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(54) **PREDICTION ENCODER/DECODER, PREDICTION ENCODING/DECODING METHOD, AND COMPUTER READABLE RECORDING MEDIUM HAVING RECORDED THEREON PROGRAM FOR IMPLEMENTING THE PREDICTION ENCODING/DECODING METHOD**

(75) Inventor: **Gwang-hoon Park**, Songnam-si (KR)

Correspondence Address:
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037 (US)

(73) Assignees: **INDUSTRY ACADEMIC COOPERATION FOUNDATION KYUNGHEE UNIV.; SAMSUNG ELECTRONICS CO., LTD.**

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(52) **U.S. Cl.** **375/240.03; 375/240.12; 375/240.24; 375/240.2; 375/240.23**

(57) **ABSTRACT**

A prediction encoder/decoder, a prediction encoding/decoding method, and a computer readable recording medium having a program for the prediction encoding/decoding method recorded thereon. The prediction encoder includes a prediction encoding unit that starts prediction at an origin macroblock of an area of interest of a video frame, continues prediction in an outward spiral in the shape of square rings composed of macroblocks surrounding the origin macroblock, and encodes video by performing intra-prediction using information about a macroblock that has just been coded in a square ring including a macroblock to be coded and a macroblock in a previous square ring and adjacent to the macroblock.

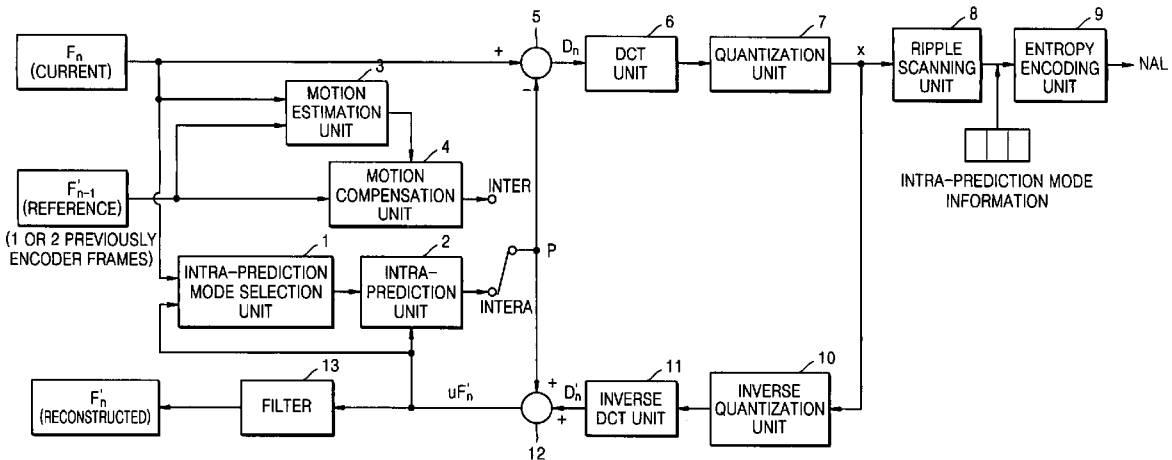


FIG. 1 (PRIOR ART)

