County of _____

Financial Master Data

Comments

- ## All Master Data is related
  - Some relationships are defined by SAP
  - Master Data Design
  - Derivation Strategies
- ## Objective of Master Data
  - Simplify Data Entry
  - Greater Accuracy

SAP Accounting

This presentation focuses on three of the accounting systems within SAP:

- Financial Accounting (GL)
- Cost Accounting (CO)
- Budgetary Accounting (FM)

These three are separate accounting systems that are integrated through configuration, master data design, and derivation. Information for each is stored in sets of separate ledgers (tables).

Financial Accounting

- General Ledger Accounts
  - Balance Sheet
    - Assets
    - Liabilities
    - Equity
  - Profit and Loss
    - Revenues
    - Expenses
  - External
    - Customers
    - Vendors
    - Banks
- Business Areas
- Full Accrual Accounting*
- Partial Accrual Accounting*
- Fund Accounting
- Cash Accounting

* Additional accounts are needed to support both types of accrual accounting (e.g. two sets of asset accounts)

Cost Accounting

- ## Cost Elements
  - Primary
  - Secondary
- ## Cost Objects
  - Cost Centers
  - Internal Orders
  - Work Breakdown Structures (WBS elements)
  - Work Orders
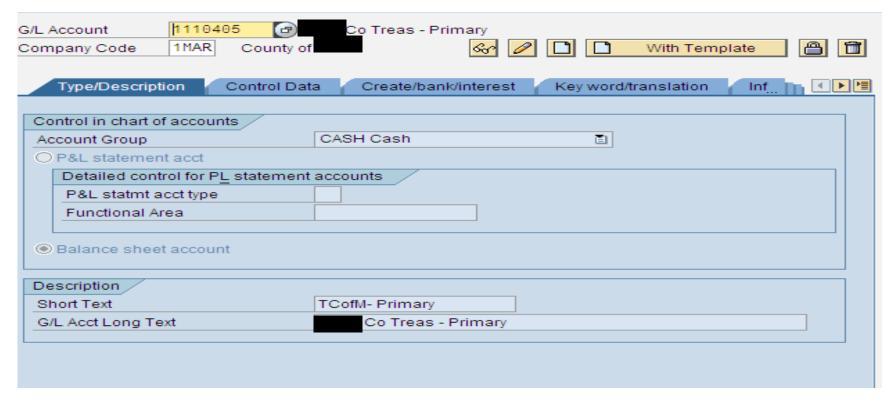- ## Cost Accounting
- ## Project Accounting

Public Sector Accounting

- Funds
- Functional Area
- Commitment Items
- Budgetary Accounting
  - Control Objects
    - Funds Centers
    - Funded Programs
- Grant Accounting
  - Sponsored Programs
  - Sponsored Classes

Reporting Requirements

- Government Wide Financials
- CAFR
- Support Financial Control
- Support Operational Control
- Support Program Control

General Ledger Accounts

Account Group helps to control Master Data Creation and Maintenance

P&L Statmt acct type identifies to which retained earnings account P&L accounts will close

Functional Area – can be used to default functional area, usually used in commercial cost of sales accounting

Account Groups

Change View "G/L Account Groups": Overview

	Field status	New entries							Print field status

	Chrt/Accts	Acct Group	Name	From acct	To account
	1MAR	BS	Balance Sheet	1120000	3999999
	1MAR	CASH	Cash	1000000	1119999
	1MAR	RE	Revenue/Expense	4000000	6999999

County of _____ has the above three groups.

Field Status indicates what fields will be invisible, required, optional, or display only for general ledger master records assigned to the account group

Control Data

Tax Category – Posting without tax allowed should be checked for all expenses accounts

Reconciliation Accounts – County of ????? has three types of reconciliation accounts: Customers; Vendors; and Assets. Reconciliation Accounts are control accounts in the general ledger that represent summaries of the entries that have been made in a subledger (AR, AP, or Assets)

Control Data (cont'd)

- Account Management
  - Open Item Management – used to manage 'intermediate' accounts where entries move in and move out – examples: GRIR – records liability before it can be assigned to a vendor; check clearing – checks issued/checks cashed (balance sheet accounts), you must clear these accounts
  - Line Item display – you probably want to set this on for all accounts except reconciliation account, enables display of line items.

