NEO Biotech
Satisfaction to Dentists

끊임없는 창조혁신의 네오바이오텍
혁신 의료기술, 임상공헌도 부문 1위 기업

NEOBIOTECH MARKETING HEADQUARTERS

Digital Workflow

Marketing Dept. | Material&Equipment PM Team



COTENTS

Ⅰ. 基礎用語整理

Ⅱ. Digital Flow Chart

Ⅲ. Digital 補綴物製作 Process

Ⅳ. Library 選擇_Implant case的情況

COTENTS

Ⅰ.基礎用語整理

1. Digital Abutment的種類

2. Digital 製作時必要的構成品

3. Scan body list

Ⅱ. Digital Flow Chart

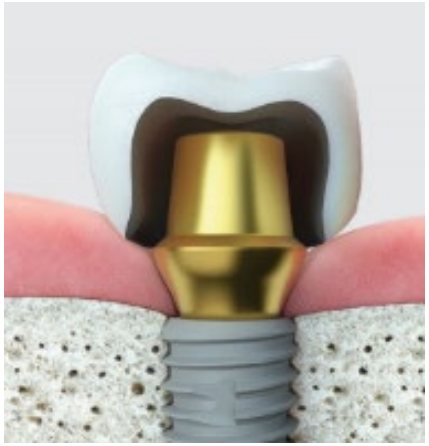
Ⅲ. Digital 補綴物製作 Process

Ⅳ. Library選擇_Implant case的情況

Ⅰ. 基礎用語整理

Digital Abutment 的種類

植體支台體(Abutment)是 做為植體Fixture與補綴物(Crown)連結的支柱角色的中間構造物
在咀嚼食物時,把受力分散的角色.



成品 Abutment

通過基本製成過程
用一定規格量產
普遍使用的植體支台體



Custom Abutment

為患者個位所訂製
適合牙齦,牙齒方向製作的
植體支台體

Ⅰ.基礎用語整理

Digital Abutment 的種類



Ti-Link

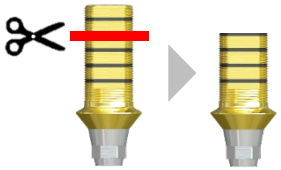
稱為Ti-Base
通過Hybrid 方式 Zirconia Abutment 及 Zirconia Corwn用 Link結合的 方式(主要用在前齒部)

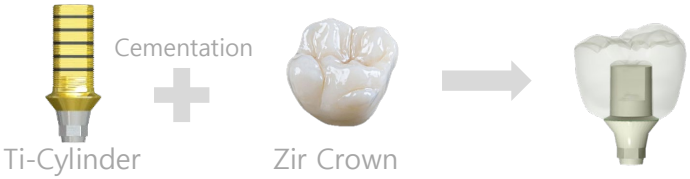




Ti-Cylinder

在 Ti-Link的方式基礎上,不製作 Zirconia Abutment
直接用Ti-Cylinder結合 Zirconia Crown的方式
比起基本 Link 產品,上半部長型製作 (主要特別在臼齒部使用)
比照Fixture與咬合齒之間的空隙 Ti-Cylinder 長度可調整





Ⅰ.基礎用語整理

Digital 作業時所需的構成品



Scanbody

Digital臨床用coping是用來代替基本 Analog impression coping的角色
Implant的植牙位子與確認方向所使用

A. 結合的高度 : Fixture 整合時決定結合高度
(ISPSBH40NB : 17mm, ISPSBH50NB : 14mm)

B. Oral Scanbody Screw : 結合在Fixture來固定 Scanbody

C. Oral Scanbody 圓筒部

D. Hex 方向認知 : 為了知道Hex的方向, 向著頰側或舌側固定

E. Fixture

* 選擇適合Fixture的 Scanbody結合
* 禁止Scanbody的刪除與變更



Lab-analog

在技工所製作補綴物時,在模型上代替 Fixture 在患者口中所呈現的替代產品

COTENTS

Ⅰ. 基礎用語整理

Ⅱ. Digital Flow Chart

1. CAD/CAM Solution

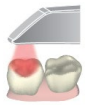
2. Digital 補綴物製作 Process

Ⅲ. Digital 補綴物製作 Process

Ⅳ. Library選擇_Implant case的情況

Ⅱ. Digital Flow Chart

CAD/CAM Solution



利用口掃
數據 Input

利用口腔掃描或模型掃描
取得掃描數據

01 STEP



利用CAD
設計補綴物

利用CAD SW
設計補綴物

02 STEP



利用CAM設備
製作補綴物

通過Milling機器或3D列印
製作補綴物

03 STEP

補綴物燒結或者
固化

Zirconia通過燒結爐進行燒結/
3D列印的補綴物
通過固化器,最終進行固化

04 STEP

Ⅱ. Digital Flow Chart

Digital 補綴物製作 Process

掃描



or



ⅰ.利用**口腔掃描機**

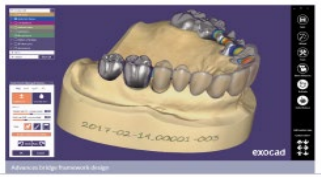
ⅱ. 利用**模型掃描機**

- 在牙科用傳統方式取得印模的情況
  為了用CAD設計,需用掃描機掃描

▶ 必需物品

- Scanbody : 植體case的情況

設計



ⅰ. 痛過CAD軟體設計補綴物

ⅱ. Implant case的情況

- 正確選擇需製作的abutment Library

milling



ⅰ. milling

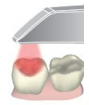
- Zirconia : 5軸乾式
- 圓棒 (Custom Abutment 製作)
  : 4軸濕式

▶ 必需物品

- 加工材料
  : Block (**Zirconia**, PMMA, WAX, Composite Resin, 圓棒)
- milling tool
  : 需要適合材料的milling tool

燒結

Ⅱ. Digital Flow Chart







Oral Scan



I700 W & i700

Model Scan



T-Series

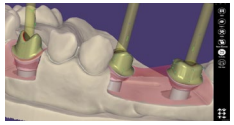
Design



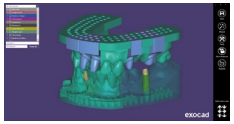
Exocad



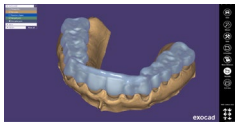
Crown&Bridge



Custom abutment



Model creator



Bite splint

Exocad & Module

Milling & Printing



DWX-52D



DS/DM Series



NeoSpeed 10



T7

Milling Machine & 3D Printer

Material



Zirconia Block



Ti-Block



Composite Resin Block



PMMA



Printing Material (Resin)

Sintering



Volcan



Tiger Speed / Mini

Furnace

Curing



MP-300

Final



COTENTS

Ⅰ. 基礎用語整理

Ⅱ. Digital Flow Chart

Ⅲ. Digital 補綴物製作 Process

1. SCAN

2-1. CAD設計_Custom Abutment

2-2. CAD設計_現成品 Abutment

2-3. CAD設計_Ti-Link (Ti-Base)

2-4. CAD設計_Ti-Cylinder

2-5. CAD設計_Model 製作

Ⅳ. Library選擇_Implant case的情況

Ⅲ. Digital 補綴物製作 Process

1. SCAN



口腔掃描 (治療齒)



連接Scanbody後 掃描Scanbody

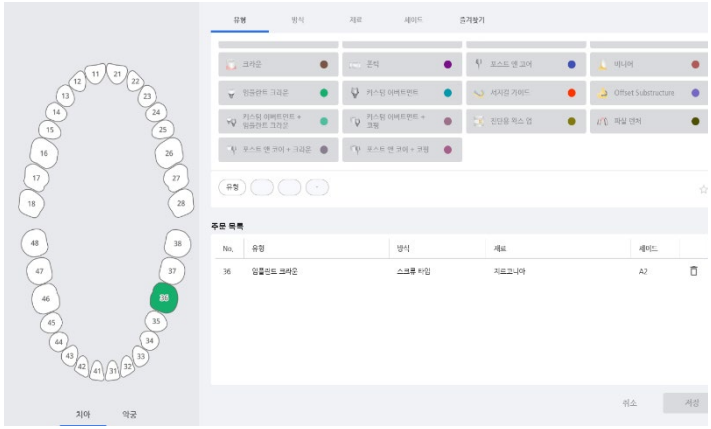
連接適合種植Fixture的Scanbody



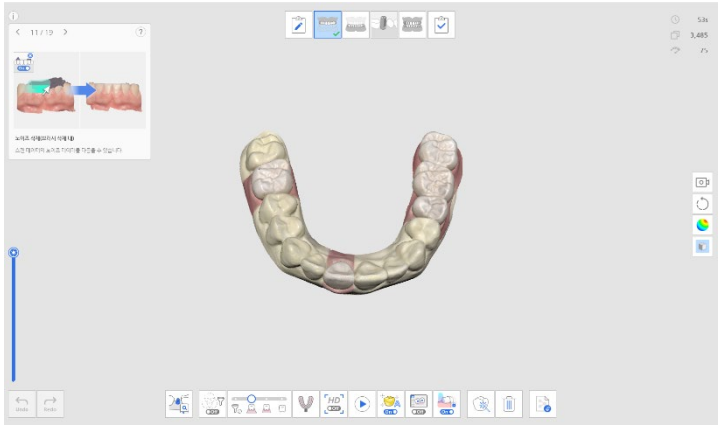
口腔掃描(咬合齒, 咬合)

