### JD Edwards EnterpriseOne Applications

Integration with Primavera Contract Management Implementation Guide

Release 9.1 E18030-01

March 2012



JD Edwards EnterpriseOne Applications Integration with Primavera Contract Management Implementation Guide, Release 9.1

E18030-01

Copyright © 2012, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle America, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

# Contents

Preface	vii
Audience	vii
Oracle Products	vii
JD Edwards EnterpriseOne Application Fundamentals	vii
Documentation Accessibility	viii
Related Documents	viii
Conventions and Screen Images	viii

# 1 Introduction to JD Edwards EnterpriseOne Integration with Primavera Contract Management

1.1	Understanding Contract Management Business Processes	1-1
1.1.1	Projects, Cost Codes, and Budgeted Contracts	1-4
1.1.2	Purchase Orders	1-5
1.1.3	Progress Payments	1-6
1.1.4	Change Requests	1-8
1.1.5	Relationship with the P6 Integration Process	1-10
1.2	Understanding the Technical Requirements for the Integration	1-13
1.2.1	Release Levels and Required Updates	1-13
1.2.2	Additional Sources of Information	1-13
1.2.3	Data Extraction and Import	1-14
1.2.4	Automated and Manual File Transfer	1-16
1.3	Understanding the Contract Management Integration Workbench	1-18
1.4	Solution Assumptions and Constraints	1-18

### 2 Setting Up the Contract Management Integration

2.1	Understanding Integration Setup	2-1
2.2	Setting Up FTP Processing	2-2
2.2.1	Understanding FTP Setup	2-2
2.2.2	Forms Used to Set Up FTP Processing	2-3
2.2.3	Setting Up the Standard Directory Structure	2-4
2.2.4	Configuring Scripts	2-4
2.2.5	Setting Up IBM i on IBM Power Systems Information for FTP Processing	2-6
2.3	Setting Up Manual File Transfer Information	2-6
2.4	Setting Up Currency Code Information	2-7
2.4.1	Forms Used to Enter Currency Code Exceptions	2-7

2.4.2	Entering Currency Code Exceptions	2-7
2.5	Setting Up Next Numbers	2-8

## 3 Using the Contract Management Integration Workbench

3.1	Understanding the Contract Management Integration Workbench			
3.2	Running Data Extract and Import Programs from the Workbench			
3.2.1	Forms Used to Run Data Extract and Import Programs			
3.2.2	Setting Processing Options for the Contract Management Integration Workbench			
	Program (P51010)	3-2		
3.2.2.1	Process Tab	3-2		
3.2.3	Running EnterpriseOne Data Extract and Import Programs	3-3		
3.3	Executing FTP Scripts Using the Workbench	3-3		
3.3.1	Forms Used to Send XML Files to Contract Manager	3-4		
3.3.2	Sending XML Files to Contract Management	3-4		
3.4	Reviewing and Revising Status and Cross Reference Information	3-5		
3.4.1	Forms Used to Review and Revise Status and Cross Reference Information	3-5		
3.4.2	Reviewing and Revising Status Information	3-5		
3.4.3	Reviewing and Revising Cross Reference Information	3-6		

### 4 Synchronizing Project Data

4.1	4.1 Understanding the Project Synchronization Process 4		
4.2	4.2 Project Integration Assumptions and Constraints		
4.3	Running Project Data Extract Programs	4-5	
4.3.1	Setting Processing Options for the Cost Codes and Original Budgets for Contract		
	Management Program (R51901CMD)	4-5	
4.3.1.1	Process Tab	4-5	
4.3.2	Setting Processing Options for the Project and Contract Header for Contract		
	Management Program (R51006CMD)	4-6	
4.3.2.1	Process Tab	4-6	
4.3.2.2	File Transfer Tab	4-7	
4.4	Importing Project Data into Contract Management	4-8	
4.4.1	Importing Project Data into Contract Management	4-8	

# 5 Synchronizing Purchase Order (Contract) Data

5.1	Understanding the Purchase Order Flow	5-1
5.2	Purchase Order Integration Assumptions and Constraints	5-3
5.3	Running Purchase Order Data Extract Programs	5-3
5.3.1	Setting Processing Options for the Purchase Order Extract Program (R4310CMD).	5-4
5.3.1.1	Process Tab	5-4
5.3.1.2	File Transfer Tab	5-4
5.4	Importing Contract Data into Contract Management	5-5
5.4.1	Importing Contract Data into Contract Management	5-5

# 6 Generating Progress Payments

6.1	Understanding the Progress Payment Integration	6-1
6.1.1	Generating Subsequent Requisitions for a Committed Contract	6-4

6.2	Progress Payment Integration Assumptions and Constraints		
6.3	Exporting and Importing Contract Management Requisition Data		
6.3.1	.1 Exporting Requisition Data from Contract Management		
6.3.2	Importing Payment Data into Contract Management	. 6-8	
6.4	Running Progress Payment Data Extract and Import Programs	6-10	
6.4.1	1 Setting Processing Options for the Process Progress Payments from Contract		
	Management Program (R4314CM)	6-11	
6.4.1.1	Process Tab	6-11	
6.4.1.2	Versions Tab	6-11	
6.4.2	4.2 Setting Processing Options for the E1 to CM Requisition Extract		
	Program (R0413CMD)	6-11	
6.4.2.1	File Transfer Tab	6-11	
6.4.2.2	Process Tab	6-12	

# 7 Processing Change Requests

7.1	Understanding the Change Request Integration Process	
7.1.1	Status Codes	. 7-4
7.1.2	Allocating Costs on a Change Order in Contract Management	. 7-4
7.2	Change Request Integration Assumptions and Constraints	. 7-5
7.3	Defining Change Request Status Codes	. 7-6
7.3.1	Forms Used to Define Change Request Status Codes	. 7-6
7.3.2	Defining Change Request Status Codes	. 7-7
7.4	Running Change Request Data Extract and Import Programs	. 7-7
7.4.1	Setting Processing Options for the E1 to CM Change Request Export	
	Program (R5301CMD)	. 7-8
7.4.1.1	Process Tab	. 7-8
7.4.1.2	File Transfer Tab	. 7-9
7.4.2	Setting Processing Options for the CM to E1 Process Change Request	
	program (R5310CMI)	7-10
7.4.2.1	Defaults Tab	7-10
7.4.2.2	File Transfer Tab	7-10
7.4.2.3	Versions Tab	7-10
7.5	Importing and Exporting Change Order Data in Contract Management	7-11
7.5.1	Exporting Change Order Data from Contract Management	7-11
7.5.2	Importing Change Data into Contract Management	7-13

### Index

# Preface

Welcome to the JD Edwards EnterpriseOne Applications Integration with Primavera Contract Management Implementation Guide.

### Audience

This guide is intended for implementers and end users who are integrating JD Edwards EnterpriseOne with the Primavera Contract Management system.

# **Oracle Products**

This implementation guide refers to these Oracle products:

- JD Edwards EnterpriseOne Procurement
- JD Edwards EnterpriseOne General Accounting
- JD Edwards EnterpriseOne Project Costing
- Primavera Contract Management

**Important:** Unless otherwise noted, all applications, tables, business functions, and other software objects that are referred to in this documentation are part of the JD Edwards EnterpriseOne system. This documentation also discusses other software systems, applications, and functions that are required for this integration.

## JD Edwards EnterpriseOne Application Fundamentals

Additional, essential information describing the setup and design of the EnterpriseOne system appears in companion volumes of documentation called JD Edwards EnterpriseOne Financial Management Application Fundamentals 9.0 Implementation Guide, JD Edwards EnterpriseOne Procurement 9.0 Implementation Guide, JD Edwards EnterpriseOne Change Management 9.0 Implementation Guide, and JD Edwards EnterpriseOne Job Cost 9.0 Implementation Guide. Customers must conform to the supported platforms for the release as detailed in the JD Edwards EnterpriseOne minimum technical requirements.

In addition, JD Edwards EnterpriseOne may integrate, interface, or work in conjunction with other Oracle products. Refer to the cross-reference material in the Program Documentation at http://oracle.com/contracts/index.html for program prerequisites and version cross-reference documents to assure compatibility of various Oracle products.

#### See Also:

- JD Edwards EnterpriseOne Applications Financial Management Fundamentals Implementation Guide
- JD Edwards EnterpriseOne Applications Procurement Management
  Implementation Guide
- JD Edwards EnterpriseOne Applications Change Management Implementation Guide.
- JD Edwards EnterpriseOne Applications Job Cost Implementation Guide.

# **Documentation Accessibility**

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

#### Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

# **Related Documents**

You can access related documents from the JD Edwards EnterpriseOne Release Documentation Overview pages on My Oracle Support. Access the main documentation overview page by searching for the document ID, which is 1308615.1, or by using this link:

https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=1308615.1

To navigate to this page from the My Oracle Support home page, click the Knowledge tab, and then click the Tools and Training menu, JD Edwards EnterpriseOne, Welcome Center, Release Information Overview.

## **Conventions**

The following text conventions are used in this document:

Convention	Meaning
Bold	Indicates field values.
Italics	Indicates emphasis and JD Edwards EnterpriseOne or other book-length publication titles.
Monospace	Indicates a JD Edwards EnterpriseOne program, other code example, or URL.

1

# Introduction to JD Edwards EnterpriseOne Integration with Primavera Contract Management

This chapter contains the following topics:

- Section 1.1, "Understanding Contract Management Business Processes"
- Section 1.2, "Understanding the Technical Requirements for the Integration"
- Section 1.3, "Understanding the Contract Management Integration Workbench"
- Section 1.4, "Solution Assumptions and Constraints"

## 1.1 Understanding Contract Management Business Processes

This section provides an overview of the Contract Management business process that transforms and transports contract data between the JD Edwards EnterpriseOne and Contract Management systems. The overall business process includes these individual flows:

- Projects, Cost Codes, and Budgeted Contracts
- Purchase Orders/Committed Contracts
- Progress Payments/Requisitions
- Change Requests

The Contract Management integration enables customers to realize the benefits of integrated EnterpriseOne job cost, financial, project management, and subcontract management systems with the robust job-site management functions of the Contract Management system. This integration provides organizations with:

- Issue management.
- Collaborative work space.
- Punch lists
- Daily reports.
- Change control.
- Submittals and transmittals to subcontractors.
- The ability to track work done in a remote location or job site.

This table provides detailed information about the integration flows that are utilized during the Contract Management integration process:

JD Edwards EnterpriseOne Data	Primavera Contract Management Data	Direction of Data Flow	Description
Jobs In EnterpriseOne, a job is defined as a business unit and an extended job master.	Projects	EnterpriseOne job data is synchronized to Contract Management, where it is created or updated as project data.	This data flow enables both systems to use the same job or project codes. This flow is the basis for the entire integration, and job records must be synchronized before other data flows are initiated.
Cost Code Structures	Cost Codes	EnterpriseOne	This data flow enables
The chart of accounts that is related to a specific job. This term is also known as a Work Breakdown Structure (WBS).	Cost codes define the individual tasks, or task groups, that must be completed for a specified project.	synchronized to Contract Management, where cost codes for the associated project are created or updated.	costs associated with each project task. Synchronization of account/cost code data can happen at the same time as project synchronization, or you can synchronize account/cost data after the project has been synchronized.
Original Budgets	Budgets	EnterpriseOne budgets are synchronized to Contract Management, where they can be reviewed by cost code.	This data flow enables Contract Management users to run daily cost reports against the original budget that was created in EnterpriseOne to determine whether a project is meeting budget targets.
Purchase Orders	Committed Contracts	EnterpriseOne purchase orders are sent to Contract Management, where they are created as committed contracts that are associated with an existing project.	This data flow enables users to utilize the EnterpriseOne Procurement system to create and manage purchase orders, and send the data to Contract Management so that job site personnel are aware of the non-stock goods and services that have been ordered for a particular project, the quantities associated with those items, and the dates on which the goods or services should be delivered.

JD Edwards EnterpriseOne Data	Primavera Contract Management Data	Direction of Data Flow	Description
Progress Payments	Requisitions	This flow is bidirectional.	This flow enables job site personnel to
		Contract Management requisitions are created for a specific project and sent to EnterpriseOne, where progress payments are created.	request payment for subcontractors as work is completed, or as goods are delivered. The request for payment (a
		The payments are made to the specified vendors using the EnterpriseOne Accounts Payable system, and payment data is then sent from EnterpriseOne to Contract Management, where the originating requisition is updated with the payment information.	requisition in Contract Management) is sent to EnterpriseOne, initiating the voucher creation process. Once the voucher is created and processed, a payment is sent to the specified vendor, and payment information is sent back to the Contract Management system, where the requisition is updated.
		Note: You can also initiate this flow outside of the Contract Management system. For example, a Contract Management user can create a requisition and then contact an EnterpriseOne user directly to request that payment be made to a subcontractor when specified work is completed. The Contract Management user must provide the EnterpriseOne user with the requisition number and the project ID.	
		This is typical in a job site that is not connected to the EnterpriseOne network.	

JD Edwards	Primavera Contract	Direction of Data	Description
EnterpriseOne Data	Management Data	Flow	
Change Requests	Change Orders	This flow is bidirectional, in that a change request can be initiated in either the EnterpriseOne or Contract Management system, and can then be synchronized to the other system.	This flow enables users in EnterpriseOne or Contract Management to request a change to project or committed contract information that has previously been synchronized between the two systems. This flow ensures that changes to existing projects are reviewed and approved using the standard approval process.

### 1.1.1 Projects, Cost Codes, and Budgeted Contracts

The project portion of this integration enables financial and budgeting work for a project to be done on the EnterpriseOne system, while work that is initiated by personnel on a job site is done in the Contract Management system. This flow is one-directional, sending initial project data only from EnterpriseOne to Contract Management.

A typical project business process might include the following steps:

1. A project is created in the EnterpriseOne system.

A project consists of a business unit and the extended job master in EnterpriseOne.

See JD Edwards EnterpriseOne Applications Job Cost Implementation Guide, "Setting Up Jobs".

**Note:** You can synchronize project data from EnterpriseOne to Contract Management at this point, or you can create the additional financial information that is associated with the job, and then synchronize all of the data together.

**2.** Accounts that are associated with that project are then created in the EnterpriseOne system using cost code structures.

The cost code structure in EnterpriseOne is the equivalent of the cost codes in Contract Management.

See JD Edwards EnterpriseOne Applications Job Cost Implementation Guide, "Setting Up Cost Code Structures."

**3.** After you create the job and cost code structure, you enter budget information for the job.

Budget information includes the monetary amounts and the number of units, or quantities, related to each account. Budgets are classified as either original or revised. For this integration, only original budgets are sent from EnterpriseOne to Contract Management. Additionally, after the project is approved in Contract Management, any revisions to the original budgets must be synchronized through the change request flow. Creating budgets for a job is optional, and is not required for this integration.

See JD Edwards EnterpriseOne Applications Job Cost Implementation Guide, "Entering Budgets and Scheduling Jobs."

**4.** After data is entered into the EnterpriseOne system, the EnterpriseOne user creates an XML file that contains the project data.

The XML file is created by running the Project and Contract Header for Contract Management program (R51006CMD). This program can be run alone, or can be set to call the Cost Codes and Original Budgets for Contract Management program (R51901CMD) to include cost code and budget information in the file. Depending on how you set these programs to run, you can include project data in the XML file as follows:

- Users can include only the project data.
- Users can include the project data and financial accounts (cost codes).
- Users can include the project header, financial accounts, and the original budget.

Be aware that you cannot run the R51901CMD alone. This program must be called from the R51006CMD so that the cost code and budget information is attached to the appropriate project header. Also be aware that if you choose to send the three different pieces of project data separately, you must synchronize project header data before you can synchronize cost code data, and you must synchronize cost code data before you can synchronize budget data.

**5.** The files are sent to Contract Management using the manual or automated method.

The automated method uses FTP to send the files directly to a specified server location. The extract programs automatically call the necessary FTP scripts, which process and send the files to the specified locations.

The manual method requires the EnterpriseOne user to send the files to a Contract Management user by E-mail or some other method of file sharing.

**6.** The user signs into the Contract Management Exchange application and imports the file into Contract Management.

See Using CM Exchange in the CM Exchange online help.

7. Contract Management users must sign out and then sign back in to see the imported data.

**Note:** Users must sign out of, and then back into Contract Management in order to see newly synchronized projects. However, if you are sending cost code or budget data for projects that have already been synchronized to Contract Management, it is not necessary to sign out and back in to see the new data.

#### 1.1.2 Purchase Orders

Purchase orders are documents in the EnterpriseOne system that include information about goods or services that are being purchased from an outside vendor. Purchase orders are associated with a specific job, and are the equivalent of a committed contract in Contract Management. For the purposes of this integration, purchase orders are always created in the EnterpriseOne system. All approval for the purchase order is also completed in the EnterpriseOne system. When you create a purchase order, you enter individual line items on the order. These line items include detailed information about each type of item or service that is being ordered. When you synchronize purchase order data to the Contract Management system, each individual line is sent. This enables job site personnel to receive detailed information about the goods and services that should be delivered to their job site.

The purchase order flow is a one-directional flow from EnterpriseOne to Contract Management.

**Note:** For the purposes of this integration, a purchase order must be associated with an existing project. Therefore, you must first create a job in EnterpriseOne and synchronize the job data to Contract Management to create a project before you can utilize the purchase order integration flow.

The purchase order process begins after the project has been created and synchronized, and typically includes these steps:

1. An EnterpriseOne user enters a purchase order, which includes individual lines for each type of item or service that is ordered.

See JD Edwards EnterpriseOne Applications Procurement Management Implementation *Guide, "Entering Purchase Orders."* 

**2.** The purchase order data is extracted from EnterpriseOne and an XML file with the data is created by running the Purchase Order Extract program (R4310CMD).

**Note:** Only lines with an inventory interface of **A** are included in the XML file.

- **3.** The file is sent to the specified Contract Management server location using FTP, or the file is manually sent by the EnterpriseOne user to a Contract Management user.
- **4.** The user signs into the Contract Management Exchange application and imports the data into Contract Management.

The purchase orders from EnterpriseOne are now available as committed contracts in Contract Management.

See Using Contract Management Exchange, "Using Contract Management Exchange" in the Contract Management online help.

