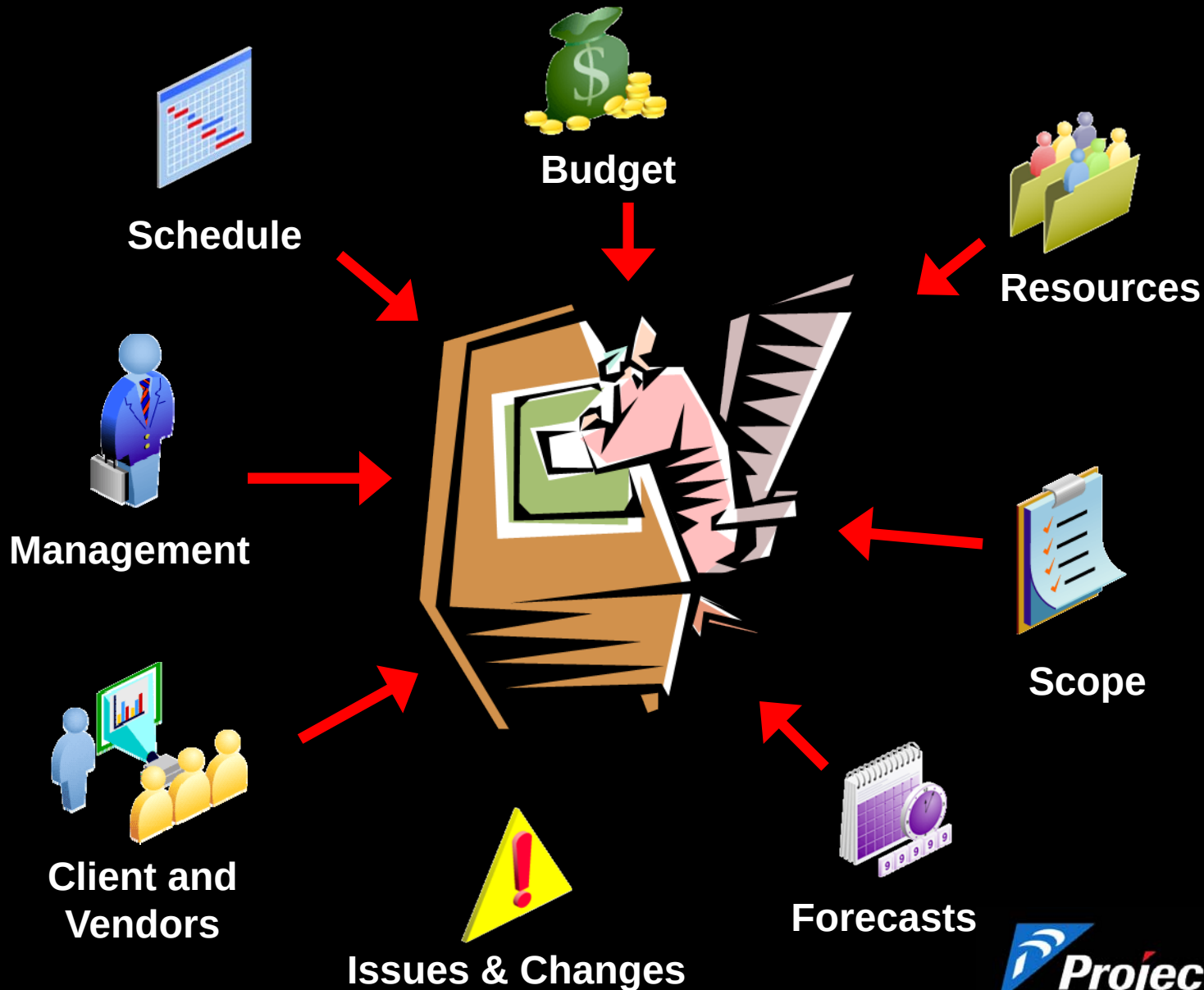


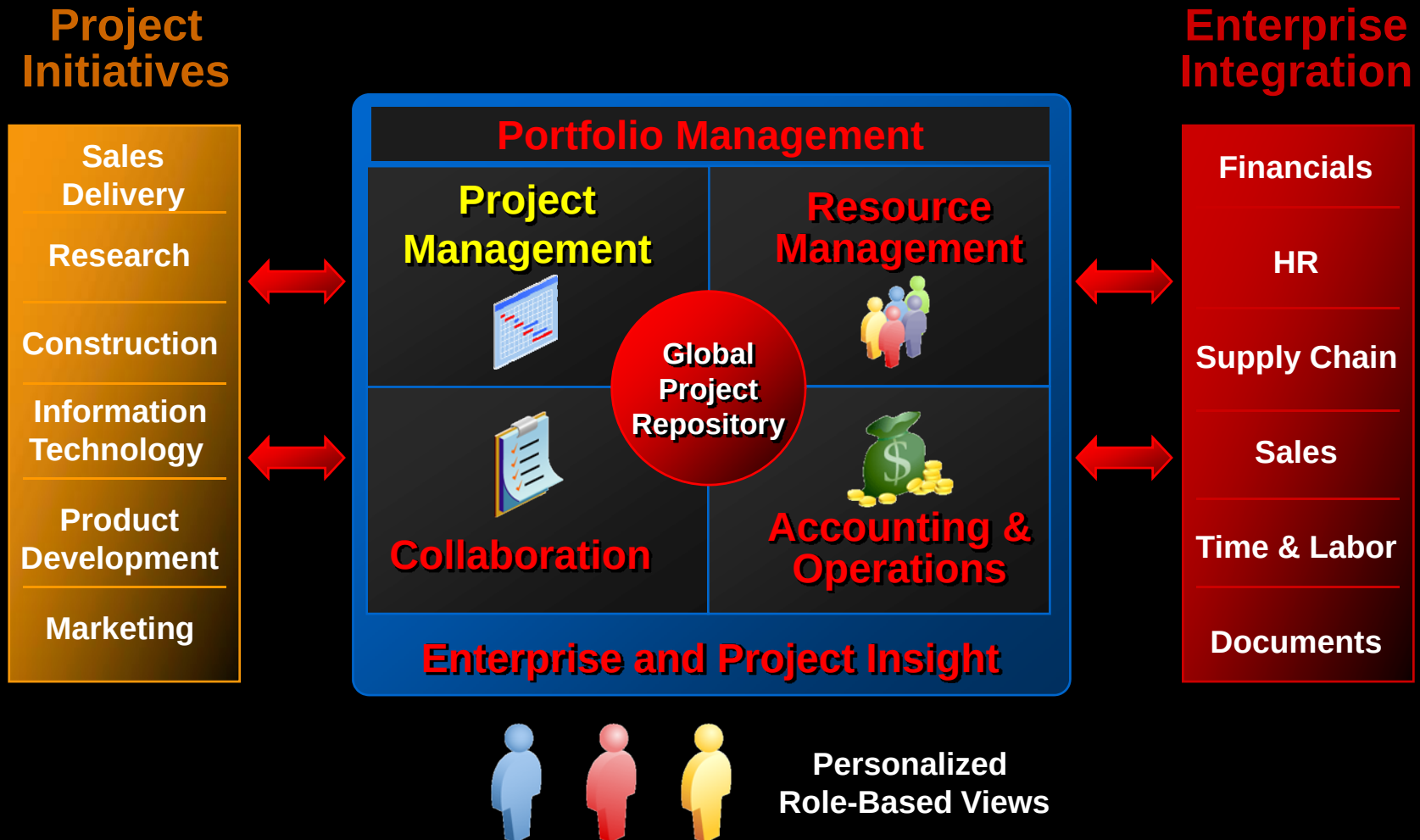
Project Management Using Spreadsheets and Oracle

Peter R. Budelov
AVP, Product Management

A Project Manager's World



Oracle Project Management (PJT)



Oracle Project Management

All Project Information in One Place

ORACLE Projects

[Project List](#) [Diagnostics](#) [Home](#) [Logout](#) [Preferences](#) [Help](#)

