

Advanced Query for Query Developers

This is a training guide to step you through the <u>advanced</u> functions of Query in NUFinancials. Query is an ad-hoc reporting tool that allows you to retrieve data that is stored in the NUFinancials application. You use a series of query pages to specify what data to retrieve and the format in which results will be displayed. Query translates the information that you enter into SQL code to produce results which can be displayed in a browser window or downloaded to your workstation in an Excel spreadsheet.

There are two query access methods. **Query Viewer** allows execution of existing queries. Casual query users will only have access to queries via Query Viewer. **Query Manager** is used to create new queries or edit existing ones. It is also possible to execute queries from Query Manager. Query developers will have access to both query viewer and query manager pages.

FMS121Introduction to Query course, materials and online demo are recommended as a prerequisite to this guide.

Before you begin . . .

Access to **Query Viewer** and **Query Manager** can be requested using the Central Security Access Form located on the FFRA website: <u>http://ffra.northwestern.edu/documents/security/CafeCentralSecurityForm.pdf</u>

Access Query via NUFinancials

- Log in to NUPortal* <u>https://nuportal.northwestern.edu</u>
- Select the Financial section
- Click Login to NUFinancials in System Login
- Click **Reporting Tools** → **Query**

Where to get help? For assistance, contact NUIT Support Center at 847-491-HELP (4357) or email consultant@northwestern.edu



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Query Manager Reminders

Navigation: Reporting Tools > Query > Query Manager

IMPORTANT NOTE: Query Manager is used for tailoring queries to specific result sets of data. In NUFinancials, there are many existing public queries. These queries are for use by all Query users. When using public queries, do not save any modifications you make as they will become part of the public query. If you want to capture specific modifications to a query, select **Edit** to open the query and then click **Save As** to save the modified query with a new name. You can choose to make the new query public or private.

	. ur_IRN_04		De	escription: Jour	nals not posted		
Click folder	next to record to	show fields. Check	fields to add to q	uery. Uncheck fi	elds to remove fi	rom query. Add	Ŝ⊘
additional re	ecords by clickir cords	ig the records tab. V	Vhen finished clic	k the fields tab.			
Alias Record Alias Record A JRNL_HEADER - Journal Header Data B PSOPRDEFN - Operator Definition			Click	Click Save As to save changes as public or private			Join 🖃
						Hierarchy	Join 🖃
Expand	All Records	Collapse All B	as l				
	-		Proforences	Properties	New Union		O Return to Searc

HOT Tip! Save your queries into a Favorites folder by selecting them in the check box at the front of the row and using the **Action** drop down menu.

Check All Uncheck All	*Action:	Add to Favori	ites 🗸		Go
Query	Customize Find View 100 Erist 30 o	of 187 🛿 Las	<u>at</u>	24	12
Select Query Name	Descr Save queries into a Favoritas fold	Edit	Run to HTML	<u>Run to</u> Excel	<u>Schedule</u>
NU_ACTUALS_PTRL_DEL_APPRVD	Actuals	Edit	HTML	Excel	Schedule
	Actuals Irol Panding Delation Public ACCTG SVCS	Edit	нтмі	Even	Schodulo

HOT Tip! Only Private queries can be saved to another user. You should save a Public query as a Private one and then can save/share it with another user using the **Action** drop down menu and User ID.

Select	Query Name	Descr	Owner Fold	Edit	Run to HTML	Run to Excel	Schedule
	QY_TRN_04	Journa Cor	by a query to anothe	er user	HTML	Excel	Schedule
	OV TRN 03	lournal with prom	nte Public	Edit	нтмі	Evcel	Schodulo



Basics of SQL syntax

Note: Oracle/PeopleSoft utilizes a subset of SQL standard functions

Simply, SQL is a set of instructions listing the **SELECT**ion of specific fields, **FROM** specific tables **WHERE** certain circumstances exist.

SELECT: lists fields or column names to be used in query

FROM: lists tables or records to be used in query

WHERE: lists filters to include or exclude data

Hery Name: QY_PRACTIC CR042909	Description: Journals in Workflow
IERY SQL: ELECT DISTINCT AJRNL_PROCESS_REQST, A.FI D')	SCAL_YEAR, A.ACCOUNTING_PERIOD, COUNT(*), TO_CHAR(SYSDATE, YYYY-MM
VHERE B.BUSINESS_UNIT = A.BUSINESS_UNIT	tables of record from where helds are found
AND B.UNPOST_SEQ = A.UNPOST_SEG	
AND (A.JRNL_HDR_STATUS = 'V' AND A.BUDGET HDR_STATUS = 'V'	
AND A.JRNL_PROCESS_REQST <> 'P'	filters or criteria to be applied to query result set for display
AND A IOURNAL DATE <- TO DATE (-1 WWW-MM	

NUFinancials Query Terminology review:

A query contains records.

A record is a table.

A record contains fields or columns.

Primary Key: a field or group of fields that uniquely defines each row in a table or record ex. Business Unit/Journal ID field values uniquely identify each row in the Journal header table

NUFinancials query business process flow¹



¹ Business process flow from Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Query, Defining Selection Criteria, September 8, 2009.



LEFT OUTER JOIN

Let's review first! A standard (or INNER or simple) JOIN is a linking of two tables on selected field(s) and returns only those rows where linking values match in both tables. Two tables are presented as one table.

A LEFT OUTER JOIN first is thinking about the two tables laid out from left to right in the order that they are added to the query. A LEFT OUTER JOIN will return ALL the rows from the first table and any matching rows from the second table. If there isn't a match in the second table, a blank or NULL is returned for fields that are pulled from that table.

Examples:

Show me ALL the Purchase Orders that have vouchers (or are missing vouchers).

Show me ALL the Purchase Orders with their voucher match statuses.

Show me ALL the Requisitions with an error in budget check.

Show me ALL the Projects/Grants with outstanding invoices to sponsors.

Note: SQL standard also offers RIGHT OUTER JOINS and FULL OUTER JOINS, but those are not offered in the NUFinancials Query application.

Step 1: Create a new query

Navigation: Reporting Tools \rightarrow Query Manager \rightarrow Create New Query

Query Manager	Click Create New Query	
Enter any information you have and	click Search. Leave fields his of a list of all values.	
Find an Existing Query Crea	e New Query	
*Search By: Query Name	begins with	
Search Advanced Search		



Step 2a: Select first table (left) in Records tab

The first table will be the Left Table of the query. This is the table that will show all results based on the criteria.

