

State of the Art in Handheld 3D Color Scanning (...and cool usages of the 3D technology)

Peter Jensen, 3Shape A/S

Peter.dahl@3shape.com



3Shape A/S

Holmens Kanal 7, 1060 Copenhagen K – Denmark

phone: +45 70 27 26 20 fax: +45 70 27 26 21 e-mail: info@3shape.com

www.3shape.com

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About 3Shape



- **Global provider of innovative 3D technology**
Established in 2000 in Copenhagen, Denmark
- **350 employees**
More than 150 developers
- **Headquarters in Copenhagen (Denmark)**
Offices in Kiev (Ukraine), Stettin (Poland), New Providence (USA)
Milano (Italy) and Asia
- **Leading supplier in the Hearing Aid Segment**
70-80% of the world's hearing aids are produced using
3Shape's technology
- **Global market leader for Dental CAD System for the lab**
Thousands of installations in more than 60 countries.

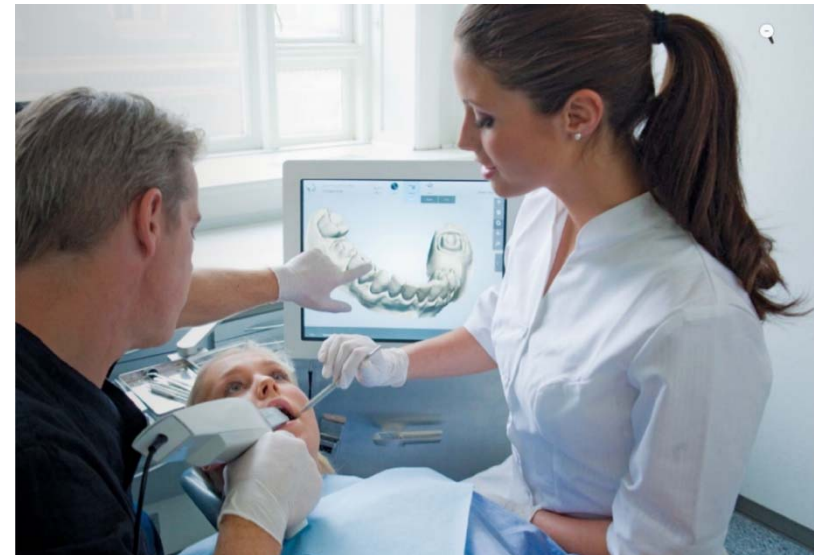
Introduction



❑ Traditional Impression

Problems:

- Patient uncomfort
- Gaging sensation
- Material and logistics cost
- Copy of copy -> more inaccuracies



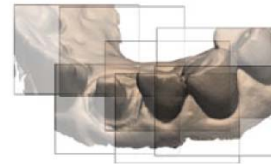
Advantages:

- Higher patient comfort
- Easier retakes
- Saved logistics and material costs

Problems:

- Models still might be needed sometimes

TRIOS Overview



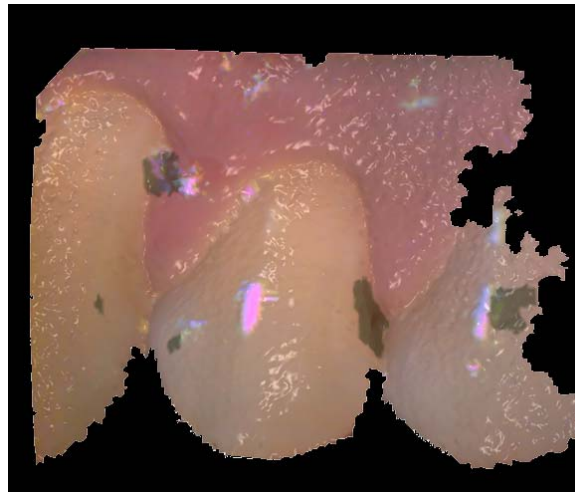
15 Images pr. second

3.3 GB data pr. second

Up to 1000 3D pictures



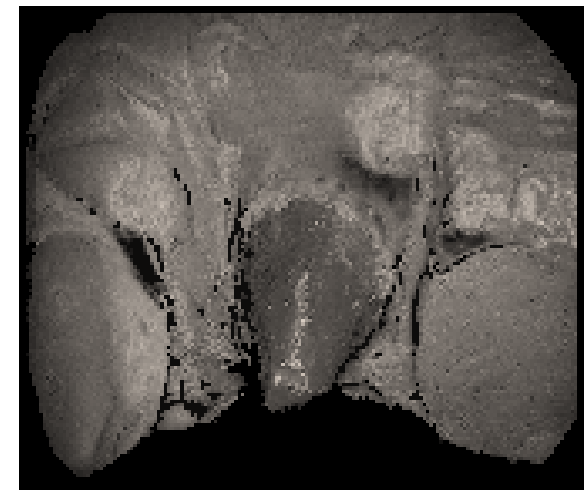
TRIOS Scanner – Technical Details



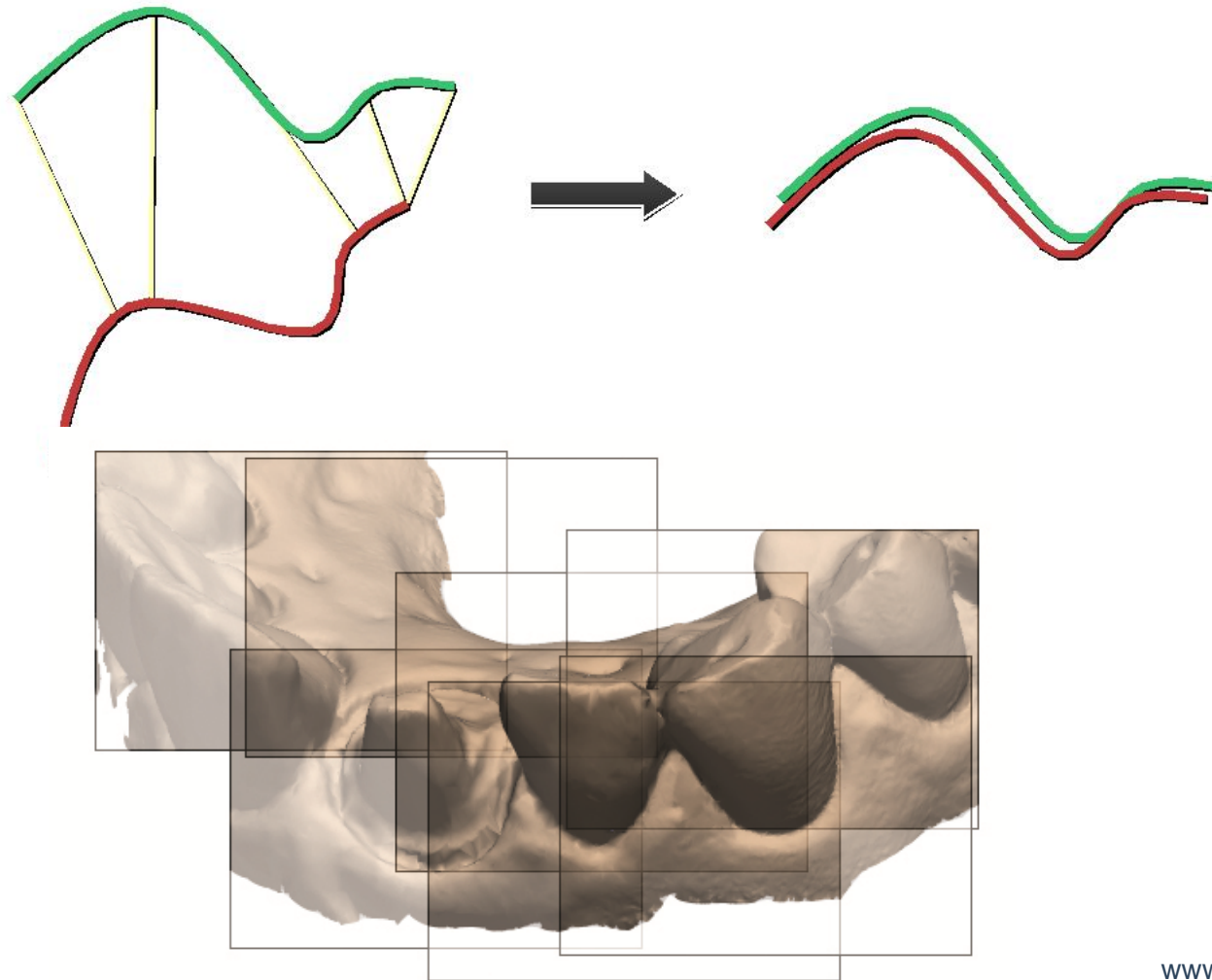
RGB-D Camera
(Kinect, Swiss Ranger)

Subscan Data:

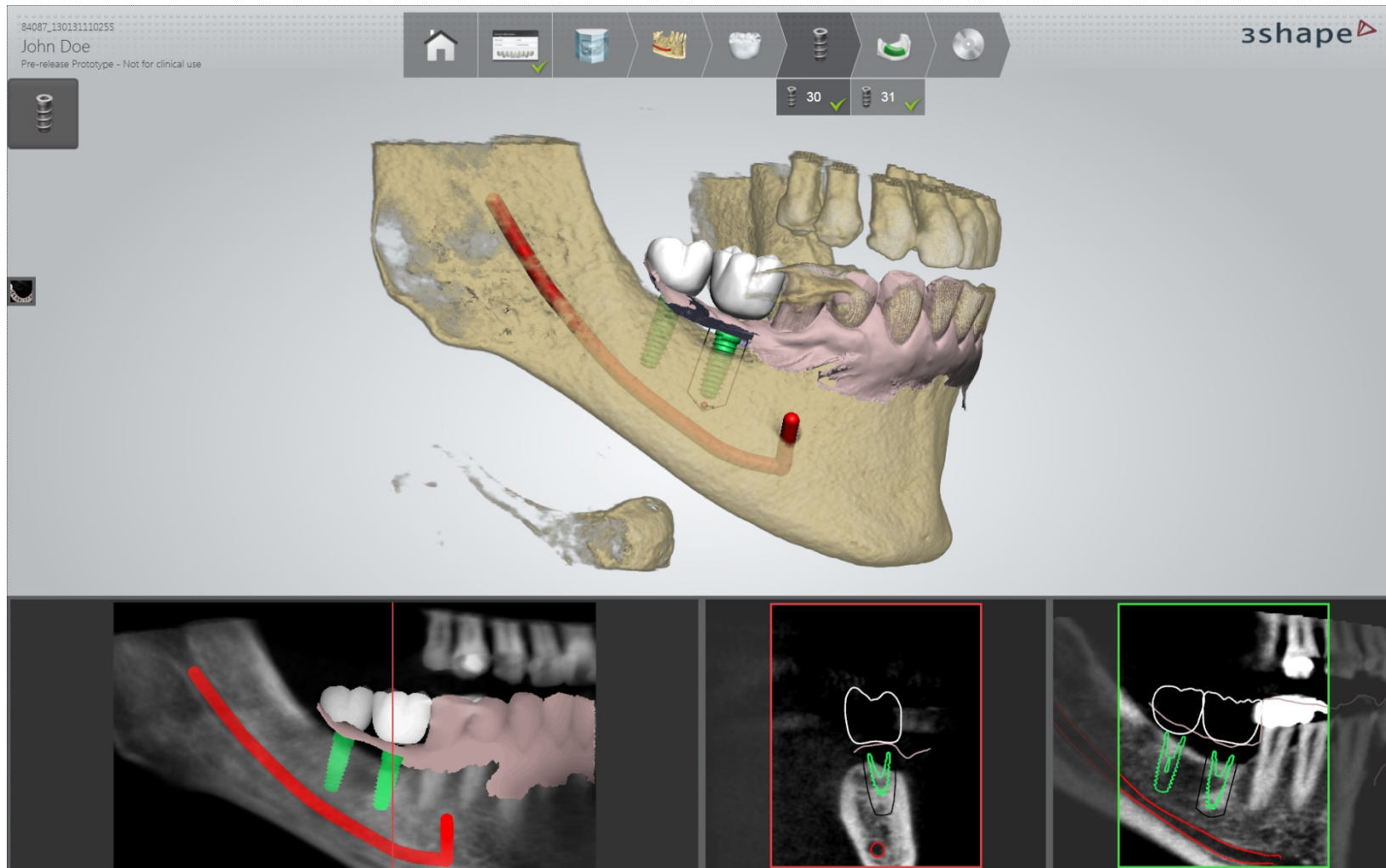
RGB Texture
Depth map
Amplitude Map



ICP Registration



The Immediate Future of 3D – Combining Data



The Future of 3D!



