Moving Beyond Manual Operations to the World of Workload Automation

AECOM shares their success with closing the books more efficiently.

OAUG Collaborate 2008
David Bumi**, AECOM**
Grant Chen**, UC4 Software**

AppWorx* is now UC4

Agenda

- **Our company: AECOM**
- **Our issues**
- **First Evolution**
- **Second Evolution**
- **Third Evolution**
- **Best Practices**
- **Targets for Automation**
- **UC4 Solution**
- **Next Steps**

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AECOM Overview

- **AECOM is a global provider of professional technical and management support services**

- **Government and commercial clients on all seven continents and in more than 60 countries**

- **Services provided by our Operating Companies include design, engineering and consulting; program management and construction management; and outsource technical staffing and logistical support services**

AECOM Overview

- **Annual Revenues in 2007: USD$4.2 Billion**

- **350 offices worldwide**

- **Employees: 33,000**

Trends in Engineering & Construction Industry

- **Rapid consolidation through mergers and acquisition**

- **Expansion into emerging markets (Middle East, Eastern Europe, China and India)**

- **Regulatory Compliance (Sarbanes-Oxley)**

AECOM Oracle Implementation

- **Oracle E-Business Suite 11i**
- **Modules:**
  - GL, AR, AP, PO, iExpense, FA, Projects, HR, CM, and OTL
- **19 Operating Units**
- **Globally Siloed Departments**
  - No standardized processes
  - No single point of control
- **52 week Project Accounting Periods**
  - Must close PA each week – tight SLA's.

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Our Issues:
# Oracle E-Business Suite

Issues with an enterprise-wide system

- **Number of Operating Units**
- **Number of Project Periods**
- **Volume of Projects**
- **Number of Organizations**

More Issues:
Oracle E-Business Suite

Issues with an enterprise-wide system (cont.)

- **Time & Resource Constraints**
- **Reporting Requirements**
- **Tracking Spawned Child Processes**
- **Interfaces – Internal/External**
- **Disparate Systems**

