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EMPLOYEE SERVICES

Human Capital Management: Step-by-Step Guide
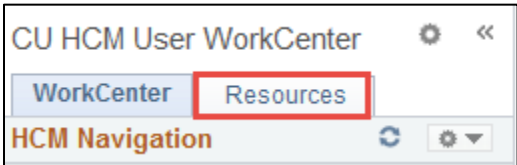
Creating and Modifying Queries

This guide describes the basics of creating a PS Query as well as modifying an existing query. Tips on how to locate the records/tables you may need is also included.
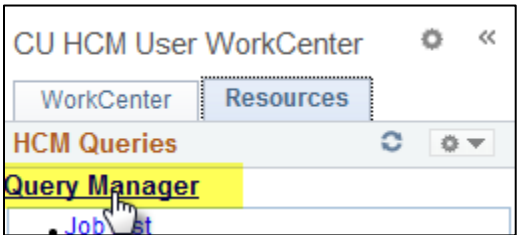
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Creating a New Query

1. From the HCM Community Users dashboard, click the **HCM WorkCenter** tile. The CU HCM User WorkCenter page appears.

2. Click the **Resources** tab.

3. Click **Query Manager**.

4. Click **Create New Query**.

A number of tabs are displayed.

5. Click the **Records** tab.

6. 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.

    b. To see the fields that are available in a record, click **Show Fields**.

7. 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.

8. 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.
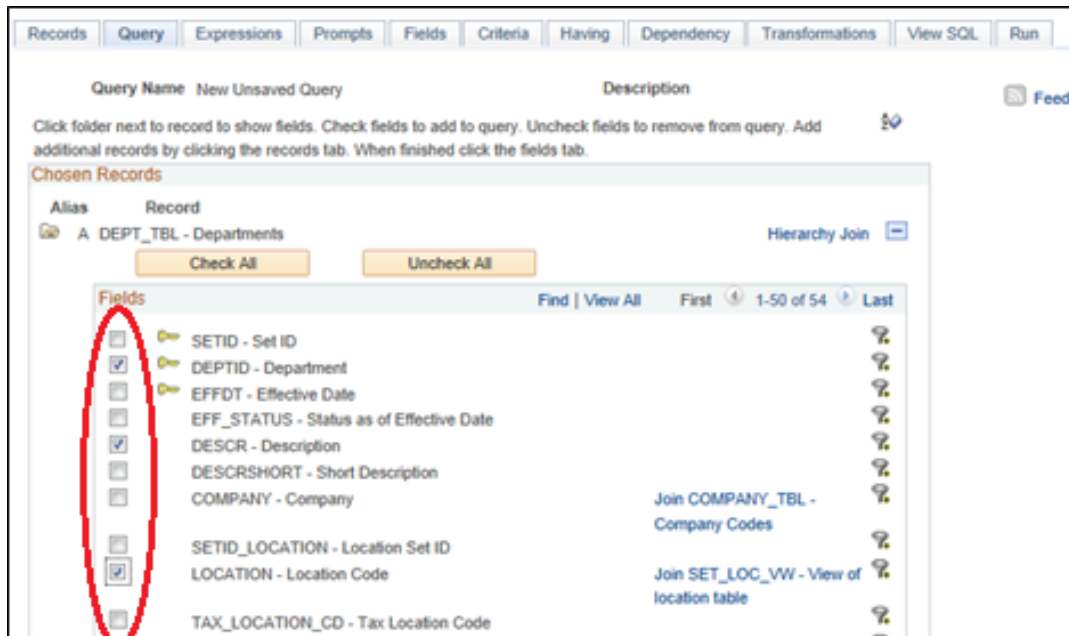
After you have selected at least one field, you can run the query; however, you will probably want to take a few additional steps:

