



MIT-MagnoProof 5

Analysis software for measurements of dowel bar and tie bar positions

Due to the increasing use of MIT devices for dowel bar measurements by clients across the world, MIT gained experience on a growing variety of dowel bar types, embedment depths and complex embedment situations. For example, new concrete pavements are overlaying old roads that have existing reinforcement, which affects the ability to measure the dowel bars in the new pavement. Or tie bars located close to transverse joints are also typical sources of interference for the dowel bars. This experience has led MIT to improve the MagnoProof analytical software tool.

BENEFIT

MIT-MagnoProof 5 is a complex enhancement to existing software solutions, which was developed to address these different paving applications. The program not only contains tools for visual assessment of complex measurement situations but

also has a signal analysis function which detects measurement signal interferences automatically. This improvement allows a series of measurement files to be evaluated in a batch process without extensive post-processing and be summarized for standardized reporting.

SOFTWARE DETAILS

Synoptic summary

All measurement data can be transferred easily from the mobile computer to a desktop PC and sorted by different parameters such as date, time, highway station numbering and joint number. A signal pre-view provides a first overview of the results.

Fast evaluation of a measurement series

A series of measurements can be evaluated quickly by batch processing. The results of the measurement series are summarized and presented clearly in a table. Besides the dowel position parameters, it includes also descriptive color charts of the measured signals and three-dimensional illustrations of dowel positions. The table can be individually configured to meet the client's requirements. The results can be saved as PDF or Excel files.

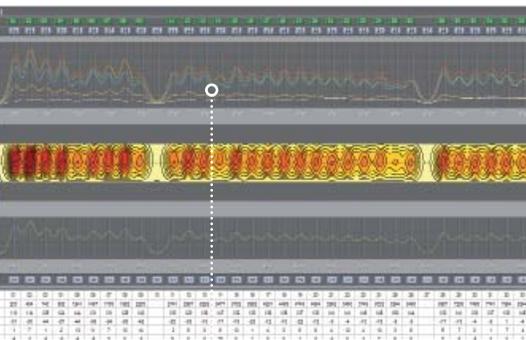
Detailed viewing of measurement data

MagnoProof 5 contains an improved graphical tool to analyze potential interferences or problems. When measurements need to be viewed in detail, the results of the analysis, the measuring data in the form of a signal curve and a color chart as well as the modeled signal can be displayed in such a way that problem situations are easily recognized and processed, when applicable.

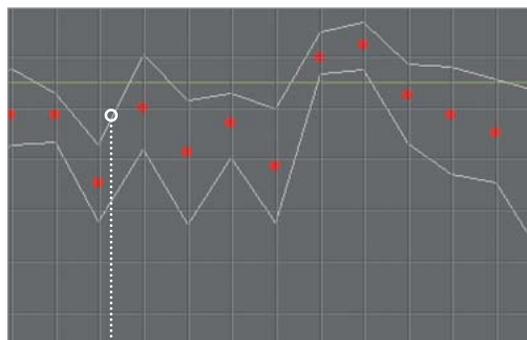
Statistics

The statistical information quickly reveals systematic misalignments. Presentation in a diagram allows fast and convenient detection of recurring depth deviations.

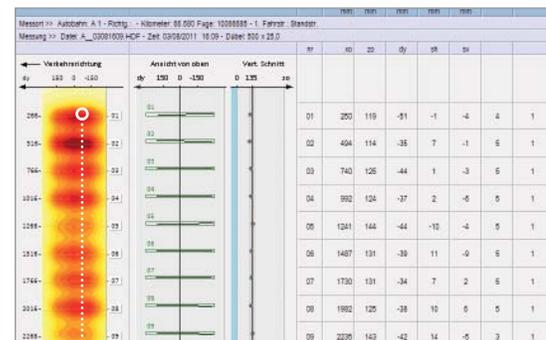
Positions within or outside the given tolerance ranges are color-marked in a table containing every dowel bar and each measurement viewed. This gives the user a quick overview of the quality of the dowel positions in one road section against the project specification tolerance requirements.



Detailed presentation of measurement data and results



Statistical evaluation of a measurement series



Results summarized in standardized table

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