Ⅲ. Digital 補綴物製作 Process

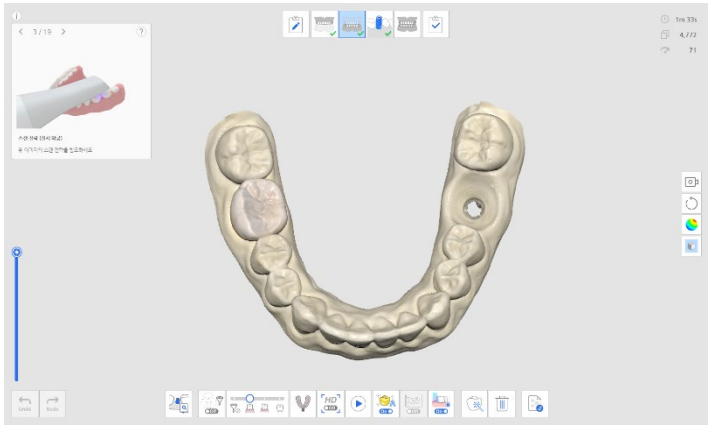
1. SCAN



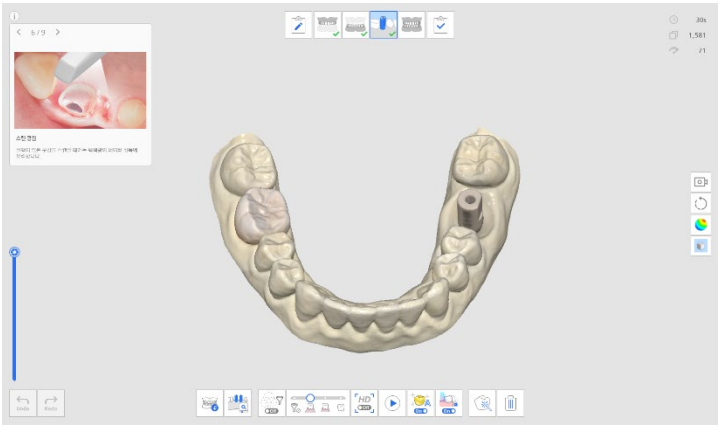
1. Scan case生成
(Implant case基準)



2. 咬合齒Scan – 治療齒為下顎
(Medit 的情況 上顎-下顎-咬合 順序進行Scan)



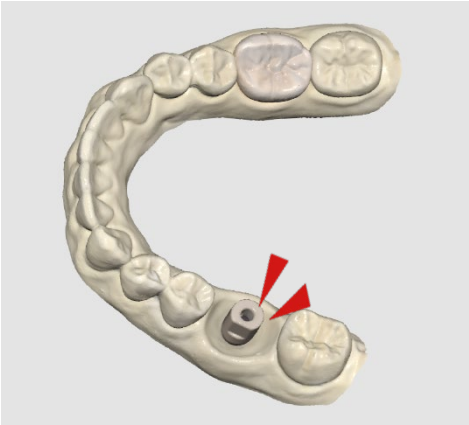
3. 治療齒Scan



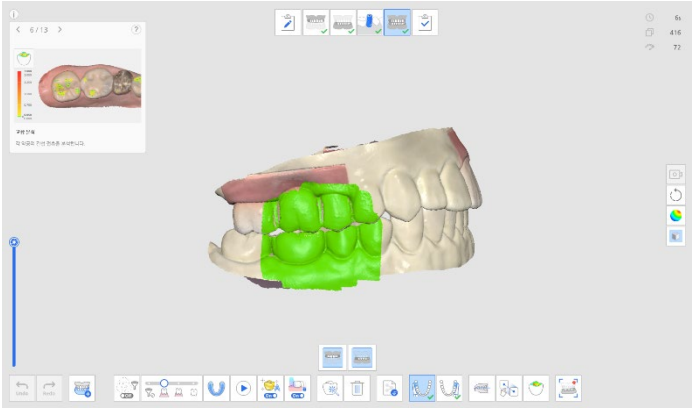
4. 連接Scanbody後再掃描Scanbody
▷連接適合植入Fixture的Scanbody

Ⅲ. Digital 補綴物製作 Process

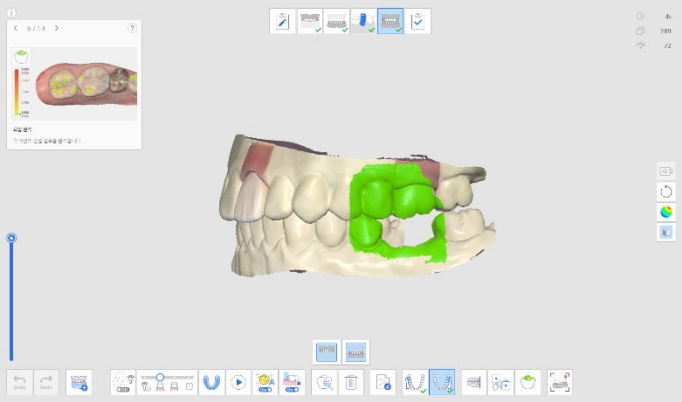
1. SCAN



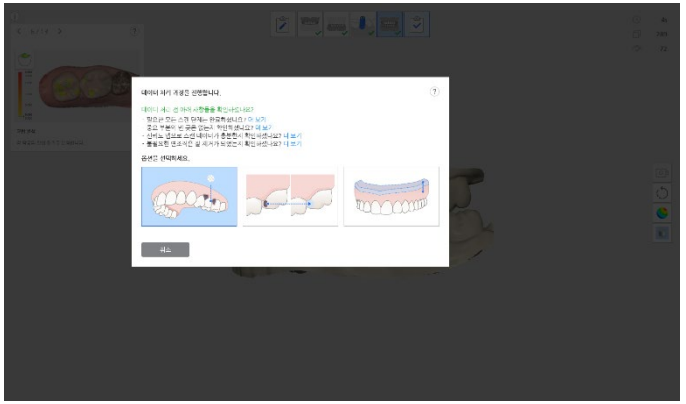
4-1. 連接Scanbody時
▷為了知道Hex的方向, 向著頰側或舌側固定



5. 第一次咬合Scan
(Medit的情況 Full arch Scan掃描2次咬合)



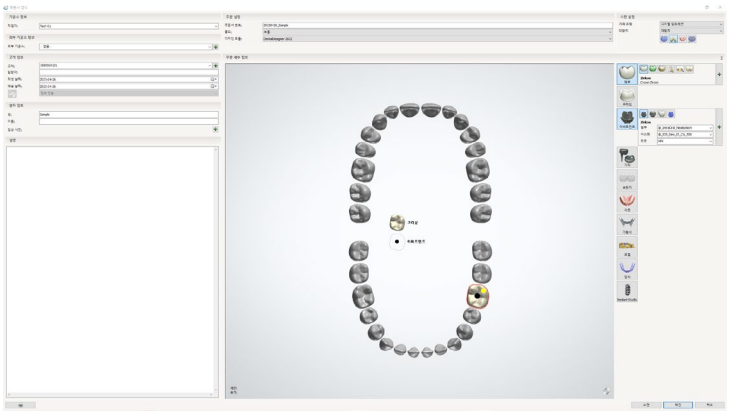
6. 第二次咬合Scan



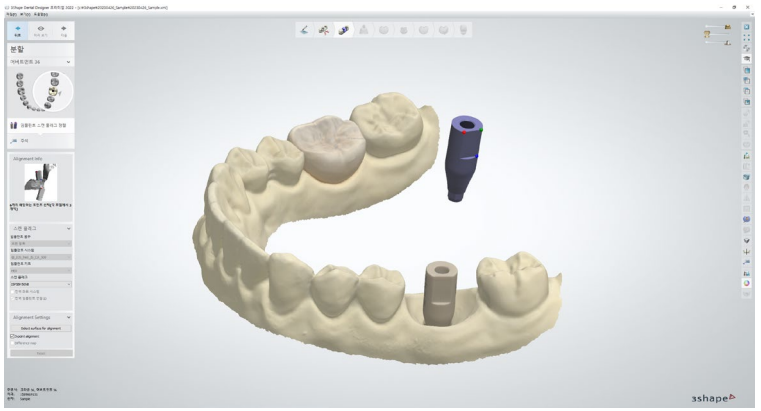
7. 數據儲存
(原本數據, 填補小洞, 生成到BASE)

Ⅲ. Digital 補綴物製作 Process

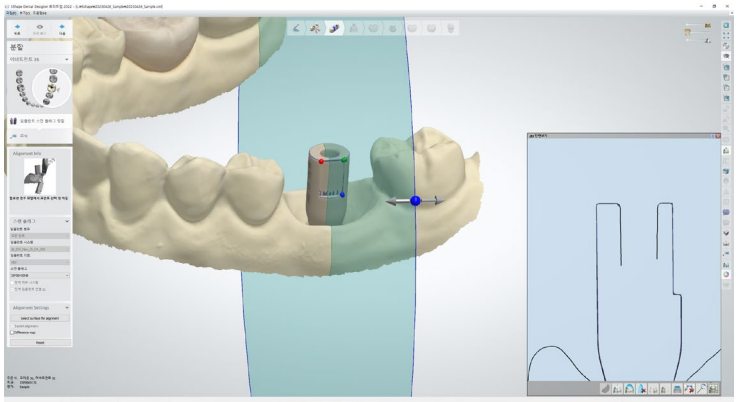
2-1. CAD 設計_Custom Abutemnt



1. 填寫表單 – Library選擇



2. 掃描的Scanbody與Library整列
(先前選擇的Library中出現相同的Scanbody)

