DWOS 6.1 Release Info

August 2016

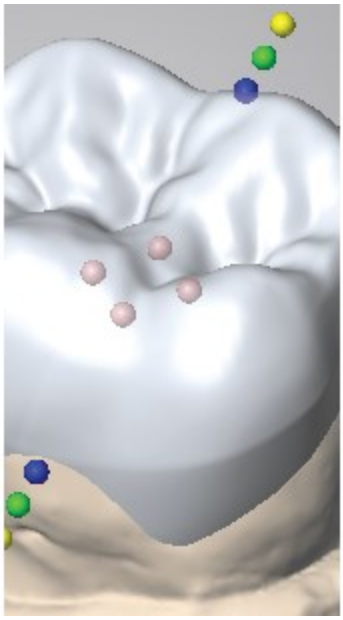
DWOS 6.1 Release now available!

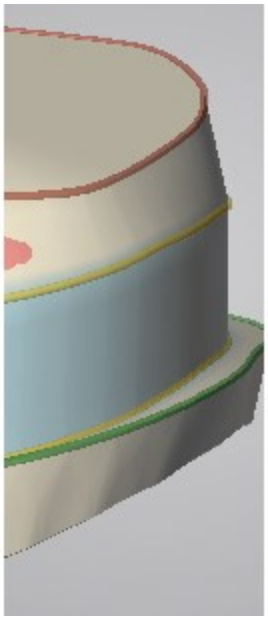
In this release, Dental Wings team has focused on improving usability of existing features.

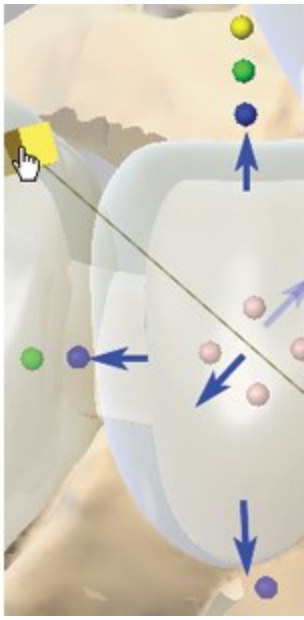
Dental Wings is dedicated to respond both to the needs of users who require powerful algorithms to go through a design session as efficiently as possible, and to the concerns of users who prefer to keep dimensional control over every aspect of their design. In those regards, this release has to offer to everyone.

Namely, faster editing of tooth chain, less steps for inlay and veneer design and multi-editing modes combined with uniform scaling for improved efficiency; finer controls for telescopic copings and option to skip morphing of inlays with anatomy pre-position, for enhanced control.

Not to forget in this version: less click with keyboard shortcuts and streamlined Synergy™ workflow.







DWOS 6.1 Release Notes

Improvements

Crown & Bridge / Implants / Bars

- Pre-position Anatomy
  - Now also available for designs on implant, inlays, onlays, veneers and diagnostic elements
  - Other design tools available in the same window (Add/remove material and Clinical Handles)
  - Multi-editing mode available: click on another tooth to edit, select multiple prostheses by holding shift key
  - Inlays, onlays and veneers:
    - Adaptation preview available before validating the pre-positioning
    - Option to skip adaptation (morphing) upon validation
- Telescopic coping design
  - Add option to set shoulder size automatically or manually with a custom value
  - Interactive editing: hold control while moving line to move complete line
  - Display the measurement of friction height while editing the friction limit lines
  - Set separate values for outer surface compensation of shoulder area and top area
  - Automatic computation of shoulder line parallel to margin line
  - Added an option to constrain the shoulder inside the anatomy
- Add handle for uniform scaling of the complete anatomy in the *Transform* tool
- Connector design: ability to move the whole connector using a handle at its center
- Add an attachment on a merged model
- Add *projection* attachments on bars
- Improved surface smoothness when using waxing tools (in Add/Remove material) on merged models
- Add keyboard shortcuts to open Add/remove material window to a specific waxing tool

Scan

- Only one margin line design for inlays, onlays and veneers: green line is drawn on tooth cut line, red line is no longer used
- Incisal edged doesn't need to be defined on veneers (not relevant since tooth chain implementation)
- Tooth Chain:
  - Fast editing with right-click
  - New type of element: Nonexistent
  - Improved automatic tagging to leave no undefined element

Synergy™

- Guide fee deferral:
  A Synergy™ session can now be initiated even if the coDiagnostiX™ user has not paid a guide fee. In DWOS, the export of manufacturing files will remain blocked until the guide fee is settled in coDiagnostiX™. This makes the Synergy™ workflow easier than before and also prevents the surgeon from paying undue fees if the surgical guide ends up not being manufactured, or sent to manufacturing by his lab.

