

CTCLINK PEOPLESOFT QUERY DEVELOPMENT LIFE CYCLE (QDLC)

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CTCLINK PEOPLESOFT PCD QUERY DEVELOPMENT LIFE CYCLE

This section is designed to instruct users on the correct protocol and conventions to follow when creating a query in the PCD environment. Section 2 covers in detail the Query Development Life Cycle and each phase of query development. At the end of this section users will be able to:

- Describe the 4 phases of the Query Development Lifecycle.
- Detail how FA queries are treated differently than other queries.
- Describe the benefits of searching for queries using metaLink.
- Define the methods used to find records and fields to be used in query development.
- Describe query development conventions and protocol in query creation and modification. Including:
 - Query Naming Convention
 - Query Description
 - o Query Definition
 - Prompts Utilization
 - Public vs Private Queries
 - Query Folders
 - o Query Performance
- Define the purpose of the Query Migration Request Form
- List what possible modifications may be made to an existing query and the steps a Query Developer must take before modifying any existing query.
- Explain why delivered queries should never be modified.

CTCLINK PEOPLESOFT QUERY DEVELOPMENT LIFECYCLE PCD

Queries written in PeopleSoft Query should be written in the Production College Development (PCD) environment. This means that for a query to be used in the Production environment (PRD), it must first be copied to PRD from PCD. This process is known as query migration. All queries will first be written in PCD and then migrated to PRD. Queries are migrated on Tuesdays and Thursdays.

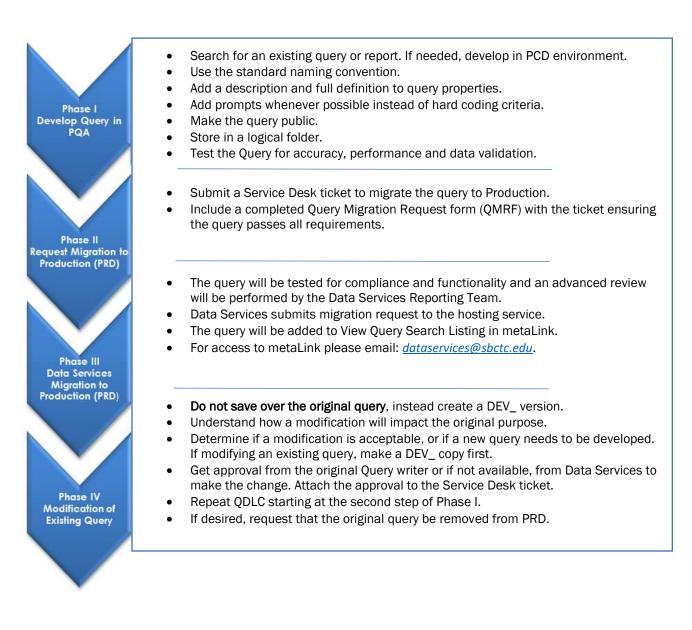
There are four phases of query development.

- Phase I Query Development in PCD
 - o Search for existing queries that may meet the need first before developing a new query.
 - o Always follow the correct protocol and conventions when developing a new query.
 - o Test the query thoroughly for accurate results.
 - Note: All Financial Aid queries, whether new or modifications, require approval from the SBCTC (State Board for Community and Technical Colleges) Financial Aid Support Team.
 - Phase II Request migration of the query from PCD to PRD.
 - Queries written in PeopleSoft Query are written in the Production College
 Development (PCD) environment. This means that for a query to be used in the
 Production environment (PRD), it must first be copied to PRD from PCD. This process
 is known as query migration. Queries are migrated on Tuesdays and Thursdays.

- Phase III The query is reviewed for compliance with query standards and then migrated to PRD by SBCTC.
 - o This review process ensures consistency in query development.
- Phase IV Optional Phase that pertains to modifying queries that already exist in Production.
 - o There are only two modification types allowed:
 - Adding an optional prompt to an existing query
 - Adding an additional field that does NOT result in row duplication
 - o All modifications must first be approved by the original Query Developer or by Data Services.
 - o Note: All Financial Aid queries, including modifications, require approval from the SBCTC Financial Aid Support Team.
 - o Modifications must be done in PCD and then migrated to PRD. Modifications of existing queries are not allowed in PRD.

QDLC Summary

Below is a summary depiction of the ctcLink Query Development Life Cycle (QDLC).



PHASE I: Query Development

Requirements for Query Manager Access in PCD

The document <u>Structure for Query Manager Access</u> discusses all the requirements for access to Query Manager in PCD in more detail; however, the basic requirements to gain access to Query Manager in PCD is to turn in a signed Non-Disclosure Agreement as well as complete both the PeopleSoft Query 101 Basics course as well as the QDLC course.

Non-Disclosure Agreement

A security measure initiated by Data Services is the Non-Disclosure Agreement (NDA). Each Query Developer must sign this document and have their Reporting Lead sign it as well. If a signed NDA is not received by Data Services, access to Query Manager in PCD will not be granted. Once signed (electronic signatures are acceptable), return it to Paula McDaniel at pmcdaniel@sbctc.edu or

<u>dataservices@sbctc.edu</u>. The NDA form is also used for dataLink Developers. If a person is both a dataLink Developer and a Query Developer, only one form is required. Either the Reporting Lead or the IT Director must sign the form, not both.

Required Courses for Access to Query Manager

Query Developers must pass the final assessments for the Query Development Life Cycle (QDLC) course as well as the ctcLink PeopleSoft Query 101 Basics course with a score of 80% or better. These are competency-based courses, so it is only necessary to complete the final assessments successfully to pass the courses.

Search for Existing Queries or Reports before Developing New Queries

- Better to use an existing query than develop a new one.
- Minimizes query clutter.
- Easier to find needed query since there are fewer to look through.
- Query is already in production so it reduces wait time for the end-user.



Always search existing queries or reports before creating a new query. This can potentially save a large amount of time and resources. If a query is found that is close, a Query Developer can use it as the foundation for a new query by using "Save As". (See Phase IV of the QDLC) There are many existing queries, so it is likely a

usable query has already been developed. Note: All FA queries, whether new or modified, must first be approved by the SBCTC Financial Aid Support Team.

While we will be learning *how* to search in the PeopleSoft Query 101 Basics course for developers and the Reporting Course for end users, it is important to note that there are various methods for searching for queries—either in PeopleSoft or in metaLink.

PeopleSoft Query Basic Search

Search using the operator "Begins With" by multiple search criteria including:

- Access Group Name
- Description
- Folder Name
- Owner

- Query Name
- Type
- Uses Field Name
- Uses Record Name

PeopleSoft Query Advanced Search

Search using the same search criteria as the basic search but with the choice of the following operators :

- <
- <=
- =
- >
- >=
- Begins With
- Between
- Contains
- In
- Not =

Searching for Queries within metaLink

metaLink is a data dictionary provided by Data Services where users can also search for queries, reports, and pivot grids. metaLink offers the benefit of being able to search for queries based on the Definition Field (Long Description), which has no character limit but is not available to see in Query Viewer. Query Viewer only displays the Description field, which is limited to 30 characters, so being able to search on the Definition field is a major benefit to performing query searches using metaLink. Users can also use metaLink to search for both field and record metadata to gain valuable insight into the data structure. Using metaLink is covered in the PeopleSoft Query 201 Intermediate course or in the stand-alone course How to Use metaLink.