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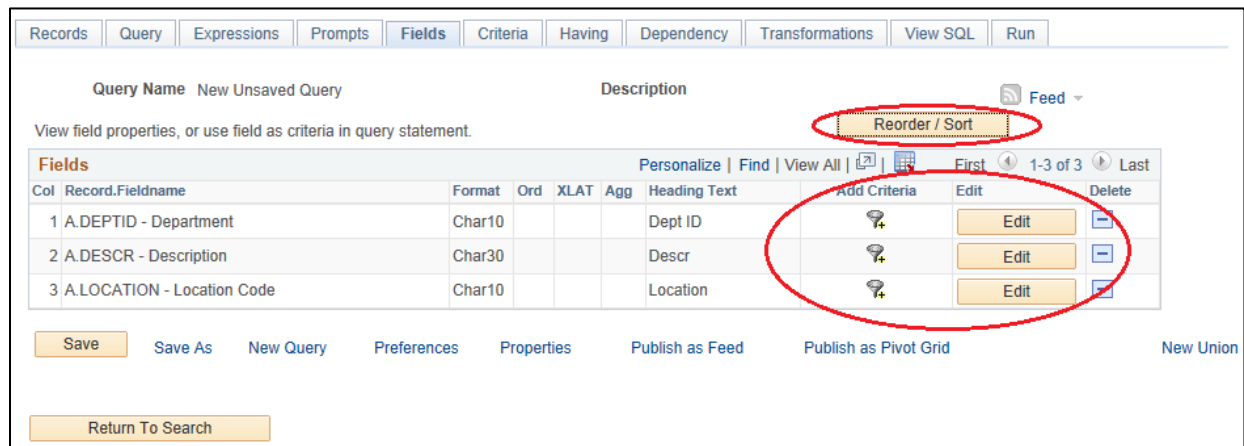
- The **Criteria** tab lets you add criteria that will limit the results of the query.
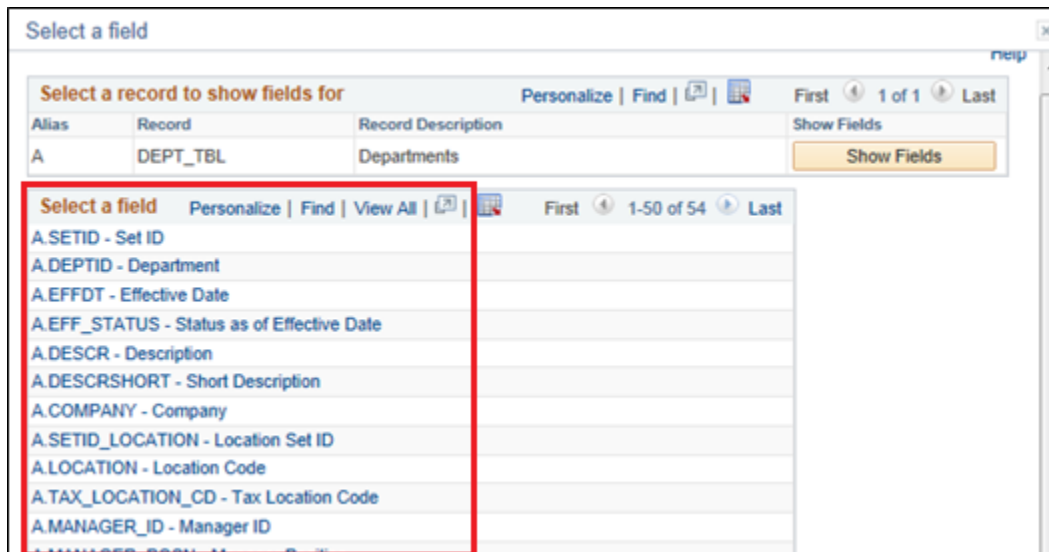
    a. Click the **Add Criteria** button.

    The **Edit Criteria Properties** window appears.

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

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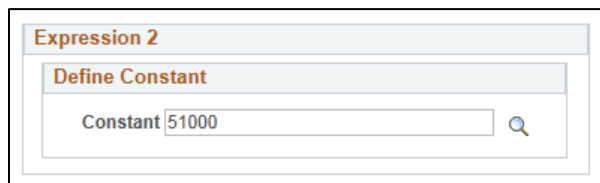
  This will limit your results to only those that contain a matching value for that field.

- **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**.

The **Edit Prompt Properties** window appears.

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.

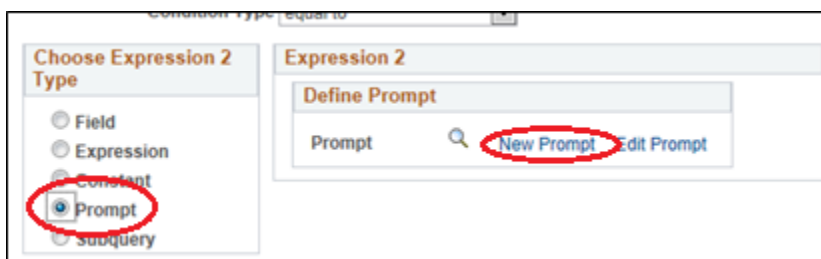- **Heading Text** is what the prompt will display when the query is run, so it is a good idea to make it something easy to understand.

- **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.

9. 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).

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

Return To Search

You are prompted to name your query.

10. 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

11. If you want, you can create folders for your queries by entering a folder name in the **Folder** field.

12. 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.

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

Help

Dept ID (Optional)

OK   Cancel

14. 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.

15. Select a value. You can search within the prompt table for a value, if needed.

16. Click **OK** to run the query. Your results will display on the screen.

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.

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.

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.

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.

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

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text
1	A.DEPTID - Department	Char10				Dept ID
2	A.DESCR - Description	Char30				Dept Descr
3	A.LOCATION - Location Code	Char10				Location
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, which is available from the Resources tab of the CU HCM User WorkCenter. For tips on searching for queries, refer to *Running Queries Step-by-Step Guide*.

2. For the query you want to modify, click **Edit**.

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**.