Material Management

- Option to restrict positive and/or negative attachments per material
- For material suppliers, option to revert sharing of a material: Unshare

Manufacturing

- Implement protected area around interface to take account for the tool radius of current material when restoration is being milled

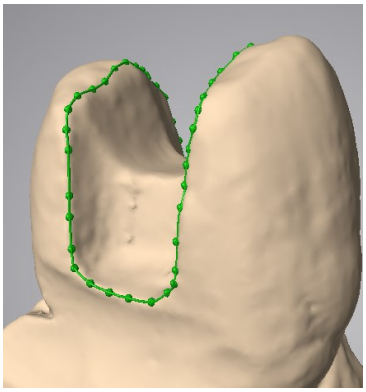
Bug Fixes

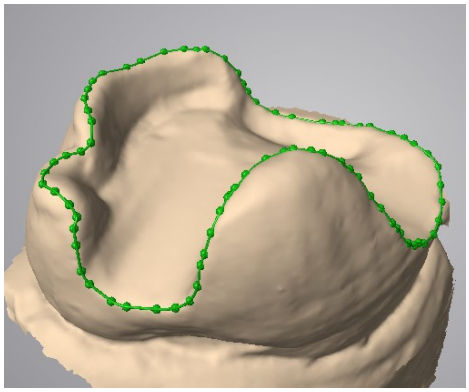
- Disable editing option on a merged prosthesis on top of which another prosthesis is designed and merged.
- Block out wax was displayed if Survey is reopened to adjust the angle.
- Improved computation of advanced pontics
- Allow margin review for incoming orders from the Intraoral Scanner (and all incoming orders)
- Fixed issue affecting the insertion axis of an abutment when using adjust axis
- Pressing space bar while editing a telescopic crown hides other objects
- Various minor issues in Model Builder, Scan Import, Nesting station, attachment behavior in CAD

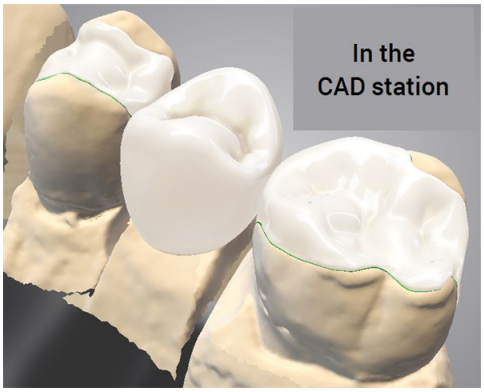
Inlay/Onlay and Veneer

Margin line

Only one margin design required: the margin line for a prosthesis of the inlay family is now drawn on the actual cut line that has been crafted on the tooth by the dentist.

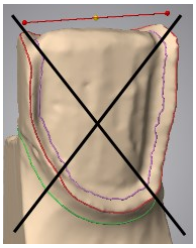






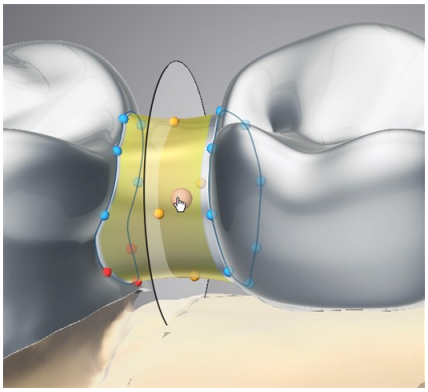
Veneer

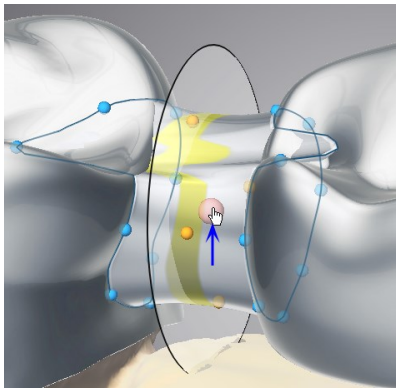
No more incisal edge to define. The tooth chain algorithm automatically analyzes the environment for a consistent proposition.



Move connector

When editing the connector, you can move the pink dot in the center to move the complete connector up or down. In a top view, it can be move towards lingual or buccal sides.

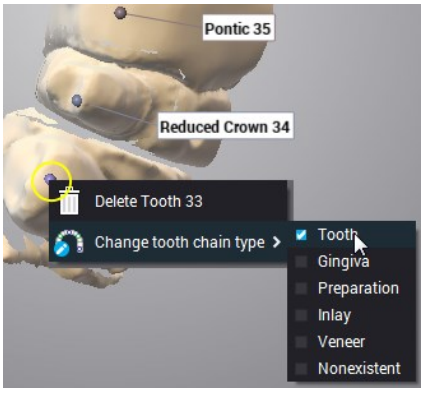




Edit Tooth Chain

Since DWOS 6.0, the *Tooth chain* is the default method for Crown & Bridge automated initial proposals. Adjacents are automatically tagged as tooth, or gingiva. With some usability enhancements, you can now change the type of an element right from the contextual menu.

