



# Managing Customizations and Change in an EPM 9.0 Warehouse Environment

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Alliance 2009 Conference Anaheim, California Byron Menchion Reggie Gentle, Jr. Florida State University



#### Introduction



#### • Presenters:

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- Familiarize you with FSU's Implementation and some of our project challenges.
- Engage is a discussion of how customization contribute to the success/failure of EPM/OBIEE deployments.
- Provide real world examples of EPM/OBIEE customizations relevant to Higher Education.
- Make sure that your information needs are met.



# Overview

- Introduction
- Background of FSU's ERP Implementation
- Overview of FSU's OBIEE Implementation
- Profile of our Customizations
- Our Approach to Development & Customizations
- Our Approach to Change & Issue Management
- Case Studies of Major FSU Customizations
  - Case 1 Consolidated KK & GL Reporting
  - Case 2 Inheriting Report Security
  - Case 3 Reporting in external organization's terms
- Lessons Learned
- Questions & Comments





- ...is a premier, comprehensive, graduate research university, with both law and medical schools.
- Annual Operating Budget: \$1.1B
- > Over 39,000 students
- > Over 14,000 employees
- > Over 13,000 biweekly paychecks
- > Over \$18 million in biweekly payroll







- Implemented Financials 8.4, Portal 8.8, and EPM 8.8 in June 2004
- Implemented HR/Payroll 8.8 in December 2004
- Upgraded HR and EPM Suites to 8.9 in April 2006
- Upgraded FI Suite to 8.9 in November 2006
- Upgraded EPM and Portal Suites to 9.0 in November 2007
- Upgraded HR Suite to 9.0 in October 2008
- Currently Upgrading FI Suite to 9.0 (est. April 2009)
- Currently Migrating from DB2 to Oracle DB for FI (est. April 2009)
- Implemented OBIEE in March 2008
- Go Live for 10.1.3.4 (est. April 2009) to Linux





- Unable to track budget, expended, encumbered, and remaining balances across various levels of the University
- No efficient tools for users to interact with data, view data at different levels, and drill into data without IT help
- Unable to quickly and completely provide HR based data for demographic and regulatory reporting
- Inefficient production of reports for user community
- Requirement for customized data delivery options to provide proactive notification of budgetary or expended overages



## FSU's OBIEE Implementation



- Implementation was broken into phases to achieve early, measurable success
- Phase I
  - EPM 9.0 (on Oracle Database)
  - OBIEE and BI Publisher Deployment
  - Oracle Fusion Intelligence
  - Extensions to data models, maps and metadata
  - Development of 12 key dashboards
  - Training of developers and end users
- Usage Metrics since Go Live
  - 674 Distinct Users
  - 1.2 M Reporting Object Requests submitted



#### FSU's OBIEE Implementation



#### **FSCM** Reports

Fin & Budget Position
Available Balance
Department Ledger E&G
Department Ledger C&G/CS
Department Ledger AUX
Department Ledger CF

#### **HCM** Reports

Cost Center
Employee Time Verification
HR Active Employees
HR-GL/Payroll Charges
Position Detail by Dept
Timesheets by Dept & Empl

#### **Operations Reports**

•OBIEE Usage Tracking•DataStage Operations•Data Reconciliation

#### **Data Marts**

General Ledger
Workforce Profile (Job)
Commitment Control
Financial Transactions
HR-GL Transactions

Payroll Cost Center
Sponsored Research
Employee Time
Usage Tracking
Data Operations



- Clear Vision that was aligned with the University's needs.
- Strong Executive Level Support and Commitment
- Long term relationship with Oracle
- Quality, expertise and dedication of the Project Team.











## Issue Management Process









# **Customization Defined**



 Customization – Changing delivered software objects or functionality to meet the needs or fit the practices of an organization.

OBIEE	ETL	EPM
Adding/Modifying Fields in any layer	Adding/Modifying Sequence Jobs	Adding/Modifying any Peopletools object
Adding/Modifying Tables in any layer (including joins)	Adding/Modifying Server Jobs	Adding/Modifying Materialized Views
Initialization Block/Global Variable Definitions	Adding/Modifying Routines/Containers	Adding/Modifying any external object



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- Is it possible to implement EPM Vanilla and be successful?
- What factors should be considered before customizing?



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# Key Drivers to Customize



- Public Sector vs. Private Sector differences
  - Commitment Control
  - Commitment Accounting
  - Grants Analysis
- Specialized Reporting Needs of the University
  - View detailed Financial data across account types
  - Historical Reporting
- Increased Efficiency
  - ETL Performance
  - Use DB specific functionality
- Bug Fixes/Workarounds
- Improved Data Integrity

#### Key Drivers to Customize ALLIA Sector Differences Special Univ. Needs Performance Fixes/Workarounds Data Integrity Fixes/Workarounds Data Integrity 10% 10% Sector Differences Performance 50% 10% Special Univ. Needs 20%

















#### Development Steps







#### Customizing EPM



- Leverage from deep knowledge of People Tools Development
- Add, Delete, or Modify any of the following objects
  - Menus, Components, Pages, App Messages
  - Records, Fields
- Primary Approach
  - New objects: Prefix FSU\_ (ex. FSU\_F\_ENC\_DTL)
  - Delivered Objects: Modify object and fully document
- Upgrade Impact
  - For modified delivered objects special care must be given during maintenance processes.



#### Customizing ETL



- Add, Delete, or Modify any of the following objects
  - Server Job, Sequence Job, Master Sequences
- Primary Approach
  - New objects: Prefix FSU\_ (ex. FSU\_XXXXX)
  - Delivered Objects: Clone with new "FSU\_" name into FSU\_Custom category and fully document
- Upgrade Impact
  - No risk of losing customizations
  - Evaluation of existing customizations during maintenance processes

#### EPM/ETL Change Control Process ALLIANC



#### **EPM Change Control**

 Custom Objects organized in Projects •Migration done through PeopleTools

#### **ETL Change Control**

 Custom Objects organized into Named **Batches** Migration done through DS Version



## **Customizing OBIEE**



- Add, Delete, or Modify any of the following repository objects
  - Physical/Logical Tables, Physical/Logical Joins, Init Block/Variables
- Custom Reports are created and stored in functional business area folders.
- Primary Approach
  - New repository objects: Prefix FSU\_ (ex. FSU\_XXXXX)
  - New Reports: Prefixed with <Dashboard</li>
     Name>\_<Dashboard Function> and saved in custom
     folders
  - Delivered Web Catalog Objects: Not modified.
- Upgrade Impact
  - No risk of losing customizations





- Use 4 standard environments to migrations
- Use catalog manager to move objects between environments
- Document/Performance driven process (Issues, Specifications & Change requests)
- Moves are coordinated and scheduled
- Backup/restore enabled
  - SubVersion
  - Short term/Revision history managed by Volume Shadow Copy services/Change capture script
  - Long term by Tivoli Hot Storage Solution





- Metadata changes are primarily driven by reports
- Variety of methods are used to migrate metadata
  - Copy UDML from Source to Target
  - Manual development in target
  - Scripted full repository copies from source to target
- Backup/restore enabled
  - SubVersion
  - Short term/Revision history managed by Volume Shadow Copy services
  - Long term by Tivoli Hot Storage Solution
  - Migration scripts to create backups

#### **OBIEE Change Control Process** Identification of Object Type **Development Complete** Repository **Prod Copy Placed in Identification of Affected** Objects TEST(From SVN) XMLP WebCat(Answers/Dashboards) Identification of Affected Objects Identification of Affected NO Objects Take Offline Copy of Dev **New Physical** (Place in SVN) **Object? Copy XMLP Objects to SVN Archive Identified Objects** YES From DEV WebCat to SVN Take Offline Copy of Dev Validate SVN TEST Copy (Place in SVN) with Diff Validate SVN TEST "Shared" Copy of WebCat **Copy/Paste Physical Table** Remove Affected XMLP from Offline copy of Dev Objects **Delete Affected Objects** from TEST WebCat Copy/Paste Logical/ **Re-Create Joins** Presentation Object(s) from **Copy XMLP Documents** in Offline TEST from SVN to TEST **Offline copy of Dev UnArchive SVN copy of DEV to TEST Migrated Objects Brought** Online in TEST(Copy to SVN) Promote SVN TEST WebCat/

NO

**Issue Resolution** 

Process

YES

Functional

Approval?

