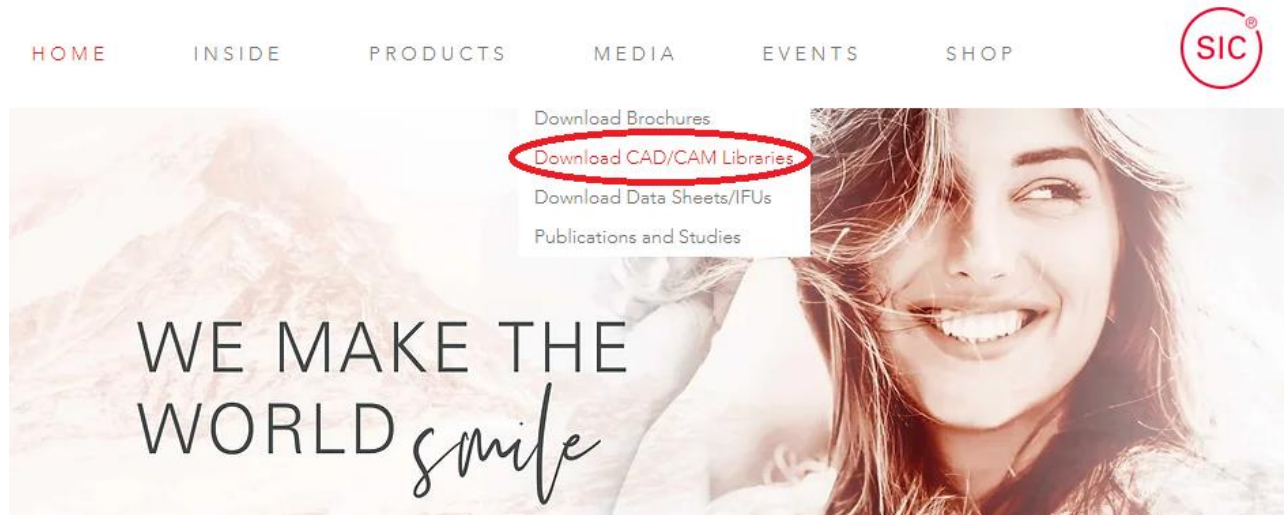# Installation Guide

for CAD/CAM-Libraries for exocad

In this document, you find a short overview over the current CAD/CAM products and a guide on installing the SIC invent CAD/CAM-Libraries for exocad.

The respective libraries are available for download on the SIC invent Homepage under the "Media" tab:

www.sic-invent.com

There you will find all current CAD/CAM-Libraries divided into the respective software providers.

Basically, the libraries for Exocad and 3Shape are divided into the following categories:
- Bonding Bases – Hexagonal (for "SICace", "SICmax" and "SICtapered" implants)
- Bonding Bases – SICvantage (for "SICvantage max" and "SICvantage tapered" implants)
- Multi-Unit (for all SIC Multi Unit Crown Bases)
- Preface (for Milling Blanks of all interfaces)

Hints:
Optimed scanner: The libraries need to be created by Optimed.
Zirkon Zahn, Schütz CAD, Arman Girrbach are using the Exocad-Software, some with their own adjustments.

If you have any questions, please contact the respective software manufacturer or your respective SIC invent distributor.

Content

Installation Guide
for CAD/CAM-Libraries for exocad

1 CAD/CAM Product Overview

Please always inform yourself in advance about which implant needs to be treated. Depending on the implant and the required application, a different library has to be used.