The key features of metaLink allow designated users to:

- o Document structures and properties for a given record or field
- o Track and record changes by user, date, and what was changed
- o View the ctcLink reporting catalog
- o Search for available queries, reports, and pivot grids
- o View data dictionary reports (requires a password)
 - Please submit all requests for metaLink passwords to: dataservices@sbctc.edu

Develop a New Query in PCD Environment



PCD contains the three pillar instances: Campus Solutions (CS), Finance (FIN), and Human Capital Management (HCM). Designated Query Developers develop queries in the PCD environment, not in the PRD environment. This ensures that the queries in PRD have been tested, meet standards, and do not affect PRD performance. Why are queries not developed in PDV? Because Query Developers are developing queries, not

views, tables, pages, or procedures. Developing queries in PCD is acceptable and reduces the development time by eliminating one migration request step. The PDV environment is also refreshed at a slower rate than the PCD environment.

Some developers prefer to store their draft queries in a personal folder. This is allowed, but just make sure that the query has been added to the correct folder prior to requesting migration. Data Services maintains a list of allowed folder names in the <u>Query Folder List per Pillar</u> document. Folder names are free text and are automatically migrated with the query.

The PCD environment is typically refreshed on the first Monday of every month from PRD. The environment is available for use Monday – Friday from 7 am to 7 pm.

FERPA (Family Educational Rights and Privacy Act) and the Name Field



When displaying a student name in query results, it is required to add the field FERPA_BLOCK to the query results as well. It must follow directly after the Name field. To do this, the Query Developer add the student's name to the query using either the view VCS_BIO_PRIORTY or VCS_BIO_PRIMARY. No other record or view is allowed to be used for this purpose. The VCS_BIO_PRIORTY view will prioritize the preferred name, over the primary name, if it is available, while the

VCS_BIO_PRIMARY view will prioritize the primary name, over the preferred name, if it is available. A process is in place to ensure that every student has a primary name, at a minimum.

Data Dump Queries



Data dump queries may be useful to Query Developers for studying record details or to developers or end users to use for data analysis. We recommend data dump queries in the Production College Development (PCD) environment for studying record details and in Production (PRD) for data analysis.

There are many existing data dump queries. They will contain "data dump" in the query description. Data dump queries in PRD may also be requested. Please see <u>Data Dump Query</u> Protocol for more information.

Finding Records to Use in Query Development



One of the most challenging steps in developing a query, especially for those new to PeopleSoft, is to determine which table (record) contains the data needed. Query Developers use records and views to create new queries. A record is a delivered table, and a view is a table that is created by Data Services.

Commonly Used Tables

Find common records and views to use by pillar in the following spreadsheets:

- <u>Campus Solutions Commonly Used Tables</u>
- Finance Commonly Used Tables
- Human Capital Management Commonly Used Tables

We will learn the steps for using shortcut keys/extensions to find record and field information in the ctcLink <u>PeopleSoft Query 201 Intermediate</u> course, however, the shortcut keys and extensions are included here as a reference for the correct processes to follow for finding the records and fields, which are being written to from a particular front end page.

CTRL + SHIFT + J

One trick to determining the record is to first locate the PeopleSoft page where the data is entered. While on that page, use the keystrokes CTRL + SHIFT + J. This will bring up a new page that lists the technical page name. This functionality is not available in the PRD environment.



Next, run the query QXX_PSPNLFIELD where XX is the pillar acronym. The query will prompt for the page name. The query will then return each field shown on the page and the corresponding record and field names.

CTRL + SHIFT + C

Another method of finding record and field information is to use CTRL + SHIFT + C. Use a mouse to hover over the field to see the field and record name. This tool is not available in Internet Explorer.

PSChrome Extension

Also consider downloading the PSChrome Extension._ It is available to search for at: <u>https://google.com/chrome/webstore</u> Search for "PeopleSoft" in the search bar and then download PSChrome. The extension allows for searching page information and field information from any PeopleSoft screen.

metaLink

metaLink is the data dictionary provided by Data Services. Search record and field information using the data dictionary reports. A password is required to access the data dictionary reports. Please submit all requests for metaLink passwords to: <u>dataservices@sbctc.edu</u>. For more information on metaLink view the course <u>How to Use metaLink</u>.

Naming Conventions

- QXX_XX_XXXXXXX
- Q for Query or V for View Pillar Abbreviation_Module Abbreviation_Description
- QCS_AA_ENROLLED_NO_ADVISOR
- Queries in development not yet ready to move to production <u>must begin with DEV</u> or they
 will be <u>deleted</u> during the PCD refresh process.

#hello my name is... It is extremely important to follow the proper naming conventions when developing queries. Query names reflect the query owners, as well as facilitate searching. Additionally, improperly named queries in the PCD environment could potentially be deleted if they do not follow the correct conventions.

Queries Being Migrated to Production

Queries should all follow the same naming convention to aid in searching and identification.

The correct protocol is to start the query name with Q (for query), or V (for View) followed by the pillar abbreviations:

- CS for Campus Solutions
- FS for Finance
- HC For Human Capital

For example, a query for Campus Solutions would start with QCS. This beginning section of the name is then followed by the two-character module abbreviation, which is then in turn followed by a description. As query names do not allow for spaces or special characters, underscores are used for spaces.

Note: Only Data Services are allowed to create views.

An example of a correctly formatted query name is:

QCS_AA_ENROLLED_NO_ADVISOR



Query/Pillar Module Description

Queries in Development in PCD

Queries that are in development in the PCD environment *must* begin with DEV_. Change the name to the standard naming convention for queries in Production when migrating the query. Before migration, maintain the naming convention of DEV_. Queries that do not have DEV_ as their prefix will be lost during refreshes of the PCD environment.

Module Acronyms and Names



The Data Services Reporting Team maintains a list of the module acronyms and names by pillar called the <u>Query Module List by Pillar</u>.

Query Description

Describe the query using the Query Property Description and Definition fields.

- The Description field is 30 characters.
- Try to use a description that will best identify the query and will also facilitate searching.

Query Definition



The query definition is used to provide detailed information about the query. The *Definition* field allows for an unlimited number of characters.

New Queries

Using the Query Definition Template, include the following in the Query Definition field for new queries:

• Detailed description of purpose of Query.

- Any specific criteria applied, for example "Selects using Student Group SINT".
- Include key search terms.
- College code and email address of developer, for example, 890: pmcdaniel@sbctc.edu.
- Date Query was created.
- Business Process Number, if applicable.
- Data that should be redacted per FERPA.
- Effective Dating Logic outside of the default. Specifically for:
 - Describe Effective Dating logic (i.e. <= Term End Dates or <= Current Date)
 - Is Effective Dating Logic joined on Term End Date for historical reporting?
 - Is Effective Dating Logic aligned with Term Dates for prior term reporting?

