Subledger Accounting in Oracle R12 New Release

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Abstract— **Subledger Accounting is a new feature in Oracle R12 release. Oracle Subledger Accounting enables corporations to comply with corporate, local and managerial accounting and audit requirements via increased control, visibility and efficiency. Oracle Subledger Accounting increases control by storing a complete and balanced journal entry for each subledger transaction and General Ledger (GL) date. Detailed drilldown and audit information is captured for each journal entry line. By storing journal entries in a common data model, Oracle Subledger Accounting constitutes a single source of truth for all accounting, reconciliation and analytical reporting.**

Keywords- Subledger Accounting, OracleR12;

I. INTRODUCTION

Subledger Accounting is a new application that provides an accounting abstraction layer for subledgers – between subledger accounting events and GL journal entries. This functionality was in Oracle 11i placed in each of the subledgers implemented in different way resulting in different reconciliation processes for each of the subledgers. Subledger Accounting also replaces the Global Accounting Engine (AX) which essentially in Oracle 11i was a add-on or workaround that bypassed the subledger accounting entries to provide a better audit trail and catered for special localization requirements.

Oracle Sub Ledger accounting (SLA) is accounting hub in Oracle Application Release 12 (R12). It is used to derive all attributes required to account a transaction in Oracle General Ledger. In R12, SLA is used to derive the very basic accounting attributes like entered amount, accounted amount, Date, Currency code etc and the complex attributes like Ledger, Code Combination ID, Periods etc. After deriving these accounting attributes the transactions are then interfaced to GL from SLA. Thus in R12 no sub ledgers (AP, PO, PA etc) interfaces the transactions directly to GL, but all the transactions are interfaced to GL in following 2 steps:

1. Sub ledgers interface the data to SLA.
2. SLA derives the accounting information and interfaces the data to GL.

SLA gives the flexibility to manage the entire accounting rule at one place, which acts as a single source of truth for GL. There is no separate responsibility to access SLA setup or view the transactions generated by SLA. Rather we can access SLA setup and review accounted transactions with extended menus attached to each sub ledger module

II. BACKGROUND

A. General Ledger

The general ledger is the core of company's financial records. These constitute the central "books" of the system, and every transaction flows through the general ledger. These records remain as a permanent track of the history of all financial transactions since day one of the life of the company".

B. Subledgers and the General Ledger

Any company's accounting system will have a number of subsidiary ledgers (called subledgers) for items such as cash, accounts receivable, and accounts payable. All the entries that are entered (called posted) to these subledgers will transact through the general ledger account. For example, when a credit sale posted in the account receivable subledger turns into cash due to a payment, the transaction will be posted to the general ledger and the two (cash and accounts receivable) subledgers as well. There are times when items will go directly to the general ledger without any subledger posting. These are primarily capital financial transactions that have no operational subledgers. These may include items such as capital contributions, loan proceeds, loan repayments (principal), and proceeds from sale of assets. These items will be linked to the balance sheet but not to the profit and loss statement.

C. Comparing GL Flow with Subledger- Level Secondary Ledger

Let's take a scenario with basic Finance module; it is possible to find how tightly accounting model is separated with transaction model in release 12.

