

# Specifying Criteria For Your Queries

The Radiocommunication Bureau's *Space Data and Publication Circular Query and Extract System*, known as *SpaceQry*, is a software package that supplies both the BR's internal and external users with a tool that accesses and queries all BR formatted Space Databases: these include the Space International Frequency Information Circular (IFIC) databases, Network Station List (NSL) databases, Space Capture databases, and Space Radiocommunication Station (SRS) databases.

The purpose of this document is give you, as a SpaceQry user, a clearer understanding of how to use the criteria-specifying dialogue which is invoked each time a BR Space Database is opened.

A hyperlinked table of contents for this document, which will direct you to the subject of your interest or question, is supplied on the left; however, it is suggested that you take the time to read the document in its entirety, even if you are an experienced SpaceQry user.

This document was last updated on 28 March 2012 to reflect SpaceQry software changes up to and including the Version 6.4 release. To view or download updated versions of this document, please check the documentation page of the SpaceQry website:

#### http://www.itu.int/en/ITU-R/software/Pages/spacegry.aspx

or, to view the latest, up-to-date html-version of this document, please see the SpaceQry online query guide of the SpaceQry website:

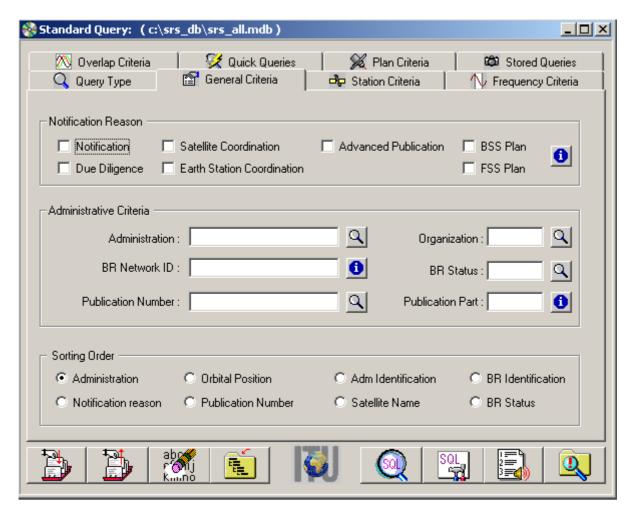
## http://www.itu.int/en/ITU-R/software/Documents/spacegry/SQryGuide.pdf



# The SpaceQry Criteria Dialogue

Beginning in October 1999, the Radiocommunication Bureau began its task of moving all data and processing from its legacy systems on the Siemens mainframe computers into a client server environment using Windows NT, Unix, and Ingres. As a result, SpaceQry is now the querying tool used at the BR against both its Ingres and MS-Access databases. The Bureau's querying requirements are often different from those of its member administrations and organizations, and as a result, SpaceQry is evolving well beyond its original intended use as a "Weekly Circular viewer."

Due to ever-increasing requests for additional querying criteria and the inclusion of the Plans, Advanced Publications, and Due Diligence data into the SRS database, a single criteria screen, or window, is no longer sufficient to display and capture the querying information. For this reason the SpaceQry Criteria window is now presented as a series of tab-windows (similar to what you will see in many Microsoft products as option or preference dialogues). The criteria are organized logically onto the appropriate tab window, each of which can be accessed by clicking on its associated tab.



An explanation of menu items, utilities, and help aids, as well as each tab and the criteria fields found on them is discussed at length in the sections that follow.

#### The Criteria Window Menu

#### The File Menu

The following three actions are available from the *File* submenu of the *Criteria* window. The actions are described as follows:

- Close Criteria Window this action and the corresponding button labeled *Close*, will close the criteria window, close any associated query detail windows, and close the associated BR Space database (along with the ODBC connection). You may also invoke this action using a *Ctrl+F4* keystroke.
- **Print Criteria Window** this action will print a bitmap image of the *Criteria Window* to your default printer. The image is sent directly to the printer without invoking a printer dialogue. You may also invoke this action using a *Ctrl+P* keystroke.
- **Exit SpaceQry** this action will perform a shutdown of the SpaceQry software. It will first Close the Criteria Window as describe above, and the close any other outstanding windows. If you have the *Query before exit* option selected from the *Preferences* dialogue, then you will be asked to confirm the shutdown. You may also invoke this action using an *Alt+F4* keystroke.

## The Help Menu

The following actions are available from the *Help* submenu of the *Criteria* window. The actions are described as follows:

- Specifying criteria for... selecting this menu item will produce a submenu with a complete list of criterion fields on the various tab windows of the *Criteria Window*. Selecting one of these sub-items will produce a *Quick Help* pop-up window for the associated criterion field. A *Quick Help* pop-up window is available for each criterion field present in one of the Criteria window's tab windows. Selecting one of these sub\_items is equivalent to clicking on the
- **Tips and Tricks** selecting this option will invoke the SpaceQry *Tips and Tricks* dialogue for SRS Queries.
- **Querying Guide** selecting this option will display this document in its PDF format using Adobe Acrobat $^{TM}$ . You may also invoke this action using an Alt+G keystroke.
- **About SpaceQry** selecting this option will produce the SpaceQry *splash screen*, which gives the current SpaceQry version number, copyright information, and a contact address, telephone, and fax number.

#### The Actions Menu

In general, each item in the Actions submenu directly corresponds to one of the *Action* buttons located at the bottom of the *Criteria* window. The actions are described as follows:

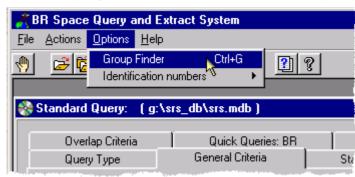
- **Execute Query** this action and the corresponding button labeled <u>Query</u>, will actually launch the query using the criteria which you currently have specified, relative to the type of query you are executing. You may also invoke this action using an *Alt+Q* keystroke.
- **Make NSL** this action and the corresponding button labeled <u>Make NSL</u>, will attempt to create a Network Station List (or export) database based on the results of a Network–level query which has been based on the criteria which you have currently specified. You may also invoke this action using an *Alt+N* keystroke.
- Clear Criteria/SQL this action and the corresponding button labeled <u>Clear</u>, will allow you to either clear the criteria fields on the current (visible) tab window, or to clear the criteria fields on all tab windows (clear query). If the current tab is the Adhoc Query tab, resulting from an *Edit SQL* action (see below), then a *Clear* request will return you to a non-edit SQL state and allow you to continue to specify criteria. If the current tab is the Adhoc Query tab, resulting from requesting a query type of Adhoc, then the *Clear* request will empty the SQL edit window. You may also invoke these actions using an *Alt+C* keystroke.
- **View SQL** this action and the corresponding button labeled <u>View SQL</u>, will display a pop-up window presenting the SQL statement that is generated by the criteria which is currently specified. You may also invoke this actions using an *Alt+V* keystroke.
- **Edit SQL** this action and the corresponding button labeled <u>Edit SQL</u>, will generate an SQL statement based on the currently specified criteria, and insert it into the SQL Statement area on the *Adhoc Query* tab, allowing you to edit the statement as desired. You may also invoke this action using an *Alt+E* keystroke.
- **Show example** this action and the corresponding button labeled *Example*, will invoke an audio/visual example of specifying a query of the type selected. At the time of this writing, the Standard Query is the only example which has been implemented. You may also invoke this action using an *Alt+X* keystroke.
- **Show Criteria Summary** this action will invoke a pop-up window which displays a summary of all criteria specified up to that point. This is sometimes useful when you would like a last-minute check on the criteria before executing the query. You may also invoke this action using a *Ctrl+S* keystroke.
- **Save this Query** this action and the corresponding button labeled <u>Save</u>, will save all criteria specifications to a database record and store it into the *SRSQueries.mdb* database to allow you to recall it at another time. You will be asked to supply a name and a description for the saved query. Once the saving procedure is completed, you will be returned to your state prior to requesting the action. You may also invoke this action using an *Alt+S* keystroke.
- **Recall a saved query** this action and the corresponding button labeled <u>Recall</u>, will make the *Stored Queries* tab the *current* tab, and allow you to select a stored query to recall or re-instate. This action is equivalent to clicking on the *Stored Queries* tab. You may also invoke this action using an *Alt+R* keystroke.
- **Import Queries** this action will allow you to import the saved queries from another SpaceQry Queries database. This action is only available from the *Stored Queries* tab.
- **Edit Query info** this action and the corresponding button labeled *Edit Info*, will allow you to edit the name and/or description of a stored query. This action is only available from the *Stored Queries* tab. You may also invoke this action using an *Alt+I* keystroke.
- **Select Query** this action and the corresponding button labeled *Select*, will re-instate the currently selected query from the stored query list. This action is only available from the *Stored Queries* tab. You may also invoke this action using an *Alt+L* keystroke.

• **Delete Query** this action and the corresponding button labeled <u>Delete</u>, will allow you to delete the currently selected stored query. This action is only available from the *Stored Queries* tab. You may also invoke this action using an *Alt+D* keystroke.

## The Options Menu

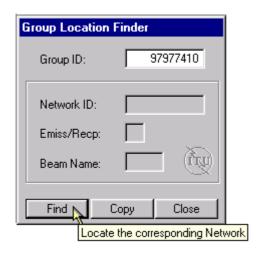
## **Group Finder Utility**

To aid in the sometimes-tedious task of cross-referencing Group IDs with Network IDs, the standard query criteria screen now has a "Group Finder" dialogue (from the *Options* menu item)



which allows you to enter a Group ID and retrieve the associated Network ID and beam information. This can then be copied into the <u>BR Network ID criterion</u> field. Later, when the query has been issued, and the Network Detail window is displayed, you will be shown a *reminder CueCard* containing the Network ID, Beam ID, and emission-reception indicator of the Group for which you are looking.

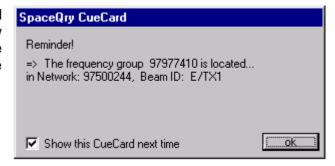
As an example, let's assume you have obtained the group ID 97977410 from another query, or perhaps the printout from a technical examination program. If you would like to view the Network–level information corresponding to this frequency group but do not know the corresponding Network ID, you can invoke the Group Finder Utility by typing Ctrl+G or by selecting the associated menu item as shown in the illustration above. As shown below on the left, once the *Group Location Finder* window appears, type the value 97977410 into the edit field labeled *Group ID* and then click on the





At this point the utility locates the corresponding network information and displays the Network ID, Emission / Reception flag and the Beam Name as shown above on the right. To insert the Network ID value into the *BR Network ID* criterion field on the *General Criteria* tab, click on the Lopy button.

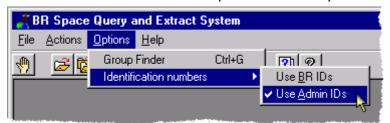
If you then execute a query using this inserted network ID value, once the *Network Detail* window has been displayed, you will also be shown the following Cuecard which will help direct you to the frequency group in question:



## Identification Numbers Option

Each network or notice can be uniquely identified in one of two ways: either by the BR assigned *Notice ID* or by the combination of the administration/organization codes and the administration supplied *Administration Reference ID*. It should be noted here, however, that to date, very few administrations actually notify their reference Ids, and obviously, if they are not present in the source database for a query, then this present discussion is moot.

SpaceQry has only one field for an *Identification* criterion, and the default for this Identification criterion field is to look for BR ID numbers. To search on Administration Reference IDs, you must first select the *Use Admin IDs* option from the *Options : Identification numbers* menu item at the



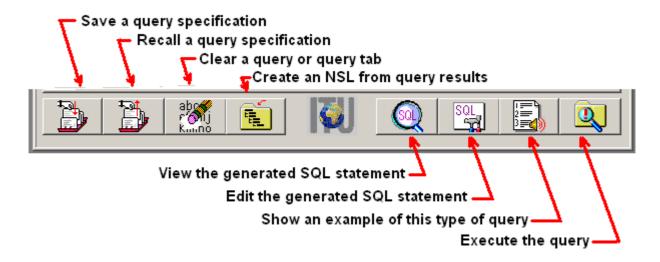
top of the SpaceQry window, as shown on the right. After selecting this option, the label for the Idenification criterion field (located on the General Criteria tab) will change from BR Network ID to Administration's Ref ID, and thereafter, any values entered into

that field will be interpreted as possible values for the administration's reference ID.

For a more detailed discussion, please see the subsection on this same subject located in the <u>General Criteria</u> tab section of this document.

