

Patentics User Guide

Fall/Winter 2011

Jenny Qiu

INTRODUCTION..... 3

RELEVANCY RANKING..... 3

LIMITING THE SEARCH SET 4

 BOOLEAN SEARCH 4

 ADDITIONAL BOOLEAN FILTERS..... 5

 LOGIC OPERATORS 5

 WILDCARDS 5

 SPECIFYING NUMBER OF RESULTS 6

SELECTING FULL-TEXT PATENT DATABASES 6

REVIEWING SEARCH RESULTS 8

PRIMARY SEARCH (1) 8

INLINE PATENT INFORMATION BROWSER (3) 9

PATENT RESULT NAVIGATION (4) 9

SECONDARY SEARCH (5) 9

FULL TEXT VIEW 10

OUTPUT AND DISPLAY OPTIONS (1)..... 10

PATENT CONTENTS (2)..... 11

Introduction

Constructing a precise yet complete patent search query is a difficult task that requires patience and surgical knowledge of the search topic. Searchers must narrow down a large set of patents to a more manageable set via complex joined queries at the risk of creating a too restrictive query that may miss important documents. Each of these patents has equal weight to the others in the set despite some being more relevant to the topic at hand and the order in which these patents are returned is determined by patent file date and not by relevancy. When faced with this situation, the searcher must spend equal amounts of time looking through each patent from the first in the list to the last to determine its relevancy and importance despite some patents not providing any value to the search.

In the classic patent search metaphor, this is like searching for a needle in a haystack. Patentics has a revolutionary technology that will guide a searcher and provide helpful heuristics to indicate important and relevant patents. It is like arming our metaphorical needle searcher with a topological statistical distribution map of possible needle locations in the haystack and also providing a metal detector unit.

Relevancy Ranking

Given a full-text document, Patentics can comprehend this document and proceed to re-rank the entire database according to relevancy to the original. To do this, use the **R** qualifier before a patent number to indicate a re-ranking of a document set.

R/5793757

The screenshot shows the Patentics search interface. At the top left is the Patentics logo with the tagline "We web intelligence, You browse intelligently." and "a division of lexipol". On the right, there is a "Support jenny77|Sign" link. The search bar contains the query "R/5793757" and has a "Search" button. Below the search bar, there are links for "QuickFields" and a dropdown menu for "US Patent & US Application & EP & WO & CN-EN Patent". There are also "Guide" and "Pro" buttons. Below the search bar, it says "Most Relevant 400 results:" and "Fulltext view" with a magnifying glass icon. A table displays the results:

PN	Title	Assignee	Inventors	Class	ICL	Rank
5,793,757	Telecommunication network having time orthogonal wideband and narrowband systems	Telefonaktiebolaget L M Ericsson (publ)	Uddenfeldt; Jan	370	H04B	100%
6,289,221	Mobile radio telephone system	Siemens Aktiengesellschaft	Ritter; Gerhard	455	H04Q	99%
5,901,145	Mobile station handoff between a spread spectrum communications system and a frequency division communications system	Telefonaktiebolaget L M Ericsson (publ)	Sawyer; Francois	370	H04Q	99%
5,974,319	Transmission and reception of signals in a communication systems	Motorola, Inc.	Kotzin; Michael D. Rader; Barry M. Menich; Barry J.	455	H04Q	99%
EP0880831	TELECOMMUNICATION NETWORK HAVING TIME ORTHOGONAL WIDEBAND AND NARROWBAND SYSTEMS	Telefonaktiebolaget LM Ericsson	Uddenfeldt, Jan			99%

The document set in this query is the entire full text database and is re-ranked according to relevancy to the full text of the USPTO patent 5,793,757. Since re-ranking the entire database will result in millions of results, Patentics chooses to only display the top 400 most relevant results by default.

