Press Release

Automotive Testing: Continuous Integration with EXAM

REST API plug-in from MicroNova integrates EXAM into CI workflow with Jenkins

Vierkirchen near Munich, Tuesday, October 8, 2019: MicroNova has developed an EXAM REST API plug-in for deployment with the test automation solution EXAM in a continuous integration process (CIP). The new plug-in automates test execution in build environments such as Jenkins, thereby increasing efficiency in testing electronic control units. More results are available faster that can then be immediately and continuously fed back into the development process.

Build environments are playing an ever more important role in software tests involved in the development of electronic control units, since short development cycles and the continuous growth in vehicle functions and range of variants increase complexity and hence the demands placed on test tools and automation. Today, test cases are generally performed manually by test designers and coordinators on test benches. MicroNova has now automated this process for EXAM: the REST API plug-in integrates the test automation solution into the continuous development workflow (continuous integration (CI)) for the Jenkins platform.

Continuous Integration for ECU Tests

The plug-in connects the Jenkins CI system to EXAM via a REST interface, thereby enabling the test automation solution to be controlled remotely. This means that tests can be automated at various software development stages and performed continuously. This improves the utilization of the deployed test resources and allows the results from the development process to be used very quickly, leading to a reduction in test efforts and sources of error in the long term.

How It Works

Continuous integration with EXAM requires two elements: a Jenkins plug-in and an EXAM REST API plug-in. The Jenkins plug-in is available for download under an open-source MIT license from https://jenkins.io/. MicroNova provides the EXAM REST API plug-in subject to license. It is available under both node-locked and floating licenses.

Christoph Menhorn, Head of Test Automation at MicroNova, emphasizes the improved quality assurance that can be achieved through the connection: "Compared with a manual test launch involving a high degree of configuration effort, automating configuration and launch significantly reduces the error rate and thus ensures a consistently high level of quality. The high degree of automation also ensures continuous, automated testing at different software development stages. This means clear benefits in terms of flexibility as well as performance of software tests for electronic control units in build environments."

Printable images can be downloaded from the following links:

- [Diagram caption:] Continuous testing: the test results are fed back into the development process continuously.

  https://www.micronova.de/fileadmin/user_upload/Bereich_Testing_Solutions/Presse/EXAM-Jenkins-Plug-in-Continuous-Integration.jpg

- [Screenshots caption:] EXAM test runs with their results and trend graphs together with the REST API calls are presented in a clear form in Jenkins.

  https://www.micronova.de/fileadmin/user_upload/Bereich_Testing_Solutions/Presse/EXAM-Jenkins-Plug-in-Screenshot-1.png

  https://www.micronova.de/fileadmin/user_upload/Bereich_Testing_Solutions/Presse/EXAM-Jenkins-Plug-in-Screenshot-2.png

- Christoph Menhorn, Head of Test Automation, MicroNova

  https://www.micronova.de/fileadmin/user_upload/Bereich_Testing_Solutions/Presse/MicroNova_Christoph-Menhorn-Leiter-Testautomation.jpg

Online Resources:

- www.micronova.de/exam
- www.micronova.de

About MicroNova

MicroNova has been a software and systems vendor since 1987 and offers products, solutions, and services in three business segments: testing of automotive electronics, management of mobile radio and communication networks as well as the distribution of IT management solutions from ManageEngine. 280 experts work with technological competence and passion at the company's headquarters in Vierkirchen near Munich as well as at eight other locations in Germany and the Czech Republic. Numerous customers such as Audi, BMW, Continental, Telefónica Germany, Vodafone, and Volkswagen place their trust in the expertise of MicroNova.

Web: www.micronova.de | www.manageengine.de | www.exam-ta.de

Media contact:
MicroNova AG
Unterfeldring 6
85256 Vierkirchen, Germany
Tel.: +49 (0)81 39 / 93 00-789
Fax: +49 (0)81 39 / 93 00-80
Email: presse@micronova.de