Abstract

This thesis focuses on the problem of efficient management of data useful in DNA analysis, specifically data obtained from short tandem repeats in human DNA, which are of key importance in forensic analysis for the identification of individuals. The thesis presents the design and implementation of a system for the management and visualization of these data from the Czech population, obtained by the Institute of Criminalistics of the Police of the Czech Republic. The main goal was to transform existing data sets into a universal and easy to manage format that would be compatible with existing forensic databases. As a result, the design involves transforming the data into a structured format and then visualising it in tabular layouts, enhancing the ease of data interpretation and manipulation. The thesis also describes the problems identified during data processing and their solutions.