## **Criteria Window Action Buttons**

The following illustration shows each of the *Action Buttons* for the *SpaceQry Criteria Window*, and their meaning and association to the *Criteria Menu* items discussed in the previous sections:

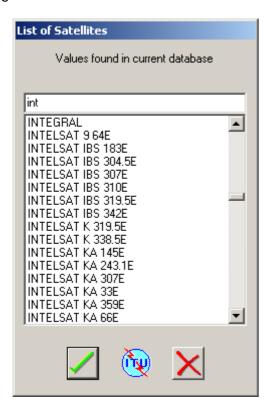


For those users who prefer their buttons with text, these icons can be suppressed by unchecking the *Use icons on buttons* box on the *Defaults* tab of the *Preferences* dialogue:



## The Criterion Value List Windows

While perusing the various tab windows of the SpaceQry Criteria dialogue, you will find immediately to the right of certain criteria fields, a small *Show ... values* button ... The presence of this button implies that, upon request (i.e., clicking on the button), SpaceQry will produce for that criterion field a sorted list of unique values which are currently in the database against which you are querying; in other words, *each list is not an absolute list*, it is an intelligent list which includes *only* the values which are actually present in the targeted database. Examples of requesting existing values for satellite names or earth station names are as follows:





If a list is long, as in the case for satellite names, you may quickly zoom in on values by typing the first few characters of the desired value into the edit field located at the top of the *List* window. In the example shown above on the left, Intelsat satellites can be easily located in the list by typing in the value int.

To select a value for insertion into the criterion field on the associated tab, you may either double-

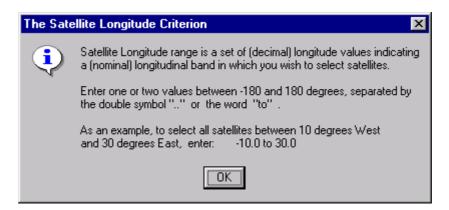
click on the value in the list, or click on the value in the list and then click on the select button. In either case the value will be inserted into the appropriate criterion field on the

associated tab. To close a Criterion List window, click on the close \_\_\_\_ button

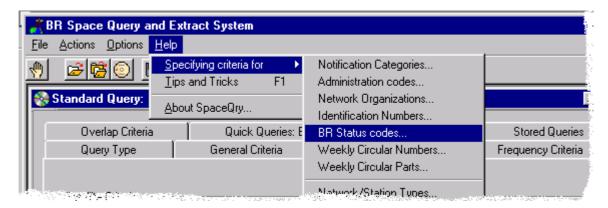
# The Criterion Information (Quick Help) Windows

As with the *Criterion Value List* windows mentioned above, certain other criteria fields located on the tab windows may have a small Info on ... button located immediately to their right.

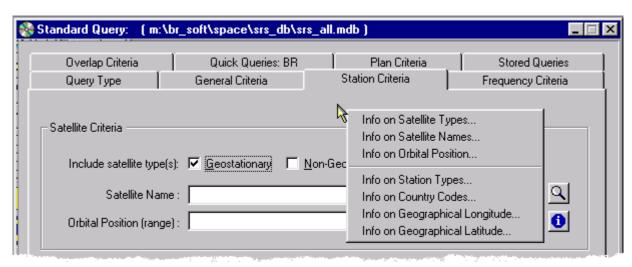
In these cases, clicking on the button will produce a *Quick Help* window which tells you what the field is and how to enter a value for it; in most cases an example is shown as well. As an example, clicking on the Obital Position *Info* button yields:



These *Criterion Information* windows are also accessible from two other sources. First, from the *Help:* Specifying criteria for... submenu of the SpaceQry menu as shown below:

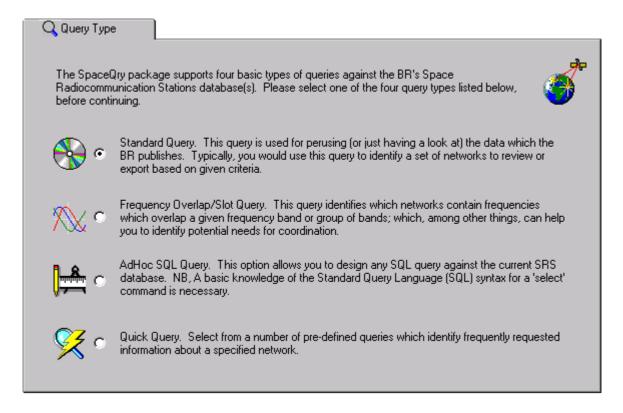


and they are also available from the context menu which is produced by right-clicking the pointing device over an area of the *Criteria* tab window in question:



# The Query Type Tab

Normally the query "type" is preset due to the menu or toolbar selection which invoked the criteria dialogue (e.g., clicking on the DVD-ROM toolbar icon will invoke a standard query session). However, the query type may be changed at any time by selecting a different query type on the Query Type tab.



#### **Standard Queries**

Standard queries are used for perusing the entire structure of the data which the BR publishes. Querying is done at the topmost, network level to identify a list of satellites and/or earth stations. Once the list of notices is obtained, you may walk through, or navigate all of the data specific to each notice in the list. Typically, you would use this query to review the bi-weekly IFIC publications, or to identify a set of networks from the SRS to review or export.

### **Frequency Overlap Queries**

Frequency Overlap queries identify which networks contain frequencies that overlap a given frequency band or group of bands. Querying can be done at the network level, frequency group level, or individual frequency level. Typically, you would use this query to help identify potential needs for coordination.

#### **Adhoc SQL Queries**

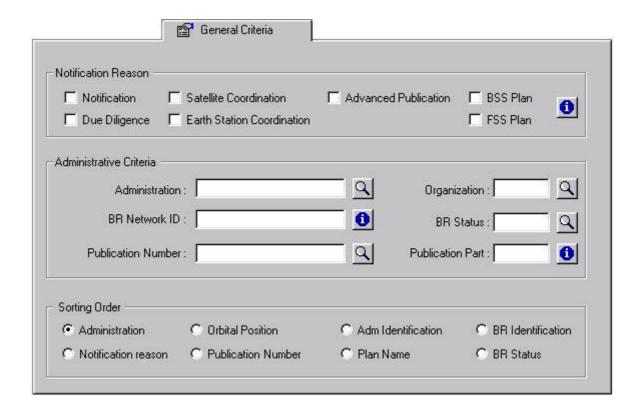
The Adhoc SQL queries option allows you to design any SQL query against the currently selected BR Space database. The querying can be done on any level and against any table or combination of tables. The result of the query will be a *speadsheet*-like list, which you may export or print.

#### **Quick Queries**

Quick queries are a number of pre-defined queries (using minimal criteria) which identify frequently requested information about a specific network.

## The General Criteria Tab

The general criteria tab allows you to select networks and stations based on certain "administrative" criteria, including publication circular information, notifying administration information, and the Radio Regulations under which the notification occurred. This tab is also where you specify the desired collating order of the networks and stations resulting from a standard query. Each of these items is discussed separately below.



#### **Notification Reason Criterion**

or

Notification Reason or Category is an internal BR code which indicates whether the notice was submitted under one of the following Radio Regulations:

```
RR1488 [Notification],
RR1060 [Coordination],
RR1042 [Advanced Publication],
RR49 [Due Diligence],
RR1107 [Earth Station Coordination],
Appendix 30/30A [BSS Plan],
Appendix 30B [FSS Plan].
```

You may specify one or more of these as criteria by checking the desired box(es). As an example, to see all satellite networks which were notified under Appendices 30/30A or 30B, you should check both the BSS Plan and FSS Plan boxes.

### **Administration Code Criterion**

Administration code is a 1 to 3 digit code which represents the country which administers the Space Network or Earth Station. This criterion is a list of administration codes which you wish to include or exclude from the search. You should enter into this field one or more valid administration codes, comma separated. To denote exclusion, you should prefix the administration code with a hash character (#).

As an example, to include all French and German networks, enter: F, D

You may alternatively click on the *Show Administration Codes* button located immediately to the right of the administration code field. SpaceQry will then produce a list of all administration codes which are in the *currently selected database*. You may then select one or more codes from this list to include in your query. For more information on how to do this, please refer to the section on *Criterion Value Lists* at the beginning of this chapter.

## **Network Organization Code Criterion**

The Network Organizations criterion is a list of Organization codes which you wish to include or exclude from the search. You should enter into this field one or more valid organization codes, comma separated. To denote exclusion, you should prefix the organization code with a hash character (#).

As an example, to exclude all Intelsat networks, enter: #IT

You may alternatively click on the *Show Organization Codes* button located immediately to the right of the organization code field. SpaceQry will then produce a list of all organization codes which are in the *currently selected database*. You may then select one or more codes from this list to include in your query. For more information on how to do this, please refer to the section on *Criterion Value Lists* at the beginning of this chapter.

#### **BR Network ID Criterion**

The BR Identification is the network identification number which is generated by the BR and assigned to each incoming notification. You should enter into this field one or more network ID values separated by commas, or a range of ID values separated by the double symbol ".." or the word "to".

As an example, to select all networks received by the BR in 1998, enter: 98000000 to 98999999

## Administration's Reference ID Criterion

The Administration Reference Identification is the identification number or code which is supplied by the notifying administration for each incoming notification. You should enter into this field one or more reference ID values separated by commas. To denote wildcard selections, you should suffix the supplied value with an asterisk(\*) or percent(%).

As an example, to select all networks with administration references beginning with RU, enter: ru\*

You may alternatively click on the *Show AdminID Values* button located immediately to the right of the reference ID field. SpaceQry will then produce a list of all reference IDs which are in the *currently selected database*. You may then select one or more values from this list to include

in your query. For more information on how to do this, please refer to the section on <u>Criterion</u> <u>Value Lists</u> at the beginning of this chapter.

NB., The default for the Identification criterion field is to look for BR ID numbers. To search on Administration Reference IDs, you must first select the <u>Use Admin IDs</u> option from the *Options : Identification numbers* menu item at the top of the SpaceQry window. If desired, you may change this default to automatically query using the Administration Reference ID, by selecting the appropriate option in the SpaceQry *Preferences* dialogue which is discussed elsewhere in this manual.

### **BR Status Criterion**

The BR Status is a two digit number which represents the current stage of the processing of the network notification within the Bureau. *Typically, the semi-annual publication of the SRS database on DVD-ROM only contains networks which are in status 50, or the Update Status; as a result, this criterion may not be useful to users outside the ITU.* However, to use the criterion, you should enter into this field one or more valid BR status values, comma separated. To denote exclusion, you should prefix the BR status value with a hash character (#).

As an example, to select all 'updated' notices, enter: 50

You may alternatively click on the *Show BR Status Values* button located immediately to the right of the BR status field. SpaceQry will then produce a list of all BR status values (and their meanings) which are in the *currently selected database*. *NB., this is particularly important for BR users because, if an expected status value does not appear in the list, it means that there are currently no notices in that status*. You may then select one or more values from this list to include in your query. For more information on how to do this, please refer to the section on *Criterion Value Lists* at the beginning of this chapter.

#### **Publication Number Criterion**

The Publication Circular number is a criterion which is normally used to locate all networks which were published in a specific Weekly Circular (through December 1999) or International Frequency Information Circular, or IFIC, (from January 2000). You should enter into this field one or more 4-digit values, separated by commas. To specify a range of circular numbers, enter two values separated by the double symbol ".." or the word "to" . You may also specify multiple (single) values and ranges separated by commas.

As an example, to select all notices published in Space Weekly Circulars before number 2400, enter: 0 to 2399

You may alternatively click on the *Show WIC/IFIC Numbers* button located immediately to the right of the Publication Number field. SpaceQry will then produce a list of all WIC and IFIC publication numbers which are in the *currently selected database*. You may then select one or more values from this list to include in your query. For more information on how to do this, please refer to the section on *Criterion Value Lists* at the beginning of this chapter.

### **Publication Part Criterion**

The Publication Part number is a criterion which is normally used when querying a WIC or IFIC publication. The possible code values for this field are:

1, a, 1a for publication in part 1;
2 for publication in part 2;
3 for publication in part 3;

• s, ss for publication in special sections.

You should enter into this field one or more of these values, separated by commas.

As an example, to select all networks from a WIC or IFIC database which were updated into the BR master register, enter:

## **Standard Query Sorting Order**

SpaceQry automatically specifies the eight most frequently requested sorting orders for Standard Queries. Each of these are described below; however, it should be noted here that any other sorting order can be specified by editing the *order by* clause of the SQL statement generated by your criteria. For more information on how to edit the SQL statement, please see the *Adhoc Query Tab* section in this chapter. The supplied sorting orders are:

Administration
 Orbital Position
 is sorted by administration code, satellite name & notification reason;
 is corted by nominal longitude, administration code and organization;

• Adm Identification : sorted by administration code & administration reference ID;

• BR Identification : sorted by BR identification number;

• Notification reason: sorted by notification reason, administration code & satellite name;

• Publication Number: sorted by WIC/IFIC number and part, administration code and satellite name

Plan Name : sorted by plan name, administration code, and satellite name;
 BR Status : sorted by BR status, date of receipt, and administration code.

