Software Engineering 2

Development environment

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Winter Semester, 2020

Outline

Intro

Connection to the previous course

Development environment

What it is?

Motivation

Environments

Goodies

Conclusion

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1 Intro

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Connection to the previous course

Software engineering

The 4 main activities of Software engineering:

- Specification
- Development
- Validation
- Evolution & maintenance

Connection to the previous course

Software engineering

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- Specification
- **Development**
- **Validation**
- Evolution & maintenance

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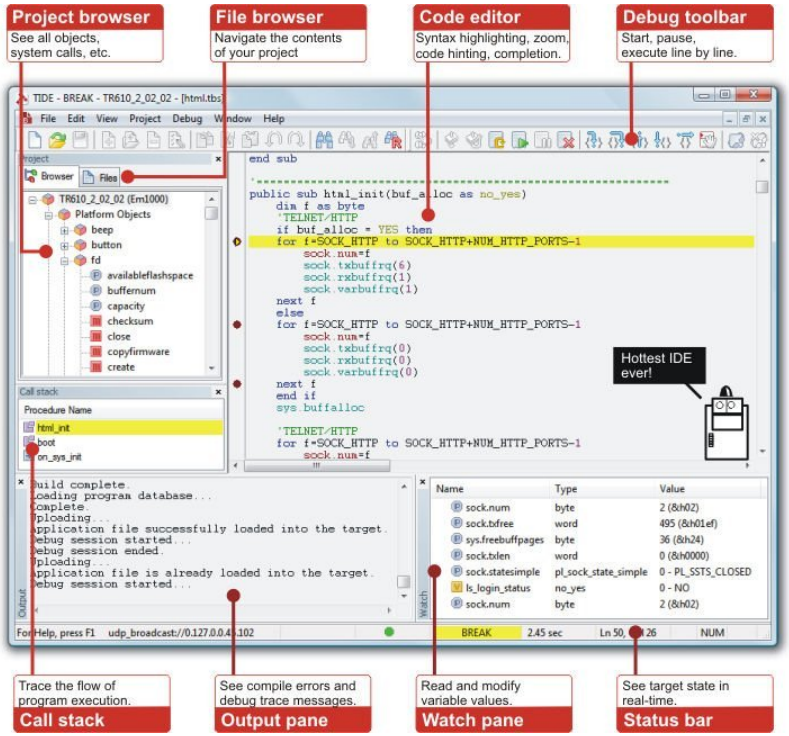
It is not just an IDE



What it is?

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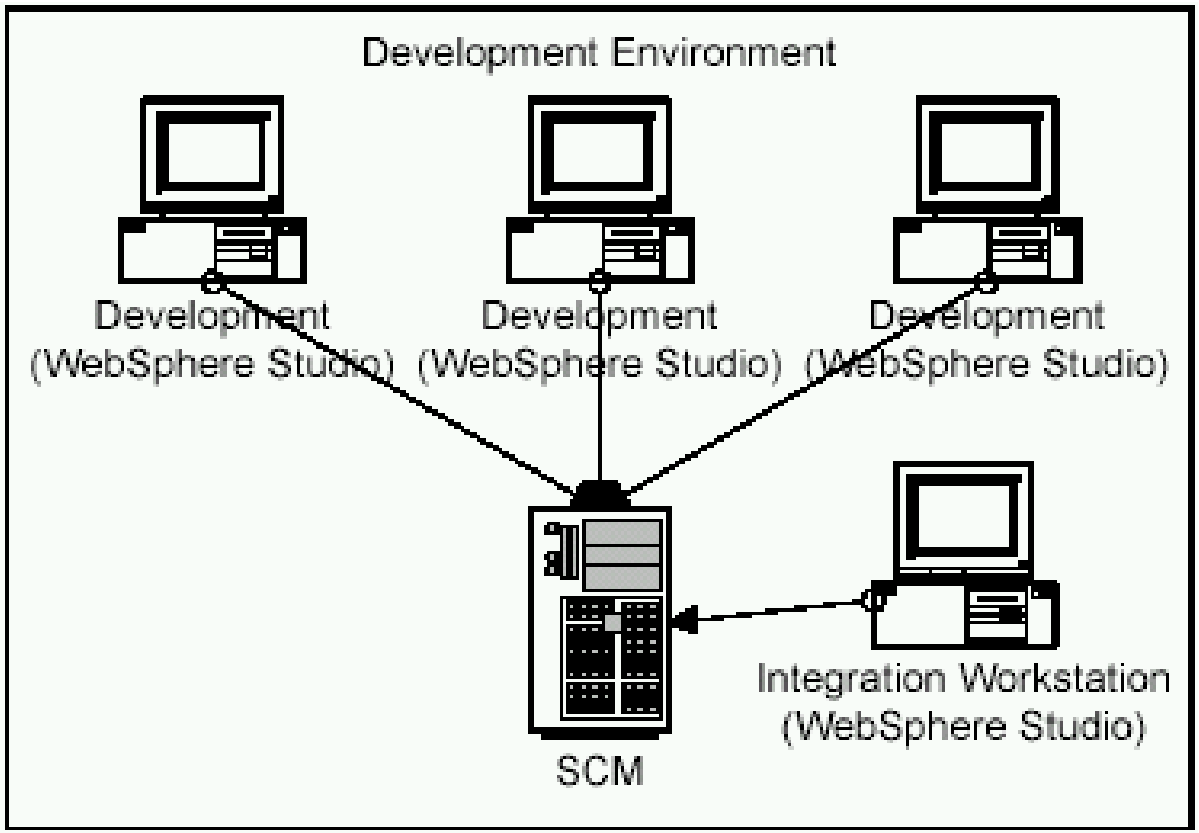

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Motivation

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Your system is designed to the target customer environment, but ...