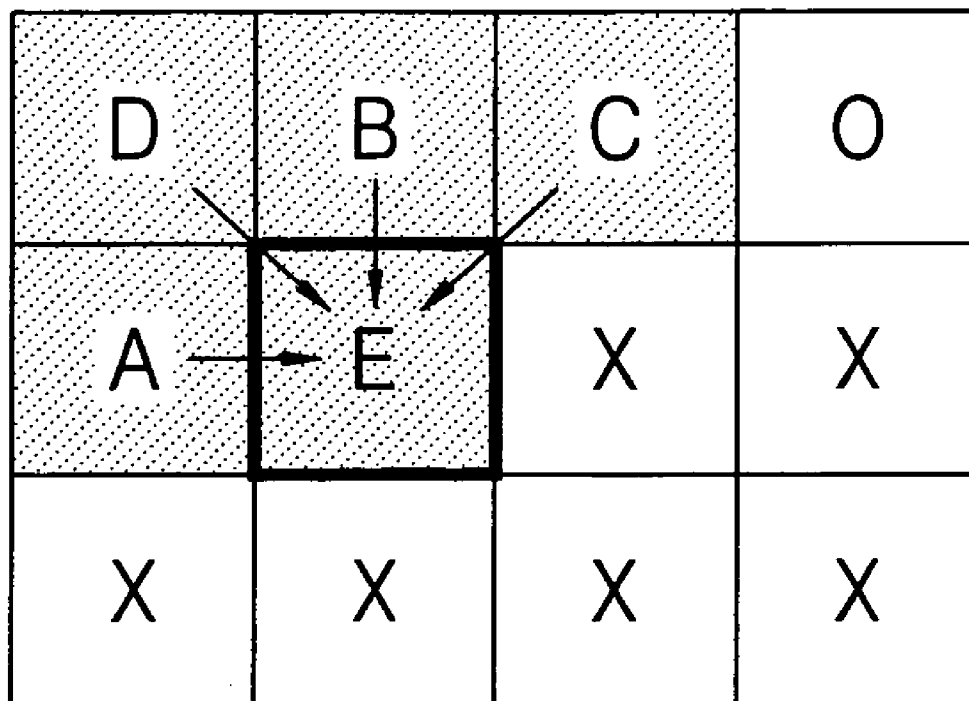


FIG. 2 (PRIOR ART)