Project Resources Workplan Control Financial Reporting

[Home](#) | [Overview](#) | [Directory](#) | [Attachments](#) | [Relationships](#) | [Setup](#)

Home: ABC-Financials Implementation (ABC)

Shortcuts

Organization **Services-East** Project Manager
Project Type **Time and Materials** Actual Start Date **01-Mar-2003**
Status **Active** Actual Finish Date **11-Mar-2003**

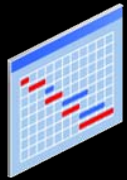
Key Performance Area Summary

Overall Performance Status 

Key Performance Area 	Status	Score	Score Threshold		Critical		At Risk		On Track		Last Recorded Date
			From	To	Count	Score	Count	Score	Count	Score	
Health		0	0	49	<u>0</u>	0	<u>0</u>	0	<u>1</u>	0	20-Dec-2007 12:55:56
Schedule		30	0	49	<u>0</u>	0	<u>0</u>	0	<u>3</u>	30	20-Dec-2007 12:55:56

 [Show Status Indicator Keys](#)

PJT - Planning the Project



Create Workplan

Define Deliverables

- Define outputs, such as items, documents, etc.

Define Work Breakdown Structure

- Define task details
- Sequence tasks in hierarchy

Define Dependencies

- Define task dependencies

Assign Resources

- Assign labor and non-labor resources to tasks
- Identify dates, effort/quantity

Develop Workplan Schedule

- Integrate with 3rd party scheduling tool (i.e.. MSP) to schedule workplan

Review Workplan Costs

- Review cost impact of resources on workplan
- Review by WBS or Resource Breakdown Structure



Staff Project Team

Review Resource Usage on Workplan

- Review aggregate need for resources based on workplan resource assignments

Assign Known Resources

- Assign named people to team
- Obtain approval for provisional assignments(PJR)

Create Resource Requirements

- For unknown resources, create resource requirements to be staffed

Staff Resources Requirements

- Search resource pool, manage candidates, assign resource resources to open reqts (PJR)

Project Team Assigned, Review Timeline



Create Budget

Define Financial Breakdown Structure

- Define tracking of financials for the project in financial breakdown structure
- Can be shared with WBS, or separate

Generate Budget

- Generate based on Workplan Resources or Project Team Reqmts/Asgmts

Adjust Budget

- Adjust/override generated lines
- Add contingency & other manual amts
- Plan in multiple currencies

Submit & Approve Budget

- Submit budget for approval

Publish Workplan

- Automatically notify all team members of published workplan

PJT - Executing & Controlling the Project



Collect Progress



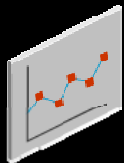
- Enter time, actuals against tasks, ETC or estimated dates
- Enter or process actual costs for non-labor resources
- Enter % complete, date, status, etc.
- Report completion of actions against deliverable
- Review progress for task, deliverables, work qty's
- Override derived progress
- Roll progress up all tasks of the WBS
- Override progress number at any level of WBS



Manage Issues & Changes



- Improved UI to manage project issues
- Automatically implement cost/revenue impact to financial plan
- Apply latest progress to new workplan version
- Use MSP to update task dates
- Push info back into Oracle for further analysis and planning
- Based on new task dates, extend resource assignment duration, request new resources, or reassign tasks



Create & Update Forecast



- Automatically generated from multiple sources to derive ETC
- Override system-generated forecast
- Review forecasts and do mass adjustments by RBS or WBS
- Compare different versions
- Submit forecast for approval
- Automatically notify all team members of revised schedule and forecast

PJT - Managing Project Performance



Monitor Performance



- Review total project costs, revenues, effort, billing, earned value
- Review traffic light indicators for overall exceptions

- Review by task in financial breakdown structure, resource in RBS, period, etc.
- Drill down to transaction level for costs

- Set up and review performance scores

- Set up thresholds for exceptions
- Configure e-mail notifications for exceptions

- Publish status report including performance information

[illegible]

Solution: Spreadsheets

Project Managers need easy-to-use tools that still deliver complex functionality...

