LABORATORY SOLUTIONS

dental wings
TRANSFORMING CREATIVITY

dwos 7
With an increasing number of digital workflows, labs are looking for solutions to streamline and manage their production efficiently. We’re excited to introduce this powerful and integrated management system to meet these needs and help lab owners significantly optimize their daily operations.

Robin Provost, Founder and EVP Software Developer, Dental Wings
DENTAL WINGS IS THE RIGHT SOLUTION FOR YOUR LAB

Dental Wings software solutions cover prosthetics design, surgical planning, and communication in an integrated way. Our open architecture provides considerable freedom, while trusted workflows, products, and services from our many partners are made easily accessible.

DWOS is the foundation of our software applications that drives our 3D scanners. It is also available as an open stand-alone dental CAD software covering a complete range of dental indications that can be expanded with additional modules to meet the evolving needs of your laboratory.

Based on an integrated scan and design workflow with DWOS software, Dental Wings offers three distinct scanning systems to meet your varied and individual needs.
3SERIES
MODEL SCANNER

The Dental Wings 3Series compact model scanner is ideal for small and medium dental laboratories, and is designed to evolve with the growing needs of laboratories.

The 3Series is an affordable solution with high scanning accuracy thanks to Blue Laser Illumination combined with our proven high-precision mechanical and optical components. Extensive and flexible scanning capabilities include gypsum models, wax-ups, check bites, implant scan bodies and dental impressions for post and core cases. Streamlined design paths facilitate the creation of crowns and single customized abutments in just a few clicks.

Additional DWOS software modules can be added at any time. Contact your reseller to inquire about optional applications.

INCLUDES
CROWN & BRIDGE

optional modules
- IMPLANT PROSTHETICS
- PARTIAL FRAMEWORKS
- FULL DENTURES
- MODEL BUILDER
- BITE SPLINTS
- ORTHODONTIC ARCHIVING
- RAPID PROTOTYPING
- GUIDED SURGERY

HIGHLIGHTS & ACCESSORIES
- Includes an integrated on-board computer with 64-bit processor
- Model holder
- Automatic multi-die holder, up to 12 elements scanned and designed in 8 minutes, unattended
- Simultaneous opposing arch design
- Calibration kit

OPTIONAL ACCESSORIES
- Impression holder adaptor
- Sam® SE articulator
- Axis finder holder
7SERIES
MODEL & IMPRESSION SCANNER

Delivered with several DWOS design applications, the Dental Wings 7Series is well-suited for the medium to large dental laboratory where high volume throughput is required.

The 7Series boasts high scanning accuracy with Blue Laser Illumination, significant ergonomic and functional advances resulting in important improvements in productivity and efficiency, and offers remarkable versatility, speed, and accuracy.

Additional DWOS software modules can be added at any time. Contact your reseller to inquire about optional applications.

SYNERGY PACKAGE
- CROWN & BRIDGE
- IMPLANT PROSTHETICS
- PARTIAL FRAMEWORKS
- FULL DENTURES
- MODEL BUILDER
- BITE SPLINTS
- ORTHODONTIC ARCHIVING
- RAPID PROTOTYPING
- GUIDED SURGERY

PRODUCTIVITY PACKAGE
- CROWN & BRIDGE
- IMPLANT PROSTHETICS
- PARTIAL FRAMEWORKS
- MODEL BUILDER
- RAPID PROTOTYPING
- FULL DENTURES
- ORTHODONTIC ARCHIVING
- GUIDED SURGERY

HIGHLIGHTS & ACCESSORIES
- Includes an integrated on-board computer with 64-bit processor
- Impression holder
- Automatic multi-die holder, up to 30 elements scanned and designed in 12 minutes, unattended
- Calibration kit
- Sam ® SE articulator

OPTIONAL ACCESSORIES
- Axis finder holder
**iSERIES IMPRESSION SCANNER**

The Dental Wings iSeries was designed to be the easiest way for dental clinics to transition to digital dentistry. Laboratories can also benefit from important workflow efficiencies and precision with in-lab impression scanning.

