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Materialise ProPlan CMF[®] 3.0

Release notes

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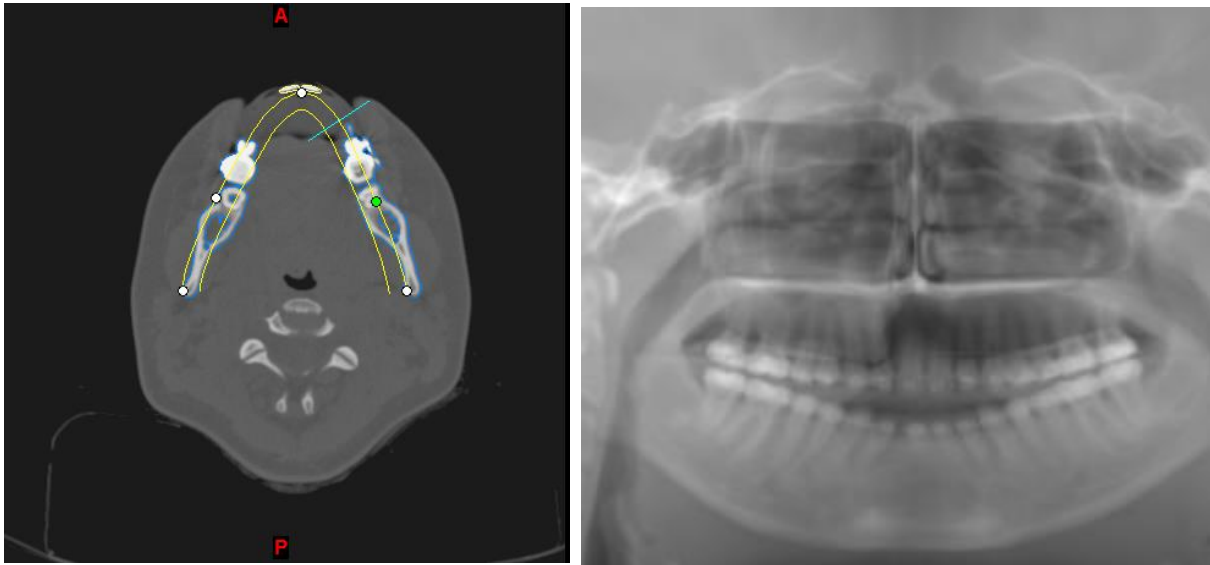
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What's new

1 Panoramic View mode, Nerve tracing and Panoramic X-ray

Panoramic view mode allows you to create a panoramic view curve, and resliced the images according to this curve. This view can be used for nerve tracing. Also it is possible to create a panoramic X-ray.

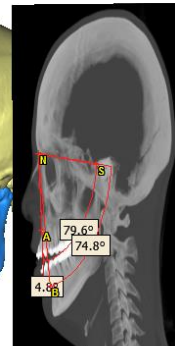
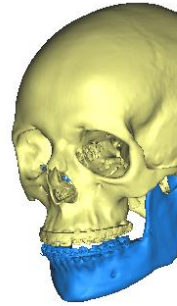


2 Cephalometry Wizard Updates

The cephalometry wizard has been updated with several new features:

- Cephalometric measurements values are now shown decomposed in 3 (sagittal, coronal, axial) 2D values besides the already existing 3D values.
- Cephalometry points can be indicated on the sagittal X-ray, and will be shown on a separate X-ray plane in the 3D view. From here the points can be linked to the corresponding 3D object.
- Cephalometry points change color when they are linked to an object, and not linked points will be indicated in the overview ▶ ✓ S not linked
- Normal values can be added, and will be shown in the cephalometric overview.

Name	Pre-Op 3D	Pre-Op Sagittal	Planned 3D	Planned Sagittal	Delta 3D
SNA	90.2 °	90.8 °	90.2 °	90.8 °	0.0 °
SNB	83.2 °	81.0 °	83.2 °	81.0 °	0.0 °
ANB	23.9 °	9.8 °	23.9 °	9.8 °	0.0 °
SNA-SNB	6.9 °	9.8 °	6.9 °	9.8 °	0.0 °



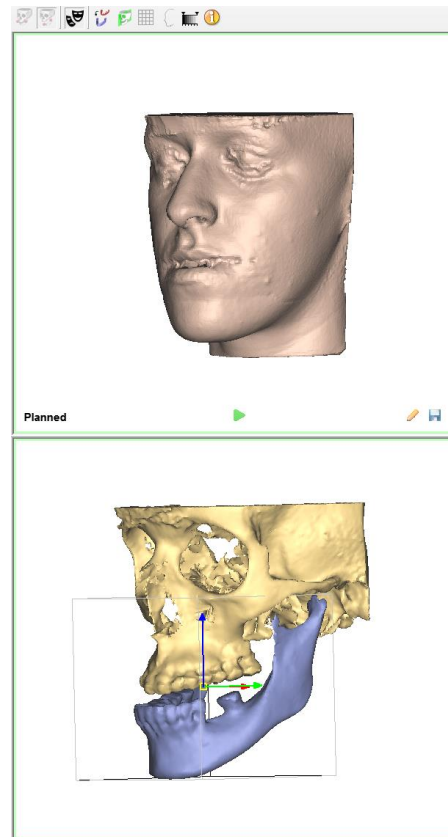
3 Soft tissue Simulation

The Soft Tissue Simulation feature allows the user to check the impact of the surgical plan on the patient's soft tissue. Simulation can be done in two ways:

- In the Soft Tissue Simulation wizard (existing feature)
- In real time mode during bones repositioning (new feature)

The difference is that in the first way the simulation can be calculated after the planning (post-factum) while in the second way the user can see Soft Tissue changes real-time during performing the planning

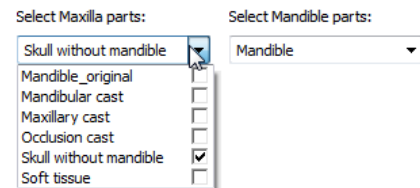
The user can map 3D/2D photos onto the original Soft Tissue and use it in real time simulation. Mapping is done in the Soft Tissue wizard



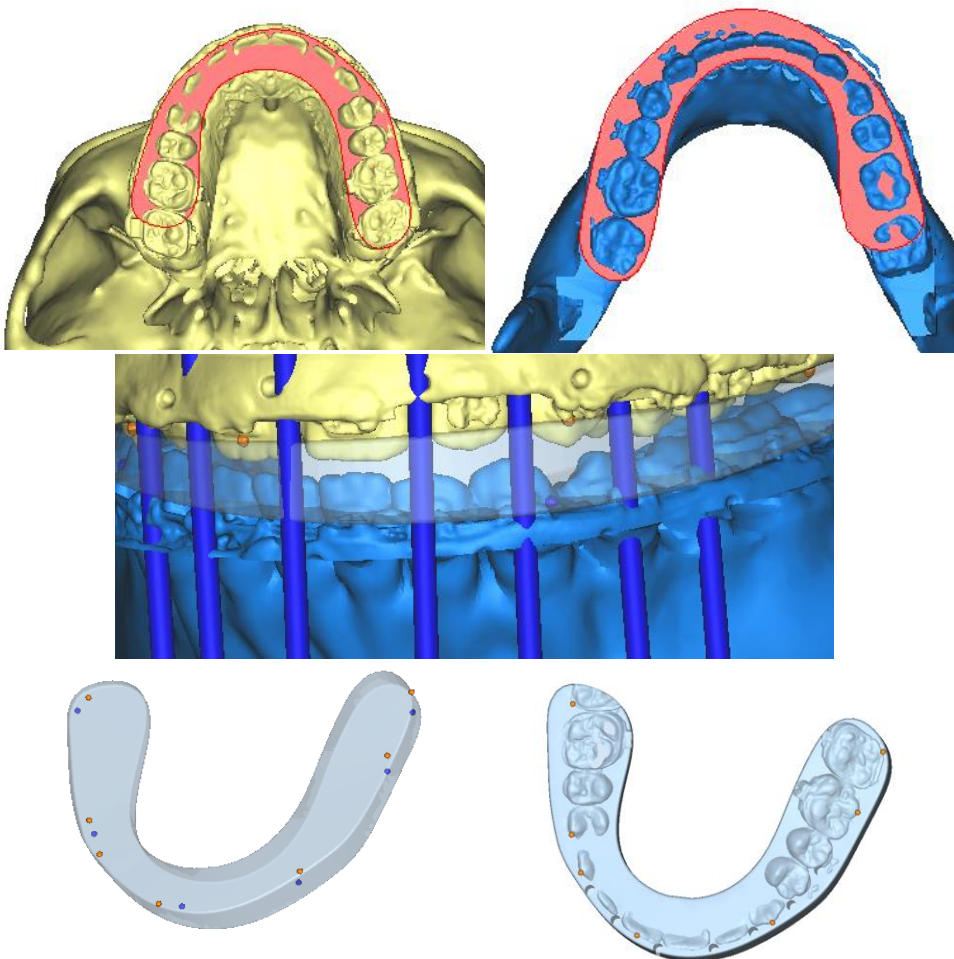
4 Splint Design Wizard

The splint design wizard allows the user to design orthognathic splints. The wizard automatically creates intermediate and final splints that can be fine-tuned by the user.

Fine-tuning can be done by changing the thickness, applying an offset, adding a fillet, adding brackets offset, adding a bevel and adding wiring holes.



Splints can be exported as 3D objects (STL files).



5 Usability Improvements

Several usability improvements have been done on the product to improve the interaction between the software and the user.

This includes, but is not limited to:

- Small UI changes to parts of the orthognathic wizard
- Renaming of the reposition wizard to Design tools.
- Addition of drawing tool for cylinders and spheres in the Design tools.
- The Natural Head Position functionality became a separate wizard, which is also accessible via the main Wizard overview and the toolbar.
- Curve annotation was moved from a wizard to the toolbar.
- New tooltips were added to help the user with more information and quick tips about a certain functionality.

