HYPERION/ODS BASICS

Hyperion is a web-based query tool for databases. **Hyperion is not a database.** It does not contain information on its own. It is a tool to query, analyze, and build reports and charts on data that exists in databases.

There are several databases at Binghamton University that staff may be using in conjunction with Hyperion. Users could use Hyperion with other databases as well.

Common databases that use Hyperion at Binghamton University include:

Oracle – financial and human resources information
BURD – the data warehouse (student and course information through Summer of 2008)
ODS – Operational Data Store (Banner data that is refreshed nightly)

What do I need to do to use Hyperion?

There are several steps to take before you will be able to use Hyperion:

1. Take Hyperion/ODS Basics - Canned Queries offered through UCTD (formerly TTC)
2. Get a Hyperion userid and password by filling out a Request for Access Form (RAF) online at the end of class.
3. Download the Hyperion Plug In:

   Go to the following network location:
   \\firestone\TNSNames\Hyperion_Intelligence_Client_plugin\ForMSIE_NoHelpFiles_faster_install
   and click on *PluginSetup.exe*. (This is not the plugin for MACs)

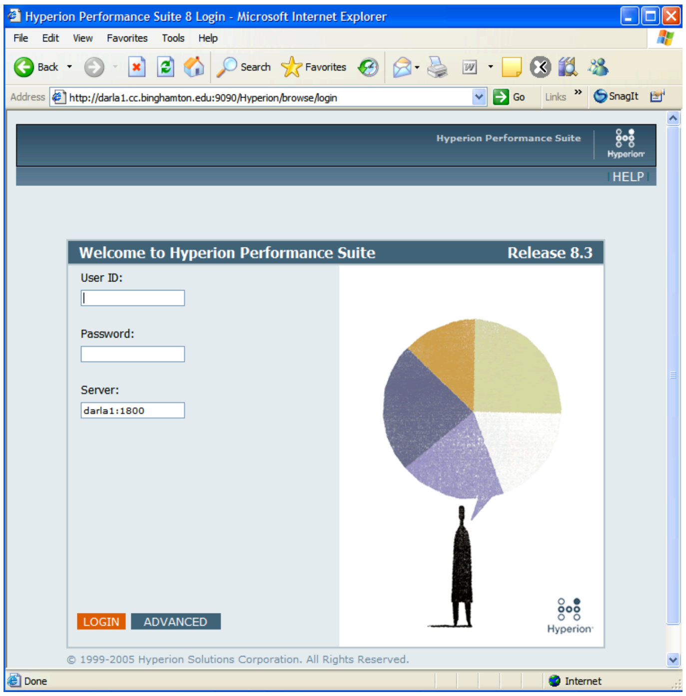
4. Open Internet Explorer and login to SSL http://ssl.binghamton.edu. (See - Logging into SSL for more info)
   **If you are off campus, click the Network Connect Start button to establish a secure VPN connection.
5. Click the Hyperion link on the SSL page ***OR*** Open Internet Explorer and navigate to the Hyperion Portal: http://darla1.cc.binghamton.edu:9090/Hyperion/browse/login.

Why do I need two userids and passwords for Hyperion and ODS?

Two userids and passwords are needed because, one is for the Hyperion web interface, and the other allows you to access the ODS database (or another database) that contains your data. You will be given userids and passwords after completing the Hyperion/ODS Basics class.

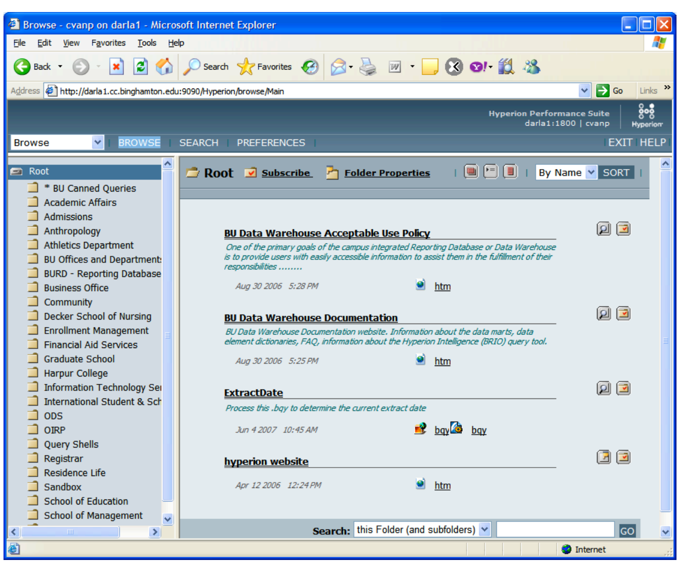
How do I log into Hyperion and access my data?

1. Open Internet Explorer and login to SSL http://ssl.binghamton.edu. (See - Logging into SSL for more info)
   **If you are off campus, click the Network Connect Start button to establish a secure VPN connection.
2. Click the Hyperion link on the SSL page ***OR*** Open Internet Explorer and navigate to the Hyperion Portal: http://darla1.cc.binghamton.edu:9090/Hyperion/browse/login.



3. Enter username and password for Hyperion and click **Login**.

4. At this point, you are now in Hyperion and ready to run queries and analyze your data.

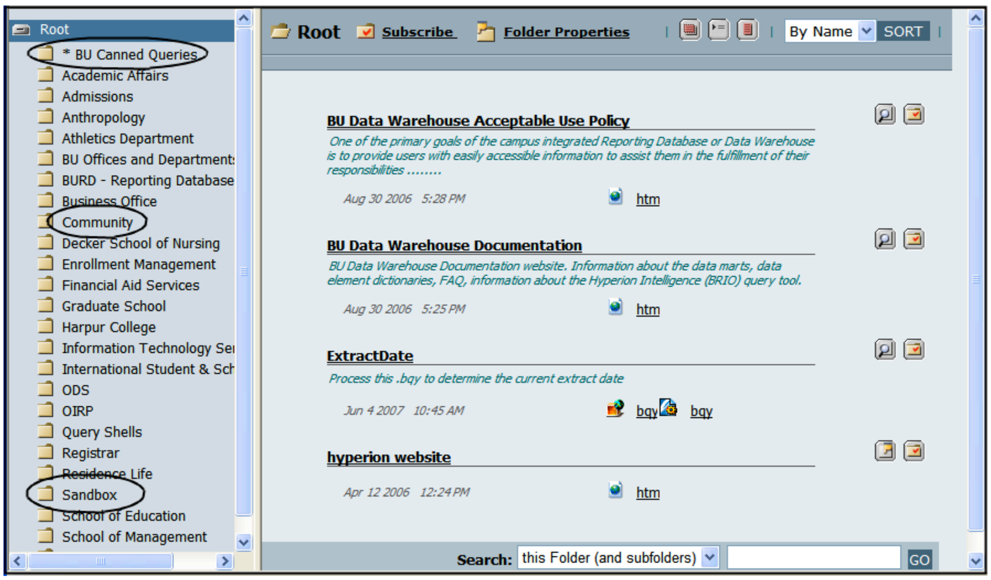


Users fall into three main categories:

1. Work with existing queries – log in and run "canned" queries/reports.
2. Edit existing queries – log in and change, run and save "canned" queries/reports.
3. Create queries – create, run and save queries/reports.

There are several key folders for accessing existing queries and creating new queries:

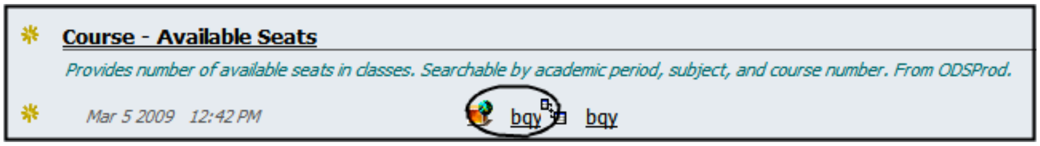
1. *Departmental Folder* – ex. Admissions - may contain canned reports, be empty, or contain reports that you created. (This is where you will find your personal folder.)
2. *Query Shells* – where you go to start creating a query from scratch.
3. ** BU Canned Queries* – where canned/pre-made queries are stored.
4. *Sandbox* – shared works in progress, cleaned out once a month.
5. *Community* – shared completed queries.



How do I run a "canned" or existing query?

