

## Virtu - Search Help

### **Terms**

A query is broken up into terms and operators. There are two types of terms: Single Terms and Phrases.

A *Single Term* is a single word such as "Vancouver" or "water".

A *Phrase* is a group of words surrounded by double quotes such as "student loans".

Multiple terms can be combined together with Boolean operators to form a more complex query.

### **Boolean Operators**

*Boolean operators* allow terms to be combined through logic operators. FRED supports AND, "+", OR, NOT and "-" as Boolean operators. Note that Boolean operators must be *ALL CAPS*.

The AND operator is the default conjunction operator. This means that if there is no Boolean operator between two terms, the AND operator is used. The *AND* operator matches documents where both terms exist anywhere in the text of a single document.

To search for documents that contain both the words "air" and "pollution", you can therefore just use the following search: **air pollution**. The "AND" will be automatically included to search for both terms.

To search for documents that contain two terms, such as the term "air pollution" and the term "health" in one document, use the queries joined with an AND: **"air pollution" AND "health"**

### **"OR"**

The OR operator links two terms and finds a matching document if either of the terms exist in a document.

To search for documents that contain either "air pollution" or just "pollution" use the query: **"air pollution" OR pollution**

### **"+"**

The "+" or required operator requires that the term after the "+" symbol exist somewhere in a the field of a single document.

To search for documents that must contain "air" and may contain "pollution" use the query: **+ air pollution**

### **"NOT"**

The NOT operator excludes documents that contain the term after NOT.

To search for documents that contain "air pollution" but not "noise pollution" use the query: **"air pollution" NOT "noise pollution"**

Note: The NOT operator cannot be used with just one term. For example, the following search will return no results: **NOT "noise pollution"**

“-”

The "-" or prohibit operator excludes documents that contain the term after the "-" symbol.

To search for documents that contain "air pollution" but not "noise pollution" use the query: **"air pollution" - "noise pollution"**

## Grouping

FRED supports using parentheses to group clauses to form sub queries. This can be very useful if you want to control the boolean logic for a query.

To search for either "benefits" or "security" along with "seniors" use the query:  
**(cake OR pie) AND apple**

This search will find documents in which "seniors" must exist and either the term "benefits" or "security" may exist.

## Term Modifiers:

### *Wildcard Searches*

FRED supports single and multiple character wildcard searches within single terms (not within phrase queries).

To perform a *single character* wildcard search use the "?" symbol. This search looks for terms that match the search term with a single character replaced. For example, to search for *text* or *test* you can use the search: **te?t**

To perform a *multiple character* wildcard search use the "\*" symbol. This search looks for 0 or more characters in place of the wildcard symbol. For example, to search for *test*, *tests* or *tester*, you can use the search: **test\***

You can also use the wildcard searches in the middle of a term. For example, **te\*t**.

Note that you cannot use a \* or ? symbol as the first character of a search.

### *Proximity Searches*

This search may be used to locate words which are a within a specific distance from each other. To do a proximity search use the tilde, "~", symbol at the end of a Phrase. For example to search for a "student" and "loans" within 10 words of each other in a document use the search: **"student loans"~10**