

# Reimagining Refunding

Designing your one-stop Dashboard

# Your Presenter

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  - Over 25 years of higher education industry experience
  - Over 15 years of PeopleSoft Student Financials and Financial Aid experience

# Overview

- Guide to moving business process activities to productivity tools such as
  - Pivot Grids
  - Reports to Fluid tile
- Tips working with refund exception queries in Pivot Grid, walk through using Composite Query
- Configure monitoring refund exception queries to a fluid tile and add it to a home page

# Agenda/Contents

- Overview of business process activities in refunding
- Discuss opportunities to use productivity tools
- Make a Plan
- Begin- Working the queries
  - Pivot Grid Wizard
  - Publish as Grouplet
  - Link to Collection
- Composite Query
  - Repeat Pivot Grid, Grouplet, Link
- Questions

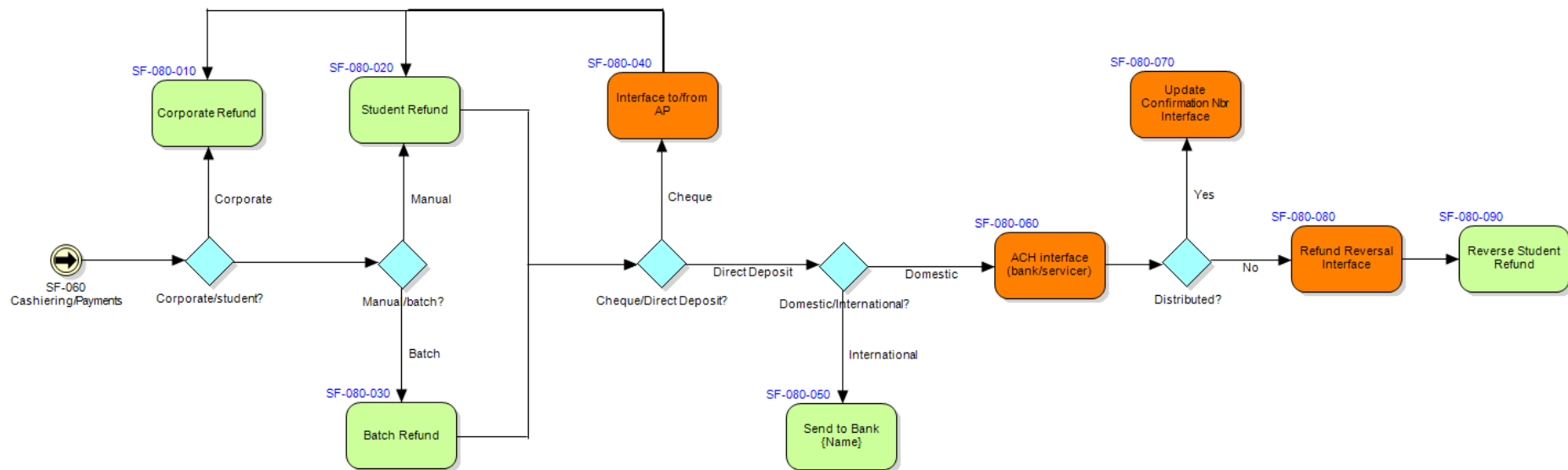
# Refunding Business Process

**What improvements have you made?**

**What new enhancements have you identified?**

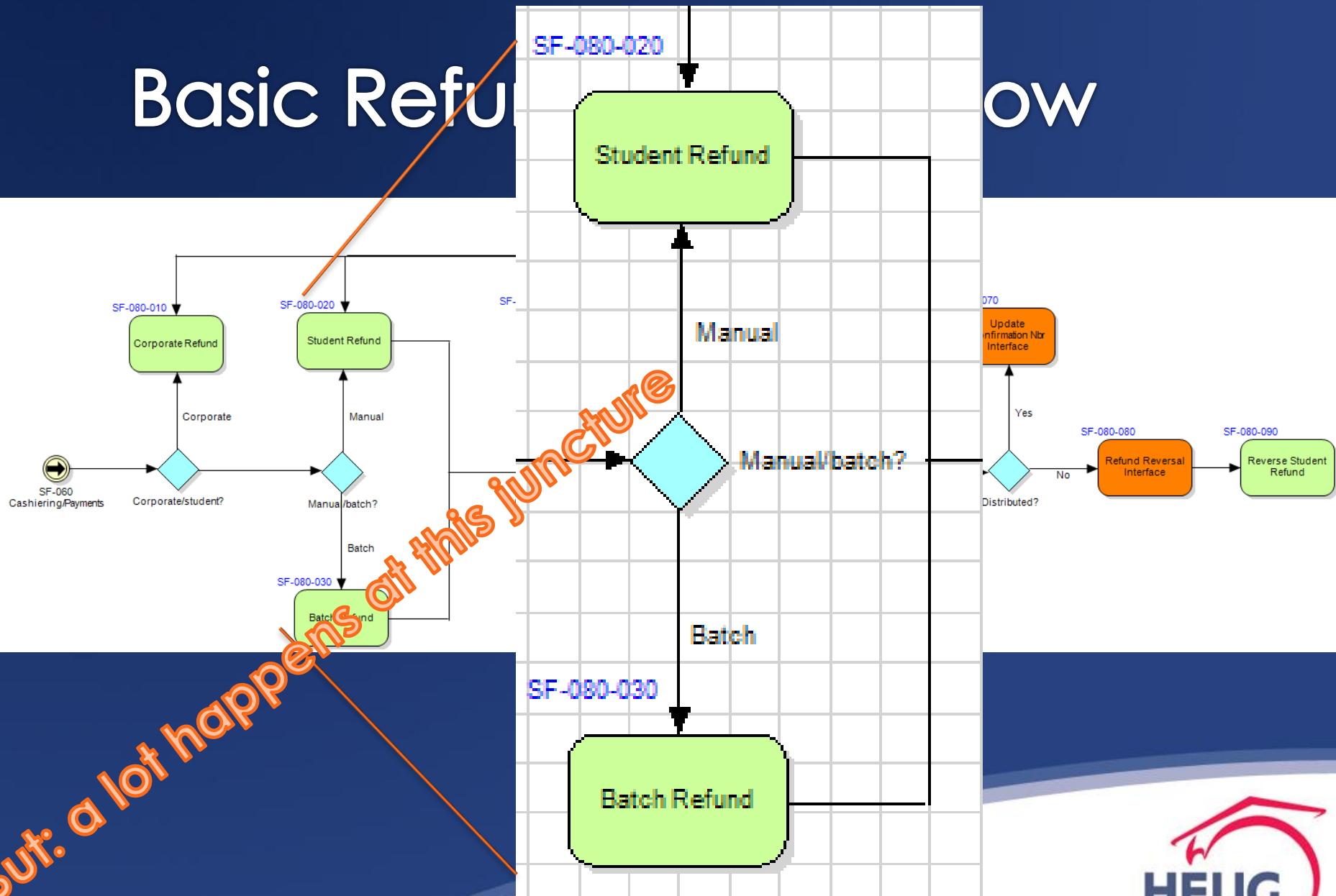
**Imagine what it would look like...**

# Basic Refund Process Flow



# Basic Refund

OW



But: a lot happens at this juncture

# A lot of checking prior to running Refund process

Last year by our  
Nebraska colleagues



Lots of edit  
checking queries

Edit Check	Edit Check
Bad Address	International Student
Foreign Address	Item Type
Invalid Address	Non Direct Dep
Exceed Max	Direct Deposit
All FA Withdrawal	No Enrollment
Federal FA Withdrawal	Other Holds
FA Credits	Tuition Calc Req
Permission Form	Dual Campus



# A lot of checking prior to running Refund process

Last year by our UW  
Madison colleagues



Lots of edit  
checking queries

**Step 1: Before we process refunds**  
*(processes complete, files loaded)*

**Step 2: Place and Remove Service Indicator Refund Holds (RFP) with multiple Reason Codes**

**Step 3: Review Refund Holds**

**Step 4: Gage the number of refunds we expect**



# Opportunity to Change

- Productivity Tools in Campus Solutions
  - Leverage with wizards – no modifications needed – but building views makes life a lot easier
  - Focus human intervention on exceptions
- Pivot Grids to filter data & when action is needed
- Focus work with Dashboards and Navigation Collections
- Notifications/Alerts when attention is required

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# Make a Plan

- Visioning
  - User insight
  - A day in the life
  - Seek to automate the routine
    - (like USDOE FA applications and tax returns)
- What could/would you have time to do ?
  - Do more with human talents
    - Creativity
    - Critical Thinking
    - Problem Solving

