PrepCheck

Computer-aided training system

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A plus for universities and students

Future dental practitioners need to be trained well in the accomplishment of preparations. Yet, given the increasing number of students and fewer members of staff, less and less time is available to discuss students’ work. PrepCheck is an easy-to-learn system based on objective measurement procedures which documents and analyses students’ results and also allows to be called up at a later stage.
Objective assessment
Assessment of preparations and fillings using a measurement and analysis system

Simple application
Users can train themselves and enhance their skills without supervision

Reproducible results
Thanks to the software that provides evidence-based assessment tools
How does PrepCheck work?

PrepCheck is a combination of CEREC Omnicam or Bluecam and analysis software which is installed on the mobile computer unit CEREC AC.

1. The student creates the preparation either on a phantom head of a simulation unit or on a patient.

2. The student scans the results with the CEREC Omnicam*. In doing so, the preparation, adjacent teeth and antagonists are measured intraorally.

3. The analysis software provides various interactive and automatic tools in order to assess the result compared to the predefined values or the master preparation.
The components:

CEREC AC
The mobile computer unit

CEREC Omnicam*
For optical surface scans

Analysis software
For objective assessments with either PrepCheck Easy or PrepCheck Pro license

The advantages at a glance:

Innovative
• Fully automatic 3D analysis
• For pre-clinical and clinical use
• Objective assessment of preparations and fillings
• Combination with simulation workstations

Evidence Based
• Reproducible results
• Archiving of analysis data
• Tamper prove

Proven
• Well-established CEREC system
• Worthwhile investment
• State-of-the-art software and camera
• Intuitive application, easy to learn

* Also possible with the CEREC Bluecam.
What options are offered by PrepCheck?

PrepCheck allows preparations to be analyzed and assessed in a variety of ways.

**Analysis of the preparation margin**
The analysis tool identifies and visualizes notches and sharp edges on the preparation margin. Smooth areas are shown in gray, rougher areas in orange.

**Analysis of the surface finish**
The analysis tool calculates the surface curvature locally on the cavity and displays flat areas in white, curved areas in gray and sharp edges in orange.

**Analysis of the marginal finish type**
The tool compares a specified sample form of the selected marginal finish type with the current preparation and visualizes the result using the colors green, blue and red.

**Further analysis functions**
- Distance measurement between the cavity and the antagonist tooth and visualization using the colors green, blue and red.
- Comparison of the cavity with a master preparation and visualization using the colors green, blue and red.
- Analysis of layered fillings and visualization using the colors green, blue and red.
- Distance measurement between the cavity and the restoration and visualization using the colors green, blue and red.
Why is PrepCheck so easy to use?
PrepCheck uses a color concept whereby the quality of the results is displayed using various colors. The main colors are green, blue and red:

**Green**
The result is not within the specified value range, however the user is still able to improve the preparation.

**Blue**
The result is within the specified value range.

**Red**
The result is not within the specified value range and the user is no longer able to make improvements.

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**Analysis of the circular angle**
The tool calculates one angle (lingual) and two angles (buccal) between the side of the preparation and the insertion direction (z-axis) and visualizes the result using the colors green, blue and red.

**Analysis of the undercuts**
This tool visualizes undercuts within the cavity just like the CEREC software does when determining the insertion axis of a restoration: Areas without an undercut are marked white, areas with an undercut are marked orange.