The default sorting order is by Administration; to select a different sorting order, simply click on the associated radio button.

As of SpaceQry version 2.2, a *hook* has been added by which you may create (and include on the criteria window) your own special sorting order for standard queries. To do this you must supply the necessary information in the [Queries] section of the SpaceQry.ini file. This section must contain the following three parameter items:

SpecialSortCaption : the radiobutton label;

• SpecialSortDescr : the status-bar description statement;

SpecialSortFields : the list of (database) sorting fields, comma separated.

As an example, assume you would like to have a sorting order based on the BR Date-of-receipt value, followed by administration and organization codes. You would therefore need to add (or modify) the following 3 lines in the [Queries] section:

```
[Queries]
...

SpecialSortCaption=Date of receipt

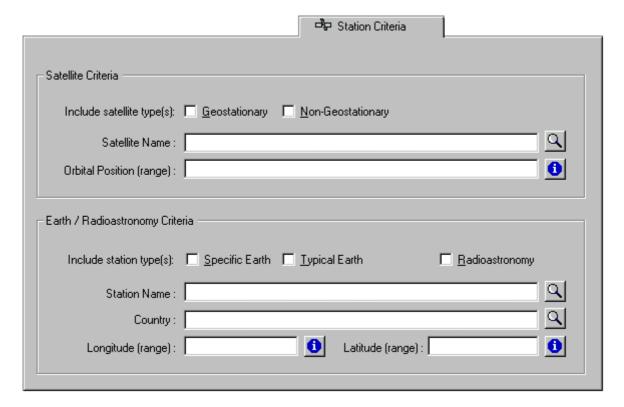
SpecialSortDescr=date of receipt, administration, and organization

SpecialSortFields=d_rcv,adm,ntwk_org
```

The General Criteria Tab would thereafter show a Date of receipt option in the sorting order area.

#### The Station Criteria Tab

As the name implies, the Station Criteria Tab lists all querying criteria which specifically relate to the various station types. The tab is divided into two areas: the first relating to satellites (space stations) and the second relating to earth and radioastronomy stations (terrestrial-based stations). Each station criterion is discussed separately below.



## Satellite Type Criterion

Satellite Type is a criterion which specifies whether you wish to select geostationary satellites and/or non-geostationary satellites. You may select either one or both of these options by checking the desired box(es). It should be noted here that this criterion works in conjunction with the Station Type criterion discussed below (since they both refer to the same database field); therefore, selecting either of these criteria will automatically exclude both earth and radioastronomy stations unless they are specifically selected.

As an example, to select only non-geostationary satellite networks, check only the  $\square$  non-geostationary box.

#### Satellite Name Criterion

The Satellite Name criterion is a list of satellite names which you wish to include or exclude from the search. You should enter into this field one or more valid satellite names separated by commas. For wildcard selections, you should suffix the value with an asterisk(\*) or percent(%).

As an example, to include all Eutelsat satellites, enter the value: eutelsat\*

You may alternatively click on the *Show Satellite Names* button located immediately to the right of the satellite name field. SpaceQry will then produce a list of all satellite names which are in the *currently selected database*. You may then select one or more names from this list to include

in your query. For more information on how to do this, please refer to the section on <u>Criterion</u> <u>Value Lists</u> at the beginning of this chapter.

#### Satellite Orbital Position Criterion

An Orbital Position or Satellite Longitude range is a pair of (decimal) longitude values indicating a (nominal) longitudinal band in which you wish to select satellites. You should enter into this field one or two values between -180 and 180 degrees, separated by the double symbol ".." or the word "to". A single value will require an exact match on the orbital position of the satellites, while a range will include any satellite whose orbital position falls inside the range. You may also specify multiple (single) values and ranges separated by commas.

As an example, to select all satellites whose orbital position is exactly 15 degrees West or somewhere between 10 degrees West and 30 degrees East, enter:

-15, -10.0 to 30.0

## **Station Type Criterion**

Station Type is a criterion which indicates whether you wish to select specific earth stations, typical earth stations, or radioastronomy stations. You may select one or more of these by checking the desired box(es). It should be noted here that this criterion works in conjunction with *the Satellite Type* criterion mentioned previously (since they both refer to the same database field); therefore, selecting any one of these three criteria will automatically exclude both geo and non-geo satellites unless they are specifically selected.

As an example, to select only radioastronomy stations, check only the Radioastronomy box.

## **Station Name Criterion**

The Station Name criterion is a list of Station names which you wish to include or exclude from the search. You should enter into this field one or more valid Station names separated by commas. For wildcard selections, you should suffix the value with an asterisk(\*) or percent(%).

As an example, to include all earth station names beginning with Halifax, enter the value: halifax\*

You may alternatively click on the *Show Station Names* button located immediately to the right of the station name field. SpaceQry will then produce a list of all station names which are in the *currently selected database*. You may then select one or more names from this list to include in your query. For more information on how to do this, please refer to the section on *Criterion Value Lists* at the beginning of this chapter.

### **Station Country Criterion**

The Country criterion is a list of Country codes which you wish to include or exclude from the search. In this field you may enter one or more valid country codes, comma separated. To denote exclusion, you should prefix the country code with a hash character (#).

#### As examples:

- to include all earth stations in Canada and the USA, enter: can,usa
- to exclude all Mexican earth stations, enter: #mex

You may alternatively click on the *Show Country Codes* button located immediately to the right of the country field. SpaceQry will then produce a list of all country codes which are in the *currently selected database*. You may then select one or more codes from this list to include in your query. For more information on how to do this, please refer to the section on *Criterion Value Lists* at the beginning of this chapter.

## Station Latitude/ Longitude Criteria

The earth station latitude and longitude criteria allow you to identify earth or radioastronomy stations by their geographical location. Any of the following may be done:

- for a specific (and exact) geographical coordinate,
- for either latitudinal or longitudinal bands,
- for a geographical area defined by both latitudinal and longitudinal bands.

The Earth Station Latitude range is a set of (decimal) latitude values indicating a latitudinal band in which you wish to select earth or radioastronomy stations. You may enter into this field one or two values between -90 and 90 degrees, separated by the double symbol ".." or the word "to". A single value will require an exact match on the latitude of the station, while a range will include any station whose latitude falls inside the range. You may also specify multiple (single) values and ranges separated by commas.

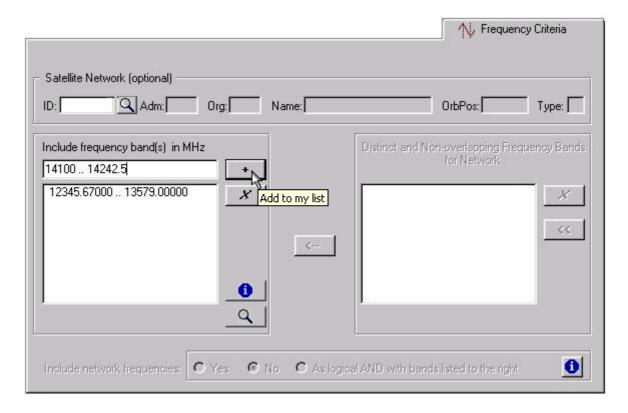
As an example, to select all earth stations geographically located in a band between 37 and 60 degrees North, enter: 37.0 to 60.0

The Earth Station Longitude range is a set of (decimal) longitude values indicating a longitudinal band in which you wish to select earth or radioastronomy stations. You may enter into this field one or two values between -180 and 180 degrees, separated by the double symbol ".." or the word "to". A single value will require an exact match on the longitude of the station, while a range will include any station whose longitude falls inside the range. You may also specify multiple (single) values and ranges separated by commas.

As an example, to select all earth stations geographically located in a band between 10 degrees West and 30 degrees East, enter: -10.0 to 30.0

# **The Frequency Criteria Tab**

The frequency criteria tab allows you to select networks and stations based on whether their notified frequencies fall into specified ranges or bands. The criteria specified on this tab can be used in both *Standard* and *Overlap* queries, as well as certain *Quick* queries. You may also (optionally) specify a network ID and SpaceQry will automatically generate a list of unique frequency bands which are used by that network - you may then use all or some of those frequencies to query against the SRS database. Each of these items is discussed separately below.



### **Include Frequency Bands Area**

This text-editing field in the middle-left of the tab is the area into which you type the desired frequency bands to be used in the query. A Frequency band range is a set of (decimal) frequency values (expressed in MHz) indicating a frequency band in which you wish to select networks. You should enter into this edit field two numeric values, separated by the double symbol ".." or the word "to", and then click on the button to add the band to your list (which is located directly below the edit field).

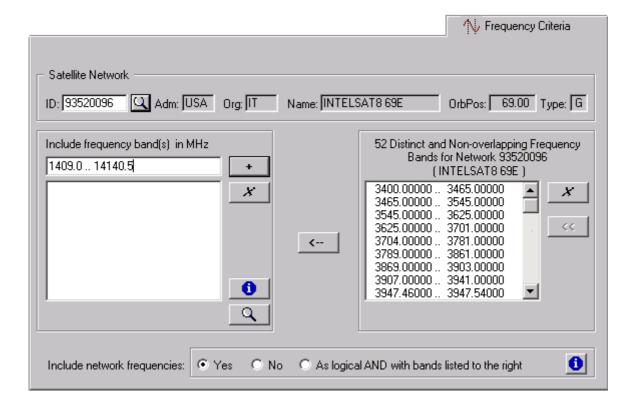
As in the example shown above, to select all networks with frequencies operating within a 14.1 GHz to 14.2455 GHz band, you should enter: 14100 .. 14245.5 and click on the button.

#### Satellite Network / Earth Station Area

This text-editing field located in the upper-left corner of the tab is the area into which you may optionally type a target network ID whose frequencies are to be used in the query. As described in the section on the *General Criteria Tab*, this is the identification number assigned to the network by the BR upon receipt of the notification. After entering the desired network ID into this field you should hit the enter-key, tab-key or, using the pointing device, click in another area of the window. SpaceQry will retrieve the network and produce a list of all distinct and non-overlapping frequency

bands which are represented in the data of that network. ( N.B., SpaceQry establishes the individual frequency bands by using each assigned frequency +/- half of the bandwidth associated with it).

As shown below, these bands are displayed in the *Network* listbox on the right-hand side of the window. Once the list is established you may move selected bands into the list on the left-hand side by clicking on the *Copy* button Bands may also be removed from either list by selecting the band(s) and then clicking on the associated *Remove* button Once any band is removed from the *Network* list, the list can be fully regenerated by clicking on the *Reload* button



### **Include Network Frequencies Area**

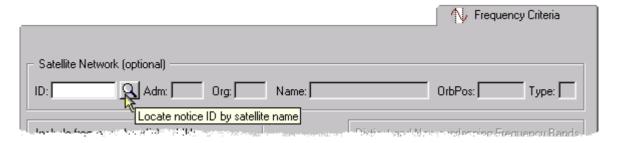
Once a target network has been specified and the associated list of network frequencies has been generated, the three radiobuttons associated with the network frequencies are enabled. These buttons essentially tell SpaceQry how to use the frequency bands listed on the right in conjunction with the frequency bands which you may have entered on the left. The function of these buttons is as follows:

- **Yes** this option tells SpaceQry to use all frequency bands which are currently in the *Network List* in addition to any frequency bands which you may have entered on the left. In other words, to use both lists.
- No this option tells SpaceQry <u>not</u> to use the *Network* frequencies in conjunction with the frequencies listed on the left. In other words, to only use the bands which you have entered or which you have copied from the *Network* list.
- As logical AND this option tells SpaceQry to produce a Boolean intersection between the frequencies of the two lists. This option is particularly useful when you are only interested in querying based on frequency bands relating to a Radio Regulation (a good example would be checking for frequency bands subject to Resolution-46).

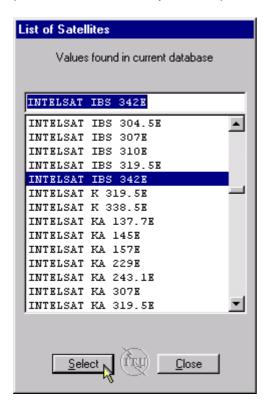
Although the frequency criterion is optional for Standard Queries; for obvious reasons, at least one frequency band must be specified for all Overlap Queries.