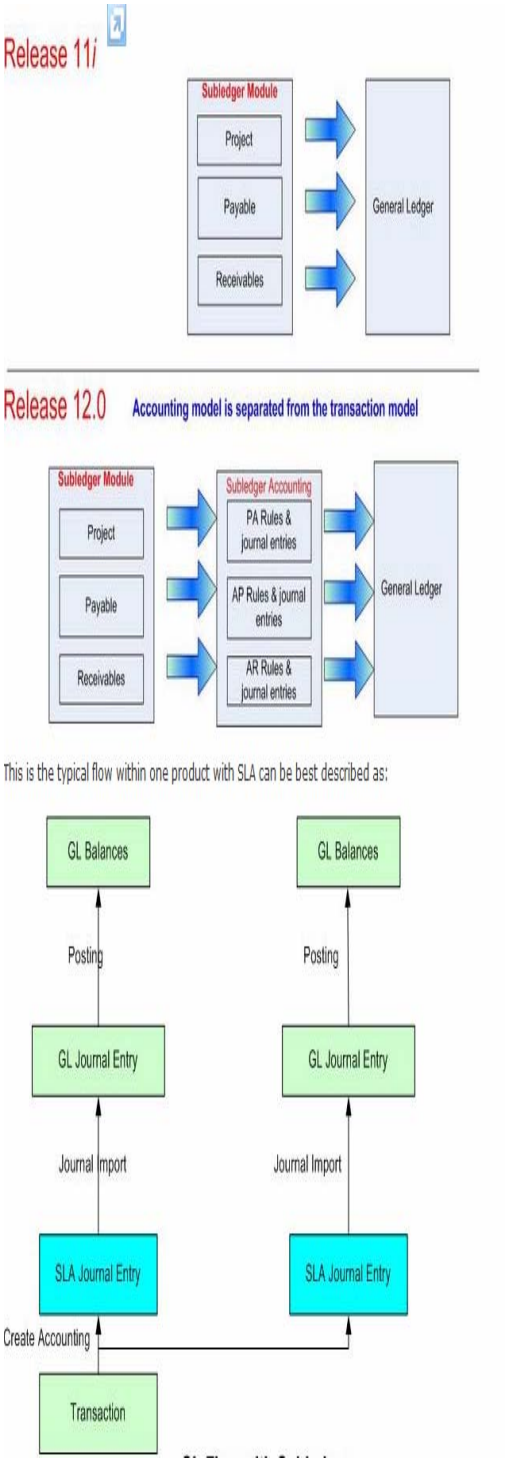

Figure 1. Comparison between Oracle 11i and Oracle R12 for GL accounting.

III. SLA FUNCTIONALITIES

1. Register sub ledger transactions in SLA**:**

After validating / approving / the transaction in the respective module, the sub ledger calls SLA API to create a reference of the validated transaction in SLA. This reference is known as EVENT. Events are created by calling the public API "xla_events_pub_pkg.create_events" provided by SLA. It is up to the sub ledgers on how to call the API. For example Oracle Projects call this API from concurrent program "PRC: Generate Cost Accounting Events" and Oracle Payables calls this API while user creates accounting for the invoice. While calling xla_events_pub. pkg.create_events, oracle passes a unique id and event class. Unique ID can be an invoice id or a po_distribution id or an expenditure_item_id etc. As soon as the sub ledger generates event in SLA, SLA returns unique event_id. This event_id will then act as a reference to all the accounting entries generated by the SLA. Once event is successfully created in SLA, means that the transaction is registered in SLA for accounting.

Taking the example of Oracle Projects in 11i where after costing the transaction user need to run the 'PRC: Interface Cost to General Ledger' followed by 'Journal Import' followed by 'PRC: Tieback process'. But in R12 user only needs to run "PRC: Generate Cost Accounting Events" which will register events in SLA and thereafter SLA will take care of accounting the transaction and interfacing it to GL. There is no tieback process in R12, as there is one to one reference of event id between SLA and sub ledger tables.

It is also necessary to determine how SLA understands whether unique id is invoice id or a po_distribution id or an expenditure_item_id as SLA uses same table to store all the identifiers. In step 1 we discussed that while creating the event we also need to pass event class. This event class is used to distinguish between the types of transaction passed for processing. We will go through the seeded oracle information to understand this process better.

Navigation:

Responsibility: Projects, Vision Services (USA) Menu: Setup > Subledger Accounting > Accounting Methods Builder > Events > Event Modal. Fig 1shows the hierarchical structure of different transactions that can be interfaced to SLA. Because the above screen shot is from Oracle Projects responsibility thus it shows only the projects related transactions. In the entity screen we see only those transactions that can be interfaced to the GL, that's why we do not see Invoice as one of the entity as Invoices are not directly interfaced to GL from PA but they are routed through AR.

