COMPANY SAP TRAINING PROGRAM

Findings and Recommendation Report

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3/2/2007

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Executive Summary

Introduction
This document proposes the complete training strategy for the Company SAP Training Program. This strategy is founded upon a proven instructional design methodology for integrated systems and process training customized for Oil Americas business needs. The training strategy has been refined to include the lessons learned from the Company SAP Training Pilot. The Company SAP Training Program describes a comprehensive plan for the design, development, delivery and maintenance of the training curriculum.

- Section 1 contains a summary of the results and recommendations resulting from the detailed analysis of the Company SAP Training Pilot
- Section 2 describes the project scope and approach, deliverables, development timeline, resources and costs associated with the Company SAP Training Program
- Appendices A through D deliver the detailed quantitative and qualitative data from the pilot supporting the conclusions offered in this document

Training Pilot Overview
The Company SAP Training Pilot was delivered to 39 Company employees representing seven distinct areas of the Company business between January 15, 2007 and January 25, 2007. The scope of the pilot consisted of the development and delivery of a vertical slice of the broader curriculum. The pilot project focus was on the Order to Cash process and the Product Supply Settlements function of Company.

Each pilot participant was selected by their manager and placed into one of two groups: New User or Experienced User. The purpose for the two training groups was to provide a means for evaluating learning effectiveness in individuals who were new to Company and SAP and those that were experienced in these areas.

The training was delivered using computer based training (CBT) and followed up with a review session led by an instructor. The pilot training plan consisted of the following courses:

- Level 2 - Order to Cash Overview (CBT)
- Level 2 – Facilitated Discussion Session
- Level 3 – Product Supply Settlements (CBT)
- Level 3 – Facilitated Discussion Session
- Level 4 – Product Supply Settlements Coaching Guide and Work Instructions (Prototypes)

The Level 4 prototypes were submitted to business leaders and pilot participants for feedback during post-pilot focus groups. They were not delivered to participants as part of the training plan.

Pilot CBT Course Summary

The both pilot training groups (new and experienced) showed an increase of approximately 22% on average between the pre-test and post-test results for both the Order to Cash Overview and the Product Supply Settlements CBT courses.

Both new users and experienced users responded extremely well to the use of CBTs as a learning tool. The consensus was CBT is an effective method for delivering this type of training.

- 83% of participants Agreed or Strongly Agreed that computer based training is an effective way to deliver the Order to Cash Overview training content
- 86% of participants Agreed or Strongly Agreed that computer based training is an effective way to deliver the Product Supply Settlements training content

Comments and feedback gathered indicate the CBT training time should be to one hour or less per course.

Pilot Facilitated Discussion Summary

In general, the training groups did not feel the facilitated sessions should be a requirement for the training.

- 33% of participants Agreed or Strongly Agreed that they would recommend taking this type of facilitated discussion session after completing the CBT course.

Individuals with multi-modal learning styles probably benefited most from these sessions, while most believed that adequate learning occurred as a result of taking the CBTs.

The primary benefit derived from these sessions was the commentary and demonstration from business representatives, as well as the opportunity to network with others.

- 89% of participants Agreed or Strongly Agreed that having subject matter experts from across the business attend the session brought additional value to the facilitated session.

Recommendations

Based on the quantitative and qualitative data from the pilot delivery and post-pilot focus groups; the Company Learning & Development (CompanyL&D) team has the following scope recommendations for the Company SAP Training Program:

- CBT courses are to be developed for all courses within Levels 1, 2 and 3 of the training curriculum
- Facilitated Discussions are not a required component of the program scope but may be developed on an as needed basis
- Coaching Guides are to be developed for Level 4 task-based training and distributed to the appropriate teams
- VTA is to be utilized for all the deployment of all CBT courses, assessments, evaluations and review guides and all Coaching Guide critical task checklists

Training Program Goals

The Company SAP Training Program is a comprehensive, long-term solution to systems and process training at Oil Americas. The goal is to rapidly develop self-sufficient employees who are proficient in their day-to-day activities and capable of diagnosing root cause and applying analytical thinking to efficiently resolve business issues.

The instructional design methodology selected for the training program provides rigor in the training development process, delivers on-demand training that fosters independent learning and provides a structured approach to on-the-job coaching. The methodology allows for the development and maintenance of the original program courseware and the incorporation of new or existing content as the Company business changes over time.

Refer to page 17 of this document for further information on the training program objectives.

Timeframe

The project is expected to be completed approximately one year from the project start date.

Scope

The scope for the Company SAP Training Program consists of:
- 3 Level 1 CBT courses
- 4 Level 2 CBT courses
- 10 Level 3 CBT courses
  - FC&A Level 3 courses are regarded as one course
- 16 Level 4 Coaching Guides

Company SAP Training Program Curriculum Map

Level 1 Business Focus: Introduction / Audience: All OA / Delivery: CBT		OA Overview		SAP OA Overview		SAP PR4 Navigation		
Level 2 Business Focus: Process / Audience: All OA / Delivery: CBT		Inventory Management	Purchase To Pay	Order to Cash		Financial Control and Reporting		
Level 3 Business Focus: Sub-process and Activities / Audience: Focus Team and All OA / Delivery: CBT	**Inventory Control** — Crude	**Inventory Control** — Product	**Transaction Control** — Crude	**Transaction Control** — Product	**Supply Settlements** — Crude	**Supply Settlements** — Product	**Financial Control & Accounting**	
	Bulk Reconciliation	Bulk Reconciliation		Bulk Actualization	Supply Settlements	Sales Supply Settlement	Cash and Working Capital	
		Truck Reconciliation		Truck Actualization		Purchase Supply Settlement	Internal Controls	
		Exchanges					Performance Reporting	
							Supply Accounting	
Level 4 Business Focus: Activities and Work Steps / Audience: Focus Team / Delivery: One-on-One Coaching	Bulk Reconciliation	Bulk Reconciliation		Bulk Actualization	Foreign Settlements	Bulk Sales Settlement	Cash and Working Capital	
		Truck Reconciliation		Truck Actualization	Domestic Settlements	Truck Sales Settlement	Performance Reporting	
		Exchanges			Ancillary Settlements	Bulk Purchases Settlement	Supply Accounting	
						Truck Purchases Settlement		

Approach   The Company SAP Training Program is a holistic approach to integrated system and process training aligned with Company business practices and objectives. A natural learning progression is an important part of any training curriculum. It allows the learner to acquire a level of knowledge which they can build on as they advance to more detailed information in their training plan. It is essential for performance based training.

