

Process & Practices

Processes & Practices

How to use process effectively?

Practices are tactics that software product managers use to make processes execute smoothly.

Practices provide guidelines for aspects of development:

- how to schedule and organize tasks,
- prevent wasted resources,
- monitor work product development.
- ...

Examples of practices:

- planning what features go into which release,
- estimating the duration of tasks,
- and running brief daily meetings.

Practices & Methodology

“Practices are gathered into a methodology.” That is,

- “A methodology is a set of practices.”
 - Agile methodologies, i.e., methodologies based on the agile manifesto, contain agile practices.
 - Example of agile methodology: Scrum
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- The agile manifesto provides a **philosophy**.
 - And an agile methodology provides the **specific guidelines and rules**.

Practices are intended to provide **structure** for what's involved in a project.

to effectively:

- plan your project; - meet deadlines; - improve communication; - track progress; -> deliver better software.

For example,

- For the specification phase: practices that outline how to elicit and express your requirements from your client.
- For the design and implementation phase: practices that guide designing and planning.
- ...

Even more practices that suggest how development should occur:

- how to make your project more flexible to change and
- how to track development.
- ...

Quiz – context

- You and your development team are working hard to implement some agile practices into your development.
- One practice you chose to adopt is delivering a working prototype to your client every two weeks for feedback.

What phase of a process does this practice belong?

- A. specification
- B. design and implementation
- C. verification and validation

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Providing a working product to your client every two weeks

-> Ensure that your team is delivering what your client expects and that they are satisfied with the product

-> Validation

Task level practices

Practices around “tasks”

- how to schedule tasks effectively.
- how to establish effective working relationships between the roles involved in development.
- ...

Benefits of adopting good practices

Example of benefits

- Having effective planning and communication
- Reduce wasted resources:
 - prevents work from being completed by more than one person.
 - prevents developers from producing a feature that might not be exactly what the client intended.
 - helps to keep your project on schedule, which helps to keep it on budget.

Learn to apply

Processes and practices are flexible and customizable.

[e.g., 先进生产力。:-)]

- take aspects of various processes and practices to create something that meets all your needs.
- improve and develop over time.

Learn to apply

- » Learn different software processes and practices
- » Generate or select a process and a set of practices that works well.

Summery 1/2

- Process is a way to organize the development of a software product into distinct phases or stages.
- A process can be a life cycle process, in which case it models the entire life of a software product.
- Or it can be a sub-process within a life cycle process.
- Processes are organized into phases. For life cycle processes, examples of phases are
 - specification,
 - design and implementation,
 - and verification and validation.

Summery 2/2

- Each phase is composed of associated activities.
- An activity is a group of related tasks.
- And tasks relate to roles, work products, and resources.
- Agile practices are guidelines that can be applied within a process.
- Agile practices have proven benefits such as
 - increased communication,
 - tracking of project progress,
 - risk management,
 - and reduced waste.