With its embedded computer, high scanning technology with Blue Laser Illumination plus a simple interface, traditional impressions are quickly and easily digitized either chairside or in-lab.

Additional DWOS software modules can be added at any time. Contact your reseller to inquire about optional applications.

**optional modules**
- CROWN & BRIDGE
- IMPLANT PROSTHETICS
- PARTIAL FRAMEWORKS
- FULL DENTURES
- MODEL BUILDER
- BITE SPLINTS
- ORTHODONTIC ARCHIVING
- RAPID PROTOTYPING
- GUIDED SURGERY

**HIGHLIGHTS & ACCESSORIES**
- Includes an integrated on-board computer with a 64-bit processor
- Impression holder
- Calibration kit

**OPTIONAL ACCESSORIES**
- Model holder
# SCAN & DESIGN SYSTEMS

Select the right solution for your individual needs.

## 3SERIES
### MODEL SCANNER

<table>
<thead>
<tr>
<th>Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scanning volume</strong></td>
<td>90 mm x 90 mm x 90 mm</td>
</tr>
<tr>
<td><strong>Optical technology</strong></td>
<td>Class 1 laser product</td>
</tr>
<tr>
<td></td>
<td>1 high-speed measuring camera</td>
</tr>
<tr>
<td></td>
<td>1 color video camera</td>
</tr>
<tr>
<td><strong>Number of axes</strong></td>
<td>3 (2 rotative, 1 translative)</td>
</tr>
<tr>
<td><strong>Embedded computer &amp; OS</strong></td>
<td>Core i5, 16 GB memory</td>
</tr>
<tr>
<td></td>
<td>1GB of dedicated RAM</td>
</tr>
<tr>
<td></td>
<td>Windows 7, 64 bits, 250 GB SSD</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td>15 microns</td>
</tr>
<tr>
<td><strong>Output format</strong></td>
<td>STL &amp; supported partner formats</td>
</tr>
<tr>
<td><strong>Scannable materials</strong></td>
<td>Plaster, wax-up and impression (for post cores)</td>
</tr>
<tr>
<td><strong>Electrical data</strong></td>
<td>100-240 V AC / 50-60 Hz / 160 W</td>
</tr>
<tr>
<td><strong>Certifications</strong></td>
<td>CE, OHSA, Canada [SCC]</td>
</tr>
<tr>
<td><strong>Screen ports</strong></td>
<td>DVI, HDMI &amp; VGA</td>
</tr>
</tbody>
</table>

## 7SERIES
### MODEL & IMPRESSION SCANNER

<table>
<thead>
<tr>
<th>Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scanning volume</strong></td>
<td>140 mm x 140 mm x 140 mm</td>
</tr>
<tr>
<td><strong>Optical technology</strong></td>
<td>Class 1 laser product</td>
</tr>
<tr>
<td></td>
<td>2 high-speed measuring cameras</td>
</tr>
<tr>
<td></td>
<td>1 color video camera</td>
</tr>
<tr>
<td><strong>Number of axes</strong></td>
<td>5 (3 rotative, 2 translative)</td>
</tr>
<tr>
<td><strong>Embedded computer &amp; OS</strong></td>
<td>Core i7, 16 GB memory</td>
</tr>
<tr>
<td></td>
<td>2GB of dedicated RAM</td>
</tr>
<tr>
<td></td>
<td>Windows 7, 64 bits, 500 GB SSD</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td>15 microns</td>
</tr>
<tr>
<td><strong>Output format</strong></td>
<td>STL &amp; supported partner formats</td>
</tr>
<tr>
<td><strong>Scannable materials</strong></td>
<td>Plaster, wax-up and impression</td>
</tr>
<tr>
<td><strong>Electrical data</strong></td>
<td>100-240 V AC / 50-60 Hz / 230 W</td>
</tr>
<tr>
<td><strong>Certifications</strong></td>
<td>CE, OHS, Canada [SCC]</td>
</tr>
<tr>
<td><strong>Screen ports</strong></td>
<td>DVI, HDMI &amp; VGA</td>
</tr>
</tbody>
</table>