Project Accounting Close Process
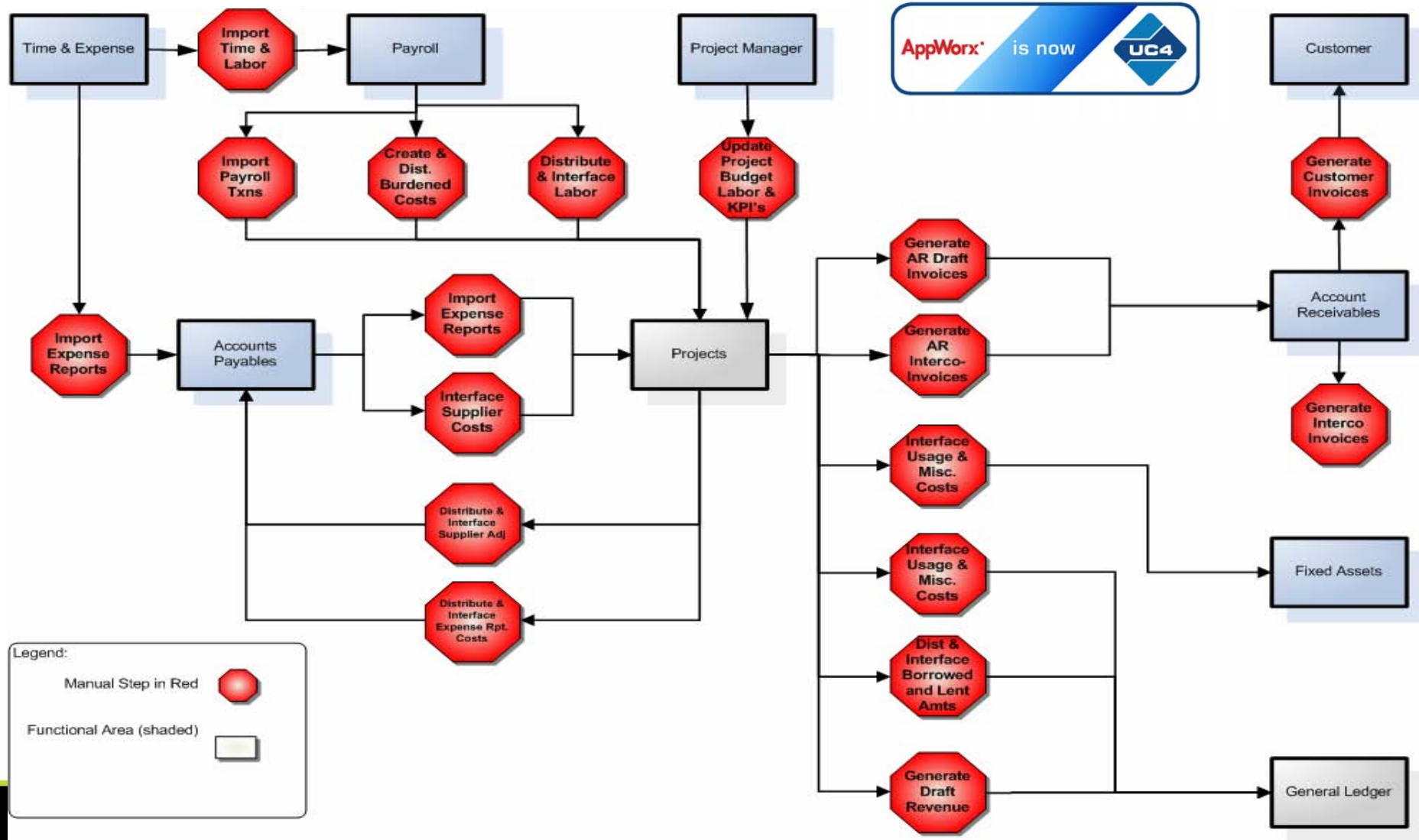
Issue Consequences

- Loss of Revenue
  - Delays in customer billing
  - Misstated financials
  - Loss of project bonuses

- Increased Costs
  - Increase in staff
  - Custom development
  - Lack of timely and accurate data
  - Project penalties
  - Missed contract milestones

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First Evolution

- First wave of go-live took place in November 2004
- Two operating units
- Approach:
  - Closing was initially ran by implementation team
  - Submitted concurrent requests one by one
  - Run each operating unit's close sequentially
- Issues:
  - Not many issues - relatively simple environment

Exceptions Tracker

	A	B	C	D	E	F	G	H	I	
1	Weekly Close Exceptions - DMJMH+N									
2										
3	No	Period	Mode	Process	Exception Description		Action Taken		Further Action Required	
44	39	WK3-DEC-04_FY-05	PA	PRC:Transaction Import	Transaction lines for employee # 630609 rejected with reason "No Assignment". Error same as #7	TEMMP	Tried changing expenditure dates - Unsuccessful.	Valid dates required so transactions can be cleared from interface table	**Payroll**	
45	39	WK3-DEC-04_FY-05	PA	PRC: Create and Distribute Burden	Several hundred burden transactions were recosted on project 32151182, the discrepancies in the value on this project are approximately $4M	TEMMP		Discontinue recosting converted cost	DMJMH+N	
50	44	WK4-DEC-04_FY-05	PA	PRC:Transaction Import	Transaction lines for employee # 630609 and 630401 rejected with reason "No Assignment". Error same as #7	TEMMP	Tried changing expenditure dates - Unsuccessful.	Valid dates required so transactions can be cleared from interface table	**Payroll**	
51	45	WK4-DEC-04_FY-05	PA	PRC:Interface Supplier Cost to Payables	Non-Net Zero adjustment on project 32151430 task 0001. Incldedon Kirk Engineers on Dec 13-04 in the amount of $125.04	TEMMP			**A/P**	
	46	WK4-DEC-04_FY-05	PA	PRC: Distribute Borrowed and Lent Amounts	2 lines with error " Base currency or base amount does not have a value"	TEMMP	Expenditure Items on projects examined. Expenditue Types were "LAB - Professional" "LAB - Support Staff" (1 no). 2 expenditures had Quantity and Cost both 0". Remaining expenditure items had Hours, Raw Costs and Cost Distribution Lines. Expenditure Items for Project/Task 32112051 - 0027 checked, found that some expenditures with identical expenditure type had processed successfuly, concluded the task setup was OK. Expenditure Items for Employee	Further investigation of the expenditure items is required. (Note the expenditure items did not generate revenue in the subsequent revenue run). Further investigation identified problem was with projects using a billing schedule with 0 rate for employee job title, in some instances this was because job title had been mapped to "unassigned". DHN to review rate schedules and update	DMJMH+N	

