

Operating instructions and
conditions of use for the

BEGO FILE GENERATOR

Version 5.0
Valid as of September 2020

Contents

1

Table of Contents

2 Table of contents

2

Foreword

3 Foreword

3

Installation of the BEGO File Generators

4 Installation of the BEGO File Generators

4

BEGO File Generator Setup

6 BEGO File Generator setup

5

Sending a Data Set

9 5.1 Starting BEGO File Generator – STL-file

10 5.2 Starting BEGO File Generator – Job-file

10 5.3 Operating BEGO File Generator

6

Automatic

12 6.1 General information about the automatic function

12 6.2 Jobs with split STL-files

13 6.3 STL-Merger

7

Bar Restorations and Individual Abutments

14 7.1 Requirements

14 7.2 Process

8

Geometry of the Dental Restoration

15 Geometry of the dental restoration

9

Licence Agreement

16 Licence agreement

Foreword

Dear customer,

thank you for opting for the BEGO Medical GmbH product range. With the BEGO File Generator you can order dental restorations in the BEGO Medical GmbH production centre.

For this you need:

- A dental 3D CAD system that can export STL-files
- An internet connection
- A valid BEGO customer number

If you do not have a valid BEGO customer number so far, please install the BEGO File Generator and enter your valid address details: e-mail, billing address, delivery address, etc. We will contact you within 3 working days after successful installation. If this is not the case, please send an e-mail to: info@bego-medical.de.

Please use the first order to coordinate the fit and construction of the dental restoration to the BEGO Medical production system. We therefore recommend that you use different cement gaps and/or different frictions for the individual copings.

Using these instructions we will guide you in detail through the installation and operation of the BEGO File Generator.

If you have any questions please call us on +49(0)180 5000 566 (0.14 € per minute) or send an e-mail to info@bego-medical.de.

Yours sincerely,
The BEGO Medical Team

Authors:

Digital Workflow Application Development (ADW), BEGO Medical GmbH
Head of Digital Workflow Application Development (ADW)
Igor Pfeifer, BEGO Medical GmbH

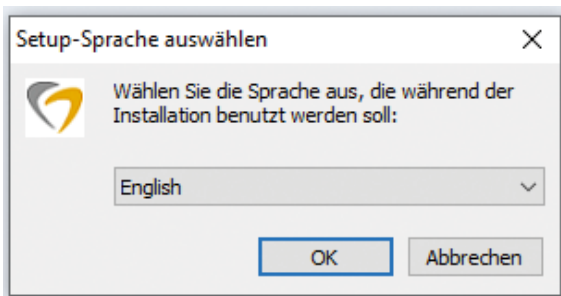
Installation of the BEGO File Generator

Please download the file "File Generator" from the website <http://bego.com>

If you have opened other applications, please close them.

Start now the installation programme you have downloaded.

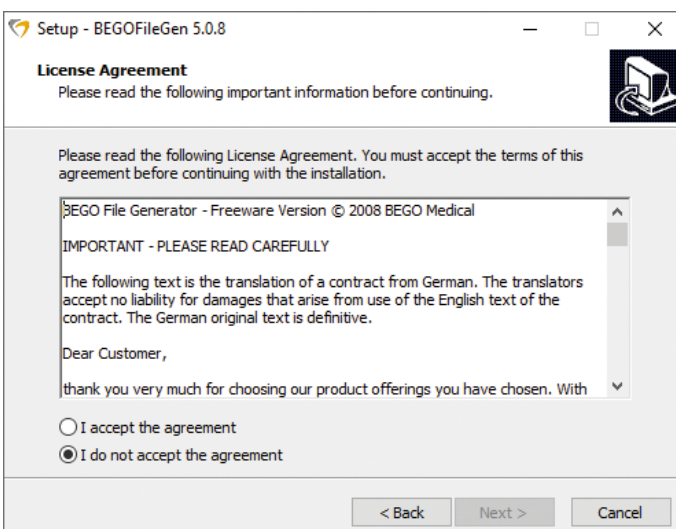
The window for selecting setup language appears. Select your language and confirm with "OK".



Select the language to use during installation. By clicking on "OK" you will continue with the setup.

