



Measurement Data Analysis

Reach Your Goal Faster with Customized Services

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1 Introduction

Do you spend much of your working hours preparing an analysis for your measurement data? The data mining functionality in CANape and vSignalizer allows you to automate the analysis and thus save valuable time and expense. Data mining refers to the automated search for events in measurement files and the consolidation of results in reports.

It is possible to use an existing measurement data analysis without any special knowledge. The user selects the data to be analyzed and chooses the analysis to be performed. In the simplest case, the result is a finished report in PDF format.

More effort is needed to create a new automated analysis. At least two things must come together. Your domain expertise of requirements and the implementation in the tool.

Method of analysis		Use analysis	Create analysis
Automated data analysis		Programming skills not necessary	Introduction, consultation, and implementation by Vector
Mathematical functions	new existing		Programming skills not necessary
Visualization, manual analysis			Programming skills not necessary

Besides the tools, Vector offers you comprehensive customized services. Through implementation of your requirements, your users benefit from an easy, fast, and efficient data analysis.

2 Services for Measurement Data Analysis

2.1 Introduction to Use of Data Mining

Would you like to automate the analysis of your measurement data? Are you familiar with the handling of measurement data with CANape/vSignalizer? Do you need more detailed knowledge of the functionality of the data mining solution to make optimal use of it? Then the "Introduction to Use of Data Mining" service is right for you.

Procedure:

- > Introduction to the data mining concept using existing examples from Vector
- > Discussion of your conceptual questions based on specific tasks

Implementation:

As a web meeting or in person (when located close to us), duration: approximately 2 hours. This service is free.

You receive:

- > An understanding of the fundamental concepts and possible solutions so you can expedite development of your own solution
- > Information, explanations, and tips on customized and practical procedures

2.2 Consultation and Implementation

Implementing measurement data analysis poses a challenge in terms of time and personnel. The symbiosis between your domain expertise and Vector's knowledge of optimal use of the tool leads to an efficient solution for your requirements. You benefit from the experience of Vector specialists when preparing the analysis.

Procedure:

- > Your requirements are discussed and the requirements specification is defined
 - > You explain the task
 - > Together, we agree on the desired operating concept for your users
- > Vector implements your requirements in the form of a project

- > You receive the finished analysis and an introduction to use of the analysis

Implementation:

You explain your requirements specification in an initial meeting. Then you receive a non-binding offer for implementation. The range for this is very broad. You can have Vector implement the analysis project completely. If you want to perform the implementation – or portions thereof – yourself, you receive the appropriate support from our experts.

If you authorize Vector to prepare the solution, you provide example measurement files for developing and testing it.

You receive:

- > You obtain the portion of the measurement data analysis developed by Vector in its entirety in the form of configurations, functions, and scripts.
- > The solution delivered to you is archived on our servers and we can provide it to you again. This version also provides a basis to ensure that any subsequent developments are seamless.
- > Your developers receive a presentation of the solution so they can make efficient use of the analysis and implement their own further developments.

3 Project Examples

Example: Automobile manufacturers collect important information on the behavior of vehicle components under real-world conditions on test stands and in endurance tests. In view of the enormous data quantities produced and the complex relationships, however, the subsequent identification and analysis of the relevant data sets is often very time-consuming. To speed up the analysis of the measurement data from testing of automatic transmissions, Daimler AG relies on the automated data analysis of the measurement and calibration tool CANape.



→ [To Technical Article](#) (PDF, 0.8 MB)

Evaluation of Emission Values and Start/Stop Behavior (for an Automobile Manufacturer)

The vehicles undergo NEDC driving cycles on test stands. The measurement data recorded in vSignalyzer is then analyzed to determine whether all emission values and start/stop cycles are within the defined limits. The user receives the results of the analyses in the form of PDF reports. Vector undertook the complete implementation of this project. Effort: approximately 150 hours

Automated Analysis of Logger Data (for an Automobile Manufacturer)

Measurement data from vehicles were recorded over many months during comprehensive road tests. The manufacturer defined its requirements, which Vector implemented in the form of an automated analysis. The customer provided measurement files for the data analysis so that the analysis took place at Vector. All results of the analysis were summarized for the customer in the form of PDF documents.

Effort: approximately 100 hours

Analysis of Gearshift Qualities (for a Gearbox Manufacturer)

The solution was prepared in a diploma thesis and promoted by the gearbox manufacturer. Vector supported the diploma student and his supervisor with technical expertise, solution recommendations, and implementations.

Effort: approximately 50 hours

4 Contact & Information

Inquire about a customized solution for efficient analysis of your measurement data:

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You will find further information on the following Internet pages:

- > [CANape](#)
- > [vSignalizer](#)
- > [Downloads](#) (Demo Version, Technical Article, Application Notes ...)
- > [Webinar recordings](#)



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