**The Continuous Integration Process Defined**

The term **"continuous integration"** refers to a process that builds and tests code on a frequent basis. It was coined by Martin Fowler and Kent Beck, who first wrote about this process near the turn of the millennium.

The continuous integration servers constantly monitor source code repositories and as soon as new changes/commits are detected, they initiate a new build cycle. The build cycle actually involves code compilation and, in addition, may involve various tests and code analysis. If the process encounters errors, it may notify the build master or the culprit who checked in broken/invalid code.

### Cruise Control, Continuum, and Hudson

The most popular tools are Apache's Continuum, Cruise Control (CC), and Hudson. They are all free open source tools and have varying developer base support. All three tools have the ability to build and test code per a configurable schedule.

Hudson and Apache's Continuum are primarily designed for Java, and Cruise Control (CC) supports both Java and .Net (with the CC.Net version). Because these tools are designed to be very flexible, it's possible to extend them to support build processes in other development languages. For example, Hudson can be extended via plug-ins to work with C#, Python, Maven, Ruby, and others.