

A Montana Tech Method Software Development Standard

MTM Simple Program Development Sheet Inspection Process

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A. Frank Ackerman

Software Engineering
Montana Tech of the University of Montana

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1.0	05/20/10	Frank Ackerman	First version
1.1	04/09/11	Frank Ackerman	Improvements for Senior Seminar Talk
1.2	07/28/11	Frank Ackerman	Generalize for multiple inspections
1.3	09/19/11	Frank Ackerman	Clarify re-work considerations
1.4	02/06/14	Celia Schahczenski	Modify for AbOut inspections, ESOF 326, Spring 2014
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1.6	02/10/18	Celia Schahczenski	Minor updates for AbOut inspections, ESOF 326, Spring 2018
1.7	01/23/19	Celia Schahczenski	Modified for AbOut inspections, ESOF 326, Spring 2019

1. Introduction

This document describes the inspection process to be used to inspect AbOut items.

2. Entry Conditions

1. One or more inspections are required to close an issue. For each issue inspections of the relevant portions of the SRS, SDD, test suite, database and code (php, html, css, mysql, javascript) are required. Multiple items, for the same issue, may be inspected at the same time.
2. The author of the inspection item(s) informs the scrum manager that an inspection is needed and gives a name for the item(s) to be inspected. The author will be the person who has made changes to item(s) and who will presents those changes during the inspection.
3. The scrum manager selects a moderator, recorder and the participants for the inspection. The product owner is invited to every inspection. (In Spring 2019 all of us will likely participate in every inspection).
4. The moderator sets a date for the inspection and invites the participants, sending each participant an Inspection Meeting Notice at least 24 hours in advance, but hopefully much earlier. (In Spring 2019 we'll probably hold the inspections during class time.)
5. Items that must be identified in the Inspection Meeting Notice:
 - Issue #, title and what was accomplished
 - Item(s) to be inspected (requirements/design/testing/database/code)
 - Roles of participants
 - Inspection date, time, location and duration
 - Recommended preparation time
6. The author sends directions for obtaining the items to be inspected at least 24 hours in advance of the inspection.

NOTE: In order for each meeting to be effective, it is a general rule to limit items in each meeting so that only 150-200 lines of code/documentation are being review per 1 hour.

3. Inspection Process

a. For every inspection there are four participant roles:

i. Moderator

The Moderator is in charge of the inspection meeting. The Moderator needs to make sure that the Recorder records each of the defects the team discovers. At the completion of the inspection, the Moderator will complete an Inspection Report and give it to me. The Moderator is the inspection facilitator, and does not necessarily review the inspection items.

ii. Author

The Author is the person who is responsible for the item(s) to be inspected. The Author is not an inspector. The item(s) inspected already contain the Author's changes.

The Author's inspection grade does not depend on the number of defects identified, but on quality in which the defects are addressed and the timeliness and completeness of the materials provided for the inspection.

iii. Recorder

The Recorder is responsible for accurately recording all of the defects that the team finds. Each defect is accurately and clearly recorded.

The Recorder is also an Inspector.

iv. Inspector

Any member of the inspection team that does not have one of the three roles listed above is designated simply as an Inspector. Inspectors are responsible for: (1) preparing for the meeting by making note of potential defects, poorly written statements, code which does not satisfy the coding standards (while these may be noted directly on a copy of the item being inspected, they must also be summarized on the Inspection Meeting Notice), and (2) actively participating in the meeting by pointing out each occurrence of the above. Note that relevant items on your Inspection Meeting Notice must be brought up at the meeting so they are recorded in the minutes. Your Inspection Meeting Notice and items marked on the copy of the inspected item goes me, not the Author, so that I can determine your inspection preparation grade. I can make the Author a copy of any needed materials.

3.1 Individual inspection preparation

Each Inspector carefully examines all the materials checked on the Inspection Meeting Notice. Each inspector should make note of parts of the material he or she did not fully understand, he or she suspects may be defective, and any items he or she think are actual defects. Each inspector should be aware of how much time he or she spent on preparation.

3.2 Inspection meeting

The inspection Moderator conducts the inspection meeting. The first item of business is to collect preparation times from each Inspector. The Moderator records these times on the Inspection Report. The Moderator must then decide if the team is sufficiently well prepared to proceed with the inspection. If the team is not sufficiently well prepared the meeting should be rescheduled.

Author begins by describing the relevant issue(s) and shows the pertinent user interface, if applicable. The Author then walks through the inspection item(s) so that the inspectors can report potential defects, poorly written statements, code which does not satisfy the coding standards, etc. in such a way that the Recorder can note items to be changed.

An inspection meeting should be narrowly focused on finding defects in work products. All inspectors are responsible for keeping this focus and should keep in mind that it is the work products that are being inspected, not the Author. Avoid personalizing the work product, address the work product items, not the Author. For example, don't say, "You wrote here ..." but rather something like "The code here is saying ...". Do not try to correct any of the defects found. Problem solving is fun, but an inspection meeting is not the place for it; speak to the Author after the meeting if you think you have an idea that he or she would benefit from.

Since the purpose of an inspection meeting is to find defects in the Author's work products it's often easy to create interpersonal tensions. All Inspectors should go out of their way to avoid this and the Moderator should step in and address any interpersonal problems that arise.

All of the parts of the Inspection Meeting Notice that are checked on the meeting notice should be examined.

3.3 Determination if re-inspection is necessary

The inspection team determines whether or not a re-inspection is necessary. Usually the defect corrections necessary can safely be checked when the Moderator verifies the Author's rework (see step below) so a re-inspection is not necessary. In some cases, however, (1) the Author may not have clearly understood the problem, (2) the requirements may have changed between the time the Author was assigned the problem and the time of the inspection or (3) significant parts of the artifact being inspected were missing. In these cases a re-inspection may be necessary. Also, if any of the defects found during the meeting appear to involve a substantial amount of re-work or complex rework a re-inspection should be held.

3.4 Collection of materials

Each inspector gives their Inspection Meeting Notice, along with any inspection preparation items, to the Moderator. The Recorder gives the list of defects to the Moderator at the end of the meeting, or the following morning if the Recorder needs to

make the defect list more legible. The Moderator will review the defect list and pass it onto the Author.

3.5 Author addresses defects

The Author should comment on each item on the defect list. Usually this will just be the comment "fixed". In some cases, however, the Author may decide that what he or she thought was a defect during the inspection meeting is not in fact a defect. The reasons for this should be noted.

3.6 The Moderator verifies the Author's rework

The Author should make all the development materials available to the Moderator along with his or her annotated defect list. Ordinarily the Moderator should be able to verify that all recorded defects have been addressed but in some cases he or she may have to consult with the Author to do this.

3.7 The Moderator completes the inspection

To complete an inspection the Moderator should give to me (1) the completed Inspection Report, (2) the annotated defect list, and (3) copies of all meeting notices and preparation materials.

4. Exit Condition

The process described above is complete.