The Company SAP Training Program embodies this natural learning progression through its four distinct levels of learning:

- **Level 1 Introduction –** Provides a foundation for the learner to understand the structure and purpose of the Oil Americas business unit, how SAP and other systems are implemented at Company and basic and intermediate SAP navigation

- **Level 2 Process –** Describes end-to-end business processes, delivering a blueprint of the integration of Company business systems, functions and roles

- **Level 3 Sub-Process and Activity –** Provides a detailed description of the roles, systems, control points and activity flows linked to a component of a business process

- **Level 4 Activity and Work Steps –** Delivers role-based detail on the execution of business system transactions, reporting and troubleshooting techniques

The Company SAP Training Program will deliver both computer-based training courses for the more consistent, high level, high volume delivery elements and Coaching Guides for one-on-one business situational training including hands-on system interaction. This delivery combination is referred to as a blended learning solution.

Refer to pages 18-21 for further details on the program scope and approach.

Design   The purpose of the design components of the project is to efficiently meet the training objectives for the program:

- Integrate the training program structure and deliverables with the Oil Americas learning management system VTA and align with the Passport to Work initiative.

- Help developers provide the desired level instructional information and achieve reasonable consistency across all training program materials

- Provide a training development plan that is well documented, reproducible and easily transitioned to Company employees for future maintenance and new development

- Incorporate lessons learned from the pilot to refine the document templates, course deliverables and delivery methods

Refer to pages 22-23 for further details on the program design.

Development   The CompanyL&D team recommends building the training courses using a top-down approach; starting with Level 1 and finishing with Level 4.

Developing the courses in this manner creates efficiencies in the course information gathering process and balancing the right content at the right learning level. This approach also enables the development of the more detailed course information to be aligned with upcoming changes and enhancements to the Supply system landscape (i.e. Phys Ops).

The CompanyL&D team with input from a designated business subject matter will develop performance-based CBT course and Level 4 structured coaching guides and relevant SAP work instructions.

- The business will provide subject matter experts in each area to support the content development process
- The development process will be similar to that used to create the pilot training courseware
- The performance-based instructional approach incorporates placeholders for systems and tools other than SAP; Company teams will develop non-SAP reference materials.

Refer to pages 24-25 for further details on the program development.

Project Resources and Costs   The development of the SAP training program courseware requires a substantial work effort to take place in a relatively short period of time. In order to efficiently design and build quality training courses a Training Development team will be assembled. These resources will develop training content across the functional scope of the Company SAP Training Program.

- Three fully dedicated consultant resources and one CompanyL&D team resource at 25% utilization for the project
- E-learning Corporation is recommended as the project eLearning partner for all CBT production services

Projected Development Effort

Total Numbers of Deliverables to Develop	Total Days of Labor to Develop Each Deliverable	Total Working Days per Project Resource	Total Weeks to Complete Deliverable Development
XXXX	XXXX	XXXX	XXXX

Projected Project Costs

Total Cost for Training Development Team	Total Cost for CBT Production	Total Cost
$XXXX	$XXXX	$XXXX

Refer to pages 26-28 of this document for more information on the development hours and costs for the project.

Maintenance Strategy

The maintenance strategy addresses long-term management and maintenance of the training program, including business change impacts to the curriculum as well as process and organizational changes.

The maintenance strategy should be designed as an extension of the partnership developed between the CompanyL&D team and the business teams during the Company SAP Training Program project.

As such, the maintenance strategy should be designed and approved by both groups with clear communication of the plan, the process, individual accountabilities and the costs.

Refer to pages 29-31 of this document for more information on the long-term maintenance strategy for the training program.

Section 1: Company SAP Training Pilot

Overview

Timeframe   This section is an assessment of the participant quantitative and
qualitative feedback resulting from the Company SAP Training Pilot
events taking place between January 15, 2007 and January 25, 2007.

Audience   The pilot consisted of 39 participants selected from across seven
Company functional teams divided into two training groups:

- New User – Less than one year experience with Company and
SAP
- Experienced User – More than one year experience with
Company and SAP

Delivery Methods   The pilot training groups were trained using two delivery methods:

- Computer Based Training (CBT) – Self-guided online training
courses accessed through VTA
- Facilitated Discussion – Instructor-led courses designed to
reinforce the learning concepts delivered in the CBTs by
engaging participants in a collaborative learning approach

CBT Courses

The results from the pre-test and post-test show a positive increase in participant comprehension of topics across both courses:

- New User comprehension of the learning topics in Order to Cash Overview and Product Supply Settlements increased an average of 23% between pre-test and post-test results; whereas Experienced Users increased an average of 21%.

Both groups provided very positive feedback to the CBT design and learning approach:

- 97% of participants rated their overall experience with the Order to Cash CBT as Good or Excellent
- 91% of participants rated their overall experience with the Products Supply Settlements CBT as Good or Excellent
- 83% of participants Agreed or Strongly Agreed that computer based training is an effective way to deliver the Order to Cash Overview training content
- 86% of participants Agreed or Strongly Agreed that computer based training is an effective way to deliver the Product Supply Settlements training content
- 81% of participants Agreed or Strongly Agreed that the quality of the Order to Cash Overview online training presentation exceeded their expectations
- 77% of participants Agreed or Strongly Agreed that the quality of the Product Supply Settlements online training presentation exceeded their expectations

Facilitated Discussions

The reactions to the Facilitated Discussion sessions were mixed among the participant feedback.