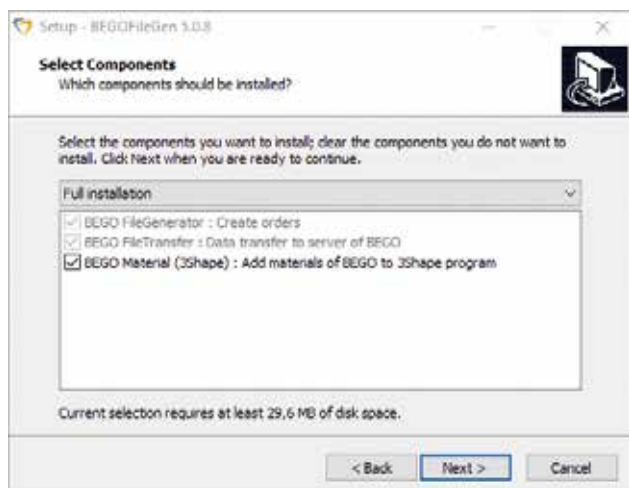


The license agreement appears next. You can continue with setup only if you accept this. To do so, click on "I accept the agreement". By clicking on "Next" you will continue with the setup.

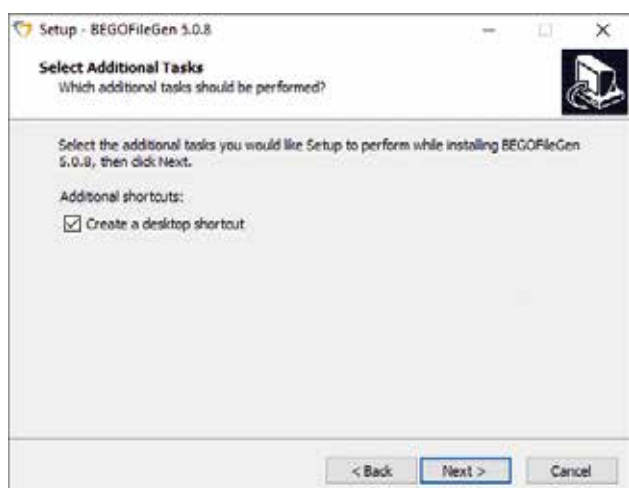


Images and illustrations are examples. Colors, symbols, designs, and information on the depicted labels and/or packaging may differ from reality.

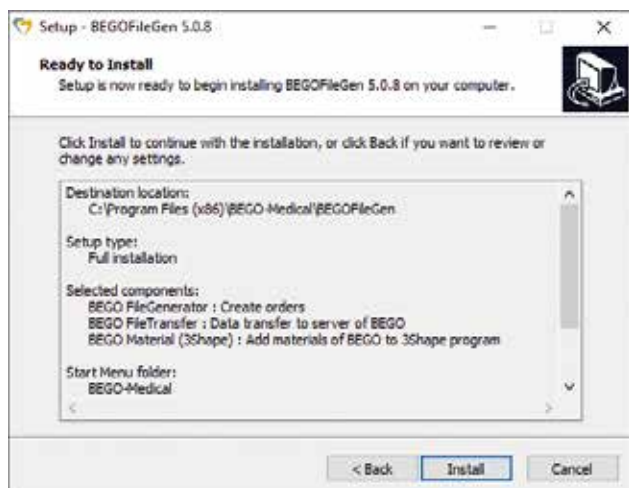
A maximum of 3 components will be installed. The next dialogue box displays an overview of installation. 2 components are compulsory. Installation of one of the components is optional. We recommend you install all of the components provided. If components are already installed in the current version on your PC, they will not be displayed or installed.



In the next window you can decide whether the set-up should create a desktop icon, which you can use to activate the file generator later.



In order to start installation, in the next window click on "install".



Images and illustrations are examples. Colors, symbols, designs, and information on the depicted labels and/or packaging may differ from reality.

BEGO File Generator Setup

Windows then open that ask about your profile details. Please complete all fields. Please enter your e-mail address in the next window. Confirm your entry with "Continue".

E-mail address

Please enter your e-mail address

sample@sample-lab.org

Cancel OK

When you start the program for the first time, simply click on "OK" in the next window.

When you start the program later, please enter the password that you will receive from us.

Your password

Please enter the password you received by e-mail here. If you have not received a password, leave the field free and click on OK

Cancel OK

Please enter your company details in the next window. Confirm your entry with "Continue".

Company details

Please enter your company details here

BEGO

Company name
Sample Lab

Legal form (Corp., LLC etc.)
GmbH

Tel. no.
+49 421 2028 0


Federal Tax ID (Fin)
YXZ0987654321

Tel. no. (mobile)

Cancel Continue

In the following window, please enter your billing address. Confirm your entry with "Continue".

Billing address

Please enter your billing address here 

Address

Postal / ZIP code City State / Province

Country

If you answer "Yes" to the following question, you will be shown an additional input mask for entering the delivery address.

Is your delivery address different to your billing address?

In the next window, please enter your delivery address and confirm with "Continue".

