

Title (en)

TEETH SEGMENTATION USING NEURAL NETWORKS

Title (de)

ZAHNSEGMENTIERUNG UNTER VERWENDUNG NEURONALER NETZE

Title (fr)

SEGMENTATION DE DENTS À L'AIDE DE RÉSEAUX NEURONAUX

Publication

**EP 4096569 A1 20221207 (EN)**

Application

**EP 21748002 A 20210129**

Priority

- US 202016778406 A 20200131
- US 202117140739 A 20210104
- US 2021015820 W 20210129

Abstract (en)

[origin: WO2021155230A1] A computer-implemented method and system of digitally segmenting teeth in a digital model comprises generating a panoramic image from a 3D digital model of a patient's dentition, labeling, using a first trained neural network, the panoramic image to provide a labeled panoramic image, mapping the labeled panoramic image to corresponding coarse digital surface triangle labels in the 3D digital model to provide a labeled 3D digital model, and segmenting the labeled 3D digital model to provide a segmented 3D digital model. A computer-implemented method and system of generating a panoramic image comprises determining, using a trained neural network, digital tooth bounding region(s) corresponding to digital teeth from a 2D depth map of a patient's dentition, connecting digital tooth bounding region(s) by a spline, determining sampled digital surface points from the sampled spline points; and determining associated digital surface points corresponding to each sampled digital surface point.

IPC 8 full level

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CPC (source: EP)

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