Identifiers are the unique ID that is passed to SLA from sub ledgers. As per the screenshot Oracle is passing expenditure_Item_id for entity 'EXPENDITURE'. "Identifier Column" field under Identifier window tells what column in SLA table should store expenditure_item_id. The identifier columns that can be used are SOURCE_ID_INT_1to 4, SOURCE_ID_DATE_1 to 4, SOURCE_ID_CHAR_1 to 4 these values and columns are present in table XLA_TRANSACTION_ENTITIES.

Event Class window displays the different kind of expenditure

transactions that can be interfaced to GL. This level of hierarchy is known as Event class, which is further classified into Event Types. In PA we have different event types like Labor Cost, Misc Cost, Usage Cost, Supplier Cost etc. Further we could classify Supplier Cost as Expense Report and Invoices as Oracle Projects can interface only these two transactions from AP.

2. SLA creates accounting lines based on the identifiers and event class.

After registering the event in SLA, we can create accounting entries by running executable XDODTEXE. This executable is provided by SLA and is used by all the sub ledgers with different concurrent program names. Around 160 concurrent programs are using the same executable. For example in Projects it is used with name "PRC: Create Accounting". This executable does the following:

a. Gather information from base tables in sub ledgers.
b. Derive the accounting attributes based on the data fetched from subledgers.
c. Derive code combination id based on the business rules.
d. Create journal lines based on the seeded Journal definition.
e. Create lines in XLA_AE_HEADERS and XLA_AE_LINES.

A**.** *Setups and Prerequisites*

Subledger Accounting setup screen are located as a sub-application General Ledger:

SLA uses a rule-based accounting engine that posts entries into GL. The rules used by the engine are user defined. The rules are stored in a common repository for all subledger applications. A subledger application would be a product area, such as Inventory, Payables, Receivables, Purchasing, etc.

- SLA Structure
- Ledger
- Subledger Accounting Method (SLAM)
- Application Accounting Definition (AAD)
- Journal Line Definition (JLD)

B. Subledger Accounting Methods (SLAM)

The subledger Accounting Method is the list of Application Accounting Definitions per subledger that can then be linked to the ledger. A subledger Accounting Method is composed of multiple Application Accounting Definitions.

The Subledger Accounting Method contains the SLA setup for all subledgers. As one can link only one Subledger Accounting Method to a ledger, one needs to make sure that all sub ledgers use the same SLAM per ledger. SLAM associated with a ledger can be modified anytime and this will impact the new transactions. Users can create custom SLAMs by copying the seeded methods and making necessary modification. Each subledger accounting method can be assigned to one or more ledgers.

A SLAM is composed of multiple Application Accounting Definitions.

1. Determine sources of information for your account derivation rules (understand the underlying business logic and data)
2. Create account derivation rules (and optional mapping sets)
3. Create journal line types
4. Create journal lines definition (link the journal line type to the account derivation rule)
5. Create an application accounting definition (copy an existing definition and modify it and then validate it)
6. Create a subledger accounting method (SLAM) (copy "standard accrual" and create a new one)
7. Assign the new SLAM to a Ledger

Following 6 seeded SLAMs are available in Oracle:

- Accounting with Encumbrance accounting
- Cash with Encumbrance Accounting
- Standard Accrual
- Standard Cash
- US Federal Accounting
- China Standard Accrual

C. SLA Transaction Types

Event Model	Definition of the subledger transaction types and lifecycle
Entity	Classification of source of transaction
Event Class	Classifies transaction types for accounting rule purposes
Event Type	For each transaction type, defines possible actions with accounting significance

