

Human Capital Management: Step-by-Step Guide

Creating and Modifying Queries

This guide describes the basics of building a new PS Query, and modifying an existing query. There are also some tips on how to locate the records/tables you may need.

Creating a New Query

- 1. After logging into HCM, click Main Menu.
- 2. Select CU HCM User WorkCenter.

Main	Menu 🔻	
Sear	rch Menu:	
	>>	
		ŧ
	CU PETs and Funding	×
	CU Time	×
	Onboarding Process	×
	Smart Solutions	×
	Smar hyee r ling	×
. 🗀	.prise	
	Reporting Tools	•
	PeopleTools	\mathbf{F}
	ERP Firewall	\mathbf{F}
	CU HCM User Workcenter	
	My Personalizations	
	▼	

3. Click the **Resources** tab.



4. Click Query Manager.



5. Click Create New Query.

Quer	y Manager			
Enter		u have and click Search. Leave fi ting Query Create New Query		all values.
	*Search By	Query Name 👻	begins with	
	Search	Advanced Search		

A number of tabs are displayed.

6. Click the **Records** tab.

Records	Query	Expressions	Prompts	Fields	Criteria Ha	aving Dependency	Transformations	View SQL Run
G	Query Nam	e New Unsave	d Query			Description		S Feed -
*2	Search B	Record Nam	e .	begins w	/ith			
Search	1 Adva	anced Search						
Save	Sav	re As New Q	uery	Preferences	Properties	Publish as Feed	Publish as Pivo	t Grid New Union
Retu	urn To Sea	rch						

- 7. Identify at least one record (also called tables) to query against. The default search is by record name, and you can enter all or part of the name to find the record you want.
 - a. Use the **begins with** field to look for the search term followed by any string of characters; you can use a wild card (%) before the search term and it will search for the term anywhere in a record.

Records	Query	Expressions	Prompts	Fields	Criteria	Having	Dependency	Tra
Q	uery Name	New Unsaved	Query			Des	cription	
*S	earch By	Record Name	•	begins w	rith 🔇 🖗	DEPT		
Search	1 Advar	ced Search						
Search F	lesults	Personaliz	e Find Vie	w 20 🗖		First 🕚 1	-44 of 44 🛞 La:	st
Recname			· · · ·		Join I	Record	Show Fields	
ABS_DEP	T2_VW - AI	bsence Dept Tre	e View		Join	Record	Show Fields	
ABS_SUM	_DEPT_VV	V - Absence Dep	artment View	1	Join	Record	Show Fields	
CULDEPT	CURR_W	N - CU Dept Cur	rent View		Join	Record	Show Fields	
CU_DEPT	DEFAULT	- CU DBT Exce	ption Pool De	fault	Join	Record	Show Fields	
DEPT_PO	SN_COUN	T - Active Positio	n Count by D	ept	Join	Record	Show Fields	
DEPT_SR	CH_QRY -	Search Vw-Secu	rity for Dept		Join	Record	Show Fields	
DEPT TBL	- Departm	ients			Join	Record	Show Fields	
DEPT_TBL	_LANG - F	Related Lang-Dep	partment Tbl		Join	Record	Show Fields	
								_

- b. To see the fields that are available in a record, click **Show Fields**.
- After you have identified the record you want to query, click Add Record. If the record contains an
 effective date field, you will see a pop-up notifying you that an Effective Date criterion was automatically
 added.

Adding the record will take you to the **Query** tab.

9. From the **Query** tab, select the fields you would like to see in the query results by clicking the boxes next to the field names.

Records Que	ry Expressions Promp	ts Fields Criteria	Having De	ependency 1	Transformations	View SQL	Run
Click folder next	Name New Unsaved Query to record to show fields. Chec Is by clicking the records tab. 1				ery. Add	0	Feed
Chosen Record	đs						
	Record TBL - Departments Check All	Uncheck All]		Hierarchy Join		
Fields			Find View All	First 🕘 1	-50 of 54 🛞 Las	t.	
	 SETID - Set ID DEPTID - Department EFFDT - Effective Date EFF_STATUS - Status DESCR - Description DESCRSHORT - Short COMPANY - Company SETID_LOCATION - Lo LOCATION - Location C TAX_LOCATION_CD - 	Description cation Set ID iode		Join COMPANY Company Code Join SET_LOC_ location table	9		

After you have selected at least one field, you can run the query; however, you will probably want to take a few additional steps.

