Another input to output translation that Lex could be used for, is possibly for translating one programming language into another programming language. This would have to be a very long and very complicated lex program to accomplish this. Some things that would be troublesome are complicated if else structures or dealing with semantic behavior of one language and translating that over to the output language. If rules are written well enough, lex should be able to handle them. It can use many states to keep track of where it is in complicated structures to translate the original accordingly.