

Red

Green

Refactor

Head First TDD

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- Corporate Champion for Adobe ColdFusion (UG Manager)
- Trainer & Consultant



F U S E B  X



Books!

- The Productive Programmer - 0596519788
- Working Effectively with Legacy Code - 0131177052
- Clean Code: A Handbook of Agile Software Craftsmanship - 0132350882

Isn't BDD the
new thing?
TDD is so
yesterday!



<http://www.flickr.com/photos/codybryant/2743412042/>

Sunday, August 16, 2009

Don't worry. BDD and TDD have semantic differences but seek to solve the same problem. It's a mind set. If BDD helps you with the mind set cool. The concepts still apply!

How many are doing unit testing?

How many test getters and setters?

How many get completely frustrated with testing?



What is TDD?

A software development technique consisting of short iterations where new test cases covering the desired improvement or new functionality are written first, then the production code necessary to pass the tests is implemented, and finally the software is refactored to accommodate changes. - Wikipedia

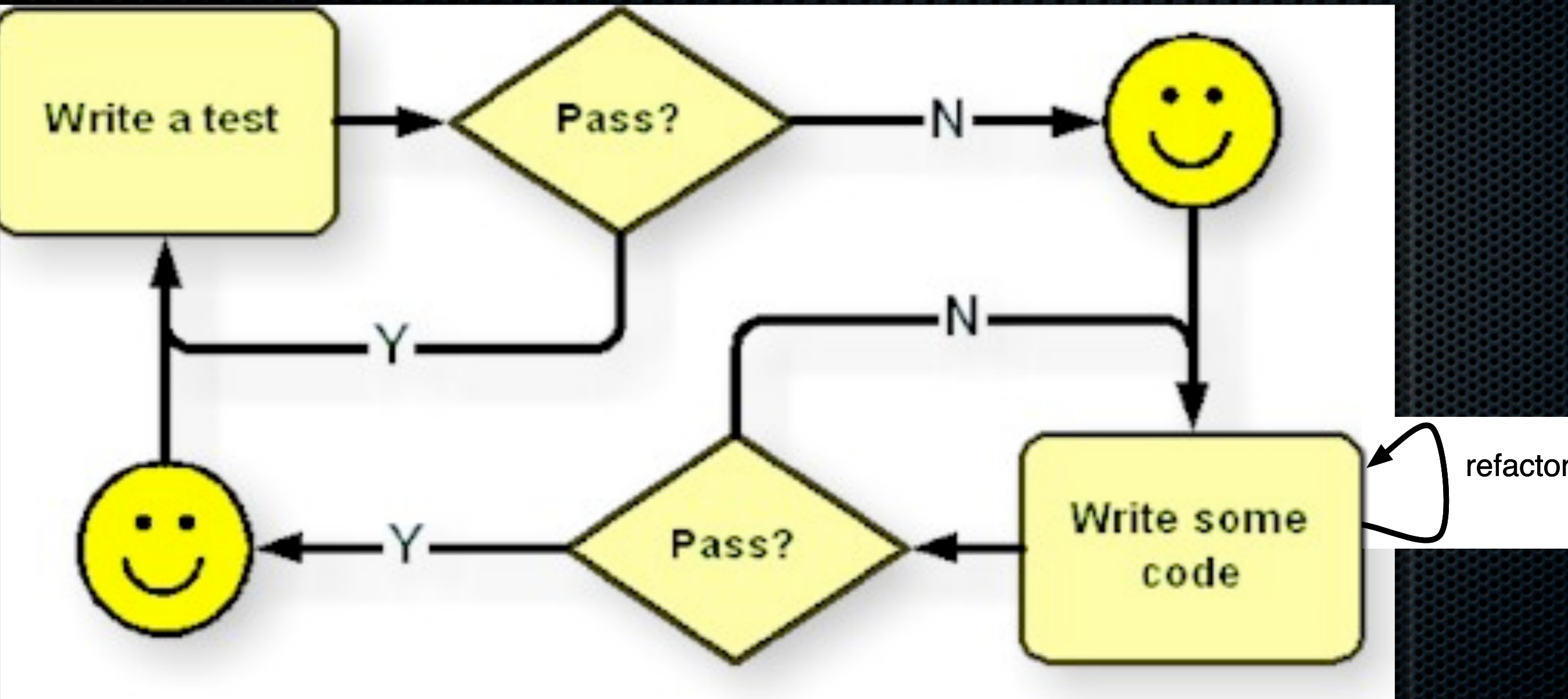
Breaking this down.....

