

Title (en)

Error propagated image halftoning with time-varying phase shift.

Title (de)

Halbtonbilder mit Fehlerübertragsfortpflanzung mit einer mit Zeit veränderlichen Phasenverschiebung.

Title (fr)

Images en demi-teintes avec propagation d'erreurs avec décalage de phase variant dans le temps.

Publication

EP 0378780 B1 19940504 (EN)

Application

EP 89121390 A 19891118

Priority

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Abstract (en)

[origin: EP0378780A1] The present invention achieves a method of displaying an image which builds upon the error propagation method for mosaic color displays. That method propagates error between elements diagonally for a mosaic color display having diagonal rows consisting of monochromatic elements. In the method of the present invention, called "pel interleaving", the "error" propagated into the first element in the diagonal row changes with each new image or frame processed. More specifically the error propagated into each diagonal's first element increases incrementally with each frame processed until it exceeds the maximum element intensity value, in which case it is started anew by subtracting the maximum value. The incremental increasing of this initial error, in the binary display case, leads to the spatial drift of "on" elements along the diagonals. If all preload values are equally likely, the time integrated ensemble of the displays approaches the exact contone image as the number of displayed images increases. Thus, if the processing is fast, so that the eye integrates a number of displayed images for the same input image, the display perceived using the present image approaches the actual contone of the input image.

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CPC (source: EP)

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Cited by

EP0541295A3; EP0717391A1; EP0545577A3; EP0571878A1; US5585818A; EP0573174A1; US5483634A; EP0579359A1; US5838291A; GB2304961A; GB2304961B

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