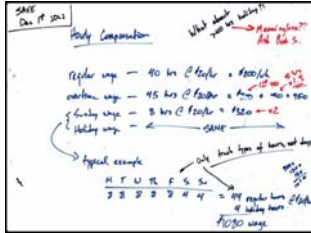


Executable Documentation



David Hussman – DevJam

Questions?

Please!

What's Up In Your World?

How are your requirements working?

Producing what people want?

Are the testers part of your community?

Who really owns "done"?

The DOW of Software

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What is Executable Documentation?

- or -

What are Executable Specifications?

Green Documents

Less likely to rot

Are not write once documents

Help people collaborate

Communicate what the product really does!

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Automated Contracts

Automated business value

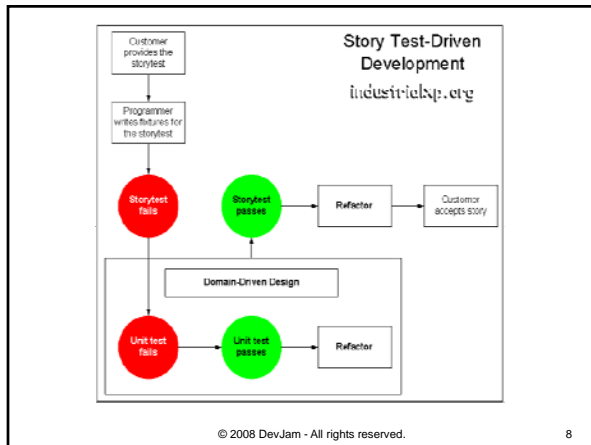
Automated customer contracts

Collaboration and communication builders

Living Contract - Living Documents

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Let's Do It!

Executable Documentation Path

Personas

Stories

Story (Acceptance) Tests

Work Out Scenarios, Tables and APIs

Create Executable Documentation

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A New Product

Create a point of sale application

All outlets are within city limits

Hardware exists

Catalog system in place
(returns a price and description for a sku)

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Personas

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Simple (emerging) Personas

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Personas

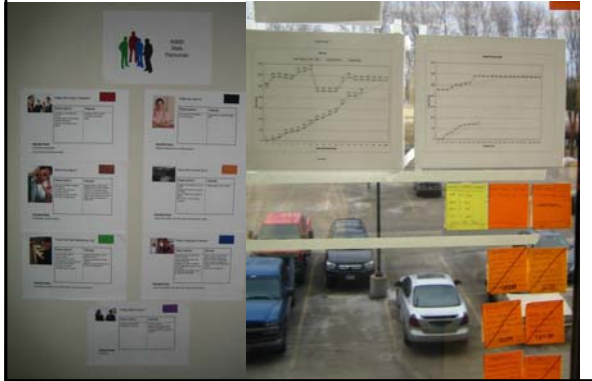
Personas

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Detailed Personas

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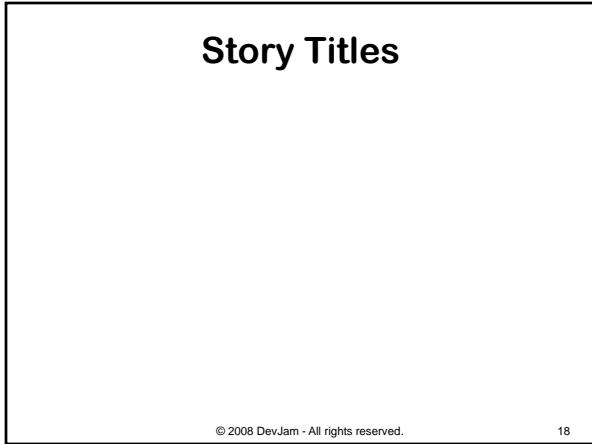
Product Radiators



