RPP-6564
Revision 0

Business System Planning Project, Preliminary System Design

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Date Published
October 2000

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

10/30/00
Release Approval Date

CH2MHILL
Hanford Group, Inc.

Richland, Washington

Contractor for the U.S. Department of Energy
Office of River Protection under Contract DE-AC06-99RL14047

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Page 2 of 2

Business Systems Planning Project

Preliminary System Design

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Table of Contents

1.0	INTRODUCTION	3
1.1	PURPOSE	3
1.2	SCOPE	3
1.3	OVERVIEW	3
1.4	REFERENCES	4
1.5	DEFINITIONS.....	4
1.6	TEAM MEMBERS.....	4
2.0	COMPONENT DESCRIPTION	5
2.1	MICROFUSION MILLENNIUM AND WINSIGHT PROJECT CONTROLS	5
2.2	MAXIMO WORK MANAGEMENT	5
2.3	MAXIMO ACTION TRACKING.....	5
2.4	PEOPLESOFT PURCHASING/ACCOUNTS PAYABLE AND MAXIMO INVENTORY	5
2.5	PEOPLESOFT FINANCE	5
2.6	PEOPLESOFT HUMAN RESOURCES INFORMATION SYSTEM	5
3.0	DEPENDENCY DESCRIPTION.....	6
3.1	SYSTEMS INTERACTIONS MODEL	6
4.0	INTERFACE DESCRIPTION	7
4.1	PROJECT CONTROLS	7
4.1.1	Internal.....	7
4.1.2	External.....	7
4.2	WORK MANAGEMENT, INVENTORY AND ACTION TRACKING	7
4.2.1	Internal.....	7
4.2.2	External.....	7
4.3	PURCHASING AND ACCOUNTS PAYABLE.....	8
4.3.1	Internal.....	8
4.3.2	External.....	8

1.0 INTRODUCTION

CH2M HILL Hanford Group, Inc. (CHG) is currently performing many core business functions including, but not limited to, work control, planning, scheduling, cost estimating, procurement, training, and human resources. Other core business functions are managed by or dependent on Project Hanford Management Contractors including, but not limited to, payroll, benefits and pension administration, inventory control, accounts payable, and records management. In addition, CHG has business relationships with its parent company CH2M HILL, U.S. Department of Energy, Office of River Protection and other River Protection Project contractors, government agencies, and vendors.

1.1 PURPOSE

The Business Systems Planning (BSP) Project, under the sponsorship of the CH2M HILL Hanford Group, Inc. Chief Information Officer (CIO), have recommended information system solutions that will support CHG business areas. The Preliminary System Design was developed using the recommendations from the Alternatives Analysis, RPP – 6499, Rev 0 and will become the design base for any follow-on implementation projects.

1.2 SCOPE

The Preliminary System Design will present a high-level system design, providing a high-level overview of the Commercial-Off-The-Shelf (COTS) modules and identify internal and external relationships. This document will not define data structures, user interface components (screens, reports, menus, etc.), business rules or processes. These in-depth activities will be accomplished at implementation planning time.

1.3 OVERVIEW

The following sections will provide a high-level decomposition, dependencies, and interface descriptions for the software products.

The following briefly describes the content of each section:

- **Section 2.0, Component Description**
This section provides a high-level understanding of the Project Controls, Work Management, Action Tracking, Purchasing, Inventory and Accounts Payable COTS products and the existing shared systems.
- **Section 3.0, Dependency Description**
This section defines the interaction among the software modules. The dependency description is expressed through a model.
- **Section 4.0, Interface Description**
This section provides a high-level description of the internal and external interfaces.

1.4 REFERENCES

- Business Systems Planning Project System Requirements Specification, RPP-6297, Rev.0.
- Business Systems Planning Project Alternatives Analysis, RPP-6499, Rev.0.
- Lockheed Martin Services, Inc. Organization Standard Software Practices, Version 3.2.
- Institute of Electrical and Electronics Engineers Standard 8340-1984.

1.5 DEFINITIONS

Acronyms	Definition
BMS	Business Management System
BSP	Business Systems Planning
CHG	CH2M HILL Hanford Group, Inc.
CIO	Chief Information Officer
COTS	Commercial-Off-The-Shelf
FH	Fluor Hanford, Inc.
HRIS	Human Resources Information System
INFOT	InfoTech West, Inc.
LMSI	Lockheed Martin Services, Inc.
NISI	Northwest Instrument Systems, Inc.
P3	Primavera Project Planner
TIS	Time Information System

1.6 TEAM MEMBERS

<u>Team Member</u>	<u>Business Area</u>	<u>Company</u>
Ronald L. Nelson	Information Resource Management / CIO	CHG
P. Brian Isaacs	Project Lead	LMSI
Joyce A Caldwell	Material Management	LMSI
Kelly A. Crace	Work Management	LMSI
Sandra Evosevich	Material Management	LMSI
Jimmy K. Hamilton	Work Management	CHG
Melody J. Kendall	Action Tracking	LMSI
Eldon C. Ladd	Project Controls	NISI
Diana L. Marquez	Project Controls	INFOT

2.0 COMPONENT DESCRIPTION

This section provides a high-level understanding of the Project Controls, Work Management, Action Tracking, Purchasing, Inventory and Accounts Payable COTS products. This section also provides a high-level understanding of the existing shared systems.

