET_LN)
F959311	PM Event Definition (PSPMEVENTDEFVN)
F959311D	PM Event Definition Language (PSPMEVENT_LNG)
F959320	PM Transaction Set (PSPMTRANSSET)
F959320D	PM Transaction Set Language (PSPMTRANSSET_LN)
F959321	PM Transaction Definition (PSPMTRANSDEFN)
F959321D	PM Transaction Definition Language (PSPMTRANS_LAN)
F959331	PM Metric Definition (PSPMMETRICDEFN)
F9593311	PM Metric Definition UDC Display (n/a)
F959331D	PM Metric Definition Language (PSPMMETRIC_LNG)
F959332	PM Metric Value (PSPMMETRICVALUE)
F959332D	PM Metric Value Language (PSPMMETRICVALUE_LN)

Table	Server
F959341	PM Context Definition (PSPMCONTEXTDEFN)
F959341D	PM Context Definition Language (PSPMCONTEXTDEFN_LNG)
F95951	PM Event History (PSPMEVENTHIST)
F95952	PM Event Archive (PSPMEVENTARCH)
F95953	PM Event Clone (PSPMEVENTHISTCL)
F95960	PM Transaction Current (PSPMTRANSCURR)
F95961	PM Transaction History (PSPMTRANSHIST)
F95962	PM Transaction Archive (PSPMTRANSARCH)
F95963	PM Transaction Clone (PSPMTRANSHISTCL)

Setting Up the Web Server for the Monitoring System

The JD Edwards EnterpriseOne Transaction Server (RTE) Installer program installs all of the elements that JD Edwards EnterpriseOne Performance Monitor requires on the web server. No additional installations are required.

JD Edwards EnterpriseOne Performance Monitor servlets that run on the web server of the monitoring system are:

- Monitor servlet.
- PPMI servlet.
- Data Collator servlet.

When you start the WEB Server on the monitoring server, different components of the Server start in this order:

1. The JD Edwards EnterpriseOne PerfMon Java Adapter is started and waits for incoming messages from JD Edwards EnterpriseOne application servers.
2. The Data Collator is started.
3. The Data Collator sends a registration request to the PPMI servlet.
4. PPMI servlet registers the Data Collator.
5. Data Collator waits to receive performance data from Monitor servlet.
6. JD Edwards EnterpriseOne JAS Server Agents register with the Monitor servlet.
7. JD Edwards EnterpriseOne CallObject processes on the application server (C-Agents) send the Agent Initialization request to the JD Edwards EnterpriseOne Java Adapter.
8. JD Edwards EnterpriseOne Java Adapter registers the C-Agents with the Monitor servlet.
9. JAS Server Agents send performance data to the Monitor servlet.
10. C-Agents send performance data to the JD Edwards EnterpriseOne Java Adapter.
11. JD Edwards EnterpriseOne Java Adapter sends performance data to the Monitor servlet.

12. Monitor servlet sends performance data to the Data Collator.

13. Data Collator writes performance data to the database.

Note. Make note of the URL of the web server for the monitoring system. On the monitored system, you need to specify the appropriate URL to which performance data is sent.

Configuring JAS.INI file on the Monitoring Server

The JD Edwards EnterpriseOne Transaction Server installer installs the PerfMon components on the Monitoring System. The following sections refer to the JD Edwards EnterpriseOne Transaction Server Install Directory by JD Edwards EnterpriseOneTransInstallDir.

The JAS.INI file on the monitoring server is located in EnterpriseOneTransInstallDir/cfg/jas.ini. This .ini file has some settings in common with the Java Application servers's (JAS) JAS.INI file.

These settings in the jas.ini file on the monitoring server are in addition to these common settings.

[JDENET_KERNEL_DEF2]

The [JDENET_KERNEL_DEF2] section defines the JD Edwards EnterpriseOne PerfMon Java Adapter component of the monitoring server. You do not need to change any settings for this section and it is correctly configured after the install.

```
# Name of PerfMon Java adapter kernel.
#
krnlName=E1PerfMon Adapter

#
# Class of PerfMon Java adapter kernel to be loaded; contains dispatch methods.
#
processClassName=com.JD Edwards.pt.e1.ppm.E1PmAdapter.E1PmDispatchMessageV1

#
# Start of message range for this kernel
#
startMessageRange=11000

#
# End of message range for this kernel
#
endMessageRange=11100

#
# Maximum number of threads that this kernel will run.
#
maxNumberOfThread=1
```

[JDENET]

In order for the EnterpriseOne PerfMon Java Adapter to start correctly on the monitoring server, these settings need to be set in the [JDENET] section. Note that the value of the variable MaxKernelRanges should be 2.


```
#
# Maximum number of dedicated kernel types
#
maxKernelRanges=2

#
# JAS Server JDENET Listening port. This is the port on which the JDENet Listener⇒
 will
# listen for the performance data coming from E1 application server. Note that the
# value of this setting should be equal to the E1 application server JDE.INI file⇒
 setting
# for:
# [PERFMON_JAVA_ADAPTER_1]
# javaAdapterPort=6545

serviceNameListen=6545
```

[PERFMON]

This section defines the settings for JD Edwards EnterpriseOne Performance Monitor servlets on the Server.

```
# This is the URL of the monitor Servlet.
# ~MONITOR_HOST_NAME~ is the name of the machine where you installed the
# E1 monitoring server.
# ~MONITOR_LISTEN_PORT~ is the port number on which the Monitor Servlet will
# be listening.
# E1 Transaction Server installer will update this setting in the jas.ini file⇒
 with the
# correct host name and port number.
monitorUrl=http://~MONITOR_HOST_NAME~:~MONITOR_LISTEN_PORT~/ppm/monitor

# A String used to distinguish the host and port of the machines where different⇒
 Agents
# are running. Please use the same host name and port number used in the previous⇒
 setting.
# E1 Transaction Server installer will update this setting in the jas.ini file⇒
 with the
# correct host name and port number.
hostPort=~MONITOR_HOST_NAME~:~MONITOR_LISTEN_PORT~

#
# Transactions will be timed out by the Monitor Server if the "End Transaction" is⇒
 not
# received this number of seconds after the Start Transactoin.
#
transactionTimeout=60

#
# not currently being used.
#
```



```
sampler=60

#
# PPMI_HOST_NAME is the name of the machine where the monitoring server
# is running on.
# PPMI_LISTEN_PORT is the port number on which the monitoring server
# is listening.
#
ppmiUrl=http://~PPMI_HOST_NAME~:~PPMI_LISTEN_PORT~/ppm/ppmi

#
# Maximum number of threads that will be used by Java adapter.
# You can use one thread per CallObject process/thread on the application server.
# For example, if there are 5 CallObject processes on the application server and⇒
 each one
# is configured to have 4 threads then you can set this setting to 20.
#
#
dispatchMaxThread=20


#
# if true, then users can snoop monitor servlet's status.
# Some HRML pages can be used to view the status of different PerfMon Servlets and
# E1PmJavaAdapter process. In order to activate the access to those pages you⇒
 should,
# set this flag to true.
#
PPMConsole=false

#
# Maximum size (megabytes) of memory used by Monitor servlet queues.
# You can increase this setting if error messages appear on the monitoring server
# complaining about transferring data between different components of the
# monitoring server.
#
PPMMonitorBufferSize=50

#
# Interval (in minutes) until a partially filled batch is flushed by the Monitor⇒
 servlet.
# The batch is flushed if it is filled before this time.
PPMSyncInterval=1
```


[PERFCOL]

```
# URL of PPMI to register with.
#
ppmiUrl=http://~PPMI_HOST_NAME~:~PPMI_LISTEN_PORT~/ppm/ppmi

#
# Location of Collator servlet.
# COLLATOR_HOST_NAME is the name of the machine where the Monitoring System
# is installed.
# COLLATOR_PORT_NUMBER is the port number on which the monitoring server
# is listening.
#
collatorUrl=http://~COLLATOR_HOST_NAME~:~COLLATOR_LISTEN_PORT~/ppm/Collator

#
# Group of streaming performance data to be associated with the collator.
# This is a string to distinguish different data collators. Different data coll
# running on different monitoring systems can have their own groups.
#
GROUP=group1

#
# Number of elements (for example, transaction start or end) the Monitor servle
# sends to PPMI clients.
#
BATCHSIZ=1000

#
# Number of Collator threads to start that will listen to one group.
#
NumCollThreads=1
```

Enabling the Required Elements on the Monitored System

This section discusses enabling the required elements on the monitored system which is the system for which you intend to collect performance data. A monitored system requires these items to be in place:

- JD Edwards EnterpriseOne application server.
- JD Edwards EnterpriseOne web server (also known as JD Edwards EnterpriseOne JAS Server).
- Valid monitor servlet URL value.

Setting Up the Database of the Monitored System

As long as your JD Edwards EnterpriseOne application server is running against your JD Edwards EnterpriseOne database, no further database configuration is required for JD Edwards EnterpriseOne Performance Monitor.

Specifying the Monitor URL

The monitor URL identifies the Monitor servlet. The monitor URL value must reflect the URL of the monitor servlet that is running on the monitoring system. The readme.txt generated by the installer contains the correct value for the URL. The agents on the monitored system check the monitor URL value periodically. When the monitor URL value is set to NONE, JD Edwards EnterpriseOne Performance Monitor components on the monitored system are disabled.

Setting Up the Web Server of the Monitored System

No additional installation procedure is required. When JD Edwards EnterpriseOne Performance Monitor is turned on (by providing the monitor URL or by setting the flag in the JAS.INI file), agents on the JD Edwards EnterpriseOne web server automatically become active and begin relaying performance data to the monitoring system.

Configuring JAS.INI file on the Monitored Server (JD Edwards EnterpriseOne JAS Server)

The JAS.INI file on the monitored web server requires new settings for PerfMon. If these settings do not exist, you need to add them. The JAS.INI file on the monitored web server is located in: E1JASInstallDir/WebClinet.war/WEB-INF/jas.ini. The following line must exist in the [SERVER COMPONENTS] section in the jas.ini file on the Monitored Server: com.jdedwards.jas.PerfMonInit The following section is added to the JAS.INI file to define the settings for JD Edwards EnterpriseOne Performance Monitor:

[PERFMON]

The settings that you need to set after the install are in brackets ({}). For the other settings you can use the default installed values and change them later if needed.

```
# This is the URL of the monitor Servlet.
# The readme.txt file generated by the installer contains the correct value for⇒
 url_value.
{monitorUrl}=--Add the URL value from the readme.txt generated by the installer--

# A String used to distinguish the host and port of the machines where different⇒
 Agents
# are running. Please use the same host name and port number used in the previous⇒
 setting.
# E1 Transaction Server installer will update this setting in the jas.ini file⇒
 with the
# correct host name and port number.
{hostPort}=--Add the HOST:PORT from the readme.txt generated by the installer--


#
# Transactions will be timed out by the Monitor Server if the "End Transaction" is⇒
 not
# received this number of seconds after the Start Transactoin.
#
transactionTimeout=60
```



```
#
# not currently being used.
#
sampler=60

#
# Please use the host name and port number from the readme.txt generated by the
# installer.
#
ppmiUrl=http://~PPMI_HOST_NAME~:~PPMI_LISTEN_PORT~/ppm/ppmi

#
# if true, then users can snoop monitor servlet's status.
#
PPMConsole=false

#
# Maximum size (megabytes) of memory used by Monitor servlet queues.
#
PPMMonitorBufferSize=50

#
# Interval (in minutes) until a partially filled batch is flushed by the
# Monitor servlet.
#
PPMSyncInterval=1

#
# Number of Java Agents to initialize at the startup of the JAS Server. Agent
# initialization is a time consuming process. This many Agents are initialized at⇒
 the startup
# and the groups of Agents will be initialized if more Agents are needed. If this⇒
 setting is
# missing from the JAS.INI file the default value of 100 will be used by the⇒
 system.
ClientCachePerfSize=100
```

Setting Up the Application Server

Performance data is gathered for CallObject Kernel processes running on the monitored application server. No installation or configuration procedures are required. When the monitored system is enabled, agents in every instrumented server process automatically become active and begin relaying performance data to the monitoring system.