- 89% of participants Agreed or Strongly Agreed that having subject matter experts from across the business attend the session brought additional value to the facilitated session.
- 59% of participants Agreed or Strongly Agreed that the in-class demonstrations (Settlements) were valuable for reinforcing their learning.
- 85% of participants rated the overall usefulness of the course review guides as Useful or Highly Useful.
- 44% of participants rated their overall experience with the Order to Cash and Product Supply Settlement discussion sessions as Good or Excellent.
- 48% of participants Agreed or Strongly Agreed the facilitated session helped strengthen their understanding of the CBT course content.
- 33% of participants Agreed or Strongly Agreed that they would recommend taking this type of facilitated discussion session after completing the CBT course.
- 48% of participants Agreed or Strongly Agreed that the interactive approach used in the session was an effective method for reviewing the CBT course content.

Recommendations   Computer based training is a viable solution for delivering Company systems and process integration training and should be approved as the primary delivery vehicle for courses within Level 1, 2 and 3 of the Company SAP Training Program.

The Facilitated Discussion session is not necessary to reinforce course topics from the CBTs and therefore should not be a required component of the Company SAP Training Program. Facilitated Discussions did support the learning needs for some Company employees. Further evaluation is needed to determine if there is a substantial need and value for developing this training and whether or not these sessions are sustainable long-term.

CBT Course Test Results

Purpose   The purpose of the pilot testing was to quantitatively measure knowledge transfer from taking the CBT course.

Pre-Tests and Post-Tests

Each pilot participant completed a test before taking the CBT course (pre-test) and a test after finishing the CBT course (post-test).

- The pre-test measures the learner's knowledge of the course topics prior to taking the course.
- The post-test measures the learner's knowledge and comprehension of the course topics after taking the course

The pre-test and post-test for each course is comprised of the same set of questions and answers.

- The questions and possible answers were randomized for each test generated through VTA

Test Design   The New User and Experienced User groups took slightly different tests:

- The New User test consisted of less questions than the Experienced User test
  - All questions were derived from the primary content screens of the CBT module
- The Experienced User test consisted of all the New User test questions plus additional questions
  - These tests included questions from the Drilldown screens and questions the primary content that were considered to be more complex or difficult

All test questions were derived from:

- Course topics found directly within the computer based training modules
  - Each question can be referenced back to a particular CBT screen in each module
- Course information described on the primary content screens of the CBT module (linear screen progression)
  - Test questions were not derived from the New User Coach screens
  - A few test questions were derived from the Experienced User Drilldown screens for the Experienced User version of the test

Pilot Course: Order to Cash Overview

This section provides summary data for pilot course test results. For complete participant pre-test and post-test results refer to Appendix A: Complete CBT Test Results.

Table 1.1 – New User Testing Summary

|	Pre-Test Score	Post-Test Score	% Increase	# Question Increase
Average	52.59	78.34	25.75	4
Median	50	81.3	25	4
Minimum	25	62.5	6.3	1
Maximum	75	93.8	43.8	7

This test consisted of 16 questions.

Table 1.2 – Experienced User Testing Summary

	Pre-Test Score	Post-Test Score	% Increase	# Question Increase
Average	56.28	79.49	23.21	5
Median	60.90	84.80	21.80	5
Minimum	30.40	52.20	-21.70	-5
Maximum	73.90	95.70	60.90	14

This test consisted of 23 questions.

Figure 1.1 – Testing Averages Comparison
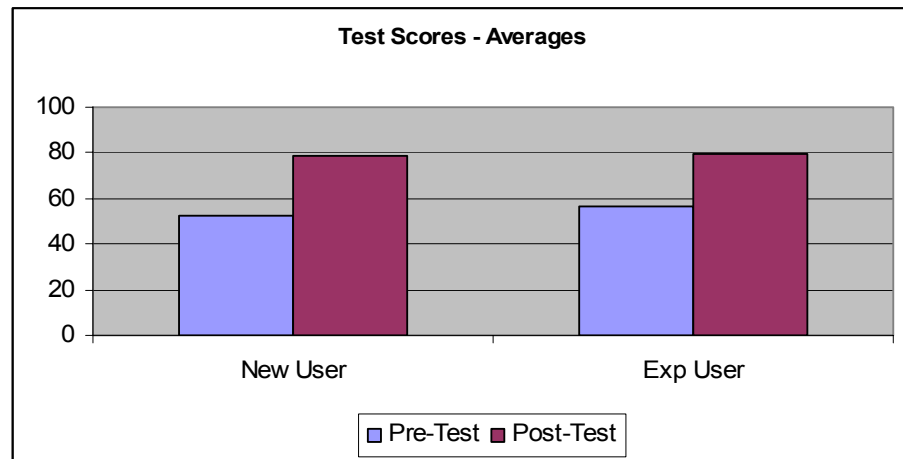
Pilot Course: Product Supply Settlement

This section provides summary data for pilot course test results. For complete participant pre-test and post-test results refer to Appendix A: Complete CBT Test Results.

Table 1.3 – New User Testing Summary

|	Pre-Test Score	Post-Test Score	% Increase	# Question Increase
Average	51.18	72.94	21.76	4.
Median	50.00	70.00	25.00	5
Minimum	35.00	60.00	5.00	1
Maximum	80.00	90.00	40.00	8

This test consisted of 20 questions.

Table 1.4 – Experienced User Testing Summary

	Pre-Test Score	Post-Test Score	% Increase	# Question Increase
Average	59.05	78.67	19.62	5
Median	63.00	77.80	22.20	6
Minimum	37.00	55.60	-3.70	-1
Maximum	74.10	100.00	51.90	14

This test consisted of 27 questions.

