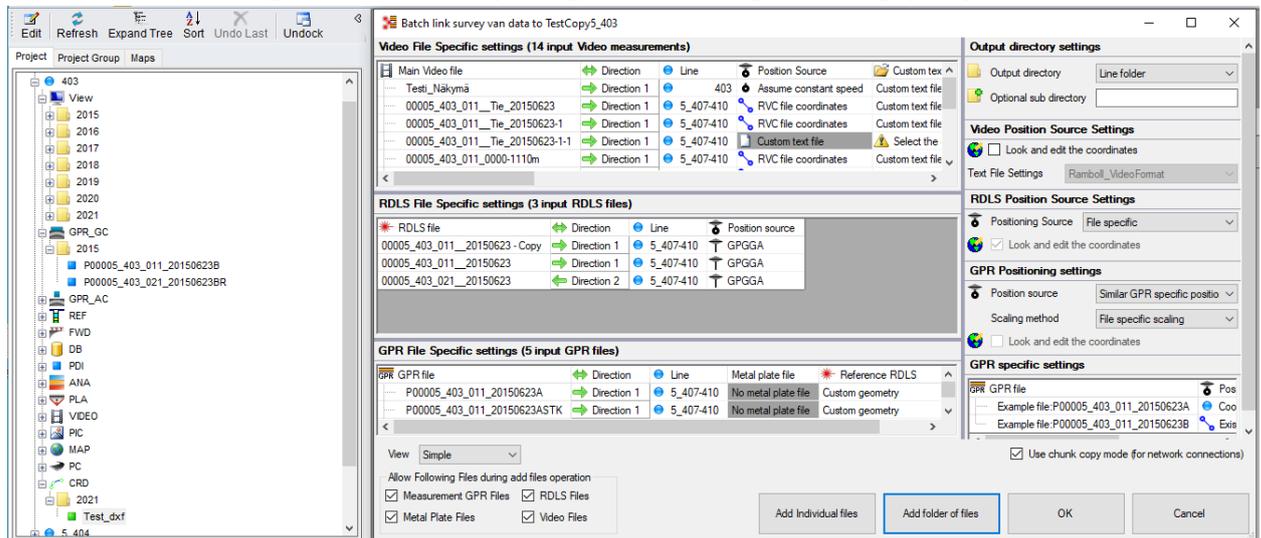
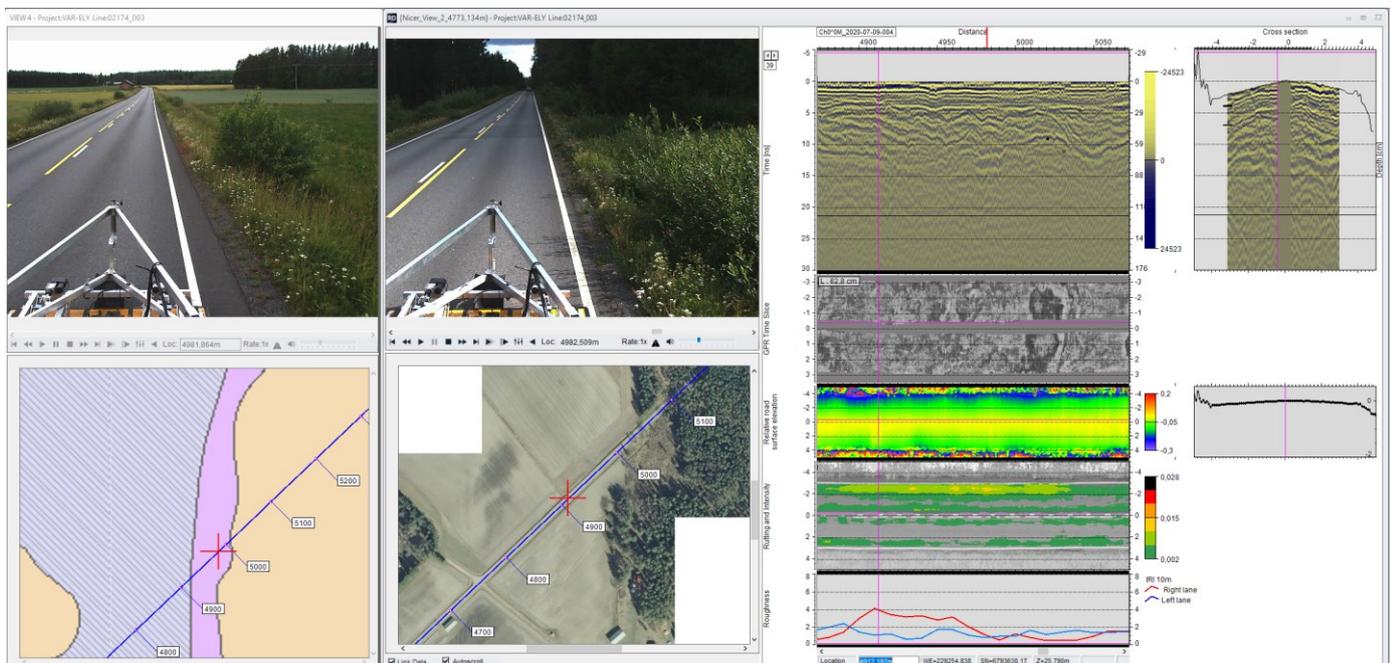


