

Chapter 8. Operators

The following is the description and usages of operators which WIPS online patent search system uses.

When more than one operator is needed, they are applied in the following order.

Order	Operator
1	ADJ, NEAR
2	WITH
3	SAME
4	AND, NOT, NOT SAME, NOT WITH, NOT NEAR, NOT ADJ
5	XOR
6	OR

8-1. Logical Operators (Boolean Operators)

Boolean logic consists of three logical operators: AND, OR and NOT. These are used for searching databases by joining together the search terms (keywords) or phrases. Boolean logic retrieves data, which contain the given search terms regardless of the order of appearance or location.

8-1-1. AND

Format: A AND B

- “&” can be used instead of AND (A & B)
- In this search, the system retrieves documents in which both A and B are present.

The system looks for the presence of search terms in the source database regardless of their location or order.

8-1-2. OR

Format: A OR B

- A blank space between two search terms is considered an OR by default (A B).
- In this search, the system retrieves documents in which at least one of the search terms is present.
- The system looks for the presence of search terms in the source databases regardless of their location or order.

8-1-3. XOR

Format: A XOR B

- In this search, the system retrieves documents in which only one of the search terms is present.
- The system excludes documents that contain both of the search words.

8-1-4. NOT

Format: A NOT B

- In this search, the system retrieves documents that contain A but not B.

8-2. Adjacent Operators

Adjacent Operators include ADJ and NEAR. These operators search for terms that are adjacent to each other, regardless of order, but the search results can be different depending on the settings of search zone or order.

8-2-1. ADJ

Format 1: A ADJ B

Format 2: A ADJ[n] B ex. A ADJ3 B

- *The system retrieves documents that contain both terms in the same sentence.*
- The terms should occur in the order they were entered.

A ADJ[n] B: what is n?

- In this search, n (n=1~99) means the maximum number of words that can

occur between the two search terms.

- **In the case of A ADJ B, n equals 1 (n=1)**
- In other words, n means the distance (number of words including B) between A and B.

e.g.) In the case of “Dynamic Random Access Memory,” the number of words between “Dynamic” and “Memory” is 3. Therefore n=3.

Dynamic \leftrightarrow (n=1) Random \leftrightarrow (n=1) Access \leftrightarrow (n=1) Memory

e.g.) ^ **mobile** ADJ **device** ^

→ In this search, the system retrieves documents containing both terms in the order they are entered such as “mobile device” (where n=1).

e.g.) ^ mobile ADJ2 device^

→ The search terms must occur adjacent to each other, in the same order as they are entered and with maximum 1 word in between. It would retrieve phrases in which n=1 and n=2 such as “mobile device”, “mobile phone device”, “mobile information device”, “mobile communication device.”

e.g.) ^ mobile ADJ3 device^?

→ The search terms must occur adjacent to each other, in the same order as they are entered and with maximum 2 words in between (n=3). It would retrieve phrases in which n=1, n=2 and n=3 such as “mobile device”, “mobile phone device”, “mobile information device”, “mobile communication device”, “mobile camera phone device.”

8-2-2. NEAR

Format 1: A NEAR B

Format 2: A NEARJ[n] B ex. A NEAR3 B

- **The system retrieves documents that contain both terms in the same sentence.**
- In the NEAR search, the two search terms can occur in either order.

A NEAR[n] B: what is n?

- In this search, n means the maximum number of words that can occur between the two search terms (n=1~99).

In the case of A NEAR B, n equals 1 (n=1)

e.g.) ^ mobile **NEAR** camera^

→ Regardless of order, “mobile” and “camera” should occur adjacent to each other with no word in between (n=1).

(For example, the system will retrieve documents containing such phrases as the “mobile camera” and “camera mobile.”)

e.g.) ^ mobile **NEAR2** camera^?

→ The search terms must occur adjacent to each other, regardless of order and with maximum 1 word in between (n=2). It would retrieve phrases such as “mobile camera”, “camera mobile”, “mobile phone camera”, “camera and mobile.”

e.g.) ^ mobile **NEAR3** camera^

→ ‘Regardless of order, “mobile” and “camera” should occur adjacent to each other with maximum 2 words in between (n=3).