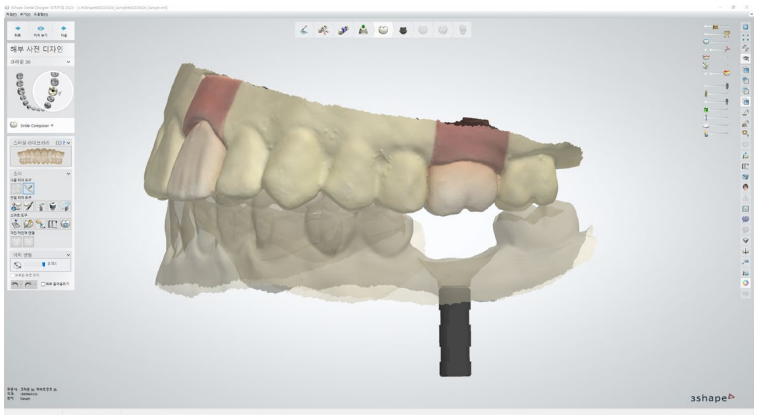


3. Scanbody剖面匹配確認

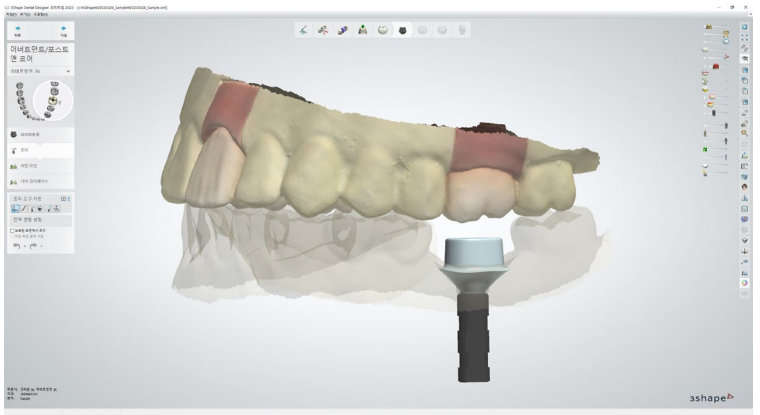
▷ 掃描的數據與從Library 生成的Scanbody, 利用剖面確認是否沒有誤差的匹配

Ⅲ. Digital 補綴物製作 Process

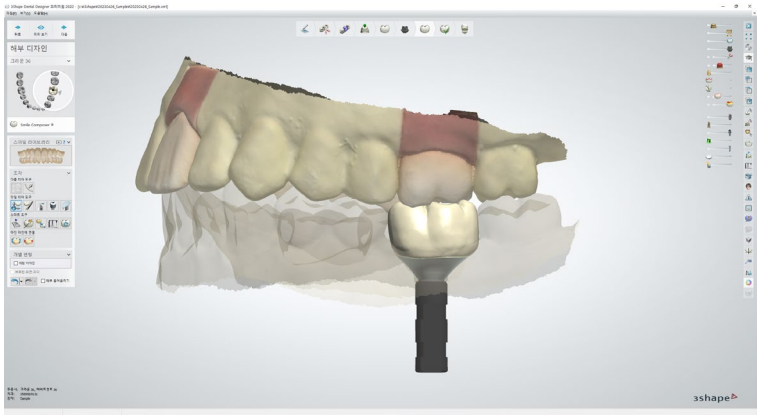
2-1. CAD 設計_Custom Abutemnt



4. Lab analog匹配 – 在Library選擇自動生成



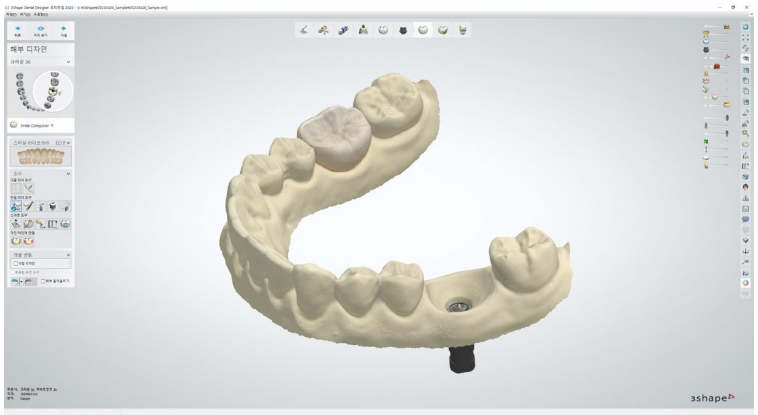
5. Custom Abutment 設計



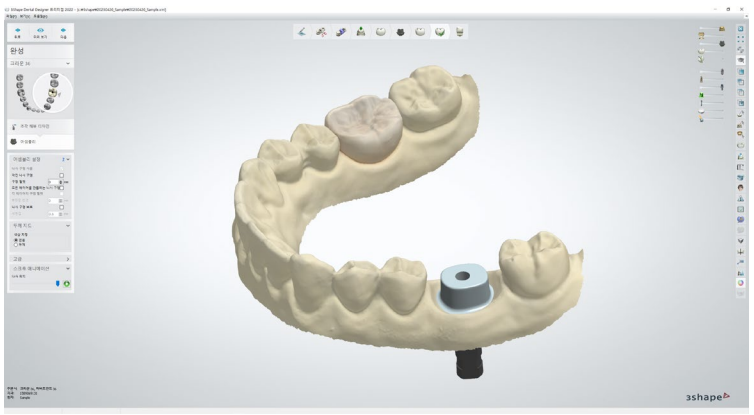
6. Custome Abutment 上面設計匹配的Crown

Ⅲ. Digital 補綴物製作 Process

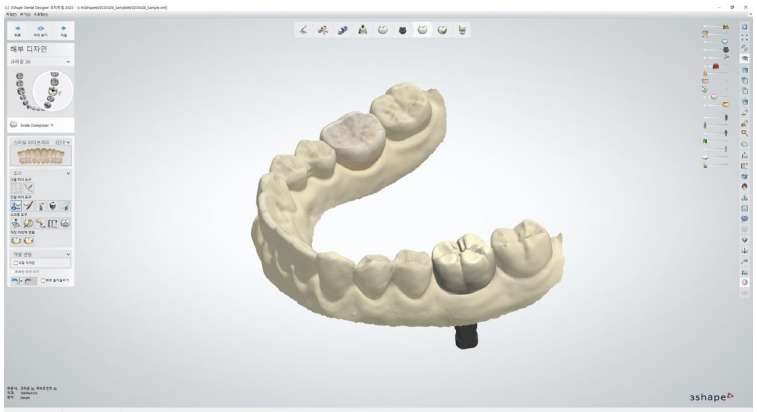
2-1. CAD 設計_Custom Abutemnt



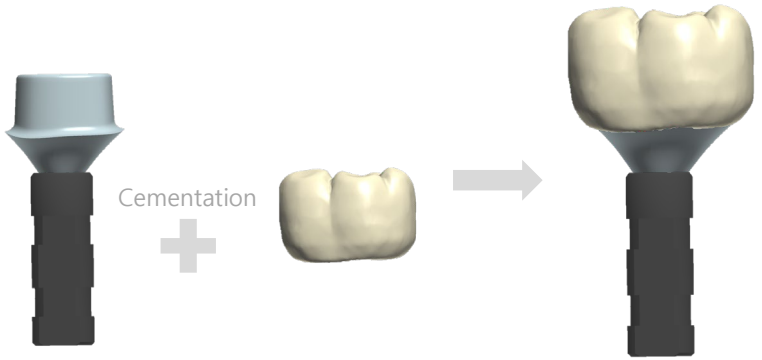
7. 作業完成後 只連接Lab analog的狀態
(為了參考)



8. 設計完成的 Custom Abutment

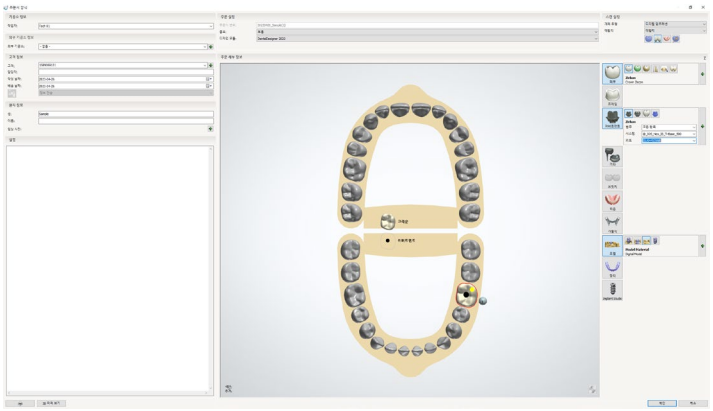


9. 設計完成的Crown

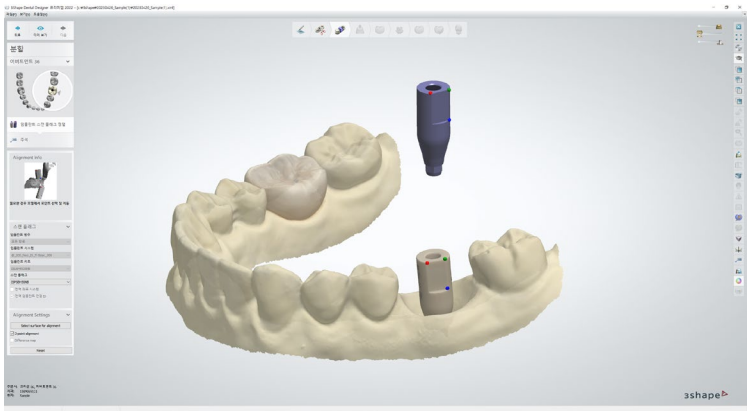


Ⅲ. Digital 補綴物製作 Process

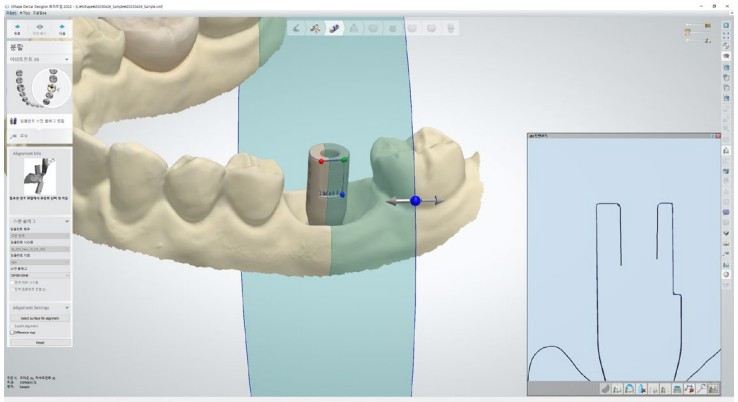
2-2. CAD 設計_現成品 Abutment



1.填寫表單 - Library選擇



2. 掃描的Scanbody與Library整列
(先前選擇的Library中出現相同的Scanbody)

