

#### From AutoAccounting/Account Generator to Subledger Accounting in Oracle Projects

Edward Charity, Jr. Project Management Systems Consultants (PMSC), LLC

### Agenda

- Background of the Speaker and Company
- Objectives of the Presentation
- Background of the Projects Suite
- Evolution of Projects-based Accounting Engines
- Subledger Accounting Concepts
- Implementation Options
- Suggested Resources, Papers, and Presentations
- Questions and Answers/Wrap-up
- Contact Information



### **Background of The Speaker**

- Edward Charity, Jr
  - Project Management Systems Consultants (PMSC), LLC – 2001 - Present
  - CapGemini (formerly Ernst & Young) Oracle
     Service Line Senior Manager 1996-2001
  - Oracle Corporation, Consulting Services Managing Principal Consultant 1993-1996
  - Oracle Projects (Project Accounting)
     Implementation Consultant 1993-Present
  - Speaker at 1997 and 2007 OAUG and OpenWorld Conferences

# Background of PMSC, LLC

- Project Management Systems Consultants (PMSC), LLC
  - Formed in 2001
  - Focused Exclusively on Enterprise Project Management Resource and Technology Solutions
  - Commercial, Government, and Government Contracting Clients
  - Services Include: Implementation Strategy and Planning; Implementation Management and Execution; Implementation Team and End-User Training; Implementation Rework/Rescue, and Special Projects; and Post Production Support



# **Objectives of the Presentation**

- Brief Background of the Projects Suite
- Highlight the Evolution of Projects-based Accounting Engines
- Explain Subledger Accounting (SLA) Concepts, Highlighting Projects-specific application
- Identify Common Concepts and Major Differences
- Highlight Options for Upgrading Existing Installations
- Planning New Implementations
- Identify Additional Resources, Papers, and Presentations



### **Background of the Projects Suite**

- Originally Project Accounting (Circa 1993)
  - Project Costing and Billing \*
- Enterprise Project Management Suite
  - Project Foundation/Fundamentals
  - Project Costing \*
  - Project Billing \*
  - Project Management
  - Project Collaboration
  - Project Resource Management
  - Project Portfolio Analysis
- Project Contracts
  - Not Really a part of the Projects Suite
  - Actually a component of the Contracts Suite
- Release 12 February/March 2007
  - Subledger Accounting (SLA)\*
- \* Main Focus of this presentation



- AutoAccounting Cost Transactions originating from within Project Accounting
  - Labor Cost
  - Expense Report Cost (originating from PA)
  - Usage Cost
  - Miscellaneous Cost
- AutoAccounting Revenue and Billing Transactions



- Flexbuilder
  - Cost Transactions originating outside of Project Accounting
    - Project-related Purchase Requisitions
    - Project-related Purchase Orders
    - Project-related Expense Reports
    - Project-related Vendor/Supplier Invoices
  - Oracle Forms-based
- Account Generator
  - Replaced Flexbuilder in Release 11
  - Oracle Workflow-based using Workflow Builder



- Subledger Accounting (SLA) Engine
  - Standard Accounting Engine for all Oracle
     Subledger Applications
  - New in Release 12
  - Co-exists with AutoAccounting and Account Generator for Projects-related Transactions (for now)



- The Common Concepts They Share
  - Project-related Information is Entered (aka P.O.E.T)
    - <u>Project</u>; <u>Task</u>; <u>Expenditure</u> Type; Expenditure <u>Organization</u>
  - Accounting Combination (aka Accounting Flexfield) is Generated
    - Company; Cost Center/Department; GL Account
  - Implementation-defined Rules derive Accounting Combination



- Major Differences With SLA
  - All Subledger Applications Post Journal Entries to SLA instead of directly to General Ledger
  - SLA Posts All Subledger Entries to General Ledger
  - SLA Can Fill In Individual Segments or Entire AFF
  - SLA Can Create Multiple Representations of Each Subledger Transactions



# What Is Subledger Accounting ?

- Standard Accounting Engine for all Subledger
   Applications
- Intermediate Step Between Subledger Applications and Oracle General Ledger (GL)
- Creates the final accounting for Subledger Journal Entries (JEs) and transfers the accounting to GL
- Stores a complete and balanced Subledger JE in a common model for each "business event" that requires accounting.
- Can create more than one accounting representation for each transaction



#### Accounting Methods Builder (AMB) Menu Path



# **SLA Concepts and Definitions**

- Accounting Events
  - Transactions that have an accounting impact
  - Projects generates accounting events for the business events it processes
- Event Entities
  - Allow SLA to handle the accounting for similar business events in a consistent manner
  - Projects uses three Event Entities: Expenditures; Revenue; and Budgets



