Patent Search Tutorial and Strategies

For patent searches, you will be using the United States Patent and Trademark Office’s (USPTO) online patent database.

Link:  [http://patft.uspto.gov/netahtml/PTO/search-adv.htm](http://patft.uspto.gov/netahtml/PTO/search-adv.htm)

This database contains all of the issued patents between 1790-Present, there is a separate database for patent applications, but we do not use it as we do not consider candidates with only patent applications, patents pending, provisional patents, etc. We deal solely with issued U.S. patents.

On the home page, you’ll notice the Query box, which is where you’ll type in what you’re looking for, the Select Years drop down box, which lets you choose the year range of your patent search. You have two options; 1976-Present or 1790-Present, which is also the entire patent database and is only searchable by the specific patent number, issue date or current classification. You will mostly deal with the 1976-Present selection, so leave that as a default. You will also notice the red tabs at the top of the page, those will lead you to other areas of the USPTO’s web page, so they’re not of much use here. To the right of the box are some example query inputs.
Below the query box is a table of field codes, these field codes are what the database uses to determine what content you are looking for, i.e. name, date, city, state, patent number, title, etc. The main field code you will use is IN which is inventor name.

Other field codes you will mostly use include:

IS = inventor state, the state which the inventor was in when the patent was issued

AN = assignee name, the name of the institution or organization that the inventor worked for or was affiliated with when the patent was issued.

PN = patent number, you will enter the specific, 7-digit patent number, this will yield only one result per number.
Let's use the name John Smith as an example.

You input names in the query like this:

IN/Last-Suffix-First-M

So for John Smith, the query will look like

IN/Smith-John

Since John Smith has no middle initial or suffix (i.e. Jr., III) we will leave those out.

These are the first 10 results of the name John Smith. Notice the patent number is listed to the left and the title to the right, patents list themselves with the most recently issued first. Patent numbers are assigned a unique 7-digit number when they are issued.

Searching US Patent Collection...

Results of Search in US Patent Collection db for:
IN/Smith-John 52 patents.
Hits 1 through 10 out of 52

<table>
<thead>
<tr>
<th>PAT. NO.</th>
<th>Title</th>
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<tbody>
<tr>
<td>1 8,618,798</td>
<td>Enhancing signals</td>
</tr>
<tr>
<td>2 8,574,000</td>
<td>Network cable assembly and protective sleeve thereof</td>
</tr>
<tr>
<td>3 8,529,384</td>
<td>Connector locking assembly</td>
</tr>
<tr>
<td>4 8,157,995</td>
<td>Systems for treating water using iron</td>
</tr>
<tr>
<td>5 8,088,441</td>
<td>Direct digital printing methods for textiles</td>
</tr>
<tr>
<td>6 8,010,936</td>
<td>System and method for describing method process using guided architectural decisions</td>
</tr>
<tr>
<td>7 7,933,689</td>
<td>Method for controlling at least one load connected to a primary and a backup power supply</td>
</tr>
<tr>
<td>8 7,897,049</td>
<td>Methods for treating water using iron</td>
</tr>
<tr>
<td>9 7,824,738</td>
<td>Coatings for turbine blades</td>
</tr>
<tr>
<td>10 7,720,576</td>
<td>Intelligent auxiliary power supply system with current and temperature monitoring capabilities</td>
</tr>
</tbody>
</table>
This is the first result of the patent. First you see the patent number along with the issue date, next you see Smith, John (London, GB), the database will italicize the results you search for. Here we see that this particular John Smith was in London, England when the patent was issued and his assignee was King’s College London.

Enhancing signals

Abstract

A method of testing a sample comprising the steps of: applying an excitation to the sample; detecting a response signal from the sample; processing a first part and a second part of the response signal; and determining from the second part of the response signal information with which to enhance the first part of the response signal.

The other names are co-inventors of that patent and all get equal credit for the patent.
So let’s say we want to find a John R. Smith, we would input

IN/Smith-John-R

It should look something like this, keep in mind that patents are being issued every day and the database updates with new patents every so often.

Searching US Patent Collection...

Results of Search in US Patent Collection db for:
Hits 1 through 50 out of 101

Next 50 Hits

Jump To

<table>
<thead>
<tr>
<th>PAT. NO.</th>
<th>Title</th>
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<tr>
<td>1</td>
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<td>2</td>
<td>8,977,374</td>
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<td>3</td>
<td>8,788,402</td>
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<td>8,788,400</td>
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<td>7</td>
<td>8,326,665</td>
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<td>9</td>
<td>8,206,586</td>
</tr>
<tr>
<td>10</td>
<td>8,171,226</td>
</tr>
</tbody>
</table>

One thing to know about the database is that it is very word specific. When we input John Smith, it is literally looking for first name John and last name Smith and nothing else, when we put in John R. Smith the database literally looks for first name John, Middle name R., and last name Smith.