Ensure that the agentActive setting in the [PERFMON] section of the JDE.INI file is set to true (enabled). By default, it is set to false (disabled). If the agentActive setting is commented out or set to anything other than true, then the agents are disabled for this server.

Configuring JDE.INI file on the Monitored Server (JD Edwards EnterpriseOne Application Server)

PerfMon requires new settings in the JDE.INI file on the monitored Server.

[PERFMON]

The settings that you need to set after the install are in brackets ({}). The other settings you can use the default installed values and change them later if needed.

```
# flag to enable/disable JD Edwards EnterpriseOne Performance Monitor Agents on the application S
 set
# to anything other than true no performance data will be sent from the⇒
 application Server to
# the Monitor Server.
#
agentActive = true

# This is the URL of the monitor Servlet.
# The readme.txt file generated by the installer contains the correct value for⇒
 url_value.

{monitorUrl}=--Add the URL value from the readme.txt generated by the installer--

# A String used to distinguish the host and port of the machines where different⇒
 Agents
# are running. Please use the host name and port number of the JD Edwards⇒
 EnterpriseOne application server.
{hostPort}=~E1AppServer_HOST_NAME~:~E1AppServer_LISTEN_PORT~
#
# JDENET mressages will be timed out by the Appliation Server if the response is⇒
 not
# received before this number of seconds.
#
jdenetTimeout=120

# PerfMon Transactions will be timed out by the Monitor Server if the "End⇒
 Transaction"
# is not received this number of seconds after the Start Transactoin.
#
transactionTimeout=60

# not currently being used.
#
sampler=60
#
# Default filter mask (Standby) for Agents.
# valid values are:
# Standby  1  No performance data is collected.
# standard 4  Minimum amount of performance data is collected.
# verbose  5  More performance data is collected.
```



```
# debug 6 Maximum amount of performance data is collected.
#
filterMask = 1

[PERFMON_JAVA_ADAPTER_1]
#
# Please use the host name of the monitoring server provided in the readme.txt⇒
 generated
# by the installer.
#
{javaAdapterhost} = -- use the host name of the monitoring System --
#
# Port on which the E1JavaAdapter is listening. Should be the same as the
# [JDENET] serviceNameListen value used by the Monitoring system.

{javaAdapterPort} = -- use the same value as the serviceNameListen in the [JDENET]
secion in the JAS.INI file on the Monitoring System.
```


CHAPTER 4

Administering JD Edwards EnterpriseOne Performance Monitor

This chapter provides an overview of JD Edwards EnterpriseOne Performance Monitor administration and discusses how to:

- Set global system options.
- Set system definition defaults.
- Modify system definitions.
- View agent definitions.
- Set agent filter options.
- Schedule the reaper program.

Understanding JD Edwards EnterpriseOne Performance Monitor Administration

This section discusses JD Edwards EnterpriseOne Performance Monitor administration and lists the forms used for JD Edwards EnterpriseOne Performance Monitor administration.

JD Edwards EnterpriseOne Performance Monitor Administration

JD Edwards EnterpriseOne Performance Monitor administration includes:

- Specifying global settings.
- Viewing performance definitions such as those related to systems, agents, metrics, and so on.
- Setting system defaults.
- Scheduling batch programs that maintain performance data.

Forms Used for JD Edwards EnterpriseOne Performance Monitor Administration

Form Name	FormID	Navigation	Usage
Global Administration - Global Administration Revisions	W95900A	JD Edwards EnterpriseOne Menus, JD Edwards EnterpriseOne LifecycleTools, System Administration Tools, JD Edwards EnterpriseOne Performance Monitor, Administration, Global Administration	View and modify global administration settings, such as the PPMI URL value.
System Defaults - System Default Revisions	W95900B	JD Edwards EnterpriseOne Menus, JD Edwards EnterpriseOne LifecycleTools, System Administration Tools, JD Edwards EnterpriseOne Performance Monitor, Administration, System Defaults	Set global system defaults for all monitored systems.
System Definitions - Work With System Definitions	W9500C	JD Edwards EnterpriseOne Menus, JD Edwards EnterpriseOne LifecycleTools, System Administration Tools, JD Edwards EnterpriseOne Performance Monitor, Administration, System Definitions	View and select system definition that is associated with each of the systems that are being monitored.
System Definitions - System Definition Revisions	W95900D	From the System Definitions - Work With System Definitions form, click Find.	View and modify the system definition that is associated with each of the systems that are being monitored. For example, you can set archive, PMU timeout, and agent buffer size.
Agent Definitions - Work With Agent Definitions	W9500E	JD Edwards EnterpriseOne Menus, JD Edwards EnterpriseOne LifecycleTools, System Administration Tools, JD Edwards EnterpriseOne Performance Monitor, Administration, Agent Definitions	View and select the definitions of the agents that are running on the monitored system's application server, and web server.
Agent Definitions - Agent Definition Revisions	W95900F	From the Agent Definitions - Agent Definition Revisions form, click Find.	Make active or inactive the agent that you selected.

Page Name	Object Name	Navigation	Usage
Agent Filters - Work With Agent Filters	W9500J	JD Edwards EnterpriseOne Menus, JD Edwards EnterpriseOne LifecycleTools, System Administration Tools, JD Edwards EnterpriseOne Performance Monitor, Administration, Agent Filters	Search for the filter levels for the agents that are running on the monitored system.
Agent Filters - Agent Filter Revisions	W95900G	From the Agent Filters - Work With Agent Filters form, click Find.	Set the filter levels for the agents.
Submit Job - Work With Batch Versions - Available Versions	W98305WA	JD Edwards EnterpriseOne Menus, Submit Job.	Enter R95900 in the Batch Application field and click Find. Select the Reaper and click Select.
Submit Job - Work With Batch Versions - Available Versions	W98305WA	From the Submit Job - Work With Batch Versions - Available Versions, search for and select a batch application, and click Select.	Select Data Selection, Data Sequencing, or both, and click Submit.

Setting Global System Options

Access the Global Administration - Global Administration Revisions form.

URL Displays the URL.

User User ID used to access the PPMI servlet.

Password Password used to access the PPMI servlet.

Maximum Rows Limits the amount of data that can be inserted into the JD Edwards EnterpriseOne Performance Monitor tables.

Last Updated User ID Specifies the last user to update the record.

Last Updated Date/Time Specifies the Utime when the record was last updated.

Setting System Definition Defaults

Access the System Defaults - System Default Revisions form.

The System Defaults form enables you to set default values for all of the monitored systems. When a new systems register with the monitoring system for the first time, the system adopts the default values that you have set.

Using the System Defaults form enables you to set global values for each monitored system rather than modifying the values for each system separately.

Archive Nothing, Delete Data, Archive Data Choose an archive mode. The archive mode specifies how the archive program should process the performance data stored in the monitoring database.

Allow Performance Trace Enables authorized users connected to this monitored system to start a specific performance trace.

Agent Heartbeat Interval (sec) Indicates the interval at which agents that do not have any performance data to report or that are in standby mode connect to the monitor servlet to be notified of any configuration changes. If agents post data to the monitoring system before this interval expires, they will be notified of any configuration changes and the timer will be reset. The lower the number, the greater the responsiveness of the agents to configuration changes, but the greater the network traffic. This value cannot be set to zero.

PMU Timeout (days) Indicates the interval in which an open PMU is considered timed out. PMU timeouts are measured in days. The PMU timeout value cannot be set to zero. After the specified interval, the system assumes that a PMU that has not completed encountered an error and should no longer be considered open. The reaper program moves timed out PMUs from the current PMU tables to the history PMU tables and sets the status to Reaper Timed Out.

Agent PMU Sample Rate (1/X) Enables you to reduce the amount of PMU data generated by monitoring just 1 of every N server trips. Sampling does not affect PMUs initiated in a performance trace.

Agent Buffering Interval (sec) Specifies the rate (in seconds) at which an agent sends performance data to the monitoring system. This value cannot be set to zero. A smaller interval decreases the delay between the time when the monitored system generates performance data and the time it is displayed on the monitoring system. Larger intervals enable more efficient transmission of performance data across the network because the system can consolidate the data into packets. The larger the interval, the greater the Agent Max Buffer size should be set.

Agent Max Buffer Size (bytes) Determines the maximum size of the buffer containing performance data. This enables you to cap the amount of data being stored by the agent on the monitored system and the amount of data sent across your network. If this limit is reached, the agent automatically discards new performance data until the current data has been posted to the monitor servlet. The agent posts an alarm to the monitoring if the buffer size threshold is exceeded. The minimum must be 10240 bytes (10 KB).

Agent Filter Level Select a filter level stored in the system default table applied to monitoring system when no specific definition is applied. Each PMU definition has a filter level set to one of the following: standard, verbose, or debug. Marking a PMU as standard, verbose, or debug will tell JD Edwards EnterpriseOne Performance Monitor system whether or not the PMU metrics should be captured based on what level JD Edwards EnterpriseOne Performance Monitor is capturing data at. JD Edwards EnterpriseOne Performance Monitor filter level can be one of the following: standby (no metric data captured), standard (only standard PMUs captured), verbose (standard and verbose PMUs captured), or debug (all PMUs captured).

Modifying System Definitions

Access the System Definitions - System Definition Revisions form.

A *system* refers to a particular monitored system. System definitions are created automatically when the first agent of a monitored system registers with the monitoring system. The database name and GUID (a JD Edwards EnterpriseOne value used to uniquely identify a JD Edwards system) are provided by the agent during its registration process.

This section describes the properties and configuration options for each monitored system.

System ID Identifies each monitored system. JD Edwards automatically generates this value incrementally. System definitions are created automatically when the first agent of a monitored system registers with the monitoring system.

Database Name Identifies the name assigned to the database during installation, such as HPDEVORAP or HP9000. - - - FORM SPECIFIC HELP - - - The name of the database running on the monitored system. The monitoring system automatically inserts this value when it recognizes and creates a monitored system.

Description Identifies the description for JD Edwards EnterpriseOne Performance Monitor usage. - - - FORM SPECIFIC HELP - - - A description of the monitoring system to assist recognition. The default value is the database name.