- ✦ A design and development methodology
- ✦ Tests are written before writing new production code
- ✦ Each test examines a discrete piece of logic - methods
 - ✦ BDD Break: This is too terse. Let's change this to the real intent of TDD, test behavior
- ✦ Articulates the specific intentions of your software
- ✦ TDD Rhythm – Red-Green-Refactor

The majority of this slide's contents was lovingly lifted from the MXUnit.org guy's Webmaniacs presentation on MXUnit & TDD

Sunday, August 16, 2009

(For those of you that may be color blind I made the font color the same as the word that expresses the color cool eh??)



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Puritan Approach First: Solve your tests with the simplest solution...refactor as needed
Variation: Multiple tests before running tests.
Variation: Write unknown code in the test then refactor it into Object.
Story of Erin

Steve C McConnell

- Code Complete
- Rapid Development
- Professional Software Development: Shorter Schedules, Higher Quality Products, More Successful Projects, Enhanced Careers
- One of the three most influential people in the software industry by Software Development Magazine



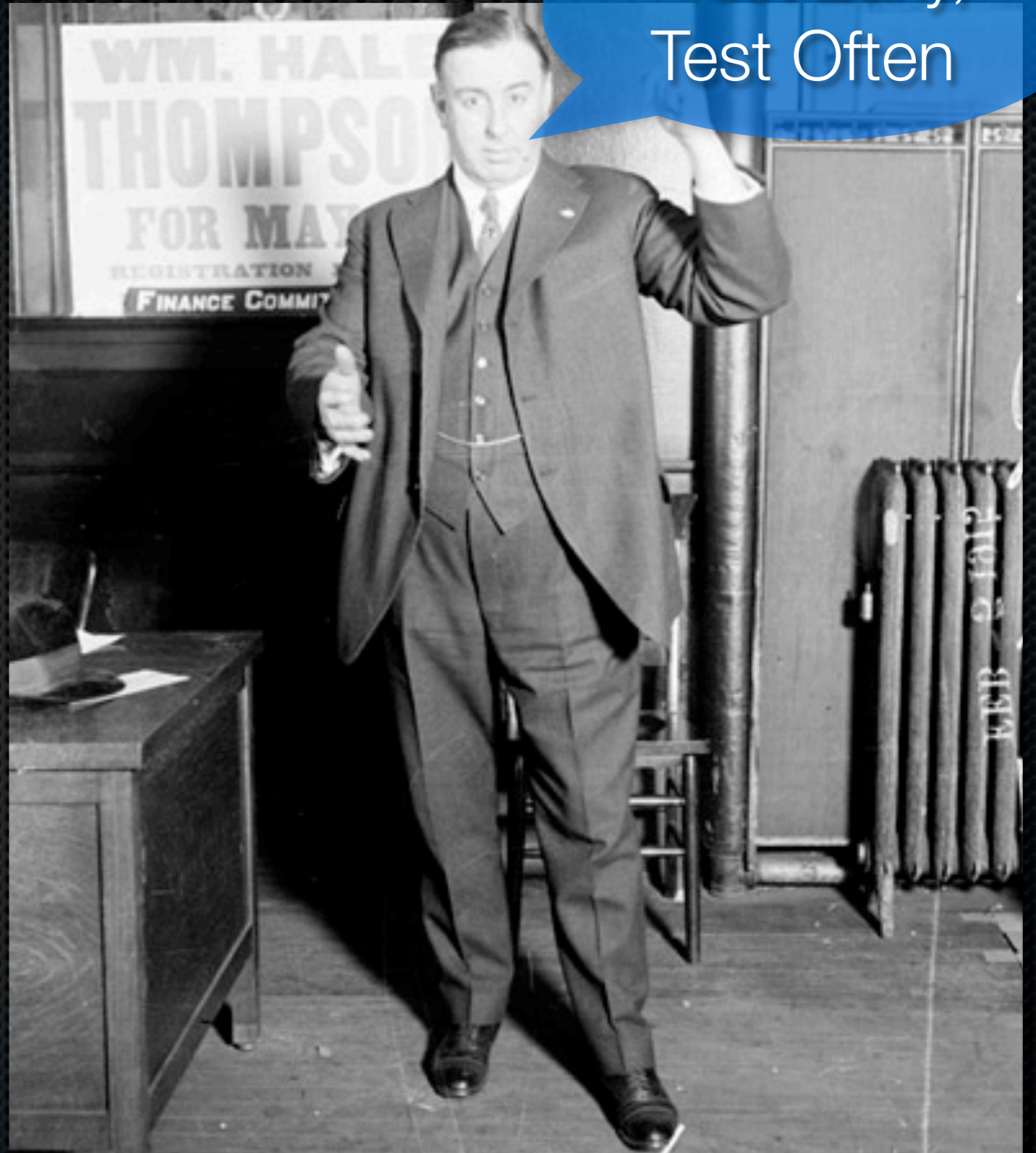
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Along with Linus Torvald and Bill Gates.

