Release Notes

Leica DXplore
Version 2021.10.1
English

- when it has to be **right**

Leica Geosystems

PART OF HEXAGON

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1 DXplore Software

Welcome to Leica DXplore

We are pleased to announce the new DXplore version! The release contains different enhancements and improvements throughout the application. Read the following chapters carefully to learn more about what is new.

Requirements for installing the DXplore software

When purchasing a DSX package that includes a CT1000 tablet, the DXplore software is already installed on the tablet.

DXplore software can be downloaded from myWorld or updated through the "Update" warning messsage. This message appears when opening up the software.

☞ Before running the software make sure to activate software license key (entitlement ID) in CLM program. DXplore will not run without a valid software license key.

2 What Is New?

Overview

What is new in the current version?

- B-scan View Feature
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- Back to Utility Feature in QuickScan Projects
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- KML Export
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- PDF Report Configuration
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- 3D Tomography Layer in GridScan Project
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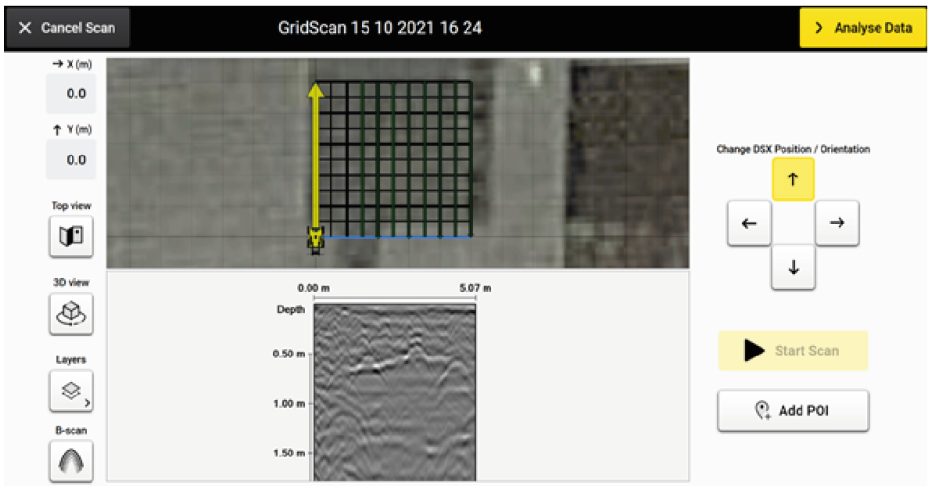
2.1 B-Scan View Feature

Description

Combined with the default tomography view, the new B-scan view feature assists DXplore users in interpreting the site's underground conditions, as well as identifying the signal noise level for each swath, throughout the entire visible depth range.

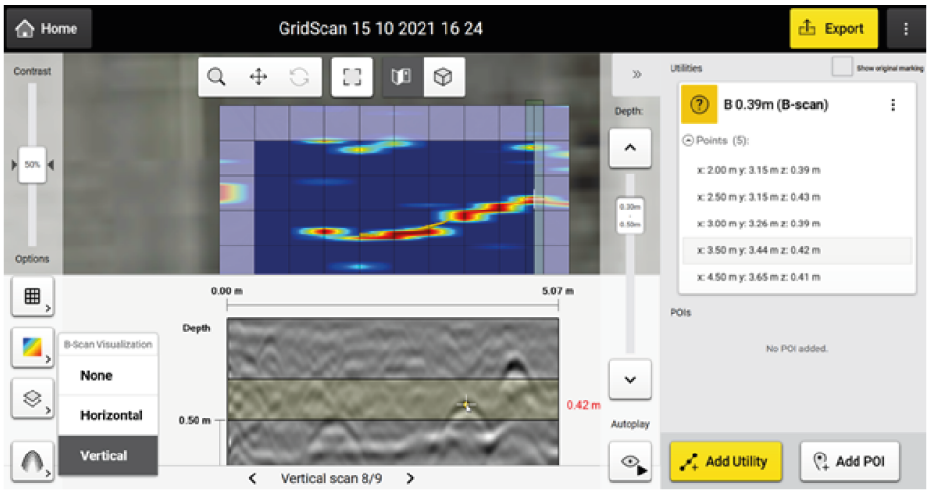
The B-scan view gets enabled or disabled at will, by pressing the respective "B-scan" button at the lower left side of the GridScan acquisition screen.

