Test Process Management

Test and measurement processes are firmly anchored in the various divisions of an enterprise such as R&D, production or support - but often draw on the test results obtained in other divisions.

Safeguarding validity and traceability of results across a company’s divisions and process stages makes it possible to keep track despite the growing amounts of data and background information and to identify synergies.

The introduction of an IT system to support the Test Process Management puts decision makers into the position to draw reliable and sustainable conclusions from results, thereby gaining an advance in knowledge as well as a competitive edge.

About Werum Software & Systems

With a workforce of over 100, Werum Software & Systems AG is one of the largest employers for IT professionals in the region of Lüneburg, Northern Germany. For more than 45 years we have been implementing sophisticated software and systems for a worldwide base of customers, among them many renowned companies from the automotive and aerospace industry as well as scientific institutions and public authorities.

Our activities focus on the support of customer-specific processes in the core areas of test data and information management, earth observation, eGovernment and enterprise information management. The software solutions are based on platforms specially developed for these areas.

Diversity, reliability, flexibility and fairness are part of our philosophy and create the basis for sustainable customer relations. We offer our international customers well-founded application know-how and the knowledge and experience gained in many years of implementing most diverse projects and IT solutions. Already in the run-up to project implementation we assist them in advisory capacity with regard to any IT-related aspects of the specific task setting. Long-term maintenance and care services for the solutions supplied are a matter of course for us.
Modern products are calling for increasingly complex test and verification procedures in the course of their life cycle. In the processes of developing and manufacturing innovative products, meaningful test data have to be either simulated in the system or generated on the test bench before they are processed, analysed, evaluated and archived, for example for quality management purposes. Monitoring the test and measurement process is essential in equal measure in order to take early and adequate actions in case of problems, thus minimizing downtimes.

Smooth communication of data and information is one of the key factors for success in modern, globally operating enterprises. Structures are increasingly decentralized whilst the variety of customers and products keeps growing at the same time. Therefore, data and information are required to be instantly available with adaptable and efficient access rights control in place to protect them. What distinguishes successful enterprises is that their different divisions are interlinked by a network ensuring continuous data communication between them.

Treating testing as a holistic process is a key to success.
Test Process Management

Werum’s platforms HyperTest and WTCS (Werum Testbed Control System) are designed to support the individual workflows of customers in all stages of their processes:

Request
Requests can be imported from upstream corporate tools using adequate interfaces. Standards and regulations applicable to the tests to be executed are filed in transparent and coherent structures.

Preparation
Requirements on the test and the unit under test are acquired in the request context. The test environment is defined and test orders are created.

Planning
Starting from the necessary qualities, resources can be inquired and reserved in order to minimize the setup times between measurements. Calibrations and test points are defined and instrumentation instructions are drawn up to guarantee optimal test runs. Finally, the test order is assigned to the test bench together with the associated test description.

Execution
Specific systems are implemented based on the requirements. They are adapted to suit the special needs of the branch of industry and the individual company's demands. With WTCS Werum has developed a supervisory control system platform that can be customized to adjust to specific measurement and test bed requirements. The individual steps in the test sequence are configured by means of parameterization. The process data that are recorded by subsystems like sensors or data loggers are managed in their context.

Analysis
Automated imports of data are possible, in which the data undergo checks and implausible data are visualized. In the sequel, data can be analysed using standard or individual routines alike. The analysis results will be stored in their context and may be exported to external analysis tools.

Reporting
The system automatically creates and distributes standardized or individual status and test reports while managing them in the associated test context.

Synergies through Networking
Sophisticated search functionality is provided to retrieve specific data either generically or related to a project. The formerly individual storage of data is harmonized, which accelerates search operations in existing data stocks to a considerable degree. Individual search queries can be created in order to get an answer even to the most unusual questions. The integrated rights & roles management component serves to ensure confidentiality and targeted channelling of information.

Owing to the combination and recombination of data, they are interlinked to generate new knowledge.
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Treating testing as a holistic process is a key to success.

Integrating Test Processes into the Corporate Context

Test Process Management supports test-intensive stages in the development cycle of new products or product components. It coordinates and channels the flow of information between all parties involved and integrates the different IT systems and sources of information.

Direct communication between the internal business divisions and external partners helps controlling an enterprise’s activities. All relevant processes of a business in management, R&D or production as well as additional support and other services are supported and interrelated.

At a Glance

- Increased efficiency through rule-based process support
- Support of customer-specific workflows
- Context-related linking of associated information
- Channeling of information and access control based on rights & roles management
- Safeguarding of data integrity
- Highlighting of anomalies in data or processes
- Automation of evaluations
- Assistance of service and support tasks with immediately available context information
- Reduced retrieval and access times due to sophisticated search functionality
- Conduct of additional analyses based on existing data and their contexts

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Test Processes efficient and reliable

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