Document Creation

Post Automatically only – if this is checked, manual entries (FB50, FB60, etc.) will not be allowed

Relevant to Cash Flow – to be set on cash accounts to assist in cash flow planning within Treasury module

Field Status

Field Status Group determines what fields will be hidden, required, or optional when entering transactions against this account. See list below.

FStGroup	Text
CH67	Reconciliation Accts
G001	Cash Transactions
G002	Balance Sheet Posting
G003	Material consumption accounts
G004	Cost accounts
G005	Bank accounts (obligatory value date)
G006	Material accounts
G007	Asset accts (w/o accumulated depreciatn)
G008	Assets area clearing accounts
G009	Bank accounts (obligatory due date)
G011	Clearing accounts (with settlement per.)
G012	Receivables/payables clearing
G013	General (obligatory text)
G014	MM adjustment accounts
G018	Scrapping (MM)
G019	Other receivables/payables
G023	Plant maintenance accounts
G025	Inventory adjustment accounts
G026	Accounts for down payments made
G029	Revenue accounts
G030	Change in stock accounts
G031	Accounts for down payments received
G032	Bank accounts (obligat.value/due dates)
G033	Cost accounts for external services
G036	Revenue accts (with cost center)
G039	Accts for pmnts on acct made for assets
G040	Personnel clearing accounts
G045	Goods/invoice received clearing accounts
G052	Accounts for fixed asset retirement
G053	Accounts for Gain/ Loss FA
G056	Amortization accounts
G059	Inventory accounting material stock acct
G062	Investment support accounts
G064	Other cost accounts (obligatory text)
G067	Reconciliation accounts
G069	Cost accounts (travel expenses)
G070	Clearing accounts (travel expenses)
ICCF	CO <-> FI reconciliation posting

Field Status Example: Cost Accounts

General data

	Suppress	Req. Entry	Opt. entry
Assignment number	○	○	◉
Text	○	○	◉
Invoice Reference	◉	○	○
Hedging	◉	○	○
Collective Invoice	◉	○	○
Reference specification 1/2	◉	○	○
Reference specification 3	◉	○	○
Inflation Index	◉	○	○

Additional account assignments

	Suppress	Req. Entry	Opt. entry
Settlement period	○	○	◉
Material number	○	○	◉
Cost center	○	○	◉
CO/PP order	○	○	◉
WBS element	○	○	◉
Sales order	○	○	◉
Personnel number	◉	○	○
Network	◉	○	○
Commitment item	○	○	◉
Plant	◉	○	○
Business Area	○	○	◉
Partner Business Area	◉	○	○
Quantity	○	○	◉
Profit Center	◉	○	○
Profitability Segment	◉	○	○
Cost Object	◉	○	○
Joint venture acct assignment	◉	○	○
Joint Venture Partner	◉	○	○
Joint Venture Recovery Indctr	◉	○	○

Additional account assignments

	Suppress	Req. Entry	Opt. entry
Fund	○	○	◉
Funds Center	○	○	◉
Trading Partner Profit Center	◉	○	○
Joint venture calculation type	◉	○	○
Earmarked Funds	○	○	◉
Complete earmarked funds	○	○	◉
Functional Area	○	○	◉
Add. Insurance Acct Assignment	◉	○	○
Activity Type	◉	○	○
Business process	◉	○	○
Grant	○	○	◉
Segment	◉	○	○
Partner Segment	◉	○	○

External Accounts

- ## Customers
  - AR Invoices
- ## Vendors
  - AP Invoices
  - Procurement (PRs, POs)
- ## Banks
  - ACH
  - Checking
  - House Bank – Bank of America, 19 accounts defined

Other Financial Accounting Dimensions

- Business Area – County of ????? Departments

- Funds – get definition from CFO

- Full Accrual Accounting - accounting method that measures the performance and position of a company by recognizing economic events regardless of when cash transactions occur

- Modified Accrual Accounting - Governmental accounting method. Revenue is recognized when it becomes available and measurable. Expenditures are typically recognized in the period in which the liability is incurred *except for*: assets; inventories may be considered expenditures when bought; interest on general and special assessment long-term debt is recognized on the date due; and use of encumbrances.

