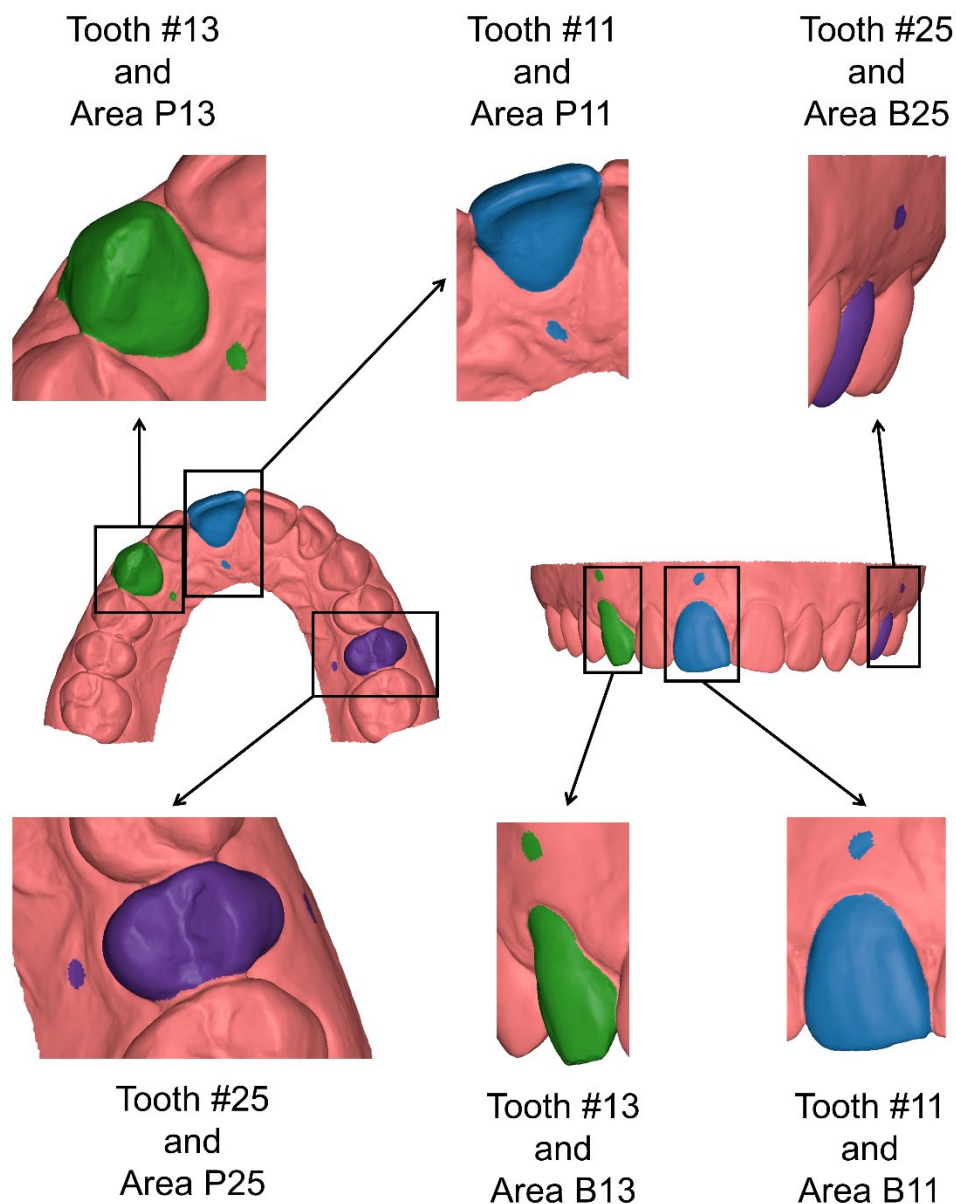
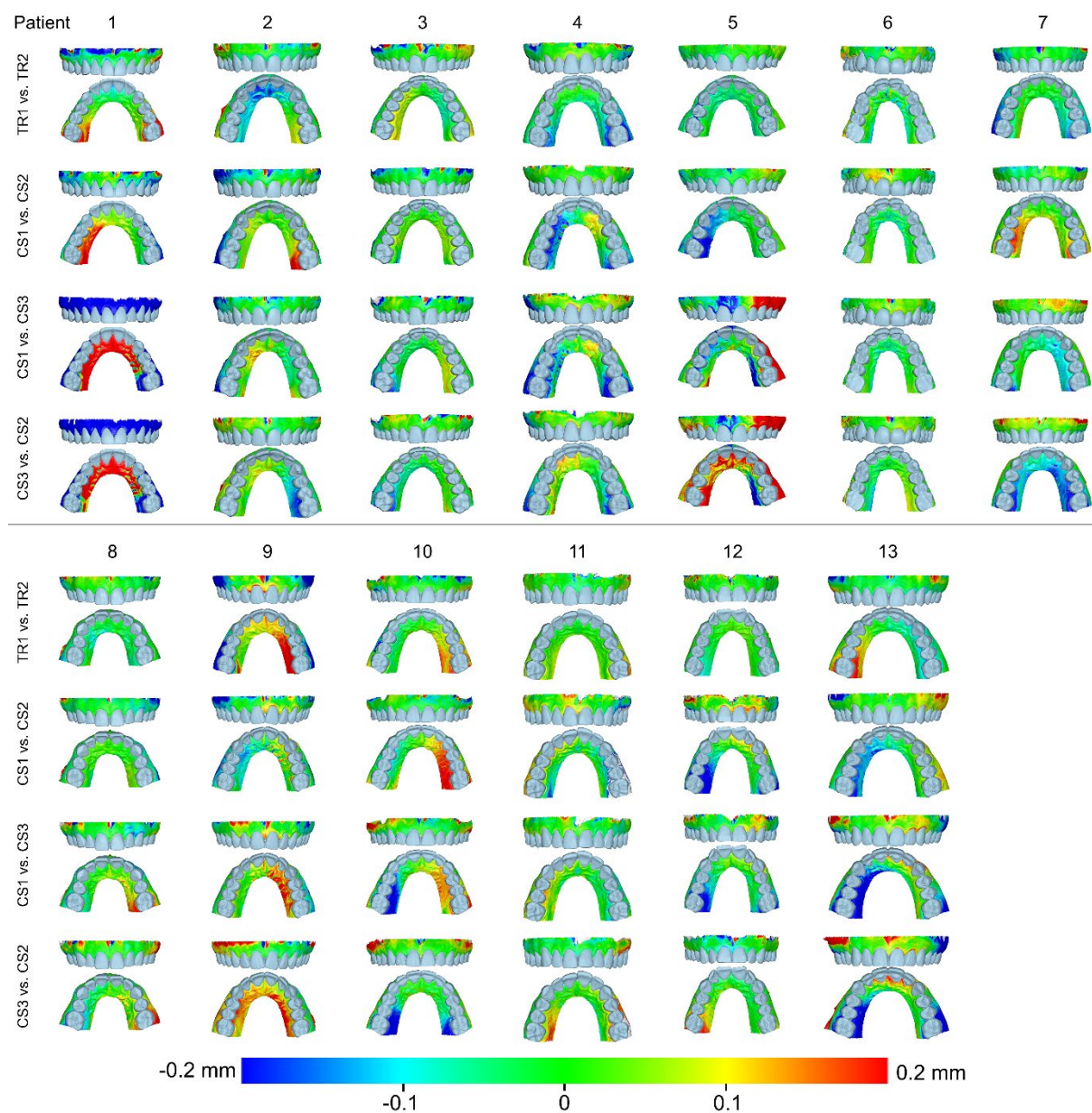