## iSERIES
### IMPRESSION SCANNER

<table>
<thead>
<tr>
<th>Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scanning volume</strong></td>
<td>90 mm x 90 mm x 90 mm</td>
</tr>
<tr>
<td><strong>Optical technology</strong></td>
<td>Class 1 laser product</td>
</tr>
<tr>
<td></td>
<td>2 high-speed measuring cameras</td>
</tr>
<tr>
<td></td>
<td>1 color video camera</td>
</tr>
<tr>
<td><strong>Number of axes</strong></td>
<td>5 (4 rotative, 1 translative)</td>
</tr>
<tr>
<td><strong>Embedded computer &amp; OS</strong></td>
<td>Core i5, 16 GB memory</td>
</tr>
<tr>
<td></td>
<td>1GB of dedicated RAM</td>
</tr>
<tr>
<td></td>
<td>Windows 7, 64 bits, 250 GB SSD</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td>15 microns</td>
</tr>
<tr>
<td><strong>Output format</strong></td>
<td>STL &amp; supported partner formats</td>
</tr>
<tr>
<td><strong>Scannable materials</strong></td>
<td>Impression materials and plaster (for solid models)</td>
</tr>
<tr>
<td><strong>Electrical data</strong></td>
<td>100-240 V AC / 50-60 Hz / 160 W</td>
</tr>
<tr>
<td><strong>Certifications</strong></td>
<td>CE, OHS, Canada [SCC]</td>
</tr>
<tr>
<td><strong>Screen ports</strong></td>
<td>DVI, HDMI &amp; VGA</td>
</tr>
</tbody>
</table>

---

1 Based on Dental Wings testing standards.
DWOS – A COMPREHENSIVE PROSTHETICS DESIGN SUITE

DWOS covers a complete range of dental indications such as crowns, implant bars and bridges, full and partial dentures, custom abutments, onlays, veneers, and more. It offers an open architecture .STL import and export, providing workflow independence and freedom, including the ability to import intraoral scan files. Furthermore, DWOS CAD is modular and can be expanded to new indications* to meet the evolving needs of clinics and laboratories.

TOOTH-BORNE CROWN & BRIDGE
The foundation of prosthetic design within DWOS.

FULL ANATOMICAL RESTORATIONS
Allows for the creation of richly defined anatomical restorations with access to more than 20 detailed kits including anatomies by Merz, Candulor and VITA.

MIRROR ANATOMIES
Easily mirror anatomy.

INLAYS AND ONLAYS
Design of the whole range of inlays and onlays including simple shells.

VESTIBULAR VENEERED CROWNS [¼]
Flexible incrustation design for perfect mix of aesthetic and function.

TELESCOPIC COPINGS
Full support of telescopic and partially telescopic elements for advanced and/or removable prosthesis.
OVERPRESSED
Easily create overpress.

MILLINGS AND INTERLOCKS
Design dental milling and interlock.

DIAGNOSTIC AND TEMPORARY ELEMENTS
Allows for temporary design even before the preparation of the tooth.

VENEERS
Design of anatomical and reduced veneers.

POST & CORES
Design from pure core to full anatomical element.

Also allows abutment wedge creation.

FRAMEWORKS
Design of bridge frameworks including reductions and attachments.

Diagnostic crown with homothetic reduction, or egg shell.

Easily design connectors.
**IMPLANT PROSTHETICS**
Design custom abutments, healing caps, bars and more with an extensive set of implant libraries. To be used with both titanium bases, and for design one-part abutments or screw retained bridges.

**CUSTOM ABUTMENTS**
Support for all types of abutments either screw-retained or with Ti base. Full customized abutment with or without rotational stop.

**TI-BASE ABUTMENTS**
Automated detection of axis for most conically shaped Ti Bases even with or without predefined implant kits (Directly scanning the TiBase).