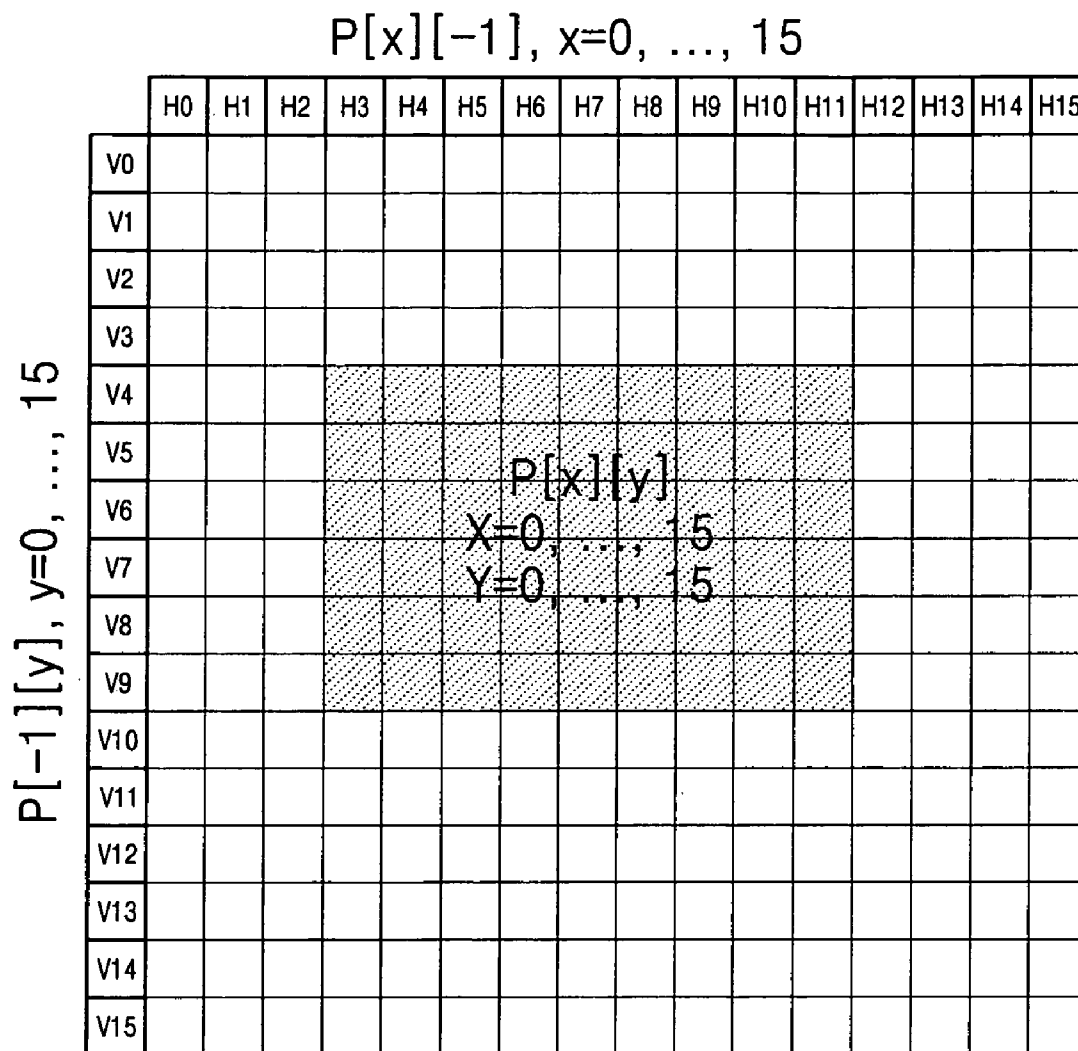
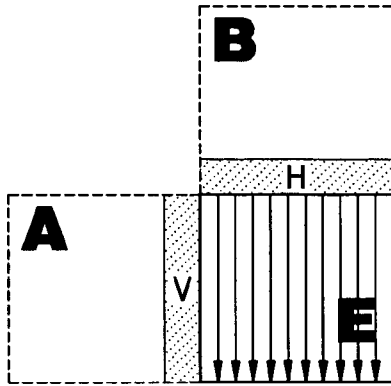
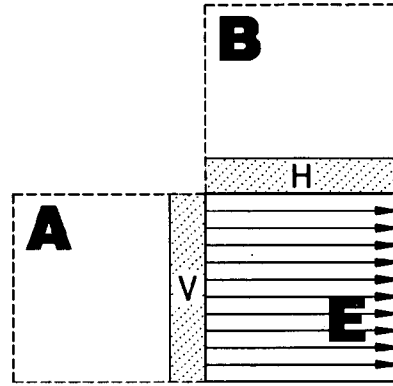


FIG. 3A (PRIOR ART)

FIG. 3B (PRIOR ART)



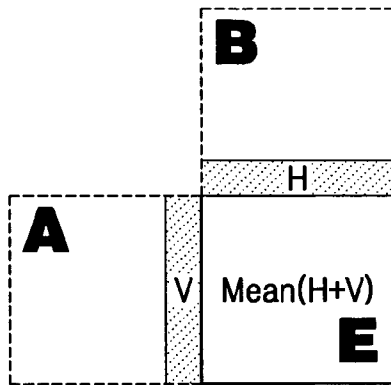
MODE0 : VERTICAL MODE



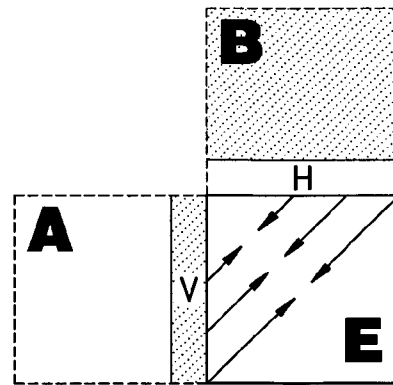
MODE1 : HORIZONTAL MODE

FIG. 3C (PRIOR ART)

FIG. 3D (PRIOR ART)

