



SUCCESS STORY

LIEBHERR

Easy and Traceable Reuse of Calibration Components with AVL CRETA™

Liebherr reduces costs and calibration effort by using turn-key solution provided by AVL

SUMMARY

To manage the problem of redundant calibration tasks and speed up the pre calibration of projects, LMB introduces the AVL CRETA™ Component Library. By establishing an adequate management of calibration knowhow and enabling the reuse of calibration components, LMB manages to speed up their project process and significantly reduce time and effort during the startup phase of projects as well as reducing resource and costs for the project execution in general.

FAST FACTS

Customer / Country	Liebherr Machines Bulle / Switzerland	LIEBHERR
Challenge	<ul style="list-style-type: none"> • Growing calibration effort caused by a high number of calibration variants • High calibration redundancy due to non-centralized calibration data management • Difficult maintenance in the field and risk of calibration errors 	
Solution	<ul style="list-style-type: none"> • Use AVL CRETA™ to create a centralized calibration data base • Manage calibration know-how and speed up pre-calibration • The calibration Component Library enables simple reuse of calibration data and avoids redundancy of calibration tasks 	





“BY THE USE OF THE AVL CRETATM COMPONENT LIBRARY WE ARE ABLE TO REDUCE REDUNDANCY IN OUR CALIBRATION PROCESS AND ESTABLISH MANAGEMENT OF KNOW HOW IN OUR CALIBRATION DEPARTMENTS.”

Alain Urwyler, Calibration Management Liebherr Machines Bulle

CHALLENGE

Loss of knowledge throughout calibration projects

In many calibration projects it is common that parameters are used over and over again. For example, the throttle's fine adjustment or the setting of the exhaust flap is needed in multiple calibration projects.

Those calibrations mainly remain the same throughout the different projects, but still are performed repeatedly in many cases. The reason for this can often be found in the lacking of a central means of data storage to collect and furthermore provide all previous calibration work. Obviously, this leads to the loss of knowledge and therefore to the same tasks being performed redundantly, resulting in an unnecessary increase in time, costs and effort for calibration work, especially with respect to the pre-calibration of new projects.

Unefficient calibration data management

Implementing adequate functionality to prevent the previously discussed problems does not only require a central data storage and management, but also the possibility of a meaningful comparison of data from current projects and data stored in the central database.

SOLUTION

Easy access to the components library

To address the problem of recurring label data, it is therefore useful to manage such recurring data in a kind of Components Library within the AVL CRETATM database. Within the calibration projects the data can then be accessed, collected and provided by the library for reuse. The comparison of projects and data in the Components Library is realized by using attributes on projects as well as on the components.

Traceable comparison of calibration projects

By assigning attributes for projects and components and determining the consistency between new projects and existing components by using the implemented Component Delivery/Fetch functionality, existing data can be delivered to and reused in current projects.

RESULT

By implementing the AVL CRETATM Components Library, data from existing projects can be collected, managed and reused in current projects, especially during the start-up and pre calibration phase of projects.

This leads to savings in time and effort as well as in costs and resource. An additional advantage of the AVL CRETATM Components Library is not only the gathering of calibration knowledge, but also the improved way of knowledge transfer, sharing and exchange. This will also be a great benefit in training and adjustment of people to a new job.

OUTLOOK

The rising complexity in variants and applications of the engines leads to a higher calibration effort. The increased usage of the Components Library of AVL CRETATM reduces the effort of calibration work and minimizes the required resources.

The idea of LMB is to further increase the usage of the Component Library to help the users to handle already calibrated functions in the best possible and user friendly way. Depending on the degree of standardization of functions in an ECU, the use of the Component Library will be increased accordingly.

December 2020, Classification Public

FIND OUT MORE

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