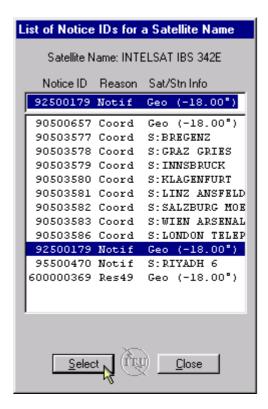
## Locating the Notice-ID of a Satellite or Earth Station

As of SpaceQry version 2.5, a feature has been added to both the <u>Frequency Tab</u> and the <u>Quick</u> <u>Query Tab</u> which allows you to locate a BR network ID by supplying a satellite name. To invoke this feature, click on the <u>Quick</u> button immediately to the right of the ID field as shown below:

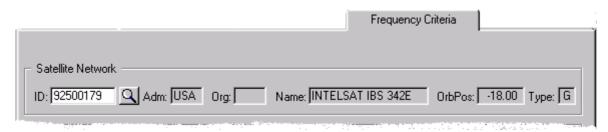


This action will invoke a <u>Criterion Value List</u> window for satellite names. After locating and selecting the desired satellite from the list, one of two things will happen: if there is only one notice which corresponds to the satellite name, the corresponding notice-ID will be inserted directly into the ID field (on the appropriate tab); if, however, more than one notice corresponds to the satellite name, then a second criterion value list window will be invoked which shows all corresponding notices (as shown in the example below). The desired notice can then be selected.



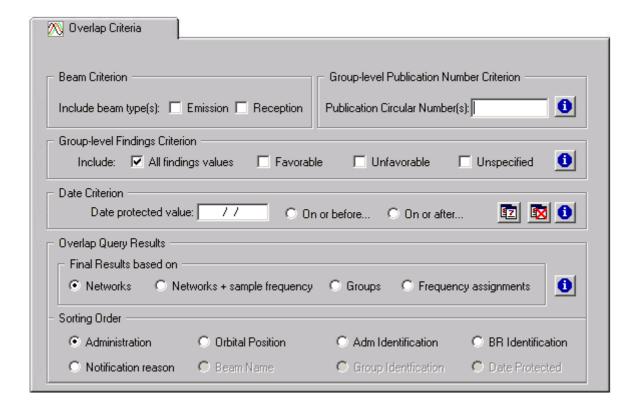


In either case, the notice-ID corresponding to the selected notification will be inserted directly into the ID field, as shown in the continuation of the example below:



# The Overlap Criteria Tab

The Overlap Criteria Tab lists all querying criteria which specifically relate to Frequency Overlap and Frequency Slot Queries (and, consequently, is only available when the Overlap Query Type has been selected). The tab is divided into two areas: the upper area relating to the four overlap-specific criteria and the lower area relating to how the results of the query should be compiled and displayed. Each of these items is discussed separately below.



### **Beam Criterion**

The Beam Criterion allows you to restrict your search for overlapping frequencies to those present in either transmitting or receiving beams. To impose this restriction, using your pointing device, you must click on the desired beam type so that the associated checkbox is "checked." Since there are only two possible values for this criterion, if neither box is checked, it implies that the beam criterion is not considered, and therefore is (roughly) equivalent to both boxes being checked.

## **Group-level Publication Number Criterion**

The Group-level Publication Circular number is a criterion which allows you to locate all groups which were published in a specific Weekly Circular (through December 1999) or International Frequency Information Circular, or IFIC, (from January 2000). You should enter into this field one or more 4-digit values, separated by commas. To specify a range of circular numbers, enter two values separated by the double symbol ".." or the word "to" . You may also specify multiple (single) values and ranges separated by commas.

As an example, to select all groups published in Space Weekly Circulars before number 2400, enter: 0 to 2399

## **Group-level Findings Criterion**

The term *Findings* here refers specifically to the Regulatory finding given to a frequency group of a notice. A finding is either favorable or unfavorable, but also for internal BR users, the finding of some groups may not yet have been specified. For the type of findings, you may select one or more of the three findings types (*favorable*, *unfavorable*, or *unspecified*) by "checking" the associated checkbox(es). The default is for all findings types.

## **Overlap Date Criterion**

The Overlap Date Criterion allows you to specify a date and optionally specify a before or after condition in your search for overlapping frequencies. The actual type of date is dependent on whether the final results are based on Networks or on either Groups or Frequency Assignments (see below). When the final results are based on Networks, the date criterion refers to the network-level field *Date of Receipt*, and alternatively, when the final results are based on either Groups or Frequency Assignments, the date criterion refers to the group-level field *Date of Protection*.

To specify a date criterion, using your pointing device you should first select the desired *Final results based on...* value by clicking on the radio button associated with the desired value. This action will setup the corresponding Date Criterion label. At this point, you should enter the desired date in your local short-date format (eg, mm/dd/yy, dd.mm.yy, etc.), and optionally select the radio button associated with either *On or before* or *On or after* as desired. Note: if a date is specified without a *before/after* condition, then the query will look for exactly matching dates only.

Clicking on the button will automatically insert today's date into the date criterion field, while clicking on the button will clear both the date field and the date-condition radio buttons.

### **Overlap Query Final Results**

The results of a Frequency Overlap Query can be organized and displayed in four different ways: based on Networks, Networks plus a Sample Frequency, Groups, or Assigned Frequencies.

- Selecting the Networks option will first return a list of all networks which contain overlapping frequencies (subsequent navigation can list the actual overlapping frequencies for a selected network);
- selecting the Networks plus option will return a list of all networks which contain at least one overlapping frequency, along with the first overlapping frequency encountered for each network during the search. The beam identifiers and group IDs of the sample frequencies are also included in the results;
- selecting the *Groups* option will return a list of frequency groups which contain overlapping frequencies; and
- selecting the Assigned Frequencies option will return a list of all overlapping frequencies with respect to the other criteria. NB! You are cautioned that this last result option can very easily return an extremely large and unmanageable set of data. It is not recommended unless the other criteria specified will considerably narrow the scope of the query.

## **Overlap Query Sorting Order**

SpaceQry automatically specifies the eight most frequently requested sorting orders for Overlap Queries. Each of these are described below; however, it should be noted here that any other sorting order can be specified by editing the *order by* clause of the SQL statement generated by your criteria. For more information on how to edit the SQL statement, please see the <u>Adhoc Query</u> <u>Tab</u> section in this chapter. The supplied sorting orders are:

• BR Identification : sorted by BR identification number;

Specifically for network-level overlap queries:

Administration
 Orbital Position
 Adm Identification
 is sorted by administration code, satellite name & notification reason;
 is sorted by nominal longitude, administration code and organization;
 is sorted by administration code & administration reference ID;

• Notification reason : sorted by notification reason, administration code & satellite name;

Specifically for group- or frequency-level overlap queries:

• Beam Name : sorted by Network name, emission-reception flag, & beam name;

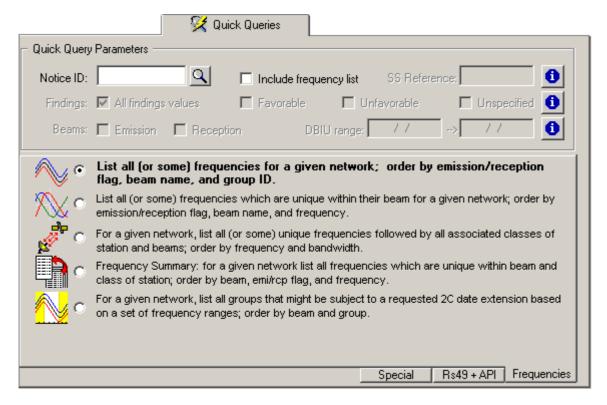
• Group Identification .: sorted by BR group ID and frequency;

• Date Protected: sorted by descending date of protection (2D) & BR group ID.

To select a sorting order, simply click on the associated radio button.

# The Quick Query Criteria Tab

The *Quick Queries* Tab lists a number of pre-defined, specialized queries (usually) returning specific information about a given Network. These queries were given the name *quick* because they require a very minimal number of criteria parameters (in some cases only the network ID), and therefore, are *easy* or *quick* to specify and run. Although these queries have evolved from the engineering and administrative requests and needs of the Space Services Department of the BR, it is assumed that they will be of interest to the SpaceQry users *outside* the ITU, as well.



The *Quick Queries* tab is divided into two areas: the upper area contains parameter or criteria fields and the lower area lists the various queries available. You will notice that as different Quick Queries are selected, the availability of the associated parameter fields is restricted to those criteria which apply to the selected query. Also, as of the 5.3.1 release, the sliding page bar (aka, *slider*) has been replaced by topic-related sub-tabs as seen in the lower right-hand corner of the above illustration. The queries are grouped by topic onto pages which are accessed by clicking on the associated sub-tab. The illustration above has the *Frequencies* sub-tab selected.

## **BR Network (or Notice) ID Criterion**

The BR Identification is the network identification number which is generated by the BR and assigned to each incoming notification. You should enter into this field one or more network ID values separated by commas, or a range of ID values separated by the double symbol ".." or the word "to". This field is required for most Quick Queries. As an example, to perform a Quick Query against two Networks, enter: 99000001, 99000101

There is also a feature which allows you to locate a BR network ID by supplying a satellite name. For information on finding a notice ID value, please see the section on <u>Locating the Notice-ID of a Satellite or Earth Station</u> earlier in this document.

Hint! When a database containing a single network is selected for a Quick Query (as in the case for a Validation Query), SpaceQry will automatically find the network/notice ID and insert it into the ID field. Obviously, if the database contains more than one network, then you will necessarily have to select the desired network to be the object of the query.

## **Include Frequency List Criterion**

To include frequency ranges in a Quick Query, simply click on the Include frequency list checkbox to "check" it; SpaceQry will automatically reposition the criteria window to the Frequency Criteria tab, and you may then enter the desired frequency range values. To disassociate a list of frequencies from the query, click on the Include frequency list checkbox a second time to "uncheck" it. For information on how to enter the frequency range values, please see the description of the Frequency Criteria Tab in this document.

## **Special Section Reference Criterion**

Special Section Reference is a symbol which indicates a specific Special Section of the Space IFIC publication. To specify a Special Section reference, enter one or more values into the edit field, comma separated. Typical values for this field include: AR11/A, AR11/C, RES33/A, RES46/A, and RES46/C. You may also enter a wild card value, like RES\*. The default (nothing specified) is to select all Special Section references.

## **Findings Type Criterion**

The term *Findings* here refers specifically to the Regulatory finding given to a frequency group of a notice. A finding is either favorable or unfavorable, but also for internal BR users, the finding of some groups may not yet have been specified. For the type of findings, you may select one or more of the three findings types (*favorable*, *unfavorable*, or *unspecified*) by "checking" the associated checkbox(es). The default is for all findings types.

## **Beam Type Criterion**

To specify a single beam type, simply click on and "check" the checkbox associated with the desired beam type. NB, checking both the *Emission* and *Reception* boxes returns the same result as leaving both boxes unchecked.

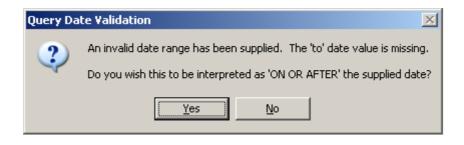
### **Date Range Criterion**

The Date Range criterion will represent a lower and upper bound for the date of bringing into use (2c) or date of end of regulatory period of the target network or network frequency. This criterion is a pair of date values which should be entered in your local, short date format. As an example, to select networks with frequency groups having a date of bringing into use between March and September of 1997, Europeans would enter the two values: 01.03.2003 and 30.09.2004, while North Americans would enter the values: 03/01/2003 and 09/30/2004.

NB: If a single date is supplied, then you will be asked to confirm the following:

- If a single, *from* value is supplied (i.e., the *to* value is missing), whether your intent was to request a date which is *on-or-after* the supplied date; or
- If a single, to value is supplied (i.e., the *from* value is missing), whether your intent was to request a date which is *on-or-before* the supplied date, e.g.:

(See illustration on next page)



### **Available Quick Queries**

As of the writing of this document for the SpaceQry version 6.0 release, the following sixteen *Quick Queries* have been identified and implemented: They are shown by topic tab

## Quick Queries Specifically Relating To Frequency Ranges:

Clicking on the *Frequencies* sub-tab as shown here will display the following, frequency-related queries:



List all (or some) frequencies for a given network. This query requires as a parameter a single BR network (notice) identification number; optionally, you may also supply any number of frequency ranges from the Frequency Criteria tab. The results of this query are sorted by the emission/reception flag, beam name, and group ID.

List all (or some) frequencies for a given network which are unique within their beam. This query requires as a parameter a single BR network (notice) identification number; optionally, you may also request only receiving or transmitting beams and/or supply any number of frequency ranges from the Frequency Criteria tab. The results of this query are sorted by the emission/reception flag, beam name, and group ID.

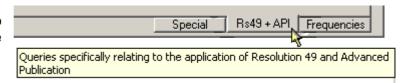
Within a given network, list all (or some) unique frequency bands followed by all associated classes-of-stations and beams in which they appear. This query requires as a parameter a single BR network (notice) identification number; optionally, you may also request only receiving or transmitting beams and/or supply any number of frequency ranges from the Frequency Criteria tab. The results of this query are sorted by assigned frequency and bandwidth.