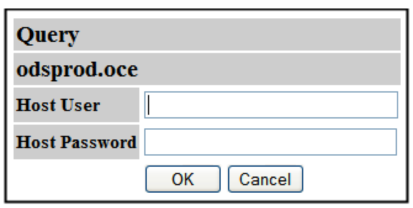
1. Navigate to the folder that contains the query (It will be in your personal folder, your departmental folder, * BU Canned Queries, or Community.) *(If it is in * BU Canned Queries, you will need to click * BU Canned Queries to get to the subfolder it is in.)*

2. Click the *left* **"bqy" icon** under the Query Name. In most cases the query will look blank; this means data is not saved in the query.

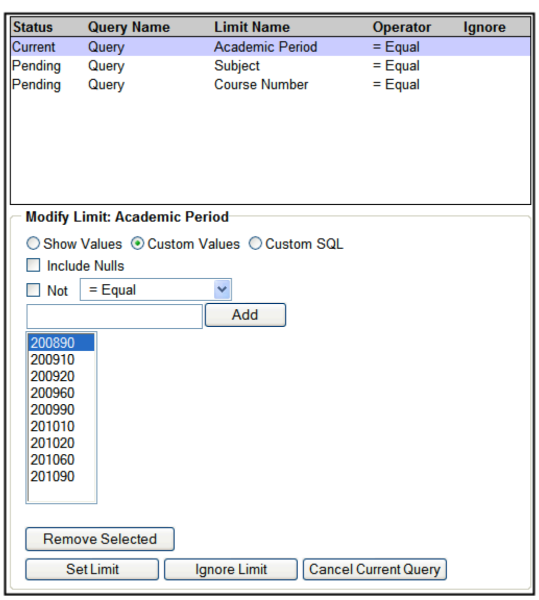


3. Select a **Results** option and then click the **Process** icon on the toolbar to run the query. *(Remember to run the query even if there is information in the Results section. That information may not be current.)*

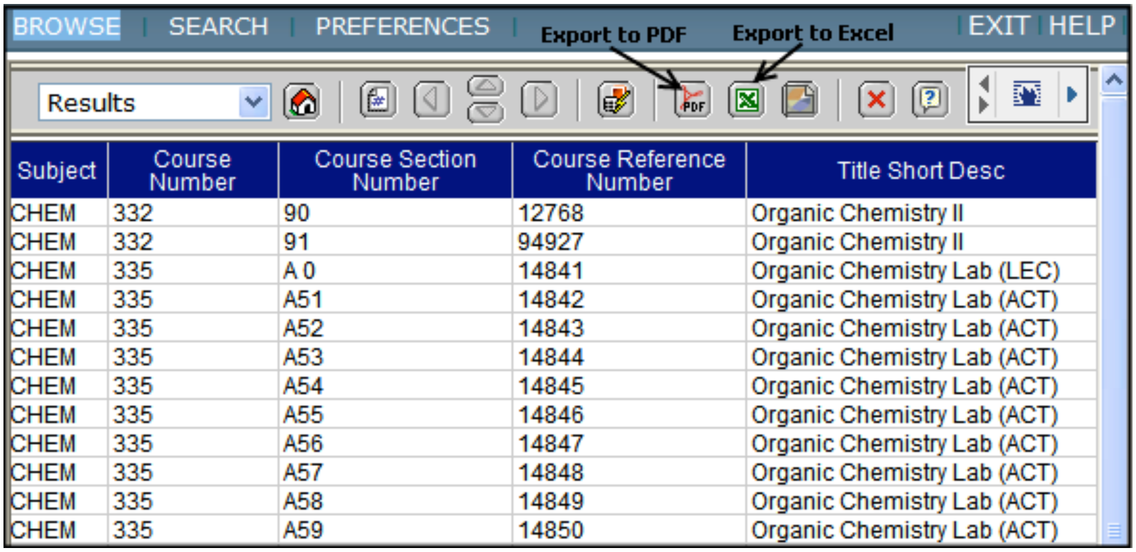
4. You will be prompted to log into the ODS database. You will need to do this each time you run a report.



5. If there are limits, select your values and click the **Set Limit** button.

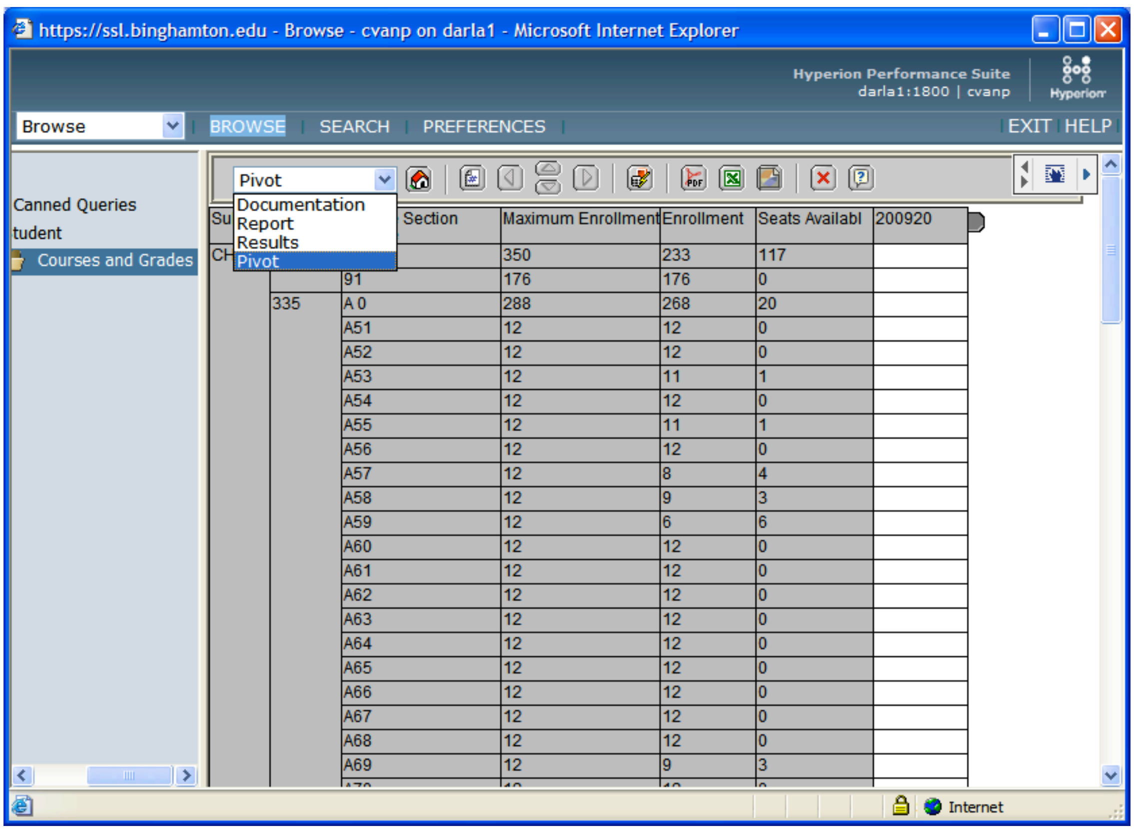


6. Once the query runs, you have the option to export into Excel and work with the information or export it as a pdf.



Subject	Course Number	Course Section Number	Course Reference Number	Title Short Desc
CHEM	332	90	12768	Organic Chemistry II
CHEM	332	91	94927	Organic Chemistry II
CHEM	335	A 0	14841	Organic Chemistry Lab (LEC)
CHEM	335	A51	14842	Organic Chemistry Lab (ACT)
CHEM	335	A52	14843	Organic Chemistry Lab (ACT)
CHEM	335	A53	14844	Organic Chemistry Lab (ACT)
CHEM	335	A54	14845	Organic Chemistry Lab (ACT)
CHEM	335	A55	14846	Organic Chemistry Lab (ACT)
CHEM	335	A56	14847	Organic Chemistry Lab (ACT)
CHEM	335	A57	14848	Organic Chemistry Lab (ACT)
CHEM	335	A58	14849	Organic Chemistry Lab (ACT)
CHEM	335	A59	14850	Organic Chemistry Lab (ACT)

