The representation used in the 2D and 3D case, is respectively given by a pair (triplet) of real arrays, that contain the ordered distances between adjacent cutting lines (planes), and by a Boolean array with two (three) indices, which is used to encode the labels (empty/full) of the space partition cells. Such a representation can be encoded as follows, in the 2D and 3D case, respectively:

$$<< \texttt{Xarray}[i_1], \texttt{Yarray}[i_2] >, \texttt{BoolArray}[i_1, i_2] >$$
$$<< \texttt{Xarray}[i_1], \texttt{Yarray}[i_2], \texttt{Zarray}[i_3] >, \texttt{BoolArray}[i_1, i_2, i_3] >$$