**QNA/Production** 

Migration

XMLP to QNA/PROD

Copy Repository(RPD File) to QNA/Production(Copy to SVN)




### Scenario

- The University needs the ability to track budget, expended, encumbered, and remaining balances across various levels of the University.
- Information is needed for the Financial management of the University and the EPM Warehouse is expected to provide this insight.
- As delivered EPM 9.0 only captured the expended balanced, not the other necessary components.
- To meet this need we customized the delivered EPM Product.





Analysis Highlights

- Budget and Encumbrance Balances are stored in the Commitment Control Module.
- Available Balance = Budget-Encumbrance-Expenses
- For the current reports only data from specific ledgers are necessary.
- For Project-based reporting data must be shown since the inception of the project ("Life to Date"). For Non-Project based reports data must be shown from a "Year to Date" perspective.
- To report across various levels the OLTP Trees for Department, Fund Code, and Account are needed.
- Needed for Production and Adhoc Reporting.





Analysis Highlights (Cont.)

- Technical Direction
  - Need Fact table for Commitment Control Summary data
  - Need Consolidated Fact table (GL & KK)
  - Will use incremental loading techniques
  - Need to create Fund Tree Hierarchy
  - Due to the volume of data special consideration must be given to optimizing query performance.
  - Load data from all KK Ledgers into fact table

Scenario – With the implementation of the OMNI Financial Application in 2004, the University's financial transactions were no longer stored in the





# Case 1 – KK to GL Reporting ALLIANC



### **DB** Object Development

🕅 Application Designer - FSU_F_LEDCONSOL - [FSU_F_LEDCONSOL (Record)]							
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	4 LEDGER_SID	Nbr 10 Raw B	LEDGER_SID Ledger Surr-key (E/E	1)			
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		Nbr 10 Baw B	Chartfield Chartfield 2 Surrikeu	_			
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	28 BEG_AMT	Nbr 25.3	Beg. Amount Period Beginning Amt				
	29 END_AMT	Nbr 25.3	End Amount Period End (BEG+NE	T)			
	30 NET_AMT	Nbr 25.3	Net Period Amt Net Period Amt				
	31 FSU_BEG_BUDG_AMT	Nbr 25.3	Beg. Amount Period Beginning Amt	73			
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	36 FSU_NET_PRJBUD_AMT	Nbr 25.3	Net Period Amt Net Period Amt				
	37 FSU_BEG_ENC_AMT	Nbr 25.3	Beg. Amount Period Beginning Amt	73			
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So secondiment	42 FSU_NET_KKEXP_AMT	Nbr 25.3	Net Period Amt Net Period Amt	<b>_</b>			
Opening project				<b></b>			
1 Records definition(s) in project.							
3 helds definition(s) in project.							
4 total definition[s] in project.				▼			
Build & Upgrade & Results & Validate & Find Definition R	teferences /						
Ready			SPRDDW NUM				





ETL Design

- Location of Custom Processes
  - FSU\_Custom\FMS\_E\Custom\_Facts\Committment\_Control
- Three custom tables to load:
  - FSU\_S\_LEDKK\_TMP (OWS)
  - FSU\_F\_LEDKK\_SUM (MDW)
  - FSU\_F\_LEDCONSOL (MDW)
- No new dimension ETL are necessary. Mart will use the delivered Global Dimensions.
- Leverage the design of the delivered GL Summary ETL Process.
- Load data incrementally from OWS and Base Fact table





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# Case 1 – KK to GL Reporting ALLIANC



😰 GetlLast	UpDateTime - Routine Activity	
<u>G</u> eneral	Boutines Triggers	
Routine <u>n</u>	ame	
GetLastL	pdD ateTime	
Argument	;	
Name	Value Expression	Insert Parameter Value
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# Case 1 – KK to GL Reporting ALLIANC



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B. Menchion 11/2/2007 Process loads the last update time into the hashed file.					
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			AFE OU SID
		AMELEEDER KK OUT AFE FIND SID	AFE FUND SID
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XI LEDGEB SID		XEM LEGGER KK UIT ADUIST TYPE SID	ADJUST TYPE SID
SBC SETID		XEM LEDGER KK DIT CLASS FIELD SID	CLASS FIELD SID
		XEM LEDGER KK DUT CHARTERIDI SID	CHARTEIELD1 SI
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EFF END DT		XFM LEDGER KK. OUT.CHARTFIELD3 SID	CHARTFIELD3 SI
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		IF (DRS_PS_D_LEDGER.LEDGER = 'ACTUALS') THEN XFM_LEDGER_KK_OUT.BEG_AMT ELSE 0.00	BEG_AMT
		If (DRS_PS_D_LEDGER.LEDGER = 'ACTUALS') THEN XFM_LEDGER_KK_OUT.NET_AMT ELSE 0.00	NET_AMT
		IF (DRS_PS_D_LEDGER.LEDGER = 'ACTUALS') THEN XFM_LEDGER_KK_OUT.END_AMT ELSE 0.00	END_AMT
		If (DRS_PS_D_LEDGER.LEDGER = 'CC_BUD' OR DRS_PS_D_LEDGER.LEDGER = 'CC_REV_BUD') THEN XFM_LEDGER_KK_OUT.BEG_AMT ELSE 0.0	FSU_BEG_BUDG_A
		If (DRS_PS_D_LEDGER.LEDGER = 'CC_BUD' OR DRS_PS_D_LEDGER.LEDGER = 'CC_REV_BUD') THEN XFM_LEDGER_KK_OUT.NET_AMT ELSE 0.0	FSU_NET_BUDG_A
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	18697	If (DRS_PS_D_LEDGER.LEDGER = "KKGMCHDBUD' OR DRS_PS_D_LEDGER.LEDGER = "KKPCCHDBUD') THEN XFM_LEDGER_KK_OUT.END_AMT E	FSU_END_PRJBUD
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	- <u>88</u>	If (DRS_PS_D_LEDGER.LEDGER = "KK_DTL_ENC" OR DRS_PS_D_LEDGER.LEDGER = "KKPCCHDENC" OR DRS_PS_D_LEDGER.LEDGER = "KKGMCH	FSU_NET_ENC_AM
	W-	If (DRS_PS_D_LEDGER.LEDGER = "KK_DTL_ENC" OR DRS_PS_D_LEDGER.LEDGER = "KKPCCHDENC" OR DRS_PS_D_LEDGER.LEDGER = "KKGMCH	FSU_END_ENC_AM
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ACCOUNT_SID			C L N
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		XFM_LEUGER_KK_UUT.AFF_UU_SU	AFF_UU_SID
DRS_PS_D_LEDGER		XFM_LEDGEH_KK_UUI.AFF_FUND_SID	AFF_FUND_SID
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- XI LEDGER_SID		XFM_LEDGEH_KK_UUI.ADJUST_TYPE_SID	ADJUST_TYPE_SID
SRC_SETID		XFM_LEDGEH_KK_OUT.CLASS_FIELD_SID	CLASS_FIELD_SID
LEDGER		XFM_LEDGER_KK_OUT.CHARTFIELD1_SID	CHARTFIELD1_SIL
EFF_START_DT		XFM_LEDGER_KK_OUT.CHARTFIELD2_SID	CHARTFIELD2_SIL
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		If (DRS_PS_D_LEDGER.LEDGER = 'ACTUALS') THEN XFM_LEDGER_KK_OUT.END_AMT ELSE 0.00	END_AMT
		If (DRS_PS_D_LEDGER.LEDGER = 'CC_BUD' OR DRS_PS_D_LEDGER.LEDGER = 'CC_REV_BUD') THEN XFM_LEDGER_KK_OUT.BEG_AMT ELSE 0.C	FSU_BEG_BUDG_AM
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		HDENC'OR DRS_PS_D_LEDGER.LEDGER.EDGER = "KKGMCH	FSU_END_ENC_AMT
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	l l	דונטהאבראבטעבה.בבטעבה = אגבטדבבאר טה טהאבראבטעבה.בבטעבה = אגשוולHDEXP' OR DRS_PS_D_LEDGER.LEDGER = KKPCCH	FSU_END_KKEXP_AF
		XFM_LEDGER_KK_OUT.SRC_SYS_D	SRC_SYS_ID