• The **Fields** tab lets you reorder your fields, as well as choose which field the results will be sorted by. You can also edit the heading text and add criteria for your fields on this tab.

Records	Query	Expressions	Prompts	Fields	Criter	ria	Havin	g	Dependency	Trans	formations	View SQ	L Run		
		e New Unsaved or use field as c		ry statemen	ıt.			Desci	ription		Re	order / So	Tee	ed 👻	
Fields	5								Personalize Fi	ind Vi	ew All 💷	<mark>в</mark> Б	irst 🕚 1-3	of 3 🕑 Last	
Col Rec	cord.Fieldnam	e		F	ormat	Ord	XLAT	Agg	Heading Text		Add Crit	eria E	dit	Delete	
1 A.D	DEPTID - Dep	artment		С	har10				Dept ID		¶.		Edit		
2 A.D	DESCR - Des	cription		C	har30				Descr	(9		Edit		
3 A.L	OCATION - L	ocation Code		C	har10				Location		94		Edit		
Sav	ve Sav Return To Se	re As New Q earch	luery P	references	Pi	ropert	ies	Ρ	ublish as Feed		Publish as Pi	ivot Grid			New Union

- The **Criteria** tab lets you add criteria that will limit the results of the query.
 - a. Click the Add Criteria button.

Records Que	ry Expressions	Prompts Fie	elds Criteria	Having	Dependency	Transformations	View SQL	Run
Query N Add Criteria				De	scription			S Feed -
Criteria				Person	alize Find 🗇	🔣 🛛 First 🕚	1 of 1 🕑 Last	
Logical	Expression1		Condition Type	Express	sion 2	Edit	Delete	5
•	A.EFFDT - Effective	Date	Eff Date <=	Current	Date	Ed	lit 📃	
Save	Save As New Q	uery Prefer	ences Proj	perties	Publish as Feed	I Publish as F	Pivot Grid	New Union

The Edit Criteria Properties window appears.

Choose Expression 1	Expression 1
уре	Choose Record and Field
Field	Record Alias.Fieldname
C Expression	
*Condition Typ	equal to
hoose Expression 2 ype	Expression 2
	Define Constant
 Field Expression 	Constant
Constant	
 Constant Prompt 	

b. From the **Expression 1** box, click the look up since a field in your table that you want to create a criterion for (does not have to be a results field).

Select a	field			
Folget	a record to show field:	. for	Description English (2) III	First ④ 1 of 1 ④ Last
Alias	Record to show held:		Personalize Find 💷 🔜	First I of 1 Last Show Fields
		Record Description		
A	DEPT_TBL	Departments		Show Fields
Select	a field Personalize I	Find Many All 🗇	First 🚯 1-50 of 54 🛞 Last	
A.SETID		and I view An I a- I ma	Filat @ 1-30 01 34 @ Laat	
	D - Department			
	- Effective Date			
	TATUS - Status as of Effe	ctive Date		
A.DESCR	R - Description			
A.DESCP	RSHORT - Short Description	n		
A.COMP/	ANY - Company			
A.SETID	LOCATION - Location Se	t ID		
A.LOCAT	ION - Location Code			
A.TAX_L	OCATION_CD - Tax Local	tion Code		
-	GER_ID - Manager ID			
		-		

- c. From the **Condition Type** dropdown, select your condition type (equal to, greater than, etc.).
- d. Select the **Expression 2 Type**. This will frequently be a constant of your choosing, but you can also choose another field (useful for joining additional records), a custom expression, a prompt (which will allow the individual running the query to choose the value), or a subquery. This stepby-step guide covers constants and prompts. There are many online resources available to assist with other expression types.

Constant:

Enter a value or text string (depending on the field type).

Expression 2	
Define Constant	
Constant 51000	٩

This will limit your results to only those that contain a matching value for that field.