First Evolution (Continued)

- Second wave of go-live occurred in early 2005

- Implemented 5 additional operating units

- Approach:
  - 7 "dummy" usernames for each operating unit
  - Decentralized closing: relied on the business unit folks to identify and resolve issues
  - Created request sets to automate concurrent requests submission

First Evolution (Continued)

- Issues:
  - Business unit folks didn't want to work on Saturday
  - Some of business unit folks didn't know how to resolve exceptions
  - Closing time was getting increasingly long: Number of stakeholders involved in the process did not lead to operational efficiency – numerous handoffs in the closing process

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Second Evolution

- Third wave of go-live occurred in July 2005: implemented 6 additional operating units

- Total Number of operating units: 13

- Approach:
  - Created request sets to automate processing
  - Centralized Closing: Delegated request set submissions to IT Operations team

Second Evolution (continued)

- Issues:
  - 13 different usernames created an audit risk
  - Exceptions weren't getting resolved – analysts were busy checking tons of reports
  - Integrate new analysts to the Projects closing process

Operational Spreadsheet

Close Processes for 13 Opcs Exceptions Saturday July 15, 2006												
Close Process for Cycle 1 and Cycle 2												
				PROD								
Exceptions	DH	AAC	DAV	ME	PD	SUR	CTE	TCNB	AEI	DHN	CORP	AGS
CYCLE 1												
Sequence / Name											ERROR	
4 — PRC: Distribute Labor Costs				No Data				2849365	No Info	2849430		
10 — PRC: Distribute Usage and Miscellaneous Costs												
22 — AUD: Supplier Costs Interface Audit		2848970										
23 — AUD: Supplier Costs Interface Audit												
24 — AUD: Supplier Costs Interface Audit												
26 — AUD: Supplier Costs Interface Audit												
32 — PRC: Distribute Total Burdened Cost												
37 — PRC: Distribute Usage and Miscellaneous Costs												
43 — PRC: Borrowed and Lent Amounts Distribution Report			2849257	2850504		2850110		2850105	No Info			
53 — PRC: Tieback Invoices from Receivables												
57 — PRC: Tieback Invoices from Receivables												
67 — PRC: Tieback Invoices from Receivables						2850205					Didn't run	
68 — EXC: Transaction Exception Details by PA Period		2849209						2850330		2850344	Didn't run	
69 — EXC: Transaction Exception Details by GL Period	2849208	2849211	2849753			2850338	2850314	2850332		2850346	Didn't run	
ASG Finance												
77 — Post A/R A/P to G/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AIMS Analyst												
78 — Run AECOM AP Invoices Not Transferred to PA Report	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
79 — Notify Operations to proceed with Cycle 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLE 2												
81 — PRC: Generate Draft Revenue for a Range of Projects		2851570		2851578	2851584	completed		2851598	No Data	2851607	No Data	
88 — PRC: Borrowed and Lent Amounts Distribution Report				2851781		with		2851897				
92 — EXC: Transaction Exception Details by PA Period		2851722				error						
93 — EXC: Transaction Exception Details by GL Period												

AECOM's Alternative Solutions

As we were getting ready for global operations, we were faced with the following issues:

- Siloed OU's/No Central Point of Control

  – Used shared username/responsibility

- Cumbersome Exception Management

  – Used shared username/responsibility to initiate and view PA reports.