UID Identifies the unique identifier for JD Edwards EnterpriseOne Performance Monitor defined systems. The monitoring system automatically inserts this value when it recognizes and creates a monitored system.

Archive Mode Displays the archive mode you set specifies how the archive program should process the performance data stored in the monitoring database.

Allow User Trace Enables authorized users connected to this monitored system to start a specific performance trace.

Agent Heartbeat Interval (sec) Indicates the interval at which agents that do not have any performance data to report or that are in standby mode connect to the monitor servlet to be notified of any configuration changes. If agents post data to the monitoring system before this interval expires, they will be notified of any configuration changes and the timer will be reset. The lower the number, the greater the responsiveness of the agents to configuration changes, but the greater the network traffic. This value cannot be set to zero.

PMU Timeout (days) Indicates the interval in which an open PMU is considered timed out. PMU timeouts are measured in days. The PMU timeout value cannot be set to zero. After the specified interval, the system assumes that a PMU that has not completed encountered an error and should no longer be considered open. The reaper program moves timed out PMUs from the current PMU tables to the history PMU tables and sets the status to Reaper Timed Out.

Agent Buffering Interval (sec) Specifies the rate (in seconds) at which an agent sends performance data to the monitoring system.

This value cannot be set to zero.

A smaller interval decreases the delay between the time when the monitored system generates performance data and the time it is displayed on the

monitoring system. Larger intervals enable more efficient transmission of performance data across the network because the system can consolidate the data into packets. The larger the interval, the greater the Agent Max Buffer size should be set.

Agent PMU Sample Rate (1/X) Enables you to reduce the amount of PMU data generated by monitoring just 1 of every N server trips. Sampling does not affect PMUs initiated in a performance trace.

Agent Max Buffer Size (bytes) Determines the maximum size of the buffer containing performance data. This enables you to cap the amount of data being stored by the agent on the monitored system and the amount of data sent across your network. If this limit is reached, the agent automatically discards new performance data until the current data has been posted to the monitor servlet. The agent posts an alarm to the monitoring if the buffer size threshold is exceeded. The minimum must be 10240 bytes (10 KB).

Last Updated User ID Specifies the last user to update the record.

Last Updated Date/Time Specifies the Utime when the record was last updated.

Viewing Agent Definitions

Access the Agent Definitions - Agent Definition Revisions form.

Agent definitions enable you to view the details about the agents in monitored systems.

System ID Identifies each monitored system. JD Edwards EnterpriseOne automatically generates this value incrementally. System definitions are created automatically when the first agent of a monitored system registers with the monitoring system.

Database Name Identifies the name of the database running on the monitored system. The monitoring system automatically inserts this value when it recognizes and creates a monitored system.

Agent ID Identifies an agent within a domain. This is automatically generated by the monitor the first time an agent registers.

Domain Monitor Displays as Yes or No. If yes, then this agent is responsible for sending resource events for its host and domain to the monitor at the specified sampling rate for the monitored system.

Domain Name Identifies the name of the domain in which an agent operates.

Domain Type Indicates whether the domain is an application server, a web server, or a Process Scheduler server domain.

Domain Host/Port Identifies the name or IP address of the server on which the domain resides including the port number to which the domain listens for requests.

Domain Directory Specifies the directory in which the domain is installed on the server.

Server Instance Specifies the collator server instance number.

Agent Inactive Select this box to make the agent inactive. If selected, the agent's events and PMUs do not appear in JD Edwards EnterpriseOne Performance Monitor forms showing current information. You can still view information about events and PMUs sent by inactive agents using the forms that display historical information.

Setting Agent Filter Options

Agent Filters - Agent Filter Revisions form.

Agent filters determine the amount of performance data that is generated and sent to the monitoring system. Depending on the situation, different levels of performance data may be needed to assist in your performance-related decisions. The levels range from no information to extremely detailed information.

Each type of PMU and event is associated with a filter level, which is the lowest level at which the system generates performance data for that PMU or event.

System ID Identifies each monitored system. The JD Edwards EnterpriseOne system automatically generates this value incrementally. System definitions are created automatically when the first agent of a monitored system registers with the monitoring system.

Database Name Identifies the name assigned to the database during installation, such as HPDEVORAP or HP9000. - - - FORM SPECIFIC HELP - - - The name of the database running on the monitored system. The monitoring system automatically inserts this value when it recognizes and creates a monitored system.

Description Identifies the description for JD Edwards EnterpriseOne Performance Monitor usage. - - - FORM SPECIFIC HELP - - - A description of the monitoring system to assist recognition. The default value is the database name

Last Update User ID Specifies the last user to update the record.

Last Update Date/Time Specifies the Utime when the record was last updated.

Scheduling the Reaper Program

The reaper process (R95900/XJDE0001) maintains the tables JD Edwards EnterpriseOne Performance Monitor uses to store performance data for current, realtime processing. It should be scheduled to run (via scheduler) periodically based on the filter level you are capturing data at and the load your enterprise is under. Performance of JD Edwards EnterpriseOne Performance Monitor will degrade if the tables JD Edwards EnterpriseOne Performance Monitor uses to store performance data for current, realtime processing are not maintained by the reaper process.

When JD Edwards EnterpriseOne Performance Monitor gets notified that a PMU has finished (it receives a STOP for an open PMU), it:

- Flags the corresponding start and update rows in the current PMU table F95960 for deletion.
- Inserts a row for the completed PMU in the F95961 table.

When the reaper program (R95900/XJDE0001) runs, it:

- Deletes all rows in current PMU table (F95960) that are flagged for deletion.
- Sets the status to timed out for expired PMUs in the current table.

Warning! If you do not schedule the reaper program to run often enough, the F95960 table will grow very large over time, and it may contain many old, open PMUs.

CHAPTER 5

Monitoring System Performance

This chapter provides an overview of system JD Edwards EnterpriseOne Performance Monitoring and discusses how to:

- Use the system performance home form.
- View open PMUs.
- View open PMU trees.
- Monitor Individual User Performance.

System JD Edwards EnterpriseOne Performance Monitoring

This section contains an overview of monitoring system performance and lists the forms that are used to monitor system performance.

Monitoring System Performance

The activities that are related to monitoring system performance are primarily for viewing and analyzing the most recent performance data that is received from agents in a monitored system.

Note. The information that is presented in the System Performance forms is as current as the last form refresh.

Note. The standard deviation is a statistic that tells you how tightly all the values that are used to compute the average are clustered around the average. Large standard deviations warn that the averages appearing in the chart are not a reliable indicator of response times that are experienced by individual users.

Forms Used to Modify System Performance

Form Name	FormID	Navigation	Usage
System Performance - Work With System Performance	W95910J	JD Edwards EnterpriseOne Menus, JD Edwards EnterpriseOne LifecycleTools, System Administration Tools, JD Edwards EnterpriseOne Performance Monitor, System Monitor, System Performance	Search for performance data to analyze.
System Performance - System Performance	W95910E	From the System Performance - Work With System Performance form, select an item and click Select.	View performance indices and daily averages. You can also view open PMUs and completed PMUs by clicking the corresponding links.
Open PMUs - Open PMUs	W95910D	JD Edwards EnterpriseOne Menus, JD Edwards EnterpriseOne LifecycleTools, System Administration Tools, JD Edwards EnterpriseOne Performance Monitor, System Monitor, Open PMUs.	Search for open PMUs.
Open PMU Trees - Open PMU Trees	W95910G	JD Edwards EnterpriseOne Menus, JD Edwards EnterpriseOne LifecycleTools, System Administration Tools, JD Edwards EnterpriseOne Performance Monitor, System Monitor, Open PMU Trees.	Search for open PMU trees.
Open PMU Trees - Open PMU Trees Revision form.	W95910H	From the PMU Trees - Open PMU Trees form, select an open PMU Tree and click Select.	View and modify open PMU Trees.
User Level Trace	W95900M	From the Agent Filter Revisions form, click the Tools menu, then click User Level Trace.	Enter a user from whom you want to collect data.

Viewing Open PMUs

Access the Open PMUs - Open PMUs form.

An open PMU is a PMU that started but has not finished prior to an agent reporting performance metrics to the monitor. Information regarding open PMUs are stored in the F95960 table. When the PMU finishes, the collator flags the PMU for deletion and inserts a matching row into the F95961 table, which stores completed PMU data.

If an end user is reporting that a JD Edwards EnterpriseOne form is slow, use the Open PMU form to see where the request has stalled. Search for that user's ID to see the current state of that user's open PMUs.

Before you view current PMU details, you need to enter search criteria. If you do not specify criteria, the form displays *all* of the open PMUs for the selected system.

User ID Specifies the code that identifies a user profile.

PMU Set Categorizes meta-data transaction definitions into a set. Currently, only one definition set exists, and it is reserved for JD Edwards EnterpriseOne development.

PMU ID Specifies the identifier for a particular PMU you can monitor.

Performance Trace Identifies the name of the trace used to capture performance data that a user can start and stop to capture specific results.

Context 1, 2, 3 Specifies values (1-3) that are common to the entire user request or a specific tier. PMU metrics contain data specific to an individual PMU.

System ID Identifies each monitored system. JD Edwards EnterpriseOne automatically generates this value incrementally. System definitions are created automatically when the first agent of a monitored system registers with the monitoring system.

Agent ID Identifies an agent within a domain. This is automatically generated by the monitor the first time an agent registers.

Duration >=sec Identifies the duration in milliseconds that a single transaction took to complete.

Duration < (sec) Identifies the duration in milliseconds that a single transaction took to complete.

Note. Some of the metrics for various PMUs do not have values until the PMU finishes, so in some cases, metrics may appear with no values.

Monitoring Individual User Performance

You can monitor individual users' system performance using the UserLevel Trace Application. You set the performance data according to the user override of JD Edwards EnterpriseOne Performance Monitoring level. You can override JD Edwards EnterpriseOne Performance Monitoring level for one user at a time, however you cannot override JD Edwards EnterpriseOne Performance Monitoring level for multiple users.

Access the User Level Trace form.

User ID Specifies the code that identifies a user profile.

Standard, Verbose, Debug Select a filter value to view only the information returned of a specific filter level. Each meta-data definition has a filter level set to one of the following: Standard, verbose, or debug.

Viewing Open PMU Trees

Access the Open PMU Trees - Open PMU Trees form.

Every user request generates a set of PMUs that you can display as a tree. The PMU with the top instance ID is the root of the tree and PMUs with no children are the leaves. A node represents each PMU or child PMU. Clicking a node reveals its detail, or the Select button on the parent nodes reveals its details.

A search may return multiple PMU trees. For example, if a user ID is shared across multiple users, or a single user has initiated multiple browser sessions, then more than one user request may be currently processing, and therefore more than one PMU tree open.

The data that is related to open PMUs is dynamic because the system is currently processing the PMU. Therefore, the composition of trees, and even their presence, is likely to change each time you click Refresh.

Note. For each PMU in the tree, the duration value represents the period of time that has elapsed since the monitoring system received the start timestamp for each PMU. In some cases, the display may indicate that a child PMU is "older" than its parent. For example, if the application server sent PMU information before the web server sent PMU information, the child PMUs that are running on the application server will display a smaller duration than the associated parent PMUs that are running on the web server.

