Oracle® Real User Experience Insight

Accelerator for JD Edwards EnterpriseOne Guide

Release 6.5.0 for Linux x86-64

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Contents

Preface

Oracle Real User Experience Insight (RUEI) provides you with powerful analysis of your network and business infrastructure. You can monitor the real-user experience, define Key Performance Indicators (KPIs) and Service Level Agreements (SLAs), and trigger alert notifications for incidents that violate them.

Audience

This document is intended primarily for the Administrator responsible for maintaining the RUEI installation. It describes how your RUEI installation can be extended to provide specific support for the monitoring of JD Edwards EnterpriseOne applications.

Important

If your monitored Web environment contains JD Edwards EnterpriseOne applications, is it *strongly* recommended that you make use of this support. It not only saves time in configuration of your JD Edwards EnterpriseOne applications within RUEI, considers the specific characteristics of the different frameworks upon which JD Edwards EnterpriseOne applications are built, and makes these applications more compatible, but also ensures that JD Edwards EnterpriseOne applications are monitored correctly.

The information provided in this guide is specific to RUEI release 6.5.0 (or any higher maintenance release). If you upgrade your RUEI installation to a higher version, you will also need to upgrade to the latest version of this package.

The monitoring support provided by this package has been verified against JD Edwards installations based on JD Edwards Tools version 8.97 and 8.98 and JD Edwards applications version 8.12. However, JD Edwards applications version 8.11 and 9.0 running on said Tools versions should also work.

Prerequisites

The Administrator should have a firm operational knowledge of their organization's network and application environment. In addition, they should have a good understanding of the JD Edwards EnterpriseOne architecture. Note that assistance from the JD Edwards EnterpriseOne administrator or application specialist may also be required.

Before proceeding with the configuration procedure described in this guide, RUEI should already have been successfully placed within your organization's network, and the Initial Setup Wizard run to provide information about the network infrastructure. The procedure to do this is fully described in the *Oracle Real User Experience Insight Installation Guide*.

Using This Guide

This guide is organized as follows:

- Chapter 1, "Installation and Configuration" describes how to install and configure the RUEI JD Edwards EnterpriseOne package for the monitoring of JD Edwards EnterpriseOne-based applications.

- Chapter 2, "Monitoring and Reporting Considerations" provides additional information about the JD Edwards EnterpriseOne frameworks relevant to the monitoring of JD Edwards EnterpriseOne applications within RUEI.

- Appendix A, "Third-Party Licenses" contains licensing information about certain third-party products included with RUEI.

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Related Documents

For more information, see the following documents in the Oracle Real User Experience Insight library:

- *Oracle Real User Experience Insight Installation Guide*.

- *Oracle Real User Experience Insight User's Guide*.

- *Oracle Real User Experience Insight Accelerator for Oracle E-Business Suite Guide*.

- *Oracle Real User Experience Insight Accelerator for Siebel Guide*.

- *Oracle Real User Experience Insight Accelerator for PeopleSoft Guide.*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Installation and Configuration

This chapter describes the procedure for installing the JD Edwards package, and configuring your application definitions within RUEI to enable the accurate monitoring of JD Edwards installations. This chapter describes the procedure for installing the JD Edwards Package, and configuring your application definitions within RUEI to enable the accurate monitoring of JD Edwards installations. This chapter describes the procedure for installing the JD Edwards Package, and configuring your application definitions within RUEI to enable the accurate monitoring of JD Edwards installations.

1.1 Why Use This Accelerator Pack?

This accelerator package for RUEI enables out-of-the-box monitoring of JD Edwards modules. This monitoring supports user session tracking, the discovery of end-user performance issues, and the identification of application issues associated with JD Edwards.

This accelerator package automatically discovers all installed JD Edwards modules, and translates network objects to business functions. This facilitates the measurement and monitoring of real-user transactions, from initial query to their commit as part of business transactions. Individual user actions are automatically matched to the correct site, portal, or node in order to provide contextual analysis. This state-of-the-art monitoring solution supports the creation of KPIs for critical packaged applications, and the analysis of real-user business transactions.