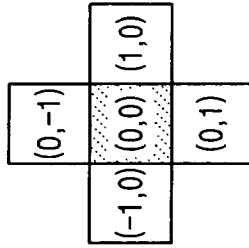


MODE2 : DC MODE



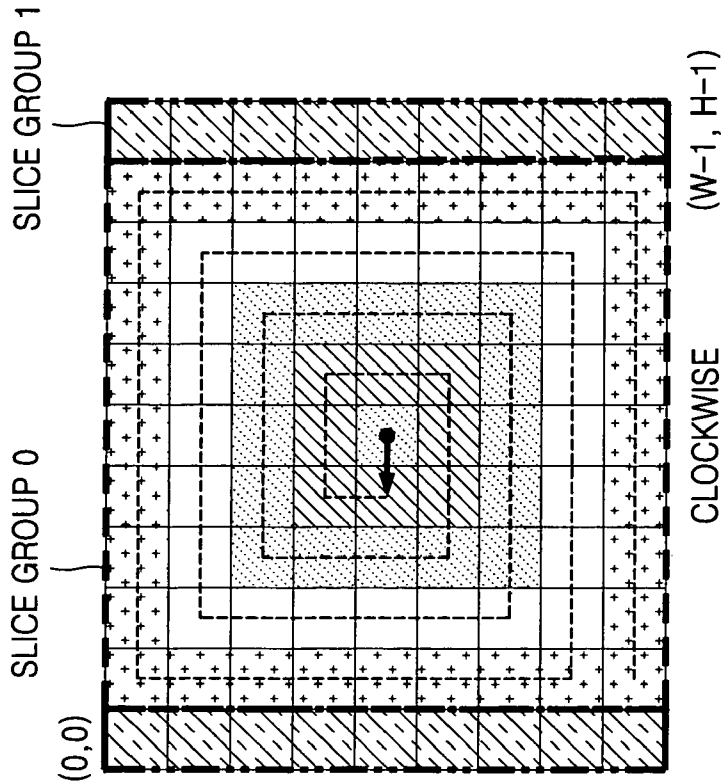
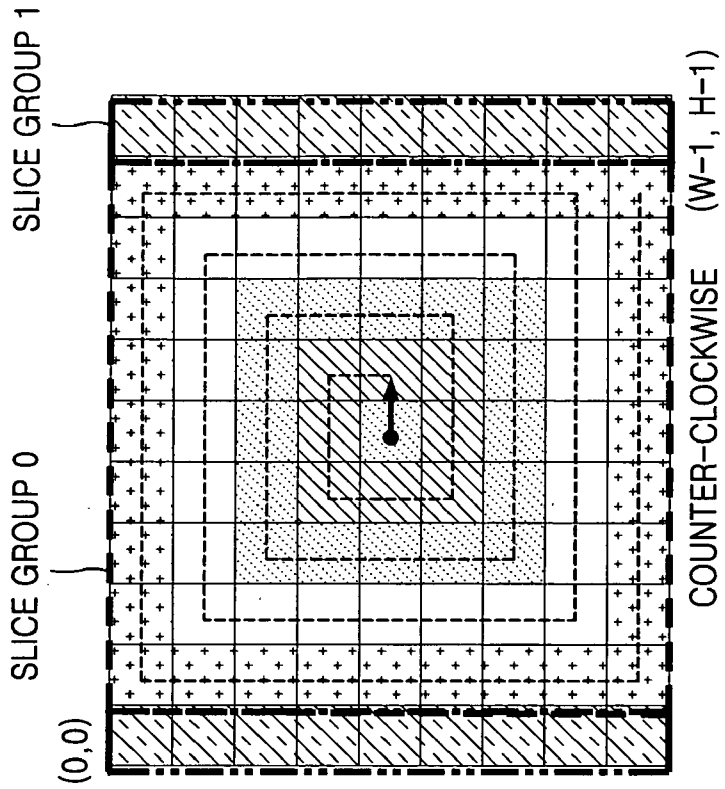
MODE3 : PLANE MODE

FIG. 4B



BEGINNING
LEFT=RIGHT=X
TOP=BOTTOM=Y

FIG. 4A



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