So each of the queries below...

IN/Smith-John

IN/Smith-John-R

IN/Smith-John-Robert

...will yield entirely different results.
So let's take a look at secondary and tertiary (etc.) search terms. First thing we need to know are the quick operators used to connect search terms:

OR: uses one or more terms in the results
AND: specifically uses both terms in the results
ANDNOT: specifically excludes terms in results

Let's say that we now know John R. Smith is in the state of Florida.
The search input will be:

IN/Smith-John-R AND IS/FL

*State searches are in the two letter abbreviation as are other countries.

This yielded only one result. Notice how the name and the state are italicized, as those are the search terms we used.

Now let's say that we know John R. Smith used to work in Georgia and we want to include that in our results.
The input will be:

IN/Smith-John-R AND (IS/FL OR GA)
*the parenthesis are to ensure that “OR GA” stays with the “IS/FL” search term, sometimes the database will interpret that differently than you want it to.

Let’s say that looking through the patents, you find the a particular John Smith has patent under the names John R. Smith and John Robert Smith and that you want to have all of the results included in one page.

You can use the dollar sign ($) as a wildcard symbol, meaning it will look for any result with the search you gave. For example,

IN/Smith-John-R$ would yield

Smith, John R.
Smith, John Robert
Smith, John Reginald
Smith, John Richard
Etc.

IN/Smith-John$, would yield

Smith, John
In the first search we specified that the middle initial started with “R” so it looked for all John Smiths with a middle name or initial that started with “R”.

In the second search we only specified the first and last name, John Smith, so the database included all results that had first and last name John Smith.

So we want to find all of the results for John Robert smith that are in the states of Florida and Georgia.

The input will be:

IN/Smith-John$ and (IS/FL or GA)

<table>
<thead>
<tr>
<th>PAT. NO.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 8,572,300</td>
<td>Trap for crawling insects</td>
</tr>
<tr>
<td>2 8,572,374</td>
<td>Content acquisition system and method of implementation</td>
</tr>
<tr>
<td>3 8,918,922</td>
<td>Multiple piece shower stall</td>
</tr>
<tr>
<td>4 8,265,977</td>
<td>Electronic employee selection systems and methods</td>
</tr>
<tr>
<td>5 8,046,251</td>
<td>Electronic employee selection systems and methods</td>
</tr>
<tr>
<td>6 8,020,494</td>
<td>Anti-roll back assembly with linear magnetic positioning</td>
</tr>
<tr>
<td>7 7,856,410</td>
<td>Simulation enabled retail management tutorial system</td>
</tr>
<tr>
<td>8 7,837,506</td>
<td>Passenger restraint system</td>
</tr>
<tr>
<td>9 7,821,675</td>
<td>Methods and ink compositions for invisibly printed security images having multiple authentication features</td>
</tr>
<tr>
<td>10 7,818,329</td>
<td>Method and apparatus for automatic multimedia narrative enrichment</td>
</tr>
</tbody>
</table>

Be careful, as this will include many other results, for more specific results, it’s best to use

IN/Smith-John-R$ and (IS/FL or GA)
Let’s say you find a result for a John R. Smith in Texas, but you know that he has never been in Texas and want to exclude it from the results.

The input would be:

IN/Smith-John-R$ and (IS/FL OR GA) ANDNOT IS/TX

Results of Search in US Patent Collection db for:
(IN/Smith-John$ AND (IS/FL OR GA)) ANDNOT IS/TX. 48 patents.
Hits 1 through 48 out of 48

Now let’s say that we are looking for another John Smith but we know that he works at Brown University. Brown would most likely be the assignee name because most inventors have their institution pay for the patent application fee and in return the university gets a portion of whatever money is made from the invention.

The search should be:

IN/Smith-John and AN/Brown-University

*You use hyphens for all spaces in the assignee name, title, abstract, etc.

You can also the wildcard symbol for the assignee name or any other search term and you can use it more than once in a search.

IN/Smith-John$ and AN/Brown-University$
Some tips for your search:

- It is a good idea to look up the person you’re searching prior to looking up their patents to get an idea of where they are and where they used to work, companies, etc.
- Always try to find their curriculum vitae or CV, essentially it is a resume for people in academia, it contains all of their school and work history along with any publications, awards or other items. Their CV may or may not contain their patents for you to compare to the USPTO database, but it should have their work history for you to use in your search,
- If a person claims they have or are on a patent but the USPTO database says otherwise, go with the database, it is more official than someone’s claims.
- There will most likely be a case where a patent has misspelled a person’s name (this happens more often than you think it should), if you can verify this be sure to have it included in the search results.
- As a general rule, if the inventor and assignee city do not match, but the states do, then we will count that as their patent.