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(54) Title: METHOD AND APPARATUS FOR VIDEO CODING

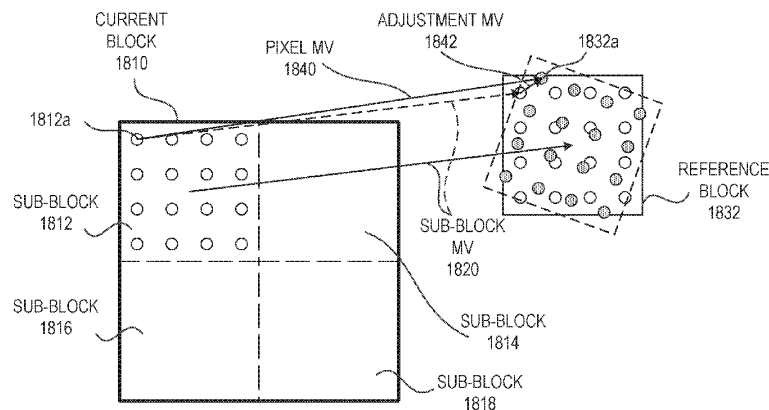


FIG. 18

(57) Abstract: An apparatus for video decoding includes processing circuitry. The circuitry can be configured to determine whether to apply the PROF to an affine coded block, and responsive to a determination to apply the PROF to the affine coded block, perform a PROF process. For example, during the PROF process, a prediction sample $I(i,j)$ at a sample location (i,j) in the affine coded block can be generated. Spatial gradients $g_x(i,j)$ and $g_y(i,j)$ at the sample location (i,j) in the affine coded block can be generate. A prediction refinement $\Delta I(i,j)$ based on the spatial gradients $g_x(i,j)$ and $g_y(i,j)$ can be generated. The prediction refinement $\Delta I(i,j)$ can be added to the prediction sample $I(i,j)$ to generate a refined prediction sample. The PROF for affine prediction can be enabled according to a syntax element received at the decoder, or can be enabled by default.

[Continued on next page]

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