- **Spreadsheets are the PM tool of choice**
 - Easy to use
 - Easy to create and maintain
 - Don't require connectivity
 - Convenient to use while on-the-go (e.g. in meetings)
 - Updatable in real-time
- **They are ubiquitous**

[illegible]

Requirement 2: Actuals, ETC and Progress

ETC/Forecast Entry Screen							Protected Field							
Project Number: 052016700							Mandatory Entries							
							Optional Entry							
							Calculated Field							
GET DATA		SUBMIT												
							Actuals to Date							
Task Number	Task Name	Task Manager	Scheduled Start Date	Scheduled End Date	Spread Curve	BAC Revenue	Hours	Labor Cost Rate	Raw Labor Cost	Overhead Cost	Non Labor Cost	Total Cost	BEM	
01.01.01	Roadway	Martin, Randy	1/1/06	1/31/06	Even	124,000	100	45.00	4,500.00	6,750.00		11,250.00	2.5	
01.01.02	Drainage	Martin, Randy	1/15/06	2/15/06	Even	60,000	50	30.00	1,500.00	1,850.00		3,350.00	2.23	
01.01.03.01	ABC Agency	Martin, Randy	1/10/06	1/25/06	Even	24,000					2,000.00	2,000.00		
01.01.03.02	XYZ Agency	Martin, Randy	1/20/06	2/10/06	Even	11,000					1,500.00	1,500.00		
01.01.04	Expenses	Martin, Randy	2/15/06	2/15/06	Even	5,000					750.00	750.00		
01.02	Fee	Martin, Randy	1/1/06	2/15/06	Even	18,600						-		

ETC/Forecast Entry Screen														
Project Number: 052016700														
GET DATA		SUBMIT												
		Estimate												
Task Number	Task Name	BEM	Updated Start Date	Updated End Date	Spread Curve	Physical Percent Complete	Computed ETC	Hours ETC	Labor Cost Rate	Raw Labor Cost ETC	BEM ETC	Overhead Cost ETC	Non Labor Cost ETC	PM ETC Cost
01.01.01	Roadway	2.5				10%	112,500.00	900	40	36,000.00	2.6	57,600.00		93,600.00
01.01.02	Drainage	2.23				10%	33,500.00	450		13,500.00		16,605.00		30,105.00
01.01.03.01	ABC Agency									-		-	20000	20,000.00
01.01.03.02	XYZ Agency									-		-	9000	9,000.00
01.01.04	Expenses									-		-	4000	4,000.00
01.02	Fee									-		-		-

ETC/Forecast Entry Screen													
Project Number: 052016700													
GET DATA		SUBMIT											
		Estimate							Financial Percent Complete	Estimate at Completion		Comments	
Task Number	Task Name	Hours ETC	Labor Cost Rate	Raw Labor Cost ETC	BEM ETC	Overhead Cost ETC	Non Labor Cost ETC	PM ETC Cost		Cost	Profit (Loss)		
01.01.01	Roadway	900	40	36,000.00	2.6	57,600.00		93,600.00	11.00%	104,850.00	19,150.00		
01.01.02	Drainage	450		13,500.00		16,605.00		30,105.00	10.00%	33,455.00	26,545.00		
01.01.03.01	ABC Agency			-		-	20000	20,000.00	9.00%	22,000.00	2,000.00		
01.01.03.02	XYZ Agency			-		-	9000	9,000.00	14.00%	10,500.00	500.00		
01.01.04	Expenses			-		-	4000	4,000.00	16.00%	4,750.00	250.00		
01.02	Fee			-		-		-		-	18,600.00		
				-		-		-		-	-		
				-		-		-		-	-		