• Prompt:

Prompts are a little more difficult to use than constants, but give a query greater flexibility. Select **Prompt** from the **Choose Expression 2 Type** box and click **New Prompt**.

Choose Expression 2	Expression 2	
Гуре	Define Pror	npt
Field Expression Constant Bromst	Prompt	New Prompt Edit Prompt

The Edit Prompt Properties window appears.

Edit Prompt Properties		×
		Help
Field Name	*Heading Type RFT Short	
*Type	Heading Text	
Character	Dept ID	
*Format	*Unique Prompt Name	
Upper 💌	BIND1	
Length 10		
Decimals		
*Edit Type	Prompt Table	
No Table Edit	Q	
Optional		
Default Value		
		J
OK Cancel		
		.:

There are a number of options in the Edit Prompt Properties window, but the only ones you will typically need to focus on are **Type**, **Heading Text**, and **Length**. If you are creating a prompt from the Edit Criteria page, most of the properties will be defined for you based on the field type.

- **Type** is usually Character or Date you can use Number for numerical fields, but that will cause a zero to pop up by default when the query is run, so Character is cleaner.
- **Heading Text** is what the prompt will display when the query is run, so it is a good idea to make it something easy to understand.
- Length is the number of characters allowed in the prompt, and so needs to be adequate for the field you are prompting (e.g., Department IDs are five characters, so a Length of 5 will suffice; date fields are read as MM/DD/YYYY, so Length should be set to 10, since the slashes are included).

There are a few more things to be aware of with prompts:

- Format is connected to Type; if you try to create a prompt with a format that is invalid for the type, you will receive an error.
- Some fields, such as Department ID, have prompt tables choosing a prompt table will provide a look up and let the user search for a value when running the query.
- Checking the Optional box will let users run the query without selecting a prompt value; if a prompt is optional, best practice is to include the word Optional in the heading text.
 - e. Once you have finished setting the properties for your criteria, click **OK**.

Another way to create criteria is to click the filter button for a Field, from either the Query or Fields tab. Doing so will automatically fill in the Expression 1 box on the Edit Criteria Properties window.

10. After you have added all the fields and criteria you want for your query, click the **Save** button (always save before running the query; if there is an issue with the query, the system may time out and force you to log in again and recreate the query).



You are prompted to name your query.

11. In the **Query** box, type a name for your query. You can choose your own naming convention for your queries – best practice is to begin with your initials, and use a short but descriptive name. You can enter a slightly longer description in the **Description** field, and a lot more detail in the **Query Definition** field.

Enter a name to save this query:	×
	Help
*Query TB_DEPT_TBL_QRY	
Description Department Table Basic Query	
Folder	
*Query Type User	
*Owner Private	
Query Definition:	
Returns department description and location code; optional prompt for department ID	
OK Cancel	
	.:

- 12. If you want, you can create folders for your queries by entering a folder name in the Folder field.
- 13. The default **Owner Type** will be **Private**; do not save queries as Public. If you need to share a Private query with others, you can copy the query to them on the Query Manager main page.

With the query saved, it is ready to run.

14. Click the Run tab. If you have any prompts in your query, the prompt box will appear.

		×
		Help
Dept ID (Optio	nal)	Q
ОК	Cancel	

15. Enter your value in the text box. If the prompt has an associated prompt table, you will see a look up next to the text box. Clicking the look up will open a list of values from which you can select.



- 16. Select a value. You can search within the prompt table for a value, if needed.
- 17. Click **OK** to run the query. Your results will display on the screen.

Records	Query Expre	ssions Prompts	Fields	Criteria	Having	Dependency	Transformations	View SQL	Run						
View Al	I Rerun Query Dov	vnload to Excel Dowr	nload to XM	L				First 🕚 1-	100 of 2608 🕑 La						
	Dept ID				Des	or			Location						
1	H0432	H-SOM-DEAN EC	H-SOM-DEAN EO UndergradMedEd												
2	20038	SOME-DEAN EO	UME					2	AMCA						
3	21684	SOM-DEAN EO U	IME OSL					2	AMCA						
4	B0242	CMCI Media Stud	ies					1	ARMR						
5	11050	Media Studies						1	ARMR						
6	B0243	CMCI Information	Science					1	ARMR						
7	11051	Information Scien	ce					1	ARMR						
8	40004	Univ Comm & Me	Univ Comm & Media Relations												
9	H0350	H-SOM-PSYCH E	I-SOM-PSYCH EARLY DEVELOP DIV												
10	H0296	H-SOM-PEDS He	matology-O	ncology				2	тсн						
11	B0179	B-Senior Vice Cha	ancellor					1	UCB						

