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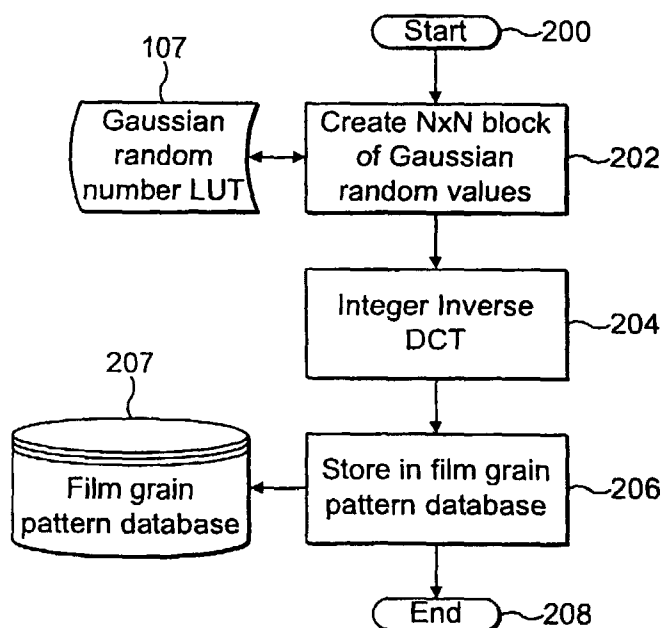
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(54) Title: LOW-COMPLEXITY FILM GRAIN SIMULATION TECHNIQUE



(57) Abstract: The simulation of film grain in a video image occurs by first creating a block (i.e., a matrix array) of transformed coefficients for a set of cut frequencies f_{HL} , f_{VL} , f_{HH} and f_{VH} associated with a desired grain pattern. (The cut frequencies f_{HL} , f_{VL} , f_{HH} and f_{VH} represent cut-off frequencies, in two dimensions, of a filter that characterizes the desired film grain pattern). The block of transformed coefficients undergoes an inverse transform to yield a bit-accurate film grain sample and the bit accurate sample undergoes scaling to enable blending with a video signal to simulate film grain in the signal.