### OBIEE Metadata Physical Layer

#### **File>Import>From Database**

Import DB Object into Physical Layer to save time and insure consistency

Select Data Sou	rce	×
Connection Type:	ODBC 3.5	•
DSN	Driver	<b>^</b>
🔋 SC90HR	IBM DB2 ODBC DRIVER	
🔋 🔋 SCLSFI	IBM DB2 ODBC DRIVER	
🔋 🔋 SD90HR	IBM DB2 ODBC DRIVER	
🔋 SDEVDW	IBM DB2 ODBC DRIVER	
🔋 🔋 SDEVDWHR	IBM DB2 ODBC DRIVER	
🔋 🔋 SDEVEP	IBM DB2 ODBC DRIVER	
🔋 🔋 SDEVFI	IBM DB2 ODBC DRIVER	~
User Name:	dbuser	
Password:	****	
🔲 Read from CRM m	etadata tables OK	Cancel





Physical

🖻 📲 PS\_FSU\_F\_LEDCONSOL

ACCOUNT\_SID ADJUST\_TYPE\_SID

AFF\_FUND\_SID AFF\_OU\_SID

AFFILIATE\_BU\_SID ALT\_ACCT\_SID BATCH\_SID

### Case 1 – KK to GL Reporting



#### OBIEE Metadata Physical Layer

Once filtered import the definition(s). Key are imported as well. Now joins can be established.

BEG_AMT BOOK_CODE_SIC	Import				
BUDGET_REF_S CBU_SID CHARTFIELD1_S CHARTFIELD2_S CHARTFIELD3_S CLASS_FIELD_SI CREATED_EW_D CURRENCY_CD DATA_ORIGIN DEPT_SID END_AMT FSU_BEG_BUDG FSU_BEG_ENC_4 FSU_BEG_CKEXF FSU_BEG_PRJBL FSU_END_BUDG	Table name mask: Select object(s) to add I SDEVDW SPSDW SPSDW SPSDW SPSDW SPSC	%FSU_F_LEDCONSOL% to physical layer: SU_F_LEDCONSOL_MV1 SU_F_LEDCONSOL_MV1 SU_F_LEDCONSOL_MV1_T SU_F_LEDCONSOL_MV1_T2 SU_F_LEDCONSOL_MV1_T8 SU_F_LEDCONSOL_MV2 SU_F_LEDCONSOL_MV2_TMP	Enter name mask to filter		
FSU_END_ENC_A FSU_END_KKEXI FSU_END_PRJBU FSU_NET_BUDG FSU_NET_ENC_A	<ul> <li>✓ Tables</li> <li>✓ Views</li> <li>✓ System tables</li> </ul>	Aliases Synonyms		Import	✓ Keys ✓ Foreign Keys Close
FSU_NET_KKEXF	J_AM1				





•



### OBIEE Metadata Logical Layer

Logical Column - GL Beginning Amount	
General Data Type Aggregation Levels	
Data Type: DOUBLE Length	: 🔽 Nullable
Data Type derives from physical sources:	
sum(PS_FSU_F_LEDCONSOL.BEG_AMT)	
✓ Show all logical sources	
Logical Table Source Mapped as	
PS_FSU_F_LEDCONSOL "Data Warehouse"."".spsdw.PS_FSU_F_LF	EDCONSOL.BEG_AMT
	3
Edit.	. Unmap
ОК	Cancel Help





# Case 1 – KK to GL Reporting ALLIANCE



### **OBIEE** Metadata Logical Layer

Business Model and Mapping		
📄 🖷 📰 FS	U Fact GL and KK Ledger	
	Sources	
	PS_FSU_F_LEDCONSOL	
<u> </u>	Account Sid	
	Fund Code Sid	
	Pattern Period Sid	
	Budget Ref Sid	
	Business Unit Sid	
	Chartfield 1 Sid	
	Chartfield 2 Sid	
	Chartfield 3 Sid	
	Currency Code	
	Department Sid	
	Project Sid	
Ξ	GL Beginning Amount	
···· 2	GL Net Amount	
	GL End Amount	
	Proj Budget Begin Amount	
···· 2	Proj Budget End Amount	
···· 2	Proj Budget Net Amount	
····	Budget Begin Amount	
	Budget Net Amount	
	Budget End Amount	
	Enc Begin Amount	
	Enc Net Amount	
I	Enc End Amount	
I	KK Exp Begin Amount	
I	KK Exp End AMount	
I	KK Exp Net Amount	

Logical Column - GL Beginning Amount	
General   Data Type   Aggregation   Levels	
Based on dimensions	
Default aggregation rule: Sum	<b>•</b>
	OK Cancel Help





# Case 1 – KK to GL Reporting ALLIANCE



### **OBIEE** Metadata **Presentation Layer**

Presentation		
🚊 🚭 FSU FI	MS - Custom GL - Period Balances	
🖻 🗐 🖻 🗐	U Fact GL and KK Ledger	
	Business Unit Sid	
	Fund Code Sid	
	Department Sid	
	Project Sid	
	Chartfield 1 Sid	
	Chartfield 2 Sid	
	Chartfield 3 Sid	
	Account Sid	
	Pattern Period Sid	
	Source System Id	
	Budget Ref Sid	
IIII	Currency Code	
···· <u>2</u>	GL Beginning Amount	
<u>2</u>	GL Net Amount	
	GL End Amount	
···· 2	Proj Budget Begin Amount	
···· <u>2</u>	Proj Budget End Amount	
···· <u>2</u>	Proj Budget Net Amount	
···· <u>2</u>	Budget Begin Amount	
···· 2	Budget Net Amount	
	Budget End Amount	
	Enc Begin Amount	
	Enc Net Amount	
	Enc End Amount	
	KK Exp Begin Amount	
	KK Exp Net Amount	
I	KK Exp End AMount	

