



TECHNIQUES FOR SPEEDING UP A NETWORK DISTRIBUTION MANAGEMENT SYSTEM

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ABSTRACT—An Electricity Distribution Management System (EDMS) faces one major challenge, to increase the speed of carrying out all types of switching operations on the network interactively and on a number of circuits simultaneously by one or more control engineers. Depending on the size of the circuit, some switching operations may take several minutes, which is totally unacceptable. This paper presents an investigation into how response time can be increased through the development of optimal Electricity network traversing techniques and through the development of appropriate data structures. This paper presents a comparison of the efficiency of these techniques and data structures and identifies the most efficient of these techniques based on experimentation on real data of significant size. We believe that this analysis and the results may benefit some companies involved in the struggle for such optimisation and efficiency.

Key Words: Distribution control centre, electrical distribution network, efficient algorithms, electrical circuit, graphical logical display