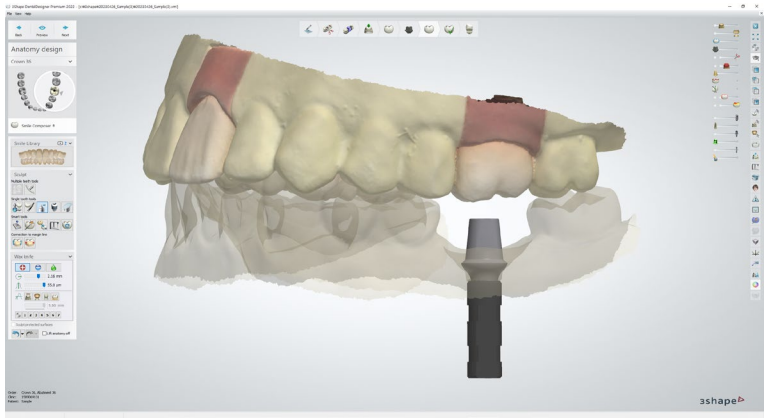


3. Scanbody剖面匹配確認

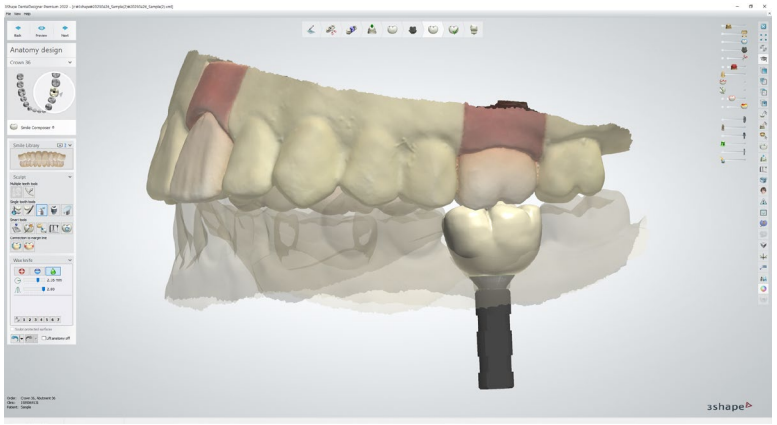
▷ 掃描的數據與從Library 生成的Scanbody，利用剖面確認是否沒有誤差的匹配

Ⅲ. Digital 補綴物製作 Process

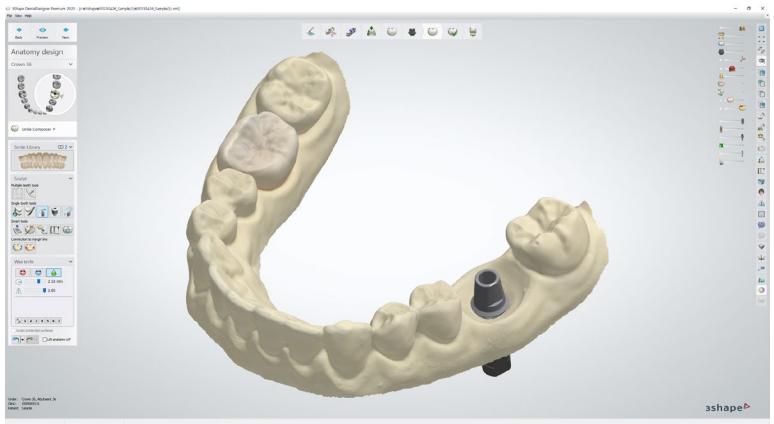
2-2. CAD設計_現成品 Abutment



4. Lab analog,成品Abut 匹配 – 在Library選擇自動生成



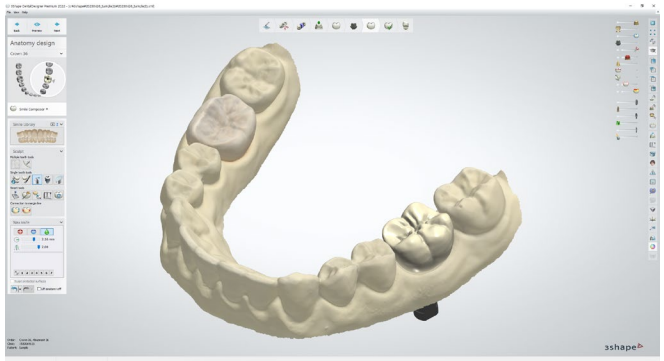
5. Crown 設計



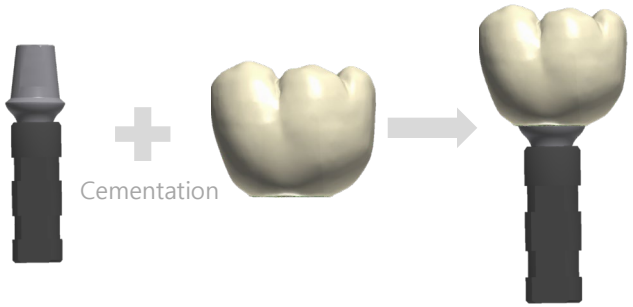
6. 成品 Abutment匹配的狀態
(為了參考)