User ID Specifies the code that identifies a user profile.

CHAPTER 6

Analyzing Historical Performance Data

This chapter provides an overview of historical performance data and discusses how to view completed PMUs.

Historical Performance Data

This section provides an overview of historical performance data and lists the forms used to analyze historical performance data.

Historical Performance Data

The system stores historical data from the moment a PMU finishes processing or an event occurs. When the archive program runs (R95900/XJDE0002), it either deletes the historical data or moves it to the archive tables.

Analyzing historical data can help you:

- Identify trends.

  By comparing historical data, you can spot upward and downward performance trends.

- Investigate past user complaints.

  For example, a user may complain that performance was slow during the previous week. You search historical performance data to find the PMUs that were generated by the user at a specific time a week ago.

Forms Used to Analyze Historical Performance Data

Form Name	FormID	Navigation	Usage
Completed PMUs - Completed PMUs	W95920D	JD Edwards EnterpriseOne Menus, JD Edwards EnterpriseOne LifecycleTools, System Administration Tools, JD Edwards EnterpriseOne Performance Monitor, History, Completed PMUs	Enables you to search for and display completed PMUs.

Viewing Completed PMUs

Access the Completed PMUs - Completed PMUs form.

Entering Search Criteria

Before you can view frinformation about completed PMUs, you need to enter criteria so that you can locate the appropriate completed PMUs.

User ID Specifies the code that identifies a user profile.

PMU Set Categorizes meta-data transaction definitions into a set. Currently, only one definition set exists, and it is reserved for JD Edwards EnterpriseOne development.

PMU ID Specifies the identifier for a particular PMU you can monitor.

Performance Trace Identifies the name of the trace used to capture performance data that a user can start and stop to capture specific results.

Context 1,2,3 Specifies values (1-3) that are common to the entire user request or a specific tier. PMU metrics contain data specific to an individual PMU.

System ID Identifies each monitored system. JD Edwards EnterpriseOne automatically generates this value incrementally. System definitions are created automatically when the first agent of a monitored system registers with the monitoring system.

Agent ID Identifies an agent within a domain. This is automatically generated by the monitor the first time an agent registers.

Duration >= (ms) Identifies the duration in milliseconds that a single transaction took to complete.

Duration < (ms) Identifies the duration in milliseconds that a single transaction took to complete.

From Date/Time Identifies the date and time the monitor started the request. This is related to the duration of a PMU.

To Date/Time Identifies the date and time the monitor started the request. This is related to the duration of a PMU.

Working with Completed PMUs

At the bottom of the Completed PMUs - Completed PMUs form, the grid contains the information that is related to the PMUs that are retrieved by your search criteria.

You can access the Completed PMUs - PMU Details - C Call Object details form from a variety of JD Edwards EnterpriseOne Performance Monitor forms, such as the Completed PMUs - Completed PMUs form and the Open PMUs - Open PMUs form. You can also access it readily from trees. To access the form, you click the link that is created from the PMU name.

You can access the PMU details form from a variety of JD Edwards EnterpriseOne Performance Monitor forms, such as the Completed PMUs form and the Open PMUs form. You can also access it readily from trees. To access the form, you click the link that is created from the PMU name.

The PMU Details form indicates:

- PMU ID and the PMU definition set to which it belongs.
- Identification information.

- Durations information, including metric values.
- Context information.
- Additional data.

The information that appears on the PMU Details form varies depending on the type of PMU that is displayed. All metrics are formatted according to information from the metric definition.

Completed PMUs

PMU	Describes a unit of measure that reflects the execution of a section of code.
Duration (ms)	Identifies the duration in milliseconds that a single transaction took to complete.
Tree View	Displays completed PMUs in a tree view. Useful to show the hierarchy of nested PMUs. Node description will be the concatenated PMU Label (alternate language if applicable) and PMU duration. Only PMUs that are completed will show. Only top level parents will be displayed at the first level under the root. Children of the parents can be expanded. The PMU selected on the calling form will be set to bold in the tree. The PMU will be shown in the hierarchical context it was created from. Therefore, the selected PMU can be at the parent level or the child level. All nodes can be selected and PMU Detail (W95920F) will be called to show all available information.
PMU Status	Specifies the status the PMU of the PMU.
User ID	Specifies the code that identifies a user profile.
Monitor Start	Identifies the date and time the monitor started the request. This is related to the duration of a PMU.
Context 1, 2, 3	Specifies values (1-3) that are common to the entire user request or a specific tier. PMU metrics contain data specific to an individual PMU.
Agent ID	Identifies an agent within a domain. This is automatically generated by the monitor the first time an agent registers with it.
Performance Trace	Identifies the name of the trace used to capture performance data that a user can start and stop to capture specific results.

Context

The Context tab reveals the context definition and value that is associated with each PMU in the grid. To view the details of the contexts in a PMU, examine the context and PMU definitions.

This Description column shows data for the additional description value that is part of the incoming PMU. The description stores large character values and generally stores information that exceeds the 128–character limit of Metric 7 and the 254–character limit of the contexts.

Metrics

The Metrics tab presents the metric values for all of the metrics that are defined for each PMU in the grid.

Metric information appears in a raw format. The values reflect exactly what is stored in the database.

Additional Data

The Additional Data tab enables you to view textual information about the data being captured by the PMU.

Agent Details

The Agent details tab presents information about the agent from which the PMU was executed.

Identification

The Identification tab enables you to view specific identifications associated with the PMUs.

Completed PMU Status

A completed PMU can be assigned one of these statuses:

Status	Description
Success	The PMU finished successfully.
Failed	The PMU finished unsuccessfully.
Abort	Instrumentation code terminated a PMU due to an unexpected condition.
Unknown	Assigned in situations when an agent closes a child PMU if the top-level PMU closes out of sequence.
Timeout	Instrumentation code timed out the PMU.
Reaper Timeout	Long running PMU closed by the Reaper.
Admin Timeout	An administrator manually closed the PMU. This is *not* currently implemented.

CHAPTER 7

Evaluating JD Edwards EnterpriseOne Performance Monitor Meta-Data

This chapter discusses JD Edwards EnterpriseOne Performance Monitor meta-data definitions and describes how to:

- Revise Metric definitions.
- Revise Event definitions
- Revise Context definitions.
- Revise PMU definitions.

Understanding JD Edwards EnterpriseOne Performance Monitor Meta-Data Definitions

JD Edwards EnterpriseOne Performance Monitor uses these meta-data definitions:

- Metrics.
- Event Definitions.
- Contexts.
- PMUs.

Metrics

JD Edwards EnterpriseOne Performance Monitor agents send PMUs and events to the monitor. Each PMU and event contains one or more metrics. Each metric has a unique identifier. Metric definitions are the building blocks for creating PMUs and events. PMUs and events comprise up to six numeric values and one string metric value. One metric definition can appear in multiple event and PMU definitions.

Events

Events are not implemented for the 8.95 release of JD Edwards EnterpriseOne Performance Monitor. You can view and add them, however they are not functional.

Events are notifications containing performance metrics that are different from PMUs in that they are not hierarchical, and they do not have durations. JD Edwards EnterpriseOne has defined a set of event types, and each type of event is reported at a specific location in the instrumented code.

Each event has:

- Type.
- Instance identifier (a unique identifier for a specific event instance).

- Timestamp.
- Severity.
- Metrics (such as CPU usage and memory allocation).

Event definitions group as many as seven metrics to measure the intended performance data. Some events do not have metrics.

Contexts

A context definition applies only to PMU definitions. Contexts provide additional information so that PMU performance data can be displayed and searched more effectively. For example, a context definition enables you to group and sort numeric values, such as an execute count, by form name. Contexts enable the system to assign the data to various elements such as forms, components, service calls, applications, business functions, event rules, and so on. Without contexts, you have only numeric data in no understandable grouping.

PMU metrics contain data that is specific to that PMU. Context values, on the other hand, are common to the entire user request or a specific tier. The system uses contexts to "flatten" a PMU tree. For example, you do not have to navigate up from a SQL PMU to an event rule PMU to see what application generated that SQL statement.

PMUs

A PMU is a unit of measure that reflects the execution of a section of code. The system starts and stops a PMU at specific code locations, and the system may update a PMU anytime between the start and stop times. JD Edwards EnterpriseOne has defined a set of PMU types, and each type of PMU corresponds to the instrumentation at a specific code location, such as a SQL Execute in application or a business function call on the JD Edwards EnterpriseOne server.

Each PMU includes:

- PMU Type.
- Instance identifier (a unique identifier for a specific PMU instance).
- Start time.
- Stop time.
- Status.
- Metrics (such as number of SQL fetches).

A PMU represents a section of code that is bracketed by calls to an internal instrumentation API that signal the start and stop of that logical unit of code.

PMU definitions group as many as seven metrics to measure the intended performance data. Some PMUs do not have metrics.

Forms Used to Evaluate JD Edwards EnterpriseOne Performance Monitor Meta-Data

Form Name	FormID	Navigation	Usage
Metric Definitions - Work With Metric Definitions	W95905A	JD Edwards EnterpriseOne Menus, JD Edwards EnterpriseOne LifecycleTools, System Administration Tools, JD Edwards EnterpriseOne Performance Monitor, Administration, Meta-Data, Metric Definitions	Search for metric definitions.
Metric Definitions - Metric Definition Revisions	W95905C	On Metric Definitions - Work With Metric Definitions, after retrieving metric definitions, select a metric definition you want to revise and click Select.	View and modify metric definitions and opt to display the metric value alone, or with its label.
Metric Definitions - Metric Reference	W95905E	On Metric Definitions - Metric Definition Revisions, click Metric References.	Review metric references.
Context Definitions - Work With Context Definitions	W95905D	JD Edwards EnterpriseOne Menus, JD Edwards EnterpriseOne LifecycleTools, System Administration Tools, JD Edwards EnterpriseOne Performance Monitor, Administration, Meta-Data, Context Definitions	Search for Context Definitions.
Context Definitions - Context Definition Revisions	W95905F	On Context Definitions - Work With Context Definitions, after retrieving context definitions, select a context definition you want to revise and click Select.	View and modify context definitions and access the Context Definitions - Context Reference form.
Context Definitions - Context Reference	W95905E	On the Context Definitions - Context Definition Revisions form, click Context Reference.	View reference data for Context Definitions.
PMU Definitions - Work With PMU Definitions	W95905J	JD Edwards EnterpriseOne Menus, JD Edwards EnterpriseOne LifecycleTools, System Administration Tools, JD Edwards EnterpriseOne Performance Monitor, Administration, Meta-Data, PMU Definitions	Search for and select PMU Definitions.

