the parameter computing means with appropriate thresholds, so as to perform area determination as to being chromatic, achromatic and 'the other' area with a good precision. Therefore, the judgement will not be affected by the density of black characters and hence it is possible to lessen misjudged areas. As a result, optimized processing can be done appropriately in accordance with the characteristics of the image areas.

In accordance with the second configuration, the parameter computing means computes the maximum density value, the summation of density differences, the average density and the maximum density difference for each pixel in a mask containing a target pixel, and the area determining means determines an area in a mask, by selectively comparing the computed results from the parameter computing means with appropriate thresholds, so as to perform area determination as to being chromatic, achromatic or 'the other' area with a good precision. Further, provision of the color determining means which performs area determination of a target pixel based on the number of pixels, having been judged to be achromatic, in the mask containing the target pixel and/or the chromatic color ratio in the mask, makes it possible to judge blurred color portions around black characters to be of achromatic area.

As a result, blurred color portions around black characters can also be subjected to post-processing such as an emphasis filtering process for black characters, making it possible to produce a beneficial output.

In accordance with the third configuration, the parameter computing means computes the maximum density value, the summation of density differences, the average density and the maximum density difference for each pixel in a mask containing a target pixel, and the area determining means determines an area in a mask, by selectively comparing the computed results from the parameter computing means with appropriate thresholds, so as to perform area determination as to being chromatic, achromatic or 'the other' area with a good precision. Further, provision of the color determining means which performs area determination of a target pixel based on the determined result from the deep color determining means for counting the number of deep chromatic pixels in the mask containing a target pixel and the determined result from the area determining means reduces misjudged areas, making it possible to produce a beneficial output.

In accordance with the fourth configuration, a determined result of chromatic or achromatic color of one or more particular target pixel is used as the representative determined result for all pixels in the mask. Thus, this configuration can remove isolated points which could have been misjudged, and hence remove noise components.

What is claimed is:

1. An image processing apparatus in which area determination as to an original having characters, continuous dot images, screened halftone images mixed therein is effected classifying the original into character areas, continuous dot areas, screened halftone areas for each pixel in order to perform optimized processing in accordance with the characteristics of different image areas, comprising:

a parameter computing means which computes the maximum density value, the summation of density differences, the average density and the maximum density difference for each pixel in a mask containing a target pixel; and

an area determining means which determines an area in a mask, as being chromatic, achromatic or of the others, by comparing the computed results from the parameter computing means with selective thresholds.

2. An image processing apparatus wherein area determination as to an original having characters, continuous dot images, screened halftone images mixed therein is effected classifying the original into character areas, continuous dot areas, screened halftone areas for each pixel in order to perform optimized processing in accordance with the characteristics of different image areas, comprising:

a parameter computing means which computes the maximum density value, the summation of density differences, the average density and the maximum density difference for each pixel in a mask containing a target pixel;

an area determining means which determines an area in a mask, as being chromatic, achromatic or of the others, by comparing the computed results from the parameter computing means with selective thresholds; and,

a color determining means which performs area determination of a target pixel based on the determined results from the area determining means and based on the number of pixels, having judged to be of achromatic, in the mask containing a target pixel and/or the chromatic color ratio in the mask, both determined from the area determining means.

3. An image processing apparatus wherein area determination as to an original having characters, continuous dot images, screened halftone images mixed therein is effected classifying the original into character areas, continuous dot areas, screened halftone areas for each pixel in order to perform optimized processing in accordance with the characteristics of different image areas, comprising:

a parameter computing means which computes the maximum density value, the summation of density differences, the average density and the maximum density difference for each pixel in a mask containing a target pixel;

an area determining means which determines an area in a mask, as being chromatic, achromatic or of the others, by comparing the computed results from the parameter computing means with selective thresholds;

a deep color determining means for counting the number of deep chromatic pixels in a mask containing a target pixel; and

a color determining means which performs area determination of a target pixel based on the determined results from the area determining means and the determined result from the deep color determining means.

4. The image processing apparatus according to claim **1**, further comprising a color determining unit in which a determined result of chromatic or achromatic color of one or more particular target pixel is used as the representative determined result for all pixels in the mask.

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