Delivery address

Please enter your delivery address here 

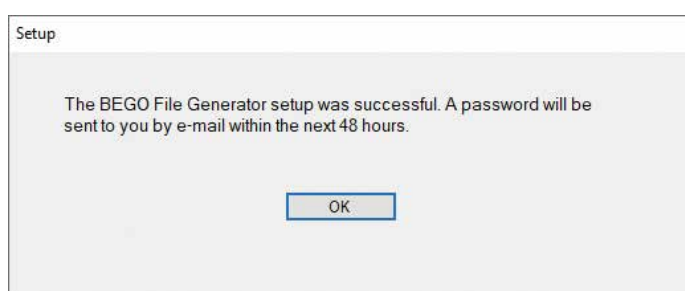
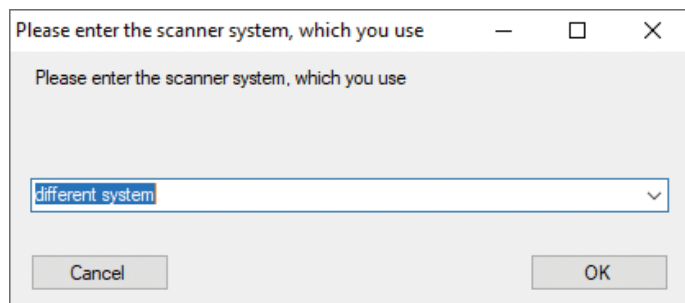
Address

Postal / ZIP code City State / Province

Country

Images and illustrations are examples. Colors, symbols, designs, and information on the depicted labels and/or packaging may differ from reality.

In the next window please look for the scanner brand you use from the suggested list and confirm your choice with "OK".



Congratulations! You have finished the setup of BEGO File Generator. A password will be sent to you within 48 hours, which will provide you with your individual BEGO ID.

Entering the above details (e-mail address, company name, billing and delivery address and scanner) takes place only during the installation of the BEGO File Generator. The computer must be restarted for all the changes to take effect.

If the setup has detected that you are using the 3Shape* Dental System, it copies the corresponding material files onto your computer. Furthermore, if it determines that it includes more recent files than the previous installation, it also copies them to your desktop and displays instructions on how to install these material files in the 3Shape software. You can run this installation before restarting your computer, but do not forget to restart eventually. However, if you prefer to perform the restart immediately, you can view the instructions once again on the BEGO homepage. In addition, they can also be found in the following directory:

**c:\Program Files (x86)\BEGO-Medical\Material\
or c:\Program Files\BEGO-Medical\Material**



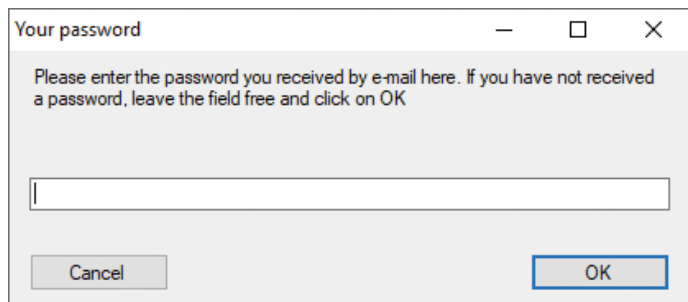
The next part of the operating instructions describes how you can order dental restoration productions from BEGO Medical.

If you have any questions, please call us on +49 (0) 180 5000 566 (0.14 € per minute) or send an e-mail to info@bego-medical.com

* This symbol is a commercial designation/registered trademark of a company which is not part of the BEGO company group. Images and illustrations are examples. Colors, symbols, designs, and information on the depicted labels and/or packaging may differ from reality.

Sending a Data Set

BEGO File Generator is now installed. Further instructions can only be followed with a valid password. If you have not yet entered a password, this dialog box appears after you start the program. Please enter the password here that you have received via e-mail.



5.1 Starting BEGO File Generator – STL file

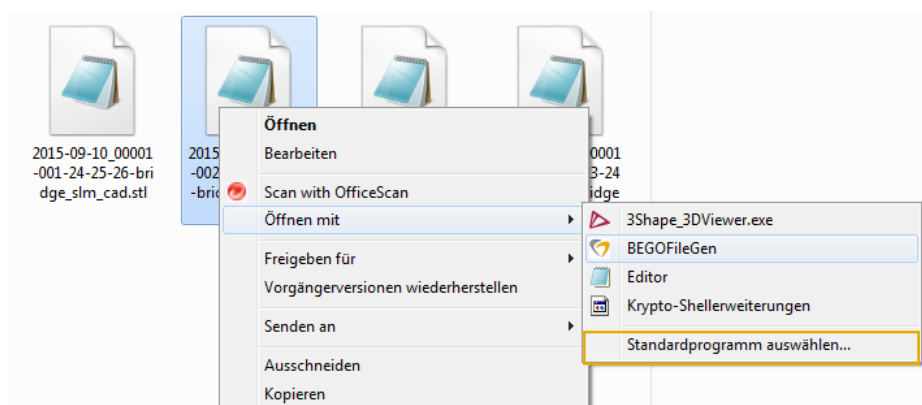
With the BEGO File Generator you can send complete orders with all STL-files in one step, if they were created with the 3Shape* Dental System or with exocad*.

