Agile in a nutshell

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http://agilewarrior.wordpress.com/
Adaptive Plans
Changing Requirements

Iterative Development

The Waterfall Horror Feature Show

Beware Agile Software Delivery

- Coming soon to a project near you -

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What we’re going to cover

• You already know agile planning
• What to expect
• De-bunk some myths
• Overview some agile methods
• 3 steps towards agility today
Agile planning in a nutshell
Too much to do, not enough time
You make a list

Alright, what do I need to do, to get ready for this date?

Doing this alone makes you feel good
You size things up

Looks like it shouldn’t take more than a couple of hours!

ToDo for date

1 hr  Clean house
1/2 hr  Do dishes
2 hr  Get wine
1/2 hr  Vacuum
1/2 hr  Write poem
1 hr  Get handsome
1 hr  Wash car
1/2 hr  Get flowers
1/2 hr  Iron shirt
1/2 hr  Work out

~ 8 hrs
You set some priorities

Dang, mom says she's going to be in in 11 hrs.

**ToDo for date**

- **Most important**
  - 1 hr Clean house
  - ½ hr Do dishes
  - 2 hr Get wine
  - ½ hr Vacuum
  - ½ hr Write poem
  - 1 hr Get handsome
  - 1 hr Wash car
  - ½ hr Get flowers

- **Least important**
  - ½ hr Iron shirt
  - ½ hr Work out

- **Out of scope**
  - 1 hr Work out
Roses are red, violets are blue, I hope you like this apple juice. Cheese and crackers too.

Start executing

ToDo for date

- 1 hr  Clean house
- ½ hr  Do dishes
- 2 hr  Get wine
- ¼ hr  Vacuum
- ¼ hr  Write poem
- 1 hr  Get handsome
- 1 hr  Wash car
- ¼ hr  Get flowers
- ½ hr  Iron shirt
- ½ hr  Work out

That in a nutshell is what most people do
A little secret

Pssst

We do the same thing in agile…
Only instead of

\[\downarrow\]

ToDo list

Tasks

Guesses

\[\Rightarrow\]

We use fancy names

\[\downarrow\]

Master story list

User stories

Estimates
How does this make a plan?

Most important:
- Add user
- Print itinerary
- Book reservation
- Cancel trip
- Book permit
- Update permit
- Search
- Create new device
- Add swap trade
- Add option
- Cancel plan
- Book car
- Update hotel
- Change profile
- Add admin screen

1wk:

Least important:
- Add Facebook
- Delete MySpace
- Update Twitter

- Out of money
- Out of time
- Nothing left
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We flex on scope

Time  Budget  Quality  Scope

Flex here
We have the same definition of done

Are we done raking the leaves when:

A plan?
A design?
A report?

Not at my house!
Working software is the primary measure of success

Are all fine and dandy …

*Project plans*
*Test plans*
*Requirements docs*
*Architectural diagrams*
*Analysis models*
*Security reports*
*Deployment plans*

… but they are of no value to the customer.
That means …

- Add user
- Print itinerary
- Book reservation

- Analysis
- Testing
- Design
- Coding
- Everything else

100% complete

1wk
And we have to work as one team
More overlap between roles

DEV  BA  QA  UX  PM

The team is accountable
Analysis, design, testing, and coding are continuous activities.
Some terms you’ll hear
Iterative
Time-boxed delivery

Credit Yogi: http://www.flickr.com/photos/yogi/1147960/
Adaptive planning

original plan

lost lead developer

customer discovers what they really wanted

New Star Trek movie

hard to change

Price of oil drops 70%

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Characteristics of agile teams

- Empowered
- Self-organizing
- Self-directed
- Adaptive
- Flat hierarchy

The goal

Smart talented people like working this way
Agile Myths

What agile is not
Agile is a silver bullet

• You can fail just as dramatically
• All your problems will still be there
  – Agile will just highlight them sooner
Agile teams don’t write documentation

- More accurate to say agile teams don’t write unnecessary documentation
- Agile teams prefer a face-to-face over documentation
- Documentation gets treated like anything else
  - Prioritized, estimated, delivered
Agile is anti-planning