# General Road Doctor Benefits

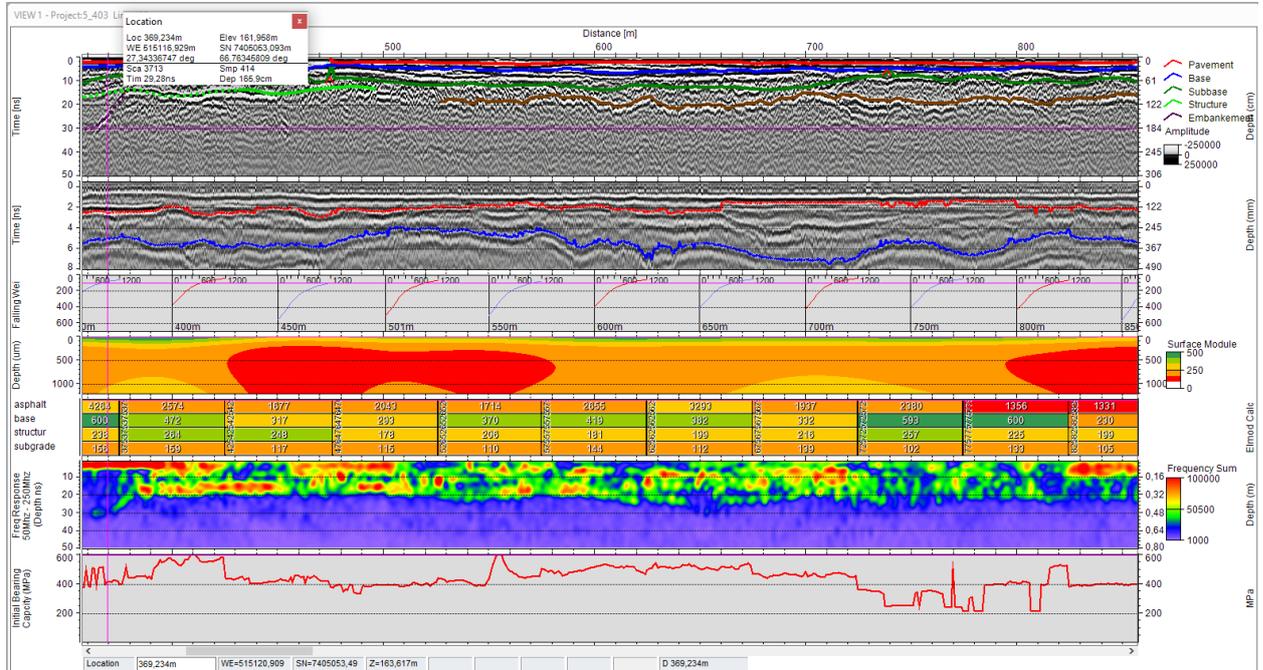
- Quick data linking into hierarchical and efficient project structure with tree view including data classification and search tools for easy handling of even very large and long-lasting projects