- Strict Service Level Agreements (weekly PA Close)

  – Throw more people at the problem:
    5 Operators taking 36 hours to close PA periods

Buy vs Build Analysis

- Build a custom solution to meet AECOM's business requirements

- Buy a solution that meets our criteria:
  - Management by Exception
  - Our solution must be scalable to meet business needs: as more business units are integrated into Oracle e-Business Suite, the number of operating units will keep increasing
  - Each business unit is responsible for resolving issues identified by AppWorx

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Third Evolution

- Fourth wave of go-live with global business units

- April 2006: 3 additional operating units

- June 2006: 1 additional operating unit

- Total number of operating units: 17

Third Evolution (continued)

- Approach:
  - AppWorx closing
  - AppWorx system administrator

- Issues:
  - As global companies go live in Oracle, the number of stakeholders involved in the process increases

Current Status Today

- Global Oracle Financials closing process is centralized in Los Angeles
- Number of Operating Units: 19
- Number of Countries: 5 (US, Australia, New Zealand, Hong Kong, and United Kingdom)
- Closing is done through AppWorx
- Benefit:
  - Empower business analysts to focus on higher value activities

Current Schedule

- Cycle 1 for Global Business Units:
  - New Zealand
  - Australia
  - Hong Kong
  - United Kingdom

- Cycle 1 for US Business Units:
  - Financial close for all business units

- Cycle 2 for All Business Units:
  - Post close for all business units

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Best Practices

- Centralize/standardize, simplify, and automate closing process

- Automation allows a shift of processing time to non-working hours

- Keep a library of "output scan" error messages and their resolutions

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Automation "Targets" in PA Process

- In general,
  where do you find manual processing?

  – Report output verification and error correction

  – Error notification

  – Parent/child process tracking

  – Integration with other applications

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UC4 Solution

- Only Product in our space that is Validated for Oracle 11i E-Business Suite

INTEGRATED WITH

ORACLE®

E-BUSINESS SUITE

UC4 Solution

UC4 Project Close Solution

- AppWorx automates the Project close process, reducing processing time and eliminating typical errors
  - **Schedule PA close processes across multiple operating units**, providing a single point of control and coordination
  - **Sub-Variables** for PRC interface processing by operating unit
  - **Output scanning** for PRC interface errors
  - **Error notification** through email, pager, etc…
  - **Attachment of output files** for report distribution