(For example, it will retrieve documents containing such as “mobile camera”, “camera mobile”, “mobile phone camera”, “camera and mobile”, “mobile phone with camera.”)

8-3. Truncation: “*” (Asterisk)

The truncation symbol “*” is useful when users do not know the exact spellings of search terms and when searching patents by IPC classification.

The truncation symbol “*” will retrieve any variant spellings or word endings with the desired prefix. Therefore it is different from the symbol “?” explained in the chapter 8-4.

e.g.) When entering F16H* to search for technologies within the F16H classification (in the IPC classification),

Results) F16H-001/00 ~F16H-109/00

All documents under the F16H classification whose technology classification includes IPC code.

e.g.) When searching with car*,

Results) cars / cargo / carnival...

All words that begin with “car”

8-4. Question Mark: ?

- The symbol “?” can be replaced with 1 byte-size character.

e.g.) When searching with “car??”,

Results) cargo / cards / carts...

All five character words that begin with “car.” “??” (two question marks) means 2 character replacements (2 bytes).

8-5. Non-used queries

The following words cannot be used as search queries in the WIPS online patent search system. You will not have search results if you did retrieval with words listed below (Alphabetical order):

a, about, all, among, an, and, are, as, at, be, been, between, both, but, by, do, during, each, either, for, found, form, further, has, have, however, if, in, into, is, it, its, made, make, many, more, most, must, no, not, of, on, or, same, several, some, such, than, that, the, their, these, they, this, those, through, to, toward, upon, used, using, was, were, what, which, while, who, will, with, would

Chapter 9. Structure: Data Fields

WIPS provides KPA, US, JP, EP, PCT, G-PAT, INPADOC and CNPAT data. In cases that each country's bibliographical data have the same INID codes or similar information, WIPS gives the same field names for users to search with the names as queries easier and faster.

* Note: INP-INPADOC, KPA-Korean Patent Abstract, US-United States, EP-Europe, PCT-PCT, CN- China, GPT- Global Patent (4 individual European Countries: CH, DE, FR and GB)

No.	Field	【 Items 】	INP	KPA	PAJ	US	EP	PCT	CN	GPAT
0		All Fields	●	●	●	●	●	●	●	●
1	KEY	Title + Abstract + Exemplary Claim	●	●	●	●	●	●	●	●
2	TI	Title	●	●	●	●	●	●	●	●
3	AB	Abstract	●	●	●	●	●	●	●	●
4	CL	Exemplary Claim			●	●	●			
5	CLN	Number of Claims			●	●				
6	CLA	All Claims			●	●				
7	DSC	Description			●	●				
8	IPCM	IPC (IPC Main)	●	●	●	●	●	●	●	●
9	IPC	IPC (IPC All)	●	●	●	●	●	●	●	●
10	AP	Applicant	●	●	●	●	●	●	●	●
11	WAP	Code of Standardized Applicant			●	●	●	●		
12	APS	Standardized Applicant' Name			●	●	●	●		
13	APC	Applicant Country			●	●	●			●
14	INV	Inventor	●	●	●	●	●	●	●	●
15	INVC	Inventor Country			●	●	●			●
16	PRC	Priority Country	●	●	●	●	●	●	●	●
17	PRN	Priority Number	●	●	●	●	●	●	●	●
18	PRD	Priority Date	●	●	●	●	●	●	●	●
19	DC	Designated Country	●				●	●		
20	AN	Application Number	●	●	●	●	●	●	●	●