1.1 Hexagonal System

(Compatible with "SICace", "SICmax" and "SICtapered" implants)

SIC invent offers the following CAD/CAM products for the hexagonal system:

SIC Bonding Base CAD/CAM, straight
(incl. SIC Standard Fixation Screw)

Prosthetic connection	Hex 2.3 mm	Cone 2.3 mm for bridgework
3.3 mm	936190	936191
4.2 mm	936196	936197

SIC Bonding Base CAD/CAM, 15° angle
(incl. SIC Standard Fixation Screw, short)

Prosthetic connection	
3.3 mm	936192
4.2 mm	936198

SIC Bonding Base CAD/CAM straight, CEREC
(incl. SIC Standard Fixation Screw)

Prosthetic connection	GH 0.3 mm	GH 3.0 mm
3.3 mm	936188	936228
4.2 mm	936189	936229

Milling Blank CAD/CAM, M-Line
(incl. SIC Standard Fixation Screw)

Prosthetic connection	
3.3 mm	936226
4.2 mm	936227

Precondition: MEDENTIKA® PreFace® Abutment holder.

Milling Blank CAD/CAM, A-Line
(incl. SIC Standard Fixation Screw)

Prosthetic connection	
3.3 mm	936224
4.2 mm	936225

Precondition: Arum Pre-milled holder

The Scanbody for the hexagonal system is universal and can be used for both hexagonal interface sizes.

SIC Scan Adapter (incl. SIC Standard Fixation Screw) for digital modelling of CAD/CAM Customized Milled Abutments 936237	Precondition: Open CAD/CAM system SimedaCAD, 3Shape, ExoCAD (Fraunhofer), DentalWings or LaserDenta with output of unencrypted STL data Manufacturing of Abutments: simeda medical, Luxemburg

With **angulated Bonding Bases**, the angulation is aligned in the direction of the point on the scanbody!
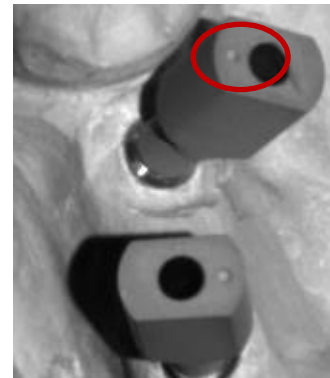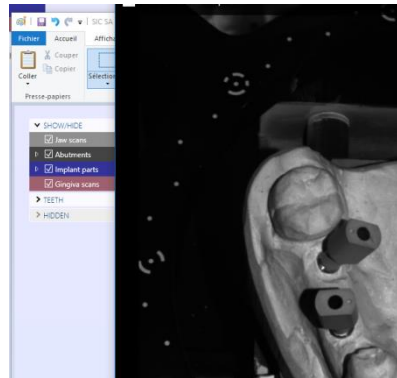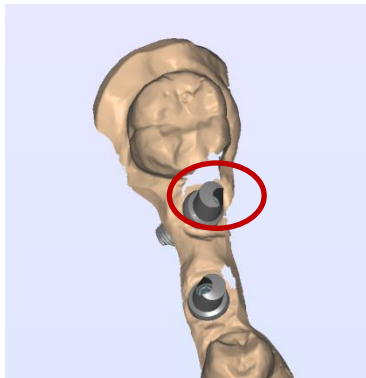
1.2 SICvantage System

(Compatible with "SICvantage max" and "SICvantage tapered" implants)

SIC invent offers the following CAD/CAM products for the SICvantage system:

SICvantage Bonding Base CAD/CAM, straight

Prosthetic connection	GH 1.0 mm
2.2 mm	950741
2.5 mm	950761
2.9 mm	950771

SICvantage Bonding Base CAD/CAM, straight for bridgework,

GH 0.35 mm
950742
950762
950772

SICvantage Bonding Base CAD/CAM, 15° angle

Prosthetic connection	GH 1.0 mm
2.2 mm	950743
2.5 mm	950763
2.9 mm	950773

SICvantage Bonding Base CAD/CAM, straight, CEREC

Prosthetic connection	GH 1.0 mm	GH 3.0 mm
2.2 mm	950744	-
2.5 mm	950764	950765
2.9 mm	950774	950775

SICvantage® Milling Blanks CAD/CAM, A-Line

◎ incl. SICvantage® Fixation Screw M1.4 and Impression Cap   ◎◎ incl. SIC Standard Fixation Screw M1.6 and Impression Cap

Prosthetic connection	2.2 mm ◎	2.5 mm ◎	2.9 mm ◎
	950784	950785	950786

Precondition: Arum Pre-milled holder

SICvantage® Milling Blanks CAD/CAM, M-Line

◎ incl. SICvantage® Fixation Screw M1.4 and Impression Cap   ◎◎ incl. SIC Standard Fixation Screw M1.6 and Impression Cap

Prosthetic connection	2.2 mm ◎	2.5 mm ◎	2.9 mm ◎
	950781	950782	950783

Precondition: MEDENTIKA® PreFace® Abutment-Holder

For each the interface sizes (**grey**, **blue** and **red)** you need a different Scanbody.

