



## IDT Ireland

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***From Scan  
to Plan  
to Guide***

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Dental Technologist

***IDT Ireland***

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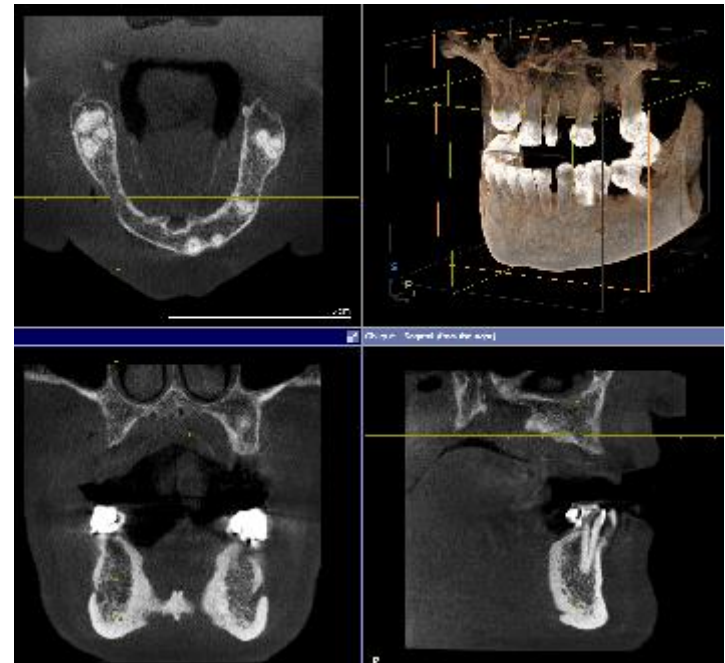
# Scan

We'll arrange  
a CT or CBCT  
Scan at one of  
17 partner sites  
from €150





Sirona Orthophos SL 3D



***CBCT Scans taken at Consultants Private Clinic***



www.idtscans.com

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## Get the most out of your dental CT/CBCT scans

IMPLANT SIMULATION

REFORMAT AN EXISTING SCAN

REQUEST A RADIOLOGY REPORT

REQUEST A NEW DENTAL CT SCAN



## Choose a scanning site in the UK or Ireland

SEARCH

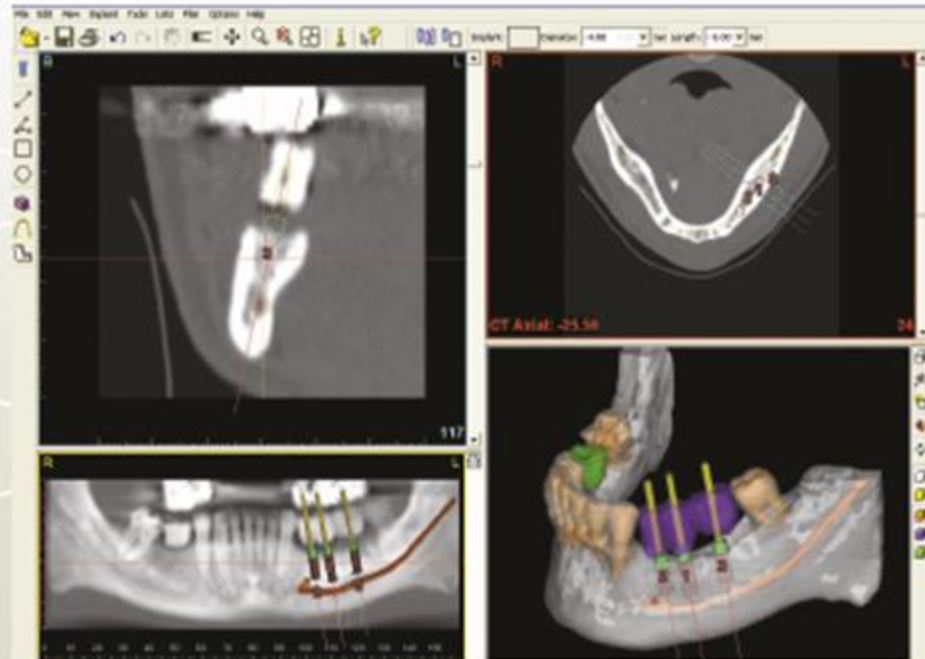


www.idtscans.com

# Plan

We'll help with  
the treatment  
planning

from €70



# Guide

We'll make  
the surgical  
drill guide

from €150

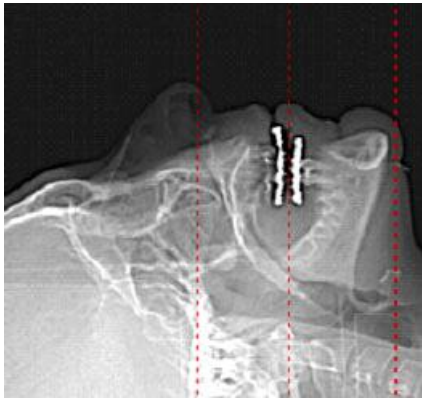


# ***We support the following software:***

- **Osirix™**
- **Blue Sky Plan™**
- **SIMPLANT™**
- **In Vivo Dental™**
- **coDiagnostiX™**
- **Sirona™**
- **Carestream™**
- **i-CATVision™**



# Dental (CB)CT Scans

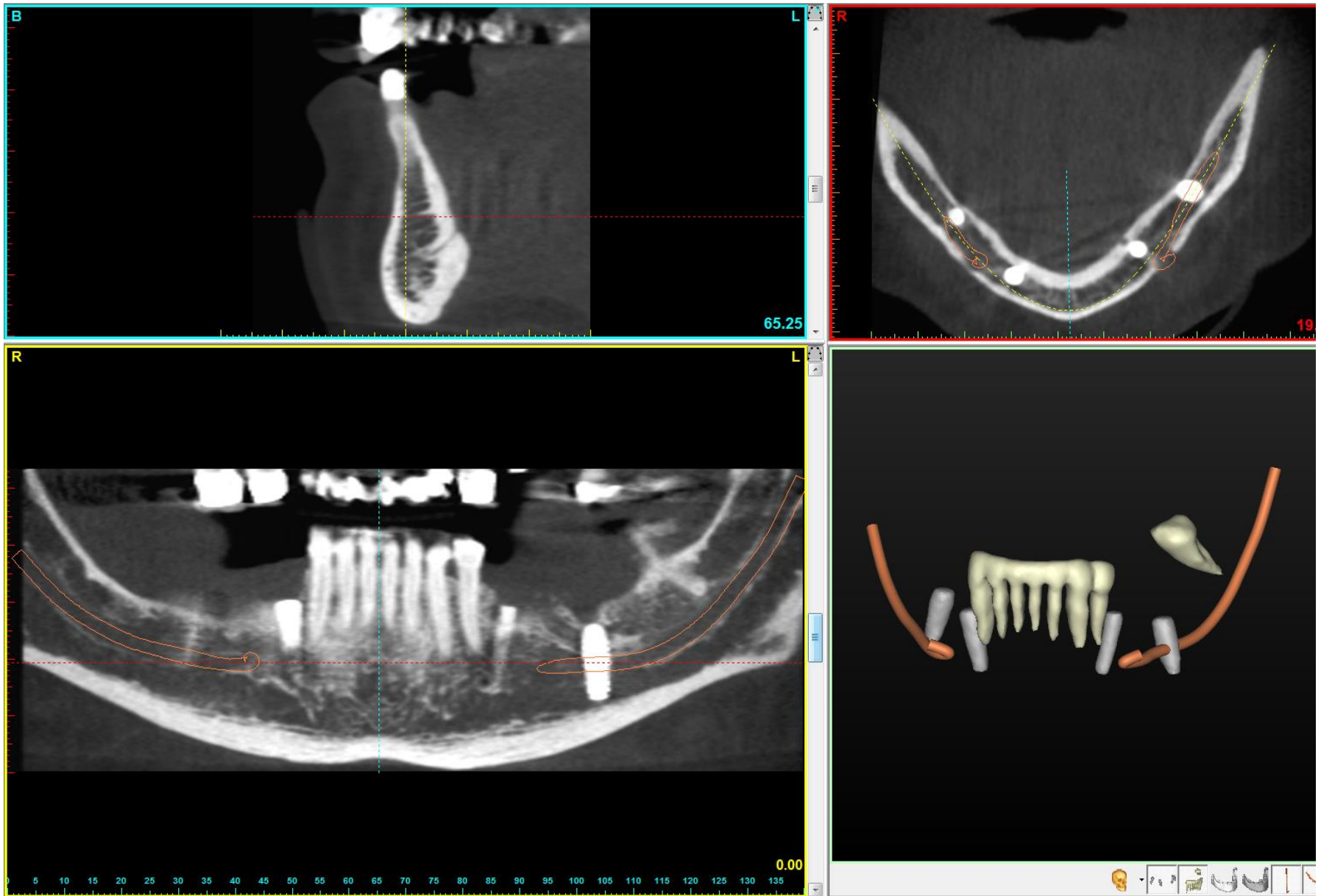


- **Bony anatomy of Mandible, Maxilla, Zygomatic Arches**

- **Useful for:**

- impacted, supernumerary and abnormal teeth
- root canals, root fractures
- **planning dental implants**
- periapical disease
- cleft palate assessment
- TMJ and airway analysis





