

Test Field Management – Why companies decide to use Peak Test Management Suite

An interview with Dr. Hans-Jörg Kremer, Managing Director at Peak Solution GmbH

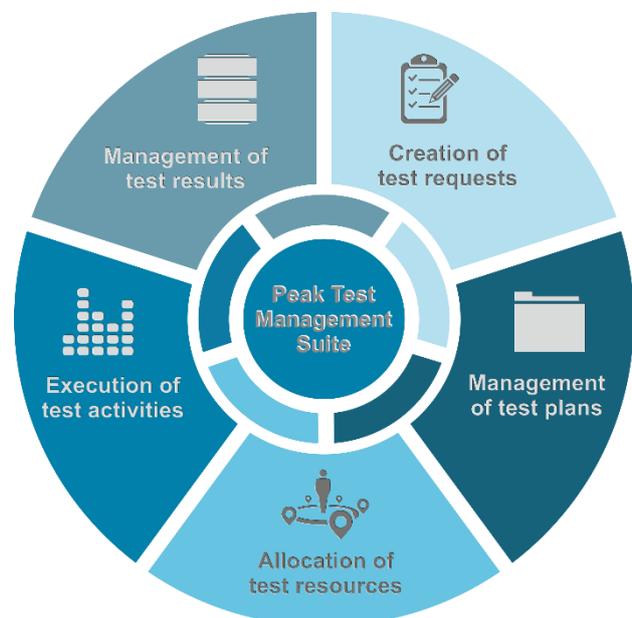
The subject of test field management is becoming more and more important within the various test domains of vehicle manufacturers and suppliers. Users are demanding suitable solutions. What is Peak Solution's response to this market demand?

It is becoming more and more difficult for test field managers to meet the development engineers' requirements for a flexible and punctual test processing. At the same time the test field managers have to achieve a high utilization of the available, cost-intensive test resources. The challenge is the strongly increasing number and variety of test requests as well as manifold test resources which have to be linked to one another in a complex network of tasks. With solutions based on office products such as Excel, Outlook or Access, this complexity can hardly be managed.

Peak Solution's answer to this increasing complexity is the Peak Test Management Suite. This is an integrated, adaptable and scalable platform for standardizing and automating validation processes. The solution features the efficient management of all activities and data related to test requests, test equipment and test objects.

Which tasks in the test field are supported by the Peak Test Management Suite in detail?

With the help of the Peak Test Management Suite, development engineers can, for example, systematically plan their test projects and campaigns. To do this, they describe which test series and individual tests have to be carried out. In addition, they specify the exact parameters and frame-work conditions for carrying out the respective tests or simulations. For this purpose, Peak Test Management Suite provides the user with predefined, "intelligent" templates for various types of tests. This leads to a standardized and efficient description of tests, which is particularly indispensable if you later want to find available test data and carry out automated, server-based evaluations through the use of big data technologies and advanced analytics.



After defining a test request, the user can order the test execution and track its status with the help of Peak Test Management Suite. Of course, different check and approval processes by executives can be interposed before the actual test is carried out.

Test field managers can use Peak Test Management Suite to allocate and schedule the required test resources for incoming test requests. Of course, the dependencies between different types of resources which are required to carry out a test are taken into account. Resource types can be, for example, test stands, measuring equipment, pallets, test items, employees and much more. Complex structures of resources, such as the current buildup of a device under test, can also be taken into account.

But not only test activities have to be scheduled and coordinated with one another in order to achieve a conflict-free allocation of resources. Times for the maintenance and calibration of test equipment or the preparation of test parts and test stands must be taken into account as well. With the help of the Peak Test Management Suite, this type of activities can also be systematically organized and optimized.

After a test has been carried out, the test stand operator can assign the measurements and test results to the respective test activities. But here we are already talking about the next topic: Test Data Management. Details on this would lead too far at this point.