Page Name	Object Name	Navigation	Usage
PMU Definitions - PMU Definition Revisions	W95905G	On PMU Definitions - Work With PMU Definitions, after retrieving PMU definitions, select a PMU definition you want to revise and click Select.	View and revise PMU Definitions.
Event Definitions - Work With Event Definitions	W95905K	JD Edwards EnterpriseOne Menus, JD Edwards EnterpriseOne LifecycleTools, System Administration Tools, JD Edwards EnterpriseOne Performance Monitor, Administration, Meta-Data, Event Definitions	Search for and select Event Definitions.
Event Definitions - Event Definition Revisions	W95905M	On Event Definitions - Work With Event Definitions, after retrieving Event definitions, select an Event definition and click Select.	View and revise Event Definitions.

Revising Metric Definitions

This section discusses the attributes of a metric definition.

Access the Metric Definitions - Metric Definition Revisions form.

Note. Only JD Edwards EnterpriseOne should modify metric definitions. Modifying metric definitions at your site could cause unexpected results.

Metric ID Identifies Metric meta-data definitions.

Metric Type Indicates the type of metric meta-data definition (Counter, Gauge, NumID, StrID).

- Counter: A counter metric is designed to enable sums of values from a specific time range to be calculated.

  Examples are bytes printed and records written. The values can also be averaged, maximums and minimums can be calculated, and other kinds of statistical calculations can be performed

- Gauge: A gauge metric is designed to be used instead of a counter when it is not meaningful to calculate sum values that are recorded within a time range.

  Calculations that are performed on gauge metrics include: average, standard deviation, median, maximum value, and minimum value. For example, the amount of memory that is used on a server is a gauge metric type. If you measure the amount of memory that is used over 20 transactions in a time range, the sum of the memory that is used is not necessarily useful. However, the average, median, and standard deviation provide insight into usage per transaction.

- Numeric Identifier: A numeric identifier is a numeric value that is used as an identifier, not as a measurement value.

  Creating sums and averages, or manipulating these values in any arithmetic way is not meaningful. For example, message numbers and error codes are numeric identifier metric types.

- String: Used with metric definition attributes that need to be represented as text, not a numeric value.

  Arithmetic operations are not performed on string metric types. For example, descriptive attributes, such as site path, file name, and so on, are string metric types.

Metric Label Identifies the description for JD Edwards EnterpriseOne Performance Monitor usage. - - - FORM SPECIFIC HELP - - - Displays a more detailed description of the purpose of the metric.

Description Identifies the description for JD Edwards EnterpriseOne Performance Monitor usage. - - - FORM SPECIFIC HELP - - - Displays a more detailed description of the purpose of the metric.

Metric Multiplier Identifies the multiplier used for metric definition meta-data.

Display Metric as an Integer Indicates where metric meta-data definition is an integer or double value. This is a Yes/No flag.

Metric Display Enables you to determine what appears on the forms displaying a metric. These options are mutually exclusive. Select Display Value to display the actual value. Select Display Label to display the label describing the metric value. If using Display Label select the UDC you wish to use as Display Labels.

Metric References Calls References (W95905E). Shows all the places this metric is used within PMU and Event Definitions.

Revising Event Definitions

This section discusses the attributes of an Event definition. Events are not implemented for the 8.95 release of JD Edwards EnterpriseOne Performance Monitor. You can view and add them, however they are not functional.

Access the Event Definitions - Event Definition Revisions form.

Event Definition Set Categorizes meta-data event definitions into a set. Currently, only one definition set exists, and it is reserved for JD Edwards EnterpriseOne development.

Set Description

Event ID Identifies a particular event you can monitor.

Event Label Identifies the label for Event meta-data definitions.

Event Description Describes JD Edwards EnterpriseOne Performance Monitor usage. - - - FORM SPECIFIC HELP - - - Displays a more detailed description of the purpose of the Event.

Additional Label Identifies the label for PMU additional data.

Standard, Verbose, Debug Select a filter value to view only the information returned of a specific filter level. Each meta-data definition has a filter level set to one of the following: Standard, verbose, or debug.

Context Tab

Context ID 1–3 Identifies context values 1–3.

Display Content 1–3 Flag to indicate whether or not context value 1 should be displayed when showing PMU data.

Metric Tab

Metric ID 1–7 Identifies meta-data for definitions 1–7 used for giving context to metric values.

Display Metric 1–7 Flag to indicates whether or not context value 1 should be displayed when showing PMU data.

Revising Context Definitions

This section discusses the attributes of a context definition.

Access the Context Definitions - Context Definition Revisions form.

Context Identifier Identifies Context meta-data definitions.

Context Label Identifies the context label appears on any form that displays a context to describe the value.

Description Displays a more detailed description of the purpose of the context.

Context Reference Calls References (W95905E). Shows all the places this metric is used within PMU and Event Definitions

Revising PMU Definitions

This section describes the attributes of PMU definition.

Access the PMU Definitions - PMU Definition Revisions form.

PMU Definition Set Categorizes metadata event definitions into a set. Currently, only one definition set exists, and it is reserved for JD Edwards EnterpriseOne development.

Set Description Describes a definition set.

PMU ID	Identifies a particular PMU that you can monitor.
PMU Label	Identifies the label for PMU additional data.
PMU Description	Describes a PMU metadata definition.
Additional Data Label	Identifies the label for PMU additional data.
Standard, Verbose, Debug	Select a filter value to view only the information returned of a specific filter level. Each meta-data definition has a filter level set to one of the following: Standard, verbose, or debug.
Contexts 1, 2, 3	Identifier to context value 1 through 3.
Display Content 1, 2, 3	Flag to indicate whether or not context value should be displayed when showing PMU data.
Metric ID 1, 2, 3, 4, 5, 6, 7	Identifies metric values 1, 2, 3, 4, 5, 6, 7.
Display Metric ID	Flag to indicate whether or not metric value should be displayed when showing PMU data.

APPENDIX A

PMU Definition Reference

This appendix contains the structure of each PMU that is defined in the JD Edwards EnterpriseOne system.

Note. Currently, only one PMU set definition exists; set 2.

PMU 100 C Call Object

PMU 100 has these identification attributes.

Attribute	Value
ID	100
Label	C Call Object
Description	Measure total execution time when jdeCallObject is called.

Filter Level

PMU 100 has a filter level of Standard.

Contexts

Context	Value	Description
1	BSFN Information	Application/Form/BSFN/BSFN Version/Previous BSFN
2	Login Information	Host/Port/User/Environment/Role
3	Other Information	Module/BSFN Library/PID /Thread

Metrics

Metric	Value	Description
1	BSFN Level	Business Function Level in jdeCallObject
2	BLC Specs Retrieval Time in ms	Total retrieval time for BLC specs
3	DSTemplate Spec Retrieval Time	Total retrieval time for DSTemplate specs

Metric	Value	Description
4	Call BSFN Retry	Number Of Retry to Call BSFN
5	Not Used	Not Used
6	Not Used	Not Used
7	Additional Information	BSFN Author/Override location/Commit Mode

Additional Label

Call Object Error/Server Status.

PMU 101 Java Call Object

PMU 101 has these identification attributes.

Attribute	Value
ID	101
Label	Java Call Object
Description	Java Call Object Execution Time

Filter Level

PMU 101 has a filter level of Standard.

Contexts

Context	Value	Description
1	BSFN Information	Application/Form/BSFN/BSFN Version/Previous BSFN
2	Login Information	Host/Port/User/Environment/Role
3	Other Information	Module/BSFN Library/PID /Thread

Metrics

Metric	Value	Description
1	BSFN DS Flattening Time	Java Call Object BSFN DS Flattening Time

Metric	Value	Description
2	BSFN Inflating Time	Java Call Object BSFN DS Inflating Time
3	BSFN Plug-in Execution Time	Total Execution Time For Business Function Plug-in
4	Serialized Object Time	Retrieval time for DSTMPL & JDEBLC serialized object time
5	Retry	Total Number Of Retry
6	Additional Information	BSFN Author/Override location/Commit Mode
7	Not Used	Not Used

Additional Label

CallObject/BSFN Error List

PMU 200 JDB/JDBj DML APIs

PMU 200 has these identification attributes.

Attribute	Value
ID	200
Label	JDB/JDBj DML APIs
Description	E1PM_JDB_DML_DEBUG

Filter Level

PMU 102 has a filter level of Debug.

Contexts

Context	Value	Description
1	Object	Object Name
2	Data Source	Data Source Name

Metrics

Metric	Value	Description
1	DB Request	DB request Type
2	Commit Mode	DB transaction mode
3	Return Code	Function return code
4	Number of Records	Number of Returned Records (Commit/Rollback Excluded)
5	Not Used	Not Used
6	Not Used	Not Used
7	Transaction ID	Transaction ID

Additional Label

JDB/JDBj

PMU 201 SQL DML APIs

PMU 201 has these identification attributes.

Attribute	Value
ID	201
Label	SQL DML APIs
Description	E1PM_SQL_DML_DEBUG

Filter Level

PMU 106 has a filter level of Debug.

Contexts

Context	Value	Description
1	Database Name	Database Name
2	Host Name	Database Host Name
3	Database Type	Database Type

Metrics

Metric	Value	Description
1	Transaction Mode	Size of HTML Response in bytes.
2	Not Used	Not Used
3	Not Used	Not Used
4	Not Used	Not Used
5	Not Used	Not Used
6	Not Used	Not Used
7	Transaction ID	Transaction ID

Additional Label

JDB/JDBj

PMU 300 Execute Form

PMU 108 has these identification attributes.

Attribute	Value
ID	300
Label	Execute Form
Description	User Session logout, expiration, timeout, or error

Filter Level

PMU 300 has a filter level of Standard.

Contexts

Context	Value	Description
1	User/Environment/Role	User, Environment, and Role
2	Application Name	Application Name
3	Form Name	Form Name

Metrics

Metric	Value	Description
1	Reason	Reason for session termination.
2	Response Code	HTTP Response Code.
7	User ID	User ID of user logging on.

Additional Label

N/A

PMU 301 Event Rules

PMU 301 has these identification attributes.

Attribute	Value
ID	301
Label	Event Rules
Description	Event Rules

Filter Level

PMU 109 has a filter level of Verbose.

Contexts

Context	Value	Description
1	Event Name	Web server Session ID.
2	Object ID	Client IP Address.

Metrics

Metric	Value	Description
1	Grid Row	Grid Row
2	Grid Column	Grid Column

Additional Label

N/A

PMU 302 Fetch Process

PMU 113 has these identification attributes.

Attribute	Value
ID	302
Label	Fetch Process
Description	Fetch Process

Filter Level

PMU 113 has a filter level of Verbose.

Contexts

Context	Value	Description
1	Business View	Business View

Metrics

Metric	Value	Description
1	Bypass Signon?	Boolean - logging in with a guest ID?

Additional Label

N/A

PMU 303 OK Process

PMU 303 has these identification attributes.

Attribute	Value
ID	303
Label	OK Button
Description	OK Button Process

Filter Level

PMU 114 has a filter level of Standard.

Contexts

Context	Value	Description
1	TP Usage	Transaction Processing Usage

Metrics

Metric	Value	Description
0	Not Used	Not Used

Additional Label

N/A

PMU 304 Asynch OK Process

PMU 304 has these identification attributes.

Attribute	Value
ID	304
Label	Asynch OK Process
Description	Asynch OK Button Process

Filter Level

PMU 304 has a filter level of Standard.