Frequency Summary: list all frequencies for a given network which are unique within their beam and class-of-station. This query requires as a parameter a single <u>BR network (notice)</u> identification number. The results of this query are sorted by the beam name, emission/reception flag, and frequency.

"In or Out of Range" Query: for a given network, list all groups that might be subject to a requested 2C date extension based on a set of frequency ranges. This query requires as a parameter a single <u>BR network (notice) identification number</u>, optionally, you may also supply any number of <u>frequency ranges</u> from the <u>Frequency Criteria tab</u>. The results of this query are sorted by the beam name, emission/reception flag, and group ID.

### Quick Queries Specifically Relating To Resolution 49 and/or Advanced Publication:

Clicking on the *Rs49* + *API* sub-tab (as shown to the right) will display the following queries:



Resolution-49 Capture Query (non-planned services): create a "filing database" for SpaceCap from a list of frequency bands with a planned 2c date between two values. This query requires as a parameter one of the following three criteria: a 2C-date range, a Satellite name, or a single BR network (notice) identification number; optionally, you may also specify a Notification/Coordination indicator, an administration and/or organization code from the General Criteria tab; and/or Geostationary/Non-geostationary indicators and Orbital position on the Station Criteria tab. The initial result of this query will be a list of networks sorted by their notice-lds. As you navigate through this list, you will also find displayed in a sub-window, a list of unique frequency ranges for the current network which match the date criterion. Clicking on the Create button will produce the "filing database" required by the SpaceCap RS49 Wizard facility (see illustration immediately following this section).

Resolution-49 Capture Query (planned services): create a "filing database" for SpaceCap from a list of frequency bands with either a planned 2c date or an examination date between two values. This query requires as a parameter one of the following three criteria: a date range (as an examination or 2c date), a Satellite name, or a single BR network (notice) identification number;; optionally, you may also specify a BSS/FSS indicator, an administration and/or organization code from the General Criteria tab; and/or an Orbital position on the Station Criteria tab. The initial result of this query will be a list of networks sorted by their notice-Ids. As you navigate through this list, you will also find displayed in a sub-window, a list of unique frequency ranges for the current network which match the date criterion. Clicking on the Create button will produce the "filing database" required by the SpaceCap RS49 Wizard facility (see illustration immediately following this section).

List all satellites with a planned bringing-into-use (2c) date between two given dates. (Rs49!) query, which is used to identify potential Resolution-49 cases, requires only a 2C-date range as a parameter. You may further restrict the query by optionally specifying any of the following criteria: Notification/Coordination indicator on the General Criteria tab; Administration and/or Organization codes on the General Criteria tab; Geostationary/Non-geostationary indicators on the Station Criteria tab; Satellite name on the Station Criteria tab; and Orbital position on the this Station Criteria tab. The results query are sorted by of 2C administration/organization, and satellite name.

Within a given network, list all unique frequency bands with a planned bringing-into-use (2c) date between two given dates. This query, which is used to identify potential Resolution-49 cases on frequency groups within a given network, requires as parameters a single <u>BR network</u> (notice) identification number and a <u>2C-date range</u>. The results of this query are sorted by frequency and associated class of station.

List satellites with an API filing containing frequency bands received between two given dates. This query, which is used to identify satellites containing API frequency bands received in a date range (for Cost Recovery purposes), requires as parameters a <a href="Date-of-protection range">Date-of-protection range</a>. You may further restrict the query by optionally specifying any of the following criteria: <a href="Administration">Administration</a> and/or <a href="Organization">Organization</a> codes on the <a href="General Criteria">General Criteria</a> tab; <a href="Geostationary/Non-geostationary">Geostationary/Non-geostationary</a> indicators on the <a href="Station Criteria">Station Criteria</a> tab; <a href="Station Criteria">Satellite name</a> on the <a href="Station Criteria">Station Criteria</a> tab. The results of this query are sorted by administration/organization, and satellite name.

The "Date-Link" Query. List the regulatory dates for frequency range(s) of a given satellite within its API – Coordination – Notification - RS49 cycle. This query requires as a parameter a single, unique Satellite name on the Station Criteria tab; but, optionally, you may also supply any number of <u>frequency ranges</u> from the <u>Frequency Criteria tab</u>. The results of this query are sorted by frequency range.

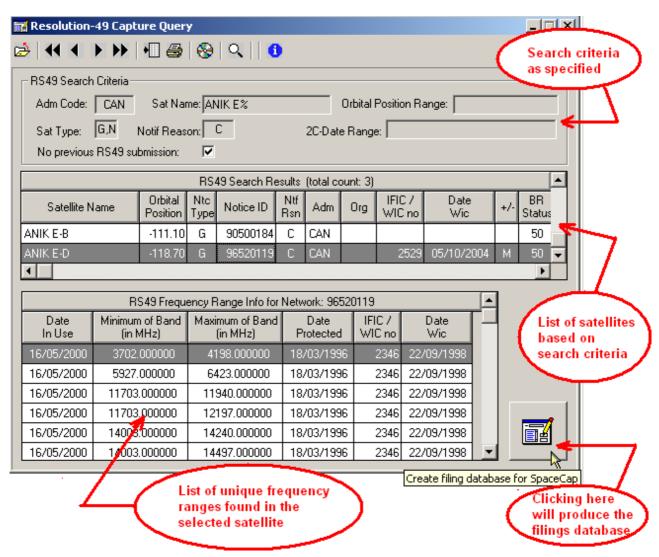
Hint! When specifying criteria for this query, if you wish to specify specific frequency ranges relevant to the given satellite, then do the following steps in the sequence shown:

- 1) select (or enter) the satellite name on the Station Tab.
- 2) return to the Quick Query Tab, and then
- 3) click on the Include frequencies check box.

If done in this sequence, SpaceQry will "pick-up" on the satellite name and generate a list of all frequency ranges (as present in the satellite's API filing). You may then select some or all ranges as generated, and/or include additional ranges on the *Frequency Criteria Tab*.

### **Rs49 Capture Query Results**

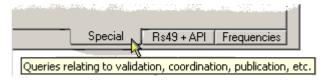
Assuming that you have entered *CAN* as the administration, the wildcarded value *ANIK E\** as the satellite name, and requested *No Previous Submission*, you would see a results window similar to the one in the following illustration.



When more than one satellite is presented (w.r.t. the criteria specified), clicking on a row in the satellite list will change the results in the frequencies list. Clicking on the button in the lower right hand corner of the window will create an Rs49 capture database for the *SpaceCap Rs49 Wizard*.

## Quick Queries Relating To Validation, Findings, Provisions, etc:

Clicking on the *Special* sub-tab (as shown to the right) will display the following queries



Validation Query: for a given network, display the results of the last validation run (where and when applicable). This query requires as a parameter a single <u>BR network (notice)</u> identification number, optionally, you may also specify whether you wish to see only warning messages or only fatal-error messages; both types of error messages are the default. The results of this query are sorted by the beam name, emission/reception flag, group ID, database table name, and error number.

List specified findings for all groups in a given network. This query requires as parameters a single BR network (notice) identification number and a specification of which type of findings. The results of this query are sorted by the emission/reception flag, beam name, and group ID.

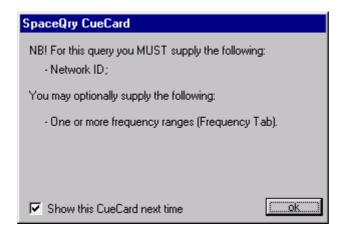
List specific Special Section publications for all groups in a given network. This query requires as parameters a single <u>BR network (notice) identification number</u> and, optionally, a specification of one or more <u>Special Section references</u>. The results of this query are sorted by the emission/reception flag, beam name, and group ID.

For a given network, list all administrations to which coordination has been requested. This query requires as a parameter a single <u>BR network (notice) identification number</u>. The results of this query are sorted by provision, administration code and organization code.

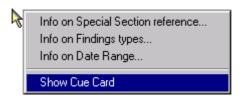
For a given network, list all groups for which coordination has been requested to a given administration. This query requires as parameters a single <u>BR network (notice) identification number</u> and a specification of administration and/or organization against which to check. The <u>administration</u> and/or <u>organization</u> code must be entered on the <u>General Criteria tab</u>. The results of this query are sorted by emission-reception flag, beam name, and group ID.

## **Quick Query CueCard**

When selecting a query from the *Quick Query* tab, SpaceQry automatically presents a *CueCard* which lists both the required and optional criteria for the selected query. The following is an example of the cuecard produced for the *Frequency List* query:



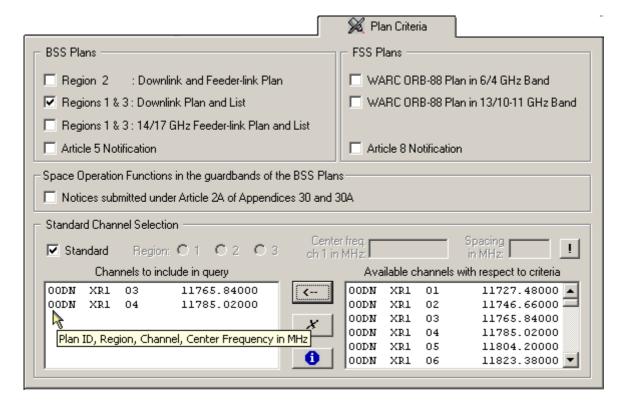
The presence of these cuecards may be suppressed at any time by clicking on and "unchecking" the Show this CueCard next time box, and then clicking on the button. After doing this the cue card facility can be re-instated by selecting the Show Cue Card option from the context menu which is produced by right-clicking the pointing device over an area of the Quick Query tab window.



## The Plan Criteria Tab

All criteria and querying abilities common to the other notification types are valid and useable with the Plan data; and, as seen below, you may query further based on specific Plan *identifiers* and *channels*.

Currently, the tab is divided into four areas: the first relating to *Broadcasting Satellite Services* (BSS Plans); the second relating to *Fixed Satellite Services* (FSS Plans); the third relating to notices submitted under articles 2A of Appendix 30 and 30A regarding the use of guardbands to provide Space Operation Functions for BSS Plans; and the fourth relating to specifying channels. Each of these criteria is discussed separately below.



#### **Plan ID Criterion**

The Plan Identification is a BR code which represents a specific Plan. As a result, this criterion allows you to identify networks which are associated with specific Plans within the Broadcasting and/or Fixed services. You may specify one or more Plans by checking the associated box(es). The individual Plans are described as follows:

- Broadcasting Satellite Services Plans
  - RARC BC SAT83 for Region 2: Appendix 30 plan for broadcasting services within Region 2 operating in the frequency band 12.2 - 12.7 GHz.
  - WRC-2000 Down-link for Regions 1 and 3: Appendix 30 plan / Resolution 542 list for down-links in the frequency bands 11.7 - 12.5 GHz within Region 1 and 11.7 - 12.2 GHz within Region 3.
  - WRC-2000 14/17 GHz Feeder-link for Regions 1 and 3: Appendix 30A plan / Resolution 542 list for feeder-links in the frequency band 14.5 - 14.8 GHz or in the frequency band 17.3 - 18.1 GHz within both Regions 1 and 3.
- Article 5 of the Broadcasting Satellite Services Plans relating to the notification of frequency assignments to satellites in the Broadcasting Satellite Service.

- Fixed Satellite Services Plans
  - WARC ORB-88 6/4 GHz Band: Appendix 30B plan for fixed services operating feeder-links in the frequency band 6.725 - 7.025 GHz, and downlinks in the frequency band 4.5 - 4.8 GHz.
  - WARC ORB-88 13/10-11 GHz Band: Appendix 30B plan for fixed services operating feeder-links in the frequency band 12.75 13.25 GHz, and downlinks in the frequency bands 10.7 10.95 GHz and 11.2 11.45 GHz
- Article 8 of the Fixed Satellite Services Plans relating to the notification of frequency assignments to satellites in the Fixed Satellite Service.

#### **Article 2A Criterion**

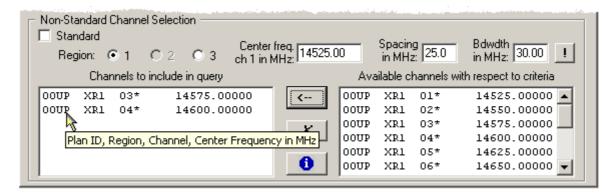
When selected (checked), the Article 2A criterion tells SpaceQry to identify notices which have been submitted under Article 2A of either Appendix 30 or Appendix 30A, both of which are regarding the use of guardbands to provide Space Operation Functions for BSS Plans. To look for these notices simply click on the Notices submitted under Article 2A... checkbox leaving it in a "checked" state; to remove the criterion, click again leaving it in an "unchecked" state.

#### **Channel Criteria**

Specifying one or more channels in a query is an extension of specifying frequency ranges for your query; i.e., at execution time, a channel specification will be converted into the frequency range represented by that channel's center frequency and the associated channel bandwidth.