Records Query Expressions	Prompts	Fields	Criteria Having View SQL Run	
Query Name: New Unsaved Query Find an Existing Record	D	escription:	Search and select record for left table	כ
*Search By: Record Name 💌	begins with P	0_HDR		
Search Results				
Record	Customize Find V	iew 20 🛄 🛛 Fir	irst 🖾 1-6 of 6 🕒 Last	
Recname		Add Record	Show Fields	
PO_HDR - Purchase Order Header		Add Record	Show Fields	

Step 2b: Select field(s) for query

hosen Records			
Alias Record A PO_HDR - Purchase Order Heade	r S	elect fields for qu	Jery
Check All Fields	Uncheck All Fields		
Fields		Find View All	First 🗹 1-50 of 83 🕨 Last
🔲 📴 BUSINESS_UNIT - Bu	isiness Unit		94
PO_ID - Purchase Ord	ler		%
CHNG_ORD_BATCH	- Change Order Number		%
PO_TYPE - PO Type			%



Step 3a: Select second table in Records tab and join

The second table will be the table used to compare values to the first table. Any matching rows will be in the result set. If there isn't a match in the second table a blank or NULL is returned.

Records Query Expressions	Prompts	Fields C	riteria Having View SQL Run
Query Name: New Unsaved Query Find an Existing Record		Description:	Search and select record for join
Search By: Record Name	begins with	VOUCHER	
Search Results			
Record	Customize Fin	id <u>View 20</u> 📶 🛛 Firs	t 1-2 of 2 🗈 Last
Recname	211 212 ² 2	Ioin Record	Show Fields
VOUCHER - AP Voucher Header Table		Join Record	Show Fields
VOUCHER_LINE - Voucher Line		Join Record	Show Fields

Step 3b: Select Left outer join



Step 3c: Confirm or deselect criteria join conditions



Step 3d: Select field(s) on second table

Chosen Reco	ords		
Alias Rec	ord	Note: record jo	in notation
🖻 A PO_	_HDR - Purchase Order Head	der	Hierarchy Join
🖻 B VOL	JCHER - AP Voucher Header	Table left outer joined with A	Hierarchy Join 📃
	Check All Fields	Uncheck All Fields	
Field	ds	Find View 50	0 First 🗹 1-100 of 244 🕨 Last
	BUSINESS_UNIT - E	Business Unit	9
	🗁 VOUCHER_ID - Vou	cher ID	P+
	VOUCHER_STYLE -	Voucher Style	94
	INVOICE_ID - Invoic	e Number Select fields	s for query
	ERS_INV_SEQ - ER	S Invoice Sequence	°,
	INVOICE DT - Invoid	ce Date	94
	VENDOR SETID - V	endor SetID	94

Once you have joined the two records, you can use expressions (discussed later in this guide), prompts, field options, criteria, and HAVING (discussed later in this guide) to fine tune query to desired result set. Use the **Distinct** check box under the **Properties** link to exclude duplicates from the result set.

Run query.

Option: Review SQL on View SQL tab.



UNION

Let's review first! A standard (or INNER or simple) JOIN is a linking of two tables on selected column(s) and returns only those rows where linking values match in both tables. Two tables are presented as one table.

A UNION selects all rows from two tables for the result set, but has <u>several restrictions</u>. (note: some of these restrictions are specific to NUFinancials Query application)

- 1. Same number of output columns must be specified from each table.
- 2. Each corresponding column must have the same data type (ex. character to character, or numeric to numeric, or date/time to date/time).
- 3. Columns must be in the same display order.

A UNION can also be a result set of results sets of two queries. ALL in the SELECT statement includes duplicate rows. Column name comes from first table column name

Example:

Show me all Requisitions and Purchase Orders and their statuses.

Step 1: Create a new query

Navigation: Reporting Tools \rightarrow Query Manager \rightarrow Create New Query

Query Manager	Click Create New Query
Enter any information you have and click Search	n. Leave fields her or a list of all values.
Find an Existing Query Create New Quer	
*Search By: Query Name	begins with
Search Advanced Search	

Step 2a: Select first table in Records tab

The first table will be designated the *Top Level of Query* when toggling between the two tables.

Records	Query Y Express	ions Prompts	Fields	Criteria 🍸 Havii	ng 🍸 View SQL	Run
Query Name: Nev	w Unsaved Query		Description:			
Find an Ex	isting Record	l	Sear	ch and select re	cord for top lev	el of union join
Search By:	Record Name	✓ begins with	REQ_HDR			
Search Advan	ced Search					
Search Result	ts					
Record		<u>Customize [</u>	ind View All 🛗	First 🔽 1 of 1 🗈 Las	t	
Recname		14 044	Add Record	Show Fields		
INCOMENTAL PROPERTY AND INCOMENTAL PROPERTY AND INCOMENTS.	A statute of the second		Add Record	Chaur Fielde		

Step 2b: Select field(s) for query

Alias Records	uisition Header	Select fields for query
Check A	Il Fields Unc	eck All Fields
V P BUS V P REC	INESS_UNIT - Business L I_ID - Requisition ID I_STATUS - Requisition St	nit 94 tus 94
HOL	D_STATUS - Hold From Fi	ther Processing



Step 3a: Create UNION join

To create a union, click **New Union** at the bottom of any tab except the Run tab. The second table will be designated as *Union 1*.

Query Name: New Unsaved Qu	iery	Description:		
Click folder next to record to she	ow fields. Check fields to	add to query. Uncheck fields to	remove from query. Add	_
Chosen Records	records tab. when inns	shed click the lields tab.	Click New Union	
Alian Decord				
ecord EQ_HDR - Requisitio	on Header		herarchy Join	

Step 3b: Select second table

In Records tab, search and select table to be joined by UNION.

Records Query Expressions Prompts	Fields C	Criteria Havin	g 🚺 Viev	W SQL	Run
Query Name: New Unsaved Query	Description:				
Working on selection: Union 1			Su	bquery/Unic	on Navigation
Find an Existing Record	[Search and seled	ct record I	for join	
Search By: Record Name 💌 begins with	PO_HDR				
Search Advanced Search			·		
10 N					
Search Results					
Search Results Record <u>Customize Fil</u>	nd View All 🏪 Firs	st 1-6 of 6 🗈 Last	8		
Search Results Record Customize Fil Recname	nd View All # Firs	st 1-6 of 6 Last Show Fields	14 T		
Search Results Record Customize Fil Recname PO_HDR - Purchase Order Header	nd View All III Firs Add Record Add Record	st 1-6 of 6 D Last Show Fields Show Fields			
Search Results Record Customize Fil Recname PO_HDR - Purchase Order Header PO_HDR_A - PO Activity Header	nd View All # Firs Add Record Add Record Add Record	st 1-6 of 6 Last Show Fields Show Fields Show Fields			
Search Results Record Customize Fil Recname PO_HDR - Purchase Order Header PO_HDR_A - PO Activity Header PO_HDR_FS - Purchase Order Header	nd View All # First Add Record Add Record Add Record Add Record Add Record	st 11-6 of 6 Last Show Fields Show Fields Show Fields Show Fields			
Search Results Record Customize Fil Recname PO_HDR - Purchase Order Header PO_HDR_A - PO Activity Header PO_HDR_FS - Purchase Order Header PO_HDR_FS - Purchase Order Header PO_HDR_FS - PO Header	nd View All # Firs Add Record Add Record Add Record Add Record Add Record Add Record	st Fields Show Fields Show Fields Show Fields Show Fields Show Fields Show Fields			
Record Customize Fil Recname PO_HDR - Purchase Order Header PO_HDR_A - PO Activity Header PO_HDR_FS - Purchase Order Header PO_HDR_FS - Purchase Order Meader PO_HDR_FS - Purchase Order Header PO_HDR_FS - PUrchase Order Meader PO_HDR_MISC - PO Header Miscellaneous Charge PO_HDR_PRV - Purchase Order Header PO_HDR_PRV - Purchase Order Header	nd View All # Firs Add Record Add Record Add Record Add Record Add Record Add Record Add Record	st Fields Show Fields Show Fields Show Fields Show Fields Show Fields Show Fields Show Fields			



