

inLab Software New digital options

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inLab CAD Software Dental design requires good software

The inLab CAD Software focuses closely on the requirements of dental laboratories. As a stand-alone CAD component, the application can be used independently from scanners and production units. Furthermore, inLab Software is better integrated into the digital workflow between practice and laboratory than ever before. It also links CAD/CAM processes between different inLab laboratories, using Connect Case Center.

The inLab design software stands out for its needs-based indications, optimized design processes, and user-friendly interface. Its four software modules offer a wide range of indications and functionalities. inLab users can freely decide when to perform available updates - without counting dongles, mandatory updates, expiration dates or annual license fees.

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inLab CAD Software Modules

Implantology	Removables
module	module
	Basic modul

Interface module

inLab Software

Easy to use – professional results

Intuitive, simple, process-oriented – inLab CAD Software is one of the most userfriendly applications in dental CAD/CAM. The user interface clearly displays all relevant information and selection menus on a case-specific basis. The inLab Software workflow with focus on dental technology professionally and reliably guides the user through all steps to the desired restoration result without needing to forgo individual design and functional options. The design process is supported by short menu paths, quick tool access and a variety of view options.



Everything at a glance

The intelligent administration phase does more than display the entire restoration case with all desired design details on a clearly structured screen. The flexible case administration feature also saves valuable user time if adjustments are necessary during the design process.

Efficient support for design and function



Multi-layer gingiva for separating the framework structure with gingival element and veneer structure for bridge design projects involving the gingiva.



Tooth color display in inLab Software for digital impressions that were sent via Connect Case Center.



Virtual articulator for visualizing entire motion ranges and determining static and dynamic contact surfaces for proper functional occlusion.

Gingiva element design for all restoration types.



Virtual insertion for designing several restoration layers in complex cases.



inLab Check for reviewing the fully designed restoration for possible critical areas, using a FEM load calculation on the basis of the material selected for the restoration.

Basic module

inLab CAD Software: **Basic module**

The Basic module of the inLab CAD Software covers basic indications and provides all necessary design tools along with access to digital impression with Connect Case Center.







Veneer

Inlay



Full crown

inl ab 2 KAN 💛 MER. 🔬 REAN



Fully anatomical bridge

Digital Models





For dies, users can either transfer existing preparation margins from the inLab Software or enter them manually (e.g. for removable adjacent teeth). Die fitting and undercuts for removable and non-removable die elements can be individually adjusted.



Support structures for various articulator attachments can be added to the model and edited.**

Anatomically reduced bridge	Models

Onlay

Overview of inLab CAD Software Basic module:

- Inlay, onlay, veneer, full crown, bridges, coping, bridge Virtual insertion frameworks, multi-layer, models
- All design tools
- J.O.B.S. Jaw Orientated Biogeneric Settings
- 1:1 copy mode
- Tooth databases

- - Virtual articulator

 - Smile design
 - Gingiva element
 - Connect Case Center access
 - inLab Check to review design data for stress sensitivity
- * Implantology module required for implant models
- ** Vertext/Ceramco articulator and others



As of inLab CAD Software 18.0, digital impression data models can be designed with removable or nonremovable dies - for conventional full arch models and for models with implant analogues.* The design tools can be used to create a separate gingival mask for any model type.



In the case of implant models, the selected model analog is automatically included in the calculation. Analogues from several manufacturers are available.

Additional model labels can be inserted in the finalizing phase of the model. The finished model data can be sent to production via, for instance, an in-house 3D printer or a central production unit.

Quick and reliable results

1:1 copy mode



With the 1:1 copy mode, all geometric dimensions of a restoration can be faithfully copied and transferred to the final restoration. That saves an enormous amount of work time. The feature is particularly well-suited for large bridge and implant cases with a gingival component, in which existing long-term temporary solutions are to be precisely converted to final restorations.

J.O.B.S. - Jaw Orientated Biogeneric Setting



This unique jaw-orientated biogeneric procedure reconstructs teeth true to nature. The inLab CAD Software includes the positioning and morphology of the existing teeth in its analysis and uses this data to generate patient-specific fully anatomical first proposals – both for individual teeth in the anterior and posterior regions as well as for large bridges and multiple unit restorations. That eliminates the need to perform time-consuming design rework.





Connect Case Center links digital processes – practice-to-lab and lab-to-lab

The Basic module of the inLab CAD Software offers dental laboratories access to the digital transmission platform Connect Case Center. It offers safe and convenient sharing options for scan, restoration and order data, both between practice and laboratory and between dental laboratories.

