

THREE-DIMENSIONAL DATA ENCODING METHOD, THREE-
DIMENSIONAL DATA DECODING METHOD, THREE-DIMENSIONAL
5 DATA ENCODING DEVICE, AND THREE-DIMENSIONAL DATA
DECODING DEVICE

ABSTRACT

10 A three-dimensional data encoding method includes: encoding a first flag
indicating whether a node having a parent node different from a parent node of
a current node is to be referred to in encoding of the current node included in an
N-ary tree structure of three-dimensional points included in three-dimensional
data, N being an integer greater than or equal to 2 (S3661); selecting a coding
15 table from N coding tables according to occupancy states of neighboring nodes
of the current node, and performing arithmetic encoding on information of the
current node using the coding table selected, when the first flag indicates that
the node is to be referred to (YES in S3662) (S3663); and selecting a coding table
from M coding tables according to the occupancy states of the neighboring nodes
20 of the current node, and performing arithmetic encoding on information of the
current node using the coding table selected, when the first flag indicates that
the node is not to be referred to (NO in S3662), M being an integer different from
N (S3664).

25 Fig. 116