Testing by itself does not improve software quality. Test results are an indicator of quality, but in and of themselves, they don't improve it. Trying to improve software quality by increasing the amount of testing is like trying to lose weight by weighing yourself more often. What you eat before you step onto the scale determines how much you will weigh, and the software development techniques you use determine how many errors testing will find. If you want to lose weight, don't buy a new scale; change your diet. If you want to improve your software, don't test more; develop better.

Test Early,
Test Often

Tests are a nice
side affect of
TDD



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TDD is more than just a nice suite of tests.
Test First improves quality. Increases Confidence, it will speed you up.
William Hale Thompson – Mayor of Chicago often attributed to be the person coining the term vote early vote often.



Quality This Way

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Think about your object
What does my Object need.
Puts you in a different mind set



Photo from: <http://www.flickr.com/photos/tzk333/2493082727/>

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Ever written code like this?

Looks pretty cool at first glance... but is a maintenance nightmare.

“Debugging is twice as hard as writing the code in the first place. Therefore, if you write the code as cleverly as possible, you are, by definition, not smart enough to debug it.” -Brian Wilson Kernighan

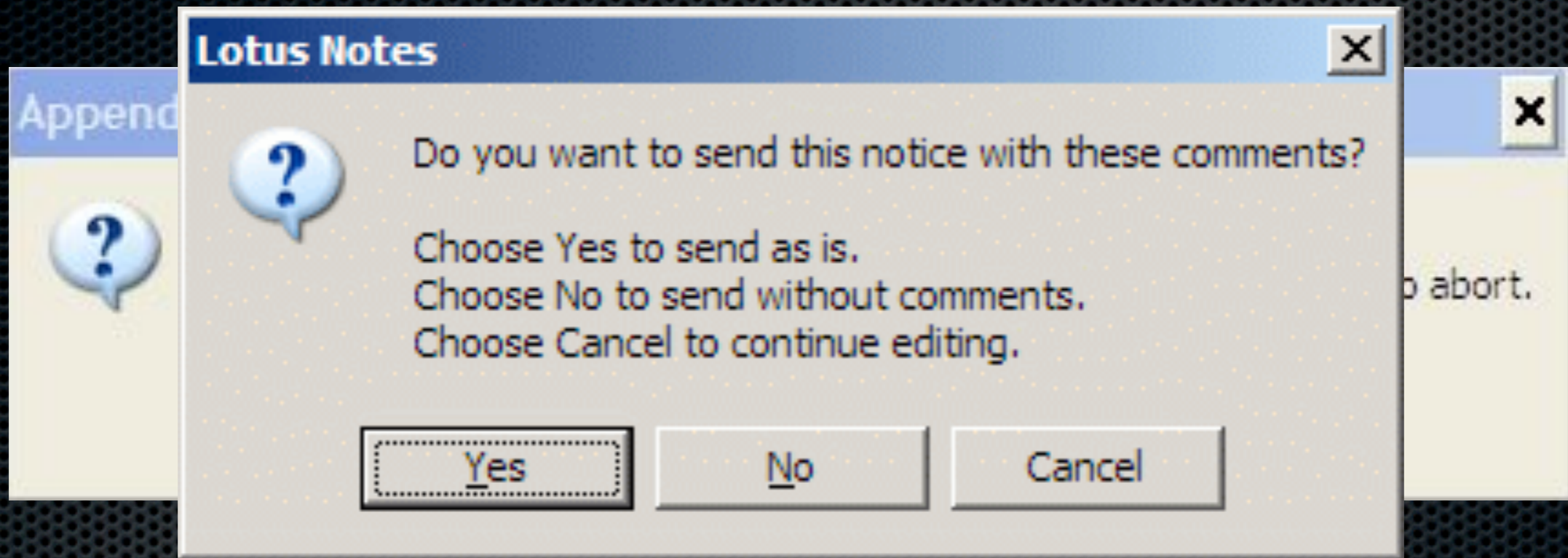


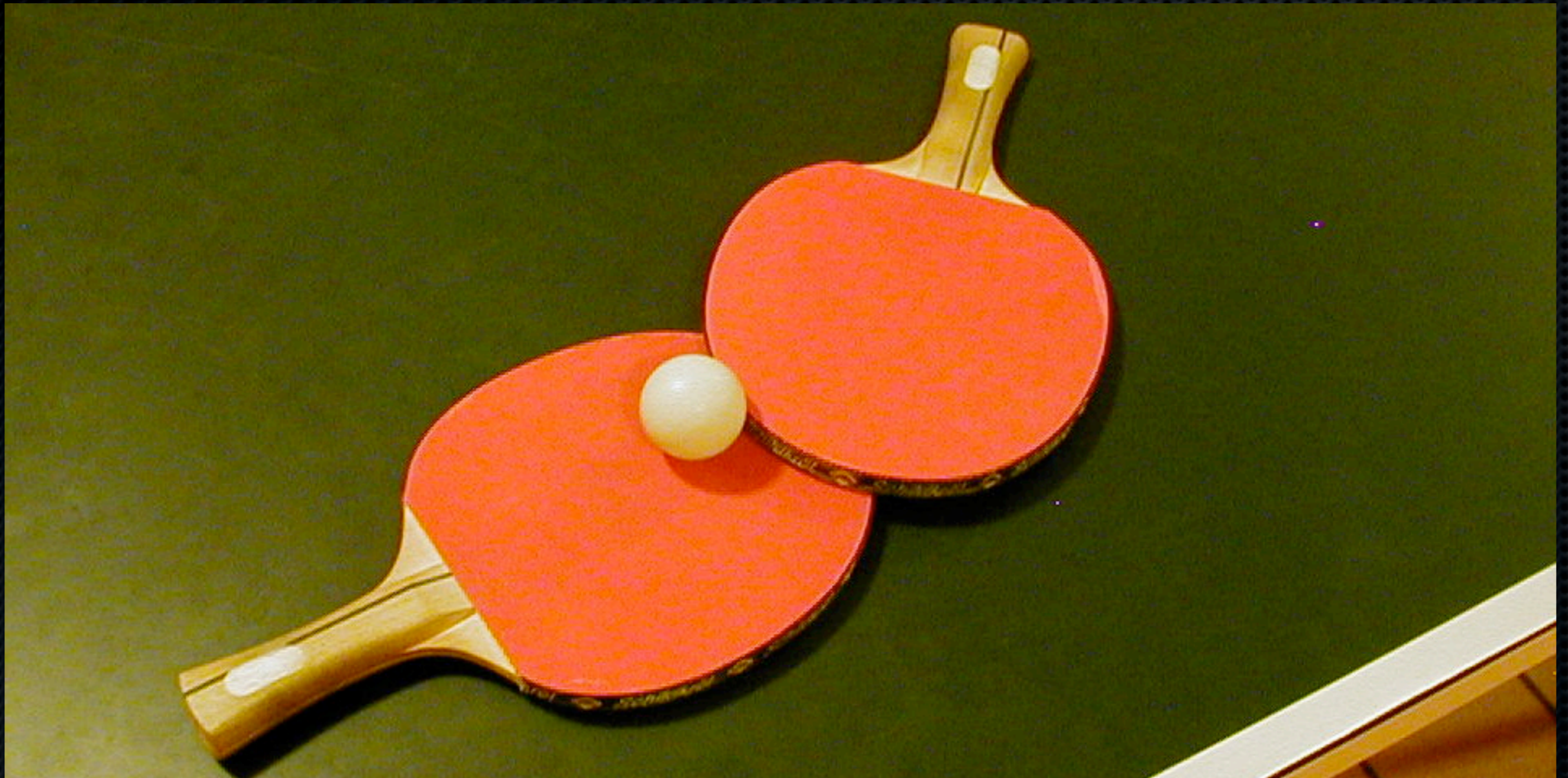
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Sanity Check for your Objects.
Unit Tests don't just test functionality.
First line of defense.

