How MS word search and replace?

*Part1 of my search*:

Usually Microsoft Office would use a back end regular expression engine and perform pattern matching**.**

A regular expression is a pattern that the regular expression engine attempts to match in input text. A pattern consists of one or more character literals, operators, or constructs.

Pattern matching in computer science is the checking and locating of specific sequences of data of some pattern among raw data or a sequence of tokens. Unlike pattern recognition, the match has to be exact in the case of pattern matching**.**

*Part2 of my search*:

According to the source code for Word for Windows 1.1a.

 originally it used the Boyer-Moore algorithm. (In that version, the Find ("Search") options were simpler than they are now - you got to specify the search direction, whether or not to search for whole words or not, and whether or not to match upper/lower case, there was a way to specify formatting, and there was some form of wildcard searching.

Boyer–Moore string-search algorithm is an efficient string-searching algorithm that is the standard benchmark for practical string-search literature.

The algorithm preprocesses the string being searched for (the pattern), but not the string being searched in (the text). It is thus well-suited for applications in which the pattern is much shorter than the text or where it persists across multiple searches.

The Boyer-Moore algorithm searches for occurrences of *P* in *T* by performing explicit character comparisons at different alignments. Instead of a [brute-force search](https://en.wikipedia.org/wiki/Brute-force_search) of all alignments (of which there are {\displaystyle m-n+1}), Boyer-Moore uses information gained by preprocessing *P* to skip as many alignments as possible.

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