

Agile

Values, Principles, & Practices for Software Dev't

Agile Manifesto

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

Individuals and interactions over processes and tools

Working software over comprehensive documentation

Customer collaboration over contract negotiation

Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

Values & Mindset

The most important part of Agile is the *values*.

The values result or inform a *mindset*.

Different people express the values differently:

- Communication
- Customer Collaboration
- Incremental Development & Minimalism
- Sustainability

Values

James Newkirk's Values XP Values

Minimalism Simplicity

Feedback Feedback

Transparency Communication

Sustainability Courage

Video presentation by James Newkirk https://www.agilealliance.org/agile101/agile-basics/introduction-to-agile/Values start at time 40:00

Practices Based on Values

The Agile Practices come from the values.

Adopting practices without values often fails.

Example: Daily Meetings

A project manager wants to improve his team's ability to delivery good quality software on-time.

He/she reads about Agile and decides that the **daily stand-up meeting** sounds like a great place to start! (Many organizations do this.)

So he tells his team...

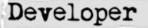
Ref: example from Chapter 1 of *Learning Agile* by Stellman and Green. This is the best book I know about Agile.

Let's have a Daily Stand-up



WE ALREADY HAVE
TOO MANY MEETINGS! IF
YOU DON'T TRUST ME TO DO
MY JOB, FIND SOMEONE
ELSE TO DO IT.

Project Manager



What Went Wrong?

The development team <u>resents</u> the idea.

The team sees a stand-up meeting as:

- interrupting their work,
- lack of trust that they are using their time effectively,
- nagging

Lack of Mutual Understanding

What do they want to get from the meeting?

Manager:

- wants to know if progress is deviating from plan
- wants to know what developers are doing

Developer:

- wants the meeting to end as soon as possible

Change in Mindset

Manager needs to **change his mindset** and communicate the purpose of the meeting...

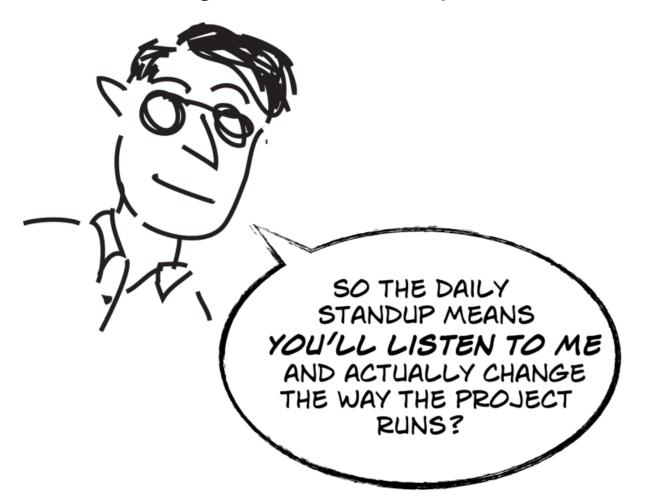
- *Not* about deviating from his plan
- Not a status report from developers

Instead:

- everyone on the team works together to create a plan
- involve whole team in discovering ways to work better
- help developers obtain time & resources they need

Change in Mindset of Developers

When developers feel that they "own" the project plan and the meeting is about their input...



Agile Development Lifecycle

Iteration diagram adapted for Agile methodology

Produce / Revise 'To Do' list just for this iteration of project – development cycles until list is complete for this iteration



Main cycle continues until Prioritized 'To Do' list is done

Agile Process Characteristics

- create customer "value" at each iteration
- welcome evolving requirements
- working software as primary measure of progress
- lack of up-front architecture design (YAGNI)
- □simple design (XP: "do the simplest thing that ...")
- □small, self-organizing teams at one site
- frequent customer feedback
- shared understanding instead of <u>comprehensive</u>documents ... but <u>do</u> write documentation

. . .

Some Agile Processes

- eXtreme Programming
 - Kent Beck: Chrysler
- Scrum called "more a management technique"
 - iterative development in "Sprints"
 - daily stand-up meeting
 - no advise about requirements
- Crystal
 - a family of methods to address different types of projects
- Synchronize and Stabilize (Microsoft process)