Important Note: Please make sure that you select the correct size, as the interfaces are not compatible with each other!

SICvantage Scan Adapter
for digital modelling of CAD/CAM Customized Milled Abutments

Prosthetic connection	2.2 mm ◎	2.5 mm ◎	2.9 mm ◎
	950801	950802	950803

With **angulated Bonding Bases**, the angulation is aligned in the direction of the point on the scanbody!
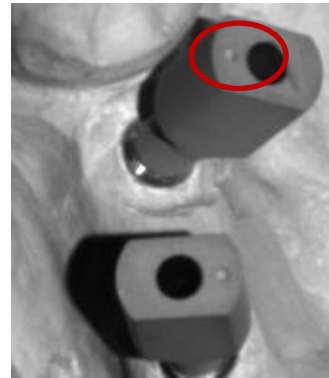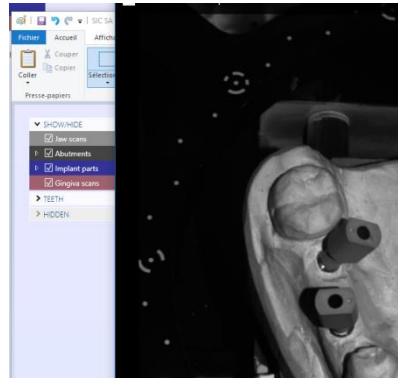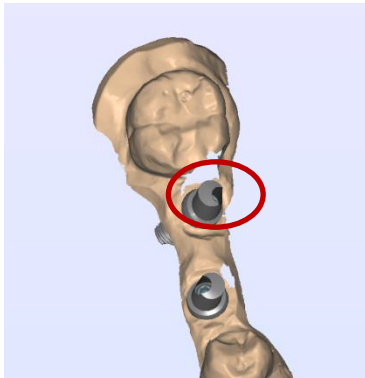
1.3 Multi-Unit-Systems

For cases with Multi-Unit abutments and their respective libraries, you need to work with the SIC Crown Bases which need to be mounted on top of the abutments.

Safe on Four:

Crown Base "Safe on Four" (incl. SIC Fixation Screw"Safe on Four")

Total height [mm]	9.0	6.2
Material	Titanium Grade 5	Titanium Grade 5
	Titanium	CAD/CAM
	936270	936278

Associated Abutments:

Bar and Bridge Abutment "Safe on Four" (incl. SIC Fixation Post "Safe on Four")

Prosthetic connection	GH 1.5 mm	GH 3.0 mm
3.3 mm	936253	936254
4.2 mm	936255	936256

Standard Abutment "Safe on Four", 16° angle (incl. SIC Fixation Screw, short)

Prosthetic connection	GH 1.5 mm	GH 3.0 mm
3.3 mm	936259	936261
4.2 mm	936263	936262

Standard Abutment "Safe on Four", 30° angle (incl. SIC Fixation Screw, short)

Prosthetic connection	GH 1.5 mm	GH 3.0 mm
3.3 mm	936260	-
4.2 mm	936264	936265

Independent of the implant interface, the SIC Scan Adapter for SIC "Safe on Four" is required for the workflow, which must be mounted on a "Safe on Four" abutment during the scan.