Spreadsheet Interface: Enabling PJT Functions for PMs in E&C

ORACLE Projects

Project List

Views: Financial View | Personalize

Select Projects: Add to Project Set | Export

Select Project Name	Project Number	Customer	Project Start Date	Project Finish Date	Internal Management
☐ Cost Reimbursable	Cost Reimbursable	United Parcel Service	24-Feb-1997	31-Dec-2010	✓
☐ Fixed Price	Fixed Price	Computer Service and Rentals	27-Jan-1997	31-Dec-2010	✗
☐ Cost Plus	Cost Plus	Hilman and Associates	03-Jan-1997	31-Dec-2010	✓
☐ Software Systems	Software Systems		01-Jan-2000	31-Dec-2010	✓
☐ Feasibility Study/Imaging	Feasibility Study	Imaging Innovations, Inc.	01-Jan-2000	31-Dec-2004	✓
☐ Engineering + Construction	E&C-100	Hilman and Associates	03-Jan-2003	20-Feb-2004	✓
☐ ABC-Financials Implementation	ABC	Hilman and Associates	01-Mar-2003	11-Mar-2003	✓
☐ Plan testing	Plan testing		01-Jan-2005	31-Dec-2005	✓

Actions: Create Project | Go

ORACLE Projects

Project: Fixed Price (Fixed Price)

Organization: Services East | Project Manager: Martin, Mr. Amy

Project Type: Fixed Price | Actual Start Date: 27-Jan-1997

Status: Active | Scheduled Finish Date: 31-Dec-2010

Key Performance Area Summary

Key Performance Area	Status	Score	Score Threshold	Critical	Count	Score	At Risk	Count	Score	On Track	Count	Score Last Recorded Date
No data exists												

Object Reference Table:

Object	Reference	Subject	Owner	Priority	Due Date	Status	Progress Status	Related Task
Task	Conduct Research (1.0)	Conduct Research			31-Dec-2010	In Progress		
Task	Design Survey (1.1)	Design Survey			31-Dec-2010	In Progress		
Task	Internal Research (1.2)	Conduct Internal Research			31-Dec-2010	In Progress		
Task	External Survey (1.3)	Conduct External Survey			31-Dec-2010	In Progress		
Task	Publish Findings (2.0)	Publish Findings			31-Dec-2010	In Progress		

ORACLE Projects

Project: Fixed Price (Fixed Price)

Tasks | Deliverables | Resource Usage | Setup

Update Progress

View: Open and Upcoming Tasks | Personalize

Select Tasks: Submit | Select All | Select None

Select Task /	Planned To Date	Actual To Date	Quantity	Unit Of Measure	Cost	Actual To Date	Scheduled To Date	Estimated Finish	Physical % Complete	Update Progress
☐ Conduct Research (1.0)	0	439	0	Hours	USD 0.00	0.00	0.00	31-Dec-2010	0	
☐ Design Survey (1.1)	0	234	0	Hours	USD 0.00	0.00	0.00	31-Dec-2010	0	
☐ External Survey (1.2)	0	80	0	Hours	USD 0.00	0.00	0.00	31-Dec-2010	0	
☐ IC Tax Receiving (2.0)	0	125	0	Hours	USD 0.00	0.00	0.00	31-Dec-2010	0	

ORACLE Projects

Budgets and Forecasts | Billing | Percent Complete | Tasks | Setup

Edit Budget Line: Forecast Cost Budget

Version Number: 1 | Last Generated: 13-Jan-1998

Task Name: JAN-02

Budget Line Totals

Budget Line Periodic Amounts USD	Current Budget	Change	Quantity	Current Budget Change Total	Billing Rate	Variance %	Current Budget Details
				180			