Existing Queries

If adding to an existing Query Definition, place the latest information under the Modification Log at the top of the list with a dashed line between the new and existing entries. This will allow the definition to be read clearly in descending order. Always include college code, email address and update date as the first line. Describe the changes made to the query, **including the approval for the modification.** If the update is in relation to a ticket, please include the ticket number in the updated definition note.

Example:

890: tmorrill@sbctc.edu Tami Morrill 07/16/2019 #123456

Removed query prompt table so that private queries can also be researched

890: tmorrill@sbctc.edu Tami Morrill 06/17/2019

Displays the query records and Y/N 1/O flag to indicate that the record is associated to a Data Services query tree. If all records are 1, then review Query Record access for User in query

QCS_DS_QUERY_RECORD_USER_RPT.

Query Definition Template:

The query definition template allows for users to quickly see the purpose and creator of the query. The template will adhere to the following format:

- ***Special Instruction Section***
 - "**Edited by SBCTC only**" will always appear as the first line of the definition, if applicable.
 - Any specific run instructions such as "must use schedule query" are noted.
 - If the query is not SBCTC edit only and/or there are not any special instructions, do not include this section and instead, start the template with "Created by".
- All new entries will be separated with a starred line.
- All entries will include college code, email address name, creation date and ticket number, if applicable.
- Business Process will be noted if available. If not applicable, do not include this section.
- The Description will include a full description of the query and its use.
- All Modification Log entries will appear in descending order by date.

-
 acts as a carriage return for metaLink so should be the last entry for each line where a carriage return is desired.
 - This creates a much neater appearance in metaLink.

FIN	BI PUBLISHER	COPS_GL_VPA_RECONCILIATION_1	GL VPA Recon Src=PAY	Edit: +++5BCTC EDIT ONLY+++
				Created by: librent@sbctc.edu lvy Brent Creation Date & Ticket#: 890: 03/28/2022 #133090
				Use with process: VPA Reconciliation
				Description: VPA Reconciliation. This query is part of BI Publisher report BFS_VPA_RECN.
				Modification Log* 890/ibrent@sbctc.edu 01/25/2024 #184879 Add new state fund code 11A, 466 and 561. Exclude expense accounts 5120010 and 5120020 890/ibrent@sbctc.edu Ivy Brent 10/20/2023 #178645 Add new state fund codes 23N, 26C, and 26V.

Template Example

Edit: ***SBCTC EDIT ONLY***

Created by: ibrent@sbctc.edu lvy Brent

Creation Date & Ticket#: 890: 03/28/2022 #133090

Use with process: VPA Reconciliation

Description: VPA Reconciliation. This query is part of BI Publisher report BFS_VPA_RECN.

Modification Log*

890:ibrent@sbctc.edu 01/26/2024 #184879

Add new state fund code 11A, 466 and 561. Exclude expense accounts 5120010 and 5120020.

890:ibrent@sbctc.edu Ivy Brent 10/20/2023 #178645

Add new state fund codes 23N, 26C, and 26V.

Edited by SBCTC Only Queries

As stated above, some queries can only be modified by SBCTC. They will have "**Edited by SBCTC only**" as the first line of the Query Definition Template. This must remain as the first

line if applicable. If the query is not SBCTC Only Edit and there are not any special instructions, do not include this section and instead, start the template with "Created by".

Prompts

- Queries not using at least one secure college specific prompt will not be migrated.
 - Any special cases where a prompt should not be used must first be approved by the 0 Query Governance Committee.

Institution:

Runtime Prompts are pop-up selection windows that appear when the query is run which ask the end user to enter or select something from a

list - for example, a specific institution. It is important to keep in mind that college-identifying prompts must be developed for every query to increase the value of the query and for security. If a query is developed for a specific institution, that query will only ever be good for that institution; however, if a prompt is used where the end user selects their institution, the query now becomes usable for everyone, regardless of institution. Queries will be reviewed for prompts before migration. Queries without prompts will not be migrated. Queries should also include a time-based prompt such as a specific term or period of time.

Query Prompt Table Security

Though query security is determined based on the roles assigned to each developer, it is required to add an additional layer of security though prompts. As stated above, all gueries in all pillars should include an Institution, Company, Business Unit, or SetID prompt. All pillars have secure records that are required to be used with one of these college-identifying fields as a prompt. Any exceptions to this rule must first be approved by Data Services. Required Secure Prompt Tables as well as other recommended Prompt Tables are found in the document Prompt Tables to Use.

Commonly Used Prompt Tables

The Prompt Tables to Use document also includes a list of fields commonly used as prompts and their corresponding recommended prompt table by pillar. It can be helpful to refer to this document when creating prompts.

Public not Private Oueries



Queries in PCD can be saved either private or public. ctcLink queries being migrated from PCD to PRD must always be saved as public so they can be seen and used by everyone. If all queries are public, it will prevent the duplication of effort that could happen if a query were private and not visible to others so was then reproduced.

Query Organization – Folders and Favorites

Folders can be used to categorize and organize queries. Queries may only be stored in one folder at a time. Query folder organization is defined in the document Query Folder List per Pillar. If a new folder assignment is desired, please submit a ticket to Data Services \rightarrow

ctcLink Reporting \rightarrow Other. Some developers prefer to store draft queries in PCD in a personal folder, which is acceptable, just make sure to remove or change the folder name prior to making a migration request. Queries not in the proper folder will not be migrated.

In addition to folders, users may also save queries in a favorites list for easy access and organization.

Test the Query



Once the development of the query has been completed, the next step is to test that it returns correct results and adheres to the Query Development Standards outlined in this document. Testing the query prior to submitting a migration request will help ensure that the migration into the Production environment will happen quickly. It may be helpful to use

the <u>Query Migration Request Form</u> as a guide to query testing. Please also include the prompt values used in testing in the Query Migration Request Form.

Performance Standards

Users will also need to test that their query is efficient and does not take too long to run. Inefficient queries can use up valuable resources. The best way to ensure the query is efficient is to run it and verify that its run-time is less than one minute, preferably just a few seconds. Also aim to have the smallest number of rows returned by the query as possible. A good sign that the query is returning too many rows is if the message "Query Result Set Too Large" is received indicating that scheduling the query is required to see the full results.

PHASE II: Submit a Migration Request



•

The last step in the development process, and the second phase of the overall QDLC, is to request the query be migrated into the PRD environment. Follow the steps below:

Log in into the SBCTC Service Desk



• If not prompted into the Request screen, click in the "Request" icon.

Request type	SBCTC Data Services V	ctcLink Reporting	•
	Migration Request	Ţ	
Subject	Migration Request Subject		
Instructions	Please fill out the Query Migration you.	n Request Formand attact	h to this request, thank
Request Detail	Enter the details of the request	here	
riequest betan			

- On Request Type, select "SBCTC Data Services", which will bring a second drop-down list.
- Select "ctcLink Reporting", which will bring a third drop-down list.
- Select "Migration Request".
- Fill in the "Subject" field.
- Describe the request with as much detail as possible.
- Choose the PeopleSoft Pillar from the drop-down list. This is a required field.
- From the "Instructions" field, click on the link "Query Migration Request Form" to open the form.
- Fill out the Query Migration Request form completely
- Click the three dots in the upper right corner to save the form on the users' PC (the completed form needs to be attached in the Migration Request)

The Next step is to attach the Query Migration Request Form to the Migration Request:

• Click "Add File" button



Add File

- Click "Browse" to find the file
- Once found, click "Open"
- Click "Upload", once done the file name should be seen below the "Add File" button
- Location stays as SBCTC.
- Finally, click "Save"

The Query Migration Request Form is used by Data Services and helps ensure that the Query Developer has reviewed their query for compliance and performance before submitting for migration. This form can also be used as a guide during development work to ensure the standards described in this document are being followed.