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Note additional components of query page:

- Working on selection displaying which record/table you are working with
- **Subquery/Union Navigation** link used for toggling between *Top Level of Query* and *Union1* records
- Delete Union link used to delete union

Query Name: New Unsaved Query	you are working	g with	- 2	
Vorking on selection: Union 1 Find an Existing Record Search By: Record Name Search Advanced Search	✓ begins with PC	D_HDR	use to tog	Subquery/Union Navigation
20 C				
Search Results Record Recname	Customize Find Vie	ew All 🛗 Fin	st 🕙 1-6 of 6 🕑 Last	
Search Results Record <u>Recname</u> PO HDR - Purchase Order Header	<u>Customize</u> <u>Find</u> Vit	ew All III Fin Add Record Add Record	st € 1-6 of 6 ▶ Last Show Fields	
Search Results Record Recname PO_HDR - Purchase Order Header PO_HDR_A - PO Activity Header	<u>Customize Find Vie</u>	ew All I Fin Add Record Add Record Add Record	st 🕙 1-6 of 6 🕑 Last Show Fields Show Fields Show Fields	
Search Results Record Recname PO_HDR - Purchase Order Header PO_HDR_A - PO Activity Header PO_HDR_FS - Purchase Order Header	<u>Customize Find</u> Vit	All I Fin Add Record Add Record Add Record Add Record	st 🕙 1-6 of 6 🕨 Last Show Fields Show Fields Show Fields Show Fields Show Fields	
Search Results Record Recname PO_HDR - Purchase Order Header PO_HDR_A - PO Activity Header PO_HDR_FS - Purchase Order Header PO_HDR_MISC - PO Header Miscellane	<u>Customize Find Vie</u> ous Charge	Add Record Add Record Add Record Add Record Add Record Add Record	st 🕙 1-6 of 6 🕑 Last Show Fields Show Fields Show Fields Show Fields Show Fields Show Fields	
Search Results Record Recname PO_HDR - Purchase Order Header PO_HDR_A - PO Activity Header PO_HDR_FS - Purchase Order Header PO_HDR_MISC - PO Header Miscellaner PO_HDR_PRV - Purchase Order Header	<u>Customize Find Vie</u> ous Charge	Add Record Add Record Add Record Add Record Add Record Add Record Add Record Add Record	st 🕙 1-6 of 6 🕑 Last Show Fields Show Fields Show Fields Show Fields Show Fields Show Fields Show Fields	to delete a union

Step 3c: Select field(s) for query

hosen Record Alias Recor	s 1	Select fields	for query
🖻 В РО_Н	OR - Purchase Order Header		Hierarchy Join
	Check All Fields Unc	heck All Fields	
Fields		F View All	First 🗹 1-50 of 83 🕨 Last
	BUSINESS_UNIT - Business (Jnit	9,
	📴 PO_ID - Purchase Order	/	94
	CHNG_ORD_BATCH - Change	e Order Number	94
	PO_TYPE - PO Type		94
	PO_STATUS - PO Status		94
	HOLD_STATUS - Hold From F	urther Processing	94



Did you remember the three restrictions when building a UNION join (see below)?

- 1. Same number of output columns must be specified from each table.
- 2. Each corresponding column must have the same data type (ex. character to character, or numeric to numeric, or date/time to date/time).
- 3. Columns must be in the same display order.

Top Level of Query fields

uery Name: New Unsaved Query	Descrip	Note and	the fields selected I order for <i>Top Le</i>	d, type of fields evel of Query	5,	
orking on selection: Top Level of Query		_		Subquery/U	Union Nav	<u>vigation</u>
(in tiold proportion, or use field as criteria in aus	any statement				Reorder	/ Sort
view herd properties, or use herd as chiena in que	ery statement.	/				
ields	ery statement.		Customize Find View	All I First	1-3 of 3	🕑 Last
elds col <u>Record.Fieldname</u>	Format	d XLAT A	Customize Find View	All 🛗 First 🖸	1-3 of 3 Edit	▶ _{Last}
ields ield <u>Record.Fieldname</u> ABUSINESS_UNIT - Business Unit	Format Phars	A XLAT AC	<u>Customize Find View</u> Ig <u>Heading Text</u> Unit	All First Ald Criteria	1-3 of 3 Edit Edit	Delete
ields <u>Col_Record.Fieldname</u> 1 A.BUSINESS_UNIT - Business Unit 2 A.REQ_ID - Requisition ID	Format of Char10	d XLAT Ad	<u>Customize Find View</u> Ig <u>Heading Text</u> Unit Reg ID	All III First Add Criteria 74 94	1-3 of 3 Edit Edit Edit	▶ _{Last} Delete

Union 1 fields

Query Name: New Unsaved Query	Descri	iption:	ote the fields selected and order for	ed, type of field Union1	ds,		
Working on selection: Union 1 Subquery/U View field properties, or use field as criteria in query statement. Image: Comparison of the statement of th						nion Navigation Reorder / Sort	
					-	1.1	
Fields Col Record.Fieldname	Forma	rd XLAT	Customize Find Viev	v All 🛗 First 🗄	1-3 of 3 ▶ L Edit Determine	.ast	
Fields Col Record.Fieldname 1 B.BUSINESS_UNIT - Business Unit	For Q Char5	rd XLAT	Customize Find Viev Agg Heading Text Unit	v All 🏪 First 🗄 Add Criteria	1-3 of 3 🕨 1 Edit De Edit Edit	ast lete	
Fields Col Record.Fieldname B.BUSINESS_UNIT - Business Unit B.PO_ID - Purchase Order	Eor Char5 Char10	rd XLAT	<u>Customize Find View</u> Agg <u>Heading Text</u> Unit PO	v All] First C Add Criteria 9 9 9	I-3 of 3 I I Edit De Edit Edit	ast lete	



Once you have joined the two records, you can use expressions (discussed later in this guide), prompts, field options, criteria, and HAVING (discussed later in this guide) to fine tune query to desired result set. Use the **Distinct** check box under the **Properties** link to exclude duplicates from the result set.



