To generate output representation in response to multiple inputs

Robert K. Oatman, Peter J. Herrera, Remy D. Sanouillet, Charles E. Zimmerman
Yy Software Corporation

Abstract
An integrated system and method for providing a flexible expert system development and runtime environment with an integrated natural language processor and set-oriented knowledge base. The system and process include an input device, a spreading activation module, a reasoning module, a decision module, and a knowledge base. The system and method may also include a natural language processing module. The spreading activation module utilizes the knowledge base, which is set-oriented with named relationships between concepts to traverse the knowledge base efficiently. The reasoning module executes related, nested logic statements which manipulate the complex facts in the knowledge base. The decision module selects the value or values from a list which are most relevant at the moment the module is called. The knowledge base represents all data in a nested, set-oriented manner. The system and method, in turn, produce an output in response to the input or command into the system.

References