3. 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.
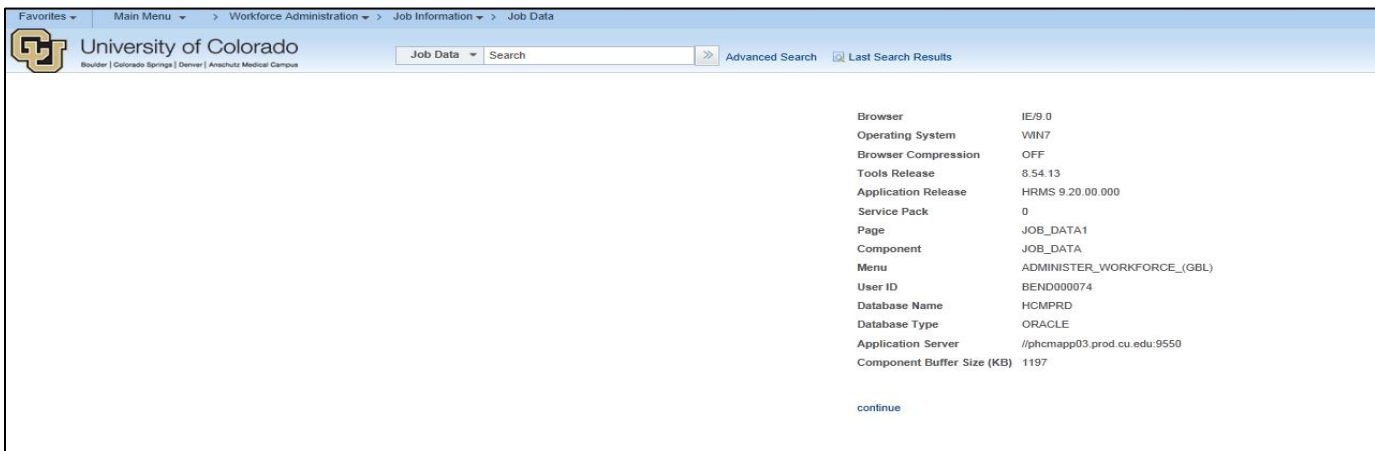
In the list of information, there is a line labeled **Component**.

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.
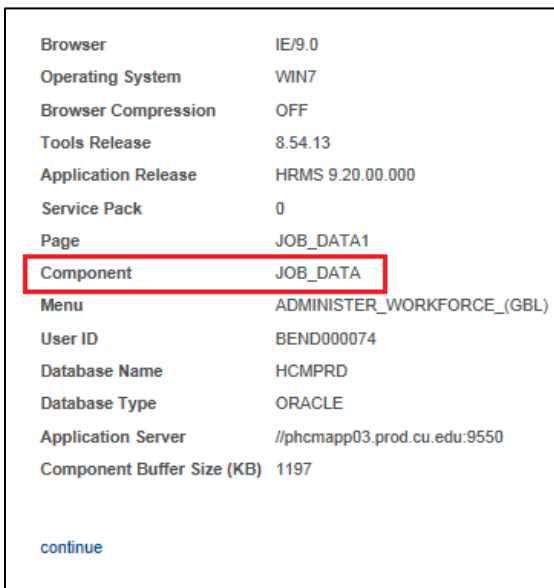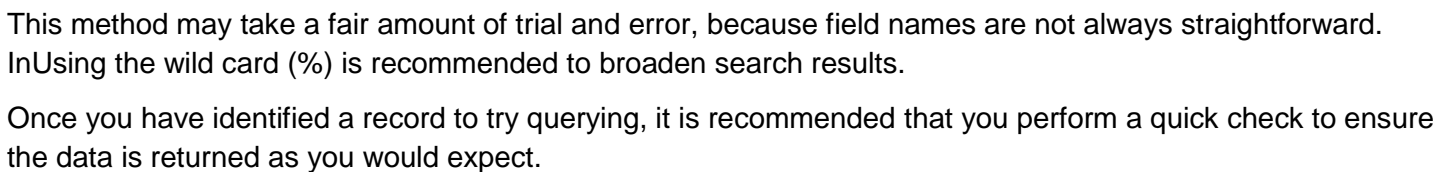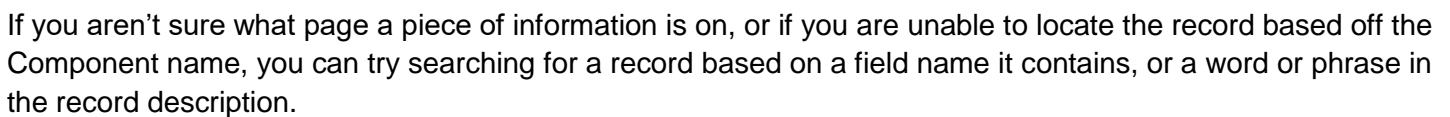

If you aren't sure what page a piece of information is on, or if you are unable to locate the record based off the Component name, you can try searching for a record based on a field name it contains, or a word or phrase in the record description.

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.

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 hcmdata@cu.edu. 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.