	SIC Scan Adapter for SIC "Safe on Four" 936271

Mini Multi-Unit:

	SIC Mini Multi-Unit Crown Base, Titanium (incl. SIC Fixation Screw for Mini Multi-Unit) 936289		SIC Mini Multi-Unit Crown Base, residue-free burn-out (incl. SIC Fixation Screw for Mini Multi-Unit) 936290

Associated Abutments

SIC Mini Multi-Unit Abutment System

SIC Mini Mulit-Unit Abutment, straight

	Prosthetic connection	GH 1.5 mm	GH 3.0 mm
	3.3 mm ⬢	936285	936286
	4.2 mm ⬢	936287	936288

Independent of the implant interface, the SIC Scan Adapter for SIC "Mini Multi-Unit" is required for the workflow, which must be mounted on a "Mini Multi-Unit" abutment during the scan.

	SIC Scan Adapter for Mini Multi-Unit 936296

2 Contact to the Customer Service

All items shown in Chapter 1 are available from the Customer Service of SIC invent or your respective distributor.

For Germany:
Mail: contact.germany@sic-invent.com
Tel.: +49 551 504 294 0

For Switzerland:
Mail: contact.switzerland@sic-invent.com
Tel.: +41 61 260 24 60

For Austria:
Mail: contact.austria@sic-invent.com
Tel.: +43 1 533 70 60

For outside Germany, Switzerland and Austria:
Please look for the distributor responsible for your region at www.sic-invent.com.

3 Selection of the correct library

SIC®

Hexagonal	SICvantage	Multi-Unit Systems (only on Crownbases)
SICace | SICmax | SICtapered	**SICvantage max | SICvantage tapered**	**independent from implants**

Hexagonal

blue 3.3
SICace 3.4 and 4.0
SICmax 3.7 and 4.2
SICtapered 3.7 and 4.2

red 4.2
SICace 4.5 and 5.0
SICmax 4.7 and 5.2
SICtapered 4.7 and 5.2

SICvantage

grey 2.2
SICvantage max 3.0
SICvantage tapered 3.0

blue 2.5
SICvantage max 3.7
SICvantage tapered 3.7

red 2.9
SICvantage max 4.2, 4.7, 5.2
SICvantage tapered 4.2, 4.7, 5.2

Multi-Unit Systems

Safe on Four

Mini-Multi-Unit

SIC Bonding Bases

blue
Scanbody: 936237

936190 Bonding Base CAD/CAM, straight	936191 Bonding Base CAD/CAM, straight, bridges
936192 Bonding Base CAD/CAM, 15°	936188 Bonding Base CAD/CAM, CEREC
936228 Bonding Base CAD/CAM, CEREC, GH 3	

red
Scanbody: 936237

936196 Bonding Base CAD/CAM, straight	936197 Bonding Base CAD/CAM, straight, bridges
936198 Bonding Base CAD/CAM, 15°	936189 Bonding Base CAD/CAM, CEREC
936229 Bonding Base CAD/CAM, CEREC, GH 3	

▶▶ resp. library: **SIC Bondingbases Crownbases**

SICvantage Bonding Bases

grey
Scanbody: 950801

| 950741 Bonding Base CAD/CAM, straight | 950742 Bonding Base CAD/CAM, straight, bridges |
| 950743 Bonding Base CAD/CAM, 15° | 950744 Bonding Base CAD/CAM, CEREC |

blue
Scanbody: 950802

950761 Bonding Base CAD/CAM, straight	950762 Bonding Base CAD/CAM, straight, bridges
950763 Bonding Base CAD/CAM, 15°	950764 Bonding Base CAD/CAM, CEREC
950765 Bonding Base CAD/CAM, CEREC, GH 3	

red
Scanbody: 950803

950771 Bonding Base CAD/CAM, straight	950772 Bonding Base CAD/CAM, straight, bridges
950773 Bonding Base CAD/CAM, 15°	950774 Bonding Base CAD/CAM, CEREC
950775 Bonding Base CAD/CAM, CEREC, GH 3	