Connect Case Center: From practice-to-lab



Convenient transfer of digital impressions from Dentsply Sirona intraloral cameras including all order information as well as image and additional data from the practice to the laboratory within seconds: Transmission of inLab scan or restoration data from one laboratory to another, directly from the inLab Software via Connect Case Center: • Expansion of production capacities and use of external

- Secure and seamless transfer to the inLab CAD software for subsequent restoration design
- inLab users can use the design service for CEREC practices: Dental technology competence for complex or aesthetically more demanding orders, which are designed in the laboratory and finalised in the practice
- Alternatively, secure data transfer via the new Connect Case Center Inbox for inLab labs and for labs using other software

With the optional Interface module, the inLab CAD Software can be also used to process intraoral and extraoral scan data that are transmitted in STL format. This enables the integration of scan data from intraoral scanners by other manufacturers in the inLab CAD Software restoration design.

Connect Case Center: From lab-to-lab

- Expansion of production capacities and use of external know-how
- Receiving and/or offering design service for laboratories
- Order-based chat via Connect Case Center possible
- No additional costs for separate cloud services or the like
- The inLab Software provides direct access to the patient-specific solutions from Atlantis for the design and manufacture of abutments and superstructures from Dentsply Sirona

inLab CAD Software: Implantology module

The Implantology module of the inLab CAD Software comprises all required CAD tools and functions for the customized treatment of single and multiple implants as well as for surgical guide design – for seamless transfer to the inLab production units, inLab MC X5 and inLab MC XL. Or alternatively, for export to other production units.



Screw-retained bridges and bars at implant level



abutments and adhesive caps

Individual abutments on TiBase adhesive base and from titanium preforms



Surgical guide

Overview of inLab CAD Software Implantology module:

- Screw-retained bridges and bars at implant level
- Screw-retained bridges and bars on multi-unit abutments
- Individual abutments (zirconium oxide and titanium)
- Surgical guide (integrated implantology)



For greater flexibility, the tooth setup and implant superstructure can be designed separately. Teeth can be set up according to function and with consideration for esthetics, independent of the implant position.



The screw channel tool allows for setting of individual screw channels with the corresponding settings for position, angle and diameter. This is a convenient tool, for example to generate screw-retained restorations on scanned standard abutments.

Individual production methods for inLab users

As of inLab SW 18.0, inLab users can access the extensive service portfolio of Dentsply Sirona with even greater ease and flexibility for implant cases. You can decide at any time on a case-by-case basis whether the design is to be done directly in-house with the inLab Software or alternatively, whether Atlantis® patient-specific solutions are to be used for the design and production of abutments and superstructures – with direct access to the Atlantis® WebOrder system from within the inLab Software.

Screw-retained bridges and bars at implant level







Design professional implant-supported bridges and bars with the inLab CAD SW at implant level, based on high-precision inEos X5 scan data and in combination with the FLO-S scanbody by Atlantis[®]. The restoration data can then be made available for production in a suitable CAD/CAM production system.

Screw-retained bridges and bars on multi-unit abutments and adhesive caps







For in-house production, for example with inLab MC X5 (zirconium oxide or PMMA), screw-retained bridges and bars are designed on multi-unit abutments by nt-trading and Medentika, using inLab CAD SW. The inEos X5 model scanner relies on the special inPost scanbody by Dentsply Sirona to acquire the exact implant position.

Custom abutments on TiBase adhesive base and from titanium preforms







The inLab CAD Software enables the in-house production of individual abutments: as a milled zirconium oxide abutment for bonding with TiBase by Dentsply Sirona or made from one-piece titanium preforms* (e.g. milled with inLab MC X5). The design is done directly or top-down, i.e. the fully contoured design is split into crown or crown coping and abutment.

Surgical guide for integrated implantology

With inLab CAD Software, individual surgical guides can be guickly designed and produced in the lab at low cost. The surgical guide created with CAD/CAM is the ideal planning basis for surgical implementation as part of the integrated implant planning with 3D X-ray systems from Dentsply Sirona.



The prerequisite is the intraoral scan of the situation from the model, for example by using inEos X5 or by way of a digital intraoral impression. In addition, a restoration is designed for implant planning based on prosthetic aspects. These optical data are then exported.*



The *.cmg.dxd planning file is imported into the inLab CAD Software to design the surgical guide.* The design of the surgical guide can be customized for any span size with one or more drill holes.

* Required interface included in the Implantology module of the inLab CAD SW ** inLab MC XL is limited to surgical guides with a maximum of one drilling hole

*** inLab CAD SW Interface module required

The optical data is combined with the 3D X-ray data (Orthophos SL 3D, Orthophos XG 3D or Galileos), for subsequent implant planning and output as a *.cmg.dxd planning file.



This surgical guide is then milled (e.g. with the inLab MC X5 or inLab MC XL**) or exported as STL for production with a 3D printer.***

inLab CAD Software: Removables module

With inLab CAD Software, you can quickly and professionally design model casting prostheses for removable dentures as well as bite splints and impression trays. Furthermore, the software enables the production of standard bar shapes for implementation in metal and other materials as well as telescopes. For individual attachment prostheses, you can select from a database of original design elements by well-known manufacturers.





Removable partial dentures

Individual impression trays

Bite splints



Individual attachment prostheses with original elements for CAD design







Individual primary telescopic and cone crowns

Removable Partial Denture



The removable partial denture planning is drawn in the work model with clips.