A B-scan image then gets generated real-time at the lower part of the screen, while each swath is being scanned, as shown below:



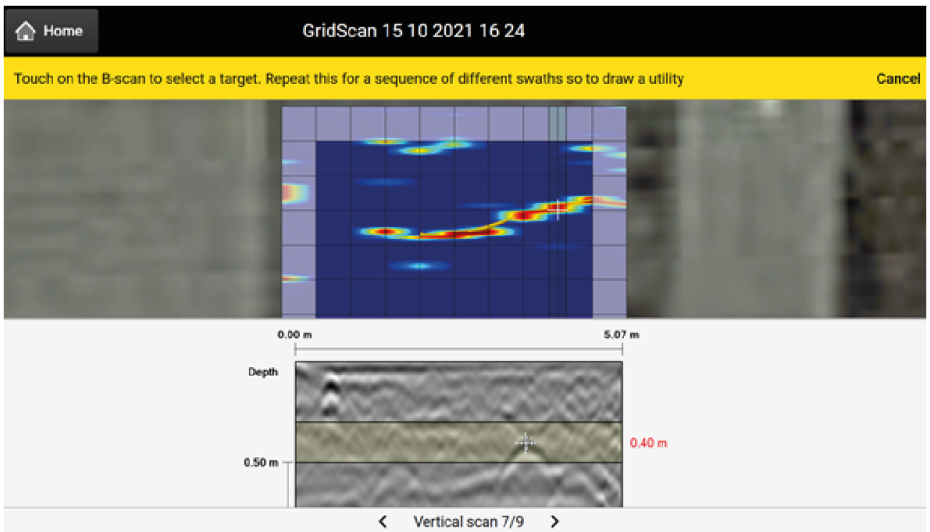
In the GridScan processing screen, the B-scan view can be enabled by the same button, as shown below.

If both vertical and horizontal swaths have been performed, the user will see the corresponding options when pressing the button.



Moreover, the function of the known “add utility” and “add POI” buttons, will now be focused on the B-scan image itself.

The “add utility” button, will no longer trigger the detection algorithm in this case, but will rather guide the user to first select a swath and then pick a target on its corresponding B-scan, as follows:



A target that gets touched/clicked on the B-scan image, in a series of at least two parallel swaths, will form a utility element on screen, as all the selected points get automatically connected.

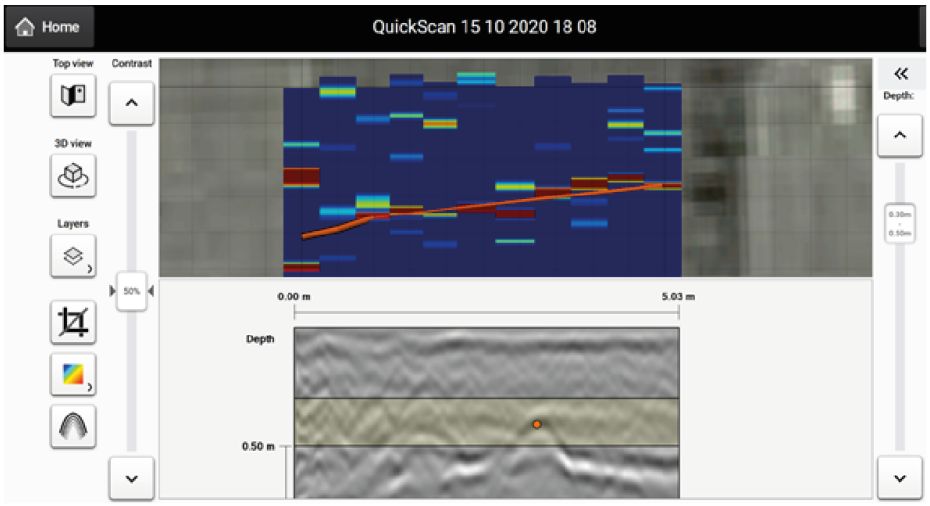
As soon as the user finishes this process, the formed “B-scan utility” will appear in the processing screen list, PDF report, as well as in the project’s exported files.