When you use a UNION join, the query selects the column headings from the <u>first or left</u> record. Use expressions (discussed later in this guide) to clarify the result set.

iew All Re	erun Query Download to Excel		First 🗹 1-100 of 41296 🕨 L
	Unit	Req ID	Status
1	NWUNV	AASB000006	A
2	NWUNV	AASB000006	D
1	NWUNV	AASP001750	A
1	NWUNV	AASP001750	D
	NWUNV	AASP001767	A

Query uses headings from first or left record in result set. Use expressions to help clarify the result set.

Run query.

Option: Review SQL on View SQL tab.



Subqueries

Let's review first! Remember your algebra equations from school? The expression (x+1)y is indicating that x+1 needs to be solved before multiplying the result by y. The equation inside the parentheses needs to be executed, then applied to the operation outside the parentheses.

A Subquery is a query whose results are used by another query. The main query uses the subquery's result set as a comparison value for a selection criterion.

• Scalar subquery: a query that returns only one column and no more than one row as a comparison value.

Examples:

Show me vendors whose address is in New York.

Show me requisitions and their statuses for a specific user or list of users. (List REQs and status where Requestor ID equals xxx).

Show me POs where the voucher's match status is exception.

Step 1: Create a new query

Navigation: Reporting Tools \rightarrow Query Manager \rightarrow Create New Query

s.

Step 2a: Select first table in Records tab

The first table will be designated the *Top Level of Query* when toggling between the two tables.

Records Query Expressions Prompts	Fields Criteria Having View SQL Run
Query Name: New Unsaved Query	Description:
Find an Existing Record	Search and select record for top level of query
*Search By: Record Name 💌 begins with	VENDOR
Search Advanced Search	
Search Results	
Record Customize Find	<u>View All</u> I First 1-20 of 21 Last
Recname VENDOR - Vendor Header Table	Add Record Show Fields Add Record Show Fields

Step 2b: Select field(s) for query

lias Recor	rd	
A VEND	OR - Vendor Header Table	Hierarchy Join
	Check Air Fields	Select fields for query
Fields		Find View Ar First 1-50 of 56 12 Last
	SETID - SetID	n SETID TBL - TableSet 😪
	VENDOR ID - Vendor ID	<u>Ds</u> 9.
	VENDOR NAME SHORT - Short Vendor Name	9
	VNDR NAME SHRT USR - Short Vendor Name	9
	VNDR NAME SEQ NUM - Sequence Number	9
	NAME1 - Name 1	9
	NAME2 - Name 2	9
	VENDOR STATUS Vender Status	9



Step 3a: Create subquery as criteria on a field

Remember that a subquery is a query whose values will be used as criteria for the top level query. Select field to apply subquery.

Criteria can be added by clicking ⁷ next to a field on the **Fields** tab or by clicking **Add Criteria** and selecting a field on the **Criteria** tab.

When linking tables in a subquery, you need to consider if the relationship is going to be 1 to 1 or 1 to many. This will help you decide the type of link and criteria you want to use.

For Condition Type in subqueries, selecting

- equals to is asking for a 1 to 1 relationship in the comparison,
- in list is asking for a 1 to many relationship in the comparison,
- **exists** is asking for a 1 to many comparison where if the condition is satisfied in the subquery, show results in the top level query.

If you are unsure about the relationship, it is recommended to use **in list** as the **Condition Type.**

dit Criteria Properties Choose Expression 1 Type	Expression 1	Select field for subquery
 Field Expression 	Choose Record and Field Record Alias.Fieldname:	Select Condition Type
*Condition Type:	in list	Select Subquery radio button and then select Define/Edit Subquery
◯ In List ⊙ Subquery	Define Subquery Define/Edit Subquery	
OK Cancel		



Step 3b: Select subquery table in Records tab

The subquery table will be designated the *Subquery for xxx* when toggling between the two tables.

Records	Query Expre	essions Prompts	Fields	Criteria	Having	View SQL	Run
Query Name: N	lew Unsaved Query	Note	Description:				
Working on sele	ection: Subquery for	A.VENDOR_ID - Vendo	or ID			Subquery/Ur	nion Navigation
Find an E	xisting Reco	rd		Searc	h and sel	ect record for	subquery
*Search By:	Record Name	begins with	VENDOR_ADDR			7/	
Search Adv	anced Search						
Search Res	ults						
Record		Customize Fi	nd View All 📶 🛛 F	irst 1-4 of 4	E Last		
Recname			Add Record	Show Fiel	ds		
VENDOR_ADD	R - Vendor Address		Add Record	Show Fiel	ds		

Step 3c: Select field(s) for subquery

lias Record B VENDOR_	ADDR - Vendor Address	Click Select for desired fie	Id(s) Hierarchy Join
Fields		Find View All	First 🖪 1-27 of 27 🕨 Last
Select 🗁	SETID - SetID		94
Select 🔛	VENDOR_ID - Vendor ID		94
Select De	ADDRESS_SEQ_NUM - Address	Sequence Number	94
Select Dev	EFFDT - Effective Date		94
Select	EFF_STATUS - Status as of Effect	tive Date	94
Select	NAME1 - Name 1		94
Select	NAME2 - Name 2		94



When selecting fields and adding criteria in the subquery, one of criterion needs to create a link between the two records so that there is a basis for comparison. You can do this by selecting a field and creating an **equals to** criteria.

it Criteria Properties Choose Expression 1 Type	Expression 1	This example links the
 Field Expression 	Choose Record and Field Record Alias.Fieldname: B.VENDOR_ID - Vendor ID	VENDOR_ID field from record A and B
*Condition Type:	equal to	
Field	Choose Record and Field	
O Expression	Record Alias.Fieldname:	
O Constant O Prompt	A.VENDOR_ID - Vendor ID	
Subquery		
OK Cancel		

Other criteria filter for desired result set.

Choose Expression 1 Type	Expression 1	
 ● Field ○ Expression 	Choose Record and Field Record Alias.Fieldname: Q B.STATE - State	criteria for a list of values in the State fiel
*Condition Type: Thoose Expression 2 Type	in list	
⊙ In List ○ Subquery	Edit List List Members: ('NY','CT','NJ')	Q
O sundriei à	List Members: ('NY','CT','NJ')	Q



Note: You can see that the subquery has been established for the *Top Level of Query* by looking at the **Criteria** tab for the *Top Level of Query*. See below.

Records	Query Expressions	Prompts Fields	Criteria	Having View SC	ຊL Run
Query Name: 1	New Unsaved Query	Description:			
Working on sel	ection: Top Level of Query			Subqu	ery/Union Navigatio
Add Criteria	Group Criteria				
Criteria			Custo	mize Find 📶 Firs	st 🗐 1 of 1 🕨 Last
Criteria Logical	Expression1	Condition Type	Custo	<u>mize Find 🗰 Firs</u>	st 🗐 1 of 1 🕨 Last Edit Delete

Once you have created the subquery, you can use expressions (discussed later in this guide), prompts, field options, criteria, and HAVING (discussed later in this guide) to fine tune query to desired result set. Use the **Distinct** check box under the **Properties** link to exclude duplicates from the result set.

Run query.