- **5.** Job-site personnel can now review the contracts so that they are aware of the goods and services that have been ordered for the project, and when those items should be delivered.
- **6.** As goods and services are delivered to the project site, or as work that is done by vendors is completed, job-site personnel can update each line of the committed contract in Contract Management.

See Oracle Primavera Contract Management User's Guide, Managing Contracts and Purchase Orders.

#### 1.1.3 Progress Payments

Progress payments are payments that are initiated by job-site personnel when a portion of goods or services are received or completed. For example, once a vendor

completes 50 percent of their work, job-site personnel can request that the vendor be paid 50 percent of the amount that was ordered.

Progress payments are initiated in the Contract Management side by creating a requisition. The requisition must be associated with an existing committed contract (purchase order). The requisition data can request payment for a partial amount, or the full amount of the committed contract. The requisition data is then extracted from Contract Management and can then be sent to an EnterpriseOne server location.

After the requisition data is made available, you can generate accounts payable vouchers for each requisition by running the Process Progress Payments from Primavera Contract Management program (R4314CM). Depending on processing option setting of the program, the voucher can be created in HOLD status.

**Important:** The processing option setting that determines whether the voucher is created in a HOLD status is included in the P0400047 program. The R4314CM program calls the specified version of the P43XPI program, which in turn calls the P4314, which calls the P0400047. Therefore, to verify that you have the appropriate voucher status set up, you must verify the processing option settings for each of these programs to verify that each program calls the appropriate program versions. You must also verify that the version of the P43XPI that you call has the Voucher Type processing option on the Voucher Match tab set with a value of **2**.

Once the voucher is approved, the Accounts Payable system processes the voucher, and the vendor is paid using standard accounts payable processes.

The system also updates the open amount on the purchase order. Additionally, the payment date, check number, amount paid, and tax amount paid, is then gathered using the E1 to CM Requisition Extract program (R0413CMD). This program creates an XML file with the payment information. This file is then sent to a predefined server location using FTP, or manually sent to a Contract Management user, and is imported into Contract Management using Contract Management Exchange. The committed contracts and requisitions are updated to reflect the payment information.

The progress payment flow is bidirectional, in that requisition information flows from Contract Management to EnterpriseOne, and the subsequent payment information that is generated in EnterpriseOne is then sent back to Contract Management.

The progress payment flow can also be initiated outside of the system, which typically occurs when Contract Management users do not have the ability to connect to the EnterpriseOne system. This is particularly important for job sites that do not have network access, or cannot connect to the EnterpriseOne system. In such cases, a Contract Management user creates the requisition as they normally would. The user then contacts an EnterpriseOne user, giving them the project and requisition numbers. The EnterpriseOne user then manually creates the necessary voucher. The EnterpriseOne user also manually enters the cross reference information.

The typical progress payment business flow might include these steps:

- 1. After the purchase order information has been synchronized from EnterpriseOne to Contract Management, a vendor completes work at, or delivers goods to a job site.
- **2.** Job-site personnel create a requisition to specify that a portion, or all, of the goods are services have been delivered or completed.

See Oracle Primavera Contract Management User's Guide, Working With Projects, Project Costs, and Changes.

**3.** User signs into the Contract Management Exchange application and exports requisition data.

This process creates an XML file with requisition data in a specified location.

**4.** The EnterpriseOne user runs the Process Progress Payments from Primavera Contract Management program (R4314CM), which creates vouchers in the EnterpriseOne system. The program also updates the associated purchase order lines with the open amounts from the voucher.

**Note:** If you are using the automated FTP method to transfer files, the R4314CM calls the appropriate FTP script to retrieve the file from the specified location. If you are using the manual method, you must manually move the file to the specified location before running the R4314CM.

**5.** Using standard accounts payable processes, an EnterpriseOne user processes the voucher, which generates a payment for the vendor.

See JD Edwards EnterpriseOne Applications Accounts Payable Implementation Guide, "Processing Accounts Payable Vouchers."

- **6.** The EnterpriseOne user generates an XML file with the payment data by running the E1 to CM Requisition Extract program (R0413CMD).
- **7.** The file is sent to the Contract Management server using the manual or automated method.

If you are using the automated method, the R0413CMD calls the necessary FTP scripts and moves the file to the specified location. If you are using the manual method, the EnterpriseOne user must manually send the file to the Contract Management user or move it to a specified location.

**8.** The user signs into the Contract Management Exchange application and imports the file that was created by the R0413CMD program.

The Contract Management system now shows updated payment information.

#### 1.1.4 Change Requests

After a project or related committed contract has been approved in the Contract Management system, any changes to those projects or contracts must go through the change request process. Change requests can be initiated in either the EnterpriseOne or Contract Management systems, and might be required in these situations:

- A Contract Management user requests additional budget for an existing cost code.
- A user changes a line on a purchase order (committed contract).

In any of these situations, a change request (if the change is initiated in EnterpriseOne) or a change order (if the change is initiated in Contract Management) is created so that the change goes through any necessary approval processing, and so that the data is updated in both the EnterpriseOne and Contract Management systems.

**Note:** The EnterpriseOne system must be set up so that the creation of a change request for a purchase order results in new lines on the purchase order to reflect the change, and does not update existing lines on the purchase order. On the Subcontract Commit tab of the P5310, set the Subcontract Change Order Number option to **1**, and set the Subcontract Detail Line Item processing option to blank. These settings ensure that new lines are created.

See JD Edwards EnterpriseOne Applications Change Management Implementation Guide, "Creating Change Requests.".

If you create a change request in EnterpriseOne, you run the E1 to CM Change Request Export program (R5301CMD) to generate two XML files that can be consumed by Contract Management. One XML file for budget change requests and another for commitment change requests. These files include the change request header and detail data for the selected change requests. The data in these XML files is extracted from these EnterpriseOne tables:

- F5301B Change Request Master Table
- F5311 Change Request Details Table
- F0006 Business Unit Master
- F4301 Purchase Order Master
- F0901 Account Master

**Note:** Only cost and subcontract information are included. Service and contract billing information are not included in the file.

In addition to creating the XML files, this program also updates the CM Change Order Cross Reference table (F5311X) and generates a PDF report. The report includes:

- A statement regarding whether the file was successfully created.
- File location information.

When you run the E1 to CM Change Request Export program, you can set a processing option to specify whether to include records that have already been exported from EnterpriseOne and included in an XML file. The system knows which records have already been exported based on the data in the F5311X table, which is updated when the program is processed. You might choose to re-export change request data if you generated an XML file, but then lost the file and needed to regenerate it with the same data.

The system also uses the change request status to determine which change requests to include in the XML files. If the change request header is not approved, the entire change request is excluded from the XML files. Additionally, if individual lines on the change request are not approved, the system does not include those lines in the files. You define approved status codes in the processing options before running the R5301CMD.

As each detail record qualifies for export and is added to the XML files, the system also writes a record to the F5311X table. Be aware that an individual line on a change request might contain information for a subcontract change, a budget change, or both. In the event that a line contains both types of data, two separate records are created, one in each XML file. Two records are also written to the F5311X.

Once the XML files are created, the user signs into the Contract Management Exchange application and selects the file(s) for import. The changes are imported into Contract Management in an unapproved status. Users must approve the changes in Contract Management using standard change order processes.

See Oracle Primavera Contract Management User's Guide, Working With Contracts, Project Costs, and Changes.

If a change order is created in Contract Management, the user signs into the Contract Management Exchange application and exports change order data. The Contract Management Exchange application process extracts change order data for the selected project and creates an XML file with the data.

**Note:** The change order must be approved, and the Date Exported field must be blank for the change order to be included in the extraction process.

Once the XML file is available, the EnterpriseOne user runs the CM to E1 Process Change Request (R5310CMI). This program creates change requests in EnterpriseOne and updates the Change Request Master (F5301B) and Change Request Details (F5311) tables. The program also generates a report that includes the number of change requests that were processed and the number of change requests that were successful. If the system encounters errors during processing, those errors are written to the work center.

After the change requests are created in EnterpriseOne, you process and approve them using standard change request processing.

See JD Edwards EnterpriseOne Applications Change Management Implementation Guide, "Creating Change Requests."

### 1.1.5 Relationship with the P6 Integration Process

In addition to integrating with Contract Management, the JD Edwards EnterpriseOne system also integrates with the Primavera Project Portfolio Management system. This integration is a process integration pack (PIP) that utilizes the Application Integration Architecture (AIA) technology and methodology. Additional information about this integration can be found in the *Oracle Project Portfolio Management Integration Pack for Primavera P6 and JD Edwards EnterpriseOne 2.5 Implementation Guide,* which is available on Oracle's Software Delivery Cloud site.

Utilizing both the contract management and project portfolio management integrations provides an end-to-end view of a project. Each product manages key information to the level and type of detail that is appropriate for specified job roles that are involved in the project management process. This table provides details about the type of information that is owned by each system, and how that information is used.

Product	Information Primarily Owned by Product	How Product Uses Information from Other Products
JD Edwards EnterpriseOne	<ul> <li>The EnterpriseOne system primarily owns:</li> <li>Resources, such as employees, material, and equipment.</li> <li>Calendars</li> <li>Chart types</li> <li>Project financial data</li> <li>Change management data</li> <li>Subcontract management data</li> </ul>	EnterpriseOne uses the timesheets from Primavera P6 that are entered at the WBS/task level to ensure that employees are properly paid and that projects reflect the fully burdened labor costs associated with the work being done. EnterpriseOne receives requests for progress payments (requisitions) from Contract Management to ensure that vendors and subcontractors are paid in a timely manner for material and labor.
Primavera P6	<ul> <li>The Primavera P6 system primarily owns:</li> <li>Schedules</li> <li>Activities</li> <li>Resource assignments</li> <li>Timesheets (optional)</li> </ul>	<ul> <li>Primavera P6 leverages the global data from EnterpriseOne, which includes resources, calendars and chart types. This information is used when planning and maintaining projects.</li> <li>Primavera P6 also leverages the financial data from EnterpriseOne at the WBS/task level for each project. Primavera P6 then also uses this information to assign activities and resources to tasks, and to set the schedule for each project.</li> <li>In order to give more detailed visibility into certain aspects of a project, Primavera P6 users can view Contract Management documents which include: <ul> <li>Drawing sets</li> <li>Daily reports</li> <li>Materials</li> <li>Punch lists</li> <li>Submittals</li> </ul> </li> <li>Actual financial data in Primavera P6 is updated from EnterpriseOne, and includes any subcontractor payments that were initiated from Contract Management. Typically a Primavera P6</li> </ul>

Product	Information Primarily Owned by Product	How Product Uses Information from Other Products
Primavera Contract Management	<ul> <li>The Contract Management system primarily owns:</li> <li>Submittals</li> <li>Transmittals</li> <li>Punch lists</li> <li>Daily reports</li> <li>Issue tracking, document management, and collaboration</li> <li>Change management</li> <li>Subcontract management</li> </ul>	Contract Management uses the project cost codes and associated budgets from EnterpriseOne. The cost codes from EnterpriseOne are the WBS/tasks associated with a project. Cost codes provide job site personnel with detail about what tasks must be completed for a project. Cost codes also provide detail about budgets and subcontract commitments. Contract Management also uses purchase order data from EnterpriseOne to provide job site personnel with knowledge about what subcontract material and labor are planned for a project.
		When using EnterpriseOne data, Contract Management users have the ability to track specific issues associated with each cost code, and can review any related documents. Contract documents can also be associated with activities in Primavera P6 to provide a complete view into schedule impact.
		Contract Management users can view the project schedule from Primavera P6 to ensure that they have insight into when activities or tasks are to begin and end.
		Lastly, contract commitments in Contract Management are updated with payment information from EnterpriseOne when vendors and subcontractors are paid. Typically, a job site manager would use Contract Management at this level.

If you utilize both of the integrations, and manage and maintain project and contract data between all three systems, you must be aware of the following items:

- 1. When EnterpriseOne is integrated with both Primavera P6 and Contract Management, it is recommended that any changes to budgets occur through change requests that are initiated in either EnterpriseOne or Contract Management.
- **2.** Do not update cost information (budgeted or committed contracts, purchase orders, schedule of values, or change orders) directly from Contract Management

to Primavera P6. Financial information should not be changed using the Contract Management to P6 integration. It is assumed that EnterpriseOne is the primary owner of financial information for this integration.

**3.** Do not update the budgets in Primavera P6 as these updates will not get passed to Contract Management.

### 1.2 Understanding the Technical Requirements for the Integration

For the contract management integration to function properly, your system must meet the technical requirements for the integration.

#### 1.2.1 Release Levels and Required Updates

Before you can configure and use the contract management integration, you must ensure that you have the necessary systems installed to support the integration flows. This integration requires these systems and release levels:

- JD Edwards EnterpriseOne 9.1 applications release.
- JD Edwards EnterpriseOne 9.1.0.1.A tools release.
- Oracle Primavera Contract Management release 13, service pack 1 (13.0.1.0)
- Java Runtime Engine 1.6 or higher.

Oracle recommends running 1.6.0\_14.

In addition to having those systems installed, you must also install the following updates:

 JD Edwards EnterpriseOne 9.0 Integration to Primavera Contract Management v13, which is available on www.edelivery.oracle.com as part number V30080-01.

This part number contains the following items:

E1toCM\_Scripts.zip and E1toCM\_CL\_Object.zip files.

These zip files contain the automated FTP file transfer objects.

- Readme JD Edwards EnterpriseOne 9.1 Integration to Primavera Contract Management v13.txt
- One of these updates for Contract Management 13, service pack 1, which are available on www.edelivery.oracle.com/ within the Primavera Contract Management (v13.0) Media Pack:
  - Contract Management 13 SP1 for Jboss
  - Contract Management 13 SP1 for Weblogic
- Contract Management Exchange.

The Contract Management Exchange update is available on www.edelivery.oracle.com/ within the Primavera Contract Management (v13.0) Media Pack.

### 1.2.2 Additional Sources of Information

To support this integration, users must have knowledge of the EnterpriseOne system, the Primavera Contract Management system, and Contract Management Exchange functionality. This table provides the location of documentation that you can review in addition to this implementation guide:

Product Area	Location of Documentation
JD Edwards EnterpriseOne systems	http://www.oracle.com/technology/documentation/i ndex.html
	Under the Applications section, select a link under JD Edwards EnterpriseOne.
Primavera Contract Management and Primavera Project Portfolio Management	http://www.oracle.com/technology/documentation/i ndex.html
	Under the Applications section, select a link under Primavera Applications.
Contract Management Exchange	The user guide for this application, <i>Using</i> <i>Contract Management Exchange</i> , is included in the Primavera Contract Management (v13.0) Media Pack, which is available on <i>www.edelivery.oracle.com</i> .

### 1.2.3 Data Extraction and Import

To extract data and import data between these two systems, the integration uses a number of different methods. To extract data from the EnterpriseOne system, users run data extraction batch programs, which create XML files that can be consumed by the Contract Management system. To extract data from the Contract Management system, users sign into the Contract Management Exchange application and run the data export functions for the selected data type. This tool extracts data from Contract Management and creates XML files that can be consumed by EnterpriseOne.

To import data into EnterpriseOne, users again run batch import programs. These programs call business functions which format the data in the XML files that were created by Contract Management, and process the data so that it is available for use in EnterpriseOne. To import data into Contract Management, users sign into the Contract Management Exchange application and select files for import. The Contract Management Exchange application communicates with the Contract Management API to import the data into the Contract Management database where it is then available for use.

This diagram illustrates the data flow from EnterpriseOne to Primavera Contract Management using FTP:



Figure 1–1 EnterpriseOne to Primavera Contract Management Flow

This diagram illustrates the data flow from Primavera Contract Management to EnterpriseOne using FTP:





### 1.2.4 Automated and Manual File Transfer

This integration uses XML files that are created in both the EnterpriseOne and Contract Management systems to transfer data between the two systems. Users can choose to manually send these XML files from users in one system to users in the other, or they can use an automated FTP file transfer process.

If you do not use the FTP method, you might choose to create the files in one system and send them via E-mail to a user in the other system.

If you are using the automated FTP method, the system uses FTP scripts to transfer the generated XML files to a remote server. When you run a data extract or data import program in the EnterpriseOne system to import data from or export data to Contract Management, that program calls an FTP script which either places the XML files in a specified location, or retrieves XML files from a specified location.

There are seven scripts that are delivered with this integration. Six of the scripts support the automated transfer mode, and one script is used in manual mode. Because this implementation supports the use of multiple platforms, there are three versions of

each script. You will use only one set of scripts in a given implementation, based on the platform. This integration supports the following platforms:

- IBM i on IBM Power Systems
- Windows
- Unix/Linux

These scripts are listed and discussed in more detail later in this documentation.

Two inbound FTP scripts, which include the CMtoE1Change and CMtoE1PaymentRequisition scripts, are used to transfer data from Contract Management to EnterpriseOne. The scripts are called by the data import programs in EnterpriseOne, and they locate and transfer the XML files generated by Contract Management from the specified remote server location via FTP to a local file location. The script will also generate a flat file in the same location as the script with the name of the files being transferred. These scripts are then called from business functions that are initiated when you run the data import programs within EnterpriseOne.

Four outbound FTP scripts, which include the E1toCMChange, E1toCmContract, E1toCMProject, and E1toCMRequisition scripts, transfer data from the JD Edwards EnterpriseOne system to the Contract Management system. The scripts are called from the data extract programs and they transfer the generated XML files using FTP to a specified location on a remote server.

At implementation each script must be modified to contain the correct local and remote FTP server information. You use the CM Automated Transfer Setup program (P51011), which you can access directly from the Contract Management Integration Workbench, to enter this information for the scripts. The scripts must be stored in the delivered directory on the EnterpriseOne enterprise server, and all directories must have permissions set to allow access by the business functions. It is not necessary to include the scripts in the delivered directory structure on the FTP server.

A log file is created, or appended, each time a script is called. The log file is named for the corresponding script that was called. For example E1toCMChange.log or CMtoE1PaymentRequisition.log, The system saves the log in the directory associated with that flow. For example, the log file E1toCMChange.log would be saved to the E1toCMChange folder and CMtoE1PaymentRequisition.log would be saved to the CMtoE1PaymentRequisition folder.