PHASE III: Migration to Production

The Data Services Reporting Team will review the query for compliance and functionality, and an advanced review will be performed. If there are any concerns with the query or its compliance to any of the standards listed in this document, it will be sent back to the developer to resolve before migration. Once the query is approved by Data Services, it is sent to the hosting service for migration. The query will be added to View Query Search Listing in <u>metaLink</u>. For access to metaLink, please email <u>dataservices@sbctc.edu</u> with your name, email address, phone number, and college.

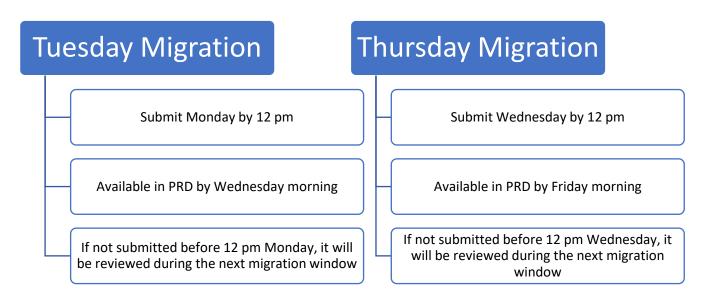
Query Migration Schedule



Query Migrations occur twice a week on Tuesdays and Thursdays.

If you intend to have your **query migrated on Tuesday, the latest time to submit your migration request ticket is Monday at 12pm.** If your ticket is not submitted on or before 12pm, your query will be reviewed for migration during the next migration

window. Also, if you intend to have your **query migrated on Thursday, please submit your migration request ticket by Wednesday at 12pm.** If your ticket is not submitted on or before 12pm, your query will be reviewed for migration during the next migration window. Query requests sent for migration by Monday at 12pm should be available in Production on Wednesday morning, while those sent in by 12pm on Wednesday should be available in Production by Friday morning.



PHASE IV: Modification of Existing Queries

Modifying Queries Created by Others

- Do not save over the original query. Instead create a DEV_ version.
- Understand how a modification will impact the original purpose.
- Determine if a modification is acceptable, or if a new query needs to be developed. If modifying an existing query, **make a copy first.**
- Get approval from the original Query writer or if not available, from Data Services to make the change.
- Repeat QDLC starting at the second step of Phase I.
- If desired, request that the original query be removed from PRD.



Please do not modify any existing queries without first analyzing the impact of the modification with the original creator or the ERP (Enterprise Resource Planning) Pillar lead. Approval is always required to make a modification to an existing query. Some queries are used for business processes, and changing the query may negatively impact it.

If approved to make changes to an existing query, make a copy first.

If a query is found that is very close to what is needed but that is not quite right, it is recommended to use that query as a base that can then be changed to fit current needs. These queries must be saved using **"Save As"** to save the query to a new name after which, the query can then be modified. All FA queries, whether new or for a modification, must first be approved by the SBCTC Financial Aid Support Team.

Modifying QX-X_ or CTC_ (where XX is the pillar acronym)

• First try to determine who created the query by looking at the definition within the Query Properties. If no name, look to see who the last person was to modify the query. If unable to determine a specific person to ask for approval, assign to the ERP Pillar Lead via the Service Desk to request the modification. Once ERP Support has made their decision the query will be assigned to Data Services.

Modifying QCS_FA or CTC_FA Financial Aid Queries

- All Financial Aid queries, both new query requests and modification of existing queries, need to be approved by the SBCTC Financial Aid Support Team.
- Assign to the Financial Aid Pillar Lead via the Service Desk to request modification.

Modifying Delivered Queries

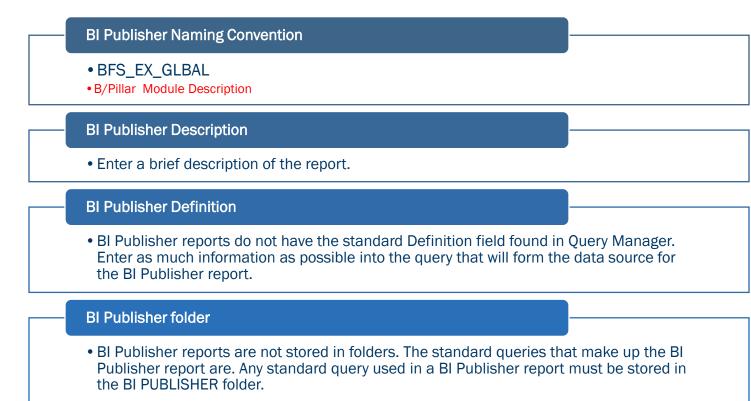
Queries that are delivered by Oracle are found in the DELIVERED folder. These queries do not follow the QXX or CTC naming convention. If a Query Developer makes a modification to one of these queries, any changes made will be overwritten and lost at the next system upgrade. Therefore, all changes to a delivered query must be saved as a new query using the "Save As" button. The new queries must follow the standard conventions listed in this document.

OTHER REPORTING TOOLS DEVELOPMENT CONVENTIONS AND PROTOCOL

While creating queries will be the main area most Query Developers will work in, there are additional reporting tools that will become available for use as the Query Developer gains skill and knowledge. Following the correct conventions when using these tools is also especially important for consistency and continuity in searching.

BI Publisher Conventions and Protocol

BI Publisher is a PeopleSoft delivered reporting tool that allows users to choose the output type of a report and for specific formatting and presentation of data. These reports use queries, Connected Queries, or Composite Queries as data sources. BI Publisher reports follow the same naming convention as standard queries with the caveat that they will begin with B, which stands for BI Publisher.



BI Publisher Naming Convention

The naming convention for BI Publisher reports only begins with B instead of BI to save space as the name can only be 12 characters long.

• Example: BFS_EX_GLBAL B/Pillar Module Description

BI Publisher Description

Enter a brief description of the report.

BI Publisher Definition

BI Publisher reports do not have the standard Definition field found in Query Manager. Enter as much information as possible into the query that will form the data source for the BI Publisher report.

BI Publisher folder

BI Publisher reports are not stored in folders. The standard queries that make up the BI Publisher report are. Any standard query used in a BI Publisher report must be stored in the BI PUBLISHER folder.