The B-scan utility will also be visible on the B-scan image itself, as a dot with its respective color, provided that a swath that crosses this utility has been selected by the user.

Similarly, the known “add POI” button, will now add a hyperbola POI icon, if the B-scan view has been enabled.

The user is again prompted, to place a “B-scan POI” at the desired position on the B-scan image, using touch or mouse click.

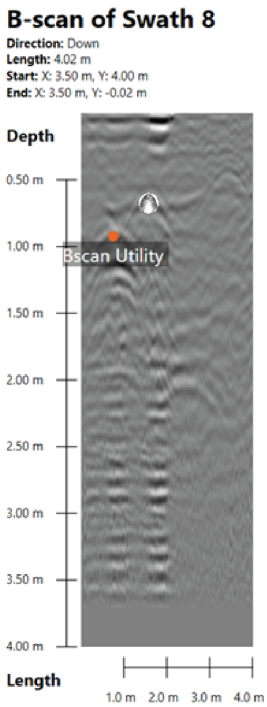
In a QuickScan project, the user can also enable the B-scan view and see the B-scan for an ongoing or selected swath, displayed at the bottom as shown below:



The “Add Utility” and “Add POI” buttons can be used in QuickScan, in the same way as in a GridScan project, while the B-scan view is enabled.

Last but not least, the PDF report will now also include B-scan images, only for the swaths that do cross a B-scan utility or a B-scan POI.

The corresponding B-scan utilities and POIs will be visible on the B-scan images for these swaths, at the position where they were added, as shown below:



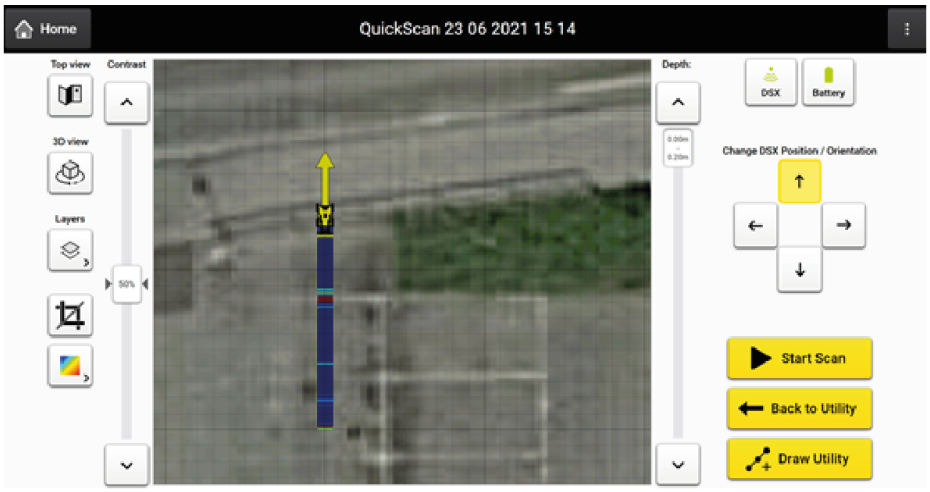
2.2 Back to Utility Feature in QuickScan Projects

Description

The QuickScan "Back to Utility" feature, provides visual guidance in marking a potential utility on the ground, for users who are not able to use a positioning system to do so.

Therefor the feature is only available for QuickScan projects, which are set up without any positioning device.

As soon as the user completes a swath, the respective "Back to Utility" button will appear at the lower right of the DXplore QuickScan screen, as shown below:

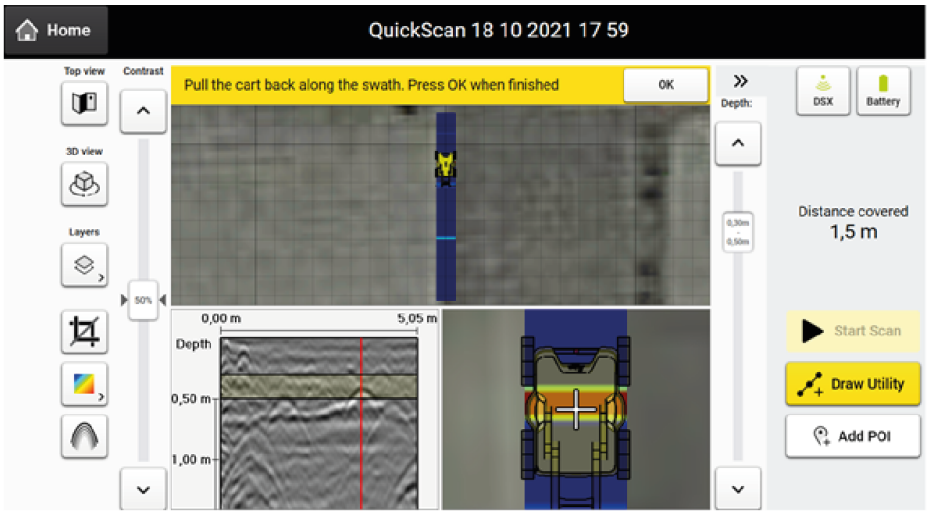


When pressing the "Back to Utility" button, the user then needs to pull the cart back to a desired point on the swath, where a strong reflection is visible on the tomography strip.

The value of the covered distance to this point, is being displayed real time on the right side of the screen.

While pulling the cart back, it is also recommended to enable the B-scan view on the lower left, so to have the best possible overview of the underground during this process.

Finally, the user can use chalk or spray, to mark this spot on the ground for their reference.



Please note that, for accuracy purposes, the "Back to Utility" button, will only stay available on screen, as long as the cart does not get moved from the swath's ending point.

It is also not possible to use this feature for previously performed swaths.

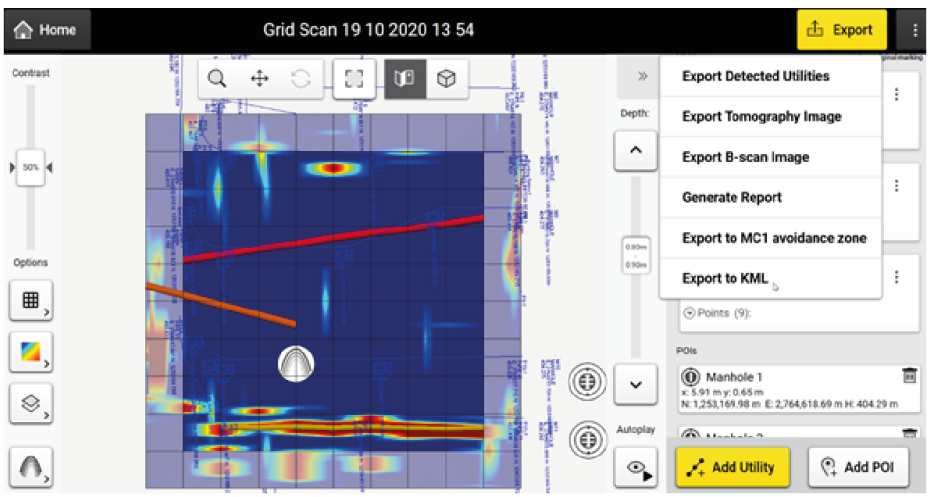
2.3 KML Export

Description

The new DXplore software update introduces the KML file, as an additional export format option for DSX users.

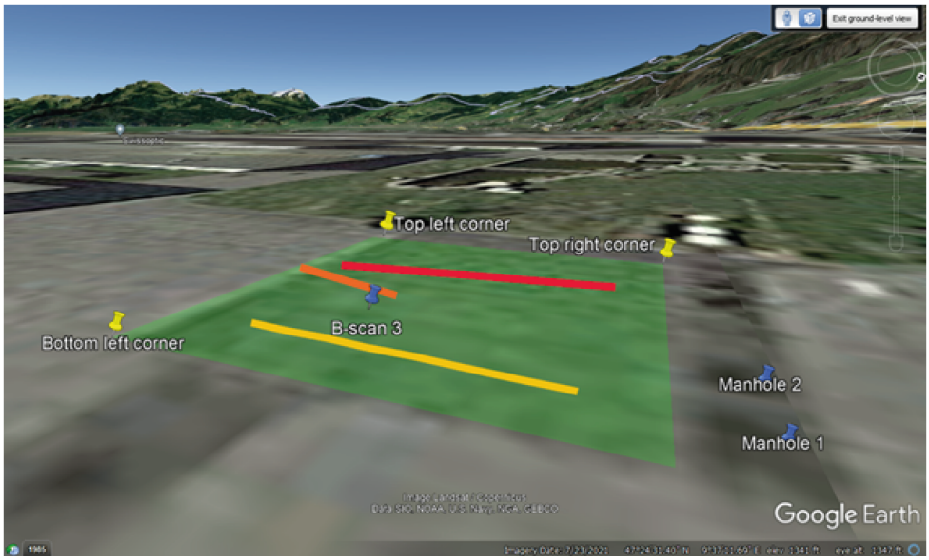
The users can take advantage of the Google Earth software, so to open the exported KML file and visualize their project's utilities on the map, along with any added POIs.