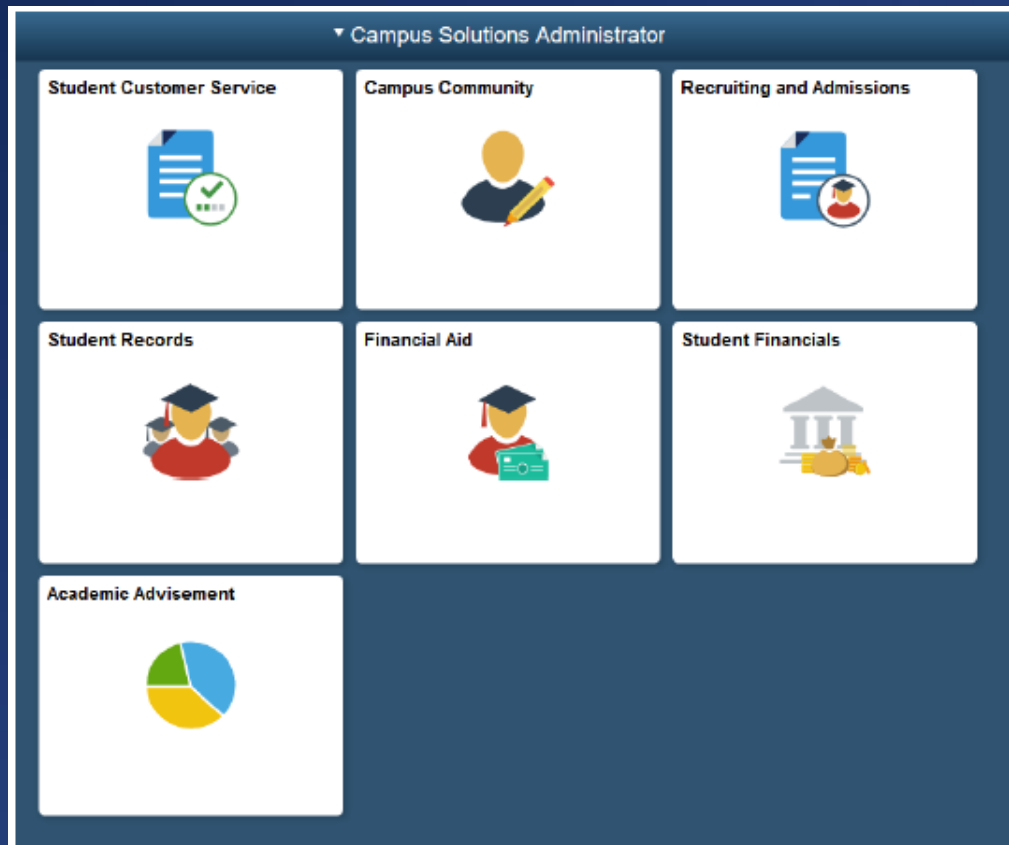
# Make a Plan – redesigning work



# Strategy

- Make a choice to do something differently
  - Prioritize
  - Create a roadmap
- How to get started- pick one
  - Start with an MVP
    - Minimum Viable Product
  - Identify interactions want to see or eliminate
  - Improve user experience

# Oracle is delivering targeted Home pages



Student Financials



# Delivered SF Tile Navigation Collections

- ***Student Financials Tile*** – The navigations within this collection reflect commonly used pages or components accessed by administrative staff. Staff members will only be able to view pages they have security access to view.
  - Tuition Calculation
  - Assign Payment Plans
  - View Customer Accounts
  - Post Student Transactions
  - Post Student Payments
  - Group Processing
    - Create Group Data Entries
    - External Files
    - Post Transactions

<http://www.uh.edu/dsaes/resources/pdf/myUH-administrator-overview.pdf>



# Refunds Navigation is delivered in Student Financials Collection

The screenshot displays the 'Student Financials Collection' interface. On the left is a navigation menu with the following items: 'AP Refunding Support' (expanded), 'View Customer Accounts' (highlighted), 'Student Refund', 'View Corporate Accounts', 'Corporate Refund', 'AP Refunding', 'AP Direct Deposit', 'Third Party Contract Support', 'View Accounts', and 'Collections'. The main content area is titled 'Customer Accounts' and includes a 'New Window' link. Below the title is a search instruction: 'Enter any information you have and click Search. Leave fields blank for a list of all values.' A 'Find an Existing Value' button is present. The 'Search Criteria' section contains several input fields: 'Business Unit' (set to 'PSUNV'), 'ID' (beginning with), 'National ID' (beginning with), 'Campus ID' (beginning with), 'Last Name' (beginning with), and 'First Name' (beginning with). There is also a 'Case Sensitive' checkbox. At the bottom of the search area are buttons for 'Search', 'Clear', 'Basic Search', and 'Save Search Criteria'.

< Campus Solutions Admini... Student Financials Collection

New Window

**AP Refunding Support** ^

**View Customer Accounts**

Student Refund

View Corporate Accounts

Corporate Refund

**AP Refunding** v

**AP Direct Deposit** v

**Third Party Contract Support** v

**View Accounts** v

**Collections** v

**Customer Accounts**

Enter any information you have and click Search. Leave fields blank for a list of all values.

Find an Existing Value

**Search Criteria**

Business Unit: = v PSUNV

ID: begins with v

National ID: begins with v

Campus ID: begins with v

Last Name: begins with v

First Name: begins with v

☐ Case Sensitive

Search Clear Basic Search Save Search Criteria

# Improving User Experience

## Getting Started

- **Visualizing Future State**  
Flow, Embedded logic on data,  
What innovators are doing, taking in new tools
- **Incremental Deployment**  
Prioritizing High Impact Transactions First
- **Understanding Technical approach**  
and learn the Skill Sets required to create  
and maintain
- **Create Proof of Concept sessions**  
Start with initial branding activities, simple  
concepts and a work center.
- **Involve your Audience** (Students, Staff) in  
controlled feedback sessions

# And what more do we want?

- One stop look at credit balance audience
- Automate alerts/emails to administrators based on rules that require attention
  - Financial aid, Third Party payer, athlete, etc.
- Notify when the number of days credit has been on account, when amounts are out of range, etc
- Reconciliation reports at our fingertips
- Your ideas to add to the list?



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# Build your own Tiles to support refunding teams

- Part 1 – Start with the edit check queries
  - Make them actionable, such as
    - Can you say Drilling URL's
  - Display these exception reports on a home page for the user responsible in FLUID
- Part 2 -- Composite Queries – seemed like a good fit, with the many exceptions we look for
  - Run one query instead of 3? 4? Or ???

# Extend Query to Pivot Grid

- Copied queries to a new name, so the originals can still be used. Use your naming convention.

Search Results		
Query		
Personalize   Find   View All     First  1-10 of 10  Last		
Query Name	Description	Owner
RFND1_TP_CONTRACT	0750 refund dashboard	Public
RFND2_PRIOR_TERM_BA	0750 refund dashboard	Public
RFND3_FACR_NE_ENRLCR	0750 refund dashboard	Public
RFND4_TUIT_CALC_RQD	0750 refund dashboard	Public

Using CS Demo patched through PUM6, PT 8.55

# Make an existing query into a pivot grid

## Reporting Tools>Pivot Grid>Grid Wizard

Records Query Expressions Prompts Fields Criteria Having Dependency Transformations View SQL Run

Query Name REF\_CREDIT\_BAL\_TPC Description Credit Bal 0750 Feed

Add Criteria Group Criteria Reorder Criteria

Criteria Personalize Find First 1-14 of 14 Last

Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.ACCOUNT_TERM - Account Term	equal to	:1	Edit	[-]
AND	A.BUSINESS_UNIT - Business Unit	equal to	PSUNV	Edit	[-]
AND	A.BUSINESS_UNIT - Business Unit	equal to	B.BUSINESS_UNIT - Business Unit	Edit	[-]
AND	A.EMPLID - Empl ID	equal to	B.EMPLID - Empl ID	Edit	[-]
AND	A.ACCOUNT_NBR - Account Nbr	equal to	B.ACCOUNT_NBR - Account Nbr	Edit	[-]
AND	A.ACCOUNT_TERM - Account Term	equal to	B.ACCOUNT_TERM - Account Term	Edit	[-]
AND	A.ACCOUNT_BALANCE - Account Balance	less than	0	Edit	[-]
AND	B.BUSINESS_UNIT - Business Unit	equal to	D.BUSINESS_UNIT - Business Unit	Edit	[-]
AND	D.EMPLID - ID	equal to	B.EMPLID - Empl ID	Edit	[-]
AND	D.TP_STATUS - Contract Status	equal to	A	Edit	[-]
AND	D.BUSINESS_UNIT - Business Unit	equal to	E.BUSINESS_UNIT - Business Unit	Edit	[-]
AND	D.CONTRACT_NUM - Contract Number	equal to	E.CONTRACT_NUM - Contract Number	Edit	[-]
AND	E.STRM - Term	equal to	A.ACCOUNT_TERM - Account Term	Edit	[-]
AND	B.APPLIED_AMT - Applied Amount	equal to	0	Edit	[-]

Save Save As New Query Preferences Properties Publish as Feed Publish as Pivot Grid New Union

# Query into Pivot Grid- con't

## Step 1

**Pivot Grid Wizard** Step 1 of 5

1 2 3 4 5 Next >

**Specify Pivot Grid Properties**

The following information will be used to identify and categorize your Pivot Grid.