7. You may also choose other Results, Charts, Pivots or Graphs.

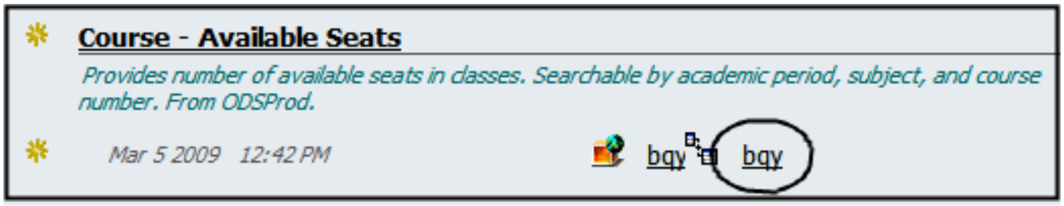


Su		Section	Maximum Enrollment	Enrollment	Seats Availabl	200920
CH			350	233	117	
		91	176	176	0	
	335	A 0	288	268	20	
		A51	12	12	0	
		A52	12	12	0	
		A53	12	11	1	
		A54	12	12	0	
		A55	12	11	1	
		A56	12	12	0	
		A57	12	8	4	
		A58	12	9	3	
		A59	12	6	6	
		A60	12	12	0	
		A61	12	12	0	
		A62	12	12	0	
		A63	12	12	0	
		A64	12	12	0	
		A65	12	12	0	
		A66	12	12	0	
		A67	12	12	0	
		A68	12	12	0	
		A69	12	9	3	

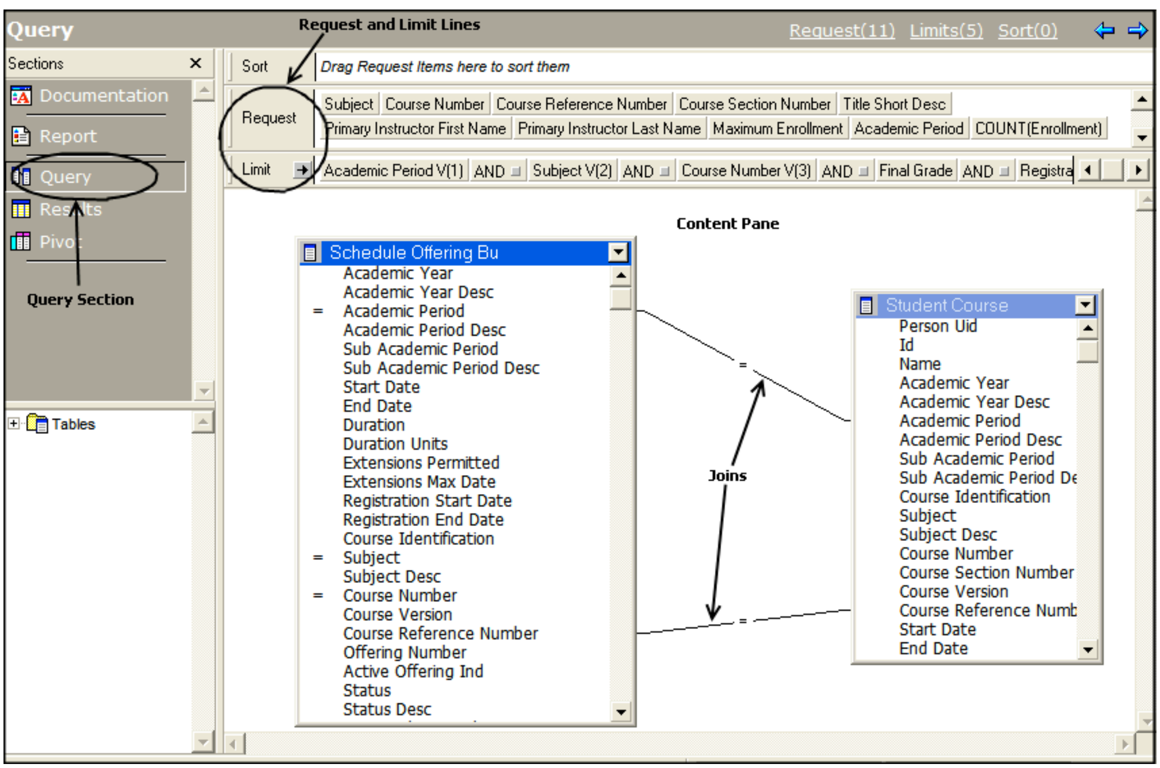
How do I Modify an Existing Query?

1. Navigate to the folder that contains the query (It will be in your personal folder, your departmental folder, * BU Canned Queries, or Community.) *(If it is in * BU Canned Queries, you will need to click * BU Canned Queries to get to the subfolder it is in.)*

2. Click the *right* **"bqy" icon** under the Query Name. In most cases the query will look blank; this means data is not saved in the query.

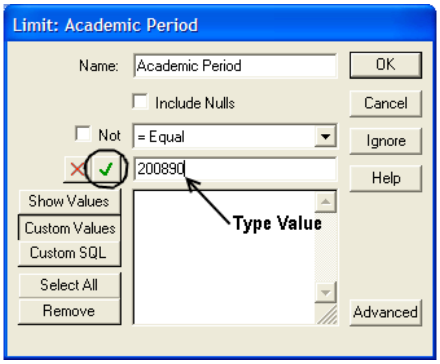


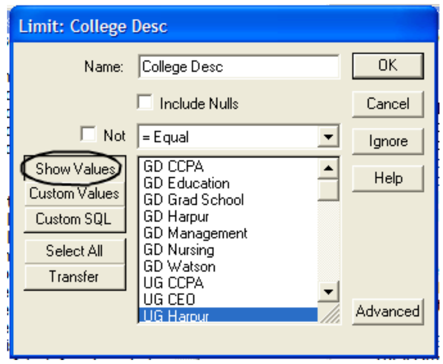
Drag any new table fields you want to see in your results to the Request Line. *(Hint: Right-click a Table in the Content Pane and choose Properties/Sort to sort the Field Names.)*



3. Drag a field that contains the information that you want to limit your search by to the Limit Line or double-click it in the table.

4. Each time you choose a field, the Limit Box will appear. Set limits for that field, click **Okay** and continue to your next limit. *(Hint: If you know the value, type it in. This will return results faster. If you aren't sure, you may use the Show Values button.)*

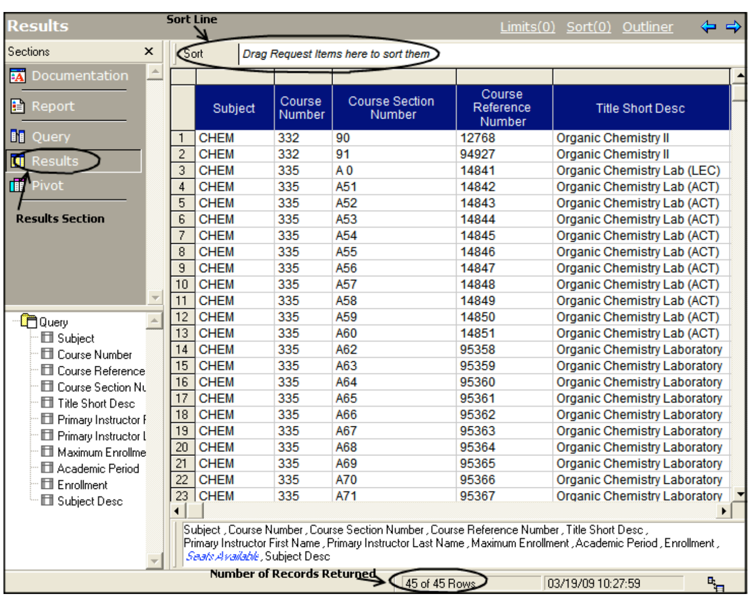




5. Click the Process icon in the toolbar to run your query.

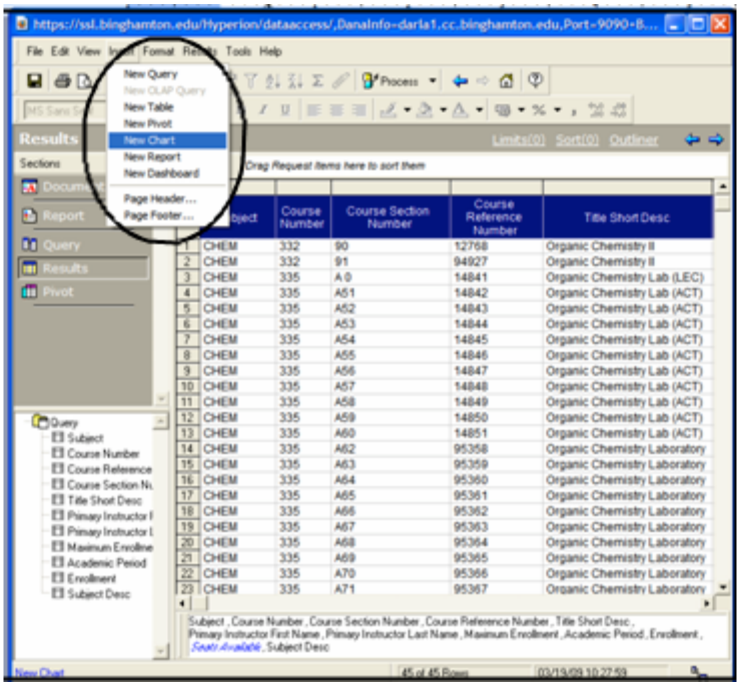
6. Enter your login information for the database your data is in and click OK.

