

Test Driven Development

*It's about testing *and* developing*

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The two faces of TDD

▶ Testing

Monitor development based on (pre-written) test outcome

▶ Development

More neglected area?

Development must adhere to test importance

Testing

- ▶ **A benchmark for the development**

- ▶ **What we already know**

 - Automated tests are a must

 - Test-first (e.g. JUnit)

 - Test closely to development (e.g. functional tests)

Developing: test-friendly code

- ▶ **Code has to be written with testing in mind**

How can my code support the test process?

- ▶ **Design for testability**

Interfaces

Naming conventions (GUI testing)

Developing: test-friendly environment (1)

▶ Environment

Frequent test runs – after every commit

Continuous integration

Automated build process

Hardware, software, configurations

▶ Test data

Test instance

Specific initial state

Script to return to specified state

Developing: test-friendly environment (2)

▶ **Dealing with errors**

Recognise, handle, record

Error tracking / fixing process

▶ **Communication**

Developers and testers on same wavelength

Meetings, discussions – ensure same knowledge stand

Conclusion

- ▶ **TDD not limited to writing tests first**
- ▶ **We need:**
 - A stable environment to run the tests in
 - Code that wants to be tested
 - A team that understands importance of testing
- ▶ **More effort, especially at the beginning**
- ▶ **Ultimately, benefit to team and project**

Announcement

- ▶ **GUI *dancer* 3.0 announcement today**
- ▶ **Nestor Hotel, Mozart 1 Saal**
- ▶ **Short presentation**
- ▶ **14.30**
- ▶ **Coffee & soft drinks**