Document Splitting

- County of _____ documents are balanced by fund, business area, and grant

- Two techniques insure this
  - Splitting
    - Commonly customer or vendor postings where expenses or revenues are posted to multiple funds or business areas
  - Balancing
    - Cross fund or business area charges, results in posting to 1110110 account to balance entries

- Document View
  - Entry
  - General Ledger

Statistical Postings

- There is no such thing as a general ledger statistical posting
- There can be statistical postings in cost accounting and in funds management.
- Cost accounting will have a statistical posting if it posts to two cost objects. All internal orders are statistical. Expense postings identify a cost center AND an order.
- Funds management can identify commitment items as statistical. If a posting is made to a statistical commitment item, this item will not be taken into account for availability control

Cost Accounting

- Cost Elements

- Cost Objects
  - Cost Centers

  - Internal Orders

  - WBS Elements

Cost Elements

Display Cost Element: Basic Screen

Cost Element	5210110	Professional Srvcs
Controlling Area	1MAR	County of ▓
Valid From	01/01/1900	to 12/31/9999

Basic Data | **Indicators** | **Default Acct Assgnmt** | **History**

Names

Name	Professional Srvcs
Description	Professional Services

Basic Data

CElem category	1	Primary costs/cost-reducing revenues
Attribute mix		
Functional Area		

CElem category – identifies whether a cost element is primary or secondary and how it will be used.

Primary Cost elements correspond to Revenue and Expense Accounts, these exist in the General Ledger

Secondary Cost elements do not exist within the general ledger. This type of cost element is used to move costs around within the organization.

Cost Elements cont'd

Quantity may be recorded, Useful when costs are directly related to units (example: hours worked, service calls)

Default Acct Assgnmt is used to identify a default cost object, if one has not been identified on a posting. Not generally used in Public Sector.

Cost Center

Cost Center	3200011200	Budget & Analysis	
Controlling Area	1MAR	County of ▉▉▉	
Valid From	01/01/1900	to	12/31/9999

Basic data | Control | Templates | Address | Communication | History

Names
Name	Budget & Analysis
Description	Budget & Analysis

Basic data
User Responsible		
Person Responsible	D. Bogle	
Department		
Cost Center Category	L	Management
Hierarchy area	COM	County of ▉▉▉
Business Area	3200	Auditor-Controller
Functional Area		
Currency	USD	
Profit Center		

Validity Dates – controls the date range for which time dependent data is valid (i.e. business area and functional area)

Business area – the department to which the cost center belongs

Functional area – the functional area to which cost center belongs

Cost Center cont'd

Cost Center	3200011200	Budget & Analysis
Controlling Area	1MAR	County of ▮▮▮▮▮
Valid From	01/01/1900	to	12/31/9999

| Basic data | Control | Templates | Address | Communication | History |

☐ Record Quantity

Lock

☐ Actual primary costs   ☐ Act. secondary costs   ☑ Actual revenues

☐ Plan primary costs   ☐ Plan secondary costs   ☑ Plan revenues

☑ Commitment update

The control tab allows one to lock (prevent) postings of the types identified. For this cost center, planned and actual revenues are prevented and Cost Accounting Commitment postings (not to be confused with funds management commitment postings).

The lock feature could allow one to selectively open and cost centers for posting.