Licensing is changed by creating two packages:

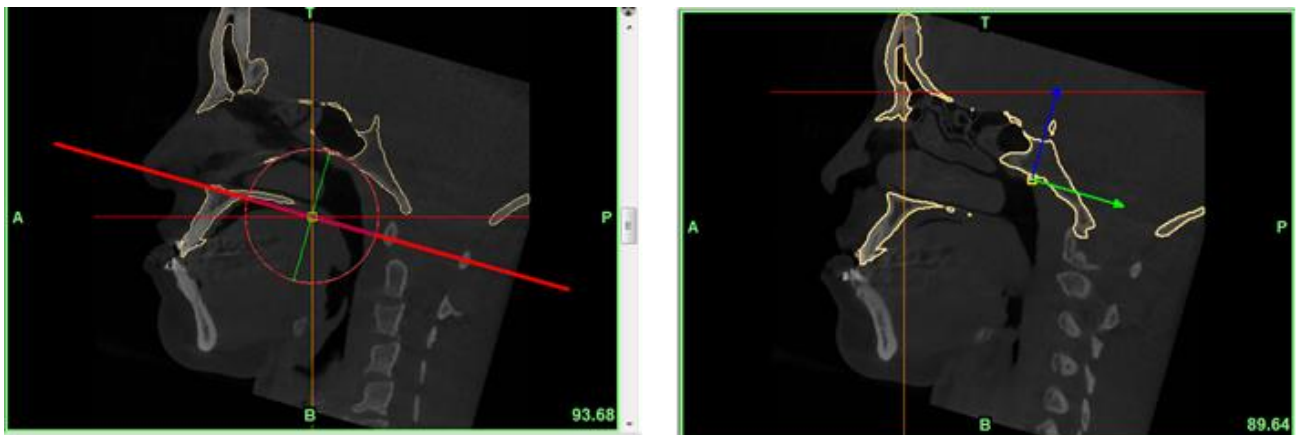
- ProPlan CMF Orthognatics
- ProPlan CMF Reconstruction

New tools are added to improve the exported STL-files for 3D printing. A label function allows the user to place a label on the object to identify it. A fixing tool assists the user to optimize files for 3D printing.

Known Issues

Import images

- [Issue #185985] For oblique images, translation and rotation controls in Reposition wizard and during setting NHP look differently than for normal images in 2D views – controls are rotated:



From the technical point of view this is an expected behavior. Controls position depends on coordinate systems. As coordinate system for oblique and tilted images is rotated, controls are also rotated.

- [Issue # 375508] In certain cases PPCMF will have a problem loading 16-bit MRI images. Workaround is to load the dicom data first in Mimics, or Mimics inprint, save it as .mcs and then load the project in PPCMF. If you don't have Mimics or Mimics inprint available, please contact customer support.

Design tools

- Issue #57553] Repositioning an object, applying Motion Restrictions, the names of translation buttons might not coincide with actual directions. The issue only concerns naming, the reposition itself will be correct.
- [Issue #48714] When rotating objects more than 90 degrees in one of the 2D views (Sagittal, Coronal, and Axial), the rotation outcome of the other 2D views might be 180° even though no rotation in those planes was made.

System Requirements

ProPlan CMF can be used on the following operating systems:

- Windows Vista SP2 x64;
- Windows 7 x64;
- Windows 8 x64;
- Windows 10 x64.

To maximize the full capacity of your PC and process larger datasets PROPLAN CMF Software is now supporting x64 OS platforms only.

To ensure optimal performance, we recommend using this configuration (or higher):

- Intel i3 or equivalent;
- 4 GB RAM;
- AMD Radeon or NVIDIA GeForce graphics card with 256MB RAM or equivalent.

With PROPLAN CMF Software 3.0, you are able to:

- Open own files created and/or lastly modified in PROPLAN CMF Software 2.1 and newer
- Open files created and/or lastly modified in Mimics Medical 17.0, 18.0 or 19
- Open files created and/or lastly modified in Mimics inPrint 2.0

PROPLAN CMF Software 3.0 has following restrictions for project opening:

- It will not allow you to open projects created in version 2.0 or older;
- It will not allow you to read cephalometry analysis created in version 2.0 or older (though project will be opened);
- If you create a new project in version 3.0, you will not be able to open it in any previous version.

Instructions for Use can be accessed through the Materialise website, <http://www.materialise.com/en/medical/electronic-instructions-for-use>. This link can also be accessed through the about box, which can be found via the help menu.

Licenses

Following modules are available:

- ProPlan CMF Orthognatics
- ProPlan CMF Reconstruction
- ProPlan CMF Orhtognatics + Reconstruction

Contact

For technical support, please contact our Customer Support team:

proplancmfsupport@materialise.com

Or check out our website: www.materialise.com