

Fraxinus release notes

v17.12

New Features

| Key | Summary | Release Note |
|--------|---|--|
| CX-172 | Route-to-Target plugin: Extend route | Current route-to-target (RTT) terminates at the airway centerline position closest to the target. It is necessary to extend the route to the exact target position. The old RTT line should be kept as it is, and another extended line should be created. This line will be used as input to the Accusurf plugin. |
| CX-271 | Update camera focus in virtual bronchoscopy | Update camera focus distance from 0.1% of route-to-target length to 0.05%. This is to avoid the camera to make too sharp turns and point into the wall of the airways. |
| FX-20 | Easier DICOM import | Added icons, improved button and help text and hid several actions to make the DICOM importer easier to use. |
| FX-21 | Edit views | Have slightly updated which objects which are visible in different steps. We also reset the window width and level which we get from the Dicom before setting transfer functions, to get better transfer functions in 3D. |
| FX-22 | Set manual seed point in airways segmentation | It is now possible to manually select the seed point for the airways segmentation algorithm. This can help if the automatically selected seed point doesn't succeed. |
| FX-23 | Lung sack segmentation | It is now possible to segment the lung sacks in the airways segmentation filter. However, this might not work very well on Mac. |
| FX-38 | Option to hide the File menu bar | Added an option in the settings file to hide the File menu bar. |
| FX-39 | Fraxinus User Manual | A user manual for Fraxinus has been added. It can be accessed in the first workflow step and from the question mark on the top of the window. The content specific for Fraxinus is at the root of the documentation. |
| FX-42 | Transparent straight tubes | To give the user another way to view the airways, the possibility to switch between the volume and transparent, straight tubes has been added to the Fly through view. The tubes are built around what would be the center line if it had straight lines between airways' branching points. |
| FX-45 | Display the distance to the target | A distance metric showing the direct distance from the endoscope to the target has been added to the 3D cut planes view. |
| FX-46 | Increase side vision angle and add reset camera button. | Increased the side view angle to 60 degrees and added a reset endoscope button. |
| FX-48 | New icon | Fraxinus got a new icon. |

12 issues

Bugfixes

| Key | Summary | Release Note |
|--------|--|--|
| CX-268 | Route-to-Target: Improve smoothing | The route to target line has been improved. |
| CX-270 | Fraxinus: Change route to target VB path | Change default route to target path from *_Target_ext to *_Target. Should not navigate VB camera all the way to the target, outside the airways. Visualize both *_Target_ext and *_Target in VB 3D view. *_Target should be on top. |
| CX-305 | Objects don't show with high zoom | Solved a situation in certain cases, where zooming in very much would make objects such as metrics disappear in the 3D scene. |
| FX-1 | Creating new patient when having an existing goes to wrong workflow step | Fixed |
| FX-2 | Fraxinus pinpoint workflow | Fixed |

only shows 3D scene

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| FX-9 | Fraxinus crashes on Linux | Fraxinus now compiles and runs on Ubuntu 14 and 16. |
| FX-12 | 2D CT Abdominal transfer function was wrong | Have edited the values of the 2D CT Abdominal transfer function. |
| FX-14 | Icon is missing on Windows | Added the Fraxinus icon to the .exe file on Windows. |
| FX-15 | Camera in Fraxinus VB is sometimes incorrectly placed | Fixed a problem with the camera positioning upon entering the Fly Through workflow step. |
| FX-18 | Arrow controls in VB widget loose focus | The arrows now control the camera in the fly through view all the time. |
| FX-19 | Airway segmentation does not work on windows | Fraxinus has now been verified to work on Windows 10. |
| FX-24 | Renaming the target triggers route to target | Fixed a problem with the target name field, which would trigger the set target action if edited. |
| FX-25 | Not possible to set new target on a loaded patient | It is now possible to load a patient and set a new target point. |
| FX-28 | Several bugs in Airway segmentation on Mac | Airway segmentation now works on Mac. Tested on OSX 10.11. |
| FX-29 | Crash when running airways seg. without a patient | If you imported a volume in Fraxinus outside of the normal workflow, you would get a crash due to not everything being ready for the automatics in Fraxinus. The crash has been fixed, but one should still use the normal workflow to make sure that everything is initialized as it should be. |
| FX-31 | Inncorrect Zoom after running RTT | Running route to target the second time could give wrong zoom. Now it is zoomed in as it should be. |
| FX-35 | RTT not working for #target > 9 | Setting the target more than 9 times in a patient didn't work. This has been fixed. |
| FX-37 | The installer fails on new Windows machines | Fixed a problem with the installer for Windows. |
| FX-47 | Crash when setting target without moving the target | Fixed a crash when going back to the pinpoint step from the fly through step without moving the slider, and pressing set target without moving the target. |

19 issues

Known issues

| Key | Summary | Environment |
|-------|--|--|
| FX-51 | Freeze on Windows laptops when changing layouts | <p>There is a problem on Windows laptops when running with a graphics card. When changing layouts (or indirectly, by changing workflow steps) many times, the program might eventually freeze or crash. A workaround to this is to use the settings on the computer to force the program to run with the integrated graphics card.</p> <p>E.g. for a laptop with a NVIDIA graphics card: open the NVIDIA control panel from the NVIDIA settings icon in the lower right on the task bar. Go to the Manage 3D settings -> Program settings. Add the Fraxinus.exe from your installation and select Integrated graphics.</p> <p>Still, when running with the integrated card, the memory usage of the program might become very high. One can use the Windows task manager to monitor this. The recommended practice is to close Fraxinus after each session to release the memory.</p> |
| FX-32 | Handle Lung sack segmentation on Mac and Windows laptops | Lung sack segmentation might crash on Mac. Also, to use it on Windows laptops, one must set the program to use the integrated graphics car as explained in FX-51 . |

2 issues