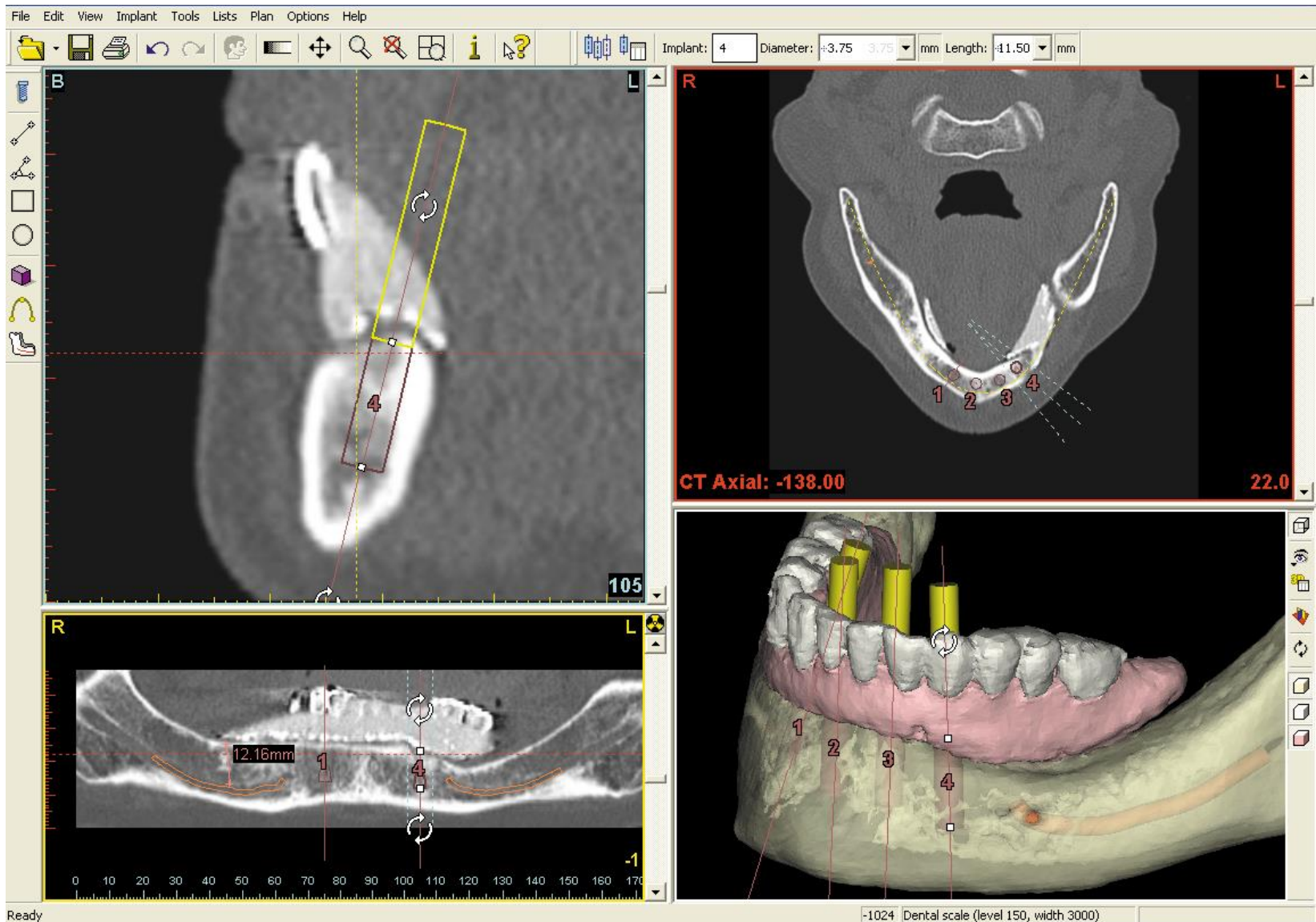
**Take the CT Scan first, do the surgery second (not the other way around)!**