Option: Review SQL on View SQL tab.

Query SQL: SELECT A.VENDOR_ID, A.VENDOR_NAME_SHORT, A.VENDOR_STA FROM PS_VENDOR A	TUS,A.SETID
WHERE A.VENDOR_ID IN (SELECT B.VENDOR_ID FROM PS_VENDOR_ADDR B	there is criteria linking the 2 tables by VENDOR_ID
WHERE B.EFFDT =	and there is criteria detailing the list of values to include
WHERE B.SETID = B_ED.SETID	there is citteria detailing the list of values to include
AND B.VENDOR_ID = B_ED.VENDOR_ID AND B ADDRESS_SEQ_NUM = B_ED ADDRESS_SEQ_NUM	
AND B_ED.EFFDT <= SYSDATE)	
AND B.VENDOR_ID = A.VENDOR_ID AND B.STATE IN ('NY','CT','NJ'))	

Advanced Selection Criteria

In **FMS121 Introduction to Query** materials, we discussed selection criteria by defining a constant or a list of constants or a range of constants with condition types of *equal to*, *in list*, and *between*. Condition types of *greater than* and *less than* return values larger or small than the comparison value. These condition types can also be used in the <u>negative</u> to return the opposite rows. There are other condition types that can be used to further include or exclude date from the result set. See Condition Types table.²

Condition Types	Return Values
between	The value in the selected record field falls between two comparison values. The range is inclusive.
equal to	The value in the selected record field exactly matches the comparison value.
exists	This operator is different from the others, in that it does not compare a record field to the comparison value. The comparison value is a subquery . If the subquery returns any data, PeopleSoft Query returns the corresponding row.
greater than	The value in the record field is greater than the comparison value.
in list	The value in the selected record field matches one of the comparison values in a list.
in tree	The value in the selected record field appears as a node in a tree created with PeopleSoft Tree Manager. The comparison value for this operator is a tree or branch of a tree that you want PeopleSoft Query to search.
is null	 Note: Many fields in NUFinancials are assigned a default value (0 for numerical fields and a single space for character fields) when an actual value is not specified. Is Null searches for fields that have no value. Null fields are not the same as zeros or blanks. Null fields have no data, whereas zeros and blanks are considered data. The selected record field does not have a value in it. You do not specify a comparison value for this operator. Key fields, required fields, character fields, and numeric fields do not allow null values.
less than	The value in the record field is less than the comparison value.
like	The value in the selected field matches a specified string pattern. The comparison value may be a string that contains wildcard characters. The wild-card characters that PeopleSoft Query recognizes are % and % matches any string of zero or more characters. For example, C% matches any string starting with C, including C alone. matches any single character. For example,ones matches any five-character string ending with <i>ones</i> , such as Jones or Cones. To use one of the wild-card characters as a literal character (for example, to include a % in your string), precede the character with a \ (for example, percent\%).

² Condition Types table from Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Query, Defining Selection Criteria, September 8, 2009.



Selection criterion is a standard for comparison of values. The steps for creating criteria differ depending on the type of value: field, expression, constant, prompt, subquery, list, effective date, tree option. Not all value types are available for all condition types; for example, the *exists* condition type is only available for subquery. Query will only show you the value types for the selected condition type. See Value Type table.³

Value Type	Action
Field	The value in the selected field is compared to the value in another field, usually a field in another record component. When you select <i>Field</i> as the comparison value, the Choose Record and Field page appears. The Record Alias field lists all the records that are part of the current query. Select the record and the field. The selected field name appears in the second Expression column of that field's row.
Expression	The value in the selected field is compared to an expression that you enter, which PeopleSoft Query evaluates once for each row before comparing the result to the value in the selected field. When you select Expression as the comparison value, the Define Expression page appears. In the text box, enter a valid SQL expression. To add a field or user prompt to the expression, click the Add Field or Add Prompt link, respectively. These links display the same pages that you see when adding a field or prompt as a comparison value: Add Prompt displays the Run-time Prompt page; Add Field displays the Select a Field page. The only difference is that PeopleSoft Query adds the field or prompt to your expression rather than using it directly as the comparison value.
Constant	The value in the selected field is compared to a single fixed value. When you select Constant as the comparison value, the Define Constant page appears. In the text box, enter the value that you want to compare the first expression to. To add a value by selecting it from a list, click the Look Up button to display the Select a Constant page.
Prompt	The value in the selected field is compared to a value that you enter when running the query. When you select <i>Prompt</i> as the comparison value, the Define Prompt page appears. Click the New Prompt link to move to the Edit Prompt Properties page. To modify an existing prompt, you can click the Edit Prompt link.
Subquery	The value in the selected field is compared to the data that is returned by a subquery. When you select Subquery as the comparison value, the Define Subquery page appears. Click the Define/Edit Subquery link to move to the Records tab to start a new query.
In List	The value in the selected field is compared to a list of values that you enter. This value type is available only when the selected operator is <i>in list</i> or <i>not in list</i> . When you select <i>In List</i> as your comparison value, the Edit List page appears. Use the Look Up button to display the Edit List page and search for the desired values. Note that values will appear here only if you have entered them previously.
Current Date	The value in the selected field is compared to the current date on the database server.

³ Value Type table from Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Query, Defining Selection Criteria, September 8, 2009.



Note: use **in tree** criteria is an alternative method for filtering the DEPTID field.



The **Edit Criteria Properties** page will reset to the appropriate choices when value or condition types are selected. See examples below.

 Field Expression 	Choose Record and Field Record Alias.Fieldname: Condition Types
*Condition Type Dose Expression 2 Type) Field	Expression 2 Define Constant
) Expression 9 Constant 9 Prompt 9 Subquery	Constant:



id.

Examples of Condition Types and Value Types:

dit Criteria Properties *Condition Type:	exists 👻
Choose Expression 2 Type	Expression 2
Subquery	Define Subquery
	Define/Edit Subquery

Choose Exprassion 4 Tun	Expression 4	
 Field Expression 	Choose Record and Field Record Alias.Fieldname:	
*Condition Typ	e: between	
Const Const	Expression 2	-
Const - Field	Constant:	٩
 Field - Const Field - Field 	Define Constant 2	
Field - Expr	Constant 2:	٩
O Expr - Field		

Choose Expression 1 Type	Expression 1
 Field Expression 	Choose Record and Field Record Alias.Fieldname:
*Condition Typ	e: in tree
Tree Option	Select Tree Node List Node List:



Expressions

An expression is some form of operation involving numbers, character strings, or dates and times. It can use values drawn from specific fields in a table, constant values or a combination. Expressions can define constants (perhaps, in a separate column) or can derive calculations. Character string can be concatenated (linked together, as in a chain) into a field. Numerical or date columns can have mathematical operations applied.

