

Cnipr Retrieval Fields and Operators

I. Retrieval Fields

The Cnipr Chinese platform can retrieve more than 40 fields, and the specific fields are as follows.

Field Name	Aliases
Application Number	an
Filing Date	ad
Publication (Announcement) Number	pnm
Publication Date	pd
Patent Number	pn
Types of Patents	pat
Name	ti
Abstract	abst
Claims	clm
Independent Claim	cl
Description	de
Classification Number	sic
Main Classification Number	pic
European Classification Number	sec
European Main Classification Number	pec
Classification of Categories	
Applicant (Patentee)	pa
Inventor (Designer)	inn
Patent Agency	agc
Agent	agt
Address	ar
Country Code	co
Source of application	apf
International Application	ian
International Publication	ipn
Entry Date	den
Legal Status	law
Patent Status	patstatus
Patent Status Code	patstatuscode
Priority	pri
Priority Number	prn
Priority Date	prd
Family	fa
References	refrens
Original Application Number	dan
Examiner	examiner
Issue Date	issuedate

Publication Year	pdy
Latest Legal Status	

II. Retrieval operators

Operators are an integral part of an expression and are responsible for logically linking multiple retrieval objects together. The retrieval operators for Cnpr comprise the following.

(1) Comparison operator

Symbol	Meaning and function	Examples
=	Equal to	Applicant = Huawei
!=	Not equal to	Applicant != Huawei
>	Greater than	Application number > 2000
<	Less than	Application number < 2000
>=	Greater than or equal to	Application number >= 2000
<=	Less than or equal to	Application number <= 2000

- The compare operator acts on all fields of the cnpr retrieval platform.
- The left value of the compare operator must be a retrieval entry (field name or alias).
- If the retrieval condition is not a single word, but an expression, the expression should be enclosed in parentheses "(" and ")".

(2) Logical operator

Symbol	Meaning and Function	Examples
and	Both must be met simultaneously	China and the United States
xor	Only one of the two can be met	China xor the United States
not	Only the former can occur	China not the United States
or	At least one of the two can be met	China or the United States

The logical operator not only can connect two retrieval words, but also can connect two retrieval sub-expressions, so that a very complex retrieval expression is constructed.

(3) Repeating Logical Operator

Symbol	Meaning and Function	Examples
*=	Retrieves records that meet the same criteria on each field	c1, c2 *= (China and Hong Kong)
^=	Retrieves records that meet the criteria on only one field	c1, c2 ^= (China and Hong Kong)
+=	Retrieves records that meet the criteria at the same time on any field $TI, AB, CLM += (A \text{ and } B) \iff TI = (A \text{ and } B) \text{ or } AB = (A \text{ and } B) \text{ or } CLM = (A \text{ and } B)$	c1, c2 += (China and Hong Kong)

- Repeating logical operators actually perform specified logical operations between fields after they are retrieved with the same criteria on each specified field.
- The left values of the repeating logical operators must be two or more retrieval entries (field names or aliases thereof) separated by a single-byte comma ','. If the right values are not a single word, but an expression on which the operation needs to be performed, the expression should be enclosed in parentheses "(" and ")".

(4) Attribute operator

Symbol	Meaning and Function	Examples
adj	The two adjacent to each other and appear simultaneously one after another	Control adj Devices
equ/n	The two are exactly n positions apart and appear simultaneously one after another	Control equ/5 Devices
pre/n	The two are at most n positions apart and appear simultaneously one after another	Control pre/5 Devices
pre/n#	The two are exactly n positions apart and appear simultaneously one after another	Control pre/5# Devices
pre/pos=n		Control pre/pos = 5 Devices
pre/nL	The two are at least n positions apart and appear simultaneously one after another	Control pre/5L Devices
pre/sen	The two appear simultaneously in the same sentence one after another	Control pre/sen Devices
pre/seg	The two appear simultaneously in the same paragraph one after another	Control pre/seg Devices
and/n	The two are at most n positions apart and appear simultaneously	Control and/5 Device
and/n#	The two are exactly n positions apart and appear simultaneously	Control and/5# Device
and/pos=n		Control and/pos = 5 Devices
and/nL	The two are at least n positions apart and appear simultaneously	Control and/5L Devices
and/sen	The two appear simultaneously in the same sentence	Control and/sen Devices
and/seg	The two appear simultaneously in the same paragraph	Control and/seg Devices
xor/n	Cannot be appear simultaneously within n positions in the same sentence	Control xor/2 Devices
xor/n#	Cannot be appear simultaneously at n positions apart in the same sentence	Control xor/2 Devices
xor/pos=n		Control xor/pos = 2 Devices
xor/nL	Cannot be appear simultaneously beyond n positions in the	Control xor/2L

	same sentence	Devices
xor/sen	Only one can appear in the same sentence	Control xor/sen Devices
xor/seg	Only one can appear in the same paragraph	Control xor/seg Devices

- The distances in the attribute operators eq/n, X/n, X/n#, X/nL and X/pos = n refer to the number of "positions" spaced between two words/phrases, rather than the difference from their first "positions".
- The n in the attribute operators X/sen = n and X/seg = n, both count from 0.
- The attribute operator adj is equivalent to pre/0; equ/n is equivalent to pre/n#.

(5) Equivalent symbol of operators

Writing operators with English words is sometimes cumbersome and can be replaced with the following equivalent symbols:

General Operators	!=	ADJ	PRE	AND	XOR	NOT	OR
Equivalent operators	<>	space	&	*	^	-	+

(6) Wildcard

Symbol	Meaning and Function	Examples
?	Single alphabetic character or Chinese character	Author = Zhang ? Qing
%	Represents 0 to more than one alphabetic character or Chinese character	Author = Zhang %

Wildcards are used for fuzzy search of files. Wildcards for cnipr contain “?” and “%”.

(7) Special key value

Four categories of operators in the TRS retrieval expression:

Category I: '(', ')', '[', ']', ',', '/', '@', '=', '>', '<', '|', '&', '*', '^', '-', '+'.
Category II: 'ADJ', 'EQU', 'PRE', 'AND', 'XOR', 'NOT', 'OR', 'TO', space, function name.
Category III: Fuzzy match operators '%', '?'.
Category IV: Single style quote ''' and escape character '\ '.

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These operators must be specially processed for key value in retrieving requests:

- If the key value contains operators in Category I, it must be quoted with a single style quote or with an escape character. Ex. for key value of date : ', 8', \ \ 8.
- If the key value is in form of Category II, it must be quoted in a single style quote or with an escape character.. Ex.: 'AND', \AND.
- If the key value contains operators in Category III or IV, the escape character is needed..Ex.: 10 \% , \ \.