- you have to have an enviroment for development and testing,
- customer needs an environment for acceptance tests deploying into production
- customer can have multiple production environments

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$\Rightarrow$ It is necessary to have additional environments out of the target one!

Environment kinds

- development
- integration
- testing
- pre-acceptance
- acceptance
- production #1
- production #2
- ...

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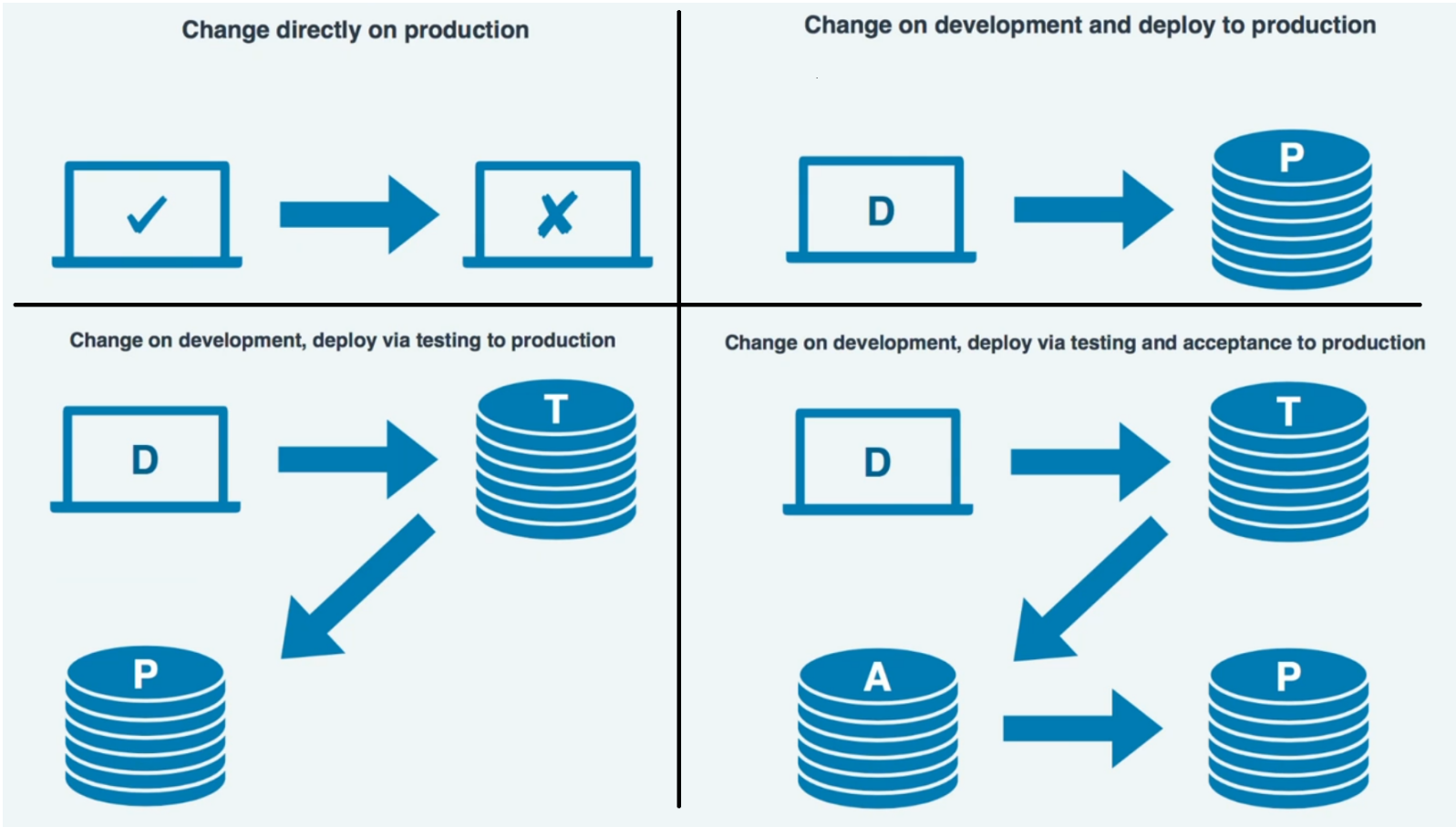
Environments

