**USING THE metALink DATA DICTIONARY**

With any PeopleSoft implementation one of the most difficult things for users responsible for Query and Report development is to determine what data lives where and/or to understand the meaning and usage of each record and field. The sheer number of available tables and fields can be overwhelming for anyone attempting to learn the data structure. In addition, end users reading reports may have questions about the exact nature of the data they are looking at. What each particular date field means, for example.

The obvious answer to this challenge is, of course, a Data Dictionary. A Data Dictionary is a repository of detailed information about the data itself such as relationships to other data, definitions, usage, format, etc. Oracle defines it as a collection of tables with metadata. What is metadata? It is data about data. An example would be the field EMPLID. What type of field is it? Is it a character field, a numeric field? How many characters can it contain? What are valid entries into the field? The Data Dictionary gives users a place to search all of that information and more regarding the data that they use daily. In addition, the Data Dictionary also provides a place for information regarding data relationships.

To meet the need for a Data Dictionary for our Query Developers and end users to have access to the information they need regarding PeopleSoft data structure and metadata, Greg Gamble, of the Application Development team at the State Board developed a web application called metaLInk. It is a .Net site on Framework 4.0, using C sharp on code pages. SQL Server is the Database. Having the web app developed in house allows us amazing flexibility.

The MetaLink app will support the college system by providing key information about the data stored within the tables and columns in Golden Gate, which are replicated from the ctcLink production database. The key information is critical to the accurate use of PeopleSoft data for reporting and/or analysis.

The key features of MetaLink allows designated users to:

- Document structures and properties for a given record or field.
- View completed data dictionary reports.
- View the ctcLink reporting catalog.
- Search for available PeopleSoft data queries.

**LOGGING INTO THE metaLInk DATA DICTIONARY**

The Data Dictionary does require a login as it details PeopleSoft data structure, which is proprietary. The Data Dictionary provides the ability to search records by pillar or to search our State Board Master Data, which is used for our data warehouse.

In order to gain access to MetaLink you must first request a password. Please submit all requests for MetaLink passwords to Data Services.

dataservices@sbctc.edu

Navigate to [http://dataservicesmetalink.sbctc.edu](http://dataservicesmetalink.sbctc.edu)
Click on Login in the upper right hand corner of the screen and enter in your login credentials.

You will now be able to view metadata, edit metadata or edit your account information. Click on Meta Data to go to the Reporting Library.

**USING THE METAlink DATA DICTIONARY**

To view record information, click on View Current Data Dictionary. Note: At this point in the training, we are focusing on finding record and field information. The other areas of metaLink will be explained later in this class.

There are two main sections: Table Information and column Information. Table Information holds details regarding the record while column Information holds details regarding the fields of the table.
Record Information

Record details are found under the header TABLE INFORMATION. The available fields are:

- **Table Name** – Name of the record.
- **Alternative Table Name** - The laymen name for the record. For example, the record STDTN_ENRL is commonly referred to as the Student Enrollment table.
- **Table Description** – Description of the record and what it is used for. Any pertinent information regarding the record.
- **Business Use Description** – Description of the business use of the record.
- **Pillar** – the Pillar the record belongs to.
- **Module** – the Module the record pertains to.
- **Prompt Table** - indicates if the record is used as a prompt table.
- **Effective Dated Table** - indicates if the record contains the EFFDT field.
- **Commonly Used Table** - indicates if the record has been flagged as commonly used.