1.2 Overview

In order to facilitate the correct monitoring of JD Edwards installations by RUEI, you need to do the following:

1. Install the package RPMs on the RUEI Reporter system.

2. Verify the scope of monitored traffic.

3. Create and configure the JD Edwards suite(s) required for your JD Edwards Installations.

4. Run the `create_JDE_info.sh` script on the JD Edwards production environment.

5. Verify the cookie technology.

6. Verify and evaluate the JD Edwards suite configuration.

Each of these steps are discussed in more detail in the following sections.

1.3 Installing the Package RPMs

Note it is assumed a working RUEI system has been installed and configured (as described in the *Oracle Real User Experience Insight Installation Guide*), and is fully operational. Install the JD Edwards support package on the RUEI Reporter system using the following commands as the `root` user:

```
cd /root/RUEI/65
./ruei-install.sh suites
```

This installs all available suite packages.

1.4 Verifying the Scope of Monitoring

Often the JD Edwards software is configured to use a non-standard port, such as 800. The port on which your JD Edwards installation is running can be found by examining the login URL. This takes the following format:

```
http(s)://hostname:portnumber/jde/...
```

Verify the **portnumber** is configured as one of the defined ports (HTTP or HTTPS). In addition, if a HTTPS port is specified, ensure a copy of the Web server's private SSL key is imported into the Collector system(s).

To verify the port number, do the following:

1. Select **Configuration**, then **Security**, and then **Protocols**. The currently monitored ports are displayed. An example is shown in Figure 1–1.

Figure 1–1   Monitored Ports

2. Use the **View** menu to select each Collector. The System (localhost) item represents the local server system.

3. If the port number is not already listed, click the required protocol (**HTTP** or **HTTPS**). The dialog shown in Figure 1–2 appears.

Figure 1–2   Edit Collector Ports

To add a new port number, enter the required number in the Port number field, and click **Add**. To remove a port from the list, click the **Remove** icon to the right of the port number. When ready, click **Save**.

4. For each Collector, you are prompted to restart the Collector. This is necessary in order to make the changes effective. Note you can also restart the selected Collector by clicking the **Restart Collector** icon shown in Figure 1–1.

5. For HTTPS traffic, you should also verify that, for each Collector, the required SSL keys are installed by selecting **Configuration**, then **Security**, and then **SSL keys**. Use the **View** menu to select a Collector. If the host name does not match one of the already listed SSL keys, import the required SSL key. The procedure to this is described in the *Oracle Real User Experience Insight User's Guide*. In addition, you should verify the key is not expired.

1.5 Creating the JD Edwards Suite Definition

Within the RUEI Reporter, create and configure the suite definition(s) required for your JD Edwards-based applications. Do the following:

1. Select **Configuration**, then **Applications**, and **Suites**. Click **New Suite**. The dialog shown in Figure 1–3 appears.

Figure 1–3   JD Edwards Suite Definition

2. Specify a name for the suite. The name must be unique across suites, services, and applications, and is restricted to a maximum of six characters. Note the suite cannot be renamed later.

3. Use the remaining fields to specify the scope of the suite. This is defined in terms of partial page URLs. Note that as you enter this information, you can see the effect of your definition through the **Filter preview** column. The use of blank filters is not permitted. While the use of a wildcard character (*) is permitted, all other specified characters are interpreted as literals. When ready, click **Next**. The dialog shown Figure 1–4 appears.

