

Title (en)
MAPPING IMAGE DATA SAMPLES TO PIXEL SUB-COMPONENTS ON A STRIPED DISPLAY DEVICE

Title (de)
ZUORDNUNG VON BILDDATENPROBEN ZU BILDUNKT- TEILKOMPONENTEN AUF EINER, IN STREIFEN AUFGETEILTEN ANZEIGEVORRICHTUNG

Title (fr)
MAPPAGE D'ECHANTILLONS DE DONNEES D'IMAGE AVEC DES SOUS-COMPOSANTS DE PIXELS SUR UN DISPOSITIF D'AFFICHAGE A LIGNES

Publication
EP 1155396 A4 20020213 (EN)

Application
EP 99954811 A 19991007

Priority

- US 9923552 W 19991007
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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.

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

IPC 8 full level
G02F 1/13 (2006.01); **G02F 1/133** (2006.01); **G06T 1/00** (2006.01); **G09F 9/40** (2006.01); **G09G 3/20** (2006.01); **G09G 3/36** (2006.01); **G09G 5/00** (2006.01); **G09G 5/02** (2006.01); **G09G 5/24** (2006.01); **G09G 5/28** (2006.01); **H04N 1/387** (2006.01)

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Citation (search report)

- [XY] US 5334674 A 19940802 - NAKA AKIHIRO [JP], et al
- [Y] EP 0313329 A2 19890426 - ROCKWELL INTERNATIONAL CORP [US]
- [Y] EP 0693740 A1 19960124 - MICROSOFT CORP [US]
- [A] US 5132674 A 19920721 - BOTTORF SCOTT A [US]
- [A] US 5353359 A 19941004 - URABE AKIO [JP], et al
- [XY] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 07 31 March 1998 (1998-03-31) & US 5821913 A 19981013 - MAMIYA JOHJI [JP]
- See references of WO 0021070A1

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