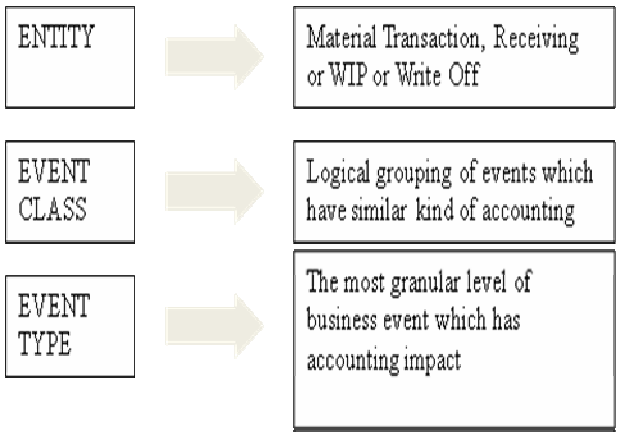

Figure 2. Role of SLA Transaction Types

D. Benefits of SLA

1. To remove Inconsistent Accounting Practices in earlier releases, there are lot of inconsistencies in accounting in earlier releases like

- AP-creates and stores accounting in AP and then transferred to GL
- AR- no dr/cr are created and stored in AR but distribution information is transferred to GL to create accounting
- FA- Creates directly into General Ledger
- PA-Accounting created for 2 sides dr/cr differently

Sub-Ledger addresses this issue and accounting from all sub-ledgers (complete dr/crs) are stored in sub-ledger first then transferred to General Ledger

2. Centralized repository for Sub-Ledger Accounting with Multiple Accounting Representations Support

Now Sub-ledger serves as a centralized repository or common source for all sub-ledger accounting data. Provides the complete links and references between GL financial information and source transactions in Sub-Ledgers. New tables introduced for storing sub-ledger transactions which start with XLA_. Tables used to store Accounting Events, Reconciliation references and accounting information.

Sub-Ledger facilitates Multiple accounting Representations (MAR) which ease posting accounting from a single source to different ledgers in different ways as designed (Accounting Methods).

3. Flexible Accounting Definitions

Setting up of Accounting Methods are critical setup for Sub-Ledger accounting. Users can copy seeded accounting methods and change wherever required instead of defining from the scratch. User Type "Oracle" represents seeded accounting methods and "User" represents user created accounting methods.
Sub-ledger Accounting Method (SAM)-->Application Accounting Definition (AAD)-->Journal Entry Setups-->Account Derivation Rules (ADR)