**Pivot Grid Information**

Pivot Grid Name: REF\_CREDIT\_BAL\_TPC

\*Pivot Grid Title: Review Cr Bal has TPC active

Description:

Pivot Grid Type: Public

Owner: PeopleTools

OK Apply

## Step 2

**Pivot Grid Wizard** Step 2 of 5

1 2 3 4 5 < Previous Next >

**Select Data Source**

Select the Data Source Type and the Columns for the Pivot Grid

Title: Review Cr Bal has TPC active

Data Source Type: PS Query

**Data Source**

Query Name: REF\_CREDIT\_BAL\_TPC

**Select Columns** Personalize | Find | First 1-10 of 10 Last

Select	Data Source Columns	Base Query	Field Format
1 <input checked="" type="checkbox"/>	Acct Type		String
2 <input checked="" type="checkbox"/>	ID		String
3 <input checked="" type="checkbox"/>	Balance		Signed Number
4 <input checked="" type="checkbox"/>	Item Term		String
5 <input checked="" type="checkbox"/>	Org ID		String
6 <input type="checkbox"/>	Acct Nbr		String
7 <input type="checkbox"/>	Acct Term		String
8 <input type="checkbox"/>	Item Amt		Signed Number
9 <input checked="" type="checkbox"/>	Item Type		String
10 <input type="checkbox"/>	Contract #		String

☒ Select All ☐ Clear All

OK Apply



# Query into Pivot Grid- con't

## Step 3

Pivot Grid Wizard

Pivot Grid Wizard

1-2-3-4-5

< Previous Next >

### Specify Data Model Values

Specify the Column Type and the Aggregate functions for the selected Data Model

Title Review Cr Bal has TPC active

Select Data Source Information

Data Source Columns	Column Label	Aggregate Label	Field Format	Column Type	Total	Aggregate	Total Name	Editable Facet (Only Fluid)
Acct Type			String	Axis	<input checked="" type="checkbox"/>			<input type="checkbox"/>
ID			String	Value	<input type="checkbox"/>	Count		<input type="checkbox"/>
Balance			Signed Number	Value	<input type="checkbox"/>	Sum		<input type="checkbox"/>
Item Term			String	Axis	<input checked="" type="checkbox"/>			<input type="checkbox"/>
Org ID			String	Axis	<input checked="" type="checkbox"/>			<input type="checkbox"/>
Item Type			String	Axis	<input checked="" type="checkbox"/>			<input type="checkbox"/>

☒ Select All ☐ Clear All

Select Query Prompt Values

\*Acct Term:0750

Configure Visible Prompts

Query Prompt Name	Visible Prompt
Acct Term	<input checked="" type="checkbox"/>

OK Apply

## Step 4

Pivot Grid Wizard

Pivot Grid Wizard

Step 4 of 5

1-2-3-4-5

< Previous Next >

### Specify Data Model Options

Specify the values for the Display and View Options for the Pivot Grid and Chart.

Title Review Cr Bal has TPC active

View Options

Default View

☐ Pivot Grid Only ☐ Chart Only ☒ Pivot Grid and Chart

Specify Axis Information

Data Source Columns	Field Format	Grid Axis	Chart Axis	Display As	Dual Y Axis	Define Threshold
1 Acct Type	String	Filter	Filter			
2 ID	String					Define Threshold
3 Balance	Signed Number	Column	Y-Axis			Define Threshold
4 Item Term	String	Row	X-Axis			
5 Org ID	String	Filter	Filter			
6 Item Type	String	Filter	Filter			