**Note:** If you choose to use the automated FTP method to transfer files between EnterpriseOne and Contract Management, the data extract and import programs that you run in EnterpriseOne are set up to complete the file transfer process. However, if you experience errors in transferring the files from one system to another, you can execute the FTP scripts directly from the Contract Management Integration Workbench program in EnterpriseOne. You use this option only if the XML files have been generated successfully, but the file transfer process did not complete successfully.

See Chapter 2, "Setting Up the Contract Management Integration." See Chapter 3, "Using the Contract Management Integration Workbench."

## **1.3 Understanding the Contract Management Integration Workbench**

To transfer data between the JD Edwards EnterpriseOne and Contract Management systems, you run data extract programs to create XML files. These files are then transferred between the two systems where the data can be used during the contract management process.

To track information about the XML files that have been sent to each system for each project, you can use the Contract Management Integration Workbench program (P51010). This interactive application provides the following functionality for the contract management integration:

- Provides a single point of entry for all EnterpriseOne operations that are related to the integration.
- Provides insight into the XML document activity, including all XML documents that are produced, consumed, and transferred by the integration flows.
- When using manual file transfer mode, the Contract Management Integration Workbench provides editing on some fields to enable users to manually indicate the status of XML documents.
- Provides a single point of access for all EnterpriseOne data extract and import programs that are used by the integration flows.
- Provides a single point of access for all setup programs that are used by the integration.

See Chapter 3, "Using the Contract Management Integration Workbench."

## **1.4 Solution Assumptions and Constraints**

This section lists the solution assumptions and constraints for the EnterpriseOne integration to Contract Management.

1. The currency codes in EnterpriseOne and Contract Management are not always the same for the same type of currency. For example, the currency code for Argentine pesos is **ARS** in EnterpriseOne and is **ARA** in Contract Management. To accommodate any differences in currency codes, you must set up currency code cross references.

See Chapter 2, "Setting Up the Contract Management Integration."

**2.** Contract Management can consume any currency code that EnterpriseOne sends. Therefore, it is assumed that the currency for the project is always the same in EnterpriseOne and in Contract Management.

This integration does not support any currency conversions between EnterpriseOne and Contract Management. The only currency conversions that occur during this integration flow are within the EnterpriseOne system, for example, when a vendor is being paid in a currency other than the currency of the project. This type of currency conversion occurs only if the EnterpriseOne system is setup to use multi-currency processing.

**3.** When sending project data from EnterpriseOne to Contract Management, you must include only one project per XML file. This is true for all of the flows used by this integration.

# Setting Up the Contract Management Integration

This chapter contains the following topics:

- Section 2.1, "Understanding Integration Setup"
- Section 2.2, "Setting Up FTP Processing"
- Section 2.3, "Setting Up Manual File Transfer Information"
- Section 2.4, "Setting Up Currency Code Information"
- Section 2.5, "Setting Up Next Numbers"

# 2.1 Understanding Integration Setup

Before you can utilize the contract management integration, you must set up both systems to ensure that data is processed, formatted, and transmitted correctly. This list outlines the steps that you must complete to set up the integration:

1. Ensure that each system, patch, and software update has been installed.

For a list of the required releases and patches, see Section 1.2, "Understanding the Technical Requirements for the Integration."

**2.** Import the stub project EXP\_CMPROJ\_EXCHANGE.jar into Contract Management to create the custom fields that are required to support the integration in the Contract Management system.

This project is delivered with the integration functionality, and is located in the root folder of the install location. For example, **C:\CMExchange**. To import the stub project, and add the custom fields to the Contract Management system, you use the Single Project Restore function in Contract Management. After you restore this project, the custom fields are loaded into the Contract Management system. You can then delete the EXP\_CMPROJ\_EXCHANGE project.

See Using Contract Management Exchange, "Setting Up Your Environment.".

**3.** Set up FTP processing if you are using the automated method to transfer files between systems.

The integration uses FTP to automatically transfer XML files from one system to a predefined location in the other system. These files can then be consumed by the target system, and the data can be processed. The use of FTP to automatically transfer files is optional for this integration. This method requires users to create a standard directory structure on both the enterprise server and the FTP server, verify that the scripts are in the appropriate location, and configure script

information. If you are using the IBM i on IBM Power Systems platform (also known as IBM i or AS400), you must also complete an additional setup step to ensure the success of the file transfer process.

4. Set up file transfer information for the manual method.

If you choose not to use FTP to automatically transfer files between the systems, you must create a directory structure, and verify that the script for manual file transfer processing is included in that directory.

# 2.2 Setting Up FTP Processing

The contract management integration uses FTP processing to transfer files between the JD Edwards EnterpriseOne and Contract Management systems. This section provides an overview of the FTP setup process and discusses how to:

- Set up the standard directory structure.
- Configure scripts.
- Set up IBM i for IBM Power Systems information for FTP processing.

### 2.2.1 Understanding FTP Setup

This integration uses XML files that are created in both the EnterpriseOne and Contract Management systems to transfer data between the two systems. Users can choose to manually send these XML files from one system to the other, or they can use an automated FTP file transfer process.

If you are using the automated method, the system uses FTP scripts to transfer the generated XML files to a remote server. These scripts are called by the EnterpriseOne data extract and import programs.

There are seven scripts that are delivered with this integration. Six of the scripts support the automated transfer mode, and one script is used in manual mode. This section discusses the scripts used for FTP automated processing.

Because this implementation supports the use of multiple platforms, there are three versions of each script. You will use only one set of scripts in a given implementation, based on the platform. This integration supports the following platforms:

- IBM i on IBM Power Systems
- Windows
- Unix/Linux

This table lists the scripts that are used for each platform:

IBM i on IBM Power Systems	Windows	Unix/Linux
CMtoE1Change_IBMi.sh	CMtoE1Change.bat	CMtoE1Change.sh
CMtoE1PaymentRequisition_ IBMi.sh	CMtoE1PaymentRequisition.b at	CMtoE1PaymentRequisition.s h
E1toCMChange_IBMi.sh	E1toCMChange.bat	E1toCMChange.sh
E1toCMContract_IBMi.sh	E1toCMContract.bat	E1toCMContract.sh
E1toCMProject_IBMi.sh	E1toCMProject.bat	E1toCMProject.sh
E1toCMRequisition_IBMi.sh	E1toCMRequisition.bat	E1toCMRequisition.sh
GenerateDirList_IBMi.sh	GenerateDirList.bat	GenerateDirList.sh

Two inbound FTP scripts, which include the CMtoE1Change and CMtoE1PaymentRequisition scripts, are used to transfer data from Contract Management to EnterpriseOne. The scripts are called by the data import programs in EnterpriseOne, and they locate and transfer the XML files generated by Contract Management from the specified remote server location via FTP to a local file location. The script will also generate a flat file in the same location as the script with the name of the files being transferred. These scripts are then called from business functions that are initiated when you run the data import programs within EnterpriseOne.

Four outbound FTP scripts, which include the E1toCMChange, E1toCmContract, E1toCMProject, and E1toCMRequisition scripts, transfer data from the JD Edwards EnterpriseOne system to the Contract Management system. The scripts are called from the data extract programs and they transfer the generated XML files using FTP to a specified location on a remote server.

A known directory structure must be present on both the enterprise server and the FTP server so that the scripts can perform the file transfer and archiving of files. The directory structure is delivered with the integration. The user must copy the delivered directory structure to the necessary servers.

Before you run the scripts, you must configure them so that they contain the necessary information to log in correctly to the remote system. To configure the scripts, you use the CM Automated Transfer Setup program (P51011). You access this program from the Contract Management Integration Workbench (P51010).

In addition to configuring the scripts, you must also ensure that they are stored in the delivered directory on the EnterpriseOne enterprise server, and that all directories have permissions set to allow access by the business functions. The scripts do not need to be included in the file structure on the FTP server.

A log file is created, or appended, each time a script is called. The log file is named for the corresponding script that was called. For example E1toCMChange.log or CMtoE1PaymentRequisition.log, The system saves the log in the directory associated with that flow. For example, the log file E1toCMChange.log would be saved to the E1toCMChange folder and CMtoE1PaymentRequisition.log would be saved to the CMtoE1PaymentRequisition folder.

**Note:** If you choose to use the automated FTP method to transfer files between EnterpriseOne and Contract Management, the data extract and import programs that you run in EnterpriseOne are set up to complete the file transfer process. However, if you experience errors in transferring the files from one system to another, you can execute the FTP scripts directly from the Contract Management Integration Workbench program in EnterpriseOne. You use this option only if the XML files have been generated successfully, but the file transfer process did not complete successfully.

### 2.2.2 Forms Used to Set Up FTP Processing

Form Name	FormID	Navigation	Usage
Contract Management Integration Workbench	W51010A	From the Primavera Contract Management menu (G51312), select Contract Management Integration Workbench.	Access forms used to set up FTP processing.

Form Name	FormID	Navigation	Usage
Contract Mgmt Automated File Transfer Setup	W51011A	From the Contract Management Integration Workbench form, select File Transfer and then Auto Transfer Setup from the Form menu.	Configure FTP scripts.

### 2.2.3 Setting Up the Standard Directory Structure

Included with this integration is the file EltoCM\_Scripts.zip.

This file contains all of the scripts and the related directory structure that is required for the integration to function successfully. After accessing the file, unzip the file to the enterprise server, and note the location. You will need this location when setting the processing options of the data extract and import programs in EnterpriseOne.

**Note:** These folder names are coded into the scripts and should not be changed or reorganized. Each of the flow folders contains an archive folder to store previously transferred files. oracle recommends that you do not change this directory structure, or the names of any of the folders included in the structure.

This graphic illustrates the standard directory structure for this integration:

#### Figure 2–1 Standard directory structure example

- 🖃 🚞 CMExchange
  - 🗄 🚞 CMtoE1Change
  - 🗉 🚞 CMtoE1PaymentRequisition
  - 🗄 🚞 E1toCMChange
  - 🗄 🚞 E1toCMContract
  - 🗄 🚞 E1toCMProject
  - E1toCMRequisition

### 2.2.4 Configuring Scripts

Each of the FTP scripts that are used to transfer files are delivered with the integration software. These scripts are used in the process of transferring files between EnterpriseOne and Contract Management using FTP file processing. Before you run the scripts, you must configure the system so that it can provide the proper server and authorization information to the scripts. To configure the system, you use the CM Automated Transfer Setup program (P51011). You access this program from the Contract Management Integration Workbench (P51010).

The scripts must be stored on the EnterpriseOne enterprise server, and all directories must have permissions set to allow access by the business functions.

To enter the necessary information for each script, access the Contract Mgmt Automated File Transfer Setup form.

Figure 2–2 Contract Mgmt Automated File Transfer Setup form

¢	Contract Management Integration WorkBench - Contract Mgmt Automated File Transfer Setup		
Ę	🕽 🗙 🗔 Form 🎉 Toola		
	Remote Server Name *	ap60.39fems.us.orade.com	
	Local Path *	c:\ftp\CMExchange\	
	Pennte Path *	Right Jane 19 20 In and MME whoma	
	NUMBER OF STREET	Septement of the sector set of the	
	User Name *	ora 1832	
	Password *	•••••	
	Do enter from used		
	Kel-erraer Pedaword		

#### **Remote Server Name**

Enter the address of the target server, for example, the FTP server, that the automated file transfer scripts will connect to. This value can be a machine name that will resolve via DNS or an IP address. For example, enter **ftpserver.company.com** in this field.

#### Local Path

Enter the local, fully qualified path to the CMExchange folder on the enterprise server. This is the folder that contains the automated file transfer scripts. The CMExchange folder was delivered with the integration. However, if you changed the name of the folder that contains the scripts, enter the name of that folder, along with the path to it, in this field. For example, enter \\server\root\CMExchange in this field.

#### **Remote Path**

Enter the remote, fully qualified path to the CMExchange folder on the target server, for example, the FTP server. For example, enter \\server\root\CMExchange in this field.

#### User Name

Enter the user name that the system uses when the automated file transfer scripts are connecting to the target server, for example, the FTP Server.

#### Password

This field contains a value that the user entered previously, and is encrypted so that the actual password is not displayed on the form.

#### **Re-enter Password**

This field, in the top portion of the form, remains blank.

#### **Change Password Button**

Click this button to change the password for the target server. When you click this button, the Original Password, New Password, and Re-Enter Password fields appear in a separate section of the form below the button.

#### **Original Password, New Password, Re-enter Password**

Use these fields to change the password to the target server. These fields appear only after you click the Change Password button.

### 2.2.5 Setting Up IBM i on IBM Power Systems Information for FTP Processing

IBM i on IBM Power Systems is also known by these names:

- iSeries
- AS400
- IBM i on Power Systems
- IBM i

In order for the file transfer scripts to process correctly on the IBM i on IBM Power Systems, an additional CL program must be included in an active library. Included with the integration is the file EltoCM\_CL\_Object.zip, which includes the file ftpsh (no file extension).

You must complete these steps to ensure that the scripts process correctly on the IBM i enterprise server:

1. From the IBMi machine, type the following on the command line:

CRTSAVF QGPL/FTPSH

**2.** Establish an FTP connection to the IBM i machine from the machine where you have extracted the object ftpsh.

**Note:** The file must be transferred in binary mode.

The following FTP commands are using the AS400 FTP command line to transfer the object to the enterprise server:

cd QGPL bin put ftpsh ftpsh (replace

**3.** From the IBMi machine, type the following on the command line:

RSTOBJ OBJ(\*ALL) SAVLIB(QGPL) DEV(\*SAVF) SAVF(QGPL/FTPSH) RSTLIB(QGPL)

Once this is complete, the system will be able to establish the FTP connection that is initiated from the .sh scripts.

## 2.3 Setting Up Manual File Transfer Information

As an alternative to using FTP to transfer files, you can use the manual method of file transfer, which does not require FTP.

If you are using the manual method, be aware of these items:

 When you run an outbound data extract program, and setup the processing options to use manual mode, you specify a directory where the system places the resulting XML files.

These files must be manually transferred to the Contract Management system in some manner, such as copying the file to CD and sending it in the mail, E-mailing the files to a Contract Management user, or copying the files to a shared location where the Contract Management user can access them.

 Before you run a data import program, you must have generated an XML file from Contract Management and transferred that file to a location. You must then specify that location, and also that you are running in manual mode, in the processing options of the data import program. In addition to setting the processing options, you must also verify that the script GenerateDirList (for the appropriate platform) exists in the same folder where the XML files are stored. This script must be modified to reflect the fully qualified path to directory it is placed in. The line to be modified looks like this:

SET localdirpath=D:\CMExchange\CMtoE1Change.

This script is called by the inbound data import programs, and creates a file list that the program needs in order to successfully process the XML files from Contract Management.

Oracle recommends that you follow the directory structure outlined for the automated transfer mode (FTP) in order to maintain separation of the XML files.

# 2.4 Setting Up Currency Code Information

The currency codes in EnterpriseOne and Contract Management are not always the same for the same type of currency. For example, the currency code for Argentine pesos is **ARS** in EnterpriseOne and is **ARA** in Contract Management. To accommodate any differences or exceptions in currency codes, you must set up currency code cross references.

You use the CM Currency Code Mapping program (P51006M), which you access from the Contract Management Integration Workbench, to enter currency code exceptions between the two systems.

### 2.4.1 Forms Used to Enter Currency Code Exceptions

Form Name	FormID	Navigation	Usage
Contract Management Integration Workbench	W51010A	From the Primavera Contract Management menu (G51312), select Contract Management Integration Workbench.	Access forms to enter currency code information.
Primavera Contract Mgmt Currency Code Mapping Exceptions	W51006MA	From the Contract Management Integration Workbench form, select Project/Budget Flow and then Currency Code Map from the Form menu.	Enter currency code exceptions.

### 2.4.2 Entering Currency Code Exceptions

Access the Primavera Contract Mgmt Currency Code Mapping Exceptions form. Enter any currency code exceptions and then click OK.

Contract Management Integration WorkBench - Primavera Contract Mgmt Currency Code Mapping Exceptions

 Image: Contract Mgmt Currency Code Mapping Exceptions
 </t

Figure 2–3 Primavera Contract Mgmt Currency Code Mapping Exceptions form

# 2.5 Setting Up Next Numbers

When you synchronize a project from EnterpriseOne to Contract Management, the system automatically assigns a project number that is used in the Contract Management system. Similarly, when you export a purchase order from EnterpriseOne, the system automatically assigns a committed contract number that is used in Contract Management. You set up the next numbers functions for system code 51, so that the system can automatically generate these project numbers. When setting up next numbers for this integration, you must enter a number for these two records in system 51:

- CM Project
- Purchase Order

So that the next numbers function does not generate a project or committed contract number that is already in use in the Contract Management system, you when set up next numbers, you should enter a beginning next number that is higher than the highest project or committed contract number that is already in use in the Contract Management system. For example, if the highest project number that is in use in the Contract Management system is 12345, you might enter a beginning next number of 12500.

This example illustrates how you might set up the next numbers for the contract management integration:

Figure 2–4 Setting Up Next Numbers by System form

Use Next Number Check Digit Used Job Prog. Batch I Job Prog. Doc # I Job Draws I Profit Recog II External BU SSB7 C Purchase Order 777716 I CM Project I	51	Job Costing	
Job Prog. Batch         1           Job Prog. Doc #         1           Job Draws         1           Profit Recog         11           External BU         3337           Purchase Order         77716           CN Project         122500	Use	Next Number	Check Digit Used
Job Prog. Doc #         1           Job Draws         1           Profit Recog         11           External BU         1000000000000000000000000000000000000	Job Prog. Batch	1	
Jab Draws     1       Profit Recog     11       External BU     3397       Purchase Order     77716       CM Project     122500	Job Prog. Doc #	1	
Profit Recog         11           External BU         3337           Purchase Order         77716           CM Project         122500	Job Draws	1	
External EU  S395  Purchase Order  77716  CN Project  122500	Profit Recog	11	
Purchase Order 77716 CM Project 122500	External BU	88.37	
CN Project	Purchase Order	77716	
	CM Project	122500	
			1

See JD Edwards EnterpriseOne Applications Job Cost Implementation Guide, "Setting Up the Job Cost System."

# Using the Contract Management Integration Workbench

This chapter contains the following topics:

- Section 3.1, "Understanding the Contract Management Integration Workbench"
- Section 3.2, "Running Data Extract and Import Programs from the Workbench"
- Section 3.3, "Executing FTP Scripts Using the Workbench"
- Section 3.4, "Reviewing and Revising Status and Cross Reference Information"

## 3.1 Understanding the Contract Management Integration Workbench

To transfer data between the JD Edwards EnterpriseOne and Contract Management systems, you run data extract programs to create XML files. These files are then transferred between the two systems where the data can be used during the contract management process.