From the results page, you can:

- Click **View All** to see all results in the window.
- Use **Rerun Query** to rerun for updated results, or to enter different prompt values.
- Click **Download to Excel** to save the results to a spreadsheet that you can manipulate as needed.
- Click the View SQL tab to see the SQL code generated by the choices made on the other tabs.



To view additional fields that are not located on the record being queried, you can Join additional tables to access the fields you need. To join tables to access fields:

1. Return to the **Records** tab and search for the needed record as before.

Records Quer	y Expressions	Prompts	Fields	Criteria	Having	Dependency	Transformations	Vie
Query Na	me TB_DEPT_TB	L_QRY			De	scription Depart	ment Table Basic Q	uery
*Search	By Record Name		begins v	with LC	C			
Search Ad	vanced Search							
Search Result	5							
Search Result	-	e Find Vi	ew 20 🖾	۔ 🛛 ا	First 🕚	1-12 of 12 🛞 La	st	
	-	e Find Vi	ew 20 🗗		First (1)	1-12 of 12 🕑 La Show Fields	st	
Record Recname	-		ew 20 🗗	Join F			st	
Record Recname	Personaliz A - EE Local Tax D		ew 20 🖾	Join F	lecord	Show Fields	st	
Record Recname LOCAL_TAX_DAT LOCAL_TAX_TBL	Personaliz A - EE Local Tax D	ata	ew 20 🖾	Join F Join F Join F	lecord Record	Show Fields Show Fields	st	
Record Recname LOCAL_TAX_DAT LOCAL_TAX_TBL LOCATION_LANG	Personaliz A - EE Local Tax D - Local Tax Table	ata cation Tbl	ew 20 🖾	Join F Join F Join F Join F	lecord Record Record	Show Fields Show Fields Show Fields	st	

- 2. Click **Join Record** for the record want to join with another record. You will be prompted to choose a Join Type.
- 3. Select a Join Type. The default is the Standard Join, which will be appropriate in most cases.
- 4. Select the record you are joining to.

Select join type and then record	d to join with LOCATION_TBL -	Company Site Locations.	×
			Help
Join Type			
Join to filter and get additional	fields (Standard Join)		
O Join to get additional fields only	y (Left outer join)		
Join Record	Personalize Find 💷 🔢	First 🕢 1 of 1 🕑 Last	
A = DEPT_TBL - Departments			
Cancel			

Clicking the name of the Join Record opens the Auto Join Criteria box, which will automatically detect key fields in common between the two records. Any checked boxes will create join criteria for those fields, which will show on the Criteria tab.

Auto Join	Criteria	×
		Help
Query has o	detected the join conditions shown below.	
	eckboxes to unselect the criteria that you do not want to add to the query and click add n done. The criteria added can always be modified later using the criteria tab.	
V	A.SETID - Set ID = B.SETID - Set ID	
V	B.LOCATION - Location Code = A.LOCATION - Location Code	
	Add Criteria Cancel	

5. Similar to the initial record, select and create criteria for any fields in the record.



In this example, two fields have the same default Heading Text. To correct this, click the **Edit** button for the field and change the heading text.

Fields Personalize Find							/ Fields Per						
Col Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Co	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	
1 A.DEPTID - Department	Char10				Dept ID		A.DEPTID - Department	Char10				Dept ID	
2 A.DESCR - Description	Char30				Descr	1	2 A.DESCR - Description	Char30				Dept Descr	
3 A.LOCATION - Location Code	Char10				Location	1	3 A.LOCATION - Location Code	Char10				Location	
4 B.DESCR - Description	Char30				Descr		4 B.DESCR - Description	Char30				Loc Descr	

Modifying an Existing Query

To modify a query:

- 1. Find the query you want to modify in Query Manager. For tips on searching for queries, refer to *Running Queries Step-by-Step Guide*.
- 2. For the query you want to modify, click Edit.

