PROMPT Software Testing

How do we test?

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Well, testing is typically performed by exercising **test cases** on the software under test…

…but what is then a test case?

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Test Case – Abstract View

Test Design Specification:

- Test Case Specification Identifier;
- Test Items; (references for traceability)
- **Input** specifications & **Output** specifications
- Environmental needs;
- Special procedural requirements;
- Inter-case dependencies.

What is expected from the system

What should be fed to the system

According to IEEE

(IEEE Std. 829 on Test Documentation)

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- **Test Items; (references for traceability)**
- **Input specifications & Output specifications;**
- **Environmental needs;**
- **Special procedural requirements;**
- **Inter-case dependencies.**

Making it more detailed and concrete…

- **Test Case Name (& number)**
- **Test suite, (version)**
- **Test technique used**
- **Time to create the test case**
- **Version or unique reference to:**
  - **Test items (test object lists, test artifcacts, test plans, etc.)**
  - **Software under test**
  - **Project & product**
  - **Test tool**
  - **Test environment (configuration)**
  - **Test specification (version)**
  - **Requirement (version)**
- **Assumptions (pre-requisites)**
- **Starting position of test case (implicit, the inter-dependencies)**
- **Input specification (input analysis and selected targeted input)**
- **Step-by-step description of actions (procedure) of actual test case**
- **Output specification (observable outcome to base evalution on)**
- **Clean-up including side-effects (post processing) after test case execution**

From Eldh et al., "Analysis of Mistakes as a Method to Improve Test Case Design", ICST, March 2011

Building knowledge…

…might require even more fields

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