7. Once you process the query, you will be able to sort the results by dragging the Field(s) to the Sort Line and then clicking the Process button again. *(Hint: If you would like to change the order of the columns, do this in Results View. If you change the order in Query View, the changes will not hold for Results View.)*

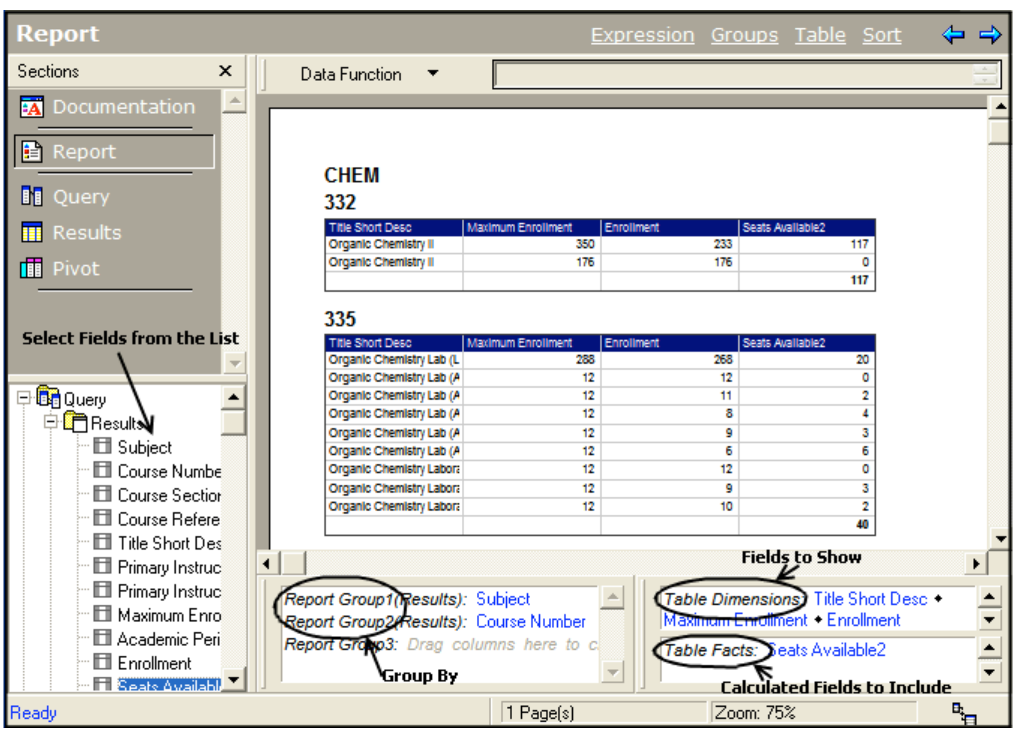


How do I Create Reports, Charts and Pivot Tables from my Results?

1. Go to Insert and select the option from the list.

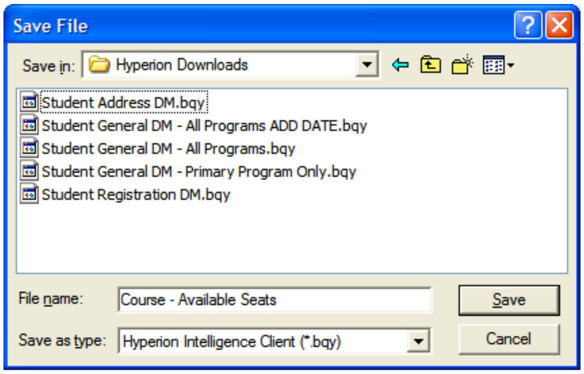


2. Once you choose from the options list, drag the fields to the appropriate boxes to organize the data. *(Below is an example of a report.)*



How do I Save and Publish the Query?

1. With the query open, choose File/Save As *(Hint: save the Query to a folder you will remember.)*

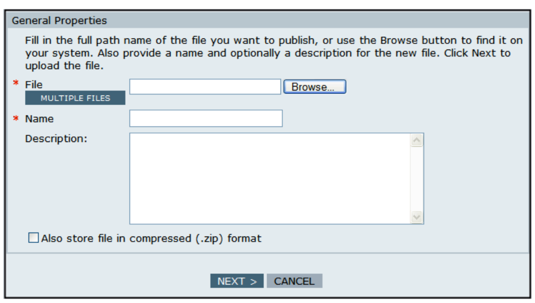


2. Close the Query and maximize the Hyperion page.

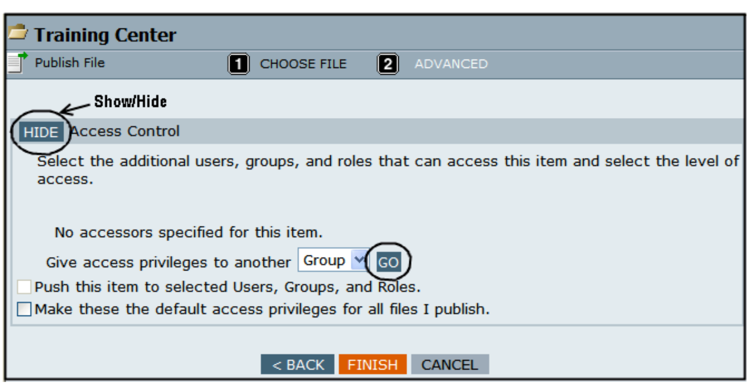
3. Navigate to the proper folder in Hyperion.

4. Click Publish File.

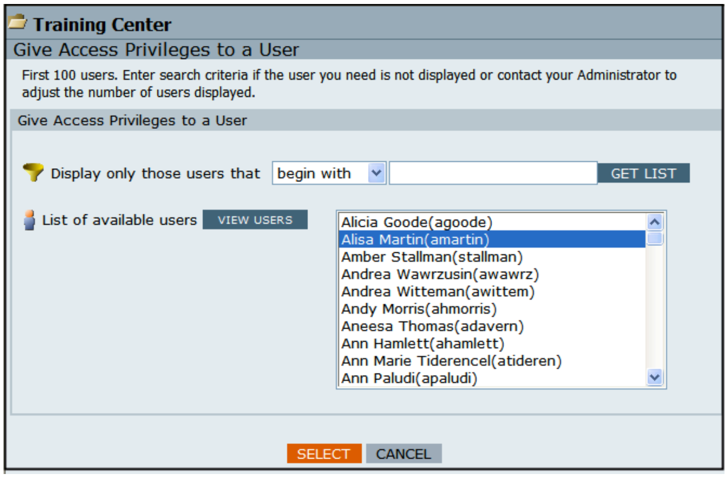
5. Browse for the document, add a name, give it a <u>meaningful</u> description and click Next.



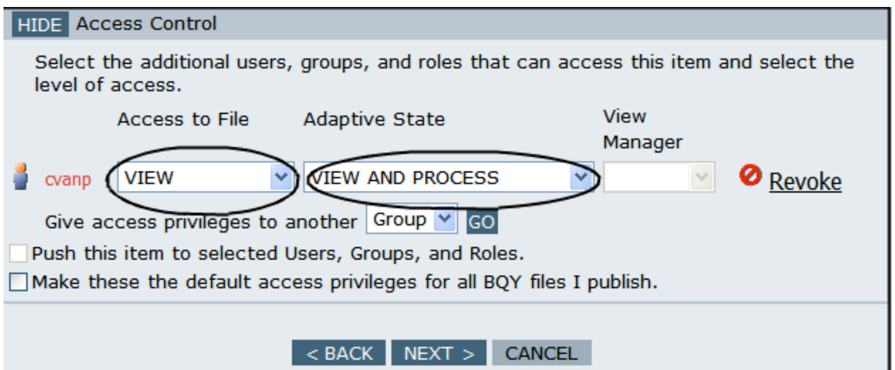
6. Click Show and select Role, Group or User from the Drop Down Menu and click Go.



