GAMMA Dental Software – Release Notes

This document provides a brief overview of the most significant features added with each update of GAMMA Dental Software since version 8.0.4 in reverse chronological order. For detailed information regarding the numerous minor improvements and fixed issues in a particular update, please refer to the respective update manual.

Version 8.8.3

Feature Update
Released 2025-03-13

General

- The patient filter setting of GDSW classic is now turned off by default.

GAMMA Document Browser

- Extended CADIAX analysis previews to allow only showing articulator curves and using overlay mode for additional preview types.
- Reduced unnecessary scrolling in the Workspace view when deleting cells or sections.
- Improved usability when working with cell design elements on the Cell Design view.
- It is now possible to export text documents as RTF files (Rich Text Format).
- The creation of manual previews when saving CADIAX and CADIAS analyses can now be disabled.
- It is now possible to modify the user and office information entered during installation.

CADIAX

- The CADIAX coordinate system can now be switched to a magnified view to better visualize small changes between CPM positions.
- The 3D Animation now allows displaying the patient's true 3D jaw models loaded from CADIAS 3D.
- The 3D Animation now allows displaying a real-time distance map to highlight contacts and near-contacts between upper and lower jaw, also during CADIAX recordings.
- The field of view setting set in CADIAS 3D is now also taken into account for the 3D Animation.

CADIAS

- Added cephalometric analysis according to the European Board of Orthodontics (EBO).

CADIAS 3D

- Introduced support for the Reference Print&Click mounting system, which allows the exact mounting of 3D-printed models in the physical articulator.
- Added a real-time distance map to visualize contacts and near-contacts between upper and lower jaw during jaw movements.
- Added a new VTO operation to automatically close models to first contact.
- Models can now be moved to a specific CADIAX CPM position during VTO.
- Improved the management and visualization settings of additional, supplementary 3D objects.
- It is now possible to display any individual 3D object in a custom color.
- CADIAX curves are now automatically reloaded when modified in the database, such as after zero-point adjustment or hinge axis correction.
- It is now possible to edit meshes while following the digital workflow in the 3D Data Assistant.
- Improved compatibility with PLY files containing textures or quadrilateral faces.
- Fixed an issue when changing model selection during a movement replay.

Version 8.7.2

Feature Update
Released 2024-03-08

General

- The diagnostic sheet has been revised and extended according to the requirements of VieSID and the Diagnostic Criteria of Temporomandibular Disorders (DC/TMD).
- Diagnostic sheets are now saved to recovery files that can be restored if saving the patient file fails.
- The software licensing scheme has been simplified and adjusted to better support digital workflows.
- Support for 32-bit operating systems has been removed, simplifying the software installation.

GAMMA Document Browser

- CADIAS x-rays and patient photos are automatically imported during GDSW classic conversion.
- Images can now be copied and pasted in the Image Assistant directly.
- The Cell Design view now allows selecting and modifying multiple cell design elements at once.

CADIAX

- The selection of curves for articulator calculation is now less susceptible to accidental changes.
- Enabled XML and ASCII export/import for CADIAX compact 2 Recorder in server mode.

CADIAS

- Introduced an alternative Xi-point calculation method that is more stable during VTO adjustments.

CADIAS 3D

- Added support for a new direct digital workflow, utilizing the digital transfer block set to allow an accurate hinge axis-related transfer of intraoral scans into the virtual articulator.
- The 3D Data Assistant now allows for the simultaneous import of upper and lower jaw models and can be started directly from CADIAS 3D.
- The tooth segmentation can now be performed automatically using an intelligent software algorithm.
- Graphical analyses can now be exported as 3D objects to external CAD/CAM applications.
- The movement paths of active centric cusps displayed in the Occlusion Design view can now be exported as 3D objects to support the sequential wax-up in external CAD/CAM applications.
- It is now possible to export individual lower jaw movements directly from the Workspace view.
- The CPM computation is now significantly faster and the result can be inverted without recalculation.
- A new Options dialog allows customizing the background color of the 3D scene and selecting the GPU that is to be used for rendering.
- Custom measurements can now be modified by dragging the individual measurement points.
- It is now possible to easily duplicate existing VTO items.

Version 8.6.5

Quality Update
Released 2023-05-26

General

- The About box now displays the Unique Device Identifier (UDI) as per Regulation (EU) 2017/745.

GAMMA Document Browser

- Fixed an issue where the 32-bit version of the application could not be started.
- Fixed an issue where patient files could not be opened with specific regional settings in Windows.
- Fixed an issue where certain patient files created by an older software version could not be opened.

CADIAX

- The CADIAX device drivers have been updated to improve compatibility and stability.
- Fixed an issue when inserting incomplete cusp tips coordinates from CADIAS 3D.