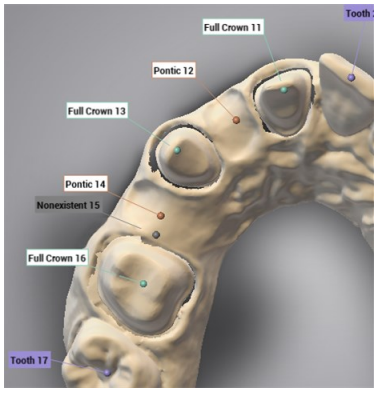
1. Right-click on the assignation marker of the element;
2. Select the correct type.



Types

A new type is available for elements of the tooth chain: you can define an element as *Nonexistent*. The tooth number on which this type is defined will not be computed within the bridge proposition.

This feature would be useful if a teeth is missing and the gap is closed in the patient's mouth.



Tooth number 15 is tagged as nonexistent

Tooth number 15 is not part of the prosthesis proposition

Pre-position Anatomy enhancements

Now available for designs on implants (Custom abutment, TiBase abutment), Inlays, Onlays and Veneers.

The following options were added to the original *Pre-position anatomy* feature to speed up the editing step. Within the same widow, you can now modify all elements in a single operation, while taking advantage of the uniform scaling, and access other anatomy editing tools. Also, with the option to control anatomy adaptation, this improved *Pre-position anatomy* designer is becoming a favorite for editing inlays, onlays and veneers.

Multi-editing

- Click on another tooth to start transforming it.
- Press Shift key while clicking on other elements to transform all of them at once.
- Access to ***Add/Remove material*** and ***Clinical Handles*** in the same designer.

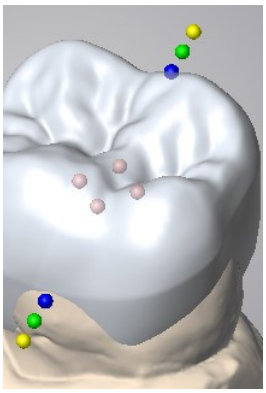
Anatomy adaptation options

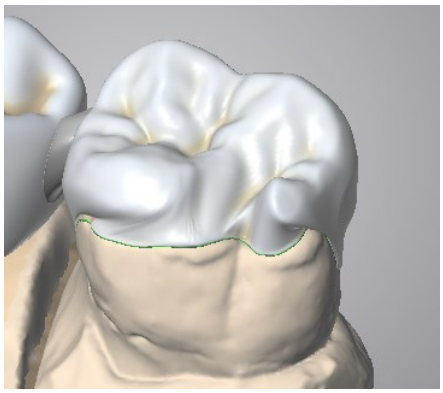
For inlays, onlays and veneers

Select ***Skip Anatomy Adaptation*** to bypass DWOS adaptation algorithms and to validate the anatomy exactly how you have designed it.

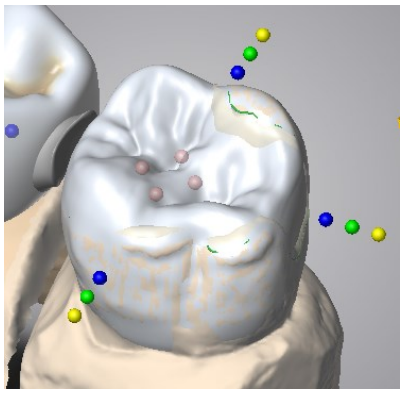
Deselecting this checkbox is equivalent to using the legacy Anatomy Multi-designer, where a special morphing is applied to blend the anatomy to the prepared tooth. If this is your preferred method, you can now use the ***Adapt Anatomy*** button to preview what the overlay will look like after your validation. This preview feature enables to finish your design before validating, hence significantly reducing computing and waiting time.

If you don't like the result of the adaptation, use the ***Reset anatomy*** button to revert to the initial anatomy (from the kit).



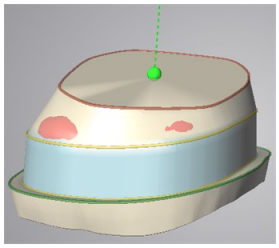


Skip adaptation simply cuts the anatomy to the margin and adjusts to it.



Adapt anatomy morphs your design to blend in smoothly with the margin.

Telescopic coping design

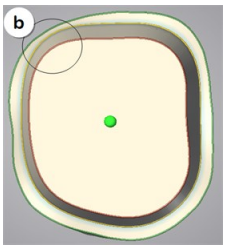


Telescopic crowns editing was completely redesigned in 6.0. After receiving feed back from our users, we've added a few more options to make this designer as versatile it could possibly be.