- Character: a literal value used as a column, ex. "The Vendor name is."
- Numeric: can be a literal value or used as a mathematical expression, ex. numeric field *2 to multiply a field by 2, (+,-,*,/)
- Date and Time: can be a literal value or used as an interval expression, ex. date field +6mos (+,-,*,/)

Character Expressions

Step 1: Create literal value as a column

- 1. After selecting record(s) and field(s), select Expressions tab
- 2. Click Add Expression

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
Query Name:	New Unsave	ed Query						
Add Expressi	on No e	xpressions have be	en defined yet.			·		

- 3. Select Expression Type as Character
- 4. Set the length of the column
- 5. Type in character string inside single quotation marks
- 6. Click OK



Character Expressions Step 2: Use field as a column in the result set

1. Click Use as Field if desired

Records Query Expressions Pro	ompts 🔰 Fields 🎽 C	Criteria 👖 Havini	g 🔰 View S	QL	Run
Query Name: New Unsaved Query	Description:	Click	Use as Fiel	ld	
Add Expression			7/		
Expressions List		<u>Customize</u>	Find III F	irst 🛃 1	of 1 🕑 La
Expression Text		Use as Field	Add Criteria	Edit	Delete
bas a dollar value of		Lise as Field	2	Edit	

2. Reorder fields and edit Header Text if desired

Fields				<u>Cu</u>	stomize Find View All	📕 🛛 First	1-3 of 3	Last
Col Record.Fieldname	<u>Format</u>	<u>Ord</u>	<u>XLAT</u>	Agg	Heading Text	Add Criteria	Edit	Delete
1 A.JOURNAL_ID - Journal ID	Char10				Journal ID	94	Edit	
2 'has a dollar value of	Char25				'has a dollar value of	9 <mark>4</mark>	Edit	
3 A.MONETARY_AMOUNT - Monetary Amount	SNm25.3				Amount	8	Edit	-

3. Run query to see character string in result set

Record	ls Query Expressions	Prompts Fields Criteria Having	View SQL Run
<u>View All</u>	<u>Rerun Query</u> <u>Download to Excel</u> Journal ID	"has a dollar value of"	First I-100 of 38788 D
1	CNV0000023	has a dollar value of	101932.150
2	CNV0000022	has a dollar value of	188075.560
3	CNV0000023	has a dollar value of	726.660

Numeric Expressions

Step 1: Create a numeric expression

- 1. After selecting record(s) and field(s), select Expressions tab
- 2. Click Add Expression

	Records	Query	Expressions	Prompts	Fields	Criteria	a Having	View SQL	Run
ľ	Query Name:	New Unsave	ed Query	=	Click Add	E <mark>xpressi</mark> o	n		
	Add Expression	No e	xpressions have bee	en defined ye	it.				

- 3. Select Expression Type as Number
- 4. Set the length of the column
- 5. Type in operation in the Expression Text box
- 6. Click **OK**

Click check box if using an aggregate value	*Expression Type: Number V Length: 30	4. Set length and number of decimal places
	Expression Text: A.MONETARY_AMOUNT*2	5. Select field(s) and mathematical expression
	Add Prompt Add Field	

If you are entering an aggregate value, such as SUM, AVG or COUNT, select the **Aggregate Function** check box and type in Expression Text box.

Aggregate Function	Decimal	s:
Expression Text:		
SUM(A.MONETARY_AMOUNT)		~
		~
Add Prompt	Add Field	

Numeric Expressions Step 2: Use field as a column in the result set

1. Click Use as Field if desired

Records Query Expressions	Prompts Fields Crit	eria Havir	ng View S	SQL	Run
Query Name: New Unsaved Query	Description:		Click Use a	s Field)
Expressions List		<u>Customize</u>		First 🖪 1 a	f 1 🕑 Last
Expression Text		Use as Field	Add Criteria	Edit	Delete

2. Reorder fields and edit Header Text if desired

ields				Cu	stomize Find View All 📶	First 🛃 1-3	of 3 🕑 La	st
Col Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1 A.JOURNAL_ID - Journal ID	Char10				Journal ID	9	Edit	
2 A.MONETARY_AMOUNT - Monetary Amount	SNm25.3				Amount	9.	Edit	-
3 A.MONETARY AMOUNT*2	Num28.2				A.MONETARY AMOUNT*2	2 94	Edit	

3. Run query to see numeric string in result set

Recor	ds Query Expressions	Prompts Fields Criteria	Having View SQL Run
View Al	II Rerun Query I Download to Excel		Eirct 1,100 of 35556 1 Last
	Journal ID	Amount	A.MONETARY_AMOUNT*2
1	CNV0000023	101932.150	203864.30
2	CNV0000022	188075.560	376151.12
3	CNV0000023	726.660	1453.32
4	CNV0000023	107.790	215.58

Date/Time Expressions

Step 1: Create a Date/Time expression

- 1. After selecting record(s) and field(s), select Expressions tab
- 2. Click Add Expression

	Records	Query	Expressions	Prompts	Fields	Criteria	a Having	View SQL	Run
ľ	Query Name:	New Unsave	ed Query	=	Click Add	E <mark>xpressi</mark> o	n		
	Add Expression	No e	xpressions have bee	en defined ye	it.				

- 3. Select Expression Type as Date, Datetime or Time
- 4. Set the length of the column
- 5. Type in operation in the Expression Text box
- 6. Click **OK**

Click check box if	Edit Expression Properties	3. Select Expression Type
aggregate value	*Expression Type: Date Length: 10	4. Set length of decimal places
	Aggregate Function Decimals: Decimal	5. Select field(s) and mathematical expression
	Add Prompt Add Field	
	6. Click OK	

When you use **Add Field**, the application will insert the <u>field's Alias name</u> A. APPROVAL_DT. You need to either delete the "A." characters or enter the field freeform to make the field operate as a date field and not a character field.

Date/Time Expressions Step 2: Use field as a column in the result set

1. Click Use as Field if desired

Records Query Expressions	Prompts Fields Criteria Having View SQL Run
Query Name: VLR_DATE_EXPRESS	Description: date expression query Click Use as Field
Expressions List	Customize Fir 1 I First 🕙 1 of 1 🕨 Las
Expression Text	Use as Field Add Criteria Edit Delete
APPROVAL_DT-REQ_DT	Use as Field 4 Edit -

2. Reorder fields and edit Header Text if desired

Fields Customize Find View All 🗰 First 🗐 1-4 of 4 🕨						▶ Last		
ol Record.Fieldname	Format	Ord	<u>XLAT</u>	Agg	Heading Text	Add Criteria	Edit	Delete
1 A.REQ_ID - Requisition ID	Char10				Req ID	%	Edit	Ξ
2 A.REQ_DT - Requisition Date	Date				Req Date	94	Edit	
3 A.APPROVAL_DT - Date of Approval	Date				Approval Date	94	Edit	
4 APPROVAL_DT-REQ_DT	Date				APPROVAL_DT-	94	Edit	

3. Run query to see date in result set

Reco	rds Query Expr	essions Prompts	Fields T Criteria	Having View SQL Run
View A	All Rerun Query Download t	o Excel		First 🗹 1-100 of 4997
	Req ID	Req Date	Approval Date	APPROVAL_DT-REQ_DT
1	REQ0004933	01/02/2009	01/02/2009	0
2	REQ0004951	01/02/2009	01/02/2009	0
3	REQ0004966	01/02/2009	01/05/2009	3



HAVING

A HAVING clause is similar to a WHERE clause, but used for rows of data that have been aggregated. A WHERE clause looks at the individual table rows before they are grouped in an aggregate function. A HAVING clause evaluates the results of the aggregation with further criteria. Essentially, use HAVING to select rows based on results of an aggregated function.