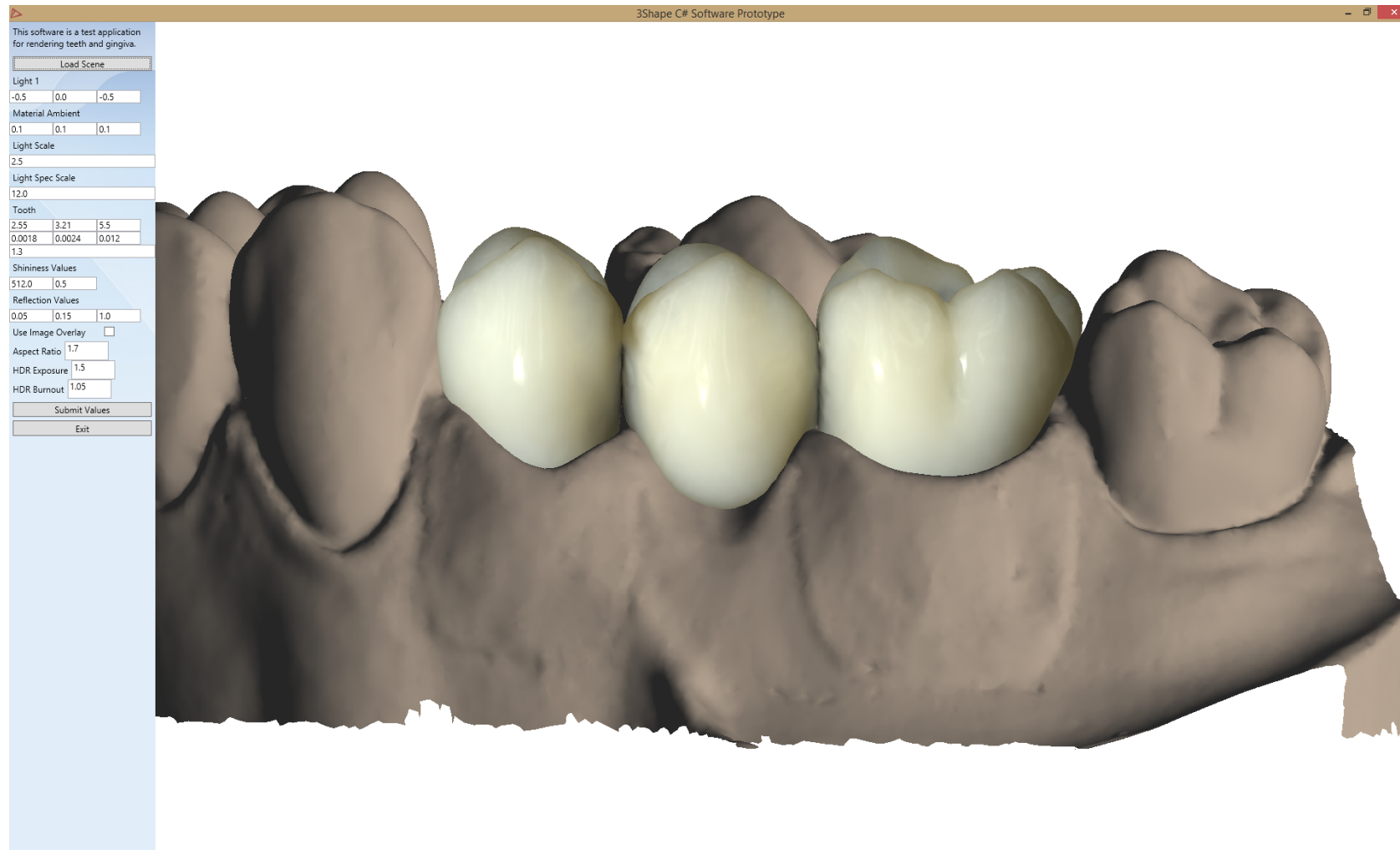
The (Distant) Future of 3D!



Hand Veneering Crowns



Fully Digital Porcelain Crowns





3D Scanning Hardware
(RGB-D and structured light)

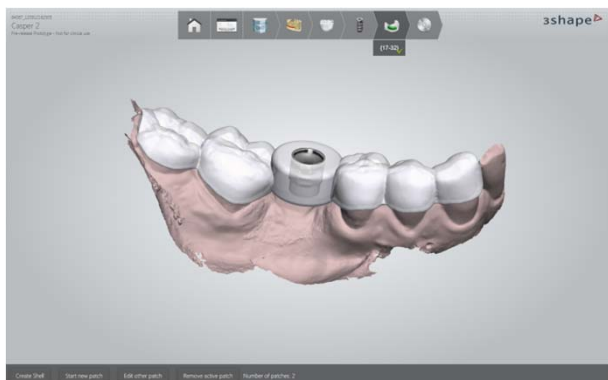


C#, .NET 4.5
DirectX 11

We Are Hiring!

CT Data

Help creating the future of 3D



Interesting and challenging problems in:
Physics, Rendering, SW Development