The orders are sent through the order file of these softwares. The order file of 3Shape Dental System has the file extension „3OX“, while exocad has the file extension „constructionInfo“. Please primarily use this method to send your orders, in order to save work and to avoid input errors.

Alternatively, you can send STL-files (one file per step).

Now start the File Generator with one of these variants:

1. Click on the STL-file of your object with the right mouse button. In the drop-down menu, under “Open with“ select the program “BEGOFileGen”.



2. Or go to the start menu, select programs > BEGO Medical and select the BEGO File Generator file there. A selection window then opens, with which you can select the STL-file.

3. If you have created a desktop icon during installation, you can also activate the programme using the icon.

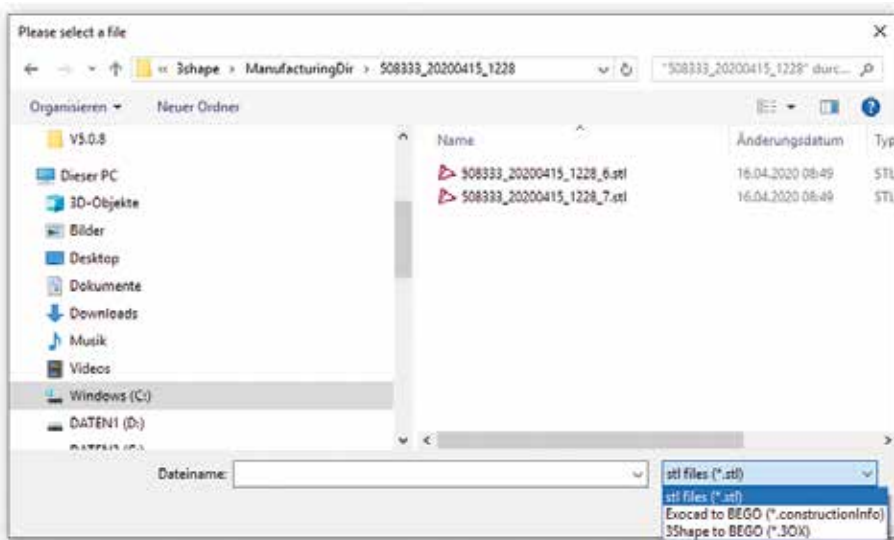
If your object consists of more than one STL-file, carry out one of the above steps with one of the files belonging to the object – it does not matter which one.

* This symbol is a commercial designation/registered trademark of a company which is not part of the BEGO company group. Images and illustrations are examples. Colors, symbols, designs, and information on the depicted labels and/or packaging may differ from reality.

5.2 Starting the BEGO File Generator – Order file

The prerequisite for this function is that you have switched on the automatic with the large yellow button in the middle.

If you start the BEGO File Generator via the Start menu or a desktop icon, please change the file type in the lower right corner of the following dialog.

