

# On the Application of Computer Graphics Image Processing in Visual Communication Systems

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**Abstract:** This paper focuses on the application of graphic and image processing technology in text, advertising and other aspects, through the analysis of the application characteristics and direction of this technology in the visual communication system, can help to more convenient access to information.

**Keywords:** Computer Graphics and Image Processing Technology; Visual Communication; Application

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## 1. Computer graphics and image processing technology and visual communication

Computer graphics and image processing technology and visual communication have both similarities and certain differences. To realize the effective integration of the two, the most important thing is to clarify the advantages and disadvantages of the two, and reflect the role of graphic image in visual communication to the greatest extent. At the same time, the ultimate goal of both is to beautify the pictures, and then bring the most ideal visual effect to the public.

### 1.1 Have something in common

The theoretical knowledge basis of computer graphics and image processing technology and visual communication system is consistent, and the content and role in many aspects are also consistent, and there is no clear distinction. In addition, the two creative mode, spatial arrangement and other aspects are also the same.

### 1.2 Different between the two

Although there are more similarities, but there are certain differences, therefore, the computer graphics image processing technology applied to the visual communication system, designers must be combined with the actual requirements, combining the advantages of the two, and with the help of different means to appropriate processing, eventually design of high quality works. Here are the differences:

First, there are differences in the creative principles. Among them, the creation principle of visual communication is the transformation of image, shape, meaning, and is based on dot surface light; while computer graphics image design integrates graphics and color, dynamic and static, the key lies is the selection and development of materials.

Second, there are differences in the background. Visual communication design appears before the computer graphics and image design, and this technology enables the combined use of painting and advertising. But computer graphics and image technology emerged from the end of the last century, and gradually entered the public view through plotters and other ways.

Finally, the task variability of the two vs. The works designed by using computer graphics and image processing technology have static beauty and dynamic beauty. The organic combination of the two can create two-dimensional or even multi-dimensional space works. In addition, the visual communication design pays more attention to the dynamic beauty of images.

## 2. Application of Computer graphics and image processing technology in visual Communication System

## **2.1 Applied in the field of text design**

There is quite a lot of content on the picture, such pictures can convey a lot of information to the audience, in addition, with the support of the relevant drawing color, the human understanding of the picture will be deeper. In using computer graphics image processing method to optimize the visual communication system process, to use editing features to adjust the characteristics of pictures, such as the location of the picture, font and the color of each part to make adjustment, while ensuring the basic characteristics of the picture to make personalized setting, bring users more good visual experience. Designers in the use of software to image text editing work process, should improve the attention to the text editing effect, by studying the meaning of the text and its text effect, and to the font position and size to make appropriate changes, make it fit with the picture of text design, can effectively improve the efficiency of graphic text design. Because the function of the software is huge, and adjust the operation method of the text is also more accordingly, want to improve the efficiency of image data processing, improve the quality of text processing, timely image adjustment operation, by setting the necessary shortcut keys for image basic operation, can ensure the quality of text processing and improve image data processing efficiency, greatly reduce the time spent on the image adjustment software, to improve image text processing quality has a great role.

## **2.2 In the advertising design field**

In the process of artistic processing of advertisements, it is first necessary to carry out the image processing function. Through the proper application of some artistic pictures, can they bring different style effects and better grasp the attention of the audience. In addition, in the process of information construction, we transmit the processed advertisements to our mobile phone terminals through electronic products, which can make us experience a more intuitive visual impact. The interest in advertising products is stimulated, and the selection of enterprises can increase the proportion of advertising products. In this link, through the use of graphic image processing means, according to the concept of visual transmission to complete the visual creativity, can improve the charm of advertising design layout, consumers in contact with the pleasant sensory page at the same time, also can more fully understand the information in advertising, advertising effect naturally improved. Through the use of computer graphics and image processing technology, designers can use a variety of means to draw operations, but also according to their own experience of the drawing requirements to be reasonable set, so as to improve the advertising design standards, the advertising effectiveness of products will be to a higher level. In real life, more and more people pay attention to the effect of advertising design, in the form of hand-painted advertising, must be processed with the support of computer graphics image processing technology, so can increase the hierarchy of advertising, facilitate the company in different periods in different areas, to ensure that the final advertising effect and predetermined target.

## **2.3 Applied in the field of illustration design**

In the computer graphics and image processing technology, painting and color blending is one of the very important content, but also with significant features. Many designers will use this feature to design illustrations. In the actual use process, the designer will use a pencil to draw a black and white picture as the draft of the design, and use the graphic image processing technology to create, so that it has a stronger ornamental effect.

## **2.4 Application in the packaging design field**

In general, we face the same price and quality of goods, we tend to choose more exquisite packaging goods. This is mainly due to the exquisite packaging design, which can attract the attention of consumers, but also can effectively stimulate consumers' desire to buy. This exquisite packaging design is the effective use of computer graphics and image processing technology in the visual communication system. Packaging design is an important channel to realize and improve the value of goods, such as: book cover, publicity pages, etc.. Although these goods are ordinary and common flat print products, but they can reflect a very rich content and good visual communication effect. With the help of computer graphics and image processing technology, the above effects can be achieved, and the product can have a more significant cultural character and

knowledge, and finally achieve the most ideal visual communication effect.

### 3. Conclusion

To sum up, the computer graphics and image processing technology must be supported by the computer programs, and with the help of the scientific processing of the information, it can be displayed to the public by means of a concrete way. In the future, the technology can also be integrated with technologies such as artificial intelligence to provide a more convenient life for the public.

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