

## **Effective recognition of the video pattern in a recorded video stream**

CROSS Agency Ltd.

Nikolay Ivanov

Information Agency CROSS is a source of information about the Bulgarian central and regional electronic and print media (newspapers, magazines, radio and television, online publications and agencies) for customers, government institutions and non-governmental organizations in Bulgaria and Europe.

One of the monitoring, made by CROSS Agency, is radio and TV clipping. CROSS Agency supports 24 hour record of 18 national and regional radio and TV programs. The agency's team makes a complete transcript of the 3 national radio and 4 national TV programs. All emissions on half hour and hour are deciphered. For all other radio or TV broadcasts the Agency provide records or full-text deciphering after customer query.

The media analysis of companies shows how the customer's company is represented in the media – who most represents the company, which experts comment company or its products, and also the same analysis for the competitive institutions in order to compare their publicity parameters with those of the customer's company.

One of the main parts of the bulletin, made for the customers, is quantitative and content analysis. The bulletin contains summary of the total number of materials, media types, placement of the material, customer's reference in the material and assessment of the attitude of materials.

The considerable part of the TV announcements of customer's company and/or competition companies is the broadcast of their advertisements. The advertisements are in advertisements' blocks, spread within other program elements. At that moment, the search of a particular advertisement is made by operator looking in the recorded material. The records are half-hour video portions in MP4 format.

**The goal is to automate this process.**

For facilitating of the task we can assume that for some period the advertisements of the costumer company and its competitive companies are fixed.

For the experiments the CROSS Agency gives samples of the advertisements of 3 Bulgarian banks and 4 hours record of one day of bTV broadcast.

This way, the task stands – **the effective search of the concrete video pattern in a recorded video stream.**

The expected results are connected with:

- discussing variants of solving the task – used descriptors, distance measures, etc.;
- presenting the entire algorithm for automation of the process;
- choice of appropriate software programs and tools for solving the stages of this algorithm;
- experiments and the discussion of the results.