E. Setups and process

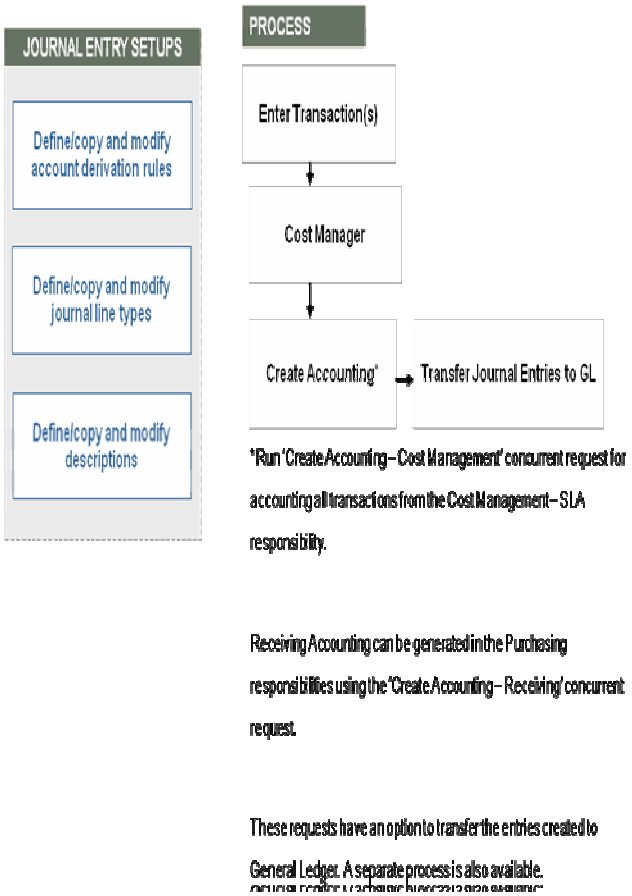

Figure 3. *SLA Process Flows*

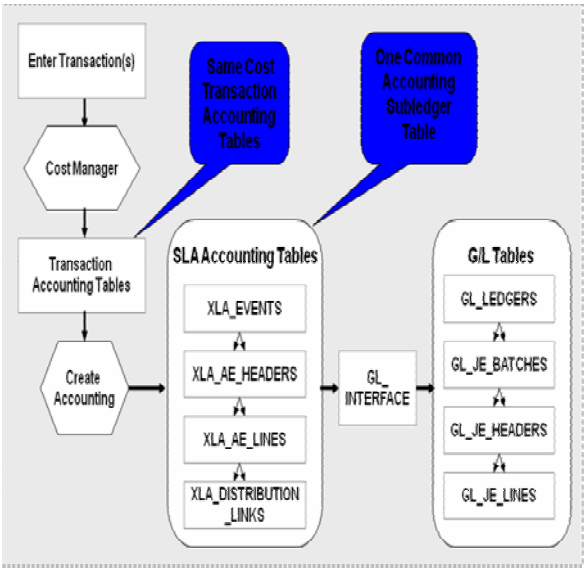

Figure 4. Basic Table Structure

F. Features of SLA

Draft Accounting

Two accounting generation modes are provided in SLA 1) Final 2) Draft. By creating accounting in DRAFT mode users can check the accounting entries before they are being transferred to GL as final accounting. User can regenerate the accounting again in DRAFT till they are satisfied, process can be repeated any number of times. This minimizes the need for correcting the JEs in general Ledger and facilitates a clean audit as review and corrections are completed in SLA. Accounting created in DRAFT mode is not transferred to General Ledger, DRAFT accounting is for review only purpose and stored in SLA.

Once transactions are reviewed and satisfied accounting is created in "FINAL" mode and final accounting is transferred to GL. Users can create accounting as "FINAL" without actually using "DRAFT" mode of generating accounting. Accounting modes and mode override options are setup in Sub-Ledger options.

Online Accounting

Ability to immediately create, view, transfer and post accounting in GL when transactions are entered into sub-ledgers like AP (related setups are setup/selected in Sub-ledger setup options and while running concurrent programs).
Common accounting rules and validations for both offline and online accounting users can create accounting online in draft mode, view adjust before creating accounting in final mode.

Replacement for Disabled accounting

When an account is disabled, users can continue to create accounting for transactions that include the disabled account without error. Oracle SLA stores substituted disabled account on SLA journal lines for audit and reconciliation purposes.

On-Line inquiries

SLA takes advantage of Oracle personalization framework that allows users to customize their view of the accounting using any of the attributes of the journal entry and to save predefined searches. Embedded flows support a bi-directional drill between journal entry headers, lines, T-Account and Transaction data.

Journal Entry Sequencing

Sequencing information is available for querying and display of journals. SLA provides two different sequence mechanisms for sub-ledger journal entries:
1) Accounting Sequence
2) Reporting Sequence

Accounting Sequencing: SLA assigns a sequence to its journal entries as they are completed.

Reporting Sequencing: Designed to meet legal requirements in southern Europe. Reporting sequence is assigned to both the sub-ledger and general ledger journals entries when the GL period is closed.

Reporting sequence feature replaces the accounting Engine (AX) legal sequencing and Libro Giornale features. This type of sequence is used by most of the legal reports required in some countries as the main sorting criteria to display the journal entries.

Sub-ledger Manual Journal Entries

New Sub-Ledger manual Journal Entries can be created within the context of the application. There is no concept of Manual JEs in previous releases except for GL.

Multi-Period Accounting

Users can create accrual and recognition journals to allocate costs over a range of accounting periods. Users can also configure GL Date, a prorating method and have the ability to create a single recognition journal based upon the multi period end date.