Grid Options

Chart Options

Display Options

Fluid Mode Options

OK Apply

# Query into Pivot Grid- con't

## Step 4 – grid/chart at bottom

Pivot Grid Wizard

6 Item Type String Filter Filter

**Grid Options**

☒ Collapsible Data Area ☐ No Drag and Drop

☒ Expanded State

**Chart Options**

Title Review Cr Bal has TPC active

Type 2D Horizontal Bar Chart

X-Axis Label Item Term

Y-Axis Label Balance

**Advanced Options**

Legend Bottom

Height

Width

Subtitle

Footer

Y-Axis Precision ☐ ☐ Exploded Pie

**Display Options**

☒ View Grid ☒ Bar Chart ☒ Save As

☒ Export Data ☐ Line Chart

☒ Chart Options ☐ Pie Chart

☒ Hide Chart ☒ Horizontal Bar Chart

☒ Reset ☒ Update Filters

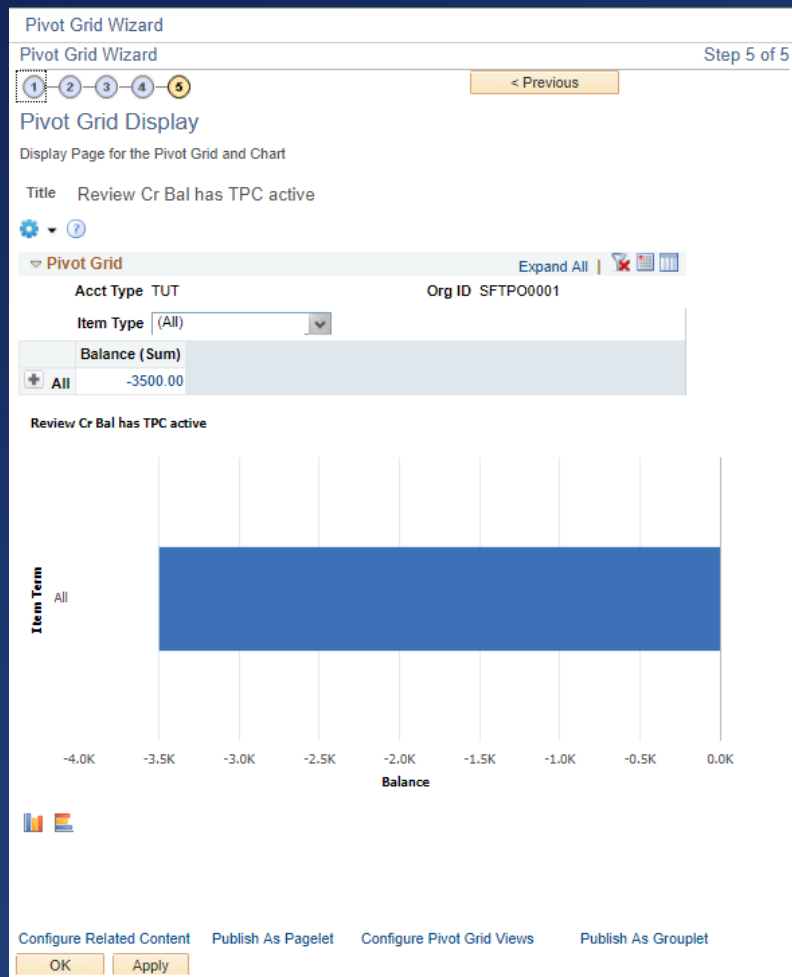
☒ Save ☒ Show Help

**Help Message**

Message Set Number 268

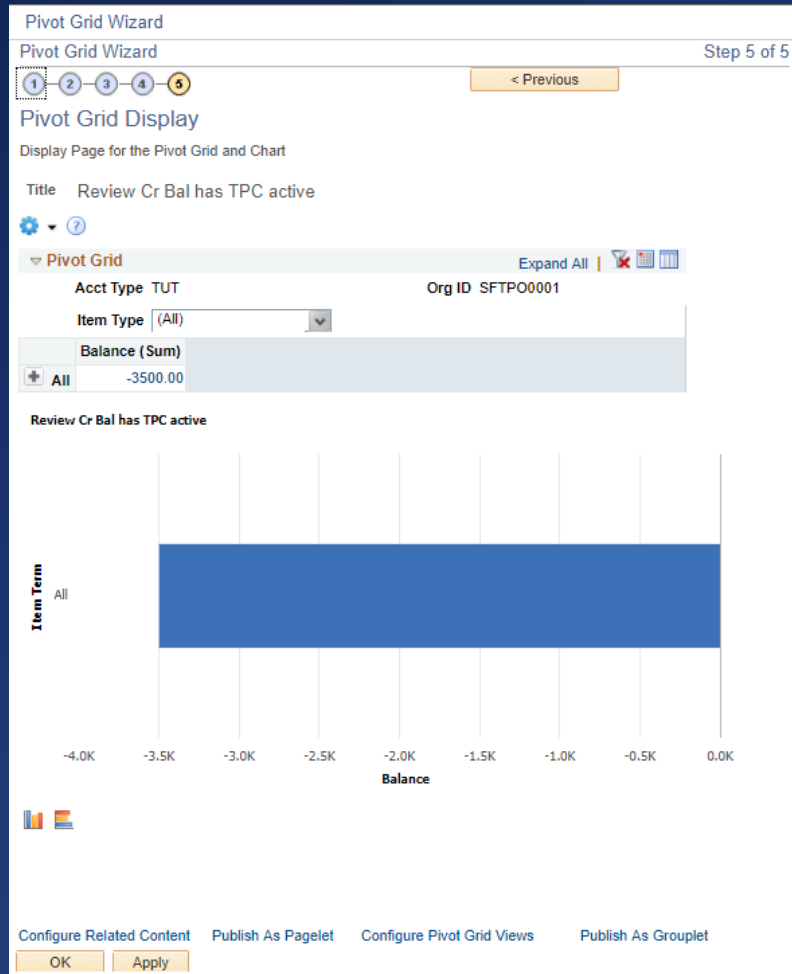
# Query into Pivot Grid- con't

## Step 5



# Query into Pivot Grid- con't

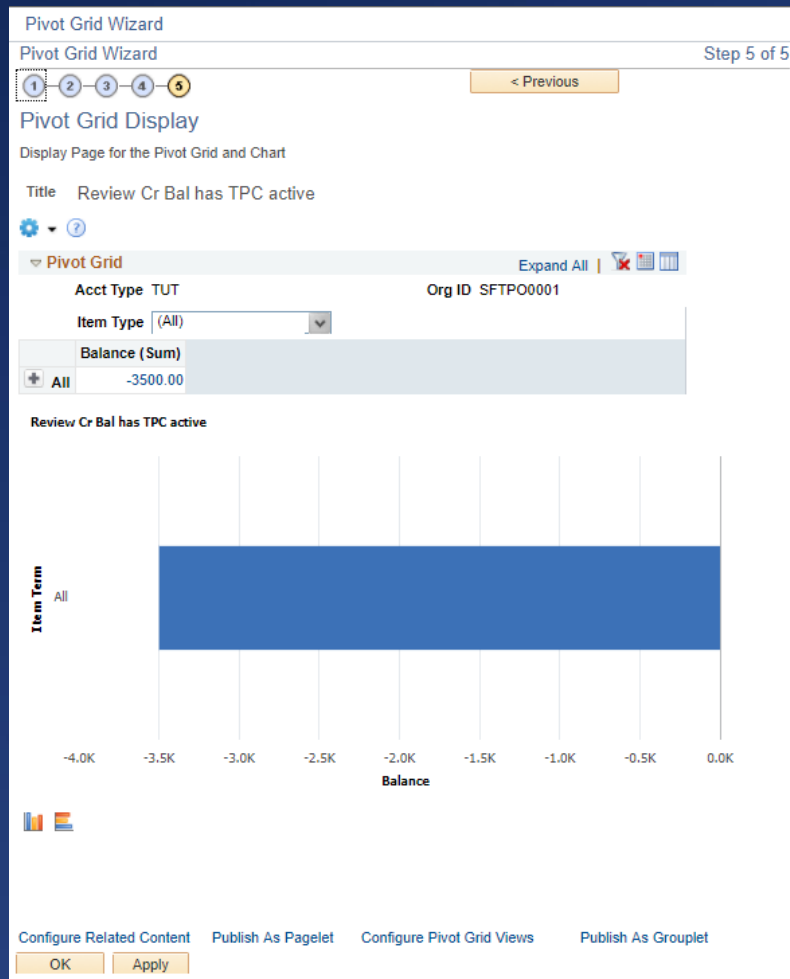
## Step 5



To see it work, SAVE  
then go to  
Reporting Tools>  
PivotGrid>Pivot Grid  
Viewer to interact

# Query into Pivot Grid- con't

Reporting Tools> PivotGrid>Pivot Grid Viewer  
to interact with filters and grids



# Add Tile to Home Page

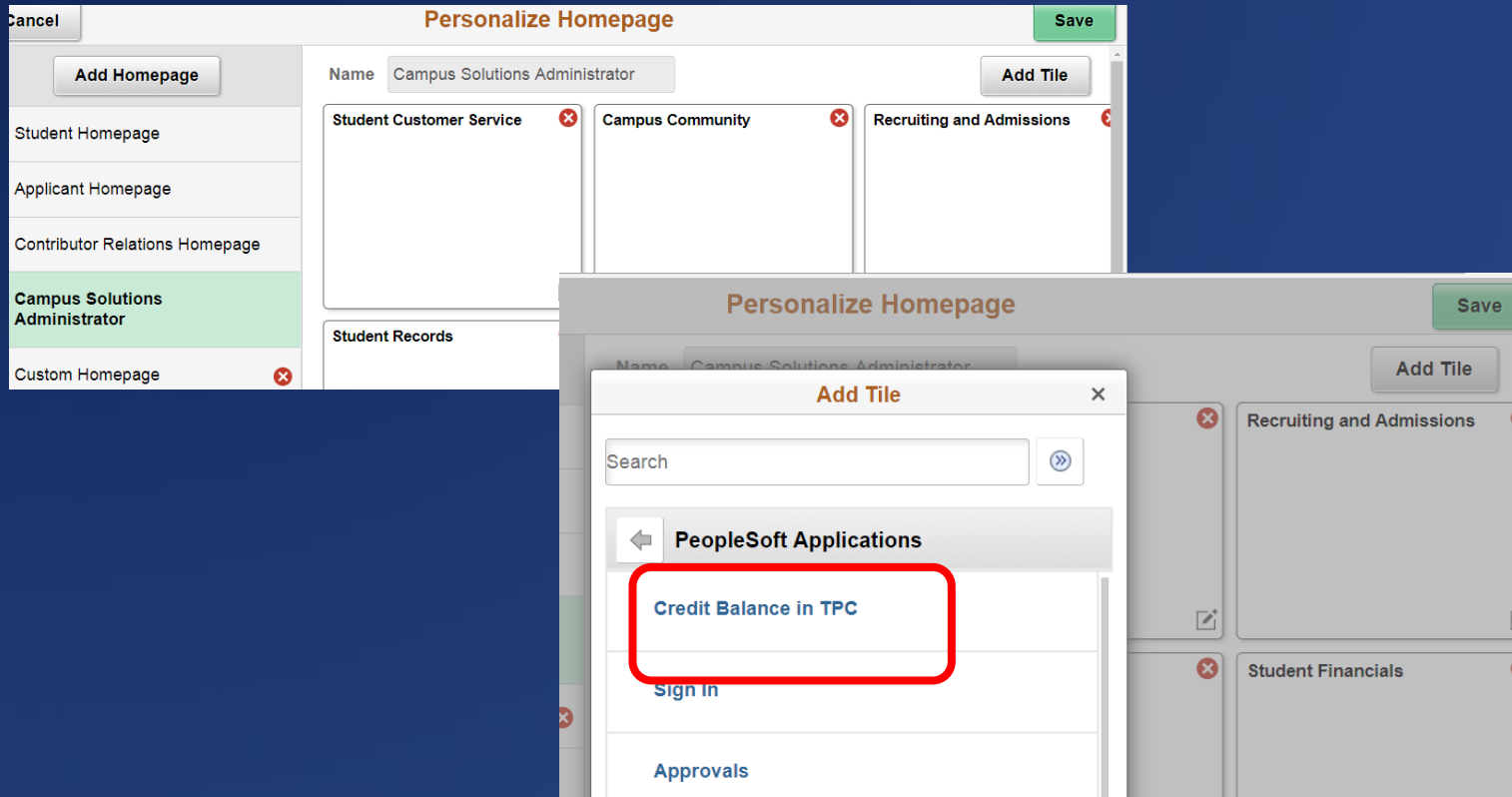
## Publish as a Grouplet

Publish As Grouplet

<b>Target Page Properties</b>	
*Target Page Type	Create New Pivot Grid CRef
*Target Page Name	SEARCH_ITEMS
*Target Page Label	Credit Balance FA units NE current
Long Description	
*Object Owner ID	SSF
*Parent Folder	PTFL_PEOPLETOOLS
*Node Name	LOCAL_NODE
Sequence Number	
<b>Target Page Attributes</b>	
Pivot Grid Name	REF_CREDIT_BAL_FA_NE
View Name	REF_CREDIT_BAL_FA_NE.View
Additional Parameters	
<b>Grouplet Properties</b>	
Grouplet Height	2
Grouplet Width	2
Image Name	
<input type="radio"/> Current Window <input type="radio"/> New Window <input checked="" type="radio"/> Modal Window	
<b>Tile Content Attributes</b>	
Type	Pivot Grid Wizard
Grouplet Id	PTS_CHART_GB