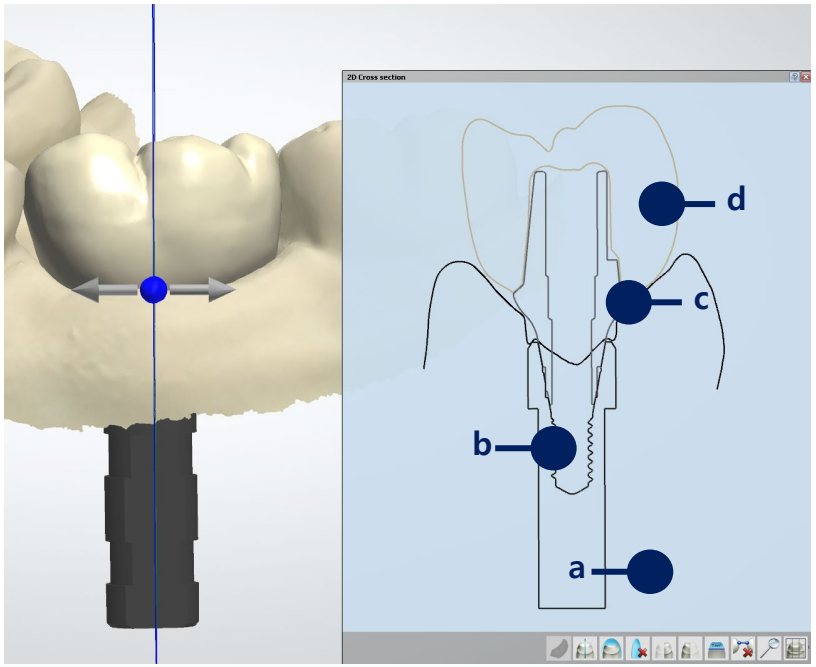
Ⅲ. Digital 補綴物製作 Process

2-2. CAD設計_現成品 Abutment



7. 符合成品Abutment的Crown 製作完成





a. Fixture的替代角色 Lab analog

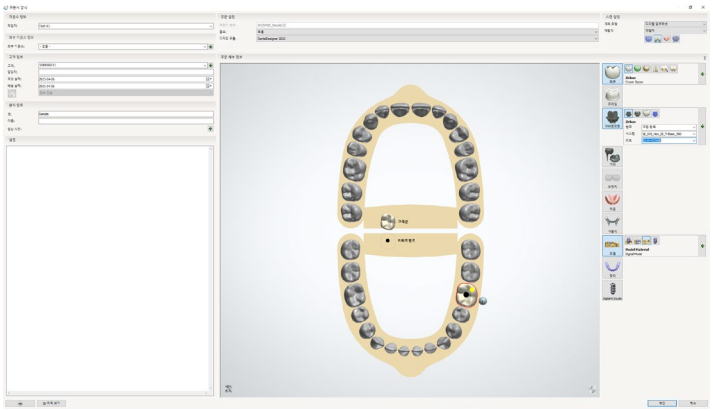
b. 連接成品 Abutment與 Fixture的Screw

c. 連接的現成品Abutment的剖面

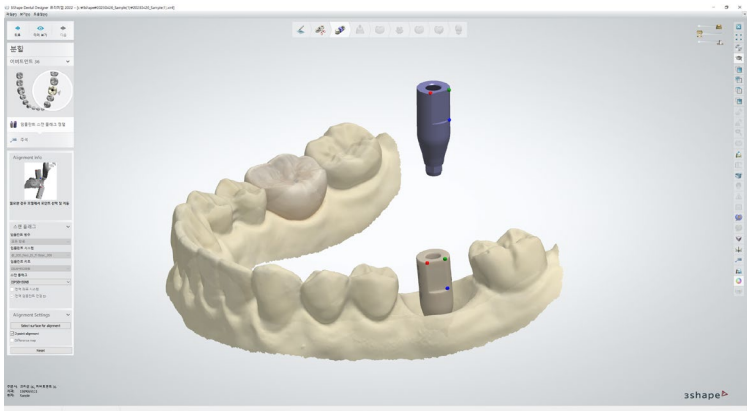
d. 符合成品Abutment的Crown的剖面

Ⅲ. Digital 補綴物製作 Process

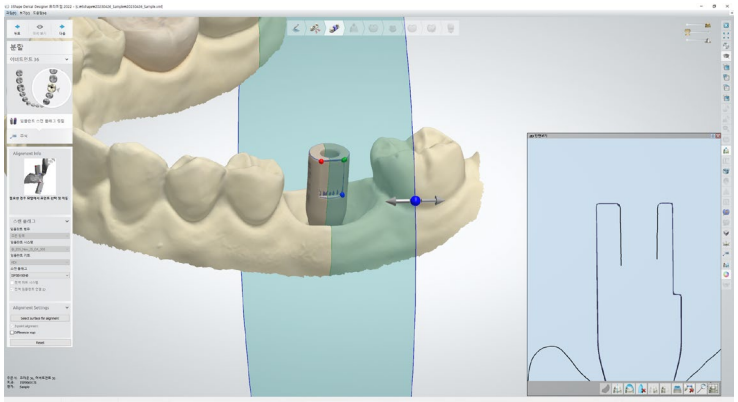
2-3. CAD 設計_Ti-Link (Ti-Base)



1.填寫表單 – Library選擇



2. 掃描的Scanbody與Library整列
(先前選擇的Library中出現相同的Scanbody)

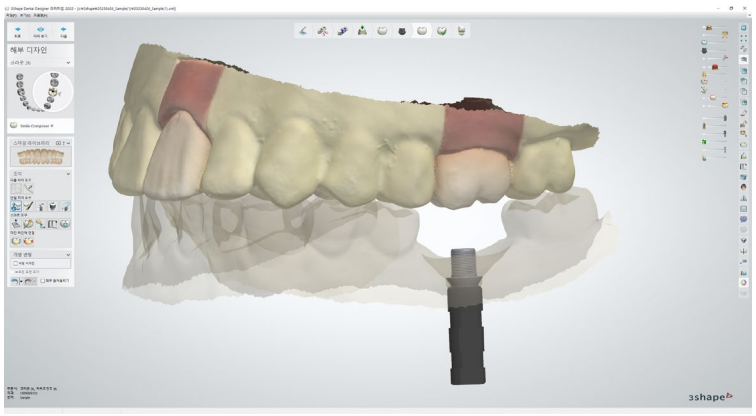


3. Scanbody剖面匹配確認

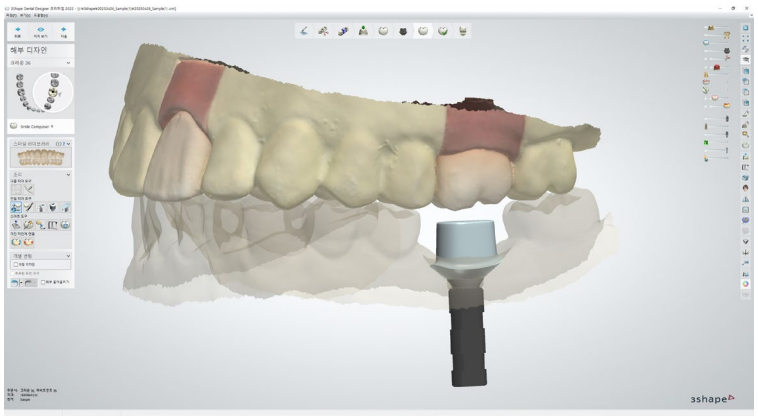
▷ 掃描的數據與從Library 生成的Scanbody，利用剖面確認是否沒有誤差的匹配

Ⅲ. Digital 補綴物製作 Process

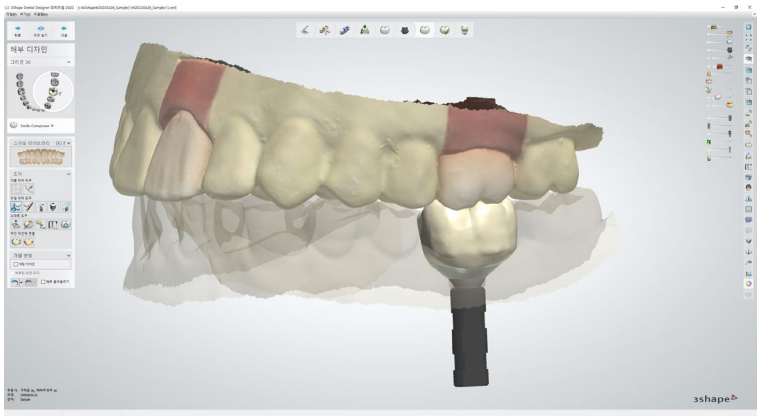
2-3. CAD 設計_Ti-Link (Ti-Base)



4.作業完成後 只連接Lab analog的狀態
(為了參考)



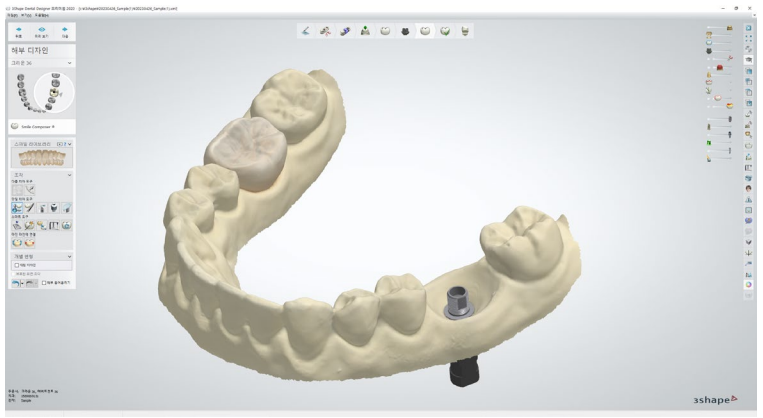
5. Zirconia Abutment 設計



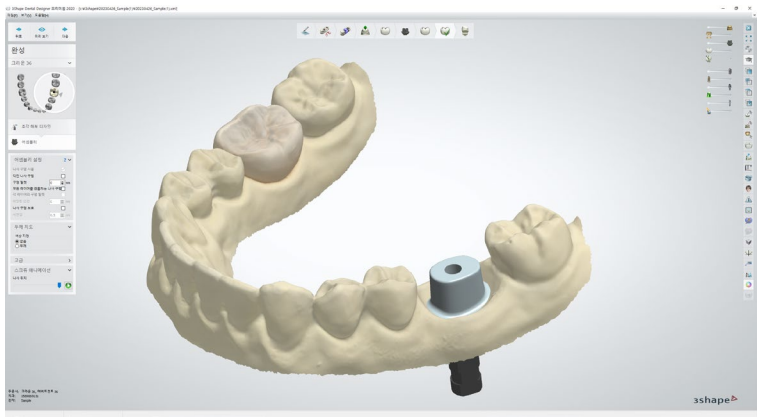
6. Zirconia Abutment上面設計匹配的Crown

Ⅲ. Digital 補綴物製作 Process

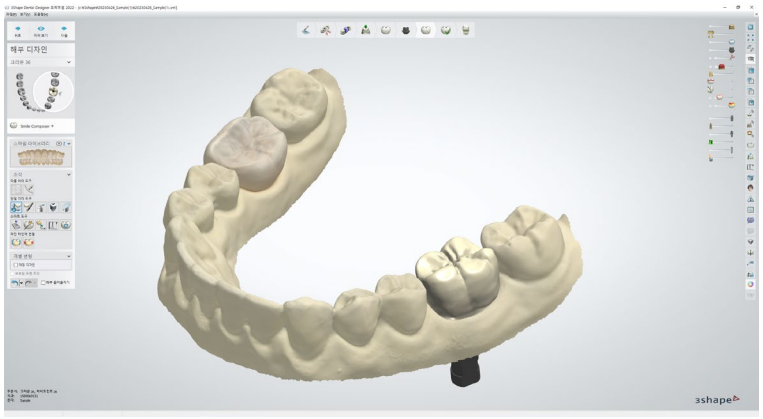
2-3. CAD 設計_Ti-Link (Ti-Base)



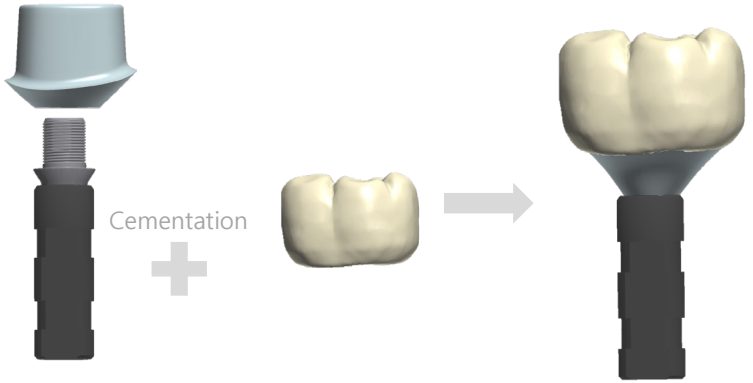
7.作業完成後 只連接Lab analog的狀態
(為了參考)