Recognition journal for the future periods are created as incomplete until the period is open or enterable and are available for inquiries and reports.

Standard Reports with XML Publisher Template

Some critical reports are:
• Journal Entries Report
• Accounting Analysis Report
• Third Party Balances Report
• Open Account balances listing
• Sub –Ledger period close exception report

Diagnostics framework
• Provide a tool to view the information used to create sub-ledger journal entries.
• Helps in understanding how the Journal Entry Setups were used to create journals
• Results of the diagnostics are available as an HTML Report.

SLA is a clone of AX and almost the functionality was derived from there itself, let's see vis-Ã -vis to uptake some of the functionality in these two products.

Global Accounting Engine(AX)	Oracle Subledger Accounting(SLA)
AX Rules	Journal Entry Setups
Subledger Setup	Date Effective Application Accounting Definitions
Dual Posting	Multiple Accounting Representations
Draft Accounting	Draft Accounting
On-Line Inquiries	On-Line Inquiries
AX Sequences	Journal Entry Sequences
Customer Merge	Third Party Merge Accounting
Manual Journal Entries	Manual Journal Entries
Control Accounts	Third Party Control Accounts

Not only functionality, some of the reports replaces the corresponding reports of the Global Accounting Engine.

Global Accounting Engine(AX)	Oracle Subledger Accounting(SLA)
AX Daily Journal	Journal Entries Report
AX Account Balances	Account Analysis Report
AX Control Account Balances	Third Party Balances Report
Italian Daily Journal Book	Journal Entries Report

Figure 5. Advantage of SLA summarized by Oracle

Transitioning from Account Generators to SLA

On upgrade from Release 11i to Release 12, all Account Generators are retained. It is Oracle's recommendations that post upgrade users transition account generation from the Workflow Account Generators to the Subledger Accounting Engine. The Subledger Accounting Engine will be the technology moving forward and workflow will not be technology available in Fusion.

In Fixed Assets, the FA Account Generator (FAFLEXWF) is retained. A new profile option, FA: Use Workflow Account Generation is set to Yes by default. Once rules are defined in the Accounting Methods Builder and the custom account

generation is accomplished by the Subledger Accounting Engine, set the Profile Option to No. Figure 6 shows an Assets Account Derivation Rule in SLA. Note that two different accounts are generated based on the conditions that are set. The first rule which is selected uses the Account generated by the Workflow Account Generator. Notice that the condition is 'Generated Code Combination Identifier IS NOT NULL'. So, if the account is generated by the Workflow Account Generator, use the generated account. Otherwise, use the default account. So even if using the Workflow Account Generator, SLA still has rules to manage for that scenario.

Conclusion:

Oracle Subledger Accounting streamlines the close by providing a common posting engine, so that all subledger products and non-Oracle products can transfer controlled and summarized data to the General Ledger using a standard methodology and auditable, reviewable process. Oracle Subledger Accounting improves efficiency by speeding period close, simplifying business and regulatory changes and making acquisitions easier. Oracle Subledger Accounting increases management visibility by supporting multiple parallel accounting representations. Corporate accounting policies can be defined and implemented globally; free from limitations imposed by local fiscal reporting requirements. Oracle Subledger Accounting allows accounting policies to be created once and deployed many times. Minimization of maintenance and elimination of duplication makes accounting policies easier to implement, maintain and hence control. Subledger accounting enables business users to control all aspects of journal entries including debits and credits; accounting flexfields, descriptions and GL date.

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Syed Imdad Huseny, Project lead at Accenture is a OCP certified, experience in implementation of multiple ERP products like Oracle eBusiness suite, good experience in managing and delivering projects, which includes planning, designing, effort estimation, scoping, delivery management and team mentoring. Good exposure in client interfacing and project coordination in offshore-onsite model, both from onsite and offshore. Skilled in managing, leading and motivating teams to accomplish tasks within specified timelines, comply with client specifications and quality processes defined by the organization.

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