### TABLE INFORMATION

<table>
<thead>
<tr>
<th>Table Name</th>
<th>PB_BEN_HEALTH_SRCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative Table Name</td>
<td>HEALTH_BENEFIT is a record that identifies all health-related benefit elections for an employee. These benefits are related to the plan types in the “X” series such as Medical, Dental, and Vision. Warning! For technical reasons, this record's schema shows that it is keyed by EMPL_RCD. This is not logically or functionally accurate. Throughout all of Base Benefits, when in the context of benefit enrollment, EMPL_RCD must be interpreted as an alias for BENEFIT_RCD_NBR. All benefit enrollment-related records are logically keyed by BENEFIT_RCD_NBR, so here EMPL_RCD actually contains the value of the appropriate BENEFIT_RCD_NBR. It is CRITICAL that all joins, comparisons, and updates to this record be against BENEFIT_RCD_NBR. Thus a typical driving join for benefit participation is PB_PER_ORG ASGN.BENEFIT_RCD_NBR = PB_BEN_HEALTH.BENEFIT_RCD_NBR; and a typical join for benefit enrollment is PB_PER_ORG ASGN.BENEFIT_RCD_NBR = PB_BEN_HEALTH.BENEFIT_RCD_NBR. The security and search views used in Base Benefits perform this “mapping” internally.</td>
</tr>
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</tr>
<tr>
<td>Business Use Description</td>
<td>PB_BEN_HEALTH_SRCH</td>
</tr>
<tr>
<td>Parent Child Business Rules</td>
<td>PB_BEN_HEALTH_SRCH</td>
</tr>
<tr>
<td>Pillar</td>
<td>SYSADM_HCM</td>
</tr>
<tr>
<td>Module</td>
<td>IS - Benefits Administration</td>
</tr>
<tr>
<td>Prompt Table</td>
<td>No</td>
</tr>
<tr>
<td>Effective Dated Table</td>
<td>No</td>
</tr>
<tr>
<td>Commonly Used Table</td>
<td>No</td>
</tr>
</tbody>
</table>

Many of the tables only contain information on the Table Name and Pillar which is why it is so important to add information if you have it. If we look at the table BEN_HEALTH_SRCH in the HCM pillar we can see some of the great information that has been added to metaLink about the record. The information in the Table Description field of this record provides users with vital knowledge about which fields to use to create a join with another record. Without this information, a user could inadvertently join on the wrong field and thus create a query with incorrect or misleading results.

Field Information

Field details are found under the header COLUMN INFORMATION. The available fields are:

- **Alternative column Name** - The laymen name for the column. For example, the column name STRM is commonly referred to as Session/Term.
• Description - The description of the field and what it is used for. Any pertinent information regarding the field should be included.
• Primary Key - Indicates if this field is part of the primary key for the record (table). The combination of primary key fields represent the uniqueness of the row in the record.
• Data Type - A classification identifying one of various types of data, such as integer, text or decimal that determines the possible values for that type.
• Size - The length or scale of the field value. Size is directly related to the Data Type.
• Nullable - Indicates of the field can contain null or blank values.
• Data Classification - The WA State Office of the Chief Information Officer (OCIO) data classification. Category 1 thru 4 are used with Category 1 being public information and category 4 being confidential information requiring special handling.
• History: Includes any historical changes to the field such as inclusions or exclusions of values.
• Accountable Commission: Designated by the Data Governance Committee and indicates which system commission is ultimately accountable for this specific data element.
• Examples of Use: Provides examples of how/when to use the field. Information about auto-joins and how they might affect the query, etc.
• Converted: The table and field name of the legacy source record if converted during implementation.
• Common column: Used only by SBCTC.
• Notes – Any other notes, pertinent information regarding the field.
• Valid Values – field values and their meanings.

You will see how the information presented could be useful. For example, when studying the tables, we see that the STDNT_GRP5 table does not have an Effective Status yet the STDNT_GRP5_HIST does have Effective Status. This means that whenever you need a query to display students in an inactive status you must use the STDNT_GRP5_HIST table. Also, note the STDNT_GROUP_TBL defines student group codes making it an excellent choice for a prompt table.
**MetaLink Query, Report and Pivot Grid Search**

One of the great things about MetaLink is that it allows users to search for queries, reports and pivot grids across a variety of fields from a single input source. Users are able to search across all pillars, by a single Folder or by all Folders, across Description, Definition and field name. The plethora of available options and the ease of searching is one of the best features of MetaLink. In PeopleSoft query for example, the only way to search by query definition is by creating a query to do so while MetaLink allows query definition searching with no additional effort required.

To search MetaLink for existing queries, reports and pivot grids in Production click on the Meta Data tab if you are logged into the system.

If you are not logged in as a logon is not required for this section simply click on Search Tools.

Next click on View Query, Report and Pivot Grid search hyperlink.

From here, you will enter your search criteria.