The ranked results provide a guided heuristic plan for the user to evaluate based on importance and relevancy and will save time and effort by bringing to attention the most relevant documents. Instead of spending equal amounts of time on every patent returned by a search query because the order is dictated

by file date, the user can now spend more time on the top results because Patentics has indicated a result as more important to a search.

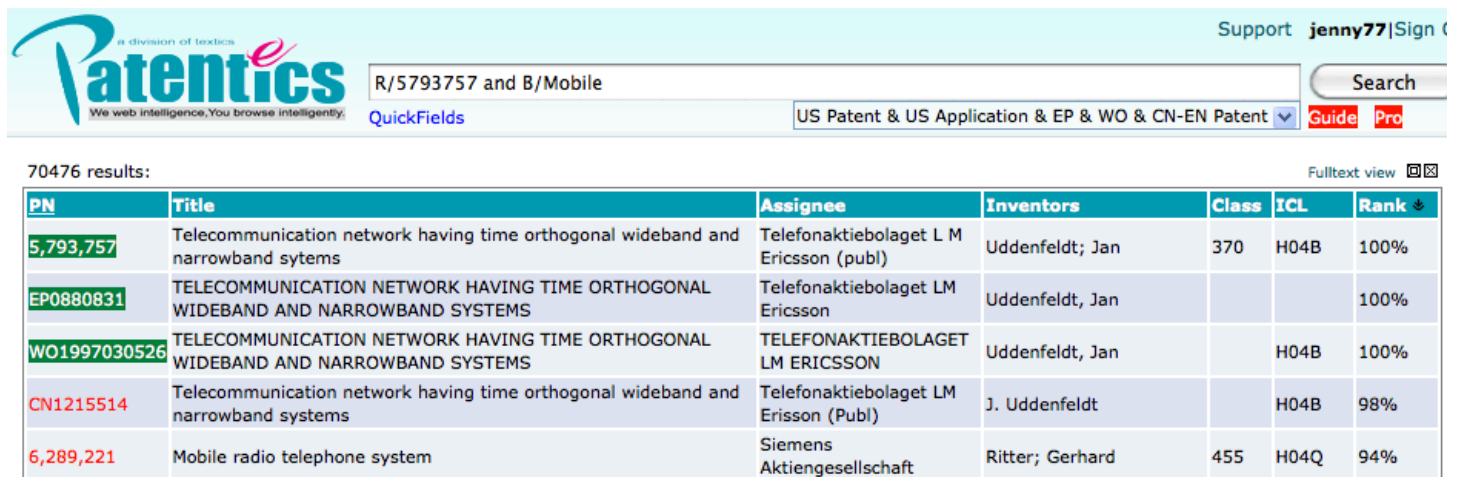
Limiting the Search Set

Without any additional information except for a patent number from the searcher, Patentics is able to comb through the entire database to find the “needle” automatically. To improve the efficiency of the search, the searcher may want to provide some help by roughly indicating what portions of the haystack to pay particular attention and other portions to completely skip. There are a few ways to filter the search set.

Boolean Search

A user can also proactively guide Patentics by providing terms and phrases that must occur in a patent result. To do so, add the **B** qualifier with the desired search term in addition to the re-ranking qualifier.

R/5793757 and B/Mobile



The screenshot shows the Patentics search interface. The search bar contains the query "R/5793757 and B/Mobile". The results section shows 70,476 results. A table displays the top results, including patent numbers, titles, assignees, inventors, classes, ICL codes, and re-ranking percentages.