# ***Restoration-Driven Implant Planning***

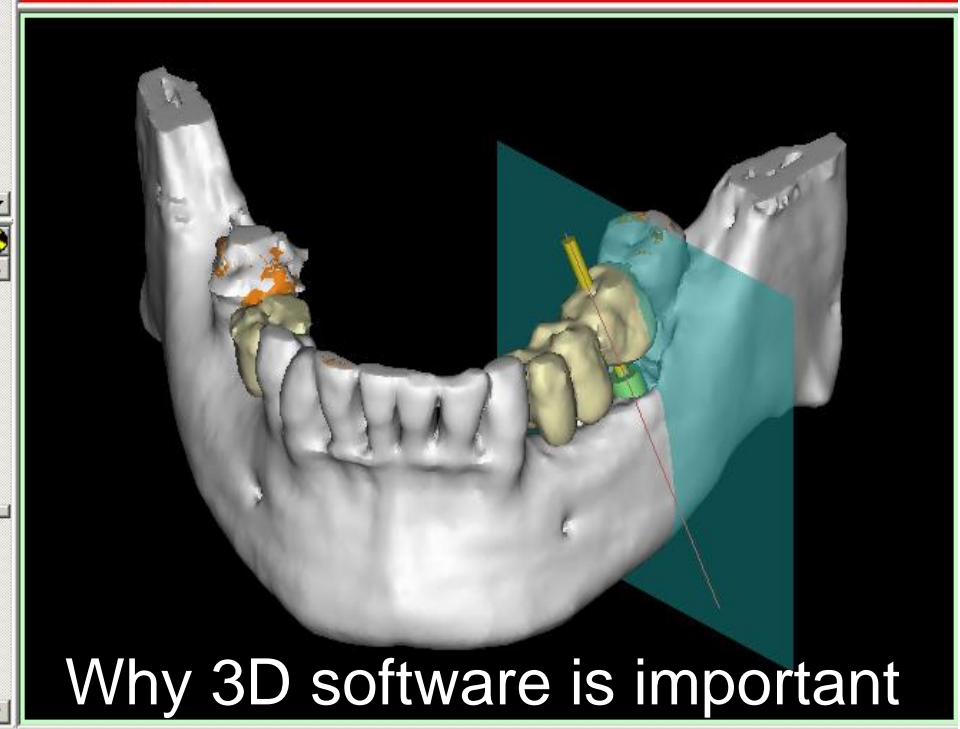
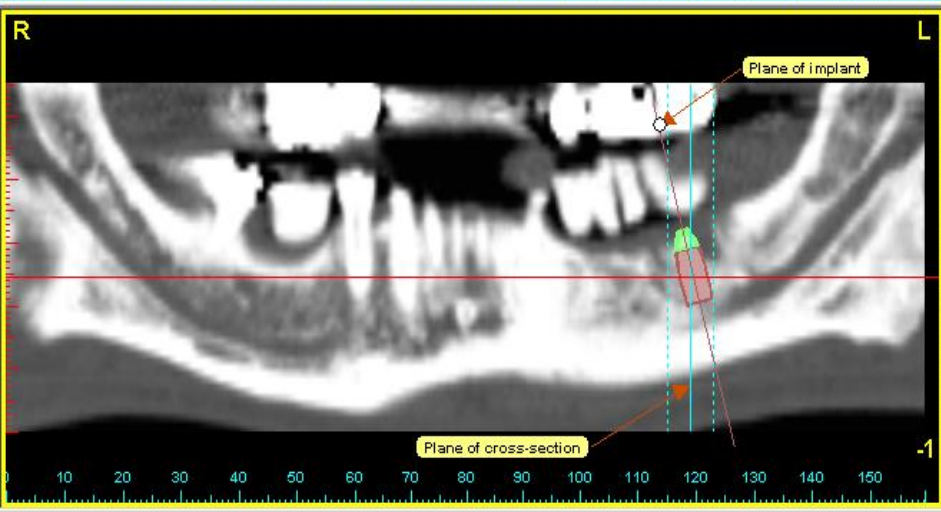
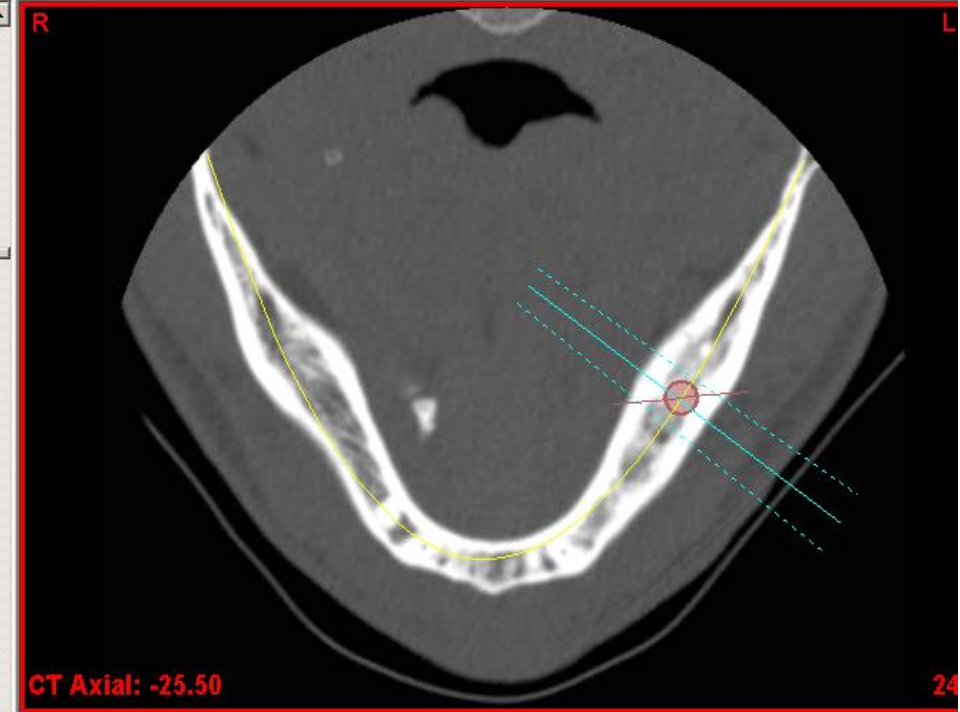
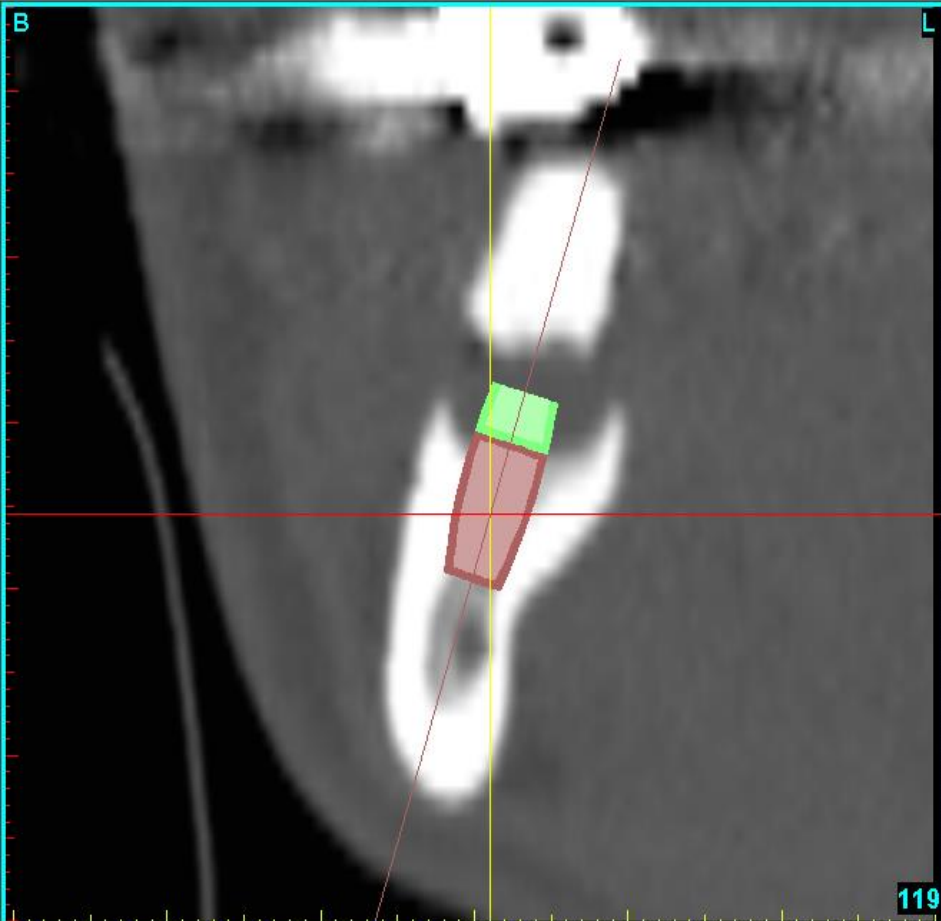
***“Create a model of the desired result, then work backwards to determine how it can be achieved”***

- ***Radio-Opaque Scanning Stents***
- ***3D Implant Planning Software***
- ***Surgical Drill Guides***

# 3D interactive implant planning software



SIMPLANT™ is a trademark of DENTSPLY Implants

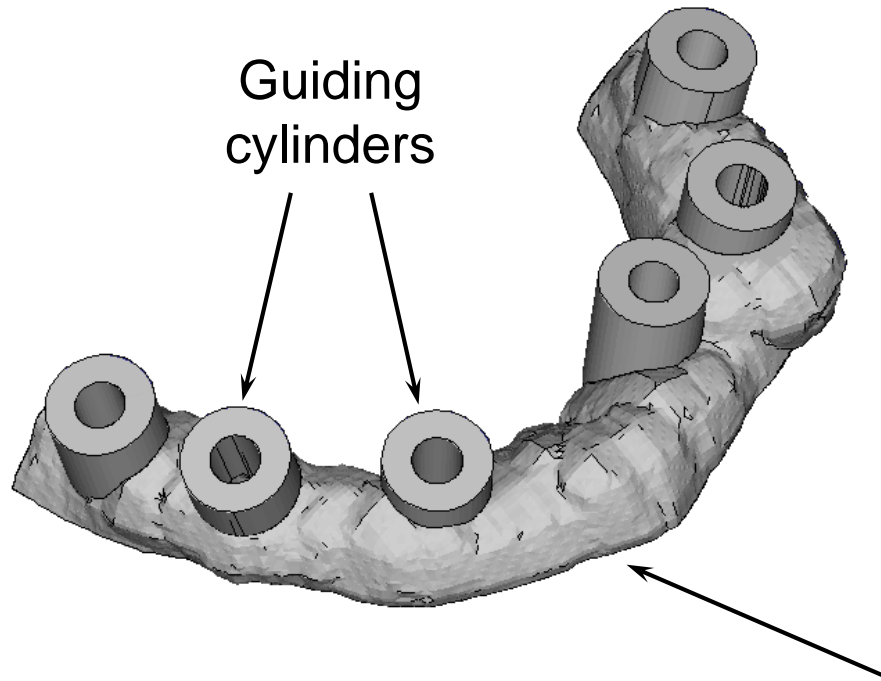


# *Radio-Opaque Scanning Stents*



- Gives inter-arch stability for the patient during the scan
- Opens the bite slightly (a few mm) using occlusal stops
- Shows position and size of the desired restorations
- Shows inter-arch relationship
- If you want a mucosa-supported surgical guide, edentulous patients **MUST** be scanned wearing a stent

