

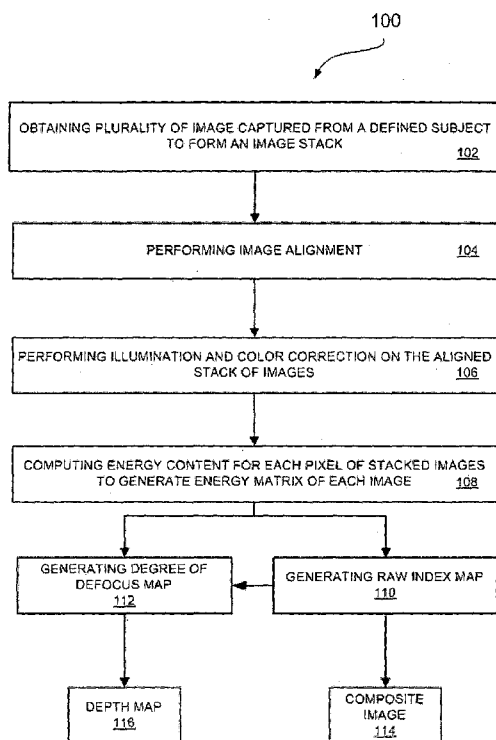


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- (54) Title: A METHOD AND SYSTEM FOR EXTENDED DEPTH OF FIELD CALCULATION FOR MICROSCOPIC IMAGES



(57) Abstract: The invention relates to an image processing method and system for constructing composite image with extended depth of field. The composite image may be constructed from a plurality of source images of a scene stored in an image stack. The method includes aligning the images in the image stack such that every image in the image stack is aligned with other images in the stack, performing illumination and color correction on the aligned images in the image stack, generating an energy matrix for each pixel of each illumination and color corrected image in the image stack by computing energy content for each pixel, generating a raw index map that contains the location of every pixels having maximum energy level among all the images in the image stack, generating degree of defocus map and constructing the composite image.