Figure 1–4   Suite Type Dialog
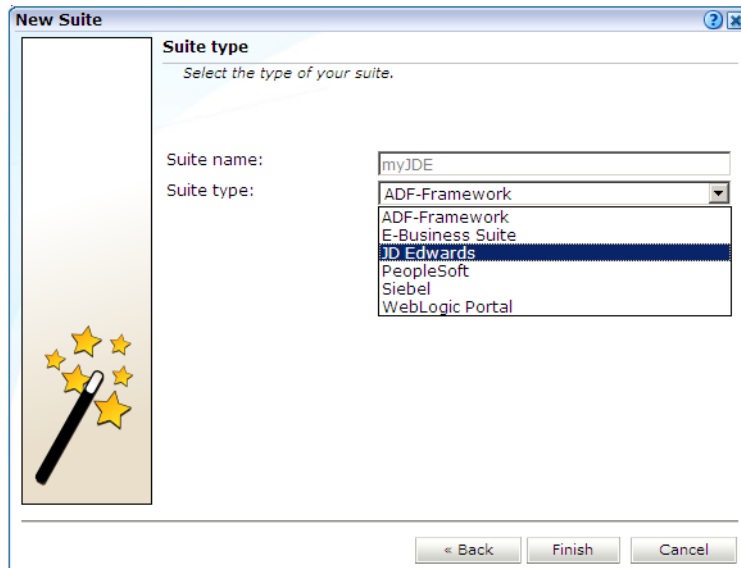
4.   This dialog allows you to specify the Oracle Enterprise architecture upon which the suite is based. The number of options available in this menu depends on the suite packages currently installed. Select the option "JD Edwards". When ready, click **Finish**. The suite definition you have specified is displayed. An example is shown in Figure 1–5.

Figure 1–5   Suite Overview
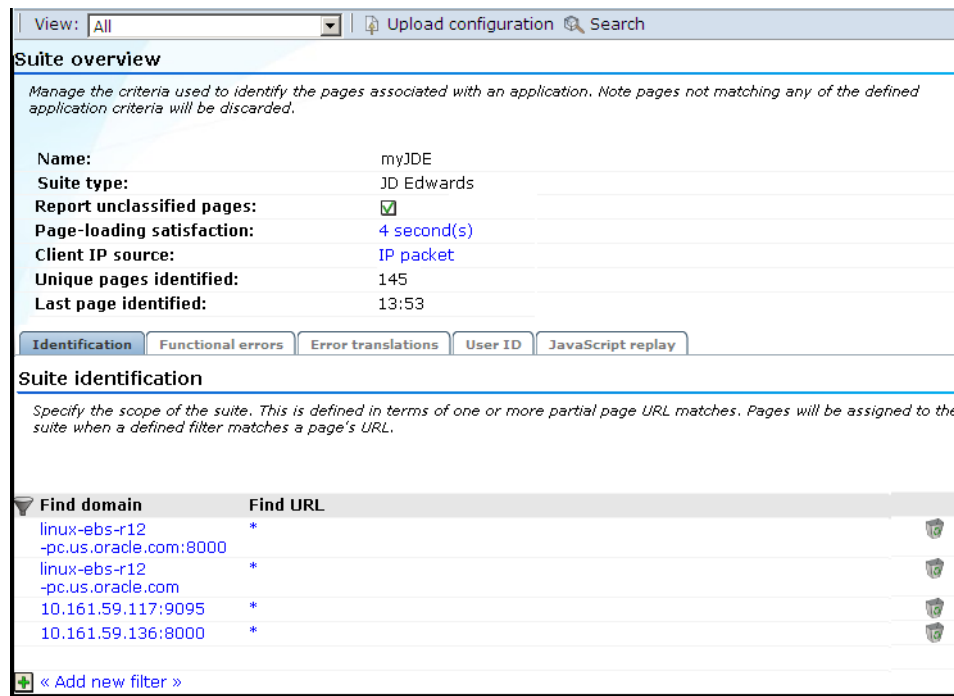
1.6 Running the create_JDE_info.sh Script

In order for RUEI to correctly translate the JD Edwards business logic within your environment, do the following:

1. Copy the `create_JDE_info.sh` script to the home directory of the JD Edwards server. It is located in the `/var/opt/ruei/processor/local/download/JDE` directory of the RUEI system.

2. Run the `create_JDE_info.sh` script as any user on the JD Edwards server.[1] This script assigns an identification to the identified page IDs within the environment. The `create_JDE_info.sh` script must be run with the following required parameter:

    ```
    create_JDE_info.sh connect-string
    ```

    where `connect-string` is the string used to authorize the script to access the JD Edwards database. The script reads from the schemas, and generates `.txt` files in the current directory. For example:

    ```
    create_JDE_info.sh "sys/oracle@dliild-jde:1522 as sysdba"
    create_JDE_info.sh "sys/oracle@JDE as sysdba"
    ```

    Note the connect string must authenticate as "sys as sysdba" to your database. This is because the script tries to detect the correct schema for the various tables used.