• Agile teams plan extensively
  – Every quarter (release)
  – Every couple weeks (iterations)
  – Every day (daily stand-ups)

• Uses different tools
  – Project burn downs vs Gantt and PERT

• Planning is very visible
  – Stakeholders know early if there is a problem
Agile is anti-architecture

Agile is anti-over-architecture

Don’t spend time designing this …

… if this is all that is needed.
Agile development doesn’t scale

• Agile scales just like any other method
  – Not that great

• Instead of looking at how you can scale up
  – See if there are ways you can scale down
Agile teams don’t model

• Agile teams model
  – They just don’t believe them
• The sooner they can turn a model into working software the better
Agile is undisciplined

• Agile has been bruised by people taking the easy stuff
  – and leaving out the hard
• Truth is agile is very disciplined
  – You have to write tests
  – You have to design
  – You must regularly integrate your code
  – You have to regularly release working software
  – You must deliver something of value each iteration
• The more agile a team – the more disciplined
Agile development is unpredictable

- Agile acknowledges the inherent complexity and uncertainty of software
- Agile quickly incorporates actual data into it’s forecasts
- It doesn’t dwell on reconciling actual and original plans
- Accepts that things are going to change, and incrementally re-plans when better data is available

If you crave predictability, you picked the wrong profession
Agile requires talented people

Skill-set of people

Project success

Creating valuable, innovative software requires skilled people
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Agile comes in many flavours

Crystal  Scrum
Lean       DSDM

Extreme Programming (XP)
I would like to buy a Toyota Prius please.

Elimination of waste

Toyota’s ultra-lean manufacturing process.
Lean

+ pluses

- minuses

• Very good high-level principles and practices
• Addresses systems and organizational improvements across the board

• Advice / practices are not IT specific
• Harder to implement

Lean has much to offer - very worth of study
Scrum

• A project management wrapper for incremental delivery of projects, independent of technology or business vertical.

• Can be used in non-IT projects.
Scrum

+ pluses

- minuses

• Easy to understand
• Low barrier of entry
• Easy to pick up
• Speaks well to project managers
• Non-threatening
• Most popular

• Silent on engineering
• Easy to do the easy stuff while skipping the hard stuff

Easy to adapt - most non-threatening
Extreme Programming (XP)

• Popularized software engineering practices necessary for agile development
• Emphasizes
  – upfront testing
  – automation
  – evolutionary design
  – continuous integration
Extreme Programming

+ pluses

- minuses

• Sound engineering practices
• Strong in development community
• First real popular agile method

• Very developer focused
• Hard for other disciplines relate
• Sometimes characterized by zealots
Options for adopting

- XP full on
- Scrum + XP engineering practices
- Scrum + XP engineering practices + Lean spirit

* engineering practices
  - unit testing, refactoring
  - continuous integration, Test-Driven Design (TDD)
What I recommend

Start here

XP
* engineering practices

Scrum or Lean

Choose language

Study
There is no one way

Extreme Programming (XP)

Crystal

Scrum

Lean

DSDM

FDD

Do what works for you

Make it your own
3 steps you can take towards agility today
Deliver something of value every week
Start doing these 4 practices today!

- Agile is underpinned by technical excellence
- Practices like these are essential:
  - Unit testing
  - Test-Driven Design
  - Refactoring
  - Continuous integration
- If you get these right
  - everything else becomes a lot easier
Accept 3 simple truths

1. It is impossible to gather all the requirements at the beginning of a project.
2. The requirements are guaranteed to change.
3. There will always be more requirements, than time and money allow.
Final words
Final words

• No magic – you already think agile
• Expect change
• There is no one way
Do I think everyone will one day be doing agile?
No

For the same reason most people still don’t eat right or exercise.
Agile is tough
Agile is hard work
Agile requires great discipline

Not everyone is into this kind of stuff!
But it is a very natural way to work

It is a lot of fun

And it works – very well
For more information

http://agilewarrior.wordpress.com/

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