Figure 1.2 – Testing Averages Comparison
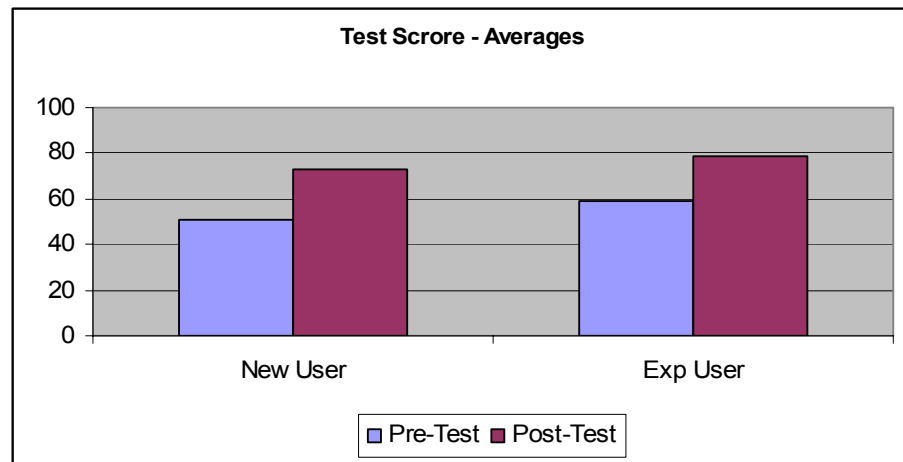
CBT Evaluation Results

This section provides summary information for the pilot CBT evaluation results. For complete evaluation results refer to Appendix B: CBT Evaluation.

Purpose

The CBT evaluation qualitatively measures participant reaction to the course design, content and materials.

Below is a partial list of the feedback received from pilot participants.

What did you like most about this course?
- Excellent course for the new Company America employees.
- This was a great way to learn the entire process of what I do everyday. These were not foreign concepts, but this course helped to clarify some areas.
- The graphics and flowcharts helped me to understand the flow of information better
- This was a great CBT course! I wish I could have had it 4 months ago when I started.
- This is a great tool for a new hire/user to SAP.
- The information was interesting and the slides were easy to read. The knowledge checks were helpful.
- I found the course to be very interesting. The course was well presented. Just enough details.
- This was easy to use and provided good coverage of many areas. I liked that I could see the information flow easily within my role as a Settlement Analyst as well as within other groups.
- The visual mapping of the whole process, showing each role and what they do was very helpful.
- Very well put together and thorough.

What do you feel can be improved about this course?
- Add a fast forward button option. If you go back a slide, you have to listen from the beginning. It would be helpful to fast forward to the part you would like to review.
- The images which are clicked on-- to display further data; I found that I liked the pop ups when you drag over something easier to use than the images which you can click on to display details.
- I'm going to hate this, but more individual testing to reinforce learning!
- More options to go in depth if the user wanted to.
- Receive a copy of all slides - but I haven't checked my documentation. Maybe they are there.

Facilitated Discussion Evaluation Results

This section provides summary data for pilot discussion session evaluation results. For complete evaluation results refer to Appendix C: Facilitated Discussion Evaluation.

Purpose

The Facilitated Discussion evaluation qualitatively measures participant reaction to the course design, content and materials.

- A quantitative measurement of knowledge transfer is not part of the evaluation

The Order to Cash Overview and Product Supply Settlement facilitated sessions were evaluated as one entity rather than as two separate components.

Below is a partial list of the feedback received from pilot participants.

What did you like most about this course?

- I liked that it was very interactive and also expanded on the CBT training.
- The CBT was very thorough and I felt covered the entire subject very well. The reinforcement of the ILT was helpful.
- I enjoyed the demonstrations by the business units as to what they do, how they do it, and why they do it.
- Having settlements & purchase team come in to let the group know what they actually did was very helpful & provide information that I wasn't aware of.
- The review guide is laid out very well and is easy to read and understand.
- The interactive participation was a good tool to reinforce certain points and to have everyone engage in different ideas.

What do you feel can be improved about this course?

- I think the ILT does not have to be used in conjunction with the CBT. Some learners may prefer just the CBT.
- Some parts were redundant of the CBT, so I think just the expansion, and not repetition of the CBT would be more beneficial.
- I really didn't feel the drawn out demonstrations were necessary or useful. I don't think that that much detail was needed...more focus on a higher level summary would be sufficient.
- I think we should have one of the course, CBT or actual class not both and may be over the course of 2 half days instead of one full day.

Post-Pilot Interviews

Focus Groups   Following the pilot, the CompanyL&D team conducted focus group meetings with representatives from each of the teams. The purpose of these focus groups were to gather qualitative information on the pilot program, suggested direction, the use of CBTs, the value of the facilitated discussions, and the types of materials that are being considered for the program.

Meetings with Managers   The CompanyL&D team also met with Company team managers to identify the preliminary scope of work for the training program, as well as obtain input on the intended direction of the Company SAP Training Program.

Discussion Points   During both the focus groups and the meetings with managers the major points of discussion included:

- The use of CBTs as a primary delivery vehicle
- Validation of the intended curriculum map, including the 4-level curriculum, and correct course offerings for each area
- The inclusion of the Review Guides as an optional print-out within the CBTs
- The value of the facilitated discussions and whether they add sufficient value to offer them on a regular basis, including the potential for offering them in a different format, such as demonstrations only
- The use of work instructions as a tool to provide the step-by-step transaction processing information for the trainee
- The willingness of the business to commit to develop work instructions outside of the scope for this project
- The use of the Coaching Guides as a viable tool for conducting one-on-one training
- The potential of the Coaching Guides to replace the deskbook
- The use of critical task checklists within the Coaching Guides to ensure a consist training experience and to evaluate the learner's proficiency at these tasks

Summary

CBT Courses

The business confirmed that the CBT learning approach was a viable solution for teaching these topics.

Facilitated Discussions

The business responded with a mixed message about the value of the facilitated session. Although some members of the focus groups did express interest in keeping these sessions in scope the majority felt these sessions should not be required to attend.

Review Guides

Generally, the business agreed that having a link to the Review Guide within the CBT gave people the option to access the information electronically or to create a hard copy reference, which some individuals prefer.

Work Instructions

Generally, the business agreed that having step-by-step instructions for the new trainee will improve their time to proficiency and increase self-sufficiency as well as accuracy in performing the SAP transactions.

The business agreed that the teams could take on using the template to build Work Instructions for other tools and systems outside of the CompanyL&D team SAP scope.