To track information about the XML files that have been synchronized to each system for each project, you can use the Contract Management Integration Workbench program (P51010). This interactive application provides the following functionality for the contract management integration:

- Provides a single point of entry for all EnterpriseOne operations that are related to the integration.
- Provides insight into the XML document activity, including all XML documents that are produced, consumed, and transferred by the integration flows.
- When using manual file transfer mode, the workbench provides editing on some fields to enable users to manually indicate the status of documents.
- When using FTP to transfer files, provides a single point of entry to execute any of the EnterpriseOne inbound or outbound FTP scripts.

You use this option only if the XML files were generated successfully, but the file transfer process does not complete successfully. Typically, the FTP process completes automatically when you process an extract or import program in EnterpriseOne.

- Provides a single point of access for all EnterpriseOne data extract and import programs that are used by the integration flows.
- Provides a single point of access for all setup programs that are used by the integration.

# 3.2 Running Data Extract and Import Programs from the Workbench

This section discusses how to run EnterpriseOne data extract and import programs using the Contract Management Integration Workbench program.

Before you use the workbench, you must set the processing options to ensure that data is processed and displayed correctly.

#### 3.2.1 Forms Used to Run Data Extract and Import Programs

Form Name	FormID	Navigation	Usage
Contract Management Integration Workbench	W51010A	From the Primavera Contract Management menu (G51312), select Contract Management Integration Workbench.	Access data extract programs. <b>Note:</b> Alternatively, you can access each data extract program directly from the Primavera Contract Management menu (G51312).

# 3.2.2 Setting Processing Options for the Contract Management Integration Workbench Program (P51010)

Use processing options to specify how a program processes and displays data.

#### 3.2.2.1 Process Tab

#### 1. CMExchange Path

Use this processing option to indicate where the Contract Management Exchange folder is located. This is the path on the enterprise server where the FTP scripts are stored and where XML files are written when in automated mode.

#### 2. Automated Mode

Use this processing option to indicate whether you are using the manual or automated (FTP) mode to transfer files between the two systems. If you are running in manual mode, the workbench enables several fields for editing so users can manually update the status of the XML files when they are sent between the two systems. Values include:

0 or Blank: Manual Mode

1: Automated Mode

#### 3. E1 to CM Project Script Name

Use this processing option to indicate the file name of the EnterpriseOne to Contract Management script for the Project/Budget flow. For example, enter

E1toCMProject.bat, E1toCMProject\_IBMi.sh, or E1toCMProject.sh in this option.

#### 4. E1 to CM Contract Script Name

Use this processing option to indicate the file name of the EnterpriseOne to Contract Management script for the Purchase Order flow. For example, enter E1toCMContract.bat, E1toCMContract\_IBMi.sh, or E1toCMContract.sh in this option.
#### 5. E1 to CM Change Script Name

Use this processing option to indicate the file name of the EnterpriseOne to Contract Management script for the Change Request flow. For example, enter E1toCMChange.bat, E1toCMChange\_IBMi.sh, or E1toCMChange.sh in this option.

#### 6. E1 to CM Requisition Script Name

Use this processing option to indicate the file name of the EnterpriseOne to Contract Management script for the Payment/Voucher flow. For example, enter **E1toCMRequisition.bat**, **E1toCMRequisition\_IBMi.sh**, or **E1toCMRequisition.sh** in this option.

#### 7. Automatically Refresh Status on Find

Use this processing option to allow the system to automatically update the status information when the user clicks Find, as well as when the user enters the application. To manually refresh the status information use the Refresh Status option from the Form menu while running the application.

#### 3.2.3 Running EnterpriseOne Data Extract and Import Programs

Access the Contract Management Integration Workbench form.

- 1. Select the Form menu, and then select one of these options, depending on the data extract program that you want to run:
  - Project/Budget Flow

If you select this option from the form menu, select Project Export to run the R51006CMD program.

- Purchase Order Flow

If you select this option from the form menu, select PO Export to run the R4310CMD program.

Change Request Flow

If you select this option from the form menu, select CR Export to run the R5301CMD program, or select CR Import to run the R5310CMI program.

Payment/Voucher Flow

If you select this option from the form menu, select Progress Payments to run the R4314CM program, or select Requisition Export to run the R0413CMD program.

**2.** After selecting the program that you want to process, complete the steps for running a batch program.

See JD Edwards EnterpriseOne Tools Foundation Guide.

### 3.3 Executing FTP Scripts Using the Workbench

When you run an EnterpriseOne data import or export program, and you are set up to use the automated FTP method to transfer files between the two systems, the programs automatically call the FTP scripts. These scripts either send XML files to a specified location, or they retrieve them from a specified location. This process should occur automatically when you process the extract or import program.

In the event that you experience an error with the file transfer process, you can use the Contract Management Integration Workbench to manually execute any of the EnterpriseOne FTP scripts, and send or retrieve XML files. You should use this method

only if the XML files were generated successfully, but the file transfer process did not complete successfully.

You can choose to execute all scripts at once, or select the specific scripts that you want to execute. This task is necessary only if you are using FTP to transfer files from EnterpriseOne to Contract Management, and only if the FTP process does not complete successfully during the execution of the data extract or import program. If you are not using FTP, an EnterpriseOne user must manually send the files to a Contract Management user, who can save the file and import it into Contract Management.

#### 3.3.1 Forms Used to Send XML Files to Contract Manager

Form Name	FormID	Navigation	Usage
Contract Management Integration Workbench	W51010A	From the Primavera Contract Management menu (G51312), select Contract Management Integration Workbench.	Access forms used to execute FTP scripts.
			<b>Note:</b> You use this method to execute FTP scripts only when you have successfully generated the XML file(s), but the FTP transfer process was interrupted, or did not complete successfully.
Execute File Transfer Scripts	W51010B	From the Contract Management Integration Workbench form, select File Transfer and then Execute Scripts from the form menu.	Execute FTP scripts to send files to Contract Management.

#### 3.3.2 Sending XML Files to Contract Management

Access the Execute File Transfer Scripts form. Select the scripts you want to process and then click OK.

#### Figure 3–1 Execute File Transfer Scripts form



The system returns you to the main workbench form where you can review the status of the files you are processing.

# 3.4 Reviewing and Revising Status and Cross Reference Information

After you run data extract and import programs in EnterpriseOne, you use the Contract Management Integration Workbench program (P51010) to review the status of each file that you create. If you are transferring files using the automated method, you also use the workbench to verify that files have been synchronized between the JD Edwards EnterpriseOne and Contract Management systems. If you are transferring files manually, you use the workbench to manually update the status of the files when you send them.

You can also review the cross reference data that was created when the extract or import program was processed. For example, after you synchronize a project from EnterpriseOne to Contract Management, you can review the project cross reference data to find the project number that is generated by the system, and is used in Contract Management.

The workbench also enables you to update status and cross reference information for integration flows that are initiated outside of the system. For example, if the Contract Management user creates a requisition, and calls the EnterpriseOne user to give them the requisition information so that a voucher and payment can be generated in EnterpriseOne, the EnterpriseOne user can manually enter the cross reference information to connect the Contract Management requisition to the EnterpriseOne voucher and payment.

Cross reference and status information is stored in these EnterpriseOne tables, which were created to support this integration:

- F0411X
- F4310X
- F51006M
- F51006X
- F51010
- F5311CM
- F5311X
- F51011

### 3.4.1 Forms Used to Review and Revise Status and Cross Reference Information

Form Name	FormID	Navigation	Usage
Contract Management Integration Workbench	W51010A	From the Primavera Contract Management menu (G51312), select Contract Management Integration Workbench.	Review and revise status information.

#### 3.4.2 Reviewing and Revising Status Information

Access the Contract Management Integration Workbench form. Use the fields in the header of the form to limit your search criteria, and then click Find.

Figure 3–2 Contract Management Integration Workbench form

Cont	Contract Management Integration WorkBench - Contract Management Integration Workbench			uery: Al Records				
80	🖗 📋 🗙 🗔 Dour 🕅 🙀 Dooks							
	flow Name	x	-					
	Transfer Status	*	-					
	Process Status	•	-					
Not	ecords found.						Oustomize Grid	1 1
	/low Name	XML File Name 🕀		Transfer Status 🖯	Transfer Date Time 🖻	Process Status	Process Date Time	÷

The Transfer Status field, and the related Date/Time field, are used to record the FTP activity of an XML file that is generated in EnterpriseOne and sent to Contract Management. Therefore, review these fields to determine when the file was transferred to Contract Management, and if that transfer was successful. The Transfer Status fields are input-capable when you are running in manual mode.

The Process Status field, and related Date/Time field, are used to record when an inbound XML file from Contract Manager is received and processed by EnterpriseOne. Review these fields to determine when the file was processed, and if the process was successful.

#### 3.4.3 Reviewing and Revising Cross Reference Information

Access the Contract Management Integration Workbench form.

- 1. Select the Form menu, and then select one of these options, depending on the cross reference data that you want to access:
  - Project/Budget Flow

If you select this option from the form menu, select Project X-Ref to review cross reference data. Review and revise the data as necessary. Note that the only input-capable field for project cross reference data is the Original Budget Exported field. You can also review the system-generated project number that will be used in the Contract Management system.

- Purchase Order Flow

If you select this option from the form menu, select PO X-Ref to review cross reference data. Review the data as necessary. None of the cross reference data for purchase orders is input-capable.

- Change Request Flow

If you select this option from the form menu, select CR X-Ref to review cross reference data. Review and revise the data as necessary. Note that the Contract Management Committed Contract Number is the only input-capable field for change request cross reference data.

Payment/Voucher Flow

If you select this option from the form menu, select Voucher X-Ref to review cross reference data. Review and revise the data as necessary. Note that several fields, including Contract Management Committed Contract Number, Contract Management Application Number, Voucher Number, and Paid in Full and Exported to CM are input-capable cross reference fields. These fields are input-capable to enable users to update cross reference data for progress payment flows that are initiated outside of the system.

**2.** After reviewing and revising cross reference data, click OK to save your changes.

# **Synchronizing Project Data**

This chapter contains the following topics:

- Section 4.1, "Understanding the Project Synchronization Process"
- Section 4.2, "Project Integration Assumptions and Constraints"
- Section 4.3, "Running Project Data Extract Programs"
- Section 4.4, "Importing Project Data into Contract Management"

# 4.1 Understanding the Project Synchronization Process

The first step in the synchronization process for the Contract Management integration is to create project, cost code, and budget information in the EnterpriseOne system.

**Note:** To create these records in the EnterpriseOne system, Oracle recommends that you have a strong functional understanding of the JD Edwards EnterpriseOne Job Cost system. Detailed information and instructions about how to create jobs, cost codes, and budgets can be found in the JD Edwards EnterpriseOne Job Cost 9.0 Implementation *Guide*.

After you create this data in EnterpriseOne, you can synchronize that data from EnterpriseOne to Contract Management. You use data extract programs to extract selected data from EnterpriseOne and store the data in XML files. These files can then be transferred to a predefined location that is accessible to the Contract Management system, and the Contract Management Exchange application is then used to import the data into the Contract Management database.

There are two data extract programs that you can run to synchronize project data from EnterpriseOne to Contract Management:

Project and Contract Header for Contract Management (R51006CMD)

This program extracts project header data and creates an XML file that can be sent to Contract Management. You can run this program alone to extract only project header data, or you can set the processing options for this program to call the Cost Codes and Original Budgets for Contract Management program. When you call this additional program, the system extracts project header, cost code, and budget data for the selected projects.

Cost Codes and Original Budgets for Contract Management (R51901CMD)

This program extracts cost code and budget data for selected projects. This program is called directly from the R51006CMD program, and cannot be processed alone.

You use the Project and Contract Header for Contract Management (R51006CMD) program to transfer project header information from EnterpriseOne to Contract Management. This program generates an XML file that contains project header information that is extracted from the Business Unit table (F0006) and the Extended Job Master table (F5108). This program can be run alone, or you can set the processing options to call the Cost Codes and Original Budgets for Contract Management (R51901CMD). If you call this program, the system includes cost codes and original budget data in the XML file. Cost code and budget data are extracted from the F0901 and F0902 tables based on the business unit, fiscal year, and century that are defined in the R51006CMD.

When you run one or both of these programs, the system updates the CM Project Cross Reference table (F51006X).

The project data extract programs support these types of project data synchronizations:

1. Create new project.

Project header data can be created in EnterpriseOne and sent to Contract Management at any time. Synchronizing this type of data results in the creation of a new project in Contract Management.

**2.** Create new cost code.

Account master details can be created in EnterpriseOne for an existing project, and sent to Contract Management at any time. Synchronizing this type of data results in the creation of new cost code schedule records in Contract Management. You can create new cost codes after you have synchronized cost codes from EnterpriseOne to Contract Management.

**3.** Create budgeted contract.

Original budget amounts can be created in EnterpriseOne and sent to Contract Management at any time before the project is approved in Contract Management. Synchronization of this type of data results in a new budgeted contract in Contract Management.

**Note:** To synchronize budget changes after the project is approved in Contract Management, you must use the change request process.

**4.** Update existing project.

Existing project header details can be updated in EnterpriseOne and sent to Contract Management at any time. Synchronizing these updates results in an update to the existing project in Contract Management.

**5.** Update existing cost code.

Updates to an existing account master can be made in EnterpriseOne and sent to Contract Management at any time before the project is approved in Contract Management. Synchronizing these updates results in an update to the existing cost code schedule information in Contract Management. Additionally, you can create new cost codes after initial synchronization of cost codes. **Note:** To synchronize changes to existing cost codes after the project is approved in Contract Management, you must use the change request process. However, you can create new cost codes without any budget and synchronize them at any time.

6. Update existing budget contract.

Updates to existing budget contracts can be made in EnterpriseOne, however, these updates will not be reflected in the Contract Management budgeted contract information during synchronization. Changes to existing budget contract amounts must be handled using the change order process flow.

A typical project synchronization flow might include the following steps:

1. A project is created in the EnterpriseOne system.

A project consists of a business unit and the extended job master in EnterpriseOne.

See JD Edwards EnterpriseOne Applications Job Cost Implementation Guide, "Setting Up Jobs."

**Note:** You can synchronize project data from EnterpriseOne to Contract Management at this point, or you can create the additional financial information that is associated with the job, and then synchronize all of the data together.

**2.** Accounts that are associated with that project are then created in the EnterpriseOne system using cost code structures.

The cost code structure in EnterpriseOne is the equivalent of the cost codes in Contract Management.

See JD Edwards EnterpriseOne Applications Job Cost Implementation Guide, "Setting Up Cost Code Structures."

**3.** After you create the job and cost code structure, you enter budget information for the job.

Budget information includes the monetary amounts and the number of units, or quantities, related to each account. Budgets are classified as either original or revised. Creating budgets for a job is optional, and is not required for this integration.

See JD Edwards EnterpriseOne Applications Job Cost Implementation Guide, "Entering Budgets and Scheduling Jobs."

**4.** After data is entered into the EnterpriseOne system, the EnterpriseOne user creates an XML file that contains the project data.

The XML file is created by running the Project and Contract Header for Contract Management program (R51006CMD). This program can be run alone, or can be set to call the Cost Codes and Original Budgets for Contract Management program (R51901CMD) to include cost code and budget information in the file. Depending on how you set these programs to run, you can include project data in the XML file as follows:

- Users can include only the project data.
- Users can include the project data and financial accounts (cost codes).

To send financial account information, the project header must already have been synchronized, or also be included in the files.

- Users can include the project header, and the original budget.

To send budget information, the project header and financial account information must already have been synchronized, or also be included in the files.

- Users can include the project header, financial accounts, and the original budget.
- **5.** The files are sent to the specified Contract Management server location using either the automated or manual method.

If you are using the automated method, FTP scripts automatically send the file to the specified location when you run the data extract programs. If you are using the manual method, the EnterpriseOne user must manually send the files to a Contract Management user, or manually move the files to a specified location.

**6.** The user signs into the Contract Management Exchange application and imports the file into Contract Management.

See Using Contract Management Exchange, "Using Contract Management Exchange.".

**7.** The Contract Management users must sign out and then sign back in to see the imported data.

**Note:** Users must sign out of, and then back into Contract Management in order to see newly synchronized projects. However, if you are sending cost code or budget data for projects that have already been synchronized to Contract Management, it is not necessary to sign out and back in to see the new data.

# 4.2 Project Integration Assumptions and Constraints

This section discusses the issues, assumptions, and constraints that you must be aware of when integrating project data between JD Edwards EnterpriseOne and Contract Management.

- 1. When you synchronize budget information from EnterpriseOne to Contract Management, you are sending original budget information to Contract Management as a budgeted contract. The budgeted contract is created in an unapproved status in Contract Management. You use standard budget approval methods within the Contract Management system to approve the budgeted contract. Once the budgeted contract is approved, no original budget information will be consumed by the Contract Management system. Until the budgeted contract is approved, you can continue to send original budget information from EnterpriseOne. After the budgeted contract is approved, updates to the budgeted contract must be handled using change requests.
- **2.** The budget amounts are sent to Contract Management using the currency of the EnterpriseOne company that is associated with the related project.

Because Contract Management can consume any currency code that EnterpriseOne sends, it is assumed that the EnterpriseOne currency and the Contract Management currency for each project are the same. This integration does not support currency conversion of budgeted amounts between Contract Management and EnterpriseOne. **3.** When sending project data from EnterpriseOne to Contract Management, you must include only one project per XML file.

# 4.3 Running Project Data Extract Programs

After you create project data in the EnterpriseOne system, you use data extract programs to select and format the data so that it can be sent to, and read by, the Contract Management system. Before you can run these programs, you must set the processing options so that data is processed correctly. After you set the processing options, you can run the extract programs directly from the Contract Management Integration Workbench.

**Note:** To process data extract programs for projects, cost codes, and budgets, you run the R51006CMD from the Contract Management Integration Workbench. This program processes project header information and calls the R51901CMD to process cost code and budget information, if available. If you are using FTP to transfer files, these programs automatically generate and send the XML file(s) to the specified location, where they are available to the Contract Management system for consumption. If you experience an error during the file transfer process, you can execute the FTP scripts again using the workbench. Alternatively, you can manually send the files to a Contract Management user.