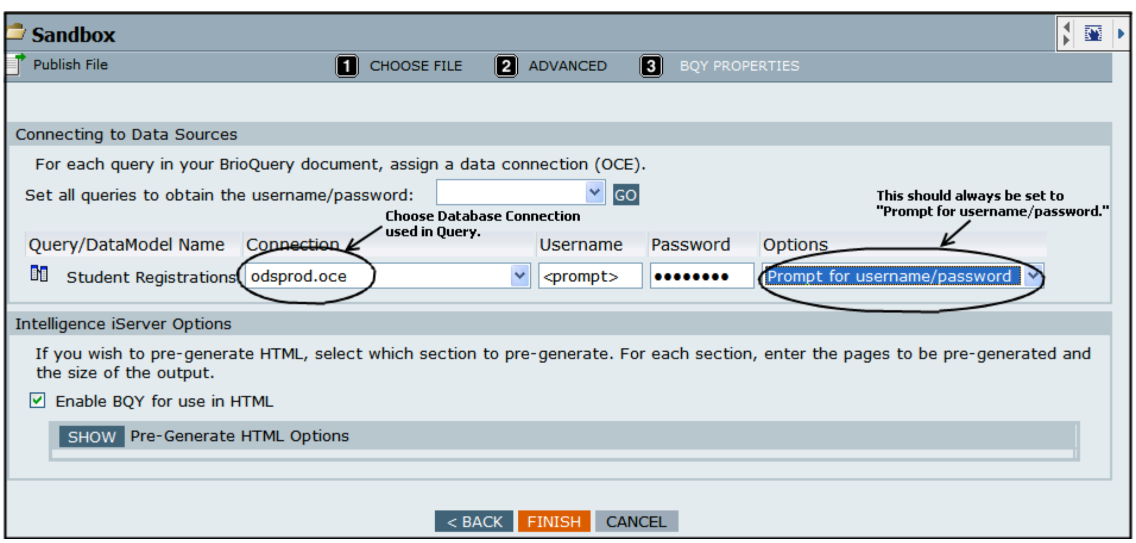
7. Choose the people you want to have access to the Query and click Select.



8. Select the level of access for the user(s), and then click Next or choose another user.



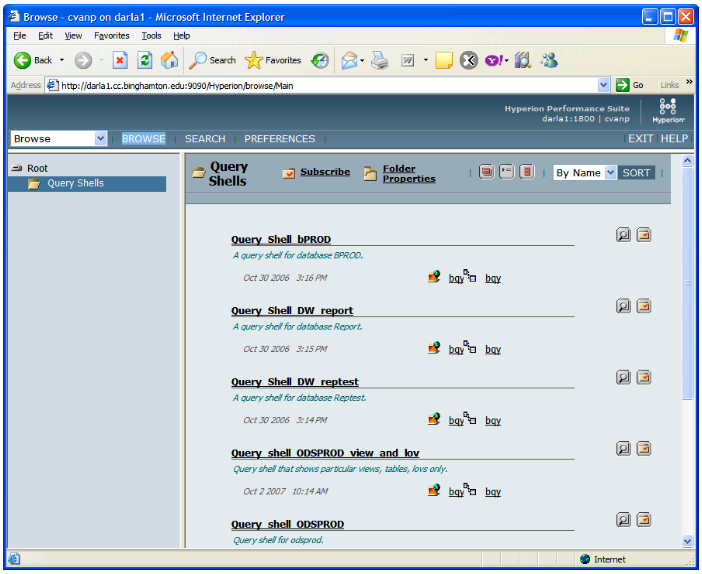
9. Choose Connection and Options and hit Finish.



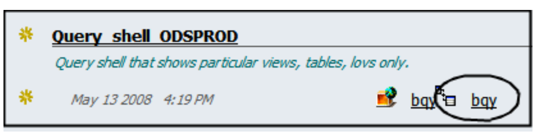
10. The Query is now available in the folder you chose and is available to selected users.

How is a Query Made?

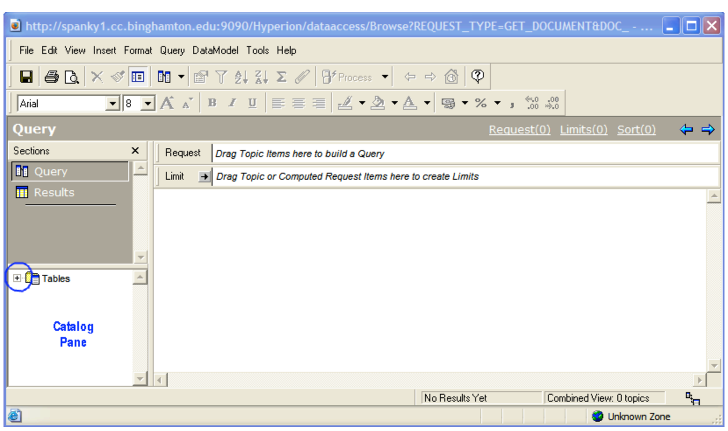
1. To create a simple query, click the Query Shells folder.



2. Choose the appropriate shell for the data you are querying by clicking the *right* **"bqy" icon** under the Query Shell name.

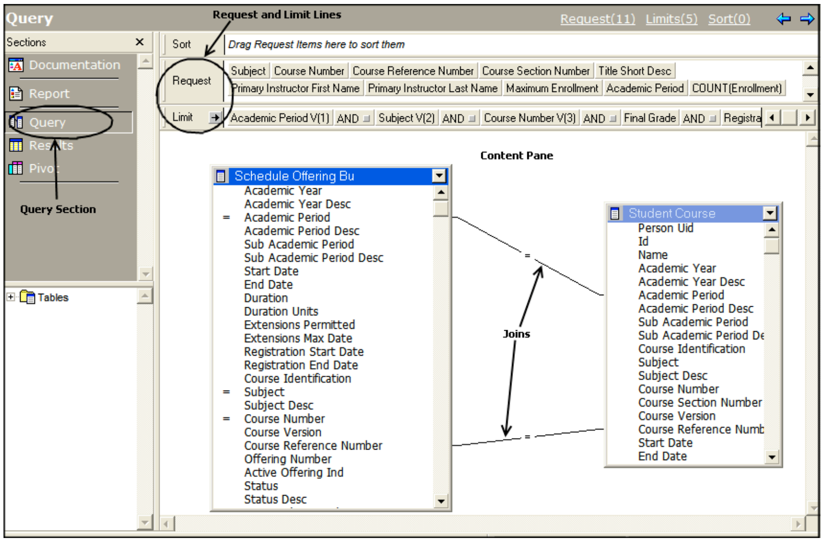


3. Click the plus sign (+) in the Catalog Pane section to show the list of tables.



4. Enter your login information for the database your data is in and click OK.

5. Place the table(s) you need for your query onto the Content Pane by dragging or double-clicking. *(Hint: You may want to look at the metadata to view information about the various tables at this time. See APPENDIX C – **How do I Use the ODS Meta Data**)*

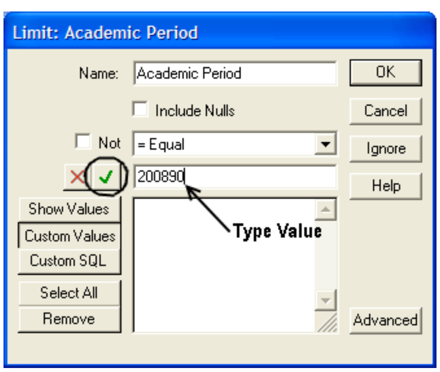


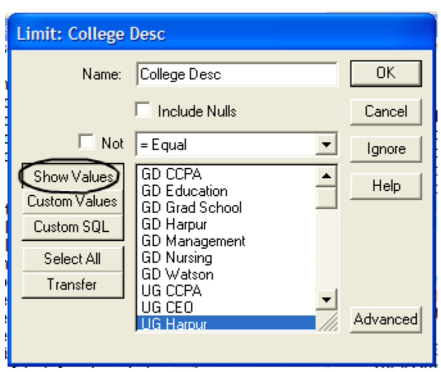
6. Create your join by dragging a field from one table to the corresponding field in the other table(s). *(Hint: If you are using multiple tables, they must be joined in order to create a working query. Usually **person uid** can be used as the join fields.)*

7. Drag table fields you want to see in your results to the request line.

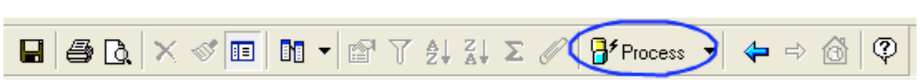
8. Drag a field that contains the information that you want to limit your search by to the Limit Line or double-click it in the table.