# Intraoral scanners for in vivo 3D imaging of the gingiva and the alveolar process

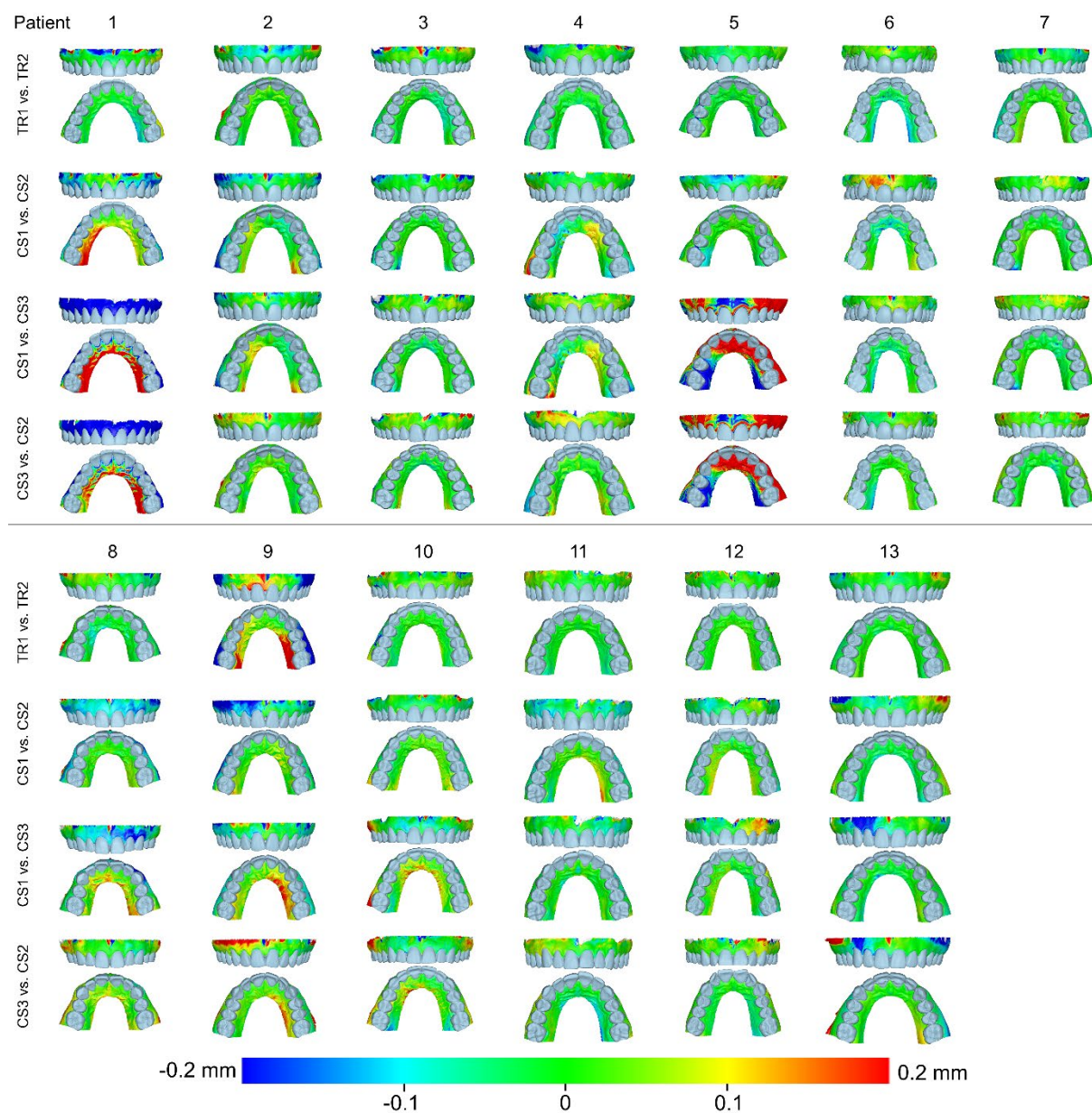
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**Figure S1.** Superimposition areas and regions of interest (ROI) for single tooth measurements. Superimposition areas: clinical crown of tooth #11 (blue), #13 (green) and #25 (violet). ROIs: circular areas of approximately 2 mm diameter, centered 2 mm apically to the deepest point of the gingival margins of teeth #11, #13 and #25, on the buccal (B11, B13, B25) and palatal side (P11, P13, P25).



