

FIG. 31 schematically shows the construction of an image input apparatus according to another embodiment of this invention. Portions which are the same as those of FIG. 1 are denoted by the same reference numerals and the explanation therefor is omitted. This embodiment is similar to the embodiment of FIG. 1 except that the brightness-hue-chroma converting section 107 is omitted, and even in this case, the same operation and effect as those of FIG. 1 can be expected.

That is, a color image in an extraction area 112 is picked up as an RGB image signal by a color line sensor 101, converted into digital RGB image data by a color image input section 102 and stored into an image data storing section 103. The original image extraction section 104 detects positional information of the original P for the image data stored in the image data storing section 103 and extracts RGB image data thereof.

After this, the RGB image data of the original P is normalized to a preset size by a normalization section 105 and converted into a smoothed image by an image smoothing section 106. For example, the smoothed image is compared with RGB smoothed image data of all types of bills stored in a dictionary data storing section 108 with a construction shown in FIG. 32 in a pattern matching section 109 and the result of comparison is output as the result of identification.

In this case, if the original is identified as a specified original such as a bill which is to be inhibited from being copied, the image output controlling section 110 interrupts image data output from the color image input section 102 from being output to the exterior.

If the image output controlling section 110 is constructed as shown in FIG. 33, it becomes possible to output image data different from image data output from the color image input section 102 to the exterior and prevent output of the image data which is to be inhibited from being copied.

That is, an input image data receiving section 3401 receives image data output from the color image input section 102, a control signal receiving section 3402 receives the result of determination indicating permission or inhibition of output of the input image data from the pattern matching section 109 and controls a data switching section 3403 based on the received result of determination so as to select one of the output of the input image data receiving section 3401 and image data from an image data storing section 3404 which stores image data different from the input image data.

The data switching section 3403 is controlled to select image data previously stored in the image data storing section 3404 when an image which is inhibited from being copied is contained in the original. Image data selected by the data switching section 3403 is output to the exterior via an image data transmitting section 3405.

With the above construction, input image data can be prevented from being output to the exterior as it is by storing image data 3501 having black level on the entire image area as shown in FIG. 34 in the image data storing section 3404, for example.

This invention is not limited to the above embodiment and can be variously modified without departing from the technical scope thereof.

As described above, according to this invention, an image input apparatus is provided in which a specified original whose image is to be inhibited from being input can always be identified with high precision and the size thereof can be reduced.

What is claimed is:

1. An image input apparatus for inputting a color image, comprising:

storing means for storing a plurality of Vcd reference color data items indicating brightness (V), hue (H) and chroma (C) respectively corresponding to a plurality of color images of a specific original, the Vcd reference color data items corresponding to the brightness (V), hue (H) and chroma (C) of the color image in a correction muncell color system representing color perception amounts of a human being;

reading means for reading a color image on an original containing a plurality of items of target color data;

segmenting means for segmenting a color image read by said reading means into a plurality of areas;

extracting means for extracting the plurality of items of target color data included in each of the plurality of areas segmented by said segmenting means, each of said plurality of items of target color data including red, green and blue components;

transforming means for transforming the plurality of items of target color data included in each of the plurality of areas extracted by said extracting means into a single color data including the red, green and blue components to form transformed target image data;

neural network means for converting the single color data including the red, green and blue components transformed by said transforming means into the Vcd color data items corresponding to the brightness (V), hue (H) and chroma (C) of the color image in the correction muncell color system representing the color perception of a human being;

comparing means for comparing the Vcd color data items of the brightness (V), hue (H) and chroma (C) converted by said neural networks means with the Vcd reference color data items indicating the brightness (V), hue (H) and chroma (C) stored in said storing means;

identifying means for identifying the original read out by said reading means based on a result of the comparison by said comparing means; and

inhibiting means for inhibiting the output of an image read by said reading means when it is determined that the original is a specified type of original based on a result of identification by said identifying means.

2. An image input apparatus according to claim 1, wherein said transforming means includes means for normalizing an image of the specified area extracted by said extracting means to an image of preset size to convert the image into area pixels indicating preset color data.

3. An image input apparatus according to claim 1, wherein said transforming means includes means for deriving averaged data of the image of the specified area extracted by said extracting means with neighboring pixels multiplied by preset weight data to create an averaged image and converting the image into pixels indicating preset color data.

4. An image input apparatus according to claim 1, wherein said identifying means includes collating means for deriving an accumulated value of color differences between color data output from said converting means and color data stored in said storing means for all of the pixels and collating them with each other.

5. An image input apparatus for inputting a color image, comprising:

storing means for storing a plurality of Vcd reference color data items indicating brightness (V), hue (H), and