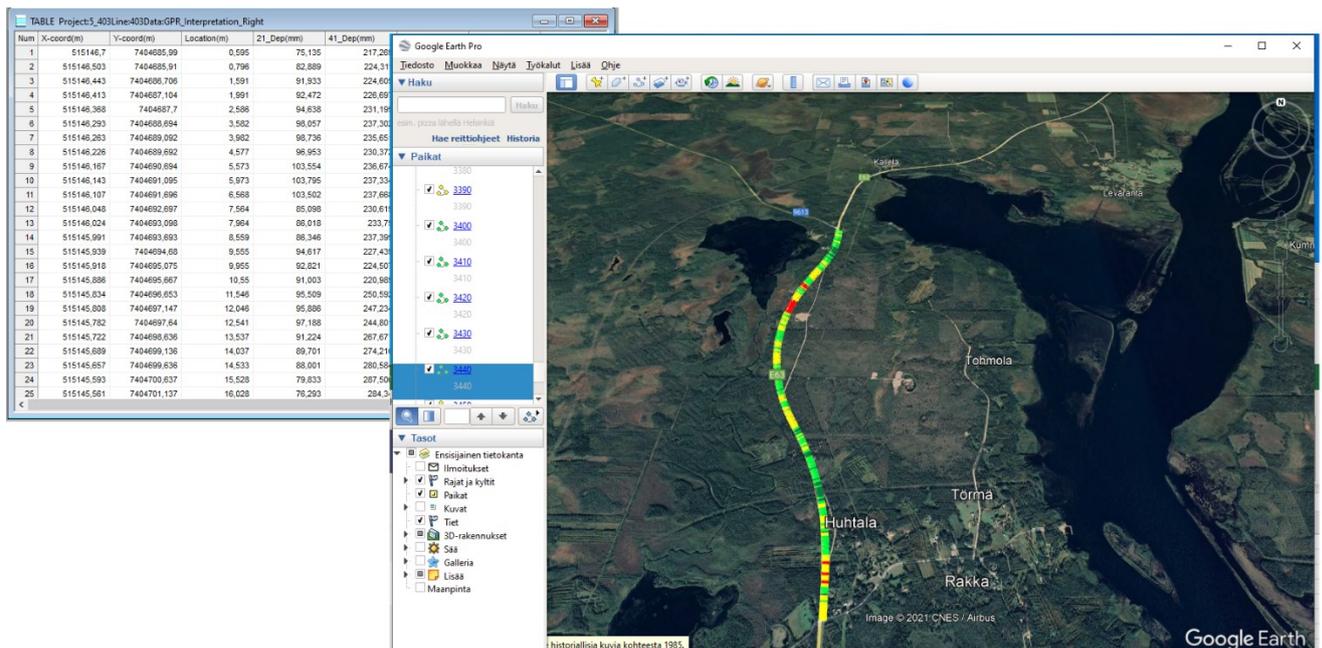
- Powerful tools for data syncing with each other regardless of their coordinate source both in linking stage and in data display



- Advanced tools for GPR data processing and interpretation and comparing GPR data with other data from different measuring devices like Video, LIDAR, FWD, Profilometer, TSD, etc. and from local or external databases or any WMS- and Google maps.



- Different modules for deeper analysis of Road Data using Frequency and bearing capacity analysis methods.



- Very versatile results output possibilities – including fixed and user definable tabulated text formats, DXF, KML, Shape, View Videos, PDFs and Bitmaps, a free Road Doctor Viewer version for enabling visualization of all views available for Data Analyzers also for clients and, finally, a possibility to output results to Road Data Center Web Map service for map based visualization.