Presentation Column - GL Beginning Amount	
General Aliases	
Name: GL Beginning Amount Use Logical Column Name Custom display name VALUEOF(NQ_SESSION.''CN_FSU_FMSCustom_GL	Permissions
Logical Column: "Enterprise Warehouse"."FSU Fact GL and KK Ledger"."GL Beginn	ning Amount''
Description:	Edit
	~
OK Cano	el Help



# Case 1 – KK to GL Reporting ALLIAN



### **OBIEE Embedded BI Publisher Content**

							~
		Fiscal YearAccounting Per20098	iod Department '025000 - Huma	Fund '110 - E&G Gen'	Go		
or Departme	ental Ledger De	etails Report please click on the above Details tab and c	lick 'Go' after selectir	ng the prompted value	s and click on the	'View' button to see the rep	ort
							~
		Data contained within this re	port was last loaded	on 3/19/2009 5:4	1:41 AM		
							*
Template	Departmenta	al Ledger Summary EG 💙 PDF 👻 View Export	Send	Schedule	Analyzer		
86	취 •	🧼 🧼 1 / 5 💌 🖲 🐻 😽 🛃	Find	]•			
	۲	FL DEPARTM	ORIDA STATE UNIVE ENTAL LEDGER SUM	ERSITY MMARY (E&G)	Date: 200 Page 1 c	09-03-19 22:19:51 of 5	
	Departme	ACCOUNT nt: 025000 - Human Resources	ING PERIOD: 8 FIS	CAL YEAR: 2009			
	Fund: 110	- E&G General Revenue			$\frown$		
	Budget Sa	alary Wages - Beginning Period Balance	BUDGET	ENCUMBRANCES	EXPENSES	AVAILABLE BALANCE	
	710000	Budget Salary Wages	3,142,588.00	0.00	0.00		
	710121	Admin & Protessional Salaries	0.00	037,800.56	1,092,763.42		
	710122	A&P Separation Payout	0.00	0.00	5,160.17		
	710123	LISPS Salarias	0.00	162 060 39	240 160 19		
	710124	USPS Salaries	0.00	102,303.30	4 370 50		
	710123	USPS Comp Payout	0.00	0.00	4,373.30		
	710120	Salary Social Security Match	0.00	62 047 49	78 260 34		
	710141	Salary Medicare Match	0.00	14 510 87	18 766 84		
	710142	Defined Benefit Retire Match	0.00	48 481 87	66 939 62		
	710152	ORP Defined Contrib Match	0.00	36 572 73	49 094 27		
	710154	PEORP Defined Contrib Match	0.00	15.676.78	17.636.20		
	710161	Pretax Admin Assessment	0.00	0.00	3,783.02		
	710172	Health Ins Employer Contrib	0.00	161,904,76	190,990.35		
	710182	State Life Insurance Contrib	0.00	2,199.70	3.377.81		
	710191	State Disability Ins Contrib	0.00	0.00	40.35		
(Uj	Budget Sa	alary Wages - Beginning Period Balance Total	3,142,588.00	1,342,164.14	1,778,478.90	21,944.96	
	Budget Sa	alary Wages - Current Period Balance	BUDGET	ENCUMBRANCES	EXPENSES	AVAILABLE BALANCE	
-	710121	Admin & Professional Salaries	0.00	-148,283.29	148,283.34		
	710124	USPS Salaries	0.00	-38,813.09	28,629 74		-
	710141	Salary Social Security Match	0.00	-11,599.97	10,429.68		×





### Scenario

- FSU maintains a small support group to administer all PeopleSoft based applications. This team is responsible for building, upgrading, and patching environments, performing Peopletools based migrations and administering security.
- E-ORR was developed to automate the role assignments within the transactional system.
- Minimize the report security management effort.
- Need to derive report security from functional roles in the transactional system in an aautomated fashion





Analysis Highlights

- Functional roles will have to be assigned prior to report availability.
- There will be a one day lag before report access is granted or revoked.
- Role Mapping is defined by Functional teams. ERP Reporting team perform the necessary configuration change.
- Multiple transactional system roles can map to one OBIEE Dashboard.





Analysis Highlights (Cont.)

- Technical Direction
  - PeopleTools based page is needed to configure the role mapping.
  - ETL process will map the OLTP roles to the EPM roles and populate the PSROLEUSER table. Security will be rebuilt nightly.
  - OBIEE will enforce security to Dashboards components, Answers subject areas based on initialization block results.





### Security Architecture Design







### **DB** Object Development

🗶 Application Designer - FSU_EPM_ROLEMAP - FSU_EPM_ROLE_MAP (Page)									
File Edit View Insert Build Debug Tools Layout Go Window Help									
FSU_EPM_ROLEMAP Gomponents FSU_EPM_ROLE_MAP (GBL) Fields Menus MAINTAIN_SECURITY Pages FSU_EPM_ROLE_MAP FSU_EPM_ROLE_MAP FSU_EPM_ROLE_VW FSU_EPM_ROLE_VW FSU_PM_ROLEVW FSU_PSROLEUSER FSU_ROLESEL_VW FSU_ROLEFN_VW FSU_ROLEDEFN_VW FSU_ROLEMAP_HDR SQL SQL FSU_ROLE_SEL_VW FSU_ROLE_VW SQL FSU_ROLE_VW SQL FSU_ROLE_VW SQL SQL FSU_ROLE_VW SQL SQL SQL FSU_ROLE_SEL_VW SQL		Active Last Updated Last							
1 Menus definition(s) in project. 1 Components definition(s) in project.									
3 SQL definition(s) in project. 3 Portal Registry Structures definition(s) in project. 20. total definition(s) in project.									
Build \ Upgrade \ Results \ Validate /									
Ready SDEVDW NUM									





ETL Design

- Location of Custom Processes
  - FSU\_Custom\EPM\_OBI\_SEC\_LOAD\
- Use load 1 custom stage table to load:
  - FSU\_PSROLEUSER (OWS)
- Use load 1 delivered stage table to load:
  - PSROLEUSER (OWS)
- Rebuild security nightly


### Case 2 – Security Solution



#### **ETL** Design







- All Structured Reporting areas have the same folders for document storage
- Dashboards
- Filter
- Prompt
- Request



- Provides Separation of documents based on type regardless of report being developed
- Each Deployed PeopleSoft Functional Area has Parent Folder for Document Storage
- All Shared Document Storage is consistent in Design/Naming/Security/Structure of Objects



### Case 2 – OBIEE Storage Structure



- Default Dashboard is Set via Init Block and Allows for Setting of Default based on:
- Location
- Department
- Referring Application
- Variable known as "PORTALPATH"
- Allows for Announcements about upcoming events such as system outages.