8. 設計完成的 Custom Abutment

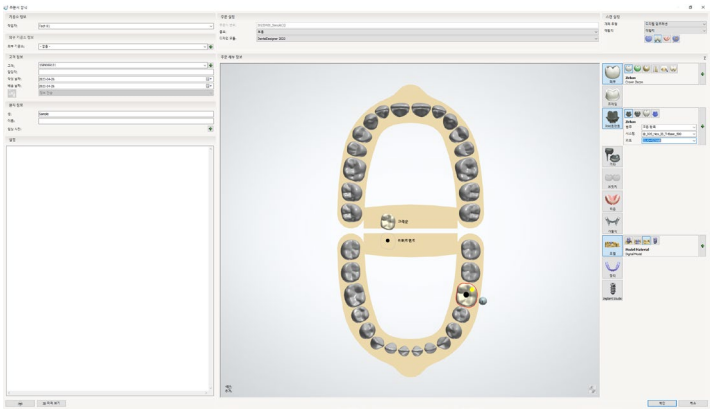


9. 設計完成的 Crown

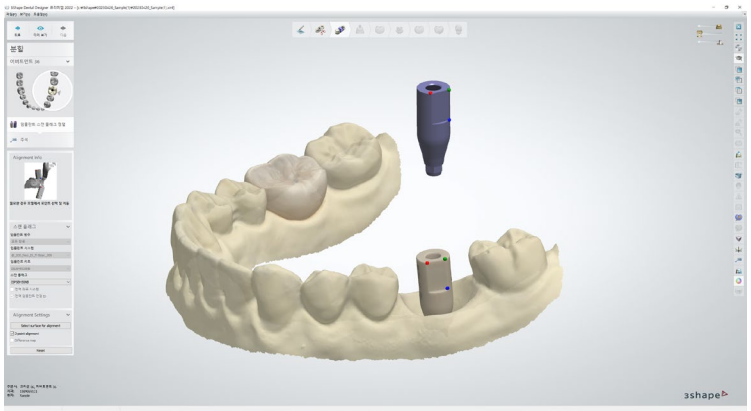


Ⅲ. Digital 補綴物製作 Process

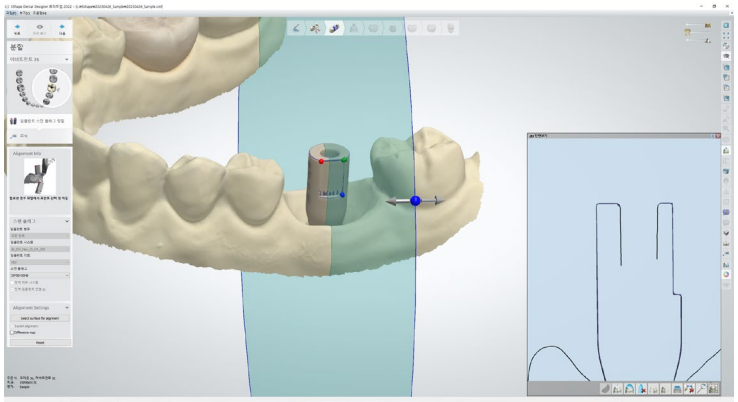
2-4. CAD 設計_Ti-Cylinder



1.填寫表單 – Library選擇



2.掃描的Scanbody與Library整列
(先前選擇的Library中出現相同的Scanbody)

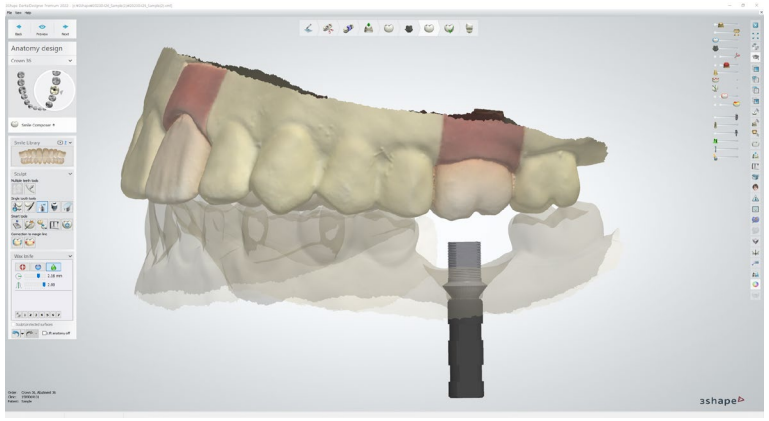


3. Scanbody剖面匹配確認

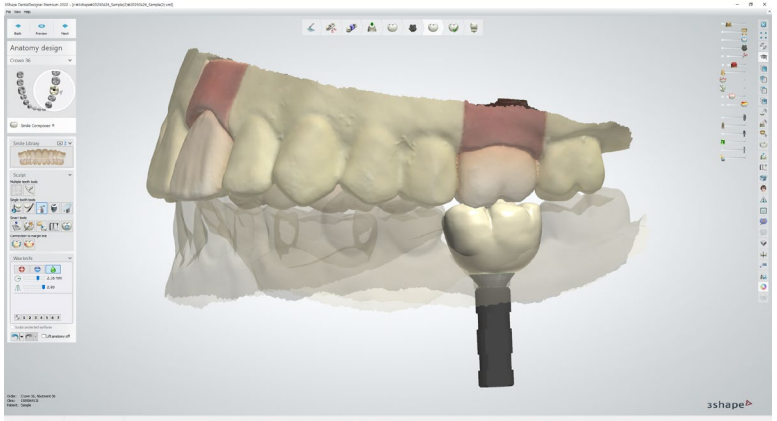
▷ 掃描的數據與從Library 生成的Scanbody，利用剖面確認是否沒有誤差的匹配

Ⅲ. Digital 補綴物製作 Process

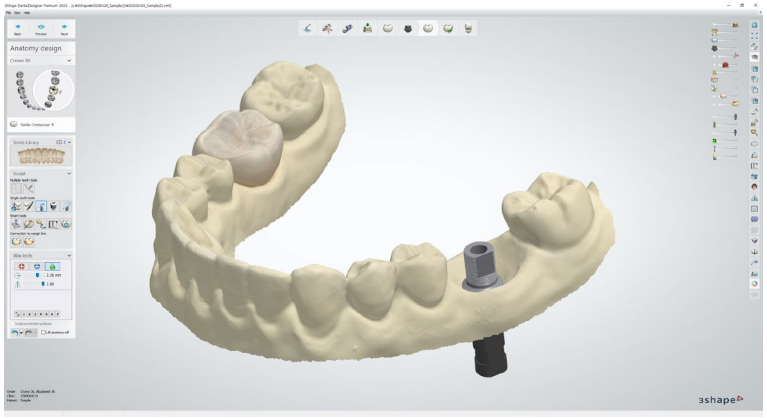
2-4. CAD 設計_Ti-Cylinder



4. Lab analog, Cylinder 匹配 – 在Library選擇自動生成



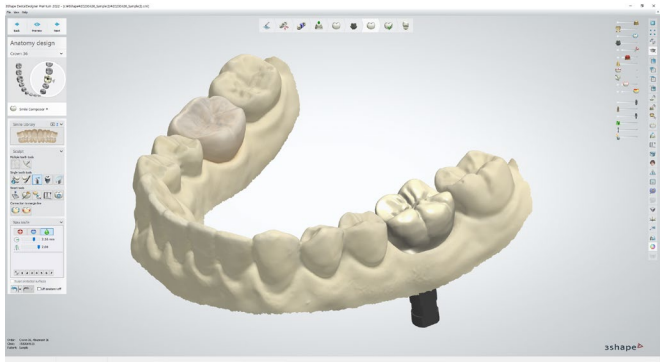
5. Crown 設計



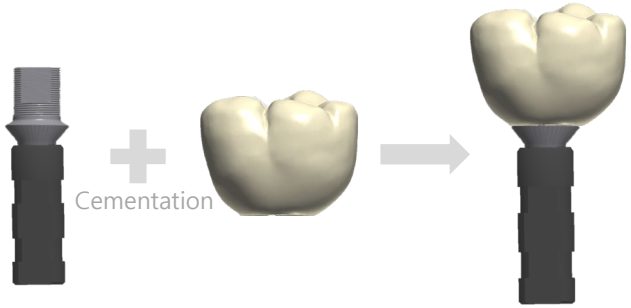
6. Ti-Cylinder匹配的狀態
(為了參考)