▶▶ resp. library: **SIC Bondingbases Crownbases**

Scanbody: 936271

| 936270 Crown Base, Titanium | 936278 Crown Base, CAD/CAM |

Scanbody: 936296

| 936289 Crown Base, Titanium |

▶▶ resp. library: **SIC Bondingbases Crownbases**

SIC Milling Blanks

blue
Scanbody: 936237

| 936226 Milling Blank, M-Line |
| 936224 Milling Blank, A-Line |

red
Scanbody: 936237

| 936227 Milling Blank, M-Line |
| 936225 Milling Blank, A-Line |

▶▶ resp. library: **SIC PreFace – Hexagonal & SICvantage**

SICvantage Milling Blanks

grey
Scanbody: 950801

| 950781 Milling Blank, M-Line |
| 950784 Milling Blank, A-Line |

blue
Scanbody: 950802

| 950782 Milling Blank, M-Line |
| 950785 Milling Blank, A-Line |

red
Scanbody: 950803

| 950783 Milling Blank, M-Line |
| 950786 Milling Blank, A-Line |

▶▶ resp. library: **SIC PreFace – Hexagonal & SICvantage**

4   Installation of the libraries

You find the current **version** the libraries always at the end of the file name.

As soon as a new version is available, the done changes are documented in the **Changelog**. This way you can see at one glance in the changelog if you need the new library version.

If you would like to stay up to date on the SIC CAD/CAM libraries, you can subscribe to the CAD/CAM newsletter. You can find it in the download area under CAD/CAM libraries. As soon as a new library version is available for download, you will be informed immediately by mail.

As a precaution, delete all previous versions before installing a new one. Depending on the software, there may be overlaps in some places which can cause major problems.

4.1   Installation in Exocad - DentalCAD   exocad

With Medit or Imetric scanners, the library should also be updated, because the geometry of the scan adapter is matched with the scan in the scan process and the scan has not yet been calculated down at this point. This makes the result much more precise.

- Go to www.sic-invent.com and click in the tab "Media" on "CAD CAM Libraries"

- Select exocad

CAD / CAM technology is the future in the dental market.
Simplify your workflow - go digital!
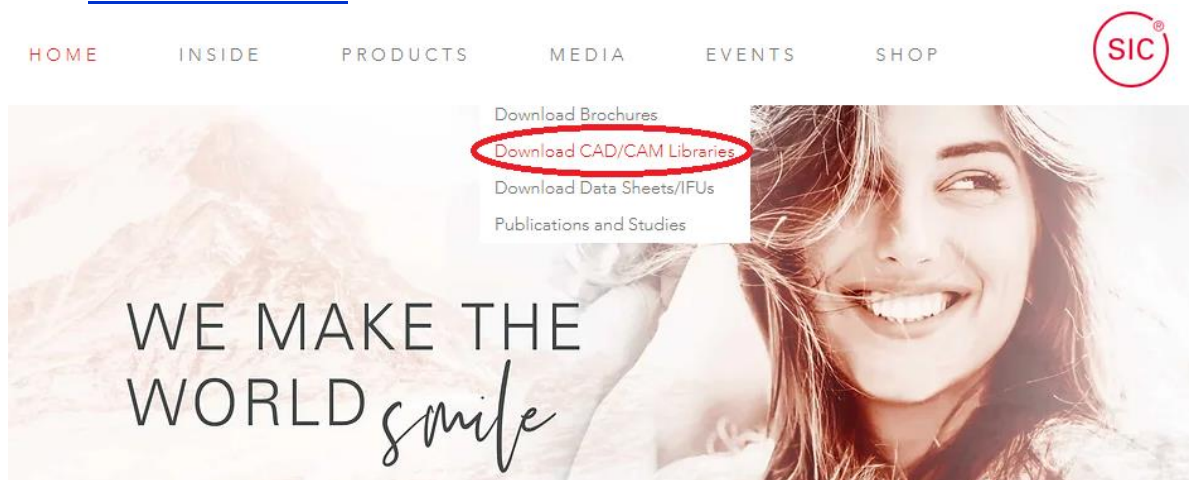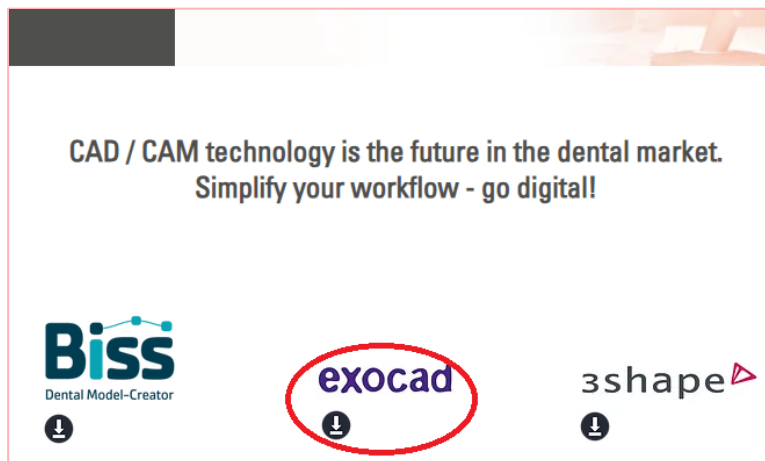
- Download the required library