Coaching Guides

There was concern from the focus group participants that their counterparts may not consistently use the Coaching Guide to deliver one-on-one training. Some may reference the tool, some may choose to use only the check list, some may adhere to its structure. There was consensus that it would provide a structure and would be a good reference tool for the trainee.

Managers, on the other hand agreed that providing this tool and the use of the checklists would improve the training for new trainees and provide greater consistency, thoroughness and accountability.

Section 2: Company SAP Training Program

Introduction

Goal

The Company SAP Training Program is a comprehensive, long-term solution to systems and process training at Oil Americas. The goal is to rapidly develop self-sufficient employees who are proficient in their day-to-day activities and capable of diagnosing root cause and applying analytical thinking to efficiently resolve business issues.

The instructional design methodology selected for the training program provides rigor in the training development process, delivers on-demand training that fosters independent learning and provides a structured approach to on-the-job coaching. The methodology allows for the development and maintenance of the original program courseware and the incorporation of new or existing content as the Company business changes over time.

Objectives

The training objectives for the Company SAP Training Program include the following:

- Provide a consistent, readily available and business driven training program for Company employees
- Deliver process and role oriented training courses which enable employees to learn how to perform their day to day activities and learn about the business purpose and activities of other Company teams
- Teach end users how to effectively execute business processes and activities in combination with business system transactions
- Reduce the number of training related incidences within the Company business unit
- Leverage technology and proven instructional design practices to deliver the appropriate training for new and experienced employees
- Align the training program with the Passport to Work compliance initiative
- Leverage the Company learning management system (VTA) to deliver training
- Ensure end users display proficiency in their job role by measuring learning transfer through course assessments and one-on-one critical task validation
- Design the training for the incorporation of changes or additions arising from other business projects (i.e. Phys Ops and GBO-Sapphire)

Scope and Approach

Project Duration   The project is expected to be completed within 12-13 months from the project start date.

Audience   The Company SAP Training Program addresses the learning needs of employees who perform work using the SAP system. The Supply business is the target audience for the training program as these employees interface with the sales and distribution, materials management and financial accounting and controlling functions of SAP.

- Training content will be designed for EoR and WoR Supply business employees

At the present time, Entrepreneurial Trading employees do not interface directly with SAP and are considered out-of-scope. The Entrepreneurial Trading business will be folded into the scope of the training program after GBO-Sapphire is implemented at Oil Americas. The implementation training courses will be repurposed to compliment the Supply side of the Company SAP Training Program.

Functional Scope   The list below contains the functional teams from Supply in scope for the training program:

- Financial Control and Accounting
- Inventory Control
- Supply Settlements
- Transaction Control

System Scope   The SAP 4.6C system is the primary focus of the training deliverables to be developed.

- The training will focus on the business processes that are tightly integrated with SAP
- Other Company systems that interface with SAP are discussed within the training to provide the learner with the complete picture

Out of Scope   All other business aspects are considered out of scope. In specific the Company SAP Training Program scope of work does not include:

- Education of the Company workforce on policies and procedures which are not directly related to SAP enabled processes
- Development of formal training courses for audiences of less than 3 end users
  - Training workshops or one-on-one coaching sessions may be developed on an as needed basis
- Development of courseware for any Company business unit or function outside of Company

Learning Approach   Company employees perform system tasks to complete their daily activities. These activities are part of larger sub-processes that ultimately comprise end-to-end business processes enabling the efficient operation of the Company business. The Company SAP Training Program is a holistic approach to integrated system and process training which is aligned with Company business practices.

A natural learning progression is an important part of any training curriculum. It allows the learner to acquire a level of knowledge which they can build on as they advance to more detailed information in their training plan. It is essential for performance based training.

The Company SAP Training Program embodies this natural learning progression through its four distinct levels of learning:

- **Level 1 Introduction –** Provides a foundation for the learner to understand the structure and purpose of the Oil Americas business unit, how SAP and other systems are implemented at Company and basic and intermediate SAP navigation
- **Level 2 Process –** Describes end-to-end business processes, delivering a blueprint of the purpose and integration of Company business systems, functions and roles
- **Level 3 Sub-Process and Activity –** Provides a detailed description of the roles, systems, control points and activity flows linked to a component of a business process
- **Level 4 Activity and Work Steps –** Delivers role-based detail on the execution of business system transactions, reporting and troubleshooting techniques

Training Approach   The Company SAP Training Program will deliver both computer-based training courses for the more consistent, high level, high volume delivery elements and Coaching Guides for one-on-one business situational training including hands-on system interaction. These two approaches used in combination are referred to as a blended learning approach. Blended learning is the best approach for Company specific training needs.

- The CBT course offers new and current employees a method of quickly and easily accessing learning content
  - Courses deliver a distinct level of detail based on the learner's experience with SAP and the course topics
- The Coaching Guide provides employees new to Company or to the function with role-based SAP system processing training integrated within the context of daily activities
  - A consistent method and structure for delivering business approved task-level training
  - The coach follows the guide and applies real world examples to the suggested training activities
  - The coach and learner are accountability for covering the material on the critical task checklist

Curriculum Map   The learning and training approaches selected for the program come together in the form of the curriculum map for the training program. The curriculum map identifies:

- The courses to be delivered at each learning level
- The delivery vehicle (CBT or One-on-One Coaching)
- The intended audience

The CompanyL&D team has performed a preliminary analysis on the training needs across Company for the program. Figure 2.1 depicts the preliminary course scope for the Company SAP Training Program.