Internal Orders

Order	1000020		Order type	CALM
Description	06-07 Sewing Program			

Marin Stat IO

Company Code	1MAR	County of ▮▮▮▮
Business Area		
Plant		
Functional Area		
Object Class	OCOST Overhead	
Profit Center		
Responsible CCtr		
User Responsible		
WBS element		
Requesting CCtr		
Requesting Co.Code		
Requesting order		
Sales Order	0	
Tax Jurisdiction		
Location/Plant	/	
External order no.		

Status

System status	REL

Many internal order are statistical. All cost accounting entries must post against a real cost object also. So for all expense postings, you will also find a posting against an 'actual' cost center or a WBS element.

Internal Order Posting

DocumentNo Doc. Date Document Header Text			RT RefDocNo User Name			
PRn QTy Object	CO object name	Cost Elem. Cost element name	Val/COArea Crcy PUM O Offst.acct VT			
1000043245 09/25/2006 1/4% TRANSPOR 9/22/06			R 2000015416 WF-BATCH			
1 ORD 1000	County of ████ (06-370331)	4120130	1/4% Trans Sales Tax	5,497.38-	S 1114004	11
2 CTR 3200013100	County Accounting	4120130	1/4% Trans Sales Tax	5,497.38-	S 1114004	4

Note the two postings on this document. Value type 11 means that the posting is statistical. Value type 4 is actual

Internal Orders cont'd

Order Types	
Cat	**Name**
CALM	Calamities
CAMS	CAMS Agency & Activity Code
CDA	In Lieu Housing Notes Receivable
CPR1	cProjects
ELEC	Election Equipment
FEES	Fee Receipts
H&HS	Health & Human Service
LAFC	LAFCO-Deposit Tracking
LTRF	Local Transportation Fund
MSRV	Marin City Services
PERM	Permits & Fees
PROB	Probation Court Receipts
PTRO	Petrovend Internal Order
RETR	Retirement-Pension Reimbursements
SAPS	CRM Service DO NOT CHANGE!
SH01	Sheriff – Contracts Services
SH02	Sheriff – Investigations (External)
SH03	Sheriff – Investigations (Internal)
SH04	Sheriff – Special Projects
SHOW	Box Office Shows
TAPS	TAPIS Funds

The above order types are available. The order type will determine which fields are required and the number that will be assigned to the order

WBS Element

Display Project: WBS Element Overview

Summarization

Proj. def.	CAP-90501		Health and Wellness Campus-Canal Project

Basic data | Dates | Assignments | Responsibilities | Control | **Total**

S	Lev	WBS element	Description	Short ID	PE	Acct	Bus	Person
	1	CAP-90501	Health and Wellness Campus-Canal Projec	CAP-90501	☐	☐	4100	41031204
	2	CAP-90501-01	Building A - 3270	CAP-90501-01	☐	☑	4100	41031204
	3	CAP-90501-01-01	Improvement Cost (Land Lord) -A 3270	CAP-90501-01-01	☐	☐	4100	41031204
	4	CAP-90501-01-01-01	Hard cost - Building A - 3270	CAP-90501-01-01-	☑	☐	4100	41031204
	5	CAP-90501-01-01-01-01	Purchase -Building A -3270	CAP-90501-01-01-	☑	☑	4100	41031204
	5	CAP-90501-01-01-01-02	Building Improvement- Building A-3270	CAP-90501-01-01-	☑	☑	4100	41031204
	5	CAP-90501-01-01-01-03	Furniture - Building A - 3270	CAP-90501-01-01-	☑	☑	4100	41031204
	5	CAP-90501-01-01-01-04	Moving & Misc. Exp.-Building A-3270	CAP-90501-01-01-	☑	☑	4100	41031204
	4	CAP-90501-01-01-02	Soft cost - Building A - 3270	CAP-90501-01-01-	☐	☐	4100	41031204
	5	CAP-90501-01-01-02-01	Architect- Building A -3270	CAP-90501-01-01-	☑	☑	4100	41031204
	5	CAP-90501-01-01-02-02	Construction Management-Building A-3270	CAP-90501-01-01-	☑	☑	4100	41031204
	5	CAP-90501-01-01-02-03	Industrial Heigynist -Building A - 3270	CAP-90501-01-01-	☑	☑	4100	41031204
	5	CAP-90501-01-01-02-04	Test&Inspection&Permits -Building A-3270	CAP-90501-01-01-	☑	☑	4100	41031204

WBS elements provide a hierarchical method for breaking down a project.
Costs can only be posted to WBS elements with the Acct checkbox marked.