# *Surgical Drill Guides*



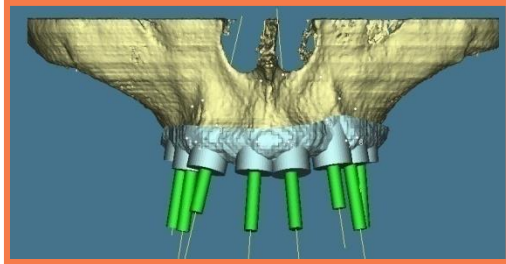
The guide controls:

- Position
- Orientation
- Depth

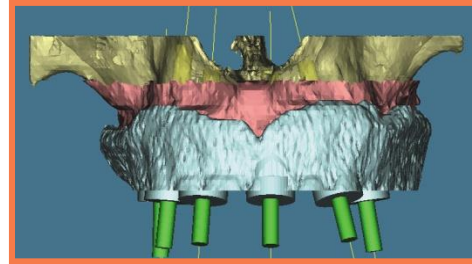
Guide can rest on:

- Bone
- Mucosa
- Teeth

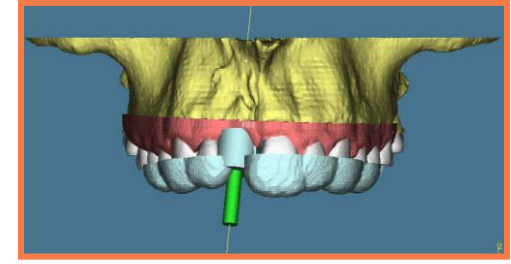
# *Guides can be supported on*



**Bone**



**Mucosa**



**Teeth**

## **Bone Supported Guides:**

- Bone crest must be clearly visible in the CT images and  $\geq 3$ cm long

## **Mucosa Supported Guides:**

- Patient must be scanned with a scanning stent in place

## **Tooth Supported Guides:**

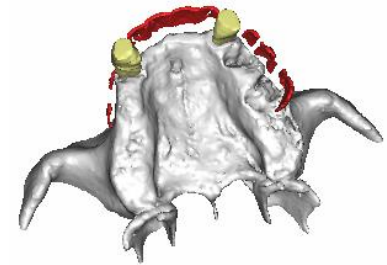
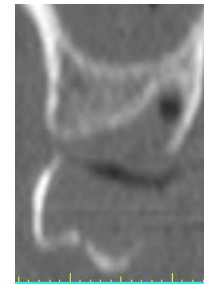
- Tips of teeth must be clearly visible in the CT images
- A recent and accurate plaster cast will be required

**Need to think about the Guide before you request the CT Scan!**

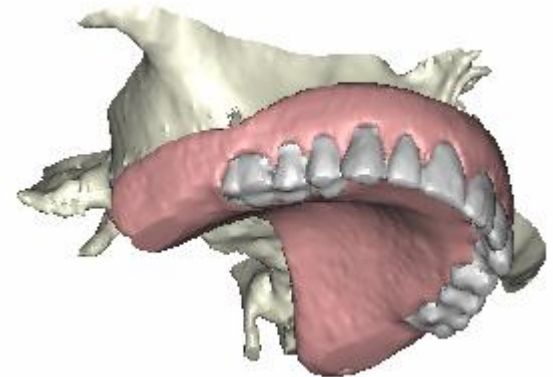


# ***Making a Scanning Stent***

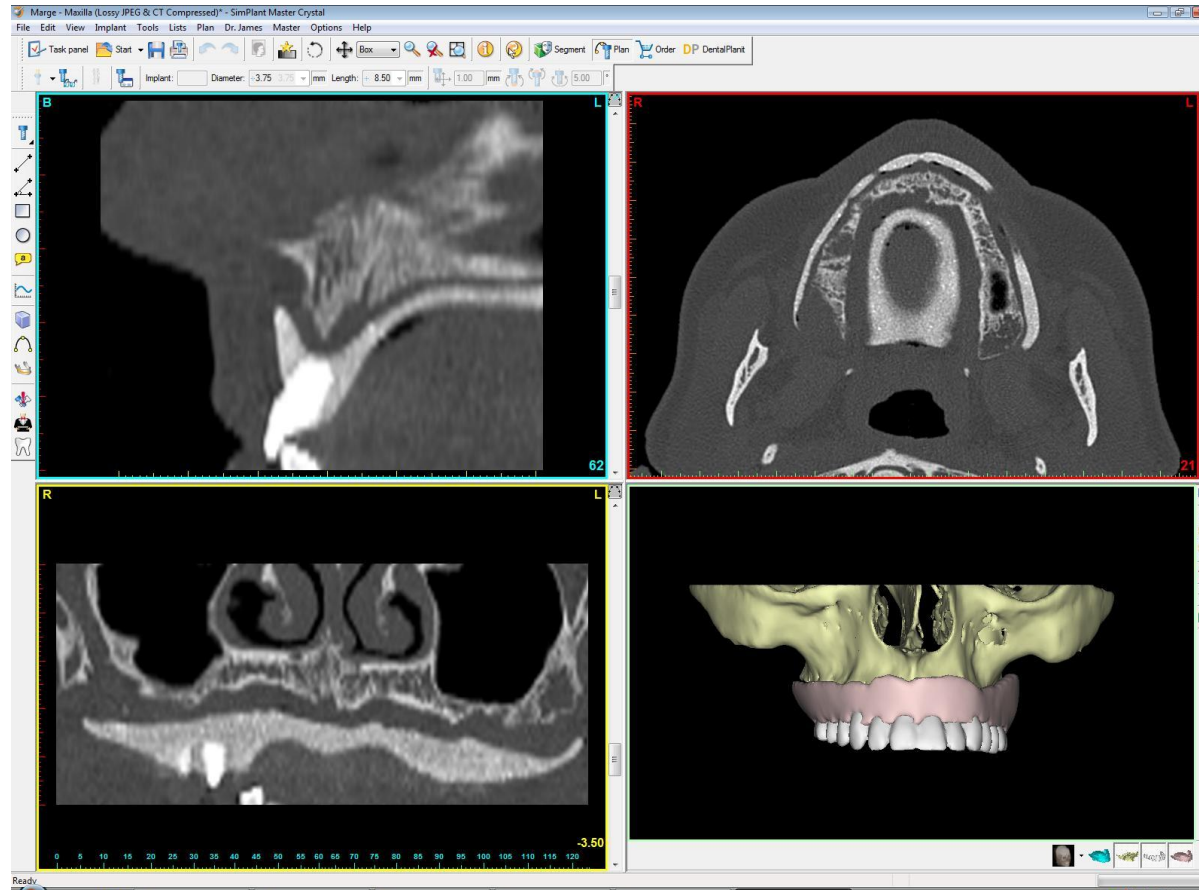
- **Plastic and clear acrylic does not show up on a CT scan.**
- **To make it show up, you can:**
  - **mix barium sulphate with the acrylic**
  - **paint barium sulphate on the surface**
  - **use radio-opaque teeth**
  - **use markers made from a radio-opaque material**
    - lab putty
    - gutta percha
    - glass ionomer
  - **use a dual-scan technique.**



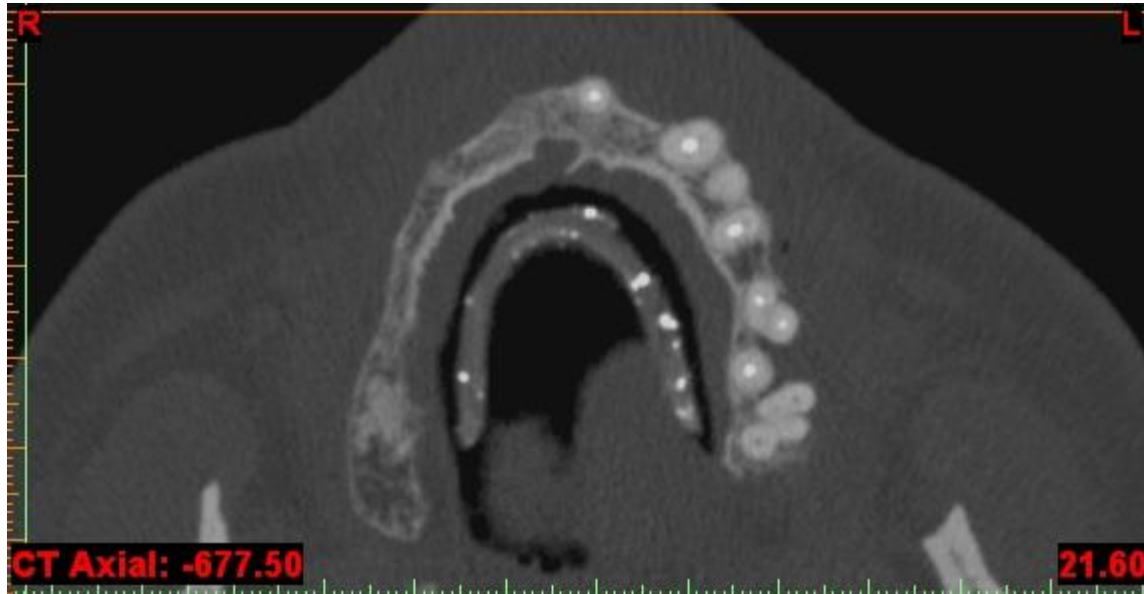
- **We recommend using a barium sulphate-acrylic mix for both the radio-opaque teeth and the baseplate.**
- **Use 15% barium sulphate in the teeth and 10% barium sulphate in the baseplate. This allows the teeth to be picked out separately.**
- **Do not use too much Barium Sulphate as it will cause an artefact.**
- **An accurate fitting stent with radio-opaque baseplate is usually the best option for mucosa-supported surgical drill guides.**



