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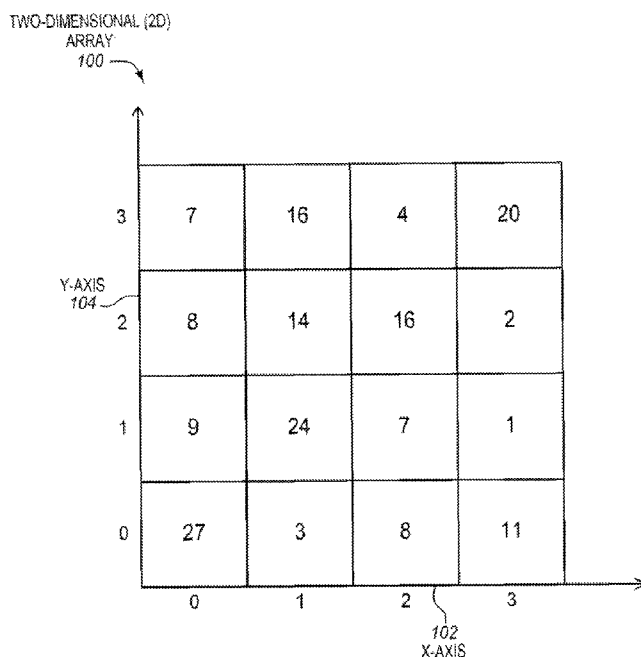
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(54) Title: MORTON COORDINATE ADJUSTMENT PROCESSORS, METHODS, SYSTEMS, AND INSTRUCTIONS

FIG. 1

(57) Abstract: A processor includes a decode unit to decode
an instruction that is to indicate a source packed data operand
to include Morton coordinates, a dimensionality of a multi-di-
mensional space having points that the Morton coordinates
are to be mapped to, a given dimension of the multi-dimen-
sional space, and a destination. The execution unit is coupled
with the decode unit. The execution unit, in response to the
decode unit decoding the instruction, stores a result packed
data operand in the destination. The result operand is to in-
clude Morton coordinates that are each to correspond to a dif-
ferent one of the Morton coordinates of the source operand.
The Morton coordinates of the result operand are to be
mapped to points in the multi-dimensional space that differ
from the points that the corresponding Morton coordinates of
the source operand are to be mapped to by a fixed change in
the given dimension.

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