ETC/Forecast Entry Screen

Project Number: 652016700

GET DATA | SUBMIT

Task Number	Task Name	Task Manager	Scheduled Start Date	Scheduled End Date	Spread Curve	BAC Revenue	Hours	Labor Cost Rate	Raw Labor Cost	Overhead Cost	Non Labor Cost	Total Cost	BEM
01.01.01	Roadway	Martin, Randy	1/1/06	12/31/06	Even	124,000	100	45.00	4,500.00	6,750.00		11,250.00	2.5
01.01.02	Drainage	Martin, Randy	1/15/06	2/15/06	Even	60,000	50	30.00	1,500.00	1,850.00		3,350.00	2.23
01.01.03.01	ABC Agency	Martin, Randy	1/10/06	12/5/06	Even	24,000					2,000.00	2,000.00	
01.01.03.02	XYZ Agency	Martin, Randy	12/06	2/10/06	Even	11,000					1,500.00	1,500.00	
01.01.04	Expenses	Martin, Randy	2/15/06	2/15/06	Even	5,000					750.00	750.00	
01.01.04	Fee	Martin, Randy	1/1/06	2/15/06	Even	18,600							

ORACLE Projects

Budgets and Forecasts | Billing | Percent Complete | Tasks | Setup

Financial Percent Complete

Display: Hierarchy | List

Expand All | Collapse All

Focus Outline Number	Task Number	Task Name	Organization	As Of Date	Physical % Complete	Details
0	2	Fixed Price - Next Phase	Services East			
1.1	1.0	Conduct Research	Services East			
1.2	1.1	Design Survey	Services East			
1.3	1.3	Internal Research	Services East			
2	2.0	External Survey	Services East			
3	3.0	Publish Findings	Services East			
		IC Tax Receiving	Services East			

ORACLE Projects

Budgets and Forecasts | Billing | Percent Complete | Tasks | Setup

Financial Budgets and Forecasts

Edit Budget: Forecast Cost Budget

Version Number: 1 | Last Generated: 06-Nov-2007

Budget Lines

View: Quantity/Cost | Personalize

Select Planning Elements: Adjust | Calculate Budget | Add Tasks and Resources

Project	Budget Start	Budget End	Resource	Currency	Quantity	Raw Cost	Base Revenue	Update Budget Line Details
Fixed Price (Fixed Price)	01-Jan-1997	28-Feb-1997	Gray, Mr. Donald	USD	180	9,000.00	4,000.00	

ORACLE Projects

Maintain Budget Versions: Forecast Cost Budget

Working Versions

Select a Version: Create Working Copy | Create New Version

Version Number	Version Name	People Effort	Equipment Effort	Raw Cost	Burdened Cost	Status	Current	Submit	Baseline	Rework	Change Control	Edit Details
1	1.0	180		9,000.00	4,000.00	Working	✓					

TIP Amounts are listed in Project Currency: USD. Effort is listed in Hours.

ORACLE Projects

Budgets and Forecasts

Display Amounts: Current Baseline | Go | Add Plan Type

Select Plan Type: Delete | Create Plan Version | Edit Cost

Select Plan Type	People Effort	Equipment Effort	Cost	Revenue	Margin	Margin (%)	Maintain Versions	View
☐ Approved Cost Budget	0	0	2,050,000.00	0.00	0.00	0		
☐ Approved Revenue Budget	0	0	0.00	2,250,000.00	0.00	0		
☐ Forecast Cost Budget								
☐ Forecast Revenue Budget	0	0	0.00	41,000.00	0.00	0		
☐ Forecasted Costs								

TIP Amounts are listed in Project Currency: USD. Effort is listed in Hours.

Spreadsheet Interface for Professional Services

Workplan, Budget and Staffing Plan in one worksheet

Microsoft Excel

File Edit View Insert Format Tools Data Window ACT! Help WebEx

Type a question for help

Verdana 8 B I U

80%

J39

Cost Budget

Project Template

Project Name (Number) PGU 1002

Project Type

Status Baselined

Last Submit Date 10.02.07

Approved Date 10.02.07

Add Row Delete Row

Submit Budget

Fee \$100,000.00

Cost \$28,800.00

Margin \$71,200.00

Margin % 71.20%

Full-Time Employees

Task	Project Role	Team Role	Cost Rate	Bill Rate	Bill Rate Override	1.07 - 1.13.08	1.14 - 1.20.08	1.21 - 1.27.08	1.28 - 2.03.08	2.0 2.10
10 AO	Art Director	Art Director 2	\$ 50.00	\$ 175.00			40.0	40.0	40.0	
10 AO	Art Director	Art Director	\$ 50.00	\$ 175.00			40.0	40.0	40.0	
10 BI	Business Analyst	Business Analyst	\$ 65.00	\$ 175.00			40.0	40.0	40.0	
Full-Time Employee Subtotal						-	120.0	120.0	120.0	