# Add Tile to Home Page

## Access Personalizations – Add Tile



# Composite Query

Let's see how this tool works





# Reporting Tools> Composite Query

Identify queries want to use in new composite  
Copy and rename for dedicated use

Search Results

Query

Personalize | Find | View All |  

First 1-10 of 10 Last

Query Name	Description	Owner
RFND1_TP_CONTRACT	0750 refund dashboard	Public
RFND2_PRIOR_TERM_BA	0750 refund dashboard	Public
RFND3_FACR_NE_ENRLCR	0750 refund dashboard	Public
RFND4_TUIT_CALC_RQD	0750 refund dashboard	Public

We will need to adjust them to accommodate limitations:

- Can't have duplicate field names
- Can't use same fields used to join queries as output fields
- Can't have prompts in base query parent or child
  - (we build using them – remove at end)
  - See UW Oshkosh's presentation – so helpful !!

Alliance 2017-Session 3840-Making Sense of PS Reporting Tools.pdf

# Preparation on the queries:

Thank you to our colleagues at UW Oshkosh -- borrowing from Alliance 2017 – session 3840 Making sense of PS Reporting Tools.pdf

## Building the Composite Query

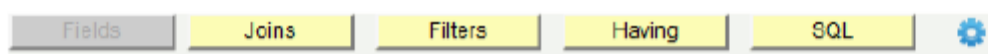
- Choose Parent Query
- Select other Child Queries
  - Set Join Type
  - Map join fields
- Add
  - Prompts
  - Filters
- Set Properties like DISTINCT or PRUNING

## Results

- Hierarchical structure of data built that would have been flattened in PS Query

The screenshot displays the PS Reporting Tools interface. At the top, there are tabs for 'Fields', 'Joins', 'Filters', 'Having', and 'SQL'. Below these, a 'Query Selected' panel shows two queries: 'SCT' and 'PROG'. A 'Prompts' panel shows a prompt ':1 = STRM'. A 'Fields' table is visible at the bottom with columns: Description, Field Format, Heading, Order-By, Sort, and Aggregate. The table contains one row: '1 SCT.SC.EMPLID', 'Char11', 'ID', '4', 'Asc', and an empty aggregate field. A context menu is open over the 'ID' field, showing options: Add Filter, Edit Field, Edit Group By, Move Down, and Remove.

# Preparation on the queries:



## Flexible Parent – Child(ren) Structure

- **Structured but Flexible model**
- **Uses field naming based on underlying queries**
  - Actually compounds the issue of field understanding in report template
    - Each query can have 1 or more NAME or DESCR fields
    - Each “duplicated” field can have same alias as that in another query
      - A.DESCR can exist in all connected queries and be from completely different records
- **Prompts apply to entire Composite**

# Preparation on the queries:

## Parent – Child(ren) Structure

### ➤ Structured but Flexible model

- Have to be careful how structure is setup
- The parent query should reflect 1 row for each entity you want returned
- PS Query DISTINCT clause is applied before LOJs
  - This is apparent when you look at the SQL
- What works in PS Query because of inner joins, can also work in Composite because of inner joins
- Beware of summary bloat if joins (left or inner) return 0 to **Many** rows
- Pruning available to improve performance

# Preparation on the queries:

## Parent – Child(ren) Structure

### ➤ Structured but Flexible model

- Do have to engineer each query to return critical join fields (key fields)
- Much easier to make joins, but you have to do them manually
  - The automated “knowing the table structure” doesn’t apply like in PS Query
  - This is a blessing and a curse

Query Join Details

# Here we go: what fields do I want?

Have to think it through – can't use key joined fields and can't have duplicate field names. For example:

**Student ID: query joins use EMPLID**

My solution: Parent Query use a record with COMMON\_ID

**Term:**




My solution: Use records with Account\_Term, Item\_Term, STRM and map out to decide which to use where

Records Query Expressions Prompts Fields Criteria Help

Query Name REF\_CREDIT\_BALANCE

Click folder next to record to show fields. Check fields to add to query. Uncheck additional records by clicking the records tab. When finished click the fields tab.

**Chosen Records**

Alias	Record
 A	ACCOUNT_SF - Account (Student Financials)
 B	ITEM_SF - Item Record
 C	ITEM_TYPE_TBL - Item Type Table

Expand All Records Collapse All Records

Save Save As New Query Preferences Properties

Return To Search

# Here we go: Recall we have avoid Criteria and Duplicate field names

Copied the criteria and field tab and into a spreadsheet to keep my notes -- good for documentation, learning, tool.

Criteria	Perso naliz		
<u>Logical</u>	<u>Expre</u>	<u>Condition Type</u>	<u>Expression 2</u>
	BU	equal to	PSUNV
AND		equal to	B.BUSINESS_UNI
AND		equal to	B.EMPLID - Empl
AND		equal to	B.ACCOUNT_NB
AND		equal to	B.ACCOUNT_TER
AND		less than	0
AND		equal to	B.ITEM_TYPE -
AND		Eff Date <=	Current Date
AND			
	COU	less than	0
AND		equal to	750
AND		equal to	D.EMPLID - ID
AND		equal to	PSUNV
	TITUT	equal to	
AND		equal to	A.ACCOUNT_TER
AND		equal to	E.EMPLID - Empl
AND		equal to	E.ACAD_CAREER
AND		equal to	E.INSTITUTION -
	TITUT	equal to	Academic
AND		equal to	E.STRM - Term
AND		Eff Date <=	Current Date
AND		not equal to	F
AND		not equal to	F
	ADE	not equal to	F

Select Columns	Perso nalize Select				
		Data Source Columns	Field Format	Field display	field names
Row1	<input checked="" type="checkbox"/>	ID	String	no	EMPLID
Row2	<input checked="" type="checkbox"/>	Acct Term	String	no	
Row3	<input checked="" type="checkbox"/>	Acct Type	String		
Row4	<input checked="" type="checkbox"/>	Balance	Signed Number	no	
Row5	<input checked="" type="checkbox"/>	ID	String		Common_id
Row6	<input checked="" type="checkbox"/>	Item Type	String		
Row7	<input checked="" type="checkbox"/>	Item Amt	Signed Number		
Row8	<input checked="" type="checkbox"/>	Item Term	String		
Row9	<input checked="" type="checkbox"/>	Short Desc	String		
Row10	<input checked="" type="checkbox"/>	Item Code	String		
Row11	<input checked="" type="checkbox"/>	Career	String		
Row12	<input checked="" type="checkbox"/>	Prim Prog	String		
Row13	<input checked="" type="checkbox"/>	Acad Load	String		
Row14	<input checked="" type="checkbox"/>	FA Load	String	no	
Row15	<input checked="" type="checkbox"/>	Take Prgrs	Number	no	
Row16	<input checked="" type="checkbox"/>	Calc Req	String		
Row17	<input checked="" type="checkbox"/>	FA Taken	Number		
Row18	<input checked="" type="checkbox"/>	Institution	String		
	<input checked="" type="checkbox"/>				



# Reporting Tools> Composite Query

Updated my source queries to bring in the records and fields to meet my report field needs.