9. Each time you choose a field, the Limit Box will appear. Set limits for that field, click **Okay** and continue to your next limit. *(Hint: If you know the value, type it in. This will return results faster. If you aren't sure, you may use the Show Values button.)*

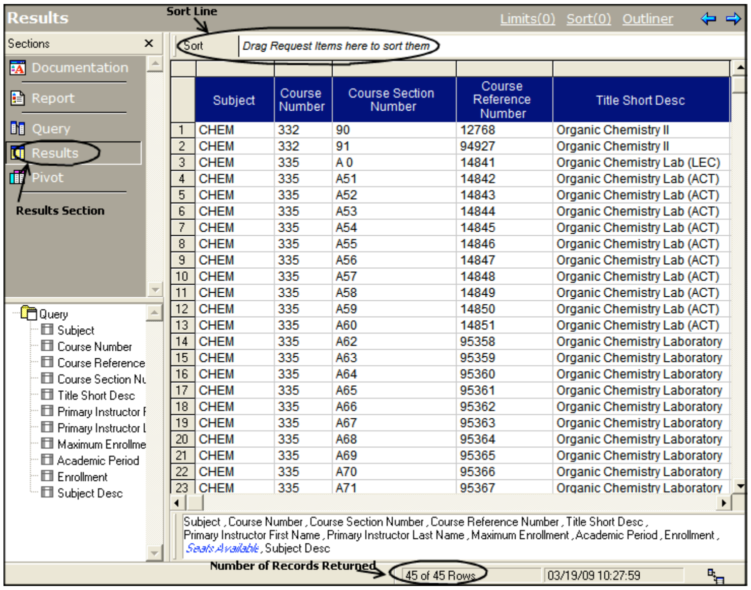




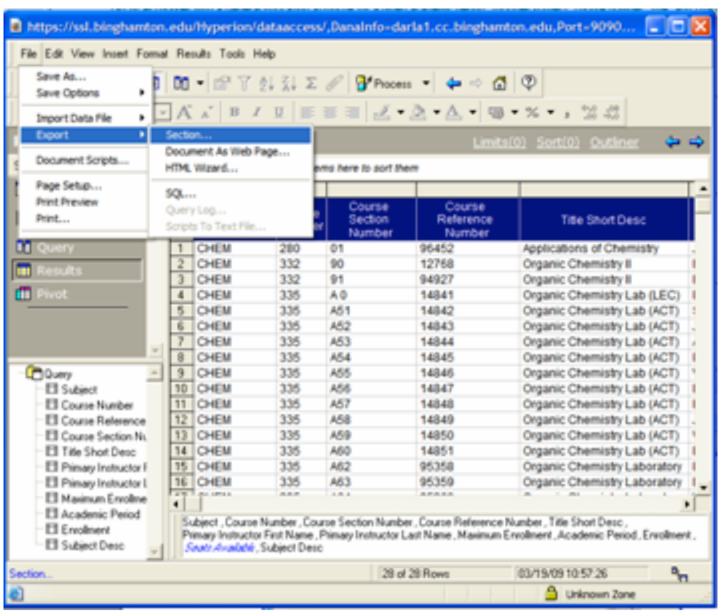
10. Click the Process icon in the toolbar to run your query.



11. Once you process the query, you will be able to sort the results by dragging the Field(s) to the Sort Line and then clicking the Process button again. *(Hint: If you would like to change the order of the columns, do this in Results View. If you change the order in Query View, the changes will not hold for Results View.)*



12. You may export the results to Excel by going to File/Export and selecting Section.



13. Choose a Name and Folder in which to save the Excel file, Save it, then Navigate to that file and open it.

Note: You may also Save and Publish your query or add Charts, Pivots, and Graphs.

APPENDIX A – FAQ Page

Where can I find more information?

http://ods.binghamton.edu

How do I Stop a Runaway Query?

At some point, you may write a query that just keeps running and running. To stop it, press the **Alt** and **End** buttons on the keyboard. This should stop your query.

How do I Change my Passwords?

To change your Hyperion password:

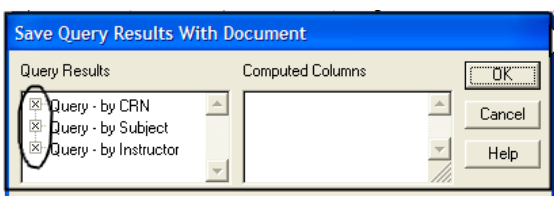
1. Log into Hyperion (this puts you in Browse mode)
2. Click the *Preferences* button at top of the page
3. Click the *General Preferences* tab on the left
4. Update your password criteria

To change your ODS password:

1. Click the right bqy of a canned query or query shell
2. Log into a query with your current ODS password
3. Go to *Tools* and select *Change Database Password*
4. Enter your password criteria

How do I save without Results?

Go to File/Save Option and select Save Query Results, and then uncheck the Query box(es) under Query Results.



How do I delete a Chart or other Section from a Query?

Right-click the Chart or other item and select Delete Section. You may also highlight the section, click Delete and select Delete Selection. *(Note: This is also where you would go to duplicate or rename a section.)*

What's a Variable Limit Query?

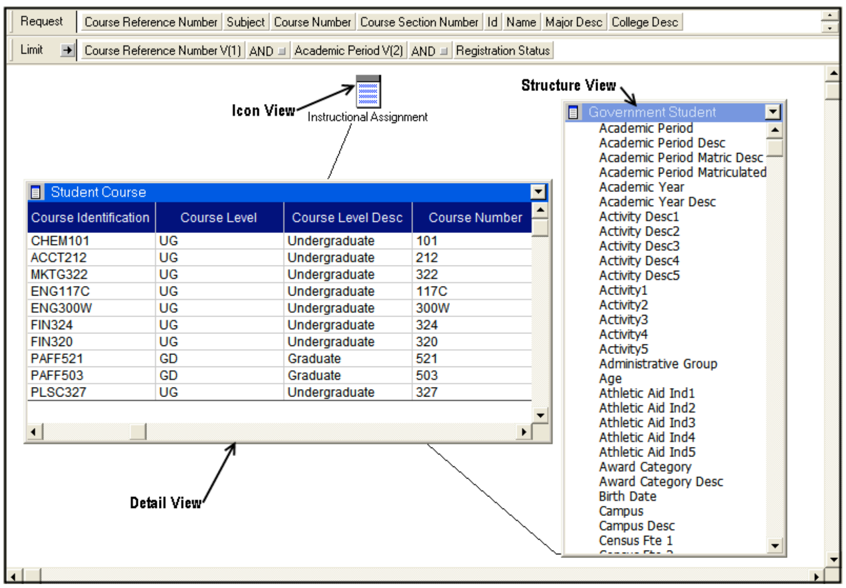
Queries can be hard coded or variable. A variable limit query allows you to set the fields to limit by, but change the value of the limit right before processing it. This way, you can set the query but process it to achieve different results.

How do I create a Variable Limit Query?

To create a variable limit, right-click the field in the limit line and choose variable limit.

What is Detail View versus Structure View?

Structure View is the view of a table with the fieldnames in it. By right-clicking a table and choosing Detail View, you will see the fields in columns with the first several entries listed below. *(Icon View shows just an icon.)*



Other Things to Keep in Mind When Working with Queries

- If the Request, Limit or Sort lines are not showing, click once on the name at the top right of the window.

- To turn the automatic joins off, go to Data Model/Data Model Options/General Tab. Uncheck Auto Join Tables then click Save as Default. (If you have several tables in the Content Pane, you must remove and re-add the tables to make the joins disappear.)

- Course Term is now called Academic Period. It will be displayed as 200890 for Fall 2008. Academic Period Description will display the semester and year in Fall 2008 format.