- Security is Set at each Dashboard/Object Level
- Developer Prompt(Allows Developers to turn on/off Logging Level of a dashboard for troubleshooting)
- Dashboard Main/Pages are used for securing who can "See" what dashboards
- Prompt/Request/Filter are all set to "Read Only" for All Groups which have rights within the Deployed PS Functional Area

portal     Active Employees     Department/GL Charges     Employees     Employee Time Verification	Functional Testing PSLIMR_REPORT_VIEW PSU_MR_POWER_USER Presentation Server Adminis	Read Read Read Full Control
HR - GL Detail  Position Detail  Timesheets  Filter	Functional Testing PSU_SS_EMPLOYEE PSU_HR_POWER_USER Presentation Server Adminis	Read Read Read Full Control
Prompt	PSU_HR_REPORT_VZEW PSU_SS_EMPLOYEE PSU_HR_POWER_USER Presentation Server Adminis	Read Read Full Control



### Case 2 – Security Solution



<b>OMNI</b> ENTERI	PRISE	Performa	NCE MANAGEN	IENT					FLORIDA
Welcomel BMENCHION /	OF NE Accour	enworkte nt FriM:	D INFORMAT ar 20-09	ION					I LORIDI
Menu	-								Hom
<ul> <li>Application Diagnostics</li> <li>Tree Manager</li> <li>Reporting Tools</li> <li>PeopleTools</li> <li>Security</li> <li>User Profiles</li> <li>Permissions &amp; Roles</li> <li>Password Configuratio</li> <li>Directory</li> <li>Security Objects</li> <li>Ouery Security</li> </ul>	'n	/ Fsu Emp	o Role Map \ EPM R	ole Name: FSU_HF FSU_HF	R_REPORT_VIEW				
▷ Encryption								<b>N</b>	
	_		*Role Type	*Role Name	<u>Customize   F</u>	Ind View 2	First 🛄 🕰	1-7 of 7 🗠 Last	
Mapping			1 HR V	ESU HR DEPAR	TMENT USER			-	
- Common Queries									
<ul> <li>Mass Change Operator</li> <li>Security</li> </ul>	[		2 HR 💌	FSU_PR_DEPAR	IMENI_USER			+	
▷ Utilities			3 HR 🗸	FSU_PY_FI_REP	INQUIRY			+	
▷ Workflow ▷ Portal			4 HR 🖌	FSU_QRYTREE_	SECURE			+	
Search Engine Rerection			5 HR 🖌	FSU_QRYTREE_	SECURE_HR_ACCES	SS		+	
Process Scheduler			6 HR 🔽	FSU_SS_MANAG	ER			+	
<ul> <li>Cube Manager</li> <li>Application Engine</li> </ul>			7 HR 💌	FSU_UBA				+	
<ul> <li>Query Access Services</li> <li>Integration Broker</li> <li>REN Server Configuration</li> <li>Setup Manager</li> <li>MultiChannel Framework</li> <li>Archive Data</li> </ul>	ו ≣ :	Save	Q Return to S	earch † Previous	in List ↓ I Next in List	E Notify	🗘 Refresh	E-Add 201;	odate/Display





#### Scenario

- With the implementation of the OMNI Financial Application in 2004, the University's financial transactions were no longer stored in the State Of Florida's accounting system (FLAIR).
- The State of Florida still requires the University to provide Financial data for State Reporting purposes using the State's coding structure.
- To support DW reporting that would allow the University to review and analyze financial data in the State's coding structure, a customization was made to include CF attributes in the data warehouse.





Analysis Highlights

- Account Code structure in new system is different from FLAIR.
- Legacy equivalents are stored as attributes to Chartfields.
- Attributed exist for GL Account, Fund Codes, and Departments.
- The information must be available in the MDW Layer to be used for external reporting and internal analysis.





Analysis Highlights (Cont.)

- Technical Direction
  - 3 Delivered Dimensions will be customized to include the Charfield Attributes.
    - Account Dimension
    - Fund Code Dimension
    - Department Dimension
  - New fields will be added to the existing records.
- Transactional tables that contain the Chartfield Attributes will have to be created in the OWS.
- Appropriate business names will have to be defined and exposed in the OBIEE Metadata.





#### **DB** Object Development

Application Designer - FSU_EPM01	I - CF_ATTRIB_VALI	JE (Record)		_			
<u>File Edit View Insert Build D</u> ebug	<u>T</u> ools <u>G</u> o <u>W</u> indow	Help					
		r					
FSU_EPM01	CF_ATTRIB_TB	L (Record) Record Type					
	Num	Field Name	Туре	Len	Format	Short Name	Long Name
	1 SETID		Char	5	Upper	SetID	SetID
	2 CHARTE	IELD_VALUE	Char	30	Upper [	Value	ChartField Value
	3 EFFDT		Date	10		Eff Date	Effective Date
	4 FIELDNA	ME	Char	18	Upper	Field Name	Field Name
	5 CF_ATTR	RIBUTE	Char	15	Upper	CF Attribute	CF Attribute
		RIB_VALUE	Char	20	Upper	CF Attrib Value	CF Attribute Value
	7 SRU_SY	S_ID	Char	5	Upper	Source ID	Source System Identifica
		W5_5BR	SHec				
	Record Fields	ALUE (Record) Record Type					
	Num	Field Name	Туре	Len	Format	Short Name	Long Name
	1 SETID		Char	5	Upper	SetID	SetID
	2 FIELDN	AME	Char	18	Upper	Field Name	Field Name
	3 CF_AT1	RIBUTE	Char	15	Upper	CF Attribute	CF Attribute
	4 CF_ATT	RIB_VALUE	Char	20	Upper	CF Attrib Value	CF Attribute Value
	5 SRC_S	<u>rs_ID</u>	Char	5	Upper	Source ID	Source System Identifica
🕅 Develop 🎁 Upgrade	6 DESCR	5U 22/20 CDD	Char	60	Mixed	Descript	Description
		JWS_SBR	SHec				
Opening project 6 Records definition(s) in project. 6 total definition(s) in project.	Validate /						▲ ▼
Ready						SDEVDW	





#### **DB** Object Development

Image: Second state state       Image: Second	[D_ACCO g <u>T</u> ools Press [Background Foundation of the second seco	UNT (Record)] Go Window Help	112 216					
FSU_DM01 ⊕ → Fields	Record I	Fields Record Type	Туре	Len	Format	Short Name	Long Name	
E → Secords	13	ACCOUNT_TYPE ACCT_TYPE_DESC	Char Char Char	1 30	Upper Upper	Type Acct type desc Louis of Datail	Account Type Type Description	
	16 17	CAT_CD1 CAT_CD1_DESC	Char Char Char	3 30	Upper Upper	Category Code1 Cat Code1 Desc	Category Code 1 Category Code 1 Category Code1 Descrip	
	18 19 20	CAT_CD2 CAT_CD2_DESC EEEDT	Char Char Date	3 30 10	Upper Upper	Category Code2 Cat Code2 Desc Eff Date	Category Code2 Category Code2 Descrip	
	20 21 22	DATE_RANGE_SBR SRC_SYS_ID	SRec Char 5		Upper	Source ID	Source System Identifica	
	23 24 25	LOAD_MDW_SBR STATISTICS_ACCOUNT BUDGETARY_ONLY	SRec Char Char	1	Upper Upper	Stat Acct Bud, Only	Statistical Account Budgetary Only	
B ·· 🤤 V_DEPT B ·· 🔁 SQL	26	FSU_AFS_GL FSU_AFS_GL_DESC	Char Char	20 60	Upper Mixed	FSU_AFS_GL AFS GL Desc	FSU AFS GL FSU AFS GL Desc	
	28 29 30	FSU_APPRU_CAT FSU_APPRO_CAT_DESC FSU_EXT_CAT	Char Char Char	20 60 20	Upper Mixed Upper	FSU Appro Lat Appro Cat Desc FSU Ext Cat	FSU Appro Lategory FSU Appro Cat Desc FSU Ext Category	
	31	FSU_EXT_CAT_DESC FSU_OBJECT	Char Char	60 20	Mixed Upper	Ext Cat Desc FSU Object	FSU Ext Cat Desc FSU Object	
Develop	33	FSU_OBJECT_DESC FSU_DIRECT_CHARGE	Char Char	1	Mixed Upper	FSU Obj Desc FSU Direct Chg	FSU Object Desc FSU Direct Charge	
2 Translate Values definition(s) in project. 4 SQL definition(s) in project. 122 total definition(s) in project.	ilidata /							