Fields		Find		
	Description	Field Format	Heading	On By
1	Q1."A.EMPLID"	Char11	ID	
2	Q1."A.ACCOUNT_TERM"	Char4	Acct Term	
3	Q1."A.ACCOUNT_BALANCE"	SNm16.2	Balance	
4	Q1."A.ACCOUNT_TYPE_SF"	Char3	Acct Type	
5	Q2."A.EMPLID"	Char11	ID	
6	Q2."A.ACCOUNT_TERM"	Char4	Acct Term	
7	Q2."A.ACCOUNT_BALANCE"	SNm16.2	Balance	
8	Q2."B.CONTRACT_NUM"	Char25	Contract #	
9	Q2."C.EXT_ORG_ID"	Char11	Org ID	
10	Q2."C.STRM"	Char4	Term	
11	PRIOR_TERM_BLANANCE "B.ITEM_TERM"	Char4	Item Term	
12	PRIOR_TERM_BLANANCE "C.DESCRSHORT"	Char10	Short Desc	
13	PRIOR_TERM_BLANANCE "B.ITEM_TYPE"	Char12	Item Type	
14	PRIOR_TERM_BLANANCE "EXPRS_5"	SNm18.2	sum(B.ITEM_AMT-B.APPLIED_AMT)	
15	PRIOR_TERM_BLANANCE "A.ACCOUNT_TYPE_SF"	Char3	Acct Type	
16	FACR_NE_ENRLCR "B.UNT_TAKEN_PGRSS"	Num6.3	Take Prgrs	
17	FACR_NE_ENRLCR "C.UNT_TAKEN_FA"	Num6.3	FA Taken	
18	FACR_NE_ENRLCR "C.REMOTE_UNT_FA"	Num6.3	Remote	
19	FACR_NE_ENRLCR "C.OVRD_UNT_TAKEN_FA"	Char1	Ovrd Unt T	
20	FACR_NE_ENRLCR "C.TOT_TERM_UNT_FA"	Num6.3	Total	



# Reporting Tools> Composite Query

Specify Composite Query Properties

Next >

**Composite Query Information**

\*Composite Query Name

\*Type

\*Status

Description

Cancel

# Reporting Tools> Composite Query

Start with Parent Query and first Child Query

## Select Base Query

Use meaningful name for Alias

Next >

Composite Query Name REFUND\_EXCEPTIONS\_2

Base Queries

Query Name 1 RFNDX\_PRIOR\_TERM\_UNPAID\_CHARGE

Query Alias 1 Q1

Query Name 2 RFND\_SRVC\_INDICATORS

Query Alias 2 SERVICE\_INDICATORS

Cancel

# What is the Difference between Inner Joins and Outer Joins?

- Both inner and outer joins are used to combine rows from two or more tables into a single result. This is done using a join condition. The join condition specifies how columns from each table are matched to one another. In most cases the aim is to find equal values between tables, and include those matches.
- The most common case for this is when you're matching the foreign key of one table to the primary key of another, such as when using an ID to lookup a value.
- Though both inner and outer joins include rows from both tables when the match condition is successful, they differ in how they handle a false match condition.
- Inner joins don't include non-matching rows; whereas, outer joins do include them.
- This definition was found at <https://www.essentialsql.com/what-is-the-difference-between-an-inner-and-outer-join/>

# Reporting Tools> Composite Query

## Inner Join vs Left Outer Join

- In this example all queries started with balance on account so I could start with the full potential audience.
- To create an inclusive list I used left outer join option.
- Recall: when a **LEFT OUTER JOIN** is used, all rows for the table in the FROM clause are included in the result, even if a match isn't found with the other table. When a match isn't found, then a NULL is placed in the column.

# Reporting Tools> Composite Query

Manually assign the join with the added query by selecting and mapping fields

ORACLE® All Search Advanced Search Last Search Results Add To Notification NavBar New Window

Specify Query Joins

Next >

Composite Query Name REFUND\_EXCEPTIONS\_2

**Joins**

Query Alias 1	Query Name 1	Join Type	Query Alias 2	Query Name 2
Q1	RFNDX_PRIORTERM_UNPAID_CHARGES	Left Outer Join		RFND_SRVC_INDICATORS

**Query Join Details**

Find | 1 of 1 | First | Last

Query Name	*Query Field	*Condition Type	Query Name	*Query Field
RFNDX_PRIORTERM_UNPAID_CHARGES		equal to	RFND_SRVC_INDICATORS	

Cancel

- A.ACCOUNT\_TERM
- A.EMPLID
- EXPR4\_4

# Reporting Tools> Composite Query

Manually assign the join with the added query by selecting and mapping fields

Query Join Details

Query Name 1 RFNDX\_PRIORTERM\_UNPAID\_CHARGES

\*Join Type

Query Name 2 RFNDX\_TUITCALC\_REQ

Query Join Details

Find | | First 1-2 of 2 Last

Query Alias	Query Name 1	*Query Field	*Condition Type	Query Alias 2	Query Name 2	*Child Query Field Name		
1 Q1	RFNDX_PRIORTERM_UNPAID_CHARGES	<input type="text" value="A.EMPLID"/>	<input type="text" value="equal to"/>	TUITION_CALC_REQ	RFNDX_TUITCALC_REQ	<input type="text" value="A.EMPLID"/>	<input type="text" value="v"/>	<input type="text" value="+"/>
2 Q1	RFNDX_PRIORTERM_UNPAID_CHARGES	<input type="text"/>	<input type="text" value="equal to"/>	TUITION_CALC_REQ	RFNDX_TUITCALC_REQ	<input type="text"/>	<input type="text" value="v"/>	<input type="text" value="+"/>

OK Cancel

# Reporting Tools> Composite Query


Manually assign the join with the added query by selecting and mapping fields. You will be able add new queries to bring in additional Data fields

Composite Query Name REFUND\_EXCEPTIONS

Type Public


\*Status


Description


Fields Joins Filters Having SQL 


LCR

BLANANCE









Query Alias 1	Query Name 1	Join Type	Query Alias 2	Query Name 2
Q1	RFND_BASE_CREDITS	Left Outer Join	FACR_NE_ENRLCR	RFND3_FACR_NE_ENRLCR
Q1	RFND_BASE_CREDITS	Left Outer Join	PRIOR_TERM_BLANANCE	RFND2_PRIOR_TERM_BA
Q1	RFND_BASE_CREDITS	Left Outer Join	Q2	RFND1_TP_CONTRACT

# Reporting Tools> Composite Query

SQL is built as you go and can be viewed on SQL tab

Composite Query Name REFUND\_EXCEPTIONS

Type Public

\*Status Active

Description

Fields Joins Filters Having SQL

SQL Pruning No Pruning

▼ Actions

▼ Query Selected

- Q1
- FACR\_NE\_ENRLCR
- PRIOR\_TERM\_BLANANCE
- Q2

```
SELECT Q1."A.EMPLID",
Q1."A.ACCOUNT_TERM",
Q1."A.ACCOUNT_BALANCE",
Q1."A.ACCOUNT_TYPE_SF",
Q2."A.EMPLID",
Q2."A.ACCOUNT_TERM",
Q2."A.ACCOUNT_BALANCE",
Q2."B.CONTRACT_NUM",
Q2."C.EXT_ORG_ID",
Q2."C.STRM",
PRIOR_TERM_BLANANCE."B.ITEM_TERM",
PRIOR_TERM_BLANANCE."C.DESCRSHORT",
PRIOR_TERM_BLANANCE."B.ITEM_TYPE",
PRIOR_TERM_BLANANCE."EXPR5_5",
PRIOR_TERM_BLANANCE."A.ACCOUNT_TYPE_SF",
FACR_NE_ENRLCR."B.UNT_TAKEN_PGRSS",
FACR_NE_ENRLCR."C.UNT_TAKEN_FA",
FACR_NE_ENRLCR."C.REMOTE_UNT_FA",
FACR_NE_ENRLCR."C.OVRD_UNT_TAKEN_FA",
FACR_NE_ENRLCR."C.TOT_TERM_UNT_FA",
FACR_NE_ENRLCR."C.OVRD_FA_UNITS"
FROM
(SELECT A.EMPLID AS "A.EMPLID",
A.ACCOUNT_TERM AS "A.ACCOUNT_TERM",
A.ACCOUNT_BALANCE AS "A.ACCOUNT_BALANCE",
A.ACCOUNT_TYPE_SF AS "A.ACCOUNT_TYPE_SF"
FROM PS_ACCOUNT_SF A
WHERE ( A.BUSINESS_UNIT = 'PSUNV'
AND A.ACCOUNT_TERM IN ('0750')
AND A.EMPLID NOT LIKE 'PU%'
AND A.ACCOUNT_BALANCE < 0 ) ) Q1 LEFT OUTER
JOIN
( SELECT A.EMPLID AS "A.EMPLID",
A.ACCOUNT_TERM AS "A.ACCOUNT_TERM",
```



# Reporting Tools> Composite Query

Review my fields and add/review using left column by expanding

Oracle Composite Query Manager interface for query REFUND\_EXCEPTIONS.

