Abstract

The process of extraction and transfer of expert knowledge into a computer program that has the ability to make decisions is called knowledge acquisition process and is performed by knowledge engineer through a series of interview process.

However, this process is ineffective because it often can lead to misinterpretation of knowledge; therefore Ripple-Down Rules (RDR) method is developed. Using RDR, experts can perform the knowledge acquisition process by himself without any help from a knowledge engineer. However, the RDR still has a weakness, which is only suitable for problems that require a single classification. Therefore, Multiple Classification Ripple-Down Rules (MCRDR) is developed. It can solve the problem that has multiple classifications and is able to reduce the repetition of knowledge that occurred in the RDR.

Final Project aims to implement MCRDR method includes forming a knowledge base, inference process, and the process of knowledge acquisition. System testing is done to data that has a single classification and multiple classifications.

From the test results can be concluded that MCRDR could be used for single classification and multiple classification data. The sequence of data and location selection for new rules greatly affect the shape and accuracy of the resulting tree.

Keywords: *expert system, knowledge acquisition, MCRDR.*