Que	гу				F	Personaliz	e Find	View All	2	First 🕚 1 of 1 🛞 Last
Select	Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Run to XML	Schedule	Definitional References
	TB_DEPT_TBL_QRY	Department Table Basic Query	Private	(Edit	HTML	Excel	XML	Schedule	Lookup References

This will open the query.

Important! If you are modifying a public query, you must save it as a private version **before making ANY changes**. To do this, click **Save As** and change the query name, delete any folder information, and change **Owner** to **Private**.

Enter a name to save this query as:	×
	Help
*QueRCUES_HCM_ACTION_REASON_CODE\$	
Description Action Reason Codes	
Folde CU_HCM	
*Query Type User	
*Owner Public	
Query Definition:	
List - This query returns a list of action/reason code combinations and descriptions.	
OK Cancel	

 Once you have saved your own version of the query, continue with making changes (e.g., adding criteria, removing or reordering fields, etc.). Making these changes follows the same steps as shown in the previous section.

Identifying Records

The biggest challenge with creating queries is knowing which records to use in your query. Below are a few tips for finding the record you need.

If the information you need is located on a page in HCM, such as Job Data or Health Benefits, navigate to the page and do the following:

- 1. Press and hold J.
- 2. While holding J, press and hold Ctrl.
- 3. While holding Ctrl, release J.

If performed correctly, you should see a page similar to the following image.



In the list of information, there is a line labeled Component.

Browser	IE/9.0	
Operating System	WIN7	
Browser Compression	OFF	
Tools Release	8.54.13	
Application Release	HRMS 9.20.00	.000
Service Pack	0	
Page	JOB_DATA1	
Component	JOB_DATA	
Menu	ADMINISTER_	WORKFORCE_(GBL)
User ID	BEND000074	
Database Name	HCMPRD	
Database Type	ORACLE	
Application Server	//phcmapp03.p	rod.cu.edu:9550
Component Buffer Size (KB)	1197	
continue		
	Operating System Browser Compression Tools Release Application Release Service Pack Page Component Menu User ID Database Name Database Type Application Server Component Buffer Size (KB)	Operating System WIN7 Browser Compression OFF Tools Release 8.54.13 Application Release HRMS 9.20.00 Service Pack 0 Page JOB_DATA1 Component JOB_DATA Menu ADMINISTER_ User ID BEND000074 Database Name HCMPRD Database Type ORACLE Application Server //phcmapp03.p Component Buffer Size (KB) 1197

While it's not always quite the same as the record name, searching based on the Component name (or part of it) on the **Records** tab will often yield the correct record. To confirm the record needed, you can click **Show Fields** to determine whether the field you want is in a particular record.