- Unpack the downloaded .zip file
  (If you do not have a tool for unpacking .zip files installed, you can download and install "7-Zip" or "WinRAR" for free from the Internet.)

- Open the extracted folder and copy the folders of the DentalCAD libraries (in this example SIC_Hex_blue and SIC_Hex_red) with the files they contain.
  Hint: The folders with the note "... _Labanalog _..." in the file name are ModelCreator libraries that you only need if you want to print jaw models with a 3D printer
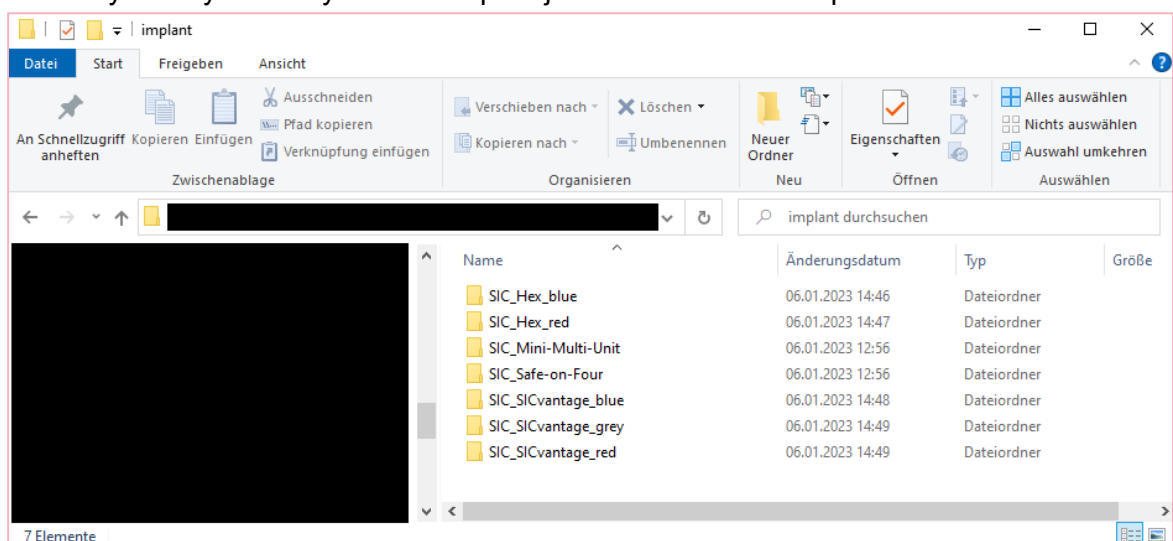
- Paste the copied folders into the directory "…**DentalCADApp/library/implant**
- With the restart of DentalCAD, the libraries should be usable now.

4.1.1 ModelCreator Libraries

You only need to do the following step if you are working with the ModelCreator from exocad.

- Copy the above mentioned "Labanalog" folder and paste it into the directory "…**Dental-CADApp/library/modelcreator/implants**".