Examples:

After creating a query of purchase orders summed by vendor, you could add a HAVING clause to filter for vendor sums greater than \$10,000.

Show me the number of journal entries by source between 7/01/2009 and 7/31/2009. Show only sources where there have been more than 20 journals in total during this time period.

Step 1: Create a having expression

HAVING clauses can be added from the **Having** tab or from the **Criteria** or **Query** tabs, by clicking on the R next to <u>aggregated</u> field.

1. Click Add Having Criteria

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
Query Name: N	lew Unsaved	I Query	Click A	dd Having	Criteria			
Add Having C	riteria	No having criteria h	ave been adde	d yet.				

- 2. Select field in Expression 1 Type for having clause
- 3. Select Condition Type
- 4. Select Expression 2 Type and define, as applicable
- 5. Click OK

oose Expression 1 Type	Expression 1	
 Field Expression 	Choose Record and Field Record Alias.Fieldname: Q B.MONETARY_AMOUNT - Monetary A	
*Condition Type:	greater than	3. Select Condition Ty
oose Expression 2 Type	Expression 2	4. Select Expression Ty
) Field	Define Constant	
Constant	Constant: 10000	
O Prompt O Subquery		
	a.	



Step 2: Confirm or create additional having clause

Records	Query E	xpressions	Prompts Fields	Criteria	Having	View SQL	Run
Query Name:	New Unsaved Que	ery	Description	1			
Add Havin	Criteria Gro	un Having Crit	eria				
/ dd f idving	gomena	ap righting one					
Having Criter	ria	ap riding on		<u>Cı</u>	ustomize Find 🛗	First 🛃 1 of	f 1 🕑 Last
Having Criter	ria Expression1		Condition Type	<u>Cu</u> Expression 2	<u>ıstomize Find</u> 🏙	First 🛃 1 of	f 1 🕨 Last Delete



Logical Operators AND/OR

Logical Operators (AND, AND NOT, OR, OR NOT) allow you to relate multiple criteria in specific ways. When you specify two or more selection criteria, you need to coordinate the criteria. You can use the Logical column to further define the rows of criteria. The Logical Operator always defaults to <u>AND</u>. The first row of criteria will have a blank operator. When you use multiple criteria, rules of logic apply. The query evaluates criteria that are linked by AND before those linked by OR.

Examples:

Show me a list of Vendors in Chicago and Vendors who have previously provided lab supplies. The AND operator returns results that meet *both* conditions.

Show me a list of vendors located in Chicago OR New York. The OR operator returns results that meet one or the other condition.

Step 1: Select operator from Logical menu on Criteria tab

Query Name: Ne	ew Unsaved Query	Description:		
Add Criteria	Group Criteria Reorder Criteria			
Criteria	Select from Logical	operator dropdov	wn menu	t 🖣 1-4 of 4 🌔 Last
<u>Logical</u>	Expression1	Condition Type	Expression 2	Edit Delete
~	A.BUSINESS_UNIT BUSINESS Unit	equal to	B.BUSINESS_UNIT - Business Unit	Edit
AND 🖌	A JOORNAL_ID - Journal ID	equal to	B.JOURNAL_ID - Journal ID	Edit 📃
AND 💌	A.JRNL_HDR_STATUS - Journal Header Status	equal to	Ρ	Edit
OR 🔽	B.MONETARY_AMOUNT - Monetary Amount	greater than	10000	Edit



Grouping Criteria with Parentheses

Group Criteria controls the order in which query executes the criteria rows. The query evaluates the criteria inside the parentheses before the criteria outside the parentheses. The group criteria (x+1)y is indicating that x+1 needs to be solved before multiplying the result by *y*. Use grouping to funnel data from largest to smallest to expedite search.

Examples:

Show me a list of Vendors in Chicago or New York City who have provided lab supplies (filter for vendors by location in parentheses and then filter for the category lab supplies).

Show me posted or valid journals with credits that are greater than \$10,000 (filter for journal status, then filter for greater than \$10,000).

Step 1: Create Criteria groupings

1. Click Group Criteria



- 2. Type an open and close parenthesis around the criteria rows to be grouped
- 3. Click OK

it Criteria Grou	iping	Type parentheses to select	of 5 🕑 Last	
oqical	Expression1	Condition Ty	criteria to include in group	
	A.BUSINESS_UNIT - Business Unit	equal to	D.DUOINEO	
ND	A.JOURNAL_ID - Journal ID	equal to	B.JOUR AL_ID - Journal ID	
ND (A.JRNL_HDR_STATUS - Journal Header Status	equal to	Р	
DR	A.JRNL_HDR_STATUS - Journal Header Status	equal to	V)
	B.MONETARY_AMOUNT - Monetary Amount	greater than	1000000	



Creating a Query

What is your question?

Given that question, what fields on what tables will show you the results?

How do they need to be joined together?

Do you need expressions, prompts, sorts, criteria to include/exclude data?

Example: Given a specific accounting period and fiscal year, show me a list of greater than \$0 journal lines for a specific tree node, aggregated on the monetary amount, and sorted by Account code and then journal ID.

What tables/records and fields do you need for this? A.JRNL_HEADER record with the fields: JOURNAL ID,

JOURNAL_DATE, FISCAL_YEAR, ACCOUNTING_PERIOD DESCR B.JRNL_LN record with the fields: ACCOUNT, FUND_CODE, MONETARY_AMOUNT

C.GL_ACCOUNT_TBL record with the fields: DESCR

How should these tables be joined?

Standard join on business unit, journal ID, journal date, unpost_seq, setid, account

What expressions, prompts, sorts, criteria do you need?

Create criteria for the tree node.

Create a prompt for fiscal year and accounting period.

Create a sort on Account and then journal ID.

Create SUM aggregation on monetary amount.

Add HAVING criteria to monetary amount for values greater than 0.

Run Query!

See screenshots of this query below.