Undercuts on the cast are visualized by undercut displays.



The removable partial denture prosthesis can be individually adjusted.

Overview of inLab CAD SW Removables module:

- Removable partial dentures
- Individual impression trays
- Bite splints

- Attachment prostheses
- Bars
- Telescopes



You can enter line textures for subsequent display in the inLab Software during the inEos X5 scan process.



The user interface offers access to all necessary elements (different clip shapes, various retention shapes, etc.) for the individual design of the removable partial denture.



STL export of the restoration data*, wax modeling for subsequent casting or direct production using the laser sintering process.

Individual impression tray



The undercuts of the model are visualized in color.



With the help of the intelligent tools, the contour of the impression tray can be quickly established.



After drafting the tray design, you can plan a variety of handle options.



You can also set the corresponding holes for the impression posts at the implant positions for individual implant impressions.

Splint



The inLab Software and inEos X5 are used to scan the situation, including the bite block, with subsequent transfer to the inLab Splint App. Alternatively, you can also use STL scan data.*



The undercuts are automatically blocked with wax. The wax can also be applied individually.



All elements are merged in the final step. In addition, you can insert a hole pattern for the flow of the impression material.



The tray design can be exported as an STL file* and then produced with milling or additive methods.



A number of different tools allow for considering the opposing teeth relationship.

Undercuts on the cast are visualized by colored undercut alerts.



The splint can be designed individually.

The splint design can be exported as an STL file* and then produced with milling or additive methods.



inLab CAD Software: Interface module

inLab is open. With the inLab CAD Software, dental labs can choose whether to perform the entire CAD/CAM process with the matching inLab components of Dentsply Sirona or whether to include individual solutions by other manufacturers.

The optional Interface module of the inLab CAD Software with a single license for all available inLab interfaces offers a flexible connection of the inLab CAD Software to virtually all existing CAD/CAM systems.

For example:

- STL import of scan data (extraoral and intraoral scanner), e.g., for design with inLab CAD Software and production with inLab MC X5 or inLab MC XL
- STL export of inLab restoration data, e.g., for finalizing with other production systems
- STL export from designed model data, e.g., for external model production



INFINIDENT Solutions GmbH is an open, digital CAD/CAM service provider for in-practice labs and dental laboratories in Europe for all manufacturers and systems. As a preferred partner of Dentsply Sirona, INFINIDENT supports inLab users in the production of high-quality restorations, working models and removable dentures, including implant-based restorations. For more information, visit infinidentsolutions.com

inLab CAM Software For a perfect workflow

The two applications, inLab CAD Software for restoration design and inLab CAM Software for production with inLab MC X5 or inLab MC XL, are optimally connected to each other and ensure the seamless transfer of design data to automated production.

The inLab CAM Software was specifically developed for the production units of Dentsply Sirona and is also open for STL data imports from other CAD applications. Thanks to the user-friendly interface, all necessary work steps, system configurations and integrated service functions can be carried out guickly and easily. Moreover, the software offers a valuable documentation tool for the quality management of dental laboratories with all essential information on job history, produced workpieces, and materials used.





Exemplary efficiency and safety

- Start of production immediately after order preparation: • Comprehensive positioning functions and automatic no waiting for milling path calculation collision control
- Graphic tool and process start management with perfect overview of workpieces, tools, service life, necessary tool magazines etc.
- Extensive archiving functions

New from inLab CAM SW 19.0*

- Calculation of wall thicknesses to identify critical areas
- Fitting surface when restauration design does not correspond to the configuration of the machine

Device and tool management

- Material-specific milling and grinding strategies for • XML-based STL import of restoration data from occlusal and interdental design details, surface quality e.g. 3Shape (*.3ox) with essential element information such as type of restoration, preparation margins, or reducing the size of support pins insertion axes, screw channels, tooth numbers, etc.
- Individual determination of detail levels for various production modes (number of process steps, path spacing and processing speeds)
- Touch-optimized operating functions for control via tablet PC
- Tool status display for information about tool wear with use of validated materials

New from inLab CAM SW 19.0*

 Additional validated materials from Dentsply Sirona available for selection: Cercon xt ML, the True Color Technology as zirconia Multlayer disc (new from IDS 2019)

* expected to be available in May 2019

Optimal material utilization

- Automatic tilting of restorations to available blank sizes
- Automatic undercut detection and individual adjustment function
- Multi-block management for up to eight blocks of different materials in a single order
- Option to restore milled areas in a material blank

New from inLab CAM SW 19.0*

- Material clearance function for dentures offers a better access to the teeth during bonding
- Grinding of screw channels in implant restorations made of glass ceramics

Compatible for flexible data import

• Clear preview and easy data input

New from inLab CAM SW 19.0*

- Validated interface for importing exocad® restoration data (*.constructioninfo) for processing with inLab MC X5 and inLab MC XL
- Import of restorations with screw channel and margin line (crowns/bridges with screw channels)

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