3. The script creates a number of `.txt` files in the directory where the script is executed. All relevant `.txt` files are collected and stored in a `.zip` file. Copy this `.zip` file to a location that can be used for uploading the files to the RUEI Reporter system.

4. Select **Configuration**, then **Applications**, then **Suites**, and select the suite you defined earlier in Section 1.5, "Creating the JD Edwards Suite Definition". The dialog shown in Figure 1–6 appears.

Figure 1–6   Upload Suite Configuration File
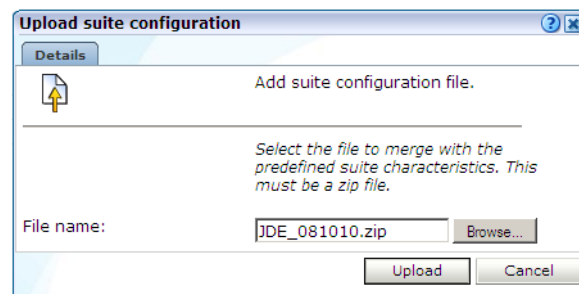
5. Specify the name of the `.zip` file containing the generated `.txt` files. If you manually create `.txt` files, you should use the same structure present in the `.zip` file. To protect against empty definitions, the upload will fail when it contains empty `.txt` files. When ready, click **Upload**.

---

[1] The script can also be run in the acceptance environment if it is equivalent to the production environment.

1.7 Verifying the Cookie Technology

Within RUEI, session information is based on cookies. The procedure to specify the cookie technology used by your applications is explained in the *Oracle Real User Experience Insight User's Guide*.

When creating a JD Edwards suite instance, a preconfigured cookie for the JD Edwards environment is automatically created. This is implemented as a custom cookie, with the name JSESSIONID. This will probably be suitable for your JD Edwards environment. However, depending on the configuration of your environment, you may need to modify it. In addition, to enable RUEI to monitor and track users over the complete session, ensure the cookie path is set to "/".

Verifying the Cookie Configuration

To verify your cookie configuration, do the following:

1. Clear all cookies in the browser.

2. (Re)login to the JD Edwards application.

3. View a few pages in JD Edwards.

4. Logout.

5. Wait for at least 10 minutes.

6. Open the RUEI Reporter environment.

7. Select **Browse data**, open the All sessions group, select Session diagnostics, and locate the recorded session (by user ID or time). You can filter on applications.

8. Open the session and verify that:

   - There are more page views reported than just the login. This verifies the session ID is preserved after the login.

   - At least some JD Edwards application activity has been recorded.

When not all hits are connected with the same cookie (these are reported as anonymous pages), it is recommended you investigate where the problem is located, and resolve it in the appropriate manner. For example, the domain or path option of the cookie.

1.8 Verifying and Evaluating Your Configuration

To ensure the quality of the data being collected and reported by RUEI for your JD Edwards-based applications, it is *strongly* recommended you verify their reported details. You should pay particular attention to the number of associated pages detected for the defined suite(s).

Select **Browse data**, then select the All pages group, and then the Applications sub-group. Within the individual dimensions, such as Page views and hits, you can see page views are reported for several applications. The suite name in the definition is shown between brackets. An example is shown in Figure 1–7.

Figure 1–7   Suite Page Views
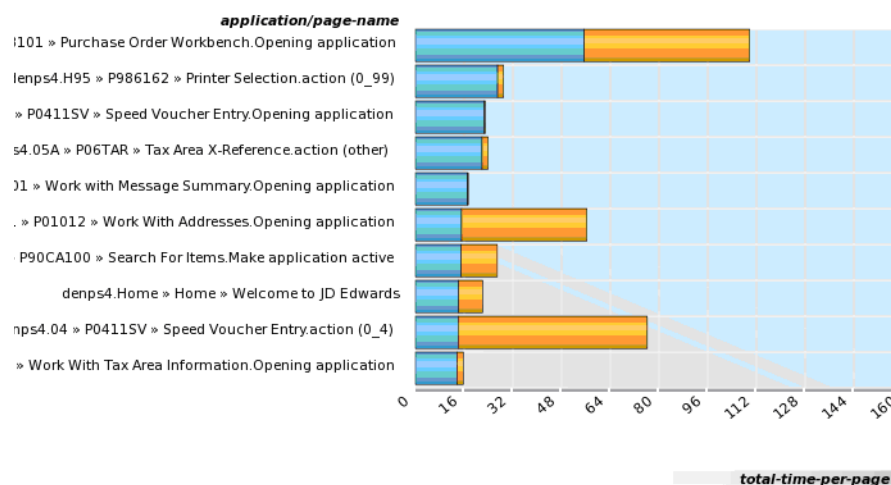
> **Note:**   The unique pages identified counter and the Last page identified indicator (shown in Figure 1–5) are disabled. Similarly, the manual page naming facility (described in the *Oracle Real User Experience Insight User's Guide*) is not available.

