Abstract

We present a modified AC scheme for multi-alphabet that offers both encryption and compression. The system utilises an arithmetic coder in which the overall length within the range [0, 1] allocated to each symbol is upheld, but the conventional assumption that the orientation of the symbols remains unchanged throughout the process is removed. The
encryption and compression can be carried out simultaneously, by rotating intervals that are invoked by a rotation key without affecting the efficiency. The proposed methodology also facilitates a direction key to make the rotations in either direction.

Reference


Key terms

Computer Science

Information Technology

Arithmetic coding

Cryptography

data compression
rotation