Screenshots for example:

Query tab

Records Query Expression	ns Prompts	Fields	Criteria	Having	View SQL	Run
Query Name: NU_AS_CASH_JRNLS		Description:	Cash Journals			
Click folder next to record to show fields.	Check fields to add t	to query. Unche	eck fields to remo	ove from query	/. Add Ŝ∕	
additional records by clicking the records Chosen Records	tab. When finished	click the fields	tab.			ĺ
Alias Record						
A JRNL_HEADER - Journal Head	er Data			Hie	rarchy Join 🖃	
B JRNL_LN - Journal Line Data jo	ined with A			Hie	rarchy Join 🖃	
E GL_ACCOUNT_TBL - Accounts				Hie	rarchy Join 🖃	
-	99				30	

Prompts tab

Records Query Expressions	Prompts	Fields	Criteria	Having	View SQL	Ru
Query Name: NU_AS_CASH_JRNLS		Description:	Cash Journa	Is		
Add Prompt						
Prompts List	Custo	mize Find 🛗	First 🖪 1-2	of 2 🕑 Last		
Prompt			Edi	t Delete		
:1 = FISCAL_YEAR - Fiscal Year				Edit 📃		



Fields tab

ew field properties, or use field as criteria in query sta	atement.						Reorder /	Sort
elds		_		Cu	stomize Find View A	All 📜 🛛 First 🗹	1-9 of 9	Last
<u>Col Record.Fieldname</u>	Format	<u>Ord</u>	XLAT	<u>Aqq</u>	Heading Text	Add Criteria	Edit	Delete
1 A.FISCAL_YEAR - Fiscal Year	Num4.0				Year	74	Edit	
2 A.ACCOUNTING_PERIOD - Accounting Period	Num3.0				Period	94	Edit	Ξ
3 A.JOURNAL_DATE - Journal Date	Date				Date	94	Edit	Ξ
4 A.JOURNAL_ID - Journal ID	Char10	2			Journal ID	9 <mark>.</mark>	Edit	Ξ
5 A.DESCR - Description	Char30				Descr	9 <mark>4</mark>	Edit	Ξ
6 B.FUND_CODE - Fund Code	Char5				Fund	9.	Edit	-
7 B.ACCOUNT - Account	Char10	1			Account	94	Edit	-
8 C.DESCR - Description	Char30				Descr	%	Edit	-
9 B.MONETARY_AMOUNT - Monetary Amount	SNm25.3			Sum	Sum Amount	94	Edit	-

Criteria tab

Records	Query Expressions Prom	pts Fields	Criteria Having View S	ຊL 🎽 Run
luery Name: N	U_AS_CASH_JRNLS	Description: C	ash Journals	
Add Criteria	Group Criteria Reorder Criter	ia		
Criteria	-	47	Customize Find 🛗 First	🖸 1-5 of 5 🕨 Last
<u>oqical</u>	Expression1	Condition Type	Expression 2	Edit Delete
~	B.ACCOUNT - Account	in tree	SHARE,,NU_ACCOUNT_RPTG,20 08-09-01,BSAS_CASH	Edit
AND 🔽	A.FISCAL_YEAR - Fiscal Year	equal to	:1	Edit
AND	A.ACCOUNTING_PERIOD - Accounting Period	equal to	:2	Edit
AND 💌	C.ACCOUNT - Account	equal to	B.ACCOUNT - Account	Edit 🖃
		Contraction of the second s		- m -



Having tab

		1977 (1977) 33	(140)
CASH_JRNLS	Description:	Cash Journals	
Group Having Criteria			
		Customize Find 🛗	First 🖪 1 of 1 🕨 Last
ession1	Condition Type	Expression 2	Edit Delete
NETARY_AMOUNT - etary Amount	greater than	0	Edit
	CASH_JRNLS Group Having Criteria ession1 DNETARY_AMOUNT - etary Amount	CASH_JRNLS Description: Group Having Criteria Tession1 Condition Type DNETARY_AMOUNT - etary Amount greater than	CASH_JRNLS Description: Cash Journals Group Having Criteria <u>Customize Find 111 ression1 ONETARY_AMOUNT - etary Amount etary Amount Description: Cash Journals <u>Customize Find 111 Expression 2 </u></u>

View SQL tab

Records Query Expressions	Prompts Fields	Criteria	Having	View SQL	Run
Query Name: NU_AS_CASH_JRNLS	Description:	Cash Journals			
Query SQL: SELECT A.FISCAL_YEAR, A.ACCOUNTING_P B.FUND_CODE, B.ACCOUNT, C.DESCR, SUI FROM PS_JRNL_HEADER A, PS_JRNL_LN WHERE B.BUSINESS_UNIT = A.BUSINESS_ AND B.JOURNAL_ID = A.JOURNAL_ID AND B.JOURNAL_DATE = A.JOURNAL_DAT AND B.UNPOST_SEQ = A.UNPOST_SEQ AND (EXISTS (SELECT X'FROM PSTREES) B3_0.RANGE_FROM_10 AND B.ACCOUNT <= 1343749999) AND A.FISCAL_YEAR = :1 AND A.ACCOUNTING_PERIOD = :2 AND C.ACCOUNT = B.ACCOUNT AND C.EFFDT = (SELECT MAX(C_ED.EFFDT) FROM PS_(C) WHERE C.SETID = C_ED.SETID AND C_ED.EFFDT <= SYSDATE)) GROUP BY A.FISCAL_YEAR, A.ACCOUNTIN B.FUND_CODE, B.ACCOUNT, C.DESCR,C.S ORDER BY 7, 4	ERIOD, TO_CHAR(A.JOURN/ W(B.MONETARY_AMOUNT),C B, PS_GL_ACCOUNT_TBL C UNIT TE SELECT10 B3_0 WHERE B3_ = B3_0.RANGE_TO_10 AND E GL_ACCOUNT_TBL C_ED NG_PERIOD, TO_CHAR(A.JO SETID,C.ACCOUNT,TO_CHAF	AL_DATE, YYYY-M SETID, C.ACCOU 0.SELECTOR_N 33_0.TREE_NOD 33_0.TREE_NOD R(C.EFFDT, YYYY-	IM-DD'), A.JOU JNT,TO_CHAF UM=109 AND E_NUM BETV YYY-MM-DD'), -MM-DD')	JRNAL_ID, A.DESC R(C.EFFDT, YYYY-I B.ACCOUNT>= WEEN 1312500000	XR, MM-DD')) AND A.DESCR,

Run tab (result set)

Re	cords	Qu	ery Ex	pressions	Prompts Fields Criteria) H	laving	View SQL Run	<u> </u>
Fis	cal Ye	ar = 20	09,Period	=4					
Viev	<u>v All Re</u>	erun Que	ry Downloa	d to Excel				First 🔳 1-100	of 2649 🗈 Last
	Year	Period	Date	Journal ID	Descr	Fund	Account	Descr	Sum Amount
1	2009	4	12/05/2008	000000067	TFR; ;; This journal is fundin	171	10101	Cash-Due To-From Offset	79442.080
2	2009	4	12/05/2008	000000075	Payroll taxes for pay date: 11/	131	10101	Cash-Due To-From Offset	304725.930
3	2009	4	12/08/2008	000000123	TFR; ;; The closing balance in	110	10101	Cash-Due To-From Offset	10915.000



Tips on the data structure

- There is a general hierarchy of tables: Header, Line, Distribution
- Think about where data might be to make an educated guess if it will be in a Header, Line or Distribution table.