PN	Title	Assignee	Inventors	Class	ICL	Rank ↓
5,793,757	Telecommunication network having time orthogonal wideband and narrowband systems	Telefonaktiebolaget L M Ericsson (publ)	Uddenfeldt; Jan	370	H04B	100%
EP0880831	TELECOMMUNICATION NETWORK HAVING TIME ORTHOGONAL WIDEBAND AND NARROWBAND SYSTEMS	Telefonaktiebolaget LM Ericsson	Uddenfeldt, Jan			100%
WO1997030526	TELECOMMUNICATION NETWORK HAVING TIME ORTHOGONAL WIDEBAND AND NARROWBAND SYSTEMS	TELEFONAKTIEBOLAGET LM ERICSSON	Uddenfeldt, Jan		H04B	100%
CN1215514	Telecommunication network having time orthogonal wideband and narrowband systems	Telefonaktiebolaget LM Ericsson (Publ)	J. Uddenfeldt		H04B	98%
6,289,221	Mobile radio telephone system	Siemens Aktiengesellschaft	Ritter; Gerhard	455	H04Q	94%

In this example, Patentics first runs a Boolean search for the term “*Mobile*” on the entire full text database, which yields 70,476 results, and all of these results will then be re-ranked according to relevancy to the full text of the US patent. *It is important to note that the user has access to all patents that follow the Boolean search but the returned set will have been re-ordered.*

This allows the user to preemptively and roughly filter the result set to remove unnecessary patents while allowing Patentics to provide its relevancy guidance. In this final step of the needle and haystack metaphor, it is like equipping the searcher with a metal detector, giving him rough visibility into portions of the haystack and allowing him to skip over areas that obviously does not have any metal.

Additional Boolean Filters

Patentics also follows USPTO Boolean search field operations. Below is a list of the most used Boolean search field qualifiers. Any combination of these as well as the keyword search **B** qualifier can be used to construct a query.

TTL/	Title	ABST/	Abstract
ACLM/	Claims	SPEC/	Specification
IW/	Index	FIG/	Figure Description
DI/	Publish Date Filter	DA/	Application Date Filter
ISD/	Publish Date	APD/	Application Date
PN/	Patent Number	APN/	Application Number
AN/	Assignee	ANN/	Normalized Assignee
REF/	US Reference	REFF/	US Reference of Reference
CITE/	US Cited	CITEE/	US Cited of Cited
CCL/	UCL	ICL/	IPC
CCLM/	UCL Main class	REL/	Relevance

Logic Operators

Logic Operators can be used to construct more complex queries to allow for operation chaining.

Operator	Definition	Example Usage	Description
AND	Both operations are present in the patent	ANN/"Microsoft" AND TTL/"Wireless"	Assignee is <i>Microsoft</i> and the title must contain the keyword " <i>wireless</i> "
OR	Any of the operations joined are present in the patent	ANN/"Microsoft" OR TTL/"Wireless"	Assignee is <i>Microsoft</i> or the title contains the keyword " <i>wireless</i> "
ANDNOT	Right operation proceeding the operator is not present in the patent	ANN/"Microsoft" ANDNOT TTL/"Wireless"	Assignee is <i>Microsoft</i> and the title must not contain the keyword " <i>wireless</i> "

Wildcards

Wildcard and proximity search characters are allowed in conjunction with any search operation to increase the flexibility of a query.

Character	Definition	Example Usage	Description
*	Any character, any number of times	TTL/"data*"	Any permutation of the word " <i>data</i> " including the word " <i>datas</i> " in the title field
?	Any one character	ANN/"Micro?"	Any assignee with the name " <i>Micro</i> ", followed by at least one letter, i.e. " <i>Micros</i> "
+	Proximity search	B/"search result+3"	Any patent with the terms " <i>search</i> " and " <i>result</i> " separated by at most three other words anywhere in the patent

Specifying Number of Results

A user can specify that he only wants to see the top X results. To do so, add the **CTOP** qualifier with the number of desired results to the re-ranking qualifier.