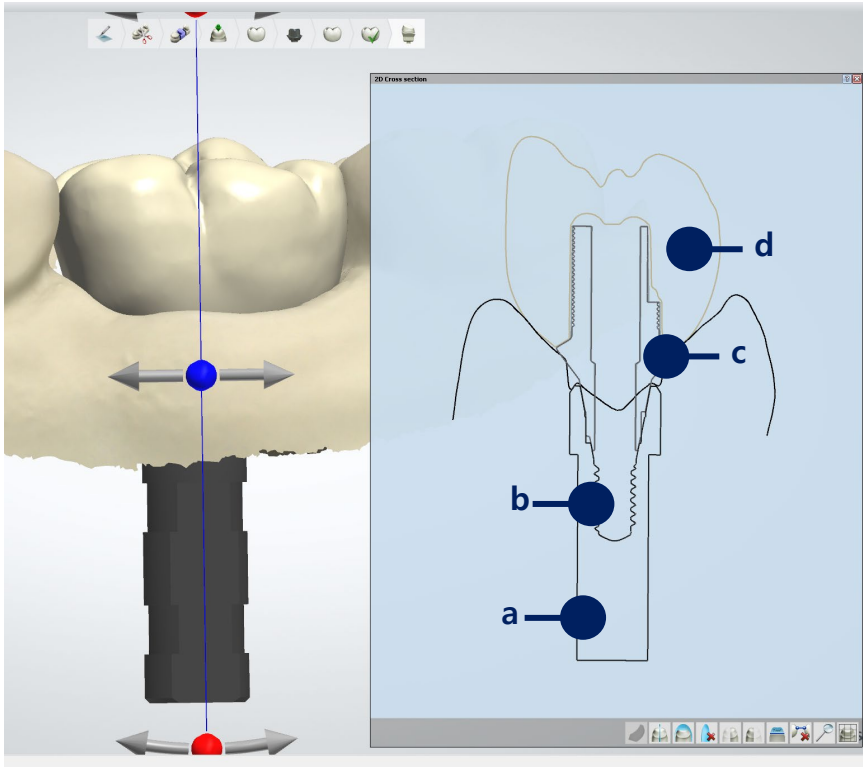
Ⅲ. Digital 補綴物製作 Process

2-4. CAD 設計_Ti-Cylinder



7. 符合Ti-Cylinder的 Crown 製作完成





a. Fixture的替代角色 Lab analog

b. 連接Ti-Cylinder與 Fixture與 Fixture的Screw

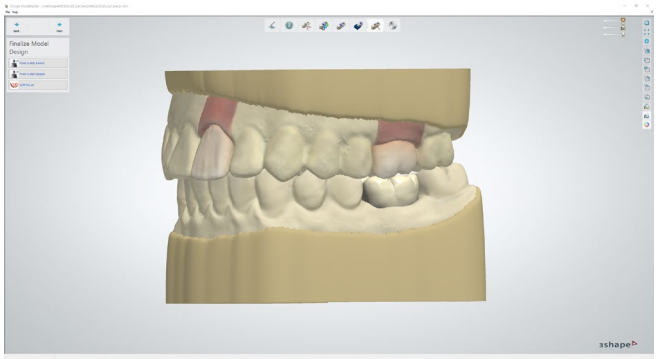
c. 連接的Ti-Cylinder的剖面

d. 符合Ti-Cylinder的 Crown的剖面

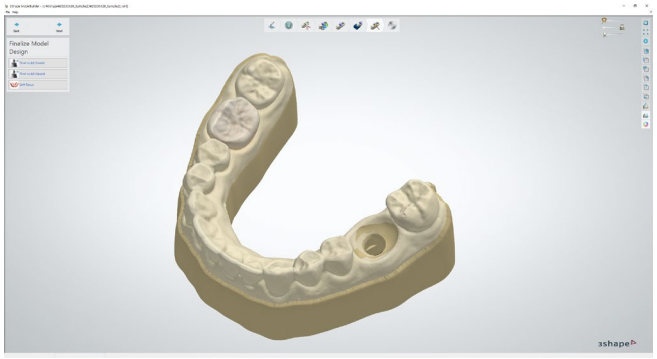
Ⅲ. Digital 補綴物製作 Process

2-5. CAD 設計_Model製作

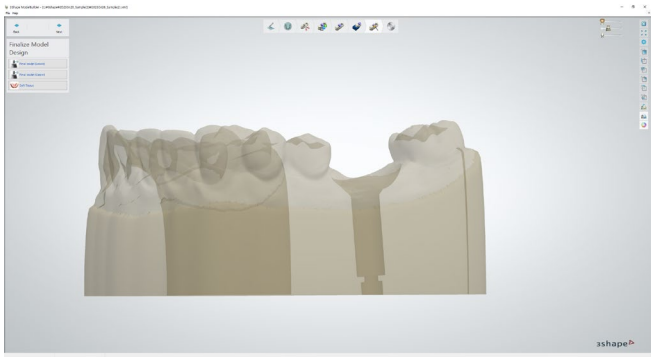
沒有石膏模型下,製作補綴物時,無法看出技工所所製作的補綴物是否吻合,用Scan數據設計製作假想的Model



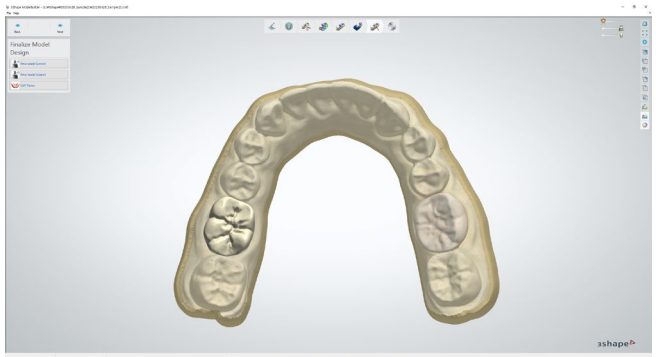
Model設計完成的影像



下顎植牙case Model



可設計成能連接Lab analog

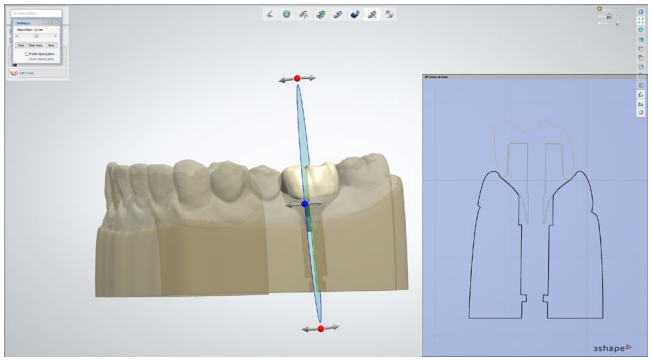


Model 設計完成的影像 (為了參考)

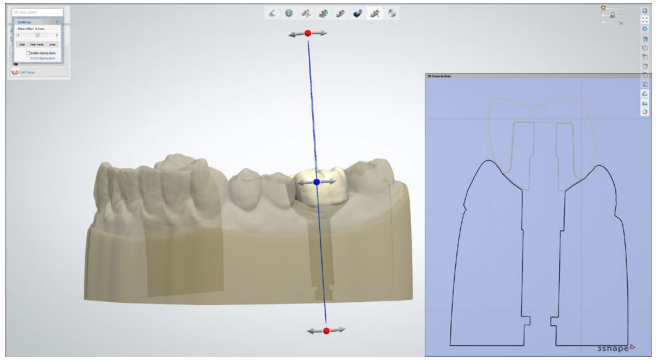
Ⅲ. Digital 補綴物製作 Process

2-5. CAD 設計_Model製作

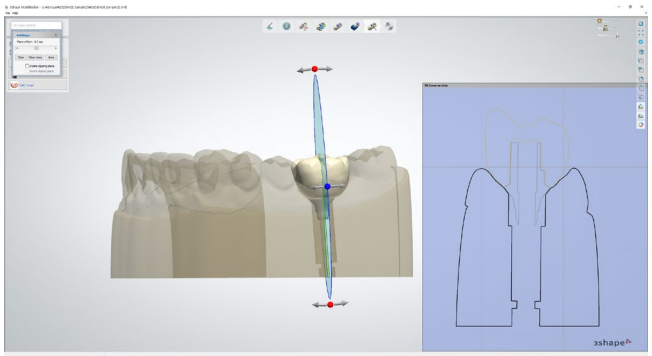
沒有石膏模型下,製作補綴物時,無法看出技工所所製作的補綴物是否吻合,用Scan數據設計製作假想的Model



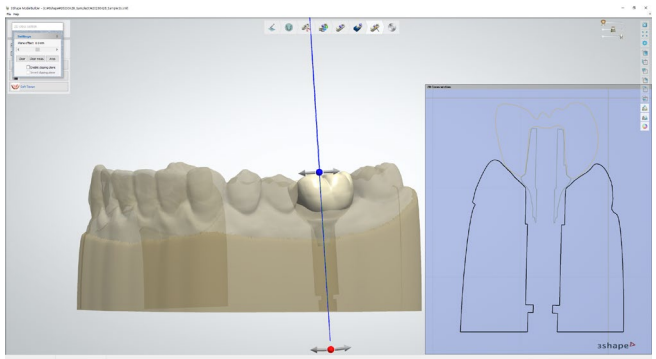
設計Custome Abutment Model



設計Ti-Link (Ti-Base) Model



設計Ti-Cylinder Model



設計現成品Abutment Model

COTENTS

Ⅰ. 基礎用語整理

Ⅱ. Digital Flow Chart

Ⅲ. Digital 補綴物製作 Process

Ⅳ. Library選擇_Implant case的情況

1. 3Shape

2. ExoCAD

3. 參考事項

IV. Library選擇_Implant case的情況

1. 3Shape_CAD Design

1) 申請表裡 System,選擇 Kit

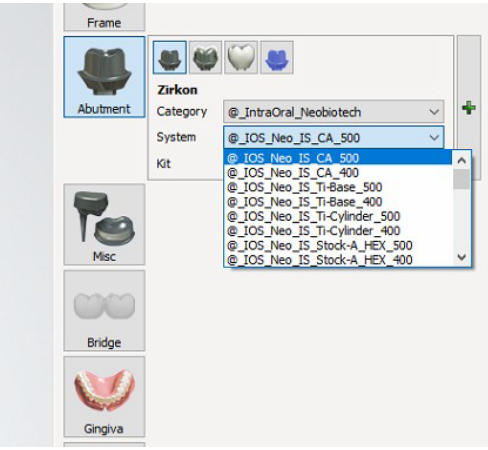
▷ System : 參考下一頁內容後做選擇

▷ Kit : 在牙科選擇要使用的現成品 Abutment 型號

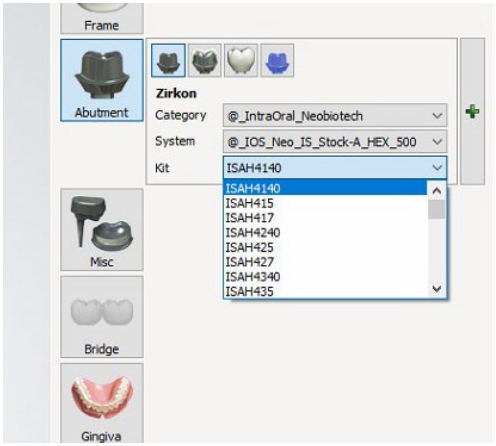
2) 申請表填寫完成後 進行設計時

▷ 需要選擇 Internal Submerged 基準 Scanbody 尺寸 (ISPSBH40NB 或者 ISPSBH50NB)