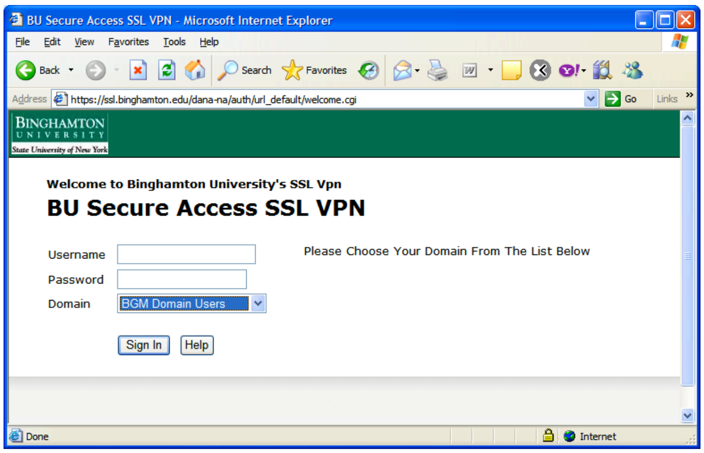
- Most of the time, you will need to limit your query by academic period.

APPENDIX B - Logging into SSL VPN's Network Connect

Binghamton University has implemented Juniper Network's SSL VPN to provide an easy to use, secure VPN for the college community. When activated SSL VPN assigns a new IP address to your computer and encrypts data flowing to and from your computer.

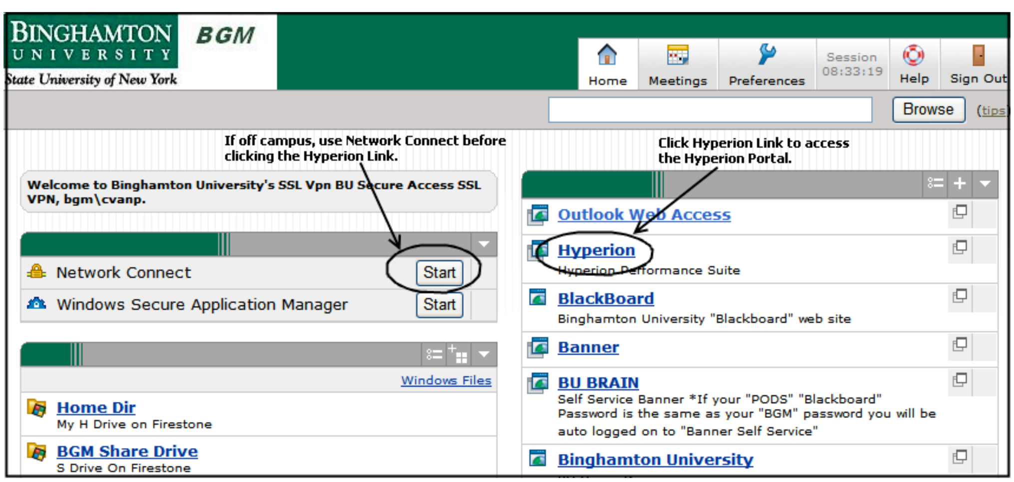
1. You may access SSL at the following site: http://ssl.binghamton.edu

2. Enter your domain username and password. For most, that is your BGM domain info.



Note: The first time you use SSL VPN, it will download and install a small VPN client. There will be warning boxes to click through. It is safe to agree to continue in this instance.

3. If you are off campus, click the Network Connect Start button to establish a secure VPN connection.



4. Click the Hyperion Link on the SSL Page **OR** Open Internet Explorer and navigate to the Hyperion Portal: http://darla1.cc.binghamton.edu:9090/Hyperion/browse/login

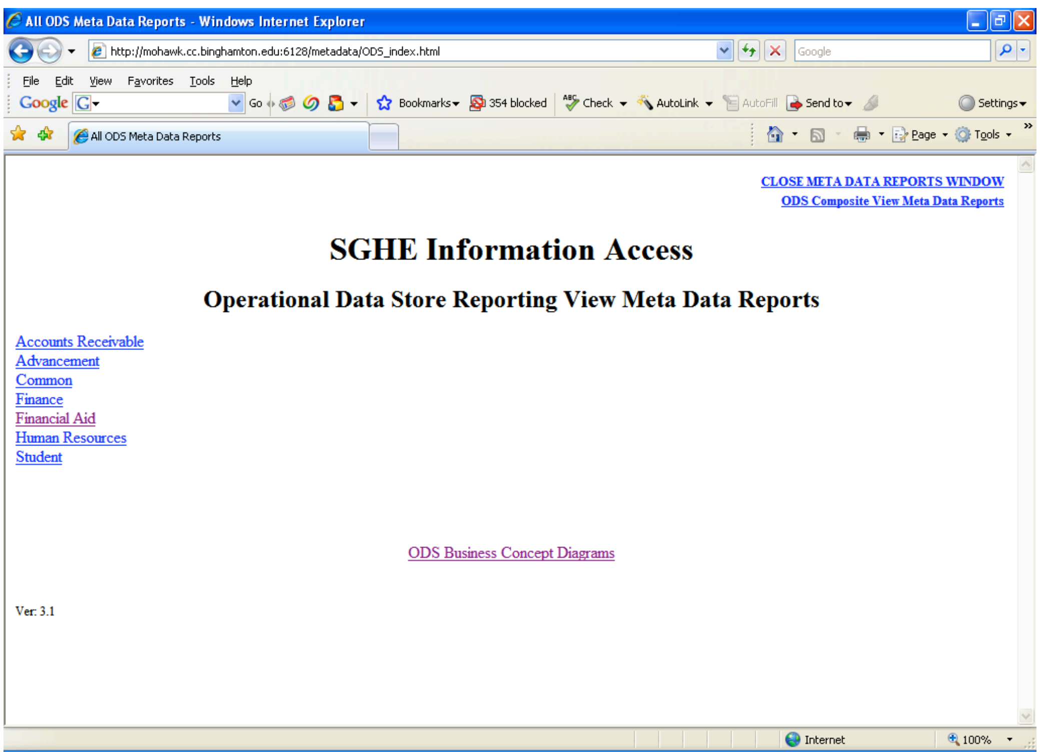
APPENDIX C –How do I Use the ODS Meta Data?

The Meta Data is a "Data Dictionary" for all of the data in the Operational Data Store (ODS). The ODS Handbook describes the Meta Data this way: "Meta Data in the ODS tells what data columns are in the ODS, a definition of their business use, the type of data (number, character, date, etc.), how long they are, where they come from (in Banner) and their destination (in ODS)." **You will need to refer to the Meta Data often when building a report in Hyperion to make sure you are using the appropriate Reporting View and data elements.**

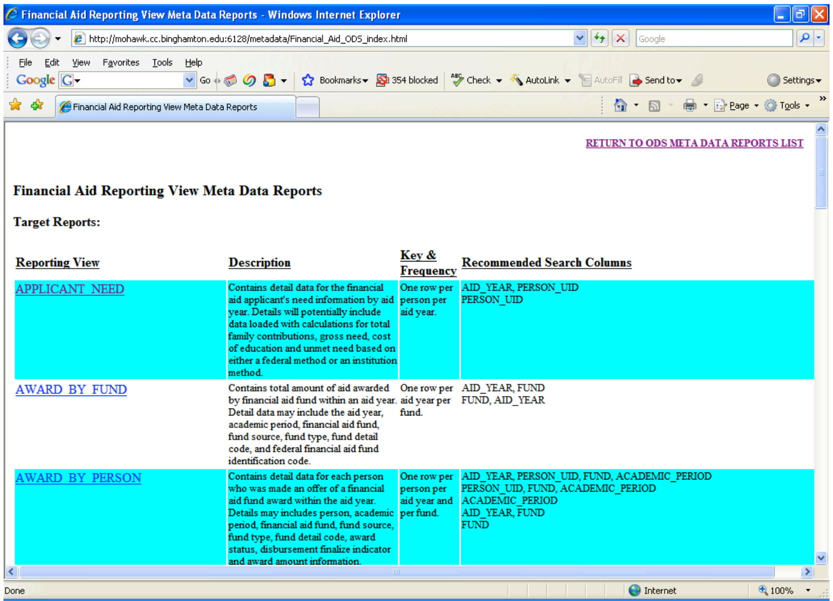
You can access the Meta Data with the following link:

http://hudson.cc.binghamton.edu:6128/metadata/ODS_index.html

The first screen shows the primary categories of Reporting Views in the ODS. These generally correspond to the modules found in Banner. They are listed on the left side of the screen and are links that show you all of the Reporting Views contained in that particular category.