This section discusses how to

- Set processing options for the Cost Codes and Original Budgets for Contract Management (R51901CMD)
- Set processing options for the Project and Contract Header for Contract Management (R51006CMD)

See Chapter 3, "Using the Contract Management Integration Workbench."

# 4.3.1 Setting Processing Options for the Cost Codes and Original Budgets for Contract Management Program (R51901CMD)

Before running data extract programs, you must set the processing options so that data is processed correctly.

#### 4.3.1.1 Process Tab

Use the processing options on this tab to specify how the system processes cost code and budget data.

#### 1. Budget Amount Ledger Type

Use this processing option to specify the ledger type that the system uses to retrieve the original budget amount. If left blank, the system uses ledger type **JA**.

#### 2. Budget Units Ledger Type

Use this processing option to specify the ledger type that the system uses to retrieve the original budget units. If left blank, the system uses ledger type **JU**.

#### 3. Suppress Zero Balances

Use this processing option to specify whether the system suppresses adding lines to the original budget that has no balance. Values are:

1: Suppress budget line items with zero balances.

Blank: Write budget lines for all cost codes selected.

# 4.3.2 Setting Processing Options for the Project and Contract Header for Contract Management Program (R51006CMD)

Before running data extract programs, you must set the processing options so that data is processed correctly.

#### 4.3.2.1 Process Tab

Use the processing options on this tab to specify how the system processes project data.

#### 1. Contact Address Number

Use this processing option to specify which address book data item the system uses to retrieve the default contact name. Values are:

1: AN8 – Job site Address

2: AN8O – Owner Address

- 3: ANPA Supervisor Address
- 4: AN8GCA1 Address Number 1
- 5: AN8GCA2 Address Number 2
- 6: AN8GCA3 Address Number 3
- 7: AN8GCA4 Address Number 4
- 8: AN8GCA5 Address Number 5

If this option is left blank a default contact will not be written to the XML file.

#### 2. Contact Who's Who Line Number

Use this processing option to specify the who's who line number that the system uses when retrieving the default contact name. This option is used in conjunction with option 1, and is used only if a valid address book data item was entered in option 1. If this option is left blank, and a valid address book value was entered in option 1, the system uses Line 0 as the default value. If a who's who record is not found in the F0111 (Address Book - Who's Who) a default contact will not be written to the XML file.

#### 3. Document Date

Use this processing option to specify which date the system uses on the budget contract. Enter a **1** in this option to use the company's current period end date, or leave this option blank to use the system date.

#### 4. Include Original Budget

Use this processing option specify whether to include original budgets in the XML file. Values include:

**1:** Include original budgets, regardless of whether they have previously been synchronized for the specified project(s).

**2:** Include original budgets only if they have not been previously synced for the specified project(s).

Blank: Do not write any original budget information to the file.

#### 5. Original Budget Version

Use this processing option to specify the version of the Cost Codes and Original Budgets for Contract Management program (R51901CMD) to call. This program retrieves the original budget amounts for the project. If you leave this option blank, the system uses version **XJDE0001**.

#### 6. Exclude Project Header

Use this processing option to specify whether to exclude project header information in the resulting XML file. This option enables users to limit the amount of data that is included in the XML file, and is typically set to exclude project header information only if changes are made to a project that has already been synchronized. Values are:

1: Exclude project header information.

Blank: Write project header information to the file.

#### 7. Exclude Cost Codes

Use this processing option to specify whether to exclude cost code data from the XML file. Values are:

1: Exclude cost code information in the resulting XML file.

Blank: Include cost code information in the XML file.

#### 8. Cost Code Version

Use this processing option to specify the version of the Cost Codes and Original Budgets for Contract Management program (R51901CMD) to call. This program retrieves the list of cost codes for the project. If you leave this option blank, the system uses version **XJDE0001**.

#### 9. Fiscal Year

Use this processing option to specify the fiscal year to use for original budgets. If left blank the system uses the current fiscal year for the company of the project.

#### 10. Number of Projects to Include

Use this processing option to specify number of projects to include in each XML file. If you enter 0 (zero), all of the selected projects are included in a single XML file.

#### 4.3.2.2 File Transfer Tab

Use the processing options on this tab to specify details about the file transfer process.

#### 1. Manual File Transfer Path - where XML files will be written

Use this processing option to specify the file location that the system uses for storing the resulting XML files when running in manual mode. The name of the resulting XML file will be in the format of E1toCMProject\_MMDDYYYY\_hhmmss.xml. The file name will be appended to the value entered in this processing option to determine the fully qualified path and name.

For example if you enter C:\B9\DV900\Export\ in this option, the resulting XML file will be written as:

#### C:\B9\DV900\Export\ E1toCMProject \_MMDDYYYY\_hhmmss.xml

All directories specified in the path must already exist. These examples illustrate what the path might be for a Linux and an IBM i on IBM Power Systems implementation:

#### Linux: /slot/ems3561/appmgr/CMExchange/E1toCMProject/

IBM i on IBM Power Systems: /E900SYS\_9/CMExchange/E1toCMProject/

If this processing option is left blank, the resulting XML files will be written to the B9 directory where R51006CMD is running. For example C:\B9\.

#### 2. Automated File Transfer Path – including FTP script name

Use this processing option to specify the file location and name of the FTP script on the enterprise server. Include the file extension, for example:

C:\CMExchange\E1toCMProject.bat, /E900SYS\_ 9/CMExchange/E1toCMProject/E1toCMProject\_IBMi.sh, or /slot/ems1234/CMExchange/E1toCMProject.sh.

Use this option only when running in automated mode.

These examples illustrate what the path might be for a Linux and an IBM i on IBM Power Systems implementation:

Linux: /slot/ems3561/appmgr/CMExchange/E1toCMProject.sh

IBM i on IBM Power Systems: /E900SYS\_9/CMExchange/E1toCMProject\_IBMi.sh'

This path also indicates where the resulting XML files are written. They will be in a subdirectory of the path indicated. The name of the resulting XML files will be in the format of E1toCMProject\_MMDDYYYY\_hhmmss.xml. All directories specified in the path must already exist.

#### 3. Automated Mode

Use this processing option to specify if the process is running in automated mode or manual mode. Automated mode allows for files to be transferred to CM by FTP. Manual mode allows the files to be transferred by user after they are created. Values are:

0 or blank: Manual Mode, no FTP.

1: Automated Mode, use FTP.

# 4.4 Importing Project Data into Contract Management

After you create XML files by running data extract programs in EnterpriseOne, you can then import those files into Contract Management, where the data is added to the database and made available for use.

### 4.4.1 Importing Project Data into Contract Management

To import project data into Contract Management, complete the following steps. Your system administrator can assist you with determining which values to use during this task.

1. Access the Contract Management Exchange application.

See Using Contract Management Exchange, "Using Contract Management Exchange.".

- **2.** Complete these fields and then click Next:
  - CM Server Host
  - CM Server Port
  - CM Service Type
- **3.** Enter a valid user name and password for the Contract Management system and then click Next.

**Note:** The user that you log in as must have access and permission to insert data into the Contract Management database. If the user credentials that are entered do not have sufficient access, the system will produce an error, and the user will not be able to continue.

- **4.** Select the Contract Management database you want to import data into and then click Next.
- 5. Select the Import Data option and then click Next.

Figure 4–1 Select the action to perform

Contract Management Exchange	
Select the action to perform:	
⊙ Import data	
Export Payment Requisitions	
C Export Change Orders	
Back Next Cancel	

6. Specify the location of the file that you want to import and then click Next.

Contract	Management Exchange	
Specify the in	port file location:	
🔿 Local file		
Location:		Browse
⊙ FTB		
URL:	ftp://ap6039fems.us.oracle.com/CMExchange/E1toCMChar	nge/E1toCMComr
User name:	ora1832	
Password:		
Log folder:	::\temp	Browse
	Back Next	Cancel

**7.** Review the information on the confirmation screen and then click Finish. The system imports the selected data and produces a log file for review.

Figure 4–3 Confirm selections

😐 Contract	t Management Exchange 📰 🖾
Confirm selec	tions:
Action:	Import data
Server:	http://10.140.158.168:7001
User:	JayH
Database:	CMDEMO
Input file:	ftp://ap6039fems.us.oracle.com/CMExchange/E1toCMProject/E1toCMProject-
Log folder:	c:\temp
	Back Finish Cancel

**Note:** You can import only one file at a time. If you created multiple files from the EnterpriseOne system, you must run this process multiple times for each file that you want to import into the Contract Management system.

# Synchronizing Purchase Order (Contract) Data

This chapter contains the following topics:

- Section 5.1, "Understanding the Purchase Order Flow"
- Section 5.2, "Purchase Order Integration Assumptions and Constraints"
- Section 5.3, "Running Purchase Order Data Extract Programs"
- Section 5.4, "Importing Contract Data into Contract Management"

# 5.1 Understanding the Purchase Order Flow

After you synchronize projects from EnterpriseOne to Contract Management, you can then use the EnterpriseOne system to create purchase orders for that project. Purchase orders are authorizations to procure goods or services from an outside vendor. Purchase orders are the equivalent of a committed contract in Contract Management. Purchase orders are always created in the EnterpriseOne system and then synchronized to the Contract Management system. Also note that all approval processing for the purchase order is also completed in the EnterpriseOne system.

When you create a purchase order, you enter individual line items on the order. These line items include detailed information about each type of item or service that is being ordered. When you synchronize purchase order data to the Contract Management system, each individual line is sent. This enables job site personnel to receive detailed information about the goods and services that should be delivered to their job site.

Also, EnterpriseOne users must ensure that their system is set up so that changes to a purchase order line results in the creation of a new line on the purchase order, and not simply a revision to the existing purchase order line. These new lines are then handled through the change request process, which is discussed in more detail later in this guide.

Payments are made at the purchase order (committed contract) line level, and not at the header level. This table illustrates the relationship between purchase order lines, committed contract lines, and the payments that might be made for each line:

Purchase Order in EnterpriseOne	Committed Contract in Contract Management	Payment Example
Purchase Order Line 1	Committed Contract Line 1	Full Payment
Purchase Order Line 2	Committed Contract Line 2	Full Payment
Purchase Order Line 3	Committed Contract Line 3	Partial Payment

Purchase Order in EnterpriseOne	Committed Contract in Contract Management	Payment Example
Purchase Order Line 4 (resulting from a change to line 1)	Committed Contract Change Order Line 1	Partial Payment
Purchase Order Line 5 (resulting from a change to line 2)	Committed Contract Change Order Line 2	No Payment At This Time

**Note:** Only lines with an EnterpriseOne inventory interface of **A** are included in the XML file, and subsequently consumed by Contract Management.

The purchase order flow is a one-directional flow from EnterpriseOne to Contract Management. If users create committed contracts for a project in Contract Management, those contracts will not be synchronized to EnterpriseOne. Additionally, once you synchronize a purchase order from EnterpriseOne to Contract Management, you must use the change request process to revise that purchase order. If you simply change the purchase order after it has been sent to Contract Management, those changes will not be synchronized to Contract Management.

**Note:** For the purposes of this integration, a purchase order must be associated with an existing project. Therefore, you must first create a project in EnterpriseOne and synchronize project data to Contract Management before you can utilize the purchase order integration flow.

The purchase order process begins after the project has been created and synchronized, and typically includes these steps:

1. An EnterpriseOne user enters a purchase order, which includes individual lines for each type of item or service that is ordered.

See JD Edwards EnterpriseOne Applications Procurement Management Implementation *Guide, "Entering Purchase Orders."* 

**2.** The purchase order data extracted from EnterpriseOne and an XML file with the data is created by running the Purchase Order Extract program (R4310CMD).

**Note:** Only lines with an inventory interface of **A** are included in the XML file.

**3.** The file is sent to the specified Contract Management server location using either the manual or automated method.

If you are using the automated method, the R4310CMD calls an FTP script which sends the XML file to a predefined server location where it can be consumed by the Contract Management system. If you are using the manual method, the EnterpriseOne user must manually send the file to a Contract Management user, or copy the file to a location where it can be consumed by Contract Management.

**4.** The user signs into the Contract Management Exchange application and imports the data into Contract Management.

The purchase orders from EnterpriseOne are now available as committed contracts in Contract Management.

See Using Contract Management Exchange, "Using Contract Management Exchange.".

- **5.** Job-site personnel can now review the contracts so that they are aware of the goods and services that have been ordered for the project, and when those items should be delivered.
- **6.** As goods and services are delivered to the project site, or as work that is done by vendors is completed, job-site personnel can update each line of the committed contract in Contract Management.

See Oracle Primavera Contract Management User's Guide, Managing Contracts and Purchase Orders.

## 5.2 Purchase Order Integration Assumptions and Constraints

This section lists the solution assumptions and constraints of the purchase order flow:

- Each purchase order can be synchronized from EnterpriseOne to Contract Management only once. No updates to purchase orders that have previously been synchronized will be sent from EnterpriseOne to Contract Management.
- **2.** The currency code from the company that is associated with the purchase order is used when sending data from EnterpriseOne to Contract Management.
- **3.** The ability to split purchase order lines into multiple cost centers is not supported by this integration.

EnterpriseOne enables users to split lines on a purchase order into multiple cost centers. For this integration, cost centers are the equivalent of the project in Contract Management, and a single purchase order cannot be associated with multiple projects. Therefore, if the system encounters a purchase order that includes lines that have been split across multiple cost centers, the system skips the entire purchase order, and does not include the purchase order in the XML file that is created.

- **4.** Only purchase order lines with an inventory interface of **A** are included in the integration process.
- **5.** The integration synchronizes retainage rules at the purchase order header level, and does not send retainage rules at the line level.

# 5.3 Running Purchase Order Data Extract Programs

You run the Purchase Order Extract program (R4310CMD) to extract purchase order data from the EnterpriseOne system. The purchase orders must be associated with projects that have already been synchronized to Contract Management. Purchase orders are the equivalent of committed contracts in Contract Management.

This program extracts data from these EnterpriseOne tables:

- F4310 Purchase Order Header
- F4311 Purchase Order Detail

In addition to creating an XML file, this program also creates a report and updates cross reference table F4310X in the EnterpriseOne database. This table stores cross reference information between the EnterpriseOne purchase order and Contract Management committed contract.

Before you run the program, you must set the processing options to ensure that data is processed correctly. Once you have set the processing options, you access and process the program from the Contract Management Integration Workbench. If you are using FTP to transfer files, when you run the program the system generates the XML files and sends them to the specified location, where they can be consumed by the Contract Management system. If you experience errors in the file transfer process, you can manually execute the FTP script again from the workbench. Alternatively, you can manually send the files to a Contract Management user.

This section discusses how to set processing options for the Purchase Order Extract program (R4310CMD).

See Chapter 3, "Using the Contract Management Integration Workbench."

#### 5.3.1 Setting Processing Options for the Purchase Order Extract Program (R4310CMD)

You set processing options to ensure that data is processed correctly when you run a program.

#### 5.3.1.1 Process Tab

Set these processing options to specify how the Purchase Order Extract program processes data.

#### 1. Allow re-export

Use this processing option to specify that the XML files will include previously exported purchase orders. Blank - Exclude previously extracted purchase orders. 1 - Re-extract previously extracted purchase orders.

#### 2. Contact Who's Who Line Number

Enter the who's who line number for the supplier address number on the purchase order to use to retrieve a default contact name. This option will only be used if a valid address book data item is entered. Line 0 will be used by default. If a who's who record is not found in the Address Book - Who's Who table (F0111) a default contact will not be written to the XML file. "

#### 5.3.1.2 File Transfer Tab

Set these processing options to specify how the Purchase Order Extract program transfers data.

#### 1. Manual File Transfer Path Where XML File Will Be Written

Use this processing option to specify the file location that the system uses for storing the resulting XML file.

The name of the resulting XML file will be in the format of E1ToCMCommitmentContract\_MMDDYY\_hhmmss.xml. The file name is appended to the value entered in this processing option to determine the fully qualified path and name.

For example if you enter C:\B9\DV900\Export\ in this option, the resulting XML file will be written as:

#### C:\B9\DV900\Export\ E1ToCMCommitmentContract \_MMDDYY\_hhmmss.xml

For Linux and IBM i on IBM Power Systems implementations, you can use these examples:

#### Linux: /slot/ems3561/appmgr/CMExchange/E1toCMContract/

IBM i on IBM Power Systems: /E900SYS\_9/CMExchange/E1toCMContract/

All directories specified in the path must already exist. If this processing option is left blank, the resulting XML file will be written to the B9 directory where R4310CMD is running. For example **C:\B9\**.

#### 2. Automated File Transfer Path — Including FTP Script Name

Use this processing option to specify the file location and name of the FTP script on the enterprise server. Include the file extension, for example:

#### C:\CMExchange\E1toCMContract.bat or

/slot/ems1234/CMExchange/E1toCMContract.sh). This option is only used when running in automated mode. This path will also indicate where the resulting XML files are written, they will be in a subdirectory of the path indicated. The name of the resulting XML files will be in the format of E1toCMCommitmentContract\_ MMDDYY\_hhmmss.xml All directories specified in the path must already exist.

Linux and IBM i on IBM Power Systems implementations can use these examples:

Linux: /slot/ems3561/appmgr/CMExchange/E1toCMContract.sh

IBM i on IBM Power Systems: /E900SYS\_9/CMExchange/E1toCMContract\_IBMi.sh')

#### 3. Automated Mode

Use this processing option to specify whether you are running the integration in manual mode or automated mode. If you select manual mode, the system does not use FTP to transfer files between EnterpriseOne and Contract Management.

# 5.4 Importing Contract Data into Contract Management

After you create XML files by running data extract programs in EnterpriseOne and you send the files to the defined Contract Management location, you can then import those files into Contract Management, where the data is added to the database and made available for use.

#### 5.4.1 Importing Contract Data into Contract Management

To import contract (purchase order) data into Contract Management, complete the following steps. Your system administrator can assist you with determining which values to use during this task.

- 1. Access the Contract Management Exchange application.
- 2. Complete these fields and then click Next:
  - CM Server Host
  - CM Server Port
  - CM Service Type
- **3.** Enter a valid user name and password for the Contract Management system and then click Next.