CADIAS

- Fixed the incorrect visualization of the lower first molar's tooth axis in the Sato tracing.

CADIAS 3D

- Fixed an issue where Jaw Motion files exported from Occlusion Design to exocad could not be imported with specific regional settings in Windows.
- Fixed an issue where the ideal Sequence table settings calculated in Occlusion Design would not match those in the CADIAX articulator settings.
- The order of lower jaw movements exported from Occlusion Design to exocad now matches the display order in the user interface.
- Fixed an issue where copied digitized point coordinates would not consider VTO adjustments.
- Fixed an issue where a 3D model exported from the 3D Data Assistant would not use the selected transformation.

Version 8.6.4

Feature Update
Released 2023-03-02

General

- Improved support for display scaling of the user interface on high-resolution screens.

GAMMA Document Browser

- Importing 3D models in the 3D Data Assistant is now possible via copy/paste from the file explorer.
- Images and 3D models are now stored with additional properties such as file name and import transformation for future reference.
- Properties of CADIAX analysis now allow adjusting the Immediate Side Shift (ISS) threshold value for articulator calculation.

CADIAX

- The Translations-Rotations view now provides a switch for showing absolute (in degrees) or relative rotation (as percent of maximum) in the side panel.

- Data import in the ASCII/CSV format is now also possible when started from GAMMA Document Browser.

CADIAS

- Copying a tracing or superimposition as an image to the clipboard now takes the current zoom level into account.
- Calculated points are now immediately updated when saving a digitizing.

CADIAS 3D

- Added Occlusion Design feature to generate the movements required for creating a sequential wax-up in conjunction with the Jaw Motion Import module of Exocad.
- Added an image overlay tool to superimpose images, such as photos of Brux Checker or occlusogram, onto the upper or lower jaw model in 3D.
- The virtual CPV for mandibular repositioning now allows simultaneously adjusting ΔX, ΔZ, and SCI.
- The static occlusal protocol can now also be calculated with unsegmented models.
- The virtual articulator can now be used with either the flat or the individually adjustable incisal table.
- Added an undo/redo function for manual repositioning of models and teeth during VTO.
- Import of 3D models now supports more PLY formats and the format can also be used for export.

Version 8.5.6

Quality Update
Released 2022-11-15

General

- Disabled installation of the 64-bit software version on systems with unsupported ARM-based processors.
- Fixed an issue introduced by a specific version of the Microsoft Visual C++ redistributable package.

GAMMA Document Browser

- Improved support for system-wide display scaling in the main views and the Image Assistant.
- Fixed an issue where patient files could not be saved on a network path.

CADIAX

- Fixed an issue where no immediate side shift settings were calculated for the Artex CR articulator.
- Fixed an “Out of memory” error when saving a CADIAX analysis on some systems.
- Fixed real-time cursor intermittently jumping to zero when starting a CADIAX measurement.

CADIAS 3D

- Updated CADstar transformation template to support files created using the “Export for GAMMA” feature.

Version 8.5.5

Feature Update
Released 2022-02-15

General

- Added support for the Windows 11 operating system.
- Improved webpage for offline activation.

GAMMA Document Browser

- Data item properties now also show the item’s creation date.
- Added support for JFIF image format.
- Image Assistant and 3D Data Assistant now restore their previous window position and size.
- Simplified insertion of new sections in the Workspace.

CADIAX

- Added point grid to Axis Movement, Tooth Kinetics, and Translations-Rotations views.
- Increased maximum zoom level from 250% to 500% for closer inspection of CPM and centric movements.

CADIAS

- Tracing and Superimposition views now provide an adjustable zoom value.

CADIAS 3D

- Added a tool for custom measurements on the displayed 3D objects, including points, lines, angles, planes, and object size.
- The static and dynamic occlusal protocol now highlight contacting teeth in red color.

- Graphical and numerical analyses now include an analysis of the Bonwill triangle and the axis-orbital reference triangle.
- The numerical analysis now shows values with and without considering VTO modifications.
- Added a VTO adjustment based on numeric values for condylar offset and incisal pin height.
- Coordinates of digitized points will now be recalculated for VTO and condylography animation.

Version 8.5.3

Quality Update
Released 2021-07-23

General

- Updated company address to “Wasserzeile 35”.

GAMMA Document Browser

- Fixed an issue where image files could not be dropped in an empty section workspace.
- Fixed an issue where head pictograms of CADIAX diagrams did not appear correctly on the printout.

CADIAX

- Fixed an issue where the condylography curve recording was extremely slow on some systems.

CADIAS

- Fixed an issue where activating a frontal tracing would display an error message if certain point landmarks have not been digitized.

Version 8.5.2

Feature Update
Released 2021-02-19

General

- Further improvements to support display scaling on high-resolution screens throughout all applications.
- Setup now relies on PnPUtil rather than DPInst for driver installations.