Contexts

Context	Value	Description
1	User/Environment/Role	User, Environment, and Role
2	Application Name	Application Name
3	Form Name	Form Name

Metrics

Metric	Value	Description
1	Queue Elements	Queue Elements
2	Not Used	Not Used

Metric	Value	Description
3	Not Used	Not Used
4	Not Used	Not Used
5	Not Used	Not Used
6	Not Used	Not Used
7	TP Usage	Transaction Processing Usage

Additional Label

N/A

APPENDIX B

Understanding JD Edwards EnterpriseOne Performance Monitor Architecture

This appendix discusses JD Edwards EnterpriseOne Performance Monitor Architecture.

JD Edwards EnterpriseOne Performance Monitor Architecture Components

This section discusses the major components of JD Edwards EnterpriseOne Performance Monitor Architecture, which are:

- JD Edwards EnterpriseOne application server.
- JD Edwards EnterpriseOne web server (also known as JAS, Java application server)
- JD Edwards EnterpriseOne monitoring server
- User interface
- Database host
- Data Flow

JD Edwards EnterpriseOne Application Server

This section discusses the components of the application server.

AppServer C-Agent

All instrumented C processes on the JD Edwards EnterpriseOne application server are linked to the JD Edwards EnterpriseOne PerfMon DLL to call into instrumentation API's. Instrumentation API's send performance data to the PerfMon Java Adapter on the Monitoring Server using JD Edwards EnterpriseOne Proprietary JDENT communication protocol.

Archive Batch Process

This component is a batch process scheduled to periodically move data from current and history table to archive tables and also can be configured to remove data from all tables to manage disk space. This process uses JD Edwards EnterpriseOne proprietary JDB API's to access and modify database tables.

Reaper Batch Process

This component is a batch process scheduled to periodically move data from current tables to history tables for completed transactions and also to delete flagged rows in current tables. This process uses JD Edwards EnterpriseOne proprietary JDB API's to access and modify database tables.

JD Edwards EnterpriseOne JAVA Application Server

This section discusses the components of the JAS server.

JAS Runtime Engine

This component is used to display HTML pages for JD Edwards EnterpriseOne PerfMon User Interface. Retrieves meta-data from database and creates HTML Pages to send back to user browser over HTTP. It also changes Agent configuration in the database and sends a notification to the PPMI Servlet so the changes can get to the Agents. Jas runtime engine uses JD Edwards EnterpriseOne proprietary JDBj API's to access and modify database tables.

JD Edwards EnterpriseOne Monitoring Server

Enterprise One Monitoring Server uses the same components as the Enterprise solution which are: PPMI Servlet, Monitor Servlet and Data Collator. Changes have been made to these components for integration with JD Edwards EnterpriseOne environment. For example these components have been changed to use JD Edwards EnterpriseOne JDBj mechanism for database operations. No changes have been made in the way 3rd part solutions will register and retrieve data from the Monitoring Server. One new component (JD Edwards EnterpriseOne PerfMon Java Adapter) has been added to act as a bridge between JD Edwards EnterpriseOne application server and Monitor Server. This adapter receives the performance data from the Enterprise Server (through JDENet messages) and converts them to HTTP and sends them to the Monitor Servlet by calling into existing PerfMon Java API's.

PerfMon Java Adapter

PerfMon Java Adapter acts as a bridge between JD Edwards EnterpriseOne application server and the Monitoring Server. C processes on the application Server (also known as C-Agents) send the performance data to the PerfMon Java Adapter using the JD Edwards EnterpriseOne JDENet protocol. PerfMon Java Adapter calls into Java API's and passes the performance data to the monitor Servlet which runs on the Monitor Server. Note that the Java API's called by the PerfMon Java Adapter are the same API's that are called in JAS Runtime Engine instrumented code.

Monitor Servlet

The Monitor Servlet receives the registration notification from all the Agents and updates the database with the registration information. It also receives the performance data from all the Agents in the environment and hands the data to all registered PPMI clients. In JD Edwards EnterpriseOne solution the "out of the box" PPMI client for performance data is the JD Edwards EnterpriseOne data collator whish is another component of the Monitor Server. Each time the Monitor Server receives the performance data from an Agent, it sends back the Agent configuration as the response to the Agents. This is how the Agents will be notified from any Agent configuration changes. The Monitor Servlet uses the JD Edwards EnterpriseOne proprietary JDBj API's to access and modify database tables.

Data Collator Servlet

The Data Collator registers itself to the PPMI Servlet as a PPMI Client Proxy to show interest in receiving performance data for JD Edwards EnterpriseOne environment. By receiving performance data from the Monitor Servlet, the data collator will update the database accordingly: If the data is indicating the end of an open transaction, then the data collator will add the data to the history table and remove all the corresponding data for this transaction from the current table. Otherwise the data is added to the current table. The Data Collator uses the JD Edwards EnterpriseOne proprietary JDBj API's to access and modify database tables.

PPMI Servlet

The PPMI Servlet manages PPMI clients. PPMI Client is a component that registers to the PPMI Servlet to receive JD Edwards EnterpriseOne performance data. When a client registers, the PPMI Servlet will notify the Monitor Servlet of the newly registered client and the Monitor Servlet will make sure that the performance data will be sent to the client. In JD Edwards EnterpriseOne Performance Monitor architecture, the JD Edwards EnterpriseOne Data Collator is the default PPMI client for the system. The PPMI Servlet also receives the Agent configuration change messages from the JD Edwards EnterpriseOne JAS Server. This happens when a JD Edwards EnterpriseOne administrator changes the configuration for a group pf Agents using the JD Edwards EnterpriseOne PerfMon User Interface. By receiving the notification, the PPMI Servlet reads the new Agent configuration from the database and updates the Agent configuration in the memory. This configuration in the memory is the one that is sent back to all the Agents by the Monitor Servlet. The PPMI Servlet uses the JD Edwards EnterpriseOne proprietary JDBj API's to access and modify database tables.

Data Flow

This section describes how data flows through JD Edwards EnterpriseOne Performance Monitor.

Sending Performance Data to Monitor Server

Arrows 1

On the JD Edwards EnterpriseOne application server the C-Agent calls into C instrumentation API to send the performance data to the JD Edwards EnterpriseOne PerfMon Java Adapter on the Monitoring Server.

Arrow 2

On the Monitoring Server the Java Adapter calls into Java Agent API's to send the performance data to the Monitor Servlet component of the Monitoring Server. The Java Agent API's use a separate thread per Agent to communicate with the Monitoring Server.

Arrow 3

The JAS Runtime Engine calls into Java Agent API's to send the performance data to the Monitor Servlet component of the Monitoring Server. The Java Agent API's use a separate thread per Agent to communicate with the Monitoring Server.

Saving performance Data in database

Arrow 4

Inside the Monitor Server, the Monitor Servlet receives the performance data from Java Agents in HTTP format and converts the data to XML before sending it to the Data Collator. The data collator component of the Monitor Server calls into JD Edwards EnterpriseOne JDBj API's to save performance data to the JD Edwards EnterpriseOne PerfMon database.

Sending configuration changes to the Agents

Arrows 5,6,7,8 and 9

The administrator uses the JD Edwards EnterpriseOne PerfMon User Interface to change Agent configuration for a group of Agents. (arrow number 5).

The JAS Runtime engine changes the Agent configuration data in JD Edwards EnterpriseOne PerfMon database (arrow number 6).

The JAS Runtime engine sends a notification message (in HTTP format) to the PPMI Servlet component of the Monitor Server (Arrow number 7).

The PPMI Servlet reads the new Agent configuration from PerfMon database (arrow number 8).

The PPMI Server updates the Agent configuration data in the memory, where it will be accessed by the Monitor Servlet. The Monitor Servlets sends the new Agent configuration to all the Agents the next time it communicates with the Agents (arrow number 19).

On the JAS Server no additional work is needed. The PerfMon Java Adaptor sends a JDENet message containing the new Agent configuration to all the C-Agents processes on the AppServer (arrow number 10). The Java Adapter manages a C-Agent process table where it keeps the host name and port number (among others) of all the C-Agent processes registered to the Java Adapter.

Archiving data in database

Arrow 11

A scheduled batch process will archive data in the database. The Archive batch process can be scheduled to run periodically to either move the performance data from database tables to the Archive tables or to remove them from Archive tables to free disk space on the database host. This batch process uses the EnterpriseOne proprietary JDB API's to access data in the database.

Reaping data in database

Arrow 15

A scheduled batch process will move timed out data from current tables to history tables. This batch process uses the EnterpriseOne proprietary JDB API's to access data in the database.

Glossary of JD Edwards EnterpriseOne Terms

activity	A scheduling entity in JD Edwards EnterpriseOne tools that represents a designated amount of time on a calendar.
activity rule	The criteria by which an object progresses from one given point to the next in a flow.
add mode	A condition of a form that enables users to input data.
Advanced Planning Agent (APAg)	A JD Edwards EnterpriseOne tool that can be used to extract, transform, and load enterprise data. APAg supports access to data sources in the form of rational databases, flat file format, and other data or message encoding, such as XML.
application server	A server in a local area network that contains applications shared by network clients.
as if processing	A process that enables you to view currency amounts as if they were entered in a currency different from the domestic and foreign currency of the transaction.
alternate currency	A currency that is different from the domestic currency (when dealing with a domestic-only transaction) or the domestic and foreign currency of a transaction. In JD Edwards EnterpriseOne Financial Management, alternate currency processing enables you to enter receipts and payments in a currency other than the one in which they were issued.
as of processing	A process that is run as of a specific point in time to summarize transactions up to that date. For example, you can run various JD Edwards EnterpriseOne reports as of a specific date to determine balances and amounts of accounts, units, and so on as of that date.
back-to-back process	A process in JD Edwards EnterpriseOne Supply Management that contains the same keys that are used in another process.
batch processing	A process of transferring records from a third-party system to JD Edwards EnterpriseOne. In JD Edwards EnterpriseOne Financial Management, batch processing enables you to transfer invoices and vouchers that are entered in a system other than JD Edwards EnterpriseOne to JD Edwards EnterpriseOne Accounts Receivable and JD Edwards EnterpriseOne Accounts Payable, respectively. In addition, you can transfer address book information, including customer and supplier records, to JD Edwards EnterpriseOne.
batch server	A server that is designated for running batch processing requests. A batch server typically does not contain a database nor does it run interactive applications.
batch-of-one immediate	A transaction method that enables a client application to perform work on a client workstation, then submit the work all at once to a server application for further processing. As a batch process is running on the server, the client application can continue performing other tasks. See also direct connect and store-and-forward.
business function	A named set of user-created, reusable business rules and logs that can be called through event rules. Business functions can run a transaction or a subset of a transaction (check inventory, issue work orders, and so on). Business functions also contain the application programming interfaces (APIs) that enable them to be called from a form, a database trigger, or a non-JD Edwards EnterpriseOne application. Business functions can be combined with other business functions, forms, event rules,

