

# Software testing —

## Part 1: Vocabulary

ICS 01.040.35; 35.080

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The preparation of this British Standard was entrusted to Technical Committee IST/15, Software engineering, upon which the following bodies were represented:

- British Computer Society
- Defence Research Agency
- Institution of Electrical Engineers
- Lloyds Register of Shipping
- Ministry of Defence
- National Computing Centre Ltd.

This British Standard, having been prepared under the direction of the DISC Board, was published under the authority of the Standards Board and comes into effect on 15 August 1998

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## Amendments issued since publication

| Amd. No. | Date | Text affected |
|----------|------|---------------|
|          |      |               |
|          |      |               |
|          |      |               |
|          |      |               |
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The following BSI references relate to the work on this standard:  
Committee reference IST/15  
Draft for comment 97/644970 DC

ISBN 0 580 29555 9

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## Foreword

This part of BS 7925 was prepared by Technical Committee IST/15. It was developed by a working party of the British Computer Society Specialist Interest Group in Software Testing (BCS SIGIST).

The terms defined in this vocabulary are arranged in alphabetical order. *Italic type* in a definition denotes a term that is defined elsewhere in the vocabulary.

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### Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, an inside back cover and a back cover.

## 1 Scope

This part of BS 7925 defines terms used in software testing and related disciplines.

## 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this British Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. For undated references, the latest edition of the publication referred to applies.

BS 4778-2, *Quality vocabulary — Part 2: Quality concepts and related definitions*.

BS ISO/IEC 2382-1:1993, *Data processing — Vocabulary — Part 1: Fundamental terms*.

BS ISO/IEC 12207:1995, *Information technology. Software life cycle processes*.

## 3 Terms and definitions

### 3.1

#### acceptance testing

formal *testing* conducted to enable a user, customer, or other authorized entity to determine whether to accept a system or component

### 3.2

#### actual outcome

*behaviour* actually produced when the object is tested under specified conditions

### 3.3

#### ad hoc testing

*testing* performed using no recognized test case design technique

### 3.4

#### alpha testing

simulated or actual *operational testing* at an in-house site not otherwise involved with the software developers

### 3.5

#### arc testing

see *branch testing*

### 3.6

#### Backus-Naur form

metalanguage used to formally describe the syntax of a language

### 3.7

#### basic block

sequence of one or more consecutive, executable *statements* containing no *branches*

### 3.8

#### bebugging

see *error seeding*

### 3.9

#### behaviour

combination of *input values* and *preconditions* and the required response for a function of a system

NOTE The full *specification* of a function would normally comprise one or more *behaviours*.

### 3.10

#### beta testing

*operational testing* at a site not otherwise involved with the software developers

### 3.11

#### big-bang testing

*integration testing* where no *incremental testing* takes place prior to all the system's components being combined to form the system

### 3.12

#### black box testing

see *functional test case design*

### 3.13

#### bottom-up testing

approach to *integration testing* where the lowest level *components* are tested first, then used to facilitate the testing of higher level *components*

NOTE The process is repeated until the *component* at the top of the hierarchy is tested.

### 3.14

#### boundary value

*input value* or *output value* which is on the boundary between *equivalence classes*, or at an incremental distance either side of the boundary

### 3.15

#### boundary value analysis

boundary value testing

*test case design technique* for a *component* in which *test cases* are designed which include representatives of *boundary values*

### 3.16

#### boundary value coverage

percentage of *boundary values* of the *component's equivalence classes* which have been exercised by a *test case suite*

### 3.17

#### boundary value testing

see *boundary value analysis*

### 3.18

#### branch

conditional transfer of control from any *statement* to any other *statement* in a *component*, or an unconditional transfer of control from any *statement* to any other *statement* in the *component* except the next *statement*, or when a *component* has more than one *entry point*, a transfer of control to an *entry point* of the *component*