The feature can be accessed by selecting the "Export to KML" option, from the menu at the top right of the screen, as shown below:



Please note that, the KML export feature is accessible only for projects, which were performed using a GNSS device and set up with full RTK correction, for all three grid setup points.

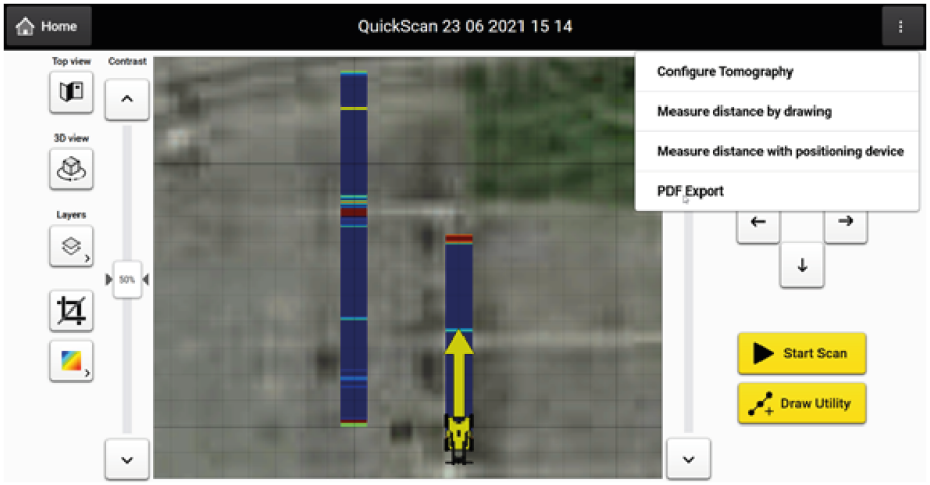
The image below demonstrates an example of an exported KML file in Google Earth software:



2.4 PDF Export in QuickScan Projects

Description

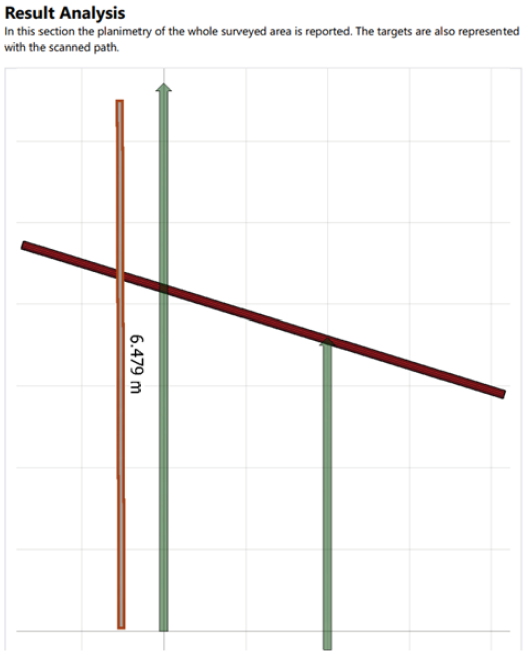
The PDF export is now available also for QuickScan projects and can be selected through the three dots button, at the top right of the QuickScan screen.



The report displays all utilities manually added by the user, along with tables of their coordinates.

Moreover, the QuickScan swaths performed in the project are also included in the report, reflected with green lines.

Any measured distances that were added, will also be displayed in the report and listed in a distances' table.



Finally, in case utility and POI elements have been added through the B-scan view mode, the corresponding B-scan images will also appear in the report, as described in the previous "B-scan view feature" section.