# Good Stent



# Bad Stent



**Terrible  
Stent**

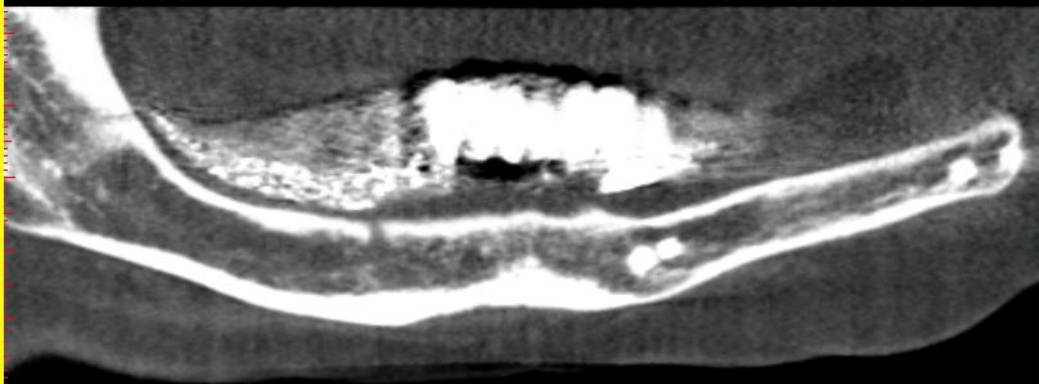


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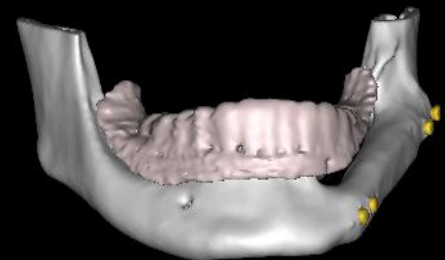
CT Axial: -25.38



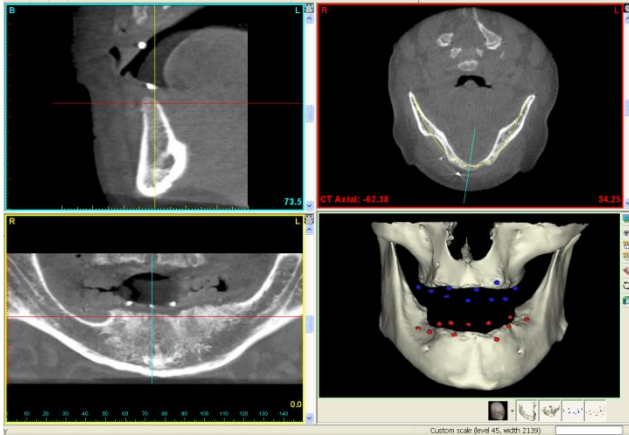
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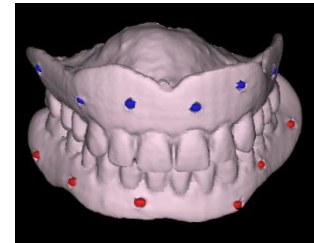
0.75



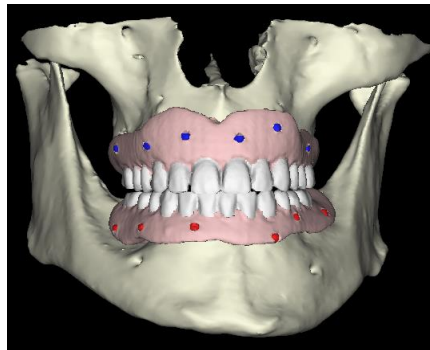
# Dual Scan Technique

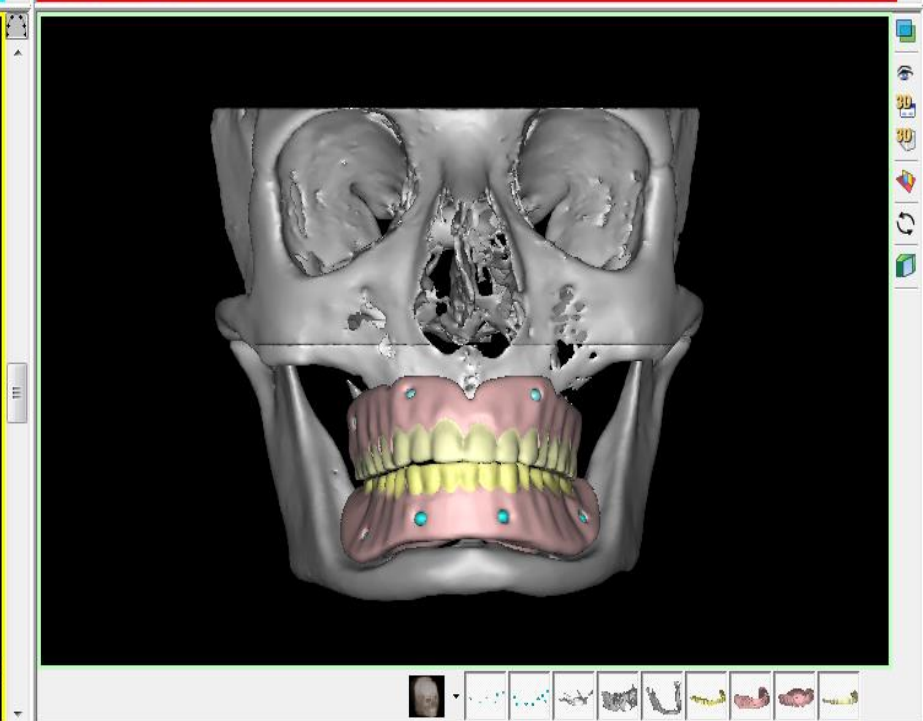
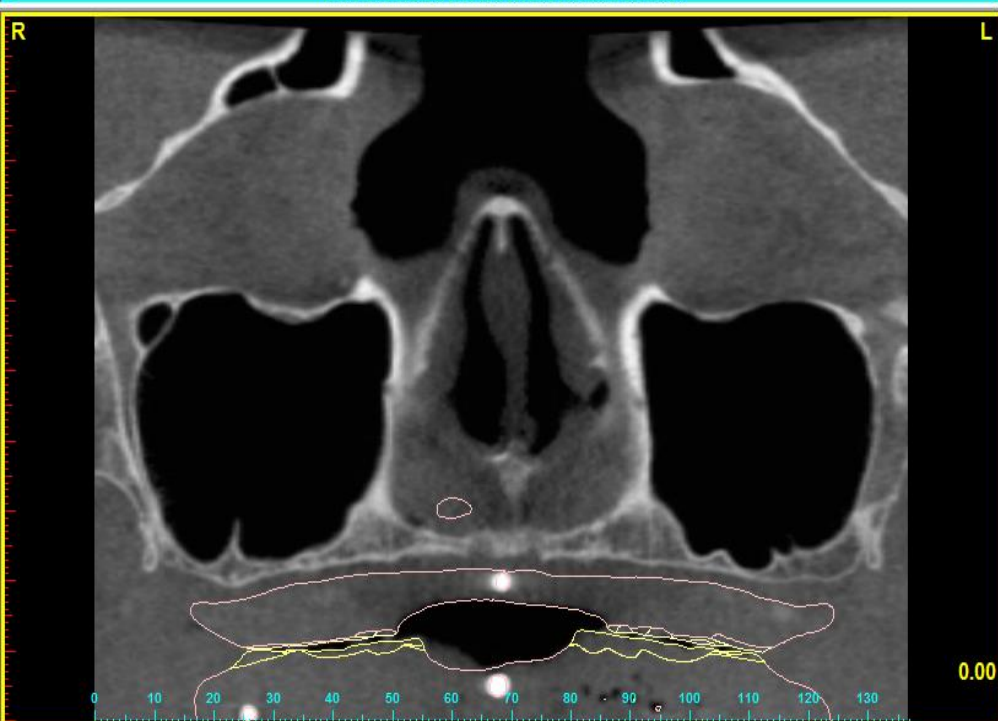
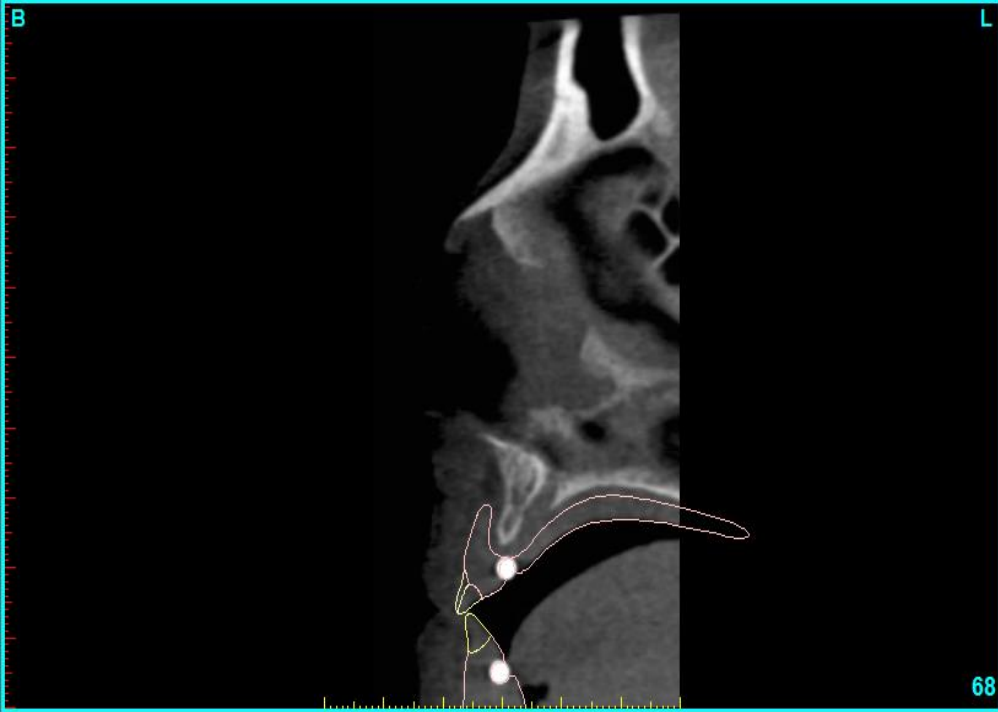


