

Test Maintenance



Global CyberSoft

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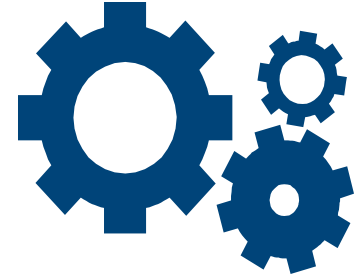
A World of Difference



Microsoft
GOLD CERTIFIED
Partner

Contents

- ❑ What “maintenance” means and objectives ?
- ❑ Test case maintenance
- ❑ Bug maintenance
- ❑ Feature/Design improvement
- ❑ Knowledge maintenance
- ❑ Process improvement



What “maintenance” means and objectives

- ❑ What “maintenance” means and objectives ?
- ❑ Test case maintenance
- ❑ Bug maintenance
- ❑ Feature/Design improvement
- ❑ Knowledge maintenance
- ❑ Process improvement

*1 Introduce
2 How to do efficiently
3 What to maintain*

What “maintenance” means & Objectives ?

- ❑ Keep the state in proper condition
- ❑ Keep all things up to date
- ❑ Move the state – Get higher values
- ❑ How to do this effectively ?

- ➡ Inspection
- ➡ Classification
- ➡ Rebuilding
- ➡ Testing

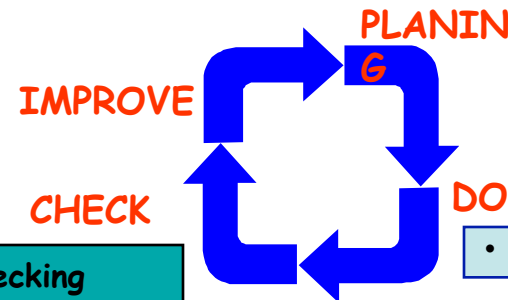
🔑 Review

• Review

• Inspect
• Classify

• Testing/Checking

• Rebuild



What “maintenance” means & Objectives ?

□ What to maintain ?

For “They”: 3 main objects

- ⊕ Test case maintenance
- ⊕ Bug maintenance
- ⊕ Feature/Design improvement

For “We”:

- ⊕ Knowledge maintenance
- ⊕ Process improvement

Notes in mind ⇒ **Key to success !**

- ⊕ Always have criteria
- ⊕ Maintain the good, improve the bad
- ⊕ Show the “creative”

Test case maintenance

- ❑ What “maintenance” means and objectives ?
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*1 The reasons
2 How to do efficiently
3 Overcome some issues*

Test case maintenance

Why for test case ?

- ✗ Test cases may become redundant due to behavior change.
- ✗ Expected outcome may change for some test cases.
- ✗ Additional test cases need to be added because of altered conditions/functions

Other reasons ?

- ◆ Make test improvement request promptly
- ◆ Improve the test plan ?
- ◆ Protect the bug ?

Test case maintenance (cont)

How to do this effectively ?

Make tests up to date

1. Keep new official requirements updated to the test strategy, test plan
⇒ Requirement Traceability Matrix (RTM)
2. Keep new unofficial changes/updates refreshed to test case list
⇒ Tracking file: list of Latest Feature Updates
3. Workbook to keep member in the team to update test cases easily and promptly
⇒ Tracking file: list of improvement per each test case
4. Statistics for test case results, bug results per duration
⇒ Tracking file: statistics and plan to improve stable cases
5. Convert ad-hoc bugs to testcases
⇒ Tracking file: high priority bug analysis and plan to convert to test case

Make testers up to date

6. Rotate teams
⇒ Skill requirement and rotation plan



Test case maintenance (cont)

How to do this effectively ?

Overcome some test execution issues

1. An INVALID test-case and an INVALID bug found for the test case
 - ⇒ Fill the test case PASSED with reason is the bug
 - ⇒ Make a test improvement request to Test Lead
2. An INVALID test-case but no bug for the test case, no evidence, no time available
 - ⇒ Fill the test case FAILED
 - ⇒ Post a test-case bug
 - ⇒ Deal with bug fixer for a WON' T FIX resolution
3. A PASSED test case and a VALID on-fixing bug found for the test case
 - ⇒ Fill the test case FAILED with reason is the bug
 - ⇒ Make a test improvement request to Test Lead

Any other issues ?



Bug maintenance

- ❑ What “maintenance” means and objectives ?
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- ❑ Bug maintenance
- ❑ Feature/Design improvement
- ❑ Knowledge maintenance
- ❑ Process improvement

1 The reasons
2 How to do efficiently
3 The skills

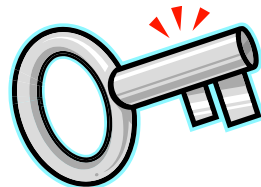
Bug maintenance

Why for bug ?

