

Abstract

Nowadays, the growth of electronic device technology grows rapidly. The electronic devices have different display sizes and different aspect ratios. With such differences, the designer/content maker must make alternative contents with different sizes for each device. Nowadays, website pages can be displayed dynamically following the browser window's width. However, the dynamic is only on the text content, while the other content such as images are rigid in size.

On the other hand, the methods currently available to resize the image just focus on scaling and cropping. Both methods have some weaknesses against the content of the new image generated. By using Seam carving new images can be resized by deleting/inserting the minimum energy path (Seam). As proof, the implementation of Seam carving done by using Sobel operator, gradient magnitude, and dynamic programming.

From the results of implementation is known that this method has capability to do content aware image Resizing pretty well, although there are conditions resulting picture content damaged by resizing image with big size changes and by image that has a sharp and tight patterns. By obtained test through questionnaire, the majority of the picture results has met visual acceptability and accuracy of similarity of the images capable to achieve up to 99% by Image Comparer.

Keywords: *content aware image resizing, seam carving.*