R/5793757 and CTOP/200

The screenshot shows the Patentics search interface. The search bar contains the query 'R/5793757 and CTOP/200'. Below the search bar, a dropdown menu is set to 'US Patent & US Application & EP & WO & CN-EN Patent'. The results section is titled 'Most Relevant 200 results:' and displays a table with the following data:

PN	Title	Assignee	Inventors	Class	ICL	Rank
5,793,757	Telecommunication network having time orthogonal wideband and narrowband systems	Telefonaktiebolaget L M Ericsson (publ)	Uddenfeldt; Jan	370	H04B	100%
6,289,221	Mobile radio telephone system	Siemens Aktiengesellschaft	Ritter; Gerhard	455	H04Q	99%
5,901,145	Mobile station handoff between a spread spectrum communications system and a frequency division communications system	Telefonaktiebolaget L M Ericsson (publ)	Sawyer; Francois	370	H04Q	99%
5,974,319	Transmission and reception of signals in a communication systems	Motorola, Inc.	Kotzin; Michael D. Rader; Barry M. Menich; Barry J.	455	H04Q	99%
EP0880831	TELECOMMUNICATION NETWORK HAVING TIME ORTHOGONAL WIDEBAND AND NARROWBAND SYSTEMS	Telefonaktiebolaget LM Ericsson	Uddenfeldt, Jan			99%

The document set is still the entire full text database and is re-ranked according to relevancy to the full text of the USPTO patent 5,793,757 but only after re-ranking has occurred will the top 200 results be returned to the user.

If the user has added some Boolean operations, then the **TOP** qualifier must be used instead of **CTOP** in the same usage pattern. The distinction is that **CTOP** will return the top X results without any filters applied to the result set such that the result set remains complete and **TOP** will also return the top X results after the Boolean filters have been applied to the result set such that the result set is no longer complete.

Selecting Full-Text Patent Databases

Currently, Patentics supports several different full text patent databases. The user can select which ones to search. We update the databases weekly and will be adding in support for new collections. To select databases, use the dropdown select below the search query box.

The screenshot shows the Patentics search interface. At the top left is the Patentics logo with the tagline 'We web intelligence, You browse intelligently.' and 'a division of Lexipol'. The search bar contains 'AN/'general motors'' and the 'QuickFields' button is visible. A dropdown menu is open, showing filter options: US Patent (checked), US Application (checked), EP (checked), WO (checked), CN-EN Patent (checked), World Abstract (unchecked), CN Patent (unchecked), Reference (unchecked), User Document (unchecked), and Shared Document (unchecked). The main results table shows 17211 results with columns for PN, Title, Assign, Inventors, and Class.

PN	Title	Assign	Inventors	Class
8,046,414	Method for accessing email attachments from a mobile vehicle	Gener	amdar; Hitan S. Veliu; ppetim	709
8,041,384	Assigning a local access telephone number to a wireless mobile communication device	Gener	alia; William E. Holt; david A. Gould; Garrett	455
8,027,706	Methods for realizing an in-vehicle ringtone	Gener	. Weisbarth; Robert T. annikka; Matthew R.	455
8,019,500	Vehicle diagnostic interface mechanism	Gener	evitt; Blain F. esterling; Christopher L. Correia; John Hering;	701

Below is a description of some of the different databases.

Database Name	Database Description
CN-EN Patent	Chinese Patents machine translated to English
World Abstract	Abstracts for international Patents machine translated to English
CN Patent	Chinese Patents in original Chinese language
User Document	User-uploaded patent documents

Reviewing Search Results

Search results in Patentics can be viewed in its full text form or inline in the search results page.

The screenshot shows the Patentics search results interface. Callout 1 points to the search bar containing the query 'R/5,793,757'. Callout 2 points to the result count '898'. Callout 3 points to the 'Abstract' tab in the result details. Callout 4 points to the abstract text describing a method for overlaying narrowband and wideband communication systems. Callout 5 points to the search bar at the bottom of the page containing the query 'C/5,793,757 and R/"tdma communication system"'. Below the search bar, a table of 'Most Relevant 400 results' is shown, with the top result being patent 5,793,757 titled 'Telecommunication network having time orthogonal wideband and narrowband systems'.

Primary Search (1)

This search box is where you will execute most of your searches. The main result set is displayed below this search box.