BI Publisher Data Sources

Data sources for BI Publisher reports are:

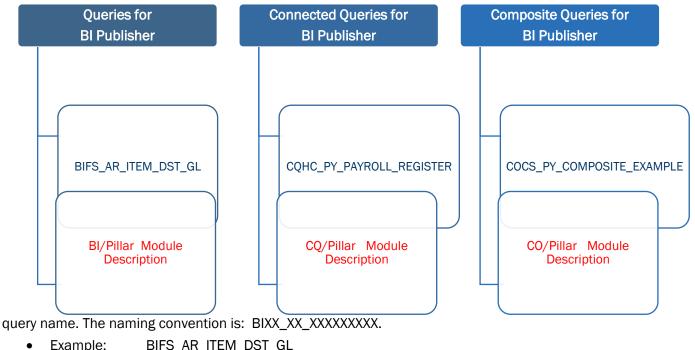
- PS Queries
- Connected Queries
- Composite Queries



BI Publisher Data Source Conventions

PS Queries for **BI** Publisher

Queries used as data sources for BI Publisher should have a BI designation at the beginning of the



Example: BIFS_AR_ITEM_DST_GL BI/Pillar Module Description

Queries used in BI Publisher must be stored in the BI PUBLISHER folder.

Connected Queries for BI Publisher

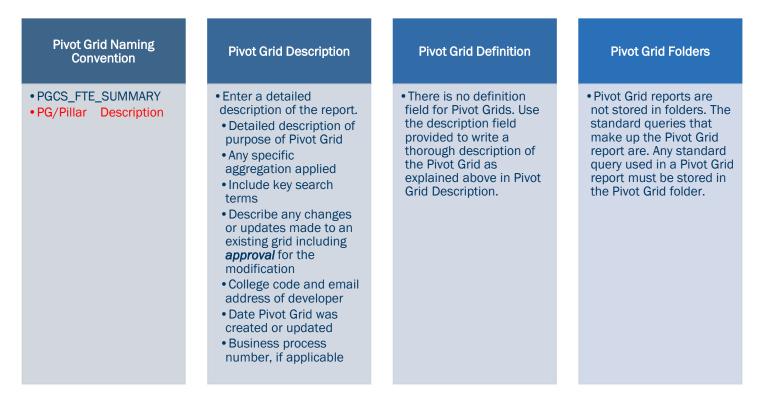
Connected Query allows for the creation of a single XML file based on a set of queries with parentchild relationships. Please see the Connected Query section of this document for information on Connected Query and protocol.

Composite Queries for BI Publisher

Composite Query enables you to combine data from existing base queries and then apply filters, aggregates, and so on before presenting the report results, which show the combined data set. Please see the Composite Query section of this document for information on Composite Query and protocol.

Pivot Grid Conventions and Protocol

Pivot Grid will allow Query Developers to create graphical representations of data in a visually effective and efficient manner.



Pivot Grid Naming Convention

The Pivot Grid naming convention is: PGXX_XXXXXXXXXX.

Example: PGCS_FTE_SUMMARY
 PG/Pillar Description

Pivot Grid Description

The Pivot Grid description field is the only area where developers can enter notes about the grid. There is no definition field for a Pivot Grid; however, there is a large character limit on the description field. Include as many of the following as possible when entering the description:

- Detailed description of purpose of Pivot Grid
- Any specific aggregation applied
- Include key search terms
- Describe any changes or updates made to an existing grid including *approval* for the modification
- College code and email address of developer, for example, 890: pmcdaniel@sbctc.edu
- Date Pivot Grid was created or updated
- Business process number, if applicable
- If adding to the Description, place the latest information at the top of the list with a dashed line between the new and existing entries. This will allow the definition to be read clearly in descending order

Pivot Grid Definition

There is no definition field for Pivot Grids. Use the description field provided to write a thorough description of the Pivot Grid as explained above in Pivot Grid Description.

Pivot Grid Folder

Pivot Grids are not stored in folders. The standard queries that make up the Pivot Grid are. Any standard query used in a Pivot Grid report will be stored in the PIVOT GRID folder.

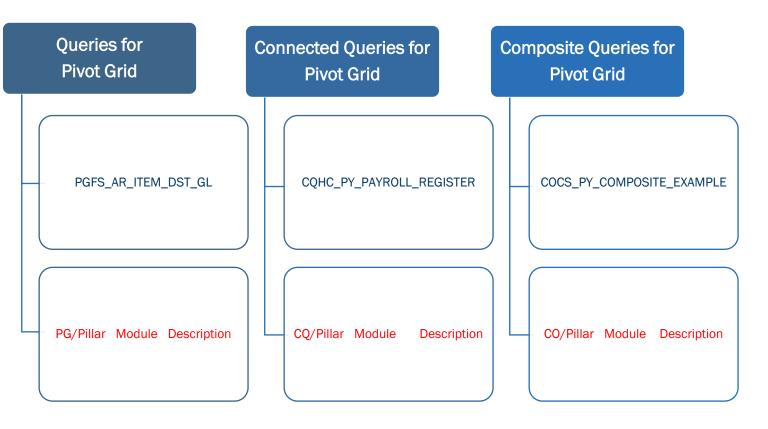
Pivot Grid Data Sources

Available Pivot Grid data sources are:

- Standard Queries
- Composite Queries
- Component Queries



Pivot Grid Data Source Conventions



PS Queries for Pivot Grid

Queries used as data sources for Pivot Grids should have a PG designation at the beginning of the query name. The naming convention is: PGXX_XX_XXXX

• Example: PGFS_AR_ITEM_DST_GL

PG/Pillar Module Description

Queries used in Pivot Grids must be stored in the PIVOT GRID folder.

Composite Queries for Pivot Grid

Composite Query enables you to combine data from existing base queries and then apply filters, aggregates, and so on before presenting the report results, which show the combined data set. Please see the Composite Query section of this document for information on Composite Query and protocol. Composite Queries can be used as a data source for Pivot Grids.

Components for Pivot Grid

Using a component as a data source for a Pivot Grid allows the developer to select a component and create a Pivot Grid based on the component properties.

nVision Conventions and Protocol

PS/nVision is a sophisticated tool for creating business reports in Microsoft Excel. Working within Microsoft Excel, users can create a report layout that defines both the data to retrieve and the format of the report. Using PS/nVision, users can create report layouts that summarize information from the PeopleSoft database and use the drill down feature to expose the supporting details. Users can share report layouts across multiple business units and time periods, creating reports that "roll" from unit to unit or period to period without changing the data-retrieval criteria.

PS/nVision works within spreadsheets. Access PS/nVision features from a special PS/nVision menu within Microsoft Excel to create templates (layouts) for data retrieval. Once a report layout is created (XNV file), users can use it to automatically format data. PS/nVision selects data from the PeopleSoft database using ledgers, trees, and queries.

nVision Naming Convention

- IPEDS
- Description

nVision Description

• Enter a brief description of the report in the Title field of Define Report Request

nVision Definition

• nVision reports do not have a definition field. Enter as much information as possible in the query definition if using a query as a data source.

nVision folder

• NVision reports are not stored in folders. Any standard query used in a nVision report will be stored in the NVISION folder.

nVision Naming Convention

Because of the extremely limited character allocation for nVision report names, the naming convention for nVision reports is only the report description. nVision report names are limited to 7 characters. There are no delivered nVision reports from which we would need to differentiate our custom reports so a designation of NXX is not necessary.

Example: IPEDS (Integrated Postsecondary Education Data System)
 Description

Note: Only State Board staff will have access to create nVision reports.

