Assignment 3

Inspection of Software Requirements Specifications (SRS)

Introduction

This assignment will be carried out in the same group that was formed for assignment 1 and 2. Each group will conduct a formal inspection of an existing software requirements specification (SRS) that will be sent to the group by the subject coordinator. The group will then submit an inspection report as described below.

Doing the assignment

Your group will follow the steps below to perform the assignment:

1. **Select an inspection method -** The lecture notes offer a number of ways of organizing an inspection (e.g. see Slide 40 in Lecture 7). You will also need to gather any supporting documents, including checklists, role descriptions, defect recording forms, etc. While samples for most of these will be made available on UTS online, you may have to conduct some research to find others and make your own selection.
2. **Familiarize yourselves with the inspection forms -** There are forms for documenting the defects discovered before and during the inspection meeting, and forms for summarizing the findings afterwards. These forms will be available on UTS online under assignment 3 link.
3. **Choose the roles for your team members -** One person will need to chair the meeting (*leader or moderator*). Another person will need to document the findings during the meeting (*recorder or scribe*). Other roles (e.g. *reader, inspectors*) may be needed depending on your chosen inspection process. These roles will be described in the lecture.
4. **Set a date, time, and place to conduct the inspection meeting** - Make sure **all team members** are available, allocate at least 2 hours uninterrupted time, and a quiet place to work.
5. **Prepare for the inspection** – First you need to insert line numbers into the SRS document that your group is assigned to inspect. The reason is that in the relevant forms that you will list all the errors and defects, you need to state the location of the defect/error in the SRS. Each team member should prepare for the inspection meeting by carefully reading the SRS document **before the meeting**, and compiling an initial list of defects found.
6. **Conduct the inspection meeting** - If your team is not prepared at the start of the meeting (based on 5 above), or if a member of the team is not present, the group leader must postpone the meeting, and arrange an alternative date. Use the inspection method (as in 1 above) to carry out your inspection meeting.
7. **Summarize and record all the findings during and after the meeting** - Make sure someone (you may select a person who did not play a specific role as specified in 3 above for this task), collects all the forms together, and summarizes the defects discovered in the forms provided.

8. **Write the inspection report –** This report describes the inspection process you used, your key findings, your reflection on the process and discusses any insights you gained, both on the SRS, and the nature of the inspection process.

Resources

To help you conduct an inspection you may need to use the following documents that are available on UTS online:

- A Sample Inspection Process Description (inspection_process_model.pdf)
- Inspections Moderator's Checklist (inspection_moderator_clist.pdf)

To help you record the results of your inspection (and the preparation for it), use these forms:

- Inspections Typo Log (inspection_typo_log.pdf)
- Inspections Issue Log (inspection_issue_log.pdf)
- Inspections Summary Report Form (inspection_summary_report.pdf)
- Inspections Lessons Learnt Questionnaire (inspection_lessons_learnt.pdf)

Example checklists are covered in **slide 43 of lecture 7**:

- Wiegers' Checklist for Inspecting Requirements
  http://www.processimpact.com/pr_goodies.shtml
- NASA JPL's Checklist for Requirements
- NASA JPL's Checklist for Functional Requirements
- Firesmith's Checklist for Requirements Specifications

You may also wish to use the University of Maryland definition of defect classes (UMaryland-defect-classes.pdf) if you don't like the defect types specified in Wiegers' Inspection Issue Log form (inspection_issue_log.pdf).

Submission Details

You are required to submit the following deliverables for the inspection of the SRS that you were allocated:

1. Entry and Exit Criteria check list **(1 Mark)**
2. A description of the inspection process you used. Among other points, this description must at least include: (a) what roles did your team members take on? (b) How did you structure the inspection meeting? (c) What activities were included in your process and why? Minimum one A4 size page. You could use this file available on UTS online as a guide: (inspection_process_model.pdf) **(2 Marks)**
3. The result of the inspection exercise including all the defects found, their class of defect and their location. Use the relevant forms provided on UTS online and listed below to document your inspection results. Make sure that you use the relevant parts. Use continuation sheets if you run out of space on a form. **(5 Marks)**
4. A reflection of your inspection process and a discussion of the lessons learnt from your inspection exercise. What went well?, what went wrong?, what would you do differently?

You may use the "Inspection lessons Learnt Questionnaire" document **only as a guide** to help you. But please note that you must write a full reflection of the entire assignment, not just answering those questions. Minimum two A4 size pages **(2 Marks)**

Your group will submit a soft copy of assignment on the special link provided on UTS-online (file name should be [Assignment 3 - Group X] where X is your group number) before the deadline.

Bibliography

Karl E. Wiegers, "Peer Reviews in Software: A Practical Guide", Addison-Wesley, 2001. (*All the above forms were adapted from Karl Wieger's book, and are all available at http://www.processimpact.com/pr_goodies.shtml*)

The NASA Formal Inspections Guidebook and Standard are available from the NASA Software Technology Assurance Center at http://satc.gsfc.nasa.gov/fi/fipage.html

The NASA Instructional Handbook for Formal Inspections
http://sw-eng.larc.nasa.gov/process/documents/pdfdocs/inspection.pdf
Philip Johnson's archive of formal technical review materials: http://www2.ics.Hawaii.Edu/%7Ejohnson/FTR/