▷ Internal Non-Submerged 與 External Type的 Scanbody 會自動生成



System 選擇



Kit 選擇

IV. Library選擇_Implant case的情況

1-1. 3Shape_ Library選擇

▷ Neobiotech Library (3shape).pdf 檔案參考

Implant Systems	Fixture Type		System	Kit	Scanbody	lab analog
Neobiotech_IS	Narrow / Regular / Wide	HEX	@_IOS_Neo_IS_Stock-A_HEX_400	ISAH4340 ISAH435 ISAH437 ISAH4440 ISAH445 ISAH447 ISAH4540 ISAH455 ISAH457 ISAH5140 ISAH515 ISAH517 ISAH5240 ISAH525 ISAH527 ISAH5340 ISAH535 ISAH537 ISAH5440 ISAH545 ISAH547 ISAH5540 ISAH555 ISAH557 ISAH6140 ISAH615 ISAH617	ISPSBH40NB ISPSBH50NB	SGISLA400

System 選擇時參考事項

▷ @_IOS (使用口掃機)_Neo_IS(Neo IS用植體系統適用)

▷ Stock-A (現成品Abutment)_HEX (Fixture Type : HEX)

▷ 400 (Lab analog : SGISLA400使用)

IV. Library選擇_Implant case的情況

2. EXOCAD

▷ Neobiotech Library (exo).pdf 檔案參考

申請表製作完成後 在設計過程選擇Library

▷ Library Code : 參考下列內容選擇

▷ 需要選擇 Internal Submerged 基準 Scanbody 尺寸(ISPSBH40NB 或者 ISPSBH50NB)

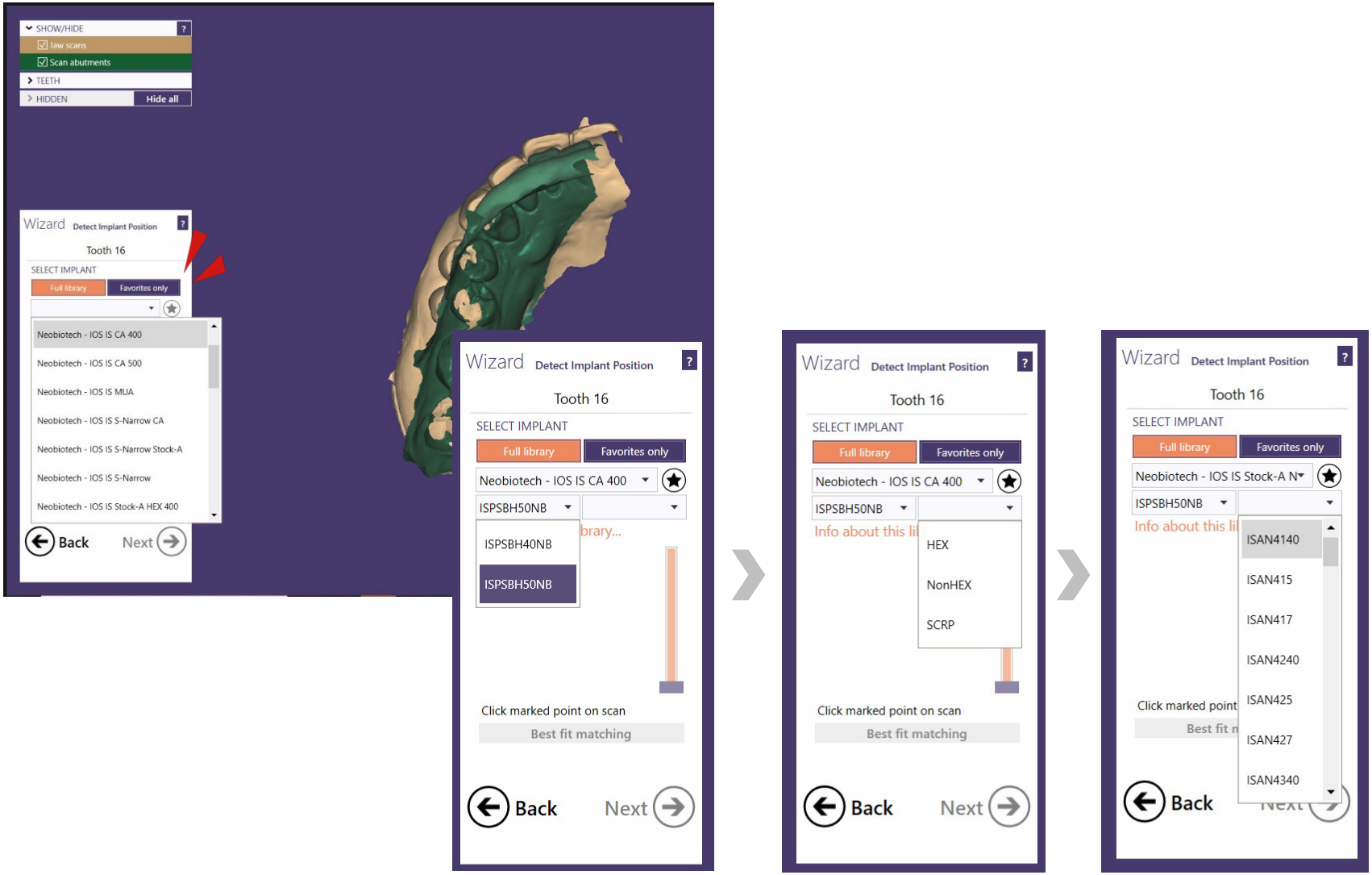
Implant Systems	Fixture Type		Library Code	Scanbody	lab analog
Neobiotech_IS	S-Narrow	HEX / NonHEX	Neobiotech - IOS IS S-Narrow CA	ISPSBH40OSM	ISLA300
	Narrow / Regular / Wide	HEX / NonHEX / SCRP	Neobiotech - IOS IS CA 400	ISPSBH40NB ISPSBH50NB	SGISLA400
			Neobiotech - IOS IS CA 500		SGISLA500
Neobiotech_IT	Regular Neck	OCTA / NonOCTA / SCRP	Neobiotech - IOS IT CA	ITPSBO50	ITLA50
	Wide Neck			ITPSBO50W	ITLA70
Neobiotech_EB	Narrow	HEX / NonHEX / SCRP	Neobiotech - IOS EB CA	EXPSBHN50	EBAN30
	Regular			EXPSBHR50	EBAR40
	Wide(3i)			EXPSBHI50	EBAI50
	Wide(Branemark)			EXPSBHB50	EBAB50

Ex) Neobiotech IS Regular fixture (HEX) 種植時

▷ 根據Lab analog (SGISLA400 / SGISLA500) 中使用與否, 適用 Library Code

▷ IS 根據Scanbody尺寸分為兩種, 所以選擇要使用的Scanbody型號

IV. Library選擇_Implant case的情況



끊임없는 창조혁신의 네오바이오텍
혁신 의료기술, 임상공헌도 부문 1위 기업

IV. Library選擇_Implant case的情況

3. 參考事項

▷ Neobiotech Library (3shape).pdf / ▷ Neobiotech Library (exo).pdf

1. 用Scanbody掃描後, 設計 Custom Abutment時

Scanbody - Custom Abutment

Implant Systems	Fixture Type		Library Code	Scanbody	lab analog
Neobiotech_IS	S-Narrow	HEX / NonHEX	Neobiotech - IOS IS S-Narrow CA	ISPSBH40OSM	ISLA300
	Narrow / Regular / Wide	HEX / NonHEX / SCRP	Neobiotech - IOS IS CA 400	ISPSBH40NB ISPSBH50NB	SGISLA400
			Neobiotech - IOS IS CA 500		SGISLA500

2.用Scanbody掃描後, 設計 Cemented Abutment時

Scanbody - Cemented Abutment

Implant Systems	Fixture Type		Library Code	Scanbody	Cemented Abutment	lab analog
	S-Narrow	HEX	Neobiotech - IOS IS S-Narrow Stock-A	ISPSBH40OSM	ISAH3537	ISLA300
					ISAH3547	
					ISAH3557	
					ISAH3577	
		NonHEX			ISAN3537	
					ISAN3547	
					ISAN3557	
					ISAN3577	

Neobiotech - IOS IS Ti-Cylinder NonHEX 500
Neobiotech - IOS IS Ti-Base 400
Neobiotech - IOS IS MUA

▷ Stoak-A : 現成品 Abutment
▷ Ti-Cylinder/ Ti-Base (Ti-Link)
▷ MUA : Multi unit Abutment

3. 用現成品 Abutment掃描後,設計現成品 Abutment時

Cemented Abutment - Cemented Abutment

Implant Systems	Fixture Type		Library Code	Scanbody	Cemented Abutment	lab analog
	S-Narrow	HEX	Neobiotech - SA IS S-Narrow Stock-A	ISAH3537	ISAH3537	ISLA300
				ISAH3547	ISAH3547	
				ISAH3557	ISAH3557	
				ISAH3577	ISAH3577	
		NonHEX	Neobiotech - SA IS S-Narrow Stock-A	ISAN3537	ISAN3537	
				ISAN3547	ISAN3547	
				ISAN3557	ISAN3557	
				ISAN3577	ISAN3577	

Thank You

Marketing Dept. | Material&Equipment PM Team