TDD is like UAT for your objects.





Ping Pong Paired Programming

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You write tests, partner writes code to complete tests
Partner writes more tests, you write code to complete tests
Refactoring is more traditional pair programming and decisions are made together as a team.
More Asynchronous than traditional Pair Programming many of the same benefits.

Introducing Tests to Projects

- ✦ Test First to verify bugs
 - ✦ Fix it
 - ✦ Run the test again
- ✦ Use TDD concepts for new features
- ✦ Write tests before Refactoring



<http://www.flickr.com/photos/fotopakismo/1336626300/>



Time to Dive In!

<http://www.flickr.com/photos/scatty/491417221/>



Introducing MXUnit

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Talk a little about what MXunit is:

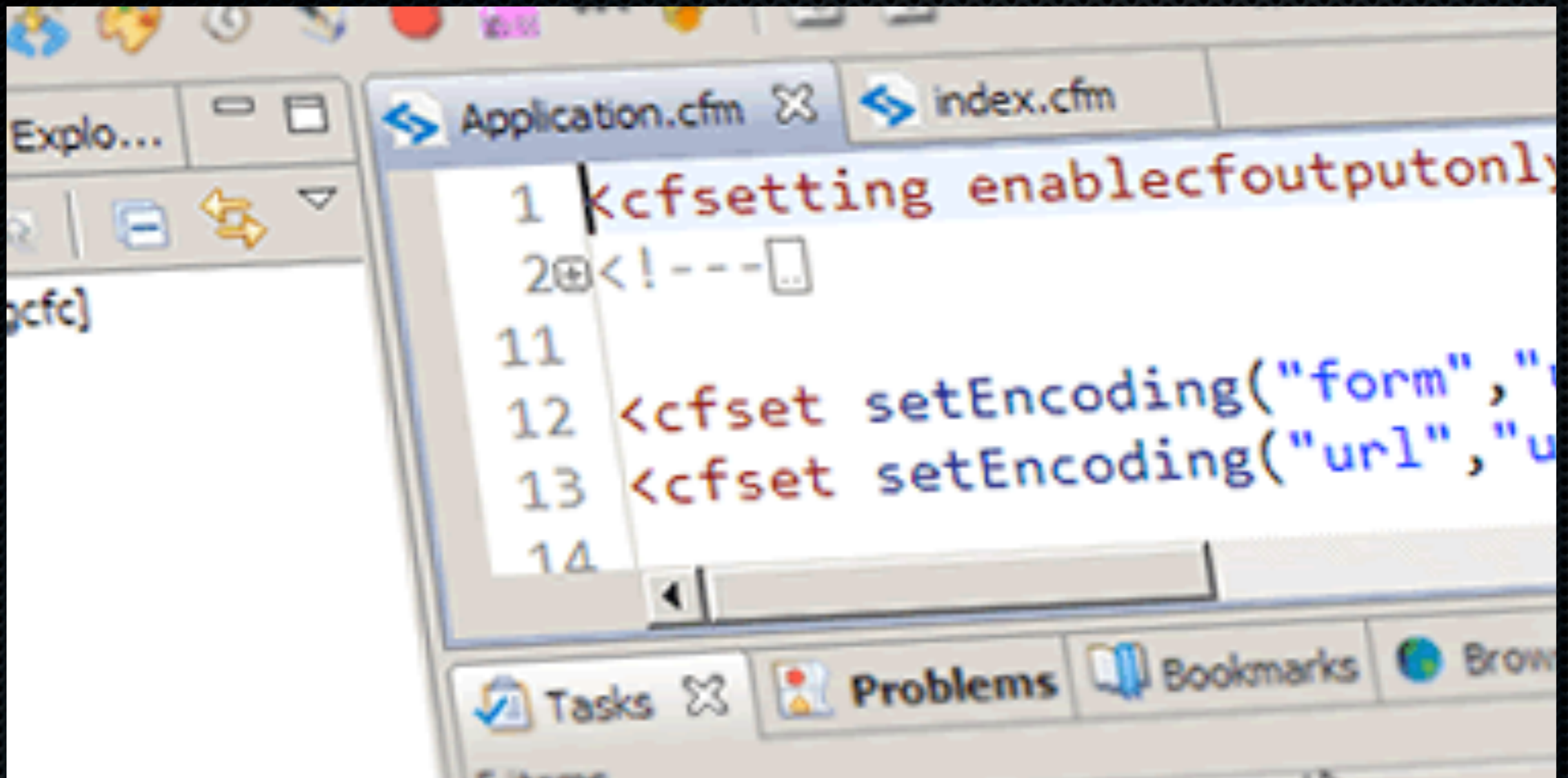
Popular Unit testing framework

Test Isolation

Public method == Test will be run as a test

Exception: setup teardown

TestCases extended mxunit.framework.TesdtCase



Check it out!

Photo taken from cfeclipse.org

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Suggest that if someone finds a bug in something like cf9 or any of the OS projects they attach an MXUnit test to express the bug to the ticket system.

Show the CF9 bug I found as an example.

Assertions

- ✦ Assertions provide a way to validate stuff is the way it should be
- ✦ Failed Assertions == Failed Tests
 - ✦ **Important:** No Failing assertions a test **Passes**
 - ✦ MXUnit can be extended to add custom Assertions

MXUnit's Assertions

- `assertTrue(boolean condition [,String message])`
- `assertFalse(boolean condition [,String message])`
- `assertEquals(any expected, any actual [, String message])`
- `fail(String message)`
- `assertSame(any obj1, any obj2 [,String message])`
- `assertNotSame(any obj1, any obj2 [,String message])`

For a complete explanation please check out: <http://MXUnit.org/doc/index.cfm?doc=builtinassertions>

Session Survey!!!!

- <http://bit.ly/rgr-survey>
- Or do paper....

Questions?

oh & Books, again...

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Find me on the Internets

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