## **Major new features of ROAD DOCTOR version 3.6**

Road Doctor 3.6 will be the next major release of Road Doctor and it will bring users new features to work more efficiently with GPR and other related data. The features are now focused in Road Doctor Core version. More features than listed below may be included in the final release of RD 3.6 in February 2022.

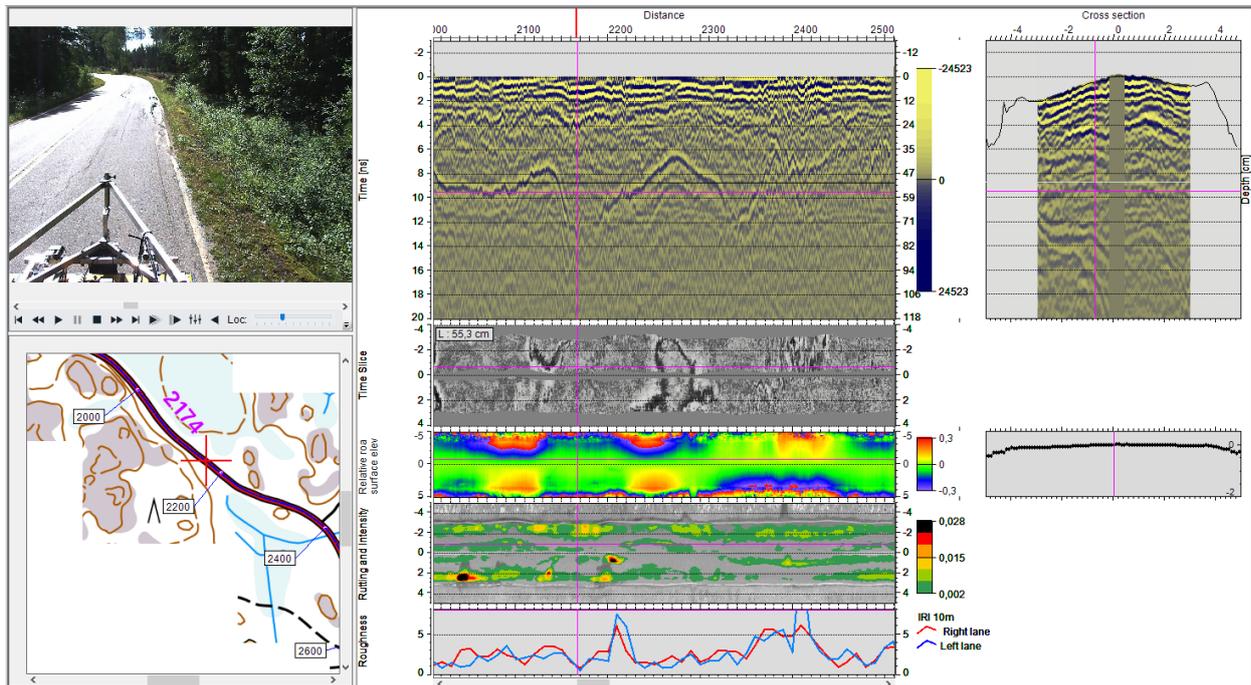
Changes in Short:

- 3D-GPR data buffering to a disk file, vastly speeding up 3D data handling
- Cross-section topography from laser scanner data to 3D GPR Data display
- User defined colours for GPR Data
- DXF-format output for GPR interpretations
- Project Templates
- External Map view saving function finally included
- Execution of user's own external functions for handling table view data
- New database drawing modes