#### (Event) Entities Form

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# **SLA Concepts and Definitions**

- Event Type
  - Represents a business operation that you can perform for an Event Class
- Event Class
  - Represents a category of business event for a particular transaction type or document
  - Group Similar Event Types
  - Enable the sharing of Accounting Definitions
  - Provide the lowest level of detail for storing Accounting Definitions



#### **Process Categories Form**

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MISCELLANEOUS_COST	Miscellaneous Cost	Miscellaneous Cost transactions	<b>v</b>	
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#### Accounting Event Class Options Form – Supplier Cost

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#### Accounting Event Class Options Form – Labor Cost

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70 Expenditure Item Date EXPENDITURE_ITEM_DATE	
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90 Transaction Source TRANSACTION_SOURCE	



### **SLA Concepts and Definitions**

- Event Types and Classes (Cont'd)
  - Predefined Event Classes for the Event Entity "Expenditure" include: Labor Cost; Usage Cost; and Supplier Cost
  - The Event Class "Supplier Cost" is represented by Event Types of "Expense Report Cost Distribution" and "Supplier Cost Distribution"



#### Event Classes and Types Form – Supplier Cost

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#### Event Classes and Types Form – Labor Cost

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### **SLA Concepts and Definitions**

- Sources and Source Assignments
  - Pieces of information SLA uses to determine how to create accounting for an Accounting Events
  - Assigned to either an Event Entity or an Event Class to make them available for creation of Subledger Journal Entries
  - Custom Sources replace SQL Select Functionality in AutoAccounting



#### Sources Form – Part 1 of 3

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#### Source Assignment Form

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Actual Upgrade Debit Accounting Class	Accounting class of debit line for nonupgraded t	tLine
Adjusted Expenditure Item ID	The identifier of the expenditure item that this e	Header
Adjustment Cost CCID	The identifier of the GL cost account for adjustn	rLine
Adjustment Cost Clearing CCID	The identifier of the GL liability account for adjust	Line
Allow Account Override Flag	Indicates if the users can override the CCID. Ac	Line
Award ID	The system-generated number that uniquely ide	e Header
Award Name	Name of the award	Header
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### **SLA Concepts and Definitions**

- Accounting Attributes
  - Values that the Create Accounting process needs to create Subledger Journal Entries
  - Sources, above, are assigned to Accounting Attributes.

Example: Event Class = Labor Cost; Source = Raw Cost; Attribute = Entered Amount

Result: The Raw Cost Amount from the transaction is assigned to the Entered Amount field in the SLA Journal Entry



#### Accounting Attributes Assignment Form

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Actual Upgrade Option	Oracle	Upgrade Actual	Line	Use Actuals Upgrade Attributes	Standard	
Conversion Date	Oracle	Ledger Currency	Line	Exchange Rate Date	Standard	
Conversion Rate	Oracle	Ledger Currency	Line	Exchange Rate	Standard	
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GL Date	Oracle	GL Date	Header	GL Date	Standard	
Second Distribution Identifier	Oracle	Distribution Identifie	Line	Cost Distribution Line Number	Standard	



### **SLA Concepts and Definitions**

- Journal Line Types
  - Determine the characteristics of Subledger
     Journal Entries (JE) for an Event Class
  - The characteristics are:
    - Actual; Budget; or Encumbrance JE
    - Debit or Credit JE
    - Matching Lines Merged?
    - Transfer to GL in Summary or Detail form



#### Journal Line Types Form

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### **SLA Concepts and Definitions**

- Account Derivation Rules
  - Determine the Accounting Flexfield (AFF) values for Subledger Journal Entries
  - Defined in SLA To Override Seeded Projects Rule
  - Generate either a value for a single AFF segment or the entire AFF
  - Optionally use Mapping Sets



#### Account Derivation Rules Form

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#### Mapping Sets Form

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### **SLA Concepts and Definitions**

- Journal Entry Descriptions (JEDs)
  - Determine both the content and sequence in which elements of the description appear
  - Assigned to headers and lines in Application Accounting Definition
  - Assigned to Journal Headers and Lines by SLA when it creates the draft or final accounting
  - There are no predefined JEDs for Projects



#### Journal Entry Descriptions Form

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### **SLA Concepts and Definitions**

- Journal Line Definitions
  - Group Journal Line Types, Account Derivation Rules, and Journal Entry Descriptions into a complete set of Journal Line Types within an Event Class or Event Type