NVision Description

Enter a brief description of the report in the Title field of Define Report Request

NVision Definition

nVision reports do not have a definition field. Enter as much information as possible in the query definition if using a query as a data source.

NVision Folder

NVision reports are not stored in folders. Any standard query used in a nVision report will be stored in the NVISION folder.

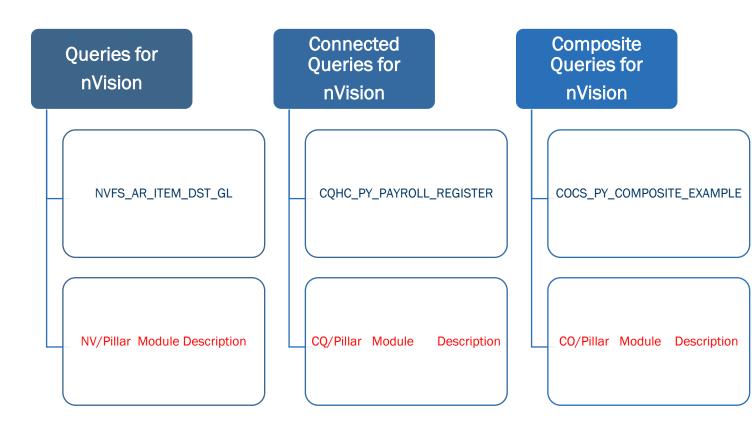
nVision Data Sources

nVision data sources are:

- Standard Queries
- Ledgers
- Trees



nVision Data Source Conventions



PS Queries for nVision

Queries used as data sources for nVision should have the NV designation at the beginning of the query or Connected Query name. The naming convention is: NVXX_XX_XXXX.

• Example: NVFS_AR_ITEM_DST_GL

NV/Pillar Module Description

Queries used in nVision reports must be stored in the NVISION folder.

Ledgers and Trees for nVision

Ledgers and Trees are already named and do not require further conventions when used as data sources for nVision reports.

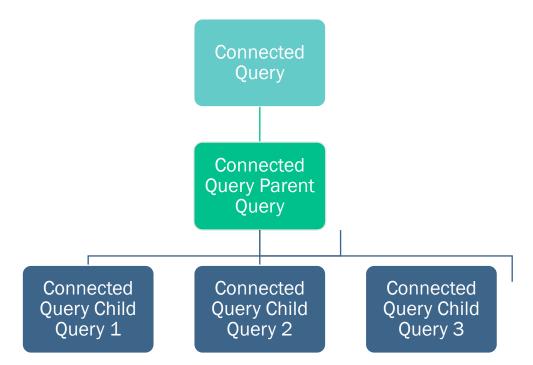
Connected Queries

Connected Queries are used as data sources for reports that use XML as they only produce XML. ctcLink currently only uses Connected Queries as data sources for BI Publisher reports. PeopleSoft Connected Query allows for the creation of a single XML file based on a set of queries with parent-child relationships. It is important to designate which queries make up the Connected Query and what their role is within the Connected Query.

Connected Queries can be "broken down" into three parts:

- Connected Query hierarchal object created from multiple existing queries, which produces the XML output.
- Parent Query A parent query is a query that has one or many child queries. The parent query is the top-level query in a Connected Query. The top-level query should normally be where prompts are developed.
- Child Query A child query is a query that has a single parent query. A child query can have one or more sibling queries. Fields in a child query are mapped to related fields in the immediate parent query.

Connected queries are found in the Connected Query Manager or Connected Query Viewer but only produce XML. A Connected Query is created by connecting parent and child queries together by mapping related fields. An example of when to use a Connected Query would be for a report that includes detailed as well as totaled information. The Connected Query creates the final XML output that is then used as a data source for BI Publisher or other tools that can use XML.



Connected Query Conventions Overview

The Connected Query is designated by the prefix CQXX where XX is the pillar name. The parent query is a standard PS Query and is designated by the prefix CQXX and a suffix of _P to designate it as a parent query. Each child query is also a standard PS query and is also designated by the prefix CQXX but will have a suffix of _X where X is the child number to designate it as a child query. The number does not denote any particular order but is instead just a way of differentiating each child query since all queries used in a Connected Query, as well as the final Connected Query report, share the same base name. Use the description field for each parent and child query to provide a brief description of the purpose of the query.

• Example:

0	Connected Query:	CQHC_PY_PAYROLL_REGISTER
---	------------------	--------------------------

- Parent Query: CQHC_PY_PAYROLL_REGISTER_P
- Child Queries: CQHC_PY_PAYROLL_REGISTER_1
 - CQHC_PY_PAYROLL_REGISTER_2

CQHC_PY_PAYROLL_REGISTER_3

- All queries share the same base name.
- Parent and child queries should be stored in the folder of the object being created. For example, queries being created for a BI Publisher report would be stored in the BI PUBLISHER folder.
 - Example: Connected Query CQCS_SF_ITEM_DUE_AS_OF

Connected Query Conventions and Protocol

Connected Query Naming Convention

- CQHC_PY_PAYROLL_REGISTER
- CQ/Pillar Module Description

Connected Query Description

• Enter a brief description of the report.

Connected Query Definition

• Connected Queries do not have the standard Definition field found in Query Manager. However, there is a Comments box underneath the Description where additional information related to the Connected Query should be stored. Related queries are listed in the body of the Connected Query manager page and do not have to be further defined in the comments section.

Connected Query folder

• Connected Query reports are not stored in folders. Parent and child queries should be stored in the folder of the object being created. For example, queries being created for a BI Publisher report would be stored in the BI PUBLISHER folder.

Connected Query Naming Convention

Connected Queries will begin with CQ. There is a 30-character limit on the Connected Query's name. CQXX_XX_XXX.....XXXX – where CQ stands for Connected Query

• Example: CQHC_PY_PAYROLL_REGISTER

CQ/Pillar Module Description

Connected Query Description

Enter the description of the report.

Example: "Payroll Register Report"

Connected Query Definition

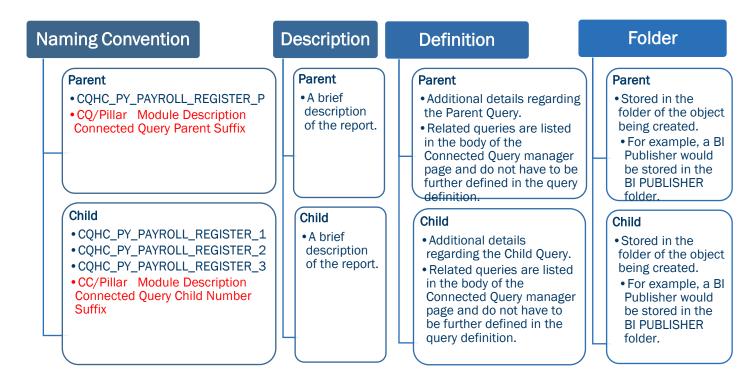
Connected Queries do not have the standard Definition field found in Query Manager. However, there is a Comments box underneath the Description where additional information related to the Connected Query should be stored. Related queries are listed in the body of the Connected Query manager page and do not have to be further defined in the comments section.