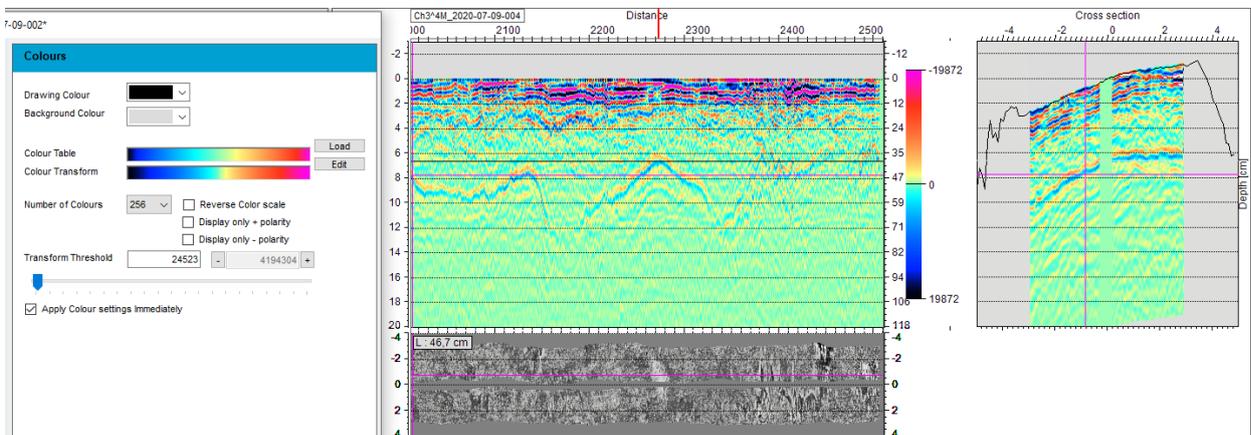
### **Core Version (All versions)**

GPR

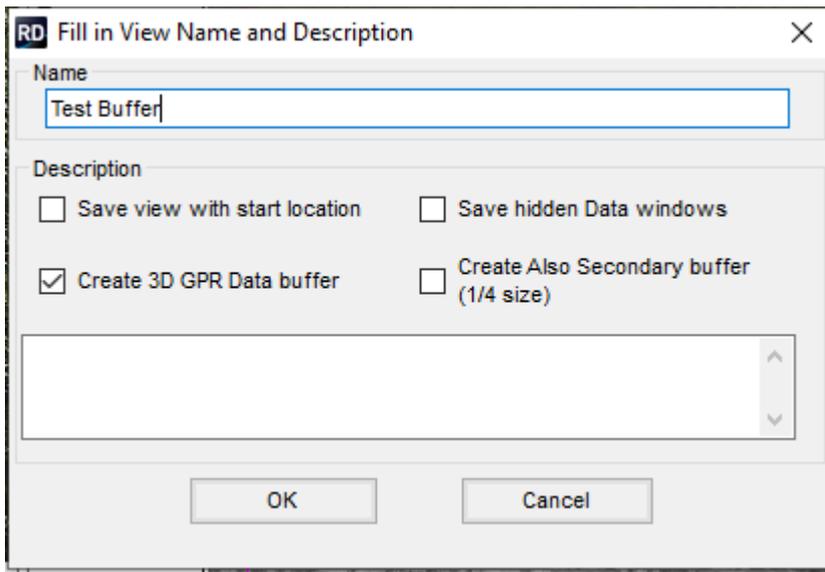
The **3D cross-section view** can include cross-section topography read from a laser-scanner data. This feature will make visualization more realistic and interpretation of GPR data more reliable.



New **user defined colour tables** can be defined for GPR data display. The maximum number of colours is 256. The table with less colours (128,64,32,16) can be created automatically. The new colour table is saved in the view and can be used later.