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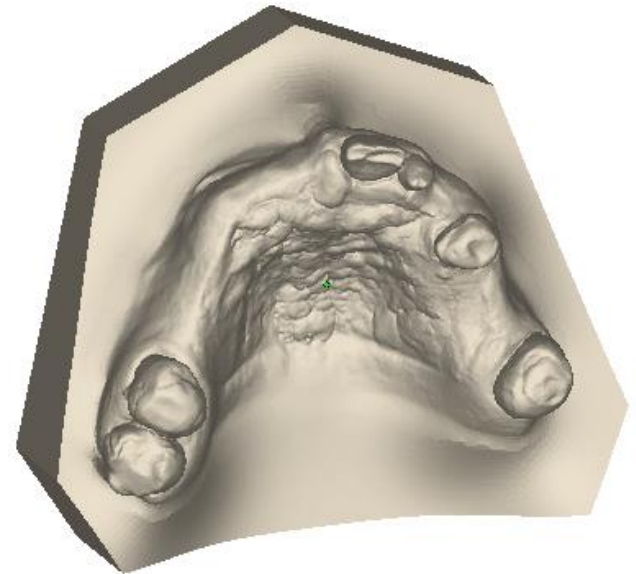


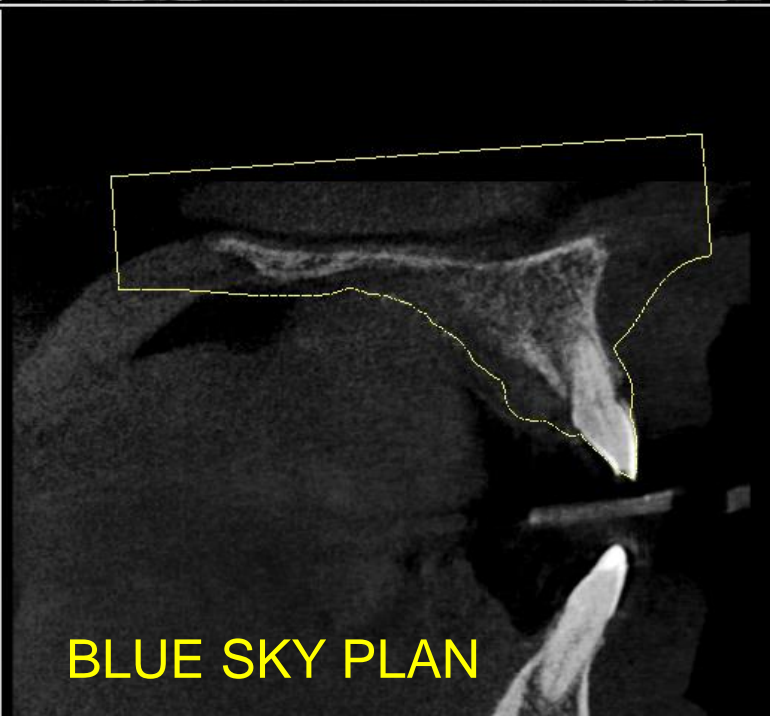
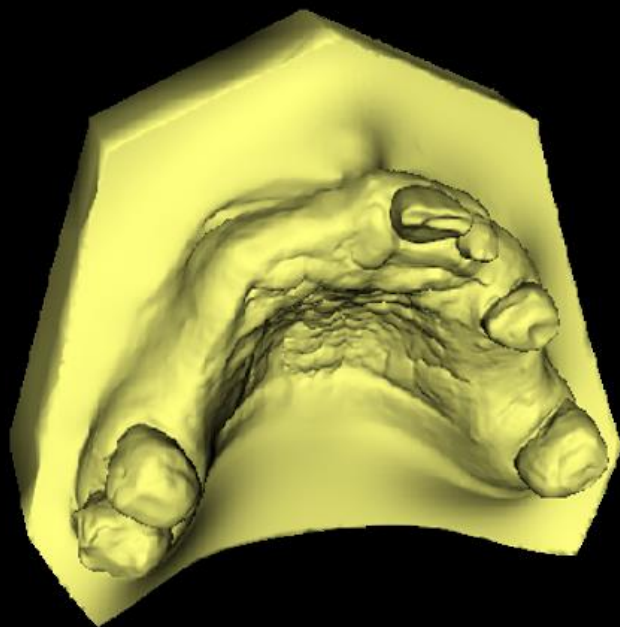
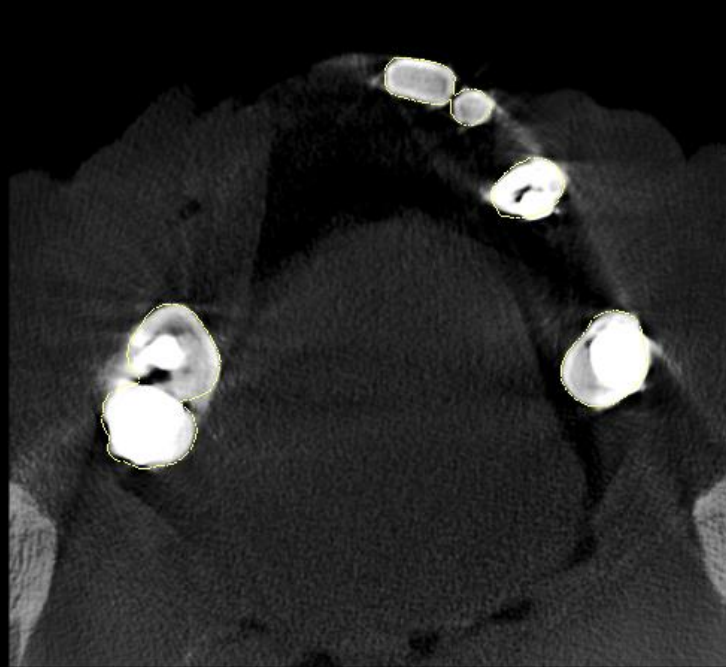
# ***Partially Dentate Patients***

