

TDD/BDD

or “What are we doing wrong and how can we do it right?”

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**YOU'RE DOING
IT WRONG**

What is TDD?

▶ Thoughts?

What is TDD?

- ▶ Development style where tests are written before any code
- ▶ Forces a developer to think more about what the code should do
- ▶ Leaves a backbone of tests which come to define the overall app
- ▶ Test suite is run automatically after changes and any changes which break the tests result in either fixing the code or changing the tests because the requirement has changed.

Motivation?

- ▶ Automating tests saves a lot of developer time
- ▶ Having a test suite makes the product definition more tangible
- ▶ Writing tests before writing code leads to code with predictable output which is in theory less tightly coupled and more stable. ¹.

¹May also cure cancer

What is BDD?

▶ Thoughts?

What is BDD?

- ▶ Similar to TDD in that tests are written before code
- ▶ BDD (as the name suggests) focuses on behaviour i.e. functional tests
- ▶ This behavioural specification defines the app and what it does, then at test-time a headless browser or automated front-end driver goes through the tests and checks if the app conforms to the intended behaviour.
- ▶ There's a ton of ways of writing these specs. The Ruby crowd is big on Cucumber.

Motivation?

- ▶ Behavioural specification can be discussed in a meaningful way with management via domain-specific languages like Cucumber.
- ▶ This forces management to take more interest and responsibility in the product definition and gives the developers an absolutely clear picture of the functional expectation
- ▶ The same benefits as TDD - automated testing saves time, improves predictability, stability etc

Demo in Ruby/Rails

▶ Collaborific

The practical side

- ▶ Can we do this in Visual Studio and with C#?
 - ▶ Yes. NUnit is the standard .NET test framework and VS9+ allows wizard-style test projects to be created for any project.
 - ▶ Cucumber does work with .NET and syntax highlighting/Intellisense is easy.
 - ▶ Continuous integration is achievable for .NET, NUnit and Cucumber via TeamCity (which is free). Needs to be stacked against TFS Build though...

Demo in C#

- ▶ Camera manager

Do we think TDD/BDD is a good idea?

▶ Thoughts?

That's all folks

▶ The end