- ✗ My bug is still an issue.
- ✗ Keep track the leak and system understanding
- ✗ More information, quicker get fixed (higher priority)
- ✗ More affected cases higher severity

Other reasons ?

- ◆ Recall the task from developer
- ◆ Actively to control bug life cycle – make a deal promptly
- ◆ Reserve a slot on failure report (specific to multi-testing-group projects)



“Fixed” bugs are good bugs !

Bug maintenance (cont)



How to do this effectively ?

Bug tracking and updating skill

Tracking and planning

- Always have a search filter for long-time-no-updated bugs
- Higher severity, more frequently to update
- “Your bug is my bug”
- I am free → reproduce my bug

Updating

1. Affected version/build, logs, screenshots,
2. Affected environment/scenarios in details
3. Do not forget to make a link to other dependence bugs, or duplication bugs

Bug maintenance (cont)



How to do this effectively ?

Bug verification skill

- **DON' T** leave the Closed bug “Opened”
- **DON' T** close the invalid-resolved bug quickly
- My bug caused a new bug. **DON' T** re-open, please make a new one
- **DON' T** recall a Closed bug with “Fixed”. Make a new one
- On-Hold as a limitation

Bug communication skill

- Not just update, it' s a marketing chance.
- Easy to reproduce, say it “Easy”
- More affected cases, say it “Important”
- Sometimes, emailing is better than commenting on bug
- “Hi” & “Thanks” as much as possible



Feature/Design improvement

- ❑ What “maintenance” means and objectives ?
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- ❑ Bug maintenance
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- ❑ Knowledge maintenance
- ❑ Process improvement

1 The reasons
2 How to approach

Feature/Design improvement

What's the reason ?

- ✓ That's what customer needs from us:
 - ❖ Deep understanding
 - ❖ To improve the work-products and the product
- ✓ An exit to bad Design, debatable Bugs

Other reasons ?

- ✓ Show the pro-activeness & readiness
- ✓ Show the quality awareness to contribute to the success
- ✓ Show the ability, sometimes to market the scope coverage
- ✓ Re-use all user experience, the testers
- ✓ Relax on work
- ✓ One step ahead for questioning

Feature/Design improvement (cont)



How to approach ?

1. Workbook to keep member in the team to update improvements and promptly
 - ⇒ Tracking file: list of improvement per function area of each feature
 - ⇒ Tracking file: list of improvement per feature
 - ⇒ Tracking file: list of suggestion for enhanced/new features
 - ⇒ Evidence and analysis are needed
2. Request or propose a process to submit improvement
 - ⇒ Test Leads to process.

Aware of Validation !



Knowledge maintenance

- ❑ What “maintenance” means and objectives ?
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- ❑ Process improvement

*1 The reasons
2 How to do efficiently
3 Brainstorming questions*

Knowledge maintenance

Why need this ?

- ❑ I lost my understandings of system
- ❑ I might post an obsolete bug
- ❑ I might post an invalid bug
- ❑ I have no more ad-hoc ideas
- ❑ I cannot make any improvement
- ❑ I cannot support people, thence I cannot raise my ability



What can I do these ?

Knowledge maintenance (cont)

How to do this effectively ?

- @ Knowledge base is ALWAYS important
- @ Share understanding, latest updates, good bugs
- @ Read much get much
- @ Talk much get much (Train or Support team mates)
- @ Practice much get much



Share much get much !

Brainstorming questions:

- 1/ What is “Experience” ?
- 2/ How get “Experience” ?
- 3/ Knowledge differs from Experience totally ?
- 4/ Can we post an INVALID bug when 50% guaranteed ?

Process improvement

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1 The reasons and how to approach

Process improvement

Do we need this ? ==> yes

- ❑ Cover leak of process, avoid conflict.
- ❑ Save effort, save time, save resource
- ❑ Adapt to new changes
- ❑ Machine runs smoothly

How to approach ?

Same as Feature/Design improvement

Questions



Practices/ Exercises



Reference

□ Refer to:

- GCS Testing Foundation (Son Pham)
- Test Execution & Report (Truong Ho)

Appendix: Course detail form

Author	Truong Ho	Duration	4 hours
Category	Test Maintenance	Type	Theory and Practice

Examination	N/A
Intended Audience	Any QC
Pre-requisites	N/A
Completion criteria for the course	Attendee must join at least 90% course length
Criteria for granting training waivers	Those who has experience on Test Case Design area or ISTQB certification

Thank you

THANK YOU

Inquires regarding the above may be directed to:
Someone, Title, truonghx@gcs-vn.com