Figure 2.1 – Preliminary Curriculum Map

Level 1 Business Focus: Introduction Audience: All OA Delivery: CBT	OA Overview			SAP OA Overview			SAP PR4 Navigation	
Level 2 Business Focus: Process Audience: All OA Delivery: CBT	Inventory Management		Purchase To Pay		Order to Cash		Financial Control and Reporting	
Level 3 Business Focus: Sub-process and Activities Audience: Focus Team and All OA Delivery: CBT	**Inventory Control**		**Transaction Control**		**Supply Settelments**		**Financial Control & Accounting**	
	Crude	Product	Crude	Product	Crude	Product		
	Bulk Reconciliation	Bulk Reconciliation		Bulk Actualization	Supply Settlements	Sales Supply Settlement	Cash and Working Capital	
		Truck Reconciliation		Truck Actualization		Purchase Supply Settlement	Internal Controls	
							Performance Reporting	
		Exchanges					Supply Accounting	
Level 4 Business Focus: Activities and Work Steps Audience: Focus Team Delivery: One-on-One Coaching	Bulk Reconciliation	Bulk Reconciliation		Bulk Actualization	Foreign Settlements	Bulk Sales Settlement	Cash and Working Capital	
		Truck Reconciliation		Truck Actualization	Domestic Settlements	Truck Sales Settlement	Performance Reporting	
					Ancillary Settlements	Bulk Purchases Settlement	Supply Accounting	
		Exchanges				Truck Purchases Settlement		

Analysis

Final Scope Assessment

The courses identified in Figure 2.1 represent the preliminary scope of the Company SAP Training Program. The first step of the training program is to finalize development scope.

The preparation of course outlines is the key to final scope realization. The development of detailed course outlines facilitate consistency in the courseware, mitigate learning content overlap, pinpoint process touch points between functional teams and ensure a systematic approach to the development of training program content.

Course outlines are the framework from which all training courses will be developed. Course outlines include the following information:
- Course code and title
- Target audience
- Course duration
- Course owner (SME) and team
- Course developer
- Prerequisites
- Course purpose and objectives
- Course module content
  - Objectives
  - Terms and data elements
  - Business concepts
  - SAP and other Company system integration points
  - Company functional team touch points
  - Company system and process control points
  - SAP transactions
  - Reference documents

The CompanyL&D team resources will work closely with Company Team SMEs to prepare the course outlines. Development of the course does not take place until the course outline is approved by the business.

Design

Purpose   The purpose of the design components of the project is to efficiently meet the training objectives for the program:

- Integrate the training program structure and deliverables with the Oil Americas learning management system and align with the Passport to Work initiative

- Help developers provide the desired level of instructional information and achieve reasonable consistency across all training program materials

- Provide a training development plan that is well documented, reproducible and easily transitioned to Company employees for future maintenance and new development

- Incorporate lessons learned from the pilot to refine the document templates, course deliverables and delivery methods

LMS Integration   All CBT courses will be managed and deployed from VTA.

- Prerequisites will be in place to ensure training content is being delivered according to the prescribed learning structure

- Electronic course completion status data will be passed to VTA once a learner has viewed the entire training course (L1-L3)

- Electronic course assessments with specified mastery scores will follow each training course; passing the assessment is required to receive credit for the course (L1-L3)

- Electronic course evaluations will be an available option for participants to provide feedback on their experience with the course (L1-L3)

- Electronic checklists will be completed by the Coach to evaluate learner proficiency in critical tasks and concepts from one-on-one Coaching Guide.

Passport to Work   The Company SAP Training Program curriculum is strategically positioned to comply with the requirements for the Passport to Work (PTW) initiative. Although the curriculum is not currently recognized as a PTW program, the design, development process, deployment and learning validation of the course content makes it a strong candidate.

Development Templates

Development templates will be created for all training courseware outputs. These templates will be designed to ensure consistency across the materials, enable rapid development and reduce the potential for error.

All development templates will be developed as true document templates (master templates) from which all training documents will originate. Utilizing the master templates concepts mitigates the potential for nonstandard document creation and document corruption.

Production Standards

This document defines the development process, provides document management guidelines and conventions, and describes the steps to develop the Company SAP Training Program courseware. It is intended to be used as a reference tool by training development team. The Production Standards document includes:

- Training deliverables and tools
- Development and review process
- Network repository structure
- Folder and file naming conventions
- Version control guidelines
- Developing material using approved training templates
- Samples (prototypes) of completed training courseware

Documentation Standards

A set of rules known as Documentation Standards will be developed to assist all Company SAP Training Program content developers in their effort to deliver a consistent, "one author" look and feel for all training program content. Common guidance provided within documentation standards:

- Define the writing style and documentation components
- Applying styles and formatting to particular text types
- Referencing SAP screen attributes

Development

Course Deliverables   The CompanyL&D team will use a variety of paper-based and online instructional courseware and media to support the delivery of the end user training curriculum. Below is a list of the expected training outputs by instructional delivery method. These components are developed in preparation of the course content or as training outputs for facilitators or participants:

Level 1, 2 and 3: Computer-Based Training includes:
- Course Outline
- Business Concepts
- Storyboards
- CBT Course
- Review Guide
- Assessment

Level 4: One-on-One Training includes:
- Course Outline
- Coaching Guide
- Work Instructions
- Transaction Simulations (as necessary)

Alternate training courseware options may be included as needed to support smaller audiences or advanced users.

Development Approach   The CompanyL&D team recommends building the training courses using a top-down approach; starting with Level 1 and finishing with Level 4.

Developing the courses in this manner creates efficiencies in the course information gathering process, balancing the right content at the right learning level and enables a phased rollout of the training courses as they become available. This approach also enables the development of the more detailed course information to be aligned with upcoming changes and enhancements to the Supply system landscape (i.e. Phys Ops).

It is understood that some shifting of the development approach will occur throughout the project based on a number of variables. The team is prepared to shift development efforts as necessary to complete the project work in the expected timeframe and budget.

Preliminary Training Program Work Plan

The CompanyL&D team has prepared a preliminary Level 0 work plan for the Company SAP Training Program. The work effort will be adjusted as necessary to accommodate business needs and resource availability.

