



Application Report

Car body & availability tracking and "Production Data Mining" with Open Source Software

When assembling almost one thousand car bodies per day, it is vital not only to have the overview, but also to track productivity and faults.

KAT operates a production data server for Daimler in Bremen that offers data about the positions and the run-time of each car body – **web-based** in the intranet, created with **open source software** at very low costs.

Especially important for production are the current **positions** of the car bodies in the production line.

The system issues an alert if parts that were locked out are not locked back into the production line after a certain time span.

In addition, the **current state** of each workplace and **each robot** can be displayed.

Based on the where-when-notifications, the server calculates current **Target/Performance/Trend** curves that are displayed at the workstations.

The **statistical analysis** offers median and extreme **run times**, and also **malfunction periods, availability** and **productivity**.

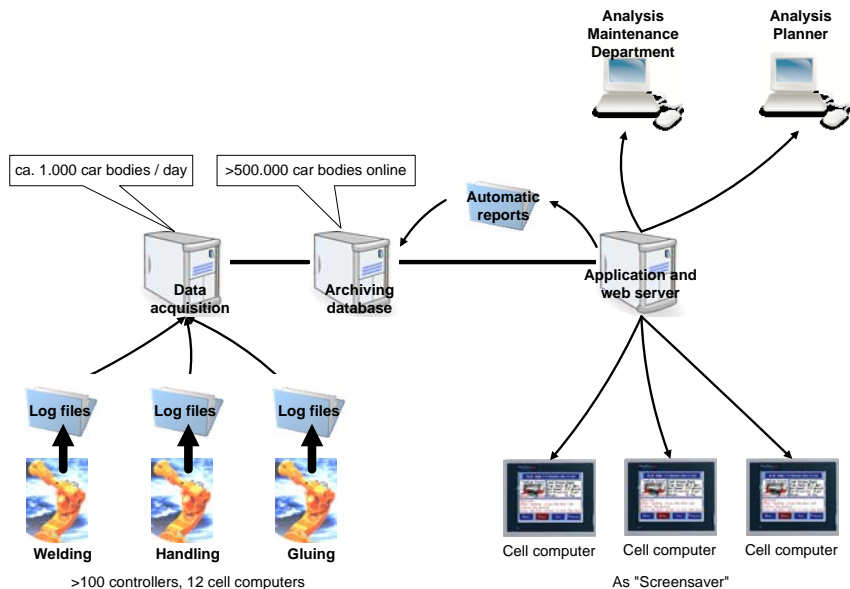
All raw data is archived so that subsequent analyses of the complete data pool are possible.

The raw data is extracted from **generated log files** and written to the **database** in a standardized format, completely decoupled from the production.

Even in cases of workstation or network malfunctions, the data can always be added later.

Different file formats can be adapted during the import process.

The server was set up with **Linux** at first, and the software was written **platform-independent** in **PHP** with a **MySQL** database. After the project became an official part of the maintenance department, the whole system was transferred on several **Windows** computers.



In the current state of development, the database is protected against malfunctions by **replication**, making it a **highly available** computer system.