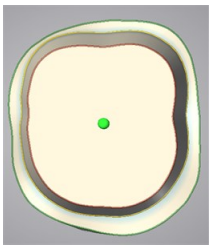
First, the shoulder line is now computed parrallel to the margin line, while ensuring minimum thickness. This creates a more uniform shoulder.

Shoulder size

Shoulder size can be set in 2 manners:



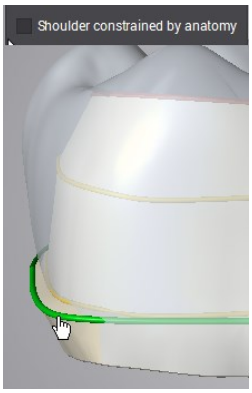
2) Manual: by entering a value from in the *Shoulder* field . This value would be uniform all around, unless it interferes with minimum thickness of the friction area (ex b).

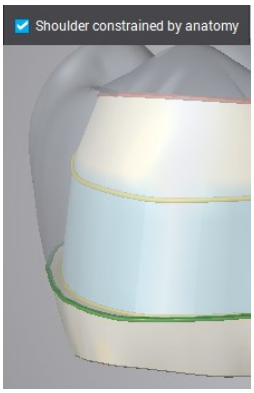


7) Automatic (disables the manual setting): Creates the shoulder that will ensure minimum thickness of the friction area on one side, and rest on the anatomy on the other side. Shoulder would then vary in size.

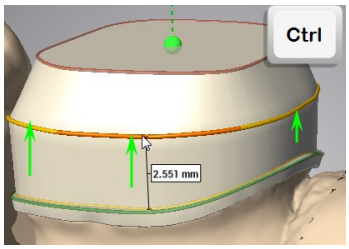
Shoulder constrained by anatomy

The *Telescopic* designer offers this option to ensure that once you work on an anatomy design, your coping will never exceed the space that you allow for it.





Interactive editing

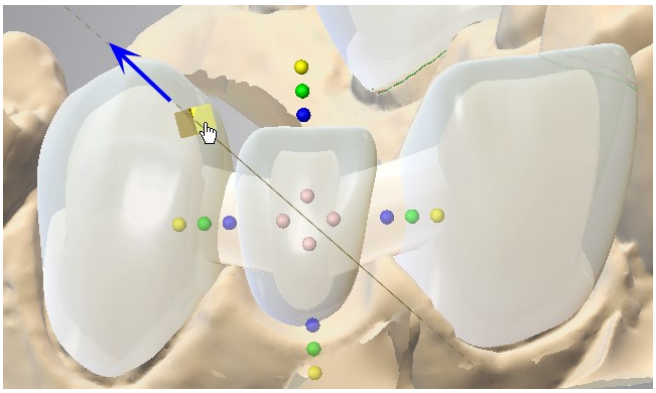


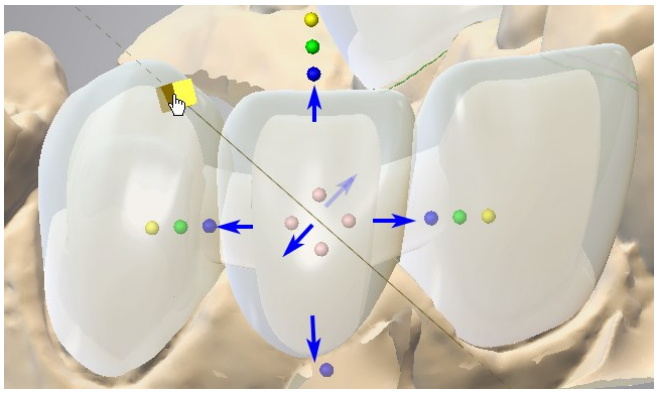
Hold the CTRL key while moving the green or yellow line and the complete line will be shifted along.

Uniform scaling

Growing anatomies has never been easier in DWOS ! Combined with multi-editing mode (select mutiple element with *shift* key) this new addition becomes a poweful tool to increase your productivity.

When using the ***Transforms*** tool, pull the cubic handle to scale the anatomy envenly in all directions (mesial, distal, buccal, lingual, occlusal, gingival).





Keyboard shortcuts

Avoid right-clicks and access the waxing tools of the *Add/remove material* feature by pressing one key.

- Select prosthesis + **press 1**: Multi-designer > Add/Remove Material > **Add**
- Select prosthesis + **press 2**: Multi-designer > Add/Remove Material > **Remove**
- Select prosthesis + **press 3**: Multi-designer > Add/Remove Material > **Smooth**
- Select prosthesis + **press 4:** Multi-designer > Add/Remove Material > **Morphing**
- Select prosthesis + **press 5:** Multi-designer > Add/Remove Material > **Eraser**