Received: 2008-09-21

Abstract: Designing of graphics that are detected only outside the range where colors are recognized falls into the area of document security with printing techniques. This paper's contribution is in setting the double separation method in the grey (achromatic) area for the printing system with process printing inks. The method's goal is generating a separate piece of graphic information that can be detected in the infrared area only. The initial point for a discussion on graphic product security generated by printing techniques with different materials is designing of graphics for the near infrared area having a wavelength range of 700 to 1000 nm. Named “infrared information”, it covers an individualized color choice and individualized hidden information, protected against copying or reproduction. The IR information generated by double separation and called “IR separation” carries in itself two independent pieces of information. The first one is the image determined by the mask so that it is observed under infrared light only. The second piece of information is only the positive difference between the image gray intensity seen in daylight and the mask's gray intensity in the same pixel. After IR separation, its presence must not be detected in the reproduction visible area, what is the condition for conventional UCR, GCR and UCA separation methods as well. The goal of IR separation is to incorporate IR information into the image in such a manner that it is readable in IR wavelengths only.

Informatologia, 42, 2009, 1, 1-72

Category: Original Scientific Paper
Title: INFORMATION CONTROL IN THE INFRARED AREA OF SPECTRUM
Author(s): Vilko Žiljak, Klaudio Pap, Ivana Žiljak, Jana. Ž. Vujić*
Affiliation: Faculty of Graphic Arts, University of Zagreb, Zagreb, Croatia, Higher school of Polytechnics, Zagreb, Croatia
Key words: information control, infrared area of spectrum, technology

Informatologia, 42, 2009, 1, 1-72

Category: Preliminary Communication
Title: AUTOMATED BUSINESS TRANSACTIONS WITH EXCHANGE/DISTRIBUTION OF SERIAL PUBLICATIONS: EXAMPLE OF CROLIST
Author(s): Tatijana Petrič
Affiliation: University library, University of Zadar, Zadar, Croatia

References: 0
Tables: 3
Figures: 12

ISSN 1330-0067
Key words: library, publications, exchange process, CROLIST

Abstract: The importance of exchange for acquisition of serial publication in libraries/institutions which publish their own publications is signified in this paper. Mere process of business transaction and strategies of exchanges are examined. The research that was carried out had a goal to investigate in which organizational unit of library/institution the business transaction with exchange is done, in which ways it is done, and the attitude of the staff about necessity of automatization of the part of business transaction.

The method of questionnaires was used during the research. The results of the research have shown that the business transaction with exchange/distribution of serial publications is done in mere libraries and not in some other organizational units, that only one of analyzed library-information software's has a module that is developed for automated business transaction with exchange/distribution, and that the library staff has a attitude that automatization of business transaction with exchange/distribution is necessary. At the end of this paper the sub-module Distribution, part of library-information software CROLIST, is shown and it shows the possibilities and advantages of using such a module in automated business transaction with exchange/distribution of serial publications.
The multimedia education content has to develop and design according to modern cognitive theory. The teachers and the other stakeholders, who are involved in the development and design of multimedia web content, must know this theory, because their goal is to develop efficient and high quality multimedia content. In this paper we consider the possibility applied to the techniques for the development and design of multimedia web content, according to the guidelines of the cognitive theory of multimedia learning as a model for using this theory and these techniques in pedagogical practice in the Republic of Croatia.

Informatologia, 42, 2009, 1, 1-72

**Literature**: Serial  
**Bibliographic level**: Analytic  
**UDC**: 007:681.3:519.68:008  
**ISSN**: 1330-0067  
**Coden**: IORME7  
**Short title**: Informatologia, Zagreb  
**Vol. No.**: 42(2009)  
**Issue No.**: 1  
**Other identification**: INFO-1045  
**Page numbers**: 51-54  
**Received**: 2008-05-06  
**Issued**: 2008-12-29  
**Language –of text**: Engl.  
**– of Summary**: Engl.,Croat.  
**References**: 17  
**Tables**: 0  
**Figures**: 2  
**Category**: Professional Paper

**Title**: INFORMATION SYSTEMS IN SCHOOLS AND DATA PROTECTION  
**Author(s)**: Lina Dečman*, Olga Dečman Dobrnjić**, Metod Černetić***  
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**Key words**: data protection, technology, schools, information systems

**Abstract**: The steady growth of computer and communication sciences makes schools as organizations more and more dependent on information systems. Schools are organizations and thus they too must comply with the legal requirements concerning the data security. This paper deals with the topic of data protection in the schools information system. While the schools apply the information systems, the information is easier accessible to a growing number of people. Parallel to it, the opportunities of data abuse e.g. computer fraud, espionage, malevolent code etc. are more frequent. Under data protection we understand the data as well as information protection as they are almost always not just pure information but have certain value. The information protection is based above all on three basic principles: integrity, confidentiality and availability. It is suggested that the organization declares its adopted policy and guidelines for management of electronic operations and at the same time assures that they are properly implemented.