# What are the applications of a conversion of NFA to DFA automata?

NFAs help us to have a more intuitive approach about certain problems against to DFAs (because it let us to read more than once a character for a given state or have several start-State) some frequent applications are:

- present an Nondeterministic-Finite-Automaton for Union of 2(or any k) DFA by just adding another start state and using 2(k) epsilon-move to any of the DFAs.

-"Thompson Algorithm" that transform any Regular Expression to NFA-epsilon

etc..

and after all of that we can convert the NFA to DFA easily for practical usage.

***Thompson's construction algorithm, also called the McNaughton-Yamada-Thompson algorithm, is a method of transforming a regular expression into an equivalent nondeterministic finite automaton (NFA). This NFA can be used to match strings against the regular expression.— Source-Wikipedia***