**BRIDGE ON IMPLANTS**
Create a bridge over implant borne.

**SCREW-RETAINED BRIDGE**

**IMPLANT BRIDGE WITH GINGIVA**

**CUSTOM HEALING CAPS AND ABUTMENTS**
Design of radical area reusable for prosthesis design.

**SCREW-RETAINED HYBRID BARS**
Free-form design of partially exposed or fully encased bars.
BARS FOR REMOVABLE PROSTHETICS
Design of standard bar shapes as well as milled and custom profiles.

FULL DENTURES
A full featured application for the design of digital dentures.

PARTIAL FRAMEWORKS
Design of highly accurate frameworks for partial dentures.

BITE SPLINTS
Design of splints and nightguards.
MODEL BUILDER
Easy design of digital models of all types.
Choose here if you want to keep the only image or make the 3 images like.

ORTHODONTIC ARCHIVING
Scanning, design and archiving of study model.

GUIDED SURGERY
Advanced implant planning with coDiagnostiX.
WHAT'S NEW IN DWOS 7

The DWOS 7 upgrade includes new features and improvements to increase both efficiency and productivity in digital dentistry. This new Dental Wings DWOS suite of open CAD applications covers the complete range of fixed and removable indications, providing even more powerful design tools that are both versatile and highly productive.

CREATE A VIRTUAL SETUP AS THE DESIGN OF AN IMPLANT BRIDGE

With DWOS 7, you can add a new layer of aesthetic elements atop the virtual setup, such as placing a full crown onto a telescopic crown.

PARTIAL DENTURE WITH VIRTUAL TEETH

Turn an anatomical reduced crown, telescopic crown, and a 3/4 crown, with or without gingiva, into metal, by merging the elements directly into the partial framework design.

SUPERSTRUCTURE

Create a precise superstructure according to the bar’s form design.
WAX-UP OVER BAR SUPERSTRUCTURE
Create a virtual set-up or even scan a diagnostic wax-up and add it on the top of the superstructure.

PARTIAL FRAMEWORK OVER BAR SUPERSTRUCTURE
Simply design a partial framework and add it onto the superstructure.

ADVANCED ANGULATED SCREW CHANNEL SUPPORT
Includes flexible parameter adjustments for optimized milling, significantly improving the design of the angulated screw channel.

PLUS, IMPROVED FREE-FORM WAXING DESIGN TOOLS & USER INTERFACE, INCLUDING A CUSTOMIZABLE BACKGROUND AND APPLICATION NOTIFICATIONS
Featuring a new, free waxing tool to work scanned files in a high resolution mode. Also includes an enhanced graphical interface for an optimal user experience.
CONNECTIVITY TO INTRAORAL SCANNING

The natural option for creating digital impression with its remarkably small handpiece, gesture control and easy maintenance.

Featuring innovative voice-command and gesture control functionality together with the remarkably small handpiece, the Dental Wings Intraoral Scanner is designed to help you maximize patient comfort and clinical success.

The new portable version provides the same performance, but in a small, lightweight format specifically suited for dental clinics with space limitations, and for easy and frequent displacement.

A REMARKABLY SMALL HANDPIECE

Resembling a standard dental turbine handpiece, the lightweight, all-metal, and familiar shape of the handpiece easily lets the user assume a natural position relative to the patient.

COMING SOON!
POWDER-FREE SCANNING WITH GREY SCALE TEXTURE*

Increased efficiency, accuracy, and comfort for your patient. The Powder-Free handpiece is compatible with all current Dental Wings Intraoral Scanners as well as the new portable.

*Available summer 2017 for all Dental Wings Intraoral Scanners (standard and portable systems).
DENTAL WINGS
LASERMILL SYSTEM

Based on a process called laser ablation the Dental Wings Lasermill represents a revolution in dental production technology. Dentists and laboratories can use this innovative CAM device to create restorations from proven materials with unprecedented levels of detail, easily, reliably, and economically.