It is important to note that users enter the search criteria in one page to search three different objects; queries, reports and pivot grids. However, each search criteria may not actually apply to all three objects. For example, Modules will search reports only while Folders will only search queries. However, Pillars will search queries, reports and pivot grids. If the search criteria does not apply to a certain tab then an exhaustive list of complete inventory will display instead of a filtered list of search results. How
will a user know which search criteria applies to which tabs? There is a Definitions box to the right of the search criteria, which explains which search criteria affects which tab.

**Definitions**

- **Pillar** – Will search Queries, Reports and Pivot Grids.
- **Module** – Will search Reports.
  - Pivot Grid and Queries will display ALL current inventory.
- **Folders** – Will search Queries.
  - Pivot Grid and Reports will display ALL current Inventory.
- **Field Names** – Will search Queries and Pivot Grids.
  - Reports will display ALL current inventory.
  - Use a comma (,) as an OR separator to search multiple fields.
  - AND separator searches are not available.
- **Free Text** – Will search Queries, Reports and Pivot Grids.
  - Free Text Search allows using up to four search terms.
    - Use a comma as an OR separator to search using multiple search terms.
    - Use a single space as an AND separator to search using multiple search terms.

* All search boxes are separated by AND conditional operator logic.*

**Search Criteria Boxes**

**All Pillars**

If you want to search a specific pillar, you are able to select it in the “All Pillars” box. If you want to search across all three pillars, simply leave “All Pillars” selected. Queries, reports and pivot grid results will be returned based on your selection.
Modules

Selecting a module will narrow the search and only return Reports based on the selected module. The search will produce results in the Queries and Pivot Grids tabs; however, the results will simply be a list of all current queries and pivot grids, not a list of results based on Module. Instead, the only tab, which will reflect a filtered list of results, will be the Reports tab.

Folders

In the next box, you are able to search for queries either in a specific folder or across all folders if ‘All Folders” is selected. The search will produce results in the Reports and Pivot Grids tabs, however the results will simply be a list of all current reports and pivot grids, not a list of results based on Folder. Instead, the only tab, which will reflect a filtered list of results, will be the Queries tab.

Field Names

In the Fields box, users are able to enter field names to find results. Commas act as an “OR” separator allowing multiple fields to be searched, however it is not possible to search multiple fields based on an "AND" logic at this time. The search will produce results in the Queries and Pivot Grids tabs, results in the Reports tab will simply be a list of all current reports, not a list of results based on the Field/s entered.
Free Text Search

The “Free Text Search” box will search across all columns in all three tabs returning any results, which contains the word or words entered. Up to five terms can be separated by a comma for an "OR" logic separation or a space which acts as an "AND" separation logic.

Combine Search criteria

In the same way as the Advanced Search in PeopleSoft, all of the fields used for searching in MetaLink can be combined with other fields to narrow down your search results to find specifically the queries, reports or pivot grids you are most interested in. Just make sure to keep in mind that some of the search fields are designed to only search either queries, reports, or pivot grids.

Search Results

Each tab will display either results or a message saying no results found if the search applies to that tab. If the search does not apply to the tab then a complete list of current inventory will display. For example, if a search is performed on the Modules box then a complete, exhaustive list of all queries will display, as the Modules search does not apply to queries as shown below.
It gets really interesting however, if another search criteria has been selected. Following the same example, let’s say that we selected the Pillar of FIN and then selected a Module. Then, the list of queries (and pivot grids) will be exhaustive and complete WITHIN the Finance module.

It can be a bit confusing at first, but with practice, it will soon make sense!

**Queries Tab Results**

The Queries Tab will show queries that match the search criteria (or all queries as explained above). The list will include the:

- Pillar
- Folder
- Query Name
- Description
- Long Description (Definition)

The query name will be in the form of a hyperlink, which can be clicked to bring up additional details about the query.
The additional details available via the hyperlink are the table/field pairs that shows which records and fields were used in the creation of the query.

