Thesis Title Video Signal Converter for Medical Apparatus

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ABSTRACT

This thesis proposes a design and implementation of video signals converter to convert the video signals from medical apparatus to display as images on computer screen. The video signals from medical apparatus are different from other video signals in both aspects of frequency and features used in scanning pictures. The video signals received from medical apparatuses have higher frequency than other video. Moreover, there is no standard frequency for medical apparatuses. The different series of medical apparatuses from the same company still have different frequency. Therefore, there are a lot of problems of maintenance because these apparatus can't be maintained by a specific frequency. Nowadays, images information received from different apparatuses from different companies have their own different form of data. These differences depend on the design of each company. Those images from each company can't be displayed on a computer screen by normal program, they have to use the software provided by the produced company. Thus, it is difficult to study and develop image data. This thesis is to design a transformational device to convert signal from medical apparatus to be a standard image, which can be used with general programs. This converter can be applied to suit for each medical device and also provides options to maintain specific or all area of output screen. This device is useful for maintaining images from medical apparatuses with economical space. Images from this device will be kept in bitmap files, which can be used with any windows programs.