Project Accounting Close Process
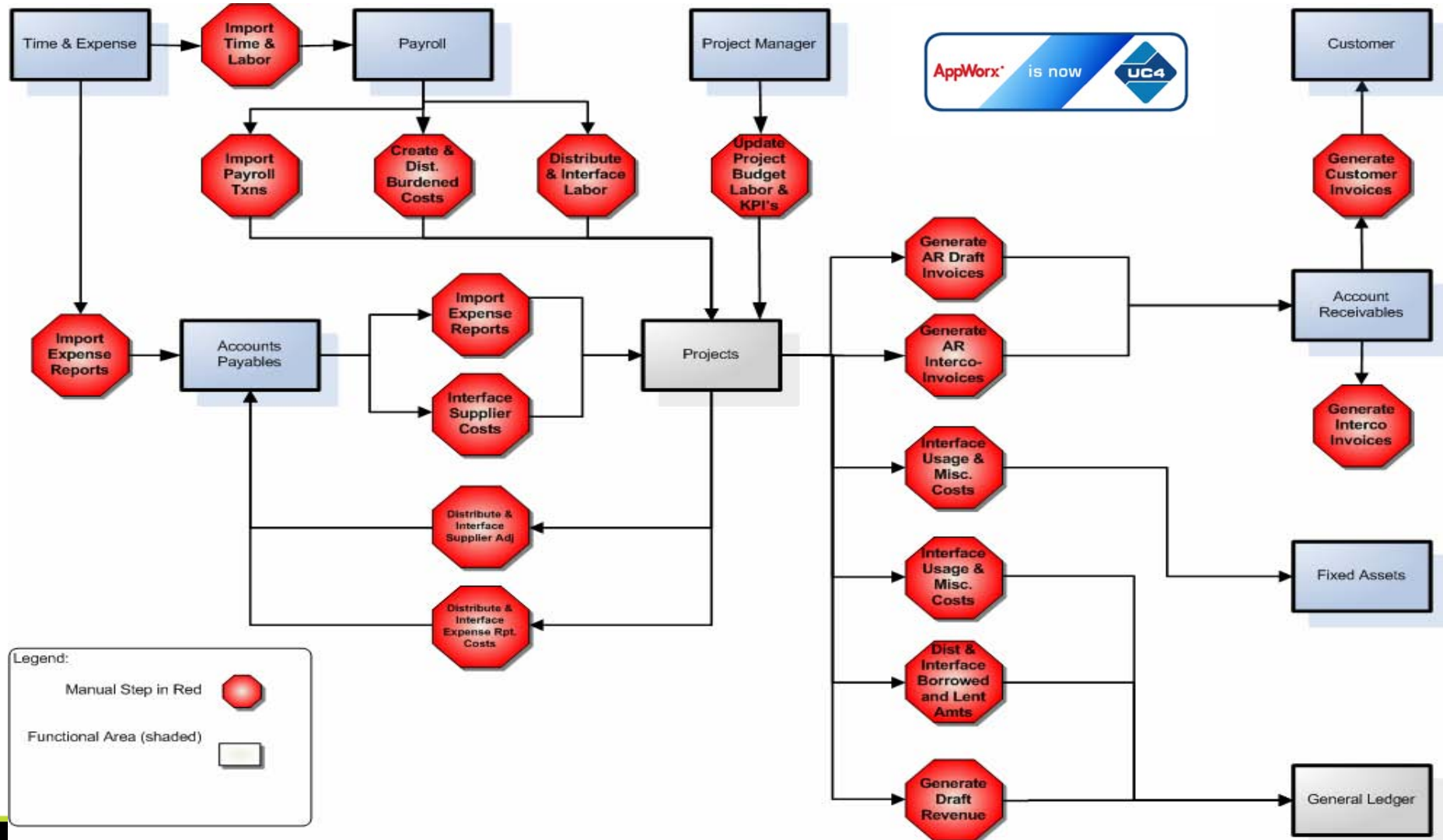
UC4 Project Close Solution