Misc Cost Accounting

- Work Orders are being used at County of ????. From an accounting point of view, they are virtually identical to internal orders.

- Work Orders are not statistical, they may receive 'real' postings through confirmations (direct activity allocations), procurement, and direct AP and GL postings

- Cost Accounting provides a way of evaluating operating results in a manner somewhat different than budget.

- Project Accounting is the method of tracking and evaluating associated costs

- # Fund Accounting
  - Fund Statements
  - GASB reporting
- # Grant Accounting
  - Grantor Restrictions
  - Grantor Fiscal Year
- # Budgetary Accounting
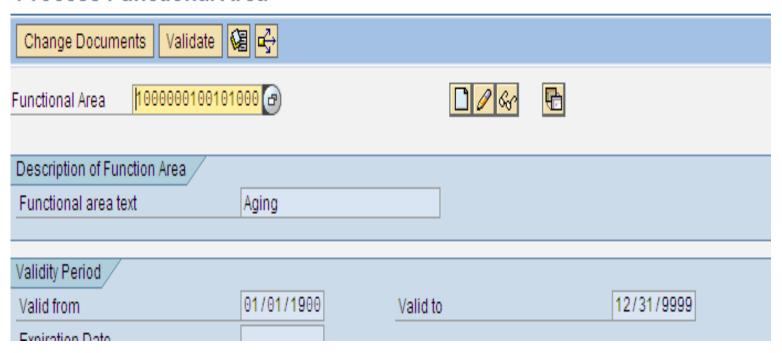 - Budget Entry
  - Availability Control

Funds

Fund Type identifies the category of fund. Different fund categories have different accounting rules

Fund types are all 5 characters. If the last character is 'B', the fund is budgeted. If the last character is 'N', the fund is 'not budgeted'.

A fund which is 'not budgeted' still posts to funds management. It is treated as having $0 budget and no availability control.

Functional Areas

Process Functional Area

| Change Documents | Validate |

Functional Area 10000001000101000

Description of Function Area

Functional area text   Aging

Validity Period
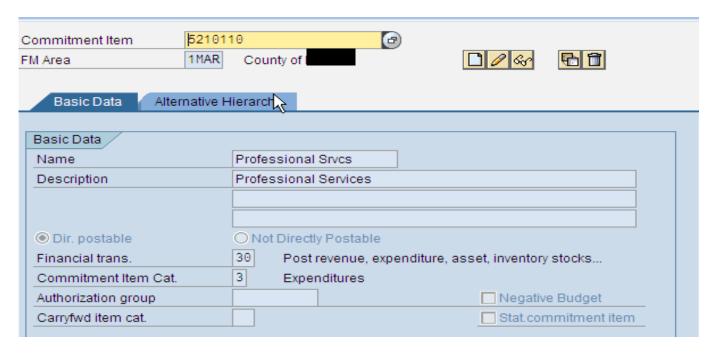
Valid from   01/01/1900   Valid to   12/31/9999

Expiration Date

Functional Area is currently being used by some departments to identify their programs.

In the future, functional area may be used to identify a combination of program and governmental function (for GASB reporting).

Commitment Items

Commitment Item	5210110	
FM Area	1MAR	County of ▮▮▮▮

Basic Data | Alternative Hierarchy

Basic Data

Name	Professional Srvcs
Description	Professional Services

- ◉ Dir. postable   ○ Not Directly Postable
- Financial trans.   `30`   Post revenue, expenditure, asset, inventory stocks...
- Commitment Item Cat.   `3`   Expenditures
- Authorization group   ☐ Negative Budget
- Carryfwd item cat.   ☐ Stat.commitment item

Financial transaction category identifies the type of posting. Funds management only posts transactions with a category of 30. Category 2 is revenue and 3 is expenditure.

