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Configuring Team City For CICD with Xamarin

In the old days, application development used to happen in separate not so integrated teams and developers were not used to merge their work with other developers’ code for quite long time and that used to create merge issues. Things that were working once on the developer’s local copy, used to stop working when merged with others’ code. This kind of not so integrated development environment increases the development time and delayed discovery of issues. Solution for this is to have continuous integration build into the development cycle where developers are merging their code multiple times a day and getting issues fixed at earlier stages.

**Introduction To Continuous Integration**

**Continuous Integration** (CI) is a development and integration practice in which developers checkin code into a shared repository frequently, preferably several times a day. Each code merge can then be verified by an automated build and automated tests if applicable.

There are many benefits of following continuous integration, one of the advantage is that it helps detect defects quickly and at early stage. The check ins are usually very small and contains small portions of developments, thus helping in identifying the exact issues quickly.

**Continuous Deliver** (CD)in the other hand is the process after integration and as the name suggests, it is to make sure that the code base checked in is deployable at any point of time. Each environment from test to production can and mostly do have different configuration. Continuous Delivery makes sure that all configurations are always ready for the deployment to any environment and that the code passes all the tests necessary for release.

In short, Continuous integration improves the development and testing experience with frequent code merges and helps in quickly identifying the bugs and also involves running automated tests if included in the process while Continuous delivery makes sure the codebase everything is in ready state for the code to be deployed in any environment.   
You will learn more about CI and CD and various tools that can be used to achieve them later in the chapter.