- A detailed project plan will be developed to manage resource workload and track the project progress
- A detailed development tracker will created to identify and track the progress of all deliverables for the project

Figure 2.2 – Level 0 Work Plan
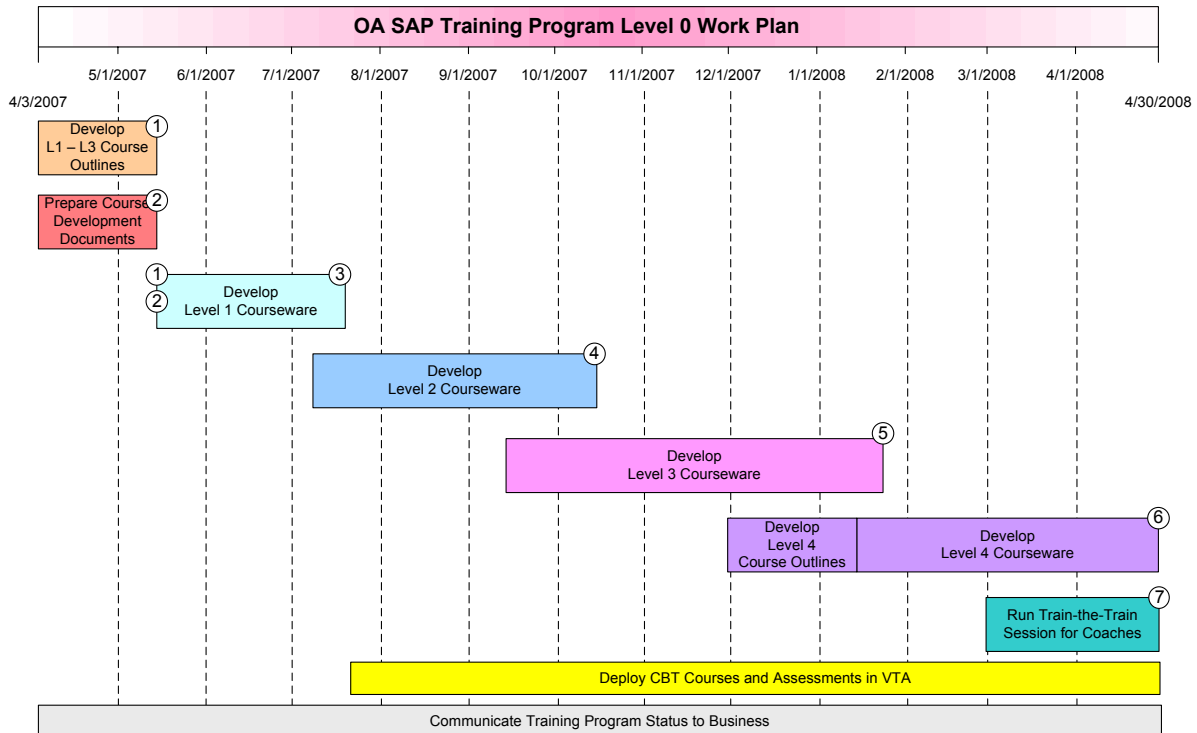
Project Milestones

The following milestones are identified for the project. Dates are subject to change based on the approved scope, resources and timeline.

1. 5/15/07 – Complete the course outlines and finalize the course scope for the project
2. 5/15/07 – Finalize course design templates
3. 7/15/07 – Complete the Level 1 courseware development and prepare courses for VTA deployment
4. 10/15/07 – Complete the Level 2 courseware development and prepare course for VTA deployment
5. 1/15/08 – Complete the Level 3 courseware development and prepare courses for VTA deployment
6. 4/30/08 – Complete the Level 4 courseware development and distribute to appropriate teams

Project Team and Costs

**Project Team
Structure**

The development of the SAP training program courseware requires a substantial work effort to take place in a relatively short period of time. In order to efficiently design and build quality training courses a Training Development team will be assembled. Figure 2.3 depicts the proposed structure for the project team. These resources will develop training content across the functional scope of the Company SAP Training Program.

Figure 2.3 – Project Development Team

```
                  ┌────────────────────┐
                  │     Mark Senn       │
                  │   Learning Officer   │
                  └────────────────────┘
                           │
                  ┌────────────────────┐
                  │      Janet          │
                  │     Manager,        │
                  │  Systems Education   │
                  └────────────────────┘
                           │
                  ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
                  │     Russell         │
                  │   Landsberger       │
                  │  Project Manager     │
                  └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
          ┌────────────────┼────────────────┐
  ┌──────────────┐  ┌ ─ ─ ─ ─ ─ ─ ┐  ┌ ─ ─ ─ ─ ─ ─ ┐
  │    Gail       │  │ Consultant1  │  │ Consultant2  │
  │ Instructional │  │ Instructional│  │ Instructional│
  │ Designer (25%)│  │  Designer    │  │  Designer    │
  └──────────────┘  └ ─ ─ ─ ─ ─ ─ ┘  └ ─ ─ ─ ─ ─ ─ ┘
```
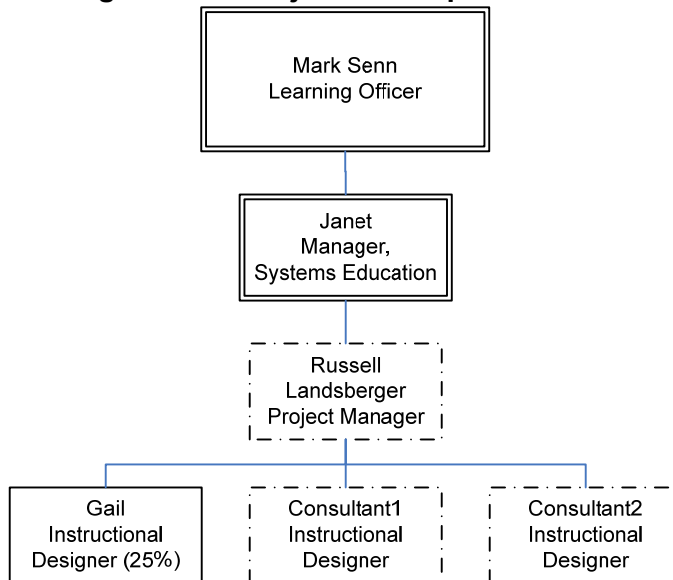
The right balance of development resources to subject matter expert availability is essential to enable a consistent work flow, full utilization of the project resources and to complete the work within the planned timeframe.