By default, the  $\[ \]$  Standard checkbox will be checked, and the Plan Tab will be in Standard Channel mode. This means that as you select one or more plan values in the BSS Plans group, the Available channels list on the right will fill up with standard channel information relating to the plan(s) selected. You can include any of these Available Channels for your query by selecting the row in the Available channels list and clicking on the Copy to my list button [  $\[ \]$  ] located between the two lists. A channel can be removed from your list at any time by selecting its row and clicking on the Remove from my list button [  $\[ \]$  ].

Unchecking the ☐ Standard checkbox will set the Plan Tab to Non-Standard Channel mode, which allows you to specify your own channels by 1) entering a hypothetical center frequency for channel number 1; 2) entering a channel-spacing value in MHz; 3) entering a channel-bandwidth value in MHz; and 4) clicking on the Calculate channels button [!]. In the illustration shown below, channel data has been calculated using a channel-1 center frequency of 14525.0 MHz, channel spacing of 25.0 MHz and channel bandwidth of 30.0 MHz. As with standard channel data, these channel specifications can be included in the query by copying a selected channel from the list on the right into the list on the left, using the Copy to my list button [←].

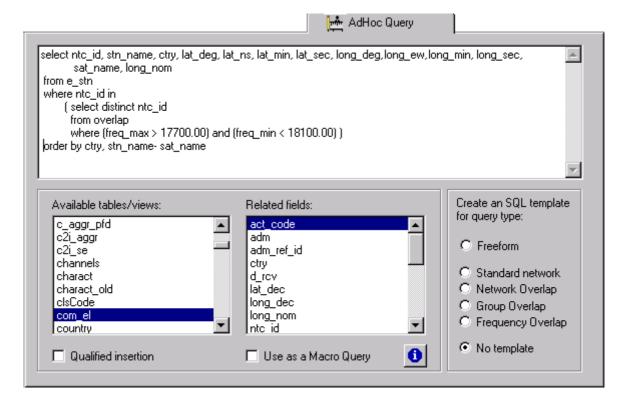


A query can include both standard and non-standard channels – non-standard channels are shown with an asterisk, e.g., 03\*.

# The Adhoc Query Tab

The Adhoc Query tab allows you to either edit the SQL statement which is generated by your specified criteria, or to create your own query against any BR Space Frequency Management (SNS-format) database. This tab is only visible when you have selected the *Adhoc Query* type

from the Query Type Tab, or when you have clicked on the Edit SQL button during the specification of a standard, overlap, or quick query.



The Adhoc Query tab is divided into 3 areas, each of which is described as follows:

#### **SQL Statement Area**

This text-editing field at the top of the tab is the area into which you should type your SQL statement. This editing area is completely *freeform* and will automatically wrap text to the next line without a carriage return. You may use either upper- or lower-case letters or a combination of the two. However, and NB! you should be aware of the case requirements of the database management system associated with the database against which you are querying! While Microsoft Access will treat adm='usa' and adm='USA' as equivalent requests, however, Ingres would not. Since most alphanumeric data in the SRS databases is upper-case, the condition adm='usa' would give no results if specified on an Ingres database.

#### **Available Tables and Related Fields Area**

As its name implies, the *Available tables* listbox in the lower left-hand corner of the tab contains the names of all tables contained in the currently selected database; once a database is opened, the contents of this listbox are static. The second listbox, entitled *Related fields* contains a sorted list of all fields, or columns, contained in the table which is currently selected; consequently, as you navigate within the *table* list, the contents of the *fields* list will change.

You may use these two listboxes simply for reference, or you may insert the table and field names into your SQL statement by double-clicking on the desired item. The insertion will take place at the current location of the editing cursor within the edit field.

As an example, if you have just typed "select \* from " into the edit area, and you then double-click on the *com\_el* table name in the tables list, the edit area would then read "select \* from com\_el". Likewise, if you have just typed "order by " on a new line in the edit area and then double-click on the *adm* field name in the *fields* list, the new line would read "order by adm".

Also, by checking the Qualified Insertion box at the very bottom of the tab, all inserted field names will be qualified by their owner table name. Using the previous example when the Qualified Insertion box is checked, if you have just typed "order by " on a new line in the edit area and you then double-click on the adm field name in the fields list (which is associated with the com\_el table), the new line would read: "order by com\_el.adm".

You will also find a Use as a Macro Query box at the bottom center of the tab. Checking this box tells SpaceQry to interpret the contents of the SQL edit area as a multi-step query, or Macro Query. For more information on Macro Queries, see the section entitled SpaceQry Macro Query Facility below. The same information is also available by clicking on the Macro Query Info button located next to the checkbox.

## **SQL Template Area**

In the lower right-hand corner of the tab, you will find a set of radiobuttons that will generate SQL statement templates within the SQL statement area. The desired template, each of which is discussed below, can be inserted into the SQL statement window by clicking on the associated radiobutton.

- Freeform the basic SQL structure: select... from... where... order by...;
- Standard Network the statement framework for a Standard Query;
- **Network Overlap** the statement framework for a *Network-level Overlap Query*:
- Group Overlap the statement framework for a Group-level Overlap Query;
- Frequency Overlap the statement framework for a Frequency-level Overlap Query;
- No Template no template is supplied; the SQL statement area is empty.

The best way to become familiarized with the different templates is to click on the various radiobuttons and observe what partial statement is generated. However, you should be aware that changing templates in the middle of specifying an SQL statement will *overwrite* (i.e., *destroy*) any typing which you might have already done in the statement area!

You will also notice that the *SQL Template* buttons are *not* available when editing an *SQL* statement which has been generated by SpaceQry. This is so you cannot accidently overwrite the statement which contains references to your selected criteria fields. The *SQL Template* buttons are intended for use *exclusively* with the creation of an Adhoc SQL Query.

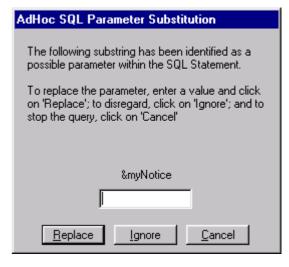
## **Using Parameters in the SQL Statement**

There is often a need for a special SQL query to be repeated several times, each time changing the value of one or more variables. An obvious example of this would be to have a query for which each iteration would require a different notice ID; or perhaps, a change of frequency range. This can be implemented by substituting a variable prefixed by an ampersand character (&) in the appropriate place in the SQL text. The following are two simple examples:

```
select beam_name,emi_rcp, ant_type from s_beam where ntc_id = &myNotice
or
select * from geo where sat_name like '&mySat' order by ntc_id
```

In the first example, the variable &myNotice represents a numeric parameter, and in the second example the variable &mySat represents an alphanumeric, or character parameter.

When an SQL statement containing one or more parameters is executed, SpaceQry will ask you to supply values for each parameter encountered. The figure to the right shows the parameter-substitution window resulting from the first example. At this point you would enter a notice ID value into the text field and then click the pointing device on the *Replace* button. The value would then be substituted and the SQL immediately executed. In the event that an ampersand character is actually part of the data (and, hence, not identifying a parameter), clicking on the *Ignore* button will leave the occurrence exactly as it is. To halt the substitution process and return to the Adhoc Query tab, click on the *Cancel* button



NB, no validation is done on any value entered.

### **Using Special Characters in the SQL Statement**

From time to time, and sometimes without design, a database table can contain unprintable and non-viewable characters such as tabs and line-feeds. As an example, this can easily happen when data is improperly imported into MS-Access from a spreadsheet format. The ability to locate (and correct) such data is not an easy task, even with tools like MS-Access. The *SpaceQry Adhoc Query Facility* has been extended to provide a mechanism to locate this kind of data by the use of two new character functions, **^chr()** and **^hex()**.

The **^chr()** function take as a parameter a numeric value between 1 and 255, and will return the ASCII character associated with that number; e.g., **^chr(8)** will return the tab character or **^chr(10)** will return a *soft* line-feed character, while **^chr(10) ^chr(13)** will return a *hard* line-feed (line-feed followed by a carriage-return).

The **hex()** function is similar, but takes as a parameter any number of valid hexadecimal pairs and returns the associated string of character(s); e.g., **hex(0A0D)** or **hex(0A 0D)**, as above, will return a *hard* line-feed (line-feed followed by a carriage-return).

As an example of usage, suppose you have satellite names in the geo table which contain tab characters. To locate these records you would use either of the following SQL statements:

```
select * from geo where sat_name like `%^chr(8)%'
or select * from geo where sat_name like `^hex(25 08 25)'
```

# The SpaceQry Macro Query Facility

A *Macro Query* as defined by the SpaceQry software, is a query which consists of two or more steps or actions. It is a multi-stage, or multi-step query which is usually defined and used when the desired end results of a query require processing on the results of a previous query (much like the *Macro* facility of MS-Access) - this also usually requires the creation of temporary tables (sometimes called Views). Since it is the nature of SpaceQry to query from SRS and IFIC databases and not update them, all temporary tables are required to be located elsewhere (eg, in temporary databases). Please note that you *will not be allowed to update* any *IFIC or SRS database using the Macro Query facility*.

All macro steps, or statements, must consist of a keyword followed by an equal sign ( = ), followed by the associated command or descriptor, and terminated with a semicolon (;). Each step should be of the following form:

**KEYWORD** = command line or descriptor;

The keyword values are described as follows:

CAPTION

- this indicates text to be displayed in the caption (or title bar) of all subsequent data windows. Typically, this would describe the results of an SQL *select* statement.

**DIRECTORY** - see description of **FOLDER**. **EXECUTE** - see description of **RUN**.

**FOL**DER

- this statement declares a directory or folder to SpaceQry which should be used as a search path for locating files. It, however, does not change the current directory or drive of the system. The format of this statement is one of the following:

FOLDER = SRS; FOLDER = WIC; FOLDER = IFIC; FOLDER = NSL; FOLDER = TEMP;

FOLDER = any valid directory/folder path (eg, c:\my folder\databases);

If the *SRS* descriptor is used, then SpaceQry will set your system's default location for SRS databases\* as the search path.

If the *NSL* descriptor is used, then SpaceQry will set your system's default location for NSL databases\* as the search path.

If the WIC or IFIC descriptor is used, then SpaceQry will set your system's default location for IFIC databases\* as the search path.

If the *TEMP* descriptor is used, then SpaceQry will set your system's default location for temporary databases\* as the search path.

\*These default locations are set on the *Paths* tab of the SpaceQry *Preferences* dialogue.

The user can also specify any *valid* directory or folder path.

#### **IFC**ONTINUE

**IFS**TOP

**INF**ORMATION - this indicates text to be displayed to the user within a pop-up textbox. It can be used to pass instructions, relay directions, or to indicate formatting, etc.

**PAR**AMETER - this keyword specifies an in-line parameter substitution which will take place when the macro query is run, and is, in fact, an extension of the parameter substitution used in the *Adhoc Query* facility of SpaceQry This macro step should be in the form:

```
PAR=Aaa=bbb;
or PAR=Aaa=?;
```

where *Aaa* is the parameter name and *bbb* is the parameter value to be substituted. The *Macro Query* processor will look for all subsequent occurrences of the string & *Aaa* within the macro code, and substitute the value *bbb*. NB, the substitution search on parameter name is *case sensitive*; so, as in the format statement referred to above, *AAA* would not be recognised in a search for *Aaa*. When the form *Aaa*=? is used, as with normal *Adhoc Query* parameters, you will be asked to supply the value at run time - the difference here is that the substitution will be implemented globally for all occurrences of & *Aaa* from the point of encounter to the end of the *Macro Query* specification.

For more information on parameter substitution within SQL statements, please see the *Adhoc Query* section of the *SpaceQry Query Guide*.

#### REMARK

- this denotes a documentational comment. All text after this keyword and up to the next semicolon will be ignored when the macro query is run.

**RUN** 

- this statement will run or execute an external program. You may also, optionally, specify the program with parameters. Unless the program is in the search path, the file name should be fully qualified. Some examples of this statement are:

RUN=notepad.exe c:\br\_soft\data\mystuff.txt; RUN=c:\program files\my software\myProg.exe myParam1, myParam2;

SQL

- this statement indicates text to be used as an SQL statement. It can include any number of parameters as specified in the *Adhoc Query* section of the *SpaceQry Query Guide*. Each parameter which is not referenced in a PARAMETER statement prior to its occurrence, will be identified by the *Adhoc Query* processor when the macro query is run, and the user will be asked to supply a value for it.

#### **WOR**KDB

- this is a special form of the PARAMETER statement which is required if the *Macro Query* requires interim results (ie, intermediate tables) to be written. SpaceQry will not allow a user to update the data within an SRS database, so if a *Macro Query* is to perform a query on the results of a previous query, then the results of the first query must be written into a *working database*. The format of this statement is one of the following:

```
WORKDB = auto;

WORKDB = ?;

WORKDB = fully qualified database file name (eg, c:\temp\mydb.mdb);
```

If the *auto* descriptor is used, a temporary file will be created by SpaceQry (as needed) and then deleted at the end of the process.