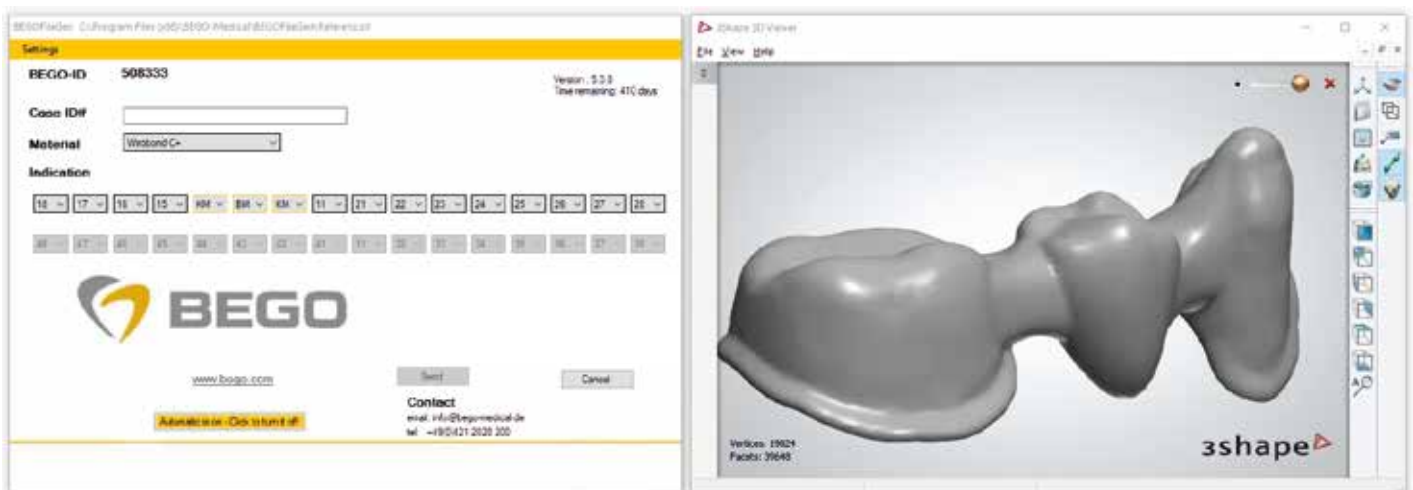


5.3 Operating BEGO File Generator

When you start the BEGO File Generator with an STL-file, two windows open.

In one window, the 3D viewer represents the selected object three dimensionally. Pressing down the left mouse button gives you the option of moving the object in space and looking at it from all sides.

In the second window, you see the BEGO File Generator.



Please complete the fields in the BEGO File Generator. Enter a patient name or order name and select the material from the list of materials.

In the section "Indication", please classify the individual units of the object to the corresponding tooth description.

If you have opened the File Generator via a order file, the mask appears as shown in the following image. You receive a list of the STL-files for your job. The file extension "STL" is not shown. In addition, the material and the type of restoration are shown for each individual tooth position. You do not need to enter any further information for the job.

BEGOFileGen C:\3shape\ManufacturingDir\508333_20200416_264_00135_122602\508333_20200416_264_00135.stl

Settings

BEGO-ID **508333** **Version : 5.0.8**
Time remaining: 410 days

Case ID#

- 508333_20200416_264_00135
Wirobond C+
26/K
- 508333_20200416_264_00136
BEGO Zirkon LT
27/K

Contact
email: info@bego-medical.de
tel: +49(0)421 2028 200

You can stop the respective STL-file from being sent to BEGO for production by removing the tick in front of the STL-file name. You can open the 3D viewer by double-clicking on the name of the STL-file.

To conclude the task, the check box with the declaration must be activated. When you have entered all the data, confirm with "Send".

Your job is sent by clicking on the "Send" button.

Automatic

6.1 General information about the automatic function

The automatic function of the File Generator

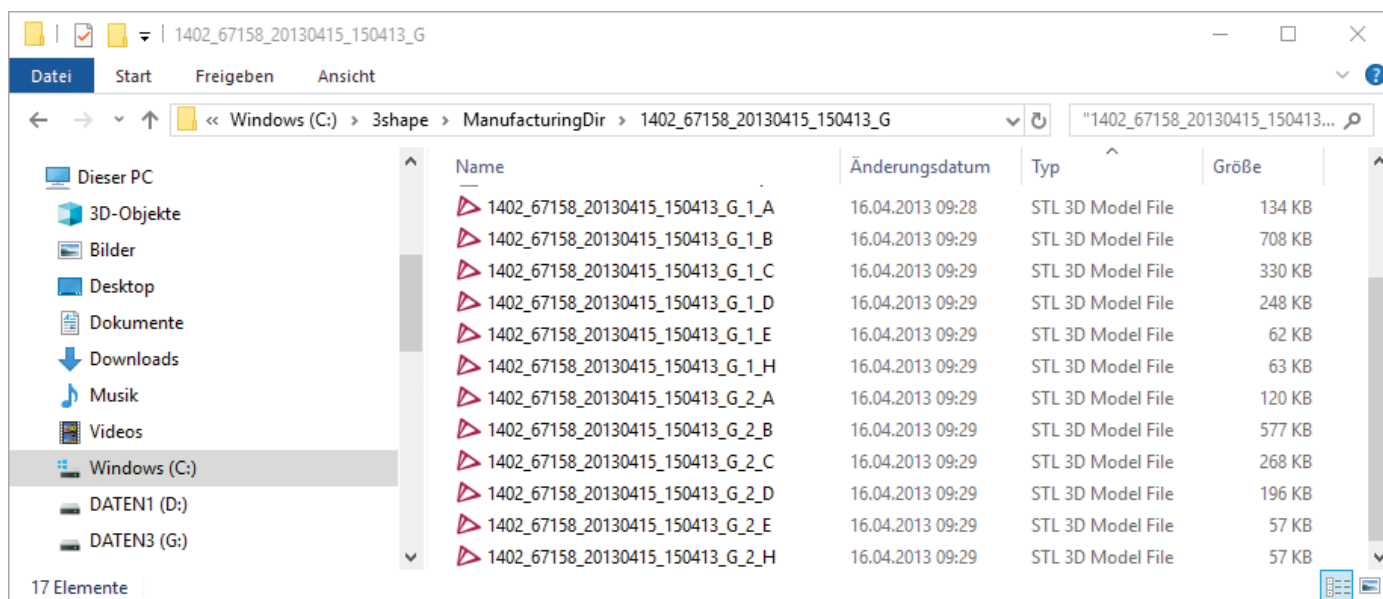
- allows a complete 3Shape* or exocad* order to be sent via an order file
- can detect if there is more than one object in a directory, and offers to create orders for each of the objects and send them
- can adopt the job data for your objects in 3Shape systems
- can combine all the STL subfiles corresponding to one object