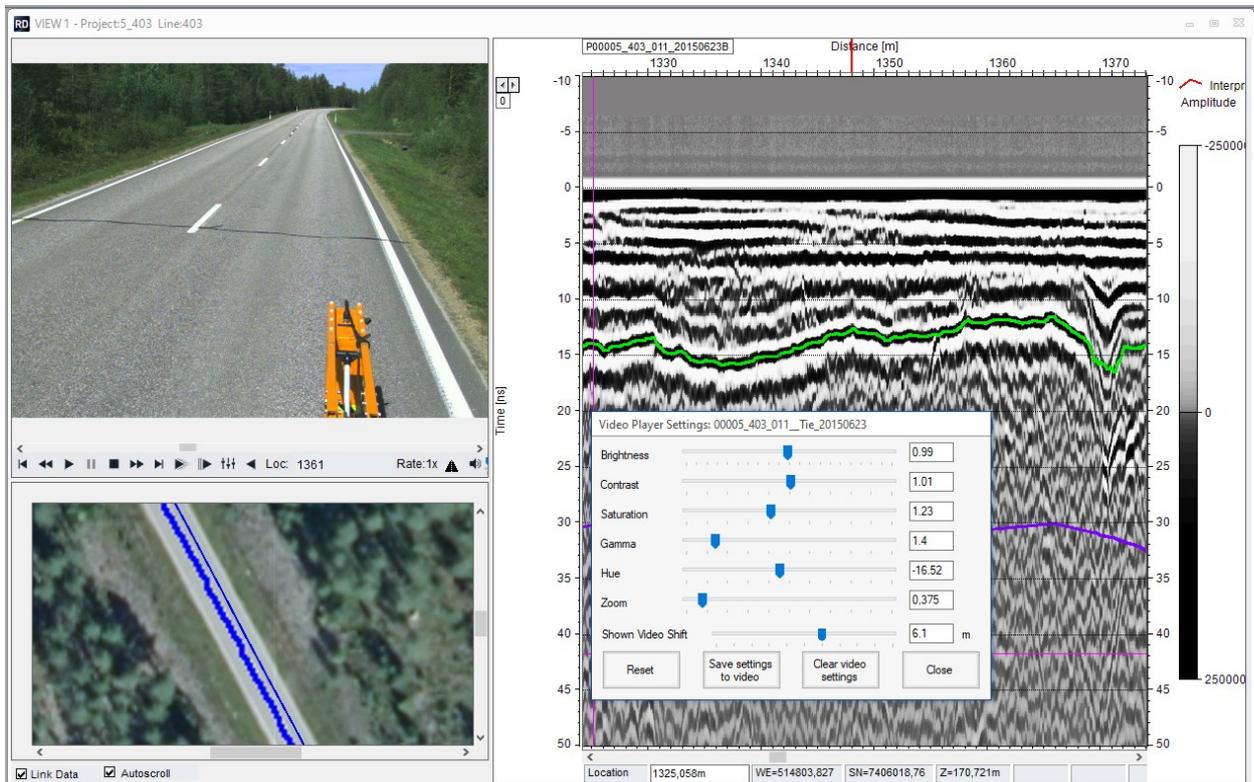
**Buffer file for 3D data view**, makes handling of 3D GPR data almost 100 times faster than before in Road Doctor. There is no need for FFT recalculation in the case of 3D-radar data. Once the processing settings are selected the operation takes once longer time and then loading is as fast as hard disk or ssd-drives allow. The program can save a secondary data buffer file set simultaneously even for faster loading and display. The saving can be done using a lower number of samples per scan and Road Doctor can then resample the data to a higher value of samples for display and interpretation.



GPR Interpretations can now be outputted also as industry standard **AutoCad DXF**-format.

## Video

The **video shift** can be now set using the video settings tool window. This enables matching the forward and reverse direction videos so that it is easier to see the same location from both videos, for example.



## Map

**Saving Map View content** is now possible in Road Doctor. The Map View can be saved in project tree or in a separate file. In both cases the program can open the views, which were used to create the thematic map and draw the datasets from those to map.

As a new feature it is also possible to **update the thematic map in a Map View** if the source data in a view is changed. This makes possible to keep the analysis fields in the map and in the view synchronized. Also, if a database content is modified, the modifications for a displayed field can be updated to a map.

