

Smart Home & Building



Conceptual design and implementation of a **build environment, including a continuous build server**

Customer requirements

A build environment for software components and applications was to be prepared for the client's new product line. The build environment was to be designed so that it can be integrated into a continuous build system as easily as possible. In addition to the creation of firmware binaries for various platforms (prototype, target hardware, test environment), the support of automated tests on simulated hardware was required.

In a further quality assurance measure a tool-supported review process for the source code was also to be implemented. Multiple software repositories were to be integrated.



comlet solution

A configurable Make/CMake environment was created in which the software components, applications are built and tests are executed. Automated nightly builds and test runs were also integrated on the Jenkins server. One of the goals was that the Jenkins server to always provide the current developer SDKs and firmware packages for the target platform. Unit tests generated with Google Test are automatically executed in a QEMU environment. If problems arise the relevant stakeholders are notified automatically.

Two git repositories were integrated into one review board server for executing web-based reviews in order to improve source code quality and its monitoring.

Technology used

Windriver Linux, Jenkins, make, CMake, bash, git, Review Board, Google Test, QEMU