The last three points refer to sending via individual STL-files instead of the order file. With this sending method, the program also tries to save you as many manual input steps as possible. However, as there is a variety of different options for installing the CAD programs and even more output possibilities for you, the automatic function will not work in every situation. We apologise for any inconvenience.

6.2 Jobs with split STL-files

A few dental CAD programs export more than one STL-file, order to be sent via an order file.

In the following example, the program has split the data records of two objects into eight partial STL files. The files with a “_1_” in the name belong to the first object, those with a “_2_” to the second.



In order for the objects to be produced, a total STL file must be produced.

Let us assume that you want to send the second object. You then open one of the eight files with the “_2_” in the name – it does not matter which of the eight files you select – with the File Generator (compare the section “Starting the BEGO File Generator”).

The programme knows several techniques used on the market on how the entire STL file can be split.

If the programme encounters a technique that it knows, all the required files are automatically merged and the order mask of the file generator is immediately displayed.

If the programme establishes that several files belong to an item, but does not know the splitting technique, the mask of the STL-merger opens.

If the programme does not recognise that several STL-files belong to an item or if the entire STL-file automatically created by the programme is incorrectly merged, start the STL-merger yourself via the Windows Start menu.

If the automatic mode does not function with your STL, you can also switch it off using the button in the middle of the order mask. This deactivates all the above-mentioned automatic functions. Please inform our hotline about the problem. Normally, your STL-files can also be sent automatically with minor adjustments.

* This symbol is a commercial designation/registered trademark of a company which is not part of the BEGO company group.

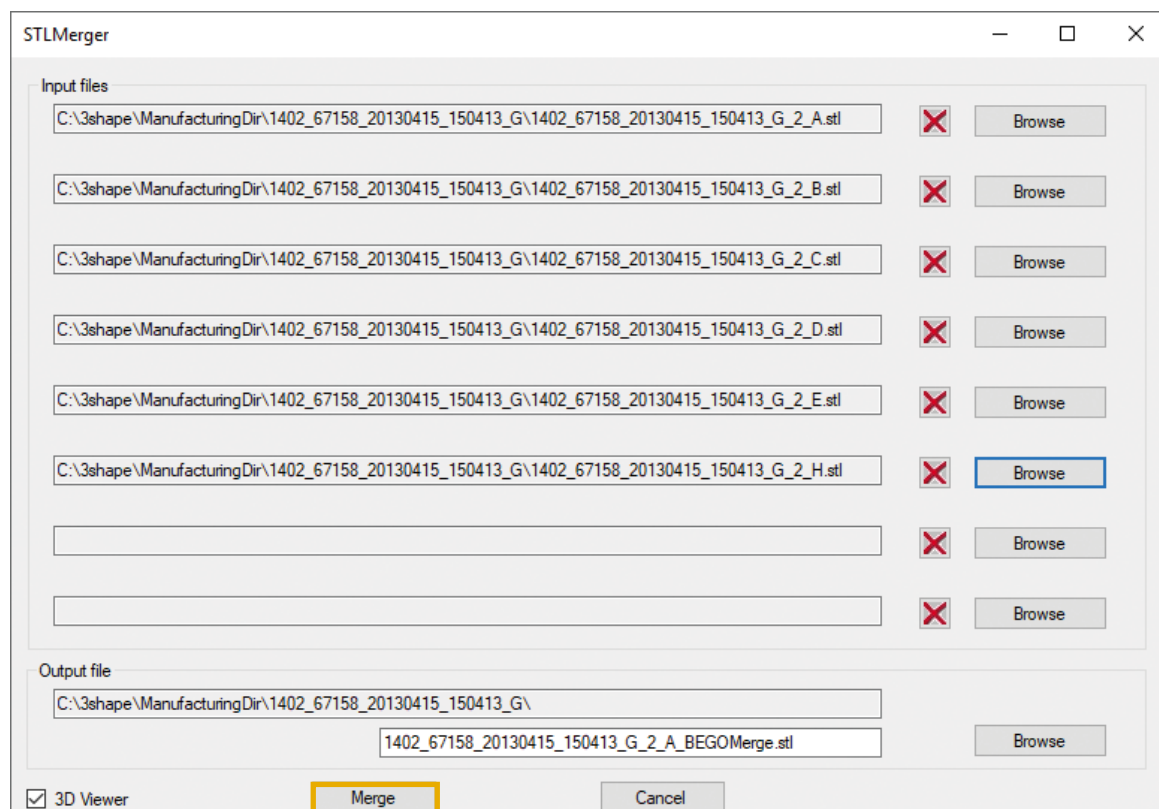
Images and illustrations are examples. Colors, symbols, designs, and information on the depicted labels and/or packaging may differ from reality.

