



# 3Shape Ortho System

Advanced 3D technology for improved orthodontic treatments

3shape 

# 3Shape R700 3D Scanner for Orthodontics

Fast and reliable 3D scanning for storage and analysis of orthodontic models

3Shape's R700 is a state-of-the-art 3D scanner specifically developed to scan dental stone models in proper occlusion. Unique features of the R700 scanner guarantee reliable superior scan results without compromising ease of use.

**Easy positioning** - of the models in the scanner and one-button scanning.

**High and consistent accuracy** - 20 microns. Continuous validation with Mitutoyo™ ceramic metrology gauge blocks (surface to surface accuracy of 15 microns).

**Advanced calibration** - of the laser, cameras and axes (can easily be performed by the user).

**2 cameras** - to ensure a better coverage and control the quality of the scanned data.

**3 mechanical axes** - 360 degree rotation, translation and tilt (secondary rotation axis) ensure optimal exposure of the geometry to the cameras and laser (including undercuts).

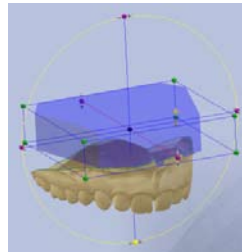
**Automatic alignment** - of scanned upper and lower models in original occlusion.

High resolution scanned model available after **2 minutes** - automatic creation of surfaced 3D models (triangulation) ready to use for analysis and treatment planning.

**3D base creation** - scan stone models without base and create a virtual base for consistent model setup and analysis.



The R700 3D Scanner.



## TECHNICAL SPECIFICATIONS

- |                                 |   |
|---------------------------------|---|
| • <b>Scan time (Ready STL)</b>  | Full model: 60 sec (75 sec)                 |
| • <b>Accuracy</b>               | < 20 microns, on 14-unit bridges            |
| • <b>Dual image capture</b>     | 2 x cameras, 1 x laser                      |
| • <b>Motion system</b>          | 3-axis: rotation, linear motion and tilting |
| • <b>Interface</b>              | USB connection to PC and laptop             |
| • <b>Output formats</b>         | STL (open standard) and DCM                 |
| • <b>Material color</b>         | Material color independent                  |
| • <b>Regulatory conformity</b>  | CE, RoHS, FCC, FDA registered, WEEE         |
| • <b>Dimensions (W x H x D)</b> | 34 x 29 x 33cm (14" x 11" x 13")            |
| • <b>Weight</b>                 | 14 kg                                       |

# 3Shape OrthoAnalyzer™

Advanced orthodontics diagnosis and treatment planning

3Shape's OrthoAnalyzer is a dedicated software package used for the analysis and planning of orthodontic treatments, using high-quality 3D data of patient's cases scanned with a 3Shape D700 3D scanner.

## Unlimited Analysis

Set up analysis points on scanned models for rapid and consistent analyses.

Adjust and analyze occlusion with a palette of several 3D tools  
Freely defined plane cuts for easier access to areas of interest on the scanned models.

Predefined analyses for treatment planning: tooth width, Bolton, Space (Tanaka & Johnston, Moyers), Ideal arch etc. Freely create default landmarks on scanned models for customized analyses.

Complete set of 2D and 3D distance and angle measurement tools.

Assess treatment efficiency: before/after treatment comparison with color deviation maps and misc. measuring tools.

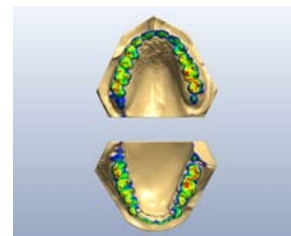
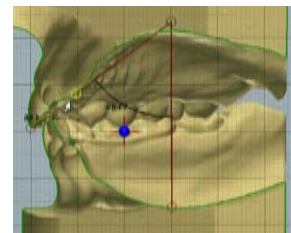
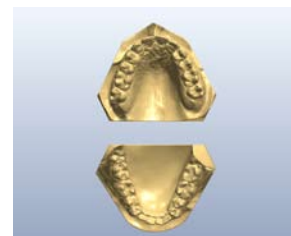
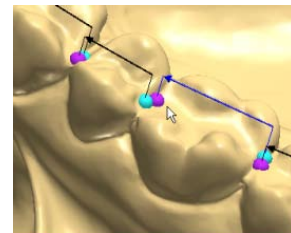
## Communication

Easy on screen communication of treatment plan to patient with a 3D Viewer.

Reporting: Full interface to Crystal Reports® and fully customized analysis reports.

Interface to patient management system using XML protocol.

Automatic archiving of all patient cases and analyses keeps track of the complete patient history.



## HIGHLIGHTS

- **Reliable high quality** - of 3D scanned models (<20 microns) in original occlusion
- **Fast scanning time** - less than 2 minutes for a ready STL model at high resolution
- **Virtual base creation** - on the scanned models to save time and maintain consistency
- **Advanced 2D and 3D analysis tools** - angle and distance measurements and easy reporting
- **Predefined analyses** - tooth width, ideal dental arch, space etc. and user-defined analyses

## About 3Shape A/S

3Shape A/S is a Danish company specializing in the development and marketing of 3D scanners and CAD/CAM software solutions. These are used for the creation, processing, analysis and management of high-quality 3D data.

Implementing 3Shape's solutions brings **significant benefits in terms of quality, productivity and creativity** to complex manufacturing processes, where the handling of physical objects is critical.

With more than 50 full-time developers dedicated to dental solutions, we have unmatched development and innovative power, thereby making the vision of a complete digital lab a reality.

Thousands of dental restorations are produced every day by customers using 3Shape's 3D scanners, CAD modeling software and production management systems in more than 50 countries.

3Shape is a privately-held Danish company, whose headquarters are in Copenhagen, with development teams in Denmark as well as the Ukraine. In early 2009, we opened Sales and Support Offices in New Jersey, USA and Shanghai, China.

For further information on 3Shape A/S and the Ortho System please visit:

**[www.3Shape.com](http://www.3Shape.com)**.



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