*Search E	Ime CUES_TEC_HCM_STATS_EPAR By Record Name Segins with Ivanced Search	h JOB	Description HCM ePAR Transaction Stats SFeed -
Search Results	s		
Record	Personalize Find View All 🔄	First	④ 1-20 of 47 ④ Last
Recname		Join Recor	rd Show Fields
JOB - EE Job Histo	bry	Join Reco	rd Show Fields
JOBCDTRN_CARE	EER - Job Codes - Career Planning	Join Reco	rd Show Fields
JOBCD_COMP_R	ATE - Job Code Comp Rate Table	Join Red	Fields for record JOB - EE Job History:
JOBCD_GRADE_L	LNG - Job Evaluations by Grade Lvl	Join Rec	· · · · · · · · · · · · · · · · · · ·
JOBCD_SURVEY	- Job Code Salary Survey	Join Rec	Help 🔺
JOBCD_TASK_DE	EFN - Job Code Task Definition	Join Rec	· · · · · · · · · · · · · · · · · · ·
JOBCD_TASK_TB	BL - Job Code Task Tbl Control	Join Rec	Fieldname Personalize Find 💷 👪 First 🕚 1-163 of 163
JOBCD_TRN_PRO	DG - Job Codes	Join Red	Last
JOBCODE_GRAD	E - Job Evaluations by Grade Lvl	Join Rec	Key Description
JOBCODE_HAZ_T	TBL - Hazard Codes identified by Job	Join Rec	Y EMPLID - Empl ID
JOBCODE_LANG	- Related Lang-Job Code Tbl	Join Rec	Y EMPL_RCD - Empl Record
JOBCODE_RANK	- EE Compensatn Ranking by JobCd	Join Rec	Y EFFDT - Effective Date
JOBCODE_TBL - J	Job Codes	Join Rec	Y EFFSEQ - Effective Sequence
JOBCODE_TBL_B	BRA - Brazil Jobcode Table	Join Rec	PER_ORG - Organizational Relationship
JOBCODE_TBL_V	/1 - Current Job Codes View	Join Rec	DEPTID - Department
JOBCODE_TBL_V	/W - Current Job Codes View	Join Rec	JOBCODE - Job Code
JOBCOMP_TMP_!	MC - Temp Job for Mass Changes	Join Rec	POSITION_NBR - Position Number
JOB_ADM_PLN_V	/W - Job Ranking-Crnt Salary Ranges	Join Rec	SUPERVISOR_ID - Supervisor ID
JOB_ALL_CURR_	WW - Curent Job - All Persons	Join Rec	HR_STATUS - HR Status
JOB_APPROVALS	S - Job Action Approvals	Join Rec	APPT_TYPE - Appointment Type

If you aren't sure what page a piece of information is on, or if you are unable to locate the record based off the Component name, you can try searching for a record based on a field name it contains, or a word or phrase in the record description.



This method may take a fair amount of trial and error, because field names are not always straightforward. InUsing the wild card (%) is recommended to broaden search results.

Once you have identified a record to try querying, it is recommended that you perform a quick check to ensure the data is returned as you would expect.

To do this:

- 1. From the Query tab, click the Check All.
- 2. Click **Run**. This will run a query of all data in a record. You can then review the results to determine if the fields you want to query are returned with the data you are looking for.

	0.00 0	Desar	Location	Desar	5410	ET Date	Status	Short Dess	Ca Location	factor	Ny C Ny	100	Col Ind Accel,ins S., accelet Hannel Colds S.M. Dever A	Sub- print PAR	VI Ca	100	Data and	Une Encattle E	Una Budge	202	Sun Faculty	Maritana .	Aut Court Datar Group	ay Process Sym
	H0402	H-SOM-DEAN ED UndergradhledEd	2466	Heath Sciences Center	ucolo	01302987		H-SOM-DEAN	ou ucoro	NO LOCAL		630 P				٧	¥	1043					•	
2	20538	SOME DEAN ED UME	248KA	Anachutz Administration	UCOLO	01302087	Α.	DEANEOUME	CU UCOLO	AURORA		630 P			Y.	н	٧	Y Y	20030					8
з	21684	SOM DEAN EO UME OSL	DINKA	Anichali Administration	UCOLO	01/30/2007	Α.	DEANEOOSL	CU UCOLO	AURORA		630 P	Blank Fiel	ds	× ×	н.	¥.	x - 2	2160					
4	86242	CMCI Media Studies	SWMR.	Amory	UCOLO	01012007	A	CMCI Media	OU UCOLO			0.11					м	N (804					
5	11058	Media Studies	WAR	Amory	UCOLO	01012007	A	Media Shut	OU UCOLO	NO LOCAL		630 P			Y I	н.	¥.	Y Y	11050					
6	86240	CMOI Information Science	UNINR	Amory	UCOLO	01012007	Α.	OMCI INFO	ou ucouo			0.14				н.	N	N	8024					

This process is recommended, especially with unfamiliar records, because fields aren't always accurate, or may not contain any data, as in the image above.

Familiarization with records and query building is based largely on experience and practice. If you get stuck on a query, or are unable to locate a particular field, or have any other query questions, please email <u>hcmdata@cu.edu</u>. We will be happy to assist however you would like – whether that is completing the query for you, or pointing you in the right direction to find the necessary fields.