### Query Details

**Query Name:**
CTC_CS_AA_ACAD_ADVISOR_NOT_R35

**Query Description:**
Students by Advisor & R35

**Table - Field Pairs:**

<table>
<thead>
<tr>
<th>Table - Field</th>
<th>Query Field Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAMES_VW - EFFDT</td>
<td>B.EFFDT</td>
</tr>
<tr>
<td>NAMES_VW - EMPID</td>
<td>B.EMPID</td>
</tr>
<tr>
<td>NAMES_VW - NAME</td>
<td>B.NAME</td>
</tr>
<tr>
<td>SRVC_IND_DATA - EMPID</td>
<td>C.EMPID</td>
</tr>
<tr>
<td>SRVC_IND_DATA - INSTITUTION</td>
<td>C.INSTITUTION</td>
</tr>
<tr>
<td>SRVC_IND_DATA - SRVC_IND_CD</td>
<td>C.SRVC_IND_CD</td>
</tr>
<tr>
<td>STDNT_ADVR_HIST - ACAD_PROG</td>
<td>A.ACAD_PROG</td>
</tr>
<tr>
<td>STDNT_ADVR_HIST - ADVISOR_ID</td>
<td>A.ADVISOR_ID</td>
</tr>
<tr>
<td>STDNT_ADVR_HIST - EFFDT</td>
<td>A.EFFDT</td>
</tr>
<tr>
<td>STDNT_ADVR_HIST - EMPID</td>
<td>A.EMPID</td>
</tr>
<tr>
<td>STDNT_ADVR_HIST - INSTITUTION</td>
<td>A.INSTITUTION</td>
</tr>
</tbody>
</table>
The Reports Tab will show reports that match the search criteria (or all reports as previously explained). The list will include the:

- Pillar
- Module
- Report ID
- Report Name
- Description

The report name will be in the form of a hyperlink, which can be clicked to bring up additional details about the report.

The additional details available via the hyperlink are:

- Report ID
- Business Process Number
- CEMLI Number
- Report Name
- Report Description
- Report Type
- PeopleSoft Navigation
The Pivot Grids Tab will show pivot grids that match the search criteria (or all pivot grids as previously explained). The list will include the:

- Pillar
- Object Name (Pivot Grid Name)
- Description
- Long Description

The pivot grid name will be in the form of a hyperlink, which can be clicked to bring up additional details about the pivot grid.
The additional details available via the hyperlink are table/field pairs that show which records and fields were used in the creation of the pivot grid.

<table>
<thead>
<tr>
<th>Pillar</th>
<th>Object Name</th>
<th>Description</th>
<th>Long Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS</td>
<td>CTC_SR_STD_FTE_FALL</td>
<td>FTES Summary for Fall</td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>CTC_SR_STD_FTE_SUMMER</td>
<td>FTES Summary for Summer</td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>CTC_SR_STD_FTE_WINTER</td>
<td>FTES Summary for Winter</td>
<td></td>
</tr>
</tbody>
</table>

**VIEW SCRIPT SEARCH**

The MetaLink Script Search allows for searching for the underlying SQL script used in the creation of Views. Users can search by View Name and/or by Pillar. Click on Meta Data to go to the Reporting Library.
Click on View Script Search.

Here you will enter your search terms.

The results will display as shown below.
Click on the hyperlink of the View Name to see the underlying SQL code.

**RESOURCES**

While it is now possible to search commonly used tables in metaLink there is also a Resources page where full documents of commonly used tables are available by pillar.

To access these documents simply click on Resources when accessing the home page.
This brings the user to the Resources page where documents are available for download.

**Resources**

**File Downloads**

- **Campus Solutions Commonly Used Tables**
  Campus Solutions Pillar

- **Finance Commonly Used Tables**
  Finance Pillar

- **Human Capital Management Commonly Used Tables**
  Human Capital Management Pillar
**Adding Information to MetaLink**

How is it populated? Well, while we in Data Services are definitely the responsible party for making sure it is populated, we are also harnessing the knowledge and expertise of our users... all of our users, not just Query Developers. The app is basically a wiki utilizing crowdsourcing as its source of information. We leverage our communities of practice, functional analysts, project staff... anyone who knows (or finds out something interesting) about the data is able to share their knowledge. As we gain information about data structure and business uses of different fields and records we have an obligation to all our fellow users to share it. It is quick and easy to add in information.

Click on Edit Meta Data

To update the record – select only the Pillar and record. To update a field within a record – select the Pillar, record and field you would like to modify. Type in the new information.

Scroll to the bottom of the screen when finished and click Save Data.