CBT Partner

Oil Americas partnered with the E-learning Corporation to create innovative CBT solutions for the pilot. The response to the pilot CBTs was very positive. E-learning will provide the following services in the development of the CBT courses for the Company SAP Training Program:

- Develop storyboards based on the business concepts provided by CompanyL&D team instructional designers and Company SMEs
- Participate in storyboard review sessions with training and SME resources
- Assist the CompanyL&D team with quality testing of the CBTs on VTA.
- Deliver a knowledge transfer document including a maintenance strategy and associated costs

Development Hours Table 2.1 identifies the projected development hours required to complete the scope of work outlined in this document.

Table 2.1: Calculation of Training Development Hours

	Days of Labor to Develop Deliverable	Number of Deliverables to Develop	Total Days of Labor to Develop Each Deliverable	Total Working Days per Project Resource	Total Weeks to Complete Deliverable Development
CBT Training Deliverables					
Course Outline	5	15	75	25	5
Business Concepts	30	15	450	150	30
Storyboarding (E-learning)	n/a	15	n/a	n/a	n/a
Online Course (E-learning)	n/a	15	n/a	n/a	n/a
Review Guide	3	15	45	15	3
Assessment	2	15	30	10	2
Sub-Total	**40**	**90**	**600**	**185**	**37**
One-on-One Coaching Deliverables					
Course Outline	2	16	32	10	2
Coaching Guide	10	16	160	49	10
Work Instructions	1	100	100	31	6
Sub-Total	**13**	**132**	**292**	**90**	**18**
Totals	**53**	**222**	**892**	**274**	**55**

Key Development Hours Calculation Assumptions:

- These estimates are based on three fully dedicated project resources (consultants) and one Oil Americas' instructional design resource dedicated 25% to the project work

- The Business Concepts component includes Training Team and SME review time of the course information

- E-learning is responsible for the development of the storyboards and CBT course; these efforts run in parallel with the efforts of the Training Team; the costs for these services are identified in Table 2.3 on the next page.

- The development hours are directly related to the number of courses to be delivered; if the scope is modified there may be an impact on the development hours

Cost Structure

Consultant Service Cost Estimates

The cost schedule for the consultant services required to complete the project is provided in Table 2.2.

Table 2.2 – Training Team Consultant Resource Costs

Resource Name	Project Role	Daily Rate	Billable	Total

CBT Production Costs

E-learning has proposed the pricing structure in Table 2.3 based on its understanding of the CBT development requirements from the pilot

Table 2.3 – CBT New Development Costs

Course Level	Production Cost	Number of Courses	Total

The CBT new development pricing reflects a volume discount. If the development scope is decreased substantially the vendor reserves the right to modify the pricing.

CBT Maintenance Estimates

E-learning will provide on-going maintenance of the CBTs. This maintenance is billable on a time and materials basis. The pricing is based on the size of the revision as a percentage of the overall course size and the initial development cost.

- Example: If 15% of the course requires updates or additions, the cost to complete the work would be about 15% of the original development cost.
- The Order to Cash Overview and Product Supply Settlements CBTs developed for the pilot require minor modifications

Table 2.4 – Pilot CBT Maintenance Costs

Pilot CBT Course	Development Cost	Revision Percentage	Total

Total Cost

The estimated total cost for the project is

Maintenance Strategy

Purpose
The maintenance strategy addresses long-term management and maintenance of the training program, including business change impacts to the curriculum as well as process and organizational changes.

Partnership
The maintenance strategy should be designed as an extension of the partnership developed between the CompanyL&D team and the business teams during the Company SAP Training Program project.

As such, the maintenance strategy should be designed and approved by both groups with clear communication of the plan, the process, individual accountabilities and the costs.

Material Ownership
In order to design a framework for long-term maintenance of materials, ownership of the process, course materials and templates must be established.

Learning Team
The Learning Team owns the design and development components of the training program materials and templates:

- CBT course layout and delivery methods
- Coaching Guides and templates
- SAP work instructions and templates
- Reference Documents and templates

Business
The business owns the information contained within the courseware of the training program. The business is responsible for initiating communication of changes to training program content to the CompanyL&D team.

Proposed Methods
Two methods are proposed:

- Business and training audit the information within the courseware every six months
- Project implementation impacts are evaluated against the curriculum as they occur

Training Content Audits

The business and training audit the course materials and track any inaccuracies, changes or recommendations that will be presented to the CompanyL&D team at least twice per year.

This would consist of reviews of the following materials:
- CBT course content
- Coach Guides
- Work Instructions
- Reference Documents

Project Implementation Impacts

The business and training will evaluate the impact to the curriculum of various project implementations impacting Company systems and processes. Courses will be evaluated for:
- Obsolescence
- Revision and updates
- New development

Maintenance Prioritization

Whether business recommended or as a result of system or process changes, the change recommendations will be categorized into three categories:
- Minor – corrections, supplements
- Moderate – revisions or updates
- Major – new development

The changes will be evaluated, prioritized and a new scope of work determined.

Knowledge Management Team

The recommendation is for the business to establish a Knowledge Management Team to work with the CompanyL&D team to support the maintenance of the training program. Ideally, this team is comprised of one designated resource from each in scope team known as a Knowledge Management Expert (KME). Collectively, this group would be responsible for:

- Defining the maintenance strategy
- Developing and communicating the plan, process and accountabilities
- Meeting as a group at least twice a year to discuss improving the maintenance process
- Bringing awareness of new enhancements, process controls or best practices for incorporation into the program materials

Each KME should be familiar with the various elements of the training program:

- Curriculum design
- Courses and materials
- Development process and templates

KME Resource Recommendation: An SME who supported the training program project or a deep functional expert from the team would be an ideal candidate.

The maintenance strategy described here provides options and a general framework for the management of the content within the Company SAP Training Program once the project is complete. Once the full scope and development effort of the curriculum is known and the resources are identified to support the work a maintenance plan will be defined and communicated to all parties.