Connected Query Folder

Connected Query reports are not stored in folders. Parent and child queries should be stored in the folder of the object being created. For example, queries being created for a BI Publisher report would be stored in the BI PUBLISHER folder.

Connected Query Parent and Child Queries Conventions

Parent queries are standard queries found within Query Manager, so it is important to designate them appropriately, so they do not get used or modified incorrectly. They will start with CQ to designate them as part of a Connected Query.



Parent Query Naming Convention

CQXX_XX_XXX......XXXX_P - where P stands for Connected Query Parent

• Example: CQHC_PY_PAYROLL_REGISTER_P

CQ/Pillar Module Description Connected Query Parent Suffix

Parent queries should be stored in the folder of the object being created. For example, queries being created for a BI Publisher report should be stored in the BI PUBLISHER folder.

Parent Query Description

Enter a brief description of the query.

• Example: "Payroll Register Report by College"

Parent Query Definition

Enter additional details regarding the Parent Query. Related queries are listed in the body of the Connected Query manager page and do not have to be further defined in the query definition.

• Example: <u>890:lpeterson@sbctc.edu</u> Lucy Peterson 10/04/2017 Used in Connected Query: CQHC_PY_PAYROLL_REGISTER

Child Query Naming Convention

Child queries are standard queries found within Query Manager, so it is important to designate them appropriately, so they do not get used or modified incorrectly. They will start with CQ as they will be used in a Connected Query.

CQXX_XX_XXX......XXXX_1 - where 1 stands for Connected Query Child 1

CQXX_XX_XXX......XXXX_2 - where 2 stands for Connected Query Child 2

CQXX_XX_XXX......XXXX_3 - where 3 stands for Connected Query Child 3

• Example:

CQHC_PY_PAYROLL_REGISTER_1 CQHC_PY_PAYROLL_REGISTER_2 CQHC_PY_PAYROLL_REGISTER_3

CC/Pillar Module Description Connected Query Child Number Suffix

Child queries should be stored in the folder of the object being created. For example, queries being created for a BI Publisher report should be stored in the BI PUBLISHER folder.

Child Query Description

Enter a brief description of the query.

• Example: "Payroll Register Report Totals"

Child Query Definition

Enter additional details regarding the Child Query. Related queries are listed in the body of the Connected Query manager page and do not have to be further defined in the query definition.

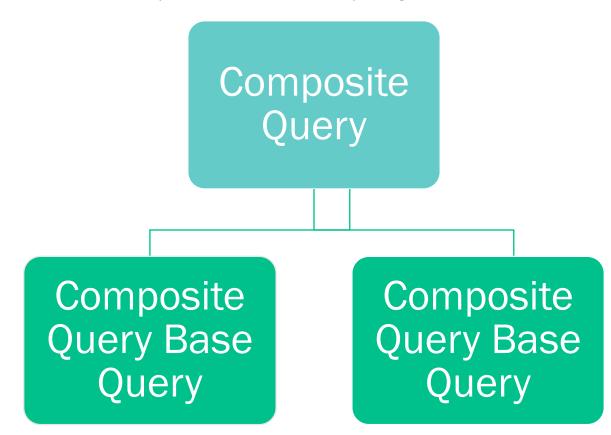
• Example: <u>890:lpeterson@sbctc.edu</u> Lucy Peterson 10/04/2017 Used in Connected Query: CQHC_PY_PAYROLL_REGISTER

Composite Queries

Composite Query enables users to combine data from existing base queries and then apply filters, aggregates, and so on before presenting the report results, which show the combined data set. Composite Query retrieves multiple levels of related information on existing base queries and presents the combined data as a single and flattened query result. The Composite Query is comprised of multiple base queries. It is important to designate which queries make up part of a Composite Query and what their role is within the Composite Query. Composite Queries can be "broken down" into two parts:

- Composite Query hierarchical object created from multiple existing queries.
- Base Query A query that is joined by field to other queries then tied together as a Composite Query that can be used as a data source for Pivot Grid.

Composite Queries are found in the Composite Query Manager. A Composite Query is created by connecting multiple standard PS queries together. Composite Queries can be used as data sources for BI Publisher, Pivot Grid, or they can be run in Composite Query Manager to preview the results.



Composite Query Conventions Overview

The Composite Query is designated by the prefix COXX where XX is the pillar name. The base queries are designated by the suffix _X where X is the base query number. The descriptive portion of the names for the final Composite Query and the base queries should be the same for continuity, only if the base queries are being developed specifically for use in a Composite Query. Remember, Composite Queries use standard PS Queries, so it is possible to just use existing queries in a Composite Query. In that instance, the name of the existing PS query does not need to be changed.

Just update the query definition field to include that the query is being used as part of a Composite Query and list the Composite Query name and any sibling base queries. The query will continue to run as a stand-alone query and as part of the Composite Query.

- Example 1 Base queries are being developed specifically for use in a Composite Query:
 - Composite Query COHC_PY_COMPOSITE_EXAMPLE
 - Base Queries: COHC_PY_COMPOSITE_EXAMPLE_1 COHC_PY_COMPOSITE_EXAMPLE_2 COHC_PY_COMPOSITE_EXAMPLE_3

Note that all queries share the same base name.

- Example 2 Base queries are pre-existing standard PS queries
 - Composite Query COHC_PY_COMPOSITE_EXAMPLE_2
 - Base Queries: QCS_SR_ENROLL
 - QCS_SF_DUE_AMT

Note that the base queries names do not change, even though they are being used in a Composite Query

Composite Query Conventions and Protocol

Composite Query Naming Convention

COCS_PY_COMPOSITE_EXAMPLE

• CO/Pillar Module Description

Composite Query Description

• Enter a brief description of the Composite Query.

Composite Query Definition

- Composite Queries do not have the standard Definition field found in Query Manager. However, there is a Comments box available in the Properties section of the Composite Query where additional information related to the Composite Query should be stored.
- Related queries are listed in the body of the Composite Query Manager page and do not have to be further defined in the Comments section.

Composite Query folder

• Composite Query reports are not stored in folders. Queries developed specifically for use in Composite Query should be stored in the folder of the object being created.

Composite Query Naming Convention

COXX_XX_XXXXX – where CO stands for Composite Query. There is a 30-character limit on the Composite Query's name.

Example: COCS_PY_COMPOSITE_EXAMPLE
 CO/Pillar Module Description

Composite Query Description

Enter a brief description of the Composite Query.

• Example: "Payroll Register Report

Composite Query Definition

Composite Queries do not have the standard Definition field found in Query Manager. However, there is a Comments box available in the Properties section of the Composite Query where additional information related to the Composite Query should be stored. Related queries are listed in the body of the Composite Query Manager page and do not have to be further defined in the Comments section.