A Day in the Life



Story Titles

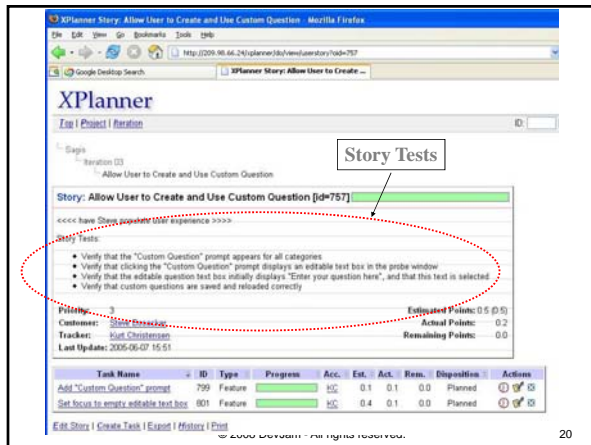


Story (Acceptance) Tests

Working contract with product owners

Start detailed definition

May contain many scenarios



Calculate Running Total

What are the story (acceptance) tests?

Calculate Running Total Story (Acceptance) Tests

Show total is zero for 0 items

Add one item, total equals item cost

Add 2 items, total equals sum of items

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Pairing (beyond programming)

Developer and tester pair

Review acceptance tests

Discuss scenarios and possible tables

Select fixture - Rough out API

Create sample data and failing test

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FIT

Fixtures

Fitness



Framework for Integrated Testing (FIT)

Created by Ward Cunningham
FitLibrary Created by Rick Mugridge
Fittesse Created by Object Mentor

Exists in many languages (java, C#, ...)
FIT uses *fit fixtures* to run *fit tests*
Fit tests can be written in HTML or Excel

<http://fit.c2.com/wiki.cgi?FitWorkflow>

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The FIT Stack

• Table:



• Fixture:



• SUT:



Fixtures mediate between tests and SUT

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FIT Test Table (HTML)

Public Fixture Variable

Name of Fixture To Run

Input data

Fixture Method

Expected output

amount	discount()
0.00	0.00
100.00	0.00
999.00	0.00
1000.00	0.00
1010.00	50.10
1100.00	55.00
1200.00	60.00
2000.00	100.00

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Fixtures

DoFixture (for testing processes)

ColumnFixture (for input / output testing)

RowFixture (for lists)

Others (later)

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Calculations & Constraints

DiscountTester	
cost	discountPrice()
700	700
999	999
1000	1000
1002	951.9
1100	1045
3500	3325

Column Fixture

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Lists and Collections

CatalogRowFixture		
sku	description	department
234def	Generic	0
sdf678	Electronics	1
123abd	Appliances	2
sdf679	Electronics	1
123abc	Appliances	2
234hgr	Generic	0

Row Fixture

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Business Processes

- Initial context (or state)
 - Given 2 connected users
 - They're in a chat room
- Change to the system
 - A user disconnects
- Final state
 - She's not in room



DoFixture

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DoFixture Magic

- The first table starts the SUT
- The 1st cell & every other names actions
- The other cells contain the data



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Fitness

Built on FIT

Collaboration tool

Highly visible

Easy to run tests

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Pairing - Revisited

Creating A Failing Test

Developer and tester pair

Discuss scenarios and possible tables

Select fixture - Rough out API

Create sample data and failing test

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Calculate Running Total Story (Acceptance) Tests

Show total is zero for 0 items

Add one item, total equals item cost

Add 2 items, total equals sum of items

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The API and The Scenarios

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What Is Executable Documentation?

You grooving with ED when ...

People are talking in tests

Detailed documentation is reduced

People are pairing on test creation

Customers are referring to the tests

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Tests Tell the Story

Project tests

Story tests

Unit tests

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What About UI Tests?

Cool, but more still brittle

Better after iterative delivery

Harder to data drive

Not as collaborative

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Ping Me, I Will Ack Back!

David Hussman

Agile Transitions – Training - Assessments

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New Book - "Cutting An Agile Groove"

Pragmatic Series - Due out Early 2008

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