Title (en)

WEIGHTED MAPPING OF IMAGE DATA SAMPLES TO PIXEL SUB-COMPONENTS ON A DISPLAY DEVICE

Title (de)

GEWICHTETE ZUORDNUNG VON BILDDATENPROBEN ZU BILDPUNKT-TEILKOMPONENTEN AUF EINER ANZEIGEVORRICHTUNG

Title (fr)

PROJECTION PONDEREE D'ECHANTILLONS DE DONNEES D'IMAGES SUR DES SOUS-COMPOSANTS DE PIXELS DANS UN DISPOSITIF D'AFFICHAGE

Publication

EP 1163657 A4 20020213 (EN)

Application

EP 99970200 A 19991007

Priority

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Abstract (en)

[origin: WO0021070A1] Methods and apparatus for sampling image data (620) and mapping the samples (622, 623, 624) to pixel sub-components (632, 633, 634) which form a pixel element of an LCD display so that each pixel sub-component (632, 633, 634) has a different portion of the image (620) mapped thereto. The methods can be used with conventional color LCD displays that include pixels consisting of three non-overlapping red, green and blue rectangular pixel sub-elements or sub-components. The pixel sub-components (632, 633, 634) can be arranged on the display device to form horizontal or vertical stripes of individual colors. The separately-controllable nature of individual RGB pixel sub-components is used to effectively increase a screen's resolution in the dimension perpendicular to the dimension in which the screen is striped. A scan conversion process maps samples (622, 623, 624) of the image data (620) to individual pixel sub-components, resulting in each of the pixel sub-components representing a different portion of the image. The color values are independently generated for each of the red, green, and blue pixel sub-components based on different portions of the image (620), rather than the color values for the entire pixel being generated based on a single sample or the same portion of the image.

IPC 1-7

G09G 5/00; G09G 5/28; G09G 3/36

IPC 8 full level

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Citation (search report)

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