Most balance sheet items are 50/3, reconciliation accounts 60/3, cash accounts 90/1, and GRIR 40/3.

Postings to Statistical Commitment items do not consume budget.

Funds Centers

FM Area	1MAR	County of █████	
Funds Center	3200011000		
Analysis Time Frame from	01/01/1900	Analysis Time Frame to	12/31/9999

👤 Basic data | **🗂 Hierarchy** | **📄 Address** | **☎ Communication**

Names
Name	Admin\Analysis
Description	Admin\Analysis

Basic data
Valid From	01/01/1900	Valid Until	12/31/9999
Authorization group			
Fund Default Value			
Company Code	1MAR	County of █████	
Business Area	3200	Auditor-Controller	

Person responsible
User name	DBOGLE
Name	

Funds Centers represent an organizational unit with responsibility for budget. Currently used for WBS elements and cost centers.

A default fund may be established. This fund will be used when one is not specified on postings

Funded Programs

Funded Program	DEFAULT
FM Area	1MAR County of ████

Description
Name	Default
Description	Default Funded Program

Basic Data
Funded Program Type	Z999 Funded Program Default
Valid from	01/01/2000 Valid to 12/31/9999
Expiration Date	

Authorization Group
Authorization Group	

Create Change Log
Created by	MGOLD	Changed by	
Entered on	05/22/2006	Chng. date	
Entered at	11:31:12	Chng. time	00:00:00

Funded Program is not currently used. Intended for use to control budget for WBS elements and Internal orders so funds centers do not proliferate.
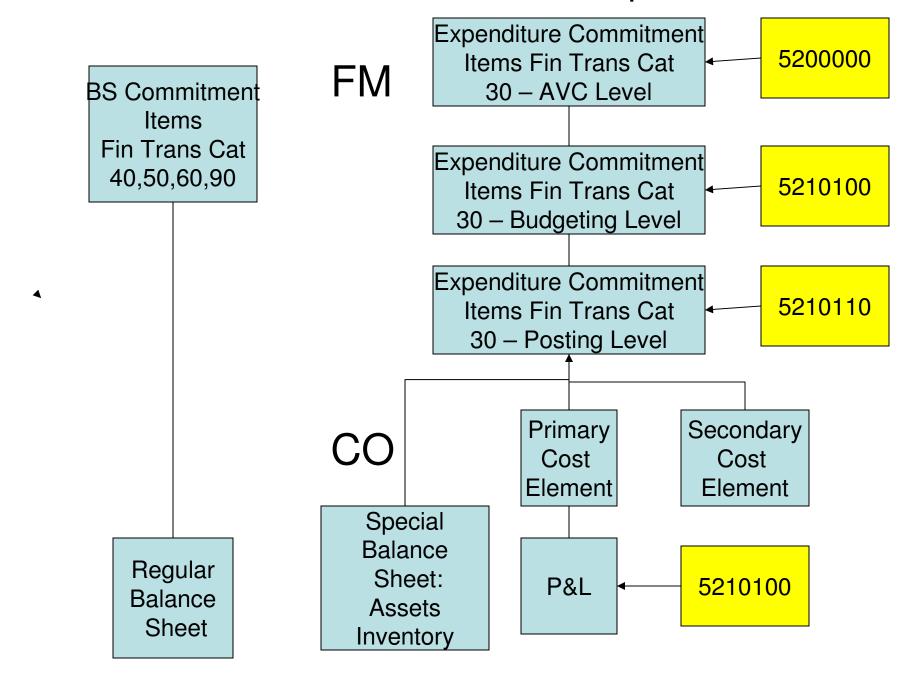
Can be designed for other uses.