2.1 MICROFUSION MILLENNIUM AND WINSIGHT PROJECT CONTROLS

The commercial products of Integrated Management Concept's MicroFusion Millennium and the C/S Solutions' wInsight provide a repository for the resource pricing, cost estimating, project performance and earned value analysis data. The wInsight is a reporting product that compliments Millennium with a comprehensive set of performance reports providing drill down capabilities.

2.2 MAXIMO WORK MANAGEMENT

MAXIMO, from Project Software and Development, Inc., is an integrated suite of modules that supports the equipment maintenance function. In addition to equipment maintenance, MAXIMO includes functionality for inventory, lock out/tag out, scheduling, as well as integration to external systems such as Primavera Project Planner (P3). MAXIMO is designed to allow local tailoring to adjust for customer specific needs. MAXIMO has workflow capabilities that can be designed to support work management processes.

2.3 MAXIMO ACTION TRACKING

MAXIMO Action Tracking integrates with the MAXIMO Work Management suite of modules and can be tailored to support other business areas and functions.

2.4 PEOPLESOFT PURCHASING/ACCOUNTS PAYABLE AND MAXIMO INVENTORY

PeopleSoft Material Management consists of Purchasing and Accounts Payable. The Purchasing module includes the Contracts function. The MAXIMO Inventory module integrates with MAXIMO Work Management and will interface with PeopleSoft Purchasing and Accounts Payable.

2.5 PEOPLESOFT FINANCE

PeopleSoft Finance is a component of the existing Business Management System (BMS) that CHG shares in the use of. Finance consists of General Ledger and Project Costing modules. In the Fall 2000, CHG worked with Fluor Hanford, Inc. (FH) to implement a multiple company capability, allowing CHG to manage and maintain a separate set of financial books.

2.6 PEOPLESOFT HUMAN RESOURCES INFORMATION SYSTEM

PeopleSoft Human Resources Information System (HRIS) is a component of the existing Business Management System (BMS) that CHG shares in the use of. HRIS consists of Human Resources, Training and Payroll PeopleSoft modules and the Time Information System (TIS), a custom application.

3.0 DEPENDENCY DESCRIPTION

This section shows the interactions among the Project Controls, Work Management, Action Tracking, Purchasing, Inventory and Accounts Payable modules. This section also shows the high-level interaction with external applications.

3.1 SYSTEMS INTERACTIONS MODEL

4.0 INTERFACE DESCRIPTION

This section provides a high-level description of the interfaces between Project Controls, Work Management, Action Tracking, Purchasing, Inventory and Accounts Payable. Internal interfaces are those interactions within the suite of modules that CHG would purchase and manage. External interfaces are those interactions with applications that are used on site in a shared environment and managed by FH.

4.1 PROJECT CONTROLS

Below are descriptions of the Projects Controls internal and external interfaces.

4.1.1 Internal

- 1) Receive commitment and accrual information from Accounts Payable. Estimates include material and service contract expected costs.
- 2) Receive schedule and resource planning hours from P3.
- 3) Receive commitment and accrual data for material, service contracts, leasing equipment, etc.
- 4) Access to purchasing information, such as lead time information, acquisition plans and statements of work.

4.1.2 External

- 1) Receive actual cost data from BMS Finance. Actual costs include labor, training, material and service costs.
- 2) Receive organizational data from BMS HRIS, such as Organizational Breakdown Structure, Common Occupational Classification System codes, Planning, Escalation and Actual rates.
- 3) Access contract and legal drivers for performing work.

4.2 WORK MANAGEMENT, INVENTORY AND ACTION TRACKING

Below are descriptions of the Work Management internal and external interfaces.

4.2.1 Internal

- 1) Integrate with Action Tracking, tying actions to work management corrective and preventative maintenance issues.
- 2) Integrate with Inventory data such as spare parts, stock on hand, preventative maintenance bulk buy materials.
- 3) Access status of purchases for job scheduling.
- 4) Enter Material Requests on-line for purchasing of materials and/or service requests.
- 5) Receive and send scheduling data to and from P3.

4.2.2 External

- 1) Receive employee skills and qualification data from the BMS HRIS training module.
- 2) Access identified hazards, permit requirements and safety plans from the job hazards system.

- 3) Access other external systems to retrieve information such as Unresolved Safety Question, Lessons Learned, procedure information, etc.

4.3 PURCHASING AND ACCOUNTS PAYABLE

Below are descriptions of the Material Management internal and external interfaces.

4.3.1 Internal

- 1) Integration between accounts payable and purchasing for management of vendor payments for services and goods received.
- 2) Receive material requests from work management resulting from job planning.
- 3) Send spare part and convenient storage information to the inventory module.
- 4) Send commitment and accrual data to Project Controls to support forecasting project completion information.

4.3.2 External

- 1) Send detailed material and service rendered project cost information to the shared finance application.
- 2) Send general ledger transaction data to the shared finance application.