GAMMA Document Browser

- The active schema template is now indicated when creating or opening a patient file.
- CADIAX data areas can now be configured to display tooth kinetics curves.

CADIAS

- The incisal pin table has been extended to show offset measurements of the lower canine and now also provides explanatory tooltips when clicking the displayed values.
- Images can now be loaded in CADIAS Digitizer via drag-and-drop.
- The application now correctly handles images that specify a non-standard orientation in their Exif tag.

CADIAX

- Condylography curve diagrams now show head pictograms to indicate the viewing aspect.
- CADIAX Analyzer now allows creating therapeutic position CPMs also when started from GAMMA Document Browser.
- The numeric display of CPM items has been extended to show additional values and has been unified with the corresponding display in CADIAS 3D.
- CADIAX Recorder now reliably shows a warning icon when the double-styli should be rotated for dynamic hinge axis localization.
- CADIAX Analyzer now allows measuring the length of tooth kinetics movements, such as the incisal path.

CADIAS 3D

- The numeric display of a calculated CPM result has been extended to show additional values and has been unified with the corresponding display in CADIAX Analyzer.
- The static occlusal protocol can now alternatively display contact areas using a discrete color map.
- The 3D Data Assistant now displays the loaded model’s local coordinate system and allows directly exporting the model to a file.
- Coordinates of nominal points in the manual articulation of the 3D Data Assistant can now easily be copied and pasted to/from external applications.

Version 8.4.1

Feature Update
Released 2020-02-14

General

- Most application icons will now scale correctly on systems with high screen resolution.
- Access to the text and drawing modes in the diagnostic sheet has been simplified.

GAMMA Document Browser

- The application now provides a proper user interface for managing user-defined image types.
- When creating a text document, the application will provide suggestions for its title as appropriate for the active schema design template.
- Analysis collections are now sorted by date in chronological order.

CADIAS

- Applying a VTO according to functional values will no longer reset the anchor point of the adjustment (e.g., incisor/molar when adjusting occlusal plane).

CADIAX

- Automatic zero-point correction can now be used to move a selected point on a curve to zero, which allows compensating for the condylar shift during a splint treatment.
- Condylography recordings can now be exported for the Jaw Motion Import module of the Exocad CAD/CAM software.
- The macro recording dialog now uses a more compact layout and allows starting individual recordings via a simple double-click.
- The display setting to use different colors for the excursive and incursive parts of condylography movements is now available on all panes of the application.

CADIAS 3D

- The application now includes a virtual Condylar-Position-Variator (CPV) that can be used to remount jaw models to a therapeutic position as part of a VTO, and export that model situation to external CAD/CAM applications for splint manufacturing.
- Added numerical and graphical analyses for the sphere of Monson, the curves of Wilson, the upper conventional occlusal planes as well as the upper and lower planes of symmetry.
- Added numerical analyses for various dental arch measurements (width, depth, length, Bolton analysis).
- Tooltips for more immediate feedback when repositioning of models and teeth for manual VTO.
- 3D data export can now include axis-orbital reference triangles for preserving the relation to the axis-orbital coordinate system.

Version 8.3.4

Feature Update
Released 2019-01-31

General

- The diagnostic sheet now provides an input box for entering notes below each section.
- The application is now available in Japanese and Russian language.
- Completely reworked the software manual for German and English language.

GAMMA Document Browser

- The application will now show a warning message when attempting to insert data in an old analysis collection.
- Fixed the incorrect display of certain cell design elements during presentation.

GDSW classic

- Fixed an issue where the application could not be opened from third-party practice management software via the VDDS-media interface.
- Fixed the export of patient data to e-mail on Windows 10.

CADIAS

- Analysis values can now easily be copied to clipboard for transferring the data to external applications.
- Fixed the inversion of image colors when CADIAS Digitizer has been started from GAMMA Document Browser.

CADIAX

- Easier editing of recording macros in the macro editor of CADIAX Recorder.
- The order of curves in the curve selection combo box of CADIAX Analyzer is now kept in sync with that of the Contents list.

CADIAS 3D

- Virtual VTO allows manually repositioning individual teeth and jaw models while recalculating static and dynamic analyses in real-time.
- 3D objects can now be exported to third-party applications, e.g., for transferring a new model situation to CAD/CAM software.
- Support for colored 3D models and the PLY file format.
- Functional guidance paths can now be displayed on each pane of the application.
- Improved visualization of contacts found during the static occlusal protocol.
- Calculation and visualization of the curve of Spee based on digitized points.

Version 8.2.3

Feature Update
Released 2018-02-26

General

- Activation of the software no longer requires administrator privileges.
- Compatibility with third-party applications communicating via the VDDS-media interface has been improved.

