



## Proximity Searching in PatBase

To make searching as simple as possible in PatBase, a space will search for keywords/terms appearing next to each other, it is therefore not necessary to include proximity operators when searching for phrases.

For example, searching **FT=(artificial intelligence)** will only retrieve records in which “artificial intelligence” occur.

Hyphens, full-stops, commas or other punctuation characters are treated identically as a space.

For example, searching **PA=(New-York Univ.)** is the same as searching **PA=(New York Univ)**.

Search query	Results
PA=(New York Univ)	1,884
PA=(New-York Univ.)	1,884

### Proximity Operators

Use **Wn** in a search to specify that one word must occur within n words of the other in any order. Use **WFn** to only search forward.

For example, searching **apple W5 pear** would retrieve any document that contained apple within 5 words of pear in any order. Whereas, searching **Apple WF5 pear** would retrieve records where apple appears first, and pear will appear within 5 words after apple.

Use **WP** to search keywords within the same paragraph.

It is possible to combine the proximity operators with NOT: **NOTWn**, **NOTWFn**, **NOTWP**.

For example, searching TAC=(3D print\* NOTWP laser) will find patent families where 3D print\* appears anywhere in the TAC, but not if it is within the same paragraph as laser.

## Proximity Rule

Wn/WFn where n is the number of keywords/terms from the term before it in the search query.

Example 1: TA=(planar w1 resist)

Finds both keywords next to each other in any order:

producing a <sup>0</sup>planar <sup>1</sup>resist structure

frictionally <sup>0</sup>resist <sup>1</sup>planar movement

Example 2: TA=(planar w2 resist)

Finds the same as Example 1 but also search terms separated by one additional word, i.e. within 2 words of each other:

parts <sup>0</sup>resist <sup>1</sup>relative, <sup>2</sup>planar separation

the non-<sup>0</sup>planar <sup>1</sup>photo-<sup>2</sup>resist surface

Example 3: TA=(planar w3 resist)

Finds the same as Example 1 but also search terms separated by up to two additional words, i.e. within 3 words of each other:

the electrophoretic <sup>0</sup>resist. <sup>1</sup>The non-<sup>2</sup>planar <sup>3</sup>surface

fluid, <sup>0</sup>planar <sup>1</sup>fins that <sup>2</sup>resist <sup>3</sup>the flow

Example 4: TA=(planar w5 resist) / TA=(planar near resist)

Finds the same as Example 1 but also search terms separated by up to four additional words, i.e. within 5 words of each other:

0 1 2 3 4 5  
a resist film having the same planar shapes

0 1 2 3 4 5  
its planar surface because the RGB resist layers

### Searching multiple terms in proximity

If you would like to combine additional Wn connectors, each proximity operator refers to the proximity to the term preceding the operator.

Example 1: (base w3 station w5 signal)

Broadest interpretation:

0 1 2 3 4  
signal from a base station

0 1 2 3 4 5  
base station receives an uplink signal

0 1 2 3 4 5 6 7  
control signal; and said central station calling said base

Narrowest interpretation:

SNR to base station signal

Example 2: (propeller w2 engine w4 helicopter)

Broadest interpretation:

0 1 2 3 4 5 6 7  
helicopter body, in the front, engine and propeller

Narrowest interpretation:

A helicopter engine and propeller

## Multiple proximity operators

You can search an exact phrase in proximity to a word or another exact phrase.

Example 1: (base station w7 signal)

Broadest interpretation:

radio 0 signal 1 2 to and from a mobile communication 3 4 5 6 base station 7 through

0 base station 1 2, in some embodiments, changes its pilot 3 4 5 6 signal 7 generation

Example 2: (smart phone w4 touch screen)

0 touch screen 1 2 of the 3 smart phone

0 smart phone 1 2 with back side 3 4 touch-screen

## Proximity operators with search query numbers

It is possible to combine previous search steps with proximity operators or a previous search step with new keywords/terms:

#	Search query	Results
4	1 W5 3	5,987
3	TAC=(mobile)	1,709,548
2	1 W3 (smart phone)	193
1	TAC=(touch screen)	111,694