– **Close Cycle 1**
1. Import Transactions from Other Systems
2. Distribute and Interface Labor
3. Create and Distribute Burden Costs
4. Distribute and Interface Usage and Misc Costs
5. Distribute and Interface Exp. Rpt. Costs to AP (Summary Report)
6. Interface Supplier Costs from Payables
7. Interface Supplier Costs from Payables (Oracle Bug 80%)
8. Interface Supplier Costs from Payables (Oracle Bug 90% of 20%)
9. Interface Expense Reports from Payables (Oracle Bug remainder)
10. Distribute and Interface Supplier Invoice Adj. to AP
11. Create and Distribute Burden Costs for a Range of Projects
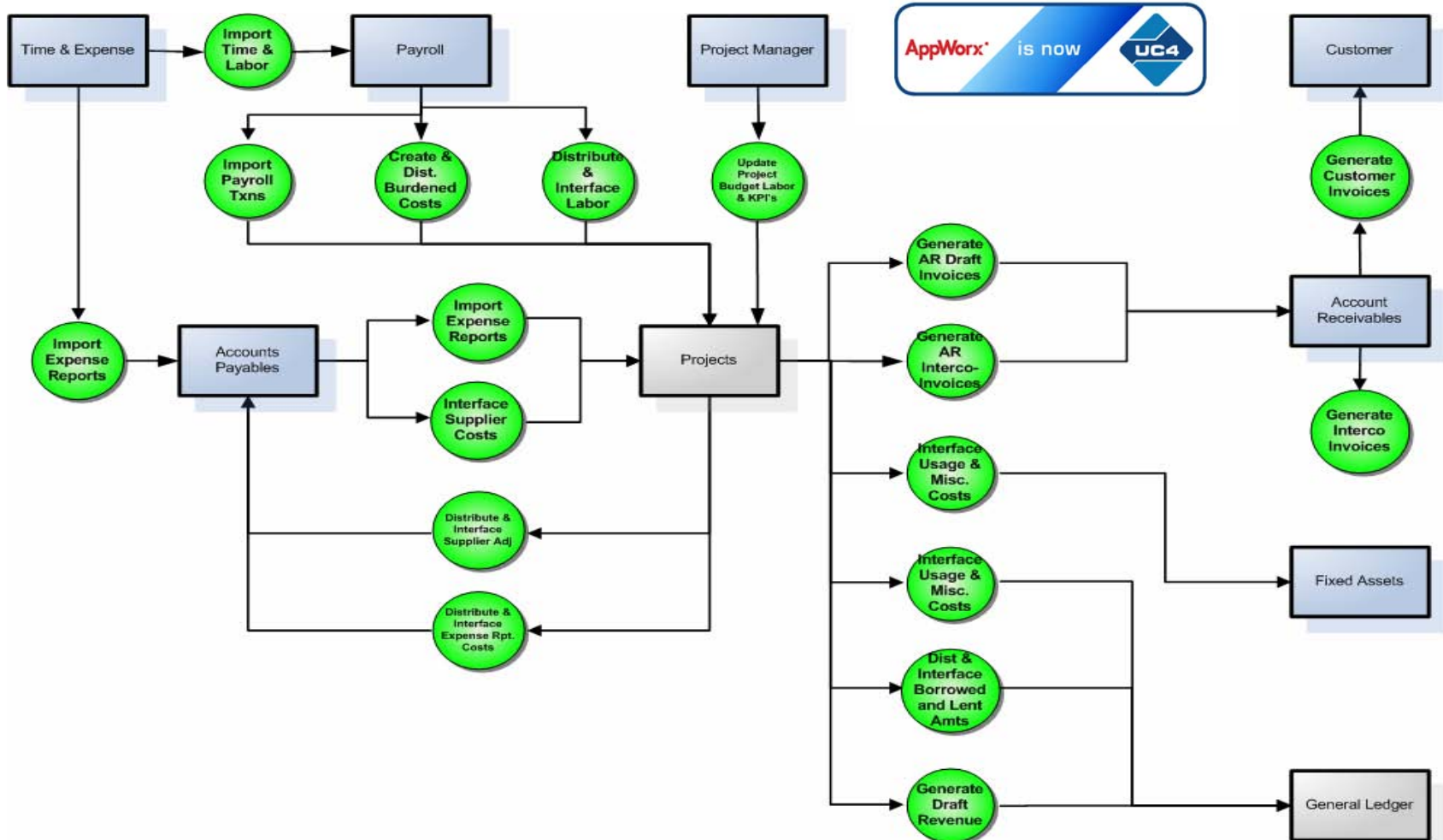
UC4 Project Close Solution

- **Close Cycle 1 (continued)**
    12. Distribute and Interface Burdened Costs
    13. Interface Usage and Misc Costs to GL
    14. Distribute and Interface Borrowed and Lent Amounts to GL
    15. Generate Asset Lines for a Range of Projects
    16. Interface Assets to Oracle Assets
    17. Interface Draft Invoices to AR
    18. Interface Intercompany Invoice to AR
    19. Interface Draft Revenue to GL
    20. Generate Intercompany Invoices
    21. Interface Intercompany Invoices to AR
    22. Transaction Exception Details by PA Period
    23. Transaction Exception Details by GL Period