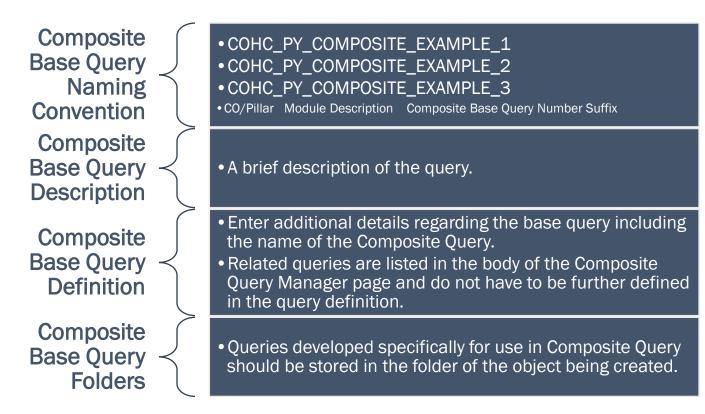
Composite Query Folder

Composite Query reports are not stored in folders. Queries developed specifically for use in Composite Query should be stored in the folder of the object being created. For example, queries being created for a Pivot Grid report would be stored in the PIVOT GRID folder, whereas queries being developed for BI Publisher would be stored in the BI PUBLISHER folder.

Standard queries not specifically developed for use in Composite Query should remain in their current folder. The Definition field in the query should be updated to indicate the query is also used as part of a Composite Query.

Composite Query Base Queries

Base queries are standard queries found within Query Manager. They can be developed for use in a Composite Query, or existing standard PS Queries can be used as well.



Composite Base Query Naming Convention

If a query is being developed specifically for use in a Composite Query use the following convention:

COXX_XX_XXX......XXXX_1 - where 1 stands for Composite Base Query 1 COXX_XX_XXX.....XXXX_2 - where 2 stands for Composite Base Query 2 COXX_XX_XXX.....XXXX_3 - where 3 stands for Composite Base Query 3

 Example: COHC_PY_COMPOSITE_EXAMPLE_1 COHC_PY_COMPOSITE_EXAMPLE_2 COHC_PY_COMPOSITE_EXAMPLE_3 CO/Pillar Module Description Composite Base Query Number Suffix

Queries developed specifically for use in Composite Query should be stored in the folder of the object being created. For example, queries being created for a Pivot Grid report would be stored in the PIVOT GRID folder, whereas queries being developed for BI Publisher would be stored in the BI PUBLISHER folder.

If a standard PS query is being used in a Composite Query, do not change the name of the base query. Simply update the query definition field to include that the query is being used as part of a Composite Query and list the Composite Query name.

Example: QCS_SR_ENROLL
 QCS_SF_DUE_AMT

Pillar Module Description

Standard queries not specifically developed for use in Composite Query should remain in their current folder. The Definition field should be updated to indicate the query is also used as part of a Composite Query.

Composite Base Query Description

Enter a brief description of the query.

• Example: "Payroll Register Report"

Composite Base Query Definition

Enter additional details regarding the base query including the name of the Composite Query. Related queries are listed in the body of the Composite Query Manager page and do not have to be further defined in the query definition.

• Example: 890: <u>lpeterson@sbctc.edu</u> Lucy Peterson 10/04/2017 Used in Composite Query: COCS_PY_COMPOSITE_EXAMPLE

Who Owns What Queries and Reports?

 QXX = When the first three characters of the query are QXX the query is owned and maintained by Data Services

 CTC = Now owned by Data Services

 Not QXX or CTC - if the query does not begin with any of these prefixes, then it is a delivered query and is owned by Oracle

 CTC_FA = When the first five characters of a query are CTC_FA the query is owned by the SBCTC Financial Aid Support Team

 All Financial Aid queries, both new query requests and modifications of existing queries, need to be approved by the SBCTC Financial Aid Support Team

 BXX, PGXX = Reports that begin with BXX or PGXX the query is owned and maintained by Data Services

 CTC_CUSTOM = Developed reports in menu CTC_CUSTOM were originally created by Ciber

Queries

- **QXX** = When the first three characters of the query are QXX (where XX is the pillar acronym) the query is owned and maintained by Data Services.
- **CTC** = Now owned by Data Services. Historically, some "CTC_" queries were owned and warrantied by **Ciber**, but others were developed by functional project staff.
- Not QXX or CTC (DELIVERED) if the query does not begin with any of these prefixes, then it is a delivered query and is owned by Oracle.

Financial Aid Queries

• **CTC_FA** = When the first five characters of a query are CTC_FA the query is owned by the SBCTC Financial Aid Support Team.

• All Financial Aid queries, both new query requests and modifications of existing queries, need to be approved by the SBCTC Financial Aid Support Team.

Reports

- **BXX, PGXX** = Reports that begin with BXX or PGXX (where XX is the pillar acronym) the query is owned and maintained by Data Services. nVision reports do not have a designated character prefix due to the limited character amount for the name. There are no delivered nVision reports from which we would need to differentiate our custom reports.
- **CTC_CUSTOM** = Developed reports in menu CTC_CUSTOM were originally created by Ciber. They are now owned and maintained by Data Services.
- Not BXX, PGXX, CTC_CUSTOM (DELIVERED) = if the report does not begin with any of these prefixes, then it is a delivered report and is owned by Oracle. The exception to this would be for nVision reports as explained above.

Query Maintenance

The SBCTC Data Services Reporting Team will annually work on query clean-up during the month of August. Queries that have not been run in one year will be moved to the ARCHIVE folder. Queries that have resided in the ARCHIVE folder for one year and were still not run (totaling two years without being used) will be deleted.

The SBCTC Data Services Reporting Team will annually work on query clean-up during the month of August

Queries that have not been run in one year will be moved to the ARCHIVE folder



Queries that have resided in the ARCHIVE folder for one year and were still not run will be deleted

LINKS PROVIDED IN THIS DOCUMENT

Commonly Used Tables Campus Solutions	https://www.sbctc.edu/resources/documents/colleges-staff/data- services/peoplesoft-ctclink/cs-common-tables-for-reporting.xlsx
Commonly Used Tables Finance	https://www.sbctc.edu/resources/documents/colleges-staff/data- services/peoplesoft-ctclink/fin-common-tables-for-reporting.xlsx
Commonly Used Tables Human Capital Management	https://www.sbctc.edu/resources/documents/colleges-staff/data- services/peoplesoft-ctclink/hcm-common-tables-for-reporting.xlsx
Data Dump Query Protocol	https://www.sbctc.edu/resources/documents/colleges-staff/data- services/peoplesoft-ctclink/data-dump-queries.pdf
metaLink Webpage	https://dataservicesmetalink.sbctc.edu/
Non-Disclosure Agreement	https://www.sbctc.edu/resources/documents/colleges-staff/data- services/goldengate/ctclink-nondisclosure-form.pdf
Prompt Tables to Use	https://www.sbctc.edu/resources/documents/colleges-staff/data- services/peoplesoft-ctclink/prompt-tables-to-use.docx
PSChrome Extension	https://google.com/chrome/webstore
Query Folder List per Pillar	https://www.sbctc.edu/resources/documents/colleges-staff/data- services/peoplesoft-ctclink/pillar-folder-lists.pdf
Query Module List by Pillar	https://www.sbctc.edu/resources/documents/colleges-staff/data- services/peoplesoft-ctclink/pillar-module-lists.pdf
Structure for Query Manager Access	https://www.sbctc.edu/resources/documents/colleges-staff/data- services/peoplesoft-ctclink/structure-for-query-manager-access.pdf