Environment	**Description**
Local	Developer's desktop/workstation
Development	Development server aka sandbox
Integration	CI build target, or for side effects testing
Test/QA	For functional, performance testing, Quality Assurance etc.
UAT	User acceptance testing
Stage/Pre-production	Mirror of production environment
Production/Live	Serves end-users/clients

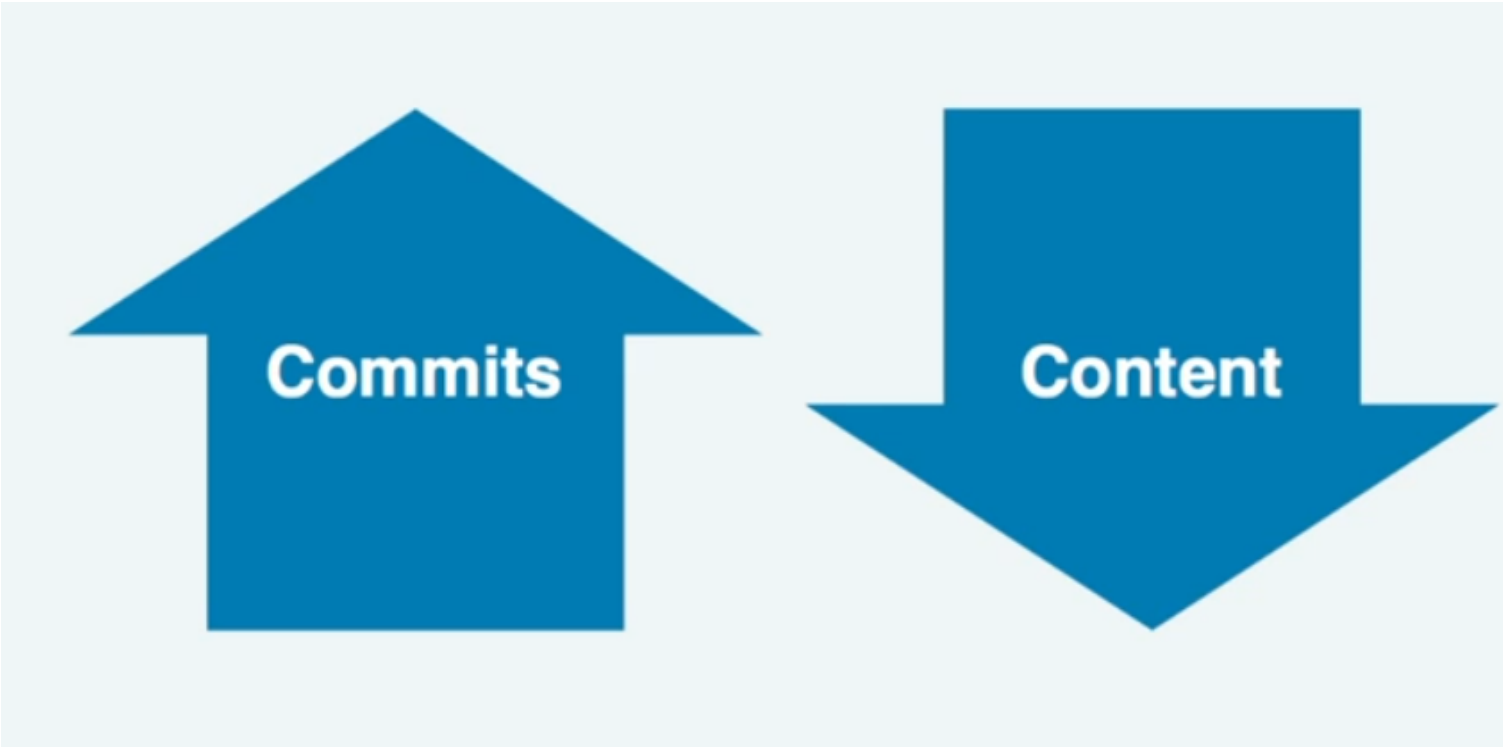
DTAP 1/3

- What is DTAP?
  - Development, Testing, Acceptance, Production



DTAP 2/3

- Commits vs Content



DTAP 3/3

- Namig conventions

Naming Convention #1	
Development	https://dev.mydomain.com
Testing	https://alpha.mydomain.com
Acceptance	https://beta.mydomain.com
Development	https://mydomain.com

Naming Convention #2	
Development	https://dev.mydomain.com
Testing	https://testing.mydomain.com
Acceptance	https://staging.mydomain.com
Development	https://www.mydomain.com

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What it also means "environment"

- pleasant working environment
  - furniture, privacy, tranquility, ample space, ...
- quality tools
  - PC or notebook, IDE, libraries, ...
- ...

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DevEnv

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For Further Reading I

Susan A. Dart, Robert J. Ellison, Peter H. Feiler, and A. Nico HabermannEdited by Peter Fritzson
Overview of Software Development Environments..
https://www.ics.uci.edu/~andre/ics228s2006/dartellisonfeilerhabermann.pdf

P Barthelmess, KM Anderson
A view of software development environments based on activity theory..
Computer Supported Cooperative Work, 2002 - Springer