#### Journal Lines Definitions Form

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### **SLA Concepts and Definitions**

- Application Accounting Definitions (AADs)
  - Collections of setup components for a Subledger application, i.e. Projects, that determine how the SLA program processes Accounting Events to create Subledger and General Ledger Entries
  - Assign Journal Line Definitions to Event Class and Event Type combinations
  - Projects predefines the *Project Standard Accounting* Application Accounting Definition



#### Application Accounting Definitions Form

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### **SLA Concepts and Definitions**

- Subledger Accounting Method
  - A group of common Application Accounting Definitions (AADs) that determines how SLA processes Accounting Events
  - Groups AADs from Subledger Applications such as Projects
  - AADs are assigned to Ledgers (formerly Sets of Books (SOBs)



#### Subledger Accounting Methods Form

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Application Accounting Defin	ition Assignments				
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Cost Management	Cost Management	Oracle	01-JUN-2001		
Loans	Loans Standard Accrual	Oracle	01-JAN-1990		
Payables	Accrual Basis	Oracle	01-JAN-1951		
Process Manufacturing Fir	Process Manufacturing Financia	Oracle	19-SEP-2004		
Projects	Projects Standard Accounting	Oracle	01-JAN-1951		
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- AutoAccounting
  - 1. Define Lookup Sets
  - 2. Define AutoAccounting Rules
    - Constant; Parameter; SQL Select
  - 3. Assign Rules to Functions



- Accounting Methods Builder (AMB)
  - 1. Define Journal Lines Types \*\*
  - 2. Define Journal Entry Descriptions \*\*
  - 3. Define Mapping Sets \*
  - 4. Define Accounting Derivation Rules \*\*
  - 5. Define Journal Line Definitions \*\*
  - 6. Define Application Accounting Definitions\*\*



Accounting Methods Builder (AMB)
 7. Define Subledger Accounting Methods \*\*
 8. Assign Subledger Accounting Methods to Ledger(s)



- Subledger Accounting Methods
  - Assigned to Oracle Ledgers (Formerly Sets of Books)
  - Sets of Books (Obsolete in R12)
    - Currency; Chart of Accounts; and Calendar
  - Ledger
    - Currency; Chart of Accounts; Calendar; and Subledger Accounting Method



- Subledger Accounting Methods
  - The Combination of Subledger Accounting Method and Ledger is called an Accounting Representation
  - Subledger Accounting Method + New/Different
     Ledger = Additional Accounting Representation
  - Transaction and Accounting Charts of Accounts used in Accounting Methods Builder (AMB)



#### Accounting Setups Form – Subledger Applications

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Application 🔺	Update Accounting Options	Update System Options					
Assets	/	/					
Cash Management	2 ·	2					
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Federal Financials	2	1					
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Loans	1	2					
Payables	/	1					
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#### Accounting Setups Form – Update Accounting Options: Projs.

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* General Ledger Journal Entry Summarization	n Summarize by GL Period 💙		
* Reversal Metho	d Switch DR/CR		
* Rounding Ru	e Nearest 💙		
* Third Party Merge Accounting Optic	n None		
Accounting Program Defaults			
Set defaults for the accounting program and dete * Accounting Program Mode Final * * Allow Mode Override Yes * * Transfer to GL Yes * * Allow Transfer Override Yes * * Allow Post in GL No * * Allow Post Override Yes *	rmine whether they may be overriden when submitting requests * Accounting Report Level No Report * Allow Report Override Yes * Stop at Error Limit No Error Limit	s.	
Event Class Options			
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vent Class	*Category		



#### Accounting Setups Form – Event Class Options

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Borrowed and Lent Adjustment	Borrowed and Lent				
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Inventory Cost	Inventory	۹.			
Inventory Cost Adjustment	Inventory	9			
Labor Cost	Labor Cost	9			
Labor Cost Adjustment	Labor Cost	٩			
Miscellaneous Cost	Miscellaneous Transaction	۹.			
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# **Functionality Equivalents**

FlexBuilder/Account Generator	AutoAccounting	Subledger Accounting	
Value Sets/Lookup Sets	Lookup Sets	Mapping Sets	
Input Value	Intermediate Value	Input Value	
User Defined Parameters	AutoAccounting Rules	Account Derivation Rules	
Predefined Parameters/Attribute	Parameter	Source	
Assignments to Functions	AutoAccounting Function Transactions	Conditions on Account Derivation Rules	
Functions/Item Type	AutoAccounting Functions	Journal Line Types	
Parameter Assignments/Process	AutoAccounting Rule Assignment	Journal Lines Definitions: Assign Account Derivation Rules to Journal Line Types	