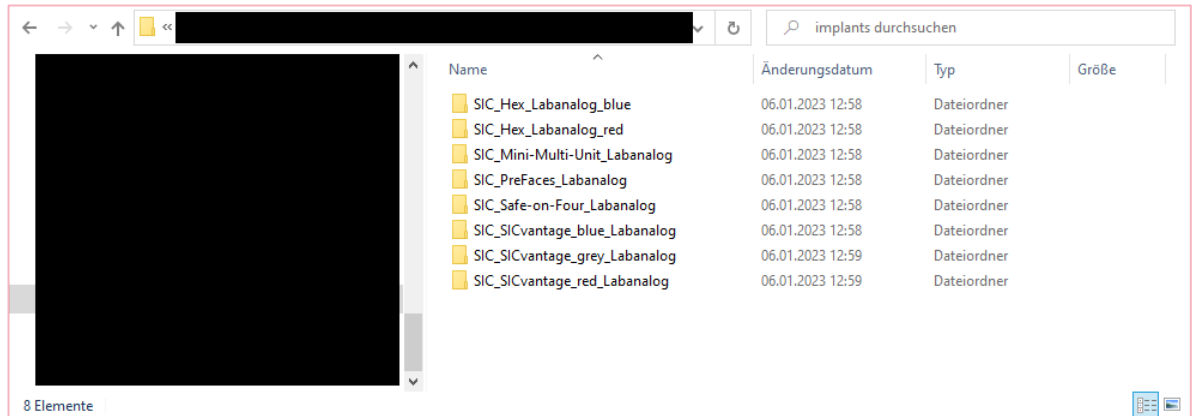| Name	Änderungsdatum	Typ	Größe
SIC_Hex_Labanalog_blue	06.01.2023 12:58	Dateiordner	
SIC_Hex_Labanalog_red	06.01.2023 12:58	Dateiordner	
SIC_Mini-Multi-Unit_Labanalog	06.01.2023 12:58	Dateiordner	
SIC_PreFaces_Labanalog	06.01.2023 12:58	Dateiordner	
SIC_Safe-on-Four_Labanalog	06.01.2023 12:58	Dateiordner	
SIC_SICvantage_blue_Labanalog	06.01.2023 12:58	Dateiordner	
SIC_SICvantage_grey_Labanalog	06.01.2023 12:59	Dateiordner	
SIC_SICvantage_red_Labanalog	06.01.2023 12:59	Dateiordner	

8 Elemente

4.1.2 Structure of the Exocad library

The libraries are arranged according to the following principle:

- System
  SIC Safe on Four, SIC Mini Multi-Unit, SIChex, SICvantage in their respective sizes
  - Bonding Bases / Crown Bases
    Arranged according to their item numbers.
    - Presets for gluing gaps
      - +/- 0 mm is the standard value for Bonding Bases and Crown Bases.
      - -0.02 mm is a fitting in which the gluing gap is almost 0. This option is usually only chosen when the milled contour is larger than laid out in the CAD.
      - +0.08 mm is the loosest possible fitting. This option is usually only chosen when the milled contour is way smaller than laid out in the CAD.
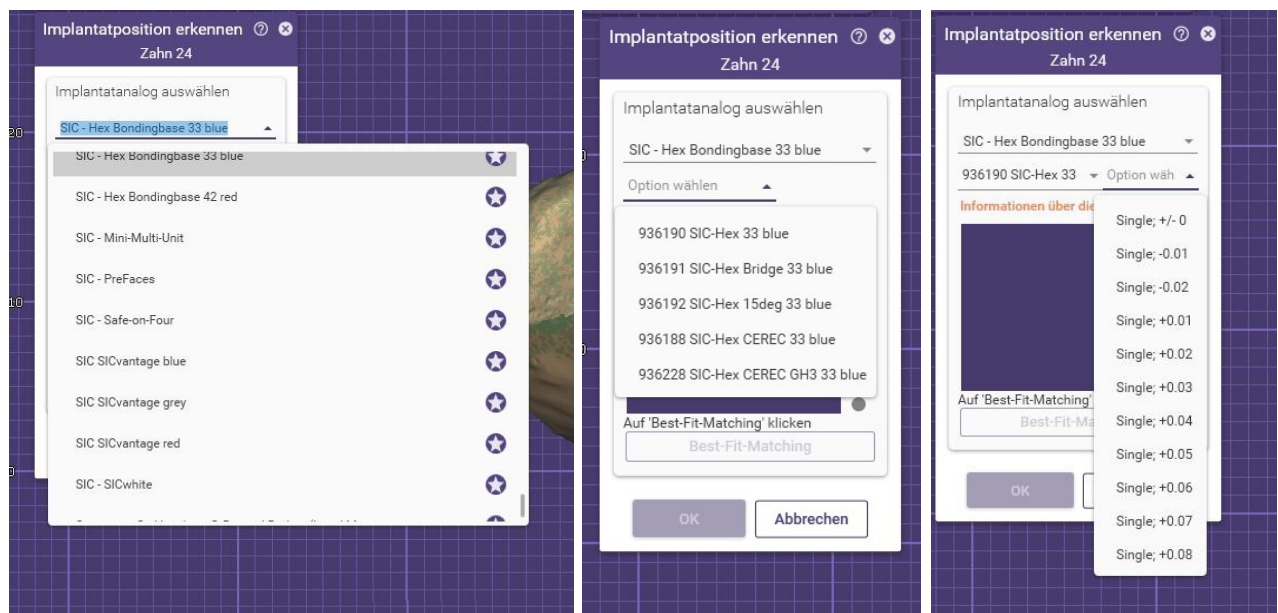
Hint: The libraries are designed in such a way that you can refer to the article numbers. The numbers in front of the articles (red, picture below) are the item numbers (REF numbers) of the parts with which you can order the respective article from the Customer Service.
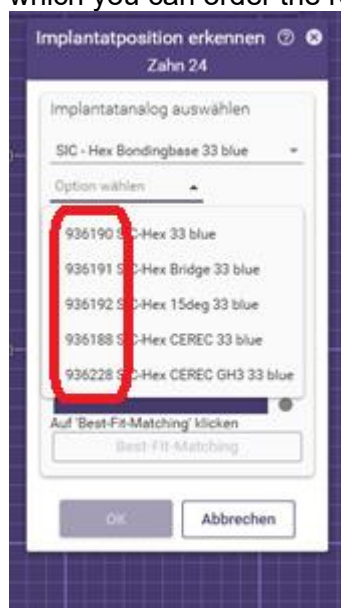
You find the information on how to contact the Customer Service in Chapter 2.

5   FAQ

Here you find the answers to the most frequently asked questions.

Q: The libraries I downloaded and installed don't appear in the software for selection. What should I do?

A: Restart the software. Most software does not update in real time. Instead they almost always need a restart to update all the new data.

Q: The restart didn't help, what else can I do?

A: Make sure that the required libraries were correctly installed (→ Chapter 3).

Q: Exocad gives me the error "Model Implant Library, LoadConfigFileError ..." after installing the libraries, what should I do?

A: Check that the libraries were copied to the correct folders during installation (→ Chapter 4.1).
All libraries without "..._Labanalog_..." in their file name have to be in the folder "...Dental-CADApp/library/implants".
All libraries with „..._Labanalog_..." in their file name have to be in the folder "...Dental-CADApp/library/modelcreator/implants".

Q: I'm done constructing a case, which item do I need to order now?

A: The libraries of SIC invent are designed in such a way that you can see the item number in the software in front of the item description (→ Chapter 4.1.2).
If you selected a Bonding Base in the software, you can simply order this exact item number from the Customer Service.

Q: I have an article here, what should I choose in the software now?

A: The libraries of SIC invent are designed in such a way that you can see the item number in the software in front of the item description (→ Chapter 4.1.2).
If you already have an item, just look for the item number (REF) in the library.