**Note:** The user that you log in as must have access and permission to insert and update data into the Contract Management database. If the user credentials that are entered do not have sufficient access, the system will produce an error, and the user will not be able to continue.

**4.** Select the Contract Management database you want to import data into and then click Next.

5. Select the Import Data option and then click Next.

Figure 5–1 Select the action to perform

O Contract Management Exchange	
Select the action to perform:	
💿 Import data	
Export Payment Requisitions	
C Export Change Orders	
	Back Next Cancel

6. Specify the location of the file that you want to import and then click Next.

Figure 5–2 Specify the import file location

<mark> C</mark> ontract	Management Exchange
Specify the im	port file location:
🚫 Local file	
Location:	Browse
● FTP	
URL:	ftp://ap6039fems.us.oracle.com/CMExchange/E1toCMChange/E1toCMComr
User name:	ora1832
Password:	
_	
Log folder: c	:\temp Browse
	Back Next Cancel

7. Confirm your selections and then click Finish.

The system imports the selected data and produces a log file for review.

#### Figure 5–3 Confirm selections

🗢 Contract	Management Exchange
Confirm selec	tions:
Action:	Import data
Server:	http://10.140.158.168:7001
User:	JayH
Database:	CMDEMO
Input file:	ftp://ap6039fems.us.oracle.com/CMExchange/E1toCMProject/E1toCMProject-
Log folder:	c:\temp
	Back Finish Cancel

-

**Note:** You can import only one file at a time. If you created multiple files from the EnterpriseOne system, you must run this process multiple times for each file that you want to import into the Contract Management system.

# **Generating Progress Payments**

This chapter contains the following topics:

- Section 6.1, "Understanding the Progress Payment Integration"
- Section 6.2, "Progress Payment Integration Assumptions and Constraints"
- Section 6.3, "Exporting and Importing Contract Management Requisition Data"
- Section 6.4, "Running Progress Payment Data Extract and Import Programs"

# 6.1 Understanding the Progress Payment Integration

Progress payments are payments that are initiated by the project team when a portion of goods or services are received or completed. For example, once a vendor completes 50 percent of the work that has been ordered from their company, job-site personnel can request that the vendor be paid 50 percent of the amount that was ordered.

Progress payments are initiated in the Contract Management side by creating a requisition. The requisition must be associated with an existing committed contract. The requisition is a formal request for payment, and can be for a partial amount, or the full amount of the associated line on the committed contract. The requisition includes taxable amounts, and does not include any actual tax amounts, as tax calculation processing is not done in the Contract Management system.

After you create the requisition, you must certify the requisition. Only certified requisitions are sent from Contract Management to EnterpriseOne. Once the requisition is certified, you can use the Contract Management Exchange application to extract requisition data from Contract Management. This application creates an XML file in a specified location.

**Note:** In addition to certifying the requisition, you must also verify that the requisition does not have a value in the Date Exported field. Only certified requisitions with no value in the Date Exported field are included in the integration process. When you run the data extract process from Contract Management, the system populates the Date Exported field, which excludes the requisition from being exported during future data extract processing. If you must reprocess a requisition that has already been sent to EnterpriseOne, for example, in the event of loss of data or file corruption, you can delete the value in the Date Exported field.

Once the XML file with requisition data is available, the EnterpriseOne user then runs the Process Progress Payments from Contract Management program (R4314CM). If

you are running in automated mode, this program calls an FTP script which retrieves the XML file from the predefined location. The program then calculates the tax amounts using standard EnterpriseOne tax calculation processing, and generates an accounts payable voucher. Depending on processing option settings of the program, the voucher can be created in HOLD status. You also use the processing options to specify the version of the Purchase Order XPI program (P43XPI) that the system uses to process purchase order and voucher data.

**Important:** The processing option setting that determines whether the voucher is created in a HOLD status is included in the P0400047 program. The R4314CM program calls the specified version of the P43XPI program, which in turn calls the P4314, which calls the P0400047. Therefore, to verify that you have the appropriate voucher status set up, you must verify the processing option settings for each of these programs to verify that each program calls the appropriate program versions. You must also verify that the version of the P43XPI that you are calling has the Voucher Type processing option on the Voucher Match tab set to a value of **2**.

Once the voucher is created in the EnterpriseOne system, it must be approved and processed. You use standard EnterpriseOne Accounts Payable functionality to approve and process the voucher. Once the voucher is processed, a payment is created for the specified vendor. You can send this payment information back to the Contract Management system so that the requisition is updated with the payment date, check number, payment amount, and tax paid amount. You extract this data from EnterpriseOne by running the E1 to CM Requisition Extract program (R0413CMD), which creates an XML file with the payment information. This program retrieves data from these EnterpriseOne tables:

- F51006X (CM Project Cross Reference)
- F0411X (CM E1 Voucher Cross Reference)

The R0413CMD also updates this table with payment cross reference data, which is included in the generated XML file.

- F0411 (Accounts Payable Ledger)
- F0413 (Accounts Payable Matching Document)
- F0414 (Accounts Payable Matching Document Detail)

The XML file is then placed in a specified location, where it can then be imported into the Contract Management system using the Contract Management Exchange application. Once the file is imported, the requisitions are updated to reflect the payment information.

Progress payments and requisitions are associated with lines on a contract or purchase order. This table illustrates how payments might be made against specific lines on a purchase order or committed contract:

Purchase Order in EnterpriseOne	Committed Contract in Contract Management	Payment Example
Purchase Order Line 1	Committed Contract Line 1	Full Payment
Purchase Order Line 2	Committed Contract Line 2	Full Payment
Purchase Order Line 3	Committed Contract Line 3	Partial Payment

Purchase Order in EnterpriseOne	Committed Contract in Contract Management	Payment Example
Purchase Order Line 4 (resulting from a change to line 1)	Committed Contract Change Order Line 1	Partial Payment
Purchase Order Line 5 (resulting from a change to line 2)	Committed Contract Change Order Line 2	No Payment At This Time

The progress payment flow is bidirectional, in that requisition information flows from Contract Management to EnterpriseOne, and the subsequent payment information that is generated in EnterpriseOne is then sent back to Contract Management.

The progress payment flow can also be initiated outside of the system, which typically occurs when Contract Management users do not have the ability to connect to the EnterpriseOne system. This is particularly important for job sites that do not have network access. To initiate the progress payment process without EnterpriseOne system connectivity, Contract Management users create the requisition and then contact the appropriate EnterpriseOne user, giving them the requisition number, project number, and details of the items received or work completed. The EnterpriseOne user then initiates the progress payment using standard EnterpriseOne progress payment and voucher creation functionality.

The typical requisition and progress payment flow might include these steps:

- 1. After the purchase order information has been synchronized from EnterpriseOne to Contract Management, a vendor completes work at, or delivers goods to a job site.
- **2.** Job-site personnel create a requisition to specify that a portion, or all, of the goods and services have been delivered or completed.

See Oracle Primavera Contract Management User's Guide, Working With Projects, Project Costs, and Changes.

**3.** User signs into the Contract Management Exchange application and exports requisition data.

This process creates an XML file with requisition data in a specified location.

See Using Contract Management Exchange, "Using Contract Management Exchange.".

**Note:** If the Contract Management user does not have the ability to connect to the EnterpriseOne network and export the requisition data, this process flow can be completed in *disconnected mode*. In disconnected mode, the Contract Management user does not sign into Contract Management Exchange, and does not generate the XML file. Instead, the Contract Management user contacts the EnterpriseOne user directly, giving them the requisition data that the EnterpriseOne user needs to create the progress payment.

Once the EnterpriseOne user has the information about the requisition, they manually create a progress payment against the related purchase order using standard EnterpriseOne functionality. The EnterpriseOne user then continues to step 5 in this process.

See Chapter 3, "Using the Contract Management Integration Workbench."

**4.** The EnterpriseOne user runs the Process Progress Payments from Primavera Contract Management program (R4314CM).

If running in manual mode, the EnterpriseOne user must first move the XML file to the specified location on the enterprise server. If running in automated mode, the R4314CM calls an FTP script to retrieve the XML file. The program then collects the data that was extracted from Contract Management and creates vouchers and cross reference records in the EnterpriseOne system.

**5.** Using standard accounts payable processes, an EnterpriseOne user processes the voucher, which generates a payment for the vendor.

See JD Edwards EnterpriseOne Applications Accounts Payable Implementation Guide, "Processing Accounts Payable Vouchers."

**Note:** If using *disconnected mode*, the EnterpriseOne user must manually create the cross reference record to link the EnterpriseOne voucher to the Contract Management requisition. You enter the cross reference record using the P0411X program, which you access directly from the Contract Management Integration Workbench. The process then continues with step 6.

- **6.** The EnterpriseOne user generates an XML file with the payment data by running the E1 to CM Requisition Extract program (R0413CMD).
- **7.** The file is sent to the Contract Management server using the manual or automated method.

If you are using the automated method, the R0413CMD calls an FTP script, which places the XML file in a predefined location where it can be consumed by Contract Management. If you are using the manual method, the file must be manually sent from the EnterpriseOne user to a Contract Management user.

**8.** The user signs into the Contract Management Exchange application and imports the file that was created by the R0413CMD program.

The Contract Management system now shows updated payment information.

**9.** The process is repeated, and subsequent requisitions are created until a contract is paid-in-full.

**Note:** Users must be aware of the effect custom fields have when generating subsequent requisitions. This information is detailed in the following section.

#### 6.1.1 Generating Subsequent Requisitions for a Committed Contract

Generally, requisitions are generated for a contract on an ongoing basis until the contract is complete and the vendor has been paid in full. After a requisition has been generated for a contract, when the user tries to generate subsequent requisitions for that contract, they are given the option to copy custom fields from the original requisition to the new requisition.

For the purposes of this integration, users should not select the option to copy custom fields from the original requisition to subsequent requisitions that are generated. Choosing not to copy the custom field values ensures that the Date Exported field remains blank for newly created requisitions.

If you have additional custom fields that you must copy onto the new requisitions, you can choose to copy the custom fields. When you select this option, the system copies the values for all custom fields from the original requisition to the new requisition. This includes copying the date that the original requisition was exported into the Date Exported field. Requisitions that include a date in this field cannot be exported from Contract Management. Therefore, if you must copy custom fields, you must also delete the date from this field before exporting the requisition to EnterpriseOne.

#### Figure 6–1 Generate Requisitions form

🧟 Generate Requisition - Windows Internet Explorer		
Generate Requisition		
This will create the next Application for Payment for the same Contract as the original.		
Period To * Feb 6, 2010		
There are no approved Change Orders to get		
There are no Materials Delivery to get		
There is no schedule information to get		
Link the new Requisition to the same Issues as the original?		
💿 yes 🔘 no		
Link the new Requisition to the same Attachments as the original?		
yes      no     no		
Copy Custom Fields from the original?		
🔘 yes 💿 no		
* Required		

#### See Also:

- JJD Edwards EnterpriseOne Applications Requisition Self Service Implementation Guide, "Setting Up Direct Connect and Purchase Order Dispatch," Setting Processing Options for the Purchase Order XPI Program (P43XPI)."
- JD Edwards EnterpriseOne Applications Accounts Payable Implementation Guide, "Processing Accounts Payable Vouchers".
- JD Edwards EnterpriseOne Applications Subcontract Management Implementation Guide, "Processing Progress Payments".
- Oracle Primavera Contract Management User's Guide, "Working With Contracts, Project Costs, and Changes," Preparing Requisitions for Payment.

# 6.2 Progress Payment Integration Assumptions and Constraints

This section lists the assumptions and constraints that you should be aware of when processing progress payments using the contract management integration.

- 1. Requisitions in the Contract Management system must be certified and contain no value in the Date Exported field in order to be synchronized to EnterpriseOne.
- **2.** Users should not copy the custom field values from one requisition to another. If users opt to use this option, they must manually clear the Date Exported field before the requisition can be sent to EnterpriseOne.

# 6.3 Exporting and Importing Contract Management Requisition Data

This section discusses how to:

- Export requisition data from Contract Management.
- Import payment information to Contract Management.

### 6.3.1 Exporting Requisition Data from Contract Management

After you generate requisitions for a committed contract, you can extract that data so that it is available to be processed in the EnterpriseOne system. Your system administrator can assist you with determining which values to use during this task.

- 1. Access the Contract Management Exchange application.
- 2. Complete these fields and then click Next:
  - CM Server Host
  - CM Server Port
  - CM Service Type
- **3.** Enter a valid user name and password for the Contract Management system and then click Next.

**Note:** The user that you log in as must have access and permission to update data into the Contract Management database. If the user credentials that are entered do not have sufficient access, the system will produce an error, and the user will not be able to continue.

- **4.** Select the Contract Management database you want to extract data from and then click Next.
- 5. Select the Export Payment Requisitions option and then click Next.

Figure 6–2 Select the action to perform

🛛 Contract Management Exchange 🛛 🗐 🖾
Select the action to perform:
🔿 Import data
Export Payment Requisitions
O Export Change Orders
Back Next Cancel

**6.** Specify the project associated with the requisitions you want to export and then click Next.

Figure 6–3 Select the project

Contract Management Exchange	
Select the project:	
Birmingham Steel - Memphis (00000082)	~
Rack Nevt	Capcel

**7.** Specify the location for the export and log folders and then click Next.

Figure 6–4	Specify the export	folder location
------------	--------------------	-----------------

Contract	Management Exchange
Specify the ex	port folder location:
O Local folde	r
Location:	Browse
<b>R</b> ETP	
URL:	ftp://ap6039fems.us.oracle.com/CMExchange/CMtoE1PaymentRequisition
User name:	ora1832
Password:	
_	
Log folder:	C:\temp\Log Browse
	Back Next Cancel

8. Click Finish.

The system creates an XML file with the requisition data in the specified folder and produces a log file for review.

#### 6.3.2 Importing Payment Data into Contract Management

After payments have been created in the EnterpriseOne system, the payment data extract program has been processed, and the XML files have been sent to Contract Management, you can import the payment data into Contract Management. To import payment data into Contract Management, complete the following steps. Your system administrator can assist you with determining which values to use during this task.

- 1. Access the Contract Management Exchange application.
- **2.** Complete these fields and then click Next:
  - CM Server Host
  - CM Server Port
  - CM Service Type
- **3.** Enter a valid user name and password for the Contract Management system and then click Next.

**Note:** The user that you log in as must have appropriate access and permission to the Contract Management database. If the user credentials that are entered do not have sufficient access, the system will produce an error, and the user will not be able to continue.

- **4.** Select the Contract Management database you want to import data into and then click Next.
- 5. Select the Import Data option and then click Next.

Figure 6–5 Select the action to perform

🗅 Contract Management Exchange 👘 🔛 🔛
Select the action to perform:
<ul> <li>Import data</li> </ul>
Export Payment Requisitions
O Export Change Orders
Back Next Cancel

6. Specify the location of the file that you want to import and then click Next.

Figure 6–6 Specify the import file location

Contract	Management Exchange	
Specify the im	port file location:	
🔿 Local file		
Location:		Browse
⊙ ETB		
URL:	ftp://ap6039fems.us.oracle.com/CMExchange/E1toCMChang	je/E1toCMComr
User name:	ora1832	
Password:		
Log folder:	::\temp	Browse
	Back Next	Cancel

7. Confirm your selections and then click Finish.

The system imports the selected data and produces a log file for review.

#### Figure 6–7 Confirm selections

🖸 Contrac	t Management Exchange
Confirm selec	ctions:
Action:	Import data
Server:	http://10.140.158.168:7001
User:	JayH
Database:	CMDEMO
Input file:	ftp://ap6039fems.us.oracle.com/CMExchange/E1toCMProject/E1toCMProject-
Log folder:	c:\temp
	Back Finish Cancel

**Note:** You can import only one file at a time. If you created multiple files from the EnterpriseOne system, you must run this process multiple times for each file that you want to import into the Contract Management system.

# 6.4 Running Progress Payment Data Extract and Import Programs

After requisitions have been exported from Contract Management, you can import them into EnterpriseOne by running the Process Progress Payments from Primavera Contract Management program (R4314CM). When you run this program, the system creates vouchers in EnterpriseOne that can be processed in the Accounts Payable system, and subsequent payments can be made to vendors. After the payments are created, you can then run the E1 to CM Requisition Extract program (R0413CMD), which extracts the payment information and creates an XML file that can be consumed by Contract Management.

Before you run these programs, you must set the processing options to ensure that data is processed correctly. Once you have set the processing options, you access and process the programs from the Contract Management Integration Workbench.

If you are using the automated method of file transfer (FTP), when you process the R0413CMD program the system generates the XML file and sends it to the specified location, where it is available to the Contract Management system for consumption. You can use the Contract Management Integration Workbench execute the FTP script again if you encounter errors in the file transfer process when running the program. Alternatively, you can manually send the files to a Contract Management user.

This section discusses how to:

- Set processing options for the Process Progress Payments from Contract Management program (R4314CM).
- Set processing options for the E1 to CM Requisition Extract program (R0413CMD).

#### See Chapter 3, "Using the Contract Management Integration Workbench."

# 6.4.1 Setting Processing Options for the Process Progress Payments from Contract Management Program (R4314CM)

You set the processing options for a program before running the program to ensure that data is processed correctly.

#### 6.4.1.1 Process Tab

Set this processing option to specify how data is processed.

#### 1. Path to Script

Use this processing option to specify the file location and name of the script on the enterprise server. When completing this option, include the path, script name, and file extension. For example:

C:\CMExchange\E1toCMRequisition.bat, /E9000SYS\_ 9/CMExchange/E1toCMRequisition\_IBMi.sh, or /slot/ems1234/CMExchange/E1toCMRequisition.sh).

All directories specified in the path must already exist.

#### 6.4.1.2 Versions Tab

Set this processing option to specify program versions that are used during processing.

#### 1. P43XPI Version

Use this processing option to specify the version of the Purchase Order XPI program (P43XPI) that is used when processing progress payments in EnterpriseOne. If left blank, the system uses version ZJDE0001.

# 6.4.2 Setting Processing Options for the E1 to CM Requisition Extract Program (R0413CMD)

You set the processing options for a program before running the program to ensure that data is processed correctly.

#### 6.4.2.1 File Transfer Tab

Set this processing option to specify file transfer data.