	and other components to make up an application. Business functions can be created through event rules or third-generation languages, such as C. Examples of business functions include Credit Check and Item Availability.
business function event rule	See named event rule (NER).
business view	A means for selecting specific columns from one or more JD Edwards EnterpriseOne application tables whose data is used in an application or report. A business view does not select specific rows, nor does it contain any actual data. It is strictly a view through which you can manipulate data.
central objects merge	A process that blends a customer's modifications to the objects in a current release with objects in a new release.
central server	A server that has been designated to contain the originally installed version of the software (central objects) for deployment to client computers. In a typical JD Edwards EnterpriseOne installation, the software is loaded on to one machine—the central server. Then, copies of the software are pushed out or downloaded to various workstations attached to it. That way, if the software is altered or corrupted through its use on workstations, an original set of objects (central objects) is always available on the central server.
charts	Tables of information in JD Edwards EnterpriseOne that appear on forms in the software.
connector	Component-based interoperability model that enables third-party applications and JD Edwards EnterpriseOne to share logic and data. The JD Edwards EnterpriseOne connector architecture includes Java and COM connectors.
contra/clearing account	A general ledger account in JD Edwards EnterpriseOne Financial Management that is used by the system to offset (balance) journal entries. For example, you can use a contra/clearing account to balance the entries created by allocations in JD Edwards EnterpriseOne Financial Management.
Control Table Workbench	An application that, during the Installation Workbench processing, runs the batch applications for the planned merges that update the data dictionary, user-defined codes, menus, and user override tables.
control tables merge	A process that blends a customer's modifications to the control tables with the data that accompanies a new release.
cost assignment	The process in JD Edwards EnterpriseOne Advanced Cost Accounting of tracing or allocating resources to activities or cost objects.
cost component	In JD Edwards EnterpriseOne Manufacturing, an element of an item's cost (for example, material, labor, or overhead).
cross segment edit	A logic statement that establishes the relationship between configured item segments. Cross segment edits are used to prevent ordering of configurations that cannot be produced.
currency restatement	The process of converting amounts from one currency into another currency, generally for reporting purposes. You can use the currency restatement process, for example, when many currencies must be restated into a single currency for consolidated reporting.
database server	A server in a local area network that maintains a database and performs searches for client computers.
Data Source Workbench	An application that, during the Installation Workbench process, copies all data sources that are defined in the installation plan from the Data Source Master and Table and Data Source Sizing tables in the Planner data source to the system-release number data source. It also updates the Data Source Plan detail record to reflect completion.

date pattern A calendar that represents the beginning date for the fiscal year and the ending date for each period in that year in standard and 52-period accounting.

denominated-in currency The company currency in which financial reports are based.

deployment server A server that is used to install, maintain, and distribute software to one or more enterprise servers and client workstations.

detail information Information that relates to individual lines in JD Edwards EnterpriseOne transactions (for example, voucher pay items and sales order detail lines).

direct connect A transaction method in which a client application communicates interactively and directly with a server application.

See also batch-of-one immediate and store-and-forward.

Do Not Translate (DNT) A type of data source that must exist on the iSeries because of BLOB restrictions.

dual pricing The process of providing prices for goods and services in two currencies.

edit code A code that indicates how a specific value for a report or a form should appear or be formatted. The default edit codes that pertain to reporting require particular attention because they account for a substantial amount of information.

edit mode A condition of a form that enables users to change data.

edit rule A method used for formatting and validating user entries against a predefined rule or set of rules.

Electronic Data Interchange (EDI) An interoperability model that enables paperless computer-to-computer exchange of business transactions between JD Edwards EnterpriseOne and third-party systems. Companies that use EDI must have translator software to convert data from the EDI standard format to the formats of their computer systems.

embedded event rule An event rule that is specific to a particular table or application. Examples include form-to-form calls, hiding a field based on a processing option value, and calling a business function. Contrast with the business function event rule.

Employee Work Center A central location for sending and receiving all JD Edwards EnterpriseOne messages (system and user generated), regardless of the originating application or user. Each user has a mailbox that contains workflow and other messages, including Active Messages.

enterprise server A server that contains the database and the logic for JD Edwards EnterpriseOne.

EnterpriseOne object A reusable piece of code that is used to build applications. Object types include tables, forms, business functions, data dictionary items, batch processes, business views, event rules, versions, data structures, and media objects.

EnterpriseOne process A software process that enables JD Edwards EnterpriseOne clients and servers to handle processing requests and run transactions. A client runs one process, and servers can have multiple instances of a process. JD Edwards EnterpriseOne processes can also be dedicated to specific tasks (for example, workflow messages and data replication) to ensure that critical processes don't have to wait if the server is particularly busy.

Environment Workbench An application that, during the Installation Workbench process, copies the environment information and Object Configuration Manager tables for each environment from the Planner data source to the system-release number data source. It also updates the Environment Plan detail record to reflect completion.

escalation monitor A batch process that monitors pending requests or activities and restarts or forwards them to the next step or user after they have been inactive for a specified amount of time.

event rule A logic statement that instructs the system to perform one or more operations based on an activity that can occur in a specific application, such as entering a form or exiting a field.

facility An entity within a business for which you want to track costs. For example, a facility might be a warehouse location, job, project, work center, or branch/plant. A facility is sometimes referred to as a "business unit."

fast path A command prompt that enables the user to move quickly among menus and applications by using specific commands.

file server A server that stores files to be accessed by other computers on the network. Unlike a disk server, which appears to the user as a remote disk drive, a file server is a sophisticated device that not only stores files, but also manages them and maintains order as network users request files and make changes to these files.

final mode The report processing mode of a processing mode of a program that updates or creates data records.

FTP server A server that responds to requests for files via file transfer protocol.

header information Information at the beginning of a table or form. Header information is used to identify or provide control information for the group of records that follows.

interface table See Z table.

integration server A server that facilitates interaction between diverse operating systems and applications across internal and external networked computer systems.

integrity test A process used to supplement a company's internal balancing procedures by locating and reporting balancing problems and data inconsistencies.

interoperability model A method for third-party systems to connect to or access JD Edwards EnterpriseOne.

in-your-face-error In JD Edwards EnterpriseOne, a form-level property which, when enabled, causes the text of application errors to appear on the form.

IServer service This internet server service resides on the web server and is used to speed up delivery of the Java class files from the database to the client.

jargon An alternative data dictionary item description that JD Edwards EnterpriseOne appears based on the product code of the current object.

Java application server A component-based server that resides in the middle-tier of a server-centric architecture. This server provides middleware services for security and state maintenance, along with data access and persistence.

JDBNET A database driver that enables heterogeneous servers to access each other's data.

JDEBASE Database Middleware A JD Edwards EnterpriseOne proprietary database middleware package that provides platform-independent APIs, along with client-to-server access.

JDECallObject An API used by business functions to invoke other business functions.

jde.ini A JD Edwards EnterpriseOne file (or member for iSeries) that provides the runtime settings required for JD Edwards EnterpriseOne initialization. Specific versions of the file or member must reside on every machine running JD Edwards EnterpriseOne. This includes workstations and servers.

JDEIPC Communications programming tools used by server code to regulate access to the same data in multiprocess environments, communicate and coordinate between processes, and create new processes.

jde.log The main diagnostic log file of JD Edwards EnterpriseOne. This file is always located in the root directory on the primary drive and contains status and error messages from the startup and operation of JD Edwards EnterpriseOne.

JDENET A JD Edwards EnterpriseOne proprietary communications middleware package. This package is a peer-to-peer, message-based, socket-based, multiprocess communications middleware solution. It handles client-to-server and server-to-server communications for all JD Edwards EnterpriseOne supported platforms.

Location Workbench An application that, during the Installation Workbench process, copies all locations that are defined in the installation plan from the Location Master table in the Planner data source to the system data source.

logic server A server in a distributed network that provides the business logic for an application program. In a typical configuration, pristine objects are replicated on to the logic server from the central server. The logic server, in conjunction with workstations, actually performs the processing required when JD Edwards EnterpriseOne software runs.

MailMerge Workbench An application that merges Microsoft Word 6.0 (or higher) word-processing documents with JD Edwards EnterpriseOne records to automatically print business documents. You can use MailMerge Workbench to print documents, such as form letters about verification of employment.

master business function (MBF) An interactive master file that serves as a central location for adding, changing, and updating information in a database. Master business functions pass information between data entry forms and the appropriate tables. These master functions provide a common set of functions that contain all of the necessary default and editing rules for related programs. MBFs contain logic that ensures the integrity of adding, updating, and deleting information from databases.

master table See published table.

matching document A document associated with an original document to complete or change a transaction. For example, in JD Edwards EnterpriseOne Financial Management, a receipt is the matching document of an invoice, and a payment is the matching document of a voucher.

media storage object Files that use one of the following naming conventions that are not organized into table format: Gxxx, xxxGT, or GTxxx.

message center A central location for sending and receiving all JD Edwards EnterpriseOne messages (system and user generated), regardless of the originating application or user.

messaging adapter An interoperability model that enables third-party systems to connect to JD Edwards EnterpriseOne to exchange information through the use of messaging queues.

messaging server A server that handles messages that are sent for use by other programs using a messaging API. Messaging servers typically employ a middleware program to perform their functions.

named event rule (NER) Encapsulated, reusable business logic created using event rules, rather that C programming. NERs are also called business function event rules. NERs can be reused in multiple places by multiple programs. This modularity lends itself to streamlining, reusability of code, and less work.

nota fiscal In Brazil, a legal document that must accompany all commercial transactions for tax purposes and that must contain information required by tax regulations.

nota fiscal factura In Brazil, a nota fiscal with invoice information.

See also *nota fiscal.*

Object Configuration Manager (OCM) In JD Edwards EnterpriseOne, the object request broker and control center for the runtime environment. OCM keeps track of the runtime locations for business functions, data, and batch applications. When one of these objects is called, OCM directs access to it using defaults and overrides for a given environment and user.

Object Librarian A repository of all versions, applications, and business functions reusable in building applications. Object Librarian provides check-out and check-in capabilities for developers, and it controls the creation, modification, and use of JD Edwards EnterpriseOne objects. Object Librarian supports multiple environments (such as production and development) and enables objects to be easily moved from one environment to another.

Object Librarian merge A process that blends any modifications to the Object Librarian in a previous release into the Object Librarian in a new release.

Open Data Access (ODA) An interoperability model that enables you to use SQL statements to extract JD Edwards EnterpriseOne data for summarization and report generation.

Output Stream Access (OSA) An interoperability model that enables you to set up an interface for JD Edwards EnterpriseOne to pass data to another software package, such as Microsoft Excel, for processing.

package JD Edwards EnterpriseOne objects are installed to workstations in packages from the deployment server. A package can be compared to a bill of material or kit that indicates the necessary objects for that workstation and where on the deployment server the installation program can find them. It is point-in-time snapshot of the central objects on the deployment server.

package build A software application that facilitates the deployment of software changes and new applications to existing users. Additionally, in JD Edwards EnterpriseOne, a package build can be a compiled version of the software. When you upgrade your version of the ERP software, for example, you are said to take a package build.

Consider the following context: "Also, do not transfer business functions into the production path code until you are ready to deploy, because a global build of business functions done during a package build will automatically include the new functions." The process of creating a package build is often referred to, as it is in this example, simply as "a package build."

package location The directory structure location for the package and its set of replicated objects. This is usually \\deployment server\release\path_code\package\package name. The subdirectories under this path are where the replicated objects for the package are placed. This is also referred to as where the package is built or stored.