ETL Design

- Location of Custom Processes
  - OWS
    - FSU\_Custom\FMS\_E\OWS\Base\Load\_Tables\Sequence
  - MDW
    - FSU\_Custom\Global\_Dimensions\_E\OWS\_To\_MDW\Base \Load\_Tables\Sequence
- Process Additions for the OWS tables
- Customize delivered MDW Global Dimension processes





























DRS_PS_CF_ATTRIB_TBL - DRS stage		_ 🗆 🗡
Stage Output		
Output name: PS_CF_ATTRIB_VALUE	Columns View Data.	
General Columns Selection SQL		
Generated User-defined Before After		
SELECT A SETID A CHARTFIELD_VALUE_A FIELDNAME_TD_CHARM H124MISSTA.CF_ATTRIBUTE_ACF_ATTRIB_VALUE_B.DESCOFROF H\$DOWS_SCHEMA#PS_CF_ATTRIB_TBLA_#\$DOWS_SCHEMA#PS_CI IN (ACCOUNT') AND A SETID = B.SETID AND A SETID = B.FIELDNAME AND A CF_ATTRIBUTE = B.CF_ATTRIBUTE AND A CHARTFIELD_VALUE = A_ED.CHARTFIELD_VALUE AND A_ED.EFFDT <= CURRENT_DATE] ORDER BY_A SETID A_CHARTFIELD_VALUE_A.CF_ATTRIBUTE A.CF	ALEFEDT, YYYY-MM-DD IPAM IF_ATTRIB_VALUE B WHERE A.FIELDNAME 1A#PS_CF_ATTRIB_TBL A_ED F_ATTRIB_VALUE	
	OK Cancel H	elp

FSU_J_Dim_PS_D_ACCOUNT_OWSDRS_PS_CF_ATTRIB_TBL.PS_CF_ATTRIB_YALUE_LOOKUP_in - Data Browser									
SETID	CHARTFIELD_VALUE	FIELDNAME	EFFDT	CF_ATTRIBUTE	CF_ATTRIB_VALUE	DESCR60			
SHARE	600111	ACCOUNT	1901-01-01 00:00:00	AFS_GL	63102	General Revenue Release			
SHARE	600111	ACCOUNT	1901-01-01 00:00:00	APPRO_CAT	001500	Transfers 🛁			
SHARE	600111	ACCOUNT	1901-01-01 00:00:00	EXT_CAT	001530	Interagency Transfers in			
SHARE	600111	ACCOUNT	1901-01-01 00:00:00	OBJECT	004081	Resources Received Univ/BOR			
SHARE	600112	ACCOUNT	1901-01-01 00:00:00	AFS_GL	63500	Reversion of Appropriation			
SHARE	600112	ACCOUNT	1901-01-01 00:00:00	APPRO_CAT	001500	Transfers			
SHARE	600112	ACCOUNT	1901-01-01 00:00:00	EXT_CAT	001530	Interagency Transfers in			
SHARE	600112	ACCOUNT	1901-01-01 00:00:00	OBJECT	499055	Reversions			
SHARE	600113	ACCOUNT	1901-01-01 00:00:00	AFS_GL	63101	Incidental Release			
SHARE	600113	ACCOUNT	1901-01-01 00:00:00	APPRO_CAT	001500	Transfers			
SHARE	600113	ACCOUNT	1901-01-01 00:00:00	EXT_CAT	001530	Interagency Transfers in			
SHARE	600113	ACCOUNT	1901-01-01 00:00:00	OBJECT	004081	Resources Received Univ/BOR			
SHARE	600114	ACCOUNT	1901-01-01 00:00:00	AFS_GL	63500	Reversion of Appropriation			
SHARE	600114	ACCOUNT	1901-01-01 00:00:00	APPRO_CAT	001500	Transfers			
SHARE	600114	ACCOUNT	1901-01-01 00:00:00	EXT_CAT	001530	Interagency Transfers in 🔹			
•									
					Close				





PS_CF_ATTRI	B_VALUE_LOOKUP_lkp				VI.			
Key Expression	Column Name			HI.			Stage Variables	
ipc_src_in.SETID	SETID			Ш		Derivation	Stage Variat	ile
ipc_src_in.ACCOUNT	CHARTFIELD_VALUE			1111	1	If PS_CF_ATTRIB_VALUE_LOOKUP_	kp.NOTFOUND Then 'N/A' Else PS_CF_ATTRIB_VALUE_L( cfattribvalueAF	SGL
'ACCOUNT'	FIELDNAME				/ ~	If PS_CF_ATTRIB_VALUE_LOOKUP_	Ikp.NOTFOUND Then 'Not Available' Else PS_CF_ATTRIB_V cfdescr60AFS(	âL
ipc_src_in.EFFDT	EFFDT			X	X.	If PS_CF_ATTRIB_VALUE_LOOKUP2	2_lkp.NOTFOUND Then 'N/A' Else PS_CF_ATTRIB_VALUE_( cfattribvalueAF	PROC
'AFS_GL'	CF_ATTRIBUTE			1X		If PS_CF_ATTRIB_VALUE_LOOKUP2	2_lkp.NOTFOUND Then 'Not Available' Else PS_CF_ATTRIB_ cfdescr60APPI	ROCAT
	CF_ATTRIB_VALUE		.//	41	W.	If PS_CF_ATTRIB_VALUE_LOOKUP3	3_kp.NOTFOUND Then 'N/A' Else PS_CF_ATTRIB_VALUE_( cfattribvalueE>	TCAT
	DESCR60		./	-111	11.	If PS_CF_ATTRIB_VALUE_LOOKUP3	B_lkp.NOTFOUND Then 'Not Available' Else PS_CF_ATTRIB_ cfdescr60EXTI	AT
				-11)	11.	If PS_CF_ATTRIB_VALUE_LOOKUP4	Likp.NOTFOUND Then 'N/A' Else PS_CF_ATTRIB_VALUE_( cfattribvalue08	JECT
				11/			k Ikp.NOTFOUND Then 'Not Available' Else PS_CF_ATTRIB_cfdescr600BJ	СТ
PS_CF_ATTRIE	3_VALUE_LOOKUP2_lkp			- //	M.			
Key Expression	Column Name			M	11			
ipc_src_in.SETID	SETID			//I	∦∥∟		beal Tk	
ipc_src_in.ACCOUNT	CHARTFIELD_VALUE			// \	11	Constraint: ErrorFound - 'N'		
'ACCOUNT'	FIELDNAME		14	/ \]	1	Derivation	Column Name	
ipc_src_in.EFFDT	EFFDT		1//	- //	1	cfattribyalueAESGI	FSU AFS GI	
'APPRO_CAT'	CF_ATTRIBUTE			1	8	cfdesor60AESGI		
	CF_ATTRIB_VALUE		·// -		11			
	DESCR60	-	·ľ	11		cfdesor60APPB0CAT		
		_		11	44	ofattribualuaEVICAT		
		-1			11	ofdesorE0EXTCAT		
P5_UF_ATTRIB				18	11	cfattribualue0BIECT		
Key Expression			16	11		ofdesor600BJECT		
ipc_src_in.SETIU			11					
		_	1 //					
ALCOUNT	FIELDNAME	_			11			
		_			11	Load_Error_ACCT.		
EXI_CAI		_	1	1	11	Constraint: \$EKK_VALIDATE = 1	Y' AND ErrorFoundAcctTy	
			1	1		Derivation	Column Name	
	DESCHOO		1	ſ	ĮĮ.	KeyMgtGetNextValueConcurrent('E_5		
			11	1		SetiD		
PS CF ATTRI	B VALUE LOOKUP4 Iko		11			Account		
Key Expression	Column Name					Ipc_src_in.EFFD1		
ipc src in SETID	SETID					SrcSysID	SHU_SYS_ID	
ipc src in.ACCOUNT	CHARTFIELD VALUE	-				"D_ACCOUNT"		
'ACCOUNT'	FIELDNAME					MDW'		
ipc src in EFFDT	EFFDT					AUCI_TYPE_TBL.SETID   ACCT_TY	PE_IBL SOURCE_COLUMN_L	
'OBJECT'	CF ATTRIBUTE					ALT: TYPE TRI		
		-L	Ű.					