Grants

Intentionally omitted

SAP Delivered Master Data/Posting Relationships

- P&L Accounts are 1:1 with primary cost elements
- Postings in cost accounting must have one actual posting
- Secondary cost elements post into cost accounting only

- **Everything else has been configured or designed for County of ?????!!**

Account Level Relationships

BS Commitment Items Fin Trans Cat 40,50,60,90

FM

Expenditure Commitment Items Fin Trans Cat 30 – AVC Level

5200000

Expenditure Commitment Items Fin Trans Cat 30 – Budgeting Level

5210100

Expenditure Commitment Items Fin Trans Cat 30 – Posting Level

5210110

CO

Regular Balance Sheet

Special Balance Sheet: Assets Inventory
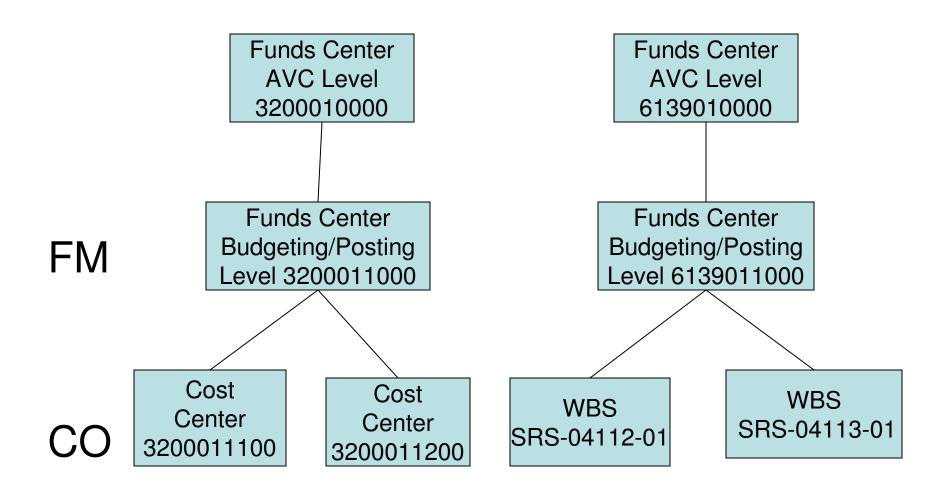
Primary Cost Element

Secondary Cost Element

P&L

5210100

Account Design

- GL Account numbers 1:1 with commitment items
- GL P&L accounts are 1:1 with primary cost elements
- Secondary cost elements have not yet been used
- Intelligent numbering

Intelligent Numbering Accounts

- 7 digit number
  - First digit is account classification
    - 1 = Asset
    - 2 = Liability
    - 3 = Equity
    - 4 = Revenue
    - 5 = Expense
    - 7 = Internal Settlement (CO only)
    - 9 = Administrative Designations
  - Subsequent digits are meaningfully grouped (e.g. 51s are payroll, 52s are external expenses, 55s are interfund expenses)

Cost Object to Funds Center Relationships

FM

CO

Cost Center Design

- First 4 digits of cost center represents department and business area (it is possible to produce full balance sheets by business area)

- The first 6 digits of cost center represents program

- The first seven digits of cost center correspond to the posting/budgeting funds center, 000 is added to the end of the funds center number giving a 10 digit funds center (e.g. cost center 3200011100 derives funds center 3200011000)

- The first 6 digits of cost center correspond to the AVC funds center, 0000 is added to the end of the funds center number giving a 10 digit funds center (e.g. cost center 3200011100 derives funds center 3200010000)

WBS Element Design/Integration

- Projects contain WBS elements, projects have an inverted tree structure.
- Only lowest levels in the project structure should be postable
- Funds centers are created to control project expenditures
- A derivation table links WBS elements to budgeting/posting funds centers
- For funds centers with '99' in the positions 5 and 6, the budgeting/posting funds center is also the AVC funds Center
- For others, the first 6 digits of funds center correspond to the AVC funds center, 0000 is added to the end of the funds center number giving a 10 digit funds center (e.g. funds center 6139011000 derives funds center 6139010000)