### **Processing Changes**

- Distribution Process Remain Unchanged Debit Side
- New: PRC: Generate Cost Accounting Events Credit Side
- New: PRC: Create Accounting
  - Creates Subledger Journal Entries for All Eligible Events
  - Optionally Post in GL (Only in Final Mode)
- PRC: Transfer JEs to GL (Optional)
- Journal Import (Oracle GL)



### **Processing Changes**

- PRC: Sweep Transaction Accounting Events
  - Changes the date on unaccounted transaction accounting events to first day of next open period
  - Accommodates the Month-End Closing Process



### **Processing Changes**

- Post Accounting Process
  - Used to obtain final accounting information from SLA because the accounting that Projects creates using AA may not be the same as the final accounting that SLA transfers to GL
  - Audit trail; Reversing Entries from AP; PO; and INV
  - Adjustments from within Projects for splits, transfers, and other changes.



### **Upgrading Existing Installations**

- Options
  - Continue To Use Existing AutoAccounting/ Account Generator (AA/AG) As Is
    - SLA uses default AFF values generated by AA/AG
  - Define Alternate Accounting Rules in SLA
    - Minimal AA/AG still required (use defaults for all AFF Segments) to provide default values
    - SLA overwrites default AFF values provided by AA/AG
  - Hybrid Approach
    - Use existing AA/AG at point of upgrade
    - Evaluate benefits of SLA features
    - Migrate to SLA when and if beneficial



### **Planning New Implementations**

- Significant Portion of Implementation
  - Approximately 25-30% of total (based on past experience)
    - Analysis 15%
    - Design 35%
    - Development 35%
    - Testing 15%
  - Implementation Resource Experience is Critical
- Design in Parallel with Remaining Tasks
- Understand Inputs, Business Rules, and Required Results
- Understand All Accounting Transactions
- Test All Possible Scenarios (automate if possible)
- Document For Current and Future Users
  - Business Requirements and Associated Rules
  - Custom Sources including PL/SQL Logic
  - Maintenance Requirements



# **Suggested Resources**

- Oracle Projects Implementation Guide MetaLink Document Number (R 12.04)
  - Section G AutoAccounting, the Account Generator, and Subledger Accounting
  - Pages 3 40-47 Subledger Accounting for Costs
  - Pages 4 55-58 Subledger Accounting for Revenue and Billing
- Oracle Projects Fundamentals MetaLink Document Number B25617-02 (R12.04)
  - Pages 12 9-33 Integrating With Subledger Accounting/Oracle GL
  - Appendix A Pre-Defined Setup for Oracle Subledger Accounting



# Suggested Resources (Cont'd)

- Subledger Accounting Implementation Guide MetaLink Document Number B13984-02 (R12.04)
- Oracle Subledger Accounting Documentation Resources - MetaLink Document Number 396829.1
- XLA Common Accounting Drilldown for Project Accounting Transaction Categories Troubleshooting Guide – MetaLink Document Number 406204.1



# Suggested Papers and Presentations

- Understanding Oracle Projects' (Project Accounting's) AutoAccounting and Flexbuilder Functions – Edward Charity, Jr - Spring 1997 OAUG
- Understanding AutoAccounting for Projects: A Step by Step Approach – Mark Biven – Spring 2002 OAUG
- How Does AutoAccounting Work/AutoAccounting Setup and Prerequisites – Suzana Ferrari -2003/2004 OAUG
- How to Use Account Generator for Project-Related Transactions – Marian Crkon 2007 OAUG

PROJECT MANAGEMENT SYSTEMS CONSULTANTS, LLC

### Suggested Open World 2007 SLA Presentations

- Bean Counting Gets an Overhaul: Oracle EBS Accounting Architecture in R12 – S291195
- Oracle EBS R12: Accounting Around the World in 80 Ways – S291287
- Using SLA to Address Global Accounting Requirements – S291198
- Making Rules Not War: Making Nice with the Bean Counters – S290980



### Suggested Collaborate 08 SLA Presentations

- TBD
- TBD
- TBD
- TBD



### Conclusion

- Subledger Accounting Concepts very similar to AutoAccounting/Account Generator
- Concepts Applicable to All Subledger Applications
- Minimal Requirements for Straight Forward Upgrade
- Careful Planning and Resource Dedication Essential for Successful New Implementation
- AutoAccounting/Account Generator Will Eventually Be Phased Out
- SLA will be embedded in Fusion



### Questions?



### **Contact Information**

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