EXAM ALM Synchronizer

Synchronizing test cases and test results between ALM systems and EXAM
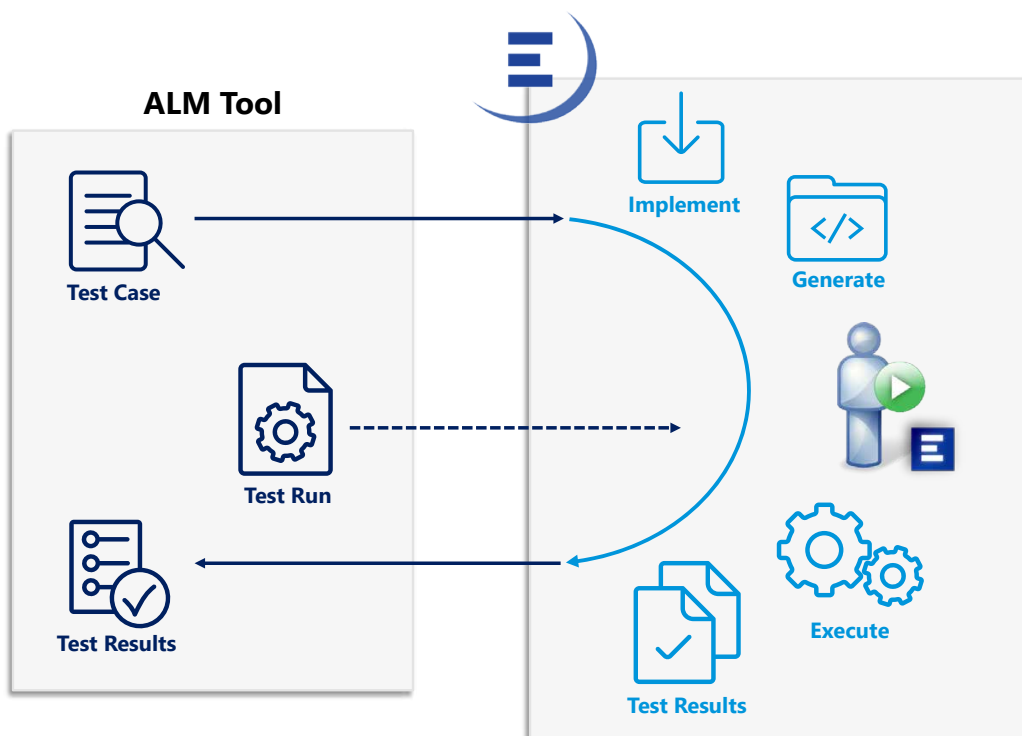
EXAM

» **Reliable traceability throughout the test process**
» **Synchronizing test specifications**
» **Reconciling test attributes**
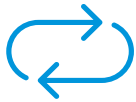» **Feeding back test results**

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Automobile manufacturers utilize several different applications for test management purposes. This allows them to make test processes for validating the software of Electronic Control Units (ECUs) as efficient as possible. Application Lifecycle Management (ALM) systems are used for developing, refining, operating and supporting ECU software. Test automation solutions such as EXAM must therefore communicate with these ALM tools in order to receive test specifications and feed results back accordingly.

However, manually reconciling this data between the test automation solution and the ALM tool can easily give rise to errors and, for larger numbers of tests, is too time-consuming. The EXAM add-on "EXAM ALM Synchronizer" enables the automatic transfer of the test specification of the software under test between the respective ALM application and EXAM. Attributes and status are transmitted at the same time. The results are fed straight back to the ALM tool once the test has been completed, providing an up-to-date overview in the tool. Synchronizing data between the ALM system and EXAM in this way makes for a reliable, efficient and fully traceable test process.

1 Communication between ALM tool and EXAM

Benefits EXAM ALM Synchronizer

Keeps test specifications in sync

Specifications can be transferred from the respective ALM system to EXAM without the need for manual input. The attributes also allow additional information to be made available in both tools. Additionally, synchronization highlights differences in specification status between the respective tools, thereby helping to make targeted adjustments to the test cases.

Ensures full traceability in the test process

Automated synchronization ensures that a unique ID, including attributes, is used for each test case, all the way from the ALM system through automation to the result and back to test management. This creates the traceability that is required for passing the assessments for Automotive SPICE and ISO 26262.

Provides process stability and reduces error

The automated, continuous process significantly reduces the likelihood of synchronization errors, thus contributing to quality assurance.

Cuts costs through automation

The automated synchronization process is time-efficient and therefore costs less than manual data reconciliation.

Provides a basis for further development

The EXAM ALM Synchronizer makes the latest test results available quickly for further analysis in the ALM application. Analyses may cover such matters as test coverage and the errors still present in the test object. This is facilitated through direct transparency.
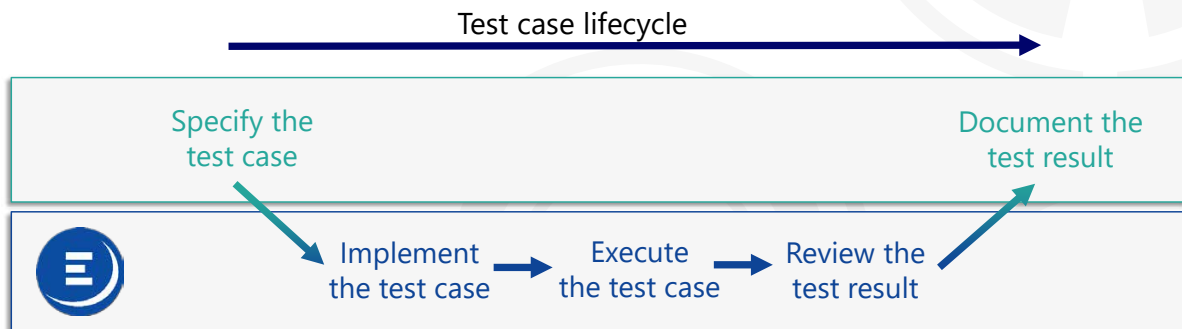
Lays an ideal foundation for TCG

Because the test specifications end up in EXAM automatically, use of the EXAM ALM Synchronizer provides the perfect basis for utilizing the Test Case Generator (TCG), which employs a keyword-driven approach to generate test cases automatically.

How it works

» Synchronizing the test specification to EXAM: Test specifications, attributes and test descriptions are transferred from the ALM tool to EXAM, providing the basis for generating test cases. The synchronization process also highlights differences and allows them to be transferred back to EXAM.

» The test cases are implemented and executed in EXAM.

» Once the test run has ended, the EXAM ALM Synchronizer transfers the test results back to the ALM system.

Test case lifecycle

Specify the test case → Implement the test case → Execute the test case → Review the test result → Document the test result

2 Test process between ALM system and EXAM

The EXAM ALM Synchronizer currently supports the following tools:

» Atlassian Xray for Jira Cloud
» IBM Engineering Test Management (ETM)
» PTC Windchill
» Siemens Polarion

Please do not hesitate to contact us if you wish to connect other ALM systems: sales-testing@micronova.de.

Licensing model

The EXAM ALM Synchronizer is available under a floating license. Both rental and purchase licenses are available in different license packages with graduated pricing. Please contact sales-testing@micronova.de for an individual offer.

You can find more information on our website at: www.micronova.de/exam