Account Assignment Derivation

- Account Assignment Derivation Strategy determines how one gets from the items entered on transactions to the items posted in Budgetary Accounting and Fund Accounting

- Current strategy logic primarily geared towards commitment items and funds centers

- Users must enter fund, functional area, and grant on most transactions

Account Assignment Derivation cont'd

	Acti...	Mai...	Lon...	Derivation Type	Description
	🔴	▦	👆	Derivation Rule	Reversal Documents, Do not rederive
	🟩		👆	Assignment	Default Funded Program
	🟩		👆	Assignment	Default Grant for specific Business Transaction
	🟩		👆	Assignment	Derive Commitment Item from GL Account
	🟩		👆	Assignment	Commitment Item to Secondary Cost Element
	🟩	▦	👆	Derivation Rule	Fixed Asset Commitment Item Derivation Table 1
	🟩		👆	Function Module	Commitment Item Conversion to Alpha
	🟩		👆	Assignment	Defalt Functional Area for P&L accounts
	🟩		👆	Assignment	Default Functional Area for Balance Sheet Items
	🟩		👆	Assignment	Move First Seven Digits of Cost Center to Funds Center
	🟩		👆	Assignment	Add Three Zeros to End of Funds Center
	🟩	▦	👆	Derivation Rule	Funds Center from WBS Elements
	🟩		👆	Assignment	Derive Business Area from Fund Center
	🟩		👆	Function Module	Write Asset Master Data to FI Fields
	🔴	▦	👆	Derivation Rule	Interm Inventory Soultion- Default Fund and FC
	🔴	▦	👆	Derivation Rule	Interm Inventory Soultion- CI from Valuation Class
	🟩	▦	👆	Derivation Rule	Inventory Valuation Class to Commitment Item
	🟩	▦	👆	Derivation Rule	Inventory Transaction
	🟩	▦	👆	Derivation Rule	Plant to Fund, Fund Center, Functional Area And Grant
	🟩	▦	👆	Derivation Rule	PM sender cost center = fund FA Grant
	🟩		👆	Function Module	Read Order master data

ZFMDERIVE - County of ████ FM Derivation Strategy

Steps in Logical Order

Note: Funds center is the first 7 characters of cost center followed by 000

There is a derivation table to determine the funds center for WBS elements

Commitment item is 1:1 with GL account and secondary cost element

Control Object Derivation (AVC)

- Control Derivation Strategy determines how one gets from FM items derived in the account assignment to the control objects which are used to control budget (AVC)

- Current strategy primarily geared towards commitment items and funds centers

- Users entered fund, functional area, and grant are used

Control Object Derivation (AVC) cont'd

Acti...	Mai...	Derivation Type	Description
🔴		Function Module	Determine Superordinate Node of Funds Center
🔴		Assignment	Assign Funds Center (User Field) to Output Field
🔴		Function Module	Determine and Assign Root Node of Commitment Item
🟩		Assignment	FM Address Fund to Control Fund
🟩		Assignment	Write Funds Center to User fields for 2 digits
🟩		Assignment	FM Address Fund Center to Control Fund Center first 6 digits
🟩		Assignment	FM Address Fund Center to Control Fund Center 4 zero at end
🟩		Assignment	Project Funds Center to Control Funds Center
🟩	⊞	Derivation Rule	AVC fund center with >9 budget fund centers
🟩		Assignment	FM AddressFunctional Area to Control Functional Area-Default
🟩		Assignment	FM Address Funded Program to Control Funded Program- Default
🟩	⊞	Derivation Rule	expese CI sub account control fixed assets and 5490000
🟩		Assignment	FM Address Commitment Item to Commitment Item first 2 digits
🟩		Assignment	FM Address Commitment Item to Control CI 5 zero at end

Strategy 9HCOM000

Steps in Logical Order

Note: Generally, the control funds center is the first 6 characters of the budgeted (and posted) funds center followed by 0000. The control commitment item is the first two characters of the posted commitment item followed by 00000.