No.	Field	【 Items 】	INP	KPA	PAJ	US	EP	PCT	CN	GPAT
21	AD	Application Filing Date	●	●	●	●	●	●	●	●
22	PN	Publication number	●	●	●	●	●	●	●	●
23	PD	Publication Date	●	●	●	●	●	●	●	●
24	A3D	Date of publication A3					●			
25	PDC	Publication of A8 or A9					●			
26	DCN	INPADOC Doc. Number	●							
27	FN	Firm Number (KPA)		●						
28	FD	Firm Date (KPA)		●						
29	RN	Patent Number		●		●				
30	RD	Issue Date EP-B Date		●		●	●		●	
31	UCM	US Class. - main				●				
32	UC	US Class. - all				●				
33	UCCM	US Class. (current - Main)				●				
34	UCC	US Class. (current - all)				●				
35	UCOM	US Class. (original - main)				●				
36	UCO	US Class. (original - all)				●				
37	CC	Country Code	●							●
38	KC	Kind code	●	●	●	●	●	●	●	●
39	IAN	PCT Application Number				●	●			
40	IAD	PCT Pub/Field Dates				●	●			
41	IPN	PCT Pub. Number				●	●			
42	IPD	PCT Pub. Date				●	●			
43	FI	FI Code			●					
44	TC	Theme Code			●					
45	FTC	F-Term			●					
46	REAN	Related Application Number				●	●			
47	REPN	Related Patent Number				●	●			
48	RPN	U.S. Ref. - Patent Number				●				
49	RFN	Backward Reference Count			●	●				
50	OREF	Other reference				●				
51	FPN	Foreign Ref. - Patent Number				●				

No.	Field	【 Items 】	INP	KPA	PAJ	US	EP	PCT	CN	GPAT
52	FCNT	Foreign Ref. - Country				●				
53	AG	Attorney or Agent				●	●	●		
54	EMN	Examiner				●				
55	EC	ECLA Code	●							●
56	NC	National Classification	●							
57	OA	Other Abstract	●							

Examples of Using Abbreviations as Query

1. If you want to do a search with the applicant's name of 'Samsung' and have the word of 'PDP' in the title,

< Figure 1 >

General Search WIPS Patent Search

Please input key-word in the query window below after selecting country and document first.

U.S.
 EP
 PCT
 G-Pat
 JAPAN
 KOREA
 CHINA
 INPADOC

Select Applications (Published Since 15 March 2001)
 Front Page+Exemplary Claim
Select years: All

Collections: Granted Patent
 Fulltext

All Fields
 samsung.ap.and pdp.ti.
 and
(car or auto*) and (Siemens or Hyundai)
 or
 not

As the search result, you will have the scene as shown in Fig.2. If you want to add another conditions of the search, for example, IPC 'h04n', you do not need to go back to the search main. Simply by adding the new conditions as shown below first, and please click the 'Refine Search' button.

< Figure 2>

Search Results WIPS Patent Search

22 words found from 9 documents in total 3821859 documents

(samsung.ap.and pdp.ti)

(samsung.ap.and pdp.ti) and h04n*.ipc. Refine Search Save query

Select Collections [Country : U.S.]

- Applications (Published Since 15 March 2001)
- Granted
- Front Page+Exemplary Claim
- Fulltext

Select years: All

TOTAL : 9 US Appl. : 4 US Grant : 5

Or, you may change the whole query by removing the previous one at this point.

[Specific Date Range and Key Words (at the Same Time)]

e.g.) When you do a search for patents applied by Siemens or Hyundai companies after 1999 and relates to auto vehicles, especially with the word 'navigation' in abstracts, please try as follows:

[\(car or auto*\) and \(Siemens or Hyundai\).ap. and navigation.ab. and @ad>=19990101](#)

[Priority Country and Key Words at the Same Time]

e.g.) If the case is about Japan as the priority country and search for patents related to cellular phones' hinge with the words of 'rotary' or 'rotation' in exemplary claims, specifically, please try as below:

[jp.prc. and \(cellular or mobile\) and hinge and \(rotary or rotation\).cl.](#)

► Examples of Date Specification

- Grant Date as December 1999
199912*.rd.
- Publication Date of January 3, 1996
19960103.ad.
- Application Dates between March 1, 1986 and October 10, 1993 (Year/Month/Day)
@ad>=19860301<=19931010
- Application Dates Since 1997

@ad>=19970101

- Application Dates Before 1997

@ad<=19970101