A Tokenized Rule Processing System

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ABSTRACT

In examining rule processing in LISP we were struck with the crudeness with which text was treated. We have developed a rule processor in FORTH in which the rules are strings of FORTH words. Undefined words are automatically entered into a text vocabulary. As unknown words are entered into the vocabulary they are tested for the presence of special characters and English constructs such as ending with 's. Words with appropriate construction are designated as one of 255 special classes. Clauses are compared on a word by word basis, each word being tested not only for equality but for synonyms. The processor will automatically equate regular plural and singular words and expand regular possessive forms. Special words allow rules to remember indeterminate antecedents and retain them during the testing of a rule. Articles and similar words are included in the clauses but not tested in matching clauses. Incorporating the syntactic processor into an available inference machine (Park, Mountain View Press) gives a flexible powerful knowledge system.