

Black Box Software Testing

(Professional Seminar)

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Section:27

Objectives Lists

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Black Box Software Testing

Objectives Lists

(With thanks to David Gelperin, based on materials in his Systematic Software Testing course)

Objectives list

Test Objectives:

- Inputs
 - » Field-level
 - *(list each variable)*
 - » Group-level
 - *(list each interesting combination of variables)*
- Outputs
 - » Field-level
 - *(list each variable)*
 - » Group-level
 - *(list each interesting combination of variables)*

Objectives list

Requirements-based Objectives

- Capability-based (resulting from functional design)
 - » Functions or methods including major calculations (and their trigger conditions)
 - » Constraints or limits (non-functional requirements)
 - » Interfaces to other products
 - » Input (validation) and Output conditions at up to 4 levels of aggregation, such as
 - *field / icon / action / response message*
 - *record / message / row / window / print line*
 - *file / table / screen / report*
 - *database*
 - » Product states and transition paths
 - » Behavior rules
 - *truth value combinations*

Objectives list

Design-based Objectives

(resulting from architectural design)

- Processor and invocation paths
- Messages and communication paths
- Internal data conditions
- Design states
- Limits and exceptions

Objectives list

Code-based Objectives

- Control-based
 - » Branch-free blocks (i.e. statements)
 - » (Top) branches
 - » Loop bodies
 - *0, 1, and even*
 - » Single conditions
 - *LT, EQ, and GT*
- Data-based
 - » Set-use pairs
 - » Revealing values for calculations