#### 1. Manual File Transfer Path Where Files Will Be Written

Use this processing option to specify the file location that the system uses for storing the resulting XML file when running in manual mode. The name of the resulting XML file will be in the format of:

E1toCMRequisition\_MMDDYY\_hhmmss.xml.

The file name will be appended to the value entered in this processing option to determine the fully qualified path and name. For example, if you enter **C:\B9\DV900\Export**\ in this option, the resulting XML file will be written as:

#### C:\B9\DV900\Export\ E1toCMRequisition\_MMDDYY\_hhmmss.xml

All directories specified in the path must already exist. These examples illustrate what the path might be for a Linux and an IBM i on IBM Power Systems implementation:

#### Linux: /slot/ems3561/appmgr/CMExchange/E1toCMRequisition/

IBM i on IBM Power Systems: /E900SYS\_9/CMExchange/E1toCMRequisition/

If this processing option is left blank, the resulting XML file will be written to the B9 directory where R0413CMD is running. For example C:\B9\.

#### 2. Automated File Transfer Path

Use this processing option to specify the file location and name of the script on the enterprise server. Include the path, script name, and file extension. For example:

C:\CMExchange\E1toCMRequisition.bat, /E9000SYS\_ 9/CMExchange/E1toCMRequisition\_IBMi.sh, or /slot/ems1234/CMExchange/E1toCMRequisition.sh

This option is only used when running in automated mode. This path will also indicate where the resulting XML files are written, and they will be in a subdirectory of the path indicated. The name of the resulting XML file will be in the format of:

E1toCMRequisition\_MMDDYY\_hhmmss.xml.

All directories specified in the path must already exist.

#### 3. Automated Mode

Use this processing option to specify whether the process is running in automated mode or manual mode. Automated mode allows for files to be transferred to Contract Management by FTP. Manual mode allows the files to be transferred by the user after they are created. Valid Values are:

0 or Blank: Manual Mode, no FTP.

1: Automated Mode, use FTP.

#### 6.4.2.2 Process Tab

Set this processing option to specify how data is processed.

#### 1. Re-Export Vouchers Paid-In-Full

Use this processing option to re-export vouchers that are paid-in-full and have previously been exported to Contract Management. Fully-paid and previously exported vouchers contain a 1 in the CMEXP field in the F0411X table. Other records have a value of 0. The system uses this value to determine which vouchers have been previously exported and paid. Values include:

Blank: Do not re-export vouchers

1: Re-export vouchers

7

# **Processing Change Requests**

This chapter contains the following topics:

- Section 7.1, "Understanding the Change Request Integration Process"
- Section 7.2, "Change Request Integration Assumptions and Constraints"
- Section 7.3, "Defining Change Request Status Codes"
- Section 7.4, "Running Change Request Data Extract and Import Programs"
- Section 7.5, "Importing and Exporting Change Order Data in Contract Management"

## 7.1 Understanding the Change Request Integration Process

After a project or related committed contracts have been approved in the Contract Management system, any changes to those projects or contracts must go through the change request process. Change requests can be initiated in either the EnterpriseOne or Contract Management systems, and might be required in these situations:

- A Contract Management user requests additional budget for an existing cost code.
- A user changes an existing line or adds a new line on a purchase order (committed contract).

In any of these situations, a change request (if the change is initiated in EnterpriseOne) or a change order (if the change is initiated in Contract Management) is created so that the change goes through any necessary approval processing, and so that the data is updated in both the EnterpriseOne and Contract Management systems.

In order for this integration to function properly, the EnterpriseOne system must be set up to create new lines on a purchase order when a change request is entered against that purchase order. Because progress payments (requisitions) are handled at the line-level, each change must be recorded as a new line so that the payment that is associated with that new line can be made correctly. This table illustrates how changing a purchase order adds new lines to the purchase order, and the subsequent committed contract in Contract Management:

Purchase Order in EnterpriseOne	Committed Contract in Contract Management	Payment Example
Purchase Order Line 1	Committed Contract Line 1	Full Payment
Purchase Order Line 2	Committed Contract Line 2	Full Payment
Purchase Order Line 3	Committed Contract Line 3	Partial Payment

Purchase Order in EnterpriseOne	Committed Contract in Contract Management	Payment Example
Purchase Order Line 4 (resulting from a change to line 1)	Committed Contract Change Order Line 1	Partial Payment
Purchase Order Line 5 (resulting from a change to line 2)	Committed Contract Change Order Line 2	No Payment At This Time

If you create a change request in EnterpriseOne, you run the E1 to CM Change Request Export program (R5301CMD) to generate two XML files that can be consumed by Contract Management. One XML file for budget change requests and another for commitment change requests. These files include the change request header and detail data for the selected change requests. The data in these XML files is extracted from these EnterpriseOne tables:

- F5301B Change Request Master Table
- F5311 Change Request Details Table
- F0006 Business Unit Master
- F4301 Purchase Order Master
- F0901 Account Master

**Note:** Only cost and subcontract information are included. Service and contract billing information are not included in the file.

In addition to creating the XML files, this program also updates the CM Change Order Cross Reference table (F5311X) and generates a PDF report. The report includes:

- A statement regarding whether the file was successfully created.
- File location information.

When you run the E1 to CM Change Request Export program, you can set a processing option to specify whether to include records that have already been exported from EnterpriseOne and included in an XML file. The system knows which records have already been exported based on the data in the F5311X table, which is updated when the program is processed. You might choose to re-export change request data if you generated an XML file, but then lost the file and needed to regenerate it with the same data.

The system also uses the change request status to determine which change requests are approved, and should be included in the XML files. You define the approved status codes in the processing options of the export program, and the export program determines which change request headers and detail lines to send to Contract Management. In order for a change request record (header or detail line) to be sent, it must meet these criteria:

- The change request header must be at the approved status, as defined in the processing options.
- The change request line (either budget or subcontract) must also be at the approved status, as defined in the processing options.
- A change request header will not be sent if it does not include any approved lines.
- A line will not be sent if it is not associated with an approved change request header.
- The approved status must exactly match the approved status that you enter in the export program's processing options.

If the change request header is not approved, the entire change request is excluded from the XML files. Additionally, if individual lines on the change request are not approved, the system does not include those lines in the files. You define approved status codes in the processing options before running the R5301CMD. Be aware that the status codes must match exactly for the header or the line to be included in the XML file. If you leave the status code processing options blank, only those change request records with a blank status will be included in the file.

As each detail record qualifies for export and is added to the XML files, the system also writes a record to the F5311X table. Be aware that an individual line on a change request might contain information for a subcontract change, a budget change, or both. In the event that a line contains both types of data, two separate records are created, one in each XML file. Two records are also written to the F5311X.

Once the XML files are created, the user signs into the Contract Management Exchange application and selects the file(s) for import. The changes are imported into Contract Management in an unapproved status. Users must approve the changes in Contract Management using standard change order processes.

# See Oracle Primavera Contract Management User's Guide, Working With Contracts, Project Costs, and Changes.

If a change order is created in Contract Management, the user signs into the Contract Management Exchange application and exports change order data. The export process extracts change order data for the selected project and creates an XML file with the data.

**Note:** Only approved change orders are sent to EnterpriseOne. In addition to approving the change order, you must also verify that the change order does not have a value in the Date Exported field. Only approved change orders with no value in the Date Exported field are included in the integration process. When you run the data extract process from Contract Management, the system populates the Date Exported field, which excludes the change order from being exported during future data extract processing. If you must reprocess a change order that has already been sent to EnterpriseOne, for example, in the event of loss of data or file corruption, you can delete the value in the Date Exported field.

Once the XML file is available, the EnterpriseOne user runs the CM to E1 Process Change Request (R5310CMI). If running in manual mode, the user must first move the XML file to the specified location on the enterprise server. Also, before you run the R5310CMI, you must define status codes to assign to each of the incoming change records. You define status codes for the change header, for budget lines, and for subcontract lines.

The R5310CMI program uses the status codes that you define to create change requests in EnterpriseOne. Additionally, the program updates the Change Request Master (F5301B) and Change Request Details (F5311) tables. The program also generates a report that includes the number of change requests that were processed and the number of change requests that were successful. If the system encounters errors during processing, those errors are written to the work center.

After the change requests are created in EnterpriseOne, you process and approve them using standard change request processing.

See JD Edwards EnterpriseOne Applications Change Management Implementation Guide, "Creating Change Requests."

## 7.1.1 Status Codes

Before you synchronize change orders from Contract Management to EnterpriseOne, you must define the status codes that are used when creating change requests in EnterpriseOne based on the incoming change orders from Contract Management. You use the Change Request Status Defaults program (P5311CM), which you access from the Contract Management Integration Workbench, to set up these status codes. You can set up status codes for change request headers, budget line changes, and subcontract line changes.

You can also define status code information for specific jobs (projects), or define status codes that can be assigned to changes for all jobs. When users import change orders into EnterpriseOne by running the R5310CMI, the system searches through the status codes that you define to determine which status to assign to the incoming records. Setting up status codes is discussed in more detail later in this chapter.

# 7.1.2 Allocating Costs on a Change Order in Contract Management

When creating a change order in Contract Management, users have the ability to allocate the amount on the line to more than one cost code. Users can also enter an amount without allocating that amount against any cost code. However, in EnterpriseOne, a change request line must include a cost code (account number), and it can have only one account number at the line level.

Therefore for this integration does not support the ability to allocate costs on a change order line to multiple cost codes, or to leave the cost code blank.

If either of these conditions are encountered during processing, the system will issue an error, and the change order must be corrected before it can be synchronized.

Contract Management users can also enter project settings that ensure that each line in a change order includes a cost code. This graphic illustrates the settings for change orders and requisitions:

Figure	7–1	Project Settings
--------	-----	------------------

	9	Print	Advar	nced Print	
ion Curren	cy Schedule	Contracts/POs	Procurement	Cost Options	Requisitions
Document r	nust be fully c	osted:			
Change	Orders				
Contrac	s				
Invoices	1				
🗌 Proposa	ls				
Purchas	a Orders				
🗹 Requisit	ons				
Trends					
Funding Co	st Worksheet S	Section			
Show Fu	nding Cost Worl	ksheet Section			
Contract/P	urchase Orders	5			
		Exceed Revised C	ontract/Purchase	Order Value	
Do Not /	anow myoices to				
Do Not /	Contract/Purcha	ase Order Approval	Prior to Change	Approval	

See Oracle Primavera Contract Management User's Guide, "Working With a Project.".

# 7.2 Change Request Integration Assumptions and Constraints

This section lists the assumptions and constraints that you need to be aware of when processing change requests and change orders between EnterpriseOne and Contract Management.

- 1. Once a change request or change order has been synchronized to the target system, no further updates to that change request or change order will be synchronized.
- **2.** Currency codes for all amounts associated with the change order or request will use the currency of the associated company.
- **3.** Only EnterpriseOne change requests will be synchronized to the Contract Management system. Planned change orders and change orders that originate in EnterpriseOne are not supported by this integration.
- **4.** Change orders and requests must always result in new lines on the contract or purchase order. Existing lines are not updated.

To accommodate this requirement, you must set the processing options for the P5310 program accordingly. Details of the processing options that need to be set up are included in this section.

- **5.** Change requests that are entered to change the unit of measure (UOM) for services or material are not supported.
- **6.** This integration does not support the Contract Management features that enable users to enter multiple cost codes per change order line, or to leave a change order line without a cost code.

# 7.3 Defining Change Request Status Codes

You use the Change Request Status Defaults program (P5311CM), which you access from the Contract Management Integration Workbench, to specify the status codes that are assigned to change orders and change order lines that are imported into EnterpriseOne from Contract Management.

When you run the CM to E1 Process Change Request program (R5310CMI), the system searches the status code information that you set up here to determine what status to assign to the incoming changes. This program enables users to indicate status codes at the header level, the budget cost line level and the subcontract line level. Additionally, users can set up status codes at the business unit (project) level, or globally by entering **\*ALL** in the Job Number field.

For example, you might want to assign an unapproved status code to changes that are associated with a particular project, but assign an approved status to changes associated with all other projects. To do so, you would create two "sets" of status codes. The first set of status codes would be for the projects that you want to assign unapproved status codes to. You would create a line for the header, budget, and subcontract levels, and would enter the project number in the Job Number field for each line. You would then enter the unapproved status code in each of these lines. You then create an additional set of status codes by creating a line for the header, budget, and subcontract levels, entering an approved status code, and entering **\*ALL** in the Job Number field. Using this example, the system would find status codes for all incoming change order lines.

If you do not set up *generic* status codes using the **\*ALL** designation in the Job Number field, it is possible that the system will not be able to find status code information for some incoming change records. When this occurs, the system uses the default status codes that are defined in the processing options of the P5310 program. You specify the version of the P5310 program that the system uses by entering it in the processing options of the R5310CMI.

**Note:** If the system cannot find status code information for an incoming change, either in the status codes that you defined, or in the version of the P5310 that you specify in the processing options, the change lines are not imported into EnterpriseOne, and the system sends an error to the employee's work center.

# 7.3.1 Forms Used to Define Change Request Status Codes

Form Name	FormID	Navigation	Usage
Contract Management Integration Workbench	W51010A	From the Primavera Contract Management menu (G51312), select Contract Management Integration Workbench.	Access forms to define status codes.

Form Name	FormID	Navigation	Usage
Change Request Status Defaults	W5311CMA	From the Contract Management Integration Workbench form, select Change Request Flow and then CR Status Defaults from the Form menu.	Define change request status codes.

# 7.3.2 Defining Change Request Status Codes

Access the Change Request Status Defaults form.

#### Figure 7–2 Change Request Status Defaults form

Co	ntra Q	nct I	Management Integ	gration WorkBench -	Change Rec	quest Stat	us Defaults		
	Rec	ords	1-1					Qustoniz	eond III
		×	Change Request Default Status Type	Change Request Default Status Type	Job Number	Status Code	Statue Code	Cost Status	Subcontract Status
	0		]						

- 1. Enter one of the following values in the Change Request Default Status Type field:
  - **01:** Enter this value to enter a budget cost status.
  - **02:** Enter this value to enter a subcontract status.
- **2.** Enter a value in the Job Number field to specify the project that the status code pertains to.

You can enter a specific project number, or enter **\*ALL** to define status codes for all incoming projects.

- **3.** In the Status Code field, enter the value that denotes an approved status for the change request header.
- **4.** In the Cost Status field, enter a value that denotes an approved status for cost code line items.
- **5.** In the Subcontract Status field, enter a value that denotes an approved status for subcontract line items.

# 7.4 Running Change Request Data Extract and Import Programs

After you create change requests in EnterpriseOne, you must then run the E1 to CM Change Request Export program (R5301CMD) to extract that data and create an XML file that can be consumed by Contract Management. You run the program directly from the Contract Management Integration Workbench. If you are running in automated mode, when you run the program, an FTP script sends the XML file to a specified location where it can be consumed by the Contract Management system. If you are not using FTP to transfer files, you must manually send the file to a Contract Management user or move the file to a location where it can be consumed by Contract Management.

Similarly, once change orders have been entered in the Contract Management system, and the data has been extracted from Contract Management, you run the CM to E1 Process Change Request program (R5310CMI). You run this program from the integration workbench after the XML file that is generated by the Contract Management system is available.

This section discusses how to:

- Set processing options for the E1 to CM Change Request Export program (R5301CMD).
- Set processing options for the CM to E1 Process Change Request program (R5310CMI).

See Chapter 3, "Using the Contract Management Integration Workbench."

# 7.4.1 Setting Processing Options for the E1 to CM Change Request Export Program (R5301CMD)

You set processing options before you run a program to ensure that data is processed correctly.

## 7.4.1.1 Process Tab

Set the processing options on this tab to specify how data is processed when running this program.

#### 1. Allow Re-Export

Use this processing option to specify whether the XML file will include previously exported change requests. You might choose to re-export records that have already been extracted and sent to Contract Management if there are problems with the original XML file, and you must regenerate the file with data that was already processed. Values include:

0 or blank: Do not include already exported records.

1: Include previously exported records.

#### 2. Approved Change Request Status

Use this processing option to specify the status for approved change request headers. Only change requests with this status code will be included in export files. Values are user-defined, and are stored in UDC table (53/ST). If you leave this option blank, only change request headers with a blank status are included in the export. Also note that an approved change request header will be included in the export only if it is also associated with one or more approved change request lines. If the header is approved, and there are no approved lines on the change request, it will not be exported.

#### 3. Approved Cost Status Code

Use this processing option to specify the status for approved budget line items. Only lines with this status will be included in the budget export file. Values are stored in UDC table (53/ST). If you leave this option blank, only change request lines with a blank status are included in the export. Also note that any approved change request lines will be included in the export only if it is also associated with an approved change request header. If the line is approved, and the header is not approved, the line will not be exported.

#### 4. Approved Subcontract Status Code

Use this processing option to specify the status for approved subcontract line items. Only lines with this status will be included in the subcontract export file. Values are stored in UDC table (53/ST). If you leave this option blank, only change request lines with a blank status are included in the export. Also note that any approved change request lines will be included in the export only if it is also associated with an approved change request header. If the line is approved, and the header is not approved, the line will not be exported.

#### 7.4.1.2 File Transfer Tab

Set the processing options on this tab to specify information about the file transfer process.

#### 1. Manual File Transfer Path Where XML Files Will Be Written

Use this processing option to specify the file location that the system uses for storing the resulting XML files when running in manual mode.

The name of the resulting XML file will be in the format of:

E1toCMCommitmentChangeRequest\_MMDDYY\_hhmmss.xml and E1toCMBudgetChangeRequest\_MMDDYY\_hhmmss.xml.

The file name will be appended to the value entered in this processing option to determine the fully qualified path and name. For example, if you enter **C:\B9\DV900\Export**\ in this option, the resulting XML file will be written as:

#### C:\B9\DV900\Export\ E1toCMCommitmentChangeRequest \_MMDDYY\_ hhmmss.xml

All directories specified in the path must already exist. These examples illustrate what the path might be for a Linux and an IBM i on IBM Power Systems implementation:

Linux: /slot/ems3561/appmgr/CMExchange/E1toCMChange/

IBM i on IBM Power Systems: /E900SYS\_9/CMExchange/E1toCMChange/

All directories specified in the path must already exist. If this processing option is left blank, the resulting XML files will be written to the B9 directory where R5301CMD is running. For example C:\B9\. Be sure to include the final slash.