#### **OBIEE** Metadata

Cracle BI Administration Tool - EPMMasi	ter	
File Edit View Manage Tools Window	Help	
🗅 📽 📽 🕒 🖌 🛍 🛍 🔽 📐 🧏 🧏		
Presentation	Business Model and Mapping	Physical
<ul> <li>FMS - RE - Tenant Sales History</li> <li>FSU - GL - Available Balances</li> <li>FSU - GL - Cash Detail</li> <li>FSU - GL - Cash Detail - Answers</li> <li>FSU - GL - Cash Detail - Answers</li> <li>FSU - GL - Expense Detail</li> <li>FSU - GL - Expense Detail</li> <li>FSU - GL - Expense Detail</li> <li>FSU - GL - Liabilities Detail - Answers</li> <li>FSU - GL - Liabilities Detail</li> <li>FSU - GL - Liabilities Detail</li> <li>FSU - GL - Dutstanding Encumbrance Detail - Answers</li> <li>FSU - GL - Liabilities Detail</li> <li>FSU - GL - Nevenue Detail</li> <li>FSU - GL - Nevenue Detail</li> <li>FSU - GL - Revenue Detail</li> <li>FSU - GL - Revenue Detail</li> <li>FSU - SR - Award Subject Area</li> <li>FSU - SR - Award Subject Area</li> <li>FSU FMS - Custom GL - Journal Entries</li> <li>FSU FMS - Custom GL - Journal Entries - Answ</li> <li>FSU FMS - Custom GL - Period Balance</li> <li>FSU FMS - Custom GL - Period Balances</li> <li>FSU HCM - Custom Workforce - Employee Job</li> <li>FSU HCM - Custom Workforce - Employee Job - A</li> <li>FSU HCM - Custom Workforce - Workforce Pr</li> <li>FSU HCM - Custom Workforce - Workforce Pr</li> <li>FSU HCM - Custom Norkforce - Workforce Pr</li> <li>FSU HCM - Custom Norkforce - Workforce Pr</li> <li>FSU HCM - Custom Workforce - Workforce Pr</li> <li>FSU HCM - Costom Norkforce - Workforce Pr</li> <li>HCM - Compensation - Absence</li> <li>HCM - Compensation - Absence Request</li> </ul>	Enterprise Warehouse     FSU Employee Time - Real Time     FSU Timesheet - Real Time     OBIEE Timings     OBIEE USAGE TRACKING     OPERATIONS     Pay Period     Pay Period RGL     Pay Period No CCR     Payroll - Real Time RW     Sponsored Research Proposal     Temp     Usage Tracking	Authorization     Cost Center RW     Data Warehouse     SDEVDW     CS Dimensions     CS Facts     FMS - Bridge Tables     FMS - Bridge Tables     FMS - Facts     FSU Fund Hierarchy     FSU FSU Fund Hierarchy     FSU SR Mart     Global Dimensions     HCM - FSU - CUSTOM - WORKFORCE PROF.     HCM Dimensions     HCM Facts     SCM Dimensions     SCM Facts     Security Tables     SCM Facts     Security Tables     SER TEMP     Spsdw     DBIEE USAGE TRACKING     OBIEE USAGE TRACKING     OPERATIONS     SDEVDW     Sponsored Reseach Rework     Sponsored Research     sprdw     Thin Test     Transactional HR







#### OBIEE Metadata Logical Layer



Logical Column - FSU Tenure	CIP 🔲 🖾
General Data Type Aggregation Le	vels
Data Type: VARCHAR	Length: 8 🔽 Nullable
Data Type derives from physical source	s:
D_DEPT.FSU_CIP	
Show all logical sources	
Logical Table Source	Mapped as
J D_DEPT	"Data Warehouse"."".spsdw.D_DEP1
	8
,	Edit
	OK Cancel Help



resentation

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Dimension Department Tree

Department Sid

Department Id Setid Source Setid

Department Tree Name Source System Id Department Desc Department Budget Level Code Budget Level Desc Budget Level

Budget Year End Date Sid FSU Budget Manager Sid

FSU Tenure CIP

FSU CIP Description FSU Program/Activity/EP

FSU PCS Description FSU Waiver Charge Method

> Department Detail Id Department Detail Desc Department Level 1 Id Department Level 1 Desc Department Level 2 Id Department Level 2 Desc Department Level 3 Id Department Level 3 Desc Department Level 4 Id Department Level 4 Desc

FSU Waiver Charge Method Description

### Case 3 – External Reporting

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#### **OBIEE** Metadata **Presentation Layer**

Presentation Column - FSU Tenure CIP
General Aliases
Name: FSU Tenure CIP Permissions
🔽 Use Logical Column Name
Custom display name FSU CIP Id
Logical Column: "Enterprise Warehouse"."Dimension Department Tree"."
Description:Edit
This code indicates the classification of instructional program only sused for Academic departments.
OK Cancel Help