2.5 PDF Report Configuration

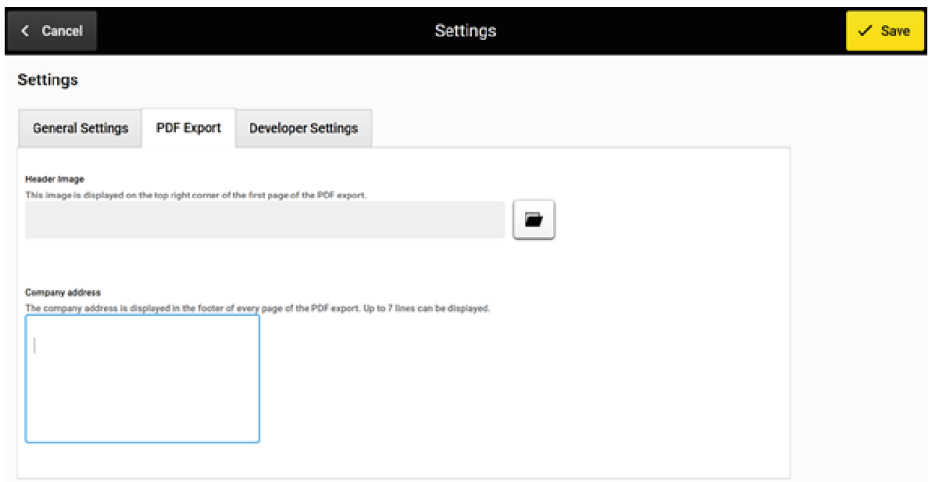
Description

With this feature the DXplore users are able to configure the PDF report, by adding their company's information to it.

This functionality can be accessed from the DXplore settings' screen, by selecting the "PDF export" tab.

Through this screen, the company's logo can be updated and will be displayed on the first page of the PDF report.

The company address can also be updated through the respective field and will appear as a footer on every page of the PDF report, after the change gets saved.



2.6 3D Tomography Layer in GridScan Project

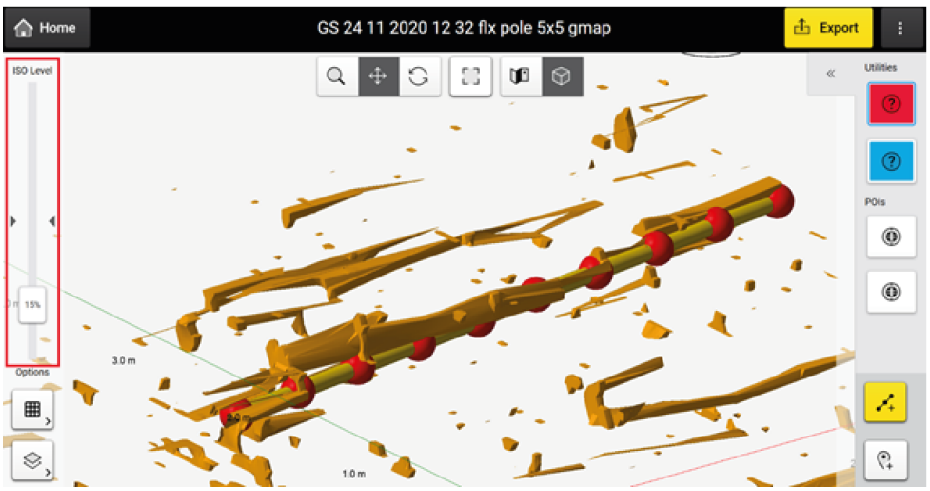
Description

DXplore users can now benefit from a new tomography visualization layer, that enables them to have an additional 3D inspection of the underground for their GridScan projects.

Along with the existing 2D tomography layer, the new 3D tomography layer can be accessed from the same layers' button, at the bottom left of the GridScan processing screen.

Once the 3D tomography layer gets enabled, an additional ISO-level slidebar will appear on the left side of the screen.

By using this slidebar, the 3D visual result can be manually tuned to be more enhanced or more subtle, according to the user's preference.



It needs to be noted, that utility detection can only be triggered when the 2D tomography layer is enabled, with the depth slidebar adjusted to the desired depth level.

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Original text

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