GAMMA Document Browser

- The application now natively supports formatted text documents for treatment plans, diagnostic protocols, and the like.
- The type of articulator for which articulator settings are displayed can now be adjusted in the Workspace.
- The default schema design template is now indicated in the list of available templates.
- Text design elements and cells now provide additional properties for their default appearance.
- Cells in the Workspace can now be selected by holding down the Alt key while clicking a contained data area.

CADIAX

- The zero-point correction can now be applied for multiple curves at once.
- The new 3D Animation now provides a compatibility mode for systems with older graphics cards.
- A spherical marker now highlights the current position of a tooth kinetics movement or condylography curve in the 3D environment.

CADIAS

- CADIAS now provides a tracing and numerical analysis of the cervical spine.
- When CADIAS Digitizer has been opened from GAMMA Document Browser, it now allows any type of image to be loaded from the database.

CADIAS 3D

- A new Analysis pane combines the functionalities for measuring points on the 3D dental models and the visualizations and evaluations thereof.
- The numerical analysis now provides an explanatory description of the currently selected value and the possibility to copy displayed information to third-party applications.
- Digitized points can now be dragged in the 3D environment, which will update the corresponding analyses in real-time.
- Side panels in the user interface can now expand and collapse as needed to provide more real estate to the 3D environment.
- Performance of the application has been improved by delegating computationally intensive tasks to the graphics card.
- The virtual camera's center of rotation can now be specified with a simple press of the mouse wheel.
- The display of tooth contacts in the static occlusal protocol has been improved.

Version 8.1.2

Quality Update
Released 2017-08-23

General

- Fixed an issue where the software would fail to install due to an error with the licensing tool.
- Fixed an issue where certain software modules could not be started when the software was activated with a time license.

CADIAX

- Fixed an issue with the display of the 3D Animation on systems with Intel graphics chips.

- Fixed an issue where the CADIAX Recorder application would appear in the background of other windows when started.

Version 8.1.0

Feature Update
Released 2017-03-07

General

- The user interface has further been improved to support systems with high screen resolutions.
- Printouts made by the software can now include the practice and user information.
- Support for systems with multiple user accounts has been improved.
- Improved compatibility of the software activation method with virtualization programs such as Parallels Desktop.

GDSW classic

- The software now provides a menu entry for quickly opening the database directory.

GAMMA Document Browser

- Images can now be imported directly into the Workspace via drag-and-drop.
- Moving the mouse cursor over data areas or data items will show a tooltip for easily identifying the displayed information.

CADIAX

- Support for the Reference LF articulator.
- The appearance of the 3D Animation has been improved.

CADIAS

- CADIAS Digitizer now allows importing images from files even if the application has been started from GAMMA Document Browser.
- The value input for Condylar Position Measurements (CPMs) has been improved.
- The selection of active items in the Contents list has been simplified.

CADIAS 3D

- Introduction of the dynamic occlusal protocol, which visualizes dynamic guidance patterns on the occlusal surface of the upper jaw model.
- The static occlusal protocol now highlights intersections in a distinct color.
- The display of 3D objects has been reworked to provide a more realistic appearance and a better representation of the model's surface features.
- The incisal pin height of the articulator is now adjustable.

Version 8.0.4

Feature Update
Released 2015-12-17

General

- Added native support for 64-bit operating systems.
- Added support for the Windows 10 operating system.
- Improvements to the VDDS-media interface that is used to exchange patient information with third-party software.
- Improved support for high screen resolutions.

GAMMA Document Browser

- The image assistant now accepts images inserted via drag-and-drop.
- Miscellaneous usability improvements in the Workspace.

CADIAX

- The numerical analysis now includes the Kobs curve coefficient, which describes the straightness of the curve.
- The CADIAX Recorder application now provides additional predefined curve types for functional movements (bruxing, chewing, free movement, etc.).
- Displayed graphics can now be copied using a customizable shortcut key combination.

CADIAS

- The upper occlusal plane inclinations in the Sato analysis now provide norm values.
- The lower facial height values in the Incisal Pin Table now match those in the numerical analysis.
- The Angle class input in CADIAS Digitizer has been adjusted to use the dentist's point of view.
- Displayed graphics can now be copied using a customizable shortcut key combination.

CADIAS 3D

- Now software module for virtual functional analysis based on 3D dental models.
- Exact positioning of 3D dental models in the virtual, fully-adjustable Reference SL articulator.
- Animation of the lower jaw according to the patient's actual movements recorded with CADIAX condylography devices.
- Measurement of 3D coordinates on the surface of 3D models.
- Visualization and evaluation of anatomical relations based on the measured coordinates.
- Automatic determination of the tooth contact sequence between upper and lower jaw.
- Fully automated calculation of a condylar repositioning (CPM) based on two versions of the lower jaw model in RCP and ICP position.