

TC TeamCity



agimatec
part of KEBA group

agimatec GmbH is a software development company specialized in providing sophisticated solutions for the logistics sector. It creates efficient control software for automatic parcel delivery machines and easy-to-use portals for administration, customer care and monitoring. agimatec focuses on innovative products and processes by continuously extending technical limits..

Switching from CruiseControl to TeamCity

agimatec development has always relied on Continuous Integration, running its tests regularly after each commit into Subversion. Back in 2006, CruiseControl was the de facto industry standard for CI tools. While using CruiseControl, agimatec developers kept looking for alternatives, because its configuration was complex, the web interface was sub-optimal, and changes to the configuration were only possible in the configuration files controlled by administrators.

In 2007, after evaluating Hudson and several other CI systems, agimatec decided in favor of JetBrains TeamCity.

Key Factors

TeamCity integrated nicely into agimatec's existing environment. Project configuration was intuitive and easy, with a user-friendly web interface to configure different types of projects, and featured effective Maven integration. Build triggering could be configured after commits, but could also be scheduled or be dependent after another project's build. With TeamCity's built-in Subversion support, agimatec was able to switch quickly and completely.

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A project is not just 'building'; it will be ready in, say, 5 minutes. This is a very handy feature if you are waiting for your project to build.

Simon Tiffert,
Java developer, agimatec

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Build Time

A big advantage for agimatec was the calculation of the estimated build time. TeamCity tracks the time of previous builds and gives you an estimate of how long the project should take to build.

Custom Plugins

A build failure needs to be public. Everyone needs to know that the build is failing, because each subsequent check-out can cause local build failures and break the flow of development. Notifications by e-mail and Jabber are included, but agimatec wanted something more visual.

Some development teams use traffic light or lava lamps, which work well for visualization. agimatec uses a Nabaztag – a Wi-Fi enabled, speaking and ear-circling plastic rabbit. To integrate the Nabaztag into the TeamCity builds, agimatec developers wrote a plugin and published it as open source.



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It just shows how easy it is to write your own plugins, and the integration in the backend was an eye catcher.

Simon Tiffert,
Java developer, agimatec

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Build Agents

agimatec operates several different operating systems, with software that is highly configurable according to the customers' environment, e.g. different backend systems, different databases, etc. Configurations need to be tested on various environments, with virtual containers (zen) with relevant configurations per each environment.

A TeamCity agent running on such a container can be assigned to a project, allowing developers to control which environment the tests are run under. All build agents upload their artifacts to the central TeamCity server, from where agimatec deployment specialists download the software to prepare deployments for customers.

Front-end Tests with Selenium

To test their web front-end, agimatec uses Selenium as a test tool. Because browsers normally need a native environment, agimatec has configured a special virtual container with Windows XP and all of the common browsers. A dedicated TeamCity build agent runs on this system to only execute front-end related tests.

The test results are reported to the TeamCity server to update the status of the continuous integration. Some of the tests produce screenshots and these screenshots are then uploaded as artifacts to the TeamCity server which makes them available for all developers and testers.

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For us, the very smooth integration of IntelliJ IDEA and TeamCity was a big win. Everything is in one place and tightly integrated together.

Simon Tiffert,
Java developer, agimatec

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Integration with IDEs

The main control panel for TeamCity is its web interface, but there are also a lot of plugins for every major IDE. To watch the status of projects, you just need to open a tab in your IDE. If there are build failures, you can have a look at the logs right in the IDE and instantly open problematic code in the editor. After the problem is fixed, you can simply check-in, re-run the build manually (if needed), and just wait for the notification of a successful build. You can also run a Personal Build on server in order to make sure you fixed the problem, before checking-in the fix.

IDE integration helps agimatec developers stay focused on coding, not on constantly managing builds.

The Way Ahead

Next, agimatec plans to adopt another best practice enabled by TeamCity – Remote Run and Pre-tested Commit, which help developers avoid committing doubtful changes to the repository.