Patent Number (2)

Clicking this will open the patent in full text view. In full text view, you will be able to make notes and comments in the patent that can be shared publicly and also view the original patent authority's HTML version online, if made available. You can also view the figures in line where referenced as well as expandable sections for all patent contents such as description, claims, and references.

The screenshot shows a patent document page for patent 6,011,786. Callout 2 points to the patent number '6,011,786' in the header. The document title is 'Systems and methods for control channel communication in cellular radiotelephone systems'. It includes an abstract, a figure (a diagram of a cellular network with base stations and a mobile telephone switching office), and a list of inventors and assignees. The assignee is Ericsson Inc. (Research Triangle Park, NC).

Inline Patent Information Browser (3)

Clicking on the patent title anywhere in the context of Patentics search results will open the inline patent information browser. Select information tabs are explained in the table below:

Patent Information Tab	Tab Description
Ref	References citing the current patent and cited by the current patent, going 2 levels down
Report	Search report, if any for the patent (i.e. present for EP and CN)
Index	Clustered related terms into four topic categories
Related	Any patents relevant to the current patent along with related concepts
Patentability	Any patents relevant to the current patent and has an earlier file date
Infringement	Any patents relevant to the current patent and has a later file date
Info	Information from EPODOC and Google Searches

Patent Result Navigation (4)

Page through patent search results sequentially or jump to the beginning or end.

Secondary Search (5)

Below the primary search results section, this search box can be used as an independent search area for comparing results or it can be used in conjunction with the master query in the primary search box. There are certain functions and options in the primary browser that will result in a companion search in the secondary browser.

Full Text View

If a user requires a more in-depth view of the patent that includes all claims and descriptions with accompanying figure illustration, Patentics' offers a full text view of the patent. As mentioned in the previous section, clicking on the patent number will open the selected patent in full text.

6,289,369

United States Patent
Sundaresan; Neelakantan

6,289,369
2001-09-11

Affinity, locality, and load balancing in scheduling user program-level threads for execution by a computer system

FIGURE 2

Index
Related

Abstract

Abstract

A technique for dynamically exploiting affinity, locality, and load balancing in scheduling the execution of multi-threaded user programs in a multi-processor computer system. Affinity, locality, and load balancing characteristics are specified at thread creation time and can be dynamically changed during thread execution, either by the user program itself or by any other process or entity with sufficient privileges and information. A central schedule queue and one or more per-processor local schedule queues are used to schedule the threads based on the dynamically changing affinity, locality, and load balancing characteristics.

Header

Inventors: Sundaresan; Neelakantan (San Jose, CA);
Assignee: International Business Machines Corporation (Armonk, NY);
Application Serial No.: 09/140,129
Filed: 1998-08-25

Classification
Reference
Examiner
Claims
Description

Description

BACKGROUND OF THE INVENTION

1. Field of the Invention

The invention relates in general to scheduling on computer systems, and more particularly, to the use of affinity, locality, and load balancing in scheduling user program-level threads for execution by a computer system.

2. Description of Related Art

Multiple processor computer systems are a well known technique for increasing the performance of computer programs. In such systems, computer programs can be executed in parallel by utilizing

Output and Display Options (1)

Icon	Description
	View the patent in the original format, i.e. HTML on the USPTO site
	View the claims
	Save patent to PDF



Expand and show all user comments



Add patent to project

Patent Contents (2)

The full text view has expandable sections. A select few are explained further in the below table:

Section	Description
Figure	Display all figures
Index	4 clustered topics of related phrases that may be cited in the claim or cited in the claim but not the description
Related	400 of the most relevant patents to the current patent as well as related concepts
Abstract	Patent Abstract
Header	Inventor, Assignee, Application Number and File Date
Classification	Patent classification
Reference	Cited patent and non-patent documents of the current patent
Report	Cited patent documents by search examiners
Family	Patent family to which current patent belongs
Examiner	Primary examiner and attorney or agent information
Claims	All claims from the current patent
Description	Includes expandable subsections of Background, Summary, Brief Description of Drawings, and Detailed Description