If the question mark (?) descriptor is used, the *Macro Query* processor will ask the user to browse and specify the work file when the macro query is run. This file

will not be deleted automatically. This option will be useful when the user wants the results of a macro query to be stored in a database for other uses.

Obviously, the user can specify a file name for the WORKDB as well. This database file need not exist before the query is run; if not found, SpaceQry will create it at run time.

#### **YNB**OX

- this is a special statement that will produce a dialogue box with Yes/No options. The result of the YesNoBox is a Boolean (represented with the keyword *REPLY*) which can be tested. The format of the statement is as follows:

YNB=text to be inserted into dialogue box;

Both of the following examples of this statement will display a dialogue box asking the user if they wish to continue. If a 'no' is returned, then the macro terminates. Although both forms are essentially equivalent, the second differs in that the test for the value of *REPLY* can appear later in the macro:

IFC=YNB=No results are found. Do you wish to continue?;

or

YNBOX= No results are found. Do you wish to continue?; IFC=REPLY=TRUE

# Working Example: Compute expiration of validity (supply target date at run time)

The following lines represent an actual *Macro Query* which is being used in the BR. The lines represented in blue are macro steps, and the lines represented in red are comments on the macro step immediately preceding them, and hence, should not be used in the *Macro Query* specification.

**rem=**This query extracts all notices which have at least one frequency group whose validity will expire based on a date which is supplied at run time;

for documentation only: remarks are ignored at run time...

info=NB: Always remember to specify a new database!;

prompt to the user at run time...

#### workdb=?:

The user will be allowed to select output database at run time...

info=Remember to always specify dates as YYYY/MM/DD, eg., 2002/05/25;

prompt to the user at run time...

sql=SELECT adm , ntwk\_org , c.ntc\_id , sat\_name , grp\_id, d\_inuse , prd\_valid,
DateAdd('yyyy',prd\_valid,d\_inuse) AS d\_Validity, #&TargetDate# AS d\_Target INTO validityWork IN
'&workdb' FROM com\_el AS c, grp AS g WHERE ntc\_type='G' and ntf\_rsn='N' And c.st\_cur='50' and
c.ntc\_id=g.ntc\_id and prd\_valid Is Not Null ORDER BY adm, ntwk\_org, c.ntc\_id, grp\_id;

The SELECT INTO query creates the table *validityWork* in the work database. The user will be asked to supply the *TargetDate* value at run time...

**sql=**SELECT \* INTO validity IN '&workdb' FROM validityWork IN '&workdb' WHERE d\_validity<d\_Target ORDER BY adm, ntwk\_org, ntc\_id, grp\_id;

The SELECT INTO query creates the table validity in the work database...

cap=All Groups Found in Validity Table;

Specifying a caption for the display of next select statement...

sql=SELECT \* FROM validity IN '&workdb' ORDER BY adm, ntwk org, ntc id, grp id;

This query displays all groups from the validity table in the work database...

ifc=ynbox=Do you wish to produce a sample group listing (first group found for each network)?;

Asking if user wants to produce 2<sup>nd</sup> result.

If user answers "no", processing stops, if "yes", the macro continues...

cap=First Group Encountered for Each Network Found in Validity Table:

Specifying a caption for the display of final select statement...

sql=SELECT [adm], [ntwk\_org], [sat\_name], first([ntc\_id]) AS noticeID, first([grp\_id]) AS grpID,
first([d\_inuse]) AS d\_\_inuse, first([prd\_valid]) AS prd\_\_valid, first([d\_Validity]) AS d\_\_Validity FROM
validity IN '&workdb' GROUP BY [adm], [ntwk\_org], [sat\_name] ORDER BY [adm], [ntwk\_org],
[sat\_name];

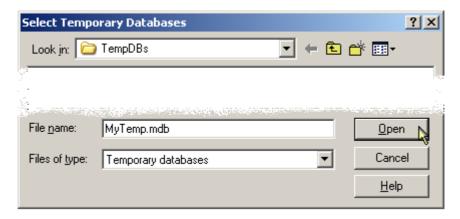
This query displays the first group encountered for each network in the *validity* table in the work database...

## An example of the results for this query (using a date of 31 October 2003) is as follows:

When executing this Macro Query, the user is first reminded to always select a new database file:



The user then selects a temporary database file:



And then confirms that the database file should be created:

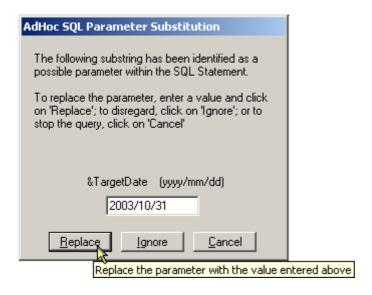
:



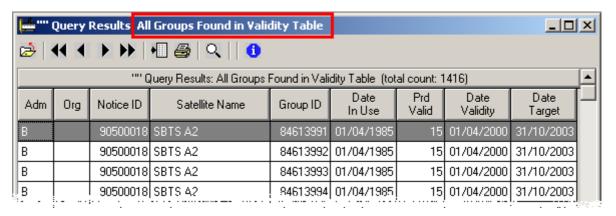
A friendly reminder is given to assure the correct date format:



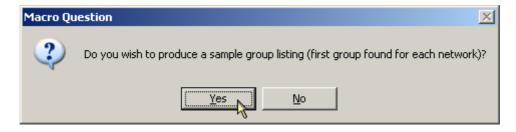
Then the date parameter is requested and supplied to the query:



The Macro Query executes the first three SQL statements as defined and then produces the first report with the specified caption in the title bar:



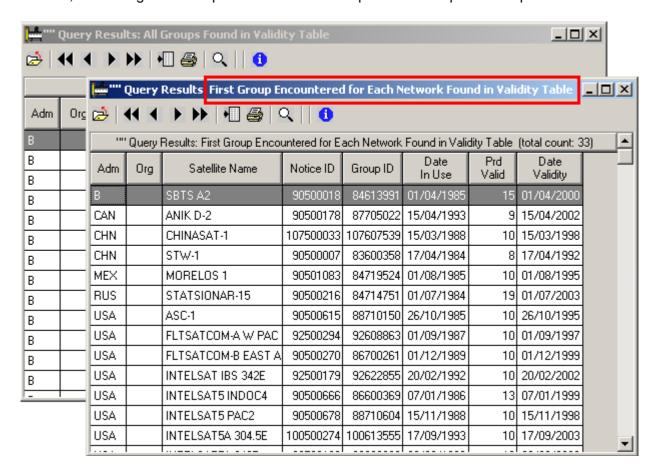
After producing the first report, the user is asked if the second report is desired:



Answering "No" at this point will stop the processing with only the first report produced:



However, answering "Yes" will produce the second report with the specified caption in the title bar:



As with all other query types the results of *Macro Queries* can be printed; saved as html or text files; exported as MS-Excel spreadsheets; or exported as MS-Access database tables.

# A Special Note For BR Internal Users: Using the Macro Facility With Ingres

The Macro Facility can also be used on the Ingres SNS databases; there is, however, a major exception to the description above which can actually make the creation of temporary tables easier. Ingres does not allow the direct export (or import) of data to external databases - this implies that temporary tables *must* reside in the Ingres database itself, and this can be accomplished by creating the desired temporary tables using the *DECLARE GLOBAL TEMPORARY TABLE* clause. The format of the declare statement is as follows:

DECLARE GLOBAL TEMPORARY TABLE session.newTable AS Select statement ...
ON COMMIT PRESERVE ROWS WITH NORECOVERY;

The *select* statement can be any normal SQL select statement as would be used in an INSERT statement, but <u>cannot contain the SORT BY clause</u>. The special qualifier <u>session</u> is required to tell lngres that the temporary table will be associated with the current logon-on session, and as such, will be automatically deleted when the user logs off of lngres. With this in mind, the above example for an lngres based <u>Macro Query</u>, would translate to the following:

**rem=**This query extracts all notices which have at least one frequency group whose validity will expire based on a date which is supplied at run time;

for documentation only: remarks are ignored at run time...

info=Remember to always specify dates as YYYY.MM.DD, eg., 2002.05.25;

prompt to the user at run time...

**sql=**DECLARE GLOBAL TEMPORARY TABLE session.validityWork AS SELECT adm, ntwk\_org, c.ntc\_id, sat\_name, grp\_id, d\_inuse, prd\_valid, DateAdd('yyyy',prd\_valid,d\_inuse) AS d\_Validity, '&TargetDate' AS d\_Target FROM com\_el AS c, grp AS g WHERE ntc\_type='G' and ntf\_rsn='N' And st\_cur='50' and c.ntc\_id=g.ntc\_id and prd\_valid Is Not Null ORDER BY adm, ntwk\_org, c.ntc\_id, grp\_id ON COMMIT PRESERVE ROWS WITH NORECOVERY;

The DECLARE TEMP.statement creates the table session. *validityWork* in the Ingres database. The user will be asked to supply the *TargetDate* value at run time...

**sql=**DECLARE GLOBAL TEMPORARY TABLE session.validity AS SELECT \* FROM session.validityWork WHERE d\_validity<d\_Target ORDER BY adm, ntwk org, ntc id, grp id ON COMMIT PRESERVE ROWS WITH NORECOVERY;

The DECLARE TEMP... statement creates the table *validity* in the Ingres database...

sql=SELECT \* FROM session.validity ORDER BY adm, ntwk\_org, ntc\_id, grp\_id;

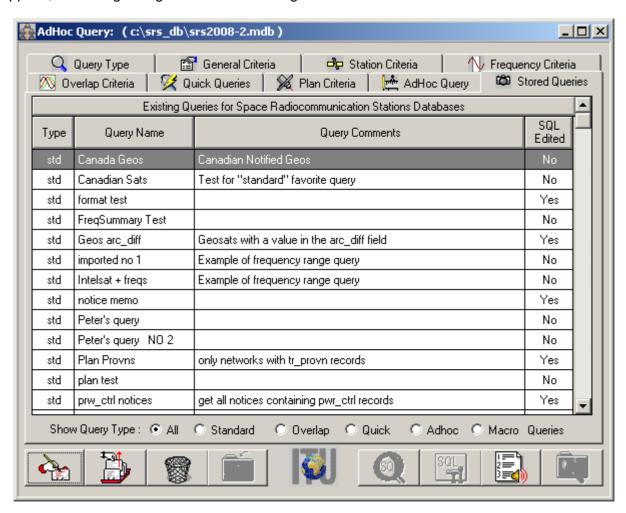
This query displays <u>all</u> groups from the *validity* table in the work database...

**sql=**SELECT [adm], [ntwk\_org], [sat\_name], first([ntc\_id]) AS noticeID, first([grp\_id]) AS grpID, first([d\_inuse]) AS d\_\_inuse, first([prd\_valid]) AS prd\_\_valid, first([d\_Validity]) AS d\_\_Validity FROM session.validity GROUP BY [adm], [ntwk\_org], [sat\_name] ORDER BY [adm], [ntwk\_org], [sat\_name];

This query displays the first group encountered for each network in the *validity* table in the work database...

# The Stored Queries Tab

The Stored Queries tab contains a list of all queries which you have saved using the SpaceQry software package. For each of these query specifications, the list displays the query type (standard, overlap, quick, or adhoc), the query name and any associated comments you may have supplied, and a flag telling whether or not the generated SQL statement has been modified.



## **Selecting a Stored Query Specification**

To select, or *recall* one of your stored query specifications, you may do one of the following:

- using your pointing device, double-click on the desired row;
- using your pointing device, click on the row and then on the select button which is located on the left side at the bottom of the Query Criteria window;

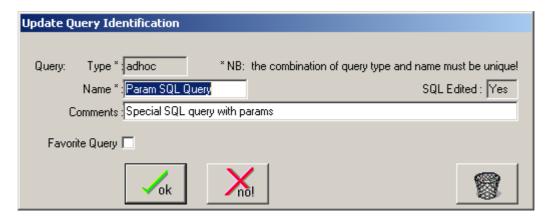
In each case, the stored query specification data relating to the selected query will be "loaded" into all of the relevant criteria fields. In the case of Adhoc queries and all "SQL-edited" queries, SpaceQry will automatically load and display the Adhoc Query Tab displaying the stored SQL statement. At this point, you may immediately issue the query or change any of the criteria fields (or the SQL statement) before querying.

### **Deleting a Stored Query Specification**

To delete a stored query specification, select the desired query row in the table and either click on the delete button which is located on the left side at the bottom of the Query Criteria window, or type Alt+D (the hotkey for the *Delete* button). You will be asked to confirm the deletion.