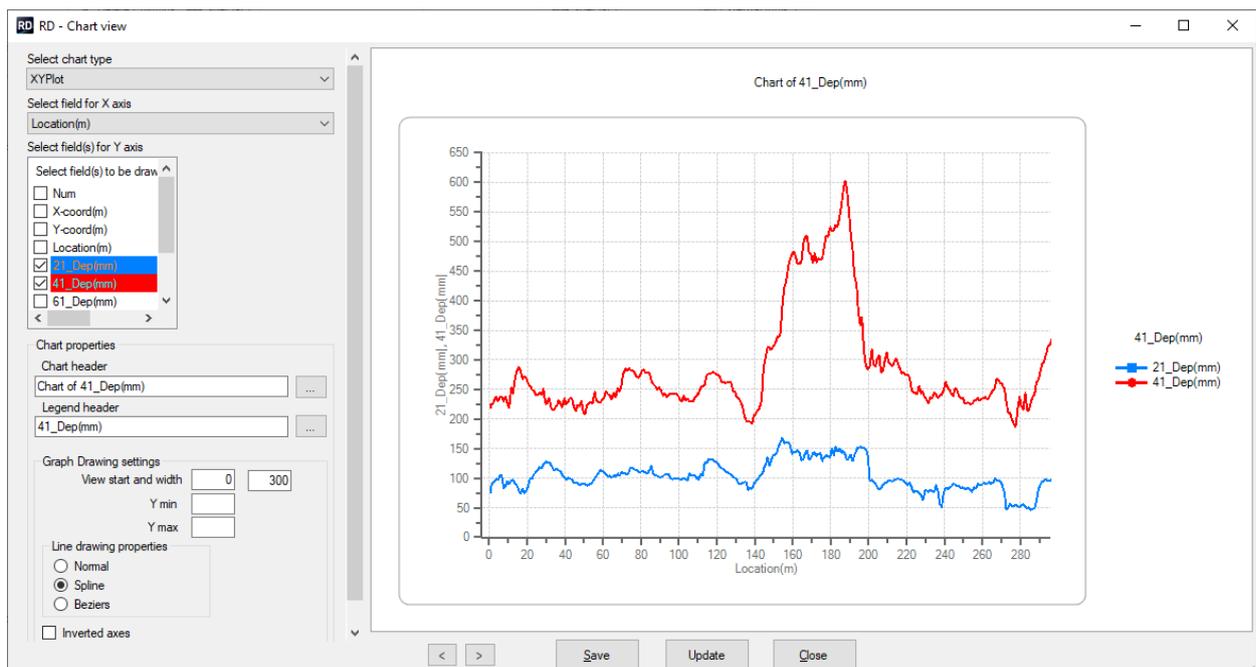
## Project

Projects can be created now using **Project Templates**. The template makes possible to handle similar projects in a fixed manner harmonizing data names, file paths, coordinate transforms (EPSG), processing settings etc. in projects. This will reduce the possibility to human errors and keep the project structures consistent in larger projects. This is specially advantageous if used with batch processing and linking operations.