The screen below shows the first 3 Reporting Views in the Financial Aid category. It lists the name of the Reporting View, a detailed description of the information contained in it and what level, or "granularity" of each row (e.g. one row per person per aid year). **<u>You will see the Reporting View names in Hyperion when you click on the plus sign (+) next to "Tables" in the lower left quadrant of the screen.</u>**


Financial Aid Reporting View Meta Data Reports - Windows Internet Explorer

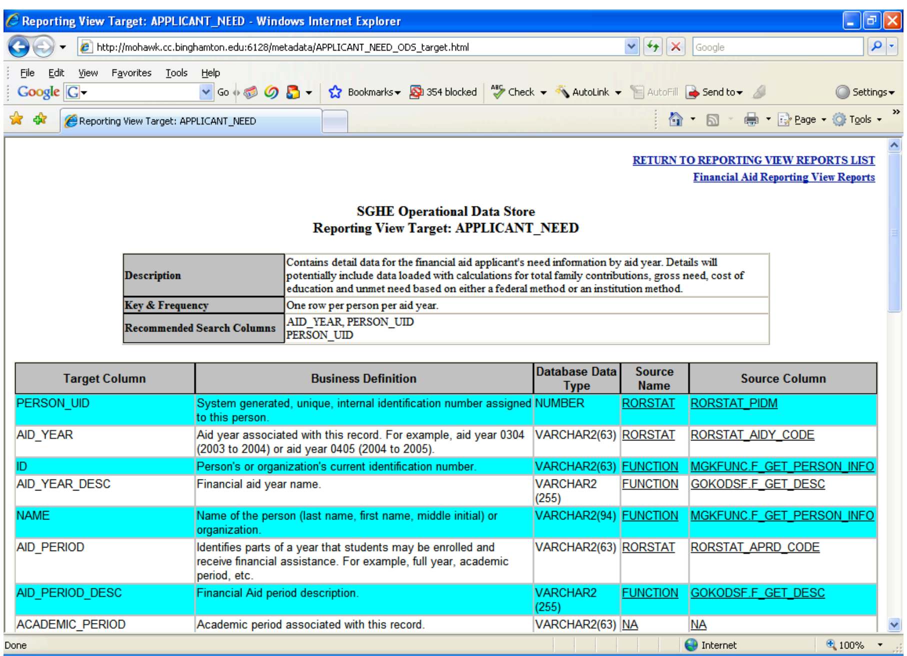
RETURN TO ODS META DATA REPORTS LIST

Financial Aid Reporting View Meta Data Reports

Target Reports:

Reporting View	Description	Key & Frequency	Recommended Search Columns
APPLICANT_NEED	Contains detail data for the financial aid applicant's need information by aid year. Details will potentially include data loaded with calculations for total family contributions, gross need, cost of education and unmet need based on either a federal method or an institution method.	One row per person per aid year.	AID_YEAR, PERSON_UID PERSON_UID
AWARD_BY_FUND	Contains total amount of aid awarded by financial aid fund within an aid year. Detail data may include the aid year, academic period, financial aid fund, fund source, fund type, fund detail code, and federal financial aid fund identification code.	One row per aid year per fund.	AID_YEAR, FUND FUND, AID_YEAR
AWARD_BY_PERSON	Contains detail data for each person who was made an offer of a financial aid fund award within the aid year. Details may includes person, academic period, financial aid fund, fund source, fund type, fund detail code, award status, disbursement finalize indicator and award amount information.	One row per person per aid year and per fund.	AID_YEAR, PERSON_UID, FUND, ACADEMIC_PERIOD PERSON_UID, FUND, ACADEMIC_PERIOD ACADEMIC_PERIOD AID_YEAR, FUND FUND

You can then click on a Reporting View name to view all of the data fields contained in that view. When you click on the APPLICANT_NEED Reporting View, you get this:


Reporting View Target: APPLICANT_NEED - Windows Internet Explorer

RETURN TO REPORTING VIEW REPORTS LIST
Financial Aid Reporting View Reports

SGHE Operational Data Store
Reporting View Target: APPLICANT_NEED

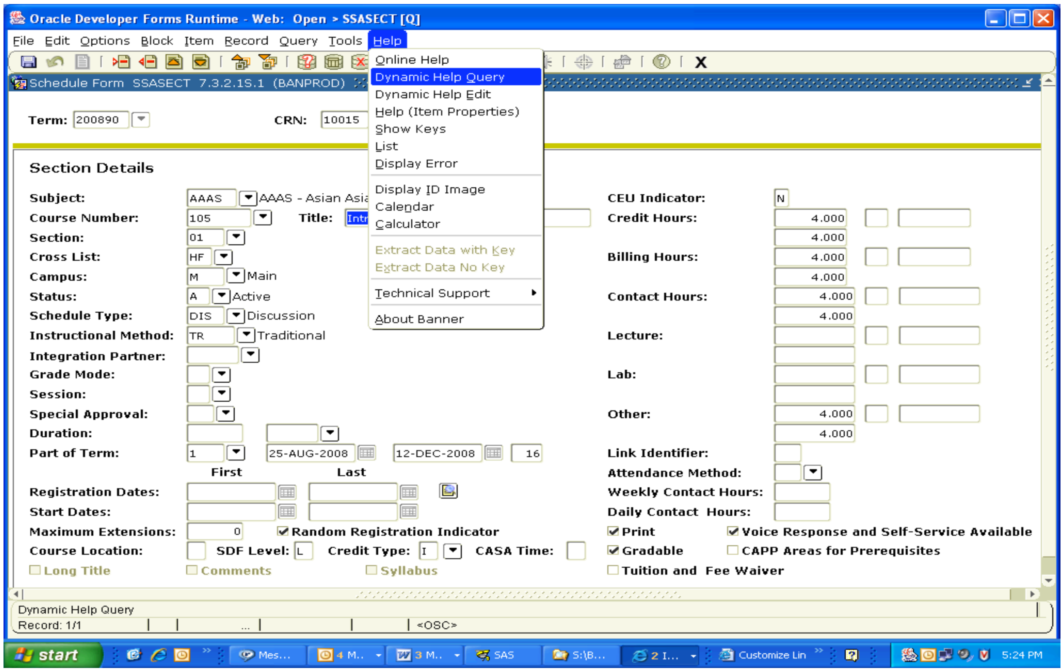
Description	Contains detail data for the financial aid applicant's need information by aid year. Details will potentially include data loaded with calculations for total family contributions, gross need, cost of education and unmet need based on either a federal method or an institution method.
Key & Frequency	One row per person per aid year.
Recommended Search Columns	AID_YEAR, PERSON_UID PERSON_UID

Target Column	Business Definition	Database Data Type	Source Name	Source Column
PERSON_UID	System generated, unique, internal identification number assigned to this person.	NUMBER	RORSTAT	RORSTAT_PIDM
AID_YEAR	Aid year associated with this record. For example, aid year 0304 (2003 to 2004) or aid year 0405 (2004 to 2005).	VARCHAR2(63)	RORSTAT	RORSTAT_AIDY_CODE
ID	Person's or organization's current identification number.	VARCHAR2(63)	FUNCTION	MGKFUNC.F_GET_PERSON_INFO
AID_YEAR_DESC	Financial aid year name.	VARCHAR2 (255)	FUNCTION	GOKODSF.F_GET_DESC
NAME	Name of the person (last name, first name, middle initial) or organization.	VARCHAR2(94)	FUNCTION	MGKFUNC.F_GET_PERSON_INFO
AID_PERIOD	Identifies parts of a year that students may be enrolled and receive financial assistance. For example, full year, academic period, etc.	VARCHAR2(63)	RORSTAT	RORSTAT_APRD_CODE
AID_PERIOD_DESC	Financial Aid period description.	VARCHAR2 (255)	FUNCTION	GOKODSF.F_GET_DESC
ACADEMIC_PERIOD	Academic period associated with this record.	VARCHAR2(63)	NA	NA

This screen will list all of the fields/columns of data contained in the APPLICANT_NEED view. It provides the field name, detailed description, the type of field (character, numeric, date, etc.) and very importantly, **the table and column from BANNER where the data item originated.**

APPENDIX D –Dynamic Help Query

When trying to locate a specific Banner field in the ODS, place your cursor in the field and select Help, Dynamic Help Query.



This will identify the Field name, which consists of the Banner table/form (SSBSECT) and the name of the specific field (Title). You can now look for this Banner table/form in the ODS metadata. http://hudson.cc.binghamton.edu:6128/metadata/ODS_index.html