

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 PONDREE 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

- US 9923469 W 19991007
- US 16801298 A 19981007
- US 24065499 A 19990129
- US 41414499 A 19991007

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

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)

CPC (source: EP)

G09G 3/20 (2013.01); G09G 5/24 (2013.01); G09G 5/28 (2013.01); G09G 3/2003 (2013.01); G09G 2300/0443 (2013.01); G09G 2300/0452 (2013.01); G09G 2340/0407 (2013.01); G09G 2340/0457 (2013.01)

Citation (search report)

- [Y] EP 0693740 A1 19960124 - MICROSOFT CORP [US]
- [Y] US 5353359 A 19941004 - URABE AKIO [JP], et al
- [Y] EP 0313329 A2 19890426 - ROCKWELL INTERNATIONAL CORP [US]
- [A] US 5132674 A 19920721 - BOTTORF SCOTT A [US]
- [A] EP 0772144 A2 19970507 - ADOBE SYSTEMS INC [US]
- [A] EP 0671650 A2 19950913 - CANON INFORMATION SYST RES [AU]
- [XY] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 07 31 March 1998 (1998-03-31)
- [Y] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 12 31 October 1998 (1998-10-31) & US 6256004 B1 20010703 - IZUMI YOSHIHIRO [JP], et al

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0021070 A1 20000413; AT E511688 T1 20110615; AT E543176 T1 20120215; AU 1106900 A 20000426; AU 1443800 A 20000426; AU 6512199 A 20000426; CN 1322343 A 20011114; CN 1335976 A 20020213; EP 1155396 A1 20011121; EP 1155396 A4 20020213; EP 1155396 B1 20110601; EP 1163657 A1 20011219; EP 1163657 A4 20020213; EP 1163657 B1 20120125; JP 2002527776 A 20020827; JP 2003526803 A 20030909; JP 2012137775 A 20120719; JP 5231695 B2 20130710; JP 5231697 B2 20130710; WO 0021066 A1 20000413

DOCDB simple family (application)

US 9923552 W 19991007; AT 99954811 T 19991007; AT 99970200 T 19991007; AU 1106900 A 19991007; AU 1443800 A 19991007; AU 6512199 A 19991007; CN 99811808 A 19991007; CN 99811813 A 19991007; EP 99954811 A 19991007; EP 99970200 A 19991007; JP 2000575111 A 19991007; JP 2000575115 A 19991007; JP 2012036164 A 20120222; US 9923469 W 19991007