Contingent Workers

Task	Subcontractor Project Role	Subcontractor Team Role	Cost Rate	Bill Rate	Cost Rate Override	Bill Rate Override	1.07 - 1.13.08	1.14 - 1.20.08	1.21 - 1.27.08	1.28 - 2.03.08	2.0 2.10
Subcontractor Subtotal						-	-	-	-	-	
Employee / Subcontractor Subtotal						-	120.0	120.0	120.0		

Expenses

Task	Expenditure Type	1.07 - 1.13.08	1.14 - 1.20.08	1.21 - 1.27.08	1.28 - 2.03.08	2.0 2.10
40 NB Expenses	Entertainment - Non-Employees		\$ 500.00	\$ 500.00	\$ 500.00	\$
30 Expenses	Airfare	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$
Expense Subtotal		\$ -	\$ 600.00	\$ 600.00	\$ 600.00	\$ 6

Cost Budget / Forecast Plan / Log

Spreadsheet Interface for Professional Services

ETC, Submitting Forecast, Resource Assignments

Forecast Plan

Refresh Plan

Submit Plan

Project Name (Number) PGUITEST926001 (15311)



Project Type AARF Fixed Price

Status Working

Last Import Date 10.31.07

Last Submit Date 9.26.07

Fee \$120,000.00

Cost \$30,500.00

Margin \$89,500.00

Margin % 74.58%

Add Row

Delete Row

Full-Time Employees

Task	Project Role	Team Role	Role Desc	Cost Rate	Bill Rate		Bill Rate Override	1.07 - 1.13.08	1.14 - 1.20.08	1.21 - 1.27.08	1.28 - 2.03.08
10 AO	Art Director	Tweedie, Nathaniel Timothy		\$ 50.00	\$ 175.00			40.0	40.0	40.0	
Full-Time Employee Subtotal								40.0	40.0	40.0	

Contingent Workers

Task	Subcontractor Project Role	Subcontractor Team Role	Role Desc	Cost Rate	Bill Rate	Cost Rate Override	Bill Rate Override	1.07 - 1.13.08	1.14 - 1.20.08	1.21 - 1.27.08	1.28 - 2.03.08
10 BI	Business Analyst	Cox, Kevin	Need Kevin Co	\$ 50.00	\$ 175.00	\$ 50.00		20.0	40.0	40.0	
Subcontractor Subtotal								20.0	40.0	40.0	
Employee / Subcontractor Subtotal								60.0	80.0	80.0	

Expenses

Task	Expenditure Type							1.07 - 1.13.08	1.14 - 1.20.08	1.21 - 1.27.08	1.28 - 2.03.08
30 Expenses	Airfare							\$ 1,000.00	\$ 1,000.00		
40 NB-Expenses	Entertainment - Non-Employee							\$ 1,000.00	\$ 500.00		
Expense Subtotal								\$2,000.00	\$1,500.00	\$ -	\$

Spreadsheet Interface: Enabling PJT Functions for PMs in PSA

V/S

The image displays a comparison between a spreadsheet interface (Microsoft Excel) and a software interface (ProjectWise) for enabling Project Management (PJT) functions for Project Managers (PMs) in Project Service Automation (PSA).

Spreadsheet Interface (Excel):

- Cost Budget:** Shows a table with columns for Task, Project Role, Team Role, Cost Rate, Bill Rate, and various budget amounts (e.g., \$100,000.00, \$70,000.00, \$21,000.00).
- Full Time Employees:** Shows a table with columns for Task, Project Role, Team Role, Cost Rate, Bill Rate, and various budget amounts (e.g., \$100,000.00, \$70,000.00, \$21,000.00).
- Contingent Workers:** Shows a table with columns for Task, Project Role, Team Role, Cost Rate, Bill Rate, and various budget amounts (e.g., \$100,000.00, \$70,000.00, \$21,000.00).
- Expenses:** Shows a table with columns for Task, Project Role, Team Role, Cost Rate, Bill Rate, and various budget amounts (e.g., \$100,000.00, \$70,000.00, \$21,000.00).

