Paper No. ____

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EXOCAD GMBH AND EXOCAD AMERICA, INC.
Petitioner,

v.

3SHAPE A/S,
Patent Owner.

Patent No. 9,336,336
Issue Date: May 10, 2016
Title: 2D IMAGE ARRANGEMENT

Inter Partes Review No. Unassigned

DECLARATION OF JOSEPH L. MUNDY, Ph.D.

exocad GmbH, et al.
Exhibit 1002

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(c) Element 1.2: “provide one or more 2D images, where at least one of the one of more 2D images comprises at least one facial feature” (claim 1); Element 29.1: “provide one or more 2D images, where at least one of the one or more 2D images comprises at least one facial feature” (claim 29) 42

(d) Element 1.3: “wherein the at least one facial feature comprises lips” (claim 1); Element 29.2: “wherein the at least one facial feature comprises lips” (claim 29).....45

(e) Element 1.4: “either virtually cut at least a part of teeth out of the at least one 2D image or render a part of the at least one 2D image that includes teeth at least partly or wholly transparent” (claim 1); Element 29.3: “either virtually cut at least a part of teeth out of the at least one 2D image or render a part of the at least one 2D image that includes teeth at least partly or wholly transparent” (claim 29).....47

(f) Element 1.5: “provide a 3D virtual model of at least part of an oral cavity of the patient” (claim 1); Element 29.4: “provide a 3D virtual model of at least part of an oral cavity of the patient” (claim 29) 49

(g) Element 1.6: “arrange the at least one 2D image relative to the 3D virtual model in a virtual 3D space” (claim 1); Element 29.5: “arrange the at least one 2D image relative to the 3D virtual model in a virtual 3D space” (claim 29) 52

(h) Element 1.7: “such that the at least one 2D image and the 3D virtual model are aligned when viewed from a viewpoint” (claim 1); Element 29.6: “wherein the at least one 2D image and the 3D virtual model are aligned when viewed from a viewpoint” (claim 29) 57

(i) Element 1.8: “and remain separate representations after being arranged” (claim 1);

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Element 29.7: “and remain separate representations after being arranged” (claim 29) 59

(j) Element 1.9: “whereby the 3D virtual model and the at least one 2D image are both visualized in the 3D space” (claim 1);
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(k) Element 1.10: “design a restoration for the 3D virtual model” (claim 1);
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(l) Element 1.11: “where the restoration is designed to fit the at least one facial feature of the at least one 2D image” (claim 1);
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(m) Element 1.12: “wherein the at least one 2D image and the 3D virtual model are aligned by scaling, translating or rotating the at least one 2D image or the 3D virtual model relative to each other” (claim 1);
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