UC4 Project Close Solution

- **Close Cycle 2**
  1. Generate Draft Revenue for a Range of Projects
  2. Interface Draft Revenue to GL
  3. Distribute and interface Borrowed and Lent amounts to GL
  4. Transaction Exception Details by PA Period
  5. Transaction Exception Details by GL Period

PA Process with UC4

Realized Benefits

- AppWorx Projects Solution in conjunction with AppWorx Financial Period Close Solution allow for any sized company to improve the following best practices:

  - Automated Daily Business Close
  - Accurately process **Intra-company and Inter-company** transactions.
  - **Cost management** – Improve timeliness in project related costing.
  - **Receivables** – Reduce billing cycle time with more frequent project billing loads.
  - **Data Reliability** – Project Managers have more reliable data to make business decisions against.
  - Provides **organization scalability** without additional resource costs.

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Next Steps

Potential next phase projects:

- Integrate UC4 with the
  help desk system

- Reporting instance cloning

- Include non-Oracle application processing

AECOM Success Story

- AECOM uses the UC4 Project Accounting and Financial Period Close solutions:

  – Shortened close process from 5 FTE's over 36 hrs to 1 FTE and 6hrs
  – Improved resource workload management
  – Resource Reassignment to higher value-add tasks - operations department handles close process instead of analysts
  – Scalability: Scaled from 10 OU's to 19 w/o additional PA staff
  – Reduced audit risk – eliminated users using shared username/responsibility
  – Proactive Project Accounting processing
 – Enhanced notification
  – Improved data quality

Who is UC4 Software?

- Creators of innovative, feature-rich, proven software for application infrastructure and IT workload automation
  - AMAP HQ in Seattle, WA
    - Global office locations
  - 1500+ customers worldwide
  - 130+ Oracle EBS customers
  - Most Visionary in Market – Gartner Group
  - Key Partnerships: Oracle, OAUG Star Partner, Solution Beacon, Hotsos…

Any Questions?
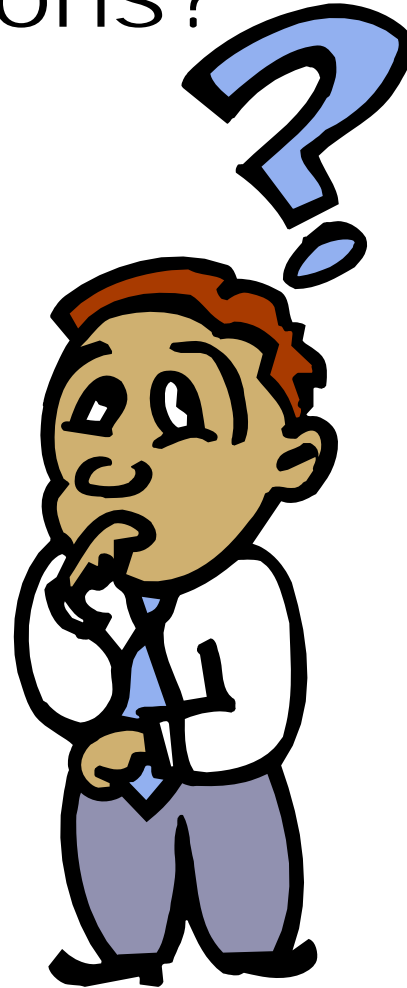
Contact Information

Targeted conference calls, web demonstrations or on-site presentations:

David Bumi – IT Manager
david.bumi@aecom.com

Grant Chen – Oracle Solutions Director
grant.chen@uc4.com

UC4 Software, Inc.
info@uc4.com
www.uc4.com