

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: 0 1 producing a planar resist structure

<u>0</u><u>1</u> frictionally resist 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:

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

0 <u>1</u> <u>2</u> the non-planar photo-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:

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

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

> Page **2** of **4** Searching with proximity operators in PatBase <u>support@minesoft.com</u>

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 5a resist film having the same planar shapes

0 <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> its <mark>planar</mark> surface because the RGB <mark>resist</mark> 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 <u>123</u> 4 signal from a base station 0 1 2 <u>3</u> <u>5</u> <u>4</u> base station receives an uplink signal 5 0 1 2 3 4 <u>6</u> 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: <u>2</u> <u>3</u> 1 <u>4</u> <u>5</u> <u>6</u> 7 <u>0</u> helicopter body, in the front, engine and propeller

> Page **3** of **4** Searching with proximity operators in PatBase <u>support@minesoft.com</u>

Narrowest interpretation:

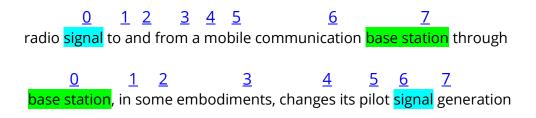
A helicopter engine and propeller

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:



Example 2: (smart phone w4 touch screen)

 $\begin{array}{c|cccc} \underline{0} & \underline{1} & \underline{2} & \underline{3} \\ \hline \textbf{touch screen} & \textbf{of the smart phone} \\ \hline \underline{0} & \underline{1} & \underline{2} & \underline{3} & \underline{4} \\ \hline \textbf{smart phone with back side touch-screen} \end{array}$

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

Page **4** of **4** Searching with proximity operators in PatBase <u>support@minesoft.com</u>