Software Interface (ProjectWise):

- Project Details:** Shows a hierarchy of tasks (e.g., Copy Professional Services Mapped V2, Oracle HRMS Familiarization, Current System Process, Business Requirements).
- Task Details:** Shows details for a specific task (e.g., Oracle HRMS Familiarization), including Task Number, Task Name, Organization, Task Manager, Task Type, and Task Status.
- Scheduling People:** Shows a table for scheduling people, including columns for Task, Project Role, Team Role, Cost Rate, Bill Rate, and various budget amounts.
- Budgets and Forecasts:** Shows a table for budgets and forecasts, including columns for Task, Project Role, Team Role, Cost Rate, Bill Rate, and various budget amounts.

Forecast Plan

Refresh Plan

Submit Plan

Project Name (Number) PGUITEST926001 (15311)



Fee

\$120,000.00

Project Type AARF Fixed Price

Cost

\$30,500.00

Status Working

Margin

\$89,500.00

Last Import Date 10.31.07

Margin %

74.58%

Last Submit Date 9.26.07

Add Row

Delete Row

Full-Time Employees

Task	Project Role	Team Role	Role Desc	Cost Rate	Bill Rate	Bill Rate Override	1.07 - 1.13.08	1.14 - 1.20.08	1.21 - 1.27.08	1.28 - 2.03.09
10 AR	Art Director	Team Lead	Art Director	\$ 50.00	\$ 175.00		40.0	40.0	40.0	
Full-Time Employee Subtotal							40.0	40.0	40.0	

Contingent Workers

Task	Subcontractor Project Role	Subcontractor Team Role	Role Desc	Cost Rate	Bill Rate	Cost Rate Override	Bill Rate Override	1.07 - 1.13.08	1.14 - 1.20.08	1.21 - 1.27.08	1.28 - 2.03.09
10 BI	Business Analyst	Cox, Kevin	Business Analyst	\$ 50.00	\$ 50.00	\$ 50.00		20.0	40.0	40.0	
Subcontractor Subtotal								20.0	40.0	40.0	
Employee / Subcontractor Subtotal								60.0	80.0	80.0	

Expenses

Task	Expenditure Type							1.07 - 1.13.08	1.14 - 1.20.08	1.21 - 1.27.08	1.28 - 2.03.09
30 Expenses	Airfare							\$ 1,000.00	\$ 1,000.00		
40 NB-Expenses	Entertainment - Non-Employees							\$ 1,000.00	\$ 500.00		
Expense Subtotal								\$2,000.00	\$1,500.00	\$ -	\$

Spreadsheet Interface

Demo

Other Possibilities with Spreadsheet Interface

Enables creation and maintenance of all aspects of a Project

- **Project Status Overview**
- **Project Details**
- **Tasks and Deliverables**
- **Budget**
- **Review Detailed Charges**
- **Forecasts**
- **Invoices**
- **Issues**
- **Changes**
- **Client Status Reports**

Implementation Process

1. Define Business Process Flow for Project Managers
2. Map the steps in the process flow to Oracle Project Management Functions
3. Layout spreadsheets for the business functions needed **keeping in mind how the PMs work**
4. Embellish spreadsheet with formulas and macros to display information **needed and for ease of use**
5. Identify Public Views and APIs for each function
6. Identify security requirements for end users
 - Who has access to which functions and on which projects
7. Hook up the spreadsheet to the back end

User Interface Applications

Project Manager Oriented Workbooks – Available March '09

- **Two Applications Serving Two Industries –**
 - Professional Services
 - Engineering & Construction
- **Workbooks –**
 - WBS, Budget, Resource Worksheet
 - Forecast and ETC Worksheet

Questions & Answers

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