**Figure S2.** Colour-coded distance maps showing the precision of the intraoral scans at the buccal and palatal alveolar soft-tissue surfaces when superimposed on the buccal surfaces of the front teeth. Three scans from CS 3600 (CS1, CS2, CS3) and two scans from TRIOS3 (TR1, TR2) were assessed.



**Figure S3.** Colour-coded distance maps showing the precision of the intraoral scans at the buccal and palatal alveolar soft-tissue surfaces when superimposed on the dental arch. Three scans from CS 3600 (CS1, CS2, CS3) and two scans from TRIOS3 (TR1, TR2) were assessed.

**Table S1.** Pairwise comparisons of the precision of scanners in the imaging of the alveolar process detected through repeated scan superimpositions on different areas.

Superimposition area	Region of interest	P-value <sup>1</sup>		CS1vsCS3 - CS1vsCS2	CS2vsCS3 - CS1vsCS2	TR1vsTR2 - CS1vsCS2	CS2vsCS3 - CS1vsCS3	TR1vsTR2 - CS1vsCS3	TR1vsTR2 - CS2vsCS3
Alveolar process	Alveolar process	0.006	P-value <sup>2</sup>	0.507	0.075	0.064	0.221	0.039	0.019
Buccal front teeth	Alveolar process	0.109	P-value <sup>2</sup>	0.279	0.133	0.133	0.173	0.064	0.055
Dental arch	Alveolar process	0.016	P-value <sup>2</sup>	0.249	0.279	0.046	0.650	0.028	0.039

<sup>1</sup>Friedmann test, Level of significance:  $p < 0.05$ <sup>2</sup>Wilcoxon signed-rank test (2-tailed), Level of significance following Bonferroni correction:  $p < 0.01$ **Table S2.** Pairwise comparisons of the precision of scanners in the imaging of specific alveolar areas after superimposition on single teeth.

Superimposition area	Region of interest*	P-value <sup>1</sup>		B11_CS1vsCS3 - B11_CS1vsCS2	B11_CS2vsCS3 - B11_CS1vsCS2	B11_TR1vsTR2 - B11_CS1vsCS2	B11_CS2vsCS3 - B11_CS1vsCS3	B11_TR1vsTR2 - B11_CS1vsCS3	B11_TR1vsTR2 - B11_CS2vsCS3
#11	B11	0.048	P-value <sup>2</sup>	0.064	0.382	0.152	0.116	0.019	0.087
	P11	0.114	P-value <sup>2</sup>	-	-	-	-	-	-
#13	B13	0.378	P-value <sup>2</sup>	-	-	-	-	-	-
	P13	0.809	P-value <sup>2</sup>	-	-	-	-	-	-
#25	B25	0.595	P-value <sup>2</sup>	-	-	-	-	-	-
	P25	0.291	P-value <sup>2</sup>	-	-	-	-	-	-

\*Circular areas of approximately 2 mm diameter, centered 2 mm apically to the deepest point of the gingival margin of teeth #11, #13 and #25, on the buccal (B11, B13, B25) and palatal side (P11, P13, P25).

<sup>1</sup>Friedmann test, Level of significance:  $p < 0.05$ <sup>2</sup>Wilcoxon signed-rank test (2-tailed), Level of significance following Bonferroni correction:  $p < 0.01$