- **Drill Guide will be supported on patient's existing teeth**
- **Need a recent and accurate impression or plaster cast**
- **Optical (laser) scan of plaster cast**
- **Import optical scan into the implant planning software**
- **Guide will be designed to fit the plaster cast.**



# *Optical Scan of Plaster Cast*





BLUE SKY PLAN

GALILEOS Viewer - FINN, SHEILA \* 1960-04-02 [2016-09-19 14:29] - Plan 1

Workspace Image Analysis View Plan Implant Help

Cross-sectional

60°

labial/buccal

oral

Sirona

1 cm

-60°

Diagnosis  
Findings  
Nerve  
CAD/CAM  
Implant

Current implant  
16

Properties  
Thommen  
Element RC INI

Diameters [mm]  
4.2/4.2

Length [mm]  
8.0

Surgery

Panorama Implant-Aligned MPR/Radiology

Show/hide abutments

sirona

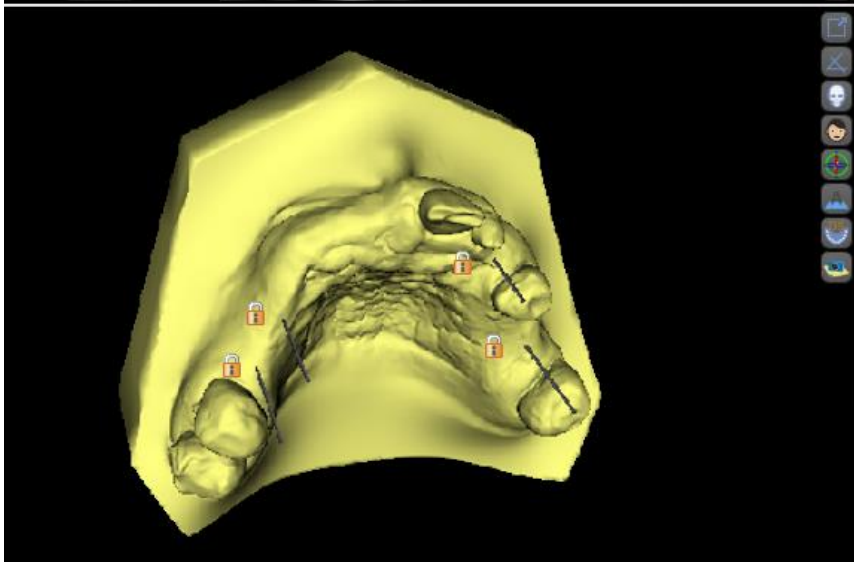
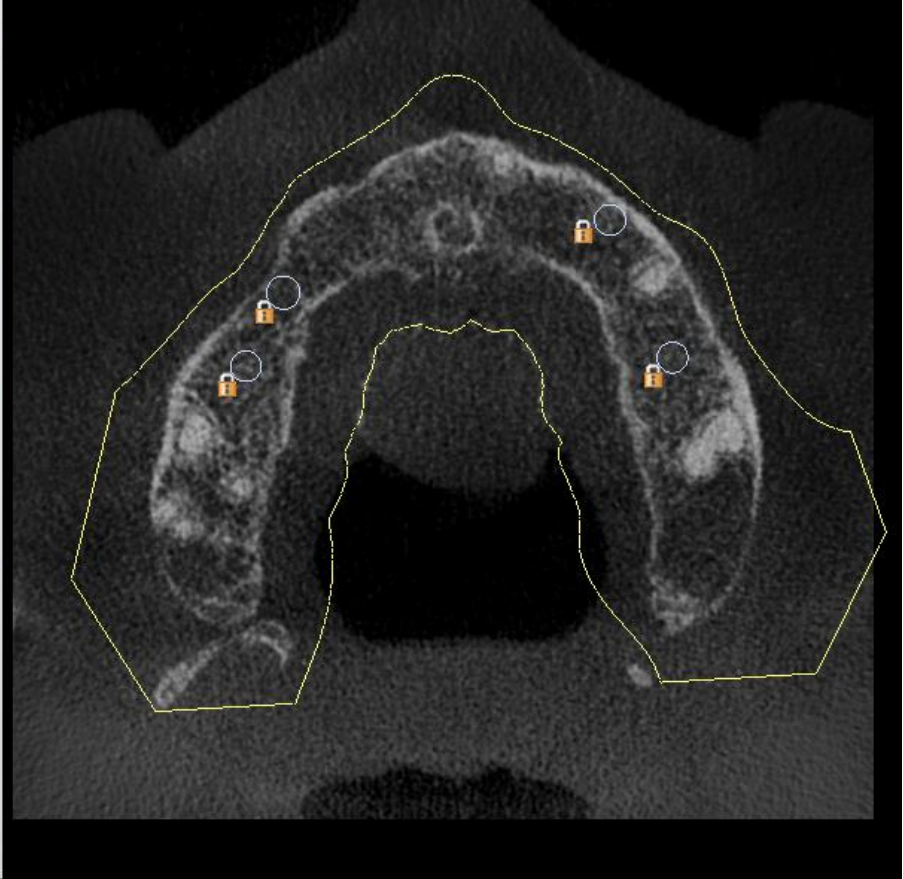
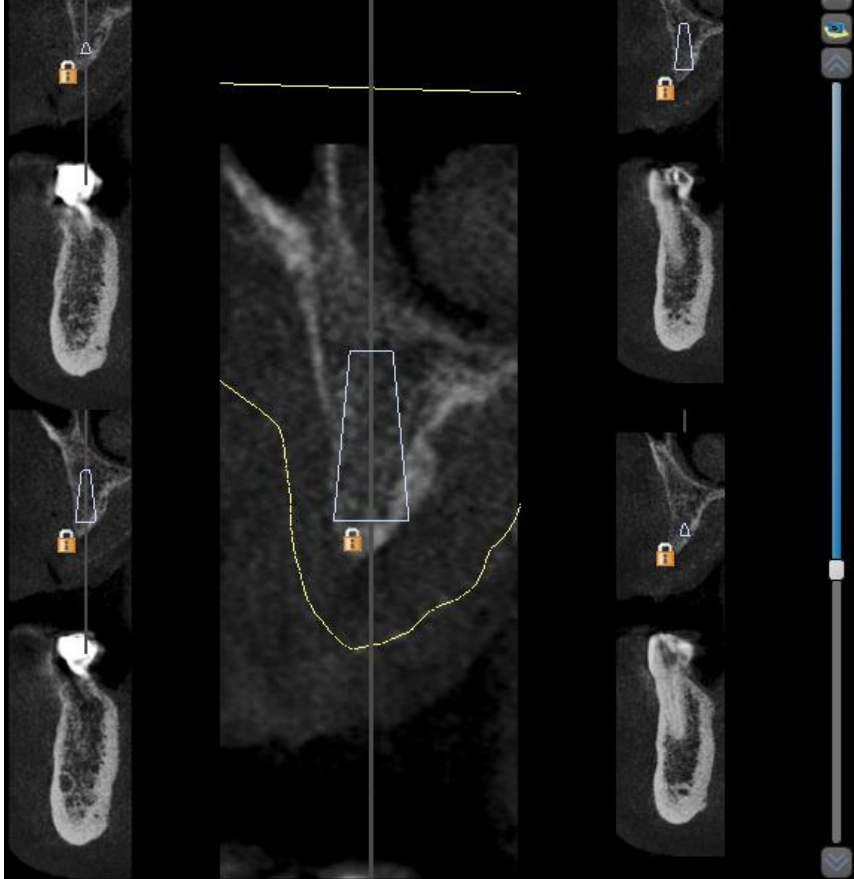
Blue Sky Plan - FINN Sheila - //DELL1/Data\_In/SurgiData/FINN