**Composite Query Name:** REFUND\_EXCEPTIONS  
**Type:** Public  
**Status:** Active

**Actions:** Query Selected

- Q1
- FACR\_NE\_ENRLCR
- PRIOR\_TERM\_BLANANCE
- Q2

**Fields Table:**

Description	Field Format	Heading	Order-By	Sort	Aggregate	Actions
1 Q1."A.EMPLID"	Char11	ID	1	Asc		
2 Q1."A.ACCOUNT_TERM"	Char4	Acct Term				
3 Q1."A.ACCOUNT_BALANCE"	SNm16.2	Balance				
4 Q1."A.ACCOUNT_TYPE_SF"	Char3	Acct Type				
5 Q2."A.EMPLID"	Char11	ID				
6 Q2."A.ACCOUNT_TERM"	Char4	Acct Term				
7 Q2."A.ACCOUNT_BALANCE"	SNm16.2	Balance				
8 Q2."B.CONTRACT_NUM"	Char25	Contract #				
9 Q2."C.EXT_ORG_ID"	Char11	Org ID				
10 Q2."C.STRM"	Char4	Term				
11 PRIOR_TERM_BLANANCE."B.ITEM_TERM"	Char4	Item Term				
12 PRIOR_TERM_BLANANCE."C.DESCRSHORT"	Char10	Short Desc				
13 PRIOR_TERM_BLANANCE."B.ITEM_TYPE"	Char12	Item Type				
14 PRIOR_TERM_BLANANCE."EXPRS_5"	SNm18.2	sum(B.ITEM_AMT-B.APPLIED_AMT)				
15 PRIOR_TERM_BLANANCE."A.ACCOUNT_TYPE_SF"	Char3	Acct Type				
16 FACR_NE_ENRLCR."B.UNT_TAKEN_PGRSS"	Num6.3	Take Prgrs				
17 FACR_NE_ENRLCR."C.UNT_TAKEN_FA"	Num6.3	FA Taken				
18 FACR_NE_ENRLCR."C.REMOTE_UNT_FA"	Num6.3	Remote				
19 FACR_NE_ENRLCR."C.OVRD_UNT_TAKEN_FA"	Char1	Ovrd Unt T				
20 FACR_NE_ENRLCR."C.TOT_TERM_UNT_FA"	Num6.3	Total				
21 FACR_NE_ENRLCR."C.OVRD_FA_UNITS"	Char1	FA UntOvrd				

Buttons: Save, Cancel

URL: ...highereducation.cloud/.../QUERY\_MANAGER.QUERY\_MANAGER.GBL...


# Reporting Tools> Composite Query

Review your results in Run/Preview. Gear symbol Properties for Distinct is here too.



Oracle® Composite Query Manager

Composite Query Name: REFUND\_EXCEPTIONS  
Type: Public  
\*Status: Active  
Description:

Actions: Fields Joins Filters Having SQL 

Query Selected: 1

Fields: Find | 1-21 of 21 | Last

## Preview

### Pruning Type

- ☒ No Pruning  
☐ Standard Pruning  
☐ Prune to Select List

Maximum Rows Fetched: 100

Preview

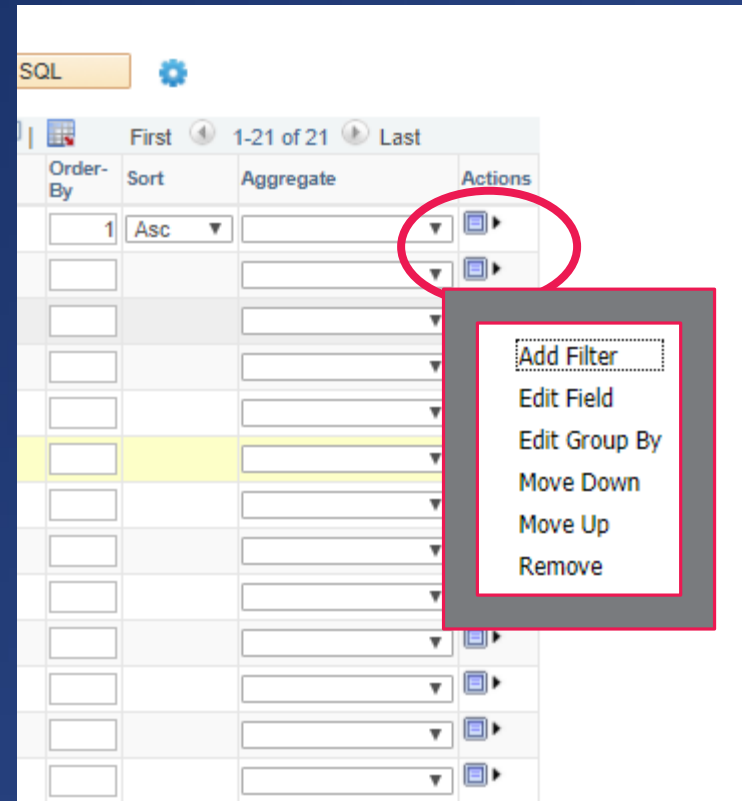
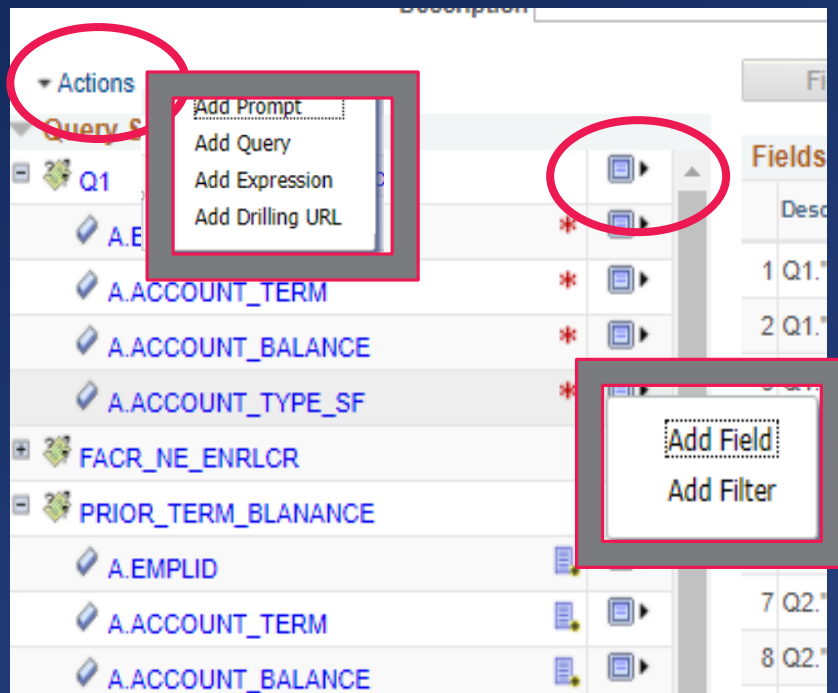
Download

	ID	Acct Term	Balance	Acct Type	ID	Acct Term	Balance	Contract #	Org ID	Term	Item Term	Short Desc	Item Type	sum(B.ITEM_AMT-B.APPLIED_AMT)	Acct Type	Take Prgrs	FA Taken	Remote	Ovrd Unt T	Total	FA UntOvrd
1	FACOD0022	0750	-1500.00	TUT																	
2	FACOD0072	0750	-1250.00	TUT																	
3	FACOD0102	0750	-1000.00	TUT	FACOD0102	0750	-1000.00	0750_DASHBOARD_DEMO	SFTPO0001	0750											
4	FACOD0132	0750	-1250.00	TUT	FACOD0132	0750	-1250.00	0750_DASHBOARD_DEMO	SFTPO0001	0750											
5	FACOD0142	0750	-1250.00	TUT	FACOD0142	0750	-1250.00	0750_DASHBOARD_DEMO	SFTPO0001	0750											
6	FAFLD0003	0750	-555.50	TUT																	
7	SFFLD00105	0750	-1000.00	TUT							0740	Class Fee	1700000000011	250.00	TUT	0.000	12.000	0.000	N	12.000	N

Return

# Reporting Tools> Composite Query

## Actions Icon and drop downs



# Reporting Tools> Composite Query


Review your results in Run/Preview. Gear symbol Properties for Distinct is here too.