#### 2. Automated File Transfer Path Name – Including Script

Use this processing option to specify the file location and name of the FTP script on the enterprise server. Include the path, file name and file extension. For example:

#### C:\CMExchange\E1toCMChange.bat, /E9000SYS\_9/CMExchange/E1toCMChange\_ IBMi.sh, or /slot/ems1234/CMExchange/E1toCMChange.sh.

This option is only used when running in automated mode. This path will also indicate where the resulting XML files are written, they will be in a subdirectory of the path indicated. The name of the resulting XML files will be in the format of E1toCMCommitmentChangeRequest\_MMDDYY\_hhmmss.xml and E1toCMBudgetChangeRequest\_MMDDYY\_hhmmss.xml. All directories specified in the path must already exist.

#### 3. Automated Mode

Use this processing option to specify if the process is running in automated mode or manual mode. Automated mode allows for files to be transferred to Contract Management by FTP. Manual mode allows the files to be transferred by the user after they are created. Values are:

0 or blank: Manual Mode, no FTP.

1: Automated Mode, use FTP.

# 7.4.2 Setting Processing Options for the CM to E1 Process Change Request program (R5310CMI)

You set processing options before you run a program to ensure that data is processed correctly.

## 7.4.2.1 Defaults Tab

Set the processing options on this tab to specify default information for change request processing.

#### 1. Define Where to Insert Amounts for Budgets

Use this option to specify where the amount that is coming from Contract Management is inserted in the EnterpriseOne database. Values are:

Blank: Insert the amount as the original cost.

1: Insert amount as quoted cost.

**2:** Insert amount as final cost.

#### 2. Define Where to Insert Amounts and Quantities for Subcontracts

Use this option to specify where the amounts and quantities associated with subcontracts that are coming from Contract Management are inserted in the EnterpriseOne database. Values are:

Blank: Insert the amount and quantity as the original amount and quantity.

1: Insert amount and quantity as quoted amount and quantity.

2: Insert amount and quantity as final amount and quantity.

## 7.4.2.2 File Transfer Tab

Set the processing options on this tab to specify information about the file transfer process.

#### 1. Path to FTP Script

Use this processing option to specify the file location and name of the FTP script on the enterprise server. Include the path, file name, and file extension. For example, enter:

C:\CMExchange\E1toCMChange.bat, /E9000SYS\_9/CMExchange/E1toCMChange\_ IBMi.sh or /slot/ems1234/CMExchange/E1toCMChange.sh.

All directories specified in the path must already exist.

## 7.4.2.3 Versions Tab

Set the processing options on this tab to specify version information.

#### 1. P5310 Version

Use this processing option to specify the version of the P5310 that the system uses when creating change requests in EnterpriseOne. If you leave this option blank, the system uses version ZJDE0001.

**Note:** It is critical that the version of the P5310 that you enter in this processing option is set up to create new detail lines when a change is made, and not to update an existing line. You must set the Subcontract Detail Line Item option on the Subcontract Commit tab of the P5310 processing options to include a blank value. You must also set the Subcontract Change Order Number option on the same tab to **1**.

Additionally, you should review the status codes that are set up in this version, as the system uses these status codes as the default codes if no status codes have been defined for the incoming project. If no status codes have been defined, and the status codes in this version of the P5310 are blank, the incoming change records will not be imported into EnterpriseOne, and an error is sent to the employee work center.

See JD Edwards EnterpriseOne Applications Change Management Implementation Guide, "Creating Change Requests.".

# 7.5 Importing and Exporting Change Order Data in Contract Management

This section discusses how to:

- Export change orders from Contract Management.
- Import change data into Contract Management.

# 7.5.1 Exporting Change Order Data from Contract Management

After you create change orders in Contract Management, you can extract that data so that it is available to be processed in the EnterpriseOne system. Your system administrator can assist you with determining which values to use during this task.

- 1. Access the Contract Management Exchange application.
- 2. Complete these fields and then click Next:
  - CM Server Host
  - CM Server Port
  - CM Service Type
- **3.** Enter a valid user name and password for the Contract Management system and then click Next.

**Note:** The user that you log in as must have access and permission to update data into the Contract Management database. If the user credentials that are entered do not have sufficient access, the system will produce an error, and the user will not be able to continue.

- 4. Select the Contract Management database you want to extract data from and then click Next.
- 5. Select the Export Change Orders option and then click Next.

Figure 7–3 Select the action to perform

- **6.** Specify the project associated with the change orders that you want to export and then click Next.
- *Figure 7–4 Select the project*

Contract Management Exchange	
Select the project:	
Birmingham Steel - Memphis (00000082)	*
Back Next	Cancel

7. Specify the location for the export and log folders and then click Next.

Figure 7–5 Specify the export folder location

Contract	Management Exchange
Specify the ex	port folder location:
🚫 Local folder	
Location:	Browse
RETE -	
N URL:	ftp://ap6039fems.us.oracle.com/CMExchange/CMtoE1PaymentRequisition
User name:	ora1832
Password:	
Log folder:	:\temp\Log Browse
	Back Next Cancel

8. Click Finish.

The system creates an XML file with the change order data in the specified folder and produces a log file for review.

## 7.5.2 Importing Change Data into Contract Management

After change requests have been created in the EnterpriseOne system, and the change request data extract program has been processed, you can import the change requests into Contract Management, where they will be created as change orders. To import change order data into Contract Management, complete the following steps. Your system administrator can assist you with determining which values to use during this task.

- **1.** Access the Contract Management Exchange application.
- 2. Complete these fields and then click Next:
  - CM Server Host
  - CM Server Port
  - CM Service Type
- **3.** Enter a valid user name and password for the Contract Management system and then click Next.

**Note:** The user that you log in as must have appropriate access and permission to the Contract Management database. If the user credentials that are entered do not have sufficient access, the system will produce an error, and the user will not be able to continue.

**4.** Select the Contract Management database you want to import data into and then click Next.

5. Select the Import Data option and then click Next.

Figure 7–6 Select the action to perform

O Contract Management Exchange	
Select the action to perform:	
<ul> <li>Import data</li> </ul>	
<ul> <li>Export Payment Requisitions</li> </ul>	
O Export Change Orders	
Back Next	Cancel

6. Specify the location of the file that you want to import and then click Next.

Figure 7–7 Specify the import file location

Contract	Management Exchange
Specify the im	port file location:
🚫 Local file	
Location:	Browse
⊙ FTP	
URL:	ftp://ap6039fems.us.oracle.com/CMExchange/E1toCMChange/E1toCMComr
User name:	ora1832
Password:	
Log folder: c	:\temp Browse
	Back Next Cancel

**7.** Confirm you selections and click Finish.

The system imports the selected data and produces a log file for review.

Figure	7–8	Confirm	selections
--------	-----	---------	------------

🗢 Contract	Management Exchange
Confirm selec	tions:
Action:	Import data
Server:	http://10.140.158.168:7001
User:	JayH
Database:	CMDEMO
Input file:	ftp://ap6039fems.us.oracle.com/CMExchange/E1toCMProject/E1toCMProject-
Log folder:	c:\temp
	Back Finish Cancel

**Note:** You can import only one file at a time. If you created multiple files from the EnterpriseOne system, you must run this process multiple times for each file that you want to import into the Contract Management system.

After you import change request data into Contract Management, you must then approve the change. After the change is approved, you then distribute the amounts associated with the newly created change order across the affected line items of the associated contracts, and subsequently, the requisitions that are generated for that contract. You distribute the changes to each line item by selecting the Each line item option on the Get Approved Changes form in Contract Management. This graphic illustrates the appropriate setting for this option:

#### Figure 7–9 Get Approved Changes

🖉 Get - Windows Internet Explorer							
Get							<u>help</u>
Get Approved Changes							
Contract		E1 Committed Contract (CON-0002)					
То		E1 Vendor Company One					
From		Enterprise One Company					
Create line items for							
<u>()</u> т	otal Change amount 🛛 💿	Each line item					• Unselect All
Select	Title	Number	Date	Total Cost	Approved Date 1	Approved Date 2	Approved Dat
	E1 Committed Change	E10001	Nov 16, 2009	\$175.00	Jan 5, 2010	Jan 5, 2010	
	-						
<		 2020		115			>
Previous Finish Cancel							

See Oracle Primavera Contract Management User's Guide, "Working With Contracts, Project Costs, and Changes," Preparing Requisitions for Payment.

# Glossary

#### **Business Unit**

A business unit is part of the basic account structure in the JD Edwards EnterpriseOne General Accounting system and denotes where transactions affect the organization, such as a warehouse, cost center, store, or job. For the purposes of this integration, business units, along with an extended job master record, are the equivalent of a Primavera Contract Management project. They are the lowest reporting level within your organization at which you need to account for assets, liabilities, equity, revenue, and expenses.

#### **Budget Contract**

A budget contract in Contract Management is the equivalent of the project budget in EnterpriseOne. Only one project budget can be sent from EnterpriseOne to Contract Management for this integration. However, the Contract Management system does allow for multiple budget contracts per project.

#### **Change Order**

Change orders are used in the Primavera Contract Management system to specify a redirection of plans or introduce new items to the schedule. Change orders also show any approved increases or decreases in costs and contract item allowances.

A change order in Primavera Contract Management is the equivalent of a change request in EnterpriseOne.

#### **Change Request**

Change requests are used in the JD Edwards EnterpriseOne system to track changes to a job as it progresses. You can enter a single line item or multiple line items for each change request. Typically, you set up a change request that relates to a specific aspect of the job. For example, if the job is to construct an office building, change request 1 might be for tracking foundation details, change request 2 for framing details, and so on.

A change request in EnterpriseOne is the equivalent of a change order in Primavera Contract Management.

#### **Committed Contract**

A committed contract is created in the Primavera Contract Management system, and is a written agreement in which one party agrees to perform specialized work for another party for a certain price. Contract work can involve labor only or labor and materials; examples include excavation, plumbing, and landscaping. A contract usually includes a description of the work to be performed, a list of special terms and conditions that apply to the contract, the start and finish dates, and the negotiated price. A committed contract in Primavera Contract Management is the equivalent of a JD Edwards EnterpriseOne purchase order.

#### **Cost Codes**

Cost codes are used in the Primavera Contract Management system to break down costs in the Cost Worksheet. Cost codes are similar to categories in a checkbook. For example, if your mortgage payment is \$1,000 a month, \$400 may apply to principal and \$600 to interest. When you record the \$1,000 payment in your check register, you may distribute it to principal and interest categories for tax reporting purposes. Similarly, you may have a lump sum contract for \$50,000, of which \$25,000 is for rough carpentry and \$25,000 is for finish carpentry. To track each carpentry cost separately in the Cost Worksheet, create two codes, Rough and Finish, and distribute \$25,000 to each.

You must create cost codes before you can distribute costs to the Cost Worksheet. Consider building meaning into the cost codes. For example, some companies base their cost codes on standard CSI codes.

Cost codes in Primavera Contract Management are the equivalent of the account structure for a project in EnterpriseOne.

In EnterpriseOne, cost codes are used in project costing. The business unit, cost code, and cost type make up the WBS for a project. EnterpriseOne users typically use cost codes to define major groupings in a project, such as excavation, framing, or landscaping.

#### **Progress Payments**

In EnterpriseOne, progress payments are payments made to the subcontractors as they make progress against their contracts. You draw progress payments from the funds that are committed to their contracts.

In addition, you make progress payments to relieve some or all of the contract commitment, as well as any released retainage against a contract. Retainage is a percentage of the committed amount that is held until a specified date after the completion of the contract.

A progress payment in EnterpriseOne is the action of creating a voucher to initiate payment to a vendor in response to a requisition for payment from the Primavera Contract Management system.

#### Project

In EnterpriseOne, a project is defined by the existence of a Business Unit (F0006) and an Extended Job Master (F5108) record. A project has a group of related tasks, accounts, or cost codes, and in some cases, has a related budget.

#### **Project Budget**

A project budget in EnterpriseOne is the equivalent of a budget contract in Contract Management. For the purposes of this integration, only the original budget is sent to Contract Management. Furthermore, only one original budget can be sent from EnterpriseOne to Contract Management. If the budget changes after it has been sent to Contract Management, all changes must be done using the change order process.

#### **Purchase Order**

A purchase order is a document that details the information about goods or services that you are purchasing from a vendor.

A purchase order in JD Edwards EnterpriseOne is the equivalent of a committed contract in the Primavera system.

#### Requisition

Requisitions are formal requests for payment that are created in the Primavera Contract Management system, and are usually issued by general contractors (GCs) to the owner on a monthly basis as portions of work on a project are completed.

Requisitions in Primavera Contract Management are sent to EnterpriseOne to initiate the creation of progress payments.

#### Retainage

A portion of the total amount of a purchase order or committed contract that is held until a specified date, deliverable, or until after the completion of a project. Retainage can be a percentage of the total or flat dollar amount.

#### WBS (Work Breakdown Structure)

The set of tasks that make up the project in EnterpriseOne is referred to as the work breakdown structure (WBS). After setting up a project header record with information such as project description, branch/plant, planned start and end dates, and so on, you can add to the project individual tasks that represent the steps that are required to complete the project. You can add tasks to the work breakdown structure, provided that it is not yet locked.

# Index

# Α

additional resources, vii, 1-13 allocating costs for change orders, 7-4 application fundamentals, vii assumptions and constraints change requests, 7-5 contract management integration, 1-18 progress payments, 6-6 projects, 4-4 purchase orders/contracts, 5-3 automated file transfer, 1-16

# В

budget contracts, 1
budgeted contracts, 1-4, 4-4
business process overviews, 1-1
business units definition, 1

# С

change orders, 1-8 allocating costs, 7-4 definition, 1 importing and exporting, 7-11 change requests, 1-8 assumptions and constraints, 7-5 definition, 1 exporting and importing, 7-7 status codes, 7-4, 7-6 CM to E1 Process Change Request program (R5310CMI) processing options, 7-10 committed contracts, 1-5, 5-1 definition, 1 configure scripts, 2-2, 2-4 Contract Management documentation, 1-13 Contract Management Exchange, 1-13, 4-8, 5-5, 6-6, 7-11 contract management integration benefits, 1-1 business process flows, 1-1 change request flow, 1-8 committed contract flow, 1-5

installation and requirements, 1-13 progress payment flow, 1-6, 6-1 project flow, 1-4 purchase order flow, 1-5 relationship with Primavera P6 Project Portfolio Management, 1-10 setup, 2-1 solution assumptions and constraints, 1-18 supported platforms, 1-17 Contract Management Integration Workbench (P51010), 1-18, 3-1 contracts, 5-1 cost codes, 1-4 definition, 2 Cost Codes and Original Budgets for Contract Management program (R51901CMD), 4-1 cross reference information, 3-5 currency code information, 1-18, 2-7 Currency Code Mapping program (P51006M), 2-7 currency information, 4-4, 5-3, 7-5 custom fields, 6-4

# D

data extraction, 1-14 using the workbench, 3-2 data flow, 1-1, 1-14 data import, 1-14 using the workbench, 3-2 directory structure setup, 2-4 documentation, 1-13

# Ε

E1 to CM Change Request Export program (R5301CMD) overview, 7-2 processing options, 7-8
E1 to CM Requisition Extract program (R0413CMD) overview, 6-2 processing options, 6-11

# F

FTP (file transfer protocol), 1-14, 1-16 FTP scripts, 1-17, 2-2, 2-4, 3-3 FTP setup, 2-1

### 

IBM i setup, 2-2, 2-6

importing contracts into Contract Management, 5-5 importing projects to Contract Management, 4-8 installation, 1-13

#### J

JD Edwards EnterpriseOne documentation, 1-13

#### Μ

manual file transfer, 1-16 setup, 2-6

### Ν

next numbers, 2-8

# 0

Oracle products, vii

#### Ρ

P43XPI, 6-2 P51006M (Currency Code Mapping program), 2-7 P51010 (Contract Management Integration Workbench), 1-18, 3-1 processing options, 3-2 P6 Project Portfolio Management, 1-10 payment data, 6-8 platforms, 1-17 Process Progress Payments from Contract Management program (R4314CM), 6-1 processing options, 6-11 processing options Cost Codes and Original Budgets for Contract Management Program (R51901CMD), 4-5 P43XPI, 6-2 P51010, 3-2 Project and Contract Header for Contract Management Program (R51006CMD), 4-6 R4310CMD (Purchase Order Extract program), 5-4 processing status, 3-5 products, vii progress payments, 1-6, 6-1 assumptions and constraints, 6-6 definition, 2 importing and exporting, 6-10 Project and Contract Header for Contract Management program (R51006CMD), 4-1 project budget, 2 project synchronization solution assumptions and constraints, 4-4 projects, 1-4 definition, 2

importing to Contract Management, 4-8 Purchase Order Extract program (R4310CMD), 5-2 purchase orders, 1-5, 5-1 definition, 3 importing into Contract Management, 5-5 solution assumptions and constraints, 5-3

# R

R0413CMD (E1 to CM Requisition Extract program), 6-2 R4310CMD (Purchase Order Extract program), 5-2 processing options, 5-4 R4314CM (Process Progress Payments from Contract Management program), 6-1 R51006CMD (Project and Contract Header for **Contract Management Program**) processing options, 4-6 R51006CMD (Project and Contract Header for Contract Management program), 4-1 R51901CMD (Cost Codes and Original Budgets for Contract Management Program) processing options, 4-5 R51901CMD (Cost Codes and Original Budgets for Contract Management program), 4-1 R5301CMD (E1 to CM Change Request Export program), 7-2 requisitions, 1-6, 6-1 copy custom fields, 6-4 definition, 3 exporting, 6-6 generating additional, 6-4 importing, 6-6 retainage definition, 3

## S

scripts, 2-2 setup, 2-1, 2-4 FTP processing, 2-2 IBM i, 2-2 manual file transfer, 2-2 next numbers, 2-8 solution assumptions and constraints project synchronization, 4-4 purchase orders, 5-3 status codes for change requests, 7-4, 7-6 status information, 3-5 stub project, 2-1 synchronizing data purchase orders, 5-1 system requirements, 1-13

## Т

technical requirements, 1-13

#### V

vouchers, 1-6

# W

W51010A, 2-3, 2-7 WBS definition, 3

# Χ

XML file requirements, 1-18