However, to be clear: The functions I mentioned so far are just the most necessary part of the basic functions that a modern test field management system should cover nowadays. While many solutions already fail at this point, Peak Test Management Suite goes far beyond that. In addition to many other important detailed functions that can be precisely adapted to the respective requirements of the different test domains by configuration and administration, Peak Test Management Suite offers more: the display and automatic resolution of conflicts in the allocation of test resources, customizable validators for input checks, a rule engine and optimization algorithms for automated test scheduling, business intelligence functions for calculating Key Performance Indicators, and many more.

How does Peak Test Management Suite fit into an existing test environment?

First of all, I would like to emphasize: The solutions of Peak Solution have always been based on the use of open standards. Our aim is to achieve interoperability and integrated tool chains, not a vendor-lock-in. We are completely independent of specific measurement, automation or evaluation systems or their respective vendors.

Already existing systems and special applications in the test field, such as measuring and automation systems as well as project, test item and measurement equipment management systems from various providers, are not replaced, but supplemented and integrated by the Peak Test Management Suite. Depending on the requirements, data is exchanged via file interfaces or web services. External applications can access the information and functions available in Peak Test Management Suite via a standardized REST API.



Why companies decide to use Peak Test Management Suite?

Companies that plan to implement a solution for test field management usually have two basic alternatives:

On the one hand, a company can decide for an inhouse development. This can be done both by programming the software new from the scratch or by doing an implementation based on a general software framework. Such software frameworks are usually very broad in terms of functionality and not tailored towards specific fields of application. For example, collaboration platforms such as Microsoft SharePoint, ERP applications such as SAP, PLM systems, MES systems and many more are often used as a basis. The in-house development can then either be carried out by the IT department itself or with the support of a service provider.

On the other hand, a customer can decide to purchase a test field management system from the shelf. Today, standard products from different suppliers with different functional scope are already available or at least announced on the global market.

If you compare the advantages of an implementation based on Peak Test Management Suite with an in-house development, you can see the following: The data structures and basic functions required for test field management are already available in the Peak Test Management Suite. This allows the responsible persons the fast implementation of an usable application with manageable effort. The practice at many user companies of Peak Test Management Suite has shown that those "quick wins", which cover already most of the functions important for test field management, can be achieved within a few month. The risk that the implementation project will be delayed or even fail completely, due to underestimated complexity and a lack of functional experience, is significantly lower than with an in-house implementation. The reason is obvious: Many years of effort and experience from various customer projects have been incorporated into the development of the Peak Test Management Suite since 2010. This led to constant functional and technological enhancements, improvements in usability as well as performance and reliability optimizations. Today, all users of the Peak Test Management Suite benefit from this right from the start. In-house developments still have to go this way on the learning curve. Let's face it: How many of these in-house development projects have been successful from the user's point of view in recent years? I know users in companies still waiting for the first results of an in-house development after years. Not to mention the enormous direct and follow-up costs that are caused by such projects.

So let's look at alternative two: buying an off-the-shelf product for test field management. How does the Peak Test Management Suite differ from the competitors?

A decisive feature of Peak Test Management Suite compared to competitive tools is its extremely wide range of functions and flexibility "out-of-the-box". The solution is exactly tailored to the requirements of test field management. I have already mentioned this. At the same time there is a high degree of market maturity of the system. While competitors yet sell their products features with the help of impressive PowerPoint slides, our customers already can test the features of Peak Test Management Suite live in the course of an accompanied Proof of Concept (PoC). In this case, the system is made available to the customer via a cloud platform (e.g. AWS). The customer's internal deployment effort is therefore close to zero.

Additionally, we are convinced that the price-performance ratio of the Peak Test Management Suite is unsurpassed. Not only in terms of license costs, but also in terms of implementation and maintenance costs. I would like to emphasize that we do not hesitate to compare the capabilities of the Peak Test Management Suite with other products on the market at any time. I recommend to every company that seriously intends to implement a solution for test field management: Test us in the course of a proof-of-concept!

Thank you Mr. Kremer for this interview!