Software Testing Methodologies

Functional

Other

Non-Functional

Bottom-up ← System ← Integration

Top-down

Automated ← Unit

Manual

Formal proof

Component → Smaller Components

Larger Components

Black-box ← Release

White-box

Program

Requirement-based

Scenario Testing

User → Alpha Testing

Performance

Beta Testing

Development

Static

Stress

Reliability → Defect

Security Testing

Functional Tests

Requirement-based

Program

Integration → System → Bottom-up

Dynamic

Unit

Formal proof

Component

Release → Black-box

White-box

Top-down

Testing levels

Unit → Integration → System → Acceptance