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(54) **METHOD OF CONSTRUCTING FRONT PANORAMA OF SHELVING FROM ARBITRARY SERIES OF FRAMES BASED ON SHELVING 3D MODEL**

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(57) **ABSTRACT**

The present invention relates to methods for visual display of images of real shelvings with products for analysis of shelving contents. There are provided methods for constructing a shelving front panorama. A method comprises: capturing color image frames of the shelving, displaying the shelving and its contents; reconstructing a shelving 3D model based of depth data and capturing device position data for each frame; determining a projection plane corresponding to the shelving front edge; stitching the color image frames of the shelving by projective transformation of each color image frame of the shelving onto the projection plane. The resulting shelving front panorama displays the shelving and its contents. The disclosure eliminates the need for observing frontal orientation of each shelving image frame when capturing images of the shelving; the capturing can be made along an arbitrary path.