How Query Works

A database query works by attempting to match some or all of a search item to data in the database. Search items are also referred to as "keywords". Because the user does not always know the entire sought-after item, the Agave SPS query is designed so that it can use a mere fragment of a search item to locate all records that contain that fragment.

For example, you may want to find an image from your last field trip to Tahiti. You know that it includes palm trees and people launching a canoe, but you cannot recall the exact wording of the caption. To find the image, you could use "Tahiti" as a keyword. However, if you shot 40 rolls of film in Tahiti, the query will yield many images. Consequently, you will need excessive time to scroll through a vast number of images before you locate the one you seek.

Whenever possible, try to narrow your search by supplying as much information as you can to the query. To help you define your search, Agave SPS supports the use of the "wildcard" symbol "**..**", equivalent to the logical AND operator (i.e. *this* AND *that*) and the logical OR operator (i.e. either *this* OR *that*). In the Tahiti case, you could enter **tahiti..canoe** as the search criteria for the caption field. This entry narrows the search to only the captions that include both "Tahiti" and "canoe". The wildcard "**..**" means that the query targets any record that contains both of these words (e.g., tahiti AND canoe), regardless of any words or spaces which may occur between them.

As another example or narrowing a search, suppose that you want to find all images that have both a vertical orientation and a caption with the word "rainbow." You need only to type *rainbow* in the caption field and *V* in the orientation field of the query form and then execute the search.

Field Types

Each field in a query form is a specific type. Alphanumeric fields accept almost anything whereas other fields accept only certain kinds of data such as dates or currency values. As you move from field to field within a query form, the system shows the field type in red at the top of the form. Each field type allows specific query operations and wildcards. The field types and the query operators available for each are as follows.

Alphanumeric

An *alphanumeric* field accepts and displays any combination of numbers and letters. The term is derived from **"alpha"** (alphabet) and **"numeric"** (numerical), hence the name.

Date

A *date* field accepts only a numerical entry in the form of a date value, e.g., 6/5/02 or 02/20/2003.

When you execute a query using a date, first enter a date range in the *From* and *To* fields. If you want only a single date, enter the same value in both fields. Date fields in the query forms require the default windows short date regional format. The U.S. date format is *mm/dd/yy*.

Dates before the year 2000 require a four-digit entry for the year. Agave SPS interprets 4/10/99 as 2099, not 1999. Entering an invalid date or invalid range results in an error.

Currency

A *currency* field accepts only numerical values. These can have a decimal and therefore either $200 and $200.00 are, for example, valid currency values. Entering an invalid currency value results in an error.

Query Operators

Query operators enhance the search capabilities of a query. The various operators available in Agave enable exact pattern matches, use of wildcard characters (used to combine keywords for matches), and use of logical combinations of keywords.

Pattern Operator

Finds exact pattern matches.

Example: @@@A@@@@@@@@@.

If this pattern were used as the criterion in the ID number field, the query would extract only the values that comprise exactly 12 characters with the letter "A" in the fourth character position, such as "GCBA-0002-00." Use this operator to either find the first dupe of a set or the ID numbers of all images shot by one photographer (where all ID numbers have one character that is unique to a photographer).

Wildcard operator

Type "**..**" (two periods) between keywords. The two-period wildcard is equivalent to the logical AND operator.

Example: tahiti**..**canoe

In this example, the wildcard targets all records that contain both "tahiti" and "canoe" in the designated field.

OR operator

Used to include a variety of criteria in the search

Example: Aspen OR Maple OR Oak

In this example, the query targets all records that contain any one of these keywords.

Quote Operator

Enclosing a keyword in double quotation marks generates a query that targets only exact matches. A good place to use this operator is the *Status* field. If you enter IN surrounded by quotes, "IN", you exclude values that consist of more than this two-character sequence. In contrast, if you enter IN without quotation marks, the query would target, for example, the submission number WEIN0005, which is not an exact match.

NOT Operator

Use this operator to exclude items from your search. It can be used alone or in conjunction with the *OR* operator or the *wildcard*.

Example: **not** rainbow

When used with the *wildcard* or the *OR* operator, make sure to precede *not* with a comma and space: e.g., grand canyon..yavapai**,** **not** rainbow. No more than two **not** values can be used per field, e.g., **not** rainbow, **not** snow.