## Table view

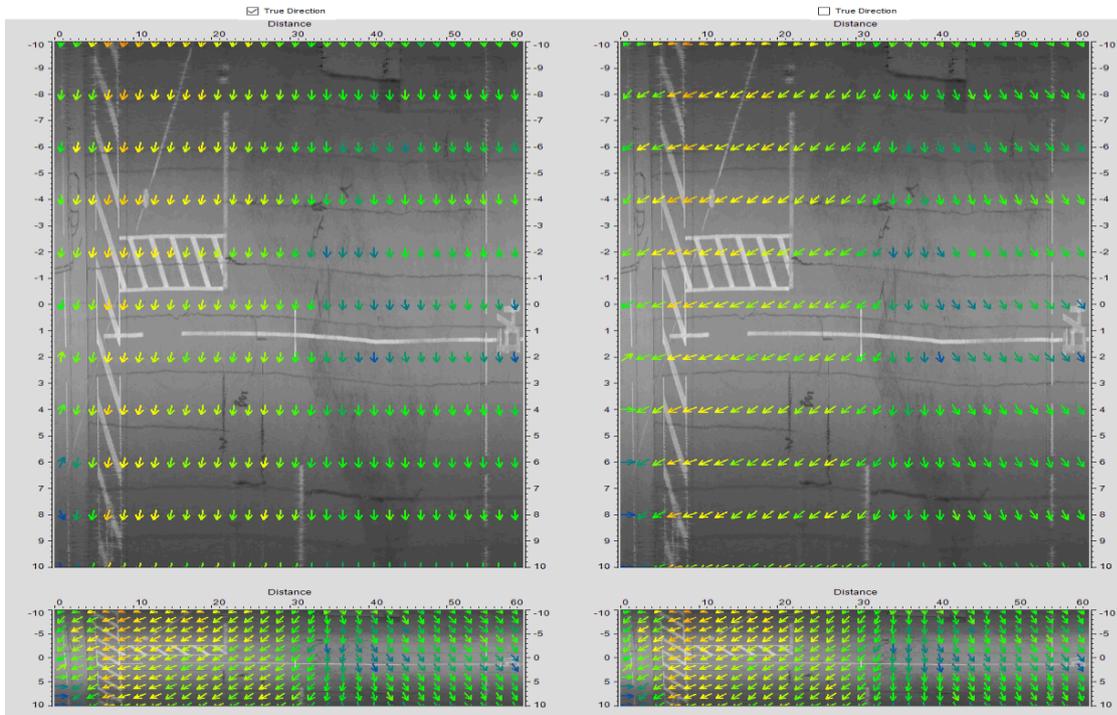
**“Execute external function”** tool makes possible to run user created functions and mathematical or logical operations in a Table view for selected columns. User can define the location of the executable used and set parameters how the operation handles the data and what parameters the operation inputs. After the operation the data can be quickly linked as a new database or update the existing database and show on the screen.

New command is added to Table view pop-up menu, which enable **drawing a single graph** of displayed data. The graph is not synchronized with any other view elements, but it can be used to quickly create high resolution pie, bar, area and xy-plots from data. The graph can be copied to clipboard as a high resolution vector graph or as a bitmap.

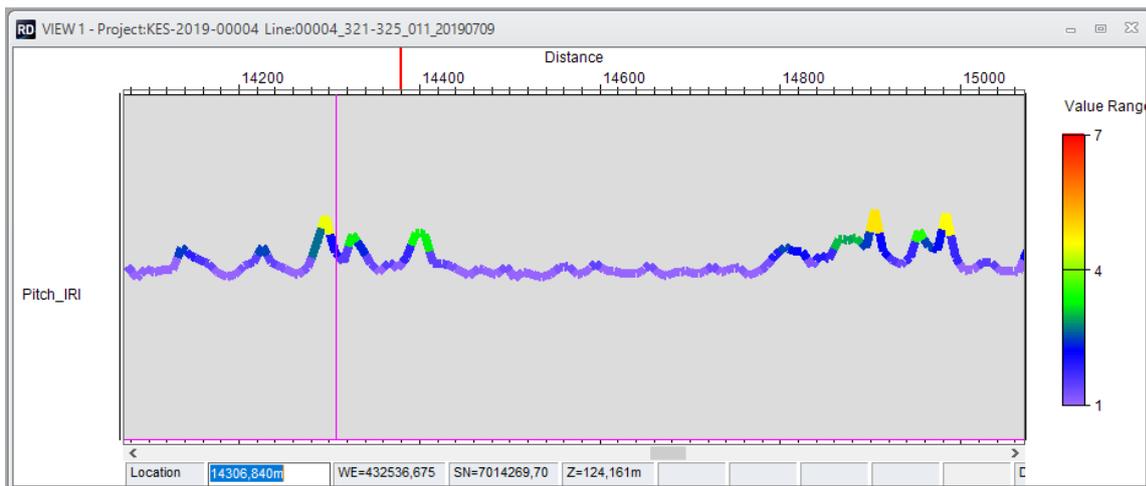


## Databases

New Drawing method for database **surface - the slope direction** can be displayed as arrows and magnitude as colours. This is a great tool for displaying the direction where the water would run in seemingly flat pavement surface, for example.



The from-to type data can be displayed also as **coloured lines**, where the used line thickness can be given. This can be used to emphasize specific values.



**Text data drawing** can print text in vertical direction.

151	609	133	521	153	565	75	298	73	269
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