Oracle® Reporting Tools > Composite Query > Composite Query Manager

Composite Query Name: REFUND\_EXCEPTIONS  
Type: Public  
\*Status: Active  
Description:

Actions: Query Selected

Fields Joins Filters Having SQL 

Fields Find | 1-21 of 21 | Last

## Preview

### Pruning Type

- ☒ No Pruning  
☐ Standard Pruning  
☐ Prune to Select List

Maximum Rows Fetched: 100

Preview

Download

	ID	Acct Term	Balance	Acct Type	ID	Acct Term	Balance	Contract #	Org ID	Term	Item Term	Short Desc	Item Type	sum(B.ITEM_AMT-B.APPLIED_AMT)	Acct Type	Take Prgrs	FA Taken	Remote	Ovrd Unt T	Total	FA UntOvrd
1	FACOD0022	0750	-1500.00	TUT																	
2	FACOD0072	0750	-1250.00	TUT																	
3	FACOD0102	0750	-1000.00	TUT	FACOD0102	0750	-1000.00	0750_DASHBOARD_DEMO	SFTPO0001	0750											
4	FACOD0132	0750	-1250.00	TUT	FACOD0132	0750	-1250.00	0750_DASHBOARD_DEMO	SFTPO0001	0750											
5	FACOD0142	0750	-1250.00	TUT	FACOD0142	0750	-1250.00	0750_DASHBOARD_DEMO	SFTPO0001	0750											
6	FAFLD0003	0750	-555.50	TUT																	
7	SFFLD00105	0750	-1000.00	TUT							0740	Class Fee	1700000000011	250.00	TUT	0.000	12.000	0.000	N	12.000	N

Return

# Reporting Tools> Composite Query

Ready to add next query

\*Status Active

Description

Actions

- Add Prompt
- Add Query**
- Add Expression
- Add Drilling URL

Fields

Fields	
	Description
1	Q1."A.EMP
2	Q1."A.ACC
3	SERVICE_
4	SERVICE_

Save Cancel

# Reporting Tools> Composite Query

Review my fields and add/review using left column by expanding

Composite Query Name REFUND\_EXCEPTIONS  
Type Public  
\*Status Active  
Description

Actions  
Query Selected

Q1

- A.EMPLID
- A.ACCOUNT\_TERM
- A.ACCOUNT\_BALANCE
- A.ACCOUNT\_TYPE\_SF
- FACR\_NE\_ENRLCR
- PRIOR\_TERM\_BALANCE
- A.EMPLID
- A.ACCOUNT\_TERM
- A.ACCOUNT\_BALANCE
- A.ACCOUNT\_TYPE\_SF
- EXPRS\_5
- B.ITEM\_TYPE
- C.DESCRSHORT
- B.ITEM\_TERM

Q2

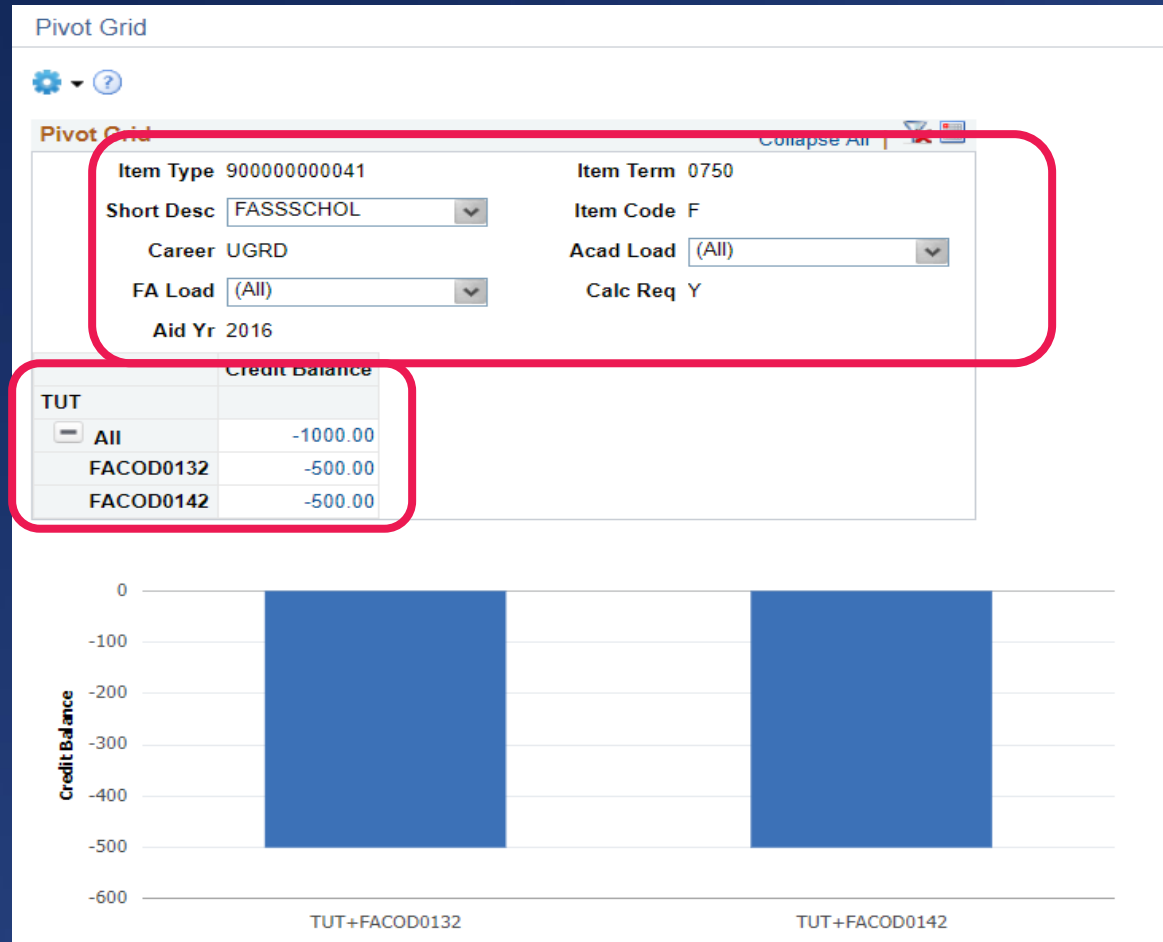
- A.EMPLID
- A.ACCOUNT\_TERM
- A.ACCOUNT\_BALANCE
- B.CONTRACT\_NUM
- C.EXT\_ORG\_ID
- C.STRM

Fields

Description	Field Format	Heading	Order-By	Sort	Aggregate	Actions
1 Q1."A.EMPLID"	Char11	ID	1	Asc		
2 Q1."A.ACCOUNT_TERM"	Char4	Acct Term				
3 Q1."A.ACCOUNT_BALANCE"	SNm16.2	Balance				
4 Q1."A.ACCOUNT_TYPE_SF"	Char3	Acct Type				
5 Q2."A.EMPLID"	Char11	ID				
6 Q2."A.ACCOUNT_TERM"	Char4	Acct Term				
7 Q2."A.ACCOUNT_BALANCE"	SNm16.2	Balance				
8 Q2."B.CONTRACT_NUM"	Char25	Contract #				
9 Q2."C.EXT_ORG_ID"	Char11	Org ID				
10 Q2."C.STRM"	Char4	Term				
11 PRIOR_TERM_BALANCE."B.ITEM_TERM"	Char4	Item Term				
12 PRIOR_TERM_BALANCE."C.DESCRSHORT"	Char10	Short Desc				
13 PRIOR_TERM_BALANCE."B.ITEM_TYPE"	Char12	Item Type				
14 PRIOR_TERM_BALANCE."EXPRS_5"	SNm18.2	Sum(B.ITEM_AMT-B.APPLIED_AMT)				
15 PRIOR_TERM_BALANCE."A.ACCOUNT_TYPE_SF"	Char3	Acct Type				
16 FACR_NE_ENRLCR."B.UNT_TAKEN_PRGRSS"	Num6.3	Take Prgrs				
17 FACR_NE_ENRLCR."C.UNT_TAKEN_FA"	Num6.3	FA Taken				
18 FACR_NE_ENRLCR."C.REMOTE_UNT_FA"	Num6.3	Remote				
19 FACR_NE_ENRLCR."C.OVRD_UNT_TAKEN_FA"	Char1	Ovrd Unt T				
20 FACR_NE_ENRLCR."C.TOT_TERM_UNT_FA"	Num6.3	Total				

# Reporting Tools> Composite Query

Review my fields and add/review using left column by expanding



# Reporting Tools> Composite Query

LE<sup>®</sup> All Search Advanced Search Add To New Window

Grid Viewer  
Pivot Grids  
Pivot Grid Name: REF\_CREDIT\_BAL\_FA\_NE  
Data Source Name:   
Data Source Type:   
Show all Views  
Search

Pivot Grid

Item Type: (All) Item Term: 0750  
Short Desc: (All) Item Code: F  
Career: UGRD Acad Load: (All)  
FA Load: (All) Calc Req: (All)  
Aid Yr: 2016

Credit Balance

TUT		
All		-6000.00
FACOD002		-1500.00
FACOD012		-1250.00
FACOD012		-1250.00
SFFLD00105		-2000.00

Pivot Grid Drilldown

Detailed Data

Acct Type	ID	Item Type	Item Amt	Item Term	Short Desc	Item Code	Career	Prim Prog	Acad Load	FA Load	Calc Req	Aid Yr
TUT	FACOD0142	9000000000041	-500.00	0750	FASSSCHOL	F	UGRD	LAU	L	L	Y	2016
TUT	FACOD0142	9000000000040	-750.00	0750	FASSGRANT	F	UGRD	LAU	L	L	Y	2016

Return

-2.4K  
TUT+FACOD0022 TUT+FACOD0132 TUT+FACOD0142 TUT+SFFLD00105  
Acct Type



# Back to the drawing board for the next adventure



# Questions?



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