6.3 STL-Merger

Compile all the files required for your item using the STL-Merger:

1. Establish how many files the scanner has generated and which of them you actually need for your object. Delete files with enveloping surfaces. Use the 3D viewer program to display the individual STL-files.
2. Start the merger via: start menu > programs > BEGO-Medical > STL-Merger. Through the “Browse” buttons, enter all the files that have to be merged. All files configured in this way are displayed in the 3D viewer. If you do not want to use this function, you can also deactivate the start of the viewer using the box at the bottom left. Files that are not required are removed from the mask using the X buttons.

If you have fewer than eight files, leave the remaining fields free. If you have more than eight files, have the first 8 STL-files merged as a first step and in subsequent steps merge the generated “Merge” STL-file with the remaining individual STL-file.



3. In the bottom text line you can determine the target folder and file names. The entire STL-file is always included in the individual STL-file list. Then click on “Merge”. The files are now merged.

The 3D viewer and the File Generator then open. You can now continue to work as usual.

Bar Restorations and Individual Abutments

7.1 Requirements

To order bar restorations and individual abutments with the File Generator, you need to model them in your design software using the BEGO implant library in advance and save them as STL-files.

The BEGO implant library and instructions for importing into your software can be found in the download centre at www.bego.com/media-library/download-center/cadcam-solutions/.

7.2 Process

Please do not send us bar restorations and abutments as individual STL files. Please always send them together with the order file of the CAD system, i.e. with the 3OX file from 3Shape* or the constructionInfo file from exocad*. This is the only way we get all the information we need for production. Sending via the order file was explained in a previous section.

Geometry of the Dental Restoration

When using the BEGO File Generator and the order portal a few things must be noted with regard to the geometry. Please alter the parameters according to the following recommendations:

Geometry parameters

		Wirobond® C+	CAD/Cast®	BEGO PMMA Multicolor	BeCe® WaxUp	Wirobond® M+	BEGO Titan 4	BEGO Zirkon ST BEGO Zirkon LT	KATANA * Zirconia UTM KATANA Zirconia STM	IPS e.max* CAD
Cement gap	mm	0	-0.01	0	0.2	0	0.015	0	0	0.02
Extra cement gap	mm	0.07	0.06	0.04	0.2	0.06	0.07	0.04	0.08	0.06
Distance to preparation line	mm	1.7	2	2	1	1.3	1.7	2	2	1.2
Smooth distance	mm	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Wall thickness	mm	0.45	0.5	1	0.3	0.4	0.5	0.55	0.8	0.8
Edge thickness	mm	0.15	0.2	0.2	0.25	0.1	0.2	0.2	0.2	0.2
Offset angle full anatom./ anat. reduced	°	65 / 70	65 / 90	65 / 90	65 / 65	65 / 90	55 / 55	65 / 65	65 / 65	65 / 65

In addition, it is useful to work with the drill compensation function as this leads to better fit of the supplied frameworks.

* This symbol is a commercial designation/registered trademark of a company which is not part of the BEGO company group.

Licence Agreement

The following text is the translation of a contract from German. The translators accept no liability for damages that arise from use of the English text of the contract. The German original text is definitive.

This licence agreement is a legal contract between you (as either a natural or legal person) and BEGO Medical GmbH. By installing, copying and/ or otherwise using this software, you commit yourself to using the software under the conditions of this licence agreement and to recognising this. If you do not declare yourself in agreement with this licence, you are not entitled to use or copy the software.