The Lasermill uses laser energy to transform material directly into a plasma, which is ejected away from the block, assuring that the remaining material is no adversely affected. The laser beam is moved relative to the block with six independent axes to cut the final dental restoration according to an open .STL design file.

The Lasermill system integrates closed loop control using Dental Wings 3D scanning technology to adjust the material removal path and to verify the final geometry.
coDiagnostiX™ - DIGITIZE YOUR WORKFLOW AND TAKE ADVANTAGE OF EXCITING OPPORTUNITIES

codiagnostix is the dental implant planning software for dental clinicians and laboratories.

- It works with any implant or guided surgery kit.

- The open interfaces ensure compatibility with all (CB)CT, Intraoral scanner, model & impression scanners and open CAD/CAM solutions.

- Data export in open .STL format allows for local drill guide production with cost-efficient and high-volume production technologies, such as 3D printing.

- The completely digital workflow requires no scan template. The decision on guided surgery treatment can be taken after the (CB)CT scan.

- A sophisticated communication technology offers seamless integration of surgical and prosthetic workflows.
WHAT’S NEW IN coDiagnostiX 9.8

INTEGRATED TRAINING
An integrated training feature for dedicated functions provides you with step-by-step instructions and intuitive guidance within the coDiagnostiX user interface and while you are working with the software.

IMPROVED SUPPORT FOR EDENTULOUS
Automatic placement of correctly angulated screw-retained abutments based on the implants’ position and angulation adds further support for screw-retained bars and bridges via DWOS Synergy and enhances existing edentulous workflows.

DWOS CONNECT INTERFACE
If you own a Dental Wings scanner, you can now seamlessly transfer your scans via DWOS Connect to create perfectly fitting drill guides in coDiagnostiX.

NATIVE DICOM DATA STORED
With coDiagnostiX 9.8, the full DICOM grayscale range is stored with the dataset abolishing the necessity to adjust presets during import. This further simplifies DICOM import and allows you to adjust the grayscale range and modify the contrast any time during your planning activities to improve visibility.
DWOS SYNERGY: INTEGRATION OF PLANNING AND PROSTHETICS FOR IMPLANT CASES

DWOS Synergy workflow is the Dental Wings comprehensive and integrated solution for implant-borne cases. It brings the dentist-lab collaboration to an unprecedented level by merging digital guided surgery to CAD.

A SYNERGISTIC LIVE CONNECTION
Dental Wings DWOS Synergy is a communication feature that synchronizes planning and design work between coDiagnostiX and DWOS stations. The technology allows dental technicians and dentists to work together in real time to determine the optimal implant position for the desired outcome and design the best prosthetics.
CONNECTIVITY TO DWOS LAB MANAGEMENT SOFTWARE

Eliminate double entries and share real-time status with this indispensable integration between DWOS Lab Management software and DWOS CAD.

Cases entered in DWOS Lab Management are automatically routed to your scanner or CAD. Case statuses are updated in real-time following simple DWOS steps protocol.
DWOS CONNECT: MOST POWERFUL AND FLEXIBLE NETWORK IN THE DENTAL INDUSTRY

DWOS Connect is a powerful network communication platform that links all dental professionals who work with our DWOS software. Within a few clicks, dentists, laboratories, and production centers can share case details, 3D scans, design files, invoices, digital images, and other information when and where it is needed across the entire value chain. Secure file transfers, customizable rule-based data management, archiving, and real-time reporting are all key attributes of DWOS Connect.

DWOS Connect can be configured to enhance the customer’s operations, from small laboratories to multinational industrial scale organizations.

LABORATORY ENVIRONMENT

Benefit from an expanded offering and production capacity by providing a list of DWOS registered production and design centers in a specific area or around the world. DWOS Connect helps you find the partners you need to expand your product offering and production capacity.

CLINIC ENVIRONMENT

Benefit from a smooth transfer of digital impressions and follow-up DWOS Connect enables any member of the dental clinic team to digitally send intraoral impression scans to the laboratory of choice. Subsequently, tracking tools will keep her informed about case status.