You can also open an overview of the monitored network traffic by selecting **System**, the **Status**, and then **Data processing**. This provides you with immediate information about hits, pages, and session processing, as well as the system load.

For further information on the user of this and other monitoring facilities, see the *Oracle Real User Experience Insight User's Guide*.

1.9 Known Limitations

Currently, the Oracle Real User Experience Insight accelerator for JD Edwards does not work with all JD Edwards functionality. In particular, the following known limitations exist:

- Reporting is based on the last activated area. Hence, when an end user is browsing simultaneously in multiple browser windows, the reported page name may contain incorrect information.

- Currently, the `create_JDE_info.sh` script only runs on Unix JD Edwards servers.

- An error is not immediately reported if an invalid connect string is specified when running the `create_JDE_info.sh` script. You will need to press **Enter** several times before the error is reported.

- When users start multiple applications simultaneously, the load and server time for the application start page is sometimes incorrectly booked on one of the started applications.

- Currently, the Traffic summary facility (select **System**, then **Status**, and then **Data processing**) is based on application logic. Therefore, non-application traffic (such as suites, services, and SSOs) are not represented in the processing overviews.

2

Monitoring and Reporting Considerations

This chapter explains how information within JD Edwards-based applications is captured and reported by RUEI. Information about specific mechanisms or characteristics to be aware of when monitoring JD Edwards-based applications are also highlighted. It is recommended you review this information to better understand the reporting of JD Edwards applications within RUEI.

2.1 Hostnames and URL Prefixes

A JD Edwards Implementation, and the JD Edwards instance, can be identified with a hostname. Generally, a JD Edwards suite can be accessed in two ways: using only the hostname, or using the fully-qualified hostname (including the domain). Generally, you only need to specify the domain.

Table 2–1 shows how an application's dimensions are reported in RUEI.

Table 2–1   JD Edwards Suite Definitions Mapping

Dimension level	Content
Application.name	*productname (suite_name)*
Application. page-group	*suite_name.productcode » application name*
Application.page-name	*suite_name.productcode » application code » formname.action*

where:

- *application code* is the code of the JD Edwards application used by the user. For example, the application code for "sales order entry" is `p4210`.

- *formname* is the name of the JD Edwards form used. For example, the form `W01012b` has the name "work with addresses".

- *application name* is the name of the JD Edwards application used by the user. For example, the application name for `p4210` is "sales order entry".

- *product code* is the code for the JD Edwards product used by an JD Edwards application/form. For example, the address book application (`p01012`) is part of the JD Edwards product "addressbook" which has product code `01`. In JD Edwards, this is sometimes referred to as "system code".

- *product name* is the name for the JD Edwards product used by an JD Edwards application/form. For example, the address book application (`p01012`) is part of the JD Edwards product "addressbook" (product code `01`).

Figure 2–1 shows an example of how a JD Edwards application is reported in RUEI.

