



Application Report Workflow Control and Data Management for the Hot Test Rig

In the end-of-line hot test rig for Daimler in Berlin, engines from four different production lines are checked. The KAT host computer controls the processing sequence of the engines, the communication of all systems, and manages the test data. Via intranet, the data can also be analyzed at external workstations.

The various engines, from Smart to the V12 of the S-Class, are delivered from the production lines and passed through the end-of-line test rig.

At the same time, the test orders are received as **XML files**. The results from the host computer back to the lines are also sent as XML files.

SAP provides the assembly and **task schedules** for the various engine types.

The engines are mounted on trolleys for the test run. The necessary set-up adapters are managed by the host computer, which also submits a possible test sequence.

Within the end-of-line test rig, each trolley is identified by **RFID**. Test rigs and workplace computers automatically retrieve the necessary data via RFID.

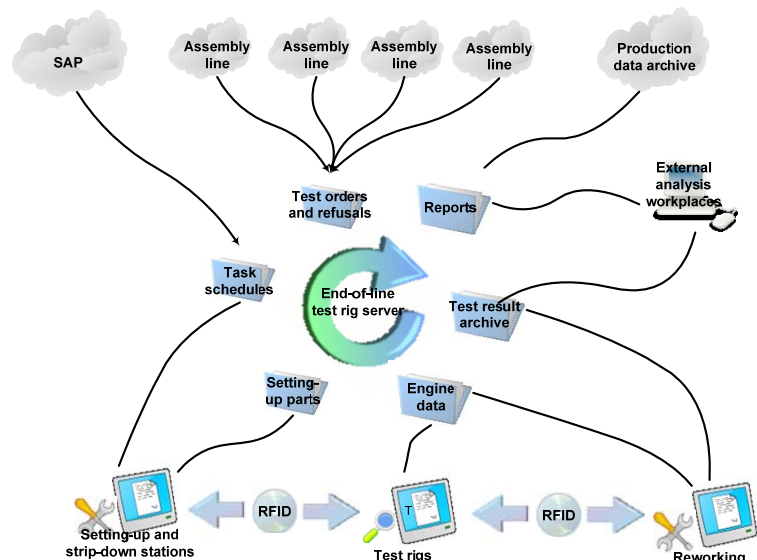
From the test rigs, all results are sent to the **server database** in **XML** format and archived there. This way, the system is independent from specific software applications.

All actions within the server are tracked in the **production data archive**. This central memory system documents the complete production process of every single engine.

If an engine does not pass its first test run, it is moved to reworking. Often small faults can be corrected in place and a new test run can be started. The workers have a certain freedom and enough information to save precious production time here. Only severe cases are sent back to the line for correction.

The server cyclically generates **activity reports** and **overviews** for the planning department.

The systems for set-up and reworking are **web-based**. This simplifies configuration and development. The functions for set-up, reworking and reporting are available **plant-wide** after their central installation.



Also, most database operations and the XML file transfer are implemented with web technology. This results in **short development cycles** and **flexible adjustments** for new engine types.