1. The BEGO File Generator ("Software" below) is distributed as freeware.
2. The software is protected by copyright. In addition to the program code, the copyright also includes all graphic images and logos. All rights are in favour of BEGO Medical GmbH.
3. You are granted a simple and non-exclusive right without time limit to use it, refer to it and execute it. When using the software, you must ensure that no rights of third parties are infringed or circumvented. Use with infringement of the rights of third parties is not permissible. You are entitled to install a copy of the software, to use it, refer to it and execute it. When using the software, you must ensure that no rights of third parties are infringed or circumvented. Use with infringement of the rights of third parties is not permissible.
4. Transfer. The software can be used, copied and distributed freely as long as it is not sold and that it contains all the original files unchanged and transfer takes place with the inclusion of this licence agreement.
5. BEGO Medical GmbH reserves all rights not expressly granted to you in this licence agreement. The software is protected by copyright law and by other laws and agreements on intellectual property. The software is licensed, not sold.
6. Restrictions with regard to reverse engineering, decompilation and disassembling. You are not entitled to reverse engineer, decompile or disassemble the software unless (and only to the extent that) the applicable law expressly permits this, regardless of this restriction.
7. You are not entitled to rent out the software to others or lease it or lend it against payment.
8. This licence agreement applies for updates, supplements, add-on components, product support or components of internet-based services of the software, which you may receive after you have received your original copy of the software, unless you accept updated conditions or a different contract has priority. In case no other conditions are delivered with the supplementary components.
9. Guarantee
 - 9.1 BEGO Medical GmbH accepts no liability for the software. Since the software is licensed without any costs, there is no guarantee, insofar as this is legally permissible. Unless confirmed elsewhere in writing, the software is made available "as is", without any guarantee either express or implied, including, but not limited to marketability or usability for a certain purpose. You bear the full risk with regard to the quality and performance of the software. Should the software prove to be faulty, the costs for necessary service, repair or correction remain to you.
 - 9.2 We are happy to accept any description of a defect but BEGO Medical GmbH can not give any guarantee that all defects can be eliminated.
 - 9.3 If you are a trader in the legal sense, you must check the software promptly after delivery and report discernable defects to ICE in writing. Otherwise, the software is regarded as approved with the consequence that you lose your guarantee rights. The obligation to make a prompt written report applies accordingly for concealed defects as soon as these become discernable.
 - 9.4 You alone are responsible for the software meeting your special demands and needs. BEGO Medical GmbH accepts no responsibility for the selection of the software or the results that can be achieved with the software or with the objects used together with it.
10. Regardless of other rights, BEGO Medical GmbH is entitled to terminate this licence agreement insofar as you infringe the conditions contained herein. In such a case, you are obliged to destroy all copies of the software and all its components.
11. To protect against security infringements and malicious software, you should regularly make back-up copies of your data and system information, use security features such as firewalls and install and use security updates.
12. This licence agreement represents the complete contract between you and BEGO Medical GmbH with regard to the software and (where present) the support or other services. It has priority over all previous or simultaneous verbal or written communications, suggestions and assurances with regard to the software. If a condition of this licence agreement is declared null and void, non-implementable or unlawful, the other conditions continue to remain fully effective.
13. For compensation or replacement of futile expenses for whatever legal reason including impermissible action, the following rules apply:

BEGO Medical GmbH accepts liability in the case of intent, gross negligence and in the case of claims under the product liability law in accordance with legal regulations. In the case of injury to life, the body or health, BEGO Medical GmbH accepts liability in the framework of legal regulations.

BEGO Medical GmbH does not accept liability for mild negligence unless an essential contractual obligation has been infringed. In these cases the liability is restricted to typical and predictable compensation.

14. This licence agreement is subject to the law of the federal Republic of Germany with exclusion of the unified UN Purchasing Convention. The court of jurisdiction for all disputes that result from or in connection with this agreement ist Bremen. However, BEGO Medical GmbH can take proceedings against you in any other legally opened court of jurisdiction.
15. Should you have any questions regarding this software product, contact BEGO Medical GmbH via the following e-mail address: info@bego-medical.de
16. You can get the current version of the software product at: www.bego-medical.de

Yours sincerely,
BEGO Medical GmbH



www.bego.com

BEGO Medical GmbH

Wilhelm-Herbst-Str. 1 · 28359 Bremen, Germany
Tel. +49 421 2028-0 · Fax +49 421 2028-174
E-Mail info@bego-medical.com · www.bego.com

Always want to have a look at all BEGO news?

Sign up for our newsletter here: www.bego.com/newsletter