Figure 2–1 Example of JD Edwards Application Page-Group Reporting

application/page-group	page-load-time (sec) ▽
denps4.H95 » Printer selection before printing a UBE	27,0
denps4.04 » A/P Speed Voucher Entry	18,3
denps4.05A » Tax Area X-Reference	15,8
denps4.43 » Purchase Order Workbench	14,1
denps4.05A » Tax Area Information	13,6
denps4.31P » Project Search and Select	12,5
denps4.09 » Process Actual Rate Calculations	11,5
denps4.07 » Work With Interims Workbench	7,9
denps4.34 » Message Summary	7,3
denps4.90CA » CRM Item Detail	6,4
denps4.05A » Company Options	6,2
denps4.01 » Address Book	5,4
denps4.42 » Sales Order Entry	5,4
denps4.05A » HRM System Options	5,0
denps4.Home » Home	3,7
denps4.05A » Employee Master	3,1
denps4.09 » Process Re-burdening Transactions	2,6
denps4.08H » Injury/Ilness Case Information	2,5
denps4.90CA » Employee Detail	2,3

2.2 Database Tables

The following JD Edwards database tables are used by the `create_JDE_info.sh` script to retrieve information about the customizations:

- F9860: SIOBNM, SIMD, and SISY to generate `JDE_applicationcode2applicationname.txt` and (in conjunction with F0005) to generate `JDE_applicationcode2productname.txt` and `JDE_applicationcode2productcode.txt` (see below).

- F9865: SWFMNM and SWMD to generate `JDE_formcode2formname.txt`.

- F983051: VRPID, VRVERS, and VRJD to generate `JDE_applicationversioncode2applicationversiondescription.txt.tmp`.

- F9203: FRDTAI and FRDSCA to generate `JDE_errorcode2errordescription.txt`.

- F0005: DRSY, DRRT, and DRKY (in conjunction with F9860, see above) to generate both `JDE_applicationcode2productname.txt` and `JDE_applicationcode2productcode.txt`.

2.3 Data Items

The JD Edwards-specific data items shown in Table 2–2 are reported by RUEI.

Table 2–2 Dimensions

Item	Description
JD Edwards suite/Code	The code of a JD Edwards suite, as defined in its configuration definition. This data makes it possible to distinguish between different monitored JD Edwards suites.
JD Edwards suite/Name	The name of a JD Edwards suite, as defined in its configuration definition. This data makes it possible to distinguish between different monitored JD Edwards suites.

Table 2–2 (Cont.) Dimensions

Item	Description
JD Edwards form/ID	The ID of the JD Edwards form used. The JD Edwards form name is based on the form code (W...) and the JD Edwards database configuration. This makes it possible to distinguish between the different forms monitored during sessions.
JD Edwards form/Name	The name of the JD Edwards form used. The JD Edwards form name is based on the form code (W...) and the JD Edwards database configuration. This makes it possible to distinguish between the different forms monitored during sessions
JD Edwards action/ID	In forms/applications, people perform actions. These actions are monitored and reported here. (Note that most JD Edwards actions are encoded).
JD Edwards action/Name	In forms/applications, people perform actions. These actions are monitored and reported here. (Note that most JD Edwards actions are encoded).
JD Edwards application/ID	The ID of the JD Edwards application used. The JD Edwards application name is based on the application code (P...) and the JDE database configuration. This makes it possible to distinguish between the different applications monitored during sessions.
JD Edwards application/Name	The name of the JD Edwards application used. The JD Edwards application name is based on the application code (P...) and the JDE database configuration. This makes it possible to distinguish between the different applications monitored during sessions.
JD Edwards application version/ID	The ID of the JD Edwards application version used.
JD Edwards application version/Name	The ID of the JD Edwards application version used.
JD Edwards environment/Name	The environment selected when the user logged into JD Edwards.
JD Edwards product/Code	The code of the JD Edwards product used. JD Edwards applications are part of a product which is shown here. JD Edwards products are sometimes referred to by their system code or product code.
JD Edwards product/Name	The name of the JD Edwards product used. JD Edwards applications are part of a product which is shown here. JD Edwards products are sometimes referred to by system code or product code.

2.4 Resources

You may find the following source useful:

- *Configuring HTTP server to use SSL in Oracle applications* (note 341904.1).

A

Third-Party Licenses

This appendix contains licensing information about certain third-party products included with RUEI 5.1. Unless otherwise specifically noted, all licenses herein are provided for notice purposes only.

The sections in this appendix describe the following third-party licenses:

- Apache Software License, Version 2.0
- OpenSSL
- PHP
- Java Runtime Environment

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Version 2.0, January 2004

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