Package Workbench An application that, during the Installation Workbench process, transfers the package information tables from the Planner data source to the system-release number data source. It also updates the Package Plan detail record to reflect completion.

planning family A means of grouping end items whose similarity of design and manufacture facilitates being planned in aggregate.

preference profile The ability to define default values for specified fields for a user-defined hierarchy of items, item groups, customers, and customer groups.

print server The interface between a printer and a network that enables network clients to connect to the printer and send their print jobs to it. A print server can be a computer, separate hardware device, or even hardware that resides inside of the printer itself.

pristine environment A JD Edwards EnterpriseOne environment used to test unaltered objects with JD Edwards EnterpriseOne demonstration data or for training classes. You must have this environment so that you can compare pristine objects that you modify.

processing option A data structure that enables users to supply parameters that regulate the running of a batch program or report. For example, you can use processing options to specify default values for certain fields, to determine how information appears or is printed, to specify date ranges, to supply runtime values that regulate program execution, and so on.

production environment A JD Edwards EnterpriseOne environment in which users operate EnterpriseOne software.

production-grade file server A file server that has been quality assurance tested and commercialized and that is usually provided in conjunction with user support services.

program temporary fix (PTF) A representation of changes to JD Edwards EnterpriseOne software that your organization receives on magnetic tapes or disks.

project In JD Edwards EnterpriseOne, a virtual container for objects being developed in Object Management Workbench.

promotion path The designated path for advancing objects or projects in a workflow. The following is the normal promotion cycle (path):

11>21>26>28>38>01

In this path, *11* equals new project pending review, *21* equals programming, *26* equals QA test/review, *28* equals QA test/review complete, *38* equals in production, *01* equals complete. During the normal project promotion cycle, developers check objects out of and into the development path code and then promote them to the prototype path code. The objects are then moved to the productions path code before declaring them complete.

proxy server A server that acts as a barrier between a workstation and the internet so that the enterprise can ensure security, administrative control, and caching service.

published table Also called a master table, this is the central copy to be replicated to other machines. Residing on the publisher machine, the F98DRPUB table identifies all of the published tables and their associated publishers in the enterprise.

publisher The server that is responsible for the published table. The F98DRPUB table identifies all of the published tables and their associated publishers in the enterprise.

pull replication One of the JD Edwards EnterpriseOne methods for replicating data to individual workstations. Such machines are set up as pull subscribers using JD Edwards EnterpriseOne data replication tools. The only time that pull subscribers are notified of changes, updates, and deletions is when they request such information. The request is in the form of a message that is sent, usually at startup, from the pull subscriber to the server machine that stores the F98DRPCN table.

QBE An abbreviation for query by example. In JD Edwards EnterpriseOne, the QBE line is the top line on a detail area that is used for filtering data.

real-time event A service that uses system calls to capture JD Edwards EnterpriseOne transactions as they occur and to provide notification to third-party software, end users, and other JD Edwards EnterpriseOne systems that have requested notification when certain transactions occur.

refresh A function used to modify JD Edwards EnterpriseOne software, or subset of it, such as a table or business data, so that it functions at a new release or cumulative update level, such as B73.2 or B73.2.1.

replication server A server that is responsible for replicating central objects to client machines.

quote order In JD Edwards Procurement and Subcontract Management, a request from a supplier for item and price information from which you can create a purchase order.

	In JD Edwards Sales Order Management, item and price information for a customer who has not yet committed to a sales order.
selection	Found on JD Edwards EnterpriseOne menus, a selection represents functions that you can access from a menu. To make a selection, type the associated number in the Selection field and press Enter.
Server Workbench	An application that, during the Installation Workbench process, copies the server configuration files from the Planner data source to the system-release number data source. It also updates the Server Plan detail record to reflect completion.
spot rate	An exchange rate entered at the transaction level. This rate overrides the exchange rate that is set up between two currencies.
Specification merge	A merge that comprises three merges: Object Librarian merge, Versions List merge, and Central Objects merge. The merges blend customer modifications with data that accompanies a new release.
specification	A complete description of a JD Edwards EnterpriseOne object. Each object has its own specification, or name, which is used to build applications.
Specification Table Merge Workbench	An application that, during the Installation Workbench process, runs the batch applications that update the specification tables.
store-and-forward	The mode of processing that enables users who are disconnected from a server to enter transactions and then later connect to the server to upload those transactions.
subscriber table	Table F98DRSUB, which is stored on the publisher server with the F98DRPUB table and identifies all of the subscriber machines for each published table.
supplemental data	Any type of information that is not maintained in a master file. Supplemental data is usually additional information about employees, applicants, requisitions, and jobs (such as an employee's job skills, degrees, or foreign languages spoken). You can track virtually any type of information that your organization needs. For example, in addition to the data in the standard master tables (the Address Book Master, Customer Master, and Supplier Master tables), you can maintain other kinds of data in separate, generic databases. These generic databases enable a standard approach to entering and maintaining supplemental data across JD Edwards EnterpriseOne systems.
table access management (TAM)	The JD Edwards EnterpriseOne component that handles the storage and retrieval of use-defined data. TAM stores information, such as data dictionary definitions; application and report specifications; event rules; table definitions; business function input parameters and library information; and data structure definitions for running applications, reports, and business functions.
Table Conversion Workbench	An interoperability model that enables the exchange of information between JD Edwards EnterpriseOne and third-party systems using non-JD Edwards EnterpriseOne tables.
table conversion	An interoperability model that enables the exchange of information between JD Edwards EnterpriseOne and third-party systems using non-JD Edwards EnterpriseOne tables.
table event rules	Logic that is attached to database triggers that runs whenever the action specified by the trigger occurs against the table. Although JD Edwards EnterpriseOne enables event rules to be attached to application events, this functionality is application specific. Table event rules provide embedded logic at the table level.
terminal server	A server that enables terminals, microcomputers, and other devices to connect to a network or host computer or to devices attached to that particular computer.

three-tier processing The task of entering, reviewing and approving, and posting batches of transactions in JD Edwards EnterpriseOne.

three-way voucher match In JD Edwards Procurement and Subcontract Management, the process of comparing receipt information to supplier's invoices to create vouchers. In a three-way match, you use the receipt records to create vouchers.

transaction processing (TP) monitor A monitor that controls data transfer between local and remote terminals and the applications that originated them. TP monitors also protect data integrity in the distributed environment and may include programs that validate data and format terminal screens.

transaction set An electronic business transaction (electronic data interchange standard document) made up of segments.

trigger One of several events specific to data dictionary items. You can attach logic to a data dictionary item that the system processes automatically when the event occurs.

triggering event A specific workflow event that requires special action or has defined consequences or resulting actions.

two-way voucher match In JD Edwards Procurement and Subcontract Management, the process of comparing purchase order detail lines to the suppliers' invoices to create vouchers. You do not record receipt information.

User Overrides merge Adds new user override records into a customer's user override table.

variance In JD Edwards Capital Asset Management, the difference between revenue generated by a piece of equipment and costs incurred by the equipment.

In JD Edwards EnterpriseOne Project Costing and JD Edwards EnterpriseOne Manufacturing, the difference between two methods of costing the same item (for example, the difference between the frozen standard cost and the current cost is an engineering variance). Frozen standard costs come from the Cost Components table, and the current costs are calculated using the current bill of material, routing, and overhead rates.

Version List merge The Versions List merge preserves any non-XJDE and non-ZJDE version specifications for objects that are valid in the new release, as well as their processing options data.

visual assist Forms that can be invoked from a control via a trigger to assist the user in determining what data belongs in the control.

vocabulary override An alternate description for a data dictionary item that appears on a specific JD Edwards EnterpriseOne form or report.

wchar_t An internal type of a wide character. It is used for writing portable programs for international markets.

web application server A web server that enables web applications to exchange data with the back-end systems and databases used in eBusiness transactions.

web server A server that sends information as requested by a browser, using the TCP/IP set of protocols. A web server can do more than just coordination of requests from browsers; it can do anything a normal server can do, such as house applications or data. Any computer can be turned into a web server by installing server software and connecting the machine to the internet.

Windows terminal server A multiuser server that enables terminals and minimally configured computers to display Windows applications even if they are not capable of running Windows software themselves. All client processing is performed centrally at the Windows

terminal server and only display, keystroke, and mouse commands are transmitted over the network to the client terminal device.

workbench A program that enables users to access a group of related programs from a single entry point. Typically, the programs that you access from a workbench are used to complete a large business process. For example, you use the JD Edwards EnterpriseOne Payroll Cycle Workbench (P07210) to access all of the programs that the system uses to process payroll, print payments, create payroll reports, create journal entries, and update payroll history. Examples of JD Edwards EnterpriseOne workbenches include Service Management Workbench (P90CD020), Line Scheduling Workbench (P3153), Planning Workbench (P13700), Auditor's Workbench (P09E115), and Payroll Cycle Workbench.

work day calendar In JD Edwards EnterpriseOne Manufacturing, a calendar that is used in planning functions that consecutively lists only working days so that component and work order scheduling can be done based on the actual number of work days available. A work day calendar is sometimes referred to as planning calendar, manufacturing calendar, or shop floor calendar.

workflow The automation of a business process, in whole or in part, during which documents, information, or tasks are passed from one participant to another for action, according to a set of procedural rules.

workgroup server A server that usually contains subsets of data replicated from a master network server. A workgroup server does not perform application or batch processing.

XAPI events A service that uses system calls to capture JD Edwards EnterpriseOne transactions as they occur and then calls third-party software, end users, and other JD Edwards EnterpriseOne systems that have requested notification when the specified transactions occur to return a response.

XML CallObject An interoperability capability that enables you to call business functions.

XML Dispatch An interoperability capability that provides a single point of entry for all XML documents coming into JD Edwards EnterpriseOne for responses.

XML List An interoperability capability that enables you to request and receive JD Edwards EnterpriseOne database information in chunks.

XML Service An interoperability capability that enables you to request events from one JD Edwards EnterpriseOne system and receive a response from another JD Edwards EnterpriseOne system.

XML Transaction An interoperability capability that enables you to use a predefined transaction type to send information to or request information from JD Edwards EnterpriseOne. XML transaction uses interface table functionality.

XML Transaction Service (XTS) Transforms an XML document that is not in the JD Edwards EnterpriseOne format into an XML document that can be processed by JD Edwards EnterpriseOne. XTS then transforms the response back to the request originator XML format.

Z event A service that uses interface table functionality to capture JD Edwards EnterpriseOne transactions and provide notification to third-party software, end users, and other JD Edwards EnterpriseOne systems that have requested to be notified when certain transactions occur.

Z table A working table where non-JD Edwards EnterpriseOne information can be stored and then processed into JD Edwards EnterpriseOne. Z tables also can be used to retrieve JD Edwards EnterpriseOne data. Z tables are also known as interface tables.

Z transaction Third-party data that is properly formatted in interface tables for updating to the JD Edwards EnterpriseOne database.

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