

Research of Image Processing Methods in Publishing Output Systems

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ABSTRACT

For automatic processing of images in publishing output systems it is necessary to pre-reduce the noise level, to increase sharpness, to exclude the possibility of a moire, that is, to improve the quality of the image before printing. There are the results of using the Fourier transform for simple figure images. The amplitude spectrum values for blurry and detailed images are considered, and the methods of automatic processing of images in laser-type publishing systems are also shown.

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INTRODUCTION

- ▶ In the printing industry, there is a combination of different ways of preparing images for printing using a variety of technologies, which makes it difficult to assess the quality of print imprints. Significant deterioration in image quality is observed in the case of high noise levels.
- ▶ Reducing the noise level is usually realized by using different types of filters - lower and upper frequencies, median, gaussian, and others. However, in many cases, the analysis and processing of such images should be carried out not in the spatial, but in the frequency domain [1]. In this case, it is necessary to compare the spectra of images and explore the structure of the background. It will allow a filtering operation in the frequency domain to remove all types of noise and moire

EXISTING SYSTEM

- ▶ At the current stage of development of information systems, appeared an important scientific and technical direction, associated with the automatic processing of images and recognition of visual images.
- ▶ During the analysis the original, you need to pay attention to the gradation, color, and especially the sharpness of the image (with which accuracy the small details of the image are reproduced). The information properties also include frequency characteristics.

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PROPOSED SYSTEM

- ▶ To improve the quality of the image before printing. There are the results of using the Fourier transform for simple figure images. The amplitude spectrum values for blurry and detailed images are considered, and the methods of automatic processing of images in laser-type. The analysis and processing of such images should be carried out not in the spatial, but in the frequency domain .

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HARDWARE REQUIREMENTS

- ▶ Processor :Intel Pentium IV 1GHz
- ▶ RAM :256MB (Min)
- ▶ Hard Drive :5GB free space
- ▶ Monitor :1024 * 768, High Color inch
- ▶ Mouse :Scroll Mouse(Logitech)
- ▶ Keyboard :104 keys

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SOFTWARE REQUIREMENTS

- OS : Windows XP/7/8
- ▶ Front End : Visual Studio 2010/netbeans 7.1
- ▶ Back End : SQL Server 2005/heidisql
- ▶ Browser : Any Web Browser

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CONCLUSION

- ▶ In order to form a high-quality, convenient image analysis, it is necessary to determine in advance which details of the image are perceived particularly clearly, and which are secondary to the analysis.
- ▶ Then, the comparative analysis of the spectra of the images of the observed objects and the background structure allows to use the frequency domain for a filtering operation. It is important for removing noise in laser-type publishing systems, as well as moire with a given loss of image detail.

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