### Modifying a Query Specification's Name or Description

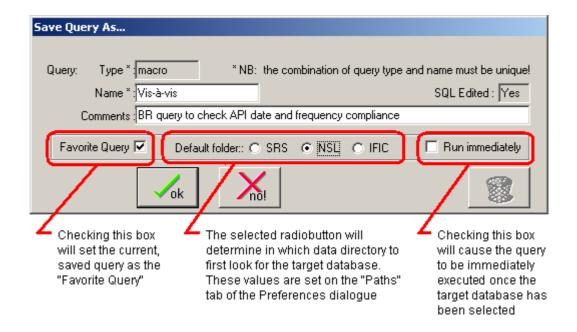
To modify the name and/or description of a stored query, select the desired query row in the table and either click on the Edit button which is located on the far left side at the bottom of the Query Criteria window, or type Alt+I (the hotkey for the Edit Info button). SpaceQry will respond by displaying the following dialogue:



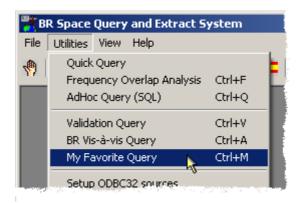
After modifying the contents of the *Name* and/or *Comments* fields, click on the button to make the modifications to the query specification or on the button to ignore the changes. Selecting the Delete button from this dialogue is equivalent to selecting the Delete button on the Criteria window (see above).

When saving an AdHoc or Macro Query, or saving specific querying values for a Quick Query, on the "Save Query As..." window you will notice a new checkbox entitled "Favorite Query" located just above the "OK" button as shown in the illustration above.

Clicking on this checkbox will toggle 1) the designation of the associated Saved Query as your favorite query and 2) the display of a group of radiobuttons and another checkbox. When Favorite Query is selected, you are then asked for two additional bits of info: the first is to specify where to look for the targeted database. The values SRS, NSL, and IFIC relate to the directories/folders associated with the same values which are set on the "Paths" tab of the SpaceQry preferences dialogue. The second item is to specify whether or not to immediately execute the query. See the illustration directly following for further explanation.

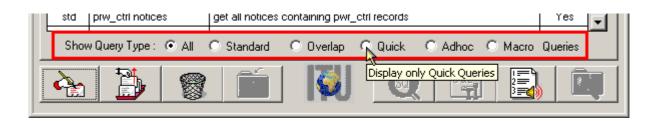


If the Favorite Query box is checked, when the OK button is selected, then SpaceQry will save the information and allow you to later recall and run this query directly by selecting the *My Favorite Query* option from the *Utilities* menu of the SpaceQry shell window as shown below.



# Filtering Saved Queries Based On Query Type

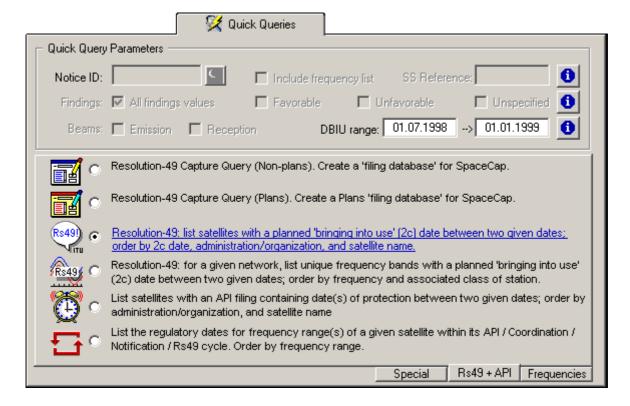
By default all stored queries are shown in the *Saved Queries* list. Over time some users may develop a large collection of saved queries of various types, and in this event, it may be desireable to filter the display of saved queries. You will find a series of radio buttons at the bottom of the *Saved Queries* Tab, located just above the action buttons. These buttons allow you to filter the list of queries based on their query type. For example, clicking on the *Quick* button will cause SpaceQry to display only your saved Quick Queries in the list.



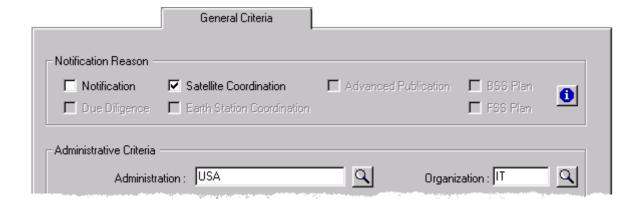
# **Querying Examples**

### Quick Query Example: Resolution-49: Satellites in a 2C Date Range

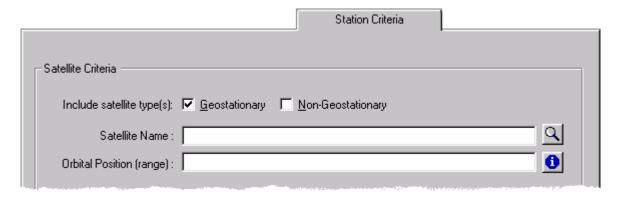
Display all USA/IT geostationary satellites which are in coordination and which have frequencies with an associated date of bringing-into-use between July 1<sup>st</sup> 1998 and January 1<sup>st</sup> 1999.



First, enter the two date range values into the date range fields as shown above. The dates should be entered in your local (short date) format;

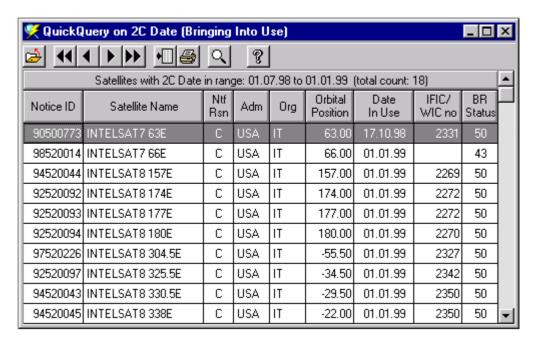


Next, on the *General Criteria* Tab, select the Satellite Coordination checkbox; enter USA into the Administration edit field; and then enter IT into the Organization edit field as shown above.



Lastly, on the Station Criteria Tab, select the Geostationary Satellites checkbox. Note that you could further restrict your search by entering a value for either Satellite Name or Orbital position range on this tab as well.

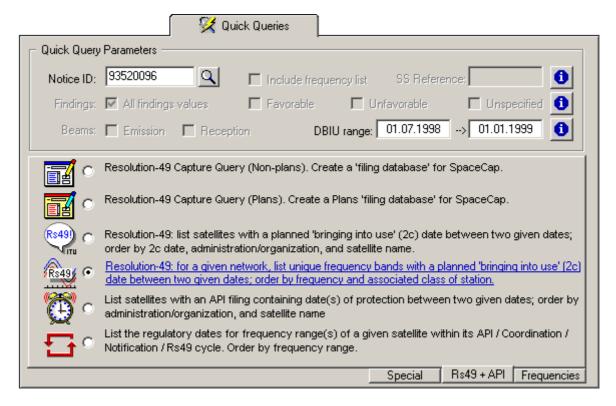
To execute the query, click on the query button or type Alt+Q. This query request will yield the following result:



As with all SpaceQry detail windows, this information can be printed and/or saved as either Fixed-length or Delimited Text

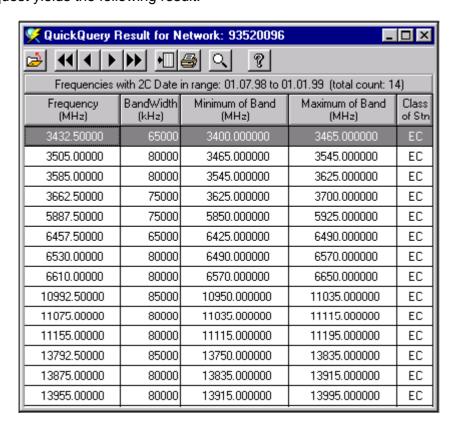
### Quick Query Example: Resolution-49 Frequencies in a 2C Date Range

Display all (Resolution-49 related) frequency bands for the Network 93520096 which have an associated date of bringing-into-use between July 1<sup>st</sup> 1998 and January 1<sup>st</sup> 1999.



Enter the network ID and two date range values into the date range fields as shown above. The dates should be entered in your local (short date) format;

This guery request yields the following result:

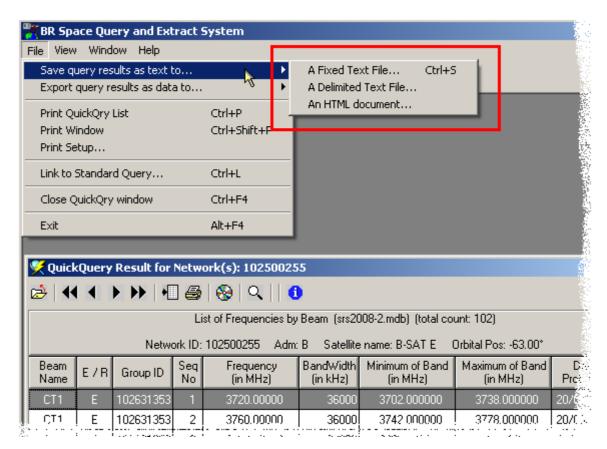


# **Using the Query Results**

In addition to printing the results of a query, or printing a snapshot of the query-result window, there are several ways to export or save the results of a query for archiving or for importing into other programs or documents.

### **Exporting Query Results As Text**

Query results can be exported as text to fixed text files (possibly to be used as input files to other programs); to delimited text files (to be used as import files for spreadsheet programs); or to HTML files (to be displayed with an Internet browser or inserted into an e-mail or other document). To save the query results as text, select the desired option from the *Save query results as text...* item fround in the *File* menu as shown below:



## Saving as a fixed or delimited text file

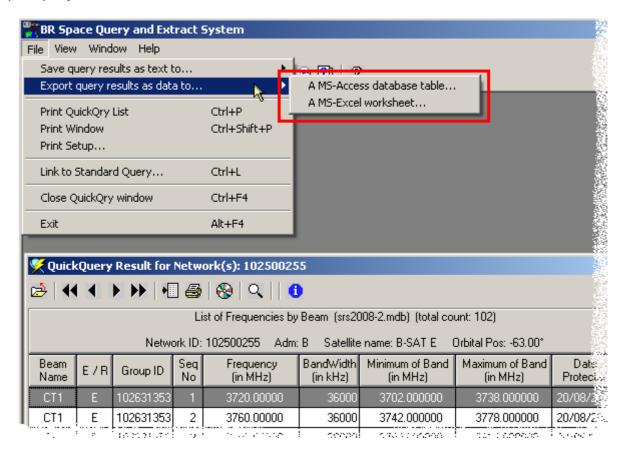
To save the results to a text file, from the *File* menu of query results display, select the *Save query results as text to:* A fixed/delimited text file option. This will produce the results in either a fixed-length format for use, as an example, as input to a FORTRAN program; or in a (semicolon) delimited format for importing into a spreadsheet document. If the target file does not exist, *SpaceQry* will create it. If the file already exists, *SpaceQry* will ask if the existing data in the file should be overwritten or appended to.

#### Saving as an HTML document

To save the results to an HTML document, from the *File* menu of query results display, select the *Save query results as text to:* An HTML document option. This will produce the results in HTML format, save them under a specified document name, and (optionally) display them in your default Internet browser.

### **Exporting Query Results As Data**

Query results can also be exported as data to MS-Excel spreadsheet files or to other database tables within a MS-Access database. To do either of these, select the desired option from the *Export query results as data to...* item found in the the *File* menu as shown below:



#### Exporting as a database table

To save the data into a database table, from the *File* menu of query results display, select the *Export query results as: A MS-Access database table* option, SpaceQry will respond by asking you to select a target database; if the database does not exist, it will be created for you, and if it does exist, you will be asked to verify your request. The new table name will be in the format: xxxxx\_yyyymmdd\_hhmmss, where xxxxx is either the query type (Overlap, Quick or Adhoc) or the source table mnemonic in the case of a Standard Query (Network, Group, etc.) and yyyymmdd and hhmmss will be the date and time of the query, respectively. An example using the above illustration would be *Quick\_20080315\_112804*.

#### Exporting as a spreadsheet

To save the data into MS-Excel, from the *File* menu of query results display, select the *Export* query results as: A MS-Excel worksheet option, as shown in the illustration above. This will produce the results as a unique worksheet within a new or existing MS-Excel file. The name of the new worksheet will be of the format xxxxx\_yyyymmdd\_hhmmss, where xxxxx will be the type of query (quick, adhoc, etc.) and yyyymmdd and hhmmss will be the date and time of the query, respectively. SpaceQry uses the ITU software package *IWRocket* to produce the MS-Excel file. This software can be installed from the SRS-on-DVDROM or downloaded from the SpaceQry website.

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