File Edit Tools View Panels Model Implants Virtual Teeth Mode Help

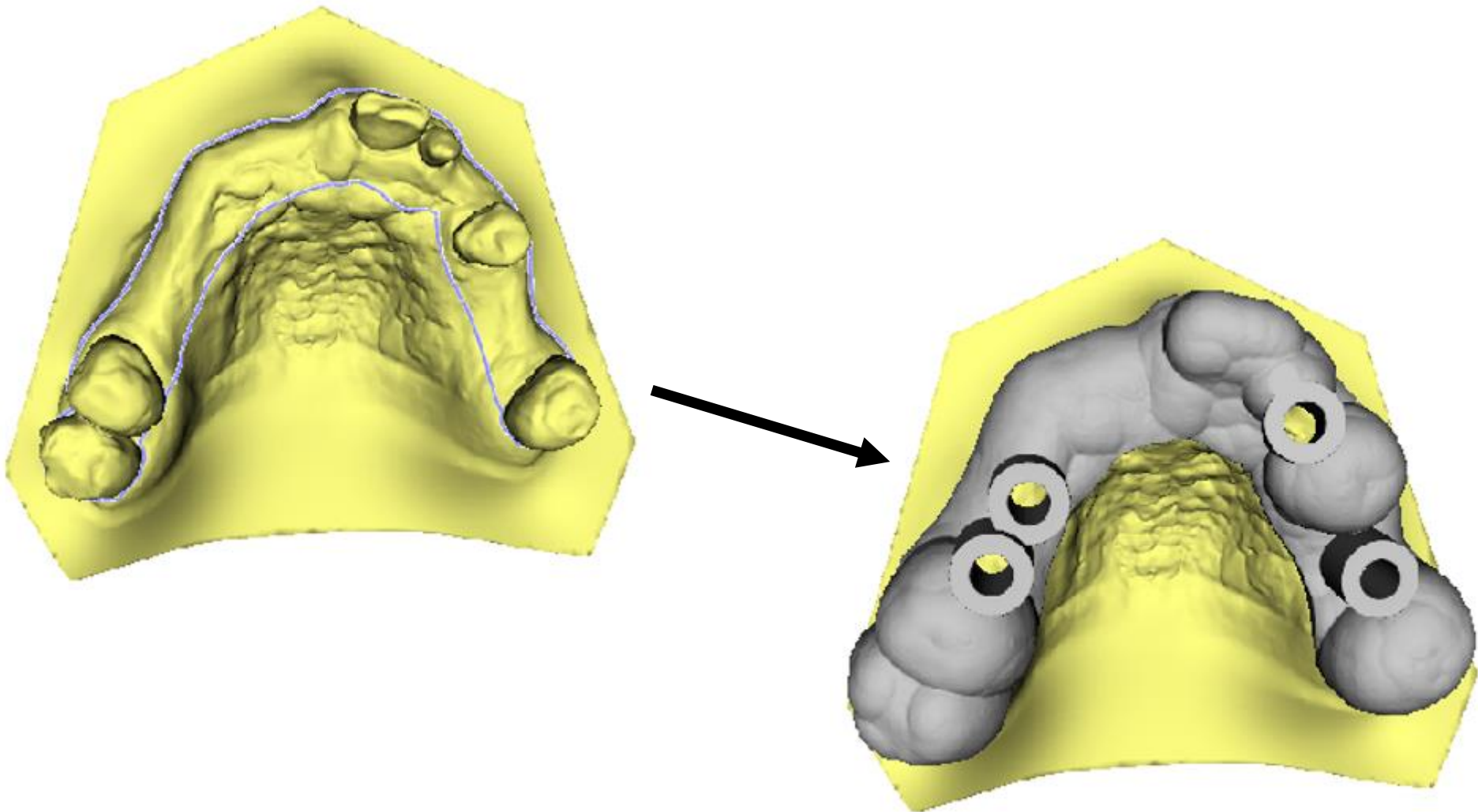
2, 16, -85°

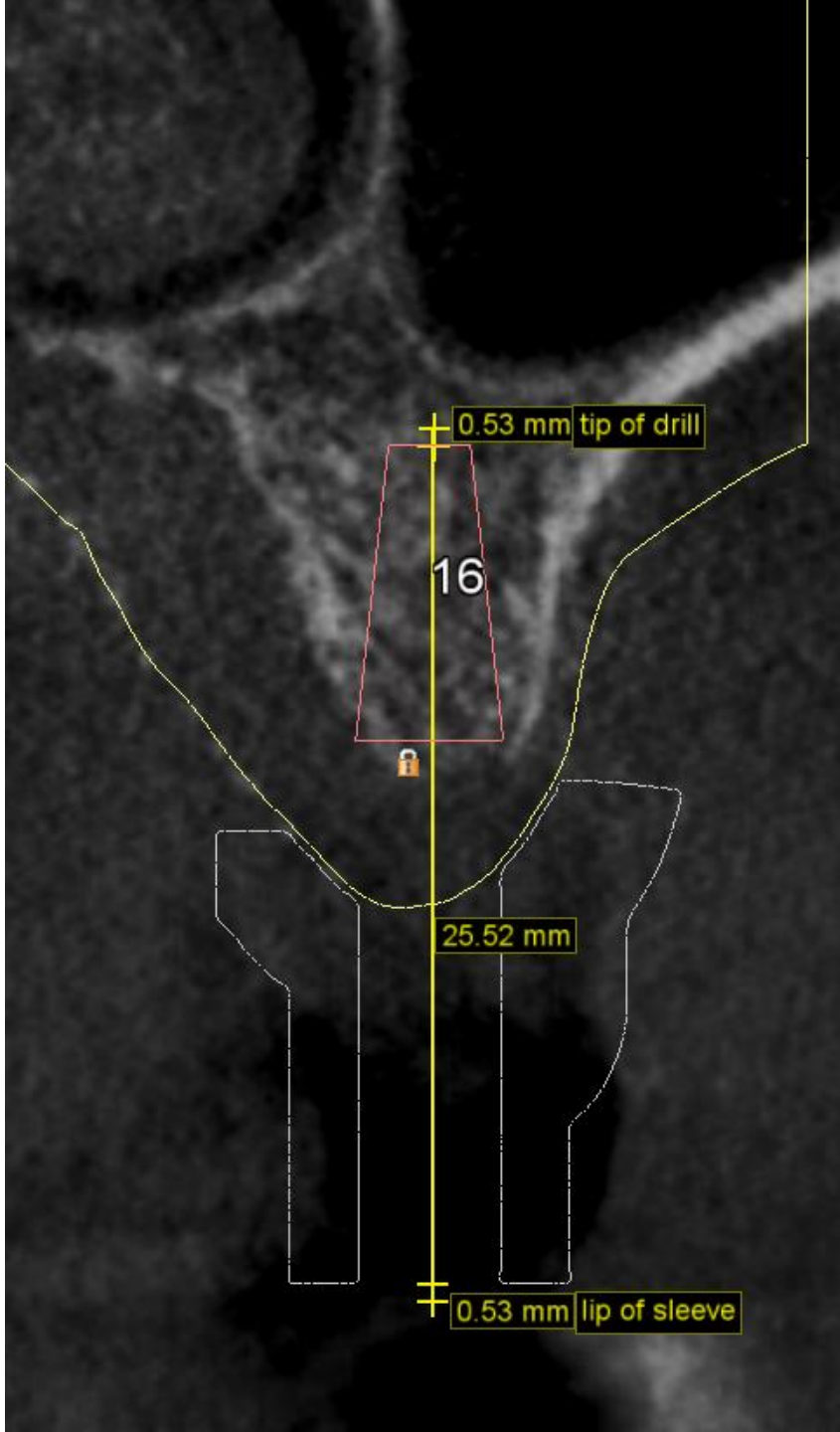
16

Blue Sky



# *Designing the Guide*





### VECTOdrill pilot drill/Guide sleeve

Art. no. 3.03.624

Drill length

29.0 mm  
extra short

Shaft height

13.5 mm

Length of the  
drilling sleeve

6.0 mm

Actual  
drilling  
depth

20.5 mm