#### **OBIEE** Report

🚖 🏘 🌈 OMNI Answers								<u>ه</u> -
ORACLE' Answers	Table 🕶 💷 🖇							
Answers - GL Period Balances 🗞	E 🐼 🗭 🤹 🛛 Display	Header Toolbars with Results 💌						
GL and Ledger KK								
Business Unit     Department Tree	+ I M M X	H I MAX	TIMEX	HI Z MAX	H I M K X		+T Z MAX	
Department Tree Source System Id     Source System Id	FSU Waiver Charge Method	FSU Waiver Charge Method Description	FSU CIP Id	FSU CIP Description	FSU PCS Id	FSU PCS Description	Department Id	GL Net Amount
Department Tree Name				Contraction of the Party of the			131016	14327.26
Department Id	and the second se				52	CAMPUS EVENTS/ORGANIZATION	131017	7826.15
Department Short Desc     Department Desc							131019	18000.37
Department ID and Descr				-	52 Total			40153.82
Department Level 1 Id							131001	63039.72
Department Level 1 Desc     Department Level 2 M							131002	0.00
Department Level 2 Desc				and the second se			131003	15880.93
Department Level 3 Id							00L 131004 131005 131006 131007 131008 131009 131010 131011 131012	97343.38
Department Level 3 Desc     Department Level 4 M			and the second se					112086.96
Department Level 4 Desc								71473.35
Department Level 5 Id								106864.27
Department Level 5 Desc     Department Level 5 M		Direct Charges, Manualtan 2 Out of State Walver	130000	Education	79	NDEPENDENT OPERATING SCHOOL	131008	44913.99
Department Level 6 Desc	·	Direct charge - Composition & Out-on-State Walver			(B)	INDEPENDENT OPENDEND SCHOOL	131009	274.53
Department Level 7 Id							131010	94386.90
Department Level 7 Desc     Department Level 8 Id							131011	172427.55
Department Level 8 Desc							131012	477.70
Department Level 9 ld							131013	22.50
Department Level 9 Desc     Department Level 10 Id	-						131014	564.07
Department Level 10 Desc							131020	2036.53
FSU CIP Description							132000	0.00
FSU PCS Description     FSU PCS M					73 Total			781792.38
FSU CIP Id					76	SCHOOLS FOR CHILDREN	131015	51407.74
FSU Walver Charge Method					76 Total		1	51407.74
Four waiver charge Method Description     Erind Tree			130000 Total					873353.94
El Project	1 Total							873353.94
Account Tree					11	GENERAL ACADEMIC INSTRUCTION	167000	170517.17
B Chartfield1			040301	Urban & Regional Planning	11 Total			170517.17
B Chartfield2			040301 Total			6		170517.17
E Dat Paried					46	ACADEMIC ADMINISTRATION	094000	3947.52
w bet renod			050000	Area & Ethnic Studies	46 Total			3947.52
Answers - Central Offices	2	Charge to School Default - both Matric & Out-of-State	050000 Total					3947.52
¥ Base - Financial GL Period Balances		1.15			2.45		093000	0.00
V Dimension Dept Fund Acct Reporting					11	GENERAL ACADEMIC INSTRUCTION	230003	5858 81
V Dimension FSCM Source System IDs			050102	American Studies (USA)	11 Total			5858 87
Refresh Display			a she was a second	(Con)	41	LIBRARES	066000	1455107 38
Particular and the state					41 Total			4455407 20





# OBIEE Report

**Available Balance** 

Welcome, Menchion, Byron! VAlerts! - Dashboards - Answers - More Products V - Settings V - Log Out

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FLORIDA STATE UNIVERSITY Available Balance Area Level Data

Group	Division	School	Area	Fund Code	Fund Desc		Budget Amount	Encumbrance Amount	KK Expense Amount	Available Balance	% Avail Bal
University	Academic Affairs	Strozier Library	Strozier Library	110	E&G General	Expense	679,413.00	76,782.56	415,346.28	187,284.16	27.57%
					Revenue	Library Resources	5,583,865.00	0.00	3,810,422.71	1,773,442.29	31.76%
						000	115,000.00	5,444.66	72,642.03	36,913.31	32.10%
						OPS	475,336.00	130,083.58	331,703.03	13,549.39	2.85%
						Salary	6,565,220.00	1,950,535.57	4,252,620.12	362,064.31	5.51%
				110 Total			13,418,834.00	2,162,846.37	8,882,734.17	2,373,253.46	17.69%
			Strozier Library Total				13,418,834.00	2,162,846.37	8,882,734.17	2,373,253.46	17.69%
		Strozier Library Total					13,418,834.00	2,162,846.37	8,882,734.17	2,373,253.46	17.69%
	Academic Affairs Total						13,418,834.00	2,162,846.37	8,882,734.17	2,373,253.46	17.69%
University Total							13,418,834.00	2,162,846.37	8,882,734.17	2,373,253.46	17.69%

Department Tree Name is equal to DEPT\_LEVELS

and Department ID and Name is equal to 066000 - Strozier Library

and Level 2 Desc is equal to Expense Accounts

- and KK Expense Amount is not equal to / is not in 0
  - or Encumbrance Amount is not equal to / is not in 0
  - or Budget Amount is not equal to / is not in 0
- and Accounting Period is less than or equal to 9

and Fiscal Year is equal to 2009

and Av Bal Fund Grouping is equal to E & G - FSU - CURRENT YEAR





### **OBIEE** Report

**Available Balance** 

Welcome, Menchion, Byron! \* Alerts! - Dashboards - Answers - More Products

3/19/2009 10:27:48 PM



FLORIDA STATE UNIVERSITY Available Balance OMNI Fund Level Data

Group	Budget Entity	State Fund	Fund Code	Fund Desc		Budget Amount	Encumbrance Amount	KK Expense Amount	Available Balance	% Avail Bal
University	48900100	000210	110	E&G General Revenue	Expense	679,413.00	76,782.56	415,346.28	187,284.16	27.57%
					Library Resources	5,583,865.00	0.00	3,810,422.71	1,773,442.29	31.76%
					000	115,000.00	5,444.66	72,642.03	36,913.31	32.10%
					OPS	475,336.00	130,083.58	331,703.03	13,549.39	2.85%
					Salary	6,565,220.00	1,950,535.57	4,252,620.12	362,064.31	5.51%
			110 Total			13,418,834.00	2,162,846.37	8,882,734.17	2,373,253.46	17.69%
		000210 Total				13,418,834.00	2,162,846.37	8,882,734.17	2,373,253.46	17.69%
	48900100 Total					13,418,834.00	2,162,846.37	8,882,734.17	2,373,253.46	17.69%
University Total						13,418,834.00	2,162,846.37	8,882,734.17	2,373,253.46	17.69%

Accounting Period is less than or equal to 9

and Fiscal Year is equal to 2009

and Department Tree Name is equal to DEPT\_LEVELS

and Department ID and Name is equal to 066000 - Strozier Library

and Level 2 Desc is equal to Expense Accounts

and KK Expense Amount is not equal to / is not in 0

or Encumbrance Amount is not equal to / is not in 0

or Budget Amount is not equal to / is not in 0

and Av Bal Fund Grouping is equal to E & G - FSU - CURRENT YEAR



### Lessons Learned



- 1. Keep scope small and manageable.
- 2. Provide conservative estimates to compensate for leading edge technology.
- 3. Define the customization strategy & development standards early in the project.
- 4. Engage "power users" and business analysts throughout the BI Lifecycle.
- 5. Establish trust in the warehouse early and NEVER underestimate the importance of DI/DQ.
- 6. Focus on data reconciliation early and consistently.
- 7. Follow proven PeopleSoft and Warehousing development methodologies.
- 8. Leverage available database technology options even if they are not supported by PeopleTools.
- 9. Always look for ways to improve your processes.



### **Questions and Comments?**



# Thank You?